OFFICAL GAZETTE

UNITED STATES PATENT OFFICE

JAN. & FEB. VOL. 714 & 715

1957

MICRO PHOTO INC
CLEVELAND 3 OHIO

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
January 1, 1957 Volume 714 Number 1

PATENTS

NOTICES

Adjudicated Patents

(D. C. Calif.) Stallman Patent No. 2,334,227 (146—3), for needle bearing, *Held* invalid. *Stallman v. Casey Bearing Company, Inc., et al.*, 144 F. Supp. 927; 110 USPQ 396.

(C. A. N. J.) Holterhoff Patent No. 2,448,145 (26—69), for producing moire designs, *Held* valid and infringed. *Newburgh Moire Co. v. Superior Moire Co.*, 237 F.2d 283; USPQ .

(C. A. N. J.) Holterhoff Patent No. 2,513,646 (29—69), for art of producing moire pattern effects in fabrics, *Held* invalid. *Id.*

(D. C. Tex.) Howard, McGowen, and Moore Patent No. 2,664,162 (34—204), for installing and removing flow valves. Claims 1, 4, and 6 *Held* valid and infringed. *Sid W. Richardson, Inc. v. Bryan*, 144 F. Supp. 916; 110 USPQ 424.

(D. C. Tex.) McGowen and Moore Patent No. 2,679,903 (103—233), for means for installing and removing flow valves or the like. Claims 1 to 4 *Held* valid and infringed. *Id.*

Disclaimers

2,417,538. *Don F. Alexander*, Dayton, Ohio. VARNISHING ARMATURES AND THE LIKE. Patent dated Mar. 18, 1947. Disclaimer filed Nov. 20, 1956, by the assignee, *The Sterling Varnish Company*.

Hereby enters this disclaimer to that terminal part of the term of said patent subsequent to Nov. 19, 1963.

2,702,612. *Henry Norton Sudduth*, Watertown, N. Y. SLACK ADJUSTER ARRANGEMENT FOR EMPTY AND LOAD BRAKES. Patent dated Feb. 22, 1955. Disclaimer filed Nov. 20, 1956, by the assignee, *The New York Air Brake Company*.

Hereby enters this disclaimer to claim 3 of said patent.

Patents Available for Licensing or Sale

2,749,728. Circular Knitting Machine. Bayerische Berg-, Hutten- und Salzwerke A. G., Ludwigstr. 16, Munich, Germany. Correspondence to Michael S. Striker, 511 Fifth Ave., New York 17, N. Y.

2,771,705. Book Kaddy (Device for Holding Book in Position for Reading). Charles Rettinger, 821 Palomas Drive, S. E., Albuquerque, N. Mex.

S. E. Munyer, Jr., offers the following two patents. Inquiries concerning the patents should be directed to: S. E. Munyer, Jr., Apt. 23A, Boca Raton Hotel and Club, Boca Raton, Fla.

2,375,239. Safety Pin (Self-Closing and Self-Locking).

2,709,288. Safety Pin (Self-Closing and Self-Locking).

J. D. Diver offers the following two patents. Inquiries concerning the patents should be directed to: J. D. Diver, 731 No. Golf View Road, Lake Worth, Fla. P. O. Box 744.

2,427,842. Device for Inserting and Removing Lighting Tubes.

2,446,461. Holder for Tubular Lamps.

General Electric Company is prepared to grant nonexclusive licenses under the following 17 patents on reasonable terms to domestic manufacturers.

Applications for licenses under the following 11 patents may be addressed to: Hotpoint Co., 227 South Seeley Ave., Chicago 12, Ill.

Electric Cooking Ranges and Heating Elements Therefor

2,271,977. Electric Heater.

2,271,978. Electric Heater.

2,392,796. Electric Oven.

2,515,427. Control for Electric Ranges.

2,565,443. Electric Hot Plate.

2,569,652. Oven Vent for Ranges.

2,654,824. Control for Electric Ovens.

Switching Devices

2,203,236. Electric Switch.

2,267,386. Control Device.

2,611,845. Temperature Control Device.

2,663,786. Timer Apparatus.

Applications for licenses under the following 6 patents may be directed to: General Electric Company, Aircraft Gas Turbine Division, Cincinnati 15, Ohio.

2,367,223. Combined Centrifugal Compressors and Coolers.

2,373,713. Centrifugal Compressor.

2,399,046. Gas Turbine Power Plant.

2,432,359. Internal-Combustion Turbine Power Plant.

2,535,689. Lubricating Arrangement for High Speed Shafts.

2,752,023. Jet Engine Starter Clutch With Teeth Synchronizing Means.

Erratum

All references to Patent No. 2,773,653 to George W. Emmert, assignor to Federal Tool Corporation, for Tape Dispenser, appearing in the OFFICIAL GAZETTE of December 11, 1956, should be deleted as the application was withdrawn from issue and the patent was not issued.

All references to Patent No. 2,773,831 to Samuel E. Jolly, assignor to Sun Oil Company, for Inhibiting Corrosion by Oil Well Fluids, appearing in the OFFICIAL GAZETTE of December 11, 1956, should be deleted as the application was withdrawn from issue and the patent was not issued.

New Applications Received During November 1956

Patents	5,887
Designs	398
Plants	12
Reissues	20
Total	6,317

Issue

Patents	669	No. 2,775,762 to No. 2,776,430, incl.
Designs	38	No. 179,467 to No. 179,504, incl.
Plants	6	No. 1,543 to No. 1,548, incl.
Total	713	

CONDITION OF PATENT APPLICATIONS AS OF NOVEMBER 30, 1956

Total number of pending applications (excluding Designs)	216,863
Total number of pending Design applications	6,276
Total number of applications awaiting action (excluding Designs)	114,284
Total number of Design applications awaiting action	2,832
Date of oldest new application	Aug. 1, 1955
Date of oldest amended application	Sept. 1, 1954

ROSA, M. C., Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
I. STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.
II. STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 23, 26, 37, 42, 44, 48, 51, 54, 69, 70.
III. YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
IV. FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
V. HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	8, 20, 29, 33, 36, 40, 41, 52, 66.
VI. MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS	1, 4, 5, 9, 10, 18, 22, 28, 45, 47.
VII. KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
CL. GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	12-22-55	1-27-55
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers	3-1-56	9-12-55
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys	4-13-56	3-31-55
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Feeding of Indefinite Lengths	3-7-56	3-13-55
5. (VI) ROBINSON, C. W., Harvesters; Potato Diggers; Stalk Pullers and Choppers; Stone Gatherers; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates	2-23-56	7-18-55
6. (I) SURLE, H., Carbon Chemistry (part), e. g. Natural Resins, Proteins, Heterocyclic Amides, Amines, General Organic Processes	11-10-55	9-2-55
7. (IV) GONSALVES, J. E., Optics, Photographic Apparatus	12-28-55	8-16-55
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture	11-17-55	3-9-55
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	3-2-56	3-16-55
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	12-23-55	4-15-55
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Evelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	2-13-56	5-3-55
12. (III) SPINTMAN, S., Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	1-25-56	11-8-54
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	2-13-56	1-3-55
14. (III) MANIAN, J. C., Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes	12-12-55	12-16-54
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	3-1-56	1-24-55
16. (II) LOVEWELL, N. N., Television; Telephony; Recorders	10-26-55	9-20-54
17. (IV) LEIGHEY, R. A., Paper Manufactures; Packaging; Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	12-28-55	1-18-55
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	1-16-56	2-3-55
19. (VII) PATRICK, P. L., Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners	2-17-56	6-1-55
20. (V) BROWN, L. M., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking	3-14-56	4-8-55
21. (III) MADER, R. C., Textiles	2-13-56	2-24-55
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows; Boring and Drilling	12-27-55	12-17-54
23. (II) ANDRUS, L. M., Cash and Fare Registers; Calculators and Counters; Education	10-17-55	10-11-54
24. (III) DRACOPOULOS, P. T. (HICKEY, T. J., acting), Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	3-5-56	3-17-55
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus	4-9-56	9-6-55
26. (II) YOUNG, R. R., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanism	4-2-56	11-3-55
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	3-7-56	5-27-55
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Chute, Skid, Guide and Way Conveyers; Fluid Current Conveyers; Pressure Modulating Relays; Pneumatic Dispatch; Store Service; Wheel Substitutes	12-2-55	4-4-55
29. (V) HABECKER, L. B., Tools; Woodworking; Button, Barrel and Wheel Making; Rubber Tire Removing Tools; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers	2-14-56	11-25-55
30. (VII) O'LEARY, R. A., Refrigeration; Heating Systems; Automatic Temperature and Humidity Regulation, Thermostats, Humidistats; Illuminating Burners; Miscellaneous Heating	6-4-56	9-20-55

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Amended
31. (I) HUTCHISON, E. W., Carbon Chemistry (part), e. g. Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Synthetic Resins (part)	12-23-55	4-11-55
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	3-5-56	9-16-55
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Building Structures; Roads and Pavements	3-19-56	2-1-55
34. (IV) SHANK, J. S. (acting), Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	1-12-56	1-3-55
35. (IV) BROMLEY, E. D., Dispensing, Filling and Closing Receptacles; Toilet, Kitchen and Table Articles; Sheet or Web Feeding	1-20-56	5-23-55
36. (V) McFADYEN, A. D., Measuring and Testing	11-29-55	11-25-55
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating	11-30-55	7-13-55
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g. Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	4-27-56	2-3-56
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	3-1-56	1-3-55
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	5-1-56	12-1-55
41. (V) GURLEY, R. B., Coin Controlled Apparatus; Dispensing Cabinets; Coin Handling; Mail, Fare or Other Collection Boxes or Chutes, Buckles, Buttons and Clasps, Racks; Fire Escapes; Ladders; Scaffolds	11-21-55	12-1-54
42. (II) MARANS, H., Electric Signaling, Signals and Indicators, Telegraphy; Electrical Connectors	8-10-55	1-4-55
43. (I) ARNOLD, D., Medicines, Poisons, Cosmetics, Sugar and Starch; Skins, and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus)	12-8-55	7-13-55
44. (II) EVANS, N. H., Antennas; Automatic Pilots, Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	8-1-55	9-1-54
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances	12-23-55	3-25-55
46. (I) WILES, W. G., Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Surgery (part); Radioactive Medicines; Irradiation Chemistry; Carbon Chemistry (part)	1-9-56	2-1-55
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles	3-15-56	11-4-55
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Spark Plugs and Ignition Systems, Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers	11-8-55	11-12-54
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring	12-30-55	6-27-55
50. (I) BENGEL, W. G., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber	1-26-56	1-28-55
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Music	2-20-56	11-29-54
52. (V) NEFF, P. R., Supports; Joint Packing; Valved Pipe Joints or Couplings; Rod Joints or Couplings; Tool Handle Fastenings; Shaft Packing	1-12-56	1-6-55
53. (IV) REYNOLDS, E. R., (NINAS, G. A., acting), Label Pasting and Paper Hanging; Books and Book Making; Manifolding, Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings and Shutters; Harness; Whip Apparatus	2-14-56	6-22-55
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g. X-Ray; Ultraviolet, Radioactive) Applications	3-1-56	2-9-55
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Sorting Solids; Centrifugal Bowl Separators; Comminutors	8-30-55	12-6-54
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	3-1-56	12-14-55
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings	6-4-56	1-9-56
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Food Apparatus; Closure Operators; Baths, Closets, Sinks and Spittoons	2-14-56	6-15-55
59. (I) HENKIN, B., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	2-29-56	5-4-55
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	1-24-56	1-27-55
61. (III) MORSE (Miss), E. L., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery	3-5-56	4-25-55
62. (IV) SHAPIRO, A., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination	3-5-56	10-11-55
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds	3-5-56	4-4-55
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	3-9-56	2-3-55
66. (V) LISANN, I., Geometric Instruments; Automatic Weighing Scales; Acoustics	3-2-56	10-11-54
67. (VII) KRAFFT, C. F., Laminated Fabrics; Ornamentation; Bleaching, Dyeing, Fluid Treatment of Textiles	11-25-55	4-18-55
69. (II) GALVIN, D. J., Wave Guides; Electric Meters; Sound Recording; Conductors; Insulators	3-1-56	9-29-54
70. (II) BREWRINK, J. L., Security laws administration	3-19-56	2-17-56
CLASS. DIVS. I BAILEY, J. S., Paper Making; Mineral Oils	2-13-56	9-19-55
CLASS. DIVS. II LADY, J. E., Oscillators; Amplifiers; Resistances and Rheostats	2-23-56	10-5-55
CLASS. DIVS. III WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres	2-17-56	8-29-55
CLASS. DIVS. IV BERLOWITZ, W. (acting), Harrows and Diggers; Plows; Fluid Sprinkling, Spraying and Diffusing	3-1-56	3-1-56
CLASS. DIVS. V ANGEL, C. D., Liquid Separation or Purification; Sewerage	4-4-56	5-8-56
DESIGNS (III) A—MONCURE, J. A. Industrial Arts	4-11-56	5-2-56
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts		

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during January 1957, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

Patents	Numbers 2,185,170 to 2,188,894, inclusive
Plant Patent	Numbers 352 to 360, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

United States Court of Appeals
District of Columbia Circuit

ROBERT C. WATSON, COMMISSIONER OF PATENTS, APPELLANT v. CHESTER H. BRUNS, APPELLEE.

No. 13403. Decided November 29, 1956

[U.S. App. D. C. — , — F.2d — ; — USPQ —]

1. COMMISSIONER OF PATENTS—AUTHORITY UNDER 35 U. S. C. 6 (1952).

"That the Commissioner, under the direction of the Secretary of Commerce, is responsible for the granting and issuance of patents is clear. Moreover, 'He may, subject to the approval of the Secretary of Commerce, establish regulations, not inconsistent with law, for the conduct of the proceedings in the Patent Office.'"

2. BOARD OF APPEALS—JURISDICTION CONFERRED BY 35 U. S. C. 7 (1952).

"Congress has expressly provided for the creation in the Patent Office of a 'Board of Appeals,' which, *on written appeal of the applicant*, shall review *adverse* decisions of Examiners upon applications for patents.'"

3. SAME—SAME—REVIEW CONTEMPLATED BY RULE 196.

"To us it is clear that the statute called the Board of Appeals into being for the sole purpose of passing upon *adverse* action by the Primary Examiner. When an appealed claim invokes the Board's jurisdiction, Rule 196 contemplates that the Board may affirm or reverse the decision of the Primary Examiner on the grounds *'and on the claims specified* by the Examiner. The affirmance of the *rejection of a claim* . . . constitutes a general affirmance . . . *on that claim*.'"

4. SAME—SAME—SAME—NEW GROUNDS OF REJECTION.

"• • •, if the Examiner shall not have specified available additional grounds, not involved in the appeal, upon which rejection of that claim might have been based, the Board may include such additional or different grounds in its decision."

5. COMMISSIONER OF PATENTS—AUTHORITY UNDER 35 U. S. C. 131 (1952)—POSSIBILITY OF REVIEW OF FAVORABLE DECISIONS OF EXAMINER.

With respect to the Commissioner's duty imposed by 35 U. S. C. 131 (1952), *Held* that no one says "that he might not validly have prescribed as a rule of practice, generally applicable, that a favorable decision by a Primary Examiner may be reviewed, in the Commissioner's behalf, by some officer or by some board to which has been delegated the duty of making such review."

6. BOARD OF APPEALS—JURISDICTION CONFERRED BY 35 U. S. C. 7 (1952)—RULE 196 (b).

"• • •, the appellant concedes that unless it is to be found within the language employed in Rule 196 (b), the duty to review favorable decisions has not been delegated to the Board. We have carefully considered the Rule in its relation to the statute, • • • [35 U. S. C. 7], and to us it seems clear that the Board lacks the claimed authority. Any other interpretation runs counter to the Board's expressly limited power to review adverse decisions of the Examiner. To the extent that the Rule, or the Board's interpretation of it, is inconsistent with the statute, it must fall."

7. SAME—FINALITY OF BOARD'S REJECTION OF A CLAIM ALLOWED BY THE EXAMINER.

"The proceedings before the Board were not procedural, nor were they interlocutory. The Board undertook to reopen, review and reject claims previously allowed by the Primary Examiner. Under the application of Rule 196 as contended for by the appellant, the decision of the Board, rejecting all claims, would have bound the Examiner. Thus, the Board would have effectuated a final decision in the case."

8. CIVIL ACTION UNDER 35 U. S. C. 145—PART OF PROCESS OF OBTAINING A PATENT.

"The independent proceeding under 35 U. S. C. § 145 is a part of the process for obtaining a patent."

9. SAME—JURISDICTION—FINALITY OF BOARD'S REJECTION OF A CLAIM PREVIOUSLY ALLOWED BY EXAMINER.

Held that the Board's decision under Rule 196 (b) rejecting claims previously allowed by the Examiner is a final decision in the case giving the applicant the right to sue under 35 U. S. C. 145 (1952).

10. SAME—JUDGMENT HOLDING THAT CLAIMS "STAND ALLOWED".

Held, that, since Claim 18 has been eliminated and the Board has been found erroneously to have assumed jurisdiction over Claims 16 and 17, it follows, in the language of Rule 197, that Claims 16 and 17 "stand allowed," and *Held* that the "adjudication is simply in favor of the appellee's right on the record thus made, so that if the Commissioner is satisfied, following whatever further proceedings may be necessary in the Patent Office, that the 'applicant is entitled to receive a patent for his invention' the Commissioner is authorized to issue the patent."

11. SAME—SAME—SAME.

Held that the judgment of the Court here does not operate to command the action of the Commissioner, that, indeed, neither the Court of Appeals nor the District Court has passed on the patentability of Bruns' claimed invention, and that it may be assumed that there may be circumstances not known to the Court which will govern the Commissioner's final decision.

12. BOARD OF APPEALS—JURISDICTION—REJECTION OF CLAIMS ALLOWED BY THE EXAMINER.

Held that the District Court properly determined that certain claims, allowed by the Primary Examiner but rejected by the Board of Appeals, stand allowed since the Board exceeded its legal authority in passing on the patentability of these claims.

APPEAL from the United States District Court for the District of Columbia.

AFFIRMED.

Clarence W. Moore (*H. S. Miller*, of counsel) for Robert C. Watson, Commissioner of Patents.

Miles D. Pillars for Chester H. Bruns.

Before BAZELON, DANAHER and BASTIAN, *Circuit Judges*

DANAHER, *Circuit Judge:*

Bruns filed an application for a patent, and after various rejections and amendments, the Primary Examiner allowed Claims 16 and 17. He rejected Claim 18, and from that disallowance Bruns appealed to the Board of Appeals. The Board not only affirmed the rejection of Claim 18, but in addition, rejected Claims 16 and 17. After Bruns had exhausted his remedies in the Patent Office, he filed this action, authorized by 35 U. S. C. § 145.[1] The Commissioner has appealed from so much of the District Court's order as provides that "Claims 16 and 17 stand allowed . . . since the Board of Appeals exceeded its legal authority in passing on the patentability of these claims." Claim 18 was withdrawn at the trial. The Commissioner tells us that the sole question in this case is whether or not Patent Office Rule 196 (b)[2] authorized the Board of Appeals to review and disallow Claims 16 and 17.

[1] That the Commissioner, under the direction of the Secretary of Commerce, is responsible for the granting and issuance of patents is clear. Moreover, "He may, subject to the approval of the Secretary of Commerce, establish regulations, not inconsistent with law, for the conduct of the proceedings in the Patent Office."[3] [2] Congress has expressly provided for the creation in the Patent Office of a "Board of Appeals, which, *on written appeal of the applicant*, shall review *adverse* decisions of Examiners upon applications for patents."[4] (Emphasis supplied.)

Rule 191 provides for an appeal by the applicant from the decision of a Primary Examiner. Any such appeal must be filed by the applicant or his proper representative and "must identify the rejected claim or claims appealed."[5] In answer to appellant's brief, the Primary Examiner may furnish a written statement including an explanation of the grounds of rejection.[6] In the instant case, the applicant's brief in support of patentability argued only the appealed Claim 18. The Examiner's answer noted that "Claims 16 and 17 are allowable."

After the Board of Appeals had affirmed the Examiner's rejection of Claim 18 and, in addition, had rejected Claims 16 and 17 on grounds of reference which had already been placed of record and considered by the Primary Examiner, Bruns filed before the Board of Appeals his petition for reconsideration. He attacked the Board's rejection of Claims 16 and 17 as improper because "the powers of the Board are expressly limited by statute to reviewing only adverse decisions of the Primary Examiners upon applications for patents and do not include the right to pass on favorable decisions by the Examiners. . . ."

The Board, confronted with that contention wrote: ". . . [I]t is quite true that Section 7 of the Patent Laws does not vest us with the power to review favorable decisions of the Examiner. However, in rejecting these claims, we did not act under this Section of the Patent Laws but under the provisions of Rule 196 (b), Rules of Practice, as we clearly indicated in our decision. This Rule is based on the powers of the Commissioner, subject to approval of the Secretary of Commerce, to establish regulations not inconsistent with law. 35 U. S. C. Sec. 6.

"We are unable to agree with the appellant that 'any claim' in this rule must be interpreted 'as covering only any claim on appeal as contradistinguished from any claim in the application on appeal.'"

Thus, despite the statute, and placing its reliance upon the Rule, the Board flatly insists that it may review and reject allowed claims, not the subject of appeal.[7] Our first question involves determination of whether or not the Board's interpretation of the pertinent provision of Rule 196 (b)[8] is inconsistent with the statute upon which the Board's existence and authority depend.

[3] To us it is clear that the statute called the Board of Appeals into being for the sole purpose of passing upon *adverse* action by the Primary Examiner. When an appealed claim invokes the Board's jurisdiction, Rule 196 contemplates that the Board may affirm or reverse the decision of the Primary Examiner on the grounds *"and on the claims specified* by the Examiner. The affirmance of the *rejection of a claim* . . . constitutes a general affirmance . . . *on that Claim*." [4] By the same token, if the Examiner shall not have specified available additional grounds, not involved in the appeal, upon which rejection of that claim might have been based, the Board may include such additional or different grounds in its decision.[9] Even then, the applicant may amend the appealed claim so rejected and seek reconsideration by the Primary Examiner. The appeal process, in the manner set out in the Rule, may again be pursued. But, just as the decision in the first instance is that of the Primary Examiner, so after Board action, it again is his, subject, of course, to the ultimate responsibility vested in the Commissioner.

[5] The Commissioner's duty, imposed by statute,[10] has not here been questioned. No one says that he might not validly have prescribed as a rule of practice, generally applicable, that a favorable decision by a Primary Examiner may be reviewed, in the Commissioner's behalf, by some officer or by some board to which has been delegated the duty of making such review. We are not shown that any such general rule of review of favorable decisions of the Examiner has been promulgated.

[6] On the contrary, the appellant concedes that unless it is to be found within the language employed in Rule 196 (b), the duty to review favorable decisions has not been delegated to the Board. We have carefully considered the Rule in its relation to the statute, supra note 4, and to us it seems clear that the Board lacks the claimed authority. Any other interpretation runs counter to the Board's expressly limited power to review adverse decisions of the Examiner. To the extent that the Rule, or the Board's interpretation of it, is inconsistent with the statute, it must fall.[11] The trial judge has so held, and with his findings and conclusions we are in accord.

There remains the question of appropriate disposition of the case in its present posture. The proceedings before the Patent Office and its Board of Appeals were ex parte. The prior art had been cited and had been considered by the Primary Examiner. Claim 18 alone had been rejected, "and only then in case of refusal to allow the claims by the Primary Examiner is there a case for ex parte appeal to the Board of Appeals."[12] [7] The proceedings before the Board were not procedural, nor were they interlocutory. The Board undertook to reopen, review and reject claims previously allowed by the Primary Examiner. Under the application of Rule 196 as contended for by the appellant, the decision of the Board, rejecting all

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[1] Act of July 19, 1952, 66 Stat. 803.

[2] Rules of Practice (September 1955).

[3] 35 U. S. C. § 6 (1952).

[4] *Id.* § 7.

[5] Rule 191 (b).

[6] Rule 193 (a).

[7] We asked appellant's counsel: "Suppose appellee had not asked the Board of Appeals to review disallowed Claim 18—do you say the Board could nonetheless, reopen, review and set aside the Examiner's allowance of Claims 16 and 17?" Counsel replied: "In that situation we would not have been here."

[8] In pertinent part, Rule 196 reads:

"(a) The Board of Appeals, in its decision, may affirm or reverse the decision of the Primary Examiner in whole or in part on the grounds and on the claims specified by the Examiner. The affirmance of the rejection of a claim on any of the grounds specified constitutes a general affirmance of the decision of the Primary Examiner on that claim, except as to any ground specifically reversed.

"(b) Should the Board of Appeals have knowledge of any grounds not involved in the appeal for rejecting any claim, it may include in its decision a statement to that effect with its reasons for so holding, which statement shall constitute a rejection of the claims."

[9] Cf. *In re Draeubaugh*, 9 App. D. C. 219, 257 (1896).

[10] 35 U. S. C. § 131 (1952).

[11] Commerce Department Order No. 89, dated and effective March 2, 1956, prescribes the organization and functions of the Patent Office. In Section 5, referring to the Board of Appeals we read:

".01 The Board of Appeals is responsible for conducting hearings and rendering decisions on appeals from adverse decisions of Examiners as to the patentability of inventions claimed in patent applications."

It may further be noted that Commissioner Kingsland on September 2, 1948, certified to the United States Civil Service Commission a "position description" for the post of Primary Patent Examiner, GS–14, "He is the final judge that a patent may issue, and no appeal can be taken nor review had in the Patent Office from this decision . . ." Appellee's brief.

[12] *American Cable Co. v. John A. Roebling's Sons Co.*, 62 App. D. C. 168, 170, 65 F.2d 801, 803 (D. C. Cir. 1933).

claims, would have bound the Examiner. Thus, the Board would have effectuated a final decision in the case. [8] The independent proceeding under 35 U. S. C. § 145 is a part of the process for obtaining a patent.

"Section 4915 [35 U. S. C. § 145] declares that the judgment of the court, if in favor of the right of the applicant, is to be a judgment that the applicant 'is entitled, according to law, to receive a patent for his invention, as specified in his claim, or for any part thereof, as the facts in the case may appear:' and that, if the adjudication be in favor of the right of the applicant, it shall authorize the Commissioner to issue the patent, on the filing in the Patent Office by the applicant of a copy of the adjudication and on his 'otherwise complying with the requirements of law.'" [13]

[9] Since the Board had finally denied a patent, "Unless the applicant could sue to correct error in that dismissal, he could never sue under R. S. 4915 [35 U. S. C. § 145]. That he was accorded a right of suit in this case the language of the statute, its history, the administrative construction and judicial decision unite in affirming." [14]

Supported by his findings and conclusions of law, the trial judge has decided that Claims 16 and 17 "stand allowed." The trier has done no more than accord to the Rules the fair meaning to which they are entitled. "The Examiner's action will be complete as to all matters . . ." [15] "If the invention is not considered patentable, or not considered patentable as claimed, the claims, *or those considered unpatentable* will be rejected." [16] (Emphasis supplied.) The trial judge took note of the Patent Office action following decision by the Board, which by its rejection of all three claims, had, in effect, dismissed the proceedings. In such cases, "[w]hen the appeal is or stands dismissed . . . proceedings in the application are considered terminated as of the dismissal or expiration date *except in those cases in which claims stand allowed* . . . If . . . a civil action has been filed, proceedings in the application are similarly considered terminated when the . . . civil action is terminated." [17] (Emphasis supplied.)

[10] Thus, since Claim 18 has been eliminated and the Board has been found erroneously to have assumed jurisdiction over Claims 16 and 17, it follows, in the language of the Rule, that Claims 16 and 17 "stand allowed." The adjudication is simply in favor of the appellee's right on the record thus made, so that if the Commissioner is satisfied, following whatever further proceedings may be necessary in the Patent Office, that the "applicant is entitled to receive a patent for his invention" [18] the Commissioner is authorized to issue the patent." [19]

[11] This is not to say that the judgment of the court here operates to command the action of the Commissioner, indeed, neither this court nor the District Court has passed on the patentability of Bruns' claimed invention. That there may be circumstances not known to us which will govern the Commissioner's final decision may be assumed." [20] The Commissioner will know, as must the appellee, that the Statute contemplates compliance with the requirements of law in any event.

[12] Since we do not understand the District Court has intended to say more than we have said, its judgment is

AFFIRMED.

BASTIAN, *Circuit Judge*, dissents.

[13] *Gandy* v. *Marble*, 122 U. S. 432, 439 (1887).
[14] *Hoover Co.* v. *Coe*, 325 U. S. 79, 90 (1945); cf. *Butterworth* v. *Hoe*, 112 U. S. 50, 61-62, 68 (1884).
[15] Rule 105.
[16] Rule 106.
[17] Rule 197.
[18] 35 U. S. C. § 145 (1952); cf. *Hoover Co.* v. *Coe*, *supra*, note 14.
[19] *Hoover Co.* v. *Coe*, *supra*, 325 U. S. at 88.
[20] Cf. *Id.* at 89.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,282,654, W. L. Horner, Apparatus for determining fluid contents of solids; **2,327,642**, same, Method and apparatus for measuring porosity of solids; **2,345,535**, same, Method of determining porosity; **2,361,844**, same, Method for determining fluid contents of solids; **2,617,296**, J. D. Wisenbaker, Process for treating core samples, **filed** Nov. 20, 1956, D. C., W. D. Okla. (Oklahoma City), Doc. 7308, *Core Laboratories, Inc.* v. *Corelogging, Inc.*

2,327,642. (See 2,282,654.)

2,345,535. (See 2,282,654.)

2,352,014, A. Rott, Photomechanical printing process and printing material for carrying out the same, **filed** May 2, 1956, D. C., E. D. N. Y. (Brooklyn), Doc. 16529, *The Gevaert Company of America Inc.* v. *Peerless Photo Products Inc.* Order of dismissal Nov. 23, 1956.

2,361,844. (See 2,282,654.)

2,393,514, A. B. Bicknell, Wallboard package and holder, **filed** Nov. 27, 1956, D. C. Kans. (Wichita), Doc. W-1285, *United States Gypsum Co.* v. *National Gypsum Co.*

2,495,494, T. S. Ziegenfuss, Twin bed and lounge; **2,630,581**, same, Convertible bed lounge; **2,602,937**, L. E. Frey, Sofa bed; **Des. 178,233**, same, Combined twin bed and sofa unit; **TM 634,591** (DUO-BED), Duo-Bed Corp., Headboards for beds, cocktail tables, pivotal sofa beds, etc., **filed** Nov. 19, 1956, D. C., N. D. Calif. (San Francisco), Doc. 35989, *Duo-Bed Corp. et al.* v. *Simon Mattress Mfg. Co. et al.*

2,589,894, R. E. Ten Eyck, Two-deck trailer, **filed** Nov. 20, 1956, D. C., N. D. Ind. (South Bend), Doc. 2156, *Lighthouse Corp.* v. *Richardson Homes Corp.*

2,602,937. (See 2,495,494.)

2,617,296. (See 2,282,654.)

2,630,581. (See 2,495,494.)

2,638,261, W. J. Poole, Frozen food carton with plastic lid, **filed** Feb. 25, 1954, D. C., S. D. Calif. (Los Angeles), Doc. 16413-T, *Container Corporation of America* v. *M. C. S. Corporation*. Patent and all claims held invalid; counterclaim sustained (notice Nov. 20, 1956).

2,659,212, G. M. Lees, Method of and means for forming flake ice; **2,716,869**, same, Flake ice making machine and knife therefor; **2,683,357**, E. J. Albright, Flake ice making machine, **filed** Nov. 27, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c1979, *Akshun Mfg. Co.* v. *Forrest Poultry Co.*

2,683,357. (See 2,659,212.)

2,716,869. (See 2,659,212.)

2,725,607, J. R. Mummert, Wallboard trim; **2,725,608**, T. W. Parslow, same, **filed** Sept. 14, 1956, D. C., S. D. Calif. (Los Angeles), Doc. 20455-WB, *Drywall Trim, Inc. and Casing Distributors of California* v. *Angeles Metal Trim Co.* Consent judgment; patents held valid and infringed by plaintiffs; injunction restraining plaintiffs from further infringement; complaint dismissed with prejudice; counterclaim dismissed without prejudice as to Clarence G. Wollaeger et al. (notice Nov. 20, 1956).

2,725,608. (See 2,725,607.)

2,753,288, F. E. Visscher, Scopolamine lower-alkyl halide therapeutic composition, **filed** Oct. 19, 1956, D. C., N. D. Ga. (Atlanta), Doc. 5804, *The Upjohn Co.* v. *E. S. Miller Laboratories, Inc.*

2,757,436, J. F. Nicholl, Puffed fabrics; **2,757,437**, Faris and Koenig, same, **filed** Nov. 23, 1956, D. C. N. J. (Newark), Doc. 917/56, *Chicopee Mfg. Corp.* v. *Hy-Grade Woven Plastics Inc.*

2,757,437. (See 2,757,436.)

Des. 178,233. (See 2,495,494.)

PLANT PATENTS

GRANTED JANUARY 1, 1957

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,543
NECTARINE TREE
Frederic W. Anderson, Merced, Calif.
Application November 18, 1955, Serial No. 547,877
1 Claim. (Cl. 47—62)

A new and distinct variety of nectarine tree, as illustrated and described, characterized by free to semi-free stone, early ripening, yellow fleshed fruit having yellow skin over-spread to a major extent with bright red and being entirely glabrous; such fruit—as compared with the John Rivers nectarine—being yellow fleshed instead of white fleshed, ripening three or four days earlier, having more red exterior color, and having a much shorter chilling requirement during the winter months; and—as compared with the Grand River nectarine—being not as large or as firm but of generally better eating quality, and having less growth cracks during wet harvest seasons; the tree of the instant variety being more vigorous and productive than the Grand River nectarine tree; and the kernels of the fruit being sweet, as in the case of commercial almonds.

1,544
NECTARINE TREE
Frederic W. Anderson, Merced, Calif.
Application February 20, 1956, Serial No. 566,744
1 Claim. (Cl. 47—62)

A new and distinct variety of nectarine tree, as illustrated and described, characterized by large size, yellow flesh, clingstone fruit whose exterior color is yellow almost entirely over-spread with red; said fruit being further characterized—as compared with the Red Grand nectarine—by ripening approximately two weeks later; and additionally characterized—as compared with the Le Grand nectarine—by ripening approximately one week later, but bearing fruit having a more attractive red exterior color.

1,545
NECTARINE TREE
Frederic W. Anderson, Merced, Calif.
Application November 18, 1955, Serial No. 547,876
1 Claim. (Cl. 47—62)

A new and distinct variety of nectarine tree, as illustrated and described, characterized by large size, yellow flesh, freestone fruit whose exterior color is yellow, partially over-spread with red; said fruit being further characterized—as compared with the freestone Sun Grand nectarine—by twenty percent larger size on the average, ripening about a week later, and—while having a shorter harvesting period, less exterior red color; and not quite as firm of flesh—being of better eating quality.

1,546
ROSE PLANT
Roy L. Byrum, Richmond, Ind., assignor to Joseph H. Hill Company, Richmond, Ind., a corporation of Indiana
Application February 21, 1956, Serial No. 567,041
1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the hybrid tea class, substantially as herein shown and described, characterized particularly as to novelty by its strong and vigorous growth, its strong stems, its long buds in the cutting stage, the large size of its flowers when open, its production of relatively few "work roses," the distinctive and good yellow color of its blooms and their ability to hold the color during all seasons without being affected by hot or cold weather, and the good keeping qualities of the blooms.

1,547
CHRYSANTHEMUM PLANT
Eugene S. Boerner, Newark, N. Y., assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York
Application February 27, 1956, Serial No. 568,128
1 Claim. (Cl. 47—60)

A new and distinct variety of chrysanthemum plant of the decorative type, substantially as herein shown and described, characterized particularly as to novelty by its general similarity to its parent variety "Sea Gull" (Plant Patent No. 1,130), but being distinguished therefrom by the Picric Yellow, overcast with Pinard Yellow, general color tonality of its flowers.

1,548
CHRYSANTHEMUM PLANT
Eugene S. Boerner, Newark, N. Y., assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York
Application February 27, 1956, Serial No. 568,129
1 Claim. (Cl. 47—60)

A new and distinct variety of chrysanthemum plant of the decorative type, substantially as herein shown and described, characterized particularly as to novelty by its hardiness, glossy Dark Green foliage, the Pomegranate Purple lightly overcast with Spinel Red general color tonality of its flowers, and the unusual freedom of its reproduction by suckers.

PATENTS

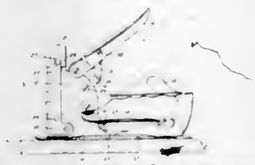
GRANTED JANUARY 1, 1957

GENERAL AND MECHANICAL

2,775,762
EXPLOSIVELY ACTUATED FASTENER DRIVING TOOL
Martin Hilti, Vaduz, Liechtenstein
Application September 10, 1951, Serial No. 245,912
10 Claims. (Cl. 1—44.5)

1. An explosively actuated fastener driving tool comprising, in combination, a barrel for accommodating a fastener element, a guide for the barrel movable longitudinally relative thereto, said guide being of tubular form and at least partially surrounding the barrel, a seat in said barrel for a fastener element, a firing pin guide within the barrel guide, a cartridge-supporting case opening into the interior of the barrel and disposed between the said seat and the firing pin guide, a firing pin for detonating a cartridge contained in said supporting case, means normally blocking movement of the firing pin into detonating position, a handle rotatably mounted on the barrel guide and movable longitudinally with the guide on being depressed relative to the barrel, said firing pin being movable longitudinally relative to said handle but being coupled thereto to rotate therewith, and a spring bewteen the firing pin and the handle and adapted to be placed under tension as the handle is depressed relative to the barrel, said firing pin being released from said blocking means upon rotation of the handle following the depression thereof.

2,775,763
STAPLING MACHINE
Howard A. Flammer, Springfield, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application August 25, 1954, Serial No. 452,148
1 Claim. (Cl. 1—49)

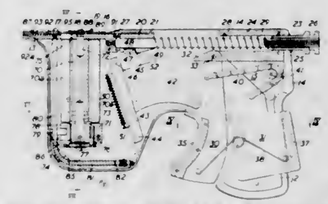


A machine for driving a staple into a supporting surface for securing an electrical conductor thereto, comprising a casing, a driveway in said casing, a staple driving blade mounted in said driveway, a staple magazine defined by the walls of said casing and opening into said driveway, means in said magazine for feeding staples to said driveway, said driving blade at its lower end being bifurcated, the ends of said bifurcation being flat and in true alignment, the sidewalls of said bifurcation being spaced equidistant throughout their length and at right angles with respect to the flats on the bottom edge of said driving blade, the depth of said bifurcation being less than the outside diameter of the electrical conductor being attached and the width of said bifurcation being greater than its depth.

2,775,764
STAPLING MACHINE
Arthur H. Maynard, Westerly, R. I., assignor to Bostitch, Inc., Stonington, Conn., a corporation of Rhode Island
Application March 10, 1954, Serial No. 415,370
9 Claims. (Cl. 1—49)

1. In a stapling machine having a throat through which the staples may be driven, means for supporting staples of a type having the crossbar formed with a depending portion intermediate the legs, means for feeding the staples singly into said throat, a driver-blade slidable in said throat for driving a staple therethrough and into the work, a pivoted anvil member having a lip projecting from its lower end, said anvil-member provided with means engageable by said driver-blade during its descent for driving a staple whereby to hold said anvil-member pivoted into position with its lip projecting across the lower end of said throat to engage the intermediate depending portion of a staple for sustaining it while its legs are driven into the work and clinched in overlapping relationship.

2,775,765
HAND OPERATED STAPLING APPLIANCES
Hans Klopstock, London, England, assignor to Lindsay Steven Carstairs, Monkenhurst, Monken Hadley, near Barnet, England
Application November 9, 1954, Serial No. 467,857
Claims priority, application Great Britain November 10, 1953
5 Claims. (Cl. 1—49)



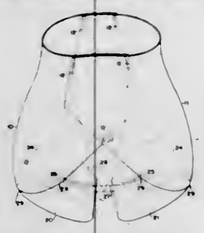
1. Actuating means for a hand-operated stapling appliance having a staple drive blade, said means compris-

ing strong ejection spring means for said blade, two hand-operated levers pivoted about a single axis and each movable towards the other, a part at least of one said lever being receivable in the other said lever, and said levers being capable of being grasped in the hand, one being engaged by the fingers and the other by the palm, return spring means biasing said levers apart, a jockey wheel located at one side of both said levers, a chain passing over said jockey wheel and secured at its ends to said levers, and coupling means between one said lever and said ejection spring.

2,775,766
NAIL FEEDER
John C. Fenno, Edgeley, N. Dak.
Application April 7, 1955, Serial No. 500,005
8 Claims. (Cl. 1—49.6)

1. A nail feed comprising a plurality of spaced parallel members having curved upper surfaces, transverse end members interconnecting the parallel members for retaining the same in spaced relation, said spaced members having vertically offset end portions on one end thereof, said spaced members receiving shanks of nails therebetween with the heads thereof resting against the curved upper surface of adjacent spaced members whereby the nails will slide downwardly between the spaced members onto the offset end portions when the spaced members are inclined with the offset end portions being disposed at the lower end of the spaced members thereby retaining the nails in accessible position.

2,775,767
GARMENT
Barbara V. Gould, Cleveland Heights, Ohio, assignor to Famous Fit, Inc., Cleveland, Ohio, a corporation of Ohio
Application April 14, 1954, Serial No. 423,128
4 Claims. (Cl. 2—43)



1. A figure controlling garment comprising a first wide panel of elastic material extending around one hip portion of the garment from the front to the back of the garment, a second wide panel of elastic material extending around the other hip portion of the garment from the front to the back of the garment, said panels being joined together in front and back, a legpiece of elastic material associated with each of said panels, each legpiece comprising a looped band extending within the lower hip portion of its associated panel, each panel and its associated legpiece being co-joined and respectively positioned and formed to comprise means for yieldingly bearing tension, when the garment is worn, along a reverse spiral path extending along the front of each panel transversely and downwardly to the rear portion of the associated legpiece, thence around the legpiece to the front thereof and thence transversely and upwardly along the back of each panel, the reverse spiral path along each panel and its associated legpiece being rendered continuous by the hip-engaging portion of the opposite panel, the legpieces being formed to be caught under the buttocks of the wearer to provide free hinging action of the legpieces with respect to the panels to minimize additional tension over the buttocks and riding-up of the garment incident to folding of the wearer's legs toward the trunk, as in alternate sitting and standing.

2,775,768
NECKTIE DEVICE
Theodore Stern, Rockville Center, N. Y.
Application June 3, 1954, Serial No. 434,116
3 Claims. (Cl. 2—151)

1. A knot form and ornament for a four-in-hand necktie comprising an imperforate member having an upwardly flaring part provided with a peripheral configuration which is complementary in size and shape to the inside of a four-in-hand necktie knot whereby said flaring part will be retained within a necktie knot by engagement with the inside of the knot, a stem depending from the narrow end of said flaring part for projection from the bottom of the knot to overlie the tie below the knot, and an ornament mounted by said stem, whereby to obviate the need for penetrating the fabric of said necktie for adorning the latter with said ornament.

2,775,769
CAP HAVING A SELF-ADJUSTING SWEAT BAND
Joseph W. Henschel, University City, Mo.
Application July 12, 1954, Serial No. 442,730
4 Claims. (Cl. 2—197)

1. A cap comprising a crown including an annular side wall and a top wall, a sweat band stitched to the lower edge of the annular side wall, said annular side wall having a split extending from the peripheral edge of the top wall to the lower edge of the side wall and completely through the sweat band, the portions of said side wall adjacent to the split being in overlapped relation, first and second eyelets in the region of one of said portions and extending through said sweat band, first and second eyelets in the region of the other of said portions and extending through said sweat band, the openings of said first eyelets being normally aligned, the openings of said second eyelets also being normally aligned, said first and second eyelets in the region of each of said portions being spaced along a line oblique with respect to the head-encircling margin of the sweat band, and elastic means extending through said pairs of eyelets for normally drawing the overlapped portions toward each other, and said elastic means being further adapted to permit the overlapped portions to shift facewise with respect to each other to accommodate larger head sizes.

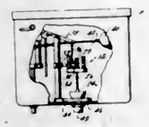
2,775,770
ADJUSTABLE PLEATS FOR GARMENT POCKETS
Claris Keller, Union, N. J.
Application May 4, 1954, Serial No. 427,543
12 Claims. (Cl. 2—247)

1. A pleating for an external surface of a washable garment comprising a fabric body attachable to said garment, said body having a surface of a predetermined area facing inwardly toward the external surface of said garment and overlying a portion of said garment having an area substantially smaller than said predetermined area, loops carried by the body on the inwardly facing surface thereof, and a tie extendible through a selected number of the loops to draw the same together and thus contract said body to form a plurality of pleats therein.

2,775,771
SLEEVE CONSTRUCTION
Harry S. Heilbronner, Perry, N. Y., assignor to The Perry Knitting Company, Perry, N. Y., a corporation of New York
Application October 22, 1954, Serial No. 464,016
3 Claims. (Cl. 2—270)

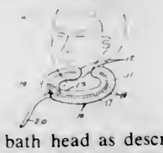
1. A garment sleeve comprising a blank having a shoulder end and a cuff end, opposite side edges converging from said shoulder end to said cuff end and stitched together to form said sleeve, an extension forming a mitten top portion on said cuff end located substantially centrally between said side edges and between the inner ends of spaced, outwardly extending edges of said cuff end, said blank having a substantially symmetrical shape on opposite sides of a longitudinal center line from said shoulder end to said cuff end, and a mitten bottom portion for cooperation with said top portion to close the mitten.

2,775,772
FLUSH ECONOMIZER
Robert H. Clarke, Dayton, Ohio
Application April 26, 1954, Serial No. 425,636
6 Claims. (Cl. 4—67)



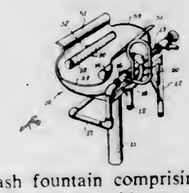
1. In combination with a flush tank, comprising a valve and valve seat, a valve stem, said valve being secured to said valve stem, guide means for said valve stem, lever means for lifting said valve from said valve seat to permit the discharge of water from said flush tank, a float slidably mounted on said stem between said guide means and said valve, said float rising coaxially on said valve stem with the rising of the water level in said tank while the valve is seated, said float being contiguous to said valve when the water is discharged from the flush tank thereby cooperating with said valve to prematurely close the valve, and balancing means on said float to prevent binding of said float on said stem.

2,775,773
NON-SPLASH BATH HEAD
Leland P. Marsh, Sierra Madre, Calif.
Application August 12, 1953, Serial No. 373,769
2 Claims. (Cl. 4—157)



1. A non-splash bath head as described for direct application to the human body, comprising in combination a hollow ring-shaped body having a narrow slot in the bottom wall portion thereof substantially concentric to the axis of the ring, a water pipe in said body disposed opposite said slot and having a plurality of discharge ports directed generally upwardly toward the wall of said body and means to supply water under pressure to said pipe whereby the water is discharged through said slot as a fine spray of tubular form.

2,775,774
WASH FOUNTAIN
Hugh H. Logan, Pasadena, Calif.
Application May 18, 1953, Serial No. 355,701
5 Claims. (Cl. 4—166)

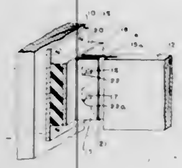


1. An eyewash fountain comprising, in combination: a bowl having at opposite sides two walls inclining upwardly and inwardly towards one another and merging into opposed lip portions spaced from one another to accommodate the face of a user therebetween, a pair of water spray heads mounted in said bowl underneath said upwardly and inwardly inclined walls in spaced relation to said walls and to the sides of the bowl so as to avoid contamination by fall-out from the atmosphere and by water running down the inner and under sides of said walls to the sides of said bowl, said spray heads being adapted to eject a multiplicity of individual water streams toward the central region of the bowl in upwardly and inwardly directed arcs.

2,775,775
BED CONSTRUCTION
Abraham Lincoln Freedlander, Dayton, Ohio, assignor to The Dayton Rubber Company, a corporation of Ohio
Application July 26, 1951, Serial No. 238,619
7 Claims. (Cl. 5—210)

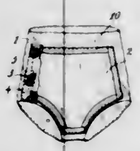
1. In a bed including end members and a pair of longitudinally extending horizontal rails for supporting a spring and mattress; that improvement comprising resilient supporting means mounted on said end members for holding said rails in laterally spaced relationship, said

means including spaced portions extending therefrom for supporting said rails, said portions separated from each other by rubber cushioning material bonded thereto, one



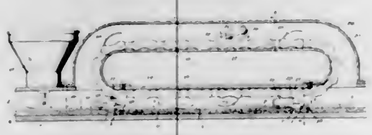
of said portions attached to an end member and the other supporting one of said rails in shear and providing completely resilient relationship of said rail with said end member.

2,775,776
BUOYANT GARMENT
Mark Shaw, Heysham, England
Application October 28, 1952, Serial No. 317,176
Claims priority, application Great Britain June 27, 1952
4 Claims. (Cl. 9—20)



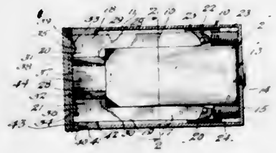
1. A garment adapted to give the wearer buoyancy to enable the wearer to float in water for an extended period of time comprising a body portion covering at least a part of the wearer's body, means secured to the body portion to form at least one enclosure in the front of the body portion, an envelope of a woven textile material positioned in the enclosure, and a flexible fibrous mass within the envelope spacing the walls of the envelope apart, the material of the envelope being permeable to air when dry so that air may freely enter the envelope and impermeable to air and water when wet whereby the air within the envelope is entrapped to impart buoyancy to the garment.

2,775,777
SPACE BAND CLEANING MACHINE
Maurice H. Hartzell, Chester, Pa.
Application February 16, 1955, Serial No. 488,673
9 Claims. (Cl. 15—102)



2. A space band cleaning machine comprising, in combination, means providing a cleaning surface, means engageable with the space band and movable continuously in one direction to feed the band over said surface, means for applying pressure on a space band at a localized area near the end thereof, and means for moving said pressure applying means in synchronism with said feeding means so as to maintain the pressure in its localized area as the band passes over said cleaning surface.

2,775,778
EYEGLASS LENS CLEANER WITH MATERIAL SUPPLY
William G. Mattson, deceased, late of Los Angeles, Calif., by Geraldine Mattson Brillhart, administratrix, Long Beach, Calif.,
Substituted for abandoned application Serial No. 590,899, April 28, 1945. This application April 25, 1955, Serial No. 503,432
3 Claims. (Cl. 15—131)



1. A device of the character described including a casing closed at one end to form an inner wall, and provided with a hinged closure at its other end, a fluid container disposed longitudinally in said casing spaced from the opposite inner side walls thereof and supported by the closed end of the casing, a collar disposed in said casing for longitudinal movement, stop shoulders in said casing adjacent said hinged closure for limiting the outward movement of said collar, arms pivotally connected to said collar slidably disposed in said casing at either side of said fluid container, resilient tensioning means between the inner ends of said arms and the inner wall of said casing for projecting said arms from said casing when said hinged closure is opened, wiping pads supported in opposed position on the outer ends of said arms, an apertured valve cage secured to the forward end of said fluid container and communicating therewith by means of a valve seat, a valve plate in said cage adapted to seat in said valve seat, means seated in said case for resiliently biasing said valve plate, said biasing means being capable of biasing the valve plate to the closed position in the valve seat and of such strength that the inertia of the valve plate allows separation of the valve seat and the valve plate when the casing is reciprocated, said cage being disposed between said pads when the arms are retracted whereby fluid from said container may be discharged onto said pads when said casing and said fluid container are reciprocated to unseat the valve plate.

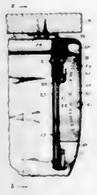
2,775,779
ATTACHMENT FOR A MOP HANDLE
Donald E. Nelson, Superior, Wis.
Application April 7, 1954, Serial No. 421,469
3 Claims. (Cl. 15—246)

1. An attachment for mounting on the handle of a cleaning instrumentality or the like comprising: a sleeve member adapted to embrace said handle, means to secure said sleeve member on said handle, a pair of elongated legs pivotally mounted on opposite sides of said sleeve member and extending therefrom in spaced parallel relationship to each other, a U-shaped member joining the opposite ends of said legs and extending in substantially right angular relationship to said legs, said U-shaped member having its open end of less diameter than said handle whereby it may be sprung over said handle and clamped thereon, said legs being at least one-third as long as said handle to form a pivotal extension for the latter.

2,775,780
WINDSHIELD WIPERS
Martin Pisano, Hillside, N. J.
Application June 4, 1953, Serial No. 359,523
6 Claims. (Cl. 15—255)

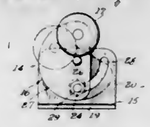
6. A windshield wiper including an arm mounted for oscillating movement in front of a windshield having a glass provided with upper and lower moldings, a primary wiper blade mounted upon said arm and disposed to wipe an area of said glass as the arm is swung, a sleeve slidable upon said arm, a secondary wiper blade mounted to wipe, as the arm is swung, an area of said glass missed by the primary blade, a clip mounting the secondary blade to slide thereon independently of said sleeve and pivotally connecting the secondary blade with said sleeve to oscillate in a plane parallel to said glass, the secondary blade being movable by said arm, as the arm is swung up, to engage at one end with said upper molding and be held downward thereby while said clip is slidably moved upward over said blade and also being movable by said arm, as the arm is swung down, to engage at its opposite end with said lower molding and be held upward thereby while said clip is slidably moved upward over said blade means carried by the secondary blade and disposed to engage said clip for limiting the secondary blade in its downward movement thereon, a cup carried by said arm, a cup carried by said sleeve, and a spring engaged at its ends in said cups and gently pressing the sleeve toward the outer end of said arm.

2,775,781
FRICTION DEVICE FOR LIFTING LID BOX
Erving B. Morgan, Grand Rapids, Mich., assignor to American Seating Company, Grand Rapids, Mich., a corporation of New Jersey
Application September 1, 1954, Serial No. 453,625
7 Claims. (Cl. 16—86)



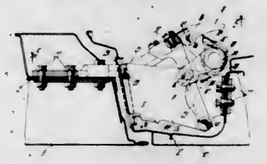
2. A friction device for a box and a lid therefor hingedly connected to the front wall of the box for swinging movements between open and shut positions relative to the box, comprising: a casing secured to one of the side walls of the box; a friction pad within the casing; and a friction plate of uniform thickness secured to the inside of the lid and extending into the casing, said friction plate bearing against said friction pad with uniform friction permitting free movement of the friction plate during the movement of the lid between open and shut positions, and said plate being embossed to provide a rigid protuberance thereon adapted to compress said friction pad when the lid is in its extreme open position thus to increase the friction between the plate and the pad so as to releasably maintain said lid in said open position, and said plate being embossed to provide another rigid protuberance thereon adapted to compress said friction pad when the lid approaches its shut position thus to increase the friction between the plate and the pad so as to cushion the movement of the lid to its shut position.

2,775,782
SLIDING DOOR HANGER
Max Reu Boiu, Pasadena, Calif.
Application March 29, 1954, Serial No. 419,324
2 Claims. (Cl. 16—105)



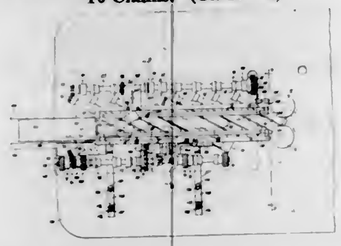
2. A sliding door hanger comprising a bracket member adapted to be affixed to a sliding door, an adjustable member adjustably connected to said bracket member, one of said members having an arcuate slot therein, a wheel rotatably mounted at one end of said adjustable member, a pivot interconnecting said bracket member and said adjustable member, and locking means extending through said slot for locking said adjustable member in position on said bracket member, said locking means being located at the other end of said adjustable member, said pivot being intermediate the wheel and the locking means.

2,775,783
DOOR HINGE, CHECK, AND HOLD-OPEN
William F. Kapanka, Royal Oak, Mich., and Barthold F. Meyer, St. Clair Beach, Ontario, Canada, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 30, 1953, Serial No. 394,936
5 Claims. (Cl. 16—139)



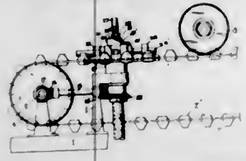
1. A hinge and hold-open assembly for body and closure members, comprising in combination, a first hinge strap connected to the closure member, a second hinge strap connected to the body member, means pivotally connecting said straps together to permit swinging said closure between open and closed positions, stop means for abutment by one of said straps to limit opening movement of said closure and to define the fully open position thereof, a toggle linkage including first and second links, pivot means connecting the links and a spring mounted on the toggle linkage and reacting against both links to bias the linkage toward an extended position, means pivotally connecting said first link to said first strap at a point between the connection of the first strap to the closure member and the means pivotally connecting said straps together, and pin and slot means pivotally connecting the second link to the second strap, the axis of said last mentioned pivotal connection being spaced from the connection between the second strap and the body member and spaced from the means pivotally connecting said straps together, the toggle links being extended when the closure is open and being closed against the force of said spring when the closure is swung to closed position, and the pin sliding in the slot when the closure swings to fully open position.

2,775,784
SAUSAGE SKIN REMOVING MECHANISM
Daniel Douglas Demarest, Port Washington, N. Y., and Robert Merritt Perkins, Upper Montclair, William Karius, Union, and Carl Berendt, Millburn, N. J., assignors to Linker Machines, Inc., Newark, N. J., a corporation of New York
Application July 10, 1953, Serial No. 367,298
10 Claims. (Cl. 17—1)



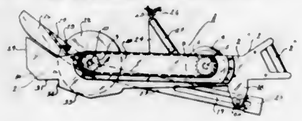
1. In a machine for peeling sausages, in combination, a lower series of parallel, rotary feed rods disposed to extend forward and toward one side of the machine said lower feed rods being disposed in a common horizontal plane to provide a support, and so closely spaced that they provide a continuously effective lower confining barrier for the sausages, a similar upper series of parallel, rotary feed rods disposed to extend forward and toward the opposite side of the machine means operatively related to the feed rods for driving the feed rods in a direction to effect forward feeding and rotation of the sausages, a pair of rotary, parallel, longitudinally extending guide rods disposed between the upper and lower feed rods and defining opposed continuous lateral sausage path boundaries, and driving means operatively related to at least one of said guide rods for rotating the same.

2,775,785
FISH EVISCERATOR
Karl R. Kurzbin, San Jose, Calif., assignor to Ryder Manufacturing Company, a corporation of California
Application November 12, 1953, Serial No. 391,447
5 Claims. (Cl. 17—3)



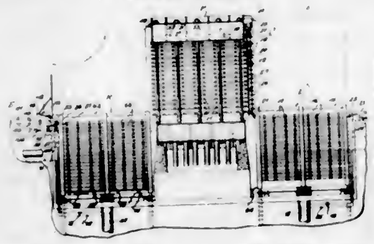
1. In a fish eviscerator, a rotatable tubular shaft arranged in an upright position and having a vacuum chamber therein, a rotatable cylindrical valve member carried on the upper end of the shaft and having a valve opening extending from its periphery to the opening through the shaft, the said valve member and the shaft being in eccentric relationship, a valve housing extending around and arranged in contacting relation with the cylindrical sides of the valve member, the said valve housing being mounted for non-rotary but circular movement, the said valve housing having a suction port, the said suction port being adapted to communicate with the valve opening when the valve member rotates within the valve housing, and a fish conveyor positioned alongside the valve housing, the fish conveyor, the valve member and the valve housing being synchronized so that fish on the conveyor are successively conveyed to a position with their exposed cut ends positioned opposite the suction port at a time when the valve opening and the suction port are in communication with each other.

2,775,786
CARCASS SPLITTING MACHINES
Carl J. Zeitler, Jr., St. Louis, Mo.
Application May 27, 1954, Serial No. 432,738
15 Claims. (Cl. 17—23)



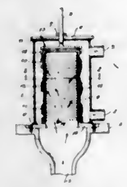
1. A carcass splitting machine comprising a casing having side plates extending at one end beyond the casing, a crank disposed between and mounted on the extended portions of said side plates, drive means carried on said casing and operatively connected with said crank for rotation of same, and a cutter blade eccentrically carried on said crank for movement therewith and being disposed for projection of its cutting edge beyond the outer end of said side plate extended portions during a portion of its cycle of travel.

2,775,787
APPARATUS FOR THE MANUFACTURE OF HARDBOARD
Frederic S. Krag, New York, N. Y., assignor to The Coe Manufacturing Company, Painesville, Ohio, a corporation of Ohio
Application May 24, 1951, Serial No. 228,061
3 Claims. (Cl. 18—4)



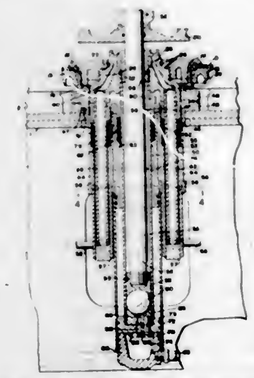
1. In an apparatus for processing sheet material positioned between upper and lower caul plates carrying a rack, a press having a plurality of platens arranged in decks to receive upper and lower caul plates therebetween, first and second elevators at opposite sides of said press each including vertically movable frames having decks comprising conveyor sections for said caul plates and adapted to register with the decks of platens of said press respectively, power means operated in response to the movement of caul plates onto the decks of said first elevator to move said first elevator vertically step by step to bring successive decks thereof into registration with said table type conveyor for loading said decks thereof and to move the decks thereof into registration with the decks of said press, power means including a pinion pivotally mounted on said press for engaging the rack carried by the caul plates while on said first elevator, power means on said press for moving said pinion into and out of engagement with said rack, a control device responsive to said second elevator being positioned in registration with the decks of said press to simultaneously move caul plates from said first elevator into said press and caul plates in said press onto the decks of said second elevator, a table type conveyor arranged to receive caul plates from successive decks of said second elevator as the latter is moved vertically in steps, means to move said second elevator vertically in steps to register successive decks thereof with said table type conveyor, the last mentioned means including a control device responsive to the movement of caul plates from said second elevator onto said conveyor, power actuated means including a pinion engageable with the rack carried by the caul plates for moving the caul plates from said second elevator to said conveyor, said conveyor comprising upper and lower sections, and means to elevate the upper of said caul plates onto the upper of said conveyor sections.

2,775,788
EXTRUSION APPARATUS
Eugene A. Andrew, St. Louis, Mo., assignor to Olin Mathieson Chemical Corporation, East Alton, Ill., a corporation of Virginia
Application March 28, 1955, Serial No. 496,968
1 Claim. (Cl. 18—12)



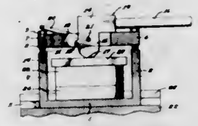
An apparatus for extruding and slicing lacquer and the like and suspending the same in liquor, comprising an enclosing vessel having a liquor intake port and a liquor outlet port, a chamber mounted within said vessel, said chamber having a closed end, an inlet end, and a perforated cylindrical wall, means for forcing lacquer into the chamber through said inlet end and out through said perforated cylindrical wall into the space between said cylinder and said vessel, a cutter having an inclined blade riding upon the exterior of said perforated cylindrical wall within said space, and means for driving said cuter in relative rotation about the axis of said cylindrical wall, said blade being inclined with respect to the axis of said cylindrical wall in the direction which during rotation thereof urges material in said space toward the outlet port of said vessel.

2,775,789
DIAPHRAGM OPERATING MECHANISM FOR TIRE SHAPING AND VULCANIZING PRESSES
Leslie E. Soderquist, Akron, Ohio, assignor to The McNeil Machine & Engineering Company, Akron, Ohio, a corporation of Ohio
Application September 29, 1953, Serial No. 382,998
7 Claims. (Cl. 18—17)



6. In a tire shaping and vulcanizing press, a diaphragm and means to operate the diaphragm comprising a cylinder, a rubber-like piston located in the cylinder and connections from the piston to one edge of the diaphragm, a second cylinder surrounding the first cylinder, a piston connected to the other edge of the diaphragm and movable in the second cylinder, means to admit fluid pressure to opposite ends of the second cylinder to raise and lower the first named cylinder, and a passage to admit fluid pressure from the second cylinder to the first cylinder.

2,775,790
DENTAL PRESS
Milton L. Lappin and Paul I. Zandberg, Los Angeles, Calif.
Application February 12, 1954, Serial No. 409,870
1 Claim. (Cl. 18—33)

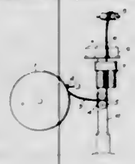


A press for dental flasks, including a base upon which a dental flask is adapted to be supported, a pair of parallel side members extending from one surface of said base to a position above the top of the flask, a top member spanning the side members secured to the base, headed screws passed through said top member for reception in threaded bores extending inwardly from the tops of the side members, coil springs surrounding said headed screws for urging the top member to engage the heads of said screws to separate the top member from the tops of the side walls, the headed screws adjustably and positively spacing the top member from the tops of the side members; said top member provided with a transverse slot, a head having first and second leg portions in right angular relationship, said first leg portion extending through the slot of said top member, means pivoting said first leg portion to the top member, said first leg portion having a curved end forming one thrust element and the side of said first leg portion provided with a second thrust element, and means secured to the other leg of said head for swinging the said head to bring one or the other of said thrust elements into engagement with the top of the flask.

2,775,791
PROCESS FOR MAKING CAST TILE, BLOCK OR THE LIKE
André Châtelain, Ecublens, Switzerland
Application September 12, 1950, Serial No. 184,425
Claims priority, application Switzerland October 28, 1949
4 Claims. (Cl. 18—47.5)

2. A method for producing a cast unit forming an artificial stone with a polished surface, consisting in laying a piece of moist wire netting on a sheet of flexible impervious material, casting over said piece of fabric a mass of semi-fluid mortar, forming on the surface of said mass an ornamental design by means of coloring material, then inverting said mass, coloring material, wire netting and sheet above the inner smooth and polished walls of a mold, to make the ornamental design engage said walls of the mold without any substantial deformation of said design, removing the sheet of flexible material, removing the piece of wire netting, lifting the unit formed by the set mass from the mold, leaving the lifted unit to harden and applying to the surface thereof carrying the design a soluble water proofing fluosilicate.

2,775,792
PROCESS AND APPARATUS FOR TREATMENT OF FIBERS
Wallace A. Beardsell, Littleton, Walter M. Davis, Jamaica Plain, and Ralph S. Hood, Marblehead, Mass., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
Application March 31, 1953, Serial No. 345,778
12 Claims. (Cl. 19—66)



2. The method of processing carded textile fibers which are produced on a card which comprises first drawing and compressing an uncondensed web of carded fibers as it moves from the card into the form of a thin, partially condensed web of generally rectangular cross-section, continuously projecting fine droplets of liquid against the two widest surfaces of said partially condensed web and against the same longitudinal portion of said partially condensed web, whereby said liquid completely penetrates said partially condensed web without distortion thereof, and thereafter further condensing said web of fibers until a sliver is obtained.

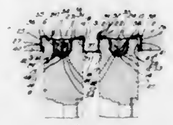
2,775,793
TOP ROLL FOR DRAWING MECHANISM
Louis M. Cotchett, Whitman, Mass.
Application December 8, 1951, Serial No. 260,724
8 Claims. (Cl. 19—142)

1. A top roll for the drawing mechanisms of spinning and roving frames comprising in combination a stationary axle, a shell roll rotating about such axle, a cot on the shell roll, bushings of low frictional coefficient obviating necessity for lubrication mounted on the inside of the shell in sliding contact with the axle, and felt seals at the extremities of the bushings in wiping contact with the shell preventing the access of lint.

2,775,794
PREFABRICATED BUILDING CONSTRUCTION
Clifford D. Keely, West Englewood, N. J.
Application December 1, 1949, Serial No. 130,486
2 Claims. (Cl. 20—2)

1. In a building construction of equilateral polygonal form having more than four sides, the side walls of said construction comprising wall panels inwardly inclined from the bottom to the top, adjacent edges of said side wall panels being joined to one another by upwardly extending studs having longitudinally extending recesses that form members which frictionally and yieldingly engage and hold the edges of said wall panels whereby the weight of said side panels and studs tends to tighten the union of said studs and the wall panels at the upper ends of said studs, a generally conical roof having radially extending rafters and roof panels between the rafters, said rafters corresponding in number and in location to said studs, means for securing the upper ends of said studs to corresponding of said rafters whereby the load of said roof is supported by said studs with a horizontal force component tending to expand said construction at the upper end thereof, an exterior, flexible, constricting band around said side walls adjacent the upper end thereof opposing said horizontal force, and a poured concrete slab serving as a floor of the construction and having securing elements embodied therein and projecting from the lateral wall thereof and engaging said studs adjacent the lower ends thereof.

2,775,795
COMBINATION WEATHER-STRIP AND SASH GUIDE FOR DOUBLE HUNG WINDOWS
Daniel M. Hettinger, Kansas City, Mo., assignor to The Weatherproof Products Corporation, Holmes Park, Mo., a corporation of Missouri
Application November 17, 1952, Serial No. 320,957
5 Claims. (Cl. 20—52)



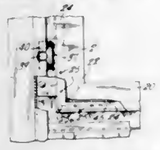
1. A combination weather seal, guide and balance for a window having side jambs with stops at respective side edges of said jambs and double hung window sash slidable between said stops and vertically of the jambs with edge faces of the sash having grooves to accommodate coil springs, said combination weather seal and guide including unitary members formed of thin spring metal and having a central parting stop portion engageable between the sash, web portions integral with said parting stop portion and extending laterally therefrom in opposite directions from the parting stop and having arch-shaped cross section to provide spaced apart parallel linear jamb contacting portions at substantially the juncture of said web portions with the parting stop portion and substantially at the stops of the jamb respectively and intermediate yieldable portions extending inwardly of the window and adapted to be normally spaced from faces of said jambs to contact with side edges of the grooves of said sash with said contacts being effective the full height of the jambs, coil spring housings of channel-like cross-section engageable within said grooves of the sash and having parallel sides with free edges adapted for bearing contact with the yieldable web portions to close the space between side edges of the sash and said jambs and to provide for free movement of the sash relatively to the jamb, and springs contained within the spring housings with upper ends adapted to be fastened near the upper ends of the jambs and lower ends to the sash at lower portions thereof.

2,775,796
WINDOW STRUCTURES
Joseph Passis, Chicago, Ill.
Application July 7, 1954, Serial No. 441,813
9 Claims. (Cl. 20—52)

3. A friction retention unit of the character described for a panel such as a window sash that is adapted to slide in a generally fixed path comprising in combination, a channel of uniform width and having a base web, parallel spaced side flanges extending from said base web and mounting flanges extending in opposite directions in a common plane from the free edges of said side flanges, a pair of bow springs mounted in opposed relation in said channel with each having its opposite ends engaged with a side flange so that the central portions of said bow springs engage each other, means anchoring one end of each of said bow springs to the side flange with which

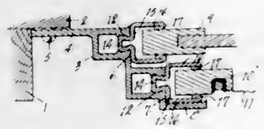
it is engaged, a pair of expansive coil springs disposed respectively between said side flanges and the central portions of the adjacent bow springs.

2,775,797
LOCKING MECHANISM
Herbert Rosen, Bayside, N. Y.
Application January 31, 1955, Serial No. 484,875
9 Claims. (Cl. 20—52)



1. A locking mechanism for a sliding panel or the like which is adapted to slide within a channelled frame, comprising a notch in one side of a channel in the frame and a slidable member having a depressible locking means mounted on one side thereof and movable perpendicularly to a plane substantially containing said sliding panel, said depressible locking means being adapted to slide within said channel and to engage said notch when aligned therewith.

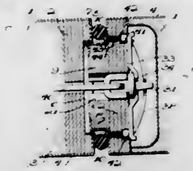
2,775,798
METAL WINDOW FRAME AND SASH ASSEMBLY
Leo V. Bent, Marcellus, Mich.
Application June 21, 1954, Serial No. 438,265
8 Claims. (Cl. 20—55)



8. In a window assembly, the combination of a frame member having a slideway with a longitudinal groove therein of dovetail section, and a combined sash slide and weather strip member of channel section in which a sash may be disposed, said slide member having a longitudinally extending rib of dovetailed section slidably disposed in said dovetailed groove in said way for adjustment of the slide member and a sash disposed therein to different positions longitudinally of the way.

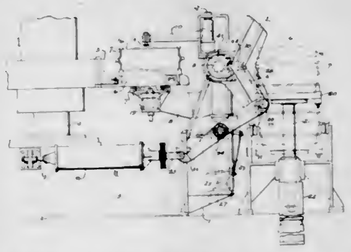
2,775,799
EYE OR KEEPER FOR HOOK AND EYE FASTENERS
Gerhard Friderich, Louisville, Ky., assignor to the United States of America as represented by the Secretary of the Army
Application January 14, 1954, Serial No. 404,153
7 Claims. (Cl. 20—92.4)
(Granted under Title 35, U. S. Code (1952), sec. 266)

7. In combination, a prefabricated panel having an elongated slot, substantially semi-circular grooves in the side walls of the slot to form a substantially circular passageway to the interior of the panel, a keeper assembly for a hook type fastener, said assembly including an eye portion mounted in the circular passageway, a rearward extension on said eye portion provided with a



transverse opening, said opening having substantial depth lengthwise of the extension, a base plate extended through the opening and positioned transversely of the slot in the panel and having a thickness less than the depth of the slot, thereby permitting movement of the eye normal to the base plate, and a spring for biasing the eye into a rearward position.

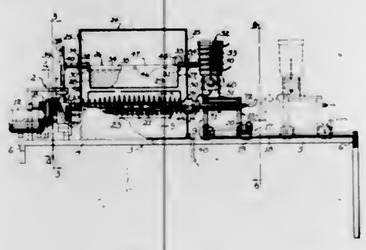
2,775,800
MECHANICAL MOVEMENT AND ROCK-OVER DEVICE UTILIZING THE SAME
Robert W. Ellms, Lakewood, Ohio, assignor to The Osborn Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application September 1, 1955, Serial No. 532,000
10 Claims. (Cl. 22—33)



1. In a rock-over mold drawing machine for inverting foundry mold flasks for drawing of the pattern therefrom having a frame pivoted for rocking movement about a horizontal axis, a pneumatic piston-cylinder assembly pivotally connected to said frame eccentrically thereof and also to a fixed base operative to rock said frame through an arc of 180 degrees, and flask clamping means on said frame substantially diametrically opposite to the point of pivotal attachment of said assembly and frame; control means for regulating such rocking movement comprising a cam member unitary with said frame for rocking movement therewith, an obtuse V-shaped cam track in said member lying in a transverse plane normal to such horizontal axis, the point of such V being spaced from but directed toward such axis diametrically opposite to the load to be held by said clamping means and therefore on the same side of such axis as such point of pivotal connection of said piston-cylinder assembly to said frame, a lever mounted for oscillation about a fixed horizontal pivotal axis directly beneath and parallel to the aforesaid axis, said lever extending less than the distance between said axes, a cam follower on said lever adapted to travel in said cam track, a piston-cylinder assembly pivotally connected to said lever and a fixed base operative to rock said lever to cause said follower to travel along said cam track and thereby rock said member to assist in elevating such load, a second cam member unitary with said frame adjacent said first cam member and pivotal axis of said frame, said second cam member having a semi-circular recess therein adjoining the apex of said V-shaped cam track and directed theretoward but lat-

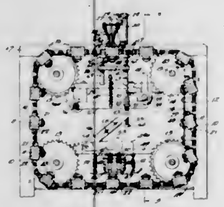
erally offset therefrom, and a second cam follower on said lever adjacent said first cam follower but further spaced from the pivotal axis of said lever than said first cam follower, said second cam follower being adapted to enter said recess when said first cam follower reaches the apex of said cam track to ensure entry of said first cam follower into the other half of said cam track as such load is rocked past center, whereupon descent of such load may be restrained.

2,775,801
CENTRIFUGAL CASTING DEVICE
Arthur E. Dekome, Cleveland, Ohio
Application July 29, 1953, Serial No. 370,943
7 Claims. (Cl. 22—58.5)



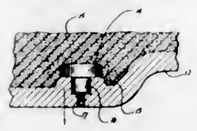
7. In a lathe-like centrifugal casting device for lining tubular members, horizontally arranged axially rotatable cone-shaped centers adapted to extend into said tubular members for centering and sealing same, a fixedly supported freely exposed open-wound elongated high-frequency induction heating coil extended between said centers coaxial therewith, a tiltably supported elongated open-top quenching tank above said induction heating coil, and speed-controlled tilting means adapted to effect controlled tilting of said open-top quenching tank and discharge therefrom by gravity a liquid stream on the induction heating coil and tubular members supported by said centers.

2,775,802
CASTING MACHINE
Owen H. Boughton, Chicago Heights, Ill., assignor to Gould-National Batteries, Inc., St. Paul, Minn., a corporation of Delaware
Application June 17, 1953, Serial No. 362,245
3 Claims. (Cl. 22—76)



1. In a metal casting machine, a pair of endless conveyor members movable in unison and in spaced parallel vertical planes, said members having elongated substantially horizontally disposed upper and lower reaches, power actuated means for imparting to said conveyor members step by step movement along a determined, endless path, a multiplicity of mold blocks carried by said conveyor members with the blocks spaced apart one from another longitudinally of said members and also spaced laterally from said members, each of said mold blocks being formed with a mold cavity, molten metal supply means comprising a trough disposed at a fixed elevation to slidably engage said mold blocks during their movement along said upper reach of the conveyor members and disposed to deliver molten metal to the several cavities in said mold blocks, valve means including a closure member controlling the flow of metal to the several mold blocks, said metal supply means including means for submerging said closure member in a shallow pool of continuously flowing hot metal whereby to maintain the temperature of said closure member substantially above the melting temperature of the metal, ejecting mechanism operative to eject castings from the molds at a point spaced along said conveyor members from said metal supply means, and means for actuating valve means and ejecting mechanism in timed relation to the movement of said conveyor members along said path whereby one of said cavities in a mold block is filled with molten metal while a casting is ejected from the cavity of another mold block.

2,775,803
CHILL PLATES
Victor E. Zang and Emmett E. Thompson, Toledo, Ohio
Application May 18, 1955, Serial No. 509,150
8 Claims. (Cl. 22—160)



1. A mold assembly comprising, in combination, a pattern, a green sand mold forming material surrounding at least one surface of said pattern, a generally rod-shaped magnet slidable in a recess in said pattern, means threaded into said pattern, and engaging said magnet, for supporting said magnet in any of a plurality of positions relative to said pattern, and a chill plate held against a portion of said pattern by said magnet, and embedded in said green sand.

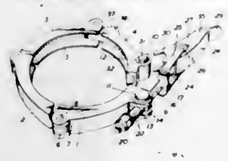
2,775,804
KEY RING HOLDER
Sam F. Ayoub, El Paso, Tex.
Application August 7, 1953, Serial No. 373,029
1 Claim. (Cl. 24—3)

A key ring holder comprising a retainer and a slide carried on the retainer, said retainer having an intermediate portion and a resilient hook element carried by said intermediate portion and terminating in a free end adapted to retain the key ring, said hook element carrying a groove adjacent the free end thereof, a stop tongue projecting from said intermediate portion, a dependent latch tongue carried by said slide, said tongue having a ridge thereon engageable with said groove under resilient action of said hook element when said slide is moved into abutting relation with respect to said tongue stop, and a thumb piece integrally formed on said slide to facilitate movement of the slide upon the retainer.

2,775,805
CLAMP FOR TELESCOPED ANGLES
Hillard J. Sands, Cleveland, Ohio, assignor to The Harvard Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application October 1, 1952, Serial No. 312,525
2 Claims. (Cl. 24—243)

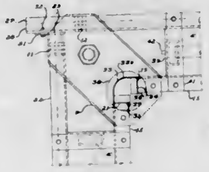
1. In combination, a pair of telescoped angles, a clamp strap formed into a loop extending around and engaging the pair of angles, means for tightening the looped clamp strap, said clamp strap having integral fingers extending therefrom and positioned intermediate the angles at the edges thereof to insure contact between the angles, and means in operative association with said clamp strap and engaging the angles at the apex of the outer angle to aid in securing said clamp strap thereto.

2,775,806
ADJUSTABLE GIRTH CLAMPING RING
John Love, Langside, Glasgow, Scotland, assignor to K. A. C. Limited, Glasgow, Scotland, a British company
Application October 20, 1953, Serial No. 387,235
Claims priority, application Great Britain September 9, 1953
1 Claim. (Cl. 24—271)



A quick acting coupling device adapted to connect together the adjoining ends of two conduits comprising: an articulated clamping ring having end sections, fastening means connected to said end sections for adjustably contracting said clamping ring, said fastening means and said clamping ring being disposed in a single plane perpendicular to the axis of said clamping ring, said fastening means including a swivel block carried for pivotal movement by one of said end sections, said swivel block being disposed with its axis of pivoting parallel to the axis of said clamping ring, an anchorage block carried by the other of said end sections, said anchorage block being disposed with its longitudinal axis parallel to the axis of said clamping ring, said swivel block being provided with a broached bore of substantially cylindrical form including a flat wall portion, the axis of said bore being substantially perpendicular to the axis of said clamping ring, a T-bolt having a head portion and a shank portion threaded at the end thereof, said shank portion being shaped for movement in the lengthwise direction only through said bore in said swivel block, a spacing sleeve freely mounted on said shank portion at the end thereof and capable of axial movement therealong, a nut threaded on the threaded end of said shank portion, said spacing sleeve bearing between said swivel block and said nut when the latter is threaded on said shank, a toggle lever, link means pivotally connected at one end thereof to the ends of said head portion of said T-bolt for movement about an axis parallel to the axis of said clamping ring and pivotally connected at the other end thereof intermediate the extremities of said toggle lever and along an axis substantially parallel to the axis of said clamping ring, one of the extremities of said toggle lever being provided with notched means engageable with said anchorage block, the distance between the axis of said swivel block and the axis of pivotal connection of said link means intermediate the extremities of said toggle lever being slightly greater than the distance between the axes of said swivel block and of said anchorage block whereby when said clamping ring is contracted said toggle lever is self locking, the contraction of said clamping ring being adjustable by threading said nut on the threaded end of said shank portion, said one extremity of said toggle lever being forked for embracing the adjacent section of said clamping ring, said notched means being provided on each arm of said forked extremity, and said anchorage block further comprising coaxial anchorage projections engageable by said notched means during movement of said toggle lever towards its position for contracting said clamping ring.

2,775,807
APPARATUS FOR BUILDING WALLS
Russell C. Grover, New Albany, Ind., and Frank W. Silva, Louisville, Ky.
Application May 20, 1952, Serial No. 288,904
11 Claims. (Cl. 25—131)

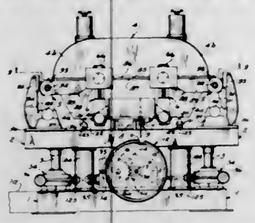


1. An apparatus for molding corner-forming concrete walls in tiers within a predetermined wall space extending upwardly from a base (**1**), comprising: a rod (**3***a*, **3***b*, etc.) positioned within said wall space adjacent a corner to extend vertically through successive molding zones with its lower end anchored (**2**, **4**) firmly to said base; elevating means (**5**, **8**) mounted on said rod for adjustment vertically along said rod to succesive operative positions for successive tier molding zones, said elevating means, in each position, extending over said corner wall space and presenting outer and inner ends adjacent the outer and inner sides of said corner; an outside corner-forming (**22**, **27**) and an inside wall-forming (**15**, **15**) pair of horizontally extending form plates, each pair being adapted to occupy a series of successively higher molding positions for that corner, the adjacent end portions of the outside pair (**22**, **27**) meeting each other (see **29**) at the outside corner in said molding positions; the inside pair (**15**, **15**) presenting, in said molding positions, end portions which are relatively adjacent to each other (see **19**, **21**) at said inside corner; connecting means, adjacent said corner, connecting said outside pair (see **11**, **12** and **25**) to the outer end, and said inside pair (see **13**, **14** and **18**) to the inner end, of said elevating means, each plate of said outside pair being movable, relatively to said elevating means, outwardly from its molding position to a transportation position wherein it is vertically movable, bodily with said elevating means, from one molding zone to another; and holding means (**31**, **32**) for releasably maintaining said outside pair in their molding positions.

2,775,808
FLYING HOT SAW
William Rodder, Poland, Ohio, assignor to The Aetna-Standard Engineering Company, Pittsburgh, Pa., a corporation of Ohio
Application August 10, 1953, Serial No. 373,329
17 Claims. (Cl. 29—69)

1. Apparatus for severing successive longitudinal sections from continuously moving elongated work such as

pipe, tube, rod and the like comprising a cutting tool; means for guiding the work in a normal path; a rotary support for said cutting tool adapted to move said tool in an orbital path approaching but not intersecting the normal path of the work, and means operated in timed



relationship with the rotation of said rotary support for periodically moving said rotary support toward the normal path of the work at a frequency less than the rate of rotation of the cutting tool in its orbital path whereby the paths of the work and the cutting tool are caused to intersect.

2,775,809

BRAZING OF MOLYBDENUM AND TUNGSTEN AND BRAZED STRUCTURES PRODUCED THEREBY

Robert Steinitz, New York, N. Y., assignor, by mesne assignments, to Borolite Corporation, Pittsburgh, Pa., a corporation of Delaware

Application May 13, 1952, Serial No. 287,497
5 Claims. (Cl. 29—198)

1. In a process of brazing a part consisting essentially of a metal selected from the class consisting of molybdenum and tungsten to a part consisting essentially of a metal selected from the class consisting of molybdenum, tungsten and tantalum, the procedure comprising applying to areas of the metal parts to be united by brazing a powder of molybdenum boride corresponding to Mo_2B and containing 3–7% boron by weight, holding the parts together and heating the contacting areas to be united and the powder applied thereto to a temperature between about 1900 to 2100° C. in the absence of an oxidizing medium at which temperature said powder melts and wets the heated metal parts.

4. A composite article comprising a first metal part selected from the class consisting of molybdenum and tantalum, and a second metal part selected from the class consisting of molybdenum, tungsten and tantalum, said parts being united by a braze of molybdenum boride corresponding to Mo_2B and containing 3–7% boron by weight, which braze and metal portions joined by said braze were heated to a temperature between about 1900° to 2100° C. at which the composition of said braze was molten and had wetted said joined metal portions, said parts remaining united and being capable of withstanding temperatures of up to about 1800° C. without parting.

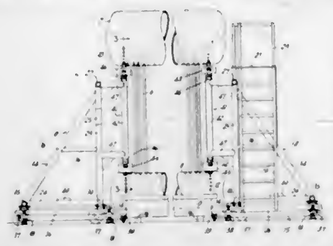
2,775,810

BOILER ERECTION APPARATUS

Frederick J. Galehouse, Alliance, Ohio, assienor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application May 29, 1952, Serial No. 290,629
4 Claims. (Cl. 29—286)

1. Apparatus for use in erecting a boiler having upper and lower closed end drums formed with a multiplicity of tube holes or tube seats arranged in corresponding rows extending longitudinally and transversely of the respective drums and having a base on which said lower drum is supported, said apparatus including mobile supports movable into positions respecitvely adjacent opposite ends of said lower drum, means disconnectably attaching the



mobile supports to said base, and means carried by said mobile supports including columns for supporting the weight of said upper drum, said means also including upper and lower pairs of adjustable tube seat centering means extending axially into tube seats or tube openings in both drums.

2,775,811

METHODS FOR FORMING CONTACT SURFACES

James G. Wilson, Huntington, W. Va.

Application May 19, 1955, Serial No. 509,519
3 Claims. (Cl. 29—401)

1. The method of restoring the worn and pitted arcuate contact surface of a copper or copper alloy electrode holder comprising the steps of cutting said surface away on a substantially uniform radius to a depth of approximately ⅛" or more, removing damaged or oxidized metal from said pits, cleaning said contact surface, preheating said holder to a temperature of at least 350° F., fusion welding a mass of metal having substantially the same copper content as said electrode holder in said pits in one or more passes in an inert atmosphere to build said pits up generally to the contour of said cutaway surface, shaping said welded metal substantially to the contour of said cutaway surface, fusion welding a mass of metal having substantially the same copper content as said electrode holder to said surface in one or more passes in an inert atmosphere while the temperature of said holder is above 350° F. until the radius of the surface formed by said weld metal is less than the radius of the original surface, and machining said welded metal to the desired dimension.

2,775,812

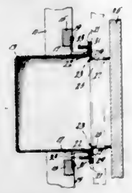
METHOD OF LOCATING APERTURES FOR ELECTRICAL OUTLET BOXES IN WALLBOARD AND MEANS USEFUL THEREIN

Howard E. Mohr, Englewood, N. J.

Application October 15, 1953, Serial No. 386,212
6 Claims. (Cl. 29—407)

1. In the construction of walls for buildings in which the framing is covered with sheets of preformed wallboard, the utility outlets in said wall projecting through apertures in said sheets and having their outer edges substantially flush with the outer face of said sheets, a method of locating in one of said sheets the aperture for a utility outlet comprising associating with said outlet a guiding member having a relatively thin, rigid, sharp-pointed elongated element projecting outwardly from the outer edge of said outlet, being adapted to penetrate said sheet

and extend beyond the outer face thereof, placing said sheet on said framing in proper relationship with previously mounted sheets, pressing against said sheet in the region of said outlet to cause said sheet to be penetrated by said elongated element, the outer portion of said ele-



ment projecting beyond the outer face of the sheet, removing a portion of said sheet having substantially the configuration of said outlet box by using said element as a reference point, and moving said sheet into position flush with said previously mounted sheets whereupon said guiding member may be detached from said outlet and said sheet secured to said frame.

2,775,813

ATTACHMENTS FOR CAN OPENERS ADAPTED TO INTERRUPT A STREAM OF GAS CHARGED FLUID DISCHARGING FROM THE PUNCTURED CAN

Herbert J. Middleton, San Francisco, Calif.

Application July 13, 1953, Serial No. 367,481
1 Claim. (Cl. 30—1)

An attachment for a can piercing can-opener having a blade and handle, comprising; a substantially flat impervious spray shield formed of flexible non-absorbent material to overlie the blade, said shield having an enlarged portion to interrupt spray emitted from the top of a can pierced by the opener and having a shank portion and a downwardly depending marginal lip provided around said enlarged portion of said shield, and means comprising spaced slits provided in the shank portion of said shield to attach removably said shield to a can opener.

2,775,814

CAN OPENING DRAIN AND VENT PUNCH

Carl R. Klok, Iron River, Mich.

Application January 19, 1954, Serial No. 404,949
4 Claims. (Cl. 30—6.1)

1. A tool for punching dispensing and vent openings in a beaded can top, said tool comprising a bridge-like body portion having downwardly turned ends provided with terminal punches, said body portion being provided with laterally projecting bead-engaging hook means, said body portion having laterally projecting handle means connected centrally to it, said punches being spaced substantially symmetrically in a lateral direction respecting the extent of the handle means and the hook means and positioned to register with opposite sides of a can top when the hook means is engaged beneath the bead thereof, whereby said openings will concurrently be punched upon manipulation of the handle.

2,775,815

COMBINATION CAN OPENER AND CAN HANDLE

William M. Thompson, Erie, Pa., assignor to Thompson Manufacturing Company, Inc., Erie, Pa., a corporation of Pennsylvania

Application November 21, 1955, Serial No. 548,013
7 Claims. (Cl. 30—123)

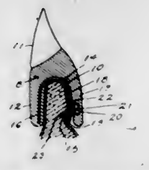
3. A combined can opener and can handle comprising a generally S-shaped body portion having two ends and a bight portion and made of flat material, one said end comprising a handle, the other end terminating in a point, said point being directed toward said bight portion, the portion of said bight remote from said point being adapted to engage the outside of a can whereby said point is urged toward the inside surface of said can adjacent said bight portion, the portion of said S-shaped member above said bight being adapted to be disposed in an opening formed in said can lid and sprung under the lid of said can whereby said handle is held in place on said can.

2,775,816

DENTURE FASTENER

Robert L. Crevison, Bellefontaine, Ohio

Application June 6, 1955, Serial No. 513,204
7 Claims. (Cl. 32—2)

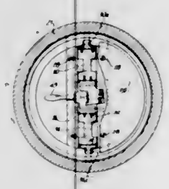


1. In combination with a denture having an outwardly opening gum receiving channel and including an outer wall and an inner wall between which said channel is disposed and a body portion connecting said walls and defining the bed of the channel; a denture retaining device comprising an elongated flexible strip, said strip being bowed to provide a first leg and a second leg and an arcuate intermediate portion from which said legs project, said first leg being embedded and anchored in said outer denture wall, said second leg being disposed in the denture channel on the inner side of and adjacent the inner denture wall, said second leg being spring biased by the resiliency of said strip toward the anchored first leg and away from the inner denture wall, and an elongated crosspiece connected to the distal end of said second leg and disposed longitudinally of said channel and supported loosely therein by said second leg and adapted to yieldably bear against a portion of an inner side of a human gum which is disposed in the denture channel for yieldably retaining the denture applied to the gum.

2,775,817
GUN SCOPE MOUNTING
Samuel E. Schuman, Johnstown, Colo.
Application April 17, 1953, Serial No. 349,509
1 Claim. (Cl. 33—50)

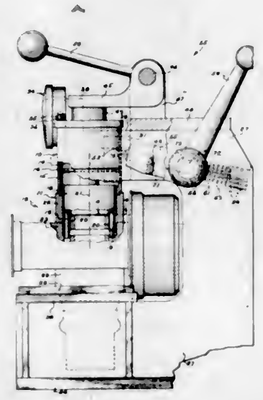
An adjustable mount for attaching telescopic sights to guns comprising a carrier bar, a gun barrel clamp upon which the bar is secured and clamp means on the bar for supporting a telescopic sight and means between the bar and the barrel clamp whereby the bar can be adjusted laterally to compensate for windage, said windage adjustment consisting of convex formations on the bar, lugs on the barrel clamp having concave faces opposed to the convex faces of the bar, a pivot connection between the bar and the barrel clamp at this point, said bar at a point removed from the convex faces being formed with a transverse arcuate slot, a guide element disposed downwardly through the slot and into the barrel clamp, said barrel clamp being provided with upstanding lugs to embrace the bar at each end of said arcuate slot and provided with adjusting screws for adjusting the bar between said lugs.

2,775,818
FLUID GAGE APPARATUS
Franklin Meyer, Jr., Forestdale, R. I., assignor to The Taft-Peirce Manufacturing Company, Woonsocket, R. I., a corporation of Rhode Island
Application June 26, 1953, Serial No. 364,332
3 Claims. (Cl. 33—147)



1. In a wide tolerance fluid gage apparatus, a first member having therein a fluid conduit for receiving fluid from a source of supply and an outlet nozzle, a second member having an opposed plane reference surface against which fluid escaping from said nozzle impinges, one of said members being mounted for movement in a direction toward or from the other and having a contact element for engaging the surface to be gaged and thereby determining the amount of said movement, said reference surface being inclined at an acute angle to said direction of movement, the mounting for said movable member comprising a flat reed spring secured at one end to the member and having its opposite end secured in a fixed support, the location of the support and direction of extent of the reed therefrom with respect to said nozzle and its reference surface being such that the bodily movement of the suspended member toward or from the fixed support as a result of swinging in an arc on the reed is in a direction parallel to said reference surface and the amount of spacing between the reference surface and the nozzle is unaffected thereby.

2,775,819
METHOD OF AND APPARATUS FOR USE IN ALIGNING PARTS
Theodore W. Kalbow, Chicago, and Lester O. Reichelt, Naperville, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application June 4, 1953, Serial No. 359,586
6 Claims. (Cl. 33—174)



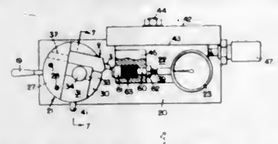
4. An apparatus for angularly adjusting a first part on a second part about a predetermined axis relative to which the parts have abutting concentric cylindrical portions of the same size and wherein said first part has an eccentrically disposed abutment and has a limited angular movement relative to the second part comprising means for supporting the first and the second parts in assembled relation with said axis disposed in a substantially vertical position and for holding said second part against rotation about said axis, indicator means on said supporting means engageable with the abutment on said first part for indicating the extent of angular movement of the abutment when said first part is turned in one direction to its limit of movement to a first position and is turned in the opposite direction to its limit of movement to a second position and for indicating a predetermined position intermediate said first and second positions, means on said supporting means for clamping said first part against the second part in angularly adjusted position, and means on said supporting means for scribing a line on said first part and said second part and across the juncture thereof.

2,775,820
CENTRALIZING MECHANISM FOR A BORE GAUGE
John H. Worthen, Warwick Neck, R. I., assignor to Federal Products Corporation, a corporation of Rhode Island
Application May 12, 1954, Serial No. 429,313
4 Claims. (Cl. 33—178)

1. In a gauge, a frame having a bore therein, a reference contact member secured to the frame with its work contacting surface on the axis of said bore, a centralizing device having a cylindrical portion closely fitting and slidable in said bore in telescopic relation therewith, and a head at its outer end presenting work contacting surfaces at diametrically opposite sides of and along a circle concentric with said axis, a spring within said bore to urge said device away from said reference contact member, said centralizing device having an opening therein presenting guiding surfaces on opposite sides of said axis and equally distant therefrom, and a sensitive contact member having a work contacting surface guided by said guiding surfaces of said opening to maintain said sensitive contacting surface in a plane pass-

ing through said bore axis and means to transmit the relative movement of said contact members to an indicator.

2,775,821
APPARATUS FOR PRESETTING CUTTERS FOR USE IN A MACHINE TOOL
Daniel C. Eipper and Raymond C. Weber, Moline, Ill., assignors to Moline Tool Company, Moline, Ill., a corporation of Illinois
Application May 25, 1953, Serial No. 357,202
1 Claim. (Cl. 33—185)

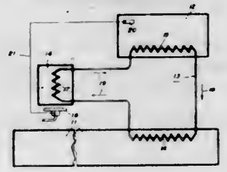


An apparatus for setting a plurality of cutters in their respective tool carrying sheaths to permit interchange of tool carrying sheaths in a boring machine without affecting the diameter of the bore, having in combination, a base, a turret supported on said base to permit rotation about a vertical axis, means for clamping tool carrying sheaths in a predetermined position on said turret, a cutting tool projecting from each tool carrying sheath, a block supported by said base and movable horizontally along an axis intersecting said turret axis, a vertical wall on said base guiding the movement of said block, a cylindrical hole extending along the block axis, a plunger movable in said hole, a stop limiting the movement of the plunger toward said turret, spring means biasing said plunger against said stop, an indicator mounted on the block to detect when a cutter carried in a tool carrying sheath on the turret moves said plunger away from said stop as the turret is turned about its axis, and means to clamp said block to said vertical wall in an adjusted position.

2,775,822
MEASURING TAPE HOLDER
John E. Hinton, Hazelton, Idaho
Application January 15, 1954, Serial No. 404,254
1 Claim. (Cl. 33—190)

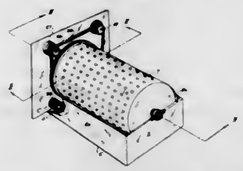
A combination ruler, tape measure holder and button hole marker comprising a relatively flat, substantially rectangular, transparent plastic body, the ends of said body being inset to enable a tape measure to be wound longitudinally therearound, said body having parallel side straight edges with measuring graduations therealong, one of said edges having spaced slots extending transversely along some of said graduations to enable button hole measurements to be made, said slots having measuring graduations therealong whereby to measure button hole length said slots also serving to receive the ends of said tape measure to anchor the latter into position.

2,775,823
METHOD OF OPERATION OF TUNNEL KILNS COMBINED WITH DRYING CHAMBERS
Gottfried Cremer, Koln-Junkersdorf, and Heinz Behrens, Schwarzenfeld, Oberpfalz, Germany
Application May 20, 1953, Serial No. 360,835
Claims priority, application Germany May 21, 1952
3 Claims. (Cl. 34—35)



1. The method of operating a tunnel kiln at a relatively high temperature and drying chamber at a lower temperature, comprising circulating water through pipes in said kiln to heat said water by heat exchange with the atmosphere in said kiln, controlling the heat exchange to said water in accordance with the operative conditions required in said kiln, circulating said heated water through pipes in said drying chamber to heat the atmosphere in said chamber, recirculating said water from said drying chamber to said kiln for reheating, supplying additional heat to said water between said kiln and said drying chamber in accordance with the desired operative conditions of said drying chamber and automatically regulating the supply of additional heat in response to the temperature conditions in said drying chamber.

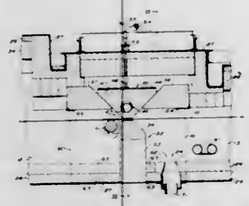
2,775,824
OVEN CLOTHES-DRYER
Aaron J. Weiss, Los Angeles, Calif.
Application June 22, 1955, Serial No. 517,349
10 Claims. (Cl. 34—90)



1. A clothes-dryer adapted to be inserted into an oven and energized by an electric source to tumble, ventilate, and allow the effective heating of fabrics placed therein to remove moisture therefrom, comprising: support-case means slidably insertible into an oven, including front wall means effectively closingly cooperable, to virtually prevent the flow of air therearound, with a front entrance-aperture of said oven; tumbler-drum means including cylindrical shell means having a longitudinal axis, having a plurality of apertures therethrough, having rear closed end means, and having front end means defining a fabric-inlet aperture and being spaced from said rear end means; said tumbler-drum means being supportedly connected to said support-case means, with said front end means adjacent said front wall means, to be rotatable about said longitudinal axis; said front wall means being provided with selectively closable door means cooperable, when open, with said fabric-inlet aperture to allow fabrics to be placed within said cylindrical shell means; said

front wall means defining a fan-aperture and an air-exit aperture; rotary fan means cooperable in rotatably driven relationship with said tumbler-drum means and mounted in said fan-aperture to selectively force air into said oven; and motor means, energizably connectible to an electric source, in rotatably driving relationship to said tumbler-drum means; whereby, when said oven is supplied with heat, the clothes-dryer placed therein, and said motor energized, fabrics placed within said cylindrical shell means may be tumbled, heated, ventilated by air passing through the apertures in said shell means, and thus dried, the resulting moist air being removed from the oven by the cooperation of said fan means with said fan aperture and air-exit aperture to force air therethrough.

2,775,825
APPARATUS FOR TREATING A STRIP OF METAL
William A. Phillips, Toledo, Ohio, assignor to Surface Combustion Corporation, Toledo, Ohio, a corporation of Ohio
Application February 1, 1954, Serial No. 407,289
12 Claims. (Cl. 34—242)



1. In an apparatus for passing a strip of metal at an elevated temperature through two successive chambers containing different atmospheres under slightly different pressures, a structure for providing a constant narrow opening between said chambers, in order to prevent the atmosphere of the chamber that is under lower pressure from contaminating the atmosphere of the other chamber, while maintaining a constant restricted flow of the atmosphere from the latter chamber into the former chamber and permitting the strip to pass from one chamber to the other, said structure comprising a lower wall, an upper gate the bottom of which is substantially parallel to and spaced from the top of said lower wall to provide a narrow opening therebetween, end members extending upward at each end of said lower wall, a lintel extending between said end members, said gate being at least closely adjacent to said end members and said lintel and being adapted for movement between said end members, and means for raising said gate to permit a strip to be threaded through said apparatus, said lower wall, gate, end members and lintel being made of a dense, thermally stable refractory and being carried upon stable supports located outside of the high temperature zone.

2,775,826
EDUCATIONAL DEVICE
James R. Vawter, Englewood, Colo.
Application July 1, 1955, Serial No. 519,429
2 Claims. (Cl. 35—9)

1. An educational device comprising a container formed with a front wall sloping forwardly and downwardly and having a plurality of inclined sections arranged in superimposed spaced parallel relation below said front wall with the uppermost one of said sections forming with said front wall and answer slot and each of the adjacent sections forming an answer slot, the wall inside each slot being provided with spaced ribs defining a plurality of spaced grooves, and each slot differing in the spatial arrangement of its grooves, and groups of problem-bearing cards, each card bearing a single problem on its face and being provided with spaced projections on its back, the arrangement of projections on the cards within a respective group being identical to and corresponding to the arrangement of the grooves of

a respective slot of the container associated with the correct answer to the problems on the cards of said respective group, whereby the problem-bearing cards may be inserted into the container only through slots associated with the correct answers to the problems on the faces of the cards.

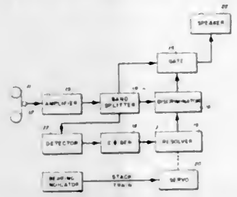
2,775,827
DEVICE FOR READING TRAINING
Louis J. Stoyanoff, St. Louis, Mo., assignor to Perceptual Development Laboratories, Inc., a corporation of Missouri
Application May 23, 1951, Serial No. 227,771
7 Claims. (Cl. 35—35)

1. A reading training device comprising a film projector, film guide means for presenting a pair of films in overlapping relationship for unison projection, a text film and a fixation film in said guide means, said text film having successive frames each containing a plurality of lines of reading matter thereon and said fixation film having successive frames in each of which is included a restricted, transparent window, said windows being arranged in echelon formation along said fixation film strip with the number of steps in the echelon formation corresponding to the number of lines of text on a frame of said text film, a first means operative to feed the fixation film strip step by step relative to said text film thereby to successively expose through said windows sequential portions of the reading matter on a frame of said text film, and a second means synchronized with said first means and operative to feed the text film one frame each time said fixation film has been fed a sufficient number of steps to complete the exposure of a frame of text.

2,775,828
SONAR SIMULATOR
Robert H. Harwood, San Diego County, Calif., assignor to the United States of America as represented by the Secretary of the Navy
Application August 20, 1953, Serial No. 375,578
10 Claims. (Cl. 35—10.4)
(Granted under Title 35, U. S. Code (1952), sec. 266)

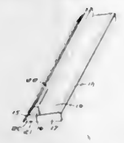
4. A sonar simulator system comprising a recording medium having a bearing signal, a reference signal and an audio signal, each in separate frequency bands, recorded in simultaneous relation thereon; means for reproducing said signals; means for separating said signals each from the other, said separating means having three outputs one for each of said signals, a gate, the audio signal output of said separating means being applied to

the input of said gate, and means for comparing said bearing signal with said reference signal and for indicat-



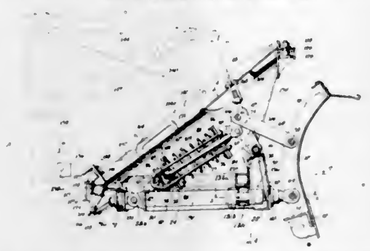
ing said bearing information, said gate being biased to pass said audio signal when the bearing indication is in conformity with said recorded bearing information.

2,775,829
BEADED WELTING
William C. Vizard, Brockton, Mass., assignor to Barbour Welting Company, Brockton, Mass., a corporation of Massachusetts
Application July 5, 1952, Serial No. 297,315
1 Claim. (Cl. 36—78)



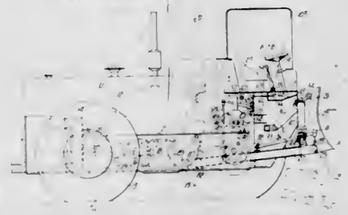
A beaded shoe welting comprising a base portion, an upstanding bead, and an inseam flange, said base portion having an outer perpendicular marginal edge and an upper surface of grain leather extending from said marginal edge to the base of said upstanding bead, said upper surface having a portion inclined downwardly to the base of said upstanding bead, said inseam flange extending outwardly and downwardly from said upstanding bead, and the surface of said upstanding bead and of said inseam flange being continuous and of grain leather.

2,775,830
REVERSIBLE TRIP BLADE SNOW PLOW
George W. Kenyon, Clayton, N. Y., assignor to Frink Sno-Plows, Inc., Clayton, N. Y., a corporation of New York
Application August 28, 1951, Serial No. 243,971
13 Claims. (Cl. 37—42)



1. In a plow stabilizing mechanism, a supporting frame, means for attaching the same to a vehicle and supporting it therefrom, a shell structure having an arcuate rim, means for rotatably supporting said shell structure in said supporting frame, a drive frame, a connection between said drive frame and said shell structure adapted to prevent relative horizontal movement between said structure and said drive frame but allow relative vertical movement therebetween, and means including spring-loaded pins for mounting a moldboard at the front of said drive frame.

2,775,831
TOOL ADJUSTMENT FOR EARTH WORKING MACHINES
Harvey W. Rockwell, Cedar Rapids, Iowa, assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application October 23, 1953, Serial No. 387,967
6 Claims. (Cl. 37—144)



1. In an earth working machine of the type wherein the elevation and lateral tilt of a tool having a cutting edge is controlled by a pair of servomotors, the combination of a pair of adjustable control members operatively associated, respectively, with said servomotors for controlling transmission of lifting power to said tool; a pair of manually adjustable levers operatively connected, respectively, with said control members for selectively adjusting the latter either conjointly or independently of each other; a pair of follow up mechanisms operatively connected, respectively, with said control members; and means connecting said tool in vertical and lateral tilting movement transmitting relation with said follow up mechanisms so that the adjusted positions of said levers will indicate the elevated and laterally tilted condition of said tool.

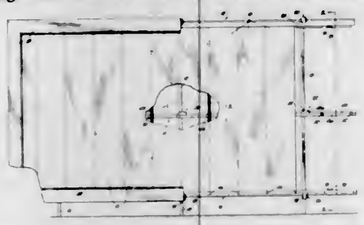
2,775,832
LICENSE PLATE HOLDER
Joseph Vizza, Belle Vernon, Pa.
Application January 20, 1955, Serial No. 483,124
1 Claim. (Cl. 40—125)

In a license plate holder, the combination which comprises a license plate having openings therethrough, magnets in the form of bars positioned against upper and lower edges of the license plate, aluminum hinges providing shields positioned against the bars, and studs having nuts thereon extended through plates of the hinges and also through the bars and openings of the license plate for retaining the bars in assembled relation.

2,775,833
SIGNBOARD STRUCTURE
Ronald C. Wishart, Kansas City, Mo., assignor to Butler Manufacturing Company, Kansas City, Mo., a corporation of Missouri
Application July 30, 1953, Serial No. 371,277
16 Claims. (Cl. 40—125)

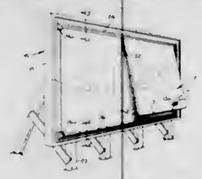
1. In a signboard assembly, a support, a pair of horizontal vertically spaced, parallel stringers mounted on said support, said stringers being provided with confronting, inwardly extending clamping jaws extending substantially throughout the lengths thereof, a plurality of panel members disposed between said stringers and having their upper and lower edges received in slip joint engagement

between said clamping jaws, each of said panels being provided with rearwardly extending flanges along their vertical edges, the flanges of adjacent panels being provided with complementary longitudinal ribs and grooves interlocking with one another to maintain said panels in a



common plane, adjustable means for forcing the endmost panels at the opposite ends of the assembly toward one another to draw all said panels together in close edge-to-edge abutment throughout the length of the signboard, and means for tightening said clamping jaws on at least one of said stringers to firmly grip the panel member therebetween.

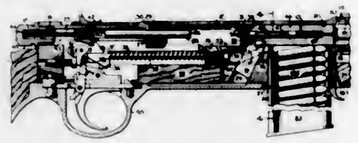
2,775,834
OUTDOOR SIGN CONSTRUCTION
William N. Miller, Jr., Greenville, S. C.
Application October 20, 1955, Serial No. 541,682
8 Claims. (Cl. 40—125)



1. A display device comprising in combination, a support member disposed at a site suitable for the display of advertising media, a posting member, a sheet of paper-like material bearing advertising media on one side, adhesive means securing said sheet of material on its other side to the front face of said posting member, and means removably securing the posting member to said support whereby the posting member together with the sheet of material may be placed on and removed from the support so that the removal of an old sheet and the posting of a new sheet may be effected at a point remote from the site of the support, said posting member comprising a rigid, open frame, a highly flexible and flaccid screen, and means fixedly mounting said screen on the rigidifying frame and maintaining the same in taut relation so as to present a flat front surface upon which said sheet is mounted, said screen being defined by narrow and closely spaced reticulated solid strand-like portions of uniform width throughout their lengths providing closely spaced interstices therebetween, the sheet having substantially complete and linear adhesive contact with the solid portions of said screen and thus exposing the remainder of the sheet through the interstices of the screen at its rear surface.

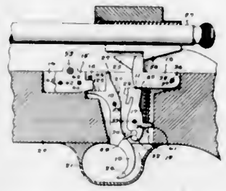
2,775,835
BOLT MECHANISM FOR FIREARM
Alonzo F. Gaidos, Redwood City, Calif.
Original application February 1, 1950, Serial No. 141,801. Divided and this application December 8, 1952, Serial No. 324,855
2 Claims. (Cl. 42—16)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. In a firearm having a receiver and a bolt slidably mounted therein for reciprocal movement between a battery and a recoil position, the bolt having a firing pin tunnel axially therethrough and an intersecting vertical T-slot in the rear end thereof, a longitudinal firing pin slidably seated in said tunnel, a firing pin retainer disposed in said T-slot and having a longitudinal hole therethrough coaxial with said firing pin tunnel but of lesser diameter relative thereto, said firing pin having a rear end portion of reduced diameter, spring means normally urging said firing pin rearwardly into contact with the forward face of said retainer with said reduced end



portion extending through said retainer to project beyond the rear face thereof, said retainer having a vertical slot extending along the underside thereof to provide access to the rear wall surface formed by said T-slot in the bolt, a bolt return slide having a substantially rectangular front end portion adapted to normally extend through said retainer slot into said T-slot to contact the bolt, spring means normally urging said bolt return slide forwardly to maintain the bolt in the battery position thereof, and striker means adapted to actuate said firing pin forwardly when said bolt is in the battery position.

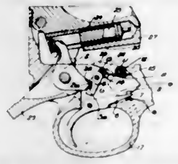
2,775,836
SPEED TRIGGER
Roy J. Emerson, Superior, Wis.
Application February 5, 1954, Serial No. 408,496
1 Claim. (Cl. 42—69)



In a trigger assembly for a firearm, a pair of spaced side plates providing a trigger framework, a block positioned between said pair of side plates, an adjusting screw connected to said block, a trigger pivotally mounted in said framework and having an arcuate finger grip extended from its lower end, a lip extending from the upper portion of said trigger and engaging said adjusting screw, the upper end of said trigger preventing small foreign particles from falling between the contact surface of said lip and the adjusting screw, a sear pivotally mounted in the framework and positioned to engage a projection of a bolt of a firing pin of the firearm, a sear latch also pivotally mounted in said framework and positioned between the trigger and sear with an arcuate surface on the extended end furthest from the pivotal mounting of the sear latch and positioned to engage the under surface of the sear, the upper part of said trigger being provided with an arcuate surface against which a surface on the upper end of the sear latch rides, a floating trigger link positioned with one end extended into a notch in the trigger and the other into a recess of the sear latch, the distance between the recess in the sear latch and the pivotal mounting thereof being less than the distance from the pivotal mounting to the arcuate surface at the end of the sear latch so that the upper surface of the sear latch travels at a greater speed than the recess in which the end of the trigger link is

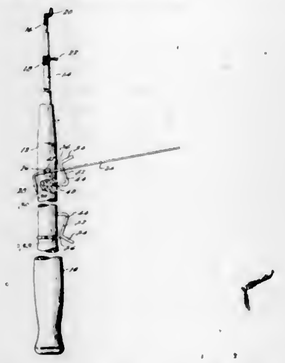
positioned, a finger extending from said sear latch and provided with an opening therein, a guide pin connected to said sear and extending through the opening in said finger, a spring between the sear latch and sear and said spring being circumposed on said guide pin and positioned to return the parts to holding position with the firearm cocked upon return of the firing pin actuating bolt, the center of the radius of the arcuate surface of the sear latch being positioned on the pivotal axis of the sear latch whereby the sear latch slides against the under surface of the sear with a smooth easy movement.

2,775,837
FIRING MECHANISM FOR A FIREARM
Claude Alfred Perry, Olton, and Roger David Wackrow, Handsworth, England, assignors to The Birmingham Small Arms Company Limited, Birmingham, England, a British company
Application October 16, 1952, Serial No. 315,012
Claims priority, application Great Britain August 26, 1952
5 Claims. (Cl. 42—69)



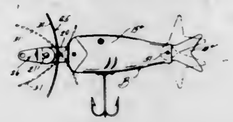
1. Firing mechanism for a firearm comprising a spring loaded firing pin, a firing pin lever releasably holding the firing pin in cocked position, a spring loaded sear member engageable with the firing pin lever when the weapon is cocked and disengageable therefrom to release the firing pin lever to fire the weapon, a trigger, a trigger sear, a hammer lever engageable by the trigger sear when the weapon is cocked and releasable therefrom when the weapon is fired and means for impelling the hammer lever, when released, to strike a blow upon the spring loaded firing pin lever sear member and thereby disengage said sear member from the firing pin lever.

2,775,838
ICE FISHING ROD
Howard J. Miller, Jackson, Mich.
Application December 13, 1952, Serial No. 325,781
2 Claims. (Cl. 43—21.2)



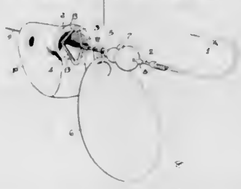
1. An ice fishing rod comprising a handle and a shaft having a tip, and a two-legged wire rest for supporting the rod in an inclined position on the ice with the tip elevated and the end of the handle resting on the ice to give a third point of support, said rest having a closed end and spread legs, portions of said rest between said closed end and said legs being formed to provide opposed pivot portions, recesses defined on opposite sides of said handle into which said pivot portions are pivotally received, said closed end embracing said handle to one side of said recess and being angularly disposed to the longitudinal axis of said legs to provide a stop engaging, in one pivotal position of said rest, with said handle, to limit the pivotal position of said rest relative to said handle with said legs in an extended position, and said stop having clearance with said handle with said rest in a retracted position whereby said legs be disposed along the longitudinal axis of said handle.

2,775,839
FISHING LURE WITH UP AND DOWN MOTION
John S. Kuslich, St. Paul, Minn.
Application September 7, 1955, Serial No. 532,921
13 Claims. (Cl. 43—42.03)



1. As an article of manufacture a fishing lure comprising a main body portion, a deflector member freely and unobstructedly pivoted on a transverse axis upon the forward end of said body for free and unobstructed fore and aft oscillation and swinging action upon its pivot axis, and a tail section pivoted upon the rear end of the body portion on a horizontal axis for swinging in a vertical plane in synchronism with the oscillation action of the deflector member.

2,775,840
FISHING TACKLE
Jack Dumas, San Francisco, Calif.
Application March 21, 1955, Serial No. 495,420
1 Claim. (Cl. 43—42.16)



In fishing tackle, a fish hook, an elongated rigid shank connected at one end to the fish hook, a sinker engaging element rigidly secured to the other end of the shank, the sinker engaging element having forwardly converging side members, a line secured to the sinker engaging element at the forward converging ends of the side members, a sinker slidably mounted on the line and arranged for sliding movement to and from an engaging position with the sinker engaging element, the sinker having a longitudinal line receiving opening in its upper portion, the said line slidably extending through the longitudinal opening, the sinker also having a cone shaped opening in its rear end, the side wall of the cone shaped opening converging at the rear end of the longitudinal opening, and the said converging side wall of the cone shaped opening having opposed converging grooves, the said forwardly converging side members of the sinker engaging element being arranged to fit slidably into the cone shaped opening and also to become lodged in the converging grooves when the sinker is in an engaging position with respect to the sinker engaging element, and a spinner rotatably mounted on the shank.

2,775,841
FISHING LURE
Paul L. Baker, Marceline, Mo.
Application June 17, 1955, Serial No. 516,201
2 Claims. (Cl. 43—42.48)

1. An artificial fish lure designed to represent a given live minnow comprising an elongate buoyant body having central and tail portions in general longitudinal alignment, essentially circular in cross-section lengthwise and gradually decreased in cross-section from the leading toward the trailing end, the terminal of said tail portion being convex and blunt, said central and tail portions having a dorsal surface longitudinally convex and a ventral surface longitudinally concave, the leading end of said body having a forwardly projecting extension defining a linearly straight bill portion, said bill portion being rectangular in cross-section and having a substantially flat bottom which is an extension of and is substantially coplanar with the adjacent portion of said ventral surface, said bill portion being of uniform cross-sectional thickness from end to end and the thickness thereof being appreciably less than the cross-section of the leading end of said central portion, said bill portion having a substantially flat top side disposed in a plane below the principal longitudinal axis of said body, the transverse forward end of said bill portion being beveled downwardly, said bill portion being of the same width from end to end and the longitudinal edges thereof being smooth and in approximate alignment with the vertical sides of the leading end of said central portion, the leading end of said central portion being recessed and providing a concavity the ends of which open through the vertical sides of the central portion, said recess also defining and providing a lip and said lip overhanging the upper portion of said concavity.

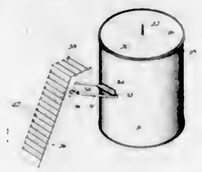
2,775,842
FISHHOOK
Thomas McCode, Philadelphia, Pa.
Application November 1, 1954, Serial No. 466,048
1 Claim. (Cl. 43—44.81)

A fishhook comprising: a tubular sinker for connection to a line, a hook including a bill and a shank mounted for sliding adjustment in the sinker, means frictionally securing the hook in adjusted position in the sinker, and means for positively limiting the sliding movement of the hook in one direction through the sinker, the first named means including a setscrew threadedly mounted in the sinker and engageable with the shank, the last named means including an enlargement on one end of the shank engageable with the setscrew, said sinker having a bore accommodating the enlargement for removing the hook from the sinker when the setscrew is in retracted position.

2,775,843
FISHING BOBBER
John E. Leiser, Twin Falls, Idaho
Application June 24, 1954, Serial No. 438,995
2 Claims. (Cl. 43—44.95)

1. A fishing bobber comprising an elongated hollow buoyant body, a chamber internally of the body and extending inwardly at each end of the body, said body having a pair of external right angularly disposed communicating grooves at each end, and a spring retracted hook at each end of the body and including an inner end portion enclosed in and anchored to an adjacent chamber and an outer end portion adapted to enter one of said grooves for clamping a fishing line in the other of said grooves.

2,775,844
MOUSE OR RAT TRAP
E. J. Farrell Barnes, Tulsa, Okla.
Application June 28, 1954, Serial No. 439,583
1 Claim. (Cl. 43—69)



In a rodent trap, which includes an open top receptacle adapted to contain liquid and having a weighted lid pivotally closing off the top; the improvement which comprises a bearing bracket mounted on the side wall of the receptacle and disposed transversely thereof intermediate the top and bottom, a substantially U-shaped pivot rod having a straight bight portion rotatably mounted in the bracket and having parallel legs, a ramp disposed vertically alongside the receptacle, means pivotally attaching the free ends of the legs to the ramp adjacent the upper end thereof, said ramp having a beveled bottom edge and an upper edge, a platform laterally offset at an obtuse angle from the upper edge and forming a continuation thereof and extending inwardly toward the receptacle, said ramp, when its bottom edge is seated flat on a support on which the receptacle is seated, being angularly disposed relative to the top of the receptacle and positioning the platform substantially in a horizontal plane at the same height as the top of the receptacle and spacing the free end of the platform from the top of the receptacle and said ramp being movable about the bracket and the pivotal attachment of the rod legs into a position alongside of and parallel with the receptacle.

2,775,845
TOY INSTRUMENT PANEL FOR CYCLE HANDLE BARS
Leroy Coates, Covington, Ky.
Application April 21, 1954, Serial No. 424,551
1 Claim. (Cl. 46—1)

A simulated motor vehicle instrument panel for cycle bars comprising a plate having gear shift and speedometer indicia upon the front side, said plate having an arcuate top edge, a lever pivoted to the rear of the plate and extending beyond the arcuate top edge thereof to provide a manually shiftable handle, an indicator means for the gear shift indicia, another indicator for the speedometer indicia, the speedometer indicator being mounted on a common pivot with the lever and having free independent movement and the gear shift indicator being fixed

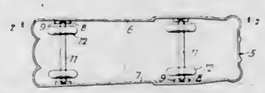
to the lever and movable therewith, said gear shift indicator being visible at the front of said plate in cooperative relation to said gear shift indicia, and rearwardly projecting embossment means stamped from the plate for cooperating with the gear shift lever to hold it and the gear shift indicator in adjusted position, said lever having an offset portion at the free end thereof to clear the embossment means in its pivotal movement relatively to the plate and cycle bar clamp means on the plate.

2,775,846
ANIMATED TOY
Antoine Gazda, Cranston, R. I.
Application February 15, 1956, Serial No. 565,647
3 Claims. (Cl. 46—104)

1. In an animated toy having an upper body portion and a lower body portion connected thereto, a tail portion having legs protruding therefrom adjacent said body portions, said tail portion pivoted for horizontal movement between the rear ends of said body portions, a head portion having legs protruding therefrom pivoted for horizontal movement between the front ends of said body portions, and a connecting link pivoted on one leg of said head portion and on the leg on the opposite side of said tail portion, that improvement comprising spring driven driving means in said upper body portion acting on said head portion for oscillating said head portion and said tail portion, means depending from each of said legs comprising an upper portion rigidly attached to said leg and a lower portion hinged to said upper portion for movement only in one direction from a position in which said lower portion is aligned with said upper portion, said lower portion having a piece of frictional material on the lower end thereof for frictionally engaging a surface over which said toy is to move only when said means is urged in one direction relative to said surface, and wheels on said lower body portion for supporting said toy on said surface.

2,775,847
DIE CAST TOY VEHICLES
Earl W. Herdklotz, Rockford, Ill., assignor to A & E Tool and Gage Co. (Inc.), Rockford, Ill., a corporation of Illinois
Application December 10, 1954, Serial No. 474,420
4 Claims. (Cl. 46—221)

3. In a wheeled toy vehicle, a hollow body of die cast metal having integral with the side walls on the inner side as enlargements thereof a pair of transversely aligned substantially vertical bosses including on the lower ends thereof inverted U-shaped portions defining bearing recesses, the arms of each U of which are integrally connected along one side with the adjoining side wall, an axle in the form of a straight, smooth, round rod of a length slightly less than the width of the body at the bearing recesses and of a diameter less than the

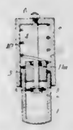


width of the bearing recesses, and wheels fixed on said axle inwardly from the ends thereof for operation in inwardly spaced relation to said bosses, the end portions of the axle being rotatably received in the bearing recesses and retained against displacement therefrom by the lower end portions of the arms of each U which are bent inwardly toward each other relative to the side walls.

2,775,848
SELF-STEERING TOY VEHICLE
Anson Isaacson, St. Petersburg, Fla., assignor to Jay V. Zimmerman Company, St. Louis, Mo., a corporation of Missouri
Application June 29, 1956, Serial No. 595,004
24 Claims. (Cl. 46—244)

1. In a toy vehicle having a body, first and second electric motors, front wheels driven by said motors, a rear axle supported by said body and mounting rear wheels, a source of electric power carried on said vehicle, circuit means for connecting said power source to said first and second motors, a switch provided in said circuit and having first and second spaced apart concentric poles respectively connected to the first and second motors, a plurality of manually disposable switch members disposed between said first and second poles for radial movement therebetween into selected contact therewith at one of their ends, a shaft operatively engaged to said rear axle and being in concentric relationship with said first and second switch poles, a conductive member mounted on said shaft for rotative movement therewith and being connected to the power source, contacts disposed radially about said shaft for progressive circuit-making engagement with said conductive member, said contacts each being associated with a switch member whereby the circuit to either motor will be closed selectively in any desired pattern through said power source during rotation of said shaft.

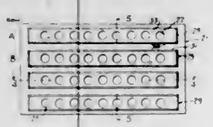
2,775,849
FURNITURE STABILIZING DEVICE
Frank W. Ingram, Erdington, Birmingham, England
Application July 7, 1954, Serial No. 441,879
Claims priority, application Great Britain July 16, 1953
3 Claims. (Cl. 45—139)



1. A furniture stabilizing device which comprises a housing open at its lower end, a hollow plug slidable vertically in said housing and closed at its upper end, a

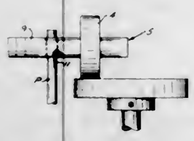
rod secured to the upper part of said housing and extending co-axially substantially fluid tightly and slidably through the closed upper end of said plug into said plug, said rod having a pair of spaced surfaces within said plug to form an annular recess, a spring pressing said plug downwardly to project from the lower end of the housing and a floating annular disc in said recess and having a slight clearance with the inner peripheral surface of said plug to form a restricted passage therewith, said disc being movable to a fluid-tight contact with the upper surface of said recess and movable to a fluid-free contact with the lower surface of said recess, said recess and disc providing passages for the fluid when in contact.

2,775,850
APPARATUS FOR FORMING MINERAL FIBERS
Charles J. Stalego, Newark, Ohio, assignor to Owens-Corning Fiberglas Corporation, a corporation of Delaware
Application March 2, 1953, Serial No. 339,705
1 Claim. (Cl. 49—55)



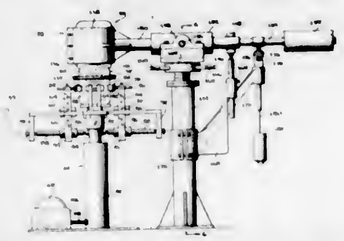
A fiber forming element for a glass fiber forming apparatus, said element comprising a precious metal bottom plate for a glass melter, said plate having ridges integral therewith and protruding below the body thereof, said ridges being parallel and spaced laterally from each other, each of said ridges having upwardly divergent side walls, there being a plurality of longitudinally spaced, downwardly directed orifices through said element and opening through said ridges, whereby the diverging side walls of said ridges dissipate heat from said ridges sufficiently rapidly to prevent flooding between orifices on the bottoms of said ridges and said orifices are spaced a lesser distance from each other than would be possible in an element having a planar bottom surface.

2,775,851
APPLICATOR FOR APPLYING A DIAMOND FILLED PASTE TO A WORKING SURFACE
Sheldon M. Booth, South Haven, Mich.
Original application October 18, 1954, Serial No. 462,857. Divided and this application May 25, 1955, Serial No. 511,095
2 Claims. (Cl. 51—1)



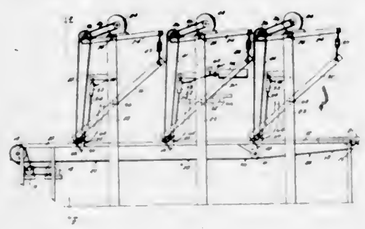
1. An applicator for applying a diamond filled paste to a working surface, including the combination: a shaft; a bearing unit surrounding said shaft intermediate the ends thereof; said shaft having end portions on either side of said unit, at least one of said end portions being long enough to permit manual grasping thereof; said unit having an external ring rotatable with respect to said shaft; a post extending transversely through the axis of said shaft through one of said end portions and supporting said shaft for pivotal movement with respect to the axis of said post.

2,775,852
MEANS FOR OPENING HERMETICALLY-SEALED CASINGS
Frank Lowitz, Bronx, N. Y.
Application May 17, 1954, Serial No. 430,242
14 Claims. (Cl. 51—105)



1. In a grinder for opening a hermetically sealed unit having a casing including at least two parts joined by an endless welded joint lying in a plane, a grinding head and a work holder, said work holder comprising a table, means to mount said table for rotation about an axis, power actuated means for slowly turning said table about said axis, a centering jig carried by said table for clamping a unit thereon with the welded joint centered on the axis of rotation of the table, said grinding head including a grinding wheel, power actuated means for rotating said wheel about an axis, means mounting said wheel with its axis of rotation selectively lying in a plane which is variable from vertical to horizontal, means supporting and guiding the wheel for shiftable floating movement toward and away from the unit in any selected plane from vertical to horizontal, means to adjust the height of the wheel, and means to bias the wheel against the welded joint for applying a yielding operative pressure against the welded joint.

2,775,853
SANDING APPARATUS
Joe B. Jones, Sanford, N. C.
Application December 2, 1955, Serial No. 550,542
10 Claims. (Cl. 51—138)

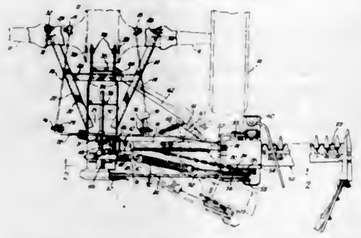


1. In a belt sanding and finishing apparatus adapted for treating articles having an irregularly shaped configuration, at least one pair of spacedly and resiliently mounted pulleys; an endless belt passing over said pulleys, said belt having an abrasive material disposed thereon, means for biasing said pulleys to a tension-producing position relative to said belts, means for rotating one of said pulleys, at least one workholder adapted to receive said articles and arranged for movement relative to said belt, said workholder having a cam surface corresponding to said configuration; means mounted adjacent one of said pulleys and spatially movable therewith for engaging said cam surface, whereby said pulley and said sanding belt are guided into proper sanding relationship relative to each portion of said configuration, and means for moving said workholder relative to said belt.

2,775,854
CUTTING OR POLISHING DISK
Carl Klingspor, New York, N. Y.
Application February 8, 1954, Serial No. 408,638
4 Claims. (Cl. 51—206)

1. A grinding or polishing wheel of hard wear-resisting material, said wheel having the same thickness along all its radii, said wheel having equal sectors which are integral therewith and which are offset alternately in opposite directions from the central plane of the wheel, each of said sectors having opposed side surfaces constituting the cutting surfaces of the wheel, and inclined portions interconnecting said sectors, said inclined portions having the same thickness as said sectors.

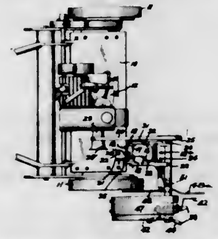
2,775,855
TRACTOR MOUNTED RECIPROCATING CUTTING ASSEMBLY
Clarence B. Richey, Royal Oak, Mich., assignor to Harry Ferguson, Inc., Detroit, Mich., a corporation of Delaware
Application August 25, 1952, Serial No. 306,081
9 Claims. (Cl. 56—25)



1. An agricultural attachment for a tractor having an axle housing and having trailingly pivoted, vertically swingable draft links arranged in rearwardly diverging relation thereon, said attachment comprising, in combination, three rearwardly converging tripod legs, frame means interconnecting the rear ends of the legs, two of the legs having means at their forward ends for connecting the same to the tractor axle housing and being offset downwardly rearwardly of the points of connection to permit the respective draft links to pass thereover and to move upwardly and downwardly relative thereto, means for detachably connecting the front ends of the third leg to the tractor in a central location adjacent the top of the axle housing, an agricultural implement supported on and carried by the frame means and having a positionable component thereon, and means including a force transmitting element interconnected between the draft links and the component to position the latter in response to elevational movement of the draft links.

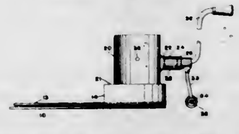
2,775,856
LAWN MOWER ATTACHMENT WITH ROTARY DISC CUTTER
John R. Hoch, Miami, Fla.
Application November 16, 1953, Serial No. 392,091
1 Claim. (Cl. 56—25.4)

An attachment for mowers having a frame and a motor mounted thereon in which the power shaft extends in a substantially horizontal direction; said attachment comprising a bracket connected to the frame of said mower and projecting upwardly therefrom, a yoke including a pair of arms pivotally connected at their rear ends to the lower end of said bracket and projecting forwardly therefrom, a tool shaft rotatably mounted in the forward ends of said arms in substantial parallelism with the power shaft of said motor, a cutting tool detachably secured to one end of said tool shaft, a pulley secured to the opposite end of said tool shaft, a pulley secured to the power shaft



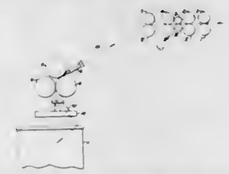
of said motor, a belt connecting said pulleys, a lever pivoted at its lower end to the upper end of said bracket, a link pivoted at its inner end to said lever inwardly of the ends of the latter and extending forwardly and downwardly with respect to said mower, and the outer end of said link pivotally connected to said yoke adjacent to the forward end of the latter and below the plane of said lever pivot.

2,775,857
OSCILLATING BLADE EDGER
Roland E. Holmes and Russell C. Bales, Baltimore, Md.
Application March 3, 1953, Serial No. 339,972
1 Claim. (Cl. 56—26.5)



A power operated cutter, comprising, a motor casing having a motor therein, a body portion depending from said casing, a stationary V-shaped cutter carried by said portion, a double edged cutting blade pivoted to said cutter, connecting means between said motor and said cutting blade for oscillating the latter, a handle for said power cutter and a quick-adjustable, flexible connection between said motor casing and said handle to vary the cutting angle, said connection consisting of a hollow boss carried laterally by said motor casing, said handle abutting the open end of said boss, springs in said boss pressing against balls in said handle allowing rotation of said handle about said boss, and retaining means in said boss to prevent disconnection between said boss and said handle.

2,775,858
METHOD AND APPARATUS FOR THE DRAWING OF SLIVERS
Arthur Kruse, Zell/Wiesental, Baden, Germany
Application June 11, 1952, Serial No. 292,963
Claims priority, application Germany May 14, 1952
13 Claims. (Cl. 57—51)



3. An apparatus for the drawing of slivers, which comprises a drawing frame for the simultaneous drawing of

two webs therethrough, roller means positioned behind said drawing frame for the compressing of said webs passing through said drawing frame into two parallel, side-by-side slivers, means positioned behind said roller means for imparting false left and right twists having transition points therebetween to each of said slivers, means for staggering the transition points of said slivers with respect to one another, and roller means positioned behind said twisting tubes for compressing said slivers into a twin sliver.

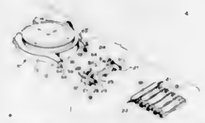
2,775,859
TEXTILE MILL SPINDLES
Jerome D. Gleitz, Pepper Pike Village, Ohio, assignor, by mesne assignments, to Curtiss-Wright Corporation, Marquette Metal Products Division, Cleveland, Ohio, a corporation of Delaware
Application February 16, 1954, Serial No. 410,499
10 Claims. (Cl. 57—130)

1. A composite metal, textile mill spindle blade and whorl unit, comprising a one piece hard steel shaft having a bolster-bearing-engaging circular surface between its ends, a barrel of light weight metal exteriorly formed to support a bobbin and having a bottom axial bore which receives a portion of the shaft lying above its bolster bearing engaging surface, and a substantially rigid steel whorl telescoping the barrel and in interference fitted gripping contact with a lower end portion of the barrel, characterized particularly in that said portion of the shaft has cylindrical regions of relatively different diameters and each of considerable axial extent as compared to the diameters of said shaft portion in interference fitted metal-to-metal mating relationship to the light weight metal of the barrel in said bore, one relatively smaller diameter region being above the upper limit of the whorl and the other relatively larger diameter region being below said upper limit of the whorl and closely adjacent the bolster-bearing-engaging surface of the shaft.

2,775,860
TWINE
Albert R. Morrison, Newark, Ohio, assignor to Owens-Corning Fiberglas Corporation, a corporation of Delaware
Application March 28, 1951, Serial No. 217,944
4 Claims. (Cl. 57—140)

1. A strong, tough twine having superior knot strength and knot holding ability consisting in a plurality of continuous strands of glass fibers twisted together longitudinally and bonded together into a cohesive mass by a matrix consisting of an admixture in the range from about 1 to about 2 parts by weight of a hard resin and from about 4 parts to about 1 part by weight of a compatible synthetic elastomer selected from the group consisting of copolymers of butadiene and styrene, copolymers of butadiene and acrylonitrile and mixtures thereof.

2,775,861
WRIST WATCH BRACELET ATTACHMENT
Emil E. Fachon, Edgewood, R. I., assignor to Bulova Watch Company, Inc., Flushing, N. Y., a corporation of New York
Application October 24, 1955, Serial No. 542,227
6 Claims. (Cl. 58—88)



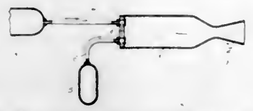
1. In a wrist watch having a case with spaced apart lugs to receive a terminal of a bracelet, a filler-member disposed intermediate said lugs and between said terminal and said case, means on said terminal cooperating with means on said lugs to secure said bracelet to and in adjacent relation to said filler-member.

2,775,862
EXPANSIBLE BRACELET WITH DETACHABLE SLOT AND STUD CONNECTION
William C. Boots, Rumford, R. I., assignor to Foster Metal Products Incorporated, Attleboro, Mass., a corporation of Massachusetts
Application December 28, 1955, Serial No. 555,894
1 Claim. (Cl. 59—79)

In an extensible bracelet or the like a pair of substantially flat links detachably connected together, one link having a stud projecting at substantially a right angle from one side face thereof, said stud comprising a shank having an enlarged head at its outer end, said head having plane parallel inner and outer faces arranged at substantially right angles to said shank, the other of said links having a transverse slit spaced from opposite edges thereof, an elongated slot extending from one side of said slit and spaced from the ends thereof, the portion of said other link adjacent said slit and opposite said slot being inclined away from the plane of said other link, and the edge portion of said other link at each side of said slot and adjacent said slit being inclined away from the plane of said other link in a direction opposite to the inclination of said first portion, said inclined portions on opposite sides of said slit being disposed in spaced substantially parallel planes to form a passageway between them for said head to guide it into and out of said slot.

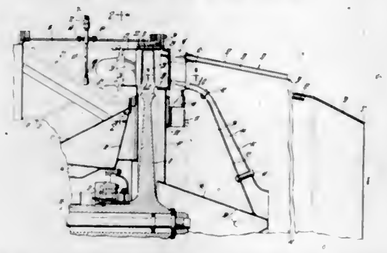
2,775,863
PROCESS FOR INITIATING THE IGNITION OF ROCKET FUELS
Georges Traverse, Toulouse, France, assignor to Societe d'Etude de la Propulsion par Reaction, Villejuif, France, a French company
Application September 19, 1951, Serial No. 247,246
Claims priority, application France September 25, 1950
6 Claims. (Cl. 60—35.4)

1. In a method for initiating the ignition at a very high speed of mononitromethane inside a rocket, the step consisting of contacting said mononitromethane, within the combustion chamber of a rocket, with an ignition-initiating amount of at least one complex organometallic compound of the formula RMeX, in which R is at least one lower alkyl radical from the group con-



sisting of methyl and ethyl radicals, Me is a metal from the group consisting of aluminum and zinc and X is at least one halogen from the group consisting of iodine and bromine.

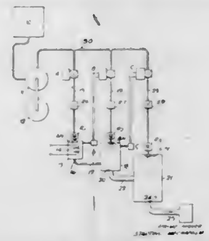
2,775,864
JET PROPULSION ENGINE WITH AFTERBURNER
Harry C. Karcher, Indianapolis, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 10, 1951, Serial No. 220,241
9 Claims. (Cl. 60—35.6)



1. A jet propulsion engine comprising, in combination, a turbine, means defining an inlet passage to the turbine for discharging motive fluid into the turbine, means for supplying relatively cool air from the passage to the turbine adjacent the boundaries of the passage, a turbine exhaust pipe terminating in a jet propulsion nozzle of fixed area, the exhaust pipe expanding abruptly in cross-section downstream from the turbine to define an afterburner combustion chamber and to create turbulence in the combustion chamber to hold combustion therein, the walls of the exhaust pipe being double and the inner walls being disposed to receive gases discharged adjacent the boundaries of the turbine passage for circulation between the walls to cool the walls, and means for introducing fuel into the combustion chamber.

2,775,865
STARTERS FOR PRIME MOVERS SUCH AS GAS TURBINES
Douglas Francis Welch, Thurlaston, near Rugby, Richard Allan Bell, Rugby, and Kenneth Barrington Randall, Coventry, England, assignors to The British Thomson-Houston Company Limited, a British company
Application June 4, 1952, Serial No. 291,618
Claims priority, application Great Britain June 7, 1951
2 Claims. (Cl. 60—39.14)

1. In apparatus for starting a prime mover, the combination comprising, a prime mover starter mechanism provided with a gas inlet, a source of supply of a monofuel, a first chamber having an inlet, an outlet and a heating means, a second chamber provided with greater volumetric capacity than said first chamber, which second chamber is provided with first and second inlets and an outlet, a third chamber provided with greater volumetric capacity than said second chamber, which third chamber is provided with first and second inlets and an outlet, combined means connecting said source of supply of a monofuel with said inlet of said first chamber and the first inlets of said second and third chambers, conduit means connecting the outlet of said first chamber with the second inlet of said second chamber, con-



duit means connecting the outlet of said second chamber with the second inlet of said third chamber, and conduit means connecting the outlet of said third chamber with the gas inlet of said prime mover starter mechanism.

2,775,866
STARTERS FOR PRIME MOVERS SUCH AS GAS TURBINES
Kenneth Barrington Randall, Coventry, England, assignor to The British Thomson-Houston Company Limited, a British company
Original application June 4, 1952, Serial No. 291,618. Divided and this application September 10, 1954, Serial No. 455,316
Claims priority, application Great Britain June 7, 1951
1 Claim. (Cl. 60—39.14)

In apparatus for starting a prime mover, the combination comprising, a prime mover starter mechanism provided with a gas inlet, a first chamber having an inlet and an outlet, means for delivering through said first chamber inlet a spray of a monofuel which exothermically decomposes under elevated temperature and pressure conditions, heating means for said first chamber to raise the temperature thereof to initiate decomposition of the monofuel sprayed therein by which decomposition a gaseous pressure results at temperatures in excess of the minimum required to effect self-sustained decomposition of the monofuel, a second chamber having an inlet and outlet which chamber is provided with a greater volumetric capacity than said first chamber, means for delivering through said second chamber inlet a spray of said monofuel, conduit means connecting the outlet of said first chamber with the inlet of said second chamber through which flows gas at temperatures and pressures in excess of the minimum requirements to effect decomposition of the monofuel delivered to said second chamber, and conduit means connecting said outlet of the second chamber with the gas inlet of said starter mechanism through which gas flows to effect starting of the prime mover.

2,775,867
RAM JET ENGINES
Whitney Collins, Detroit, Mich., assignor to Continental Aviation & Engineering Corporation, Detroit, Mich., a corporation of Virginia
Application August 22, 1952, Serial No. 305,795
6 Claims. (Cl. 60—39.72)

5. A ram jet engine having an elongated open end pipe section through which a combustible fuel-air mixture flows, and an annular flame holder assembly V-shaped in cross-section in a radial plane containing the axis of said

pipe section, said flame holder assembly disposed substantially concentrically within said pipe in a plane normal to the axis of said pipe and said fuel air stream, and having an annular pilot burner secured to the upstream

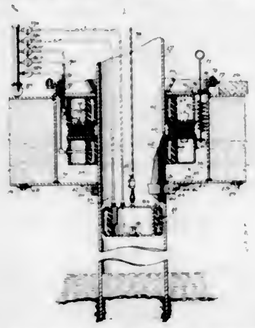
edge of said flame holder, said flame holder having an annular exhaust port and an annular inlet opening, said pilot burner constructed to register with the annular inlet opening of the flame holder whereby to discharge a continuous annular flame directly into the annular sheltered zone in said flame holder.

2,775,868
LIQUID PRESSURE RELAYS
Henry William Trevaskis, Solihull, England, assignor to Dunlop Rubber Company Limited, London County, England, a British company
Application August 24, 1951, Serial No. 243,536
Claims priority, application Great Britain September 16, 1950
8 Claims. (Cl. 60—54.6)

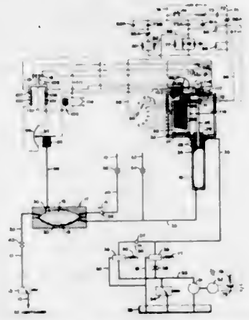
5. A pressure liquid relay comprising a cylinder having an inlet at one end and an outlet valve seat and an outlet therefrom at the opposite end, an annular piston slidably fluid-tightly in said cylinder between said inlet end and said outlet valve seat and having an annular valve seat facing said outlet valve seat and having a passage from said annular valve set through said piston, a valve element movable between said annular valve seat and said outlet valve seat and having a stem projecting axially through said piston to stop at the inlet end of said cylinder, a compression spring extending between the outlet side of said valve element and the outlet end of said cylinder to bias said valve to seat on said annular valve seat, a second compression spring supported by said stem to bear on the inlet side of said piston and biasing said piston to bring said annular valve seat into engagement with said valve element, and manually operable means to hold said piston at a distance from said outlet valve seat.

2,775,869
PLATFORM CONSTRUCTION
Robert W. Pointer, Portland, Oreg., assignor to L. B. De Long, Seattle, Wash.
Application April 22, 1952, Serial No. 283,567
81 Claims. (Cl. 61—46.5)

2. A support of the class described including a base having an opening therein, a supporting member extending into said opening, said base having vertically spaced upper and lower abutments thereon, a movable gripping assembly positioned between said abutments, said gripping assembly including an intermediate vertically expansible and collapsible member, laterally expansible upper and lower end members disposed, respectively, above and below said intermediate member, said upper end member being arranged to be moved upwardly into engagement with said upper abutment and said lower end member downwardly into engagement with said lower abutment, means for introducing fluid under pressure into said intermediate member for moving said end members axially away from each other and selectively into engagement with either or both of said abutments, and means for selectively introducing fluid under pressure into said end members for expanding the same laterally into gripping engagement with the supporting member.



2,775,870
LIQUID METERING DEVICE
Ralph E. Bruce and Roger M. McClung, Dayton, Ohio, assignors to Production Control Units, Inc., Dayton, Ohio, a corporation of Ohio
Application July 28, 1954, Serial No. 446,194
19 Claims. (Cl. 62—1)



1. An apparatus for measuring and dispensing liquid charges of uniform weight under variable temperature conditions comprising a reservoir of the liquid to be metered, a dispensing line communicatively connected with said reservoir, and means for delivering a liquid charge of predetermined weight from said reservoir to said dispensing line, said means including a variable displacement metering device, and electrically actuated means for controlling the displacement of said device in accordance with the temperature of said liquid so as to maintain the weight of each charge uniform irrespective of changes in the specific gravity of the liquid.

2,775,871
APPARATUS FOR PRECOOLING AND COOLING RAILROAD CARS
William Wood Prince, Chicago, Ill., assignor to Union Stock Yards and Transit Company, Chicago, Ill., a corporation of Illinois
Application April 16, 1953, Serial No. 349,292
4 Claims. (Cl. 62—24)

1. In a railroad train, an air cooling car and a plurality of refrigerator cars, at least two parallel ducts extending

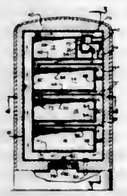
along said cars, releasable, removable connections between ducts on adjacent cars to define with the ducts, parallel, continuous supply and return passages, extending along the train, means on the air cooling car for cooling air, a discharge connection between the cooling means and the supply passage and a return connection between the return passage and the intake side of the cooling

means, each duct on each refrigerator car being ported to permit air flow from the supply to the return duct through the car whereby a closed air circulating system is provided, each refrigerator car being in parallel with the air cooling means, the ports in one duct on each refrigerator car being adjacent opposite ends of the car and the ports on another duct in said car being adjacent the center of the car.

2,775,872
ABSORBENT JACKET FOR PAIL AND PAIL HAVING ABSORBENT JACKET
George Clarence Bell, Greenwood, S. C.
Application October 11, 1955, Serial No. 539,884
1 Claim. (Cl. 62—91)

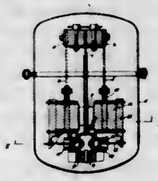
A water absorbent cooling jacket adapted to receive and cover a pail holding minnows or the like comprising a substantially seamless open ended tubular body portion of flexible water absorbent textile material, said body portion being somewhat larger in diameter than the pail when fully distended and adapted to be circumferentially contracted when applied to the pail and to be crimped or pleated during contraction to thereby increase the thickness of the jacket as well as its effective absorbent area, a tubular annular hem formed upon each end of said body portion and adjacent the ends of the pail, and a retractile annular elastic band enclosed within each tubular hem and adapted to be stretched so that the body portion may be applied over the pail, said elastic bands retracting to hold the body portion snugly upon the pail at the ends of the pail, the body portion being substantially crimped or pleated and loosely engaging the pail in its entire region between said elastic bands and tubular hems.

2,775,873
STILL CHILLED REFRIGERATOR
Herbert T. Jones, Harrisburg, Pa.
Application February 21, 1956, Serial No. 566,841
9 Claims. (Cl. 62—102)



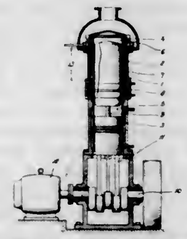
1. A refrigerator comprising an outer shell, a casing spaced within said shell, wall elements defining a plurality of food storage compartments within said casing spaced each from the other vertically, wall means defining in conjunction with said wall elements a continuous air flow passage reversely folded between the top and bottom wall elements of adjacent compartments and along at least one side of said compartments but closed therefrom, and refrigeration means in heat exchange relationship with the air in said passage.

2,775,874
METHOD AND DEVICE FOR COOLING COMPRESSOR TYPE REFRIGERATING MACHINES
Gaston Chausson, Asnieres, France, assignor to Societe Anonyme des Usines Chausson, Asnieres, France, a French company
Application April 13, 1953, Serial No. 348,379
6 Claims. (Cl. 62—117.8)



1. A refrigerating unit of the compression type for a refrigerating apparatus, comprising a compressor having two compression cylinders, two cylinder heads and a carrying element for said cylinder heads and cylinders carried by said cylinder heads, said cylinder heads and carrying element providing a common inner chamber to receive gases compressed in said cylinders, and a vertical condenser including a plate, disposed above said compressor, a condenser tube in thermal contact with said plate, said condenser tube constituting successive inclined loops and being connected at its lower portion with the inner chamber of the compressor, and ducts branched at the lower portions of at least some of said successive inclined loops of the condenser tube and connected to said inner chamber of the compressor, whereby gases exhausted from said inner chamber to said condenser tube are returned to said inner chamber by said ducts primarily in liquid phase where they are vaporized and then exhausted in wet gas phase.

2,775,875
REGENERATOR CONSTRUCTION OF A COLD-GAS REFRIGERATOR
Jacob Willem Laurens Köbler, Leendert de Lange, and Willem Frederik Schalkwijk, Emmasingel, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application January 6, 1955, Serial No. 480,122
Claims priority, application Netherlands January 19, 1954
3 Claims. (Cl. 62—136)



1. A cold-gas refrigerator having a gas invariable chemical composition therein comprising a low-temperature space, a high temperature space, a cooler, a regenerator composed of wire material, a freezer having a temperature lower than −40° C., cylinder means, two pistons re-

ciprocating in said cylinder means, said spaces communicating with each other through said cooler, heater and regenerator while said gas performs a closed thermodynamic cycle therein and the volume of said gas being varied in spaces by said reciprocating pistons, the length L of the regenerator being calculated in accordance with the formula

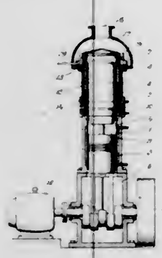
$$\frac{L}{d_h}=C\times P^{0.32}\sqrt{\tau-1}$$

in which

$$P=\frac{p_{max}}{\eta . n}$$

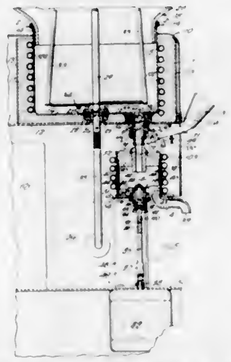
and L=the length of the regenerator measured in cms. between the hot and cold terminal surface, d_h=the hydraulic diameter of the wire material of the regenerator in cms., τ=the quotient of the absolute temperatures of the cooler and of the freezer, p_{max}=the maximum pressure in the cycle in dyne/cm.^{2}, n=number of revolutions of the crankshaft of the machine, and η=the dynamic viscosity of the gas at the mean temperature of the regenerator in poise wherein C is equal to at least 3.5.

2,775,876
REGENERATOR CONSTRUCTION OF A COLD-GAS REFRIGERATOR
Willem Frederik Schalkwijk, Leendert de Lange, and Adriaan Koopmans, Emmasingel, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application January 5, 1955, Serial No. 479,922
Claims priority, application Netherlands January 15, 1954
3 Claims. (Cl. 62—136)



1. A refrigerator of the type described provided with a first space having a temperature of lower than —40° C. and a second space having a higher temperature than said first space further comprising a cooler, regenerator of wire material and freezer, said first and second spaces being in open communication with one another through said cooler, regenerator and freezer, cylinder means enclosing said first and second spaces, a gas of invariable chemical composition performing a closed thermodynamic cycle in said refrigerator, two pistons for reciprocation in said cylinder means to thereby vary the volume of said gas in said spaces, the mean speed of the gas in the regenerator being in accordance with the formula $v/C_k=C_1N^{0.41}$, wherein $N=nd_h/C_k$ and v=the mean speed of the gas in the empty regenerator space in cms. per second, C_k=the sound speed in the gas at the temperature of the space having the higher temperature in cms. per second, n=the number of revolutions of the crankshaft of the refrigerator per second, and d_h=the hydraulic diameter of the wire material of the regenerator in cms. where C_1 is at least 0.5 and at most 1.5.

2,775,877
BEVERAGE COOLING, DISPENSING AND MIXING MACHINE
Herman A. Bruntjen, Minneapolis, Minn.
Application July 23, 1954, Serial No. 445,321
8 Claims. (Cl. 62—141)

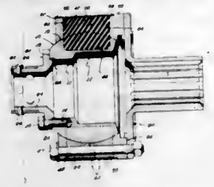


8. In a beverage dispenser, a beverage receptacle, a gravity flow conduit leading generally downwardly from the receptacle and having an open discharge end at a dispensing zone in constant communication with atmosphere, said conduit comprising a diametrically enlarged intermediate portion defining an air chamber having an inlet and an outlet, said outlet being unrestricted and disposed at the bottom of said air chamber, a normally closed control valve associated with said conduit between the receptacle and the air chamber controlling the flow through said conduit and having a control element, and a motor-driven agitator located in said chamber between the inlet and outlet thereof which intercepts the beverage flowing through said chamber and mixes the same with air to a creamy consistency.

2,775,878
KEY AND SCREW ATTACHED GEM SETTING FOR A FINGER RING
Reinhold Eichhorn, Seattle, Wash.
Application January 10, 1955, Serial No. 480,786
3 Claims. (Cl. 63—29)

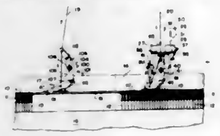
1. A ring of the character described, comprising a shank that is recessed at the top to provide a head seating portion, a radially directed hole and a transverse passage through said head seating portion, a head removably fitted to the head seating portion of the shank, said head being formed with a downwardly opening channel across the base portion thereof for containing said head seating portion therein, and having opposite side portions overlapping with opposite sides of said seating portion; said opposte side portions of the head having openings therethrough registered with the opposite ends of said transverse passage, a key applied through the transverse passage and registered openings to secure the head to the shank, a jewel setting in said head and a screw applied outwardly through the radially directed hole in the seating portion of the shank, through said key, and threaded into said jewel setting.

2,775,879
TORQUE TRANSMITTING COUPLING
Edmond R. Doak, Los Angeles, Calif.
Application February 15, 1954, Serial No. 410,087
11 Claims. (Cl. 64—11)

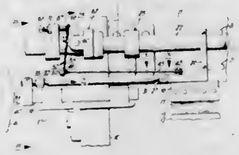


1. A torque-transmitting, impulse-dampening and self-aligning coupling for drive shafts and the like, comprising: an inner ball unit in the form of a spherical segment having an axis of revolution, an end face transverse to said axis of revolution and a bore along said axis; means carried by said end face of the ball unit for connection to a hub; an annular housing unit having an internal surface in the form of a spherical zone adapted to slidably mate with the external surface of the ball unit, and an external cylindrical surface; a plurality of circumferentially spaced, radially directed, parallel sided recesses formed in the housing unit and extending into the ball unit, said recesses having end walls perpendicular to said axis; said housing unit being in two sections mating in a plane perpendicular to the axis of revolution; means for connecting said sections together; a block of resilient composition snugly fitted into a number of said recesses; and a retainer ring carried by the outer cylindrical surface of the housing unit to retain said blocks immovably in said recesses.

2,775,880
METHOD OF AND APPARATUS FOR CHANGING KNITTING PATTERNS
Morris Philip, Bronx, N. Y.
Application March 30, 1956, Serial No. 575,267
28 Claims. (Cl. 66—19)



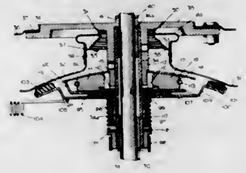
1. A knitting machine comprising at least one needle bank and a plurality of yarn feeds, said yarn feeds being aligned in a path parallel to said needle bank, means to relatively move said yarn feeds and needle bank past one another with said yarn feeds being juxtaposed with respect to said bank of needles so that the yarn supplied by each feed is normally positioned for engagement by the needles of said needle bank which are nearest thereto, some of said yarn feeds being displaceable away from the said normal position into a position in which the needles nearest the yarn feeds cannot engage the yarn supplied thereby, means to displace said displaceable yarn feeds into the said displaced position, means immediately behind yarn feeds which have been displaced, with respect to said relative motion, for engaging the yarn supplied by said displaced yarn feeds and guiding said last named yarn adjacent the yarn normally supplied by the normally positioned yarn feeds immediately behind said displaced yarn feeds whereby the needles nearest said yarn feeds immediately behind said displaced yarn feeds will simultaneously receive yarns supplied by adjacent yarn feeds so that displacement of said displaceable yarn feeds will alter the knitting pattern which will be produced.

2,775,881
GUIDE BAR SHOGGING MEANS FOR KNITTING MACHINES
Joseph Held, West Lawn, Pa., assignor to Textile Machine Works, Wyomissing, Pa., a corporation of Pennsylvania
Application August 26, 1955, Serial No. 530,670
5 Claims. (Cl. 66—86)

1. In a warp knitting machine having a row of needles for knitting yarns into loops, a bar having yarn guides for feeding the yarns to said needles, pattern means for moving said bar lengthwise of the needle row, and resilient means for applying tension to said bar to maintain it in following relation with respect to said pattern means, said resilient means comprising a flat leaf spring, and a link connecting said spring to said bar.

2,775,882
CANDLE HOLDER
Stuart H. Doig, Marengo, Ill.
Application November 9, 1955, Serial No. 545,850
2 Claims. (Cl. 67—23)

1. A candle holder comprising a container formed of flexible material and having a base portion to support the holder, a cap having an upright wall snugly and slideably fitted into said container, a flange on the top of said upright wall overlying the top of said container, a bottom wall connected to the bottom of said upright wall and sloping downwardly therefrom, a plurality of slots in said bottom wall, and knife-like cutting edges on said bottom wall defining the sides of respective slots.

2,775,883
CENTRIFUGAL EXTRACTING AND WASHING MACHINE
Frank H. Burris, Benton Harbor, Mich., assignor, by mesne assignments, to Whirlpool-Seeger Corporation, St. Joseph, Mich., a corporation of Delaware
Application March 30, 1953, Serial No. 345,411
11 Claims. (Cl. 68—23)



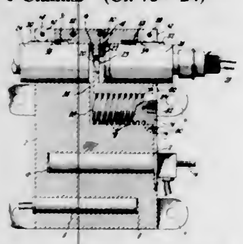
1. A laundry machine comprising a frame structure, a clothes container rotatably mounted therein, a motor,

means driven by said motor for rotatably driving said clothes container including an upright shaft, means damping vibration of said shaft and clothes container comprising a vibration damping member encircling said shaft and yieldably restrained from radial movement with respect to said shaft and having frictional engagement with said frame structure, and centrifugally actuated means operatively connected with said damping member for releasing the same from said frame structure when said clothes container attains its critical speed of rotation.

2,775,884
CYLINDER DEVICE, PARTICULARLY FOR A SAFETY LOCK
Marcel Fresard and Max Huber, Geneva, Switzerland, assignors to Mefina S. A., Fribourg, Switzerland, a Swiss company
Application May 14, 1953, Serial No. 354,995
Claims priority, application Switzerland May 20, 1952
3 Claims. (Cl. 70—364)

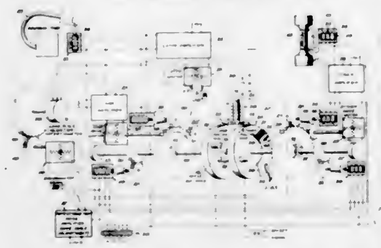
2. A cylindrical device adapted to be used in a safety lock, comprising a cylindrical body having a generally rectangular cross-sectional bore therethrough, a plurality of axially spaced and circumferential grooves in the outer surface of the wall of said body, the bottom wall of each groove having two oppositely positioned orifices therein, each of said orifices extending through the cylinder wall from the wall surface of the bore to the bottom portion of each groove, the opposite faces of each groove having an annular shoulder, one opposite to the other, one of said shoulders having a second groove therein, a plurality of slidably mounted locking plates having central openings and spaced pins extending into said openings from the inner plate walls thereof, each of said plates being positioned transversely in said cylindrical body with respect thereto and in said orifices, each of said plates having notch means for receiving the end of a spring on the outer plate walls thereof, and an annularly shaped spring means in each of said grooves and guided in each of said second grooves for urging said plates transversely in said cylindrical body, each of said springs having the end thereof hooked into said notch means.

2,775,885
GAS ANALYZER RESONATOR BLOCK
Gerald M. Rassweiler, Ferndale, and Edward F. Weller, Jr., Detroit, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 8, 1952, Serial No. 303,384
6 Claims. (Cl. 73—24)



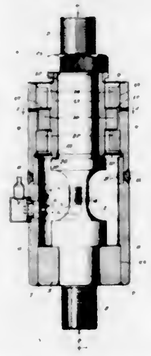
1. In gas analyzing means, a housing, a plurality of equal volume chambers in said housing interconnected by a short tubular duct, an inlet duct in said housing terminating in one chamber for the introduction of gaseous mixtures for analysis electro-mechanical transducer means mounted in each chamber for adjustment therein and forming a wall thereof, movement of which will vary the size of the chamber and common means for simultaneously moving the transducers to adjust the chamber sizes to maintain the two equal but adjust the volumes.

2,775,886
OFFSET YIELD STRENGTH TESTING APPARATUS
Robert P. Lathrop, Chevy Chase, Md., and Lawrence K. Hyde, Washington, D. C., assignors to Baldwin-Lima-Hamilton Corporation, a corporation of Pennsylvania
Application May 20, 1953, Serial No. 356,282
25 Claims. (Cl. 73—88)



1. Apparatus for determining an offset yield strength of a specimen of material loaded through its elastic range, which is linear, into its plastic range, which is non-linear, comprising, in combination, load responsive means, strain responsive means, means jointly controlled by said load and strain responsive means so as to respond to the ratio of the magnitude of specimen strain to the magnitude of specimen load during an interval in the elastic range, and means responsive to a predetermined departure in the response of said load and strain means from said ratio existing during said interval in the elastic range so as to produce an indication upon occurrence of said predetermined departure thereby to define the offset yield strength.

2,775,887
LOAD CELL TYPE DYNAMOMETER WITH OVERLOAD PROTECTION MEANS
Frank F. Hines, Arlington, Mass., assignor to Baldwin-Lima-Hamilton Corporation, a corporation of Pennsylvania
Application June 11, 1953, Serial No. 360,935
4 Claims. (Cl. 73—141)



1. A load weighing device comprising, in combination, a base, a hollow supporting structure having a lengthwise axis which extends substantially at right angles to the base and is connected thereto for transmitting a force in

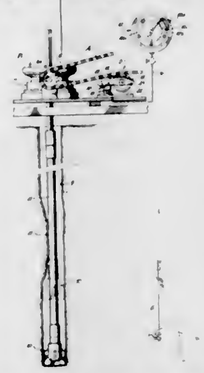
such axial direction, an axially extending load transmitting unit spaced from said base, a load sensitive element having ends that are relatively axially movable in response to load, said ends respectively having load transmitting connection with said base and unit to transmit axial forces from one to the other, whereby the sensitive element is operated in accordance with load acting on said unit and on the other end of the load sensitive element; a plurality of axially spaced flexure members operatively connected to said supporting structure and to said unit, said flexure members being axially flexible but relatively radially rigid for laterally supporting and axially guiding the unit within said supporting structure so that an axial component of load is transmitted to said load sensitive element substantially independent of lateral and eccentric load effects on the unit, means providing a shoulder on said unit between said flexure members and extending laterally from the unit toward the supporting structure, and stop means also disposed between said flexure members and connected to said supporting structure for engagement with said shoulder upon occurrence of a predetermined relative axial movement between said unit and the other end of the load sensitive element.

2,775,888
DEVICE FOR MEASURING TACKINESS
Bryan Pickup, Sutton Coldfield, England, assignor to Dunlop Rubber Company Limited, London County, England, a British company
Application October 19, 1954, Serial No. 463,232
Claims priority, application Great Britain October 30, 1953
10 Claims. (Cl. 73—150)

1. A device for measuring the tackiness of a surface of material comprising a holder for a specimen of the material, a guide secured to said holder, a weight freely slidable along said guide, at least one spring connecting said holder to said weight and an indicator movable along said guide by contact with said weight and having a frictional contact with said guide to maintain its position thereon when not moved by said weight or other moving force, thereby to indicate the deflection of the spring when the weight is moved along the guide away from the holder.

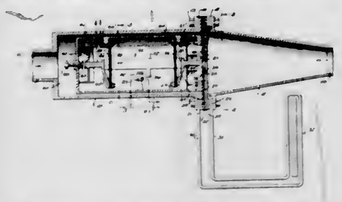
2,775,889
TORQUE DETERMINING METHOD
Elmer L. Decker, Long Beach, Calif., assignor to Martin-Decker Corporation, Long Beach, Calif., a corporation of Delaware
Application March 19, 1951, Serial No. 216,323
5 Claims. (Cl. 73—151)

1. The method of determining the torque of a tool operated by the rotary drill string of well drilling apparatus while the tool is positioned in a well, which consists in applying to the drilling apparatus a torque indicating means which will operate responsive to the torque developed in the drill string, positioning the tool in the well, rendering the tool inoperative in the well; rotating the drill string and tool while the latter is inoperative, at a rate at which the tool subsequently may be worked in the well; adjusting the indicating means to show a zero



reading while the inoperative tool is rotated in the well; rendering the tool operative; and then rotating said string to operate the tool whereby the torque reading of the indicating means is according to the torque developed in the tool.

2,775,890
FLUID FLOWMETER
Cloyd D. Waldron, Berea, Ohio
Application January 20, 1954, Serial No. 405,266
7 Claims. (Cl. 73—207)
(Granted under Title 35, U. S. Code (1952), sec. 266)

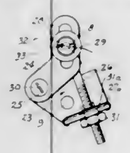


1. A flowmeter comprising a tubular structure forming a flow chamber having an inlet and outlet for fluid flow therethrough; a plate positioned across said chamber between said inlet and outlet, said plate having an orifice therethrough; a valve formed as a closure head for said orifice; valve support means permitting movement of said valve to increasingly open position with increase of fluid pressure drop across said orifice and movement to decreasingly open position with decrease of fluid pressure drop across said orifice, said support means including a rigid member attached to said valve, a shell supported within and by said structure enclosing the rigid member of said valve, and flexible connections extending between said shell and rigid member whereby said support means are free of sliding friction; and means connected to said structure and movable in accordance with the differential of pressures between the upstream and downstream sides of said plate for indicating the rate of fluid flow through said flowmeter.

2,775,891
TANGENTS
Robert Ritson Douglas, Erie, Pa., assignor to American Meter Company, Incorporated, Erie, Pa., a corporation of Delaware
Application August 4, 1954, Serial No. 447,798
5 Claims. (Cl. 73—281)

1. In a tangent, a wrist pin, a bracket adapted to be fixed to a crankshaft, a lever pivoted on the bracket at a

point laterally offset on the lagging side as regards the direction of rotation of the crankshaft of a center line connecting the crankshaft and wrist pin, means mounting the wrist pin on the lever for movement relative to



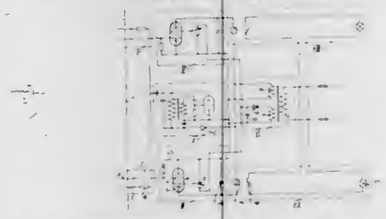
the lever along said center line and for pivotal movement with the lever about its pivot, releasable means for locking the lever in any selected angular relation to the bracket, and other releasable means for locking the wrist pin to the lever in any selected position along said center line.

2,775,892

APPARATUS FOR INDICATING THE STATE OF CHARGE OF BUNKERS

Franz Gödde, Essen, Germany, assignor, by mesne assignments, to Koppers Company, Inc., Pittsburgh, Pa., a corporation of Delaware

Application February 13, 1953, Serial No. 334,893
5 Claims. (Cl. 73—304)



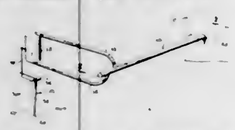
1. In combination with a bunker, a state of charge indicator for said bunker comprising: at least one electrode probe pair projecting into the chamber of said bunker at a selected charge measuring station, the probes of said pair being so spaced as to permit electrically conductive bulk material charged into said bunker to penetrate freely between said probes when sufficient quantities of material have accumulated within said bunker to reach the height of said probes; a thyratron tube having its grid connected to one probe of said electrode pair; a relay connected to the said thyratron tube, said relay being adapted to be actuated when said thyratron tube is fired; an indicating device connected to said relay adapted to be actuated by said relay; and a generator having one side connected to the cathode of said thyratron tube and the other side to the other probe of said electrode pair, adapted to deliver voltage to said probes whereby a current will pass between said probes when said charged material displaces air between said probes, thus causing said tube to fire and said indicating device to operate.

2,775,893

DENSITY INDICATING APPARATUS

Ethbert R. Nett, Beverly Hills, Calif.

Application December 7, 1953, Serial No. 396,446
8 Claims. (Cl. 73—434)



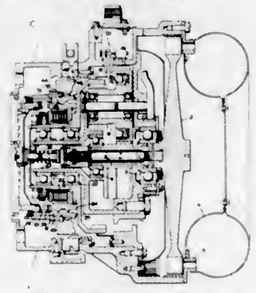
1. Apparatus for indicating the density of a fluid, comprising: a frame member; a substantially horizontally disposed tubular main conduit supported by said frame member; first and second auxiliary conduits rigidly connected to said main conduit and extending away from one side of said main conduit in a substantially horizontal direction; means connecting said auxiliary conduits together at their ends remote from said main conduit for fluid flow therethrough from one auxiliary conduit to the other; an inner tubular conduit coaxially disposed within said main conduit and isolating the interior thereof into two separate coaxial chambers, the first auxiliary conduit being in communication with one of said chambers and the second auxiliary conduit being in communication with the other of said chambers whereby a fluid to be weighed may pass from one of said chambers to the other by means of the said auxiliary conduits; and indicating means operatively connected to said auxiliary conduits and responsive to movement thereof resulting from torsional deflection of one of said coaxial tubular conduits.

2,775,894

PNEUMATIC ENGINE STARTER

Henry Troeger, Ramsey, and Samuel Gilbert, Cedar Grove, N. J., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application March 7, 1955, Serial No. 492,457
8 Claims. (Cl. 74—7)



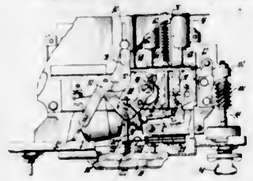
1. In a pneumatic engine starter including a screw shaft and air driven turbine means for driving the screw shaft, a travel nut threadedly engaged upon the screw shaft, a spring cushioned starter jaw splined to the travel nut and adapted to be advanced axially by axial travel of the latter, and a ring element having a relatively high polar movement of inertia threadedly engaged upon the travel nut, the ring element adapted to move in a direction opposite to that of the travel nut upon rotation of the latter, the ring element having a conical surface engageable with a complementary surface of fixed ring upon rotation of the travel nut and consequent movement of the ring element causing a drag upon the travel nut whereby the latter is caused to move axially along the screw shaft.

2,775,895

AUTOMATIC RADIO TUNING MEANS

William R. Kearney and Bertram A. Schwarz, Kokomo, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application June 28, 1954, Serial No. 439,624
7 Claims. (Cl. 74—10.52)



1. In radio receiving apparatus having variable means for tuning said apparatus over a predetermined band of

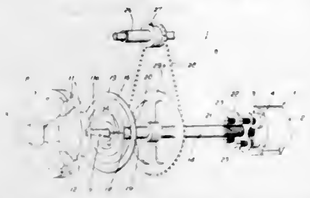
frequencies, movable means upon which the variable means is mounted, a cam, means on the movable means engaging said cam so that rotation of the same will move the movable means, planetary gear means connected to the cam to drive the same, a motor, means connecting said motor to the planetary gear means to drive the same and manual means connected to the planetary gear means to alternatively drive the same.

2,775,896

RADIO FREQUENCY TUNER

John O. Silvey and Harold L. Overman, Fort Wayne, Ind., assignors to International Telephone and Telegraph Corporation, a corporation of Maryland

Application August 9, 1952, Serial No. 303,458
6 Claims. (Cl. 74—10.85)



1. In a rotatable radio frequency tuner capable of operating over two separate and distinct frequency spectrums, a first dial calibrated to indicate channels lying in the first frequency spectrum, and a position for tuning in a second frequency spectrum, a second dial operative when said first dial is in said position and calibrated to indicate channels lying in the second frequency spectrum, said second dial having a spiral cam groove on a face thereof, the space between successive radial traces of the groove containing said calibrations, a channel indicator radially mounted on said face and comprising a guide slidably cooperating with at least one trace of the spiral groove, whereby rotation of said second dial causes said marker to move radially on said face and indicates the channel to which the tuner is being tuned.

2,775,897

POWER TRANSMISSION APPARATUS

Joseph S. Nider, Michael A. Nider, and John F. Nider, Export, Pa.

Application September 8, 1954, Serial No. 454,671
1 Claim. (Cl. 74—14)

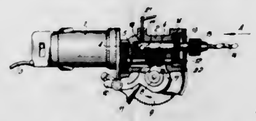
An automobile wheel drive power transmission apparatus of the class described, comprising, in combination, an oblong rectangularly-shaped base frame including a pair of side members joined together at one end by an end member, a plurality of transversely extending supporting rollers rotatably mounted in said base frame for supporting the wheel and being disposed at varying elevations with respect to each other, means carried by said base frame operable for simultaneously securing said supporting rollers against rotation in said base frame, an end frame having the lower end thereof pivotally connected at the joined ends of said side members adjacent to said end member, said end frame abutting against said end member to prevent the outward movement thereof from the vertical in said base frame, a transversely extending drive shaft journaled for rotation in the upper end of said end frame, a transversely extending drive roller fixed on said shaft for driving engagement by the wheel, a power transmission pulley fixed on one end of said shaft, an adjustable end frame having the lower end thereof pivotally connected at the free ends of said side members and carrying a transversely rotatable roller at the upper end thereof for engagement by the wheel, and means engaging said base frame and said adjustable end frame for securing the latter in the adjusted position on said base frame.

2,775,898

POWER-DRIVEN HAND DEVICE TO BE USED AS A TOOL FOR MULTIPLE PURPOSES

Otto Baier, Ludwigsburg, Germany

Application June 25, 1953, Serial No. 364,154
Claims priority, application Germany March 12, 1953
1 Claim. (Cl. 74—22)



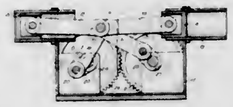
A drill spindle means comprising an elongated shank supported in a cylindrical sleeve, and a projecting end carrying a drill chuck, a thrust bearing in said sleeve at the end of said shank remote from said chuck, said shank comprising two sections having interengaging cam surfaces, means by which the section of said shank adjacent said thrust bearing may be secured against rotation, and means to positively rotate the section of said shank on which said chuck is mounted.

2,775,899

MECHANICAL MOVEMENT FOR RECIPROCATING MACHINES

Clayton L. Vagneur, Denver, Colo.

Application April 26, 1954, Serial No. 425,571
4 Claims. (Cl. 74—44)



1. A mechanical movement comprising a pair of spaced parallel, rotatable shafts, means for locking said shafts to rotate at the same angular velocity and in opposite directions, means providing a crank arm on each shaft, crank pins on said arms at equal distances from the axes of their respective shafts, and a pair of links of equal length pivoted to each other at one end and each connected to a respective one of said crank pins at its other end, said crank arms being positioned to lie in the plane of the axes of said shafts when extending to the same sides of their respective shafts, the length of said links being approximately the distance between the axes of said cranks when said cranks are at angles of 45° to said plane divided by the square root of two.

2,775,900

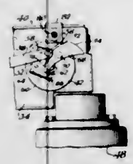
WINDSHIELD WIPER DRIVE AND PARKING MECHANISM

George Vischulis, Jr., Norridge, Ill., assignor to Stewart-Warner Corporation, Chicago, Ill., a corporation of Virginia

Application March 17, 1954, Serial No. 416,802
3 Claims. (Cl. 74—70)

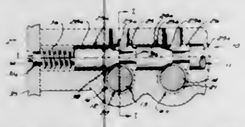
1. In a windshield wiper drive, the combination of a rotary driving member, a lever swingably mounted on the driving member so that the outer end of the lever is movable toward and away from the rotary axis of

the driving member, a wiper blade operating linkage connected to the outer end of the lever, biasing means mounted to urge the outer end of the lever toward the driving member axis to a normal operating position, means for limiting swinging movement of the lever on the driving member, a shifting member pivotally mounted



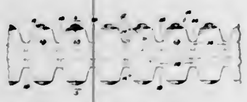
on the driving member for engagement with structure carried by the lever, and a shiftable control member movable into the path of the shifting member for operating the latter to shift the end of the lever connected with the operating linkage outwardly from the driving member axis upon continued movement of the driving member in the same direction to extend the operating linkage beyond its normal stroke to a parking position.

2,775,901
SHIFT ACTUATED CONTROL DEVICE
Charles M. Perkins, Kalamazoo, Mich., assignor to Fuller Manufacturing Company, a corporation of Delaware
Application January 31, 1955, Serial No. 484,892
10 Claims. (Cl. 74—110)



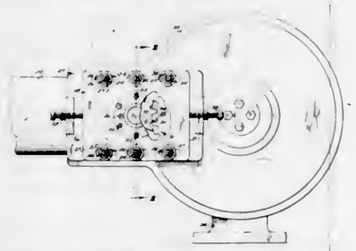
1. A shift actuated control device operable by one of a plurality of cylindrical shift rods axially slidable within a housing, the combination comprising: means providing a coaxial, annular groove in each of said rods, said grooves each having a conical end wall diverging away from the center thereof; a cylindrical actuator unit axially slidably disposed in said housing transversely of said rods, the extended axis of said unit being spaced from said rods and said unit having a coaxial, conical surface at its one end engageable with each of said conical end walls, the other end of said unit being extendable from said housing; and resilient means continuously urging said surface against said end walls, axial movement of said rod effecting axial movement of the other end of said unit out of said housing when one of said surfaces is engaging one of said end walls.

2,775,902
BELT
Dale B. Rush, Columbus, Ind., assignor, by mesne assignments, to The Reliance Electric and Engineering Company, Cleveland, Ohio, a corporation of Ohio
Application April 8, 1954, Serial No. 421,795
2 Claims. (Cl. 74—234)



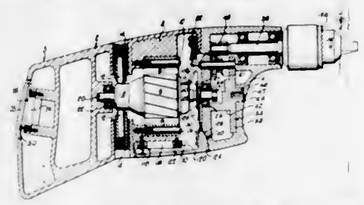
1. An edge-active belt comprising a body strand formed of material of high tensile strength but readily flexible both longitudinally and transversely, said strand having formed integrally along the opposite edges thereof flanges extending in both directions from the plane of said strand and presenting opopsitely facing surfaces allochirally angularly related to the longitudinal median plane of said strand, said flanges, along the opposite edges of each thereof, being notched toward the adjacent surface of said body strand to define opposed pairs of pad members, a plurality of pairs of transversely rigid stiffener blocks arranged on the opposite surfaces of said strand in registry with each such pair of pad members and with the ends thereof in pressure-sustaining engagement with the adjacent surfaces of such pad members, and means penetrating each of said pairs of stiffener blocks and said body strand and operable to so clamp said stiffener block pairs to the opposite surfaces of said body strand.

2,775,903
ADJUSTABLE GEARING
Wade R. Reed, Tulsa, Okla.
Application June 4, 1953, Serial No. 359,496
3 Claims. (Cl. 74—397)



1. In a variable speed transmission for a pump, a housing, a crankshaft positioned in said housing, a gear wheel connected to said crankshaft, a casing extending from said housing, a body member slidably connected to said casing, a drive shaft carried by said body member and adapted to be connected to a power source, gear means connecting said drive shaft to said crankshaft, said body member being provided with a plurality of spaced elongated slots, securing elements extending through said slots and into engagement with said casing, said gear means comprising a gear wheel connected to said crankshaft, a pinion gear meshing with said gear wheel and detachably mounted on said drive shaft, an inner portion of said drive shaft being tapered for receiving said pinion gear, and means for adjusting said body member, said last named means comprising a pair of spaced parallel lips extending from said casing, and securing elements arranged in engagement with each of said lips and abutting said body member.

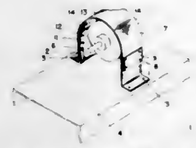
2,775,904
PORTABLE TOOL
David N. Edwards, Greenwich, Conn.
Application August 2, 1954, Serial No. 447,059
17 Claims. (Cl. 74—472)



1. In a change speed transmission the combination with terminal gears comprising an input gear and an output gear, of a gear train for connecting said input and

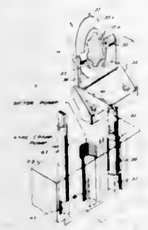
output gears made up of a series of interengaged driving gears having drive ratios such that successive driving gears turn at different speeds, each driving gear being movable with said train into mesh with one of said terminal gears, all of said driving gears of said train being in constant engagement with the other terminal gear, a support for said gear train movable to bring the driving gears successively into driving relation to said one terminal gear, a motor for turning said input gear, and motor-reversing means actuated by the gear-shifting movement of said gear train support to reverse the direction of rotation of said input gear as the gear train is moved from one power-transmitting position to the next.

2,775,905
SAFETY GUARD
Stacy L. Jackson, Glen Burnie, Md., assignor to W. R. Grace & Co., New York, N. Y., a corporation of Connecticut
Application January 7, 1954, Serial No. 402,709
6 Claims. (Cl. 74—609)



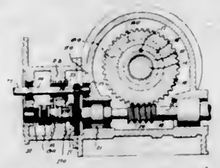
1. A safety guard comprising a pair of opposed upright members, the sides of at least one of said members being bent inwardly to form a channel, means for securing said upright members, and an elongated flexible covering member secured at one end to one of said upright members, the free end of said covering member being inserted into the channel of the second upright member to form an inverted U-shaped guard.

2,775,906
VALVE OPERATOR
Lynn T. Elliott and Leon Ince, Houston, Tex.
Continuation of application Serial No. 172,918, July 10, 1950. This application October 11, 1955, Serial No. 539,791
27 Claims. (Cl. 74—625)



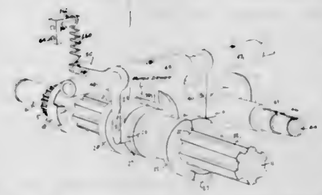
1. In a valve control unit adapted to be mounted on a valve to operate it, in combination, a handcrank mounted on the unit, a motor mounted on the unit, a manually operable clutching member within the unit connected to said handcrank and adapted to be turned when said handcrank is turned, a motor operable clutching member within the unit connected to said motor and adapted to be turned when said motor is turned during actuation thereof, a reciprocable clutch member adapted to be in operative engagement with but one of said respective clutching members at one time, means operable by the turning of said handcrank to urge said clutch member toward clutching engagement with said manually operable clutching member, and means automatically responsive to the turning of said motor to urge said clutch member toward clutching engagement with said motor operable clutching member.

2,775,907
VALVE OPERATOR
James N. Morrell, Piney Point, and Leon Ince, Houston, Tex.
Application November 21, 1955, Serial No. 548,181
11 Claims. (Cl. 74—625)



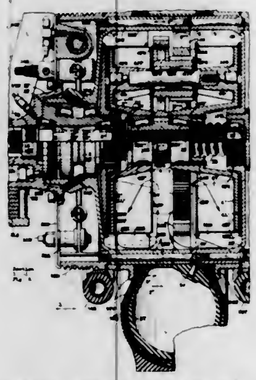
1. In a non-coincidental operator having a rotary member for operating a valve or the like, in combination, a power actuatable gear, a manually actuatable gear, gear means for driving the rotary member, a reciprocable clutch member operable in either of two positions to provide a drive connection in one of said positions between said gear means and the power actuatable gear and in the other of said positions between the gear means and the manually actuatable gear, fluid actuated mechanism for shifting said clutch member from one of said operable positions to the other through an intermediate neutral position, a pressure responsive member carried by said clutch member as a part thereof, a cylinder for said pressure responsive member, the respective axes of said clutch member and of said cylinder being coincidental, means for actuating said power actuatable gear, means for simultaneously supplying actuating fluid to the cylinder on one side of said pressure responsive member to shift said clutch member to power drive connection position if it is not already in such power drive connection position, means for actuating said manually actuatable gear, and means for simultaneously supplying actuating fluid to the cylinder on another side of said pressure responsive member to shift said clutch member to manual drive connection position if it is not already in such manual drive connection position.

2,775,908
DRIVE SOURCE SHIFTING DEVICE FOR VALVE CONTROL OR THE LIKE
Lynn T. Elliott and James N. Morrell, Houston, Tex.
Application September 19, 1952, Serial No. 310,528
28 Claims. (Cl. 74—625)



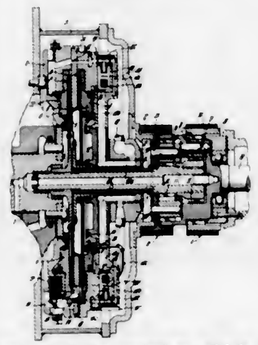
1. A device for transmitting a power driven or a manually applied force alternately and comprising, a driven shaft, a manually operated means adapted for selective driving connection with said driven shaft, a power driven mechanism adapted for selective driving connection with said driven shaft, a clutch which is alternately operable to connect either said power driven mechanism or said manually operated means with said driven shaft, a clutch shifter for engagement with said clutch, resilient means urging said clutch shifter to position said clutch to connect said manually operated means to drive said driven shaft, and a governor operably responsive to rotation of said power driven means to move said clutch shifter against the urging of said resilient means to position said clutch to connect said power driven mechanism to drive said driven shaft.

2,775,909
COMBINED HYDRODYNAMICAL AND COMPOUNDED PLANETARY GEARING DRIVEN, INTERNAL FLUID PRESSURE AXIALLY OPPOSITELY ACTUATED AND CONTROLLED, DUAL FLOW TYPE OF VARIABLE REVERSIBLE TRANSMISSION COUPLER
Frank David Butler, Venice, Calif.
Application March 23, 1954, Serial No. 418,106
9 Claims. (Cl. 74—731)



1. In a combined hydrodynamical and compounded planetary gearing driven, externally applied internal fluid pressure variable and reversible transmission coupler applicable as forming the hub proper of a traction wheel and equipped with a one direction rotatable elongated internally splined, sun-gear slidable axially upon an elongated shaft and forming the gearing driving member, an elongated coaxially rotatable and slidable combined dual row vaned fluid impeller and planet-gear-carrier forming the hydrodynamical driving and intermediate member, an elongated concentrically rotatable combined orbit-gear-carrier and dual row bucketed closed fluid receptacle casing forming the gearing and hydrodynamically driven member and having a closed end, an elongated flanged tubular stator member projecting a predetermined distance within the inner end of said driven member and having a flanged disc secured to its coupler end, a resilient spring interposed between the outer end of said sun-gear and a fixed bearing race secured to said shaft and wherein said spring initially axially displaces said sun-gear upon said shaft and causes said intermediate member to initially brake against said disc of said stator member, and, means for supplying fluid under a variable pressure to within said driven member, the provision and combination therein such coupler of: an elongated helical spline machined externally in said shaft and over which said sun-gear and intermediate member are jointly slidable axially and which spline, during the period it is rotatively driving said sun-gear, causes the latter and including said intermediate member to be displaced axially thereon towards the closed end of said driven member and results in collapsing said spring and causing said intermediate member to be clutched against said closed end of said driven member, and, during the period such shaft is driven by said sun-gear through such helical spline, causes said sun-gear to be displaced axially thereon towards said disc of said stator and results in said intermediate member being braked against such disc; means for progressively hydrodynamically braking said intermediate member against said disc of said stator in parallel with said resilient spring and such helically splined shaft actuating means for producing such braking; means for progressively hydrodynamically clutching said intermediate member against said closed end of said driven member in parallel with such helically splined shaft actuating means for producing similar clutching; means for applying said externally applied internal fluid pressure in a variable member to within said driven member for bolstering said braking of said intermediate member against said disc in parallel with such progressive hydrodynamical means, such helically splined shaft actuating means, and said resilient spring for producing similar braking; means for applying said externally applied internal fluid pressure in a variable manner to within said driven member for bolstering said clutching of said intermediate member against said closed end of said driven member in parallel with such progressive hydrodynamical means, and such helically splined shaft actuating means for producing similar clutching; and means for dual compounding the planetary gearing in the form of a series of tandem planet-gears symmetrically spaced about and each provided with a relatively large diameter gear meshing with said sun-gear and an integral tandem relatively small diameter gear meshing with an internally toothed relatively large diameter orbit-gear carried by said driven member.

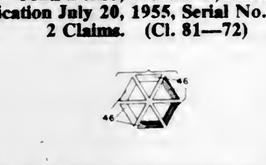
2,775,910
SPEED RESPONSIVE FLUID CONTROL MEANS
Daniel Coyle Wilkerson, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 15, 1951, Serial No. 206,044
36 Claims. (Cl. 74—751)



14. In a change-speed transmission which includes a plurality of step-ratio gear trains, and plural clutches adapted to be engaged in a selective pattern of engagement for establishing drive by said trains between driving and driven shafts, a source of fluid pressure, control valving operative to direct the pressure of said source for actuating said clutches in said pattern, fluid pressure operated actuator means for said clutches, fluid pressure passages for connecting said source and said valving to said means, and a regulating valve located in at least one of said passages, said valve including a coil spring capable of elongation and compression and responsive to the speed of said driving shaft to elongate or compress for varying the flow between the turns of said coil spring and thereby causing the clutch actuating pressure of said one passage to rise with the said shaft speed.

2,775,911
METHOD OF EMBOSSING A METAL ROLL
Henry M. Richardson, Springfield, Mass., and Wesley S. Larson, Hazardville, Conn., assignors to The Grote Manufacturing Co., Inc., Bellevue, Ky., a corporation of Kentucky
Application November 14, 1951, Serial No. 256,351
6 Claims. (Cl. 76—107)

1. The method of embossing a metal roll for producing a continuous flexible strip of optically homogeneous material having lenticular protuberances from one surface thereof, which comprises mounting the roll for rotation thereof, holding a roller in spaced relation to the roll and for rotation of the roller, supplying loose substantially spherical beads of glass-like material between the roll and the roller in substantially a layer of one bead in



thickness, the beads being of substantially the same size and having an optically smooth surface, the roller being spaced from the roll a distance less than the diameter of the smallest bead, and rotating the roll and the roller for passing the beads therebetween and for pressing the beads partially into the roll to form cavities therein of spherical shape and with optically smooth surface.

2,775,912
DOUBLE SOCKET WRENCH HAVING UNIVERSAL JOINT DRIVES
Wallace Vernon Skage, Soap Lake, Wash., assignor to General Electric Company, a corporation of New York
Application July 27, 1955, Serial No. 524,723
4 Claims. (Cl. 81—55)

1. A multiple socket wrench comprising coaxial inner and outer drive shafts, means for effecting rotation of said drive shafts, an inner and an outer universal joint drivingly connected to the inner and outer drive shafts respectively and inner and outer wrench sockets drivingly connected to the inner and outer universal joints respectively, whereby said wrench sockets are independently rotatable with respect to each other.

2,775,913
SELF-GRIPPING TOOL WITH RESILIENT WIRES FOR TURNING SOCKET HEAD FASTENERS
John Deliso, Worcester, Mass.
Application July 20, 1955, Serial No. 523,214
2 Claims. (Cl. 81—72)

1. A tool for holding and turning a hexagonal socket head fastener, said tool comprising a plurality of elongated conjoined but separate wires arranged around a central axis, each wire having a cross section in the form of a triangle, means holding the wires in parallel relationship, said wires having corresponding free ends slightly spaced apart, said wires being springy and each having substantially flat sides, a flat side of each wire facing a corresponding side of an adjacent wire so that they will form a full regular hexagon section when pressed together, to substantially fit and fill the hexagonal socket of the fastener.

2,775,914
SOCKET WRENCH SET
John J. Deliso, Shrewsbury, Mass.
Application March 1, 1954, Serial No. 413,034
3 Claims. (Cl. 81—114)

1. A socket wrench comprising a solid shank having a longitudinal slot at one end thereof, an enlarged recessed cylindrical head on the shank at the slotted end, said slot bisecting the head and recess and rendering the shank compressible in the slotted portion thereof, said shank being slightly tapered adjacent the head to provide a portion gradually decreasing in diameter in a direction away from the head to a portion of uniform diameter, a straight, hollow, cylindrical sleeve on the shank having an interior diameter slightly greater than that of the shank at the uniform portion thereof but less than the diameter of a major part of the tapered portion of the shank when said tapered portion is uncompressed, said sleeve having a circular edge at one end thereof to bear on and compress the tapered portion of the shank when the sleeve is moved to engage said sleeve edge with the tapered portion.

2,775,915
KEY MECHANISM FOR MUSICAL INSTRUMENTS
Devoe C. De Ford, Elkhart, Ind., assignor to H. & A. Selmer, Inc., Elkhart, Ind., a corporation of Indiana
Application July 2, 1953, Serial No. 365,598
4 Claims. (Cl. 84—380)

1. Key mechanism for woodwind instruments and the like, said mechanism being mounted on the body of the instrument and comprising resiliently urged movable means, spaced tone hole covers separately operable and carried by said means, a control element projecting from said means for each tone hole cover, a key pivotally mounted adjacent said means, spring means urging one end of said key away from the instrument body, a rocker pivoted centrally thereof to the other end of said key and overlying said control elements in constant contact with both said control elements by virtue of said spring means, safety means associated with said movable means ineffective while said rocker is operable but effective if said rocker is unable to maintain contact with said control elements to preclude the opening of more than one of said tone hole covers at a time, said safety means including a centrally pivoted rocker on the other side of said resiliently urged means from the first said rocker, and a control element projecting from said resiliently urged means for each tone hole cover and overlying an end of the last said rocker in contactable position therewith.

2,775,916
MACHINE SCREW HOLES MOLDED IN PLASTIC ARTICLES
William E. Baxter, Parkersburg, and Lewis E. Palmer, Washington, W. Va., assignors to Union Insulating Co., Inc., Parkersburg, W. Va., a corporation of West Virginia
Application October 7, 1953, Serial No. 384,596
9 Claims. (Cl. 85—32)

1. A molded or cast article of plastic material having screw threads for mating with V-shaped screw threads of metal, said plastic threads being molded and having a depth of approximately one-sixth of the depth of the mating metal threads, and also having substantially 60° valleys which receive only the tip portions of the V-shaped metal threads.

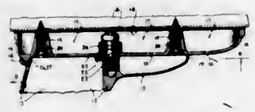
2,775,917
SHEET METAL NUT WITH SEALING MEANS
William C. Ferguson, St. Louis, Mo., assignor, by mesne assignments, to American-Marietta Company, Chicago, Ill., a corporation of Illinois
Application July 31, 1951, Serial No. 239,519
7 Claims. (Cl. 85—36)

1. A female fastener element comprising a metal member of concavo-convex form and thereby having a concave face and a convex face, said member being capable of being flattened from its concavo-convex form, said member having an opening completely therethrough for receiving a threaded male fastener element and provided with thread means for cooperation with the threaded male fastener element, and a layer of soft, tacky, coherent extrudable sealing material adhered to the concave face of said metal member, said layer, in its initial condition prior to use of the element to make a fastening, being of substantially uniform thickness and covering the entire surface of the concave face, and being continuous over the opening.

2,775,918
MOUNT FOR REFLECTING AXICON
John Henry McLeod, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application March 14, 1955, Serial No. 494,089
1 Claim. (Cl. 88—14)

For use in axicon testing of the alignment of a unit having an axis, a mount for a reflecting cone type axicon, comprising a main support to be held by the unit, a second support rigidly holding the axicon approximately axially aligned with the main support, one of the supports having a plano surface orthogonal to the axis and the other support having a spherical surface centered on the axis at a point in front of the axicon, means for urging the two supports toward each other, a tubular member approximately axially aligned and separating the two supports engaging said plano surface and said spherical surface and means for transversely adjusting the tubular member along said plano surface and independently along said spherical surface.

2,775,919
REARVIEW MIRROR
Joseph Fischer, Pelham Manor, N. Y.
Application June 28, 1954, Serial No. 439,599
7 Claims. (Cl. 88—98)

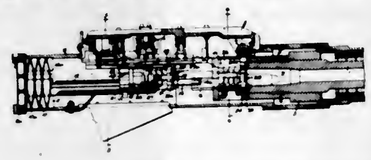


1. In a rearview mirror and bracket means, of the type having an elongated base, which has an outer flat top surface, through which fastening apertures extend, adapted to be installed on a vehicle body, by inserting fastening screws from said outer flat top surface, through said fastening apertures, and screwing same into said vehicle body, thus not requiring access to the inside of said vehicle body when installing said rearview mirror, and said bracket means also having an arm, extending outward from said base, with a mirror head supported on the outer end of said arm, by a swivel-mount for focus adjustment manually in the usual manner, and having a foot including a toe and a heel on the inner end of said arm, and said foot having a bottom flat surface engaged and at rest upon the outer top surface of said elongated base; that improvement in said bracket means, which comprises a space provided on the underside of said elongated base, and a bearing hole extending outward from the underside space through said base toward said foot; a bearing pivot mounted in the bearing hole, an outer end on this bearing pivot, which is anchored to said foot, and which thus swingably connects said foot and arm with said base; an inner end on this bearing pivot, which is disposed within the underside space of said base; and spring means being mounted within the underside space, cooperating with and under compression against the inner end of the bearing pivot, thereby exerting a yielding inward pull on the bearing pivot, and thus gripping said swingable foot from toe to heel against said base; whereby said foot and arm are adapted to be swung manually on the bearing pivot to a temporary position, at an angle across said base, thus uncovering said fastening apertures, for the reception of said fastening screws, to secure said base on said vehicle body, and thereafter said arm and foot being swung back onto said base, into permanent position thereon, and covering said fastening screws, and lining up said foot and arm with said base on said vehicle body.

2,775,920
BOLT SPLINE
Paul H. Dixon and Maynard B. Wallin, Rockford, Ill., assignors to the United States of America as represented by the Secretary of the Army
Application May 1, 1950, Serial No. 159,336
4 Claims. (Cl. 89—188)

1. In an automatic cannon, a bolt mechanism comprising a two piece bolt slidably mounted on rails positioned in the receiver of said cannon, a breech ring having a portion extending rearwardly of the breech, a bolt stop ring in said breech ring adjacent said breech and

restrained against longitudinal movement therein by means of inserts in said breech ring, the inserts being provided with interrupted threads on their inner surfaces for locking engagement with mating threads on said bolt, the wall of said stop ring provided with diametrically opposed slots, each of said slots having a cam formed in the base thereof and extending inwardly of said wall, said bolt comprising a longitudinally bored cylindrical body having arms formed on the rear end of said body, said arms embracing the rails to prevent rotation of said body, groups of helical splines on the periphery of said body, said bolt head comprising a cylindrical body having groups of splines formed in a longitudinal bore there-

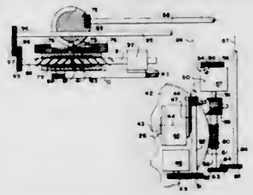


of and in engagement with said body splines, diametrically opposite pairs of cams on the forward end of said head member, the cams of each of said pairs angularly spaced to straddle one of said cams on said stop ring, interrupted threads on said head member adjacent to and in alignment with the cams formed on said head member, one cam of each pair of cams upon collision of said head member and stop ring engages a cam on said stop ring to initially impart rotation to said head member and align the interrupted teeth of said head and inserts, said body continuing in counterrecoil to further rotate said head and mesh said teeth, said one cam of each pair of cams disengaging its respective stop ring cam, the other of each pair engaging said respective cam to limit the rotation of said head.

2,775,921
MACHINE FOR GENERATING GEARS
Leonard O. Carlsen, Rochester, N. Y., assignor to The Gleason Works, Rochester, N. Y., a corporation of New York
Application July 14, 1954, Serial No. 443,256
8 Claims. (Cl. 90—3)

1. A machine for generating gears or like toothed elements, comprising a movable carrier, a tool support and a rotatable work spindle of which one is mounted on the carrier, the tool support and the work spindle being mounted for relative feed in a direction depthwise of the teeth to be cut, a generating drive train connecting the work spindle and the carrier for rolling generating motion, and means to operate said train alternately in said opposite directions, characterized by a continuously and unidirectionally rotating cam for effecting said relative feed to bring the tool and the work spindle into nearly full depth relation, a device comprising a cylinder and piston for transmitting said feed motion from the cam, and fluid pressure means including a valve operated in time with said cam to effect relative motion of the cylinder and piston to bring the tool and work spindle into full depth relation, whereby during the generating motion in one direction the work may be rough generated to less than full depth and during the return generating motion may be finish generated to full depth.

2,775,922
METHOD AND MACHINE FOR MAKING GEARS
Ernest Wildhaber, Brighton, N. Y., assignor to The Gleason Works, Rochester, N. Y., a corporation of New York
Application May 25, 1951, Serial No. 228,162
25 Claims. (Cl. 90—6)



1. The method of cutting a gear which comprises turning the gear about its axis and in time therewith pivoting a cutting tool which has a side cutting edge, that is adapted to follow tangentially the profile of the tooth being cut, about an axis that extends in the region of the cut within the imaginary surface of revolution that embraces the tops of the gear teeth the turning of the gear and the pivoting of the tool being at a continuously varying ratio as the tool follows the working portion of said profile.

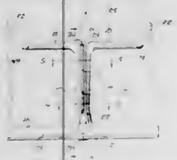
16. In a gear cutting machine, means for supporting a work gear for rotation about its axis, means supporting a tool for cutting motion and also for pivoting about an axis that extends in the region of the cut within the imaginary surface of revolution that embraces the tops of the gear teeth, means for effecting cutting motion of the tool, and means for rotating the work gear and for pivoting the tool in a varying ratio such that the cutting profile of the tool will follow the tooth profile to be cut.

2,775,923
APPARATUS FOR FORMING FOLDED REINFORCEMENTS ON BOX BLANKS
Don C. Ellinger, Milwaukee, Wis., assignor to Downing Box Company, Milwaukee, Wis., a corporation of Wisconsin
Application May 31, 1955, Serial No. 511,910
22 Claims. (Cl. 93—49)

1. In an apparatus for folding a portion of a box blank on a score line which is spaced inwardly from an edge, means for moving blanks through the machine with said edge leading, a folding member pivotally mounted for rocking movement through a substantial arc and having a leg normally projecting in a first direction opposed to the direction of movement of an approaching blank and extending at an angle upwardly in the path of travel of the blank, the pivot for said folding member being below said path of travel so that the leading edge of the blank will engage the underside of said leg and be deflected at an angle downwardly thereunder, the axis of pivot for said folding member being transverse of the direction of movement of the blank, and the folding member being so positioned that it is rocked on its pivot

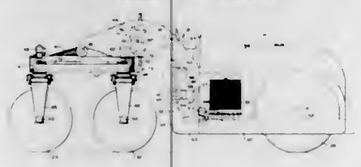
under pressure of the blank from said first position where the blank engaged side of the leg faces downwardly to a position where the side of the leg which is engaged by the blank faces at an angle upwardly to release the blank, said blank being folded on its score line during said rocking movement of the folding member so that a folded edge leads after release from the folding member.

2,775,924
PAVEMENT JOINT
Alan E. Brickman, Buffalo, N. Y., assignor to Acme Highway Products Corporation, Buffalo, N. Y.
Application June 10, 1952, Serial No. 292,697
5 Claims. (Cl. 94—17)



1. A pavement contraction joint comprising a plurality of load transfer members each having a base, a pair of flexible upright parts formed integral with said base and in closely spaced relation to each other, anchor members extending outwardly in opposite directions from the upper ends of said upright parts and integral therewith, a tooth on one of said upright parts extending into proximity to the other upright part, an elongate upright plate carried by said load transfer members, said upright plate having a minimum thickness greater than the minimum distance between the outer portions of said tooth and said other upright part, whereby said upright plate is snap held by said upright parts upon being passed between the upper ends of said upright parts, and past said tooth, and means for locating said load transfer members in spaced relationship to each other along said upright plate.

2,775,925
PRESSURE CONTROL MEANS FOR ROAD ROLLERS
Carl F. Greiner, Springfield, Ohio, assignor to The Buffalo-Springfield Roller Co., Springfield, Ohio, a corporation of Ohio
Application May 27, 1952, Serial No. 290,183
11 Claims. (Cl. 94—50)



1. A self-propelled roller comprising a frame, a drive roll mounted on one end of said frame, an engine in the frame disposed adjacent the drive roll, means for driving the drive roll by said engine; a beam rockably mounted on the other end of said frame on a horizontal axis, a pair of guide rolls swivelly mounted in said beam about vertical axes located fore and aft of the horizontal axis about which said beam rocks, pressure means for applying constant torque to said beam, including a fluid line and a pump, and means for adjusting the torque exerted by said pressure means to any desired value, while maintaining steering and driving contact with the ground surface said adjusting means comprising a hydraulic piston for applying a constant torque to said beam, a pressure control in the fluid line between the pump and piston having a low pressure chamber therein; and an adjustable spring-loaded pressure control valve to automatically open and close the passageway to said low pressure chamber at predetermined pressures to relieve overload pressures in the piston supply line and to maintain said pressure at a predetermined constant whereby the proportion of the total weight of the roller carried by each of said guide rolls may be selected as desired and maintained constant during rolling operations.

2,775,926
COTTON THINNING MACHINE
Marvin L. Blackstock, Resaca, Ga.
Application August 6, 1954, Serial No. 448,299
1 Claim. (Cl. 97—15)

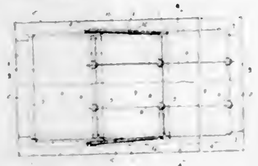
In a cotton thinning attachment for a tractor, a link bar having a front end adapted to be pivoted to the tractor and a rear end, a rectangular horizontal frame comprising a front bar, a rear bar, and end bars extending between and secured to the front and rear bars, vertical front tie bars having lower ends secured to said front bar and upper ends, vertical rear tie bars having lower ends secured to said rear bar and upper ends, first means pivoting together the upper ends of the rear tie bars, the upper ends of the front tie bars, and the rear end of the link bar, and cotton thinning mechanism mounted on said frame, and a skid assembly comprising a skid bar having a front end and a rear ground-engaging end, first bracket means fixed to and depending from front bar, means pivoting the front end of the skid bar to said bracket means at a point spaced below said front bar, second vertically adjustable bracket means fixed to and depending from said rear bar, said second bracket means being secured to said skid bar at a point adjacent to the rear end of the skid bar.

2,775,927
VENTILATING APPARATUS
William A. Wulle, Chicago, Ill., assignor to The Pyle-National Company, Chicago, Ill., a corporation of New Jersey
Application April 23, 1953, Serial No. 350,607
4 Claims. (Cl. 98—40)

2. In a room ventilating apparatus, a ceiling diffuser member having a foraminous plate-like surface through which a supply of ventilating air is displaced, means forming flanges at opposite margins of said plate-like surface to provide upstanding side walls, each of said side walls having a deformed portion for snap-in engagement with a support formed as a clip, a cover member for said ceiling diffuser member and together therewith forming a plenum space, said cover member comprising a plate having flanged margins inclined downwardly to engage the outer margins of said foraminous plate-like surface, said cover member being received by said ceiling diffuser member and having said flanged margins spaced inwardly of said upstanding side walls for engagement with said ceiling diffuser member at said outer margins, said plate

having an inlet opening formed therein, a collar in said opening, and volume control means in said collar to regulate the supply of ventilating air admitted into said plenum space from a source of ventilating air at higher pressure than in said plenum space for diffused distribution of ventilating air through said plate-like surface.

2,775,928
SPRINGS FOR AUTOMATIC SHUTTERS
Hugh S. Morrison, Houston, Tex., assignor to Hackley Morrison, Jr., Houston, Tex.
Application February 15, 1954, Serial No. 410,403
4 Claims. (Cl. 98—119)



1. A ventilating shutter comprising a rectangular frame adapted to fit a ceiling opening and composed of side and end members, hinge rods extending between and supported by said side frame members, shutter doors carried at one edge on said hinge rods, means pivotally connecting the free edges of all of said doors, one of said side members having a portion formed with a flat upper face, a bracket in the form of an elongated thin strip secured at one end to said flat upper face and disposed at an acute angle thereto, and a tension spring connected at one end to the free end of said bracket and at the other end to the free edge of one of said doors.

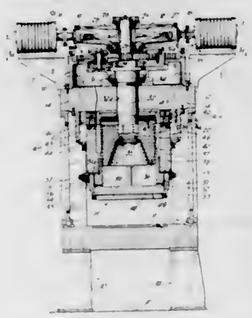
2,775,929
COOKING UTENSIL
Charles R. Johnson and Jack F. Henderson, San Antonio, Tex.
Application November 17, 1954, Serial No. 469,351
3 Claims. (Cl. 99—426)

1. In a cooking utensil, a handle including a base, a pair of angularly arranged arms extending from said base and having their upper portions twisted together, a hand grip secured to said arms, a body member having a substantially V-shape and including a first pair of straight portions arranged in spaced parallel relation with respect to each other, second portions arranged angularly with respect to the ends of said first portions and extending therefrom, webs interconnecting the ends of said second portions together, a third portion extending from each of said first portions intermediate the ends thereof, a web interconnecting said third portions together, and a pair of movable clamps mounted for movement towards and away from said body member, each of said clamps including a rod, a pair of angularly arranged fingers extending from the ends of said rod, a brace interconnecting each pair of fingers together and arranged in spaced parallel relation with respect to said rod, said fingers terminating in eyelets pivotally engaging the first portions of said body member, links extending from said eyelets and terminating in eye members, said eye members being pivotally connected to the base of said handle.

2,775,930
HAY BALER
Andrew Kenneth Anderson and Van Ness Towt, Los Banos, Calif.
Application December 19, 1950, Serial No. 201,572
1 Claim. (Cl. 100—180)

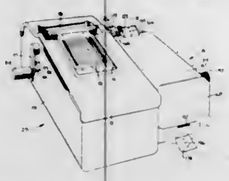
A hay baler comprising a hollow baling form, a tail gate at one end of said form, a ram reciprocable in said form, means for reciprocating said ram, a hopper for hay above said form, said form being apertured remote from said tail gate to receive the hay discharged from said hopper, said form having a plurality of longitudinally extending narrow slots for baling wire in opposed sides of said form extending from a zone beneath said hopper and terminating at said one end of said form adjacent said tail gate, said tail gate having a plurality of slots extending cross the inner face thereof, and said ram having a plurality of slots extending across the working face thereof, corresponding slots of said form, said gate and said ram face being included within substantially parallel planes, and said form having wall portions provided with two narrow slots opening therethrough each slot having the longer dimension thereof disposed in a plane transverse to the direction of movement of said ram, one of said last-named slots being situated adjacent said tail gate and the other of said last-named slots being situated remote from said tail gate and beyond said hopper, said last named slots being adapted to receive cardboards insertable therethrough into said form for covering the ends of a bale being produced in said form.

2,775,931
PRESS
William Messinger, Philadelphia, Pa.; The First National Bank of Philadelphia, administrator of said William Messinger, deceased, assignor to Messinger Bearings, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application March 11, 1953, Serial No. 341,805
8 Claims. (Cl. 100—289)



1. In press, having a frame and a platen movably mounted in the frame and a drive shaft, journalled in the frame, the invention comprising a reduction drive means between the drive shaft and the platen including, in series, a worm and worm gear driven by the drive shaft, a step-down planetary gear system driven by the worm gear, and a screw connection between the planetary gear system and the platen.

2,775,932
RECORD MAKING APPARATUS
John T. Davidson, Dayton, Ohio, assignor to The Standard Register Company, Dayton, Ohio, a corporation of Ohio
Application March 9, 1951, Serial No. 214,773
19 Claims. (Cl. 101—66)



1. Record making apparatus, including an autographic register or like device operable upon consecutively numbered forms, means for issuing said forms seriatim, a ticket machine operable upon consecutively numbered tickets, means for issuing said tickets seriatim, a lock for preventing operation of said form issuing means, and means operating in response to operation of said ticket issuing means for releasing said lock.

10. A ticket issuing machine, including a stationary supporting frame, a rotatable platen carried by said frame, said platen being formed with grooves extending lengthwise of the platen, a knife blade carried by said frame for pivotal swinging motion toward said platen, means for intermittently rotating said platen a distance bringing one of said grooves into line with said knife blade, means for intermittently swinging said knife blade toward said platen to cause said blade to enter a registering groove in said platen, said last named means providing a dwell of said blade in the grooves of said platen in which period said blade acts as a latch against rotation of said platen, and a continuous strip of ticket material advanced over said platen, the leading end thereof being progressively severed from the strip by the action of said knife blade.

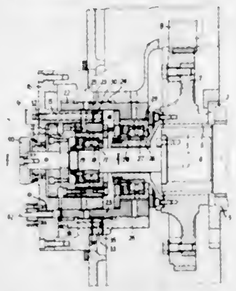
2,775,933
PHOTOGRAPHIC COPYING APPARATUS
Harold L. Malone and Clifford G. Vroom, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application July 1, 1955, Serial No. 519,546
10 Claims. (Cl. 101—131)

1. In a processing and image-transfer apparatus, a tank for containing a processing liquid, said tank having an opening above the liquid level at one end thereof and provided with a sloping surface and a roller at said end adjacent to said opening, a pair of members having slots therein pivotally mounted at the opposite sides of said tank adjacent to said opening and being adapted to be rotated into operative and inoperative positions, a pressure member secured to and extending between said members and being adapted to engage said roller when said members are rotated into operative position, a pair of arms pivotally mounted at one end thereof at the opposite sides of said tank, the other end of each of said arms being provided with a projection, said projections being adapted to ride in the slots of said members when the latter are rotated, a squeegee, means mounting said squeegee between said pair of arms whereby rotation of the latter causes the squeegee to be moved into contact with said sloping surface when said members are rotated into operative position, and resilient means adapted to urge said projections toward one end of said slots whereby said members are releasably held in operative position.

2,775,934
SHEET FED ROTARY PRINTING PRESSES
Hans J. Luehrs and Henry M. Clarke, Jr., Westerly, R. I., assignors, by mesne assignments, to The Cottrell Company, Westerly, R. I., a corporation of Delaware
Application February 27, 1953, Serial No. 339,302
21 Claims. (Cl. 101—183)

1. In a sheet fed rotary printing press, a printing unit including plate and impression cylinders, and an endless chain carrier including side claims, swinging gripper bars and rows of grippers carried thereby and operable to pass the sheets around the impression cylinder, said gripper bars being provided with off-set portions pivoted to opposite links of the side chains in substantial transverse alignment with the tips of said rows of grippers, whereby the said tips will be maintained in register with the path of the side chains.

2,775,935
REGISTER ADJUSTMENT FOR PRINTING MACHINES
Robert Reinartz and Oskar Morgenlaender, Augsburg, Germany, assignors to Maschinenfabrik Augsburg-Nurnberg A. G., Augsburg, Germany, a corporation of Germany
Application February 8, 1955, Serial No. 486,931
Claims priority, application Germany February 16, 1954
6 Claims. (Cl. 101—248)

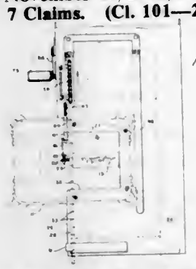


1. A register adjusting mechanism for offset printing presses, comprising a plate cylinder axle having a drive gear and an axle extension, a housing having integral outer and inner concentric cylinders enclosing said axle extension; a first cylindrical member telescopically mounted over the free end of said axle extension and having its outer surface threadedly engaged with the inner surface of said inner cylinder, first handwheel means geared to said first member for turning the same, and first bearing means between said first member and said axle extension for axially displacing said axle upon turning said handwheel; a second cylindrical member mounted between said outer and inner cylinders and threadedly engaged with the inner surface of said outer cylinder, second handwheel means geared to said second member for turning the same, and connecting means between said second member and said plate cylinder drive gear for peripherally turning said plate cylinder upon rotation of said second handwheel.

2,775,936
ROLLER PLATEN CARRIAGE IN ADDRESS PRINTING MACHINES
Franklin E. Curtis, deceased, late of Willoughby, Ohio, by Edith D. Curtis, administratrix, Willoughby, Ohio, assignor to Addressograph-Multigraph Corporation, Wilmington, Del., a corporation of Delaware
Original application February 24, 1949, Serial No. 78,205, now Patent No. 2,656,103, dated October 20, 1953. Divided and this application December 23, 1952, Serial No. 327,486
4 Claims. (Cl. 101—269)

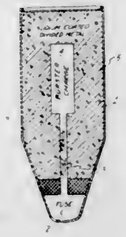
1. In a printing machine, a platen carriage, means supporting and guiding said carriage for horizontal movement during printing strokes, a platen roller mounted on said carriage on a rotative axis and for vertical adjustment, gearing for imparting controlled rotative movement to said platen roller during reciprocation of said carriage, and including an initial member in the form of a rack disposed generally parallel to the path of movement of said carriage and pivoted on a fixed pivot at one end to enable said rack to pivot as required during said adjustment, said platen roller having a segmental resilient surface terminating in spaced cut-off edges parallel to said axis and spaced substantially from each other, said platen roller being so related to said gearing that said spaced edges are faced downwardly and substantially in the same horizontal plane when the carriage is at opposite ends of its stroke, a rock shaft operatively connected to said carriage for reciprocating the same, and means for rocking said shaft operable in successive cycles to move said carriage through printing strokes in opposite directions.

2,775,937
STRIP FEEDING MECHANISM
Albert W. Metzner, Dayton, Ohio, assignor to The Standard Register Company, Dayton, Ohio, a corporation of Ohio
Application November 19, 1952, Serial No. 321,528
7 Claims. (Cl. 101—292)



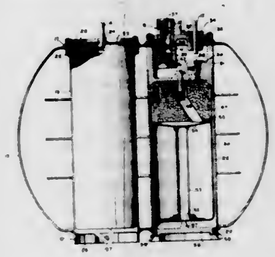
1. Recording apparatus for effecting mechanical imprinting upon check forms and the like, including a recording device having a slot opening through the front and sides thereof, a table installed on said device for guiding a record strip through said slot by way of the sides thereof, said strip being made up of a series connected record forms and perforated along only one side edge, said strip being arranged on said table with the perforated edge received in said slot and the opposite side edge projecting from the front of said slot, pin feeding apparatus mounted on said table engaged with the perforations in the strip, and means for operating the pin-feeding apparatus to advance the strip.

2,775,938
FLASH BOMB
Robert C. Wade, Cincinnati, Ohio, assignor to National Distillers Products Corp., a corporation of Virginia
Application September 27, 1951, Serial No. 248,473
2 Claims. (Cl. 102—6)



1. In military ordnance of the flash bomb type comprising a casing, a bursting charge, a fuse controlling said bursting charge and a mass of normally solid combustible metal in divided form within said casing, the improvement of a film of sodium formed on the particles of said combustible metal.

2,775,939
DRILL MINE
Gordon L. Fogal, Silver Spring, Md., assignor to the United States of America as represented by the Secretary of the Navy
Application August 18, 1952, Serial No. 305,097
6 Claims. (Cl. 102—13)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a drill mine adapted to be recovered after being laid, in combination, a float, a cable for securing said float to the mine, a container disposed within said float, means for ejecting said container for surfacing from said float in response to an electrical signal received from the mine, a chemical mixture disposed within said container adapted to react with water to produce smoke when said container surfaces, and means for severing said cable in time delayed relation to the laying of the drill mine whereby said float surfaces to assist in recovery of said drill mine.

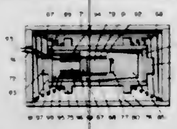
2,775,940
METHOD FOR BLASTING
Robert L. Klotz, Jr., Conyngham, Pa.
Application October 7, 1953, Serial No. 384,707
9 Claims. (Cl. 102—23)

1. A method of blasting in a portion of the earth's crust which contains at least one stratum having greater resistance to fragmentation than the remaining portion to be blasted, comprising the steps of drilling a hole in said crust which penetrates the portion of the earth to be

blasted, positioning explosives in said hole, and detonating said explosives above and below the center of said

stratum, so that the effect of the explosive blast is laterally directed at approximately the center of said stratum.

2,775,941
MAGNETIC INERTIA CONTROLLED FUZE
Harold J. Plumley, Washington, D. C.
Application December 23, 1946, Serial No. 718,098
21 Claims. (Cl. 102—70.2)
(Granted under Title 35, U. S. Code (1952), sec. 266)

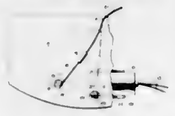


12. In a fuze for a projectile, a coil; means for setting up a normally closed magnetic circuit including a pair of casings of magnetic material, a permanently magnetized element disposed centrally of one of said casings, and a magnetic core disposed centrally of the other of said casings; said casings being normally in abutting relationship to each other, and said core and element being normally in abutting relationship; said coil being disposed around said core whereby a change in the reluctance of said circuit causes a voltage to be induced in said coil; said casings, and said core and element, being adapted to be moved away from each other respectively in response to inertial forces applied to said element and one of said casings whereby said magnetic circuit is opened and the reluctance thereof is changed; and electroresponsive detonating means operated by the voltage generated in said coil.

20. An inertia device of the character disclosed for mounting on a moving body, comprising in combination, generator means including a coil and at least a pair of magnetic elements movable relative to each other, said elements being adapted to generate a flux and induce a voltage in the coil when one of said elements is moving relative to the other one of said elements, one of said elements being adapted to be dislodged from its initial position in response to an inertial force of predetermined duration and magnitude applied thereto, and force transforming means comprising at least one spring for yieldably supporting said generator means from the body, whereby the generator means is moved gradually in response to inertial forces applied to said body.

2,775,942
SELF-DESTRUCTION DEVICE
Albert H. Dell, Cheverly, and John H. Kuck, Silver Spring, Md., and Jules H. Sreb, Washington, D. C., assignors to the United States of America as represented by the Secretary of the Navy
Application October 29, 1954, Serial No. 465,757
4 Claims. (Cl. 102—70.2)

1. In combination with an electrically operated projectile fuze having a source of electrical energy and an explosive means connectable across said electrical source, a self-destruction switching mechanism including thermal means ignitable by said electrical source, heat conductive means associated with said thermal means to receive heat therefrom, other means in heat conductive associattion with said thermal means, said other heat conductive means being electrically connected to said electrical source, a first fusible material held by said other heat conductive means, a second fusible material, and means including an arm connected to said explosive means and initially held to said first heat conductive means by said second fusible



material, a weight connected to an intermediate portion of said arm, said arm being movable, by centrifugal force, into engagement with said other heat conductive means to connect said explosive means across said electrical source when said first fusible material and said second fusible material on said first heat conductive means are melted by heat produced by said thermal means when said thermal means are ignited.

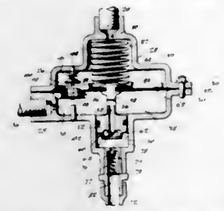
2,775,943
PROJECTILES
Carolus L. Eksergian, Detroit, Mich., assignor, by mesne assignments, to the United States of America
Application April 5, 1944, Serial No. 529,575
3 Claims. (Cl. 102—93)

1. In a sub-caliber projectile and the like, the combination with a projectile body having a base end, of a longitudinally-divided, multi-part annular segmental sabot member surrounding said body adjacent said base end and provided with a peripheral recess, a unitary locking member axially abutting said base end and provided with a peripheral groove, said sabot member having internal annular rib portions surrounding said locking member and extending radially inwardly into interlocking seated relation to said peripheral groove and a band surrounding said multi-part sabot member and seated in said peripheral recess thereby securely clamping said sabot member about said projectile body and locking member.

2,775,944
FUEL SUPPLY SYSTEM FOR VEHICLE HEATER
Frank A. Ryder and Samuel I. Wendell, Indianapolis, Ind., assignors to Stewart-Warner Corporation, Chicago, Ill., a corporation of Virginia
Application October 26, 1953, Serial No. 388,384
8 Claims. (Cl. 103—44)

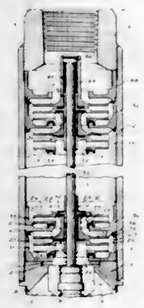
1. A fluid operated booster pump for a heater, comprising, in combination, a casing, a flexible diaphgram partitioning said casing into a pressure chamber and an exhaust chamber, spring means connected to said diaphragm to urge the latter in a direction for compressing said pressure chamber, means on said casing defining a pump cylinder, a piston disposed in said cylinder and connected to said diaphragm, means for connecting said pressure chamber to a source of fluid under a relatively low pressure, one-way flow means providing for the passage of fluid from said pressure chamber into said pump

cylinder, means including a check valve providing for the outflow of fluid from said pump cylinder, means forming an outlet from said exhaust chamber, means defining a passage through said diaphragm from said pressure



chamber to said exhaust chamber, valve means on said diaphragm for closing said passage therethrough, and means for opening and closing said last mentioned valve means at the opposite extremes of the movement of said diaphragm.

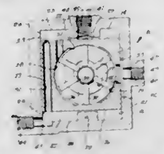
2,775,945
SAND RESISTANT PUMP
Armais Arutunoff, Bartlesville, Okla., assignor to Reda Pump Company, Bartlesville, Okla., a corporation of Delaware
Application August 27, 1953, Serial No. 376,910
7 Claims. (Cl. 103—108)



1. In a vertical multi-stage centrifugal pump, including nested diffusers forming impeller chambers and impellers therein; a sand-resistant bearing assembly for each stage, comprising a fixed radial bearing sleeve, axially supported by a diffiuser, said sleeve defining the inner limits of the respective impeller chambers and terminating at its upper end in an annular down thrust bearing rim, the impeller of said stage having a hub longitudinaly slidable on said shaft and projecting axially in opposite directions beyond the impeller body, opposed projecting portions of adjacent hubs being interposed between the shaft and a common bearing sleeve, an annular bearing surface on the underside of said impeller body, complementary to said bearing rim and means keying the impellers to said shaft.

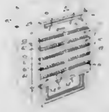
2,775,946
CONSTANT DELIVERY VARIABLE PRESSURE PUMP
George H. Hufferd, Shaker Heights, Ohio
Application March 2, 1953, Serial No. 339,640
13 Claims. (Cl. 103—120)

1. A variable pressure, constant delivery, guided vane pump, comprising a casing providing a hollow cavity having a pair of flat internal walls on opposite sides thereof, a rotor providing an annular row of circumferentially spaced slots, a corresponding plurality of vanes slidably supported in the respective slots, a floating abutment in said rotor engaging the inner ends of said vanes, and a regulator block providing a cylindrical pumping chamber for receiving said vanes and having flat sides slidably supported by said internal walls in said casing for movement transversely of the rotor axis to adjust the relative eccentricity of the pumping chamber bore and the rotor, said casing having a pair of pressure control chambers formed therein on opposite sides of said rotor axis, said regulating block having a reactive pressure face in each respective pressure control chamber, passageway



means forming an inlet on one side of said rotor and an outlet for said pump on the opposite side of said rotor and communicating with said pumping chamber bore, an orifice in said passageway means through which all pump operating fluid flows with a pressure drop across the orifice, and means communicating variations in the effective differential of said pressure drop to said reactive pressure faces to regulates the volumetric capacity of said pump in response to pressure drop variations across the orifice.

2,775,947
REPOSITORY OR SAFE
Arthur R. Mosler, New York, N. Y., assignor to The Mosler Safe Co., New York, N. Y., a corporation of New York
Application September 18, 1951, Serial No. 247,033
15 Claims. (Cl. 109—47)

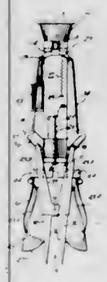


1. A pilfer-resistant repository for the safe keeping of cash boxes comprising an external or protective safe having a front opening, a lockable door which when closed and locked prevents access to the interior of the said safe and when opened gives access thereto, an all metal cabinet movably secured to the safe for shifting from a position where it is wholly housed therein through the door opening to a position where it is outside the same, the cabinet in the latter position opening outwardly and having a plurality of vertical and horizontal partitions forming accessible, forwardly opening compartments, a plurality of cash boxes each of a size to be received in a compartment, a frame disposed across the front of the cabinet and having openings through which the boxes may be inserted or removed, compartment locking means for each compartment, including frame-carried locks which, when locked, prevent insertion of, or removal of, a cash box and when unlocked permit the same, and a master lock for locking the frame to the secondary cabinet whereby, when released, access to all the boxes may be obtained without unlocking the frame carried locks.

2,775,948
PLANT SETTER
Roy W. Wilson, Lexington, Ky.
Application June 6, 1951, Serial No. 230,149
1 Claim. (Cl. 111—4)

A plant setter comprising a tubular housing having open upper and lower ends, a lower guide sleeve surrounding the housing adjacent the lower end thereof and slidable on the housing, a pair of diametrically disposed presser feet each pivotally connected to the lower guide

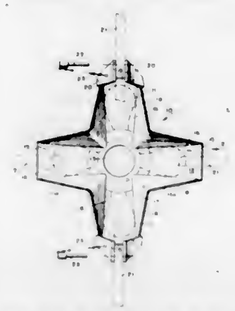
sleeve for movement about a horizontal axis, a spring associated with each of said feet urging said feet toward each other, a pair of ground penetrating means pivotally connected to the housing for movement about a horizontal axis and normally closing the open lower end of the housing, an upper guide sleeve surrounding the housing above the lower guide sleeve and slidable along the housing, spring means operatively connected to the lower guide sleeve and to the housing normally urging said guide sleeves away from each other, an outwardly extending wing on each side of the upper guide sleeve, each wing having an inclined elongated slot therein, a roller carried by the upper end of each of the ground penetrating means lodged in and movable in said slot, the slots and rollers defining a sliding connection between the ground penetrating means and the upper guide sleeve, a fixed handle on the housing, a handle pivotally mounted on the housing adjacent to the fixed handle, a



spring connected to the pivotally mounted handle and the housing normally urging the pivotally mounted handle away from the fixed handle, and a rigid link means extending between the pivotally mounted handle and the upper guide sleeve so that the application of pressure to the fixed handle forces the housing and upper guide sleeve downwardly against the action of the spring means connected to the housing and the lower guide sleeve, the rollers moving up the inclined slots in the wings whereby the ground penetrating means enter the ground, and the movement of the pivotally mounted handle toward the fixed handle sliding the upper guide sleeve away from the lower guide sleeve, the rollers moving down the inclined slots in the wings thereby moving the ground penetrating means about their horizontal axis to open the lower end of the housing and form a hole, said presser feet being engaged by and moved about their horizontal axis by such movement of the ground penetrating means against the action of the springs associated with said feet.

2,775,949
TORPEDO PROPELLER GUARD-LOCK
Edward R. Hess, Sharon, Pa., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application June 30, 1955, Serial No. 519,297
6 Claims. (Cl. 114—20)

4. A guard-lock for a torpedo having at least one multiblade propeller at its rear end, comprising a rear wall formed of equiangularly spaced outwardly extending portions, end walls extending forwardly from the outer ends of the outwardly extending portions, side walls extending forwardly from side edges of said portions and joined to the end walls, the rear wall, end walls and side walls forming equi-angularly spaced pockets open only at their forward ends, whereby the guard-lock may be disposed on the torpedo with the blades disposed within the pockets, and means for securing said walls to the torpedo in a



predetermined position whereby the guard-lock prevents rotation of the propeller blades.

2,775,950
PEDAL PROPELLING ATTACHMENT FOR BOATS
Sammie B. Dearmond, Henderson, Tex.
Application May 13, 1954, Serial No. 429,603
4 Claims. (Cl. 115—25)

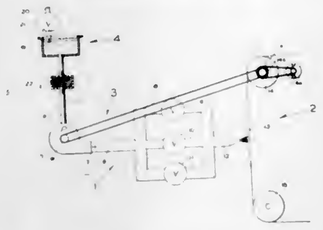
1. A propelling and steering attachment for a boat, comprising an elongate frame, an oscillatable seat on said frame, a cross-member affixed adjacent the rear end of said frame, an angular apertured brace affixed to and extending upwardly and rearwardly of said cross-member, an arbor extending through the aperture of said brace and held at its midsection to said brace, an assembly head mounted on and depending from said arbor, a bearing plate integral with said assembly head a power gear and sprocket wheel mounted on said arbor adjacent said assembly head, a propeller, a propeller drive shaft extending upwardly into said assembly head, a drive pinion supported on said bearing plate and affixed to said propeller drive shaft in said head and engaging said power gear, a propeller drive shaft housing having a bevel gear on its upper end disposed under said drive pinion, a steering gear rotatably mounted on said arbor and engaging said bevel gear, a steering rod pivoted at one end to said steering gear and at its opposite end to one side of said seat whereby oscillation of said seat will rotate said steering gear to change the direction of thrust of said propeller through said bevel gear and propeller drive shaft housing means for limiting the degree of rotation of said steering gear and pedal actuated means mounted on the forward end of said frame for driving said power gear through said sprocket wheel.

2,775,951
DEVICE FOR INDICATING THE POSITION OF NON-BUOYANT OBJECTS
Allen K. Billmeyer, Covina, Calif., assignor to the United States of America as represented by the Secretary of the Navy
Application July 3, 1952, Serial No. 297,195
1 Claim. (Cl. 116—124)
(Granted under Title 35, U. S. Code (1952), sec. 266)

Apparatus for effecting the time delayed release of pressurized gas, comprising a pressure flask having an associated normally closed but selectively openable outlet valve, a valve housing for said outlet valve having a passage therein communicating at one end with the interior of the flask when said valve is open, said housing having a port communicating said passage to the exterior of the housing at a point intermediate the length of the passage, a movable piston sealingly engaging the wall of the passage and normally disposed between said one end of the passage and said port, extrudible material filling that portion of the passage on the side of the

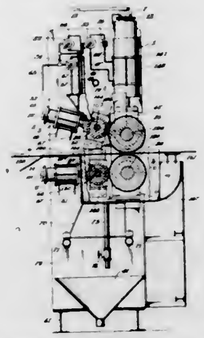
piston remote from said one end of the passage, said housing having an orifice communicating the other end of the passage to the exterior of the housing, said orifice being of predetermined reduced cross-sectional area relative to the cross-sectional area of said passage, the arrangement being such that the extrusion of said material through the orifice under the force of pressurized gas acting on the piston will delay for a predetermined period of time the movement of the piston to a position wherein said port is communicated with said one end of the passage.

2,775,952
SPRAY DEVICE
Milton O. Schur, Asheville, N. C., assignor to Ecusta Paper Corporation, Pisgah Forest, N. C., a corporation of Delaware
Application June 8, 1955, Serial No. 514,092
4 Claims. (Cl. 118—8)



1. In a strip processing machine a variable speed strip feeding means, spray means for spraying a controlled volume of fluid on said strip, said spray means comprising; a pump, means to supply a fluid to said pump, nozzle means attached to the discharge end of said pump for spraying said fluid on said strip, fluid conveying adjustable valve means disposed between said pump and said nozzle means to adjust the volume of fluid discharged by said nozzle, and a constant speed ratio drive means between said variable speed strip feeding means and said pump to increase or decrease the speed of said pump, thereby increasing or decreasing the volume of said fluid sprayed against said strip, as the speed of said strip increases or decreases, said pump, said fluid conveying adjustable valve means and said nozzle means forming a totally enclosed fluid conveying system.

2,775,953
IMPROVED MOUNTING MEANS FOR GLUE SPREADING ROLLERS
Joe B. McFall, Seattle, Wash.
Application June 13, 1952, Serial No. 293,405
17 Claims. (Cl. 118—227)



1. In a glue spreader, a roll for accommodating a film of glue thereon, means rotatably mounting said roll, a hollow cylinder, a shaft passing through said hollow cylinder, means connecting one end of said shaft to said mounting means, a piston movable in said hollow cylinder and mounted on said shaft for movement therewith, means for introducing fluid pressure into said hollow cylinder selectively at either end of said piston for moving the same and the shaft therewith in either direction, a cap covering one end of said hollow cylinder, means limiting the movement of said shaft at least in one direction by contacting said cap, and screw means mounted on the other end of said shaft for adjusting the effect of said limiting means.

2,775,954
ROLLER COATING APPARATUS
Walter R. White and Gale F. Nadeau, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application December 14, 1955, Serial No. 553,177
4 Claims. (Cl. 118—258)

1. In a coating apparatus the combination with an open-mouth hopper adapted to contain a supply of coating solution; an applicator roll rotatably mounted in said hopper with a portion of its periphery dipping into said solution in spaced relation with the bottom of said hopper; the bottom of said hopper pitched radially away from the roll periphery to form an elevated ridge portion located opposite the middle third of said roll; means for rotating said roll; and means for continually feeding solution into said hopper and drawing it therefrom and including an outlet in the bottom of said hopper adjacent the elevated ridge portion.

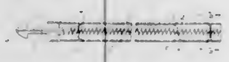
2,775,955
AIR INJECTION MILKING MACHINE DEVICE
Austin E. Anderson, Jamestown, N. Y.
Application September 7, 1951, Serial No. 245,494
2 Claims. (Cl. 119—14.36)

1. A milker comprising a teat cup having a teat chamber and a pulsation chamber surrounding the teat chamber, a milk receiver, a flow line connecting the teat chamber with the receiver, a source of fluid under relatively high pressure and a source of fluid under relatively low pressure, a pulsation chamber, a valve alternately con-

necting the pulsation chamber to each of said sources of pressure, a conduit connecting the receiver continuously with the source of low pressure, said valve also con-

trolling supplying of relatively high pressure fluid to the flow line from the teat chamber to the receiver to impart an impelling force to the flow of milk to the receiver.

2,775,956
FOUNTAIN PEN OF THE BALL POINT TYPE
Frederick Ray, Montecito, Calif.
Application November 23, 1951, Serial No. 257,728
6 Claims. (Cl. 120—42.4)



1. In combination, a tubular ink reservoir for fountain pens of the ball point type having an air opening at the end opposite the ball point through which the ink could freely flow and having a cross-sectional area greater than that which would permit the ink-air surface film to be supported only by the reservoir wall, said reservoir providing an ink column of corresponding cross-sectional area, a film supporting member immersed in the ink column and extending throughout the effective length of the reservoir, means positioning said member substantially coaxial with the reservoir and in spaced relation to the reservoir wall, thus permitting ink flow along the reservoir wall in a direction substantially parallel to the longitudinal axis of the reservoir, said coaxial member presenting lateral and longitudinal openings at substantially all levels within the reservoir, said lateral openings permitting the ink-air surface film to extend through said lateral openings across the reservoir and thus to receive support at its outer periphery from the reservoir wall and additional support inward of said outer periphery from the coaxial member substantially continuously from full to empty condition of the reservoir.

2,775,957
VALVED PISTON FOLLOW-UP SERVOMOTOR
J. Edward C. Anderson, East Cleveland, Ohio, assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application December 31, 1954, Serial No. 479,030
2 Claims. (Cl. 121—41)

1. In a device of the class described adapted to control movement of a master cylinder piston or the like, a generally cup-shaped housing, a generally cylindrical first member disposed for longitudinal movement in said housing and having an elongated longitudinally extending opening therein, means defining fluid passages in said first member communicating the exterior thereof with said opening therein, means in said housing adapted to carry pressurized fluid to said passages, a second generally cylindrical member disposed for longitudinal movement in said opening having an external surface normally disposed in engagement with said fluid passage means to prevent fluid flow therethrough, operating means movable into and out of engagement with one of said members constructed and arranged to effect relative movement between said members to permit fluid flow through said fluid passages at will, means biasing said members against such relative movement, means on said second member comprising surfaces responsive to pressurized fluid after its flow through said passages assisting said biasing means, means on said first member including a portion projecting exteriorly thereof and out of one end of said housing adapted to engage a spring biased master cylinder piston, means on said first member comprising surfaces responsive to pressurized fluid after its flow through said passages adapted to effect movement of said first member toward said one end of said housing and consequent movement of said master cylinder to braking position and simultaneous movement of said fluid passage defining means to a position in engagement with said external surface of [illegible] member whereby further fluid flow through said passage into said opening is prevented.

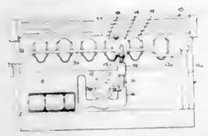
2,775,958
TUBULAR FLUID HEATER WITH BUILT-IN SOOT BLOWER, AND METHOD EFFECTED THEREBY
Johann Kolling, Oberhausen, Germany, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application February 24, 1953, Serial No. 338,543
2 Claims. (Cl. 122—392)

1. In convection fluid heat exchange apparatus including a pendent bank of horizontally spaced upright tubes normally externally subject to high temperature gas flow, means connecting the tubes for series flow therethrough of a fluid to be heated, soot blowing tubes of smaller diameter disposed within some of the first mentioned tubes, laterally directed soot blower jet structures communicating with the soot blower tubes and extending through the walls of the pertinent soot blower enclosing tubes toward the remaining tubes of the bank of tubes, means for connecting the soot blower tubes to a source of pressurized soot blowing fluid of a temperature of the order of the temperature of the fluid to be heated, said last named connecting means being adapted to transmit soot blowing fluid to the jet structures in successive jet actions of a periodicity promoting vibration of the tubes, and impact transmitting lost motion connections between successive and adjacent tubes of said bank of tubes, the periodicity of the successive jet actions and the impact transmitting connections serving to set up vibrations of the tubes of said bank of tubes.

2,775,959
VALVE ROTATOR
William J. Geer, Grand Rapids, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 28, 1953, Serial No. 400,397
12 Claims. (Cl. 123—90)

3. A device adapted to be inserted between one end of a return spring for a reciprocably actuated element and the spring retaining means for effecting progressive axial rotation of said element relative to the retaining means in response to cyclic contraction and expansion of the return spring during reciprocation of said element, comprising a rotary thrust bearing and a Belleville spring axially adjacent said bearing, said Belleville spring being collapsible under the increased thrust imposed on said bearing during contraction of said return spring, said bearing having two relatively rotatable members with helically disposed thrust surfaces in cooperative bearing relation and other surfaces facing and engageable with the axially adjacent face of said Belleville spring, said Belleville spring having its said face in rotation resisting frictional engagement with said other surface of one of said members during contraction of said return spring and deflectable out of said engagement and into rotation resisting frictional engagement with said other surface of the other member during expansion of said return spring, and resilient means opposing rotation of said other member during contraction of said return spring.

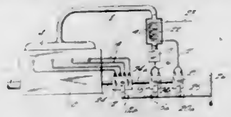
2,775,960
CRANKCASE BREATHER SYSTEM
Frank C. Druzynski, Detroit, Mich., assignor to Continental Motors Corporation, Detroit and Muskegon, Mich., a corporation of Virginia
Application August 17, 1955, Serial No. 528,887
10 Claims. (Cl. 123—119)



1. In an internal combustion engine having a crankcase and an air intake system manifold and capable of operation while submerged underwater, a crankcase breathing system operable to pass gases from said crankcase to said manifold, and comprising a pressure sensitive control means actuated in response to pressure differential between the crankcase pressure and atmosphere when the engine is not submerged and to pressure differential between crankcase pressure and the pressure of water covering said control means when the engine is submerged.

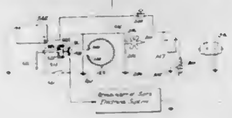
2,775,961
FUEL SUPPLY SYSTEM
John William Petre, Huntington, N. Y., assignor to Fairchild Engine and Airplane Corporation, Hagerstown, Md., a corporation of Maryland
Application October 22, 1954, Serial No. 463,885
6 Claims. (Cl. 123—119)

1. In a system for supplying fuel and oxygen in predetermined proportions to an engine intended for operation in regions where an adequate supply of oxygen necessary to support combustion is not available in sufficient quantity from the atmosphere, means for supplying fuel to the engine, a chamber wherein an oxidant is decomposed to produce oxygen to support combustion, means for supplying an oxidant to the decomposition chamber, a conduit for supplying oxygen from the de-



composition chamber to the engine, means for supplying a coolant in heat-exchanging relationship with the conduit to reduce the temperature of the oxygen supplied to the engine, and means for regulating simultaneously and in fixed proportion the supply of fuel to the engine, the supply of the oxidant to the decomposition chamber, and the flow of coolant to the engine.

2,775,962
ENGINE STARTING MEANS
Joseph Sontag, Chicago, Ill.
Application March 31, 1951, Serial No. 218,627
13 Claims. (Cl. 123—179)

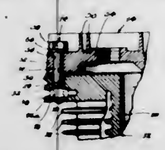


1. An oil carburetor comprising a casing, an annular burner in said casing, means for supplying oil to said burner, said burner including a substantially annular electrical heating resistor arranged to heat the burner oil, means for supplying air to said burner for supporting combustion of oil thereat, means including a spark plug carried by said casing and arranged adjacent said burner to ignite the oil-air mixture to produce an annular flame extending from said burner, a Venturi tube in said casing, means for conducting the products of combustion from said burner to said tube, a jet having oil discharge holes in the throat of and spaced from said tube, means for supplying oil to said jet, a hollow truncated cone secured to and flaring down from said jet adjacent and below said holes and in closely spaced relation to the bottom of said tube, an electrical heating resistor arranged within said cone to heat said cone, said burner, tube, jet and cone having a common axis, means for supplying air about the base of said cone for commingling with the mixture of said products and the oil from said jet, said casing having an opening for the discharge of the air-products-oil mixture, means for connecting said casing to an internal combustion engine for operating the engine on the air-products-oil mixture, and means responsive to the engine suction for de-energizing said resistors when the engine becomes self-operating.

2,775,963
ENGINE CYLINDER BLOCK AND HEAD ASSEMBLY
David C. Kinney, East Detroit, and Daniel L. Donovan, Hazel Park, Mich., assignors to Continental Motors Corporation, Detroit and Muskegon, Mich., a corporation of Virginia
Application November 29, 1954, Serial No. 471,692
8 Claims. (Cl. 123—193)

1. In a construction of the class described an engine cylinder housing having relatively thin parallel outwardly projecting spaced apart air cooling fins adjacent a section of substantially greater thickness, a cylinder head for said engine housing conjoined thereto having a body element

of substantial thickness, and a bolt and nut assembly conjoining said housing and head, aligned bolt shank openings in said cylinder housing section and cylinder head element adapted to receive said bolt, said fins having nut slide ribs spaced apart from each other about said bolt opening in said cylinder housing section, said ribs



projecting into the spacing between said fins and being positioned closely adjacent said nut therebetween and adapted to position said nut relative to said bolt shank opening and to resist turning movement of said nut as it is drawn up on said bolt compressively against said cylinder housing bolt section, as said bolt is rotated to screw same into said nut.

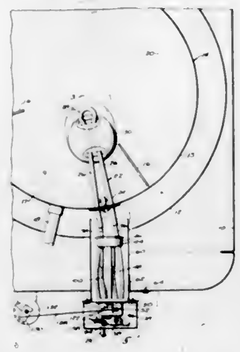
2,775,964
TOY GUN FOR SHOOTING MARBLES
Oliver J. Brown, Somerset, Ky.
Application September 22, 1954, Serial No. 457,640
2 Claims. (Cl. 124—21)

1. In a marble projecting gun, a breech housing having an opening extending from its forward to its rear end, a handle projecting from the rear of said housing, a breech block slidably mounted in said housing, said housing having flanges extending laterally from the upper and lower sides of the breech housing, pins connecting the upper and lower flanges, a doubled elastic band having ends carried by said pins and having a bight portion extending around the rear end of the breech block, a member having a reduced opening fixed into the forward end of the housing, a plunger having a head attached to the forward end of the breech block and a stem extending through and guided by said member, a coil spring surrounding said stem between the member and said head and bearing on the member and providing a resilient stop means, a hollow cylindrical marble holding extension projecting forwardly from said member.

2,775,965
VETERINARIAN MOUTH SPECULUM
Lancelot R. Montgomery, Casselton, N. Dak., assignor of one-half to L. Robert Montgomery, Casselton, N. Dak.
Application July 12, 1954, Serial No. 442,811
4 Claims. (Cl. 128—19)

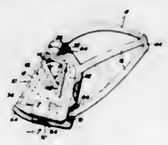
1. A mouth speculum comprising a frame adapted to embrace the nose and lower jaw of an animal, upper and lower horizontal spreader bars slidably carried by the frame and adapted to enter the mouth of the animal, a pair of levers pivoted to the respective spreader bars at opposite sides of the frame, and links connecting the levers to an opposing spreader bar to move the spreader bars toward or away from each other upon a swinging movement of the respective levers in opposite directions.

2,775,966
OIL BURNER IGNITION SYSTEM
Frederick H. Huntley, Lansing, Mich., assignor to Motor Wheel Corporation, Lansing, Mich., a corporation of Michigan
Application May 21, 1953, Serial No. 356,558
12 Claims. (Cl. 126—93)



5. In combination with a heater having an outer casing, an inner casing and a vaporizing pot type oil burner positioned within said inner casing, an electrical ignition unit removably supported on the side wall of the burner and projecting into the burner, said inner and outer casings having openings through the side walls thereof which are aligned in position with said ignition unit and through which the ignition unit is accessible from exteriorly of said outer casing, a tubular housing mounted on said outer casing and extending through said aligned openings, a temperature responsive switch mounted on said tubular housing and extending axially therein, said switch having a temperature responsive element positioned adjacent the inner end of said tubular housing in heat responsive relation to the side wall of the burner and having a switch mechanism adjacent the outer end of said tubular housing, and a cover removably mounted at the outer end of said tubular housing, said electrical ignition unit and said temperature responsive switch having electrical leads connected together in circuit within said cover.

2,775,967
RESPIRATOR
Eugene Sovinsky, Edgewood, Md., assignor to the United States of America as represented by the Secretary of the Army
Application June 15, 1951, Serial No. 231,887
3 Claims. (Cl. 128—141)
(Granted under Title 35, U. S. Code (1952), sec. 266)

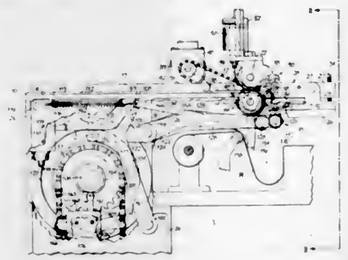


1. A gas mask comprising a facepiece formed substantially entirely of a sheet of filter material, said filter material comprising a plurality of plies of filter paper impregnated with finely divided activated carbon, said sheet being so formed that its edge extends across the forehead, down the sides of the head and under the chin in tight contact, while the front extends outwardly a substantial distance from the face thereby forming an air chamber, a separate eyepiece for each eye formed of stiff transparent material, and an elongated stiffener of rigid material connected to each said eyepiece adjacent the middle of the facepiece and extending longitudinally thereof to stiffen the front of said facepiece and hold said facepiece away from the face, sealing means sealing the edges of said sheet and an elastic head harness secured to the edges of said sheet.

2,775,968
MASK-TYPE RESPIRATOR
John Polli and Ettore Guastalli, Sacramento, Calif.
Application February 8, 1954, Serial No. 408,971
3 Claims. (Cl. 128—145)

1. A mask-type respirator comprising a head-supported, cup-like mask open at the rear and adapted to engage the face and enclose the nose and mouth of a wearer, said mask having a front opening, an air-pervious filter disc secured on the mask in covering relation to said front opening, an air intake member projecting into the mask at the bottom thereof and depending therefrom for connection at its lower end to a source of air under pressure, and a nozzle on the upper end of said member facing forwardly to discharge air against the filter disc.

2,775,969
CIGAR BUNCH AND METHOD AND APPARATUS FOR MAKING SAME
Henry H. Wheeler, Bellerose, N. Y., assignor to International Cigar Machinery Co., a corporation of New Jersey
Application January 19, 1950, Serial No. 139,393
21 Claims. (Cl. 131—14)

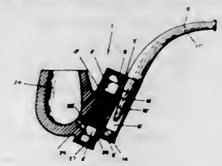


1. In a bunch forming mechanism for a long filler cigar machine of the type having a binder applying apron, a feed platform; rotating feed rollers at the edge of said platform constructed and arranged to feed tobacco leaves one by one; a rotary knife coacting with one of said feed rollers to sever a predetermined bunch length from each tobacco leaf; a composite substantially cylindrical bunch forming and measuring chamber; said chamber having a longitudinal slot to receive said severed lengths of tobacco from said feed rollers so that they will pass within said chamber to coact with the interior thereof to form a coiled rod; said chamber further having a movable section to permit removal of said coiled rod; and pressure activated means attached to said chamber to swing open said movable section.

2,775,970
CIGARETTE PAPER
Alexander W. Schoenbaum, Richmond, Va., assignor to The American Tobacco Company, New York, N. Y., a corporation of New Jersey
No Drawing. Application June 8, 1954, Serial No. 435,359
4 Claims. (Cl. 131—15)

1. A cigarette paper containing not less than 0.5% and not more than 2% by weight of sodium chloride, and not less than 0.1% and not more than 1.0% of a fire retardent selected from the group consisting of carboxymethylcellulose, gum arabic, hydroxyethyl cellulose, locust bean gum, gum tragacanth, sodium alginate, Methocel X-2602 (a water soluble hydroxypropyl methylcellulose ether) and carboxymethyl hydroxyethyl cellulose.

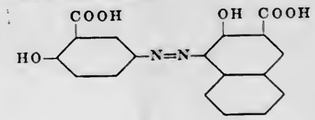
2,775,971
SMOKING DEVICE
Frank Foreman, Mimico, Ontario, Canada
Application August 13, 1954, Serial No. 449,725
2 Claims. (Cl. 131—213)



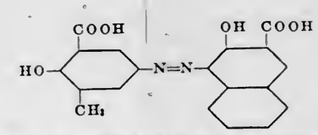
1. In a smoking device, a smoke purifying and tar eliminating means comprising two adjacent separate chambers inclining downwardly, the bore of the first chamber being reduced at the lower end to provide a heavy tar juice collecting chamber and to provide seating means for a filtering medium disposed within said first chamber, an inlet passage spaced from and extending throughout its length substantially above the lower end and within the reduced portion of said first chamber communicating with a source of tobacco smoke, an interconnecting passage adjacent the upper ends of said adjacent separate chambers, the second chamber comprising a moisture collecting and settling chamber and a mouthpiece leading from the upper end of said second chamber.

2,775,972
COMPOSITION AND PROCESS FOR DYEING HAIR
Oda S. Blair, Washington, D. C.; John M. Blair, executor of the estate of said Oda S. Blair, deceased, assignor to John H. Breck, Inc., a corporation of Massachusetts
No Drawing. Application January 2, 1952, Serial No. 264,690
10 Claims. (Cl. 132—7)

1. A composition for dyeing hair which comprises a fixative comprising at least one of the class of water-soluble monazo compounds which in their acid form are represented by the formulae



and



said composition comprising another compound which is taken from the group consisting of other water-soluble metallizable dyestuffs.

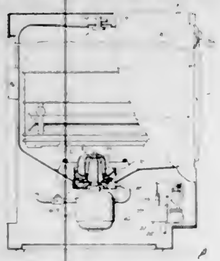
2,775,973
HAIR WAVING ACCESSORY
Mildred J. McDonough, Milton, Mass.
Application December 27, 1955, Serial No. 555,507
5 Claims. (Cl. 132—49)

1. A hair waving accessory consisting of a bag-like device closed at one end and having an opening extending across the other end and continuing down over a portion of one side, said opening being finished in a hem slotted at one end, said hem enclosing free sliding draw strings fastened at one end and extending through said slot, and a transverse strip of elastic secured under tension from approximately the center of one side of said bag across the side partially open at one end to approximately the center of the other side of said bag; said open end being adapted to be turned up over said closed end at said transverse strip; the material attached to said strip being yieldingly contracted and adapted to fit the nape of the wearer's neck.

2,775,974
EGG WASHING MACHINE
Camiel J. Coquyt, Ghent, Minn.
Application March 29, 1956, Serial No. 574,808
8 Claims. (Cl. 134—139)

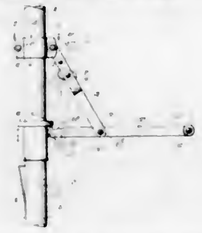
1. An egg washing machine comprising a tank adapted to contain water, said tank including two generally cylindrical portions interconnected by a narrower constricted throat, an openwork egg basket supporting means pivotally mounted centrally within each of said cylindrical portions, a current inducing impeller positioned within said constricted throat and baffles positioned adjacent to said impeller to direct current flows into said cylindrical portions.

2,775,975
DRAIN CONTROL SYSTEM
John L. Andrews, Chicago, Ill., assignor to General Electric Company, a corporation of New York
Application February 1, 1954, Serial No. 407,486
10 Claims. (Cl. 134—182)



1. In a dishwasher or the like, the combination of a tub adapted to receive a quantity of liquid; an impeller mounted in said tub at a low point thereof for rotation on a vertical axis and having a cylindrical hub portion and blade members extending outwardly therefrom to circulate liquid throughout said tub during a first of two optional directions of rotation of said impeller and to induce in the free liquid about said hub a rotation of said liquid in the direction of rotation of said impeller; a pump chamber disposed externally of said tub, said pump chamber having a wall in common with said tub below said impeller; a multibladed impeller disposed in said pump chamber and arranged to be driven conjointly with and in the direction of said first-named impeller; a discharge conduit extending from said pump chamber; a plurality of drainage openings communicating between said tub and said pump chamber, said drainage openings being defined by lanced-up portions of said common wall below said first-named impeller blade members, said lanced-up wall portions, further forming dome-like walls rising up and about said openings and facing downstream, as respects the rotation of liquid about said impeller during the rotation thereof in said first direction, said dome-like walls diverting said liquid from the drainage openings during such rotation and directing liquid therethrough into said pump chamber during rotation of said impeller in a second direction; and means for rotating said impeller in either said first or said second direction.

2,775,976
UMBRELLA OPENING DEVICE
James R. Cavanaugh, Chicago, Ill.; Mildred Cavanaugh, administratrix of said James R. Cavanaugh, deceased
Application October 15, 1953, Serial No. 386,234
4 Claims. (Cl. 135—20)



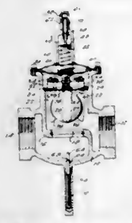
1. A toggle mechanism for opening and closing an umbrella having a center stem, a sleeve slidable on said stem to open and close said umbrella and a latch member for abutting said sleeve to hold such umbrella in open position, comprising a depending arm pivotally secured at its upper end to said center stem above said latch member, a control lever pivotally secured intermediate its ends to the lower end of said arm, a shoulder on one end of said control lever adapted to support said sleeve when said shoulder on said lever is disposed in the lowermost position of adjustment, said shoulder providing a means of lifting said sleeve when the opposite end of said control lever is pivoted downwardly.

2,775,977
COLLAPSIBLE UMBRELLA
Hans Haupt, Dusseldorf-Oberkassel, Germany
Application June 15, 1954, Serial No. 436,920
Claims priority, application Germany June 25, 1953
7 Claims. (Cl. 135—26)

1. In a collapsible umbrella, having a stick formed of telescoping sections and ribs pivoted to said stick composed of telescoping members and a main runner and an auxiliary runner slidably mounted on said stick, in combination with, a series of spreaders each comprising an inner arm pivoted to said main runner and an outer arm connected to a member of a rib, said arms of each spreader being pivoted to each other and movable to and from an active position of maximum angle between said arms wherein the spreaders spread and ribs to open the umbrella, and a brace for each spreader comprising an inner leg pivoted to said auxiliary runner and pivoted to the inner arm of a spreader, and an outer leg pivoted to said inner leg and to the outer arm of said spreader, said legs and arms completing a polygonal link system of the pantograph type whereby angular movement between said inner leg and said inner arm will move said outer leg and said outer arm opening the spreader towards the active position when the angle between said inner leg and inner arm is reduced, the distance between the pivot

of the inner leg and inner arm and the pivot of the inner leg with the outer leg being so arranged relative to the space between the pivot of the outer leg with the outer arm and the pivot of said arms, that movement throughout a certain angle between said inner arm and inner leg will be translated into a movement between said inner arm and outer arm of a larger angle, the parts serving the spreading of the umbrella being shaped and connected with each other in such a manner that in the opened state of the umbrella the outer and the inner arm of the main spreader form a substantially straight line and said main spreader forms with the double-arm auxiliary spreader an acute angle.

2,775,978
SAFETY VALVE
Fred H. Bunnell, Harold E. Handley, and Robert F. Bancroft, Jackson, Mich., assignors to Handley Brown Heater Company, Jackson, Mich., a corporation of Michigan
Application January 2, 1953, Serial No. 329,330
6 Claims. (Cl. 137—80)

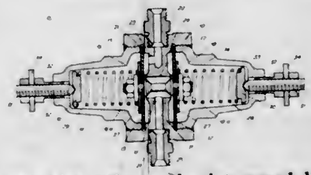


1. In an automatic fluid flow control valve comprising a valve casing containing a valve seat and a valve element releasable to seat against the valve seat upon the occurrence of excessive pressure or temperature, means operable to set said valve member in position for release, said means including a reset element, means mounting said re-set element on the valve casing for actuation from an initial position so as to cause the valve element to be moved off its valve seat into the release position, closure means for normally enclosing said re-set element upon the valve casing, and safety means cooperable between the re-set element and the said closure member to preclude application of said closure member unless said re-set element is in said initial position in which it has no influence upon the position of said valve element.

2,775,979
AUTOMATIC DRAIN VALVE FOR PIPELINES
William H. Stout and Paul H. Raumaker, Portland, Oreg.
Application June 23, 1953, Serial No. 363,512
13 Claims. (Cl. 137—107)

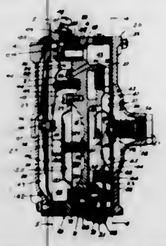
13. An automatic drain valve for a pipeline having at least one port positioned in the bottom of the valve comprising an annular resilient member having a top and bottom in cooperative relationship with the port, a pressure responsive portion of said resilient member adapted to be moved into and out of sealing relation with the port, a chamber in the valve at least one of whose walls is defined by the resilient member, means for applying fluid pressure to the top of the member to move said pressure responsive portion of the member and open the port when the pressure in the pipeline falls below a predetermined amount to drain the pipe, and a movable element for moving the pressure responsive portions of the member to close the valve when the line has been substantially completely drained.

2,775,980
AUTOMATIC SWITCHING VALVE
Jacques Henri Renaudie, Boulogne-sur-Seine, France, assignor to L'Air Liquide, Societe Anonyme pour l'Etude et l'Exploitation des Procedes Georges Claude, Paris, France
Application July 18, 1952, Serial No. 299,633
Claims priority, application France July 20, 1951
4 Claims. (Cl. 137—113)



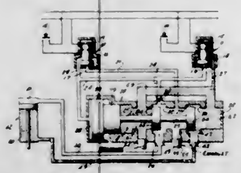
1. In a switching valve to be interposed between a gas outlet and two separate gas inlets each of which is connected to a separate high pressure gas source for supplying said outlet with gas at a low pressure substantially constantly, in combination, an elongated valve body provided with a transversely disposed middle wall, two flexible diaphragms secured at their marginal edge portions to said valve body and each spaced from and at each side of said middle wall to define a gas tight chamber on each side of said middle wall and communicating respectively with each of said high pressure gas sources, the face of each diaphragm opposite to the middle wall face being exposed always to atmospheric pressure, means extending through said middle wall for rigidly coupling said diaphragms so that they are adapted to move as a whole, said means passing freely through said middle wall through a transverse opening therein, the marginal edge portions at the ends of said opening constituting valve seats, each seat in its turn when engaged by its adjacent diaphragm constituting a valve adapted to control the communication of each gas tight chamber with the other and with said gas outlet when said valve is moved towards its closing position by moving the corresponding diaphragm towards said valve seat, resilient means adapted to apply a thrust on the atmospheric pressure side of and individual to each of said diaphragms, and means adapted to control said resilient means for applying on the whole of said diaphragms a thrust alternately directed in one direction and the other.

2,775,981
FLUID PRESSURE REGULATOR
Lawrence C. Zonker, Bell, Calif.
Application April 26, 1954, Serial No. 425,708
6 Claims. (Cl. 137—505.12)



1. In a fluid pressure regulator: a body casing having oppositely facing recesses separated by a partition wall; a flexible diaphragm forming one side of one of said recesses to provide a primary pressure chamber having an inlet for relatively high pressure fluid; valve means for said inlet, said valve means being controlled by said diaphragm; a flexible secondary diaphragm forming one side of the other of said recesses to provide a secondary pressure reducing chamber; a connection between said chambers; secondary valve means for controlling said connection; means connecting the secondary valve means and secondary diaphragm together; relatively light yielding means urging said secondary valve in the closing direction; idle means, including yielding means counterbalancing the first mentioned yielding means; and shutoff means including means forming a vacuum chamber; a shutoff diaphragm exposed to vacuum in said vacuum chamber; and relatively strong yielding means urging the shutoff diaphragm in a direction to apply pressure on the secondary valve in the valve closing direction to tightly close said valve when no vacuum is applied to said shutoff diaphragm.

2,775,982
DIFFERENTIAL-PISTON VALVE AND DUAL PILOT-VALVE CONTROL THEREFOR
Albert V. H. Canfield, Cedar Grove, N. J., assignor to Automatic Switch Co., Orange, N. J., a corporation of New York
Application May 4, 1954, Serial No. 427,429
2 Claims. (Cl. 137—620)

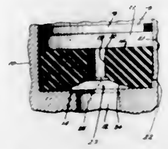


1. In a valve of the character described: a valve body defining in an adjacent intercommunicating axially aligned series a relatively large piston chamber, a smaller piston chamber, a pressure chamber, a valve chamber, and an exhaust chamber; said valve chamber having an inlet valve seat at the pressure chamber side; a valve element in said valve chamber for alternate seating on and lifting from said valve seat; a valve stem extending through said pressure chamber; a differential piston on said valve stem with its larger part in said larger piston chamber and its smaller part in said smaller piston chamber; a supply of fluid under pressure and means for maintaining it in constant communication with said pressure chamber; a pair of parallel fluid passages between said larger piston chamber and said pressure and exhaust chambers respectively; an independently operable normally closed pilot valve in each of said fluid passages; whereby alternate opening of said pilot valves will control the movements of said differential piston, hence of said valve element, and means establishing a constantly open communication of restricted capacity between the larger piston chamber and the valve chamber, said communication being positioned to alternately connect to the pressure chamber or to the exhaust according to the position of the valve.

2,775,983
FLEXIBLE DIAPHRAGM HAVING A TROUGH
Charles B. Johnson and Robert J. Sarraf, Pittsburgh, Pa., assignors to Rockwell Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application December 27, 1951, Serial No. 263,668
5 Claims. (Cl. 137—793)

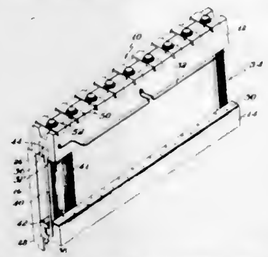
1. A flexible diaphragm having a preformed annular trough at its intended region of flexure intermediate inner and outer annular clamping regions comprising a single centrally apertured woven fabric disk, said fabric being of sufficiently open weave construction that during a molding operation rubber can flow between the woven threads of said fabric and extending between said inner and outer clamping regions through said trough, a body of flexible rubber upon said fabric disc and providing a smooth outer surface covering layer entirely covering each side and the outer peripheral edge of and extending through said fabric between the threads thereof whereby, in the event of rupture of said covering layers sufficient to provide a fluid leakage path to a thread thereof, escape of fluid along such thread to the outer periphery of the diaphragm is prevented, said rubber body having uniformly thick annular regions at said outer and inner annular clamping regions of sufficient thickness to provide a cushion to permit clamping of said diaphragm in such regions without exposure of or producing damage to said fabric disc and being of uniform thickness throughout said trough to permit uniform free flexure of said diaphragm.

2,775,984
FLOW CONTROL STRUCTURE
Robert R. Dahl, Chicago, Ill., assignor to The Dole Valve Company, Chicago, Ill., a corporation of Illinois
Application October 30, 1953, Serial No. 389,210
2 Claims. (Cl. 138—45)



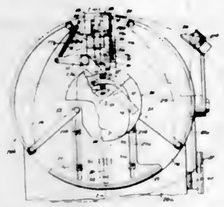
1. A flow control device comprising a casing having a passageway therethrough, the passageway having a flat annular shoulder of substantial width facing in an upstream direction, a resilient flow control member loosely carried in said passageway and seating against said shoulder, the member having a flat face facing in an upstream direction, an outer wall portion generally parallel to the wall of said passageway, a central flow orifice leading therethrough from said flat face, and having a uniformly contoured generally frusto-conical recessed downstream face concentric with said flow orifice and facing said shoulder and having engagement with said shoulder adjacent the outer margin thereof a substantial distance outwardly from the inner margin of said shoulder, and so proportioned as to flex inwardly into engagement with said shoulder and move inwardly along said shoulder to the inner margin thereof and form a substantially flat downstream face in engagement with said shoulder upon certain predetermined increases in pressure on said flow control device, and to flex radially inwardly upon engagement of said contoured face with the entire area of said shoulder with no axial deformation to gradually reduce the cross-sectional area of said orifice and maintain a substantially uniform flow rate through said orifice over a wide range of increases in pressure on said flow control device.

2,775,985
COMBINATION LOOM LAY AND REED FRAME
Clayton E. Schmidt, Acushnet, Mass.
Application April 8, 1954, Serial No. 421,833
21 Claims. (Cl. 139—188)



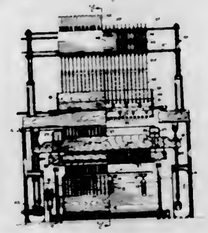
1. A loom lay including a bottom rail and a cap arranged to receive between them a reed frame, a reed frame of the kind having rigid rectangular metal sides with metal dent wires anchored at their ends between two of the sides, said two sides constituting the backs of the frame and being adapted to parallel the bottom rail and cap, and means operably associated with the bottom rail and cap to engage the backs of the reed frame and to apply equal and opposite stresses to said backs in directions parallel to the dent wires to impart tension thereto.

2,775,986
APPARATUS FOR THE AUTOMATIC FORMING OF A SHAPED LOOP OF WIRE FROM WIRE STOCK
Eric Holroyd, Speke, Liverpool, and Desmond Lawson Jenkins, Kirkby, England, assignors to Dunlop Tire and Rubber Corporation, Buffalo, N. Y., a corporation of New York
Application September 12, 1952, Serial No. 309,212
3 Claims. (Cl. 140—88)



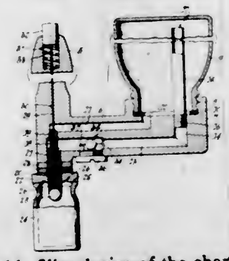
1. Apparatus for the automatic production of shaped loops of wire from wire stock which comprises a loop former rotatable about its axis and comprising a back plate, a pair of adjustable, loop forming, segments each pivotally mounted at one end on the back plate and having arcuate loop forming surfaces, a third, actuating segment having an arcuate loop forming surface, said actuating segment being slidable on the back radially with respect to the pivotally mounted segments, and links connecting said pivotally mounted segments to the actuating segment whereby radial movement of the actuating segment causes the pivoted segments to pivot on the back plate, means for rotating the loop former intermittently to provide a dwell period between each revolution thereof, a releasable clamping means on and rotatable with said loop former to receive the free end of the wire stock, a cutting means on and rotatable with said loop former positioned beyond the clamping means to cut a loop drawn onto the former at the free end of the loop and means to operate said cutting means and said clamping means during the dwell period of the rotation of the loop former.

2,775,987
VIBRATORY PACKING MACHINE
Walter S. Bohlman and Jack D. Hayes, Jr., Wilmington, Del., assignors to Hercules Powder Company, Wilmington, Del., a corporation of Delaware
Original application April 1, 1953, Serial No. 346,206. Divided and this application May 21, 1954, Serial No. 431,337
3 Claims. (Cl. 141—12)



1. A process for filling and packing material into containers which comprises forcing the material through a passage and into a container by means of a reciprocating member, subjecting the container to vibration to consolidate the material in the container, shortening the effective stroke of the reciprocating member when the container is filled to the desired density, continuing reciprocation of the member with a shortened effective stroke until the passage is at least partially filled with a packed core of the material, replacing the filled container with an empty container, and lengthening the effective stroke of the reciprocating member to force the packed core into the empty container.

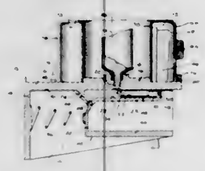
2,775,988
PORTABLE LIQUID DISPENSING DEVICE
Lewis T. Hamner, Petersburg, Va.
Application February 15, 1955, Serial No. 488,277
7 Claims. (Cl. 141—305)



1. In a portable filler device of the character described, a sealed fill supply container, a portable upright handle supporting a filler head engageable without sealing against a receptacle to be filled and having concentrically spaced filling and venting tubes extending therethrough and depending vertically a predetermined distance below the filler head for projecting into a receptacle, valve means carried by the handle and engageable over the lower ends of the tubes or removable therefrom to simultaneously close or open both said tubes, a filler duct con-

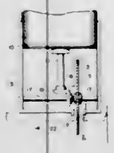
necting the filler tube with the container, an air venting duct connecting the venting tube with the container at a high point therein, and a check valve in the vent duct and closeable by liquid flowing through the venting tube into the venting duct from a filled receptacle.

2,775,989
DISPENSER AND SUPPORTING MEANS
James Earl Jensen, Janesville, Wis.
Application August 9, 1954, Serial No. 448,542
11 Claims. (Cl. 141—360)



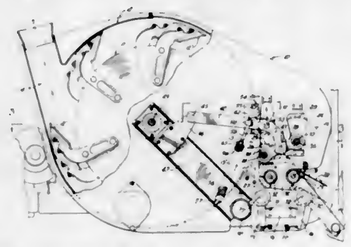
1. A dispenser comprising a mounting member having a bore constituting a chamber from which material is dispensed, the bore having an inlet opening and a discharge opening, means for mounting a container on the member in communication with the inlet opening, plunger means slidable in the bore including an outer sleeve having a sliding fit in the bore and a plunger contained entirely within the sleeve and slidable therein within predetermined limits, and actuating means connected to said sleeve positioned for engagement by a tooth brush or the hand, said actuating means and plunger means being movable between a normal retracted position wherein the actuating means closes the discharge opening and the inlet opening communicates with the bore, and an advanced position wherein the discharge opening is opened and the plunger means covers the inlet opening, the sleeve in the initial portion of the advancing movement closing the inlet opening and operative upon engaging the plunger element therein for advancing the latter in the bore and forcing the material from the bore through the outlet opening.

2,775,990
MITERING SAW UNITS
Robert G. Clark, Baltimore, Md.
Application July 22, 1954, Serial No. 444,999
12 Claims. (Cl. 143—6)



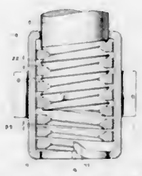
1. A portable circular saw unit comprising in combination a circular saw, a vertically disposed motor for rotating said saw under it, a normally horizontal guide plate including slots diverging from a predetermined area thereof, said motor being free of the plate except for guide means extending below the saw arbor and relatable to said slots, means for selectively carrying the motor and saw over said plate in selected ones of plural directions determined by said slots respectively and sequentially and enabling said circular saw to cut an article on which said plate is rested along a selected predetermined line, when said circular saw is manually propelled during its operation.

2,775,991
FEED ROLL SUPPORTING MECHANISM
Brantford G. Elliott, Royal Oak, Mich., assignor to Harry Ferguson, Inc., Detroit, Mich., a corporation of Delaware
Application January 26, 1953, Serial No. 333,192
2 Claims. (Cl. 146—118)



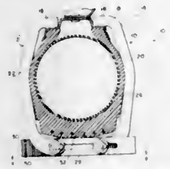
1. The combination with mechanism for treating fibrous crop material, of mechanism for feeding material to the treating mechanism comprising, first and second pairs of feed rolls, framework supporting the treating mechanism and the first pair of rolls, a pair of laterally spaced arms each pivoted at one end on said framework, a shaft journaled in each of said arms and having a pair of pinions fixed to opposite ends thereof, a pair of racks mounted on said framework for engagement with the respective pinions to constrain said arms to move in unison, means carried on the free ends of said arms rotatably supporting said second pair of rolls for movement toward and from the associated first pair of rolls, a sprocket wheel coaxial with and drivingly connected to each of said four rolls, a pair of idler sprocket wheels supported at the side of the first pair of rolls opposite to the second pair of rolls for movement toward and from each other, an endless chain drivingly engaging all of said sprocket wheels, said chain being directed around the outer sides of said idler sprocket wheels and the sprocket wheels associated with the second pair of rolls and around the inner sides of the sprocket wheels associated with the first pair of rolls, and means yieldably urging one of said idler sprocket wheels away from the other idler sprocket wheel to maintain said drive chain taut as said arms move in unison when said second pair of rolls are shifted toward and from said first pair of rolls.

2,775,992
LOCK NUT COMPRISING A BARREL AND THREADED LOCKING COIL RETAINED THEREIN
Byrom J. Smith, Brookfield Center, Conn., assignor to Heli-Coil Corporation, Danbury, Conn., a corporation of Delaware
Application August 11, 1953, Serial No. 373,573
5 Claims. (Cl. 151—14)



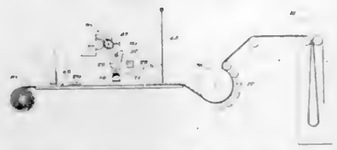
1. A lock nut comprising a barrel open at least at one of its ends, a resilient, axially compressed, wire coil inserted in said barrel, said barrel including inner shoulders at its top and bottom against which said compressed coil permanently bears with its ends, respectively, thereby defining the unchanging axial length of said coil, each shoulder having an abutment surface in a radial plane including the axis of the barrel, said coil being held with its ultimate ends in permanent engagement with said abutment surfaces, respectively, the inner portion of at least the major part of said coil forming a female thread of a shape corresponding to a pitch different from that of a screw bolt or stud for which the nut is destined, and the convolutions of said coil in said barrel between said ultimate ends being spaced from one another and free to shift in the axial direction with respect to one another and to said barrel, whereby the total change of the spacing of convolutions when engaged by said screw bolt or stud will be balanced by a total converse change of the spacing of the non-engaged convolutions, and the total number of convolutions of said coil being larger than its number of convolutions engageable by said bolt or stud.

2,775,993
ADJUSTABLE ANTI-SKID DEVICE FOR PNEUMATIC TIRE
Reuben L. Young, Philadelphia, Pa.
Application October 12, 1954, Serial No. 461,819
1 Claim. (Cl. 152—228)



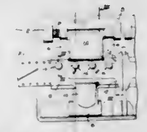
An adjustable anti-skid device for a pneumatic tire mounted on a wheel rim comprising a pair of integral complementary plates each including a hook end adapted to engage the rim, an intermediate portion adapted to embrace the side wall of a tire and an elongated portion opposite the hook end and adapted to extend transversely across and beneath the tire tread, said elongated portions overlapping each other, matching elongated slots in said elongated portions terminating adjacent the ends thereof, spaced cooperating interlocking teeth in the abutting faces of said elongated portions, headed bolts having shanks generally perpendicular to said overlapped elongated portions and extending through said matching slots and closure nuts on said shanks, whereby said complementary plates may be adjusted laterally to accommodate different tire sizes.

2,775,994
METHOD AND APPARATUS FOR PRODUCING A DECORATIVE SURFACE COVERING SHEET
William Rowe, Lewiston, Maine, assignor to Bonafide Mills, Inc., Lisbon, Maine, a corporation of Maine
Application February 19, 1954, Serial No. 411,475
5 Claims. (Cl. 154—20)



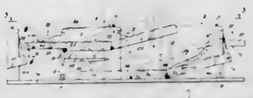
4. Apparatus for producing a decorative sheet of the character described, comprising means for supporting and continuously advancing a backing web, means for depositing a pigmented composition in granular form upon the backing web as it advances, a reciprocable strickler bar extending transversely of the backing sheet for operating on the granular mass to spread it to a uniform thickness evenly over the backing sheet, means for pressing the granulated surface into a unitary layer and for bonding it to the backing sheet, means for forming and applying flakes of pigmented composition in a scattered pattern over said granular layer prior to its passage to said pressing means, said flake forming means comprising a pair of cooperating rolls, means for feeding a plurality of different colored masses of a pigmented plastic composition between said rolls whereby to produce on one of the rolls a plurality of different colored sheets of plastic composition disposed along the surface of the roll, a plurality of narrow cutters, means for supporting the cutters whereby to dispose the same adjacent each of said colored sheets of plastic on the surface of the roll and with the cutters lying substantially in a horizontal plane passing through the axis of the roll whereby to enable a plurality of different colored elongated strips to be shaved from the roll and to be permitted to fall freely without coalescence with other strips, a cutter below said narrow cutters and in the path of the descending plastic strips for cutting the strips into shorter ribbon-like flakes, a belt disposed below said cutters and in a position to collect the descending flakes on the surface of the belt, a brush for projecting said flakes on the surface of said belt through the air and onto the surface of the granulated sheet to produce a scattered pattern of different colored worm-like plastic strips on the surface thereof, and means for subsequently subjecting the composite sheet to heat and pressure to embed the worm-like strips in the surface and to consolidate the whole into a unitary layer.

2,775,995
FILM SPLICER AND MARKER
Harry W. Leibensberger, Port Jefferson, N. Y.
Application December 30, 1954, Serial No. 478,853
7 Claims. (Cl. 154—42.1)



1. A film splicer and marker comprising, a base, a film clamp mounted thereon and having film registering means and a portion adapted to overlie a film, and cue marking devices mounted in said overlying portion longitudinally of the film and having a predetermined spatial relation to said film registering means.

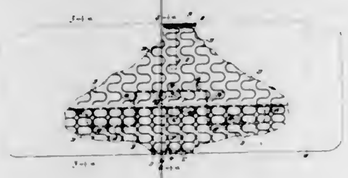
2,775,996
SLEEPING CHAIR-UNIT
David Tulledge Millar, Los Angeles, Calif.
Application September 16, 1952, Serial No. 309,840
5 Claims. (Cl. 155—7)



1. A chair-unit comprising a forwardly disposed chair and an adjacent rearwardly disposed chair, said chairs facing in the same direction, said rear chair including a seat and a back articulated to the rear portion of the seat, means for normally holding the seat and the back in a normal relation for supporting one's body in a sitting position, side walls for the rear chair between which its seat and back are mounted, means including guides on the inner faces of the side walls, and means projecting from the side edges of the seat received in said guides for effecting the guiding of the said seat forwardly and downwardly into a horizontal depressed position, directly and flatly resting upon and supported by, the floor, means

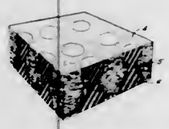
for supporting the forward edge of the back at substantially the same level as the depressed seat, thereby enabling the same to support the body in a reclining position with the lower limbs lying in a horizontal position under the seat of the forward chair.

2,775,997
TORSION SPRING SEAT-SPRING STIFFENER
Joseph E. Kubacka, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 12, 1953, Serial No. 330,650
4 Claims. (Cl. 155—179)



3. A spring cushion assembly comprising a supporting frame having a pair of spaced rails, a spring unit including a plurality of sinuous spring elements extending across said frame between said rails and including an upper portion anchored to one of said rails and a V-shaped underlying portion anchored to the other of said rails, and a torsion spring stiffener for imparting supplemental resiliency to said upper portion comprising a rod having a section connected to said upper portion and a pair of loops depending downwardly therefrom and connected to said V-shaped portion so that downward flexing of said upper portion torsions said loops.

2,775,998
CUSHIONS AND METHOD OF MAKING SAME
Kenneth B. Osborn, Newton, Mass., assignor to General Latex & Chemical Corporation, Cambridge, Mass., a corporation of Massachusetts
Application July 8, 1953, Serial No. 366,760
6 Claims. (Cl. 155—179)

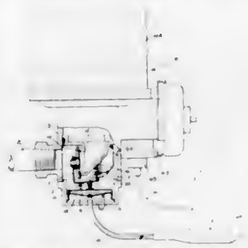


6. An improved cushion construction comprising a fibrous body which includes a plurality of webs of curled agave fiber and binder, said webs being superimposed upon one another in a position such that they are normally subject to a reduction in bulk if exposed to compressing forces, constituent fibers of respective webs being arranged to lie substantially in the planes of said webs and being interlocked together to impart side sway resistance to the fibrous body as a whole, said fibrous body being further formed with openings which extend transversely and entirely through the webs, and a plurality of reinforcing dowels of foam rubber located in and extending entirely through said openings, said dowels being attached to adjacent fibers of each of the webs and cooperating therewith to resist compacting of the webs against one another and to preserve the bulk of said webs substantially constant during the working life of the cushion construction.

2,775,999
POSTURE ATTACHMENTS FOR SEATS
James E. Goodeve, Brooklyn, N. Y.
Application March 11, 1954, Serial No. 415,513
3 Claims. (Cl. 155—182)

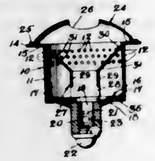
2. A posture attachment of the character described, comprising a loop of flexible material, a yieldable strip of greater length than the diameter of said loop and arranged in the loop to support the same in substantially crescent-shape, with a portion of the loop stretched between opposed ends of said strip, said strip assuming a curved contour when disposed in said loop with the material of the loop facing said strip, a rigid straight panel, a facing of flexible material on said panel, said facing being fixed to said loop, said panel being arranged centrally with respect to the curvature of said strip with its upper and lower edges within limits of corresponding edges of said loop when the attachment is in use, said panel being adapted to bear against a backrest in the use of the attachment, the ends of said strip flaring outwardly away from ends of said panel to provide rocking of the loop and strip on the adjacent surface of said faced panel, means attached to said panel facing for retaining the attachment in position on a backrest, said last named means comprising an elongated band, one end of which is attached to the loop adjacent said panel, and means for weighting the other end of said band.

2,776,000
SAFETY CONTROL FOR A GAS FUEL BURNER
John W. Miller, Lansing, Mich., assignor to Motor Wheel Corporation, Lansing, Mich., a corporation of Michigan
Application September 10, 1951, Serial No. 245,916
3 Claims. (Cl. 158—7)



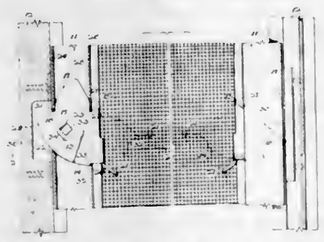
1. In a gaseous fuel heating apparatus, a main burner and a pilot burner, a valve controlling the flow of gaseous fuel to said burners, a valve control device comprising a diaphragm operatively connected to said valve means, a bulb positioned in heat exchange relation with said pilot burner, a tube connecting said diaphragm and bulb, and a gas within said tube and bulb which expands when subjected to the heat of said pilot burner to act upon the diaphragm and hold said valve means open, a portion of said valve controlling device being made of a low melting point material whereby whenever said valve is subjected to a predetermined temperature the fusible material will melt and the gas will flow from said bulb whereby the diaphragm is ineffective to hold said valve open and said valve closes to shut off the flow of gas to said burners.

2,776,001
CROSS DRAFT BURNER
Charles Edwin Goulding, Sr., Tampa, Fla.
Application April 15, 1953, Serial No. 348,927
1 Claim. (Cl. 158—91)



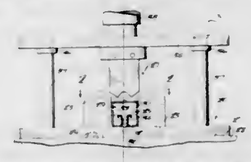
A fuel burner comprising a housing including a cylindrical vertically disposed side wall provided with a plurality of spaced apertures therein, a bottom wall including an outer flat portion and an inner inclined portion provided with a central opening, an annular flange extended outwardly from the upper edge of said side wall and provided with a plurality of openings for providing an overdraft for the flame after it has passed out of the burner, a deflector arranged within said housing, a vaporizer tube provided with a vertically disposed passageway communicating with the opening in said bottom wall, a conduit for conveying fuel from the source of supply to said vaporizing tube, a plug detachably connected to the lower end of said tube, a cap mounted on said housing and including an annular lip abutting said flange, said cap including a major curved portion extending upwardly from said housing, there being an elongated cut-out in said cap, said deflector including a pair of spaced parallel vertically disposed legs having their lower ends engaging the outer portion of said bottom wall, said legs abutting the inner surface of said side wall, the top of said legs terminating below the apertures in said side wall, a pair of spaced parallel vertically disposed apertured baffles extending between said legs and secured thereto, and an outwardly extending plate having apertures therein extending from the upper edge of each of said baffles, the upper surface of said plates being shaped arcuately, said plates extending from said baffles to said side wall, the upper edges of said plates having the same contour as the inner surface of said side wall, the bottom wall of said housing and said baffles coacting to give the incoming lower draft currents such a shape as to prevent eddies and cold spots where the two drafts meet, the apertures in said plates admitting sufficient air to prevent overheating and burning of the plates.

2,776,002
SELF-RETAINING LATCH
Owen Conrad, Miami, Fla., assignor to American Screen Products Company, a corporation of Florida
Application February 16, 1953, Serial No. 336,926
9 Claims. (Cl. 160—369)



1. In a hollow frame member having spaced parallel side walls and having a first slot in one of said walls and a second slot in the other wall, a latch member adapted to be mounted in the frame member, said latch member comprising a disc loosely mounted in the hollow frame for bodily shifting movement and pivotal movement, said disc being formed with a V-notch at the top, said notch pivotally engaging the upper edge of the first slot, said disc having a circular portion normally slidably engaging the lower edge of the first slot, and a portion presented as a tongue slidably engaging the second slot, said tongue portion being protruded beyond the second slot when the disc is pivotally moved in one direction about the V-notch and being retracted when the disc is pivotally moved in the opposite direction, said disc having a recessed portion at one end of the circular portion to engage the lower edge of the first slot when the disc is pivoted to the position where the tongue portion protrudes through the second slot, said disc being provided with a second circular portion in slidable engagement with the wall containing the second slot.

2,776,003
METHOD AND APPARATUS FOR CUTTING TUBING
Frank Koster, Stone Park, Ill., assignor to Vogel Tool & Die Corporation, a corporation of Illinois
Application September 14, 1955, Serial No. 534,225
8 Claims. (Cl. 164—17)

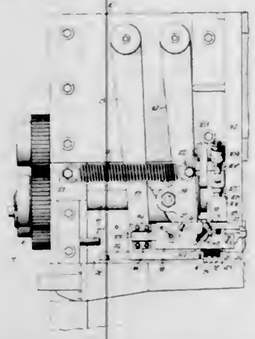


4. Apparatus for shearing tubing into lengths, the tubing having a wall with inner and outer peripheral surfaces and a longitudinally extending recess in said wall defined by a pair of laterally spaced flanges extending inwardly toward the axis of the tube, comprising: a base, die means mounted on said base, said die means including a first opening adapted to receive a tube and confine the outer peripheral surface of the wall of the tube in supporting relation, said die having a shearing opening extending transversely with respect to said first opening for receiving a cutting blade in shearing relation, a T-shaped mandrel mounted on said base, said mandrel having a leg connected to said base and extending in the recess of a tube into said tube, said mandrel having an enlarged transversely extending portion engaging the inner peripheral surface of the wall adjacent said shearing opening in supporting relation, a cutting blade reciprocally mounted above said shearing opening, and means for reciprocating said blade in said shearing opening, said cutting blade having a pair of laterally spaced V-shaped cutting edges, each cutting edge having inner and outer edges terminating in a piercing edge, each piercing edge having a path of travel disposed laterally outwardly of the flanges of said tube, the piercing edges during movement of the blade toward said shearing opening being adapted to engage and pierce a tube wall at laterally spaced points whereupon said wall is progressively sheared, and said inner edges are adapted to shear said flanges.

2,776,004
WIRE FEEDING DEVICE
John I. Carlson, Aurora, Ill., assignor to Carlson Tool & Machine Company, a corporation of Illinois
Application November 30, 1950, Serial No. 198,299
11 Claims. (Cl. 164—49)

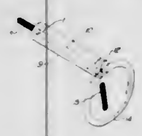
11. A wire delivery device comprising: a pair of wire gripping jaws; means for yieldingly closing said jaws to hold a wire therebetween; means for applying a force to a wire held in said jaws, said force being in a direction urging one jaw away from the other jaw in opposition to said closing means; means for carrying said jaws per-

mitting the concurrent positioning of each of said jaws to accommodate limited transverse translation of the wire in response to the application of said force, thereby preventing opening of said jaws by the overcoming of said



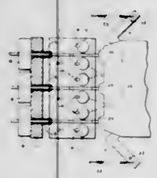
closing means; means for moving said jaws while closed to move the wire held therebetween; and means arranged to limit when desired the action of said carrying means and allow opening of said jaws to release the wire from therebetween.

2,776,005
STAPLE CUTTER
Kenneth H. Anthony, East Cleveland, Ohio, assignor to Industrial Rayon Corporation, Cleveland, Ohio, a corporation of Delaware
Application November 17, 1953, Serial No. 392,555
17 Claims. (Cl. 164—61)



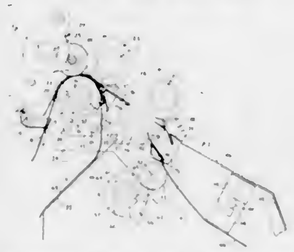
15. In combination in a cutter for severing continuous filaments into staple fiber lengths; a cutting means; at least one filament feeding means having a passage rotatable about its longitudinal axis associated with said cutting means, said axis being generally normal to the plane of said cutting means and said passage having an outlet end eccentric to the axis of rotation; means for conducting said filaments through said feeding means; and means for rotating said feeding means, the passage outlet end being occluded by said cutting means during part of its rotation.

2,776,006
DEVICE FOR SEVERING LENGTHS OF DRAWN STOCK
Ronald Hampton, Wightwick, near Wolverhampton, England, assignor to Patents and Investments Limited, Wolverhampton, England
Application March 30, 1954, Serial No. 419,833
4 Claims. (Cl. 164—68)



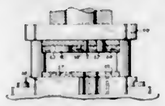
1. A device for severing lengths of drawn stock comprising a support, a housing on said support, at least one pair of parallel spindles journalled in said housing, means coupling said spindles together for counter-rotation relative to each other, means for rotating said spindles, at least one pair of cutter blades mounted one upon each spindle, disposed longitudinally of said spindles and constituting a pair of coacting blades which reach a position of confronting edge-to-edge relationship during each revolution of the spindles, longitudinal slideways on said support, means on said housing engaging in said slideways whereby the housing is slidable in opposite directions in said slideways, and stop means on said support defining a positively located position of said housing in said slideways.

2,776,007
STRIP FEEDING AND BURSTING APPARATUS
Charles H. Dietz and Robert W. Staneck, Dayton, Ohio, assignors to The Standard Register Company, Dayton, Ohio, a corporation of Ohio
Application October 11, 1954, Serial No. 461,452
12 Claims. (Cl. 164—84.5)



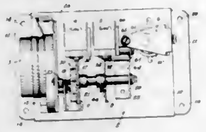
1. A strip severing or bursting apparatus including a pair of snatching rollers and a relatively spaced pair of snubbing rollers, a rockable carrier upon which one roller of each pair is mounted for simultaneous intermittent movement toward and from the other roller of the respective pairs of rollers to momentarily grip therebetween a strip to be severed, a strip feeding means mounted upon the carrier and operative to advance the strip relative to the rollers, driving means for imparting to the snatching rollers peripheral speed greater than that of the snubbing rollers and to the feeding means a speed substantially equal to the speed of the snubbing rollers and for rocking the carrier in timed sequence with the operation of the rollers and feeding means and including a cam follower on said carrier and a cam assembly having cam lobes sequentially engaging said follower to effect multiple rocking of said carrier during each complete cycle of operation of said cam assembly.

2,776,008
PUNCH AND DIE
George W. Soderman, West Englewood, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application March 8, 1952, Serial No. 275,477
1 Claim. (Cl. 164—118)



The combination with a press having a bed and a reciprocable tool holder, of a punch and die comprising punches cut from rod stocks of given uniform cross-sectional contours, plates cut from metal plate stock, identified as a die plate, a punch plate and a stripper plate, having an aligned set of apertures in all the plates for one of the punches and an aligned set of apertures in the stripper plate and the die plate only for another punch, means to removably cement the punch plate and the upper end of the punch in the aperture thereof to the tool holder of the press, means to removably cement the other punch to the punch plate in alignment with its respective apertures in the stripper plate and the die plate, a pad of resilient material of substantially the contour of the plates, perforated for the punches, disposed between and removably cemented to the punch plate and the stripper plate thereby to be supported by the punch plate and to support the stripper plate, means to removably cement the die plate to the bed of the press, and a pad of resilient material substantially of a size and contour to fill one of the die cavities removably cemented to the bed of the press and compressible by the aligned punch.

2,776,009
TIMER SWITCH
Victor E. Tamburr, Passaic, N. J., assignor to Industrial Timer Corporation, Newark, N. J.
Application November 19, 1951, Serial No. 257,085
5 Claims. (Cl. 161—1)

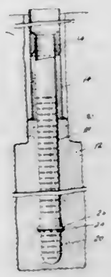


3. An electrical circuit controller for use in a timer switch of the type in which notched cam is rotated at predetermined speed when an electrical circuit condition is established and a notched cam follower rides on said cam to establish said condition when it is moved out of said notch, the controller comprising a notched cam, a cam follower, a blocking member, a guiding member for the axial support of the blocking member on the cam with respect to said notch in one position to normally overlay substantially the entire extent thereof and to define with the remaining surface of the cam a complete cam surface to hold said follower free from the notch, and a flared leading edge for the blocking member, the cam follower operable to engage the flared edge to urge said blocking member in an axial direction with respect to said notch to allow said follower to enter said notch to change the electrical condition.

2,776,010
SEALING POROUS EARTH STRATUM
James L. Rike, Midland, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, a corporation of Delaware
Application December 29, 1954, Serial No. 478,391
13 Claims. (Cl. 166—21)

1. A method for working over a well bore penetrating a plurality of porous hydrocarbon strata wherein a casing is set above the uppermost of said porous strata comprising setting a tubing string in said casing the lower end of which is positioned above the uppermost of said hydrocarbon strata, shooting said well below the lower ends of said casing and said tubing with an explosive charge thereby forming a cavity in said well, introducing into said cavity a low fluid loss cement slurry having a density range of 9 to 13.5 pounds per gallon, imposing a low squeeze pressure on said slurry sufficient to form a thin filter cake of cementitious material on said strata in said cavity, circulating out excess fluid cement, perforating a selected porous stratum in said cavity and then flowing fluids through the perforations formed in said selected stratum.

2,776,011
BOREHOLE GRAVEL PACKING
William A. Clark, Larchmont, N. Y., assignor to The Texas Company, New York, N. Y., a corporation of Delaware
Application June 30, 1953, Serial No. 365,146
6 Claims. (Cl. 166—51)



1. A bottom-hole assembly for use in completing a well with a gravel pack, said well having a casing extending downwardly to a cavity in a producing formation, comprising a well screen member, and a perforated annular plate attached to and around the lower end of said member, said plate being slightly smaller in diameter than the interior of said casing and adapted, when positioned within said casing, to support a mass of gravel between the screen and the inner surface of the casing, the arrangement being such that when the screen and plate are lowered through the casing, the gravel will remain supported around the screen and when the screen and plate pass into the cavity below the bottom of the casing, the gravel will flow downwardly around the plate to fill the space between the screen and the walls of the said producing formation.

2,776,012
APPARATUS FOR LOWERING AND ELEVATING TOOLS IN WELL BORES
Reuben C. Baker, Coalinga, Calif., assignor to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California
Application October 4, 1954, Serial No. 460,116
8 Claims. (Cl. 166—123)

1. In apparatus for moving a device in a well bore, the device having a laterally extending coupling pin: a member adapted to be connected to a running-in string and adapted to be moved over the device and its coupling pin; said member having a slotted structure therein including an inclined entrance slot portion to receive the pin and a locating generally vertical slot portion above and circumferentially offset from said entrance slot portion and communicating therewith; an inclined guiding wall below said locating slot portion to engage and guide the pin relatively circumferentialy away from said entrance slot portion; said guiding wall defining the lower side of an intervening slot portion inclined in a down-

ward direction circumferentially away from said entrance slot portion; said structure having generally vertical upper and lower pin retaining slot portions above and below and communicating with said intervening inclined slot portion and offset circumferentially from said

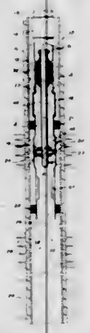
locating slot portion in a direction away from said entrance slot portion; said locating slot portion terminating a substantial distance above the upper end of said upper retaining slot portion; said structure further including an exit slot portion communicating with said pin retaining slot portions and through which the pin can move relatively downward out of said structure.

2,776,013

APPARATUS FOR COMPLETION IN A PLURALITY OF HYDROCARBON PRODUCTIVE STRATA

Gilbert H. Tausch, Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application March 11, 1954, Serial No. 415,489
8 Claims. (Cl. 166—150)



1. Apparatus for use in completion in a plurality of hydrocarbon productive strata adapted to be connected to a tubing string which is permanently arranged in a well casing which comprises a tubular member having a port fluidly communicating the interior of the tubular member with the exterior thereof, at least one by-pass nipple arranged in said tubular member, first and second spaced apart packing members arranged on said tubular member above and below said by-pass nipple, a removable flow tube provided with at least a port communicating with said by-pass nipple and having a closed lower end retrievably arranged in said tubular member for separably directing flow up said tubing string and through said port and up said casing from a first hydrocarbon productive stratum adjacent said by-pass nipple and from a second hydrocarbon productive stratum below the tubular member, means for closing and opening said port, a packing member carried by said flow tube for packing off the space between said flow tube and said by-pass nipple, said tubular member being adapted to be located in said casing above said second hydrocarbon productive stratum with its lower open end and said tubular member providing a substantially full open passageway on retrieving said flow tube from said tubular member.

2,776,014

TOOL FOR FRACTURING EARTH FORMATIONS

John A. Lee, Harry A. Barclay, and Malcolm O. Johnson, Dallas, Tex., assignors, by mesne assignments, to Socony Mobil Oil Company, Inc., a corporation of New York

Application December 14, 1953, Serial No. 397,966
4 Claims. (Cl. 166—177)

1. In an apparatus of the character described comprising in combination a flow section having a fluid port leading exteriorly thereof and provided with normally closed valve means capable of opening at a predetermined pressure differential to permit flow of fluid through said port, boot sections comprising a tubular member connected at each end of said flow section and having a port leading exteriorly thereof and a flexible, expansible boot surrounding each of said last named tubular members over the exterior portion thereof and attached thereto at its end portions thereof, said boot having a longitudinal dimension at least ten times as great as its lateral dimension and a valve section comprising a closure member connected at one end of one of said last named tubular members, said valve section having a port leading exteriorly thereof and valve means normally open to permit flow of fluid through said port and capable of closing at a predetermined rate of fluid flow, the improvement comprising a plurality of longitudinally disposed fingers embedded in and bonded to said boots adjacent to said ends thereof attached to said last named tubular members, said fingers having a thickness at least equal to their width.

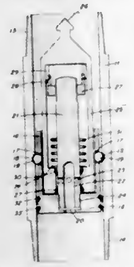
2,776,015

RETRIEVABLE TUBING PLUG

Walter J. Bielstein, Corpus Christi, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application May 21, 1954, Serial No. 431,521
3 Claims. (Cl. 166—188)

1. A device for use in plugging a tubing string which comprises, a tubing sub having a groove in its interior wall and adapted to be connected into the tubing string, a plug member having an upstanding cylindrical sleeve and initially positioned within said sub and removably locked therein provided with at least one port in cooperative relationship with said groove and having a central opening, the interior of the sleeve communicating fluidly with the tubing at least one locking member normally arranged in said port and groove, a tubular member positioned in said sleeve for holding said locking member in said port and groove, a fishing neck on the upper end of said tubular member, a mandrel for said locking member arranged within said tubular member and connected to said plug, said mandrel being provided with means for retaining said tubular member in said sleeve, means for sealing between said plug and said sub, and means for sealing between the tubular member and the mandrel,



said mandrel being provided with a passageway for fluid communication between the opening in said plug and the interior of said sleeve, and said tubular member being positioned within said sleeve in a first position to cover the passageway in said plug and adapted for slidable movement with respect to said plug to a second position to open said passageway, said locking member being released from said port and groove on continued movement of said tubular member from said second position past said locking member.

2,776,016

JET DRIVEN SUSTAINING ROTOR

Harris S. Campbell, Bryn Athyn, Pa., assignor to Autogiro Company of America, Philadelphia, Pa., a corporation of Delaware

Application June 9, 1948, Serial No. 31,946
8 Claims. (Cl. 170—135.4)

1. In an aircraft sustaining rotor, a rotor blade of elongated plan form, a spar-like extension of aeroform contour projecting radially from the blade tip and connected with the blade by pivot means providing for angling movement of the longitudinal axis of said extension relative to the longitudinal axis of said blade, and a jet driving device carried by said extension toward the outer end thereof, said pivot means including a pivot having its axis extended generally perpendicular to the blade axis.

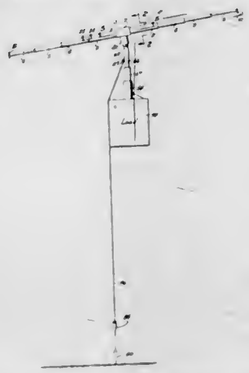
2,776,017

TELESCOPING ROTOR

Jesse B. Alexander, Anaheim, Calif., assignor to Gifford H. Teeple, Los Angeles, Calif., as trustee

Application April 20, 1953, Serial No. 349,651
3 Claims. (Cl. 170—160.11)

1. In rotor construction, a hub, blades extending from said hub, each blade including a fixed section and movable sections for telescopic reception within the fixed sections, means rockably mounting the fixed sections of each blade to the hub, a shaft within the hub, diametric arms rockably mounted on said shaft, means extending from each fixed section of the blades for engagement with said arms to be moved by said arms to vary the angle of incidence of said blades; releasable means for said arms for holding the arms in a defined position which, when released, permits the said arms to rock and engage



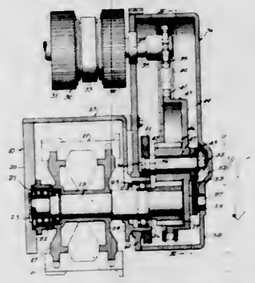
the second named means, and means for moving said arms when said releasable means is released.

2,776,018

SPEED REDUCTION DRIVE AND CHAIN TENSIONING DEVICE

Richard C. Lundquist, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application November 19, 1951, Serial No. 257,169
3 Claims. (Cl. 180—9.1)



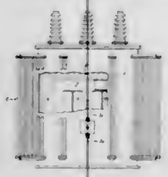
1. In a face loading machine for loading coal and the like in mines underground, a main frame, tread frames extending along opposite sides of said main frame and projecting laterally therefrom, continuous traction tread devices guided for movement along said tread frames for supporting and propelling said main frame, a drive motor on each side of said main frame, individual drive connections from each motor to an associated continuous traction tread device, each drive connection comprising a driving sprocket and a driven sprocket and a chain meshing therewith, three vertically spaced parallel shafts, a casing detachably secured to the outside of said tread frame and enclosing said shafts and chain and sprockets and affording ready access thereto, the uppermost shaft being a driving shaft and having said driving sprocket secured thereto, the lowermost shaft being a driven shaft, and the intermediate shaft being an idler shaft and having said driven sprocket freely mounted thereon, and said driving and driven shafts being rotatable about fixed axes, a cage rockably mounted within said casing for movement about an axis coincident with the axis of said driven shaft and having said intermediate shaft mounted thereon, a geared drive connection between said driven sprocket and said driven shaft including a gear on said idler shaft within the limits of said driven sprocket and driven by said driven sprocket and a gear secured to said driven shaft and meshing with and driven by said first mentioned

gear and spacing the axis of rotation of said driven sprocket above the axis of rotation of said driven shaft and thereby increasing the clearance between said gear casing and the ground, said three shafts lying in a common vertical plane under no load conditions and said cage controlling rocking movement of said idler shaft to one side or the other of said common vertical plane depending upon the direction of rotation of said driving shaft, and means carried by said casing and accessible from the outside thereof and engageable with said cage within said casing for limiting rocking movement of said cage and idler shaft, as selected.

2,776,019
VEHICLE DRIVE AXLES
Beverly W. Keese, Oshkosh, Wis., assignor, by mesne assignments, to Rockwell Spring and Axle Company, Coraopolis, Pa., a corporation of Pennsylvania
Application November 13, 1952, Serial No. 320,277
5 Claims. (Cl. 180—75)

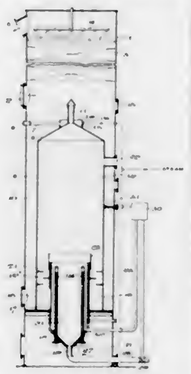
1. In an outer end assembly for a drive axle having a housing with a radial end flange and containing a driven axle shaft; a wheel mounting spindle with a radial flange, said radial flange being rigidly secured directly to said housing flange and said spindle projecting outwardly from said housing flange substantially parallel to said axle shaft; a wheel hub surrounding said spindle; an internal ring gear surrounding said spindle and having an axially outwardly extending hub engaging said wheel hub; a gear on said shaft meshed with said ring gear; a combined integral brake drum and tire mounting member having a substantially radial side flange and an axially inwardly extending periphery providing an internal brake drum surface; a brake mechanism support secured to said housing flange and extending axially outwardly therefrom within said drum in surrounding relation to said ring gear; brake shoes mounted on said support adjacent said brake drum surface and axially outwardly of said ring gear; spaced bearings interposed between the spindle and the wheel hub and between the spindle and the ring gear hub respectively; and common fastener means removably securing together said mounting member flange, wheel hub and gear hub whereby said tire mounting member can be removed to enable servicing and removal of the brake mechanism including said brake shoes.

2,776,020
NOISE REDUCING SYSTEM FOR TRANSFORMERS
William B. Conover and Willard F. M. Gray, Pittsfield, Mass., assignors to General Electric Company, a corporation of New York
Application February 9, 1955, Serial No. 487,028
14 Claims. (Cl. 181—31)



11. A system for effectively cancelling in a predetermined zone remote from an electrical induction apparatus the sound produced thereby, said apparatus having a comparatively large vibratory surface which propagates a sound wave of given frequency, shape and amplitude, comprising, in combination, at least one auxiliary source of sound having a comparatively small vibratory surface located closely adjacent said large vibratory surface, means for energizing said auxiliary source of sound to drive said small vibratory surface thereof, and means for controlling the frequency, phase and amplitude of the vibration of said small vibratory surface of said auxiliary source of sound so that it produces at least in said remote zone a sound wave of the same frequency, shape and amplitude as, but substantially in phase opposition to, said first-mentioned wave so that said waves are substantially in interference with each other in said remote zone, said controlling means being operable to vary the angular position of said remote zone of cancelled sound relative to said electrical induction apparatus.

2,776,021
METHOD AND APPARATUS FOR NAPHTHALENE ABSORPTION
Joseph van Ackeren, Pittsburgh, Pa., assignor to Koppers Company, Inc., a corporation of Delaware
Application November 18, 1952, Serial No. 321,249
14 Claims. (Cl. 183—3)

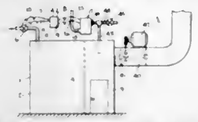


10. A process of removing naphthalene from coke oven gas in a by-product train comprising the steps of contacting the naphthalene-bearing gas in a first zone with a first liquid thereby condensing naphthalene vapors present in the gas as a precipitate in said first liquid, introducing into said first zone a second immiscible liquid of greater density in concurrent downward flow with said naphthalene-bearing first liquid, directing the combined flow of liquids from the lower portion of said first zone initially into the lower portion of a second zone to flow in an upward direction in said second zone and bringing them into intimate contact as they flow upwardly in said second zone so that said first liquid will pass through said second immiscible liquid of greater density which absorbs the naphthalene from said first liquid, allowing said second liquid of greater density to settle below said first liquid in a third zone, and separating said liquids.

2,776,022
SPRAYING BOOTH INSTALLATION EMPLOYING FILTERS
Herman Beller, Brooklyn, N. Y.
Application November 15, 1955, Serial No. 546,914
2 Claims. (Cl. 183—37)

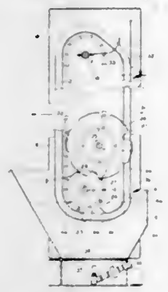
1. In an apparatus of the character described, a spraying booth containing a spraying chamber and an air outlet chamber, a filter interposed between the chambers, exhaust means communicating with the outlet chamber, spray-actuating air supply means controlled by a valve operated through an electric circuit, a pressure-controlled switch in said circuit, means for maintaining said switch

closed while air pressure in the outlet chamber is maintained above a predetermined level, means controlled by a drop in said air pressure to open the switch to thereby



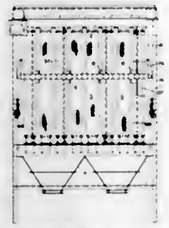
close the valve and shut off the flow of spray-actuating air into the spraying chamber, and means connected into the outlet chamber for regulatably admitting outside air into said chamber.

2,776,023
AUTOMATIC STACK TYPE FILTER
Deloss H. Robb, Louisville, Ky., assignor to American Air Filter Co., Inc., Louisville, Ky., a corporation of Delaware
Application January 14, 1955, Serial No. 481,943
7 Claims. (Cl. 183—52)



1. In a stack type filter, the combination comprising: a housing providing an air passageway; endless tracks in said housing at the sides of said passageway, said tracks comprising vertical runs joined at the top by curved portions; a plurality of filter members guided by said tracks and forming a vertical stack across said passageway, with the bottom member of said stack resting on a horizontally disposed filter member; means operated periodically for transferring the horizontal member in said tracks to the curved portion of the tracks at the top of said stack; and a rotary arm located adjacent the top of said stack for engaging and biasing said transferred member in the curved portion of the tracks at the top of said stack into vertical alignment with the stack.

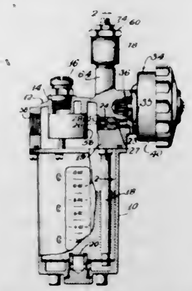
2,776,024
SECONDARY AIR SUPPLY MECHANISM FOR FILTERS
Evans E. Fowler, Louisville, Ky., assignor to American Air Filter Company, Inc., Louisville, Ky., a corporation of Delaware
Application April 1, 1955, Serial No. 498,665
9 Claims. (Cl. 183—61)



1. In a filter, the combination comprising: at least one vertically arranged pervious filter tube; a blow ring frame

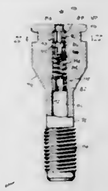
carrying a corresponding number of blow nozzle means, one for around each filter tube, said frame being adapted to longitudinally traverse said tube; a generally elliptically shaped hollow inlet nozzle carried by said frame, said hollow inlet nozzle communicating with said blow nozzle means; and an air supply tube having an elongated opening covered by converging flexible flaps receiving said hollow inlet nozzle therebetween, for supplying air through said hollow inlet nozzle to said blow nozzle means.

2,776,025
VARIABLE CAPACITY OIL MIST GENERATOR
Frederick G. Schweisthal, Skokie, Ill., assignor to Stewart-Warner Corporation, Chicago, Ill., a corporation of Virginia
Application October 13, 1953, Serial No. 385,745
4 Claims. (Cl. 184—55)



1. In a variable capacity oil mist generator, the combination of means defining a source of oil, a mist generating venturi, means for supplying air under pressure to said venturi for passage therethrough, means defining a passageway between said oil source and a reduced pressure section of said venturi, and means for accurately controlling the rate of oil flow into said venturi comprising, an elongated body defining an air inlet orifice and an air inlet passageway between said orifice and said first mentioned passageway, a valve member mounted in said body for regulating the effective flow area of said orifice, a cylindrical air filter surrounding the outer end of said body, and means including a transverse bore in said body connecting said filter with the inlet side of said orifice.

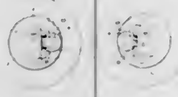
2,776,026
LUBRICANT FITTING
Charles C. Reiff, Wadsworth, Ohio, assignor to Rockwell Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application August 3, 1953, Serial No. 371,884
7 Claims. (Cl. 184—105)



1. A hollow lubricant fitting externally threaded adjacent one end and having a check valve chamber at its other end, a check valve within said chamber comprising a valve element having a body portion slidably received within said chamber and having a plurality of longitudinally extending lubricant passages spaced about said valve element, means spaced from said body portion and defining therewith a channel in constant communication

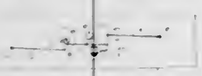
with said lubricant passages, a coil spring coaxial with said valve element held in spaced relation to said body portion and channel by said means and biasing said valve element to closed position and a central passage in said valve element extending beyond said means and in constant communication with said channel, whereby lubricant flow through the fitting is maintained even when said spring is solidly compressed.

2,776,027
AUTOMATIC BRAKING SYSTEM FOR AIRCRAFT
John Allen Pendlebury, Coventry, England, assignor to Dunlop Rubber Company Limited, London County, England, a British company
Application July 7, 1954, Serial No. 441,785
Claims priority, application Great Britain July 17, 1953
6 Claims. (Cl. 188—181)



1. An automatic braking system for aircraft comprising a pair of landing wheels, fluid-pressure operated brakes associated with each wheel and a rotary inertia automatic braking apparatus associated with each wheel for governing the braking pressure in accordance with the angular deceleration of the wheel, each of said apparatus comprising an inlet connection for pressure fluid, an exhaust connection and an outlet connection, a conduit connecting the outlet connection of one of said apparatus to the inlet connection of the other apparatus, and a conduit connecting the outlet of said other apparatus to both wheel brakes.

2,776,028
SLACK ADJUSTER
John H. Van Moss, Jr., Chicago, Ill.
Application December 29, 1953, Serial No. 400,984
7 Claims. (Cl. 188—198)



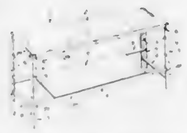
1. In a brake rigging for railway equipment, a multiple-section pull rod including an actuating end to which endwise pulling forces are to be applied to pull said rod in a predetermined endwise direction, an actuated end for transmitting brake applying movement to other portions of the brake rigging, and an intermediate pivot connecting adjacent sections of the rod for pivotal movement about a common axis, and a slack adjuster comprising a compensating lever having one end pivoted on a fixed pivot located between said actuating end and said intermediate pivot and having its other end pivoted to said intermediate pivot to displace said intermediate pivot laterally with respect to said direction and thus effectually shorten said pull rod as endwise movement is imparted to said pull rod in said predetermined direction.

2,776,029
CONSTRUCTION UNIT
Gustav Warner Hult, Euclid, Ohio, assignor to The Mills Company, Cleveland, Ohio, a corporation of Ohio
Application August 4, 1953, Serial No. 372,230
13 Claims. (Cl. 189—34)

1. A sheet metal panel construction comprising opposed, spaced, first and second metal sheets forming the sides of the panel, each of said sheets having a plurality of marginal flanges along corresponding edges extending inwardly toward the other sheets with each flange of the first sheet overlapping a portion of the corresponding flange on the second sheet and constituting the outside overlapping flange, the overlapping portions of the flanges being curved and cooperating to lock the sheets in their

spaced relationship, each of said flanges having an external groove parallel to the length of the flange adjacent the inner edge thereof, said flanges being so proportioned that the outside overlapping flange abuts a side of the groove in the corresponding inside overlapped flange and the inside flange abuts the inside surface of the opposed sheet.

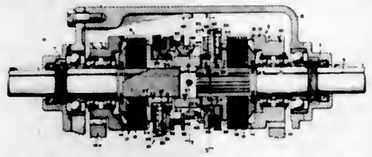
2,776,030
INTERLOCKING JOINT FOR ANGLE IRONS
William W. Bush, Essex Fells, N. J.
Application December 23, 1953, Serial No. 399,886
6 Claims. (Cl. 189—36)



1. Interlocking joint for structural elements, comprising upright post and horizontal beam members having flanges overlapping in angled relation, the flange on the post having an upwardly extending tongue connected at the bottom with the flange but cut from the flange across the top and down along an inner side edge, the lower portion of said tongue being offset from the flange approximately the thickness of the flange material and the upper portion of said tongue being offset in the same direction approximately twice the thickness of the flange material, the flange of the beam member having a horizontally extending tongue cut from the lower edge portion of said flange and offset therefrom substantially the thickness of that fiange material and in the opposite direction from the offset of said first mentioned post tongue, said second mentioned beam tongue being substantially the height of said lower, less offset portion of the first tongue and disposed in front of said first tongue over the part connecting the bottom of that tongue to the post flange, and that part of the beam flange above said second tongue being disposed in front of the upper, greater offset portion of said first tongue and thereby held in underlying relation in back of the flange of the post member with said second tongue retained and supported by said less offset lower portion of the first tongue.

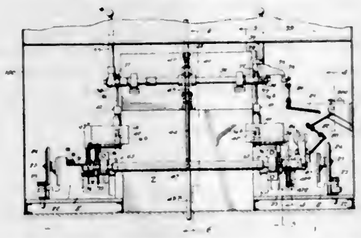
2,776,031
ADJUSTABLE PRESSURE PLATE ASSEMBLY FOR MULTIPLE DISC FRICTION CLUTCHES
Edwin W. Turnquist and Robert L. Wilson, Broken Arrow, Okla., assignors to J. E. Mabee, Tulsa, Okla.
Application May 21, 1954, Serial No. 431,438
8 Claims. (Cl. 192—48)

5. In combination with a driven shaft and coaxial friction disc clutch, an adjustable pressure plate assembly, comprising a pressure plate slidably splined on said shaft for direct engagement with said disc clutch, an oppositely disposed central extension on said plate forming a threaded hub, an annular spring plate having a threaded base extension for engagement with said hub, a second annular spring plate slidably mounted on said base extension in opposed relation to said first spring plate, springs interposed between said spring plates, normally



urging them apart, cam means carried by said shaft for applying pressure to said second spring plate, against the tension of said springs, an operating ring for actuating said cam means, and means for locking said first spring plate in a selected longitudinal adjustment on said hub.

2,776,032
CAM TURN-OFF DEVICE AND CONTROL THEREFOR
Joseph Kellogg, Milwaukee, Wis., assignor to Nordberg Manufacturing Company, Milwaukee, Wis., a corporation of Wisconsin
Application May 23, 1952, Serial No. 289,515
3 Claims. (Cl. 192—141)



1. In a control structure for multi-drum hoists, a pair of hoist drums and a pair of control assemblies, one for each drum, a common brake shaft for the two drums, a plurality of brake levers for said shaft, at least one said lever being movably mounted on the shaft, for movement between an operative and an inoperative position, means for maintaining said lever against rotation about the axis of the shaft when in operative position, said shaft being rotatable in relation to the lever when the lever is in inoperative position, and means responsive to the movement of said lever to inoperative position for rendering one of the drum control assemblies temporarily inoperative.

2,776,033
PORTABLE BELT CONVEYOR
Roy Lo Presti, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application December 1, 1953, Serial No. 395,434
6 Claims. (Cl. 198—233)

1. A belt conveyor comprising individual portable sections mounted upon wheels for portability thereof, said sections being capable of being rigidly secured together so that irrespective of being mounted upon wheels the so connected sections will not "snake," each of said sections including spaced frame members affording a support for the upper and lower reaches of a conveying belt, each of said sections being provided with a single pair of wheels and including means for mounting said wheels on said frame members, said wheels being disposed one on each side of said frame members and having turning centers located on axes extending laterally and horizontally of said frame members and spaced from each other in parallelism, a plate at each end of said sections extending between said frame members, a threaded pin connector disposed at opposite diagonal corners of said sections and supported by said end plates, and a complementary opening to a threaded pin at the other opposite diagonal corners of each section and located in said end plates, and a nut threaded to each pin to hold said sections together rigidly.

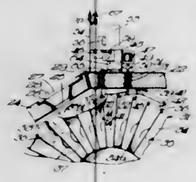
2,776,034
AMPULE ORIENTING MEANS
Robert C. Jordt, Deerfield, Ill., assignor, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware
Application December 1, 1953, Serial No. 395,463
4 Claims. (Cl. 193—43)

1. In a device for handling ampules having tubular body portions and elongated neck portions of reduced cross-section, ampule orienting means comprising, inclined chute means for slidably passing said ampules in a downward direction with substantial momentum, said chute means having communicating upper and lower portions, all transverse dimensions of said upper chute portion being less than twice the maximum transverse dimension of said ampules whereby said ampules are passed downwardly by said upper chute portion one by one and in an endwise direction only, means for introducing ampules one at a time in random endwise fashion into the upper end of said upper chute portion, a wall in said lower chute portion with an opening therein having a width greater than the maximum transverse dimension of said neck portions of said ampules and less than the maximum transverse dimension of said body portions thereof, said opening being located opposite the lower end of said upper chute portion and said wall being arranged diagonally across the path of said ampules emerging from said upper chute portion, said upper chute portion directing said ampules one at a time in said random endwise direction downwardly and obliquely toward said wall and said opening therein to cause those ampules moving with their body portions preceding their neck portions to be deflected downwardly by said wall around said opening and to cause momentary penetration of said opening by the neck portions of those ampules moving with their neck portions preceding their body portions, the penetration of said neck portions in said opening and engagement thereof with the edges of said opening retarding the advance of said neck portions until the momentum of their associated body portions has carried said body portions past the vicinity of said opening, thereby selectively turning certain of said ampules end-for-end and causing all of said ampules to proceed downwardly through said second chute portion with their body portions preceding their neck portions.

2,776,035
MACHINE FOR DISPENSING REFRIGERATED ARTICLES
Fred Hebel, Wilmette, Ill., assignor to Fred Hebel Corporation, Chicago, Ill., a corporation of Illinois
Application June 22, 1951, Serial No. 233,005
9 Claims. (Cl. 194—10)

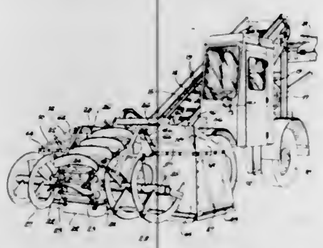
1. A vending machine for dispensing refrigerated articles in response to insertion of a coin comprising an

insulated cabinet having an access opening therein, means for maintaining a low temperature in said cabinet, an article-retaining wheel rotatably disposed in said cabinet in position for dispensing articles from said wheel through said aperture, means biasing said wheel for rotation in one direction, indexing mechanism operatively associated with said wheel and including a slidable actuating rod extending through a wall of said cabinet, a heating



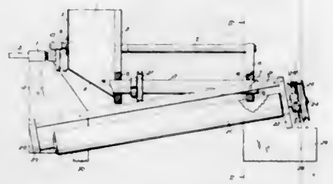
coil about said rod and operative to prevent ice formation thereon, a cam on said wheel, a slidable plunger extending through a wall of said cabinet, a heating coil about said plunger and operative to prevent ice formation thereon, a switch operated by said plunger, and a coin-reject mechanism and a light alternatively energized by said switch, whereby operation of said switch by said plunger and the cam lights said light and renders said reject mechanism operative to return coins inserted into said machine.

2,776,036
LOADING MACHINE
Robert W. Kling, Wilmette, Ill., assignor to Athey Products Corporation, Chicago, Ill., a corporation of Illinois
Application January 17, 1955, Serial No. 482,141
9 Claims. (Cl. 198—9)



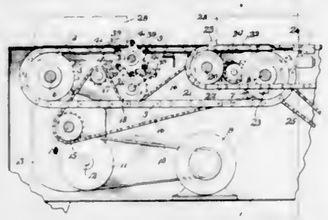
1. In a mobile loader having a belt-type elevating conveyor, a feeding conveyor for moving gathered material to the elevating conveyor, and pusher-type side conveyors for moving material in laterally toward opposite sides of the feeding conveyor, a front structure comprising, in combination, a bottom plate having thereon a front cutting edge of a length to extend along both the feeding and side conveyors, said bottom plate including a mid-portion for underlying the feeding conveyor and sloping upwardly to the elevating conveyor at an angle greater than the angle of repose of dry granular material and relatively narrow end portions on opposite sides of the mid-portion, throat plates diverging upwardly and converging rearwardly on opposite sides of the mid-portion of the bottom plate, front plates adjoining the throat plate and extending outwardly along and upwardly from the end portions of the bottom plate, side plates extending rearwardly from opposite outer ends of the front plates, and cover plate means forming caps secured to the tops of the front and side plates and having surfaces sloping forwardly to the front plates and outwardly to the side plates at angles greater than the angle of repose of dry granular material.

2,776,037
FEEDER AND/OR CONVEYOR MECHANISMS
George Mattey Balgent, Bourne End, England
Application July 14, 1952, Serial No. 298,725
4 Claims. (Cl. 198—30)



1. A feeder and conveying mechanism for articles comprising a hopper, a rotatably mounted straight downwardly inclined feeding tube having its upper end scoop shaped to agitate the articles in said hopper, said upper end being mounted in the lower end of said hopper and communicating with the interior thereof, two conveying rollers rotatably mounted side by side and spaced from one another thereby forming a channel for said articles, said rollers being mounted immediately below said feeding tube with said feeding tube located above said channel between said rollers, said rollers having their input end adjacent the lower end of said feeding tube to receive said articles fed therethrough, means for rotating said feeding tube, means for rotating said conveying rollers, said hopper and feeding tube being pivotally mounted at one end and means provided at the other end for varying the inclination thereof.

2,776,038
LABEL MACHINE FEEDING AND TIMING MECHANISM
Harry F. Caldwell, Grand Rapids, Mich., assignor to Oliver Machinery Company, Grand Rapids, Mich., a corporation of Michigan
Application November 25, 1955, Serial No. 548,835
8 Claims. (Cl. 198—34)



1. In a labeling machine having two aligned horizontal conveyors, one in front of the other and with adjacent ends overlapping and means to continuously drive said conveyors, the rear conveyor having spaced blocks in the length thereof extending outwardly, the improvement comprising, a horizontal shaft below the front conveyor back of the front end of the rear conveyor, a sleeve on said shaft, a flange at one end of the shaft, a disk spaced from said flange, both said flange and disk having spaced outwardly extending ears disposed in pairs, fixed means connecting the ears of each pair thereof, a roller mounted on and carried by and between each of said pairs of ears, a second roller on said shaft engaging and driving said first mentioned rollers, means for continuously driving said first shaft from the conveyor driving means, and means for turning said sleeve in periodic step by step movements, said first mentioned rollers being mounted in succession to an uppermost position above the front conveyor.

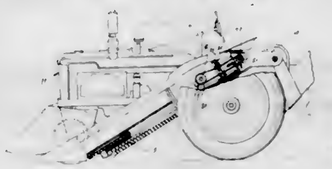
2,776,039
CARTON MAGAZINE
Donald C. Anderson, North College Hill, Ohio, assignor to The Procter & Gamble Company, Cincinnati, Ohio, a corporation of Ohio
Application September 28, 1955, Serial No. 537,239
10 Claims. (Cl. 198—37)

10. A carton magazine comprising a table over which cartons can move to a pick-off point, a jogger in connection with said table, an elongated frame mounted by means of rolling elements on horizontal, spaced tracks adjacent either end of said frame for limited reciprocating movement toward and away from said table, a conveyor mounted on said frame for delivering cartons to said table, adjustable backing means on said conveyor, an alternative driving means for said conveyor having a speed slower than the normal pick-off rate and a speed faster than the normal pick-off rate, said alternative driving means mounted to the underside of said frame so as to move therewith, said alternative driving means comprises an electric motor, a first shaft connected to said motor, a second shaft in two parts mounted adjacent said first shaft, one of said parts being connected to said conveyor, a high speed sprocket and chain system connecting said first shaft and one part of said second shaft, a low speed sprocket and chain system connecting said first shaft to the other part of said second shaft through an over running clutch to transmit the low speed to said second shaft, and a magnetic clutch located between the parts of said second shaft, a switch means for changing said speeds mounted so as to be actuated in accordance with the position of said frame and means for urging said frame toward the table.

2,776,040
CONTINUOUS AUTOMATIC FLEXIBLE CONVEYER
Clifford H. Snyder, Dormont, Pa., assignor to The Colmol Company, New Lexington, Ohio, a corporation of Ohio
Application March 27, 1952, Serial No. 278,940
2 Claims. (Cl. 198—92)

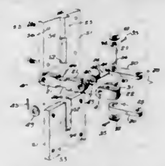
1. A flexible conveyor having at least three tandem conveyor supporting units, including a receiving unit, a discharge unit, and at least one intermediate unit, supporting wheel means mounted for steering at opposite ends of each of said units, steering means between the cooperating ends of said units in the form of a tongue pivoted on a vertical axis to each cooperating end of each unit, bar means pivoted at its ends on horizontal axes to the tongues of adjacent units, steering rod means pivotally connecting each tongue of each unit with the adjacent supporting wheel means of each unit, a steering rod coupling means interconnecting the supporting wheel means at opposite ends of each unit for steering said last mentioned wheel means in unison when a prior conveyor unit deviates laterally from a path of travel and its tongue actuates the adjacent tongue of the following unit.

2,776,041
CORN PICKER APPARATUS
Will Jones, Arthur, Ill.
Application September 25, 1953, Serial No. 382,389
1 Claim. (Cl. 198—160)



In a corn picker apparatus, a vehicle having a prime mover thereon, a rearwardly inclined chute mounted in said vehicle having a depressed forward ground engaging end and an elevated rear discharge end, a conveyor extending rearwardly in said chute from said forward end and terminating in a rear end at a point spaced from said rear end, said conveyor being operatively connected to said prime mover, an anti-clogging device extending along said chute between said rear end of said conveyor and the discharge end of the chute, said chute having a bottom and side walls, said device comprising a relatively large diameter front roller extending between and journalled in said side walls, a relatively small diameter rear roller extending between said side walls, means mounting said rear roller on said side walls for rotation and for movement toward and away from said front roller, an endless belt trained around said front and rear rollers, said belt having a lower flight running close to the chute bottom, paddles extending across said belt, said front roller having a shaft having an end extending through one of said side walls, and means operatively connecting said shaft end to said prime mover.

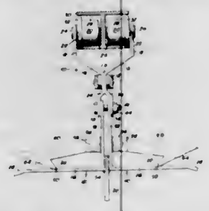
2,776,042
PROPELLING LINKAGE FOR TUBE TYPE CONVEYOR
Peter P. Ruppe, Grosse Pointe Woods, Mich.
Application July 1, 1953, Serial No. 365,316
6 Claims. (Cl. 198—176)



1. In a conveyor of the type having a tube with movable linkage therein for propelling material therethrough, propelling linkage comprising, a series of pairs of sprocket links and flight links pivotally joined in alternate arrangement, each pair of sprockets links being spaced apart to receive a tooth of a driving sprocket, each flight link having side portions and edge portions, the central zone of each edge portion being cut away generally rectangularly to provide a recessed surface, said recessed surface being substantially parallel to said edge portion, the ends of the cut away portions constituting shoulders, each pair of flight links being abutted together side by side with said recessed surfaces in alignment and a flight for propelling material through the tube associated with each pair of flight links, each flight comprising two plates, one plate having a slot defined by side walls and an end wall, the side walls engaging the exposed side portions of a pair of abutted flight links and the end walls seating on one pair of aligned recessed surfaces, the other plate having a lug thereon fitting within said slot and seating on the other pair of aligned recessed surfaces, said shoul-

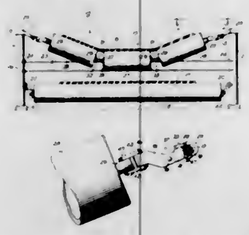
ders engaging opposite surfaces of said flights, said plates being slidably engageable with each other and with said flight links to facilitate their easy removal and replacement and means securing the plates in interfacial engagement, whereby said flight is secured to said links.

2,776,043
HANGER MEANS FOR CONVEYORS
Harold H. Spillers, Flint, Mich.
Application June 16, 1955, Serial No. 515,993
7 Claims. (Cl. 198—177)

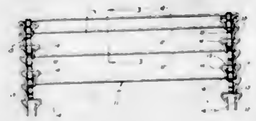


1. A conveyor device comprising a movable support, a hanger depending from said support and movable therewith, said hanger including a vertical and horizontal arm substantially perpendicular to each other, at least one bar pivotally connected to said vertical arm and having a hook portion at its free end, the point of said hook portion being spaced under said bar and inwardly of the free end thereof, and a recess in the upper surface of said horizontal arm, said bar being biased in a direction to urge the point of said hook portion into engagement within said recess and to bias an article held on said horizontal arm toward said vertical arm.

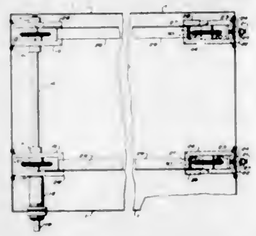
2,776,044
TROUGHING ROLLER STRUCTURE FOR BELT CONVEYOR
Roy F. Lo Presti, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application September 20, 1955, Serial No. 535,371
7 Claims. (Cl. 198—192)



1. In a belt conveyor, a pair of spaced flexible strands, a plurality of troughing roller assemblies spaced throughout the length of said strands for supporting the conveying reach of an endless belt, said troughing roller assemblies comprising a pair of inclined troughing rollers, means for connecting said inclined troughing rollers to its adjacent strand, said means comprising a bracket having a pair of spaced arms in hooking engagement with said strand, a locking member pivoted to said bracket and having one end extending between said spaced arms in contact with said strand, the other end of said locking member being connected to said inclined troughing roller, said locking member being rockable about its pivot point by the load on said inclined troughing roller, the end of said locking member in contact with said strand having a surface tending to wedge said strand into firmer engagement with said bracket upon increase in load on said troughing roller assembly so as to employ the torsional resistance of said strand to limit the vertical deflection of said troughing roller assembly.

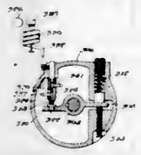
2,776,045
BAR CONVEYOR
Samuel J. Heinrichs, Bakersfield, Calif., assignor to Field Maintenance Service, Bakersfield, Calif., a partnership
Application February 27, 1956, Serial No. 568,040
6 Claims. (Cl. 198—195)

1. In a loop conveyor having a set of concentric rotatable toothed sprockets spaced from each other along their axis of rotation and around which the conveyor advances, the combination which comprises a plurality of long bar members spaced from each other along the direction of advance and extending across the conveyor and adapted to rest near their ends between teeth on the sprockets as the conveyor advances, each long bar member being provided with hooks near both ends with the hooks projecting backward, and at least one pair of linking members disposed between long bar members, one member of each pair being disposed respectively near the end of a long bar member and spaced from the other member of the pair, each linking member comprising a short bar positioned to rest near its midpoint between teeth on the respective sprockets as the conveyor advances and having hooks near both ends with the hooks projecting backward, the hooks on each member being hooked over the bar of the member immediately behind it on the conveyor.

2,776,046
CHAIN TENSIONING DEVICE FOR CONVEYOR DISHWASHING MACHINES
Arthur W. Haas, Rochester, N. Y., assignor to Toledo Scale Company, Toledo, Ohio, a corporation of New Jersey
Application November 24, 1954, Serial No. 470,991
4 Claims. (Cl. 198—208)



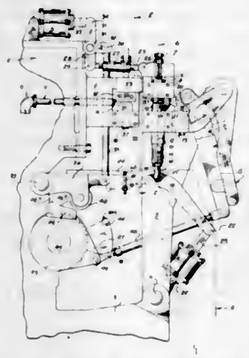
1. In a conveyor dishwashing machine, in combination, a frame, a drive sprocket mounted for rotation at one end of the frame, a chain tensioning retainer adjustably mounted on the other end of the frame opposite to the drive sprocket for movement toward and away from the drive sprocket, a guard that is fixed to the frame adjacent to the retainer and that cooperates with the retainer so that movement of the retainer in directions other than toward or away from the drive sprocket is limited to prevent damage to the retainer by bending, an idler sprocket rotatably mounted in the retainer, and a continuous chain extending between the sprocket for conveying racks of dishes through the machine.

2,776,047
CONTAINER HANDLING MACHINES
Stanley R. Howard, Milton, Mass., assignor to Pneumatic Scale Corporation, Limited, Quincy, Mass., a corporation of Massachusetts
Original application December 10, 1949, Serial No. 132,242, now Patent No. 2,762,497, dated September 11, 1956. Divided and this application December 13, 1955, Serial No. 552,920
3 Claims. (Cl. 198—232)



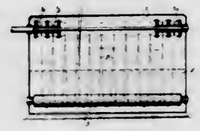
1. Container moving mechanism, drive means therefor, control means including a plurality of coupling units, each having relatively movable driving and driven elements, said units being disposed at a plurality of different points for selectively detecting an abnormal resistance to the container movement at such points, and solenoid operated means cooperating with said drive means and responsive to said detecting means for immediately terminating operation of the machine when an abnormal resistance to the container movement occurs at any of such points, said control means including an electrical circuit having a switch for each coupling unit, pneumatically operated means responsive to relative movement of said coupling elements for actuating said switch, said pneumatically operated means being arranged to effect closing of its switch to energize said solenoid upon a minute relative movement of said coupling elements.

2,776,048
STOCK FEEDING APPARATUS
John Henry Friedman, Tiffin, Ohio, assignor to The National Machinery Co., Tiffin, Ohio, a corporation of Ohio
Application July 19, 1952, Serial No. 299,883
8 Claims. (Cl. 203—127)



1. Apparatus for feeding elongated stock comprising a frame having stock receiving means therein, a stock feeding member, a first stock gripper on said member, means mounting said member for advancing toward and retracting from said frame, a second stock gripper on said frame, an oscillating shaft in said frame, a cam driven by said shaft, cam follower means connected to said feeding member for retracting said feeding member under action of said cam, an air cylinder connected to said feed member opposing the action of said cam for advancing said feeding member for feeding, first means driven by said shaft operably connected to said grippers for closing said first gripper and opening said second gripper after said feeding member reaches its retracted position, and second means driven by said shaft operably connected to said grippers for opening said first gripper and closing said second gripper after said feeding member reaches its advanced position.

2,776,049
STRAND TREATING MACHINE
Hans G. Sass, Krefeld, Germany, assignor to Joh. Kleinewefers Söhne, Krefeld, Germany
Application February 1, 1955, Serial No. 485,527
7 Claims. (Cl. 203—200)



1. In combination with a drive shaft for strand treating machines: a plurality of rotatable members supported by and connected to said shaft in spaced relationship to each other, and a plurality of sets of resilient bar-like members having one end thereof connected to and supported by said rotatable members so that the bar-like members of each two adjacent sets of each two adjacent rotatable members are inclined in opposite direction and are located in intersecting planes with the points of intersection located substantially on a circle having a diameter less than the diameter of said rotatable members thereby causing the resilient members between each two adjacent rotatable members to define with each other a yieldable groove-like path for the strand to be treated.

2,776,050
PAINTBRUSH STORAGE DEVICE
James A. Switzer, Paris, Ill.
Application February 21, 1955, Serial No. 489,370
1 Claim. (Cl. 206—15.1)

A paint brush storage device comprising a flexible container in which a brush is adapted to be placed, means securing the top of the container in closed position to the handle of the brush, and means attached to the container intermediate its top and bottom and supporting the structure in an elevated position and comprising a rigid rectangular frame member to which the walls of the container are secured at all sides of the frame to maintain the container in expanded position.

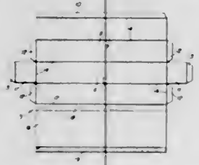
2,776,051
LIPSTICK CASE
Northam Warren, Jr., New Canaan, Conn., assignor to Northam Warren Corporation, Stamford, Conn., a corporation of New York
Application June 9, 1954, Serial No. 435,468
2 Claims. (Cl. 206—56)

1. A lipstick case comprising an opaque tube having its front end open and formed with a longitudinally extending slot, a transparent plastic cup slidable in said tube and adapted to snugly receive one end of a lipstick

for extension and retraction of said lipstick through said front tube end, a hand actuable transparent lug integral with said cup and disposed in said slot for movement with said cup rearwardly and forwardly along said slot, said lug and said cup thus affording visual access therethrough

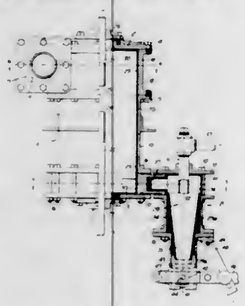
to said lipstick, and an opaque cap removably disposed in covering relation with respect to said front tube end and said slots and engageable with said lug for maintaining the latter in its extreme rearward position of movement, said cap leaving said lug exposed to permit viewing of said lipstick when said case is closed.

2,776,052
DISPENSING CARTON
Richard M. Stevens, Chicago, Ill.
Application December 28, 1954, Serial No. 478,151
1 Claim. (Cl. 206—58)



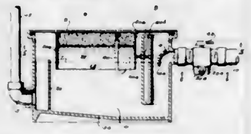
A roll material dispenser of the character described comprising: an elongated folded carton comprising a simple sheet of paper and including a bottom, a front, a back, end walls and a hinged cover, and a flexible, substantially U-shaped cradle, for the reception of a roll of material to be dispensed, suspended in the carton on said front and said back, said cradle being integral with said front and connected thereto by a fold line defining a tearing edge, said cradle being adhesively secured to said front immediately adjacent the fold line and further being adhesively secured to the upper portion of said back.

2,776,053
HYDRAULIC SEPARATING APPARATUS AND METHOD
Kellogg Krebs, Palo Alto, Calif., assignor to Equipment Engineers, Inc., San Francisco, Calif., a corporation of California
Application January 28, 1954, Serial No. 406,785
6 Claims. (Cl. 209—211)



1. In a separating method for effecting a separation between solids of different separating characteristics in a liquid feed, the steps of continuously supplying the feed to a body of the same, confining the body to substantially cylindrical form, causing the body to rotate with cylindrical symmetry to thereby form a substantially true vortex, removing an overflow from a region adjacent the axis of the rotating body, continuously removing an underflow stream from a peripheral portion of the body, said underflow stream containing heavier centrifugally separated solids, causing said underflow stream to be introduced tangentially into a body of the same without substantial reduction in velocity, causing a substantial part of said last named body to be confined to conical form with swirling about the axis of the same, removing underflow solids from the smaller end of the last named body, and continuously removing a liquid fraction from a region near the axis of the last named body.

2,776,054
GREASE AND OIL INTERCEPTOR
Joseph Hirshstein, Miami Beach, Fla., assignor to Ruth R. Newman, Chicago, Ill.
Application February 23, 1954, Serial No. 411,619
11 Claims. (Cl. 210—56)

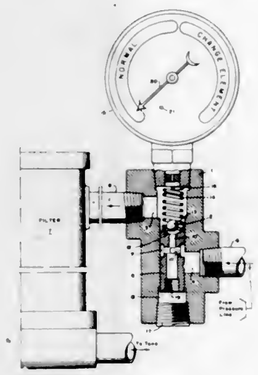


1. In combination a continuous flow type grease separating basin structure adapted to hold liquid under atmospheric pressure having a removable top wall sealed thereto, a grease skimmer structure comprising a downwardly open atmospherically sealed chamber dependent from the removable top wall to confine and sustain a column of relatively heavy effluent extending upwardly from the liquid in the separating basin and at the top of which the lighter gravity separated grease accumulates by displacement of part of the sustained column of heavy effluent, said basin having an inlet, an outlet structure leading from the bottom region of the separating basin to an outlet discharge line, vertically spaced above the bottom of the said chamber to determine a normal liquid level in the basin, a shut-off valve means located in said outlet discharge line and a grease discharging connection leading from the top region of said chamber and the therein sustained column to said valve means, said valve means comprising a closure means for closing said outlet discharge line and a grease discharging valve means.

2,776,055
BLOOD FILTER WITH CLOT REMOVER
Myron Adler, New York, N. Y., assignor, by mesne assignments, to Medical Plastics, Inc., Jamaica, N. Y., a corporation of New York
Application August 13, 1954, Serial No. 449,628
2 Claims. (Cl. 210—151)

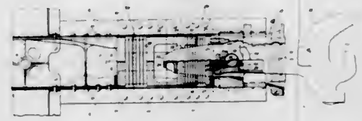
1. A blood filter and clot remover comprising a cylindrical casing of pill-box formation having cylindrical end sections telescopically connected and provided at their meeting edges with opposed internal, coplanar annular shoulders, a filter screen held in flat condition between said opposed shoulders and separating opposite ends of the casing into inlet and outlet chambers, a blood inlet in one of said end chambers, a blood outlet from the other end chamber and a wiper for the screen, said wiper being mounted on the inlet chamber end section of the casing, rotatable about the axis of the casing over the face of the filter screen in the inlet chamber and having means external of the casing for effecting screen clearing rotation of the wiper, said companion sections of the casing being of transparent material enabling constant observation of inflow and outflow of blood and operation of the wiper to best advantage to keep the screen clear of blood clots and thereby to avoid interruption of flow of blood through the filter.

2,776,056
APPARATUS FOR FILTERING LIQUID
James K. Douglas, Shorewood, Wis., assignor to The Oilgear Company, Milwaukee, Wis., a corporation of Wisconsin
Application March 16, 1949, Serial No. 81,688
5 Claims. (Cl. 210—166)



1. An apparatus for removing foreign matter from liquid drawn from a high pressure part of a hydraulic circuit at a rate which is only a small fraction of the rate at which liquid may flow in said circuit and for indicating whether or not said apparatus is functioning, said apparatus comprising a filter having an intake and a discharge and a replaceable filtering element arranged between said intake and said discharge, means for connecting said discharge to a low pressure part of said circuit, a valve body having an inlet and an outlet, means for connecting said inlet to a high pressure part of a hydraulic circuit, means for connecting said outlet to the intake of said filter, a choke arranged between said inlet and said filter to limit the flow of liquid to said filter to a rate determined by the pressure drop across said choke, a valve fitted in said body to throttle the flow of liquid from said inlet to said choke, a spring engaging one end of said valve and urging said valve in a direction to open communication between said inlet and said choke, said valve having the end thereof which is engaged by said spring subjected to the pressure at the outlet of said choke and the other end thereof subjected to the pressure at the inlet of said choke to enable said valve to maintain the pressure drop across said choke substantially constant regardless of variations in pressure at said inlet and at the intake of said filter, a check valve arranged between said filter and said choke to prevent flow of liquid from the intake of said filter to said circuit, and an instrument for indicating whether or not said apparatus is functioning connected between said choke and said filter and operable in response to variations in the pressure at the intake of said filter, said instrument having means to indicate whether or not said filtering element should be changed and whether or not said choke is obstructed with foreign matter.

2,776,057
CUSHIONING MECHANISM
Emil H. Blattner, Williamsville, N. Y., assignor to The Symington-Gould Corporation, Depew, N. Y., a corporation of New York
Application February 20, 1951, Serial No. 211,868
12 Claims. (Cl. 213—46)



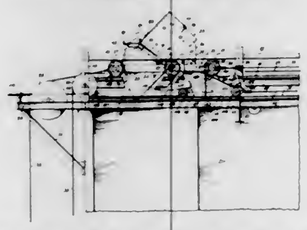
1. In a draft rigging, the combination with center sills, spaced pairs of stop lugs connected thereto, a coupler and a yoke pivotally connected to said coupler, of a floating stop member positioned intermediate said pairs of lugs, followers within said yoke, one of said followers normally engaging one pair of said stop lugs, the other follower engaging said floating stop member, a cushioning mechanism between said followers, an additional follower engaging said rear stop lugs, and a cushioning mechanism interposed between said last named follower and said stop member, said cushioning mechanisms being assembled under predetermined compression and cooperating under buffing load through said floating stop member.

2,776,058
APPARATUS FOR HANDLING PIPE IN A DERRICK
Albert L. Stone, Palos Verdes Estates, Calif., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Original application March 14, 1950, Serial No. 149,514, now Patent No. 2,735,556, dated February 21, 1956. Divided and this application July 13, 1955, Serial No. 521,663
5 Claims. (Cl. 214—2.5)

1. Apparatus for use in a derrick having a load-carrying member flexibly suspended at the center-line thereof, comprising an elongated guide member adapted to be mounted substantially upright in the derrick, a runner member movable along said guide member and guided thereby, said load-carrying member and said runner member being interconnected for vertical movement in the derrick as a unit, a power device carried by one of the members of said unit and having an element operatively connected to the other element of said unit, said power device being operable to move said load-carrying

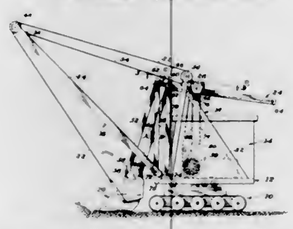
member laterally out of its path of freely suspended travel and into an offset path substantially parallel to the path of travel of said runner member along said guide member.

2,776,059
SKIP HOIST
Albert Lloyd Huber, Toronto, Ontario, Canada, assignor to Link-Belt Company, a corporation of Illinois
Application May 27, 1953, Serial No. 357,861
17 Claims. (Cl. 214—16)



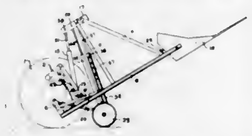
1. A skip hoist for transferring material from a low level position to the elevated, horizontally spaced and alined top openings of a plurality of bins, or the like, comprising guide means extending vertically between the low level position and a level above the tops of said bins and then extending horizontally over said bins, a carriage mounted for movement along the vertical and horizontal portions of said guide means, a bucket mounted on said carriage for movement therewith and for pivotal movement relative thereto between a material receiving and conveying position and a material discharging position, means operable to move the carriage in opposite directions along the guide means between the low level position and the farthest removed of the bin openings, bucket dumping means movable in parallelism with the horizontal portion of said guide means to selectively position the dumping means relative to the top openings of the bins, said dumping means engaging the bucket for pivoting the bucket into its discharging position when the carriage moves into overlying relationship with the dumping means and for returning the bucket to its material receiving and conveying position relative to the carriage when the carriage is moved in a reverse direction out of said overlying relationship, and control means operatively connected to said carriage moving means and mounted on said dumping means for actuation by said carriage to control the movement of the carriage as it approaches, arrives at, and departs from said overlying relationship.

2,776,060
WORKING DEVICE CONTROLLING MECHANISM FOR MATERIALS HANDLING AND EXCAVATING MACHINES
Harold W. Compton, Pittsburg, Kans.
Application August 6, 1953, Serial No. 372,704
6 Claims. (Cl. 214—136)



1. A material handling machine of the type described comprising a movable truck, a platform mounted on said truck for pivotal movement about a vertical axis, a boom secured to said platform and extending upwardly and outwardly therefrom at a relatively large angle with respect to the horizontal, a material working device, a pair of dipper sticks having their lower ends pivotally connected to said working device along spaced transverse axes, power-operated means for moving said dipper sticks longitudinally, said power-operated means providing pivotal connections for the upper end portions of said dipper sticks about spaced transverse axes, and extensible and retractable means operatively connected between the outer end of said boom and said device for effecting a pivotal movement of said dipper sticks about their upper pivotal connections either in conjunction with the longitudinal movement of the latter or in the absence of such movement.

2,776,061
TRACTOR LOADING ATTACHMENT
Julius A. Dickmander, Freedom Township, Henry County, Ohio
Application August 12, 1954, Serial No. 449,314
16 Claims. (Cl. 214—140)



10. A rear end loader of the type described provided with a hydraulic lifting means adapted to be supported by a tractor, an auxiliary hydraulic lifting means supported by a load carrying device adapted to be hingedly secured to said tractor and a resilient means adapted to retract said auxiliary lifting means when the fluid pressure to said auxiliary hydraulic lifting means is released.

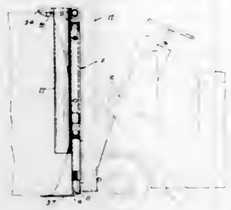
2,776,062

WITHDRAWN

2,776,063
TOW TRAILER FOR TRACTOR
Lester L. Larson, Princeville, Ill.
Application January 26, 1956, Serial No. 561,616
6 Claims. (Cl. 214—334)

1. A tractor dolly comprising an axle having wheels at each end of the axle, a rectangular frame secured to the axle and extending forwardly thereof, a curved wheel well supported at its rear edge by said axle and at its forward edge by said frame, a chain tightener mounted forwardly of the wheel well, a chain having one end fixed to said tightener, a ramp comprising two sections hinged to each other and having one of said sections hinged to said axle, said ramp section hinged to the axle having an aperture therein spaced from the axle, said other ramp section having a hook fixed to the underside thereof, said hook being spaced from the hinge between the ramp sections a distance corresponding to the distance between the aperture and said hinge whereby said ramp may be folded upwardly to bear against a tractor wheel within the wheel well with the hook projecting through said aperture to receive the other end of the chain connected to said chain tightener.

2,776,064
ARTICLE HANDLING ATTACHMENT FOR LIFT TRUCKS
Lee Cirillo, Cleveland, Ohio, assignor to Towmotor Corporation, Cleveland, Ohio, a corporation of Ohio
Application July 20, 1953, Serial No. 368,969
4 Claims. (Cl. 214—653)

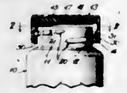


1. A cask supporting clamp for lift trucks comprising a frame mounted on the carriage of a lift truck, a pair of spaced vertically disposed columns thereon constituting a centering device for the cask, a hydraulic ram on said carriage parallel said columns, a cross head thereon, depending rods on the ends of said cross head, tubes on said carriage slidably engaged with said rods, a plurality of fingers on said cross heads disposed in a common plane normal to said rods, and shoulders on the ends of said fingers configured for engagement with the top of a cask.

2,776,065
BOTTLE CAP CLOSURE
Ferdinand J. Loretitsch, Brooklyn, N. Y.
Application March 10, 1955, Serial No. 493,326
1 Claim. (Cl. 215—38)

In a bottle having a neck formed with a pair of spaced apart annular grooves, a bottle cap comprising a top wall, a relatively short cylindrical side wall extending downwardly from said top wall, a plurality of tabs depending from said side wall, each tab being formed with downwardly convergent side edges, a pair of inwardly pressed bosses carried by each tab adjacent the upper end thereof engageable in the upper one of said grooves, a lower boss carried by said tab at the apex thereof engageable in the lower one of said grooves, and a reinforcing rib carried by each tab and disposed longitudinally thereof.

2,776,066
CLOSURE FOR CONTAINERS
Elbert H. E. Thornton, Odessa, Tex.
Application August 20, 1954, Serial No. 451,149
3 Claims. (Cl. 215—44)



1. The combination of a container having an open neck portion; a closure for said container having a cylindrical skirt portion; cooperating screw thread elements carried respectively by said neck portion and said skirt portion engageable upon rotation of said closure relative to said container to draw said closure axially into sealing relation with the opening of said neck portion, each of said screw thread elements extending around a substantial portion of the circumference of said neck and skirt portions respectively and having a plurality of indentations spaced at intervals along the length of said elements providing between said indentations a plurality of projections, the indentations of one of said screw thread elements being spaced at varying distances from one another, the projections of the other of said elements having a length and spacing similar to the length and spacing of the indentations of said one element so that said projections and indentations coincide when said elements are fully engaged, said varying distances being such that said screw thread elements are engaged by rotation of said closure relative to said container without obstruction caused by mating registration of the indentations of said one element with the projections of said other element except at one predetermined relative position of said screw thread elements where said elements are fully engaged and said indentations and projections coincide, at least one of said screw thread elements having stop means axially aligned with the indentations of said one element to engage the projections of the other of said elements and prevent axial withdrawal of said closure from said container when said projections and indentations are in mating registration; and resilient means disposed between said closure and said container to urge said projections and indentations into mating registration at said one position to interlock said closure relative to said container.

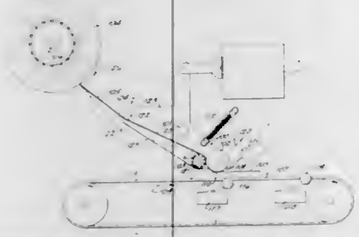
2,776,067
SEAL SEVERING DEVICE
Harry W. Seibel, Louisville, Ky.
Application August 23, 1954, Serial No. 451,418
3 Claims. (Cl. 215—46)

1. In a seal severing device the combination comprising: a bottle; a closure cap for the bottle; a sleeve of plastic material overlapping the bottle and closure cap and having a small opening in said sleeve; and an elastic endless band around said bottle having a finger grip portion extending through said opening whereby, when the finger grip is pulled the elastic band is stretched and reduced in cross section to sever the plastic sleeve.

2,776,068
TAPE APPLYING MOVEMENT
Arnold E. Johnson, St. Paul, Minn., assignor to Minnesota Mining & Manufacturing Company, St. Paul, Minn., a corporation of Delaware
Original application May 29, 1950, Serial No. 165,035, now Patent No. 2,652,166, dated September 15, 1953. Divided and this application August 27, 1953, Serial No. 376,934
4 Claims. (Cl. 216—21)

1. In a pressure-sensitive adhesive tape applying machine, an applying movement of the character described comprising a pivoted arm, a first roller rotatably mounted at the free end of the arm for conducting tape into adhesive engagement with the surface of an object being taped at a tape applying station, a one-way roller rotatably mounted on the arm adjacent the first roller, a passive tape severing means adjacent the tape applying station, means for impelling the free end of the arm toward the station with a length of tape extending between the rollers, the non-adhesive side of the tape facing the periphery of the first roller, and means for impelling the free end of

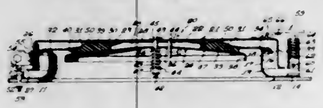
the arm away from the station after a length of tape has been applied to the object, to bring the tape into operative



engagement with the passive severing means at a point between the first roller and the object.

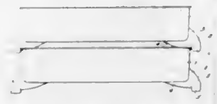
2,776,069
CONTAINER FOR LIQUEFIED GAS
Francis J. Zimmermann, West Roxbury, Mass., assignor to Arthur D. Little, Inc., Cambridge, Mass., a corporation of Massachusetts
Application June 30, 1955, Serial No. 519,075
6 Claims. (Cl. 220—9)

1. Walls enclosing an evacuated area, the surfaces of said walls facing each other having a brilliant unbuffed silver finish, said silver finish having been deposited by electroplating from a potassium cyanide bath containing organic additives which reduce the particle size of the silver in said silver finish and which contribute a positive brightening effect.

2,776,070
SELF-ALIGNING, SELF-VENTING HATCH COVER MEANS
Alger W. Phillips, Pomona, Calif., assignor to Joe L. Cox
Application March 22, 1954, Serial No. 417,785
9 Claims. (Cl. 220—44)

9. In a combined hatch cover and vent means, the combination of: an outer imperforate hatch member; an intermediate hatch member having portions spaced from said outer member and provided with vent ports and a seating face; an inner hatch member carrying resilient closure elements for said vent ports; means for holding said members in assembly in limited relative movable relation and including a bolt carried by the outer member and extending through the intermediate and inner members; and an element carried by the intermediate member spaced from said bolt and extending through an opening in said inner member.

2,776,071
CONTAINERS
Heinrich Becker, Hamburg, Germany
Application May 12, 1953, Serial No. 354,610
Claims priority, application Germany May 19, 1952
1 Claim. (Cl. 220—97)

An open box type container suitable for the reception and transport of food and other materials; said container comprising an upwardly opening box having a floor and upstanding sides, and a plurality of feet secured to said box and extending obliquely downwardly and outwardly from opposite sides of the latter, said feet terminating in first bearing surfaces lying wholly below the floor of said box and spaced substantial distances outwardly from the external contour of the sides of said box so that, when the box is placed on a supporting surface, said first bearing surfaces engage the latter while said feet hold the floor of said box above the supporting surface, and so that, when said box is stacked upon a similar box, said first bearing surfaces are disposed outside of the underlying box to prevent contamination of the contents of

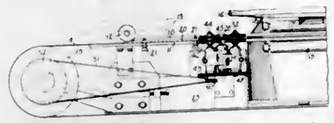


the latter by foreign particles picked-up from a supporting surface contacted by said bearing surfaces, and second bearing surfaces on said feet and offset from said first bearing surfaces for engaging the underlying box and spacing the container from the underlying box, each of said feet being bifurcated at its inner end to provide two angularly spaced limbs, one of said limbs being secured to the underside of said floor and the other of said limbs being secured to the adjacent upstanding side of the box, each of said feet further having a reinforcing rib extending laterally therefrom and secured to said box, two of said feet being provided at spaced apart locations on each of said opposite sides of the box, and said reinforcing ribs of the two feet on each of said opposite sides being jointed together to form an integral unit.

2,776,072
BOTTLE CARRIER HANDLE STRUCTURE
Homer W. Forrer, Atlanta, Ga., assignor to Atlanta Paper Company, a corporation of Georgia
Application March 24, 1954, Serial No. 418,279
5 Claims. (Cl. 220—113)

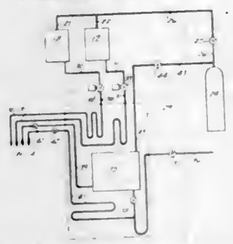
1. A paperboard carrier for bottles and similar articles, said carrier comprising a bottom wall, opposed side walls joined to said bottom wall, end partitions joined at the ends of said opposed side walls and extending transversely inward therefrom, end flaps joined at the inwardly extending edges of said end partitions and extending longitudinally inward of said carrier therefrom, said end flaps also extending above said end partitions and having respectively joined thereto in alignment with the joined edges of said end partitions at one end of said carrier a pair of outer handle panel elements and at the other end of said carrier a pair of inner handle panel elements, said pair of inner panel elements being arranged in face-to-face relation and said pair of outer panel elements being similarly disposed thereover with aligned hand hold apertures formed in all of said panel elements, each pair of panel elements extending from the end flaps to which they are joined in an overlapping extent with respect to the end flaps at the other end of the carrier, and the hand hold aperture in one of said inner panel elements being formed in a length exceeding the spacing between the inner edges of said end flaps below said aperture and having a coextensive flap joined at the lower edge thereof and folded downwardly between said inner panel elements and between said end flaps.

2,776,073
CLEARING WHEEL MECHANISMS
Joseph M. Schaeffer, Waterbury, Conn., assignor to The Waterbury Farrel Foundry & Machine Company, Waterbury, Conn., a corporation of Connecticut
Application September 3, 1952, Serial No. 307,603
1 Claim. (Cl. 221—159)



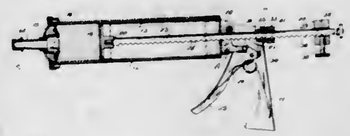
In a blank-feeding mechanism, a chute along which the blanks travel, means to deliver blanks thereto, said chute comprising spaced members upon which the blanks are carried, a pair of rotating toothed clearing members disposed in position to engage the blanks on the chute, said members being disposed in tandem relation with respect to the direction of travel of the blanks, a bracket supported adjacent the chute, a pivot pin carried by the bracket, a pair of sleeve members each having arms secured thereto, said arms being pivotally mounted upon the pin and extending in opposite directions therefrom, a shaft rotatably mounted in each of said sleeve members, each of said shafts carrying one of said toothed members to support the latter for adjustment toward and from the chute about an axis of the pivot pin, means to rotate said toothed elements in opposite directions, said rotating means comprising a pinion on each shaft intermeshing with the pinion on the other shaft, and adjusting means carried by each of said sleeves for adjusting the clearance between the respective wheels and the chute, said adjusting means comprising a screw threadedly mounted in each of said sleeves and engaged at its lower end with the bracket to limit the approach of said toothed members toward the chute.

2,776,074
BEVERAGE VENDING MACHINE
Ernest J. St. Laurence, Minneapolis, Minn., assignor to Practical Products Company, a corporation of Minnesota
Application June 11, 1953, Serial No. 360,885
5 Claims. (Cl. 222—2)



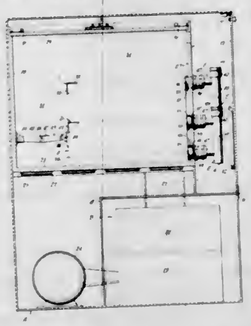
3. In a multiple drink vending machine, a source of plain water, a source of carbonated water, a plurality of containers each for a different flavoring ingredient, conduits leading from the sources of plain water and carbonated water and said containers to a common dispensing zone, means for dispensing measured quantities of said waters and flavoring ingredients, said means comprising a plurality of valves each associated with a different one of said conduits, and selector mechanism controlling said valves to dispense drinks containing a selected one only of said waters and a selected one only of said flavoring ingredients, said selector mechanism including a plurality of actuators one for each type of drink, a plurality of control devices each for a different one of said actuators and each operative responsive to actuation of its respective actuator to open the valve of a single one of said water conduits and a single one of said flavoring ingredient conduits, and coin-operated mechanism for rendering said actuators operative to permit dispensing of a selected drink.

2,776,075
INK DISPENSER WITH COARSE AND FINE ADJUSTMENT OF QUANTITY DISPENSED
Dudley W. Etter, Lake Mills, Wis.
Application October 28, 1954, Serial No. 465,414
15 Claims. (Cl. 222—43)



1. A device for dispensing a measured quantity of material, a support assembly for receiving material to be dispensed, an axially movable plunger comprising a rod operable in one direction to dispense material, first and second abutment members, said first abutment member being supported on said rod for movement in either direction along said rod and including means operable to secure said first abutment member against movement along said rod, and means for threadably mounting said second abutment member on said support assembly adjacent said rod inwardly of said first abutment member in said one direction for movement toward and away from said first abutment member, said device having indicia means extending between said abutment members.

2,776,076
COOLER-DISPENSER WITH REMOVABLE AND REFILLABLE CONTAINER
Leslie R. Nunn, Malibu, Calif.
Application November 1, 1955, Serial No. 544,300
11 Claims. (Cl. 222—83.5)



1. In a liquid dispensing apparatus wherein a casing is provided for reception of a liquid container, in combination with said container; a gland on said container adapted to project through an opening in a wall of said casing, said gland having a counterbore defining an annular shoulder at the inner end thereof; a seal unit disposed in said counterbore, said unit including a clip seal of regular polygonal cross section having three equi-angular corners and including thin sheet disc seals at respective ends thereof, and means for sealing one of said disc seals to said shoulder; and a spigot unit having an auger of triangular cross section projecting laterally therefrom for insertion through said seal unit, said auger having a piercing point at one of its corners, for piercing said disc seals, and being proportioned so that its respective corners will rest within said equi-angular corners of the clip seal.

2,776,077
RESILIENT SPRING ENVELOPE FOR COLLAPSIBLE TUBES
Emiel Freedman, Nanuet, N. Y.
Application February 28, 1951, Serial No. 213,165
2 Claims. (Cl. 222—103)

1. A resilient envelope adapted to operate on a collapsible tube for dispensing liquid or semi-solid material, said envelope comprising one spring steel leaf, substantially rectangular in shape, and two cardboard protecting forms, and a flexible material which encloses the spring and cardboard elements, forming a tightly fitting sleeve for said steel spring and cardboard, permitting said steel spring to be bowed, and forming an envelope, one side of which consists of the flexible material, the spring and one cardboard form, and the other side of which consists of the other cardboard form and the flexible material, said envelope protecting said collapsible tube and exerting substantially uniform and continuous pressure along at least a major portion of the length of said collapsible tube at substantially right angles to the axis thereof, progressively to collapse said tube as said material is emptied from the end of said tube and to urge the walls of said tube into intimate engagement with the material within said tube and to exert forward pressure on the material within said tube.

2,776,078
BULK BIN DISCHARGE MEANS
Edward A. Raynor, Biggs, Calif.
Application December 17, 1953, Serial No. 398,659
7 Claims. (Cl. 222—413)

1. In combination with a bulk bin having downwardly and inwardly sloping bottom walls with spaced lower edges, a tubular casing secured to said lower edges of said bottom walls, said casing having a major portion thereof extending upwardly into said bin, an augur in said casing, said casing being provided with a pair of spaced longitudinal openings, said openings being each positioned adjacent to and above the connections of the bottom walls to the casing, a pair of arcuate doors mounted for sliding movement adjacent the upper portion of said casing and adapted to move simultaneously from a position above said casing between said openings to a position covering said openings, and means for actuating said doors.

2,776,079
THREAD BOX HAVING A CHAMBERED COVER
Arnold A. Koistinen, Madison, S. Dak.
Application March 30, 1954, Serial No. 419,698
4 Claims. (Cl. 223—107)

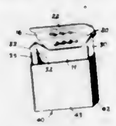
1. A sewing cabinet comprising a receptacle having a bottom and having upstanding walls defining an opening in the top thereof and forming a storage compartment for spools of thread and a closure for the opening of said compartment, said closure being hollow and having a chamber for sewing accessories therein, said chamber being open at its upper end, a lid hinged to

said closure and comprising a cover for said open upper end of said chamber, said closure having depending side walls slidably embracing the walls of said receptacle and a bottom wall extending downwardly into said receptacle.

2,776,080
LADDER
Henry Hopfeld, Ross, Calif.
Application November 15, 1954, Serial No. 468,611
3 Claims. (Cl. 228—55)

3. A fiberglass reinforced ladder comprising side rails each including a pair of opposing channel members, each pair of channel members having overlapping joined flanges and webs facing one another and provided with grooves in the facing surfaces thereof, and a corrugated filler panel disposed between the webs of each pair of channel members and having flattened ridges thereon secured within said grooves, rungs interconnecting said side rails, said side rails having tubular members extending transversely therethrough and through said filler panels, said rungs being tubular and fitting over said tubular members and against said rails.

2,776,081
CARTON
William A. Ringler, Wayne, Pa., assignor to The Gardner Board and Carton Co., Middletown, Ohio, a corporation of Ohio
Application January 14, 1953, Serial No. 331,197
5 Claims. (Cl. 229—9)



1. A carton comprising a sleeve of uniform cross-section open at both ends and a slide having a bottom panel tapered from a wide end greater in width than the internal width of said sleeve toward a narrow end less in width than the internal width of said sleeve to provide for insertion of said slide into said sleeve with the narrow end foremost, side walls on said slide frictionally engaging said sleeve to yieldably retain said slide therein in the closed position thereof, and an end flap on said wide end having a greater width than the space between the adjacent end portions of said side walls, said end flap including an integral extension flap beveled to locate its terminal portion inwardly of and below the top edge of said side walls to avoid frictional resistance therefrom during the insertion and removal of said slide.

2,776,082
EGG CARTON
George D. Bennorth, Mountain View, Calif.
Application April 6, 1953, Serial No. 346,836
8 Claims. (Cl. 229—28)

1. For forming an egg carton, a blank of bendable sheet material scored for folding into a central portion and two side portions, each side portion of said blank being scored for folding to three walled box shape overlying and enclosing opposite sides of the central portion of said blank to form a carton, a plurality of egg receiving pockets formed in two rows lengthwise of said central portion, a ridge formed lengthwise of said central portion by bending the sheet material disposed between the two rows of egg receiving pockets, said ridge having a plurality of notches formed at predetermined spaced intervals therein, a plurality of post forming tabs cut from said blank to lie opposite said ridge with the side portions of said blank folded to three wall box shape overlying the central portion, one end of each tab being attached to the blank to provide a hinge connection between the tab and the blank, each tab being scored lengthwise therefor for bending to form a stiffened post, the free end of each tab being formed to interlock with one of the notches in said ridge thereby to provide a post-like support between the ridge and the portion of the blank having the post tab formed therein.

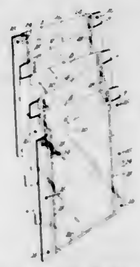
2,776,083
KNOCKDOWN CONTAINER
Sam Derman, South Orange, N. J.
Application December 22, 1953, Serial No. 399,702
3 Claims. (Cl. 229—41)

1. A collapsible container of the character described, comprising a single sheet of material cut and scored to form bottom, front, back and side walls and a top cover, the front, back and side walls being foldable upon the bottom wall, the top cover being foldable upon the back wall, the side and back walls being joined by rectangular portions each foldable with respect to the side walls along a diagonal fold line which divides each rectangular portion into two triangular portions, one of said triangular portions being fixed to the back wall, clips for coupling the other triangular portions with the fixed portions to support the side walls in perpendicular position with respect to the bottom wall, the cover having foldable peripheral flange forming members adapted to overlie the side and front walls of the container, said walls and triangular portions, upon removal of said clips, being collapsible one upon the other in the foldable relationship defined in forming a relatively thin elongated package, said front wall being integrally hinged to the bottom wall and free to swing thereon and having a substantially rectangular elongated opening therein, the front wall having inwardly foldable members at free edges thereof collectively bordering at least three sides of said opening, and an independent elongated strip secured to the inner surface of the front wall and forming a border for the fourth edge of said opening.

2,776,084
BAG
Russell J. Williams, Richmond Heights, Mo., assignor to Bemis Bro. Bag Company, St. Louis, Mo., a corporation of Missouri
Application March 25, 1953, Serial No. 344,515
4 Claims. (Cl. 229—55)

1. A bag comprising a length of multi-ply paper tubing and having at least a bottom closure, each ply of the tubing having a longitudinal tube seam constituted by overlapping inner and outer marginal portions of the ply adhered together in face-to-face relation by a stripe of adhesive extending the full length of the seam, the seams being laterally spaced across the width of the tubing, the edge of the outer marginal portion of the seam for the inner ply being spaced from the edge of the inner marginal portion of the seam for the ply adjacent the inner ply, the edge of the inner marginal portion of seam for the outer ply being spaced from the edge of the outer marginal portion of the seam for the ply adjacent the outer ply, the stripe of adhesive in the seam of the inner ply being laterally offset from the edge of the inner marginal portion of the inner ply seam and being of such width as to extend somewhat beyond the edge of the outer marginal portion of the inner ply seam, the stripe of adhesive in the seam of the outer ply being laterally offset from the edge of the outer marginal portion of the outer ply seam and being of such width as to extend somewhat beyond the edge of the inner marginal portion of the outer ply seam, whereby the inner marginal portion of the inner ply projects on the inside of the bag beyond the adhesive in the inner ply seam and the outer marginal portion of the outer ply projects on the outside of the bag beyond the adhesive in the outer ply seam, and the plies are adhered together along the seams.

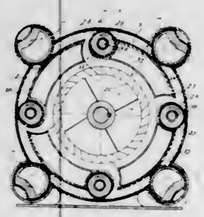
2,776,085
CONTINUOUS MULTIPLE-SECTION ENVELOPE ASSEMBLY
Lawrence M. Furey, Warwick, Va., assignor to the United States of America as represented by the Secretary of the Army
Application July 9, 1954, Serial No. 442,455
2 Claims. (Cl. 229—69)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A multi-section envelope assembly comprising a continuous strip or unit consisting of a plurality of individual and similar serially connected complete envelopes, means continuously connecting the envelopes together in uni-

formly stepped relation, each envelope being attached to the adjoining envelopes along opposed longitudinal sides by a perforated edge enabling detachment of each complete successive envelope from a successive adjoining envelope by being torn along such perforated sides, the envelopes of the assembly being normally reversely folded one upon the other in reverse directions and in stepped relation, the means connecting the envelopes including equally spaced accordion folds extending transversely across the continuous strip of envelopes intermediate successive envelopes with the accordion folds serially interconnecting the individual envelopes and enabling the envelopes to be folded in reverse directions with respect to each other, an upper end closure flap for each individual envelope, each closure flap being reversely folded on successive envelopes for causing all of the flaps to face in one direction responsively to the envelopes being flatly folded in reverse directions in the assembly, and aligned marginal eyelets for the individual envelopes enabling the envelope assembly to be attached to a backing surface, the eyelets being in both vertical and horizontal alignment throughout the assembly and being in registry when successive envelopes are reversely folded one upon another for enabling passage therethrough of attaching means for mounting the assembly on the backing surface.

2,776,086
FLUID COMPRESSOR OR PUMP
Irving H. Selden, Tacoma, Wash.
Application March 18, 1952, Serial No. 277,243
8 Claims. (Cl. 230—45)

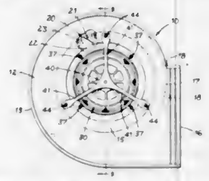


1. In a rotary compressor unit having an enclosing circular frame; a hollow cylindrically shaped rotor mounted concentrically therein to form an annular channel and adapted to travel therein; vanes on the rotor effectively closing said channel; a plurality of rotating abutments mounted in said frame and extending into said annular channel and into egagement with said rotor, dividing said channel into intake and compression chambers, said chambers to be used alternately as intake and compression chambers; slots in said abutments adapted to mesh with each said vane as it passes said abutments; exhaust ports through the enclosing frame from the intake and compression chamber on the compression side of the abutments; an intake passage on one end wall of said frame consisting of an annular opening therethrough concentric with said rotor; intake ports in the adjacent end wall of said rotor, consisting of an annular opening therethrough concentric with said rotor and adapted to admit fresh charges into the interior of said rotor from said intake passage; said intake passage on said end wall of said frame formed by a series of radial louver blades mounted in said end wall, designed and pitched to transmit a minimum of friction to the fluid as it enters said intake passage; radial fan blades mounted in said intake ports in said adjacent end wall of said rotor and having a pitch in the opposite direction to that of the said louver blades in said end wall of said frame and cooperating with said louver blades to draw fresh charges into said rotor and to force them into passages between longitudinal blades within said rotor which assist in further compressing said fluids to force them through openings in the periphery of said rotor adjacent to the vanes on the low pressure side of said vanes into the annular channel where the fluids are further compressed between the vanes and the abutments.

2,776,087
GAS COMPRESSOR SYSTEM
Hellmuth Walter, Upper Montclair, N. J., assignor to Worthington Corporation, Harrison, N. J., a corporation of Delaware
Application January 26, 1956, Serial No. 561,590
7 Claims. (Cl. 230—116)

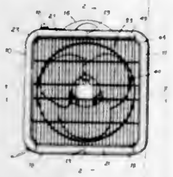
1. Apparatus for a gas compressor station for increasing the pressure of gas flowing through a pipe line comprising a first gas compressor, a turbine connected to said first compressor for driving it, a supply conduit connected to said first compressor and pipe line for passing gas therethrough to the compressor, a discharge conduit connected to said first compressor and said pipe line downstream of said supply conduit for passing gas discharged from said first compressor therethrough back to said pipe line, a turbine inlet conduit connected to said turbine for supplying gas thereto for driving the turbine, a heat exchanger disposed in said turbine inlet conduit, a heated fluid conduit in communication with said exchanger for passing fluid therethrough in heat exchange relationship with gas flowing therethrough to the turbine, a second compressor, a gas engine connected to said compressor for driving it, an outlet conduit connected to the turbine and said second compressor for passing gas discharged from the turbine therethrough to the second compressor, a regenerator, said regenerator being in communication with said turbine inlet and outlet conduits for passing gas flowing to the turbine in heat exchange relationship therein with gas discharged from said turbine, a cooler disposed in said turbine outlet conduit between said regenerator and said second compressor, a cooling fluid conduit in communication with said cooler for passing cooling fluid therethrough in heat exchange relationship with gas flowing therethrough to said second compressor, a compressor outlet conduit connected to said second compressor for flowing gas therethrough from said second compressor, and control means for controlling the flow of gas to said first compressor.

2,776,088
BLOWERS
William H. Wentling, Dayton, Ohio, assignor to The Lau Blower Company, Dayton, Ohio, a corporation of Ohio
Application February 9, 1956, Serial No. 564,465
6 Claims. (Cl. 230—117)



1. A centrifugal blower of the character described comprising a housing of generally volute shape including opposed scroll sides, means defining a pair of aligned inlets through said scroll sides to the interior of said housing, a blower wheel within said housing including a cage structure having blower blades therein, means defining an outlet from said housing between the ends of said scroll sides and of greater cross sectional dimensions than said cage, an annular rotor received in and secured to said cage for rotation therewith, a stator received within said rotor in rotatable relation therewith, a shaft extending through and secured to said stator, said shaft being shorter in length than the spacing between said scroll sides to provide for assembly of said shaft with said stator and with said rotor and said cage as a complete subassembly through said outlet into the interior of said housing, and means for mounting said shaft in fixed relation on said housing to hold said stator stationary for rotation of said rotor and cage thereon.

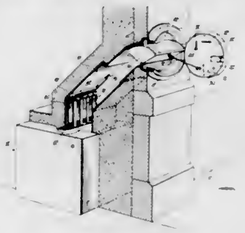
2,776,089
BLOWER
John B. Burrowes and Karl M. Ganger, Dayton, Ohio, assignors to The Lau Blower Company, Dayton, Ohio, a corporation of Ohio
Application February 13, 1951, Serial No. 210,676
9 Claims. (Cl. 230—259)



1. In a dual fan assembly the combination of a pair of generally rectangular casings each having flat sides of substantially axial extent adapting said casings to be assembled in abutting vertically stacked relationship with respect to each other, said casings each having front and rear walls provided by flanges turned inwardly from all the sides thereof, said flanges defining substantially rectangular openings in each of said front and rear walls with the respective front and rear openings in each said casing being aligned axially thereof, fan and motor units mounted within and completely enclosed by each said casing for delivering air therethrough, a latch including a pair of hook portions for engaging adjacent flanges of said casings to releasably retain said casings in assembled vertically stacked relationship, a supporting bracket having a projecting flange for engaging the lower side of the lowermost of said assembled casings, and a pair of clamps including hook portions for engaging opposite sides of the upper said casing to hold the assembled said casings upon said supporting bracket.

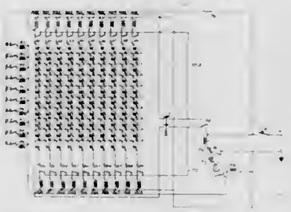
2,776,090
NIGHT DEPOSIT SAFE HAVING CARD-RECEIVING APPARATUS
William T. Wright, Sr., Winfield, Kans.
Application April 27, 1953, Serial No. 351,341
5 Claims. (Cl. 232—44)

1. In a night deposit system for banks having a wall provided with an opening; a receiving safe within the bank; a chute interconnecting said opening and said safe; closure means for said opening including a frame and a hollow door provided with a card-receiving slot and means for rendering cards therewithin accessible; a gate for said slot; means mounting the gate on the door; means connected with the gate for yieldably holding the same biased open; structure connected with the gate and engageable with said frame when the door is closed for closing the gate; latch means on the door and normally engaging said structure for locking the gate closed; and means in the chute within the path of travel of deposits



inserted in the chute when the door is open for engagement thereby and operably coupled with said latch for releasing the latter.

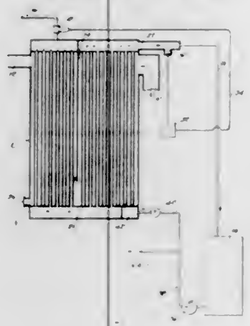
2,776,091
ELECTRICAL APPARATUS FOR COMPUTING A CHECK SYMBOL
Pierre Jacques Charles Chenus, Paris, France, assignor to Compagnie des Machines Bull (Societe Anonyme), Paris, France
Application June 14, 1951, Serial No. 231,540
Claims priority, application France June 15, 1950
5 Claims. (Cl. 235—61)



1. Electrical calculating apparatus for calculating from a number expressed in a numeration system of radix n a checking symbol in terms of a base value N and equal to the difference between the sum of the digits of the odd denominations and the sum of the digits of the even denominations of said number, or to the complement to N of said difference, comprising a digit entering device including a number n of entering relays, each assigned to introduce a distinct digit in the apparatus when operated, energizing means for selectively operating one of said entering relays, a first symbol storage device and a second symbol storage device comprising each a number N of storage relays, each relay either of said storage devices being assigned to one symbol value from 0 to N—1, control means made operative to control the successive operation of said first and second storage device alternately at each digit introduction in the apparatus, a circuit arrangement arranged as an addition table comprising a matrix of two-point make contacts with N columns and n rows, the contacts of each row being controlled by an associated one of said entering relays so that the contacts of one row are closed with a digit being introduced into the apparatus, a first group of conductors, a second group of conductors, each conductor of the first group connecting a distinct storage relay of the first storage device to contact points of all the rows, passing to a contact point of a different column for each different row, each conductor of the second group connecting a distinct storage relay of the second storage device to other contact points of a single column of said matrix so that with the first storage device operative and an entering relay operated to introduce a new digit, the latter is added without carry over to the value stored in said first storage device and the result is stored in said second storage device, and with the second storage device

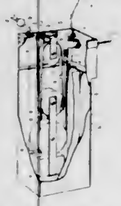
operative and an entering relay operated to introduce a new digit, the latter is subtracted without carry over from the value stored in said second storage device and the result is stored in said first storage device.

2,776,092
CONTROL METHOD AND APPARATUS FOR HEAT RECOVERY CONDENSERS
Theron T. Collins, Jr., Appleton, Wis.
Application March 5, 1953, Serial No. 340,446
14 Claims. (Cl. 236—18)



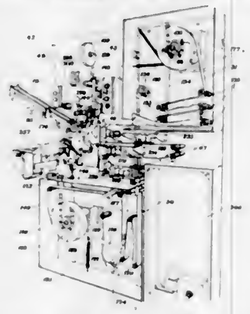
1. A heat exchanger system adapted to be connected to a process having operative and inoperative periods, comprising a heat exchanger with a hot vapor inlet adapted to be connected to the process and a vapor outlet, said heat exchanger having a liquid inlet for cold water and an outlet for hot water, the system being provided with a liquid control valve to regulate the flow of water between the inlet and outlet, said valve being controlled by a controller which is responsive to the temperature of the liquid at the liquid outlet, and means for recirculating a constant pilot quantity of hot water produced by the system back through the hot vapors entering the heat exchanger and through the liquid outlet, said means being constructed to recirculate a constant pilot quantity both during the operative and inoperative periods of the process and to introduce said constant pilot quantity into the heat exchanger at a point no earlier than the last part of the regular liquid path, so that the liquid at the liquid outlet will remain at an elevated temperature at all times.

2,776,093
HOSE RETRIEVER
James H. Cox and Daniel W. Cox, Los Angeles, Calif.
Application July 20, 1953, Serial No. 369,097
4 Claims. (Cl. 242—47.5)



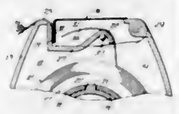
1. In a dispensing apparatus, the combination including: peripherally grooved main, auxiliary and fixed sheaves; a support rotatably mounting said main and auxiliary sheaves in spaced, coplanar relationship; a flexible tubing successively passing around the main sheave, the fixed sheave, and the auxiliary sheave and positioned in the peripheral grooves in said sheaves; the grooves in the main and auxiliary sheaves being in planes offset a distance at least equal to the diameter of said tubing; the peripheral groove in said fixed sheave lying in a plane inclined to said first mentioned planes at such an angle that the portion of the tubing extending between the main sheave and the fixed sheave will be disposed in the plane of the groove in the main sheave and the portion of the tubing extending between the fixed sheave and the auxiliary sheave will be disposed in the plane of the groove in the auxiliary sheave.

2,776,094
AUTOMATIC SPOOLING MACHINE FOR ROLL FILM
Evan A. Edwards and Clarence R. Wilson, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application December 21, 1953, Serial No. 399,554
22 Claims. (Cl. 242—55)



1. An automatic roll film spooling machine for winding a strip of backing paper and a strip of sensitized film in interleaving relation onto a film reel provided with a slotted core, comprising, a winding station, means to position said reel at said station, means at said station to rotate said reel to wind said paper and film strips onto said reel to provide a film spool, means to guide said film and said paper strips toward said station and in a definite relation thereto, electric means actuated by said paper to control the speed of said rotating means, and stationary means for guiding an end of said paper into the core slot.

2,776,095
TAPE DISPENSER
George W. Emmert, Winnetka, Ill., assignor, by mesne assignments, to Federal Tool Corporation, Chicago, Ill., a corporation of Illinois
Application January 26, 1955, Serial No. 484,147
7 Claims. (Cl. 242—55.5)

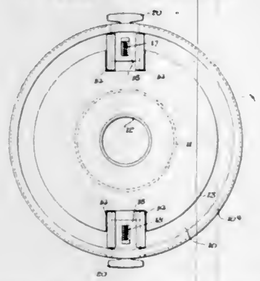


6. A dispenser for pressure-sensitive adhesive tape, comprising a frame, first and second upstanding spaced apart surfaces on said frame, said surfaces having an unobstructed space therebetween of sufficient size to receive a finger tip, means on said frame for rotatably supporting a roll of said tape in position wherein a length of tape may be grasped and manually withdrawn under tension from said roll in a bridging path extending across the first one of said surfaces then across said unobstructed space and across the second one of said surfaces, said tape detachably adhering to said surfaces and the portion of said tape bridging said space being thereby maintained, in relatively taut condition when the withdrawn length of tape is released from the hand, and a tape severing blade movably mounted with respect to said frame and movable into severing contact with said relatively taut bridged portion of said tape between said surfaces at a location closely adjacent said second surface, that portion of said tape previously bridging said space in relatively taut condition remaining, after its severance, detachably adhered at one of its ends to said first upstanding surface and hanging freely in said space in tab-like fashion in position readily to be grasped preparatory to withdrawal of another length of tape from said roll.

2,776,096
FISHING REEL
Aubrey D. Isbell, Loveland, Colo.
Application May 31, 1955, Serial No. 512,148
1 Claim. (Cl. 242—84.1)

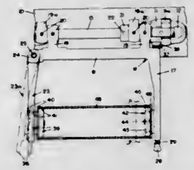
In a fishing reel of the type having a line spool and a line guide roller positioned forwardly of and spaced from said line spool, means for supporting loose line between said spool and said line guide roller comprising: a hinge shaft positioned closely-adjacent and forwardly of and below said spool; a relatively flat tray, having a width at its rear extremity substantially equal to the width of said line spool, hingedly mounted at its rear extremity upon said hinge shaft and extending forwardly therefrom to a position below said line guide roller; a press roller journalled on the forward extremity of said tray parallel to said line guide roller; spring means connected to said tray and acting to lift the latter so as to urge said press roller towards said line guide roller, the forward extremity of the tray being of less width than the rear extremity thereof; and an upturned flange formed along each side of said tray to retain loose line thereon.

2,776,097
WIRE CLAMP
Carl O. Bruestle, Metuchen, N. J., assignor to Syncro Machine Company, Perth Amboy, N. J., a corporation of New Jersey
Application August 19, 1953, Serial No. 375,206
2 Claims. (Cl. 242—125)



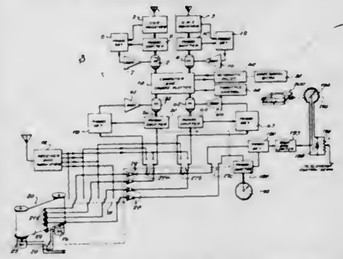
1. In a device as described, the combination with a strand spool having a central drum and a pair of substantially disc-like spool heads attached to the respective ends of the drum, a strand clamping member having a converging clamping slot, means on one of said spool heads for supporting said clamping member for radial movement thereon, and resilient means normally holding said clamping member in retracted position within the peripherial outline of the associated spool head, said resilient means being proportioned so that the clamping member under centrifugal force during spooling will project radially to expose said clamping slot.

2,776,098
TUBE HOLDING ASSEMBLY
Frank J. Baumann, Cleveland, and Marcus D. Rodgers, Berea, Ohio, assignors to Industrial Rayon Corporation, Cleveland, Ohio, a corporation of Delaware
Application July 3, 1953, Serial No. 365,922
5 Claims. (Cl. 242—130)



1. In a tube holding assembly adapted to rotatably support a tube by both ends, the combination of a tube and supporting and positioning elements inserted in the ends of said tube, at least one of said elements comprising a circular hub having a portion of its periphery cut away; the circular periphery of said hub engaging the inner surface of said tube; a flange on said hub adapted to abut said tube; a nipple on said hub; said tube having a chord-like indenture and a slot at its end, said indenture conforming to the cut-away peripheral portion of said hub and said slot to said nipple on said hub.

2,776,099
AIR TRAFFIC CONTROL SYSTEM
Thomas M. Ferrill, Jr., Garden City, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application January 5, 1953, Serial No. 329,593
16 Claims. (Cl. 244—77)

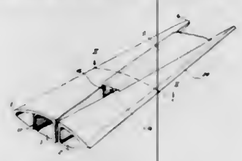


11. A craft guidance system comprising recording means having recorded thereon a reference A.–C. signal and first and second variable phase A.–C. signals, means responsive to the difference in phase at any instant of time between the reference signal and the first and second signals respectively, the respective phase differences at said instant defining first and second coordinates of a moving point toward which the craft is to be directed, means including radio position determining apparatus for defining a point corresponding to the craft's actual position, and means for controlling the flight of the aircraft according to the angle and magnitude of the vector between the actual position point and said moving point.

2,776,100
AIRCRAFT STRUCTURAL ELEMENTS AND ESPECIALLY WINGS FROM REINFORCED CONCRETE
Louis Breguet, Paris, France
Application April 15, 1952, Serial No. 282,382
Claims priority, application France April 19, 1951
9 Claims. (Cl. 244—124)

1. An aircraft structural element which comprises a pair of spaced tapered reinforced concrete hollow box members extending longitudinally of the element, stress-transmitting means interconnecting said members trans-

versely of the element, lightweight concrete elements bridging the space between said members adjacent the respective opposite surfaces of the element and providing non-stressed skin means for imparting an unbroken sur-



face to the element and anchor strips for bonding said bridging elements to the adjacent portions of said members, said strips having one side thereof bonded in the concrete of said members and the other side thereof bonded to said bridging elements.

2,776,101
METHOD OF AND MEANS FOR MOUNTING A MACHINE ON A VIBRATION ABSORBING PAD
Francis Roland McDermott, Franklin, Mass.
Application August 10, 1955, Serial No. 527,588
4 Claims. (Cl. 248—24)

1. Mounting means for a machine comprising a vibration absorbing pad on which the machine rests and which has a vinyl plastic coating and also indentations or depressed areas of substantial size in its bottom surface, and anchoring material in solid form which has no adhesive affinity for the vinyl plastic coating but which is adhesively united to a supporting floor and which fills some of the indentations or depressed areas in the under surface of the pad, the interlocking relation between the anchoring material and the depressed areas in the bottom surface of the pad consituting the sole means for anchoring the pad to the floor and holding it from movement relative thereto, said pad being free from any adhesive union with the anchoring material whereby the pad is free to be removed from the anchoring material when it is not supporting a machine.

2,776,102
CAMERA SUPPORT
Hubert J. Schlafly, St. Albans, N. Y., assignor to Teleprompter Corporation, New York, N. Y., a corporation of New York
Application October 4, 1952, Serial No. 313,121
4 Claims. (Cl. 248—178)

1. Apparatus for the balanced support in fixed relative position of a camera and related accessory device, said apparatus comprising a base member adapted to be affixed to the upper portion of a camera swivel, a pair of rails arranged on said base member, a frame member adapted to be affixed to the underside of a camera, said frame member being supported on said rails, a first rack affixed to one of said members, a second rack movably mounted in the other of said members for movement transversely of its own length into and out of engagement with said first rack, a toothed sector journaled at one end of said frame member for rotation about an axis transverse of the direction of relative motion between said members, an accessory supporting yoke affixed to said sector, the arms of said yoke extending in a direction generally away from said frame member, and a pin movably supported in said frame member in position to releasably engage the teeth of said sector, whereby a camera and an accessory device mounted on said accessory supporting yoke may by adjustment of the relative position of said members be supported in balanced relation to said swivel.

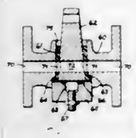
2,776,103
BATCHING SCALE CONTROL CIRCUIT
Robert O. Bradley, Toledo, Ohio, assignor to Toledo Scale Company, Toledo, Ohio, a corporation of Ohio
Application May 10, 1952, Serial No. 287,218
6 Claims. (Cl. 249—2)

1. In a cutoff circuit for an automatic weighing scale having a weight indicator and feeding means, in combination, a first and a second relay that are connected for simultaneous energization, means for delaying the response of the second relay, means responsive to the indicator for energizing, then releasing, then re-energizing said relays as the indicator approaches and arrives at a preselected point, a first and a second latch relay each having a closing and a release coil, circuit means including at least a set of contacts on the first latch relay for operating the feeding means at slow speed, second circuit means energized through the contacts of said first circuit and including parallelly connected sets of contacts of the second latch relay and the second relay for operating the material feeding means at high speed, a third circuit that is energized through the set of contacts of the first circuit and that includes serially connected sets of contacts of the first and second relays and the release coil of the second latch relay, said serially connected contacts being arranged to complete said third circuit momentarily as said relays are de-energized, and a fourth circuit that includes in series sets of contacts of the second latch relay, contacts of the first and second relays and the release coil of the first latch relay, said contacts being arranged to momentarily close the circuit during energization of said relays if the second latch relay is released, and means for closing said latch relays to start a cycle of operation.

2,776,104
LINED VALVE
Deas Sinkler, Dayton, Ohio, assignor to The Duriron Company, Inc., Dayton, Ohio, a corporation of New York
Application March 29, 1954, Serial No. 419,530
5 Claims. (Cl. 251—192)

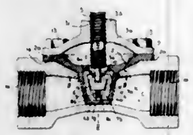
1. A lined plug valve capable of maintaining sealing pressures over a predetermined wide temperature range, comprising a valve body having a bore therein provided with ports in the surface thereof, a rotatable plug in said bore having a flow passage therethrough for alignment

with said ports and being of lesser cross section than said bore to leave an annular clearance therebetween, a liner received in said clearance and having ports therethrough matching said ports in said bore, said liner being formed of a resiliently deformable material subject to permanent deformation upon distortion beyond the elastic limit thereof and having a coefficient of thermal expansion substantially higher than the materials composing said valve body and plug, one of the mating surfaces of said plug and bore being conically tapered, means for applying pressure on said plug to establish sealing pressure engagement of said liner with said mating surfaces of said plug and said bore at the minimum temperature within said range, said liner being of lesser axial length than said plug and said bore at said minimum temperature to provide space



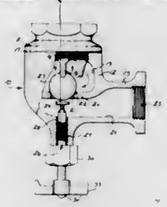
axially beyond said liner in said clearance for receiving the material of said liner upon expansion thereof with respect to said plug and body in response to a rise in temperature, the axial dimension of said clearance being at least equal to the maximum axial dimension of said liner at the maximum temperature within said range to prevent possible radial expansion of said liner beyond the end of said plug or bore, and said body and plug and said liner being proportioned in coordinated relation with the coefficients of thermal expansion of the materials thereof and said temperature range to provide volume in said space at least equal to the maximum increase in the volume of said expanded liner material at said maximum temperature while maintaining the deformation of said liner within the elastic limits thereof and also maintaining said liner in sealing engagement with said bore and said plug throughout said temperature range.

2,776,105
SHUT-OFF GATE VALVE
Friedrich Schmitz, Koln-Sulz, Germany
Application January 27, 1953, Serial No. 333,422
3 Claims. (Cl. 251—199)



1. A gate valve construction including a body having a passage extending from end to end on a rectilinear axis and also having an opening at its top, a flexible and freely compressible diaphragm extending over said top opening and having a peripheral flange portion resting on the exterior of the body around said opening, securing means for said ange portion, an expansible hollow truncated pyramidal wedge-shaped gate portion having a flat bottom and depending from said diaphragm and movable through said opening, said gate portion having rigid internal liners pressing against the inclined sides of said gate portion, spreading means for said liners, said body having internal faces engaged by said gate portion upon closure of the valve, one of said faces being flat for engagement by the flat bottom of the gate portion, and operating means to move said gate portion between open and closed positions of the valve and for operating said spreading means to effect spreading of said liners upon said engagement.

2,776,106
VALVE
Dale J. Miller, Austin, Minn.
Application September 14, 1953, Serial No. 379,938
3 Claims. (Cl. 251—275)



1. A fluid valve structure comprising a housing having an inlet passageway, an intermediate enlarged valve chamber and an outlet passageway, said passageways and valve chamber defining an interconnecting conduit through the valve structure, said inlet passageway and said intermediate enlarged valve chamber having a common vertical axis and said outlet passageway having its longitudinal axis disposed laterally with respect to said vertical axis, a liquid-tight barrier having an opening with an annular seat thereabout disposed transversely of said enlarged valve chamber, a unitary spherical valve member encased in said enlarged chamber with substantial clearance peripherally of the spherical valve member and the chamber sides and seatable in fluid-sealing relation on said annular seat, depending fingers annularly mounted within said housing and in free and open relation with respect to one another and the chamber sides, said depending fingers terminating at a position well away from the barrier but lying in close clearance with said spherical valve member for maintaining the latter in substantial alignment with said inlet passageway and said annular seat, and a retraction element mounted in said housing and having a cup-shaped terminus lying along said vertical axis beneath said opening and annular seat for longitudinal movement along said axis to engage the spherical valve member in cupped relation and for maintaining the valve member in axial alignment along said vertical axis while permitting free turning thereof and balanced flow of fluid through said chamber while said spherical valve member is in unseated position.

2,776,107
HYDRAULIC MACHINE WITH ADJUSTABLE PROPELLER BLADES SEALED AT THEIR INNER ENDS
Richard B. Willi, Norristown, Pa., assignor to Baldwin-Lima-Hamilton Corporation, a corporation of Pennsylvania
Application March 11, 1955, Serial No. 493,621
6 Claims. (Cl. 253—148)

1. A rotary hydraulic machine having a hub rotatable about an axis and whose outer surface is curved around said axis, blades extending substantially radially outwardly from the hub and being journalled therein for rotation about axes disposed at an angle to said hub axis, the inner end of each blade being substantially tangent to the runner hub at a point where the blade axis intersects the hub; and said inner end being spaced an increasing distance from a circle which is coaxial with the hub axis and which intersects said point as the blade progresses away from the blade axis, and means interposed between the inner end of the adjustable blades and the portion of

the hub containing said circle so as to substantially prevent flow of water through said increasing space for the various operating positions of the adjustable blades.

2,776,108
SPIKE OR BOLT PULLER
George T. Sherman, Medford, Oreg.
Application March 16, 1954, Serial No. 416,601
1 Claim. (Cl. 254—27)

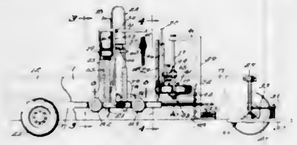
In a spike puller, an elongated lever having a first end and a second end, fulcrum means secured to and projecting laterally from said lever near said first end, and a jaw pivoted on a transverse axis on said lever at said first end of the lever, said jaw comprising a flat plate having a spike receiving notch opening through one side thereof and providing opposed gripping edges, said jaw plate having an inner end which is pivoted on the said one end of the lever, a flat carried by said jaw and extending transversely across said jaw in spaced relation to said transverse axis, and a leaf spring carried by said lever and extending across the flat in engagement therewith for yieldingly holding the jaw in a selected angular position relative to the longitudinal axis of the lever.

2,776,109
STAPLE REMOVER
Samuel Segal, New York, N. Y.
Application April 7, 1953, Serial No. 347,215
5 Claims. (Cl. 254—28)

1. A staple remover comprising first, second and third channel shaped jaw members pivotally secured together adjacent one end thereof, each of said jaw members having a back wall and a pair of side walls, said side walls each terminating at its free end in an inwardly directed pointed staple engaging claw, the first of said jaw members being positioned within said second jaw member with each of its side walls spaced from the side walls of the second jaw member a distance greater than the thickness of the side walls of said third jaw member whereby the claws of said third jaw member may enter the space between the claws of said first and second jaw members when said jaw members are pressed together, said second jaw member being slidable longitudinally relative to said first jaw member whereby the claws of said third jaw member may cooperate with the claws of both other jaw members or with the claws of only said first jaw member to remove a staple clinched through a plurality of sheets of paper or similar material.

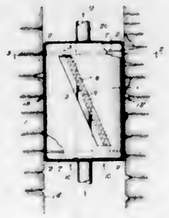
2,776,110
AUTOMATIC FENCE POST PLANTER
Oscar O. Hoistad, Pasadena, Calif.
Application June 24, 1954, Serial No. 438,959
7 Claims. (Cl. 254—29)

4. A post-driving machine comprising a frame mounted on wheels, vertically disposed post-retaining guides positioned on said frame, a horizontally disposed disc having spaced post-receiving notches in the periphery rotatably mounted on said frame, means for feeding posts from said disc to said post-retaining guides, spaced vertically disposed channel-shaped guides also extended upwardly from said frame, a cross bar slidably mounted in said channel-shaped guides, anchoring rods depending from the ends of said cross bar, spring positioned on said anchoring rods for elevating the cross bar and rods, a cam rotatably mounted on the frame and engaging the cross



bar to actuate the cross bar, a U-shaped arm extended from the cross bar and positioned to engage upper ends of posts in said post-retaining guides, means in the frame whereby said post-retaining guides, channel-shaped guides, and cam are adapted to slide longitudinally therein and resilient means for returning the elements slidably mounted in the frame to a post-receiving position at the forward end of the frame.

2,776,111
WELL DRILLING APPENDAGE OR DEVICE
James Vance, Oklahoma City, Okla.
Application June 18, 1953, Serial No. 362,445
3 Claims. (Cl. 255—1)



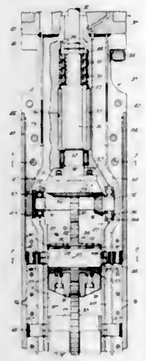
1. In combination with a hollow rotary drill stem adapted to deliver drilling fluid to the bottom of a hole and provided at its lower end with a drill bit, a drill hole plastering and smoothing device secured to said stem above said bit, said device comprising an open-ended smooth surfaced cylindrical shell having substantially the same diameter as a drill hole to be plastered thereby and provided in its lateral wall with an elongated opening extending obliquely to the axis of the shell, a fin extending inwardly in said shell from one longitudinal edge of said opening, and a top piece provided in the shell at the upper end of said fin, whereby fluid entrained solids passing upwardly in the drill hole and through the bottom of the shell may be deflected laterally by said fin and top piece against the side of a drill hole.

2,776,112
METHOD OF DRILLING WELLS
William T. Ilfrey, New Orleans, La., and Charles L. Prokop, Houston, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
No Drawing. Application September 30, 1954, Serial No. 459,519
8 Claims. (Cl. 255—1.8)

1. A method for drilling a well in which a hollow drill stem having a drill bit attached thereto is rotated to form a borehole in the earth's surface which comprises circulating a drilling fluid comprising a slurry of cement in a hydrocarbon and an amount of the reaction product resulting from treating a water slurry of high-grade sodium bentonite with one of the larger quaternary ammonium complexes down said drill stem and out through

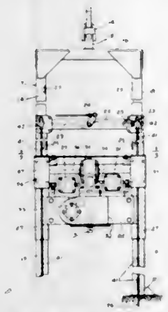
eyes in said drill bit and then upwardly in said borehole around said drill stem to deposit a thin, water-reactive filter cake on the walls of said borehole, said cement, hydrocarbon, and reaction product being present in said slurry in sufficient amounts to form said filter cake, said cement being selected from the group consisting of Portland cement; pozzolana and lime mixture; sand and lime mixture; and plaster of Paris.

2,776,113
HOUSING FOR EARTH BORING APPARATUS
Carter K. Reh, Van Nuys, Calif., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application November 22, 1954, Serial No. 470,176
6 Claims. (Cl. 255—4.8)



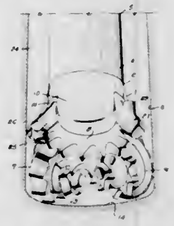
1. A housing for a vibration generator having a plurality of rotary vibration generating elements, said housing comprising a pair of complementary substantially semi-cylindrical housing members having surfaces adapted to mate with each other and thereby provide a substantially cylindrical housing, means providing a seal between the mating surfaces of said housing members, means providing facing openings in said mating surfaces and diametrically opposed to each other for mounting supporting shafts for said vibration generating elements, and sealing means for the outside ends of said openings comprising resilient substantially incompressible plugs.

2,776,114
PORTABLE HYDRAULICALLY OPERATED DIGGER
Howard D. Brown, Westfield, N. J.
Application June 23, 1953, Serial No. 363,475
7 Claims. (Cl. 255—22)



7. An hydraulic hole digging apparatus of the character described, comprising a substantially upright U-shaped frame having spaced side members with engageable means thereon, means fixing the lower ends of the side members on a supporting surface, means movable vertically on the upper end of the frame for supporting the frame in upright position with respect to said surface, a combination spindle drive and feed head slidably mounted in the frame to move upwardly and downwardly therein, said head including means, at the sides thereof, engaging said means on the side members of the frame for feeding said head on the frame, means, centrally of the head, for supporting and operating a spindle, a hydraulic motor on said head in operative engagement with and actuating said last named means, and another hydraulic motor on said head in operative engagement with and actuating said head feeding means for positively feeding the head in both directions in the frame in the operation of said spindle.

2,776,115
DRILL BIT
Edward B. Williams, Jr., Greenville, Tex.
Application October 29, 1953, Serial No. 389,037
2 Claims. (Cl. 255—313)



1. A drill bit for drilling a bore hole into earth formations, said drill bit including a body member having an axis of rotation provided with an axial recess for distribution of a drilling fluid, lug portions spaced apart circumferentially of the body portion and extending downwardly and outwardly therefrom, spindles extending downwardly and inwardly from the lug portions, conical cutters rotatable on the spindles and having teeth arranged for engaging the bottom of the bore hole on substantially radial lines with respect to the axis of rotation, said cutters being of a diameter to cut a bore hole of larger diameter than the body member to provide an upflow passageway surrounding the body member, a jet nozzle extending outwardly and downwardly from said body member within one of said spaces between the lugs to near the outer circumference of the cutters and having a discharge tip facing downwardly and inwardly at an angle to the bottom of the bore hole for directing a stream of drilling fluid across to the opposite side of the bit to sweep the cuttings in one general direction toward the upflow passage, and an eduction nozzle extending downwardly and outwardly of the body member in another of said spaces and having a discharge tip directed upwardly alongside the body member into the upflow passage for educing an upward flow of the drilling fluid discharged from the first named jet to carry the cuttings upwardly of the bore hole, said nozzles being in communication with said axial recess in the body.

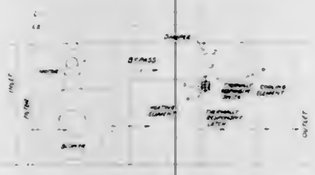
2,776,116
BEAM GUARD FOR HIGHWAYS AND THE LIKE
Alan E. Brickman, Buffalo, N. Y., assignor to Acme Highway Products Corporation, Buffalo, N. Y.
Application October 29, 1953, Serial No. 389,057
3 Claims. (Cl. 256—13.1)

1. A highway beam guard including a plurality of beams secured end to end, a buffer for an end of said guard, said buffer having one end thereof secured to an end of a beam of said guard and having the outer end thereof

of loop shape and extending from said beam in a direction away from the highway, said beam having a horizontally extending trough portion intermediate of the upper and lower edges of said beam, and upper and lower flanges

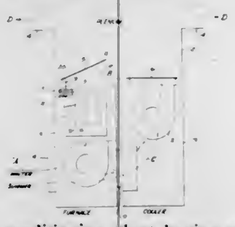
extending from said trough portion in a direction away from a highway, and a deflecting member extending from said buffer into said trough and inclined to deflect a part of a vehicle in said trough and moving toward said buffer outwardly toward the highway and away from said buffer.

2,776,117
FLOW CONTROL MEANS FOR AIR CONDITIONING APPARATUS
Keith T. Davis, Shaker Heights, Ohio, assignor to Carrier Corporation, a corporation of Delaware
Application February 23, 1954, Serial No. 411,730
1 Claim. (Cl. 257—3)



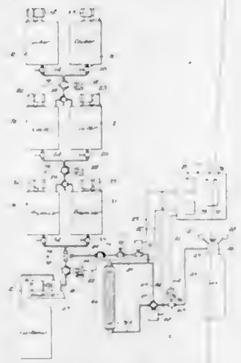
Summer and winter air conditioning apparatus of the class described including a blower for causing flow of air to be conditioned, a cooling element for summer operation, housing means for confining said flow to provide a stream all of which flows through said cooling element, a heating element for winter operation arranged in said housing means to be in a portion of said stream, said housing means being arranged to provide a bypass around said heating element for another portion of said stream, damper means for said bypass, mounted in said housing to yieldably assume closed position when said blower is idle, and to normally be opened therefrom by operation of said blower, latch means arranged to automatically secure said damper against opening, responsive to initial operation of said heating element, and means for causing winter operation of said blower to follow continued operation of said heating element after said securement of said damper by said latch means.

2,776,118
GRAVITY FLOW MEANS FOR SUMMER-WINTER AIR CONDITIONER
Keith T. Davis, Shaker Heights, Ohio, assignor to Carrier Corporation, a corporation of Delaware
Application January 29, 1954, Serial No. 407,133
6 Claims. (Cl. 257—3)



1. In an air conditioning plant having a plenum enclosure, a furnace unit including a heating element and blower means, a cooler unit including blower means, both said blower means being arranged to provide discharge into said plenum enclosure by way of separate openings, and each of said openings having a check valve associated therewith to automatically permit said discharge and prevent reverse flow; means associated with the check valve of said furnace unit to cause opening thereof automatically upon operation of said heating element without operation of its said blower means.

2,776,119
APPARATUS FOR PRODUCING DRESSING
Morris H. Joffe and Melvin Lipschultz, Chicago, Ill., assignors to The Emulsol Egg Products Corporation, Chicago, Ill., a corporation of Illinois
Application April 22, 1953, Serial No. 350,405
11 Claims. (Cl. 259—4)



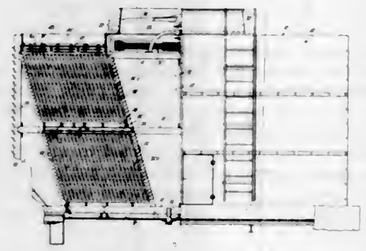
1. In an apparatus for producing a dressing including a container in which the usual required ingredients are assembled and premixed, and emulsifying apparatus, means including a pump and a mixture conduit extending between the container and the emulsifying apparatus for withdrawing the mixture from the container and transferring the same at a substantially constant rate in a flowing stream to the emulsifying apparatus, a source of inert gas, and means including a gas conduit connecting the source of inert gas to the mixture conduit for introducing the gas into the flowing stream of the mixture whereby the combined mixture and gas are treated in the emulsifier apparatus to complete the emulsion, the improvement consisting of, a flow meter in the gas conduit for measuring the rate of flow of the inert gas, and a control valve in the gas conduit for regulating the rate of flow of the inert gas to introduce the same into the mixture at a substantially constant desired rate, a shut off valve in the gas conduit downstream from the flow meter, a bypass connection around the flow meter, a three way valve in the gas conduit upstream from the flow meter and controlling the bypass connection, and control means operatively connected with said pump, shut off valve and three way valve for closing the shut off valve and opening the three way valve to the bypass connection for applying gas to the outlet side of the flow meter when the pump is not operating and including timing means for opening the shut off valve and closing the three way valve to the bypass connection a predetermined time after the pump is started to prevent surging of the flow meter and to introduce the gas into the mixture at substantially the constant desired rate without substantial surging.

2,776,120
MIXING DEVICE
John P. Terrett, San Francisco, Calif.
Application April 15, 1954, Serial No. 423,283
4 Claims. (Cl. 259—72)

1. A mixing device for use in a container having a removable lid, comprising a wire helix, means formed at one end of said helix serving as a concentrated mass and including a wire spiral, a vacuum cup engageable

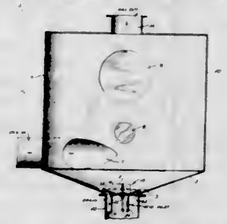
with said lid, and means formed at the other end of said helix engaging said vacuum cup.

2,776,121
SECTIONAL COOLING TOWER HAVING INTERMEDIATE WATER REDISTRIBUTION MEANS BETWEEN SECTIONS
Homer E. Fordyce, Gashland, Mo., assignor to The Marley Company, Kansas City, Mo., a corporation of Delaware
Application February 17, 1954, Serial No. 410,814
3 Claims. (Cl. 261—24)



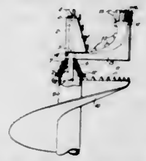
1. In a cross-flow, water cooling tower, a casing having opposed, vertical side walls, a bottom forming a catch basin, an open end for ingress of cool air throughout the entire area thereof, and an opening in the uppermost end of the casing for egress of hot air, thereby presenting a chamber between said open end and said opening; a sectional, cross-flow fill assembly spanning the distance between said sides and dividing the chamber into a discharge compartment adjacent the opening and a cooling compartment adjacent the open end, said assembly including a number of superimposed, horizontally offset, vertically inclined sections, each section including a plurality of vertically spaced cooling decks; means for forcing air into the casing from the open end to the cooling compartment, entirely through the fill assembly horizontally and through the discharge chamber, and thence through the opening; an open top, horizontal, primary hot water basin completely overlying the uppermost end of the upper section for discharging hot water onto said upper section for gravitational flow through the fill assembly in perpendicular, intersecting relationship to the flow of air through the fill assembly; and a single, open top, secondary basin between proximal sections having a bottom completely underlying the lowermost end of the fill section thereabove for receiving all the water emanating from the latter, and completely overlying the uppermost end of the adjacent fill section therebelow, said bottom being within a horizontal plane, that portion of said bottom overlying the section therebelow being provided with outlets for transferring all of the water from the section above the secondary basin laterally to the section below the secondary basin, thereby maintaining equal distribution of water throughout the fill assembly.

2,776,122
GAS AND LIQUID CONTACTING APPARATUS
Stanley J. Hultman, Corpus Christi, Tex., assignor to Columbia-Southern Chemical Corporation, Allegheny County, Pa., a corporation of Delaware
Application February 4, 1953, Serial No. 335,010
4 Claims. (Cl. 261—79)



4. A gas and liquid contacting apparatus comprising a tank defining a contact zone and having upwardly directed sidewalls and a downwardly sloping bottom; gas inlet and outlet means; an inverted frusto-conical barrier wall spaced at its upper edge from said bottom and extending upwardly from the lowermost point of said bottom to define an inner area for the retention of liquid to be dispersed; said barrier wall and said bottom cooperating to define an outer area, concentric to said inner area, for the collection of dispersed liquid; said barrier wall providing means for establishing pools of liquid in said areas; support means extending from the lower side of the barrier wall to the tank bottom to define a chamber in said outer area for the withdrawal of spent liquid; said support means having a plurality of openings therein for the passage of spent liquid therethrough to said chamber; inlet and outlet conduits directly communicating with said inner area and said chamber, respectively; and means extending into said inner area for elevating and freely upwardly and outwardly dispersing liquid throughout the contact zone.

2,776,123
BORING TYPE MINING HEAD HAVING ECCENTRIC WEDGE
Clifford H. Snyder, Dormont, Pa., assignor to The Colmol Company, New Lexington, Ohio, a corporation of Ohio
Application October 23, 1952, Serial No. 316,419
10 Claims. (Cl. 262—7)

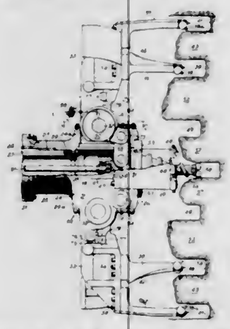


1. A coal mining head comprising a rotary shaft, a digging arm eccentrically mounted on said shaft, an eccentric wedge projecting forwardly from said shaft beyond said digging arm, a pilot bit beyond the end of said eccentric wedge, and an arcuate digging section on said digging arm substantially coextensive with and in spaced relation from said eccentric wedge to cut an annular coaxial kerf into which the eccentric wedge laterally breaks the coal.

2,776,124
RETRACTABLE BORING HEAD FOR MINING MACHINES
Herman E. Smith, Park Forest, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application January 13, 1956, Serial No. 558,877
2 Claims. (Cl. 262—7)

1. In a boring head for mining machines, and in combination with a hollow rotatable hub having a plurality

of radially opening extensions, radially extending arms having their inner ends pivotally mounted in said extensions for hinged adjustment toward and away from the axis of said hub, means in said hollow hub for causing hinged adjustment of said arms, each hinged mounting for said arms comprising a pair of spaced ears at opposite sides of the end opening of its respective projection, a pivot pin supported at opposite ends in said ears, the side faces of said arm having close fitting, bearing engagement with the adjacent ears, the front and rear faces of the arm having arcuate faces struck from the axis of the pivot pin, and wiper members fixed to the rim of the opening between the ears for sealing engagement with the arcuate faces of the arms in all permissible positions of hinged adjustment of said arms, the improvement which consists in providing each of said side bearing faces of said arms with a continuous grease groove along and adjacent the arcuate faces and also along and adjacent the outer edge of said bearing faces opposite the adjacent ears, and a grease supply duct communicating with said groove and accessible from the exterior of said hinged mounting.



2. In a boring head for mining machines, and in combination with a hollow rotatable hub having a plurality of radially opening extensions, radially extending arms having their inner ends pivotally mounted in said extensions for hinged adjustment toward and away from the axis of said hub, means in said hollow hub for causing hinged adjustment of said arms, each hinged mounting for said arms comprising a pair of spaced ears at opposite sides of the end opening of its respective projections, a pivot pin supported at opposite ends in said ears, the side faces of said arm having close fitting, bearing engagement with the adjacent ears, the front and rear faces of the arm having arcuate faces struck from the axis of the pivot pin, and wiper members fixed to the rim of the opening between the ears for sealing engagement with the arcuate faces of the arms in all permissible positions of hinged adjustment of said arms, each of the wiper members including a sheet of compressible elastic material and a rigid backing member disposed on the side of said sheet toward which its adjacent arcuate face is moved when the arm is swung toward fully extended position, and each of the arcuate faces having projecting stop ledges along one end thereof adapted to engage the adjacent sheets under compression against their respective backing plates when the arm is swung into its fully extended position.

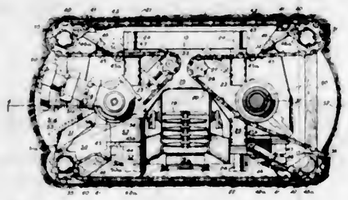
2,776,125
MINING MACHINE WITH COLLAPSIBLE CUTTER HEAD

James S. Robbins and Carl A. Wilms, Chicago, Ill., assignors to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application June 30, 1954, Serial No. 440,466

4 Claims. (Cl. 262—7)

1. In a mining machine, a main frame; an auxiliary frame supporting a pair of laterally spaced boring arms rotatable upon spaced parallel axes for cutting contiguous bores from a solid seam of material; main jack means between said main and auxiliary frames for adjusting the boring level of said boring arms; a chain guide extending in a horizontal direction and having an endless cutter chain guided thereby for cutting a cusp remaining from the action of said boring arms; an arm hinged to an end of said chain guide; a corner guide mounted on said hinged arm and having said endless chain trained thereabout; means for moving said chain guide up and down including auxiliary jack means acting between said auxiliary frame and said chain guide; and means for



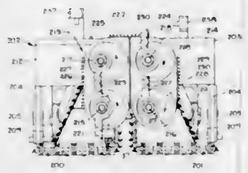
moving said hinged arm together with its associated corner guide between operative and inoperative positions without moving the chain guide relative to the auxiliary frame comprising a fluid operator mounted for movement with said chain guide relative to said auxiliary frame; said fluid operator having one end thereof disposed at a point inward of the end of said chain guide, anchoring means for said fluid operator comprising a bracket carried by and extending laterally of said chain guide, said fluid operator being pivotally connected to said bracket at a point spaced laterally of said chain guide; said fluid operator extending in a direction toward the end of said chain guide and being pivotally and directly connected to said hinged arm.

2,776,126
MINE FACE TRAVERSING MINING HEAD

Arvid R. Anderson, Upper Arlington, Ohio, assignor, by mesne assignments, to The Colmol Company, a corporation of Ohio

Application May 5, 1951, Serial No. 224,788

4 Claims. (Cl. 262—9)



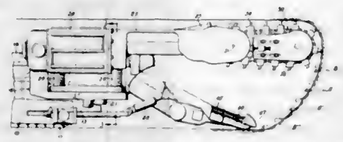
1. A coal mining machine including a power driven main frame, mining mechanism including a plurality of spaced rotary coal cutter and breaker arms rotating on spaced parallel forwardly projecting shafts on horizontal axes, mechanism connecting said mining mechanism to said main frame for up and down and lateral movement whereby said mining mechanism may be moved to follow a rectangular path, means for moving said mining mechanism as aforesaid including hydraulic motor means, four hydraulic control valves, a hydraulic circuit including said hydraulic motor means and said valves, said valves operating to change the direction of movement of said mining mechanism at each corner of said rectangular path of movement of said mining mechanism.

2,776,127
CONTINUOUS MINER HAVING VERTICALLY ADJUSTABLE RIPPER HEAD

Richard C. Lundquist, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application October 18, 1955, Serial No. 541,252

3 Claims. (Cl. 262—9)



1. In a mining machine of the ripper head type, a mobile base frame, a subframe pivotally mounted on said base frame adjacent the front end thereof for lateral swinging adjustment, an auxiliary frame slidably mounted on said subframe for limited horizontal adjustment relative thereto, a supporting frame slidably mounted on said auxiliary frame for vertical adjustment to various levels defining the upper limit of the machine, an elongated ripper head having rotary cutting devices thereon and pivotally connected to the front end of said supporting frame on a transverse axis for attacking a standing face of coal in advance of the machine, and drive means for said cutting devices mounted on and carried with said supporting frame.

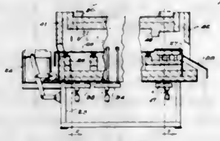
3. The method of mining with a machine of the ripper head type including a mobile base frame, a horizontally adjustable intermediate frame on said base frame, a vertically adjustable supporting frame on said intermediate frame, and an elongated ripper head pivoted transversely on said supporting frame for attacking a standing face of coal, the steps of positioning the mobile base adjacent a working face with the intermediate frame in retracted position on the base frame, and the supporting frame in lowered position relative to the intermediate frame, then elevating the supporting frame to a level closely adjacent the roof of the face area to be mined, with the ripper head extending forwardly toward the mine face substantially in a horizontal position lengthwise thereof, then sumping the ripper head in said horizontal position, and thereafter swinging the ripper head downwardly while maintaining its transverse axis on the supporting frame, to dislodge substantially the entire height of the face along a retreating arc.

2,776,128
FORGE FURNACE

John D. Nesbitt, Sylvania, and Theodore W. Munford, Toledo, Ohio, assignors to Surface Combustion Corporation, Toledo, Ohio, a corporation of Ohio

Application October 30, 1953, Serial No. 389,302

2 Claims. (Cl. 263—6)



1. In a high heat head furnace for rapidly heating work to hot working temperature, in combination: wall means forming first and second heating zones; skid rail structure consisting of a pair of water cooled pipes extending end to end through said furnace and means for maintaining said pipes in spaced relationship, said pipes forming a first, parallel section in the first heating zone spaced and adapted to serve as a support for work passing along a path through the furnace, and a second, parallel section contiguous to said first section and in which the pipes are offset to a position above and adjacent said path to serve as shadow rails for protecting work advancing through the furnace along said path; means for applying a high heat head to the work in said first zone; and refractory means in said second heating zone for supporting the work as it moves therethrough along said path.

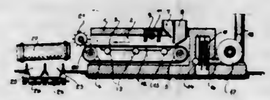
2,776,129
PRODUCTION OF SINTERED BUILDING MATERIAL

Fritz Lippe, Naumburg, Germany, assignor of part interest to Robert Koster, Frankfurt am Main, Germany

Application October 16, 1952, Serial No. 315,073

Claims priority, application Germany October 23, 1951

2 Claims. (Cl. 263—8)



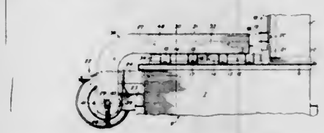
1. A plant for the production of a sintered granular material, particularly cement, with the use of low grade fuel in the raw material to be burned, comprising in combination, a tunnel kiln including a roof and side walls of refractory material having an opening at the discharge end the plane of which is transverse to the longitudinal axis of the tunnel kiln, said tunnel kiln being substantially closed at the end opposite the discharge end, a feed end in said kiln, ignition means arranged between said feed and discharge ends in close proximity to said feed end, a grate spaced a material distance from the roof of the kiln to provide a free space between the upper surface of the grate and the roof of the kiln, said grate being movable longitudinally in said kiln for conveying the combustion material from said feed end to said discharge end, and means for guiding the combustion air from its introduction at said discharge end, said means including the roof and side walls of said tunnel kiln arranged in close proximity to said grate whereby to guide said air close to said combustion material, in countercurrent to the direction of travel of said grate, and under heat insulating conditions, and suction means extending below the surface of said grate substantially from said discharge end to at least the region of said ignition means, whereby to heat the combustion air along its path and to provide by suction even near said ignition means, for the presence of highly heated air to insure complete combustion of even low grade fuel.

2,776,130
AIR PREHEATER FOR MELTING FURNACES

Armais Arutunoff, Bartlesville, Okla., assignor to Reda Pump Company, Bartlesville, Okla., a corporation of Delaware

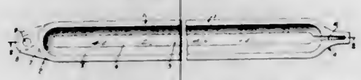
Application October 7, 1954, Serial No. 460,934

9 Claims. (Cl. 263—15)

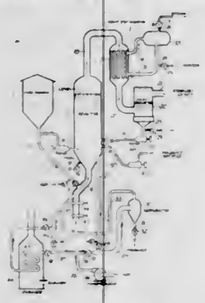


1. In a melting furnace having a melting chamber, a burner-blower assembly at one end and a removable lid bridging the top of said chamber; an air pre-heater for said burner-blower, comprising a substantially box-like housing overlying said lid with its underside in vertically spaced relation and supported thereby, air inlet means on

the underside of said housing directly exposed to the top surface of said lid, a duct at one end of said housing, and means connecting said duct to the air inlet of said burner-blower assembly.

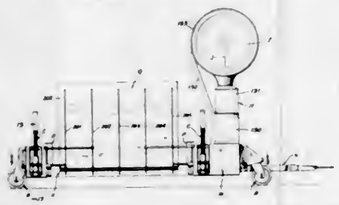
2,776,131
ZONE REFINING BOAT
Anthony J. Marino, Jr., Weehawken, N. J., assignor to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application August 21, 1953, Serial No. 375,732
1 Claim. (Cl. 263—47)

An elongated graphite vessel for the purification of germanium by a zone-refining process comprising bow, middle and stern sections, said middle section including a major portion of the length of said vessel and having bottom and side walls defining a trough, the bottom wall having a flat area extending for substantially the length of such trough, the inner surfaces of the side walls of said middle section flaring outwardly and upwardly, the side and bottom walls of said middle section being generally U-shaped in cross section and having a cross-sectional mass and a cross-sectional wall thickness substantially uniform throughout its length, said bow and said stern sections each having a wall structure terminating the trough of said middle section, the cross-sectional mass and cross-sectional wall thickness of each such wall structure being decreased gradually from the uniform cross-sectional mass and cross-sectional wall thickness of said middle section, the wall structure of said bow section including an end wall for said trough and a forward extension having a vertical thickness greater than said bottom wall, the cross-sectional mass of said forward extension being decreased gradually forwardly of said end wall, the wall structure of said stern section including an end wall for said trough and a rearwardly extending portion, the cross-sectional mass of said rearwardly extending portion being decreased gradually rearwardly of said last-mentioned end wall, the rearward extension of said stern section further including a narrow channel decreasing in depth rearwardly and having its deepest end in communication with the trough of said middle section.

2,776,132
CEMENT MANUFACTURE
Robert Pyzel, Piedmont, Calif.
Application February 6, 1953, Serial No. 335,413
11 Claims. (Cl. 263—53)



1. A process for the production of hydraulic cement from raw uncalcined materials including carbonates and oxides which comprises establishing a bed of fluidized particles predominantly of hydraulic cement of a chemical composition substantially the same as the hydraulic cement to be produced, maintaining said bed in a fluidized state by charging air into the bottom portion thereof, charging into said bed the raw uncalcined materials in powdered form, charging fuel into the fluidized bed for combustion with air within the bed, the relative amounts of fuel and air supplied to said bed being sufficient to maintain said bed at a temperature high enough to bring about calcination of carbonate materials and to maintain the fluidized bed at cement reaction temperatures, whereby the added carbonate materials are first calcined and the resultant oxides and the oxides of the raw materials react in said bed to form hydraulic cement, discharging combustion gases and carbon dioxide resulting from the calcination from above the reaction zone and the fluidized bed, and discharging a portion of the fluidized bed from the reaction zone as final product of the reaction.

2,776,133
VEHICULAR BEAM SCALE
Clyde N. Bates, Rutland, Vt., assignor, by mesne assignments, to The Howe Scale Company, Rutland, Vt., a corporation of Delaware
Application March 22, 1951, Serial No. 217,013
2 Claims. (Cl. 265—27)

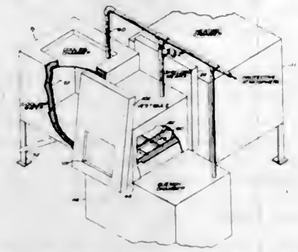


1. A portable vehicular scale comprising a portable rectangular frame having a far end and a near end and a longitudinal axis extending from the far end to the near end, a rectangular platform vertically reciprocably supported above said frame, pairs of levers pivotally connected to the frame at each end of the frame and in turn pivotally connected to said platform and positioned at both the far end and the near end and extending in a direction transverse to said longitudinal axis at the far end and the near end of the frame, tubes extending longitudinally at each side of the frame between the far end and the near end and being parallel to the longitudinal axis of the frame and being positioned below the platform and connecting the levers at the far end and the near end so that said levers will move together when a weight is placed upon the platform and the platform is depressed and means connected to the levers at the near end to actuate an indicator to indicate the weight.

2,776,134
HEAT TREATING APPARATUS
Donald E. Wingate, Toledo, Ohio, assignor to Surface Combustion Corporation, Toledo, Ohio, a corporation of Ohio
Application August 10, 1954, Serial No. 448,967
3 Claims. (Cl. 266—4)

1. In a heat treating apparatus comprising a vestibule adapted to confine a protective atmosphere, a heating chamber extending from the rear of the vestibule, an auxiliary chamber extending from the side of the vestibule, and a tank of quenching fluid below the vestibule, in combination, an elevator operating between the vestibule and the tank, having a lower platform for receiving, from the heating chamber, work to be lowered into the tank, and an upper platform; tracks on the lower platform of the elevator and in the heating chamber that are in alignment when the elevator is in its upper position, to permit work to be moved along such tracks

from the heating chamber onto the lower platform of the elevator; carriage tracks on the upper platform of the elevator and in the auxiliary chamber that are in alignment when the elevator is in its lower position, a work carriage movable along such tracks between a position on the upper platform of the elevator and a

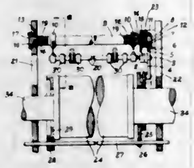


position that is in the auxiliary chamber and is entirely off the elevator; and additional tracks on the work carriage that are in alignment with the tracks in the heating chamber when the elevator is in its lower position and the work carriage is on the upper platform of the elevator, to permit work to be moved from the heating chamber onto the carriage.

2,776,135
SPRINGING OF ROAD VEHICLES
Waldemar Assmus, Russelsheim (Main), Germany, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 4, 1953, Serial No. 378,591
6 Claims. (Cl. 267—30)

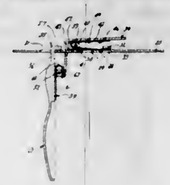
1. A vehicle suspension system comprising in combination a vehicle frame, an axle housing, a load-carrying leaf spring, means for pivotally attaching one end of said spring to said frame, means for attaching said spring to said axle housing, a U-shaped slide member having a slightly downwardly convex contact face for guiding the other end of said spring for longitudinal displacement relative to said frame, a U-shaped member secured to said frame in the vicinity of said other end of said spring and a U-shaped rubber pad disposed between, and secured to, said slide member and said U-shaped member.

2,776,136
GRIPPER BAR SUPPORT FOR SHEET PRINTING PRESS
Paul Dietrich, Augsburg, Germany, assignor to Maschinenfabrik Augsburg-Nurnberg A. G., Augsburg, Germany, a corporation of Germany
Application May 12, 1951, Serial No. 225,972
Claims priority, application Germany June 22, 1950
5 Claims. (Cl. 271—51)



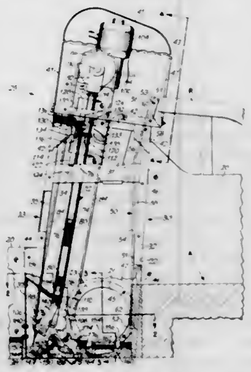
1. In a sheet printing press having an impression cylinder and a gripper bar adapted for swinging movement to and from said cylinder for delivering sheets thereto in timed relation with the rotation of said cylinder, the combination which comprises a hollow shaft rotatably mounted substantially parallel to said cylinder, means for mounting said gripper bar on said shaft for swinging movement about the axis thereof upon rotation thereof, a control lever at one end of said hollow shaft effecting rotation thereof to produce said swinging movement of said gripper bar, cam means effecting movement of said control lever in one direction in timed relation with rotation of said cylinder, and spring means within said hollow shaft and extending substantially across said printing press for urging said shaft and said control lever in the opposite direction against said cam means.

2,776,137
BOWLING GAME AND PIN RETRACTION MECHANISM THEREFOR
David Cohn, Brooklyn, N. Y., assignor to T. Cohn Incorporated, Brooklyn, N. Y., a corporation of New York
Application November 28, 1955, Serial No. 549,290
8 Claims. (Cl. 273—41)



1. In a target game, a support, a carrier arm pivoted to said support for swinging movement between forward and rearward positions, a first resilient means yieldably urging said arm toward its rearward position, a target pivoted to the distal portion of said arm for movement with the latter and forward and rearward swinging movement relative to said arm, a second resilient means yieldably urging said target in the forward direction relative to said arm, and a latch carried by said target for movement therewith and interengageable with said support when said arm is in its forward position to limit forward swinging movement of said target and retain said arm in its forward position, impingement of an article on said target effecting rearward swinging of the latter against the force of said second resilient means to disengage said latch from said support and release said arm for movement to its rearward position under the force of said first resilient means.

2,776,138
BALL RETURN MECHANISM
Robert L. Holloway, Snyder, Leopold Strauss, Buffalo, and Alfred E. Levendoski, Depew, N. Y., assignors to American Machine & Foundry Company, a corporation of New Jersey
Application June 24, 1950, Serial No. 170,162
27 Claims. (Cl. 273—49)



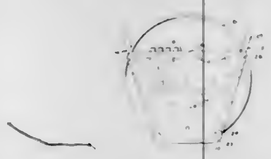
1. A bowling ball handling device comprising a substantially vertical ball track, a ball return runway located

adjacent the upper end of said track, a ball engaging and lifting conveyor having a traveling substantially unbroken continuous ball engaging surface, supports mounting said conveyor for movement to position said surface in ball engaging and lifting position relative to said track, a ball receiving member between said surface and said track, mechanism operating in response to the arrival of a ball on said member for effecting the movement of said surface into engagement with said ball to hold said ball firmly on said track, and means for driving said conveyor, whereby said surface rolls said ball up said track and onto said return runway.

2,776,139
GAME BALL
William F. Blamey, Jr., Stratford, and David N. Mullany, Fairfield, Conn.
Application February 18, 1954, Serial No. 411,070
10 Claims. (Cl. 273—60)

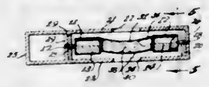
1. A game ball comprising a hollow, lightweight, spherical shell, said shell having a substantially imperforate portion, the remainder of the shell having a plurality of closely spaced perforations extending therethrough and providing a perforated zone characterized by surface openings, all said perforations and openings being grouped in one portion of the ball surface to cause the wind-resisting characteristics of the surface of the ball to vary unsymmetrically whereby the ball when spinning in flight will follow a curved path.

2,776,140
PIN AND HOOP GAME
Charles H. Carlson, Rockford, Ill., assignor to Rockford Inventors, Inc., Rockford, Ill., a corporation of Illinois
Application June 1, 1954, Serial No. 433,529
8 Claims. (Cl. 273—100)



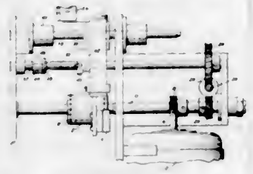
1. A game apparatus for a hoop throwing game comprising a flat board having a plurality of pins projecting outwardly from one face thereof and arranged in a predetermined pattern, a hoop formed of a rim of small diameter relative to the hoop diameter dimensioned to be capable when accurately thrown of loosely encompassing all of said pins on said board, said pins being spaced relatively far apart so that the rim of said hoop may pass downwardly therebetween, and means for detachably mounting said hoop to said board at spaced points adjacent the periphery of the board so that the plane of the hoop extends parallel to the plane of said board, said hoop when mounted on said board having a portion extending beyond the periphery of the board at one side thereof said portion forming a carrying handle for the game apparatus.

2,776,141
SEAL BALANCING NOVELTY
William H. Dietz, Pittsburgh, Pa.
Application June 23, 1955, Serial No. 517,517
1 Claim. (Cl. 273—153)



In a toy puzzle, the combination which comprises a case having spaced parallel opaque panels connected at the edges with a continuous wall, said panels having registering openings extended therethrough and having representations of an animal on outer surfaces thereof, the animal being positioned whereby a nose is positioned to correspond with an end of one of said openings, an arcuate glass tube having a high point midway between its ends partly filled with liquid providing a bubble therein and having cylindrical end portions positioned between the panels, pins extended longitudinally from the ends of said cylindrical portions of the tube and loosely positioned in openings in bearings extended transversely of the case and positioned between the panels, and weights in the cylindrical portions of the tube and positioned to normally maintain the tube with its high point extended downwardly, said tube adapted to be held with the high point thereof extended upwardly by a finger extended through the opening of one of said panels, whereby to cause the bubble to appear adjacent the animal's nose.

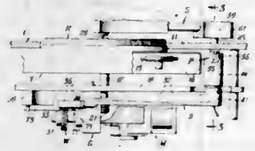
2,776,142
INDEXING MEANS FOR SIGNAL RECORDING AND REPRODUCING APPARATUS
Frederick G. Buhrendorf, Westfield, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application January 21, 1953, Serial No. 332,189
3 Claims. (Cl. 274—13)



1. In a signal recording and reproducing apparatus comprising a transducer and a record member actuated by a common means, a feed screw, a carriage attached to said transducer and engaged by said feed screw for advancement relative to said record member from an established starting point, said feed screw completing one revolution while said record member completes an integral number of revolutions, a cylindrical cam member coaxially affixed to said feed screw, a latch member attached to said carriage and adapted to be disposed on the surface of said cam member on disengaging said carriage from said feed screw and moving said carriage to said starting point of its travel, a slot in the surface of said cam member adapted to be entered by said latch member to permit reengagement of said carriage and said feed screw, said slot, when aligned to receive said latch member with said carriage at said starting point, corresponding to a specified position on said record member, a switch member operable by said latch member when said latch member is disposed on the surface of said cam member and said carriage is at said starting point to energize said common actuating means and thereby cause said cam member to rotate and said latch member to follow the surface of said cam member, said switch member being operable by said latch member when said latch

member falls through said slot to deenergize said common actuating means and thereby arrest the motion of said cam member, said cam member having a beveled undercut portion to permit rotation thereof without interference from said latch member after said latch member has fallen through said slot, said latch member being pivotally attached to said carriage to permit pivotal motion thereof when lifted against the beveled undercut portion of said cam member, whereby said carriage may be lifted and disengaged from said feed screw without interference from said cam member before said latch member has traveled the distance required to clear said cam member.

2,776,143
SOUND RECORDING APPARATUS
Joseph V. Caltagirone, Brooklyn, and August Nichols, New York, N. Y.; said Nichols assignor to said Caltagirone
Application March 5, 1952, Serial No. 274,990
2 Claims. (Cl. 274—13)



1. Sound recording apparatus comprising a horizontal rotatable tablet table; a horizontal base plate; bracket means projecting from said base plate; a pair of opposed horizontal conical pivots projecting toward one another from said bracket means; a vertical supporting sleeve having a pair of external conical cavities on opposite sides thereof receiving said pivots whereby said sleeve is pivoted for movement in a vertical plane; a vertical shaft journalled within said sleeve and extending from a position below said sleeve up to a position above said base plate; a stylus supporting arm mounted on said shaft above said base plate; a driving arm mounted on said shaft below said sleeve, said driving arm and said stylus supporting arm being movable in unison with said shaft; and driving mechanism below said base plate engaging said driving arm.

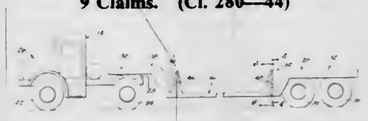
2,776,144
PHONOGRAPH TONE ARM MOUNTING
August Nichols, New York, N. Y., assignor to Joseph V. Caltagirone
Application January 23, 1952, Serial No. 267,845
4 Claims. (Cl. 274—23)

1. In a phonograph, a rotatable tablet table, a tone arm support located at one side of said tablet table and comprising an outer ring, an intermediate ring bushed in said outer ring and rotatably adjustable therein, and an inner ring within and pivotally secured to said intermediate ring on a pivot axis for movement in a first plane normal to the plane of said intermediate ring and rotatably adjustable with said intermediate ring; and a tone arm projecting from said tone arm support and having a stylus end remote from said support adapted to move over said tablet table, said tone arm being pivotally secured to said inner ring for movement in a second plane normal to both said first plane and said plane of said intermediate ring, said tone arm also being rotatably adjustable with said inner and intermediate rings and movable with said inner ring; and means for connecting a spring between said tone arm and said support for resiliently urging said stylus toward a record; whereby said tone arm is adjustable to be urged toward a record with a varying force as said tone arm moves from the periphery toward the center of a record.

2,776,145
PHONOGRAPH TABLET TABLES
Joseph V. Caltagirone, Brooklyn, and August Nichols, New York, N. Y.; said Nichols assignor to said Caltagirone
Application January 23, 1952, Serial No. 267,838
1 Claim. (Cl. 274—39)

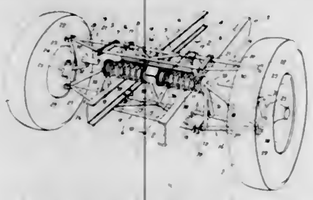
A phonograph tablet table for supporting thin flexible records, said table having an exposed tablet supporting surface on substantially the entire exposed area thereof comprising a series of concentric continuous annular ridges spaced sufficiently close together for rigid support of such a record without yielding to stylus pressure, and a series of valleys between said ridges for receiving foreign particles accumulating on said table, said ridges and valleys covering substantially the entire area of said surface, each of said ridges in cross section having straight edges inclined upwardly toward one another and meeting in a peak, all of said peaks being arranged in a common plane, the straight edges of adjoining ridges being inclined downwardly toward one another and meeting in a valley.

2,776,146
ADJUSTABLE HEIGHT LOAD BED FOR VEHICLES
Robert L. Marino, Delavan, Wis.
Application July 6, 1955, Serial No. 520,333
9 Claims. (Cl. 280—44)



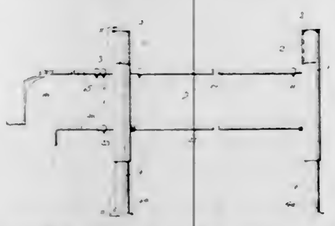
1. In a load-carrying vehicle, the combination comprising a horizontal bed for carrying a load, front and rear vehicle members connected to the front and rear of said bed for carrying said bed, at least one of said members having wheels thereon, said bed having front and rear end portions with vertically extending slots therein, said front and rear vehicle members having vertically extending guides slidably retained in said respective slots for guiding said bed for vertical movement relative to said members, each of said end portions having a V-shaped double wedge thereon with a pair of downwardly facing wedge surfaces inclined downwardly and inwardly, each of said vehicle members having a pair of single wedges with upwardly facing inclined surfaces engaging said downwardly facing surfaces in wedging relation thereto, means on each of said members supporting each of said single wedges for horizontal movement, screw means on each of said members for moving said single wedges toward and away from each other, and power means on each of said members for actuating said screw means to raise and lower said bed relative to said vehicle members.

2,776,147
LATERALLY SHIFTABLE WHEEL MOUNTING STRUCTURE FOR AUTOMOBILES
Robert M. Bamford, Live Oak, Calif.
Application August 16, 1954, Serial No. 450,108
4 Claims. (Cl. 280—124)



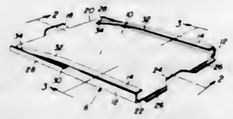
1. A suspension, for mounting a pair of wheels in connection with a main longitudinal automobile frame disposed therebetween, comprising a pair of vertically spaced transverse frames extending across the main frame, one transverse frame being above and the other below said main frame, means connecting the transverse frames as a rigid unit, a pair of vertically spaced swingable equal length parallel arms pivoted to and projecting laterally outward from each end of the transverse frames, a post pivoted to and extending between the outer ends of adjacent swingable arms, means mounting the corresponding wheel on each post, one each of the arms at each end of the transverse frame unit being included in a bellcrank lever disposed in a vertical transverse plane, an inwardly extending compression spring engaged between the free arm of each bellcrank lever and the main frame, and guide means mounting the transverse frame on the main frame for relative sliding motion in a fixed plane transversely of the main frame.

2,776,148
TWO STATION LANDING GEAR FOR SEMI-TRAILERS
Henry A. Geerds, Holland, Mich., assignor to Holland Hitch Company, Holland, Mich., a corporation of Michigan
Application October 28, 1954, Serial No. 465,258
3 Claims. (Cl. 280—150.5)



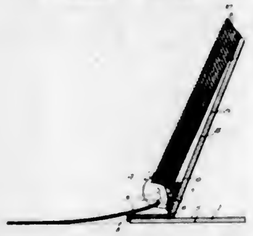
1. Landing gear for trailers comprising, two spaced, parallel, outer tubular members adapted to be secured to and depend from a trailer body, a tubular extension member telescopically entering into each of the first members at the lower end thereof, stops at the lower end portions of the outer tubular members engaging cooperating stops at the upper ends of the second tubular members to limit downward movements of said second tubular members, a latch lever carried at a side of each of said outer tubular members having a projection extending through the adjacent side of said outer tubular members over the upper end of its associated second tubular member when extended, manually operable means connected with both latch levers for simultaneously releasing said levers, cables secured one to the upper end of each of said second tubular members extending upwardly within the first tubular members, a winding drum for each cable to which said cables are secured at their upper ends, manually operable means for turning both drums to lift said second tubular members, and releasable latching means for holding the second tubular members in lifted position.

2,776,149
HOLDER FOR WRITING PAD
Oscar K. Hobbs, Abilene, Tex.
Application December 27, 1954, Serial No. 477,854
2 Claims. (Cl. 281—15)



1. A pocket-size holder for a readily insertable and removable writing pad, conventional-type index cards or the like, comprising a flat smooth-surfaced backing plate, rigid and generally rectangular in plan and provided along opposite longitudinal edges with cooperating vertical and horizontal flanges bent relative to each other and said plate and defining and providing open ended channel-shaped pad receiving and retaining tracks, said plate having an upstanding centrally disposed ear-like bend at one transverse end providing a stop shoulder, and being provided at its other transverse end with a centered finger clearance notch and on opposite sides of said notch with tongue-like extensions bent laterally and downwardly and providing pad piloting elements assisting in guiding and positioning the pad in said holder, the respective vertical flanges at the end of the plate adjacent to said stop shoulder being provided with slots opening through the track-ends adjacent to said stop shoulder and providing lengthwise tongues, the respective tongues being resilient and longitudinally bowed in a direction toward the respective free end portions, said free end portions being curved downwardly and into close proximity to the cooperating top surface of said plate and providing resilient pad holding clips.

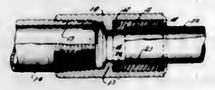
2,776,150
DISPLAY BINDER
Elmer W. Ericson, Chicago, Ill.
Application June 11, 1953, Serial No. 360,900
2 Claims. (Cl. 281—33)



1. A display device, consisting of a pair of stiff panels, a substantially inflexible angle member, one of the sides of said member being positioned on a side of one of said panels adjacent and parallel to one of its ends, the remaining side of the angle member being extended from and beyond said one end of said panel, binder means on that side of the angle member on said last mentioned panel positioned adjacent the point of angulation of said member and inwardly of its remaining side and free end, means fixedly interconnecting the angle member first mentioned side and the binder means to the last mentioned

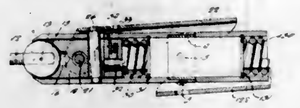
panel, and the corresponding end of the remaining panel being hinged to the free end of said remaining side of the angle member swingable in either of two directions with relation thereto, said remaining panel, when swung in one direction, having a portion thereof abuttingly engaged with said remaining side of the angle member and said first mentioned panel being disposed at an angle to and above the remaining panel.

2,776,151
PIPE FITTING FOR CONNECTING METAL PIPE TO PLASTIC PIPE
Robert J. Harkenrider, Winona, Minn., assignor, by mesne assignments, to Continental Can Company, Inc., New York, N. Y., a corporation of New York
Application August 19, 1952, Serial No. 305,235
1 Claim. (Cl. 285—174)



In a fitting for connecting the threaded end of a metal pipe to an end of a plastic pipe including a metal sleeve having one end thereof threaded to receive the end of the metal pipe, the improvement which comprises, an open ended chamber integral with the other end of said sleeve, a radial internal shoulder integral with said sleeve substantially intermediate its length and separating said threaded end and said chamber end of said sleeve, a tubular plastic insert fixed within said chamber, a tapered shouldered socket formed in said insert to receive the end of the plastic pipe, an inwardly extending flange provided at the inwardly extending end of said insert and in contact with said shoulder, a peripheral groove surrounding said inwardly extending flange and facing said shoulder, a compressible sealing gasket seated in said groove and in sealing engagement with said shoulder, the compression on said gasket being limited by the contact between said flange and shoulder, and an outwardly extending flange integral with the outer end of said chamber and adapted to be turned radially inwardly against the outer end of said insert whereby to hold said insert in said chamber and to compress said sealing gasket against said shoulder.

2,776,152
BALL AND SOCKET JOINTS
Anthony P. Ianuzzi, Hollis, N. Y.
Application October 18, 1950, Serial No. 190,740
2 Claims. (Cl. 287—12)



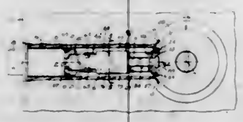
1. In a device of the character described, and in combination, a pair of members and a hinge joining the same, the hinge comprising a ball attached to one of the members, the other member having a tubular portion terminating in an inwardly turned rim forming a seat for holding the ball, a plunger within the tubular portion and a spring for urging it against the ball to lock the same against pivotal movement, a cross piece extending across the tubular portion, means pivotally mounting one end of the cross piece in the wall of the tubular member, an operating lever for moving the other end of the cross piece axially of the member, the tubular portion having an aperture accommodating the said other end of the cross piece and the said other end extending out beyond the barrel and being connected to the operating lever, the plunger abutting against the cross piece whereby it is normally permitted to press against the ball for locking the same but is forced back to release the ball upon movement of the operating arm.

2,776,153
ARMORED GASKET FOR PIPE REPAIR CLAMP AND THE LIKE
Telford L. Smith, South San Francisco, Calif.
Original application January 26, 1948, Serial No. 4,317, now Patent No. 2,690,193, dated September 28, 1954. Divided and this application March 4, 1954, Serial No. 414,212
6 Claims. (Cl. 288—2)

1. A leak sealing gasket for disposition between a leaking pipe and a jointed clamp, comprising a rectangular sheet of yieldable material, the sheet having opposed joint forming skived edges; the sheet being provided with a recess in one face thereof of substantial width and extending substantially throughout the length thereof intermediate said skived edges and parallel thereto and a metallic wear strip disposed within said recess and bonded to the walls thereof, said wear strip having its outer face flush with the outer face of said sheet.

2,776,154
PLASTIC PACKING
George P. Leistensnider, Somerville, N. J., assignor to Johns-Manville Corporation, New York, N. Y., a corporation of New York
Application December 30, 1952, Serial No. 328,627
11 Claims. (Cl. 288—8)

1. A packing of the composition and type generally known as "plastic" packing and extruded in the form of a helical strip from which suitable lengths may be taken and applied in helical, or annular, form to a movable shaft with the length of the strip extending generally circumferentially of the shaft, its width extending generally axially of the shaft, and its thickness extending generally radially of the shaft, said packing comprising an extruded annular "plastic" strip comprising, by weight, fiber in amount within the approximate range 10%–80%, resilient, flexible, heat-resistant binder in amount within the approximate range 5%–30%, and non-fluid lubricating substance in the form of small particles in amount within the approximate range 10%–70%, said fiber, binder, and lubricating substance being thoroughly intermixed, said strip having an internal aperture extending in the direction of its length and hence circumferentially thereof and of the shaft as the strip is applied thereto, the inner surface of the wall defining the aperture being arched outwardly in the direction of the width of the strip and hence axially of the shaft as the strip is applied thereto, the size of the aperture being at least about 15% of the cross-sectional area of the strip, said fibers being predominately oriented generally longitudinally of the strip.

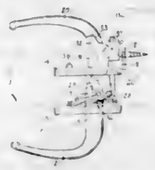
2,776,155
EXTENSION FOR TUBULAR LATCHES
John R. Gerlach, Los Angeles, Calif., assignor to Kwikset Locks, Inc., Anaheim, Calif., a corporation of California
Application June 11, 1954, Serial No. 436,156
5 Claims. (Cl. 292—1)

4. In a backset extension for a latch, the combination of: a first, channel-shaped guide member having securement means on its opposite ends; a connector having a U-shaped intermediate portion embracing said guide member intermediate its ends and provided with laterally extending securement portions movable in the interior of said guide member; and spring means engageable between said guide member and one of the extremities of said connector for biasing said connector toward the latch end of said guide member.

2,776,156
CLOSURE CHECK
Wilfred E. Thibodeau, Franklin Township, Summit County, Ohio
Application May 14, 1952, Serial No. 287,679
10 Claims. (Cl. 292—70)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. In a checking and holding device for a closure of the type having a stationary member and a member movable with respect thereto, an element of rubbery material of generally sheet-like form, the periphery of which forms a flange for attachment to one of said members, the portion of the element inwardly of the flange having a through opening in its center, and said portion extending, in its normal, stress-free state, laterally of the plane of said flange, into substantially frusto-conical form, thereby providing a hollow interior offset from the plane of said flange, said element adapted to be contacted at said opening by a stud carried by the other of said members, which stud is slightly larger than said opening, whereby motion of the stud is first impeded by contact with said element at said opening, followed by collapse and inversion of said element and final penetration of said opening by said stud.

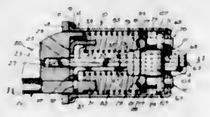
2,776,157
SCREEN DOOR LATCH
Charles A. Ellis, Hamden, Conn., assignor to Sargent & Company, New Haven, Conn., a corporation of Connecticut
Application July 8, 1954, Serial No. 441,986
4 Claims. (Cl. 292—126)

1. A door latch mechanism comprising an escutcheon plate adapted to be mounted upon a door, a pair of spaced bracket members carried by the plate and adapted to extend inwardly within an opening in the door, a pair of pivot pins secured to said bracket members and extending therebetween, a handle member pivoted upon one of said pins in the space between said bracket members, a latch member pivoted upon the other of said pins in the space between said bracket members, and a coil spring mounted upon each of said pins within said space, one of said springs acting upon the handle member to urge it in a forward direction, and the other of said springs acting



upon the latch member to urge it in a forward direction, and interengaging means on said latch member and handle member whereby the latch member moves with the handle when the latter is moved rearwardly.

2,776,158
DEAD LATCH CONSTRUCTION
Andrew J. Unetic, Santa Ana, and Leo P. Kolar, Buena Park, Calif., assignors to Kwikset Locks, Inc., Anaheim, Calif., a corporation of California
Application February 19, 1954, Serial No. 411,431
4 Claims. (Cl. 292—163)

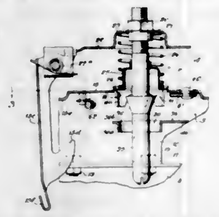


1. In a dead latch, the combination of: a housing; a main bolt in said housing having an extension thereupon; an auxiliary bolt juxtaposed to said main bolt and having an extension thereupon; spring means for extending said bolts from said housing; spring seats for said spring means located intermediate the ends of said housing, said spring seats being provided on pins extending inwardly from the inner end of said housing; a dogging member for said main bolt pivotally mounted in said housing upon said pins rearwardly of said seats; and a dogging spring in said housing interposed between said spring means and said dogging member, said dogging spring including a fixed portion secured on said pins and engaging the ends of said spring means to isolate said spring means from a movable portion of said dogging spring.

2,776,159
CLOSURE RING FOR CONTAINER
William Cookson, Fareham, England
Application January 20, 1954, Serial No. 405,130
Claims priority, application Great Britain January 21, 1953
2 Claims. (Cl. 292—256.6)

1. Latching means for a releaseable closure ring for securing a lid to a container, said closure ring being transversely separated to provide a first end portion and a second end portion, said end portions having cooperating snap-action latching means comprising a wedge-shaped catch and a transverse slot between said wedge-shaped catch and the free end of said first end portion of said snap ring, and at least one slot formed in said second end portion of the ring adapted to engage said wedge-shaped catch to latch said end portions in a preliminary engaging position, a recessed bridge across the slot in said second end portion and providing a shoulder against which the wedge-shaped catch in said first end portion of said closure ring may engage, the transverse slot in the first end portion providing means for insertion of a tool to reduce the closure ring to a smaller circumference and to prize and force the latching means into a final secured position.

2,776,160
AUTOMOBILE HOOD LATCH
Herbert Krause, Chicago, Ill., assignor to Chicago Forging and Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application August 31, 1953, Serial No. 377,319
3 Claims. (Cl. 292—304)

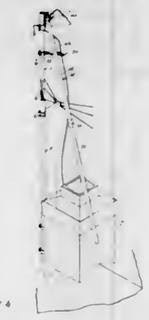


1. In an automobile latch assembly for automobile hoods and the like, a latch base having an aperture therein, a latch bolt pivotally mounted on said base and yieldingly biased to extend inwardly into said aperture, an elongated keeper formed and adapted to penetrate said aperture when said keeper and said base are moved toward each other, said keeper having a latch bolt engaging enlargement intermediate its ends, said keeper having a guide extension of substantial length and generally uniform cross sectional area extending outwardly from said enlargement, said assembly including a plate member spaced from said base and having an aperture positioned in alignment with said base aperture, said plate aperture being formed and adapted to receive said guide extension, said enlargement having a latch bolt engaging surface extending further from the axis of said keeper than the surface of said guide extension in the direction of said latch bolt, said plate aperture having a width substantially equal to the lateral dimension of said guide extension but less than the width of the aperture in said latch base and less than the lateral dimension of said enlargement, said guide extension extending a substantial distance beyond said plate member when said latch bolt is engaged with said enlargement whereby said keeper is constrained by said plate member during movement of said base and keeper toward and away from one another.

2,776,161
MOTOR VEHICLE HANDLE ASSEMBLY
Thomas C. Dingman, Dearborn, and Walter Gurski, Detroit, Mich., assignors to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application April 9, 1954, Serial No. 422,047
3 Claims. (Cl. 292—353)

1. A motor vehicle interior handle assembly comprising a shaft having an annular groove formed in its periphery intermediate its ends and a longitudinally serrated portion between said annular groove and the free end of said shaft, a handle having a hub and integral crank arm extending radially therefrom, said hub having a longitudinally serrated bore non-rotatably receiving the serrated portion of said shaft and an elongated opening intersecting and opening into said bore adjacent the annular groove in said shaft, the axis of said elongated opening lying in a plane perpendicular to the axis of said bore, said handle having a pair of generally radially spaced projections formed on the interior thereof, and a generally U-shaped spring detent having a first leg adapted to be inserted into the elongated opening in said hub and a second leg having a retaining portion adapted to engage said spaced projections, the radially inner of said pair of projections being positioned to engage the retaining portion of the second leg of said spring detent when the latter has been moved to a position such that the first leg of said detent is received within the annular groove formed in the periphery of the shaft to prevent disengagement of said shaft from said handle, the radially outer of said pair of projections being positioned to engage the retaining portion of said spring detent when the latter has been withdrawn to a position such that the first leg of the detent is out of engagement with the annular groove in said shaft to permit detachment of said handle from said shaft.

2,776,162
ANTENNA MAST INSTALLATION TOOL
John O. Bitz, West Reading, and Stanley G. Seltz, Reading, Pa.
Application June 5, 1953, Serial No. 359,859
5 Claims. (Cl. 294—23)

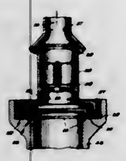


1. A tool for manipulating, from a remote location, an antenna extension mast onto a vertical main antenna mast in coaxial alignment with the main mast, comprising an elongated handle; means extending laterally therefrom adapted to dispose the extension mast longitudinally of and in laterally spaced relation to the main mast, for lifting the extension mast onto the upper end of the main mast from said location; and a hook on the handle spaced longitudinally of the handle from said means, and having a free end projecting longitudinally of the handle toward the means in laterally spaced relation to the handle, the hook being extendable into the upper end of the extension mast for, in succession, holding the extension mast against lateral deviation from the position in which it is supported by said means, and exerting downward pressure against the extension mast in an axial direction tending to force the extension mast into the upper end of the main mast.

2,776,163
SUCTION-HEAD FOR USE WITH A VACUUM CONVEYOR PLANT
Gottfried Cremer, Junkersdorf, near Koln, Germany
Application April 23, 1952, Serial No. 283,849
13 Claims. (Cl. 294—64)

9. A suction head for attachment to plastic and semi-plastic mouldings, comprising a body having thereon spaced rigid inner and outer members of closed configura-

tion defining therebetween a suction chamber of closed configuration adapted at the free edges of the members to engage over and apply suction to an area of said moulding opposite said chamber and bounded by said inner and outer members, means for holding said inner and outer members at a fixed distance from each other, a conduit leading to said chamber through which said chamber

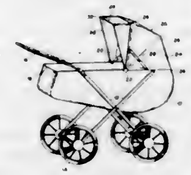


may be evacuated, said body including a barrier bounded by said inner member, said barrier isolating said chamber from all areas of said moulding exposed to the portions of said body other than those between said inner and outer members, and packing rings of elastic material on said members for engaging said moulding, one of said packing rings being on the outer side of one of said members, another of said packing rings being on the inner side of the other member.

2,776,164
AUTOMATIC TONG EXTRACTING AND RE-SETTING MECHANISM
Ernest E. Eckstein, Elgin, Oreg.
Application October 22, 1953, Serial No. 387,693
4 Claims. (Cl. 294—110)

1. In combination, a pair of load lifting tongs, a hoisting cable and a tong extracting and re-setting mechanism providing a lifting connection between cable and tongs; said mechanism comprising a housing, a pair of bars, each having endwise movement relative to the other and limited telescopic movement into and from the housing; the first of said bars extending from the upper end of the housing and having fixed connection with the hoisting cable and the second of said bars extending from the lower end of the housing and having load supporting connection with the tongs, means providing a direct load lifting connection between said bars when they are fully extended relative to each other and slack in the load lifting connection when not fully extended relative to each other, spring means attached under tension to the housing and first bar and operable to effect a relative telescopic movement of the first bar into the housing and the taking up of a limited amount of slack produced by the paying out of the lifting cable after a tong held load has been lowered to rest, a latch stop fixed to and movable with the first bar, a latch bar pivoted on the housing and engageable with said stop upon the telescoping of the first bar substantially into the housing under the influence of said spring means, thus to provide a connection for lifting the housing through the mediacy of cable and latch bar, means connecting the housing with the outer ends of the tong jaws and providing for their extraction, and a latch bar releasing means mounted on the housing and functionally operable by the said second bar; said latch bar releasing means comprising an integral three arm release lever that is pivotally mounted on the housing between its ends, with a first arm thereof extended into the path of travel of said second bar, and linkage pivotally connected with a second arm of said release lever and extended to position for releasing engagement with the latch bar incident to the pivotal action of the said release lever that results from the engagement of the first arm thereof by said second bar in its movement upwardly from lowered position into said housing, a second spring secured at one end to the housing and secured at its other end to the third arm whereby the arms are caused to rotate about their common pivot and the first arm is moved into position for engagement by said second bar.

2,776,165
COLLAPSIBLE HOOD FOR CARRIAGES
George W. Schricker, South Bend, Ind., assignor to South Bend Toy Manufacturing Company, South Bend, Ind., a corporation of Indiana
Application March 26, 1954, Serial No. 418,861
2 Claims. (Cl. 296—110)

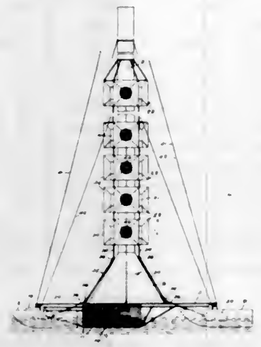


1. A carriage comprising a frame and transporting wheels, a cariage body supported by said frame, and a collapsible hood pivotally affixed to said body for covering a portion thereof, said hood being comprised essentially of two separately operable hood portions, both portions being pivoted on said body at a common point, one of said portions being openable to provide a partial coverage for said body and an opening, the other of said portions being affixed to said one portion at the open end thereof and extendable to increase the coverage of said body, said other portion being collapsible into the interior of said one portion without disturbing the position of the latter, said one portion being operable to collapse both portions onto said body.

2,776,166
HUMIDIFIER UNIT
Morris Mendelson, Detroit, Mich.
Application January 31, 1955, Serial No. 484,928
6 Claims. (Cl. 299—20)

1. A humidifying unit comprising a wire mesh frame member having corrugations from one edge to another, wick material applied to said member, the material on any side of any corrugation being spaced from the material on the other side of the same corrugation.

2,776,167
APPARATUS FOR PRODUCING RAIN CLOUD MOISTURE
Lynn J. Koch, Los Angeles, Calif.
Application October 12, 1954, Serial No. 461,877
7 Claims. (Cl. 299—29)



1. A device for elevating water, comprising a float supported frame, a tower rising from said frame, means for moving said frame through a body of water, scoops supported by said frame adapted to direct water upwardly into said tower, and means for creating a blast of air through the base of said tower, transforming the water into mist and discharging the mist from the top of the tower to the atmosphere.

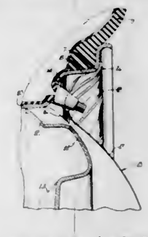
2,776,168
EXTENSION AND TELESCOPING ATTACHMENT FOR NOZZLE OF SHOWERS
Rufin L. Schweda, Milwaukee, Wis.
Application September 20, 1954, Serial No. 457,023
1 Claim. (Cl. 299—73)

An adjustable extension shower bath fitting comprising a pair of telescoping tubes, a spray nozzle adjustably carried by the forward end of one of said tubes, a ball and socket joint carried by the upper end of the other of said tubes, said ball and socket joint including a ball head, a neck and a coupling for connection with a water outlet pipe, and a socket ring, means securing the ring for turning movement with the telescoping tubes as a unit around the ball head, said socket ring having a substantially semi-circular flange partially extending around the neck, and the upper edge of said flange having notches of different depths for receiving the neck.

2,776,169
GRAVITATIONAL IRRIGATION ATTACHMENT
Henry Aschenbrenner, Scottsbluff, Nebr.
Application March 9, 1955, Serial No. 493,179
5 Claims. (Cl. 299—104)

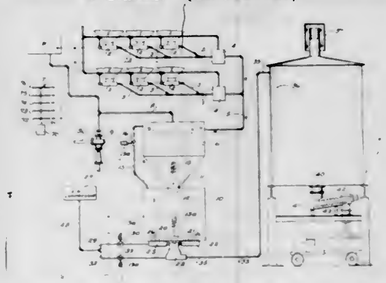
1. An irrigation attachment comprising an elongated hose, said hose being formed of collapsible, flexible material, grommets set in said hose at longitudinally spaced intervals, said grommets defining outlets, and removable reducer inserts disposed in certain of said grommets to reduce the size of said outlets, said inserts being resilient and each having a peripheral recess receiving one of said grommets.

2,776,170
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Application July 15, 1954, Serial No. 443,460
10 Claims. (Cl. 301—37)



1. In a wheel structure including a wheel having flanged tire rim and body parts, a circular wheel cover having a radially outer peripheral margin provided with a plurality of spaced generally radial slots which form said margin into spaced radial vane-like segments, each of said segments being transversely inclined so that it has an axially outer end for engagement with an outer surface of the rim flange and an axially inner end for disposition inside the rim flange and connected to said outer end by an edge for resilient cover retaining engagement with a surface of the rim flange, said segment ends having turned edges for reinforcing each segment as the same is resiliently stressed by engagement with the rim flange surface.

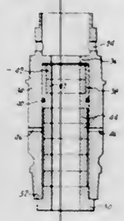
2,776,171
AUTOMATIC SOLIDS HANDLING SYSTEM
Lauritz Emil Mylting, Ardmore, Pa., assignor to The Allen-Sherman-Hoff Company, Wynnewood, Pa., a corporation of Pennsylvania
Application February 16, 1954. Serial No. 410,524
6 Claims. (Cl. 302—27)



1. Apparatus for handling finely divided solids which comprises a vacuum system for conducting solids from a supply thereof into a separator including a conduit and vacuum creating means for causing air to flow in said

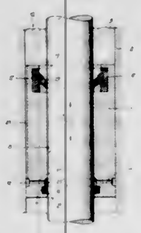
conduit and carry such solids from said supply through said conduit to said separator, a transfer bin having a valve-controlled inlet opening from said separator and a valve-controlled solids outlet opening, a valve-controlled, pressure-equalizing conduit connecting said separator and bin, a storage silo, a compressed air system for conducting solids from said outlet opening in the bin to said silo including a conduit leading from said outlet opening to said silo and means for compressing air and delivering it into said conduit, and automatic timing means for actuating said valves in predetermined sequence and thereby operatively connecting said systems for substantially uninterrupted transfer of solids from a source of supply to the silo.

2,776,172
ROD GUIDE AND PACKING MEANS
Roy H. Deitrickson, Toledo, Ohio, assignor to The National Supply Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application March 8, 1954, Serial No. 414,654
4 Claims. (Cl. 308—3.5)



1. Guiding and sealing means for a reciprocating rod having one end working in a chamber containing high pressure fluid and its opposite end working in a chamber containing relatively low pressure fluid, comprising a housing, a series of annular sealing rings in said housing surrounding said rod with a sealing fit, said rings being loosely fitted within said housing to allow for lateral accommodation, a cup in said housing around said rod at the end of said housing adjacent said chamber containing high pressure fluid, means to establish a fluid seal between the exterior of said cup and the interior of said housing, and a plurality of guide rings carried by said cup and surrounding said rod with a sliding fit.

2,776,173
RECIPROCATING SHAFT BEARING
Marion F. Rudy, Northridge, Calif., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application April 6, 1954, Serial No. 421,259
11 Claims. (Cl. 308—5)



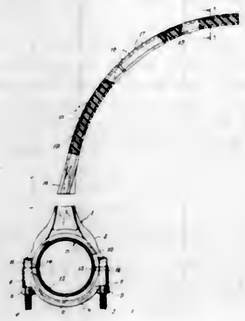
1. A pilot bearing comprising, in combination, a reciprocable shaft, a relatively stationary sleeve member including means defining a cylindrical opening therethrough and adapted to receive said reciprocable shaft therein and to provide a sliding fit for the shaft within said sleeve member, means defining a source of fluid lubricant at one end of said sleeve member and around said shaft, a pair of annular sealing devices disposed at opposite ends of said sleeve member and around said shaft, one of said sealing devices having a sliding fit around said shaft being disposed adjacent said fluid lubricant source and adapted to permit a film of lubricant on the shaft to pass upon movements of said shaft in a direction from said lubricant source toward the sleeve member and to wipe the film of lubricant from said shaft upon movements of the shaft in the opposite direction, said other sealing device substantially eliminating passage of the lubricant, and said sleeve member including means defining a lubricant passageway extending from within said sleeve member to said fluid lubricant source whereby the fluid lubricant is continuously circulated from said source through the space between said shaft and sleeve member and back to said source for thereby continuously lubricating the engaging portions of said shaft and bearing.

2,776,174
MOTOR VEHICLE DRIVELINE MOUNTING
Lachlan McMillan, Allen Park, and Raymond Stocker, Oak Park, Mich., assignors to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application February 24, 1955, Serial No. 490,384
4 Claims. (Cl. 308—28)

1. A mounting for supporting a motor vehicle driveline upon a vehicle frame member, comprising a mounting bracket having a vertical plate portion extending laterally of said vehicle and an annular ring embracing the vehicle driveline, a bearing assembly mounted within said ring portion and supporting said driveline, the plate portion of said mounting bracket having flanges extending laterally on opposite sides of said driveline with each of said flanges being formed with a circular aperture therein, a flat spiral spring mounted within each of said circular apertures, a hub sleeved within the inner convolution of each said flat spiral springs, a stud mounted upon said mounting bracket in alignment with each of said hubs and having a projecting portion extending therethrough, a pair of retaining discs sleeved upon each of said hubs and enclosing each of said spiral springs, and a resilient rubber sealing ring between each of said retaining discs and the adjacent portion of the laterally projecting flange of the plate portion of the mounting bracket to provide a sealed chamber for each of said flat spiral springs.

2,776,175
NYLON LINER FOR CONNECTING ROD BEARINGS
George F. Waite, Pelham, N. Y., assignor to Curtiss-Wright Corporation, a corporation of Delaware
Application December 28, 1953, Serial No. 400,599
5 Claims. (Cl. 308—238)

1. In combination, a bearing section having an unfinished inner surface, and a molded plastic liner fitted to the bearing section having an outer surface in contact with the said inner surface, the said outer surface of the liner having cavitations therein extending over substantially the entire surface into which liner material can expand and whereby roughness or unevenness in the unfinished surface can become embedded in the liner without

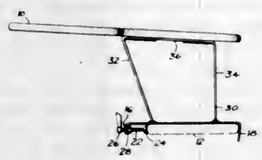


causing liner material to be squeezed out of the bearing section.

2,776,176
PISTON GROOVE STRUCTURE
Rudolph Daub, West Caldwell, N. J.
Application June 14, 1954, Serial No. 436,593
2 Claims. (Cl. 309—14)

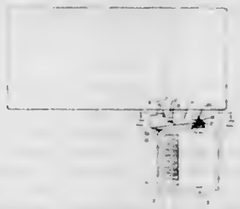
1. A light metal piston structure having a substantially cylindrical portion, a generally rectangular groove in said portion for the accommodation of a sealing ring, a radial face of said groove being formed by hard metal inserts cast in a radial plane in the light metal of the piston and closely spaced to be nearly in contact at their outer ends and of greater area than the intervening spaces between them and having at their inner ends a continuous ring of center pieces connecting said inserts throughout a complete circle and joining all inserts together into a unitary structure in the body of the piston.

2,776,177
DESK ATTACHMENT FOR BLEACHER SEATS
Donald E. Vance, Champaign, Ill.
Application July 29, 1955, Serial No. 525,238
2 Claims. (Cl. 311—17)



1. A desk attachment for bleacher seats of the type having longitudinally extending seat forming boards comprising an elongated substantially rectangular base member having oppositely disposed downwardly extending flange integrally formed on the longitudinal ends thereof, said base member engaging one of said seat forming boards with said flanges engaging over the opposite front and rear edges thereof, one of said flanges being provided with a centrally positioned internally threaded aperture, a clamping bolt threaded within said aperture having a frusto-conical abutting member pivotally secured to the end of said bolt adjacent the other of said flanges and having a handle on the other end of said bolt remotely positioned relative to said other flange, a lock nut threadedly engaged on said bolt intermediate said frusto-conical abutting member and the inner face of said one flange, an inverted substantially U-shaped bracket having a pair of oppositely disposed converging arms, said arms having the free ends thereof fixedly secured to the upper side of said base, a pair of hinge barrels fixedly secured to the edge of the bight of said bracket in longitudinally spaced relation in transverse relation to said seat forming board, a hinge plate having a hinge barrel at each end thereof, said first barrels being disposed intermediate said hinge barrels of said hinge plates, a pair of pintle pins extending through each series of coaxially aligned barrels, and said hinge plates being fixedly secured to the under side of a desk top.

2,776,178
GUARD FOR THE RELEASE CATCH OF A TYPEWRITER SHELF
Francis D. Kinney, Milford, Ohio
Application February 11, 1954, Serial No. 409,664
18 Claims. (Cl. 312—21)



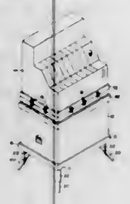
7. A guard for a release lock on a tilt or fold away typewriter desk shelf comprising a base support adapted to be fitted to one side of the shelf, a member fitted to the base support adapted to be moved for blocking and unblocking the shelf release lock disposed on the opposite side of the shelf, and means for operating said member.

2,776,179
SHOW CASES
Edward F. Kemp, Carlisle, and Ellsworth G. Nichols, Winchester, Mass., assignors to E. F. Kemp Corp., Somerville, Mass., a corporation of Massachusetts
Application July 21, 1953, Serial No. 369,446
1 Claim. (Cl. 312—117)

A show case comprising a housing constructed with a front wall, said wall comprising a transparent panel through which the interior of the cabinet is exposed to view from the front thereof, means for supporting a display of merchandise on the interior of the cabinet along the bottom of said transparent panel, a member adjacent the back of said means on the interior of the cabinet, said member having a light reflecting surface exposed to view through said panel, said surface extending forwardly and upwardly from the bottom to the top at an acute angle to the vertical to produce for an observer a virtual optical image of the merchandise supported in front thereof in upward and rearward sloping relation to an substantially contiguous with the said merchandise, a door at the rear of the showcase, said door being

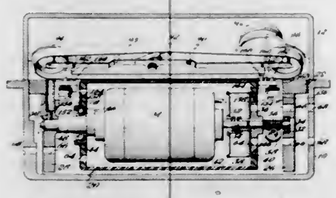
hingedly mounted on a vertical hinge axis, said member being secured to said door, wedge-shaped side panels between the door and the member, whereby said last mentioned panels, door and member comprises an open wedge-shaped pocket for the storage of articles.

2,776,180
PORTABLE EQUIPMENT AND FOLDING LEGS THEREFOR
Walter J. Knuepfer, La Grange, Ill., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application June 9, 1953, Serial No. 360,467
5 Claims. (Cl. 312—255)



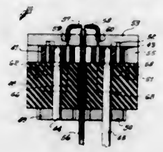
4. In combination, a portable equipment, a leg and means hinging it to said equipment at a first location substantially inward from the periphery of the bottom thereof for an inward-outward swinging movement between an inactive folded position in which it lies against the bottom side of the equipment and an unfolded support position in which the leg member slopes outwardly to support the said equipment, a bar-like leg support and means hinging it to an intermediate portion of the leg for an inward-outward movement between an inactive folded position adjacent to the equipment and an unfolded support position in which it bridges between the said intermediate portion of the leg and a second location on the bottom of the equipment outward from the said first location to define the said support position of the leg, a portion of the support substantially displaced from the hinge axis of the support defining a surface which encounters the leg to limit the outward hinging movement of the support beyond its said unfolded support position, whereby the said leg, support, and equipment lock together in the support position of the leg and support to resist further outward movement of the leg from its said unfolded support position.

2,776,181
SEPARABLE SUPPORTS FOR RECORDER ELECTRODES
Milton Alden, Wellesley, Mass.
Application December 11, 1952, Serial No. 325,416
3 Claims. (Cl. 346—74)



1. In a recorder having two opposed recording electrodes and feeding means for advancing a sheet on a path between the electrodes, a housing, a cover pivotally attached to the housing to swing between open and closed position, means on said cover for yieldingly supporting one of said electrodes, a bracket in said housing for supporting the other electrode, said electrodes being held in recording relation when said cover is closed, and said bracket being arranged to be detachably inserted in said housing when said cover is open whereby said bracket and other electrode may be easily removed as a unit when said cover is open without disassembly of said housing or unit, and positioning means on said bracket in the path of said one electrode as the cover is moved to closed position, said positioning means engaging said one electrode positively to locate it relative to the other electrode irrespective of mislocation of said bracket relative to said cover.

2,776,182
PICTORIAL REPRESENTATION REPRODUCING HEAD
Norman R. Gunderson, Pasadena, Calif.
Application February 9, 1953, Serial No. 335,733
3 Claims. (Cl. 346—75)



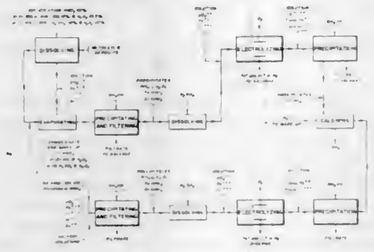
1. A reproducing head adapted for use in the reproduction of pictorial illustration comprising: an air conduit; means for supplying air under pressure to said conduit; a nozzle having an opening directed into the air stream from said air conduit; a movable member within said head provided with a plurality of ink chambers and adapted, by its movement, to successively insert each of said ink chambers, one at a time, into communication with said nozzle; means for heating ink in the chamber in communication with said nozzle at a rate instantaneously correlated to the amplitude of an input electric signal; means for moving said member; and means for flushing and replenishing the ink in an ink chamber not in communication with the nozzle.

2,776,183
RECORDER
Milton Alden, Wellesley, Mass.
Application June 14, 1950, Serial No. 167,980
8 Claims. (Cl. 346—101)

1. Apparatus for recording on a web comprising a support, a moving scanning member mounted on said support, a scanning element resiliently supported on said member, an elongate electrode having an effective edge cooperating with said element to record on said web, mounting means including yielding means floatingly carrying said electrode on said support so that the effective recording edge of said electrode is yieldingly urged toward said scanning element to press the web between said edge and said resiliently mounted element, stop means mounted stationarily on said support and positioned to engage the effective edge of said electrode and positively determine the spacing of said electrode edge from said scanning member, thereby to determine the pressure with which said resiliently mounted element presses said web against said electrode edge, and drive means for feeding said elongate electrode lengthwise so as to distribute erosion of said effective edge evenly along its length, whereby said spacing and the pressure on said web determined by engagement of said stop means with effective edge is maintained substantially constant despite erosion of said edge.

CHEMICAL

2,776,184
PROCESSES FOR RECOVERING AND PURIFYING URANIUM
Martin D. Kamen, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission
Original application April 21, 1944, Serial No. 532,160. Divided and this application March 9, 1945, Serial No. 581,806
14 Claims. (Cl. 23—14.5)



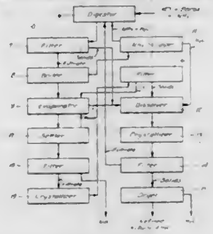
1. The process of reclaiming uranium values from deposits formed on the parts of a calutron comprising washing said parts with an aqueous solvent and producing an oxidized acidic solution containing UO_2^{++} ions together with impurities including Cu^{++}, Fe^{+++}, Cr^{+++} and Ni^{++} ions, electrolyzing said solution to reduce the UO_2^{++} ions to the uranous state and at least some of said impurities to a lower valent state, treating said electrolyzed solution with ammonia to precipitate uranium hydroxide away from the impurities remaining in the solution, and separating said uranous hydroxide from the solution.

2,776,185
METHOD OF CONCENTRATING FISSIONABLE MATERIAL
Louis B. Werner and Bernard A. Fries, Richland, Wash., and Glenn T. Seaborg, Chicago, Ill.
No Drawing. Application April 12, 1945, Serial No. 588,056
12 Claims. (Cl. 23—14.5)

8. A method of obtaining a concentrate of plutonium values which comprises contacting aqueous solution of plutonium compounds with a substantially water insoluble lanthanum compound whereby the plutonium values in the solution become associated with the lanthanum compound, removing the insoluble lanthanum compound together with the associated plutonium values, dissolving said plutonium values to form a second aqueous solution of smaller volume than the first named aqueous solution and removing said plutonium values from the second solution by contacting the second solution with columbic oxide.

2,776,186
PROCESS FOR PRODUCTION OF POTASSIUM TETRABORATE
Frank H. May, Whittier, Calif., assignor to American Potash & Chemical Corporation, a corporation of Delaware
Application May 10, 1954, Serial No. 428,480
8 Claims. (Cl. 23—59)

1. A process for making potassium tetraborate from borax comprising reacting borax with potassium chloride

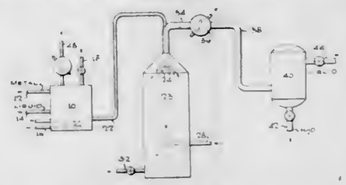


in an aqueous solution containing ammonia to precipitate potassium tetraborate.

2,776,187
PRODUCTION OF TRIPOLYPHOSPHATES
Otto Pfrengle, Budenheim, near Mainz, Germany, assignor to Chemische Fabrik Budenheim Aktiengesellschaft, Mainz, Germany, a joint-stock company of Germany
No Drawing. Application September 4, 1951, Serial No. 245,087
Claims priority, application Germany September 8, 1950
6 Claims. (Cl. 23—106)

1. The process of producing sodium tripolyphosphate ($Na_5P_3O_{10}$) which comprises heating a mixture of disodium phosphate and monosodium phosphate having a molar ratio of approximately 5 mols of sodium oxide to 3 mols of phosphorus pentoxide to a temperature between about 250° and 540° C., for a period of from about 10 to 90 minutes in the presence of from 0.5 to about 7 percent of a catalytic material selected from the group consisting of the nitrates of urea, guanidine, dicyandiamide, semicarbazide and hexamethylenetetramine and ammonium nitrate.

2,776,188
HYDROLYZING AND DRYING ALUMINUM ALCOHOLATES WITH SUPERHEATED STEAM
George R. Gilbert, Elizabeth, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application November 1, 1952, Serial No. 318,265
4 Claims. (Cl. 23—143)



1. A process for producing small spherical inorganic gel particles which comprises dispersing a solution of a metal alcoholate compound at a temperature above about 200° F. in the form of small droplets into the upper portion of a vertical contacting zone for downward flow therethrough, introducing superheated steam at a temperature above about 250° F. into the lower portion of said vertical contacting zone for upward flow therethrough, contacting the downwardly moving droplets of solution

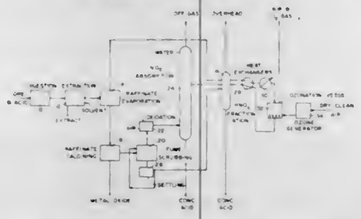
with said upflowing superheated steam in the upper portion of said contacting zone to hydrolyze the metal alcoholate compound in droplet form to form metal oxide particles and to regenerate the alcohol and to partially dry the formed metal oxide particles, further contacting the downwardly moving partially dried metal oxide particles in the lower portion of said contacting zone as they pass downwardly therethrough with said upflowing superheated steam as the sole drying gas to further dry the metal oxide particles, removing steam and regenerated alcohol as vapors overhead from said contacting zone and removing formed small spherical particles of metal oxide from the bottom of said contacting zone.

2,776,189

NITRIC ACID RECOVERY AND PURIFICATION

Francis W. Winn, San Gabriel, Calif., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application December 3, 1954, Serial No. 473,059
12 Claims. (Cl. 23—158)



5. In a method for the recovery of nitrate values contaminated with small traces of chloride ions, in the form of pure, concentrated nitric acid, in which NO_2 is absorbed in water to form concentrated nitric acid and in which dilute nitric acid is concentrated in a fractional distillation zone, the improvement which comprises the steps of withdrawing a portion of the nitric acid from the absorption zone and introducing the same into the fractionation zone, withdrawing a portion of the nitric acid from the fractionation zone and passing it to an oxidation zone, treating the latter withdrawn acid in the oxidation zone with ozone to oxidize chloride ions to chlorine gas, removing the chlorine gas and returning the purified nitric acid directly to the fractionation zone without passing it through the absorption zone.

2,776,190

MANUFACTURE OF HYDRAZINE

Russell M. Mantell, Newark, N. J., and Otto J. Plescia, Madison, Wis., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

Application July 14, 1950, Serial No. 173,857
16 Claims. (Cl. 23—190)

1. A process for the manufacture of hydrazine which comprises: reacting an olefin having at least one unsaturated tertiary carbon atom with a nitrosating agent selected from the group consisting of nitrogen dioxide, nitric oxide, nitrogen trioxide and nitrogen pentoxide at a temperature between about −140° C. and about 200° C. to produce the corresponding monomeric nitroso-nitrate addition compound; dimerizing said monomeric compound at a temperature not higher than room temperature to form the corresponding bimolecular nitroso compound; and subjecting the compound thus obtained to hydrogenation at a pressure of at least one atmosphere and in the presence of a hydrogenation catalyst to produce hydrazine as a product of the process.

2,776,191

PROCESS FOR THE PRODUCTION OF MAGNESIUM OXIDE FROM ORES CONTAINING MAGNESIUM SULFATE

Gunter H. Gloss, Libertyville, Ill., assignor to International Minerals & Chemical Corporation, a corporation of New York

No Drawing. Application December 31, 1953, Serial No. 401,729
12 Claims. (Cl. 23—201)

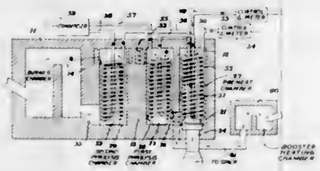
1. A process for the production of magnesium oxide from compositions containing magnesium sulfate and selected from the group consisting of a double sulfate salt of magnesium and potassium and mixtures containing magnesium sulfate and potassium sulfate which comprises reacting said compositions in the presence of a solid carbonaceous material catalyst with a gaseous alkane at a temperature between about 700° C. and about 775° C., exposing the reaction products to the atmosphere at a temperature beween about 600° C. and about 700° C. until any reduced portions of the potassium component have been substantially completely oxidized and separately recovering potassium sulfate and magnesium oxide from the resultant reacted mixture.

2,776,192

ACETIC ACID CRACKING FURNACE

Edwin S. Painter, Kingsport, and Louis G. Haller, Johnson City, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application December 10, 1952, Serial No. 325,086
2 Claims. (Cl. 23—277)



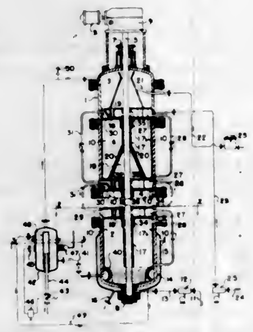
1. Apparatus for pyrolysing a ketenizable substance to form ketene, comprising a furnace wall structure defining a plurality of vertically elongated pyrolysis chambers, means for passing hot combustion gases initially into one end chamber, said wall structure having openings connecting the chambers in series for passage of the hot gasses in zig-zag fashion therethrough, passing last through the other end chamber, separate upper and lower coiled tubes located respectively in the upper and lower ends of each chamber, tubular conduit means connecting each coiled tube in the upper end of each chamber serially with a coiled tube in the upper end of each of the other chambers, tubular conduit means connecting each coiled tube in the lower end of each chamber serially with a coiled tube in the lower end of each of the other chambers, whereby two separate tubular flow paths through said chambers are provided, means for removing ketene from the coiled tubes located in said one end chamber, means for passing a ketenizable substance into each of the coiled tubes located in said other end chamber.

2,776,193

APPARATUS FOR CARRYING OUT INTERACTIONS OF LIQUIDS ON EACH OTHER

Lojo Habicht, Hamburg, Germany

Application December 6, 1952, Serial No. 324,579
9 Claims. (Cl. 23—283)



1. An apparatus for interacting two liquids of different specific gravities which at most are only partially miscible which comprises a vertical vessel, means including a rotatable central shaft for causing liquids in said vessel to rotate rapidly about a hollow vertical axis, a partition in said vessel having a passage therethrough a substantial distance inwardly from the wall of the vessel for lighter liquid to flow upwardly, a heavier liquid feed chamber in said partition, means adjacent to said shaft for dispersing heavier liquid from said feed chamber into lighter liquid rotating in said vessel below said partition, means including an outlet adjacent to wall of the vessel below the partition for recycling heavier liquid to said dispersing means, means for introducing lighter liquid into said vessel below said partition, means for withdrawing lighter liquid from said vessel above said partition, means for introducing heavier liquid into said feed chamber, and means for withdrawing heavier liquid from said vessel below said partition.

2,776,194

GASOLINE COMPOSITIONS

Walter W. Scheumann, Cranford, N. J., assignor to Cities Service Research and Development Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application May 18, 1954, Serial No. 430,745
2 Claims. (Cl. 44—56)

1. A gasoline containing from about 0.25 to about 2 percent by volume of a composition comprising the following ingredients in the range of proportions set forth, all percentages being by volume.

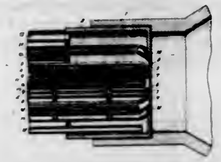
	Percent
Solvent refined light hydrocarbon lubricating oil (100 S. U. S. at 100° F.)	25–80
Benzol	4–12
Isopropyl alcohol	10–70
Dimerized linoleic acid	0.2–0.6
Dihexyl phenyl amine	0.2–0.7
Amyl nitrate	0.03–0.15

2,776,195

PROCESS FOR THE GASIFICATION OF A LIQUID CARBONACEOUS FUEL

Rudolf Wessolek, Gelsenkirchen, Germany, assignor, by mesne assignments, to Koppers Company, Inc., Pittsburgh, Pa., a corporation of Delaware

Application January 21, 1953, Serial No. 332,383
10 Claims. (Cl. 48—215)



1. A process for the gasification of a liquid carbonaceous fuel which comprises injecting an annular stream of said fuel into a gasification chamber maintained at at least the ignition temperature of said fuel, injecting concurrently with and surrounding said annular stream of fuel and directed thereat an annular stream of a free-oxygen-containing gas and injecting concurrently within said annular stream of fuel and directed thereat an annular stream of a free oxygen-containing gas, said free oxygen containing gas being supplied in amounts insufficient to react completely with said fuel thereby subjecting part of said fuel to combustion and gasifying substantially the balance of the unreacted fuel.

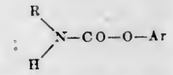
2,776,196

COMPOSITIONS AND METHODS FOR INFLUENCING THE GROWTH OF PLANTS

Hans Gysin, Basel, and Enrico Knüsli, Riehen, near Basel, Switzerland, assignors to J. R. Geigy A. G., Basel, Switzerland, a Swiss firm

No Drawing. Application August 23, 1954, Serial No. 451,719
Claims priority, application Switzerland September 2, 1953
8 Claims. (Cl. 71—2.4)

1. A method of inhibiting the growth of plants which comprises treating the plants with a compound of the formula:



wherein Ar represents a member selected from the group consisting of the phenyl and the naphthyl radical and R represents a member selected from the group consisting of hydrogen and a lower straight chain alkyl radical, in an amount and concentration sufficient to inhibit the growth of the plants.

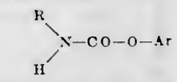
2,776,197

COMPOSITIONS AND METHODS OF INFLUENCING THE GROWTH OF PLANTS

Hans Gysin, Basel, and Enrico Knüsli, Riehen, near Basel, Switzerland, assignors to J. R. Geigy A. G., Basel, Switzerland, a Swiss firm

No Drawing. Application August 23, 1954, Serial No. 451,718
Claims priority, application Switzerland September 2, 1953
12 Claims. (Cl. 71—2.4)

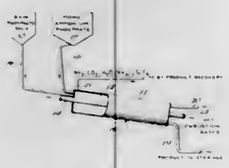
1. A method of influencing the growth of plants which comprises treating the plants in an amount and concentration sufficient to influence the growth of plants with a compound of the formula:



wherein Ar represents an aryl radical substituted by a member selected from the group consisting of halogen,

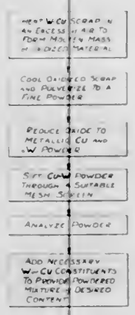
alkyl, alkoxy and nitro groups, and R represents a member selected from the group consisting of hydrogen and a straight chain lower alkyl radical.

2,776,198
PREPARATION OF PHOSPHATE FERTILIZER AND ANIMAL FEED SUPPLEMENT
Forrest L. Turbett, Joplin, Mo., assignor to Spencer Chemical Company, a corporation of Missouri
Application July 28, 1953, Serial No. 370,735
2 Claims. (Cl. 71—36)



1. The process of reacting monoammonium phosphate containing about 61.8 parts by weight P_2O_5 per 100 parts by weight of pure monoammonium phosphate with raw phosphate rock containing up to about 35 parts by weight P_2O_5 per 100 parts by weight of raw rock in a monoammonium phosphate to raw rock ratio in the range of about 1.77 to 1 to 5.1 to 1 on one part by weight of contained P_2O_5 basis at a temperature in the range of above 200° C. to about 400° C. and a pressure of about one atmosphere absolute to produce a reaction mass containing more citrate soluble P_2O_5 than that introduced by the monoammonium phosphate.

2,776,199
RECOVERY OF TUNGSTEN AND COPPER SCRAP
Columbus Verdi, Waukegan, Ill., assignor to Fansteel Metallurgical Corporation, a corporation of New York
Application November 30, 1953, Serial No. 395,209
17 Claims. (Cl. 75—.5)



1. A method of reclaiming scrap consisting essentially of sintered tungsten and copper where the tungsten comprises at least one-half of the total weight of the tungsten and copper and wherein other materials constitute from zero percent to less than about 1.0 percent by weight, said method comprising heating said scrap material in an excess of air to a temperature below the melting point of the copper but sufficiently high to form a liquid containing both tungsten and copper, separating said liquid from the remainder of the scrap material and cooling the same so that a brittle, friable solid is formed, pulverizing said friable solid and heating the pulverized material in a reducing atmosphere to form a mixture of metallic tungsten and copper powders.

2,776,200
PRODUCTION OF METAL POWDER FROM CARBONYL
Albert Edward Wallis, Pembury, near Tunbridge Wells, England, assignor to The International Nickel Company, Inc., New York, N. Y.
No Drawing. Application December 18, 1953, Serial No. 399,145
Claims priority, application Great Britain December 18, 1952
14 Claims. (Cl. 75—.5)

1. A process for the production of metal powder of small particle size by the thermal decomposition of metal carbonyl vapour in a hot free space, characterised in that non-volatile solid nuclei for the decomposing carbonyl are formed by the substantially instantaneous reaction of a very small amount of a reagent, capable of reacting substantially instantaneously with carbonyl vapour at low temperatures, with either carbonyl flowing to the space or the carbonyl within the space.

2,776,201
USE OF AMBLYGONITE AS AN ADDITIVE IN THE LIME-ROASTING OF LITHIUM-ALUMINOSILICATE ORES
Harold Mazza, Stanley L. Cohen, and Glen H. Schafer, Trona, Calif., assignors to American Potash & Chemical Corporation, a corporation of Delaware
No Drawing. Application November 25, 1955, Serial No. 549,186
4 Claims. (Cl. 75—1)

1. In a lime-roast process for recovering lithium, the step comprising roasting a finely divided mixture of calcium carbonate, amblygonite and an ore selected from the group consisting of spodumene, petalite, and mixtures thereof, at a temperature of from about 800° C. to about 950° C., the amblygonite providing at least approximately 10% of the total weight of the lithium ore mixture.

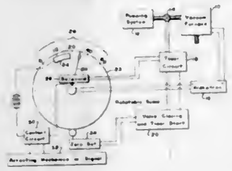
2,776,202
USE OF LEPIDOLITE AS AN ADDITIVE IN THE LIME-ROASTING OF LITHIUM-ALUMINOSILICATE ORES
Harold Mazza, Stanley L. Cohen, and Glen H. Schafer, Trona, Calif., assignors to American Potash & Chemical Corporation, a corporation of Delaware
No Drawing. Application August 18, 1955, Serial No. 529,348
4 Claims. (Cl. 75—1)

1. In a lime-roast process for recovering lithium, the step comprising roasting a finely divided mixture of calcium carbonate, lepidolite and an ore selected from the group consisting of spodumene, petalite, and mixtures thereof, at a temperature of from about 800° C. to about 950° C., the lepidolite providing at least approximately 10% of the total weight of the lithium ore mixture.

2,776,203
ALLOY ADDITION AGENT
Donald C. Hilty, Niagara Falls, N. Y., assignor to Union Carbide and Carbon Corporation, a corporation of New York
No Drawing. Application November 26, 1952, Serial No. 322,817
10 Claims. (Cl. 75—27)

1. An exothermic alloy addition agent consisting of silicon, potassium perchlorate, and calcium-aluminate, said silicon being present in an amount equal to at least 15% of said mixture, the proportions of silicon and potassium perchlorate in said mixture being such that the atomic ratio of silicon to the oxygen in the potassium perchlorate is at least 0.5, said calcium-aluminate being present in an amount equal to at least 2% of the combined weights of silicon and potassium perchlorate, the remainder being alloying elements, iron and incidental impurities.

2,776,204
PRODUCTION OF METALS
James H. Moore, Swampscott, Mass., assignor to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts
Application January 22, 1952, Serial No. 267,670
8 Claims. (Cl. 75—49)



1. The process of manufacturing high purity iron and alloys of iron having an oxygen content by weight of less than about 0.015% and a carbon content by weight of less than about 0.005%, said process comprising the steps of confining said iron in a vacuum furnace in a crucible predominating in an oxide of a metal having a high vapor pressure at the temperature of molten iron, adding to said iron, at some stage in said process, an amount of carbon in excess of the amount needed for stoichiometrically reacting with the oxygen in said iron, evacuating said furnace, heating said iron and carbon to a temperature on the order of about 1650° C., maintaining said temperature substantially constant, measuring the rate of evolution of carbon monoxide from said molten iron resulting from reduction of iron oxide by said added carbon, and pouring said iron into a mold between the time when the carbon monoxide evolution rate falls to about 20 micron cubic feet per minute per pound of iron and before the carbon monoxide evolution rate falls to about 4 micron cubic feet per minute per pound of iron.

2,776,205
IRON-FLUORINE COMPOUND
William A. La Lande, Jr., Plymouth Meeting, and Isadore Mockrin, Philadelphia, Pa., assignors to The Pennsylvania Salt Manufacturing Company, Philadelphia, Pa., a corporation of Pennsylvania
No Drawing. Application May 24, 1952, Serial No. 289,901
9 Claims. (Cl. 75—53)

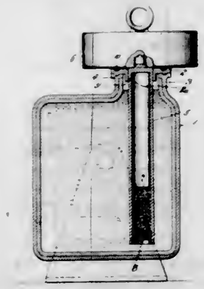
1. An iron-fluorine composition having the empirical formula

$$Fe_a^{++}Fe_b^{+++}F_c^{-}.dHF.eH_2O$$

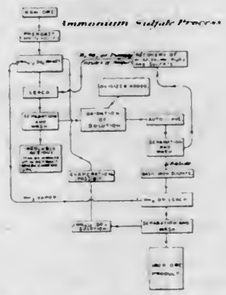
in which a=0.4 to 3.5, b=1.0, c=3.8 to 10, d=0.25 to 1.9, and e=1.5 to 5.0.

2,776,206
METHOD AND APPARATUS FOR INTRODUCING LOW-BOILING SUBSTANCES INTO MOLTEN METAL
Herbert Klingbeil, Dortmund, Germany, assignor to The International Nickel Company, Inc., New York, N. Y., a corporation of Delaware
Application July 23, 1954, Serial No. 445,377
Claims priority, application Germany August 1, 1953
4 Claims. (Cl. 75—93)

1. The process for introducing into molten metal an addition agent having a low vaporization temperature which comprises plunging into a bath of molten metal a metallic agent having a vaporization temperature below the temperature of said bath of molten metal and restricting the expansion of the gas resulting from vaporization of said agent at the temperature of said molten metal such that the pressure upon said bath of molten metal is raised substantially to the vapor pressure of said agent at the temperature of said molten metal.

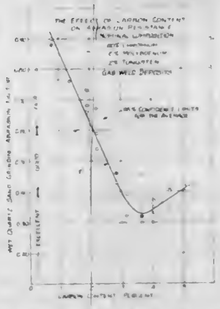


2,776,207
TREATMENT OF IRON ORES
Edgar B. Mancke, Bethlehem, Pa., assignor to Bethlehem Steel Company, a corporation of Pennsylvania
Application April 5, 1951, Serial No. 219,363
8 Claims. (Cl. 75—115)



5. A method of treating a solution containing iron and chromium sulfates which comprises oxidizing the solution to convert a substantial part of the chromium to the hexavalent state, autoclaving the oxidized solution at a temperature of not less than about 390° F. to precipitate an iron compound having an iron to chromium ratio considerably higher than the iron to chromium ratio of said solution.

2,776,208
WELDING RODS AND THE HIGH PERFORMANCE HARD FACING ALLOYS PRODUCED THEREBY
Howard S. Avery, Mahwah, N. J., and Charles E. Ridenour, Chicago Heights, Ill., assignors to American Brake Shoe Company, New York, N. Y., a corporation of Delaware
Application March 30, 1953, Serial No. 345,423
3 Claims. (Cl. 75—126)



1. A ferrous hard facing alloy of chromium, molybdenum and tungsten having a high resistance to abrasion

and containing the following elements in the proportions as stated:

	Percent
Carbon	3–5.5
Chromium	20–22
Molybdenum	4.5–6.5
Tungsten	1.5–2.5
Vanadium	0.5–1
Manganese	0.1–0.5
Silicon	0.50–1.5
Balance	Iron

2,776,209

PAPER DEINKING AND DEWAXING PROCESS

Denis J. O'Flynn, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 21, 1954, Serial No. 424,756
4 Claims. (Cl. 92—1.5)

1. A process for recovery and deinking of used printed paper which comprises subjecting the said used paper to a pulping operation in a non-acidic aqueous solution of urea until deinking of the paper is substantially complete.

2,776,210

PROCESS FOR PRODUCING POROUS OIL SHALE PRODUCTS

Harold E. Bowers, Dayton, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio

Application December 7, 1953, Serial No. 396,589
3 Claims. (Cl. 106—40)

1. In a process of producing a porous, non-brittle, homogeneous, grainless building material structure the steps of: (*a*) grinding oil shale to a particle size in the range of about 20–100 microns; (*b*) compressing the particles of oil shale with a sodium silicate binder while heating the same to form a brick-like body; (*c*) evacuating and heating a closed spacing with the brick-like body therein; (*d*) flushing the spacing with carbon dioxide; (*e*) raising the temperature within the spacing sufficiently to distill off volatiles of the formed body of the shale; and (*f*) sintering the material after completion of the distillation.

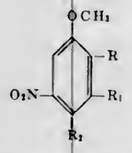
2.776,211

STABILIZED PHOTOGRAPHIC SILVER HALIDE EMULSIONS

Charles F. H. Allen and Kenneth C. Kennard, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application January 5, 1956, Serial No. 557,448
10 Claims. (Cl. 96—109)

1. A photographic silver halide emulsion containing a compound selected from those represented by the following general formula:



wherein R represents a member selected from the group consisting of a hydrogen atom, a nitro group, an amino group and a methoxyl group, R_1 represents a member selected from the group consisting of a nitro group and an amino group and R_2 represents a member selected from the group consisting of a hydrogen atom, a nitro group and an amino group.

2,776,212

PROCESS OF MAKING IMITATION NUTMEATS

Harriett Andregg, Chicago, Ill., assignor to Swift & Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application June 11, 1953, Serial No. 361,063
5 Claims. (Cl. 99—14)

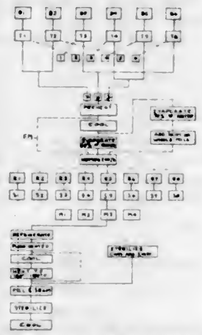
1. In the method of manufacturing a food product the steps comprising: forming proteinaceous fibers by extrusion of a colloidal solution of proteinaceous material into an acid salt precipitating bath; fusing the fibers so formed by the application of heat so as to form a fiber mass; reducing said fiber mass into relatively small particles, the size of said particles being relatively small with respect to the initial size of said fiber mass; dehydrating and plasticizing said particles by replacing the water contained therein with a plasticizing agent; and adjusting the pH of said particles intermediate of any two of the steps set forth, said pH being adjusted so as to fall within the approximate range of 4.5 to 7.

2,776,213

METHOD FOR CANNING EVAPORATED AND FRESH MILK

Edward M. Borg, Seattle, Wash.

Application February 23, 1951, Serial No. 212,460
1 Claim. (Cl. 99—54)



The method of blending milk which has been heat treated to incipient caramelization temperatures comprising exposing samples of said milk taken from a plurality of batches of heat treated milk to a beam of "black light" directed against the surface of each sample, grading the batches as to their fluorescence in the color range from white to bright yellow and corresponding to the maximum to minimum caramelization of the heat treated milk, then mixing those batches of milk of opposite degrees of fluorescence and obtaining a uniform product of optimum flavor characteristics from the said heat treated milk.

2,776,214

METHOD OF TREATING EGG WHITES

William E. Lloyd, Homewood, and Louis A. Harriman, Chicago, Ill., assignors to Armour and Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application March 9, 1953, Serial No. 341,327
3 Claims. (Cl. 99—161)

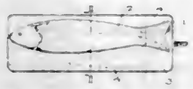
1. The method of preparing a substantially sterile egg white product, characterized by the steps of heating liquid egg whites for from .5 to 5 minutes at a temperature within the range from 100 to 130° F. to inactivate their indigenous catalase without impairing their functional properties, and then adding hydrogen peroxide to the liquid egg whites in bactericidal concentrations ranging between about 0.075 and about 1.5 percent by volume at a temperature between about 100 and 130° F. to substantially sterilize the egg whites.

2,776,215

MEAT PRODUCT AND PROCESS

Colin J. S. Thomas, Ruxton, Md.

Application May 29, 1951, Serial No. 228,879
11 Claims. (Cl. 99—174)



1. An article of wrapped eviscerated fish which comprises a relatively difficultly deformable and relatively thin flat base member at least as wide as the tail fins of the fish to be wrapped; fish of about the length of the base member disposed on opposite sides thereof, and a thin imperforate sheet form material which shrinks when heated, said sheet form material being under tension, enveloping and contacting the entire exposed surfaces and edges of said fish and base members; the walls of the cavities of said fish being collapsed for reducing the cavities thereof and the margins of said cavities being completely closed by said collapsed walls.

2,776,216

PROCESS FOR PACKAGING MEAT PRODUCTS AND ARTICLE PRODUCED THEREBY

Colin J. S. Thomas, Ruxton, Md.

Application April 3, 1951, Serial No. 219,063
17 Claims. (Cl. 99—174)

1. The process of packaging a body of flaccid meat material having easily deformable parts which comprises shaping a thin flat relatively difficultly deformable sheet-form base element in a form similar to a longitudinal cross-section of the material to be packaged; said base element being provided with shaped parts for supporting and retaining said easily deformable parts of said material from edgewise deformation on two sides and from sidewise deformation on only one side; assembling the body of meat material on said base element with its said easily deformable parts laid out on only one side of said shaped parts of the base element; enclosing the material and base element thus assembled in an envelope of a thin pliable imperforate sheeted wrapping material of the kind which shrinks when heated; reducing the pressure of air in said enclosure; said reduction of pressure being sufficient to collapse the wrapping and cavities within the meat, compress the meat into conformity with a contacting flat surface of the base member, remove air pockets between said wrapping and said material, and to effect closure of external openings of any erstwhile internal cavities in said material when said wrapping is shrunk; closing the wrapping to retain said reduced pressure; and then applying heat to the material at a temperature which is sufficient to shrink the wrapping until it is tightly and smoothly drawn around and in contact with all exposed surfaces of said meat material and the exposed surface and edges of said base element.

2,776,217

OPTICAL GLASS

Otto Gott, Delligsen/Grunenplan uber Alfeld (Leine), Germany, assignor to Deutsche Spiegelglas Aktiengesellschaft, Grunenplan uber Alfeld-Leine, Germany

No Drawing. Application August 21, 1953, Serial No. 375,810
Claims priority, application Germany August 23, 1952
2 Claims. (Cl. 106—52)

1. An ophthalmic glass consisting essentially of SiO_2, Na_2O, CaO and K_2O in addition to the following components in the proportions by weight specified ferrous oxide (FeO) 0.11 to 0.20%, ferric oxide (Fe_2O_3) 0.01 to 0.02%, selenium (Se) 0.001 to 0.03% and 0.11 to 0.40% of an oxide selected from the group of oxides consisting of titanium dioxide (TiO_2) and tungstic oxide (WO_3).

2,776,218

ARTICLE COMPRISING BORON NITRIDE AND ZIRCONIA

Kenneth M. Taylor, Lewiston, N. Y., assignor to The Carborundum Company, Niagara Falls, N. Y., a corporation of Delaware

No Drawing. Application May 17, 1952, Serial No. 288,555
11 Claims. (Cl. 106—57)

1. As a new article of manufacture, a body consisting essentially of stabilized zirconia and boron nitride, the stabilized zirconia amounting to 80% to 95% by weight of the body.

2,776,219

GELATIN COATING SOLUTION FOR FILM SUPPORT

Fred W. Hoyt and David L. Kendall, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application September 2, 1954, Serial No. 453,940
4 Claims. (Cl. 106—128)

1. A solution for coating film support containing by weight 0.5 to 1.75% gelatin and approximately .60% by weight of cellulose nitrate in an aqueous solvent mixture of approximately 60% by weight of acetone, approximately 5% by weight of ethylene chloride, approximately .02% by weight of chromic chloride and 25 to 30% by weight of methanol and 0.05% to 0.3% by weight of a perhalogenated fatty acid selected from the group consisting of trifluoroacetic acid, perfluorocaprylic acid, and trichloroacetic acid.

2,776,220

GELATIN FILMS AND CAPSULES MADE THEREFROM

Charles Claude Reed, Pearl River, Lawrence Ritter, Suffern, William Valentine, Spring Valley, and Ernest Chu Yen, Pearl River, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application November 30, 1954, Serial No. 472,236
9 Claims. (Cl. 106—136)

1. A thin gelatin film for the formation of soft gelatin capsules comprising from about 25 to about 60 percent gelatin, from about 60 to about 15 percent water, from about 3 to about 15 percent glycerin and from about 3 to about 15 percent of a member of the group consisting of polyoxyethylene sorbitol containing from about 4 to about 40 polyoxyethylene units and polyethylene glycol having a molecular weight of from about 200 to about 800 and mixtures thereof, all percentages being by weight.

2,776,221

DRY TALL OIL ROSIN SIZE COMPOSITIONS

Edward Strazdins and Randall Hastings, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 3, 1953, Serial No. 359,433
8 Claims. (Cl. 106—218)

1. A storage-stable dry tall oil rosin size in homogeneous free-flowing particulate form consisting essentially of 1 part of a substantially neutral alkali metal salt of partially disproportionated tall oil rosin having a specific rotation between about +25° and +45°, ½ to ¼ part by weight

of a substantially neutral alkali metal salt of a maleated rosin, and about 0.1% to 1% of a nitrogen-containing rosin size antioxidant selected from the group consisting of diarylamines and phenothiazines based on the weight of unmaleated rosin present.

2,776,222

METHOD FOR TREATING CALCIUM SULFATE PIGMENTS

Warren M. Foss, Nixon, and Franklin L. Kingsbury, New Brunswick, N. J., assignors to National Lead Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application October 3, 1952, Serial No. 313,052

7 Claims. (Cl. 106—306)

1. Method for treating a calcium sulfate pigment to lower the blanching properties thereof for use in a film-forming composition having a pigment volume concentration within the range of from 55%–70% which comprises admixing with a calcium sulfate pigment from 0.1% to 0.5%, based on the amount of pigment of a straight chain mono primary amine containing at least 8 carbon atoms.

2,776,223

METHOD OF PRODUCING A PILE FABRIC OF CELLULOSE ACETATE

Russell Jacques Brown and John Downing, Spondon, near Derby, England, assignors to British Celanese Limited, a British company

No Drawing. Application August 24, 1953, Serial No. 376,269

Claims priority, application Great Britain October 7, 1952

3 Claims. (Cl. 117—17)

1. Process for the production of a pile fabric by bonding staple fibres of cellulose acetate to a base fabric, comprising, in turn, coating the base fabric with a solution in volatile solvent of an adhesive consisting of a 1,6 hexamethylene diisocyanate-modified condensation polymer of ethylene glycol, adipic acid, and monoethanolamine in molar ratio of 5:6:1, 2,4-dichloronaphthol and the hexamethyl ether of hexamethylol melamine, evaporating off the solvent to form an adhesive layer, applying the staple fibres of cellulose acetate by electro-static means to the adhesive layer, passing the fabric through a heated region to effect cross-linking of the adhesive, and collecting the fabric without damaging the pile.

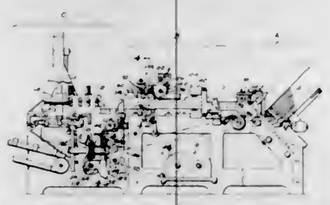
2,776,224

METHOD AND APPARATUS FOR SPOT COATING BOX BLANKS

Omer E. Cote, Providence, R. I., assignor to United States Automatic Box Machinery Company, Roslindale, Boston, Mass., a corporation of Massachusetts

Application February 10, 1954, Serial No. 409,407

8 Claims. (Cl. 117—38)



8. A method of applying glue to selected portions of a series of box blanks moving in predetermined spaced relation to each other, comprising the steps of continuously swinging a glue applying arm at a constant rate in a fixed circular path, applying glue to said arm during each revolution of said arm, feeding a blank against and tangent to said arm and at a speed equal to the peripheral speed of said arm, stopping said arm in the course of its rotation if the next oncoming blank would not be in position to engage said glue applying arm in the course of its normal continuous rotation, and restarting the rotation of the said arm to engage properly the next oncoming box blank.

2,776,225

PROCESS FOR THE PRODUCTION OF A HIGHLY REFLECTANT, HEAT RESISTANT WRINKLE FINISH ON A BASE

John Fletcher, North Attleboro, Mass., assignor to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts

No Drawing. Application January 16, 1953, Serial No. 331,749

4 Claims. (Cl. 117—41)

1. A process for the production of a highly reflectant, heat-resistant wrinkle finish which has a smooth surface, the process comprising the steps of coating an article with a solution of phenyl methyl siloxane resin, baking said base resin to effect a complete solvent evaporation and partial curing of the resin, coating said partially cured resin with aluminum vaporized in a vacuum, then coating said aluminum with a phenyl methyl siloxane resin, and baking said coated article so as to completely cure both the base resin and top resin.

2,776,226

PROCESS OF DRUM-FINISHING COATED PAPER AND PRODUCT

Robert T. Hart, Gorham, Maine, assignor to S. D. Warren Company, Boston, Mass., a corporation of Massachusetts

No Drawing. Application April 27, 1955, Serial No. 504,357

12 Claims. (Cl. 117—64)

1. Process of making drum-finished mineral-coated paper which comprises moving a paper web bearing a coating in a wet and plastic state into non-slipping adhesive contact with a moving, heated, polished, finishing surface, drying the coating in contact with the finishing surface and separating the web and dried coating from the finishing surface, said coating consisting essentially of mineral pigment, hydrophilic adhesive of the group consisting of protein and starch and a dimer of a higher aliphatic ketene having a carbon chain of from 6 to 20 carbon atoms in the ratio of from 0.5 to 3 parts by weight of said dimer to each 100 parts by weight of pigment in the coating.

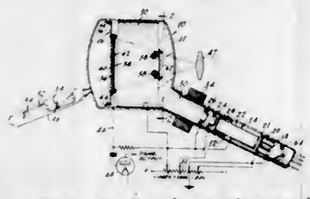
2,776,227

METHOD OF PROCESSING A PHOTOSENSITIVE MOSAIC ELECTRODE

Richard E. Hoffman, Florin, and William G. Rudy, Lancaster, Pa., assignors to Radio Corporation of America, a corporation of Delaware

Application August 19, 1953, Serial No. 375,247

5 Claims. (Cl. 117—210)



1. The method of processing a photosensitive mosaic electrode formed of a coating of silver oxide globules coated with a deposit of cesium, said method comprising the step of, exposing the silver oxide coating to a positive gaseous ion bombardment to decrease the electrical conductivity between the globules of the mosaic.

2,776,228

PROCESS FOR DESTARCHING WET MILLING FRACTIONS

Edward C. Snyder, Bellwood, Ill., assignor to Corn Products Refining Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application July 23, 1952, Serial No. 300,520

16 Claims. (Cl. 127—38)

1. Process for destarching a cereal wet milling fraction from the group consisting of starch-containing fiber, gluten, and mixtures thereof, comprising heating an aqueous slurry of said starch-containing material at pressures above atmospheric up to about 15 p. s. i. at a pH value within the range of about 3.2 to about 4.0, until a substantial proportion of the starch therein has been solubilized with a minimum amount of degradation of the starch and solubilization of the protein, and separating the destarched fraction from said treated slurry at a temperature not substantially below 100° C.

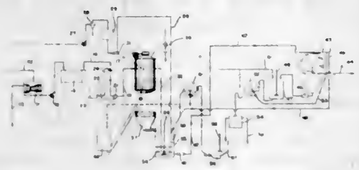
2,776,229

METHOD OF LIMING RAW SUGAR JUICE

C. Lynn Peterson, Salt Lake City, Utah, assignor to Peterson Filters & Engineering Company, Salt Lake City, Utah, a corporation

Application August 17, 1951, Serial No. 242,265

5 Claims. (Cl. 127—48)



1. In the process of treating raw sugar juice so as to condition it for extraction of sugar content, the improvement which comprises standardizing such a raw juice by introducing an alkali metal hydroxide in an amount sufficient to raise the juice to an alkaline pH of about 8, passing the resulting juice directly to a liming stage, then introducing a liming composition to the standardized juice in amounts proportioned to the weight of the juice into which it is introduced until the pH of the juice is raised to a point within the range af about 9–11.5 at which maximum purity rise is obtained with a minimum of residual lime salts, and passing the juice so treated to a clarifying filtration stage for removal of substantially all precipitated insoluble content prior to delivering the clarified juice to the sugar extraction stage.

2,776,230

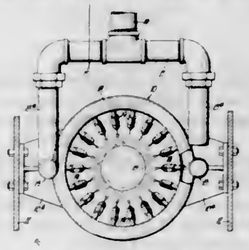
METHOD AND APPARATUS FOR QUENCHING PIPE

James A. Scott, Mount Lebanon Township, Allegheny County, Pa., assignor to United States Steel Corporation, a corporation of New Jersey

Application October 22, 1951, Serial No. 252,515

4 Claims. (Cl. 148—21.55)

1. A method of quenching steel pipe heated above the transformation temperature, consisting in moving the pipe axially along a straight line, discharging onto the pipe from points spaced substantially equally apart in a plane normal to said line and substantially equally spaced radially from said line, diverging sprays of liquid the axes of which sprays constitute elements of an imaginary cone having its apex in said line, maintaining the spacing of said points from said apex such that substantially all the liquid breaks into substantially uniformly dispersed droplets before impinging on the pipe, maintaining the spacing between said points such as to cause partial overlapping of the areas of impingement on the pipe of droplets from adjacent points, and maintaining the apex angle of said cone such that the maximum angle between said line and any element of said sprays is from 60° to 80°, thereby



minimizing backflow of liquid along the pipe and affording the droplets sufficient velocity toward the pipe to penetrate the steam film forming immediately adjacent the pipe.

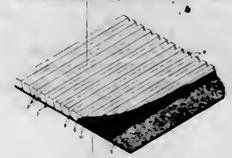
2,776,231

SEGMENTED INSULATING COVERING FOR PIPES AND THE LIKE

Henry C. Brown, East Hempfield Township, Lancaster County, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania

Application June 28, 1954, Serial No. 439,707

5 Claims. (Cl. 154—44)



1. A prefabricated thermal insulating covering comprising a plurality of segments of rigid insulation material of generally prismatic configuration having severed side faces fabricated to form an essentially continuous layer of insulation surrounding a circular surface to be insulated when said insulation is wrapped therearound and said severed side faces of said segments are brought into abutting relationship and a vapor-proof facing to which said segments are adhesively secured in contiguous relationship, said facing including means for rapidly conducting heat to substantially the entire outer surface of said facing including the portion overlying the joint where the outermost segments of the cover abut to equalize the temperature at the surface thereof regardless of the presence of open joints between contiguous segments or voids in said layer of insulation and thereby avoid the condensation of moisture on the surface of said facing, said means comprising a membrane of thin, flexible, heat-conductive metal, which metal membrane is completely insulated from the circular surface by said segments of insulation material and which is substantially coextensive with the entire outer surface area of said segments and overlies all of the joints between contiguous segments and which includes an extending flap overlapping the joint where the outermost segments of the covering abut when the covering is installed and in service.

2,776,232

MIXED α-CYANOACRYLATE ADHESIVE COMPOSITIONS

Newton H. Shearer, Jr., and Harry W. Coover, Jr., Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application June 2, 1954, Serial No. 434,080

11 Claims. (Cl. 154—46)

1. An adhesive composition adapted to form flexible adhesive bonds and comprising a mixture of monomeric

α-cyanoacrylate esters consisting of 5–95% by weight of a monomeric ester of α-cyanoacrylic acid from the class having the formula

$$CH_2{=}C(CN){-}COOR$$

wherein R is a member of the group consisting of alkyl groups of 1 to 16 carbon atoms, cyclohexyl groups and phenyl groups, and 95–5% by weight of a different monomeric ester of α-cyanoacrylic acid from said class, said mixture being stabilized by incorporation therein of at least 0.001% by weight based on the weight of said mixture of an acidic gaseous polymerization inhibitor of the group consisting of sulfur dioxide, nitric oxide, boron trifluoride and hydrogen fluoride.

9. A laminated article comprising at least two elements adhered together by a flexible polymerized film resulting from the polymerization in situ of a mixture of polymerizable monomers consisting of α-cyanoacrylate esters of the formula

$$CH_2{=}C(CN){-}COOR$$

wherein R is selected from the group consisting of alkyl groups of 1 to 16 carbon atoms, cyclohexyl groups and phenyl groups.

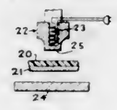
2,776,233
FUR-FLOOR COVERING
Edward Roberts, Detroit, Mich.
Application September 27, 1954, Serial No. 458,533
1 Claim. (Cl. 154—49)

A floor covering comprising a laminated pad formed of three layers, including a top layer of fur with a supporting skin, a bottom backing layer of rubber, and an intermediate layer of sponge rubber adhesively secured upon its opposite sides to said skin and backing.

2,776,234
VAPOR-PERMEABLE GYPSUM BOARD
Wallace C. Riddell, Berkeley, and George B. Kirk, Redwood City, Calif., assignors to Kaiser Gypsum Company, Inc., Oakland, Calif., a corporation of Washington
Application August 4, 1953, Serial No. 372,398
5 Claims. (Cl. 154—86)

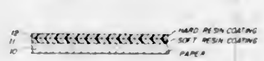
1. Process for producing water-repellent, vapor-permeable gypsum sheathing board which comprises depositing a slurry consisting essentially of calcined gypsum in water between two paper liners, then applying to the outer surfaces of said liners a water solution of a Werner-type acido-chromic chloride of a carboxylic acid having at least 10 carbon atoms in an amount to provide from 0.01 to 0.1 gram of said chloride per square foot of paper surface, then heating and drying the board at a temperature of from 210° F. to 400° F.

2,776,235
ELECTRIC CIRCUIT PRINTING
David B. Peck, Williamstown, Mass., assignor to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts
Application September 18, 1952, Serial No. 310,182
3 Claims. (Cl. 154—95)



1. In a process for printing electric circuit sections, the steps of applying an adherent but disengageable layer of liquefiable electric circuit material having uniform electrical characteristics over an extended area of a temporary support of a film of polytetrafluoroethylene resin, placing the supported layer in contact with a base on which the circuit section is to be mounted and for which the liquefied material has greater adhesion, transferring to the base selected portions of the layer by applying a liquefying tool having the shape of the selected portions to the back of the temporary support to liquefy and disengage these portions of the layer from the temporary support and to cause them to become affixed to the base.

2,776,236
WATERPROOF PHOTOGRAPHIC PAPER AND METHOD OF MAKING SAME
Henry C. Staehle, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application March 19, 1954, Serial No. 417,501
11 Claims. (Cl. 154—120)



1. A waterproof paper having a binary coating, a first coat comprising a copolymer of ethyl acrylate and acrylonitrile and a second coat comprising an interpolymer of N-methyl methacrylamide, N-butyl acrylate and acrylonitrile.

2,776,237
TETRAALKYL PYROPHOSPHATE INSECTICIDE STABILIZED WITH ACETIC ANHYDRIDE
William A. Clark, Kirkwood, and Henry L. Morrill, Clayton, Mo., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application May 17, 1951, Serial No. 226,946
2 Claims. (Cl. 167—22)

1. An insecticidal dust composition comprising an inert solid pulverulent carrier and from 0.5% to about 25% by weight based upon said insecticidal dust composition of a hydrolysis resistant composition containing a tetraalkyl pyrophosphate in an insecticidal amount, the said hydrolysis resistant composition consisting of from about 1% to about 75% by weight acetic anhydride and the remainder being the reaction product of $POCl_3$ and a trialkyl phosphate wherein the said reaction product contains from about 10% to about 50% by weight tetraalkyl pyrophosphate which tetraalkyl pyrophosphate is normally susceptible to hydrolysis, the alkyl substituents of said trialkyl phosphate reactant and said resultant pyrophosphate containing from 1 to 4 carbon atoms.

2,776,238
BACTERICIDE COMPOSITION AND METHOD OF USING SAME
Gerald I. Keim, Oxford, Pa., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application May 1, 1953, Serial No. 352,571
17 Claims. (Cl. 167—30)

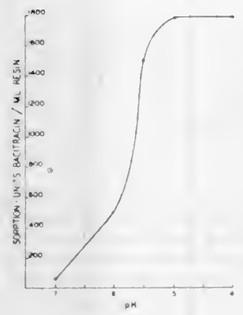
13. A bactericide composition comprising a salt of an unsubstituted N-(γ-aminopropyl) rosin amine and an acid selected from the group consisting of acetic acid, formic acid, glycolic acid, monochloroacetic acid and hydrochloric acid, and a bactericidal adjuvant selected from the group consisting of acetone, alcohol, benzene, gasoline, kerosene, pine oil and water.

14. A method for inhibiting growth of bacteria in a liquid-carrying system which comprises adding to said system a salt of an unsubstituted N-(γ-aminopropyl) rosin amine and an acid selected from the group consisting of acetic acid, formic acid, glycolic acid, monochloroacetic acid and hydrochloric acid.

2,776,239
PIPERONYLIDENE TETRAHYDROFURANONE
Daniel C. Rowlands, Worthington, Ohio, assignor, by mesne assignments, to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York
No Drawing. Application August 2, 1955, Serial No. 526,077
8 Claims. (Cl. 167—33)

3. An insecticidal composition comprising a product selected from the class consisting of pyrethrum and allethrin, and as a synergist therefor 4-piperonylidene-2,2,5,5-tetramethyltetrahydro-3-furanone.

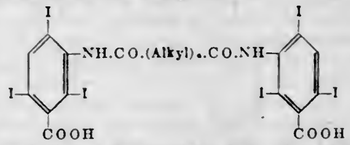
2,776,240
RECOVERY AND PURIFICATION OF BACITRACIN
Robert W. Shortridge, Kansas City, Mo., assignor to Commercial Solvents Corporation, Terre Haute, Ind., a corporation of Maryland
Application September 10, 1954, Serial No. 455,245
4 Claims. (Cl. 167—65)



1. A process of recovering bacitracin from fermentation liquors in which it has been produced, which comprises adjusting the pH of such a fermentation liquor to a value of from about 4 to 5.7, passing it in contact with a bed of carboxylic acid type exchange resin to cause sorption of the bacitracin on the resin, then passing a dilute aqueous solution of a weak base in contact with the bed of exchange resin in amount sufficient to elute from the bed substantially its entire content of sorbed bacitracin, and recovering the bacitracin from the eluate.

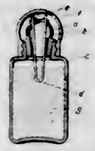
2,776,241
INJECTABLE X-RAY CONTRAST AGENTS COMPRISING SALTS OF N-ACYL DERIVATIVES OF 2,4,6-TRIIODO-3-AMINOBENZOIC ACID
Hans Priewe, Berlin-Steglitz, and Rudi Rutkowski, Berlin-Schoneberg, Germany, assignors to Schering A. G., Berlin, Germany, a corporation of Germany
No Drawing. Application July 20, 1953, Serial No. 369,192
Claims priority, application Germany August 6, 1952
6 Claims. (Cl. 167—95)

1. X-ray contrast agents selected from the group consisting of an N-acyl derivative of 2,4,6-triiodo-3-amino benzoic acid of the following formula



wherein *n* indicates the numbers 0 to 14, and the salts of such acids with alkali metals, ammonia, alkaline earth metals, and substantially non-toxic organic bases.

2,776,242
APPARATUS FOR PROVIDING FRESH CULTURES OF LIVING MICRO-ORGANISMS
Franz J. Geks, Brackwede, Westphalia, Germany, assignor to Asta-Werke Aktiengesellschaft Chemische Fabrik, Brackwede, Westphalia, Germany
Application May 21, 1953, Serial No. 356,541
Claims priority, application Germany May 23, 1952
8 Claims. (Cl. 195—54)



1. An apparatus for providing fresh pure cultures of living micro-organisms at the place of application comprising a bottle for receiving a culture medium, a resiliently deformable compressible bulb stopper closing said bottle, and a U-tube for receiving micro-organisms tightly and resiliently held by said stopper, the legs of said U-tube projecting outwardly through said stopper, the U-shaped lower part of said U-tube being immersed in said culture medium and slightly scratched to facilitate breakage when said legs are bent towards each other by suitable manipulation of said stopper, whereby the micro-organisms enter the culture medium and multiply therein.

2,776,243
PROCESS FOR PRODUCTION OF TETRACYCLINE
William Joseph McGhee, Fayetteville, and John Cosimo Mepna, Syracuse, N. Y., assignors to Bristol Laboratories Inc., Syracuse, N. Y., a corporation of New York
No Drawing. Application March 5, 1956, Serial No. 569,228
6 Claims. (Cl. 195—80)

1. A process for the production of tetracycline which comprises aerobically growing a culture of a chlortetracycline-producing species of Streptomyces selected from the group consisting of *Streptomyces aureofaciens* and *Streptomyces viridifaciens* in an aqueous carbohydrate solution containing as organic sources of nitrogen from 0.1 to 5.0 percent by weight of soybean meal, from 0.1 to 5.0 percent by weight of substantially oil-free cottonseed endosperm flour, from 0.1 to 5.0 percent by weight of corn oil meal and from 0.1 to 2.0 percent by weight of yeast, said fermentation medium being undechlorinated

and said tetracycline in the final fermentation broth comprising greater than 90 percent of the antibiotic activity and being present in the amount of at least 2500 mcg./ml.

2,776,244

PREPARATION OF NICKEL OXIDE DESULFURIZING CATALYST AND UTILIZATION THEREOF FOR DESULFURIZING

Elbert O. Sowerwine, Wapiti, Wyo., assignor to Wigton-Abbott Corporation, Plainfield, N. J., a corporation of New Jersey

Application May 11, 1953, Serial No. 353,991
7 Claims. (Cl. 196—28)

4. The process for preparing a highly active desulfurizing catalyst that comprises reacting a solution of nickel sulfate with a solution of a sodium carbonate as rapidly as possible by adding the sodium carbonate with agitation to the boiling nickel sulfate solution until 100 to 101% of the stoichiometrically required amount of sodium carbonate has been added while maintaining the reaction mixture at a pH below pH 9, rapidly drying the basic nickel carbonate thus obtained by heating in a forced circulation of non-reacting gas at a temperature below about 205° F. and pressure below about 640 mm. of Hg. and calcining the dried material by heating for about 20 hours at a temperature of about 750–850° F. while maintaining throughout the mass being calcined an atmosphere containing at least 15% oxygen for a time merely sufficient to complete the decomposition reactions.

7. In the desulfurization of sulfur containing hydrocarbon fluids by contacting the same at elevated temperature with a sulfur sensitive catalytic material, the improvement that comprises employing as the catalytic material a nickel peroxide obtained by the process as defined in claim 4 and having the formula NiO_x where x has a value within a range of 1.8 to 2.2.

2,776,245

PREPARATION OF NICKEL CARBONATE CATALYSTS AND UTILIZATION THEREOF FOR DESULFURIZATION

Elbert O. Sowerwine, Jr., Wapiti, Wyo., assignor to Wigton-Abbott Corporation, Plainfield, N. J., a corporation of New Jersey

Application May 11, 1953, Serial No. 353,992
2 Claims. (Cl. 196—28)

1. The process for preparing a nickel desulfurizing catalyst of enhanced activity that comprises reacting a solution of nickel sulfate with a sodium carbonate as rapidly as possible by adding the sodium carbonate with agitation to the boiling nickel sulfate solution until 100 to 101% of the stoichiometrically required amount of sodium carbonate has been added while maintaining the reaction mixture at a pH below pH 9, and rapidly drying the resulting precipitate of a nickel carbonate by heating in a forced circulation of a non-reacting gas at a temperature below about 205° F. and a pressure below about 640 mm. of Hg.

2. In the desulfurization of sulfur containing hydrocarbon fluids by contacting same at elevated temperature with a sulfur sensitive catalytic material, the improvement that comprises employing as the catalytic material a nickel carbonate which has been specially prepared according to the process as defined in claim 1.

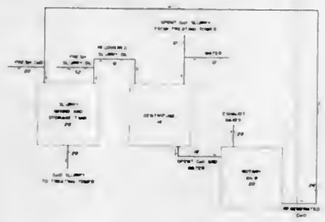
2,776,246

SEPARATION OF OIL FROM SPENT COPPER OXIDE SLURRIES

Le Roi E. Hutchings, Crystal Lake, and Milton M. Marisic, Elgin, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

Application November 19, 1952, Serial No. 321,386
5 Claims. (Cl. 196—30)

1. In a method for desulfurizing a sulfur-containing hydrocarbon fraction wherein said hydrocarbon fraction is contacted with copper oxide and a slurry of spent copper oxide in a hydrocarbon oil is recovered, the method of recovering copper oxide for reuse, which comprises centrifuging said slurry in the presence of water to obtain a hydrocarbon oil phase substantially free of spent copper oxide and a water phase containing spent copper oxide, heating said water phase to a temperature sufficiently elevated to flash off water and regenerate spent copper oxide, and recovering copper oxide suitable for use in said contacting step.



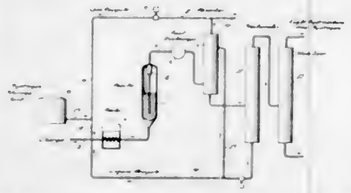
3. In a process for regenerating a spent copper oxide slurry obtained in the desulfurization of a petroleum oil by intimately contacting the petroleum oil with a copper oxide-containing treating agent, the steps which comprise centrifuging said slurry in the presence of sufficient amounts of added water to effect a substantial reduction in the oil content of the slurry, recovering an oil-phase substantially free from spent copper oxide, and a water-phase containing the spent copper oxide, treating said water-phase to remove the water and reactivate the spent copper oxide, and recovering a copper oxide suitable for use in said desulfurization.

2,776,247

FLUID CATALYTIC HYDROREFORMING WITH CARBONIZED CATALYST

Victor J. Anhorn, Oakmont, Meredith M. Stewart, Penn Township, Allegheny County, and Wallace E. Morrow, Allison Park, Pa., assignors to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

Application September 24, 1951, Serial No. 247,976
6 Claims. (Cl. 196—50)



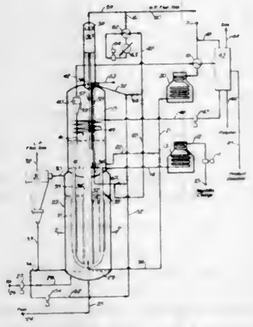
1. The process for catalytically reforming in the presence of hydrogen a hydrocarbon oil mixture selected from the group consisting of mixtures consisting essentially of naphtha and mixtures consisting essentially of a predominant amount of naphtha and a minor amount of gas oil which comprises continuously contacting the hydrocarbon oil mixture with hydrogen in the presence of a fluidized finely divided hydroreforming catalyst consisting essentially of from 5 to 20 percent by weight molybdenum oxide and a porous refractory carrier consisting essentially of alumina and a minor amount of silica, said catalyst having deposited thereon between about 10 and 25 percent by weight of carbon throughout said process, at a temperature between about 925° and 975° F., a pressure between about 200 and 1000 pounds per square inch gauge, at an hourly weight space velocity between about 0.5 and 5, and a hydrogen concentration of between about 1000 and 10,000 cubic feet per barrel of charge.

2,776,248

HYDROCARBON REFORMING WITH FLUIDIZED PLATINUM AND HEATING SYSTEM THEREFOR

Robert J. Hengstebeck, Valparaiso, and Maurice F. Oxenreiter, Hammond, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application May 19, 1953, Serial No. 356,036
10 Claims. (Cl. 196—50)



1. A fluidized platinum catalyst hydrocarbon reforming system which comprises a high pressure fluidized solids reactor vessel, a low pressure fluidized solids heating vessel below said reactor vessel, a distributor grid at the base of the reactor vessel, high pressure catalyst circulation tubes extending through the base of the reactor vessel on the top of said heating vessel for withdrawing catalyst above said grid, circulating it through said high pressure tubes in the heating vessel and returning it above said grid, connections for introducing air and fuel respectively at the base of said heating vessel, a low pressure cyclone separator, connections for introducing flue gas from the heater vessel to the cyclone separator and for returning separated solids therefrom to the heating vessel and venting low pressure flue gas and a connection for introducing hot hydrogen into at least one of said high pressure tubes for lifting catalyst therein upwardly to the reactor vessel and thereby causing catalyst circulation from the reactor vessel through said tubes and back to the reactor vessel.

7. A fluidized platinum catalyst system for reforming hydrocarbons of the naphtha boiling range wherein solids are carried from a reaction zone in effluent products, scrubbed from said products and recycled to the reaction in a slurry oil, the method of minimizing required heat input to the dense catalyst phase in the reaction zone which method comprises contacting recycled slurry oil containing catalyst particles with hot reaction products downstream of the dense catalyst phase for cooling said reaction products, vaporizing said slurry oil and preheating catalyst carried by said slurry oil, carrying said vaporized slurry oil with said reaction products to a product recovery system and returning the preheated catalyst particles to said dense phase.

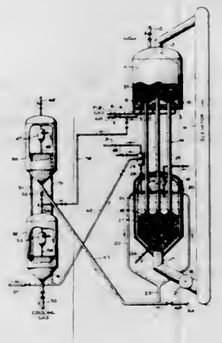
2,776,249

PROCESS FOR CONVERSION OF REACTANT MATERIALS WITH THE USE OF HEATED PEBBLES

Harris A. Dutcher, Bartlesville, Okla., and Carl E. Alleman, Etter, Tex., assignors to Phillips Petroleum Company, a corporation of Delaware

Application December 19, 1949, Serial No. 133,851
6 Claims. (Cl. 196—55)

1. An improved process for reacting hydrocarbons, which comprises heating a fluent mass of pebbles in a pebble heating zone to a temperature sufficiently high to cause a hydrocarbon reactant when in contact therewith to be converted, passing pebbles thus heated into a reaction zone and downwardly to form a contiguous pebble mass therein, passing a stream of fluidizable particulate solids at a temperature lower than that of said pebbles into the upper portion of said reaction zone so as to form a superposed layer on said pebble mass, passing a hydrocarbon reactant material into the lower portion of said reaction zone and upwardly therethrough in direct heat exchange with said pebble mass, whereby conversion of said hydrocarbon takes place, passing product gases upwardly from said pebble mass through said superposed



layer at a linear velocity sufficiently high to maintain said layer as a fluidized fixed bed, whereby said reaction product is quenched and tarry materials condense from said product gases and accumulate on the solid particle surfaces, withdrawing a stream of solids from said superposed layer in said reaction zone and regenerating same by removing carbonaceous deposits therefrom, cooling regenerated solids and returning cooled, regenerated solids to said superposed layer in said reaction zone, removing pebbles from the lower portion of said reaction zone, and removing quenched reaction products from the upper portion of said reaction zone.

2,776,250

FRACTIONATION OF CRUDE PETROLEUM OIL

Robert G. Capell, Clarence Karr, Jr., and William D. Weatherford, Jr., Pittsburgh, Pa., assignors to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

No Drawing. Application June 24, 1952,
Serial No. 295,354
3 Claims. (Cl. 196—147)

1. A process for separating crude petroleum oil into low and high sulfur content fractions of unconverted, naturally-occurring petroleum compounds which comprises passing into contact with a bed of adsorbent material selected from the group consisting of activated alumina and activated bauxite, a charge liquid comprising at least about 25 percent by volume of a sulfur-containing crude oil in an amount which penetrates no more than about 90 percent of the adsorbent bed, then contacting said adsorbent bed with a wholly paraffinic eluant liquid in an amount at least as great as the amount of charge liquid, recovering from the bed with said paraffinic eluant liquid a paraffinic fraction of the crude oil of low sulfur content, thereafter contacting said bed with at least one additional eluant liquid, each eluant liquid having stronger eluting power than the eluant used before it, and recovering from the bed with an eluant liquid of stronger eluting power than said paraffinic eluant a fraction of said crude oil of high sulfur content.

2,776,251
ELECTRICAL RECORDING MEDIUM
Robert S. Schwartz, Great Neck, N. Y., assignor to Faximile, Inc., New York, N. Y., a corporation of Delaware
No Drawing. Application November 3, 1953, Serial No. 390,096
13 Claims. (Cl. 204—2)

5. A white dry recording medium comprising a porous sheet impregnated with a major quantity of an amide selected from the group consisting of urea and thiourea, and a substantially colorless electroresponsive marking compound, said medium being substantially non-conductive electrically at temperatures below the melting point of the amide and having high electrical conductivity and electrical markability only at temperatures above the melting point of the amide.

2,776,252
DRY ELECTRICAL RECORDING MEDIUM
Robert S. Schwartz, Great Neck, N. Y., assignor to Faximile, Inc., New York, N. Y., a corporation of Delaware
No Drawing. Application April 23, 1953, Serial No. 350,757
4 Claims. (Cl. 204—2)

1. A dry, white recording medium markable electrolytically only when heated, comprising a single layer of dry porous material impregnated essentially with at least one amide having at least four carbon atoms and selected from the group consisting of acetanilide, benzamide, paratoluene sulfonamide, N-ethyl benzene sulfonamide, and butyramide, a highly ionizable salt, and an electro-responsive substantially colorless marking compound.

2,776,253
METHOD OF MAKING AIRFOIL SECTIONS
Elwood L. Scholl, Detroit, Mich., assignor, by mesne assignments, to Siegfried G. Bart, Butler, N. J.
Original application May 4, 1950, Serial No. 159,926, now Patent No. 2,732,020, dated January 24, 1956. Divided and this application July 8, 1952, Serial No. 298,571
7 Claims. (Cl. 204—20)

5. In the art of curing an initially uncured rubber-containing material having adhesive qualities and a surface formed at least in part of an electro-conductive material, while simultaneously bonding a layer of electrometal to said surface, the method which consists in subjecting said surface to electrolysis in an electrolytic bath functioning to deposit a layer of electro-metal on said surface and simultaneously applying extraneous heat to the electrolyte to achieve a temperature of about 140° F. to cure the rubber in the rubber-containing material.

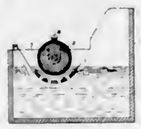
2,776,254
RUBBER BONDING PROCESS
Siegfried G. Bart, Essex Fells, N. J.
Application September 7, 1950, Serial No. 183,595
4 Claims. (Cl. 204—20)

2. The method which consists in applying a plurality of coats of chlorinated rubber cement free of sulphur to a previously cleaned core surface to form thereon a layer of bonding material, superposing on the bonding layer a plurality of coats of neoprene rubber cement free of sulphur and uncured to form a cushioning layer, in each case air-drying each coating before the next coating is applied, subjecting the core surface with its two layers of rubber cement to a heat treatment of about 150 degrees F. to effect a partial curing of both of the layers of rubber cement, placing a conductive coating on the surface of the neoprene rubber cement and subjecting the core surface with its rubber cement layers so partially cured to electrolysis in an electrolytic bath containing a metal taken from the following group: nickel, copper, tungsten, titanium, molybdenum, iron and chromium, and functioning to deposit a layer of electro-metal on the neoprene rubber cement and at the same time maintaining the electrolytic bath at a temperature greater than 125 degrees F. and not materially greater than 150 degrees F. to effect a complete curing of the rubber cement.

2,776,255
METHOD OF MAKING FORMED, PLATED ARTICLES
Milton B. Hammond and Glade B. Bowman, Edgeworth, Pa., assignors to Rockwell Spring and Axle Company, Coraopolis, Pa., a corporation of Pennsylvania
No Drawing. Application July 7, 1955, Serial No. 520,617
4 Claims. (Cl. 204—23)

3. The method of making formed, plated articles, which comprises electroplating a coating of nickel on a polished flat steel strip, electroplating a coating of zinc on the nickel coating, applying a phosphate coating and a drawing compound to the zinc coating, forming the coated strip into an article, subjecting the formed article to an anodic alkaline cleaning operation to remove the phosphate coating and drawing compound, dissolving off in an acid solution from the formed article the zinc coating containing imperfections resulting from the forming operation, subjecting the nickel coated formed article to an anodic electropolishing operation in an acid aqueous bath containing phosphoric acid to remove residue resulting from dissolving off the zinc coating, subjecting the nickel coated formed article to a cathodic alkaline cleaning operation to activate the nickel, contacting the formed article with an acid, and electroplating a nickel coating on the formed article.

2,776,256
PROCESS OF MAKING INTAGLIO PRINTING CYLINDERS
Kurt P. A. Eulner and Joseph F. Mueller, Louisville, Ky.
Application March 19, 1953, Serial No. 343,402
10 Claims. (Cl. 204—25)

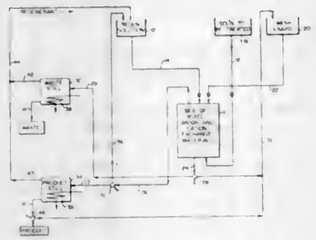


1. An improvement in the art of manufacturing an intaglio printing cylinder wherein a copper coating is electroplated on the smooth polished periphery of a base cylinder while it is rotating in a copper depositing bath comprising: polish-brushing the copper coating on the periphery of the rotating cylinder with a flexible brass-bristle brush for a substantial time during the end portion of the deposition period and while copper is being deposited on the cylinder to produce a smooth polished cylinder substantially ready for the etching operation.

2,776,257
APPARATUS FOR ELECTROCHEMICAL ANALYSIS
Antony Cyril Affleck, Vancouver, British Columbia, Canada, assignor, by mesne assignments, to Canadian Patents and Development Limited, Ottawa, Ontario, Canada
Application August 23, 1954, Serial No. 451,463
3 Claims. (Cl. 204—195)

1. Apparatus for electrochemical analysis comprising; a vertical support panel; two vertically spaced apart electrical-insulating support members extending from the panel; two spaced apart electrical-conducting rods fixed between the support members in spaced apart relation to the panel; two spaced apart electrical conducting plates of spring material, a groove formed in each plate near one edge in a vertical direction, each groove being held into slidable engagement with one of the rods by the spring action of each plate, an electrical-insulating block fixed to the opposite edge to said one edge of each plate and holding the plates for spaced relation; two vertically extending electrodes; means for normally holding one of the electrodes in electrical contact with one plate and the other electrode in electrical contact with the other plate; the electrodes being adapted to extend into a vessel; means for supplying an electrical potential between said rods.

2,776,258
ION-EXCHANGE-REGENERANT RECOVERY
Edwin R. Gilliland, Arlington, Mass., assignor to Ionics, Incorporated, Cambridge, Mass., a corporation of Massachusetts
Application April 28, 1953, Serial No. 351,578
14 Claims. (Cl. 210—24)



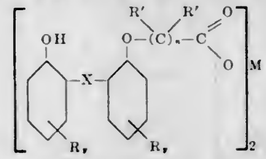
1. Ion exchange apparatus comprising a bed of mixed anion and cation exchange materials; a regenerant solution reservoir connecting through flow control means to an influent connection at one end of said bed; a wash liquid reservoir connecting through flow control means to an influent connection at the same end of said bed; influent means for the solution to be treated connecting through flow control means to the other end of said bed; a waste effluent conduit connecting with the end of the bed opposite the influent connections for the regenerant solution reservoir and wash liquid reservoir; a product effluent conduit connecting with the end of the bed opposite the influent means for the solution to be treated; a waste-regenerant recovery still for separating a thermolytic regenerant from effluent liquids and having effluent liquid inlet means connecting with the said waste effluent conduit, regenerant-free waste liquid outlet means, and recovered regenerant outlet means; a product-regenerant recovery still for separating a thermolytic regenerant from effluent liquids and having effluent liquid inlet means connecting with said product effluent conduit, regenerant-free product liquid outlet means, and recovered regenerant outlet means; a wash liquid conduit leading to said wash liquid reservoir and connecting through flow control means with said waste effluent conduit and also connecting through flow control means to the regenerant-free liquid outlet of said product-regenerant recovery still; a regenerant makeup conduit leading to said regenerant solution reservoir connecting through flow control means with said product effluent conduit; and conveying means leading to said regenerant solution reservoir from the recovered regenerant means of said waste and product-regenerant recovery stills, whereby recovered regenerant may be conveyed to said regenerant reservoir.

2,776,259
DRILLING MUDS
Richard A. Salathiel, Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application September 28, 1955, Serial No. 537,143
15 Claims. (Cl. 252—8.5)

1. A drilling mud comprising at least 5% by weight of finely divided solids in an aqueous saline medium to which has been added from about 1 to about 5 pounds per 42 gallon barrel of mud of an alkali metal carboxyalkylcellulose and from about 0.1 to about 5 pounds per 42 gallon barrel of mud of an additive taken from the group consisting of water soluble alkali metal sulfides, polysulfides and hydrosulfites, said alkali metal carboxyalkylcellulose and said additive having been added in amounts sufficient to materially reduce the tendency of the drilling mud to lose water by filtration, said alkali metal carboxyalkylcellulose containing from about 0.7 to about 0.9 alkali metal carboxyalkyl substituent groups per glucose anhydride unit.

2,776,260
LUBRICANT COMPOSITIONS
James D. Klicker, Mars, and Donald R. Stevens, Wilkinsburg, Pa., assignors to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware
No Drawing. Application October 16, 1953, Serial No. 386,659
6 Claims. (Cl. 252—33.6)

1. A lubricant composition comprises a major amount of a lubricating oil and a minor amount sufficient to improve the detergency characteristics thereof of a metal salt represented in general by the following formula:



where n is an integer from 1 to 3, y is an integer from 1 to 4, X is a substituent selected from the group consisting of S and

M is a divalent metal selected from the group consisting of calcium, nickel, barium, zinc and lead, R is a substituent selected from the group consisting of hydrogen, alkyl, cycloalkyl, alkaryl, aryl and aralkyl, and R′ is a substituent selected from the group consisting of hydrogen and alkyl.

2,776,261

ZINC TIN PHOSPHATE PHOSPHORS

Francis N. Shaffer and Alden B. Davis, Towanda, Pa., assignors to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts

No Drawing. Application April 10, 1951, Serial No. 220,341

3 Claims. (Cl. 252—301.6)

1. A zinc phosphate phosphor having an activator selected from the group consisting of tin, and tin and manganese; and in which the zinc content is between about 2.2 and 2.95 moles per two moles of the phosphate radical, with the tin content between about 0.2 and 0.7 mole per two moles of the phosphate radical, a substantial part of the tin being in the stannous state, and the amount of manganese, when present, being between about 0.02 and 0.1 mole per two moles of phosphate radical.

2,776,262

KNOCK-SUPPRESSING COMPOSITION

George H. Denison, Jr., San Rafael, and Maurice R. Barusch, Richmond, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application December 29, 1949, Serial No. 135,822

1 Claim. (Cl. 252—386)

A knock-suppressing composition for spark-ignition engines comprising an aqueous monohydric alcohol solution wherein said alcohol has 1 to 4 carbon atoms per molecule and is present in amounts of about 10 to about 50 volume percent of said solution, and from about 0.1 to 10% by weight of thallous formate.

2,776,263

CORROSION INHIBITORS FOR DEUTERIUM EXCHANGE PROCESS

Clarence F. Hiskey, Brooklyn, N. Y., and Dwayne T. Vier, Santa Fe, N. Mex., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application April 16, 1945, Serial No. 588,479½

2 Claims. (Cl. 252—390)

1. A process for the prevention of corrosion of iron apparatus by a mixture of hydrogen sulfide and water which comprises introducing an organic inhibitor selected from the group consisting of quinoline, isoquinoline, phenylhydrazine, tannic acid, and piperidine into the mixture in contact with said apparatus.

2,776,264

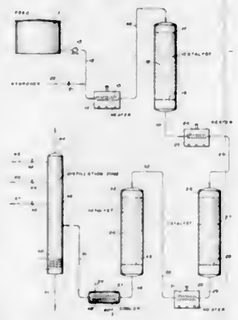
PREPARATION OF PLATINUM-ON-ALUMINA CATALYST COMPOSITE

James A. Dinwiddie and Max A. Mosesman, Baytown, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application March 6, 1953, Serial No. 340,892

4 Claims. (Cl. 252—466)

1. A method of preparing a catalyst suitable for use in hydrocarbon conversion operations which comprise admixing a solution of a platinum-containing compound with gamma alumina derived from alumina alpha monohydrate, said alumina alpha monohydrate being obtained by reacting aluminum with an aliphatic alcohol to form an alcoholate and contacting said alcoholate with water vapor under conditions to hydrolyze said alcoholate to alumina alpha monohydrate and heating the admixture to a temperature in the range from 600°



to 1600° F. sufficient to dry same and to form a platinum on alumina catalyst.

2,776,265

PROCESS FOR BLOWING PLASTISOLS USING N,N'-DINITROSO-N,N'-DIMETHYL TEREPHTHALAMIDE AS THE BLOWING AGENT

Mack Francis Fuller, Woodbury, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Continuation of application Serial No. 291,305, June 2, 1952. This application April 9, 1954, Serial No. 422,267

5 Claims. (Cl. 260—2.5)

1. The process of preparing a cellular composition which comprises mixing N,N'-dinitroso-N,N'-dimethyl terephthalamide, a plasticizer, and a resin selected from the class consisting of vinyl chloride homopolymers, vinyl chloride/vinyl acetate copolymers, and vinyl chloride/diethyl maleate copolymers, and heating the resultant mixture to decompose the N,N'-dinitroso-N,N'-dimethyl terephthalamide, expand the resin, and flux the resin with the plasticizer.

2,776,266

PARTIALLY HYDROGENATED FURFURAL-KETONE REACTION PRODUCTS WITH ALDEHYDES

Mortimer T. Harvey, South Orange, N. J., assignor to Harvel Research Corporation, a corporation of New Jersey

No Drawing. Application December 3, 1952, Serial No. 323,951

20 Claims. (Cl. 260—3)

1. A novel composition of matter being capable of being converted to the substantially solid and infusible state when a 100 gram sample thereof in substantially uniform admixture with 20 grams of an alcoholic solution consisting of equal parts by weight of alcohol and paratoluene sulfonic acid is maintained at 300° F. for 24 hours, said novel composition of matter comprising an intimate combination of (I) an aldehyde and (II) a partially hydrogenated organic reaction product normally liquid at 100° C. and selected from the group consisting of (*a*) partially hydrogenated mono-furfurylidene-ketone, (*b*) partially hydrogenated difurfurylidene-ketone, (*c*) partially hydrogenated organic reaction masses, said organic reaction masses before hydrogenation having a viscosity of at least 50 cps. at 25° C. and produced by reacting under alkaline conditions furfuraldehyde and a ketone having at least two hydrogen atoms on an alpha carbon, (*d*) partially hydrogenated residual fractions of said reaction masses, said fractions before hydrogenation obtained by heat distillation of said reaction masses and measuring by weight at least 60% of said reaction masses, (*e*) residual fractions obtained by heat distillation of (*c*) and measuring at least 60% by weight of (*c*), (*f*) polymerized products produced by polymerizing (*a*)-(*e*) respectively under acidic conditions, said (*a*)-(*d*) respectively produced by hydrogenating mono-furfurylidene-ketone, difurfurylidene-ketone, said organic reaction masses and said residual fractions of said organic reaction masses to an extent at least approximately 15% and no more than approximately 65% of that necessary to completely saturate with hydrogen the carbon to carbon double bonds thereof.

2,776,267

SPHERICAL PIGMENTS AND METHOD OF PREPARING SAME

Ira Weber, Long Island City, and Julio H. Basto, New York, N. Y., assignors to Interchemical Corporation, New York, N. Y., a corporation of Ohio

No Drawing. Application November 17, 1951, Serial No. 256,952

5 Claims. (Cl. 260—21)

1. The method of producing a spherical pigment which consists in preparing a water-in-oil emulsion by dispersing a colored aqueous solution of a thermosetting aminoplast resin which is a condensate between formaldehyde and a member of the group consisting of urea, biuret, thiourea, cyanuric acid, guanidine, guanyl urea, cyanuramide and dicyandiamide, into a volatile, water-immiscible organic solvent, heating the emulsion while stirring to insolubilize the aminoplast resin the form of dispersed particles and to incorporate the coloring matter therein, separating the said particles from the liquid media and drying them to a free flowing product.

2,776,268

LEATHER PASTE POLISH CONTAINING WAX AND A MONOGLYCERIDE

Elliott Morrill and Richard G. Landwerlen, Indianapolis, Ind., assignors to The Best Foods, Inc., New York, N. Y., a corporation of New Jersey

No Drawing. Application October 18, 1952, Serial No. 315,582

10 Claims. (Cl. 260—23)

1. A wax paste polish comprising about 20 to about 30% of a mixture of waxes, said wax mixture containing about 30 to about 45% mineral waxes, a hydrocarbon solvent, about 1 to about 5% of an acid ester of a polyhydric alcohol containing at least two free hydroxyl groups in the alcohol residue thereof and a fatty acid containing at least 12 carbon atoms and about 2 to about 15% of a thermoplastic synthetic resin soluble in said hydrocarbon solvent and selected from the group consisting of beta pinene resins, terpene phenolic resins, coumarone-indene resins and polystyrene resins.

2,776,269

SELF-CURING SYNTHETIC RUBBER

Herbert E. Pleuss, Manitowoc, Wis., assignor to Heresite & Chemical Company, a corporation of Wisconsin

No Drawing. Application December 19, 1952, Serial No. 327,047

4 Claims. (Cl. 260—23.7)

1. A sheet of synthetic rubber comprising a copolymer of from 1 to 9 parts by weight of butadiene, and one part by weight of a material copolymerizable therewith of the class consisting of styrene and acrylonitrile, each 100 parts by weight of said copolymer being mixed with a pigment, a vulcanizer, a plasticizer, an activator, and an accelerator in such proportions as to render the sheet soft and plastic and having the property of being self-curing at room temperature within about 14 days, said proportions being within the ranges of 100 to 150 parts by weight of a pigment, 2 to 20 parts by weight of a plasticizer, 1 to 5 parts by weight of an activator and 12 to 24 parts by weight of a combination of a vulcanizer and an accelerator with at least 14% by weight of the combination being a vulcanizer and at least 33% by weight of the combination being an accelerator.

714 O. G.—9

2,776,270

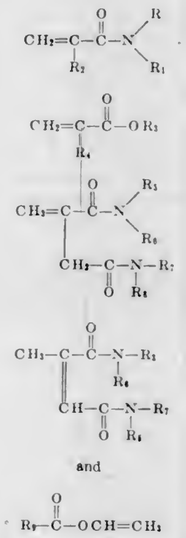
MIXTURES COMPRISING ACRYLONITRILE POLYMERS WITH POLYACRYLONITRILE

Harry W. Coover, Jr., and Joseph B. Dickey, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application October 21, 1952, Serial No. 316,054

18 Claims. (Cl. 260—32.6)

1. A resinous composition comprising a mixture of from 5 to 95 parts by weight of polyacrylonitrile and from 95 to 5 parts by weight of a preformed acrylonitrile polymer obtained by heating in the presence of a polymerization catalyst an aqueous dispersion of monomer selected from the group consisting of those represented by the following general formulas:



and

wherein R and R_1 each represents a member selected from the group consisting of a hydrogen atom and an alkyl group containing from 1 to 4 carbon atoms, R_2 represents a member selected from the group consisting of a hydrogen atom and a methyl group, R_3 represents an alkyl group containing from 1 to 4 carbon atoms, R_4 represents a member selected from the group consisting of a hydrogen atom, a methyl group, an acylamino group, wherein the acyl group is the acyl group of a saturated aliphatic carboxylic acid containing from 2 to 4 carbon atoms and a carbalkoxylamino group wherein the alkoxyl group contains from 1 to 4 carbon atoms, R_5, R_6, R_7 and R_8 each represents a member selected from the group consisting of a hydrogen atom, a methyl group and an ethyl group, and R_9 represents a member selected from the group consisting of a hydrogen atom and an alkyl group containing from 1 to 3 carbon atoms, until the monomer has substantially completely homopolymerized, adding to the polymerization reaction mixture containing said homopolymerized monomer from 5 to 95 percent by weight of acrylonitrile, based on the combined weights of the other monomer and acrylonitrile, and heating the reaction mixture until the acrylonitrile has substantially polymerized.

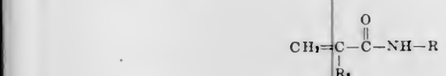
2,776,271

MIXTURES COMPRISING ACRYLONITRILE POLYMERS CONTAINING ALKENYL CARBONAMIDES AND POLYACRYLONITRILE

Harry W. Coover, Jr., and Joseph B. Dickey, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application October 21, 1952, Serial No. 316,051
4 Claims. (Cl. 260—45.5)

1. A mixture consisting of (1) from 5 to 95 parts by weight of a graft copolymer consisting of from 5 to 95% by weight of acrylonitrile and from 95 to 5% by weight of a preformed isolated polymer selected from the group consisting of a homopolymer of an unsaturated amide compound represented by the following general formula:



wherein R represents an alkyl group containing from 1 to 4 carbon atoms and R_2 represents a member selected from the group consisting of a hydrogen atom and a methyl group, and an interpolymer consisting of from 25 to 95% by weight of the said unsaturated amide compound and 75 to 5% by weight of acrylonitrile and (2) from 95 to 5 parts by weight of polyacrylonitrile, the total weight of acrylonitrile in the said mixture being at least 60% and the weight of the said preformed isolated polymer in the said mixture being at least 5%.

2,776,272

FURFURAL-KETONE COMPOSITIONS OF MATTER AND METHODS OF MAKING SAME

Mortimer T. Harvey, South Orange, N. J., assignor to Harvel Research Corporation, a corporation of New Jersey

No Drawing. Application April 1, 1952, Serial No. 279,919
10 Claims. (Cl. 260—45.5)

1. A composition of matter comprising (I) styrene intimately combined with (II) an organic reaction product being liquid at 100° C. and selected from the group consisting of (*a*) monofurfurylidene-ketone, (*b*) difurfurylidene-ketone, (*c*) organic reaction masses produced by reacting under alkaline conditions furfuraldehyde and a ketone having two hydrogen atoms on an alpha carbon, said organic reaction masses having a viscosity of at least 50 cps. at 25° C., (*d*) residual fractions of (*c*) produced by the heat distillation of (*c*) and measuring at least 60% by weight of (*c*), and (*e*) polymerized products (*a*)–(*d*) produced by polymerizing (*a*)–(*d*) under acidic conditions.

2,776,273

COPOLYMERIZATION OF VINYL CHLORIDE AND VINYLIDENE CHLORIDE WITH MIXED AZO-INORGANIC PEROXIDE CATALYST

Antoine P. Richard, Villeurbanne, France, assignor to Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny & Cirey, Paris, France

No Drawing. Application June 2, 1952, Serial No. 291,335
Claims priority, application France June 4, 1951
9 Claims. (Cl. 260—87.7)

1. A process of producing copolymers of vinyl chloride and vinylidine chloride which comprises forming an aqueous emulsion of vinyl chloride, vinylidine chloride, and a plurality of catalysts, one said catalyst being an azo polymerization catalyst and another said catalyst an inorganic peroxide catalyst.

2,776,274

POLYETHYLENE REFINING

Robert E. Cairns, Springfield, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application January 22, 1954, Serial No. 405,651
3 Claims. (Cl. 260—94.9)

1. A process for refining polyethylene which comprises subjecting polyethylene to intensive mixing in an enclosed chamber under positive pressure, said mixing action being applied by a plurality of, spirally shaped rotating members which turn at different peripheral speeds, said intensive mixing being restricted to the following cycle: (1) mixing the polyethylene at 20 to 30 p. s. i. for no more than 2 minutes with the faster rotating member revolving at a peripheral speed of 200 to 285 feet per minute, (2) continuing the mixing at no more than 5 p. s. i. and a peripheral speed of the faster rotating member of 200 to 285 feet per minute, the rotating members and the walls of the enclosed chamber being cooled throughout the mixing cycle by circulation of water at a temperature of 35 to 80° F. therethrough, the entire cycle having a duration of at least 5 minutes, said process resulting in a substantially complete removal of fisheyes from the polyethylene.

2,776,275

ROSIN AND ROSIN SIZE STABILIZED AGAINST CRYSTALLIZATION

Edward Strazdins, Stamford, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application August 2, 1955, Serial No. 526,071
18 Claims. (Cl. 260—97.5)

1. A rosin stabilized against crystallization by a uniformly distributed small amount of the condensation product of a rosin with a saligenin, said saligenin being an aryl compound carrying a hydroxy group and a hydroxymethyl group in adjacent position.

2,776,276

ROSIN HYDROGENATION

Arthur L. Glasebrook, Alfred N. Hoffmann, and James B. Montgomery, Wilmington, Del., assignors to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 18, 1953, Serial No. 375,068
20 Claims. (Cl. 260—100)

1. The process which comprises subjecting a material containing a compound selected from the group consisting of rosin acids, esters of rosin acids, alcohols produced by the reduction of the carboxyl group of a rosin acid, and esters of said alcohols to treatment with hydrogen at a temperature of from about 125° C. to about 300° C. and a pressure of at least 3000 p. s. i. g. in the presence of a noble metal catalyst selected from the group consisting of palladium, rhodium, and ruthenium and continuing the treatment with hydrogen until a substantially completely hydrogenated product is produced.

2,776,277

DIELS-ALDER REACTION

Gerald I. Keim, Oxford, Pa., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application June 29, 1953, Serial No. 364,911
5 Claims. (Cl. 260—101)

1. In the process of forming a Diels-Alder reaction product of a rosin and a compound selected from the group consisting of maleic acid and maleic anhydride, the

improvement which comprises acid isomerizing the rosin to a negative specific rotation $[\alpha]_D^{24°}$ of at least −15° before formation of the Diels-Alder product.

2,776,278

METHOD OF CITRUS OIL PRODUCTION

Jack P. Birds, North Hollywood, Calif., assignor to General Foods Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application April 29, 1953, Serial No. 352,047
6 Claims. (Cl. 260—236.6)

1. In a process of recovering citrus oils from the aqueous emulsion resulting from the pressing and washing of citrus peel material, the improvement which comprises adding a surface active agent selected from the group consisting of an alkyl aryl sulfonate and an alkyl alkali metal sulfosuccinate to the emulsion prior to separating the citrus oil by mechanical means.

2,776,279

BENZIMIDAZOLE-PENICILLIN SALT

Heinrich Mückter and Erich Jansen, Stolberg, Germany, assignors to Chemie Gruenenthal G. m. b. H., Stolberg, Germany, a corporation of Germany

No Drawing. Application January 14, 1954, Serial No. 404,131
2 Claims. (Cl. 260—239.1)

1. The new substantially water insoluble penicillin salt of 1-p-chloro benzyl-2-N-pyrrolidyl methyl benzimidazole, said salt, on administration, exhibiting prolonged penicillin action and being readily tolerated.

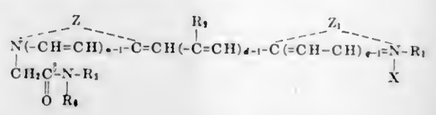
2,776,280

OPTICAL SENSITIZING DYES CONTAINING A N-CARBAMYLMETHYL GROUP

Leslie G. S. Brooker and Donald W. Heseltine, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application October 14, 1954, Serial No. 462,392
12 Claims. (Cl. 260—240.6)

1. A compound selected from those represented by the following general formula:



wherein R_1 represents an alkyl group containing from 1 to 7 carbon atoms, R_2, R_5 and R_6 each represents a member selected from the group consisting of a hydrogen atom and a lower alkyl group, X represents an acid radical *d*, *n*, and *q* each represents a positive integer of from 1 to 2, and Z and Z_1 each represents the nonmetallic atoms necessary to complete a heterocyclic nucleus, said heterocyclic nucleus being selected from the group consisting of those of the thiazole series, those of the benzothiazole series, those of the naphthothiazole series, of those of the thianaphtheno-7′,6′,4,5-thiazole series, those of the oxazole series, those of the benzoxazole series, those of the naphthoxazole series, those of the selenazole series, those of the benzoselenazole series, those of the naphthoselenazole series, those of the thiazoline series, those of the 2-quinoline series, those of the 1-isoquinoline series, those of the 3-isoquinoline series, those of the 3,3-dialkylindolenine series, those of the 2-pyridine series and those of the 4-pyridine series.

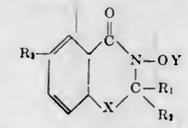
2,776,281

CERTAIN DIHYDRO-BENZOXAZINE-ONES AND DIHYDRO BENZOTHIAZINE-ONES AND PROCESS

William B. Wright, Jr., Woodcliff Lake, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application January 30, 1956, Serial No. 561,999
12 Claims. (Cl. 260—244)

1. A compound having the formula



in which X is a member of the group consisting of oxygen and sulfur radicals, Y is a member of the group consisting of hydrogen and lower alkyl radicals, R_1 is hydrogen, R_2 is a member of the group consisting of lower alkyl, phenyl, monohalophenyl and monohydroxyphenyl radicals, R_1 and R_2 taken together form a member of the group consisting of tetramethylene, pentamethylene, hexamethylene and monolower alkyl-substituted-pentamethylene radicals and R_3 is a member of the group consisting of hydrogen, hydroxyl and halogen radicals.

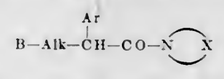
2,776,282

CYCLIC AMIDES OF α-TOLUIC ACIDS AND DERIVATIVES THEREOF

John W. Cusic, Skokie, Ill., assignor, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware

No Drawing. Application May 4, 1954, Serial No. 427,647
11 Claims. (Cl. 260—247.2)

1. A compound of the structural formula



wherein Ar is a monocyclic aryl hydrocarbon radical containing 6 to 9 carbon atoms, Alk is a lower alkylene radical, B is a member of the class consisting of amino, lower alkylamino, di-(lower)alkylamino, pyrrolidino, piperidino, and morpholino radicals and X is a member of the class consisting of the $-CH_2CH_2-O-CH_2CH_2-$ radical and lower alkylene radicals containing 4 to 7 carbon atoms of which at least 4 and no more than 5 are in nuclear position.

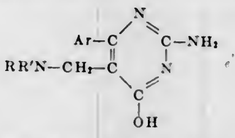
2,776,283

5-DIALKYLAMINOMETHYL AND 5-HETEROCYCLYLMETHYL SUBSTITUTED 2-AMINO-6-ARYL-4-PYRIMIDOL DERIVATIVES

Kurt J. Rorig, Evanston, Ill., assignor, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware

No Drawing. Application June 1, 1954, Serial No. 433,810
12 Claims. (Cl. 260—247.5)

7. A compound of the structural formula

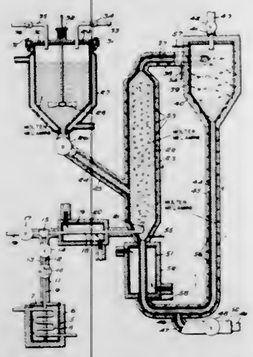


wherein Ar is an aryl hydrocarbon radical containing 6–9 carbon atoms and RR′N is a member of the class consisting of di-(lower)alkylamino, morpholino, pyrrolidino, and piperidino radicals.

2,776,284
APPARATUS AND METHOD FOR PRODUCING MELAMINE

Ralph S. Hood, Marblehead, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

Application September 27, 1952, Serial No. 311,853
8 Claims. (Cl. 260—249.7)



1. A process for the continuous production of melamine which comprises continuously injecting molten urea into molten melamine in the bottom portion of a vertically arranged pressure-resistant reaction vessel, which molten melamine is continuously flowing in a substantially vertical direction, to form a vertically rising suspension of urea in melamine in which suspension said urea and intermediate products derived therefrom are out of contact with the walls of said reaction vessel, said melamine being at a temperature above 400° C. to maintain the resulting suspension in a fluid state and to convert said urea to molten melamine within said reaction vessel, whereby the injected urea is substantially all converted to melamine and gaseous by-products which form bubbles in said molten melamine, allowing the rising stream of molten melamine to overflow continuously from the top portion of said reaction vessel, continuously separating the non-dissolved gaseous by-products from the overflowing molten melamine, allowing the resulting molten melamine to flow continuously downwardly to a level below said vessel and thence upwardly to the bottom portion of said reaction vessel, continuously removing a portion of the molten melamine before it reaches said reaction vessel, continuously supplying heat to the remainder of the molten melamine just prior to its entrance into the bottom portion of said reaction vessel to raise the temperature of the molten melamine above 400° C., this being the sole source of heat for the molten melamine in said reaction vessel, and continuously maintaining the pressure on the molten melamine above 2000 pounds per square inch absolute by controlling the amount of gaseous by-products released.

2,776,285
PRODUCTION OF MELAMINE

Colver P. Dyer, Winchester, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application September 26, 1955, Serial No. 536,749
9 Claims. (Cl. 260—249.7)

1. A continuous process of producing melamine which comprises continuously injecting molten urea into molten melamine which is at a temperature between about 370 and 550° C. in a pressure-resistant stainless steel vessel at a pressure between about 700 and 10,000 pounds per square inch, with the lower pressures corresponding to the lower temperatures of the molten melamine, said molten urea being injected at a rate sufficient to form a suspension thereof in the molten melamine in which suspension the molten urea is out of contact with the walls of said vessel and does not exceed 20% by weight of the total mass in said vessel, continuously maintaining said molten urea and intermediate products formed therefrom suspended in said molten melamine and out of contact with the walls of said vessel until said urea and intermediate products are converted to melamine and gaseous by-products, continuously removing a portion of the molten melamine from said vessel while retaining in said vessel a suspension of molten urea in molten melamine in which suspension the molten urea and intermediate products derived from urea do not exceed 20% by weight of the total mass in said vessel, and continuously maintaining the pressure in said vessel between about 700 and 10,000 pounds per square inch, with the lower pressures corresponding to the lower temperatures of the molten melamine, by controlling the amount of gaseous products released from said vessel.

2,776,286
PRODUCTION OF MELAMINE

Alban J. Lobdell, Wakefield, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application September 26, 1955, Serial No. 536,750
12 Claims. (Cl. 260—249.7)

1. A continuous process of producing melamine which comprises continuously mixing molten urea and molten melamine which is at a temperature of 380 to 600° C. in a non-precious metal pressure-resistant vessel at a superatmospheric pressure of at least 1000 pounds per square inch, which vessel is corroded by urea and intermediate products derived from urea but is not appreciably corroded by molten melamine at said temperatures, while preventing appreciable vaporization and deamination of said molten melamine, to form a fluid suspension containing less than 30% by weight of urea and intermediate products derived from urea, in which suspension said urea and intermediate products are out of contact with the walls of said vessel, said molten melamine being the sole source of heat for converting said urea to melamine, maintaining said urea and intermediate products suspended in said molten melamine and out of contact with the walls of said vessel until they are converted to melamine and gaseous by-products, removing molten melamine from said vessel while retaining in said vessel a fluid suspension containing less than 30% by weight of said urea and intermediate products, isolating a portion of the molten melamine thus removed, heating at least a major portion of the molten melamine removed from said vessel to a temperature of from 380 to 600° C. while preventing appreciable deamination of said molten melamine, recycling the molten melamine thus heated to said vessel for admixture with molten urea according to the first step of the process defined herein and maintaining the molten melamine in the liquid state at a superatmospheric pressure of at least 1000 pounds per square inch while preventing appreciable deamination thereof.

2,776,287
PROCESS FOR THE PREPARATION OF THERAPEUTIC COMPOUNDS

Kurt Ladenburg, Yorktown Heights, Bernard F. Duesel, Yonkers, and Theodore I. Fand, White Plains, N. Y., assignors to Nepera Chemical Co., Inc., Yonkers, N. Y., a corporation of New York

No Drawing. Application February 2, 1954, Serial No. 407,816
11 Claims. (Cl. 260—256)

1. Process for forming the condensation product of choline with a di-lower alkyl-xanthine, which comprises reacting a di-lower alkyl-xanthine in a solvent medium with choline bicarbonate, decomposing said choline bicarbonate, causing the di-lower alkyl-xanthine to condense with the free choline formed, and separating the condensation product from the solvent medium.

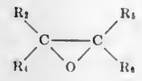
2,776,288
DIALKYLXANTHINE COMPOUNDS

Theodore I. Fand, White Plains, and Frederick Vidal, Yonkers, N. Y., assignors to Nepera Chemical Co., Inc., Yonkers, N. Y., a corporation of New York

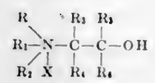
No Drawing. Application March 29, 1954, Serial No. 419,592
12 Claims. (Cl. 260—256)

1. Process for the production of chemical compounds, which comprises reacting a dialkylxanthine of the group consisting of dialkylxanthines and 8-substituted dialkylxanthines in which the 8-substituent is selected from the group consisting of nitro, chloro and bromo groups and in which the alkyl groups contain one to two carbon atoms with a tertiary alkyl amine of the formula

wherein R, R_1 and R_2 are each an alkyl group containing one to four carbon atoms, and an epoxy compound of the formula



wherein R_3, R_4, R_5 and R_6 are the same or different substituents selected from the group consisting of hydrogen and alkyl groups containing one to three carbon atoms and separating a product of the formula



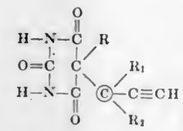
wherein X is a dialkylxanthine radical and the remaining substituents have the significance above.

2,776,289
BARBITURIC ACIDS AND SALTS THEREOF

Fernanda Misani Fiordalisi, East Orange, N. J., assignor to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York

No Drawing. Application January 25, 1955, Serial No. 484,070
6 Claims. (Cl. 260—257)

1. Hypnotic and sedative compounds selected from the group consisting of compounds represented by the formula



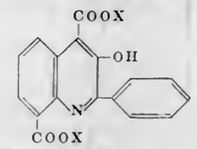
wherein each of R_1 and R_2 is a radical selected from the group consisting of methyl and ethyl, and the pharmaceutically useful salts thereof.

2,776,290
HYDROXY CINCHONINATES AND CARBOXYLIC ACID DERIVATIVES THEREOF

Frank J. Kreysa, Richmond Hill, N. Y., assignor to Chemo Puro Manufacturing Corporation, Long Island City, N. Y., a corporation of New York

No Drawing. Original application October 30, 1952, Serial No. 317,820. Divided and this application December 16, 1953, Serial No. 405,232
6 Claims. (Cl. 260—270)

1. An antidiuretic having the structural formula:



wherein X is selected from the group consisting of Me, Et, Pr, Bu and Ag.

2,776,291
METHOD OF STABILIZING LAURYL PYRIDINIUM HYDROCHLORIDE

Frank X. Russo, Bronx, N. Y., assignor to Vitogen Products, Inc., New York, N. Y., a corporation of New York

No Drawing. Application October 25, 1954, Serial No. 464,197
8 Claims. (Cl. 260—290)

1. A method of purifying and clarifying a cloudy aqueous solution of crude lauryl pyridinium chloride containing lauryl alcohol, lauryl chloride and pyridinium chloride impurities, which when dissolved in water provides a turbid solution comprising dissolving said crude lauryl-pyridinium chloride in water, treating the water solution of said crude pyridinium chloride under agitation with a water-soluble protein in an amount sufficient to remove the turbidity, said protein being added to the surface of said solution to form a precipitate in the form of lumps which settle to the bottom and which remove the cloudiness in said crude solution, the amount of said protein being added being such as will remove the impurities causing said cloudiness to the bottom, and separating the clarified water solution of lauryl pyridinium chloride from the precipitated protein.

2,776,292
SEPARATION OF MIXTURES OF COMPOUNDS BY MEANS OF METAL BENZENE SULFONATES

Richard M. Barrer, Aberdeen, Scotland, assignor to Union Carbide and Carbon Corporation, a corporation of New York

No Drawing. Application January 19, 1953, Serial No. 332,075
6 Claims. (Cl. 260—290)

1. Method of separating a member of the group consisting of thiophene, pyridine, p-dioxane, ethylamine and ammonia from a mixture thereof with a hydrocarbon selected from the class consisting of benzene and cyclohexane which comprises contacting the mixture with a dehydrated metal benzene sulfonate where the metal is an alkali metal of group 1 of the periodic table having an atomic weight of at least 39.

2,776,293
IMPROVED HYDROGENATION PROCESS

Joseph Levy, Union, and George A. Bernotsky, Newark, N. J., assignors to Nopco Chemical Company, Harrison, N. J., a corporation of New Jersey

No Drawing. Application August 9, 1950, Serial No. 178,549
18 Claims. (Cl. 260—293.2)

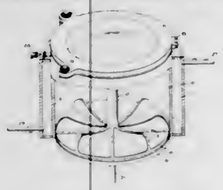
1. A process for the hydrogenation of a nitrogen-substituted piperidone compound, the substituted group of

which is selected from the class consisting of alkyl, cycloalkyl, aralkyl, and aryl, to the corresponding piperidinol compound which comprises dissolving the piperidone in a hydrocarbon solvent selected from the group consisting of aromatic hydrocarbon solvents and saturated aliphatic hydrocarbon solvents and hydrogenating the said nitrogen-substituted piperidone in the presence of at least about one part of Raney nickel catalyst for each four parts of the piperidone, said hydrogenation being effected at about room temperature and under a hydrogen pressure of from about 2 to about 20 atmospheres.

2,776,294
TROPIC ACID N-(γ-PICOLYL)-AMIDE
Gérald Rey-Bellet and Hans Spiegelberg, Basel, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey
No Drawing. Application January 24, 1955, Serial No. 483,812
Claims priority, application Switzerland March 5, 1954
The portion of the term of the patent subsequent to December 6, 1972, has been disclaimed
2 Claims. (Cl. 260—295)

1. A compound selected from the group consisting of tropic acid-N-(γ-picolyl)-amide and its acid addition salts.

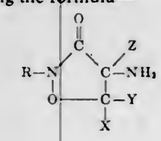
2,776,295
SYNTHETIC RUBBER PASTE LATICES
John E. Wicklatz, Bartlesville, Okla., and Thomas J. Kennedy, Borger, Tex., assignors to Phillips Petroleum Company, a corporation of Delaware
Application October 26, 1951, Serial No. 253,342
24 Claims. (Cl. 260—29.7)



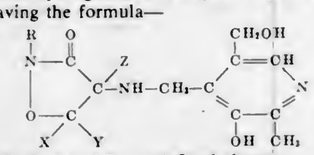
1. In the production of a synthetic rubber latex by the polymerization in aqueous emulsion of a monomeric material comprising a conjugated diene, the improvement comprising maintaing from 15 to not more than 40 parts by weight of water in said emulsion per 100 parts by weight of said monomeric material charged, whereby a synthetic rubber paste latex is formed, said paste latex having a solids content of at least 70 weight percent and being suitable for vulcanization without requiring process steps for first effecting coagulation of same to produce polymer crumb with subsequent separation and drying of said crumb, and recovering synthetic rubber paste latex thus formed as a product of the process.

2,776,296
4-PYRIDOXYLAMINO-3-ISOXAZOLIDONE COMPOUNDS
Karl Folkers, Plainfield, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey
No Drawing. Application May 3, 1955, Serial No. 505,829
15 Claims. (Cl. 260—297)

1. A process which comprises reacting pyridoxal with a compound having the formula—



wherein X, Y, Z and R are selected from the group consisting of hydrogen and hydrocarbon groups containing less than nine carbon atoms to produce the corresponding pyridoxylidene compound and treating this product with hydrogen in the presence of a hydrogenation catalyst selected from the group consisting of Raney nickel and noble metal hydrogenation catalysts to produce a compound having the formula—



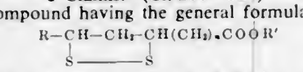
wherein X, Y, Z and R are defined above.

2,776,297
PROCESS FOR N,N-DIISOPROPYLBENZOTHIAZOLE-2-SULFENAMIDE
Herman Cherlow, North Plainfield, and Robert H. Ebel, Plainfield, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application November 30, 1955, Serial No. 550,194
7 Claims. (Cl. 260—306.6)

1. A process for preparing N,N-diisopropylbenzothiazole-2-sulfenamide which comprises: bringing together a water-soluble salt of 2-mercaptobenzothiazole and about a chemically equivalent amount of preformed N-chlordiisopropylamine in an aqueous reaction medium; said reaction medium also having present therein diisopropylamine; the pH of said reaction medium being about 11.0–13.0, said pH range being maintained until reaction of said salt of 2-mercaptobenzothiazole and said N-chlordiisopropylamine is complete; and recovering N,N-diisopropylbenzothiazole-2-sulfenamide from the reaction mixture.

2,776,298
SUBSTITUTED DITHIOLANYL ALIPHATIC ACIDS AND DERIVATIVES
Milon W. Bullock, Pearl River, N. Y., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application January 24, 1955, Serial No. 483,830
3 Claims. (Cl. 260—327)

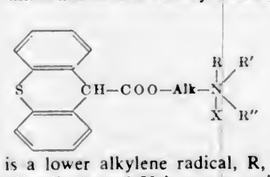
1. A compound having the general formula:



in which R is a lower alkyl radical, R′ is a member of the group consisting of hydrogen, lower alkyl and alkali metal radicals and *n* is a whole integer of 2 to 6.

2,776,299
QUATERNARY AMMONIUM SALTS OF DIALKYLAMINOALKYL ESTERS OF THIAXANTHENE-10-CARBOXYLIC ACID
John W. Cusic, Skokie, and Richard A. Robinson, Morton Grove, Ill., assignors, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware
No Drawing. Application July 2, 1954, Serial No. 441,177
2 Claims. (Cl. 260—328)

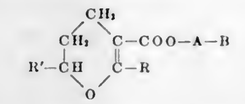
1. A quarternary ammonium salt of a dialkylaminoalkyl ester of thiaxanthene-10-carboxylic acid, having the formula



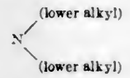
wherein Alk is a lower alkylene radical, R, R′ and R″ are lower alkyl radicals and X is a non-toxic anion.

2,776,300
BASIC ESTERS OF SUBSTITUTED 3,4-DIHYDRO-1,2-PYRAN-5-CARBOXYLIC ACIDS AND SALTS THEREOF
William W. Jenkins, Wilmette, Ill., assignor, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware
No Drawing. Application August 31, 1951, Serial No. 244,711
15 Claims. (Cl. 260—345.8)

1. A compound selected from the group consisting of those having the structural formula



the acid addition salts thereof, and the quaternary ammonium salts thereof, wherein A is a lower alkylene radical; B is selected from the group consisting of



1-piperidyl, 1-pyrrolidyl, and 4-morpholinyl; R′ is selected from the group consisting of hydrogen and lower alkyl; and R is selected from the group consisting of lower alkyl and monocyclic aryl.

2,776,301
OXIDATION WITH PEROXIDES
George B. Payne and Curtis W. Smith, Berkeley, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application August 17, 1954, Serial No. 450,551
13 Claims. (Cl. 260—348.5)

1. In a process of oxidizing an ethylenic compound of 3 to 18 carbon atoms per molecule having not more than two ethylenic double bonds in the molecule by reaction in the liquid phase with a peroxide oxidizing agent of the group consisting of hydrogen peroxide and peroxycarboxylic acids to form a product of the group consisting of epoxidation and hydroxylation products, the improvement which comprises intimately contacting said ethylenic compound with an adsorptive solid of the group consisting of adsorptive alumina, silica gel, magnesia gel, zirconia gel, adsorptive clay, activated carbon and animal charcoal having more than 30% porosity on a void-free basis attributable to pores of less than 0.030 millimeter in diameter, prior to mixing said ethylenic compound with said peroxide oxidizing agent to effect said oxidation.

2,776,302
STEROIDS AND THEIR PRODUCTION
Leopold Ruzicka, Zurich, and Andor Fuerst, Basel, Switzerland, assignors to Ciba Pharmaceutical Products, Inc., Summit, N. J.
No Drawing. Application August 11, 1953, Serial No. 373,664
Claims priority, application Switzerland September 18, 1952
11 Claims. (Cl. 260—397.1)

6. 11β-acyloxy-12α-sulfonyloxy-cholanic acid alkyl esters wherein the acyloxy radical is a member selected from the group consisting of lower aliphatic hydrocarbon carbonyloxy and halogenated lower hydrocarbon carbonyloxy radicals and the sulfonyloxy radical is a member of the group consisting of lower aliphatic sulfonyloxy and monocyclic carbocyclic aromatic sulfonyloxy radicals.

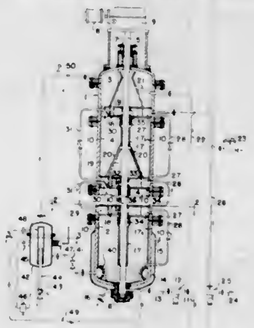
2,776,303
PROCESS FOR THE MANUFACTURE OF ISOERGOSTERONE
Joseph Green, London, Anthony Fenwick Daglish, Reigate, and Victor David Poole, West Green, Crawley, England, assignors to Vitamins Limited, London, England, a British company
No Drawing. Application October 6, 1954, Serial No. 460,768
Claims priority, application Great Britain October 28, 1953
6 Claims. (Cl. 260—397.2)

1. A process for the manufacture of isoergosterone which comprises subjecting an ergosterone enol ester of an aliphatic carboxylic acid containing not more than three carbon atoms in the molecule to hydrolysis by treatment with sulphuric acid dissolved in an alkanol containing less than five carbon atoms in the molecule.

2,776,304
STEROL DEHYDROHALOGENATION PROCESS
Howard C. Klein, Brooklyn, N. Y., and Roland Kapp, Newark, N. J., assignors to Nopco Chemical Company, Harrison, N. J., a corporation of New Jersey
No Drawing. Application November 30, 1953, Serial No. 395,270
18 Claims. (Cl. 260—397.2)

1. In a process for producing a 7-dehydrosterol, the step which comprises reacting an alkali metal silicate with a sterol derivative from the group consisting of sterol esters and sterol ethers which have a double bond between the 5 carbon atom and the 6 carbon atom and which have a halogen atom attached to the 7 carbon atom, the reaction being carried out by heating the silicate compound and the halogenated sterol compound in an inert solvent at a temperature of not less than about 80° C.

2,776,305
PROCESS FOR CARRYING OUT INTERACTIONS OF LIQUIDS WITH EACH OTHER
Lojo Habicht, Hamburg, Germany
Application April 28, 1950, Serial No. 158,851
15 Claims. (Cl. 260—415)



1. The process of interacting two liquids of different specific gravities which at most are only partially miscible which comprises rapidly rotating a mass containing both liquids around a vertical axis in an annular chamber filled therewith whereby the mass is in the form of a somewhat cylindrical body with the heavier liquid filling an outer zone and the lighter liquid filling an inner zone thereof, there being a somewhat cylindrical interface between said heavier and lighter liquids, introducing heavier liquid into the inner cylindrical surface of said liquid body at a plurality of locations so that it passes in dispersed form through the body of lighter liquid into the body of heavier liquid by centrifugal force, withdrawing a mixture of heavier and lighter liquid from the

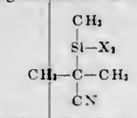
body across said interface, the rate of withdrawal of the heavier liquid in said mixture corresponding to said rate of introduction of heavier liquid, separating said mixture into heavier and lighter liquds, returnng said separated lighter liquid to said rotating mass, introducing lighter liquid into said liquid body adjacent to the bottom thereof, withdrawing lighter liquid from the top of the body thereof in said inner zone, withdrawing a stream of heavier liquid from the outer zone and reintroducing it into said mass at a plurality of locations on the inner cylindrical surface of the lighter liquid so that it passes in dispersed form through the lighter liquid in the inner zone into the heavier liquid in the outer zone by centrifugal force.

2,776,306
CYANOISOPROPYLSILANES

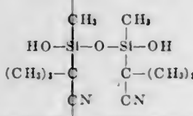
Quintin P. Cole, Pittsfield, Mass., assignor to General Electric Company, a corporation of New York

No Drawing. Application December 31, 1953, Serial No. 401,690
5 Claims. (Cl. 260—448.2)

1. A composition of matter selected from the class consisting of (1) organosilanes having the formula:



and (2) a methyl alpha cyanoisopropylsilane having the formula:



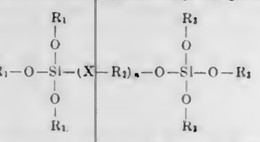
where X is a hydrolyzable group selected from the class consisting of halogens and alkoxy radicals of the formula —OR where R is a lower alkyl radical.

2,776,307
POLYGLYCOL SILICATES

Andrew D. Abbott, Ross, and Robert O. Bolt, San Rafael, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application December 30, 1953, Serial No. 401,402
11 Claims. (Cl. 260—448.8)

1. Silicon esters of the type having the general formula



where X represents a member selected from the group consisting of —O—, —S—, —NH— and —NR_4— where R_4 is a lower alkyl group; the R_1's and R_3's are saturated aliphatic radicals of from 1 to 18 carbon atoms each; R_2 represents a member selected from the group consisting of the ethylene and propylene radicals; and n is an integer having a value of from 2 to 4.

2,776,308
OXIDATION OF WAXY HYDROCARBONS WITH PREPARATION OF CATALYST IN SITU

John Walter Nelson, Lansing, Ill., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine

No Drawing. Application February 16, 1954, Serial No. 410,710
11 Claims. (Cl. 260—451)

1. In the oxidation of waxy petroleum fractions in the presence of a manganese and alkali metal containing oxidation catalyst, the method of preparing the catalyst in situ which comprises adding a solution of the catalyst in a solvent to the waxy petroleum fraction while maintaining the fraction at a temperature substantially above the boiling point of the solvent to flash off solvent as it is added.

2,776,309
FOOTS OIL OXIDATE COMPOSITION

John Walter Nelson, Lansing, Ill., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine

No Drawing. Application February 16, 1954, Serial No. 410,709
6 Claims. (Cl. 260—451)

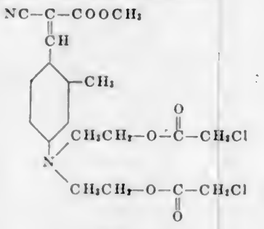
1. As a novel composition of matter, an oxidate of a foots oil fraction selected from the group consisting of foots oil fractions obtained by the solvent deoiling of wax and foots oil fractions obtained from the sweating of wax, said foots oil fraction having a melting point within the range of about 80 to 120° F., an oil content of about 4 to 30 percent and an API gravity of about 30 to 45, which oxidate is characterized by a melting point within the range of about 80 to 95° F., an API gravity of about 10 to 25 and a saponification number of about 200 to 325.

2,776,310
METHINE DYE AND PROCESS FOR ITS PREPARATION

James M. Straley and Ralph R. Giles, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application December 1, 1954, Serial No. 472,508
1 Claim. (Cl. 260—465)

The compound having the formula:

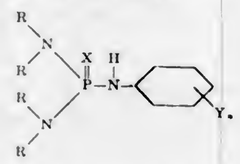


2,776,311
DIAMIDO ANILIDO PHOSPHINE OXIDES AND SULFIDES

Arthur J. Erbel, Bay City, and Eugene E. Kenaga, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application June 16, 1953, Serial No. 362,140
6 Claims. (Cl. 260—551)

1. A compound of the formula



wherein X represents a member of the group consisting of oxygen and sulfur, each R represents an alkyl radical containing from 1 to 4 carbon atoms, inclusive, each Y represents a member of the group consisting of chlorine, bromine and the alkyl radicals containing from 1 to 4 carbon atoms, inclusive and n is an integer from 1 to 5, inclusive.

2,776,312
PROCESS FOR THE MANUFACTURE OF 1-p-NITROPHENYL-2-AMINO-1,3-PROPANEDIOL OF THREO FORM

Gino Carrara, Milan, Italy

No Drawing. Application October 22, 1951, Serial No. 252,567
1 Claim. (Cl. 260—570.6)

The method of preparing 1-p-nitrophenyl-2-amino-1,3-propanediol of threo form, which comprises dissolving a mixture of the diastereoisomeric forms of 1-acetoxy-2-acetamino-3-phenyl-3-hydroxypropane in concentrated sulfuric acid, reacting the 2-methyl-4-acetoxymethyl-5-phenyloxazoline so obtained in the sulfuric acid solution with fuming nitric acid at a temperature of about −15° to +15° C. until a nitro radical is introduced in the p-position of the phenyl radical, extracting the nitrated product with a water-immiscible organic solvent, and hydrolyzing the nitrated product by heating the same with dilute hydrochloric acid to effect opening of the oxazoline ring with the production of 1-p-nitrophenyl-2-amino-1,3-propanediol of threo form.

2,776,313
PROCESS FOR MAKING N,N-DIALKYL-p-AMINOPHENOL

Gerald R. Lappin and Marshall R. Brimer, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application February 2, 1955, Serial No. 485,804
2 Claims. (Cl. 260—574)

1. The method which comprises reacting, at 40–100° C., and in the presence of Raney nickel catalyst, isobutyraldehyde containing an alkyl monocarboxylic acid and a member of the group consisting of N-propyl-p-aminophenol, N-isopropyl-p-aminophenol and N-n-butyl-p-aminophenol, in isobutanol and under hydrogen pressure of 1000–2500 p. s. i.

2. The method which comprises reacting, at 40–100° C., and in the presence of Raney nickel catalyst, crude isobutylraldehyde containing alkyl monocarboxylic acid and N-n-butyl-p-aminophenol containing about 10% by weight of N,N'-di-n-butyl-p-phenylene diamine, in isobutanol and under hydrogen pressure of 1000–2500 p. s. i.

2,776,314
METHYL FATTY TERTIARY AMINES

John G. Erickson, Minneapolis, Minn., assignor to General Mills, Inc., a corporation of Delaware

No Drawing. Application February 23, 1954, Serial No. 412,093
6 Claims. (Cl. 260—583)

1. Process of producing tertiary amines having the following formula: $R_nN(CH_3)_{3-n}$ in which R is an aliphatic hydrocarbon group containing from 8 to 22 carbon atoms and n is a positive integer not greater than 2 which comprises reacting 1 mol of the amine R_nNH_{3-n} with at least $3-n$ mols of formaldehyde and of formic acid in the presence of at least one equivalent of sulfuric acid per mol of amine.

2,776,315
PROMOTED COBALT OXIDE CATALYSTS FOR HEXAMETHYLENE DIAMINE PRODUCTION

Edward G. Jefferson, Robert C. Smith, Jr., and Alvin B. Stiles, Charleston, W. Va., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application July 8, 1953, Serial No. 366,686
5 Claims. (Cl. 260—583)

1. In the hydrogenation of adiponitrile in the liquid phase to hexamethylenediamine at temperatures within the range of 50° to 170° C. under superatmospheric pressure in the presence of a reduced cobalt oxide catalyst, the method which comprises increasing the activity of the catalyst by maintaining the content of a promoter of the class consisting of silica and titania at a controlled level within the range 0.10 to 0.50% by weight, by introducing a colloidal substance of the class consisting of colloidal silica and colloidal titania into purified aqueous cobalt nitrate solution prior to precipitating the cobalt therefrom as carbonate, thereafter washing the said carbonate with water, drying the carbonate, converting the dried carbonate to oxide at 150° C. to 500° C., pelleting the said oxide in the presence of a vegetable stearin pilling lubricant, sintering the said oxide by heating at 600° to 1200° C., cooling the sintered catalyst thus obtained, and reducing the sintered catalyst by reaction with hydrogen, whereby a catalyst of increased activity in the hydrogenation of adiponitrile to hexamethylenediamine, is obtained, and thereafter hydrogenating adiponitrile to hexamethylene diamine in the presence of the said catalyst under super-atmospheric pressure at a temperature of 50° to 170° C. in the presence of the reduced catalyst thus obtained.

2,776,316
METHOD OF OXIDIZING OLEFINS

Maynard M. Baldwin, Columbus, Ohio, assignor, by mesne assignments, to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Original application April 24, 1948, Serial No. 23,131, now Patent No. 2,688,603, dated September 7, 1954. Divided and this application December 23, 1953, Serial No. 400,142
4 Claims. (Cl. 260—604)

1. The method of oxidizing olefins which comprises passing the olefin, in the presence of oxygen, over a catalyst composed of a support and a residue formed in situ upon the support by distributing over the surface thereof copper phthalocyanine, and heating the thus coated support until the corresponding oxide of copper is formed.

2,776,317
PARTIAL OXIDATION OF HYDROCARBONS IN THE PRESENCE OF SULFUR DIOXIDE

William H. Reeder III, Olean, N. Y., assignor, by mesne assignments, to Dresser Operations, Inc., Whittier, Calif., a corporation of California

Continuation of abandoned application Serial No. 676,469, June 13, 1946. This application March 25, 1952, Serial No. 278,423
12 Claims. (Cl. 260—604)

1. The method of effecting limited oxidation of hydrocarbons with formation of oxygenated hydrocarbons which comprises reacting in vapor phase a hydrocarbon with oxygen in contact with a solid adsorptive material and in the presence of a volume of sulfur dioxide at least equal to the volume of said oxygen, while maintaining the reaction temperature in the range of about 175° to 450° C.

2,776,318
HYDROLYSIS OF METHYLAL

Louis G. Willke and Carroll G. Cullen, Barnsdall, Okla., assignors to Cities Service Oil Company, Bartlesville, Okla., a corporation of Delaware

Application February 26, 1953, Serial No. 338,968
8 Claims. (Cl. 260—606)

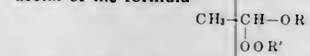
1. The process of hydrolyzing methylal including continuously passing a feed stock comprising methylal and water over an animal charcoal catalyst comprising an acid phosphate at a temperature of from about 400° F. to about 575° F., and recovering a hydrolyzate comprising methanol and formaldehyde.

2,776,319
MONOPEROXYACETALS

Walter S. Ropp, Wilmington, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 26, 1954, Serial No. 432,622
10 Claims. (Cl. 260—610)

6. As a new composition of matter a monoperoxyacetal of the formula



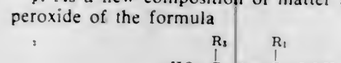
in which R and R' are hydrocarbon radicals containing no ethylenic unsaturation and containing no acetylenic unsaturation.

2,776,320
AROMATIC HYDROXY HYDROPEROXIDES

Bernard Hammond Markham Thompson, Beckenham, London, England, assignor, by mesne assignments, to Hercules Powder Company, a corporation of Delaware

No Drawing. Application March 17, 1954, Serial No. 416,964
Claims priority, application Great Britain March 28, 1953
9 Claims. (Cl. 260—610)

1. As a new composition of matter a hydroxy hydroperoxide of the formula



in which $-R_1$ is selected from the group consisting of hydrogen, alkyl and cycloalkyl, and $-R_2$, $-R_3$ and $-R_4$ are selected from the group consisting of alkyl and cycloalkyl, and Ar is a divalent aromatic nucleus in which the substituents,

and

are attached to nonadjacent carbon atoms of the aromatic nucleus.

2,776,321
MONOETHERIFICATION OF MONO-TERTIARY-BUTYL HYDROQUINONE USING A HYDROCARBON SOLVENT

Milton L. Clemens, Kingsport, Tenn., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application April 23, 1953, Serial No. 350,763
2 Claims. (Cl. 260—613)

1. In a process for oxy-alkylating a nuclearly monoalkylated dihydric phenol to form an alkoxy nuclearly monoalkylated monohydric phenol employing a dialkyl sulfate as the oxy-alkylating agent, which process is conducted under reflux conditions and under an inert atmosphere in the absence of an alkylating catalyst, the improvement which consists of oxy-alkylating mono-tertiary butylhydroquinone with a stoichiometric excess of a dialkyl sulfate having from 1 to 4 carbon atoms in each alkyl radical employing a two phase alkaline reaction medium consisting of (1) an aqueous liquid phase maintained in an alkaline condition during the course of the reaction by the introduction of an alkali metal hydroxide and (2) a non-aqueous liquid phase containing a hydrocarbon selected from the group consisting of aliphatic and aromatic hydrocarbons containing from 5 to 10 carbon atoms, whereby there is produced a substantially quantitative yield of a mixture of more than two parts of 2-tertiary-butyl-4-alkoxyphenol together with one part of 3-tertiary-butyl-4-alkoxyphenol.

2,776,322
MANUFACTURE OF BETA-NAPHTHOL

William Webster and Denis Cheselden Quin, Epsom, England, assignors, by mesne assignments, to Hercules Powder Company, a corporation of Delaware

No Drawing. Application September 27, 1949, Serial No. 118,187
Claims priority, application Great Britain October 30, 1948
3 Claims. (Cl. 260—621)

1. A process for the production of beta naphthol which comprises intimately contacting at an elevated temperature in the range of 110° to 135° C. and in the substantial absence of heavy metal oxidation catalysts beta isopropyl naphthalene in dispersion in a liquid aqueous phase at a pH of about 7.5 to 12 with molecular oxygen under increased pressure, separating the aqueous and oily phases, and intimately contacting the oily phase comprising beta isopropyl naphthalene hydroperoxide in solution in unreacted beta isopropyl naphthalene with an acidic material selected from the group consisting of mineral acids, organic acids, acid-treated activated clays, sulphonated coals, sulphonated phenol-formaldehyde resins, aluminum chloride, ferric chloride and boron trifluoride in the substantial absence of water.

2,776,323
HIGHER FATTY ALCOHOLS

William G. Toland, San Rafael, and Irving E. Levine, Berkeley, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application July 5, 1955, Serial No. 519,864
9 Claims. (Cl. 260—635)

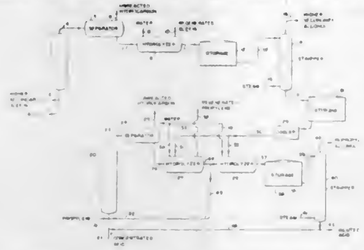
1. Process for the production of higher fatty alcohols which comprises contacting a fat with a higher fatty alcohol under transesterifying conditions in a distillation zone, withdrawing an overhead fraction comprising fatty alcohol and glycerine and a bottoms fraction comprising a higher fatty alcohol ester of a fatty acid from the distillation zone, contacting the bottoms fraction with hydrogen in the presence of a hydrogenation catalyst under hydrogenating conditions in a hydrogenation zone and passing the hydrogenation reaction product into the distillation zone together with further quantities of fat.

2,776,324
HYDROLYSIS OF ISOPROPYL ESTERS WITH ACID FROM HIGHER ALCOHOL HYDROLYSATE

Donald A. Limerick, Long Beach, Calif., and Oran L. Wylie, Jr., Jefferson Parish, La., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

Application January 11, 1955, Serial No. 481,102
12 Claims. (Cl. 260—639)

1. In a process of producing isopropyl alcohol and at least one higher secondary alcohol from the corresponding olefins by separately absorbing propylene and a higher secondary olefin in strong polybasic inorganic acid, separately hydrolyzing the resulting alkyl esters and recovering the secondary alcohols thus produced from the acid, the improvement which comprises regulating the dilution during said hydrolysis and alcohol recovery operations so as to maintain the concentration of dilute residual acid from the isopropyl alcohol production within the range of about 50% to 70% and the concentration of



the dilute residual acid from production of said higher secondary alcohol at a lower concentration, and adding sufficient of said dilute residual acid of lower concentration to said absorption product of propylene in strong acid during hydrolysis thereof to supply at least 30% of the dilution water for said hydrolysis whereby the overall concentration of residual acid obtained in the process is increased.

2,776,325
TERPENE-POLYHALOMETHANE ADDUCT

Robert H. Saunders, West Chester, Pa., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Original application December 13, 1946, Serial No. 716,187. Divided and this application March 15, 1955, Serial No. 494,575
4 Claims. (Cl. 260—648)

1. The process of preparing a terpene-polyhalomethane adduct which comprises heating a monocyclic terpene with a polyhalomethane in the presence of an organic peroxide catalyst.

2,776,326
NON-CATALYTIC DEMETHYLATION OF TOLUENE

Abraham Schneider, Philadelphia, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

No Drawing. Application March 26, 1954, Serial No. 419,088
11 Claims. (Cl. 260—672)

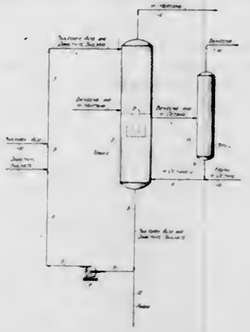
7. Process for the demethylation of a methyl substituted aromatic hydrocarbon which comprises heating, at a pressure of from 75 to 700 p. s. i. g. in the absence of catalytic materials, a reaction mixture consisting of said aromatic hydrocarbon and an acyclic hydrocarbon having from 2 to 5 carbon atoms to within the temperature range of from 500° C. to 800° C., wherein the mole ratio of acyclic hydrocarbon to said aromatic hydrocarbon is from 0.5:1 to 20:1, whereby said aromatic dehydrocarbon is demethylated.

2,776,327
SOLVENT EXTRACTION OF AROMATIC HYDROCARBONS AND SOLVENT THEREFOR

Alfred W. Francis, Woodbury, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

Application March 19, 1953, Serial No. 343,389
23 Claims. (Cl. 260—674)

1. A solution characterized by a high selectivity for aromatic hydrocarbons as opposed to saturated hydrocarbons, consisting essentially of: from about ten to about fifty per cent by weight of sulfuric acid and from about ninety to about fifty percent by weight of a dialkyl sulfate, the sulfuric acid thereof having a concentration from about



103 to about 107 percent sulfuric acid and said dialkyl sulfate containing up to about four carbon atoms per molecule.

2,776,328
DURENE RECOVERY PROCESS

Rufus B. Bennett, Reuben F. Pfennig, and Raymond A. Speed, Baytown, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application September 8, 1952, Serial No. 308,305
4 Claims. (Cl. 260—674)

1. A method for recovering a high purity durene fraction from a feed stock containing durene in an amount not greater than 15% including the steps of chilling said feed stock to a temperature in the range of −75° F. to −110° F. to form a first slurry containing durene crystals, separating from said first slurry a first liquid fraction and a first filter cake fraction including said durene crystals and containing within the range of 15% to 50% durene, melting said first filter cake fraction, using it to form a second feed stock, chilling said second feed stock to a temperature of approximately 0° F. to form a second slurry containing durene crystals, separating from said second slurry a second filter cake fraction containing durene crystals in an amount within the range of 60% to 90% durene and a second liquid fraction, melting said second filter cake and using it to form a third feed stock containing durene within the range of 60% to 90%, cooling said third feed stock to a temperature of approximately 100° F. to form a third slurry containing durene crystals and separating from said feed stock a third filter cake as high purity durene product and a third liquid fraction, admixing the second liquid fraction with the feed stock, and adding the third liquid fraction to the first filter cake fraction for admixture with the melted first filter cake fraction.

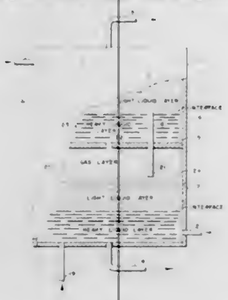
2,776,329
PROCESS AND APPARATUS FOR LIQUID-LIQUID EXTRACTION

Samuel J. Mayeux, Jr., Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application September 15, 1954, Serial No. 456,097
3 Claims. (Cl. 260—677)

1. A process for contacting two immiscible liquids of different specific gravities in a unitary extraction zone

having a plurality of vertically spaced separation stages separated from each other by horizontal, finely perforated partitions, which process comprises introducing a relatively heavy liquid into the top portion of said extraction zone, introducing a relatively light liquid into the bottom portion of said extraction zone, introducing an inert gas into the several separation stages of said extraction zone, trapping said gas in the form of stagnant layers between



adjacent separation stages, maintaining a heavy liquid layer in the lower portion of the several separation stages, and thereby preventing said gas from rising from one separation stage to the next higher one against the pressure of the liquid, maintaining a light liquid layer above said heavy liquid layer and beneath the gas layer separating one separation stage from the next higher separation stage, jetting said relatively heavy liquid in the form of fine-diameter streams from one separation stage downwardly across and in direct contact with said stagnant gas layer into said light liquid in the next lower separation stage, passing the relatively light liquid as a confined stream from one light liquid layer upwardly across and in indirect contact with the superadjacent stagnant gas layer to the next higher separation stage, said confined stream having a diameter that is relatively large with respect to each of the aforesaid fine-diameter streams, withdrawing relatively light liquid from an upper portion of the extraction zone, and withdrawing relatively heavy liquid from a lower portion of the extraction zone.

2,776,330
PRODUCTION OF SPONGE RUBBER
Frederick Arthur Jones, Castle Bromwich, Birmingham, John Leathem Matthew Newnham, Birmingham, and Douglas Jackson McKeand, Sutton Coldfield, England, assignors to Dunlop Tire and Rubber Corporation, Buffalo, N. Y., a corporation of New York
No Drawing. Application February 26, 1953, Serial No. 339,156
Claims priority, application Great Britain March 1, 1952
8 Claims. (Cl. 260—723)

8. A method of making cellular rubber products which comprises compounding a latex containing rubber hydrocarbons in which the rubber hydrocarbons comprise from 50% to 100% of natural rubber with sulphur, vulcanization accelerators and an acyclic polyalkylene polyamine of the formula $H_2NR\cdot(NHR)_nNH_2$ in which R represents an alkylene radical having up to three carbon atoms and n equals from 1 to 4, beating said latex with air to form a foam and gelling said foamed latex with a delayed action gelling agent.

ELECTRICAL

2,776,331
ELECTRODE BEARING CURRENT DISTRIBUTION NETWORK AND METHOD OF PRODUCING SAME
Christopher Lionel Carter Chapman, Sutton, England, assignor to Yardney International Corp., New York, N. Y., a corporation of New York
Application June 25, 1952, Serial No. 295,454
4 Claims. (Cl. 136—75)

3. The method of producing a self-supporting battery electrode composed in major part of silver and containing a plurality of spongy porous silver portions and a highly conductive network integral with the silver portions, which comprises the steps of compressing a plate-like mass of silver powder to a porous spongy layer, compressing selected areas of said layer into the shape of a network of interconnecting strip portions with a density approximating that of pure silver, the strip portions being arranged to form a framework surrounding the porous silver portions, and then sintering the compressed plate-like mass of porous and strip portions and annealing the more highly compressed areas.

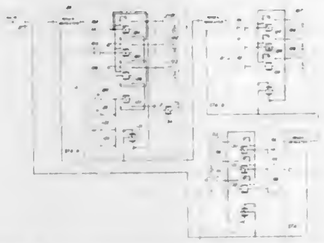
2,776,332
SELF-CLEANING OUTDOOR HIGH-TENSION INSULATORS
Hans von Cron, Berlin-Siemensstadt, Germany, assignor to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt, Germany, a corporation of Germany
Application June 25, 1952, Serial No. 295,523
6 Claims. (Cl. 174—211)

1. An outdoor insulator of the self-cleaning type for vertical or approximately vertical mounting, comprising an elongated rod-shaped trunk portion and a projecting structure both of insulating material and integral with each other, said structure having helical turns around and along said trunk portion, each turn having a verti-

cal cross section whose upper edge is substantially horizontal and whose underside edge has a continuously downward slope from the periphery down to the upper side of the next lower turn, and heating conductor means of helical shape joined with the insulator and forming a helix coaxial with said trunk portion.

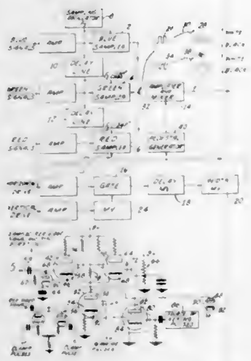
2,776,333
TELETYPEWRITER CODE CONTROLLED SELECTIVE DEVICE
James T. Neiswinter, Garden City, N. Y., assignor to American Telephone and Telegraph Company, a corporation of New York
Application October 10, 1952, Serial No. 314,146
16 Claims. (Cl. 178—2)

1. In a telegraph system, a transmission channel and a station connected thereto, said station comprising a plurality of teletypewriters arranged for connection individually to said channel, means responsive to permutation code signals incoming over said channel for producing a timing pulse for each pulse of an incoming signal, a code controlled device, a network individual to each selecting pulse of a permutation code signal for combining a timing pulse with a selecting pulse, a selection circuit to which each of the combined pulses is applied in turn, a plurality of address code signal circuits arranged



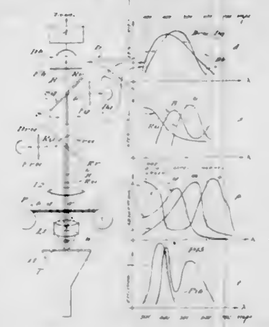
to receive the permutation code signals in groups from said selection circuit, means in each of said address code circuits for selecting one of said teletypewriters in response to a particular group of signals and preparing the selected teletypewriter for connection to said channel, and means in said code controlled device for producing a special pulse for each permutation code signal incoming over said channel for completing the connection of the selected one of said teletypewriters to said channel.

2,776,334
COLOR TELEVISION TRANSMITTER BURST INJECTION
Edwin A. Goldberg, Princeton Junction, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application June 16, 1950, Serial No. 168,501
5 Claims. (Cl. 178—5.4)



1. In a color television transmitter apparatus for injecting a burst of alternating current energy into the transmitted signal during the line blanking intervals comprising in combination, a source of alternating current waves, means having a plurality of outputs for respectively providing different phases of the alternating current waves supplied by said source, a plurality of modulators, each of said modulators having a first input to which a wave to be modulated may be applied, a second input to which an intelligence signal may be applied and an output, means for coupling each first input of each modulator to one of said plurality of outputs respectively of the means for providing different phases of said alternating current waves, a plurality of sources of different color signals, a first source of pulses occurring during the line blanking intervals, a second source of pulses occurring during the portion of the line blanking interval during which said burst of alternating current energy is to be introduced into the transmitted signal, means for coupling each of said plurality of color signals to a corresponding second input of one of said plurality of modulators, means for disabling each of said latter coupling means and said modulators in response to the pulses provided by said first source so that no signals appear at the outputs of said modulators and means for making one of said modulators operative in response to said pulses from said second source to such an extent that only the alternating current wave applied to its first input produces signals at its output terminals.

2,776,335
TRANSMISSION OF COLORED MOTION PICTURES
Alfred E. Mann, North Hollywood, Calif., assignor to Technicolor Corporation, Hollywood, Calif., a corporation of Maine
Application November 22, 1952, Serial No. 322,075
6 Claims. (Cl. 178—5.4)

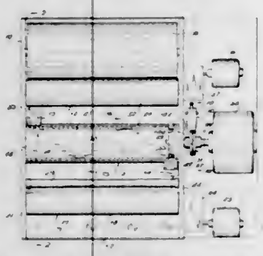


1. Apparatus for transmitting a set of electric signals under the modulating control of motion picture film which records a set of respective color aspect images of an original, by impressing on photoelectric means light that is imagewise modulated by the film, comprising: a motion picture film with a set of reproductions of said color aspect images in colored media, one for each color aspect and at least one selected colored medium transmitting light of a spectral range which is unrelated to the spectral range of its respective color aspect image; means for scanning said film including a scanning source of light, and color selective light dividing means for separately projecting each color aspect reproduction of said film with respective beams of light, each beam having the spectral range that is transmitted by its respective medium including the medium of said unrelated range; and photoelectric means arranged in the path of each of said beams and predominantly responsive to light of the spectral range of the respective beam including a photoelectric means that is predominantly responsive to said unrelated range.

2,776,336
DUAL FUNCTION FACSIMILE APPARATUS
Calvin K. Clauer, Rocky River, Ohio
Application December 13, 1954, Serial No. 474,822
18 Claims. (Cl. 178—6.6)

1. In facsimile apparatus, an indicia supply means, an indicia recording means, a guide means defining a guide track having a first portion extending adjacent said indicia supply means and a second portion extending adjacent said indicia recording means, a head movable with respect to said guide means along said first and second portions of said guide track in succession, a scanning means carried by said head and cooperating with said in-

dicia supply means during movement of said head along said first portion of the guide track, and a reproducing

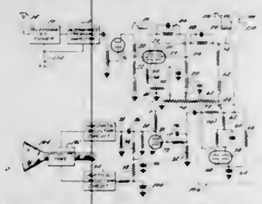


means carried by said head and cooperating with said recording means during movement of said head along said second portion of the guide track.

2,776,337
FACSIMILE FILM-COPYING APPARATUS
Russell G. Thompson, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application November 29, 1950, Serial No. 198,090
19 Claims. (Cl. 178—6.6)

1. A facsimile film-copying apparatus comprising a projector adapted to project an image from a moving film band, a translucent screen adapted to receive the projected image, means interposed in the projected beam adapted to intercept and deflect a transverse elemental area of the projected beam, an apertured scanning device adapted to scan the deflected elemental area of the beam, a photoelectric device adapted to receive the light which traverses the scanning device, and a recording mechanism operating upon signals received from said photoelectric device to produce a copy of said projected image.

2,776,338
VARIABLE LEVEL NOISE-CLIPPING CIRCUIT
Jack Avins, Staten Island, N. Y., assignor to Radio Corporation of America, a corporation of Delaware
Application December 15, 1950, Serial No. 200,903
The terminal 15 years of the term of the patent to be granted has been disclaimed
5 Claims. (Cl. 178—7.3)

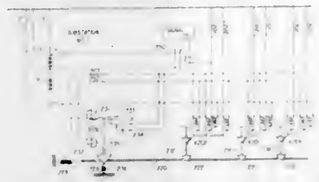


1. In a television receiver adapted to receive a television signal having a recurrent horizontal deflection synchronizing component, an amplifier having first and second output terminals, a capacitor having first and second terminals, a galvanic connection between the first terminal of said capacitor and said first amplifier output terminal, a resistance connected between the second output terminal of said amplifier and the second terminal of said capacitor to develop on said capacitor a charge which tends to be a function of the average unilateral potential at the output terminal of said amplifier, a connection between the first terminal of said capacitor and a reference potential means, a first unilateral conduction device, a time constant circuit connected in series with said first unilateral conduction device to form a combination, the value of said time constant circuit being relatively fast compared to the recurrence rate of said horizontal deflection synchronizing component, connections placing said combination between the second output terminal of said amplifier and the second terminal of said capacitor and with such polarity that the direction of current flow is from the amplifier second output terminal to the second terminal of said capacitor, a synchronizing signal separator circuit having first and second input terminals, connecting means placed between the second video amplifier output terminal and the first synchronizing signal separator circuit input terminal, a second unilateral conduction device, connections placing said second unilateral conduction device between the second terminal of said capacitor and the first input terminal of said synchronizing signal separator circuit with such polarity that the direction of current flow is from the first input terminal of said synchronizing signal separator circuit to the second terminal of said capacitor, and a conductive connection from the second terminal of said synchronizing separator circuit to said reference potential means.

2,776,339
EIDOPHOR LIQUID REGENERATING SYSTEM
Johann Rudolf Arni, Geneva, Switzerland, assignor to Edgar Gretener, Zurich, Switzerland
Application September 3, 1953, Serial No. 378,329
Claims priority, application Switzerland September 5, 1952
7 Claims. (Cl. 178—7.5)

4. In television projection apparatus of the kind, wherein the light flux of a separate light source is controlled point by point with the aid of a thin layer of liquid adhering to the surface of a rotating support having a central opening through which liquid drains; the combination of a bowl for receiving liquid from said support, and scavenging means for stripping the liquid layer from said support and replacing it by a layer of fresh liquid, said scavenging means comprising a pump, a slit shaped scavenging nozzle and a storage tank, said pump feeding liquid from said bowl through said tank and to said nozzle, said scavenging nozzle having a slit on its bottom surface opposite the surface of said rotating support extending in approximately radial direction thereto to direct the greater part of the liquid fed to said nozzle in the direction opposite to the rotation of the support to remove the used liquid layer adhering thereto, which flows to said bowl for transfer by said pump to said storage tank, said scavenging nozzle including a smoothing edge for forming the liquid issuing in direction of rotation into a fresh liquid layer of desired thickness on said support.

2,776,340
INTERCOMMUNICATION SYSTEMS
Clarence E. Lomax, Chicago, Ill., assignor to Automatic Electric Laboratories, Inc., Chicago, Ill., a corporation of Delaware
Application March 10, 1953, Serial No. 341,489
10 Claims. (Cl. 179—1)



1. In an intercommunication system including a plurality of stations, a link common to said stations, and a battery; each of said stations including a handset, a support for said handset, a switch selectively controlled by placement and removal of said handset with respect to said support, a signal, an answer key, and a plurality of call keys respectively corresponding to the other of said stations; means controlled by the operation at a calling station of the call key corresponding to a called station for connecting the handset at said calling station to said link and for completing a signal circuit from said battery over said link to the signal at said called station, means controlled by the operation of the switch at said called station incident to the removal of the handset from the support thereat for interrupting said signal circuit, and means controlled by the operation of the answer key at said called station for connecting the handset thereat to said link and for completing parallel transmission circuits from said battery over said link to the handset at said calling station and to the handset at said called station so as to render operative the two handsets named.

2,776,341
TIME ANNOUNCING SYSTEM
Edward S. Peterson, Elmwood Park, Ill., assignor to Automatic Electric Laboratories, Inc., Chicago, Ill., a corporation of Delaware
Application February 13, 1951, Serial No. 210,733
14 Claims. (Cl. 179—100.2)

1. In an announcing system of the class wherein the announcements are recorded on a record medium in successive order and wherein a driving means is employed to drive the record medium to thereby cause reproduction of the announcements and wherein a timer device is employed to cause conditioning of the driving means to drive the second medium only during certain predetermined periods of time and wherein the driving means is conditioned during other predetermined periods of time to halt the record medium, the improvement comprising supervisory means operated by said timer device only during the certain predetermined periods when said driving means should be driving the record medium, other means operated when said driving means is driving the record medium and unoperated when said driving means is conditioned to halt the record medium, and an alarm circuit completed if said supervisory means is unoperated and said last means is operated or when said supervisory means is operated and said last means is unoperated.

2,776,342
HIGH FIDELITY PHONOGRAPH STYLUS ASSEMBLY
Roy Dally, Liverpool, N. Y., assignor to General Electric Company, a corporation of New York
Application October 25, 1951, Serial No. 253,164
3 Claims. (Cl. 179—100.41)

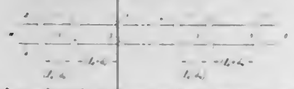
2. A high-fidelity stylus support assembly for a phonograph pickup head comprising a relatively-thin, flat, resilient, cantilever ribbon extending generally along a principal axis spaced from said pickup head and having a pair of spaced quarter twists therein arranged to provide two end portions each having a wider face thereof disposed substantially in a first plane through said axis and an intermediate section having a wider face thereof disposed in a second substantially perpendicular plane through said axis, a relatively rigid supporting member arranged to be supported on said head, said member having a face portion extending alongside said ribbon, mounting means for fixedly securing one end of said ribbon to said supporting member, a record-engaging stylus, means securing said stylus to the other end of said ribbon, said stylus extending in the plane of said intermediate section, and a vibration damping system comprising a first vibration damping block positioned between said ribbon and said face portion adjacent said mounting means, a second damping block positioned between the narrower face of said intermediate section and said face portion adjacent the one of said pair of quarter twists nearer to said mounting means and said surface, a third damping block positioned between the narrower face of said intermediate section and said base portion adjacent the other of said pair of quarter twists and said surface, and a fourth vibration damping block positioned near the other end of said ribbon between said ribbon and said face portion, at least said second and third damping blocks being maintained in compression between said ribbon and said supporting member.

2,776,343
MULTI-PURPOSE VACUUM TUBE VARIABLE GAIN AMPLIFIER
William Yuni, Forest Hills, N. Y., assignor to the United States of America as represented by the Secretary of the Army
Application May 4, 1953, Serial No. 353,025
2 Claims. (Cl. 179—171)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A variable gain amplifier comprising a first and a second vacuum tube each tube having at least an anode, a cathode and a control grid, means electrically connecting the cathode of said first vacuum tube to the cathode of said second vacuum tube, a first resistor connecting said cathodes to a source of ground potential, a second resistor connected between the anode of said first vacuum tube and a source of positive potential, a variable resistor con-

nected between the anode of said first vacuum tube and the anode of said second vacuum tube to provide the only source of positive potential for said second vacuum tube, a grid biasing resistor connected between the control grid of said first vacuum tube and said source of ground potential, means connected to the control grid of said first vacuum tube for supplying an input signal and means connecting the anode of said second vacuum tube to an output terminal whereby the amplification of the signal applied at said input terminal can be controlled by adjusting the bias potential on the control grid of said second vacuum tube and the phase relation between the input signal and the output signal can be controlled by means of said variable resistor.

2,776,344
DISTORTION CORRECTION IN REPEATERED CARRIER TRANSMISSION SYSTEMS
Marvin R. Aaron, Whippany, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application July 21, 1955, Serial No. 523,464
12 Claims. (Cl. 179—171)

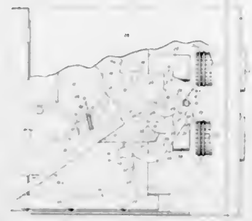


1. A carrier signal transmission system which comprises a line adapted to transmit a wide band of frequencies and a plurality of separate wave translating networks connected in tandem in said line and spaced at substantially regular intervals therealong to divide the said line into a succession of pairs of adjacent line-sections between networks, the length of one line-section in each pair being substantially $(l_0-\delta)$ and the length of the other line-section therein being substantially $(l_0+\delta)$, where l_0 is the mean length between the said networks of all of said line-sections and δ for each of said pairs is substantially a quarter of a wavelength at one frequency in said band and is different for at least some of said pairs whereby interaction ripples in the transmission characteristic of said line-sections add out of phase in each of said pairs and substantially cancel in each pair at the selected frequencies.

2,776,345
DISTORTION CORRECTION IN REPEATERED CARRIER TRANSMISSION SYSTEMS
James Gammie and George H. Lovell, Summit, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application July 21, 1955, Serial No. 523,465
10 Claims. (Cl. 179—171)

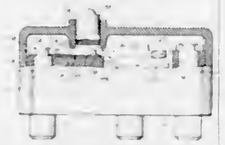
1. A carrier signal transmission system which comprises a line adapted to transmit a wide band of frequencies and a plurality of separate wave translating networks connected in tandem in said line and spaced at substantially regular intervals therealong to divide said line into a succession of pairs of adjacent consecutive line-sections between networks, the length of one line-section in each pair being substantially $(l_0-\delta)$ and the length of the other line-section therein being substantially $(l_0+\delta)$, where l_0 is the mean length between the said networks of all of said line-sections and δ for each of said pairs is substantially a quarter of a wavelength along said line at one frequency in said band, whereby interaction ripples in the transmission characteristic of said line-sections add out-of-phase in each of said pairs and substantially cancel at the said frequency.

2,776,346
DRAWOUT MECHANISM FOR METAL ENCLOSED ELECTRIC SWITCHGEAR
Vincent N. Stewart and Max B. Fornwalt, Springfield, Pa., assignors to General Electric Company, a corporation of New York
Application December 31, 1953, Serial No. 401,493
15 Claims. (Cl. 200—50)



1. A drawout electric switchgear mechanism comprising, an enclosure unit and a circuit breaker unit mounted for relative reciprocal movement to provide for insertion and withdrawal of said circuit breaker unit with respect to said enclosure unit, a rotatable actuating cam pivotally mounted upon one said unit and having a generally involute camming slot therein, a pin fixedly mounted upon the other said unit and disposed for engagement in said slot in driving relation thereby to provide relative movement of said enclosure and circuit breaker units as said cam is rotated, said generally involute slot having at least two adjacent camming sections of different radial slopes, and actuating means for rotating said cam.

2,776,347
SNAP SWITCH
Alan A. Allen, Beverly Hills, Calif.
Application June 16, 1955, Serial No. 515,876
6 Claims. (Cl. 200—67)

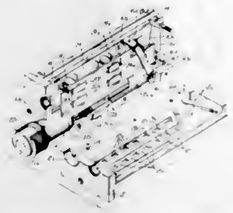


1. In a snap switch provided with a switch blade having one end affixed to and supported on a platform and having a longitudinally flexible free end, said switch having an actuator to transversely flex a portion of the blade supported by said platform, the improvement that comprises a member in firm impingement with the blade between the points of transverse flexure, said member having a portion affixed with the blade to the platform and a bent portion having a corner edge in the mentioned impingement with the blade.

2,776,348
ELECTRICAL SWITCHES
Boris V. Korry, Seattle, Wash.
Application April 26, 1952, Serial No. 284,527
11 Claims. (Cl. 200—76)

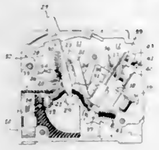
1. An electrical switch comprising an elongated switch casing, a series of switch contacts arranged in rows extending longitudinally of and in corresponding locations at opposite sides of said casing, a shuttle member guided for reciprocation longitudinally within said casing between the opposite rows of switch contacts, switch-closing contact elements carried by and extending transversely of said shuttle member to slidably engage corresponding opposite contacts selectively by reciprocation of said shuttle member, a switch-actuating member guided in

said casing for longitudinal movement relative to said shuttle member, stop means interengageable between said actuating member and the casing to limit movement of the actuating member in each sense, a toggle lever having one end fixedly pivoted in the casing to swing about an axis transverse to the direction of reciprocation of the shuttle member and of the actuating member, stop means interengageable between said toggle lever and the casing to limit swinging of the toggle lever in each sense, lost-motion means operatively connecting said toggle lever



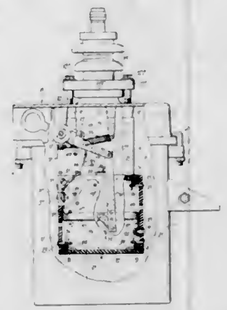
to said shuttle member to effect reciprocation of the latter as the toggle lever completes its swinging from each limit position to the other, and a preloaded compression spring strut having one end pivotally engaging said actuating member and its opposite end pivotally engaging the swinging end of said toggle lever, and reacting between the actuating member and the toggle lever to urge the same mutually apart and into opposite limit positions as the toggle lever swings past dead-center position in either sense, and through the lost-motion means urging the shuttle member sharply in the sense opposite to the sense of movement of the actuating member.

2,776,349
MAGNETIC THERMAL TRIP
William A. Thomas, Plainville, Conn., assignor to General Electric Company, a corporation of New York
Application October 20, 1954, Serial No. 463,454
8 Claims. (Cl. 200—88)



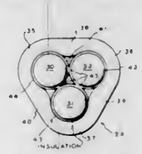
7. An automatic circuit breaker comprising an insulating casing, at least two relatively movable contacts in said casing, operating mechanism for said contacts comprising means for manually moving said contacts between open and closed circuit positions, a member movable to cause automatic opening of said contacts, combined thermal and magnetic trip mechanism for causing movement of said movable member comprising an elongated bimetallic strip member fixedly attached in said insulating casing at one end and movable at the other end, a latch member of ferro-magnetic material pivotally supported in said casing and extending generally parallel to and closely spaced from said bimetallic strip member and adapted to be moved thereby, a generally U-shaped non-magnetic bracket having a back wall, side walls and in-turned lugs on said side walls, said bracket embracing said bimetallic strip and being supported by said lugs on said latch member, a generally U-shaped magnetic field member in loosely captured position between the back wall of said non-magnetic bracket and said bimetallic strip.

2,776,350
AUTOMATIC ELECTRICAL SECTIONALIZERS
Robert A. Gesellschap, Brentwood, Mo., assignor to James R. Kearney Corporation, St. Louis, Mo., a corporation of Missouri
Application March 12, 1953, Serial No. 341,997
1 Claim. (Cl. 200—108)



In a sectionalizer of the character described having a movable contact member biased into open circuit position and a releasable latch for retaining the movable contact member in closed circuit position, means movable in a fixed orbit between a normal position remote from said latch and a position whereat it releases said latch, said means being biased toward its normal position, a member movable relative to said means and biased in one direction, said member having a ratchet for transmitting its motion to said means when said member is moving in its biased direction, the biased direction of said means being counter to the biased direction of said member, and an electromagnet having a core movable in response to overloads for moving said member against its bias, the improvement which comprises, said core being normally free of said member, means for guiding said core during its movement pursuant to overload in a path obstructed by said member whereby the energy of said core is imparted to move said member out of its normal position but the core is free to move away from said member upon interruption of the overload.

2,776,351
MERCURY SWITCHES
Irving L. Mitchell, Rockville Centre, N. Y., assignor to Ebert Electronics Corporation, Queens Village, N. Y., a corporation of New York
Application May 10, 1954, Serial No. 428,535
5 Claims. (Cl. 200—112)



1. A circuit maker and breaker system including a plurality of separate switch elements, each of said switch elements including a circular cylindrical vitreous envelope, a pair of separated contacts, a pool of mercury, one of said contacts permanently within said pool of mercury, the other of said contacts located at a predetermined level with respect to the surface of said pool of mercury, means for varying the level of said pool of mercury to a position above and below said other of said contacts, said means for varying including an armature located within said vitreous envelope and submersible in said pool of mercury, and a common actuating coil for all the armatures of said plurality of separate switch elements, said common actuating coil including arcuate

portions having inner walls conforming in radius substantially with the outer walls of each of said vitreous envelope, and having portions tangential to and joining said arcuate portions.

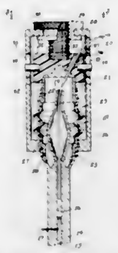
2,776,352
ELECTRIC SNAP-ACTION SWITCH DEVICES
Neville Ryland Davis, Bishop's Stortford, England, assignor to Sunvic Controls Limited, London, England, a British company
Application February 2, 1954, Serial No. 407,723
Claims priority, application Great Britain February 19, 1953
6 Claims. (Cl. 200—122)

1. An electric snap-action switch having cooperating contacts comprising in combination a spring blade carrying one of the cooperating switch contacts, an operating member mechanically connected with said spring blade at a part of the latter remote from said contact, a fixed abutment supporting said operating member and said spring blade adjacent said part for rotational movement of said operating member and spring blade together with one another in the plane of contact movement, said abutment having a groove and said spring blade having a perforation engaging in the groove of said abutment, a second abutment, and a compression element mechanically connected with said spring blade and with said second abutment so as to be maintained in compression by said spring blade to hold the latter in place in the groove in said fixed abutment by the compression force in said compression element and to cause snap action of said contact in response to rotational movement of said part of said spring blade about said fixed abutment when said operating member is rotationally displaced about said fixed abutment.

2,776,353
TEMPERATURE RESPONSIVE DEVICE
Ira E. McCabe, Chicago, Ill.
Application March 11, 1955, Serial No. 493,674
7 Claims. (Cl. 200—136)

1. In a temperature responsive device, the combination including a switch adapted to be included in an electrical circuit, actuating means therefor comprising a magnet and an operator, and temperature responsive means for controlling operation of the said actuating means by varying the proximity of the magnet and operator with respect to each other, said operator consisting of a Curie temperature material characterized by having magnetic properties throughout the operating range of the temperature responsive means such as will assist the action of the temperature responsive means in producing actuation of the switch.

2,776,354
THERMOSTATIC REGULATOR
John Emory Fuller, Jr., Montgomery County, Md., assignor to American Instrument Company, Inc., Silver Spring, Md.
Application January 4, 1954, Serial No. 401,791
5 Claims. (Cl. 200—141)

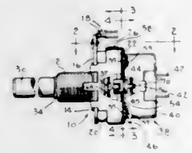


1. A thermostat of the liquid contact type comprising a vessel having a main bulb portion, a tube portion, connected at one end to said main bulb portion, an auxiliary bulb portion connected to the other end of said tube portion, a flexible portion secured to said other end of said tube portion and containing said auxiliary bulb portion, said flexible portion being arranged in axial alignment with said tube portion, a conductive liquid within said bulb and tube portions, a first contact member in said vessel, a second contact member in said flexible portion and extending through said auxiliary bulb portion into said tube portion, and means arranged axially with respect to said flexible portion and tube portion for applying axial force on said flexible portion to adjust the distance between said first and second contact members, said auxiliary bulb portion being open at its end to at times allow liquid from said tube portion to overflow into said flexible portion.

2,776,355
FACE PLATE AND DEAD FRONT SWITCHES
Thomas M. Cole, Harrison, N. Y., and Paul M. Christensen, West Orange, N. J., assignors to Federal Pacific Electric Company, a corporation of Delaware
Application April 14, 1955, Serial No. 501,383
18 Claims. (Cl. 200—168)

1. Enclosed switchgear, including an enclosure having a panel with an opening therein, switchgear contained in said enclosure and having a portion projecting forward of said panel through said opening, said switchgear embodying a device operative through said panel, and a face-plate assembly substantially occupying the opening in said panel, said assembly including a first face-plate fixed to said switchgear and having a flange portion forward of said panel, and a second face-plate slideably mounted behind said flange portion, said first face-plate having an opening aligned with said device and said second face-plate having a larger opening for said device and aligned with said panel opening, and means securing said second face-plate in said aligned position on said switchgear.

2,776,356
VARIABLE CONTROL UNIT AND ATTACHABLE LINE SWITCH
Arnold G. Kling, Milwaukee, Wis., assignor to Globe-Union Inc., Milwaukee, Wis., a corporation of Delaware
Application September 4, 1952, Serial No. 307,752
7 Claims. (Cl. 201—55)

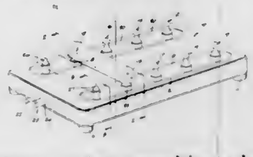


1. In a multiple unit device, a control having a housing with a rear wall provided with an opening, an operating shaft for said control having an inner end provided with a coupler engaging portion positioned within said housing and spaced inwardly of said rear wall in alinement with said opening, a switch having a housing with a forward wall provided with a coupler receiving opening, an operating member within said switch housing rotatable about an axis alined with said shaft, said operating member having a coupler engaging portion within said switch housing spaced inwardly of said coupler receiving opening, means detachably interconnecting said housings with said shaft and the axis of rotation of said operating member alined, and a coupler rotatably carried in said coupler receiving opening, there being interfitting means between said coupler and said coupler receiving opening to retain said coupler in position when said housings are disconnected, said coupler having portions slidably engaging with the coupler engaging portions on said shaft and operating member.

2,776,357
PHOTOSENSITIVE LAYER CELL
Norman F. Porath, West Allis, Wis., assignor to General Electric Company, a corporation of New York
Application April 4, 1955, Serial No. 498,875
12 Claims. (Cl. 201—63)

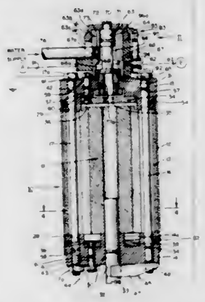
1. A photosensitive cell comprising a support member of plate-like character, a layer of photosensitive material adhered upon a surface of said member, said member being formed of material substantially transparent to rays to which the material of said layer is sensitive whereby said layer may respond to rays applied thereto through said member, said member forming a hollow shell, with said layer coated upon the inner surface of the shell, and electrode means disposed in electrical contact with a surface of said layer.

2,776,358
FRANKFURTER COOKER
Margaret T. Sturr, Los Angeles, Calif., assignor of one-third to George B. T. Sturr, Los Angeles, Calif., and one-third to Robert P. Sturr, Jr., Rosemont, Pa.
Application February 23, 1954, Serial No. 411,705
6 Claims. (Cl. 219—19)



6. A frankfurter cooker comprising a base, a pair of electrodes mounted on said base, each of said electrodes having a conical shaped base portion contiguous with an outwardly extending ball shaped portion, said conical shaped base portion and said ball shaped portion both being engageable simultaneously with the end of a frankfurter during cooking of the same.

2,776,359
ELECTRICAL WATER HEATER
Hermann F. Bremer, Mayaguez, Puerto Rico, assignor, by mesne assignments, to Carbon Heater Corporation, New York, N. Y., a corporation of New York
Application April 22, 1954, Serial No. 424,830
16 Claims. (Cl. 219—40)

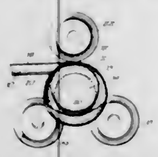


4. Apparatus for heating water by electrical conduction comprising a heating chamber having an inlet and an outlet, spaced electrodes disposed within said heating chamber to form a water passage extending between said inlet and said outlet, a flow-responsive device including a flow chamber, means for transmitting water to the heater via said flow chamber into said inlet, means including an electrical switch connecting said spaced electrodes to a voltage supply, an actuator operatively coupling said device to said switch to disconnect said electrodes from said supply when the water in said flow chamber is stationary and to re-make said connection when said water is flowing, a grounding-plate disposed within said heating chamber adjacent said outlet, and means connecting said plate to a point of ground potential.

2,776,360
APPARATUS FOR FORMING FLEXIBLE METAL TUBING
Karl H. Evert, Bartlett, Ill.
Application December 1, 1953, Serial No. 395,415
7 Claims. (Cl. 219—62)

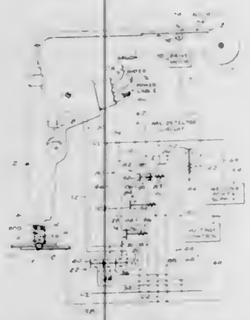
1. Flexible tube-forming apparatus comprising in combination a mandrel about which a profiled strip of thin flexible metal may be spirally wound, a pair of rollers oppositely disposed at the sides of the mandrel, a welding roller external of the tube, a welding roller eccentrically

mounted on the said mandrel internally of the tube in cooperating relation with the said welding roller, and



electrical connections whereby an electric welding circuit is established through the welding roller and the said eccentrically mounted roller.

2,776,361
SIGMA SPOT OR TACK WELDING
Jacob F. M. Essig, Avenel, N. J., assignor to Union Carbide and Carbon Corporation, a corporation of New York
Application April 15, 1953, Serial No. 348,958
9 Claims. (Cl. 219—74)



5. Process of sigma spot welding work composed of overlapping parts of solid metal from one side thereof, which comprises bathing the tip of a fusible metal electrode and the adjacent area on one side of such work in a suitable arc-shielding gas, initiating an arc between such electrode tip and such side of the work, mechanically feeding such electrode toward the work at a speed of at least 200 inches per minute, fusing the end of the electrode and adjacent metal of such part and advancing the electrode tip axially into the resulting fused hole in the upper part and forming a crater which extends into the lower of such parts while maintaining the arc voltage within preset upper and lower limits, depositing filler metal from the fusible electrode in the crater and hole to form a weld between the parts and critically timing the electrode feed and arc duration with relation to the time of arc initiation to stop the electrode feed and the flow of welding current before a hole is melted entirely through the lower part, whereby to leave the parts united with solid weld metal extending from the bottom of the crater in the lower part to the upper surface of the upper part.

2,776,362
MAGNETIC FORCE RESISTANCE WELDING MACHINE
Jerome B. Welch, Wauwatosa, Wis., assignor to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware
Application June 15, 1953, Serial No. 361,587
13 Claims. (Cl. 219—86)

1. A magnetic force welding machine comprising, in combination, a fluid pressure actuated device; a movable electrode; a connecting rod providing a driving connection between said device and said electrode; a magnet core symmetrically disposed about said connecting rod and including a pair of pole portions positioned on opposite sides of said connecting rod; an energizing winding for said magnet core symmetrically disposed about said pole portions and said connecting rod; an elongated armature member having end portions for attraction by said pole portions; means providing a driving connection between said armature and said connecting rod, said means including means providing for rotary adjustment of said

armature with respect to said magnet core whereby said members may be placed out of alinement with each other to vary the magnetic gap therebetween; rotatably mounted guide means cooperably associated with said armature; and means for locking said guide means against rotation, in any desired rotary position thereof, to limit said armature to movement in a single plane and to effect a proportional variation in said magnetic gap with a consequent variation in the magnetic force transmitted to said movable electrode.

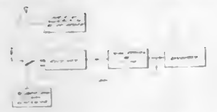
2,776,363
ARC WELDING PROCESS AND APPARATUS FOR USE THEREIN
Harold Spencer Payne, Cleveland, Ohio, assignor to The Lincoln Electric Company, Cleveland, Ohio, a corporation of Ohio
Application October 24, 1950, Serial No. 191,880
19 Claims. (Cl. 219—124)

1. In arc welding apparatus, wherein a metallic electrode in the form of a wire is fed continuously to the work, the combination of a relatively stationary wire-feeding mechanism and a remotely located relatively portable welding head, a flexible tube for guiding such electrode as it is fed from such mechanism, said welding head including a welding tool attached to the free end of said tube, a flux hopper associated with said tool, and a work-engaging carriage whereon said tool and hopper are mounted, said hopper having a discharge opening arranged to deposit a layer of flux in the path of travel of said tool and such mounting permitting conjoint oscillatory movement of said tool and hopper transversely of such path, and means on said carriage adapted thus to oscillate said tool and hopper incidentally to movement of said carriage on the work, said tool and hopper being also adapted when detached from said carriage for use in manual welding independently of said carriage.

2,776,364
PHOTOGRAPHIC FLASH APPARATUS
James V. Daniels, Skokie, Ill., assignor to Kemlite Laboratories, Chicago, Ill., a partnership
Application June 27, 1955, Serial No. 518,015
2 Claims. (Cl. 240—1.3)

1. For use with a photographic flash unit of the capacitor-discharge type having a gaseous-discharge flash tube, a light-focusing reflector therefor, and a receptacle adapted to receive a plug-in electrical connector for connecting said flash unit in circuit with a shutter-synchronized camera switch, an accessory unit comprising a plug-in connector adapted to be received within said receptacle, a housing, a mechanical coupling having a pair of opposite ends, one of said ends being rigidly joined to said connector and the other of said ends being rigidly joined to said housing, said coupling comprising a swivel joint, a light-sensitive trigger tube carried by said housing, a light-focusing collector partially surrounding said tube, and electrical conductors mounted internally of said housing and coupling electrically connecting said tube to said connector.

2,776,365
PROPAGATION RECORDING SYSTEM
Stanley B. White, Dayton, Ohio
Application August 28, 1951, Serial No. 244,083
4 Claims. (Cl. 250—2)
(Granted under Title 35, U. S. Code (1952), sec. 266)



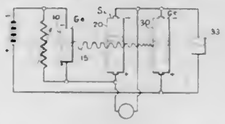
1. An electromagnet propagation recording system for recording the strength of received signals comprising a means for receiving said signals, a filter unit including a gain control potentiometer connected to said receiving means for adjusting the gain of said means for receiving, a tuned narrow band audio frequency amplifier acting as a filter and having a sinusoidal output, electrical connections from said tuned amplifier to said gain control potentiometer, means for rectifying the sinusoidal output of said tuned amplifier, and a voltage divider connected to said rectifier, electrical feedback connections from said voltage divider to said receiving means for controlling the amplification of said receiving means, and a recorder having a chart and connected to tthe output of said rectifier, said gain control potentiometer being adjusted so that the minimum signal to be measured appears at one edge of said recorder chart, and said voltage divider being adjusted so that the maximum range of signals can be shown on said recorder chart.

2,776,366
COMMUNICATION SYSTEM UTILIZING COMPOSITE RADIATION PATTERN
Charles L. Estes, Scottsdale, Ariz., assignor to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application July 19, 1954, Serial No. 444,222
4 Claims. (Cl. 250—6)

1. A signal receiving system utilized in combination with a moving vehicle for detecting the modulation signal in a composite radio wave having two identical modulation portions, one following the other in time relation, comprising a radio frequency receiving arrangement responsive to said composite radio wave, means coupled to said receiving arrangement to normally select a given one of said modulation portions when said given one is of receivable signal strength and to respond to the other of said portions when said given portion is not of a receivable signal strength and means coupled to said last mentioned means and said receiving arrangement to demodulate and utilize the selected one of said modulation portions, said modulation portions each including a pulse

train having a marker signal and at least one channel signal displaced in time from said marker signal and said selecting means includes a marker signal detector responsive to the marker signals of said pulse trains to produce a gating pulse for each receivable modulation portion and a blocking oscillator coupled to the output of said signal detector responsive to the first of said gating pulses and non-responsive to the second of said gating pulses when said given portion is of receivable signal strength and responsive to the second of said gating pulses when said given portion is not of a receivable strength, said demodulating means being activated by the output of said blocking oscillator to demodulate the channel signal of the selected modulation portion.

2,776,367
PHOTON MODULATION IN SEMICONDUCTORS
Kurt Lehovec, Williamstown, Mass., assignor to the United States of America as represented by the Secretary of the Army
Application November 18, 1952, Serial No. 321,253
10 Claims. (Cl. 250—7)



1. A photomodulator comprising a unitary crystalline matrix including substantial amounts of germanium and silicon separated by a continuous n-p barrier.

2,776,368
COAXIAL TUBE COUPLING
Harvey M. Owren and Vernon L. Smith, Livermore, and David R. Branum, Alameda, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application September 28, 1955, Serial No. 537,309
7 Claims. (Cl. 250—16)

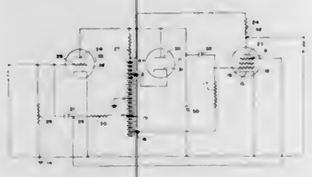
1. Mounting means for a tube having an end anode connector comprising a cylindrical housing adapted for concentric disposition about said tube and fixing the latter therein, an end plate for said housing having apertures therein for passage of leads to tube elements, and a conical coaxial section having the outer portion connected

to said housing and the inner portion connected to the end anode connector whereby impedance is matched from tube to transmission line adapted for connection to the tube anode through said conical section.

2,776,369
VIDEO INTEGRATOR CIRCUITS
Eugene L. Woodcock, Levittown, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application May 13, 1952, Serial No. 287,563
2 Claims. (Cl. 250—20)

1. A video integrator circuit comprising in combination a gated detector means, said detector means including a first input circuit for receiving applied video pulse signals, an output circuit for supplying gated output pulse signals, diode tube means connected between said input circuit and said output circuit, and second input circuit means coupled to said diode tube means, pulse generator means producing recurrent short pulses of energy coupled to said second input circuit, said short pulses of energy momentarily energizing said diode tube means for providing a low impedance path between said first input circuit and said output circuit throughout the duration of said short pulses, said diode tube means providing a high impedance path between said first input circuit and said output circuit in the time interval between pulses, said gated detector means passing to said output circuit applied video pulse signals occurring simultaneously with said recurrent short pulses of energy, low-pass filter means coupled to said output circuit for integrating said gated output video pulse signals, selective means coupled to the output of said filter means, and means coupling the recurrent short pulses of energy from the output of said pulse generator means to said selective means, said selective means being jointly responsive to the output of said filter means and said pulse generator means for producing output pulses representing applied video pulse signals.

2,776,370
PULSE WIDTH DISCRIMINATOR
Harold N. Beveridge, Arlington, Nathan Freedman, Dorchester, and Kenneth T. Larkin, Newtonville, Mass., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application June 27, 1952, Serial No. 295,886
2 Claims. (Cl. 250—27)

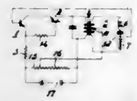


1. In a pulse width discriminator circuit; a power supply; a multi-element input tube having at least one grid; a first resistor connected at one end to the plate of said input tube, the other end of said first resistor and the cathode of said input tube being coupled to said power supply whereby plate supply potential is provided to said input tube; means connected in circuit with said input tube whereby said input tube is normally fully conducting; a condenser connected between the plate and cathode of said input tube; an RC circuit, the condenser end of said RC circuit being connected to the plate of said input tube, the resistor end of said RC circuit being so connected to said power supply whereby it is at a potential below that of the cathode of said input tube; a diode whose plate is connected to the plate of said input tube and whose cathode is so connected to said power supply whereby it is at a potential above that of the plate of said input tube when said input tube is fully conducting but is below the plate supply potential of said input tube; an output tube having at least a control grid, the cathode of said output tube being connected to the cathode of said input tube; a third resistor connected between the plate of said output tube and said power supply whereby said output tube is provided with plate supply potential; the grid of said output tube being connected to the junction between the resistor and condenser of said RC circuit whereby said output tube is normally biased beyond cutoff; whereby the application of a negative pulse between the grid and cathode of the input tube cuts off the input tube causing the potential across said first-mentioned condenser and the potential of the grid of said output tube to rise at substantially the same rate, the potential of the grid of said output tube rising to a maximum potential equal to the potential of the cathode of said output tube at which potential the grid of said output is above cutoff, the grid of said output tube remaining above cutoff until said second condenser is charged to the potential at which said diode conducts at which time the grid of said output tube drops below cutoff, the grid of said output tube dropping below cutoff at an earlier time coincident with the trailing edge of an input pulse if that occurs before said diode conducts.

2,776,371
QUANTIZING SYSTEM EMPLOYING CATHODE RAY TUBE
Albert M. Clogston, Morris Plains, and Charles W. Harrison, Gillette, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application July 18, 1952, Serial No. 299,644
10 Claims. (Cl. 250—27)

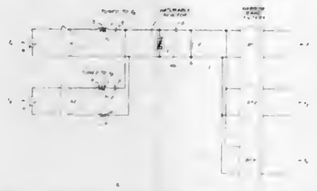
1. In combination, a cathode ray tube comprising a target assembly having a normally high resistivity member which becomes locally conductive under electron bombardment, a conductive layer contiguous with the target face of said member, and a plurality of aligned spaced conductive plates contiguous with the back face of said member, means for projecting an electron stream against the target face of said target assembly, means for deflecting the electron stream in the direction of alignment of said plates in accordance with the amplitude of input signals, and an auxiliary electrode interposed between the projection means and the target assembly; feedback coupling means between said auxiliary electrode and the deflecting means, and means for deriving from said conductive layer output signals the magnitudes of which are substantially independent of the current in said beam.

2,776,372
STABILIZED TRANSISTOR OSCILLATOR
Johannes Ensink and Jan Verhagen, Hilversum, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application July 12, 1954, Serial No. 442,726
Claims priority, application Germany July 31, 1953
5 Claims. (Cl. 250—36)



1. A frequency stabilized oscillator system comprising a transistor amplifier circuit having an input circuit and an output circuit, said input circuit having a low input impedance relative to the impedance of said output circuit, a bridge circuit comprising a series resonant circuit and a voltage responsive variable resistance element, said bridge circuit having an impedance approximating the input impedance of said transistor amplifier circuit whereby said series resonant circuit has a low loss resistance corresponding to the low input impedance of said amplifier, means for coupling said bridge circuit to said output circuit comprising a transformer having primary and secondary windings matching the output impedance of said amplifier to the impedance of said bridge, and means for coupling said bridge circuit directly to said input circuit.

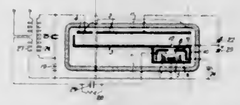
2,776,373
FREQUENCY CONVERSION CIRCUITS
Warren D. Mischler, Berkeley Heights, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 14, 1953, Serial No. 398,120
3 Claims. (Cl. 250—36)



1. A frequency conversion circuit comprising two similar sources of input waves of different single frequencies, means for producing sum and difference modulation products of the said two input waves comprising a harmonic generator of the saturable reactor type and means for simultaneously applying to the input of said harmonic generator the two said input waves, an output circuit for said harmonic generator, and separate filtering means for respectively selecting from said sum and difference modulation products appearing in said output circuit desired waves of different single frequencies harmonically or nonharmonically related to the frequencies of said input waves.

2,776,374
ELECTRON DISCHARGE DEVICES
Haig P. Iskenderian, Elmhurst, Ill., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application September 15, 1951, Serial No. 246,801
4 Claims. (Cl. 250—36)

1. An electron discharge device comprising a pair of spaced substantially parallel elongated electrodes defining a long narrow channel therebetween, electron emissive means disposed at one end of said channel to produce an electron beam focused transversely of said channel in the direction of one of said electrodes, a collector electrode disposed at the other end of said channel, means to apply a voltage differential to said elongated electrodes to establish an electric field therebetween, magnetic means disposed to establish a magnetic field crosswise of said channel at right angles to said electric field, said electric and magnetic fields causing said electron beam to flow



in a trochoidal path between said elongated electrodes in the direction of said collector electrode, a casing for said electron emissive means to shield the electron emissive means from said magnetic field and means for biasing said electron emissive means to a predetermined potential with respect to the potentials of said elongated electrodes to minimize dispersion of the electrons of said beam as the beam flows transversely into said channel.

2,776,375
PULSE SYSTEM
Francis P. Keiper, Jr., Elkins Park, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application August 4, 1955, Serial No. 526,403
15 Claims. (Cl. 250—36)

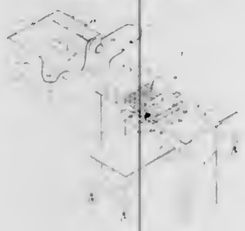
1. A transistor circuit comprising a transistor having at least emitter, collector and base elements, a collector circuit for said transistor comprising a source of collector operating potential and an inductive element in series with said source and said collector, an emitter circuit for said transistor, means responsive to the occurrence of a voltage pulse developed across said inductive element for increasing the current through said emitter to the saturation level at least during a portion of said pulse, and a resistive element arranged in the path of principal emitter current flow during said pulse for determining the magnitude of said flow.

2,776,376
MULTIPLE BAND TUNING DEVICE
Matthew W. Slate, New York, N. Y., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware
Application December 22, 1952, Serial No. 327,242
2 Claims. (Cl. 250—40)

1. A multiple-band tuning device comprising a tuning condenser having a rotor section rotatable about an axis and a plurality of stator sections positioned substantially in a common plane near the path of said rotor section, said stator sections being positioned at respectively dif-

ferent distances from said axis whereby the capacitances between said rotor section and the respective stator sections will vary simultaneously, one of said stator sections being shaped and positioned to provide a larger capacitance than another of said stator sections, a plurality of inductance members having differing inductance values, and means for selectively switching the larger-value ones of said inductance members to said larger-capacitance stator section and the smaller-values ones of said inductances to said lower-capacitance stator sections.

2,776,377
IN VIVO RADIATION SCANNER
Hal O. Anger, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application April 22, 1954, Serial No. 425,060
6 Claims. (Cl. 250—71)



1. In an in-vivo radiation scanner, the combination comprising an array of directional radiation counters, said counters being disposed along a first axis, means for simultaneously translating said array in a direction normal to said axis, pulse amplification means connected to said counters for amplifying pulses therefrom, an array of glow lamps equal in number to said counters and disposed along a second axis, said glow lamps being so connected to said pulse amplification means as to produce a flash therein upon pulse generation by said counters, means in synchronism with said first-named means for translating said lamp array in a direction normal to said second axis, and light responsive recording means disposed in front of said lamp array for producing a radiation distribution pattern according to the energization of said counters.

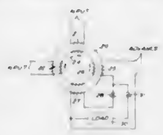
2,776,378
METHOD AND APPARATUS FOR RADIOACTIVITY WELL-LOGGING
Arthur H. Youmans, Tulsa, Okla., assignor to Well Surveys, Incorporated, Tulsa, Okla., a corporation of Delaware
Application January 26, 1951, Serial No. 208,019
11 Claims. (Cl. 250—83.6)

1. A method of radioactivity well-logging that comprises the steps of traversing the formations penetrated by the well with a source of neutrons to thereby irradiate the formations with neutrons, simultaneously and by the same traversing step separately detecting slow neutrons and gamma rays at points substantially equidistant from the neutron source by producing systematically related electrical signals, simultaneously and by the same traversing step separately detecting gamma radiation and slow neutrons at points that are substantially equidistant from the neutron source and vertically spaced from the first recited detection points by producing systematically related electrical signals, and independently receiving said signals and deriving therefrom a signal that is systematically related to the intensity of the gamma rays of inelastic scattering of neutrons in the formations adjacent said first mentioned points of detection.

2,776,379
CONSTANT FREQUENCY POWER SUPPLY
Walter E. Sargeant, Huntington Woods, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 31, 1953, Serial No. 401,664
14 Claims. (Cl. 307—72)

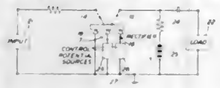
1. The combination with a source of power of varying frequency, of control apparatus for converting input power of varying frequency to output power of constant frequency comprising, variable impedance means having a power circuit and a control circuit affecting the impedance of said variable impedance means, detector means having an input circuit connected to said variable impedance means and an output circuit, and control means connected to said control circuit of said variable impedance means and supplying periodically varying control current thereto having a frequency corresponding to the output frequency of said control apparatus.

2,776,380
ELECTRICAL CIRCUITS EMPLOYING MAGNETIC CORES
Frederick T. Andrews, Jr., Morristown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application April 27, 1954, Serial No. 425,875
14 Claims. (Cl. 307—88)



14. An electrical circuit comprising a magnetic core having a plurality of windings thereon, said windings including an input, an output, and an advance winding, a first unidirectional current element connected in series with said output winding, load means, a second unidirectional current element connected in series with said load means, said load means and said second unidirectional current element being connected in shunt across said output winding and said first unidirectional current element, and means for switching the direction of magnetization of said core and applying a pulse to said output winding.

2,776,381
MULTIELECTRODE SEMICONDUCTOR CIRCUIT ELEMENT
Edwin G. Baldwin, East Orange, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application January 25, 1952, Serial No. 268,219
6 Claims. (Cl. 307—88.5)



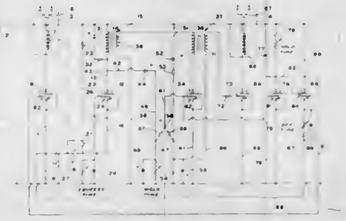
4. An amplifying electronic gate comprising a cylindrical housing, a wafer of semiconductive material laterally supported within said housing, a pair of closely spaced electrodes making point contact with one side of said wafer, a plurality of electrodes making point contact with the other side of said wafer, circuital means interconnecting each of the electrodes of said pair with one of the electrodes of said plurality, and means for applying control potentials to each of the other electrodes of said plurality.

2,776,382
VOLTAGE AND CURRENT REGULATION
James Lee Jensen, St. Louis Park, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application July 25, 1955, Serial No. 524,039
12 Claims. (Cl. 307—97)

1. Regulating means for supplying current from an unregulated source to a load device comprising: first and second transistors each having a plurality of electrodes including a base, a collector, and an emitter, said collector and emitter electrodes of said first transistor comprising the output electrodes of said first transistor; circuit means including said output electrodes interconnecting the output terminals of said source and the input terminals of said load device; means connecting the emitter of said second transistor to one of said load terminals; voltage reference means; means connecting said voltage reference means from the base of said second transistor to the other of said load terminals; potential producing means energizable to produce a potential; means connecting the collector of said second transistor through said potential producing means to said other load terminal so that upon conduction of said second transistor said potential producing means is energized; impedance means; means connecting said impedance means to the base of said first transistor in current controlling relation thereto, and to said potential producing means, so that upon energization of said potential producing means said impedance means cuts off the conduction of said first transistor.

2,776,383
MULTI-FUNCTION ELECTRONIC TIMING CIRCUIT
Stuart C. Rockafellow, Farmington, Mich., assignor to Robotron Corporation, Detroit, Mich., a corporation of Michigan
Application April 21, 1952, Serial No. 283,433
17 Claims. (Cl. 307—112)

17. In a sequence timing device, the combination comprising: a load; a source of alternating current; a thyratron connected in series with said load between the terminals of said source; a first source of constant potential including a first capacitor and means connecting the negative terminal of said first source to the control electrode of said thyratron and means connecting the positive terminal of said first source to the cathode of said thyratron; a circuit supplying positive potential to the control electrode of said thyratron, said circuit including a switch rendered non-conductive by a negative potential; a connection from the negative side of said first source to said switch and connected for rendering it non-conductive; a second source of constant potential including a second capacitor and means connecting the positive terminal thereof to one terminal of said switch and means connecting the negative terminal thereof to another terminal of said switch, the



polarity of such connection being such that a positive potential from said second source will render said switch conductive; a common source simultaneously charging both of said sources, and the circuit of said first source including more resistance serially connected with said first capacitor than the resistance serially connected with said second capacitor whereby said second source is charged to a potential of value higher than that of said first source; means simultaneously diminishing the value of potentials on said sources with the value of the potential on said second source being diminished at a rate faster than the rate of diminution of the potential on said first source; whereby said thyratron is conducting when both of said sources are at their maximum values of potential and said thyratron becomes non-conducting at a determinable point during the diminution of the values of the potential provided by said respective sources.

2,776,384
VARIABLE TIMING APPARATUS
Richard H. Long, Rogue River, Oreg., assignor to Farr Company, Los Angeles, Calif., a corporation of California
Application December 5, 1952, Serial No. 324,311
18 Claims. (Cl. 307—132)

18. A timer including, an electrically driven primary timing mechanism including a variable power driven cam, a synchronous motor, and a speed-reducing drive from the motor to the cam, said mechanism being adapted to operate continuously, an electrically driven secondary timing mechanism including a fixed cam, a synchronous motor, and a speed-reducing drive from the last mentioned motor to the fixed cam, said secondary timing mechanism being adapted to operate intermittently, a holding switch in a circuit to the secondary timing mechanism adapted to be held closed by the fixed cam during operation of the secondary timing mechanism, means connecting said mechanisms including, a switch controlling the secondary timing mechanism and adapted to be operated by the variable cam, the variable cam mech-

anism including, two cooperatively related cam sections carried on a shaft and adapted to be adjusted relative to each other and to the shaft, each cam section having a periphery concentric with the shaft and extending through an angle of substantially 180 degrees.

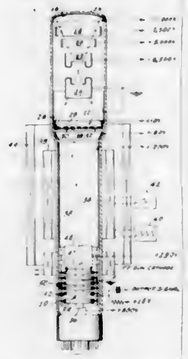
2,776,385
CONNECTING CORD FOR USE IN CONNECTION WITH AN ELECTRIC POWER UNIT
Henry J. Modrey, Stamford, Conn., assignor to AMI Incorporated, Grand Rapids, Mich., a corporation of Delaware
Application May 28, 1953, Serial No. 358,025
14 Claims. (Cl. 310—71)

1. A connecting cord for an electric power unit including drive and fan means enclosed in a sealed housing, the said cord comprising a tubular member formed with two longitudinal ducts for a cooling medium, electric conductors disposed within said tubular member, and moisture and dust proof joining and sealing means on one end of said tubular member for joining and sealing the said end to the housing, said joining and sealing means including an engaging member and a receiving member, one of said members being secured to the housing and the other being secured to the respective end of said tubular member, and coacting contact elements supported on said members for connecting said electric conductors within the tubular member with said drive means, each of said members being formed with conduits therethrough for the cooling medium, the said members being engageable in sealing engagement with each other for effecting the communication between said ducts and the interior of said housing when said members are applied to each other, the said tubular member being formed with two outer apertures each leading into one of said ducts and situated spaced apart from said joining and sealing means, one of said ducts constituting an inlet and the other an outlet duct for circulating said cooling medium through said housing and said cord.

2,776,386
ELECTRICAL-INDUCTION TORQUE TRANSMITTER
Henry S. Jacobs, Shorewood, and Matthew W. Tietze, Brookfield, Wis., assignors to Harnischfeger Corporation, Milwaukee, Wis., a corporation of Wisconsin
Application January 29, 1954, Serial No. 407,034
9 Claims. (Cl. 310—93)

1. In an induced-current torque transmitting apparatus having a circumferentially extending magnetic field member capable of producing a flux pattern with angularly spaced magnetic poles and a magnetic induced current member relatively rotatable with respect to and swept by the flux of the field produced by said field member and separated from said field by an air gap, the improvement in said induced current member which comprises a circumferentially extending armature core of laminated magnetic material, a support for said armature core mounting the same in position spaced from and concentric with said field while permitting said relative rotation, said armature core having an air gap surface thereon adjacent the air gap between the same and said field, a plurality of slots in said armature core extending inwardly from the air gap surface thereof and across said surface transversely with respect to the sweep of said field flux, said slots having two side faces rising from the margins of an inner face, conductor bars of highly electrically conductive oxidizable metal received in said slots, said bars having an exposed face substantially flush with said air gap surface and side surfaces facing the side faces of said slots, said bars having longitudinally extending shoulders extending along the sides thereof, retaining means extending along the side faces of said slots engaging the shoulders on said bars for retaining said bars in said slots, an electrical insulating oxidation coating on the surfaces of said bars to increase the resistance of electrical contact between said bars and said locking means and between the bars and the surfaces of said slots, said insulating coating being formed of oxide resulting from interaction of atmospheric oxygen with the metal of said bars, a plurality of electrically resistive heat dissipating fins, and electrical connections joining said bars in circuit with said fins to form completed induced current paths capable of giving rise to torque producing fields between said field member and said induced current member when the armature core thereof is swept by said field flux.

2,776,387
PICK-UP TUBE WITH INDUCED CONDUCTIVITY TARGET
Louis Pensak, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application July 30, 1951, Serial No. 239,203
13 Claims. (Cl. 313—65)



11. An electron camera tube comprising a target for electrons including material which is normally insulating but which has the property of becoming conducting when bombarded with electrons.

2,776,388
ELECTRON-DISCHARGE DEVICE
Robert Adler, Northfield, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois
Application May 11, 1953, Serial No. 354,171
5 Claims. (Cl. 313—72)

1. An electron-discharge device of the beam-deflection type comprising: an electron gun including an elongated electron-emissive cathode and an accelerating electrode having a narrow slot parallel to said cathode for projecting along a predetermined center plane a sheetlike electron beam of substantially rectangular cross-section; a pair of deflection-control electrodes flanking said center plane and spaced from each other by a distance greater than the spacing between said accelerating electrode and said deflection-control electrodes; an output system including a pair of output electrodes; and a screen grid

directly connected to said accelerating electrode and including a plurality of spaced conductive elements effectively covering said slot to provide a screened aperture system which, together with said deflection-control electrodes, constitutes a projection lens for focusing said electron beam on said output system.

2,776,389
ELECTRON BEAM TUBES
Rolf W. Peter, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application November 1, 1950, Serial No. 193,428
5 Claims. (Cl. 313—80)

1. An electron tube including means for producing a beam of electrons having a plurality of different axial velocity components along a given beam path in said tube, comprising electron gun means for producing a beam of electrons of substantially the same initial velocity along a first portion of said beam path, means for establishing a magnetic field axially of said beam path, and separate means for deflecting only a predetermined part of the electrons of said beam transverse to said magnetic field along a second portion of said path for causing said electrons to execute spiral paths with axial velocity components along said beam path less than the axial velocity components of the remaining part of the electrons of said beam.

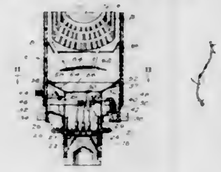
2,776,390
RADIATION DETECTOR TUBE
Nicholas Anton, Brooklyn, N. Y.
Application November 17, 1953, Serial No. 392,604
8 Claims. (Cl. 313—93)

1. A radiation detector comprising a cylindrical cathode electrode, a radiation-permeable window sealed across one end of said cathode, an insulator sealed at the other end of said cathode, an anode support mounted on and sealed to said insulator, an anode wire mounted coaxially within said cathode and supported only at one end by said insulator and terminating at the other end in a tip adjacent said window, said tip being within said cathode, an exhaust tubulation sealed to said anode support and completing the envelope of said tube, and an insulating sleeve lining the interior of said cathode adjacent said window and surrounding said anode wire tip for reducing spurious counts.

2,776,391
INDUCTION LAMP
Sandford Christopher Peek, Jr., Hamilton, Ohio, and John F. Waymouth, Marblehead, Mass., assignors to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts
Application December 30, 1955, Serial No. 556,550
1 Claim. (Cl. 313—161)

An induction lamp comprising a light-transmitting envelope, an annular concentrator disc within said envelope, a target of refractory material inside but spaced from the inside of said disc, and electrical connections from said concentrator and said disc sealed through said envelope.

2,776,392
VAPOR ELECTRIC DEVICE
August P. Colaiaco, Pittsburgh, Pa., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application October 16, 1952, Serial No. 315,001
2 Claims. (Cl. 313—171)

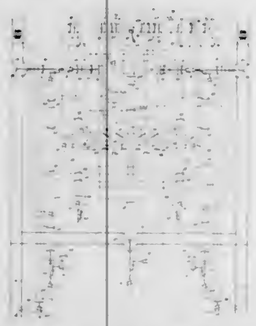


1. A vapor electric device comprising an evacuated container provided at one end with a cup for containing cathode material, an electrode projecting into said cup, supporting means for said electrode, an anode spaced longitudinally from said cup, and an enclosure disposed between said anode and cathode for directing displaced cathode material, said enclosure having one end portion formed into a return-flow funnel secured along its major diameter to said container, the other end portion being formed into an elongate cylinder extending from said funnel into said cup, said cylindrical portion being spaced concentrically from said container for providing a protected enclosed area between the container and the enclosure, and the walls of said cylindrical portion having a vertical disposition adapted to direct displaced cathode material longitudinally through the container, said electrode supporting means being protectively mounted in said enclosed area and including an electrode supporting arm extending inwardly from the enclosed area through said cylindrical portion of the enclosure.

2,776,393
ELECTRIC CURRENT DISTRIBUTION SYSTEM
Jack H. Easley, Scotia, N. Y., and Eugene M. Smith, Drexel Hill, Pa., assignors to General Electric Company, a corporation of New York
Application June 30, 1955, Serial No. 519,028
14 Claims. (Cl. 317—25)

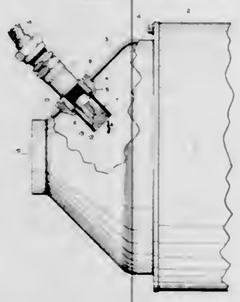
1. In an electric current distribution system, a pair of line circuit breakers each having line terminals for con-

nection to a source of electric current supply and load terminals for connection to an individual load circuit, a normally open tie circuit breaker interconnecting the load terminals of the said pair of line circuit breakers, means responsive to an abnormal condition other than overload in either said load circuit for opening the associated line circuit breaker and closing said tie circuit breaker, means operable when said tie circuit breaker is



closed for opening the common line circuit breaker remaining closed in response to overload in either said load circuit, time element means operable upon overload opening of said common line circuit breaker to effect a predetermined series of recurrent reclosures thereof if said overload persists, and selector means responsive to persistent overload in the load circuit fed through said tie circuit breaker for opening said tie circuit breaker prior to the last reclosure of said common line circuit breaker in any complete series of reclosures.

2,776,394
SCREENED SPARK PLUG
Richard P. Cuny, Union City, and Robert Wiedis, Maywood, N. J., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application February 26, 1953, Serial No. 339,138
1 Claim. (Cl. 317—96)



Ignition means for use in a combustion chamber having a highly turbulent atmosphere and a wall defining said chamber, comprising a first interiorly-threaded bushing adapted to be secured to and in the wall of said combustion chamber and being further adapted when so secured to extend an appreciable distance into said combustion chamber, a second interiorly and exteriorly threaded bushing screw-threadedly engaged in said first bushing, said first bushing having an inwardly projecting shoulder, a tubular wire screen having a radially outwardly extending annular end portion engaging the inner wall of said shoulder, said screen having said annular end portion thereof clamped between said inner wall of said shoulder of said first bushing and the inner end of said second bushing, said screen having another portion adapted to extend into said combustion chamber an appreciable distance inwardly of the inner end of said first bushing, and a spark plug screw-threadedly engaged in said second bushing, and said spark plug having finger electrodes extending into said tubular wire screen from said plug.

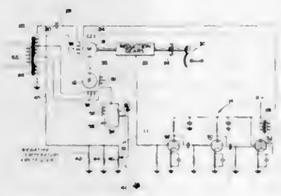
2,776,395
INTERVAL TIMER
John L. Leonard, San Diego, Calif.
Application May 11, 1953, Serial No. 354,438
7 Claims. (Cl. 317—142)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. An interval timer of the character disclosed comprising a source of D. C. potential, a condenser and a resistor connected in series circuit across said source, a load connected across said series connected condenser and resistor, a current responsive translating means and a gaseous electron discharge device connected in series across said condenser, normally open manual switch means in said series circuit for energizing said load from said source and concurrently charging said condenser from said source through said resistor as the switch means is closed thereby to initiate a timing interval which is terminated when the voltage across the condenser has increased to a value sufficient to render said electronic discharge device conducting, and transfer and holding contact means included in said translating means and operable thereby for disconnecting said load from said source and transferring connection of said source across said load to connection and holding across the translating means as the translating means operates on current discharged from said condenser through said electron discharge device, whereby energization of the translating means is maintained until said manual switch means is returned to its normally open position.

2,776,396
SECTOR SCAN CONTROL SERVO SYSTEM
Willis H. Gille, St. Paul, Minn., and Robert E. Mitchell, Kent, Wash., assignors to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application October 19, 1953, Serial No. 386,988
11 Claims. (Cl. 318—28)

5. Apparatus for reciprocating a mechanically driven element between spaced positional limits comprising servo means drivingly connected to said element, a normally balanced bridge circuit including a follow-up device energizingly connected to said servo means and mechanically driven by said servo means in a sense to restore circuit balance, and means applying progressive unbalance voltages to said circuit comprising endless rotational potentiometer means including endless winding means, a wiper for said winding connected to said bridge circuit for applying unbalance voltages thereto, means effecting unidirectional relative rotation between said winding and wiper, said winding having at least one pair of oppositely situated energizing taps, and means applying voltage of constant value to said taps, whereby the voltage applied to said bridge circuit varies in triangular wave form having a peak value corresponding to said voltage value.

2,776,397
TEMPERATURE COMPENSATED MOTOR CONTROL SYSTEM
Charles W. McWilliams, Arlington, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application March 4, 1954, Serial No. 414,046
7 Claims. (Cl. 318—328)

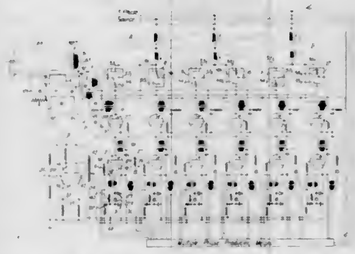


1. In a control system having means for maintaining the speed of operation of a motor substantially constant in response to a predetermined signal, comprising in combination with an adjustable signal source and a motor operated thereby, means driven by the motor for developing a signal proportional to the speed of operation of the motor, said means being subject to temperature changes which vary the output thereof, means for mixing both signals to effectuate a resulting signal for controlling the speed of operation of the motor, and impedance means connected to said signal source and responsive to the temperature changes affecting said driven means for maintaining the value of said resulting signal substantially constant for a particular setting of said adjustable source.

2,776,398
SYNCHRONOUS DISCRIMINATOR-AMPLIFIER
Roy G. Knutson, Arcadia, Calif., assignor to the United States of America as represented by the Secretary of the Navy
Application March 16, 1953, Serial No. 342,765
3 Claims. (Cl. 321—27)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. An electro-mechanical discriminator-amplifier system for derivation of an amplified output voltage corresponding to the modulation component of a suppressed-carrier-modulated type of error signal, said error signal being obtained from pick-off means energized by a source of carrier-frequency voltage, said discriminator-amplifier system comprising, in combination: reversing switch means adapted to receive said error signal as an input signal thereto; means for operating said reversing switch means in synchronism with alternations of said carrier-frequency voltage to produce phase-rectifying action upon said input signal and to correspondingly provide an output amplifier-actuating signal; magnetic amplifier means having control windings in circuit with said reversing switch means for control of said magnetic amplifier by said actuating signal; said magnetic amplifier having an output circuit including load windings and a load circuit energized by said source of carrier-frequency voltage through commutating switch means serving as mechanical rectifiers; and means for operating said commutating switch means in synchronism with alternations of said carrier-frequency voltage to correspondingly provide said amplified output voltage across said load circuit.

2,776,399
WELDING SYSTEM
Marcel R. Sommeria, Chicago, Ill., assignor to Welding Research, Inc., Chicago, Ill., a corporation of Illinois
Application June 12, 1952, Serial No. 293,121
14 Claims. (Cl. 323—18)

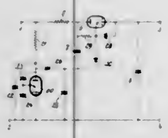


1. Apparatus for electric resistance welding of metals including in combination, a three-phase source of alternating current, a welding transformer including a primary winding and a secondary winding, a load circuit coupled to said secondary winding, rectifier means connecting said three-phase alternating current source to said primary winding including a pair of rectifier elements connected in opposite polarity to each phase of said source, said rectifier elements including control portions for rendering the same conducting, means for producing a pilot voltage having the wave form desired of the current in said load circuit, means coupled to said load circuit for generating a voltage corresponding to the current flowing therein, means for combining said pilot voltage and said generated voltage to produce a control voltage representing the difference in said voltages, a plurality of control circuits individually associated with said rectifier elements and connected to the control portions thereof for selectively rendering said rectifier elements conducting, said control circuits including means connected to said three-phase source for energizing the same therefrom during predetermined portions of each cycle of the voltage wave applied to the associated rectifier element, and means applying said control voltage to said control circuits for controlling operation thereof to produce a current wave in said load circuit which substantially corresponds in wave form to said pilot voltage.

2.776.400
VOLTAGE STABILIZER CIRCUIT ARRANGEMENT
Gerald Offley Crowther, New Malden, England, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application February 26, 1954, Serial No. 412,777
Claims priority, application Great Britain May 8, 1953
5 Claims. (Cl. 323—22)

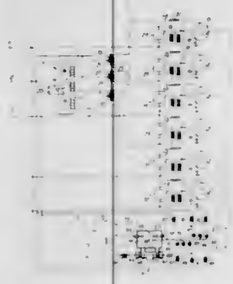
1. A voltage stabilizer circuit arrangement comprising a cold cathode trigger-controlled gas discharge tube, the

anode of which is connected via a series resistor to the first of a pair of input terminals and the cathode of which is connected to the first of a pair of output terminals, a reservoir capacitor having two terminal conductors connected between said pair of output terminals, a second



capacitor being connected between the anode of said tube and one of the terminal conductors of said reservoir capacitor and means being provided for connection of a voltage reference source between the trigger electrode of said tube and the second terminal of the pair of output terminals.

2,776,401
WELDING SYSTEM
Marcel R. Sommeria, Palos Heights, Ill., assignor to Welding Research, Inc., Chicago, Ill., a corporation of Illinois
Application May 3, 1954, Serial No. 427,045
11 Claims. (Cl. 323—58)



11. Apparatus for electric resistance welding of metals adapted to operate from a source of alternating current, said apparatus including in combination, a welding transformer including a plurality of primary windings and a secondary winding, a load circuit coupled to said secondary winding, power circuit means connecting said primary windings to the alternating current source, said power circuit means including a plurality of circuit portions respectively connected in series with said primary windings and each having series connected rectifier means and inductance means, said rectifier means of each circuit portion including first and second rectifier elements connected with opposite polarities and including control electrodes for rendering the same conducting, control circuit means including a plurality of portions individually associated with said rectifier elements and connected to said control electrodes thereof for selectively rendering said rectifier elements conducting, said control circuit means being connected to the source and providing voltage pulses in said portions thereof having predetermined phase relations with the phase of said source, and means for controlling the phase of said pulses in accordance with the wave form of the current desired in said load circuit, so that the pulses applied to said control electrode of each rectifier element renders the same conducting during a predetermined part of each cycle of the voltage wave applied thereto by said power circuit means, to thereby control the wave form of the current in said load circuit.

2,776,402
ELECTRICAL WELL LOGGING
Frank P. Kokesh, Houston, Tex., assignor to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Delaware
Application March 30, 1954, Serial No. 419,762
12 Claims. (Cl. 324—1)

1. In apparatus for investigating the resistivity of earth formations traversed by a borehole containing a conductive drilling fluid, the combination comprising a main electrode and an auxiliary electrode on either side thereof disposed for movement together through a borehole, a regulated survey current source coupled to said main electrode and to a point remote from said main electrode for passing survey current from said main electrode into the adjacent formations, a controllable source of current connected with said auxiliary electrode for supplying auxiliary current thereto in response to the potential difference between a pair of longitudinally spaced points intermediate said electrodes to reduce the potential gradient along the borehole intermediate said spaced points substantially to zero, indicating means responsive to the potential difference measured between a point in the vicinity of said main electrode and a reference point remote from said main electrode for indicating apparent formation resistivity, and impedance means connected to said main electrode and cooperative with said survey current source to diminish the survey current with increasing values of apparent formation resistivity and thereby also to diminish the auxiliary current.

2,776,403
INDUCED MAGNETIZATION COMPENSATOR
Wilmer C. Anderson, Douglaston, and Robert I. Strough, Garden City, N. Y., assignors to the United States of America as represented by the Secretary of the Navy
Application July 31, 1944, Serial No. 547,448
1 Claim. (Cl. 324—43)

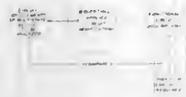
In a system for compensating a magnetically sensitive instrument for a component of a disturbing magnetic field due to distortion of the earth's field by ferromagnetic members in the structure of an aircraft, a wide-latitude magnetometer including a coil and a core with the aixs thereof oriented in the direction of said disturbing magnetic field so that its direction of maximum sensitivity is parallel to the major axis of the material producing the field distortion, detector means connected to said wide-latitude magnetometer to receive the output thereof, said detector means producing a direct current output varying

in ampitude and polarity in accordance with changes in the component of the total magnetic field along the axis of said coil and core, a compensating coil mounted adjacent said magnetically sensitive instrument which is to be compensated and remote from said wide-latitude magnetometer, said compensating coil being connected to said detector means to receive the output thereof, and means connected in the circuit between said detector and said compensating coil for varying the magnitude and polarity of the direct current supplied to said compensating coil, the flux caused by said coil at said instrument being equal to and opposing the flux at said instrument caused by said disturbing magnetic field.

2,776,404
MAGNETOMETER
Victor J. Caldecourt, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application February 28, 1955, Serial No. 490,801
7 Claims. (Cl. 324—47)

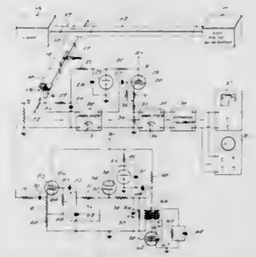
1. A magnetometer probe assembly comprising an elongated tube of material which is permeable to magnetic fields, said tube containing in the interior thereof two spaced apart galvanometer coils, each coil having a pair of electrical leads, each coil being rigidly secured to said tube, a rigid base, means including two axially aligned substantially identical pairs of spaced apart crossed leaf metal springs which extend transversely through said tube through apertures therein for securing said tube to said base, one of said galvanometer coil leads being connected to each of said leaf springs whereby any potentials developed in said galvanometer coils are conducted from said tube through said springs, and means for mechanically oscillating said tube in a periodic manner around the longitudinal axis thereof.

2,776,405
ELECTRICAL CIRCUIT ANALYZER
Edward F. Moore and Claude E. Shannon, Chatham, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application May 18, 1953, Serial No. 355,516
29 Claims. (Cl. 324—73)



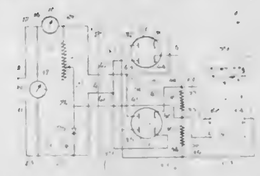
1. Apparatus for analyzing electrical circuits comprising first means for registering pluralities of circuit configurations of elements controlled by multistate devices, second means for registering the possible functional requirements to be satisfied by the circuit configuration in each of the possible states of said devices, means for sequentially comparing each of said possible circuit requirements in said second means with the behavior of said circuit configurations in said first means, and means including said comparing means indicating agreement between said circuit requirements in said second register means and the behavior of said circuit configurations in said first register means.

2,776,406
POWER MEASURING INSTRUMENT AND METHOD
Seymour B. Cohn, Flushing, and Rudolf E. Henning, New York, N. Y., assignors to Sperry Rand Corporation, a corporation of Delaware
Application February 12, 1953, Serial No. 336,468
13 Claims. (Cl. 324—103)

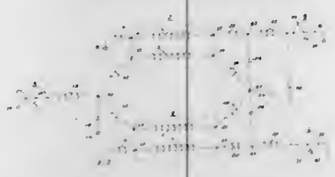


3. A pulse responsive peak power meter comprising in combination, a thermally responsive resistor element, said resistor element having a thermal response time that is long compared to the duration of the pulses of power to be measured and being responsive to said pulses of power for producing a rate of change of its resistance varying as the peak value of the pulses of power, the rate of change of resistance of said thermally responsive resistor element being substantially independent of variation in the duration of said pulses of power, means coupled to said resistor element for passing a direct current therethrough, whereby the change in the voltage drop thereacross varies as the product of the change in resistance of said resistor element and the current passing therethrough, and means coupled to said resistor element including a rate responsive circuit for measuring the rate of change of said voltage drop throughout the duration of said pulses of power, said measuring means being substantially independent of the magnitude of said voltage drop.

2,776,407
RECTIFIER TEST SYSTEM
Gilbert Halverson, Ingleside, Ill., assignor to Fansteel Metallurgical Corporation, a corporation of New York
Application March 26, 1953, Serial No. 344,801
6 Claims. (Cl. 324—158)



1. A system for testing an asymmetrically conducting device under operating conditions, said system comprising a pair of terminals for connection to a source of alternating current, a load connected between one system terminal and a common system terminal, said common system terminal and other system terminal being adapted to have the device under test connected thereto, a pair of potential responsive means connected in series, said responsive means having outer terminals and a common terminal, a direct connection between the two common terminals, and means including four half-wave rectifiers and connections between said rectifiers for connecting the outer terminals of the potential responsive means to the outer system terminals alternately in opposite senses with changes in polarity of successive half cycles of potential applied to the system input terminals.

2,776,408
HIGH FREQUENCY TRANSMISSION LINE COUPLING NETWORK
Ben H. Tongue, Westfield, N. J.
Application June 7, 1955, Serial No. 513,809
6 Claims. (Cl. 333—8)

1. An electric network for operation with a low-frequency band and a high-frequency band having, in combination, two pairs of substantially similar coiled parallel-conductor inductors of electrical length less than substantially the quarter wavelength of substantially the mid-frequency of the low-frequency band, each pair of inductors having a pair of input and a pair of output terminals; an input and at least a pair of output connectors; first and second pairs of symmetrical double-L-section low-pass filters; a pair of symmetrical π-section low-pass filters and a further π-section low-pass filter; means for connecting the first pair of symmetrical double-L-section low-pass filters in series with the pair of π-section low-pass filters between the pairs of output terminals of the pairs of parallel-conductor inductors and the pair of output connectors; means for connecting the second pair of symmetrical double-L-section low-pass filters in series with the said further π-section low-pass filter between the pairs of input terminals of the pairs of parallel-conductor inductors and the said input connector; the first and second pairs of symmetrical double-L-section low-pass filters, the pair of symmetrical π-section low-pass filters and the said further π-section low-pass filter being tuned to provide a cut-off frequency well above the highest frequency of the high-frequency band; and a coupling impedance connected between corresponding terminals of the pair of output connectors.

2,776,409
COMBINED T.-R. AND LOW POWER SWITCHING GAS DISCHARGE DEVICE
Ladislas Goldstein, Urbana, Ill., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application September 4, 1952, Serial No. 307,873
7 Claims. (Cl. 333—13)

1. In a waveguide system, a gas discharge device comprising means defining a resonant chamber, means to contain a first ionizable medium within said chamber, means to contain a second ionizable medium in said chamber separated from said first medium, first electrode means in contact with said first medium to control the ionization thereof, and second electrode means in contact with said second medium to control the ionization thereof, said means to contain a second ionizable medium including a capillary tube axially disposed in an opening in said first electrode means and extending through said resonant chamber.

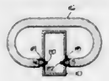
2,776,410
MEANS FOR AND METHOD OF COMPENSATING SIGNAL DISTORTION
Gustav Guanella, Zurich, Switzerland, assignor to Radio Patents Company, New York, N. Y., a partnership
Application March 26, 1953, Serial No. 344,813
13 Claims. (Cl. 333—28)

13. Means for compensating signal distortion due to non-linear input-output relation as to a given signal characteristic of a signal translation path comprising means to subject a signal from said path to further distortion similar to the original distortion by said path, to produce an additionally distorted signal, means for differentially combining, in respect to said signal characteristic, a signal derived from said path being free from additional distortion with said additionally distorted signal, and means to substantially equalize the transit times and to control the relative magnitudes and phase of said first signal and said additionally distorted signal, respectively, to substantially compensate the distortion of the resultant output signal.

2,776,411
DELAY LINES
John Reid Anderson, Berkeley Heights, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application January 26, 1953, Serial No. 333,319
4 Claims. (Cl. 333—29)

4. An inductance-capacitance delay line comprising a pair of mating parallelepiped shaped slabs of a magnetic material having a high permeability and low loss at the frequency of the delay line and providing a plurality of parallel slots at their common surface, said slots extending from one edge of said slabs to the opposite edge thereof, a single wire extending through each of said slots and defining the inductance portions of the line, said inductance portions being substantially solely defined by the sections of said wire within said slots, a lead, and capacity means connected between said lead and said wire adjacent one edge of said slabs, the mutual coupling between adjacent inductance portions being substantially determined by the spacing between said slots.

2,776,412
MAGNETIC SYSTEM FOR MICROWAVE COMPONENTS
Arthur Jodean Sparling, Santa Monica, Calif., assignor to Litton Industries, Inc., Beverly Hills, Calif., a corporation of Delaware
Application February 4, 1955, Serial No. 486,090
15 Claims. (Cl. 333—98)



1. In a microwave component wherein at least one ferrite specimen is mounted entirely in a rectangular waveguide and is subjected to an externally applied static transverse magnetic field, a pair of conductive ferromagnetic pole pieces built into opposite broad sides of the waveguide for mounting the ferrite specimens to channel the magnetic field through the ferrite specimen while maintaining substantially unimpaired the conductivity of said broad sides of the waveguide.

2,776,413
CORE FOR CHOKE COIL OR RESISTOR
Edgar J. Knouse, St. Marys, Pa., assignor to Quality Components, Incorporated, St. Marys, Pa., a corporation of Pennsylvania
Application May 4, 1951, Serial No. 224,550
1 Claim. (Cl. 336—192)

A coil comprising a small molded core of plastic material having terminals embedded therein and extending outwardly therefrom, a coil having its turns wound on said molded core, a passage in the form of an upwardly open slot in the surface of said molded core and extending longitudinally of the axis of the coil, said coil being wound over said slot with its ends connected to the respective terminals, a wire snugly fitting in said slot and spaced from said coil turns to effect the impedance of the same, and a plastic coating applied in a flowable state and when hardened to lock said wire in said slot and interlock the under side of the turns of the coil winding.

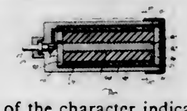
2,776,414
TRANSFORMER WINDING RETAINER
Douglas H. Harse, North Syracuse, N. Y., assignor to General Electric Company, a corporation of New York
Application April 5, 1955, Serial No. 499,410
1 Claim. (Cl. 336—198)

A transformer assembly comprising a four-legged core of rectangular configuration having a rectangular window, a sheet of flexible electrical insulating material having a body portion, means defining openings near opposite ends of said body portion of said sheet of material, projections on said body portion of said sheet of material extending in directions that are transverse to a line between said openings, said sheet of material being wrapped around one leg of said core, a winding wrapped around said sheet of material and extending through said openings so as to hold said sheet of material around said leg of said core, the width of said body portion being less than the width of said window along the legs of said core about which said sheet of material is wrapped, the length of said projections and the width of said body portion being greater than the width of said window in the direction of the leg of the core around which said sheet of material is wrapped.

2,776,415
TUBE SOCKET FOR PRINTED WIRING PANELS
William J. McGinley, Park Ridge Manor, Ill., assignor to Methode Manufacturing Corporation, Chicago, Ill., a corporation of Illinois
Application June 25, 1953, Serial No. 364,109
21 Claims. (Cl. 339—193)

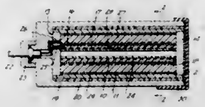
6. An electron tube socket arrangement to be located in a hole in a printed circuit panel comprising, an insulating body member adapted to be located in the hole of said panel, a plurality of parallel bores formed in said body member and opening through the top face thereof, each bore having a closed-wall restricted extension thereof opening through the bottom end surface of said body, and a pin-receiving contact disposed in each of said bores, each contact having a terminal strip extending downwardly through said closed-wall bore extension and upwardly along the outside of said body member, the upwardly extending portion of said strip along the outside of said body member being slightly bent away from said body member so as to form a spring engagement with the edge of the hole in said panel, said upwardly extending portion of said terminal strip having an inwardly extending off-set providing a shoulder for engaging the lower face of said panel, and said body member being provided with a central bore parallel to said first-mentioned bores and extending through said body member, a conducting shield located within said central bore, and a ground strap connected to said conducting shield.

2,776,416
COMPENSATED WINDING
Wilbur T. Harris, Southbury, Conn., assignor to The Harris Transducer Corporation, Woodbury, Conn., a corporation of Connecticut
Application January 22, 1954, Serial No. 405,614
20 Claims. (Cl. 340—11)



20. In a device of the character indicated, a core comprising two elongated cylindrical members of magnetic material one within the other and magnetically interconnected at their corresponding ends, a first winding in the radial space between said members and therefore coupled to said core, and a second winding substantially axially coextensive with said first winding but independent of effective coupling to said core, whereby upon differential connection of said windings stray-field effects common to both windings may be substantially eliminated.

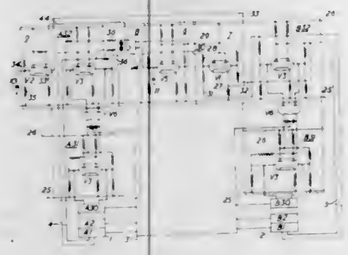
2,776,417
COMPENSATED WINDING
Wilbur T. Harris, Southbury, Conn., assignor to The Harris Transducer Corporation, Woodbury, Conn., a corporation of Connecticut
Application November 4, 1952, Serial No. 318,720
18 Claims. (Cl. 340—11)



1. In a device of the character indicated, a hollow core of magnetic material defining an annular space within said core, said core having a central opening on the axis thereof, a first winding within said annular space and developed generally along said axis, whereby a generally toroidal flux path may be established in said core, and a second winding within said opening and developed

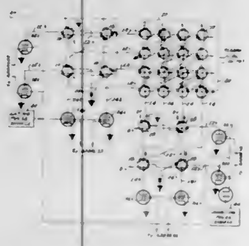
generally along said axis, whereby upon differential connection of said windings stray-field effects common to both windings may be substantially eliminated.

2,776,418
DATA COMPARING DEVICES
Ralph Townsend, Letchworth, England, assignor to The British Tabulating Machine Company Limited, Letchworth, England
Application August 19, 1953, Serial No. 375,226
Claims priority, application Great Britain October 20, 1952
11 Claims. (Cl. 340—149)



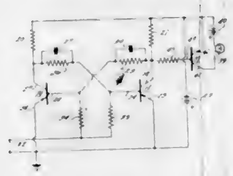
1. Apparatus for comparing first and second serial binary pulse trains having an electronic storage device settable to represent one or zero, means for setting said device to be starting condition, electronic means for comparing the setting of said device sequentially with the pulse positions of the second pulse train commencing with the least significant position and means for setting said device in accordance with the pulse position of the first pulse train whenever the setting of the said device and a corresponding pulse position of the second pulse train are alike, whereby the final setting of said device indicates whether the second pulse train is or is not less than the first pulse train.

2,776,419
MAGNETIC MEMORY SYSTEM
Jan A. Rajchman, Princeton, and Milton Rosenberg, Trenton, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application May 8, 1953, Serial No. 353,817
14 Claims. (Cl. 340—174)



11. A magnetic memory system comprising a plurality of saturable magnetic cores, coil means to apply to a selected core only a magnetomotive force of core saturating strength, means to cause said core saturating magnetomotive force to be applied successively in one sense and then in the opposite sense, thus to complete a cycle, a winding coupled to all said cores, and an integrating circuit coupled to receive the output of said last-named winding and to integrate over the said complete cycle.

2,776,420
TRANSISTOR INDICATOR CIRCUITS
Harry J. Woll, Haddon Heights, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application November 1, 1954, Serial No. 465,964
The terminal fifteen years of the term of the patent to be granted has been disclaimed
3 Claims. (Cl. 340—252)



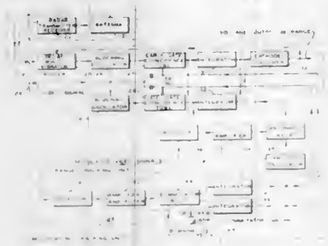
1. An indicator system for a trigger circuit comprising in combination, a first transistor in said trigger circuit of one conductivity type having a collector electrode, a source of energizing potential for said trigger circuit, a load impedance element connected between the collector electrode of said first transistor and said source of energizing potential, a second transistor of an opposite conductivity type to said first transistor for providing an indication of the electrical state of said first transistor, said second transistor having a base electrode, an emitter electrode, and a collector electrode, direct current conductive means connecting the collector electrode of said first transistor with the base electrode of said second transistor, said emitter electrode being connected to said source of energizing potential, indicator means including an incandescent lamp, means connecting said indicator means and said source between the emitter and collector electrodes of said second transistor, whereby the conduction of said second transistor is indicative of the conduction of said first transistor in said trigger circuit, the parallel combination of said load impedance element with the base-to-emitter circuit impedance of said second transistor providing a predetermined resistive load impedance for said first transistor.

2,776,421
ANTENNA COINCIDENCE INDICATOR
Josh T. Nessmith, Jr., Haddonfield, N. J., assignor to the United States of America as represented by the Secretary of the Army
Application February 21, 1955, Serial No. 489,820
3 Claims. (Cl. 343—5)

1. A device including a plan position indicator of a first radar set to indicate the position of bearing coincidence with a second radar set comprising, a synchro device connected to the antenna of each radar set with connecting wires between the stators thereof, a source of reference voltage and connections therefrom to the rotor of one of said synchros, means for rectifying the position modulated voltage output of the other synchro, a coincidence tube having preferred electrodes biased beyond

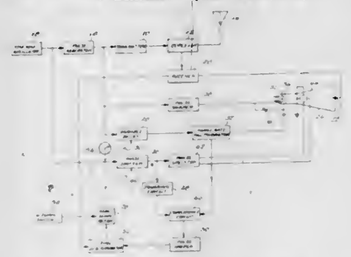
cut-off, means to unblock one of said biased electrodes to render the coincidence tube potentially conductive during a predetermined small azimuth angle, a connection from the output of the coincidence tube to the intensity grid of said indicator tube, and a source of gating pulses derived from said first radar set connected to another of said biased electrodes, whereby said gating pulses are applied to said intensity grid to produce a luminous radial line on the face of the indicator at the position where the azimuths of the two radar sets coincide; said means for unblocking including, amplifier means connected to amplify said rectified position modulated output voltage and having a suitable high resistance in its grid input circuit to clip the applied grid voltage, a pair of triodes having grids connected to the plate of said amplifier and having cathodes biased beyond cut-off when said amplifier is fully conductive, a pair of magnetic relays having windings connected in series with said triodes respectively, the first of said relays being adjusted to pick up when said amplifier grid voltage falls to a predetermined point on the steep part of said rectified voltage output wave, contacts on the first relay when actuated connected to short circuit a biasing resistor to render said coincidence tube potentially conductive, contacts on the second relay when actuated connected to open said short circuit when said amplifier grid voltage has fallen still further to a second predetermined point, whereby said coincidence tube is rendered conductive during said predetermined small azimuth angle.

2,776,422
RANGE TRACKING SYSTEM
Eugene A. Slusser, Arlington Heights, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application November 29, 1945, Serial No. 631,737
13 Claims. (Cl. 343—7.3)



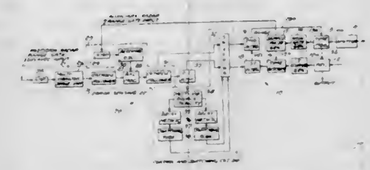
1. In airborne object locating and distance measuring system of the radio pulse-echo type, in combination, a directional antenna, means to drive said antenna in a conical scanning motion about a selected axis, means for producing an output signal in response to the amplitude modulation of echo pulses reflected from objects lying at an angle to said axis, a circuit for producing electrical signals in response to the relation between the phase of said output signal and the scanning position of said antenna, range tracking unit having a generator of two consecutive gate pulses, means for periodically scanning said two consecutive gate pulses over the range of said distance measuring system and means for automatically discontinuing gate pulse scanning upon coincidence in time of said gate pulses and an echo signal detected by said system, and means applying said electrical signals to said range tracking unit to move the range position of said gate pulses away from time coincidence with echo signal pulses modulated by said antenna scanning, whereby said range tracking unit responds only to echo pulses from an object lying on said axis.

2,776,423
MOVING RANGE INDICATOR FOR AUTOMATIC TRACKING RADAR
Frank L. Richardson, Carle Place, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application December 3, 1954, Serial No. 472,996
4 Claims. (Cl. 343—7.3)



3. In a tracking radar system, means for transmitting and receiving pulses of microwave energy, cathode ray indicating means including beam deflection electrodes and beam intensity electrodes, means coupled to one of said intensity electrodes and responsive to said transmitting means for momentarily changing the intensity of the cathode ray beam in response to a transmitted pulse, sweep generating means connected to the deflection electrodes, means for synchronizing said sweep generating means with the pulsing of said transmitting means, means for shifting the phase of the sweep generating means in response to changes in the time interval between the transmitted and received pulses, and means for deflecting the cathode ray beam momentarily in response to a received pulse.

2,776,424
AUTOMATIC LOCK-ON CIRCUIT
Julien J. B. Lair, Glen Ridge, and Philip S. Selvaggi, Passaic, N. J., assignors to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application November 4, 1954, Serial No. 466,860
7 Claims. (Cl. 343—7.3)



1. In combination, a first radar system including a range gate circuit developing a range gate pulse variable in time position to be coincident with the time of reception of an echo pulse received by said first radar system and a second radar system including a range gate circuit developing a range gate pulse, and means to cause the time of occurrence of said second radar system range gate pulse to be responsive to the time of occurrence of said first radar system range gate pulse.

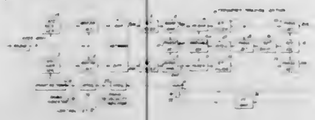
2,776,425
COHERENT RADAR SYSTEM
Frederick J. Altman, Ridgewood, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application October 29, 1952, Serial No. 317,557
19 Claims. (Cl. 343—7.7)

1. In a radio system having a transmitter for radiating oscillatory energy toward a mobile reflecting object, a receiver for receiving waves reflected by said object, means for detecting the difference in phase between said

transmitted energy and said reflected energy and means responsive to said phase detecting means to obtain the difference in frequency between said transmitted energy

and said reflected energy; means to obtain a control voltage responsive to the detected difference in frequency, a variable oscillator and means responsive to said control voltage to lock said oscillator to said detected difference.

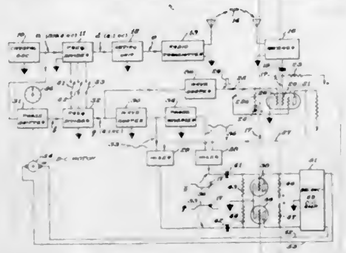
2,776,426
MOVING TARGET RANGE TRACKING UNIT
Frederick J. Altman, Ridgewood, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application November 3, 1952, Serial No. 318,503
18 Claims. (Cl. 343—9)



1. A moving target range tracking unit for use with a moving target indicator radar system having a coherent video frequency signal output comprising time selection means for dividing corresponding segments of said coherent video signal into two periods, means for detecting the Doppler frequency envelopes from the signal portion of each of said periods, means for comparing said Doppler frequency envelope components to provide sum and difference D.-C. outputs, whereby said sum output is indicative of desired signal strength and said difference output is indicative of the error in the periods of said time selection means, and means responsive to said difference output to control the periods of said time selection means to divide said coherent video signal into two periods of equal signal content, said means for detecting the Doppler frequency envelope including means for maintaining the peak output occurring during each of said periods until the succeeding period.

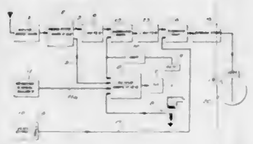
2,776,427
INDICATOR AND/OR CONTROL SYSTEM FOR PULSE-ECHO APPARATUS
Alda V. Bedford, Collingswood, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application June 17, 1942, Serial No. 447,371
5 Claims. (Cl. 343—13)

1. In a system for determining the time relation between a transmitted electrical pulse and a reflected electrical pulse, two signal channels, a comparatively high-frequency stable oscillator connected to supply signal to said two signal channels, a frequency divider in one of said channels for dividing said high frequency to a comparatively low frequency to produce a comparatively low frequency signal, means for producing periodically recurring keying pulses in synchronism with said low frequency signal, a radio transmitter and means for keying said transmitter by said keying pulses, a frequency divider in the other of said channels for dividing said high frequency to said comparatively low frequency to produce a time reference signal, means for producing periodically recurring time reference pulses in synchronism with said time reference signal, a phase-shifting device connected in one of said channels between the high-frequency oscillator and the frequency divider in said one



channel, means for receiving the pulses radiated by said transmitter after they have been reflected, a utilization circuit, means for supplying the reflected pulses and the time-reference pulses to said utilization circuit, means for adjusting said phase-shifting device whereby the time interval between a reflected pulse and a time-reference pulse may be determined, each of said frequency dividers comprising a plurality of frequency divider units connected in cascade, and a lock-in connection between each divider unit of one frequency divider and the corresponding divider unit of the other frequency divider for calibrating said system.

2,776,428
SIGNAL PHASE-CORRECTING SYSTEM
Norman A. Hassler, Port Washington, Harry R. Jurman, Floral Park, and Caesar F. Fragola, East Hempstead, N. Y., assignors to Sperry Rand Corporation, a corporation of Delaware
Application February 13, 1953, Serial No. 336,668
29 Claims. (Cl. 343—107)



1. In a signal-responsive system for providing a smooth output signal which is both proportional to a noisy input signal and substantially in phase therewith, the combination comprising a source of signal of a noisy character, signal-smoothing means connected to receive said signal and adapted to provide in its output a smoothed version of the noisy signal, said signal-smoothing means effecting a predeterminable phase lag, and means for advancing the phase of the signal an amount sufficient to compensate at least to some extent for the lag produced by said signal-smoothing means.

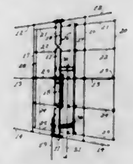
2,776,429
MULTIPLEX COMMUNICATIONS SYSTEM
Roy A. Olerud, Maywood, N. J., assignor to Multiplex Development Corporation, New York, N. Y., a corporation of New York
Application January 27, 1951, Serial No. 208,215
6 Claims. (Cl. 343—176)

1. In combination with a radio transmitter including means for generating in a main channel a main carrier

wave and means for frequency-modulating said wave with a first signal source over a certain audio-frequency range, means for multiplexing on said wave substantially without interaction between the several channels which comprises a first subcarrier channel including a first subcarrier wave generator adapted to generate a wave of constant amplitude and of a first superaudible frequency, a second signal source and means for frequency-modulating said subcarrier wave therewith, a second subcarrier channel including a second subcarrier wave generator adapted to generate a wave of constant amplitude and of a second

superaudible frequency which is separated from that of the first subcarrier wave by a superaudible frequency difference, a third signal source and means for frequency-modulating said second subcarrier wave therewith, a wave mixer connected to the outputs of said first and second subcarrier channels for combining the frequency-modulated subcarrier waves, filter means of balanced push-pull type symmetrical with respect to ground having an input connected to the output of said mixer, said balanced filter means being proportioned to pass the frequency band occupied by said subcarrier channels and to eliminate higher frequencies, thermionic phase-modulator means of push-pull type connected to phase-modulate said main carrier by said modulated subcarriers simultaneously, means connecting the frequency-modulated main carrier wave to two control grids of said phase modulator means, means symmetrically connecting two outputs of said balanced filter means to two injector grids of said phase-modulator means, an output for said phase-modulator means, and means including a broadband coupling network adapted to couple said last-mentioned output to transmitter radiating means.

2,776,430
TELEVISION ANTENNA
Leonard J. Lynch, De Kalb, Ill.
Application March 13, 1951, Serial No. 215,332
11 Claims. (Cl. 343—836)



10. In combination with a vertical array type television antenna, a vertical array type reflector in a fixed, spaced, substantially parallel relationship to the back thereof and including a plurality of loops which are connected to form an impedance which by absorption of otherwise interfering signals from an undesired station in a channel shields the television antenna while it is receiving signals from a desired station in that channel.

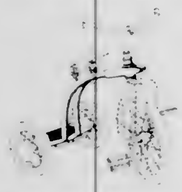
DESIGNS

JANUARY 1, 1957

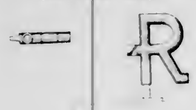
179,467
CABINET HANDLE AND THE LIKE
Wytant P. Aleks, Rockford, Ill., assignor to National Lock Co., Rockford, Ill., a corporation of Delaware
Application March 19, 1956, Serial No. 40,656
Term of patent 14 years
(Cl. D10—8)

179,468
PORTABLE OUTDOOR BARBECUE
Robert A. Berliner, North Hollywood, and Arpad P. Augusztiny, Sierra Madre, Calif.; said Augusztiny assignor to said Berliner
Application April 20, 1956, Serial No. 41,145
Term of patent 7 years
(Cl. D81—10)

179,469
TRICYCLE
Henry D. Bishop, Harper Woods, Mich., assignor to Evans Products Company, Plymouth, Mich., a corporation of Delaware
Application March 2, 1955, Serial No. 34,817
Term of patent 14 years
(Cl. D34—15)



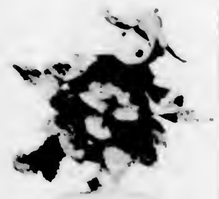
179,470
COMBINATION CAP AND SCREW DRIVER FOR CONTAINER OF LIGHTER FLUID
Charles A. Byrne, Washington, D. C.
Application January 4, 1956, Serial No. 39,596
Term of patent 14 years
(Cl. D58—26)



179,471
COMBINATION CAP AND SCREW DRIVER FOR CONTAINER OF LIGHTER FLUID
Charles A. Byrne, Washington, D. C.
Application January 4, 1956, Serial No. 39,597
Term of patent 14 years
(Cl. D58—26)

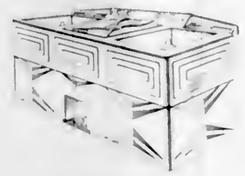
179,472
COMBINATION CAP AND SCREW DRIVER FOR CONTAINER OF LIGHTER FLUID
Charles A. Byrne, Washington, D. C.
Application January 4, 1956, Serial No. 39,600
Term of patent 14 years
(Cl. D58—26)

179,473
FIGURINE
Helen D. Cole, New York, N. Y., assignor to Holly Boy, Inc., New York, N. Y., a corporation of New York
Application January 20, 1956, Serial No. 39,861
Term of patent 14 years
(Cl. D29—23)

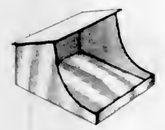


179,474
INSTRUMENT PANEL
Mark E. De Groff, Tulsa, Okla.
Application May 5, 1955, Serial No. 35,853
Term of patent 14 years
(Cl. D26—1)

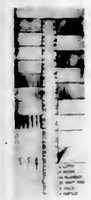
179,475
LAUNDRY MACHINE
John Emile and John L. Stephens, Miami, Fla., assignors to Clothes-"A"-Clean Manufacturing Corp., Miami, Fla.
Application March 13, 1956, Serial No. 40,589
Term of patent 14 years
(Cl. D49—1)



179,476
PET ANIMAL BED
Charles W. Field, Minneapolis, Minn.
Application January 26, 1956, Serial No. 39,925
Term of patent 14 years
(Cl. D12—2)



179,477
SURFACE FINISH GAUGE
Robert Goodman and Harold D. Rice, Stamford, Conn.
Application August 9, 1954, Serial No. 31,767
Term of patent 14 years
(Cl. D52—1)



179,478
CROWN CATCHER
Clare E. Hodgman, Mamaroneck, N. Y., assignor to The Coca-Cola Company, New York, N. Y., a corporation of Delaware
Application January 10, 1956, Serial No. 39,688
Term of patent 14 years
(Cl. D67—3)

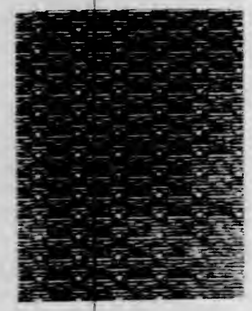
179,479
WESTERN SADDLE
Leo V. Houy, Pueblo, Colo.
Application July 29, 1955, Serial No. 37,213
Term of patent 7 years
(Cl. D38—15)

179,480
TWO-DRAWER SHEET DISPENSER
Vincent C. Jones, Appleton, and Archie S. Krueger, Green Bay, Wis., assignors to Marathon Corporation, Menasha, Wis., a corporation of Wisconsin
Application February 2, 1956, Serial No. 40,010
Term of patent 14 years
(Cl. D74—9)

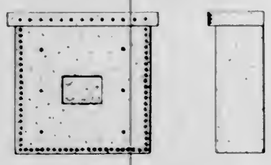
179,481
JEWELRY FINDING OR SIMILAR ARTICLE
Adolph Katz, Providence, R. I., assignor to Coro, Inc., New York, N. Y., a corporation of New York
Application June 25, 1956, Serial No. 42,022
Term of patent 7 years
(Cl. D45—1)

179,482
CANISTER TYPE VACUUM CLEANER
Franklin A. Kolyer, Murray Hill, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application July 30, 1956, Serial No. 42,436
Term of patent 14 years
(Cl. D9—2)

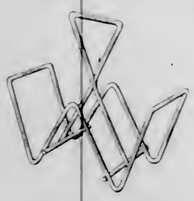
179,483
TEXTILE FABRIC
Arnold G. Kovler, Fair Lawn, N. J., assignor to Chicopee Mills, Inc., a corporation of New York
Application September 5, 1956, Serial No. 42,839
Term of patent 14 years
(Cl. D92—1)



179,484
COMBINED PORTABLE BAR AND AQUARIUM
Nathaniel V. Lampkins, Washington, D. C.
Application May 24, 1955, Serial No. 36,191
Term of patent 7 years
(Cl. D33—19)



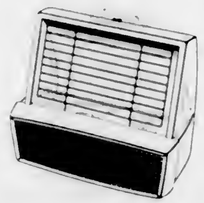
179,485
PLAYING CARD HOLDER
Clayton A. Laughlin, Minneapolis, Minn., assignor of one-half to Donald E. Harley and one-half to Cecil B. Woofter, both of St. Paul, Minn.
Application December 12, 1955, Serial No. 39,290
Term of patent 14 years
(Cl. D34—13)



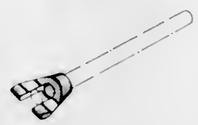
179,486
SHOE
Beth Levine, New York, N. Y.
Application April 10, 1956, Serial No. 40,996
Term of patent 14 years
(Cl. D7—7)

179,487
PAINT SCRAPER
Charles W. Miller, Milford, Conn.
Application June 4, 1956, Serial No. 41,758
Term of patent 3½ years
(Cl. D9—6)

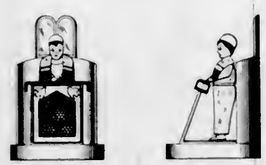
179,488
FAN HEATER OR SIMILAR ARTICLE
Walter E. Moore, Stratford, and John A. Russo, Bridgeport, Conn., assignors to General Electric Company, a corporation of New York
Application March 7, 1956, Serial No. 40,501
Term of patent 14 years
(Cl. D81—10)



179,489
CIGARETTE HOLDER
Musa Mucho, Chicago, Ill.
Application August 9, 1956, Serial No. 42,557
Term of patent 14 years
(Cl. D85—8)

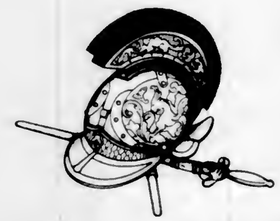


179,490
TABLE ORNAMENT OR SIMILAR ARTICLE
Sara Rae Naimon, Milwaukee, Wis.
Application July 25, 1956, Serial No. 42,377
Term of patent 14 years
(Cl. D29—23)

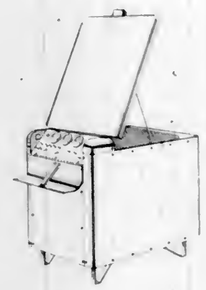


179,491
PIN
Harry M. Osers, New York, N. Y.
Application May 28, 1956, Serial No. 41,687
Term of patent 3½ years
(Cl. D45—19)

179,492
TABLE LIGHTER OR SIMILAR ARTICLE
Sidney Rubeck, New York, N. Y.
Application August 31, 1956, Serial No. 42,799
Term of patent 14 years
(Cl. D48—27)



179,493
FIELD TEST UNIT FOR TESTING AIRPLANE GENERATORS
Albert A. Sackler, Levittown, N. Y., assignor to Consolidated Diesel Electric Corporation, Stamford, Conn., a corporation of New York
Application November 1, 1954, Serial No. 32,889
Term of patent 14 years
(Cl. D52—1)



179,494
EXPANSIBLE WRIST WATCH BRACELET
John F. Sand, Convent Station, N. J., assignor to The Gemex Corporation, Union, N. J., a corporation of New Jersey
Application April 4, 1956, Serial No. 40,895
Term of patent 14 years
(Cl. D45—4)

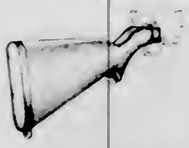
179,495
SPEED REDUCER OR SIMILAR ARTICLE
Martin T. Schumb, Milton, Mass., assignor to The Murray Company of Texas, Inc., Dallas, Tex., a corporation of Delaware
Application May 27, 1955, Serial No. 36,268
Term of patent 14 years
(Cl. D55—1)

179,496
SPEED REDUCER OR SIMILAR ARTICLE
Martin T. Schumb, Milton, Mass., assignor to The Murray Company of Texas, Inc., Dallas, Tex., a corporation of Delaware
Application May 27, 1955, Serial No. 36,270
Term of patent 14 years
(Cl. D55—1)

179,497
DOORKNOB
Hayes O. Scott, Flint, Mich., assignor to The Engineered Products Company, Flint, Mich., a corporation of Michigan
Application November 3, 1954, Serial No. 32,938
Term of patent 14 years
(Cl. D50—3)

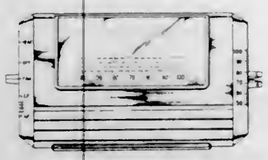
179,498
LACE
Frank H. Shepherdson, Philadelphia, Pa., assignor to North American Lace Company, Inc., Philadelphia, Pa.
Application February 13, 1956, Serial No. 40,123
Term of patent 3½ years
(Cl. D47—6)

179,499
GUN
George C. Sullivan, Hollywood, Calif.
Application June 13, 1955, Serial No. 36,491
Term of patent 14 years
(Cl. D30—1)



179,500
THERMOSTAT
Bertrand N. Trombley, Birmingham, Mich., assignor to Detroit Controls Corporation, Detroit, Mich., a corporation of Michigan
Application December 30, 1955, Serial No. 39,527
Term of patent 14 years
(Cl. D52—7)

179,501
THERMOSTAT
Bertrand N. Trombley, Birmingham, Mich., assignor to Detroit Controls Corporation, Detroit, Mich., a corporation of Michigan
Application December 30, 1955, Serial No. 39,530
Term of patent 14 years
(Cl. D52—7)



179,502
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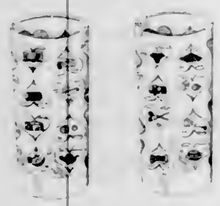
Hyman J. Warsager, Newark, N. J.
Application February 7, 1956, Serial No. 40,071
Term of patent 14 years
(Cl. D36—8)



179,503
SPOON OR SIMILAR ARTICLE OF FLATWARE
Marion Weeber, New York, N. Y., assignor to National Silver Company, New York, N. Y., a corporation of New York
Application April 23, 1956, Serial No. 41,177
Term of patent 14 years
(Cl. D54—12)

179,504
SPOON OR SIMILAR ARTICLE OF FLATWARE
Marion Weeber, New York, N. Y., assignor to National Silver Company, New York, N. Y., a corporation of New York
Application April 23, 1956, Serial No. 41,179
Term of patent 14 years
(Cl. D54—12)

LIST OF PLANT PATENTEES

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Boerner, Eugene S., to Jackson & Perkins Co. Chrysanthemum plant. 1548, 1–1–57, Cl. 47—60.
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Byrne, Charles A. Combination cap and screw driver for container of lighter fluid. 179,471, 1–1–57, Cl. D58—26.
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Schumb, Martin T. 179,496.
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Weeber, Marion, to National Silver Co. Spoon or similar article of flatware. 179,504. 1–1–57, Cl. D54—12.
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PATENTS WERE ISSUED ON THE 1ST DAY OF JANUARY, 1957

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

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Abbott, Andrew D., and R. O. Bolt, to California Research Corp. Polyglycol silicates. 2,776,307, 1–1–57, Cl. 260—448.8.

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Alden, Milton. Recorder. 2,776,183, 1–1–57, Cl. 346—101.

Alexander, Jesse B., to G. H. Teeple. Telescoping rotor. 2,776,017, 1–1–57, Cl. 170—160.11.

Alleman, Carl E. : *See*—
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Allen, Charles F. H., and K. C. Kennard, to Eastman Kodak Co. Stabilized photographic silver halide emulsions. 2,776,211, 1–1–57, Cl. 96—109.

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Anderson, Andrew K., and V. N. Towt. Hay baler. 2,775,930, 1–1–57, Cl. 100—180.

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Anderson, Austin E. Air injection milking machine device. 2,775,955, 1–1–57, Cl. 119—14.36.

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Andregg, Harriett, to Swift & Co. Process of making imitation nutmeats. 2,776,212, 1–1–57, Cl. 99—14.

Andrew, Eugene A., to Olin Mathieson Chemical Corp. Extrusion apparatus. 2,775,788, 1–1–57, Cl. 18—12.

Andrews, Frederick T., Jr., to Bell Telephone Laboratories, Inc. Electrical circuits employing magnetic cores. 2,776,380, 1–1–57, Cl. 307—88.

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Anhorn, Victor J., M. M. Stewart, and W. E. Morrow, to Gulf Research Development Co. Fluid catalytic hydroreforming with carbonized catalyst. 2,776,247, 1–1–57, Cl. 196—50.

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Perry, Claude A., and Wackrow. 2,775,837.

Blitz, John O., and S. G. Seltz. Antenna mast installation tool. 2,776,162 1–1–57, Cl. 294—23.

Blackstock, Marvin L. Cotton thinning machine. 2,775,926, 1–1–57, Cl. 97—15.

Blair, John M. : *See*—
Blair, Oda S. 2,775,972.

Blair, Oda S., deceased ; J. M. Blair, executor, to John H. Breck, Inc. Composition and process for dyeing hair. 2,775,972, 1–1–57, Cl. 132—7.

Blamey, William F., Jr., and D. N. Mullany. Game ball. 2,776,139, 1–1–57, Cl. 273—60.

Blattner, Emil H., to The Symington-Gould Corp. Cushioning mechanism. 2,776,057, 1–1–57, Cl. 213—46.

Bohlman, Walter S., and J. D. Hayes, Jr., to Hercules Powder Co. Vibratory packing machine. 2,775,987, 1–1–57, Cl. 141—12.

Boiu, Max R. Sliding door hanger. 2,775,782, 1–1–57, Cl. 16—105.

Bolt, Robert O. : *See*—
Abbott, Andrew D., and Bolt. 2,776,307.

Bonafide Mills, Inc. : *See*—
Rowe, William. 2,775,994.

Booth, Sheldon M. Applicator for applying a diamond filled paste to a working surface. 2,775,851, 1–1–57, Cl. 51—1.

Boots, William C., to Foster Metal Products Inc. Expansible bracelet with detachable slot and stud connection. 2,775,862, 1–1–57, Cl. 59—79.

Borg, Edward M. Method for canning evaporated and fresh milk. 2,776 213, 1–1–57, Cl. 99—54.

Borg-Warner Corp. : *See*—
Anderson, J. Edward C. 2,775,957.
Reh, Carter K. 2,776,113.
Rudy, Marion F. 2,776,173.

Borolite Corp. : *See*—
Steinitz, Robert. 2,775,809.

Bostitch, Inc. : *See*—
Maynard, Arthur H. 2,775,764.

Boughton, Owen H., to Gould-National Batteries, Inc. Casting machine. 2,775,802, 1–1–57, Cl. 22—76.

Bowers, Harold E., to The Commonwealth Engineering Co. of Ohio. Process for producing porous oil shale products. 2,776,210, 1–1–57, Cl. 106—40.

Bowman, Glade B. : *See*—
Hammond, Milton B., and Bowman. 2,776,255.

Bradley, Robert O., to Toledo Scale Co. Batching scale control circuit. 2,776,103, 1–1–57, Cl. 249—2.

Breck, John H., Inc. : *See*—
Blair, Oda S. 2,775,972.

Breguet, Louis. Aircraft structural elements and especially wings from reinforced concrete. 2,776,100, 1–1–57, Cl. 244—124.

Bremer, Hermann F., to Carbon Heater Corp. Electrical water heater. 2,776,359, 1–1–57, Cl. 219—40.

Brickman, Alan E., to Acme Highway Products Corp. Pavement joint. 2,775,924, 1–1–57, Cl. 94—17.

Brickman, Alan E., to Acme Highway Products Corp. Beam guard for highways and the like. 2,776,116, 1–1–57, Cl. 256—13.1.

Brillhart, Geraldine M. : *See*—
Mattson, William G. 2,775,778.

Brimer, Marshall R. : *See*—
Lappin, Gerald R., and Brimer. 2,776,313.

Bristol Laboratories Inc. : *See*—
McGhee, William J., and Megna. 2,776,243.

British Celanese Ltd. : *See*—
Brown, Russell J., and Downing. 2,776,223.

British Tabulating Machine Co. Ltd., The : *See*—
Towsend, Ralph. 2,776,418.

British Thomson-Houston Co. Ltd., The : *See*—
Randall, Kenneth B. 2,775,866.
Welch, Douglas F., Bell, and Randall. 2,775,865.

Brooker, Leslie G. S., and D. W. Heseltine, to Eastman Kodak Co. Optical sensitizing dyes containing a N-carbamylmethyl group. 2,776,280, 1–1–57, Cl. 260—240.6.

Brown, Henry C., to Armstrong Cork Co. Segmented insulating covering for pipes and the like. 2,776,231, 1–1–57, Cl. 154—44.

Brown, Howard D. Portable hydraulically operated digger. 2,776,114, 1–1–57, Cl. 255—22.

Brown, Oliver J. Toy gun for shooting marbles. 2,775,964, 1–1–57, Cl. 124—21.

Brown, Russell J., and J. Downing, to British Celanese Ltd. Method of producing a pile fabric of cellulose acetate. 2,776,223, 1–1–57, Cl. 117—17.

Bruce, Ralph E., and R. M. McClung, to Production Control Units, Inc. Liquid metering device. 2,775,870, 1–1–57, Cl. 62—1.

Bruestle, Carl O., to Syncro Machine Co. Wire clamp. 2,776,097, 1–1–57, Cl. 242—125.

Bruntjen, Herman A. Beverage cooling, dispensing and mixing machine. 2,775,877, 1–1–57, Cl. 62—141.

Buffalo-Springfield Roller Co., The : *See*—
Greiner, Carl F. 2,775,925.

Buhrendorf, Frederick G., to Bell Telephone Laboratories, Inc. Indexing means for signal recording and reproducing apparatus. 2,776,142, 1–1–57, Cl. 274—13.

Bullock, Milon W., to American Cyanamid Co. Substituted dithiolanyl aliphatic acids and derivatives. 2,776,298, 1–1–57, Cl. 260—327.

Bulova Watch Co., Inc. : *See*—
Fachon, Emil E. 2,775,861.

Bunnell, Fred H., H. E. Handley, and R. F. Bancroft, to Handley Brown Heater Co. Safety valve. 2,775,978, 1–1–57, Cl. 137—80.

Burris, Frank H., to Whirlpool-Seeger Corp. Centrifugal extracting and washing machine. 2,775,883, 1–1–57, Cl. 68—23.

Burrowes, John B., and K. M. Ganger, to The Lau Blower Co. Blower. 2,776,089, 1–1–57, Cl. 230—259.

Bush, William W. Interlocking joint for angle irons. 2,776,030, 1–1–57, Cl. 189—36.

Butler, Frank D. Combined hydrodynamical and compounded planetary gearing driven, internal fluid pressure axially oppositely actuated and controlled, dual flow type of variable reversible transmission coupler. 2,775,909, 1–1–57, Cl. 74—731.

Butler Mfg. Co. : *See*—
Wishart, Ronald C. 2,775,833.

Cairns, Robert E., to Monsanto Chemical Co. Polyethylene refining. 2,776,274, 1–1–57, Cl. 260—94.9.

Caldecourt, Victor J., to The Dow Chemical Co. Magnetometer. 2,776,404, 1–1–57, Cl. 324—47.

Caldwell, Harry F., to Oliver Machinery Co. Label machine feeding and timing mechanism. 2,776,038, 1–1–57, Cl. 198—34.

California Research Corp. : *See*—
Abbott, Andrew D., and Bolt. 2,776,307.
Denison, George H., Jr., and Barusch. 2,776,262.
Toland, William G., and Levine. 2,776,323.

Caltagirone, Joseph V.: *See*—
Nichols, August. 2,776,144.
Caltagirone, Joseph V., and A. Nichols; said Nichols assor. to said Caltagirone. Sound recording apparatus. 2,776,143, 1–1–57, Cl. 274—13.
Caltagirone, Joseph V., and A. Nichols; said Nichols assor. to said Caltagirone. Phonograph tablet tables. 2,776,145, 1–1–57, Cl. 274—39.
Campbell, Harris S., to Autogiro Co. of America. Aircraft having jet driven sustaining rotor. 2,776,016, 1–1–57, Cl. 170—135.4.
Canadian Patents and Developments Ltd.: *See*—
Attleck, Antony C. 2,776,257.
Canfield, Albert V. H., to Automatic Switch Co. Differential-piston valve and dual pilot-valve control therefor. 2,775,982, 1–1–57, Cl. 137—620.
Capell, Robert G., C. Karr, Jr., and W. D. Weatherford, Jr., to Gulf Research & Development Co. Fractionation of crude petroleum oil. 2,776,250, 1–1–57, Cl. 196—147.
Carbon Heater Corp.: *See*—
Bremer, Hermann F. 2,776,359.
Carborundum Co., The: *See*—
Taylor, Kenneth M. 2,776,218.
Carlsen, Leonard O., to The Gleason Works. Machine for generating gears. 2,775,921, 1–1–57, Cl. 90—3.
Carlson, Charles H., to Rockford Inventors, Inc. Pin and hoop game. 2,776,140, 1–1–57, Cl. 273—100.
Carlson, John I., to Carlson Tool & Machine Co. Wire feeding device. 2,776,004, 1–1–57, Cl. 164—49.
Carlson Tool & Machine Co.: *See*—
Carlson, John I. 2,776,004.
Carrara, Gino. Process for the manufacture of 1-p-nitrophenyl-2-amino-1,3-propanediol of threo form. 2,776,312, 1–1–57, Cl. 260—570.6.
Carrier Corp.: *See*—
Davis, Keith T. 2,776,117.
Davis, Keith T. 2,776,118.
Carstairs, Lindsay S.: *See*—
Klopstock, Hans. 2,775,765.
Cavanaugh, James R., deceased; M. Cavanaugh, administratrix. Umbrella opening device. 2,775,976, 1–1–57, Cl. 135—20.
Cavanaugh, Mildred: *See*—
Cavanaugh, James R. 2,775,976.
Chapman, Christopher L. C., to Yardney International Corp. Electrode bearing current distribution network and method of producing same. 2,776,331, 1–1–57, Cl. 136—75.
Châtelain, André. Process for making cast tile, block or the like. 2,775,791, 1–1–57, Cl. 18—47.5.
Chausson, Gaston, to Societe Anonyme des Usines Chausson. Method and device for cooling compressor type refrigerating machines. 2,775,874, 1–1–57, Cl. 62—117.8.
Chemie Gruenenthal G. m. b. H.: *See*—
Muckter, Heinrich, and Jansen. 2,776,279.
Chemische Fabrik Budenheim Aktiengesellschaft: *See*—
Pfrengle, Otto. 2,776,187.
Chemo Puro Mfg. Corp.: *See*—
Kreyss, Frank J. 2,776,290.
Chenus, Pierre J. C., to Compagnie des Machines Bull (Societe Anonyme). Electrical apparatus for computing a check symbol. 2,776,091, 1–1–57, Cl. 235—61.
Cherlow, Herman, and R. H. Ebel, to American Cyanamid Co. Process for N,N-diisopropylbenzothiazole-2-sulfenamide. 2,776,297, 1–1–57, Cl. 260—306.6.
Chicago Forging and Mfg. Co.: *See*—
Krause, Herbert. 2,776,160.
Christensen, Paul M.: *See*—
Cole, Thomas M., and Christensen. 2,776,355.
Chu Yen, Ernest: *See*—
Reed, Charles C., Ritter, Valentine, and Chu Yen. 2,776,220.
Ciba Pharmaceutical Products, Inc.: *See*—
Ruzicka, Leopold, and Fuerst. 2,776,302.
Cirillo, Lee, to Towmotor Corp. Article handling attachment for lift trucks. 2,776,064, 1–1–57, Cl. 214—653.
Cities Service Oil Co.: *See*—
Willke, Louis G., and Cullen. 2,776,318.
Cities Service Research and Development Co.: *See*—
Scheumann, Walter W. 2,776,194.
Clark, Robert G. Mitering saw units. 2,775,990, 1–1–57, Cl. 143—6.
Clark, William A., to The Texas Co. Borehole gravel packing. 2,776,011, 1–1–57, Cl. 166—51.
Clark, William A., and H. L. Morrill, to Monsanto Chemical Co. Tetraalkyl pyrophosphate insecticide stabilized with acetic anhydride. 2,776,237, 1–1–57, Cl. 167—22.
Clarke, Henry M., Jr.: *See*—
Luehrs, Hans J., and Clarke. 2,775,934.
Clarke, Robert H. Flush economizer. 2,775,772, 1–1–57, Cl. 4—67.
Clauer, Calvin K. Dual function facsimile apparatus. 2,776,336, 1–1–57, Cl. 178—6.6.
Clemens, Milton L., to Eastman Kodak Co. Monoetherification of mono-tertiarybutyl hydroquinone using a hydrocarbon solvent. 2,776,321, 1–1–57, Cl. 260—613.
Clogston, Albert M., and C. W. Harrison, to Bell Telephone Laboratories, Inc. Quantizing system employing cathode ray tube. 2,776,371, 1–1–57, Cl. 250—27.
Coates, Leroy. Toy instrument panel for cycle handle bars. 2,775,845, 1–1–57, Cl. 46—1.
Coe Mfg. Co., The: *See*—
Krag, Frederic S. 2,775,787.
Cohen, Stanley L.: *See*—
Mazza, Harold, Cohen, and Schafer. 2,776,201.
Mazza, Harold, Cohen, and Schafer. 2,776,202.
Cohn, David, to T. Cohn Inc. Bowling game and pin retraction mechanism therefor. 2,776,137, 1–1–57, Cl. 273—41.
Cohn, Seymour B., and R. E. Henning, to Sperry Rand Corp. Power measuring instrument and method. 2,776,406, 1–1–57, Cl. 324—103.
Cohn, T., Inc.: *See*—
Cohn, David. 2,776,137.
Colalaco, August P., to the United States of America as represented by the Secretary of the Navy. Vapor electric device. 2,776,392, 1–1–57, Cl. 313—171.
Cole, Quintin P., to General Electric Co. Cyanolsopropylsilanes. 2,776,306, 1–1–57, Cl. 260—448.2.
Cole, Thomas M., and P. M. Christensen, to Federal Pacific Electric Co. Face plate and dead front switches. 2,776,355, 1–1–57, Cl. 200—168.
Collins, Theron T., Jr. Control method and apparatus for heat recovery condensers. 2,776,092, 1–1–57, Cl. 236—18.
Collins, Whitney, to Continental Aviation & Engineering Corp. Ram jet engines. 2,775,867, 1–1–57, Cl. 60—39.72.
Colmol Co., The: *See*—
Anderson, Arvid R. 2,776,126.
Snyder, Clifford H. 2,776,040.
Snyder, Clifford H. 2,776,123.
Columbia-Southern Chemical Corp.: *See*—
Hultman, Stanley J. 2,776,122.
Commercial Solvents Corp.: *See*—
Shortridge, Robert W. 2,776,240.
Commonwealth Engineering Co. of Ohio, The: *See*—
Bowers, Harold E. 2,776,210.
Compagnie des Machines Bull (Societe Anonyme): *See*—
Chenus, Pierre J. C. 2,776,091.
Compton, Harold W. Working device controlling mechanism for materials handling and excavating machines. 2,776,060, 1–1–57, Cl. 214—136.
Conover, William B., and W. F. M. Gray, to General Electric Co. Noise reducing system for transformers. 2,776,020, 1–1–57, Cl. 181—31.
Conrad, Owen, to American Screen Products Co. Self-retaining latch. 2,776,002, 1–1–57, Cl. 160—369.
Continental Aviation & Engineering Corp.: *See*—
Collins, Whitney. 2,775,867.
Continental Can Co., Inc.: *See*—
Harkenrider, Robert J. 2,776,151.
Continental Motors Corp.: *See*—
Druzynski, Frank C. 2,775,960.
Kinney, David C., and Donovan. 2,775,963.
Cookson, William. Closure ring for container. 2,776,159, 1–1–57, Cl. 292—256.6.
Coover, Harry W., Jr.: *See*—
Shearer, Newton H., Jr., and Coover. 2,776,232.
Coover, Harry W., Jr., and J. B. Dickey, to Eastman Kodak Co. Mixtures comprising acrylonitrile polymers with polyacrylonitrile. 2,776,270, 1–1–57, Cl. 260—32.6.
Coover, Harry W., Jr., and J. B. Dickey, to Eastman Kodak Co. Mixtures comprising acrylonitrile polymers containing alkenyl carbonamides and polyacrylonitrile. 2,776,271, 1–1–57, Cl. 260—45.5.
Coquyt, Camiel J. Egg washing machine. 2,775,974, 1–1–57, Cl. 134—139.
Corn Products Refining Co.: *See*—
Snyder, Edward C. 2,776,228.
Cotchett, Louis M. Top roll for drawing mechanism. 2,775,793, 1–1–57, Cl. 19—142.
Cote, Omer E., to United States Automatic Box Machinery Co. Method and apparatus for spot coating box blanks. 2,776,224, 1–1–57, Cl. 117—38.
Cottrell Co., The: *See*—
Luehrs, Hans J., and Clarke. 2,775,934.
Cox, Daniel W.: *See*—
Cox, James H. and D. W. 2,776,093.
Cox, James H. and D. W. Hose retriever. 2,776,093, 1–1–57, Cl. 242—47.5.
Cox, Joe L.: *See*—
Phillips, Alger W. 2,776,070.
Cremer, Gottfried. Suction-head for use with a vacuum conveyor plant. 2,776,163, 1–1–57, Cl. 294—64.
Cremer, Gottfried, and H. Behrens. Method of operation of tunnel kilns combined with drying chambers. 2,775,823, 1–1–57, Cl. 34—35.
Crevison, Robert L. Denture fastener. 2,775,816, 1–1–57, Cl. 32—2.
Crowther, Gerald O., to Hartford National Bank and Trust Co., as trustee. Voltage stabilizer circuit arrangement. 2,776,400, 1–1–57, Cl. 323—22.
Cullen, Carroll G.: *See*—
Willke, Louis G., and Cullen. 2,776,318.
Cuny, Richard P., and R. Wiedis, to Bendix Aviation Corp. Screened spark plug. 2,776,394, 1–1–57, Cl. 317—96.
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Curtis, Franklin E. 2,775,936.
Curtis, Franklin E., deceased, by E. D. Curtis, administratrix, to Addressograph-Multigraph Corp. Roller platen carriage in address printing machines. 2,775,936, 1–1–57, Cl. 101—269.
Curtiss-Wright Corp.: *See*—
Walte, George F. 2,776,175.
Curtiss-Wright Corp., Marquette Metal Products Division: *See*—
Gleitz, Jerome D. 2,775,859.
Cusic, John W., to G. D. Searle & Co. Cyclic amides of α-tolyle acids and derivatives thereof. 2,776,282, 1–1–57, Cl. 260—247.2.
Cusic, John W., and R. A. Robinson, to G. R. Searle & Co. Quaternary ammonium salts of dialkylaminoalkyl esters of thiaxanthene-10-carboxylic acid. 2,776,299, 1–1–57, Cl. 260—328.
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Welch, Jerome B. 2,776,362.
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Green, Joseph, Daglish, and Poole. 2,776,303.
Dahl, Robert R., to The Dole Valve Co. Flow control structure. 2,775,984, 1–1–57, Cl. 138—45.
Daily, Roy, to General Electric Co. High fidelity phonograph stylus assembly. 2,776,342, 1–1–57, Cl. 179—100.41.

Daniels, James V., to Kemlite Laboratories. Photographic flash apparatus. 2,776,364, 1–1–57, Cl. 240—1.3.
Daub, Rudolph. Piston groove structure. 2,776,176, 1–1–57, Cl. 309—14.
Davidson, John T., to The Standard Register Co. Record making apparatus. 2,775,932, 1–1–57, Cl. 101—66.
Davis, Alden B.: *See*—
Shaffer, Francis N., and Davis. 2,776,261.
Davis, Keith T., to Carrier Corp. Flow control means for air conditioning apparatus. 2,776,117, 1–1–57, Cl. 257—3.
Davis, Keith T., to Carrier Corp. Gravity flow means for summer-winter air conditioner. 2,776,118, 1–1–57, Cl. 257—3.
Davis, Neville R., to Sunvic Controls Ltd. Electric snap-action switch devices. 2,776,352, 1–1–57, Cl. 200—122.
Davis, Walter M.: *See*—
Beardsell, Wallace A., Davis, and Hood. 2,775,792.
Dayton Rubber Co., The: *See*—
Freedlander, Abraham L. 2,775,775.
Dearmond, Sammie B. Pedal propelling attachment for boats. 2,775,950, 1–1–57, Cl. 115—25.
Decker, Elmer L., to Martin-Decker Corp. Torque determining method. 2,775,889, 1–1–57, Cl. 73—151.
De Ford, Devoe C., to H. & A. Selmer, Inc. Key mechanism for musical instruments. 2,775,915, 1–1–57, Cl. 84—380.
Deltrickson, Roy H., to The National Supply Co. Rod guide and packing means. 2,776,172, 1–1–57, Cl. 308—3.5.
Dekome, Arthur E. Centrifugal casting device. 2,775,801, 1–1–57, Cl. 22—58.5.
De Lange, Leendert: *See*—
Köhler, Jacob W. L., de Lange, and Schalkwijk. 2,775,875.
Schalkwijk, Willem F., de Lange, and Koopmans. 2,775,876.
Delhso, John. Self-gripping tool with resilient wires for turning socket head fasteners. 2,775,913, 1–1–57, Cl. 81—72.
Delhso, John J. Socket wrench set. 2,775,914, 1–1–57, Cl. 81—114.
Dell, Albert H., J. H. Kuck, and J. H. Sreb, to the United States of America as represented by the Secretary of the Navy. Self-destruction device. 2,775,942, 1–1–57, Cl. 102—70.2.
De Long, L. B.: *See*—
Pointer, Robert W. 2,775,869.
Demarest, Daniel D., R. M. Perkins, W. Karius, and C. Berendt, to Linker Machines, Inc. Sausage skin removing mechanism. 2,775,784, 1–1–57, Cl. 17—1.
Denison, George H., Jr., and M. R. Barusch, to California Research Corp. Knock-suppressing composition. 2,776,262, 1–1–57, Cl. 252—386.
Derman, Sam. Knockdown container. 2,776,083, 1–1–57, Cl. 229—41.
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Dickey, Joseph B.: *See*—
Coover, Harry W., Jr., and Dickey. 2,776,270.
Coover, Harry W., Jr., and Dickey. 2,776,271.
Dickmander, Julius A. Tractor loading attachment. 2,776,061, 1–1–57, Cl. 214—140.
Dietrich, Paul, to Maschinenfabrik Augsburg-Nurnberg A. G. Gripper bar support for sheet printing press. 2,776,136, 1–1–57, Cl. 271—51.
Dietz, Charles H., and R. W. Staneck, to The Standard Register Co. Strip feeding and bursting apparatus. 2,776,007, 1–1–57, Cl. 164—84.5.
Dietz, William H. Seal balancing novelty. 2,776,141, 1–1–57, Cl. 273—153.
Dingman, Thomas C., and W. Gurski, to Ford Motor Co. Motor vehicle handle assembly. 2,776,161, 1–1–57, Cl. 292—353.
Dinwiddie, James A., and M. A. Mosesman, to Esso Research and Engineering Co. Preparation of platinum-on-alumina catalyst composite. 2,776,264, 1–1–57, Cl. 252—466.
Dixon, Paul H., and M. B. Wallin, to the United States of America as represented by the Secretary of the Army. Bolt spline. 2,775,920, 1–1–57, Cl. 89—188.
Doak, Edmond R. Torque transmitting coupling. 2,775,879, 1–1–57, Cl. 64—11.
Doig, Stuart H. Candle holder. 2,775,882, 1–1–57, Cl. 67—23.
Dole Valve Co., The: *See*—
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Donovan, Daniel L.: *See*—
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Douglas, James K., to The Oilgear Co. Apparatus for filtering liquid. 2,776,056, 1–1–57, Cl. 210—166.
Douglas, Robert R., to American Meter Co., Inc. Tangents. 2,775,891, 1–1–57, Cl. 73—281.
Dow Chemical Co., The: *See*—
Caldecourt, Victor J. 2,776,404.
Erbel, Arthur J., and Kenaga. 2,776,311.
Downing Box Co.: *See*—
Ellinger, Don C. 2,775,923.
Downing, John: *See*—
Brown, Russell J., and Downing. 2,776,223.
Dresser Operations, Inc.: *See*—
Reeder, William H., III. 2,776,317.
Druzynski, Frank C., to Continental Motors Corp. Crankcase breather system. 2,775,960, 1–1–57, Cl. 123—119.
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Ladenburg, Kurt, Duesel, and Fand. 2,776,287.
Dumas, Jack. Fishing tackle. 2,775,840, 1–1–57, Cl. 43—42.16.
Du Mont, Allen B., Laboratories, Inc.: *See*—
Slate, Matthew W. 2,776,376.
Dunlop Rubber Co. Ltd.: *See*—
Pendlebury, John A. 2,776,027.
Pickup, Bryan. 2,775,888.
Trevaskis, Henry W. 2,775,868.
Dunlop Tire and Rubber Corp.: *See*—
Holroyd, Eric, and Jenkins. 2,775,986.
Jones, Frederick A., Newnham, and McKeand. 2,776,330.
Du Pont, E. I., de Nemours and Co.: *See*—
Fuller, Mack F. 2,776,265.
Jefferson, Edward G., Smith, and Stiles. 2,776,315.
O'Flynn, Denis J. 2,776,209.
Duriron Co., Inc., The: *See*—
Sinkler, Deas. 2,776,104.
Dutcher, Harris A., and C. E. Alleman, to Phillips Petroleum Co. Process for conversion of reactant materials with the use of heated pebbles. 2,776,249, 1–1–57, Cl. 196—55.
Dyer, Colver P., to Monsanto Chemical Co. Production of melamine. 2,776,285, 1–1–57, Cl. 260—249.7.
Easley, Jack H., and E. M. Smith, to General Electric Co. Electric current distribution system. 2,776,393, 1–1–57, Cl. 317—25.
Eastman Kodak Co.: *See*—
Allen, Charles F. H., and Kennard. 2,776,211.
Brooker, Leslie G. S., and Heseltine. 2,776,280.
Clemens, Milton L. 2,776,321.
Coover, Harry W., Jr., and Dickey. 2,776,270.
Coover, Harry W., Jr., and Dickey. 2,776,271.
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Hoyt, Fred W., and Kendall. 2,776,219.
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Malone, Harold L., and Vroom. 2,775,933.
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Mitchell, Irving L. 2,776,351.
Eckstein, Ernest E. Automatic tong extracting and re-setting mechanism. 2,776,164, 1–1–57, Cl. 294—110.
Ecusta Paper Corp.: *See*—
Schur, Milton O. 2,775,952.
Edwards, David N. Portable tool. 2,775,904, 1–1–57, Cl. 74—472.
Edwards, Evan A., and C. R. Wilson, to Eastman Kodak Co. Automatic spooling machine for roll film. 2,776,094, 1–1–57, Cl. 242—55.
Eichhorn, Reinhold. Key and screw attached gem setting for a finger ring. 2,775,878, 1–1–57, Cl. 63—29.
Elpper, Daniel C., and R. C. Weber, to Moline Tool Co. Apparatus for presetting cutters for use in a machine tool. 2,775,821, 1–1–57, Cl. 33—185.
Eksergian, Carolus L., to the United States of America. Projectiles. 2,775,943, 1–1–57, Cl. 102—93.
Ellinger, Don C., to Downing Box Co. Apparatus for forming folded reinforcements on box blanks. 2,775,923, 1–1–57, Cl. 93—49.
Elliott, Brantford G., to Harry Ferguson, Inc. Feed roll supporting mechanism. 2,775,991, 1–1–57, Cl. 146—118.
Elliott, Lynn T., and L. Ince. Valve operator. 2,775,906, 1–1–57, Cl. 74—625.
Elliott, Lynn T., and J. N. Morrell. Drive source shifting device for valve control or the like. 2,775,908, 1–1–57, Cl. 74—625.
Ellis, Charles A., to Sargent & Co. Screen door latch. 2,776,157, 1–1–57, Cl. 292—126.
Elms, Robert W., to The Osborn Mfg. Co. Mechanical movement and rock-over device utilizing the same. 2,775,800, 1–1–57, Cl. 22—33.
Emerson, Roy J. Speed trigger. 2,775,836, 1–1–57, Cl. 42—69.
Emmert, George W., to Federal Tool Corp. Tape dispenser. 2,776,095, 1–1–57, Cl. 242—55.5.
Emulsol Egg Products Corp., The: *See*—
Joffe, Morris H., and Lipschultz. 2,776,119.
Enslnk, Johannes, and J. Verhagen, to Hartford National Bank and Trust Co., as trustee. Stabilized transistor oscillator. 2,776,372, 1–1–57, Cl. 250—36.
Equipment Engineers, Inc.: *See*—
Krebs, Kellogg. 2,776,053.
Erbel, Arthur J., and E. E. Kenaga, to The Dow Chemical Co. Diamido antiido phosphine oxides and sulfides. 2,776,311, 1–1–57, Cl. 260—551.
Erickson, John G., to General Mills, Inc. Methyl fatty tertiary amines. 2,776,314, 1–1–57, Cl. 260—583.
Erieson, Elmer W. Display binder. 2,776,150, 1–1–57, Cl. 281—33.
Essig, Jacob F. M., to Union Carbide and Carbon Corp. Sigma spot or tack welding. 2,776,361, 1–1–57, Cl. 219—74.
Esso Research and Engineering Co.: *See*—
Bennett, Rufus B., Pfennig, and Speed. 2,776,328.
Bielstein, Walter J. 2,776,015.
Dinwiddie, James A., and Mosesman. 2,776,264.
Gilbert, George R. 2,776,188.
Ilfrey, William T., and Prokop. 2,776,112.
Mayeux, Samuel J., Jr. 2,776,329.
Rike, James L. 2,776,010.
Salathiel, Richard A. 2,776,259.
Stone, Albert L. 2,776,058.
Tausch, Gilbert H. 2,776,013.
Estes, Charles L., to International Telephone and Telegraph Corp. Communication system utilizing composite radiation pattern. 2,776,366, 1–1–57, Cl. 250—6.
Etter, Dudley W. Ink dispenser with coarse and fine adjustment of quantity dispensed. 2,776,075, 1–1–57, Cl. 222—43.
Eulner, Kurt P. A., and J. F. Mueller. Process of making intaglio printing cylinders. 2,776,256, 1–1–57, Cl. 204—25.
Evert, Karl H. Apparatus for forming flexible metal tubing. 2,776,360, 1–1–57, Cl. 219—62.
Fachon, Emil E., to Bulova Watch Co., Inc. Wrist watch bracelet attachment. 2,775,861, 1–1–57, Cl. 58—88.

Fairchild Engine and Airplane Corp.: *See*—
Petre, John W. 2,775,961.
Famous Fit, Inc.: *See*—
Gould, Barbara V. 2,775,767.
Fand, Theodore I.: *See*—
Ladenburg, Kurt, Duesel, and Fand. 2,776,287.
Fand, Theodore I., and F. Vidal, to Nopera Chemical Co., Inc. Dialkylxanthine compounds. 2,776,288, 1-1-57, Cl. 260—256.
Fansteel Metallurgical Corp.: *See*—
Halverson, Gilbert. 2,776,407.
Verdi, Columbus. 2,776,199.
Farr Co.: *See*—
Long, Richard H. 2,776,384.
Faximile, Inc.: *See*—
Schwartz, Robert S. 2,776,251.
Schwartz, Robert S. 2,776,252.
Federal Pacific Electric Co.: *See*—
Cole, Thomas M., and Christensen. 2,776,355.
Federal Products Corp.: *See*—
Worthen, John H. 2,775,820.
Federal Tool Corp.: *See*—
Emmert, George W. 2,776,095.
Fenno, John C. Nail feeder. 2,775,766, 1-1-57, Cl. 1—49.6.
Ferguson, Harry, Inc.: *See*—
Elliott, Brantford G. 2,775,991.
Richey, Clarence B. 2,775,855.
Ferguson, William C., to American-Marietta Co. Sheet metal nut with sealing means. 2,775,917, 1-1-57, Cl. 85—36.
Ferrill, Thomas M., Jr., to Sperry Rand Corp. Air traffic control system. 2,776,099, 1-1-57, Cl. 244—77.
Field Maintenance Service: *See*—
Heinrich, Samuel J. 2,776,045.
Fiordalisi, Fernanda M., to Air Reduction Co., Inc. Barbituric acids and salts thereof. 2,776,289, 1-1-57, Cl. 260—257.
First National Bank of Philadelphia, The: *See*—
Messinger, William. 2,775,931.
Fischer, Joseph. Rearview mirror. 2,775,919, 1-1-57, Cl. 88—98.
Flammer, Howard A., to Bell Telephone Laboratories, Inc. Stapling machine. 2,775,763, 1-1-57, Cl. 1—49.
Fletcher, John, to National Research Corp. Process for the production of a highly reflectant, heat resistant wrinkle finish on a base. 2,776,225, 1-1-57, Cl. 117—41.
Fogal, Gordon L., to the United States of America as represented by the Secretary of the Navy. Drill mine. 2,775,939, 1-1-57, Cl. 102—13.
Folkers, Karl, to Merck & Co., Inc. 4-pyridoxylamino-3-isoxazolidone compounds. 2,776,296, 1-1-57, Cl. 260—297.
Ford Motor Co.: *See*—
Dingman, Thomas C., and Gurski. 2,776,161.
McMillan, Lachlan, and Stocker. 2,776,174.
Fordyce, Homer E., to The Marley Co. Sectional cooling tower having intermediate water redistribution means between sections. 2,776,121, 1-1-57, Cl. 261—24.
Foreman, Frank. Smoking device. 2,775,971, 1-1-57, Cl. 131—213.
Fornwalt, Max B.: *See*—
Stewart, Vincent N., and Fornwalt. 2,776,346.
Forrer, Homer W., to Atlanta Paper Co. Bottle carrier handle structure. 2,776,072, 1-1-57, Cl. 220—113.
Foss, Warren M., and F. L. Kingsbury, to National Lead Co. Method for treating calcium sulfate pigments. 2,776,222, 1-1-57, Cl. 106—306.
Foster Metal Products Inc.: *See*—
Boots, William C. 2,775,862.
Fowler, Evans E., to American Air Filter Co., Inc. Secondary air supply mechanism for filters. 2,776,024, 1-1-57, Cl. 183—61.
Fragola, Caesar F.: *See*—
Hassler, Norman A., Jurman, and Fragola. 2,776,428.
Francis, Alfred W., to Socony Mobil Oil Co., Inc. Solvent extraction of aromatic hydrocarbons and solvent therefor. 2,776,327, 1-1-57, Cl. 260—674.
Freedlander, Abraham L., to The Dayton Rubber Co. Bed construction. 2,775,775, 1-1-57, Cl. 5—210.
Freedman, Emiel. Resilient spring envelope for collapsible tubes. 2,776,077, 1-1-57, Cl. 222—103.
Freedman, Nathan: *See*—
Beveridge, Harold N., Freedman, and Larkin. 2,776,370.
Fresard, Marcel, and M. Huber, to Mefina S. A. Cylinder device, particularly for a safety lock. 2,775,884, 1-1-57, Cl. 70—364.
Friderich, Gerhard, to the United States of America as represented by the Secretary of the Army. Eye or keeper for hook and eye fasteners. 2,775,799, 1-1-57, Cl. 20—92.4.
Friedman, John H., to The National Machinery Co. Stock feeding apparatus. 2,776,048, 1-1-57, Cl. 203—127.
Fries, Bernard A.: *See*—
Werner, Louis B., Fries, and Seaborg. 2,776,185.
Frink Sno-Plows, Inc.: *See*—
Kenyon, George W. 2,775,830.
Fuerst, Andor: *See*—
Ruzicka, Leopold, and Fuerst. 2,776,302.
Fuller, John E., Jr., to American Instrument Co., Inc. Thermostatic regulator. 2,776,354, 1-1-57, Cl. 200—141.
Fuller, Mack F., to E. I. du Pont de Nemours and Co. Process for blowing plastisols using N,N'-dinitroso-N,N'-dimethyl terephthalamide as the blowing agent. 2,776,265, 1-1-57, Cl. 260—2.5.
Fuller Mfg. Co.: *See*—
Perkins, Charles M. 2,775,901.
Furey, Lawrence M., to the United States of America as represented by the Secretary of the Army. Continuous multiple-section envelope assembly. 2,776,085, 1-1-57, Cl. 229—69.
Gaidos, Alonzo F. Bolt mechanism for firearm. 2,775,835, 1-1-57, Cl. 42—16.
Galehouse, Frederick J., to The Babcock & Wilcox Co. Boiler erection apparatus. 2,775,810, 1-1-57, Cl. 29—286.
Gammie, James, and G. H. Lovell, to Bell Telephone Laboratories, Inc. Distortion correction in repeatered carrier transmission systems. 2,776,345, 1-1-57, Cl. 179—171.
Ganger, Karl M.: *See*—
Burrowes, John B., and Ganger. 2,776,089.
Gardner Board and Carton Co., The: *See*—
Ringler, William A. 2,776,081.
Gazda, Antoine. Animated toy. 2,775,846, 1-1-57, Cl. 46—104.
Geer, William J., to General Motors Corp. Valve rotator. 2,775,959, 1-1-57, Cl. 123—90.
Geerds, Henry A., to Holland Hitch Co. Two station landing gear for semi-trailers. 2,776,148, 1-1-57, Cl. 280—150.5.
Geigy, J. R., A. G.: *See*—
Gysin, Hans, and Knüsli. 2,776,196.
Gysin, Hans, and Knüsli. 2,776,197.
Geks, Franz J., to Asta-Werke Aktiengesellschaft Chemische Fabrik. Apparatus for providing fresh cultures of living micro-organisms. 2,776,242, 1-1-57, Cl. 195—54.
General Electric Co.: *See*—
Andrews, John L. 2,775,975.
Cole, Quintin P. 2,776,306.
Conover, William B., and Gray. 2,776,020.
Dally, Roy. 2,776,342.
Easley, Jack H., and Smith. 2,776,393.
Harse, Douglas H. 2,776,414.
Porath, Norman F. 2,776,357.
Skage, Wallace V. 2,775,912.
Stewart, Vincent N., and Fornwalt. 2,776,346.
Thomas, William A. 2,776,349.
General Foods Corp.: *See*—
Birds, Jack P. 2,776,278.
General Latex & Chemical Corp.: *See*—
Osborn, Kenneth B. 2,775,998.
General Mills, Inc.: *See*—
Erickson, John G. 2,776,314.
General Motors Corp.: *See*—
Assmus, Waldemar. 2,776,135.
Geer, William J. 2,775,959.
Kapanka, William F., and Meyer. 2,775,783.
Karcher, Harry C. 2,775,864.
Kearney, William R., and Schwarz. 2,775,895.
Kubacka, Joseph E. 2,775,997.
Rassweiler, Gerald M., and Weller. 2,775,885.
Sargeant, Walter E. 2,776,379.
Wilkerson, Daniel C. 2,775,910.
Gerlach, John R., to Kwikset Locks, Inc. Extension for tubular latches. 2,776,155, 1-1-57, Cl. 292—1.
Gesellschap, Robert A., to James R. Kearney Corp. Automatic electrical sectionalizers. 2,776,350, 1-1-57, Cl. 200—108.
Gilbert, George R., to Esso Research and Engineering Co. Hydrolyzing and drying aluminum alcoholates with superheated steam. 2,776,188, 1-1-57, Cl. 23—143.
Gilbert, Samuel: *See*—
Troeger, Henry, and Gilbert. 2,775,894.
Giles, Ralph R.: *See*—
Straley, James M., and Giles. 2,776,310.
Gille, Willis H., and R. E. Mitchell, to Minneapolis-Honeywell Regulator Co. Sector scan control servo system. 2,776,396, 1-1-57, Cl. 318—28.
Gilliland, Edwin R., to Ionics, Inc. Ion-exchange-regenerant recovery. 2,776,258, 1-1-57, Cl. 210—24.
Glasebrook, Arthur L., A. N. Hoffmann, and J. B. Montgomery, to Hercules Powder Co. Rosin hydrogenation. 2,776,276, 1-1-57, Cl. 260—100.
Gleason Works, The: *See*—
Carlsen, Leonard O. 2,775,921.
Wildhaber, Ernest. 2,775,922.
Gleitz, Jerome D., to Curtiss-Wright Corp., Marquette Metal Products Division. Textile mill spindles. 2,775,859, 1-1-57, Cl. 57—130.
Globe-Union Inc.: *See*—
Kling, Arnold G. 2,776,356.
Gloss, Gunter H., to International Minerals & Chemical Corp. Process for the production of magnesium oxide from ores containing magnesium sulfate. 2,776,191, 1-1-57, Cl. 23—201.
Gödde, Franz, to Koppers Co., Inc. Apparatus for indicating the state of charge of bunkers. 2,775,892, 1-1-57, Cl. 73—304.
Goldberg, Edwin A., to Radio Corp. of America. Color television transmitter burst injection. 2,776,334, 1-1-57, Cl. 178—5.4.
Goldstein, Ladislas, to International Telephone and Telegraph Corp. Combined T-R and low power switching gas discharge device. 2,776,409, 1-1-57, Cl. 333—13.
Goodeve, James E. Posture attachments for seats. 2,775,999, 1-1-57, Cl. 155—182.
Goodman Mfg. Co.: *See*—
Lo Presti, Roy. 2,776,033.
Lo Presti, Roy F. 2,776,044.
Lundquist, Richard C. 2,776,018.
Lundquist, Richard C. 2,776,127.
Robbins, James S., and Wilms. 2,776,125.
Smith, Herman E. 2,776,124.
Gott, Otto, to Deutsche Spiegelglas Aktiengesellschaft. Optical glass. 2,776,217, 1-1-57, Cl. 106—52.
Gould, Barbara V., to Famous Fit, Inc. Garment. 2,775,767, 1-1-57, Cl. 2—43.
Gould-National Batteries, Inc.: *See*—
Boughton, Owen H. 2,775,802.
Goulding, Charles E., Sr. Cross draft burner. 2,776,001, 1-1-57, Cl. 158—91.
Grace, W. R., & Co.: *See*—
Jackson, Stacy L. 2,775,905.
Gray, Willard F. M.: *See*—
Conover, William B., and Gray. 2,776,020.

Green, Joseph, A. F. Daglish, and V. D. Poole, to Vitamins Ltd. Process for the manufacture of isoergosterone. 2,776,303, 1-1-57, Cl. 260—397.2.
Greiner, Carl F., to The Buffalo-Springfield Roller Co. Pressure control means for road rollers. 2,775,925, 1-1-57, Cl. 94—50.
Gretener, Edgar: *See*—
Arni, Johann R. 2,776,339.
Grote Mfg. Co., Inc., The: *See*—
Richardson, Henry M., and Larson. 2,775,911.
Grover, Russell C., and F. W. Silva. Apparatus for building walls. 2,775,807, 1-1-57, Cl. 25—131.
Guanella, Gustav, to Radio Patents Co. Means for and method of compensating signal distortion. 2,776,410, 1-1-57, Cl. 333—28.
Guastalli, Ettore: *See*—
Polli, John, and Guastalli. 2,775,968.
Gulf Research & Development Co.: *See*—
Anhorn, Victor J., Stewart, and Morrow. 2,776,247.
Capell, Robert G., Karr, and Weatherford. 2,776,250.
Klicker, James D., and Stevens. 2,776,260.
Gunderson, Norman R. Pictorial representation reproducing head. 2,776,182, 1-1-57, Cl. 346—75.
Gurski, Walter: *See*—
Dingman, Thomas C., and Gurski. 2,776,161.
Gysin, Hans, and E. Knüsli, to J. R. Geigy A. G. Compositions and methods for influencing the growth of plants. 2,776,196, 1-1-57, Cl. 71—2.4.
Gysin, Hans, and E. Knüsli, to J. R. Geigy A. G. Compositions and methods of influencing the growth of plants. 2,776,197, 1-1-57, Cl. 71—2.4.
Haas, Arthur W., to Toledo Scale Co. Chain tensioning device for conveyor dishwashing machines. 2,776,046, 1-1-57, Cl. 198—208.
Habicht, Lojo. Apparatus for carrying out interactions of liquids on each other. 2,776,193, 1-1-57, Cl. 23—283.
Habicht, Lojo. Process for carrying out interactions of liquids with each other. 2,776,305, 1-1-57, Cl. 260—415.
Haller, Louis G.: *See*—
Painter, Edwin S., and Haller. 2,776,192.
Halverson, Gilbert, to Fansteel Metallurgical Corp. Rectifier test system. 2,776,407, 1-1-57, Cl. 324—158.
Hammond, Milton B., and G. B. Bowman, to Rockwell Spring and Axle Co. Method of making formed, plated articles. 2,776,255, 1-1-57, Cl. 204—23.
Hamner, Lewis T. Portable liquid dispensing device. 2,775,988, 1-1-57, Cl. 141—305.
Hampton, Ronald, to Patents and Investments Ltd. Device for severing lengths of drawn stock. 2,776,006, 1-1-57, Cl. 164—68.
Handley Brown Heater Co.: *See*—
Bunnell, Fred H., Handley, and Bancroft. 2,775,978.
Handley, Harold E.: *See*—
Bunnell, Fred H., Handley, and Bancroft. 2,775,978.
Harkenrider, Robert J., to Continental Can Co., Inc. Pipe fitting for connecting metal pipe to plastic pipe. 2,776,151, 1-1-57, Cl. 285—174.
Harnischfeger Corp.: *See*—
Jacobs, Henry S., and Tietze. 2,776,386.
Harriman, Louis A.: *See*—
Lloyd, William E., and Harriman. 2,776,214.
Harris Transducer Corp., The: *See*—
Harris, Wilbur T. 2,776,416.
Harris, Wilbur T. 2,776,417.
Harris, Wilbur T., to The Harris Transducer Corp. Compensated winding. 2,776,416, 1-1-57, Cl. 340—11.
Harris, Wilbur T., to The Harris Transducer Corp. Compensated winding. 2,776,417, 1-1-57, Cl. 340—11.
Harrison, Charles W.: *See*—
Clogston, Albert M., and Harrison. 2,776,371.
Harse, Douglas H., to General Electric Co. Transformer winding retainer. 2,776,414, 1-1-57, Cl. 336—198.
Hart, Robert T., to S. D. Warren Co. Process of drum-finishing coated paper and product. 2,776,226, 1-1-57, Cl. 117—64.
Hartford National Bank and Trust Co.: *See*—
Crowther, Gerald O. 2,776,400.
Ensink, Johannes, and Verhagen. 2,776,372.
Köhler, Jacob W. L., de Lange, and Schalkwijk. 2,775,875.
Schalkwijk, Willem F., de Lange, and Koopmans. 2,775,876.
Hartzell, Maurice H. Space band cleaning machine. 2,775,777, 1-1-57, Cl. 15—102.
Harvard Mfg. Co., The: *See*—
Sands, Hillard J. 2,775,805.
Harvel Research Corp.: *See*—
Harvey, Mortimer T. 2,776,266.
Harvey, Mortimer T. 2,776,272.
Harvey, Mortimer T., to Harvel Research Corp. Partially hydrogenated furfural-ketone reaction products with aldehydes. 2,776,266, 1-1-57, Cl. 260—3.
Harvey, Mortimer T., to Harvel Research Corp. Furfural-ketone compositions of matter and methods of making same. 2,776,272, 1-1-57, Cl. 260—45.5.
Harwood, Robert H., to the United States of America as represented by the Secretary of the Navy. Sonar simulator. 2,775,828, 1-1-57, Cl. 35—10.4.
Hassler, Norman A., H. R. Jurman, and C. F. Fragola, to Sperry Rand Corp. Signal phase-correcting system. 2,776,428, 1-1-57, Cl. 343—107.
Hastings, Randall: *See*—
Strazdins, Edward, and Hastings. 2,776,221.
Haupt, Hans. Collapsible umbrella. 2,775,977, 1-1-57, Cl. 135—26.
Hayes, Jack D., Jr.: *See*—
Bohlman, Walter S., and Hayes. 2,775,987.
Hebel, Fred, to Fred Hebel Corp. Machine for dispensing refrigerated articles. 2,776,035, 1-1-57, Cl. 194—10.
Hebel, Fred, Corp.: *See*—
Hebel, Fred. 2,776,035.
Heilbronner, Harry S., to The Perry Knitting Co. Sleeve construction. 2,775,771, 1-1-57, Cl. 2—270.
Heinrichs, Samuel J., to Field Maintenance Service. Bar conveyor. 2,776,045, 1-1-57, Cl. 198—195.
Held, Joseph, to Textile Machine Works. Guide bar shogging means for knitting machines. 2,775,881, 1-1-57, Cl. 66—86.
Heli-Coil Corp.: *See*—
Smith, Byrom J. 2,775,992.
Henderson, Jack F.: *See*—
Johnson, Charles R., and Henderson. 2,775,929.
Hengstebeck, Robert J., and M. F. Oxenreiter, to Standard Oil Co. Hydrocarbon reforming with fluidized platinum and heating system therefor. 2,776,248, 1-1-57, Cl. 196—50.
Henning, Rudolf E.: *See*—
Cohn, Seymour B., and Henning. 2,776,406.
Henschel, Joseph W. Cap having a self-adjusting sweat band. 2,775,769, 1-1-57, Cl. 2—197.
Hercules Powder Co.: *See*—
Bohlman, Walter S., and Hayes. 2,775,987.
Glasebrook, Arthur L., Hoffmann, and Montgomery. 2,776,276.
Keim, Gerald I. 2,776,238.
Keim, Gerald I. 2,776,277.
Ropp, Walter S. 2,776,319.
Saunders, Robert H. 2,776,325.
Thompson, Bernard H. M. 2,776,320.
Webster, William, and Quin. 2,776,322.
Herdklotz, Earl W., to A & E Tool and Gage Co. (Inc.). Die cast toy vehicles. 2,775,847, 1-1-57, Cl. 46—221.
Heresite & Chemical Co.: *See*—
Pleuss, Herbert E. 2,776,269.
Heseltine, Donald W.: *See*—
Brooker, Leslie G. S., and Heseltine. 2,776,280.
Hess, Edward R., to the United States of America as represented by the Secretary of the Navy. Torpedo propeller guard-lock. 2,775,949, 1-1-57, Cl. 114—20.
Hettinger, Daniel M., to The Weatherproof Products Corp. Combination weather-strip and sash guide for double hung windows. 2,775,795, 1-1-57, Cl. 20—52.
Hilti, Martin. Explosively actuated fastener driving tool. 2,775,762, 1-1-57, Cl. 1—44.5.
Hilty, Donald C., to Union Carbide and Carbon Corp. Alloy addition agent. 2,776,203, 1-1-57, Cl. 75—27.
Hines, Frank F., to Baldwin-Lima-Hamilton Corp. Load cell type dynamometer with overload protection means. 2,775,887, 1-1-57, Cl. 73—141.
Hinton, John E. Measuring tape holder. 2,775,822, 1-1-57, Cl. 33—190.
Hirshstein, Joseph, to R. R. Newman. Grease and oil interceptor. 2,776,054, 1-1-57, Cl. 210—56.
Hiskey, Clarence F., and D. T. Vier, to the United States of America as represented by the United States Atomic Energy Commission. Corrosion inhibitors for deuterium exchange process. 2,776,263, 1-1-57, Cl. 252—390.
Hobbs, Oscar K. Holder for writing pad. 2,776,149, 1-1-57, Cl. 281—15.
Hoch, John R. Lawn mower attachment with rotary disc cutter. 2,775,856, 1-1-57, Cl. 56—25.4.
Hoffman, Richard E., and W. G. Rudy, to Radio Corp. of America. Method of processing a photosensitive mosaic electrode. 2,776,227, 1-1-57, Cl. 117—210.
Hoffmann, Alfred N.: *See*—
Glasebrook, Arthur L., Hoffmann, and Montgomery. 2,776,276.
Hoffmann-La Roche Inc.: *See*—
Rey-Bellet, Gérald, and Spiegelberg. 2,776,294.
Hoistad, Oscar O. Automatic fence post planter. 2,776,110, 1-1-57, Cl. 254—29.
Holland Hitch Co.: *See*—
Geerds, Henry A. 2,776,148.
Holloway, Robert L., L. Strauss, and A. E. Levendoski, to American Machine & Foundry Co. Ball return mechanism. 2,776,138, 1-1-57, Cl. 273—49.
Holmes, Roland E., and R. C. Bales. Oscillating blade edger. 2,775,857, 1-1-57, Cl. 56—26.5.
Holroyd, Eric, and D. L. Jenkins, to Dunlop Tire and Rubber Corp. Apparatus for the automatic forming of a shaped loop of wire from wire stock. 2,775,986, 1-1-57, Cl. 140—88.
Hood, Ralph S.: *See*—
Beardsell, Wallace A., Davis, and Hood. 2,775,792.
Hood, Ralph S., to Monsanto Chemical Co. Apparatus and method for producing melamine. 2,776,284, 1-1-57, Cl. 260—249.7.
Hopfeld, Henry. Ladder. 2,776,080, 1-1-57, Cl. 228—55.
Howard, Stanley R., to Pneumatic Scale Corp., Ltd. Container handling machines. 2,776,047, 1-1-57, Cl. 198—232.
Howe Scale Co., The: *See*—
Bates, Clyde N. 2,776,133.
Hoyt, Fred W., and D. L. Kendall, to Eastman Kodak Co. Gelatin coating solution for film support. 2,776,219, 1-1-57, Cl. 106—128.
Huber, Albert L., to Link-Belt Co. Skip hoist. 2,776,059, 1-1-57, Cl. 214—16.
Huber, Max: *See*—
Fresard, Marcel, and Huber. 2,775,884.
Hufford, George H. Constant delivery variable pressure pump. 2,775,946, 1-1-57, Cl. 103—120.
Hult, Gustav W., to The Mills Co. Construction unit. 2,776,029, 1-1-57, Cl. 189—34.
Hultman, Stanley J., to Columbia-Southern Chemical Corp. Gas and liquid contacting apparatus. 2,776,122, 1-1-57, Cl. 261—79.
Huntley, Frederick H., to Motor Wheel Corp. Oil burner ignition system. 2,775,966, 1-1-57, Cl. 126—93.

Hutchings, Le Roi E., and M. M. Marisic, to The Pure Oil Co. Separation of oil from spent copper oxide slurries. 2,776,246, 1-1-57, Cl. 196—30.

Hyde, Lawrence K.: *See*—
Lathrop, Robert P., and Hyde. 2,775,886.

Ianuzzi, Anthony P. Ball and socket joints. 2,776,152, 1-1-57, Cl. 287—12.

Ifrey, William T., and C. L. Prokop, to Esso Research and Engineering Co. Method of drilling wells. 2,776,112, 1-1-57, Cl. 255—1.8.

Ince, Leon: *See*—
Elliott, Lynn T., and Ince. 2,775,906.
Morrell, James N., and Ince. 2,775,907.

Industrial Rayon Corp.: *See*—
Anthony, Kenneth H. 2,776,005.
Baumann, Frank J., and Rodgers. 2,776,098.

Industrial Timer Corp.: *See*—
Tamburr, Victor E. 2,776,009.

Ingram, Frank W. Furniture stabilizing device. 2,775,849, 1-1-57, Cl. 45—139.

Interchemical Corp.: *See*—
Weber, Ira, and Basto. 2,776,267.

International Cigar Machinery Co.: *See*—
Wheeler, Henry H. 2,775,969.

International Minerals & Chemical Corp.: *See*—
Gloss, Gunter H. 2,776,191.

International Nickel Co., Inc., The: *See*—
Klingbeil, Herbert. 2,776,206.
Wallis, Albert E. 2,776,200.

International Telephone and Telegraph Corp.: *See*—
Altman, Frederick J. 2,776,425.
Altman, Frederick J. 2,776,426.
Estes, Charles L. 2,776,366.
Goldstein, Ladislas. 2,776,409.
Iskenderian, Haig P. 2,776,374.
Knuepfer, Walter J. 2,776,180.
Lair, Julien J. B., and Selvaggi. 2,776,424.
Marino, Anthony J., Jr. 2,776,131.
Silvey, John O., and Overman. 2,775,896.

Ionics, Inc.: *See*—
Gilliland, Edwin R. 2,776,258.

Isaacson, Anson, to Jay V. Zimmerman Co. Self-steering toy vehicle. 2,775,848, 1-1-57, Cl. 46—244.

Isbell, Aubrey D. Fishing reel. 2,776,096, 1-1-57, Cl. 242—84.1.

Iskenderian, Haig P., to International Telephone and Telegraph Corp. Electron discharge devices. 2,776,374, 1-1-57, Cl. 250—36.

Jackson, Stacy L., to W. R. Grace & Co. Safety guard. 2,775,905, 1-1-57, Cl. 74—609.

Jacobs, Henry S., and M. W. Tietze, to Harnischfeger Corp. Electrical-induction torque transmitter. 2,776,386, 1-1-57, Cl. 310—93.

Jansen, Erich: *See*—
Muckter, Heinrich, and Jansen. 2,776,279.

Jefferson, Edward G., R. C. Smith, Jr., and A. B. Stiles, to E. I. du Pont de Nemours and Co. Promoted cobalt oxide catalysts for hexamethylene diamine production. 2,776,315, 1-1-57, Cl. 260—583.

Jenkins, Desmond L.: *See*—
Holroyd, Eric, and Jenkins. 2,775,986.

Jenkins, William W., to G. D. Searle & Co. Basic esters of substituted 3,4-dihydro-1,2-pyran-5-carboxylic acids and salts thereof. 2,776,300, 1-1-57, Cl. 260—345.8.

Jensen, James E. Dispenser and supporting means. 2,775,989, 1-1-57, Cl. 141—360.

Jensen, James L., to Minneapolis-Honeywell Regulator Co. Voltage and current regulation. 2,776,382, 1-1-57, Cl. 307—97.

Joffe, Morris H., and M. Lipschultz, to The Emulsol Egg Products Corp. Apparatus for producing dressing. 2,776,119, 1-1-57, Cl. 259—4.

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Leistensnider, George P. 2,776,154.

Johnson, Arnold E., to Minnesota Mining & Mfg. Co. Tape applying movement. 2,776,068, 1-1-57, Cl. 216—21.

Johnson, Charles B., and R. J. Sarraf, to Rockwell Mfg. Co. Flexible diaphragm having a trough. 2,775,983, 1-1-57, Cl. 137—793.

Johnson, Charles R., and J. F. Henderson. Cooking utensil. 2,775,929, 1-1-57, Cl. 99—426.

Johnson, Malcolm O.: *See*—
Lee, John A., Barclay, and Johnson. 2,776,014.

Jones, Frederick A., J. L. M. Newnham, and D. J. McKeand, to Dunlop Tire and Rubber Corp. Production of sponge rubber. 2,776,330, 1-1-57, Cl. 260—723.

Jones, Herbert T. Still chilled refrigerator. 2,775,873, 1-1-57, Cl. 62—102.

Jones, Joe B. Sanding apparatus. 2,775,853, 1-1-57, Cl. 51—138.

Jones, Will. Corn picker apparatus. 2,776,041, 1-1-57, Cl. 198—160.

Jordt, Robert C., to G. D. Searle & Co. Ampule orienting means. 2,776,034, 1-1-57, Cl. 193—43.

Jurman, Harry R.: *See*—
Hassler, Norman A., Jurman, and Fragola. 2,776,428.

K. A. C. Ltd.: *See*—
Love, John. 2,775,806.

Kaiser Gypsum Co., Inc.: *See*—
Riddell, Wallace C., and Kirk. 2,776,234.

Kalbow, Theodore W., and L. O. Reichelt, to Western Electric Co., Inc. Method of and apparatus for use in aligning parts. 2,775,819, 1-1-57, Cl. 33—174.

Kamen, Martin D., to the United States of America as represented by the United States Atomic Energy Commission. Processes for recovering and purifying uranium. 2,776,184, 1-1-57, Cl. 23—14.5.

Kapanka, William F., and B. F. Meyer, to General Motors Corp. Door hinge, check, and hold-open. 2,775,783, 1-1-57, Cl. 16—139.

Kapp, Roland: *See*—
Klein, Howard C., and Kapp. 2,776,304.

Karcher, Harry C., to General Motors Corp. Jet propulsion engine with afterburner. 2,775,864, 1-1-57, Cl. 60—35.6.

Karius, William: *See*—
Demarest, Daniel D., Perkins, Karius, and Berendt. 2,775,784.

Karr, Clarence, Jr.: *See*—
Capell, Robert G., Karr, and Weatherford. 2,776,250.

Kearney, James R., Corp.: *See*—
Gesellschap, Robert A. 2,776,350.

Kearney, William R., and B. A. Schwarz, to General Motors Corp. Automatic radio tuning means. 2,775,895, 1-1-57, Cl. 74—10.52.

Keely, Clifford D. Prefabricated building construction. 2,775,794, 1-1-57, Cl. 20—2.

Keese, Beverly W., to Rockwell Spring and Axle Co. Vehicle drive axles. 2,776,019, 1-1-57, Cl. 180—75.

Keim, Gerald I., to Hercules Powder Co. Bactericide composition and method of using same. 2,776,238, 1-1-57, Cl. 167—30.

Keim, Gerald I., to Hercules Powder Co. Diels-alder reaction. 2,776,277, 1-1-57, Cl. 260—101.

Keiper, Francis P., Jr., to Philco Corp. Pulse system. 2,776,375, 1-1-57, Cl. 250—36.

Keller, Charles. Adjustable pleats for garment pockets. 2,775,770, 1-1-57, Cl. 2—247.

Kellogg, Joseph, to Nordberg Mfg. Co. Cam turn-off device and control therefor. 2,776,032, 1-1-57, Cl. 192—141.

Kellogg, M. W., Co., The: *See*—
Mantell, Russell M., and Plescia. 2,776,190.

Kemlite Laboratories: *See*—
Daniels, James V. 2,776,364.

Kemp, E. F., Corp.: *See*—
Kemp, Edward F., and Nichols. 2,776,179.

Kemp, Edward F., and E. G. Nichols, to E. F. Kemp Corp. Show cases. 2,776,179, 1-1-57, Cl. 312—117.

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Erbel, Arthur J., and Kenaga. 2,776,311.

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Hoyt, Fred W., and Kendall. 2,776,219.

Kennard, Kenneth C.: *See*—
Allen, Charles F. H., and Kennard. 2,776,211.

Kennedy, Thomas J.: *See*—
Wicklatz, John E., and Kennedy. 2,776,295.

Kenyon, George W., to Frink Sno-Plows, Inc. Reversible trip blade snow plow. 2,775,830, 1-1-57, Cl. 37—42.

Kingsbury, Franklin L.: *See*—
Foss, Warren M., and Kingsbury. 2,776,222.

Kinney, David C., and D. L. Donovan, to Continental Motors Corp. Engine cylinder block and head assembly. 2,775,963, 1-1-57, Cl. 123—193.

Kinney, Francis D. Guard for the release catch of a typewriter shelf. 2,776,178, 1-1-57, Cl. 312—21.

Kirk, George B.: *See*—
Riddell, Wallace C., and Kirk. 2,776,234.

Klein, Howard C., and R. Kapp, to Nopco Chemical Co. Sterol dehydrohalogenation process. 2,776,304, 1-1-57, Cl. 260—397.2.

Kleinewefers, Joh., Sohne: *See*—
Saas, Hans G. 2,776,049.

Klicker, James D., and D. R. Stevens, to Gulf Research & Development Co. Lubricant compositions. 2,776,260, 1-1-57, Cl. 252—33.6.

Kling, Arnold G., to Globe-Union Inc. Variable control unit and attachable line switch. 2,776,356, 1-1-57, Cl. 201—55.

Kling, Robert W., to Athey Products Corp. Loading machine. 2,776,036, 1-1-57, Cl. 198—9.

Klingbeil, Herbert, to The International Nickel Co., Inc. Method and apparatus for introducing low-boiling substances into molten metal. 2,776,206, 1-1-57, Cl. 75—93.

Klingspor, Carl. Cutting or polishing disk. 2,775,854, 1-1-57, Cl. 51—206.

Klok, Carl R. Can opening drain and vent punch. 2,775,814, 1-1-57, Cl. 30—6.1.

Klopstock, Hans, to L. S. Carstairs. Hand operated stapling appliances. 2,775,765, 1-1-57, Cl. 1—49.

Klotz, Robert L., Jr. Method for blasting. 2,775,940, 1-1-57, Cl. 102—23.

Knouse, Edgar J., to Quality Components, Inc. Core for choke coil or resistor. 2,776,413, 1-1-57, Cl. 336—192.

Knuepfer, Walter J., to International Telephone and Telegraph Corp. Portable equipment and folding legs therefor. 2,776,180, 1-1-57, Cl. 312—255.

Knüsli, Enrico: *See*—
Gysin, Hans, and Knüsli. 2,776,196.
Gysin, Hans, and Knüsli. 2,776,197.

Knutson, Roy G., to the United States of America as represented by the Secretary of the Navy. Synchronous discriminator-amplifier. 2,776,398, 1-1-57, Cl. 321—27.

Koch, Lynn J. Apparatus for producing rain cloud moisture. 2,776,167, 1-1-57, Cl. 299—29.

Köhler, Jacob W. L., L. de Lange, and W. F. Schalkwijk, to Hartford National Bank and Trust Co., as trustee. Regenerator construction of a cold-gas refrigerator. 2,775,875, 1-1-57, Cl. 62—136.

Koistinen, Arnold A. Thread box having a chambered cover. 2,776,079, 1-1-57, Cl. 223—107.

Kokesh, Frank P., to Schlumberger Well Surveying Corp. Electrical well logging. 2,776,402, 1-1-57, Cl. 324—1.

Kolar, Leo P.: *See*—
Unetic, Andrew J., and Kolar. 2,776,158.

Kolling, Johann, to The Babcock & Wilcox Co. Tubular fluid heater with built-in soot blower, and method effected thereby. 2,775,958, 1-1-57, Cl. 122—392.

Koopmans, Adriaan: *See*—
Schalkwijk, Willem F., deLange, and Koopmans. 2,775,876.

Koppers Co., Inc.: *See*—
Gödde, Franz. 2,775,892.
Van Ackeren, Joseph. 2,776,021.
Wessolek, Rudolf. 2,776,195.

Korry, Boris V. Electrical switches. 2,776,348, 1-1-57, Cl. 200—76.

Koster, Frank, to Vogel Tool & Die Corp. Method and apparatus for cutting tubing. 2,776,003, 1-1-57, Cl. 164—17.

Koster, Robert: *See*—
Lippe, Fritz. 2,776,129.

Krag, Frederic S., to The Coe Mfg. Co. Apparatus for the manufacture of hardboard. 2,775,787, 1-1-57, Cl. 18—4.

Krause, Herbert, to Chicago Forging and Mfg. Co. Automobile hood latch. 2,776,160, 1-1-57, Cl. 292—304.

Krebs, Kellogg, to Equipment Engineers, Inc. Hydraulic separating apparatus and method. 2,776,053, 1-1-57, Cl. 209—211.

Kreysa, Frank J., to Chemo Puro Mfg. Corp. Hydroxy cinchoninates and carboxylic acid derivatives thereof. 2,776,290, 1-1-57, Cl. 260—270.

Kruse, Arthur. Method and apparatus for the drawing of slivers. 2,775,858, 1-1-57, Cl. 57—51.

Kubacka, Joseph E., to General Motors Corp. Torsion spring seat-spring stiffener. 2,775,997, 1-1-57, Cl. 155—179.

Kuck, John H.: *See*—
Dell, Albert H., Kuck, and Sreb. 2,775,942.

Kurzbin, Karl R., to Ryder Mfg. Co. Fish eviscerator. 2,775,785, 1-1-57, Cl. 17—3.

Kuslich, John S. Fishing lure with up and down motion. 2,775,839, 1-1-57, Cl. 43—42.03.

Kwikset Locks, Inc.: *See*—
Gerlach, John R. 2,776,155.
Unetic, Andrew J., and Kolar. 2,776,158.

Ladenburg, Kurt, B. F. Duesel, and T. I. Fand, to Nepera Chemical Co., Inc. Process for the preparation of therapeutic compounds. 2,776,287, 1-1-57, Cl. 260—256.

Lair, Julien J. B., and P. S. Selvaggi, to International Telephone and Telegraph Corp. Automatic lock-on circuit. 2,776,424, 1-1-57, Cl. 343—7.3.

L'Air Liquide, Societe Anonyme pour l'Etude et l'Exploitation des Procedes Georges Claude: *See*—
Renaudie, Jacques H. 2,775,980.

La Lande, William A., Jr., and I. Mockrin, to The Pennsylvania Salt Mfg. Co. Iron-fluorine compound. 2,776,205, 1-1-57, Cl. 75—53.

Landwerlen, Richard G.: *See*—
Morrill, Elliott, and Landwerlen. 2,776,268.

Lappin, Gerald R., and M. R. Brimer, to Eastman Kodak Co. Process for making N,N-dialkyl-p-aminophenol. 2,776,313, 1-1-57, Cl. 260—574.

Lappin, Milton L., and P. I. Zandberg. Dental press. 2,775,790, 1-1-57, Cl. 18—33.

Larkin, Kenneth T.: *See*—
Beveridge, Harold N., Freedman, and Larkin. 2,776,370.

Larson, Lester L. Tow trailer for tractor. 2,776,063, 1-1-57, Cl. 214—334.

Larson, Wesley S.: *See*—
Richardson, Henry M., and Larson. 2,775,911.

Lathrop, Robert P., and L. K. Hyde, to Baldwin-Lima-Hamilton Corp. Offset yield strength testing apparatus. 2,775,886, 1-1-57, Cl. 73—88.

Lau Blower Co., The: *See*—
Burrowes, John B., and Ganger. 2,776,089.
Wentling, William H. 2,776,088.

Lee, John A., H. A. Barclay, and M. O. Johnson, to Socony Mobil Oil Co., Inc. Tool for fracturing earth formations. 2,776,014, 1-1-57, Cl. 166—177.

Lehovec, Kurt, to the United States of America as represented by the Secretary of the Army. Photon modulation in semiconductors. 2,776,367, 1-1-57, Cl. 250—7.

Leibensberger, Harry W. Film splicer and marker. 2,775,995, 1-1-57, Cl. 154—421.

Leiser, John E. Fishing bobber. 2,775,843, 1-1-57, Cl. 43—44.95.

Leistensnider, George P., to Johns-Manville Corp. Plastic packing. 2,776,154, 1-1-57, Cl. 288—8.

Leonard, John L. Interval timer. 2,776,395, 1-1-57, Cl. 317—142.

Levendoski, Alfred E.: *See*—
Holloway, Robert L., Strauss, and Levendoski. 2,776,138.

Levine, Irving E.: *See*—
Toland, William C., and Levine. 2,776,323.

Levy, Joseph, and G. A. Bernotsky, to Nopco Chemical Co. Improved hydrogenation process. 2,776,293, 1-1-57, Cl. 260—293.2.

Limerick, Donald A., and O. L. Wylie, Jr., to Shell Development Co. Hydrolysis of isopropyl esters with acid from higher alcohol hydrolysate. 2,776,324, 1-1-57, Cl. 260—639.

Lincoln Electric Co., The: *See*—
Payne, Harold S. 2,776,363.

Link-Belt Co.: *See*—
Huber, Albert L. 2,776,059.

Linker Machines, Inc.: *See*—
Demarest, Daniel D., Perkins, Karius, and Berendt. 2,775,784.

Lippe, Fritz, assor. of part interest to R. Koster. Production of sintered building material. 2,776,120, 1-1-57, Cl. 263—8.

Lipschultz, Melvin: *See*—
Joffe, Morris H., and Lipschultz. 2,776,119.

Little, Arthur D., Inc.: *See*—
Zimmermann, Francis J. 2,776,069.

Litton Industries, Inc.: *See*—
Sparling, Arthur J. 2,776,412.

Lloyd, William E., and L. A. Harriman, to Armour and Co. Method of treating egg whites. 2,776,214, 1-1-57, Cl. 99—161.

Lobdell, Alban J., to Monsanto Chemical Co. Production of melamine. 2,776,286, 1-1-57, Cl. 260—249.7.

Logan, Hugh H. Wash fountain. 2,775,774, 1-1-57, Cl. 4—166.

Lomax, Clarence E., to Automatic Electric Laboratories, Inc. Intercommunication systems. 2,776,340, 1-1-57, Cl. 179—1.

Long, Richard H., to Farr Co. Variable timing apparatus. 2,776,384, 1-1-57, Cl. 307—132.

Lo Presti, Roy, to Goodman Mfg. Co. Portable belt conveyor 2,776,033, 1-1-57, Cl. 198—233.

Lo Presti, Roy F., to Goodman Mfg. Co. Troughing roller structure for belt conveyor. 2,776,044, 1-1-57, Cl. 198—192.

Loretitsch, Ferdinand J. Bottle cap closure. 2,776,065, 1-1-57, Cl. 215—38.

Love, John, to K. A. C. Ltd. Adjustable girth clamping ring. 2,775,806, 1-1-57, Cl. 24—271.

Lovell, George H.: *See*—
Gammie, James, and Lovell. 2,776,345.

Lowitz, Frank. Means for opening hermetically-sealed castings. 2,775,852, 1-1-57, Cl. 51—105.

Luehrs, Hans J., and H. M. Clarke, Jr., to The Cottrell Co. Sheet fed rotary printing presses. 2,775,934, 1-1-57, Cl. 101—183.

Lundquist, Richard C., to Goodman Mfg. Co. Speed reduction drive and chain tensioning device. 2,776,018, 1-1-57, Cl. 180—9.1.

Lundquist, Richard C., to Goodman Mfg. Co. Continuous miner having vertically adjustable ripper head. 2,776,127, 1-1-57, Cl. 262—9.

Lynch, Leonard J. Television antenna. 2,776,430, 1-1-57, Cl. 343—836.

Lyon, George A. Wheel cover. 2,776,170, 1-1-57, Cl. 301—37.

Mabee, J. E.: *See*—
Turnquist, Edwin W., and Wilson. 2,776,031.

Malone, Harold L., and C. G. Vroom, to Eastman Kodak Co. Photographic copying apparatus. 2,775,933, 1-1-57, Cl. 101—131.

Mancke, Edgar B., to Bethlehem Steel Co. Treatment of iron ores. 2,776,207, 1-1-57, Cl. 75—115.

Mann, Alfred E., to Technicolor Corp. Transmission of colored motion pictures. 2,776,335, 1-1-57, Cl. 178—5.4.

Mantell, Russell M., and O. J. Plescia, to The M. W. Kellogg Co. Manufacture of hydrazine. 2,776,190, 1-1-57, Cl. 23—190.

Marino, Anthony J., Jr., to International Telephone and Telegraph Corp. Zone refining boat. 2,776,131, 1-1-57, Cl. 263—47.

Marino, Robert L. Adjustable height load bed for vehicles. 2,776,146, 1-1-57, Cl. 280—44.

Marisic, Milton M.: *See*—
Hutchings, Le Roi E., and Marisic. 2,776,246.

Marley Co., The: *See*—
Fordyce, Homer E. 2,776,121.

Marsh, Leland P. Non-splash bath head. 2,775,773, 1-1-57, Cl. 4—157.

Martin-Decker Corp.: *See*—
Decker, Elmer L. 2,775,889.

Maschinenfabrik Augsburg-Nurnberg A. G.: *See*—
Dietrich, Paul. 2,776,136.
Reinartz, Robert, and Morgenlaender. 2,775,935.

Mattson, William G., deceased; G. M. Brillhart, administratrix. Eyeglass lens cleaner with material supply. 2,775,778, 1-1-57, Cl. 15—131.

May, Frank H., to American Potash & Chemical Corp. Process for production of potassium tetraborate. 2,776,186, 1-1-57, Cl. 23—59.

Mayeux, Samuel J., Jr., to Esso Research and Engineering Co. Process and apparatus for liquid-liquid extraction. 2,776,329, 1-1-57, Cl. 260—677.

Maynard, Arthur H., to Bostitch, Inc. Stapling machine. 2,775,764, 1-1-57, Cl. 1—49.

Mazza, Harold, S. L. Cohen, and G. H. Schafer, to American Potash & Chemical Corp. Use of amblygonite as an additive in the lime-roasting of lithium-aluminosilicate ores. 2,776,201, 1-1-57, Cl. 75—1.

Mazza, Harold, S. L. Cohen, and G. H. Schafer, to American Potash & Chemical Corp. Use of lepidolite as an additive in the lime-roasting of lithium-aluminosilicate ores. 2,776,202, 1-1-57, Cl. 75—1.

McCabe, Ira E. Temperature responsive device. 2,776,353, 1-1-57, Cl. 200—136.

McClung, Roger M.: *See*—
Bruce, Ralph E., and McClung. 2,775,870.

McCode, Thomas. Fishhook. 2,775,842, 1-1-57, Cl. 43—44.81.

McDermott, Francis R. Method of and means for mounting a machine on a vibration absorbing pad. 2,776,101, 1-1-57, Cl. 248—24.

McDonough, Mildred J. Hair waving accessory. 2,775,973, 1-1-57, Cl. 132—49.

McFall, Joe B. Improved mounting means for glue spreading rollers. 2,775,953, 1-1-57, Cl. 118—227.

McGhee, William J., and J. C. Megna, to Bristol Laboratories Inc. Process for production of tetracycline. 2,776,243, 1-1-57, Cl. 195—80.

McGinley, William J., to Methode Mfg. Corp. Tube socket for printed wiring panels. 2,776,415, 1-1-57, Cl. 339—193.

McKeand, Douglas J.: *See*—
Jones, Frederick A., Newnham, and McKeand. 2,776,330.

McLeod, John H., to Eastman Kodak Co. Mount for reflecting axicon. 2,775,918, 1-1-57, Cl. 88—14.

McMillan, Lachlan, and R. Stocker, to Ford Motor Co. Motor vehicle driveline mounting. 2,776,174, 1-1-57, Cl. 308—28.

McNeil Machine & Engineering Co., The: *See*—
Soderquist, Leslie E. 2,775,789.

McWilliams, Charles W., to Bendix Aviation Corp. Temperature compensated motor control system. 2,776,397, 1-1-57, Cl. 318—328.

Medical Plastics, Inc.: *See*—
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Mefina S. A.: *See*—
Fresard, Marcel, and Huber. 2,775,884.

Megna, John C.: *See*—
McGhee, William J., and Megna. 2,776,243.

Mendelson, Morris. Humidifier unit. 2,776,166, 1-1-57, Cl. 299—20.

Merck & Co., Inc.: *See*—
Folkers, Karl. 2,776,296.

Messinger Bearings, Inc.: *See*—
Messinger, William. 2,775,931.
Messinger, William, deceased: The First National Bank of Philadelphia, administrator, to Messinger Bearings, Inc. Press. 2,775,931, 1–1–57, Cl. 100—289.
Methode Mfg. Corp.: *See*—
McGinley, William J. 2,776,415.
Metzner, Albert W., to The Standard Register Co. Strip feeding mechanism. 2,775,937, 1–1–57, Cl. 101—292.
Meyer, Barthold F.: *See*—
Kapanka, William F., and Meyer. 2,775,783.
Meyer, Franklin, Jr., to The Taft-Peirce Mfg. Co. Fluid gage apparatus. 2,775,818, 1–1–57, Cl. 33—147.
Middleton, Herbert J. Attachments for can openers adapted to interrupt a stream of gas charged fluid discharging from the punctured can. 2,775,813, 1–1–57, Cl. 30—1.
Millar, David T. Sleeping chair-unit. 2,775,996, 1–1–57, Cl. 155—7.
Miller, Dale J. Valve. 2,776,106, 1–1–57, Cl. 251—275.
Miller, Howard J. Ice fishing rod. 2,775,838, 1–1–57, Cl. 43—21.2.
Miller, John W., to Motor Wheel Corp. Safety control for a gas fuel burner. 2,776,000, 1–1–57, Cl. 158—7.
Miller, William N. Jr. Outdoor sign construction. 2,775,834, 1–1–57, Cl. 40—125.
Mills Co., The: *See*—
Hult, Gustav W. 2,776,029.
Minneapolis-Honeywell Regulator Co.: *See*—
Gille, Willis H., and Mitchell. 2,776,396.
Jensen, James L. 2,776,382.
Minnesota Mining & Mfg. Co.: *See*—
Johnson, Arnold E. 2,776,068.
Mischler, Warren D., to Bell Telephone Laboratories, Inc. Frequency conversion circuits. 2,776,373, 1–1–57, Cl. 250—36.
Mitchell, Irving L., to Ebert Electronics Corp. Mercury switches. 2,776,351, 1–1–57, Cl. 200—112.
Mitchell, Robert E.: *See*—
Gille, Willis H., and Mitchell. 2,776,396.
Mockrin, Isadore: *See*—
La Lande, William A., Jr., and Mockrin. 2,776,205.
Modrey, Henry J., to AMI Inc. Connecting cord for use in connection with an electric power unit. 2,776,385, 1–1–57, Cl. 310—71.
Mohr, Howard E. Method of locating apertures for electrical outlet boxes in wallboard and means useful therein. 2,775,812, 1–1–57, Cl. 29—407.
Moline Tool Co.: *See*—
Eipper, Daniel C., and Weber. 2,775,821.
Monsanto Chemical Co.: *See*—
Beardsell, Wallace A., Davis, and Hood. 2,775,792.
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Clark, William A., and Morrill. 2,776,237.
Dyer, Colver P. 2,776,285.
Hood, Ralph S. 2,776,284.
Lobdell, Alban J. 2,776,286.
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Montgomery, Lancelot R., ½ to L. R. Montgomery. Veterinarian mouth speculum. 2,775,965, 1–1–57, Cl. 128—19.
Moore, Edward F., and C. E. Shannon, to Bell Telephone Laboratories, Inc. Electrical circuit analyzer. 2,776,405, 1–1–57, Cl. 324—73.
Moore, James H., to National Research Corp. Production of metals. 2,776,204, 1–1–57, Cl. 75—49.
Morgan, Erving B., to American Seating Co. Friction device for lifting lid box. 2,775,781, 1–1–57, Cl. 16—86.
Morgenlaender, Oskar: *See*—
Reinartz, Robert, and Morgenlaender. 2,775,935.
Morrell, James N.: *See*—
Elliott, Lynn T., and Morrell. 2,775,908.
Morrell, James N., and L. Ince. Valve operator. 2,775,907, 1–1–57, Cl. 74—625.
Morrill, Elliott, and R. G. Landwerlen, to The Best Foods, Inc. Leather paste polish containing wax and a monoglyceride. 2,776,268, 1–1–57, Cl. 260—23.
Morrill, Henry L.: *See*—
Clark, William A., and Morrill. 2,776,237.
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Morrison, Hackley, Jr.: *See*—
Morrison, Hugh S. 2,775,928.
Morrison, Hugh S., to Hackley Morrison, Jr. Springs for automatic shutters. 2,775,928, 1–1–57, Cl. 98—119.
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Mosler, Arthur R., to The Mosler Safe Co. Repository or safe. 2,775,947, 1–1–57, Cl. 109—47.
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Mosler, Arthur R. 2,775,947.
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Huntley, Frederick H. 2,775,966.
Miller, John W. 2,776,000.
Muckter, Heinrich, and E. Jansen, to Chemie Gruenenthal G. m. b. H. Benzimidazole-penicillin salt. 2,776,279, 1–1–57, Cl. 260—239.1.
Mueller, Joseph F.: *See*—
Eulner, Kurt P. A., and Mueller. 2,776,256.
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Blamey, William F., Jr., and Mullany. 2,776,139.
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Munford, Theodore W.: *See*—
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Mylting, Lauritz E., to The Allen-Sherman-Hoff Co. Automatic solids handling system. 2,776,171, 1–1–57, Cl. 302—27.
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White, Walter R., and Nadeau. 2,775,954.
National Distillers Products Corp.: *See*—
Wade, Robert C. 2,775,938.
National Lead Co.: *See*—
Foss, Warren M., and Kingsbury. 2,776,222.
National Machinery Co., The: *See*—
Friedman, John H. 2,776,048.
National Research Corp.: *See*—
Fletcher, John. 2,776,225.
Moore, James H. 2,776,204.
National Supply Co., The: *See*—
Deitrickson, Roy H. 2,776,172.
Navy, United States of America as represented by the Secretary of the: *See*—
Anderson, Wilmer C., and Strough. 2,776,403.
Beveridge, Harold N., Freedman, and Larkin. 2,776,370.
Blilmeyer, Allen K. 2,775,951.
Colaiaco, August P. 2,776,392.
Dell, Albert H., Kuck, and Sreb. 2,775,942.
Fogal, Gordon L. 2,775,939.
Harwood, Robert H. 2,775,828.
Hess, Edward R. 2,775,949.
Knutson, Roy G. 2,776,398.
Slusser, Eugene A. 2,776,422.
Nelswinter, James T., to American Telephone and Telegraph Co. Teletypewriter code controlled selective device. 2,776,333, 1–1–57, Cl. 178—2.
Nelson, Donald E. Attachment for a mop handle. 2,775,779, 1–1–57, Cl. 15—246.
Nelson, John W., to Sinclair Refining Co. Oxidation of waxy hydrocarbons with preparation of catalyst in situ. 2,776,308, 1–1–57, Cl. 260—451.
Nelson, John W., to Sinclair Refining Co. Foots oil oxidate composition. 2,776,309, 1–1–57, Cl. 260—451.
Nepera Chemical Co., Inc.: *See*—
Fand, Theodore I., and Vidal. 2,776,288.
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Nesbitt, John D., and T. W. Mumford, to Surface Combustion Corp. Forge furnace. 2,776,128, 1–1–57, Cl. 263—6.
Nessmith, Josh T., Jr., to the United States of America as represented by the Secretary of the Army. Antenna coincidence indicator. 2,776,421, 1–1–57, Cl. 343—5.
Nett, Ethbert R. Density indicating apparatus. 2,775,893, 1–1–57, Cl. 73—434.
Newman, Ruth R.: *See*—
Hirshstein, Joseph. 2,776,054.
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Nichols, August: *See*—
Caltagirone, Joseph V., and Nichols. 2,776,143.
Caltagirone, Joseph V., and Nichols. 2,776,145.
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Kemp, Edward F., and Nichols. 2,776,179.
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Nider, Joseph S., M. A., and J. F. 2,775,897.
Nider, Joseph S., M. A., and J. F. Power transmission apparatus. 2,775,897, 1–1–57, Cl. 74—14.
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Nider, Joseph S., M. A., and J. F. 2,775,897.
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Levy, Joseph, and Bernotsky. 2,776,293.
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Kellogg, Joseph. 2,776,032.
Nunn, Leslie R. Cooler-dispenser with removable and refillable container. 2,776,076, 1–1–57, Cl. 222—83.5.
O'Flynn, Denis J., to E. I. du Pont de Nemours and Co. Paper delinking and dewaxing process. 2,776,209, 1–1–57, Cl. 92—1.5.
Oilgear Co., The: *See*—
Douglas, James K. 2,776,056.
Olerud, Roy A., to Multiplex Development Corp. Multiplex communications system. 2,776,429, 1–1–57, Cl. 343—176.
Olin Mathieson Chemical Corp.: *See*—
Andrew, Eugene A. 2,775,788.
Baldwin, Maynard M. 2,776,316.
Oliver Machinery Co.: *See*—
Caldwell, Harry F. 2,776,038.
Osborn, Kenneth B., to General Latex & Chemical Corp. Cushions and method of making same. 2,775,998, 1–1–57, Cl. 155—179.
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Ellms, Robert W. 2,775,800.
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Silvey, John O., and Overman. 2,775,896.
Owens-Corning Fiberglas Corp.: *See*—
Morrison, Albert R. 2,775,860.
Stalego, Charles J. 2,775,850.
Owren, Harvey M., V. L. Smith, and D. R. Brannum, to the United States of America as represented by the United States Atomic Energy Commission. Coaxial tube coupling. 2,776,368, 1–1–57, Cl. 250—16.
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Hengstebeck, Robert J., and Oxenreiter. 2,776,248.
Painter, Edwin S., and L. G. Haller, to Eastman Kodak Co. Acetic acid cracking furnace. 2,776,192, 1–1–57, Cl. 23—277.
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Baxter, William B., and Palmer. 2,775,916.
Passis, Joseph. Window structures. 2,775,796, 1–1–57, Cl. 20—52.
Patents and Investments Ltd.: *See*—
Hampton, Ronald. 2,776,006.

Payne, George B., and C. W. Smith, to Shell Development Co. Oxidation with peroxides. 2,776,301, 1–1–57, Cl. 260—348.5.
Payne, Harold S., to The Lincoln Electric Co. Arc welding process and apparatus for use therein. 2,776,363, 1–1–57, Cl. 219—124.
Peck, David B., to Sprague Electric Co. Electric circuit printing. 2,776,235, 1–1–57, Cl. 154—95.
Peck, Sandford C., Jr., and J. F. Waymouth, to Sylvania Electric Products Inc. Induction lamp. 2,776,391, 1–1–57, Cl. 313—161.
Pendlebury, John A., to Dunlop Rubber Co. Ltd. Automatic braking system for aircraft. 2,776,027, 1–1–57, Cl. 188—181.
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Pensak, Louis, to Radio Corp. of America. Pick-up tube with induced conductivity target. 2,776,387, 1–1–57, Cl. 313—65.
Perceptual Development Laboratories, Inc.: *See*—
Stoyanoff, Louis J. 2,775,827.
Perkins, Charles M., to Fuller Mfg. Co. Shift actuated control device. 2,775,901, 1–1–57, Cl. 74—110.
Perkins, Robert M.: *See*—
Demarest, Daniel D., Perkins, Karius, and Berendt. 2,775,784.
Perry, Claude A., and R. D. Wackrow, to The Birmingham Small Arms Co. Ltd. Firing mechanism for a firearm. 2,775,837, 1–1–57, Cl. 42—69.
Perry Knitting Co., The: *See*—
Heilbronner, Harry S. 2,775,771.
Peter, Rolf W., to Radio Corp. of America. Electron beam tubes. 2,776,389, 1–1–57, Cl. 313—80.
Peterson, C. Lynn, to Peterson Filters & Engineering Co. Method of liming raw sugar juice. 2,776,229, 1–1–57, Cl. 127—48.
Peterson, Edward S., to Automatic Electric Laboratories, Inc. Time announcing system. 2,776,341, 1–1–57, Cl. 179—100.2.
Peterson Filters & Engineering Co.: *See*—
Peterson, C. Lynn. 2,776,229.
Petre, John W., to Fairchild Engine and Airplane Corp. Fuel supply system. 2,775,961, 1–1–57, Cl. 123—119.
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Bennett, Rufus B., Pfennig, and Speed. 2,776,328.
Pfrengle, Otto, to Chemische Fabrik Budenheim Aktiengesellschaft. Production of tripolyphosphates. 2,776,187, 1–1–57, Cl. 23—106.
Philco Corp.: *See*—
Keiper, Francis P. 2,776,375.
Philip, Morris. Method of and apparatus for changing knitting patterns. 2,775,880, 1–1–57, Cl. 66—19.
Phillips, Alger W., to J. L. Cox. Self-aligning, self-venting hatch cover means. 2,776,070, 1–1–57, Cl. 220—44.
Phillips Petroleum Co.: *See*—
Dutcher, Harris A., and Alleman. 2,776,249.
Wicklatz, John E., and Kennedy. 2,776,295.
Phillips, William A., to Surface Combustion Corp. Apparatus for treating a strip of metal. 2,775,825, 1–1–57, Cl. 34—242.
Pickup, Bryan, to Dunlop Rubber Co. Ltd. Device for measuring tackiness. 2,775,888, 1–1–57, Cl. 73—150.
Pisano, Martin. Windshield wipers. 2,775,780, 1–1–57, Cl. 15—255.
Plescia, Otto J.: *See*—
Mantell, Russell M., and Plescia. 2,776,190.
Plenss, Herbert E., to Heresite & Chemical Co. Self-curing synthetic rubber. 2,776,269, 1–1–57, Cl. 260—23.7.
Plumley, Harold J. Magnetic inertia controlled fuze. 2,775,941, 1–1–57, Cl. 102—70.2.
Pneumatic Scale Corp., Ltd.: *See*—
Howard, Stanley R. 2,776,047.
Pointer, Robert W., to L. B. De Long. Platform construction. 2,775,869, 1–1–57, Cl. 61—46.5.
Polli, John, and E. Guastalli. Mask-type respirator. 2,775,968, 1–1–57, Cl. 128—145.
Poole, Victor D.: *See*—
Green, Joseph, Duglish, and Poole. 2,776,303.
Porath, Norman F., to General Electric Co. Photosensitive layer cell. 2,776,357, 1–1–57, Cl. 201—63.
Practical Products Co.: *See*—
St. Laurence, Ernest J. 2,776,074.
Priewe, Hans, and R. Rutkowski, to Schering A. G. Injectable X-ray contrast agents comprising salts of N-acyl derivatives of 2,4,6-triiodo-3-aminobenzoic acid. 2,776,241, 1–1–57, Cl. 167—95.
Prince, William W., to Union Stock Yards and Transit Co. Apparatus for precooling and cooling railroad cars. 2,775,871, 1–1–57, Cl. 62—24.
Procter & Gamble Co., The: *See*—
Anderson, Donald C. 2,776,039.
Production Control Units, Inc.: *See*—
Bruce, Ralph E., and McClung. 2,775,870.
Prokop, Charles L.: *See*—
Ilfrey, William T., and Prokop. 2,776,112.
Pure Oil Co., The: *See*—
Hutchings, Le Roi E., and Marisic. 2,776,246.
Pyle-National Co., The: *See*—
Wulle, William A. 2,775,927.
Pyzel, Robert. Cement manufacture. 2,776,132, 1–1–57, Cl. 263—53.
Quality Components, Inc.: *See*—
Knouse, Edgar J. 2,776,413.
Quin, Denis C.: *See*—
Webster, William, and Quin. 2,776,322.
Radio Corp. of America: *See*—
Avins, Jack. 2,776,338.
Bedford, Alda V. 2,776,427.
Goldberg, Edwin A. 2,776,334.
Hoffman, Richard E., and Rudy. 2,776,224.
Pensak, Louis. 2,776,387.
Peter, Rolf W. 2,776,389.
Rajchman, Jan A., and Rosenberg. 2,776,419.
Woll, Harry J. 2,776,420.
Radio Patents Co.: *See*—
Guanella, Gustav. 2,776,410.
Rajchman, Jan A., and M. Rosenberg, to Radio Corp. of America. Magnetic memory system. 2,776,419, 1–1–57, Cl. 340—174.
Randall, Kenneth B.: *See*—
Welch, Douglas F., Bell, and Randall. 2,775,865.
Randall, Kenneth B., to The British Thomson-Houston Co. Ltd. Starters for prime movers such as gas turbines. 2,775,866, 1–1–57, Cl. 60—39.14.
Rassweiler, Gerald M., and E. F. Weller, Jr., to General Motors Corp. Gas analyzer resonator block. 2,775,885, 1–1–57, Cl. 73—24.
Raumaker, Paul H.: *See*—
Stout, William H., and Raumaker. 2,775,979.
Ray, Frederick. Fountain pen of the ball point type. 2,775,956, 1–1–57, Cl. 120—42.4.
Raynor, Edward A. Bulk bin discharge means. 2,776,078, 1–1–57, Cl. 222—413.
Reda Pump Co.: *See*—
Arutunoff, Armais. 2,775,945.
Arutunoff, Armais. 2,776,130.
Reed, Charles C., L. Ritter, W. Valentine, and E. Chu Yen, to American Cyanamid Co. Gelatin films and capsules made therefrom. 2,776,220, 1–1–57, Cl. 106—136.
Reed, Wade R. Adjustable gearing. 2,775,903, 1–1–57, Cl. 74—397.
Reeder, William H., III, to Dresser Operations, Inc. Partial oxidation of hydrocarbons in the presence of sulfur dioxide. 2,776,317, 1–1–57, Cl. 260—604.
Reh, Carter K., to Borg-Warner Corp. Housing for earth boring apparatus. 2,776,113, 1–1–57, Cl. 255—4.8.
Reichelt, Lester O.: *See*—
Kalbow, Theodore W., and Reichelt. 2,775,819.
Reiff, Charles C., to Rockwell Mfg. Co. Lubricant fitting. 2,776,026, 1–1–57, Cl. 184—105.
Reinartz, Robert, and O. Morgenlaender, to Maschinenfabrik Augsburg Nurnberg A. G. Register adjustment for printing machines. 2,775,935, 1–1–57, Cl. 101—248.
Reliance Electric and Engineering Co., The: *See*—
Rush, Dale B. 2,775,902.
Renaudie, Jacques H., to L'Air Liquide, Societe Anonyme pour l'Etude et l'Exploitation des Procedes Georges Claude. Automatic switching valve. 2,775,980, 1–1–57, Cl. 137—113.
Rey-Bellet, Gérald, and H. Spiegelberg, to Hoffmann-La Roche Inc. Tropic acid N-(γ-picolyl)-amide. 2,776,294, 1–1–57, Cl. 260—295.
Richard, Antoine P., to Societe Anonyme des Manufactures des glaces et Produits Chimiques de Saint-Gobain, Chauny & Cirey. Copolymerization of vinyl chloride and vinylidene chloride with mixed azo-inorganic peroxide catalyst. 2,776,273, 1–1–57, Cl. 260—87.7.
Richardson, Frank L., to Sperry Rand Corp. Moving range indicator for automatic tracking radar. 2,776,423, 1–1–57, Cl. 343—7.3.
Richardson, Henry M., and W. S. Larson, to The Grote Mfg. Co., Inc. Method of embossing a metal roll. 2,775,911, 1–1–57, Cl. 76—107.
Richey, Clarence B., to Harry Ferguson, Inc. Tractor mounted reciprocating cutting assembly. 2,775,855, 1–1–57, Cl. 56—25.
Riddell, Wallace C., and G. B. Kirk, to Kaiser Gypsum Co., Inc. Vapor-permeable gypsum board. 2,776,234, 1–1–57, Cl. 154—86.
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Avery, Howard S., and Ridenour. 2,776,208.
Rike, James L., to Esso Research and Engineering Co. Sealing porous earth stratum. 2,776,010, 1–1–57, Cl. 166—21.
Ringler, William A., to The Gardner Board and Carton Co. Carton. 2,776,081, 1–1–57, Cl. 229—9.
Ritter, Lawrence: *See*—
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Robb, Deloss H., to American Air Filter Co., Inc. Automatic stack type filter. 2,776,023, 1–1–57, Cl. 183—52.
Robbins, James S., and C. A. Wilms, to Goodman Mfg. Co. Mining machine with collapsible cutter head. 2,776,125, 1–1–57, Cl. 262—7.
Roberts, Edward. Fur-floor covering. 2,776,233, 1–1–57, Cl. 154—49.
Robinson, Richard A.: *See*—
Cusic, John W., and Robinson. 2,776,299.
Robotron Corp.: *See*—
Rockafellow, Stuart C. 2,776,383.
Rockafellow, Stuart C., to Robotron Corp. Multi function electronic timing circuit. 2,776,383, 1–1–57, Cl. 307—112.
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Carlson, Charles H. 2,776,140.
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Rockwell Mfg. Co.: *See*—
Johnson, Charles B., and Sarraf. 2,775,983.
Reiff, Charles C. 2,776,026.
Rockwell Spring and Axle Co.: *See*—
Hammond, Milton B., and Bowman. 2,776,255.
Keese, Beverly W. 2,776,019.
Rodder, William, to The Aetna-Standard Engineering Co. Flying hot saw. 2,775,808, 1–1–57, Cl. 29—69.
Rodgers, Marcus D.: *See*—
Baumann, Frank J., and Rodgers. 2,776,098.

Ropp, Walter S., to Hercules Powder Co. Monoperoxyacetals. 2,776,319, 1–1–57, Cl. 260—610.

Rorig, Kurt J., to G. D. Searle & Co. 5-dialkylaminomethyl and 5-heterocyclylmethyl substituted 2-amino-6-aryl-4-pyrimidol derivatives. 2,776,283, 1–1–57, Cl. 260—247.5.

Rosen, Herbert. Locking mechanism. 2,775,797, 1–1–57, Cl. 20—52.

Rosenberg, Milton: *See*—
Rajchman, Jan A., and Rosenberg. 2,776,419.

Rowe, William, to Bonafide Mills, Inc. Method and apparatus for producing a decorative surface covering sheet. 2,775,994, 1–1–57, Cl. 154—20.

Rowlands, Daniel C., to Air Reduction Co., Inc. Piperonylidene tetrahydrofuranone. 2,776,239, 1–1–57, Cl. 167—33.

Rudy, Marion F., to Borg-Warner Corp. Reciprocating shaft bearing. 2,776,173, 1–1–57, Cl. 308—5.

Rudy, William G.: *See*—
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Ruppe, Peter P. Propelling linkage for tube type conveyor. 2,776,042, 1–1–57, Cl. 198—176.

Rush, Dale B., to The Reliance Electric and Engineering Co. Belt. 2,775,902, 1–1–57, Cl. 74—234.

Russo, Frank X., to Vitogen Products, Inc. Method of stabilizing lauryl pyridinium hydrochloride. 2,776,291, 1–1–57, Cl. 260—290.

Rutkowski, Rudi: *See*—
Priewe, Hans, and Rutkowski. 2,776,241.

Ruzicka, Leopold, and A. Fuerst, to Ciba Pharmaceutical Products, Inc. Steroids and their production. 2,776,302, 1–1–57, Cl. 260—397.1.

Ryder, Frank A., and S. I. Wendell, to Stewart-Warner Corp. Fuel supply system for vehicle heater. 2,775,944, 1–1–57, Cl. 103—44.

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Kurzbin, Karl R. 2,775,785.

St. Laurence, Ernest J., to Practical Products Co. Beverage vending machine. 2,776,074, 1–1–57, Cl. 222—2.

Salathiel, Richard A., to Esso Research and Engineering Co. Drilling muds. 2,776,259, 1–1–57, Cl. 252—8.5.

Sands, Hillard J., to The Harvard Mfg. Co. Clamp for telescoped angles. 2,775,805, 1–1–57, Cl. 24—243.

Sargeant, Walter E., to General Motors Corp. Constant frequency power supply. 2,776,379, 1–1–57, Cl. 307—72.

Sargent & Co.: *See*—
Ellis, Charles A. 2,776,157.

Sarraf, Robert J.: *See*—
Johnson, Charles B., and Sarraf. 2,775,983.

Sass, Hans G., to Joh. Kleinewefers Sohne. Strand treating machine. 2,776,049, 1–1–57, Cl. 263—200.

Saunders, Robert H., to Hercules Powder Co. Terpene-polyhalomethane adduct. 2,776,325, 1–1–57, Cl. 260—648.

Schaeffer, Joseph M., to The Waterbury Farrel Foundry & Machine Co. Clearing wheel mechanisms. 2,776,073, 1–1–57, Cl. 221—159.

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Mazza, Harold, Cohen, and Schafer. 2,776,201.
Mazza, Harold, Cohen, and Schafer. 2,776,202.

Schalkwijk, Willem F., L. de Lange, and A. Koopmans, to Hartford National Bank and Trust Co., as trustee. Regenerator construction of a cold-gas refrigerator. 2,775,876, 1–1–57, Cl. 62—136.

Schering A. G.: *See*—
Priewe, Hans, and Rütkowski. 2,776,241.

Scheumann, Walter W., to Cities Service Research and Development Co. Gasoline compositions. 2,776,194, 1–1–57, Cl. 44—56.

Schlafly, Hubert J., to Teleprompter Corp. Camera support. 2,776,102, 1–1–57, Cl. 248—178.

Schlumberger Well Surveying Corp.: *See*—
Kokesh, Frank P. 2,776,402.

Schmidt, Clayton E. Combination loom lay and reed frame. 2,775,985, 1–1–57, Cl. 139—188.

Schmitz, Friedrich. Shut-off gate valve. 2,776,105, 1–1–57, Cl. 251—199.

Schneider, Abraham, to Sun Oil Co. Non-catalytic demethylation of toluene. 2,776,326, 1–1–57, Cl. 260—672.

Schoenbaum, Alexander W., to The American Tobacco Co. Cigarette paper. 2,775,970, 1–1–57, Cl. 131—15.

Scholl, Elwood L., to S. G. Bart. Method of making airfoil sections. 2,776,253, 1–1–57, Cl. 204—20.

Schricker, George W., to South Bend Toy Mfg. Co. Collapsible hood for carriages. 2,776,165, 1–1–57, Cl. 296—110.

Schuman, Samuel E. Gun scope mounting. 2,775,817, 1–1–57, Cl. 33—50.

Schur, Milton O., to Ecusta Paper Corp. Spray device. 2,775,952, 1–1–57, Cl. 118—8.

Schwalkwijk, Willem F.: *See*—
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Schwartz, Robert S., to Faximile Inc. Electrical recording medium. 2,776,251, 1–1–57, Cl. 204—2.

Schwartz, Robert S., to Faximile, Inc. Dry electrical recording medium. 2,776,252, 1–1–57, Cl. 204—2.

Schwarz, Bertram A.: *See*—
Kearney, William R., and Schwarz. 2,775,895.

Schweda, Rufin L. Extension and telescoping attachment for nozzle of showers. 2,776,168, 1–1–57, Cl. 299—73.

Schweisthal, Frederick G., to Stewart-Warner Corp. Variable capacity oil mist generator. 2,776,025, 1–1–57, Cl. 184—55.

Scott, James A., to United States Steel Corp. Method and apparatus for quenching pipe. 2,776,230, 1–1–57, Cl. 148—21.55.

Seaborg, Glenn T.: *See*—
Werner, Louis B., Fries, and Seaborg. 2,776,185.

Searle, G. D., & Co.: *See*—
Cusic John W. 2,776,282.
Cusic, John W., and Robinson. 2,776,299.
Jenkins, William W. 2,776,300.
Jordt, Robert C. 2,776,034.
Rorig, Kurt J. 2,776,283.

Segal, Samuel. Staple remover. 2,776,109, 1–1–57, Cl. 254—28.

Seibel, Harry W. Seal severing device. 2,776,067, 1–1–57, Cl. 215—46.

Selden, Irving H. Fluid compressor or pump. 2,776,086, 1–1–57, Cl. 230—45.

Selmer, H. & A., Inc.: *See*—
De Ford, Devoe C. 2,775,915.

Seltz, Stanley G.: *See*—
Bitz, John O., and Seltz. 2,776,162.

Selvaggi, Philip S.: *See*—
Lair, Julien J. B., and Selvaggi. 2,776,424.

Shaffer, Francis N., and A. B. Davis, to Sylvania Electric Products Inc. Zinc tin phosphate phosphors. 2,776,261, 1–1–57, Cl. 252—301.6.

Shannon, Claude E.: *See*—
Moore, Edward D., and Shannon. 2,776,405.

Shaw, Mark. Buoyant garment. 2,775,776, 1–1–57, Cl. 9—20.

Shearer, Newton H., Jr., and H. W. Coover, Jr., to Eastman Kodak Co. Mixed α-cyanoacrylate adhesive compositions. 2,776,232, 1–1–57, Cl. 154—46.

Shell Development Co.: *See*—
Limerick, Donald A., and Wylie. 2,776,324.
Payne, George B., and Smith. 2,776,301.

Sherman, George T. Spike or bolt puller. 2,776,108, 1–1–57, Cl. 254—27.

Shortridge, Robert W., to Commercial Solvents Corp. Recovery and purification of bacitracin. 2,776,240, 1–1–57, Cl. 167—65.

Siemens-Schuckertwerke Aktiengesellschaft: *See*—
Von Cron, Hans. 2,776,332.

Silva, Frank W.: *See*—
Grover, Russell C., and Silva. 2,775,807.

Silvey, John O., and H. L. Overman, to International Telephone and Telegraph Corp. Radio frequency tuner. 2,775,896, 1–1–57, Cl. 74—10.85.

Sinclair Refining Co.: *See*—
Nelson, John W. 2,776,308.
Nelson John W. 2,776,309.

Sinkler, Deas., to The Duriron Co., Inc. Lined valve. 2,776,104, 1–1–57, Cl. 251—192.

Skaug, Wallace V., to General Electric Co. Double socket wrench having universal joint drives. 2,775,912, 1–1–57, Cl. 81—55.

Slate, Matthew W., to Allen B. Du Mont Laboratories, Inc. Multiple band tuning device. 2,776,376, 1–1–57, Cl. 250—40.

Slusser, Eugene A., to the United States of America as represented by the Secretary of the Navy. Range tracking system. 2,776,422, 1–1–57, Cl. 343—7.3.

Smith, Byrom J., to Heli-Coil Corp. Lock nut comprising a barrel and threaded locking coil retained therein. 2,775,992, 1–1–57, Cl. 151—14.

Smith, Curtis W.: *See*—
Payne, George B., and Smith. 2,776,301.

Smith, Eugene M.: *See*—
Easley, Jack H., and Smith. 2,776,393.

Smith, Herman E., to Goodman Mfg. Co. Retractable boring head for mining machines. 2,776,124, 1–1–57, Cl. 262—7.

Smith, Robert C., Jr.: *See*—
Jefferson, Edward G., Smith, and Stiles. 2,776,315.

Smith, Telford L. Armored gasket for pipe repair clamp and the like. 2,776,153, 1–1–57, Cl. 288—2.

Smith, Vernon L.: *See*—
Owren, Harvey M., and Smith. 2,776,368.

Snyder, Clifford H., to The Colmol Co. Boring type mining head having eccentric wedge. 2,776,123, 1–1–57, Cl. 262—7.

Snyder, Edward C., to Corn Products Refining Co. Process for destarching wet milling fractions. 2,776,228, 1–1–57, Cl. 127—38.

Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint Gobain, Chauny & Cirey: *See*—
Richard, Antoine P. 2,776,273.

Societe Anonyme des Usines Chausson: *See*—
Chausson, Gaston. 2,775,874.

Societe d'Etude de sa Propulsion par Reaction: *See*—
Traverse, Georges. 2,775,863.

Socony Mobil Oil Co., Inc.: *See*—
Francis, Alfred W. 2,776,327.
Lee, John A., Barclay, and Johnson. 2,776,014.

Soderman, George W., to Western Electric Co., Inc. Punch and die. 2,776,008, 1–1–57, Cl. 164—118.

Soderquist, Leslie E., to The McNeil Machine & Engineering Co. Diaphragm operating mechanism for tire shaping and vulcanizing presses. 2,775,789, 1–1–57, Cl. 18—17.

Sommeria, Marcel R., to Welding Research, Inc. Welding system. 2,776,399, 1–1–57, Cl. 323—18.

Sommeria, Marcel R., to Welding Research, Inc. Welding system. 2,776,401, 1–1–57, Cl. 323—58.

Sontag, Joseph. Engine starting means. 2,775,962, 1–1–57, Cl. 123—179.

South Bend Toy Mfg. Co.: *See*—
Schricker, George W. 2,776,165.

Sovinsky, Eugene, to the United States of America as represented by the Secretary of the Army. Respirator. 2,775,967, 1–1–57, Cl. 128—141.

Sowerwine, Elbert O., Jr., to Wigton-Abbott Corp. Preparation of nickel oxide desulfurizing catalyst and utilization thereof for desulfurizing. 2,776,244, 1–1–57, Cl. 196—28.

Sowerwine, Elbert O., Jr., to Wigton-Abbott Corp. Preparation of nickel carbonate catalysts and utilization thereof for desulfurization. 2,776,245, 1–1–57, Cl. 196—28.

Sparling, Arthur J., to Litton Industries, Inc. Magnetic system for microwave components. 2,776,412, 1–1–57, Cl. 333—98.

Speed, Raymond A.: *See*—
Bennett, Rufus B., Pfennig, and Speed. 2,776,328.

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Turbett, Forrest L. 2,776,198.

Sperry Rand Corp.: *See*—
Cohn, Seymour B., and Henning. 2,776,406.
Ferrill, Thomas M., Jr. 2,776,099.
Hassler, Norman A., Jurman, and Fragola. 2,776,428.
Richardson, Frank L. 2,776,423.
Woodcock, Eugene L. 2,776,369.

Spiegelberg, Hans: *See*—
Rey-Bellet, Gérald, and Spiegelberg. 2,776,294.

Spilliers, Harold H. Hanger means for conveyors. 2,776,043, 1–1–57, Cl. 198—177.

Sprague Electric Co.: *See*—
Peck, David B. 2,776,235.

Sreb, Jules H.: *See*—
Dell, Albert H., Kuck, and Sreb. 2,775,942.

Staehle, Henry C., to Eastman Kodak Co. Waterproof photographic paper and method of making same. 2,776,236, 1–1–57, Cl. 154—120.

Stalego, Charles J., to Owens-Corning Fiberglas Corp. Apparatus for forming mineral fibers. 2,775,850, 1–1–57, Cl. 49—55.

Standard Oil Co. (Illinois): *See*—
Henstebeck, Robert J., and Oxenreiter. 2,776,248.

Standard Register Co., The: *See*—
Davidson, John T. 2,775,932.
Dietz, Charles H., and Staneck. 2,776,007.
Metzner, Albert W. 2,775,937.

Staneck, Robert W.: *See*—
Dietz, Charles H., and Staneck. 2,776,007.

Steinitz, Robert, to Borolite Corp. Brazing of molybdenum and tungsten and brazed structures produced thereby. 2,775,809, 1–1–57, Cl. 29—198.

Stern, Theodore. Necktie device. 2,775,768, 1–1–57, Cl. 2—151.

Stevens, Donald R.: *See*—
Klicker, James D., and Stevens. 2,776,260.

Stevens, Richard M. Dispensing carton. 2,776,052, 1–1–57, Cl. 206—58.

Stewart, Meredith M.: *See*—
Anhorn, Victor J., Stewart, and Morrow. 2,776,247.

Stewart, Vincent N., and M. B. Fornwalt, to General Electric Co. Drawout mechanism for metal enclosed electric switchgear. 2,776,346, 1–1–57, Cl. 200—50.

Stewart-Warner Corp.: *See*—
Ryder, Frank A., and Wendell. 2,775,944.
Schweisthal, Frederick G. 2,776,025.
Visehnia, George, Jr. 2,775,900.

Stiles, Alvin B.: *See*—
Jefferson, Edward G., Smith, and Stiles. 2,776,315.

Stocker, Raymond: *See*—
McMillan, Lachlan, and Stocker. 2,776,174.

Stone, Albert L., to Esso Research and Engineering Co. Apparatus for handling pipe in a derrick. 2,776,058, 1–1–57, Cl. 214—2.5.

Stout, William H., and P. H. Raumaker. Automatic drain valve for pipelines. 2,775,979, 1–1–57, Cl. 137—107.

Stoyanoff, Louis J., to Perceptual Development Laboratories, Inc. Device for reading training. 2,775,827, 1–1–57, Cl. 35—35.

Straley, James M. and R. R. Giles, to Eastman Kodak Co. Methine dye and process for its preparation. 2,776,310, 1–1–57, Cl. 260—465.

Strauss, Leopold: *See*—
Holloway, Robert L., Strauss, and Levendoski. 2,776,138.

Strazdins, Edward, and R. Hastings, to American Cyanamid Co. Dry tall oil rosin size compositions. 2,776,221, 1–1–57, Cl. 106—218.

Strazdins, Edward, to American Cyanamid Co. Rosin and rosin size stabilized against crystallization. 2,776,275, 1–1–57, Cl. 260—97.5.

Strough, Robert I.: *See*—
Anderson, Wilmer C., and Strough. 2,776,403.

Sturr, George B. T.: *See*—
Sturr, Margaret T. 2,776,358.

Sturr, Margaret T., ½ to G. B. T. Sturr, and ½ to R. P. Sturr, Jr. Frankfurter cooker. 2,776,358, 1–1–57, Cl. 219—19.

Sturr, Robert P., Jr.: *See*—
Sturr, Margaret T. 2,776,358.

Sun Oil Co.: *See*—
Schneider, Abraham. 2,776,326.

Sunvic Controls Ltd.: *See*—
Davis, Neville R. 2,776,352.

Surface Combustion Corp.: *See*—
Nesbitt, John D., and Munford. 2,776,128.
Phillips, William A. 2,775,825.
Wingate, Donald E. 2,776,134.

Swift & Co.: *See*—
Andregg, Harriett. 2,776,212.

Switzer, James A. Paintbrush storage device. 2,776,050, 1–1–57, Cl. 206—15.1.

Sylvania Electric Products Inc.: *See*—
Peek, Sandford C., Jr., and Waymouth. 2,776,391.
Shaffer, Francis N., and Davis. 2,776,261.

Symington-Gould Corp., The: *See*—
Blattner, Emil H. 2,776,057.

Syncro Machine Co.: *See*—
Bruestle, Carl O. 2,776,097.

Synder, Clifford H., to The Colmol Co. Continuous automatic flexible conveyer. 2,776,040, 1–1–57, Cl. 198—92.

Taft-Peirce Mfg. Co., The: *See*—
Meyer, Franklin, Jr. 2,775,818.

Tamburr, Victor E., to Industrial Timer Corp. Timer switch. 2,776,009, 1–1–57, Cl. 161—1.

Tausch, Gilbert H., to Esso Research and Engineering Co. Apparatus for completion in a plurality of hydrocarbon productive strata. 2,776,013, 1–1–57, Cl. 166—150.

Taylor, Kenneth M., to The Carborundum Co. Article comprising boron nitride and zirconia. 2,776,218, 1–1–57, Cl. 106—57.

Technicolor Corp.: *See*—
Mann, Alfred E. 2,776,335.

Teeple, Gifford H.: *See*—
Alexander, Jesse B. 2,776,017.

Teleprompter Corp.: *See*—
Schlafly, Hubert J. 2,776,102.

Terrett, John P. Mixing device. 2,776,120, 1–1–57, Cl. 259—72.

Texas Co., The: *See*—
Clark, William A. 2,776,011.

Textile Machine Works: *See*—
Held, Joseph. 2,775,881.

Thibodeau, Wilfred E. Closure check. 2,776,156, 1–1–57, Cl. 292—70.

Thomas, Colin J. S. Meat product and process. 2,776,215, 1–1–57, Cl. 99—174.

Thomas, Colin J. S. Process for packaging meat products and article produced thereby. 2,776,216, 1–1–57, Cl. 99—174.

Thomas, William A., to General Electric Co. Magnetic thermal trip. 2,776,349, 1–1–57, Cl. 200—88.

Thompson, Bernard H. M., to Hercules Powder Co. Aromatic hydroxy hydroperoxides. 2,776,320, 1–1–57, Cl. 260—610.

Thompson, Emmett E.: *See*—
Zang, Victor E., and Thompson. 2,775,803.

Thompson Mfg. Co., Inc.: *See*—
Thompson, William M. 2,775,815.

Thompson, Russell G., to Eastman Kodak Co. Facsimile film-copying apparatus. 2,776,337, 1–1–57, Cl. 178—6.6.

Thompson, William M., to Thompson Mfg. Co., Inc. Combination can opener and can handle. 2,775,815, 1–1–57, Cl. 30—123.

Thornton, Elbert H. E. Closure for containers. 2,776,066, 1–1–57, Cl. 215—44.

Tietze, Matthew W.: *See*—
Jacobs, Henry S., and Tietze. 2,776,386.

Toland, William G., and I. E. Levine, to California Research Corp. Higher fatty alcohols. 2,776,323, 1–1–57, Cl. 260—635.

Toledo Scale Co.: *See*—
Bradley, Robert O. 2,776,103.
Haas, Arthur W. 2,776,046.

Tongue, Ben H. High frequency transmission line coupling network. 2,776,408, 1–1–57, Cl. 333—8.

Townmotor Corp.: *See*—
Cirillo, Lee. 2,776,064.

Townsend, Ralph, to The British Tabulating Machine Co. Ltd. Data comparing devices. 2,776,418, 1–1–57, Cl. 340—149.

Towt, Van N.: *See*—
Anderson, Andrew K., and Towt. 2,775,930.

Traverse, Georges, to Societe d'Etude de sa Propulsion par Reaction. Process for initiating the ignition of rocket fuels. 2,775,863, 1–1–57, Cl. 60—35.4.

Trevaskis, Henry W., to Dunlop Rubber Co. Ltd. Liquid pressure relays. 2,775,868, 1–1–57, Cl. 60—54.6.

Troeger, Henry, and S. Gilbert, to Bendix Aviation Corp. Pneumatic engine starter. 2,775,894, 1–1–57, Cl. 74—7.

Turbett, Forrest L., to Spencer Chemical Co. Preparation of phosphate fertilizer and animal feed supplement. 2,776,198, 1–1–57, Cl. 71—36.

Turnquist, Edwin W., and R. L. Wilson, to J. E. Mabee. Adjustable pressure plate assembly for multiple disc friction clutches. 2,776,031, 1–1–57, Cl. 192—48.

Unetic, Andrew J., and L. P. Kolar, to Kwikset Locks, Inc. Dead latch construction. 2,776,158, 1–1–57, Cl. 292—163.

Union Carbide and Carbon Corp.: *See*—
Barrer, Richard M. 2,776,292.
Essig, Jacob F. M. 2,776,361.
Hilty, Donald C. 2,776,203.

Union Insulating Co., Inc.: *See*—
Baxter, William E., and Palmer. 2,775,916.

Union Stock Yards and Transit Co.: *See*—
Prince, William W. 2,775,871.

United States Atomic Energy Commission, United States of America as represented by the: *See*—
Anger, Hal O. 2,776,377.
Hiskey, Clarence F., and Vier. 2,776,263.
Kamen, Martin D. 2,776,184.
Owren, Harvey M., and Smith. 2,776,368.
Winn, Francis W. 2,776,189.

United States Automatic Box Machinery Co.: *See*—
Cote, Omer E. 2,776,224.

United States of America, The: *See*—
Eksergian, Carolus L. 2,775,943.

United States Steel Corp.: *See*—
Scott, James A. 2,776,230.

Vagneur, Clayton L. Mechanical movement for reciprocating machines. 2,775,899, 1–1–57, Cl. 74—44.

Valentine, William: *See*—
Reed, Charles C., Ritter, Valentine, and Chu Yen. 2,776,220.

Van Ackeren, Joseph, to Koppers Co., Inc. Method and apparatus for naphthalene absorption. 2,776,021, 1–1–57, Cl. 183—3.

Vance, Donald E. Desk attachment for bleacher seats. 2,776,177, 1–1–57, Cl. 311—17.

Vance, James. Well drilling appendage or device. 2,776,111, 1–1–57, Cl. 255—1.

Van Moss, John H., Jr. Slack adjuster. 2,776,028, 1–1–57, Cl. 188—198.

Vawter, James R. Educational device. 2,775,826, 1–1–57, Cl. 35—9.

Verdi, Columbus, to Fansteel Metallurgical Corp. Recovery of tungsten and copper scrap. 2,776,199, 1–1–57, Cl. 75—0.5.

Verhagen, Jan: *See*—
Ensink, Johannes, and Verhagen. 2,776,372.

Vidal, Frederick: *See*—
Fand, Theodore I., and Vidal. 2,776,288.

Vier, Dwayne T.: *See*—
Hiskey, Clarence F., and Vier. 2,776,263.

Vischulis, George, Jr., to Stewart-Warner Corp. Windshield wiper drive and parking mechanism. 2,775,900, 1-1-57, Cl. 74—70.

Vitamins Ltd.: *See*—
Green, Joseph, Daglish, and Poole. 2,776,303.

Vitogen Products, Inc.: *See*—
Russo, Frank X. 2,776,291.

Vizard, William C., to Barbour Welting Co. Beaded welting. 2,775,829, 1-1-57, Cl. 36—78.

Vizza, Joseph. License plate holder. 2,775,832, 1-1-57, Cl. 40—125.

Vogel Tool & Die Corp.: *See*—
Koster, Frank. 2,776,003.

Von Cron, Hans, to Siemens-Schuckertwerke Aktiengesellschaft. Self-cleaning outdoor high-tension insulators. 2,776,332, 1-1-57, Cl. 174—211.

Vroom, Clifford G.: *See*—
Malone, Harold L., and Vroom. 2,775,933.

Wackrow, Roger D.: *See*—
Perry, Claude A., and Wackrow. 2,775,837.

Wade, Robert C., to National Distillers Products Corp. Flash bomb. 2,775,938, 1-1-57, Cl. 102—6.

Waite, George F., to Curtiss-Wright Corp. Nylon liner for connecting rod bearings. 2,776,175, 1-1-57, Cl. 308—238.

Waldron, Cloyd D. Fluid flowmeter. 2,775,890, 1-1-57, Cl. 73—207.

Wallin, Maynard B.: *See*—
Dixon, Paul H., and Wallin. 2,775,920.

Wallis, Albert E., to The International Nickel Co., Inc. Production of metal powder from carbonyl. 2,776,200, 1-1-57, Cl. 75—0.5.

Walter, Hellmuth, to Worthington Corp. Gas compressor system. 2,776,087, 1-1-57, Cl. 230—116.

Warren, Northam, Corp.: *See*—
Warren, Northam, Jr. 2,776,051.

Warren, Northam, Jr., to Northam Warren Corp. Lipstick case. 2,776,051, 1-1-57, Cl. 206—56.

Warren, S. D., Co.: *See*—
Hart, Robert T. 2,776,226.

Waterbury Farrel Foundry & Machine Co., The: *See*—
Schaeffer, Joseph M. 2,776,073.

Waymouth, John F.: *See*—
Peek, Sandford C., Jr., and Waymouth. 2,776,391.

Weatherford, William D., Jr.: *See*—
Capell, Robert G., Karr, and Weatherford. 2,776,250.

Weatherproof Products Corp., The: *See*—
Hettinger, Daniel M. 2,775,795.

Weber, Irs, and J. H. Basto, to Interchemical Corp. Spherical pigments and method of preparing same. 2,776,267, 1-1-57, Cl. 260—21.

Weber, Raymond C.: *See*—
Elpper, Daniel C., and Weber. 2,775,821.

Webster, William, and D. C. Quin, to Hercules Powder Co. Manufacture of beta-naphthol. 2,776,322. 1-1-57, Cl. 260—621.

Weiss, Aaron J. Oven clothes-dryer. 2,775,824, 1-1-57, Cl. 34—90.

Welch, Douglas F., R. A. Bell, and K. B. Randall, to The British Thomson-Houston Co. Ltd. Starters for prime movers such as gas turbines. 2,775,865, 1-1-57, Cl. 60—39.14.

Welch, Jerome B., to Cutler-Hammer, Inc. Magnetic force resistance welding machine. 2,776,362, 1-1-57, Cl. 219—86.

Welding Research, Inc.: *See*—
Sommeria, Marcel R. 2,776,399.
Sommeria, Marcel R. 2,776,401.

Well Surveys Inc.: *See*—
Youmans, Arthur H. 2,776,378.

Weller, Edward F., Jr.: *See*—
Rasweiler, Gerald M., and Weller. 2,775,885.

Wendell, Samuel I.: *See*—
Ryder, Frank A., and Wendell. 2,775,944.

Wentling, William H., to The Lau Blower Co. Blowers. 2,776,088, 1-1-57, Cl. 230—117.

Werner, Louis B., B. A. Fries, and G. T. Seaborg. Method of concentrating fissionable material. 2,776,185, 1-1-57, Cl. 23—14.5.

Wessolek, Rudolf, to Koppers Co., Inc. Process for the gasification of a liquid carbonaceous fuel. 2,776,195, 1-1-57, Cl. 48—215.

Western Electric Co., Inc.: *See*—
Kalbow, Theodore W., and Reichelt. 2,775,819.
Soderman, George W. 2,776,008.

Wheeler, Henry H., to International Cigar Machinery Co. Cigar bunch and method and apparatus for making same. 2,775,969, 1-1-57, Cl. 131—14.

Whirlpool-Seeger Corp.: *See*—
Burris, Frank H. 2,775,883.

White, Stanley B. Propagation recording system. 2,776,365, 1-1-57, Cl. 250—2.

White, Walter R., and G. F. Nadeau, to Eastman Kodak Co. Roller coating apparatus. 2,775,954, 1-1-57, Cl. 118—258.

Wicklatz, John E., and T. J. Kennedy, to Phillips Petroleum Co. Synthetic rubber paste latices. 2,776,295, 1-1-57, Cl. 260—29.7.

Wiedis, Robert: *See*—
Cuny, Richard P., and Wiedis. 2,776,394.

Wigton-Abbott Corp.: *See*—
Sowerwine, Elbert O., Jr. 2,776,244.
Sowerwine, Elbert O., Jr. 2,776,245.

Wildhaber, Ernest, to The Gleason Works. Method and machine for making gears. 2,775,922, 1-1-57, Cl. 90—6.

Wilkerson, Daniel C., to General Motors Corp. Speed responsive fluid control means. 2,775,910, 1-1-57, Cl. 74—752.

Willi, Richard B., to Baldwin-Lima-Hamilton Corp. Hydraulic machine with adjustable propeller blades sealed at their inner ends. 2,776,107, 1-1-57, Cl. 253—148.

Williams, Edward B., Jr. Drill bit. 2,776,115, 1-1-57, Cl. 255—313.

Williams, Russell J., to Bemis Bro. Bag Co. Bag. 2,776,084, 1-1-57, Cl. 229—55.

Willke, Louis G., and C. G. Cullen, to Cities Service Oil Co. Hydrolysis of methylal. 2,776,318, 1-1-57, Cl. 260—606.

Wilms, Carl A.: *See*—
Robbins, James S., and Wilms. 2,776,125.

Wilson, Clarence R.: *See*—
Edwards, Evan A., and Wilson. 2,776,094.

Wilson, James G. Methods for forming contact surfaces. 2,775,811, 1-1-57, Cl. 29—401.

Wilson, Robert L.: *See*—
Turnquist, Edwin W., and Wilson. 2,776,031.

Wilson, Roy W. Plant setter. 2,775,948, 1-1-57, Cl. 111—4.

Wingate, Donald E., to Surface Combustion Corp. Heat treating apparatus. 2,776,134, 1-1-57, Cl. 266—4.

Winn, Francis W., to the United States of America as represented by the United States Atomic Energy Commission. Nitric acid recovery and purification. 2,776,189, 1-1-57, Cl. 23—158.

Wishart, Ronald C., to Butler Mfg. Co. Signboard structure. 2,775,833, 1-1-57, Cl. 40—125.

Woll, Harry J., to Radio Corp. of America. Transistor indicator circuits. 2,776,420, 1-1-57, Cl. 340—252.

Woodcock, Eugene L., to Sperry Rand Corp. Video integrator circuits. 2,776,369, 1-1-57, Cl. 250—20.

Worthen, John H., to Federal Products Corp. Centralizing mechanism for a bore gauge. 2,775,820, 1-1-57, Cl. 33—178.

Worthington Corp.: *See*—
Hellmuth, Walter. 2,776,087.

Wright, William B., Jr., to American Cyanamid Co. Certain dihydro-benzoxazine-ones and dihydro-benzothiazine-ones and process. 2,776,281, 1-1-57, Cl. 260—244.

Wright, William T., Sr. Night deposit safe having card-receiving apparatus. 2,776,090, 1-1-57, Cl. 232—44.

Wulle, William A., to The Pyle-National Co. Ventilating apparatus. 2,775,927, 1-1-57, Cl. 98—40.

Wylie, Oran L., Jr.: *See*—
Limerick, Donald A., and Wylie. 2,776,324.

Yardney International Corp.: *See*—
Chapman, Christopher L. C. 2,776,331.

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Young, Reuben L. Adjustable anti-skid device for pneumatic tire. 2,775,993, 1-1-57, Cl. 152—228.

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CLASSIFICATION OF PATENTS

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NOTE.—First number = class, second number = subclass, third number = patent number

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OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

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TRADEMARKS

NOTICES

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

TM 133,238 ("DU PONT" within oval design), E. I. du Pont de Nemours and Co., Granular and gelatinous explosives; **TM 280,904**, same, Cadmium metal and zinc metal; **TM 374,154**, same, Battery zinc, gold hydrate, indium, etc.; **TM 602,630**, same, Precious metal preparations for use in the ceramic industry including gold, etc., **filed** July 17, 1956, D. C., S. D. Calif. (Los Angeles), Doc. 20204–HW, *E. I. du Pont de Nemours & Co.* v. *Dupont Metals Corp.* Trademark and registrations held valid and infringed; injunction issued restraining defendant from further use of the word "DUPONT" (notice Nov. 20, 1956).

TM 280,904. (See TM 133,238.)

TM 347,467 ("ESSO" within oval design), Standard Oil Co. of N. J., Refined, semirefined, and unrefined oils made from petroleum, etc.; **TM 609,739**, **TM 609,740** (fluid dispenser design), Esso Standard Oil Co., Gasoline, **filed** Nov. 23, 1956, D. C. N. J. (Newark), Doc. 918/56, *Esso Standard Oil Co.* v. *Sal's Oil Co., Inc.*

TM 374,154. (See TM 133,238.)

TM 602,630. (See TM 133,238.)

TM 609,739. (See TM 347,467.)

TM 609,740. (See TM 347,467.)

TM 634,591 (DUO-BED), Duo-Bed Corp., Headboards for beds, cocktail tables, pivotal sofa beds, etc.; **2,495,494**, T. S. Ziegenfuss, Twin bed and lounge; **2,630,581**, same, Convertible bed lounge; **2,602,937**, L. E. Frey, Sofa bed; **Des. 178,233**, same, Combined twin bed and sofa unit, **filed** Nov. 19, 1956, D. C., N. D. Calif. (San Francisco), Doc. 35989, *Duo-Bed Corp. et al.* v. *Simon Mattress Mfg. Co. et al.*

CONDITION OF TRADEMARK APPLICATIONS AS OF NOVEMBER 30, 1956

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)] 7,523
Date of oldest new application ..... May 17, 1956
Date of oldest amended application ..... June 7, 1956

MERCHANT, JOHN, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application	
	New	Amended
I. STERBA, J. R., Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 44 and Certification Marks (Goods) Class A	5–21–56	8–17–56
II. SHRYOCK, R. F., Classes 6, 18, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200; and Certification Marks (Services) Class B	5–17–56	7–23–56
III. WENDT, C. M., Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 36, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 50, 52	6–15–56	6–7–56
Renewals (All Classes)	11–7–56	11–20–56
Sec. 12 (c) Publications (All Classes)	10–5–56	11–19–56

Applications Filed During the Month of November 1956—1,678

Registrations Issued ..... 321—No. 639,154 to No. 639,474
Renewals Issued 94

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

SN 684,768. United States Gypsum Company, Chicago, Ill. Filed Apr. 1, 1955. Sec. 2(f).

SNOW WHITE

The drawing is lined for blue, but no claim is made to color.
Owner of Reg. Nos. 76,582 and 407,935.
For Finely Ground Gypsum Used as Paper Filler, Paint Filler, Rubber Filler, and Textile Filler.
First use April 1919.

SN 700,632. Laminated Plas-Tex Corporation, Springfield, Ohio. Filed Dec. 27, 1955.

SATNLYNE

For Laminated Vinyl Sheeting for Use in the Manufacture of Lamp Shades, Wall Coverings, and the Like.
First use on or about Nov. 2, 1955.

SN 5,076. Apothecaries Hall Company, Waterbury, Conn. Filed Mar. 23, 1956.

PermaGro

For Lawn Seed Mixtures.
First use Sept. 1, 1955.

SN 10,948. Universal Bulb Corporation, Yonkers, N. Y. Filed June 25, 1956.

DUTCH MASTERS

For Flower Bulbs—Namely, Begonia, Canna, Daffodil, Dahlia, Gladioli, Hyacinth, and Tulip.
First use Aug. 30, 1955.

CLASS 2

RECEPTACLES

SN 6,691. Chicago Bridge & Iron Company, Chicago, Ill. Filed Apr. 19, 1956. Sec. 2(f).

WATERSPHERE

Owner of Reg. No. 539,136.
For Water Storage Tanks.
First use Nov. 26, 1949.

SN 9,737. Nicholas Edward Griffin, Pasadena, Calif. Filed June 6, 1956.

SANIVOID

For Disposable Urinals.
First use Mar. 3, 1956.

SN 10,289. The Champion Company, Springfield, Ohio. Filed June 15, 1956.

CHAMPION

For Metal Burial Vaults.
First use on or about Dec. 1, 1879.

SN 10,363. White Metal Manufacturing Company, Hoboken, N. J. Filed June 15, 1956.

aerotainer

For Pressure Dispensing Container for Liquids, Including Volatile Liquids.
First use September 1954.

SN 12,070. Dixie Cup Company, Easton, Pa. Filed July 13, 1956.

Vendolite

For Paper Cups.
First use June 6, 1956.

SN 12,299. Alfred Schupp, San Antonio, Tex. Filed July 17, 1956.

SANI-STRAW-MISER

For Soda Straw Dispenser.
First use Aug. 23, 1953.

SN 12,445. Milprint, Inc., Milwaukee, Wis. Filed July 19, 1956.

SNAP-OVER

For Commodity Bags and Pouches.
First use on or about June 18, 1956, on commodity bags.

SN 13,230. The Meyers Corrugated Box Company, Cleveland, Ohio. Filed Aug. 1, 1956.

500-MAILER

For Corrugated Boxes.
First use Nov. 10, 1955.

CLASS 3

BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

SN 700,253. Poloron Products, Inc., New Rochelle, N. Y. Filed Dec. 19, 1955.

THUNDERBIRD

For Luggage.
First use Dec. 2, 1955.

CLASS 4

ABRASIVES AND POLISHING MATERIALS

SN 7,253. S. C. Johnson & Son, Inc., Racine, Wis. Filed Apr. 27, 1956.

JON-WAX

For Auto Paste Wax Having Cleaning Characteristics.
First use Mar. 28, 1956.

SN 9,796. Walling Keith, d. b. a. Keith Chemical Company, Birmingham, Ala., to Walling Keith Chemicals, Inc., Birmingham, Ala. Filed June 7, 1956.

KEITHONE

For Chemically Impregnated Cleaning Cloths for General Cleaning Purposes.
First use December 1955.

CLASS 5

ADHESIVES

SN 3,678. The Goodyear Tire & Rubber Company, Akron, Ohio. Filed Mar. 1, 1956.

PLIOTAC

For Adhesive Cement.
First use Jan. 13, 1956.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

SN 674,077. Industrial Extracta Limited, West Perth, Western Australia. Filed Sept. 30, 1954.

Myrtan

For Tanning Extracts Produced From *Eucalyptus redunca*.
First use in and during the year 1935; in commerce in and during the year 1944.

SN 676,780. Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany. Filed Nov. 17, 1954.

Oppanol

Owner of German Reg. No. 457,129, dated June 7, 1933.
For Polymers Derived From Organic Unsaturated Compounds, Such as Isobutylene and Vinylethers, and Useful for Manufacturing Sealing Materials, Packing Materials, Heat and Electrical Insulation and Rubber Substitutes.

SN 680,701. Stamford Rubber Supply Company, Stamford, Conn. Filed Jan. 28, 1955. Sec. 2(f).

Factice

Owner of Reg. No. 321,475.
For Vulcanized Vegetable Oils.
First use 1922.

SN 683,388. Gallowhur Chemical Corporation, New York, N. Y. Filed Mar. 14, 1955.

GALLOTOX

For Liquid Seed Disinfectant for Wheat, Barley, Oats, Flax, and Cotton.
First use on or about Jan. 7, 1955.

SN 695,055. Garfield Williamson, Inc., Jersey City, N. J. Filed Sept. 20, 1955.

SPEED-E-WEED

For Chemical Weed Exterminator.
First use Feb. 1, 1955.

SN 695,202. Allied Chemical & Dye Corporation, New York, N. Y. Filed Sept. 23, 1955.

NACCONATE

Owner of Reg. Nos. 153,804, 510,763, and others.
For Organic Diisocyanates for General Use in the Industrial Arts.
First use Apr. 14, 1955.

SN 697,450. Liquilux Gas Services, Inc., Houston, Tex. Filed Oct. 21, 1955.

LIQUILUX SERVICES

The word "Services" is disclaimed apart from the mark as shown.
For Liquefied Petroleum Gas for Use as a Fuel.
First use Aug. 20, 1945.

SN 698,338. Bryton Chemical Company, Marcus Hook, Pa. Filed Nov. 16, 1955.

BRYCOR

Owner of Reg. No. 562,409.
For Sulfonates.
First use Mar. 25, 1954.

SN 699,048. Arkansas Company, Inc., Newark, N. J. Filed Nov. 29, 1955.

DECOMINE

For Dyeing Assistant for Blends Containing Acrylic Fibres With Natural Fibres, Such as Wool, Consisting of a Balanced Mixture of Non-Ionic and Cationic Constituents.
First use Sept. 1, 1955.

SN 699,049. Arkansas Company, Inc., Newark, N. J. Filed Nov. 29, 1955.

ANTHRAPOLE

Owner of Reg. Nos. 549,117, 295,735, and others.
For Dyeing Assistant in Carrier Dyeing of Polyester Fibers, Blends of Polyester Fibers With Natural Fibers, Such as Wool.
First use 1920.

SN 3,310. Rim-Blox Co., Cleveland, Ohio. Filed Feb. 24, 1956.

RIM - BLOX

For Material of Sodium Fluoride, Rosin, and Zinc Stearate, Used as a Rimming Agent in the Manufacture of Steel Ingot and Other Uses.
First use Oct. 10, 1955.

SN 3,884. Positive Metals and Alloys Limited, Toronto, Ontario, Canada. Filed Mar. 5, 1956.

POS-MET

For Positive Metal Alloy Inserts To Inhibit Deterioration of the Oil, and Holders for Inserting Said Inserts in an Oil System of an Internal Combustion Engine.
First use Dec. 27, 1955; in commerce Dec. 27, 1955.

SN 4,292. Jay S. Conley, d. b. a. Jay S. Conley & Co., Mountain View, Calif. Filed Mar. 12, 1956.

JASCO

For Wood Preservative.
First use July 15, 1947.

SN 4,729. McCampbell & Company, Inc., New York, N. Y. Filed Mar. 16, 1956.

GREGG-PEL

For Non-Durable Type Water Repellent Finish Applied to Cotton Textiles.
First use Mar. 4, 1953.

SN 5,719. John F. Hancock & Son, Incorporated, d. b. a. Chlori-Sept Co., a division of John F. Hancock & Son, Incorporated, Baltimore, Md. Filed Apr. 3, 1956.

Chlori-Sept

For Chemical Disinfectants and Sanitizers in Tablet Form.
First use Oct. 21, 1955.

SN 5,929. Kay Gases Co., Chicago, Ill. Filed Apr. 6, 1956.
Owner of Reg. No. 537,184.

KAYGAS

For Propane, Oxygen, Hydrogen Acetylene, Carbon Dioxide, and Compressed Air.
First use Feb. 1, 1934.

SN 5,961. Ajem Laboratories, Inc., Livonia, Mich. Filed Apr. 9, 1956.

JEM WET

For Wetting Agents Developed To Accelerate the Wetting of Dusts and Solids in Wet Type Dust and Fume Collectors.
First use December 1953.

SN 5,993. General Aniline & Film Corporation, New York, N. Y. Filed Apr. 9, 1956.

SHOWERTEX

For Water Repellent Composition Especially for Application to Textile Fibers and Fabrics.
First use Sept. 1, 1954.

SN 6,821. Oakite Products, Inc., New York, N. Y. Filed Apr. 20, 1956.

CHROMICOAT

For Chemical Preparation Intended To Be Used for Applying a Chromate Coating to Aluminum and Zinc Surfaces for the Purpose of Improving Paint Adhesion.
First use Apr. 6, 1956.

SN 10,424. Great Lakes Carbon Corporation, New York, N. Y. Filed June 18, 1956.

NEREX

For Carbon for Carbon-Liquid Oxygen Explosives.
First use May 16, 1956.

SN 10,709. Sandoz Chemical Works, Inc., New York, N. Y. Filed June 21, 1956.

FARFON

For Dyestuffs.
First use June 13, 1956.

SN 10,710. Sandoz Chemical Works, Inc., New York, N. Y. Filed June 21, 1956.

FORON

For Dyestuffs.
First use June 13, 1956.

SN 10,744. American Cyanamid Company, New York, N. Y. Filed June 22, 1956.

ACCO

Owner of Reg. No. 539,913.
For Rosin Size.
First use April 1937.

SN 16,829. Pittsburgh Plate Glass Company, Pittsburgh, Pa. Filed Oct. 2, 1956.

MICRONIZED

For Insecticides and Fungicides.
First use Feb. 17, 1937.

CLASS 10

FERTILIZERS

SN 677,088. Nitro-Green Fertilizer Company, Fort Dodge, Iowa. Filed Nov. 22, 1954.

The drawing is lined for yellow. The words "Liquid Plant Food" are disclaimed apart from the mark as shown.
For Liquid, Plant, Shrubbery, and Tree Plant Food Fertilizer.
First use Oct. 11, 1954.

SN 6,663. Garfield Williamson, Inc., Jersey City, N. J. Filed Apr. 18, 1956.

WONDERLAWN

Owner of Reg. No. 554,773.
For Fertilizer, Turf Builder, and Lawn Food.
First use January 1956.

SN 9,687. Nelson D. Abell, Jr., d. b. a. Ouachita Fertilizer and Chemical Company, Monroe, La. Filed June 6, 1956.

The word "Brand" is disclaimed apart from the mark as shown.
For Liquid Fertilizer.
First use Nov. 15, 1955.

CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

SN 2,173. Noblit Bros. & Co., Philadelphia, Pa. Filed Feb. 6, 1956.

LUSTRE-LINE

For Door Hardware; Door Grilles; Door Sweeps; Number and Name Bars; Identification and Ornamental Plates and Figures; Scrolls for Shower Doors, Tub Enclosures, Awnings, and Front Doors; Letter Slots; Push Bars; and Accessories for Storm Doors and Awnings.
First use Jan. 5, 1956.

SN 4,103. Crescent Insulated Wire and Cable Company, Trenton, N. J. Filed Mar. 8, 1956.

CRESCENT

Owner of Reg. No. 344,512.
For Bendable Single and Multiple Tubing for Conducting Gases, Liquids or Vapors, Said Tubing Being Formed of Metal, Plastic or Resinous Material With or Without an Armor or Sheath Coating Surrounding the Tubing.
First use December 1952.

SN 9,032. The Dill Manufacturing Company, Cleveland, Ohio. Filed May 25, 1956. Sec. 2(f).

DILL

For Aerosol Valves.
First use December 1951.

CLASS 14

METALS AND METAL CASTINGS AND FORGINGS

SN 669,399. Cadillac Malleable Iron Company, Cadillac, Mich. Filed July 6, 1954.

CADALOYSTEEL

For Ferrous Castings.
First use May 20, 1954.

SN 679,071. A-1 Steel & Iron Foundry, Ltd., Vancouver, British Columbia, Canada. Filed Dec. 29, 1954.

Applicant makes no claim to exclusive rights in and to the word "Products." In the drawing the letters and border of the oval design are black and the background within the oval is orange.
For Metal Castings.
First use Sept. 24, 1945; in commerce Sept. 1, 1954.

SN 680,998. Bliss & Laughlin, Incorporated, Harvey, Ill. Filed Feb. 3, 1955. Sec. 2(f).

STRAIN-TEMPERED

Owner of Reg. No. 417,981.
For Coldworked Steels.
First use Aug. 15, 1944.

SN 688,002. ACF Industries, Incorporated, New York, N. Y. Filed May 23, 1955.

acf

For Metal Castings and Forgings.
First use during the year 1927.

SN 690,262. Hanford Foundry Company, San Bernardino, Calif. Filed June 27, 1955.

The mark includes the letter "H" shot through by a lightning bolt.

For Hydraulic Pump Cases, Hydraulic Valves, Cast Oil Field Equipment, Plate Metal Castings, Cast Aircraft Parts, and Other Cast and Forged Metal Products.

First use June 3, 1955.

SN 697,939. Société Lorraine de Laminage Continu Sollac, Paris, France. Filed Nov. 8, 1955.

SOLLECTRO

Owner of French Reg. No. 452,558, dated Aug. 29, 1955 (Seine); Natl. Inst. No. 61,292.

For Sheets of Tin Plate, Especially Those Tinned Electrolytically.

SN 698,293. Metallurgical Products Company, Philadelphia, Pa. Filed Nov. 15, 1955.

The mark consists of a conventionalized double check mark surrounded by a circle.

For Anodes.

First use Sept. 9, 1955.

SN 699,913. Lee Filter Corp., Arlington, N. J. Filed Dec. 13, 1955.

FERIDIUM

For Rust Inhibitor Made of Metallic Alloy.

First use Oct. 25, 1955.

SN 700,853. S. A. Eteco (European Overseas Trading Company), Zwevegem, Belgium. Filed Dec. 30, 1955.

MIRACLE TWIST

For Barbed Wire for Fences and Bale Ties.

First use Oct. 17, 1955.

SN 767. Ekco-Alcoa Containers Inc., River Grove, Ill. Filed Jan. 16, 1956.

For Metallic Foil Wrapping Material.

First use Jan. 3, 1956.

SN 1,591. Isabellen-Hütte Heusler K. G., Dillenburg (Hessen), Germany. Filed Jan. 27, 1956.

CENTANIN

Owner of German Reg. No. 658,645, dated Oct. 6, 1954.

For Alloys Consisting of or Containing Copper, Nickel, Manganese, and Aluminum, Particularly in the Form of Blocks, Plates, Sheets, Bands, Wires, Tubes, Lamella, and Wire Netting.

SN 4,888. Continental Steel Corporation, Kokomo, Ind. Filed Mar. 20, 1956.

Econo-Coil

For Large Rolls of Wire and Carriers for Such Rolls.

First use Jan. 16, 1956.

SN 5,622. Elesco Smelting Corp., Chicago, Ill. Filed Apr. 2, 1956.

ELESCO

For Nonferrous Metals Comprising Copper, and Copper Based Alloys in the Form of Ingots, Pigs, Bars, Shot, and Other Shapes.

First use Mar. 13, 1956.

SN 6,085. Alweg Aktiebolag, Stockholm, Sweden. Filed Apr. 10, 1956.

ALWEG

Owner of Swedish Reg. No. 74,911, dated Oct. 23, 1953.

For Railway Structures—Namely, Monorail and Elevated Tracks.

SN 6,089. Baldwin-Lima-Hamilton Corporation, Eddystone, Pa. Filed Apr. 10, 1956.

NIALITE

For Castings.

First use April 1953.

SN 6,495. Alco Products, Incorporated, New York, N. Y. Filed Apr. 17, 1956.

Hi-Qua-Led STEEL

Applicant disclaims the word "Steel" from the mark as shown.

For Steel Alloys Sold in the Form of Rolled Forgings, Rings, and the Like.

First use Apr. 2, 1956.

SN 6,967. Universal-Cyclops Steel Corporation, Bridgeville, Pa. Filed Apr. 23, 1956.

DUOVAC

For Ingots Made From Consumable Electrodes Produced by Electrical Induction Vacuum Melting and for Products Formed From Such Ingots, Such as Blooms, Billets, Bars, Rods, Wire, Forgings, Plates, Sheets, and Strip.

First use Apr. 6, 1956.

SN 8,500. New Process Metals, Inc., Newark, N. J. Filed May 17, 1956.

CERALLOY

For Ingots, Rods, Pellets, Turnings, and Powders of Misch Metal Alloys, Containing Magnesium, Aluminum, Iron, Thorium, and of Further Alloys for the Electronic Industry.

First use in December 1955.

SN 8,949. Fromson Orban Company, Inc., New York, N. Y. Filed May 24, 1956.

ANO-COIL

For Aluminum Strip in Coil Form.

First use in or about July 1955.

SN 10,206. Western Carbide Corporation, North Hollywood, Calif. Filed June 13, 1956.

HiTC

For Metallic Compositions for Hardfacing Metals With the Application of Heat.

First use Feb. 10, 1956.

SN 10,207. Western Carbide Corporation, North Hollywood, Calif. Filed June 13, 1956.

RUF-NEK

For Composition in Paste or Powder Form Comprising Fluxing Agents, Alloying Agents, Finely Divided Metal and Either Boron or Carbon for Hardfacing Metal Objects With the Application of Heat in Excess of 1800° F.

First use Feb. 2, 1956.

SN 16,125. The International Nickel Company, Inc., New York, N. Y. Filed Sept. 21, 1956.

INCONEL "702"

Owner of Reg. Nos. 308,200, 589,474, and 625,727.

For Nickel Alloys, Including Alloys of Nickel and Chromium.

First use Apr. 25, 1956.

CLASS 15

OILS AND GREASES

SN 6,577. Elden D. Young, Downey, Calif. Filed Apr. 17, 1956.

ZIPPY

The drawing is lined for green.

For Electric Shaver Oil.

First use Feb. 16, 1956.

SN 14,713. Western States Refining Company, Salt Lake City, Utah. Filed Aug. 27, 1956.

Beeline

For Gasoline, Diesel Fuel, Jet Fuel, and Motor Lubricating Oil.

First use on or about July 20, 1954.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

SN 1,094. Anthony E. Lavett, d. b. a. Sun-Bright Prod. Mfg. Co., Pacoima, Calif. Filed Jan. 19, 1956.

Auto-Start

For Water Repellent Fluid Coating for Protecting the Ignition Systems of Internal Combustion Engines.

First use Nov. 7, 1955.

SN 2,895. Monsanto Chemical Company, St. Louis, Mo. Filed Feb. 17, 1956.

WHITE Rez

Applicant, without waiver of its common law rights, disclaims the word "White" apart from the association shown.

Owner of Reg. Nos. 349,406, 353,292, and others.

For White Color-Toned Sealer for Interior or Exterior Use on Wood and Masonry.

First use Apr. 1, 1940; Apr. 21, 1937, as to "Rez."

SN 2,896. Monsanto Chemical Company, St. Louis, Mo. Filed Feb. 17, 1956.

Redwood Rez

Applicant, without waiver of its common law rights, disclaims the word "Redwood" apart from the association shown.

Owner of Reg. Nos. 349,406, 353,292, and others.

For Redwood Color-Toned Sealer for Interior or Exterior Use on Wood and Masonry.

First use Aug. 22, 1949; Apr. 21, 1937, as to "Rez."

SN 2,897. Monsanto Chemical Company, St. Louis, Mo. Filed Feb. 17, 1956.

Cedar Rez

Applicant, without waiver of its common law rights, disclaims the word "Cedar" apart from the association shown. Owner of Reg. Nos. 349,406, 353,292, and others.

For Cedar Color-Toned Sealer for Interior or Exterior Use on Wood and Masonry.

First use in 1951; Apr. 21, 1937, as to "Rez."

SN 2,898. Monsanto Chemical Company, St. Louis, Mo. Filed Feb. 17, 1956.

Mahogany Rez

Applicant, without waiver of its common law rights, disclaims the word "Mahogany" apart from the association shown. Owner of Reg. Nos. 349,406, 353,292, and others.

For Mahogany Color-Toned Sealer for Interior or Exterior Use on Wood and Masonry.

First use in 1951; Apr. 21, 1937, as to "Rez."

SN 2,899. Monsanto Chemical Company, St. Louis, Mo. Filed Feb. 17, 1956.

Driftwood Rez

Applicant, without waiver of its common law rights, disclaims the word "Driftwood" apart from the association shown. Owner of Reg. Nos. 349,406, 353,292, and others.

For Driftwood Color-Toned Sealer for Interior or Exterior Use on Wod and Masonry.

First use in 1951; Apr. 21, 1937, as to "Rez."

SN 2,900. Monsanto Chemical Company, St. Louis, Mo. Filed Feb. 17, 1956.

Sage Rez

Applicant, without waiver of its common law rights, disclaims the word "Sage" apart from the association shown. Owner of Reg. Nos. 349,406, 353,292, and others.

For Sage Color-Toned Sealer for Interior or Exterior Use on Wood and Masonry.

First use in 1951; Apr. 21, 1937, as to "Rez."

SN 9,615. Watson-Standard Company, Pittsburgh, Pa. Filed June 4, 1956.

Pli Phane

For Varnishes.

First use May 15, 1935.

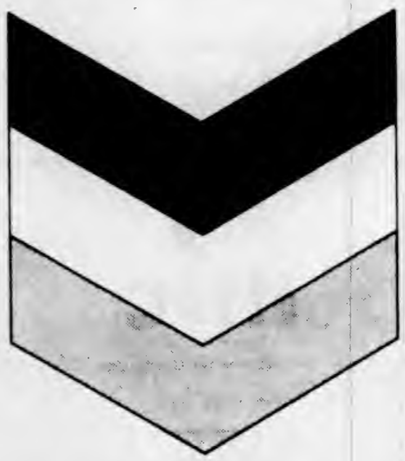
SN 9,779. Enterprise Paint Manufacturing Company, Chicago, Ill. Filed June 7, 1956.

SYNCON

For Paint Enamel.

First use Sept. 16, 1954.

SN 11,453. Standard Oil Company of California, San Francisco, Calif. Filed July 13, 1956.



Owner of Reg. Nos. 356,109, 533,798, and others.

For Rust-Preventing and Filter Coating Petroleum Compounds Applied as Films on Metal and Other Surfaces.

First use June 6, 1956.

CLASS 17

TOBACCO PRODUCTS

SN 8,169. F. X. Smith's Sons Co., McSherrystown, Pa. Filed May 11, 1956.

John Sr

Owner of Reg. No. 381,346.

For Cigars.

First use in the early part of 1915.

SN 8,170. F. X. Smith's Sons Co., McSherrystown, Pa. Filed May 11, 1956.

John Jr

Owner of Reg. No. 381,345.

For Cigars.

First use in the early part of 1915.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

SN 659,509. Wickhen Products, Inc., Milwaukee, Wis. Filed Jan. 14, 1954.

VITA-COS

For Vitamin Preparation in Bulk Form for Use in Cosmetics and Pharmaceutical Products Such as Skin Creams, Lotions, Lipsticks, and Ointments.

First use Nov. 27, 1953.

SN 666,779. David Ormont and Alan Mann, d. b. a. Autry's Minerals and General Products Corporation, Los Angeles, Calif. Filed May 20, 1954. Sec. 2(f).

AUTRY'S

For Mineral Food Supplement.

First use April 1946.

SN 676,152. Warner-Lambert Pharmaceutical Company, New York, N. Y., by change of name from Warner-Hudnut, Inc. Filed Nov. 5, 1954. Sec. 2(f).

WARNER-CHILCOTT

For Inulin Solution, Evans Blue Solution, Diagnostic Plasma, Fibrinogen and Thromboplastin.

First use Apr. 1, 1953, on diagnostic plasma.

SN 681,606. Paul Lippens Inc., Montreal, Quebec, Canada. Filed Feb. 14, 1955.

DIOXYLIN

Owner of Canadian Reg. No. 125, folio N. S. 32,214, dated Mar. 22, 1949.

For Intestinal Antiseptic Product Sold in Bulk and Tablet Form Intended for Further Use by Professional Processors in the Preparation of Pharmaceutical Products Sold Under Their Specific Brand Names.

First use Mar. 21, 1950; in commerce April 1950.

SN 694,289. The Geo. H. Nowland Company, Cincinnati, Ohio. Filed Sept. 6, 1955. Sec. 2(f).

Landford

For Medicines and Ingredients of Medicines—Namely, Alum (Lump), Alum (Powdered), Aromatic Spirits of Ammonia, Aspirin, Boric Acid, Camphorated Oil, Castor Oil, Castor Oil, Odorless and Tasteless, Cough Syrup, Epsom Salt, Essence Peppermint, Glycerin, Gum Spirits of Turpentine Used for Medicinal Purposes, Hydrogen Peroxide Solution, Mineral Oil, Quinine Sulfate, Petroleum Jelly, Salt Petre, Senna Leaves, Spirit of Camphor, Flowers of Sulfur Used for Medicinal Purposes, Sweet Oil Used for Medicinal Purposes, Sweet Spirit of Nitre, Toothache Drops, Witch Hazel, Wood Turpentine Used for Medicinal Purposes, Oil of Cloves, Oil of Cinnamon.

First use on or about Jan. 1, 1912.

SN 697,824. Nicholas Products Laboratories Limited, Slough, England, now by change of name A. & G. Nicholas Limited. Filed S. R. Nov. 7, 1955; am. P. R. Jan. 20, 1956.

DAPTAZOLE

Owner of British Reg. No. 738,567, dated Jan. 25, 1955.

For Pharmaceutical Preparations and Substances for Human and Veterinary Use, All Being Azole Compounds, Used for the Antagonism of the Side Effects of Analgesics, in the Treatment of Barbiturate Poisoning and as a Stimulant and an Antiseptic.

SN 698,201. The Norwich Pharmacal Company, d. b. a. Eaton Laboratories, Norwich, N. Y. Filed Nov. 14, 1955.

FUREA

Owner of Reg. Nos. 403,279, 587,238, and others.

For Preparation for Use as an Intra-Uterine Medication Following Termination of Pregnancy or Abnormal Delivery.

First use May 26, 1955.

SN 698,337. Rene J. Bienvenu, d. b. a. Cenla Pharmaceutical Company, Alexandria, La. Filed Nov. 16, 1955.

STATGESIC

For Drug Product for Use as an Analgesic Skeletal Muscle Relaxant.

First use June 1, 1955.

SN 700,913. Tom-Tom Laboratories, Inc., Council Bluffs, Iowa. Filed Dec. 30, 1955.

TRAX

For Medicinal Foot Lotion.

First use July 8, 1929.

SN 2,684. Brayten Pharmaceutical Company, Chattanooga, Tenn. Filed Feb. 15, 1956.

PREDEMA

For Medicinal Preparation for the Relief of Pre-Menstrual Tension.

First use Dec. 8, 1955.

SN 5,079. B Y's, Inc., San Francisco, Calif. Filed Mar. 23, 1956.

For Medicated Eye Drops.

First use on or about Jan. 26, 1956.

SN 7,481. Bristol Laboratories Inc., New York, N. Y. Filed May 2, 1956.

DICLORESOL

For Antibiotic Pharmaceutical Preparation.
First use Dec. 20, 1955.

SN 7,564. Bristol Laboratories Inc., New York, N. Y. Filed May 3, 1956.

MYRILIDINE

Owner of Reg. No. 538,591.
For Antibiotic Pharmaceutical Preparation.
First use Jan. 4, 1955.

SN 7,690. Don Montgomery, d. b. a. Cu-Ritis Company, Forrest City, Ark. Filed May 4, 1956.

CU-RITIS

For Rubbing Compound for Arthritis and Neuritis.
First use Jan. 15, 1956.

SN 8,866. Mead Johnson & Company, Evansville, Ind. Filed May 23, 1956.

CYNERVEN

For Medicaments for the Relief of Pain, Headaches, and Common Head Colds Prepared for Rectal Administration.
First use Apr. 26, 1956.

SN 11,290. Pharmaco, Inc., Kenilworth, N. J. Filed June 29, 1956.

Regutol

For Preparation for the Treatment of Constipation.
First use Apr. 12, 1956.

SN 11,521. American Scientific Laboratories, Inc., Madison Wis. Filed July 5, 1956.

750

For Infusion Ointment for Treatment of Mastitis.
First use Sept. 26, 1955.

SN 11,595. Eli Lilly and Company, Indianapolis, Ind. Filed July 5, 1956.

PASKATE

For Medicinal Preparation of Potassium Salt of Aminosalicylic Acid, Useful in the Treatment of Tuberculosis.
First use May 18, 1956.

SN 11,643. Yates Drug Company, Inc., New York, N. Y. Filed July 5, 1956.

DIOCSUL

For Drug for the Relief of Constipation.
First use May 8, 1956.

SN 11,740. B. F. Ascher & Company, Inc., Kansas City, Mo. Filed July 9, 1956.

DU-ORIA

For Medicinal Preparation for the Treatment of Conditions Due to Nervous Tension.
First use June 20, 1956.

SN 11,758. Gar & T Co., Minot, N. Dak. Filed July 9, 1956.

GAR & T

For Medicinal Preparation for the Relief of Itching and Minor Skin Irritations.
First use May 10, 1956.

SN 11,856. Irwin, Neisler & Company, Decatur, Ill. Filed July 10, 1956.

UNISERPEN

For Hypotensive Agent.
First use June 12, 1956.

SN 11,857. Irwin, Neisler & Company, Decatur, Ill. Filed July 10, 1956.

AQUATYL

For Laxative Tablet.
First use June 12, 1956.

SN 11,910. Buffington's Incorporated, Worcester, Mass. Filed July 11, 1956.

DOLOPAR

For Antihistaminic and Analgesic Preparation for the Inhibition and Control of the Common Cold and the Relief of Certain Painful Conditions, Especially Dysmenorrhea.
First use April 1950.

SN 11,976. William H. Taylor, d. b. a. XX Products Co., Mount Clemens, Mich. Filed July 11, 1956.

For Ointment for Treating Piles.
First use May 2, 1956.

SN 12,085. Hoffmann-La Roche Inc., Nutley, N. J. Filed July 13, 1956.

CLAFANONE

For Anti-Enteritic Agent.
First use May 22, 1956.

SN 12,178. Geigy Chemical Corporation, New York, N. Y. Filed July 16, 1956.

ENSIDON

For Ataraxics.
First use July 5, 1956.

SN 14,410. A. H. Robins Company, Inc., Richmond, Va. Filed Aug. 22, 1956.

DIMETANE

For Antihistamine and Antiallergic Medicinal Preparation.
First use Aug. 13, 1956.

SN 14,518. International Laboratories, Inc., Rochester, N. Y. Filed Aug. 27, 1956.

ATH-O-DEX

For Preparation for the Treatment of Athlete's Foot and Other Fungous Infections of the Skin.
First use June 21, 1948.

CLASS 19

VEHICLES

SN 11,760. The Goodyear Tire & Rubber Company, Akron, Ohio. Filed July 9, 1956.

TRU LINE

For Wheel and Drum Assemblies.
First use June 1, 1956.

SN 11,912. Continental Copper & Steel Industries, Inc., New York, N. Y. Filed July 11, 1956.

COBRAHAUL

Owner of Reg. No. 422,438.
For Dumping Wagons.
First use June 7, 1956.

SN 12,072. J. W. Durrett, Tyler, Tex. Filed July 13, 1956.

CLIMATIC-AIR

For Air Conditioners for Automobiles.
First use Apr. 1, 1955.

SN 13,066. Portland Trailer Mfg. Co., Portland, Oreg. Filed July 30, 1956.

For Two-Wheel Automobile Utility Trailers and for Sale to Persons, Firms or Corporations Engaged in the Trailer Rental Business.
First use in October 1945.

CLASS 20

LINOLEUM AND OILED CLOTH

SN 4,094. Bonafide Mills, Inc., New York, N. Y. Filed Mar. 8, 1956.

HARLEQUIN

For Felt Base, Linoleum, Composition and Plastic Floor Coverings and Rugs, Not Woven, and Wall Coverings Made of Similar Materials.
First use Oct. 14, 1955.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

SN 694,061. Globe-Union Inc., Milwaukee, Wis. Filed Sept. 1, 1955.

dri-pak

For Acid Electrolyte Battery.
First use June 10, 1955.

SN 12,225. Sel-Son Electronic Tube Corp., Darby, Pa. Filed July 16, 1956.

Sel-Son

For Television Tubes.
First use May 26, 1953.

SN 12,414. Electro-Sonic Laboratories, Inc., Long Island City, N. Y. Filed July 19, 1956.

ESL

For Electric Communication Devices, and Specifically Phonograph Pickups, Phonograph Tone Arms, Microphones, Magnetic Recording Devices, Loud-Speakers, Electric Amplifiers, and Guide Message Reproducing Equipment Comprising Individual Phones and Electromagnetic Field Pick-Up Devices Which Pick Up an Electromagnetic Field Corresponding to a Sound Message Which Explains Different Items of an Exhibit.
First use Aug. 20, 1954.

SN 12,577. Bel Canto Magnetic Tape, Los Angeles, Calif. Filed July 23, 1956.

Bel Canto

For Magnetfe Tape.
First use Dec. 1, 1955.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

SN 657,704. L. M. Eddy Manufacturing Co., Inc., Framingham, Mass. Filed Dec. 9, 1953.

Sgt. Eddy

For Toy Holsters and Toy Pistol and Toy Holster Sets.
First use Oct. 16, 1953.

SN 663,933. Milton Bradley Company, Springfield, Mass. Filed Apr. 5, 1954.

Owner of Reg. Nos. 391,578 and 393,471.
For Games and Toys Including Board Games Played With Movable Playing Pieces, Card Games, Games Consisting of Playing Members Carrying Indicia, Jig-Saw Games, Puzzles, Toy Animals, Dolls and Costumes Therefor, Toy Blocks, Toy Wheeled Vehicles, Pull Toys, Toy Houses and Furniture Therefor, Peg Boards, Toy Blocks, Colored Sticks and Balls and Squares, Toy Beads, and Sewing Cards.
First use February 1952.

SN 696,171. Premo Rubber Company Limited, Petersfield, England. Filed Oct. 10, 1955.

MAXIBRIX

Owner of British Reg. No. 562,848, dated Sept. 12, 1935; and U. S. Reg. No. 337,389.
For Toy Bricks and Shaped Pieces All of India-Rubber for Making Toy Buildings.

SN 697,457. American Machine & Foundry Company, New York, N. Y. Filed Nov. 1, 1955.

PINVEYOR

For Bowling Pin Handling and Conveying Mechanism.
First use on approximately June 24, 1955.

SN 697,647. The Sun Rubber Company, Barberton, Ohio. Filed Nov. 3, 1955.

Owner of Reg. Nos. 566,095, 591,912, and others.
For Rubber and Vinyl Dolls, Layettes Including Dolls, Nurser Sets, Athletic Balls, Play Balls, and Toys, Including Toy Animals, Floating Toys, Wheeled Toys, Crib Toys, and Toy Baby Accessories.
First use on or about Feb. 28, 1955, on rubber and vinyl dolls and layettes including dolls.

SN 6,734. E. S. Lowe Company, Inc., New York, N. Y. Filed Apr. 19, 1956.

YAHTZEE

For Poker Dice Games.
First use Apr. 3, 1956.

SN 7,798. Haddad & Sons, Inc., New York, N. Y. Filed May 7, 1956.

HADSON

For Toys, Including Battery Operated Toys, Wheeled Toys, Friction Vehicular Toys, Toy Musical Instruments, Tops, Wind-Up Toys, Dolls, Toy Guns, Toy Animals, Toy Sets, Hand Actuated Toys, Toy Telephones, Toy Boats, and Toy Airplanes.
First use in 1945.

SN 7,902. Bayshore Industries, Inc., Elkton, Md. Filed May 8, 1956.

The words "Toys Brighten a Child's Day" are disclaimed apart from the mark as shown. Owner of Reg. No. 526,134.
For Toy Rubber Balloons.
First use Apr. 11, 1956.

SN 8,083. Louis Marx & Company, Inc., New York, N. Y. Filed May 10, 1956.

CASEY JONES

For Toy Locomotive.
First use Feb. 20, 1956.

SN 8,788. Millsite Tackle Company, Howell, Mich. Filed May 22, 1956.

"DEEP-CREEP"

For Artificial Fish Lure.
First use on or about Apr. 1, 1948.

SN 8,790. Millsite Tackle Company, Howell, Mich. Filed 22, 1956.

"PADDLE PLUG"

The word "Plug" is disclaimed apart from the mark as shown.
For Artificial Fish Lure.
First use on or about Mar. 1, 1942.

SN 10,618. Production and Marketing Company, Newtown, Conn. Filed June 20, 1956.

TROQUE

For Board Game and Accessories.
First use May 13, 1956.

SN 12,144. Milton Bradley Company, Springfield, Mass. Filed July 16, 1956.

RACK-O

For Card Game.
First use May 7, 1956.

SN 12,226. South Bend Tackle Company, Inc., South Bend, Ind. Filed July 16, 1956.

BANSHEE

For Fishing Line, and Particularly Floating Fly Line.
First use June 29, 1956.

SN 12,332. Bantam-U. S. Toys, Inc., New York, N. Y. Filed July 18, 1956.

"WISSKER-DOODLE"

For Stuffed Toy Animals—Namely, Toy Dogs.
First use May 13, 1956.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

SN 696,100. Henry M. Bacon, d. b. a. Tillicum Rubber Co., Lacey, Wash. Filed Oct. 10, 1955.

HALO

For Twist Condensers for Yarn and Thread Forming Machines.
First use Jan. 26, 1955.

SN 3,504. Wilton Tool Manufacturing Co., Inc., Schiller Park, Ill. Filed Feb. 27, 1956.

POWRLOCK

For Hydraulic and Fluid Operated Clamps and Work-Holders.
First use Jan. 17, 1956.

SN 3,970. A. I. T. Diamond Tool Company, Skokie, Ill. Filed Mar. 7, 1956.

DIA-MONITE

For Combination Liquid Coolant Pump and Filtering Units for Reclaiming Diamond Particles in Abrasive Grinding Operations.
First use Feb. 15, 1954.

SN 5,420. Eastern Electric, Inc., New Bedford, Mass. Filed Mar. 29, 1956.

For Electrically Operated Article Vending Machines.
First use Jan. 3, 1956.

SN 5,895. R. S. Allen, d. b. a. Lone Star Power Tool Co., Dallas, Tex. Filed Apr. 6, 1956.

Without waiving any common law rights therein, no claim is made to the words "Turf Trimmer" except as a part of the mark as shown.
For Turf Trimmer.
First use Oct. 12, 1955.

SN 5,970. Bemis Bro. Bag Co., Minneapolis, Minn. Filed Apr. 9, 1956.

JETROL

For Injector Type Sprayers for Spraying Granular Material Upon Entry Thereof Into a Bag.
First use on or about Mar. 15, 1956.

SN 8,227. Imperial Knife Company, Inc., Providence, R. I. Filed May 14, 1956. Sec. 2(f).

PROVIDENCE

Owner of Reg. No. 576,161.
For Flatware of Base Metal Comprising Table Knives, Forks, and Spoons.
First use in September 1949.

SN 8,828. The Dazey Corporation, St. Louis, Mo. Filed May 23, 1956.

ICERAMIC

For Portable Ice Crushing Machines for Domestic Use.
First use Dec. 15, 1955.

SN 12,073. East Chicago Machine Tool Corp., East Chicago, Ind. Filed July 13, 1956.

Scrap-O-matic

For Industrial Balers.
First use Nov. 28, 1955.

SN 12,103. The Peck, Stow & Wilcox Company, Southington, Conn. Filed July 13, 1956.

PEXTO

Owner of Reg. Nos. 332,786, 332,787, and others.
For Tools and Machines, Hand, Foot, and Power Operated, for Sheet Metal Work; Tools and Machines for Cutting, Bending, and Forming Wire; Squaring Shears, Foot and Power Operated; Circle Shears; Ring and Circle Shears; Lever Shears and Slitting Shears, Manual and Power Operated; and Wrenches.
First use in 1947.

SN 12,433. Ernst Krause & Co., Vienna, Austria. Filed July 19, 1956.

KRAUSE-CONCENTRIX

Priority claimed under Sec. 44(d) on Austrian application filed Feb. 9, 1956; Reg. No. 34,244, dated Apr. 10, 1956.
For Machine Tools Especially Precision Boring Machines.

SN 12,513. Jeffers Journal Lubricators, Chicago, Ill. Filed July 20, 1956. Sec. 2(f).

"JEFFERS"

For Journal Lubricating Devices.
First use in 1945.

SN 12,545. Viber Company, Burbank, Calif. Filed July 20, 1956.

LECTROVIBER

Owner of Reg. Nos. 297,997 and 623,385.
For Unbalanced Weight Vibratory Machines for Attachment to Chutes, Molds, Tanks, Etc. for Agitation and Compaction.
First use on or about May 1, 1956.

SN 15,084. Wilder Manufacturing Company, Inc., Carmel, Calif. Filed Sept. 4, 1956.

WILDER

For Slitting Shears, Square Shears, Dovetail Notcher, and Punch.
First use in January 1951.

SN 15,114. Food Machinery and Chemical Corporation, San Jose, Calif. Filed Sept. 5, 1956.

RIDE-a-matic

For Tractors.
First use Aug. 5, 1955.

SN 15,208. Millers Falls Company, Greenfield, Mass. Filed Sept. 6, 1956.

V-LINE

For Awls, Bevels, Bits, Bit Extensions, Braces, Chisels, Countersinks, Drills, Drill Points, Glass Cutters, Hammers, Mitre Boxes, Nail Sets, Planes, Pliers, Punches, Putty Knives, Saws, Saw Frames, Saw Blades, Scrapers, Screw Drivers, Tack Claws, Utility Knives and Knife Blades, Vises, and Wrenches.
First use June 21, 1956.

SN 15,257. B. & W. Manufacturing Co., Inc., New York, N. Y. Filed Sept. 7, 1956.

Jet

For Sewing Machine Attachments.
First use Sept. 15, 1955.

SN 15,279. Houston Oil Field Material Company, Inc., Houston, Tex. Filed Sept. 7, 1956.

MUD-MISER

For Centrifuge System With Automatic Controls.
First use Aug. 8, 1954.

SN 15,337. Yeomans Brothers Company, Melrose Park, Ill. Filed Sept. 7, 1956.

CAVITATOR

For Waste Treating Units.
First use May 1, 1954.

SN 15,365. Laffie Harper, d. b. a. Harper Metal Products, Ltd., San Bruno, Calif. Filed Sept. 10, 1956.

CLIPROL

For Clip Forming Machines.
First use Sept. 30, 1955.

SN 15,419. R. Wallace & Sons Manufacturing Company, Wallingford, Conn. Filed Sept. 10, 1956.

MODERN MOOD

For Stainless Steel Flatware, i. e., Knives, Forks, and Spoons.
First use Sept. 5, 1956.

SN 15,467. Ideal Roller and Manufacturing Company, Chicago, Ill. Filed Sept. 11, 1956.

TYPOCRAFT

For Rollers for Typographic Printing Presses.
First use June 1, 1956.

SN 15,505. Zellweger Ltd., Uster, Switzerland. Filed Sept. 11, 1956.

ZELLWEGER USTER

For Textile Machinery, Slub Catchers, Yarn Clearers, Drawing-In Machines, and the Like.
First use in January 1928.

SN 15,664. N. A. Woodworth Company, Detroit, Mich. Filed Sept. 13, 1956.

TORK-LOK

For Arbor-Type Chucks.
First use Aug. 23, 1956.

SN 15,723. Edgar E. Orensten, d. b. a. Glorified Steak Mold Co., Pottstown, Pa. Filed Sept. 14, 1956.

GLORIFIED

For Meat-Forming Device.
First use Aug. 25, 1956.

SN 15,806. B. & S. Massey Limited, Openshaw, Manchester, England. Filed Sept. 17, 1956.

MASSEY MARATHON

Owner of British Reg. No. B741,659, dated Apr. 26, 1955.
For Automatic Friction Drop Hammers.

SN 16,076. Sunbeam Corporation, Chicago, Ill. Filed Sept. 20, 1956.

Sunbeam

For Drill Bits.
First use Oct. 26, 1954.

SN 16,116. Gillett & Eaton, Inc., Lake City, Minn. Filed Sept. 21, 1956.

LU-BRE-TEN

For Pistons.
First use Aug. 15, 1956.

SN 16,571. Sunbeam Corporation, Chicago, Ill. Filed Sept. 27, 1956.

Sunbeam

For Saw Blades.
First use June 23, 1955.

SN 16,606. The Huffman Manufacturing Company, Dayton, Ohio. Filed Sept. 28, 1956.

HUFFY

Owner of Reg. No. 552,783.
For Power Operated Lawn Mowers.
First use Dec. 30, 1951.

SN 16,733. Pinking Shears Corporation, New York, N. Y. Filed Oct. 1, 1956.

"PINKSCALLOP"

For Shears With Teeth for Cutting Undulated Edges.
First use Sept. 27, 1956.

SN 16,798. Elliott Manufacturing Co., Omaha, Nebr. Filed Oct. 2, 1956.

HI-REACH

For Self-Propelled Machines Equipped With Hoist Mechanisms Which Are Used To Pick Up, Transport, and Deposit Objects and To Serve as an Elevating and Support Mechanism for General Maintenance and Handling Operations.
First use Jan. 18, 1956.

SN 16,946. Walter V. Cornett, d. b. a. R. P. B. Corp., Los Angeles, Calif. Filed Oct. 4, 1956.

MIGHTY MIDGET

For Breaking or Demolition Machines Used for Breaking and Cutting by Impact, Road Surfaces, Concrete Structures, Walls, Bridges, Culverts and the Like, Trench Digging, Tamping, and General Demolition Work.
First use Apr. 5, 1948.

SN 17,063. Frank R. Cook Co., Denver, Colo. Filed Oct. 8, 1956.

pocket power

For Power-Pack Units for Guided Missiles.
First use Aug. 4, 1956.

SN 17,064. Frank R. Cook Co., Denver, Colo. Filed Oct. 8, 1956.

For Power-Pack Units for Guided Missiles.
First use Aug. 4, 1956.

SN 17,118. Poolmaster, Inc., Burlingame, Calif. Filed Oct. 8, 1956.

JUNIOR-JET

For Vacuum Cleaners for Swimming Pools.
First use Aug. 22, 1956.

SN 17,316. Simonds Saw and Steel Company, Fitchburg, Mass. Filed Oct. 11, 1956.

SI-CHROME

For Saw Bits.
First use Sept. 25, 1956.

SN 17,610. Applied Research Corp., Erie, Pa. Filed Oct. 17, 1956.

PERMAPRINT

For Devices for Printing Bills of Exchange, Specifically, Checks and Bank Drafts.
First use Mar. 3, 1955.

SN 17,841. Showcard Machine Co., Chicago, Ill. Filed Oct. 19, 1956. Sec. 2(f).

SHOWCARD

Owner of Reg. No. 340,057.
For Machines for Printing Advertising Matter and Display Cards and the Like.
First use Feb. 17, 1930.

SN 18,008. Lincoln-Schlueter Industrial Floor Machine Co., Chicago, Ill. Filed Oct. 23, 1956. Sec. 2(f).

AUTOSCRUBBER

For Floor Scrubbing Machines and Parts Thereof.
First use on or about Mar. 10, 1938.

SN 18,009. Lincoln-Schlueter Industrial Floor Machine Co., Chicago, Ill. Filed Oct. 23, 1956.

SCRUBMOBILE

For Floor Scrubbing Machines and Parts Thereof.
First use on or about Feb. 3, 1955.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

SN 699,515. Minneapolis-Honeywell Regulator Company, Minneapolis, Minn. Filed Dec. 6, 1955.

"SILLRAMIC"

For Protecting Tubes for Heat Sensing Devices, Such as Thermocouples.
First use Apr. 7, 1955.

SN 2,628. General Aniline & Film Corporation, New York, N. Y. Filed Feb. 14, 1956.

VAGABOND

For Photographic Materials—Namely, Photographic Cameras.
First use Dec. 28, 1955.

SN 2,731. Leon Thomas, Seminole, Okla. Filed Feb. 15, 1956.

MAGNA LENS

The word "Lens" is disclaimed apart from the mark as shown.
For Lens Frames Including Lenses for Welding Helmets.
First use Apr. 6, 1951.

SN 3,699. Minneapolis-Honeywell Regulator Company, Minneapolis, Minn. Filed Mar. 1, 1956.

Electr-O-Pulse

For Electronic Time Proportioning Relay With Automatic Reset, Parts and Accessories Thereof.
First use not later than Jan. 1, 1956.

SN 3,962. Standard Scientific Supply Corp., New York, N. Y. Filed Mar. 6, 1956.

MYCOPAPER

For Scientific Device for More Rapid Identification of Dermatophytes.
First use Apr. 8, 1955.

SN 6,079. The White-Haines Optical Company, Columbus, Ohio. Filed Apr. 9, 1956.

TUFFR_x HEAT TREATED LENSES

The words "Heat Treated Lenses" are disclaimed apart from the mark as shown.
For Ophthalmic Heat-Treated Lenses.
First use July 1, 1955.

SN 8,317. Cam-Stat, Incorporated, Los Angeles, Calif. Filed May 15, 1956.

DECRO-STAT

Owner of Reg. No. 421,215.
For Room Thermostats.
First use Mar. 1, 1956.

SN 8,358. Soroban Engineering Corporation, Melbourne, Fla. Filed May 15, 1956.

Soroban

For Electronic Computer Accessories Including Tele-Typewriters, Coded Keyboards, Perforated Tape Readers, Tape Perforating Apparatus, and Perforated Tape Comparators and Verifiers.
First use on or about Apr. 15, 1954.

SN 9,770. Bourns Laboratories, Inc., Riverside, Calif. Filed June 7, 1956.

AEROPOT

For Potentiometers.
First use June 1, 1956.

SN 10,649. Bourns Laboratories, Inc., Riverside, Calif. Filed June 21, 1956.

TRIMIT

For Potentiometers.
First use Mar. 4, 1955.

SN 10,650. Bourns Laboratories, Inc., Riverside, Calif. Filed June 21, 1956.

E-Z-TRIM

For Potentiometers.
First use Mar. 4, 1955.

SN 11,011. Kay Electric Company, Pine Brook, N. J. Filed June 26, 1956.

VARI-SWEEP

For Electronic Broad Band Sweeping Oscillators.
First use Apr. 13, 1956.

SN 13,011. Bourns Laboratories, Inc., Riverside, Calif. Filed July 30, 1956.

LINITRIM

For Potentiometers.
First use Mar. 4, 1955.

CLASS 27

HOROLOGICAL INSTRUMENTS

SN 681,784. Oskar Dold Kommanditgesellschaft, Furtwangen, Germany. Filed Feb. 16, 1955.

OskarDold

Priority claimed under Sec. 44(d) on German applications filed Sept. 3, 1954 and Dec. 31, 1954; Reg. Nos. 691,799, dated June 14, 1956, and 693,682, dated Aug. 8, 1956.
For Timepieces and Parts Thereof, Clock and Watch Cases of Wood and Metal.

CLASS 28

JEWELRY AND PRECIOUS-METAL WARE

SN 11,628. Benjamin Spergel, Newark, N. J. Filed July 5, 1956.

ART'N GOLD

For Finger Rings and Finger Ring Guards.
First use May 21, 1956.

SN 12,243. Harry Zickerman & Co., New York, N. Y. Filed July 16, 1956.

LOVE AND KISSES

For Finger Rings.
First use 1931.

SN 12,346. Coro, Inc., New York, N. Y. Filed July 18, 1956. Owner of Reg. Nos. 393,183, 428,993, and 629,502.

Corocraft

For Necklaces, Bracelets, Finger Rings, Earrings, Jewelry Clips, Brooches, Lockets, Charms, Charm Bracelets, Fobs, Jewelry Initials, Pearls, and All Jewelry for Personal Wear.
First use in March 1938.

SN 12,348. Coro, Inc., New York, N. Y. Filed July 18, 1956.

Ear Charmers

For Earrings.
First use July 16, 1956.

CLASS 29

BROOMS, BRUSHES, AND DUSTERS

SN 7,192. S. C. Johnson & Son, Inc., Racine, Wis. Filed Apr. 26, 1956. Sec. 2(f).

JOHNSON'S

Owner of Reg. No. 176,053.
For Long-Handled, Hand-Manipulated Applicator to Facilitate Cleaning and Coating of Floors and Other Surfaces.
First use Jan. 1, 1926.

CLASS 30

CROCKERY, EARTHENWARE, AND PORCELAIN

SN 671,202. The Rosenthal Block China Corporation, New York, N. Y. Filed Aug. 5, 1954. Sec. 2(f).

Charcoal

For Chinaware and Porcelain Items—Namely, Plates, Platters, Cups, Saucers, Dishes, Coffee Pots, Tea Pots, Creamers, Sugar Basins, Water Pitchers, Milk Jugs, Sauce Boats, Mustard Pots, Marmalade and Jelly Jars, Egg Cups, Salad Bowls, Cookie Jars, Soup Bowls, Tureens, Casseroles, Chafing Dishes, Relish Dishes, and Vegetable Dishes.
First use Aug. 18, 1952.

CLASS 31

FILTERS AND REFRIGERATORS

SN 15,077. Tested Appliance Company, Chicago, Ill. Filed Sept. 4, 1956.

CLOR D CLOR

For Packed Units Comprising an Automatic Chlorinator Which Introduces a Chlorine Chemical Into a Water Flow Line or Vessel and a Dechlorinator Device Containing Filter Means Which Remove Chlorine Chemicals From Water.
First use July 16, 1956.

SN 16,081. John Wood Company, Syracuse, N. Y. Filed Sept. 20, 1956.

Haverly

For Milk Coolers, Bulk Milk Coolers, and Milk Can Coolers.
First use in or about September 1925.

SN 17,140. Wilkinson Manufacturing Company, Omaha, Nebr. Filed Oct. 8, 1956.

WILTRAP

For Filter Devices.
First use Feb. 28, 1956.

SN 17,470. Infilco Incorporated, Tucson, Ariz. Filed Oct. 15, 1956.

SILVERSTREAM

For Filters and Parts Thereof.
First use June 24, 1955.

SN 17,840. J. F. Shelton Co., Memphis, Tenn. Filed Oct. 19, 1956.

SHELCO

For Cooling Towers, Air Handling Units, and Air and Water Cooled Condensing Units.
First use March 1954.

SN 17,969. Fred U. Sisson, d. b. a. Beacon Water Equipment Company, Binghamton, N. Y. Filed Oct. 22, 1956.

BEACON

For Base Exchange Water Treatment Apparatus and Parts Thereof.
First use on or about Sept. 16, 1952.

CLASS 32

FURNITURE AND UPHOLSTERY

SN 658,305. National Store Fixture & Equipment Company, Pittsburgh, Pa. Filed Dec. 21, 1953.

Multi-Unit

For Display Fixtures—Namely, Display Stands, Racks, Counters, and Shelving.
First use Dec. 16, 1952.

SN 4,864. Victor Wood Products Company, Grand Rapids, Mich. Filed Mar. 19, 1956.

Victor

For Finished or Unfinished Legs for Supporting Objects Such as Furniture, and Hardware Therefor, Sold as a Unit.
First use Feb. 22, 1956.

SN 9,610. Trendline Furniture Corporation, Kendallville, Ind. Filed S. R. 6–4–56; Am. P. R. 10–18–56.

BARCOIL

For Spring Under Construction for Upholstered Furniture.
First use Aug. 18, 1953.

SN 14,322. Century Industries, Inc., Chicago, Ill. Filed Aug. 21, 1956.

MIRRO-SQUARE

For Mirrors.
First use May 14, 1952.

SN 14,438. Contour Chair-Lounge Co., Inc., St. Louis, Mo. Filed Aug. 23, 1956.

CONTOUR

Owner of Reg. No. 520,737.
For Chairs.
First use July 24, 1956.

CLASS 33

GLASSWARE

SN 9,205. Tyre Bros. Glass & Paint Co., Inc., Los Angeles, Calif. Filed May 28, 1956.

GLARE-X

For Window Panes.
First use Apr. 13, 1954.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

SN 700,570. Douglas L. Carver, d. b. a. Abco Heater Co., Fort Worth, Tex. Filed Dec. 27, 1955.

ABCO

For Water Heaters Having Gas Burners.
First use Aug. 15, 1954.

SN 12,623. The Hotstream Heater Company, d. b. a. Confederate Water Heater Company, Dallas, Tex. Filed July 23, 1956.

REBEL

For Water Heaters.
First use July 13, 1956.

SN 12,784. Borg-Warner Corporation, Chicago, Ill. Filed July 25, 1956.

BPW

For Air Conditioning Equipment and Parts Thereof for Replacement and Repair.
First use May 28, 1956.

SN 13,030. Downingtown Iron Works, Inc., Downingtown, Pa. Filed July 30, 1956.

DOWNINGTOWN IRON WORKS

For Heat Exchangers.
First use Oct. 1, 1955.

SN 13,049. Manley, Inc., Kansas City, Mo. Filed July 30, 1956.

SPIN-O-RAMA

For Hot Dog Grilling Machines.
First use June 1, 1955.

SN 13,083. Andreas R. Soehner, d. b. a. Truck-Aire Co., Indianapolis, Ind. Filed July 30, 1956.

TRUC-AIRE

For Air Conditioning Unit Used on Cross-Country Vans and Trucks.
First use July 22, 1955.

SN 13,741. Delta Tank Manufacturing Company, Inc., Baton Rouge, La. Filed Aug. 10, 1956.

DELTA

For Industrial Indirect and Direct Heater and Treater Tanks for Use in Oil Field Operations Heating Oil and/or Gas.
First use May 1, 1955.

CLASS 37

PAPER AND STATIONERY

SN 652,519. General Petroleum Corporation, Los Angeles, Calif. Filed Aug. 31, 1953.

Credit Check

The drawing is lined for red. No claim is made to the words "Credit" and "Check" apart from the mark. Owner of Reg. No. 588,515.
For Partially Printed and Perforated Forms for Use in Credit Transactions, and Books of Such Forms.
First use about Sept. 15, 1951.

SN 670,546. Contact Products, Inc., d. b. a. Archer Label Company, Los Angeles, Calif. Filed July 26, 1954.

TUFLEX

For Paper Stock for the Making of Labels.
First use on or about Aug. 25, 1953.

SN 680,639. United Wallpaper, Inc., Aurora, Ill. Filed Feb. 3, 1955.

TRIMZ

Owner of Reg. Nos. 408,609 and 535,225.
For Wallpaper and Paper Borders.
First use Oct. 1, 1940.

SN 1,162. International Paper Company, New York, N. Y. Filed Jan. 20, 1956.

MOSS-COAT

For Coated Folding Carton Paperboard.
First use June 22, 1955.

SN 3,033. William Thomas Reynolds, Temple City, Calif. Filed Feb. 20, 1956.

Rev-dex

For Sales Check Forms.
First use Feb. 10, 1956.

SN 5,280. Cory Corporation, Chicago, Ill. Filed Mar. 27, 1956.

REALPOINT

Owner of Reg. No. 152,486.
For Ball Point Pens.
First use Jan. 18, 1932.

SN 5,345. Continental Can Company, Inc., New York, N. Y. Filed Mar. 28, 1956.

Owner of Reg. Nos. 303,021 and 304,495.
For Paper Bags and Envelopes, Labels and Wrappers Made of Paper, Cardboard, Cellulose Sheeting, Plastic Films, Textiles, or Metal Foils, or Combinations of These Materials.
First use Aug. 5, 1931.

SN 6,409. Robert E. Davis, Rocky River, Ohio. Filed Apr. 16, 1956.

Ti-Tainer

For Cardboard Folders for Holding Necktles.
First use Apr. 10, 1956.

SN 10,408. Dexter Folder Company, Pearl River, N. Y., to Miehle Printing Press & Manufacturing Company, Chicago, Ill. Filed June 18, 1956.

FILMSORT

Owner of Reg. Nos. 520,724, 551,626, and 616,170.
For File and Classification Cards With Apertures in Which Films or Other Matter Are To Be Placed, and File Jackets in Which Strips of Film or Other Matter Are To Be Inserted.
First use Dec. 24, 1947.

CLASS 38

PRINTS AND PUBLICATIONS

SN 698,660. Technicolor Motion Picture Corporation, Hollywood, Calif., now by change of name Technicolor Corporation. Filed Nov. 21, 1955.

TECHNICHROME

Owner of Reg. Nos. 267,288, 622,206, and others.
For Motion Picture Films.
First use Oct. 26, 1955.
Subj. to Intf. with SN 700,940.

SN 3,535. Hearst Publishing Company, Inc., San Francisco, Calif. Filed Feb. 28, 1956.

San Francisco Examiner

The slogan "An American Paper for the American People" is disclaimed apart from the mark as shown. Owner of Reg. No. 57,354.
For Newspapers.
First use Jan. 24, 1956; since 1885 as to "San Francisco Examiner."

SN 4,120. The Grolier Society, Inc., New York, N. Y. Filed Mar. 8, 1956.

CLASSICS APPRECIATION SOCIETY

For Books.
First use Nov. 12, 1955.

SN 4,431. Pauline R. Falls, d. b. a. Grafica, North Hollywood, Calif. Filed Mar. 13, 1956.

Grafica

For Greeting Cards.
First use Sept. 14, 1953.

SN 5,685. The Taylor Wine Company, Inc., Hammondsport, N. Y. Filed Apr. 2, 1956. Sec. 2(f).

Food+Wine=Profits

For Periodical Published From Time to Time.
First use June 1, 1955.

SN 11,398. Parke, Davis & Company, Detroit, Mich. Filed July 2, 1956.

PEDIATRIC PATTERNS

For Publication for the Medical Profession Which Is Issued Weekly During a Portion of the Year and Otherwise Monthly.
First use May 26, 1956.

SN 11,875. Radio Magazines, Inc., Mineola, N. Y. Filed July 10, 1956.

LECTRODEX

For Periodical Index of the Subject Matter of Published Articles Relating to Electronics and the Like.
First use June 22, 1956.

SN 11,908. John Henry Billman, Bloomington, Ind. Filed July 11, 1956.

CHEM-WHEEL

For Printed Charts of the Revolving Type for Furnishing Data for Various Scholastic Subjects.
First use Jan. 26, 1950.

CLASS 39

CLOTHING

SN 693,632. S. Rudofker's Sons, Inc., Philadelphia, Pa. Filed Aug. 24, 1955.

Avant Garde

For Boys', Youths', and Men's Coats, Pants, Vests, Suits, and Cummerbunds for Formal Wear.
First use May 25, 1955.

SN 699,265. United States Rubber Company, New York, N. Y. Filed Dec. 1, 1955. Sec. 2(f).

TEMPERED RUBBER

Owner of Reg. No. 332,270.
For Boots and Shoes and Other Footwear Made of Rubber and Rubber and Fabric.
First use Nov. 30, 1934.

SN 1,895. Nona Lou Inc., Cleveland, Ohio. Filed Feb. 1, 1956.

Snak Jaket

For Aprons and Cobblers' Aprons.
First use April 1955.

SN 2,457. Strauss & Mueller, New York, N. Y. Filed Feb. 10, 1956.

For Ladies' Scarfs, Neckwear, Jackets, Stoles, Shrugs, and Boleros.
First use February 1943.

SN 3,225. Pyramid Manufacturing Co., Inc., New York, N. Y. Filed Feb. 23, 1956.

Owner of Reg. No. 422,122.
For Knitted Hockey Caps, Hoods, and Berets for Men, Women, and Children, Knitted Bottoms and Cuffs for Jackets, Anklets, and Wristlets.
First use Mar. 30, 1945.

SN 6,451. Mine Safety Appliances Company, Pittsburgh, Pa. Filed Apr. 16, 1956.

ChemKlos

For Work Clothes for All Types of Industrial Wear—Namely, Shirts, Trousers, One-Piece Coveralls, and Laboratory Smocks.
First use at least as early as Aug. 10, 1951, on shirts and pants.

SN 7,799. Haddad & Sons, Inc., New York, N. Y. Filed May 7, 1956.

HADSON

For Ladies' and Children's Blouses, Men's, Boys', and Children's Shirts, Ladies' Housecoats and Dusters, Scarves, and Caps.
First use in 1945.

SN 7,929. Mason & Hughes, Inc., Clarksville, Tenn. Filed May 8, 1956.

RINGATS

For Men's, Boys', Girls', and Ladies' Western Jeans, Jackets, and Dungarees, and Men's Work Pants, Jackets, Shirts, Overalls, and Dungarees.
First use May 1, 1956.

SN 9,718. The Gano-Downs Clothing Company, Denver, Colo. Filed June 6, 1956.

•KENSINGTON•

For Men's Suits and Overcoats.
First use Sept. 1, 1917.

SN 9,750. Standard Knitting Mills, Inc., Knoxville, Tenn. Filed June 6, 1956.

Kut-Ups

Owner of Reg. Nos. 375,200 and 390,733.
For Male Undershirts.
First use May 1939.

SN 9,988. Roger Kent, Inc., New York, N. Y. Filed June 11, 1956.

KENTRON

For Men's Clothing—Namely, Men's Suits for General and Sports Wear, Slacks, Coats.
First use January 1956.

SN 10,229. C. F. Hathaway Company, Waterville, Maine. Filed June 14, 1956. Sec. 2(f).

Logan

Owner of Reg. No. 542,175.
For Men's Outer Shirts and Sports Shirts.
First use Feb. 10, 1949.

SN 10,298. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed June 15, 1956.

WEATHER KING

For Jackets.
First use Aug. 22, 1955.

SN 10,452. Michaels, Stern & Company Incorporated, Rochester, N. Y. Filed June 18, 1956. Sec. 2(f).

THE BRAZILIAN

Owner of Reg. No. 335,071.
For Men's Topcoats.
First use March 1935.

SN 10,469. Parcraft Shirt Company, Inc., New York, N. Y. Filed June 18, 1956.

PARCRAFT

For Men's and Boys' Dress and Sport Shirts.
First use November 1952.

SN 10,480. Reliance Manufacturing Company, New York, N. Y. Filed June 18, 1956.

OLD FAITHFUL

Owner of Reg. No. 173,794.
For Men's and Boys' Dungarees, Pants, Jackets, Slacks, and Flannel Shirts.
First use Jan. 28, 1955.

SN 10,725. Taloa Trading Corporation, Oakland, Calif. Filed June 21, 1956.

TALOA

For Men's Shirts.
First use Dec. 13, 1955.

SN 12,437. Lovie E. Lerner, d. b. a. Sno'n Blo, Elkhart, Ind. Filed July 19, 1956.

SNO'N BLO

For Outer Coverall Garment Particularly Designed for Women and Children.
First use July 2, 1956.

SN 12,470. John Nelson Williams, New York, N. Y. Filed July 19, 1956.

"MAGIC DIAMOND"

For Ladies' and Misses' Undergarments—Namely, Corsets, Brassieres, Slips, Camisoles, and Brassiere and Slip Combinations.
First use June 25, 1956.

SN 12,517. Mademoiselle Bra Inc., New York, N. Y. Filed July 20, 1956.

REPLACIT

For Brassieres.
First use July 16, 1956.

SN 12,555. Wonder Maid, Inc., St. Louis, Mo. Filed July 20, 1956.

MOLDED MAGIC

For Women's and Misses' Slips.
First use July 13, 1956.

SN 12,633. Kahn-Lucas-Lancaster, Inc., New York, N. Y. Filed July 23, 1956.

Pert n' Perky

For Children's Dresses.
First use on or about May 23, 1956.

SN 12,796. David Crystal, Inc., New York, N. Y. Filed July 25, 1956.

SUNSPREE

For Ladies' and Misses' Dresses and Dress Ensembles Consisting of a Dress and a Coat.
First use November 1940.

SN 12,830. Nimfees, Inc., New York, N. Y. Filed July 25, 1956.

DUETTE

For Girdles and Corsets.
First use June 26, 1956.

SN 13,012. Brigitte, Cannes, Alpes-Maritimes, France. Filed July 30, 1956.

ROBERT RICCI

Robert Ricci is manager of applicant, whose consent is of record.
For Women's and Misses' Garments—Namely, Cloaks, Dresses, Gowns, Skirts, Slacks, Suits, Vests, and Two Piece Suits.
First use February 1956; in commerce February 1956.

CLASS 40

FANCY GOODS, FURNISHINGS, AND NOTIONS

SN 7,374. Ribbontrim-Pollyanna, Inc., New York, N. Y. Filed Apr. 30, 1956.

MEZURE-BIND

For Seam Binding Tape.
First use Sept. 5, 1955.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

SN 2,405. The Astrup Company, Cleveland, Ohio. Filed Feb. 10, 1956.

Floral-Bac

No claim is made to the word "Floral-Bac" apart from the mark as shown.
For Textile Fabrics in the Piece—Namely, Awning Fabric.
First use Jan. 3, 1956.

SN 8,129. Hamilton Adams Imports, Ltd., New York, N. Y. Filed May 11, 1956.

AVOCA

For Cotton Piece Goods.
First use in June 1955.

SN 10,641. Arkwright Merchandising Corporation, New York, N. Y. Filed June 21, 1956. Sec. 2(f).

ARDSLEY

For Sheets, Pillow Cases, Blankets, Sheetings, Face, Hand, and Bath Towels.
First use Apr. 20, 1926.

SN 11,059. The Chandler Mfg. Co. Incorporated, East Taunton, Mass. Filed June 27, 1956.

FABRIKAN

Owner of Reg. No. 55,129.
For Fabric Used Primarily as a Wall Covering.
First use at least as early as Jan. 1, 1938.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

SN 7,286. Samuel A. Strickstein, d. b. a. Strick of Hollywood, Los Angeles, Calif. Filed Apr. 27, 1956.

The lining is for shading only.
For Abdominal Supporters.
First use Mar. 8, 1956.

CLASS 45

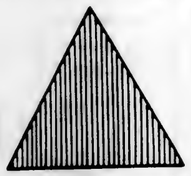
SOFT DRINKS AND CARBONATED WATERS

SN 680,782. National Tea Co., Chicago, Ill. Filed Jan. 31, 1955.

NATCO

Owner of Reg. Nos. 428,490, 541,366, and others.
For Root Beer, Strawberry Soda, Cream Soda, Grape Soda, Cola, Club Soda, Pale Dry Ginger Ale, White Soda, Golden Ginger Ale, Lime Rickey, and Orange Soda.
First use Sept. 9, 1946.

SN 10,388. The Appollinaris Company Limited, London, England. Filed June 18, 1956.



The drawing is lined for red. Owner of British Reg. No. 44,221, dated Apr. 4, 1885.
For Mineral and Aerated Waters.

SN 13,948. Wyler & Company, Chicago, Ill. Filed S. R. Aug. 14, 1956; Am. P. R. Oct. 23, 1956. Sec. 2(f).

WYLER'S

Owner of Reg. No. 426,202.
For Prepared Powders and Mixes for Making Soft Drinks.
First use Apr. 9, 1954.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

SN 668,648. Droste's Cacao- en Chocoladefabrieken N. V., Haarlem, Netherlands. Filed June 22, 1954. Sec. 2(f).

Applicant disclaims the exclusive right to the use of the term "Chocolate Apple" apart from the mark as shown. Owner of Reg. Nos. 295,552, 585,395, and others.
For Chocolate Candy in the Form of an Apple.
First use Jan. 1, 1931; in commerce Jan. 1, 1931.

SN 683,076. Horse-Shoe Mills, Inc., Pine Bluff, Ark. Filed Feb. 9, 1955. CONCURRENT USE with Reg. No. 600,088 for the area comprising the States of Arkansas, Oklahoma, Texas, Louisiana, and Mississippi.

horse-shoe

Owner of Reg. No. 343,850.
For Feeds—Namely, Live Stock, Poultry, and Dog Feeds.
First use January 1921.

SN 695,764. Fred Roseneau, d. b. a. Great Falls Creamery Company, Great Falls, Mont. Filed Oct. 3, 1955.

Dairy Dell

For Butter, Ice Cream, Sour Cream, Salad Dressing, Fresh and Frosted Yogurt, and a Sweet Cream Substitute Consisting of Butter Fat and Milk Solids Which May Be Whipped.
First use Feb. 1, 1930.

SN 699,092. Pearson Pharmacal Company, Inc., Long Island City, N. Y. Filed Nov. 29, 1955.

DARAMIN

For Ammonium Benzosulfimide for an Additive for Foods.
First use Oct. 19, 1955.

SN 1,630. Skookum Packers Association, Wenatchee, Wash. Filed Jan. 27, 1956. COLLECTIVE MARK.

Skookum

Owner of Reg. No. 124,866.
For Fresh Cherries, Apricots, Peaches, Plums, and Prunes.
First use in 1955.

SN 2,790. H. Kohnstamm & Co., Inc., New York, N. Y. Filed Feb. 16, 1956.

FLOLENE

For Food Colors.
First use Oct. 3, 1955.

SN 8,246. L. M. McLaren Produce, Inc., Yuma, Ariz. Filed May 14, 1956.

BigMc's

Owner of Reg. Nos. 298,554 and 302,180.
For Fresh Vegetables and Fresh Melons.
First use June 1931 on fresh melons.

SN 8,605. Leo A. Adler, d. b. a. Adler Food Co., Evansville, Ind. Filed May 21, 1956.

CHEF ADLER

For Salad Dressings.
First use May 4, 1956.

SN 8,775. Jack's Cookie Co., Inc., Baton Rouge, La. Filed May 22, 1956.

REX

For Biscuits, Crackers, Cakes, Cookies, and Pies.
First use on or about Oct. 1, 1947.

SN 9,207. United Packing Co., Fresno, Calif. Filed May 28, 1956.

ROSY

Owner of Reg. No. 297,711.
For Fresh Deciduous Fruits, Fresh Grapes, Fresh Pomegranates, Fresh Cantaloupes, and Fresh Vegetables.
First use July 20, 1925.

SN 9,551. King Kone Corporation, New York, N. Y. Filed June 4, 1956.

CHEEZ DOODLES

Applicant disclaims the word "Cheez" separate and apart from the mark as shown.
For Cheese Flavored Corn Curls.
First use May 1, 1956.

SN 9,602. Spencer Food Co., Los Angeles, Calif. Filed June 4, 1956. Sec. 2(f).

CADIZ

Owner of Reg. No. 522,474.
For Bottled Olives.
First use Apr. 16, 1948.

SN 9,603. Spencer Food Co., Los Angeles, Calif. Filed June 4, 1956. Sec. 2(f).

Spencer

Owner of Reg. No. 522,475.
For Bottled Olives, Onions and Maraschino Cherries and Capers.
First use Apr. 16, 1948.

SN 10,414. Fred W. Evanger, d. b. a. F. W. Evanger, Wheeling, Ill. Filed June 18, 1956. Sec. 2(f).

EVANGER'S

For Dog and Cat Food.
First use January 1950.

SN 10,612. Mars, Incorporated, Chicago, Ill. Filed June 20, 1956.

TWO BITS

Owner of Reg. No. 316,733.
For Candy.
First use Feb. 21, 1934.

SN 10,673. The Frank Tea & Spice Co., Cincinnati, Ohio. Filed June 21, 1956.

Mister Barbecue

For Meat Sauce.
First use May 23, 1956.

CLASS 48

MALT BEVERAGES AND LIQUORS

SN 689,878. Sicks' Seattle Brewing & Malting Co., Seattle, Wash. Filed June 20, 1955. Sec. 2(f).

Rainier for Life

Owner of Reg. Nos. 101,651, 590,498, and others.
For Beer.
First use Mar. 22, 1955.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

SN 663,455. Esbeco Distilling Corporation, Stamford, Conn. Filed Mar. 29, 1954.

KENTUCKY PRIZE

For Whiskey.
First use Mar. 7, 1935.

SN 693,442. H. Corby Distillery Limited, Montreal, Quebec, Canada. Filed Aug. 22, 1955.

Park Lane

Owner of Canadian Reg. No. 161/36,189, dated Sept. 12, 1924.
For Whiskey.
First use 1924; in commerce May 11, 1954.

SN 698,008. Ron Alvarez Camp, S. A., Santiago, Cuba. Filed Nov. 10, 1955.

CARTA CUBA

The mark "Carta Cuba" translated literally means "Cuba Letter" or "Cuba charter." Owner of Cuban Reg. No. 55,757, dated Mar. 9, 1936.
For Rum.

SN 699,950. B-Z Liquor Mart, Washington, D. C. Filed Dec. 14, 1955.

ROSECROFT

For Distilled Alcoholic Liquors (Whiskey).
First use Nov. 23, 1955.

SN 2,364. London & Company, Inc., Elizabeth, N. J. Filed Feb. 9, 1956.

GOLD COIN

For Whiskey and Bourbon Liqueur.
First use July 3, 1951.

SN 8,361. Fred H. Taylor, Richmond, Va. Filed May 15, 1956.

OLD WHIG

For Bourbon Whiskey.
First use Mar. 22, 1956.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

SN 689,144. Geo. Zoltan Lefton & Co., Chicago, Ill. Filed June 8, 1955. Sec. 2(f).

Lefton

For Figurines.
First use in or about December 1947.

SN 3,600. John L. Elinsky, d. b. a. West Chester Paper Supply Company, West Chester, Pa. Filed Feb. 29, 1956.

NOVASTARS

For Decorative Product, in the Form of an Ornamental Star.
First use Dec. 15, 1955.

SN 7,365. Monsanto Chemical Company, St. Louis, Mo. Filed Apr. 30, 1956.

Closet Clinic

For Scale Model Closets Used To Display Closet Accessories Such as Hat Boxes, Garment Bags, Shoe Bags, and the Like.
First use Apr. 17, 1956.

SN 10,393. The W. E. Bassett Company, Derby, Conn. Filed June 18, 1956.

POCKET TRIM

For Toilet Kit—Namely, Nail Clipper, Nail File, and Comb.
First use Nov. 15, 1955.

SN 10,394. The W. E. Bassett Company, Derby, Conn. Filed June 18, 1956.

Trim-Pac

For Toilet Kit—Namely, Nail Clipper, Nail File, and Comb.
First use Feb. 13, 1956.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

SN 676,408. Pharmetics Corporation, Baltimore, Md., by change of name from Purex Products Inc. Filed Nov. 10, 1954.

SOFTEX

For Hair Tonic, Preparation for Dressing the Hair, and Hair Pomade.
First use May 3, 1954.

SN 690,469. The House for Men, Inc., Chicago, Ill. Filed June 29, 1955.

HIS PROFECTO

Applicant disclaims exclusive right to the term "Profecto" per se. Owner of Reg. Nos. 374,854, 383,988, and 579,676.
For After Shave Preparation, Talcum Powder, Cologne, Pre-Electric Shave Preparation, After Electric Shave Lotion, Hair Preparations, Deodorant, and Perfume.
First use June 1, 1954.

SN 693,564. Jean Patou Inc., New York, N. Y., to Jean Patou Parfumeur, S. A., Paris, France. Filed Aug. 23, 1955.

Lasso

For Perfumes and Colognes.
First use Aug. 9, 1955.

SN 700,651. Polarome Manufacturing Company, Inc., New York, N. Y. Filed Dec. 27, 1955.

POLAR

For Natural and Synthetic Essential Oils, Aromatic Chemicals, Natural and Synthetic Aromatic and Flavoring Components, Essences and Extracts Used in the Manufacture of Perfumes, Cosmetics, Toilet Goods, and Deodorants.
First use Dec. 7, 1955.

SN 3,804. Avon Products, Inc., New York, N. Y. Filed Mar. 5, 1956.

The trademark is a caligram consisting of a cluster of ornamental A's arranged with their axes extending radially and their apices extending inwardly.

For Astringents, Baby Oils, Baby Lotions, Baby Powders, Bath Salts, Cake Face Powders, Cleansing Creams, Cream and Cake Mascaras, Cream Deodorants, Eye Shadows, Foundation Make-Ups, Hair Rinses, Hands, Face and Skin Creams, Lipsticks, Lotions for the Hands, Face and Skin, Nail Polish Removers, Nail Polishes and Creams, Cuticle Softeners, Perfumes, Filled Powder and Rouge Compacts, Rouges, Skin Fresheners, Toothpastes, Antiseptic Creams, Antiseptic Powders, and Antiseptic Lotions.

First use January 1954.

CLASS 52

DETERGENTS AND SOAPS

SN 686,445. Hennepin Products Co., Minneapolis, Minn. Filed Apr. 28, 1955.

Vita Kleen

For General All Purpose Cleaner of the Detergent Type for Household and Automobile Use and Particularly Well Adapted To Use on Rugs, Upholstery, Walls, and Finishes.

First use on or about Apr. 4, 1955.

SN 688,909. Jay S. Conley, d. b. a. Jay S. Conley & Co., Mountain View, Calif. Filed June 6, 1955.

JASCO

For Paint-Brush Cleaner, Glass Cleaner, Rug and Upholstery Shampoo, Grease Remover, Hand Cleaner, Paint Remover, Wax and Polish Remover, Pine Oil Base Detergent Cleaner, and Automobile Cleaner.

First use July 15, 1947.

SN 698,793. The Procter & Gamble Company, Cincinnati, Ohio. Filed Nov. 23, 1955.

CHLORINOL

For Bleaching, Cleansing, and Disinfecting Agent for Use in a Cleanser.

First use Oct. 12, 1955.

SN 700,673. Soluol Chemical Co., Inc., Natick, R. I. Filed Dec. 27, 1955.

EXAVON

For Textile Treatment Chemicals—Namely, Detergents and Scouring Agents.

First use on or about July 2, 1947.

SN 3,750. Richard Hudnut, New York, N. Y. Filed Mar. 2, 1956.

VIBRASOL

For Brightening Ingredient for Use in Shampoo Preparations.

First use Dec. 8, 1955.

SN 8,411. Haviland Laboratories, Inc., d. b. a. Ann Haviland, New York, N. Y. Filed May 16, 1956.

TRAVELAV

For Liquid Soap Composition.

First use Apr. 30, 1956.

SN 9,863. Houbigant, Inc., New York, N. Y. Filed June 8, 1956.

HALYARD

For Toilet Soap.

First use June 1, 1956.

SN 10,002. Monsanto Chemical Company, St. Louis, Mo. Filed June 11, 1956.

TEPID

For Detergents for General Washing and Cleaning Purposes.

First use June 1, 1956.

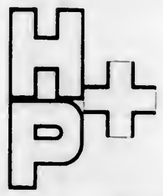
SN 10,004. Monsanto Chemical Company, St. Louis, Mo. Filed June 11, 1956.

RHYME

For Detergents for General Washing and Cleaning Purposes.

First use June 1, 1956.

SN 10,251. Offenhauser Equipment Corporation, Los Angeles, Calif. Filed June 14, 1956.



For Chemical Composition for Removing Sludge, Varnish, Glaze, Carbon, and Other Deposits From the Internal Parts of Internal Combustion Engines.

First use May 25, 1956.

SERVICE MARKS

CLASS 100

MISCELLANEOUS

SN 679,007. Phillips Petroleum Company, Bartlesville, Okla. Filed Dec. 27, 1954.

Phil-matic

For Credit Service Whereby Customers of Applicant's Dealers May Charge Service Station Goods or Services by Means of Credit Charge Cards and Collection Service Through Applicant's Billing System, and Leasing Charge Plate Machines.

First use Nov. 1, 1953.

SN 681,992. Cock 'n' Bull, Inc., Washington, D. C. Filed Feb. 21, 1955.

Cock 'n' Bull

For Restaurant Services.

First use November 1954.

SN 2,244. National Research Corporation, Cambridge, Mass. Filed Feb. 7, 1956.

Owner of Reg. No. 621,327.

For Research for Others in the Fields of Organic and Inorganic Chemistry, Physics, Metallurgy, Coatings, Electronics, High Vacuum Technology, Gas Analysis, and the Like.

First use in or about May 1953.

CLASS 101

ADVERTISING AND BUSINESS

SN 682,012. Eleanor S. Hammerlund, d. b. a. Sew-Meter Company, Hopkins, Minn. Filed Feb. 21, 1955.

Sew-Meter

For Sewing Machine Rental Service.

First use June 11, 1954.

CLASS 102

INSURANCE AND FINANCIAL

SN 4,701. Farmers Educational and Cooperative Union of America, Denver, Colo. Filed Mar. 16, 1956.

Owner of Reg. No. 566,390.

For Services Comprising the Making of Loans and the Sale and/or Underwriting of Insurance.

First use about 1940.

SN 5,029. The Crown Life Insurance Company, Toronto, Ontario, Canada. Filed Mar. 22, 1956.

HEALTHPAC

Owner of Canadian Reg. No. 100,543, dated Apr. 29, 1955.

For Life Insurance and Personal Accident and Sickness Insurance.

CLASS 105

TRANSPORTATION AND STORAGE

SN 6,014. Jones Truck Lines, Inc., Springdale, Ark. Filed Apr. 9, 1956.

For Transportation of Cargo and Freight by Truck.

First use Mar. 6, 1956.

CLASS 107

EDUCATION AND ENTERTAINMENT

SN 693,029. Allen B. Du Mont Laboratories, Inc., Clifton, N. J. Filed Aug. 15, 1955.

FEATURAMA

For the Title of an Entertainment Service Rendered Through the Medium of Television—Namely, Motion Pictures or Live Programs or Both.

First use May 23, 1955.

COLLECTIVE MEMBERSHIP MARKS

CLASS 200

SN 8,179. Alpha Tau Delta Fraternity, Wilmington, Calif. Filed May 14, 1956.

ALPHA TAU DELTA

For Indicating Membership in a National Fraternal Organization for Women in Nursing.

First use in 1924.

CERTIFICATION MARKS

CLASS A

GOODS

SN 686,386. Parker Rust Proof Company, Detroit, Mich. Filed Apr. 27, 1955.

The mark certifies that the goods have been treated with materials sold by Parker Rust Proof Company under its trademark "Bonderite," to provide a high quality corrosion resistant paint holding coating. The drawing is lined to indicate the colors pink and silver.

For Metals and Metal Castings and Forgings Which Have Been Chemically Treated To Obtain Corrosion Resistant Coatings on the Surfaces Thereof.

First use May 1931.

TRADEMARK REGISTRATIONS ISSUED

PRINCIPAL REGISTER

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

639,154. SPEEDY ETC. AND DESIGN. Florists' Telegraph Delivery Association. SN 653,828. COLLECTIVE MARK. Pub. 10–16–56. Filed 9–28–53.

639,155. BAR-B-Q-BOB AND DESIGN. Kingsford Chemical Co. SN 688,543. Pub. 10–16–56. Filed 5–31–55.

639,156. BAR-B-Q-BOB. Kingsford Chemical Co. SN 688,544. Pub. 10–16–56. Filed 5–31–55.

639,157. CELLO-CE..SIOR. American Viscose Corporation. SN 689,116. Pub. 10–16–56. Filed 6–8–55.

639,158. HAPPY-PAK. The Moelder Coal Company. SN 690,738. Pub. 10–16–56. Filed 7–5–55.

639,159. WEAR-CARE. United States Pumice Supply Company, d. b. a. United States Pumice Supply Co., Inc., and/or U. S. Pumice Supply Co., Inc. SN 691,540. Pub. 10–16–56. Filed 7–18–55.

639,160. UTILITY AND DESIGN. Everett Horgan. SN 691,626. Pub. 10–16–56. Filed 7–20–55.

639,161. CALORA. The Guaranty Gas Coal Company. SN 692,063. Pub. 10–16–56. Filed 7–28–55.

639,162. SOUTHERN MATERIALS SM. Southern Materials Company, Inc. SN 693,210. Pub. 10–16–56. Filed 8–16–55.

639,163. SAFLUFF. Sackner Products, Inc. SN 693,279. Pub. 10–16–56. Filed 8–17–55.

639,164. SAFELT. Sackner Products, Inc. SN 693,280. Pub. 10–16–56. Filed 8–17–55.

639,165. SOFRON. Johnson & Johnson. SN 694,429. Pub. 10–16–56. Filed 9–9–55.

639,166. POLYFIL. J. M. Huber Corporation. SN 694,804. Pub. 10–16–56. Filed 9–16–55.

639,167. UN SEED GROWERS ETC. AND DESIGN. United Growers, d. b. a. Fargo Seed House. SN 695,662. Pub. 10–16–56. Filed 9–30–55.

639,168. TEETER TOTTER. Wisconsin Leather Company. SN 697,604. Pub. 10–16–56. Filed 11–2–55.

639,169. INDIAN RIVER CROSS. Indian River Poultry Farm, Inc. SN 697,793. Pub. 10–16–56. Filed 11–7–55.

639,170. CROWN POLY. Crown Zellerbach Corporation. SN 698,848. Pub. 10–16–56. Filed 11–25–55.

639,171. PLASTIFOAM. General Mills, Inc. SN 699,393. Pub. 10–16–56. Filed 12–5–55.

639,172. MARDERETTE. Alfred Klugmann, Inc. SN 699,505. Pub. 10–16–56. Filed 12–6–55.

639,173. BLACK EMERALD AND DESIGN. Emerald Furs Limited. SN 699,552. Pub. 10–16–56. Filed 12–7–55.

639,174. JET-FOAM. Chicago Foam Products Corporation. SN 699,777. Pub. 10–16–56. Filed 12–12–55.

639,175. TWO WAY CALF. Donovan Industries Inc. SN 40. Pub. 10–16–56. Filed 1–3–56.

639,176. CRISPO GRAIN. Donovan Industries Inc. SN 42. Pub. 10–16–56. Filed 1–3–56.

639,177. DEUXTONE. Donovan Industries Inc. SN 43. Pub. 10–16–56. Filed 1–3–56.

639,178. RUGBY. Donovan Industries Inc. SN 45. Pub. 10–16–56. Filed 1–3–56.

639,179. DICK'S MUD SEAL AND DESIGN. Boyd E. Goff, George W. Ashcraft, and Richard E. Ashcraft, d. b. a. McPherson Mud Seal Company. SN 156. Pub. 10–16–56. Filed 1–4–56.

639,180. COLVADUR. Glanzstoff-Courtaulds G. m. b. H. SN 1,521. Pub. 10–16–56. Filed 1–26–56.

639,181. ALKASERT. Imperial Chemical Industries Limited. SN 4,327. Pub. 10–16–56. Filed 3–12–56.

639,182. GRAMERCY PARK. The Philadelphia Seed Company, d. b. a. The Philadelphia Seed Co., The Philadelphia Seed Company, Inc., The Philadelphia Seed Co., Incorporated, The Philadelphia Seed Co., Inc., Philadelphia Seed Company, and Phila. Seed Co. SN 4,473. Pub. 10–16–56. Filed 3–13–56.

639,183. SOF' GRAIN. F. C. Donovan, Inc. SN 4,621. Pub. 10–16–56. Filed 3–15–56.

639,184. STAKOHEEL. The Ohio Leather Company. SN 4,660. Pub. 10–16–56. Filed 3–15–56.

639,185. CURON. Curtiss-Wright Corporation. SN 4,696. Pub. 10–16–56. Filed 3–16–56.

639,186. COBBY. Dannen Mills, Inc. SN 4,778. Pub. 10–16–56. Filed 3–19–56.

639,187. CONIFRACEL. Hammermill Paper Company. SN 4,799. Pub. 10–16–56. Filed 3–19–56.

639,188. SUNBEAM. Ritter Bros. Inc. SN 4,990. Pub. 10–16–56. Filed 3–21–56.

639,189. PACK-A-LOG. Associated Fuels Ltd. SN 5,019. Pub. 10–16–56. Filed 3–22–56.

639,190. KENVALE. Pittsburgh Consolidation Coal Company. SN 5,054. Pub. 10–16–56. Filed 3–22–56.

639,191. ASRC. American Synthetic Rubber Corporation. SN 5,074. Pub. 10–16–56. Filed 3–23–56.

CLASS 2

RECEPTACLES

639,192. THERMORAMA. Mallory-Randall Company, Inc. SN 678,407. Pub. 10–16–56. Filed 12–15–54.

639,193. BACON 'BASKIT' AND DESIGN. Maurer-Neuer Corporation, d. b. a. Maurer-Neuer Meat Packers. SN 687,082. Pub. 10–16–56. Filed 5–9–55.

639,194. DESIGN OF BABY'S HEAD. Gerber Products Company. SN 4,438. Pub. 10–16–56. Filed 3–13–56.

639,195. GERBER. Gerber Products Company. SN 4,440. Pub. 10–16–56. Filed 3–13–56.

639,196. GERBER AND DESIGN. Gerber Products Company. SN 4,442. Pub. 10–16–56. Filed 3–13–56.

639,197. STONE-WALL. Stone Container Corporation. SN 5,879. Pub. 10–16–56. Filed 4–5–56.

639,198. DURATITE. William B. Foster. SN 6,514. Pub. 10–16–56. Filed 4–17–56.

CLASS 3

BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

639,199. NATIVE DEERSKIN AND DESIGN. Westbrook Glove Company. SN 697,729. Pub. 10–16–56. Filed 11–4–55.

639,200. SIGNATURE. Swank, Inc. SN 1,635. Pub. 10–16–56. Filed 1–27–56.

CLASS 4

ABRASIVES AND POLISHING MATERIALS

639,201. ZUD. Rustain Products. SN 679,489. Pub. 10–16–56. Filed 1–5–55.

639,202. KITCHEN KLENZER AND DESIGN. Fitzpatrick Bros., Inc. SN 3,935. Pub. 10–16–56. Filed 3–6–56.

CLASS 5

ADHESIVES

639,203. TITAN-TITE AND DESIGN. Glass Plastic Supply Co. SN 5,520. Pub. 10–16–56. Filed 3–30–56.

639,204. TAPE-EZE. Glaser & Glaser, Inc. SN 5,922. Pub. 10–16–56. Filed 4–6–56.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

639,205. NL. Hanson-Van Winkle-Munning Company. SN 666,190. Pub. 10–16–56. Filed 5–12–54.

639,206. COROTRAN. Pittsburgh Plate Glass Company. SN 687,321. Pub. 10–16–56. Filed 5–11–55.

639,207. NICO-FUME. Diamond Black Leaf Company. SN 696,957. Pub. 10–16–56. Filed 10–24–55.

CLASS 9

EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES

639,208. FLEX-CHOKE. Jarvis Manufacturing, Inc. SN 696,443. Pub. 10–16–56. Filed 10–14–55.

CLASS 10

FERTILIZERS

639,209. NUGGETFORM. F. S. Royster Guano Co. SN 691,469. Pub. 10–16–56. Filed 7–18–55.

639,210. NUGGETIZED. F. S. Royster Guano Co. SN 691,470. Pub. 10–16–56. Filed 7–18–55.

639,211. ORGUREA AND DESIGN. Agriculture Products Corporation. SN 1,654. Pub. 10–16–56. Filed 1–30–56.

CLASS 12

CONSTRUCTION MATERIALS

639,212. RACE-O-LATOR. Trueman T. Rembusch. SN 695,493. Pub. 10–16–56. Filed 9–28–55.

639,213. SURFCO. The Surface Protection Co., Incorporated. SN 697,338. Pub. 10–16–56. Filed 10–28–55.

639,214. ATLAS AND DESIGN. Atlas Plywood Corporation. SN 699,278. Pub. 10–16–56. Filed 12–2–55.

639,215. LEX-STONE. Lexington Concrete Products, Inc. SN 699,578. Pub. 10–16–56. Filed 12–7–55.

639,216. ORCHANNEL. Orchard Brothers Incorporated. SN 2,375. Pub. 10–16–56. Filed 2–9–56.

639,217. ALPRIDE AND DESIGN. Weather Wizard Aluminum Mfg. Corp. SN 3,721. Pub. 10–16–56. Filed 3–1–56.

639,218. THRIFTEX. The Flintkote Company. SN 4,015. Pub. 10–16–56. Filed 3–7–56.

639,219. CPS. The Flintkote Company. SN 4,019. Pub. 10–16–56. Filed 3–7–56.

639,220. KAYLO 20. Owens-Illinois Glass Company. SN 4,049. Pub. 10–16–56. Filed 3–7–56.

CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

639,221. DELTA. Claremont F. Clure, d. b. a. Delta Engineering Sales Company. SN 580,644. Pub. 4–22–52. Filed 6–17–49.

639,222. FLOTROL. Galland-Henning Manufacturing Company. SN 697,785. Pub. 10–16–56. Filed 11–7–55.

639,223. PDQ. Akron Brass Manufacturing Co., Inc. SN 2,676. Pub. 10–16–56. Filed 2–15–56.

639,224. LOCKE HOUSETIME GUARANTEED AND DESIGN. Locke Manufacturing Company. SN 4,463. Pub. 10–16–56. Filed 3–13–56.

639,225. BD AND DESIGN. Brumley-Donaldson Company. SN 7,310. Pub. 10–16–56. Filed 4–30–56.

639,226. FIBRATUB. Universal Fiber Glass Tray Company. SN 7,549. Pub. 10–16–56. Filed 5–2–56.

639,227. BENJAMIN. Benjamin Air Rifle Company. SN 7,742. Pub. 10–16–56. Filed 5–7–56.

639,228. LITTLE WONDER. The Durst Manufacturing Company, Inc. SN 7,775. Pub. 10–16–56. Filed 5–7–56.

639,229. DESIGN OF STATUE OF LIBERTY. Kokomo Sanitary Pottery Corporation. SN 7,808. Pub. 10–16–56. Filed 5–7–56.

639,230. WASHINGTON AND DESIGN. Kokomo Sanitary Pottery Corporation. SN 7,809. Pub. 10–16–56. Filed 5–7–56.

639,231. LAFAYETTE. The Lafayette Brass Manufacturing Co., Inc. SN 7,812. Pub. 10–16–56. Filed 5–7–56.

639,232. LAFAYETTE AND DESIGN. The Lafayette Brass Manufacturing Co., Inc. SN 7,813. Pub. 10–16–56. Filed 5–7–56.

639,233. SANTA'S WORKSHOP. Santa's Workshop, Inc. SN 9,401. Pub. 10–16–56. Filed 5–31–56.

CLASS 14

METALS AND METAL CASTINGS AND FORGINGS

639,234. CHACE ETC. AND DESIGN. W. M. Chace Company. SN 698,340. Pub. 10–16–56. Filed 11–16–55.

639,235. CERALUMIN. J. Stone & Company (Charlton) Limited. SN 3,963. Pub. 10–16–56. Filed 3–6–56.

CLASS 15

OILS AND GREASES

639,236. BLUTONE. I. L. Schurman. SN 698,082. Pub. 10–16–56. Filed 11–10–55.

639,237. BLUTONE ETC. AND DESIGN. I. L. Schurman. SN 698,083. Pub. 10–16–56. Filed 11–10–55.

639,238. MOLDGLOSS. Gulf Oil Corporation. SN 9,263. Pub. 10–16–56. Filed 5–29–56.

639,239. SOHITRAN. The Standard Oil Company. SN 9,604. Pub. 10–16–56. Filed 6–4–56.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

639,240. DURO-CHEM AND DESIGN. Duro Chemical Products Company. SN 680,373. Pub. 8–16–55. Filed 1–24–55.

639,241. MULTAKOLOR. United Lacquer Mfg. Corp. SN 687,651. Pub. 5–22–56. Filed 5–16–55.

639,242. MARTIN SENOUR PAINTS AND DESIGN. The Martin-Senour Company. SN 689,400. Pub. 10–16–56. Filed 6–13–55.

639,243. POLVA-TEX. Stacoat Paint and Varnish Company. SN 692,280. Pub. 11–29–55. Filed 8–1–55.

639,244. VELVELUX. Elliott Paint & Varnish Company. SN 2,963. Pub. 7–24–56. Filed 2–20–56.

639,245. BENJAMIN MOORE PAINTS AND DESIGN. Benjamin Moore & Co. SN 4,820. Pub. 10–16–56. Filed 3–19–56.

639,246. ALON AND DESIGN. Godfrey L. Cabot, Inc. SN 5,762. Pub. 10–16–56. Filed 4–4–56.

639,247. ALLWALL. California Stucco Products of N. E. Inc. SN 6,504. Pub. 10–16–56. Filed 4–17–56.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

639,248. AUREOMYCIN-DECLA. American Cyanamid Company. SN 649,556. Pub. 10–16–56. Filed 6–30–53.

639,249. MENSARETS. Bell-Mack Laboratories, Inc. SN 694,545. Pub. 10–16–56. Filed 9–13–55.

639,250. CANDIOMYCIN. Farbenfabriken Bayer Aktiengesellschaft. SN 694,556. Pub. 10–16–56. Filed 9–13–55.

639,251. MEGAPYRAN. Farbenfabriken Bayer Aktiengesellschaft. SN 694,557. Pub. 10–16–56. Filed 9–13–55.

639,252. SOMPAPRIM. Farbenfabriken Bayer Aktiengesellschaft. SN 694,559. Pub. 10–16–56. Filed 9–13–55.

639,253. MINAZYME. The Upjohn Company. SN 695,585. Pub. 10–16–56. Filed 9–29–55.

639,254. ALFLOMENT. Merck & Co., Inc. SN 697,100. Pub. 10–16–56. Filed 10–25–55.

639,255. ROTOCOTES. Ciba Pharmaceutical Products Inc. SN 697,473. Pub. 10–16–56. Filed 11–1–55.

639,256. PYL-TONE. Walter J. Williams, d. b. a. Pyl-Tone Pharmacal Co. SN 698,469. Pub. 10–16–56. Filed 11–17–55.

639,257. PECTAGORIC. Carroll Chemical Company. SN 750. Pub. 10–16–56. Filed 1–16–56.

639,258. T-H ETC. AND DESIGN. Thompson-Hayward Chemical Company. SN 3,125. Pub. 10–16–56. Filed 2–21–56.

639,259. STUR-DEE AND DESIGN. Stur-Dee Health Products Inc. SN 3,474. Pub. 10–16–56. Filed 2–27–56.

639,260. CAINASURFA. Eli Lilly and Company. SN 4,967. Pub. 10–16–56. Filed 3–21–56.

639,261. TAPAZOL. Eli Lilly and Company. SN 4,968. Pub. 10–16–56. Filed 3–21–56.

639,262. MONOCIDENE. Howard McKinley Purcell, d. b. a. The Klee Company. SN 10,019. Pub. 10–16–56. Filed 6–11–56.

639,263. PRECEPTIN. Ortho Pharmaceutical Corporation. SN 12,556. Pub. 10–16–56. Filed 8–9–56.

639,264. SALPIX. Ortho Pharmaceutical Corporation. SN 12,557. Pub. 10–16–56. Filed 8–9–56.

639,265. NUTRI-DISCS. Ortho Pharmaceutical Corporation. SN 12,559. Pub. 10–16–56. Filed 8–9–56.

639,266. ORTHO-GYNOL. Ortho Pharmaceutical Corporation. SN 12,561. Pub. 10–16–56. Filed 8–9–56.

CLASS 19

VEHICLES

639,267. DREEMBOAT. Dreem Boats & Marina Ltd. SN 699,480. Pub. 10–16–56. Filed 12–6–55.

639,268. VINYSAN. Rayco Mfg. Co. SN 5,871. Pub. 10–16–56. Filed 4–5–56.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

639,269. MULTICON. Standard Electronics Corp. SN 664,481. Pub. 12–28–54. Filed 4–13–54.

639,270. FLUX OSCILLATOR. Magnetic Research Corporation. SN 682,349. Pub. 10–16–56. Filed 2–25–55.

639,271. ELITE AND DESIGN. American Elite, Incorporated. SN 693,356. Pub. 10–16–56. Filed 8–19–55.

639,272. EYE COMFORT. Curtis Lighting, Inc. SN 696,020. Pub. 10–16–56. Filed 10–7–55.

639,273. STANDARD AND DESIGN. Standard Magnesium Corporation. SN 698,561. Pub. 10–16–56. Filed 11–18–55.

639,274. PERMACEL. Permacel Tape Corporation. SN 692. Pub. 10–16–56. Filed 1–13–56.

639,275. DICTAPHONE. Dictaphone Corporation. SN 1,221. Pub. 10–16–56. Filed 1–23–56.

639,276. INSUL-PIN. Graham Manufacturing Corporation. SN 1,524. Pub. 10–16–56. Filed 1–26–56.

639,277. MITCHELL AND DESIGN. Mitchell Manufacturing Company. SN 6,453. Pub. 10–16–56. Filed 4–16–56.

639,278. PEERLESS. Sewing Machine Sales Corp. SN 6,473. Pub. 10–16–56. Filed 4–16–56.

639,279. HI-FIDELITY. Duro-Test Corporation. SN 6,700. Pub. 10–16–56. Filed 4–19–56.

639,280. DYNAPOWER. The Crescent Company, Inc. SN 6,797. Pub. 10–16–56. Filed 4–20–56.

639,281. CAROPRENE. The Crescent Company, Inc. SN 6,798. Pub. 10–16–56. Filed 4–20–56.

639,282. DAIRY-VAC. Electric Cleaner Co., Inc. SN 9,034. Pub. 10–16–56. Filed 5–25–56.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

639,283. SCHOWANEK. J. Schowanek. SN 677,007. Pub. 8–21–56. Filed 11–19–54.

639,284. DOC'S. Doc's Catfish Cheese Bait Company. SN 687,187. Pub. 10–16–56. Filed 5–10–55.

639,285. THUNDERBIRD AND DESIGN. Richard E. Ellinger. SN 690,614. Pub. 10–16–56. Filed 7–1–55.

639,286. W AND DESIGN. All Metal Products Company. SN 691,923. Pub. 10–16–56. Filed 7–26–55.

639,287. FULLFLOTE. Frabill Manufacturing Co. SN 691,938. Pub. 10–16–56. Filed 7–26–55.

639,288. MIN-O-LIFE. Frabill Manufacturing Co. SN 691,939. Pub. 10–16–56. Filed 7–26–55.

639,289. HAND CRAFT. Patrick A. Siniscalchi. SN 692,494. Pub. 10–16–56. Filed 8–4–55.

639,290. MET-ZONE. Plymouth Golf Ball Company. SN 695,754. Pub. 10–16–56. Filed 10–3–55.

639,291. LITTLE MISS LOVELY. George E. Mousley, Inc. SN 696,810. Pub. 10–16–56. Filed 10–20–55.

639,292. OCEAN CITY. Montague-Ocean City Rod & Reel Co. SN 698,628. Pub. 10–16–56. Filed 11–21–55.

639,293. FLEX-FLOAT. Flexible Products Company. SN 700,306. Pub. 10–16–56. Filed 12–20–55.

639,294. KONANE. The Bernice P. Bishop Museum. SN 653. Pub. 10–16–56. Filed 1–13–56.

639,295. TRIANGLE SEP-A-RATOR. Triangle Leather Goods Company. SN 1,915. Pub. 10–16–56. Filed 2–1–56.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

639,296. KWIKSET AND DESIGN. Kwikset Locks, Inc. SN 685,502. Pub. 10–16–56. Filed 4–14–55.

639,297. ROTADRILL. Schramm, Inc. SN 692,274. Pub. 10–16–56. Filed 8–1–55.

639,298. 60 CASE. Thomson Industries, Inc., to 60 Case Corporation. SN 697,339. Pub. 10–16–56. Filed 10–28–55.

639,299. EXPANDREL. John B. Kohler. SN 698,883. Pub. 10–16–56. Filed 11–25–55.

639,300. GEMCO ETC. AND DESIGN. Gessler Manufacturing Corporation. SN 700,942. Pub. 10–16–56. Filed 11–21–55.

639,301. DIVA. Erwin Krusius, d. b. a. Gebr. Krusius. SN 605. Pub. 9–11–56. Filed 1–12–56.

639,302. IDYLL. Erwin Krusius, d. b. a. Gebr. Krusius. SN 606. Pub. 9–11–56. Filed 1–12–56.

639,303. IVY. Erwin Krusius, d. b. a. Gebr. Krusius. SN 607. Pub. 9–11–56. Filed 1–12–56.

639,304. WESTERN. Western States Cutlery Company, now by change of name Western Cutlery Co. SN 715. Pub. 10–16–56. Filed 1–13–56.

639,305. THE KEY TO SUCCESS. Hamilton Import Corporation. SN 2,781. Pub. 10–16–56. Filed 2–16–56.

639,306. HEPWORTH TWIN WHEEL AND DESIGN. Hepworth Machine Company, Inc. SN 3,402. Pub. 10–16–56. Filed 2–27–56.

639,307. ACRA-FLOW. Louis R. Mahrt and D. Robert Laughter, trustees for Standard-Dayton Corporation. SN 4,390. Pub. 10–16–56. Filed 6–20–56.

639,308. EVEREADY BRIKSAW. Eveready Briksaw Company. SN 4,428. Pub. 10–16–56. Filed 3–13–56.

639,309. EVEREADY. Eveready Briksaw Company. SN 4,429. Pub. 10–16–56. Filed 3–13–56.

639,310. MANZEL. Houdaille Industries, Inc. SN 4,639. Pub. 10–16–56. Filed 3–15–56.

639,311. WRAPMASTER. Wrapmaster Corporation. SN 4,871. Pub. 10–16–56. Filed 3–19–56.

639,312. WILSON SUPPLY CO. AND DESIGN. Wilson Supply Company. SN 5,143. Pub. 10–16–56. Filed 3–23–56.

639,313. STONEMASTER. Fike Metal Products Corporation. SN 5,185. Pub. 10–16–56. Filed 3–26–56.

639,314. FIRE SHIELD EXTINGUISHER AND DESIGN. Safe-T-Products Co., to Shield Chemical Co., Inc. SN 5,746. Pub. 10–16–56. Filed 4–3–56.

639,315. JEWELL. Underwood Corporation. SN 5,884. Pub. 10–16–56. Filed 4–3–56.

639,316. PRESSURE RAIN. The F. E. Myers & Bro. Co. SN 6,346. Pub. 10–16–56. Filed 4–13–56.

639,317. CHRO-MO-LAST. James W. York, d. b. a. York's Saw Shop. SN 7,054. Pub. 10–16–56. Filed 4–24–56.

639,318. ICE-O-MATIC. Rival Manufacturing Company. SN 7,116. Pub. 10–16–56. Filed 4–25–56.

639,319. WEPCO. Wepco Equipment Company. SN 7,299. Pub. 10–9–56. Filed 4–27–56.

639,320. UNINOTCH. Punch Products Corporation. SN 8,262. Pub. 10–16–56. Filed 5–14–56.

639,321. CLEVELAND. Westinghouse Air Brake Company. SN 8,301. Pub. 10–16–56. Filed 5–14–56.

639,322. GIDDINGS & LEWIS. Giddings & Lewis Machine Tool Company. SN 8,405. Pub. 10–16–56. Filed 5–16–56.

639,323. TRIMLESS. Artzt and Rieger. SN 8,917. Pub. 10–16–56. Filed 5–24–56.

CLASS 24

LAUNDRY APPLIANCES AND MACHINES

639,324. ROBCO E-Z SERVICE MOUNT. Robco Corporation. SN 690,038. Pub. 10–16–56. Filed 6–22–55.

639,325. EKCO. Ekco Products Company. SN 692,215. Pub. 10–16–56. Filed 8–1–55.

639,326. PIL-O-BAR. Wichita Precision Tool Co., Inc. SN 695,788. Pub. 10–16–56. Filed 10–3–55.

639,327. COTTON BELLE. Herbert Glatt, d. b. a. Magla Products. SN 200. Pub. 10–16–56. Filed 1–5–56.

639,328. STANGARD ETC. AND DESIGN. J F D Manufacturing Co., Inc. SN 1,445. Pub. 10–16–56. Filed 1–25–56.

639,329. LESCO. Laundry Equipment Sales Corp. SN 5,306. Pub. 10–16–56. Filed 3–27–56.

639,330. DI DI AND DESIGN. Tower Manufacturing Company. SN 5,803. Pub. 10–16–56. Filed 4–4–56.

639,331. HI-FASHION. United States Hoffman Machinery Corporation. SN 7,548. Pub. 10–16–56. Filed 5–2–56.

639,332. CADIE. Cadie Chemical Products, Inc. SN 7,658. Pub. 10–16–56. Filed 5–4–56.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

639,333. SERVOFLIGHT. Servo Corporation of America. SN 659,911. Pub. 4–26–55. Filed 1–20–54.

639,334. MICRO MATCH AND DESIGN. Mack C. Jones, d. b. a. M. C. Jones Electronics Co. SN 693,750. Pub. 10–16–56. Filed 8–26–55.

639,335. DESIGN OF TRIANGLE ETC. Akashi Seisakusho, Ltd. SN 696,629. Pub. 10–16–56. Filed 10–18–55.

639,336. FRIDEN. Friden Calculating Machine Co., Inc. SN 699,389. Pub. 10–16–56. Filed 12–5–55.

639,337. ADD PUNCH. Friden Calculating Machine Co., Inc. SN 699,391. Pub. 10–16–56. Filed 12–5–55.

639,338. CONSOL. Max Bertuch. SN 699,545. Pub. 10–16–56. Filed 12–7–55.

639,339. MICRO-SPECTAR. Photo Research Corporation. SN 4,223. Pub. 10–16–56. Filed 3–9–56.

639,340. SPECTAR. Photo Research Corporation. SN 4,224. Pub. 10–16–56. Filed 3–9–56.

639,341. ELECTRO-SPAN. Bendix Aviation Corporation. SN 4,932. Pub. 10–16–56. Filed 3–21–56.

639,342. LOG LOG DUPLEX DECITRIG. Keuffel & Esser Company. SN 5,848. Pub. 10–16–56. Filed 4–5–56.

639,343. LOG LOG DUPLEX TRIG. Keuffel & Esser Company. SN 5,849. Pub. 10–16–56. Filed 4–5–56.

639,344. FLUSHSTYLE. U. S. Electrical Motors, Inc. SN 5,885. Pub. 10–16–56. Filed 4–5–56.

639,345. ELECOM. Underwood Corporation. SN 7,649. Pub. 10–2–56. Filed 5–3–56.

CLASS 27

HOROLOGICAL INSTRUMENTS

639,346. VERI-THIN SATELLITE. The Gruen Watch Company, now by change of name Gruen Industries, Inc., d. b. a. Gruen Watch Company. SN 2,132. Pub. 10–16–56. Filed 2–6–56.

639,347. FLEETWOOD. R. Gsell & Co. Inc. SN 2,424. Pub. 5–29–56. Filed 2–10–56.

639,348. BURTONA. Burton M. Reid, Inc. SN 7,038. Pub. 10–16–56. Filed 4–24–56.

CLASS 28

JEWELRY AND PRECIOUS-METAL WARE

639,349. PHOTO SCULPTURE. Photo Sculpture, Inc. SN 694,255. Pub. 10–16–56. Filed 9–6–55.

639,350. GAYLORD FIFTH AVENUE AND DESIGN. Wallace Spiegler Corp. SN 694,264. Pub. 10–16–56. Filed 9–6–55.

CLASS 29

BROOMS, BRUSHES, AND DUSTERS

639,351. OWENS SUPER TUFT. Owens Brush Company. SN 698,325. Pub. 10–16–56. Filed 11–7–55.

CLASS 31

FILTERS AND REFRIGERATORS

639,352. NATIONAL ETC. AND DESIGN. National Water Equipment Co. SN 691,380. Pub. 10–16–56. Filed 7–15–55.

639,353. JET EASY SOFT ETC. AND DESIGN. Jet Manufacturing Co., to Harvey D. O'Neil. SN 5,842. Pub. 10–16–56. Filed 4–5–56.

639,354. ROLLABOUT. C. Q. Sherman Associates, Inc. SN 7,043. Pub. 10–16–56. Filed 4–24–56.

CLASS 32

FURNITURE AND UPHOLSTERY

639,355. DISPLAYETTE. John J. Morse, d. b. a. General Products Co. SN 696,453. Pub. 10–16–56. Filed 10–14–55.

639,356. DOG-NAPPER. Tyee Camp Equipment. SN 696,605. Pub. 10–16–56. Filed 10–17–55.

639,357. PEERLESS SLEEPER. Peerless Mattress Company. SN 697,492. Pub. 10–16–56. Filed 11–1–55.

639,358. SIWA. Nordam Trading Corporation, d. b. a. Rimini Imports. SN 698,902. Pub. 10–16–56. Filed 11–25–55.

639,359. JUMBO CANE ETC. AND DESIGN. Hurricane Import Company. SN 699,399. Pub. 10–16–56. Filed 12–5–55.

639,360. HEART O' THE HILLS. Wm. Cameron & Co. SN 3,824. Pub. 10–16–56. Filed 3–5–56.

639,361. TAB. Tab Products Co. SN 4,578. Pub. 10–16–56. Filed 3–14–56.

639,362. THE HAUSETTE SELECTOR. All American Fabricators, d. b. a. Charles F. Hause Company. SN 6,144. Pub. 10–16–56. Filed 4–11–56.

639,363. 4 LEAF CLOVER AND DESIGN. The Dayton Rubber Company. SN 6,323. Pub. 10–16–56. Filed 4–13–56.

639,364. LIBERTY. The Steck Company. SN 6,477. Pub. 10–16–56. Filed 4–16–56.

639,365. BABYTIME. Rochelle Furniture Mfg. Co. SN 7,217. Pub. 10–16–56. Filed 4–26–56.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

639,366. SPRINGFIELD. Springfield Boiler Co. SN 688,090. Pub. 10–16–56. Filed 5–23–55.

639,367. PROP-R-TEMP. Typhoon Prop-R-Temp Corporation of Florida, to Hupp Corporation. SN 697,130. Pub. 10–16–56. Filed 10–25–55.

639,368. LOSCH. Losch Boiler Company. SN 4,464. Pub. 10–16–56. Filed 3–13–56.

639,369. GRAND. The Sunray Stove Company. SN 7,392. Pub. 10–16–56. Filed 4–30–56.

639,370. CHARCOL-ATOR AND DESIGN. The Sunray Stove Company. SN 7,393. Pub. 10–16–56. Filed 4–30–56.

639,371. ANTAR. Antar Export Corporation. SN 7,655. Pub. 10–16–56. Filed 5–4–56.

639,372. AIR COMMAND. Amana Refrigeration, Inc. SN 7,727. Pub. 10–16–56. Filed 5–7–56.

639,373. ZONOSPHERE. Sears, Roebuck & Co. SN 7,939. Pub. 10–16–56. Filed 5–8–56.

CLASS 35

BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

639,374. REINZ. Reinz-Dichtungs-G. m. b. H. SN 679,058. Pub. 10–16–56. Filed 12–28–54.

CLASS 36

MUSICAL INSTRUMENTS AND SUPPLIES

639,375. RUBY AND DESIGN. Larry Short. SN 1,394. Pub. 10–16–56. Filed 1–24–56.

639,376. ROBERT AND DESIGN. Morrison and Co. SN 1,974. Pub. 10–16–56. Filed 2–2–56.

CLASS 37

PAPER AND STATIONERY

639,377. LYRA. Lyra-Bleistift-Fabrik, Johann Froescheis. SN 664,682. Pub. 10–16–56. Filed 4–16–54.

639,378. DESIGN OF LYRE. Lyra-Bleistift-Fabrik, Johann Froescheis. SN 664,683. Pub. 10–16–56. Filed 4–16–54.

639,379. EVERSHARP "SMALL BALL." Eversharp, Inc. SN 677,206. Pub. 10–16–56. Filed 11–24–54.

639,380. PRECISION TYMPAN AND DESIGN. Carpenter Paper Company. SN 684,190. Pub. 10–16–56. Filed 3–25–55.

639,381. ET AND DESIGN. East Texas Pulp and Paper Company. SN 684,290. Pub. 10–16–56. Filed 3–28–55.

639,382. EASTEX ET AND DESIGN. East Texas Pulp and Paper Company. SN 684,292. Pub. 10–16–56. Filed 3–28–55.

639,383. FEEDWELL BOND. International Paper Company. SN 687,286. Pub. 10–16–56. Filed 5–11–55.

639,384. PARKE'S. L. H. Parke Company. SN 687,885. Pub. 10–16–56. Filed 5–19–55.

639,385. FOLD-ELOPE. James V. DeTolve. SN 688,912. Pub. 10–16–56. Filed 6–6–55.

639,386. SALLY DRAKE. Modern Packagings. SN 693,174. Pub. 10–16–56. Filed 8–16–55.

639,387. ECON-O-CHECK. National Bank of Detroit. SN 1,615. Pub. 10–16–56. Filed 1–27–56.

639,388. MELIOR. Melior Products Co., Inc. SN 1,800. Pub. 10–16–56. Filed 1–31–56.

CLASS 38

PRINTS AND PUBLICATIONS

639,389. EAGLECOLOR. Cincinnati Lithographing Company, Inc. SN 680,937. Pub. 10–16–56. Filed 2–2–55.

639,390. BOURGES "AUTOGRAPH." Bourges Color Corporation. SN 691,546. Pub. 10–16–56. Filed 7–19–55.

639,391. CINEMAGES. Hans Werner Bachmann, d. b. a. Gideon Bachmann. SN 700,559. Pub. 10–16–56. Filed 12–27–55.

639,392. THE EASTERN BANKER. Barnes & Williams Co. SN 10. Pub. 10–16–56. Filed 1–3–56.

639,393. SCOPE WEEKLY. The Upjohn Company. SN 1,299. Pub. 10–16–56. Filed 1–23–56.

639,394. RLM. RLM Standards Institute. SN 2,189. Pub. 10–16–56. Filed 7–26–56.

639,395. THE ORDER OF SCOTTISH CLANS ETC. AND DESIGN. Royal Clan, Order of Scottish Clans. SN 12,773. Pub. 10–16–56. Filed 7–26–56.

CLASS 39

CLOTHING

639,396. VIVACIOUS AND DESIGN. Manchester Hosiery Mills. SN 642,234. Pub. 10–16–56. Filed 2–13–53.

639,397. LADY SHELBY. Hudson Hosiery Company. SN 684,431. Pub. 10–16–56. Filed 3–29–55.

639,398. ARCHFAME. Arch Fame Incorporated. SN 691,265. Pub. 10–16–56. Filed 7–14–55.

639,399. RON LEE'. The Berger Company. SN 694,042. Pub. 10–16–56. Filed 9–1–55.

639,400. FLITE-KNIT. Canterbury Knitters, Ltd. SN 699,060. Pub. 10–16–56. Filed 11–29–55.

639,401. SPECIAL-TEES. Aileen Knitwear Inc. SN 699,754. Pub. 10–16–56. Filed 12–12–55.

639,402. ELINOR PORTER. Elinor Porter, Inc. SN 700,055. Pub. 10–16–56. Filed 12–15–55.

639,403. BLUE SHIELD. Alfonse Sadowski, d. b. a. Alba Sales. SN 700,258. Pub. 4–17–56. Filed 12–19–55.

639,404. FIESTA. Fiesta Shirt Co. SN 324. Pub. 9–11–56. Filed 1–9–56.

639,405. ROMANINO AND DESIGN. "Superga" Società per Azioni. SN 5,801. Pub. 10–16–56. Filed 4–4–56.

639,406. LANADUR. Colebrook Knitwear Inc. SN 9,443. Pub. 10–16–56. Filed 6–1–56.

639,407. PLEAT-TREAT. Foster-Hochberg Manufacturing Co., Inc. SN 9,458. Pub. 10–16–56. Filed 6–1–56.

639,408. SANTA'S WORKSHOP. Santa's Workshop, Inc. SN 9,492. Pub. 10–16–56. Filed 6–1–56.

639,409. GET IT DUNN SAFELY ETC. AND DESIGN. Edward R. Glick, d. b. a. Dunn Products. SN 10,367. Pub. 10–16–56. Filed 5–29–56.

639,410. NYL-O-VAL. Mark Knitting Mills. SN 10,958. Pub. 10–16–56. Filed 5–28–56.

CLASS 40

FANCY GOODS, FURNISHINGS, AND NOTIONS

639,411. KEE DURA FLEX AND DESIGN. Victor Leon, d. b. a. Kee Products Co. SN 1,452. Pub. 10–16–56. Filed 1–25–56.

639,412. SHAPEROLL. Ormond Manufacturing Co., Inc. SN 9,574. Pub. 10–16–56. Filed 6–4–56.

639,413. FEATHERCOMBS. Feathercombs, Inc. SN 9,714. Pub. 10–16–56. Filed 6–6–56.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

639,414. DUXBAK. Utica Duxbak Corporation. SN 689,773. Pub. 10–16–56. Filed 6–17–55.

639,415. CUPIONI. Beaunit Mills, Inc. SN 698,766. Pub. 10–16–56. Filed 11–23–55.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

639,416. SERA-SHARP. Propper Manufacturing Company, Inc. SN 681,709. Pub. 10–4–55. Filed 2–15–55.

639,417. PRE-MED. Rosedale Knitting Company. SN 695,845. Pub. 10–16–56. Filed 10–4–55.

639,418. RYTAB AND DESIGN. Chalmers G. Hall, Jr., d. b. a. The Chalhall Company. SN 696,437. Pub. 10–16–56. Filed 10–14–55.

639,419. MULTIMODE. Precision Scientific Company. SN 4,061. Pub. 10–16–56. Filed 3–7–56.

639,420. B.C. H. L. Blake Company. SN 4,422. Pub. 10–16–56. Filed 3–13–56.

639,421. BIG CHIEF AND DESIGN. H. L. Blake Company. SN 4,423. Pub. 10–16–56. Filed 3–13–56.

639,422. HELMETED HEAD-PROFILE DESIGN. Youngs Rubber Corporation. SN 6,578. Pub. 10–16–56. Filed 4–17–56.

639,423. ORTHO KIT. Ortho Pharmaceutical Corporation. SN 12,560. Pub. 10–16–56. Filed 8–9–56.

CLASS 45

SOFT DRINKS AND CARBONATED WATERS

639,424. C & C SUPER AND DESIGN. Cantrell & Cochrane Corporation. SN 700,568. Pub. 10–16–56. Filed 12–27–55.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

639,425. AAA TRIPLE A. San Xavier Fish Packing Company. SN 540,132. Pub. 2–12–52. Filed 11–4–47.

639,426. NEW YORKER. Bi-Mor Farms, Inc. SN 671,713. Pub. 10–16–56. Filed 8–16–54.

639,427. JUICE BOWL. Sasson-King, Inc. SN 684,475. Pub. 2–7–56. Filed 3–29–55.

639,428. SLIMSO AND DESIGN. Slimaid Products Limited. SN 690,411. Pub. 10–16–56. Filed 6–28–55.

639,429. FANCI-FROST. Robert P. White. SN 691,110. Pub. 10–16–56. Filed 7–11–55.

639,430. NYSICE. Joe Lowe Corporation. SN 3,692. Pub. 10–16–56. Filed 3–1–56.

639,431. COOKIE FANTASIES. Salerno-Megowen Biscuit Company. SN 3,713. Pub. 10–16–56. Filed 3–1–56.

639,432. EMERALD. California Walnut Growers Association. SN 3,736. Pub. 10–16–56. Filed 3–2–56.

CLASS 47

WINES

639,433. CARINA KAN-O-WINE. Yosemite Winery Association. SN 687,742. Pub. 10–16–56. Filed 5–17–55.

639,434. KOPKE AND DESIGN. C. N. Kopke & Ca. Lda. SN 700,412. Pub. 10–16–56. Filed 12–7–55.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

639,435. REPRESENTATION OF A MAN'S HEAD. Frederick P. Nash, d. b. a. Saf-T-Plate Co. SN 689,732. Pub. 10–16–56. Filed 6–17–55.

639,436. AIREX. Lonza Electric and Chemical Works Ltd. SN 698,531. Pub. 10–16–56. Filed 11–18–55.

639,437. USP AND DESIGN. Union Steel Products Co. SN 223. Pub. 10–16–56. Filed 1–5–56.

639,438. ROLLWAY. Woodford Manufacturing Company. SN 1,136. Pub. 10–16–56. Filed 1–19–56.

639,439. THE SEA CHEST. Joseph G. Kadison, d. b. a. The Sea Chest of Philadelphia. SN 2,705. Pub. 10–16–56. Filed 2–15–56.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

639,440. MENNEN MAGIC. The Mennen Company. SN 667,320. Pub. 10–16–56. Filed 5–28–54.

639,441. HYPERSONIC. Post Institute, Inc. SN 674,351. Pub. 10–16–56. Filed 10–5–54.

639,442. TECNIQUE. Tecnique Inc. SN 676,146. Pub. 10–16–56. Filed 11–5–54.

639,443. NAPRO. National Chemical Products Pty. Limited. SN 680,688. Pub. 10–16–56. Filed 1–28–55.

639,444. RESDAN. Resdan Products Limited. SN 693,335. Pub. 10–16–56. Filed 8–18–55.

639,445. GLO-TINT. Audrea du Val Laboratories, Inc., d. b. a. Audrea du Val. SN 695,133. Pub. 10–16–56. Filed 9–22–55.

639,446. COLOR GLIDE. Richard Hudnut. SN 699,320. Pub. 10–16–56. Filed 12–2–55.

639,447. CM AND DESIGN. Countess Mara, Incorporated. SN 700,883. Pub. 10–16–56. Filed 12–30–55.

639,448. SANTA CELESTA. Angier Chemical Company, Inc. SN 3. Pub. 10–16–56. Filed 1–3–56.

639,449. SUPERDENT. Amurol Products Company. SN 290. Pub. 10–16–56. Filed 1–9–56.

639,450. VIVIAN TRENT. The May Department Stores Company. SN 1,377. Pub. 10–16–56. Filed 1–24–56.

639,451. GLAZ-O-DENT. Penn & Co., Ltd. SN 1,718. Pub. 10–16–56. Filed 1–30–56.

639,452. "CHUCK." Charles Antell, Inc. SN 1,757. Pub. 10–16–56. Filed 1–31–56.

639,453. SPARKLEMINT. De Gon Products, Inc. SN 1,772. Pub. 10–16–56. Filed 1–31–56.

CLASS 52

DETERGENTS AND SOAPS

639,454. MIST. The Pennsylvania Salt Manufacturing Company. SN 666,126. Pub. 10–16–56. Filed 5–11–54.

639,455. VICTOR. Victor S. R. L. SN 684,988. Pub. 10–16–56. Filed 4–5–55.

639,456. MITZ AND DESIGN. Narva Products, Inc. SN 688,842. Pub. 10–16–56. Filed 6–3–55.

639,457. LEVEL. Calgon, Incorporated. SN 694,471. Pub. 10–16–56. Filed 9–12–55.

639,458. DETERGOL. Ultra Chemical Works, Inc. SN 698,093. Pub. 10–16–56. Filed 11–10–55.

639,459. PARID. Petrolite Corporation. SN 698,209. Pub. 10–16–56. Filed 11–14–55.

639,460. NEW WONDER. B & B Products Co. SN 3,649. Pub. 10–16–56. Filed 3–1–56.

639,461. CYANATEX. American Cyanamid Company. SN 4,270. Pub. 10–16–56. Filed 3–12–56.

639,462. OVEN MAGIC. Rite Products Co., Inc., d. b. a. Proven Products Company. SN 5,322. Pub. 8–14–56. Filed 3–27–56.

639,463. LIK-WID-PLUMR. Jiffee Chemical Corporation. SN 5,529. Pub. 10–16–56. Filed 3–30–56.

Service Marks

CLASS 100

MISCELLANEOUS

639,464. SERVO AND DESIGN. Servo Corporation of America. SN 651,544. Pub. 9–6–55. Filed 8–7–53.

639,465. TREE OF LIGHTS. The Salvation Army. SN 697,025. Pub. 10–16–56. Filed 10–24–55.

CLASS 101

ADVERTISING AND BUSINESS

639,466. ALL-AMERICAN FAMILY. Kashuk Enterprises, to All-American Family, Inc. SN 687,291. Pub. 10–16–56. Filed 5–11–55.

CLASS 102

INSURANCE AND FINANCIAL

639,467. 1ST SINCE 1868 ETC. AND DESIGN. First Western Bank and Trust Company. SN 248. Pub. 10–16–56. Filed 1–6–56.

CLASS 103

CONSTRUCTION AND REPAIR

639,468. REMAC. Rebuilders Machinery Sales, Inc. SN 688,755. Pub. 10–16–56. Filed 6–2–55.

639,469. MANU-WALL. Manu-Mine Research & Development Co. SN 1,372. Pub. 10–16–56. Filed 1–24–56.

CLASS 106

MATERIAL TREATMENT

639,470. DESIGN OF CALIPER, RETORT ETC. Everett H. Fernald, d. b. a. The Industrial Plating Company. SN 3,378. Pub. 10–16–56. Filed 2–27–56.

CLASS 107

EDUCATION AND ENTERTAINMENT

639,471. PLAYTIME POPPY AND DESIGN. Children's Theater of Cedar Rapids. SN 678,514. Pub. 10–16–56. Filed 12–17–54.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

CLASS 14

METALS AND METAL CASTINGS AND FORGINGS

639,472. Rigidized Metals Corporation, Buffalo, N. Y. SN 172. Filed 1–4–56.

IMAGINATION ROLLED INTO METAL

For Ferrous and Non-Ferrous Metal Sheets.
First use Dec. 1, 1953.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

639,473. Rembrandt Lamp Corporation, Chicago, Ill. SN 686,225. Filed P. R. 4–25–55. Am. S. R. 10–5–56.

Gainsborough

For Lamp Shades Primarily Intended for Electrical Lamps.
First use Apr. 5, 1955.

639,474. Rembrandt Lamp Corporation, Chicago, Ill. SN 686,226. Filed P. R. 4–25–55. Am. S. R. 10–5–56.

Gainsborough

For Floor Lamps and Table Lamps and Torchieres and Table-and-Lamp Combinations, With and Without Shades, Wires To Receive Electric Light Bulbs, and Parts for Same.
First use Apr. 5, 1955.

TRADEMARK REGISTRATIONS RENEWED

113,316. THE UNITED HATTERS OF NORTH AMERICA. Cl. 39. 10–10–16.
113,458. REX. Cl. 50. 10–17–16.
113,655. HALLMARK. Cl. 37. 10–24–16.
113,786. OHIO. Cl. 46. 10–31–16.
113 811. DYKE-LAND AND DESIGN. Cl. 46. 10–31–16.
113 834. KANT-MIS. Cl. 50. 10–31–16.
113,835. REGAL. Cl. 50. 10–31–16.
113,910. REIS. Cl. 39. 11–7–16.
114,125. SANISERVIS. Cl. 37. 11–28–16.
114,126. SANIFIBER. Cl. 37. 11–28–16.
114,185. DESIGN OF CANDY BAR WRAPPER. Cl. 46. 12–5–16.
114,585. PALMER HOUSE BOUQUET AND DESIGN. Cl. 17. 12–19–16.
114,654. MATTAMAC. Cl. 39. 12–26–16.
114,767. BEST BY ACID TEST AND DESIGN. Cl. 14. 1–2–17.
115,818. BIOMINES. Cl. 18. 3–6–17.
115,999. TONETIC. Cl. 16. 3–27–17.
116,045. DIAMOND AND DESIGN. Cl. 23. 4–3–17.
338,238. CERCLA. Cl. 37. 9–1–36.
338,270. LOBAY. Cl. 34. 9–1–36.
338,330. ZEPHAIR. Cl. 34. 9–1–36.
338,337. R-R. Cl. 34. 9–1–36.
338,365. KING. Cl. 50. 9–1–36.
339,471. ROLAND HALL. Cl. 39. 10–6–36.
339,786. SEAGER'S ETC. AND DESIGN. Cl. 49. 10–20–36.
339,808. CHUBBY AND DESIGN. Cl. 22. 10–20–36.
339,809. RITZIE AND DESIGN. Cl. 22. 10–20–36.
339,917. COLUMBIAN. Cl. 4. 10–27–36.
340,082. DUMORE. Cl. 37. 11–3–36.
340,108. DILLECTRIC. Cl. 35. 11–3–36.
340,204. PROTEX AND DESIGN. Cl. 37. 11–3–36.
340,254. ENCOR. Cl. 23. 11–3–36.
340,292. ART CRAFT AND DESIGN. Cl. 13. 11–3–36.
340,334. ANCO. Cl. 19. 11–3–36.
340,440. LOKATOR. Cl. 21. 11–10–36.
340,502. SUPER VALUE. Cl. 46. 11–10–36.
340,603. LUCENE. Cl. 18. 11–17–36.
340,709. SCANDALS. Cl. 39. 11–17–36.
340,941. REIS AND DESIGN. Cl. 39. 11–24–36.
341,003. FILPOR. Cl. 16. 11–24–36.

341,042. VISPRONAL. Cl. 6. 12–1–36.
341,045. DELTA AND DESIGN. Cl. 42. 12–1–36.
341,071. SUPERFLO. Cl. 4. 12–1–36.
341,087. CELADON. Cl. 43. 12–1–36.
341,088. CELASPUN. Cl. 43. 12–1–36.
341,151. TUCKYS. Cl. 42. 12–1–36.
341,175. SWIRLING HEAT. Cl. 34. 12–1–36.
341,211. GOLD LABEL. Cl. 46. 12–1–36.
341,278. MADAM SUSIE THORNTON'S AND DESIGN. Cl. 51. 12–1–36.
341,413. SUPER-THREAD. Cl. 43. 12–8–36.
341,560. RESULTO. Cl. 18. 12–15–36.
341,561. MAGIC EYE. Cl. 21. 12–15–36.
341,582. FOLINERIN. Cl. 18. 12–15–36.
341,915. DOUBLEX SIMPLEX. Cl. 13. 12–29–36.
341,974. WINNER. Cl. 29. 12–29–36.
341,976. PRIDE. Cl. 29. 12–29–36.
342,073. UNEEDA BAKERS RITZ AND DESIGN. Cl. 46. 1–5–37.
342,328. AQUILA D'ORO. Cl. 46. 1–12–37.
342,524. TRIBOUT SHOP. Cl. 39. 1–19–37.
342,618. RANCHEROS AND DESIGN. Cl. 39. 1–19–37.
342,621. TRU-LAST. Cl. 39. 1–19–37.
342,905. CHAMPIC. Cl. 52. 2–2–37.
342,906. CHAMPIC. Cl. 51. 2–2–37.
342,917. VALOCITY AND DESIGN. Cl. 16. 2–2–37.
342,918. BLACK 4EVR AND DESIGN. Cl. 16. 2–2–37.
342,994. DESIGN OF WOMAN'S HEAD. Cl. 51. 2–9–37.
343,132. KOLADE AND DESIGN. Cl. 18. 2–9–37.
343,133. MENDACO AND DESIGN. Cl. 18. 2–9–37.
343,134. NIXODERM AND DESIGN. Cl. 18. 2–9–37.
343,159. TREMOLINE. Cl. 1. 2–9–37.
343,205. FLORALTONE. Cl. 43. 2–9–37.
343,248. THISTLEDOWN. Cl. 39. 2–16–37.
343,311. OLD TIMER AND DESIGN. Cl. 39. 2–16–37.
343,593. PRIMA-ERA. Cl. 39. 2–23–37.
343,758. BRIDGE HALL CLOTHES. Cl. 39. 3–2–37.
343,797. STAFA. Cl. 43. 3–9–37.
343,845. ULRICI ETC. AND DESIGN. Cl. 18. 3–9–37.
343,863. FERRO-BOND AND DESIGN. Cl. 16. 3–9–37.
344,122. DESIGN OF CARTON. Cl. 51. 3–16–37.
344,177. LUSTEREX. Cl. 16. 3–16–37.
344,260. WHAT TO MAKE. Cl. 38. 3–16–37.

344,334. CHEKIT AND DESIGN. Cl. 16. 3–16–37.
344,406. KAY CROWN-LAST. Cl. 32. 3–23–37.
344,420. KEEN MOUNTAIN SMOKELESS AND DESIGN. Cl. 1. 3–23–37.
344,550. DORADIL. Cl. 18. 3–30–37.
344,557. DESIGN OF BREAD WRAPPER. Cl. 46. 3–30–37.
344,740. BRENTLEY. Cl. 39. 4–6–37.
344,776. MONTERREY. Cl. 17. 4–6–37.
344 800. FUZZY WUZZY. Cl. 46. 4–6–37.
344 842. RACEHARD. Cl. 16. 4–6–37.
344,959. PADDLE & SADDLE TOGS AND DESIGN. Cl. 39. 4–13–37.
345,094. DESIGN OF CARTON. Cl. 18. 4–13–37.
345,101. LITTLE MISS MUFFET. Cl. 46. 4–13–37.
345,132. NOVEX. Cl. 52. 4–13–37.
345,191. STA-FLO. Cl. 6. 4–20–37.

TRADEMARK REGISTRATIONS CANCELED

Section 8

78,738. DOSMOL AND DRAWING. Cl. 18. 7–5–10.
256,788. MWCO AND REPRESENTATION OF WATCH-CASE. Cl. 27. 5–21–29.
272,774. BRIERGATE. Cl. 46. 7–15–30.
273,061. EDGEBROOK. Cl. 46. 7–22–30.
275,559. BETWEEN FRIENDS. Cl. 46. 9–23–30.
339,150. BROADMOOR. Cl. 46. 9–29–36.
364,816. BON-A-CUNA. Cl. 39. 2–14–39.
377,599. REPRESENTATION OF CARROTS. Cl. 46. 5–7–40.
387,366. MISS CELERY ETC. AND DESIGN. Cl. 46. 5–13–41.
420,251. REPRESENTATION OF WAREHOUSE AND DESIGN. Cl. 14. 4–2–46.
421,812. RUBY RING. Cl. 39. 6–18–46.
436,419. SOLEX. Cl. 35. 2–10–48.
443,918. KEYTONE. Cl. 42. 4–11–50.
443,989. GROTESQUE DESIGN OF APRICOTS. Cl. 46. 5–23–50.
443,990. GROTESQUE DESIGN OF PRUNES. Cl. 46. 5–23–50.

The following registrations issued Oct. 10, 1950

531,598. BF IN RECTANGLE. Cl. 46.
531,611. SHERMAN AND DESIGN. Cl. 23.
531,612. FLAVOR FIRST. Cl. 46.
531,614. DIMENSIONAL WALLS. Cl. 37.
531,616. SLICKER JUICE. Cl. 16.
531,618. ENCLOSED G. Cl. 23.
531,619. FOR-DRAULIC. Cl. 23.
531,629. BELMONT BREEZE. Cl. 39.
531,630. BELMONT JULEPS. Cl. 39.
531,643. LEVER-MITE AND DESIGN. Cl. 23.
531,645. KLIKMASTER. Cl. 23.
531,653. OSCARS. Cl. 44.
531,658. IRISH MAID. Cl. 46.
531,664. VELVET GLOSS. Cl. 23.
531,667. WINDSOR ARC. Cl. 39.
531,668. MULTI-TOOL TRANSMISSION. Cl. 23.
531,669. BINDA. Cl. 12.
531,673. BONERA. Cl. 46.
531,677. HARINA DE ALTA CALIDAD PANARINA. Cl. 46.
531,680. PRESTO DRAPE. Cl. 42.
531,686. GREMMIES. Cl. 46.
531,691. BAMBOO STICKS. Cl. 46.
531,698. BELL AND DESIGN. Cl. 46.
531,699. LADY COMFORT AND DESIGN. Cl. 39.
531,701. GOLD CUP AND DESIGN. Cl. 21.
531,702. NURGENE. Cl. 46.
531,716. FIGARO. Cl. 23.
531,718. HUMIDASSIST. Cl. 11.
531,722. GSI IN A CIRCLE. Cl. 23.
531,725. DORCHESTER. Cl. 21.
531,727. SATINCAST. Cl. 13.
531,728. DESRO AND DESIGN. Cl. 39.
531,731. MICLO. Cl. 46.
531,733. SPACE MISER SCOTTY AND DESIGN. Cl. 50.
531,734. BLACK SAM BO AND DESIGN. Cl. 46.
531,735. TUBLIN. Cl. 39.
531,736. KOALA BEAR AND DESIGN. Cl. 46.
531,740. EAGLE AND DESIGN. Cl. 13.
531,741. MAGNETWIN. Cl. 21.
531,742. MERRIER. Cl. 44.
531,744. THERMOGUARD. Cl. 44.
531,748. PEP-TEND. Cl. 44.
531,749. MOKETS AND DESIGN. Cl. 46.
531,752. JELL-AIRE. Cl. 13.
531,756. TRIPLE SPREAD. Cl. 46.
531,758. BANTAM. Cl. 23.
531,760. KRYSAL. Cl. 23.
531,775. BUY JOVE. Cl. 37.
531,776. DISPOLADOR. Cl. 44.
531,782. LAMB DESIGN. Cl. 51.
531,788. KLIPTEEZ. Cl. 39.
531,793. FRINGEMASTER. Cl. 21.
531,796. LA-VALIER. Cl. 39.
531,801. NEON. Cl. 37.
531,809. COLISEUM. Cl. 37.
531 822. CALUMET. Cl. 15.
531,827. MATANAY. Cl. 37.
531 828. TIPSTER. Cl. 37.
531 830. FIESTA. Cl. 50.
531,834. MICO VALLINI. Cl. 39.
531,836. KEN GRAYSON AND DESIGN. Cl. 39.
531,840. WOOLMINSTER. Cl. 42.
531,841. WUNDERBAR. Cl. 42.
531,842. TUCK-AWAY. Cl. 39.
531,843. HIDE-AWAY. Cl. 39.
531,844. PICKAMOOR. Cl. 42.
531,849. MID-CENTURY. Cl. 42.
531,853. BATCO. Cl. 39.
531,855. RAMBLETUFT. Cl. 42.
531,856. RAMBLETWIST. Cl. 42.
531,858. WISSETTE. Cl. 42.
531,862. CHORALE. Cl. 42.
531,863. ELMO AND DESIGN. Cl. 39.
531,864. BOTANYL. Cl. 42.
531,865. CRIMSUTTA AND DESIGN. Cl. 42.
531,866. WAMSHADOW. Cl. 42.
531,870. SULMET. Cl. 23.
531,872. ARGO. Cl. 23.
531,876. THEIR MAJESTIES—THE BABIES. Cl. 101.
531,878. CALIFORNIA INSURANCE CO. Cl. 102.
531,879. COLUMBINE. Cl. 105.
531,880. PONY EXPRESS. Cl. 105.
531,882. BELL CAB. Cl. 105.
531,885. SPRA.SHIELD. Cl. 16.
531,887. ACCOUNTING WORLD. Cl. 38.
531 888. SLEET-OFF. Cl. 23.
531 889. SUNBATHING FOR HEALTH. Cl. 38.
531,890. AMERICAN FARMS BRAND AND DESIGN. Cl. 46.
531,896. SCRU-BALL. Cl. 13.
531,900. THE YOUNG MEN'S SHOP. Cl. 39.
531,904. PATCH PACK AND DESIGN. Cl. 12.
531,905. INLAND SPEED-FLO. Cl. 14.
531,906. NILSEN'S 400. Cl. 16.
531,909. FAR BETTER. Cl. 46.
531,919. 3-WAY FLASHING. Cl. 12.
531,921. GAY'S PECAN REMEDY. Cl. 10.
531,922. AUSTIN'S VERYBEST. Cl. 10.
531,930. NICASTRO. Cl. 39.
531,932. PACKED WITH SEA POWER. Cl. 46.
531,933. SOF-N-IT AND DESIGN. Cl. 6.
531,935. STEEL BAND AND DESIGN. Cl. 29.
531,938. BLECHMAN AND DESIGN. Cl. 39.
531,941. MILK AND FOOD SANITATION. Cl. 38.

The following registrations issued Oct. 17, 1950

531,958. ARMSTRONG CORK CO. AND DESIGN. Cl. 13.
531,962. REPRESENTATION OF BERNARD SHERMAN. Cl. 51.
531,965. WONDERFUL. Cl. 46.
531,968. DOVER. Cl. 1.
531,978. TOM SAWYER. Cl. 13.
531,980. VELO. Cl. 6.
531,981. CLIPSHEAR. Cl. 44.
531,995. LADY STERLING. Cl. 44.

531,999. ADMENTUM. Cl. 46.
532,008. REST-ON-AIR. Cl. 32.
532,017. HYD A KEY. Cl. 25.
532,020. GL AND DESIGN. Cl. 25.
532,024. VICKI-LAUREL. Cl. 2.
532,027. CLICK. Cl. 23.
532,032. HARVEST FURNITURE. Cl. 32.
532,035. BIS-CHEST. Cl. 2.
532,038. DI-DIPPER. Cl. 22.
532,039. WEARTWIST. Cl. 39.
532,040. BRICKPLAYER. Cl. 22.
532,041. BROS A LTD AND DESIGN. Cl. 28.
532 042. DY-MO-RAY UNIT. Cl. 44.
532,043. MANCO. Cl. 6.
532 047. KAY-O-KNIT AND DESIGN. Cl. 39.
532 054. CITRA-VENDOR. Cl. 23.
532,056. PLAYLASTIC. Cl. 22.
532,060. TYZE. Cl. 6.
532,061. TRI-D-SEPTIC. Cl. 6.
532,065. COMFORT. Cl. 23.
532,067. VEE JACK. Cl. 23.
532,069. SEKLIN. Cl. 52.
532,070. BEAUTYSEAL AND DESIGN. Cl. 4.
532,074. GARDENIA SAUVAGE. Cl. 51.
532,077. VAO AND DESIGN. Cl. 52.
532 078. VAMP-TOP. Cl. 39.
532,082. CAR-DRI- AND DESIGN. Cl. 6.
532 084. REPRESENTATION OF CROWN. Cl. 4.
532 089. TOURNAMENT. Cl. 22.
532,091. SAVEMASTER. Cl. 27.
532,097. RIBBON-LASTIC. Cl. 40.
532,099. SURCO. Cl. 23.
532,102. ECL. Cl. 4.
532,109. CHERYL LEA AND DESIGN. Cl. 22.
532,110. HASBAR. Cl. 46.
532,117. SUPERTYFON. Cl. 23.
532,118. BRAC KING. Cl. 23.
532,127. PHOTO-LITE. Cl. 8.
532,128. SPIZILLIN. Cl. 18.
532,129. SULCYLATE. Cl. 18.
532,130. THALIDOL. Cl. 18.
532,135. MEL-TON AND DESIGN. Cl. 3.
532,137. SOUTHERN GOLD. Cl. 46.
532,138. STYLED BY RAIN-CRAFT. Cl. 41.
532,154. CUSTOM. Cl. 3.
532,158. MAG–70. Cl. 6.
532,161. CHASSY. Cl. 23.
532,162. PERSPIR-TEX. Cl. 40.
532,163. TOWSEN C. Cl. 18.
532,172. IN-STA-SOL AND DESIGN. Cl. 18.
532,173. BOTONONE. Cl. 6.
532,175. UNDYL. Cl. 18.
532,177. TELODRON. Cl. 18.
532,178. TIHERAS. Cl. 18.
532,179. MERCUSCORB. Cl. 18.
532,181. REFRIGASWEET. Cl. 6.
532,184. MUCOSORBS. Cl. 18.
532,189. FLEXALUM. Cl. 2.
532,193. PLASTICIZE. Cl. 4.
532,196. LUCK UNLIMITED. Cl. 2.
532,203. KARDICE. Cl. 22.
532,204. ESFATE. Cl. 18.
532,206. ZODIOL. Cl. 18.
532,207. SILK HAT. Cl. 28.
532,209. ETHIDOL. Cl. 18.
532 212. THE PRETENDER. Cl. 28.
532,213. QUEEN'S LACE. Cl. 28.
532,218. GEM. Cl. 13.
532,221. DIABENA. Cl. 18.
532,222. CHOLERGINENE. Cl. 18.
532,227. AZOR. Cl. 23.
532,229. EXCELSIOR. Cl. 6.
532,233. COLLEEN. Cl. 40.
532,236. DREADNOUGHT. Cl. 3.
532,238. FOSCLEAN. Cl. 6.
532,242. ELSTER. Cl. 27.
532,245. SHIRT-O-MAGIC. Cl. 103.
532,247. LEWIS DRIBED BELT AND DESIGN. Cl. 44.
532,255. FLEX-DAK. Cl. 35.
532 257. PERFECT CIRCLE. Cl. 35.
532,259. MADAR. Cl. 46.
532 260. RELIABLE. Cl. 46.
532,261. CLASSICOOL. Cl. 42.
532,262. SARNO. Cl. 51.
532,263. MURFF BUSH PORTO RICAN. Cl. 1.
532,266. HAYES CUSHION WHEEL STOP. Cl. 14.

TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

338,862. UNIVERSAL. Cl. 37. 9–15–36. Noesting Pin Ticket Company, Incorporated, New York, N. Y. Corrected: In line 6, "Mount Vernon" should be *New York*.

532,875. WIDGIT. Cl. 19. 10–31–50. Beall Manufacturing Company, Cleveland, Ohio. Corrected: In the certificate, lines 2–3 and 13, and in the heading and signature to the statement, "Corporation" should be *Company*; in the statement, line 1, "Corporation, a firm" should be *Company, a partnership*, and in line 5, "members" should be *partners*.

601,544. NU-DRI AND DESIGN. Cl. 16. 2–1–55. Clifton P. Brown, doing business as St. Helen Products Company, St. Helen, Mich. Amended: In column 2, lines 2 and 3, "cement buildings, basement walls," is deleted.

634,224. "STANDARD" Y-B-C ETC. Cl. 26. 9–4–56. Standard Scientific Supply Corp., New York, N. Y. Corrected: In column 2, line 2, *white blood counts, and haemoglobin determinations*, should be inserted after "blood counts,".

636,064. CAMEO CORPORATION. Cl. 52. 10–16–56. Cameo Corporation, assignor to B. T. Babbitt, Inc., New York, N. Y. Corrected: At the end of column 1 the following should be inserted: *assignor to B. T. Babbitt, Inc., 625 Madison Ave., New York, N. Y. (New York corporation)*.

636,065. DESIGN–CAMEO MEDALLION. Cl. 52. 10–16–56. Cameo Corporation, assignor to B. T. Babbitt, Inc., New York, N. Y. Corrected: At the end of column 1 the following should be inserted: *assignor to B. T. Babbitt, Inc., 625 Madison Ave., New York, N. Y. (New York corporation)*.

636,632. CONCRETE FACTS AND DESIGN. Cl. 38. 10–30–56. Expanded Shale, Clay & Slate Institute, Washington, D. C. Corrected: In column 2, line 3 and the comma following line 2 should be deleted.

REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

CLASS 12

CONSTRUCTION MATERIALS

114,581. Dec. 19, 1916. Toch Brothers, New York, N. Y. Pub. by Toch Brothers, Inc., Staten Island, N. Y.

PLASTERTOX

For Plastic Coating Composition for Damp-Proofing and Water-Proofing Floors, Roofs, Walls, and Other Construction Work.

CLASS 19

VEHICLES

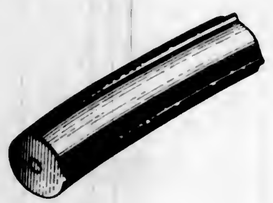
340,733. Nov. 17, 1936. The Studebaker Corporation, South Bend, Ind. Pub. by Studebaker-Packard Corporation, South Bend, Ind.

For Automobiles.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

114,858. Jan. 9, 1917. Atlantic Insulated Wire & Cable Company, Jersey City, N. J., and Stamford, Conn. Pub. by General Cable Corporation, New York, N. Y., and Perth Amboy, N. J.



For Insulated Wire.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

341,293. Dec. 1, 1936. Waterfilm Boilers, Inc., Jersey City, N. J. Pub. by registrant.

WATERFILM

For Boilers.

CLASS 35

BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

114,280. Dec. 5, 1916. Revere Rubber Company, Providence, R. I., and Chelsea, Mass. Pub. by United States Rubber Company, Passaic, N. J.

GRANITE

For Machinery Packing Known as Piston-Packing, Containing Fibrous Material and Rubber, and Sheet-Packing Consisting of Rubber or Rubber and Fibrous Material.

CLASS 39

CLOTHING

340,981. Nov. 24, 1936. John B. Stetson Company, Philadelphia, Pa. Pub. by registrant.

The Sovereign
STETSON

For Men's and Boys' Felt and Straw Hats and Cloth Caps; Men's Silk Hats; and Felt and Straw Hats for Women and Children.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

271,264. May 27, 1930. De Coursey Creamery Company, Kansas City, Kans. Pub. by Foremost Food & Chemical Co., San Francisco, Calif.

CHIP-O-CHOC

For Ice Cream.

364,579. Feb. 7, 1939. Golden State Company, Ltd., San Francisco, Calif. Pub. by Foremost Dairies, Inc., San Francisco, Calif.

ECONOBAKE

For Product Consisting of Modified Milk Solids.

LIST OF REGISTRANTS OF TRADEMARKS

REGISTERED JANUARY 1, 1957

Adie Brothers, Ltd., Birmingham, Warwickshire, England. 532,041, canc. Cl. 28.
Advance Solvents & Chemical Corp., New York, N. Y., to Carlisle Chemical Works, Inc., Reading, Ohio. 341,042, ren. 12–1–56. Cl. 6.
Agriculture Products Corp., Danbury, Conn. 639,211, pub. 10–16–56. Cl. 10.
Aileen Knitwear Inc., New York, N. Y. 639,401, pub. 10–16–56. Cl. 39.
Aisenstein, Louis, & Bros., Inc.: *See*—
United Jewelers Inc., The.
Akashi Seisakusho, Ltd., Shinagawa-Ku, Tokyo, Japan. 639,335, pub. 10–16–56. Cl. 26.
Akron Brass Mfg. Co., Inc., Wooster, Ohio. 639,223, pub. 10–16–56. Cl. 13.
Alba Sales: *See*—
Sadowski, Alfonse.
All American Fabricators, d. b. a. Charles F. Hause Co., Los Angeles, Calif. 639,362, pub. 10–16–56. Cl. 32.
All-American Family, Inc.: *See*—
Kashuk Enterprises.
All Metal Products Co., Wyandotte, Mich. 639,286, pub. 10–16–56. Cl. 22.
Amana Refrigeration, Inc., Amana, Iowa. 639,372, pub. 10–16–56. Cl. 34.
American Bleached Goods Co., Inc., to J. P. Stevens & Co., Inc., New York, N. Y. 341,045, ren. 12–1–56. Cl. 42.
American Cast Iron Pipe Co., Birmingham, Ala. 341,915, ren. 12–29–56. Cl. 13.
American Cyanamid Co., New York, N. Y. 639,248, pub. 10–16–56. Cl. 18.
American Cyanamid Co., New York, N. Y. 639,461, pub. 10–16–56. Cl. 52.
American Elite, Inc., New York, N. Y. 639,271, pub. 10–16–56. Cl. 21.
American Leather Belting Co., Chicago, Ill. 532,255, canc. Cl. 35.
American Produce, Sioux City, Iowa. 531,890, canc. Cl. 46.
American Silk Mills, Inc., New York, N. Y. 531,841, canc. Cl. 42.
American Synthetic Rubber Corp., Louisville, Ky. 639,191, pub. 10–16–56. Cl. 1.
American Viscose Corp., Philadelphia, Pa. 639,157, pub. 10–16–56. Cl. 1.
Amplifier Corp. of America, New York, N. Y. 531,741, canc. Cl. 21.
Amurol Products Co., Chicago, Ill. 639,44', pub. 10–16–56. Cl. 51.
Anderson Co., The, Gary, Ind. 340,334, re'. 11–3–56. Cl. 19.
Angier Chemical Co., Inc., Boston, M'ss. 639,448, pub. 10–16–56. Cl. 51.
Anglo-American Publishing Co., Ltd., Toronto, Ontario, Canada. 531,889, canc. Cl. 38.
Antar Export Corp., New York, N. Y. 639,371, pub. 10–16–56. Cl. 34.
Antell, Charles, Inc., Baltimore, Md. 639,452, pub. 10–16–56. Cl. 51.
Arch Fame Inc., New York, N. Y. 639,398, pub. 10–16–56. Cl. 39.
Arden, Elizabeth, Inc., to Elizabeth Arden Sales Corp., New York, N. Y. 342,994, ren. 2–9–57. Cl. 51.
Arden, Elizabeth, Sales Corp.: *See*—
Arden, Elizabeth, Inc.
Armstrong Cork Co., Lancaster, Pa. 531,958, canc. Cl. 13.
Artzt and Rieger, New York, N. Y. 639,323, pub. 10–16–56. Cl. 23.
Arvelo C., Pedro A., Caracas, Venezuela. 531,677, canc. Cl. 46.
Associated Fuels Ltd., Vancouver, Canada. 639,189, pub. 10–16–56. Cl. 1.
Atlas Equipment (London) Ltd., London, England. 531,760, canc. Cl. 23.
Atlas Plywood Corp., Boston, Mass. 639,214, pub. 10–16–56. Cl. 12.
Atwood, Laurence F., d. b. a. Azor Products Co., Los Angeles, Calif. 532,227, canc. Cl. 23.
Austin, Guy D., d. b. a. Guy D. Austin & Co., Miami, Fla. 531,922, canc. Cl. 10.
Austin, Guy D., & Co.: *See*—
Austin, Guy D.
Azor Products Co.: *See*—
Atwood, Laurence F.
B. B. Chemical Co.: *See*—
Boston Blacking & Chemical Co.
B & B Products Co., North Hollywood, Calif. 639,460, pub. 10–16–56. Cl. 52.
Babbitt, B. T., Inc.: *See*—
Cameo Corp.
Bachmann, Gideon: *See*—
Bachmann, Hans W.
Bachmann, Hans W., d. b. a. Gideon Bachmann, New York, N. Y. 639,391, pub. 10–16–56. Cl. 38.
Barbasol Co., The, Indianapolis, Ind. 344,122, ren. 3–16–57. Cl. 51.
Barnes & Williams Co., Philadelphia, Pa. 639,392, pub. 10–16–56. Cl. 38.
Barron-Gray Packing Co., San Jose, Calif. 377,599, canc. Cl. 46.
Barron-Gray Packing Co., San Jose, Calif. 387,366, canc. Cl. 46.
Barron-Gray Packing Co., San Jose, Calif., to Hawaiian Pineapple Co., Ltd., Honolulu, Hawaii. 443,989, canc. Cl. 46.
Barron-Gray Packing Co., San Jose, Calif., to Hawaiian Pineapple Co., Ltd., Honolulu, Hawaii. 443,990, canc. Cl. 46.
Basic Foods, Inc., from Curt Michaelis, New York, N. Y., to Curt Michaelis, Weehawken, N. J. 531,598, canc. Cl. 46.
Bata Shoe Co., Inc., Belcamp, Md. 531,853, canc. Cl. 39.
Beall Mfg. Co., Cleveland, Ohio. 532,875, cor. Cl. 19.
Beaunit Mills, Inc., New York, N. Y. 639,415, pub. 10–16–56. Cl. 42.
Beauty Seal Products Co.: *See*—
Jones, Tilman M.
Bell Bakeries, Inc., New York, N. Y. 531,698, canc. Cl. 46.
Bell-Mack Laboratories, Inc., Sparta, N. J. 639,249, pub. 10–16–56. Cl. 18.
Belmont Clothes, Inc., Baltimore, Md. 531,629, canc. Cl. 39.
Belmont Clothes, Inc., Baltimore, Md. 531,630, canc. Cl. 39.
Bendix Aviation Corp., Detroit, Mich. 639,341, pub. 10–16–56. Cl. 26.
Benjamin Air Rifle Co., St. Louis, Mo. 639,227, pub. 10–16–56. Cl. 13.
Berger Co., The, Fond du Lac, Wis. 639,399, pub. 10–16–56. Cl. 39.
Bertuch, Max, New York, N. Y. 639,338, pub. 10–16–56. Cl. 26.
Bigelow-Sanford Carpet Co., Inc., Thompsonville, Conn. 513,862, canc. Cl. 42.
Bi-Mor Farms, Inc., Fresno, Calif. 639,426, pub. 10–16–56. Cl. 46.
Bishop, Bernice P., Museum, The, Honolulu, Hawaii. 639,294, pub. 10–16–56. Cl. 22.
Blake, H. L., Co., Hot Springs, Ark. 639,420–1, pub. 10–16–56. Cl. 44.
Blechman, Ralph, Inc., New York, N. Y. 531,938, canc. Cl. 39.
Bonera N. V., Gouda, Netherlands. 531,673, canc. Cl. 46.
Boston Blacking & Chemical Co., to B. B. Chemical Co., Boston, Mass. 341,071, ren. 12–1–56. Cl. 4.
Botany Mills, Inc., Passaic, N. J. 531,782, canc. Cl. 51.
Botany Mills, Inc., Passaic, N. J. 531,864, canc. Cl. 42.
Bourgea Color Corp., New York, N. Y. 639,390, pub. 10–16–56. Cl. 38.
Bowling Products Co.: *See*—
Wilhelm, Warner F.
Brinkmeyer, Jameson E., Springfield, Ohio. 531,876, canc. Cl. 101.
British Schering Ltd., London, England. 532,209, canc. Cl. 18.
Brown, Clifton P., d. b. a. St. Helen Products Co., St. Helen, Mich. 601,544. Am. 7(d). Cl. 16.
Brown Clothing Co.: *See*—
Pincus Bros., Inc.
Brown, Hoke S., d. b. a. In-Sta-Sol Co., Macon, Ga. 532,172, canc. Cl. 18.
Brumley-Donaldson Co., Huntington Park, Calif. 639,225, pub. 10–16–56. Cl. 13.
Brunswick-Balke-Collender Co., The, Chicago, Ill. 532,084, canc. Cl. 4.
Brunswick-Balke-Collender Co., The, Chicago, Ill. 532,089, canc. Cl. 22.
Bunte Brothers, Chicago, Ill. 272,774, canc. Cl. 46.
Bunte Brothers, Chicago, Ill. 273,061, canc. Cl. 46.
Bunte Brothers, Chicago, Ill. 275,559, canc. Cl. 46.
Cabot, Godfrey L., Inc., Boston, Mass. 639,246, pub. 10–16–56. Cl. 16.
Cadie Chemical Products, Inc., New York, N. Y. 639,332, pub. 10–16–56. Cl. 24.
Calgon, Inc., Pittsburgh, Pa. 639,457, pub. 10–16–56. Cl. 52.
California Compensation Insurance Co., San Francisco, Calif. 531,878, canc. Cl. 102.
California Dental Supply Co., to Godissart Products, Inc., Los Angeles, Calif. 340,603, ren. 11–17–56. Cl. 18.
California Stucco Products of N. E. Inc., Cambridge, Mass. 639,247, pub. 10–16–56. Cl. 16.
California Walnut Growers Association, Los Angeles, Calif. 639,432, pub. 10–16–56. Cl. 46.
Calumet Refining Co., Chicago, Ill. 531,822, canc. Cl. 15.
Cameo Corp., to B. T. Babbitt, Inc., New York, N. Y. 636,064, cor. Cl. 52.
Cameo Corp., to B. T. Babbitt, Inc., New York, N. Y. 636,065, cor. Cl. 52.
Cameron, Wm., & Co., Waco, Tex. 639,360, pub. 10–16–56. Cl. 32.
Campbell, Herbert, d. b. a. Herbert Campbell Co., Scottsbluff, Nebr. 531,736, canc. Cl. 46.
Campbell, Herbert, Co.: *See*—
Campbell, Herbert.
Campbell Taggart Associated Bakeries, Inc.: *See*—
Gateway Baking Co.
Candy Pack, Inc., Chicago, Ill. 531,749, canc. Cl. 46.
Canterbury Knitters, Ltd., Keyport, N. J. 639,400, pub. 10–16–56. Cl. 39.
Cantrell & Cochrane Corp., Wilmington, Del. 639,424, pub. 10–16–56. Cl. 45.
Carlisle Chemical Works, Inc.: *See*—
Advance Solvents & Chemical Corp.

Carlou Sales Co.: *See*—
Jacobson, Louis.
Carnahan & Henry, Inc., Wichita, Kans. 532,067, canc. Cl. 23.
Carpenter Paper Co., Omaha, Nebr. 639,380, pub. 10–16–56. Cl. 37.
Carroll Chemical Co., Baltimore, Md. 639,257, pub. 10–16–56. Cl. 18.
Casimir Funk Laboratories, Inc., New York, N. Y. 532,179, canc. Cl. 18.
Casmir Funk Laboratories, Inc., New York, N. Y. 532,184, canc. Cl. 18.
Celanese Corp. of America, New York, N. Y. 341,087, ren. 12–1–56. Cl. 43.
Celanese Corp. of America, New York, N. Y. 341,088, ren. 12–1–56. Cl. 43.
Century Electric Co., St. Louis, Mo., to Hunter Fan and Ventilating Co., Memphis, Tenn. 338,330, ren. 9–1–56. Cl. 34.
Century Metalcraft Corp., Los Angeles, Calif. 532,091, canc. Cl. 27.
Century Ribbon Mills, Inc., New York, N. Y. 532,097, canc. Cl. 40.
Cercla Co., The, to General Binding Corp., Chicago, Ill. 338,238, ren. 9–1–56. Cl. 37.
Chace, W. M., Co., Detroit, Mich. 639,234, pub. 10–16–56. Cl. 14.
Chadbourn Hosiery Mills, Inc., Charlotte, N. C. 532,078, canc. Cl. 39.
Chalhall Co., The: *See*—
Hall, Chalmers G., Jr.
Charleston Milling Co., Charleston, W. Va. 531,731, canc. Cl. 46.
Cheney Flashing Co., Trenton, N. J. 531,919, canc. Cl. 12.
Cheryl Lea Enterprises: *See*—
Pletnik, Dorothy T.
Chicago Foam Products Corp., Chicago, Ill. 639,174, pub. 10–16–56. Cl. 1.
Children's Theater of Cedar Rapids, Cedar Rapids, Iowa. 639,471, pub. 10–16–56. Cl. 107.
Ciba Pharmaceutical Products Inc., Summit, N. J. 639,255, pub. 10–16–56. Cl. 18.
Cincinnati Lithographing Co., Inc., Cincinnati, Ohio. 639,389, pub. 10–16–56. Cl. 38.
Citra Vendor Corp., The, West Palm Beach, Fla. 532,054, canc. Cl. 23.
Click Mfg. Co., Fairbury, Nebr. 532,027, canc. Cl. 23.
Clure, Claremont F., d. b. a. Delta Engineering Sales Co., Shreveport, La. 639,221, pub. 4–22–52. Cl. 13.
Cohn, H. C., & Co., to Superba Cravats, Inc., Rochester, N. Y. 343,248, ren. 2–16–57. Cl. 39.
Colebrook Knitwear Inc., New York, N. Y. 639,406, pub. 10–16–56. Cl. 39.
Colombo, Charles, to Natural Doll Co., Inc., New York, N. Y. 339,808, ren. 10–20–56. Cl. 22.
Colombo, Charles, to Natural Doll Co., Inc., New York, N. Y. 339,809, ren. 10–20–56. Cl. 22.
Colorado Vegetable Exchange, Inc., Denver, Colo. 531,612, canc. Cl. 46.
Columbian Rope Co., Auburn, N. Y. 339,917, ren. 10–27–56. Cl. 4.
Comet Rice Mills: *See*—
Seaboard Rice Milling Co.
Con-Ferro Paint & Varnish Co., St. Louis, Mo., to The Valspar Corp., Ardmore, Pa. 343,863, ren. 3–9–57. Cl. 16.
Con-Ferro Paint & Varnish Co., St. Louis, Mo., to The Valspar Corp., Ardmore, Pa. 344,177, ren. 3–16–57. Cl. 16.
Consolidated Foods Corp: *See*—
Durand-McNeil-Horner Co.
Consolidated Iron–Steel Mfg. Co., The, Cleveland, Ohio. 532,218, canc. Cl. 13.
Consolidated Paper Mfg. Co., Los Angeles, Calif. 531,809, canc. Cl. 37.
Continental Motors Corp., Detroit and Muskegon, Mich. 531,668, canc. Cl. 23.
Cooper Alloy Foundry Co., The, Hillside, N. J. 531,727, canc. Cl. 13.
Cooper, O. A., Co., The, Humboldt and Beatrice, Nebr. 531,932, canc. Cl. 46.
Copley Fabrics, Inc., New York, N. Y. 532,261, canc. Cl. 42.
Countess Mara, Inc., New York, N. Y. 639,447, pub. 10–16–56. Cl. 51.
Crecent Co., Inc., The, Pawtucket, R. I. 639,280–1, pub. 10–16–56. Cl. 21.
Crown Zellerbach Corp.: *See*—
Gaylord, Robert, Inc.
Crown Zellerbach Corp., d. b. a. National Paper Products Co., San Francisco, Calif. 531,801, canc. Cl. 37.
Crown Zellerbach Corp., San Francisco, Calif. 639,170, pub. 10–16–56. Cl. 1.
Curtiss-Wright Corp., East Rutherford, N. J. 639,185, pub. 10–16–56. Cl. 1.
Dannen Mills, Inc., St. Joseph, Mo. 639,186, pub. 10–16–56. Cl. 1.
Dayton Rubber Co., The, Dayton, Ohio. 639,363, pub. 10–16–56. Cl. 32.
De Gon Products, Inc., Baltimore, Md. 639,453, pub. 10–16–56. Cl. 51.
De Sola Mendes, J., d. b. a. Industrial Aromatic Co., New York, N. Y. 532,173, canc. Cl. 6.
Desreau, Charles, d. b. a. Charles Desreau Co., Easton, Pa. 531,728, canc. Cl. 39.
Desreau, Charles, Co.: *See*—
Desreau, Charles.
DeTolve, James V., Forest Park, Ill. 639,385, pub. 10–16–56. Cl. 37.
Diamond Black Leaf Co., Cleveland, Ohio. 639,207, pub. 10–16–56. Cl. 6.
Diamond Power Specialty Co., Detroit, Mich., to Diamond Power Specialty Corp., Lancaster, Ohio. 116,045, ren. 4–3–57. Cl. 23.
Diamond Power Specialty Corp.: *See*—
Diamond Power Specialty Co.
Dictaphone Corp., Bridgeport, Conn. 639,275, pub. 10–16–56. Cl. 21.
Diesel Oil Burner Corp. of New York: *See*—
Independent Oil Co.
Dill Mfg. Co., The, Cleveland, Ohio. 340,108, ren. 11–3–56. Cl. 35.
Diversey Corp., The, Chicago, Ill. 345,132, ren. 4–13–57. Cl. 52.
Doc's Catfish Cheese Bait Co., Alden, Iowa. 639,284, pub. 10–16–56. Cl. 22.
Donovan, F. C., Inc., Boston, Mass. 639,183, pub. 10–16–56. Cl. 1.
Donovan Industries, Inc., New York, N. Y. 639,175–8, pub. 10–16–56. Cl. 1.
Dreem Boats & Marina Ltd., Vancouver, British Columbia, Canada. 639,267, pub. 10–16–56. Cl. 19.
Droescher, S. R., Inc., New York, N. Y. 531,716, canc. Cl. 23.
Droescher, S. R., Inc., New York, N. Y. 532,065, canc. Cl. 23.
Dulken, Charles F., Kearny, N. J. 532,099, canc. Cl. 23.
Dunlap, Charles H., Phoenix, Ariz. 531,734, canc. Cl. 46.
Dunlop Tire and Rubber Corp., Buffalo, N. Y. 531,701, canc. Cl. 21.
Dunn Products: *See*—
Glick, Edward R.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 532,060, canc. Cl. 6.
Durand-McNeil-Horner Co., to Consolidated Foods Corp., Chicago, Ill. 344,800, ren. 4–6–57. Cl. 46.
Duro Chemical Products Co., Detroit, Mich. 639,240, pub. 8–16–55. Cl. 16.
Duro-Test Corp., North Bergen, N. J. 639,279, pub. 10–16–56. Cl. 21.
Durst Mfg. Co., Inc., The, New York, N. Y. 639,228, pub. 10–16–56. Cl. 13.
Du Val, Audrea: *See*—
Du Val, Audrea, Laboratories, Inc.
Du Val, Audrea, Laboratories, Inc., d. b. a. Audrea du Val, Mount Prospect, Ill. 639,445, pub. 10–16–56. Cl. 51.
Eagle Lock Co., The, Terryville, Conn. 531,740, canc. Cl. 13.
East Texas Pulp and Paper Co., Evadale, Tex. 639,381–2, pub. 10–16–56. Cl. 37.
Eastwood-Nealley Corp., Belleville, N. J. 340,254, ren. 11–3–56. Cl. 23.
Edwards Co., Inc.: *See*—
Edwards and Co., Inc.
Edwards and Co., Inc., New York, N. Y., to Edwards Co., Inc., Norwalk, Conn. 340,440, ren. 11–10–56. Cl. 21.
Edwards, James D., New York, N. Y. 531,887, canc. Cl. 38.
Ekco Products Co., Chicago, Ill. 639,325, pub. 10–16–56. Cl. 24.
Electric Cleaner Co., Inc., Plymouth, Wis. 639,282, pub. 10–16–56. Cl. 21.
Ellinger, Richard E., Eggertsville, N. Y. 639,285, pub. 10–16–56. Cl. 22.
Elliott Paint & Varnish Co., Chicago, Ill. 639,244, pub. 7–24–56. Cl. 16.
Elmo Shoe Co.: *See*—
Reyburn, Samuel E., Jr.
Emerald Furs Ltd., Newark, N. J. 639,173, pub. 10–16–56. Cl. 1.
Eveready Briksaw Co., Chicago, Ill. 639,308–9, pub. 10–16–56. Cl. 23.
Eversharp, Inc., Chicago, Ill. 639,379, pub. 10–16–56. Cl. 37.
Expanded Shale, Clay & Slate Institute, Washington, D. C. 636,632, cor. Cl. 38.
F. Palicio y Compania, S. A., Fabrica de Tabacos: *See*—
Fernandez, Palicio y Compania, S. en C.
Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. 639,250–2, pub. 10–16–56. Cl. 18.
Fargo Seed House: *See*—
United Growers.
Farragut Mfg. Co., Inc., Brooklyn, N. Y. 532,161, canc. Cl. 23.
Feathercombs, Inc., New York, N. Y. 639,413, pub. 10–16–56. Cl. 40.
Fernald, Everett H., d. b. a. The Industrial Plating Co., Greystone, R. I. 639,470, pub. 10–16–56. Cl. 106.
Fernandez, Palicio y Compania, S. en C., to F. Palicio y Compania, S. A., Fabrica de Tabacos, Habana, Cuba. 344,776, ren. 4–6–57. Cl. 17.
Fiesta Shirt Co., Los Angeles, Calif. 639,404, pub. 9–11–56. Cl. 39.
Fike Metal Products Corp., Independence, Mo. 639,313, pub. 10–16–56. Cl. 23.
First Western Bank and Trust Co., San Francisco, Calif. 639,467, pub. 10–16–56. Cl. 102.
Fitzpatrick Bros., Inc., Chicago, Ill. 639,202, pub. 10–16–56. Cl. 4.
Fixzit System, Inc., Columbus, Ohio. 340,292, ren. 11–3–56. Cl. 13.
Flato, Paul, Sales Corp., New York, N. Y. 532,196, canc. Cl. 2.
Flexible Products Co., Marietta, Ga. 639,293, pub. 10–16–56. Cl. 22.
Flintkote Co., The, New York, N. Y. 639,218–19, pub. 10–16–56. Cl. 12.
Florists' Telegraph Delivery Association, Detroit, Mich. 639,154, pub. 10–16–56. Cl. 1.
Foster-Hochberg Mfg. Co., Inc., Seattle, Wash. 639,407, pub. 10–16–56. Cl. 39.
Foster, William B., Minneapolis, Minn. 639,198, pub. 10–16–56. Cl. 2.
Frabill Mfg. Co., Milwaukee, Wis. 639,287–8, pub. 10–16–56. Cl. 22.

Franklin Research Co., Philadelphia, Pa. 344,334, ren. 3–16–57. Cl. 16.
Friden Calculating Machine Co., Inc., San Leandro, Calif. 639,336–7, pub. 10–16–56. Cl. 26.
Fuller, D. B., & Co., Inc., New York, N. Y. 531,858, canc. Cl. 42.
Futura Footwear Corp., New York, N. Y. 531,930, canc. Cl. 39.
Galland-Henning Mfg. Co., Milwaukee, Wis. 639,222, pub. 10–16–56. Cl. 13.
Garland Mfg. Co., Saco, Maine. 531,618, canc. Cl. 23.
Garwood Surgical Instrument Mfg. Co.: *See*—
Huber, Gustave A.
Gateway Baking Co., Fort Smith, Ark., to Campbell Taggart Associated Bakeries, Inc., Dallas, Tex. 344,557, ren. 3–30–57. Cl. 46.
Gay, Ben G., Wrens, Ga. 531,921, canc. Cl. 10.
Gaylord, Robert, Inc., to Crown Zellerbach Corp., St. Louis, Mo. 340,082, ren. 11–3–56. Cl. 37.
General Binding Corp.: *See*—
Cercla Co., The.
General Cigar Co., Inc.: *See*—
United Cigar Manufacturers Co.
General Locks, Inc., Detroit, Mich. 532,020, canc. Cl. 25.
General Mills, Inc., Minneapolis, Minn. 639,171, pub. 10–16–56. Cl. 1.
General Products Co.: *See*—
Morse, John J.
Gerber Products Co., Fremont, Mich. 639,194–6, pub. 10–16–56. Cl. 2.
Gessler Mfg. Corp., Brooklyn, N. Y. 639,300, pub. 10–16–56. Cl. 23.
Getz, William, Corp., The, Chicago, Ill. 532,061, canc. Cl. 6.
Giddings & Lewis Machine Tool Co., Fond du Lac, Wis. 639,322, pub. 10–16–56. Cl. 23.
Glanzstoff-Courtaulds G. m. b. H., Köln-Weldenpesch, Germany. 639,180, pub. 10–16–56. Cl. 1.
Glaser & Glaser, Inc., Los Angeles, Calif. 639,204, pub. 10–16–56. Cl. 5.
Glass Plastic Supply Co., Linden, N. J. 639,203, pub. 10–16–56. Cl. 5.
Glatt, Herbert, d. b. a. Magla Products, Newark, N. J. 639,327, pub. 10–16–56. Cl. 24.
Glick, Edward R., d. b. a. Dunn Products, Chicago, Ill. 639,409, pub. 10–16–56. Cl. 39.
Globe Knitting Works, Grand Rapids, Mich., to Modern Globe, Inc., Pawtucket, R. I. 341,151, ren. 12–1–56. Cl. 42.
Globe Knitting Works, Grand Rapids, Mich., to Modern Globe, Inc., Pawtucket, R. I. 343,311, ren. 2–16–57. Cl. 39.
Godlisart Products, Inc.: *See*—
California Dental Supply Co.
Goff, Boyd E., and G. W. and R. E. Ashcraft, d. b. a. McPherson Mud Seal Co., McPherson, Kans. 639,179, pub. 10–16–56. Cl. 1.
Goldring Inc.: *See*—
Goldring Merchandising Corp.
Goldring Merchandising Corp., to Goldring Inc., New York, N. Y. 344,740, ren. 4–6–57. Cl. 39.
Graham Mfg. Corp., Royal Oak, Mich. 639,276, pub. 10–16–56. Cl. 21.
Grayson, Harry, d. b. a. Harriss Shoe Co., Boston, Mass. 531,836, canc. Cl. 39.
Greff Fabrics, Inc., New York, N. Y. 443,918, canc. Cl. 42.
Greenebaum, J., Tanning Co., Chicago, Ill. 531,968, canc. Cl. 1.
Griggs & Johnston Associates, Chicago, Ill. 532,042, canc. Cl. 44.
Gruen Watch Co., The, Cincinnati, Ohio. 639,346, pub. 10–16–56. Cl. 27.
Grunwald-Marx, Inc., Los Angeles, Calif. 531,667, canc. Cl. 39.
Gsell, R., & Co., Inc., New York, N. Y. 639,347, pub. 5–29–56. Cl. 27.
Guaranty Gas Coal Co., The, Cleveland, Ohio. 639,161, pub. 10–16–56. Cl. 1.
Gulf Oil Corp., Pittsburgh, Pa. 639,238, pub. 10–16–56. Cl. 15.
Haas, Baruch & Co., Los Angeles, Calif. 532,110, canc. Cl. 46.
Hairnet Corp. of America, New York, N. Y. 531,842, canc. Cl. 39.
Hairnet Corp. of America, New York, N. Y. 531,843, canc. Cl. 39.
Hall, Chalmers G., Jr., d. b. a. The Chalhall Co., Washington, D. C. 639,418, pub. 10–16–56. Cl. 44.
Hamilton Import Corp., New York, N. Y. 639,305, pub. 10–16–56. Cl. 23.
Hammermill Paper Co., Erie, Pa. 639,187, pub. 10–16–56. Cl. 1.
Hansen's, Chr., Laboratory, Inc., Little Falls, N. Y. 345,101, ren. 4–13–57. Cl. 46.
Hanson-Van Winkle-Munning Co., Matawan, N. J. 639,205, pub. 10–16–56. Cl. 6.
Harriss Shoe Co.: *See*—
Grayson, Harry.
Harvest Furniture Mfgers, Inc., Louisville, Ky. 532,032, canc. Cl. 32.
Hause, Charles F.: *See*—
All American Fabricators.
Hawaiian Pineapple Co., Ltd.: *See*—
Barron-Gray Packing Co.
Hayes Track Appliance Co., Richmond, Ind. 532,266, canc. Cl. 14.
Heard & McCourry, Oklahoma City, Okla. 532,035, canc. Cl. 2.
Hecht Co., The, Washington, D. C. 339,471, ren. 10–6–56. Cl. 39.
Heintz Mfg. Co., Philadelphia, Pa. 532,238, canc. Cl. 6.
Heitzmann, Oscar, St. Louis, Mo. 531,653, canc. Cl. 44.
Heller Brothers Co., Newark, N. J. 531,872, canc. Cl. 23.
Hepworth Machine Co., Inc., Long Island City, N. Y. 639,306, pub. 10–16–56. Cl. 23.
Hittleman, Abe, New York, N. Y. 531,933, canc. Cl. 6.
Holophane Co., Inc., New York, N. Y. 338,270, ren. 9–1–56. Cl. 34.
Holophane Co., Inc., New York, N. Y. 338,337, ren. 9–1–56. Cl. 34.
Horgan, Everett, New York, N. Y. 639,160, pub. 10–16–56. Cl. 1.
Horn Mfg. Co., Fort Dodge, Iowa. 531,619, canc. Cl. 23.
Hotchkiss, E. H., Co., The, Norwalk, Conn. 531,758, canc. Cl. 23.
Houdaille Industries, Inc., Buffalo, N. Y. 639,310, pub. 10–16–56. Cl. 23.
Huber, Gustave A., d. b. a. Garwood Surgical Instrument Mfg. Co., Garwood, N. J. 531,722, canc. Cl. 23.
Huber, J. M., Corp., New York, N. Y. 639,166, pub. 10–16–56. Cl. 1.
Hudnut, Richard, New York, N. Y. 639,446, pub. 10–16–56. Cl. 51.
Hudson Hosiery Co., Charlotte, N. C. 639,397, pub. 10–16–56. Cl. 39.
Hunt, John E., Malden, Mo. 531,909, canc. Cl. 46.
Hunter Douglas Corp., New York, N. Y. 532,189, canc. Cl. 2.
Hunter Fan and Ventilating Co.: *See*—
Century Electric Co.
Hupp Corp.: *See*—
Typhoon Prop-R-Temp Corp. of Florida.
Hurricane Import Co., San Francisco, Calif. 639,359, pub. 10–16–56. Cl. 32.
Imperial Chemical Industries Ltd., London, England. 639,181, pub. 10–16–56. Cl. 1.
Imperial Type Metal Co., Philadelphia, Pa. 114,767, ren. 1–2–57. Cl. 14.
Independent Oil Co., Washington, D. C., and Rosslyn, Va., to Diesel Oil Burner Corp. of New York, Jamaica, N. Y. 341,175, ren. 12–1–56. Cl. 34.
Indian River Poultry Farm, Inc., Lancaster, Pa. 639,169, pub. 10–16–56. Cl. 1.
Industrial Aromatic Co.: *See*—
De Sola Mendes, J.
Industrial Plating Co., The: *See*—
Fernald, Everett H.
Inland Wire Products Co., Chicago, Ill. 531,905, canc. Cl. 14.
In-Sta-Sol Co.: *See*—
Brown, Hoke S.
Interchemical Corp., New York, N. Y. 531,718, canc. Cl. 11.
International Association of Milk and Food Sanitarians, Inc., East Orange, N. J., and Rochester, N. Y. 531,941, canc. Cl. 38.
International Paper Co., New York, N. Y. 639,383, pub. 10–16–56. Cl. 37.
International Talc Co., Inc.: *See*—
Loomis, W. H., Talc Corp.
Ireland Creek Coal Co.: *See*—
Red Jacket Coal Sales Co.
Irish Maid Food Products: *See*—
Redmond, Cecelia M.
J F D Mfg. Co., Inc., Brooklyn, N. Y. 639,328, pub. 10–16–56. Cl. 24.
Jacobson, Louis, d. b. a. Plasticize Co., New York, N. Y., to Carlou Sales Co. 532,193, canc. Cl. 4.
Jarvis Mfg., Inc., Wichita, Kans. 639,208, pub. 10–16–56. Cl. 9.
Jet Mfg. Co., Madison, Wis., to H. D. O'Neil. 639,353, pub. 10–16–56. Cl. 31.
Jiffee Chemical Corp., Indianapolis, Ind. 639,463, pub. 10–16–56. Cl. 52.
John Wanamaker Philadelphia, Philadelphia, Pa. 342,524, ren. 1–19–57. Cl. 39.
Johnson & Johnson, New Brunswick, N. J. 639,165, pub. 10–16–56. Cl. 1.
Jones, M. C. Electronics Co.: *See*—
Jones, Mack C.
Jones, Mack C., d. b. a. M. C. Jones Electronics Co., Bristol, Conn. 639,334, pub. 10–16–56. Cl. 26.
Jones, Tilman M., d. b. a. Beauty Seal Products Co., Arcadia, Calif. 532,070, canc. Cl. 4.
Joy Mfg. Co., Pittsburgh, Pa. 531,870, canc. Cl. 23.
Kadison, Joseph G., d. b. a. The Sea Chest of Philadelphia, Philadelphia, Pa. 639,439, pub. 10–16–56. Cl. 50.
Kardice Co.: *See*—
Nedbalek, Veronica.
Karman Hand Prints, Inc., Boston, Mass. 531,614, canc. Cl. 37.
Kashuk Enterprises, Miami Beach, Fla., to All-American Family, Inc., Miami Beach, Fla. 639,466, pub. 10–16–56. Cl. 101.
Kay Mfg. Corp., Brooklyn, N. Y. 344,406, ren. 3–23–57. Cl. 32.
Kee Products Co.: *See*—
Leon, Victor.
Keuffel & Esser Co., Hoboken, N. J. 639,342–3, pub. 10–16–56. Cl. 26.
Key Products Co., Inc., Paterson, N. J. 532,017, canc. Cl. 25.
Kingsford Chemical Co., Iron Mountain, Mich. 639,155–6, pub. 10–16–56. Cl. 1.
Klee Co., The: *See*—
Purcell, Howard M.
Klugmann, Alfred, Inc., New York, N. Y. 639,172, pub. 10–16–56. Cl. 1.
Knox Co., The, to The Knox Co., Los Angeles, Calif. 343,132, ren. 2–9–57. Cl. 18.
Knox Co., The, Los Angeles, Calif. 343,133, ren. 2–9–57. Cl. 18.
Knox Co., The, Los Angeles, Calif. 343,134, ren. 2–9–57. Cl. 18.
Kockums Mekaniska Verkstads Aktiebolag, Malmo, Sweden. 532,117, canc. Cl. 23.

Kogen Juvenile Wear, New York, N. Y. 532,047, canc. Cl. 39.
Kohler, John B., Crystal Lake, Ill. 639,299, pub. 10–16–56. Cl. 23.
Kokomo Sanitary Pottery Corp., Chicago, Ill. 639,229, pub. 10–16–56. Cl. 13.
Kokomo Sanitary Pottery Corp., Chicago, Ill. 639,230, pub. 10–16–56. Cl. 13.
Kopke, C. N., & Ca. Lda., Oporto, Portugal. 639,434, pub. 10–16–56. Cl. 47.
Koret of California, Inc., San Francisco, Calif. 531,735, canc. Cl. 39.
Kronke Co., Oakland, Calif. 531,830, canc. Cl. 50.
Krusius, Erwin, d. b. a. Gebr. Krusius, Lollingen, Germany. 639,301–3, pub. 9–11–56. Cl. 23.
Krusius, Erwin, d. b. a. Gebr. Krusius, Lollingen, Germany. 639,302–3, pub. 9–11–56. Cl. 23.
Krusius, Gebr.: *See*—
Krusius, Erwin.
Kwikset Locks, Inc., Anaheim, Calif. 639,296, pub. 10–16–56. Cl. 23.
Lachman, Charles, Co., Inc., Phoenixville, Pa. 531,840, canc. Cl. 42.
Laclede Laboratories, Inc., St. Louis, Mo. 532,163, canc. Cl. 18.
Lafayette Brass Mfg. Co., Inc., The, New York, N. Y. 639,231–2, pub. 10–16–56. Cl. 13.
La Habra Citrus Association, The, La Habra, Calif. 532,260, canc. Cl. 46.
Lake Union Sales Co., Seattle, Wash. 531,978, canc. Cl. 13.
Landenberger, J. W., & Co., Philadelphia, Pa. 341,413, ren. 12–8–56. Cl. 43.
Landenberger, J. W., & Co., Philadelphia, Pa. 342,621, ren. 1–19–57. Cl. 39.
Laughter, D. Robert: *See*—
Mahrt, Louis R., and D. Robert Laughter.
Laundry Equipment Sales Corp., New York, N. Y. 639,329, pub. 10–16–56. Cl. 24.
La Valle Inc., New York, N. Y. 531,834, canc. Cl. 39.
Lawrence Products Co., Inc., Attalla, Ala. 531,855, canc. Cl. 42.
Lawrence Products Co., Inc., Attalla, Ala. 531,856, canc. Cl. 42.
Leach, Earl C., d. b. a. Leach Mfg. Co., Dallas, Tex. 532,102, canc. Cl. 4.
Leach Mfg. Co.: *See*—
Leach, Earl C.
Leon, Victor, d. b. a. Kee Products Co., Seaford, N. Y. 639,411, pub. 10–16–56. Cl. 40.
Les Parfums Chypron Societe Anonyme, Bois-Colombes, Seine, France. 342,905, ren. 2–2–57. Cl. 52.
Les Parfums Chypron Societe Anonyme, Bois-Colombes, Seine, France. 342,906, ren. 2–2–57. Cl. 51.
Lewis, Amelia A., Ridgewood, N. J. 532,247, canc. Cl. 44.
Lexington Concrete Products, Inc., Lexington, Ky. 639,215, pub. 10–16–56. Cl. 12.
Lighting, Curtis, Inc., Chicago, Ill. 639,272, pub. 10–16–56. Cl. 21.
Lilly, Eli, and Co., Indianapolis, Ind. 639,260, pub. 10–16–56. Cl. 18.
Lilly, Eli, and Co., Indianapolis, Ind. 639,261, pub. 10–16–56. Cl. 18.
Little, Charles E., Melrose, Mass. 531,888, canc. Cl. 23.
Locke Mfg. Co., Lodi, Ohio. 639,224, pub. 10–16–56. Cl. 13.
Lockhart Mfg. Co., Pittsburgh, Pa. 341,974, ren. 12–29–56. Cl. 29.
Lockhart Mfg. Co., Pittsburgh, Pa. 341,976, ren. 12–29–56. Cl. 29.
Lonza Electric and Chemical Works, Ltd., Basel, Switzerland. 639,436, pub. 10–16–56. Cl. 50.
Loomis, W. H., Talc Corp., Gouverneur, to International Talc Co., Inc., New York, N. Y. 343,159, ren. 2–9–57. Cl. 1.
Losch Boiler Co., Summit Station, Pa. 639,368, pub. 10–16–56. Cl. 34.
Lowe, Joe, Corp., New York, N. Y. 639,430, pub. 10–16–56. Cl. 46.
Lowenstein, M., & Sons, Inc., New York, N. Y. 531,788, canc. Cl. 39.
Lyra-Bleistift-Fabrik, Johann. Froeschels, Nuremberg, Germany. 639,377–8, pub. 10–16–56. Cl. 37.
Lyson, Inc., Chicago, Ill. 532,024, canc. Cl. 2.
Magla Products: *See*—
Glatt, Herbert.
Magnetic Research Corp., El Segundo, Calif. 639,270, pub. 10–16–56. Cl. 21.
Mahrt, Louis R., and D. Robert Laughter, trustees for Standard-Dayton Corp., Dayton, Ohio. 639,307, pub. 10–16–56. Cl. 23.
Major, J., Co., Chicago, Ill. 532,207, canc. Cl. 28.
Mallon Mattress Corp., The, Boston, Mass. 532,008, canc. Cl. 32.
Mallory-Randall Co., Inc., Brooklyn, N. Y. 639,192, pub. 10–16–56. Cl. 2.
Manchester Hosiery Mills, Manchester, N. H. 639,396, pub. 10–16–56. Cl. 39.
Maneely Chemical Co., Philadelphia, Pa. 532,043, canc. Cl. 6.
Manheimer Watch Co., Chicago, Ill. 256,788, canc. Cl. 27.
Manu-Mine Research & Development Co., Mohnton, Pa. 639,469, pub. 10–16–56. Cl. 103.
Mark Knitting Mills, Bergenfield, N. J. 639,410, pub. 10–16–56. Cl. 39.
Marlowe Corp., The, Newark, N. J. 532,077, canc. Cl. 52.
Marrier, Leo J., Milwaukee, Wis. 531,742, canc. Cl. 44.
Martin-Senour Co., The, Chicago, Ill. 639,242, pub. 10–16–56. Cl. 16.
Mason Candy Co., The, Trinidad, Colo. 531,691, canc. Cl. 46.
Mattamac Ltd.: *See*—
Pearson Brothers.
Maurer-Neuer Corp., d. b. a. Maurer-Neuer Meat Packers, Kansas City, Kans. 639,193, pub. 10–16–56. Cl. 2.
Maurer-Neuer Meat Packers: *See*—
Maurer-Neuer Corp.
May Department Stores Co., The, St. Louis, Mo. 639,450, pub. 10–16–56. Cl. 51.
McKay-Davis Chemical Corp., Toledo, Ohio. 531,686, canc. Cl. 46.
McMillan Bros., La Conner, Wash. 339,150, canc. Cl. 46.
McPherson Mud Seal Co.: *See*—
Goff, Boyd E., G. W. and R. E. Ashcraft.
Mead Johnson & Co., Evansville, Ind. 531,999, canc. Cl. 46.
Medar Co.: *See*—
Seiger, Harry W.
Medopharma Ltd., Richmond, England. 532,069, canc. Cl. 52.
Mellor Products Co., Inc., New York, N. Y. 639,388, pub. 10–16–56. Cl. 37.
Mel-Ton Bags, Inc., New York, N. Y. 532,135, canc. Cl. 3.
Mennen Co., The, Morristown, N. J. 639,440, pub. 10–16–56. Cl. 51.
Merck & Co., Inc., Rahway, N. J. 639,254, pub. 10–16–56. Cl. 18.
Michaelis, Curt: *See*—
Basic Foods, Inc.
Miles Laboratories, Inc., Elkhart, Ind. 345,094, ren. 4–13–57. Cl. 18.
Millaco Corp., The, Bridgeport, Conn. 531,995, canc. Cl. 44.
Miller, Sox, Co.: *See*—
Miller, Sox, Inc.
Miller, Sox, Inc., to Sox Miller Co., Philadelphia, Pa. 343,758, ren. 3–2–57. Cl. 39.
Mitchell Mfg. Co., Chicago, Ill. 639,277, pub. 10–16–56. Cl. 21.
Modern Globe, Inc.: *See*—
Globe Knitting Works.
Modern Packagings, Dallas, Tex. 639,386, pub. 10–16–56. Cl. 37.
Moelder Coal Co., The, Cincinnati, Ohio. 639,158, pub. 10–16–56. Cl. 1.
Montague-Ocean City Rod & Reel Co., Philadelphia, Pa. 639,292, pub. 10–16–56. Cl. 22.
Moore, Benjamin, & Co., New York, N. Y. 639,245, pub. 10–16–56. Cl. 16.
Mooresville Mills, Inc., Mooresville, N. C. 531,844, canc. Cl. 42.
Morgan, Robert, Rutherford, N. J. 532,181, canc. Cl. 6.
Morrison and Co., New York, N. Y. 639,376, pub. 10–16–56. Cl. 36.
Morse, John J., d. b. a. General Products Co., Richmond, Va. 639,355, pub. 10–16–56. Cl. 32.
Mousley, George E., Inc., New York, N. Y. 639,291, pub. 10–16–56. Cl. 22.
Movie Media, Inc., Indianapolis, Ind., and Tulsa, Okla. 531,793, canc. Cl. 21.
Muller, Wm. F., Inc., Wyomissing, Pa. 532,039, canc. Cl. 39.
Murff, E. L., Normange, Tex. 532,263, canc. Cl. 1.
Myers, F. E., & Bro. Co., The, Ashland, Ohio. 639,316, pub. 10–16–56. Cl. 23.
Narva Products, Inc., New York, N. Y. 639,456, pub. 10–16–56. Cl. 52.
Nash, Frederick P., d. b. a. Saf-T-Plate Co., Ogden, Utah. 639,435, pub. 10–16–56. Cl. 50.
Nash Inc., Jersey City, N. J. 532,236, canc. Cl. 3.
National Bank of Detroit, Detroit, Mich. 639,387, pub. 10–16–56. Cl. 37.
National Biscuit Co., New York, N. Y. 342,073, ren. 1–5–57. Cl. 46.
National Chemical Products Pty. Ltd., East Sidney, New South Wales, Australia. 639,443, pub. 10–16–56. Cl. 51.
National Die Casting Co., Chicago, Ill. 532,118, canc. Cl. 23.
National Paper Products Co.: *See*—
Crown Zellerbach Corp.
National Water Equipment Co., Rockford, Ill. 639,352, pub. 10–16–56. Cl. 31.
Natural Doll Co., Inc.: *See*—
Colombo, Charles.
Nedbalek, Veronica, d. b. a. Kardice Co., Cleveland, Ohio. 532,203, canc. Cl. 22.
Nilsen, Karl, Chicago, Ill. 531,906, canc. Cl. 16.
Noesting Pin Ticket Co., Inc., New York, N. Y. 338,862, cor. Cl. 37.
Nordam Trading Corp., d. b. a. Rimini Imports, New York, N. Y. 639,358, pub. 10–16–56. Cl. 32.
North American Rayon Corp., New York, N. Y. 343,797, ren. 3–9–57. Cl. 43.
Northville Laboratories, Inc., Northville, Mich. 341,211, ren. 12–1–56. Cl. 46.
Ohio Leather Co., The, Girard, Ohio. 639,184, pub. 10–16–56. Cl. 1.
Ohio Provision Co., The, Cleveland, Ohio. 113,786, ren. 10–31–56. Cl. 46.
Olach, Inc., Chicago, Ill. 531,643, canc. Cl. 23.
O'Neil, Harvey D.: *See*—
Jet Mfg. Co.
One-In-Hand Tie Co., Clinton, Iowa. 531,981, canc. Cl. 44.
Onondaga Silk Co., Inc., New York, N. Y. 531,849, canc. Cl. 42.
Orchard Brothers Inc., Rutherford, N. J. 639,216, pub. 10–16–56. Cl. 12.
Ormond Mfg. Co., Inc., Union City, N. J. 639,412, pub. 10–16–56. Cl. 40.
Ortho Pharmaceutical Corp., Raritan, N. J. 639,263–6, pub. 10–16–56. Cl. 18.
Ortho Pharmaceutical Corp., Raritan, N. J. 639,423, pub. 10–16–56. Cl. 44.
Owens Brush Co., Toledo, Ohio. 639,351, pub. 10–16–56. Cl. 29.
Owens-Illinois Glass Co., Toledo, Ohio. 639,220, pub. 10–16–56. Cl. 12.
Parfums Ciro: *See*—
Parfums Ciro, Inc.

Parfums Ciro, Inc., also d. b. a. Parfums Ciro, New York, N. Y. 532,074, canc. Cl. 51.
Parke, L. H., Co., Philadelphia, Pa. 639,384, pub. 10–16–56. Cl. 37.
Patch Pack Co.: *See*—
Schmidt, Alfred H.
Pearson Brothers, London and Bournemouth, to Mattamac Ltd., London, England. 114,654, ren. 12–26–56. Cl. 39.
Peerless Mattress Co., Lexington, N. C. 639,357, pub. 10–16–56. Cl. 32.
Penn & Co., Ltd., New York, N. Y. 639,451, pub. 10–16–56. Cl. 51.
Pennsylvania Salt Mfg. Co., The, Philadelphia, Pa. 639,454, pub. 10–16–56. Cl. 52.
Perfect Circle Corp., Hagerstown, Ind. 532,257, canc. Cl. 35.
Permacel Tape Corp., New Brunswick, N. J. 639,274, pub. 10–16–56. Cl. 21.
Petrolite Corp., St. Louis, Mo. 639,459, pub. 10–16–56. Cl. 52.
Phila. Seed Co.: *See*—
Philadelphia Seed Co., The.
Philadelphia Seed Company: *See*—
Philadelphia Seed Co., The.
Philadelphia Seed Company, Inc., The: *See*—
Philadelphia Seed Co., The.
Philadelphia Seed Co., The, d. b. a. The Philadelphia Seed Co., The Philadelphia Seed Company, Inc., The Philadelphia Seed Co., Incorporated, The Philadelphia Seed Co., Inc., Philadelphia Seed Company, and Phila. Seed Co., Philadelphia, Pa. 639,182, pub. 10–16–56. Cl. 1.
Philadelphia Seed Co., Inc., The: *See*—
Philadelphia Seed Co., The.
Philadelphia Seed Co., Incorporated, The: *See*—
Philadelphia Seed Co., The.
Photo-Lite Corp., Chicago, Ill. 532,127, canc. Cl. 8.
Photo Research Corp., Hollywood, Calif. 639,339–40, pub. 10–16–56. Cl. 26.
Photo Sculpture, Inc., New York, N. Y. 639,349, pub. 10–16–56. Cl. 28.
Pincus Bros., Inc., Philadelphia, Pa., to Brown Clothing Co., Minneapolis, Minn. 364,816, canc. Cl. 39.
Pittsburgh Consolidation Coal Co., Pittsburgh, Pa. 639,190, pub. 10–16–56. Cl. 1.
Pittsburgh Plate Glass Co., Pittsburgh, Pa. 639,206, pub. 10–16–56. Cl. 6.
Plasticize Co.: *See*—
Jacobson, Louis.
Playlastic Toy Co. Ltd., London, England. 532,056, canc. Cl. 22.
Pletnik, Dorothy T., d. b. a. Cheryl Lea Enterprises, Milwaukee, Wis. 532,109, canc. Cl. 22.
Plymouth Golf Ball Co., Plymouth Meeting, Pa. 639,290, pub. 10–16–56. Cl. 22.
Pollak, Henry, Inc., New York, N. Y. 532,233, canc. Cl. 40.
Popular Mechanics Co., Chicago, Ill. 344,260, ren. 3–16–57. Cl. 38.
Porter, Elinor, Inc., New York, N. Y. 639,402, pub. 10–16–56. Cl. 39.
Post Institute, Inc., Tarpon Springs, Fla. 639,441, pub. 10–16–56. Cl. 51.
PowerAire Corp., Chicago, Ill. 531,885, canc. Cl. 16.
Pratt & Lambert, Inc., Buffalo, N. Y. 115,999, ren. 3–27–57. Cl. 16.
Precision Scientific Co., Chicago, Ill. 639,419, pub. 10–16–56. Cl. 44.
Precision Steel Warehouse, Inc., Chicago, Ill. 420,251, canc. Cl. 14.
Prim-Era Hosiery Mills, Inc., Chester, Ill., to Wayne Knitting Mills, Fort Wayne, Ind. 343,593, ren. 2–23–57. Cl. 39.
Propper Mfg. Co., Inc., Long Island City, N. Y. 639,416, pub. 10–4–55. Cl. 44.
Protecto Products Co., Inc., Pomona, Calif. 531,827, canc. Cl. 37.
Proven Products Co.: *See*—
Rite Products Co., Inc.
Punch Products Corp., Niagara Falls, N. Y. 639,320, pub. 10–16–56. Cl. 23.
Purcell, Howard M., d. b. a. The Klee Co., Phoenix, Ariz. 639,262, pub. 10–16–56. Cl. 18.
Quaker Oats Co., The, Chicago, Ill. 531,702, canc. Cl. 46.
RCA Mfg. Co., Inc., Camden, N. J., to Radio Corp. of America, New York, N. Y. 341,561, ren. 12–15–56. Cl. 21.
RLM Standards Institute, Cleveland, Ohio. 639,394, pub. 10–16–56. Cl. 38.
Radio Corp. of America: *See*—
RCA Mfg. Co., Inc.
Rath Packing Co., The, Waterloo, Iowa. 342,328, ren. 1–12–57. Cl. 46.
Rayco Mfg. Co., Paterson, N. J. 639,268, pub. 10–16–56. Cl. 19.
Rebuilders Machinery Sales, Inc., Chicago, Ill. 639,468, pub. 10–16–56. Cl. 103.
Red Jacket Coal Sales Co., Columbus, Ohio, to Ireland Creek Coal Co., Huntington, W. Va. 344,420, ren. 3–23–57. Cl. 1.
Redmond, Cecelia M., d. b. a. Irish Maid Food Products, Batavia, N. Y. 531,658, canc. Cl. 46.
Reid, Burton M., Inc., Springfield, Ill. 639,348, pub. 10–16–56. Cl. 27.
Reilly, Edward A., d. b. a. Shoe Products Co., St. Louis, Mo. 531,645, canc. Cl. 23.
Reinz-Dichtungs-G. m. b. H., Neu-Ulm-Donau, Germany. 639,374, pub. 10–16–56. Cl. 35.
Reis, Robert, & Co., New York, N. Y. 113,910, ren. 11–7–56. Cl. 39.
Reis, Robert, & Co., New York, N. Y. 340,709, ren. 11–17–56. Cl. 39.
Reis, Robert, & Co., New York, N. Y. 340,941, ren. 11–24–56. Cl. 39.
Rembrandt Lamp Corp., Chicago, Ill. 639,473–4. Cl. 21.
Rembusch, Trueman T., Franklin, Ind. 639,212, pub. 10–16–56. Cl. 12.
Resdan Products Ltd., Toronto, Ontario, Canada. 639,444, pub. 10–16–56. Cl. 51.
Resulto Pharmacal Co.: *See*—
Ridgley, George R.
Reyburn, Samuel E., Jr., d. b. a. Elmo Shoe Co., Owensville, Mo. 531,863, canc. Cl. 39.
Rice-Stix Dry Goods Co., to Rice-Stix, Inc., St. Louis, Mo. 344,959, ren. 4–13–57. Cl. 39.
Rice-Stix, Inc.: *See*—
Rice-Stix Dry Goods Co.
Ridgley, George R., d. b. a. Resulto Pharmacal Co., to B. J. Stoegerer, Washington, D. C. 341,560, ren. 12–15–56. Cl. 18.
Rigidized Metals Corp., Buffalo, N. Y. 639,472. Cl. 14.
Rimini Imports: *See*—
Nordam Trading Corp.
Rite Products Co., Inc., d. b. a. Proven Products Co., San Jose, Calif. 639,462, pub. 8–14–56. Cl. 52.
Ritter Bros. Inc., New York, N. Y. 639,188, pub. 10–16–56. Cl. 1.
Rival Mfg. Co., Kansas City, Mo. 639,318, pub. 10–16–56. Cl. 23.
Robco Corp., Long Island City, N. Y. 639,324, pub. 10–16–56. Cl. 24.
Robinson, Edward E., Inc., Nutley, N. J. 531,935, canc. Cl. 29.
Rochelle Furniture Mfg. Co., Montgomery, Pa. 639,365, pub. 10–16–56. Cl. 32.
Rochester Ribbon & Carbon Co., Inc., Rochester, N. Y. 531,828, canc. Cl. 37.
Rosedale Knitting Co., Reading, Pa. 639,417, pub. 10–16–56. Cl. 44.
Royal Blue Stores, Inc., Chicago, Ill., to Super Value Stores, Inc., Hopkins, Minn. 340,502, ren. 11–10–56. Cl. 46.
Royal Clan, Order of Scottish Clans, Boston, Mass. 639,395, pub. 10–16–56. Cl. 38.
Royster, F. S., Guano Co., Norfolk, Va. 639,209–10, pub. 10–16–56. Cl. 10.
Ruby Ring Hosiery Mills, Inc., Philadelphia, Pa. 421,812, canc. Cl. 39.
Russell, Clarence A., Weston, Iowa. 532,082, canc. Cl. 6.
Rustain Products, Bergen County, N. J. 639,201, pub. 10–16–56. Cl. 4.
S and W Fine Foods, Inc., San Francisco, Calif. 531,756, canc. Cl. 46.
Sackner Products, Inc., Grand Rapids, Mich. 639,163, pub. 10–16–56. Cl. 1.
Sackner Products, Inc., Grand Rapids, Mich. 639,164, pub. 10–16–56. Cl. 1.
Sadowski, Alfonse, d. b. a. Alba Sales, Irvington, N. J. 639,403, pub. 10–16–56. Cl. 39.
Saf-T-Plate Co.: *See*—
Nash, Frederick P.
Saf-T-Products Co., Allston, Mass. 639,314, pub. 10–16–56. Cl. 23.
St. Helen Products Co.: *See*—
Brown, Clifton P.
Salerno-Megowen Biscuit Co., Chicago, Ill. 639,431, pub. 10–16–56. Cl. 46.
Salvation Army, The, St. Louis, Mo. 639,465, pub. 10–16–56. Cl. 100.
Sanjo Utility Mfg. Co., The, New York, N. Y. 531,733, canc. Cl. 50.
Santa's Workshop, Inc., North Pole, N. Y. 639,233, pub. 10–16–56. Cl. 13.
Santa's Workshop, Inc., North Pole, N. Y. 639,408, pub. 10–16–56. Cl. 39.
San Xavier Fish Packing Co., San Francisco, Calif. 639,425, pub. 2–12–52. Cl. 46.
Sarno, Charles F., Philadelphia, Pa. 532,262, canc. Cl. 51.
Sasson-King, Inc., Lakeland, Fla. 639,427, pub. 2–7–56. Cl. 46.
Savoy Curtain Corp., New York, N. Y. 531,680, canc. Cl. 42.
Schering Corp., Bloomfield, N. J. 341,582, ren. 12–15–56. Cl. 18.
Schildge, George W., d. b. a. George W. Schildge Paper Co., Chicago, Ill., to Rushmore Paper Mills Inc., Gouverneur, N. Y. 340,204, ren. 11–3–56. Cl. 37.
Schildge, George W., Paper Co.: *See*—
Schildge, George W.
Schlack, William B., Traverse City, Mich. 531,748, canc. Cl. 44.
Schlesinger, Maurice F., New York, N. Y. 78,738, canc. Cl. 18.
Schmidt, Alfred H., d. b. a. Patch Pack Co., Portland, Oreg. 531,904, canc. Cl. 12.
Schowanek, J., Piding/Obb., Industriesiedlung, Germany. 639,283, pub. 8–21–56. Cl. 22.
Schrafft, W. F., & Sons Corp., Boston, Mass. 114,185, ren. 12–5–56. Cl. 46.
Schramm, Inc., West Chester, Pa. 639,297, pub. 10–16–56. Cl. 23.
Schurman, I. L., Chicago, Ill. 639,236–7, pub. 10–16–56. Cl. 15.
Seaboard Rice Milling Co., Galveston, Tex., and New York, N. Y., to Comet Rice Mills, Houston, Tex. 113,811, ren. 10–31–56. Cl. 46.
Sea Chest of Philadelphia, The: *See*—
Kadlson, Joseph G.
Seager, Evans & Co., Ltd., London, England. 339,786, ren. 10–20–56. Cl. 49.
Sears, Roebuck & Co., Chicago, Ill. 639,373, pub. 10–16–56. Cl. 34.
Seiger, Harry W., d. b. a. Medar Co., Santa Monica, Calif. 531,744, canc. Cl. 44.
Servo Corp. of America, New Hyde Park, N. Y. 639,333, pub. 4–26–55. Cl. 26.

Servo Corp. of America, New Hyde Park, N. Y. 639,464, pub. 9–6–55. Cl. 100.
Sewing Machine Sales Corp., New York, N. Y. 639,278, pub. 10–16–56. Cl. 21.
Sharp & Dohme, Inc., Philadelphia, Pa. 532,128, canc. Cl. 18.
Sharp & Dohme, Inc., Philadelphia, Pa. 532,129, canc. Cl. 18.
Sharp & Dohme, Inc., Philadelphia, Pa. 532,130, canc. Cl. 18.
Sharp & Dohme, Inc., Philadelphia, Pa. 532,204, canc. Cl. 18.
Sharp & Dohme, Inc., Philadelphia, Pa. 532,206, canc. Cl. 18.
Sherman, Bernard, Brooklyn, N. Y. 531,962, canc. Cl. 51.
Sherman, C. Q., Associates, Inc., Mount Vernon, N. Y. 639 354, pub. 10–16–56. Cl. 31.
Sherman Products, Inc., Hazel Park, Mich. 531,611, canc. Cl. 23.
Shirt-O-Magic Corp., Hollywood, Calif. 532,245, canc. Cl. 103.
Shoe Products Co.: *See*—
Reilly, Edward A.
Short, Larry, Hamilton, Ohio. 639,375, pub. 10–16–56. Cl. 38.
Siniscalshi, Patrick A., Westbury, N. Y. 639,289, pub. 10–16–56. Cl. 22.
60 Case Corp.: *See*—
Thomson Industries, Inc.
Slimaid Products Ltd., Southport, England. 639,428, pub. 10–16–56. Cl. 46.
Smith, Kline & French Laboratories, Philadelphia, Pa. 532,177, canc. Cl. 18.
Societe Anonyme Solex, The, Neuilly-Sur-Seine, France. 436,419, canc. Cl. 35.
Southern Gold Cheese Co., Inc., McKenzie, Tenn. 532,137, canc. Cl. 46.
Southern Materials Co., Inc., Richmond, Va. 639,162, pub. 10–16–56. Cl. 1.
Spear, J. W., & Sons Ltd., Enfield, England. 532,040, canc. Cl. 22.
Springfield Boiler Co., Springfield, Ill. 639,366, pub. 10–16–56. Cl. 34.
Squibb, E. R., & Sons, New York, N. Y. 531,776, canc. Cl. 44.
Stacoat Paint And Varnish Co., Los Angeles, Calif. 639,243, pub. 11–29–55. Cl. 16.
Staley, A. E., Mfg. Co., Decatur, Ill. 345,191, ren. 4–20–57. Cl. 6.
Standard Electronics Corp., Newark, N. J. 639,269, pub. 12–28–54. Cl. 21.
Standard Magnesium Corp., Tulsa, Okla. 639,273, pub. 10–16–56. Cl. 21.
Standard Milling Co., Chicago, Ill. 531,965, canc. Cl. 46.
Standard Oil Co., The, Cleveland, Ohio. 639,239, pub. 10–16–56. Cl. 15.
Standard Scientific Supply Corp., New York, N. Y. 634,224, cor. Cl. 26.
Stauffer Chemical Co., San Francisco, Calif. 532,158, canc. Cl. 6.
Stauffer Chemical Co., San Francisco, Calif. 532,229, canc. Cl. 6.
Stearns, Frederick, & Co., Detroit, Mich., to Sterling Drug Inc., Dover, Del. 115,818, ren. 3–6–57. Cl. 18.
Steck Co., The, Austin, Tex. 639,364, pub. 10–16–56. Cl. 32.
Sterling Drug Inc.: *See*—
Stearns, Frederick, & Co.
Sterling Pulp & Paper Co., Eau Claire, Wis. 531,775, canc. Cl. 37.
Stern, Edward L., & Son Co. Inc., New York, N. Y. 532,242, canc. Cl. 27.
Stetson, Henry G., San Fernando, Calif., to John B. Stetson Co., Philadelphia, Pa. 342,618, ren. 1–19–57. Cl. 39.
Stetson, John B., Co.: *See*—
Stetson, Henry G.
Stevens, J. P., & Co., Inc.: *See*—
American Bleached Goods Co., Inc.
Stineman, James C., South Fork, Pa. 532,178, canc. Cl. 18.
Stoegerer, Beatrice J.: *See*—
Ridgley, George R.
Stone Container Corp., Chicago, Ill. 639,197, pub. 10–16–56. Cl. 2.
Stone, J., & Co. (Charlton) Ltd., Charlton, London, England. 639,235, pub. 10–16–56. Cl. 14.
Stromberg-Carlson Co., Rochester, N. Y. 531,725, canc. Cl. 21.
Stronghold Screw Products, Inc., Chicago, Ill. 531,896, canc. Cl. 13.
Stur-Dee Health Products Inc., Brooklyn, N. Y. 639,259, pub. 10–16–56. Cl. 18.
Sugarcreek Food Processing Co., Sugarcreek, Ohio. 532,259, canc. Cl. 46.
Sunray Stove Co., The, Delaware, Ohio. 639,369–70, pub. 10–16–56. Cl. 34.
Super Value Stores, Inc.: *See*—
Royal Blue Stores, Inc.
Superba Cravats, Inc.: *See*—
Cohn, H. C., Co.
"Superga" Societa Per Azioni, Turin, Italy. 639,405, pub. 10–16–56. Cl. 39.
Surface Protection Co., Inc., The, Cleveland, Ohio. 639,213, pub. 10–16–56. Cl. 12.
Swank, Inc., Attleboro, Mass. 532,154, canc. Cl. 3.
Swank, Inc., Attleboro, Mass. 639,200, 10–16–56. Cl. 3.
Tab Products Co., San Francisco, Calif. 639,361, pub. 10–16–56. Cl. 32.
Technique Inc., Minneapolis, Minn. 639,442, pub. 10–16–56. Cl. 31.
Thompson-Hayward Chemical Co., Kansas City, Mo. 639,258, pub. 10–16–56. Cl. 18.
Thomson Industries, Inc., Manhasset, N. Y., to 60 Case Corp., Lancaster, Pa. 639,298, pub. 10–16–56. Cl. 23.
Thornton, Madame Susie Mabel: *See*—
Thornton, Susie Mabel.
Thornton, Susie Mabel, d. b. a. Madam Susie Mabel Thornton, Philadelphia, Pa. 341,278, ren. 12–1–56. Cl. 51.
Tower Mfg. Co., Richmond, Ill. 639,330, pub. 10–16–56. Cl. 24.
Triangle Leather Goods Co., Chicago, Ill. 639,295, pub. 10–16–56. Cl. 22.
Trustees for Standard-Dayton Corp.: *See*—
Mahrt, Louis R., and D. Robert Laughter.
Tulsa Fishing Tackle Co., Tulsa, Okla. 532,038, canc. Cl. 22.
Tumminelli, Joseph, Newark, N. J. 531,664, canc. Cl. 23.
Tyee Camp Equipment, Everett, Wash. 639,356, pub. 10–16–56. Cl. 32.
Typhoon Prop-R-Temp Corp. of Florida, Tampa, Fla., to Hupp Corp., Detroit, Mich. 639,367, pub. 10–16–56. Cl. 34.
Ulmann, Bernhard, Co., Inc., New York, N. Y. 343,205, ren. 2–9–57. Cl. 43.
Ulrici Medicine Co., Inc., The, New York, N. Y. 343,845, ren. 3–9–57. Cl. 18.
Ulrici Medicine Co., Inc., The, New York, N. Y. 344,550, ren. 3–30–57. Cl. 18.
Ultra Chemical Works, Inc., Paterson, N. J. 639,458, pub. 10–16–56. Cl. 52.
Underwood Corp., New York, N. Y. 639,315, pub. 10–16–56. Cl. 23.
Underwood Corp., New York, N. Y. 639,345, pub. 10–2–56. Cl. 26.
Union Pacific Railroad Co., Omaha, Nebr. 531,879, canc. Cl. 105.
Union Pacific Railroad Co., Omaha, Nebr. 531,880, canc. Cl. 105.
Union Steel Products Co., Albion, Mich. 639,437, pub. 10–16–56. Cl. 50.
United Aircraft Products, Inc., Dayton, Ohio. 531,752, canc. Cl. 13.
United Cigar Manufacturers Co., to General Cigar Co., Inc., New York, N. Y. 114,585, ren. 12–19–56. Cl. 17.
United Growers, d. b. a. Fargo Seed House, Fargo, N. Dak. 639,167, pub. 10–16–56. Cl. 1.
United Hatters, Cap and Millinery Workers International Union: *See*—
United Hatters of North America.
United Hatters of North America, to United Hatters, Cap and Millinery Workers International Union, New York, N. Y. 113,316, ren. 10–10–56. Cl. 39.
United Jewelers Inc., The, to Louis Aisenstein & Bros., Inc., New York, N. Y. 113,655, ren. 10–24–56. Cl. 37.
United Knitting Machine Co.: *See*—
Weisbecker, Frank G.
United Lacquer Mfg. Corp., Linden, N. J. 639,241, pub. 5–22–56. Cl. 16.
U. S. Electrical Motors, Inc., Los Angeles, Calif. 639,344, pub. 10–16–56. Cl. 26.
United States Hoffman Machinery Corp., New York, N. Y. 639,331, pub. 10–16–56. Cl. 24.
U. S. Mfg. Corp.: *See*—
United States Wire Mat Co.
U. S. Mfg. Corp., Decatur, Ill. 338,365, ren. 9–1–56. Cl. 50.
United States Pumica Supply Co., d. b. a. United States Pumice Supply Co., Inc., and/or U. S. Pumice Supply Co., Inc., Hollywood, Calif. 639,159, pub. 10–16–56. Cl. 1.
U. S. Pumice Supply Co., Inc.: *See*—
United States Pumice Supply Co.
United States Pumice Supply Co., Inc.: *See*—
United States Pumice Supply Co.
U. S. Vitamin Corp., New York, N. Y. 532,175, canc. Cl. 18.
United States Wire Mat Co., to U. S. Mfg. Corp., Decatur, Ill. 113,458, ren. 10–17–56. Cl. 50.
United States Wire Mat Co., to U. S. Mfg. Corp., Decatur, Ill. 113,834, ren. 10–31–56. Cl. 50.
United States Wire Mat Co., to U. S. Mfg. Corp., Decatur, Ill. 113,835, ren. 10–31–56. Cl. 50.
Universal Fiber Glass Tray Co., Detroit, Mich. 639,226, pub. 10–16–56. Cl. 13.
Upjohn Co., The, Kalamazoo, Mich. 639,253, pub. 10–16–56. Cl. 18.
Upjohn Co., The, Kalamazoo, Mich. 639,393, pub. 10–16–56. Cl. 38.
Utica Duxbak Corp., Utica, N. Y. 639,414, pub. 10–16–56. Cl. 42.
Valentine & Co., New York, N. Y., to The Valspar Corp., Ardmore, Pa. 342,917, ren. 2–2–57. Cl. 16.
Valentine & Co., New York, N. Y., to The Valspar Corp., Ardmore, Pa. 342,918, ren. 2–2–57. Cl. 16.
Valentine & Co., New York, N. Y., to The Valspar Corp., Ardmore, Pa. 344,842, ren. 4–6–57. Cl. 16.
Valspar Corp., The: *See*—
Con-Ferro Paint & Varnish Co.
Valentine & Co.
Velodent Products Mfg. Co., Inc., New York, N. Y. 531,980, canc. Cl. 6.
Veteran Umbrella Co., Brooklyn, N. Y. 532,138, canc. Cl. 41.
Victor S. R. L., Milan, Italy. 639,455, pub. 10–16–56. Cl. 52.
Walker, C. D., Richmond, Va. 532,221, canc. Cl. 18.
Wallace Spiegler Corp., New York, N. Y. 639,350, pub. 10–16–56. Cl. 28.
Wamsutta Mills, New Bedford, Mass. 531,865, canc. Cl. 42.
Wamsutta Mills, New Bedford, Mass. 531,866, canc. Cl. 42.
Warner-Hudnut, Inc.: *See*—
Warner, William R., & Co., Inc.
Warner, William R., & Co., Inc., now by change of name to Warner-Hudnut, Inc., New York, N. Y. 532,222, canc. Cl. 18.

Washington Bell Cab Co., Inc., The, Washington, D. C. 531,882, canc. Cl. 105.
Wayne Knitting Mills: *See*—
Prim-Era Hosiery Mills, Inc.
Weather Wizard Aluminum Mfg. Corp., Garden City Park, N. Y. 639,217, pub. 10–16–56. Cl. 12.
Weinreich Brothers Co., New York, N. Y. 532,212, canc. Cl. 28.
Weinreich Brothers Co., New York, N. Y. 532,213, canc. Cl. 28.
Weisbecker, Frank G., d. b. a. United Knitting Machine Co., Philadelphia, Pa. 531,796, canc. Cl. 39.
Wepco Equipment Co., Cleveland, Ohio. 639,319, pub. 10–9–56. Cl. 23.
West Disinfecting Co., Long Island City, N. Y. 114,125, ren. 11–28–56. Cl. 37.
West Disinfecting Co., Long Island City, N. Y. 114,126, ren. 11–28–56. Cl. 37.
West Disinfecting Co., Long Island City, N. Y. 341,003, ren. 11–24–56. Cl. 16.
Westbrook Glove Co., Gloversville, N. Y. 639,199, pub. 10–16–56. Cl. 3.
Western States Cutlery Co., Boulder, Colo., now by change of name Western Cutlery Co. 639,304, pub. 10–16–56. Cl. 23.
Western Wear, Inc., Fort Worth, Tex. 532,162, canc. Cl. 40.
Westinghouse Air Brake Co., Pittsburgh, Pa. 639,321, pub. 10–16–56. Cl. 23.
White, Robert P., Minneapolis, Minn. 639,429, pub. 10–16–56. Cl. 46.
Wichita Precision Tool Co., Inc., Wichita, Kans. 639,326, pub. 10–16–56. Cl. 24.
Wilhelm, Warner F., d. b. a. Bowling Products Co., Chicago, Ill. 331,616, canc. Cl. 16.
Williams, Walter J., d. b. a. Pyl-Tone Pharmacal Co., Plainview, Tex. 639,256, pub. 10–16–56. Cl. 18.
Wilson Supply Co., Houston, Tex. 639,312, pub. 10–16–56. Cl. 23.
Winkler, Kaspar, & Co., Zurich, Switzerland. 531,669, canc. Cl. 12.
Wisconsin Leather Co., Milwaukee, Wis. 639,168, pub. 10–16–56. Cl. 1.
Woodford Mfg. Co., Des Moines, Iowa. 639,438, pub. 10–16–56. Cl. 50.
Worcester Underwear Co., Worcester, Mass. 631,699, canc. Cl. 39.
Wrapmaster Corp., Seattle, Wash. 639,311, pub. 10–16–56. Cl. 23.
Young Men's Shop, Inc., The, Washington, D. C. 513,900, canc. Cl. 39.
Youngs Rubber Corp., New York, N. Y. 639,422, pub. 10–16–56. Cl. 44.
York, James W., d. b. a. York's Saw Shop, Salem, Oreg. 639,317, pub. 10–16–56. Cl. 23.
York's Saw Shop: *See*—
York, James W.
Yosemite Winery Association, Madera, Calif. 639,433, pub. 10–16–56. Cl. 47.

U. S. GOVERNMENT PRINTING OFFICE: 0—1956

PATENTS

NOTICES

Erratum

All references to Patent No. 2,773,534 to Giuseppe Lugli and Carlo Mazza, assignors to Pirelli Societa Per Azioni, for Pneumatic Vehicle Wheel Tire Casings, appearing in the OFFICIAL GAZETTE of December 11, 1956, should be deleted as the application was withdrawn from issue and the patent was not issued.

Disclaimer

2,231,270.—*James L. Huston*, Arcanum, Ohio. SNAP-ON CORKS. Patent dated Feb. 11, 1941. Disclaimer filed Nov. 28, 1956 by the inventor.

Hereby enters this disclaimer to claim 9 of said patent.

Patents Available for Licensing or Sale

2,760,682. Grain and Commercial Fertilizer Distributor. Eugene E. Ingram, 126 No. 74th St., Birmingham 6, Ala.

General Electric Company is prepared to grant nonexclusive licenses under the following 26 patents on reasonable terms to domestic manufacturers.

Applications for license may be addressed to: General Electric Company, Appliance & Television Receiver Division, Appliance Park, Louisville 1, Ky.

2,481,333. Electric Switch Mechanism.

2,591,410. Hydraulic Press Operator With Automatic Speed Regulation.

2,612,351. Arrangement for Mounting Heat Transfer Conduits.

2,613,838. Refrigerator Cabinet.

2,619,825. Trap for Water Supply to Clothes Washing Machine.

2,622,410. Freezing Tray.

2,639,618. Transmission and Clutch for Clothes Washers.

2,639,706. Gas Furnace and Draft Hood Assembly.

2,639,794. Drive Clutch for Washing Machines or the Like.

2,644,422. Frost Indicator for Refrigerators.

2,645,359. Shelf Assembly.

2,647,591. Vibration Dampener.

2,654,386. Undercounter Washing Machine.

2,656,431. Control for Automatic Washing Machines.

2,661,750. Undercounter Dishwasher.

2,663,601. Piston Assembly for Reciprocating Compressors.

2,677,383. Circulating Pump Structure and the Like.

2,688,471. Support and Adjustment Means for Rotatable Clothesbasket.

2,689,005. Time Switch.

2,712,052. Water Heater.

2,715,672. Pressure Cooking Apparatus.

2,715,673. Pressure Cooking Apparatus.

2,747,073. Temperature Regulator for Heating Appliances.

2,747,436. Rotary Cutting Apparatus.

2,753,406. Electric Switch Mechanism.

2,755,652. Water Distribution Nozzle Construction for Clothes Washers and the Like.

Correction

Inquiries concerning the following two patents, which were listed in the Notices section of November 20, 1956, as being available for licensing or sale, should be directed to: Arnold Silverman, 1460 College Ave., Bronx, N. Y.

2,549,644. Device for Mixing Materials.

2,712,316. Cigarette Ejector Holder.

Adjudicated Patents

(D. C. Mich.) Keeney & Ferm Patent No. 1,918,968 (80—32), for reversing strip mills and improvements thereof. Claims 2, 5, 10, 11, and 16 to 26, *Held* invalid. *McLouth Steel Corp.* v. *Cold Metal Products Co.*, 145 F. Supp. 81; — USPQ —.

(D. C. Mich.) Steckel Patent No. 1,977,214 (80—2), for reversing strip mills and improvements thereof. Claims 2 to 5, 11 to 13, 18, and 22, *Held* invalid. *Id.*

(D. C. Mich.) Montgomery Patent No. 2,072,121 (80—31), for reversing strip mills and improvements thereof. Claims 2 and 3 *Held* invalid. *Id.*

(D. C. Mich.) Montgomery Patent No. 2,072,122 (80—32), for reversing strip mills and improvements thereof. Claims 6, 10, and 15 to 20, *Held* invalid. *Id.*

(D. C. Mich.) Montgomery Patent No. 2,087,065 (80—60), for reversing strip mills and improvements thereof. Claims 1 to 3 *Held* invalid. *Id.*

(D. C. Mich.) Montgomery Patent No. 2,214,107 (80—60), for reversing strip mills and improvements thereof. Claims 4 and 6 to 10, *Held* invalid. *Id.*

(C. A. Mass.) Land Patent No. 2,237,567 (88—65), for synthetic light polarizers and processes for their manufacture, *Held* valid. *Marks* v. *Polaroid Corp.*, 237 F.2d 428; — USPQ —.

(C. A. Mass.) Land Patent No. 2,328,219 (88—65), for synthetic light polarizers and processes for their manufacture, *Held* valid. *Id.*

(C. A. Mass.) Land Patent No. 2,454,515 (88—65), for synthetic light polarizers and processes for their manufacture, *Held* valid. *Id.*

(D. C. Ohio) Lowenheim Patent No. 2,628,199 (252—142), for dip-type liquid silver cleaner, *Held* not infringed. *International Industries & Developments, Inc.* v. *Farbach Chemical Company*, 145 F. Supp. 34; — USPQ —.

(D. C. Wis.) Hobbs Reissue Patent No. 23,137 (285—95), for a pipe coupling using fluid seal. Claims 1 and 5 to 7 *Held* invalid and not infringed. *Hobbs* v. *Wisconsin Power & Light Co.*, 145 F. Supp. 64; — USPQ —.

(D. C. Wis.) Hobbs Reissue Patent No. 23,272 (251—267), for valves for controlling flow of high pressure fluids and steam. Claims 1 to 10, 12 to 15, 17, 19, 20, 22, and 23, *Held* invalid and not infringed. *Id.*

New Applications Received During November 1956

Patents	5,887
Designs	398
Plants	12
Reissues	20
Total	6,317

Issue

Patents	695	No. 2,776,431 to No.	2,777,125, incl.
Designs	27	No. 179,505 to No.	179,531, incl.
Plants	2	No. 1,549 to No.	1,550, incl.
Reissues	2	No. 24,263 to No.	24,264, incl.
Total	726		

CONDITION OF PATENT APPLICATIONS AS OF NOVEMBER 30, 1956

Total number of pending applications (excluding Designs)	216,863
Total number of pending Design applications	6,276
Total number of applications awaiting action (excluding Designs)	114,284
Total number of Design applications awaiting action	2,832
Date of oldest new application	Aug. 1, 1955
Date of oldest amended application	Sept. 1, 1954

ROSA, M. C., Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
I. STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.
II. STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 23, 26, 37, 42, 44, 48, 51, 54, 69, 70.
III. YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
IV. FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
V. HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	8, 20, 29, 33, 36, 40, 41, 52, 66.
VI. MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS	1, 4, 5, 9, 10, 18, 22, 28, 45, 47.
VII. KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
CL. GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	12-22-55	1-27-55
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers	3-1-56	9-12-55
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys	4-13-56	3-31-55
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Feeding of Indefinite Lengths	3-7-56	3-13-55
5. (VI) ROBINSON, C. W., Harvesters; Potato Diggers; Stalk Pullers and Choppers; Stone Gatherers; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates	2-23-56	7-18-55
6. (I) SURLE, H., Carbon Chemistry (part), e. g. Natural Resins, Proteins, Heterocyclic Amides, Amines, General Organic Processes	11-10-55	9-2-55
7. (IV) GONSALVES, J. E., Optics, Photographic Apparatus	12-28-55	8-16-55
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture	11-17-55	3-9-55
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	3-2-56	3-16-55
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	12-23-55	4-15-55
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	2-13-56	5-3-55
12. (III) SPINTMAN, S., Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	1-25-56	11-8-54
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	2-13-56	1-3-55
14. (III) MANIAN, J. C., Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes	12-12-55	12-16-54
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	3-1-56	1-24-55
16. (II) LOVEWELL, N. N., Television; Telephony; Recorders	10-26-55	9-20-54
17. (IV) LEIGHEY, R. A., Paper Manufactures; Packaging; Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	12-28-55	1-18-55
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	1-16-56	2-3-55
19. (VII) PATRICK, P. L., Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners	2-17-56	6-1-55
20. (V) BROWN, L. M., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking	3-14-56	4-8-55
21. (III) MADER, R. C., Textiles	2-13-56	2-24-55
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows; Boring and Drilling	12-27-55	12-17-54
23. (II) ANDRUS, L. M., Cash and Fare Registers; Calculators and Counters; Education	10-17-55	10-11-54
24. (III) DRACOPOULOS, P. T. (HICKEY, T. J., acting), Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	3-5-56	3-17-55
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus	4-9-56	9-6-55
26. (II) YOUNG, R. R., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanism	4-2-56	11-3-55
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom an.. Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	3-7-56	5-27-55
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Chute, Skid, Guide and Way Conveyers; Fluid Current Conveyers; Pressure Modulating Relays; Pneumatic Dispatch; Store Service; Wheel Substitutes	12-2-55	4-4-55
29. (V) HABECKER, L. B., Tools; Woodworking; Button, Barrel and Wheel Making; Rubber Tire Removing Tools; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers	2-14-56	11-25-55
30. (VII) O'LEARY, R. A., Refrigeration; Heating Systems; Automatic Temperature and Humidity Regulation, Thermostats, Humidistats; Illuminating Burners; Miscellaneous Heating	6-4-56	9-20-55

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Amended
31. (I) HUTCHISON, E. W., Carbon Chemistry (part), e. g. Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Synthetic Resins (part)	12-23-55	4-11-55
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	3-5-56	9-16-55
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Building Structures; Roads and Pavements	3-19-56	2-1-55
34. (IV) SHANK, J. S. (acting), Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	1-12-56	1-3-55
35. (IV) BROMLEY, E. D., Dispensing: Filling and Closing Receptacles; Toilet, Kitchen and Table Articles; Sheet or Web Feeding	1-20-56	5-23-55
36. (V) McFADYEN, A. D., Measuring and Testing	11-29-55	11-25-55
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating	11-30-55	7-13-55
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g. Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	4-27-56	2-3-56
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	3-1-56	1-3-55
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	5-1-56	12-1-55
41. (V) GURLEY, R. B., Coin Controlled Apparatus; Dispensing Cabinets; Coin Handling; Mail, Fare or Other Collection Boxes or Chutes; Buckles, Buttons and Clasps; Racks; Fire Escapes; Ladders; Scaffolds	11-21-55	12-1-54
42. (II) MARANS, H., Electric Signaling; Signals and Indicators; Telegraphy; Electrical Connectors	8-10-55	1-4-55
43. (I) ARNOLD, D., Medicines, Poisons, Cosmetics; Sugar and Starch; Skins, and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus)	12-8-55	7-13-55
44. (II) EVANS, N. H., Antennas; Automatic Pilots; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	8-1-55	9-1-54
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances	12-23-55	3-25-55
46. (I) WILES, W. G., Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Surgery (part); Radioactive Medicines; Irradiation Chemistry; Carbon Chemistry (part)	1-9-56	2-1-55
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles	3-15-56	11-4-55
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Spark Plugs and Ignition Systems, Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers	11-8-55	11-12-54
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring	12-30-55	6-27-55
50. (I) BENGEL, W. G., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber	1-26-56	1-28-55
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Music	2-20-56	11-29-54
52. (V) NEFF, P. R., Supports; Joint Packing; Valved Pipe Joints or Couplings; Rod Joints or Couplings; Tool Handle Fastenings; Shaft Packing	1-12-56	1-6-55
53. (IV) REYNOLDS, E. R., (NINAS, G. A., acting), Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings and Shutters; Harness; Whip Apparatus	2-14-56	6-22-55
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g. X-Ray, Ultraviolet, Radioactive) Applications	3-1-56	2-9-55
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Sorting Solids; Centrifugal Bowl Separators; Comminutors	8-30-55	12-6-54
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	3-1-56	12-14-55
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings	6-4-56	1-9-56
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Food Apparatus; Closure Operators; Baths, Closets, Sinks and Spittoons	2-14-56	6-15-55
59. (I) HENKIN, B., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	2-29-56	5-4-55
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	1-24-56	1-27-55
61. (III) MORSE (Miss), E. L., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery	3-5-56	4-25-55
62. (IV) SHAPIRO, A., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination	3-5-56	10-11-55
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins. Carbohydrate Derivatives, Fats, Sulfurized Compounds	3-5-56	4-4-55
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	3-9-56	2-3-55
66. (V) LISANN, I., Geometric Instruments; Automatic Weighing Scales; Acoustics	3-2-56	10-11-54
67. (VII) KRAFFT, C. F., Laminated Fabrics; Ornamentation; Bleaching, Dyeing, Fluid Treatment of Textiles	11-25-55	4-18-55
69. (II) GALVIN, D. J., Wave Guides; Electric Meters; Sound Recording; Conductors; Insulators	3-1-56	9-29-54
70. (II) BREWRINK, J. L., Security laws administration.		
CLASS. DIVS. I BAILEY, J. S., Paper Making; Mineral Oils	3-19-56	2-17-56
CLASS. DIVS. II LADY, J. E., Oscillators; Amplifiers; Resistances and Rheostats	2-13-56	9-19-55
CLASS. DIVS. III WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres	2-23-56	10-5-55
CLASS. DIVS. IV BERLOWITZ, W. (acting), Harrows and Diggers; Plows; Fluid Sprinkling, Spraying and Diffusing	2-17-56	8-29-55
CLASS. DIVS. V ANGEL, C. D., Liquid Separation or Purification; Sewerage	3-1-56	3-1-56
DESIGNS (III) A—MONCURE, J. A. Industrial Arts	4-4-56	5-8-56
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	4-11-56	5-2-56

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during January 1957, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

Patents	Numbers 2,185,170 to 2,188,894, inclusive
Plant Patent	Numbers 352 to 360, inclusive

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,351,004, M. Camras, Method and means of magnetic recording; **2,351,005**, **2,648,500**, same, Magnetic recorder; **2,351,007**, same, Magnetic recording head; **2,528,261**, same, Apparatus for magnetic recording; **2,572,506**, same, Magazine type magnetic recording and reproducing device; **2,603,721**, same, Magnetic recorder with pressure shoe for record members; **2,650,541**, same, Drive mechanism for magnetic recorders; **2,565,191**, R. E. Zenner, Eddy current shield in electromagnetic transducer head, filed Nov. 26, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c1970, *Armour Research Foundation of Ill. Institute of Technology* v. *DeJur Amaco Corp.*

2,351,005. (See 2,351,004.)

2,351,007. (See 2,351,004.)

2,366,003. (See 2,494,508.)

2,475,314. (See 2,494,508.)

2,494,508, R. C. Dehmel, Means for aircraft flight training; **2,475,314**, same, Navigation apparatus for aircraft and training devices; **2,366,003**, same, Aircraft training apparatus, filed Nov. 29, 1956, D. C. Md. (Baltimore), Doc. 9291, *Curtiss-Wright Corp. et al.* v. *ACF Industries, Inc.*

2,528,261. (See 2,351,004.)

2,565,191. (See 2,351,004.)

2,572,506. (See 2,351,004.)

2,594,140. (See Re. 23,927.)

2,603,721. (See 2,351,004.)

2,648,500. (See 2,351,004.)

2,648,610, J. T. Martin, Packaged popcorn kernels and popping oil, filed Nov. 10, 1955, D. C., M. D. Ga. (Thomasville), Doc. 446, *Rose Kist Popcorn Co., Inc.* v. *Marchant's Super Market*. Order dismissing action Nov. 19, 1956.

2,650,212, G. M. Lees, Method of and means for forming flake ice; **2,716,869**, same, Flake ice making machine and knife therefor; **2,683,357**, E. J. Albright, Flake ice making machine, filed Nov. 28, 1956, D. C., N. D. Ind. (Hammond), Doc. 2107, *Akshun Mfg. Co.* v. *Kralis Brothers Poultry & Egg Co.*

2,650,541. (See 2,351,004.)

2,683,357. (See 2,650,212.)

2,716,869. (See 2,650,212.)

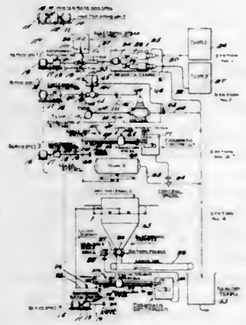
Re. 23,927 (of 2,594,140), J. W. England, Twine holder, filed Nov. 28, 1956, D. C., S. D. Ill. (Peoria), Doc. P-1927, *John W. England* v. *Deere & Co.*

REISSUES

JANUARY 8, 1957

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,263
APPARATUS FOR PROPORTIONING MATERIALS
Rudy Lowe, Cranston, R. I., assignor to Proportioneers, Inc., a corporation of Rhode Island
Original No. 2,658,644, dated November 10, 1953, Serial No. 790,918, December 10, 1947. Application for reissue April 13, 1956, Serial No. 578,158
6 Claims. (Cl. 222—52)



1. An apparatus for proportioning a plurality of materials, comprising a plurality of stations for the different materials, a controller at each station for controlling the quantity of material fed at its station, a master controller for all of the first said controllers and manually adjustable to pre-set the rate at which a particular combined quantity of materials is to be fed from said stations, said controller at each station being manually adjustable to pre-set the quantity of material fed at its station at a predetermined proportion relative to the said predetermined combined quantity of material fed from said stations, a differential mechanism at each station for controlling the quantity of material fed at its station at the predetermined setting of the controller of the station, each of said controllers at said stations being responsive to any change in setting of the master controller and automatically operable to control the differential of its station so as to maintain the said pre-set proportion of material fed at its station.

24,264
SIDE OUTLETS FOR ABOVE-GROUND IRRIGATION PIPES
Howard E. Stearns, Grand Island, Nebr.
Original No. 2,647,539, dated August 4, 1953, Serial No. 162,328, May 16, 1950. Application for reissue May 4, 1955, Serial No. 506,102
12 Claims. (Cl. 251—145)

9. Means for controlling the flow through an elongated opening formed in the wall of thin walled pipe comprising: a relatively thin inner arcuate member curved to conform to the inner diameter of said pipe, said member having a length and width respectively exceeding the length and width of said opening and having a less width than the length of said opening so that it may be passed through the opening and brought to rest against the inside of said pipe about said opening; an arcuate outer member arranged to rest against the outside of said pipe about said opening; an attachment member rigidly mounted on the convex face of said inner arcuate member and extending outwardly through said opening to form a handle for pulling the inner member against the inside of the pipe and holding it thereagainst; and means on said outer member engaging said attachment member and acting to hold said outer member against the exterior of said pipe.

PLANT PATENTS

GRANTED JANUARY 8, 1957

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,549
CARNATION PLANT
Marshall Norman Winkler, Wakefield, Mass.
Application February 8, 1956, Serial No. 564,334
1 Claim. (Cl. 47—60)

The new and distinct variety of carnation plant, substantially as herein shown and described, characterized particularly by its stiff stem of medium length; large size of flower of high centered, slightly flattened half spherical shape as viewed from the side; slight neck-like effect of petals as they emerge from the calyx; slender calyx, flaring out with bulbous shaped sepals; long petals of Neyron Rose color, more intense at the center and paler on the edge of the flower; and distinct peppermint fragrance.

1,550
APPLE TREE
Walter A. Law, Tonasket, Wash., assignor to Stark Bro's Nurseries and Orchards Company, Louisiana, Mo., a corporation of Missouri
Application February 27, 1956, Serial No. 568,133
1 Claim. (Cl. 47—62)

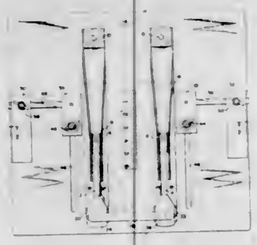
A new and distinct variety of apple tree, substantially as herein shown and described, characterized particularly as to novelty by its general similarity to its parent variety "Red Rome Beauty" (unpatented), but being distinguished therefrom by the larger size of its fruit, the longer and more conical shape of its fruit, and the earlier, more uniform, all over bright Red coloring of its fruit.

PATENTS

GRANTED JANUARY 8, 1957

GENERAL AND MECHANICAL

2,776,431
STAPLING DEVICE
Raymond E. Strong, Schenectady, N. Y.
Application June 21, 1955, Serial No. 516,896
3 Claims. (Cl. 1—3)



1. A combined stapler and guide plate comprising in combination a base plate, a pair of staplers, a spring interpositioned between said staplers and said base plate whereby said spring normally holds said staplers resiliently above said base plate, a pair of staple receiving anvils positioned on said base plate to engage said staplers thereby determining a stapling line, said base plate defining a pair of elongated slots running parallel to the longitudinal axis of said staplers, a pair of side stops, means adjustably connecting said stops through said slots to said base plate thereby providing a guide to limit the side insertion of pages to be stapled, and end stops releasably connected to said side stops for determining the degree of end movement of the sheets to be stapled whereby the operation of said staplers will force a staple through the stapling position of sheets to be assembled.

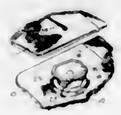
2,776,432
BRASSIERE
Isidore Panes, New York, N. Y.
Application February 14, 1955, Serial No. 487,864
4 Claims. (Cl. 2—42)

1. In a foundation garment, a body band having an inelastic central section, inelastic side sections and laterally stretchable sections, said stretchable sections being interposed between said side sections, respectively, and said central section, and panels of inelastic fabric arranged on the inside of the band and extending across said stretchable sections respectively, each of said panels having one end connected with the respective side section and its opposite end secured to said central section, so that said panels limit the amount of stretch of the stretchable sections, for the purpose of adjusting the size of the garment.

2,776,433
BRASSIERE WITH CUPS HAVING RIM REINFORCEMENT
Theo B. Schaumer, Los Angeles, Calif., assignor to Hollywood-Maxwell Co., Hollywood, Calif., a corporation of California
Continuation of abandoned application Serial No. 96,060, May 28, 1949. This application January 7, 1954, Serial No. 402,633
2 Claims. (Cl. 2—42)

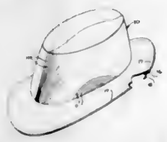
1. In a brassiere a pair of breast cups; a body-encircling portion attached to the cups and extending below the cups; and a continuous wire-like resilient member extending around the upper edges of both cups, said member having substantially straight ends extending respectively from the outer edges of the cups toward the lower edge of the body-encircling portion; the said ends being slanted forwardly of the other parts of the member when said member is unstressed; said member having downwardly directed extensions along the inner edges of the cups; said extensions being joined to each other between the cups and substantially beneath the center of the cups, said inner extensions converging toward each other in a direction upwardly of the brassiere to cause engagement of the cups with each other when said member is unstressed.

2,776,434
BUTTON ATTACHMENT FOR GARMENTS
Gerhard A. Ellestad, Rochester, N. Y.
Application January 25, 1955, Serial No. 484,016
9 Claims. (Cl. 2—123)



6. The combination of a shirt cuff having a button hole, a sewed-on button secured to a portion of the cuff by thread, and an ornamental button device comprising an ornamental button, a horizontally extending U-shaped button-embracing clip having an upper portion engaging the top side of the sewed-on button and a lower portion engaging the bottom side of the sewed-on button, said lower portion having two spaced arms positioned, respectively, on opposite sides of the thread, post means connecting the central portion of the ornamental button to the upper portion of the clip for holding the ornamental button above said upper portion, said lower portion extending forwardly beyond the sewed-on button to the adjacent edge of the cuff, and hook means formed on the projecting end of said lower portion and hooked over the edge of the cuff whereby the device is detachably held on the sewed-on button so that the ornamental button may cooperate with the button hole to hold the portions of the cuff together.

2,776,435
SYNTHETIC FABRIC HAT AND PROCESS OF MAKING THE SAME
Raymond J. Trimpert, Newtown, Conn., assignor to The Frank H. Lee Company, Danbury, Conn., a corporation of Connecticut
Application August 5, 1954, Serial No. 448,011
2 Claims. (Cl. 2—193)

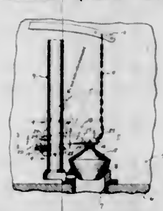


1. The process of making a hat which consists in slightly sizing an open mesh textile fabric with a sizing material having adhesive properties so as to bind the crossings of yarn and leave most of the openings still open between the yarns, said textile fabric being selected from the group consisting of "Dynel" and "Dacron," placing the sized fabric in the finger clamps of a blocking machine, hot-pressing the fabric to the shape of a hat having a crown portion and a brim portion at about sixty pounds pressure and at about 275° F. for about two minutes, finishing the hat and then re-pressing it at about the same temperature and the same length of time.

2,776,436
EAR MUFFS
Elaine Berg, Chicago, Ill.
Original application September 14, 1951, Serial No. 246,627, now Patent No. 2,651,046, dated September 8, 1953. Divided and this application August 26, 1953, Serial No. 376,677
1 Claim. (Cl. 2—209)

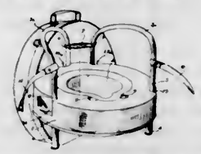
An ear muff assembly comprising a pair of covered, sliding, spring steel bands, adapted to be collapsed or extended and adapted to support a pair of ear muffs on the wearer when the bands are placed about the head of the wearer, a first felt strip having inner and outer surfaces and having a greater width than said steel bands and having a sufficient length to cover the inside of the steel bands when fully extended, said felt strip having a plurality of pairs of slits extending transversely to the strip but terminating short of the lateral edges of the strip, the said pairs of slits being at regularly spaced intervals, the slits of each pair being spaced from each other by a strap of felt between each pair, said strap being integral with said strip, a second strip of felt having inner and outer surfaces and being of substantially the same length and narrow enough to be located inside said slits, the second strip being threaded through the slits of the first strip so that the second strip is located on one side of the first strip except the integral straps which extend over the second strip, said strips being secured together at both ends thereof, the steel bands being threaded through the same slits as said second strip and positioned on the outer surface of both strips with the integral straps on the outside of the steel bands so as to protect the head of the wearer from the steel bands throughout the length of the steel bands, the felt strips being collapsible as a unit into bellows-like folds on said steel bands at either end of the steel bands.

2,776,437
FLUSH VALVE FOR TOILETS
Edgar W. Detjen, Kiel, Wis.
Application September 23, 1953, Serial No. 381,889
3 Claims. (Cl. 4—57)



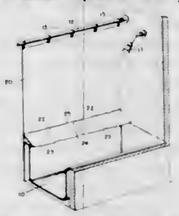
1. In a flushing device for toilet and like tanks, a flush tank, an outlet pipe extending into the tank having a valve seat on its upper end, an overflow pipe communicating with the outlet pipe below the valve seat, a lift arm, a ball float valve for the seat, a bracket mounted on the overflow pipe a predetermined distance above the valve seat, a pivot plate supported by the bracket, means for securing the ball float valve to the outer end of the plate including a longitudinal slot in the outer end of said plate and a headed screw extending through said slot and into said ball float valve, and a pull chain connecting the outer end of the plate to the lift arm.

2,776,438
CHILD'S PORTABLE CHAMBER-POT
Paul Zeraffa, Paris, France
Application October 18, 1955, Serial No. 541,266
2 Claims. (Cl. 4—134)



1. A child's portable chamber-pot comprising a seat portion, a removable vessel arranged within said seat portion, suitably arched bow members serving as chair backs and elbow rests and whose ends constitute supporting legs for the portable chamber-pot, sockets provided at the ends of said legs, bearings arranged in the seat portion, said bow members being adapted to rock on said bearings, guiding means in the form of longitudinally slotted tubes so associated with the said bearings that the said bow members can rock and the leg portions thereof be completely housed inside the said seat, the said sockets fitting tightly into said guiding means to render the said legs and the bow members rigid when the chamber-pot is mounted.

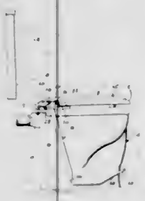
2,776,439
SHOWER BATH CURTAINS
Alfred J. Rondinelli, Philadelphia, Pa.
Application August 14, 1953, Serial No. 374,335
1 Claim. (Cl. 4—149)



A shower curtain the lower part of which is disposed on the outside of a bath tub, an apron secured on the

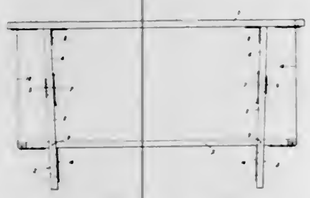
inside of the curtain and projecting inwardly therefrom over and above the ledge of the bath tub, and means for supporting said apron comprising a plurality of separate spaced V-shaped members, each of said members having a vertical arm removably positioned in a pocket in the portion of the curtain which is disposed on the outside of the tub, and having another arm downwardly inclined and extending inwardly with its end removably positioned in a pocket at the inner edge portion of the apron.

2,776,440
TOILET SEAT LIFTER
Leon Richard Miller, Hot Springs, Ark.
Application September 16, 1955, Serial No. 534,691
3 Claims. (Cl. 4—251)



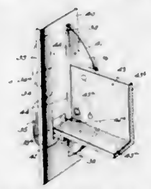
1. In combination, a toilet bowl having an upper end, a toilet seat having a rear end, first horizontal hinge means hinging the rear end of the seat on the upper end of the bowl, said seat having outer and inner peripheries, a clamp secured to one side of said seat near its rear end and forwardly of said hinge means, a forwardly and rearwardly elongated cam bar having forward and rear ends, second horizontal hinge means hinging the rear end of the cam bar to said clamp, the cam bar being positioned between the upper end of the toilet bowl and the seat, a depending lever having an upper end fixed to said cam bar and a lower end, and a forwardly projecting pedal arm fixed on the lower end of said lever, said pedal arm having a forward end having a pedal thereon.

2,776,441
COLLAPSIBLE CHILD'S BED
Sigvald Ström, Orebro, Sweden
Application September 8, 1953, Serial No. 378,941
6 Claims. (Cl. 5—174)



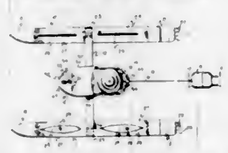
1. A collapsible child's bed comprising a level upper frame and a level lower frame, a bed bottom supported on said lower frame, a web in the form of an endless belt having its edges united with said upper and lower frames so as to form stretched side walls in the position of use of the bed to stabilize the bed and to form the side walls of a space for receiving the bedding in the collapsed position of the bed, hinged support means pivotally connected to said upper frame on the lower surface thereof and to said lower frame and supporting said upper and lower frames in the position of use of the bed and so uniting said level upper and lower frames that in the collapsed position of the bed said frames will be spaced from one another to provide a space for receiving the bedding.

2,776,442
BED RAIL AND POST CONNECTIONS
James Gough Edelen, Sr., Baltimore, Md.
Application November 1, 1952, Serial No. 318,297
3 Claims. (Cl. 5—296)



1. A rail and post connector for knock-down furniture comprising a hook-providing plate having a forward hook portion and a rear portion adapted to be connected to a rail, top and bottom perpendicularly extending shoulders provided by said rear portion at its junction with said hook portion and extending above the top and bottom edges of the latter, the inner ends of the shoulders terminating in fusible portions, a bearing plate having a closed longitudinally extending slot therein through which the hook portion of said hook plate is projected, the fusible hook plate portions fused to the bearing plate, the hook plate shoulders bearing against the bearing plate beyond the ends of said bearing plate slot whereby said hook plate is retained in a fixed position relative to said bearing plate, said bearing plate having a rearwardly and horizontally extending rail supporting lug struck from said bearing plate leaving a fastener-receiving opening through which a stop element can be engaged in the post, and said rail supporting lug maintaining said bearing plate against upward vertical movement.

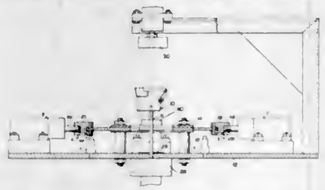
2,776,443
WATER SKIING APPARATUS
Lauren A. Howard, Amherst, N. H.
Application June 15, 1953, Serial No. 361,565
8 Claims. (Cl. 9—18)



1. Water skiing apparatus comprising a motor propelled watercraft including motor controlling means and watercraft steering means, a control plate, means for connecting said control plate to said watercraft adjacent said motor, a control unit for said motor and watercraft, a towing cable secured between said watercraft and said control unit for towing said control unit astern of said watercraft, means carried by said control unit for towing a water skier, control elements carried by said control unit for operation by said water skier remotely of said watercraft and cables connected between said control elements and said control plate for communicating operations of said water skier to said motor controlling means and said watercraft steering means.

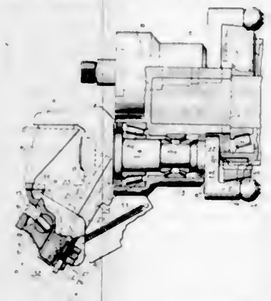
2,776,444
MACHINE FOR MAKING DOLL SHOES
John E. Eckstrom, Detroit, Mich.
Application May 1, 1953, Serial No. 352,390
10 Claims. (Cl. 12—12)

1. In a machine for the manufacture of doll shoes and the like, a shoe last for supporting a shoe upper in such a position that the edges of said shoe upper project above the top peripheral edge of said shoe last and for supporting a shoe sole on the top face thereof bounded by said projecting shoe upper portion, and means for folding over and securing said projecting shoe upper portion onto said shoe sole comprising a side pair of sliding pressure plates operable to advance toward said shoe last and partially overlay the shoe last at the innermost limit of their travel and subsequently retracted after having folded over and secured said projecting shoe upper portion to the shoe sole, and a second pair of sliding pressure plates operable to advance toward the toe and heel portions of said shoe last after said side pair of plates has been retracted and to partially overlay the toe and heel portions



of the shoe last at the innermost limit of their travel to secure the toe and heel portions respectively of said shoe upper to the toe and heel portions of said sole, said innermost travel of said second pair of sliding pressure plates respectively extending to partially overlap the previous innermost travel of said side pair of sliding pressure plates, the inner edges of said second pair of pressure plates being concave in plan and constructed to first engage the shoe upper at the side of the shoe and to progressively fold over and secure successive upper portions extending towards the center of the toe and heel portions thereof.

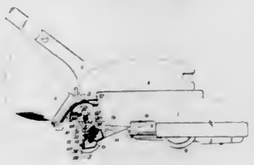
2,776,445
MACHINE FOR BREASTING LOUIS HEELS
Raymond E. Ponder, St. Louis, and Momir Babunovic, Kirkwood, Mo., assignors to Quirk Machinery Company, St. Louis, Mo., a corporation of Delaware
Application January 18, 1956, Serial No. 559,833
7 Claims. (Cl. 12—47.1)



1. In a machine for breasting Louis heels, a stationary rotary cutter, a turret adjacent said cutter driven in uniform rotation, a heel clamp pivotally mounted on said turret on an axis transverse to the heel blank, means for operating said clamp to grip a heel blank, and means for rotating said clamp on said axis relatively to said turret and in timed relation to the rotation of the turret, whereby to cause said cutter to cut an arcuate lip of predetermined curvature on the blank.

2,776,446
NOZZLE HEIGHT ADJUSTMENT MECHANISM FOR SUCTION CLEANERS
George A. Brace, Highland Park, Ill., assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio
Application April 12, 1952, Serial No. 281,945
18 Claims. (Cl. 15—359)

1. In a suction cleaner having a body portion including a surface cleaning device at the front thereof, front and rear surface engaging means for supporting said body portion, means movably mounting said rear surface engaging means on said body portion and means biasing said rear surface engaging means away from said body portion, the combination of mechanism for varying the relative positions of said rear surface engaging means and said body portion to adjust the operating position of said cleaning device including an adjusting member having a plurality of catches pivotally mounted on said body portion, said catches being positioned at different distances from the pivotal axis of said member, a latch member mounted on said movable means and adapted to engage said catches to rotate the engaged catch to an operating position and limit movement of said mounting means by said biasing means, and guide means for disengaging said latch member from a previously engaged catch and for engaging said latch member with a succeeding catch successively as said body portion is successively depressed against said biasing means to a predetermined position which is below any adjusted position of said body portion.



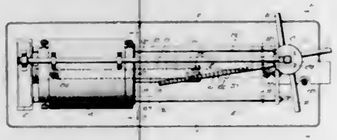
2,776,447
SPRING BALANCE
Johannes Hermanus Addicks, Amsterdam, Netherlands
Application November 2, 1953, Serial No. 389,803
11 Claims. (Cl. 16—197)

1. A spring balance for windows of the type having a fixed portion and a movable portion slidably mounted in said fixed portion, said balance comprising a nipple nonrotatably mounted on one of said portions, a helical spring secured to said nipple and extending in the direction of the sliding movement between said portions, a nozzle having a non-circular aperture therethrough secured to the end of said spring remote from said nipple, a tube nonrotatably secured to said nozzle extending from said nozzle to said nipple, thrust bearing means rotatably securing said tube to said nipple, and a twisted strip having a section complementary to the aperture in said nozzle mounted on the other of said portions, extending through said nozzle whereby upon relative sliding motion between said portions said spring is tortionally wound or unwound.

2,776,448
RETAINING DEVICES FOR TAPE BALANCES
Earl M. Trammell, Jr., St. Louis, Mo.
Application June 23, 1954, Serial No. 438,650
8 Claims. (Cl. 16—202)

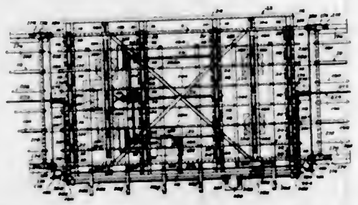
1. A fixture for use on a balance tape in connection with sliding window sash, and in which a projection is provided on the tape, said fixture comprised of a plate member having an aperture through which the tape extends, said plate member being displaceable relative to said tape, the aperture being of a width so that the tape will normally slidably extend therethrough in one position of said plate member, and being of a width so that a margin defining said aperture will engage said projection in another position of said plate member, the plate member being carried by said tape.

2,776,449
SAUSAGE LINKING MACHINE
Lawrence P. Cross, Valparaiso, Ind.
Application April 5, 1954, Serial No. 420,949
19 Claims. (Cl. 17—34)



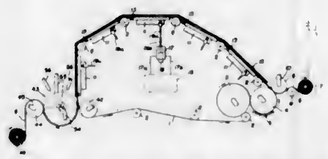
1. In a sausage linking machine a supporting frame structure, means on said frame structure for advancing a filled sausage casing of predetermined length and for constricting the casing at intervals to divide the same into individual links, an open ended tube-like container rotatably mounted on said frame structure adjacent to and aligned with said casing advancing and constricting means for receiving the connected links therein, means connected to said container for rotating said container about its longitudinal axis and at a relatively high rate of speed, means on said frame structure between said casing constricting means and said container and cooperating with said constricting means to impart a twist between each link and the next succeeding link and to cause said links to advance into said container, means connected to said container for moving said container at a relatively slow rate of speed in the direction of its axis of rotation while said links are advancing therein to arrange the links in a single coil formation, and control means connected to said container rotating means and said container moving means, which control means has an actuating member operated by the passage of the sausage casing to start and stop the rotation and axial movement of said container.

2,776,450
CENTRIFUGAL CASTING APPARATUS
Herbert D. Boggs, Tulsa, Okla., assignor to H. D. Boggs Company, Ltd., Omaha, Nebr., a limited partnership
Application December 11, 1950, Serial No. 200,193
1 Claim. (Cl. 18—4)



A machine for casting a section of plastic pipe reenforced with a fiber web which comprises a plurality of parallel, equally spaced axles commonly journalled upon a stationary rectangular base, a plurality of rollers fixed upon said axles, a motor for rotating some of said axles, belt means operatively connecting the drive shaft of the motor to a plurality of said axles, a vertical support frame positioned adjacent one end of said base, a second vertical support frame positioned adjacent the opposite end of said base, flanged pulleys carried upon the top of said support frames, counterweighted cables which run over said pulleys, a rectangular frame supported for vertical movement by said cables having guide rollers on the sides thereof which roll in channels contained in said support frames, a plurality of rollers commonly journalled in said rectangular frame, means to drive said pulleys to raise and lower the cable supported frame to bring the said second rollers into contact with molds carried by said first rollers, a pair of parallel channel members vertically movable between said stationary frame and said cable supported frame, a plurality of hydraulic piston members supporting said channel members from beneath to raise and lower them, a pair of sprocket wheels journalled upon each end of the channel members, a pair of continuous conveyor chains mounted upon said sprocket wheels to convey molds horizontally across said machine, longitudinal gas burners located below said first rollers midway between said axles and parallel to, horizontal trackways at each side of said base running parallel to said axles, a wheeled carriage on each trackway, tubes supported in an elevated position by one end upon said carriages, spray heads on the free ends of said tubes, liquid pumps connected to the supported ends of said tubes, means for driving all said pumps upon the carriage at the same speed, and means for moving both said carriages toward and away from said base at the same constant velocity.

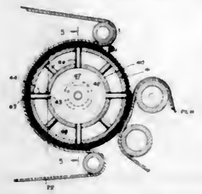
2,776,451
APPARATUS AND METHOD FOR PRODUCING EMBOSSED THERMOPLASTIC FILM
Marc A. Chavannes, New York, N. Y., assignor to Chavannes Industrial Synthetics, Inc., New York, N. Y., a corporation of Delaware
Application February 16, 1952, Serial No. 271,935
3 Claims. (Cl. 18—10)



2. In apparatus for embossing thermoplastic film having a narrow softening temperature range for accurately reproducing the design in an embossing surface under

low pressure, in combination, a first continuously rotating roller, means for feeding a thermoplastic film to said roller, means for heating said film while it is on said first roller to a hot and soft condition, a cool, continuously rotating, porous embossing roller for receiving said hot soft film from said first roller, said embossing roller being spaced from said first roller but positioned so close to the same as to enable quick delivery of said film from said first roller to said embossing roller without substantial loss of heat, means continuously rotating one of said rollers in a clockwise direction and the other of said rollers in a counter-clockwise direction to advance said film along a generally S-shaped path passing around said roller through an arc, then unsupported through the air only for a short distance from a point of tangency with one of said rollers to a point of tangency with the other of said rollers, and then around said embossing roller through an extended arc, means for applying a suction to the interior of said embossing roller for embossing said film in the region where said hot, soft film first engages said porous embossing roller, and means for removing said embossed film from said embossing roller.

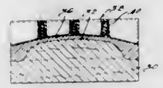
2,776,452
APPARATUS FOR EMBOSSING THERMOPLASTIC FILM
Marc A. Chavannes, New York, N. Y., assignor to Chavannes Industrial Synthetics, Inc., New York, N. Y., a corporation of Delaware
Application September 3, 1952, Serial No. 307,671
3 Claims. (Cl. 18—10)



1. In apparatus for embossing thermoplastic film, in combination, a porous embossing roller, means for advancing said film along a path and around said roller over an arcuate portion thereof, heating means for heating said film to a softening temperature prior to the point where it first engages said roller, said embossing roller comprising a cylindrical porous sleeve member, supporting means for supporting said sleeve member and forming with said sleeve member a generally cylindrical chamber, and means for sucking air from within said chamber, said sleeve member comprising a perforated metallic sleeve having a fabric sleeve bonded to its outer surface, said fabric sleeve bearing a desired design, whereby the suction within said chamber acting through said sleeve member draws said hot soft film against said fabric sleeve in the region of said arcuate portion and thereby embosses said film with said design, said sleeve member being readily removable from said supporting means whereby it may be readily replaced by another sleeve member including a fabric sleeve bearing a different desired design.

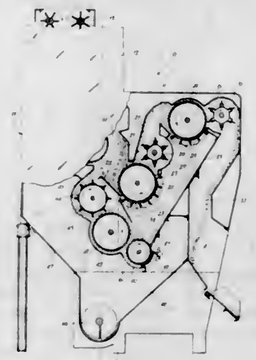
2,776,453
METHOD OF MAKING CHECKING FIXTURES
Steven P. Kish, Lansing, Mich., assignor to Kish Plastic Products, Inc., Lansing, Mich., a corporation of Michigan
Original application September 27, 1949, Serial No. 118,113, now Patent No. 2,632,922, dated March 31, 1953. Divided and this application July 28, 1952, Serial No. 301,327
10 Claims. (Cl. 18—59)

1. The method of making a checking fixture comprising covering the entire surface to be reproduced with a layer of hardenable plastic resin material; placing a lattice core of rigid plastic material having substantially the same coefficient of thermal expansion as the plastic material on the plastic layer while the latter is still in a moldable condition; coating the exposed surfaces of the core and the surfaces of said plastic layer adjacent to said core with additional hardenable plastic material so that



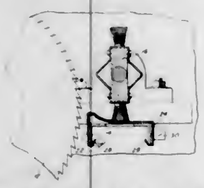
the core is entirely covered by the plastic material and so that the plastic coating is bonded to and integrated with said core and said plastic layer; hardening said plastic material; and removing portions of said plastic layer in certain of said lattice openings as required for application of feeler gauges at critical points on the surface to be checked by the fixture.

2,776,454
COTTON CLEANING MACHINERY
Thomas N. Dyson, Dallas County, Tex., assignor to John E. Mitchell Company, Dallas, Tex., a corporation of Missouri
Application September 27, 1955, Serial No. 537,024
7 Claims. (Cl. 19—1)



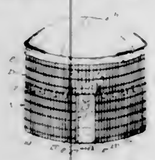
1. In a cotton cleaning machine: a housing having a cotton inlet and an outlet; at least one rotary, cotton-entraining cylinder adjacent the inlet to receive cotton delivered through the inlet; a plurality of beater bars adjacent the cylinder against which the cylinder can beat the entrained cotton, the bars providing elongated slots and being spaced apart sufficiently to enable sticks and other trash to be ejected and to escape from the cylinder, along with a substantial amount of cotton; means to doff the entrained cotton from the cylinder and conduct it toward the outlet; means to collect the sticks and other trash and the cotton with them, that are ejected between the bars; a reclaiming means to which the collecting means delivers the sticks, trash and cotton, the reclaiming means having means to separate cotton from the sticks and trash, although imperfectly, and to expel the latter; means to withdraw the cotton from the reclaiming means comprising a rotary saw to entrain cotton and trash not expelled by the reclaiming means; and baffle means providing a confined space for delivery of such cotton back to the first-named rotary, cotton-entraining cylinder for repassage through the machine, the baffle providing a gap adjacent the rotary saw for the saw to fling trash from the cotton-entrained thereon prior to delivery of the cotton back to the first-named cylinder.

2,776,455
SELF-CLEANING MOTING RAIL FOR COTTON GIN
Donald B. McGregor, Weslaco, Tex.
Application November 22, 1955, Serial No. 548,393
12 Claims. (Cl. 19—58)



2. In a gin stand having a gang of gin saws and a moting rail proximate thereto, a cleaning attachment comprising a shield for interposition between the moting rail and saws for receiving incrustations of lint fibers which would otherwise be deposited upon the moting rail, means for mounting the shield upon the moting rail for sliding movement thereon transversely of the gang of saws whereby lint collecting upon the shield between the saws may be positioned for removal by the saws.

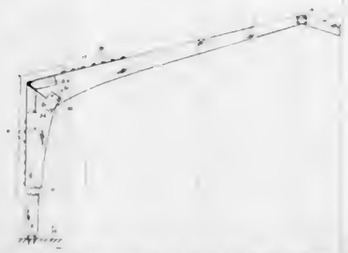
2,776,456
GRAIN BIN
J. Wayne Denning, Joliet, Ill.
Original application September 28, 1949, Serial No. 118,250. Divided and this application October 17, 1951, Serial No. 251,791
2 Claims. (Cl. 20—1.2)



1. In a storage bin capable of being dismantled when not in use and then erected for storage purposes, a wall structure, comprising: a flexible wall section extending circumferentially and having end portions adjacent to but spaced from each other when the bin is erected; a rigid door frame having one side adjacent to one of said end portions and an opposite side adjacent to the other of said end portions, said frame sides comprising channels each having a base portion, the channels facing each other and normally receiving the door; and a plurality of spaced attaching means for attaching each of said end portions to the corresponding side of the frame to produce a strong wall structure highly resistant to sideways deformation, the attaching means being secured to said base portions of the channels and being located substantially entirely outside of the opening of said frame to permit ready access to the bin through said opening.

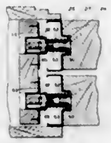
2,776,457
ARCH HAUNCH CONSTRUCTION
Charles H. Woodworth, Portland, Oreg., assignor to Timber Structures, Inc., Portland, Oreg., a corporation of Oregon
Application April 25, 1952, Serial No. 284,213
6 Claims. (Cl. 20—0.5)

1. A timber arch comprising a pair of elongated timber members having abutted, mitered end surfaces, one of said members comprising an upright post and the other comprising a lateral beam, a pair of tension connectors, each of said tension connectors comprising an elongated metal element lying flush against the outer surface of one of said members and extending in the longitudinal direction thereof from its mitered end, means fastening said element to its associated member, each of said tension connectors comprising a bracket mounted on the end of said element adjacent the mitered end of the member, and tension means comprising a bolt spanning the haunch joint substantially at right angles to said



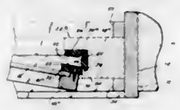
mitered end surfaces, and a nut engaged with said bolt, the head of said bolt bearing against the outer surface of one of said brackets and said nut bearing against the outer surface of the other of said brackets whereby the relative spacing of the outer edges of said mitered end surfaces may be adjusted.

2,776,458
WINDOW SASH GUIDE STRUCTURE
Joseph J. Schwerak, Columbus, Ohio
Application October 18, 1954, Serial No. 462,799
14 Claims. (Cl. 20—12)



1. In a window construction having oppositely disposed guide rails for guiding the sliding movement of a window sash, means for connecting the guide rail to an adjacent frame member of the window, said means comprising spring plunger units, each of said units comprising a screw anchored to the rail in a selected position and extending outwardly therefrom towards the frame member, a spring surrounding said screw and anchored in place thereon to prevent relative axial movement and displacement of the spring from the screw during assembling or disassembling of the window construction, a nut for cooperating with said screw, and means for locating said nut on said frame member in a selected position for cooperation with said screw.

2,776,459
WINDOW STRUCTURE
Janet Quintanilla, New York, N. Y.
Application May 16, 1955, Serial No. 508,397
3 Claims. (Cl. 20—48)



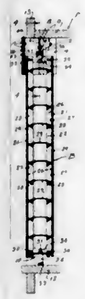
1. A window sash comprising an outer sash frame member having an opening, an inner sash frame member hinged to the outer member in the opening, and a pane on the inner member, said inner and outer members respectively including sealing strips contacting in the closed position of the inner member, both of said strips being of a compressible, resilient material and being placed

under compression when said inner member is swung to a closed position, the strip of the outer member being of L-shaped cross section and including a slit bisecting the angle defined by the legs thereof, said slit being normally open and being closed on compression of the strip of the outer member.

2,776,460
METAL AWNINGS
Theodore J. Bottom, Kirkwood, Mo., assignor to Aluma Kraft Manufacturing Co., St. Louis, Mo., a corporation of Missouri
Application March 24, 1954, Serial No. 418,249
8 Claims. (Cl. 20—57.5)

1. In combination, an awning roof structure, a flashing strip secured to and extending horizontally along the inner margin of said roof structure, said flashing strip having a depending, channeled flange extending lengthwise thereof, caulking means disposed and retained within the channel of said flange, a mounting strip for securing said flashing strip to a supporting surface, said mounting and flashing strips having transversely curved interengaging bearing surfaces whereby said flashing strip is adapted to be adjusted angularly with respect to said mounting strip.

2,776,461
VENETIAN BLIND
Robert F. Anderson, Racine, Wis.
Application September 26, 1955, Serial No. 536,336
5 Claims. (Cl. 20—62)

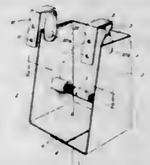


3. In a permanent Venetian blind for window casings, top supporting frame plates adapted to be secured to the outer faces of the stiles of a window frame casing, each of said plates including vertically extending guide tracks having a vertical slot communicating therewith, corner guide rails, slat supporting seats in the guide rails, rock arms disposed at the upper ends of the guide rails and on each side of the blind havng their terminals pivotally connected to the adjacent upper ends of the corner guide rails, supporting angle brackets having depending vertical arms and inwardly extending horizontal arms, means pivotally securing the rock arms intermediate the ends of the vertical arms of the angle brackets, a top connecting rail receiving the horizontal arms of the angle brackets, means adjustably securing the horizontal arms to the top connecting rail, and a clamp plate rockably supporting the pivot pins adjustably mounted in the tracks of the frame plates with the pivot pins extending through the slots in the tracks.

2,776,462
MICROPHONE CLAMP
Louis R. Burroughs, Buchanan, Mich., assignor to Electro-Voice, Incorporated, Buchanan, Mich.
Application February 10, 1954, Serial No. 409,352
5 Claims. (Cl. 24—263)

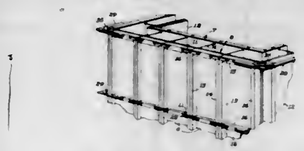
1. The combination comprising a narrow elongated relatively deep base member having on its top surface an undercut recess extending transversely from side to side, an elastic member filling said recess and protruding slightly on either side, a pair of complementary members having flat surfaces adapted to engage the sides of said base and having wing portions adapted to engage another body, and a multi-position clamp member connected to said base for pressing said complementary members against the sides of said base to compress said elastic member in at least one of said clamp member positions against said other body.

2,776,463
FLOOR BEAM RECESS FORM FOR FOUNDATIONS
Arman L. Lankford, Modesto, Calif.
Application November 28, 1952, Serial No. 322,849
2 Claims. (Cl. 25—118)



1. A floor-beam recess form for a foundation to be poured between the confining boards of a foundation form; said recess form comprising a box-like body including sidewalls adapted to abut along their forward edges against the inner face of one of the form boards, hooks projecting upwardly from the inner face of the sidewalls and adapted to engage over the top of said board is normally clearance relation thereto, means to detachably secure the hooks on their outer side to the one form board in body supporting relation, and means pivoting the hooks on the sidewalls for upward and rearward movement from a board engaging position; the hooks being shaped so that upon such upward swinging movement thereof, said hooks will clear the board.

2,776,464
CONCRETE FORM CONSTRUCTION
Lyle E. Stewart, Rockford, Ill.
Application August 12, 1953, Serial No. 373,815
8 Claims. (Cl. 25—131)



1. A concrete form structure for construction of a poured concrete wall, as in a building foundation, said structure being formed of spaced parallel inner and outer walls, each made up of a plurality of wall heighth sections of vertically elongated form disposed in coplanar

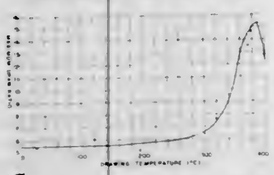
relation with their side edges in abutment and adapted to be secured together detachably to define vertical joints between the abutting sections, the joints in the outer wall being in coplanar relation with joints in the inner wall, means for rigidly spacing said inner and outer walls comprising pins extending therebetween in right angle relationship thereto and protruding through the joints between abutting sections of both walls, the outer extremities of said pins having heads provided thereon, and means for rigidly connecting abutting sections in both walls comprising horizontal elongated rigid tie bars pivotally secured at one end to one of two abutting sections at each joint in said inner and outer walls, said tie bars each having a vertical slot provided in the outer end opening from a longitudinal edge and having another vertical slot provided intermediate the ends thereof in substantially parallel relation to the first slot and opening from the same longitudinal edge, said tie bars being swingable in a plane parallel to said sections to tying position in which the slots intermediate the ends lockingly receive the protruding headed outer ends of the pins so as to hold the inner and outer walls in rigidly spaced relation, the slots in the outer ends then lockingly receiving projections provided on the other of said two abutting sections at each joint in said inner and outer walls so that the abutting sections in the inner and outer walls respectively are also tied together in rigid coplanar relationship, said tie bars being of appreciable length so as to space the pivot at one end and the slot at the other end appreciably on opposite sides of the joints between the abutting sections and provide bearing engagement of the tie bars with the outside of said form sections a substantial portion of the width of the latter on both sides of the joints to insure the desired rigidity of the form structure.

2,776,465

HIGHLY ORIENTED SHAPED TETRAFLUOROETHYLENE ARTICLE AND PROCESS FOR PRODUCING THE SAME

Jack C. Smith, Silver Spring, Md., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application August 12, 1954, Serial No. 449,348
22 Claims. (Cl. 28—82)



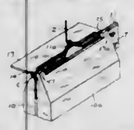
8. A highly oriented shaped article of a tetrafluoroethylene polymer having a tenacity above about 1.0 gram per denier when measured at room temperature.

2,776,466

APPARATUS FOR GAPPING SLIDE FASTENERS

Irving M. Neitlich, Stamford, Conn., assignor to Cue Fastener Corporation, Stamford, Conn., a corporation of New York

Application November 15, 1954, Serial No. 468,981
12 Claims. (Cl. 29—33)



1. Apparatus for gapping slide fasteners having a pair of stringers, each stringer including a coil secured to a piece of material, comprising a support, a cutting member mounted on and movable relative to said support for severing the coil between its ends, means mounted on said support adjacent to said cutting member for gripping a severed section of said coil and pulling it from the piece of material to which it is secured, and mechanism connected to said cutting member and said gripping and pulling means for actuating them in timed relation.

2,776,467

METHOD OF MAKING A CLOSURE AND TERMINAL CONSTRUCTION FOR ELECTROLYTIC DEVICES

Joseph B. Brennan, Cleveland, Ohio

Application November 27, 1951, Serial No. 258,489
3 Claims. (Cl. 29—155.55)

1. A method of making a leak-proof joint for an electrolytic condenser container closure capable of maintaining the container sealed at temperatures of 80° to 90° C. comprising coating the portions to be joined with a thermosetting material, partially drying said coatings, assembling said coated portions thereafter face to face, pressing and distorting at least one portion to partially embrace the other portion, and applying heat and pressure to said coatings to cure into a unitary leak-proof joint capable of standing temperatures of 80° to 90° C. over long periods of time.

2,776,468

TERNARY METAL BORIDE COMPOSITIONS

Robert Steinitz, New York, N. Y., assignor, by mesne assignments, to Borolite Corporation, Pittsburgh, Pa., a corporation of Delaware

Application June 22, 1953, Serial No. 363,358
6 Claims. (Cl. 29—182.5)

1. A hard material of cemented particles having great strength suitable for cutting tool tips, 75% to 95% of the content of said material consisting of the ternary compound Mo_2MeB_2 and of the binary compound Mo_2B, where Me is a metal selected from the group consisting of nickel and cobalt, said ternary compound forming 75% to 25% of said content with the balance of said content being Mo_2B, the balance of said material consisting essentially of an alloy of Mo and of said Me, said material being substantially free of carbon.

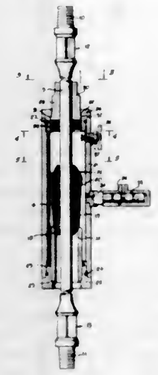
2,776,469

APPARATUS FOR APPLYING A SUCKER ROD PROTECTOR

Charles Haskell Collett, Burbank, Calif.

Application March 20, 1952, Serial No. 277,616
2 Claims. (Cl. 29—236)

1. An applicator for sucker rod protectors and the like comprising a pressure cylinder having an inside diameter such that it may be passed over one end of a sucker rod section, a shoulder having an inner diameter larger than that of a sucker rod on which it is to be mounted and located adjacent the bottom of the cylinder and on which shoulder an outer sleeve of a sucker rod protector may be positioned, means for sealing between the outer sleeve and the cylinder adjacent the shoulder, a top closure for the cylinder detachably connected thereto and also capable of being passed over the end of a



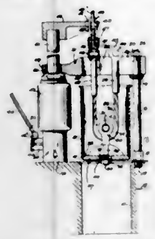
sucker rod section, a shoulder in the top closure, split retaining means applicable laterally about the sucker rod section and engageable with the shoulder and having an inner diameter approximating that of a sucker rod on which it is to be mounted, split sealing means applicable laterally to the section and longitudinally against said split retaining means to seal about said sucker rod section, and means for conducting fluid pressure to the cylinder between the split sealing means and the shoulder adjacent the bottom of the cylinder.

2,776,470

CYLINDER SLEEVE PULLING DEVICES AND THE LIKE

Raymond G. Knudsen, Kenosha, Wis., assignor to Snap-On Tools Corporation, Kenosha, Wis., a corporation of Delaware

Application May 16, 1952, Serial No. 288,118
4 Claims. (Cl. 29—252)



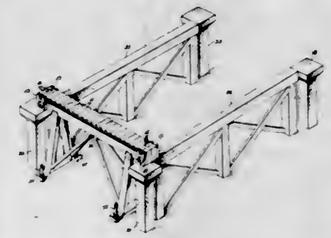
1. In a self-contained portable sleeve pulling device, the combination with an upstanding standard for vertical support upon the top surface of an engine block, of an arm attached to the upper end region of said standard to extend over a cylinder bore in the engine block, means on said arm for anchoring a flexible tension transmitting cable thereto, a flexible tension transmitting cable anchored at one extremity to said arm anchoring means, a power actuator having a ram for mounting on the engine block and supported by said arm, there being means on said arm for guided movable support of said ram in parallel relation with said upstanding standard on the engine block, cylinder sleeve engaging adapter means movably associated with said flexible tension transmitting cable intermediate the extremities thereof for passage downwardly through the engine cylinder to engage the lower peripheral edge of a cylinder sleeve therein, and an offset arm on said power actuator ram for engaging the other extremity of said flexible tension transmitting cable.

2,776,471

METHOD OF ERECTING PRESTRESSED FLOOR SECTIONS

Curzon Dobell, Bronxville, N. Y., assignor to The Preload Company, Inc., New York, N. Y., a corporation of Delaware

Application January 9, 1952, Serial No. 265,597
1 Claim. (Cl. 29—452)



A method of constructing a generally rectangular, generally horizontal, concrete floor upon four spaced corner supports, that comprises erecting a supporting scaffold extending between two adjacent supports and having an upper load-bearing surface which, together with the load-bearing surfaces of the corner supports, forms a continuous support for one edge of said floor, erecting a second, similar, supporting scaffold between the other two spaced corner supports, erecting a third supporting scaffold extending crosswise between the edge supports and having an upper load-bearing surface which, together with the load-bearing surfaces of the edge supports, forms a continuous support for a transverse section of said concrete floor, forming a transverse section of said concrete floor by aligning a series of concrete blocks upon said transverse support and the adjacent portions of the edge supports, combining said blocks into a transversely extending, self-supporting beam by means of prestressed reinforcement extending longitudinally of said beam, moving the transversely extending supporting scaffold longitudinally of the edge supports so as to remove it from under the formed transverse section, forming a second transverse section thereon in the same manner, continuing the process until a series of adjacent transverse sections have been formed, placing prestressed reinforcement through the ends of the transverse concrete sections, said prestressed reinforcement overlying the edge supports so as to tie the adjacent ends of the transverse concrete sections together to form concrete beams overlying the edge supports, and removing the scaffolding.

2,776,472

METHOD OF MAKING A CERAMIC-TO-METAL BOND

Harry F. Mesick, Jr., deceased, late of Schenectady, N. Y., by Edith M. Mesick, administratrix, Cobleskill, N. Y., assignor to General Electric Company, a corporation of New York

No Drawing. Application July 24, 1952, Serial No. 300,773
4 Claims. (Cl. 29—473.1)

1. The method of forming a gas-tight seal between a surface portion of a ceramic body and another body having a metallic surface comprising the steps of applying a coating to said surface portion of less than 15 milligrams per square centimeter of an oxide of a metal selected

from a group consisting of molybdenum and tungsten and mixtures thereof, firing the coated ceramic body in a reducing atmosphere to cause a first portion of the applied metal oxide which is in closest proximity to the ceramic surface to react therewith and to cause the remainder of said applied metal oxide overlying said first portion to be reduced to form a metal coating comprising a substantially continuous metal film less than about 10 microns in thickness which is tightly adherent to said reacted ceramic surface, substantially the remainder of said metal coating comprising a soft layer of poorly sintered metal particles overlying said continuous metal film, reducing the thickness of said metal coating by removing the overlying portions thereof until the adherent continuous metal film overlying the reacted ceramic surface is less than about 5 microns in thickness and joining said ceramic body to another body having a metallic surface by placing the surface of the ceramic body bearing the adherent continuous metal film in close proximity to the metallic surface of said other body and causing a molten metal capable of wetting both the metal film and the metallic surface while it is in the molten state to solidify between said film and said surface to thereby bond said film and said surface together to form a gas-tight joint between said ceramic body and said other body.

2,776,473
TUBE SEALING
Hampton J. Dailey, deceased, late of Verona, N. J., by Ruth M. Dailey, executrix, Verona, N. J., and William J. Knochel, East Orange, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application April 29, 1952, Serial No. 284,911
3 Claims. (Cl. 29—475)

1. A method of sealing hard metal tubing comprising applying a soft-metal sealing medium at the location of seal on the exterior of the tubing, cold pressing the tubing and medium simultaneously to pinch-off both together and compressing the sealing medium beyond the end of the pressed tubing and unifying said medium where extending beyond said tubing for effecting a tight seal at said end.

2,776,474
METHOD OF CONTINUOUSLY PRODUCING WELDED PIPE
Hans Melcher, Mulheim an der Ruhr, Germany, assignor to Friedrich Kocks, G. m. b. H., Dusseldorf, Germany
Application August 9, 1954, Serial No. 448,709
2 Claims. (Cl. 29—477.7)

1. The method of continuously producing welded pipe from a continuous flat length of steel comprising cold forming said steel length into a split pipe, heating by electrical induction the edges only which are split in said cold formed pipe, said induction heating bringing said edges to a temperature of about 1300° C. which is below the welding temperature of the steel of said edges, thereafter blowing an oxygen containing gas against said edges whereby the temperature of said edges is raised to a welding temperature of about 1450°–1650° C., localized at said edges, and immediately thereafter pressure welding said localized heated edges to form continuous lengths of welded pipe seamed at said localized heated edges.

2,776,475
METHOD OF MAKING CYLINDRICAL METALLIC CONTAINERS FOR CONFINING FLUID MEDIUM UNDER PRESSURE
Daniel Mapes, West Caldwell, N. J., assignor to Specialties Development Corporation, Belleville, N. J., a corporation of New Jersey
Application September 30, 1953, Serial No. 383,288
8 Claims. (Cl. 29—543)

1. The method of making a one-piece, seamlessly formed cylindrical metal container for confining fluid medium under pressure and having a cylindrical side wall of a predetermined substantially uniform thickness and having substantially hemispherical end walls of a thickness about equal to about half of that of the side wall and about equal to the side wall thickness of a cylindrical container of equal capacity constructed to withstand the highest working pressures at which fluid medium may be safely confined therein under normal conditions of use without further reinforcement, which method comprises forming a generally circular metal blank with a generally circular central section of reduced thickness and a marginal band of reduced thickness, forming the blank into a cup having an end wall in which the central section is located and having a side wall provided with the band at the open end of the cup, drawing the cup to form a cyindrical shell of greater length and smaller diameter than the cup and to proportionately reduce the thickness of the end and side walls, the central section and the band, extending the end wall axially outwardly and shaping the same into a generally hemispherical end wall of less thickness than the side wall, and necking the band to form a generally hemispherical dome provided with an axially outwardly extending spud.

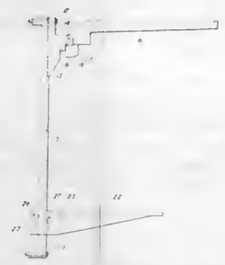
2,776,476
SLIDING BASE CAN OPENER
Raymond A. Withers, Belmont, Calif.
Application April 16, 1956, Serial No. 578,355
7 Claims. (Cl. 30—10)

1. In a can-punching device of the character described, the combination of a vertically extending rod-like support, a can-supporting member at the lower end of said support, a slidable mounting for a can-punching blade having offset laterally extending pinch pins by which said slidable mounting is held in any desired position upon said rod-like support above said can-supporting member, a can-punching blade having an operating handle pivotally secured upon said slidable mounting, and means carried by said slidable mounting adapted and arranged when engaged by a can to prevent a pinch pin releasing movement thereof with respect to said rod-like support during a can-punching operation.

2,776,477
CAN OPENER WITH SLIDING BASE
Raymond A. Withers, Belmont, Calif.
Application December 23, 1955, Serial No. 555,044
1 Claim. (Cl. 30—10)

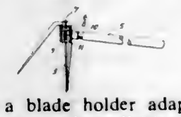
A can opener having a U-shaped bar, the end portion of said bar being bent at right angles to form a U-shaped

supporting member, a pivoted punching element secured to said supporting member at a point adjacent its upper end, a sliding can support mounted on said supporting member, means for locking said can support on said



supporting member, said means comprising a pair of pinch pins engaging opposite sides of said supporting member, and spring releasing means carried by said sliding support for releasing said sliding support when the load is removed therefrom.

2,776,478
YIELDABLE BLADE SAFETY RAZOR
William M. Mercer, Houston, Tex.
Application November 3, 1953, Serial No. 389,987
3 Claims. (Cl. 30—61)



1. In a razor, a blade holder adapted to receive a single edge blade, a pair of parallel bars mounted in said holder, said bars being spaced apart by a plurality of yieldable means, means for varying the pressure on said yieldable means, and means for yieldably maintaining said bars in longitudinal alignment, and means for maintaining a single edge blade in said holder in abutting relation with one of said bars.

2,776,479
CHEESE SHREDDER
Carl F. Tarrant, Webb City, Mo.
Application June 6, 1955, Serial No. 513,327
5 Claims. (Cl. 30—117)

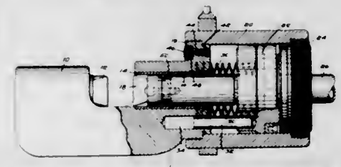
1. A cheese shredder comprising a generally U-shaped frame, a handle attached to the bight portion of said frame, a pair of spaced members, one overlying the other, said members interconnecting the free ends of the legs of the frame, a plurality of spaced wire members disposed between said interconnecting members, the bottom of said interconnecting members having a sharpened edge facing the bight portion of said frame for cutting a slice of cheese, a depth plate supported on said frame for gaging the thickness of the cheese sliced by the sharpened edge, said plate guiding the slice of cheese between the wire members thereby shredding the cheese slice into strips.

2,776,480
SLITTER FOR FRANKFURTERS AND THE LIKE
Ernest F. Abel, Ansonia, Conn.
Application June 3, 1954, Serial No. 434,147
2 Claims. (Cl. 30—124)

1. A slitter for frankfurters and the like comprising a body member including laterally spaced downwardly and rearwardly inclined fingers at one end forming a guide to embrace the opposite sides of a frankfurter on a support, the lower ends of the fingers adapted to rest on the support and slide along the same on opposite sides of the

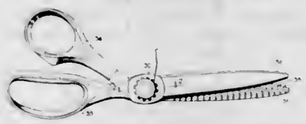
frankfurter to maintain the frankfurter between them, a knife blade projecting downwardly between the fingers, and a handle at the other end of the body member for drawing the guide fingers and blade along the support lengthwise of the frankfurter to slit it longitudinally.

2,776,481
PRESSURE-FLUID OPERATED TOOL
Walter E. Northcutt, Melrose, Mass., assignor to H. K. Porter, Inc., Somerville, Mass., a corporation of Massachusetts
Application July 3, 1956, Serial No. 595,709
4 Claims. (Cl. 30—180)



1. A pressure-fluid operated tool comprising a cylinder having a piston therein, a ram carried by the piston having a tool mounted thereon, a closure head for the cylinder through which the ram passes defining within the cylinder an air receiving chamber, guiding means for the ram, an inwardly opening valve for admitting air to the chamber on the exhaust stroke of the piston and yieldable means providing for discharge of entrapped air from the chamber over the guiding surfaces on the power stroke of the piston.

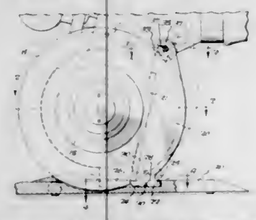
2,776,482
PINKING SHEARS AND METHOD FOR MAKING SAME
Frederick Hafekost, Lake Hopatcong, N. J., assignor, by mesne assignments, to Leo Edelson, Harry S. Schwartz, and Milton R. Cohen, Mamaroneck, Frederick Hafekost, New Rochelle, Abraham Manges, Larchmont, Benjamin Rudikoff, Forest Hills, Morey Stagg, Hempstead, and Daleo Trading Corp., New Rochelle, N. Y., a corporation of New York
Application April 29, 1949, Serial No. 90,426
21 Claims. (Cl. 30—230)



21. Pinking shears comprising a pair of members each being constituted by a blade portion, a handle portion and a pivot portion intermediate the handle and blade portions, said blade portions having inner faces having formed thereon a plurality of arcuate teeth having leading and trailing regions, the teeth being concentric with the axis of the pivot of the shears, said arcuate teeth forming upon the leading edge of each blade portion complementary interfitting pinking serrations, the latter being defined by alternate arcuate ridges and grooves appearing in cross section, such ridges and grooves upon the leading faces of the blades, said interfitting serrations positioned for shearing cooperation in response to angular closing

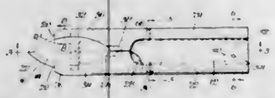
of the blades about the common pivot axis thereof, said teeth having peak and valley lines which are situated in parallel planes and which recede angularly relative to the cutting plane of the shears, each of said arcuate teeth having the trailing region thereof flattened to form a substantial plane surface thereupon which recedes from the cutting plane at a substantially greater angle as compared to the angle of recession of said peak and valley lines, such trailing region plane surface extending substantially to the farthermost extremity of the tooth to a line substantially in the plane formed by the two valley lines adjacent such tooth.

2,776,483
SIDE GUARD FOR CUTTING MACHINES
Frederick G. Clark, Buffalo, N. Y., assignor to Eastman Machine Company, Buffalo, N. Y.
Application January 24, 1956, Serial No. 561,031
3 Claims. (Cl. 30—276)



1. In a cutting machine including a rotary knife, a base plate slidable under the material to be cut and having a depression in the upper face thereof, and a standard extending upwardly from said base plate and on which said knife is rotatably mounted, said standard having a part extending along one side of said knife and beyond the rear edge thereof, that improvement which includes a side guard positioned along the opposite side of said knife and which has the lower end thereof extending into said depression and is provided with a notch therein extending upwardly from the lower edge thereof, a pin on said standard and arranged in said depression and which enters into said notch when the side guard is in its operative position, said side guard having a portion thereof extending rearwardly from said notch to form a fulcrum about which said side guard swings when the upper end thereof is moved rearwardly to disengage said notch in said pin, and means for releasably securing the upper end of said side guard to said standard to support said side guard adjacent to and in spaced relation to said knife.

2,776,484
HAND TOOL
Robert W. Resner, Chicago, Ill.
Application January 7, 1954, Serial No. 402,730
2 Claims. (Cl. 30—287)

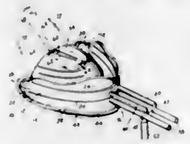


1. A hand tool comprising an elongated body having a longitudinally extending plane, guiding contact face; said body being thick enough to be readily grasped in one hand, with the grasping hand entirely on the same side of said guiding contact plane as the body; said body having greater transverse dimensions parallel to said guiding contact plane than normal thereto; and a substantially rigid, flat cutting blade projecting beyond the forward end of said body; the space beyond the said forward end being unobstructed except for said blade; said blade being set in a plane offset from the median plane of said body and close to and parallel to said contact face; said blade having a forwardly tapered point; said blade having cutting edge portions running back from said point on both sides; whereby said tool may slide with its guiding contact face in surface engagement with a first, guiding piece of solid material, and cut thin shavings from the edge of another piece of material lying with its edge in abutment with said guiding piece of material.

2,776,485
TOOTH BLOCK WITH METAL ONLAY
Charles E. Stuart, Ventura, Calif.
Application February 28, 1955, Serial No. 491,018
5 Claims. (Cl. 32—2)

1. A tooth block comprising a non-metallic body formed to represent a plurality of teeth, a metal onlay having a shape conforming to that of the body and having an occlusal surface in imitation of natural occlusal tooth surfaces, said onlay having a longitudinal and substantially central groove therein, and means secured to the onlay and embedded in the body to retain the former non-displaceably on the latter, said means comprising a wire member spaced from the onlay.

2,776,486
DENTAL TRAY
Elias Manczur, Des Moines, Iowa
Application April 22, 1955, Serial No. 503,158
15 Claims. (Cl. 32—19)

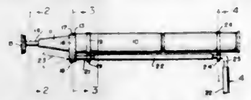


1. A dental tray for simultaneously taking the impression of both the entire upper and lower dental arches of the mouth to get a true centric occlusion, comprising, a pair of integral sections formed respectively in a U-shape to conform to the outline of the upper and lower dental arches, an upstanding buccal wall on one section and a downwardly extending buccal wall on the other, an arched lingual wall disposed within and spaced from the inner curved edge of said sections and suitably secured thereto, a reticulated member, means removably supporting said reticulated layer between said lingual wall and an intermediate point on said sections, a pair of complementary plates which together conform to the shape of the space between said lingual wall and said sections, and means removably supporting said plates to provide a cover or enclosure for said space.

2,776,487
SPRAY ATTACHMENT FOR STRAIGHT DENTAL HANDPIECES
Ray W. Brown, Denver, Colo., assignor to Densco, Incorporated, Denver, Colo., a corporation of Colorado
Application March 7, 1955, Serial No. 492,562
10 Claims. (Cl. 32—28)

1. In combination, a straight dental handpiece having a tubular sheath formed with a coaxial, tapered nose constituting the free operating end of the tool and a

cylindrical fillet in shouldered relation with the sheath about the junction of the sheath and nose, an annular band seated directly on and detachably secured against displacement from said fillet, a second annular band telescopically about said sheath spacedly adjacent said first band, a short length of rigid flow line fixed to and extending between said bands exteriorly adjacent and par-



allel to the axis of the sheath, a jet nozzle extension from said length at its connection to the first band terminating in a free open end adjacent and adjustable toward and away from the end of said nose, a nipple extension of said length beyond said second band, and a flexible tube for the transmission of fluids under pressure detachably engaged with said nipple.

2,776,488
SPRAY ATTACHMENT FOR CONTRA ANGLE DENTAL HANDPIECES
Ray W. Brown, Denver, Colo., assignor to Densco, Incorporated, Denver, Colo., a corporation of Colorado
Application March 7, 1955, Serial No. 492,561
8 Claims. (Cl. 32—28)

1. The combination with a contra angle dental handpiece having a tubular sheath merging at one end into an angularly-related tubular neck carrying a clamp nut, a tubular member detachably clamped by means of said nut to and as a coaxial extension from the end of said neck, and a head at the free end of said member adapted to interchangeably mount dental cutting elements for rotation about an axis radial of said member, of a short length of rigid flow line closed at one end fixed at its closed end to said member inwardly adjacent said head within the angle between the axis of the member and the axis of a cutting element carried by the head to extend exteriorly adjacent and longitudinally along the neck and member assembly in a direction away from said head, means fixed to and projecting radially from said neck adjacent the clamp nut in slidable supporting engagement with said length, a jet aperture through the closed end of said length disposed for the direction of fluid outflow therethrough to the working end of a cutting element carried by said head, and a flexible tube for the transmission of fluids under pressure detachably engaged with the end of said length remote from said head.

2,776,489
PAROTID BLOCK MOUTH CHOCK
Francis M. McGahee, Jacksonville, Fla.
Application July 6, 1954, Serial No. 441,611
11 Claims. (Cl. 32—35)

1. In a device of the character described, a frame including a portion to be received in the buccal vestibule of the mouth and means for applying pressure by said portion against the zygomatic process of the maxillary bone to inhibit the flow of saliva from the parotid duct, said means being engageable with a lower tooth whereby the patient's mandible will apply such pressure.

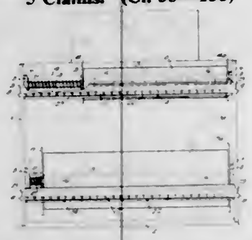
2,776,490
MULTI-PURPOSE DENTAL TOOL
Arthur B. Carfagni, Atherton, Calif.
Application June 3, 1955, Serial No. 513,046
3 Claims. (Cl. 32—40)

1. A device of the class described comprising an elongated shank member having upper and lower ends, a grip member fixedly secured to said shank member intermediate the ends thereof, a hammer member slidably sleeved on said shank member between the upper end thereof and said grip member, a helical spring freely sleeved on said shank member and adapted to be selectively disposed thereon in a first position between said grip member and said hammer member and in a second position between said hammer member and the upper end of said shank member, a retainer member removably secured to the upper end of said shank member adapted when secured to said upper end to prevent removal from said shank member of said spring and said hammer member and adapted when removed from said shank member to enable removal therefrom of said hammer member and spring for re-disposition of said spring from one of said positions to the other of said positions, resilient bumper means carried at one end of said hammer member adapted to cushion the impact between said hammer member and retainer member when said spring is disposed in said first position and to cushion the impact between said hammer member and said grip member when said spring is disposed in said second position, and means at the lower end of said shank member for removably securing an attachment tip thereto.

2,776,491
GAGE AND SCRIBER
Willman I. Miller, Downers Grove, Ill.
Application September 14, 1953, Serial No. 379,937
1 Claim. (Cl. 33—42)

In a gage and scriber, an elongated resilient scale having one end bent upon itself, said scale and said end crimped contiguously at an angle to the longitudinal axis of said scale and defining a bore, said bore threaded throughout a portion of its length, certain of said threads being relatively shallow, a needle in said bore in yielding locked engagement with said shallow threads, a rivet connecting said scale and the bent end thereof between said bore and the bend in said scale remote from said needle, a needle-engaging screw in said bore engaging the threads thereof and expanding a portion of said bore to release said needle, and an U-shaped gage member adjustably carried by said scale, one side of said gage member normally parallel to said bore.

2,776,492
MEASURING AND CUTTING DEVICE
Theodore C. Pickett, Menasha, Wis., assignor to Minnesota Mining & Manufacturing Company, St. Paul, Minn., a corporation of Delaware
Application June 22, 1953, Serial No. 363,353
5 Claims. (Cl. 33—135)



5. A device for measuring and cutting a length of sheet material from a roll thereof comprising a frame in which said roll is supported for rotation about an axis extending from end to end of said roll and a cutting edge under which the leading end portion of the material on said roll may be drawn, said cutting edge being divided into units of measurement, the length of material drawn off said roll under said cutting edge being measurable by folding the side edge of said material to lie along the units of measurement on said cutting edge.

2,776,493
FLOOR COVERING MECHANIC'S TOOL
Harold L. Jerand, Napa, Calif.
Application August 3, 1953, Serial No. 371,976
3 Claims. (Cl. 33—174)

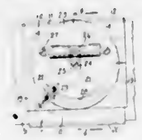
1. In a tool adapted to be used as a template by floor covering mechanics in cutting inside corners in substantially flat pieces of bendable floor covering material to form a cove base, said pieces having upper and lower straight edges, the tool comprising a substantially flat plate, said plate having one straight edge extending for a substantial distance parallel to the longitudinal axis of symmetry of said plate, a second edge having three portions, the first portion being straight and extending for a substantial distance parallel to the first named edge, a second portion inclined to an angle of 45° with respect to said first named edge and meeting said first named edge to form a point, and a third curved portion joining said first and second portions, and a plurality of equally spaced graduations on said plate adjacent said first named edge and the straight portion of said second edge, said graduations being in registration with lines perpendicular to the longitudinal axis of symmetry of said plate whereby when said graduations are aligned with the upper edge of one of said flat pieces of material said tool will be squared with respect to said piece of floor covering material.

2,776,494
CAMSHAFT LIFT INDICATOR
Howard M. Sheppard, Columbus, Ohio
Application October 1, 1953, Serial No. 383,607
2 Claims. (Cl. 33—181)

2. In combination with an overhead valve internal combustion engine including a cylinder head having valve push rods extending therethrough, a camshaft lift indicator comprising a mounting plate having an aperture adjacent one end and an elongated V-shaped slot adjacent its other end, a fastening element extending through said slot and securing said mounting plate to said cylinder head with the aperture thereof surrounding one of said push rods, an upstanding sleeve member having its lower end portion received in said aperture such that its bore

guidably receives the upper end of the associated push rod, and a dial indicator having its barrel frictionally engaged within the upper end of said sleeve with its spindle projecting downwardly therein with the free end of the spindle spaced from the lower end of the sleeve for abutting the upper surface of the associated push rod, whereby rotation of the engine crankshaft will effect a reading on the dial indicator indicative of the total lift of the cam lobe under consideration.

2,776,495
LEVELING INSTRUMENT
Stanley W. Dickey, North Haven, Conn., assignor, by mesne assignments, to Rite Hardware Company, Incorporated, North Haven, Conn., a corporation of Connecticut
Application June 23, 1953, Serial No. 363,484
3 Claims. (Cl. 33—207)

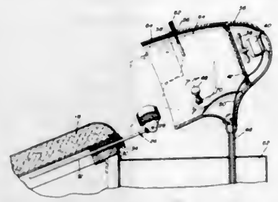


1. In an instrument such as described, the combination of a base plate member having a body portion and a flange portion, an angularly adjustable disc having a spirit tube rigidly secured thereto, said disc being disposed adjacent the outer face of the body portion of said member and being revolubly mounted on said body portion, a flange member having a body portion disposed adjacent the inner face of the body portion of the base plate member, said flange member having a flange portion provided with an inner face in opposing relation to the inner face of the flange portion of the base plate member, one of said members being provided with guideways coacting with the other member, said flange member being extensible from said base plate member whereby said flange portions may be adjusted toward and away from each other, said flange portions being adapted to be secured to opposite sides of a work piece, and means extending through said members and cooperating with said disk to releasably clamp said members and said disc in their relative adjusted positions.

2,776,496
CHAIR WITH DRIER
Opal F. Hudson, Jacksonville, Fla.
Application December 7, 1953, Serial No. 396,698
3 Claims. (Cl. 34—90)

1. A chair with drier comprising a chair having an upwardly inclined supporting surface, a downwardly

opening drier hood positioned over said supporting surface, an independently movable panel mounted in said hood for engagement with the forehead of a person, and means in said hood for vertically adjustably supporting



a person's head, said hood including a laterally pivotal front upper section providing access to a person's face forwardly of the movable panel, said panel being removable and including a resilient concave portion for engaging a person's forehead adjacent the hairline.

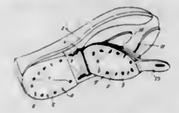
2,776,497
HAIR DRIER
Opal F. Hudson and Ela Hudson, Jacksonville, Fla.
Application June 20, 1955, Serial No. 516,616
6 Claims. (Cl. 34—90)

1. In a hair drier in which hot drying air is circulated, the combination of a hollow generally tubular hood member with an open end, a U-shaped assembly of baffle plates disposed transversely upon the open end of said hood member, said assembly comprising a front plate disposed to engage the forehead and side plates disposed to engage the sides of the head, said front and side plates partly overlapping, pivots connecting the respective forward ends of said side plates to said front plate, means operable from outside the hood member for moving said pivots in translation, said means comprising a shaft having a hand-engageable end outside of said hood and said shaft extending into said hood and said means further comprising linkage means inside said hood coupling said shaft to said pivots, and a movable connection between the rear portion of each side plate and said hood member simultaneously holding said side plate against the edge of the hood and in set angular position about its pivot.

2,776,498
CARD GAME IMPLEMENTS
James M. Macdonald and Jean Macdonald, Evanston, Ill.
Application March 16, 1954, Serial No. 416,464
1 Claim. (Cl. 35—8)

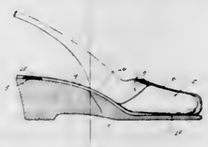
In a set of playing cards adapted to be used in the instruction of the value and rank of cards in a conventional deck, the combination of a first rectangularly shaped card, indicia on the face of said card at diagonally opposite corners to indicate the value and rank of the card in a suit, a second card of transparent material having the same length and width as said first card and overlying said first card, an opaque coating on said second card covering the major portion of the card and configured to leave windows only at diagonally opposite corners to render visible said indicia on said first card, and suit indicating spots printed on the face of said second card.

2,776,499
FOOTWEAR
Hilaire Luciano Giuntini, Alger, Algeria
Application August 11, 1955, Serial No. 527,734
Claims priority, application France August 27, 1954
6 Claims. (Cl. 36—2.5)



1. A footwear comprising a sole having a front portion, a middle portion and a rear portion, said middle portion of the sole being formed with longitudinal slots, a heel on the underside of said rear portion of the sole, a plate having the same outline as the underside of said heel, a buckle attached to said plate and passing through said slots so that said plate is hingedly attached to said sole and is adapted to be swung either into a first position in which said plate is applied by one of its faces against the middle of the underside of said front portion of the sole, or into a second position in which said plate is applied by its other face against the underside of said heel and covers said underside of the heel, non-skid elements on said other face of said plate, and means for maintaining said plate in each of said positions.

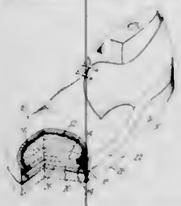
2,776,500
PROTECTIVE PARTIAL FOOT-COVERING OR SOCK
Mary U. Gonsalves, Sherman Oaks, Calif.
Application September 28, 1953, Serial No. 382,512
2 Claims. (Cl. 36—10)



1. A protective partial foot-covering adapted to be worn positioned effectively between portions of a person's foot and portions of a shoe worn by said person, comprising: a thin-sheet pliable porous fabric sole member of a configuration similar to that of a human foot and having a pliable porous front toe portion, a pliable porous middle arch portion and a pliable porous rear heel portion; said pliable porous middle arch portion and said pliable porous rear heel portion being flat and without upstanding edge portions; said pliable porous front toe portion being provided with a connected thin-sheet pliable porous elastic fabric partial vamp portion forming with said toe portion a pliable porous elastic toe-receiving pocket at the front end only of said sole member and without rearward extensions above said middle arch portion and said rear heel portion of said sole member and rearward of said toe-receiving pocket; said sole member including an underlying resilient partial pad member coextensive with and affixed to the underside of the middle arch portion and rear heel portion of said sole member only and forwardly terminating adjacent the junction of said middle arch portion and said front toe portion of said sole member, thus not extending completely under said front to portion; downwardly directed pressure-

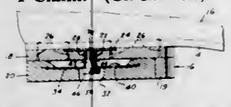
sensitive adhesive fastening means carried by the underside of said portion of said partial pad member underlying the heel portion of said sole member and co-operable for selectively removable fastening engagement with the upper surface of the inside of the heel portion of a shoe worn by the person whereby to effectively immobilize said heel portion of said sole member with respect to said shoe during the wearing thereof by a person and yet to allow selective removal of said sole member, said partial vamp portion, and said partial pad member from said shoe during periods of non-use.

2,776,501
STITCHDOWN SHOES
Leonard S. Curtin, Arlington, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application April 11, 1955, Serial No. 500,347
1 Claim. (Cl. 36—16)



A stitchdown shoe having a bottom structure characterized by an insole having a portion at least of its edge face substantially spaced from the inner wall of the shoe, a shoe upper having an outwardly turned flange, a first extension sole, a chain stitch seam located at the junction of the body portion of the upper and its outwardly turned flange and securing the upper to the first extension sole and in contiguous relation to the edge face of the insole, a second extension sole, a cover strip, and a lock stitch seam securing the cover strip, the outwardly turned flange of the upper and the first extension sole to the second extension sole, said lock stitch seam being contiguous to and at the inner side of the chain stitch seam.

2,776,502
FOOTWEAR CONSTRUCTION
Leonard L. Taylor, Chicago, Ill.
Application February 25, 1954, Serial No. 412,547
1 Claim. (Cl. 36—36)



A three-part heel for shoes comprising a thin heel portion adapted to be fastened to a shoe, a centrally located nut member secured thereto, said nut member having an enlarged flange fastened on the inner surface of said thin heel portion and a tapped boss extending through the same, a flat rotatable heel portion cylindrical in shape and having a central opening therethrough terminating in an enlarged shallow opening in the face of the same, a flexible metal plate positioned in said opening and lying against the floor of said opening, said plate having radially extending arms, serrations on the outer edges of said arms for frictionally connecting said plate and said rotatable heel portion together, said plate having a central opening therethrough, a fastening bolt extending through said central opening and engaging said tapped boss, a spacing shoulder on said bolt and an inner heel portion of the thickness of said rotatable heel portion fastened to the thin heel portion and having an arcuate end wall engaging the rotatable wall portion, said end wall being on the same radius as said rotatable heel portion, said flexible metal plate and bolt being fixedly attached to said thin heel portion and said rotatable heel portion capable of removal and replacement on said plate.

2,776,503
SHOEMAKING
Fred Maccarone, Brooklyn, N. Y.
Application August 25, 1954, Serial No. 452,058
3 Claims. (Cl. 36—58.5)

1. A shoe comprising an insole, an outsole secured to said insole, an elastic strip anchored at its forward end to the lower surface of the forepart of the insole and passing upwardly and rearwardly through a slit in the insole, means securing the rear end of the elastic strip to the heel seat portion of the insole, said strip being under tension, and a sock lining having a slit to accommodate said strip and lying flat on said insole.

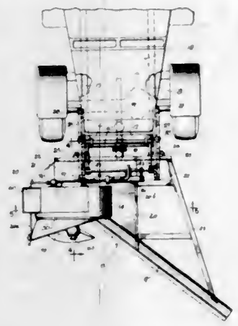
2,776,504
STUMP EXTRACTOR
Donald H. Green, Kalispell, Mont.
Application August 23, 1954, Serial No. 451,404
1 Claim. (Cl. 37—2)

The combination with a land clearing machine blade having end walls interconnected by a front wall comprising a series of transversely spaced, downwardly and forwardly extending removable teeth, of a stump extractor including an elongated depending shank removably secured for vertical adjustment to the inner surface of an end wall and against the rear surface of the front wall of the blade in lieu of one of the teeth, and a substantially wedge-shaped stump splitting tooth fixed horizontally on the lower end of said shank and projecting forwardly therefrom beyond the remainder of the first-named teeth and in substantially the same horizontal plane, said stump splitting tooth having a rear end portion extending beyond the shank, and a reinforcing plate interconnecting the upper surface of the rear end portion of the tooth and the rear edge of the shank to counteract the forces exerted on the tooth by lifting with the front end thereof, the contact of the front edge of the shank with the rear surface of the front wall of the blade counteracting the rotational forces exerted on the upper end of the shank by pushing on the front end of the tooth.

2,776,505
ROTARY SNOW REMOVER
Melvin Chancy Root, Union Gap, Wash., assignor of one-half to Harry L. Maloney, Thorp, Wash.
Application November 8, 1952, Serial No. 319,475
2 Claims. (Cl. 37—43)

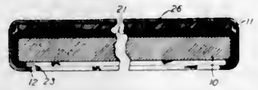
1. In snow moving equipment designed to be mounted upon and in advance of a carrier vehicle and including a frame structure for so mounting the equipment on the vehicle; a housing rigidly secured to said frame structure

and having bottom, side and back walls, the housing having a forwardly directed open front and an open top, an impeller housing within the first housing and having a substantially cylindrical wall, a back wall and a delivery spout tangent to the cylindrical wall and directed upwardly through the open top of the first housing, the impeller housing having a circular open front defined by the cylindrical wall, a bearing body carried by the back wall of the first housing, a hub forming a part of the back wall of the impeller housing and rotatably mounted on said bearing body, an impeller shaft extending through and supported by the bearing body, an impeller within the impeller housing and having a hub mounted on and secured to said shaft and radial blades carried by the hub, a long snow gathering blade extending forwardly and laterally from said first housing at an oblique angle to the shaft, said blade further extending across the forward edge of and being rigidly secured to one side wall of the housing



and to said frame, said blade terminating at its rear end adjacent to the forward edge of the near side of the impeller housing cylindrical wall, said rear end of the blade having a portion of its transverse edge curved and substantially conforming to the curvature of the cylindrical wall, a short snow gathering blade rigidly secured to the other side wall of the first housing and extending forwardly and laterally from the rear end of the long blade across the major portion of the lower part of the cylindrical housing, said short blade having a curved edge substantially conforming to the curvature of the cylindrical wall, a connecting ring between and rigidly secured to the said curved edges of said blades and lying within and closely adjacent to the inner side of said cylindrical wall, said impeller housing being rotatable on and around the bearing body and around the connecting ring, means for rotating the impeller housing on the bearing body, and means for delivering power to said shaft from a power source to rotate the impeller.

2,776,506
IRONING PROCESS AND APPARATUS
Elmer L. Scherer, Racine, Wis.
Application June 14, 1954, Serial No. 436,304
3 Claims. (Cl. 38—144)



2. In a process of ironing fabrics, the steps comprising placing a moisture proof cover upon the top of a horizontally disposed ironing board, placing a damp moisture retaining pad upon the top of said cover, placing a moisture pervious cover upon the top of said pad, ironing said fabrics on said moisture pervious cover by direct contact with a heated household iron for causing moisture from said pad to pass through said moisture pervious cover and dampen said fabrics during the course of ironing.

2,776,507
LICENSE PLATE LOCK
Ernest J. Stombock, Farmville, Va.
Application May 18, 1954, Serial No. 430,559
1 Claim. (Cl. 40—125)

An article of the class described comprising an elongated bracket, means for mounting said bracket on a car or the like, an elongated substantially cylindrical rod, end walls integrally formed at the ends of said elongated bracket and extending outwardly therefrom at substantially right angles, said end walls having longitudinally aligned openings rotatably mounting the ends of said rod, said rod intermediate the ends thereof having a flat cutaway portion adapted to fit a license plate to be inserted intermediate said flat cutaway portion and the outer face of said bracket, said rod having inwardly extending angular openings at each end adapted to be engaged by an angular wrench or the like, a cylinder lock mounted on the outer face of one of said end walls, a detent mounted on the inner face of said end wall and adapted to be raised and lowered by said cylinder lock, said rod having a plurality of radially spaced openings adapted to receive said detent whereby to lock the angular position of said rod.

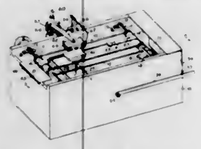
2,776,508
PICTURE FRAMES
Alton W. Hutson, Richmond, Calif.
Application August 6, 1953, Serial No. 372,628
1 Claim. (Cl. 40—155)

In a picture frame, four similar molding strips and four separate corner pieces hollowed to allow the ends of the strips to be telescoped thereinto to form a rectangular frame, the strips being solid in cross-section and having rear faces with registering ledges in the inner portions thereof, outer faces, front faces and inner faces adjacent the ledges, and the corner pieces being contoured to cover the said faces while leaving the ledges exposed for introduction of a picture assembly from the rear of the assembled frame, and the ledges having continuous slots behind the picture assembly and having flat tabs insertible thereinto for holding the assembly to the ledges.

2,776,509
TRANSFER APPLICATOR
Joseph E. Kienel, Acworth, Ga.
Application June 2, 1952, Serial No. 291,364
10 Claims. (Cl. 41—1)

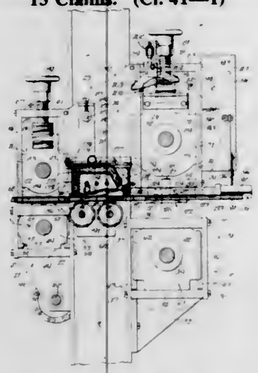
1. A machine for applying transfers to articles of clothing comprising a casing a pair of opposed rollers mounted in said casing, a pair of continuous belts passing between said rollers, means for supporting a reel of marking tape adjacent said rollers, tape from said reel passing over said opposed rollers and between said pair of continuous belts, said belts and said tape being adapted to receive said articles over said tape, a heating element mounted in said

casing adjacent said tape, a presser plate mounted on said casing and movable to and from said heating element, means for controlling the travel of said belts and said tape to stop said tape and one of said articles over said



tape for pressing action of said presser plate, means for selectively controlling said pressing action of said presser plate to press when said article of clothing is between said presser plate and said heating element and means for removing said article of clothing from said machine.

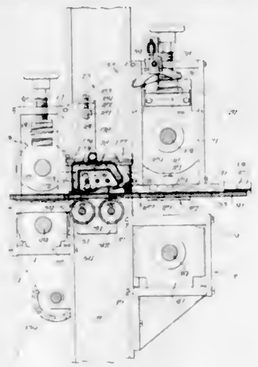
2,776,510
MACHINE FOR APPLYING FILMS TO BASE SHEETS
Jess D. Klopfenstein, Oak Park, Ill., assignor to The Meyercord Co., Chicago, Ill., a corporation of Illinois
Application June 23, 1953, Serial No. 363,643
13 Claims. (Cl. 41—1)



1. A machine for applying a film to a base sheet comprising a pair of feed rolls between which a base sheet and a superimposed film may be passed under pressure, heating means for one of said feed rolls for effecting preliminary bonding of the film to the base sheet under heat and pressure, a pair of compressible pressure rolls mounted adjacent said feed rolls for receiving the base sheet and preliminarily bonded film from said feed rolls, said pressure rolls being adapted to conform to the surface irregularities of said base sheet for pressing the film into intimate bonded engagement with the base sheet over substantially the entire surface area of the sheet, radiant heating means interposed between said feed rolls and said pressure rolls for heating the film and the adjacent surface of the base sheet prior to the application of final bonding pressure by said pressure rolls, and a plurality of guard elements extending across said heating means and spaced from each other across the path of the work for preventing contact of the latter with said heating means.

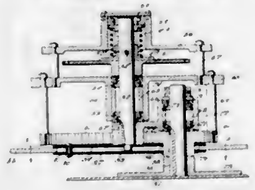
2,776,511
MACHINE FOR APPLYING FILMS TO BASE SHEETS
Jess D. Klopfenstein, Oak Park, Edwin T. Zimmerman, Berkeley, and Knute F. Engstrom, Wheaton, Ill., assignors to The Meyercord Co., Chicago, Ill., a corporation of Illinois
Application July 9, 1953, Serial No. 366,935
2 Claims. (Cl. 41—1)

1. A machine for applying a film to a base sheet comprising a pair of driven upper and lower feed rolls between which a base sheet and superimposed film may be passed under pressure, said upper feed roll comprising a metal cylinder having internal heating means for effecting preliminary bonding of the film to the base sheet under heat and pressure and said lower feed roll having a traction surface for frictionally gripping the base sheet and driving the same through the rolls, a pair of driven upper and lower rubber pressure rolls mounted adjacent said feed rolls for receiving the base sheet and preliminarily bonded film from said feed rolls, said rubber pressure rolls being resiliently compressible to conform to



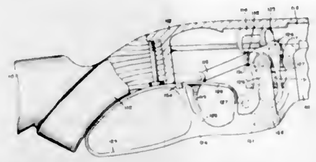
the surface irregularities of said base sheet for pressing the film into intimate bonded engagement with the base sheet over substantially the entire surface area of the sheet, adjustable support means for said upper feed and pressure rolls for varying the spacing between the upper and lower rolls, adjustable resilient pressure applying means coacting with said upper feed and pressure rolls for urging the upper rolls toward the lower rolls, and heating means interposed between said upper feed roll and said upper pressure roll for heating the film and the adjacent surface of the base sheet prior to the application of final bonding pressure by said pressure rolls.

2,776,512
ETCHING MACHINE
William Guenst, Elkins Park, Pa.
Application December 12, 1955, Serial No. 552,471
3 Claims. (Cl. 41—9)



1. In an etching machine, a tank, a generally horizontal work carrier exposed on the interior of the tank, a first vertical shaft rotatably mounted and supporting the work carrier, an arm extending at right angles to the first shaft and revolvably supporting the first shaft, a second vertical shaft generally parallel to the first shaft, rotatably mounted and supporting the arm to rotate the arm, means for turning the second shaft, a planet gear on the first shaft, and a ring gear engaging the planet gear, whereby on rotation of the second shaft the arm turns, revolving the first shaft and revolving the work carrier, and as the first shaft revolves, the planet gear engages the ring gear and rotates the first shaft and the work carrier.

2,776,513
LEVER ACTION FIREARM
Ernest C. Neal, Chicago, Ill., assignor of one-half to Elmer Brandell, Chicago, Ill.
Original application July 25, 1951, Serial No. 238,417. Divided and this application August 20, 1952, Serial No. 305,429
12 Claims. (Cl. 42—16)

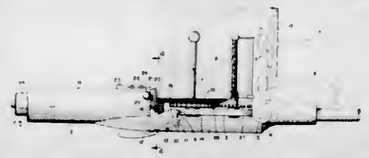


1. A firearm comprising a frame formed with a cartridge chamber at the top of the frame, a bolt movable on the frame for opening and closing the chamber, pivot mounting means on the frame below the chamber, a bolt driving lever pivoted at one end on said mounting means, the opposite end of said lever being drivingly connected with said bolt, a manually operable lever pivoted on said mounting means, and cam means drivingly connecting the manually operable lever with said bolt driving lever intermediate the ends thereof.

2,776,514
FISHING ROD HOLDER
Howard T. Kinder, Goodland, Kans.
Application September 10, 1954, Serial No. 455,216
2 Claims. (Cl. 43—16)

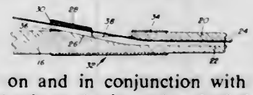
2. A holder for a fishing rod having a line associated therewith, said holder comprising a standard, a frame vertically swinging thereon, spring means connected between the frame and standard and biasing one end of the frame in one direction, and means on the frame for supporting a fishing rod thereupon, a trigger-and-catch mechanism normally holding the frame against swinging movement in said direction and responding to a pull exerted on the line by a fish to release the frame for said movement, said trigger and catch mechanism comprising a trip wheel adapted to be rotatably mounted on the frame and formed with a series of teeth extending circumferentially thereabout for engagement of a selected tooth by the line to effect rotation of the wheel in one direction by the pull of a fish on the line, said wheel having a notch extending chordally of the wheel approximately diametrically opposite said series of teeth, and a yoke releasably engaged in said notch, for movement out of the notch responsive to rotation of the wheel, thus to disconnect the wheel from the yoke when the wheel is rotated, the yoke having a cord adapted to be connected to the standard to normally hold the frame against said movement when the yoke is engaged in the notch, the yoke including a roller extending across the notch and rollably engaged against one edge thereof, said circumferential series of teeth being adapted to permit preliminary rotatable adjustment of the wheel relative to the roller, for disposition of the roller a selected, adjusted distance from the open end of the notch preliminary to engagement of the line about a selected tooth.

2,776,515
ELECTRIC FISHING REEL
Vernon C. Lynch, Waukesha, Wis.
Application December 9, 1953, Serial No. 397,164
4 Claims. (Cl. 43—21)



1. The combination with a fishing rod having a handle portion, of a reel comprising a bracket pivotally attached at its forward end to said handle portion on a pivot axis lying at right angles to the rod axis and substantially in a common plane therewith, said bracket being freely swingable about its axis between a rearward position parallel with the rod axis to a forward position normal thereto, a reel spool rotatably mounted by one end on said bracket adjacent the rear end thereof and on an axis at right angles to the pivot axis, releasable latch means for normally holding said bracket in the rearward position relative to the rod axis, reversible motor means on said handle portion engageable with said reel spool for driving said reel spool while said bracket is in a latched position, and means on said handle for releasing said latch means.

2,776,516
FISHING ROD
William S. Jennette, Elizabeth City, N. C.
Application October 11, 1954, Serial No. 461,484
2 Claims. (Cl. 43—24)



1. For use on and in conjunction with a fishing rod having a hand grip at the inward end of the rod, a line-equipped reel mounted on the rod adjacent said hand grip, that portion of said rod outwardly and beyond said reel having an axial fishing line accommodating bore therein opening through the outer end of the rod and an inner end portion having a line directing inlet opening through the peripheral surface of said rod in communication with said bore; means for directing and "slipping" said line, when cast in the usual manner from said reel, into said bore by way of said inlet opening comprising an elongate adapter sleeve adapted to externally embrace said rod and having an opening through the wall thereof intermediate its ends for registry with said inlet opening, and a one-piece anti-chafing line directing guide integrally mounted atop said sleeve, said guide being restricted at one end and flared at the other end and having a tapered open-ended line guiding passage in line-piloting alignment with said inlet opening, the smaller end of said passage being directed toward said inlet opening and the larger end of said passage being directed toward said reel and being flush with the corresponding end of said sleeve, the smaller end of said passage, as well as the same end of said guide, being spaced inwardly of the same end of said sleeve.

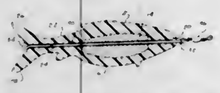
2,776,517
FISH BAIT
Göte Ingvar Borgström, Svangsta, Sweden, assignor to Aktiebolaget Urfabriken, Svangsta, Sweden, a corporation of Sweden
Application October 4, 1954, Serial No. 460,144
Claims priority, application Sweden October 8, 1953
2 Claims. (Cl. 43—42.22)

1. In a fish bait, the combination comprising an elongated body member having hook means secured thereto,

said body member including at the forward end thereof a centrally located vertical slotted portion, a disc like arm member arranged in said slotted portion, a horizontal shaft extending transversely of said slotted portion in said body member and mounting said arm for angular adjustment about the axis of said shaft, a pin mounted

in said body member and projecting forwardly into said slotted portion, the rear peripheral portion of said arm member being arcuate and provided with notches selectably engageable with said pin, spring means biasing the front end of said pin into engagement with a selected one of said notches, and a guide fin carried by said adjustable arm member.

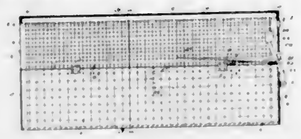
2,776,518
FISH LURE
John T. Felmlee, Lewistown, Pa.
Application June 25, 1954, Serial No. 439,251
1 Claim. (Cl. 43—42.24)



A fish lure comprising a molded plastic body having the longitudinal and transverse proportions, fully from end to end thereof, of a live bait fish, said body having a longitudinally and centrally extending bore therethrough and being formed of a readily deformable material, the tail portion of the body by reason of the deformability of said material being bendable laterally with respect to the longitudinal center line of the body to a degree selectable by the user, said body including integral, narrow, longitudinal stabilizer ribs extending fully from the head to the tail end of the body and lying in a common horizontal plane passing through the longitudinal median of the body, the body further including integral front fins spaced rearwardly from the head end of the body and disposed at opposite sides thereof, said fins having one end directly connected to the stabilizer ribs and extending downwardly from the respective stabilizer ribs each through approximately one-quarter of the girth of the body, along paths extending spirally about the body, the lower ends of the fins terminating substantially in a plane perpendicular to said horizontal plane and bisecting the body longitudinally at the longitudinal center line thereof; a weight embedded in the body and having a longitudinal bore registering with the first named bore, the longitiudinal center line of the weight being disposed to one side of the longitudinal center line of the body, said weight having a rear end terminating a substantial distance forwardly of the tail end of the body to avoid hindrance to deformation of said tail end in a lateral direction; and a rod of deformable material extending through said registering bores and formed with eyes beyond the head and tail ends of the body, one eye for receiving a line connector and the other eye for receiving a hook.

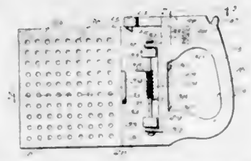
2,776,519
ANIMAL TRAP
Floyd S. Jones, Durham, N. C.
Application March 12, 1953, Serial No. 341,923
1 Claim. (Cl. 43—70)

An animal trap comprising a rectangular box formed of an imperforate bottom wall and perforate side, end and top walls, a longitudinally disposed vertical partition in said box, an imperforate trap door hinged to one of said side walls and extending inwardly therefrom to a point closely adjacent said partition, an L-shaped bar fixed to the lower side of said door and projecting outwardly through said one side wall, a balancing weight adjustably mounted on the projecting side of said bar, a combined keeper and bait holding member pivotally carried by an end wall and having a keeper notch wherein an end of said door engages for normally holding said



door in horizontal set position, said notch having a horizontal shoulder and an upwardly and inwardly inclined door releasing surface, and a trigger plate pivotally carried by and overlying said door and having one end thereof engaging in said notch, the other end of said trigger being raised above said door whereby weight on said trigger will effect upward rocking of said one end to thereby swing said keeper outwardly to door releasing position.

2,776,520
MECHANICAL INSECT KILLING DEVICE
William Lloyd Weeks, Florence, S. C.
Application February 14, 1955, Serial No. 487,768
5 Claims. (Cl. 43—135)



1. A mechanical insect killing device comprising a handle body portion, a relatively stationary slapper secured to the handle body portion and extending forwardly thereof substantially in the same plane as said body portion, a movable slapper hingedly secured to the handle body portion adjacent the inner end of said stationary slapper and having its hinge axis parallel to said plane, said movable slapper adapted to extend forwardly of the handle body portion in opposed substantially contacting parallel relation to said stationary slapper and handle body portion, the movable slapper being swingable laterally about said hinge axis to a position generally at right angles to the handle body portion and stationary slapper, movable latch means carried by the handle body portion and engageable with said movable slapper when the same is positioned at right angles to the handle body portion for releasably holding the movable slapper in such extended position, and a spring connected with the movable slapper for returning it rapidly to opposed parallel contacting relation with said stationary slapper when said latch means is actuated to disengage the movable slapper.

2,776,521
CONSTRUCTION TOY
Elmer L. Zimmerman, Oak Ridge, Tenn.
Application October 27, 1954, Serial No. 464,980
1 Claim. (Cl. 46—25)

A construction toy unit comprising a relatively flat thin body of semi-rigid material, said body being provided with a thickened portion formed integrally therewith and extending around the periphery thereof, the outer edges of said thickened portion being flared together, a female hinge element and a male hinge element laterally

extending from each of the sides of said unit and formed integrally therewith, said hinge elements being adapted to cooperate with correspondingly positioned complementary male and female hinge elements provided on the adjacent sides of a similar unit in mating relation, the flared edges of said sides being recessed to permit the mating engagement of complementary hinge elements to thereby position flared edges of adjacent units in close contiguity with each other to thereby form a substantially continuous wall therebetween, beads formed on the

walls of one of said hinge elements and complementary grooves formed in the walls of the other of said hinge elements adapted to receive said beads, the material of which said unit is formed being of sufficiently resiliently yielding character to permit the introduction of said beads into said grooves with a snap action to thereby form a secure hinge connection between adjacent units, said grooves being formed to completely encompass the extending body of said beads whereby a multiplicity of said units may be articulated during assembly to form a complex geometric figure.

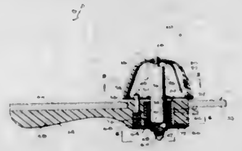
2,776,522
TOY GARAGE
Ella Schramm, Brooklyn, and Daniel R. Berness, Glendale, N. Y.
Application November 23, 1954, Serial No. 470,652
6 Claims. (Cl. 46—39)

1. A toy garage comprising a base, a belt conveyor having a pair of spaced rollers rotatably mounted on the base, an endless belt mounted on the rollers and extending therebetween, a crank on one of the rollers to rotate the roller and the belt, a plurality of concentric annular turntables rotatably mounted on the base, said belt having an upper surface disposed adjacent and tangential to the outermost turntable and in the same plane as the top surface thereof, said turntables having a plurality of radially divided alignable parking lanes and spaces, means separately to rotate the turntables, said means including a crank, crankshaft and crank gear for each turntable, each of said turntables having a ring gear disposed to mesh with the crank gear for that turntable, and car stopping means for each turntable, each of said car stopping means being adapted to be detachably and operatively connected with its respective turntable, said car stopping means each including a lever pivotally mounted on the base beneath one of the turntables with a pair of spaced pins at one end and a handle at the other end, said turntables each having a plurality of spaced pin passing openings each alignable with one of the pins for receiving said pin.

2,776,523
CHROMATIC EFFECT PRODUCING SPINNING TOY
Frank R. Higley, Cleveland Heights, Ohio
Application September 16, 1953, Serial No. 380,539
6 Claims. (Cl. 46—49)

1. In a device of the class described, a sphere having its surface sectorially divided into three areas, respectively presenting the primary colors together disposed about a diametric chromatic axis, and means mounting said sphere for its drive about another diametric axis perpendicular to said chromatic axis, said sphere and said mounting means respectively including cooperative bearing parts disposed loosely one about the other at a pole of said chromatic axis, said bearing parts including a circular driven part on said sphere concentric with said chromatic axis, and a driving part fast on said mounting means having a pair of portions spaced transversely of said circular part at an acute angle to the plane of said axes, to engage said circular part, alternately at opposite locations thereon and on opposite sides of said plane, responsive to forces about said driving axis, and thereby cause incremental progression of said sphere about said chromatic axis.

2,776,524
TOP AND PADDLE
George A. Healis, Palmyra, N. J.
Application January 4, 1955, Serial No. 479,740
2 Claims. (Cl. 46—69)

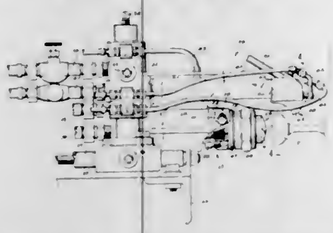


1. A toy comprising: a support having a generally vertical bore: a torsion spring within the bore having a lower end anchored to the support and an upper end projecting out of the upper end of the bore; a top including a stem removably seating in the bore in coaxial alignment with the spring, the top including means at the upper end of the stem releasably engaging the other end of the spring, for winding of the spring responsive to manual rotation of the top in one direction and for spinning of the top in an opposite direction responsive to unwinding of the spring; a detent carried by the support releasably engaging the top in the wound condition of the spring, the detent and the other end of the spring disengaging from the top responsive to upward movement of the stem within the bore; a tip axially slidable within the stem and projecting out of the lower end of the stem beyond the lower end of the bore; and a compression spring extending between the stem and tip within the stem to exert a resilient, yielding force on the tip tending to bias the same in a direction axially, outwardly of the stem, said tip being manually shiftable axially, inwardly of the stem to place the compression spring under increased compression effective to increase the pressure thereof against the stem to a value sufficient to disengage the top from said detent, thus to initiate a spinning motion of the top responsive to unwinding of the torsion spring substantially simultaneously with an axial motion of the stem upwardly within the bore responsive to expansion of the compression spring.

2,776,525
LEAPING FIGURE TOY
William H. Ford, Springfield, Ohio
Application March 29, 1954, Serial No. 419,272
4 Claims. (Cl. 46—129)

1. A leaping figure toy comprising relatively rigid body and limb portions secured pivotally together adjacent a rearward end of the figure, and secured within a forward open end of the figure between the body and limb portions a cylinder and a piston therein, a piston rod projecting from the cylinder, the cylinder being pivotally secured to the body portion and the piston rod being pivotally secured to the limb portion, a coil spring surrounding the piston rod and having one end slidable thereon, the other end being supported by the piston rod for movement therewith, said spring being between said cylinder and limb portion, means to develop a vacuum upon one side of the piston upon relative movement in one direction of the cylinder and piston to stress the spring, means to leak air from the atmosphere slowly into the vacuum thus created to reverse the relative movement of the piston and cylinder and to partially relax the spring and urge said body and limb portions apart, and means to thereafter equalize the pressure upon opposite faces of the piston quickly to completely relax the spring and urge said body and limb portions apart rapidly to cause said figure to leap into the air, said latter means including ports in the cylinder side wall and in the cylinder end which said piston approaches in effecting the equalization of pressures, the ports being freely communicable with the atmosphere.

2,776,526
BURNERS FOR REHEATING STEMWARE
John H. Beddoes and John J. Suchocki, Toledo, Ohio, assignors to Owens-Illinois Glass Company, a corporation of Ohio
Application August 1, 1951, Serial No. 239,684
3 Claims. (Cl. 49—58)

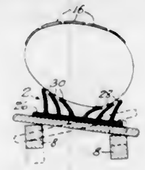


1. An apparatus for reheating the cup shaped supporting foot on glass stemware prior to reshaping thereof comprising a burner provided with a multiplicity of ports for directing flames onto the interior surface of said supporting foot, means for supporting an article of glass stemware with its axis in alinement with the axis of the burner, a second burner provided with a multiplicity of ports for directing flames onto the exterior surface of the supporting foot, said second burner being mounted with its axis and the outlet ports for the flames at an acute angle with the stem of the glassware, the flames thereby being directed away from the stem, the ports in said second burner being so arranged that the flames emanating therefrom form parallel sheets of flame on either side of the axis of the stem.

2,776,527
APPARATUS FOR GRINDING GLASS
Eugene Hoyet, Tarentum, and Ethmer J. Hazen, Ford City, Pa., assignors to Pittsburgh Plate Glass Company, Allegheny County, Pa.
Application October 5, 1954, Serial No. 460,426
9 Claims. (Cl. 51—209)

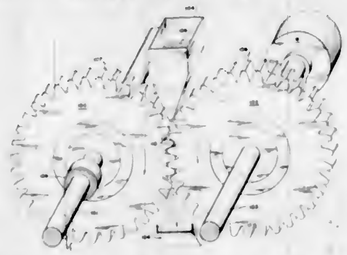
1. In apparatus for surfacing flat glass comprising a rotatable shaft, a deck secured to one end of the shaft for rotation therewith, and a grinder runner having a surface suitable for grinding glass upon relative motion therewith attached to said deck, the improvement comprising a layer of cementitious material containing Portland cement as an essential ingredient attaching the grinder runner, at its surface opposite that desired for grinding the glass, to the deck.

2,776,528
EGG SUPPORTING MEANS IN EGG CLEANING MECHANISM
Otto C. Niederer, Otto Niederer, and Herbert O. Niederer, Titusville, N. J.
Application December 31, 1952, Serial No. 328,874
4 Claims. (Cl. 51—216)



1. In an egg cleaning device having a longitudinally extending support for the eggs to be cleaned, and means for oscillating said support transversely, means on the egg engaging surface of the support presenting a plurality of fins spaced apart and located on opposite sides of the center line of the support with the fins nearest the center of the support being higher than those adjacent the edges thereof, said fins extending lengthwise of the support and being formed of resilient flexible material and being flexible transversely to provide a crowned yieldable egg supporting surface.

2,776,529
DIAMOND STUDDED ABRASIVE WHEEL DRESSING TOOL
Joseph J. Osplack, Detroit, Mich., assignor to Vinco Corporation
Application April 2, 1953, Serial No. 346,355
5 Claims. (Cl. 51—287)

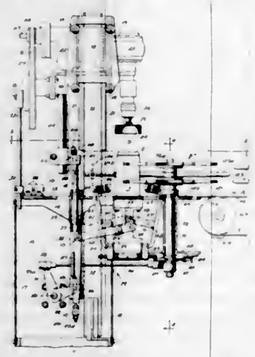


5. The method of dressing hobbing grinding wheels having a helical rib thereon used in producing workpieces having jagged peripheral contours comprising rotating a relatively soft metallic gear-shaped dressing tool base member in meshing engagement with a relatively hard metallic gear-shaped member of the same peripheral contour as the specification for the finished workpiece desired to be produced by the dressed hobbing grinding wheel, introducing diamond particles between the meshing teeth of said engaging gear-shaped members whereby said diamond particles will become impacted into the dressing surface of the relatively soft base member, the cutting edges of said impacted diamond particles having the same peripheral contour as the specification for the finished workpiece, placing said base member on the work arbor of a hobbing grinding machine and running the hobbing grinding machine through the work cycle to dress the hobbing grinding wheel.

2,776,530
FIGURE WITH BALLOON INFLATING MEANS
William C. Baumgardner, Bayside, N. Y., assignor to Punch and Judy, Savannah, Ga., a corporation of Georgia
Application March 18, 1954, Serial No. 417,207
6 Claims. (Cl. 53—268)

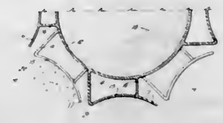
1. A balloon pump comprising a figure; a pump mechanism carried by said figure; the pump mechanism including a pump handle; the pump handle registering with said figure and forming a visual part thereof; a nozzle carried by said figure; said pump mechanism being connected to said nozzle; said nozzle having a substantially conical exterior with a series of annular stepped recesses, and an elastic member securable on said figure and windable about said nozzle after a balloon is placed on said nozzle.

2,776,531
JAR-HANDLING MECHANISM FOR CAP-SETTING EQUIPMENT
Arthur H. Filander, Baltimore, Md., assignor to Franklin Balmar Corporation, a corporation of Delaware
Application November 7, 1952, Serial No. 319,392
2 Claims. (Cl. 53—317)



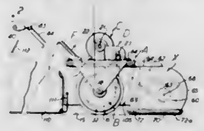
1. In cap-setting equipment having a station at which jars or the like undergo a period of dwell during the cap-setting operation, jar-handling mechanism comprising intermittently-acting jar-gripping apparatus adapted to engage and hold a jar at said station as against turning during the setting operation, continuously-acting jar-conveying apparatus for simultaneously advancing a plurality of jars toward said station, and a step-by-step jar-feeding apparatus having a device for accepting a jar from said conveying apparatus and moving the jar away therefrom, and means for moving said device with a jar to said station, said conveying apparatus being constructed to advance said plurality of jars in a generally rectilinear path and said device for accepting a jar being mounted for rotary movement, the means for moving said device including an intermittently-acting drive therefor, and said intermittently-acting drive and said intermittently-acting jar-gripping apparatus having coordinating means constructed to synchronize their actions.

2,776,532
EARTH CLOD FORMING DEVICES
Aloysius H. Buchholz, Keenesburg, Colo.
Application December 21, 1953, Serial No. 399,194
2 Claims. (Cl. 55—6)



1. A clod-forming roller comprising: an elongated drum; axle means extending concentrically from each extremity of said drum; a plurality of clod-forming devices projecting radially outward from the surface of said drum at spaced-apart intervals; and bent plates, each of said plates extending first outwardly from said drum to form a supporting end portion, thence extending substantially at right angles to said end portion to form a clod-pressing portion, said pressing portion being arcuately curved oppositely to the curvature of the surface of said drum, and having a supporting member extending from said drum to said pressing portion to prevent relative bending between said pressing portion and said supporting end portion, said supporting plate being positioned inwardly from the free edge of said pressing portion so as to provide a projecting shovel-like portion on said pressing portion.

2,776,533
POWER DRIVEN VEHICLE WITH INTERCHANGEABLE ROTARY TOOL
Paul E. Yacoby, Seal Beach, Calif.
Application October 11, 1952, Serial No. 314,394
14 Claims. (Cl. 56—26)



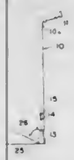
1. A machine of the character described including, a substantially flat horizontally disposed body, a handle bar on the body, a pair of spaced brackets depending from each side edge portion of the body, an independent supporting wheel carried between each pair of brackets, a prime mover stationary on the top of the body, a speed-reducing mechanism fixed on the body and connected to and adapted to be driven by the prime mover, a drive from the said mechanism to the wheels including a counter shaft rotatably supported by and extending transverse the body, a drive from the said mechanism to the counter shaft, two releasable pulleys on the counter shaft, and drive belts from said pulleys to the wheels and occurring

between the spaced brackets depending from the body and supporting the wheels, and control means for the pulleys including a manually operable member carried by the handle bar, shiftable elements on the counter shaft and operably related to the pulleys, and a connecting means between the manually operable member and the said elements whereof said elements are adapted to be simultaneously operated into or out of driving engagement with the pulleys by the manually operable member.

2,776,534
CROP GUIDING GRATE ASSEMBLY
Clayton W. Sanders, Lorenzo, Tex.
Application July 24, 1953, Serial No. 370,202
3 Claims. (Cl. 56—28)

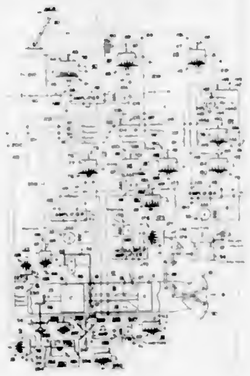
1. In a harvesting machine, a pair of laterally spaced vertical supports having lower edges and forward and rearward ends, said lower edges diverging forwardly from each other and having laterally inward sides, grates fixed on the laterally inward sides of the supports at points spaced above and adjacent to said lower edges, said grates comprising upper bars secured on said laterally inward sides and extending from the rearward ends of said support to the forward ends thereof above said lower edges, parallel spaced rods having one of the ends thereof secured to said upper bars, said rods extending in forward, laterally inward, and downwardly directions, and lower marginal bars secured to the other of the ends of said rods, said lower marginal bars diverging forwardly with respect to each other and being positioned laterally inwardly of said upper bars and having laterally outwardly curved forward end portions.

2,776,535
LAWN EDGER WITH VERTICALLY OSCILLATING BLADE
Norbert A. Branske, Cleveland, Ohio
Application January 4, 1954, Serial No. 401,911
2 Claims. (Cl. 56—241)



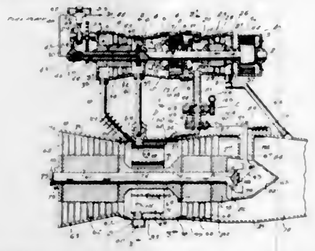
1. A lawn edging device comprising a tubular member having a closed upper end defining a handle and having an open lower end, a blade holding bar telescoped for a limited distance within and extending outwardly from the lower end of said member, a compression spring supported within the lower end of said member and engaging said bar for normally urging the bar outwardly from said member, said member having an elongated straight longitudinally extending slot, a guide pin carried by said bar and extending through said slot whereby to prevent relative rotation of said bar and said member, the portion of said member at one end of said slot defining a stop against which said pin abuts to limit movement of said bar out of said member, a shoulder on said bar normally spaced from the lower end of said member when said guide pin is bottomed in said slot and adapted to engage the lower end of the member for limiting downward movement of the member over the bar, a stationary cutting blade having a heel portion rigidly secured to the lower end of the bar, said blade having a flat bottom edge extending at right angles to the axis of said bar and engageable with the ground for the full length of the blade, said blade also lying substantially in a plane containing the axis of said bar, a movable cutting blade pivotally connected to the heel portion of the stationary blade offset from said bar and arranged to pivot in a plane parallel to the plane of said stationary blade for cutting grass between the blades, and a blade actuating arm connected to the lower end of said member and to said movable blade for causing pivotal movement of said movable blade in response to vertical movement of said member over said bar, the point of connection of said arm to said movable blade being located on the side of the pivotal connection of the blades opposite from said bar.

2,776,536
COMBUSTION ENGINE CONTROL APPARATUS
Alex B. Chudyk, St. Louis Park, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application August 19, 1950, Serial No. 180,335
26 Claims. (Cl. 60—35.6)



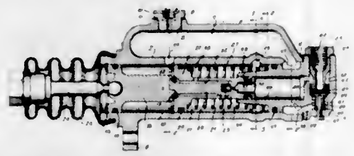
17. Control apparatus for a combustion engine having fuel flow control means and gas flow control means, the combination comprising, a first motor means connected in controlling relation to the fuel flow control means, speed selecting means, engine speed responsive means, follow up means responsive to the positioning of the fuel flow control means, means connecting said speed selecting means, said speed responsive means and said follow up means in controlling relation to said first motor means to maintain proportional control of the fuel flow to maintain a selected engine speed, a second motor means arranged for controlling the gas flow control means, engine temperature responsive means, means connecting said temperature responsive means in controlling relation to said second motor means, a second follow up means responsive to the positioning of the gas flow control means, means connecting said follow up control means in controlling relation to said second motor means to maintain proportional temperature control of the engine, engine speed sensitive transfer switch means, means including said transfer switch means disconnecting the speed selecting means, said responsive means, and said first follow up means from control of said first motor means and connecting said temperature responsive means in controlling relation to said first motor means, and further means actuated by said transfer control means for connecting a fixed signal source in control of said second motor means to cause said motor means to assume a predetermined position.

2,776,537
FUEL SUPPLY AND CONTROL MEANS FOR TURBINES AND TURBINE JETS
Adolphe C. Peterson, Minneapolis, Minn.
Application April 20, 1953, Serial No. 349,859
18 Claims. (Cl. 60—39.15)



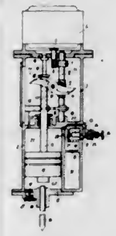
1. In means for fuel supply to a turbine; a primary power turbine for power development having an air intake and primary air compressing means and a primary power turbine rotor having a driving element in driving connection with the primary air compressing means and having a combustion chamber means in conductive connection between the primary air compressing means and the primary power turbine rotor to pass combustion products for driving the primary power turbine rotor; a secondary turbine having a driving element and secondary turbine rotor in driving connection with the last named driving element, a fuel pumping means having a driven pumping element in driven connection and coordination with the driving element of the secondary turbine, a secondary air compressing means having a driven element in driven connection and coordination with the driving element of the secondary turbine; a distributing conduit having a conductive connection with the discharge from the secondary air compressing means, a means in conductive connection with the fuel pumping means to receive fuel as pumped thereby and having a fuel discharge discharging fuel to the conductive connection between the secondary air compressing means and the distributing conduit, and air and fuel mixture nozzles discharging from the distributing conduit to the combustion chamber means between the primary air compressing means and the primary power turbine rotor.

2,776,538
INJECTOR ASSEMBLY AND MASTER CYLINDER FOR POWER BRAKE SYSTEM
Steve Schnell, Kirkwood, Mo., assignor to Wagner Electric Corporation, St. Louis, Mo., a corporation of Delaware
Application December 20, 1952, Serial No. 327,071
3 Claims. (Cl. 60—54.6)



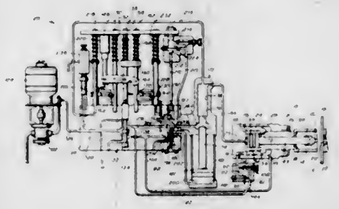
1. A pressure producer for automotive vehicles comprising a master cylinder, means fitted into said cylinder having a cylinder bore therein of lesser diameter than the master cylinder, means forming a reservoir for said master cylinder, a piston having two heads of different diameters in which one head slides in the master cylinder and the other head slides in the smaller bore cylinder, a compensating valve for controlling the discharge from said small bore cylinder, means for establishing communication between said reservoir and the small bore cylinder past said valve, means for establishing communication between said reservoir and the space ahead of each piston head and in their respective cylinders through said piston, actuating means for said piston; and a valve controlled by said actuating means for controlling the flow of fluid in said last mentioned communication means.

2,776,539
PORTABLE PERCUSSION DEVICE
Donald M. Pearson, Oakland, Calif.
Application December 8, 1951, Serial No. 260,677
Claims priority, application Germany December 9, 1950
7 Claims. (Cl. 60—62.5)



7. In a portable percussion device having piston means for actuating a tool element and adapted to be displaced by fluid under pressure acting on the high pressure side of said piston means; means for pressurizing said fluid and including reciprocating fluid pump means acting on said high pressure side of said piston means, drive means for actuating said pump means and provided with cam means for reciprocating said pump means and said piston means simultaneously, pressure regulating valve means for controlling the maximum pressure of said fluid, and valve means on the low pressure side of said piston means for permitting the discharge of fluid located at the low pressure side of said piston means and thereby assisting the actuation of said tool element by said piston means.

2,776,540
HYDRAULIC PUNCHING APPARATUS
Felix S. Kraujalis, Western Springs, Ill., assignor to Hannifin Corporation, Des Plaines, Ill., a corporation of Illinois
Application January 6, 1955, Serial No. 480,189
22 Claims. (Cl. 60—97)

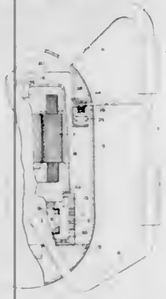


20. A dual fluid actuated cylinder, comprising a hollow first piston element having a first piston rod thereon, a casing element having first interconnected cylinder and guide bores slidably receiving said piston element and piston rod, second and third aligned axial bores in said casing element and said piston element, a hollow cylindrical member fixed on one of said elements, said cylindrical member having one of said second and third bores therein and being slidably received in the other of said second and third bores, said first piston rod having a guide bore therein, and a second piston slidably received in one of said second and third bores and having a second piston rod received in said last mentioned guide bore.

2,776,541
AUTOMATIC BALANCE-BEAM HINGED SHUTTER GATE
Angelo Fortes, Estoril, Portugal
Application February 24, 1953, Serial No. 338,510
1 Claim. (Cl. 61—25)

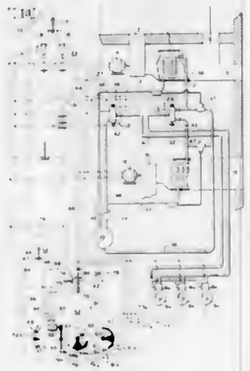
An automatic balance beam shutter gate for regulating the level of headwaters independently of the level of tailwaters comprising, a shutter gate hingedly mounted at the lower edge thereof for pivotal movement in a vertical plane, said shutter gate being adapted to open in response to pressure of headwaters, a balance beam, means connecting one end of said balance beam with the upper edge of said shutter gate, a counterweight, a rigid stay connecting the counterweight with the other end of the balance beam, said counterweight retaining said shuttergate closed when the headwaters elevation is below a predetermined level, said counterweight being suspended above a body of liquid the level of which varies as the level of the tailwaters whereby as the tailwaters rise and increase the pressure on the downstream side of the shutter gate the counterweight becomes at least partially immersed thus compensating for the increase in tailwater pressure and offers less resistance to the opening of the shutter gate.

2,776,542
MOTOR COOLING MEANS FOR HERMETICALLY SEALED REFRIGERANT COMPRESSOR UNIT
Kenneth K. Cooper, North Caldwell, N. J., assignor to General Electric Company, a corporation of New York
Application July 7, 1955, Serial No. 520,600
11 Claims. (Cl. 62—3)



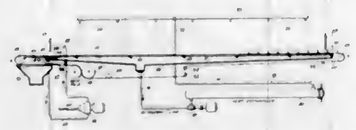
1. A hermetically sealed refrigerant compressor unit comprising a sealed casing, compressor means disposed within said casing including means for withdrawing low pressure refrigerant from a refrigerating system and for discharging compressed refrigerant into said casing, a motor for driving said compressor means, and means including a thermally operated valve for passing condensed refrigerant in heat exchange relationship with said motor, said valve controlling the amount of condensed refrigerant passed through said motor in accordance with the temperature of the compressed refrigerant in said casing.

2,776,543
STEP-MODULATED CONTROL SYSTEM FOR AIR CONDITIONING APPARATUS
Francis R. Ellenberger, North Caldwell, N. J., assignor to General Electric Company, a corporation of New York
Application May 10, 1954, Serial No. 428,708
9 Claims. (Cl. 62—4)



1. An electrical control system for controlling the operation of a heat pump having variable output compressor means in accordance with the demand on said pump, said control system comprising a first circuit for operating said compressor means at a base output level corresponding substantially to the base load demand on said pump, a second circuit including thermal switch means responsive to an increase in the demand on said pump for immediately operating said compressor means at an increased output level and continuing the operation thereof at said increased level until said increased demand is met, and switch means in said first circuit controlled by said thermal switch means for effecting continued operation of said compressor means at said increased output level under control of said first circuit after a predetermined period of operation of said compressor means at said increased output level under the control of said second circuit.

2,776,544
METHOD AND APPARATUS FOR COOLING SOAP AND THE LIKE
Albert Lyle Schulerud, Nutley, N. J., assignor to Colgate-Palmolive Company, Jersey City, N. J., a corporation of Delaware
Application December 30, 1952, Serial No. 328,770
11 Claims. (Cl. 62—104)



1. A method of cooling a plurality of cakes of soap still warm and soft from a precedent plodding operation comprising passing the cakes through a cooling zone where they are contacted with brine cooled to a temperature not over approximately 60° F. and immediately thereafter through a drying zone where they are contacted with a blast of air sufficient to remove drops of brine adhering to the surfaces of said cakes, thereby imparting to said cakes of soap cool, dry, relatively hard surfaces and conditioning them for subsequent pressing into soap tablets.

2,776,545
POWER UNIT FOR FREEZING DEVICE
Samuel B. Miller and Murray S. Millhouse, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 28, 1954, Serial No. 446,304
5 Claims. (Cl. 62—108.5)

1. In a freezing device of the type including a tray, a grid removably disposed in the tray having a plurality of relatively movable partitions dividing the interior thereof into compartments in which water is to be frozen into ice blocks and a unitary ice motor carried by said grid having reaction members forced to move in opposite directions at a predetermined temperature for reacting between said grid partitions to move the same with respect to one another and loosen ice blocks from said compartments, one of the reaction members of said ice motor having an open end and containing a freezing liquid, a diaphragm disposed between the reaction members of said motor clamped to and extending across the open end of said one reaction member for sealing said liquid therein out of contact with the other of said reaction members, said other of said reaction members of said motor engaging said diaphragm, and said diaphragm being flexed in response to freezing and expanding of said liquid to shift said other reaction member in a direction away from said one reaction member for causing said movement of said grid partitions.

2,776,546
ICE CUBE TRAY
Adna R. Clark and Eric H. Schwenker, Evansville, Ind., assignors, by mesne assignments, to Whirlpool-Seeger Corporation, a corporation of Delaware
Application August 6, 1953, Serial No. 372,672
1 Claim. (Cl. 62—108.5)

An article of manufacture comprising a container having front, back and two side walls, a flat bottom and a plurality of partitions integrally formed therein, said partitions being disposed to cooperate with the walls and bottom of said container to provide a plurality of individual compartments adapted to receive a liquid therein, said front, back and side walls and said partitions all being formed with the lower portions thicker than the upper portions thereof and being disposed so that all the inner surfaces of the walls of each compartment are inclined outwardly, said container and partitions being fashioned of rigid material and as a unitary structure, a plurality of resilient false bottoms having a plurality of ribs formed on upper surfaces of each thereof, said resilient false bottoms being mounted one each in said compartments and being secured to the walls of their respective compartments in a sealed relationship therewith by having each false bottom extending on all of its four sides into an engaging peripheral, inwardly open groove in each of the four walls of each ice cube cavity, said false bottoms being disposed so as to divide each of said compartments into an upper compartment adapted for directly receiving water for freezing therein and a lower sealed compartment, an eutectic solution disposed to completely fill each of said lower compartments below said resilient false bottoms, said eutectic solution having a freezing point lower than the freezing point of any water disposed within said upper compartments, whereby ice cubes are formed in said upper compartments and said eutectic solution is thereafter frozen to bow said resilient false bottoms upwardly to loosen and raise the ice cubes from said upper compartments when said container and any water disposed therein is subjected to a temperature below the freezing temperature of said eutectic solution.

2,776,547
OIL COOLING ARRANGEMENT IN REFRIGERATOR SYSTEM
Ralph E. King and Earl F. Hubacker, Erie, Pa., assignors to General Electric Company, a corporation of New York
Application December 9, 1953, Serial No. 397,127
4 Claims. (Cl. 62—116)

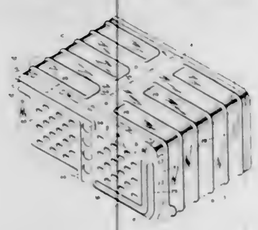
1. In combination with a refrigerator cabinet, a hermetically sealed compressor including a casing, a sump disposed in the lower portion of said casing, means to divide said oil sump into two parts, the first part of said sump being an oil supply reservoir, the second part of said sump collecting oil, an oil tube connecting said parts of said sump to permit oil to flow by gravity from said second part to said first part, said oil tube being disposed outside said casing, a container disposed above said tube in heat exchange relation therewith, and means to supply condensate from the interior of said cabinet to said container, said condensate evaporating when said oil passes through said tube to cool said oil.

2,776,548
VERTICAL GENERATORS FOR ABSORPTION REFRIGERATION UNITS
Roberto Martiri, Buenos Aires, Argentina
Application January 26, 1954, Serial No. 406,317
1 Claim. (Cl. 62—119.5)

A vertical generator for an absorption refrigerator comprising a substantially vertical heater element, a boiler mounted in thermal contact with said heater, a liquid elevator including an auxiliary chamber mounted adjacent the lower end of said boiler, a liquid heat exchanger positioned above the bottom of said auxiliary chamber and means to supply strong liquor from said liquid heat exchanger to said auxiliary chamber, said boiler having a single gas discharge port, a tube connected to said gas discharge port and extending downwardly and terminating within said auxiliary chamber in an upwardly directed nozzle, said upwardly directed nozzle being centrally positioned within a downwardly directed funnel mounted within said auxiliary chamber, the side walls of said funnel being apertured, said funnel narrowing into a substan-

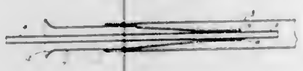
tially vertical tube which constitutes the sole exit from said auxiliary chamber, said substantially vertical tube communicating at a point above the level of the liquid within said boiler with a conduit and being curved so that a portion thereof is in thermal contact with said heater element, said conduit communicating at its lower end with said boiler.

2,776,549
REFRIGERATION COMPARTMENT
Richard Edward Gerhardt, Clarksville, Ind., assignor to Reynolds Metals Company, Louisville, Ky., a corporation of Delaware
Application November 24, 1954, Serial No. 470,959
6 Claims. (Cl. 62—126)



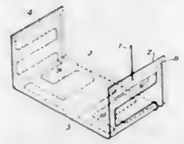
1. A refrigerator compartment comprising: a body comprising a pair of integrally bonded flat metal sheets providing certain unbonded protuberant areas therebetween as hereinafter defined; said bonded structure being bent to form a refrigeration tunnel compartment having an integral vertical end wall joined to the tunnel portion through a bend; said tunnel portion wall having unbonded protuberant areas forming an evaporator chamber for refrigerant; and said end wall having an unbonded protuberant area forming a reservoir for liquid refrigerant; and an unbonded protuberant area forming a first passageway connected adjacent the bottom of said reservoir and extending upwardly along said wall to a point adjacent the top of said reservoir, then around the bend joining the end wall to said tunnel portion, to connect integrally to said evaporator chamber.

2,776,550
CAPILLARY ADAPTOR
Earl H. Magester, Erie, Pa., assignor to General Electric Company, a corporation of New York
Application October 21, 1952, Serial No. 316,023
2 Claims. (Cl. 62—126)



1. In a refrigerating system, a capillary tube, an evaporator including continuous tubing of larger diameter than said capillary tube, an adaptor for connecting said capillary tube and said evaporator tubing, said adaptor comprising an elongated tapering tube, said capillary tube extending through said adaptor and projecting a predetermined distance beyond the small end of said adaptor, said small end of said adaptor being brazed to said capillary tube said adaptor being assembled in said evaporator tubing with the small end of said adaptor and the projecting end of said capillary tube extending into said evaporator tubing, the larger end of said adaptor being brazed to the end of said evaporator tubing adjacent the point of maximum taper diameter, said larger end of said adaptor extending a substantial distance beyond the end of said evaporator tubing to limit the bending movement of said capillary tube.

2,776,551
REFRIGERATOR EVAPORATOR
Harley Lichtenberger, Evansville, Ind., assignor, by mesne assignments, to Whirlpool-Seeger Corporation, a corporation of Delaware
Application December 11, 1952, Serial No. 325,402
7 Claims. (Cl. 62—126)

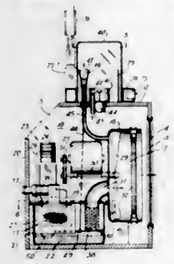


2. An evaporator for a refrigerator comprising a horizontally disposed longitudinal base portion, a pair of wall portions, one of said wall portions joined at each end of said base portion, a reservoir formed on the underside of said base portion longitudinally across the center thereof and depending from said base portion, a length of serpentine tubing formed on said base portion on one side of said reservoir and said wall portion joined to said base portion on one side of said reservoir, one end of said length of serpentine tubing connected to said reservoir, a second length of serpentine tubing formed on said base portion on the other side of said reservoir and said wall portion joined to said base portion on said other side of said reservoir, one end of said second length of serpentine tubing connected to said reservoir, the other ends of said first and second lengths of serpentine tubing connectible in said refrigerator so that any liquid refrigerant present at said other ends of said first and second lengths of serpentine tubing will tend to flow into said reservoir, heater means in thermal cooperation with said reservoir and operable to produce heat so that when liquid refrigerant is disposed within said reservoir said means are operable to heat said liquid refrigerant to a hot gas which will simultaneously flow through said first and second lengths of serpentine tubing.

2,776,552
SHEATHED CAPILLARY INLET FOR REFRIGERATOR
Jesse B. Thomas, Louisville, Ky., assignor to Reynolds Metals Company, Louisville, Ky., a corporation of Delaware
Application November 8, 1954, Serial No. 467,604
4 Claims. (Cl. 62—127)

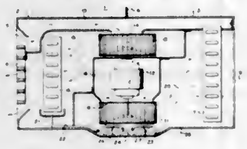
1. A refrigerator construction comprising: an evaporator plate formed in a refrigerator compartment, said plate having a passageway for refrigerant within the confines of said plate; a short tube permanently connected at one end to said plate by a fused joint, the interior of said tube communicating with said passageway; a T fitting attached at one end by a fused joint to the other end of said tube, and having the opposite end of the T fitting in alignment with said tube; and a capillary tube for supplying refrigerant to said passageway sheathed in a portion of said passageway, the passageway forming a clearance space between the outside wall of said capillary tube and said passageway, and said capillary tube extending from said passageway in said plate axially through said tube, through said fitting, and through said opposite end of the T; the joint of said capillary tube and said opposite end of the T being sealed by a fused joint; said opposite end of the T fitting being adapted for coupling to a tube of larger diameter than the capillary tube for supplying refrigerant to the capillary tube.

2,776,553
PORTABLE AIR CONDITIONER AND CLEANER
Charlie Williamson, Joliet, Ill.
Application May 27, 1955, Serial No. 511,690
2 Claims. (Cl. 62—129)



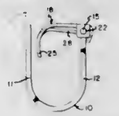
1. A portable air conditioning device comprising a housing, partition means in said housing defining an air inlet chamber and an air outlet chamber, said housing having respective air inlet and air outlet apertures communicating respectively with said air inlet and said air outlet chambers, a blower fan in said air outlet chamber arranged to force air out of said outlet aperture, a sump reservoir in the lower portion of said housing, conduit means connecting said sump reservoir to said air inlet chamber and said air outlet chamber and defining a passage between said inlet and outlet chambers, a transparent deodorant chamber on said housing, an air intake conduit connecting said air inlet chamber to said deodorant chamber, an upstanding transparent conduit connecting said deodorant chamber to said air inlet chamber, adjustable piston means in said upstanding conduit, a float member in said sump reservoir, means connecting said float member to said piston means and being arranged to control said piston means in accordance with the elevation of said float member, and a refrigerator mounted in said housing including an evaporator unit, said evaporator unit being located in said passage between the inlet and outlet chambers to cool the air passing therethrough.

2,776,554
AIR CONDITIONING APPARATUS HAVING CONDENSATE DISPOSAL MEANS
Calvin D. Pigman, Lyndon, Ky., assignor to General Electric Company, a corporation of New York
Application October 21, 1954, Serial No. 463,794
5 Claims. (Cl. 62—140)



1. In a self-contained unit for conditioning a room, an evaporator, means for blowing a stream of room air over said evaporator to cool said air and condense water vapor therefrom, a sump for collecting the water condensed on said evaporator, a condenser, a centrifugal blower having vertical blades, means rotatable about the vertical aixs for blowing a stream of outdoor air over condenser, said blower means being positioned above at least a portion of said sump, and at least one lifting tube mounted on said blower means for introducing the condensate water from said sump into said stream of outside air upstream from said condenser, said lifting tube extending downwardly from the inside of said blower means into said sump with the lower end of said tube being spaced inwardly from the air moving blades of said blower means and the upper end of said tube being within said blower and adjacent said blades, whereby upon the rotation of said blower means said tube lifts said condensate water from said sump by centrifugal action and expels said water into the stream of outside air flowing through said blower means.

2,776,555
EARRING WITH CLAMPING MEMBER IMPELLED BY DEPRESSED SPRING
Ernest F. Gray, Los Angeles, Calif.
Application May 19, 1955, Serial No. 509,522
4 Claims. (Cl. 63—14)

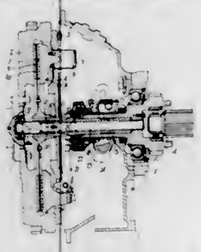


1. An earring finding comprising a U-shaped member having a pair of oppositely disposed substantially parallel arms, one of said arms being adapted to receive an ornament, the other of said arms acting as a pivot arm, the upper end of said pivot arm having a pair of oppositely projecting aligned pivot pins, the axis of said pivot pins defining a horizontal axis of rotation, the upper end of said pivot arm having a ledge disposed between said pivot pins, said ledge being disposed beneath said horizontal axis of rotation, an ear lobe clamping member having at one end thereof a pair of spaced apertured tabs, said tabs being pivotally mounted on said pivot pins, said clamping member normally extending substantially transversely from said pivot arm toward said ornament arm across the open end of said U-shaped member, said clamping member having at the opposite free end thereof an ear lobe engaging portion, said clamping member having a resilient tongue struck downwardly therefrom, said tongue extending from the ear lobe engaging portion of said clamping member to said pivot member, the entire length of said tongue being disposed beneath said clamping member and normally extending substantially transversely across the open end of said U-shaped member, said tongue having a free end pivotally resting upon said ledge, said clamping member adapted to be pivoted around said horizontal axis of rotation to move said ear lobe engaging portion away from said ornament arm toward said pivot arm, the free end of said tongue adapted upon such movement to pivot on the portion of said ledge toward said ornament arm, said tongue being compressed between said clamping member and pivot arm as said clamping member is pivoted and moving to a position substantially parallel to said pivot arm, with the free end of said tongue being moved toward said clamping member as it pivots on said ledge, said tongue adapted upon the release of said clamping member to urge said clamping member away from said pivot arm back toward said ornament arm.

2,776,556
DEVICES FOR THE TRANSMISSION OF POWER FROM THE ENGINE OF A MOTOR VEHICLE TO THE DRIVEN WHEELS THEREOF
Carl Henning Emanuel Gustafson and Åke Oskar Johannes Larborn, Goteborg, Sweden, assignors to Aktiebolaget Volvo, Goteborg, Sweden, a corporation of Sweden
Application June 19, 1952, Serial No. 294,444
3 Claims. (Cl. 64—27)

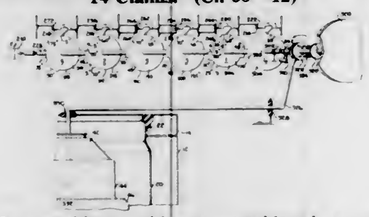
1. A non-vibratory torsionally resilient drive mechanism comprising a tubular shaft having means at the

driven end thereof for connection to a source of power, a torsionally resilient rod coaxially arranged within said tubular shaft and secured thereto at said driven end, a driven element secured to the other end of said torsionally resilient rod, a set of splines on an intermediate point of said rod meshing with clearance with a cooperating set of splines on said tubular shaft to constitute a



rigid driving connection between said rod and shaft upon torsion of the driven end portion of said rod, radial projections on said tubular shaft at a point between the splines thereof and said driven element, and axial projections on said driven element and spaced circumferentially from the radial projections of said tubular shaft to constitute a torsion-engaged rigid driving connection between said tubular shaft and said driven element.

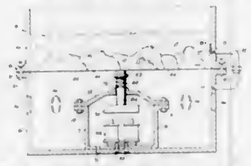
2,776,557
CONTROL SYSTEM
William C. Bruckman, Newton, Iowa, assignor, by mesne assignments, to The Easy Washing Machine Company, Limited, Toronto, Ontario, Canada, a corporation
Application November 9, 1953, Serial No. 391,036
14 Claims. (Cl. 68—12)



1. In a washing machine; a rotatable tub, an oscillatable agitator, a drive motor connected with said tub and agitator rotatable in one direction to drive the tub in rotation and in the opposite direction to oscillate the agitator, a water supply conduit leading to said tub and having a valve therein controlled by an electro-mechanical device, and means responsive to elapsed time for controlling the supply of water through the conduit to the tub and for controlling the energization and the direction of rotation on said motor, said time responsive means comprising a timer unit having a plurality of switches directly controlling the energization and direction of rotation of said motor and directly controlling said electromechanical device.

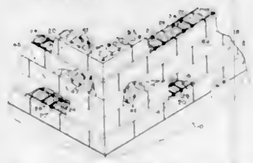
2,776,558
WASHING MACHINES HAVING MAGNETICALLY ACTUATED DIAPHRAGMS
Alfred Vang, Carmel, Calif., assignor of one-half to George Hart, Carmel, Calif.
Substituted for abandoned application Serial No. 550,521, August 22, 1944. This application August 6, 1953, Serial No. 372,633
5 Claims. (Cl. 68—53)

1. In combination, a tub divided into upper and lower sections, the upper section being provided with an outstanding flange at its lower end, the lower section with a mating flange at its upper end, a perforated horizontal diaphragm disposed fluid-tight intermediate of the two flanges and forming a "false" bottom for said tub, and side walls of the lower section being provided with one way air valves for permitting a unidirectional flow of air through the valves from the exterior to the interior of the lower section, a hollow housing body in the lower section and having a bottom secured to the true bottom of the tub and open at the upper end, a cover-piece water-tight on the upper end of the body and provided



with an axially vertical bearing opening therethrough substantially under the center of the diaphragm, means to reciprocate said diaphragm comprising an actuating rod, said actuating rod passing through said bearing and adapted to be vertically reciprocated therein, a collar on the outer end portion of said rod, a compressed spring having one end engaging said cover piece for urging the outer end of the rod against the lower face of the diaphragm, and means within the housing for reciprocating the rod and diaphragm.

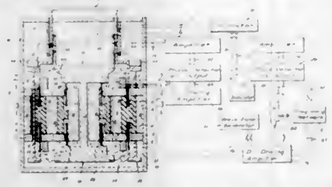
2,776,559
BLOCK WALL
Otto Murray Summers, Philadelphia, Pa.
Application September 3, 1952, Serial No. 307,609
3 Claims. (Cl. 72—30)



1. In a block wall, a course of cored blocks, cup-like elements supported in the cores of the blocks adjacent the upper surface thereof, spacer means distributed over the upper surface of said course of blocks, a second course of cored blocks in staggered relation to the first course and resting on said spacer means, and a reinforcing wire structure supported between said courses of blocks and extending lengthwise thereof, said structure comprising a pair of parallel longitudinally extending wire elements and spaced transverse elements therebetween, means for securing the ends of said transverse elements to said longitudinal elements, said spacer means provided with a supporting surface carrying said reinforcing structure intermediate the top and bottom surfaces of the joint space between said first and second courses of blocks, and a solid continuous cast-in dowel of masonry material completely filling the joint between said courses of blocks and extending upwardly into the cores of the upper course of blocks.

2,776,560
MEANS FOR MEASURING AND FOR GENERATING MOTION
Louis W. Erath, Paul E. Madeley, and Sidney Hatchl, Houston, Tex., assignors, by mesne assignments, to Southwestern Industrial Electronics Company, Houston, Tex., a corporation of Delaware
Application July 3, 1953, Serial No. 365,996
24 Claims. (Cl. 73—71.2)

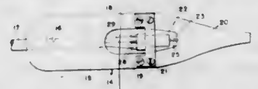
9. Electrical apparatus comprising a first magnetic circuit element, being a length of magnetically permeable material of hollow cylindrical form; a second magnetic circuit element, being a length of permanent magnet of hollow cylindrical form postioned concentrically within said first element; a third magnetic circuit element, being a length of magnetically permeable material of hollow cylindrical form positioned concentrically within said permanent magnet; said magnetic circuit elements being rigidly secured in spaced apart relationship with each other so that two magnetic circuits of generally toroid form are created, the first circuit being from the magnet, across a first gap adjacent one end thereof to said first element, through said first element to the other end thereof, across a second gap, adjacent the other end of said first element, back to the magnet, and the second circuit being from the magnet, across a third gap adjacent one end thereof to said third element, through said third element to the other end thereof, and across a fourth gap, adjacent the other end of said third element, back to the magnet; the magnetic field across said first gap being identical in form to the magnetic field across said second gap, and the magnetic field across said third gap being identical in form to the magnetic field across said third gap, the form of the fields across said first and third gaps being inverted with respect to the form of the fields across said second and fourth gaps; a follower resiliently suspended from said magnetic circuit elements and adapted for reciprocating movement within limits axially of said cylindrical magnetic circuit elements; a follower coil having



ing first and second elements, said first element extending through said third gap and said second element extending through said fourth gap; a mass resiliently suspended from said follower; a mass coil having first and second elements, said first element extending through said first gap and said second element extending through said second gap; an oscillator adapted to generate an alternating sensing signal; a primary sensing coil secured to said mass and adapted to receive said sensing signal; two follower sensing coils mounted on said follower on opposite sides of said primary sensing coil and adapted for inductive coupling with said primary sensing coil whereby an electric current is induced in said follower sensing coils which current is responsive to the position of said follower with respect to said mass; electric circuitry for converting said current into direct current and for impressing said direct current on said follower coil in such direction as to effect a force on said follower coil in a direction tending to bring said follower into a predetermined alignment with said mass; two mass sensing coils secured to said magnetic circuit elements, positioned on opposite sides of said primary sensing coil and adapted for inductive coupling with said primary sensing coil whereby an electric current is induced in said mass sensing coils which current is responsive to the relative position of said mass and said magnetic circuit elements; and electric circuitry including indicator means responsive to the last mentioned electric current for showing the position of said mass relative to said magnetic elements.

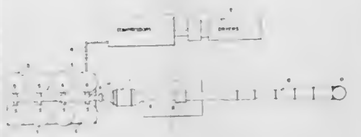
2,776,561
APPARATUS FOR TESTING SPRINGS
Raymond W. Brown, Evergreen Park, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application August 6, 1953, Serial No. 372,636
2 Claims. (Cl. 73—141)

1. A presser for testing springs, which comprises a fork-shaped handle, a transducer tube having an actuating element, means mounting the transducer tube rigidly on the handle, and a leaf spring feeler extending beyond the arms of the handle and having arms secured to the arms



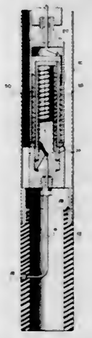
of the handle, said actuating element of the tube being fastened to the feeler at a point thereon beyond the arms thereof.

2,776,562
CONSTANT TEMPERATURE AIR SUPPLY
Robert P. Davie, Jr., Manhattan Beach, and Eugene L. Spearman, Jr., North Hollywood, Calif., assignors to North American Aviation, Inc.
Application September 20, 1954, Serial No. 457,016
8 Claims. (Cl. 73—147)



1. In a wind tunnel an air supply arrangement comprising an enclosed receptacle, a source of pressurized air connected therewith for charging said receptacle with pressurized air, an outlet for said receptacle connected with said wind tunnel, valve means in said outlet for controlling the flow therethrough, and a quantity of heat storage material of relatively large surface area and heat capacity disposed in said receptacle substantially filling the same including the portions of said receptacle surrounding said outlet, whereby when air is discharged from said receptacle heat is transferred thereto from said heat storage material and said air is precluded from appreciably dropping in temperature.

2,776,563
APPARATUS FOR USE IN LOCATING INTERFACE OF LIQUIDS
Don R. Holbert, Nowata, Okla., assignor to Sinclair Oil & Gas Company, Tulsa, Okla., a corporation of Maine
Application July 18, 1955, Serial No. 522,705
2 Claims. (Cl. 73—151)



1. Apparatus of the type described comprising a tubular member having a lower portion composed of electrically non-conducting material and an upper portion composed of electrically conducting material, a first insulated electrical conductor coiled at one end, a magnetic core within the coiled portion of said first conductor, a second insulated electrical conductor coiled at one end and adapted to removably surround said first coil, one

of said coils being fixedly mounted in said tubing in a manner permitting mating with said other coil, an electrode disposed on the surface of the non-conducting portion of said tubular member, an end of said mounted coil electrically communicating with the upper portion of said tubing and the other end of said mounted coil electrically communicating with said electrode, the physical characteristics of said coils and tubular member being adapted to permit flow of fluids between said coils and tubular member.

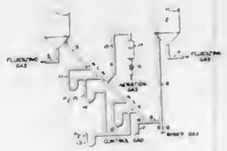
2,776,564
SELF-PROPELLED BOREHOLE LOGGING TOOL
Richard Franklin Montgomery, Snyder, and Nicolaas L. H. Koot, Odessa, Tex.
Application September 3, 1954, Serial No. 454,034
20 Claims. (Cl. 73—151)

1. A self-propelled tool to be sent below the ground surface in a well bore having walls, comprising a body of smaller diameter than said bore; rate-of-descent controlling means comprising friction wheels transversely reciprocably attached to said body and yieldably urged outwardly thereof to maintain said wheels in frictional contact with said walls, drag means in said body and drive means connecting said drag means and said friction wheels for applying drag to said wheels to retard the descent of the tool; and timing and propulsion means comprising a delayed action igniter and a gas generating propulsion charge in said body, the charge being in communication with a downwardly directed nozzle in the bottom of the body, whereby when said charge is ignited the gas generated thereby will discharge downwardly through the nozzle and propel the tool back up toward the ground surface.

2,776,565
FLUID FLOW MEASURING APPARATUS
Kenneth Clifford Hudson, Philadelphia, Pa., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application February 5, 1953, Serial No. 335,361
8 Claims. (Cl. 73—204)

8. In apparatus for measuring the flow of a fluid in a conduit wherein the temperature of the fluid is cyclically varying at a constant rate, the combination comprising, a pair of temperature responsive devices displaced from each other along the flow axis of said conduit, means mounting one of said devices for movement relative to the other along the flow path of said conduit, and means controlled by the output temperature signals of said devices so as to adjust said one of said devices along the flow axis of said conduit until the instantaneous temperatures of said devices are of a predetermined relationship.

2,776,566
APPARATUS FOR MEASURING THE FLOW RATES OF PARTICULATE SOLIDS
Bernard L. Schulman, Roselle, and Walter G. May, Union, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application June 24, 1954, Serial No. 439,120
4 Claims. (Cl. 73—205)



1. Apparatus for determining the rate of flow of aerated non-fluidized particulate solids wherein said solids flow as a confined stream in an elongated conduit in a direction of increasing pressure, said rate being determined by introducing a metered quantity of aerating gas between spaced equal portions of length L of said elongated conduit to equalize the pressure gradients, $\Delta P/L$, over said portions, while concurrently securing the pressure differential, P_2-P_1, between said portions and the static pressure at one of said portions, and relating the measurements to obtain said rate according to the formula:

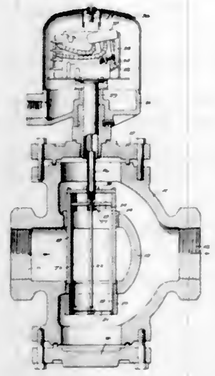
$$V = 1/E\frac{\Delta P}{KL} + \frac{P_2 U}{P_2 - P_1}$$

wherein:

V is the velocity of said solids
E is the fraction voids of the aerated suspension
ΔP is the pressure drop over the distance L
K is a proportionality factor
P_2 is the static pressure at the portion downstream of the point of aeration gas admission
P_2-P_1 is the pressure differential between said portions
U is the superficial velocity of said aerating gas in said conduit at said P_2 pressure, obtained from said metered quantity

comprising in combination, an aerating gas inlet conduit for admitting an aerating gas to said elongated conduit, gas flow rate exhibiting means connected with said aerating gas inlet conduit and operative for measuring said metered quantity, a first pressure gradient exhibiting means connected to a portion of said elongated conduit of said length L upstream of said aerating gas inlet conduit, a second pressure gradient exhibiting means connected to a portion of said elongated conduit also of said length L downstream of said aerating gas inlet conduit, said pressure gradient exhibiting means being operative to measure said pressure gradients, pressure differential exhibiting means connected to said portions and operative to measure said pressure differential, and static pressure exhibiting means connected to one of said portions and operative to measure said static pressure.

2,776,567
FLOW RESPONSIVE DEVICE
Benjamin L. Binford, Chicago, Ill.
Application February 16, 1953, Serial No. 337,088
5 Claims. (Cl. 73—208)

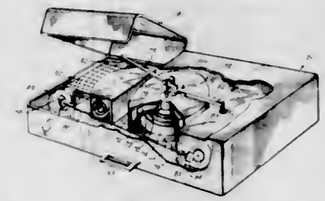


1. A flow responsive device comprising a hollow casing formed with inlet and outlet ports, a hollow partition in the casing separating the ports and formed with aligned openings of different diameters, the interior and exterior of the partition communicating with the ports respectively, a tube having cylindrical end portions of different diameters fitting slidably in the openings respectively and forming an arcuate shoulder intermediate said openings, the tube being closed at its ends and having openings in its side wall to connect the ports through one of the aligned openings and being movable in response to differential pressure acting on the different diameter end portions thereof.

2,776,568
FLUID METERING DEVICE
Gerald E. Ward, Chicago, Ill., and Max Congdon, Zeeland, and Maurice E. Davis, Holland, Mich.
Application April 19, 1954, Serial No. 424,192
5 Claims. (Cl. 73—255)

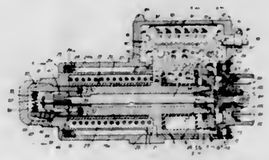
1. A fluid metering device comprising a body having a toroidal flow channel formed therein, said body having a fluid inlet to said toroidal flow channel and a fluid outlet from said toroidal flow channel, a plurality of balls in said channel and adapted to be moved therethrough by fluid flowing through said channel, fluid flow indicating means mounted on said body, there being an opening in said body and communicating with said channel, a lever pivoted in said opening and having a pair of arms, one of said arms extending diagonally into said channel and adapted to be moved by balls moving in one direction, means preventing movement of said lever by balls moving in the opposite direction, a trip lever comprising a channel member, means pivotally mounting said trip lever on the second arm of said previously mentioned lever with an end portion of said trip lever embracing said second arm so that the trip lever has substantially free pivotal movement in one direction and limited pivotal movement in the other direction, a ratchet wheel rotatably mounted for movement by said trip lever when said first mentioned lever in pivoted by said balls, said trip lever pivoting for free passage past said ratchet wheel on return movement of said first mentioned lever, and means linking said ratchet wheel to said indicating means for controlling said indicating means.

2,776,569
CLINICAL THERMOGRAPHS
Ladislao José Biro, Buenos Aires, Argentina
Application September 9, 1952, Serial No. 308,655
5 Claims. (Cl. 73—343)



1. A clinical thermograph comprising a housing, a heat-insulating box positioned in said housing, a casing of heat-conducting material positioned within said box and including a bottom plate, a bi-metallic element positioned in said casing, a base having an opening for the projection therethrough of said plate portion of said casing, an axle connected to said bi-metallic element and projecting through said box and casing, an arm provided with a piercing point pivotally connected to said axle, a bar connected to said arm, temperature recording means mounted in said housing and including a chart, a clockwork mechanism mounted in said housing and connected to said bar to reciprocate said bar to pivot said arm and cause said piercing point to penetrate said chart, straps for detachably connecting said clinical thermograph to a patient's body, a first gear rotated by said clockwork mechanism, a second gear arranged in meshing engagement with said first gear, a shaft connected to said second gear, said temperature recording means including a drum, and gear means connecting said shaft to an end of said drum.

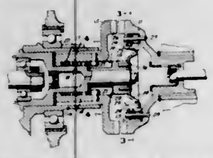
2,776,570
ELECTRO-MECHANICAL ACTUATOR
Martin L. Nelson, Park Ridge, Carl J. Kopp, Arlington Heights, and Hans U. Hjermstad, Chicago, Ill., assignors to Electro-Seal Corporation, Des Plaines, Ill., a corporation of Illinois
Application June 22, 1954, Serial No. 438,524
21 Claims. (Cl. 74—2)



1. A shockproof energy storing and release mechanism comprising, a housing having a hollow longitudinally movable plunger, locking means supported within the interior of said hollow plunger, said locking means having a locking position in engagement with an interior surface of said plunger for retaining said plunger in a cocked energy storing position and having an unlocking position releasing said plunger from said cocked position, a rotatable cam cooperating with said locking means having a first position holding said locking means in said locking position and movable to a second position to release said locking means and permit movement thereof from its said locking position to said unlocking position, means selectively controllable to rotate said cam from said first position to said second position, and

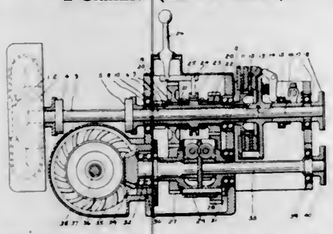
energy storing spring means carried by said plunger effective in response to said release of said locking means for controlling said plunger to quickly move said locking means to its said unlocking position as said spring means expends its stored energy by longitudinally moving said plunger from said cocked position.

2,776,571
ENGINE STARTER CLUTCH
Peter Francis Simone, Reading, Mass., assignor to General Electric Company, a corporation of New York
Application June 28, 1955, Serial No. 518,550
6 Claims. (Cl. 74—7)



1. A starting mechanism, in combination with a motor for starting an engine having an engine clutch member with teeth on its engaging face, comprising a first clutch member adapted to move in rotation and translation and having teeth on a contacting face for engagement with said teeth on said engine clutch member and having a second clutch member adapted to move in rotation only and mounted interconnectedly and coaxially within said first clutch member, means for causing said first clutch member to move axially upon relative rotation between said first and second clutch elements, biasing means including a spring between said first and second members and biasing said first clutch member away from said engine clutch member, ratchet means including an element carried by said engine clutch member and an element carried by said second member said elements being normally biased into ratcheting engagement by biasing means, and centrifugally operated means carried by said engine clutch member to move said elements out of ratcheting engagement whenever said engine dog rotates at a speed above a predetermined value.

2,776,572
TRANSMISSION FOR MOTOR VEHICLES
Maurice Walter, Lawrence, N. Y.
Application January 26, 1953, Serial No. 333,185
2 Claims. (Cl. 74—15.63)



1. A transmission for a motor vehicle having two separately driven tractive means, comprising in combination, a single hollow transmission shaft, a clutch driving shaft extending through the hollow transmission shaft, means mechanically connected to one end of said driving shaft for transmitting mechanical power thereto, a friction clutch disposed adjacent to the other end of said driving shaft for coupling said other end of said clutch driving shaft to said single hollow transmission shaft, output counter shafting means, a plurality of driven gears carried by said counter shafting means, a power dividing differential located within the confines of said transmission and between said driven gears, selectively operable multiple driving gears of different ratios mounted on and selectively driven by said hollow transmission shaft for cooperation with the aforesaid driven gears to drive said driven gears at various speed ratios, and means positively mechanically driven from said differential for driving said tractive means respectively.

2,776,573
VARIABLE RECIPROCATING STROKE MECHANISM
Richard B. Willi, Norristown, Pa., assignor to Baldwin-Lima-Hamilton Corporation, a corporation of Pennsylvania
Application March 1, 1954, Serial No. 413,202
3 Claims. (Cl. 74—55)

1. A variable stroke reciprocating mechanism comprising a vertically reciprocating element, a stroke transmitting link having its upper end pivotally connected to said element and extending generally in the direction of reciprocation thereof, actuating means also disposed generally in alignment with the direction of reciprocation of said reciprocating element for moving the lower end of the link a substantially given distance throughout all operations of the actuating means, and means pivotally connected to said lower end of said link and extending laterally therefrom so as to laterally guide the lower end of said link along an arcuate path of movement which has a vertical component for determining the length of stroke of the reciprocating element, thereby to effect reciprocation of said reciprocating element.

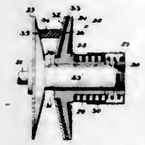
2,776,574
DIFFERENTIAL FLUID PRESSURE MOTORS
William Edward O'Shei, London, England
Application July 26, 1951, Serial No. 238,603
8 Claims. (Cl. 74—97)

1. For a differential fluid pressure motor, a valve mechanism comprising a rocker shaft and a kicker associated therewith, an abutment member on said kicker, said rocker shaft having abutment surfaces arranged to engage co-operating abutment surfaces on the abutment member to move said kicker with lost-motion through a dead-centre position between two limit positions, an over-centre spring acting on said kicker to snap said kicker to the limit position approached by the kicker as it moves over the dead-centre position, said abutment member being angularly adjustable to either of two predetermined positions relative to the kicker.

2,776,575
V-BELT PULLEY DRIVE
John S. Michie, Columbus, Ind., assignor to Reeves Pulley Company, Columbus, Ind., a corporation of Indiana
Application June 25, 1954, Serial No. 439,325
1 Claim. (Cl. 74—230.17)

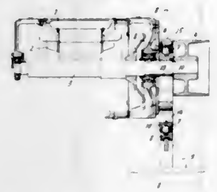
In combination, rotor means, a belt having outwardly-flaring opposite lateral friction surfaces, a first coned disc

supported from said rotor means for coaxial rotation therewith, a second disc supported from said rotor means in facing relation to said first disc for coaxial rotation therewith, a coned element supported from said second disc and cooperating with said first coned disc to define a V-pulley, said coned element and said first disc respectively engaging said opposite lateral surfaces of said belt, and slip-friction means providing between said second disc



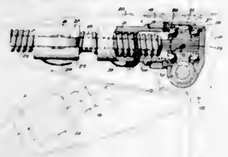
and said coned element a tractive connection which is less effective than the tractive connection between said coned element and its engaged belt surface, said first coned disc being axially fixed relative to said rotor means, and spring means exerting a resilient force on said second disc in the direction of said first disc and pressing said slip-friction means against said coned element and said coned element against its engaged belt surface.

2,776,576
DRIVING DEVICE FOR BELTS
Albert Leyer, Zurich, and Lothar Burgerstein, Rapperswil, Switzerland
Application April 1, 1953, Serial No. 346,072
8 Claims. (Cl. 74—242.9)



1. A driving device especially for belt driven pulleys, equipped with a stator, with a rotor and with a shaft for said rotor, said stator being journalled around a pivotal axle parallel to its own longitudinal axis, in such a way that the reaction torque of the stator results in a tightening of the belt; comprising combined thrust and radial bearing means for said stator and arranged between said stator and said pulley, said bearing means including an outer ring and an inner ring rotatably disposed within said outer ring, said inner ring being rigidly fixed to said stator, said rotor shaft extending through an opening defined by said inner ring and in eccentric position with respect to said opening and a supporting pedestal fixedly connected to said outer ring.

2,776,577
SCREW ACTUATING DEVICE
Joseph M. Olchawa, Chicago, Ill., assignor to Foote Bros. Gear and Machine Corporation, Chicago, Ill., a corporation of Delaware
Application August 10, 1953, Serial No. 373,139
7 Claims. (Cl. 74—424.8)

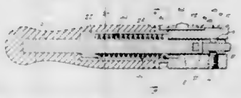


1. A screw actuating device comprising an elongated screw having threads of different axial pitch adjacent its opposite ends, a pair of nuts fitting on the opposite ends of the screw and formed with interval threads complementary to the threads on the ends of the screw respectively, means to hold the nuts against relative rotation but to permit relative axial movement thereof, and means to turn the screw to move the nuts axially relative to each other, axial forces between the nuts being transmitted directly through the screw so that no thrust bearings are required.

2,776,578
SKEW AXIS GEARING AND METHOD OF MAKING SAME
Oliver E. Saari, Scheller Park, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application February 18, 1954, Serial No. 411,145
4 Claims. (Cl. 74—459.5)

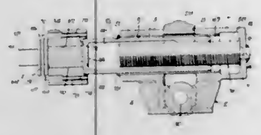
1. A gearing consisting of a gear and a worm rotary at a predetermined speed ratio about axes which are non-parallel or non-intersecting, in which the worm has an outer surface which is a predetermined surface of revolution and a thread whose axial lead, curvature and rate of change of curvature are equal to the lead, curvature and rate of change of curvature of "the relative velocity vector spiral" at one transverse plane of the worm and whose axial lead differs slightly from the axial lead of "the relative velocity vector spiral" at other transverse planes of the worm, and the gear has teeth meshing with the thread of the worm.

2,776,579
HAND GRIP CONTROL DEVICE FOR INTERNAL COMBUSTION ENGINES
John C. Nichel, Jr., Metairie, La.
Application September 23, 1955, Serial No. 536,203
2 Claims. (Cl. 74—488)



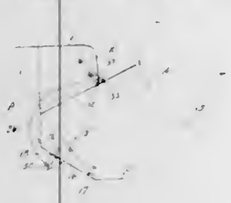
1. A hand grip control device for internal combustion engines comprising a handle having an axial bore, a spindle rotatably mounted in said handle bore and having a portion adjacent one end projecting out of and beyond said handle bore, a hand grip covering the projecting end portion of said spindle, a rotatable shaft secured to said spindle, a circumferential flange on the projecting end portion of said spindle, said flange having a plurality of slots arranged in spaced relation therearound, a plunger mounted in said handle for movement longitudinally of said handle between a first position in which said plunger projects into a slot of said flange and a second position in which the plunger is retracted wholly within the handle, hand actuable means exteriorly of said handle and operatively connected to said plunger for effecting the movements of the latter, and a torsion coil spring circumposed about the projecting end portion of said spindle and having one end attached to said handle and having the other end attached to said projecting end portion of said spindle.

2,776,580
SLACK ADJUSTER
Carl E. Tack, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application June 3, 1952, Serial No. 291,498
3 Claims. (Cl. 74—522)



1. In a slack adjuster arrangement, a base having spaced coaxial bores and an end wall closing the outer end of one of said bores, a cylindrical bushing extending between and secured within said bores, a yoke having spaced arms straddling the medial portion of said bushing, said arms being secured at their ends to said base, coaxial trunnions projecting from opposite sides of said yoke, a brake lever having a bifurcated end straddling said yoke and provided with bearing apertures to receive said trunnions, a screw coaxially positioned within said bushing and having one end thereof fixed to said end wall, an internally threaded adjustment sleeve having its inner end threaded onto said screw and snugly sildably engaged within said bushing, the outer end of said sleeve being closed by an end wall having a cylindrical boss projecting outwardly therefrom coaxial with the sleeve, a lug on the outer end of said boss, a nut secured to said lug, and a brake strap having a bearing portion journaled on said boss and engaged between the sleeve end wall and said nut.

2,776,581
SPEED CONTROL DEVICES
Alfred J. Hamlin, Saginaw, Mich.
Application November 12, 1952, Serial No. 319,890
5 Claims. (Cl. 74—526)

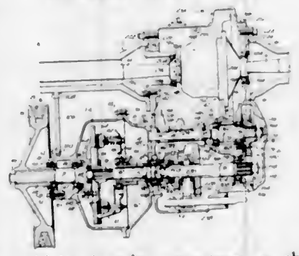


2. In combination with the accelerator of a motor vehicle and the floorboard thereof, the floorboard having an opening therethrough under the accelerator, a selective speed control device adapted to positively limit the depression of the accelerator comprising, a housing secured under the floorboard of the vehicle, a threaded shaft journaled in said housing and disposed substantially perpendicular to the accelerator, said shaft being fixed against axial movement in said housing, a sleeve fixed against rotation threaded on the upper end of said shaft and extending up through the opening in said floorboard into the path of said accelerator, a rotatable, flexible cable geared to said shaft for actuating said shaft and axially moving said sleeve into the path of said accelerator to limit the depression of said accelerator and prevent the automobile from traveling beyond a predetermined speed, a dial housing having graduations thereon representing miles per hour, and a lockable dial in said housing associated with said graduations and connected to the end of said cable to rotate the same as it is twirled to register with one of said graduations.

2,776,582
COVER FOR MOTOR VEHICLE PEDALS
James Blades, Hillside, N. J.
Application June 9, 1953, Serial No. 360,461
3 Claims. (Cl. 74—563)

1. An anti-slip pocketed cover for the normally footwear-contacting portion of a motor vehicle pedal, said pocketed cover including a footwear-contacting cover portion having a decidedly roughened outer surface and being of moisture-absorbent pliable material and formed from a Greek cross-shaped section of said material, with the arms of said Greek cross-shaped section provided with puckering means-accommodating outer ends, a pedal face-contacting portion of the shape of the central part of the Greek cross-shaped section and slightly greater in area than the area of said section, an intermediate portion between said section and said pedal face-contacting portion, means securing said pedal face-contacting portion and said section together with said intermediate portion between them, and puckering means for puckering said arms at the outer ends of the arms, whereby said arms and said pedal face-contacting portion define a pedal-accommodating pocket with the mouth of said pocket encircling the pedal lever transversely of the lever.

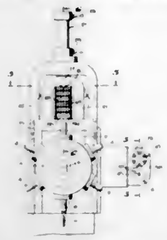
2,776,583
DRIVE MECHANISM FOR CROP HARVESTING VEHICLES
John E. Williams, Oshkosh, Wis., assignor to The Rockwell Spring and Axle Company, Coraopolis, Pa., a corporation of Pennsylvania
Application April 5, 1954, Serial No. 420,960
12 Claims. (Cl. 74—701)



1. In a vehicle, housing structure, a change speed transmission mounted in one portion of said housing structure and having an output shaft projecting through a wall of said housing structure, a differential mechanism mounted in a second portion of said housing structure, a second shaft rotatably mounted in said housing structure in spaced parallel relation to said output shaft, said second shaft being drive connected to said differential mechanism internally of said housing structure and projecting through a wall of said housing structure adjacent the projecting end of said output shaft, a pair of meshed gears each detachably fixed for rotation with the projecting ends of one of said shafts externally of said housing structure wall, and a detachable cover fixed to said housing structure over said pair of gears.

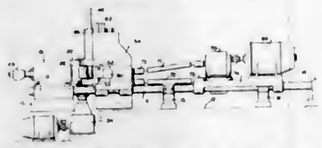
2,776,584
FEED CONTROL SYSTEM FOR MACHINE TOOLS
Fred G. Burg, Los Angeles, Calif.
Application May 11, 1953, Serial No. 354,349
4 Claims. (Cl. 77—25)

1. In a hydraulic feed control system for machine tools adapted to operate on work: a head having a plurality of tool-holders; means for adjusting said head to select tool-holders in succession into active relation to the work; a hydraulic device for causing a feeding movement between the head and the work; means providing a plurality of separate passages independently adjustable



as to effective area of flow for the hydraulic fluid, each passage corresponding to a respective tool-holder; and means responsive to the successive adjustment of said head for closing all of the passages except that one which corresponds to the active tool-holder.

2,776,585
RING FORMING MILL
Edgar Homer Kendall, Alliance, Ohio
Application November 30, 1951, Serial No. 259,163
11 Claims. (Cl. 80—5)

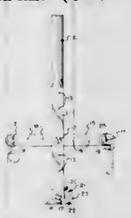


1. In apparatus for forming and hot working metal rings having cooperating pressure and anvil rolls disposed in parallel relation and adapted for movement toward and away from each other, said pressure roll being movable longitudinally for insertion into the aperture of an annular metal blank, a pair of auxiliary rolls adapted to have contact with an annular metal blank positioned between said pressure and anvil rolls, and normally inoperative drive means for rotating said anvil roll; the combination of a first fluid actuated cylinder for moving said pressure and anvil rolls toward and away from each other, a second fluid actuated cylinder for moving said pressure roll longitudinally for insertion in the aperture of a blank, a plurality of fluid operated cylinders for moving said auxiliary rolls into and out of contact with said blank, conduit means connecting said second cylinder with a source of fluid under pressure whereby said pressure roll may be caused to move longitudinally into the aperture of said blank, conduit means connecting said source with said first cylinder, conduit means connecting said source with said plurality of cylinders, normally closed valve means positioned in each of said last mentioned conduit means responsive to the positioning of said pressure roll within the aperture of said blank to cause the passage of fluid through said last mentioned conduits to said first and said plurality of cylinders whereby said rolls are moved into contact with said blank, solenoid operated valve means associated with said first cylinder for normally preventing full operating force being applied thereby to said pressure and anvil rolls, pressure responsive switching means operative in response to said auxiliary rolls moving into contact with said blank to start said drive means, and switching means responsive to said drive means attaining operating speed to actuate said solenoid operated valve means whereby said first cylinder is caused to apply full operating force to said pressure and anvil rolls.

2,776,586
CONSTRUCTION AND CONTROL OF COLD ROLLING MILLS
Tadeusz Sendzimir, Middletown, Ohio, assignor to Armzen Company, Middletown, Ohio, a corporation of Delaware
Application June 10, 1948, Serial No. 32,215
3 Claims. (Cl. 80—38)

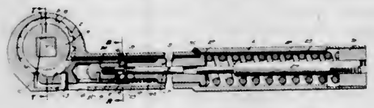
1. In a cold rolling mill having small diameter work rolls, beams extending parallel to the axis of said rolls, said rolls being backed by intermediate rolls and casters which in turn are backed against said beams so as to give to said work rolls support throughout their operating length, the combination of a work roll having a slight crown and a cylindrical intermediate roll having a taper relief, the said taper starting inwardly of the strip edge and extending outwardly beyond said strip edge.

2,776,587
AUTOMOBILE BUMPER, GRILLE, AND BODY BENDING TOOL
William Killius, Altadena, Calif.
Application July 12, 1954, Serial No. 442,528
4 Claims. (Cl. 81—15)



1. An automobile bumper and body bending tool comprising an elongated handle adapted to be manually gripped adjacent one end thereof, an operating portion disposed adjacent the opposite end of said handle, said operating portion being bifurcated to provide a pair of substantially flat parallel elongated members, a row of spaced aligned openings extending transversely through both of said elongated members, said row extending longitudinally therealong, a substantially flat cross bar extending between said elongated members, said cross bar having a plurality of spaced openings extending transversely therethrough along substantially its entire length, said openings corresponding in size to the openings in said elongated members, a pin removably extending through any one of the openings in said cross bar and any pair of the openings in said elongated members to adjustably mount said cross bar with respect to said handle, said cross bar having hook means adjacent at least one end thereof, and a lever base pivotally attached adjacent the end of said operating portion.

2,776,588
HAND-OPERATED IMPACT TORQUE WRENCH
Frank W. Livermont, Duarte, Calif.
Application December 30, 1954, Serial No. 478,560
16 Claims. (Cl. 81—52.3)



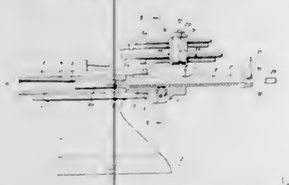
1. An impact torque wrench, comprising: a ratchet member adapted for a driving connection with a fasten-

ing device; an arm rotatable about said ratchet member; a pawl carried by said arm for driving said ratchet member as said arm is oscillated; a hammer also carried by said arm, said hammer being movable to deliver an impact to said pawl thereby to deliver an impact to said ratchet member; and means operative, upon resistance of said ratchet member to turning, by said pawl to release said hammer.

2,776,589
SOCKET-WRENCH SET
Orland M. Gregory, Greentop, Mo.
Application August 8, 1955, Serial No. 526,960
5 Claims. (Cl. 81—177)

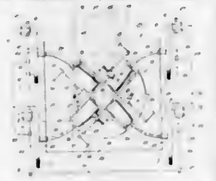
1. A socket-wrench set comprising an elongated handle, a universal coupling, an extension member pivotally connected by the universal coupling to one end of said handle for normally extending laterally therefrom, a plurality of socket members slidably positioned on said extension member, means on the free end of said extension member for removably retaining the socket members thereon, and means releasably retaining the extension member alongside the handle for storing the socket members, extension member and handle in compact condition.

2,776,590
ENGINE LATHE TAIL STOCK RAM DRIVE
Stephen J. Korienek, Rosemead, Calif., assignor of one-half to John G. E. Hogg, El Monte, Calif.
Continuation of abandoned application Serial No. 283,156, April 18, 1952. This application December 8, 1952, Serial No. 324,679
2 Claims. (Cl. 82—31)



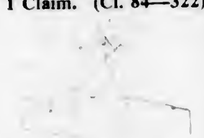
1. In an engine lathe tailstock having a guide provided with threads extending about the rear end of the guide, a holder longitudinally movable in the guide, the cooperating elements of the guide and holder permitting relative angular movement therebetween about the axis of the guide and holder, the combination with said tailstock guide and holder of an attachment, comprising: a housing having threads cooperable with those of the guide for mounting the housing; means for locking the housing in an angularly adjusted position about the axis of the guide; said housing having a bore axially aligned with said guide; a rack guided in the bore, one end of the rack extending beyond one end of the housing bore and being connected to said holder, the other end of the rack extending beyond the other end of said housing bore; a pinion rotatably carried by the housing and extending laterally into the housing bore for cooperation with said rack; a manually manipulable operator secured to the pinion; selectively operable and adjustable multiple abutment means carried by the housing; and a stop carried by said other end of said rack for cooperation with said abutment means.

2,776,591
ELECTROMAGNETICALLY OPERATED MUSICAL INSTRUMENT
John W. McBride, Burbank, Calif., assignor to Bantar, Incorporated, Burbank, Calif., a corporation of California
Application February 17, 1951, Serial No. 211,462
14 Claims. (Cl. 84—1.27)



1. In a musical instrument: a rotary friction driving wheel; a driven wheel having a surface of revolution formed by a convex element and in contact with the driving wheel; means for tilting the driven wheel so as to select the portion of said surface that is in driving relation to the driving wheel, for adjusting the speed of the driven wheel; and a tone wheel coupled to the driven wheel; said tilting means including: a pair of pivotally joined arm sections; means for rotatably supporting the driven wheel by one of the arm sections; means forming a pivot support for the other arm section; means resiliently urging the arm sections for relative angular movement in one direction; and a manually operable key having a cam for urging the arm sections in a direction opposite that of the resiliently urging means.

2,776,592
GUITAR PICK ATTACHMENT FOR THE FOREFINGER
Michael S. Di Preta, Sharon, Pa.
Application August 7, 1953, Serial No. 373,016
1 Claim. (Cl. 84—322)



A guitar pick attachment for the forefinger comprising a resilient clamping band adapted to be circumposed about a forefinger, said clamping band including a pivot pin projecting radially outwardly therefrom medially between the opposite ends of the clamping band; an elongated, narrow tongue having an opening at one end receiving the pivot pin, said tongue being pivotally connected to the pin to swing thereon solely in a plane tangential to the band and normal to the radius thereof, between opposite extreme positions in one of which the tongue extends in the direction of the upper end of the forefinger from the clamping band, and in the other of which the tongue extends in an opposite direction from the clamping band toward the inner end of the forefinger, the tongue being flexible in a direction at right angles to said plane; and an approximately triangular pick body integrally secured to the other end of the tongue in the plane thereof.

2,776,593
COMBINATION INTERFEROMETER-SCHLIEREN APPARATUS FOR DENSITY DETERMINATION IN NON-HOMOGENEOUS TRANSPARENT FIELDS
Robert E. Blue, Lakewood, Ohio
Application December 29, 1953, Serial No. 401,098
3 Claims. (Cl. 88—14)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. An optical system for quantitative and qualitative evaluation of density phenomena in air flow comprising

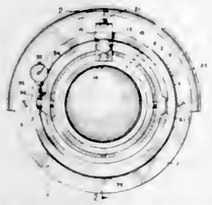
a light source, means for collimating a light beam from said source, means for separating said beam into reference and test beams, means for combining said reference and test beams, an interferometer image plane, means for transmitting the combined beam to said interferometer

image plane, a schlieren image plane, means for transmitting a schlieren beam to said schlieren image plane, and single means for reflecting a part of said test beam to said beam combining means and for transmitting a part of said test beam to said schlieren beam transmitting means.

2,776,594
METHOD OF AND MEANS FOR PRODUCING STEREOSCOPIC ANIMATED CARTOONS
William E. Garity, Los Angeles, Calif., assignor to Walter Lantz Productions, Inc., Los Angeles, Calif., a corporation of California
Application August 18, 1953, Serial No. 375,028
6 Claims. (Cl. 88—16)

1. A method of facilitating the production of animated cartoons and the like in stereoscopic form, comprising: preparing a plurality of cells in a normal manner arranged for normal, composite superimposition when arranged about a centrally disposed registration center, certain cells depicting a representation of a foreground object, and others depicting a representation of middleground and background objects; punching a set of right and left-eye registration ports in each of said cells, regulating the spacing between registration ports in each cell in accordance with the desired spatial position with respect to a projection screen upon which a composite of such cells is to be projected, the spacing between said registration ports being further apart on cells bearing representations of foreground objects than the spacing between registration ports on cells bearing middleground and background objects; photographing assemblages of cells with one of said registration ports in alignment to obtain a series of left-eye images in sequence upon a strip of film, and then photographing the same assemblages of cells with the other registration ports in alignment to obtain a series of right-eye images in sequence upon a strip of film.

2,776,595
LINE-VARIATOR
Ernst Schumacher, Frankfurt am Main, Germany
Application March 2, 1953, Serial No. 339,666
Claims priority, application Germany March 3, 1952
2 Claims. (Cl. 88—24)

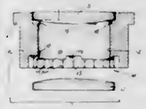


1. A device of the character described comprising a frame, a carrier rotatively mounted in said frame for rotation about a fixed axis and in a plane normal to said axes, an optical body aligned with said fixed axis and pivotally mounted on said carrier on a transverse axis lying parallel with the plane of rotation of said carrier, means for variably adjusting the angular position of said optical body about said transverse axis and with respect to the plane of said carrier in response to rotation thereof, means for shifting the angular position of said carrier about said fixed axis, and an adjustable limit stop bearing between said optical body and said carrier for selectively setting the minimum angular displacement of said optical body relative to the plane of said carrier.

2,776,596
PREPARATION AND MOUNTING OF SPECIMEN SECTIONS
Morris Eigen, Arlington, Va.
Application July 28, 1952, Serial No. 301,415
3 Claims. (Cl. 88—40)

1. A method of preparing and mounting specimen sections, comprising the steps of positioning a specimen in a receptacle, inserting a plurality of spaced projecting elements supported from a supporting element into said receptacle adjacent to the sides of said specimen, filling the said receptacle with a congealable matrix material substantially to embed said specimen and the portion of said projecting elements located at the sides of said specimen, after congealing of the matrix material, removing said projecting elements from the matrix to provide aligning openings therein, and removing said specimen and matrix from said receptacle, forming a plurality of transverse sections from said specimen and said matrix, each of which contains said aligning openings, securing a glass plate in a fixed and oriented position on said supporting element, and mounting a transverse section on said supporting element in contact with said glass plate with the projecting elements extending through the aligning openings formed by the respective elements during the congealing of the matrix material.

2,776,597
LENS CAPSULE AND LENS MOUNTING ASSEMBLY
Harold R. Burt, Portland, Oreg., assignor to Sawyer's Inc., Portland, Oreg., a corporation of Oregon
Application July 29, 1955, Serial No. 525,289
9 Claims. (Cl. 88—57)



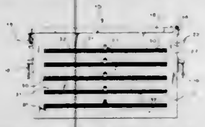
1. A lens capsule comprising a lens mounting member having a lens seating recess therein defined by a cylindrical wall and an annular seating ledge, a lens in the form of a disc member seated in said recess, said wall being of greater diameter than said lens, and a plurality of closely spaced, axially extending fins protruding radially inwardly from said wall with their inner edges lying along a circle of greater diameter than the inner diameter of said annular ledge, one of said members being formed of a material softer than the material from which the other is formed and having substantial resilience, said fins being

narrow relative to their axial length and the inner edges of said fins having yielding engagement with the peripheral surface of said lens.

2,776,598
MIRROR HAVING A DICHROIC LAYER
John F. Dreyer, Cincinnati, Ohio, assignor to Charles P. Dreyer, Gertrude C. Dreyer, and Lawrence R. Lytle, Cincinnati, Ohio, as trustees
Application April 13, 1951, Serial No. 220,849
5 Claims. (Cl. 88—105)

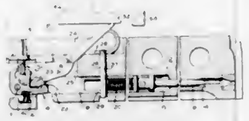
1. The method of forming a mirror which comprises providing a transparent layer, giving the material at the surface of said layer a desired orientation, spreading on said surface a free-flowing solution of a dichroic material capable of passing through the nematic state, passing said material through the nematic state while under the influence of said oriented surface to orient the molecules of said dichroic material in conformity to said desired orientation at the surface of said layer, and solidifying said dichroic material while the molecules thereof remain oriented, and depositing a mirror reflecting material on the resulting dichroic layer.

2,776,599
JAM-PROOF GUN AMMUNITION FEED CAN
Raymond A. Starry, Holicong, Pa., assignor to the United States of America as represented by the Secretary of the Navy
Application August 31, 1953, Serial No. 377,744
2 Claims. (Cl. 89—34)
(Granted under Title 35, U. S. Code (1952), sec. 266)



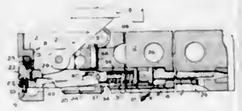
1. An ammunition container for a plurality of generally tapered cartridges all similarly disposed crosswise of the container and mounted sequentially in an elongated flexible belt which is folded in successive horizontal layers within the container, said ammunition container including a substantially vertical sidewall adjacent to the small ends of the cartridges, a plurality of narrow elongated shelves shorter in length than said sidewall, a plurality of hinge means for pivotally mounting said shelves horizontally and at vertically spaced intervals on said sidewall and midway between its ends, a plurality of continuously effective coil spring biasing means mounted peripherally of said hinge means and connected to the respective shelves and arranged to bias each of said shelves upwardly into contact with the inner surface of said sidewall, stop means adjacent to each shelf arranged to limit downward deflection of the shelf at a substantially horizontal position in which the shelf projects substantially perpendicular from the sidewall, and a plurality of access openings located centrally of the sidewall and immediately above the respective hinge means, so that said shelves may readily be deflected downwardly from outside the container by overpowering said biasing means, said shelves being so spaced that they support the small ends of alternate layers of cartridges when they are deflected downwardly into a substantially horizontal position as successive layers of a flexible belt of cartridges are folded into said container.

2,776,600
SEAR DEVICE FOR AN AUTOMATIC FIREARM
Edward C. Lee, Detroit, Mich., assignor to the United States of America as represented by the Secretary of the Army
Application December 31, 1953, Serial No. 401,741
3 Claims. (Cl. 89—136)



1. In a firearm bolt, a sear having a leg portion and a foot portion extending at right angles therefrom, said leg portion being provided with a lateral opening and said foot portion being provided with a rearwardly facing engaging surface in the upper side thereof, pin means mounted through said sear to provide for pivotal movement of said sear about the junction of said leg portion and said foot portion, spring means for biasing said sear from a disengaged to a holding position, a cam portion extending rearwardly into said opening, a lug portion extending forwardly into said opening, a reciprocal firing member spring-biased from a retracted to a firing position, hook means extending from said firing member, said hook means being engageable by said engaging surface when said sear is in said holding position whereby said firing member is releasably held in said retracted position, a cylindrical sear slide slidably mounted in a bore in the bolt for reception by said opening, said sear slide being provided with a mortise and a recess having angular actuating surfaces, said sear slide being actuatable from a sear actuated position to a sear locked position wherein said lug is engageable with said sear slide to block said sear in said holding position, and said actuating surfaces being cooperable with said cam portion for actuating said sear to said disengaged position when said sear slide is moved to said sear actuated position and said mortise is in position to receive said lug.

2,776,601
SEAR DEVICE FOR AN AUTOMATIC FIREARM
Edward C. Lee, Detroit, Mich., assignor to the United States of America as represented by the Secretary of the Army
Application November 25, 1953, Serial No. 394,524
4 Claims. (Cl. 89—136)

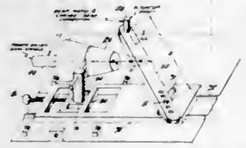


2. In a bolt for a firearm, a spring-biased firing member mounted for reciprocal movement between a firing and a retracted position, lever means for actuating said firing member to said retracted position, a sear for releasably latching said firing member in said retracted position, said sear being mounted for pivotal movement between a holding and a disengaging position and being provided with indent means, a slidable member mounted in the bolt for reciprocation between a locking and an actuating position, a tongue portion on said slidable member cooperable with said indent means for releasably locking said sear in said holding position when said slidable member is in said locking position, and inclining sides on said slidable member engageable with cooperating inclining sides on said sear after said tongue portion is moved out of said indent means for cammingly actuating said sear to said disengaging position when said slidable member is moved to said actuating position.

2,776,602
BARREL POSITIONING MEANS FOR AUTOMATIC PISTOL
Foster E. Sturtevant, West Hartford, Conn., assignor, by mesne assignments, to Colt's Patent Fire Arms Manufacturing Company, Incorporated, Hartford, Conn., a corporation of Delaware
Application September 25, 1953, Serial No. 382,295
9 Claims. (Cl. 89—196)

1. The combination in an automatic pistol, of a frame, a longitudinal breech slide guided for longitudinal movement along the frame, a longitudinal barrel, means for holding the rear portion of the barrel with its axis in rigid, fixed relation to the axis of the slide while permitting relative longitudinal rectilinear movements, a longitudinal reaction spring for opposing rearward recoil movement of the slide and for then returning the slide to its forward position, a forwardly biased pressure member located near the front of the slide and longitudinally movable to a limited extent with respect thereto, a control member connected for longitudinal movement in unison with the slide and for limited transverse movement relative thereto, the said control member comprising a sleeve slidably mounted upon the front portion of the barrel and located within a recess in the front portion of the slide, and interengaging means on the forwardly biased pressure member and on the control member for causing the said pressure member to bias the said control member for transverse movement relative to the slide and barrel, so as to hold the front portion of the barrel in fixed axial relation with the slide while permitting relative longitudinal rectilinear movements of said slide and barrel.

2,776,603
THREAD-CUTTING MACHINE
Oliver E. Saari, Scheller Park, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application February 18, 1954, Serial No. 411,167
6 Claims. (Cl. 90—1)

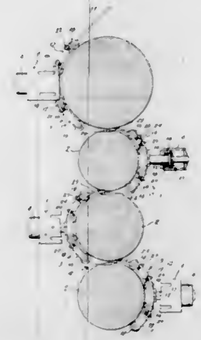


1. A machine for cutting a spiral of varying lead closely approximating a spiral defined by a complicated mathematical formula, comprising a rotary work spindle, a turnable actuator, reducing gearing connecting the spindle and actuator, a cutting tool, a connection between the actuator and the tool moving the tool at a rate proportional to the sine of the angular turning of the actuator, and separate means for adjusting the gear ratio between the spindle and the actuator, the ratio between the sine of the angular position of the actuator and the movement of the tool, and the angular position of the actuator when the tool engages the work on the spindle at a selected transverse plane of the work.

2,776,604
MILLING ATTACHMENTS FOR LATHES
Anton Simsack, Philadelphia, Pa.
Application August 14, 1952, Serial No. 304,335
2 Claims. (Cl. 90—11.64)

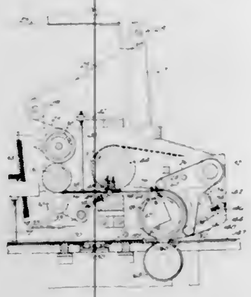
1. A device adapted to be attached to a screw machine lathe having a hollow spindle shaft opening to the outer free end of the machine, comprising a motor having its drive shaft extending at both ends thereof, means adapted to detachably secure said motor to the tool-slide of a lathe, a gear unit connected to each of the opposite ends of the motor shaft, a rotary tool means driving a tool by said motor through one of said units, an expansion coupling adapted to be inserted into and expanded into frictional engagement with the inner surface of the hollow spindle of a lathe at the outer free end thereof to drive the same from said motor, and flexible shaft means connected at one end to said motor through the other of said gear units, and connected at its other end to said coupling, whereby said motor rotates both said tool and said spindle concurrently.

2,776,605
THREADING DEVICE FOR CALENDER ROLLERS
Herbert Ward McAfoos, Alton, Ill.
Application February 29, 1952, Serial No. 274,125
2 Claims. (Cl. 92—74)



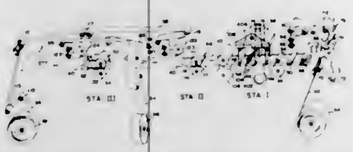
1. A device for threading a web through a stack of calender rollers comprising a bracket supportable by one of the bearing housings of the roller with which the device cooperates, a fluid motor including a piston and piston rod, arms associated with said motor, a pin for pivoting said arms to said bracket, a frame secured to said piston rod, rollers rotatably mounted in said frame for engagement with the cooperating roller, a frame section pivoted to each end of said frame resiliently urged toward the cooperating roller, a roller rotatably mounted in each frame section, a doctor plate pivotally mounted in one of said frame sections resiliently urged into engagement with the cooperating roller, spring means for moving said frame away from the cooperating roller after said fluid motor has moved the frame toward the cooperating roller; and detent means operable between said bracket and arms for permitting said frame to be swung away from the cooperating roller when a thickened portion in the web passes between the device and the cooperating roller.

2,776,606
MECHANISM AND METHOD FOR ASSEMBLING AND ATTACHING CONTAINER BLANKS
Paul E. Fischer, Minneapolis, Robert S. Hedin, St. Paul, Charles H. Swanson, Minneapolis, and Henry E. Wissman, St. Paul, Minn., assignors to General Mills, Inc., a corporation of Delaware
Application March 31, 1952, Serial No. 279,616
10 Claims. (Cl. 93—36.6)



1. A mechanism for assembling and attaching container blanks comprising in combination, a pair of rollers for feeding a web of carton forming material, a cylinder for receiving said web from said rollers, moving at a faster peripheral speed than the rollers and carrying heating elements at its surface to heat limited areas of the web, means for holding the web against the surface of the cylinder and for providing limited sliding movement between the cylinder and web before the web is severed, and a cutting means for severing the web between the rollers and cylinder after sliding movement between said cylinder and web, said cutting means including a cutting member moving with the web during the severing step at a speed corresponding to the peripheral speed of the feeding rollers.

2,776,607
MECHANISM FOR PREPARING BLANKS
Paul E. Fischer, Minneapolis, Robert S. Hedin, St. Paul, Charles H. Swanson, Minneapolis, and Henry E. Wissman, St. Paul, Minn., assignors to General Mills, Inc., a corporation of Delaware
Application March 31, 1952, Serial No. 279,619
3 Claims. (Cl. 93—36.6)

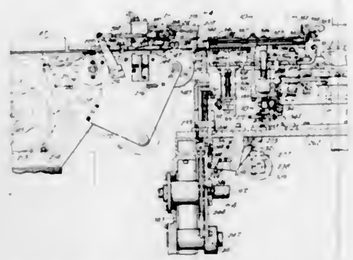


1. The method of preparing blanks for a container which comprises forming a first sheet of container material, forming a second sheet of container material and positioning the second sheet on the first, one of said sheets having a coating of thermoplastic adhesive on the surface facing the other sheet, applying heat to a very small area of the sheets to activate the thermoplastic adhesive therebetween to cause the sheets to adhere to each other over only said limited area, forming a third sheet of container material and positioning it on said second sheet, one of said second and third sheets having a coating of thermoplastic on the surface facing the other sheet, and applying heat to said third sheet over a second very small area to activate the thermoplastic adhesive between the second and third sheet to cause them to adhere to each other over said second small area, the location of the second area being different from the first area so that the application of the heat to the second area will not re-soften the thermoplastic of the first area to loosen its bond.

2,776,608
METHOD OF MAKING A MULTI-LAYERED CONTAINER
Paul E. Fischer, Minneapolis, Robert S. Hedin, St. Paul, Charles H. Swanson, Minneapolis, and Henry E. Wissman, St. Paul, Minn., assignors to General Mills, Inc., a corporation of Delaware
Application March 31, 1952, Serial No. 279,618
5 Claims. (Cl. 93—36.8)

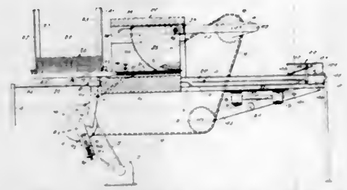
1. The method of making containers having a plurality of layers of material which comprises assembling a plurality of sheets of material, said material including a thermoplastic layer between the sheets extending throughout the entire area of the desired container body, initially applying heat to a limited area and thereby adhering the sheets to each other to form a composite blank, simultaneously folding all of the sheets of the blank into a tubular body portion in which the layers are superimposed and thereby creating an unsecured seam running along one side of the body portion, folding the elements at one end of the blank to close one end of the body portion, adhesively securing at least a portion of said end elements without securing said unsecured seam to retain the elements and container body portion in folded position while receiving further handling, and subsequently securing said side seam, and welding the sheets of material to each other by applying heat throughout the entire area of said body portion to form a smooth, strong, multiple-layered container.

2,776,609
MECHANISM FOR MAKING CONTAINERS
Paul E. Fischer, Minneapolis, Robert S. Hedin, St. Paul, Charles H. Swanson, Minneapolis, and Henry E. Wissman, St. Paul, Minn., assignors to General Mills, Inc., a corporation of Delaware
Application March 31, 1952, Serial No. 279,615
23 Claims. (Cl. 93—51)



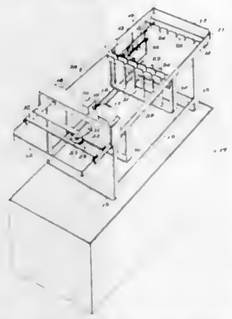
1. A mechanism for forming containers comprising a device for holding a container blank while it is formed into a container and for carrying the blank, folding means for forming the container from the blank, means for delivering a container blank to said holding device positioned adjacent the device, a platform spanning the gap between said delivery means and said device for supporting the blank as it is moved onto the holding device, and means for moving said platform into said gap when the holding device is immobile and for moving the platform out of the gap to prevent interference with the holding device when it is moving.

2,776,610
CUTTING AND CREASING PRESS
Louis W. Roselius, Lake Success, N. Y., assignor to S & S Corrugated Paper Machinery Co., Inc., Brooklyn, N. Y., a corporation of New York
Continuation of abandoned application Serial No. 301,451, July 29, 1952. This application September 8, 1954, Serial No. 454,776
3 Claims. (Cl. 93—58.2)



1. A cutting and creasing press comprising a bed; means for supporting a die on said bed; a quadrant positioned to roll on said die; means for feeding a blank to said die from one end of said die when the quadrant is positioned at the other end of said die; means for rolling said quadrant over said blank; said means for rolling said quadrant comprising a fixed body member having a slot, said quadrant having an axle slidable in said slot, a link secured to said axle, said link having combined pivotal and translatory motion, and means for actuating said link comprising an additional link pivoted thereto, including means for effecting rotation of said additional link; and means for withdrawing said blank from the other end of said die when the quadrant is positioned at the first-mentioned end of said die, a drive member; said drive member being connected to said three aforementioned means and driving them in synchronism with each other.

2,776,611
AGITATING DEVICE FOR TREATING LIQUID USED IN PHOTOGRAPHIC DEVELOPMENT PROCESS
Victor J. Accrocco, Forest Heights, Md.
Application November 18, 1954, Serial No. 469,805
6 Claims. (Cl. 95—89)

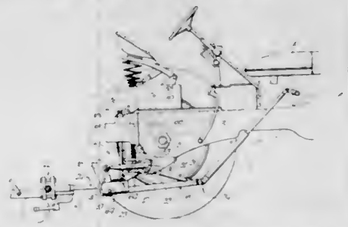


1. A portable, unitary agitating device for insertion in a rectangular tank containing a treating liquid for photographic sheets that comprise a frame member, said member comprising first and second rectangular sub-frames, said first sub-frame being adapted to overlie at its opposite ends a pair of opposite ends of said tank and to be supported thereby, a motor, means to mount said motor to said first sub-frame, photographic sheet hanger supports mounted in parallel space relation across the short width of said first sub-frame, said supports having aligned hanger receiving grooves therein to receive said hangers in a position at approximately right angles to said supports, said second rectangular sub-frame being carried by said first sub-frame and having two elongated legs adapted to loosely fit over the long legs of said first sub-frame member, and to freely move over said long legs thereof, a plurality of agitating vanes, means mounting said vanes to said second sub-frame member in vertical parallel space relation to each other, said vanes being disposed in planes perpendicular to the planes of said photographic sheets and being spaced adjacent thereto, means operatively connecting said motor and said second sub-frame to reciprocate said second frame back and forth over said first sub-frame and to thereby reciprocate said vanes back and forth in said tank in planes substantially parallel to said sheets, whereby said frame member, said motor, said motor mounting means, said hanger supports, said vanes, said vane mounting means and said reciprocating means form a single, integral, portable unit that is inserted in and removed from said tank as a unit.

2,776,612
ROTARY ROD WEEDER DRIVE
Morris W. Guyer, Spokane, Wash., assignor to Calkins Manufacturing Company, Spokane, Wash.
Application October 16, 1953, Serial No. 386,464
5 Claims. (Cl. 97—42)

1. In a soil cultivating implement utilizing a rotating rod drawn transversely through the soil, a drive mechanism comprising a worm gear mounted on the rotary rod, a depending frame attached to the main frame of the implement and having at its lower end means rotatably supporting said worm gear, a drive shaft extending downwardly in front of the depending frame, a worm attached to the lower end of said drive shaft, said worm being meshed with said worm gear, a spiral portion on the drive shaft, said spiral portion being located above the worm, means for rotatably supporting the drive shaft, and means for rotating the drive shaft.

2,776,613
TRACTOR ATTACHING STRUCTURE
John R. Orelind, Wilmette, Ill., assignor to International Harvester Company, a corporation of New Jersey
Application February 25, 1953, Serial No. 338,651
15 Claims. (Cl. 97—46.59)



14. An implement attaching structure for a tractor, comprising a hitch device pivotally connected to the

tractor in draft-receiving relation for tilting about a longitudinal axis and having laterally spaced attaching elements adapted for cooperation with complementary attaching elements on the implement, a transverse rock shaft, laterally spaced supports on the tractor carrying said shaft, one of said supports having a generally vertically extending slot formed therein to receive one end of the rock shaft and accommodate vertical floating movement thereof, a lifting connection between the shaft and the hitch device for raising and lowering the implement upon rocking the shaft, a hydraulic cylinder anchored to the tractor extending vertically upwardly therefrom and having a piston rod slidable therein, a rock arm on said shaft, and a lifting link connected to said arm and extending vertically upwardly therefrom, and means operatively connecting said link to said piston rod for relative sliding movement to accommodate the said floating of the rock shaft.

2,776,614
ATTACHMENT FOR AGRICULTURAL MACHINE
Joseph B. Taule, Sweet Grass, Mont.
Application March 26, 1954, Serial No. 419,001
3 Claims. (Cl. 97—47.84)

1. A guard for springs comprising a hollow casing having opposed open and closed ends, said casing having a notch extending through one side thereof and an anchoring tongue carried by said casing and extending outwardly therefrom adjacent the top wall of said notch.

2,776,615
WIRE TYING MECHANISM
Eli R. Frey, West Jefferson, Ohio
Application December 26, 1952, Serial No. 328,055
27 Claims. (Cl. 100—2)

1. The steps in the method of tying binding wires for bales produce in a steady flow process, which comprises forming a loop on the end of a strand of wire; positioning said loop at a wire tying station adjacent the bale; surrounding the material to be baled by the wire; positioning a portion of the wire strand after surrounding said material at said tying station; twisting said loop and strand portion into a double loop; twisting a second portion of said wire strand adjacent to said first mentioned portion to form a second loop; severing the wire strand between said double loop and said second loop; and moving said double loop out of said tying station and said second loop into said tying station.

2,776,616
GARLIC PRESS
Steven O. Sarossy, Melrose Park, Ill.
Application April 28, 1954, Serial No. 426,178
3 Claims. (Cl. 100—234)

1. A hand held garlic press comprising, a pair of levers having substantially straight handle portions both adapted to be held in the hand, said levers being pivotally connected at one end by a cross pin, one of said levers having a pair of depending side extensions and a flat presser secured to the bottom of said side extensions and extending therebetween and providing open spaces forwardly and rearwardly of said side extensions, the other of said

levers having a pair of side walls and an open bottom, a removable strainer removably positioned in said other lever, said strainer having a receptacle with open sides adapted to be closed by said side walls to receive the material to be pressed, said receptacle having a perforated bottom and a hook adapted to removably engage said cross pin.

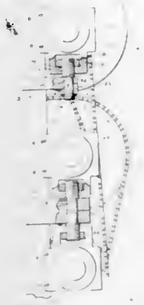
2,776,617
METAL STAMPING MACHINE
James M. Hendrickson, Kittanning, Pa., assignor to The Pannier Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application April 6, 1953, Serial No. 346,963
8 Claims. (Cl. 101—4)

1. A machine for marking articles as they proceed along a course of travel which comprises a straight operating rod, an arm carrying a stamp mounted on said rod and extending transversely thereof, said operating rod supporting said arm in a retracted position and mounted to move parallel with said course of travel, servomotor means actuated by the passing of the article to initiate and carry out the cycle of swinging said arm by rotating said rod and advancing said arm by advancing said rod with the article and to strike the article with the stamp and then withdraw the arm to its retracted position, said servomotor means includes a photoelectric circuit having connected relays which when energized actuate one double acting pneumatic cylinder to swing said arm and another to move it parallel with the movement of the article.

2,776,618
PRINTING CYLINDERS FOR HIGH-SPEED PRINTING SYSTEMS
Richard A. Hartley, North Hollywood, Calif., assignor, by mesne assignments, to Hughes Aircraft Company, a corporation of Delaware
Application June 11, 1953, Serial No. 360,998
11 Claims. (Cl. 101—93)

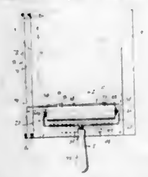
1. A continuously rotatable printing cylinder assembly for a serially operable printing system, said assembly comprising: a plurality of sequentially energizable printing transducers, disposed along a straight line, for printing intelligence information, a cylindrical member having an axis and being rotatable about said axis, said axis being substantially parallel to a reference line taken through a corresponding point on each of the plurality of transducers; and a series of rows of type characters longitudinally disposed about at least a portion of the periphery of said cylindrical member, each of said rows being identically skewed with respect to said axis of said cylindrical member and with respect to each other, each row corresponding to a different type character and the characters in each row being identical and corresponding in number to the number of transducers, the distance between adjacent rows being constant, the last type character in at least one of said rows being in substantially longitudinal alignment with the first type character in the succeeding row.

2,776,619
BEARING SUPPORTS FOR ROLL PRINTING MACHINES
Jasper Willsea, Rochester, N. Y.
Original application December 13, 1950, Serial No. 200,576. Divided and this application November 24, 1953, Serial No. 394,093
2 Claims. (Cl. 101—247)



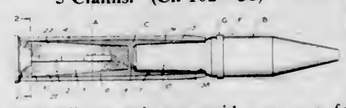
1. In a bearing stack for a roll printing machine, a frame comprising spaced uprights, said uprights having horizontally extending bracket support arms adapted to support spaced bearings for print rolls, with the axes of such bearings lying in a plane substantially parallel with but laterally disposed from the plane of said spaced uprights, a series of bearings mounted on each of said arms, one above the other, for supporting a plurality of shafts in parallel vertical spaced relation, each of said bearings comprising a block portion and an integral strap support portion defining a rectangular window between the strap and block portions, the major axis of which lies substantially parallel with the support arm therefor, means for vertically adjusting the positions of said bearings comprising a capstan screw threaded in the strap portion of said bearings and being of a length to extend into said window, and having a lock nut threaded thereon disposed in said window, said screw having a shank pivoted in said arm and a shoulder bearing on said arm.

2,776,620
APPARATUS FOR GRAPHPRINTING
Walter Quimby, New York, N. Y.
Application February 24, 1954, Serial No. 412,254
8 Claims. (Cl. 101—328)



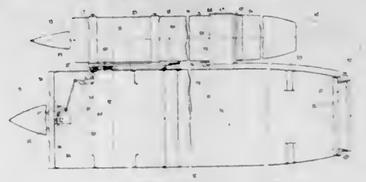
1. A roller device for printing graph blocks comprising a frame, a roller rotating therein and having circumferential ribs and longitudinally extending ribs crossing one another at prescribed intervals, means carried by the frame adapted to ink the ribs during rotation of the roller, the frame including a handle and yoke arms secured to the handle, and having inwardly turned ends on which the roller is mounted, said frame further including a shield partially covering the roller, and means holding the shield against movement relative to the frame, said shield-holding means including collars on the inwardly turned ends of the yoke arms and spaced pins on the collars, the shield having end walls apertured to receive the pins.

2,776,621
PROJECTILE
Jordan Rosenblatt, Toledo, Ohio
Application June 28, 1954, Serial No. 439,714
5 Claims. (Cl. 102—38)



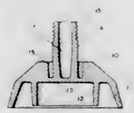
1. In a projectile round, a cartridge case, a follower cone and a projectile telescoped together, said cartridge case having an elongated interiorly forwardly convergent tapered end sleeve portion, said projectile having a rearwardly tapered rear end portion, and said cone having a tapered cup closely fitting between the convergent sleeve portion and the projectile rear end portion.

2,776,622
DEVICE FOR ATTACHING AUXILIARY ROCKETS TO A FLYING MACHINE
Roger Aime Robert, Boulogne-sur-Seine, France
Application May 27, 1948, Serial No. 29,564
Claims priority, application France May 27, 1947
13 Claims. (Cl. 102—49)



1. Auxiliary propulsive device for a flying machine, which comprises a central collar, a plurality of rockets arranged in uniformly spaced relationship about and parallel with the axis of said collar, arms interposed between said collar and said rockets for supporting said rockets, and deformable resilient means deformable in the direction of said axis interposed between each rocket and its supporting arm.

2,776,623
CLOSURE DEVICE
Lyman G. Bonner, Cumberland, Md., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware
Application August 6, 1949, Serial No. 108,984
2 Claims. (Cl. 102—49)



1. A frangible plastic closure device for a gas-discharging orifice which in combination comprises a diametrical-

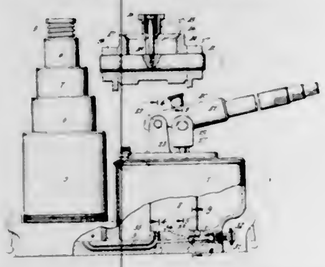
ly converging body member, an initiator well extending longitudinally from the convergent end to a point short of the divergent end of the body member, an annular groove disposed around the well and extending longitudinally into the body member to a point short of the divergent end of the body member to provide a central region of relative weakness, and container means associated with the divergent end of the body member to accommodate ignition composition for a smokeless powder charge.

2,776,624

MULTIPLE PISTON HYDRAULIC PUMP UNIT AND OPERATING MEANS TO SELECTIVELY OPERATE THE PISTONS THEREOF

Robert N. Reinhard, Glendale, Calif., assignor to Foremost Dairies, Inc., New York, N. Y., a corporation of New York

Application June 2, 1953, Serial No. 359,119
1 Claim. (Cl. 103—37)



Pump means for a hydraulic jack consisting of a fluid reservoir casing, a piston block within the casing, a plurality of cylinders within the piston block, pistons in the cylinders, check valve means between the cylinders and reservoir and adapted to shut off the reservoir from the cylinders upon pressure stroke of the pistons, an operating lever, a link carried by each piston, a shaft slidably mounted in said lever near the end thereof and adapted to selectively engage said links, and a headed pin engaging said shaft and having slidably mounted about its outer end a chambered latch member, said chamber holding a spring bearing against the under surface of the pin head, the inner end of said lever being provided with a seat for said latch member corresponding to each position of selective engagement of said links, said pin and latch member being adapted for movement between said seats, and to thereby slide said shaft into positions of selective engagement with said links.

2,776,625

ROTARY PUMP ROLLER

Ernest E. Cook and Harry J. Sadler, Minneapolis, Minn.

Original application January 25, 1956, Serial No. 561,304. Divided and this application September 24, 1956, Serial No. 611,722
6 Claims. (Cl. 103—136)

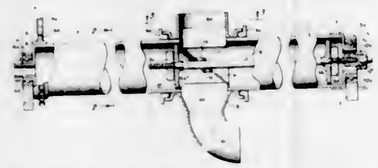
1. In a rotary pump having a casing defining a generally cylindrical chamber and a rotor having a radially slotted portion eccentrically mounted therein and adapted to have an impeller roller mounted in the slotted portion thereof, the improvement which comprises an impeller roller including a generally cylindrical core of a high specific gravity material and a cylindrical plastic jacket of a lower specific gravity material enclosing said core, said core having an axial recess at one end and a frusto-conical boss extending axially outwardly of the opposite end, said boss terminating axially inwardly of the plane of the adjacent end of said plastic jacket, said recess and said boss being substantially completely covered as a result of the core having been supported thereby during forming of the jacket on the core.

2,776,626

CHEESE PUMP AND FILLER

Samuel Bowman, Glendale, Calif.

Application October 7, 1952, Serial No. 313,561
6 Claims. (Cl. 103—159)



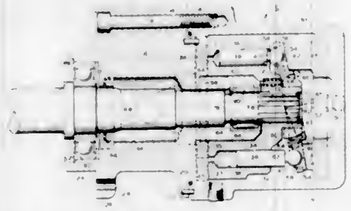
1. In a pump of the character described, the combination of a tubular cylinder, a fixed inlet and outlet member positioned intermediate the ends of said cylinder and in which said cylinder is revolubly mounted, provided with an inlet at one side of said cylinder and an outlet at the other side of said cylinder, an angular partition fixed in said cylinder extending from one side of said inlet to the opposite side of said outlet, dividing said cylinder into two opposite parts and being revoluble with said cylinder, said parts of said cylinder being ported on opposite sides of said angular partition adjacent thereto for communicating said parts of said cylinder alternately with said inlet and outlet of said inlet and outlet member as said cylinder is rotated through approximately one-half revolution on its longitudinal axis, plungers mounted in the ends of said cylinder, means linking said plungers together for simultaneous reciprocation in the opposite parts of said cylinder on opposite sides of said partition, and means for rotating said cylinder approximately one-half revolution on its longitudinal axis, in timed relation to the reciprocation of said plungers.

2,776,627

POWER TRANSMISSION

Adolf Keel, Highland Park, Mich., assignor to Vickers Incorporated, Detroit, Mich., a corporation of Michigan

Application July 10, 1952, Serial No. 298,079
4 Claims. (Cl. 103—162)



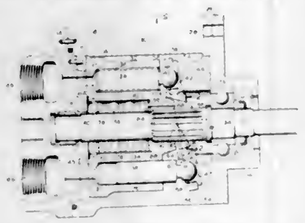
1. A fluid pressure energy translating device comprising: a drive shaft; a housing having a stationary valve plate; a rotatable cylinder barrel in abutment with the valve plate and in driving relation with the drive shaft, and having a plurality of axial cylinder bores; pistons reciprocable in the bores each having a spherical surface at one end; an inclined thrust plate mounted in the housing in driving relation with the pistons; inlet and outlet ports alternately connectable through the valve plate to said cylinder bores by rotation of the cylinder barrel; means on the shaft for locating the barrel as to lateral position; an axially slidable collar encircling the drive shaft and having a spherical outer surface; a sleeve member having a conical bore contacting the spherical outer surface of the collar, the center of said spherical outer surface being positioned at the intersection of the axis of the conical bore and the axis of the drive shaft, the intersection of said axes being coincident with the point on the shaft axis at which the shaft axis pierces the plane containing the centers of said spherical surfaces at the ends of the pistons; a mechanical force transmitting connection between said sleeve and said pistons; and resilient biasing means exerted between the cylinder barrel and said collar whereby the cylinder barrel is biased against the valve plate and the pistons are biased toward the thrust plate.

2,776,628

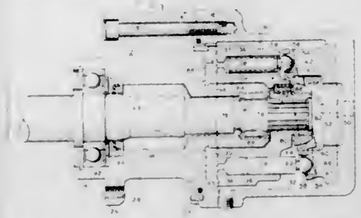
POWER TRANSMISSION

Adolf Keel, Highland Park, Mich., assignor to Vickers Incorporated, Detroit, Mich., a corporation of Michigan

Application July 10, 1952, Serial No. 298,078
3 Claims. (Cl. 103—162)



1. A fluid pressure energy translating device comprising: a drive shaft; a housing having a stationary valve plate; a rotatable cylinder barrel in abutment with the valve plate and in driving relation with the drive shaft and having a plurality of axial cylinder bores; pistons reciprocable in the bores, each having a cantilever portion extending from the bores and having a spherical surface at one end of each piston; an inclined thrust plate mounted in the housing in driving relation with the pistons at their spherical ends; inlet and outlet ports alternately connectable through the valve plate to said cylinder bores by rotation of the cylinder barrel; means on the shaft for locating the barrel as to lateral position, and forming the sole lateral support therefor, said means including in its axial extent the point on the shaft axis which intersects the plane containing the centers of said spherical surfaces; means in said housing for rotatably supporting the drive shaft, said means including a support sleeve in the housing encircling the drive shaft and extending axially along the drive shaft from the juncture between the valve plate and the cylinder barrel toward said means on the shaft, and bearing means carried by said sleeve to contact said shaft; and a cantilever projection of said shaft extending beyond said bearing means and including said means on the shaft.



2,776,629

POWER TRANSMISSION

Adolf Keel, Highland Park, Mich., assignor to Vickers Incorporated, Detroit, Mich., a corporation of Michigan

Application July 10, 1952, Serial No. 298,077
1 Claim. (Cl. 103—162)

A fluid pressure energy translating device comprising: a drive shaft; a housing having a stationary valve plate;

2,776,630

AUTOMATIC AIR BLEEDER FOR PUMPING UNIT

William P. Fagan, Tivoli, Tex.

Application April 2, 1954, Serial No. 420,718
7 Claims. (Cl. 103—203)

1. An oil pipe line, and a rotary pump including a pump casing interposed in said pipe line, in combination with a bleeder tank comprising a vertically disposed body portion, a top and a bottom closure for said body, a cylindrical float guide member arranged vertically in said tank and depending from said top closure, said guide member extending through and terminating above said top member, a cap closing the upper end of said guide member, a valve housing in the upper end of said guide member and having a valve chamber therein, a vent communicating with said valve chamber, said float guide being provided with air passageways arranged below said top closure, said valve housing having similar passageways communicating with said valve chamber, a float controlled valve in said chamber, and a float in said guide member connected to said valve.

2,776,631

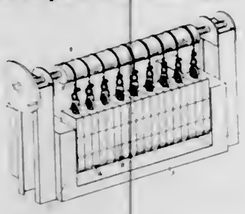
PENDANT CURTAIN WALL

George P. Reintjes, Kansas City, Mo.

Application September 2, 1952, Serial No. 307,411
5 Claims. (Cl. 110—1)

1. A furnace curtain wall comprising an elongated support having a horizontal axis, a pendant support mounted

to the elongated support for swinging in a vertical plane at right angles to the axis of the elongated support, tile hangers vertically spaced lengthwise of the pendant support and projecting in opposite directions from said support at right angles to the plane of swinging movement, tile arranged in pairs with their upper and lower faces

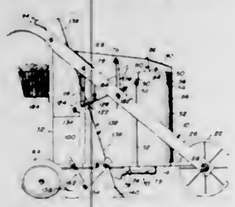


respectively contiguous to the lower and upper faces of adjacent pairs of tile and having matching vertical slots accommodating the pendant support, each tile having a socket laterally opening into the slot adjacent the upper end of the tile for suspending the tile from the hanger independently of adjacent tile.

2,776,632
SEALING SHOE ATTACHMENT FOR PIT COVERS
George P. Reintjes, Kansas City, Mo.
Application November 8, 1954, Serial No. 467,427
3 Claims. (Cl. 110—173)

1. A sand seal shoe comprising a generally rectangular body formed at its upper side with a T-slot and at its under side with a pair of diverging flanges having their ends respectively coplanar to the longitudinal side edges of the body, two series of parallel ribs extending from the under side of the body to the ends of the diverging flanges, at least one of said series of ribs being formed with through openings, and a rod extending through said openings.

2,776,633
PLANT SETTER
Milbert D. Bible, Mosheim, Tenn.
Application May 12, 1952, Serial No. 287,402
2 Claims. (Cl. 111—2)

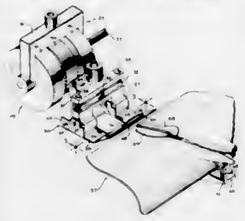


1. A plant setter comprising a supporting frame, a plant tube, mounting means carried by said supporting frame engaging said plant tube and permitting movement of said plant tube with respect to said supporting frame, said plant tube being open at its upper end for receiving plants, the lower end of said plant tube being provided with ground penetrating means, said mounting means including fixed spaced upright members each having an elongated slot in the upper end thereof, a transversely extending rod having end portions disposed in said elongated slots, a collar carried by said rod receiving said plant tube, and means on said rod for limiting pivoting of said plant tube and the lifting thereof.

2,776,634
APPLICATOR FOR FEEDING SUBSTANCES INTO READILY PENETRABLE MATERIALS, SUCH AS EARTH AND FOOD PRODUCTS
Leon S. Morton, Oklahoma City, Okla.
Application March 10, 1955, Serial No. 493,387
6 Claims. (Cl. 111—92)

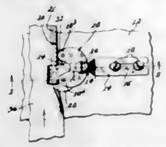
6. A rotatable applicator for the deposit of active ingredients into materials such as the earth and food stuffs comprising an elongated supporting body having an opening through the thickness thereof laterally of the longitudinal center line of said elongated body, the plane of said opening being radial to the center line of turning axis of the applicator, an active ingredient pellet supported in said opening and exposed at both sides of the body whereby upon turning of the body upon its longitudinal center line while inserted into some material such as the earth or food stuff, the pellet will be forced from said opening so that upon withdrawal of the applicator said pellet will remain in the earth or food stuff.

2,776,635
APPARATUS FOR ATTACHING SLIDE FASTENERS TO FABRICS AND THE LIKE
Max Blumenkrantz, New York, N. Y.
Application July 3, 1952, Serial No. 297,032
9 Claims. (Cl. 112—2)



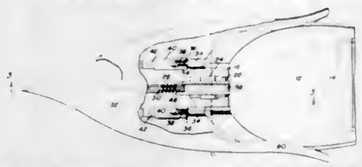
1. In combination with a machine supported on a surface and having a plurality of spaced apart needles and a presser-foot shaft; a compensating presser-foot attachment secured to said shaft and including two spring-pressed shoes adapted to contact material passing through said machine; said shoes having apertures therein to permit said needles to extend therethrough; means including a cloth guide including hem-forming guides adapted to receive material to be sewed and to form hems thereon said material including a pair of strips of facing material, positioned in front of said needles; and guide means for positioning a slide fastener having fabric webs, whereby the latter will overlie said seams to be secured thereto and to said material by stitching formed by said needles, guide means depending from said surface, facing clips adapted to move on said guide means along a vertical path under the urge of gravity and each carrying gripping means to be engaged with the ends of said facing strips, and tripping means adjacent to the path of movement of said clips for releasing said gripping means when the latter encounters said tripping means.

2,776,636
FOLDERS AND BINDERS FOR FLEXIBLE SHEET MATERIALS
Samuel Seserman, Dorchester, Mass.
Application March 9, 1954, Serial No. 415,066
5 Claims. (Cl. 112—147)



1. In a device for providing a finished edge on a flexible sheet element, a head having a pair of rollers mounted in spaced relation thereon, means for mounting said head above and in predetermined spaced relation to a support with said rollers between said head and the support, one of said rollers having a smaller-diameter portion adjacent to said support with annular curving extent to a larger-diameter portion which is adjacent to said head, guide means on said head in a predetermined relationship to said one roller whereby a flexible sheet element advancing along the support is acted upon by said guide means and said one roller to effect folding-over and holding of one portion of the sheet element in overlying relation to another portion thereof, the said curving portion of said one roller being in engagement with said edge fold of the sheet element, and said larger-diameter portion of said one roller being in overlying relation to said folded-over portion of the sheet element, the other of said rollers being arranged and adapted to engage said edge fold of the advancing sheet element as said element advances from said one roller.

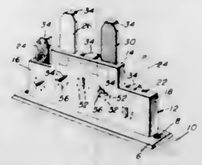
2,776,637
BOAT CONSTRUCTION
William R. Chadwick, Standish, Calif.
Application March 4, 1954, Serial No. 414,082
6 Claims. (Cl. 114—219)



1. A boat construction comprising a hull having a downwardly and forwardly extending mounting plate at the forward end thereof, resilient bumpers mounted on said hull, said mounting plate having a pair of downwardly and forwardly extending shock absorber cylinder housings appended thereto, a guide plate carried by said mounting plate, a slide engaging said mounting plate, a bow section overlying said bumpers of said hull, a shock absorber terminally attached to said slide and said bow section, a pair of tracks secured to said bow section, a pair of slides mounted on said tracks, and shock absorber elements secured to said pair of slides and engaged in said shock absorber housings.

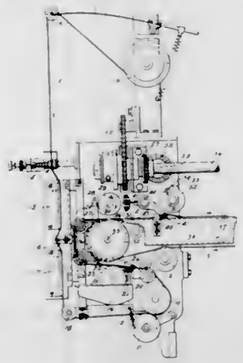
2,776,638
INDICATOR FOR DAIRY DELIVERY SERVICE
Jesse L. Whitaker, Great Falls, Mont.
Application October 5, 1953, Serial No. 383,989
3 Claims. (Cl. 116—130)

1. For mutual use by a housewife and a route dairy products deliveryman, a readily available, visible, and conspicuous ordering device comprising a base having an upstanding panel provided with hollow portions each defining each sheath closed at its bottom and open at its top, a vertically elongated sheath, a slide operatively mounted in each sheath, each slide and companion cooperable portion of its respective sheath having cooperating stop shoulders to limit the upward sliding movement of the slide, the downward sliding movement of each



sheath being limited by said base, a spring clip accessibly mounted on each sheath to frictionally contact and retain the associated slide in its useful elevated position, said slides being each distinctively colored for selective and unmistakable functioning, and a readily viewable quantity ordering means on the front side of said panel in alignment with each sheath and comprising consecutively arranged quantity signifying numbers and a pointer cooperable with said numbers.

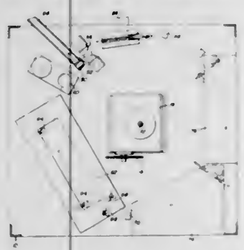
2,776,639
TEAR TAB FEEDING, GUMMING, AND CUTTING MECHANISM
Roland A. Labine, Springfield, and Walter Luczek, Indian Orchard, Mass., assignors to Package Machinery Company, East Longmeadow, Mass., a corporation of Massachusetts
Application April 26, 1954, Serial No. 425,552
5 Claims. (Cl. 118—41)



1. In a machine for severing predetermined lengths of tearing tape from a web of tape and advancing said severed lengths, a suction box having a slot along one side thereof, said slot being of less width than the tape, a belt traveling over said box and slot lengthwise thereof, said belt being of greater width than the slot and tape, the belt being provided with a succession of perforations of slightly greater diameter than the width of the tape, means to feed the forward end of a web of tape into contact with the belt and in overlying relation with the perforations in the belt, an adhesive applying roll over which the web passes prior to its engagement with the belt, said roll being positioned to apply adhesive to that side of the web opposite the side engaging the belt, means to drive the belt at a slightly greater speed than the web feed to apply tension to the web as it passes over the adhesive applying roll, means to periodically lift the web from the adhesive applying roll to leave spaced areas of the web free of adhesive, separating

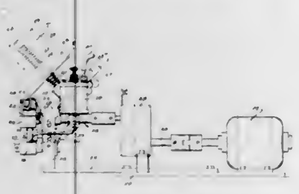
means positioned between the belt and web forwardly of the point of initial engagement of the web with the belt to separate a portion of the web from the belt, said last-named means including a cutting platen, a cutting blade and means to bring said blade into cutting relation with the platen, as the adhesive free portion of the web passes over the platen, to sever the preceding portion of the tape from the web.

2,776,640
AUTOMATIC DIP SOLDERING AND DIP TINNING MACHINE
Haaren A. Miklofsky and Harold S. Horiuchi, Hyattsville, Md., assignors to the United States of America as represented by the Secretary of the Navy
Application October 22, 1953, Serial No. 387,814
5 Claims. (Cl. 118—74)
(Granted under Title 35, U. S. Code (1952), sec. 266)



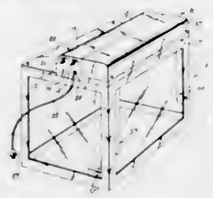
1. A machine to dip tin objects, said machine comprising a support, a vertically disposed continuously rotating shaft carried by the support, a horizontal platform fixed to said shaft for rotation therewith, a plurality of normally closed clamps, means mounting said clamps for vertical movement on said horizontal platform, a plurality of containers carried by said support and disposed beneath said clamps, said containers being adapted to hold flux, solder and bath liquid, means on said support for opening the clamps in response to engagement with the clamps, an object feed device arranged to supply an object between the open jaws of one of said clamps while it is open, means including a cam and cam followers for moving said clamps one by one into said containers to bathe the objects in the substance in said containers, and a clamp opening structure carried by said support and arranged to open said clamps to release the objects held thereby.

2,776,641
APPARATUS FOR DECORATING GLASSWARE
John J. Suchocki, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application September 29, 1953, Serial No. 383,060
8 Claims. (Cl. 118—219)



6. Apparatus for applying a liquid coating material to the rim surface portion and contiguous band-like exterior and interior surfaces of a tumbler or like article, comprising a pair of frusto-conical rolls each having a resilient peripheral surface, said rolls being arranged side by side and having their axes substantially co-extensive and oppositely inclined to position the peripheral surface of one roll for contact with a circumferential portion of the defined surfaces of the tumbler and the peripheral surface of the other roll for contact with the other circumferential portion of said surfaces and a fraction of the first named circumferential portion of the defined surfaces, a driven roller for positively rotating said rolls and delivering a liquid coating material to the peripheral surfaces of the latter and a rotatable chuck for supporting a tumbler with its axis inclined and its rim portion and adjacent circumferential side surfaces in rolling contact with the peripheral surfaces of both said rolls.

2,776,642
AQUARIUM UTILITY HOUSING
Joseph M. Sepersky, Brooklyn, N. Y.
Application April 21, 1954, Serial No. 424,594
6 Claims. (Cl. 119—5)



1. In an aquarium, a hood at the top of the aquarium, electric light means disposed entirely within said hood, electrical heating means extending downwardly from said hood, thermostatic means extending downwardly from said hood, air compressing means disposed entirely within said hood, said electrical heating and thermostatic means being positioned so as to be concealed within the corners of the aquarium, and a movable cover providing access to said air compressing means, said air compressing means comprising the bottom wall of said hood below said cover having a rectangular opening, a removable insert supported within said opening, said compressing means comprising a pump mounted within said insert, a three-way valve within said hood including a manually operable knob, said three-way valve being connected to said compressor pump, a two-way valve within said hood and including a manually operable knob, said two-way valve being connected to said three-way valve for controlling the passage of the air.

2,776,643
NESTING BOX
Curtis R. Simmons, Kannapolis, N. C., and Hunter A. Farrow, New Market, Va., assignors to Hunter Farrow Equipment, Inc., China Grove, N. C., a corporation of North Carolina
Application March 9, 1953, Serial No. 340,949
6 Claims. (Cl. 119—45)

1. A nesting box for an animal cage comprising a front wall, two spaced side walls, a top, a rear wall comprising at least two vertically slidable panels, a floor spaced from said top, guide means on the side walls for slidably receiving said panels, means for maintaining said panels in any desired position, at least one of said panels being positioned rearwardly of the other panels within the guide means and said rearwardly positioned panel having a flange extending forwardly within the box substantially beyond the other panels, said flange having slots adapted to mate with said guide means, one of said panels being positioned forwardly of the other panels within the guide means and said forwardly positioned panel having a rearwardly extending upturned lower end portion adapted to ride over the lower ends of the other panels.

2,776,644
ANIMAL TETHERING DEVICE
Richard E. Fontaine, Los Angeles, Calif.
Application June 23, 1953, Serial No. 363,487
2 Claims. (Cl. 119—109)

1. In a tethering device, a casing designed to lodge in the palm of a hand, the casing having an opening in one end thereof, a spring controlled reel pivotally mounted within the casing, a tethering cord wound on and extending from said reel through the casing opening, a head on the end of said cord, a ring freely mounted in said head, a leash extending from the ring, the ring being engageable by a finger of the hand holding the casing to prevent unwinding of the cord, the reel having a concentric series of equidistantly spaced perforations through one of the flanges thereof, a lever on the casing, a stud on said lever extending into the casing in axial alinement with the reel perforations, and a spring urging the stud into engagement with the reel perforations, the lever being manually operable by a finger of the hand holding the casing to release the reel for rotation by pull on the leash.

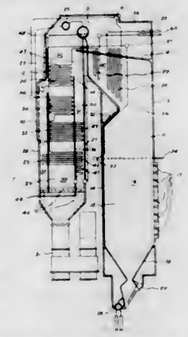
2,776,645
HOG HOLDERS
William H. Dooley, Perry, Mo., assignor to H. C. Reynolds, Perry, Mo.
Application April 12, 1954, Serial No. 422,570
4 Claims. (Cl. 119—153)

1. A hog holder comprising in combination an elongated tube, a rod extending into said tube and adapted to move axially within the tube, means for preventing said rod from rotating within said tube, said means also adapted to selectively lock said rod against axial movement in said tube, a cable one end of which is attached to one end of said rod, a hinge having one stationary part thereof attached to said tube and one moving part thereof attached to the other end of said cable, the said other end of said cable free to rotate but prevented for longitudinal movement within said moving part of said hinge.

2,776,646
BALL POINT PEN
Walter B. Spatz, Los Angeles, Calif., assignor, by mesne assignments, to Paper Mate Manufacturing Company, Culver City, Calif., a corporation of Delaware
Application September 22, 1952, Serial No. 310,827
3 Claims. (Cl. 120—42.03)

1. A ball point writing instrument comprising: a barrel having an open front end and an inner axially extending chamber formed with an internal annular projection at the rear end thereof; a ball point assembly mounted in the front of said barrel for movement from an enclosed carrying position to an exposed writing position extended through said open end; operating means actuated by inertia for urging said point assembly to said writing position, said means including an ink cartridge connected to said point assembly for movement therewith between said carrying and writing positions and having a tubular rear end portion adapted to pass through said projection and rockable away from the axis of said chamber to engage thereunder upon movement to said writing position; spring means urging said cartridge toward said carrying position and yielding under a load greater than the static weight of said cartridge to permit said cartridge to move to said writing position; and an operating plunger slidably mounted in the rear end of said barrel and having an inner end shaped as a conical centering pin adapted to enter within the rear end of said cartridge and release said cartridge from beneath said projection and thereafter guiding said cartridge rearwardly through said projection for retraction to said carrying position.

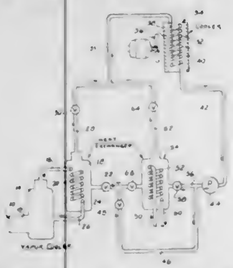
2,776,647
STEAM GENERATING UNIT
Charles F. Hawley, Holden, Mass., assignor to Riley Stoker Corporation, Worcester, Mass., a corporation of Massachusetts
Application April 24, 1952, Serial No. 284,151
4 Claims. (Cl. 122—480)



1. A steam generating unit, comprising: a furnace having a vertically elongated combustion chamber, a boiler having a vertically elongated back-pass chamber through which hot gases from the furnace pass downwardly, the combustion chamber and the back-pass chamber being joined at their uppermost portions by a convection pass,

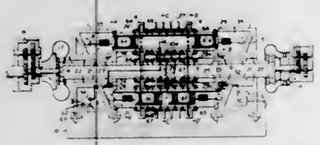
two baffles extending vertically throughout the length of the back-pass chamber and dividing it into three passages, the passages consisting of a large intermediate passage and smaller front and back passages, dampers at the lower portions of the three passages for controlling gas flow therethrough, a superheater having a low-temperature section residing in the intermediate passage and a high-temperature section residing in the said convection pass, a reheater having a low-temperature section residing in the intermediate passage and a high temperature section residing in the convection pass, and an economizer extending across the back-pass chamber and having a portion in each of the said three passages, the superheater having a portion residing in the front passage, the reheater being subject to heat transfer from the gas flowing into the back passage.

2,776,648
ENGINE COOLING PROCESS
James B. Taylor, Jr., Long Beach, Calif., assignor to Signal Oil and Gas Company, Los Angeles, Calif., a corporation of Delaware
Application August 29, 1955, Serial No. 531,199
9 Claims. (Cl. 123—41.19)



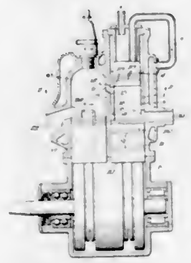
1. A process for cooling an engine which comprises circulating water through an engine, passing the resulting heated fluid in heat exchange relation with a liquid refrigerant having a freezing point below the freezing point of water and a boiling point below the boiling point of water, transferring heat from said fluid to said refrigerant, returning the exit water formed from said fluid to said engine, and circulating the heated refrigerant through an air cooled condenser.

2,776,649
TWO CYCLE FUEL INJECTION, OPPOSED PISTON, THRUST PLATE INTERNAL COMBUSTION ENGINE
Merrell R. Fenske, State College, Pa.
Application May 13, 1953, Serial No. 354,720
3 Claims. (Cl. 123—58)



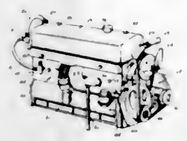
1. In a two cycle internal combustion engine, which includes a pair of opposed annular thrust plates and a substantially circular group of open ended engine cylinders, wherein said cylinder group and said thrust plates are disposed in coaxial relation along a common axis concentric with said cylinder group and said plates, with the cylinders in said group in coextensive parallel relation to each other and to said axis, and with a thrust plate from said pair disposed at each end of said cylinder group in axially spaced relation thereto and in substantially symmetrical and oppositely inclined relation to the line of said common axis; means providing for uni-directional fluid flow through each of said cylinders, comprising a hollow shaft concentric with said group of cylinders and said thrust plates, said shaft extending outwardly at each end beyond said thrust plates and being supported for rotation about said common axis, a pair of annular, hollow, plate-like manifolds disposed concentric with said shaft to extend radially therefrom, a circular group of passageways defined in said manifolds parallel to said axis and corresponding to said group of cylinders, said passageways adapted to receive said cylinders to extend through said manifolds in substantially right angular relation thereto and to be rigidly retained thereby, said manifolds being disposed longitudinally of said common axis in spaced substantially radially parallel relation one to another and to the respective ends of said cylinders; a circumferential series of ports in each end portion of each cylinder opening radially through each cylinder wall into communication with the interior of one of said manifolds; said manifolds in turn each communicating with the interior of said hollow shaft through the wall thereof; a partition interiorly and diametrically of said shaft, located intermediate said manifolds; and means for inducing fluid flow through the respective cylinders in said group by way of said shaft and manifold in one direction longitudinally of said axis.

2,776,650
INTERNAL COMBUSTION ENGINES
Hans Georg Zimmermann, Karlsruhe, Germany
Application April 29, 1952, Serial No. 284,880
Claims priority, application Germany May 10, 1951
5 Claims. (Cl. 123—69)



1. In a two-cycle internal combustion engine having an operating unit disposed upon a common crankcase and comprising at least one charge cylinder and one work cylinder and for each cylinder a corresponding piston connected to a common crankshaft disposed in said crankcase and having a first inlet port formed in the wall of said charge cylinder for admitting an air-fuel mixture thereinto and a transfer port formed in a wall extending between said cylinders for transferring air-fuel mixture from said charge cylinder into said work cylinder and having an exhaust port formed in the wall of said work cylinder; a second inlet port formed in the wall of said work cylinder and communicating with the crankcase for separately admitting air drawn from said crankcase into said work cylinder, said charge piston being during its suction stroke operative to draw air-fuel mixture from said first inlet port into the associated charge cylinder and said work piston being during its suction stroke operative to open said exhaust port and to draw air from said crankcase through said second inlet port into the associated work cylinder and being during its compression stroke operative to close said exhaust port and said second inlet port and to partially compress the air drawn into the corresponding work cylinder, said charge piston being during its compression stroke operative to close said first inlet port and to partially compress the air-fuel mixture drawn into the associated charge cylinder and being further operative to open said transfer port near the end of its compression stroke to inject said partially compressed air-fuel mixture into said work cylinder for turbulent intermixture thereof with the partially compressed air therein and to thereafter close said transfer port, and said work cylinder being during its further compression stroke operative to compress the intermixed product for ignition thereof.

2,776,651
AUXILIARY LUBRICANT AND VAPOR HEATING SYSTEM FOR INTERNAL COMBUSTION ENGINES
Ray H. Masters, Huntington Park, Calif.
Application May 11, 1953, Serial No. 354,205
7 Claims. (Cl. 123—142.5)

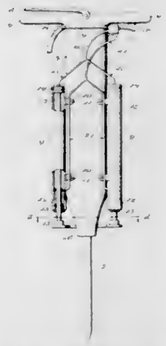


1. An auxiliary vapor heater and rocker arm assembly cover for a liquid cooled internal combustion engine comprising: an elongated inner shell shaped to fit over said rocker arm assembly and in sealing engagement with the engine block; an elongated outer shell spaced from said inner shell and sealed thereto by edge flanges to define a closed fluid passageway; means including intake and discharge fittings mounted at the end of said outer shell and adapted for connection to the return side of the engine cooling liquid system; and baffler extending between said inner and outer shells to define a tortuous path between said inlet and outlet fittings.

2,776,652
DEVICE FOR REDUCING WEAR BETWEEN POPPET VALVES AND THEIR ACTUATING DEVICES
Willard E. Crotty, Quincy, Mich., assignor to Crotty Corporation, a corporation of Michigan
Application February 4, 1954, Serial No. 408,255
2 Claims. (Cl. 123—188)

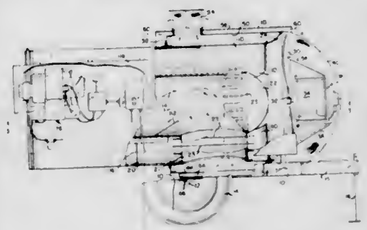
2. In an internal combustion engine construction having a poppet valve with a valve stem, a pusher device to contact the end of said valve intermittently and push said valve stem in a longitudinal direction to unseat the valve, and a spring tending to hold said valve seated, the provision of an intermediate member of magnetized ferrous material between the end of said valve stem and said pusher device, comprising, a plate member lying in a plane transverse to the longitudinal axis of said stem between said stem and said pusher device, interference retainer means restricting said plate member against lateral displacement from the position between stem and pusher without otherwise restricting the free movement thereof.

2,776,653
PNEUMATIC DRILL JACK
Wayne H. Eaton, Wakeeney, Kans.
Application June 17, 1954, Serial No. 437,531
1 Claim. (Cl. 125—33)



An improvement in a pneumatic drill of the type having a vertically elongated body, lateral handles at the upper end of said body, a drill bit projecting downwardly from said body, and compressed air-conducting means connected with said body; comprising a pair of pneumatic body lifting jacks, said jacks comprising a pair of elongated cylinders secured to said body and having their axes parallel with the axis of the body and at diametrically opposite sides of the body, a piston reciprocably disposed in each cylinder, a piston rod in each cylinder with the respective piston secured to one end thereof and the opposite end thereof projecting beyond the corresponding end of the cylinder, a surface engaging foot member connected to said projecting piston rod ends, a control valve in communication with said compressed air conducting means, a valve operating handle adjacent one of said lateral handles, said foot member being substantially semicircular in plan and being disposed substantially wholly to one side of said body for ground contact and out of the normal line of vision of the drill bit.

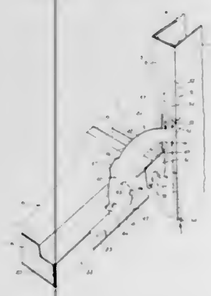
2,776,654
HOT AIR FURNACE TYPE DRYING APPARATUS
Danal W. Johnston, Piqua, Ohio, assignor to Hartzell Industries, Inc., Piqua, Ohio, a corporation of Ohio
Application April 9, 1953, Serial No. 347,659
6 Claims. (Cl. 126—110)



1. In a drier unit of the nature described; a horizontal outer shell open at both ends, a fan at one end of the outer shell to drive air therethrough, an inner shell closed at both ends mounted on the axis of said outer shell, an angular conduit having one portion extending radially through the wall of said outer shell and another portion extending axially into said inner shell at the end opposite said fan, a burner within said conduit at the end opening into said inner shell, an exhaust chamber formed around said outer shell adjacent the fan end thereof with the outer shell forming the inner wall of

the chamber, said chamber terminating in an exhaust outlet at the top of the chamber at the end thereof opposite the fan, and a stack connecting the bottom of the inner shell at the fan end thereof with said chamber at the bottom thereof, said inner shell and said stack being provided with segmented fins extending therefrom in planes parallel with the direction of airflow through said outer shell.

2,776,655
CABINET DOOR HINGING
Harry D. Ferguson, Jr., Ambler, and Joseph Earl Harris, Jr., Huntingdon Valley, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application January 8, 1953, Serial No. 330,243
2 Claims. (Cl. 126—194)

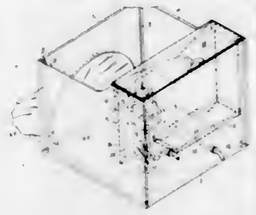


1. In combination with a compartment having an access opening and a door therefor, a hinge structure comprising a member having an open ended slot, a member having a projection receivable within said slot through the open end thereof, means for attaching one of said members to said compartment, means for mounting the other of said members on said door and including a pivot about which said other of said members is movable for placement in two different angular positions with respect to said door, means provided on said door to expose the open end of said slot for receiving said projection when said other of said members is placed in one of said angular positions and to cover said open end and retain said projection within said slot when said other of said members is placed in the other of said angular positions, and means for securing said other of said members in said other of said positions with said projection within said slot, thereby establishing a hinge connection for swinging movement of said door about said projection to open and close said access opening.

2,776,656
DOWN DRAFT ELIMINATOR
John W. Brown, Jr., Lakewood, Ohio, assignor to Brown Fintube Company, Elyria, Ohio, a corporation of Ohio
Application March 20, 1950, Serial No. 150,757
7 Claims. (Cl. 126—307)

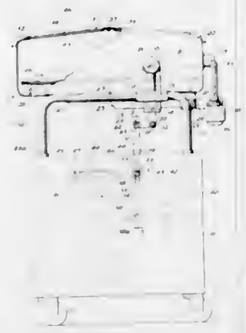
1. In combination, a building, a heater embodying a fuel burner disposed within the building, a chimney flue in the building, a flue pipe providing a closed conduit for flue gases from the heater to the chimney flue and constituting the sole connection between said heater and said chimney flue, said chimney flue having an opening of cross-sectional area at least substantially as great as the cross-sectional area of said chimney flue communicating only with the atmosphere on the exterior of said building and disposed below the point of connection of said flue pipe to said chimney flue.

2,776,657
AIR-CONDITIONED OXYGEN-BOX
Oscar Randolph Batson, Bailey F. Moore, and Amos U. Christie, Nashville, Tenn.
Application July 28, 1952, Serial No. 301,344
12 Claims. (Cl. 128—1)



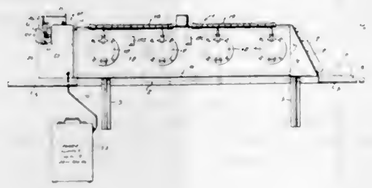
1. An open-top oxygen box comprising: rigid front, rear and side wall panels, said front and side wall panels being formed substantially entirely of transparent plastic material, the lower central portion of said front wall panel being cut away to form a body-receiving opening; a flexible curtain closing said opening and being adapted to surround the neck or waist of a patient having his head or chest in said box; means housed entirely within said box for cooling the air in said box; and nebulizer means attached to and carried by said box for simultaneously supplying the atmosphere in said box with a treatment gas and a liquid mist.

2,776,658
ROCKING BED CONSTRUCTION
Samuel Y. Gibbon, Jenkintown, Pa., assignor to Air-Shields, Inc., Bucks County, Pa., a corporation of Delaware
Application June 2, 1953, Serial No. 359,108
2 Claims. (Cl. 128—28)



2. A rocking bed construction having a bed member and a supporting structure on which the bed member is mounted for rocking motion, a transverse pivot structure having bearing parts attached to move with the bed member and cooperating bearing parts attached to the supporting structure, the axis of said pivotal structure being located above the surface of the bed member in a position near the upper end of said bed member at a point approximating the location of the normal position of the occupant's mouth, power drive apparatus and connections between said apparatus and said bed member for causing the rocking action.

2,776,659
RESPIRATORY APPARATUS
Syrrel S. Wilks, San Marcos, and Frank V. Garbich, San Antonio, Tex., assignors to the United States of America as represented by the Secretary of the Air Force
Application January 26, 1954, Serial No. 406,369
8 Claims. (Cl. 128—30)
(Granted under Title 35, U. S. Code (1952), sec. 266)

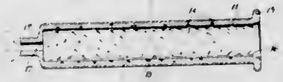


1. Respirator apparatus comprising a respirator chamber adapted to enclose at least the thoracic regions of the human body, means providing a restricted passage for the flow of air into and out of said chamber, an air pump having an inlet and an outlet, power means for continuously driving the pump, first valve means operative to connect the inlet of the pump to the respirator chamber to produce a flow therethrough from said restricted passage and a subatmospheric pressure therein, a second valve means operative to simultaneously connect the outlet of the pump to atmosphere, said first and second valve means being alternately operable respectively to connect the inlet of the pump to atmosphere and the outlet of the pump to the respirator chamber to cause a flow therethrough at superatmospheric pressure, a cam shaft, a pair of cams mounted on said shaft each operable to cyclically actuate a respective one of said valve means and an adjustable speed motor for continuously driving said cam shaft.

2,776,660
HYDROMASSAGING DEVICE
Charles Aimé Fortin, Montreal, Quebec, Canada, assignor of ninety percent to Paul Pouliot, Montreal, Quebec, Canada
Application November 1, 1954, Serial No. 466,177
3 Claims. (Cl. 128—66)

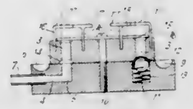
1. A hydromassaging device comprising a tubular handle, a cup mounted at one end thereof, a valve body in said end and having an apertured domed top at the bottom of said cup, an inlet tube in said body, said tube having one end directed toward said top and its other end passing through the wall of said handle, said body being space from said wall to form a water outlet into said handle, a valve seat on the bottom of said body, and a free ball between said seat and said top and adapted to seat alternately on said seat and against said top, said ball having same radius as said top in order to close intermittently said apertures.

2,776,661
HYPODERMIC SYRINGE AND BARREL BLANK
Henry G. Molinari, Rutherford, N. J., assignor to Becton, Dickinson and Company, Rutherford, N. J., a corporation of New Jersey
Application May 20, 1952, Serial No. 288,780
7 Claims. (Cl. 128—218)



1. A syringe barrel blank for application to a barrel-shrinking machine in which the bore diameter of said blank is decreased, the blank diameter is decreased and the length of said blank remains substantially unchanged, said blank including a tubular body of a length substantially equal to that to be embraced in the finished barrel, said body having an unground, substantially cylindrical bore having relatively raised and lowered portions on its surface, the diameter of such bore being substantially larger than that to be incorporated in the finished syringe, a flange adjacent one end of said body and extending outwardly therefrom, a closed end of said bore forming an end wall closing the opposite end of said body and a needle mounting tip extending beyond said end wall.

2,776,662
CIGARETTE HOLDER
Anton Widrich, Long Branch, N. J.
Application April 14, 1953, Serial No. 348,622
2 Claims. (Cl. 131—175)



1. A cigarette holder comprising a carrier to be rotatably mounted about its center on a base, the carrier having sockets open at the upper and lower faces thereof for the insertion of cigarettes, and movable to cause each socket to register with a port in said base, and metallic extinguisher loops supported on said carrier above the top thereof in line with said sockets.

2,776,663
SMOKING PIPE WITH IMPROVED FILTERING MEANS
Arthur G. Taylor, Washington, Kans.
Application November 1, 1954, Serial No. 465,911
1 Claim. (Cl. 131—194)

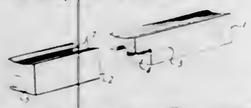
A tobacco smoking pipe comprising a bowl having the usual receptacle portion for reception of the charge of smoking tobacco, a complemental lateral stem having one end portion integral with the bottom of said bowl, a step-like junctional portion joined integrally with an exterior of the well portion of the bowl and a limited top portion of the stem and providing a reinforcing member at the juncture of the bowl and stem, said stem and member having an upwardly and rearwardly inclined smoke egress passage communicating at one end with the bottom of the bowl and having its other end registering with a vertical branch which opens through the top side of said step-like reinforcing member, said stem having an axial socket formed therein one end of which opens through the cor-

responding end of the stem, said socket being provided intermediate its ends with a ported partition and said partition cooperating with an adjacent end of said socket and providing a smoke trapping chamber, the latter having a smoke inlet port opening through the cooperating peripheral surface of the stem and being spaced from said step-like member as well as the vertical branch of the smoke egress passage, the entire portion of the step between said chamber and smoke egress passage being solid, a U-shaped filtering tube of throw-away material, said tube having filtering material therein and being readily attachable and detachable and designed for handy replacement purposes, one end of said tube fitting into said chamber by way of said inlet port, the other end passing through the branch opening provided therefor in said reinforcing member and communicating with said smoke egress passage, and a bit having an end portion fitting telescopically into the first named end portion of said axial socket.

2,776,664
SMOKING PIPE
Robert J. Stark, Washington, D. C.
Application December 9, 1954, Serial No. 474,085
2 Claims. (Cl. 131—211)

2. In a smoking pipe, the combination with a bowl provided with an extension, of a filler ring extending partly into said extension, said filler ring comprising a body, said body being provided on its surface between its ends with an annular outstanding ring, said body being provided on its inner face with a deep concaved portion, said body being internally threaded between said concaved portion and the outer face of said body, said extension of the bowl having a portion resting on said filler ring and bearing against one side of said ring, a tube externally threaded at its inner end, said externally-threaded end being threaded into the tnreaded portion of said body, a mouthpiece threaded on the outer end of said tube, a transparent cylinder mounted at its outer end upon said mouthpiece, and said cylinder bearing at its inner end on the outside of said filler body and having its inner end resting against the side of said ring.

2,776,665
CIGARETTE AND ASH RETAINER AND SNUFFER
Roy W. Hall, Oak Park, Ill.
Application February 20, 1953, Serial No. 337,996
3 Claims. (Cl. 131—235)

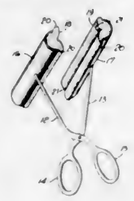


1. An ash receptacle and snuffer comprising an elongated snuffer body having elongated upper and lower walls of different length, elongated side walls, and end walls, and having a cylindrical bore extending longitudinally therethrough substantially centrally thereof from end to end and being adapted to receive a cigarette with a sliding fit for snuffing the same, said body having a recess portion in one end thereof defined by a first wall extending substantially vertically upward from said lower wall and interrupting the lower wall portion of said bore and a second wall extending horizontally outwardly from said first wall and substantially perpendicular thereto and extending to one of said end walls and corresponding in length substantially to the difference in the length between the upper and lower walls, a casing having side and bottom walls connected by a closing wall and adapted to telescope said snuffer body so that said side and bottom walls have sliding engagement with the respective side and bottom walls of said snuffer body, the closing wall of said casing, upon sliding movement thereof, being adapted to contact said one end wall of said snuffer body, whereby the walls of said body defining said recess portion together with the walls of said casing provide an enclosed receptacle space for the ashes of a snuffed cigarette.

2,776,666
HAIR CURLER
Margaret Papandrea, Westfield, N. J.
Application November 9, 1953, Serial No. 390,901
5 Claims. (Cl. 132—41)

1. A hair curler of the type for setting pin curls which comprises a base portion having therein a saw-toothed slit, four radially extending arms positioned about the periphery of said base portion at approximately 90° intervals, reinforcing means positioned in said base and arm portions, said reinforcing means within the base portion being of a spring material adapted to urge said slit to the closed position and said reinforcing means in said arm portions being of a soft bendable material that will remain in a deformed position until positively removed therefrom.

2,776,667
HAIR TREATING APPARATUS
Paulina Fitz Gerald, Union, N. J.
Application April 8, 1955, Serial No. 500,147
7 Claims. (Cl. 132—32)

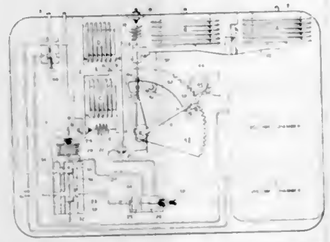


1. Hair treating apparatus, comprising: a pair of elongate tongs; pressure plates at the end thereof; opposed liquid absorbing pads on said plates; and a lip on said pads extending beyond the periphery of said plates.

2,776,668
METHOD AND PREPARATIONS FOR THE PERMANENT DYEING OF KERATINOUS MATERIAL
William E. Morgan, Ridgefield, N. J., assignor to Helena Rubinstein, Inc., New York, N. Y., a corporation of New York
No Drawing. Application June 28, 1951, Serial No. 234,156
18 Claims. (Cl. 132—7)

1. A method for the permanent dyeing of keratinous material, which comprises treating the material to be dyed with a freshly prepared aqueous solution containing a quantity of a water soluble mercapto compound of low toxicity equivalent with respect to SH group to about 0.1 to about 6% by weight of the solution of thioglycolic acid and, as sole coloring agent, about 0.033 to about 6.2% by weight of the solution of a dyestuff of the group consisting of the Ext. D & C, D & C and F D & C certified, colors and mixtures thereof, the solution having a pH value between about 6.6 and about 11.3, then washing the dyed material with an aqueous medium and drying the same.

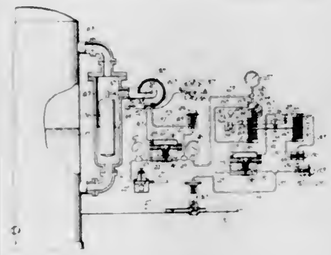
2,776,669
FLUID PRESSURE RELAY
Harvard H. Gorrie, Cleveland Heights, Ohio, assignor to Bailey Meter Company, a corporation of Delaware
Application September 23, 1952, Serial No. 311,098
9 Claims. (Cl. 137—86)



1. In a control system of the fluid pressure actuated type, a fluid pressure relay having in combination, a first force-balance beam, a first expansible-contractible chamber receiving a fluid loading pressure continuously representative of the value of a variable to be controlled, a second similar chamber, said beam being pivoted and arranged to be oppositely acted upon by said first and second chambers; a second pivoted force-balance beam, third and fourth similar expansible-contractible chambers arranged to opposingly act upon said second beam; a primary fluid control pressure establishing means including a pair of cooperating air nozzle and baffle couple elements, one element positioned by and with the first beam and the other element positioned by and with the second beam; a secondary fluid control pressure establishing means connected to be responsive to the pressure established by the primary fluid control pressure establishing means, unrestricted pipe means interconnecting the pressure from the secondary control pressure establishing means with one of the chambers acting upon the second beam thus impressing the developed secondary control pressure upon the second force-balance beam for position comparison with the first force-balance beam relative to a position-balance relation for the two force-balance beams, means acting to change the ratio of movement of one couple element in respect to its motivating beam comprising a sector movable about a fixed pivot, the cooperating couple element carrying a floating pivot which in the said position-balance relation is aligned with said fixed pivot, a link connecting the floating pivot and a pivot near the perimeter of said sector, and means for adjusting the sector angularly about the fixed pivot in either direction thus increasing or decreasing the ratio between the loading and the secondary control pressures.

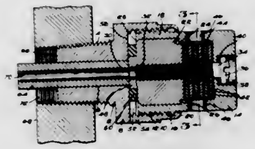
2,776,670
PRESSURE FLUID OPERATED BALANCED CONTROL SYSTEM
Verle J. Hunt, Marshalltown, Iowa, assignor to Fisher Governor Company, Marshalltown, Iowa, a corporation of Iowa
Application September 29, 1951, Serial No. 248,920
3 Claims. (Cl. 137—86)

1. In a system comprising pressure responsive means adjustable to affect the magnitude of a condition and a primary control member positioned in accordance with the existing magnitude of said condition, a secondary control member, a pair of pressure responsive devices opposed in their effects upon said secondary control member, a first source of pressure, means in operative communication with said source of pressure for supplying varying pressures to one of said pressure responsive devices upon variations in the magnitude of said condition as determined by said primary control member, said one pressure responsive device being adapted to move said secondary control member upon variations in pressure supplied to said one pressure responsive device, a pair of separate pressure responsive biasing devices opposing the force on said secondary control member of each of said pressure responsive devices, a valve connected to a second source of pressure and to said second pressure responsive device, said second source of pressure being independent of said first source, means for effecting movement of said valve upon movement of said secondary control member, said valve, upon movement in one direc-



tion, increasing the pressure supplied to said second pressure responsive device, said valve, upon movement of said secondary control member in the opposite direction, affording decrease of the pressure supplied to said second pressure responsive device, and means for connecting said pressure responsive means to said valve, movement of said valve in said first direction also increasing the pressure supplied to said pressure responsive means to move it in one direction and movement of said valve in the opposite direction decreasing the pressure supply to said pressure responsive means to move it in the opposite direction, one of said secondary pressure responsive devices and one of said biasing devices being disposed on opposite sides of said secondary controlling member at each end thereof, the remaining portions of said secondary control member being freely suspended.

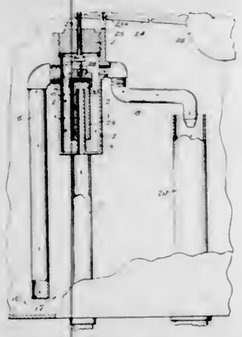
2,776,671
AIR VENTING VALVE FOR HEATING SYSTEM
Warren T. Ferguson, Newton Highlands, Mass., assignor to Anderson Products, Incorporated, Cambridge, Mass., a corporation of Massachusetts
Application October 8, 1953, Serial No. 384,865
6 Claims. (Cl. 137—197)



1. An air venting valve comprising a valve body threaded for connection with a radiator, a passage through said body, an extended portion forming part of said body, a cap closed at its outer end in threaded engagement with said extended portion, a plug within said cap, a circular seat on said body and an opposed circular surface on said plug aligned with said passage, a sealing ring positioned between said seat and surface and adapted to be engaged upon movement of said cap and plug towards said body to seal said passage from the area exterior of said ring, a threaded bore through said plug in series with said passage, a first vent through said body leading to the at-

mosphere from the area exterior of said sealing ring, a second vent through the wall of said cap and a hygroscopic element positioned in the space between one end of said plug and the end of said cap, said hygroscopic element when dry permitting the passage of air from said plug bore to said second vent and when wet blocking the flow of water from said plug bore to said second vent, an opening through the end of said cap, a screw extending through said cap and hygroscopic element into engagement with said threaded plug bore to provide a metering passage between the threads of said plug bore and said screw, whereby upon the removal of said screw a cleaning tool may be inserted through said hygroscopic element, plug and passage and means for preventing leakage of fluid between said screw and cap when said screw is in metering position.

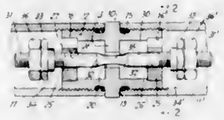
2,776,672
FLUSH TANK VALVE
Carl Leon Faber, Miami, Fla.
Application January 25, 1954, Serial No. 405,811
1 Claim. (Cl. 137—437)



A device of the class described comprising a tank, a water inlet pipe having an enlarged housing carried by the upper end of said inlet pipe, a removable threaded plug closing the outer end of said housing, said inlet pipe having an extension reduced in diameter relative to said inlet pipe and housing projecting vertically within said housing, said extension having an outlet end, a hush pipe telescoped over said extension and mounted in said housing, a sealing gasket removably fitted within said hush pipe and adapted to engage and close the outlet end of said extension, a cap of greater diameter than said hush pipe closing the outer end of said hush pipe to facilitate the removal of said gasket, said sealing gasket being clamped between one end of said hush pipe and cap, a stem slidably mounted in said plug and adjustably connected to said cap, a float connected to said stem for actuating said stem as water rises and falls in said tank to selectively open and close the outlet end of said extension, an outlet pipe leading from the upper end of said housing, and an abutment nut carried by said stem for abutting engagement with said plug to limit the upward movement of said stem.

2,776,673
FLOW RESTRICTOR
Robert Goodman and Victor Baptist, Stamford, Conn., assignors to Gar Precision Parts, Inc., Stamford, Conn., a corporation of Delaware
Application February 14, 1952, Serial No. 271,531
15 Claims. (Cl. 137—493)

1. A fluid flow restrictor comprising a body arranged for connection into a fluid flow line and having a flow metering orifice therein; a relatively elongated element extending through the orifice and mounted for axial movement in either direction relative to the orifice in accordance with the direction of fluid flow; said element having longitudinally spaced portions at least one of which has a cross-sectional area equal to that of the orifice and another of which has a cross-sectional area less than that of the orifice; fluid flow responsive means operable to shift said element, relative to the orifice, in the direction of flow; guide means for said element on either side of said orifice and spaced axially therefrom; and abutment

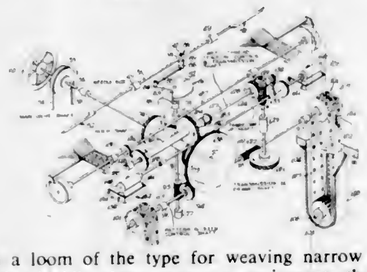


means adjustably positioned along said element and directly engageable with said guide means only at the preset limit of movement of said element in each direction to control the range of movement of said element through the orifice to pre-set the positions of said spaced portions relative to the orifice to control the flow through the orifice; the movement of said element through the orifice dislodging foreign matter from the latter.

2,776,674
WEAR-RESISTING COATING FOR PIPES AND THE LIKE
William H. Stout and Paul H. Raumaker, Portland, Oreg.; said Raumaker assignor to said Stout
Application August 3, 1953, Serial No. 371,930
1 Claim. (Cl. 138—68)

As an article of manufacture, a portable irrigation pipe having water dispensing means along an outer longitudinal portion of said pipe and opposite on the other side a longitudinal portion adapted for contacting and dragging on the ground, said opposite portion characterized by a longitudinal wear-resistant shoe having a crescent-like cross section integral with the pipe, said integral shoe comprising a cured adhesive having sand embedded at least at the surface portion thereof and covering approximately one-third of the pipe circumference, the thickest portion of the cross section being substantially diametrically opposite the water dispensing means.

2,776,675
LOOM
Julius C. Hochman, New York, N. Y.
Application July 7, 1949, Serial No. 103,405
39 Claims. (Cl. 139—11)



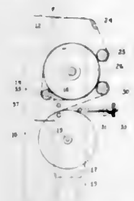
1. In a loom of the type for weaving narrow fabric comprising heddle plates, means to reciprocate the same

to form a shed having a fell, a reed, a weft needle associated with said heddle plates, and means to reciprocate said needle into and out of said shed; wherein the heddle plates are of thin sheet stock and in close proximity to each other and in which the needle passes through such shed in a path contiguous to said fell and near the first heddle plate, the reed and the needle being of dimensions conjointly substantially to fill the shed.

2,776,676
PICKER BUFFERS FOR LOOMS
Donald M. Rager, Sunbury, Pa.
Application February 14, 1955, Serial No. 487,726
3 Claims. (Cl. 139—166)

1. A picker buffer comprising a cylindrical block of resilient material having an axial bore, a ferrule of relatively rigid material fitting within one end of said bore, and a separately formed rigid band encircling said block at the same end and surrounding said ferrule, the end of the resilient block being exposed between said ferrule and band.

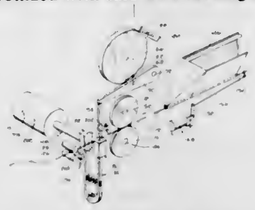
2,776,677
MEANS FOR PREVENTING CREASES IN FABRICS AS TAKEN UP IN LOOMS
Elmer W. Paquette, Norwich, Conn., assignor to Draper Corporation, Hopedale, Mass., a corporation of Maine
Application March 14, 1955, Serial No. 494,030
6 Claims. (Cl. 139—304)



1. In a loom the combination of a fabric take-up roll and other means on which the fabric is wound, guide means for maintaining the fabric in contact with the take-up roll over a substantial portion of its peripheral surface, and a means for preventing the formation of creases and the like in the fabric as it is taken up which comprises a roller interposed between the fabric and the take-up roll as the fabric is wrapped about said roll and means cooperating with said fabric as it passes about said roller for causing the rotation of said roller in a direction opposed to the passage of the fabric thereover.

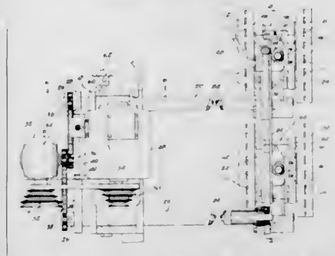
2,776,678
WIRE BENDING MACHINE FOR THE BENDING OF A WIRE OR THE LIKE
Robert H. Savage, Bally, Pa., assignor to Contemporary Metals Inc., Bally, Pa.
Application June 4, 1953, Serial No. 359,617
4 Claims. (Cl. 140—71)

1. Wire bending apparatus, comprising means for feeding wire along a linear path, means for driving said feeding means a pair of cooperating bending dies, means supporting said dies on opposite sides of said path, said dies having facing surfaces whose contours in the direction of the path are complementary, means for moving at least one of said dies toward the other and transverse to said path so that said surfaces engage and bend a wire moving along said path, control means to prevent a closing movement of the dies when no wire is present between them, said die surfaces having contours varying transversely of said path, so that portions of said wire engaged by different transverse portions of said contoured surfaces are bent with different curvatures and means synchronized with said wire feeding means to move



both said dies simultaneously in a direction perpendicular to said path and also perpendicular to the movement of said one die toward the other, according to a predetermined cycle, and thereby to bend successive lengths of wire, each with a curvature varying along its length according to a predetermined pattern.

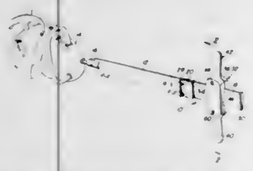
2,776,679
OVERHEAD BELT WORK FEEDING DEVICE FOR A SAW
Hugh W. King, Corinth, Miss.
Application September 3, 1954, Serial No. 454,184
5 Claims. (Cl. 143—49)



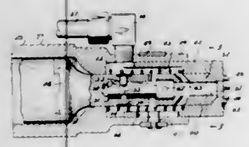
1. In a power driven saw of the type having a saw table, and a saw blade extending through the table for engaging work mounted on the table, means for advancing work across the table and into engagement with the saw blade comprising, spaced parallel arms carried by the table and extending across the top thereof in upwardly spaced relation thereto, a support carried by the arms and extending therebetween adjacent the saw blade, carriages carried by the support on opposite sides of the saw blade for up and down movement above the table, traction belts carried by the carriages for movement in closed paths on opposite sides of the saw, means carried by the table and operatively connected to the traction belts for moving said belts in their closed paths and advancing work engaged by said traction belts into the saw, and means carried by the support and operatively engaging the carriages for advancing said carriages toward the table under yielding pressure.

2,776,680
GUIDE FOR RECIPROCATING SAW
Roy Waddell, North Creek, N. Y.
Application December 30, 1954, Serial No. 478,603
2 Claims. (Cl. 143—163)

1. A guide for the free end of a self-sustaining reciprocating flat saw blade comprising a longitudinal extension rigidly attached to the free end of the saw blade, a holder having a bore extending therethrough slidably receiving said extension, oppositely projecting handles on said holder, one of said handles forming a lubrication

reservoir, bearing means on the peripheral surface of the bore for engaging the peripheral surface of the ex-

tension, and a wick communicating the oil reservoir with the bearing means.

2,776,681
POWER OPERATED TOOL FOR USE WITH BLIND FASTENERS
Howard L. Hopkins, Cleveland Heights, Ohio, assignor to The National Screw & Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application August 15, 1955, Serial No. 528,368
1 Claim. (Cl. 144—32)

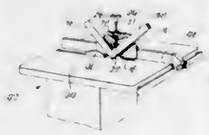


In a tool for use with blind fasteners of the screw or bolt type comprising a screw or bolt member having a shank provided with a driving connection projecting through a nut member also provided with a holding connection and in which the projecting end of the screw or bolt shank is broken off in the setting or driving of the fastener, a housing having a holding connection adapted to engage with the holding connection of the nut member of the fastener, a driver member rotatably supported in said housing and having an aperture therein adapted to receive the projecting end of the screw or bolt shank of the fastener and having means to engage with the driving connection thereof, power means for rotating said driver member, means for controlling the actuation of said power means, means for applying fluid under pressure to said aperture at a point spaced from its open end behind the broken off shank, and manual means for controlling the actuation of said last-mentioned means.

2,776,682
SHAPER ATTACHMENT INSERT FOR SAW TABLES
Lee C. Mullen, Galesburg, Ill., assignor to Maxine C. Mullen, Galesburg, Ill.
Application July 11, 1955, Serial No. 520,968
4 Claims. (Cl. 144—134)

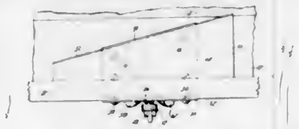
1. A shaper attachment for a saw table comprising a frame including a substantially flat plate adapted to fit detachably in an opening of a saw table top and to be supported on lugs which project into said opening, a boss depending from a part of said plate and formed integral therewith, said frame having a bore extending through the plate and longitudinally through the boss, an outer bushing turnably and slidably disposed in said bore, a shaper spindle extending through said outer bushing, bearing means journaling said spindle and mounted in the outer bushing, said spindle having an upper end projecting upwardly from said plate and bushing, a cutter mounted on said upper spindle end, means detachably securing said cutter to the spindle for rotation therewith, said last mentioned means supporting the spindle in the bushing, a belt pulley fixed to the lower end of said spindle and disposed below the boss and bushing, a second belt pulley adapted to be detachably fixed to a driving spindle of the saw table and disposed with the axis thereof crosswise to the axis of said first mentioned belt pulley and the shaper spindle, and an endless belt trained around said belt pulleys for driving the shaper spindle and cutter from the drive spindle.

2,776,683
CORNER CLAMP WITH GUIDE MEANS FOR USE WITH POWER TOOLS
William E. Cowley, Louisville, Ky., assignor to American Saw & Tool Company, Louisville, Ky., a corporation of Kentucky
Application August 18, 1954, Serial No. 450,635
2 Claims. (Cl. 144—293)



1. A clamp fixture comprising a planar body member having at least one edge lying in a plane normal to the plane of the body member and having an opening therein along said edge, a pair of clamp jaws secured to said body member in predetermined angular relation to one another and said edge, said clamp jaws diverging from said edge of said body member and having an imaginary point of intersection spaced inwardly from but adjacent said edge substantially centrally of said opening in said body member, the proximate ends of said clamp jaws terminating short of said opening and being spaced substantially from each other and from the said one edge of said body member, whereby two members supported on said clamp jaws and abutted at their ends are related at predetermined angles to one another and are exposed at their abutted ends in said opening, clamp jaw means complementary to said clamp jaws movable toward and away from said clamp jaws to clamp two members thereon, and means carried by said body member for effecting clamping movement of said clamp jaw means.

2,776,684
CAM ACTUATED QUICK ACTING BENCH VISE
William J. Haynes, Bonner Springs, Kans., assignor to Leavenworth Steel, Inc., Kansas City, Kans., a corporation of Kansas
Application May 11, 1953, Serial No. 354,238
3 Claims. (Cl. 144—307)

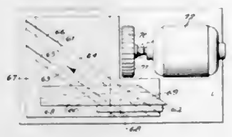


1. A bench vise comprising a bed plate adapted to be rigidly secured to the top of a bench and having an apron depending at the front of said bench and an upturned flange at the rearward edge thereof, a clamping plate mounted on said apron for movement relative thereto, a wedge block mounted on said bed plate for adjustment whereby the forward face thereof is moved toward and from said clamping plate, and a cam operating means carried by said apron and operable to adjust said clamping plate relative to said apron, to move it against work mounted in said vise between said wedge and said clamping plate, whereby said work is securely held.

2,776,685
METHOD FOR MANUFACTURING CROSSCUT FIBROUS ELEMENTS FOR STRUCTURES
James d'A. Clark, Uplands, Victoria, British Columbia, Canada, assignor to Changewood Corporation, Chicago, Ill., a corporation of Illinois
Application August 19, 1953, Serial No. 375,152
2 Claims. (Cl. 144—309)

1. In a method of making a consolidated fibrous product from elements cut from wood, the step of making individual woody elements having a length and width less than 5 inches in either direction for random felting into a matrix used in forming a lamina of the consolidated product without the need for a preliminary reduction in their dimensions comprising cutting into a block of wood with a cutting edge disposed parallel to the length of the fibers in the wood with a cutting movement transverse said length to form an intact crosscut woody wafer having a thickness equal to the depth of cut.

2,776,686
CROSSCUT FIBER AND METHOD FOR ITS PREPARATION
James d'A. Clark, Victoria, British Columbia, Canada, assignor to Changewood Corporation, Chicago, Ill., a corporation of Illinois
Original application March 23, 1953, Serial No. 344,089. Divided and this application July 18, 1956, Serial No. 598,706
4 Claims. (Cl. 144—309)

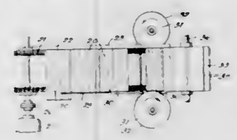


1. The method of producing fibrous wafers of the type described, including the combination of steps of cutting a block of wood parallel to the lengths of the fibers in the wood with a cutting movement transverse said lengths to form wafers having a thickness corresponding to the depth of cut and tapering the end walls of the wafers with respect to their thickness by cutting the block of wood parallel to the lengths of the fibers in the wood with a cutting movement transverse said lengths concurrently with the movement of the block of wood longitudinally in the direction of the fibers and inclined to the transverse plane of cutting movement.

2,776,687
CROSSCUT FIBER AND METHOD FOR ITS PREPARATION
James d'A. Clark, Victoria, British Columbia, Canada
Original application March 23, 1953, Serial No. 344,089. Divided and this application July 18, 1956, Serial No. 598,705
4 Claims. (Cl. 144—309)

1. The method of producing fibrous wafers of the type described, including the combination of steps of cutting a block of wood parallel to the lengths of the fibers in the wood with a cutting movement transverse said lengths to form wafers having a thickness corresponding to the depth of cut and tapering the end walls of the wafers with respect to their thickness by cutting the wafers subsequent to their formation with a cutting movement crosswise of the lengths of the fibers and angular with the broad faces of the wafers to sever the wafers into shorter lengths with angular end walls.

2,776,688
CROSSCUT FIBER AND METHOD FOR ITS PREPARATION
James d'A. Clark, Victoria, British Columbia, Canada, assignor to Changewood Corporation, Chicago, Ill., a corporation of Illinois
Original application March 23, 1953, Serial No. 344,089. Divided and this application July 18, 1956, Serial No. 598,704
5 Claims. (Cl. 144—309)

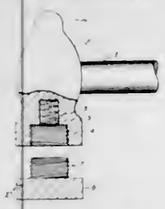


1. The method of producing fibrous wafers of the type described, comprising the combination of steps of cutting a block of wood parallel to the lengths of the fibers in the wood with a first cutting movement transverse said lengths to produce slots in the face of the wood spaced apart in the direction of the lengths of the fibers by an amount corresponding to the lengths of the wafers subsequently to be cut from the block of wood, the sides of said slots being sloped inwardly by cutting in said first cutting movement at an angle in the edges of said slots, and cutting the block of wood parallel to the lengths of the fibers in the wood with a second cutting movement transverse said lengths and at a depth corresponding to the depth of the slots to sever the portions in the face of the wooden block between said slots to form tapered end wafers having a thickness corresponding to the depth of cut and lengths corresponding to the spaced relation between the slots.

2,776,689
HAMMER WITH DETACHABLE FACINGS
Joseph S. Falzone, Bethpage, N. Y.
Application December 14, 1954, Serial No. 475,045
2 Claims. (Cl. 145—29)

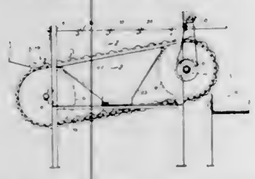
1. A hammer comprising a handle member, a head member mounted on said handle member, said head member having a partially threaded bore therein perpendicular to said handle member said bore having an unthreaded

extension portion, a spring mounted along the axis of said head member in said bore extension portion and a facing



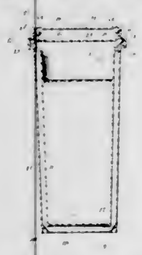
member having a threaded portion threaded into said bore and bearing against said spring.

2,776,690
SKIN SEPARATOR
Ray C. Warren, Woodland, Calif., assignor to Hershel California Fruit Products Co., Inc., a corporation of Illinois
Application June 21, 1955, Serial No. 516,831
4 Claims. (Cl. 146—43)



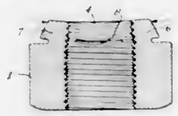
1. A device for deskinning fruit comprising a pair of parallel, upwardly inclined, endless chains, means for driving said pair of chains in the same direction in an upward direction, a series of rollers mounted between said chains, the spacing between adjacent rollers being less than the diameter of the fruit being skinned, a cog wheel mounted at the end of each roller, alternate cog wheels being mounted at opposite ends of the rollers, racks at opposite sides of the path of travel of the rollers, one of the racks being mounted over the path of travel of the rollers and the other rack being mounted below the path of travel of the rollers, whereby each of said racks engages alternate cog wheels and causes alternate rollers to rotate in opposite directions, and means for placing fruit to be skinned on said rollers near the lower end of said series of rollers, said fruit traveling upwardly on said rollers and being discharged by gravity at the high end of said series of rollers.

2,776,691
DOUBLE-WALLED TUMBLER AND SEAL
Earl S. Tupper, Upton, N. Y.
Application January 12, 1953, Serial No. 330,716
5 Claims. (Cl. 150—0.5)



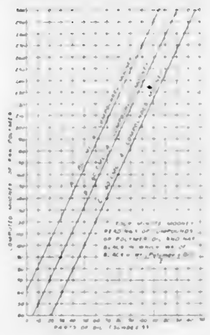
1. A receptacle comprising a pair of plastic and resilient vessels substantially of similar shape and of differing over-all dimensions for interfitting and opposite engagement between the rim of the smaller vessel and the rim area of the larger vessel, said vessels being capable of selectively serving as a double-walled vacuum and coverable type of receptacle when in interfitting position and as a shaker when in opposedly engaged position, the smaller vessel having a flared rim and the larger vessel having a rim marginal portion provided with an intermediate groove on the inner face adapted to be sealably engageable with the said flared rim when the smaller vessel is either in spaced interfitting position depending from said groove or when the smaller vessel is axially opposed to the larger vessel.

2,776,692
LOCK NUT WITH AXIALLY AND RADIALLY DISTORTED THREAD PORTIONS
Carl H. Granberry, Chicago, Ill.
Application December 17, 1952, Serial No. 326,472
3 Claims. (Cl. 151—21)



3. A self-locking nut having a threaded bore and a plurality of chordal slots providing apertures from the outer periphery of said nut into the inner periphery and through the threads thereof, said slots being separated by axially directed thread bearing posts rigidly secured to the body of said nut and providing thread bearing overhanging unbroken segmental lip portions the ends of which are rigidly secured to said posts, said overhanging portions and the threads thereof being deformed at portions intermediate said posts in an axial direction, and said posts and the threads thereof being deformed radially inwardly whereby said overhanging portions coact with said posts to control and maintain the resiliency and resist deflection of the lip portions and posts when said nut is threaded onto a stud.

2,776,693
ARCTIC RUBBER
Jean Paul Ferrin, Akron, Ohio, assignor to The General Tire and Rubber Company, Akron, Ohio, a corporation of Ohio
Application April 9, 1953, Serial No. 347,817
10 Claims. (Cl. 152—330)



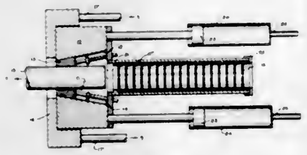
1. A vulcanizable rubber compound comprising a mixture of a rubber polymerization product of a diolefin which has a computed Mooney of at least 80 and at least 20 parts of an ester of an aliphatic alcohol having more than two carbon atoms and an acid residue as left from the distillation at about 100 to 270° C. at about 4 to 20 millimeters of mercury pressure of residual products

from steam distillation of primary products of caustic hydrolysis of castor oil, said compound being in a substantially non-broken down state and having a plasticity less than 80 Mooney when measured with a large rotor at 4 minutes at standard conditions, said computed Mooney being the 4 minute Mooney viscosity measured on large rotor of a gel free polymer that takes the same amount of oil to produce a rubber oil fine furnace black compound of the same Mooney viscosity when the furnace black in the compound is one half the weight of the rubber plus oil and the same mixing times are utilized.

2,776,694
SHEARING AND BENDING MACHINE
Clarence A. Blomgren, Portland, Oreg.
Application December 27, 1952, Serial No. 328,242
8 Claims. (Cl. 153—16)

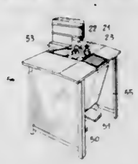
1. A shearing and bending machine for forming angle pieces from flat sheet or mesh material comprising a stationary shear blade having a flat narrow supporting surface extending the width of said material, a clamping member above said surface having an upstanding flange perpendicular to said surface, a bending member pivotally mounted at one side of said clamping member for movement from a position in the plane of said supporting surface to a perpendicular position confronting said flange, a movable shear blade associated with said stationary shear blade, a resilient connection between said movable shear blade and said clamping member to clamp said sheet on said supporting surface when said movable shear blade is operated, a lever on said bending member, and a link operably connecting said lever with said movable shear blade.

2,776,695
RECOIL SHOCK ABSORBER FOR METAL STRETCHER
Sheldon E. Wells, Youngstown, Ohio, assignor to Lombard Corporation, Youngstown, Ohio, a corporation of Ohio
Application January 26, 1954, Serial No. 406,296
3 Claims. (Cl. 153—35)



2. A shock absorber of the type adapted to be utilized with mechanisms for applying tension to an article and including gripping jaws received in a longitudinal opening of a gripper head, an elongated and open-ended sleeve, said sleeve having a greater internal dimension than the cross section of the article being worked and adapted to be rigidly mounted behind the gripping jaws of the tension applying device in axial alignment with the longitudinal opening of the gripper head and the workpiece, and a plurality of replaceable regularly spaced breakable members received in said sleeve and adapted to apply incremental retarding forces to an article freed from the gripping jaws and moving rearwardly through said sleeve.

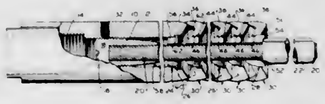
2,776,696
METHOD FOR THE DRESSING OF BEARDED NEEDLES FOR KNITTING MACHINES AND DEVICE FOR CARRYING OUT THE METHOD
Karl Meier, Zurich, Switzerland, assignor to Machine Tool Works Oerlikon, Administration Company, Zurich-Oerlikon, Switzerland, a company of Switzerland
Application November 29, 1954, Serial No. 471,839
Claims priority, application Switzerland March 30, 1954
8 Claims. (Cl. 153—39)



1. A method for the dressing of bearded needles for knitting machines, comprising the steps of projecting the silhouette of the needle in multiple enlargement on an image screen, providing a contour drawing corresponding to the correct shape of the needle on the said screen and superimposing the said projected silhouette on the said contour drawing, illuminating the point of the beard from the opposite side making the same visible on the said screen as a bright dash within the said dark silhouette in the position of the needle in which the plane through the needle stem and beard stands at right angles to the said screen, and dressing the said needle stem and beard in the said plane and in a second plane perpendicular thereto.

2. A device for the dressing of hooked needles for knitting machines comprising in combination: a profile projector, an image screen having a contour drawing corresponding to an enlarged correct shape of the needle, a clamping chuck carrying the said needle in the beam of the said projector rotatable 90° about the axis of the said needle, and a dressing device having dressing jaws for the dressing of the stem and beard of the said needle adjustable in the horizontal and vertical directions, and illuminating means illuminating the point of the beard of the needle from the side opposite to the said profile projector in that position of the needle in which the plane through the stem and beard of the needle stands at a right angle to the plane of the said screen, whereby the image of this illuminated point of the beard is made visible as a bright dash within the dark silhouette of the stem of the said needle as projected on to the said screen by the said profile projector.

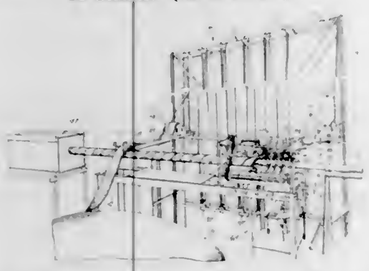
2,776,697
FLEXIBLE MANDREL
Leonard E. Zerlaut, Santa Ana, Calif.
Application March 24, 1955, Serial No. 496,379
6 Claims. (Cl. 153—63)



1. A device of the class described comprising a flexible cable, a plurality of rings disposed on said cable, said rings having spherical convex outside and spherical concave inside surface portions whereby said rings may be disposed in partially overlapping relation for vertebral

movement on said cable and means for maintaining said rings in firm endwise engagement without inhibiting said vertebral movement comprising: an elongated member having a threaded bore, a plug secured to the inner end of said cable and adjustably disposed in threaded relation within said bore, a retainer member secured to the outer end of said cable, and a sleeve-like insert for each ring disposed concentrically of each ring in closely embracing relation with said cable, with each ring and insert therefor having complemental flange and shoulder means adapted to impart a positive vertebral movement to said rings upon flexure of said cable.

2,776,698
MACHINE FOR APPLYING PAINT ROLLER COVERINGS TO CORE TUBING
Lawrence F. Kreger, Chicago, Ill.
Application March 10, 1954, Serial No. 415,408
18 Claims. (Cl. 154—1.8)



1. An apparatus for wrapping a tube of the character described comprising tube-driving means including a plurality of rotating driving elements frictionally engageable with the exterior of the tube for simultaneously rotating and axially advancing the tube, means for continuously supplying an adhesive-coated strip of covering material to said tube forwardly of said driving elements, said strip being spirally wrapped around the tube during rotation and axial advancement of the latter, and support means comprising a plurality of rollers disposed intermediate said driving elements and the portion of the tube being wrapped, said rollers being engageable with the exterior of the tube closely adjacent the portion thereof being wrapped for laterally supporting and retaining the tube during wrapping thereof.

2,776,699
TUBELESS PNEUMATIC TIRE AND METHOD OF MAKING SAME
Robert W. Kindle, Detroit, and John J. Fleming, Grosse Pointe Woods, Mich., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application October 16, 1953, Serial No. 386,552
1 Claim. (Cl. 154—14)

A method of making a tubeless tire comprising in combination the steps of chemically modifying a raw rubbery copolymer of an isoolefin having from 4 to 6 carbon atoms with from 0.5 to 5% of a conjugated diolefin having from 4 to 8 carbon atoms by masticating 100 parts of said rubbery copolymer with from 0.5 to 1.5 parts of a modifying agent selected from the group consisting of sulfur, ultraaccelerators of sulfur vulcanization, and mixtures of sulfur with ultra-accelerators of sulfur vulcanization, for from 10 to 30 minutes at a temperature of from 350 to 375° F., the concentration of said modifying agent and the duration and temperature of said modifying treatment being such that the said copolymer substantially retains its original readily processible condition and its original sheet-forming properties instead of being converted into a truly vulcanized, elastic, essentially unprocessible condition, whereby the thus chemically treated copolymer is directly compatible without mill breakdown with natural rubber and butadiene-styrene copolymer rubber, thereafter mixing from 45 to 75% by weight of the thus-modified copolymer directly without mill breakdown with corrrespondingly from 55 to 25% of a rubber selected from the group consisting of natural rubber and butadiene-styrene copolymer rubber and vulcanizing ingredients therefor, applying the resulting composition as an air-retaining liner directly to the entire interior surface of a tire casing from one bead area thereof to the other, said tire casing having a carcass comprising cord fabric coated with a vulcanizable rubber composition selected from the group consisting of natural rubber and butadiene-styrene copolymer, and thereafter vulcanizing the assembly in tire shape, whereby the said liner adheres firmly to the said carcass.

2,776,700
CHAIR CONVERTIBLE TO BABY WALKER OR ROCKER
Allen D. Potter and Howard Goldberg, Ellenville, N. Y.
Application December 24, 1953, Serial No. 400,278
2 Claims. (Cl. 155—22)

1. A convertible article of furniture for children comprising a pair of spaced vertical panels, each of said panels being provided with a first straight edge and an opposite arcuate-shaped edge, a second straight edge transverse to said first straight edge, and an opposite witch-shaped edge, said panels being joined together by a back board extending parallel to said first straight edge and a seat board extending parallel to said second straight edge, said back board being provided with a plurality of longitudinal slots extending parallel to the edges thereof which extend longitudinally between the vertical panels, a roller disposed in each of said slots for rotation therein, said rollers extending from the face of said back board beyond said first straight edge.

2,776,701
WALKING AID AND CHAIR COMBINATION
Albert P. Denis, Springfield, Mass.
Application August 3, 1954, Serial No. 447,536
8 Claims. (Cl. 155—22)

1. A walking aid and chair combination which comprises a U-shaped frame which may be entered from its open end, non-directional traction members supporting said frame, a seat member, means to slidably support said seat member in a position crosswise of the open end of the frame with one end of the seat member slidably engaging one side of the frame, an elongated hinge connecting said one end of the seat member to said side of the frame below its sliding engagement therewith, and means accessible to an operator within the frame for moving the seat member upwardly and endwise from said crosswise position and downwardly to a vertical position adjacent and parallel to the side of the frame to which said hinge is connected.

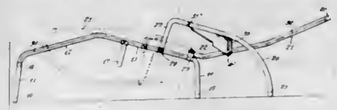
2,776,702
LOCKING MECHANISM FOR ROCKING CHAIRS
Adelard Belisle, South Hadley Falls, Mass., assignor to The Berkline Corporation, Chicopee Falls, Mass., a corporation
Application June 27, 1955, Serial No. 518,210
4 Claims. (Cl. 155—72)

1. Manually operable locking mechanism for releasably locking to the base the seat of a chair tiltable on said base comprising, lower and upper brackets for securing to said base and seat, a segment pivoted to said lower bracket having an arcuate periphery, an operating rod journalled in said upper bracket for rotation in locking and releasing directions, a link pivotally connected at opposite ends to said segment and operating rod arranged to rotate said segment and maintain the periphery of said segment in locking positions relative to said rod as said brackets are moved towards and away from one another, a cam fixed on said rod arranged in operative locking position of the rod to bind on the periphery of the segment to hold it against rotation and thereby lock the brackets against movement towards and away from one another.

2,776,703
PLATFORM ROCKING CHAIR CONVERTIBLE TO NONROCKING
Adelard Belisle, South Hadley Falls, Mass., assignor to The Berkline Corporation, Chicopee Falls, Mass., a corporation
Application June 23, 1955, Serial No. 517,541
6 Claims. (Cl. 155—72)

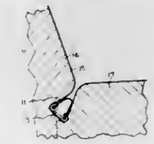
1. Manually operable locking mechanism for a chair seat which is rockable on the base of the chair between forward upright position of the occupant of the chair and rear reclining position thereof comprising in combination, a pair of separate brackets for securing to said seat and base respectively, an operating rod, connections between said rod and one of said brackets constructed and arranged for enabling turning and axial movement of said rod in a locking direction and turning and axial movement thereof in an opposite releasing direction, an elongated link having opposite ends, one end of said link being pivotally connected to said rod, a segment pivotally connected to the opposite end of said link having a peripheral edge and opposite side friction faces adjacent thereto disposed adjacent said rod, another pivotal connection between said segment and the other of said brackets, and separate friction means engageable with said opposite friction faces of the segment operable by said one bracket and said one end of the link in relative movement towards said friction faces as said rod is turned and moved axially in locking direction.

2,776,704
RECLINING CHAISE LONGUE
Ezra L. Moore and Cleo E. Smith, Columbus, Ind., assignors to Arvin Industries, Inc., Columbus, Ind., a corporation of Indiana
Application April 26, 1955, Serial No. 503,914
8 Claims. (Cl. 155—117)



5. An article of furniture, comprising a main section including a seat, a back pivotally connected to said main section on a first transverse axis adjacent the rear edge of the seat, a brace structure pivotally connected to the main section on a second transverse axis spaced forwardly from the said first axis, said brace structure having a free end engageable with a supporting surface in rear of the main section to support the structure in extended position and being swingable forwardly over said main section to a collapsed position, and releasable means acting between the brace structure and back for preventing rearward swinging of the back beyond a predetermined extended position relative to the brace structure, said back being swingable forwardly about said first axis to a collapsed position over said main section.

2,776,705
FABRIC HOLDERS
Harry F. Robinson, Cincinnati, Ohio
Application February 3, 1955, Serial No. 485,957
4 Claims. (Cl. 155—182)

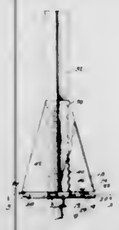


4. In combination with a slip cover for upholstered furniture, a fabric holder arranged to be inserted between the back and seat or side arm and seat, and comprising a yieldable member provided with friction producing edges capable of being compressed into position and expanding upon release to hold the slip cover in position.

2,776,706
MIXING AND TURBULENCE PRODUCING MEANS FOR A GAS BURNER TIP
Lee H. Drake, Columbus, Ohio
Application October 9, 1953, Serial No. 385,061
1 Claim. (Cl. 158—118)

A device of the character described comprising a burner fuel supply tip having a fuel supply passage extending upwardly therethrough, a horizontal flat circular plate concentrically mounted and extending from the sides of said tip, a vertically extending tubular member forming a burner nozzle, a plurality of circumferentially spaced vertically dependent strips affixed to the lower end of said tubular member, an outwardly extending flange formed at the lower end of each strip, said flange affixed to said plate

in circumferential relationship to said tip, a plurality of upstanding brackets mounted upon said plate, and a hood having a relatively small upper end slidable upon said

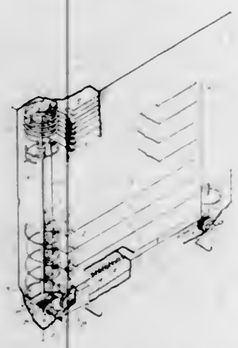


tubular member and a relatively large lower end, and means for vertically adjustably mounting the lower end of the hood upon said brackets, said strips being transversely corrugated.

2,776,707
FIREPLACE FRONT
Clifford Clayton Helwig, Windsor, Ontario, Canada
Application January 18, 1954, Serial No. 404,532
4 Claims. (Cl. 160—118)

1. In a fireplace front the combination of a frame defining a substantially polygonal opening and including longitudinally slotted vertical side posts and channeled top and bottom rails, side perforate screens slidably mounted within the frame, the top and bottom edges of said screen fitting into the said channels and slidable through the said longitudinal slots for movement across and outwardly of said polygonal opening, and a door movably connected to said frame outwardly of said screen for positioning to expose and close the polygonal opening.

2,776,708
VENETIAN BLINDS WITH ADJUSTABLE SPACING SLATS
Philip H. Long, Bellevue, Wash.
Application March 5, 1954, Serial No. 414,408
12 Claims. (Cl. 160—169)

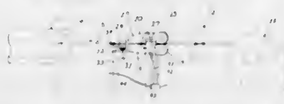


1. A Venetian blind comprising two spaced spiral springs disposed with their axes substantially vertical, slats extending in generally horizontal relationship between said springs, supporting means supporting opposite ends of each slat from corresponding convolutions of said springs, convolution separating members interposed between corresponding convolutions of said springs, and means operable to effect relative rotation of said springs and said convolution separating members to move spring convolutions and slats supported thereby from one side of said convolution separating members to the other side of said convolution separating members.

2,776,709
SCREEN FOR AUTOMOBILE WINDOWS
John J. Lawlor, East Chicago, Ind.
Application September 3, 1954, Serial No. 454,020
6 Claims. (Cl. 160—378)

1. A screen for an automobile window comprising a generally rectangular sheet of screen cloth, a flexible tape folded over the periphery of the screen cloth and abutting both sides thereof, a rigid frame attached to the inner edge of the folded flexible tape and to the screen cloth, the flexible folded tape and screen cloth extending outwardly from the frame and being adapted to slide into the window channels of the automobile.

2,776,710
APPARATUS FOR PROCESSING TENUOUS MATERIAL
Alex L. Homery, Jamestown, Pa., and Morris A. Simon, Youngstown, Ohio, assignors to Youngstown Industries, Inc., Girard, Ohio, a corporation of Ohio
Application February 10, 1955, Serial No. 487,300
8 Claims. (Cl. 164—60)

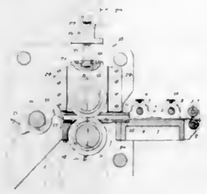


1. Apparatus for slitting longitudinally moving strip material, comprising cutting means engaged with the strip for dividing it longitudinally as it moves therepast, means holding said cutting means against the longitudinal pull exerted thereon by the moving strip and comprising means providing an axis mounted for movement in a direction edgewise of the strip and about which said cutting means is swingable edgewise of the strip in response to the pull of the latter, said axis being spaced from said cutting means in a direction opposite to the direction of movement of the strip, and means for maintaining said axis in predetermined relation with an edge of the strip despite deviation of the latter from a straight line.

2,776,711
MACHINE FOR CUTTING MOVING WEB INTO PARTICLES
Marie Joseph Francois Bas, Paris, France, assignor to J. F. Bas & Co., Paris, France
Application February 1, 1954, Serial No. 407,416
Claims priority, application France November 6, 1953
7 Claims. (Cl. 164—61)

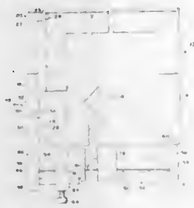
1. In a machine for comminuting plastic strip material, the combination of a frame, upper and lower co-acting cutter discs rotatably mounted in said frame, a pair of horizontally extending guides projecting both forwardly and rearwardly of the co-acting portions of said cutter discs and spaced apart a distance substantially equal to the depth of cut of said co-acting cutter discs and effective to cut strip material passed therebetween into ribbons, a shaft rotatably mounted in said frame adjacent the rear of said cutter discs, knives carried by said shaft, a stationary counter-blade supported by the

rearward edge of one of said guides, said knives and counter-blade being effective to sub-divide said ribbons into particles of regular form, said knives being horizontally inclined to said cutter discs to cause said knives to co-act with said counter-blade and act on said ribbons successively graduated scale means associated with said



frame and means for adjusting said upper cutter discs with respect to said lower cutter discs and with reference to said graduated scale means, said upper discs and shaft constituting an assembly which is removable from said frame while maintaining said graduated scale means and said adjusting means in the adjusted position thereof.

2,776,712
PUNCHING DEVICE HAVING WORK POSITIONING LOCATING PINS
Chesley F. Carlson, Minneapolis, Minn.
Application February 28, 1955, Serial No. 491,030
10 Claims. (Cl. 164—86)



1. A device of the class described comprising a work supporting surface, a locating pin bar secured to and extending along one side of said work supporting surface, a locating pin extending upwardly above the plane of the work supporting surface slidably mounted on said locating pin bar, a fixed locating pin extending upwardly above the plane of the work supporting surface secured to said locating pin bar adjacent one end of said bar, a punch bar attached to one edge of the work supporting surface and at a right angle to the locating pin bar, a spacer bar supported above the punch bar, a punch housing movably mounted on said punch bar and the said spacer bar, and a punch in said punch housing normally positioned above the plane of the work supporting surface, said punch being in alignment with said fixed locating pin so that a line extending from the said punch to the fixed locating pin is at right angles to a line extending from the fixed locating pin to the movable locating pin.

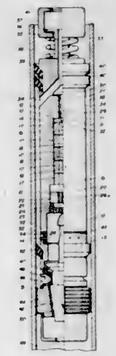
2,776,713
CEMENTING OF WELLS
Bryan E. Morgan and Charles L. Prokop, Houston, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
No Drawing. Application September 30, 1954, Serial No. 459,520
20 Claims. (Cl. 166—22)

11. A method for cementing oil and gas wells, and the like, which comprises pumping a slurry of Portland cement, the reaction product resulting from treating a water slurry of high-grade sodium bentonite with one of the larger quaternary ammonium complexes, and oil into a well bore penetrating an earth formation, said cement, oil and reaction product being present in said slurry in sufficient amounts to form a filter cake, imposing pressure on said slurry in excess of formation pressure to force a portion of said slurry at least into contact with the formation and to deposit cement solids, removing excess cement slurry from the well bore while maintaining said pressure, and then forcing water through the portion of the deposited solids to set said cement.

2,776,714
PROCESS FOR OVERCOMING WATER BLOCKING OF A PETROLEUM PRODUCING WELL
Ray J. Stanclift, Jr., Arthur L. Draper, and Loren H. Jenks, Tulsa, Okla., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application August 3, 1954, Serial No. 447,677
5 Claims. (Cl. 166—42)

1. A process for increasing the productivity of a water-blocked petroleum well penetrating a producing formation comprising injecting liquid ammonia through the well into the producing formation in the immediate vicinity of the well, applying pressure to the producing formation to maintain the ammonia in liquid phase and to force the ammonia into the formation, thereafter releasing pressure at the well to cause efflux of the injected ammonia, and recovering ammonia, crude oil and water from the formation through the well.

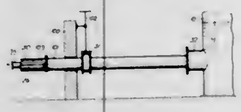
2,776,715
TOOL FOR REMOVAL OF FLUID FROM WELL BORES
T. J. Fuson and Wallace M. O'Reilly, Houston, Tex., assignors to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application July 6, 1954, Serial No. 441,552
3 Claims. (Cl. 166—63)



1. A tool for removal of liquid from a well bore which comprises an elongated member provided with an upper section being formed to provide a first chamber, a body of propellant explosive and a primer means for firing said propellant arranged in said first chamber, first closure means arranged in said upper section adapted to sealingly close the upper end of said first chamber, a lower section detachably connected to said upper section and being formed to provide a second chamber, the upper end of which before detachment fluidly communicates with the lower end of said first chamber, movable pipe gripping means carried by said lower section adapted to secure said lower section in the well bore, movable second closure means arranged in said second chamber having first and second positions adapted to close off the lower end of said second chamber when in said second

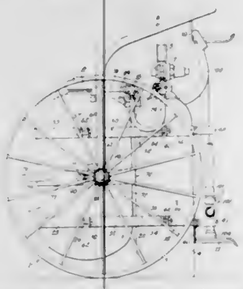
position and to fluidly communicate said second chamber and said well bore when in said first position, said second closure means operatively engaging with said pipe gripping means to move said pipe gripping means into pipe gripping position upon movement of said second closure means from said first to said second position, first sealing means carried by said upper section adapted to close off downwardly directed fluid flow in the annulus between said upper section and said well bore and second sealing means carried by said lower section adapted to close off downwardly directed fluid flow in the annulus between said lower section and said well bore.

2,776,716
MEANS FOR INTRODUCING A FLUID AGENT INTO A TANK
Anders Emanuel Wicklander, Nynashamn, Sweden
Application October 10, 1952, Serial No. 314,057
Claims priority, application Sweden November 9, 1951
16 Claims. (Cl. 169—4)



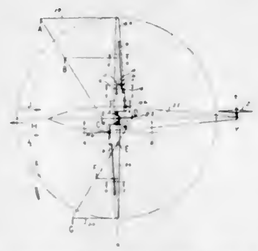
1. Means for introducing a fluid agent into a tank for liquid, comprising a flexible tube or hose connected with an inlet for the agent, a casing enclosing said flexible tube or hose in a folded state, guide means for the casing connected with the tank and opening into the latter, the casing being fitted movably in said guide means to be capable of moving through the guide means into the tank.

2,776,717
PORTABLE FIRE EXTINGUISHER
Frank B. Allen, Towaco, N. J., assignor, by mesne assignments, to The Fyr-Fyter Company, Dayton, Ohio, a corporation of Ohio
Application September 16, 1952, Serial No. 309,856
4 Claims. (Cl. 169—31)



1. A portable fire extinguisher comprising a container for a fire extinguishing agent, a cylinder for a pressurizing agent to expel the fire extinguishing agent, the container of larger diameter than the cylinder, a first pair of lower clamping rings secured together, one lower clamping ring about the lower end of the container and the other lower clamping ring about the lower end of the cylinder, a second pair of upper clamping rings secured together, one upper clamping ring about the upper end of the container and the other upper clamping ring about the upper end of the cylinder, an axle supporting clamping ring about the container and positioned between the upper and lower pairs of clamping rings, the container and the cylinder positioned in line at right angles to the axles, a pair of axles extending from the axle clamping ring and positioned between the vertical axis of the container and the vertical axis of the cylinder, and wheels positioned on the axles, the wheels of a radius greater than the distance from the axle to the lower surface of the container providing surface clearance, the wheels of a radius less than the distance from the axle to the lower surface of the cylinder, whereby in resting position the extinguisher is supported by contact with a surface of the wheels and the lower end of the cylinder, the inward mounting of the axles and the surface clearance permitting easy swinging of the extinguisher about its axles for movement on its wheels.

2,776,718
HELICOPTER ROTOR
Daniel R. Zuck, San Fernando, Calif.
Application September 20, 1952, Serial No. 310,607
4 Claims. (Cl. 170—160.13)

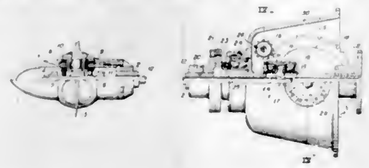


1. A helicopter rotor consisting of one or more blades, the blade airfoil comprising an airfoil section with a substantially zero chordwise movement of the center of lifting pressure, an aerodynamic control surface within the plan form of the rotor blade, a counterbalance to statically balance the blade assembly about the blade angle pitching axis, a horizontal pivot axis at the inboard end of the blade assembly to permit the blade to freely pivot to change the blade angle of incidence in response to the pilot-operated aerodynamic control surface, said pivot axis being located forward of the theoretical center of lifting air forces of the airfoil and tending to rotate the airfoil leading edge to a lesser angle of incidence, and said pilot-operated aerodynamic control surface supplying an oppositely rotating force to maintain a pre-selected or variable angle of incidence at the command of the pilot's control, a substantially fixed tab for ground adjustment only on each blade and located inboard of the pilot-operated control surface to automatically and differentially vary the blade incidence of the advancing and retreating blades as the aircraft is in horizontal flight, and as these trim tabs are directly acted upon by the horizontal airstream resulting from the helicopter's forward flight causing the advancing blade into the airstream to reduce its angle of incidence and the retreating blade from the airstream to increase its angle of incidence, thereby tending to preserve an automatic balance of lift about the center of rotation of the rotor during the horizontal flight of the aircraft.

2,776,719
CONTROLLABLE REVERSIBLE PITCH PROPELLER SYSTEM
Harry J. Nichols, Point Pleasant, N. J.
Application October 2, 1953, Serial No. 383,887
4 Claims. (Cl. 170—160.47)

1. A controllable reversible pitch propeller system for motor boats comprising, in combination: a tubular propeller shaft; a propeller assembly fastened tightly to the outboard end of said propeller shaft, said assembly including a hollow hub with propeller blades journaled therein so as to be axially rotatable, and a sliding cam movement mounted within said hub for applying a torque couple to each of said blades so as to turn them axially in unison for the purpose of varying and reversing their

pitch; an axially translatable connecting rod for operating said cam movement fastened rigidly thereto and extending coaxially within and through said propeller shaft; and a transmission unit located at the inboard end of said propeller shaft comprising a box-like housing, a power transmission shaft journaled in said housing in axial alignment with said propeller shaft, means for coupling said power



transmission shaft to said propeller shaft, a cross-head assembly slidably mounted on said power transmision shaft and operatively connected to translate said connecting rod, and mechanism for sliding said cross-head assembly including at least one rotary positive motion face cam operatively connected to slide said cross-head assembly axially along said power transmission shaft upon limited angular displacement of said face cam.

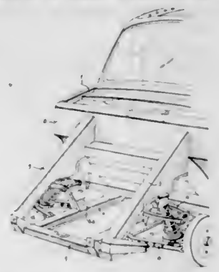
2,776,720
CONTROL APPARATUS FOR POWER PLANTS DRIVING A VARIABLE TORQUE LOAD DEVICE
Ferdinando Carlo Reggio, Norwalk, Conn.
Original application December 15, 1941, Serial No. 423,001, now abandoned. Divided and this application November 10, 1953, Serial No. 391,255
23 Claims. (Cl. 170—135.74)

1. In a regulating apparatus for powerplants driving an adjustable torque load device, the combination of control means including a torque responsive device for regulating an operating condition of the powerplant, means responsive to change in a pressure condition tending to vary with the altitude, means responsive to a temperature condition of the powerplant resulting from combustion, and an operative connection between all of said means for recalibrating said control means in accordance with changes in said pressure and temperature conditions.

5. In a control system for a thermal powerplant, the combination with a servo mechanism for controlling the rate of fuel flow to the powerplant, of torque responsive means for actuating said mechanism to restrict fuel flow as the torque exceeds preselected values, powerplant temperature level responsive means to restrict fuel flow as said temperature level exceeds predetermined values, and means unaffected by temperature variations and responsive to a pressure varying with the altitude for altering said fuel flow as a predetermined function of said pressure.

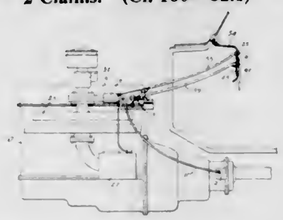
2,776,721
VEHICLE BODY WITH DETACHABLE ENGINE SUPPORTING FRONT FRAME
Dante Giacosa, Turin, Italy, assignor to Fiat Societa per Azioni, Turin, Italy
Application March 3, 1954, Serial No. 413,867
Claims priority, application Italy March 4, 1953
1 Claim. (Cl. 180—12)

In a chassisless motor vehicle having two substantially parallel downwardly inclined arms extending towards the front of the vehicle from an upper portion of a wall separating the engine space from the inside of the vehicle body, a detachable fore frame comprising two substantially parallel longitudinal members detachably secured at their rear ends to a bottom structure of the vehicle body, a cross member interconnecting the front ends of said longitudinal members and detachably secured at its end portions to the front ends of the said two arms, two lateral upwardly diverging standards each fast at its lower end with one of the longitudinal members intermediate of its length and detachably secured at its top end to an intermediate portion of an adjacent arm, a support for the engine unit on an inner face of each standard intermediate the ends



thereof, the spacing of the two longitudinal members being smaller than the spacing of said arms whereby the ends of the cross member protrude laterally with respect to said longitudinal members, an independent suspension of the parallelogram type including a coil spring encircling a telescopic shock absorber and having its top arms hinged at the top portion of the inner face of the associated standard and the lower arms to the longitudinal member, and a seating formed in the outer face of the standard on the top end portion thereof vertically below the associated downwardly inclined arm, with the said coil spring arranged between the pair of lower arms of the suspension and the said seating.

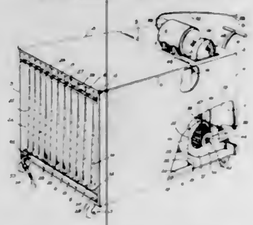
2,776,722
ELECTRICAL VEHICLE SPEED CONTROLLER
John Germanich, Dallas, Tex.
Application October 5, 1954, Serial No. 460,300
2 Claims. (Cl. 180—82.1)



1. The combination with a vehicle having a carburetor, a manifold connected in communication with said carburetor, a transmission including a driven gear, and a flexible drive shaft having one end connected to said driven gear, of an electrical vehicle speed controller comprising a valve plate slidably supported between said manifold and carburetor, a solenoid, a core slidably mounted within said solenoid and connected to said valve plate for movement therewith, a bracket carried by said solenoid, a governor including a block having a plurality of arms pivotally connected to said block with a weight on each of said arms positioned on said bracket and having the block supported in said bracket for rotary movement, the other end of said flexible drive shaft being connected to said block, a fixed contact carried by said bracket, a speed indicator dial, a speed indicator hand movable over said dial, a switch body connected to said

indicator hand for movement therewith, means movably carried by said switch body and engageable with said valve plate for controlling the limit of closing movement of said valve plate in accordance with the setting of said indicator, a contact movably supported on said switch body and normally spaced from said fixed contact, and another arm connected to each of the weights of said governor and bearing against said movable contact.

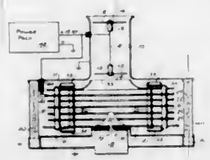
2,776,723
PORTABLE DEHYDRATOR
Robert R. Lester, Kansas City, Mo., assignor to Kansas City Terminal Warehouse Company, Kansas City, Mo., a corporation of Missouri
Application August 23, 1955, Serial No. 530,177
3 Claims. (Cl. 183—4)



1. A dehydrator including a casing having parallel side walls, an end wall connecting one end of the side walls and a bottom, the end of the casing opposite said end wall being open, cell supports extending transversely of the casing and inset from upper edges of the side walls, one of said supports being located at the open end and the other inset from the end wall between a dehydrating compartment on the side of the open end and a blower compartment on the side of the end wall, a plurality of elongated cells arranged in side to side relation within the dehydrating compartment, each cell having ends and foraminous side walls connected with said ends to provide a container for a hygroscopic material, means extending from said ends of the cells and engaging the cell supports to suspend the cells lengthwise within the dehydrating compartment with the side of one cell being spaced from the side of the adjacent cell to provide a plurality of elongated passageways extending from said open end to the blower compartment for conducting a plurality of streams of air into contact with said side walls of the cells, a cover on the casing closing the top of the dehydrating compartment, a deck covering the top of the blower compartment, a blower in the blower compartment having an inlet in connection with the compartment and an outlet opening through the casing, and means for actuating the blower to pull air through the passageways for contact with the hygroscopic material in said cells and into the blower compartment for discharge from the casing.

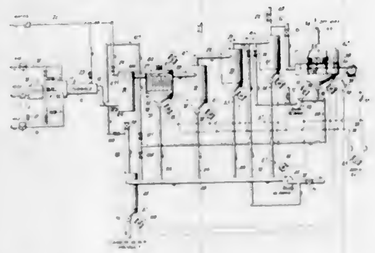
2,776,724
ELECTROSTATIC PRECIPITATORS
Fabio R. Goldschmied, Quincy, Mass., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 1, 1955, Serial No. 491,285
6 Claims. (Cl. 183—7)

1. An electrostatic precipitator comprising a plurality of circular, spaced-apart, parallel collector plates, an electric motor having a shaft for rotating said plates, means for attaching an end one of said plates to said shaft, means for insulatedly supporting alternate of said plates from said one end plate, means supporting the others of said plates directly from said one end plate, all of said plates except said one end plate having central openings, an ionizer having an ionizer wire adjacent the opening in the other end plate and having a non-discharging ionizer electrode spaced from said wire, and



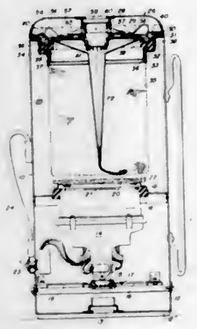
electric connections for supplying high voltage to said wire and to said alternate plates.

2,776,725
CARBON BLACK COLLECTING AND CONVEYING SYSTEMS
James Q. Wood, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application May 20, 1954, Serial No. 431,018
28 Claims. (Cl. 183—7)



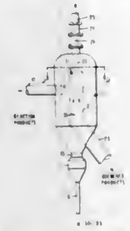
23. A carbon black collecting and conveying system, comprising in combination, a source of a gaseous effluent containing suspended carbon black, a discharge conduit connecting said source with an outlet downstream therefrom, an electrical precipitator connected downstream of said source in said discharge conduit, a plurality of carbon black separators connected in series in said discharge conduit downstream of said precipitator, the last of said separators in a downstream direction being a bag filter, each separator and said precipitator comprising a gravity collection chamber and an outlet conduit for carbon black and adapted to separate some of the carbon black from said effluent, a carbon black feeder in each of said outlet conduits to control flow of carbon black through said outlet conduits and thereby the level of carbon black chambers, a first collection conduit connected to all of said outlet conduits except that of said bag filter, a second collection conduit connected to said outlet conduit of said bag filter and discharging into said discharge conduit upstream of said precipitator, separate means for moving carbon black in each of said collection conduits, each of said separate means comprising a source of gas comprising a gas supply conduit connecting respective said collection conduits to said discharge conduit and a gas blower in each of said collection conduits for moving said carbon black from said outlet conduits through said collection conduits from said gas supply conduit, said first collection conduit connected to a carbon black collector downstream of said outlet conduit for collecting some of the carbon black being moved in said first collection conduit, a bleed conduit connected to said first collection conduit downstream of said carbon black collector and connected to said discharge conduit upstream of said precipitator, and means in each of said chambers actuated by the level of carbon black therein for actuating a predetermined level of carbon black above said carbon black feeders.

2,776,726
SUCTION CLEANER AND FILTER THEREFOR
George A. Brace, Highland Park, Ill., assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio
Application January 7, 1954, Serial No. 402,716
16 Claims. (Cl. 183—37)



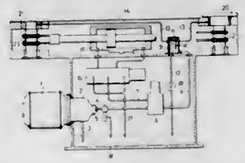
1. A suction cleaner having a casing for a motor driven suction unit, a filter chamber in communication with said suction unit and having a large area inlet opening through the wall thereof for the installation and withdrawal of a filter bag, filter supporting ledges extending along the oppositely disposed interior sides of said filter chamber inwardly of said inlet opening, a disposable paper filter bag in said filter chamber having an end wall integral with the contiguous side walls thereof and being formed of the same air pervious material, rim edges of said side walls and the opposed rim edges of said end wall being folded together to form clamping tabs, said tabs being spaced apart sufficiently to overlie said filter supporting ledges when the filter bag is assembled into said filter chamber, guide means positioned above and outwardly of said ledges for contact with said tabs as said bag is inserted through said opening and operable to guide said tab onto said ledges and clamping means on said cleaner for engaging said tabs and holding them firmly against said filter supporting ledges.

2,776,727
APPARATUS FOR SEPARATING AND QUENCHING OIL PRODUCTS
Worth W. Boisture, Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application July 21, 1953, Serial No. 369,451
2 Claims. (Cl. 183—82)



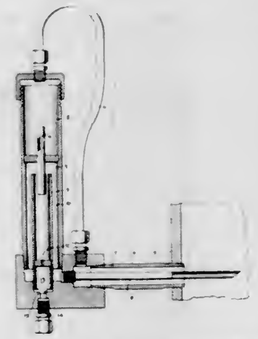
1. A solids-gas separator of the cyclonic type comprising, in combination, a vertically disposed circular vessel, an inlet conduit for horizontally and tangentially admitting a solids-gas suspension into an intermediate portion of said circular vessel, outlet conduit means in the bottom end portion of said circular vessel for removing separated solids therefrom, insulated withdrawal conduit means internally and axially disposed of said vessel terminating in spaced relation to the upper end portion of said circular vessel substantially above the point of junction of said inlet conduit with said circular vessel adapted to the withdrawal of separated gases therefrom, and detachably mounted conduit means extending through the upper end portion of said circular vessel and terminating within said withdrawal conduit means adapted to discharge a quench fluid therein.

2,776,728
CENTRALIZED LUBRICATION FOR HYDRAULICALLY DRIVEN MACHINES
Gerhard Fuchs, Rondorf, near Koln, Germany, assignor to Hilgers Maschinen- und Apparate-Bauanstalt mit beschränkter Haftung, Rodenkirchen, near Koln, Germany, a German company
Application June 8, 1954, Serial No. 435,265
Claims priority, application Germany June 24, 1953
6 Claims. (Cl. 184—6)



1. Centralized lubrication system for hydraulically driven machinery, including a reservoir as the hydraulic source of supply, a fluid system including a supply line, a side line, at least a single closed vessel, fluid ducts, and a discharge system, means to draw fluid from said resrevoir to be supplied to the machinery under pressure through the supply line, flow control means disposed in the supply line, said side line connecting the flow control means and said closed vessel and serving to carry fluid during idle periods to the closed vessel, said fluid ducts branching off from the closed vessel near the top of the vessel and leading to locations of lubrication, a discharge pipe discharging from nearer the bottom of the vessel into the reservoir and forming a part of the discharge system, the resistance offered to the flow of the fluid in the closed vessel and in the discharge system causing part of the side line fluid to flow to the lubrication locations.

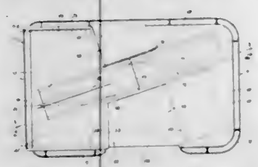
2,776,729
LUBRICATING APPARATUS
John J. Piros, Homewood, Ill., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine
Application November 30, 1953, Serial No. 395,038
1 Claim. (Cl. 184—50)



A lubricating device for steam operated devices which comprises a hollow shell divided into an upper chamber and a lower chamber, an inner cylinder which is open

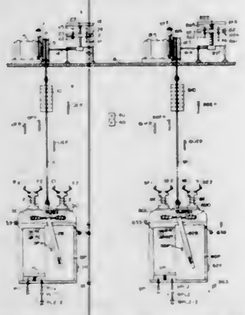
at the top mounted within the lower chamber and forming an annulus between the lower chamber and inner cylinder, check valve means situated in the lower portion of said inner cylinder, means below the check valve means for connecting the inner cylinder to a lubricant source, a restricted orifice within the inner cylinder and spaced above said check valve means, connecting means from the upper chamber into the inner cylinder in the lower chamber, means for introducing steam into the upper chamber, means for introducing steam into the lower portion of the annulus between the lower chamber and the inner cylinder, and means for removing emulsified lubricant from said annulus.

2,776,730
CHECK STAND
Wayland H. Crawford, San Gabriel, Calif., assignor to Modern Village Stores, Inc., a corporation of California
Application May 25, 1953, Serial No. 356,961
3 Claims. (Cl. 186—1)



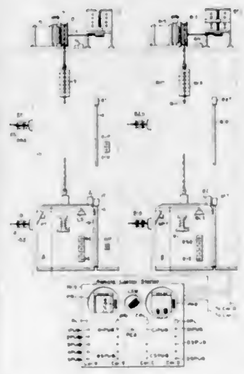
1. In a check stand: a counter having an unloading end, a delivery end, an elongated side extending between said ends along which a customer may walk to exit from a position adjacent said unloading end, and an opposite side also extending between said ends; and a movable conveyor belt means extending to said delivery end from a position adjacent an unloading corner of the stand defined by the intersection of said unloading end and said elongated side, said conveyor means extending in a substantially horizontal plane and at an acute angle with respect to said elongated side, said conveyor means terminating adjacent said delivery end in laterally inwardly-spaced relation to both sides of the stand, the areas of the stand located on opposite sides of the terminal end of the conveyor means constituting sacking stations to which articles that are placed on said conveyor means at said unloading corner and conveyed by said conveyor means can be delivered by said conveyor means.

2,776,731
ELEVATOR SYSTEMS
Henry C. Savino, Hackensack, and Phillip C. Keiper, Shrewsbury, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 31, 1954, Serial No. 419,987
11 Claims. (Cl. 187—29)



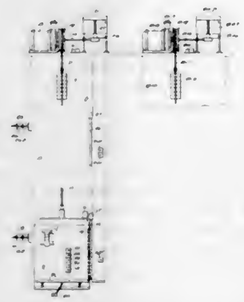
11. In an elevator system, a structure having a pair of terminal landings and a plurality of intermediate landings, a plurality of elevator cars each having a passage through which an object may pass between the exterior and interior of the car, each of the cars having a door and door-operating means for opening and closing the door, means mounting each of the elevator cars for movement relative to the structure to serve the landings, motive means for moving each of the elevator cars, and control means cooperating with the motive means for controlling operation of each of the elevator cars, said control means comprising means for stopping any of the elevator cars at a selected landing and initiating a door-opening operation of the door-operating means of the stopping elevator car to permit load transfer at the selected landing, timing means for each of the elevator cars for measuring a first time interval and a second time interval substantially shorter than the first time interval, door-control means for maintaining open the door of a stopped elevator car for the shorter one of the intervals determined by said timing means for the associated elevator car, dispatching means for selecting the next elevator car to leave the selected floor, transfer means responsive to selection of such next elevator car for conditioning the door-control means of such next elevator car to maintain open the door of such next elevator car for the longer of said intervals, and means responsive to closure of the door of such next elevator car for starting said next elevator car.

2,776,732
ELEVATOR SYSTEMS
William F. Eames, Westfield, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 3, 1954, Serial No. 413,845
27 Claims. (Cl. 187—29)



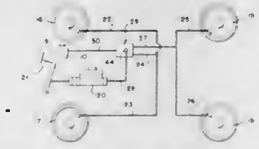
24. An elevator system having a structure provided with floors, a plurality of elevator cars, means mounting the elevator cars for movement relative to the structure to serve said floors, motive means for moving each of the elevator cars relative to the structure, door means for controlling the passage between each of the elevator cars and each of the floors at which the elevator car stops, door operating means for closing the door means associated with each of the elevator cars, and control means operable from within each of the elevator cars in cooperation with the motive means for moving the associated elevator car and stopping such associated elevator car at desired floors of said structure, said control means including car call registering means in each of the elevator cars operable for registering calls for floors desired by passengers within the associated elevator car, means responsive to calls registered by the car call means for stopping each of the elevator cars at each of the floors for which a car call is registered by the associated car call registering means and for operating the door operating means to the door means for each stopping elevator car, means responsive to closure of the door means of a stopped elevator car for starting such elevator car, said control means cooperating with the door operating means to provide a first closure of the door means for each of the elevator cars stopped at a floor after the door means for such stopped elevator car have been opened to permit loading and unloading of the elevator car, in combination with supervisory means comprising a remote control station, communication means for communicating visual information from any of said elevator cars and the remote control station, said communication means including means for transmitting voice information from the remote control station to any of the elevator cars, and means manually operable from the remote control station for independently increasing the speed of closure of the door means associated with any of the elevator cars.

2,776,733
ELEVATOR SYSTEMS
John J. Drexler, Louisville, Ky., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 2, 1955, Serial No. 512,740
7 Claims. (Cl. 187—29)



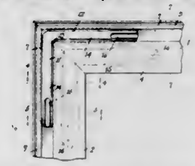
7. In an elevator system, a structure having a plurality of floors including two terminal floors and a plurality of intermediate floors located between the terminal floors, an elevator car, means mounting the elevator car for movement relative to the structure for serving the floors, passenger detector means having a first condition when no passenger is in the elevator car, said detector means having a second condition as long as a passenger is within the elevator car, and control means for controlling the elevator car to move relative to the structure and to stop at preselected floors, said control means comprising first call means for each of the intermediate floors, said call means being operable from each of the intermediate floors for registering a call for such floor, second call means operable from within the elevator car for registering calls for each of the intermediate floors desired by passengers within the elevator car, stopping means effective for stopping the elevator car at each of the intermediate floors approached by the elevator car for which a call is registered by the call means which may be answered by the approaching elevator car without change in direction of travel, and modifying means effective while the elevator car is at one of the terminal floors and while the elevator car is displaced from the terminal floors provided that the passenger detector means is in the first condition for rendering the second call means ineffective for retaining a registered call, said modifying means while the passenger detector means is in the second condition being ineffective for modifying operation of the second call means.

2,776,734
HYDRAULIC BRAKE SYSTEM
Norman Henry Hackett, Bondi, near Sydney, Australia
Application January 24, 1952, Serial No. 267,991
4 Claims. (Cl. 188—152)



1. In a motor vehicle having front and rear wheels, a hydraulic braking system comprising a brake cylinder associated with each of said wheels, a master cylinder, a brake pedal for operating said master cylinder, and a pair of emergency cylinders in a single housing, pipes communicating between said master cylinder and said emergency cylinders through a port in said housing opening into both of said emergency cylinders, and also communicating between said emergency cylinders and the brake cylinders of said front and rear wheels respectively, pistons within said emergency cylinders, said pistons under normal braking operation being positioned so as not to interfere with the flow of brake fluid from said master cylinder to said brake cylinders through said port and emergency cylinders, a normally sealed source of gas under pressure, and means responsive to movement of said brake pedal beyond the normal travel thereof in effecting operation of the brakes by the master cylinder for releasing gas under pressure from said source to operate said pistons, said gas moving said pistons to cover said port and to force fluid from said emergency cylinders through said pipes to said brake cylinders.

2,776,735
WINDOW FRAME CONSTRUCTION
Joseph C. Bancroft, Jamestown, N. Y.
Application September 18, 1953, Serial No. 381,006
3 Claims. (Cl. 189—36)



1. In a window frame construction, a pair of frame members having bevelled ends placed together to bring the frame members at right angles to form a corner of a window frame, each of the frame members being roughly Z-shaped in cross section and having spaced, parallel inner and outer flanges connected by an integral web, each of the flanges having an undercut groove formed in its inside face, the grooves opening toward one another, a connection member in the form of a metal angle strip having legs extended into the grooves, said legs being of a width greater than the width of the grooves and each of the legs being transversely arched to reduce the width of the legs to provide a tight fit when placed in the grooves and subsequently reversely arched for a portion of their lengths to thereby expand them in the grooves without distortion of the walls of the grooves.

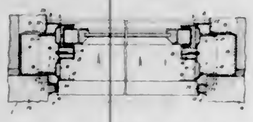
2,776,736
STORM DOOR
Samuel R. Aaron, Boston, Mass.
Application November 25, 1953, Serial No. 394,370
3 Claims. (Cl. 189—46)

2. A storm door adapted to fit on the outer side of a door frame comprising rectangularly shaped extruded hol-

low members forming the sides of the door, said rectangular extruded members having flanges on the plane of the outer surface of the door and extending inwardly from the sides of the door, recesses formed in the extruded

members immediately adjacent the bases of the flanges, said recesses and flanges supporting a pane of glass between the sides and flanges extending outwardly from the top and one side of the door in the plane of the outer surface of the door.

2,776,737
WINDOW FRAME PROVIDED WITH CAULKING GROOVE
Henry J. Bianco, Baltimore, Md., assignor to The Burch Company, Baltimore, Md., a corporation of Maryland
Application June 30, 1953, Serial No. 364,985
7 Claims. (Cl. 189—75)

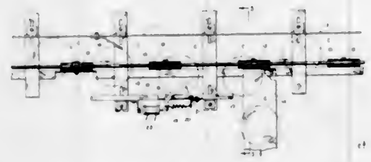


1. A frame, comprising: a pair of laterally spaced side frame members arranged in confronting relation; a top member and a bottom member disposed at the opposite ends of said side members; and means projecting outwardly from each of said side frame members in opposite directions, said means extending longitudinally along the outer face of each of said side frame members, and said means being spaced inwardly from one corresponding edge of their respective associated side frame member and having a ridge adapted to serve as an abutment for aiding in positioning building construction elements in substantially uniformly spaced relation to the outer face of said side frame members, said ridges ing co-operable with said construction elements to provide an outwardly opening groove of substantially uniform width along each of said side frame members adapted to receive a caulking compound.

2,776,738
COLLAPSIBLE-ARM AND LOCKING MECHANISM FOR SHORTHAND TYPEWRITERS AND LIKE MACHINES
Jean Segui, Vincennes, France, assignor to Societe Anonyme dite: Stenotype Grandjean, Paris, France
Application December 16, 1953, Serial No. 398,606
Claims priority, application France August 3, 1953
4 Claims. (Cl. 197—9)

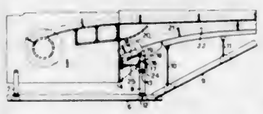
1. A shorthand typewriter having a frame structure and an outer casing, comprising a movable assembly adapted to slide on said frame structure from an inoperative position to an operative position and vice-versa, said movable assembly comprising a pair of pivotally mounted arms carrying at their free ends spindles adapted to receive in their operative positions a paper-tape winding spool and a paper-tape unwinding spool, respectively, and means fixing said arms in their operative positions, in which they project from said outer casing, when said assembly is slid to said operative position, said means being also adapted to cause said movable assembly to collapse to its inoperative position so that none of the components of said movable assembly will project from the volume bounded by said outer casing.

2,776,739
DIVERTING MEANS FOR CONVEYOR SYSTEM
Martin J. Wilcox, Portland, Oreg.
Application January 25, 1955, Serial No. 483,877
4 Claims. (Cl. 198—31)



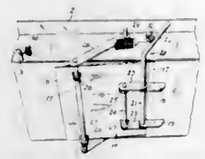
1. In combination with a conveyor assembly for conveying metal objects susceptible to attraction by a magnet, a slide leading off from one side along said conveyor assembly, a stationary magnetic element located above said side of said conveyor assembly adjacent said slide, said magnetic element being capable of exerting sufficient attraction, when contacted by one of said objects on said conveyor assembly, to halt the forward movement of said object, and means selectively operable for producing physical contact between said magnetic element and a desired object moving along on said conveyor assembly as the object approaches said slide, whereby a desired object can be diverted from said conveyor assembly and onto said slide through the instrumentality of said means and said magnetic element.

2,776,740
CONVEYOR DISCHARGE MECHANISM
Antonius F. M. Claessen, Heerlen, Netherlands, assignor to Stamicarbon N. V., Heerlen, Netherlands
Application February 15, 1955, Serial No. 488,236
Claims priority, application Netherlands February 17, 1954
6 Claims. (Cl. 198—106)



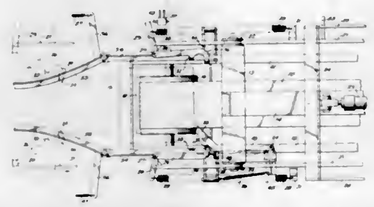
1. In a conveyor having a frame and endless scraper conveying means for conveying loose material to an end of the conveyor where the material is discharged; a plate arranged to extend beneath an end length of the return flight of the conveying means and over the entire width of the conveyor so as to catch conveyed material which may fall from the conveying means at the commencement of travel along the return flights, having failed to leave the conveyor at the discharge point; means for supporting said plate beneath said conveyor for fore and aft movement; said supporting means including a shaft journaled in the conveyor frame and a pair of spaced bars extending downwardly from said shaft and having their lower ends hinged to said plate; a second pair of spaced bars extending upwardly from said shaft between said first mentioned pair of bars, a lever pivoted intermediate its ends between the upper ends of said second pair of bars; the upper end of said lever being disposed in the return flight path of travel of the scrapers of the conveying means; a stop plate on the lower end of said lever for engagement with said second pair of bars; movement of the scrapers of the conveying means in one direction causing said lever to repeatedly pivot in one direction whereby said stop plate engages said second pair of bars to move the latter and hence the plate therewith; movement of the scrapers of the conveying means in the opposite direction causing said lever to repeatedly pivot in the opposite direction whereby said stop plate moves away from said second pair of bars permitting the latter and hence the plate to remain stationary; and spring means for rapidly returning said lever into the position wherein the upper end thereof is disposed into the path of travel of the scrapers.

2,776,741
DISCHARGE GATE
Robert M. Carrier, Jr., Louisville, Ky., assignor to Carrier Conveyor Corporation, Louisville, Ky., a corporation
Application November 18, 1953, Serial No. 392,932
6 Claims. (Cl. 198—220)



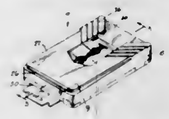
1. In combination, a conveyor trough having an opening in the bottom thereof, a plate spanning such opening, and a pair of links pivotally connected to spaced-apart points under said plate and to spaced-apart points on the outside of said trough for swinging downwardly of one link and the corresponding end of said plate and for swinging upwardly of the other link and the corresponding end of said plate through such opening to thus tilt said plate for discharge of material conveyed by said trough through such opening.

2,776,742
BOX FEEDER
Earl W. Langenberg, Peoria, Ill.
Application March 5, 1956, Serial No. 569,473
7 Claims. (Cl. 198—221)



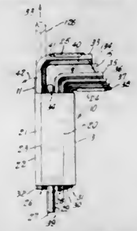
1. A box feeder comprising a horizontally reciprocable carriage, arms pivoted on opposite sides of the carriage on vertical axes, means yieldably urging the free ends of the arms inwardly to engage a box, spaced box-engaging parts at the free end of each arm, one to engage the back of the box and one to engage the adjacent side of the box whereby on advancing of the carriage the box will be centered by the arms and advanced with the carriage, and means operable during return of the carriage to move the free ends of the arms outward.

2,776,743
BLADE DISPENSERS
Herman George Treiss, Riverdale, N. Y., assignor to American Safety Razor Corporation, Brooklyn, N. Y., a corporation of Virginia
Application August 28, 1951, Serial No. 243,987
2 Claims. (Cl. 206—16)



2. A blade dispenser comprising an elongated enclosure having an exit slot at one end and a recess opening at the top wall located rearwardly of said exit slot through which a finger may engage the topmost blade to advance it, and a platform to the rear of the opening presenting a top surface which is leveled to the top of the slot, an enclosed stack of double-edged blades underlying said opening, said platform having a front wall whose depth is at least equal to the depth of the blade stack, said front wall including means cooperating with portions of the blades to locate the rear end of the stack with reference to the opening through the top.

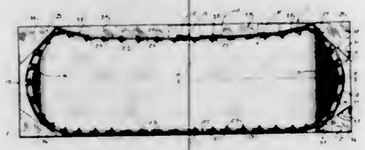
2,776,744
HOLDER FOR A CONVENTIONAL SET OF L-SHAPED WRENCHES
George W. D. Cook, Atlanta, Ga.
Application May 18, 1954, Serial No. 430,512
2 Claims. (Cl. 206—16)



1. A holder for and a set of graduated Allen wrenches comprising, in combination, an L-shaped substantially flat base plate having front and back faces and an elongated portion and a second portion extending laterally to one side from and substantially normal to said elongated portion with both portions disposed in a common flat plane, resilient clip means on said elongated base portion spaced outwardly from the front face thereof and providing therebetween a laterally-tapered space snugly receiving and clasping the longer ends of said set of wrenches racked therein in graduated order, and clasping means on opposed marginal edges of said second base portion parallel with and engaging only the outer sides of the shorter ends of the smallest and largest of said wrenches on the opposite sides of the racked set with the remainder of the set snugly held therebetween by frictional interengagement while permitting any one of the latter intermediate shorter wrench ends to be force rotated to a normal extending position relative to the general plane of the racked set to provide an intermediate space to which an adjacent wrench shorter end may be slid to free a wrench shorter end from one of said marginal clasping means for removal of wrenches from the holder, said wrenches having their longer and shorter ends seating on the faces of said portions of said base means and arranged together in a general common flat plane, said resilient clip means being connected to the inside marginal edge of the elongated portion of said L-shaped base plate and lapped back over the latter toward the outside edge of this elongated portion to provide

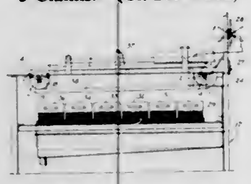
the intervening laterally-tapered space, the outside edges of said elongated portion and said clip means being turned inwardly toward each other but being appreciably spaced to provide a relatively wide longitudinal slot along the outer side of the tapered space through which the juxtaposed longer end of the larger wrench may be levered.

2,776,745
PACKAGING FOR WRAP-AROUND WINDSHIELDS
Lloyd D. Van Antwerpen, Milwaukee, Wis.
Application July 8, 1954, Serial No. 441,991
3 Claims. (Cl. 206—62)



1. A packaging and cushioning strip for wrap-around windshields comprising a base ply, an intermediate ply secured to the base ply and having equidistantly spaced transversely extending projections, and an inner ply secured to the intermediate ply having equidistantly spaced transversely extending projections receiving the first mentioned projections, said last mentioned projections having a row of serpentine notches for receiving the peripheral edge of the windshield, said notches gradually increasing in width at predetermined points to form seats for the curved end wings of the windshield.

2,776,746
SHRIMP GRADER
Karl C. Envoldsen, Lakewood, Ohio
Application October 6, 1951, Serial No. 250,135
5 Claims. (Cl. 209—102)



1. A sorting machine comprising at least two belts gradually diverging from a narrow to wide end supported in the same plane by pulley wheels at the ends thereof, a discharge trough over the narrow end of said belts, said belts being of rubberlike material generally A-shaped in cross-section with rounded outer contour and a longitudinally grooved inner contour, said pulley wheels having circumferential ridges thereon which are received by the longitudinal grooves in the belt, longitudinally diverging guide rods mounted immediately beneath the upper portion of said belts so that the grooves in the belts fit over said guide rods and the belts are guided thereby, said guide rods being relieved at regular intervals to present a minimum amount of surface contact with the belt, and means to drive said pulleys.

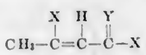
2,776,747
COLOR SORTING MACHINE
Dirk Van Douwe, Rotterdam, Netherlands, assignor to N. V. Maatschappij-Koffiepellerij Blaauwhoedenveem, Rotterdam, Netherlands, a company of the Netherlands
Application April 20, 1953, Serial No. 349,840
Claims priority, application Netherlands April 19, 1952
7 Claims. (Cl. 209—111)

1. In a color comparison sorting machine, the combination of a V-shaped endless conveyor belt, a vibrating trough for feeding the objects to said belt, a viewing chamber comprising means for illuminating each object when it reaches a viewing point in said chamber, photoelectric means positioned to respond to the light reflected by the object and electropneumatic means controlled by

the response of said photo-electric means and positioned to deflect the fall of said object or not as required, and a bent down fall-pipe for the objects between said conveyor belt and said viewing chamber discharging into said viewing chamber.

2,776,748
BETA ALKOXY CROTONIC ACID ESTERS IN FROTH FLOTATION PROCESSES
Roger F. Powell, Gwelo, Southern Rhodesia, and Eric F. Martin, Germiston, Transvaal, Union of South Africa; said Powell assignor to National Chemical Products Limited, Germiston, Transvaal, Union of South Africa
No Drawing. Original application June 13, 1950, Serial No. 167,912, now Patent No. 2,687,214, dated August 24, 1954. Divided and this application August 2, 1954, Serial No. 447,442
Claims priority, application Great Britain June 14, 1949
2 Claims. (Cl. 209—166)

1. A method for concentrating minerals by flotation, comprising adding to the mineral pulp a small quantity of a beta alkoxy substituted crotonic acid ester, having the formula



where X is alkoxy selected from the group consisting of methoxy, ethoxy, isopropoxy, methoxy-ethoxy and ethoxy-ethoxy and Y is doubled bonded oxygen, the alkoxy groups being connected to carbon by a C—O—C ether linkage, and thereafter subjecting the resulting mixture to a flotation operation.

2,776,749
ALKOXY BENZENE IN FROTH FLOTATION PROCESS
Roger F. Powell, Gwelo, Southern Rhodesia, and Eric F. Martin, Germiston, Transvaal, Union of South Africa, assignors, by direct and mesne assignments, to National Chemical Products Limited, Germiston, Transvaal, Union of South Africa
No Drawing. Application August 2, 1954, Serial No. 447,441
Claims priority, application Great Britain June 14, 1949
8 Claims. (Cl. 209—166)

1. A method for concentrating minerals by flotation comprising adding to the mineral pulp a small quantity of a polyalkoxy substituted benzene as a frother, the alkoxy groups being connected to the benzene nucleus by a C—O—C ether linkage and alkoxy being selected from the group consisting of methoxy, ethoxy, normal propoxy, isopropoxy, methoxy-ethoxy and ethoxy-ethoxy and thereafter subjecting the resulting mixture to a flotation operation.

2,776,750
FROTH FLOTATION CONCENTRATION OF POTASH ORES CONTAINING SYLVITE
William Aubrey Smith, Carlsbad, N. Mex., and Vernon L. Mattson and Gene Meyer, Lakewood, Colo., assignors to The American Metal Company, Limited, a corporation of New York
No Drawing. Application May 20, 1952, Serial No. 288,962
3 Claims. (Cl. 209—166)

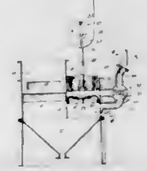
1. The improvement in the recovery of sylvite from potash ores which comprises subjecting a potash ore containing sylvite, and previously reduced to a degree of sub-division within the particle size limits for a froth flotation concentration, to a sizing treatment to provide at least two fractions, one composed principally of the finer particles of said ore and the other composed of coarser particles of said ore, pulping said fractions separately with a saturated aqueous solution of the soluble ore constituents, separately conditioning said fractions for froth flotation concentration by adding to the finer fraction a cationic collecting agent of relatively low molecular weight and adding to the coarser fraction a cationic collecting agent of relatively high molecular weight, agitating the pulp to effect thorough distribution of the collecting agent added to each fraction, and thereafter subjecting the conditioned pulp to froth flotation concentration.

2,776,751
SHAKING SCREENS
Herbert Bock, Dortmund, Germany, assignor to SKB Schuechtermann & Kremer-Baum Aktiengesellschaft fuer Aufbereitung, Dortmund, Germany, a corporation of Germany
Application July 15, 1952, Serial No. 298,906
11 Claims. (Cl. 209—365)

1. In a shaking screen having a screen frame supported on inclined throw pendulums for inclined up and down motion, the improvement which comprises a pair of crank shafts mounted parallel to said throw pendulums and to each other, a connecting rod connecting each said crank shaft to said screen frame through a pivot joint, at least one balancing mass eccentrically connected for rotation with each said crank shaft with its center of gravity being positioned on the side of said crank shaft opposite the side on which said connecting rod is connected, said balancing masses being dimensioned to jointly counterbalance the inertia forces of the screen frame in the direction of said connecting rod, and means for rotating said crank shafts in opposite directions.

2,776,752
JIGGING APPARATUS
Edmond Harvengt, Moustier-sur-Sambre, Belgium, assignor to Link-Belt Company, Chicago, Ill., a corporation of Illinois
Application January 22, 1953, Serial No. 332,637
21 Claims. (Cl. 209—455)

7. A washer box, jig, or like apparatus, comprising a box, a piston housing arranged with its axis substantially vertical, a piston reciprocating in the piston housing, means including a rotatable shaft for reciprocating said piston, a screen in the box for supporting materials to be treated, the housing above the piston acting as a chamber for liquid, means for supplying liquid from an external source to said chamber, means for controlling the flow of liquid from said external source into said chamber and from said chamber into the portion of the box located below the screen, said liquid control means comprising a valve housing, a liquid inlet for the valve housing connected to the liquid supply means, a liquid outlet for the valve housing connected to said chamber, a liquid outlet for the valve housing connected to the box, a single actuatable valve member in the valve housing for



alternately connecting said liquid inlet with the liquid outlet to said chamber and the liquid outlet for said chamber with the liquid outlet to the box, and mechanism operatively connected with the reciprocating means for the piston of the box for actuating said valve, said mechanism comprising a rotatable shaft operatively connected to the valve member, and a drive connection between the rotatable shaft of the piston reciprocating means and the shaft for the valve member.

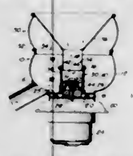
2,776,753
STABILIZED DISCHARGER SHOE FOR CENTRIFUGAL MACHINES
Joseph Hertrich, deceased, late of Hamilton, Ohio, by Elise Hertrich, executrix, Hamilton, Ohio, assignor to The Western States Machine Company, Hamilton, Ohio, a corporation of Utah
Application August 5, 1954, Serial No. 448,038
10 Claims. (Cl. 210—70)

2. A stabilized discharger shoe assembly for discharging material from a centrifugal basket suspended from a gyratory spindle structure; said discharger shoe assembly comprising a discharger shoe movable vertically for travel along the basket wall and turnable about a fixed axis for moving the shoe tip toward and away from the basket wall at a side of the spindle structure, said shoe having an extension thereon in the form of a yoke extending horizontally inwardly from said shoe across the side of the spindle structure away from said axis in an arc substantially concentric with said axis and stop means on an end portion of said yoke engageable with a part of said spindle structure at a side thereof facing away from the direction of movement of said shoe toward the basket wall to stop such movement at a predetermined position of said tip relative to the basket wall.

2,776,754
CENTRIFUGAL FILTER
George W. Shadwick, Crete, Ill., assignor to Beatrice Foods Co., Chicago, Ill., a corporation of Delaware
Application March 26, 1954, Serial No. 418,869
2 Claims. (Cl. 210—72)

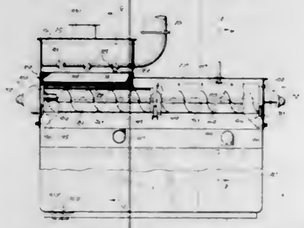
1. A centrifugal filter comprising a bowl having an opening in its top portion and a discharge outlet in its bottom portion, a vertical shaft disposed in the central

portion of said bowl, means for rotating said shaft, a filter basket mounted on said shaft including a vertical screen concentric with said shaft, a filter bag detachably



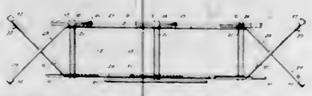
secured at its upper end to the upper end of said screen, and means mounted on said shaft for securing the lower end of said filter bag to said basket and said basket to said shaft.

2,776,755
APPARATUS FOR STRAINING LIQUIDS
Francis A. Craig, Snyder, N. Y., assignor to The Wittemann Company, Incorporated, Buffalo, N. Y.
Application February 14, 1951, Serial No. 210,866
9 Claims. (Cl. 210—150.8)



8. In an apparatus for straining a material from a liquid, the combination of an inclined perforate substantially flat straining element, a conduit for discharging the liquid to be strained to the upper portion of said straining element, at least three discharge spouts arranged in a row mounted in said conduit, each of said spouts having a large orifice to permit discharge of a solid stream of liquid on to said straining element, only one of the end spouts of said row of spouts being mounted to discharge a stream of liquid down said straining element in a direction substantially straight from the upper portion of said straining element to the lower portion thereof, and all of the other spouts being mounted to discharge a stream of liquid angularly down said strainer element and in the direction of the flow of liquid coming from the said only one of said end spouts, so that the material to be strained is evenly distributed at the bottom edge portion of said straining element and channeling and piling of the material is prevented.

2,776,756
SERVING RACK FOR BEVERAGE TUMBLERS
Harry T. Allan, Manhattan Beach, Calif., assignor of one-half to Reldon G. Pinney, Gardena, Calif.
Application August 15, 1955, Serial No. 528,290
8 Claims. (Cl. 211—74)



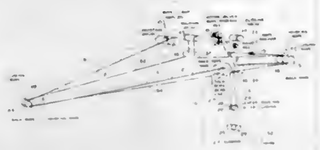
1. A refreshment serving rack and tumblers carried thereby including in combination a pair of elongated side frames, members extending between and connecting the opposite corner portions of said side frames to form with said side frames an open rectangular framework, said members providing handles at the opposite ends of said framework, a plurality of tumbler supports extending transversely of said open framework and pivotally mounted adjacent the upper longitudinal edges of said side frames to be rotatable about parallel pivot axes, a plurality of tumblers of predetermined length, at least one of said tumblers removably held by each of said tumbler supports at a point intermediate its length with the center of gravity of such tumbler disposed below the rotation axis of the support in which it is held whereby the tumblers seek upright positions gravitationally irrespective of the position of inclination of the longitudinal axis of said rack, the parallel pivot axes of said tumbler supports being spaced from one another at a distance greater than the length of the tumblers to permit the tumblers to swing and remain upright upon inverting said framework without tumblers held by adjacent supports obtructing free swinging movement, each of said handles being spaced from the nearest tumbler support pivot axis to permit free swinging movement of the tumbler held by the nearest support when a handle is grasped in carrying the rack, additional connecting means extending between said side frames beneath said tumblers providing imperforate coaster means in the normal horizontal position of said rack, said coaster means being of an area greater than the mouths of the tumblers and being located at a distance beneath the uppermost extremity of said framework less than said predetermined length of said tumblers whereby with said rack inverted and said tumblers brought to rest on a horizontal surface, said coaster means will firmly engage with and cover said tumblers to preclude foreign matter from entering the tumblers.

2,776,757
DISPLAY STAND FOR CASH REGISTER
Harry R. Schoenlaub, Cincinnati, Ohio, assignor to Brunhoff Manufacturing Company, Cincinnati, Ohio, a corporation of Ohio
Application December 9, 1954, Serial No. 474,179
2 Claims. (Cl. 211—86)

1. A display stand for a cash register comprising a generally rectangular base plate adapted to underlie a corner edge of a cash register, a pair of inverted channel-shaped members projecting outwardly from adjacent side edges of said base plate, a pair of tubular lower supporting post members having angularly related feet received in said channel members and secured thereto, a pair of upper tubular supporting post members telescopically received by said lower supporting post members, said telescoping members being axially adjustable and secured in predetermined fixed position by means of set-screws, said upper supporting post members terminating upwardly in horizontally disposed leg members, a merchandise tray supported by said supporting posts by pairs of aligned bracket members on the under surface of said tray receiving the leg portions of said upper supporting posts.

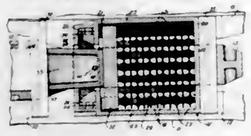
2,776,758
CONTINUOUS ROPE UNLOADING SYSTEM
Frederick O. Snow, Jr., Maplewood, N. J., assignor to McKiernan-Terry Corporation, Harrison, N. J., a corporation of New Jersey
Application August 22, 1955, Serial No. 529,879
10 Claims. (Cl. 212—81)

8. Continuous rope unloading system comprising the combination of grab bucket, closing machine, releasable rope anchor, rope storage supply, hoisting drum, reeving sheave and a single rope extending continuously from said storage supply through said releasable rope anchor and through the grab bucket as a hoisting rope about said reeving sheave and hoisting drum and extending as a clos-



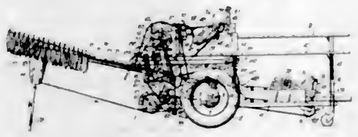
ing rope from said hoisting drum through the grab bucket to said closing drum and whereby on release of the rope anchor fresh rope from said supply may be fed into the hoisting rope end of the system to compensate for worn rope taken out of the opposite end of the system at the closing machine.

2,776,759
RUBBER DRAFT GEAR
David S. Campbell, Glen Ellyn, Ill., assignor to Cardwell Westinghouse Company, a corporation of Delaware
Application May 4, 1953, Serial No. 352,751
10 Claims. (Cl. 213—34)



1. In a draft gear, a housing including a bottom, a rear wall, spaced side walls, and a hollow front wall having an intermediate opening through it and friction shoe pockets at each side of the intermediate opening, a cushioning element of the rubber spring type in said housing, a follower between the front wall and the cushioning element, a thrust wedge having one end bearing against the follower and extending through the intermediate opening in the front wall, friction shoes in said friction shoe pockets cooperating with said thrust wedge, and spring means urging the friction shoes against said thrust wedge.

2,776,760
TOBACCO STRINGING MACHINE
Luther J. Covington, Halifax, Va.
Application March 5, 1954, Serial No. 414,426
19 Claims. (Cl. 214—5.5)



1. In a machine for stringing tobacco leaves upon sticks preparatory to hanging in a barn for curing, a frame, leaf-feeding conveyors arranged side by side in a common plane and extending longitudinally of the frame, said conveyors being spaced apart to form a longitudinal slot between them, whereby leaves may be placed upon the conveyors with their stems in opposite and overlapping relation and bridging said slot, a string-looping needle positioned below said conveyors and mounted for movement through said slot to loop string around groups of leaves, a knotter to tie the looped string positioned above said conveyors, a stick supply, a stick conveyor beneath said leaf-feeding conveyors extending longitudinally of the machine in the vertical plane of said longitudinal slot, and means to drive said leaf-feeding conveyors and said stick conveyor to advance sticks from said supply to positions beneath the ends of said leaf-feeding conveyors and to transport leaves to said looping needle and knotter and deposit tied bundles of leaves upon said sticks.

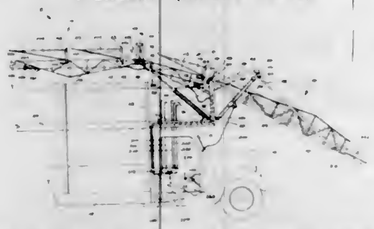
2,776,761
BOAT TRAILER AND LOADING DEVICE THEREFOR
Charles D. Lovelace, Bandera, Tex.
Application September 13, 1954, Serial No. 455,674
2 Claims. (Cl. 214—75)

1. In a boat trailer, a frame embodying spaced side bars, front and rear cross bars connecting the front and rear ends respectively of said side bars, a tubular member having one of its ends secured to the rear cross bar, an extensible boom slidably mounted in said tubular member extensible to a position beyond the end of said tubular member, a supporting member rising from one end of said boom, said supporting member having a bifurcated upper end in which the bow of a boat rests, holding said boat against lateral movement with respect to the boom, and means for lashing the boat positioned on the trailer to said trailer.

2,776,762
VEHICLE UNLOADING APPARATUS
Hartzell H. Schmidgall, Morning Sun, Iowa
Application April 28, 1955, Serial No. 504,402
12 Claims. (Cl. 214—77)

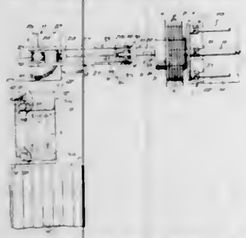
1. Apparatus for gravitationally unloading objects from the edge of a platform or the like, comprising: support structure adjacent to the platform and including a horizontal pivot spaced below the platform edge and a generally upright guide element extending from the pivot into proximity to the platform edge; arm means mounted on the pivot for descent from a generally upright receiving position to a substantially horizontal discharge position, said arm means in its receiving position having its free end spaced from the edge of the platform to be engaged and moved outwardly and downwardly by an object moving over said edge, said arm means in descending forming with the guide element an ever-widening V into which the object gravitates to create a wedging action so that the object follows the guide element and thereby travels substantially a straight-line path for forcing the arm means toward its discharge position; and means connected to the arm means and operating to retard the descent of the arm means and object.

2,776,763
VEHICLE MOUNTED HYDRAULIC BALE LOADER
Norbert H. Meyer and Ormand F. Meyer, West Point, Nebr., assignors of one-fifth to Marlon B. Meyer and one-fifth to Ewald I. Meyer, both of West Point, Nebr., and two-fifths to said Norbert H. Meyer, and one-fifth to said Ormand F. Meyer
Application February 1, 1954, Serial No. 407,242
7 Claims. (Cl. 214—83.26)



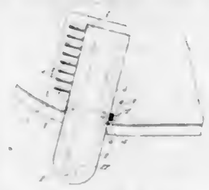
1. A hay bale conveying attachment comprising a sectional conveyor including an inclined section, a distributing section, and an intermediate section positioned between the distributing section and the inclined section, means pivotally mounting the trailing end of the inclined section and leading end of the intermediate section on a vehicle, triangles of levers on the sides of the conveyor pivotally connecting the intermediate section to the distributing section, hydraulic cylinders pivotally connected to lower forward corners of the triangles of levers for adjusting the positions of the conveyor sections, hydraulic jacks in the triangles of levers for additionally adjusting the position of the distributing section of the conveyor in relation to the intermediate section, bale pick up means on the extended end of the inclined section, bale removing means on the distributing section, and operating means for adjusting the inclined section of the conveyor and for actuating the conveyor.

2,776,764
APPARATUS FOR HANDLING COIL STRIP MATERIAL
Herbert Palmleaf, Melrose Park, Ill., assignor to A. J. Gerrard & Company, Melrose Park, Ill., a corporation of Illinois
Application September 21, 1953, Serial No. 381,327
17 Claims. (Cl. 214—89)



1. In a coil transporting mechanism, the combination of a fixed base structure having a vertical bore therein, an elongated arm having a pivot member adjacent one end positioned in said bore whereby said arm is pivotally carried by said base structure for movement in a horizontal plane, a material supporting member carried by said arm adjacent the other end thereof, said member being pivotally mounted on a horizontal axis extending at right angles to the longitudinal axis of said arm, said member being pivotally movable into a position adjacent the end of said arm for supporting a coil with the coil axis extending horizontally, or into a position above said arm for supporting such a coil with its axis extending vertically, a fixed gear sector mounted on said base structure in coaxial arrangement with respect to the pivotal axis of said arm, a worm wheel sector rigidly carried by said material supporting member in coaxial arrangement with respect to the pivotal axis thereof, a longitudinally extending rotatable shaft, carried by said arm, having a pinion mounted thereon engageable with said fixed gear sector, and a worm gear carried by said shaft engageable with said worm wheel sector, said gearing being operable, upon movement of said arm relative to said base structure, to reciprocate said coil supporting member from one to the other of its positions by a predetermined travel of said arm relative to the base structure.

2,776,765
APPARATUS FOR REMOVING TRASH FROM BEATERS, PULPERS AND THE LIKE
Edwin Cowles, Cayuga, N. Y., assignor, by mesne assignments, to John W. Bolton & Sons, Inc., Lawrence, Mass., a corporation of Massachusetts
Application March 19, 1954, Serial No. 417,415
2 Claims. (Cl. 214—95)

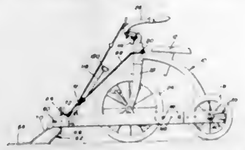


1. Apparatus for removing trash from paper stock defibering machines which comprises a lift mechanism, a fork pivotally mounted on said lift mechanism, said fork comprising a series of tines having their upper ends mounted in a horizontal rod which is journalled on said lift mechanism, an arm mounted on said rod and thereby pivotally mounted on said lift mechanism and rigidly connected to said fork, a latch engaging said arm to lock said arm, rod and fork in fixed position with respect to said lift mechanism, and a latch releasing member pivotally mounted on said arm.

2,776,766
TRENCH DIGGER
Jerry G. Sanderson, Elliston, Mont., assignor of one-half to Floyd C. Frey, Elliston, Mont.
Application March 10, 1954, Serial No. 415,366
4 Claims. (Cl. 214—138)

1. A trench digger boom mechanism comprising, a forwardly extending boom capable of being raised, lowered and moved from side to side, a bucket arm pivotally secured adjacent the outer end of said boom and having a lower extension swingable outwardly and inwardly with respect to said boom, a digging bucket pivotally secured to the lower end of said extension, said bucket being provided with a bottom member having a heel portion at the rear with respect to the direction of travel during digging movement thereof and a tooth portion at the fore, an arm actuating link for pivotally swinging said bucket arm forwardly and rearwardly, a boom plunger mounted for reciprocation longitudinally of said boom, an arm plunger mounted for reciprocation longitudinally of said bucket arm, a plunger connecting rod pivotally interconnecting said boom plunger and said arm plunger, a pivotal interconnecting link between said arm plunger and said bucket at a point to one side of the pivotal connection of said bucket arm with the bucket, and power means for simultaneously reciprocating said arm actuating link and said boom plunger whereby to swing said bucket forwardly and rearwardly with the locus of said teeth during said swing underlying in spaced clearance the locus of the heel of the bucket bottom.

2,776,767
DOZER AND LOADING ATTACHMENT FOR TRICYCLES
Verne H. Stover, Postville, Iowa
Application January 28, 1954, Serial No. 406,820
2 Claims. (Cl. 214—140)



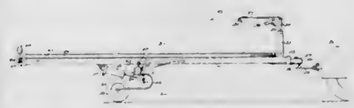
1. An attachment for tricycles having a pair of rear spaced, axle supporting wheels and a dirigible front wheel connected to handle bar mechanism, said attachment comprising a pair of elongated frame members pivotally receivable at their respective rearward ends on said axle of the rear wheels and extending forwardly thereof beyond said dirigible wheel, a material engaging member carried at the forward ends of said frame members, and means accessible to an operator of the tricycle for raising and lowering said material engaging member, said means comprising a pulley operatively connected to said frame members, a flexible element secured at one end to the tricycle extending therefrom around said pulley to a point of selective attachment to said handle bar mechanism.

2,776,768
TRACTOR MOUNTED TONG LOADER
Marvin J. Carlson, Grays Lake, Ill., assignor to Tractomotive Corporation, Deerfield, Ill., a corporation of Illinois
Application March 8, 1954, Serial No. 414,584
4 Claims. (Cl. 214—147)

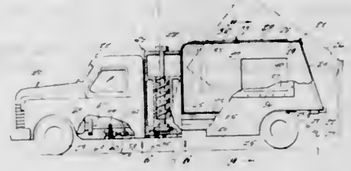
1. A tractor mounted tong loader comprising a carrying frame, means to mount the frame on a tractor for bodily swinging in a vertical plane and for turning about a horizontal axis transverse to the tractor and motor means to elevate the frame and motor means connected to the mounting means to turn the frame relative to the mounting means and the tractor about the horizontal axis, a pair of curved tong arms pivotally connected to each other and to the frame on a common axis transverse to the tractor and both freely pivotal relative to the frame, and a motor directly interconnecting the tong arms to move them toward each other to grip an object.

2,776,769
SELF-LOADING BOAT TRAILER
Almous G. McDonald, Kingsville, Tex.
Application March 2, 1955, Serial No. 491,730
3 Claims. (Cl. 214—505)

1. A boat trailer comprising a pair of spaced parallel hollow tubes adapted to hold an expansible material, a cap detachably mounted on an end of each of said tubes, braces depending from said tubes, a pair of aligned casings arranged below said tubes and secured to said braces, a rod extending through said casings, spring brackets secured to said rod, axles supported by said spring brackets, wheels mounted on said axles, a cylinder positioned between said pair of tubes, a piston reciprocably mounted in said cylinder, a rod extending forwardly from said cylinder and secured to said piston, a first pulley mounted on the front of said rod, a cable trained over said pulley and having one end secured adjacent the front of said tubes, a crosspiece extending between the front ends of said tubes and secured thereto, a vertically disposed post extending upwardly from said crosspiece, a second pulley journaled in the lower portion of said post, an arm adjustably mounted in said post, a third pulley journaled in said arm, said cable being trained over said second and third pulleys and having a hook on an end thereof for engagement with a boat, a platform mounted above said tubes and including vertically disposed spaced parallel guide ribs for receiving therebetween the keel of a boat, a tank secured to one of said casings for holding a quantity of fluid, and conduit means connecting said tank to said tubes and cylinder, valve means for controlling the flow of material through said conduit means, a cross member extending between the rear ends of said tubes and secured thereto, a bracket on each end of said cross member, vertically disposed rods adjustably connected to said brackets, and bearing members secured to the upper ends of said rods for engagement with the bottom of the boat being handled.

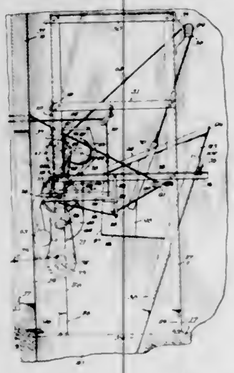


2,776,770
BALANCED SANITATION TRUCK
William J. Laber, Helen E. Laber, William Laber, and Katherine Laber, Baldwin, and Howard Boeger and Mildred Boeger, Wantagh, N. Y.
Application May 18, 1955, Serial No. 509,258
6 Claims. (Cl. 214—519)



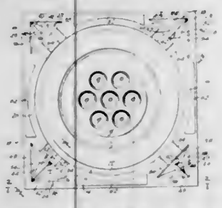
1. A truck loading device for a truck having a driven shaft and a cab together with a truck body for receiving a load of garbage or waste, said device including a frame located between the cab and truck body, the latter having a front opening in the front wall thereof, a trough in either side of the frame having an upward opening for receiving garbage, a feed worm rotatably mounted in the frame and occupying the lower portion of the trough, the frame having a gear driven from said driven shaft and an upright cylindrical portion above said gear, an upright elevator worm in said cylindrical portion connected to said gear, and means for driving the feed worm in either side of said frame including a further gear connected to the worm at each side and meshing with the first mentioned gear, each said feed worm being inclined upwardly towards said elevator worm and defining an acute angle between the lower end of said elevator worm and said respective feed worms.

2,776,771
BARN CLEANING APPARATUS
Carlyle M. Firkins, Genoa, Ill.
Application May 20, 1950, Serial No. 163,236
1 Claim. (Cl. 214—622)



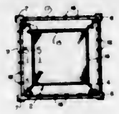
In combination with a barn having a floor gutter therein and a discharge end, a drag line scoop adapted to fit into the gutter, a guiding handle on the said scoop, power operated means whereby the scoop is moved along the gutter in one direction, a bucket receiving pit at the discharge end of the gutter, a bucket in said pit, the wall of the bucket adjacent the discharge end of the gutter being of a lesser height than the discharge wall of the bucket, a drip plate at the discharge end of the gutter projecting over the edge of the bucket when the bucket is in the pit, inclined tracks on which the said bucket is mounted, hoisting means for the said bucket, a dump shaft and means on said bucket for engagement with the dump shaft whereby the contents of the bucket is discharged by the partial rotation of the bucket at a predetermined height, the bucket being angularly lowered into said pit and thereafter moved to a vertical position when seated in said pit whereby the upper edge of the wall of the bucket adjacent the discharge end of the gutter clears the drip plate as the bucket is positioned in the pit and hoisted out of the pit.

2,776,772
PACKING DEVICES FOR STACKED NESTED FRANGIBLE ARTICLES
Tamotsu Itoda, Nakamura-ku, Nagoya, Japan
Application June 5, 1956, Serial No. 589,436
6 Claims. (Cl. 217—26.5)



1. A packing device for frangible articles, said device being of square configuration and comprising a depressed central part of circular outline, and first and second pairs of depending hollow leg portions disposed diametrically opposite each other outwardly of said central part at the corners of the square configuration, said first and second pairs being of different depths and structures complementarily to interfit with each other, said pairs providing means for stacking a series of packing devices in nested relation so that each packing device has said first and second pairs interfitted with said second and first pairs, respectively, of an adjacent packing device wherein each packing device is rotated to said interfitting relation a quarter revolution with respect to an adjacent packing device, adjacent central parts of each adjacent pair of stacked packing devices being formed complementary to the frangible articles to be packed and defining between adjacent pairs a separate compartment for said frangible article.

2,776,773
SHIPPING CONTAINER
Maria A. Kalinowski, Detroit, Mich.; now by change of name Marie Ambrose
Application March 4, 1954, Serial No. 414,151
3 Claims. (Cl. 217—36)

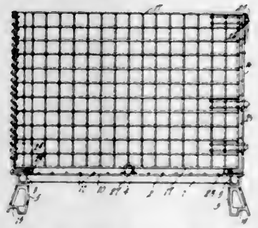


1. A shipping container comprising a rectangular main frame, a pair of outer rectangular auxiliary frames mounted on said main frame at opposite ends thereof in spaced parallel relation, each of said auxiliary frames being formed of a single wire twisted at each of the four corners of said auxiliary frame to define a loop projecting generally diagonally inwardly of said main frame, a rectangular receptacle formed of screen and substantially smaller in all dimensions than and disposed within said main frame, a pair of inner rectangular auxiliary frames carried by said receptacle at opposite ends thereof in spaced parallel relation, each of said inner auxiliary frames being formed of a single wire twisted at each of the four corners of the inner auxiliary frames to define a loop projecting outwardly from said receptacle toward the adjacent of said loops defined by said outer auxiliary frames, and eight tie elements, each of which ties one of the loops defined by said outer auxiliary frames to the adjacent of the loops defined by said inner auxiliary frames, said tie elements being of substantially equal length so that said receptacle is substantially centered in said main frame, said receptacle having a top mounted for movement to and from a closed position to provide access to the interior of said receptacle.

2,776,774
SNAP-IN OUTLET BOX
Ernest James Valelunga, Fulton, N. Y.
Application June 5, 1956, Serial No. 589,396
7 Claims. (Cl. 220—3.6)

1. An outlet box having a bottom wall and side walls and means for removably clamping said outlet box in a wall structure, said means including a screw rotatively extending through said bottom wall and into the box, means preventing axial movement of said screw when it is rotated, a clamping arm pivotally mounted on said screw and means causing axial movement of said clamping arm along said screw in either direction dependent upon the direction of rotation of the screw, said side walls having a slot therein adjacent said screw, biasing means constantly urging said clamping arm to pivot outwardly through said slot from the screw and into operative wall clamping position when the screw is rotated in one direction and further means on said side walls engaging and causing said clamping arm to pivot inwardly when the screw is rotated in the other direction into position within the outlet box and into position adjacent said screw for removal of the outlet box from clamped position within the wall structure.

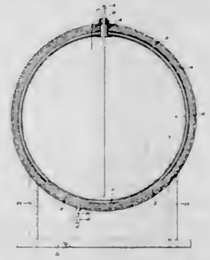
2,776,775
MATERIAL HANDLING CONTAINER
Charles C. Averill, Albion, Mich., assignor to Union Steel Products Company, Albion, Mich., a corporation of Michigan
Application January 13, 1954, Serial No. 403,781
14 Claims. (Cl. 220—6)



1. In a material handling pallet, the combination of a deck bed comprising side sill members of rectangular section, joist members extending between the sill members and fixedly secured thereto, a grid-like deck flooring unit comprising an upper and a lower crossed series of spaced elements fixedly connected at their crossing points, the bottom series of flooring elements being disposed on and welded to the sill members, the upper series being disposed on and welded to the joist members, opposed pairs of cast members spaced longitudinally of the sill members, the leg members having U-shaped integral saddle portions in which the sill members are supportedly seated and weldingly connected, there being a pair of joist members spaced to receive the inner flanges of the leg saddle members between them and to which the end edges of such inner flanges are welded, and collapsible walls comprising fixedly connected vertical and horizontal slats hingedly connected in pairs to permit collapsing of the walls of the pairs upon each other, the vertical slats of corresponding opposed walls of the hingedly connected pairs having arms at their lower ends turned inwardly of the deck unit and connected by horizontal bars which are in turn hingedly connected to the deck in inwardly spaced relation from the sides of the deck, permitting the collapsing of the collapsed pairs of walls in superimposed relation, said hinge arms being of such length that the hinge connection and the collapsed walls lie inwardly of vertical planes passed through the bottoms of the inner side edges of the legs to lie between the legs of a superimposed pallet with the legs of the superimposed pallet in vertical alignment with the sills of the lower pallet.

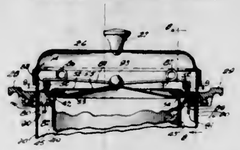
2,776,776
LIQUEFIED GAS CONTAINER
Herbert M. Strong and Francis P. Bundy, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York
Application July 11, 1952, Serial No. 298,326
4 Claims. (Cl. 220—9)

1. A liquefied gas container comprising an inner metal tank positioned within an outer metal tank, said tanks being in spaced relation whereby there is an evacuated space between the walls of said tanks, the surface of said inner tank facing said evacuated space being highly reflective, a member positioned within said evacuated space and surrounding a major portion of said inner tank and defining at least one open area adjacent the base of said inner tank, said member being spaced from said inner tank and said outer tank and having a highly reflective surface facing the highly reflective surface of said inner tank, a blanket of clean, binder-free mineral insulating



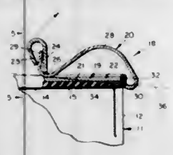
fibers compacted to a density of more than 10 pounds per cubic foot positioned adjacent the inner surface of said outer tank and extending to said member and to the inner wall of said inner tank in the region of the area defined by said member, said blanket constituting a supporting surface for said inner tank.

2,776,777
PASTEURIZER
Henry B. Saunders, Warrenville, Ill., assignor, by mesne assignments, to The Schlueter Co., Janesville, Wis., a corporation of Wisconsin
Application August 19, 1952, Serial No. 305,114
3 Claims. (Cl. 220—13)



1. A pasteurizer for home use maintaining all parts accessible to the milk at wet heat during pasteurization, said pasteurizer comprising an outer water pail having a rim, hot and cold water outlets in the side wall of the pail, the cold water outlet being below the level of the hot water outlet, an inner milk pail having a rim, said inner pail being shallower than the outer pail, brackets carried by said outer pail at the inner surface, supporting arms carried by the inner pail on the outer surface thereof for cooperation with said brackets for supporting said milk pail in nesting relation inside of said water pail so that the inner pail clears the walls of the outer pail and the rim of the inner pail lies below the rim of the outer pail, a rigid crowned cover for said milk pail, the central part in said cover being apertured and being higher than the marginal cover portion during normal pasteurizer use and being lower than the outer pail rim, the highest point in said cover being between the cold and hot water outlets, said cover being formed to provide an annular marginal grooved portion disposed above the milk pail rim, an endless tubular air-filled gasket of flexible material lying in said grooved portion, a flexible sealing member for said cover aperture, spring wire means extending across the top of said milk pail cover for locking said cover upon said pail, the brackets carried by the outer pail having side portions for rotatably locking the supporting arms of said inner pail and the spring wire having the end portions thereof shaped to fit under the supporting arms when the inner pail is free of the outer pail and to fit under the brackets of said outer pail when the inner pail is disposed within said outer pail for locking the cover to said inner pail and also locking the inner pail within the outer pail.

2,776,778
CLOSURE FOR CAN OPENING
Ralph A. Valvano, Los Angeles, Calif.
Application January 24, 1955, Serial No. 483,722
3 Claims. (Cl. 220—24)



1. A closure for an opening in the end wall of a can having an external rim adjacent the end wall, comprising a stiff plate having a flat main portion and an upwardly extending end portion at an abrupt angle to the plane of the main portion, said end portion having an opening adjacent the main portion and being bent back upon itself on its outer side to a point adjacent but spaced from the opening, an arched spring of flat stock overlying the main portion of said plate, said spring having a first hooked end extending through the opening in said end portion of said plate and between the two parts of the end portion where it is bent back upon itself, said spring having a second and oppositely hooked end for engagement with the rim of the can, and a yieldable layer of material secured to the under side of the main portion of said plate.

2,776,779
CAN OPENER AND STRIP GUIDE
Caroline M. Sanders, Los Angeles, Calif.
Application February 26, 1954, Serial No. 412,799
8 Claims. (Cl. 220—52)

1. An improved can opener cooperable for use in opening a can of the type which is sealed by a weak tearable junction, with a wall of the can, of a sealing strip having a free engageable end, comprising: spindle means provided with actuating handle means for rotating said spindle means; open-ended slot means longitudinally carried by the spindle means and cooperable to removably engage a free engaging end of a can sealing strip, whereby the handle means can be forcibly rotated to remove the sealing strip from a can sealed thereby and to wind said sealing strip around said spindle; and guide means for the sealing strip effectively forming a lateral loop adjacent said spindle means in the region of said slot means in encompassing relationship with respect to a removed sealing strip and having pivotal connection means at one end thereof effectively connecting said guide means for rotation around the longitudinal axis of the spindle means, said pivotal connection means being virtually immovable along the longitudinal axis of the spindle means, the other end of said guide means being in close juxtaposition to said spindle means but resiliently displaceable with respect thereto whereby said sealing strip can be removed from engagement with said spindle means and said open-ended slot means therein by resiliently displacing the free end of said guide means and relatively longitudinally moving the sealing strip with respect to said spindle means and said slot means so as to cause relative disengagement thereof.

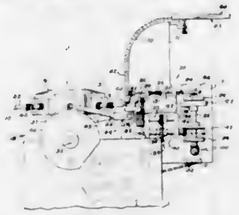
ERRATUM

For Class 220—55 see:
Patent No. 2,777,125

2,776,780
SNAP-ON BAIL EAR OR ATTACHMENT
Axel E. Ogren, Chicago, Ill., assignor to The Sherwin-Williams Company, Cleveland, Ohio, a corporation of Ohio
Application March 27, 1952, Serial No. 278,851
3 Claims. (Cl. 220—91)

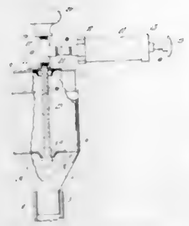
3. A bail receiving ear for solderless attachment to cylindrical containers having a top circumferential chime which comprises an elongated sheet metal body member adapted to conform to the curvature of a cylindrical container, centrally thereof a protuberance extending outwardly normal to the plane of said body member adapted to receive a bail end, oppositely disposed stub-winged free ends originating in and upwardly extending from opposite ends of the top edge of said body member, said free ends rolled over to form downwardly opening channels, intermediate said free ends and above said protuberance an inwardly disposed yieldable tab also originating in and extending upwardly from said body terminating in a squared shoulder short of said channeled ends in height, adapted to snap into abutment along the lower edge of said chime and to engage a segment of arc of said chime when said channels are positioned to grasp exteriorly about the outermost edge of said chime and said body member is brought into essential conformity with the cylindrical wall of said container.

2,776,781
DEVICE FOR FEEDING ARTICLES
Robert O. Birchler, Cicero, and Andrew J. Fedor, Chicago, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application October 4, 1951, Serial No. 249,781
9 Claims. (Cl. 221—173)



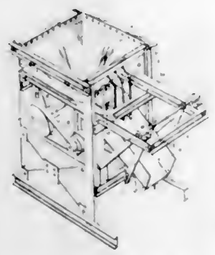
1. A device for feeding wheels comprising a feed plunger, means supporting said plunger for rotation about an axis in alignment with a spindle onto which said wheel is to be applied and for movement along said axis toward and away from said spindle, means for supporting a wheel in a predetermined position in the path of movement of said plunger, means for feeding successive wheels into said supporting means, means including a yieldable connection for reciprocating said plunger to advance a wheel onto said spindle and yieldably press said wheel against said spindle, means for rotating said plunger to impart rotation to said wheel for effecting the angular alignment and engagement of a lug on said wheel with a recess in said spindle, and means for supporting said wheel during the advance movement thereof.

2,776,782
AIR-OPERATED CAN-EMPTYING MEANS
Stanley C. Hope, New York, N. Y., assignor to Gilbert & Barker Manufacturing Company, West Springfield, Mass., a corporation of Massachusetts
Application January 16, 1953, Serial No. 331,611
1 Claim. (Cl. 222—82)



Means for facilitating the emptying of a can having a peripheral wall closed at opposite ends by two spaced heads, said means comprising an air force pump, a conduit connected at one end to the outlet end of the pump and having a straight tubular portion, an external peripheral flange on that end of said portion nearest the pump, a member secured to and closing the other and more remote end of said tubular portion, the distance between said flange and member being substantially equal to the height of the can and said tubular portion having a plurality of air outlet openings spaced angularly and axially over its entire peripheral area between said flange and member, said member having a point adapted to be thrust successively through the upper and lower heads of the can until the flange abuts the upper head, said member also having a projection extending radially beyond the outer periphery of said portion to form in the lower head of the can a discharge opening for oil to flow out of the can.

2,776,783
APPARATUS FOR REGULATING DELIVERY OF IRREGULAR MATERIAL
Robert C. Stewart, Bowling, near Glasgow, Scotland, assignor to Keir & Cawder Limited, Bishopbriggs, by Glasgow, Great Britain
Application February 1, 1955, Serial No. 485,482
5 Claims. (Cl. 222—199)

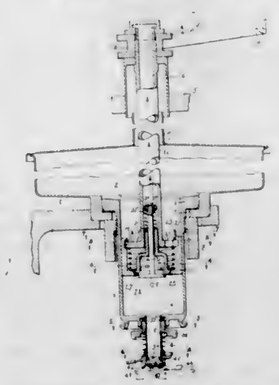


1. Apparatus for regulating delivery of irregular material comprising in combination a hopper for receiving the material, a trough supplied from the hopper, means for imparting a shaking motion to said trough, a plurality of adjustable gate flaps extending into said trough, each gate flap being independently mounted so as to yield when a relatively large lump of material impinges thereagainst, and means for positively determining the extent to which each gate flap extends into the trough, and so the rate of delivery from the latter.

2,776,784
METHOD AND MEANS FOR MINIMIZING PRINTING INK OXIDATION
William B. Franklin, Eagle Rock, Calif.
Application May 3, 1952, Serial No. 285,965
1 Claim. (Cl. 222—205)

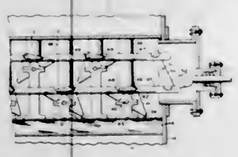
A disposable means for minimizing oxidation of printing ink, comprising a laminated flat annulus having a central opening therein for the extrusion of ink by pressure on its upper surface, said annulus adapted to snugly fit inside a can of ink and comprising at least two layers, the uppermost layer being relatively stiff and the lowermost layer being relatively flexible, the lowermost layer being of a slightly greater diameter than the upper layer and also exceeding in diameter the internal diameter of the can whereby a circumferential beveled flexible sealing effect is created when the annulus is inserted in a can, past the inturned upper rim of same, an adhesive joining the layers, said adhesive adjacent the central opening but not extending to the circumference of the layers whereby a desired outer flexibility of the lowermost lamination results.

2,776,785
VALVE MECHANISM FOR CONTAINER FILLING APPARATUS
Norman W. Lyon, Wilbraham, Mass., assignor to Package Machinery Company, East Longmeadow, Mass., a corporation of Massachusetts
Application April 29, 1954, Serial No. 426,440
7 Claims. (Cl. 222—318)



1. In a container filling machine having a material measuring cylinder provided at its lower end with a discharge valve, a piston reciprocably mounted in said cylinder to discharge material from the cylinder upon downward movement of the piston when the discharge valve is open, a downwardly opening valve in said piston opening in response to the vacuum created below the piston upon upward movement of the latter when the first-named valve is closed and an upwardly opening valve in said piston, opening upon downward movement of the piston when said first-named valve is closed.

2,776,786
FLOW CONTROLLER
Howard J. Pankratz, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Original application December 29, 1949, Serial No. 135,564, now Patent No. 2,718,339, dated September 20, 1955. Divided and this application June 17, 1955, Serial No. 516,157
9 Claims. (Cl. 222—486)



1. In an apparatus for controlling in a regulable manner a continuous flow of a mass of sub-divided material, in combination; a plurality of conduits placed in the line of flow of said material; a material collector coacting with the discharge end of each of said conduits, said collector comprising adjacent receptacles mounted to rotate at each of said discharge ends of said conduits; an actuator operatively connected to said collector to rotate it so that at least one of said receptacles receives while at least one other discharges material from said conduit

2,776,787
CAN CLOSURE
Clinton C. Nicol, St. Paul, Minn., assignor to Brite-Ize Cleanser Co., St. Paul, Minn., a corporation of Minnesota
Application February 21, 1951, Serial No. 212,062
2 Claims. (Cl. 222—544)

1. As an article of sale and subsequent handling by a domestic consumer, a container of conventional cleanser scouring powder for domestic use having in combination with a normally uncovered and exposed metal top provided with a plurality of grouped apertures therein for singly and collectively spilling out the scouring powder contents of said container, a removable and reuseable flexible covering having a pressure sensitive adhesive coating thereon secured in independently sealed and resealing relationship over each of said apertures, said covering consisting of a prefabricated section of pressure sensitive adhesive tape having a coating of pressure sensitive adhesive material on one surface thereof in sealed relationship about each of said apertures in said metal top, and an integral portion of the marginal edge of said tape covering folded to underly said covering with the coating of pressure sensitive adhesive thereon adhering in face to face relationship forming a lifting tab, said lifting tab portion having areas along opposite sides thereof of pressure sensitive adhesive coating strips afforded by said first mentioned coating sealing said lifting tab portion along the opposite sides thereof to said metal top in integral spaced relationship to said flexible covering which is in independently opening and reclosing relationship over each of said apertures.

2,776,788
DEVICES FOR INVERTING PIPED GARMENT OPENINGS
Stanley J. Ketterer, Stratford, Conn., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application December 22, 1953, Serial No. 399,659
14 Claims. (Cl. 223—39)

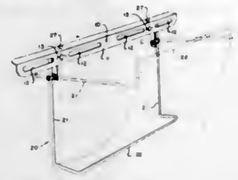
1. A device for inverting a piping strip which is folded upon itself and stitched in folded relation along one edge of an aperture formed in a garment fabric, comprising a shank having a free extremity adapted to be accommodated in said aperture, means carried by said shank and effective as the garment is drawn along said shank to engage at least one free edge of said folded piping strip and carry said free edge through said aperture, and means carried by said shank and disposed between said first mentioned means and said free extremity for engaging and carrying through said aperture those ends of the folded piping strip which are inturned toward said shank as a result of the operation of said first mentioned means.

2,776,789
GARMENT HANGERS
Werner G. Olpe, Jamaica, N. Y.
Application August 22, 1952, Serial No. 305,785
2 Claims. (Cl. 223—96)

1. A garment hanger comprising a pair of parallel, straight coacting clamping bars, a pair of spring frames of inverted U-shape, each spring frame comprising a straight, continuous yoke and a pair of legs projecting downwardly from the ends of said yoke and secured at their lower ends to one of said clamping bars, whereby said clamping bars and said yokes are maintained in parallel relation to each other, a hanging hook welded to the yokes of the two spring frames for supporting the garment hanger from a support, the two spring frames being welded to each other at their said yokes in fixed relative positions with their yokes in parallel relation to each other and their respective legs projecting downwardly in diverging relation to each other, whereby the two clamping bars are normally maintained in spaced relation to each other, and a pair of slidable clamps, one engaging one leg of one spring frame and the corresponding leg of the other spring frame and the other clamp engaging the opposite legs of the two spring frames,

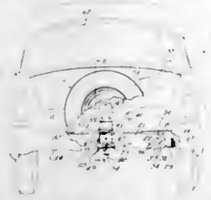
whereby the two clamps may be moved downwardly to draw the diverging legs together against their inherent spring tension and whereby the clamps may be moved upwardly on said legs to release them for outward movement to their original diverging positions in response to their inherent spring tension.

2,776,790
MOTORCYCLE LUGGAGE CARRIER
Ted Zbikowski, Detroit, Mich., assignor to Joseph Buegeleisen Company, Southfield Township, Michigan
Application April 4, 1956, Serial No. 576,099
4 Claims. (Cl. 224—39)



1. A luggage carrier for motorcycles or the like comprising a U shaped frame formed of relatively stiff wire, the base portion of the U being bent into a plane substantially normal to the plane of the leg portions of the U; said frame being mounted for selective positioning in either a horizontal position with the base portion extending upwards as a side retaining wall or in a vertical position with the base portion extending horizontally as a support floor; the means for mounting said frame comprising a horizontally arranged bracket formed with means for attaching the bracket to a motorcycle or the like; the leg portions of the frame being connected to the bracket by a pair of pivotal connection means each grasping one of the leg portions and each rigidly connected to the bracket, with the pivotal connection means being angularly adjustable to hold the frame at the desired position relative to the bracket and having releasable locking means for locking the frame in the desired position.

2,776,791
SPARE WHEEL MOUNT FOR AUTOMOBILES
Alan D. Brundage, Birmingham, Charles E. McCormick, Detroit, and George W. Schatzman, Highland Park, Mich., assignors to Houdaille Industries, Inc., a corporation of Michigan
Application February 27, 1953, Serial No. 339,314
6 Claims. (Cl. 224—42.21)



1. In a vehicle including a rear portion having a bumper supported in spaced relation thereto, a spare tire mount including an arm swingably supported and having means thereon for attachment thereto of a spare wheel for disposition in service relation behind the rear end portion of the vehicle and forwardly from the rear bumper, and means defining a well for receiving the lower portion of the spare wheel including an undersupport extending generally between the rear end portion of the vehicle and the bumper, a gravel guard structure recessed to receive opposite side sections of the lower portion of the spare wheel as the spare wheel rests upon said undersupport, said arm being normally biased to swing upwardly, and releasable latch mechanism for retaining said arm against upward movement when the spare wheel is detached from the arm, said undersupport and gravel guard structure cooperating to support the wheel when detached from the arm.

2,776,792
DEVICE FOR STORING FROZEN FOOD PACKAGES
Warren R. Pearson, North Muskegon, Mich., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application November 3, 1953, Serial No. 390,032
3 Claims. (Cl. 224—45)

1. A rack for tiering frozen food packages of different sizes in adjacent but separate stacks, said frozen food packages having a tuck edge, said rack comprising a base, an upstanding post carried by said base, means defining a handle carried by the upper regions of said post, a plurality of generally inverted U-shaped retaining members each defining legs with the looped portion thereof having an aperture adapted to receive adjacent portions of the upstanding post, said retaining members being carried by said upstanding post for sliding relationship therebetween, and the legs of said retaining members being respectively inserted in the tuck edges of said frozen food packages to maintain said packages in stacked relationship with respect to said rack.

2,776,793
LADDER CONSTRUCTION
Karl F. Nystrom, Chicago, Ill., assignor to International Steel Company, Evansville, Ind., a corporation of Indiana
Application February 1, 1952, Serial No. 269,384
3 Claims. (Cl. 228—58)

1. A ladder stile comprising an angle member having its sides disposed in planes substantially at 90° to each other and one side extending beyond the limits of the

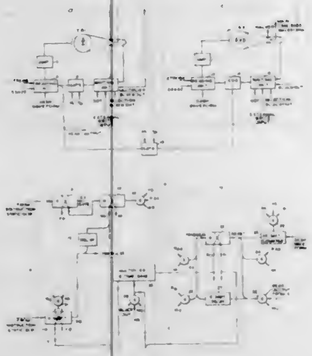
other side, the shorter side having spaced cut-out portions therein adjacent opposite ends of the stile, said cut-out portions each being constituted by pairs of substantially coplanar trapezoidal shaped openings with the shorter sides thereof extending in alignment with the central axis of the shorter side of said angle member and the longer side of one opening extending in alignment with the edge of the shorter side of said stile and the longer side of the other of said openings being displaced from the plane of the longer side of said stile whereby opposite ends of said stile may be displaced to form integral supporting brackets with the opposite ends of one of said last mentioned trapezoidal shaped openings being displaceable to form a chord subtending a segmental opening constituted by the curvature of said last mentioned longer side of said last mentioned trapezoidal opening and the sides of the first mentioned trapezoidal shaped opening adjacent the shorter side of the stile being displaceable toward each other to form abutting edge-to-edge limit stops extending on a line normal to the direction of the chord formed by the opposite sides of said other trapezoidal shaped opening, said segmental shaped opening extending in a curved path spaced from the plane of the longer side of said stile to maintain an open segmental aperture through said stile adjacent each of the brackets thereon.

2,776,794

ELECTRONIC CIRCUIT FOR MULTIPLYING BINARY NUMBERS

Frederic C. Williams, Timperley, and Arthur A. Robinson, Scunthorpe, England, assignors to National Research Development Corporation, London, England, a corporation of Great Britain

Application March 13, 1950, Serial No. 149,224
Claims priority, application Great Britain March 14, 1949
7 Claims. (Cl. 235—61)



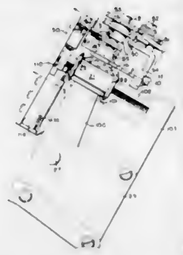
1. An electronic circuit arrangement for multiplying binary numbers comprising a first number storage device having at least two separate storage locations for holding the multiplier number and the multiplicand number respectively, said storage device including a regenerative loop including a reading device providing an external pulse signal train representative of a stored number, a writing device for controlling the form of stored number in accordance with an applied pulse signal train and an electric circuit including a first gate circuit between said reading and writing devices, said first gate circuit being controlled by an applied gate control signal, an accumulator comprising a further number storage device and an arithmetic unit for combining the number content of said storage device with a number represented by the form and timing of a pulse signal train applied to said arithmetic unit, circuit means including a second gate circuit also controlled by said gate control signal between said reading device of said first number storage device and said arithmetic unit for applying an output pulse signal train from said first number storage device to said accumulator, signal examining means for examining each digit interval of an applied number representing pulse signal train in turn and providing an output control pulse upon the occurrence of the first "1" representing signal in such applied pulse signal train, circuit means for supplying the output from said reading means of said first number storage device to said signal examining means and a control system for said first number storage device and said first and second gate circuits, said control system being supplied with said output control pulse from said signal examining means and providing for a regularly repetitive operation cycle comprising reading of said multiplier number content of said first number storage device until the occurrence of said control pulse and thereafter the reading of said multiplicand number content of said first number storage device with a time delay, measured from the commencement of the cycle, which is determined by the position in said read-out multiplier number of the first "1" digit, said control system providing a gate control signal for said first and second gate devices which maintains said first gate device closed during each reading of said multiplier number to inhibit regeneration of said examined first "1" representing signal of the multiplier number and opened during each reading of the multiplicand number to effect regeneration of said multiplicand number and which maintains said second gate device closed during reading of said multiplier number to inhibit its application to said accumulator and open during reading of said multiplicand number to allow transfer thereof to said accumulator.

2,776,795

EXTENDED TENS TRANSFER CONTROL MECHANISM

Grant C. Ellerbeck, San Leandro, Calif., assignor to Friden Calculating Machine Co., Inc., a corporation of California

Application July 27, 1953, Serial No. 370,269
8 Claims. (Cl. 235—73)



1. In combination with a calculating machine having a frame, a shiftable carriage, a plurality of ordinally arranged register wheels in said carriage, certain of said wheels lying inboard of said frame and others of said wheels lying outboard thereof when the carriage is in its end position, a main transfer mechanism for effecting transfers in the inboard register wheels, an auxiliary transfer mechanism mounted on said carriage for effecting transfers in the outboard register wheels, and a detent means for centralizing each one of said outboard register wheels in a full digital position, a normally disengaged stopping means mounted in said frame and engageable with an intermediate one of said outboard register wheels, and means for engaging said stopping means with an aligned register wheel during operation of the auxiliary transfer means.

2,776,796

HEATING AND COOLING CONTROL VALVE

Neal J. Mosely, Mount Lebanon, Pa., assignor to Detroit Controls Corporation, Detroit, Mich., a corporation of Michigan

Application October 15, 1952, Serial No. 314,847
10 Claims. (Cl. 236—1)

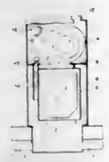
1. In a thermostatic valve, a valve casing having an inlet and an outlet, a pair of valve seats defining valve ports within said casing, said valve ports being spaced from each other, valve means positioned between and cooperable with said valve ports to control flow through said casing, thermostatic means responsive to external temperature for operating said valve means to open one of said valve ports; said thermostatic means including an operating member having two points of operating engagement with said valve means, one causing one of said valve ports to be opened, and the other causing the other of said valve ports to be opened; and thermostatic means operable to shift the relation of said operating member to said valve means in accord with the temperature of the fluid passing through said valve so that one of said points of engagement is established for a heating fluid and the other for a cooling fluid.

2,776,797

DOWNFLOW FORCED AIR HEATING SYSTEMS

Charles F. Suesserott, West Caldwell, N. J., assignor to General Electric Company, a corporation of New York

Application March 29, 1954, Serial No. 419,338
8 Claims. (Cl. 236—11)



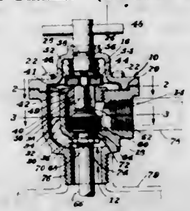
1. A downflow forced air furnace including a heater, means including a blower for circulating return air over said heater in a direction opposite to the normal gravity flow of air over said heater and discharging the heated air into a space to be heated, a duct positioned in heat exchange relationship with the air surrounding said heater having an outlet end communicating with the inlet to said blower and the other end open to the air being discharged into the space to be heated so that air flow through said duct in the direction of the outlet end thereof is effected both by gravity circulation and by forced circulation during operation of said blower, and temperature responsive means for controlling the operation of said blower and said heater, said temperature responsive means being positioned adjacent the outlet end of said duct in the path of air flowing through said duct.

2,776,798

RELIEF VALVE

Frank H. Mueller and Earl E. Tinker, Decatur, Ill., assignors to Mueller Co., Decatur, Ill., a corporation of Illinois

Application November 5, 1951, Serial No. 254,858
2 Claims. (Cl. 236—93)



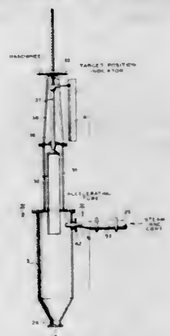
1. A relief valve comprising: a housing having an upper removable bonnet section and a lower casing section provided with a bottom inlet port, a lateral outlet port and an inner partition dividing the interior of said housing into an inlet chamber and an outlet chamber, said partition having an opening therethrough opposed to said bonnet section and providing communication between said inlet chamber and said outlet chamber, and said bonnet section having a bore therethrough aligned with said opening, the outer end of said bore being open to atmosphere; an upwardly-facing valve seat on the inlet side of said opening; a rigid valve assembly reciprocable in said inlet chamber for engagement with said seat, said assembly having a portion thereof slidably and sealingly engaged within said bonnet bore, the effective area of said valve assembly portion exposed to atmospheric pressure in said bore being substantially equal to the area encompassed by said valve seat; means yieldably urging said valve assembly into engagement with said seat; and a thermally-responsive element for lifting said valve assembly from said seat, said element including an expansible member disposed in said outlet chamber in alignment with said partition opening and a tubular extension fixedly and sealingly depending into said inlet chamber through an opening in said inner partition aligned with said first-mentioned opening.

2,776,799

SIZE REDUCTION APPARATUS

Peter H. Spitz, New York, N. Y., and Daniel S. Borey, Cranford, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

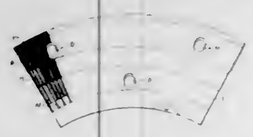
Application July 15, 1954, Serial No. 443,494
3 Claims. (Cl. 241—40)



1. Apparatus for the size reduction of particulate coke which comprises an attriter vessel adapted to contain a movable target and having an outlet at the bottom for the discharge of comminuted coke, an elongated channel-shaped movable target member positioned within said

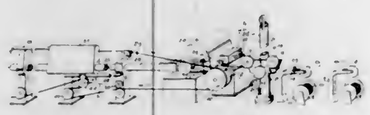
vessel, an acceleration conduit terminating in spaced relation to said target member for admitting a high velocity coke-gas suspension into said vessel in the form of a confined stream, said acceleration conduit being radially positioned in said vessel in such a manner that said confined stream strikes substantially perpendicularly the inner bottom surface of said target member, positioning means operatively connected to said target member for positioning said target member transversely to the axis of said acceleration conduit, and mounting means for detachably mounting said positioning means on the top of said vessel.

2,776,800
AIR FLOW PLATE GRINDERS
Curt Uschmann, Lebanon, Oreg., assignor to Cascades Plywood Corporation, Portland, Oreg., a corporation of Delaware
Application June 27, 1952, Serial No. 295,961
6 Claims. (Cl. 241—296)



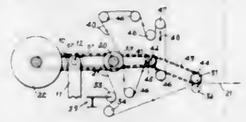
4. A grinding disk having thereon three groups of radiating ribs, including an inner rib group having ribs extending generally radially, an intermediate rib group disposed radially outward from said inner rib group and having ribs inclined in one direction relative to the ribs of said inner rib group, and an outer rib group, disposed radially outward from said intermediate ribs group and having ribs of substantially triangular transverse cross section, forming substantially sharp ridges, inclined relative to the ribs of said inner rib group in the direction opposite the inclination of the ribs in said intermediate group relative to the ribs in said inner rib group, and defining between them grooves flared from their bottoms in transverse cross section.

2,776,801
APPARATUS FOR COILING FILAMENTARY MATERIALS
Julian E. Wilburn, Parkville, Md., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application November 4, 1954, Serial No. 466,833
7 Claims. (Cl. 242—25)



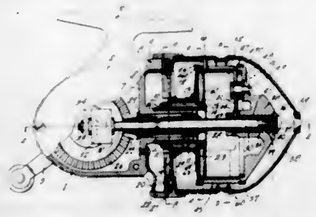
1. Apparatus for coiling filamentary materials, which comprises means for advancing a given length of a filamentary material longitudinally, means for coiling up the advancing filamentary material, means for normally intermittently terminating and reinitiating the operation of the coiling means to form a plurality of coils each containing a predetermined length of the material, means for interrupting the normal coiling sequence when a predetermined amount of the material remains to be coiled, and means for controlling the coiling means thereafter to form a plurality of coils each containing no more than said predetermined length of material and no less than a predetermined lesser length of material.

2,776,802
PAPER MACHINERY
Richard W. Phelps, Fulton, N. Y., assignor to The Black-Clawson Company, Hamilton, Ohio, a corporation of Ohio
Application May 13, 1955, Serial No. 508,251
10 Claims. (Cl. 242—58)



1. Continuous web roll unwinding, changing and tensioning apparatus comprising a rotatable reel for carrying an unwinding web roll and a full web roll for splicing to the end of the web from said unwinding roll, means for drawing the web from said unwinding roll at a predetermined speed causing said unwinding roll to rotate at a substantially constant peripheral speed and a constantly increasing angular speed as the diameter thereof decreases, a continuously movable tension control member mounted for engagement with said unwinding roll, means for driving said tension control member at a controlled speed slightly less than said web speed to maintain tension in the web by frictionally restraining rotation of said unwinding roll, an overrunning clutch having the overrunning member thereof connected with said driving means for continuous driving thereby in fixed angular speed relation therewith, means for connecting the other member of said clutch with said unwinding roll for rotation at a corresponding continuously increasing angular speed to cause driving engagement of said clutch members when the diameter of said unwinding roll decreases to such extent that the angular speeds of said clutch members are substantially equal, and means for indexing said reel to shift said unwinding roll out of engagement with said tension control member and to bring said full roll into driven relation with said tension control member for acceleration and splicing to the web from said unwinding roll while said unwinding roll is restrained against free rotation by said driving means acting through said engaged clutch members.

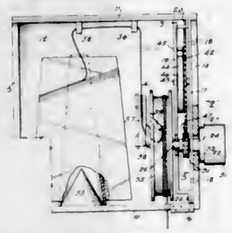
2,776,803
SPINNING TYPE FISHING REEL
Henry G. Shakespeare and Gerald D. Harrington, Kalamazoo, Mich., assignors to Shakespeare Company, Kalamazoo, Mich.
Application December 28, 1953, Serial No. 400,483
19 Claims. (Cl. 242—84.4)



16. In a spinning type fishing reel, a line supporting spool comprising a hub portion having inner and outer circular end flanges, said outer end flange being of shorter diameter than said inner flange, a guard plate of thin flexible plastic secured to the inner side of said outer end flange and projecting slightly therebeyond, and a guard plate retaining spring of annular inwardly axially dished shape lapped against the inner side of said guard plate, the radially inner edges of said outer end

flange, guard plate and spring being clampingly retained against a shoulder on said hub portion by an outwardly folded bead on the end of the hub portion.

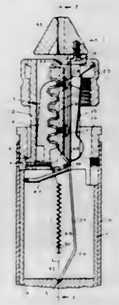
2,776,804
CORD DISPENSING DEVICE
William C. Prout and George M. Loveland, Denver, Colo.
Application November 9, 1955, Serial No. 545,861
2 Claims. (Cl. 242—145)



1. A cord dispensing device comprising in combination a frame, comprising a bar having an opening, a circular ratchet disk having a peripheral ratchet notch and an elongated tubular hub projecting from one side the end of which is secured in the opening by a pressed fit, a tubular shaft journaled in the hub, a circular disk attached to the outer end of said shaft, a pawl pivoted to the inner surface of said disk positioned to engage in the peripheral notch, the disk having an opening, the pawl having a cam member projecting outwardly through the opening, a gear pinion attached to said shaft adjacent the inside of the frame, a spur gear of larger diameter than the pinion rotatably mounted on a frame borne pivot, in meshed relation to the pinion, a spiral clock type spring having its inner end attached to the gear and its outer end attached to the frame, said spring being tensioned to turn the gear and pinion, a stop member projecting from the gear in position to engage the pinion and limit the turning of the gear to approximately one complete turn, the pawl being so related to the parts that when it engages the ratchet notch it will latch the tubular shaft against rotation, a center shaft journaled in the tubular shaft, a cup-like knob attached to the outer end of the center shaft, a spring interposed between the circular disk and said knob urging them apart, means comprising a cylindrical flange extending inwardly from the knob in position to engage the cam surface of the pawl and move it to unlatching position when the knob and center shaft is moved inwardly, a spool secured to the inner end of the center shaft in position to be urged into engagement with the inner end of the tubular shaft by the action of said spring, the spool and the inner end of the tubular shaft having a cooperating notch and projection for interconnecting them for conjoint rotation, the inner end of the spool having a coaxial opening to the interior thereof and an opening communicating the interior with the peripheral surface and means for guiding a cord to the axial opening, so that it may be wrapped about the spool in a direction to tension the spiral spring when it is unwound from the spool.

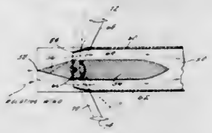
2,776,805
REGULATOR RELEASE MEANS
Norman E. Klein, Pendleton, S. C., assignor to Deering Milliken Research Corporation, Pendleton, S. C., a corporation of Delaware
Application June 11, 1954, Serial No. 435,997
8 Claims. (Cl. 242—154)

1. The combination with a tension regulator mounted within the tubular pedestal of a textile twisting machine and comprising a fixed yarn engaging member and a movable yarn engaging member cooperating therewith, of a pedestal cap, said cap having the shape of a centrally bored truncated cone, a pair of knife edge members mounted on the base of said cap and positioned to rest on opposite sides of the exposed end of said pedestal, thereby permitting pivotal movement of said cap with



respect to said pedestal, means movable with said cap to engage and separate said movable yarn engaging member from said fixed member to thereby facilitate threading, and means to normally retain said cap in a position to result in said first named means being out of contact with said movable yarn engaging member.

2,776,806
WEATHERCOCKING SUPERSONIC WEDGE DIFFUSER FOR AIR INLETS IN AIRCRAFT
Donald H. Brendal, South Glastonbury, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application February 5, 1954, Serial No. 408,391
11 Claims. (Cl. 244—53)



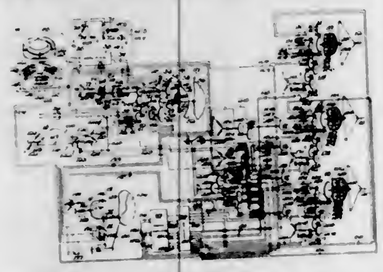
1. In a fluid inlet adapted to operate in fluids of relative supersonic velocities, the inlet including an opening defined by a leading edge, a streamlined member protruding upstream of said leading edge and extending aft within said opening, and means for pivotally mounting the portion of said member which extends upstream of said leading edge adjacent its aft end.

2,776,807
AUTOMATIC PILOT
Paul A. Noxon, Tenafly, and Norman B. Murphy, West Englewood, N. J., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application December 31, 1943, Serial No. 516,489
34 Claims. (Cl. 244—77)

27. An automatic pilot for aircraft having a rudder, comprising course change responsive means and rate of turn responsive means connected for actuating said rudder, said rate of turn responsive means comprising a rate of turn take-off and a repeater device connected thereto, and means for actuating said repeater device independently of said take-off for controlling said rudder in addition to the controlling by said rate of turn responsive means.

34. A system for controlling the position of a member, comprising first means normally providing a signal proportional to the amount and direction of deviation of a condition from a predetermined value, second means providing a signal proportional to the rate and direction of

said deviation, motor means adapted for positioning said member in accordance with said signals from said first and second means, and third means adapted for varying the magnitude of said signal from said second means



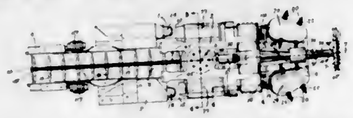
and rendering said first means ineffective to provide a signal so that said motor positions said member in accordance with the signals from said second and third means.

2,776,808
CONTAINER WITH LOCKED, RELEASABLE AND REJECTABLE PARACHUTE COVER AND LOCKING, RELEASING AND EJECTING MEANS THEREFOR
Francis E. Vonderahe, Glendale, Calif., assignor to Chemold Company, Santa Monica, Calif., a corporation of California
Application May 4, 1954, Serial No. 427,589
18 Claims. (Cl. 244—138)

1. In a container for dropping contents to the ground from an airplane by parachute in which the parachute attached to the container is enclosed in a cap on one end of said container which is separated from the container by a pull-cord extending from an airplane to the container upon dropping from the airplane to release the parachute held within the cap for dropping said container and contents to the ground, the improvement which comprises locking means cooperating with and carried by said container and said cap for holding the cap locked in parachute-enclosing position on the end of said container from the time of enclosure until unlocked by a pull on the pull-cord, a pull-cord operatively connected to said locking means so that said locking means is unlocked and said cap freed for ejection by pulling said pull-cord, and means carried by said container and moveable toward said cap for ejecting said cap from said container by pulling said pull-cord beyond the extent required for unlocking said locking means.

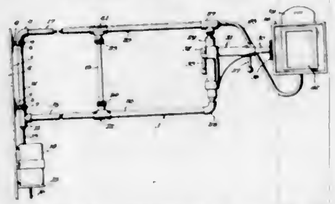
2,776,809
METHOD OF AND APPARATUS FOR MINING BY DRILLING, CORING, AND BREAKING
Arthur Lee Barrett, Franklin, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application May 19, 1953, Serial No. 355,975
11 Claims. (Cl. 262—9)

2. In a mining and loading apparatus, the combination comprising a mobile base, a frame swivelly mounted on said base to swing horizontally relative thereto, a dislodging and disintegrating head for dislodging mineral from a solid mine vein, said head being provided with axial boring means and lateral core cutting means for effecting boring of a hole in a mine vein with a rotary boring action and for cutting a kerf inside of the face of the mine vein to form a core of mineral in the vein with a lateral core cutting action, said head embodying means for breaking off the core of mineral as the head is moved laterally, means for moving said head axially to effect its rotary boring action, means for mounting said dislodging and disintegrating head on said swiveled frame and comprising an elongated boom extending out-



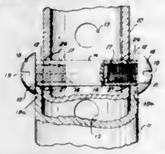
wardly in advance of said base and swingable horizontally with said frame and pivoted to swing vertically relative to said frame, said head having its axis aligned with the longitudinal axis of said boom and effecting its lateral core cutting action during such horizontal and vertical movements thereof with said boom, and means for swinging said frame horizontally to swing said mounting means horizontally therewith and for swinging said boom vertically to effect the lateral core cutting action of said head.

2,776,810
PIVOTAL BRACKET
John A. Paulius, Jr., and Paul E. Roush, Chicago, Ill., assignors to Crane Co., Chicago, Ill., a corporation of Illinois
Application January 9, 1952, Serial No. 265,616
1 Claim. (Cl. 248—279)



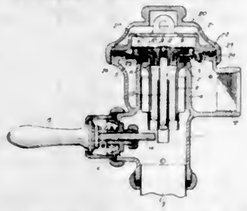
A pivotal bracket comprising in combination a plurality of tubes arranged to form an assembly of substantially frame-like configuration, said assembly including a pair of spaced-apart horizontal tubes having adjacent one end thereof spaced-apart anchoring wall flanges with pivotal connections thereon for attachment to a wall or the like, an end vertical tube adjacent to the said wall flanges being connected at its opposite limits to said horizontal tubes, the wall flange connections including upper and lower ring clamps for adjustably supporting said end vertical tube, the opposite ends of the said pair of spaced-apart horizontal tubes having therebetween a pivotally mounted vertical connecting shaft, the said latter shaft having thereon means comprising a sub-bracket assembly portion pivotally mounted between the said horizontal tubes, the said sub-bracket assembly portion having a horizontal hollow extension therefrom constituting an adjustable apertured connection for pivotally and extensibly receiving a horizontally extending shaft for a microfilm adaptor or the like, the said adjustable sub-bracket apertured extension including a split clamping member having a transversely extending adjustable screw member thereon cooperating with said pivotally mounted vertically connecting shaft to grip the latter members and to hold the said clamping member in predetermined axial position relative to said connecting shaft, the said split clamping member being adjustable and predeterminately movable axially and also being rotatable relative to the said vertical connecting shaft upon suitable actuation of said adjustable member to release said clamping member on the shaft.

2,776,811
ADJUSTABLE POST
Paul Shaffer, Akron, Ohio
Application September 2, 1953, Serial No. 378,011
3 Claims. (Cl. 248—354)



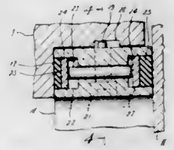
2. An adjustable post of the character described, comprising a longitudinally extensible unit including a tubular member having longitudinally inwardly presented supporting edge portions and a tubular element telescopically arranged within the said tubular member to have a portion of the element extending longitudinally outwardly of one end of the member, said element having at least one opening therethrough, a pin received through said opening in said element and engageable with said supporting edge portions of said member, said pin having stop means on opposite ends thereof providing enlargements engageable with the tubular member to prevent axial movement of the pin, at least one said stop means including a screw coaxially threaded into the end of said pin to a substantial load-supporting extent radially inwardly of the outer periphery of said cylindrical element, said pin being of resilient metal and sufficiently thinwalled at the threaded end thereof to be resiliently distorted under load stress on the post, thereby frictionally to bind the threads of the pin and screw and to prevent manual removal of the screw, said screw enlargement having a handle extension thereon manually operable to turn the screw with reference to the pin upon said load stress being relieved.

2,776,812
DIAPHRAGM FOR FLUSH VALVES
Frederick J. Colendar, Chicago, Ill., assignor to Sloan Valve Company, Chicago, Ill., a corporation of Illinois
Application October 31, 1952, Serial No. 318,059
1 Claim. (Cl. 251—40)



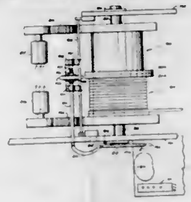
In a flush valve body provided with a water passage therethrough having an inlet and an outlet, said body having an upstanding generally cylindrical portion having an annular valve seat at the upper end thereof, said cylindrical portion being spaced inwardly from the body, a flexible disc-shaped diaphragm controlling the water passage through said body, said diaphragm having a relatively thick outer edge portion clamped in said body and having a central opening therein, said diaphragm also having a relatively thick inner circular portion surrounding said central opening and provided with an annular valve seat contacting surface, an auxiliary control valve arranged across said central opening, there being a relatively thinner annular portion of said diaphragm connecting said thick outer edge portion and said thick inner portion to enable said diaphragm to flex and move the valve seat contacting surface thereof to and from engagement with said valve seat, the width of said valve seat contacting surface on said diaphragm being less than the width of said valve seat and extending, when in the closed position, from the inner edge of said valve seat outward to less than the full width of said valve seat so that the outer edge of said valve seat contacting surface of the diaphragm does not overlap the valve seat, said diaphragm having an inclined surface surrounding and extending outwardly and upwardly from the outer peripheral edge of said valve seat contacting surface thereof, said inclined surface and said valve seat contacting surface and said valve seat being concentrically disposed with respect to each other with said inclined surface positioned to overlie in spaced relation the outer edge portion of said valve seat when said valve seat contacting surface of the diaphragm is in contact with said valve seat.

2,776,813
SEAL FOR GATE VALVE
Glenn R. Blackman, South Houston, Tex.
Application August 4, 1955, Serial No. 526,451
4 Claims. (Cl. 251—197)



1. In a gate valve having a flowway and a pair of oppositely facing gates carried by a rising stem for movement therewith into and out of a position to close the flowway and means acted upon by the stem for expanding the gates outwardly apart from each other upon completion of the closing movement of the gates, inwardly facing shoulders being formed in the valve body surrounding the flowway on opposite sides of the pair of gates, sealing means comprising a seat-ring loosely positioned between each of the gates and the adjacent shoulder and capable of limited lateral movement between the shoulder and the line of descent of the gate, connecting means loosely positioned in openings provided therefor in each seat-ring and which extend transversely through the seat-ring, the connecting means being capable of limited longitudinal movement with respect to the seat-ring, and a pair of resilient annular seats carried by each of the seat-rings, the resilient seats of each pair being positioned on opposite sides of the seat-ring and being acted upon by the connecting means whereby each pair of the seats may be moved laterally as a unit.

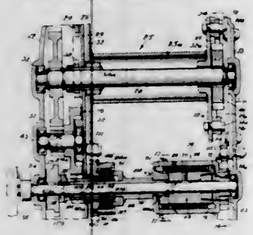
2,776,814
DRUM MOVEMENT INDICATOR
Hubert A. Sparks, Cleveland, Ohio
Application October 9, 1953, Serial No. 385,159
2 Claims. (Cl. 254—150)



1. Sensing apparatus for a pair of juxtapositioned cable drums, said drums mounted on frame means for independent rotation, said apparatus comprising a pivoted bracket, said bracket rotatably supporting a wheel, said wheel having a normal rest position out of contact with said drum, adjustable means on said bracket permitting axial movement of said wheel for selective engagement with either of said drums, said bracket permitting

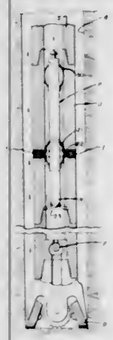
movement of said wheel into engagement with said selected drum for rotation therewith, a hand grip having an operative connection with said wheel for causing said grip to revolve in coordination with said wheel and drum rotation and means for moving said bracket to position said wheel in driven engagement with said drum.

2,776,815
UNIVERSAL SCAFFOLDING MACHINE
William Byl Sheard, Pleasantville, N. Y., assignor to The Patent Scaffolding Co., Inc., Long Island City, N. Y., a corporation of New York
Application June 18, 1954, Serial No. 437,733
5 Claims. (Cl. 254—168)



1. In a scaffolding machine having a support, a casing connected with said support, a first shaft in said casing and a winding drum on said first shaft for reception of a length of cable, one end of said cable being anchored in said drum, the combination of driving means for imparting rotational movement to said drum in clockwise and counterclockwise direction, means rotatable with said drum for distributing said cable on the periphery of said drum when said drum is rotated in a direction to wind said cable thereon, means for disengaging said drum from said driving means, a friction brake between said driving means and said drum for preventing rotation of said drum while said driving means is not actuated, a second brake including a spring clutch, a ratchet and a pawl, operatively connected between said friction brake and said driving means for preventing rotation of said drum while said driving means is not actuated, and a clutch member between said second brake and said driving means for disengaging said driving means at a predetermined tension in said cable.

2,776,816
APPARATUS FOR AND METHOD OF EARTH BORE DRILLING
John Gordon Jackson, Denver, Colo., assignor to Well Completions, Incorporated, Denver, Colo., a corporation of Colorado
Application September 17, 1953, Serial No. 380,789
16 Claims. (Cl. 255—1.8)



1. In earth bore drilling apparatus, a hollow drill stem, a drill bit at the lower end thereof, means for circulating a gas under pressure from and to the earth's surface past the drill bit to pick up cuttings and for other purposes, said path of circulation from and to the earth's surface including in one direction the interior of the stem and in the opposite direction the exterior of the stem, said gas being combustible or capable of becoming combustible by a mixing with combustible gas coming from the earth's strata exposed to the bore being drilled, and means carried by the drill stem at a point above the drill bit for causing circulating gas which has passed the drill bit and is on its return path to the surface to be fired in the bore.

2,776,817
DRILLING APPARATUS
James N. Gregory, Midland, Tex., and Charles A. Yeatman, San Marino, Calif., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware
Application July 21, 1952, Serial No. 300,056
2 Claims. (Cl. 255—28)

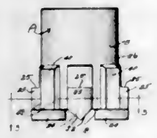
1. A rotary well drilling system comprising a tubular drill string adapted to be rotated in a borehole, a weight control member comprising a cylinder member and a tubular plunger member mounted for limited reciprocation in said cylinder member, means arranged in engagement with each other on the inner periphery of the cylinder and the outer periphery of the plunger member to prevent relative rotation of said members, one of said members being connected to the lower end of the drill string and the other member being connected to a drill bit, normally-closed port means through the wall of said cylinder member, said port means being located at a level to permit fluid flow from said drill string through said port means when the tubular plunger member is substantially fully extended from said cylinder member and means for hydraulically controlling the weight of the bit on the bottom, said means comprising pump means for circulating drilling fluid under pressure through the drill string and the well borehole, conduit means connecting said pump means to the upper end of the drill string, rate-of-flow indicating means mounted in said conduit means, and orifice means in the drill bit for releasing said drilling fluid therefrom, said weight being a function of the fluid pressure developed against the effective area of said plunger due to the pressure drop across said orifice means.

2,776,818
WELL DRILL BIT
Elzo G. Walker, Odessa, Tex.
Application September 16, 1953, Serial No. 380,447
2 Claims. (Cl. 255—61)

1. A well drill bit consisting of an elongated body member, three elongated cutting members extending radially from the longitudinal axis of the body, said cutting members being equidistantly disposed about the longitudinal axis of the body member and terminating in a longitudinal outer cutting edge portion defining the diameter of a hole to be drilled, each cutting member having a leading planar surface portion extending radially from the longitudinal axis of the body member and terminating in the longitudinal outer cutting edge portion, each of the cutting members having a lower cutting end edge portion extending radially from the longtudinal axis of the body member and intersecting the longitudinal outer cutting edge portion, the lower cutting end edge portions comprising a plurality of stepped cutting teeth extending from the longitudinal axis of the body member, the cutting teeth comprising transverse cutting edge portions normal to the longitudinal axis of the body member connected by lon-

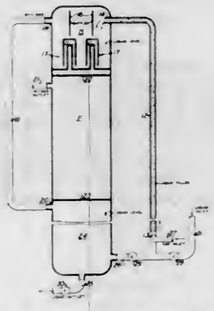
gitudinal edge portions parallel to the longitudinal axis of the body member, each of the cutting members including an innermost tooth, an intermediate tooth and an outer tooth, said innermost teeth being stepped with respect to each other and terminating on the longitudinal axis of the body member, the transverse cutting edges of the innermost teeth being of a different length with respect to each other, the intermediate teeth being stepped with respect to each other and extending radially at different distances from the longitudinal axis of the body member, and the outer teeth being stepped with respect to each other and extending radially at different distances from an adjacent intermediate tooth on the body member, each cutter member including a trailing portion sloping upwardly and outwardly from the lower cutting end edge portions.

2,776,819
ROCK DRILL BIT
Philip B. Brown, Hidalgo de Parral, Mexico
Application October 9, 1953, Serial No. 385,209
2 Claims. (Cl. 255—63)



1. A percussion type rotary rock drill bit comprising a body portion having a bottom surface, rock penetrating chisel shaped lugs radially arranged upon and connected to said body portion and depending below the bottom surface, said lugs at their outermost ends extending appreciably laterally of the outer side surfacing of the body portion, elongated wings provided on and extending axially of the body portion and forming lateral extensions and extending laterally of said body portion for the same distances as the lateral extensions of the respective lugs, said wings each having an arcuate outer surface which is struck from the same radius dimension along the length thereof, the sides of said wings forming with said arcuate surface sharp rock abrading edges, and elongated auxiliary rock reaming wings connected to and extending axially of said body portion at locations between the first mentioned wings and parallel thereto, the lower ends thereof lying intermediate the tops of the first wings and said lugs, and also laterally extending from the outer side surfacing of the body portion throughout their lengths for the same distance as said first mentioned wings, said auxiliary wings having arcuate outer surfaces which are struck from the same radius dimension throughout the lengths thereof, the sides of which form with said arcuate outer surfaces sharp rock abrading edges, said auxiliary wings being axially longer than the first mentioned wings and extending along said body appreciably above the upper ends of said first mentioned wings.

2,776,820
GAS-LIQUID CONTACTING SYSTEM
George R. Bond, Jr., Paulsboro, N. J., assignor to Houdry Process Corporation, Wilmington, Del., a corporation of Delaware
Application January 2, 1952, Serial No. 264,409
1 Claim. (Cl. 261—21)



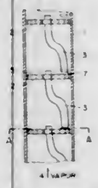
An apparatus for contacting gas and liquid comprising a countercurrent treating chamber having a relatively large cross-sectional area; an upper liquid reservoir feeding liquid to the upper part of the countercurrent treating chamber; a lower liquid reservoir below the countercurrent treating chamber; means for introducing a gas above the liquid level of the lower liquid reservoir in such a manner that said gas moves upwardly through the countercurrent treating chamber for contact with gravitating liquid; a gas outlet for the withdrawal of contacted gas at the upper portion of the countercurrent chamber; a substantially unobstructed lift pipe having a cross-sectional area only a small fraction of the cross-sectional area of the countercurrent treating chamber; means connecting the lower portion of the lift pipe with the lower liquid reservoir; a gas jet at the lower portion of the lift pipe whereby the incoming high pressure gas continuously lifts liquid from the lower to the upper portion of said lift pipe; a separating chamber associated with the upper discharge of the lift pipe; a gas exit in the separating chamber; a conduit transmitting the gas from the gas exit of the separating chamber to the means for introducing gas into the lower portion of the countercurrent treating chamber; baffles in the separating chamber to prevent significant entrainment of liquid in the gas leaving through said gas exit; and traps tending to prevent gas in the separating chamber from leaving the separating chamber through the upper liquid reservoir.

2,776,821
FUEL MIXING CONTROL DEVICE
J. Rex Davis, Los Angeles, Calif.
Application November 14, 1952, Serial No. 320,375
21 Claims. (Cl. 261—62)

1. In a carburetor having a housing defining a vertically extending down-draft passage, a valve unit including a central body rotatably mounted in said passage on a horizontal axis, and a pair of wings disposed in parallel

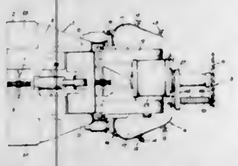
planes offset from said axis on respective sides thereof, said body being rotatable through an angle of substantially 90° from closed to open positions and having a fuel receiving and dispensing chamber and a plurality of radial ports communicating with said chamber, said ports being disposed, in the closed position of the valve, with one of the ports extending downwardly substantially parallel with the axis of said passage and another extending laterally on that side of the body which moves downwardly in the opening movement of the valve, whereby in the movement of said valve to open position, said one port will swing upwardly to extend horizontally, transverse to the axis of said passage, and said other port will swing downwardly to extend downwardly, parallel to the axis of said passage.

2,776,822
RECTIFYING STILL
Victor H. Ortegren, Pleasant Hill, and Keene P. Dimick, Walnut Creek, Calif., assignors to the United States of America as represented by the Secretary of Agriculture
Application October 21, 1954, Serial No. 463,839
1 Claim. (Cl. 261—114)
(Granted under Title 35, U. S. Code (1952), sec. 266)



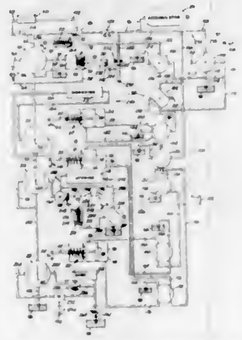
A rectifying still comprising a cylindrical shell, a plurality of vertically spaced plates within said shell, a downcomer conduit for carrying liquid from one plate to the next lower plate, each of said plates being a fused, integral bundle of short glass tubes and a slab of solid glass, said tubes and slab having their axes vertical, said slab of solid glass being positioned directly beneath the lower end of the downcomer conduit and having an area at least as great as that of the lower end of the downcomer conduit.

2,776,823
ROTATING CUTTER AND CORE BREAKER FOR CONTINUOUS MINER
Arthur Lee Barrett, Franklin, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application May 17, 1954, Serial No. 430,175
16 Claims. (Cl. 262—9)



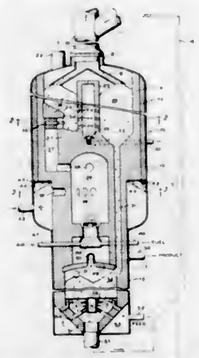
1. In combination, a rotary disklike cutter having face and peripheral cutters mounting said disklike cutter for rotation in generally upright planes about an axis extending toward the face of a mine vein, means for rotating said disklike cutter, means for moving said disklike cutter axially to effect the boring of a hole in a solid mine vein, and thereafter swinging arcuately in a lateral direction to cut a core from the solid mine vein, core breaker means, means for mounting said core breaker means for rotation relative to said disklike cutter about the axis of rotation of said disklike cutter, said core breaker means spaced rearwardly of said disklike cutter and inwardly of the cutter-periphery for engaging the adjacent lateral surface of the core for dislodging the latter from the face, and means for rotating said core breaker means.

2,776,824
HYDRAULICALLY OPERATED CYCLING DEVICE FOR A MINING MACHINE
Ervin J. Osterhus, Seven Hills Village, Archer W. Richards, Chagrin Falls, and Norman W. Taylor, Cleveland Heights, Ohio, assignors to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application August 28, 1952, Serial No. 306,854
32 Claims. (Cl. 262—29)



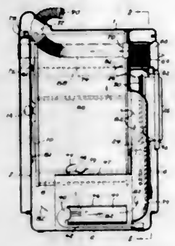
1. A cycling device for a continuous mining machine having a vein-attacking and disintegrating instrument for tearing mineral from the solid, hydraulic motor means connected to move said instrument through a repeating cycle, and means to supply hydraulic fluid to the motor means under pressure and to release fluid from the motor means, in which the fluid supply means includes a plurality of valves, operators for the valves, control means for the operators, fluid metering devices connected with said supply means, and means connecting the metering devices in controlling relation to the control means.

2,776,825
PEBBLE FURNACES AND METHOD OF HEATING PEBBLES
Robert R. Goins, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application June 5, 1952, Serial No. 291,884
16 Claims. (Cl. 263—19)



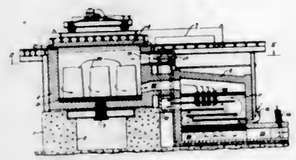
9. The method of firing a pebble furnace containing a compact bed of pebbles which comprises burning a fuel so as to produce combustion gas; mixing with said combustion gas a secondary air stream so as to decrease the temperature of the mixture, thereafter passing said mixture upwardly thru said bed of pebbles in direct heat-exchange therewith so as to heat same with less thermal shock than would occur without the mixing step.

2,776,826
CLOTHES DRIER
John G. Bennett, Orefield, and Ernest M. Bevilacqua, Allentown, Pa., assignors to Caloric Stove Corporation, Topton, Pa., a corporation of Pennsylvania
Application April 27, 1953, Serial No. 351,282
1 Claim. (Cl. 263—33)



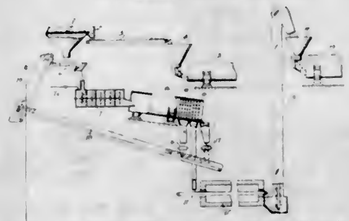
A dryer including an outer casing, a rotary drum mounted in said casing and having one side thereof perforated, a suction fan having its inlet side abutting an upper portion of said perforated side, a burner in a lower portion of said outer casing, an open ended tube surrounding said burner, a relatively large inner open-ended casing surrounding said tube, there being a longitudinal slot in the upper wall of said tube for directing the flame of said burner against the top of said inner casing, a duct leading from a lower portion of the perforated side of said drum to one end of said inner casing, an air intake pipe leading from near the top of the dryer to the opposite end of said inner casing, and a thermostat located on the outer side of the top wall of said inner casing in registration with said slot in said tube whereby, when said blower is operating, the flame of said burner will be sucked into a horizontal position and will not act on said thermostat which will be subjected to the temperature of ambient air only, and whereby, when said blower is not operating the flame of said burner will assume a vertical position and will impinge on the top of said casing immediately below said thermostat, and means operatively connecting said thermostat to said burner, said thermostat being calibrated so as to respond to the temperature resulting from infringement of said flame against the top of said casing to extinguish said burner.

2,776,827
METHOD OF ALTERNATE LOW AND HIGH FUEL FIRING OF A SOAKING PIT FURNACE
Frank H. Graham, Edgewood, Pa., assignor to Amsler Morton Corporation, Pittsburgh, Pa., a corporation of Delaware
Application June 24, 1953, Serial No. 363,870
3 Claims. (Cl. 263—52)



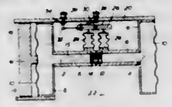
1. The method of heating ingots in a soaking pit furnace chamber which comprises simultaneously introducing into the furnace chamber parallel streams of heating media from one side thereof, causing the streams of heating media to loop past the ingots and return to the same side of the furnace chamber, discharging the streams of heating media from adjacent place of their entry and alternately changing the quantity of the heating media introduced in each of the parallel streams and further characterized in that the summation of the quantities of heating media in the parallel streams is substantially constant throughout the firing period.

2,776,828
PELLETIZATION OF PHOSPHATE SHALE
Manley C. Marcellus, Palo Alto, and Teynham Woodward, Los Altos, Calif., and Josiah Work, Pocatello, Idaho, assignors to Food Machinery and Chemical Corporation, New York, N. Y., a corporation of Delaware
Application February 27, 1953, Serial No. 339,354
4 Claims. (Cl. 263—53)



1. The method of preparing an electric phosphate furnace feed from whole phosphate shale as mined and crushed to minus 3 inch size by increasing the clayey content of the fine fraction to permit pelletizing thereof, which comprises screening said shale to produce a fine particle size fraction containing the larger amount of the clayey material and a coarse particle size fraction substantially free from dust and containing a smaller amount of clayey material, calcining the coarse fraction to produce electric smelting furnace feed therefrom, moistening, pelletizing and drying the fine particle size fraction and passing the said pellets through a rotary kiln operated at a temperature above approximately 1050° C. to produce a pelletized electric smelting furnace feed therefrom.

2,776,829
DEVICES RESPONSIVE TO RATES OF CHANGE OF ACCELERATION
Reginald William James Cockram, Chiswick, London, England, assignor to The Pyrene Company, Limited, Brentford, England
Application March 19, 1953, Serial No. 343,320
Claims priority, application Great Britain March 19, 1952
11 Claims. (Cl. 264—1)

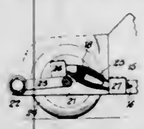


4. A crash-sensitive device comprising two identical chambers each in part defined by a resilient wall, means defining a restricted connection between said chambers, said chambers and connection together forming a closed system, fluid filling said system, and means independent of said resilient walls responsive to fluctuations of pressure of said fluid at at least one point in said system.

2,776,830
PNEUMATIC SUSPENSION DEVICES FOR VEHICLES
Rene Gouirand, New York, N. Y.
Application October 30, 1953, Serial No. 389,353
2 Claims. (Cl. 267—15)

1. In a vehicle, a frame, an arm pivotally secured at one end of the frame, an axle carried by an end of the

arm, a wheel supported by the axle, the arm including a clamp situated remotely from the pivotal point of the arm, an elongated air-filled tube having a closed end engaged and held by the clamp, a fixed element secured to the frame and engaging the opposite end of the tube, means entrant at the last-mentioned end of the tube for



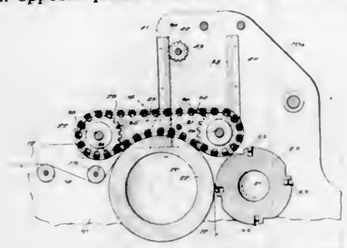
supplying air within the tube, said tube being capable of longitudinal extension in a direction transverse to the up and down movement of the wheel by pull imposed between the ends of the tube as it traverses a road surface, the tube being reinforced by means which permits expansion of the tube and limits the extent of longitudinal stretch of the same.

2,776,831
SHEET INVERTING MECHANISM
Albert F. Shields, Forest Hills, N. Y., assignor to S & S Corrugated Paper Machinery Co., Inc., Brooklyn, N. Y., a corporation of New York
Application January 9, 1953, Serial No. 330,428
5 Claims. (Cl. 270—1)

1. The combination in a machine for inverting blanks delivered from one processing machine and delivering the same to another processing machine, of combined conveying and feeding mechanisms interposed between said machines, for inverting said blanks in groups prior to delivery to the second machine, said mechanisms including a rockable carrier movable between loading and unloading positions, first conveyor means interposed between said first machine and said carrier for feeding a predetermined number of said blanks to said carrier when in said loading position, said conveyor being operated at a speed slower than the delivery speed of the blanks from the first processing machine so as to feather the blanks, second conveyor means interposed between said second machine and said carrier for receiving said blanks from said carrier when the latter is rocked into said unloading position and for feeding said blanks to said second machine, and actuating means operatively connected to said carrier for periodically rocking said carrier at intervals corresponding to the feeding upon said carrier of said predetermined number of blanks.

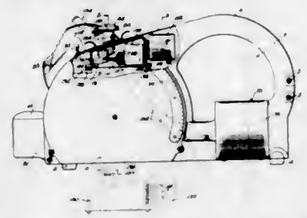
2,776,832
FEED MECHANISM FOR SUPERPOSED STRIPS
John Lach, Chicago, Ill., assignor to Uarco, Incorporated, a corporation of Illinois
Application September 14, 1953, Serial No. 380,032
4 Claims. (Cl. 271—2.3)

1. In an interleaver for stationery and carbon strips, a strip feeder for advancing superposed carbon strips without slippage therebetween, comprising: a frame; a feeding drum journaled in the frame in the path of advancing superposed carbon strips; a Caterpillar tread unit mounted in the frame with a portion of the tread passing over a substantial curved portion of the feeding drum; said tread unit having a pair of endless carriers and a plurality of spaced parallel bar members supported upon the endless carriers and extending axially of the drum, each bar member having a resilient portion for yieldingly engaging and clamping the superposed strips tightly against an opposed portion of the drum; and means for



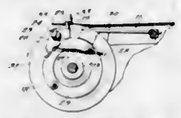
driving said tread unit and drum at the same surface speed so that the cooperating clamping portions of the bar members and the drum are advanced in unison to obviate slippage between the superposed carbon strips.

2,776,833
AUTOMATIC POWER-DRIVEN TAPE SERVING MACHINE
Elno E. Lakso, Fitchburg, Mass., assignor to Nashua Corporation, a corporation of Massachusetts
Application October 18, 1951, Serial No. 251,920
16 Claims. (Cl. 271—2.4)



1. In a tape dispenser, separable rolls for feeding the tape, a motor to drive one of the rolls, tape measuring means operating with one of the rolls, a variably settable length selector, power-operated roll positioning means for relatively approaching the rolls to feeding relation and for separating them, an on-off control circuit for the roll positioning means, and means in the control circuit moving with the measuring means and coactive with the length selector to cause the roll positioning means to separate the rolls upon feeding of the tape length set by the selector.

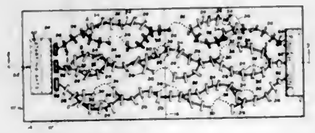
2,776,834
FEEDING AND ALIGNING MECHANISM FOR AN AUTOGRAPHIC REGISTER
John E. Euth, Chicago, Ill., assignor to Uarco, Incorporated, a corporation of Illinois
Application July 3, 1953, Serial No. 366,010
5 Claims. (Cl. 271—2.6)



1. In an autographic register having a platen over which a series of sets of superposed form lengths in continuous strips and provided with aligned punch holes may be drawn, a feed mechanism for successively advancing individual sets of form lengths into writing position comprising: a feed roll and narrow feed disc each journaled in the register and mutually cooperating to draw one set of form lengths out of writing position and advance the next set of form lengths toward writing

position with each operation of the register, said feed roll and feed disc being positioned so as to frictionally grip portions of said one set of form lengths which are in longitudinal alignment with the punch holes in each of the sets of form lengths and advance said next adjacent set of form lengths to a position in which its aligned punch holes are between the grip of the feed roll and feed disc; an arm pivotally secured to and movable with the feed disc during each operation of the register, said arm having a cam following portion on one end and a finger on the other end, said finger being rockable to the position extending outwardly of the feed disc periphery; and a fixed cam mounted adjacent the feed disc and cooperating with said cam following portion of the arm permitting said finger to move outwardly of the feed disc periphery in timed relation to the advance of the next adjacent set of form lengths whereby said finger projects through the aligned punch holes of said next adjacent set of form lengths when the punch holes are positioned between the grip of said feed roll and feed disc, said finger completing the forward advancement of the next adjacent set of form lengths into writing position and conditioning said next adjacent set of form lengths for the next successive feeding operation of the register.

2,776,835
RACING GAME APPARATUS
Robert C. Wilson, Chula Vista, Calif.
Application April 5, 1954, Serial No. 420,956
12 Claims. (Cl. 273—86)

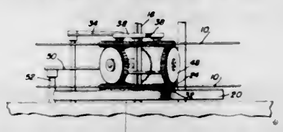


1. In a game apparatus, a game board having a plurality of individual sets of sockets linearly spaced along said board, a plurality of playing pieces of varying configurations erected in said sockets, each of said sets including a first socket and a last socket, the first sockets being generally aligned at one end of the board and the last sockets defining a finish line at the other end of the board, said playing pieces including first playing pieces in said first sockets and last playing pieces in said last sockets, and means for toppling said first playing pieces simultaneously whereby each playing piece topples the next successive playing piece in each set.

2,776,836
PUTTING GUIDE
Arthur Frank Zadina, Long Island City, N. Y.
Application January 9, 1952, Serial No. 265,580
3 Claims. (Cl. 273—192)

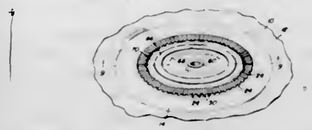
1. A putting device comprising a ground support, a putter, a surface adjustably mounted on said support, carriage means carrying said putter, said carriage means being movable along said surface, said carriage including a shank gripping clamp, a pair of arms secured to said clamp, said arms lying in a plane normal to the axis of said clamp, said arms being pivotally secured to said clamp, means resiliently resisting pivoting of said arms, surface engaging means carried by said arms.

2,776,837
POSITIVE ENGAGEMENT INTERLOCKING PHONOGRAPH RECORD
Herman H. Mueller, Ephrata, Pa.
Application June 30, 1952, Serial No. 296,383
1 Claim. (Cl. 274—42)



A phonograph record disk for use in automatically changing record players of the type wherein a record is lowered from a stack to a playing position upon a supporting and driving means above and operatively engaged with a turntable for playing the underside of a record disk thereon and then is lowered to engagement with a turntable or a sub-adjacent record engaged upon a turntable for playing the top side of the record disk and including means whereby pressure is applied upon the top of the record disk during the playing of said record disk in both positions, said records, supporting and driving means and the turntable having similar, complementary projections and valleys, comprising: a flat disk having on each side thereof a central portion with a spindle aperture therethrough and a sound track surrounding said central portion, an annulus rising from opposite sides of the disk upon each central portion and concentric with the spindle aperture therethrough, the top surface of each annulus having complementary alternate projections and valleys with gradual, continous, smoothly curving contours, the distance between the projections, the depths of the valleys and the gradualness of their contours being such that upon relative rotation of said disk with respect to said supporting and driving means, said turntable or said subadjacent record the similar projections of one may gently slide into the similar valleys of the other, thereby avoiding abrupt engagement and will be firmly retained in a positive, non-slipping and interlocking engagement by pressure applied to the top surface of the uppermost disk by said pressure applying means, both the tops of the projections and the bottoms of the valleys lying above the flat surface of the disk whereby an annulus of a record may engage with the complementary annulus of an adjacent record, to thereby support the records with their sound tracks in spaced relation.

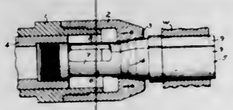
2,776,838
PHONOGRAPH RECORD DISK WITH SPEED CONTROL RING
Herman H. Mueller, Ephrata, Pa.
Application December 9, 1952, Serial No. 324,993
12 Claims. (Cl. 274—42)



1. A phonograph record disk for use with a phonograph record player of the type having a rotatable turntable with a speed changer mechanism therefor, a pressure

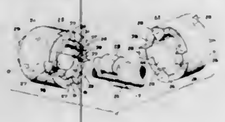
head adapted to set down upon the central portion and within the sound track of a record disk being played, said pressure head having a plurality of switch actuating mechanisms each at a different radial distance from the central spindle aperture of a record disk upon which the pressure head sets down, each switch actuating mechanism corresponding to a particular speed at which said turntable is to be rotated and being operatively connected to said speed changer mechanism; said record disk including a control ring within the sound track thereof and radially spaced from the spindle aperture the same radial distance as that of one of said switch actuating mechanisms, said ring being raised from the surface of the record disk a sufficient height to engage and actuate the corresponding one of the switch actuating mechanisms whereby to actuate the speed changer mechanism.

2,776,839
EXPANDING MANDREL AND METHOD OF MAKING SAME
Milton L. Benjamin and Franklyn E. Winnen, Cleveland, Ohio, assignors to Erickson Tool Company, Cleveland, Ohio, a corporation of Ohio
Application October 20, 1955, Serial No. 541,668
5 Claims. (Cl. 279—2)



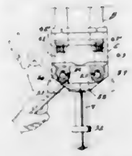
5. An expanding mandrel for internally gripping a workpiece comprising a body formed with relatively movable jaws which include adjacent workpiece-gripping and camming zones and which are mutually outwardly slidable to grip a workpiece surrounding said gripping zone, said camming zone being constituted by each jaw having an edge portion which is normally radially outwardly offset with respect to the circumferentially adjacent edge portion of the other jaw, at which time said jaws in the workpiece gripping zone have circumferentially adjacent portions forming a substantially complete circle, whereby inward pressure applied at said outwardly offset edge portions of said jaws in said camming zone effects such relative outward sliding thereof, so that the circumferentially adjacent portions of the jaws in the camming zone form a substantially complete circle and the circumferentially adjacent portions in said workpiece gripping zone are radially offset to grip a workpiece.

2,776,840
DRILL STEEL RETAINER ASSEMBLY
Otto J. Schorer, Northampton, Mass., assignor to Worthington Corporation, Harrison, N. J., a corporation of Delaware
Application February 2, 1955, Serial No. 485,743
8 Claims. (Cl. 279—19.3)



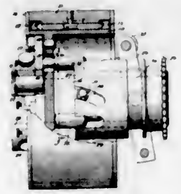
1. A rotatable chuck ring adapted to receive a drill steel with extensions thereon comprising a locking ring having a plurality of slots in one end thereof, a drive ring having a plurality of longitudinally extending teeth disposed on one end thereof and adapted to extend into said locking ring slots, longitudinally extending ribs disposed opposite one another on the inner periphery of said drive ring, said locking ring having longitudinally extending keyways disposed on opposite sides of the axial bore thereof of substantially the same shape as said extensions, said keyways extending transversely of the ring between adjacent slots disposed therein, said locking ring having a cylindrically shaped recess of substantially the same diameter as the axial bore of said drive ring in the end thereof adjacent said ring slots to form transversely extending faces on opposite sides of the axial bore thereof, and locking means disposed on an opposite end of each of said faces adjacent one of said plurality of slots.

2,776,841
QUICK-OPENING TOOL RETAINER JAWS
Frank J. Prochazka, Racine, Wis., assignor to Racine Hydraulics & Machinery, Inc., a corporation of Wisconsin
Application April 19, 1954, Serial No. 423,961
6 Claims. (Cl. 279—19.4)



1. In a railway tie tamper having a main body provided with a reciprocating hammer, in combination, a jaw-supporting body portion secured to the main body portion and having a recess extending therethrough for receiving the upper impact receiving end of a tool, the lower end of said jaw-supporting body portion being bifurcated to form a pair of jaw-mounting plates positioned oppositely of each other and on opposite sides of said recess, a pair of jaw-mounting pins extending laterally between the plates and spaced oppositely of each other on opposite sides of the recess, a tool-retaining jaw pivotally mounted on each pin for pivotal movement between open and closed positions, each jaw having a tool-engaging surface extending parallel to the axis of said recess when the jaw is closed, each jaw also having a pair of intersecting surfaces extending substantially normal to each other and forming a corner of the jaw remote from the tool-engaging surface of the jaw, each jaw being pivotally mounted on and receiving its pin in said corner, a vertically disposed chamber above each of the mounting pins having an open end adjacent the associated jaw, a plunger vertically slidable in each chamber and engageable with one or the other of said intersecting surfaces to hold said jaw in either open or closed position depending on the surface engaged, and spring means urging said plungers into engagement with said jaws.

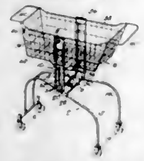
2,776,842
TRANSVERSELY OSCILLATING JAW CHUCK
George B. Marsden, Cicero, Ill., assignor to Chicago Nipple Manufacturing Company, Cicero, Ill., a corporation of Delaware
Application April 5, 1954, Serial No. 420,922
7 Claims. (Cl. 279—33)



1. A chuck comprising a chuck body having a central opening therein to receive a workpiece, at least three levers

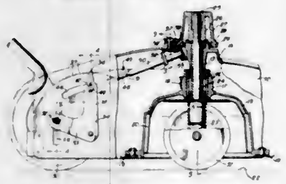
pivoted on the body symmetrically about the central opening on axes parallel to the central opening, means to swing the levers simultaneously about their pivots to move the free ends of the levers radially toward and away from the central opening, annular gripping rollers eccentrically pivoted on the free ends of the levers on axes parallel to the pivotal axes of the levers and resilient means acting between the levers and rollers respectively yieldingly to hold the rollers with their low points facing the central opening.

2,776,843
NESTING SHOPPING CART
George A. Just, Scarsdale, N. Y., and Lansing P. Shield, Saddle River, N. J., assignors to The Grand Union Company, East Paterson, N. J., a corporation of Delaware
Application May 7, 1953, Serial No. 353,531
5 Claims. (Cl. 280—33.99)



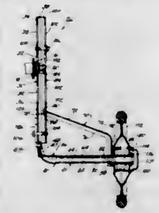
1. A wheeled carrier comprising a base, a basket support, and a basket, said base being of tapered form for nesting with the base of another carrier, said basket support extending upward at opposite sides of the basket, cooperating pivot means on the basket and support permitting tilting movement of the basket relative to said support, said basket support having a spring urged locking bar pivotally mounted thereon and normally urged upward adjacent one side of the basket, said basket being formed of wire and having a return bend portion thereof forming a locking recess engageable by said locking member when the basket is in a horizontal position for releasably holding said basket in said position.

2,776,844
WHEEL ADJUSTING MEANS FOR LAWN MOWER
Ellsworth D. Wilkin, Los Angeles, Calif., assignor to McCulloch Motors Corporation, Los Angeles, Calif., a corporation of Wisconsin
Application October 11, 1954, Serial No. 461,526
9 Claims. (Cl. 280—44)



1. In an adjusting means for the wheels of a lawn mower having a frame and first and second spaced supporting wheels: a vertical guide on said frame above said first wheel; a bar supported in said guide, said bar having at its lower end means for supporting said first wheel and having at its upper end a screw; a nut on said screw operative upon rotation to raise and lower said screw so as to thereby raise and lower said first wheel; a bell crank pivoted to said frame; axle means on one of the arms of said bell crank for supporting said second wheel so that the swinging of said bell crank will move said second wheel up and down; a stem extending from the other arm of said bell crank toward said nut, the end of said stem being threaded; an internally threaded sleeve screwed onto the threaded end of said stem; and means for rotating said sleeve so as to effect axial movement of said stem comprising a driven gear fixed on said sleeve and a driving gear fixed on said nut meshing with said driven gear whereby rotation of said nut will act through said stem to swing said bell crank and raise and lower said second wheel.

2,776,845
BICYCLE BALANCER
Daniel M. Pearl, Chicago, Ill., assignor to Darwin Products, Inc., Chicago, Ill., a corporation of Illinois
Application February 4, 1952, Serial No. 269,818
10 Claims. (Cl. 280—304)



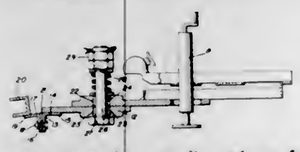
1. In a bicycle balancer, a unit adapted to be mounted at each side of the rear wheel of a bicycle, said unit comprising an L-shaped bracket having one arm adapted to be placed vertically adjacent the rear wheel to receive a protruding rear axle threaded end from which the usual assembling nut has been removed, said arm having alined longitudinal slots for the selective reception of the axle end whereby the nut may be engaged with the axle end to secure said arm to the axle, a reinforcing member having an upper end portion secured to said arm and having slots registering with the aforesaid slots, said bracket arm and said reinforcing member being so shaped as to form conjointly a tubular structure, an outboard axle secured to and extending beyond the free end of the other arm of said bracket and away from the one arm, a step plate having a tread positioned over and extending along the upper side of the other arm, said plate having at its inner end a tongue secured to said one arm and having at its outer end a tongue through which said outboard axle passes, said reinforcing member having an intermediate portion overlying said tread and inclined to said arms and having a lower end portion through which said outboard axle projects, said plate having notches at the sides of said outer tongue for the reception of said lower end portion, a bicycle balancing wheel mounted on said outboard axle, a strut adjustably connected at one end to said one arm adjacent said other arm, and means for attaching the other end of said strut to a side of the bicycle frame.

2,776,846
AUXILIARY REAR AXLE MOUNTING FOR TRUCKS
Harry E. Willock, Vancouver, British Columbia, Canada
Application February 23, 1954, Serial No. 411,971
2 Claims. (Cl. 280—407)

1. The combination of the rear end of a motor vehicle frame supported upon an axle and an auxiliary frame and a wheeled axle therefor, said auxiliary frame being hingedly connected at its forward end to the vehicle frame adjacent the vehicle axle, a spring supporting the rear end of the auxiliary frame from the wheeled axle, a vertical pivot interposed between the spring and the auxiliary frame affording a slight rotational movement of said axle, a wishbone fulcrumed from a part of the aux-

iliary frame and connected to the ends of the wheeled axle, means affording a transverse swinging movement to the spring as the vehicle is moved about a curve and means adjustable lengthwise of the auxiliary frame for carrying part of the vehicle load upon said auxiliary frame.

2,776,847
TRAILER HITCH
Harry Davis, Tallahassee, Fla.
Application November 23, 1953, Serial No. 393,744
2 Claims. (Cl. 280—495)



2. In a trailer hitch for a trailer whose front end is supported by the rear end of a towing vehicle, the combination of a pair of coupled members adapted for attaching to the trailer, one of said members overlying and supported on the other, an angle iron member carried by the underlying coupled member and including a vertical flange, a second angle iron member adapted for attaching at the rear of the towing vehicle and said second angle iron member also including a vertical flange, said first and second vertical flanges being positioned transversely of the hitch, means securing said vertical flanges in confronting relation to each other, and a wedge positioned between the confronting vertical flanges and tending to force the front end of the towing vehicle downwardly.

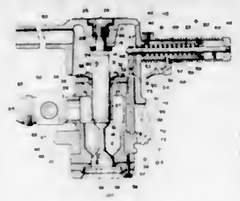
2,776,848
ON THE CUFF MEMORANDUM DEVICE
Carole Stupell, New York, N. Y.
Application September 15, 1954, Serial No. 456,220
6 Claims. (Cl. 281—1)

1. A cuff type memorandum device comprising a cuff of writing material, link means for securing the marginal edges of said cuff, said link comprising an ornamental button visible from one side of the cuff, a ring-shaped member rigidly secured to the said button passing through an opening in the cuff and normally visible only from the opposite side of the cuff, said ring-shaped member providing a receptacle for a writing instrument.

2,776,849
SEMI-AUTOMATIC DISPENSING VALVE
Charles G. Homuth, Plato Center, Ill.
Application December 23, 1954, Serial No. 477,324
1 Claim. (Cl. 284—17)

A device of the character described comprising a barrel, a supply port in one end of said barrel, a socket having one end thereon bevelled to form a seat in the other end of said barrel, a hollow plunger stem slidably extending into said socket, an enlarged head fixed to the inner end of said stem and receivable in said socket, said head having a recessed seat on the forward end thereof and having a plurality of radial ports therein communicating with said hollow stem, a ball valve engageable with said seat in said socket, a spring mounted in said barrel and normally urging said ball valve toward its seat in the socket, a yoke pivoted to said barrel, a handle affixed to said yoke, a bushing pivoted to each leg of said yoke, a V-shaped loop having each of its legs extending slidably through one of said bushings, a collar adjustably fixed upon each loop leg between the bight portion of said loop and the adjacent bushing, a compression spring mounted upon each leg of said loop between its associated bushing and collar, and a nut on the outer end of each leg of said loop.

2,776,850
COMBINED VALVE AND COUPLING
Carson E. Hawk, Pomona, Calif., assignor, by mesne assignments, to Aerojet-General Corporation, Cincinnati, Ohio, a corporation of Ohio
Application August 16, 1952, Serial No. 304,714
5 Claims. (Cl. 284—17)

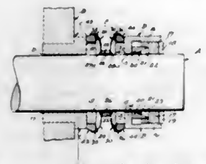


1. A fluid filler valve comprising a housing containing a chamber, a fluid inlet into the chamber, a fluid outlet from the chamber, a valve seal between the chamber and the outlet, a spindle within the chamber movable in the direction of its longitudinal axis, the spindle having a valve head adapted to engage the seal when the spindle is in a first position and to be disengaged from the seal when the spindle is in a second position, thereby closing the valve to prevent flow of fluid past the valve head when the valve head is engaged with the seal and opening the valve to permit the flow of fluid past the valve head when the valve head is disengaged from the seal, a cap attached to the spindle, a registration bar engaging the cap and the housing, holding the cap against rotation relative to the housing while permitting movement of the spindle relative to the housing in the direction of the spindle axis and permitting rotation of the housing and the cap as a unit, said housing having a first registration hole and a second registration hole, a registration pin attached to the cap, the first registration hole and the second registration hole being located relative to the pin so that when the spindle is in the first position the pin can enter the first registration hole and when the spindle is in the second position the pin can enter the second registration hole, and springing means for urging the registration pin into either of the registration holes when the pin is juxtaposed thereto, and means for resisting retraction of the pin from either of said holes when the pin is inserted therein, whereby said registration pin is urged into said first registration hole when said head engages said seal and said registration pin is urged into said second registration hole when said head is moved away from said seal, and movement of the head in the direction of the axis of the spindle is prevented by the registration pin unless said registration pin is in a position of retraction from both of said registration holes.

2,776,851
SEALING SYSTEMS
August H. Heinrich, Euclid, Ohio
Application June 1, 1953, Serial No. 358,745
6 Claims. (Cl. 286—11)

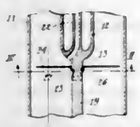
4. A sealing unit for shafts, bearings and the like comprising an annular sealing element; an annular mounting element carrying said sealing element; a metal leaf spring of annular shape carrying said mounting element along its outer periphery which spring, adjacent its inner

periphery, has a flat portion extending substantially normally to the axis of the sealing unit and, between said flat portion and its outer periphery, a concavo-convex portion of short radius of curvature, said flat portion and said concavo-convex portion of short radius of curvature hav-



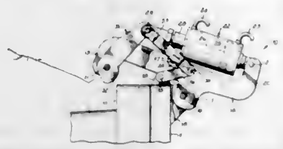
ing in common a zone of contiguity located in a part of the spring that is free to flex; and, along the inner periphery of the spring, an annular flange for maintaining the flat portion of the spring in substantially normal relation to the axis of the sealing unit.

2,776,852
STEM MOUNT FOR ELECTRIC INCANDESCENT LAMP
Donald C. Morgan, Orange, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application July 16, 1953, Serial No. 368,317
3 Claims. (Cl. 287—20)



2. A stem mount comprising a glass stem having an end thereof flattened to form a press providing opposite broad faces, a shield having a slot the width whereof is substantially equal to the thickness of said press between said faces, whereby the shield is slidable laterally onto said press, said press having curvilinear indentations constituting spot retainers, and said shield having resilient protrusions registering with and engaged in said indentations.

2,776,853
CLAMPING DEVICE
Victor J. Billstrom, Pasadena, Calif., assignor to Fletcher Aviation Corporation, Pasadena, Calif., a corporation of California
Application September 20, 1954, Serial No. 457,198
13 Claims. (Cl. 292—256)

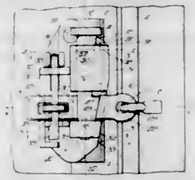


3. An automatic clamping device for automatically clamping a first member against a second member, which comprises: a rocking arm pivotally mounted on said second member; a clamping arm pivotally mounted on said rocking arm and including a cam surface adapted to engage said first member during the clamping of said first member against said second member; extensible means pivotally mounted on said rocking arm and pivotally connected to said clamping arm for moving said clamping arm; and linkage means operatively connected to said extensible means at a point remote from said rocking arm, to said rocking arm and to said second member for pivotally moving said rocking arm.

2,776,854
AUTOMATIC CLAMPING DEVICE
Victor J. Billstrom, Pasadena, Calif., assignor to Fletcher Aviation Corporation, Rosemead, Calif., a corporation of California
Application November 15, 1954, Serial No. 468,618
9 Claims. (Cl. 292—256)

5. A clamping device comprising: a support; a rocking member pivoted on said support; a clamping element pivotally carried by the rocking member; an actuating means; and means, including a confined guided connection, operatively connecting said actuating means, said rocking member, said clamping member and said support so actuation of said actuating means will rock said rocking member and clamping member relative to said support and move said clamping member about its pivot axis relative to said rocking member.

2,776,855
LOCK FOR CAR DOORS
Karl F. Nystrom, Chicago, Ill.
Application July 27, 1951, Serial No. 238,966
6 Claims. (Cl. 292—284)

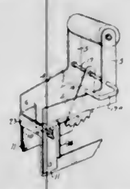


1. A lock for a sliding door comprising a pair of coacting angle members adapted to be secured to a stationary member associated with a door, said angle members having overlapping portions one of which has an outwardly protruding shelf and inclined side surfaces, said last mentioned angle member constituting the front plate of a bracket, a latch slidably supported by said bracket, means for restricting the movement of said latch within the confines of said bracket, a hasp swingably mounted on the door, a locking pin movably supported by said bracket, said shelf having an aperture through which said locking pin extends, said locking pin being slidably mounted in said bracket in spaced substantially parallel relation to said latch and engageable with said hasp for confining said hasp, and means for restricting the movement of said locking pin within the confines of said bracket, said hasp having an outwardly projecting embossment slidingly engageable with one side of said latch, the opposite side of said latch having coacting inclined surfaces cooperating with said inclined surfaces on said bracket to provide a forced pulling movement on said hasp, said hasp being adapted to receive said protruding shelf in said bracket within the path of said locking pin.

2,776,856
MATERIAL HANDLING AND CARRYING DEVICE
George O. Ingram, Harbor View, Ohio
Application May 12, 1954, Serial No. 429,258
1 Claim. (Cl. 294—16)

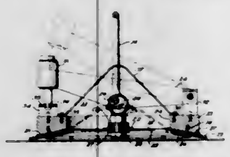
A carrier device comprising a pair of substantially Z-shaped sheet metal frame members spaced laterally from each other and with the arms of each member disposed at approximately right angles to adjacent arms, a handle between one end of said frame members and

secured thereto, an oscillatable rod adjacent said handle and having end portions mounted in said frame members respectively, a lever constituting a finger piece on said rod for actuating same, an arm fixed at one end to said rod between the frame members, an arcuate toothed portion on the free end of said arm, L-shaped members attached respectively to the arms of the frame members



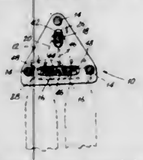
remote from those engaged by said handle thereby to form with the intermediate of the frame member arms a rearwardly facing hook formation for engaging an article, the same being wedged into secure position by said toothed arm, an integral strip connecting said L members and spacing the adjacent portions of the frame members, and a flange on each L member to engage the adjacent arms of the frame members.

2,776,857
VACUUM LIFTER
Max R. Heppenstall, Pittsburgh, Pa., assignor to Heppenstall Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application February 23, 1952, Serial No. 273,112
11 Claims. (Cl. 294—64)



6. In a vacuum lifter for a relatively flat article, a resilient diaphragm, an annular support for said diaphragm engaging it adjacent the outer edge thereof, said support having a generally frusto-conical surface adjacent said diaphragm, a lifting post secured to said diaphragm between the inner sides of said support, an arm extending from one side of said support to the other, said arm being pivotally connected to one side of said support, a latch mechanism having one part connected to the other side of said support and another part connected to said arm, and a carrying member pivotally connected to said arm, said carrying member engaging said post to extend said diaphragm as said carrying member is moved away from said diaphragm when the parts of said latch mechanism are disengaged.

2,776,858
BOTTLE LIFTER
Frank Edward Fowler, Athens, Ga.
Application March 16, 1953, Serial No. 342,343
10 Claims. (Cl. 294—87.26)

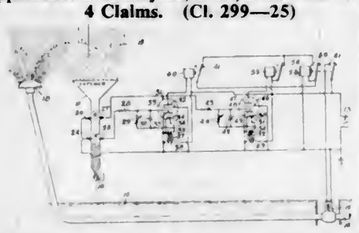


1. A bottle lifter device comprising rod supporting means, a stationary bottle neck engaging rod mounted in said rod supporting means against bodily movement, a movable bottle neck engaging rod mounted in said rod supporting means adjacent said stationary rod, and means for effecting positive movement of said movable rod bodily toward or away from said stationary rod.

2,776,859
AUTOMOBILE VISOR
Richard P. Delano, Setauket, N. Y.
Application July 22, 1954, Serial No. 445,105
1 Claim. (Cl. 296—97)

Means for attachment to the standard sun visor of an automobile to protect the driver against the glare of oncoming lights during night driving, said means comprising a generally L-shaped sheet of transparent material having a narrow portion extending across the entire width of the standard sun visor above the driver's line of direct vision to protect against approaching overhead lights and a portion of increased area adjacent the left end of said sheet, said sheet being tinted and having gradually deeper shades of tinting adjacent the upper and left edges thereof, the ends of said sheet being curved inwardly through an angle greater than ten degrees to protect against lights passing the sides of the automobile, hinged spring clips releasably attaching said means to the standard sun visor, and a handle connected to said means for adjusting the position of said means.

2,776,860
AUTOMATIC SPRINKLING DEVICE
Merle V. Griffis, Daytona Beach, Fla.
Application February 21, 1955, Serial No. 489,562
4 Claims. (Cl. 299—25)

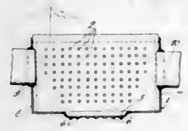


1. An automatic sprinkling device comprising sprinkler means, conduit means for supplying water to said sprinkler means, solenoid valve means controlling said conduit means, and control means for said solenoid valve means responsive to the quantity of rain water, said control means comprising catcher means adapted to collect the rain water, said catcher means including an adjustable outlet permitting the flow of collected rain water therethrough, and a pair of vertically spaced switches therewithin adapted to be opened and closed in accordance with the level of water collected therewithin, valve control means controlling said solenoid valve means, first electronic control means connected in series with one of said vertically spaced switches, and second electronic control means connected in series with the other of said switches, each of said electronic control means controlling said valve control means.

2,776,861
GUTTER WATER CONTROL STRUCTURE
Joseph W. Swenson, Summit, N. J.
Application September 15, 1954, Serial No. 456,263
2 Claims. (Cl. 299—58)

1. A sprinkling device comprising, a short open topped trough-like member having side, end and bottom walls,

an aperture within each of the end walls appreciably smaller than the end walls, each end wall having means adjacent the aperture adapted to secure the end walls to

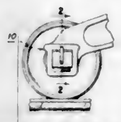


a roof gutter, said trough-like member having a plurality of irregular outwardly extending water discharge orifices in the side and bottom walls.

2,776,862
SELF-CLEANING SPRAY NOZZLE
Samuel C. Bloom, Chicago, Ill.
Application October 27, 1954, Serial No. 465,042
1 Claim. (Cl. 299—59)

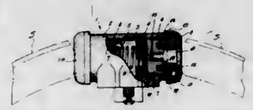
In a self-cleaning spray nozzle, a base adapted to be secured to a fluid source and having a threaded annular flange, a cap secured to the base flange, a fluid passage extending through the base and cap terminating in a spray aperture provided in the cap and having a tapered chamber in the cap portion thereof, a tapered core disposed generally solely within said tapered chamber, said core having a normal operative position in engagement with the wall of the tapered chamber and having external grooves through which the fluid passes, an annular recess provided by a gap between the cap and base flange, and a leaf spring secured at approximately its middle to the core and having its ends loosely fitted at all times in said recess, said spring being flexed when said core is in normay operative position and acting to withdraw the core from said position when the pressure of the fluid passing therethrough is reduced to loosen dirt accumulated behind the core and permit said dirt to pass through the spray aperture.

2,776,863
OIL DISTRIBUTING DEVICE
Chester J. Crain, Ava, Mo.
Application March 22, 1954, Serial No. 417,700
4 Claims. (Cl. 308—86)



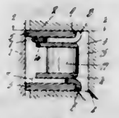
1. In a journal bearing of the type comprising a housing having an oil reservoir, an axle extending into the housing above the reservoir and a bearing block resting on the axle within the housing and having an oil distributing groove extending through the side thereof adjacent the axle, an oil pick-up wheel carried by the axle for rotation therewith and having its rim dipping into said oil reservoir for supplying oil from the reservoir to the groove, wipers pivotally mounted to the bearing block and extending into contact with both sides of the rim of the oil pick-up wheel for wiping oil therefrom, an oil tray carried by the bearing block below the wipers for collecting oil from the oil pick-up wheel, and a drain pipe connected to a passage in said bearing block for delivering oil to said oil distributing groove.

2,776,864
PISTON ASSEMBLY
James J. Powlas, South Bend, Ind., assignor to Wagner Electric Corporation, St. Louis, Mo., a corporation of Delaware
Application June 21, 1954, Serial No. 438,048
7 Claims. (Cl. 309—4)



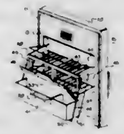
1. A piston assembly for use with a cylinder having an inner wall, comprising a piston body having opposed ends, a flange extending radially outwardly from adjacent one end of the piston body for slidable contact with the inner wall of a cylinder, a circumferential groove adjacent to the other end of said piston body, an annular resilient member positioned in said groove and extending radially outwardly from said piston body for slidable contact with the inner wall of the cylinder, said other end of said piston body being adapted to be yieldably spaced from the inner wall by said resilient member.

2,776,865
PISTON RING ASSEMBLY AND ELEMENTS THEREOF
Hugo F. Anderson, Hastings, Mich., assignor to Hastings Manufacturing Company, Hastings, Mich.
Application August 11, 1953, Serial No. 373,565
3 Claims. (Cl. 309—24)



1. A piston ring assembly comprising axially spaced annular split cylinder wall engaging elements formed of ribbon steel coiled edgewise, annular split expander members of outwardly facing channel section having parallel flanges between which the cylinder wall engaging elements are disposed in supported relation to the bights of said expander members, said expander members having angularly spaced slots extending through the bights thereof and opening alternately at outer edges of the flanges and providing an annular series of circumferentially springable elements when the assembly is installed in a piston ring groove with the ends of the expander members in abutting relation and with the expanders under circumferentially springable stress, and a spacer disposed between the expander members in side by side axial thrust supporting relation thereto, the expander members being free for independent radial movement and spring action independently of the spacer.

2,776,866
REFRIGERATOR SHELVING ARRANGEMENT
George C. Harbison, Erie, Pa., assignor to General Electric Company, a corporation of New York
Application February 19, 1954, Serial No. 411,463
1 Claim. (Cl. 312—311)



In refrigerating apparatus having a refrigerated storage compartment and a door providing access to said com-

partment, a shelving arrangement comprising a plurality of horizontal storage shelves mounted in said compartment with each shelf being less in depth than the shelf next below thereby to expose to access articles placed on the lower shelf, and a storage receptacle and at least one horizontal door shelf mounted on said door and extending into said storage compartment with said receptacle being positioned beneath said one door shelf and being less in depth than said one shelf, said receptacle having movable mounting means including a plurality of pivoted links supporting said receptacle from said one door shelf and effective to swing said receptacle out from beneath said shelf thereby to provide access to said receptacle, and said receptacle and said one shelf being complementary to different ones of said storage shelves and together therewith forming storage levels extending substantially across said storage compartment, whereby the ready access to the articles placed on said storage shelves is accomplished without loss of storage space within said compartment.

2,776,867

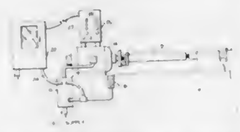
PRODUCTION ANALYSIS APPARATUS

Edwin Arthur Boyan, Dayton, Ohio

Application June 28, 1952, Serial No. 296,200

4 Claims. (Cl. 346—25)

1. Recording apparatus for indicating the nature and duration of interruptions in machine operation, comprising means for advancing a record-receiving medium at a timed rate of advance, a circuit for connection to the motor circuit of the machine and responsive to machine starting and stopping, marking means controlled by said circuit for placing on the record marks identifying normal operation of the machine and interruptions therein, means actuable by the operator for placing on the web marks identifying the causes of interruption in machine oper-



ation, a restart circuit in control of machine restarting following an interruption, connections between the cause-identifying means and the restart circuit for restarting the machine upon actuation of said cause-identifying means, supplemental switching means under the control of the operator for causing the recording apparatus to record normal operation upon stopping the machine to allow operator time out without recording down time, and a restart switch for restarting the machine and for restoring the recording apparatus to normal recording relation with the machine motor circuit.

CHEMICAL

2,776,868

METHOD OF MAKING MULTIPLE COATED CALENDERED PATTERN FABRIC

William W. Russell, East Providence, and Herman C. Allen, Saylesville, R. I., assignors to Sayles Finishing Plants, Inc., Saylesville, R. I., a corporation of Rhode Island

No Drawing. Application May 11, 1954, Serial No. 429,124

7 Claims. (Cl. 8—114.5)

1. The method of making pattern-calendered cellulosic textile fabric which comprises applying to selected localized areas of said fabric a water-repellent mechanically deformable permanent textile resist coating for the subsequently applied chemical inhibitor of polymerization, said resist coating being free from strongly acidic ingredients which at elevated temperature and pressure tend to deteriorate said fabric, calendering said fabric to provide the desired surface finish, impregnating said fabric with an aqueous medium containing a chemical inhibitor of polymerization for the subsequently applied resin, impregnating said fabric with a low molecular weight thermosetting textile resin and catalyst from a liquid medium capable of wetting said permanent resist and in which said inhibitor is substantially insoluble, said resin being capable of coating said resist, heating said fabric to cure said resin in the areas protected by said resist, and washing said fabric with an aqueous medium to remove at least part of the calendered finish in the areas free from said resist.

3. The method of making pattern-calendered cotton textile fabric which comprises applying to selected localized areas of said fabric a water-repellent mechanically deformable permanent cellulosic textile resist coating for the subsequently applied substance which chemically inhibits polymerization, said resist coating being free from strongly acidic ingredients which at elevated temperature and pressure tend to deteriorate said fabric, calendering said fabric to provide the desired surface finish, impregnating the calendered fabric with an aqueous medium containing a substance which chemically inhibits polymerization of the subsequently applied acid-catalyzed resin, at least partially drying said fabric, impregnating said fabric with a low molecular weight thermosetting textile resin and acid catalyst from a liquid medium capable of wetting said permanent resist and in which said substance is substantially insoluble, said resin being capable of coating said resist, heating said fabric to cure said resin in the areas protected by said resist, and impregnating said fabric with an aqueous alkaline chemical shrinking agent for said cotton fabric to remove at least part of the calendered finish in the areas free from said resist and to shrink and compact said fabric in said areas.

2,776,869

PROCESS OF DELUSTERING AND THEN COMPLETELY SAPONIFYING CELLULOSE ESTER FILAMENTS

William Whitehead, Forest Hills, N. Y., and Linus M. Heming, Cumberland, Md., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application July 13, 1953, Serial No. 367,762

7 Claims. (Cl. 8—129)

1. Process for the production of permanently delustered filamentary materials which comprises delustering an oriented cellulose ester of a carboxylic acid filamentary material by subjecting said material to the action of an aqueous delustering medium at a temperature of about 90° to 100° C. and then substantially completely saponifying said material in aqueous alkali, said aqueous delustering medium being an aqueous alkaline solution of insufficient alkalinity to substantially saponify said cellulose ester, said carboxylic acid being a fatty acid of 2 to 4 carbon atoms, and said filamentary material having been oriented by stretching it to at least 4 times its original length prior to said delustering treatment.

2,776,870

CORROSION PREVENTION IN GAS RECOVERY SYSTEMS

Paul W. Fischer, Whittier, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

No Drawing. Application November 27, 1953, Serial No. 394,894

20 Claims. (Cl. 23—2)

1. In a process for separating acidic components from a gas mixture wherein said mixture is contacted with an absorbent comprising a compound selected from the class consisting of water-soluble aliphatic amines and alkanolamines which are free from carboxyl and carbonyl groups and which boil above about 100° C., the improvement which consists in adding to said absorbent (1) a metal soap selected from the class consisting of the alkaline-earth and heavy metal soaps of oil-soluble petroleum sulfonic acids and carboxylic acids containing at least about 8 carbon atoms and (2) the organic reaction product obtained by heating a mixture essentially comprising an alkanolamine containing between 2 and about 20 carbon atoms and a fatty material selected from the class consisting of fatty acids containing at least about 8 carbon atoms and fatty oils which contain fatty acid radicals containing at least about 8 carbon atoms while distilling water from the mixture, said heating being effected at such a temperature and for such a period of time that substantially the stoichiometric amount of water is removed, and said metal soap and said reaction product being employed in amounts sufficient to inhibit the corrosive effect of said absorbent on ferrous metals.

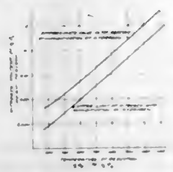
2,776,871

QUALITY OF VANADIUM TRIOXIDE FOR THE MANUFACTURE OF DUCTILE VANADIUM

John C. R. Kelly, Jr., Upper Montclair, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Original application September 7, 1951, Serial No. 245,595, now Patent No. 2,702,739, dated February 22, 1955. Divided and this application July 8, 1953, Serial No. 366,855

3 Claims. (Cl. 23—140)



2. The method of removing nitrogen from a vanadium oxide, selected from the group consisting of vanadous and hypo-vanadous oxides, and high in nitrogen content, comprising placing the vanadium oxide in a reaction chamber maintained at a temperature between a maximum of 650° C. and 350° C., while subjecting said oxide to the action of water vapor at a dew point between 0° C. and 60° C. in a carrying current of hydrogen to which said oxide is substantially inert.

2,776,872

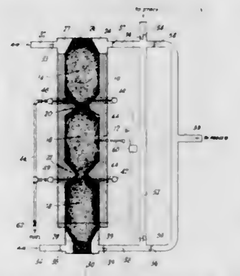
APPARATUS SUITABLE FOR THE FIXATION OF NITROGEN

Charles L. Norton, Jr., New York, N. Y., assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Original application May 24, 1946, Serial No. 672,115. Divided and this application April 9, 1953, Serial No. 347,680

3 Claims. (Cl. 23—277)

1. In a fixed bed refractory type heater suitable for use in the fixation of atmospheric nitrogen, three superimposed chambers substantially filled with refractory particles, said chambers being in gaseous communication with one another through restricted openings therebetween, a pair of annular manifolds each circumferentially embracing the outer end of a different one of the end chambers and in gaseous communication with the outer end of the associated end chamber; gaseous material introduction conduit means and gaseous material withdrawal conduit means connected to each of said manifolds; control means associated with said conduit



means for introducing gaseous material into one of said manifolds and withdrawing the gaseous material from the other manifold in cyclic alternation at regulated time intervals; gaseous fuel conduits connected in communication with said end chambers at points adjacent said restricted openings; a main fuel supply line connected to said fuel conduits; valve means associated with said fuel conduits and operable to admit the fuel alternately therethrough; and a heated gas collecting line connected to said manifolds.

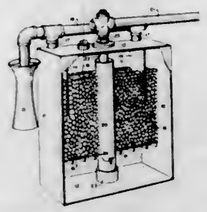
2,776,873

AIR LIFT PUMP

Joseph P. Ruth, Denver, Colo.

Application December 3, 1953, Serial No. 396,049

11 Claims. (Cl. 23—284)



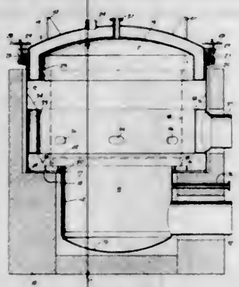
1. In an exhaust gas conditioner having a housing adapted to contain water and an intersticed charge of diffusing material transversely of the housing above the water therein, a pump for the circulation of the housing-confined water through said charge in reaction to the input of exhaust gases to the housing, said pump comprising a conduit upstanding interiorly of the housing through said charge, a closed lower end on said conduit submerged in the housing-confined water, an open upper end on said conduit above said charge, means coaxial with and interiorly of said conduit defining an annular channel between its outer wall and the inner wall of the conduit, the lower end of said means being spaced above the closed lower end of the conduit, means for the input of exhaust gases through said first means to the lower end of the conduit for uprise through said annular channel, gate openings intersecting the conduit upwardly adjacent the lower end of said annular channel for the admission of water thereto, and a tongue radially and inwardly of the conduit at the lower end of each said gate opening in obstructing relation with said channel.

2,776,874

REACTOR FOR THE HIGH TEMPERATURE REDUCTION OF IRON OXIDE AND THE LIKE

William A. Reed, West Richfield, Harry R. Hatcher, Maple Heights, and Jack R. Sanscrainte, Cleveland, Ohio, assignors to Republic Steel Corporation, Cleveland, Ohio, a corporation of New Jersey

Application June 25, 1954, Serial No. 439,191
3 Claims. (Cl. 23—284)



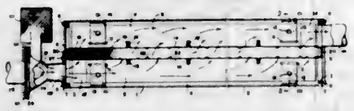
1. A reactor for the high temperature reduction of iron oxide and the like, comprising stationary means providing bottom and side walls forming a central reaction chamber and a contiguous plenum chamber below said reaction chamber, a removable container having a gas-pervious bottom and substantially gas-impervious side portions of good heat conducting characteristics for holding a charge of solid material to be treated in the reactor by a gas-to-solid treatment, said container having transverse dimensions substantially less than those of said reaction chamber to provide an annular space therebetween when said container is positioned in said reaction chamber, means supported by said stationary means for supporting said container in said reaction chamber and for blocking egress of gases from said plenum chamber to said reaction chamber except through said container, a removable insulated top member for said reaction chamber arranged to seat in a gas-tigbt manner on the upper portion of said side walls, means for securing said top member to said stationary means, so as to seal the upper end of said reaction chamber, passage means extending through one of said side walls into said plenum chamber for supplying hot gases thereto, an annular manifold disposed in and extending around the lower portion of said reaction chamber at a level below the top of said container when it is in said reaction chamber, a plurality of apertures opening from the interior of said reaction chamber into said manifold and disposed substantially uniformly thereabout, and passage means extending from said manifold through one of said side walls for the removal of gases from said reaction chamber through said apertures and said manifold, whereby gases must pass from said plenum chamber, solely through said container and in contact with the contents thereof, thence downwardly in the annular space between the side portions of said container and the side walls of said reaction chamber to said apertures into said manifold, so as to keep the contents of said reaction chamber within a limited range of temperatures and to minimize temperature differences in various parts thereof.

2,776,875

CATALYTIC APPARATUS FOR EXHAUST GAS TREATMENT

Eugene J. Houdry, Ardmore, Pa., assignor to Oxy-Catalyst, Inc., a corporation of Pennsylvania

Application November 3, 1952, Serial No. 318,382
7 Claims. (Cl. 23—288)

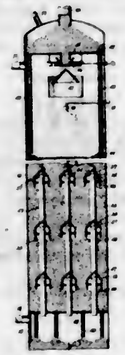
1. Catalytic apparatus suitable for attachment to the exhaust outlet of an internal combustion engine for oxidizing toxic and obnoxious components of exhaust gases therefrom comprising an elongated housing, catalyst containing means in said housing, rigid supporting means for said catalyst containing means comprising elongated rigid beams extending longitudinally of said housing, said beams being carried from said housing by straps rigidly

fastened to said housing at one end and positively fastened to said beams at the other end so as to retain said beams against displacement relative to said housing in all directions but in such manner as to permit expansion and contraction of said beams independently of said housing and of said straps.

2,776,876

REACTOR CHAMBER WITH INTERNAL COLLECTORS

Vernon O. Bowles, Rye, N. Y., and Louis P. Evans, Woodbury, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York

Application January 12, 1953, Serial No. 330,804
1 Claim. (Cl. 23—288)



An apparatus for the conversion of fluid reactants in the presence of a moving mass of granular contact material, which comprises in combination: an enclosed reaction vessel adapted to confine said moving mass; members defining a passageway for the supply of contact material to the upper section of said vessel and members defining a passageway for the removal of contact material from the lower end of said vessel; means for supplying fluid reactant to the upper section of said vessel; a plurality of elongated horizontally extending inverted gas collector throughs at a plurality of vertically spaced apart levels within the lower section of said vessel; solid members closing the ends of said troughs against the entry of gas from said vessel; a partition extending horizontally across the entire length of each of said troughs at a level intermediate the top and bottom of each of said troughs, thereby defining an enclosed gas space in the upper section of each trough, each of said partitions having a plurality of orifices therethrough located at uniformly spaced intervals no greater than 18 inches apart along the length of each partition to permit throttled gas entry into the gas space in the upper section of the trough from the surrounding vessel, the total area of all of said orifices at each level within said vessel progressively increasing at successively lower levels; at least one conduit for the return of entrained contact material from said gas space to the surrounding vessel extending tightly through each of said partitions and terminating at a level

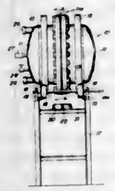
a substantial distance below the lower edges of the trough from which it extends but above the upper ends of the trough next below; a gas plenum chamber beneath the lowermost of said troughs; at least one pipe extending from each of said troughs into said plenum chamber, said pipe connecting with the gas space in the upper end of said trough by means of at least one opening in said pipe, the total area of said opening being greater than the total of all of the orifices in the partition which forms the underside of the gas space from which the pipe extends, whereby said orifices act as the flow throttle in the disengaging system; and means for removing gaseous material from said plenum chamber.

2,776,877

ROTARY DIGESTER

Paul B. Cardon, Murray, Utah, assignor to Minerals Refining Co., Murray, Utah, a corporation of Nevada

Application July 17, 1953, Serial No. 368,705
1 Claim. (Cl. 23—290.5)



Chemical digestive apparatus for discrete solid particles, comprising a pressure-tight vessel; a track encircling said vessel; a roller cradle mounting said track; means for rotating at least one of said rollers as a friction drive for said vessel; means for applying heat to said vessel during rotation thereof; and physical attrition means disposed in free tumbling relationship with said vessel, the said vessel being formed of two substantially similar, cup-shaped parts having externally projecting rim flanges of heat conductive material, and of means removably securing said parts together in flange face to flange face, opposing, pressure-tight relationship, the flanges being disposed between said track, and the heat-applying means being disposed intermediate the roller cradle in position for applying heat to said flanges during rotation of the vessel.

2,776,878

FUEL OIL ADDITIVES

Harry W. Rudel, Roselle Park, and Marion Gargisa, Elizabeth, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application April 19, 1952, Serial No. 283,253
8 Claims. (Cl. 44—70)

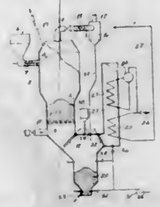
1. A hydrocarbon fuel oil composition comprising at least in part hydrocarbons derived from a cracking operation and also an amount of the product which is formed by adding about 100 parts by weight of an oil soluble petroleum sulfonate in oil solution to about 2 to 30 parts by weight of a water soluble carboxylic compound in aqueous solution and thereafter heating the resulting sulfonate and carboxylic compound mixture at a temperature sufficient to drive off the water therefrom, said sulfonate being derived from the sulfonic acid of at least 250 mol. wt. and being selected from the group consisting of the oil soluble alkali and alkaline earth metal petroleum sulfonates, said carboxylic compound being selected from the class consisting of the ammonium, alkaline earth and alkali salts of citric, tartaric, acetic, salicyclic and benzoic acids, the amount of said product in said fuel oil composition being less than 0.5% by weight of said composition, but sufficient to prevent sediment formation within the composition.

2,776,879

GASIFICATION OF SOLID CARBONACEOUS FUEL

Wilhelm Gumz, Columbus, Ohio, assignor to Hydrocarbon Research, Inc., New York, N. Y.

Application January 2, 1952, Serial No. 264,451
2 Claims. (Cl. 48—202)



2. In a cyclic process for the production of fuel gas from a solid carbonaceous fuel wherein a gaseous reactant comprising steam is reacted with said fuel at a gasification reaction temperature within the range of from about 1500° F. to about 2000° F. to produce a fuel gas comprising carbon monoxide and hydrogen as principal constituents, the flow of reactant gas is periodically interrupted and heat supplied to said bed, the improvement which comprises passing said gaseous reactant downwardly through a bed of said solid fuel in a gas generation zone during the period of gas generation, thereafter discontinuing the flow of said reactant gas through said bed, supplying heat to said bed by introducing a stream of hot flue gas at a temperature above said reaction temperature into the lower portion of said bed and passing the flue gas upwardly therethrough at a rate sufficient to maintain the solid particles in said bed in a state of dense phase fluidization whereby the larger particles in said bed gravitate to the lower portion of said bed, removing the larger particles from the lower portion of said bed, introducing fresh fuel into said bed, burning said particles removed from the lower portion of said bed with air to supply said stream of hot flue gas, and thereafter discontinuing the flow of hot flue gas through said bed when said bed is at a temperature in the range aforesaid and again passing said reactant gas downwardly therethrough for the generation of fuel gas.

2,776,880

STABILIZATION OF NITROCELLULOSE

David S. Bruce and Harold M. Spurlin, Wilmington, Del., assignors to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 28, 1956, Serial No. 574,385
10 Claims. (Cl. 52—5.1)

1. A composition comprising nitrocellulose which is the reaction product of cellulose with a nitrating mixture containing essentially nitric acid, magnesium nitrate and water, the ratio of magnesium nitrate to water being at least about 1.2:1 and not more than about 2.2:1 and the nitric acid being present in an amount between about 45% and about 94% by weight of said nitrating mixture sufficient to yield a nitrocellulose having a nitrogen content of from about 11% to about 13.5% by weight, from about 0.2% to about 2% by weight of diphenylamine, and from about 0.02% to about 1% by weight of acid having a dissociation constant not greater than about 2×10^{-2}, the percentages of said diphenylamine and said acid being based on the weight of said nitrocellulose.

2,776,881

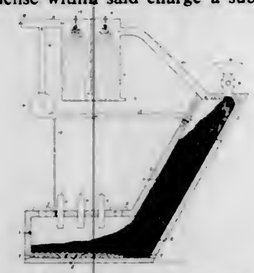
METHOD OF BRASS SMELTING

Alfred M. Thomsen, San Francisco, Calif.

Application February 11, 1952, Serial No. 270,928
5 Claims. (Cl. 75—11)

1. The method of smelting zinc oxide which comprises; the smelting, with electrically generated heat of an ag-

glomerated, carbonaceous charge consisting of zinc oxide and carbon by passing said charge downwards as a column in a position inclined from the vertical while approaching the heat source; passing the gases and vapors generated in said smelting upwards through the inclined column of charge to condense within said charge a substantial portion of the zinc volatilized in the smelting zone of said column, said condensed zinc finding its way downwards through the relatively cooler portion of said inclined column of charge forming the supporting, inferior portion of said column; and removing said melted zinc from the unmelted components of said charge.



2,776,882
DECARBURIZING HIGH-CARBON FERROCHROMIUM

Cecil G. Chadwick, Lewiston, N. Y., assignor to Union Carbide and Carbon Corporation, a corporation of New York

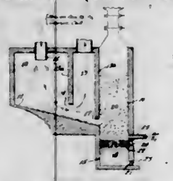
No Drawing. Application December 19, 1955, Serial No. 553,720
3 Claims. (Cl. 75—28)

1. A process for decarburizing ferrochromium which process comprises blending comminuted, carbon-containing ferrochromium and comminuted iron ore, said iron ore being present in a quantity in excess of that required to supply oxygen for reaction with the carbon in said ferrochromium, forming pellets of the blended comminuted materials, heating said pellets at a pressure of less than atmospheric and at a temperature which is below the melting point of said pellets and high enough to effect a reaction between the carbon in said ferrochromium and the oxygen in said iron ore, raising the temperature of said pellets incrementally as the carbon content of said pellets is decreased and heating said pellets at a temperature of at least about 1375° C. to fuse the gangue present in said iron ore.

2,776,883
PROCESS AND APPARATUS FOR SMELTING IRON WITH MOBILE FUELS

William E. Marshall and Samuel A. Bell, Middletown, Ohio, assignors to Armco Steel Corporation, Middletown, Ohio, a corporation of Ohio

Application August 7, 1953, Serial No. 373,008
18 Claims. (Cl. 75—48)



18. A process of smelting iron in finely divided condition, which comprises producing in a combustion chamber with a mobile fuel a flame having a temperature of about 3000° F., the products of combustion of which within the said combustion chamber and at substantially the melting point of iron will be sufficiently reducing to iron oxide to prevent reoxidation of finely divided reduced iron introduced into said combustion chamber with said mobile fuel, and to effect reduction of incompletely reduced iron oxide if present, causing the molten iron to pass out of said combustion chamber and into a collecting hearth through a body of carbonaceous material in solid form to lower the melting point of the iron and to enrich the iron in carbon, and removing the products of combustion while preventing their contact with said carbonaceous solid material.

2,776,884
PROCESS FOR THE MANUFACTURE OF ALUMINUM

Erhard Grunert, Grenoble, France, assignor to Pechiney, Compagnie de Produits Chimiques et Electrometallurgiques, Paris, France, a corporation of France

No Drawing. Application December 12, 1952, Serial No. 325,711
Claims priority, application France December 19, 1951
8 Claims. (Cl. 75—68)

1. A process for reducing aluminous material with carbon to aluminum carbide wherein the dissociation of the formed aluminum carbide is advantageously inhibited, comprising the steps of: reducing the aluminous materials with carbon in a first stage at a temperature of at least 2400° K. under conditions of substantially atmospheric pressure and in the absence of air to produce a gaseous phase mixture of Al, Al_2O and CO, and thereafter, in a second stage, completing the reduction of the Al content in the mixture to aluminum carbide by contacting the said mixture with an additional amount of carbon at temperatures within the range of 1700°–2300° K. at substantially atmospheric pressure and in the absence of air.

2,776,885
PROCESS FOR PRODUCING FERROSILICON

Sieds Koopal, Sittard, and Pierre L. Smit and Willem van Loon, Geleen, Netherlands, assignors to Stamicarbon N. V., Heerlen, Netherlands

No Drawing. Application January 4, 1954, Serial No. 402,134
Claims priority, application Netherlands January 6, 1953
8 Claims. (Cl. 75—133.5)

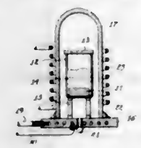
1. In a process for producing ferrosilicon by heat reacting a mixture of fuel which is primarily carbon, silica and a member of the group consisting of iron and iron oxide in the presence of an oxygen-containing blast, the improvement whereby ferrosilicon containing 25–55% silicon and desirable inflammable gases are obtained, said improvement comprising utilizing, as said oxygen-containing blast, a gaseous mixture consisting essentially of 65–90% by volume oxygen and at least one member of the group consisting of steam and carbon dioxide.

2,776,886
PROCESS OF PREPARING AND TREATING REFRACTORY METALS

John C. R. Kelly, Jr., Upper Montclair, N. J., and Edward Gregory, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application August 28, 1952, Serial No. 306,812
3 Claims. (Cl. 75—211)

1. The method of producing titanium and freeing it from dissolved gas comprising mixing a compound thereof with reducing material comprising mainly magnesium, in excess of that theoretically needed to effect complete reduction, melting the reducing material in inert gas to cause it to react with said compound and effect a partial reduction as nearly complete as possible under the circumstances, cooling the mixture, leaching, drying the partially reduced compound, mixing it with reducing material comprising mainly calcium, in excess of that theoretically needed to effect complete reduction, melting the reducing material in inert gas to cause it to react with the partially reduced compound and liberate the titanium in powdered form, cooling the mixture, leaching, and drying the separated powdered metal, pressing the powdered metal, and finally treating said pressed metal in cerium made fluid by heat to remove dissolved gas therefrom.



2,776,887
PREPARATION OF MOLYBDENUM

John C. R. Kelly, Jr., Upper Montclair, and Alan G. Caterson, Cranford, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application August 22, 1952, Serial No. 305,806
4 Claims. (Cl. 75—211)

1. The process of manufacturing molybdenum metal in pure dense coherent form, comprising reducing an oxygen-containing molybdenum compound to metal powder by heating, adding to the material, during said process, a water-soluble polar organic compound of a reducing nature volatilizable at about 100° C. and whose composition is limited to carbon, hydrogen and oxygen, pressing to shape, and sintering, first in hydrogen and then in a vacuum, to produce metal the particles of which are free from oxygen and any material proportion of carbon and at least 10% of which are of 2 microns or larger in size.

2,776,888
PHOTOGRAPHIC SENSITIZER AND DEVELOPER

Gregorio Pop, Washington, D. C.

No Drawing. Application July 15, 1954, Serial No. 443,710
7 Claims. (Cl. 96—49)

5. A universal developing solution for the production of black line prints consisting of

	Gm.
Oxalic acid	245
Sodium carbonate	510
Phenol	518
Phloroglucinol	15

2,776,889
FORTIFIED ANIMAL FEEDS

John H. Standen, Cleveland Heights, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

No Drawing. Application March 26, 1954, Serial No. 419,086
14 Claims. (Cl. 99—2)

1. The method of increasing the feed efficiency of a basal ration of an animal feed which comprises intimately and uniformly dispersing throughout the basal ration an effective quantity of an indole growth stimulant selected from a class consisting of 2,3-diphenyl indole, 2,3-ditolyl indole, 5-methoxy-2,3-diphenyl indole, 2-methyl indole and 2,3-dimethyl indole.

2,776,890
METHODS OF PROTECTING ENSILAGE

Eric Charles Kunz, Arden, N. C.

No Drawing. Application March 13, 1953, Serial No. 342,270
5 Claims. (Cl. 99—8)

1. A method of preserving ensilage which comprises the steps of assembling a quantity of fresh fodder into a mass, applying to the exposed surfaces of said mass a water-soluble, non-toxic, film-forming derivative of cellulose in powdered form, providing moisture on said surfaces of said mass to combine with the powdered derivative and form a viscous coating in situ on said surfaces and drying the coating so formed, whereby said fresh fodder is protected from air both during and after its conversion to ensilage by fermentation processes.

2,776,891
PRODUCTION OF SYNTHETIC COCONUT WATER

Eliseo Luque, Naguabo, Puerto Rico

No Drawing. Application April 10, 1952, Serial No. 281,663
3 Claims. (Cl. 99—22)

1. The method of producing a coconut extract comprising treating finely divided coconut meat with a substantial amount of water having a temperature between about 100° F. and about 150° F., and thereby forming an aqueous dispersion of coconut aqueous pulp dispersion having a sirupy consistency, subjecting said pulp to pressure to express therefrom coconut milk containing the expressible constituents of the coconut meat including coconut oil, separating the expressed liquor from the solid components of the pulp, separating the expressed liquor of the coconut meat during a time period between about 8 and about 20 hours and at a temperature between about 65° F. and 80° F. into an aqueous component and a lard-like layer of coconut oil containing impurities, said period of separation being of such a short duration as to prevent fermentation of the lard-like layer of coconut oil, heating said lard-like layer of coconut oil to remove residual water therefrom, removing any residual solid components from the so-treated material to form virgin coconut oil, treating the latter with a mixture of alcohol and hot water while agitating the mixture in a container chemically inert with respect to the mixture and thereby extracting from the virgin coconut oil alcohol-soluble impurities, cooling the extracted mass, separating the extracted mass into coconut oil and an aqueous alcohol solution containing the alcohol-extracted flavoring constituents of said coconut oil, said alcohol solution containing essence of coconut, and forming a raw concentrate adapted to be diluted, carbonated, and bottled as a beverage.

2,776,892
CARBONATED BEVERAGES AND A METHOD FOR THEIR PREPARATION

Robert M. Sandri, Clifton, N. J.

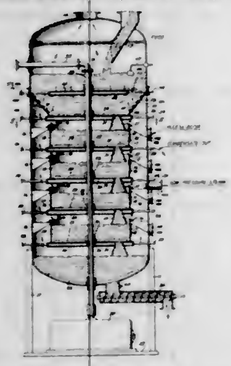
No Drawing. Application June 12, 1952, Serial No. 293,196
12 Claims. (Cl. 99—79)

1. A carbonated beverage comprising essentially an aqueous solution of carbon dioxide having an amount of methyl polysilicone within the range of about 0.2 part to about 10.0 parts per million, by weight of the solution, uniformly dispersed therein as an emulsified phase.

2,776,893
CULINARY MIXES
Thomas P. Finucane, New Vernon, N. J., assignor to General Foods Corporation, White Plains, N. Y., a corporation of Delaware
No Drawing. Application May 19, 1954, Serial No. 430,979
16 Claims. (Cl. 99—92)

14. A dry mix for use in preparing cakes of the foam batter type comprising dried egg white, sucrose, a farinaceous ingredient, and a metal soap, said metal soap being finely divided and dispersed throughout the dry mix and being present in about the amount of 0.02–1.0% by weight of the dried egg white.

2,776,894
MEAL-TREATING PROCESS AND APPARATUS
Norman F. Kruse, Decatur, Ind., assignor to Central Soya Company, Inc., Fort Wayne, Ind., a corporation of Indiana
Application July 29, 1954, Serial No. 446,519
12 Claims. (Cl. 99—98)



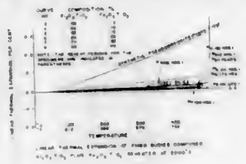
1. In a process for treating solvent extracted oil meal containing liquid, the steps of passing meal successively through vertically-spaced kettles, passing steam through the meal in the uppermost of said kettles to vaporize liquid from said meal, passing steam through the meal in the lower kettles of said vertical series, removing steam and vapors from said lower kettles, passing the same in an annular stream through the uppermost kettle, and condensing a substantial portion of the steam upon the meal therein.

2,776,895
PROCESS FOR PRODUCING PRINTING INKS
Jesse L. Biser, Chicago, Ill., assignor to The Roto Ink Corporation, Chicago, Ill., a corporation of Illinois
No Drawing. Application October 10, 1952, Serial No. 314,215
10 Claims. (Cl. 106—30)

1. Process of producing printing ink and similar coating compositions which comprises grinding a pigment and a resin-reactive metal compound from the group consisting of the oxides, hydroxides and carbonates of calcium and of zinc, resin and an organic solvent in the absence of a catalyst and without introduction of extraneous heat.

2,776,896
CERAMIC COMPOSITION HAVING THERMAL SHOCK RESISTANCE
Cameron G. Harman, Worthington, and John W. Lennon, Columbus, Ohio, assignors, by mesne assignments, to Cambridge Tile Manufacturing Company, Cincinnati, Ohio, a corporation of Ohio
Application October 22, 1952, Serial No. 316,248
7 Claims. (Cl. 106—39)

2. Aluminum titanate having approximately 1 to 50 mole percent of iron titanate in solid solution therewith, the said iron titanate being effective to stabilize the aluminum titanate against decomposition during heating



and reheating thereof at temperatures above approximately 1700° F.

2,776,897
METHOD AND COMPOSITION FOR MAKING CERAMIC ARTICLES
Robert Nichols Hazelwood, Milwaukee, Wis., assignor to McGraw Electric Company, Milwaukee, Wis., a corporation of Delaware
No Drawing. Application May 6, 1953, Serial No. 353,427
8 Claims. (Cl. 106—39)

1. The method of forming a shaped ceramic article comprising mixing powdered ceramic material with a sufficient amount of binder material to form a plastic mass, said binder material consisting essentially of a plasticizer consisting of a water-soluble condensation product of ethylene oxide and an aromatic sulfonamide; a water-dispersible adhesive selected from the group consisting of polyethylene glycols, polyvinyl alcohols, polyvinyl acetates, gum arabic, and mixtures thereof; and a water-soluble material selected from the group consisting of 2,2,6,6-tetramethylol cyclohexanol and the penta stearate ester of 2,2,6,6-tetramethylol cyclohexanol as a lubricant; pressing said mixture into a shaped body and firing said body to form said shaped ceramic article.

2,776,898
CERAMIC DIELECTRIC WITH HIGH DIELECTRIC CONSTANT AND PROCESS OF MAKING THE SAME
Jean Day and Micheline Calis, Paris, France, assignors to Compagnie Generale de Telegraphie Sans Fil, a French corporation
No Drawing. Application June 17, 1953, Serial No. 362,412
Claims priority, application France July 1, 1952
3 Claims. (Cl. 106—39)

1. Process of manufacturing a ceramic dielectric product by baking between 1200° and 1400° C. a mixture corresponding to the following components by weight:

	Parts
$BaTiO_3$	70 to 98
$SrTiO_3$	30 to 2

crushing the resultant product to a powder, adding thereto 1 to 10 parts by weight of CeO_2 for 100 parts of said product, forming a paste from said resultant mix with an organic binder, shaping the paste into an article of desired form and baking that article at a temperature between 1200° and 1400° C. in oxidizing atmosphere.

2,776,899
CERAMIC PRODUCT AND BODY AND METHOD OF MAKING THE SAME
John W. Donahey, Drexel Hill, Pa., assignor to Foote Mineral Company, Philadelphia, Pa., a corporation of Pennsylvania
No Drawing. Application January 9, 1953, Serial No. 330,592
11 Claims. (Cl. 106—45)

1. A ceramic body adapted for use as a white ware ceramic product consisting essentially of between about 35 and about 60%, by weight, of clay selected from the group consisting of kaolin and ball clay, between about 20 and about 40%, by weight, of a glass selected from the group consisting of the silica-free alkali alumina phosphate glasses and alkali boro silicate glasses capable of flowing under their own weight at a temperature between about 1000 and about 1350° F. and possessing an average coefficient of linear thermal expansion of between about 7.5×10^{-6} and about 17×10^{-6} inches per inch per ° C., and between about 20 and about 40%, by weight, of a finely-divided inorganic material melting above about 1500° F. and unaffected by water and by temperatures below 1500° F. and having a linear thermal expansion which is substantially constant, the coefficient of which is at least about 10×10^{-6} inches per inch per ° C., selected from the group consisting of feldspar, calcined alumina, titania, talc, amorphous silica and nepheline syenite.

2,776,900
GLASS COMPOSITION
James E. Duncan, Brackenridge, and Samuel L. Seymour, New Kensington, Pa., assignors to Pittsburgh Plate Glass Company
No Drawing. Application December 16, 1953, Serial No. 398,639
6 Claims. (Cl. 106—52)

1. A glass composition having an opaque, pastel color ranging from tan to yellow consisting essentially of SiO_2 55 to 75% by weight; Na_2O, 0 to 15% by weight; K_2O, 0 to 15% by weight, the sum total of alkali metal oxide ranging from about 11 to 21%; Al_2O_3, 2 to 12% by weight; 0 to 10% by weight CaO, 0 to 12% by weight MgO, 0 to 12% by weight BaO, and 0 to 12% by weight ZnO, the total of bivalent metal oxides when present being not more than 12% by weight; Sb_2O_5, 0 to 2% by weight; As_2O_5, 0 to 2% by weight; Au, .0005 to .0024% by weight; Ag, .0004 to .005% by weight; Se, .0002 to .002% by weight and fluorine 1 to 6% by weight.

2,776,901
HYDRAULIC CEMENT COMPOSITIONS CONTAINING AIR DETRAINING AGENTS AND METHODS OF USING SAME
Edward W. Scripture, Jr., St. James, Barbados, British West Indies, assignor, by mesne assignments, to American-Marietta Company, Chicago, Ill., a corporation of Illinois
No Drawing. Original application September 8, 1953, Serial No. 379,094. Divided and this application August 18, 1954, Serial No. 450,820
4 Claims. (Cl. 106—90)

1. A hydraulic cement mix of non-foaming ingredients consisting essentially of hydraulic cement, aggregate and water sufficient for hydraulic setting of the cement and production of a workably plastic mix, and additionally containing up to a maximum of about 0.1% by weight of the cement of dibutyl phthalate to reduce the amount of air entrained in the mix.

2,776,902
HYDRAULIC CEMENT COMPOSITIONS CONTAINING AIR DETRAINING AGENTS AND METHODS OF USING SAME
Edward W. Scripture, Jr., St. James, Barbados, British West Indies, assignor, by mesne assignments, to American-Marietta Company, Chicago, Ill., a corporation of Illinois
No Drawing. Original application September 8, 1953, Serial No. 379,094. Divided and this application August 18, 1954, Serial No. 450,818
4 Claims. (Cl. 106—90)

1. A hydraulic cement mix of non-foaming ingredients consisting essentially of hydraulic cement, aggregate, and water sufficient for hydraulic setting of the cement and production of a workably plastic mix, and additionally containing up to a maximum of about 0.1% by weight of the cement, of a substantially water-insoluble, liquid, aliphatic alcohol having from about seven to eighteen carbon atoms to reduce the amount of air entrained in the mix.

2,776,903
HYDRAULIC CEMENT COMPOSITIONS CONTAINING AIR DETRAINING AGENTS AND METHODS OF MAKING SAME
Edward W. Scripture, Jr., Cleveland, Ohio, assignor, by mesne assignments, to American-Marietta Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application September 8, 1953, Serial No. 379,094
11 Claims. (Cl. 106—90)

7. A hydraulic cement mix of non-foaming ingredients consisting essentially of hydraulic cement, aggregate, and water sufficient for hydraulic setting of the cement and production of a workably plastic mix, and additionally containing up to a maximum of about 0.1% by weight of the cement of a member of the class consisting of substantially water-insoluble, liquid, aliphatic and aromatic esters of weak inorganic acids, said acids being selected from the class consisting of phosphates, carbonates, and borates.

2,776,904
ETHYL CELLULOSE EMULSIONS
Werner C. Brown, Deerhurst, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application February 6, 1953, Serial No. 335,594
20 Claims. (Cl. 106—170)

1. The method of producing an improved ethyl cellulose lacquer emulsion wherein the ethyl cellulose is dissolved in a water-immiscible liquid which comprises agitating water and said solution in the presence of a nonionic surface-active agent which is an addition product of an alkylene oxide as the emulsifier to produce an emulsion containing the ethyl cellulose in the dispersed phase.

2,776,905
STABILIZED ROSIN SIZE AND A METHOD OF STABILIZING THE SAME
Gerald I. Keim, Oxford, Pa., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application August 21, 1953, Serial No. 375,828
4 Claims. (Cl. 106—238)

3. A paste rosin size composition stabilized against crystallization by the incorporation therein of stabilizing amounts of a crystallization inhibitor comprising the reaction product of a compound selected from the group consisting of rosin acids, esters of rosin acids, alcohols produced by the reduction of the carboxyl group of a rosin acid and esters of said alcohols, containing two ethylenic double bonds in the rosin nucleus with a compound of the group consisting of monoethers, monoesters and ether-esters of gem-diols; and gem-diethers and gem-diesters wherein the ether and ester oxygen atoms are attached to acyclic carbon atoms.

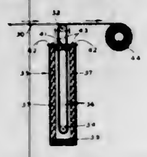
2,776,906
POINTING AND CAULKING COMPOUND
Donald Hill and Harry M. Whitney, Toronto, Ontario, Canada
No Drawing. Application November 5, 1954, Serial No. 467,214
6 Claims. (Cl. 106—257)

1. A compound for use in pointing comprising the

following ingredients mixed together in substantially the following proportions by weight:

75 to 90 lbs. of silica sand
15 to 25 lbs. of crushed silica flour
15 to 17 lbs. of white lead
6 to 8 lbs. of litharge
10 to 14 lbs. of powdered or dry whiting

2,776,907
METHOD OF FIXING ELECTROSTATIC POWDER IMAGE
Chester F. Carlson, Pittsford, N. Y., assignor to The Battelle Development Corporation, Columbus, Ohio, a corporation of Delaware
Application July 18, 1952, Serial No. 299,673
6 Claims. (Cl. 117—17.5)



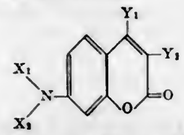
1. In a process wherein an electrostatic image corresponding to a pattern of light and shadow to be reproduced is made visible by depositing powder on a surface in conformity with said electrostatic image and affixing said powder in image conformation to a support material, the improvement comprising affixing said powder in image conformation by introducing said support material into the vapor of an organic liquid solvent for an adhesive constituent of at least one of the materials from which said powder image and said support material from which said powder image and said support material are formed, said vapor and said support material being at ambient temperature and said vapor being at a partial pressure exceeding the vapor pressure of solvent from a tacky solution of said adhesive constituent, and then removing said support material from said vapor after said adhesive has become tacky, and removing said solvent from said adhesive to permanently bond said image to said support material.

2,776,908
METHOD OF PRODUCING MONOLAYER ELECTRODE SCREENS
Henry M. Smith, Pacific Palisades, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application June 6, 1955, Serial No. 513,222
9 Claims. (Cl. 117—33.5)

1. The method of depositing a layer of pulverulent material on a relatively flat and smooth surface, said method comprising the steps of: covering the flat and smooth surface with a liquid carrier; depositing an elastic ring on the surface of said liquid carrier, said ring having an average density substantially less than the density of said liquid carrier; and disseminating particles of the pulverulent material over the portion of the surface of said liquid carrier bounded by said elastic ring, whereby said particles may be uniformly and compactly deposited on said flat and smooth surface.

2,776,909
DRY-CLEANING AND BRIGHTENING OF TEXTILES
Fritz Fleck, Basel, Switzerland, assignor to Sandoz A. G., Basel, Switzerland, a Swiss firm
No Drawing. Application November 18, 1952, Serial No. 321,289
Claims priority, application Switzerland October 5, 1949
6 Claims. (Cl. 117—33.5)

1. The method of dry-cleaning and optically brightening textile material, which comprises subjecting the said material to the dry-cleaning action of a composition consisting essentially of a volatile chlorinated hydrocarbon water-immiscible organic solvent, and 0.03 to 0.3% by weight of a member selected from the group consisting of compounds of the formula



wherein each of X_1, X_2, Y_1 and Y_2 stands for a member selected from the group consisting of hydrogen and lower alkyl, and salts thereof with organic monocarboxylic acids, dissolved therein, and then subjecting the thus-treated material to an after-steaming operation.

2,776,910
METHOD OF COATING GLASS FIBERS WITH REACTION PRODUCT OF ORGANO HALSILANES AND GLYCIDOL DERIVATIVES AND THEN WITH EPOXY RESINS AND THE PRODUCT PER SE
Porter W. Erickson, Silver Spring, and Irving Silver, Mount Rainier, Md., assignors to the United States of America as represented by the Secretary of the Navy
No Drawing. Application February 10, 1954, Serial No. 409,541
18 Claims. (Cl. 117—62)
(Granted under Title 35, U. S. Code (1952), sec. 266)

7. The method of finishing siliceous reinforcement to improve the adherence between resin and reinforcement in laminates which comprises the step of treating the reinforcement with the reaction product of molar proportions of a compound selected from the class consisting of methyl trihalosilane, vinyl trihalosilane and allyl trihalosilane and a compound selected from the class consisting of glycidyl allyl ether and glycidyl methacrylate.

2,776,911
PROCESS OF COATING PAPER WITH GELLABLE WATER SOLUBLE SALT OF CELLULOSE SULFATE AND PIGMENT AND GELLING SAID COATING
George P. Gregory, Elsmere, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application April 30, 1952, Serial No. 285,326
7 Claims. (Cl. 117—62)

1. The process for preparing a coated paper comprising applying to the surface of a web of cellulose fibers a coating color comprising essentially a pigment dispersed in an aqueous solution of adhesive, said coating color having from about 30% to about 65% total solids and having said adhesive present in the amount of between about 5% and about 15% based on the weight of the pigment, said adhesive consisting of a water-soluble salt of cellulose sulfate having from about 0.2 to about 1.5 sulfate groups per anhydroglucose unit and selected from the group consisting of the alkali metal, ammonium and calcium salts, and after application of said coating color coagulating said cellulose sulfate salt by contacting the resulting coating with a water solution of magnesium chloride, and drying the paper.

2,776,912
PROCESS OF COATING PAPER WITH A GELLABLE WATER-SOLUBLE CELLULOSE DERIVATIVE AND PIGMENT AND GELLING SAID COATING
George P. Gregory, Elsmere, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application April 30, 1952, Serial No. 285,325
10 Claims. (Cl. 117—62)

1. The process for preparing a coated paper of the type having a base of cellulosic fibers and a printing surface consisting essentially of a film of contiguous pigment particles interspersed in binder by means of which the pigment is retained on the base, comprising applying to the surface of a web of cellulosic fibers a coating color consisting essentially of a pigment dispersed in an aqueous solution of a gellable water-soluble sodium sulfoethyl cellulose as the binder, said coating color having from about 30% to about 65% total solids and having said binder present in the amount of between about 5% and about 15% based on the weight of the pigment, and after application of said coating color coagulating said water-soluble sodium sulfoethyl cellulose by contacting said coating color with a water solution of a setting agent selected from the group consisting of the mono- and di-alkali metal phosphates and the water-soluble halides and nitrates of the alkali metals, the alkaline earth metals, magnesium, and zinc, squeezing off the excess solution, and then drying the paper.

2,776,913
NON-WATER REPELLENT HIGH SLIP PAPER
William E. Anderson, Bloomsbury, N. J., assignor, by mesne assignments, to Riegel Paper Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application December 17, 1952, Serial No. 326,578
5 Claims. (Cl. 117—92)

1. Paper having a desirable degree of slip and being readily wet with water adhesives, said paper having a surface coating consisting essentially of water soluble solid polyethylene glycol admixed with a smaller amount of small particles of a water-insoluble wax.

2,776,914
COATED STONE AGGREGATE
Roy C. Faulwetter, Detroit, Mich.
Application July 8, 1954, Serial No. 442,200
3 Claims. (Cl. 117—100)

3. Stone aggregate particles to be used in a concrete mixture coated with a resin mixture, said resin mixture including a chlorinated rubber, chlorinated polyphenyl, and chlorinated biphenyl.

2,776,915
METHOD OF PROVIDING SILVER LAYERS
Gerard Willem van Oosterhout and Arie Bol, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
No Drawing. Application August 28, 1953, Serial No. 377,224
Claims priority, application Netherlands October 6, 1952
3 Claims. (Cl. 117—212)

1. A method of applying a layer of silver to an object comprising the steps, heating said object to a temperature of about 150° C. to 300° C., and applying to selected surface portions of said object only a silver salt of a fatty acid selected from the group consisting of lactic and butyric acid while said object is maintained at said temperature to form a conductive silver layer at those surface portions.

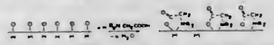
2,776,916
TOBACCO COMPOSITION
Ralph L. Ericsson, Short Hills, N. J.
No Drawing. Application August 23, 1954, Serial No. 451,697
13 Claims. (Cl. 131—17)

1. In a tobacco composition, an improved humectant consisting essentially of at least about 0.5 percent by weight, dry basis, of a deliquescent inorganic salt effective to maintain the moisture content of said tobacco composition substantially constant, said salt having the further properties of exerting a buffering action around the neutral pH range, being physiologically unobjectionable in the amount employed, and giving rise to physiologically unobjectionable pyrolysis products.

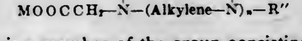
2,776,917
ARTICLE WITH CORROSION-INHIBITED SURFACE AND COMPOSITION FOR COATING SAID SURFACE
Meyer J. Shnitzler, Brookline, Thomas P. Norton, West Roxbury, and Richard McDonald, Scituate, Mass., assignors to The Gillette Company, Boston, Mass., a corporation of Delaware
No Drawing. Application July 10, 1956, Serial No. 596,824
15 Claims. (Cl. 148—6.14)

1. A composition for application to a metal surface to retard the corrosion thereof which comprises an inert carrier and as compounds providing a corrosion-inhibiting effect a member of the class consisting of carboxylic acids and bivalent metal salts thereof and a member of the class consisting of aromatic carboxylic acids and bivalent metal salts thereof, at least one of said members being present as a bivalent metal salt, the aromatic member being present in an amount at least equal to the amount capable of saturating the carrier alone.

2,776,918
METHOD AND COMPOSITION FOR APPLICATION OF PROTECTIVE CHELATE-CONTAINING COATING TO SURFACES AND ARTICLE FORMED THEREBY
Frederick C. Bersworth, Framingham, Mass., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application July 21, 1952, Serial No. 300,600
14 Claims. (Cl. 148—6.14)



8. The method of rendering an aqueous coating composition, comprising an aqueous colloidal dispersion of a film-forming resin, non-corrosive to solid surfaces formed from iron metal to which the composition is applied, which method comprises incorporating in said coating composition a chelating agent in amount corresponding to about 0.1 percent to about 5 percent by weight of the composition, said chelating agent corresponding to the general formula

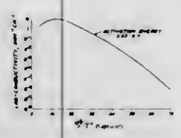


wherein M is a member of the group consisting of hydrogen, alkali metal, ammonium, alkylammonium; R, R′ and R″ are members of the group consisting of CH_2CH_2OH, $—CH_2COOM$, $—CH_2CH_2COOM$, and alkyl groups and may be the same; alkylene is a member of the group consisting of $—CH_2CH_2CH_2—$, $—CH(CH_3)CH_2—$, $—CH_2CH_2—$, $=CH—CH=$; and n is an integer in the range 0, 1, 2, 3, 4.

2,776,919
METHOD OF HEAT TREATING CERIUM-IRON ALLOYS
Walter Bungardt, Essen-Bredeney, Germany, assignor to Th. Goldschmidt A.-G. Chemische Fabriken, Essen, Germany
No Drawing. Application March 31, 1954, Serial No. 420,191
3 Claims. (Cl. 148—13)

1. The method of improving properties of flints made from cerium-iron alloy, which comprises subjecting said alloy subsequent to final rod formation to a heat after-treatment at a temperature within the range between 100° C. and approximately the temperature at which melting of said alloy starts.

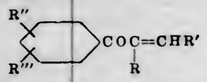
2,776,920
GERMANIUM-ZINC ALLOY SEMI-CONDUCTORS
William C. Dunlap, Jr., Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application November 5, 1952, Serial No. 318,939
11 Claims. (Cl. 148—33)



1. A semiconductor member consisting of P-type germanium impregnated with from 0.00001% to 0.001% by weight of zinc.

2,776,921
UNSATURATED ALKYLPHENONE INSECTICIDES FOR SOFT-BODIED INSECTS
Sidney Melamed, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application January 23, 1953, Serial No. 332,997
12 Claims. (Cl. 167—30)

1. The process of controlling soft bodied insects on plants which comprises applying thereto a composition comprising an alkylphenone of the structure



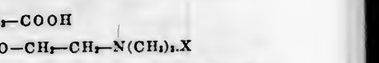
wherein R is a member of the class consisting of hydrogen, chlorine, and the methyl group, R′ represents a member of the class consisting of hydrogen and the methyl group, R″ represents a member of the class consisting of hydrogen and alkyl groups of one to four carbon atoms, and R‴ represents an alkyl group of three to fifteen carbon atoms, the sum of carbon atoms in R″ and R‴ being at least four and not over sixteen, said alkylphenone being dispersed in a carrier therefor.

2,776,922
SYNERGISTIC ZINC MERCAPTOBENZOTHIAZOLE AND ZINC DIMETHYL DITHIOCARBAMATE FUNGICIDAL COMPOSITION
Albert A. Somerville, Carmel, N. Y., assignor to R. T. Vanderbilt Company, Inc., New York, N. Y., a corporation of New York
No Drawing. Application March 28, 1951, Serial No. 218,090
3 Claims. (Cl. 167—33)

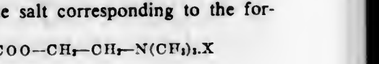
1. A composition of matter comprising a synergistic fungicidal mixture of the zinc salt of 2-mercaptobenzothiazole and zinc dimethyl dithiocarbamate.

2,776,923
COMPOSITION COMPRISING GLUTAMYLCHOLINE SALTS
Yoshito Nishizawa, Suita, Osaka, Japan
No Drawing. Application September 18, 1953, Serial No. 381,026
6 Claims. (Cl. 167—65)

1. A mixture of L-glutamyl-α-choline salt corresponding to the formula



and L-glutamyl-γ-choline salt corresponding to the formula



wherein X represents an anion.

2,776,924
COMPOSITION OF MATTER CONTAINING POLYVINYLPYRROLIDONE AND A FATTY CARRIER
Jean R. L. Martin, New York, N. Y., assignor to Coty, Inc., New York, N. Y., a corporation of Delaware
No Drawing. Application February 5, 1954, Serial No. 408,600
8 Claims. (Cl. 167—82)

1. A composition of matter consisting essentially of a homogeneous solution of polyvinylpyrrolidone, a fatty carrier and a compound selected from the group consisting of water insoluble, fat soluble fatty acids and fatty alcohols.

2,776,925
ENZYMIC PRODUCTION OF DEXTRAN OF INTERMEDIATE MOLECULAR WEIGHTS
Julian Corman and Henry M. Tsuchiya, Peoria, Ill., assignors to the United States of America as represented by the Secretary of Agriculture
No Drawing. Application October 3, 1952, Serial No. 313,084
8 Claims. (Cl. 195—31)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. The method comprising subjecting dextran of relatively high molecular weight to the action of dextranase elaborated by an extracellular dextranase-producing organism selected from the group consisting of *Penicillium lilacinum, P. funiculosum, P. verruculosum,* and *Spicaria violacea,* said dextranase being characterized in that at high concentrations it will depolymerize high molecular weight dextran to mono-, di-, and trisaccharides whereas at low concentrations it will depolymerize high molecular weight dextran to fragments of intermediate molecular weight, the reaction being conducted in an aqueous medium and the concentration of dextranase being within the range of 5 to 25 dextranase units per 100 ml. of solution, and continuing the reaction until a substantial proportion of dextran of intermediate molecular weight is formed, and stopping the reaction.

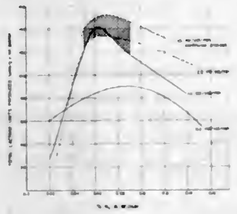
2,776,926
PREPARATION OF ALPHA-KETOGLUTARIC ACID BY SERRATIA MARCESCENS
Eugene S. Sharpe, Eureka, and Julian Corman, Peoria, Ill., assignors to the United States of America as represented by the Secretary of Agriculture
No Drawing. Application August 4, 1955, Serial No. 526,576
1 Claim. (Cl. 195—47)
(Granted under Title 35, U. S. Code (1952), sec. 266)

A method for the production of alpha-ketoglutaric acid comprising cultivating *Serratia marcescens* in a medium comprising an assimilable nitrogen source, essential nutrient salts, and at least 10 grams of glucose per 100 ml. of medium, introducing oxygen at the aeration efficiency of at least 3.0, permitting the fermentation to continue until the reducing power of the medium has dropped to 0.5 or lower, and recovering alpha-ketoglutaric acid from the medium.

2,776,927
PREPARATION OF $\Delta^{1,4}$-3-KETO STEROIDS FROM Δ^4 3-KETO STEROIDS BY PROTAMINOBACTER
Gilbert M. Shull, Huntington Station, N. Y., assignor to Chas. Pfizer & Co., Inc., New York, N. Y., a corporation of Delaware
No Drawing. Application December 27, 1955, Serial No. 555,290
11 Claims. (Cl. 195—51)

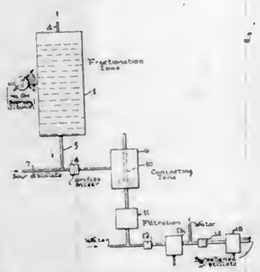
1. A process for the preparation of a 3-keto-$\Delta^{1,4}$-steroid compound which process comprises contacting a 3-keto-Δ^4-steroid compound having from 18 to 21 atoms in the carbon skeleton with the oxidizing activity of an organism of the genus Protaminobacter.

2,776,928
PRODUCTION OF SACCHAROMYCES FRAGILIS WITH AN OPTIMUM YIELD OF LACTASE
Harold Young, Babylon, and Raymond P. Healey, North Babylon, N. Y., assignors to National Dairy Research Laboratories, Inc., Oakdale, N. Y., a corporation of Delaware
Application May 23, 1955, Serial No. 510,167
4 Claims. (Cl. 195—67)



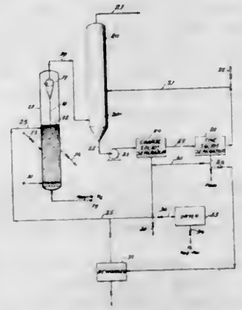
1. In a process for producing a lactase-active enzyme preparation by propagating *Saccharomyces fragilis* under growth-favoring conditions in a nutrient medium, the improvement which comprises maintaining the available nitrogen content and the rate of aeration within the shaded area of Figure 1.

2,776,929
GASOLINE SWEETENING PROCESS
Byron M. Vanderbilt, Westfield, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application August 22, 1950, Serial No. 180,895
6 Claims. (Cl. 196—32)



1. A process for sweetening a mercaptan-containing hydrocarbon distillate which comprises the steps of: mixing sodium hydroxide with an amount of isopropyl alcohol largely in excess of the amount of the said alcohol theoretically required to form sodium isopropylate therefrom, distilling from the last named mixture an azeotropic mixture of water and isopropyl alcohol through a distillation temperature range of from about 80° C. to less than 82° C., whereby there is left a distillation residue comprising undistilled isopropyl alcohol and the reaction product of sodium hydroxide and isopropyl alcohol, contacting the said hydrocarbon distillate with the said distillation residue, and thereafter filtering and water washing the said hydrocarbon distillate.

2,776,930
FINES RECOVERY FROM FLUID CATALYTIC CONVERSION SYSTEM
Edward D. McKeague, Crete, Ill., and Charles B. Kenyon, Chesterton, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application November 23, 1953, Serial No. 393,626
6 Claims. (Cl. 196—50)

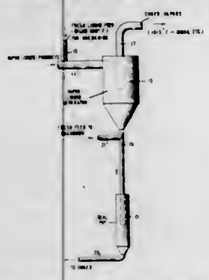


1. The method of recovering excessive fines from a fluidized solids conversion system wherein such excessive fines are not vented with regenerator flue gas which method comprises scrubbing the effluent from a reaction zone with a liquid to produce a slurry containing catalyst particles both larger and smaller than the minimum desired particle size, separating from said slurry relatively coarse catalyst particles larger than said minimum desired particle size in a first separation zone, subsequently separating from said slurry in a second separation zone fine particles having a particle size below about 20 microns, returning at least a part of said substantially solids-free liquid from the second separation zone to the scrubbing zone reworking said separated fine particles into coarse particles, recombining a portion of said reworked fine particles with said coarse solids, and returning the recombined solids to the reaction zone.

2,776,931
PROCESS AND APPARATUS FOR QUENCHING COKER PRODUCTS
Allen L. Chaney and John F. Moser, Jr., Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application July 21, 1953, Serial No. 369,455
5 Claims. (Cl. 196—55)

1. A process for quenching and separating hot effluent vapors containing a small amount of entrained solids from a high temperature residual oil conversion process employing preheated particulate solids, which comprises: quenching said vapors to a temperature in the range of 750° to 825° F. by adding a liquid hydrocarbon oil having a temperature in the range 350° to 600° F. thereby liquefying the high boiling contaminant containing portion of the vapors, then separating in a cyclonic separation zone liquid and solids from the remaining quenched vapors, recovering said remaining quenched vapors, and immediately further cooling the condensed liquid and solids so separated to a temperature in the range of 500° to 700° F.

4. In a hydrocarbon oil fluid coking system, apparatus for controlling the end boiling point of the conversion products, which comprises, in combination, a separator of the cyclonic type adapted to separate high temperature gases from liquids and provided with an inlet conduit



for conversion products from said coking system, and outlet conduits for the gas and liquid streams separated therein, and conduit means for introducing a liquid quench oil into the conversion products prior to their entry into said separator and into the separated liquid as the liquid is withdrawn from said separator.

2,776,932

PROCESS FOR OXIDIZING ASPHALTS

Harley F. Hardman, Lyndhurst, Ohio, assignor to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application May 6, 1953, Serial No. 353,448
4 Claims. (Cl. 196—74)

2. A method of treating an asphaltic stock comprising heating and oxidizing the stock in the presence of about 0.1 to 5.0% by weight of a fluoborate of a metal having an atomic number in execss of 22 and having a pronounced metallic character to decrease the temperature susceptibility of the stock.

2,776,933

METHOD OF OXIDIZING ASPHALTS

Henry G. Gossen, Ioco, British Columbia, Canada, assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application June 16, 1953, Serial No. 362,143
3 Claims. (Cl. 196—74)

1. In the oxidation of a petroleum asphalt by blowing the asphalt with air in the presence of ferric chloride, the improvement which comprises extraneously liquefying $FeCl_3.6H_2O$ by heating it above its congruent melting point and adding up to about 1 weight percent of the resulting liquid to the asphalt being oxidized.

2,776,934

HYDROGENATION OF SULFUR-CONTAMINATED OLEFINS

Sol W. Weller, Drexel Hill, Pa., assignor to Houdry Process Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application November 27, 1951, Serial No. 258,503
1 Claim. (Cl. 196—78)

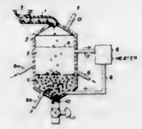
The method of hydrogenating sulfur-contaminated olefins boiling in the range of gasoline and naphtha which comprises contacting such an olefin with molar excess of hydrogen at a pressure not in excess of 100 pounds per square inch and at a temperature from above 750° F. to about 1000° F., in the presence of a catalyst comprised of 0.05 to 2.0% platinum supported on a carrier consisting of activated alumina which has been impregnated with magnesia.

2,776,935

HEAT TREATING FLUID COKE COMPACTIONS

Charles E. Jahnig, Rumson, and Walter A. Wurth and Homer Z. Martin, Cranford, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application June 29, 1955, Serial No. 518,865
6 Claims. (Cl. 202—14)



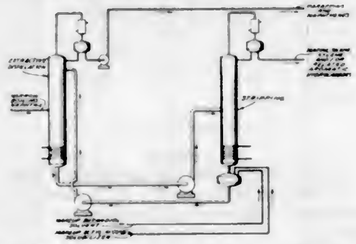
1. In the heat hardening of compactions of fluid coke with an agglutinating carbonaceous binder substance at heat hardening temperatures at which temperatures the compactions normally tend to deform and oxidize, the improvement which comprises the steps of countercurrently contacting the fluid coke compactions flowing downwardly in the form of a moving bed with fluidized finer coke particles at heat hardening temperature in a vertical elongated heat treating zone, the compactions being fed to an upper portion of the treating zone; withdrawing a portion of the coke particles from an upper portion of the treating zone; circulating them through an extraneous heating zone wherein their temperatures are elevated; returning them to a lower portion of the treating zone to supply heat thereto and withdrawing the heat hardened compactions from the lower portion of the treating zone.

2,776,936

EXTRACTIVE DISTILLATION OF AROMATICS

Frank S. Bondor, Wilmington, Del., and Edward H. Lebeis, Jr., Media, Pa., assignors to Houdry Process Corporation, Wilmington, Del., a corporation of Delaware

Application June 25, 1953, Serial No. 364,221
14 Claims. (Cl. 202—39.5)



1. The method of separating aromatic hydrocarbons from mixtures containing the same and non-aromatic hydrocarbons which comprises subjecting such a mixture to extractive distillation in the presence of a butanediol with addition of octyl alcohol as a solubilizer for increasing the solubility of the non-aromatic hydrocarbons in the butanediol, recovering the liquid fraction comprising said butanediol solvent and said octy alcohol solubilizer containing extracted aromatics, and stripping the aromatics from said solvent and solubilizer.

2,776,937

PURIFICATION OF DIHYDRIC PHENOLS

Leo J. Filar, Wilmington, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 24, 1953, Serial No. 400,371
10 Claims. (Cl. 202—42)

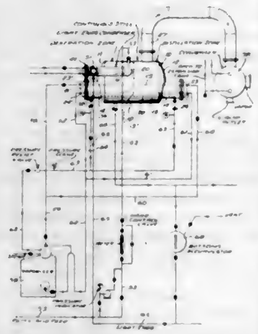
1. The method of purifying a dihydric phenol of the group consisting of resorcinol, hydroquinone and pyrocatechol which comprises distilling said dihydric phenol as an azeotrope with a chlorinated biphenyl containing about 20% to about 35% combined chlorine and separating said dihydric phenol from the distillate.

2,776,938

DISTILLING APPARATUS

Francis B. White, Elmhurst, N. Y., and Alfred G. Parker, Summit, N. J., assignors to Foster Wheeler Corporation, New York, N. Y., a corporation of New York

Application December 29, 1951, Serial No. 264,044
10 Claims. (Cl. 202—173)



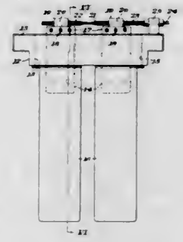
1. Apparatus of the character described comprising a substantially horizontally extending shell, partition means dividing said shell into laterally adjacent prestripping and bulk overhead distilling compartments, heating means in the lower part of said prestripping compartment, other heating means in the lower part of said bulk overhead compartment, said compartments being in communication with one another in the lower part thereof so that heated liquid will pass from said heating means in the prestripping compartment to said heating means in the bulk overhead compartment, feed stock conducting means in communication with said prestripping compartment in the upper part thereof and conducting unheated feed stock into said prestripping compartment for heat exchange relationship with the heating means in said last mentioned compartment, the prestripping compartment having a vapor outlet in the upper portion thereof, baffle means in said prestripping compartment above the heating means for receiving and intercepting the unheated feed stock passing to the heating means for heat exchange relationship therewith, the baffle means comprising a plurality of open trays positioned at an elevation below the vapor outlet for the prestripping compartment, said trays communicating with one another in series to form a liquid path of flow for said feed liquid, each tray being disposed in a substantially horizontal plane at a different vertical level above the heating means in said compartment, the uppermost tray extending transversely of the longitudinal axis of the shell, one end of the uppermost tray being in communication with the feed stock conduit while the opposite end communicates with a lower tray adjacent one end of said lower tray, said lower tray extending substantially parallel to the longitudinal axis of the shell, the lowermost tray and trays intermediate said lower and lowermost trays communicating with one another adjacent the adjoining ends thereof and extending transversely of said longitudinal axis of the shell, said lowermost tray communicating at one end thereof with said heating means and at the opposite end with the tray next above the lowermost tray, vapor outlet means in communication with the upper portion of said bulk overhead distilling compartment, vapor and liquid separating means in the bulk overhead distilling compartment in the path of flow of vapor from said other heating means to said vapor outlet means, and a separated liquid outlet in communication with the bulk overhead distilling compartment.

2,776,939

ANODE AND METHOD OF CONTINUOUS PLATING

Elmore J. Newton, Aliquippa, Pa., assignor to Jones & Laughlin Steel Corporation, Pittsburgh, Pa., a corporation of Pennsylvania

Application May 5, 1949, Serial No. 91,612
5 Claims. (Cl. 204—28)



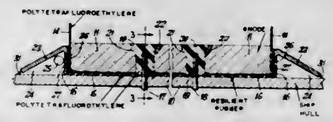
1. In a continuous alkaline electrotinning line having means for continuously passing a metal strip to be plated through an alkaline electrotinning bath, an anode comprising a supporting head, a vertical longitudinal slot in said head, a pair of electrode members movably mounted in said slot and extending outwardly from the supporting head side-by-side in the same general plane substantially across the width of the strip and having the portion of each member connected to the supporting head extending above the surface of the electrotinning bath at all times and adjusting means for moving the electrode members relatively to each other.

2,776,940

MOUNTING FOR UNDERWATER ANODE FOR SHIP'S HULL

John P. Oliver, Berea, Ohio, assignor to Union Carbide and Carbon Corporation, a corporation of New York

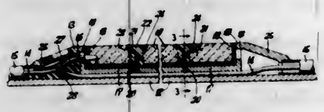
Application December 24, 1953, Serial No. 400,243
1 Claim. (Cl. 204—196)



An anode mounting on a metallic ship's hull comprising a metal holder secured to said hull and forming therewith an anode receptacle, a friable carbon anode disposed in said receptacle, an impact cushioning and insulating rubber lining between the walls of said receptacle and said anode, a polytetrafluoroethylene lining disposed between said anode and said rubber lining, and polytetrafluoroethylene securing means for retaining said anode in operative assembly with said hull, whereby said carbon anode tending to release effective amounts of chlorine to deleteriously alter the cushioning and insulating characteristics of said rubber lining, said polytetrafluoroethylene lining shielding said rubber lining from the deleterious effects of said chlorine, thereby substantially extending the operable life of said anode, and said polytetrafluoroethylene lining extending beyond said receptacle lip, thereby affording a lengthened path between said anode and said rubber lining.

2,776,941
HOLDER FOR UNDERWATER ANODE

Ernest A. Wagner, Cleveland, Ohio, assignor to Union Carbide and Carbon Corporation, a corporation of New York

Application February 25, 1954, Serial No. 412,555
2 Claims. (Cl. 204—196)

1. An underwater anode mounting on a metallic ship's hull comprising a metal holder having a pair of side walls, a pair of end walls, and a bottom wall united in the form of an anode receptacle, a carbon anode insulatingly resiliently disposed in said receptacle, an extension leg at the bottom end of each of said side walls, an inclined leg at the upper end of each of said end walls, said extension legs and inclined legs being fixedly attached to said hull and defining an enclosed clearance space between said receptacle bottom and said hull, a stud secured to the bottom of said receptacle and insulatingly retaining said anode therein, and perforated access means communicating with said clearance space and said carbon anode for the introduction of a supply conductor lead, said mounting being adapted to receive therethrough said lead and to accommodate a portion of said lead in the clearance space between said receptacle bottom and said hull.

2,776,942
FIRE EXTINGUISHING COMPOSITION AND METHOD OF EXTINGUISHING FIRES

Walter G. Sylvester, West Caldwell, and Charles Anthony, Jr., East Orange, N. J., assignors to Specialties Development Corporation, Belleville, N. J., a corporation of New Jersey

No Drawing. Application December 26, 1951, Serial No. 263,493
2 Claims. (Cl. 252—7)

1. A fire extinguishing powder consisting essentially of a finely divided dry mixture of about 85% by weight of sodium bicarbonate, and about 15% by weight of lithium carbonate.

2,776,943
TREATMENT OF SOAP PARTICLES

Stanley L. Eaton, Cincinnati, Ohio, assignor to The Procter & Gamble Company, Cincinnati, Ohio, a corporation of Ohio

No Drawing. Application May 14, 1951, Serial No. 226,293
16 Claims. (Cl. 252—109)

1. In the process of reducing the balling tendencies of particulate compositions consisting essentially of sodium soaps containing insufficient soaps of saturated fatty acids having 8 to 14 carbon atoms to prevent balling of the particles and an amount of sodium silicate solids not less than 1½% and not greater than 50% of said composition and uniformly distributed therein, the steps of applying to the particles from 1% to about 7% of a saturated fatty acid having 8 to 14 carbon atoms and reacting said fatty acid in fluid condition with silicate solids at the surface of said particles.

13. A particulate soap product consisting of an inner portion of a soap composition consisting essentially of sodium soaps containing insufficient soaps of saturated fatty acids having 8 to 14 carbon atoms to prevent balling and at least 1½% and not more than 50% of sodium silicate uniformly distributed therein, and a crust portion comprising the reaction products of silicate and saturated fatty acids having from 8 to 14 carbon atoms in the molecule, the amount of said fatty acid being equal to from 1% to about 7% of the weight of the soap particle, the SiO_2/Na_2O ratio of the silicate in the crust portion being greater than that of said inner portion.

2,776,944
RECOVERING SPENT NITRATING LIQUOR

James G. McMillan, Jr., Red Bank, and Warren L. Plunkett, Sayreville, N. J., assignors to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 28, 1956, Serial No. 574,389
12 Claims. (Cl. 252—182)

1. A method of separating and recovering spent nitrating mixture from nitrocellulose following nitration of cellulose in a nitrating mixture containing essentially nitric acid, magnesium nitrate, and water which comprises drawing off the bulk of spent nitrating mixture from the nitrocellulose to produce nitrocellulose moist with retained spent nitrating mixture, thereafter rapidly displacing retained spent nitrating mixture from the nitrocellulose with fresh nitric acid having a concentration between about 60% and about 75% by weight and being substantially free of magnesium nitrate to produce nitrocellulose moist with nitric acid having a substantially lower magnesium nitrate content than said spent nitrating mixture, and recovering the drawn-off and displaced spent nitrating mixture.

2,776,945
SPINNING SOLVENT FOR ACRYLIC FIBERS

Forrest J. Rahl, Morristown, and Harry H. Weinstock, Jr., Madison, N. J., assignors to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York

No Drawing. Application July 22, 1954, Serial No. 445,156
10 Claims. (Cl. 260—32.6)

1. A spinning solution consisting essentially of a copolymer of acrylonitrile and at least one other substance having ethylenic unsaturation, said copolymer containing at least 70 weight percent acrylonitrile, and a solvent for said copolymer consisting essentially of 50 to 95 parts by weight acetonitrile and 50 to 5 parts by weight of an unsubstituted C_1–C_2 saturated aliphatic amide.

2,776,946
COMPOSITIONS COMPRISING PLASTICIZED ACRYLONITRILE POLYMERS AND MOLDED AND EXTRUDED ARTICLES MADE THEREFROM

Marion R. Lytton, West Chester, Edward A. Wielicki, Philadelphia, and Ellis Lewis, Jenkintown, Pa., assignors to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application February 23, 1952, Serial No. 273,144
4 Claims. (Cl. 260—32.6)

1. A composition consisting essentially of a finely divided moldable mixture comprising finely divided particles of polyacrylonitrile and bis (B-cyanoethyl) nitrosamine in an amount of about 10% of the combined weight of the polyacrylonitrile and nitrosamine.

2,776,947
POLYMER DISPERSIONS

Calvin E. Schildknecht, Montclair, N. J., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application October 31, 1952, Serial No. 318,077
10 Claims. (Cl. 260—32.6)

1. A process for the production of a stable dispersion of a copolymer of acrylonitrile and N-vinyl lactam, containing at least about 70 mole percent of acrylonitrile which comprises adding to a solution of said copolymer a sufficient quantity of a non-solvent for said copolymer, which non-solvent is miscible with the solution, to precipitate at least a portion of the copolymer as a non-settling dispersed phase capable of scattering light.

2,776,948
SYNTHETIC RESINS DERIVED FROM HYDROXYMETHYLFURFURAL AND PHENOLS

Francis H. Snyder, Newtown, Conn., assignor to Dendrol, Inc., Memphis, Tenn., a corporation of Delaware

No Drawing. Application August 3, 1953, Serial No. 372,172
10 Claims. (Cl. 260—54)

1. The process of preparing a synthetic resin which comprises reacting hydroxymethylfurfural with a phenol of the class consisting of hydroxybenzene, resorcinol, the cresols, xylenols and crude mixtures thereof under alkaline condensing conditions.

2,776,949
MODIFIED AMIDE-ALDEHYDE RESINS FROM AMIDES OF OXIDIZED PARAFFIN ACIDS

John P. Buckmann, Yorba Linda, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

No Drawing. Application July 27, 1953, Serial No. 370,630
12 Claims. (Cl. 260—72)

1. A resin composition prepared by reacting a fluid amide, an aldehyde substance and an alcohol at a temperature between about 50° C. and about 150° C., said alcohol being an acyclic monohydroxy alcohol having 2 to 8 carbon atoms per molecule and said fluid amide being a mixture of amides prepared by oxidizing paraffin wax with a gas containing free oxygen at a temperature between 100° C. and 140° C. to produce an oxidized wax having an acid number between about 200 and about 350 mg. KOH/g., separating from the oxidized wax a fraction insoluble in water and in petroleum naphtha, which fraction has a saponification number-acid number ratio between 1.4 and 2.2 to 1 and a total oxygen-carboxyl ratio between 1.2 and 1.8 to 1, and amidating said fraction.

2,776,950
SYNTHETIC POLYAMIDE RESINS FROM 5-t-BUTYL-m-XYLYLENE DIAMINE

Funston G. Lum and Earl F. Cariston, Richmond, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application July 17, 1953, Serial No. 368,817
4 Claims. (Cl. 260—78)

1. A polyamide resin of 5-t-butyl-m-xylylene diamine and an aliphatic dicarboxylic acid of 6 to 10 carbon atoms.

2,776,951
AMIDES OF VINYL ETHERS CONTAINING HYDROXYL GROUPS AND POLYMERS THEREOF

Sidney Melamed, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application December 8, 1954, Serial No. 474,005
23 Claims. (Cl. 260—78.3)

1. A composition comprising a compound selected from the group consisting of amides of an aliphatic monocarboxylic acid of 2 to 18 carbon atoms containing at least one hydroxyl group and a vinyloxyalkylamine having the structure of the formula

$$CH_2{=}CHOANHR$$

where

A is an alkylene group having 2 to 18 carbon atoms of which at least two in a chain separate the adjoining nitrogen and ether oxygen atoms, and

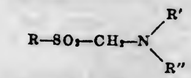
R is selected from the group consisting of H, phenyl, tolyl, benzyl, cyclohexyl, and alkyl groups having from 1 to 18 carbon atoms.

2,776,952
IMPROVEMENTS IN THE PRODUCTION OF POLYMERIZATION PRODUCTS USING HALOGEN COMPOUNDS TO INCREASE THE EFFECTIVENESS OF SULFONE POLYMERIZATION CATALYSTS

Hellmut Bredereck, Erich Bäder, Wolfgang Nübling, and Adolf Wohnhas, Stuttgart, Germany, assignors to W. C. Heraeus G. m. b. H., Hanau (Main), Germany, a body corporate of Germany, and Deutsche Gold- und Silber-Scheideanstalt vormals Roessler, Frankfurt, Germany, a body corporate of Germany

No Drawing. Application October 31, 1952, Serial No. 318,092
Claims priority, application Germany November 3, 1951
6 Claims. (Cl. 260—80)

1. In a method for the production of polymerization products, including molded bodies from polymerizable organic compounds having a terminal carbon-carbon double bond, in the presence of a polymerization activator, having the general formula



in which R is a hydrocarbon radical, R′ is a hydrocarbon radical, and R″ is a member selected from the group consisting of hydrocarbon radicals and the group $R{-}SO_2{-}CH_2{-}$, the improvement which comprises effecting the polymerization in the additional presence of a halogen compound selected from the group consisting of hydrogen halides of bromine, chlorine, and iodine, inorganic and organic ionizable salts of said hydrogen halides, triphenyl chlor-methane, ethylenechlorhydrin, chlor-methyl acetate, acetyl chloride, benzoyl chloride, benzine sulfochloride and p-toluene sulfochloride said halogen compound being used in an amount smaller than the amount of said polymerization activator.

2,776,953
POLYMERIZATION PROCESS

Milton A. Taves, Wilmington, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application September 15, 1953, Serial No. 380,344
19 Claims. (Cl. 260—82.5)

1. The process which comprises polymerizing an organic compound containing the $CH_2{=}C<$ group at a temperature below about 10° C. in aqueous emulsion in the presence of an emulsifying agent, an electromotive couple having a standard oxidation-reduction potential between about −1.0 and about −0.3 volt as activator and as catalyst a polycyclohexyl hydroperoxide in which the hydroperoxy group is attached to a tertiary carbon atom in a cyclohexyl ring.

2,776,954
POLYMERIZATION PROCESS

Milton A. Taves, Wilmington, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application September 15, 1953, Serial No. 380,343
17 Claims. (Cl. 260—82.5)

1. The process which comprises polymerizing an organic compound containing the $CH_2{=}C<$ group at a temperature below about 10° C. in aqueous emulsion in the presence of an emulsifying agent, an electromotive couple having a standard oxidation-reduction potential between about −1.0 and about −0.3 volt as

activator and as catalyst a hydroperoxide of the group consisting of 1,1-dialkyl-1-[(dialkylmethyl)cyclohexyl] methyl hydroperoxide and 1,1-dialkyl-1-[(trialkylmethyl)cyclohexyl] methyl hydroperoxide.

2,776,955

REACTION PRODUCT OF STABILIZED ROSIN AMINE WITH PHOSPHORUS PENTOXIDE

Ronald Rosher, Wilmington, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 9, 1953, Serial No. 367,116
7 Claims. (Cl. 260—100)

1. The resinous product formed by heating a stabilized rosin amine with phosphorus pentoxide under substantially anhydrous conditions at a temperature between about 80° and about 170° C. for a length of time between about one hour and about five hours, the molar ratio of said amine to the phosphorus pentoxide varying from about 2:1 to about 10:1.

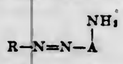
2,776,956

COMPLEX COBALT COMPOUNDS

Christian Zickendraht, Binningen, and Arthur Buehler, Rheinfelden, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application September 28, 1953, Serial No. 382,868
Claims priority, application Switzerland October 24, 1952
12 Claims. (Cl. 260—145)

1. A complex cobalt compound which comprises a cobalt atom bound in complex union with two monoazo dyestuff molecules of which one is a member selected from the group consisting of an ortho:ortho'-dihydroxy- and an ortho-hydroxy-ortho'-aminomonoazo dyestuff free from sulfonic acid and carboxylic acid groups and the other corresponds to the formula



in which R represents a hydroxybenzene radical free from sulfonic acid and carboxylic acid groups and bound to the azo linkage in ortho-position to the hydroxyl group and A represents a naphthalene radical bound to the azo linkage in a position vicinal to the NH_2-group and free from sulfonic acid and carboxylic acid groups, the dyestuff molecule containing at least one of the substituents selected from the group consisting of a sulfonic acid amide group and a sulfone group with more than one carbon atom, at most one single sulfonic acid amide group being present in the radical R.

2,776,957

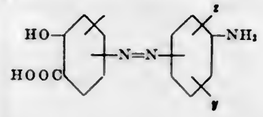
WATER-SOLUBLE MORDANT AZOPHTHALOCYANINE DYESTUFFS AND PROCESS FOR MAKING THEM

Willy Brentano, Arlesheim, and Hans Grossmann and Max Müller, Basel, Switzerland, assignors to Durand & Huguenin A. G., Basel, Switzerland, a Swiss firm

No Drawing. Application July 27, 1953, Serial No. 370,612
Claims priority, application Switzerland July 31, 1952
12 Claims. (Cl. 260—146)

1. A process for the manufacture of water-soluble mordant azo-phthalocyanine dyestuffs comprising the step of condensing one molecular proportion of a phthalocyanine sulphochloride of the general formula

in which A represents a metal-containing phthalocyanine nucleus, in which the $-SO_2Cl$ and $-SO_3H$ groups are present in one of the 3- and 4-positions, said metal being selected from the group consisting of copper, cobalt, nickel, iron, chromium and aluminum, n stands for an integer from 1 to 4 inclusive, and m is a numeral from 0 to 3 inclusive, the sum of $m+n$ being equal to 4, in an aqueous medium and in the presence of a mineral acid binding agent with one to four molecular proportions of at least one amino-azo-dyestuff of the general formula



in which x stands for a member selected from the group consisting of hydrogen, chlorine, bromine, a methyl, hydroxyl, nitro and sulphonic acid group, y stands for a member selected from the group consisting of hydrogen, chlorine, bromine, an alkyl, alkoxy, nitro, sulphonic acid and carboxylic acid group and z stands for a member selected from the group consisting of hydrogen, chlorine, bromine, an alkyl and alkoxy group.

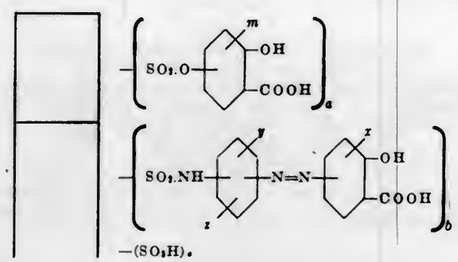
2,776,958

NEW WATER-SOLUBLE MORDANT AZOPHTHALOCYANINE DYESTUFFS AND PROCESS FOR MAKING SAME

Willy Brentano, Arlesheim, near Basel, Switzerland, assignor to Durand & Huguenin A. G., Basel, Switzerland, a Swiss company

No Drawing. Application January 12, 1954, Serial No. 403,654
Claims priority, application Switzerland January 14, 1953
7 Claims. (Cl. 260—146)

1. A member selected from the class consisting of water-soluble mordant azo-phthalocyanine dyestuffs which correspond to the formula



and the alkali metal salts thereof, wherein A represents a metal-containing phthalocyanine molecule in which the $-SO_2.O-$, $-SO_2.NH-$ and SO_3H groups are severally present in one of the 3- and 4-positions, said metal being selected from the group consisting of copper, cobalt, nickel, iron, chromium and aluminum, m is a member selected from the group consisting of H halogen and CH_3 bound in ortho-position to the $-SO_2.O-$ linkage, x is a member selected from the group consisting of H, CH_3, OH, NO_2 and SO_3H, y is a member selected from the group consisting of H, CH_3, OCH_3, SO_3H and COOH bound in ortho-position to the azo group, z is a member selected from the group consisting of H and OCH_3 bound in ortho-position to the $-SO_2.NH-$ linkage, a and b each represents a whole number from 1 to 3 inclusive, c is a number from 0 to 2, and the sum of $a+b+c=4$, and wherein the $-SO_2.NH-$ group occupies one of the positions meta and para relatively to the azo linkage.

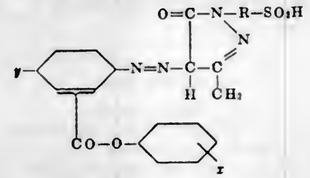
2,776,959

ACID MONOAZO DYESTUFFS

Franz Frisch, Arlesheim, near Basel, Switzerland, assignor to Sandoz A. G., Basel, Switzerland, a Swiss firm

No Drawing. Application October 26, 1954, Serial No. 464,890
Claims priority, application Switzerland October 30, 1953
6 Claims. (Cl. 260—162)

1. An acid monoazo dyestuff which corresponds to the formula



wherein x stands for a member selected from the group consisting of alkyl with 4 to 12 carbon atoms, cyclohexyl, benzyl and phenyl, y stands for a member selected from the group consisting of hydrogen and chlorine, and $-R-SO_3H$ stands for a member selected from the group consisting of aromatic sulfonic acid radicals of the benzene and naphthalene series, the $-SO_3H$ group standing in a position other than in ortho-position to the pyrazolone linkage.

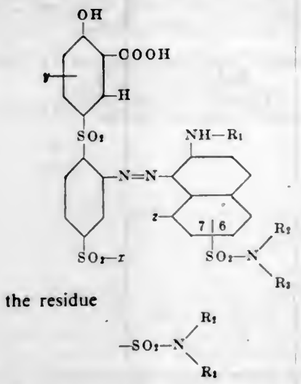
2,776,960

MONOAZO DYES

Franz Frisch, Arlesheim, Switzerland, assignor to Sandoz A. G., Basel, Switzerland, a Swiss firm

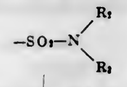
No Drawing. Application December 29, 1952, Serial No. 328,511
Claims priority, application Switzerland January 9, 1952
7 Claims. (Cl. 260—196)

1. A monoazo dyestuff which corresponds to the formula

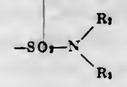


wherein the residue

stands in one of the positions 6 and 7, R_2 stands for a member selected from the group consisting of hydrogen and lower alkyl, R_3 stands for a member selected from the group consisting of lower alkyl, cycloalkyl, aralkyl and phenyl, R_1 stands for a member selected from the group consisting of hydrogen, methyl and ethyl, x stands for a member selected from the group consisting of lower alkyl, cycloalkyl, aralkyl, mononuclear carbocyclic aryl, amino, lower alkylamino, cycloalkylamino, aralkylamino, phenylamino, methylphenylamino, N,N-lower dialkylamino, N-lower alkyl-N-aralkylamino and N-lower alkyl-N-phenylamino, the substituted amino groups containing a total of not more than 14 carbon atoms, y stands for a member selected from the group consisting of hydrogen and methyl, and z stands—when the residue



is in position 6—for a member selected from the group consisting of hydrogen and hydroxy, and—when the residue



is in position 7—for hydrogen.

2,776,961

PROCESS FOR THE MANUFACTURE OF AZO-DYESTUFFS

Alfred Hagenboecker and Max Blumer, Basel, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application September 2, 1952, Serial No. 307,566
Claims priority, application Switzerland October 4, 1951
3 Claims. (Cl. 260—196)

1. Process for the manufacture of a monoazo dyestuff, which comprises coupling at a pH-value between 2 and 8 an ortho-hydroxy-diazo compound with 2-aminonaphthalene-1-sulfonic acid whereby, concomitantly with the formation of the dyestuff, the 1-sulfonic acid group of the 2-aminonaphthalene-1-sulfonic acid is split off.

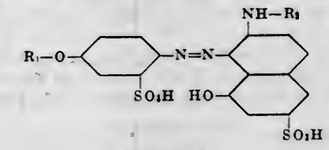
2,776,962

ACID MONOAZO DYESTUFFS

Franz Frisch, Arlesheim Basel-Land, near Basel, and Markus Kappeler, Basel, Switzerland, assignors to Sandoz A. G., Basel, Switzerland, a Swiss firm

No Drawing. Application July 6, 1954, Serial No. 441,645
Claims priority, application Switzerland July 7, 1953
6 Claims. (Cl. 260—198)

1. An acid monoazo dyestuff which corresponds to the formula



wherein R_1 stands for a member selected from the group consisting of phenyl, fluorophenyl, chlorophenyl, lower alkylphenyl, cyclo-alkylphenyl, aralkylphenyl, lower alkoxyphenyl, lower alkyl-alkoxyphenyl, diphenyl and 5,6,7,8-tetrahydronaphthyl, and R_2 stands for a member selected from the group consisting of fluorophenyl, chlorophenyl, methylphenyl, lower alkoxyphenyl and 5,6,7,8-tetrahydronaphthyl.

2,776,963

ACETYLDIGITOXIN-α

Arthur Stoll and Walter Kreis, Arlesheim, near Basel, Switzerland, assignors to Sandoz, A. G., Basel, Switzerland, a Swiss firm

No Drawing. Application May 28, 1953, Serial No. 358,196
Claims priority, application Switzerland June 7, 1952
3 Claims. (Cl. 260—210.5)

1. A process for the preparation of acetyldigitoxin-α which comprises the step of heating a solution of acetyldigitoxin-β in an organic solvent at a pH ranging from

weakly acid to weakly alkaline, whereby rearrangement takes place with shifting of the position of the acetyl group.

2,776,964

MANUFACTURE OF NITROCELLULOSE

James G. McMillan, Jr., Red Bank, and Warren L. Plunkett, Sayreville, N. J., assignors to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

Application March 28, 1956, Serial No. 574,481

11 Claims. (Cl. 260—220)

1. A continuous system for the production of nitric acid esters of cellulose which comprises subjecting cellulose to a nitration reaction in which cellulose is reacted with an excess of nitrating mixture essentially containing nitric acid, magnesium nitrate, and water, the ratio of magnesium nitrate to water being at least about 1.2:1 and not more than about 2.2:1 by weight, and the nitric acid being present in an amount sufficient to yield a nitrocellulose having a nitrogen content of from about 11% to about 13.5% by weight; recovering spent nitrating mixture from the nitrocellulose; thereafter subjecting the nitrocellulose to a rapid displacement wash; recovering the discharge from the displacement wash; subjecting the nitrocellulose to a series of aqueous nitric acid washes in rapid succession after the displacement wash in which the discharge from the first wash is recovered and the discharge from each succeeding wash is recycled to the preceding wash; withdrawing the washed nitrocellulose from the system; fortifying part of the recovered spent nitrating mixture with concentrated nitric acid and concentrated magnesium nitrate and recycling the fortified mixture as the nitrating mixture for the nitration reaction, said concentrated nitric acid being obtained by concentrating the remainder of the recovered spent nitrating mixture, the recovered discharge from the displacement wash, and the recovered discharge from the first wash in a nitric acid concentrator using a magnesium nitrate dehydrating agent, said concentrated magnesium nitrate being obtained by concentrating the magnesium nitrate from the nitric acid concentrator and adding fresh magnesium nitrate to replace that lost in the system; and supplying fresh nitric acid of about 60% to about 75% concentration to the system as the displacement wash and in an amount substantially equivalent in HNO_3 content to the nitric acid consumed in the nitration and lost in the system.

2,776,965

NITRIC ACID ESTERS OF CELLULOSE AND METHOD OF PREPARATION

James L. Bennett, Wilmington, Del., and Robert M. Brooks, Milltown, James G. McMillan, Jr., Red Bank, and Warren L. Plunkett, Sayreville, N. J., assignors to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 28, 1956, Serial No. 574,388

17 Claims. (Cl. 260—220)

1. A process for preparing nitric acid esters of cellulose which comprises reacting cellulose with an excess over theoretical stoichiometric requirements of nitrating mixture containing essentially nitric acid, magnesium nitrate and water, the ratio of magnesium nitrate to water being at least about 1.2:1 and not more than about 2.2:1 by weight, and said nitric acid being present in an amount sufficient to yield a nitric acid ester of cellulose having a nitrogen content of from about 11% to about 13.5% by weight.

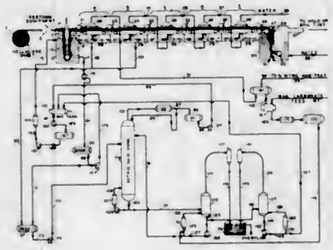
2,776,966

MANUFACTURE OF NITROCELLULOSE

James G. McMillan, Jr., Red Bank, and Warren L. Plunkett, Sayreville, N. J., assignors to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

Application March 28, 1956, Serial No. 574,499

7 Claims. (Cl. 260—220)



1. A process for preparing nitric acid esters of cellulose which comprises continuously immersing a sheet of cellulose in a nitrating bath containing essentially nitric acid, magnesium nitrate and water, the ratio of magnesium nitrate to water being at least about 1.2:1 and not more than about 2.2:1 by weight and said nitric acid being present in an amount sufficient to yield a nitric acid ester of cellulose having a nitrogen content of from about 11% to about 13.5% by weight, continuously removing the nitrated sheet from the nitrating bath, and continuously progressing the nitrated sheet through a plurality of segregated washes in which each succeeding washing liquid is of decreased nitric acid content and increased water content.

2,776,967

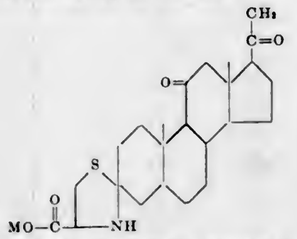
DIKETOPREGNANESPIROTHIAZOLIDINE

Gunther S. Fonken and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application September 8, 1955, Serial No. 533,236

7 Claims. (Cl. 260—239.5)

7. A compound having the formula:



wherein M is a pharmacologically acceptable cation of a base.

2,776,968

CYCLOPENTANOPHENANTHRENE COMPOUNDS AND PROCESSES

Carl Djerassi, Birmingham, Mich., and Howard J. Ringold and George Rosenkranz, Mexico City, Mexico, assignors, by mesne assignments, to Syntex S. A., Mexico City, Mexico, a corporation of Mexico

No Drawing. Application July 14, 1952, Serial No. 298,834

Claims priority, application Mexico July 26, 1951

3 Claims. (Cl. 260—239.55)

1. A new compound consisting of the 12-cycloethylenemercaptol of 22-isoallospirostan-3β-ol-11-one having a melting point of 295–296° C.

2,776,969

METHOD OF PREPARATION OF CYCLOPENTANOPHENANTHRENE DERIVATIVES

George Rosenkranz, Mexico City, Mexico, and Carl Djerassi, Birmingham, Mich., assignors, by mesne assignments, to Syntex S. A., Mexico City, Mexico, a corporation of Mexico

No Drawing. Application February 17, 1953, Serial No. 337,432

Claims priority, application Mexico February 19, 1952

8 Claims. (Cl. 260—239.55)

5. A compound selected from the group consisting of Δ^5-spirosten-3β,11α-diol, lower fatty acid esters and benzoic acid esters thereof.

2,776,970

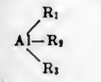
TRI-SULFA ALUMINUM SALTS

Carl J. Lintner, Jr., Kalamazoo Township, Kalamazoo County, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application February 1, 1956, Serial No. 562,650

7 Claims. (Cl. 260—239.65)

1. An aluminum trisulfonamide salt having the following formula:



wherein R_1 is a radical selected from the group consisting of sulfacetamide, sulfamethazine, sulfisoxazole, sulfadimetine, and sulfathiazole and R_2 and R_3 are radicals selected from the group consisting of sulfamethazine, sulfacetamide, sulfisoxazole, sulfamerazine, sulfadiazine, sulfapyridine, sulfathiazole, sulfaguanidine, and sulfadimetine.

2,776,971

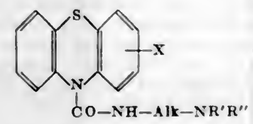
CHLOROPHENOTHIAZINECARBOXAMIDES

John W. Cusic, Skokie, and Markus Zimmermann, Evanston, Ill., assignors, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware

No Drawing. Application February 14, 1955, Serial No. 488,110

9 Claims. (Cl. 260—243)

1. A compound of the structural formula



wherein X is a halogen atom of an atomic weight less than 40, Alk is a lower alkylene radical separating the two nitrogen atoms attached thereto by at least two carbon atoms and NR'R'' is a member of the class consisting of di-(lower)alkylamino, pyrrolidino, piperidino and morpholino radicals.

2,776,972

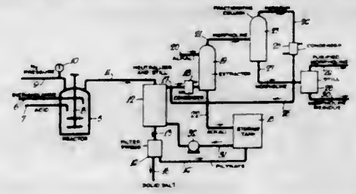
RECOVERY OF MORPHOLINE FROM AQUEOUS SOLUTIONS THEREOF

George Joseph Laemmle, Jr., Austin, Tex., assignor to Jefferson Chemical Company, Inc., New York, N. Y., a corporation of Delaware

Application September 27, 1954, Serial No. 458,686

6 Claims. (Cl. 260—247)

1. The process of recovering morpholine from a dilute aqueous morpholine solution, which comprises mixing said solution with alkali metal hydroxide and thus producing two phases, one containing substantially all of the morpholine and the other consisting of a relatively dilute alkaline solution, separating the two phases and



treating the morpholine phase to recover the morpholine therefrom.

2,776,973

PROCESS FOR THE MANUFACTURE OF 3,7-DIMETHYL-XANTHINE DOUBLE SALTS

Gerhard Gergely, Vienna, Austria, assignor to Gerot Pharmazeutika Dipl. Ing. Dr. Walter Otto and Dr. Gerhard Gergely, Vienna, Austria, an Austrian partnership

No Drawing. Application May 27, 1955, Serial No. 511,747

2 Claims. (Cl. 260—253)

2. A process of producing 3,7-dimethyl-xanthine double salts which comprises adding a finely powdered homogeneous mixture of approximately 1 mol 3,7-dimethyl-xanthine and about 1 up to 2.5 mol magnesium oxide to about 1 up to 2 mol oleic acid in absence of a solvent or suspending medium and without applying external heating under continuously stirring until the reaction mixture is solidifying forming a solid mass.

2,776,974

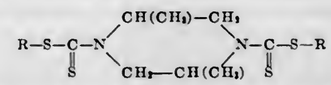
DI-(LOWER ALKYL) CYCLOHEXYLAMINE SALTS OF 2,5-DIMETHYLPIPERAZINE-1,4-DICARBODITHIOIC ACID

John J. D'Amico, Charleston, and Marion W. Harman, Nitro, W. Va., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application April 7, 1954, Serial No. 421,679

2 Claims. (Cl. 260—268)

1. A compound of the structure



where R represents an N,N-di-(lower alkyl) N-cyclohexyl ammonium salt forming group.

2,776,975

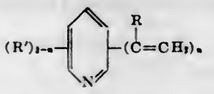
STABILIZATION OF POLYMERIZABLE HETEROCYCLIC NITROGEN COMPOUNDS

Mack F. Potts, Paul S. Hudson, and Warren L. Smith, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application May 27, 1952, Serial No. 290,322

12 Claims. (Cl. 260—290)

1. A composition comprising a compound having the formula—

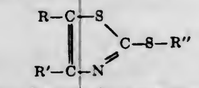


where n is an integer selected from the group consisting of 1 and 2, R is selected from the group consisting of H and CH_3, and R' is selected from the group consisting of H and alkyl groups, not more than 12 carbon atoms being present in the total of said R' groups and a poly-

merization inhibiting amount of a compound selected from the group consisting of dinitrochlorobenzenes, dinitrobromobenzenes and dinitroiodobenzenes.

2,776,976
HALOGEN SUBSTITUTED UNSATURATED THIAZOLYLTHIOETHERS
John J. D'Amico, Charleston, W. Va., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application October 21, 1952, Serial No. 316,095
7 Claims. (Cl. 260—302)

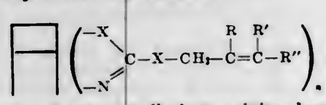
1. A compound of the structure



where R is a member of the group consisting of hydrogen, lower alkyl and lower carboalkoxy groups, R′ represents a lower alkyl group and R″ represents an unsaturated halogen substituted alkenyl group containing less than five carbon atoms in which the halogen is attached to unsaturated carbon but containing not more than one halogen substituent on any one carbon atom.

2,776,977
HALOGEN SUBSTITUTED UNSATURATED AZOLYL ETHERS
John J. D'Amico, Charleston, W. Va., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application April 18, 1955, Serial No. 502,244
10 Claims. (Cl. 260—306)

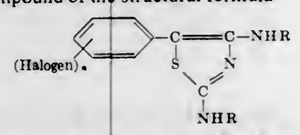
1. A compound of the structure



where A represents a radical containing less than 14 carbon atoms selected from the group consisting of aromatic hydrocarbon and unsaturated carbocyclic hydrocarbon and chloro, hydroxy, lower alkoxy, benzyloxy, nitro, amino and acetamino substituted derivatives thereof, X is selected from the group consisting of oxygen and sulfur, R and R′ are selected from a group consisting of hydrogen and halogen, R″ is selected from a group consisting of hydrogen, chloromethyl and open chain hydrocarbon containing less than four carbon atoms at least one of R, R′ and R″ comprising halogen and *n* is an integer at least one but less than three.

2,776,978
2,4-DIAMINOTHIAZOLES CONTAINING A HALOGENATED ARYL RADICAL IN THE 5-POSITION AND DERIVATIVES
Raymond M. Dodson, Park Ridge, Ill., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware
No Drawing. Application May 19, 1955, Serial No. 509,689
9 Claims. (Cl. 260—306.8)

1. A compound of the structural formula



wherein *n* is a positive integer smaller than 3 and R is a member of the class consisting of hydrogen and acyl radicals derived from hydrocarbon carboxylic acids containing less than 9 carbon atoms.

2,776,979
1-NITROSO-2-IMIDAZOLIDONE AND PROCESS
Julian G. Michels, Norwich, N. Y., assignor to The Norwich Pharmacal Company, Norwich, N. Y., a corporation of New York
No Drawing. Application April 5, 1956, Serial No. 576,236
2 Claims. (Cl. 260—309.7)

1. The method of preparing 1-amino-2-imidazolidone which comprises nitrosating 2-imidazolidone by dissolving said 2-imidazolidone in hydrochloric acid and slowly adding sodium nitrite thereto at a temperature of about 0° to 5° C. to produce 1-nitroso-2-imidazolidone, and then reducing said 1-nitroso-2-imidazolidone by dissolving the same in dilute mineral acid and adding zinc dust thereto.

2,776,980
HALOMETHYLATION OF 2-HALOTHIOPHENES
Lucas P. Kyrides, Zeeland, Mich., and Ferdinand C. Meyer, Kirkwood, and Ferdinand B. Zienty, Brentwood, Mo., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application August 6, 1952, Serial No. 303,004
6 Claims. (Cl. 260—332.5)

1. In the process of preparing 2-chloro-5-chloromethylthiophene by the chloromethylation of 2-chlorothiophene with formaldehyde and HCl, the steps comprising reacting 2-chlorothiophene with an aqueous solution of formaldehyde saturated with hydrogen chloride, in the presence of zinc chloride and at a temperature below 50° C., until heat is no longer given off, cooling and quenching the resulting mixture by the addition of cool water whereby an aqueous layer and an oily layer are formed, recovering said oily layer and recovering therefrom 2-chloro-5-chloromethylthiophene.

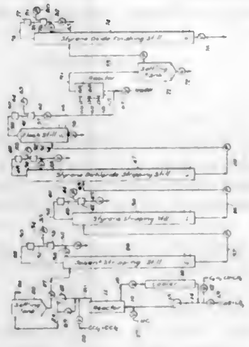
2,776,981
PROCESS AND CATALYST FOR THE PREPARATION OF FURAN FROM FURFURAL
Leo W. Tyran, Niagara Falls, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application March 2, 1954, Serial No. 413,719
12 Claims. (Cl. 260—346.1)

1. The method of enhancing the catalytic effect of a catalyst adapted for the decarbonylation of furfural, said catalyst consisting essentially of a mixture of zinc and iron chromites in which the zinc:iron mole ratio is between about 1:1 and 9:1, which comprises supplying thereto between about 0.1 and 5% by weight of a promoter of the group consisting of sodium and potassium ions, said weight being based on the weight of the mixture and calculated as potassium carbonate.

2,776,982
PRODUCTION OF STYRENE OXIDE
Melvin F. Handley, Freeport, Tex., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application March 9, 1953, Serial No. 341,159
4 Claims. (Cl. 260—348.6)

1. In a process for preparing an arylethylene oxide from a monovinyl aromatic hydrocarbon from the group consisting of styrene and nuclearly alkylated styrenes of from 8 to 10 carbon atoms, by (1) reacting the monovinyl aromatic hydrocarbon under conditions of good mixing at a temperature between 0° C. and 60° C. with an acidified aqueous solution of a hypochlorite of a metal from the group consisting of the alkali and alkaline earth metals in proportion of from 1 to 2 chemical equivalents of the hypochlorite per mole of the monovinyl aromatic hydrocarbon, and (2) reacting the chlorohydrin of the monovinyl aromatic hydrocarbon so prepared with

an aqueous alkali metal hydroxide solution to obtain the corresponding arylethylene oxide, the improvements which consist of: maintaining throughout the step (1) reaction a pH in the range of from 4 to 6; and subjecting



the organic product of the step (1) reaction to fractional distillation at an absolute pressure below about 5 millimeters of mercury to remove therefrom material boiling below the boiling point of the chlorohydrin of the monovinyl aromatic hydrocarbon at the pressure employed.

2,776,983
ACETOACETYLAMINO COMPOUNDS AND A PROCESS OF MAKING SAME
Hans Schenkel, Neue Welt, near Basel, and Max Aeberli, Basel, Switzerland, assignors to Durand & Huguenin A. G., Basel, Switzerland, a Swiss firm
No Drawing. Application August 18, 1952, Serial No. 305,066
Claims priority, application Switzerland August 21, 1951
13 Claims. (Cl. 260—377)

1. A process for the preparation of an N-acetoacetyl compound of a primary anthraquinonyl amine, which comprises heating one mol of the amine with at least one mol of diketene in suspension in 90–100% acetic acid to a temperature of 40–80° C., and thereafter isolating the resultant reaction product.

2,776,984
PROCESS FOR IMPROVING CHARACTERISTICS OF PLASTICIZERS AND PRODUCTS THEREFROM
Maurice Mention and Pierre Bourguignon, Melle, France, assignors to Les Usines de Melle (Societe Anonyme), Saint-Leger-les-Melle, France, a corporation of France
No Drawing. Application February 20, 1953, Serial No. 338,161
5 Claims. (Cl. 260—475)

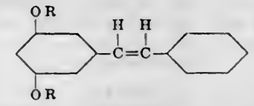
1. A process which comprises bringing alumina into contact with an ester plasticizer, said plasticizer being an ester formed from an acid selected from the group consisting of monocarboxylic aliphatic acids, dicarboxylic aliphatic acids and dicarboxylic aromatic acids and from an alcohol selected from the group consisting of mono- and di-hydric aliphatic alcohols, each of said acids and alcohols containing 6–10 carbon atoms in their respective chains and rings, at a temperature of 20 to 200° C., for at least about 15 minutes, the proportion by weight of alumina brought into contact with the plasticizer being at least about 10%, and separating the alumina and plasticizer and recovering the plasticizer having improved characteristics including increased electrical resistivity.

2,776,985
AROMATIC PHOSPHONIC ACID ESTERIFICATION CATALYSTS
Art C. McKinnis, Long Beach, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California
No Drawing. Application February 24, 1953, Serial No. 338,605
9 Claims. (Cl. 260—475)

1. A method for esterifying an organic carboxylic acid with an alcohol which comprises heating said carboxylic acid and said alcohol at a temperature above about 200° C. in the presence of catalytic proportions of an aromatic phosphonic acid having at least one additional acid function selected from the class consisting of carboxylic, sulfonic, and phosphonic acid groups.

2,776,986
OXIDATION OF UNSYMMETRICAL STILBENES
Thomas F. Sanderson, Wilmington, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application December 20, 1952, Serial No. 327,152
9 Claims. (Cl. 260—479)

1. The process of oxidizing a disubstituted stilbene having the formula



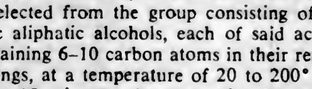
where each R is one of the group consisting of hydrogen, lower alkyl radicals and the acyl radicals of lower alkanoic and aryl carboxylic acids, which comprises passing ozone into a solution of said stilbene in an inert solvent at a temperature of from about −100° C. to about +10° C. and cleaving the ozonide so formed.

2,776,987
METAL SALTS OF SULFO-N-CARBAMYLSUCCINAMIC ACID ESTERS
Pliny O. Tawney, Passaic, N. J., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
No Drawing. Application March 10, 1954, Serial No. 415,450
7 Claims. (Cl. 260—481)

1. A metal salt of a sulfo-N-carbamylsuccinamic ester of a non-tertiary alcohol, in which the metal is from the group consisting of alkali metals and alkaline-earth metals, having an atomic number less than 56.

2,776,988
ESTERS OF α-DICHLOROMETHYL BENZHYDROLS AND PROCESS
W E Craig and Elwood Y. Shropshire, Philadelphia, Pa., and Harold F. Wilson, Moorestown, N. J., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application March 8, 1954, Serial No. 414,902
14 Claims. (Cl. 260—487)

10. Compounds of the formula



where R′ is a member of the class consisting of hydrogen, fluorine, chlorine, bromine, alkyl groups of not over four carbon atoms, and the methoxy group, and R″ is a member of the class consisting of hydrogen and alkyl and chloroalkyl groups of not over three carbon atoms.

2,776,989

PROCESS OF PREPARING α-DICHLOROMETHYL BENZHYDROL ESTERS

W E Craig and Elwood Y. Shropshire, Philadelphia, Pa., and Harold F. Wilson, Moorestown, N. J., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application March 8, 1954, Serial No. 414,903

8 Claims. (Cl. 260—487)

1. A process for preparing esters of the structure

$$(R'\text{ phenyl})_2C(OOCR'')-CHCl_2$$

which comprises reacting by heating together in an acidic environment between 50° and 150° C. a compound of the formula

$$(R'\text{ phenyl})_2CClCHCl_2$$

and a salt of the formula

$$MOOCR''$$

R' being a member of the class consisting of hydrogen, fluorine, chlorine, bromine, alkyl groups of not over four carbon atoms, and the methoxy group, R'' being a member of the class consisting of hydrogen, alkyl groups of not over three carbon atoms, and chloroalkyl groups of not over three carbon atoms, and M being a metal cation forming a salt with the acid HOOCR'' and forming a metal chloride.

2,776,990

SEPARATION OF A DIBASIC ACID FROM A MIXTURE OF MONO AND DIBASIC ACIDS

Roger A. Hines, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application January 26, 1953, Serial No. 333,373

4 Claims. (Cl. 260—537)

1. In a process for the crystallization of adipic acid from the nitric acid mother liquor obtained by crystallizing adipic acid from the mixture of monobasic acids and dibasic acids obtained by the air and nitric acid oxidation of cyclic alkanes, said mother liquor containing a higher concentration of succinic acid than adipic acid, the step which comprises adding a sufficient amount of ammonia to the mother liquor to neutralize the nitric acid and monobasic acids present and from 40 to 75% of the carboxyl groups of the succinic acid present but insufficient to precipitate ammonium salts during subsequent crystallization, and thereafter crystallizing the adipic acid from a temperature at which all the acids and salts present are in solution in the mother liquor.

2,776,991

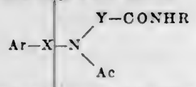
N - ARALKYL - N - (2 - CARBAMYLALKYL) - HALOGENATED-ALKANAMIDES AND THEIR PREPARATION

Alexander R. Surrey, Albany, N. Y., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application December 27, 1954, Serial No. 477,935

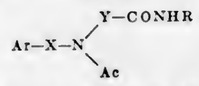
22 Claims. (Cl. 260—559)

1. A compound having the formula



where Ar is a member selected from the group consisting or phenyl, naphthyl, biphenylyl, furyl, pyridyl and thienyi-radicals and such radicals substituted by from one to three substituents selected from the group consisting of halo, lower alkoxy, lower alkyl, lower alkylmercapto, lower alkylsulfonyl, nitro and di(lower alkyl)amino, X is a lower alkylene radical having from one to four carbon atoms, Y is a lower alpha,beta-alkylene radical having from two to four carbon atoms, R is a member selected from the group consisting of hydrogen and a hydrocarbyl radical having from one to eight carbon atoms, and Ac is a halogenated-(lower alkanoyl) radical having from two to four carbon atoms.

12. A process for the preparation of a compound having the formula



where Ar is a member selected from the group consisting of phenyl, naphthyl, biphenylyl, furyl, pyridyl and thienyl radicals and such radicals substituted by from one to three substituents selected from the group consisting of halo, lower alkoxy, lower alkyl, lower alkylmercapto, lower alkylsulfonyl, nitro and di(lower alkyl)amino, X is a lower alkylene radical having from one to four carbon atoms, Y is a lower alpha,beta-alkylene radical having from two to four carbon atoms, R is a member selected from the group consisting of hydrogen and a hydrocarbyl radical having from one to eight carbon atoms, and Ac is a halogenated(lower alkanoyl) radical having from two to four carbon atoms, which comprises reacting a compound having the formula, Ar—X—NH—Y—CONHR, with an acylating agent selected from the group consisting of those having the formula Ac-halogen and $(Ac)_2O$.

2,776,992

TRIFLUOROMETHYLSULFONYLPHENYL-DICHLORACETAMIDOPROPANDIOL

Walter A. Gregory, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 14, 1956, Serial No. 571,385

1 Claim. (Cl. 260—562)

1-(p-trifluoromethylsulfonylphenyl) - 2 - (alpha,alpha-dichloroacetamido)-1,3-propanediol.

2,776,993

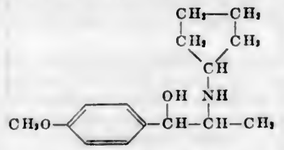
1-PARAMETHOXYPHENYL-2-CYCLOPENTYL-AMINO-1-PROPANOL COMPOUNDS

Gordon A. Alles, San Marino, Calif.

No Drawing. Application June 9, 1954, Serial No. 435,600

7 Claims. (Cl. 260—563)

1. A 1 - paramethoxyphenyl-2-cyclopentylamino-1-propanol compound of the structural formula



of the group consisting of optically inactive and optically active forms of 1-paramethoxyphenyl- 2-cyclopentyl-amino-1-propanol base and salts thereof.

2,776,994

PREPARATION OF A SOLID DIPHENYLAMINE ANTIOXIDANT

John S. B. Wolfe, Akron, and Lewis H. Conklin, Cuyahoga Falls, Ohio, assignors to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

No Drawing. Application March 3, 1954, Serial No. 413,951

7 Claims. (Cl. 260—576)

1. The method which comprises agitating a liquid composition comprising essentially from 80 to 98% by weight of p,p'-di-1,1,3,3-tetramethyl butyl diphenylamine and the balance p-1,1,3,3-tetramethyl butyl diphenylamine while cooling to a temperature of from about 85 to 100° C. to provide a semisolid mass and then rapidly cooling said mass to a temperature substantially below the initial crystallization point temperature of the composition to provide a solid, frangible, dry composition having a set point of at least about 80° C.

2,776,995

α-UNSATURATED β-THIOETHER ALDEHYDES AND THEIR PREPARATION

Theodore L. Cairns, Newark, and John C. Sauer, Wilmington, Del., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 22, 1954, Serial No. 425,034

19 Claims. (Cl. 260—598)

1. Compound of formula

$$RSC(R')=CHCHO$$

in which the only aliphatic carbon-to-carbon unsaturation is indicated by the double bond, R is a monovalent hydrocarbon radical with its free valence stemming from saturated carbon, and R' and R'' are from the class consisting of monovalent hydrocarbon radicals and hydrogen.

10. Process comprising reacting carbon monoxide, an alkyne, and a mercaptan by bringing the same in contact at a pressure of at least 100 atmospheres and a temperature from room temperature to 200° C. with a catalyst liberating free radicals under the reaction conditions and isolating therefrom a compound of formula

$$XR'''SC(R')=CHCHO$$

in which the only aliphatic carbon-to-carbon unsaturation is indicated by the double bond, R' and R'' are from the class consisting of monovalent hydrocarbon radicals and hydrogen, R''' is a divalent hydrocarbon radical, and X is from the class consisting of hydrogen, chlorine, and hydroxyl radicals.

2,776,996

MANUFACTURE OF BETA-METHYLMERCAPTO-PROPIONALDEHYDE

Madison Hunt, Claymont, Del., and Richard R. Merner, Avondale, Pa., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 22, 1955, Serial No. 554,619

8 Claims. (Cl. 260—601)

1. In the process of preparing beta-methylmercapto-propionaldehyde by reacting acrolein with methyl mercaptan in the presence of a nitrogenous base catalyst, the improvement which consists of effecting the reaction in the presence of an agent selected from the group consisting of acids whose dissociation constant in aqueous medium is at least 1×10^{-6} and salts of such acids with said nitrogenous base, the mode of incorporation of said agent in the reaction mass being controlled to the effect that there be an excess of free nitrogenous base in the reaction mass at least until after 10% of the reactants have been consumed and that there be present at least 0.05 equivalents of said agent per equivalent of said nitrogenous base after 40% of the reactants have been consumed.

2,776,997

PREPARATION OF HYDROXY THIO-ETHERS

Thomas F. Doumani, Whittier, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

Application January 30, 1953, Serial No. 334,234

14 Claims. (Cl. 260—609)

1. A process for preparing a hydroxy thio-ether which comprises initiating a reaction between an alkylene oxide and an organic thiol at a temperature below about 70° C. in the presence of at least about 10% by weight of a hydroxy thio-ether, and in the absence of extraneous catalytic materials, and thereafter continuing said reaction to substantial completion at temperatures between about 50° and 100° C.

2,776,998

ANTIOXIDANT

Paul M. Downey, Gainesville, Fla., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Original application June 10, 1950, Serial No. 167,498, now Patent No. 2,726,277, dated December 6, 1955. Divided and this application February 26, 1954, Serial No. 412,932

1 Claim. (Cl. 260—609)

The method of making liquid thiobis(4,6-di-secondary amyl phenol) which comprises condensing directly in the absence of a solvent one molecular proportion of 2,4-di-secondary amyl phenol and substantially one-half molecular proportion of sulfur dichloride.

2,776,999

MANUFACTURE OF CUMENE HYDROPEROXIDE

George G. Joris, Madison, N. J., assignor to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York

No Drawing. Application November 20, 1952, Serial No. 321,720

12 Claims. (Cl. 260—610)

1. The improvement in process for oxidizing cumene to cumene hydroperoxide in liquid phase by elemental oxygen which comprises contacting said cumene during the oxidation period with a normal salt of a strong metallic base and a strong mineral acid, said acid having molecular weight less than 100, and being more than 50% ionized in aqueous solution at 18° C. and normality of 1, said salt being present in solid phase under reaction conditions and being essentially neutral when in aqueous solution.

2,777,000

PROCESS FOR ALKYL ETHERS OF ALPHA-HYDROXYCUMENE

Thomas P. G. Shaw, Shawinigan Falls, Quebec, Canada, assignor to Shawinigan Chemicals Limited, Montreal, Quebec, Canada, a corporation of Canada

No Drawing. Application September 27, 1954, Serial No. 458,693

10 Claims. (Cl. 260—611)

1. A method of preparing the ether of α-hydroxycumene and a saturated aliphatic primary alcohol containing one to six carbon atoms comprising reacting under anhydrous conditions α-methylstyrene and the said alcohol in the presence of hydrogen chloride in an amount at least stoichiometrically equivalent to the α-methylstyrene, and recovering the said ether from the reaction mixture.

2,777,001

PREPARATION OF ALKOXY-BENZYLHALIDES

John H. Hahn, Lemay, and John F. Quinn and Marrine A. Terpstra, Kirkwood, Mo., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application February 11, 1953, Serial No. 336,445

10 Claims. (Cl. 260—613)

1. In the preparation of a dialkoxybenzyl halide by the hydrohalogenation of a dialkoxybenzyl alcohol, the step comprising slowly adding a dialkoxybenzyl alcohol whose alkoxy groups contain 1 to 5 carbon atoms to a concentrated aqueous solution of a member selected from the group consisting of hydrogen bromide, hydrogen chloride and hydrogen iodide, at a temperature below 25° C. in the presence of an inert water-immiscible liquid reaction diluent.

2,777,002

PARA-HALOGENATION OF PHENOLS

James D. Sullivan, Webster Groves, Mo., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application April 27, 1953, Serial No. 351,481

8 Claims. (Cl. 260—623)

3. In the process for preparing primarily 4-chloro-2-alkylphenols by the chlorination of an o-alkylphenol, the steps comprising reacting an o-alkylphenol with at least an equimolecular equivalent but not in excess of about 1.1 moles of sulfuryl chloride in the presence of from 0.5 to 2.0% by weight of ferric chloride based on the phenolic reactant, and at a temperature not exceeding about 75° C.

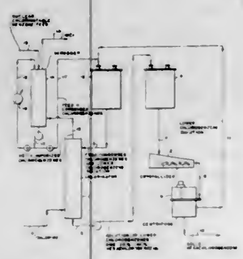
2,777,003

PRODUCTION OF HEXACHLOROBENZENE

Bernard H. Nicolaisen, Lewiston, N. Y., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia

Application February 3, 1953, Serial No. 334,926

1 Claim. (Cl. 260—650)



A process for the production of hexachlorobenzene by the chlorine substitution of benzene and partially nuclear chlorine substituted benzene which comprises cyclically circulating a stream of benzene hydrocarbons between a chlorination zone maintained at approximately atmospheric pressure and a temperature within the range of 150–200° C. and a crystallization zone maintained at a minimum temperature of 100° C., maintaining in said chlorination zone a catalyst effective to promote nuclear chlorine substitution, introducing gaseous chlorine to said chlorination zone in an amount to yield a hexachlorobenzene concentration of about 20% to about 50% by weight in the stream of chlorinated benzenes withdrawn from the chlorination zone, recovering hexachlorobenzene crystallized in the crystallization zone, and introducing a chlorinatable benezene hydrocarbon selected from the group consisting of benzene and partially nuclear chlorine substituted benzenes to said chlorination zone in admixture with the solution of chlorinated benzenes withdrawn from the crystallization zone after crystallization of hexachlorobenzene.

2,777,004

PREPARATION OF HEXAFLUOROBUTADIENE FROM SYMMETRICAL DICHLORODIFLUOROETHYLENE

Robert P. Rub, Ralph A. Davis, and Keith A. Allswede, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application June 24, 1953, Serial No. 363,910

4 Claims. (Cl. 260—653)

1. A process for the preparation of hexafluoro-1,3-butadiene which comprises fluorinating 1,1,2,3,4,4-hexachloro-1,2,3,4-tetrafluorobutane to 1,2,3,4-tetrachloro-1,1,2,3,4,4-hexafluorobutane and dechlorinating this latter compound with zinc in the presence of alcohol to obtain hexafluoro-1,3-butadiene.

2,777,005

POLYMERIZABLE CYCLIC COMPOUNDS

Louis A. Errede, Bloomfield, and Billy F. Landrum, Belleville, N. J., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application October 14, 1953, Serial No. 386,106

20 Claims. (Cl. 260—668)

6. A liquid solution maintained at a temperature below about minus 45° C. and containing a stable concentrated polymerizable cyclic compound characterized at least at one energy level by having a quinoid structure and characterized by being readily reactable with iodine to produce a diiodo compound of a group consisting of 1,4 diiodomethyl benzene, 1,4 diiodomethyl naphthalene, corresponding heterocyclic diiodomethyl compounds having 1 to 2 six-membered rings and containing at least one hetero nitrogen atom vicinal only to carbon atoms, and the nuclear substitution products of the foregoing members with normally gaseous halogen atoms and with methyl groups and containing a liquid having a freezing point below about —45° C. and selected from the group consisting of paraffinic and cyclo-paraffinic hydrocarbons, aromatic hydrocarbons, halogenated hydrocarbons, carbonyl compounds, ethers, alcohols, carbon disulfide and mixtures thereof.

9. A method of preparing in stable form and in a condensed phase, a cyclic compound, capable of polymerization, which comprises pyrolyzing an aromatic compound of the group consisting of p-xylene, 1,4 dimethyl naphthalene, corresponding heterocyclic dimethyl compounds having from one to two six-membered rings and containing at least one hetero nitrogen atom vicinal only to carbon atoms, and the nuclear substitution products of the foregoing members with normally gaseous halogen atoms and with additional methyl groups at a temperature between about 700° C. and 1300° C. and at a total pressure not higher than about 400 mm. Hg for a period of not more than one second, quenching the pyrolyzed vapors to a temperature below about minus 45° C. in a cold, substantially non-reactive liquid having a partial pressure at the quench temperature below about 10 mm. Hg.

2,777,006

WITHDRAWN

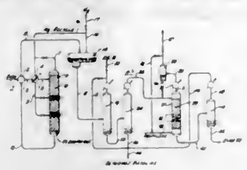
2,777,007

ALKYLATION OF TOLUENE

Davis A. Skinner, Fullerton, and William L. Wasley, Santa Ana, Calif., assignors to Union Oil Company of California, Los Angeles, Calif., a corporation of California

Application April 16, 1954, Serial No. 423,620

9 Claims. (Cl. 260—671)



1. A process for mono-propylating toluene selectively in the para position which comprises subjecting toluene to propylation with propylene at a temperature between about 20° and 110° C. in the presence of an alkylation catalyst comprising as the essential component phosphorous pentoxide, continuing said propylation until between about 5% and 20% of said toluene has been alkylated, then terminating said propylation and recovering from the reaction product unreacted toluene and a cymene fraction containing at least about 40 mole-percent of para-cymene.

2,777,008

MANUFACTURE OF RUBBER VULCANIZATES CONTAINING FILLER AND POLYETHYLENE GLYCOL ETHERS

Rudolf Kern, Neustadt (Haardt), and Willy Lautsch, Berlin-Dahlem, Germany, assignors to Rhein-Chemie G. m. b. H., Heidelberg, Germany, a corporation of Germany

No Drawing. Application June 13, 1951, Serial No. 231,426

5 Claims. (Cl. 260—761)

5. Process for the manufacturing of rubber vulcanizates, comprising compounding natural rubber, light-colored hydrophilic fillers, and addition agents selected from the group consisting of polyethylene glycol ethers of aliphatic monohydric alcohols having 12 to 20 carbon atoms, polyethylene glycol ethers of alkylated phenols, hexylheptyl-naphthol-polyethylene glycol ethers, and mixtures thereof, said light-colored hydrophilic fillers being selected from the group consisting of alumina gel, aluminum silicate, calcium silicate, pyrogenic silica, and mixtures thereof.

ELECTRICAL

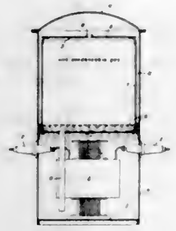
2,777,009

VAPORIZATION COOLED TRANSFORMERS

Lawrence C. Whitman, Pittsfield, Mass., assignor to General Electric Company, a corporation of New York

Application February 19, 1953, Serial No. 337,802

4 Claims. (Cl. 174—15)



2. In an electrical apparatus submerged in a dielectric liquid within a main tank, said liquid boiling at a temperature within the normal operating temperature range of said apparatus, a non-condensable gas located above said liquid and means for segregating said gas and the vapor bubbles of said liquid formed during operation of said apparatus, said means comprising a gas container having a raised cover located within the upper portion of said tank, the surface level of said liquid being adjacent the bottom of said container, and the side walls of said tank and container closely spaced with respect to each other to form a narrow segregating and condensation duct, the vapor bubbles rising in said duct in a concentrated front and sweeping said gas into said container adjacent the top thereof, and said vapor bubbles condensing in said duct, said tank having a dome-shaped cover spaced from said raised cover, the vapor bubbles rising to between said dome-shaped cover and raised cover condensing on said dome-shaped cover and running along the curvature of said dome-shaped cover onto the cool side walls of said tank.

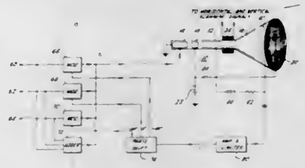
2,777,010

CATHODE RAY BEAM INDEXING SYSTEM

William E. Bradley, New Hope, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

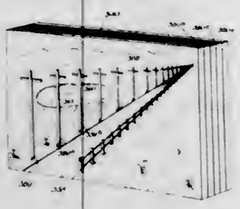
Application October 11, 1951, Serial No. 250,932

12 Claims. (Cl. 178—5.4)



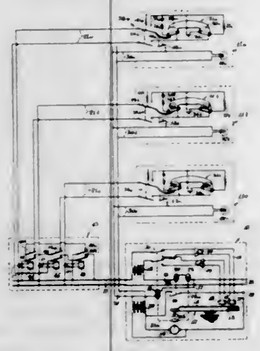
1. A cathode-ray tube system comprising, a cathode-ray tube having sources of first and second electron beams, control means to vary the intensity of one of said beams independently of the intensity of the other of said beams, means to impart equal velocities to the electrons of said beams, and a beam intercepting structure, said beam intercepting structure comprising a plurality of first portions arranged in a given geometric configuration and adapted to produce a given response upon electron impingement, said structure further comprising a plurality of second portions adapted to produce a second given response different from said first given response upon electron impingement, said second portions being arranged in a second given geometric configuration indicative of said first configuration and being uniformly positioned relative to said first portions throughout the effective area of said beam intercepting structure, means to scan said beams in synchronism across said beam intercepting structure, thereby to produce on said structure two superimposed scanning patterns of substantially the same size, means to apply to said control means a wave having variations indicative of desired variations of the response of said first portions, and means to derive from said second portions a control quantity proportional to the rate of scanning of said second beam over said second portions.

2,777,011
THREE-DIMENSIONAL DISPLAY SYSTEM
Alvin M. Marks, Beechhurst, N. Y.
Application March 5, 1951, Serial No. 213,989
9 Claims. (Cl. 178—6.5)



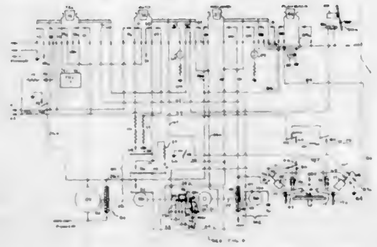
1. In the creation of three-dimensional images, a projector comprising a high intensity cathode ray tube, electrical means for supplying the projector with image producing light components and means, together with a three-dimensional screen having area and a substantial thickness, to generate a three-dimensional image within the said screen.

2,777,012
MULTISTATION REMOTELY-CONTROLLED PHONOGRAPHIC SYSTEM
William W. Logan, Glen Ridge, N. J., assignor to Thomas A. Edison, Incorporated, West Orange, N. J., a corporation of New Jersey
Application December 19, 1951, Serial No. 262,403
23 Claims. (Cl. 179—6)



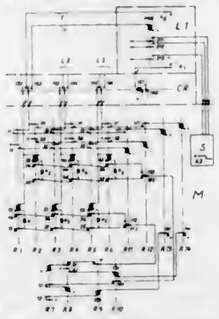
1. In a remotely-controlled phonographic system including a source of D.-C. potential: the combination of an attendant's station including a phonographic machine; a plurality of remote operators' stations each including a transducer and an on-off station switch; circuit means including branch circuits leading from said remote stations respectively and controlled by said station switches respectively for connecting said transducers to said machine via the respective branch circuits to enable the use of said machine from any one of said remote stations upon the respective station switch being closed, said circuit means including said source of potential to cause energization of the branch circuit leading from the remote station in use; and an electrically-energizable means for each of said remote stations connected to the respective branch circuit for energization by said potential source when the respective station switch is closed to connect the respective transducer to said machine and including means operable by said electrically-energizable means as said transducer is connected to said machine for disabling all other of said remote stations.

2,777,013
TELEPHONE ANSWERING AND RECORDING DEVICES
Harry R. Van Deventer and John J. Shively, New York, N. Y., assignors to Telephone Answering and Recording Corporation, New York, N. Y., a corporation of Delaware
Application December 10, 1954, Serial No. 474,400
4 Claims. (Cl. 179—6)

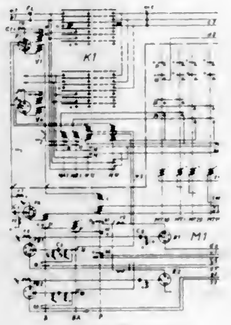


1. In combination with a telephone line circuit having a telephone connected to the distant end of such circuit in a device of the character described having means for recording a message on a blank sound record; a motor for moving the record; a power circuit; a first means including contact members connected to said power circuit for connecting said power circuit to said motor to operate same; a second means operated in timed relation with said motor for rendering said first means inoperative after a predetermined period; and a third means adapted to contact said blank sound record to pre-groove same while said motor is operating during said predetermined period and prior to any sound recording on said record.

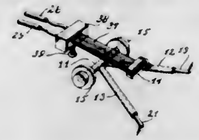
2,777,014
DEVICE FOR CONNECTION OF MARKERS IN AUTOMATIC TELEPHONE SYSTEMS
Karl Georg Johnson, Stockholm, Sweden, assignor to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden
Application February 9, 1955, Serial No. 487,125
Claims priority, application Sweden March 8, 1954
1 Claim. (Cl. 179—18)



An automatic telephone system comprising a marker, a plurality of lines, a test conductor and at least one marking conductor for each of said lines, said marker including two relay chains, each chain comprising a relay for each line connected in a control circuit with said test conductor, each relay controlling contacts connected in circuit for preventing the simultaneous energization of more than one relay in a chain, and each relay further controlling at least one make contact for closing a circuit from the marker over said marking conductor to a relay for the corresponding line, circuit means controlled by the operation of a relay in one chain for disconnecting the other chain, and rectifying means connected in series with each relay to prevent leakage-current paths.

2,777,015
SELECTING MEANS WITH GAS DISCHARGE VALVE
Anton Christian Jacobaeus, Stockholm, and Arthur Berge, Hagersten, Sweden, assignors to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden
Application May 12, 1953, Serial No. 354,498
Claims priority, application Sweden May 16, 1952
3 Claims. (Cl. 179—22)

1. In an automatic telephone system a switching stage comprising primary and secondary cross-bar switches, links connecting said primary and secondary cross-bar switches, a marker including registering means and selecting means, said selecting means comprising a plurality of gas discharge tubes, each of said tubes having a first electrode for a first discharge path, a second electrode for a second discharge path and a third electrode for a third discharge path, the said discharge paths being interconnected so that the first discharge path must be ionized before the second can be ionized and the second must be ionized before the third can be ionized, a calling line connected to one of said primary cross-bar switches and a called group of lines connected to said secondary cross-bar switches, test conductors for each of said links and lines respectively connected in circuit with a source of current when the link or line is idle, a first connecting means connecting said calling line to said marker, said registering means being settable by signals from the calling line to designate said called group, means identifying the primary cross-bar switch through which said calling line is connected to the marker, a second connecting means operable by said registering means for connecting the test conductors for the lines in said called group to the second electrodes of said discharge tubes in said selecting means, a third connecting means connecting the test conductors for links over which said calling line is connectable to lines in said called group to the first electrodes in said discharge tubes in said selecting means, one link and one line which are connectable together over one of said secondary cross-bar switches being connected to the same discharge tube, an impedance means connected in series with a source of potential, a common conductor included in said series connection and interconnecting the third electrode of all said discharge tubes whereby the first and the second discharge path in all discharge tubes connected to an idle link and an idle line are ionized, said impedance means preventing the third discharge path in more than one of said discharge tubes from being ionized, means for each separate gas discharge tube operable in response to said third discharge path being ionized, and closing circuits for said cross-bar switches to connect said calling line to the idle line over the idle link connected to the discharge tube, all the three discharge paths of which are ionized.

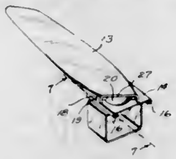
2,777,016
DUAL NEEDLE PHONOGRAPH CARTRIDGE
John F. Wood, Buchanan, Mich., assignor to Electro-Voice, Incorporated, Buchanan, Mich.
Application December 19, 1952, Serial No. 326,934
5 Claims. (Cl. 179—100.41)



1. A phonograph cartridge comprising a casing, a strain responsive element mounted in said casing, and a driving mechanism for said element having a pivoted member arranged transversely of the longitudinal axis of said casing, a pair of needle chucks in a common plane, each arranged at an angle to said pivoted member and having one end connected thereto, and a member connected to an intermediate part of one of said chucks and secured to one end of said strain responsive element.

2. A phonograph cartridge having a casing, a piezoelectric element, a resilient support block surrounding one end of said element, said block being under compression in said casing, an aperture in one side of said casing adjacent one edge of said support block, and a set screw for said aperture for adjustably engaging said block thereby to change the position of said element in said casing.

2,777,017
ATTACHMENT FOR HANDSET
Clifford D. Keely, West Englewood, N. J.
Application September 23, 1953, Serial No. 381,897
3 Claims. (Cl. 179—157)

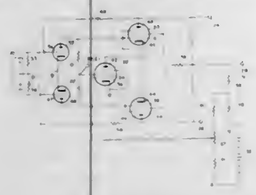


1. In an attachment for a telephone of the handset type having a receiver and a transmitter, and a grip portion between the two, and in which the grip portion has a substantially level top surface when cradled horizontally, said attachment comprising a blade which at rest extends substantially parallel to and above said top surface and in substantial contact therewith, said blade having means for securing same to the grip portion adjacent the receiver, said securing means comprising means for hinging the blade so as to enable it to have an endwise pivotal movement toward and away from said grip portion, a stop limiting such movement, and means to swivel said hinge means a limited amount to swing said blade away from the plane of said top surface and downwardly upon the shoulder of the user when in operative position.

2,777,018
DIRECT-COUPLED AMPLIFIER
Alfred W. Russell, Waldwick, N. J., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware
Application October 15, 1954, Serial No. 462,509
2 Claims. (Cl. 179—171)

1. A direct coupled amplifier whose gain is compensated for fluctuations in its unregulated supply, comprising: a pair of electron tubes connected in push-pull relationship (each said tube having an anode, a cathode, and a control grid); a source of balanced out-of-phase input

signals applied to respective said grids; an unregulated direct potential source connected to said anodes; a direct connection between said cathodes; a variable common cathode resistance consisting of a single pentode (having an anode connected to said cathodes, a cathode connected to ground, and a control grid); means to control the gain of said amplifier in accordance with fluctuations of said



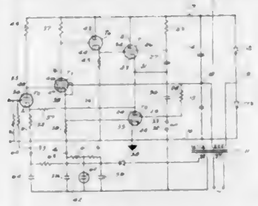
unregulated source, said means comprising a bias source and a potentiometer connected together as a voltage divider across said unregulated source, and means to apply fluctuations of said unregulated source to said control grid of said pentode, said means comprising a connection between the slider of said potentiometer and said control grid of said pentode whereby the resistance of said pentode and thus the gain of said amplifier is varied.

2,777,019
FEEDBACK AMPLIFIER
Heber J. Morrison, Ellicott City, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application August 20, 1952, Serial No. 305,411
2 Claims. (Cl. 179—171)

1. In combination with a pair of conducting elements adapted for connection to a source of variable frequency signals, an amplifier having first and second input terminals and first and second output terminals, an impedance element connecting the second input terminal with the second output terminal, an output circuit connected between said output terminals and including said impedance element, a circuit channel connected between said first output terminal and the second input terminal, said circuit channel comprising two circuit sections connected in series and having a common junction therebetween, with each of said sections comprising a resistor in series with a capacitor, the capacitor in the one of said sections adjacent said second input terminal being such as to present a high impedance to low frequency signals from said source of signals and a low impedance to high frequency signals from said source, a connection between the junction of said sections and one of said conducting elements, a connection between the first input terminal and the other conducting element, and means for impressing a voltage across said last-named capacitor which is proportional to current flow through said impedance element.

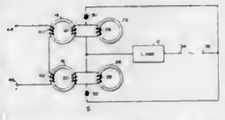
2,777,020
DIRECT COUPLED HIGH FIDELITY AMPLIFIER
Joseph F. Dobosy, Avon Lake, Ohio
Application June 22, 1951, Serial No. 232,887
5 Claims. (Cl. 179—171)

4. A vacuum-tube amplifier for energization from a power supply, comprising a pair of first and second vacuum tubes, each having an anode, a cathode and a control electrode, the anode of the second vacuum tube being connected to the cathode of the first to serve as an output terminal, and the remaining anode and cathode being adapted to be connected to the power supply terminals, phase-splitter tube means having control electrode means, an anode, additional electrode means adapted to be connected to a power supply terminal, and a cathode connected to the control electrode of the said second vacuum tube, and having anode and cathode loading, a cathode follower tube having an anode adapted to be connected to a power supply terminal, a control electrode connected



to the anode of said phase splitter tube, and a cathode connected to the control electrode of said first vacuum tube, and an input tube having a control electrode serving as the input terminal for the amplifier, an anode connected to the control electrode of the phase splitter tube, a cathode conductively connected to the said cathode of the said first vacuum tube, and anode and cathode loading.

2,777,021
PARALLEL CONNECTED MAGNETIC AMPLIFIER
Edward L. Walker, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 4, 1954, Serial No. 434,451
6 Claims. (Cl. 179—171)



1. In an amplifier connected to receive energy from a source of alternating current and supply energy to a load, the combination comprising, a plurality of load windings, the load windings being connected in parallel circuit relationship with one another with respect to the source of alternating current, a magnetc core member disposed in inductive relationship with each of the load windings, a control winding disposed in inductive relationship with one of the magnetic core members, whereby when said control winding effects a resetting of the flux level in said one of the magnetic core members a voltage is produced across each of the plurality of load windings, to thereby effect a resetting of the flux level in all of the magnetic core members, unilateral conducting means connected in series circuit relationship with the parallel circuit including the plurality of load windings, and circuit means for connecting said series circuit in circuit relationship with said load and with said source of alternating current.

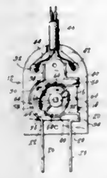
2,777,022
RADIO CIRCUIT IN WHICH THE VACUUM TUBE FIRES FOR EACH ALTERNATE POSITIVE CYCLE OF THE GRID SWING
Julius W. Mann and George F. Russell, Tacoma, Wash.
Application August 12, 1952, Serial No. 303,918
2 Claims. (Cl. 200—36)

1. In a self-excited oscillator, an inductive means and a condenser capacitively coupled with the inductive means, said condenser being adapted to receive a load between its plates and whereby the inductive means and the condenser constitute a part of an output circuit, an inductance in close inductive relation with the center

portion only of said inductive means, with the center of said inductive means being common with the center of said inductance, a plurality of vacuum tubes including plates and grids, said inductance being conected between the plates of the vacuum tubes and constituting a part of said self-excited oscillator in which said inductive

means forms a part, and a connection between each vacuum tube grid and a point in said output circuit with each grid being connected so that the total length from the grid to the common center of said inductive means and said inductance is electrically one-eighth of a wave length of the frequency of said oscillator.

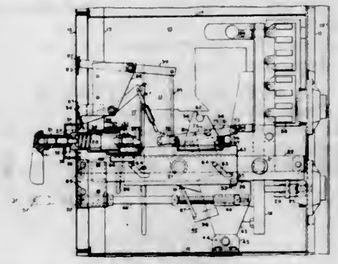
2,777,023
ELECTRIC LOCK PLUG
Louis Sepulveda, New York, N. Y.
Application February 12, 1954, Serial No. 409,897
3 Claims. (Cl. 200—42)



1. A lock equipped electrical plug comprising a plug body, a pair of prongs extending therefrom, a terminal mounted within said body in spaced relation to the prongs, one of the prongs and said terminal being adapted for connection to the wires of an electrical cord, a rotatable switch assembly mounted within said body between the terminal and the other prong and including a rotary switch element and a contact member carried by said element, said contact member being adapted to bridge the terminal and the other prong in one position to which the switch assembly is rotated, means supporting the switch assembly within the body for rotation, and means insertable into the body for rotating the switch assembly, the contact member being formed as a length of conductive spring material having laterally extending end portions engaging the terminal and said other prong in said position of the contact member, the terminal and said other prong having curved ends disposed within the body and said end portion being curved complementarily to said curved ends to engage thereagainst.

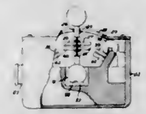
2,777,024
METAL-ENCLOSED SWITCHGEAR
Charles P. West, Forest Hills, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application April 28, 1951, Serial No. 223,564
15 Claims. (Cl. 200—50)

1. In a switchgear structure, in combination, a cell having a door, a circuit breaker unit disposed in the cell and movable between predetermined positions within the cell, said circuit breaker having contact members operable between open and closed positions, a drive mechanism operable from outside the cell for moving the breaker unit between said positions with the door closed, said door having an opening therein providing access to the drive mechanism, manually operable means for blocking access to the drive mechanism through said opening, and mechanical interlocking means on the breaker unit actuated by the breaker mechanism simultaneously with the circuit breaker contact members when they are opened and closed, said interlocking means engaging the manually



operable means to prevent moving the manually operable means away from said opening thereby preventing operation of the drive mechanism while the circuit breaker contact members are closed.

2,777,025
DIRECTION INDICATOR SWITCH
Louis M. Bertaud, San Francisco, Calif.
Application October 5, 1953, Serial No. 383,967
5 Claims. (Cl. 200—61.27)



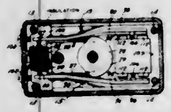
1. In a direction indicator for motor vehicles, a control switch comprising a housing mountable upon the vehicle and provided with a cover having crossing guide slots, a switch arm pivoted within the housing and extending outwardly through the slots, the arm being movable along said slots to any of a plurality of signalling positions, a plurality of pairs of contacts mounted in alinement with each end of each slot, a like plurality of switch blades arranged in angularly spaced rows around the switch arm and alined with the corresponding pairs of contacts, the blades alined with each end portion of each slot being simultaneously movable into and out of engagement with pairs of contacts alined therewith to make and break separate circuits therethrough, an extension upon the arm, contacts normally engageable by said extension for closing a circuit when the switch arm is in non-signalling position, and means for automatically disengaging the extensions from the contacts when the arm is moved to signalling position.

2,777,026
BREAKAGE DETECTOR FOR YARN OR THE LIKE
Edward Vossen, Lynbrook, N. Y., assignor to Stop-Motion Devices Corp., Brooklyn, N. Y.
Application September 8, 1953, Serial No. 378,713
9 Claims. (Cl. 200—61.18)

1. A device for detecting broken yarn and the like, comprising a thin, flat blade, at least three spaced fingers extending longitudinally from said blade at one end thereof, said fingers being in a common plane with each other and with said blade and being adapted to be inter-threaded

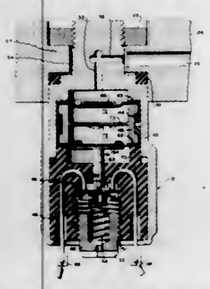
with yarn and to frictionally engage the inter-threaded yarn when said yarn is pulled relatively taut, said blade having a slot formed therein to enable the blade to be mounted on a rod for pivotal movement about the axis of said rod and for slidable movement along the axis of said slot.

2,777,027
ELECTRICAL ACTUATOR
Kimble Frank Tesh, Santa Monica, Calif., assignor to Bendix Aviation Corporation, North Hollywood, Calif., a corporation of Delaware
Application October 19, 1951, Serial No. 252,155
6 Claims. (Cl. 200—67)



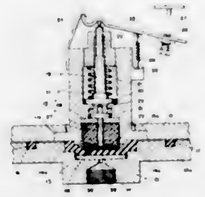
1. A switch mechanism comprising: a shaft, a cam on said shaft, and a movable contact arm assembly pivotally supported adjacent one of its ends and comprising an arm positioned to bear against said cam intermediate its ends; a stationary contact positioned for make and break contact with the other end of said arm in response to rotation of said cam; means urging said arm toward said stationary contact with a force varying inversely with the distance therebetween; said arm assembly including spring means on the cam side of said arm normally spaced from said arm and adapted to be deflected toward the arm by lifting movement of said cam, to develop a spring force against the arm in direction urging it away from said fixed contact, said spring means having insufficient stiffness to overcome said urging means, and said cam being so proportioned as to positively displace said arm following deflection of said spring means.

2,777,028
HYDROSTATIC PRESSURE SWITCH
James M. Kendall, Coral Hills, Md., and George A. Henderson, Huntsville, Ala., assignors to the United States of America as represented by the Secretary of the Navy
Original application October 17, 1947, Serial No. 780,562. Divided and this application September 17, 1954, Serial No. 456,890
1 Claim. (Cl. 200—83)
(Granted under Title 35, U. S. Code (1952), sec. 266)



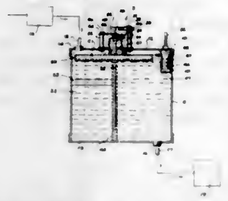
In a pressure responsive switch of the character disclosed, in combination, a casing, an insert within said casing, a pair of electroconducting terminals fixedly supported in said insert in mutually spaced insulated relation, a movable element of electroconducting material in said insert for bridging said terminals and connecting them together electrically when in engagement therewith, yieldable means operatively connected with said element for holding the element in engagement with said terminals, means forming a hermetically sealed chamber in said casing adjacent said insert, said chamber being filled with fluid and having a pair of spaced diaphragms of flexible material, means for applying pressure to one of said diaphragms to flex the same inwardly, said fluid serving to transmit the pressure and flex the other of said diaphragms outwardly, and force-transmitting means supported for movement in said insert, said last-named means operatively connecting said last-named diaphragm with said movable element and adapted to force the element out of engagement with said terminals in response to outward flexing of the last-named diaphragm and thereby break the electrical connection between the terminals, said force-transmitting means comprising a rod supported for sliding movement in a bore in said insert, said rod having a pointed end, said element having an axially offset portion which provides a depression on one side of the element and a projection on the other side of the element, the pointed end of said rod being received in said depression, and said yieldable means comprising a coil spring, a flanged bushing in one end of said spring, said projection being received in said bushing, and a cup-like member in threaded engagement with said insert, the other end of said spring being received in said member, turning of said member with respect to the insert providing for adjustment of the spring, and said offset portion serving to hold the element centered with respect to the rod and bushing.

2,777,029
FLUID ACTUATED SWITCH
Hall Langstroth, Riverside, Conn.
Application October 28, 1953, Serial No. 388,749
6 Claims. (Cl. 200—83)



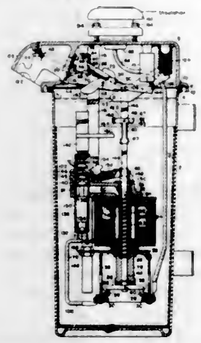
1. A high pressure, pressure sensitive switch comprising a chamber having bounding walls, a piston snugly accommodated at one bounding wall within an opening in said bounding wall and moveable a limited distance relative to said wall in the direction of its extension through the wall such that at one extreme of its movement the end of the piston is essentially flush with the bounding wall and at the other extreme said end protrudes slightly into the chamber, means on the piston and on bounding wall to so limit the movement of the piston, a spring exerting high pressure on the piston to urge it in opposition to the operating pressure into the position in which its end protrudes into the chamber, a second opening in another bounding wall permitting the entry of fluid under pressure, a deformable, resilient, non-compressible diaphragm arranged in the chamber across the first opening and arranged between the first and second openings so that, under fluid pressure, the diaphragm will be moved against the bounding walls adjacent said first opening, said diaphragm assuming fluid-like characteristics and forming a fluid tight barrier that will prevent the flow of fluid through the first opening, and a smooth, resilient, essentially non-compressible member of harder durometer reading than the diaphragm selected to resist shear against the end of the piston and to resist flow between the bounding wall of the chamber and the piston at the high pressures encountered positioned between the end of the piston and the diaphragm and extending beyond the edges of the piston and into contact with the bounding wall.

2,777,030
FLUID LEVEL INDICATOR
Jack E. MacGriff and Marilyn L. Bacon, Detroit, Mich.
Application June 8, 1953, Serial No. 360,092
1 Claim. (Cl. 200—84)



A fuel level indicator for a vehicle comprising an upright normally filled container of predetermined volume having an inlet adapted for connection to a source of fuel and an outlet, a vertically movable float in said container responsive to the fuel level therein, a bellows mounted upon and with its interior in communication with the interior of said container, an upright rod on said float projected up into said bellows and operatively engageable with its top surface, a normally open switch mounted on said container above said bellows including a pair of spaced closable contacts, an upright operator rod on said bellows normally engageable with one of said contacts at a predetermined fuel level in said container for maintaining said contacts in spaced relation, said float responding to any appreciable fall in said predetermined fuel level on failure of said source permitting closing of said contacts, said inlet serving as a container vent only while said source lasts, a normally closed air vent tube upon said container adapted for opening only on failure of said source, a second float in said container, guide means on said container for said second float, and a needle valve actuated by the second float for closing said vent at said predetermined fuel level, and automatically opening the vent on a failure of said source and consequent falling of said level, to assure a continued flow of said predetermined volume from said container.

2,777,031
CIRCUIT INTERRUPTERS
James M. Wallace, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application August 18, 1951, Serial No. 242,465
14 Claims. (Cl. 200—89)

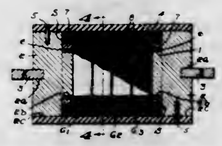


1. An automatic reclosing circuit breaker comprising, separable contacts, an operating mechanism for said contacts, electroresponsive means movable in response to a predetermining value of overcurrent, motion transmitting means connected to the mechanism and normally positioned to be actuated by the electroresponsive means to normally transmit motion of the electroresponsive means to separate the contacts, time delay means operable to delay separation of said contacts, and cumulatively advanceable means operable in response to different predetermined numbers of contact separations to render the time delay means operable and the motion transmitting means inoperative to effect operation of the mechanism to separate said contacts in response to movement of said electroresponsive means.

2,777,032
SNAP SWITCH AND BLADE THEREFOR
Hadley K. Burch, Danbury, Conn., assignor to Burch-Parkhurst Associates, New York, N. Y., a partnership
Application May 12, 1953, Serial No. 354,573
7 Claims. (Cl. 200—113)

1. A snap switch comprising, a support, a resilient normally flat conductive blade having spaced apart supporting legs and a center leg joined thereto and extending therebetween, means attaching said supporting legs to said support with their ends in a plane and drawn toward one another to distort the blade, a fixed contact adapted for engagement by said center leg to make and break a circuit, a fulcrum engaging one side of the center leg in the vicinity of its base portion, and an actuator adapted to engage the other side of the center leg at a point further from the free end of the center leg than said fulcrum.

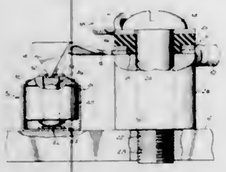
2,777,033
POWER FUSES WITH TUBULAR LINKS AND PRESSURE-TYPE LINK CONNECTIONS
Frederick J. Kozacka, Amesbury, Mass., assignor to The Chase-Shawmut Company, Newburyport, Mass.
Application June 14, 1954, Serial No. 436,398
12 Claims. (Cl. 200—120)



1. A high-capacity fuse comprising a casing of insulating material, a pair of terminal elements one at each end of said casing, each of said pair of terminal elements having a cylindrical surface of relatively large diameter supporting said casing and a coaxial cylindrical clamping surface of relatively small diameter on the side thereof adjacent the inside of said casing, a ribbon-type fuse link of silver cylindrically wound to fit upon said cylindrical clamping surface on each of said pair of terminal elements arranged within said casing and maintained in coaxial relation thereto by engagement with said clamping surface on each of said pair of terminal elements, said link being provided with a plurality of groups of perforations and intermediate current-carrying elements, each of said groups comprising a plurality of narrowly spaced perforations having a predetermined length substantially less than the overall length of said link and a predetermined width and a plurality of intermediate current-carrying elements arranged in circular relation in a plane at right angles to the axis of the cylindrical surface defined by said link, said predetermined width of each of

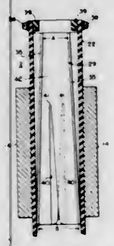
said plurality of perforations being sufficiently small to cause vaporization of any of said plurality of current-carrying elements by back-burning of the arc formed at a major fault at one of said plurality of current-carrying elements immediately adjacent thereto, said link consisting of a unitary sheet of metal having sufficient mechanical strength to form jointly with said pair of terminal elements a self-sustained structural unit when clamped to said clamping surface of each of said pair of terminal elements, a pair of clamping rings clamping each end of said link to said clamping surface of one of said pair of terminal elements and a pulverulent silicious filler in the space between said casing and said link and in the space inside of said link.

2,777,034
THERMAL SWITCH
Gilbert King, Los Angeles, Charles E. Roberts, Venice, and Robert S. Weil, Sherman Oaks, Calif., assignors to Minitec, Los Angeles, Calif., a partnership
Application March 21, 1955, Serial No. 495,683
13 Claims. (Cl. 200—136)



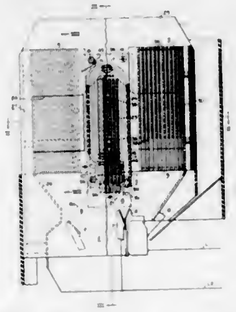
12. A new and improved thermal switch construction which comprises: a metal, can-like casing; a barrier member positioned inside said casing on the bottom thereof; a dielectric washer held within said casing adjacent to the top thereof, said washer including an opening formed therein; an electrically conductive member passing through said opening, said member including a passage formed therein adjacent to said barrier member; a movable contact held within said passage so as to be capable of movement with respect to said member; and spring means urging said contact against said barrier member.

2,777,035
AIR-TYPE CIRCUIT INTERRUPTER
Robert C. Dickinson and Russell E. Frink, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Original application February 23, 1949, Serial No. 77,794, now Patent No. 2,687,461, dated August 24, 1954. Divided and this application March 30, 1954, Serial No. 419,753
12 Claims. (Cl. 200—144)



1. A circuit interrupter of the airbreak type including an arc chute comprising a plurality of spaced wedge-shaped plates of insulating material, the thickness of each plate increasing in a direction toward the exhaust end of the arc chute, the plates being so disposed that the median plane of each plate is parallel to the median plane of every other plate, means for establishing an arc and moving it against the plates, and the exhaust passages between the plates decreasing in cross-sectional area at the exhaust end of the arc chute.

2,777,036
CIRCUIT INTERRUPTER
Russell E. Frink and Samuel A. Bottonari, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application January 21, 1954, Serial No. 405,322
11 Claims. (Cl. 200—147)

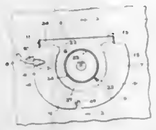


1. A circuit interrupter including means for establishing an arc, means for causing the extinction of the arc including a pair of cooperating magnetic pole plates and an interconnecting yoke portion, insulating means having edge portions for engaging at least a portion of said arc to effect the extinction thereof, a blowout coil for energizing the magnetic pole plates, and means including the yoke portion for extinguishing the transfer arc portion which is in electrical parallel with the terminals of the blowout coil, the yoke portion including a plurality of spaced magnetic plates which will cool and deionize the transfer arc portion, and the spaced magnetic plates opening to the space beyond said insulating means.

2,777,037
MINIATURE SWITCH
James P. Norton, Los Angeles, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application November 2, 1955, Serial No. 544,429
2 Claims. (Cl. 200—159)

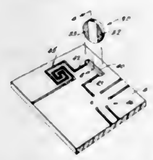
1. A miniature switch for completing and interrupting the electrical continuity between a pair of terminals, said switch comprising: a first spring having a spiral intermediate its center and ends, the ends being fixed in position, one of said ends being electrically connected to one of the terminals; a second spring having a spiral intermediate its center and ends, the ends being fixed in position, one of said ends being electrically connected to the other of the terminals; a push button mounted on said first spring and at all times in electrical connection therewith, said push button being contiguous to said second spring and movable into electrical contact therewith; and a rubber pad pressing against said second spring for dampening out any oscillations of said springs that may occur during operation of the switch.

2,777,038
MOUNTING PLATE FOR REFRIGERATOR CONTROL
Leslie L. Pruehs, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application July 7, 1955, Serial No. 520,580
1 Claim. (Cl. 200—168)



A mounting plate for mounting a control box between the liner and outer wall of a refrigerator cabinet and for supporting said box on the liner, said plate comprising a main body portion having an aperture therein, means for mounting said control box on said plate behind said aperture with the control shaft extending through said aperture, said main body portion adapted to close a substantially rectangular opening provided in said liner and including side and bottom edge portions overlapping the side and bottom edges of said opening an upper rearwardly offset portion of substantially the same width as said opening adapted to extend through said opening in overlapping engagement with the rear surface of said liner along the upper edge of said opening, a flange surrounding said aperture in said main body portion and extending forwardly therefrom a distance somewhat greater than the thickness of said liner, a channel in said main body portion extending around said flange with the bottom thereof in a plane intermediate the plane of said main body portion and said offset portion, said flange, and channel rearwardly offset portion preventing moisture on the inner side of said liner from entering said control box.

2,777,039
RESISTOR ELEMENTS ADAPTED FOR USE IN CONNECTION WITH PRINTED CIRCUITS
Edwin P. Thias, Los Angeles, Calif., assignor to Standard Coil Products Co., Inc., Los Angeles, Calif., a corporation of Illinois
Application June 29, 1954, Serial No. 440,070
7 Claims. (Cl. 201—63)



1. A printed circuit unit having a dielectric base, a recess in said dielectric base; circuit leads extending to portions of said recess; a solid electrical resistor having a plurality of spaced coatings of a high electrical conductivity solder adherent material; the resistance of the unit being determined by the spacing between adjacent coatings which are connected into a circuit; said resistor being mounted in said recess with coated portions of said resistor registering with said circuit leads on said dielectric base.

2,777,040
LARGE AREA PHOTOCELL
Benjamin Kazan, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application August 17, 1955, Serial No. 528,908
13 Claims. (Cl. 201—63)

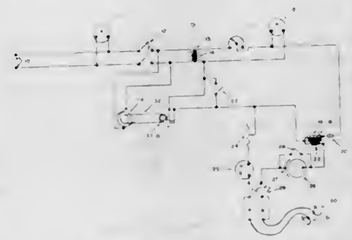
1. A light-sensitive device, comprising a layer of insulation having at least one perforation through its thickness, a quantity of light-responsive material in said perforation, a conductive sheet on at least one surface of said insulation layer and integrally bonded thereto, said conductive sheet having a window in registry with the said perforation, and another conductive sheet integrally

bonded to the opposite surface of said insulation layer, both of said sheets constituting contact electrodes between which the conductivity is varied by said light-responsive material when subjected to incident light.

2,777,041
HIGH FREQUENCY HEAT TREATING APPARATUS
Herman C. Dustman, Northbrook, Ill., assignor to Lindberg Engineering Company, Chicago, Ill., a corporation of Illinois
Application May 21, 1953, Serial No. 356,359
3 Claims. (Cl. 219—10.79)

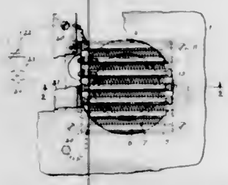
1. A high frequency heating coil comprising an electrical conductor, terminals on the conductor to connect it to a source of current having a frequency on the order of at least 100 kilocycles, and a core element partially encircling the conductor and having a smooth face substantially flush with one side of the conductor and at which side the conductor is exposed for positioning of a work piece close to the conductor and the core element, the core element being formed of fine particles of magnetic material suspended in spaced relationship in non-conducting material.

2,777,042
MEANS FOR CLEARING CARBON GROUNDS
Lawrence E. Legg, Chicago, Ill.
Application November 13, 1952, Serial No. 320,185
4 Claims. (Cl. 219—19)



2. Mechanism for the disintegration of carbon formed between the windings and the pole pieces or frame of electrical equipment such as generators, comprising an electrical circuit adapted to be connected to a source of current supply, terminals connected to said circuit one of which is adapted to be connected to the winding affected and the other to the frame of the equipment, and means in said circuit for supplying to the terminals a high voltage pulsating current for removing the carbon grounding said winding including a continuous current supply, breaker points for interrupting the current supply, and means for automatically opening and closing the breaker points in timed relation to supply high voltage pulsating current to the terminals.

2,777,043
ELECTRIC HEATER
Joseph P. Duray and William E. Kurz, Chicago, Ill., assignors to Precision Scientific Company, Chicago, Ill., a corporation of Illinois
Application July 6, 1954, Serial No. 441,604
5 Claims. (Cl. 219—19)



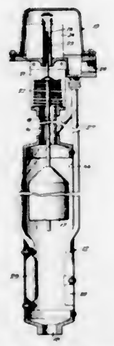
1. A quick response electric heater comprising a channel-shaped support base, each channel side being provided with a horizontal array of spaced apertures, a plurality of separate insulating spacer bars positioned within said channel with their opposite ends anchored in said channel side apertures, said spacer bars being formed to provide a lesser spacing between their bottom portions than between their top portions, and a coiled wire heater element having lengths thereof positioned between adjacent pairs of said spacer element sides, said element having a coil diameter greater than said lesser spacing whereby said heater coil lengths are supported between said spacer bars.

2,777,044
ELECTRICAL HEATING DEVICE
William O. Lytle, New Kensington, Pa., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania
Original application December 15, 1951, Serial No. 261,766, now Patent No. 2,648,753, dated August 15, 1953. Divided and this application July 8, 1953, Serial No. 366,693
10 Claims. (Cl. 219—19)

1. An electrical heating device of the reflection type which comprises a ceramic base, spaced electrodes on said base, a continuous, transparent, electroconductive metal oxide coating substantially completely covering a surface of said base and in electrical contact with said electrodes to provide an electrical heating circuit with said electrodes, and a heat reflector insulated electrically from said electrical circuit and located adjacent said coating.

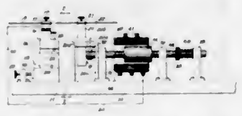
2,777,045
TANK CONTROL
Benjamin L. Binford, Chicago, Ill., assignor to Magnetrol Inc., Chicago, Ill., a corporation of Illinois
Application May 9, 1955, Serial No. 506,744
3 Claims. (Cl. 219—38)

2. A control apparatus for exposed water tanks and the like comprising an elongated vertical tube to be mounted in the tank and in open communication at its upper and lower ends with the tank to contain liquid at the same level as the tank, displacer means in the tube to move in response to changes in liquid level in the tube, control means at the upper end of the tube operatively connected to the displacer means to be operated in response to movement thereof, an electric heater in the tube, and a thermostatic control in the tube to turn on the heater when the temperature of the liquid in the tube



approaches freezing thereby to prevent freezing of liquid in the tube.

2,777,046
JOINING ENDS OF WIRES
Alfred Vang, Carmel, Calif.
Substituted for abandoned application Serial No. 758,579, July 2, 1947. This application August 6, 1953, Serial No. 372,640
1 Claim. (Cl. 219—104)



A method for welding two ends of wire comprising alining the end portions of the wire, providing substantially flat end surfaces to the wire, lightly engaging said surfaces with each other, then applying a high frequency current to said end portions to heat oxide on the same by dielectric heating and substantially simultaneously forcing the surfaces together by additional force.

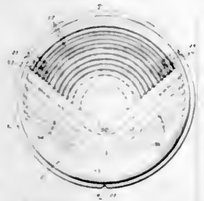
2,777,047
POWER SUPPLY FOR MULTIPLE WELDING UNITS
Charles H. Stevens, Jr., Cornwall Bridge, Conn.
Application July 8, 1953, Serial No. 366,730
7 Claims. (Cl. 219—131)

1. An electric welder direct current supply comprising a magnetic amplifier having a primary winding and three control windings, a rectifier, said rectifier coupled to said primary winding, a plurality of individually operable welding units, the output of said rectifier being connected to said welding units through one of said control windings, means for supplying a portion of the output voltage to another of said control windings, and the third of said control windings being connected to receive a portion of the supply voltage.

2,777,048
CLAMPING DEVICE FOR BUTT-WELDING OF PIPES
Friedrich Kocks, Wermelskirchen, Germany
Application November 15, 1955, Serial No. 546,864
Claims priority, application Germany December 4, 1954
3 Claims. (Cl. 219—161)

1. A clamping device for butt-welding of pipes, comprising a set of clamping members for introduction into each of a pair of pipes, each set including a cone-shaped body and a plurality of con-shaped segments cooperating with each body and forming therewith in assembled position a composite unit of a diameter equal to the pipe diameter, a common rod for mounting said body thereon in spaced relationship, one of said bodies being fixedly secured on said rod and the other one being axially slidable thereon, a plurality of hydraulic cylinders for coaction with said clamping members and said rod by changing the relative distance between said clamping members and thereby moving them into and out of pipe-clamping position, respectively, and means outside of the pipes for heating the ends to welding temperature when in abutting position.

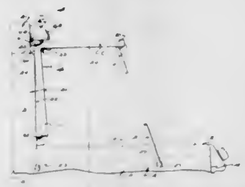
2,777,049
LIGHT SIGNAL PROJECTOR
Philip B. Clark, South Milwaukee, Wis., assignor to McGraw Electric Company, Milwaukee, Wis., a corporation of Delaware
Application December 30, 1952, Serial No. 328,631
10 Claims. (Cl. 240—1.2)



1. A concavo-convex lens having light refracting areas comprising a bull's-eye consisting of a series of concentric circular prisms, substantially uniform in refractive characteristics throughout their entire arcuate length, a series of striated prisms disposed about said bull's-eye and each prism of said series comprising major portions including a curvilinear portion terminating at at least one end in an outwardly diverging prismatic portion, and a series of curvilinear prisms disposed about said bull's-eye oppositely of said curvilinear portion and terminating at at least one end thereof at said diverging portion of said striated prisms.

2,777,050
ILLUMINATED STOVE
Daniel P. O'Keefe, Los Angeles, Calif.
Application March 8, 1950, Serial No. 148,409
1 Claim. (Cl. 240—2)

A stove including, a box-shaped body having a burner carrying top and a guard extending across and projecting up at the back of the body and above the top, a cover having elongate front and rear sections with flat panel portions having adjacent edge flanges pivotally connected together at adjoining longitudinal edges of the sections, means pivotally connecting the rear edge of the rear section to the body adjacent the bottom of the guard, the cover being operable between a down position where the sections are in a common plane and cover the top of the body and an up position where the rear section projects upwardly adjacent the front of the guard to the top thereof and the front section projects horizontally from the uppermost edge of the rear section, there being working clearance between the sections establishing a narrow slot when the top is in the up position, and illuminating means carried by the guard immediately above the uppermost edge of the rear cover section when that section is up, the cover having an elongate light passing opening extending longitudinally of the sections and substantially wider than the slot transversely of the sections

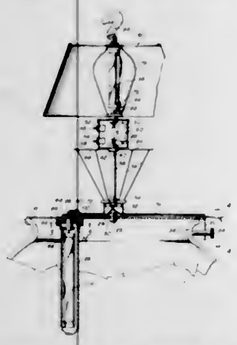


and located where the sections adjoin and adapted to pass light from the illuminating means to the top of the body when the cover is up, the light opening being formed by registering notches in the said flanges, the illuminating means being substantially coextensive with the light opening and including an elongate lamp extending parallel with the guard above the upper edge of the rear section of the cover and with a portion below the plane of the panel of the front section when the cover is up, the said means including a vertically disposed reflector immediately behind the lamp and adapted to direct light received from the lamp downward and forward through the light passing opening to illuminate the top of the body when the cover is up.

2,777,051
UMBRELLA HANDLE LIGHT
Andrew J. Luchansky, Bridgeport, Conn., assignor to Progressive Specialties, Bridgeport, Conn., a partnership
Application July 14, 1955, Serial No. 521,956
6 Claims. (Cl. 240—6.42)

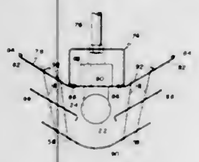
1. In a flashlight of the character described, an outer casing open at one end adapted to hold a battery having a central contact and a metal outer shell, a closure cap for the casing, a lamp socket in the cap including a circular contact element extending laterally therefrom within the casing, a head member including a reflector surrounding the socket, said head and socket mounted in the cap for lateral rocking movements and with the central contact of a light bulb in the socket normally engaging the central contact of a battery in the casing, said circular contact element normally spaced from circuit closing position with the battery shell through the light bulb and movable by said rocking movement to circuit closing position engaging the battery shell, and resilient means to return the head and circular contact element to the normal non-circuit-closing position.

2,777,052
VASE ATTACHED LAMP
Henley E. Combs, Miami Beach, Fla.
Application November 14, 1955, Serial No. 546,372
3 Claims. (Cl. 240—52.6)



1. In combination with a receptacle for water, an aquarium illuminating apparatus comprising a mounting strap, clamp means detachably securing said strap to said receptacle, a threaded stud depending from said strap, a flanged collar threadedly secured on said stud, a lamp socket secured to said stud, a fluorescent lamp in said socket, a transparent casing enveloping said lamp, clip means holding said casing to said collar, a connection box on said strap, a stand rising from said connection box above said receptacle, a switch box on said stand, a second lamp socket carried by said switch box, and a second lamp mounted in said second lamp socket.

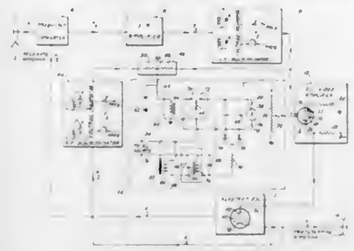
2,777,053
DIRECT-INDIRECT REVERSIBLE LUMINAIRE
Willis L. Lipscomb, San Diego, Calif.
Application September 28, 1953, Serial No. 382,571
5 Claims. (Cl. 240—78)



1. A luminaire comprising an elongated hollow mounting member, a lamp operatively mounted on said member, a plurality of substantially parallel, elongated slats, flexible suspension means interconnecting said slats in vertically spaced relation, the uppermost only of said slats being removably attached to said mounting member, said slats being longitudinally horizontal and transversely inclined upwardly and outwardly at an acute angle to the horizontal, said slats being individually invertible on said mounting member and said suspension means to incline downwardly and outwardly at the same acute angle to the horizontal.

2,777,054
FREQUENCY STABILIZED RADIO RELAY SYSTEM
Robert S. Dahlberg, Jr., Roslyn, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application March 11, 1952, Serial No. 275,939
12 Claims. (Cl. 250—15)

1. A radio relay communication system comprising means to receive a first signal having a first nominal frequency value and undergoing first variations indicative of intelligence and means to transmit a second signal having a second nominal frequency value different from said first frequency value and undergoing second variations indicative of said intelligence, said system further comprising means to generate said second signal, means to combine said second signal with said first signal to produce a heterodyne wave having a third nominal frequency value and undergoing third variations indicative of said intelligence, means to derive from one of said signals a first control quantity having an amplitude value proportional to variations of the nominal frequency value of said one signal from a first given frequency value,

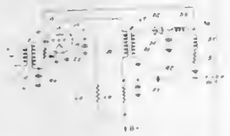


means to derive from said heterodyne wave a second control quantity having an amplitude value proportional to variations of the nominal frequency value of said heterodyne wave from a second given frequency value, means to combine algebraically said first and said second control quantities to produce a resultant control quantity, means responsive to said resultant control quantity to control the said second nominal frequency value of said generator of said second signal, means to derive from said heterodyne wave a third signal undergoing variations indicative of said intelligence, and means responsive to said third signal for imparting said intelligence variations to said second signal.

2,777,055
AUTOMATIC FREQUENCY CONTROL SYSTEM WITH PHASE CONTROL FOR SYNCHRONOUS DETECTION
Bernard Goldberg, Wanamassa, N. J., assignor to the United States of America as represented by the Secretary of the Army
Application January 7, 1953, Serial No. 330,183
2 Claims. (Cl. 250—20)
(Granted under Title 35, U. S. Code (1952), sec. 266)

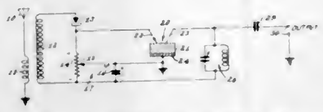
1. Means for detecting the modulation components of an incoming signal having carrier frequency and side bands comprising; a first oscillator, a first mixer coupled to said oscillator producing an intermediate carrier frequency and intermediate side band frequencies, an intermediate carrier frequency filter coupled to said mixer, a first means coupled to said filter for amplifying and limiting said intermediate carrier frequency, a discriminator connected to said intermediate carrier frequency filter, a reactance tube actuated by said discriminator output, said reactance tube controlling said first oscillator to maintain said intermediate carrier frequency substantially constant, a second oscillator, a phase detector, said first means and said second oscillator coupled to said phase detector, a reactance tube actuated by said phase detector, said reactance tube controlling said second oscillator to synchronize it with said intermediate carrier frequency, a second means for amplifying said intermediate frequency side bands, a second mixer coupling said second means for said second oscillator frequency to reproduce said modulation components.

2,777,056
REFLEX CIRCUIT FOR AMPLIFYING INTERMEDIATE AND DETECTED VIDEO FREQUENCIES IN SAME STAGE
Richard W. Bull, South Pasadena, Calif., assignor to Standard Coil Products Co., Inc., Los Angeles, Calif., a corporation of Illinois
Application December 2, 1954, Serial No. 472,677
3 Claims. (Cl. 250—20)



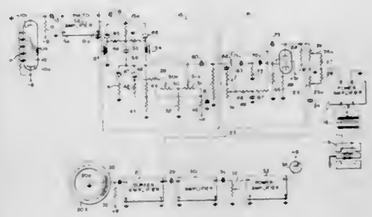
3. In a television receiver, an electron tube, having a plate, an input circuit for said tube comprising a transformer tuned to the I. F. frequency of said television receiver a series capacitance connected in series with the secondary of said transformer connected to ground, an output circuit for said tube connected to the plate thereof and including a plate inductance tuned to said I. F. signal frequency, a detector stage connected in said output circuit for detecting the output signal from said amplifier tube comprising a signal detector and a series inductance, a second inductance connected to the output of said series inductance, and a coupling circuit including an isolation resistor extending from the junction point of said series and second inductance to the junction of said series capacitance and said input inductance of said tube for impressing detected signals to the input of said tube, a resistor connected in series with said plate inductance in the output circuit of said tube across which said amplified detected signals appear, and a coupling circuit from said last mentioned resistor to a receiver circuit for said detected signals.

2,777,057
RADIATION POWERED TRANSISTOR CIRCUITS
Jacques I. Pankove, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application December 16, 1952, Serial No. 326,295
The terminal fifteen years of the term of the patent to be granted has been disclaimed
10 Claims. (Cl. 250—20)

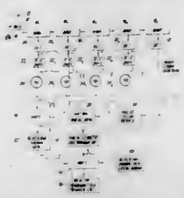


10. In a receiving system including a semi-conductor device adapted to amplify received signals and including a semi-conductive body having a plurality of electrodes cooperatively associated therewith, the combination of, means including an inductor for receiving carrier wave energy, rectifying means and energy storage means connected in series, the series combination of said rectifying means and said energy storage means being connected in shunt with said inductor for deriving biasing voltages from said carrier wave energy, said derived biasing voltages being the sole source of energizing potentials for said device, load impedance means connected with said rectifying means and between a pair of said plurality of electrodes for applying a selected portion of said received signals to said device, and means including said storage means connected between one of said pair of electrodes and another of said plurality of electrodes for applying said derived biasing voltages therebetween to energize said device to amplify said signals.

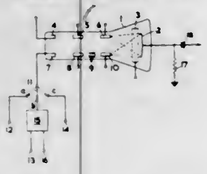
2,777,058
VIDEO-SIGNAL TONE-ADJUSTING NETWORK
John A. Boyajean, Huntington, N. Y., assignor to Fairchild Camera and Instrument Corporation, a corporation of Delaware
Application September 28, 1951, Serial No. 248,755
7 Claims. (Cl. 250—27)



1. In a video-signal translating system, a tone-adjusting network comprising: a video-signal translating channel; impedance means effectively in series with said channel; a first pair of opposed unidirectionally conductive devices connected effectively in parallel with said series impedance means; a second pair of opposed unidirectionally conductive devices connected effectively in shunt to said channel; and means for applying to the devices of said two pairs conduction-opposing biases of different values within the normal range of signal amplitudes, whereby the devices of said two pairs become conductive for different amplitudes of the translated video signal to impart a non-linear amplitude-response characteristic to said network.

2,777,059
ECHO SUPPRESSION BEACONS
Francis H. Stites, Wayland, Mass., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application April 13, 1951, Serial No. 220,916
4 Claims. (Cl. 250—27)

1. A beacon responsive to a long pulse and having means for suppressing response to combinations of shorter pulses, including a cascade of amplifier stages having ample gain for limiting signals over a wide range of input signal lengths, a pulse length discriminator energized by the cascade of stages, a multiple channel wave-form discriminator the channels of which are respectively coupled to different stages of the cascade amplifier, said channels including means responsive to deviations from constant-amplitude pulses, a combining network energized by said deviation responsive means, and means jointly energized by the combining network and the pulse length discriminator for enabling beacon response to pulses of proper length whose level is substantially constant.

2,777,060
ELECTRONIC INFORMATION STORAGE SYSTEMS AND DISCHARGE TUBES THEREFOR
Paul L. Waters, Malvern, England, assignor to National Research Development Corporation, London, England, a British corporation
Application July 2, 1951, Serial No. 234,811
Claims priority, application Great Britain July 7, 1950
7 Claims. (Cl. 250—27)

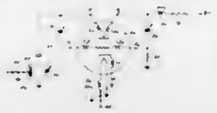


1. A cathode ray tube storage system for storage of information by reference to a charge pattern laid down on a cathode ray tube target, comprising a cathode ray tube having a target in the form of a conductive plate bearing on one surface a mosaic of discrete insulating elements each isolated from its neighbours by an exposed region of said conductive plate, a collector electrode positioned adjacent said target electrode and two electron guns both positioned to direct electrons towards said target electrode, a source of operating voltages, a source of modulating voltages, connections between said source of operating voltages and the first of said electron guns to cause said gun to direct electrons to said target electrode at an effective electron velocity above or below the secondary emission cross-over point depending upon the state of charge of the part of said target electrode encountered by the electrons, switch means connected between an electrode of said second electron gun said source of operating voltages and said source of modulating voltages to permit the supply to said second electron gum of (*a*) a voltage from said source of modulating voltages modulated to provide an effective electron velocity below the first secondary emission cross-over point for positively charged regions of the target electrode, alternating with an effective electron velocity above or below the first secondary emission cross-over point depending upon the state of charge of the part of the target electrode encountered by the modulated electron beam, (*b*) a voltage corresponding to an effective electron velocity which is above the first secondary emission cross-over point for positively charged regions of the target electrode and below the first secondary emission crossover point for negatively charged regions of the target electrode (*c*) and a voltage corresponding to an effective electron velocity above the secondary emission cross-over point for all parts of the target electrode, and an output circuit connected to said target electrode.

2,777,061
CRYSTAL CONTROLLED OSCILLATOR
Atwood H. Hargrove, Baltimore, Md., assignor to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware
Application August 6, 1954, Serial No. 448,183
6 Claims. (Cl. 250—36)

1. An electronic oscillator comprising: a vacuum tube having a plate, a cathode and a control grid; a source of direct current potential; means joining the positive and negative terminals of said source to said plate and said cathode respectively; a first parallel resonant circuit connected between said cathode and said negative terminal, said circuit being resonant at a frequency below the lowest frequency of operation of said oscillator; a second parallel resonant circuit connected between said grid and said cathode, said second circuit being resonant at a frequency above the highest frequency of operation of said oscillator; a crystal and a resistor; and means connecting said crystal and said resistor in parallel between said second parallel resonant circuit and said negative terminal of said source.

2,777,062
ULTRAHIGH FREQUENCY SIGNAL GENERATION
Robert James Hannon, Huntington Station, N. Y., assignor to Standard Coil Products Co., Inc., Los Angeles, Calif., a corporation of Illinois
Application June 5, 1953, Serial No. 359,831
5 Claims. (Cl. 250—36)

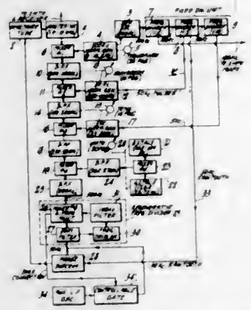


1. In a high frequency oscillator, an electron tube having a plurality of electrodes and leads extending therefrom, means for resonating the effective inductance of preselected electrode leads for establishing the frequency of oscillation, said means being connected between the plate and the grid terminals of said electron tube, means compensating the effective inductance of the remainder of said electrode leads, and a parallel non-resonant LC circuit in series with said compensating means for providing a high frequency output signal, said series circuit being connected between the plate terminal of said electron tube and ground.

2,777,063
REMOTE CRYSTAL SWITCHING FOR OSCILLATORS
Atwood H. Hargrove, Baltimore, Md., assignor to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware
Application September 30, 1953, Serial No. 383,206
3 Claims. (Cl. 250—36)

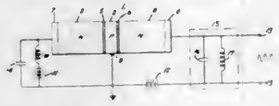
1. In a high frequency oscillator containing a plurality of crystals for determining the frequency of operation thereof, a crystal switching means comprising: a plurality of coaxial lines corresponding in quantity to said crystals; each of said coaxial lines being serially connected to a respective one of said crystals; a point of junction being formed by the remaining terminals of said crystals; a plurality of inductors equal in quantity to said coaxial lines; each of said inductors being serially connected to the remaining extremity of a respective one of said coaxial lines; the reactance values of the said inductors being equal in magnitude but opposite in polarity to the respective reactance values of said coaxial lines, all of said reactance values being measured at the resonant frequencies of the respective crystals; a second point of junction being formed by the remaining terminals of said inductors; a plurality of conductors, each connected in parallel with a respective one of said inductors and being normally interrupted; and switching means operable to complete any selected one of said conductors, each of said conductors, when completed, removing the effect of the associated inductor from the serial combination of elements such that the frequency of operation of said oscillator is determined by the associated crystal.

2,777,064
FREQUENCY CONTROL SYSTEM
Harris A. Robinson, Palmyra, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Air Force
Application December 11, 1953, Serial No. 397,572
12 Claims. (Cl. 250—36)



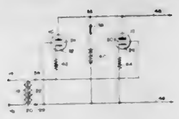
1. In combination, an oscillator the frequency of which is to be controlled, a regenerative frequency divider coupled to the output of said oscillator, means coupled to the output of said divider for locking the frequency of said oscillator to a predetermined frequency established by a stable frequency source, said means having a normal lock-in range of limited extent over which the oscillator frequency is initially locked in by said means, said divider being constructed and arranged to develop a voltage change therein in response to the breaking-out of lock of said oscillator frequency, and means responsive to said voltage change for sweeping said oscillator frequency through a range greater than said normal lock-in range to re-establish frequency control of said oscillator.

2,777,065
NEGATIVE RESISTANCE OSCILLATOR
Robert L. Pritchard, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application September 30, 1954, Serial No. 459,360
8 Claims. (Cl. 250—36)



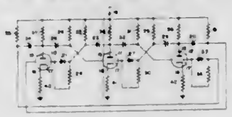
1. A negative resistance oscillator comprising a semiconductor signal translating device including a region of one conductivity type adjoining two regions of opposite conductivity type and forming broad area P–N junctions therewith, a base contact to said one conductivity type region, an emitter contact to one of said opposite conductivity type regions, and a collector contact to the remaining opposite conductivity type region, a capacitive circuit connected between emitter and base contacts, an inductive network connected between collector and base contacts, means for biasing the emitter in the forward direction and means for biasing the collector in the reverse direction.

2,777,066
FREQUENCY DOUBLER CIRCUIT
Herbert P. Brockman, Baltimore, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application August 11, 1954, Serial No. 449,198
4 Claims. (Cl. 250—36)



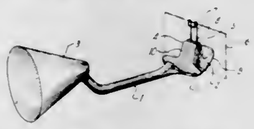
1. A frequency doubler circuit for converting a sine wave input into a sine wave output of double the input frequency comprising the combination of a source of alternating current voltage, first and second triode tubes, a connection between the anodes of said triodes, a path connecting the cathode of the first triode and the grid of the second triode to one side of said voltage source, a path connecting the cathode of the second triode and the grid of the first triode to the other side of said voltage source, and a cathode resistor included in the grid circuit of each of said triodes for minimizing the effect of transconductance variations therein.

2,777,067
TRIPLE CHANNEL TIME SHARING SWITCH
Richard F. Higby, Severna Park, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 26, 1954, Serial No. 432,483
11 Claims. (Cl. 250—36)



1. A multivibrator comprising three electron tubes each having a cathode, a control grid and a plate, a resistor and a capacitor connecting the grid of each tube with the plate of another tube, a diode connecting the grid of each tube with the plate of another tube, means for connecting positive voltage to the plates of said tubes, and means comprising an individual resistor for each cathode of said tubes for connecting each of said cathodes to ground potential.

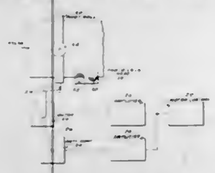
2,777,068
X-RAY FILM HOLDERS
Joseph T. Bowser, Pittsburgh, Pa.
Application August 27, 1952, Serial No. 306,569
1 Claim. (Cl. 250—64)



A dental film holder for X-ray exposures comprising a shank portion having a pilot cup for receiving the nose of an X-ray machine at one end and a film holder at the other end thereof, said film holder having a slotted opening for receiving the film and having oppositely disposed concavo-convex bight surfaces for the upper and lower

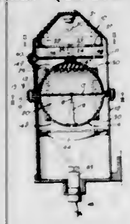
teeth, respectively, the radius of the concavo surface being shorter than the radius of the convex surface and being offset from the center of the latter to provide angular adjustment of the film slot with the teeth to be X-rayed.

2,777,069
WEB GUIDE CONTROL DEVICE
Walter C. Saeman, Brevard, N. C., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
Application March 31, 1953, Serial No. 345,814
2 Claims. (Cl. 250—219)



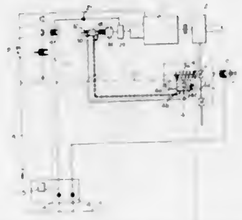
1. A device of the character described comprising a reversible electric motor mechanically coupled for adjusting the position of another means, photoelectric scanning means for continuously detecting a mechanical effect of the position of said other means and directionally signaling any deviation from a desired mechanical effect of said position, said photoelectric scanning means including a pair of twin photo-cells connected to form a bridge having an alternating current impressed thereon, electrical signal transmitting means for continuously actuating said motor from any deviation signaled by said scanning means in a direction for adjusting the position of said other means to correct the signaled deviation, said signal transmitting means incorporating a first twin-triode biased to cut-off, and electrical counter signaling means electrically connected with said signal transmitting means and adjusted mechanically from any adjustment of the position of said other means for opposing the actuating deviation signal therefor in anticipation of correction of the signaled deviation and thereby avoiding over-adjustment of the position of said other means in correcting said signaled deviation, said counter-signaling means comprising a pair of potentiometers mechanically coupled for adjustment in opposite directions from an adjustment of the position of said other means and having a direct current voltage impressed thereon, a second twin-triode connected as an amplifier with said pair of potentiometers and biased to cut-off for receiving only positive signals therefrom, and means connecting said second twin-triode in the grid circuit of said first twin-triode for increasing the bias thereof.

2,777,070
SERVO COMPASS
Hamilton A. Stamper and Furman Harrison Stamper, Los Angeles, Calif., assignors to Bendix Aviation Corporation, North Hollywood, Calif., a corporation of Delaware
Application May 5, 1953, Serial No. 353,214
14 Claims. (Cl. 250—233)



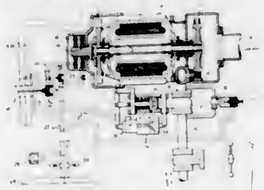
14. A servo compass comprising: a frame having an axis which is normally vertical but is subject to departures from the vertical in any direction; a compass card having a center and means supporting the card with its center substantially in said axis for free rotation with respect to said frame about its said center in a horizontal plane, irrespective of deviations of said frame axis from vertical position; a photoelectric means supported by said frame; means supported by said frame for producing and directing a plurality of separate light beams angularly spaced about said axis past said card to said photoelectric means; said card comprising light-intercepting means having a plurality of radial edges angularly spaced like said beams and each oriented to normally partially intercept a different one of said beams in the same sense, whereby relative rotation between said card and frame varies the light in all of said beams in the same sense.

2,777,071
ELECTRIC GENERATING EQUIPMENT
William Scrymgeour Ross, Rugby, England, assignor to The British Thomson-Houston Company Limited, a British company
Application April 26, 1955, Serial No. 503,951
Claims priority, application Great Britain April 26, 1954
5 Claims. (Cl. 290—40)



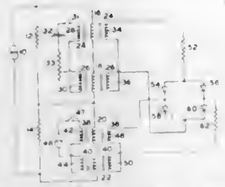
1. Electric generating equipment comprising a generator, a prime mover coupled to the generator, a main valve for controlling the supply of working fluid to the prime mover, a by-pass valve for controlling the supply of a limited quantity of working fluid to the prime mover for starting purposes, electric actuator means for opening said main valve, a load circuit, a circuit breaker for connecting the output of said generator to said load circuit, means responsive to the output voltage of said generator for closing said circuit breaker when the output of the generator has risen to a predetermined value and means for energising said electric actuating means from said load circuit whereby said main valve is operable to its fullest extent only when the voltage of said generator has substantially reached its operating value and said circuit breaker has closed to connect said generator to said line.

2,777,072
ELECTRIC GENERATING EQUIPMENT
William Scrymgeour Ross, Rugby, England, assignor to The British Thomson-Houston Company Limited, a British company
Application April 26, 1955, Serial No. 503,952
Claims priority, application Great Britain April 26, 1954
4 Claims. (Cl. 290—40)



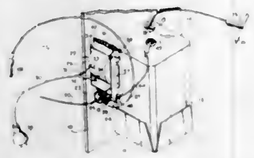
1. An alternating current generating system comprising an asynchronous generator, a prime mover coupled to and driving said generator, valve means for controlling a supply of working fluid to said prime mover for starting up said prime mover and bringing said generator up to its synchronous speed, a load circuit, a circuit breaker for connecting said generator to said load circuit, means for automatically closing said circuit breaker and connecting said generator to said load circuit and means for thereupon automatically opening said valve means and increasing the supply of working fluid to said prime mover whereby to increase the speed of said generator and enable it to supply current to said load circuit.

2,777,073
MAGNETIC AMPLIFIER
Joseph A. Fingerett, Pacoima, and Frank A. Hill, Van Nuys, Calif., assignors to Librascope, Incorporated, Glendale, Calif., a corporation of California
Application May 24, 1954, Serial No. 431,839
19 Claims. (Cl. 307—17)



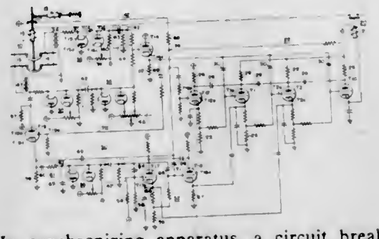
1. A magnetic power amplifier, including, a first pair of saturable cores, a second pair of saturable cores, cyclically operable means including means simultaneously exposing said cores to flux produced by an alternating line current for alternately saturating both of the cores in the first pair initially in one direction and then in the opposite direction and for alternately saturating one of the cores in the second pair, means for effecting a temporal separation of the saturation of the cores in the first pair including means for exposing the cores to flux produced by a signal current, a load, and means including the load for operating in synchronism with the saturation of at least one of the cores in the first pair to control the delivery of output current from the amplifier within successive half cycles and to control the delivery of current to the second pair of cores for the production of flux in the second pair of cores in a direction to prevent one of the cores from saturating.

2,777,074
AUTOMATIC EMERGENCY FURNACE CONTROL
Charles W. Stockwell, Mansfield, Ohio
Application January 8, 1953, Serial No. 330,186
1 Claim. (Cl. 307—64)



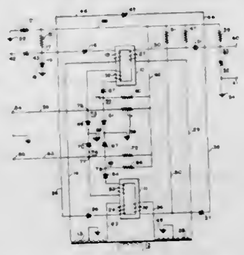
An automatic emergency gas furnace control comprising a transformer having an input coil adapted to be connected to a primary source of power, and an output coil with two terminals, a first gas furnace lead connected to one terminal of the output coil, a second gas furnace lead, a relay having a first contact conected in the circuit of said second gas furnace lead, said relay including an electromagnet adapted to be connected to the primary source of power, a second contact on said relay and a wire bridging the first contact with the second contact, a third contact on said relay and connected to the other terminal of the output coil, said relay further including a movable contact arm adapted to bridge the second and third contacts when the said coil is energized, spring means for normally retaining said contact arm away from said electromagnet and in engagement with the first contact, an auxiliary source of power, one terminal of said auxiliary source of power being connected to said first furnace lead, the other terminal of said auxiliary source of power being connected to said relay movable contact arm, whereby to place said auxiliary source of power between the furnace leads automatically upon failure of the primary source of power.

2,777,075
SYNCHRONIZING APPARATUS
John D. Moynihan, Verona, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 24, 1954, Serial No. 418,420
11 Claims. (Cl. 307—87)



1. In synchronizing apparatus, a circuit breaker for connecting a pair of alternating-current circuits, means for producing impulses in response to substantial synchronism of said circuits, a counting circuit for effecting operation of the circuit breaker in response to a predetermined number of such impulses, and reset means producing impulses in predetermined phase relation with one of the circuits for resetting the counting circuit to restart counting said predetermined number of impulses in the event that the predetermined number of instances of coincidence in the circuits do not occur on consecutive cycles.

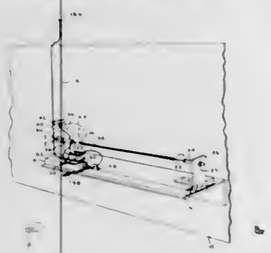
2,777,076
FLIP-FLOP ELEMENTS FOR CONTROL SYSTEMS
Harley A. Perkins, Jr., Baldwin Township, Allegheny County, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application September 19, 1955, Serial No. 534,983
3 Claims. (Cl. 307—88)



3. In a flip-flop element of a control system, in combination a plurality of cores, a plurality of windings on each core, a source of power, a reset circuit connecting one winding of each core to the source of power, a gating circuit connecting another winding to each core to the source of power, the reset circuits and the gating circuits being so connected that they function to drive the cores

to positive and negative saturation alternately, means for delivering a signal to the reset windings to block the functioning of the reset circuits, the gating windings then functioning to build up an output voltage capable of predetermined value, a plurality of circuits for delivering signals to third coils on each of the cores to drive the cores to a negative saturation irrespective to the magnetic conditions existing at the time, means connected in each of the signal circuits which function to maintain the circuits on each side of the coils at equal potential when not receiving signals to prevent the flow of stray currents.

2,777,077
THERMOELECTRIC MOTOR
Osmun W. Lorini, Closter, N. J., assignor to Jet-Heet, Inc., Englewood, N. J., a corporation of New York
Application October 22, 1953, Serial No. 387,773
3 Claims. (Cl. 310—4)



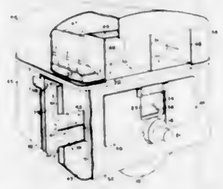
1. In a motion device, a base, a resilient arm attached at one end to said base and extending upwardly from said base and carrying at its opposite end an element of sufficient mass to cause said arm to oscillate through a rest position upon the application of oscillation-inducing forces to said arm, said arm having a hole therein at a point close to the point of attachment of said arm to said base, an anchoring element fixed to said base and spaced from said arm, a thermally expansible element extending from said anchoring element to said arm, a bolt fitting loosely in said hole and having at one end a head engageable with said arm, means connecting said bolt to said expansible element, the resilience of said arm normally urging said arm away from said anchoring element and against the head of said bolt to provide one of said oscillation-inducing forces, thereby normally maintaining said expansible element tautly extended between the bolt and the anchoring element when the expansible element is in unexpanded state to provide another of said oscillation-inducing forces, an electrical heating wire wound around said expansible element, an electric circuit for said heating wire including switch means for opening and closing said circuit in response to oscillatory movement of said arm, the arrangement being such that said switch is closed when said expansible element is in normal unexpanded condition and said circuit is open when said expansible element is in heated expanded condition.

2,777,078
ELECTROSTATIC HIGH TENSION GENERATOR
Wolfgang Herchenbach, Tubingen, Germany
Application November 30, 1954, Serial No. 472,130
18 Claims. (Cl. 310—6)

1. A generator for producing an electrostatic high tension, comprising a pair of bodies of rotation of insulating material adapted to be rotated at a high rate of speed, in opposite directions, and forming a pair of charge-carrying surfaces arranged closely adjacent to each other, means for producing an approximately homogeneous electric field directed at an oblique angle to the charge-carrying surfaces, pairs of spray discharge members arranged on opposite sides of the charge-carrying surfaces so as to be displaced in relation to each other, in the direction of motion of the charge-carrying surface associated to each of them, by an amount which is not substantially different from the total thickness of the two bodies forming the

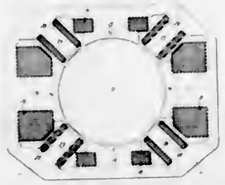
charge-carrying surfaces, and electrodes opposed to the spray discharge members for initial excitation and simultaneously for screening the spray discharge members against the main field.

2,777,079
OUTDOOR MOTOR
Robert W. Egglestone and Paul E. Graham, Buffalo, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application September 23, 1953, Serial No. 381,848
8 Claims. (Cl. 310—58)



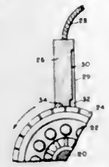
1. A dynamoelectric machine having a stator member and a rotor member, housing means enclosing the machine and having inlet openings at the sides of the machine for the entrance of ventilating air, said housing means including means for directing air to the ends of the machine and into the machine in a predetermined path having a plurality of changes of direction, and a discharge duct enclosed in the upper part of the housing means, said discharge duct extending longitudinally from end to end of the machine above the stator member, the top of at least the central portion of the duct being open to receive air discharged from the machine, and the ends of the duct being open to discharge the air to the outside.

2,777,080
DYNAMOELECTRIC MACHINE
Mendel W. Kitzmiller, Erie, Pa., assignor to General Electric Company, a corporation of New York
Application June 22, 1955, Serial No. 517,334
7 Claims. (Cl. 310—185)



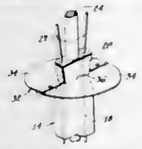
1. A dynamoelectric machine having a rotatable member and a stationary member, said stationary member having a greater transverse width on one axis than on another transverse axis, main pole pieces for said stationary member, a first pair of said main pole pieces being arranged on said one axis, a second pair of said main pole pieces being shorter than said first pair and arranged on said other axis, shunt field windings mounted on said first pair of main pole pieces, and series field windings mounted on said second pair of main pole windings, said windings being connected so that said first pair of pole pieces has a magnetic polarity with respect to said rotatable member opposite that of said second pair of pole pieces.

2,777,081
ELECTRICAL BRUSH AND DYNAMOELECTRIC APPARATUS EMBODYING THE SAME
John D. Miner, Jr., Lima, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application October 7, 1955, Serial No. 539,132
4 Claims. (Cl. 310—228)

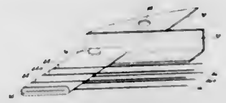


1. An electrical contact brush suitable for operating satisfactorily in sliding contact with a freshly dressed metallic conducting member under extreme atmospheric conditions, comprising a body of carbon and a layer disposed across the full width of the leading side of the brush substantially at right angles to the direction of relative sliding movement of the brush to the conducting surface, the layer comprising molybdenum disulfide in an amount of at least 25% of the weight of the layer, said layer comprising a thick initial operating portion disposed at the contact surface of the brush and a thin continuous running portion extending a substantial distance beyond the thick initial operating portion, said thin continuous running portion being substantially uniform from edge to edge of the brush and being of a thickness not exceeding 0.08 inch per inch thickness of the brush between the leading side and trailing side of the brush, the thick initial operating portion being substantially uniform from edge to edge of the brush and being of a thickness of at least two to four times the thickness of the continuous running layer and extending upwardly from the contact surface of the brush in contact with the sliding surface of the metallic conducting member a sufficient distance to provide enough molybdenum disulfide to last until the contact surface of the metallic conducting member has so improved in its cooperation with the brush that the thin continuous running portion will then be able to apply sufficient molybdenum disulfide to insure continuous satisfactory operation at a low wear rate of the brush.

2,777,082
INCANDESCENT LAMP
Frederick Theodore May, Verona, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application August 27, 1953, Serial No. 376,817
2 Claims. (Cl. 313—43)



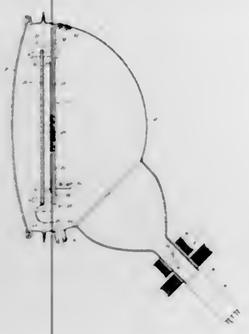
1. A high wattage incandescent electric lamp, having an envelope and a filamentary mounted sealed to said envelope, said mount having at least a stem provided with a press and a metallic heat baffle secured about said press, said baffle comprising a pair of semi-circular half-baffles provided with a universal mounting slot along their diametrical straight inner edge for engagement with said press and secured together in overlapping endwise engagement, said slot having tapered outwardly diverging sides for readily fitting the variable contour of said press.

2,777,083
ELECTRODE CONSTRUCTION FOR CATHODE-RAY TUBES
Luis W. Alvarez, Berkeley, Calif., assignor to Chromatic Television Laboratories, Inc., New York, N. Y., a corporation of California
Application April 19, 1954, Serial No. 423,935
7 Claims. (Cl. 313—78)

1. In a grid structure designed for incorporation into a cathode-ray tube having a phosphor-coated target electrode on which images are reconstituted in a plurality of colors: the combination of a frame having two pairs of oppositely-disposed members together defining a window area therebetween, one member of one of the said pairs being provided with a series of parallel grooves on its outer edge, the direction of said grooves being essentially normal to the plane of said frame, the other member of said one pair also being provided with a series of parallel grooves on its outer edge, the direction of said last-mentioned grooves being other than essentially normal to the plane of said frame; a first continuous conductor wound in coil-like fashion around said frame and electrically insulated therefrom with successive turns of said coil lying within alternate grooves in each of said one pair of frame members; and a second continuous conductor also wound in coil-like fashion around said frame and electrically insulated therefrom with successive turns of said coil lying within the alternate grooves in each of said one pair of frame members not occupied by said first conductor, thereby to form two sets of interleaved parallel strands across the window of said frame respectively lying in planes which are separate yet parallel to one another, with each complete turn of both said first conductor and said second conductor consisting of two strands defining a plane which is substantially parallel to the trajectory of an electron developed within said cathode-ray tube and directed to that area of the said target electrode proximate to the said two strands.

2,777,084
PLASTIC ELECTRODE STRUCTURE FOR ELECTRON TUBES
James M. Lafferty, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application April 12, 1952, Serial No. 281,996
2 Claims. (Cl. 313—80)

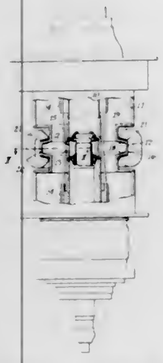
1. A luminescent electrode structure for a cathode ray image reproducing tube comprising a glass sheet having an ultraviolet-light sensitive area therein and a plurality of preferentially etched uniformly tapered apertures formed in said area, each of said apertures extending through said sheet in a direction toward a common point in space at one side of said sheet, each of said apertures increasing in diameter toward said point, and the maximum diameter of each of said apertures being substantially less than the thickness of said sheet, an electrically

conductive surface coating on the other side of said sheet, and a plurality of symmetrically arranged phosphorescent



materials of different color characteristics on said coating to reproduce an image in color.

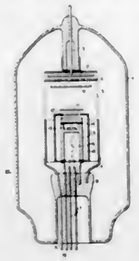
2,777,085
SECONDARY ELECTRON SUPPRESSOR
Charles Herbert Gleason, Bloomfield, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 29, 1952, Serial No. 290,628
3 Claims. (Cl. 313—106)



1. A resnatron having a cathode and coaxial cathode and anode resonators one within the other and having electron beam path openings intermediate of the ends of the resonators, said resonators providing a reaction space in the region of said openings, a hollow anode opposite said openings in opposition to said cathode and on a straight line path of an electron beam emitted from said cathode and directed through said openings, and a magnet beyond said reaction space and next to said hollow anode with the poles of the magnet on a line transverse to the straight line path of the electron beam.

2,777,086
CATHODE
Ernest A. Lederer, Essex Fells, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application July 26, 1952, Serial No. 301,026
5 Claims. (Cl. 313—193)

1. A vacuum-tight container having an atmosphere including a reducing gas, a first electrode and a second electrode therein, said second electrode being thermionically-emissive and having a wall-portion consisting of a sintered mixture of tungsten with one percent to twenty percent by weight of magnesium oxide, a material including a compound of an alkaline-earth metal within said



second electrode, and heater-means adjacent said second electrode.

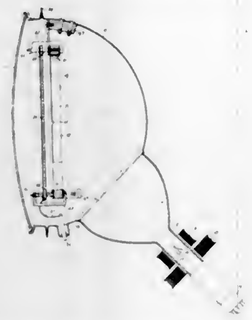
2,777,087
MEANS FOR OBTAINING A SENSING SIGNAL FOR A SERVO-CONTROLLED COLOR TELEVISION VIEWING TUBE
Kenneth N. Fromm, Fort Wayne, Ind., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application January 22, 1952, Serial No. 267,608
3 Claims. (Cl. 315—12)

1. In combination, a cathode ray tube having therein near an end thereof a layer of transparent conducting material, a first phosphor strip of a first phosphor material capable of emitting light of a first wave length, a second phosphor strip capable of emitting light of a second wave length adjacent said first strip, a third phosphor strip capable of emitting light of a third wave length in response to electrons impinging thereon adjacent said second strip, a fourth phosphor strip capable of emitting light of said first wave length extending parallel to said third phosphor strip but being separated therefrom by a substantial distance, output means responsive to the secondary emission of electrons produced by bombardment of said phosphors and the area between said third phosphor and said fourth phosphor with high velocity electrons.

2,777,088
TRI-COLOR CATHODE RAY IMAGE REPRODUCING TUBE
James M. Lafferty, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application February 5, 1952, Serial No. 269,978
10 Claims. (Cl. 315—21)

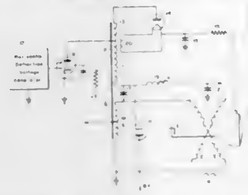
2. A cathode ray image reproducing tube including an outer envelope, an image reproducing electrode structure supported within said envelope, said electrode structure comprising a first apertured electrically conductive image reproducing planar electrode member having a plurality of concentrically arranged different color emitting arcuate rows of phosphorescent material secured thereto, and maintained at a predetermined electric potential, a second transparent electrically conductive reflecting electrode member spaced from and parallel to said first member and maintained at an electric potential different from the electric potential of said first member, said first and second members being spaced apart by a plurality of circumferentially spaced spacer elements of insulating material having a treated surface providing a relatively high resistivity

conductive coating for establishing a uniform voltage gradient between said electrodes, and an electron gun supported within said envelope in a position relative to said first apertured member such that the electrons produced



thereby pass through the apertures in said first member are reflected by said second member and impinge along any selected one of the different colored rows of phosphorescent material on said first member at equal angles of incidence.

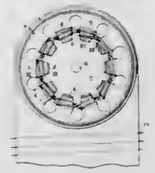
2,777,089
TELEVISION SCANNING UNIT
Kenneth E. Farr, Paxinos, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application July 29, 1953, Serial No. 371,121
10 Claims. (Cl. 315—27)



1. In a cathode ray beam deflection system a transformer primary winding, a first secondary winding for said transformer connected to send current through a deflection coil of a cathode ray tube, a second secondary winding for said transformer connected to supply current through a rectifier to an anode of said cathode ray tube, a first capacitance connecting one end of said primary winding to one end of said first secondary winding, a connection from the other end of said first secondary winding and the negative pole of a direct current source, a rectifier connecting the positive pole of said source to said one end of said primary winding, means to cause current flow from said source through said primary winding to induce substantially saw-tooth current waves in said deflection coil, and a variable inductor in serial relation with a second capacitance connecting said one end of said primary winding and the negative pole of said source.

2,777,090
MAGNETRON STRAPPING FOR HIGH POWER
Philip E. Volz, Florham Park, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 4, 1953, Serial No. 340,328
6 Claims. (Cl. 315—39.69)

1. In combination: a magnetron anode comprising a plurality of vanes defining a plurality of cavity resonators, a first strap of electrically conducting material forming a mechanically-integral bridge connected to said anode at points near the tips of all odd-numbered ones of said vanes, a second strap of electrically conducting material forming a mechanically-integral bridge connected to said anode at points near the tips of all even-numbered ones of said vanes, said first strap extending across the even-numbered ones at places more distant from the tips



of said even-numbered ones than the places where said second strap is connected to said even-numbered ones, and said second strap extending across the odd-numbered ones of said vanes at places more distant from the tips of said odd-numbered ones than the places where said first strap is connected to said odd-numbered ones.

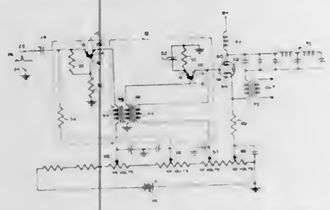
2,777,091
ULTRAVIOLET LAMP
Frederick H. Rixton, Livingston, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application April 30, 1952, Serial No. 285,151
4 Claims. (Cl. 315—48)

1. An electric discharge lamp having a high output of 1850° A. U. radiation comprising an envelope having a gaseous filling at a pressure between approximately 3.5 and 4.5 mm. and admixed with mercury vapor, a pair of lead in conductors extending interiorly of said envelope, an anchor between said lead in conductors and offset from the ends thereof, a coiled filament section between the interior end of each of said lead in conductors and said anchor, each of said filament sections being coated with emission material about the end of said section adjacent the interior end of said conductors, the resistance of said filament sections being such that about 40 to 51% of the current of said lamp is carried by said filament when a sufficient voltage is applied to said lamp to cause a glow discharge between the coated ends of said filament, and said envelope being formed of a glass having a high transmissibility of 1850° A. U. radiation.

2,777,092
TRANSISTOR TRIGGERING CIRCUIT
Joseph Mandelkorn, Lakewood, N. J., assignor to the United States of America as represented by the Secretary of the Army
Application July 20, 1953, Serial No. 369,263
1 Claim. (Cl. 315—252)
(Granted under Title 35, U. S. Code (1952), sec. 266)

In combination, a thyratron having at least a grid, a plate and a cathode, a source of biasing potentials negative with respect to ground, and a resistor in series connection with said cathode and one of said negative biasing potentials, means for triggering said thyratron comprising a pulse source, a point contact transistor having an emitter electrode, a collector electrode and a base electrode, said grid and said collector electrode being connected in common to a bias potential more negative than the bias applied to said cathode through said re-

sistor whereby said thyratron is initially at cutoff, a parallel arrangement including a resistor and capacitor connected between said emitter and ground, said collector electrode being so biased that the current flowing between said collector electrode and said emitter electrode produces a bias on said emitter electrode whereby said emitter and said collector are biased in a relatively non-conducting polarity with respect to said base electrode,



means for coupling the output of said pulse source to said base electrode whereby said emitter electrode and said collector electrode are baised in a relatively conducting polarity, and means in circuit with said collector electrode and said grid and regeneratively coupled to said base electrode for producing a triggering pulse at said grid whereby said thyratron is fired only by the applied bias to said cathode through said resistor.

2,777,093

ELECTRIC PILOT WIRE CIRCUIT ARRANGEMENTS FOR PROTECTIVE OR OTHER PURPOSES

John Brian Patrickson, Newcastle-on-Tyne, England, assignor to A. Reyrolle & Company Limited, Hebburn-on-Tyne, England, a company of Great Britain

Application February 10, 1953, Serial No. 336,148
Claims priority, application Great Britain February 18, 1952
22 Claims. (Cl. 317—28)

1. An electric pilot wire circuit arrangement, comprising a pair of pilot wires, a voltage source at each end for energising the pilot wires, two opposed rectifiers one at each end in series with the pilot circuit, a shunt circuit incorporating a resistance across each of such series rectifiers, a shunt circuit at each end incorporating a shunt rectifier across the pilot wires on the pilot wire side of the associated series rectifier, such shunt rectifier being connected in the shunt circuit in a sense opposed to that of the adjacent series rectifier, and means at each end responsive to the flow of current through the shunt rectifier.

2,777,094

PROTECTIVE GROUNDING DEVICE FOR A HIGH FREQUENCY ANTENNA

Sidney M. Weisberg, Maplewood, N. J., assignor to Allied Electric Products, Inc., Irvington, N. J., a corporation of New Jersey

Application February 9, 1954, Serial No. 409,103
1 Claim. (Cl. 317—61)

A protective device of the class described, comprising a hollow body, a first pair of terminals mounted on said body and adapted for connection to an antenna, a second pair of terminals mounted on said body and adapted for connection to utilization means for a signal received by said antenna, a fifth terminal adapted to be connected to ground, a barrier of high voltage resistant insulating material extending transversely of the interior of said hollow body, said barrier having a first pair of electrodes disposed on one side thereof and a second pair of electrodes disposed on the opposite side thereof in juxtaposition to said first pair of electrodes, said two pairs of electrodes constituting a pair of direct current blocking coupling capacitors, circuit means connecting said first pair of electrodes to said first pair of terminals and said second pair of electrodes to said second pair of terminals whereby said first pair of terminals is coupled to said second pair of terminals through said capacitors and a center-tapped inductor connected directly across said first pair of terminals, said inductor being conductive to direct current and disposed within said body on the same side of said barrier as said first pair of electrodes, said center tap being connected to said fifth terminal for effectively maintaining said first pair of terminals at ground potential with respect to said direct current.

2,777,095

LIGHTNING ARRESTER

Herman O. Stoelting, Milwaukee, Wis., assignor to McGraw Electric Company, Milwaukee, Wis., a corporation of Delaware

Application September 30, 1953, Serial No. 383,311
5 Claims. (Cl. 317—66)

1. In a lightning arrester comprising a tubular insulating housing having a bore, valve material contained within said bore and being capable of evolving gaseous products under pressure during predetermined current conditions, at least one set of gap electrodes, and a pair of spaced-apart terminal caps, at least one of said caps defining an opening therein, the combination with an hermetic seal for said housing bore, a pressure relief vent means operatively associated with said one of said terminal caps and comprising a plug-like member seated against the outside of said opening in sealing relation with said one cap, and having a portion extending inwardly through said opening, means within said housing exerting tension on said inwardly extending portion to maintain a sealing relation between said plug-like member and said opening, a fast-acting thermal responsive actuator independent of said releasable electrode and instantly responsive to current due to subnormal resistance of said valve material to suddenly release the tension on said inwardly extending portion to effect removal of said plug-like member from its sealing engagement with said one terminal, whereby said gaseous products may be discharged to the atmosphere.

2,777,096

LIGHTNING ARRESTER

Sidney Mortimer Weisberg, Maplewood, N. J., assignor to Allied Electric Products, Inc., Irvington, N. J., a corporation of New Jersey

Application July 24, 1953, Serial No. 370,128
5 Claims. (Cl. 317—69)

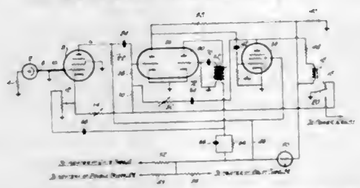
1. A lightning arrester of the class described, comprising a body of insulating material; an elongated electrically conductive centrally disposed grounding member carried by said body; a pair of electrically conductive flat-surfaced spark gap members carried by said body and symmetrically arranged with respect to the longitudinal axis of said grounding member, said flat surfaces being substantially coplanar with respect to a plane normal to the longitudinal axis of said grounding member, each of said spark gap members comprising an end portion disposed in proximity to and spaced from said grounding member for defining a spark gap thereto; an annular leakage member formed of high-resistance material surrounding said grounding member coaxially therewith, said leakage member having a circular flat surface with symmetrically disposed portions thereof in simultaneous electrically conductive engagement with both of said coplanar surfaces; electrically conductive fastening means carried by said grounding member, said fastening means electrically connecting said grounding member with a portion of said leakage member remote from said flat surface symmetrically with respect to said coplanar surface engaging portions thereof and maintaining said portions of said flat surface in said engagement with said coplanar surfaces; first terminal means carried by said body and electrically connected to said grounding member for connecting said grounding member to ground; and second terminal means carried by said body and electrically connected to both of said spark gap members, said second terminal means being adapted to connect both conductors of a balanced two-wire transmission line symmetrically to ground simultaneously through different portions of said leakage member, each of said different portions being individually shunted by one of said spark gaps.

2,777,097

PHOTOELECTRIC CIRCUIT

Carl E. Atkins, Bloomfield, N. J., assignor to Tung-Sol Electric Inc., a corporation of Delaware

Application May 5, 1955, Serial No. 506,217
10 Claims. (Cl. 317—130)



1. A photoelectric control circuit comprising in combination an electronic tube having a cathode, an anode and at least one grid, said cathode being normally biased to render said tube non-conductive, a photoelectric tube having a light sensitive element, current accumulating means coupled to said photoelectric tube and to said grid to impress a potential on the grid varying as a function of condition of charge accumulated thereby, a self-blocking high frequency oscillator coupled to said cathode for intermittently negatively pulsing the same, and alternating current amplifying means for amplifying voltage pulses appearing at the anode of said tube to yield a control signal varying in magnitude as a function of the intensity of light incident on said element.

2,777,098

MAGNETICALLY CONTROLLED ELECTRIC COUNTING APPARATUS

Paul Duffing, Berlin-Siemensstadt, and Gerhard Conradi, Berlin-Tegel, Germany, assignors to Siemens-Schuckertwerk Aktiengesellschaft, Berlin-Siemensstadt, Germany, a corporation of Germany

Application May 16, 1952, Serial No. 288,346
Claims priority, application Germany July 27, 1951
9 Claims. (Cl. 317—148)

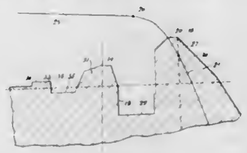
2. Apparatus for counting electric impulses, comprising alternating-voltage supply means, a circuit including a current-responsive device to be controlled, a saturable-core transformer primarily connecting with said supply means and secondarily connected in said circuit, a saturable counting reactor of high coercivity having a main winding and a premagnetizing winding, an electric valve series connected with said main winding in said circuit, a resistor parallel connected with said valve, a rectifier connected with said supply means to provide a direct current variable in dependence upon voltage fluctuations of said supply means, and a premagnetizing circuit connected to said rectifier and including said premagnetizing winding, said premagnetizing circuit being rated and poled for compensating the effect of said fluctuations in the operation of said reactor.

2,777,099

POLE STRUCTURE OF MAGNETS

Martyn H. Foss, Township of Downers Grove, Du Page County, Ill., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application August 26, 1955, Serial No. 530,922
2 Claims. (Cl. 317—158)



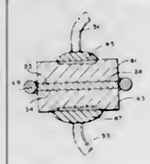
1. In the poles of a magnet comprising pole faces of opposite polarity positioned face-to-face and separated by a gap, the pole faces comprising each a flat area constituting the nominal plane of the pole face and the several pole faces being positioned with their flat areas parallel to each other, the several pole faces being contoured irregularly in mirror image with reference to each other, the irregular contour of each pole face comprising a set consisting of an annular ridge and an annular groove adjacent to each other and near the periphery of the pole, the annular ridge describing a greater diameter on the pole face than the annular groove of its set, the annular ridge comprising a raised surface which is displaced upwardly from the level of the nominal plane of the pole face by a predetermined amount, the annular groove comprising a depressed surface which is displaced

downwardly from the level of the nominal plane of the pole face by a predetermined lesser amount than the raised surface of its next adjacent ridge of greater diameter is displaced upwardly.

2,777,100
RECTIFIER DEVICE
Hugh R. Ortega, Hollis, N. Y., assignor of one-half to Morris Bookstein, New York, N. Y.
Application January 3, 1956, Serial No. 556,946
11 Claims. (Cl. 317—234)

4. In a rectifier device, an upper and a lower rectifier plate in spaced relation, each with an active coated surface on the upper face thereof and having an uncoated surface surrounded by said coated surface, both of said upper faces being disposed in the same direction, a spring coil of conductive material and of spiral helical form with respective large and small terminal convolutions, the said large convolution being in yieldable engagement with the said coated surface of the lower plate, the said small convolution being in yieldable engagement with the undersurface of the said upper plate, and a spacer member between said plates and in pressing engagement with said undersurface of the upper plate and only with said uncoated surface of said lower plate.

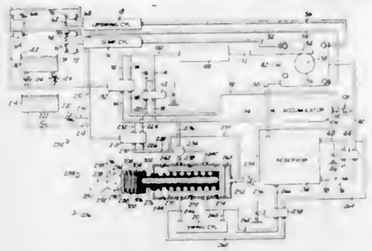
2,777,101
JUNCTION TRANSISTOR
Jerrold Cohen, Asbury Park, N. J., assignor to the United States of America as represented by the Secretary of the Army
Application August 1, 1955, Serial No. 525,824
7 Claims. (Cl. 317—235)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An improved transistor comprising a base of one conductivity type, an emitter of the opposite conductivity type, a collector of the opposite conductivity type, an intrinsic layer connecting said base to said emitter and an intrinsic layer connecting said base to said collector to form a transistor having a base whose thickness is predetermined and whose end faces are plane and parallel to one another.

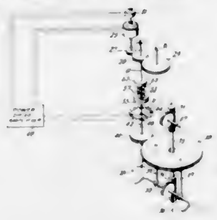
2,777,102
MINING MACHINE AND AUTOMATIC CYCLING CONTROL MECHANISM THEREFOR
Arthur L. Barrett, Franklin, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application December 18, 1950, Serial No. 201,411
49 Claims. (Cl. 262—29)

6. In a continuous mining machine, a vein-attacking and disintegrating instrument, means to move said instrument through a cycle of a plurality of operations, and an automatic control system comprising means responsive to completion of an operation for initiating the next operation of the cycle including: a system having a plurality of limit means, one for each operation and arranged to be actuated upon completion of its associated operation; motor means connected to be operated by actuation of said limit means; selector means having a



given orientation for each operation of said instrument; means to change the orientation of the selector means; and control means for said orientation changing means, the control means being connected for operation by said motor means.

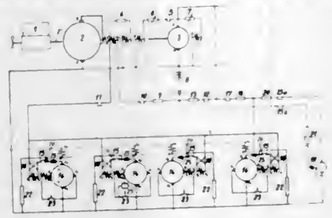
2,777,103
DRIFT STABILIZED VELOCITY SERVO
Arthur E. Reed, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application November 17, 1955, Serial No. 547,429
5 Claims. (Cl. 318—32)



1. In a control system for motive equipment having an output member, means producing a first control signal dependent on the speed of said output member, a movable control member for producing a second control signal dependent on its position, means for combining said first and second control signals to produce a resultant motive equipment control signal, and means including an override device mechanically interconnecting said output member and said control member whereby movement of said output member applies a limited force through said override device to urge corresponding movement of said control member.

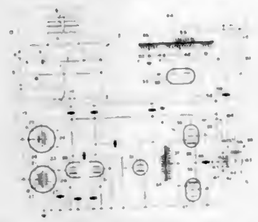
2,777,104
DRIVING ARRANGEMENT FOR ELECTRIC LOCOMOTIVES
Werner Nürnberg, Berlin-Nikolassee, and Walter Feill, Berlin-Friedenau, Germany, assignors to Licentia Patent-Verwaltungs-G. m. b. H., Hamburg, Germany
Application February 6, 1951, Serial No. 209,604
Claims priority, application Germany February 10, 1950
13 Claims. (Cl. 318—144)

8. A driving arrangement for electric locomotives, comprising in combination, a main generator having a first terminal and a second terminal; a shaft; an electric motor driving said shaft and having a first armature terminal and a second armature terminal, said first armature terminal of said motor being directly connected to said first terminal of said main generator; a switch having a first, second, and a third contact, said first contact being selectively connected with said second and third contacts, said first contact being connected with said second and third contacts, said first contact being connected with said second armature terminal; a braking device connected to said second contact of said switch; a first series stator winding forming part of said motor; means for connecting said series stator winding between said second terminal of said main generator and said third contact of said switch; means for reversing the current direction in said series stator winding; a separately



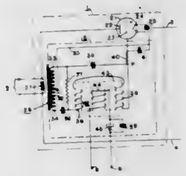
excited second stator winding forming part of said motor; a constant voltage source feeding said separately excited stator winding; a third stator winding traversed by short circuit currents in the armature of said motor; and a means connected in series to said third stator winding for interrupting short circuit current flow when said short circuit currents reach a predetermined value.

2,777,105
MOTOR DRIVE CIRCUIT FOR ELECTRICAL MEASURING APPARATUS
Roy L. Larsen, Philadelphia, Pa., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application October 29, 1953, Serial No. 389,051
13 Claims. (Cl. 318—207)



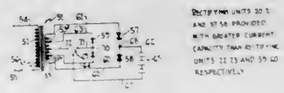
1. An electrical apparatus comprising a reversible electric motor having a squirrel cage rotor and a stator having an even number of salient pole pieces, greater than four, a first winding adapted to be energized with alternating current of a substantially fixed phase, said first winding being wound on one half of the number of said pole pieces, and a second winding having two sections with a common terminal, said second winding being adapted to be energized with alternating current of a phase which leads or lags the phase of the alternating current in said first winding by approximately ninety electrical degrees, said second winding also being constructed to be energized with a unidirectional current, each section of said second winding being wound on half the number of the remaining half of said pole pieces, said windings being so arranged on the stator that they cooperate with each other when energized with alternating currents to produce rotation of the rotor in a direction dependent upon the phase relationship between said alternating currents, said second winding being further arranged on the stator so that unidirectional current flowing from the common terminal in opposite directions through each section of said second winding sets up in the pole pieces associated with each of said winding sections magnetic flux fields which produce zero net rotational torque and zero side thrust on the rotor and which when cut by the rotor retards the rotation of said rotor.

2,777,106
ELECTRIC CONTROL SYSTEM FOR ADJUSTING AND CONTROLLING SPEED OF A SERIES MOTOR
Walter J. Brown, Stamford, Conn.
Application May 1, 1953, Serial No. 352,428
14 Claims. (Cl. 318—249)



1. A control system for a series wound electric motor having an armature and at least one field winding, comprising: a controllable electric power converter having at least first and second control terminals and having at least two output terminals; a series motor circuit including said armature and field windings connected in series between said two output terminals; means for deriving a potential representative of the field voltage comprising an electric connection from a point on said series motor circuit to one of said control terminals; a voltage measuring circuit connected in parallel with said series motor circuit and including a tapping point; reactance means for compensating the effect of transient voltages in the field winding; and an electrical connection from said tapping point to the other of said control terminals, so that the potential at said tapping point is balanced against the potential representative of the field voltage to establish a potential difference which is applied between said control terminals.

2,777,107
RECTIFYING SYSTEMS
Lewis A. Medlar, Oreland, Pa., assignor to Fox Products Company, Philadelphia, Pa., a corporation of Pennsylvania
Application April 1, 1953, Serial No. 346,158
5 Claims. (Cl. 321—8)

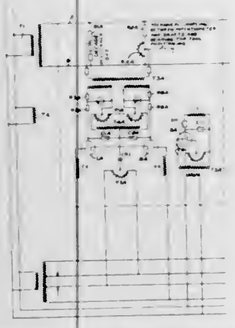


1. A rectifying system for operation from a source of alternating current power of given magnitude at both a higher and a lower output voltage with optimum power utilization at each output voltage, comprising the combination of a transformer having a primary and a center-tapped secondary, a supply circuit for connecting said primary to the alternating current source, four rectifying units, circuit means connecting two of said units in series opposition between points on said secondary equidistant from said center-tap, circuit means connecting the other two of said units in series opposition between points on said secondary equally spaced from said first mentioned points and in opposite polarity to said first-mentioned two units, and a direct current load circuit having one side connected to the junction between said first mentioned two units, the other side of said load circuit including means for selectively connecting the same to the junction between said other two units for higher voltage operation and to the center-tap of said secondary for lower-voltage operation, whereby the rectifying units are connected in bridge relationship for higher voltage operation.

2,777,108
ELECTRIC CURRENT RECTIFIERS
John C. Read, Inwoods, Rugby, and Derek R. Smith, Rugby, England, assignors to The British Thomson-Houston Company Limited, a British company
Application October 18, 1952, Serial No. 315,468
Claims priority, application Great Britain November 12, 1951
3 Claims. (Cl. 321—48)

1. In combination, alternating current rectifying apparatus having means including a synchronous circuit closing and opening contact for rectifying the current, a saturable reactor having a winding connected in series with the contact for saturating the reactor in one direction while the contact is conducting rectified current above a relatively low value and provided with pre-magnetizing means effective in the opposite direction for substantially oppositely saturating the reactor when the rectified current decreases toward zero to thereby enable the reactor winding in series with the contact to supply volt-seconds for temporarily maintaining the current flow through the contact near zero while the contact opens, and synchronized alternating current pulsing adjustable magnetizing means for applying a predetermined and adjustable amount of volt-seconds periodically in the said one direction sufficient to overbalance the reactor pre-magnetizing means and change the flux of the reactor a definite and adjustable amount in the same direction as the rectified current-carrying winding while the contact is open and thereby enable the reactor to supply a definite and adjustable amount of volt-seconds for maintaining the current flow through the contact near zero while the contact closes and for an adjustable period thereafter.

2,777,109
SERVO POSITIONING MECHANISM
Arlon G. Sangster, Leominster, Mass.
Application May 18, 1951, Serial No. 226,986
13 Claims. (Cl. 323—66)

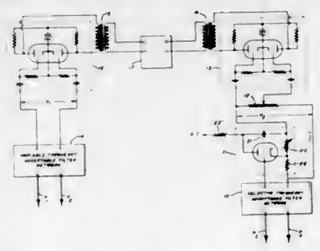


9. An electro-mechanical control apparatus for automatic machine operation comprising electrical network including a plurality of bridge circuits, variable resistor means for producing a difference in potential in the bridge circuits, magnetic clutch means, electronic switching devices responsive to change in potential in the bridge circuits to energize the clutch means in a predetermined manner, driving mechanism operated by the clutch means, a driven device operatively connected to the driving mechanism, potentiometer means mechanically coupled to the driving means so as to be moved thereby into positions producing balanced voltage conditions in the bridge circuit, said driving mechanism including a lead screw secured to the driven device, a main driving shaft connected to the lead screw, and a plurality of independently driven shafts connected to the main driving shaft for locating the driven device in varying positions of adjustment, a commutator arm on each shaft, and a commutator brush on each arm, a plurality of commutator bars mounted around each of the shafts in a position to be engaged by the respective brushes, one or more of the commutator arms being loosely secured to their respective shafts with a back lash clearance between the arm and the shaft, said clearance being so chosen as to cause the center line of a shaft to normally stop in a posiiton of register with respect to the center line of a respective commutator bar with which the brush carried by the arm is engaged.

2,777,110
MINIATURE HIGH DIELECTRIC MULTI-CAPACITOR UNIT
George T. Kodama, deceased, late of Dunstable, Mass., by Lloyd T. Kodama, administrator, Mountain View, Calif., assignor to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts
Application October 7, 1952, Serial No. 313,555
8 Claims. (Cl. 323—74)

7. A miniature network component comprising a disc of high dielectric constant material, a plurality of conductive coatings on the surfaces of said disc, at least two of said coatings being disposed on opposite sides on said disc in axial alignment to provide a relatively large capacitance therebetween, one of said plurality of conductive coatings having a physical configuration including a substantially U-shaped portion and being interposed between the remaining plurality of conductive coatings and one of the said two conductive coatings on one side of said disc and including terminal means for connecting said coating to a reference potential for operation as a shield, one of said two coaxially aligned coatings comprising an annulus.

2,777,111
METHOD OF GEOPHYSICAL EXPLORATION
Kenneth E. Hunter, Tsumeb, South West Africa, assignor to Newmont Mining Corporation, New York, N. Y., a corporation of Delaware
Application November 24, 1954, Serial No. 470,868
12 Claims. (Cl. 324—1)



1. A method of establishing the presence or absence of sub-surface scattered sulphide mineralization within a selected region of earth, which method comprises obtaining a first voltage arising solely by reason of the flow of natural earth currents through the selected region of ground, obtaining a second voltage arising solely by reason of the flow of natural earth currents through another region of ground, and measuring the relative phase angle between specific components of the said two voltages which components have a common frequency falling within the range of $\frac{1}{100}$–10 cycles per second, the magnitude of the stated phase angle being taken as indicative of the presence or absence of mineralization within the selected region of ground.

2,777,112
MAGNETOMETER SURVEY APPARATUS
Frank B. Coker, Monterey Park, and Otto W. Schoenberg, Pasadena, Calif., assignors, by mesne assignments, to United Geophysical Corporation, Pasadena, Calif., a corporation of California
Application November 12, 1953, Serial No. 391,421
15 Claims. (Cl. 324—8)

1. In a mobile magnetic field measuring apparatus: a vehicle movable along the earth's surface, said vehicle being composed of magnetic material; a directionally-sensitive detector element responsive to a component of a magnetic field that is along an axis of said element; means including a boom composed of non-magnetic material for mounting said element at a point remote from said vehicle and for isolating said element magnetically from said vehicle, said mounting means including cushioning means interconnecting said detector element and said vehicle and permitting cushioned lateral and vertical movement of the element relative to said vehicle as said vehicle moves over the earth's surface; means for damping such cushioned movement; and means for maintaining a substantially fixed orientation of the axis of said detector element with respect to the direction of the earth's magnetic field while said mounting means moves relative to said vehicle as said vehicle moves over the earth's surface.

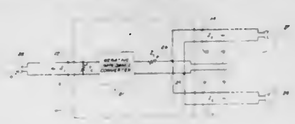
2,777,113
CATHODE RAY TUBE SPOT SIZE MEASUREMENT
Karle S. Packard, Bellmore, N. Y., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application April 22, 1955, Serial No. 503,358
2 Claims. (Cl. 324—20)

1. Apparatus for measuring the size of a constant intensity spot produced by an electron beam on the screen of a cathode ray tube comprising, a phototube adapted to be disposed close to and in fixed position relative to the screen of the cathode ray tube to intercept luminous energy radiated from the screen of the cathode ray tube, opaque means having a straight sharp edge, said opaque means disposed between and in fixed position relative to the cathode ray tube and said phototube and intercepting and completely blocking from said phototube luminuous energy originating at a portion of the screen of the cathode ray tube, a recording cathode ray tube, linear constant-velocity sweep circuit means adapted to be connected to the first-mentioned cathode ray tube and connected to said recording cathode ray tube, said sweep circuit means being operative to sweep a spot completely across the screen of said recording cathode ray tube during an interval that is somewhat longer than the interval for a spot on the screen of the first-mentioned cathode ray tube to move past a given point, means coupling said phototube to said recording cathode ray tube to deflect the spot thereof orthogonally to the direction of sweep to an extent that is related to the luminous flux reaching said phototube from the screen of the first-mentioned cathode ray tube.

2,777,114
RESISTANCE SENSITIVE PHASE-SHIFTER
Charles E. Lowe, Fenton, Mich.
Application August 11, 1951, Serial No. 241,397
10 Claims. (Cl. 324—57)

3. In apparatus for measurement of the resistive value of a conductor, the combination comprising: means connectable to a source of constant frequency alternating current; a first pair of output terminals and means connecting said terminals to said source, said means being of such character that the phase at said first pair of output terminals will bear a predetermined and unchanging relationship to the phase of said alternating current supply; a transformer and means for energizing the primary winding thereof from said source; second and third transformers and means connecting the one ends of the primary windings thereof to each other and other means connecting a first side of said secondary winding of said first transformer to a point intermediate the primary windings of said second and third transformers; means including means providing a gap connecting the second side of the secondary winding of said first transformer to the other end of the primary winding of one of said second and third transformers and means connecting the other end of said secondary winding of first transformer to the other end of the other of said primary windings of said second and third transformers; means providing a phase shift circuit connecting the secondary windings of said second and third transformers to the respective output terminals.

2,777,115
BRANCHING CIRCUIT
John G. Linvill, Whippany, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application March 3, 1955, Serial No. 491,897
8 Claims. (Cl. 333—8)



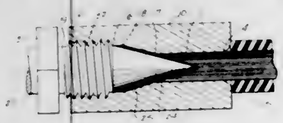
1. A branch circuit for routing signals comprising a negative impedance converter having a first pair of ter-

minals and a second pair of terminals, circuit means having a preassigned total positive impedance and including a terminal impedance and a shunt impedance connected to said first pair of terminals, whereby the impedance presented by the converter at said second pair of terminals is substantially equal in magnitude to said preassigned positive impedance but is negative in sign, a plurality of signal circuits connected in parallel, and impedance means for substantially annulling said negative impedance connected in series with said second pair of terminals and said parallel signal circuits.

2,777,116
COIL FORM
James F. Gordon, Baltimore, Md., assignor to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware
Application May 13, 1952, Serial No. 287,541
2 Claims. (Cl. 336—208)

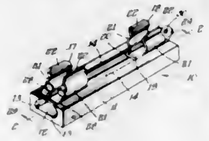
1. The combination of a coil form and a coil of elongated material wound thereon, said form having the shape of a toroid and being completely interrupted by a single cut extending obliquely at an angle of at least 45° with respect to the plane of the curve generating said toroid, said form being of material which is electrically nonconductive and non-magnetic and is of such springiness that said cut would normally be open but may be closed by the winding of said coil material about the portion of the form interrupted thereby, said coil being wound around said form including the ends thereof and substantially closing said cut.

2,777,117
TERMINAL CONNECTOR
Forest E. Shrider, Zanesville, Ohio
Application October 29, 1954, Serial No. 465,459
4 Claims. (Cl. 339—100)



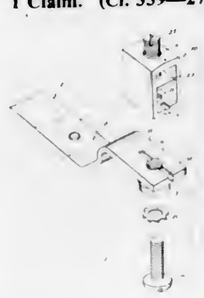
1. In a connector for a stranded conductor, a female member having a central bore therethrough; said bore comprising a relatively large diameter threaded portion reaching at one end to one end of the female member and spaced at its other end from the other end of the female member, a reduced diameter smooth portion reaching at one end to the said other end of the female member and spaced at its other end from the threaded portion, said smooth portion of the bore being of a diameter to snugly receive the stranded conductor, a tapered bore portion extending between and tapering from said threaded portion to said reduced portion, and a male member having a threaded shank threaded in said threaded bore portion, said shank terminating at one end in a conical portion larger in diameter than the smooth bore portion and having a point reaching through said tapered bore portion into said smooth bore portion to penetrate and expand a stranded conductor in the smooth bore portion.

2,777,118
FUSE HOLDER
Edward V. Sundt, Wilmette, Ill., assignor to Sundt Engineering Company, Des Plaines, Ill., a corporation of Illinois
Application December 2, 1953, Serial No. 395,662
2 Claims. (Cl. 339—221)



1. A fuse holder for a cartridge fuse comprising an elongated substantially channeled shape base of extruded organic synthetic plastic electrical insulating material having a uniform recess extending longitudinally in one face of the body from end to end thereof and provided with inwardly and longitudinally extending ribs overhanging the recess to form a uniform dovetail recess, and a resilient metallic spring clip longitudinally received in each end of the dovetail recess, each resilient metallic spring clip including a base portion and side portions conforming susbtantially to the bottom and sides of the dovetail recess and extensions on the side portions extending beyond the dovetail recess for resiliently gripping the cartridge fuse, said resilient spring clips having slightly greater normal transverse dimensions than the internal dimension of the dovetail recess and being forcefully pressed into the ends of the dovetail recess to be resiliently and firmly secured therein, and the sides of the dovetail recess backing and reinforcing the resilient spring clips to prevent undue distortion thereof.

2,777,119
TERMINAL AND TERMINAL WIRE CONNECTOR
William Harold Edmunds, Havertown, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa.
Application May 25, 1953, Serial No. 356,931
1 Claim. (Cl. 339—272)



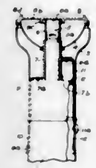
A solderless terminal arrangement comprising a terminal wire connector; said terminal and said terminal wire connector made of electrically conducting material and arranged for high pressure electrical contact; said terminal wire connector having an opening at one end thereof to receive an external electrical connection to said terminal arrangement; said terminal wire connector having a threaded opening in the bottom surface thereof; said terminal having an opening extending therethrough and positioned in alignment with the threaded opening in said terminal connector; stamped protrusions surrounding said threaded opening in said terminal connector and extending from the bottom surface thereof; stamped recesses in the upper surface of said terminal and positioned around the periphery of the opening therein; said threaded opening adapted to receive securing means which passes through

said opening in said terminal, and by threaded engagement with said opening in said terminal connector secures said terminal connector to said terminal; said protrusions seated in said recesses when aid terminal connector is secured to said terminal by means of said securing means; said seating engagement between said protrusions and said recesses effective to align said terminal connector with said terminal and prevent both clockwise and counterclockwise rotation of said terminal connector.

2,777,120
AIRCRAFT EXTERNAL LIGHTING SYSTEM
Andrew Madsen, San Lorenzo, Calif., assignor to Transocean Air Lines, Oakland, Calif., a corporation of California
Application March 22, 1955, Serial No. 495,925
7 Claims. (Cl. 340—82)

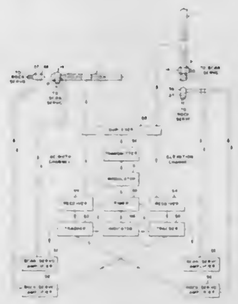
2. An external lighting system for aircraft comprising a plurality of electronic flash tubes disposed in longitudinally spaced and substantially aligned relation along one of the upper and lower sides of the fuselage of an aircraft, and circuit means including control means therefor for said tubes adapted to sequentially fire the same in a rearward to forward direction with respect to the direction of movement of said aircraft.

2,777,121
MULTICOLORED FLASHLIGHTS
Karl Schön, Luedenscheid, Westphalia, Germany, assignor to Carl von der Crone and Co., Luedenscheid, Westphalia, Germany, a firm
Application April 12, 1955, Serial No. 500,907
3 Claims. (Cl. 340—321)



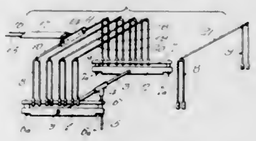
1. A flashlight comprising in combination a casing, a concave reflector arranged at one end of said casing, an electric lamp arranged within said reflector, a pair of tubular color-selective light-transmitting elements of different diameter coaxially arranged with respect to said lamp, separate operating means for each of said pair of elements for selectively shifting each of said pair of elements in a direction longitudinally of said casing between a rear position and a foreward position, a lens closing said reflector arranged substantially in the plane defined by the ends remote from said casing of said pair of elements when in said foreward position thereof, said lens having a circular frosted area in the center thereof substantially equal in diameter to the diameter of the one of said pair of elements of larger diameter, and the area of said lens radially outwardly from said frosted area being clear, whereby whatever light is being emitted through said area in the center of said lens is caused to be highly diffused whereas light being emitted through said clear area of said lens retains the directional properties thereof imparted to it through the action of said reflector.

2,777,122
RADAR SCANNING SYSTEM
Walter R. Hedeman, Jr., and Edward L. Crosby, Jr., Baltimore, Md., assignors to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware
Application October 4, 1950, Serial No. 188,388
4 Claims. (Cl. 343—100)



1. A scanning system comprising a pair of long narrow radiating devices extending at right angles to each other, each of said devices comprising a row of radiating elements, said row extending in substantial parallelism with the longitudinal axis of said device, and means feeding radio frequency energy to said elements, whereby the energy emitted from each of said devices is formed into a fan-shaped beam, having its longer cross-sectional dimension extending at right angles to the long dimension of said radiating device; means associated with each of said devices for cyclically varying the relative phase of the energy fed to the elements thereof whereby the beam of said device reciprocably moves in directions paralleling the long dimension of the said device; means reciprocably rotating each of said radiating devices about an axis parallel to its long dimension; first driving means individual to each of said radiating devices driving the phase varying means associated therewith, second driving means individual to said radiating devices driving the rotating means associated therewith, a first energy generating means generating cyclically varying energy, means applying energy from said generating means to the said first driving means of one of said devices and to the said second driving means of the other of said devices to actuate the same in accordance therewith, a second energy generating means generating cyclically varying energy, means applying energy from said second generating means to the remaining driving means associated with said devices to actuate the same in accordance therewith and means synchronizing the cyclically varying energy generated by said generating devices in a manner to maintain the beams of said devices in overlapping relations.

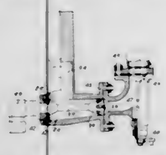
2,777,123
TELEVISION ANTENNA
David E. Shetron, Freedom, Pa.
Application October 30, 1952, Serial No. 317,693
4 Claims. (Cl. 343—804)



1. An antenna structure of knocked-down and erectable type comprising a T-shaped support, bars of insulation material attachable and detachable to the ends of said

T-shaped support and extending in substantially parallel spaced planes, attachable and detachable electrical buses supported on said bars in spaced relation thereto, antenna elements comprising inverted U-shaped members attachable and detachable at their open extremities to said buses and erectable in substantially coplanar relation extending above each of said buses, a transverse bus interconnecting the closed extremities of the inverted U-shaped members in a position substantially midway of the spaced side portions of the inverted U-shaped members and a doublet connecting element disposed adjacent the aforesaid antenna element, said doublet connecting element comprising similarly formed inverted U-shaped members detachably connected with said buses and a doublet connecting element electrically detachably connected with the closed extremities of said last-mentioned inverted U-shaped members and forming output terminals for said antenna, said last-mentioned U-shaped members extending in planes coplanar with the planes of the first mentioned U-shaped members, said U-shaped members forming an assembly constituting a substantially box-like structure in peripheral contour.

2,777,124
APPARATUS FOR PROCESSING INDIVIDUAL CHEESE RATIONS
Ercole Locatelli, Robbio, Lomellina, Italy
Application November 10, 1953, Serial No. 391,330
Claims priority, application Italy January 28, 1953
3 Claims. (Cl. 99—243)



1. An apparatus for processing food substance for interspersing moulds and forming streaks in individual ration confectioned products and especially fused cheeses, in conventional dosing and packaging machines, comprising a first feed recipient for the cheese paste and a second feed recipient for the coloured substance, a pump for intermittently sucking the coloured substance from the first recipient, two coaxial conduits, the outer of said coaxial conduits being used for the cheese fed by the second recipient, the inner of said coaxial conduits being used for the colored substance, a tapered part with a truncated cone form included by the outer of said coaxial conduits, a truncated conical head fitting in said tapered part and included by the inner of said coaxial conduits, peripheral ports located in the lateral wall and in the greater base of said truncated conical head for the cheese paste, internal nozzles included by said truncated conical head for the colored substance, outlet narrower chamber for uniting veins of food substance coming out from the truncated conical head, a cut-off device for slitting pieces of cheese, a pair of linkages, and cams actuating said pair of linkages for synchronizing the movement of the pump with the feeding of the cheese paste and the delivery of pieces of cheese with colored threads.

2,777,125
COVER AND CONTAINER FOR FOOD-PRESERVE-CONTAINER
Ernst Weisse, Hannover, Germany
Application March 9, 1950, Serial No. 148,572
In Germany November 22, 1918
Public Law 619, August 23, 1954
Patent expires November 22, 1968
7 Claims. (Cl. 220—55)

7. A light-weight vacuum canning container resistant to deformation by internal pressures generated during the preservation by heat of food contained therein, comprising a seamless sheet iron can body formed with a unitary bottom and side wall, and a sheet iron cover therefor, the edges of said body and said cover being of complementary form adapted to compress a resilient gasket therebetween, said cover being formed with a rounded annular depression immediately adjacent the cover edge and extending downwardly into the container body a substantial distance below the body edge and having an annular elevated portion radially inwardly of the annular depression, said elevated portion having a flat crest defining a flat annular bearing surface of substantial radial width lying in a plane above that of the cover edge, said cover further having a recessed portion centrally thereof adjacent said annular elevated portion, the apex of said recessed portion being provided with an aperture of frusto-conical cross-section for flexibly receiving a removable frusto-conical stopper for sealingly closing said aperture before said cover is secured to said can body with said stopper extending through said aperture into the interior of said body portion and extending upwardly from said aperture to a point at most at the level of said annular elevated portion, the iron surfaces of the can body and cover being phosphated and coated with two lacquer films comprising a ground pigment-containing base coat and a clear surface coat, and flexible clamping means for holding said cover and said body in sealing relationship, said flexible clamping means engaging said cover on said flat annular bearing surface.

DESIGNS

JANUARY 8, 1957

179,505
CHAIR
John T. Armbruster, Niagara Falls, N. Y., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts
Application April 27, 1956, Serial No. 41,225
Term of patent 14 years
(Cl. D15—1)

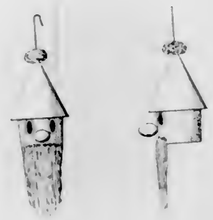
179,506
CIGARETTE AND MATCH HOLDER
Robert W. Bannon, Youngstown, Ohio
Application May 1, 1956, Serial No. 41,298
Term of patent 14 years
(Cl. D48—28)

179,507
BEVERAGE BOTTLE
Ferdinand S. Barbiers, Lancaster, Ohio, assignor to Clicquot Club Company, Millis, Mass.
Application May 21, 1956, Serial No. 41,556
Term of patent 14 years
(Cl. D58—8)

179,508
PLATE OR SIMILAR ARTICLE
A. Baker Barnhart, New York, N. Y., assignor to The Rosenthal-Block China Corporation, New York, N. Y.
Application October 21, 1955, Serial No. 38,504
Term of patent 14 years
(Cl. D44—15)

179,509
HOSE NOZZLE
John Beinert, New York, N. Y., assignor to Melnor Metal Products Co., Inc., Long Island City, N. Y., a corporation of New York
Application November 25, 1955, Serial No. 39,046
Term of patent 7 years
(Cl. D91—1)

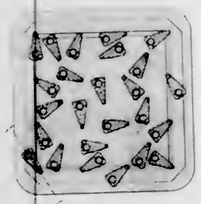
179,510
CHRISTMAS TREE ORNAMENT
Joseph L. Doan, Jr., Cynwyd, Pa.
Application July 9, 1956, Serial No. 42,185
Term of patent 14 years
(Cl. D29—1)



179,511
POWER LAWN MOWER
Bernard A. Graham, Hinsdale, and Ivar Jepson, Oak Park, Ill., assignors to Sunbeam Corporation, Chicago, Ill., a corporation of Illinois
Application September 29, 1955, Serial No. 38,159
Term of patent 14 years
(Cl. D40—1)

179,512
LAWN MOWER HOUSING
Bernard A. Graham, Hinsdale, and Ivar Jepson, Oak Park, Ill., assignors to Sunbeam Corporation, Chicago, Ill., a corporation of Illinois
Application September 29, 1955, Serial No. 38,160
Term of patent 14 years
(Cl. D40—1)

179,513
GAME BOARD
Robert A. Hadfield, Milwaukee, Wis.
Application May 10, 1955, Serial No. 35,904
Term of patent 3½ years
(Cl. D34—5)

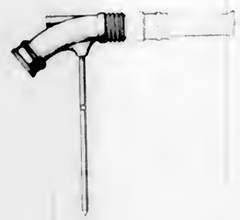


179,514
DOLL
Florence A. Humphrey, Washington, D. C.
Application July 6, 1955, Serial No. 36,832
Term of patent 3½ years
(Cl. D34—4)

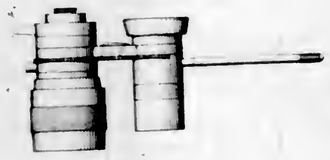
179,515
DOLL
Florence A. Humphrey, Washington, D. C.
Application July 6, 1955, Serial No. 36,833
Term of patent 3½ years
(Cl. D34—4)

179,516
SPARE TIRE JACKET
Charles J. Kammeyer, Concordia, Mo.
Application June 18, 1956, Serial No. 41,957
Term of patent 3½ years
(Cl. D90—20)

179,517
SPRINKLER NOZZLE UNIT
Robert Nicholas Martin, Long Beach, Calif.
Application November 14, 1955, Serial No. 38,873
Term of patent 3½ years
(Cl. D91—1)



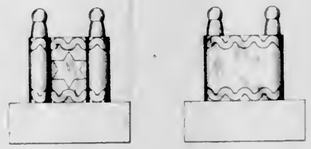
179,518
LENS ASSEMBLY FOR CONTINUOUSLY VARYING THE ANGULAR VIEW ON MOVIE CAMERAS
Eugene Martinez, Bronx, N. Y., assignor to The Ednalite Optical Company, Inc., Peekskill, N. Y., a corporation of New York
Application September 30, 1955, Serial No. 38,183
Term of patent 14 years
(Cl. D61—1)



179,519
FLOCKED VOILE FABRIC OR THE LIKE
Monroe M. Messing, Lawrence, N. Y.
Application July 18, 1955, Serial No. 36,991
Term of patent 14 years
(Cl. D92—1)

179,520
AUTOMATIC IRONING MACHINE
Charles E. Mollhagen, Walled Lake, Mich., assignor to Ironrite, Inc., Mount Clemens, Mich., a corporation of Michigan
Application May 23, 1955, Serial No. 36,171
Term of patent 7 years
(Cl. D49—1)

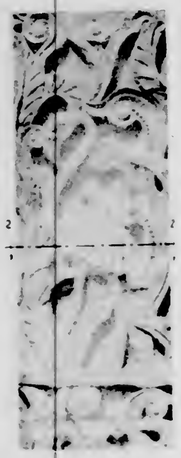
179,521
TABLE ORNAMENT OR SIMILAR ARTICLE
Sara Rae Naimon, Milwaukee, Wis.
Application July 25, 1956, Serial No. 42,376
Term of patent 14 years
(Cl. D29—23)



179,522
AUTOMOBILE GRILLE
Friedrich K. H. Nallinger and Rudolf E. Uhlenhaut, Stuttgart, Germany, assignors to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Original application February 5, 1954, Serial No. 28,870, now Design Patent No. 176,278, dated December 6, 1955. Divided and this application August 15, 1955, Serial No. 37,467
Term of patent 14 years
(Cl. D14—6)

179,523
AUTOMOBILE GRILLE
Friedrich K. H. Nallinger and Rudolf E. Uhlenhaut, Stuttgart, Germany, assignors to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Original application February 5, 1954, Serial No. 28,870, now Design Patent No. 176,278, dated December 6, 1955. Divided and this application August 15, 1955, Serial No. 37,469
Term of patent 14 years
(Cl. D14—6)

179,524
CAST WINDOW SHUTTER
Ralph N. Polen, St. Petersburg, Fla.
Application August 31, 1955, Serial No. 37,736
Term of patent 14 years
(Cl. D13—1)

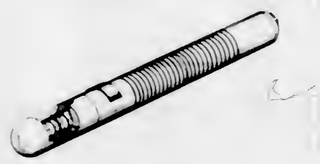


179,525
FISH POLE HOLDER
Joseph B. Porter, Cleveland, Ohio
Application June 4, 1956, Serial No. 41,757
Term of patent 14 years
(Cl. D31—4)

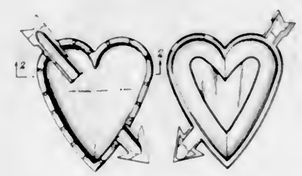
179,526
CHUCK GAUGE FOR HIGH PRESSURE TIRES
Milton Price, Chicago, Ill., assignor to Milton Manufacturing Co., Inc., Chicago, Ill., a corporation of Illinois
Application December 9, 1955, Serial No. 39,272
Term of patent 14 years
(Cl. D52—1)

179,527
TABLE
Harold Rubin, Berwyn, Ill.
Application May 17, 1956, Serial No. 41,529
Term of patent 14 years
(Cl. D33—14)

179,528
PORTABLE SWAGING TOOL
Clayton L. Solum, Monterey Park, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application March 5, 1956, Serial No. 40,468
Term of patent 14 years
(Cl. D54—13)



179,529
SMOKER'S ASH TRAY
Arnold Starkenberg, New York, N. Y., assignor to Starke Design Inc., Brooklyn, N. Y., a corporation of New York
Application October 17, 1955, Serial No. 38,417
Term of patent 3½ years
(Cl. D85—2)



179,530
TRACING IMPLEMENT OR THE LIKE
Elsé Tyroler, Cincinnati, Ohio
Application August 29, 1955, Serial No. 37,699
Term of patent 14 years
(Cl. D3—19)

179,531
KNIFE
Paul Voss, Solingen-Wald, Germany, assignor to Carl Prinz A. G. für Metallwaren, Solingen-Wald, Germany
Application May 4, 1955, Serial No. 35,811
Term of patent 7 years
(Cl. D22—3)

LIST OF REISSUE PATENTEES

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NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

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Lowe, Rudy. Re. 24,263.

Stearns, Howard E. Side outlets for above-ground irrigation pipes. Re. 24,264, 1–8–57, Cl. 251—145.

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Law, Walter A., to Stark Bro's Nurseries and Orchards Co. Apple tree. 1,550, 1–8–57, Cl. 47—62.

Stark Bro's Nurseries and Orchards Co.: *See*—
Law, Walter A. 1,550.

Winkler, Marshall N. Carnation plant. 1,549, 1–8–57, Cl. 47—60.

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American Optical Co.: *See*—
Armbruster, John T. 179,505.

Armbruster, John T., to American Optical Co. Chair. 179,505, 1–8–57, Cl. D15—1.

Bannon, Robert W. Cigarette and match holder. 179,506, 1–8–57, Cl. D48—28.

Barbiers, Ferdinand S., to Clicquot Club Co. Beverage bottle. 179,507, 1–8–57, Cl. D58—8.

Barnhart, A Baker, to The Rosenthal-Block China Corp. Plate or similar article. 179,508, 1–8–57, Cl. D44—15.

Beinert, John, to Melnor Metal Products Co., Inc. Hose nozzle. 179,509, 1–8–57, Cl. D91—1.

Clicquot Club Co.: *See*—
Barbiers, Ferdinand S. 179,507.

Daimler-Benz Aktiengesellschaft: *See*—
Nallinger, Friedrich K. H., and Uhlenhaut. 179,522.
Nallinger, Friedrich K. H., and Uhlenhaut. 179,523.

Doan, Joseph L., Jr. Christmas tree ornament. 179,510, 1–8–57, Cl. D29—1.

Ednalite Optical Co., Inc., The: *See*—
Martinez, Eugene. 179,518.

Graham, Bernard A., and I. Jepson, to Sunbeam Corp. Power lawn mower. 179,511, 1–8–57, Cl. D40—1.

Graham, Bernard A., and I. Jepson, to Sunbeam Corp. Lawn mower housing. 179,512, 1–8–57, Cl. D40—1.

Hadfield, Robert A. Game board. 179,513, 1–8–57, Cl. D34—5.

Humphrey, Florence A. Doll. 179,514, 1–8–57, Cl. D34—4.

Humphrey, Florence A. Doll. 179,515, 1–8–57, Cl. D34—4.

Ironrite, Inc.: *See*—
Mollhagen, Charles E. 179,520.

Jepson, Ivar: *See*—
Graham, Bernard A., and Jepson. 179,511.
Graham, Bernard A., and Jepson. 179,512.

Kammeyer, Charles J. Spare tire jacket. 179,516, 1–8–57, Cl. D90—20.

Martin, Robert N. Sprinkler nozzle unit. 179,517, 1–8–57, Cl. D91—1.

Martinez, Eugene, to The Ednalite Optical Co., Inc. Lens assembly for continuously varying the angular view on movie cameras. 179,518, 1–8–57, Cl. D61—1.

Melnor Metal Products Co., Inc.: *See*—
Beinert, John. 179,509.

Messing, Monroe M. Flocked voile fabric or the like. 178,519, 1–8–57, Cl. D92—1.

Milton Mfg. Co., Inc.: *See*—
Price, Milton. 179,526.

Mollhagen, Charles E., to Ironrite, Inc. Automatic ironing machine. 179,520, 1–8–57, Cl. D49—1.

Naimon, Sara R. Table ornament or similar article. 179,521, 1–8–57, Cl. D29—23.

Nallinger, Friedrich K. H., and R. E. Uhlenhaut, to Daimler-Benz Aktiengesellschaft. Automobile grille. 179,522, 1–8–57, Cl. D14—6.

Nallinger, Friedrich K. H., and R. E. Uhlenhaut, to Daimler-Benz Aktiengesellschaft. Automobile grille. 179,523, 1–8–57, Cl. D14—6.

Northrop Aircraft, Inc.: *See*—
Solum, Clayton L. 179,528.

Polen, Ralph N. Cast window shutter. 179,524, 1–8–57, Cl. D13—1.

Porter, Joseph B. Fish pole holder. 179,525, 1–8–57, Cl. D31—4.

Price, Milton, to Milton Mfg. Co., Inc. Chuck gauge for high pressure tires. 179,526, 1–8–57, Cl. D52—1.

Prinz, Carl, A. G. fur Metallwaren: *See*—
Voss, Paul. 179,531.

Rosenthal-Block China Corp., The: *See*—
Barnhart, A Baker. 179,508.

Rubin, Harold. Table. 179,527, 1–8–57, Cl. D33—14.

Solum, Clayton L., to Northrop Aircraft, Inc. Portable swaging tool. 179,528, 1–8–57, Cl. D54—13.

Starke Design Inc.: *See*—
Starkenberg, Arnold. 179,529.

Starkenberg, Arnold, to Starke Design Inc. Smoker's ash tray. 179,529, 1–8–57, Cl. D85—2.

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Graham, Bernard A., and Jepson. 179,511.
Graham, Bernard A., and Jepson. 179,512.

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Nallinger, Friedrich K. H., and Uhlenhaut. 179,522.
Nallinger, Friedrich K. H., and Uhlenhaut. 179,523.

Voss, Paul, to Carl Prinz A. G. fur Metallwaren. Knife. 179,531, 1–8–57, Cl. D22—3.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 8TH DAY OF JANUARY, 1957

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

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Abel, Ernest F. Slitter for frankfurters and the like. 2,776,480, 1-8-57, Cl. 30—124.
Accrocco, Victor J. Agitating device for treating liquid used in photographic development process. 2,776,611, 1-8-57, Cl. 95—89.
Addicks, Johannes H. Spring balance. 2,776,447, 1-8-57, Cl. 16—197.
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Schenkel, Hans, and Aeberli. 2,776,983.
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Hawk, Carson E. 2,776,850.
Agriculture, United States of America as represented by Secretary of: *See*—
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Ortegren, Victor H., and Dimick. 2,776,822.
Sharpe, Eugene S., and Corman. 2,776,926.
Air Force, United States of America as represented by the Secretary of the: *See*—
Robinson, Harris A. 2,777,064.
Wilks, Syrrel S., and Harbich. 2,776,659.
Air-Shields, Inc.: *See*—
Gibbon, Samuel Y. 2,776,658.
Aktiebolaget Urfabriken: *See*—
Borgström, Göte I. 2,776,517.
Aktiebolaget Volvo: *See*—
Gustafson, Carl H. E., and Larborn. 2,776,556.
Allan, Harry T., ½ to R. G. Pinney. Serving rack for beverage tumblers. 2,776,736, 1-8-57, Cl. 211—74.
Allen, Frank B., to The Fyr-Fyter Co. Portable fire extinguisher. 2,776,717, 1-8-57, Cl. 169—31.
Allen, Herman C.: *See*—
Russell, William W., and Allen. 2,776,868.
Alles, Gordon A. 1-paramethoxyphenyl-2-cyclopentylamino-1-propanol compounds. 2,776,993, 1-8-57, Cl. 260—563.
Allied Chemical & Dye Corp.: *See*—
Joris, George G. 2,776,999.
Rahl, Forrest J., and Weinstock. 2,776,945.
Allied Electric Products, Inc.: *See*—
Weisberg, Sidney M. 2,777,094.
Weisberg, Sidney M. 2,777,096.
Allswede, Keith A.: *See*—
Ruh, Robert P., Davis, and Allswede. 2,777,004.
Aluma Kraft Mfg. Co.: *See*—
Bottom, Theodore J. 2,776,460.
Alvarez, Luis W., to Chromatic Television Laboratories, Inc. Electrode construction for cathode-ray tubes. 2,777,083, 1-8-57, Cl. 313—78.
Ambrose, Marie: *See*—
Kalinowski, Maria A. 2,776,773.
American-Marietta Co.: *See*—
Scripture, Edward W. 2,776,902.
Scripture, Edward W., Jr. 2,776,901.
Scripture, Edward W., Jr. 2,776,903.
American Metal Co., Ltd., The: *See*—
Smith, William A., Mattson, and Meyer. 2,776,750.
American Safety Razor Corp.: *See*—
Treiss, Herman G. 2,776,743.
American Saw & Tool Co.: *See*—
Cowley, William E. 2,776,683.
American Steel Foundries: *See*—
Tack, Carl E. 2,776,580.
American Viscose Corp.: *See*—
Lytton, Marion R., Wielicki, and Lewis. 2,776,946.
Amsler Morton Corp.: *See*—
Graham, Frank H. 2,776,827.
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Anderson Products, Inc.: *See*—
Ferguson, Warren T. 2,776,671.
Anderson, Robert F. Venetian blind. 2,776,461, 1-8-57, Cl. 20—62.
Anderson, William E., to Riegel Paper Corp. Non-water repellent high slip paper. 2,776,913, 1-8-57, Cl. 117—92.
Anthony, Charles, Jr.: *See*—
Sylvester, Walter G., and Anthony. 2,776,942.
Armco Steel Corp.: *See*—
Marshall, William E., and Bell. 2,776,883.
Army, United States of America as represented by the Secretary of the: *See*—
Cohen, Jerrold. 2,777,101.
Goldberg, Bernard. 2,777,055.
Lee, Edward C. 2,776,600.
Lee, Edward C. 2,776,601.
Mandelkorn, Joseph. 2,777,092.
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Atkins, Carl E., to Tung-Sol Electric Inc. Photoelectric circuit. 2,777,097, 1-8-57, Cl. 317—130.
Averill, Charles C., to Union Steel Products Co. Material handling container. 2,776,775, 1-8-57, Cl. 220—6.

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MacGriff, Jack E., and Bacon. 2,777,030.
Bader, Erich: *See*—
Bredereck, Hellmut, Bader, Nubling, and Wohnhas. 2,776,952.
Bailey Meter Co.: *See*—
Gorrie, Harvard H. 2,776,669.
Baldwin-Lima-Hamilton Corp.: *See*—
Willi, Richard B. 2,776,573.
Bancroft, Joseph C. Window frame construction. 2,776,735, 1-8-57, Cl. 189—36.
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McBride, John W. 2,776,591.
Baptist, Victor: *See*—
Goodman, Robert, and Baptist. 2,776,673.
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Barrett, Arthur L., to Joy Mfg. Co. Rotating cutter and core breaker for continuous miner. 2,776,823, 1-8-57, Cl. 262—9.
Barrett, Arthur L., to Joy Mfg. Co. Mining machine and automatic cycling control mechanism therefor. 2,777,102, 1-8-57, Cl. 262—29.
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Bas, Marie J. F. 2,776,711.
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Batson, Oscar R., B. F. Moore, and A. U. Christie. Air-conditioned oxygen-box. 2,776,657, 1-8-57, Cl. 128—1.
Battelle Development Corp., The: *See*—
Carlson, Chester F. 2,776,907.
Baumgardner, William C., to Punch and Judy. Figure with balloon inflating means. 2,776,530, 1-8-57, Cl. 53—268.
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Molinari, Henry G. 2,776,661.
Beddoes, John H., and J. J. Suchocki, to Owens-Illinois Glass Co. Burners for reheating stemware. 2,776,526, 1-8-57, Cl. 49—58.
Belisle, Adelard, to The Berkline Corp. Locking mechanism for rocking chairs. 2,776,702, 1-8-57, Cl. 155—72.
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Bell, Samuel A.: *See*—
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Linvill, John G. 2,777,115.
Bendix Aviation Corp.: *See*—
Gordon, James F. 2,777,116.
Hargrove, Atwood H. 2,777,061.
Hargrove, Atwood H. 2,777,063.
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Tesh, Kimble F. 2,777,027.
Benjamin, Milton L., and F. E. Winnen, to Erickson Tool Co. Expanding mandrel and method of making same. 2,776,839, 1-8-57, Cl. 279—2.
Bennett, James L., R. M. Brooks, J. G. McMillan, Jr., and W. L. Plunkett, to Hercules Powder Co. Nitric acid esters of cellulose and method of preparation. 2,776,965, 1-8-57, Cl. 260—220.
Bennett, John G., and E. M. Bevilacqua, to Caloric Stove Corp. Clothes drier. 2,776,826, 1-8-57, Cl. 263—33.
Berg, Elaine. Ear muffs. 2,776,436, 1-8-57, Cl. 2—209.
Berge, Arthur: *See*—
Jacobaeus, Anton C., and Berge. 2,777,015.
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Belisle, Adelard. 2,776,703.
Berness, Daniel R.: *See*—
Schramm, Ella. 2,776,522.
Bersworth, Frederick C., to The Dow Chemical Co. Method and composition for application of protective chelate-containing coating to surfaces and article formed thereby. 2,776,918, 1-8-57, Cl. 148—6.14.
Bertaud, Louis M. Direction indicator switch. 2,777,025, 1-8-57, Cl. 200—61.27.
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Blanco, Henry J., to The Burch Co. Window frame provided with caulking groove. 2,776,737, 1-8-57, Cl. 189—75.
Bible, Milbert D. Plant setter. 2,776,633, 1-8-57, Cl. 111—2.
Billstrom, Victor J., to Fletcher Aviation Corp. Clamping device. 2,776,853, 1-8-57, Cl. 292—256.
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Binford, Benjamin L. Flow responsive device. 2,776,567, 1-8-57, Cl. 73—208.
Binford, Benjamin L., to Magnetrol, Inc. Tank control. 2,777,045, 1-8-57, Cl. 219—38.
Birchler, Robert O., and A. J. Fedor, to Western Electric Co., Inc. Device for feeding articles. 2,776,781, 1-8-57, Cl. 221—173.
Biro, Ladislao J. Clinical thermographs. 2,776,569, 1-8-57, Cl. 73—343.
Biser, Jesse L., to The Roto Ink Corp. Process for producing printing inks. 2,776,895, 1-8-57, Cl. 106—30.
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Blackman, Glenn R. Seal for gate valve. 2,776,813, 1-8-57, Cl. 251—197.
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Bloom, Samuel C. Self-cleaning spray nozzle. 2,776,862, 1-8-57, Cl. 299—59.
Blue, Robert E. Combination interferometer-schlieren apparatus for density determination in non-homogeneous transparent fields. 2,776,593, 1-8-57, Cl. 88—14.
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Bock, Herbert, to SKB Schuechtermann & Kremer-Baum Aktiengesellschaft fuer Aufbereitung. Shaking screens. 2,776,751, 1-8-57, Cl. 209—365.
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Bowman, Samuel. Cheese pump and filler. 2,776,626, 1-8-57, Cl. 103—159.
Bowser, Joseph T. X-ray film holders. 2,777,068, 1-8-57, Cl. 250—64.
Boyajean, John A., to Fairchild Camera and Instrument Corp. Video-signal tone-adjusting network. 2,777,058, 1-8-57, Cl. 250—27.
Boyan, Edwin A. Production analysis apparatus. 2,776,867, 1-8-57, Cl. 346—25.
Brace, George A., to The Hoover Co. Nozzle height adjustment mechanism for suction cleaners. 2,776,446, 1-8-57, Cl. 15—359.
Brace, George A., to The Hoover Co. Suction cleaner and filter therefor. 2,776,726, 1-8-57, Cl. 183—37.
Bradley, William E., to Philco Corp. Cathode ray beam indexing system. 2,777,010, 1-8-57, Cl. 178—5.4.
Brandell, Elmer: *See*—
Neal, Ernest C. 2,776,513.
Branske, Norbert A. Lawn edger with vertically oscillating blade. 2,776,535, 1-8-57, Cl. 56—241.
Bredereck, Hellmut, E. Bader, W. Nubling, and A. Wohnhas, to W. C. Heraeus G. m. b. H., and Deutsche Gold- und Silber-Scheideanstalt vormals Roessler. Improvements in the production of polymerization products using halogen compounds to increase the effectiveness of sulfone polymerization catalysts. 2,776,952, 1-8-57, Cl. 260—80.
Brendal, Donald H., to United Aircraft Corp. Weathercocking supersonic wedge diffuser for air inlets in aircraft. 2,776,806, 1-8-57, Cl. 244—53.
Brennan, Joseph B. Method of making a closure and terminal construction for electrolytic devices. 2,776,467, 1-8-57, Cl. 29—155.55.
Brentano, Willy, to Durand & Huguenin A. G. New water-soluble mordant azophthalocyanine dyestuffs and process for making same. 2,776,958, 1-8-57, Cl. 260—146.
Brentano, Willy, H. Grossmann, and M. Muller, to Durand & Huguenin A. G. Water-soluble mordant azophthalocyanine dyestuffs and process for making them. 2,776,957, 1-8-57, Cl. 260—146.
Brite-Ize Cleanser Co.: *See*—
Nicol, Clinton C. 2,776,787.
British Thomson-Houston Co. Ltd., The: *See*—
Read, John C., and Smith. 2,777,108.
Ross, William S. 2,777,071.
Ross, William S. 2,777,072.
Brockman, Herbert P., to Westinghouse Electric Corp. Frequency doubler circuit. 2,777,066, 1-8-57, Cl. 250—36.
Brooks, Robert M.: *See*—
Bennett, James L., Brooks, McMillan, and Plunkett. 2,776,965.
Brown Fintube Co.: *See*—
Brown, John W., Jr. 2,776,656.
Brown, John W., Jr., to Brown Fintube Co. Down draft eliminator. 2,776,656, 1-8-57, Cl. 126—307.
Brown, Philip B. Rock drill bit. 2,776,819, 1-8-57, Cl. 255—63.
Brown, Ray W., to Densco, Inc. Spray attachment for straight dental handpieces. 2,776,487, 1-8-57, Cl. 32—28.
Brown, Ray W., to Densco, Inc. Spray attachment for contra angle dental handpieces. 2,776,488, 1-8-57, Cl. 32—28.
Brown, Raymond W., to Western Electric Co., Inc. Apparatus for testing springs. 2,776,561, 1-8-57, Cl. 73—141.
Brown, Walter J. Electric control system for adjusting and controlling speed of a series motor. 2,777,106, 1-8-57, Cl. 318—249.
Brown, Werner C., to Hercules Powder Co. Ethyl cellulose emulsions. 2,776,904, 1-8-57, Cl. 106—170.
Bruce, David S., and H. M. Spurlin, to Hercules Powder Co. Stabilization of nitrocellulose. 2,776,880, 1-8-57, Cl. 52—5.1.
Bruckman, William C., to The Easy Washing Machine Co., Ltd. Control system. 2,776,557, 1-8-57, Cl. 68—12.
Brundage, Alan D., C. E. McCormick, and G. W. Schatzman, to Houdaille Industries, Inc. Spare wheel mount for automobiles. 2,776,791, 1-8-57, Cl. 224—42.21.
Brunhoff Mfg. Co.: *See*—
Schoenlaub, Harry R. 2,776,757.
Buchholz, Aloysius H. Earth clod forming devices. 2,776,532, 1-8-57, Cl. 55—6.
Buckmann, John P., to Union Oil Co. of California. Modified amide-aldehyde resins from amides of oxidized paraffin acids. 2,776,949, 1-8-57, Cl. 260—72.
Buegeleisen, Joseph, Co.: *See*—
Zzikowski, Ted. 2,776,790.
Buehler, Arthur: *See*—
Zickendraht, Christian, and Buehler. 2,776,956.
Bull, Richard W., to Standard Coil Products Co., Inc. Reflex circuit for amplifying intermediate and detected video frequencies in same stage. 2,777,056, 1-8-57, Cl. 250—20.
Bundy, Francis P.: *See*—
Strong, Herbert M., and Bundy. 2,776,776.
Bungardt, Walter, to Th. Goldschmidt A.-G. Chemische Fabriken. Method of heat treating cerium-iron alloys. 2,776,919, 1-8-57, Cl. 148—13.
Burch Co., The: *See*—
Blanco, Henry J. 2,776,737.
Burch, Hadley K., to Burch-Parkhurst Associates. Snap switch and blade therefor. 2,777,032, 1-8-57, Cl. 200—113.
Burch-Parkhurst Associates: *See*—
Burch, Hadley K. 2,777,032.
Burg, Fred G. Feed control system for machine tools. 2,776,584, 1-8-57, Cl. 77—25.
Burgerstein, Lothar: *See*—
Leyer, Albert, and Burgerstein. 2,776,576.
Burroughs, Louis R., to Electro-Voice, Inc. Microphone clamp. 2,776,462, 1-8-57, Cl. 24—263.
Burt, Harold R., to Sawyer's Inc. Lens capsule and lens mounting assembly. 2,776,597, 1-8-57, Cl. 88—57.
Cairns, Theodore L., and J. C. Sauer, to E. I. du Pont de Nemours & Co. α-unsaturated β-thioether aldehydes and their preparation. 2,776,995, 1-8-57, Cl. 260—598.
California Research Corp.: *See*—
Lum, Funston G., and Carlston. 2,776,950.
Calla, Micheline: *See*—
Day, Jean, and Calis. 2,776,898.
Calkins Mfg. Co.: *See*—
Guyer, Morris W. 2,776,612.
Caloric Stove Corp.: *See*—
Bennett, John G., and Bevilacqua. 2,776,826.
Cambridge Tile Mfg. Co.: *See*—
Harman, Cameron G., and Lennon. 2,776,896.
Campbell, David S., to Cardwell Westinghouse Co. Rubber draft gear. 2,776,759, 1-8-57, Cl. 213—34.
Cardon, Paul B., to Minerals Refining Co. Rotary digester. 2,776,877, 1-8-57, Cl. 23—290.5.
Cardwell Westinghouse Co.: *See*—
Campbell, David S. 2,776,759.
Carfagni, Arthur B. Multi-purpose dental tool. 2,776,490, 1-8-57, Cl. 32—40.
Carlson, Chesley F. Punching device having work positioning locating pins. 2,776,712, 1-8-57, Cl. 164—86.
Carlson, Chester F., to The Battelle Development Corp. Method of fixing electrostatic powder image. 2,776,907, 1-8-57, Cl. 117—17.5.
Carlson, Marvin J., to Tractomotive Corp. Tractor mounted tong loader. 2,776,768, 1-8-57, Cl. 214—147.
Carlston, Earl F.: *See*—
Lum, Funston G., and Carlston. 2,776,950.
Carrier Conveyor Corp.: *See*—
Carrier, Robert M., Jr. 2,776,741.
Carrier, Robert M., Jr., to Carrier Conveyor Corp. Discharge gate. 2,776,741, 1-8-57, Cl. 198—220.
Cascades Plywood Corp.: *See*—
Uschmann, Curt. 2,776,800.

Caterson, Alan G.: *See*—
Kelly, John C. R., Jr., and Caterson. 2,776,887.
Celanese Corp. of America: *See*—
Schildknecht, Calvin E. 2,776,947.
Whitehead, William, and Heming. 2,776,869.
Central Soya Co., Inc.: *See*—
Kruse, Norman F. 2,776,894.
Chadwick, Cecil G., to Union Carbide and Carbon Corp. Decarburizing high-carbon ferrochromium. 2,776,882, 1–8–57, Cl. 75—28.
Chadwick, William R. Boat construction. 2,776,637, 1–8–57, Cl. 114—219.
Chaney, Allen L., and J. F. Moser, Jr., to Esso Research and Engineering Co. Process and apparatus for quenching coker products. 2,776,931, 1–8–57, Cl. 196—55.
Changewood Corp.: *See*—
Clark, James D. 2,776,685.
Clark, James D. 2,776,686.
Clark, James D. 2,776,688.
Chase-Shawmut Co., The: *See*—
Kozacka, Frederick J. 2,777,033.
Chavannes Industrial Synthetics, Inc.: *See*—
Chavannes, Marc A. 2,776,451.
Chavannes, Marc A. 2,776,452.
Chavannes, Marc A., to Chavannes Industrial Synthetics, Inc. Apparatus and method for producing embossed thermoplastic film. 2,776,451, 1–8–57, Cl. 18—10.
Chavannes, Marc A., to Chavannes Industrial Synthetics, Inc. Apparatus for embossing thermoplastic film. 2,776,452, 1–8–57, Cl. 18—10.
Chemold Co.: *See*—
Vonderahe, Francis E. 2,776,808.
Chicago Nipple Mfg. Co.: *See*—
Marsden, George B. 2,776,842.
Christie, Amos U.: *See*—
Batson, Oscar R., Moore, and Christie. 2,776,657.
Chromatic Television Laboratories, Inc.: *See*—
Alvarez, Luis W. 2,777,083.
Chudyk, Alex B., to Minneapolis-Honeywell Regulator Co. Combustion engine control apparatus. 2,776,536, 1–8–57, Cl. 60—35.6.
Ciba Ltd.: *See*—
Hagenboecker, Alfred, and Blumer. 2,776,961.
Zickendraht, Christian, and Buehler. 2,776,956.
Claessen, Antonius F. M., to Stamicarbon N. V. Conveyor discharge mechanism. 2,776,740, 1–8–57, Cl. 198—106.
Clark, Adna R., and E. H. Schwenker, to Whirlpool-Seeger Corp. Ice cube tray. 2,776,546, 1–8–57, Cl. 62—108.5.
Clark, Frederick G., to Eastman Machine Co. Side guard for cutting machines. 2,776,483, 1–8–57, Cl. 30—276.
Clark, James D., to Changewood Corp. Method for manufacturing crosscut fibrous elements for structures. 2,776,685, 1–8–57, Cl. 144—309.
Clark, James D., to Changewood Corp. Crosscut fiber and method for its preparation. 2,776,686, 1–8–57, Cl. 144—309.
Clark, James D. Crosscut fiber and method for its preparation. 2,776,687, 1–8–57, Cl. 144—309.
Clark, James D., to Changewood Corp. Crosscut fiber and method for its preparation. 2,776,688, 1–8–57, Cl. 144—309.
Clark, Philip B., to McGraw Electric Co. Light signal projector. 2,777,049, 1–8–57, Cl. 240—1.2.
Cockram, Reginald W. J., to The Pyrene Co., Ltd. Devices responsive to rates of change of acceleration. 2,776,829, 1–8–57, Cl. 264—1.
Cohen, Jerrold, to the United States of America as represented by the Secretary of the Army. Junction transistor. 2,777,101, 1–8–57, Cl. 317—235.
Cohen Milton R.: *See*—
Hafekost, Frederick. 2,776,482.
Coker, Frank B., and O. W. Schoenberg, to United Geophysical Corp. Magnetometer survey apparatus. 2,777,112, 1–8–57, Cl. 324—8.
Colendar, Frederick J., to Sloan Valve Co. Diaphragm for flush valves. 2,776,812, 1–8–57, Cl. 251—40.
Colgate-Palmolive Co.: *See*—
Schulerud, Albert L. 2,776,544.
Collett, Charles H. Apparatus for applying a sucker rod protector. 2,776,469, 1–8–57, Cl. 29—236.
Colt's Patent Fire Arms Mfg. Co., Inc.: *See*—
Sturtevant, Foster E. 2,776,602.
Combs, Henley E. Vase attached lamp. 2,777,052, 1–8–57, Cl. 240—52.6.
Compagnie Generale de Telegraphie Sans Fil: *See*—
Day, Jean, and Calis. 2,776,898.
Congdon, Max: *See*—
Ward, Gerald E., Congdon, and Davis. 2,776,568.
Conklin, Lewis H.: *See*—
Wolfe, John S. B., and Conklin. 2,776,994.
Conradi, Gerhard: *See*—
Duffing, Paul, and Conradi. 2,777,098.
Contemporary Metals Inc.: *See*—
Savage, Robert H. 2,776,678.
Cook, Ernest E., and H. J. Sadler. Rotary pump roller. 2,776,625, 1–8–57, Cl. 103—136.
Cook, George W. D. Holder for a conventional set of L-shaped wrenches. 2,776,744, 1–8–57, Cl. 206—16.
Cooper, Kenneth K., to General Electric Co. Motor cooling means for hermetically sealed refrigerant compressor unit. 2,776,542, 1–8–57, Cl. 62—3.
Corman Julian: *See*—
Sharpe Eugene S., and Corman. 2,776,926.
Corman, Julian, and H. M. Tsuchiya, to the United States of America as represented by the Secretary of Agriculture. Enzymic production of dextran of intermediate molecular weights. 2,776,925, 1–8–57, Cl. 195—31.
Coty, Inc.: *See*—
Martin, Jean R. L. 2,776,924.
Covington, Luther J. Tobacco stringing machine. 2,776,760, 1–8–57, Cl. 214—5.5.
Cowles, Edwin, to John W. Bolton & Sons, Inc. Apparatus for removing trash from beaters, pulpers and the like. 2,776,765, 1–8–57, Cl. 214—95.
Cowley, William E., to American Saw & Tool Co. Corner clamp with guide means for use with power tools. 2,776,683, 1–8–57, Cl. 144—293.
Craig, Francis A., to The Wittemann Co., Inc. Apparatus for straining liquids. 2,776,755, 1–8–57, Cl. 210—150.8.
Craig, W. E., E. Y. Shropshire, and H. F. Wilson, to Rohm & Haas Co. Esters of α-dichloromethyl benzhydrols and process. 2,776,988, 1–8–57, Cl. 260—487.
Craig, W. E., E. Y. Shropshire, and H. F. Wilson, to Rohm & Haas Co. Process of preparing α-dichloromethyl benzhydrol esters. 2,776,989, 1–8–57, Cl. 260—487.
Crain, Chester J. Oil distributing device. 2,776,863, 1–8–57, Cl. 308—86.
Crane Co.: *See*—
Paulius, John A., Jr., and Roush. 2,776,810.
Crawford, Wayland H., to Modern Village Stores, Inc. Check stand. 2,776,730, 1–8–57, Cl. 186—1.
Crosby, Edward L., Jr.: *See*—
Hedeman, Walter R., Jr., and Crosby. 2,777,122.
Cross, Lawrence P. Sausage linking machine. 2,776,449, 1–8–57, Cl. 17—34.
Crotty Corp.: *See*—
Crotty, Willard E. 2,776,652.
Crotty, Willard E., to Crotty Corp. Device for reducing wear between poppet valves and their actuating devices. 2,776,652, 1–8–57, Cl. 123—188.
Cue Fastener Corp.: *See*—
Neitlich, Irving M. 2,776,466.
Curtin, Leonard S., to United Shoe Machinery Corp. Stitchdown shoes. 2,776,501, 1–8–57, Cl. 36—16.
Cusic, John W., and M. Zimmermann, to G. D. Searle & Co. Chlorophenothiazinecarboxamides. 2,776,971, 1–8–57, Cl. 260—243.
Dahlberg, Robert S., Jr., to Philco Corp. Frequency stabilized radio relay system. 2,777,054, 1–8–57, Cl. 250—15.
Dailey, Hampton J., deceased (by R. M. Dailey, executrix), and W. J. Knochel, to Westinghouse Electric Corp. Tube sealing. 2,776,473, 1–8–57, Cl. 29—475.
Dailey, Ruth M.: *See*—
Dailey, Hampton J., and Knochel. 2,776,473.
Daleo Trading Corp.: *See*—
Hafekost, Frederick. 2,776,482.
D'Amico, John J., to Monsanto Chemical Co. Halogen substituted unsaturated thiazolylthioethers. 2,776,976, 1–8–57, Cl. 260—302.
D'Amico, John J., to Monsanto Chemical Co. Halogen substituted unsaturated azolyl ethers. 2,776,977, 1–8–57, Cl. 260—306.
D'Amico, John J., and M. W. Harman, to Monsanto Chemical Co. Di-(lower alkyl) cyclohexylamine salts of 2,5-dimethylpiperazine-1,4-dicarbodithioic acid. 2,776,974, 1–8–57, Cl. 260—268.
Darwin Products, Inc.: *See*—
Pearl, Daniel M. 2,776,845.
Davie, Robert P., Jr., and E. L. Spearman, Jr., to North American Aviation, Inc. Constant temperature air supply. 2,776,562, 1–8–57, Cl. 73—147.
Davis, Harry. Trailer hitch. 2,776,847, 1–8–57, Cl. 280—495.
Davis, J. Rex. Fuel mixing control device. 2,776,821, 1–8–57, Cl. 261—62.
Davis, Maurice E.: *See*—
Ward, Gerald E., Congdon, and Davis. 2,776,568.
Davis, Ralph A.: *See*—
Ruh, Robert P., Davis, and Allswede. 2,777,004.
Day, Jean, and M. Calis, to Compagnie Generale de Telegraphie Sans Fil. Ceramic dielectric with high dielectric constant and process of making the same. 2,776,898, 1–8–57, Cl. 106—39.
Deering Milliken Research Corp.: *See*—
Klein, Norman E. 2,776,805.
Delano, Richard P. Automobile visor. 2,776,859, 1–8–57, Cl. 296—97.
Dendrol, Inc.: *See*—
Snyder, Francis H. 2,776,948.
Denis, Albert P. Walking aid and chair combination. 2,776,701, 1–8–57, Cl. 155—22.
Denning, J. Wayne. Grain bin. 2,776,456, 1–8–57, Cl. 20—1.2.
Densco, Inc.: *See*—
Brown, Ray W. 2,776,487.
Brown, Ray W. 2,776,488.
Detjen, Edgar W. Flush valve for toilets. 2,776,437, 1–8–57, Cl. 4—57.
Detroit Controls Corp.: *See*—
Mosely, Neal J. 2,776,796.
Deutsche Gold- und Silber-Scheideanstalt vormals Roessler: *See*—
Bredereck, Hellmut, Bader, Nubling, and Wohnhas. 2,776,952.
Dickey, Stanley W., to Rite Hardware Co., Inc. Leveling instrument. 2,776,495, 1–8–57, Cl. 33—207.
Dickinson, Robert C., and R. E. Frink, to Westinghouse Electric Corp. Air-type circuit interrupter. 2,777,035, 1–8–57, Cl. 200—144.
Dimick, Keene P.: *See*—
Ortegren, Victor H., and Dimick. 2,776,822.
Di Preta, Michael S. Guitar pick attachment for the forefinger. 2,776,592, 1–8–57, Cl. 84—322.
Djerassi, Carl: *See*—
Rosenkranz, George, and Djerassi. 2,776,969.
Djerassi, Carl, H. J. Ringold, and G. Rosenkranz, to Syntex S. A. Cyclopentanophenanthrene compounds and processes. 2,776,968, 1–8–57, Cl. 260—239.55.
Dobell, Curzon, to The Preload Co., Inc. Method of erecting prestressed floor sections. 2,776,471, 1–8–57, Cl. 29—452.
Dobosy, Joseph F. Direct coupled high fidelity amplifier. 2,777,020, 1–8–57, Cl. 179—171.

Dodson, Raymond W., to G. D. Searle & Co. 2,4-diaminothiazoles containing a halogenated aryl radical in the 5-position and derivatives. 2,776,978, 1–8–57, Cl. 260—306.8.
Donahey, John W., to Foote Mineral Co. Ceramic product and body and method of making the same. 2,776,899, 1–8–57, Cl. 106—45.
Dooley, William H., to H. C. Reynolds. Hog holders. 2,776,645, 1–8–57, Cl. 119—153.
Doumani, Thomas F., to Union Oil Co. of California. Preparation of hydroxy thio-ethers. 2,776,997, 1–8–57, Cl. 260—609.
Dow Chemical Co., The: *See*—
Bersworth, Frederick C. 2,776,918.
Handley, Melvin F. 2,776,982.
Ruh, Robert P., Davis, and Allswede. 2,777,004.
Downey, Paul M., to Monsanto Chemical Co. Antioxidant. 2,776,998, 1–8–57, Cl. 260—609.
Drake, Lee H. Mixing and turbulence producing means for a gas burner tip. 2,776,706, 1–8–57, Cl. 158—118.
Draper, Arthur L.: *See*—
Stanclift, Ray J., Jr., Draper, and Jenks. 2,776,714.
Draper Corp.: *See*—
Paquette, Elmer W. 2,776,677.
Drexler, John J., to Westinghouse Electric Corp. Elevator systems. 2,776,733, 1–8–57, Cl. 187—29.
Dreyer, Charles P.: *See*—
Dreyer, John F. 2,776,598.
Dreyer, Gertrude C.: *See*—
Dreyer, John F. 2,776,598.
Dreyer, John F., to C. P. and G. C. Dreyer, and L. R. Lytle, as trustees. Mirror having dichroic layer. 2,776,598, 1–8–57, Cl. 88—105.
Duffing, Paul, and G. Conradi, to Siemens-Schuckertwerk Aktiengesellschaft. Magnetically controlled electric counting apparatus. 2,777,098, 1–8–57, Cl. 317—148.
Du Mont, Allen B., Laboratories, Inc.: *See*—
Russell, Alfred W. 2,777,018.
Duncan, James E., and S. L. Seymour, to Pittsburgh Plate Glass Co. Glass composition. 2,776,900, 1–8–57, Cl. 106—52.
Dunlap, William C., Jr., to General Electric Co. Germanium-zinc alloy semi-conductors. 2,776,920, 1–8–57, Cl. 148—33.
Du Pont, E. I., de Nemours & Co.: *See*—
Cairns, Theodore L., and Sauer. 2,776,995.
Gregory, Walter A. 2,776,992.
Hines, Roger A. 2,776,990.
Hunt, Madison, and Merner. 2,776,996.
Smith, Jack C. 2,776,465.
Tyran, Leo W. 2,776,981.
Durand & Huguenin A. G.: *See*—
Brentano, Willy. 2,776,958.
Brentano, Willy, Grossmann, and Muller. 2,776,957.
Schenkel, Hans, and Aeberli. 2,776,983.
Duray, Joseph P., and W. E. Kurz, to Precision Scientific Co. Electric heater. 2,777,043, 1–8–57, Cl. 219—19.
Dustman, Herman C., to Lindberg Engineering Co. High frequency heat treating apparatus. 2,777,041, 1–8–57, Cl. 219—10.79.
Dyson, Thomas N., to John E. Mitchell Co. Cotton cleaning machinery. 2,776,454, 1–8–57, Cl. 19—1.
Eames, William F., to Westinghouse Electric Corp. Elevator systems. 2,776,732, 1–8–57, Cl. 187—29.
Eastman Machine Co.: *See*—
Clark, Frederick G. 2,776,483.
Easy Washing Machine Co., Ltd., The: *See*—
Bruckman, William C. 2,776,557.
Eaton, Stanley L., to The Procter & Gamble Co. Treatment of soap particles. 2,776,943, 1–8–57, Cl. 252—109.
Eaton, Wayne H. Pneumatic drill jack. 2,776,653, 1–8–57, Cl. 125—33.
Eckstrom, John E. Machine for making doll shoes. 2,776,444, 1–8–56, Cl. 12—12.
Edelen, James G., Sr. Bed rail and post connections. 2,776,442, 1–8–57, Cl. 5—296.
Edelson, Leo: *See*—
Hafekost, Frederick. 2,776,482.
Edison, Thomas A., Inc.: *See*—
Logan, William W. 2,777,012.
Edmunds, William H., to I-T-E Circuit Breaker Co. Terminal and terminal wire connector. 2,777,119, 1–8–57, Cl. 339—272.
Eggleston, Robert W., and P. E. Graham, to Westinghouse Electric Corp. Outdoor motor. 2,777,079, 1–8–57, Cl. 310—58.
Elgen, Morris. Preparation and mounting of specimen sections. 2,776,596, 1–8–57, Cl. 88—40.
Electro-Seal Corp.: *See*—
Nelson, Martin L., Kopp, and Hjermstad. 2,776,570.
Electro-Voice, Inc.: *See*—
Burroughs, Louis R. 2,776,462.
Wood, John F. 2,777,016.
Ellenberger, Francis R., to General Electric Co. Step-modulated control system for air conditioning apparatus. 2,776,543, 1–8–57, Cl. 62—4.
Ellerbeck, Grant C., to Friden Calculating Machine Co., Inc. Extended tens transfer control mechanism. 2,776,795, 1–8–57, Cl. 235—73.
Ellestad, Gerhard A. Button attachment for garments. 2,776,434, 1–8–57, Cl. 2—123.
Engstrom, Knute F.: *See*—
Klopfenstein, Jess D., Zimmerman, and Engstrom. 2,776,511.
Envoldsen, Karl C. Shrimp grader. 2,776,746, 1–8–57, Cl. 209—102.
Erath, Louis W., P. E. Madeley, and S. Hatchl, to Southwestern Industrial Electronics Co. Means for measuring and for generating motion. 2,776,560, 1–8–57, Cl. 73—71.2.
Erickson, Porter W., and I. Silver, to the United States of America as represented by the Secretary of the Navy. Method of coating glass fibers with reaction product of organo halsilanes and glycidol derivatives and then with epoxy resins and the product per se. 2,776,910, 1–8–57, Cl. 117—62.
Erickson Tool Co.: *See*—
Benjamin, Milton L., and Winnen. 2,776,839.
Ericsson, Ralph L. Tobacco composition. 2,776,916, 1–8–57, Cl. 131—17.
Errede, Louis A., and B. F. Landrum, to The M. W. Kellogg Co. Polymerizable cyclic compounds. 2,777,005, 1–8–57, Cl. 260—668.
Esso Research and Engineering Co.: *See*—
Bolsture, Worth W. 2,776,727.
Chaney, Allen L., and Moser. 2,776,931.
Fuson, T. J., and O'Reilly. 2,776,715.
Gossen, Henry G. 2,776,933.
Jahnig, Charles E., Wurth, and Martin. 2,776,935.
Morgan, Bryan E., and Prokop. 2,776,713.
Rudel, Harry W., and Gargisa. 2,776,878.
Schulman, Bernard L., and May. 2,776,566.
Spitz, Peter H., and Borey. 2,776,799.
Stanclift, Ray J., Jr., Draper, and Jenks. 2,776,714.
Vanderbilt, Byron M. 2,776,929.
Euth, John E., to Uarco, Inc. Feeding and aligning mechanism for an autographic register. 2,776,834, 1–8–57, Cl. 271—2.6.
Evans, Louis P.: *See*—
Bowles, Vernon O., and Evans. 2,776,876.
Faber, Carl L. Flush tank valve. 2,776,672, 1–8–57, Cl. 137—437.
Fagan, William P. Automatic air bleeder for pumping unit. 2,776,630, 1–8–57, Cl. 103—203.
Fairchild Camera and Instrument Corp.: *See*—
Boyajean, John A. 2,777,058.
Falzone, Joseph S. Hammer with detachable facings. 2,776,689, 1–8–57, Cl. 145—29.
Farr, Kenneth E., to Westinghouse Electric Corp. Television scanning unit. 2,777,089, 1–8–57, Cl. 315—27.
Farrow, Hunter A.: *See*—
Simmons, Curtis R., and Farrow. 2,776,643.
Faulwetter, Roy C. Coated stone aggregate. 2,776,914, 1–8–57, Cl. 117—100.
Fedor, Andrew J.: *See*—
Birchler, Robert O., and Fedor. 2,776,781.
Feill, Walter: *See*—
Nurnberg, Werner, and Feill. 2,777,104.
Felmlee, John T. Fish lure. 2,776,518, 1–8–57, Cl. 43—42.24.
Fenske, Merrell R. Two cycle fuel injection, opposed piston, thrust plate inernal combustion engine. 2,776,649, 1–8–57, Cl. 123—58.
Ferguson, Harry D., Jr., and J. E. Harris, Jr., to Philco Corp. Cabinet door hinging. 2,776,655, 1–8–57, Cl. 126—194.
Ferguson, Warren T., to Anderson Products, Inc. Air venting valve for heating system. 2,776,671, 1–8–57, Cl. 137—197.
Ferrin, Jean P., to The General Tire and Rubber Co. Arctic rubber. 2,776,693, 1–8–57, Cl. 152—330.
Flat Societa per Azioni: *See*—
Giacosa, Dante. 2,776,721.
Filander, Arthur H., to Franklin Balmar Corp. Jar-handling mechanism for cap-setting equipment. 2,776,531, 1–8–57, Cl. 53—317.
Filar, Leo J., to Hercules Powder Co. Purification of dihydric phenols. 2,776,937, 1–8–57, Cl. 202—42.
Fingerett, Joseph A., and F. A. Hill, to Librascope, Inc. Magnetic amplifier. 2,777,073, 1–8–57, Cl. 307—17.
Finucane, Thomas P., to General Foods Corp. Culinary mixes. 2,776,893, 1–8–57, Cl. 99—92.
Firkins, Carlyle M. Barn cleaning apparatus. 2,776,771, 1–8–57, Cl. 214—622.
Fischer, Paul E., R. S. Hedin, C. H. Swanson, and H. E. Wissman, to General Mills, Inc. Mechanism and method for assembling and attaching container blanks. 2,776,606, 1–8–57, Cl. 93—36.6.
Fischer, Paul E., R. S. Hedin, C. H. Swanson, and H. E. Wissman, to General Mills, Inc. Mechanism for preparing blanks. 2,776,607, 1–8–57, Cl. 93—36.6.
Fischer, Paul E., R. S. Hedin, C. H. Swanson, and H. E. Wissman, to General Mills, Inc. Method of making a multilayered container. 2,776,608, 1–8–57, Cl. 93—36.8.
Fischer, Paul E., R. S. Hedin, C. H. Swanson, and H. E. Wissman, to General Mills, Inc. Mechanism for making containers. 2,776,609, 1–8–57, Cl. 93—51.
Fischer, Paul W., to Union Oil Co. of California. Corrosion preventing in gas recovery systems. 2,776,870, 1–8–57, Cl. 23—2.
Fisher Governor Co.: *See*—
Hunt, Verle J. 2,776,670.
Fitz Gerald, Paulina. Hair treating apparatus. 2,776,667, 1–8–57, Cl. 132—32.
Fleck, Fritz, to Sandoz A. G. Dry-cleaning and brightening of textiles. 2,776,909, 1–8–57, Cl. 117—33.5.
Fleming, John J.: *See*—
Kindle, Robert W., and Fleming. 2,776,699.
Fletcher Aviation Corp.: *See*—
Billstrom, Victor J. 2,776,853.
Billstrom, Victor J. 2,776,854.
Fonken, Gunther S., and J. A. Hogg, to The Upjohn Co. Diketopregnanespirothiazolidine. 2,776,967, 1–8–57, Cl. 260—239.5.
Fontaine, Richard E. Animal tethering device. 2,776,644, 1–8–57, Cl. 119—109.
Food Machinery and Chemical Corp.: *See*—
Marcellus, Manley C., Woodward, and Work. 2,776,828.
Foote Bros. Gear and Machine Corp.: *See*—
Olchawa, Joseph M. 2,776,577.
Foote Mineral Co.: *See*—
Donahey, John W. 2,776,899.

Ford, William H. Leaping figure toy. 2,776,525, 1-8-57, Cl. 46—129.

Foremost Dairies, Inc.: *See*—
Reinhard, Robert N. 2,776,624.

Fortes, Angelo. Automatic balance-beam hinged shutter gate. 2,776,541, 1-8-57, Cl. 61—25.

Fortin, Charles A., to P. Pouliot. Hydromassaging device. 2,776,660, 1-8-57, Cl. 128—66.

Foss, Martyn H., to the United States of America as represented by the Secretary of the Navy. Pole structure of magnets. 2,777,099, 1-8-57, Cl. 317—158.

Foster Wheeler Corp.: *See*—
White, Francis B., and Parker. 2,776,938.

Fowler, Frank E. Bottle lifter. 2,776,858, 1-8-57, Cl. 294—87.26.

Fox Products Co.: *See*—
Medlar, Lewis A. 2,777,107.

Franklin Balmar Corp.: *See*—
Filander, Arthur H. 2,776,531.

Franklin, William B. Method and means for minimizing printing ink oxidation. 2,776,784, 1-8-57, Cl. 222—205.

Frey, Eli R. Wire tying mechanism. 2,776,615, 1-8-57, Cl. 100—2.

Frey, Floyd C.: *See*—
Sanderson, Jerry G. 2,776,766.

Friden Calculating Machine Co., Inc.: *See*—
Ellerbeck, Grant C. 2,776,795.

Frink, Russell E.: *See*—
Dickinson, Robert C., and Frink. 2,777,035.

Frink, Russell E., and S. A. Bottonari, to Westinghouse Electric Corp. Circuit interrupter. 2,777,036, 1-8-57, Cl. 200—147.

Frisch, Franz, to Sandoz A. G. Acid monoazo dyestuffs. 2,776,959, 1-8-57, Cl. 260—162.

Frisch, Franz, to Sandoz A. G. Monoazo dyes. 2,776,960, 1-8-57, Cl. 260—196.

Frisch, Franz, and M. Kappeler, to Sandoz A. G. Acid monoazo dyestuffs. 2,776,962, 1-8-57, Cl. 260—198.

Fromm, Kenneth N., to Westinghouse Electric Corp. Means for obtaining a sensing signal for a servo-controlled color television viewing tube. 2,777,087, 1-8-57, Cl. 315—12.

Fuchs, Gerhard, to Hilgers Maschinen- und Apparate-Bauanstalt mit beschränkter Haftung. Centralized lubrication for hydraulically driven machines. 2,776,728, 1-8-57, Cl. 184—6.

Fuson, T. J., and W. M. O'Reilly, to Esso Research and Engineering Co. Tool for removal of fluid from well bores. 2,776,715, 1-8-57, Cl. 166—63.

Fyr-Fyter Co., The: *See*—
Allen, Frank B. 2,776,717.

Gar Precision Parts, Inc.: *See*—
Goodman, Robert, and Baptist. 2,776,673.

Garbich, Frank V.: *See*—
Wilks, Syrrel S., and Garbich. 2,776,659.

Gargisa, Marion: *See*—
Rudel, Harry W., and Gargisa. 2,776,878.

Garity, William E., to Walter Lantz Productions, Inc. Method of and means for producing stereoscopic animated cartoons. 2,776,594, 1-8-57, Cl. 88—16.

General Electric Co.: *See*—
Cooper, Kenneth K. 2,776,542.
Dunlap, William C., Jr. 2,776,920.
Ellenberger, Francis R. 2,776,543.
Harbison, George C. 2,776,866.
King, Ralph E., and Hubacker. 2,776,547.
Kitzmiller, Mendel W. 2,777,080.
Lafferty, James M. 2,777,084.
Lafferty, James M. 2,777,088.
Magester, Earl H. 2,776,550.
Mesick, Harry F., Jr. 2,776,472.
Pigman, Calvin D. 2,776,554.
Pritchard, Robert L. 2,777,065.
Pruehs, Leslie L. 2,777,038.
Ree, Arthur E. 2,777,103.
Simone, Peter F. 2,776,571.
Strong, Herbert M., and Bundy. 2,776,776.
Suesserott, Charles F. 2,776,797.
Whitman, Lawrence C. 2,777,009.

General Foods Corp.: *See*—
Finucane, Thomas P. 2,776,893.

General Mills, Inc.: *See*—
Fischer, Paul E., Hedin, Swanson, and Wissman. 2,776,606.
Fischer, Paul E., Hedin, Swanson, and Wissman. 2,776,607.
Fischer, Paul E., Hedin, Swanson, and Wissman. 2,776,608.
Fischer, Paul E., Hedin, Swanson, and Wissman. 2,776,609.

General Motors Corp.: *See*—
Miller, Samuel B., and Millhouse. 2,776,545.

General Tire and Rubber Co., The: *See*—
Ferrin, Jean P. 2,776,693.

Gergely, Gerhard, to Gerot Pharmazeutika Dipl. Ing. Dr. W. Otto and Dr. G. Gergely. Process for the manufacture of 3,7-dimethylxanthine double salts. 2,776,973, 1-8-57, Cl. 260—253.

Gerhardt, Richard E., to Reynolds Metals Co. Refrigeration compartment. 2,776,549, 1-8-57, Cl. 62—126.

Germanich, John. Electrical vehicle speed controller. 2,776,722, 1-8-57, Cl. 180—82.1.

Gerot Pharmazeutika Dipl. Ing. Dr. W. Otto and Dr. G. Gergely: *See*—
Gergely, Gerhard. 2,776,973.

Gerrard, A. J., & Co.: *See*—
Palmleaf, Herbert. 2,776,764.

Giacosa, Dante, to Fiat Societa per Azioni. Vehicle body with detachable engine supporting front frame. 2,776,721, 1-8-57, Cl. 180—12.

Gibbon, Samuel Y., to Air-Shields, Inc. Rocking bed construction. 2,776,658, 1-8-57, Cl. 128—28.

Gilbert & Barker Mfg. Co.: *See*—
Hope, Stanley C. 2,776,782.

Gillette Co., The: *See*—
Shnitzler, Meyer J., Norton, and McDonald. 2,776,917.

Giuntini, Hilaire L. Footwear. 2,776,499, 1-8-57, Cl. 36—2.5.

Gleason, Charles H., to Westinghouse Electric Corp. Secondary electron suppressor. 2,777,085, 1-8-57, Cl. 313—106.

Goins, Robert R., to Phillips Petroleum Co. Pebble furnaces and method of heating pebbles. 2,776,825, 1-8-57, Cl. 263—19.

Goldberg, Bernard, to the United States of America as represented by the Secretary of the Army. Automatic frequency control system with phase control for synchronous detection. 2,777,055, 1-8-57, Cl. 250—20.

Goldberg, Howard: *See*—
Potter, Allen D., and Goldberg. 2,776,700.

Goldschmidt, Th., A.-G. Chemische Fabriken: *See*—
Bungardt, Walter. 2,776,919.

Goldschmied, Fabio R., to Westinghouse Electric Corp. Electrostatic precipitators. 2,776,724, 1-8-57, Cl. 183—7.

Gonsalves, Mary U. Protective partial foot-covering or sock. 2,776,500, 1-8-57, Cl. 36—10.

Goodman, Robert, and Y. Baptist, to Gar Precision Parts, Inc. Flow restrictor. 2,776,673, 1-8-57, Cl. 137—493.

Goodrich, B. F., Co., The: *See*—
Standen, John H. 2,776,889.
Wolfe, John S. B., and Conklin. 2,776,994.

Gordon, James F., to Bendix Aviation Corp. Coil form. 2,777,116, 1-8-57, Cl. 336—208.

Gorrie, Harvard H., to Bailey Meter Co. Fluid pressure relay. 2,776,669, 1-8-57, Cl. 137—86.

Gossen, Henry G., to Esso Research and Engineering Co. Method of oxidizing asphalts. 2,776,933, 1-8-57, Cl. 196—74.

Gouirand, Rene. Pneumatic suspension devices for vehicles. 2,776,830, 1-8-57, Cl. 267—15.

Graham, Frank H., to Amsler Morton Corp. Method of alternate low and high fuel firing of a soaking pit furnace. 2,776,827, 1-8-57, Cl. 263—52.

Graham, Paul E.: *See*—
Eggleston, Robert W., and Graham. 2,777,079.

Granberry, Carl H. Lock nut with axially and radially distorted thread portions. 2,776,692, 1-8-57, Cl. 151—21.

Grand Union Co., The: *See*—
Just, George A., and Shield. 2,776,843.

Gray, Ernest F. Earring with clamping member impelled by depressed spring. 2,776,555, 1-8-57, Cl. 63—14.

Green, Donald H. Stump extractor. 2,776,504, 1-8-57, Cl. 37—2.

Gregory, Edward: *See*—
Kelly, John C. R., Jr., and Gregory. 2,776,886.

Gregory, George P., to Hercules Powder Co. Process of coating paper with gellable water soluble salt of cellulose sulfate and pigment and gelling said coating. 2,776,911, 1-8-57, Cl. 117—62.

Gregory, George P., to Hercules Powder Co. Process of coating paper with a gellable water-soluble cellulose derivative and pigment and gelling said coating. 2,776,912, 1-8-57, Cl. 117—62.

Gregory, James N., and C. A. Yeatman, to Shell Development Co. Drilling apparatus. 2,776,817, 1-8-57, Cl. 255—28.

Gregory, Orland M. Socket-wrench set. 2,776,589, 1-8-57, Cl. 81—177.

Gregory, Walter A., to E. I. du Pont de Nemours and Co. Trifluoromethylsulfonylphenyl-dichloracetamido-propandiol. 2,776,992, 1-8-57, Cl. 260—562.

Griffis, Merle V. Automatic sprinkling device. 2,776,860, 1-8-57, Cl. 299—25.

Grossmann, Hans: *See*—
Brentano, Willy, Grossmann, and Muller. 2,776,957.

Gruenert, Erhard, to Pechiney, Compagnie de Produits Chimiques et Electrometallurgiques. Process for the manufacture of aluminum. 2,776,884, 1-8-57, Cl. 75—68.

Guenst, William. Etching machine. 2,776,512, 1-8-57, Cl. 41—9.

Gumz, Wilhelm, to Hydrocarbon Research, Inc. Gasification of solid carbonaceous fuel. 2,776,879, 1-8-57, Cl. 48—202.

Gustafson, Carl H. E., and Å. O. J. Larborn, to Aktiebolaget Volvo. Devices for the transmission of power from the engine of a motor vehicle to the driven wheels thereof. 2,776,556, 1-8-57, Cl. 64—27.

Guyer, Morris W., to Calkins Mfg. Co. Rotary rod weeder drive. 2,776,612, 1-8-57, Cl. 97—42.

Hackett, Norman H. Hydraulic brake system. 2,776,734, 1-8-57, Cl. 188—152.

Hafekost, Frederick, to L. Edelson, H. S. Schwartz, M. R. Cohen, F. Hafekost, A. Manges, B. Rudikoff, M. Stagg, and Daleo Trading Corp. Pinking shears and method for making same. 2,776,482, 1-8-57, Cl. 30—230.

Hagenboecker, Alfred, and M. Blumer, to Ciba Ltd. Process for the manufacture of azo-dyestuffs. 2,776,961, 1-8-57, Cl. 260—196.

Hahn, John H., J. F. Quinn, and M. A. Terpstra, to Monsanto Chemical Co. Preparation of alkoxy-benzylhalides. 2,777,001, 1-8-57, Cl. 260—613.

Hall, Roy W. Cigarette and ash retainer and snuffer. 2,776,665, 1-8-57, Cl. 131—235.

Hamlin, Alfred J. Speed control devices. 2,776,581, 1-8-57, Cl. 74—526.

Handley, Melvin F., to The Dow Chemical Co. Production of styrene oxide. 2,776,982, 1-8-57, Cl. 260—348.6.

Hannifin Corp.: *See*—
Kraujalis, Felix S. 2,776,540.

Hannon, Robert J., to Standard Coil Products Co., Inc. Ultra high frequency signal generation. 2,777,062, 1-8-57, Cl. 250—36.

Harbison, George C., to General Electric Co. Refrigerator shelving arrangement. 2,776,866, 1-8-57, Cl. 312—311.

Hardman, Harley F., to The Standard Oil Co. Process for oxidizing asphalts. 2,776,932, 1-8-57, Cl. 196—74.

Hargrove, Atwood H., to Bendix Aviation Corp. Crystal controlled oscillator. 2,777,061, 1-8-57, Cl. 250—36.

Hargrove, Atwood H., to Bendix Aviation Corp. Remote crystal switching for oscillators. 2,777,063, 1-8-57, Cl. 250—36.

Harman, Cameron G., and J. W. Lennon, to Cambridge Tile Mfg. Co. Ceramic composition having thermal shock resistance. 2,776,896, 1-8-57, Cl. 106—39.

Harman, Marion W.: *See*—
D'Amico, John J., and Harman. 2,776,974.

Harrington, Gerald D.: *See*—
Shakespeare, Henry G., and Harrington. 2,776,803.

Harris, Joseph E., Jr.: *See*—
Ferguson, Harry D., Jr., and Harris. 2,776,655.

Hart, George: *See*—
Yang, Alfred. 2,776,558.

Hartford National Bank and Trust Co.: *See*—
Van Oosterhout, Gerard W., and Bol. 2,776,915.

Hartley, Richard A., to Hughes Aircraft Co. Printing cylinders for high-speed printing systems. 2,776,618, 1-8-57, Cl. 101—93.

Hartzell Industries, Inc.: *See*—
Johnston, Danal W. 2,776,654.

Harvengt, Edmond, to Link-Belt Co. Jigging apparatus. 2,776,752, 1-8-57, Cl. 209—455.

Hastings Mfg. Co.: *See*—
Anderson, Hugo F. 2,776,865.

Hatcher, Harry R.: *See*—
Reed, William A., Hatcher, and Sanscraintc. 2,776,874.

Hatchl, Sidney: *See*—
Erath, Louis W., Madeley, and Hatchl. 2,776,560.

Hawk, Carson E., to Aerojet-General Corp. Combined valve and coupling. 2,776,850, 1-8-57, Cl. 284—17.

Hawley, Charles F., to Riley Stoker Corp. Steam generating unit. 2,776,647, 1-8-57, Cl. 122—480.

Haynes, William J., to Leavenworth Steel, Inc. Cam actuated quick acting bench vise. 2,776,684, 1-8-57, Cl. 144—307.

Hazelwood, Robert N., to McGraw Electric Co. Method and composition for making ceramic articles. 2,776,897, 1-8-57, Cl. 106—39.

Hazen, Ethmer J.: *See*—
Hoyet, Eugene, and Hazen. 2,776,527.

Healey, Raymond P.: *See*—
Young, Harold, and Healey. 2,776,928.

Healis, George A. Toy and paddle. 2,776,524, 1-8-57, Cl. 46—69.

Hedeman, Walter R., Jr., and E. L. Crosby, Jr., to Bendix Aviation Corp. Radar scanning system. 2,777,122. 1-8-57, Cl. 343—100.

Hedin, Robert S.: *See*—
Fischer, Paul E., Hedin, Swanson, and Wissman. 2,776,606.
Fischer, Paul E., Hedin, Swanson, and Wissman. 2,776,607.
Fischer, Paul E., Hedin, Swanson, and Wissman. 2,776,608.
Fischer, Paul E., Hedin, Swanson, and Wissman. 2,776,609.

Heinrich, August H. Sealing systems. 2,776,851, 1-8-57, Cl. 286—11.

Helwig, Clifford C. Fireplace front. 2,776,707, 1-8-57, Cl. 160—118.

Heming, Linus M.: *See*—
Whitehead, William, and Heming. 2,776,869.

Henderson, George A.: *See*—
Kendall, James M., and Henderson. 2,777,028.

Hendrickson, James M., to The Pannier Corp. Metal stamping machine. 2,776,617, 1-8-57, Cl. 101—4.

Heppenstall Co.: *See*—
Heppenstall, Max R. 2,776,857.

Heppenstall, Max R., to Heppenstall Co. Vacuum lifter. 2,776,857, 1-8-57, Cl. 294—64.

Heraeus, W. C., G. m. b. H.: *See*—
Bredereck, Hellmut, Bader, Nubling, and Wohnhas. 2,776,952.

Herchenbach, Wolfgang. Electrostatic high tension generator. 2,777,078, 1-8-57, Cl. 310—6.

Hercules Powder Co.: *See*—
Bennett, James L., Brooks, McMillan, and Plunkett. 2,776,965.
Bonner, Lyman G. 2,776,623.
Brown, Werner C. 2,776,904.
Bruce, David S., and Sourlin. 2,776,880.
Filar, Leo J. 2,776,937.
Gregory, George P. 2,776,911.
Gregory, George P. 2,776,912.
Keim, Gerald I. 2,776,905.
McMillan, James G., Jr., and Plunkett. 2,776,944.
McMillan, James G., Jr., and Plunkett. 2,776,964.
McMillan, James G., Jr., and Plunkett. 2,776,966.
Rosher, Ronald. 2,776,955.
Sanderson, Thomas F. 2,776,986.
Taves, Milton A. 2,776,953.
Taves, Milton A. 2,776,954.

Hershel California Fruit Products Co., Inc.: *See*—
Warren, Ray C. 2,776,690.

Hertrich, Elise: *See*—
Hertrich, Joseph. 2,776,753.

Hertrich, Joseph, deceased, by E. Hertrich, executrix, to The Western States Machine Co. Stabilized discharger shoe for centrifugal machines. 2,776,753, 1-8-57, Cl. 210—70.

Higby, Richard F., to Westinghouse Electric Corp. Triple channel time sharing switch. 2,777,067, 1-8-57, Cl. 250—36.

Higley, Frank R. Chromatic effect producing spinning toy. 2,776,523, 1-8-57, Cl. 46—49.

Hilgers Maschinen- und Apparate-Bauanstalt mit beschränkter Haftung: *See*—
Fuchs, Gerhard. 2,776,728.

Hill, Donald, and H. M. Whitney. Pointing and caulking compound. 2,776,906, 1-8-57, Cl. 106—257.

Hill, Frank A.: *See*—
Fingerett, Joseph A., and Hill. 2,777,073.

Hines, Roger A., to E. I. du Pont de Nemours and Co. Separation of a dibasic acid from a mixture of mono and dibasic acids. 2,776,990, 1-8-57, Cl. 260—537.

Hjermstad, Hans U.: *See*—
Nelson, Martin L., Kopp, and Hjermstad. 2,776,570.

Hochman, Julius C. Loom. 2,776,675, 1-8-57, Cl. 139—11.

Hogg, John A.: *See*—
Fonken, Gunther S., and Hogg. 2,776,967.

Hogg, John G. E.: *See*—
Korienek, Stephen J. 2,776,590.

Holbert, Don R., to Sinclair Oil & Gas Co. Apparatus for use in locating interface of liquids. 2,776,563, 1-8-57, Cl. 73—151.

Hollywood-Maxwell Co.: *See*—
Schaumer, Theo B. 2,776,433.

Homery, Alex L., and M. A. Simon, to Youngstown Industries, Inc. Apparatus for processing tenuous material. 2,776,710, 1-8-57, Cl. 164—60.

Homuth, Charles G. Semi-automatic dispensing valve. 2,776,849, 1-8-57, Cl. 284—17.

Hoover Co., The: *See*—
Brace, George A. 2,776,446.
Brace, George A. 2,776,726.

Hope, Stanley C., to Gilbert & Barker Mfg. Co. Air-operated can-emptying means. 2,776,782, 1-8-57, Cl. 222—82.

Hopkins, Howard L., to The National Screw & Mfg. Co. Power operated tool for use with blind fasteners. 2,776,681, 1-8-57, Cl. 144—32.

Horiuchi, Harold S.: *See*—
Mikiofsky, Haaren A., and Horiuchi. 2,776,640.

Houdaille Industries, Inc.: *See*—
Brundage, Alan D., McCormick, and Schatzman. 2,776,791.

Houdry, Eugene J., to Oxy-Catalyst, Inc. Catalytic apparatus for exhaust gas treatment. 2,776,875, 1-8-57, Cl. 23—288.

Houdry Process Corp.: *See*—
Bond, George R., Jr. 2,776,820.
Bondor, Frank S., and Lebels. 2,776,936.
Weller, Sol W. 2,776,934.

Howard, Lauren A. Water skiing apparatus. 2,776,443, 1-8-57, Cl. 9—18.

Hoyet, Eugene, and E. J. Hazen, to Pittsburgh Plate Glass Co. Apparatus for grinding glass. 2,776,527, 1-8-57, Cl. 51—209.

Hubacker, Earl F.: *See*—
King, Ralph E., and Hubacker. 2,776,547.

Hudson, Ela: *See*—
Hudson, Opal F. and E. 2,776,497.

Hudson, Kenneth C., to Minneapolis-Honeywell Regulator Co. Fluid flow measuring apparatus. 2,776,565, 1-8-57, Cl. 73—204.

Hudson, Opal F. Chair with drier. 2,776,496, 1-8-57, Cl. 34—90.

Hudson, Opal F. and E. Hair drier. 2,776,497, 1-8-57, Cl. 34—90.

Hudson, Paul S.: *See*—
Potts, Mack F., Hudson, and Young. 2,776,975.

Hughes Aircraft Co.: *See*—
Hartley, Richard A. 2,776,618.
Norton, James P. 2,777,037.
Smith Henry M. 2,776,908.

Hunt, Madison, and R. R. Merner, to E. I. du Pont de Nemours and Co. Manufacture of beta-methylmercaptopropionaldehyde. 2,776,996, 1-8-57, Cl. 260—601.

Hunt, Verle J., to Fisher Governor Co. Pressure fluid operated balanced control system. 2,776,670, 1-8-57, Cl. 137—86.

Hunter Farrow Equipment, Inc.: *See*—
Simmons, Curtis R., and Farrow. 2,776,643.

Hunter, Kenneth E., to Newmont Mining Corp. Method of geophysical exploration. 2,777,111, 1-8-57, Cl. 324—1.

Hutson, Alton W. Picture frames. 2,776,508, 1-8-57, Cl. 40—155.

Hydrocarbon Research, Inc.: *See*—
Gumz, Wilhelm. 2,776,879.

I-T-E Circuit Breaker Co.: *See*—
Edmunds, William H. 2,777,119.

Illinois Tool Works: *See*—
Saari, Oliver E. 2,776,578.
Saari, Oliver E. 2,776,603.

Ingram, George O. Material handling and carrying device. 2,776,856, 1-8-57, Cl. 294—16.

International Harvester Co.: *See*—
Orelind, John R. 2,776,613.

International Steel Co.: *See*—
Nystrom, Karl F. 2,776,793.

Itoda, Tamotsu. Packing devices for stacked nested frangible articles. 2,776,772, 1-8-57, Cl. 217—26.5.

Jackson, John G., to Well Completions, Inc. Apparatus for and method of earth bore drilling. 2,776,816, 1-8-57, Cl. 255—1.8.

Jacobaeus, Anton C., and A. Berge, to Telefonaktiebolaget L M Ericsson. Selecting means with gas discharge valve. 2,777,015, 1-8-57, Cl. 179—22.

Jahnig, Charles E., W. A. Wurth, and H. Z. Martin, to Esso Research and Engineering Co. Heat treating fluid coke compactions. 2,776,935, 1-8-57, Cl. 202—14.

Jefferson Chemical Co., Inc.: *See*—
Laemmle, George J., Jr. 2,776,972.

Jenks, Loren H.: *See*—
Stanclift, Ray J., Jr., Draper, and Jenks. 2,776,714.

Jennette, William S. Fishing rod. 2,776,516, 1–8–57, Cl. 43—24.

Jerand, Harold L. Floor covering mechanic's tool. 2,776,493, 1–8–57, Cl. 33—174.

Jet-Heet, Inc.: *See*—
Lorini, Osmun W. 2,777,077.

Johnson, Karl G., to Telefonaktiebolaget L M Ericsson. Device for connection of markers in automatic telephone systems. 2,777,014, 1–8–57, Cl. 179—18.

Johnston, Danal W., to Hartzell Industries, Inc. Hot air furnace type drying apparatus. 2,776,654, 1–8–57, Cl. 126—110.

Jones, Floyd S. Animal trap. 2,776,519, 1–8–57, Cl. 43—70.

Jones & Laughlin Steel Corp.: *See*—
Newton, Elmore J. 2,776,939.

Joris, George G., to Allied Chemical & Dye Corp. Manufacture of cumeen hydroperoxide. 2,776,999, 1–8–57, Cl. 260—610.

Joy Mfg. Co.: *See*—
Barrett, Arthur L. 2,776,809.
Barrett, Arthur L. 2,777,102.
Barrett, Arthur L. 2,776,823.
Osterhus, Ervin J., Richards, and Taylor. 2,776,824.

Just, George A., and L. P. Shield, to The Grand Union Co. Nesting shopping cart. 2,776,843, 1–8–57, Cl. 280—33.99.

Kalinowski, Maria A., now by change of name M. Ambrose. Shipping container. 2,776,773, 1–8–57, Cl. 217—36.

Kansas City Terminal Warehouse Co.: *See*—
Lester, Robert R. 2,776,723.

Kappeler, Markus: *See*—
Frisch, Franz, and Kappeler. 2,776,962.

Kazan, Benjamin, to Radio Corp. of America. Large area photocell. 2,777,040, 1–8–57, Cl. 201—63.

Keel, Adolf, to Vickers Inc. Power transmission. 2,776,627, 1–8–57, Cl. 103—162.

Keel, Adolf, to Vickers Inc. Power transmission. 2,776,628, 1–8–57, Cl. 103—162.

Keel, Adolf, to Vickers Inc. Power transmission. 2,776,629, 1–8–57, Cl. 103—162.

Keely, Clifford D. Attachment for handset. 2,777,017, 1–8–57, Cl. 179—157.

Keim, Gerald I., to Hercules Powder Co. Stabilized rosin size and a method of stabilizing the same. 2,776,905, 1–8–57, Cl. 106—238.

Kelper, Phillip C.: *See*—
Savino, Henry C., and Kelper. 2,776,731.

Keir & Cawder Ltd.: *See*—
Stewart, Robert C. 2,776,783.

Kellogg, M. W., Co., The: *See*—
Errede, Louis A., and Landrum. 2,777,005.

Kelly, John C. R., Jr., to Westinghouse Electric Corp. Quality of vanadium trioxide for the manufacturing of ductile vanadium. 2,776,871, 1–8–57, Cl. 23—140.

Kelly, John C. R., Jr., and E. Gregory, to Westinghouse Electric Corp. Process of preparing and treating refractory metals. 2,776,886, 1–8–57, Cl. 75—211.

Kelly, John C. R., Jr., and A. G. Caterson, to Westinghouse Electric Corp. Preparation of molybdenum. 2,776,887, 1–8–57, Cl. 75—211.

Kendall, Edgar H. Ring forming mill. 2,776,585, 1–8–57, Cl. 80—5.

Kendall, James M., and G. A. Henderson, to the United States of America as represented by the Secretary of the Navy. Hydrostatic pressure switch. 2,777,028, 1–8–57, Cl. 200—83.

Kenyon Charles B.: *See*—
McKeague, Edward D., and Kenyon. 2,776,930.

Kern, Rudolf, and W. Lautsch, to Rhein-Chemie G. m. b. H. Manufacture of rubber vulcanizates containing filler and polyethylene glycole ethers. 2,777,008, 1–8–57, Cl. 260—761.

Ketterer, Stanley J., to The Singer Mfg. Co. Devices for inverting piped garment openings. 2,776,788, 1–8–57, Cl. 223—39.

Kienel, Joseph E. Transfer applicator. 2,776,509, 1–8–57, Cl. 41—1.

Killius, William. Automobile bumper, grille and body bending tool. 2,776,587, 1–8–57, Cl. 81—15.

Kinder, Howard T. Fishing rod holder. 2,776,514, 1–8–57, Cl. 43—16.

Kindle, Robert W., and J. J. Fleming, to United States Rubber Co. Tubeless pneumatic tire and method of making same. 2,776,699, 1–8–57, Cl. 154—14.

King, Gilbert, C. E. Roberts, and R. S. Weil, to Minitec. Thermal switch. 2,777,034, 1–8–57, Cl. 200—136.

King, Hugh W. Overhead belt work feeding device for a saw. 2,776,679, 1–8–57, Cl. 143—49.

King, Ralph E., and E. F. Hubacker, to General Electric Co. Oil cooling arrangement in refrigerator system. 2,776,547, 1–8–57, Cl. 62—116.

Kish Plastic Products, Inc.: *See*—
Kish, Steven P. 2,776,453.

Kish, Steven P., to Kish Plastic Products, Inc. Method of making checking fixtures. 2,776,453, 1–8–57, Cl. 18—59.

Kitzmiller, Mendel W., to General Electric Co. Dynamo-electric machine. 2,777,080, 1–8–57, Cl. 310—185.

Klein, Norman E., to Deering Milliken Research Corp. Regulator release means. 2,776,805, 1–8–57, Cl. 242—154.

Klopfenstein, Jess D., to The Meyercord Co. Machine for applying films to base sheets. 2,776,510, 1–8–57, Cl. 41—1.

Klopfenstein, Jess D., E. T. Zimmerman, and K. F. Engstrom, to The Meyercord Co. Machine for applying films to base sheets. 2,776,511, 1–8–57, Cl. 41—1.

Knochel, William J.: *See*—
Dailey, Hampton J., and Knochel. 2,776,473.

Knudsen, Raymond G., to Snap-On Tools Corp. Cylinder sleeve pulling devices and the like. 2,776,470, 1–8–57, Cl. 29—252.

Kocks, Friedrich. Clamping device for butt-welding of pipes. 2,777,048, 1–8–57, Cl. 219—161.

Kocks, Friedrich, G. m. b. H.: *See*—
Meicher, Hans. 2,776,474.

Kodama, George T., deceased; by L. T. Kodama, administrator, to Sprague Electric Co. Miniature high dielectric multi-capacitor unit. 2,777,110, 1–8–57, Cl. 323—74.

Kodama, Lloyd T.: *See*—
Kodama, George T. 2,777,110.

Koopal, Sieds, P. L. Smit, and W. van Loon, to Stamicarbon N. V. Process for producing ferrosilicon. 2,776,885, 1–8–57, Cl. 75—133.5.

Koot, Nicholaas L. H.: *See*—
Montgomery, Richard F., and Koot. 2,776,564.

Kopp, Carl J.: *See*—
Nelson, Martin L., Kopp, and Hjermstad. 2,776,570.

Korienek, Stephen J., ½, to J. G. E. Hogg. Engine lathe tail stock ram drive. 2,776,590, 1–8–57, Cl. 82—31.

Kozacka, Frederick J., to The Chase-Shawmut Co. Power fuses with tubular links and pressure-type link connections. 2,777,033, 1–8–57, Cl. 200—120.

Kraujalis, Felix S., to Hannifin Corp. Hydraulic punching apparatus. 2,776,540, 1–8–57, Cl. 60—97.

Kreger, Lawrence F. Machine for applying paint roller coverings to core tubing. 2,776,698, 1–8–57, Cl. 154—1.8.

Kreis, Walter: *See*—
Stoll, Arthur, and Kreis. 2,776,963.

Kruse, Norman F., to Central Soya Co., Inc. Meal-treating process and apparatus. 2,776,894, 1–8–57, Cl. 99—98.

Kunz, Eric C. Methods of protecting ensilage. 2,776,890, 1–8–57, Cl. 99—8.

Kurz, William E.: *See*—
Duray, Joseph P., and Kurz. 2,777,043.

Kyrides, Lucas P., F. C. Meyer, and F. B. Zienty, to Monsanto Chemical Co. Halomethylation of 2-halothiophenes. 2,776,980, 1–8–57, Cl. 260—332.5.

Laber, Helen E.: *See*—
Laber, William J., H. E., W., and K., and H. and M. Boeger. 2,776,770.

Laber, Katherine: *See*—
Laber, William J., H. E., W., and K., and H. and M. Boeger. 2,776,770.

Laber, William: *See*—
Laber, William J., H. E., W., and K., and H. and M. Boeger. 2,776,770.

Laber, William J., H. E., W., and K., and H. and M. Boeger. Balanced sanitation truck. 2,776,770, 1–8–57, Cl. 214—519.

Labine, Roland A., and W. Luczek, to Package Machinery Co. Tear tab feeding, gumming, and cutting mechanism. 2,776,639, 1–8–57, Cl. 118—41.

Lach, John, to Uarco, Inc. Feed mechanism for superposed strips. 2,776,832, 1–8–57, Cl. 271—2.3.

Laemmle, George J., Jr., to Jefferson Chemical Co., Inc. Recovery of morpholine from aqueous solutions thereof. 2,776,972, 1–8–57, Cl. 280—247.

Lafferty, James M., to General Electric Co. Plastic electrode structure for electron tubes. 2,777,084, 1–8–57, Cl. 313—80.

Lafferty, James M., to General Electric Co. Tri-color cathode ray image reproducing tube. 2,777,088, 1–8–57, Cl. 315—21.

Lakso, Eino E., to Nashua Corp. Automatic power-driven tape serving machine. 2,776,833, 1–8–57, Cl. 271—2.4.

Landrum, Billy F.: *See*—
Errede, Louis A., and Landrum. 2,777,005.

Langenberg, Earl W. Box feeder. 2,776,742, 1–8–57, Cl. 198—221.

Langstroth, Hall. Fluid actuated switch. 2,777,029, 1–8–57, Cl. 200—83.

Lankford, Arman L. Floor beam recess form for foundations. 2,776,463, 1–8–57, Cl. 25—118.

Lantz, Walter, Productions, Inc.: *See*—
Garity, William E. 2,776,594.

Larborn, Åke O. Johannes: *See*—
Gustafson, Carl H. E., and Larborn. 2,776,556.

Larsen, Roy L., to Minneapolis-Honeywell Regulator Co. Motor drive circuit for electrical measuring apparatus. 2,777,105, 1–8–57, Cl. 318—207.

Lautsch, Willy: *See*—
Kern, Rudolf, and Lautsch. 2,777,008.

Lawlor, John J. Screen for automobile windows. 2,776,709, 1–8–57, Cl. 160—378.

Leavenworth Steel, Inc.: *See*—
Haynes, William J. 2,776,684.

Lebels, Edward H., Jr.: *See*—
Bondor, Frank S., and Lebels. 2,776,936

Lederer, Ernest A., to Westinghouse Electric Corp. Cathode. 2,777,086, 1–8–57, Cl. 313—193.

Lee, Edward C., to the United States of America as represented by the Secretary of the Army. Sear device for an automatic firearm. 2,776,600, 1–8–57, Cl. 89—136.

Lee, Edward C., to the United States of America as represented by the Secretary of the Army. Sear device for an automatic firearm. 2,776,601, 1–8–57, Cl. 89—136.

Lee, Frank H., Co., The: *See*—
Trimpert, Raymond J. 2,776,435.

Legg, Lawrence E. Means for clearing carbon grounds. 2,777,042, 1–8–57, Cl. 219—19.

Lennon, John W.: *See*—
Harman, Cameron G., and Lennon. 2,776,896.

Les Usines de Melle (Societe Anonyme): *See*—
Mention, Maurice, and Bourguignon. 2,776,984.

Lester, Robert R., to Kansas City Terminal Warehouse Co. Portable dehydrator. 2,776,723, 1–8–57, Cl. 183—4.

Lewis, Ellis: *See*—
Lytton, Marion R., Wielicki, and Lewis. 2,776,946.

Leyer, Albert, and L. Burgerstein. Driving device for belts. 2,776,576, 1–8–57, Cl. 74—242.9.

Librascope, Inc.: *See*—
Fingerett, Joseph A., and Hill. 2,777,073.

Licentia Patent-Verwaltungs-G. m. b. H.: *See*—
Nurnberg, Werner, and Feill. 2,777,104.

Lichtenberger, Harley, to Whirlpool-Seeger Corp. Refrigerator evaporator. 2,776,551, 1–8–57, Cl. 62—126.

Lindberg Engineering Co.: *See*—
Dustman, Herman C. 2,777,041.

Link-Belt Co.: *See*—
Harvengt, Edmond. 2,776,752.

Lintner, Carl J., Jr., to The Upjohn Co. Tri-sulfa aluminum salts. 2,776,970, 1–8–57, Cl. 260—239.65.

Linvill, John G., to Bell Telephone Laboratories, Inc. Branching circuit. 2,777,115, 1–8–57, Cl. 333—8.

Lipscomb, Willis L. Direct-indirect reversible luminaire. 2,777,053, 1–8–57, Cl. 240—78.

Livermont Frank W. Hand-operated impact torque wrench. 2,776,588, 1–8–57, Cl. 81—52.3.

Locatelli, Ercole. Apparatus for processing individual cheese rations. 2,777,124, 1–8–57, Cl. 99—243.

Logan, William W., to Thomas A. Edison, Inc. Multistation remotely-controlled phonographic system. 2,777,012, 1–8–57, Cl. 179—6.

Lombard Corp.: *See*—
Wells, Sheldon E. 2,776,695.

Long, Philip H. Venetian blinds with adjustable spacing slats. 2,776,708, 1–8–57, Cl. 160—169.

Lorini, Osmun W., to Jet-Heet, Inc. Thermoelectric motor. 2,777,077, 1–8–57, Cl. 310—4.

Lovelace, Charles D. Boat trailer and loading device therefor. 2,776,761, 1–8–57, Cl. 214—75.

Loveland, George M.: *See*—
Prout, William C., and Loveland. 2,776,804.

Lowe, Charles E. Resistance sensitive phase-shifter. 2,777,114, 1–8–57, Cl. 324—57.

Luchansky, Andrew J., to Progressive Specialties. Umbrella handle light. 2,777,051, 1–8–57, Cl. 240—6.42.

Luczek, Walter: *See*—
Labine, Roland A., and Luczek. 2,776,639.

Lum, Funston G., and E. F. Carleton, to California Research Corp. Synthetic polyamide resins from 5-t-butyl-m-xylylene diamine. 2,776,950, 1–8–57, Cl. 260—78.

Luque, Eliseo. Production of synthetic coconut water. 2,776,891, 1–8–57, Cl. 99—22.

Lynch, Vernon C. Electric fishing reel. 2,776,515, 1–8–57, Cl. 43—21.

Lyon, Norman W., to Package Machinery Co. Valve mechanism for container filling apparatus. 2,776,785, 1–8–57, Cl. 222—318.

Lytle, Lawrence R.: *See*—
Drever, John F. 2,776,598.

Lytle, William O., to Pittsburgh Plate Glass Co. Electrical heating devices. 2,777,044, 1–8–57, Cl. 219—19.

Lytton, Marion R., E. A. Wielicki, and E. Lewis, to American Viscose Corp. Compositions comprising plasticized acrylonitrile polymers and molded and extruded articles made therefrom. 2,776,946, 1–8–57, Cl. 260—32.6.

Maatschappij-Koffiepellerij Blaauwhoedenveem: *See*—
Van Douwe, Dirk. 2,776,747.

Maccarone, Fred. Shoemaking. 2,776,503, 1–8–57, Cl. 36—58.5.

Macdonald, James M. and Jean. Card game implements. 2,776,498, 1–8–57, Cl. 35—8.

Macdonald, Jean: *See*—
Macdonald, James M. and Jean. 2,776,498.

MacGriff, Jack E., and M. L. Bacon. Fluid level indicator. 2,777,030, 1–8–57, Cl. 200—84.

Machine Tool Works Oerlikon, Administration Co.: *See*—
Meier, Karl. 2,776,696.

Madeley, Paul E.: *See*—
Erath, Louis W., Madeley, and Hatchl. 2,776,560.

Madsen, Andrew, to Transocean Air Lines. Aircraft external lighting system. 2,777,120, 1–8–57, Cl. 340—82.

Magester, Earl H., to General Electric Co. Capillary adaptor. 2,776,550, 1–8–57, Cl. 62—126.

Magnetrol, Inc.: *See*—
Binford, Benjamin L. 2,777,045.

Maloney, Harry L.: *See*—
Root, Melvin C. 2,776,505.

Manczur, Elias. Dental tray. 2,776,486, 1–8–57, Cl. 32—19.

Mandelkorn, Joseph, to the United States of America as represented by the Secretary of the Army. Transistor triggering circuit. 2,777,092, 1–8–57, Cl. 315—252.

Manges, Abraham: *See*—
Hafekost, Frederick. 2,776,482.

Mann, Julius W., and G. F. Russell. Radio circuit in which the vacuum tube fires for each alternate positive cycle of the grid swing. 2,777,022, 1–8–57, Cl. 200—36.

Mapes, Daniel, to Specialties Development Corp. Method of making cylindrical metallic containers for confining fluid medium under pressure. 2,776,475, 1–8–57, Cl. 29—543.

Marcellus, Manley C., T. Woodward, and J. Work, to Food Machinery and Chemical Corp. Pelletization of phosphate shale. 2,776,828, 1–8–57, Cl. 263—53.

Marks, Alvin M. Three-dimensional display system. 2,777,011, 1–8–57, Cl. 178—6.5.

Marsden, George B., to Chicago Nipple Mfg. Co. Transversely oscillating jaw chuck. 2,776,842, 1–8–57, Cl. 279—33.

Marshall, William E., and S. A. Bell, to Armco Steel Corp. Process and apparatus for smelting iron with mobile fuels. 2,776,883, 1–8–57, Cl. 75—48.

Martin, Eric F.: *See*—
Powell, Roger F., and Martin. 2,776,748.
Powell, Roger F., and Martin. 2,776,749.

Martin, Homer Z.: *See*—
Jahnig, Charles E., Wurth, and Martin. 2,776,935.

Martin, Jean R. L., to Coty Inc. Composition of matter containing polyvinylpyrrolidone and a fatty carrier. 2,776,924, 1–8–57, Cl. 167—82.

Martirl, Roberto. Vertical generators for absorption refrigeration units. 2,776,548, 1–8–57, Cl. 62—119.5.

Masters, Ray H. Auxiliary lubricant and vapor heating system for internal combustion engines. 2,776,651, 1–8–57, Cl. 123—142.5.

Mattson, Vernon L.: *See*—
Smith, William A., Mattson, and Meyer. 2,776,750.

May, Frederick T., to Westinghouse Electric Corp. Incandescent lamp. 2,777,082, 1–8–57, Cl. 313—43.

May, Walter G.: *See*—
Schulman, Bernard L., and May. 2,776,566.

McAfoos, Herbert W. Threading device for calender rollers. 2,776,605, 1–8–57, Cl. 92—74.

McBride, John W., to Bantar, Inc. Electromagnetically operated musical instrument. 2,776,591, 1–8–57, Cl. 84—1.27.

McCormick, Charles E.: *See*—
Brundage, Alan D., McCormick, and Schatzman. 2,776,791.

McCulloch Motors Corp.: *See*—
Wilkin, Ellsworth D. 2,776,844.

McDonald, Almous G. Self loading boat trailer. 2,776,769, 1–8–57, Cl. 214—505.

McDonald, Richard: *See*—
Shnitzler, Meyer J., Norton, and McDonald. 2,776,917.

McGahee, Francis M. Parotid block mouth chock. 2,776,489, 1–8–57, Cl. 32—35.

McGraw Electric Co.: *See*—
Clark, Philip B. 2,777,049.
Hazelwood, Robert N. 2,776,897.
Stoelting, Herman O. 2,777,095.

McGregor, Donald B. Self-cleaning moting rail for cotton gin. 2,776,455, 1–8–57, Cl. 19—58.

McKeague, Edward D., and C. B. Kenyon, to Standard Oil Co. Fines recovery from fluid catalytic conversion system. 2,776,930, 1–8–57, Cl. 196—50.

McKiernan-Terry Corp.: *See*—
Snow, Frederick O., Jr. 2,776,758.

McKinnis, Art C., to Union Oil Co. of California. Aromatic phosphonic acid esterification catalysts. 2,776,985, 1–8–57, Cl. 260—475.

McMillan, James G., Jr.: *See*—
Bennett, James L., Brooks, McMillan, and Plunkett. 2,776,965.

McMillan, James G., Jr., and W. L. Plunkett, to Hercules Powder Co. Recovering spent nitrating liquor. 2,776,944, 1–8–57, Cl. 252—182.

McMillan, James G., Jr., and W. L. Plunkett, to Hercules Powder Co. Manufacture of nitrocellulose. 2,776,964, 1–8–57, Cl. 260—220.

McMillan, James G., Jr., and W. L. Plunkett, to Hercules Powder Co. Manufacture of nitrocellulose. 2,776,966, 1–8–57, Cl. 260—220.

Medlar, Lewis A., to Fox Products Co. Rectifying systems. 2,777,107, 1–8–57, Cl. 321—8.

Meier, Karl, to Machine Tool Works Oerlikon, Administration Co. Method for the dressing of bearded needles for knitting machines and device for carrying out the method. 2,776,696, 1–8–57, Cl. 153—39.

Melamed, Sidney, to Rohm & Haas Co. Unsaturated alkylphenone insecticides for soft-bodied insects. 2,776,921, 1–8–57, Cl. 167—30.

Melamed, Sidney, to Rohm & Haas Co. Amides of vinyl ethers containing hydroxyl groups and polymers thereof. 2,776,951, 1–8–57, Cl. 260—78.3.

Melcher, Hans, to Friedrich Kocks G. m. b. H. Method of continuously producing welded pipe. 2,776,474, 1–8–57, Cl. 29—477.7.

Mention, Maurice, and P. Bourguignon, to Les Usines de Melle (Societe Anonyme). Process for improving characteristics of plasticizers and products therefrom. 2,776,984, 1–8–57, Cl. 260—475.

Mercer, William M. Yieldable blade safety razor. 2,776,478, 1–8–57, Cl. 30—61.

Merner, Richard R.: *See*—
Hunt, Madison, and Merner. 2,776,996.

Mesick, Edith M.: *See*—
Mesick, Harry F., Jr. 2,776,472.

Mesick, Harry F., Jr., deceased, by E. M. Mesick, administratrix, to General Electric Co. Method of making a ceramic-to-metal bond. 2,776,472, 1–8–57, Cl. 29—473.1.

Meyer, Ewald I.: *See*—
Meyer, Norbert H. and O. F. 2,776,763.

Meyer, Ferdinand C.: *See*—
Kyrides, Lucas P., Meyer, and Zienty. 2,776,980.

Meyer, Gene: *See*—
Smith, William A., Mattson, and Meyer. 2,776,750.

Meyer, Marlon B.: *See*—
Meyer, Norbert H. and O. F. 2,776,763.

Meyer, Norbert H. and O. F., ⅓ to M. B. Meyer, ⅓ to E. I. Meyer, ⅓ to said N. H. Meyer, and ⅓ to said O. F. Meyer. Vehicle mounted hydraulic bale loader. 2,776,763, 1–8–57, Cl. 214—83.26.

Meyer, Ormand F.: *See*—
Meyer, Norbert H. and O. F. 2,776,763.

Meyercord Co., The: *See*—
Klopfenstein, Jess D. 2,776,510.
Klopfenstein, Jess D., Zimmerman, and Engstrom. 2,776,511.

Michels, Julian G., to The Norwich Pharmacal Co. 1-nitroso-2-imidazolidone and process. 2,776,979, 1–8–57, Cl. 260—309.7.

Michie, John S., to Reeves Pulley Co. V-belt pulley drive. 2,776,575, 1–8–57, Cl. 74—230.17.

Miklofsky, Haaren A., and H. S. Horiuchi, to the United States of America as represented by the Secretary of the Navy. Automatic dip soldering and dip tinning machine. 2,776,640, 1–8–57, Cl. 118—74.

Miller, Leon R. Toilet seat lifter. 2,776,440, 1–8–57, Cl. 4—251.

Miller, Samuel B., and M. S. Millhouse, to General Motors Corp. Power unit for freezing device. 2,776,545, 1–8–57, Cl. 62—108.5.

Miller, Willman I. Gage and scriber. 2,776,491, 1–8–57, Cl. 33—42.

Millhouse, Murray S.: *See*—
Miller, Samuel B., and Millhouse. 2,776,545.

Miner, John D., Jr., to Westinghouse Electric Corp. Electrical brush and dynamoelectric apparatus embodying the same. 2,777,081, 1–8–57, Cl. 310—228.

Minerals Refining Co.: *See*—
Cardon, Paul B. 2,776,877.

Minitec: *See*—
King, Gilbert, Roberts, and Weil. 2,777,034.

Minneapolis-Honeywell Regulator Co.: *See*—
Chudyk, Alex B. 2,776,536.
Hudson, Kenneth C. 2,776,565.
Larsen, Roy L. 2,777,105.

Minnesota Mining & Mfg. Co.: *See*—
Pickett, Theodore C. 2,776,492.

Mitchell, John E., Co.: *See*—
Dyson, Thomas N. 2,776,454.

Modern Village Stores, Inc.: *See*—
Crawford, Wayland H. 2,776,730.

Molinari, Henry G., to Becton Dickinson and Co. Hypodermic syringe and barrel blank. 2,776,661, 1–8–57, Cl. 128—218.

Monsanto Chemical Co.: *See*—
D'Amico, John J. 2,776,976.
D'Amico, John J. 2,776,977.
D'Amico, John J., and Harman. 2,776,974.
Downey, Paul M. 2,776,998.
Hahn, John H., Quinn, and Terpstra. 2,777,001.
Kyrides, Lucas P., Meyer, and Zlenty. 2,776,980.
Sullivan, James D. 2,777,002.

Montgomery, Richard F., and N. L. H. Koot. Self-propelled borehole logging. 2,776,564, 1–8–57, Cl. 73—151.

Moore, Bailey F.: *See*—
Batson, Oscar R., Moore, and Christie. 2,776,657.

Moore, Ezra L., and C. E. Smith, to Arvin Industries, Inc. Reclining chaise longue. 2,776,704, 1–8–57, Cl. 155—117.

Morgan, Byran E., and C. L. Prokop, to Esso Research and Engineering Co. Cementing of wells. 2,776,713, 1–8–57, Cl. 166—22.

Morgan, Donald C., to Westinghouse Electric Corp. Stem mount for electric incandescent lamp. 2,776,852, 1–8–57, Cl. 287—20.

Morgan, William E., to Helena Rubinstein, Inc. Method and preparations for the permanent dyeing of keratinous material. 2,776,668, 1–8–57, Cl. 132—7.

Morrison, Heber J., to Westinghouse Electric Corp. Feedback amplifier. 2,777,019, 1–8–57, Cl. 179—171.

Morton, Leon S. Applicator for feeding substances into readily penetrable materials, such as earth and food products. 2,776,634, 1–8–57, Cl. 111—92.

Mosely, Neal J., to Detroit Controls Corp. Heating and cooling control valve. 2,776,796, 1–8–57, Cl. 236—1.

Moser, John F., Jr.: *See*—
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Moynihan, John D., to Westinghouse Electric Corp. Synchronizing apparatus. 2,777,075, 1–8–57, Cl. 307—87.

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Mueller, Frank H., and Tinker. 2,776,798.

Mueller, Frank H., and E. E. Tinker, to Mueller Co. Relief valve. 2,776,798, 1–8–57, Cl. 236—93.

Mueller, Herman H. Positive engagement interlocking phonograph record. 2,776,837, 1–8–57, Cl. 274—42.

Mueller, Herman H. Phonograph record disk with speed control ring. 2,776,838, 1–8–57, Cl. 274—42.

Mullen, Lee C., to M. C. Mullen. Shaper attachment insert for saw tables. 2,776,682, 1–8–57, Cl. 144—134.

Mullen, Maxine C.: *See*—
Mullen, Lee C. 2,776,682.

Muller, Max: *See*—
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National Chemical Products Ltd.: *See*—
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Powell, Roger F., and Martin. 2,776,749.

National Dairy Research Laboratories, Inc.: *See*—
Young, Harold, and Healey. 2,776,928.

National Research Development Corp.: *See*—
Waters, Paul L. 2,777,060.
Williams, Frederic C., and Robinson. 2,776,794.

National Screw & Mfg. Co., The: *See*—
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Navy, United States of America as represented by the Secretary of the: *See*—
Erickson, Porter W., and Silver. 2,776,910.
Foss, Martyn H. 2,777,099.
Kendall, James M., and Henderson. 2,777,028.
Miklofsky, Haaren A., and Horiuchi. 2,776,640.
Packard, Karle S. 2,777,113.
Starry, Raymond A. 2,776,599.

Neal, Ernest C., ½ to E. Brandell. Lever action firearm. 2,776,513, 1–8–57, Cl. 42—16.

Neitlich, Irving M., to Cue Fastener Corp. Apparatus for gapping slide fasteners. 2,776,466, 1–8–57, Cl. 29—33.

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Newton, Elmore J., to Jones & Laughlin Steel Corp. Anode and method of continuous plating. 2,776,939, 1–8–57, Cl. 204—28.

Nichel, John C., Jr. Hand grip control device for internal combustion engines. 2,776,579, 1–8–57, Cl. 74—488.

Nichols, Harry J. Controllable reversible pitch propeller system. 2,776,719, 1–8–57, Cl. 170—160.47.

Nicol, Clinton C., to Brite-Ize Cleanser Co. Can closure. 2,776,787, 1–8–57, Cl. 222—544.

Nicolaisen, Bernard H., to Olin Mathieson Chemical Corp. Production of hexachlorobenzene. 2,777,003, 1–8–57, Cl. 260—650.

Niederer, Herbert O.: *See*—
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Niederer, Otto C., O., and H. O. 2,776,528.

Niederer, Otto C., O., and H. O. Egg supporting means in egg cleaning mechanism. 2,776,528, 1–8–57, Cl. 51—216.

Nishizawa, Yoshito. Composition comprising glutamylcholine salts. 2,776,923, 1–8–57, Cl. 167—65.

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Davis, Robert P., Jr., and Spearman. 2,776,562.

Northcutt, Walter E., to H. K. Porter, Inc. Pressure-fluid operated tool. 2,776,481, 1–8–57, Cl. 30—180.

Norton, Charles L., Jr., to The Babcock & Wilcox Co. Apparatus suitable for the fixation of nitrogen. 2,776,872, 1–8–57, Cl. 23—277.

Norton, James P., to Hughes Aircraft Co. Miniature switch. 2,777,037, 1–8–57, Cl. 200—159.

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Nurnberg, Werner, and W. Feitl, to Licentia Patent-Verwaltungs-G. m. b. H. Driving arrangement for electric locomotives. 2,777,104, 1–8–57, Cl. 318—144.

Nystrom, Karl F., to International Steel Co. Ladder construction. 2,776,793, 1–8–57, Cl. 228—58.

Nystrom, Karl F. Lock for car doors. 2,776,855, 1–8–57, Cl. 292—284.

Ogren, Axel E., to The Sherwin-Williams Co. Snap-on bail ear or attachment. 2,776,780, 1–8–57, Cl. 220—91.

O'Keefe, Daniel P. Illuminated stove. 2,777,050, 1–8–57, Cl. 240—2.

Olchawa, Joseph M., to Foote Bros. Gear and Machine Corp. Screw actuating device. 2,776,577, 1–8–57, Cl. 74—424.8.

Olin Mathieson Chemical Corp.: *See*—
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Oliver, John P., to Union Carbide and Carbon Corp. Mounting for underwater anode for ship's hull. 2,776,940, 1–8–57, Cl. 204—196.

Olpe, Werner G. Garment hangers. 2,776,789, 1–8–57, Cl. 223—96.

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Orelind, John R., to International Harvester Co. Tractor attaching structure. 2,776,613, 1–8–57, Cl. 97—46.59.

Ortega, Hugh R., ½ to M. Bookstein. Rectifier device. 2,777,100, 1–8–57, Cl. 317—234.

Ortegren, Victor H., and K. P. Dimick, to United States of America as represented by the Secretary of Agriculture. Rectifying still. 2,776,822, 1–8–57, Cl. 261—114.

O'Shei, William E. Differential fluid pressure motors. 2,776,574, 1–8–57, Cl. 74—97.

Osplack, Joseph J., to Vinco Corp. Diamond studded abrasive wheel dressing tool. 2,776,529, 1–8–57, Cl. 51—278.

Osterhus, Ervin J., A. W. Richards, and N. W. Taylor, to Joy Mfg. Co. Hydraulically operated cycling device for a mining machine. 2,776,824, 1–8–57, Cl. 262—29.

Owens-Illinois Glass Co.: *See*—
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Suchocki, John J. 2,776,641.

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Houdry, Eugene J. 2,776,875.

Package Machinery Co.: *See*—
Labine, Roland A., and Luczek. 2,776,639.
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Packard, Karle S., to the United States of America as represented by the Secretary of the Navy. Cathode ray tube spot size measurement. 2,777,113, 1–8–57, Cl. 324—20.

Palmleaf, Herbert, to A. J. Gerrard & Co. Apparatus for handling coil strip material. 2,776,764, 1–8–57, Cl. 214—89.

Panes, Isidore. Brassiere. 2,776,432, 1–8–57, Cl. 2—42.

Pankove, Jacques I., to Radio Corp. of America. Radiation powered transistor circuits. 2,777,057, 1–8–57, Cl. 250—20.

Pankrtaz, Howard J., to Phillips Petroleum Co. Flow controller. 2,776,786, 1–8–57, Cl. 222—486.

Pannier Corp., The: *See*—
Hendrickson, James M. 2,776,617.

Papandrea, Margaret. Hair curler. 2,776,666, 1–8–57, Cl. 132—41.

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Paquette, Elmer W., to Draper Corp. Means for preventing creases in fabrics as taken up in looms. 2,776,677, 1–8–57, Cl. 139—304.

Parker, Alfred G.: *See*—
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Patrickson, John B., to A. Reyrolle & Co. Ltd. Electric pilot wire circuit arrangements for protective or other purposes. 2,777,093, 1–8–57, Cl. 317—28.

Paullus, John A., Jr., and P. E. Roush, to Crane Co. Pivotal bracket. 2,776,810, 1–8–57, Cl. 248—279.

Pearl, Daniel M., to Darwin Products, Inc. Bicycle balancer. 2,776,845, 1–8–57, Cl. 280—304.

Pearson, Donald M. Portable percussion device. 2,776,539, 1–8–57, Cl. 60—62.5.

Pearson, Warren R., to Borg-Warner Corp. Device for storing frozen food packages. 2,776,792, 1–8–57, Cl. 224—45.

Pechiney, Compagnie de Produits Chimiques et Electrometallurgiques: *See*—
Grunert, Erhard. 2,776,884.

Perkins, Harley A., Jr., to Westinghouse Electric Corp. Flip-flop elements for control systems. 2,777,076, 1–8–57, Cl. 307—88.

Peterson, Adolphe C. Fuel supply and control means for turbines and turbine jets. 2,776,537, 1–8–57, Cl. 60—39.15.

Pfizer, Chas., & Co., Inc.: *See*—
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Phillips Petroleum Co.: *See*—
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Pankratz, Howard J. 2,776,786.
Potts, Mack F., Hudson, and Smith. 2,776,975.
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Pickett, Theodore C., to Minnesota Mining & Mfg. Co. Measuring and cutting device. 2,776,492, 1–8–57, Cl. 33—135.

Pigman, Calvin D., to General Electric Co. Air conditioning apparatus having condensate disposal means. 2,776,554, 1–8–57, Cl. 62—140.

Pinney, Reldon G.: *See*—
Allan, Harry T. 2,776,756.

Piros, John J., to Sinclair Refining Co. Lubricating apparatus. 2,776,729, 1–8–57, Cl. 184—50.

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Duncan, James E., and Seymour. 2,776,900.
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McMillan, James G., Jr., and Plunkett. 2,776,964.
McMillan, James G., Jr., and Plunkett. 2,776,966.

Ponder, Raymond E., and M. Babunovic, to Quirk Machinery Co. Machine for breasting Louis heels. 2,776,445, 1–8–57, Cl. 12—47.1.

Pop, Gregorio. Photographic sensitizer and developer. 2,776,888, 1–8–57, Cl. 96—49.

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Potter, Allen D., and H. Goldberg. Chair convertible to baby walker or rocker. 2,776,700, 1–8–57, Cl. 155—22.

Potts, Mack F., P. S. Hudson, and W. L. Smith, to Phillips Petroleum Co. Stabilization of polymerizable heterocyclic nitrogen compounds. 2,776,975, 1–8–57, Cl. 260—290.

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Powell, Roger F., and E. F. Martin; said Powell assor. to National Chemical Products Ltd. Beta alkoxy crotonic acid esters in froth flotation processes. 2,776,748, 1–8–57, Cl. 209—166.

Powell, Roger F., and E. F. Martin, to National Chemical Products Ltd. Alkoxy benzene in froth flotation process. 2,776,749, 1–8–57, Cl. 209—166.

Powlas, James J., to Wagner Electric Corp. Piston assembly. 2,776,864, 1–8–57, Cl. 309—4.

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Duray, Joseph P., and Kurz. 2,777,043.

Preload Co., Inc., The: *See*—
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Pritchard, Robert L., to General Electric Co. Negative resistance oscillator. 2,777,065, 1–8–57, Cl. 250—36.

Prochazka, Frank J., to Racine Hydraulics & Machinery, Inc. Quick-opening tool retainer jaws. 2,776,841, 1–8–57, Cl. 279—19.4.

Procter & Gamble Co., The: *See*—
Eaton, Stanley L. 2,776,943.

Progressive Specialties: *See*—
Luchansky, Andrew J. 2,777,051.

Prokop, Charles L.: *See*—
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Prout, William C., and G. M. Loveland. Cord dispensing device. 2,776,804, 1–8–57, Cl. 242—145.

Pruehs, Leslie L., to General Electric Co. Mounting plate for refrigerator control. 2,777,038, 1–8–57, Cl. 200—168.

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Baumgardner, William C. 2,776,530.

Pyrene Co., Ltd., The: *See*—
Cockram, Reginald W. J. 2,776,829.

Quimby, Walter. Apparatus for graphprinting. 2,776,620, 1–8–57, Cl. 101—328.

Quinn, John F.: *See*—
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Quintanilla, Janet. Window structure. 2,776,459, 1–8–57, Cl. 20—48.

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Pankove, Jacques I. 2,777,057.

Rager, Donald M. Picker buffers for looms. 2,776,676, 1–8–57, Cl. 139—166.

Rahl, Forrest J., and H. H. Weinstock, Jr., to Allied Chemical & Dye Corp. Spinning solvent for acrylic fibers. 2,776,945, 1–8–57, Cl. 260—32.6.

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Read, John C., and D. R. Smith, to The British Thomson-Houston Co. Ltd. Electric current rectifiers. 2,777,108, 1–8–57, Cl. 321—48.

Reed, Arthur E., to General Electric Co. Drift stabilized velocity servo. 2,777,103, 1–8–57, Cl. 318—32.

Reed, William A., H. R. Hatcher, and J. R. Sanscrainte, to Republic Steel Corp. Reactor for the high temperature reduction of iron oxide and the like. 2,776,874, 1–8–57, Cl. 23—284.

Reeves Pulley Co.: *See*—
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Reggio, Ferdinando C. Control apparatus for power plants driving a variable torque load device. 2,776,720, 1–8–57, Cl. 170—135.74.

Reinhard, Robert N., to Foremost Dairies, Inc. Multiple piston hydraulic pump unit and operating means to selectively operate the pistons thereof. 2,776,624, 1–8–57, Cl. 103—37.

Reintjes, George P. Pendant curtain wall. 2,776,631, 1–8–57, Cl. 110—1.

Reintjes, George P. Sealing shoe attachment for pit covers. 2,776,632, 1–8–57, Cl. 110—173.

Republic Steel Corp.: *See*—
Reed, William A., Hatcher, and Sanscrainte. 2,776,874.

Resner, Robert W. Hand tool. 2,776,484, 1–8–57, Cl. 30—287.

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Reynolds Metals Co.: *See*—
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Thomas, Jesse B. 2,776,552.

Reyrolle, A., & Co. Ltd.: *See*—
Patrickson, John B. 2,777,093.

Rhein-Chemie G. m. b. H.: *See*—
Kern, Rudolf, and Lautsch. 2,777,008.

Richards, Archer W.: *See*—
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Riley Stoker Corp.: *See*—
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Ringold, Howard J.: *See*—
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Rixton, Frederick H., to Westinghouse Electric Corp. Ultraviolet lamp. 2,777,091, 1–8–57, Cl. 315—48.

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Robinson, Harry F. Fabric holders. 2,776,705, 1–8–57, Cl. 155—182.

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Craig, W. E., Shropshire, and Wilson. 2,776,989.
Melamed, Sidney. 2,776,921.
Melamed, Sidney. 2,776,951.

Rondinelli, Alfred J. Shower bath curtains. 2,776,439, 1–8–57, Cl. 4—149.

Root, Melvin C., ½ to H. L. Maloney. Rotary snow remover. 2,776,505, 1–8–57, Cl. 37—43.

Roselius, Louis W., to S & S Corrugated Paper Machinery Co., Inc. Cutting and creasing press. 2,776,610, 1–8–57, Cl. 93—58.2.

Rosenblatt, Jordan. Projectile. 2,776,621, 1–8–57, Cl. 102—38.

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Rosenkranz, George, and C. Djerassi, to Syntex S. A. Method of preparation of cyclopentanophenanthrene derivatives. 2,776,969, 1–8–57, Cl. 260—239.55.

Rosher, Ronald, to Hercules Powder Co. Reaction product of stabilized rosin amine with phosphorus pentoxide. 2,776,955, 1–8–57, Cl. 260—100.

Ross, William S., to The British Thomson-Houston Co. Ltd. Electric generating equipment. 2,777,071, 1–8–57, Cl. 290—40.

Ross, William S., to The British Thomson-Houston Co. Ltd. Electric generating equipment. 2,777,072, 1–8–57, Cl. 290—40.

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Paullus, John A., Jr., and Roush. 2,776,810.

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Russell, Alfred W., to Allen B. Du Mont Laboratories, Inc. Direct-coupled amplifier. 2,777,018, 1–8–57, Cl. 179—171.

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Russell, William W., and H. C. Allen, to Sayles Finishing Plants, Inc. Method of making multiple coated calendered pattern fabric. 2,776,868, 1–8–57, Cl. 8—114.5.

Ruth, Joseph P. Air lift pump. 2,776,873, 1–8–57, Cl. 23—284.

SKB Schuechtermann & Kremer-Baum Aktiengsellschaft fuer Aufbereitung: *See*—
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Saarl, Oliver E., to Illinois Tool Works. Thread-cutting machine. 2,776,603, 1–8–57, Cl. 90—1.

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Saeman, Walter C., to Olin Mathieson Chemical Corp. Web guide control device. 2,777,069, 1–8–57, Cl. 250—219.

Sanders, Caroline M. Can opener and strip guide. 2,776,779, 1–8–57, Cl. 220—52.

Sanders, Clayton W. Crop guiding grate assembly. 2,776,534, 1–8–57, Cl. 56—28.

Sanderson, Jerry G., ¼ to F. C. Frey. Trench digger. 2,776,766, 1–8–57, Cl. 214—138.

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Sandri, Robert M. Carbonated beverages and a method for their preparation. 2,776,892, 1–8–57, Cl. 99—79.

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Saunders, Henry B., to The Schlueter Co. Pasteurizer. 2,776,777, 1–8–57, Cl. 220—13.

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Savino, Henry C., and P. C. Keiper, to Westinghouse Electric Corp. Elevator systems. 2,776,731, 1–8–57, Cl. 187—29.

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Schatzman, George W.: *See*—
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Schaumer, Theo B., to Hollywood-Maxwell Co. Brassiere with cups having rim reinforcement. 2,776,433, 1–8–57, Cl. 2—42.

Schenkel, Hans, and M. Aeberli, to Durand & Huguenin A. G. Acetoacetylamino compounds and a process of making same. 2,776,983, 1–8–57, Cl. 260—377.

Scherer, Elmer L. Ironing process and apparatus. 2,776,506, 1–8–57, Cl. 38—144.

Schildknecht, Calvin E., to Celanese Corp. of America. Polymer dispersions. 2,776,947, 1–8–57, Cl. 260—32.6.

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Schmidgall, Hartzell H. Vehicle unloading apparatus. 2,776,762, 1–8–57, Cl. 214—77.

Schnell, Steve, to Wagner Electric Corp. Injector assembly and master cylinder for power brake system. 2,776,538, 1–8–57, Cl. 60—54.6.

Schoenberg, Otto W.: *See*—
Coker, Frank B., and Schoenberg. 2,777,112.

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Schön, Karl, to Carl von der Crone & Co. Multicolored flashlights. 2,777,121, 1–8–57, Cl. 340—321.

Schorer, Otto J., to Worthington Corp. Drill steel retainer assembly. 2,776,840, 1–8–57, Cl. 279—19.3.

Schramm, Ella, and D. R. Berness. Toy garage. 2,776,522, 1–8–57, Cl. 46—39.

Schulerud, Albert L., to Colgate-Palmolive Co. Method and apparatus for cooling soap and the like. 2,776,544, 1–8–57, Cl. 62—104.

Schulman, Bernard L., and W. G. May, to Esso Research and Engineering Co. Apparatus for measuring the flow rates of particulate solids. 2,776,566, 1–8–57, Cl. 73—205.

Schumacher, Ernst. Line-variator. 2,776,595, 1–8–57, Cl. 88—24.

Schwartz, Harry S.: *See*—
Hafekost, Frederick. 2,776,482.

Schwenker, Eric H.: *See*—
Clark, Adna R., and Schwenker. 2,776,546.

Schwerak, Joseph J. Window sash guide structure. 2,776,458, 1–8–57, Cl. 20—12.

Scripture, Edward W., Jr., to American-Marietta Co. Hydraulic cement compositions containing air detraining agents and methods of using same. 2,776,901, 1–8–57, Cl. 106—90.

Scripture, Edward W., Jr., to American-Marietta Co. Hydraulic cement compositions containing air detraining agents and methods of using same. 2,776,902, 1–8–57, Cl. 106—90.

Scripture, Edward W., Jr., to American-Marietta Co. Hydraulic cement compositions containing air detraining agents and methods of making same. 2,776,903, 1–8–57, Cl. 106—90.

Searle, G. D., & Co.: *See*—
Cusic, John W., and Zimmermann. 2,776,971.
Dodson, Raymond W. 2,776,978.

Segul, Jean, to Societe Anonyme dite: Stenotype Grandjean. Collapsible-arm and locking mechanism for shorthand typewriters and like machines. 2,776,738, 1–8–57, Cl. 197—9.

Sendzimir, Tadeusz, to Armzen Co. Construction and control of cold rolling mills. 2,776,586, 1–8–57, Cl. 80—38.

Sepersky, Joseph M. Aquarium utility housing. 2,776,642, 1–8–57, Cl. 119—5.

Sepulveda, Louis. Electric lock plug. 2,777,023, 1–8–57, Cl. 200—42.

Seserman, Samuel. Folders and binders for flexible sheet materials. 2,776,636, 1–8–57, Cl. 112—147.

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Duncan, James E., and Seymour. 2,776,900.

Shadwick, George W., to Beatrice Foods Co. Centrifugal filter. 2,776,754, 1–8–57, Cl. 210—72.

Shaffer, Paul. Adjustable post. 2,776,811, 1–8–57, Cl. 248—354.

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Shakespeare, Henry G., and Harrington. 2,776,803.

Shakespeare, Henry G., and G. D. Harrington, to Shakespeare Co. Spinning type fishing reel. 2,776,803, 1–8–57, Cl. 242—84.4.

Sharpe, Eugene S., and J. Corman, to the United States of America as represented by the Secretary of Agriculture. Preparation of alpha-ketoglutaric acid by serratia marcesceus. 2,776,926, 1–8–57, Cl. 195—47.

Shaw, Thomas P. G., to Shawinigan Chemicals Ltd. Process for alkyl ethers of alphahydroxyenmene. 2,777,000, 1–8–57, Cl. 260—611.

Shawinigan Chemicals Ltd.: *See*—
Shaw, Thomas P. G. 2,777,000.

Sheard, William B., to The Patent Scaffolding Co., Inc. Universal scaffolding machine. 2,776,815, 1–8–57, Cl. 254—168.

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Gregory, James N., and Yeatman. 2,776,817.

Sheppard, Howard M. Camshaft lift indicator. 2,776,494, 1–8–57, Cl. 33—181.

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Ogren, Axel E. 2,776,780.

Shetron, David E. Television antenna. 2,777,123, 1–8–57, Cl. 343—804.

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Just, George A., and Shield. 2,776,843.

Shields, Albert F., to S & S Corrugated Paper Machinery Co., Inc. Sheet inverting mechanism. 2,776,831, 1–8–57, Cl. 270—1.

Shively, John J.: *See*—
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Shmitzler, Meyer J., T. P. Norton, and R. McDonald, to The Gillette Co. Article with corrosion-inhibited surface and composition for coating said surface. 2,776,917, 1–8–57, Cl. 148—6.14.

Shrider, Forest E. Terminal connector. 2,777,117, 1–8–57, Cl. 339—100.

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Craig, W E. Shropshire, and Wilson. 2,776,988.
Craig, W E. Shropshire, and Wilson. 2,776,989.

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Taylor, James B., Jr. 2,776,648.

Silver, Irving: *See*—
Erickson, Porter W., and Silver. 2,776,910.

Simmons, Curtis R., and H. A. Farrow, to Hunter Farrow Equipment, Inc. Nesting box. 2,776,643, 1–8–57, Cl. 119—45.

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Homery, Alex L., and Simon. 2,776,710.

Simone, Peter F., to General Electric Co. Engine starter clutch. 2,776,571, 1–8–57, Cl. 74—7.

Simsack, Anton. Milling attachments for lathes. 2,776,604, 1–8–57, Cl. 90—11.64.

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Sinclair Refining Co.: *See*—
Piros, John J. 2,776,729.

Singer Mfg. Co., The: *See*—
Ketterer, Stanley J. 2,776,788.

Skinner, Davis A., and W. L. Wasley, to Union Oil Co. of California. Alkylation of toluene. 2,777,007, 1–8–57, Cl. 260—671.

Sloan Valve Co.: *See*—
Calendar, Frederick J. 2,776,812.

Smit, Pierre L.: *See*—
Koopal, Sieds, Smit, and van Loon. 2,776,885.

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Moore, Ezra L., and Smith. 2,776,704.

Smith, Derek R.: *See*—
Read, John C., and Smith. 2,777,108.

Smith, Henry M., to Hughes Aircraft Co. Method of producing monolayer electrode screens. 2,776,908, 1–8–57, Cl. 117—33.5.

Smith, Jack C., to E. I. du Pont de Nemours and Co. Highly oriented shaped tetrafluoroethylene article and process for producing the same. 2,776,465, 1–8–57, Cl. 28—82.

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Smith, William A., V. L. Mattson, and G. Meyer, to The American Metal Co., Ltd. Froth flotation concentration of potash ores containing sylvite. 2,776,750, 1–8–57, Cl. 209—166.

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Snow, Frederick O., Jr., to McKiernan-Terry Corp. Continuous rope unloading system. 2,776,758, 1–8–57, Cl. 212—81.

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Societe Anonyme dite: Stenotype Grandjean: *See*—
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Socony Mobil Oil Co., Inc.: *See*—
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Somerville, Albert A., to R. T. Vanderbilt Co., Inc. Synergistic zinc mercaptobenzothiazole and zinc dimethyl dithiocarbamate fungicidal composition. 2,776,922, 1–8–57, Cl. 167—33.

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Erath, Louis W., Madeley, and Hatchl. 2,776,560.

Sparks, Hubert A. Drum movement indicator. 2,776,614, 1–8–57, Cl. 254—150.

Spatz, Walter B., to Paper Mate Mfg. Co. Ball point pen. 2,776,646, 1–8–57, Cl. 120—42.03.

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Davie, Robert P., Jr., and Spearman. 2,776,562.

Specialties Development Corp.: *See*—
Mapes, Daniel. 2,776,475.
Sylvester, Walter G., and Anthony. 2,776,942.

Spitz, Peter H., and D. S. Borey, to Esso Research and Engineering Co. Size reduction apparatus. 2,776,799, 1–8–57, Cl. 241—40.

Sprague Electric Co.: *See*—
Kodama, George T. 2,777,110.

Spurlin, Harold M.: *See*—
Bruce, David S., and Spurlin. 2,776,880.

Stagg, Morey: *See*—
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Stamicarbon N. V.: *See*—
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Koopal, Sieds, Smit, and van Loon. 2,776,885.

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Stamper, Hamilton A. and F. H., to Bendix Aviation Corp. Servo compass. 2,777,070, 1–8–57, Cl. 250—233.

Stanclift, Ray J., Jr., A. L. Draper, and L. H. Jenks, to Esso Research and Engineering Co. Process for overcoming water blocking of a petroleum producing well. 2,776,714, 1–8–57, Cl. 166—42.

Standard Coil Products Co., Inc.: *See*—
Bull, Richard W. 2,777,056.
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Standard Oil Co. (Illinois): *See*—
McKeague, Edward D., and Kenyon. 2,776,930.

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Hardman, Harley F. 2,776,932.

Standen, John H., to The B. F. Goodrich Co. Fortified animal feeds. 2,776,889, 1–8–57, Cl. 99—2.

Stark, Robert J. Smoking pipe. 2,776,664, 1–8–57, Cl. 131—211.

Starry, Raymond A., to the United States of America as represented by the Secretary of the Navy. Jam-proof gun ammunition feed can. 2,776,599, 1–8–57, Cl. 89—34.

Steinitz, Robert, to Borolite Corp. Ternary metal boride compositions. 2,776,468, 1–8–57, Cl. 29—182.5.

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Stevens, Charles H., Jr. Power supply for multiple welding units. 2,777,047, 1–8–57, Cl. 219—131.

Stewart, Lyle E. Concrete form construction. 2,776,464, 1–8–57, Cl. 25—131.

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Stites, Francis H., to Sylvania Electric Products Inc. Echo suppression beacons. 2,777,059, 1–8–57, Cl. 250—27.

Stockwell, Charles W. Automatic emergency furnace control. 2,777,074, 1–8–57, Cl. 307—64.

Stoelting, Herman O., to McGraw Electric Co. Lightning arrester. 2,777,095, 1–8–57, Cl. 317—66.

Stoll, Arthur, and W. Kreis, to Sandoz, A. G. Acetyldigitoxin-α. 2,776,963, 1–8–57, Cl. 260—210.5.

Stombock, Ernest J. License plate lock. 2,776,507, 1–8–57, Cl. 40—125.

Stop-Motion Devices Corp.: *See*—
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Stout, William H., and P. H. Raumaker; said Raumaker assor. to said Stout. Wear-resisting coating for pipes and the like. 2,776,674, 1–8–57, Cl. 138—68.

Stover, Verne H. Dozer and loading attachment for tricycles. 2,776,767, 1–8–57, Cl. 214—140.

Strom, Sigvald. Collapsible child's bed. 2,776,441, 1–8–57, Cl. 5—174.

Strong, Herbert M., and F. P. Bundy, to General Electric Co. Liquefied gas container. 2,776,776, 1–8–57, Cl. 220—9.

Strong, Raymond E. Stapling device. 2,776,431, 1–8–57, Cl. 1—3.

Stuart, Charles E. Tooth block with metal onlay. 2,776,485, 1–8–57, Cl. 32—2.

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Sullivan, James D., to Monsanto Chemical Co. Para-halogenation of phenols. 2,777,002, 1–8–57, Cl. 260—623.

Summers, Otto M. Block wall. 2,776,559, 1–8–57, Cl. 72—30.

Sundt, Edward V., to Sundt Engineering Co. Fuse holder. 2,777,118, 1–8–57, Cl. 339—221.

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Surrey, Alexander R., to Sterling Drug Inc. N-aralkyl-N-(2-carbamylalkyl)-halogenated-alkanamides and their preparation. 2,776,991, 1–8–57, Cl. 260—559.

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Swenson, Joseph W. Gutter water control structure. 2,776,861, 1–8–57, Cl. 299—58.

Sylvania Electric Products Inc.: *See*—
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Sylvester, Walter G., and C. Anthony, Jr., to Specialties Development Corp. Fire extinguishing composition and method of extinguishing fires. 2,776,942, 1–8–57, Cl. 252—7.

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Rosenkranz, George, and Djerassi. 2,776,969.

Tack, Carl E., to American Steel Foundries. Slack adjuster. 2,776,580, 1–8–57, Cl. 74—522.

Tarrant, Carl F. Cheese shredder. 2,776,479, 1–8–57, Cl. 30—117.

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Taves, Milton A., to Hercules Powder Co. Polymerization process. 2,776,953, 1–8–57, Cl. 260—82.5.

Taves, Milton A., to Hercules Powder Co. Polymerization process. 2,776,954, 1–8–57, Cl. 260—82.5.

Tawney, Pliny O., to United States Rubber Co. Metal salts of sulfo-N-carbamylsuccinamic acid esters. 2,776,987, 1–8–57, Cl. 260—481.

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Taylor, James B., Jr., to Signal Oil and Gas Co. Engine cooling process. 2,776,648, 1–8–57, Cl. 123—41.9.

Taylor, Leonard L. Footwear construction. 2,776,502, 1–8–57, Cl. 36—36.

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Thomas, Jesse B., to Reynolds Metals Co. Sheathed capillary inlet for refrigerator. 2,776,552, 1–8–57, Cl. 62—127.

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Treiss, Herman G., to American Safety Razor Corp. Blade dispensers. 2,776,743, 1–8–57, Cl. 206—16.

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Tupper, Earl S. Double-walled tumbler and seal. 2,776,691, 1–8–57, Cl. 150—0.5.

Tyran, Leo W., to E. I. du Pont de Nemours and Co. Process and catalyst for the preparation of furan from furfural. 2,776,981, 1–8–57, Cl. 260—346.1.

Uarco, Inc.: *See*—
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Valelunga, Ernest J. Snap-in outlet box. 2,776,774, 1–8–57, Cl. 220—3.6.
Valvano, Ralph A. Closure for can opening. 2,776,778, 1–8–57, Cl. 220—24.
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Vang, Alfred, ½ to G. Hart. Washing machines having magnetically actuated diaphragms. 2,776,558, 1–8–57, Cl. 68—53.
Vang, Alfred. Joining ends of wires. 2,777,046, 1–8–57, Cl. 219—104.
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Walter, Maurice. Transmission for motor vehicles. 2,776,572, 1–8–57, Cl. 74—15.63.
Ward, Gerald E., M. Congdon, and M. E. Davis. Fluid metering device. 2,776,568, 1–8–57, Cl. 73—255.
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CLASSIFICATION OF PATENTS

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NOTE.—First number=class, second number=subclass, third number=patent number

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294— 16: 2,776,856
64: 2,776,857
87.26: 2,776,858
296— 97: 2,776,859
299— 25: 2,776,860
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309— 4: 2,776,864
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339— 100: 2,777,117
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Classification of Designs

D 3—19: Des. 179,530
D13— 1: Des. 179,524
D14— 6: Des. 179,522
Des. 179,523
D15— 1: Des. 179,505

D22— 3: Des. 179,531
D29— 1: Des. 179,510
23: Des. 179,521
D31— 4: Des. 179,525
D33—14: Des. 179,527

D34— 4: Des. 179,514
Des. 179,515
5: Des. 179,513
D40— 1: Des. 179,511
Des. 179,512

D44—15: Des. 179,508
D48—28: Des. 179,506
D49— 1: Des. 179,520
D52— 1: Des. 179,526

D54—13: Des. 179,528
D58— 8: Des. 179,507
D61— 1: Des. 179,518
D85— 2: Des. 179,529

D90—20: Des. 179,516
D91— 1: Des. 179,509
Des. 179,517
D92— 1: Des. 179,519

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
January 8, 1957 Volume 714 Number 2

TRADEMARKS

NOTICES

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

TM 163,955 (GLO), James H. Rhodes & Co., Steel wool in the form of blocks or pads for cleaning purposes, also on soap; **TM 566,623** (GLO PADS), M. Richlin, doing business as Texogen Chemical Co., Chemically treated pads for cleaning cooking utensils, **filed** Nov. 27, 1956, D. C., S. D. N. Y., Doc. 115/91, *The S. O. S. Co.* v. *Kimball Chemical Products Corp.*

TM 236,472 (GOLD BOND), National Gypsum Co., Plaster, gypsum, lime, etc.; **TM 258,854**, same, Dry insulation, fiber insulation, roofing, etc.; **TM 259,916**, same, Dry and ready-mixed paints and varnishes; **TM 390,369**, same, Metal lath, corner bead, expanded metal corner bead, etc.; **TM 397,347**, same, Building construction materials comprising rock wool; **TM 397,348**, same, Acoustical construction material; **TM 412,668**, same, Gypsum, gypsum plaster, cement plaster, etc., **filed** Nov. 27, 1956, D. C. N. J. (Newark), Doc. 926/56, *National Gypsum Co.* v. *Gold Bond Construction Co. et al.*

TM 258,854. (See TM 236,472.)

TM 259,916. (See TM 236,472.)

TM 359,552 (HEP), H. E. Pillsbury, Soap, washing powder, and hand-cleaning paste; **TM 590,371**, same, Peck's Products Co., Powdered hand soap, hand cleaning paste, washing powder, etc., **filed** Nov. 23, 1956, D. C., E. D. Mo. (St. Louis), Doc. 10971(1), *Peck's Products Co.* v. *May Department Stores Co.*

TM 390,369. (See TM 236,472.)

TM 397,347. (See TM 236,472.)

TM 397,348. (See TM 236,472.)

TM 411,887 ("REMBRANDT MASTERPIECES" and design), **TM 545,298** (REMBRANDT), Rembrandt Lamp Corp., Tables suitable for use as occasional furniture, **TM 414,292** ("REMBRANDT LAMP MASTERPIECES" and design), **TM 542,137** (REMBRANDT), same, Floor lamps, table lamps, torchieres, etc.; **TM 557,240** ("REMBRANDT LAMP MASTERPIECES" and design), **TM 549,261** (REMBRANDT), same, Lamp shades, primarily intended for electrical lamps; **TM 588,728**, same, Electric fans; **TM 602,719**, same, Smoking stands, **filed** Feb. 7, 1956, D. C., S. D. N. Y., Doc. 107/29, *All Channel Antenna Corp.* v. *Rembrandt Lamp Corp.* Stipulation and order of dismissal Nov. 26, 1956.

TM 412,668. (See TM 236,472.)

TM 414,292. (See TM 411,887.)

TM 542,137. (See TM 411,887.)

TM 545,298. (See TM 411,887.)

TM 549,261. (See TM 411,887.)

TM 557,240. (See TM 411,887.)

TM 566,628. (See TM 163,955.)

TM 588,728. (See TM 411,887.)

TM 590,371. (See TM 359,552.)

TM 602,719. (See TM 411,887.)

CONDITION OF TRADEMARK APPLICATIONS AS OF NOVEMBER 30, 1956

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)] 7,523
Date of oldest new application ..... May 17, 1956
Date of oldest amended application ..... June 7, 1956

MERCHANT, JOHN, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application	
	New	Amended
I. STERBA, J. R., Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 44 and Certification Marks (Goods) Class A	5-21-56	8-17-56
II. SHRYOCK, R. F., Classes 6, 18, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200; and Certification Marks (Services) Class B	5-17-56	7-23-56
III. WENDT, C. M., Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 36, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 50, 52	6-15-56	6-7-56
Renewals (All Classes)	11-7-56	11-20-56
Sec. 12 (c) Publications (All Classes)	10-5-56	11-19-56

Applications Filed During the Month of November 1956—1,678

Registrations Issued ..... 385—No. 639,475 to No. 639,859
Renewals Issued 70

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

SN 11,090. The Lawn Seed Corporation, Milwaukee, Wis. Filed June 27, 1956.

LAWN-IN-ONE

For Lawn Seed.
First use May 4, 1956.

SN 11,949. Orchids of Hawaii, Inc., New York, N. Y. Filed July 11, 1956.

KISS 'N TELL

For Mistletoe.
First use Dec. 15, 1952.

CLASS 2

RECEPTACLES

SN 677,953. Franklin Metal & Rubber Company, Philadelphia, Pa. Filed Dec. 8, 1954.

vista-pak

For at Least Partly Transparent Containers for Packaging and Displaying Various Hardware and Plumbing Supplies.
First use on or about Oct. 5, 1954.

SN 7,177. Cooper-Merritt Corporation, Miami, Fla. Filed Apr. 26, 1956

No claim is made to the word "Miami" apart from the mark as shown.
For Women's Cosmetic Compacts Sold Empty.
First use Mar. 7, 1956

SN 8,720. Standard Folding Trays Corp., Brooklyn, N. Y. Filed May 21, 1956. Sec. 2(f).

TRIPL-TITE

Owner of Reg. No. 541,233.
For Folding Cardboard Boxes.
First use Mar. 15, 1944.

SN 10,769. General Molded Plastics, Inc., Dallas, Tex. Filed June 22, 1956.

DUROVAC

For Vacuum Bottle.
First use May 30, 1956.

SN 11,081. Holiday Enterprises, East Greenwich, R. I. Filed June 27, 1956.

LOCKER-VALET

For Collapsible Holder for Shoes and the Like Adapted To Be Suspended in a Locker or From a Door or Wall.
First use on or about May 8, 1956.

SN 11,088. Landers, Frary & Clark, New Britain, Conn. Filed June 27, 1956.

STANLEY

For Insulated Containers—Namely, Insulated Bottles, Jugs, Servers, and Pitchers.
First use Mar. 20, 1923.

SN 12,868. Chase Bag Company, Chicago, Ill. Filed July 26, 1956.

FLUID-PAK

For Plastic Liners for Liquid Containers.
First use on or about June 28, 1956.

SN 12,989. Sunbeam Corporation, Chicago, Ill. Filed July 27, 1956

ADD-A-TOOL

For Cases and Chests for Carrying and Storing Portable Tools.
First use July 18, 1956.

SN 13,248. St. Regis Paper Company, New York, N. Y. Filed Aug. 1, 1956.

LUSTERGRIP

For Receptacles in the Form of Fibre Board Cartons and Boxes.
First use June 28, 1956.

SN 13,356. Dempster Brothers, Incorporated, Knoxville, Tenn. Filed Aug. 3, 1956. Sec. 2(f).

MULTIKARRY

Owner of Reg. No. 579,231.
For Container Units, Comprising a Plurality of Boxes Nested Into a Larger Container, for Collecting, Transporting, and Dumping Bulk Materials.
First use May 25, 1951.

SN 13,471. Nu-Dell Plastics Corporation, Chicago, Ill. Filed Aug. 6, 1956.

STACK-O-MATIC

For Plastic Self-Sorting Silverware and Cutlery Trays.
First use Oct. 2, 1953.

CLASS 3

BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

SN 8,158. Reliable Luggage, Inc., West Pittsburg, Pa. Filed May 11, 1956.

JET FLITE

For Suitcases, Valises, Travelling Bags, and Trunks.
First use Apr. 16, 1956.

SN 8,879. Ben Richter Co., Inc., New York, N. Y. Filed May 23, 1956.

For Toys for Pets.
First use on or about June 15, 1942.

SN 11,278. Henry Meyers, d. b. a. The Henry Company, New York, N. Y. Filed June 29, 1956.

EVER-RIGHT

For Ladies' Handbags.
First use Apr. 15, 1946.

CLASS 4

ABRASIVES AND POLISHING MATERIALS

SN 8,100. Vestal Laboratories, Inc., St. Louis, Mo. Filed May 10, 1956.

STYLE

For Floor Finishes for Asphalt, Linoleum, Rubber, and Vinyl Tile Floors.
First use Apr. 16, 1956.

SN 10,285. Bonnie Brite Products Corporation, New York, N. Y. Filed June 15, 1956.

KILT

For Floor Wax.
First use May 21, 1956.

CLASS 5

ADHESIVES

SN 699,675. Albert W. Spitz, Elkins Park, Pa. Filed Dec. 8, 1955.

KOHLEN

For Binders in Liquid, Powder, or Dry Form for Use in the Foundry Industry.
First use Oct. 5, 1955.

SN 4,215. National Starch Products, Inc., New York, N. Y. Filed Mar. 9, 1956.

RESYN-LOK

Owner of Reg. Nos. 419,542 and 627,576.
For Resin-Base Liquid Adhesive for Use in the Manufacture of Envelopes.
First use Nov. 2, 1955.

SN 9,821. Sidney Smith, d. b. a. Poly-Products, New York, N. Y. Filed June 7, 1956.

For Cement for Wood, Plastics, China, Paper, Glass, and Leather and the Like.
First use Oct. 1, 1955.

SN 10,078. Philip N. Braun, Inc., Syracuse, N. Y. Filed June 12, 1956.

THERMAX

For Rolls of Tape Made Wholly of Paper or of Paper and Textile Material, Said Tape Being Coated With Thermoplastic Adhesive Material for the Production of Identification Tags for Garments and the Like in Laundry and Dry Cleaning Processes.
First use Nov. 8, 1954.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

SN 688,153. Imperial Chemical Industries Limited, London, England. Filed May 24, 1955.

ALLOPRENE

For Chlorinated Rubber in Powder Form for Use in the Manufacture of Film Coatings, Printing Inks, and the Proofing of Textiles.
First use Mar. 18, 1933.

SN 1,609. C. J. Martin & Sons, Inc., Austin, Tex. Filed Jan. 27, 1956.

STOCK-TOX

For Livestock Spray.
First use in 1950.

SN 2,677. Allied Chemical & Dye Corporation, New York, N. Y. Filed Feb. 15, 1956.

A-C

For Synthetic Waxes, Polyethylene, and Polyethylene Derivatives.
First use May 25, 1953, on synthetic waxes.

SN 3,806. Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany. Filed Mar. 5, 1956.

NEOPILATE

Owner of U. S. Reg. No. 590,047.
For Dyestuffs.
First use Feb. 8, 1956; in commerce Feb. 8, 1956.

SN 3,807. Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany. Filed Mar. 5, 1956.

ORTOL

Owner of U. S. Reg. No. 630,695.
For Dyestuffs.
First use Dec. 22, 1955; in commerce Feb. 8, 1956.

SN 4,329. Gordon Johnson Company, Kansas City, Mo. Filed Mar. 12, 1956. Sec. 2(f).

HYPER-SCALD

For Chemical Wetting Agent for Use in Poultry Scalding Baths.
First use July 1, 1947.

SN 5,072. Wilson & Toomer Fertilizer Co., Jacksonville, Fla. Filed Mar. 22, 1956.

DIBEN

For Insecticide, Specifically Against Lawn Pests.
First use not later than June 30, 1955.

SN 5,659. Mobay Chemical Company, St. Louis, Mo. Filed Apr. 2, 1956.

MULTRATHANE

Owner of Reg. No. 623,820.
For Synthetic Resins.
First use Mar. 9, 1956.

SN 6,699. Duro-Test Corporation, North Bergen, N. J. Filed Apr. 19, 1956.

HI-FIDELITY

For Phosphor Powders and Coatings for Fluorescent Lamps.
First use Apr. 9, 1956.

SN 7,989. Imperial Chemical Industries Limited, London, England. Filed May 9, 1956.

FLUON

Owner of British Reg. No. 670,202, dated June 11, 1948.
For Synthetic Resin in the Form of Powder.

SN 8,508. L. Sonneborn Sons, Inc., New York, N. Y. Filed May 17, 1956.

SONOTARD

For Powdered Composition for Retarding the Setting Time of Portland Cement, Concrete, Mortar, Stucco, and the Like.
First use Nov. 1, 1955.

SN 11,279. Miko Chemical & Research Company, Glenshaw, Pa. Filed June 29, 1956.

Liquid-Lite

For Laundry Whitening and Brightening Agent.
First use June 28, 1955.

SN 11,471. Corn Products Refining Company, New York, N. Y. Filed July 3, 1956.

BIG BUNDLE

For Starch for Laundry and Industrial Purposes.
First use Oct. 18, 1955.

SN 11,966. Smooth-On Manufacturing Company, Jersey City, N. J. Filed July 11, 1956.

SONITE

For Epoxy Resin Compound for General Use in the Industrial Arts.
First use June 4, 1956.

SN 12,486. American Cyanamid Company, New York, N. Y. Filed July 20, 1956.

AERO

Owner of Reg. Nos. 124,650, 627,187, and others.
For Catalyst.
First use Jan. 9, 1948.

CLASS 7

CORDAGE

SN 13,406. Academy Ribbon Mills, Los Angeles, Calif. Filed Aug. 6, 1956.

RIBNRAY

For Ribbons for Gift Wrapping.
First use in approximately April 1947.

CLASS 12

CONSTRUCTION MATERIALS

SN 689,754. The Presstite Engineering Company, St. Louis, Mo., to American-Marietta Company, Chicago, Ill. Filed June 17, 1955.

PRESSTITE

Owner of Reg. Nos. 213,153 and 512,363.
For Puttying, Caulking, and Glazing Compounds; Barrier Paper for Building and Construction Purposes; Insulation Mastic Sealing Compounds; Waterproofing Mastics; Asphaltic Cements and Mastics; Asphalt Saturated Building Paper; Asphalt Saturated Waterproofing Fabric; Nut-Washer Assemblies of a Sealing Compound and Metal; and Felt Saturated With a Sealing Compound.
First use May 20, 1925, on sealing compounds.

SN 699,500. Industrial Acoustics Company, Inc., New York, N. Y. Filed Dec. 6, 1955.

IAC

For Pre Fabricated Soundproof Rooms.
First use January 1951.

SN 700,363. The Babcock & Wilcox Company, New York, N. Y. Filed Dec. 21, 1955.

KAOLITE

For Refractory Concrete Mix.
First use Aug. 4, 1955.

SN 2,905. North American Plywood Corporation, New York, N. Y. Filed Feb. 17, 1956.

MAHARA

For Plywood.
First use May 30, 1955.

SN 3,536. Interior Lumber Manufacturers' Association, Vancouver, British Columbia, Canada. Filed Feb. 28, 1956. COLLECTIVE MARK.

ILMA
MILL NO. 1
B. C.
LUMBER — BUREAU

The applicant disclaims any exclusive use of the words "Mill No. 1—B. C.—Lumber—Bureau" apart from the mark as shown.
For Finished Lumber.
First use Aug. 22, 1955; in commerce Sept. 2, 1955.

SN 5,382. Appalachian Lumber Company, Inc., Bluefield, W. Va. Filed Mar. 29, 1956. Sec. 2(f).

KIMBERLY BRAND

No claim is made to the word "Brand."
For Wood Products—Namely, Wood Flooring, Stair Treads, Stair Risers, Mouldings, and Trim.
First use in the year 1946.

SN 5,638. Industrial Vinyls, Inc., Miami, Fla. Filed Apr. 2, 1956.

V

For Extruded Weather Stripping of Deformable Resilient Plastic or Like Material.
First use Jan. 10, 1956.

SN 6,659. Wasco Products, Inc., Cambridge, Mass. Filed Apr. 18, 1956.

WASCOLITE SHOWERWALL

The word "Showerwall" is disclaimed apart from the mark.
Owner of Reg. Nos. 550,045 and 588,724.
For Bathtub Enclosure.
First use Dec. 15, 1955.

SN 6,710. The Flintkote Company, New York, N. Y. Filed Apr. 19, 1956.

STRI-COLOR

For Asbestos-Cement Siding.
First use on or about Jan. 7, 1952.

SN 7,055. Zonolite Company, Chicago, Ill. Filed Apr. 24, 1956.

CORRA-ZONE

For Roofing Material Composed of Vermiculite, Portland Cement, and Corrugated Steel Sheets.
First use Apr. 2, 1956.

SN 7,196. Laclede-Christy Company, St. Louis, Mo. Filed Apr. 26, 1956.

LACLEDE

PITCO

Owner of Reg. Nos. 139,954, 547,722, and others.
For Plastic Lining Material for Furnaces and the Like.
First use in October 1950.

SN 7,550. Ventaire Company, Tulsa, Okla. Filed May 2, 1956.

The drawing is lined for orange and red but no claim is made to use of these particular colors with the trademark.
For Louver Type Metal Awnings for Outdoor Use; and/or Fabricated Parts Used in the Construction or Assembly of Custom Made Louver Type Metal Awnings for Outdoor Use.
First use on or about Mar. 9, 1956.

SN 9,465. Harbison-Walker Refractories Company, Pittsburgh, Pa. Filed June 1, 1956.

H-W F

For Refractory Fire Brick Composed Essentially of the Mineral Forsterite.
First use Dec. 31, 1947.

SN 9,466. Harbison-Walker Refractories Company, Pittsburgh, Pa. Filed June 1, 1956.

H-W FL

For Refractory Fire Brick Composed Essentially of the Mineral Forsterite.
First use June 26, 1949.

SN 9,557. The Lehon Company, Bellwood, Ill. Filed June 4, 1956.

STORM-LOCK

For Shingles.
First use Apr. 30, 1956.

SN 9,589. Reddi-Wipe, Inc., Houston, Tex. Filed June 4, 1956.

FLEXI-BOOT

For Variable Pitch Flashing.
First use Nov. 15, 1954.

SN 9,727. Lelco, Inc., Bend, Oreg. Filed June 6, 1956.

Lelco

For Lumber.
First use Apr 10, 1956.

CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

SN 1,406. Tennessee Products & Chemical Corporation, Nashville, Tenn. Filed Jan. 24, 1956.

SOMERVILLE DYNAMOLD

For Metal Soil Pipes and Fittings.
First use Dec. 22, 1955.

SN 1,408. Tennessee Products & Chemical Corporation, Nashville, Tenn. Filed Jan. 24, 1956.

SIW DYNAMOLD

For Metal Soil Pipes and Fittings.
First use Dec. 15, 1955.

SN 2,476. Koppoware Products Mfg. Co., Chicago, Ill. Filed Jan. 18, 1956.

For Shallow and Deep Dishes, Trays, Center Bowls, Hollow-Ware Receptacle Provided With a Spout for Pouring, Combined Dishes and Bowls and Planters, All Fabricated From Copper and Copper Alloys.
First use Nov. 14, 1947.

SN 4,809. MacClatchie Manufacturing Company, Compton, Calif. Filed Mar. 19, 1956.

SEAL-O-MAC

For Valves for Oilwell Use and Parts Thereof.
First use Oct. 8, 1955.

SN 8,452. Tekaverken Aktiebolag, Alingsas, Sweden. Filed May 16, 1956.

TEKA
ALINGSÅS

The word "Alingsas" is disclaimed apart from the mark as a whole. Owner of Swedish Reg. No. 47,569, dated Jan. 18, 1937.
For Handles and Other Builders' Hardware for Doors and Windows, Door Closers and Curtain Rails With Fittings.

SN 9,403. Samuel Skner, d. b. a. Guardian Valve Company, New York, N. Y. Filed May 31, 1956.

GUARDIAN

For Valves for Relieving Boilers, Tanks, Pumps, and Other Water Containing Vessels of Excess Pressure.
First use April 1931.

SN 9,404. Samuel Skner, New York, N. Y. Filed May 31, 1956.

Argosy

Relief Valve

The words "Relief Valve" are disclaimed apart from the mark as shown. Owner of Reg. No. 432,851.
For Relief Valves for Relieving Boilers, Tanks, Pumps, and Other Water Containing Vessels of Excess Pressure.
First use May 18, 1946.

SN 11,113. Speakman Company, Wilmington, Del. Filed June 27, 1956. Sec. 2(f).

ANYSTREAM

For Shower Heads.
First use in 1928.

SN 13,476. Reldon G. Pinney, Gardena, Calif. Filed Aug. 6, 1956.

CRAZY SUSAN

For 360° Revolving Service Tray.
First use Jan. 10, 1956.

SN 13,556. Whirlpool-Seeger Corporation, St. Joseph, Mich. Filed Aug. 7, 1956.

WHIRLPOOL

For Kitchen Sinks.
First use July 18, 1956.

SN 13,701. Sta-Loc, Inc., Rockford, Ill. Filed Aug. 9, 1956.

STA-LOC

For Set Screws.
First use Mar. 3, 1955.

SN 13,718. Amerock Corporation, Rockford, Ill. Filed Aug. 10, 1956.

"EZ-FLEX"

For Door Catches.
First use at least as early as August 1946.

SN 13,725. Chicago Pottery Company, Chicago, Ill. Filed Aug. 10, 1956.

For China Water Closet Tanks.
First use Dec. 15, 1955.

SN 13,933. Screw Machine Products Co., Portland, Oreg. Filed Aug. 14, 1956.

For Door Locks, Drawer Pulls, Latches, Knobs, and Similar Hardware.
First use Oct. 29, 1954.

SN 14,052. Bristol Metal Products Corp., Bristol, Tenn. Filed Aug. 16, 1956.

BRISMET

For Welded Alloy Steel and Aluminum Pipes and Pipe Fittings.
First use June 18, 1956.

SN 14,090. Pearce Foundry and Machine Works, Inc., Baton Rouge, La. Filed Aug. 16, 1956.

EXPRESSWAY

For Hinged Lawn or Greens Valve Box Fabricated of Metal.
First use July 13, 1956.

CLASS 15

OILS AND GREASES

SN 694,005. Power Petroleum Products, Dallas, Tex. Filed Aug. 31, 1955.

POWER-MATIC

For Automatic Transmission Fluid.
First use Aug. 1, 1955.

SN 175. Socony Mobil Oil Company, Inc., New York, N. Y. Filed Jan. 4, 1956.

MOTREX

For Lubricating Oil and Grease.
First use Feb. 2, 1955.

SN 7,354. Knapp-Monarch Company, St. Louis, Mo. Filed Apr. 30, 1956.

INSTA LITE

For Hydrocarbon Fuel and Cartridges Containing Same.
First use Jan. 12, 1954.

SN 13,545. The Pure Oil Company, Chicago, Ill. Filed Aug. 7, 1956.

POCOLENE

Owner of Reg. No. 253,994.
For Glass Mold Oil To Prevent Sticking of Glass to the Mold.
First use not later than January 1942.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

SN 8,815. American-Marietta Company, d. b. a. Ferbert Schorndorfer Co., Chicago, Ill. Filed May 23, 1956.

WEBCOTE

For Paints.
First use on or about July 1, 1931.

SN 8,816. American-Marietta Company, d. b. a. Ferbert-Schorndorfer Co., Chicago, Ill. Filed May 23, 1956.

HAM-R-TEX

For Paints.
First use on or about Jan. 4, 1940.

SN 8,817. American-Marietta Company, d. b. a. Ferbert Schorndorfer Co., Chicago, Ill. Filed May 23, 1956.

F-S

For Paints; Varnishes; Enamels; Lacquers; Stains; Thinners, Driers, and Vehicles for Paints, Varnishes, Enamels, and Lacquers; Paint Type Primers, Undercoaters, and Sealers; Fillers; Rubbing Compounds for Preparing and Finishing Surfaces.
First use on or about May 1, 1937, on paints, varnishes, enamels, and lacquers.

SN 8,941. Ekco Products Company, Chicago, Ill. Filed May 24, 1956.

EKCO-GLO

For Protective Coating for Metallic Articles.
First use Aug. 17, 1955.

SN 9,149. The Irvin, Jewell and Vinson Company, Dayton, Ohio. Filed May 28, 1956.

Style-Tone

For Prepared and Mixed Liquid Paints.
First use June 1955.

SN 9,316. West Paint & Varnish Company, Everett, Mass. Filed May 29, 1956.

RYNALON

For Floor Finish.
First use about September 1955.

SN 9,393. Thomas George Powis, Mount Carmel, Pa. Filed May 31, 1956.

GRAIN-IT

For Distemper Graining Preparation in Dry Form.
First use 1935.

SN 9,827. Jerome A. Taudte Company, Inc., Miami, Fla. Filed June 7, 1956.

DUR-A-REZ

For Paints, Lacquers, Synthetic Enamels, Paint Reducers, Lacquer Thinners, Solvents, and Protective Coatings.
First use January 1954.
Subj. to Intf. with SN 17,521.

SN 15,431. Bro-Kade Wall Finish Co., Inc., Milwaukee, Wis. Filed Sept. 13, 1956.

Bro-Kade

Owner of Reg. No. 361,811.
For Paints, in Both Liquid and Paste Form, and for Painters' Stencils.
First use May 1, 1938.

SN 17,521. Tobias Paint Mfg. Co., Cleveland, Ohio. Filed Oct. 15, 1956.

Dura-LUX

For Paints, Paint Primers, Paint Enamels, Raw Linseed Oil, Asphalt Products, Stains, Varnishes, Paint Thinners, and Paint Colors.
First use October 1948.
Subj. to Intf. with SN 9,827.

CLASS 17

TOBACCO PRODUCTS

SN 11,911. Consolidated Cigar Corporation, New York, N. Y. Filed July 11, 1956.

CORONELLA

For Cigars.
First use July 5, 1956.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

SN 692,440. V M Nutri-Food, Inc., Evanston, Ill. Filed Aug. 3, 1955.

V-M NUTRICAL

For Dietary Supplement Including Vitamins and Minerals, Particularly Calcium and Phosphorus.
First use July 1, 1953.

SN 700,428. Bristol Laboratories, Inc., New York, N. Y. Filed Dec. 22, 1955.

ZIRNOX

For Pharmaceutical Preparations for the Treatment of Skin Irritations.
First use Apr. 19, 1955.

SN 3,414. Eli Lilly and Company, Indianapolis, Ind. Filed Feb. 27, 1956.

CYTELLIN

For Medicinal Preparation of Sitosterols.
First use Jan. 3, 1956.

SN 3,915. American Cyanamid Company, New York, N. Y. Filed Mar. 6, 1956.

ACHROVIM

For Antibiotic Vitamin-Mineral Preparation.
First use Feb. 21, 1956.

SN 3,972. American Cyanamid Company, New York, N. Y. Filed Mar. 7, 1956.

GEVRAMYCIN

For Antibiotic Vitamin-Mineral Preparation.
First use Feb 21, 1956.

SN 7,476. Biber Pharmacal Company, Inc., South Orange, N. J. Filed May 2, 1956.

SPAN-LETS

For Medicinal Sustained Release Tablets for Use in the Treatment of Obesity, Appetite Control, and Nervousness.
First use Sept. 8, 1955.

SN 8,604. Abbott Laboratories, North Chicago, Ill. Filed May 21, 1956.

DAYAMINERAL

Owner of Reg. No. 393,055.
For Oral Dietary Nutritional Supplement Containing Vitamins and Minerals.
First use May 11, 1956.

SN 11,566. Formulary Counselors, Inc., East Rochester, N. Y. Filed July 5, 1956.

F.C. Vitrops

The drawing is lined for brown.
For Vitamin Solution.
First use Jan. 26, 1952.

SN 11,635. U. S. Vitamin Corporation, New York, N. Y. Filed July 5, 1956.

vi-obamin

For Citrus Bioflavonoid Compound, in Tablet Form, Combined With Multiple Vitamins and Minerals, To Be Used as a Dietary Supplement.
First use June 7, 1956.

SN 12,212. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed July 16, 1956.

TETRAVERRA

For Antibiotic Preparation.
First use Apr. 9, 1956.

SN 12,213. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed July 16, 1956.

TERRAVERRA

For Antibiotic Preparation.
First use Apr. 9, 1956.

SN 12,310. The Upjohn Company, Kalamazoo, Mich. Filed July 17, 1956.

COMYCIN

For Antibiotic Preparation.
First use Feb. 17, 1956.

SN 12,311. The Upjohn Company, Kalamazoo, Mich. Filed July 17, 1956.

DALACIN

For Antibiotic Preparation.
First use Mar. 9, 1956.

SN 12,314. The Upjohn Company, Kalamazoo, Mich. Filed July 17, 1956.

ACETIMYCIN

For Antibiotic Preparation.
First use Mar. 30, 1956.

SN 12,315. The Upjohn Company, Kalamazoo, Mich. Filed July 17, 1956.

HELIOMYCIN

For Antibiotic Preparation.
First use Mar. 30, 1956.

SN 12,316. The Upjohn Company, Kalamazoo, Mich. Filed July 17, 1956.

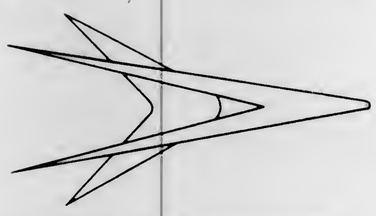
PANALBA

For Antibiotic Preparation.
First use May 16, 1956.

CLASS 19

VEHICLES

SN 2,501. Chrysler Corporation, Highland Park, Mich. Filed Feb. 13, 1956.



For Motor Vehicles and Their Structural Parts.
First use Nov. 8, 1954.

SN 2,776. Ford Motor Company, Dearborn, Mich. Filed Feb. 16, 1956.

FORD

Owner of Reg. Nos. 74,530 and 266,453.
For Passenger Cars and Trucks.
First use Feb. 15, 1895.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

SN 3,803. Automatic Raise-A-Dor Company, Pittsburgh, Pa. Filed Mar. 5, 1956.

ardco

For Automatic Garage Door Operators and Specifically for Mechanically Driven Garage Door Raising Mechanisms, Radio-Operated Remote Controlled Actuating Mechanisms for Such Garage Door Raising Mechanisms, and Combinations of Such Mechanically Driven Garage Door Raising Mechanisms and Radio-Operated Remote Controlled Actuating Mechanisms Therefor.
First use Oct. 9, 1955.

SN 5,619. Electro Lighting Corporation, Chicago, Ill. Filed Apr. 2, 1956.

20/20

For Electric Lighting Fixtures and Parts Thereof.
First use Jan. 1, 1932.

SN 5,621. Electro Silv-A-King Corporation, Chicago, Ill. Filed Apr. 2, 1956.

For Fluorescent Electric Lighting Fixtures.
First use Jan. 1, 1932.

SN 8,058. The Cincinnati Milling Machine Co., Cincinnati, Ohio. Filed May 10, 1956.

Elektrojet

For Machine Tools—Namely, for Electric Discharge Machine Tools.
First use on or about Mar. 1, 1956.

SN 8,867. Etablissements Merlin & Gerin, Grenoble, France. Filed May 23, 1956.

SOLENARC

Owner of French Reg. No. 9,459, dated Apr. 27, 1950 (Grenoble); Natl. Inst. No. 471,705.
For Circuit Breakers and Electro-Magnetic Switches.

SN 9,372. Manufacturing Division, Inc., Canton, Ohio. Filed May 31, 1956.

POWER PAL

For Portable Electric Generator Units.
First use Feb. 20, 1956.

SN 9,529. Commercial Circuits Company, Fullerton, Calif. Filed June 4, 1956.

Mel Com

For Intercommunication Circuit Panels.
First use Dec. 3, 1955.

SN 13,046. Manley, Inc., Kansas City, Mo. Filed July 30, 1956.

HERCUL-EASE

For Electrical Machines for Popping Popcorn.
First use Apr. 22, 1955.

SN 13,234. Monarch Electric Corporation, Jamestown, N. Y. Filed Aug. 1, 1956.

Monarch

For Electric Fuses.
First use in 1909.

SN 13,238. The Ohio Brass Company, Mansfield, Ohio. Filed Aug. 1, 1956.

Dynagap

For Electrical Apparatus Equipment and Supplies—Namely, Arc Gaps for Lightning Arresters.
First use May 31, 1956.

SN 13,379. Pacific International Corporation, New York, N. Y. Filed Aug. 3, 1956.

DYNARAMA SOGECO

For Electric Generating Units.
First use May 11, 1956.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

SN 662,792. Greer Manufacturing Company, Springport, Mich. Filed Mar. 17, 1954.

For Three Dimensional Type Tic-Tac-Toe Games.
First use on or about Aug. 1, 1953.

SN 665,481. Dennis Mitchell Industries, Philadelphia, Pa. Filed Apr. 30, 1954.

LITTLE MISS PRES-TOE

Owner of Reg. No. 565,781.
For Toy Collapsible Shopping Cart.
First use Feb. 12, 1954.

SN 688,123. B. M. C. Manufacturing Corp., Binghamton, N. Y. Filed May 24, 1955.

Speed-O-Matic

For Toy Wheel Goods.
First use Mar. 4, 1955.

SN 692,698. Harold Apelgren, d. b. a. Bay-De-Noc Lure Company, Gladstone, Mich. Filed Aug. 9, 1955.

SWEDISH PIMPLE

For Fishing Lures.
First use Apr. 15, 1954.

SN 2,885. Klein's Sporting Goods, Inc., Chicago, Ill. Filed Feb. 17, 1956.

For Fishing Rods.
First use Nov. 23, 1955.

SN 5,255. Toyama Fishing-Net Manufacturing Co., Ltd., Higashi-ku, Osaka, Japan. Filed Mar. 26, 1956.

PENGUIN

Owner of Japanese Reg. No. 435,735, dated Nov. 30, 1953.
For Fishing Nets.

SN 6,382. Robert E. Swain, Wakefield, Mass. Filed Apr. 13, 1956.

STATE SIDE

For Playing Cards.
First use June 28, 1954.

SN 6,789. Eric G. Clarke, d. b. a. Eric G. Clarke & Co., Portland, Oreg. Filed Apr. 20, 1956.

Sfun!

For Game Played With Counters Bearing Letters Adapted for Arranging in Sequence to Spell Words.
First use Sept. 3, 1955.

SN 7,303. Ament-Douglass Manufacturing Company, San Bruno, Calif. Filed Apr. 30, 1956.

METLBUG

Owner of Reg. No. 625,775.
For Artificial Fishing Lures.
First use Mar. 30, 1956.

SN 8,572. Northland Ski Manufacturing Co., St. Paul, Minn. Filed May 18, 1956.

NORTHLAND

Owner of Reg. Nos. 113,623 and 124,569.
For Snow Skis, Metal Protectors for Tips of Skis, Metal Protectors for Heels of Skis, Bindings for Snow Skis (Ski Harness), Ski Poles, Ice Hockey Sticks, Hockey Pucks, Toboggans, Toboggan Cushions, Snowshoes, Snowshoe Sandals, Ski Presses (Ski Protecting Blocks), Water Skis, Aquaplanes, Water Ski Bindings, Tow Ropes for Water Skis and Aquaplanes.
First use June 1, 1911.

SN 8,741. Burke Golf Equipment Corporation, Newark, Ohio. Filed May 22, 1956.

ROCK-IT

Owner of Reg. No. 323,896.
For Golf Clubs and Golf Balls.
First use July 8, 1953.

SN 9,298. Selchow & Righter Company, New York, N. Y. Filed May 29, 1956.

CONEY ISLAND

For Boardgames With Playing Accessories.
First use Mar. 5, 1956.

SN 9,575. Robert S. Osgood, Los Angeles, Calif. Filed June 4, 1956.

THUNDERBIRD

For Golf Balls.
First use Sept. 15, 1955.
Subj. to Intf. with SN 8,052.

SN 9,745. Range Rhythm Toys, Inc., Chicago, Ill. Filed June 6, 1956.

"MR. BANJO"

For Toy Banjos.
First use May 5, 1956.

SN 11,097. Nichols Industries, Inc., Jacksonville, Tex. Filed June 27, 1956.

For Toy Cap Pistols and Other Toys.
First use Mar. 15, 1949.

SN 11,098. Nichols Industries, Inc., Jacksonville, Tex. Filed June 27, 1956.

Stallion

For Toy Cap Pistols and Other Toys.
First use June 1, 1950.

SN 11,200. The Sun Rubber Company, Barberton, Ohio. Filed June 28, 1956.

SUN-TAC

Owner of Reg. Nos. 552,493, 591,912, and others.
For Covers for Athletic Balls—Namely, Footballs and Basketballs.
First use May 18, 1956.

SN 11,255. Higbie Manufacturing Company, Rochester, Mich. Filed June 29, 1956.

TRACER

For Fishing Tackle, viz., Fishing Reels
First use Feb. 16, 1956.

SN 11,256. Higbie Manufacturing Company, Rochester, Mich. Filed June 29, 1956.

TORRENT

For Fishing Tackle, viz., Fishing Reels
First use Feb. 16, 1956.

SN 11,257. Higbie Manufacturing Company, Rochester, Mich. Filed June 29, 1956.

TRAVELER

For Fishing Tackle, viz., Fishing Reels.
First use Feb. 16, 1956.

SN 11,425. South Bend Tackle Company, Inc., South Bend, Ind. Filed July 2, 1956.

PERMANIZED

For Fishing Lines.
First use June 12, 1956.

SN 11,523. Athletic Products Company, Inc., South Bend, Ind. Filed July 5, 1956.

SHOCK-EZE

For Tube Bar Padding for Use on Athletic Face Guards and the Like.
First use June 26, 1956.

SN 11,782. Marlin Toy Products, Inc., Chicago, Ill. Filed July 9, 1956.

SLAP JACK

For Collapsible Figure Toys.
First use Mar. 5, 1956.

SN 11,833. Alabe Crafts, Inc., Cincinnati, Ohio. Filed July 10, 1956.

HOOK A-CROOK

For Game Played With Crescent Shaped Pieces To Be Strung Together in the Form of a Chain by Skillful Manipulation of the Pieces Taken Singly and Successively From an Indiscriminate Mass of Such Pieces.
First use July 2, 1956.

SN 11,920. J. Dring, Ltd., Portsmouth, England. Filed July 11, 1956.

SHIP AHOY

For Racing Game Played With a Board, Cards, and Model Ships.
First use Nov. 1, 1933; in commerce Nov. 1, 1933.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

SN 608,029. Kiekhaefer Corporation, Cedarburg, Wis. Filed Dec. 26, 1950.

"Hurricane"

For Outboard Motors and Parts Therefor.
First use Nov. 9, 1949.

SN 689,933. Ekco Products Company, Chicago, Ill. Filed June 21, 1955.

Diamondware

For Silver, Chrome, Nickel Plated, and Stainless Steel Tableware—Namely, Knives, Forks, and Spoons.
First use on or about July 1, 1950.

SN 692,571. The Budd Company, Philadelphia, Pa. Filed Aug. 8, 1955. Sec. 2(f).

Budd

Owner of Reg. Nos. 216,022 and 528,554.
For Dies and Other Tools and Devices for Making Stampings, Sub-Assemblies, and Parts for Bodies and Chassis Frames of Automotive Road Vehicles.
First use about 1914.

SN 697,828. The Paul-Munroe Company, Bell, Calif. Filed Nov. 7, 1955.

The drawing is lined for gray and red, but no particular color is claimed.
For Hydraulic Power Transmission Equipment and Systems for Development, Transmission and Utilization of Hydraulic Energy.
First use Sept. 24, 1955.

SN 699,478. Cutting Room Appliances Corp., New York, N. Y. Filed Dec. 6, 1955.

ELECTROMATIC

For Sheet Material Spreading Machines.
First use Apr. 15, 1947; Oct. 1, 1946, as to "Electromatic."

SN 700,019. Crown Cork & Seal Company, Inc., Baltimore, Md. Filed Dec. 15, 1955.

TRI-O-MATIC

Owner of Reg. Nos. 530,994, 327,650, and others.
For Processing Machinery for Blending, Pre-Carbonating, Degassing, Cooling, and Carbonating.
First use Oct. 7, 1954.

SN 830. Reeves Equipment Corporation, New York, N. Y. Filed Jan. 16, 1956.

MONOFLOW

For Phonograph Record Presses and Accessories and Parts.
First use Sept. 1, 1955.

SN 2,201. Arthur H. Stewart, d. b. a. The A. Henry Stewart Co., Hayward, Calif. Filed Feb. 6, 1956.

For Boring Tools.
First use Apr. 4, 1947.

SN 6,550. Pioneer Gen-E-Motor Corporation, Chicago, Ill. Filed Apr. 17, 1956.

PIONEER

For Lawn Mowers, Small Gasoline Engines of the Type Used With Lawn Mowers and Parts Thereof.
First use Aug. 1, 1953.

SN 8,450. J. P. Stevens & Co., Inc., New York, N. Y. Filed May 16, 1956.

ACCUTRON

For Yarn Letoff Control Mechanisms.
First use Mar. 16, 1956.

SN 8,667. Harnischfeger Corporation, Milwaukee, Wis. Filed May 21, 1956. Sec. 2(f).

HEVI-LIFT

For Hoists.
First use Oct. 9, 1945.

SN 10,128. Camco (Machinery) Limited, Letchworth, England. Filed June 13, 1956.

CAMCO

For Printing Machinery, Paper Folding Machinery, Baling Machinery, Letter-Press Machinery, Paper Cutting and Perforating Machinery, Paper Wrappering Machinery, and Book-Binding Machinery.
First use Sept. 2, 1914; in commerce Jan. 31, 1954.

SN 10,430. Highway Equipment Company, Inc., Cedar Rapids, Iowa. Filed June 18, 1956. Sec. 2(f).

NEW LEADER

Owner of Reg. No. 538,584.
For Spreaders for Sand, Cinders, and Salt for Highway Maintenance and Operation; Spreaders for Aggregate, Chips, and Other Material; Asphalt Spreaders; and Bulk Materials Handling Bodies for Vehicles.
First use Mar. 31, on bulk materials handling bodies.

SN 12,634. Kansas Jack, Inc., McPherson, Kans. Filed July 23, 1956.

THE KANSAS JACK

For Portable Manually Operable Tool for Restoring Damaged Vehicle Bodies or Fenders to Their Original Shapes.
First use Feb. 14, 1953.

SN 12,662. H. K. Porter, Inc., Somerville, Mass. Filed July 23, 1956.

HKP

Owner of Reg. No. 610,633.
For Single-Hand and Two-Hand Cutting-Off Metal Working Tools—Namely, Rod, Bolt, Wire, Chain, and Sheet Cutters, and Pruning Tools.
First use prior to 1940 on pruning tools; 1927 as to "HKP" on cutting-off metal working tools.

SN 12,832. Adolf Noss, Solingen-Aufderhohe, Germany. Filed July 25, 1956.

Tondeo

The mark consists of the word "Tondeo." Owner of German Reg. No. 522,627, dated June 26, 1940.
For Razor Blades and Cutlery.

SN 13,004. Alpine Aktiengesellschaft Maschinenfabrik und Eisengiesserei, Augsburg, Germany. Filed July 30, 1956.

KOLLOPLEX

Owner of German Reg. No. 603,731, dated Dec. 28, 1950.
For Machinery for Comminuting Materials.

SN 13,064. Pen-Vend Corporation, Clayton, Mo. Filed July 30, 1956.

For Coin-Operated Dispensing Machines for Writing Instruments—Namely, Ball-Point Pens.
First use on or before Nov. 30, 1955.

SN 13,232. Michigan Tool Company, Detroit, Mich. Filed Aug. 1, 1956.

For Gear Cutting Machines, Gear Finishing Machines, Gear Shaping Machines, Gear Grinding Machines, Checking Machines, Machines for Cutting Toothed and Shaped Elements, Machines for Finishing Toothed and Shaped Elements, Machines for Forming Toothed Elements, Cleaning Machines, Chip Separators, Classifying Devices, Automatic Handling Devices, Loaders, Cutting Tools, Hobs, Shaving Tools, Worms, Gears, Burnishers, Laps, and Racks.
First use in 1937.

SN 14,837. Victor Manufacturing & Gasket Co., Chicago, Ill. Filed Aug. 29, 1956.

VICTO-SEAL

For Axial Face Seals for Rotating Shafts.
First use Nov. 11, 1955.

SN 17,649. Massey-Harris-Ferguson Inc., Racine, Wis. Filed Oct. 17, 1956.

WORK BULL

For Tractors.
First use June 15, 1956.

CLASS 24

LAUNDRY APPLIANCES AND MACHINES

SN 12,128. Ald, Ind., Chicago, Ill. Filed July 16, 1956.

ALDWASH

For Washers.
First use Apr. 21, 1948.

SN 12,129. Ald, Inc., Chicago, Ill. Filed July 16, 1956.

ALDSPIN

Owner of Reg. No. 539,267.
For Laundry Extractors.
First use Apr. 21, 1948.

SN 12,257. The Diamond Match Company, New York, N. Y. Filed July 17, 1956.

For Clothespins.
First use Jan. 13, 1956.

SN 12,260. The Diamond Match Company, New York, N. Y. Filed July 17, 1956.

INDEPENDENCE

For Clothespins.
First use Jan. 13, 1956.

SN 12,798. Cutler Metal Products Co., Camden, N. J. Filed July 25, 1956.

LAUNDRYMAID

For Laundry Cabinet Tubs.
First use Feb. 16, 1956.

SN 13,185. The American Laundry Machinery Company, Cincinnati, Ohio. Filed Aug. 1, 1956.

RINSOMATIC

For Control Mechanism for Washing Machines and the Like.
First use July 17, 1953.

SN 14,019. Textile Mills Company, Chicago, Ill. Filed Aug. 15, 1956.

GOLDEN CROWN

For Ironing Covers and Pads.
First use July 5, 1956.

SN 14,216. Borg-Warner Corporation, Chicago, Ill. Filed Aug. 20, 1956.

NORGE

Owner of Reg. Nos. 255,970, 540,968, and others.
For Machines for Drying Textiles and Similar Fabrics and Accessories and Parts Thereof for Replacement and Repair.
First use Apr. 16, 1953.

SN 14,760. Philco Corporation, Philadelphia, Pa. Filed Aug. 28, 1956.

PHILCO

For Laundry Dryers.
First use Apr. 21, 1956.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

SN 693,993. Heat Timer Corporation, New York, N. Y. Filed Aug. 31, 1955.

THERM-O-VALVE

The word "Valve" is disclaimed apart from the mark as shown.
For Thermostatic Controlled Adjustable Vent Valves and Parts Thereof for Heating Apparatus.
First use Mar. 1, 1954.

CLASS 27

HOROLOGICAL INSTRUMENTS

SN 11,330. Benrus Watch Company, Inc., New York, N. Y. Filed July 2, 1956.

DIAL-O-RAMA

For Watches.
First use June 21, 1956.

SN 11,584. The E. Ingraham Company, Bristol, Conn. Filed July 5, 1956.

NITE N' DAY

Owner of Reg. No. 327,168.
For Clocks and Watches.
First use Apr. 1, 1935.

SN 12,200. S. Losse & Sons, Inc., Philadelphia, Pa. Filed July 16, 1956.

LESINE

For Watches.
First use 1936.

SN 13,760. Granat Bros., San Francisco, Calif. Filed Aug. 10, 1956.

Fair Lady

For Watches.
First use on or about Aug. 2, 1956.

CLASS 28

JEWELRY AND PRECIOUS-METAL WARE

SN 4,267. America House, Ltd., New York, N. Y. Filed Mar. 12, 1956.

AMERICA HOUSE

Owner of Reg. No. 405,036.
For Silver and Silver Plated Knives, Forks, Spoons, Ladles, Vases, Bowls, Pitchers, Salt and Pepper Cellars, Serving Forks and Spoons, Dishes, Platters, Serving Trays, and Compacts; Jewelry—Namely, Pins, Necklaces, Cuff Links, Brooches, and Bracelets of Silver and Base Metal Set With Semi-Precious and Non-Precious Stones.
First use 1943.

SN 13,759. Granat Bros., San Francisco, Calif. Filed Aug. 10, 1956.

Fair Lady

For Finger Rings.
First use on or about July 31, 1956.

SN 13,937. Squire, Inc., Taunton, Mass. Filed Aug. 14, 1956.

For Cuff Links, Tie Clasps, Collar Pins, Key Chains, and Money Clips, All of Precious Metal, in Whole or Part.
First use on or about March 1952.

SN 15,028. Forstner, Inc., Irvington, N. J. Filed Sept. 4, 1956.

LOVERS LANE

For Novelty and Charm Bracelets.
First use on or about May 25, 1956.

CLASS 29

BROOMS, BRUSHES, AND DUSTERS

SN 10,482. Edward Holton Russell, d. b. a. Holton Process Co., Manchester, N. H. Filed June 18, 1956.

NEVA TOUCH

For Mops.
First use Feb. 23, 1956.

CLASS 30

CROCKERY, EARTHENWARE, AND PORCELAIN

SN 4,268. America House, Ltd., New York, N. Y. Filed Mar. 12, 1956.

AMERICA HOUSE

Owner of Reg. No. 405,036.
For Pottery, Earthenware, and Porcelain Plates, Bowls, Cups, Saucers, Pitchers, Mugs, Vases, Bottles, Soup Bowls, Cereal Bowls, Sugar Bowls, Creamers, Teapots.
First use 1943.

CLASS 31

FILTERS AND REFRIGERATORS

SN 1,150. Borg-Warner Corporation, Chicago, Ill. Filed Jan. 20, 1956

NORGE DOUBLE-DECKER

For Refrigerators and Parts Thereof for Replacement and Repair.
First use Oct. 30, 1955.

SN 7,803. R. M. Hollingshead Corporation, Camden, N. J. Filed May 7, 1956.

ZER-O-ICE

For Hermetically Sealed Portable Refrigerants.
First use Apr. 6, 1956.

CLASS 32

FURNITURE AND UPHOLSTERY

SN 682,491. Schnadig Corporation, Chicago, Ill. Filed Feb. 28, 1955

For Furniture—Namely, Wood Furniture, Upholstery Furniture, Chairs, Arm Chairs, Upholstered Chairs, Davenports, Settees, Sofas, Lounges, Couches, Tables, and Desks.
First use Nov. 9, 1953.

SN 24. The Chicago Desk Pad Company, Inc., Chicago, Ill. Filed Jan. 3, 1956.

For Chair Cushions.
First use Mar. 28, 1955.

SN 1,588. House of Time, Inc., New York, N. Y. Filed Jan. 27, 1956.

The notation "Seal of Acceptance for Design and Quality" is disclaimed apart from the mark as shown.
For Antique Furniture—Namely, Beds, Book Cases, Cabinets, Chairs, Chests, Desks, and Tables; Modern Furniture—Namely, Couches, Credenzas, Mantels, Stools, Tables, Chairs, Chests, Mirrors and Beds; Upholstered Furniture—Namely, Chairs and Sofas; Wrought Iron Furniture—Namely, Tables and Chairs.
First use Apr. 26, 1955.

SN 14,625. Douglas Furniture Corporation, Chicago, Ill. Filed Aug. 27, 1956.

Nugget

For Kitchen and Dinette Tables and Chairs.
First use June 12, 1956.

SN 14,628. Douglas Furniture Corporation, Chicago, Ill. Filed Aug. 27, 1956.

Gold Strike

For Kitchen and Dinette Tables and Chairs.
First use June 4, 1956.

SN 14,630. Douglas Furniture Corporation, Chicago, Ill. Filed Aug. 27, 1956.

Aztec

For Kitchen and Dinette Tables and Chairs.
First use June 12, 1956.

SN 14,815. The Lane Company, Inc., Altavista, Va. Filed Aug. 29, 1956. Sec. 2(f).

AROMA-TITE PRESSURE TESTED

Owner of Reg. No. 554,832.
For Cedar Chests.
First use Sept. 8, 1948.

CLASS 33

GLASSWARE

SN 4,266. America House, Ltd., New York, N. Y. Filed Mar. 12, 1956.

AMERICA HOUSE

Owner of Reg. No. 405,036.
For Glass Stemware, Tumblers, Cocktail Pitchers and Shakers, Decanters, Bowls, Plates, Cups, Saucers, Dish Covers, Cruets, Vases and Jars.
First use 1943.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

SN 677,095. Reynolds Electric Co., River Grove, Ill. Filed Nov. 22, 1954.

Reco

For Circulating Fans for Drying, Cooling, and Ventilating.
First use July 1, 1929.

SN 966. National Research Corporation, Cambridge, Mass. Filed Jan. 17, 1956.

Owner of Reg. Nos. 594,193 and 621,237.
For Vacuum Furnaces and Vacuum Dehydrating Apparatus.
First use on or about October 1955.

SN 1,597. Joseph Feinberg, d. b. a. Manhattan Electric and Maintenance Co., Brooklyn, N. Y. Filed Jan. 27, 1956.

MANHATTAN

For Portable Electric Blowers.
First use Feb. 10, 1951.

SN 3,862. International Heater Company, Utica, N. Y. Filed Mar. 5, 1956.

ECONOMY

Owner of Reg. Nos. 107,339 and 391,920.
For Air Conditioning Equipment and Appurtenances Therefor, for Heating, Circulating, Filtering, and Humidifying of Air in Winter; and Cooling Equipment and Appurtenances Therefor, for Cooling, Circulating, Filtering, and De-Humidifying Air in Summer.
First use Jan. 6, 1938.

SN 6,503. Baseline Manufacturing Corp., Minneapolis, Minn. Filed Apr. 17, 1956.

Basevector

For Industrial Space Heating Radiators and Closures Therefor; and Parts Thereof.
First use in or about April 1952.

SN 11,195. Don H. Seitz, d. b. a. The Aquarian, Akron, Ohio. Filed June 28, 1956.

For Portable Distillation Apparatus Particularly Adapted for the Evaporation, Condensation, and Resultant Purification of Domestic Tap Water.
First use June 16, 1956.

SN 13,443. Goodwin of California, Inc., Berkeley, Calif. Filed Aug. 6, 1956.

Mizers

For Rotary Blades Employed To Divide the Space in the Bowls of Barbecue Braziers.
First use May 1953.

CLASS 36

MUSICAL INSTRUMENTS AND SUPPLIES

SN 11,544. Columbia Broadcasting System, Inc., Bridgeport, Conn. Filed July 5, 1956.

The word "Record" is disclaimed apart from the mark as shown.
For Grooved Phonograph Records.
First use Apr. 14, 1956.

CLASS 37

PAPER AND STATIONERY

SN 661,384. James Weiss, d. b. a. Master Products Company, Chicago, Ill. Filed Feb. 19, 1954.

MASTER

For Stencils, Styli for Cutting Stencils, Stencil Writing Plates, and Stencil Lettering Guides.
First use Sept. 5, 1937.

SN 685,945. American Artists Group, Inc., New York, N. Y. Filed Apr. 21, 1955.

American Artists Group

Art in Correspondence

The applicant disclaims the use of the words "Art in Correspondence" apart from the mark as shown.
For Notes, Note Paper and Letter Paper, and Box Assortments Thereof.
First use Jan. 5, 1954.

SN 4,972. Joe Lowe Corporation, New York, N. Y. Filed Mar. 21, 1956.

ADVER-CHEK

For Forms Used in Making Advertising Reports.
First use Oct. 13, 1955.

SN 7,419. Brittains Limited, near Leek, England. Filed May 1, 1956.

DECAFLAT

Priority claimed under Sec. 44(d) on British Reg. No. 749,951, dated Jan. 16, 1956.
For Decalcomania Paper.

CLASS 38

PRINTS AND PUBLICATIONS

SN 685,221. Tompkin's Label Service, Philadelphia, Pa. Filed Nov. 6, 1956.

KRIMP-O-SEAL

For Printed Labels.
First use Mar. 25, 1955.

SN 2,958. Editorial el Imparcial, Inc., San Juan, Puerto Rico. Filed Feb. 20, 1956.

EL IMPARCIAL

Owner of Reg. No. 440,119.
For Newspaper.
First use May 22, 1933.

SN 4,985. The Purse Company, d. b. a. Purco, Chattanooga, Tenn. Filed Mar. 21, 1956.

The drawing is lined for red but no claim is made to color.
For Financial Publication Issued Several Times a Year, at Irregular Periods.
First use Mar. 1, 1956.

SN 7,265. Alf Mongé, Santa Rosa, Calif. Filed Apr. 27, 1956.

KALENDOGRAPH

For Perpetual Calendar.
First use Apr. 2, 1956.

SN 7,474. Better Value Building Company, Detroit, Mich. Filed May 2, 1956.

MRS. AMERICA DREAM HOUSE

For Blue Prints of Dwellings.
First use Aug. 16, 1954.

SN 7,523. National Alliance of Television and Electronic Service Associations, Chicago, Ill. Filed May 2, 1956.

For Monthly Trade Journal, Pamphlets, Bulletins, and Publications Disseminating Information to Local Affiliates and Members.
First use Jan. 1, 1951.

SN 7,861. Southern California Section of the American Chemical Society, Los Angeles, Calif. Filed May 7, 1956.

SCALACS

For Monthly Bulletin.
First use Sept. 28, 1945.

SN 8,989. Scripto, Inc., Atlanta, Ga. Filed May 24, 1956.

SCRIPTIPS

Owner of Reg. No. 420,399.
For Magazine.
First use in June 1950.

SN 11,851. Benjamin Gorlick, Seattle, Wash. Filed July 10, 1956.

HOBBY HORSING

For Newspaper Column Printed From Time to Time.
First use June 28, 1956.

SN 12,334. Barnes Engineering Company, Stamford, Conn. Filed July 18, 1956.

Techniques

For Publication Issued From Time to Time.
First use Sept. 16, 1955.

SN 12,503. Encyclopaedia Britannica Films Inc., Wilmette, Ill. Filed July 20, 1956.

EB

For Motion Pictures, Projection Slides, and Film Strips.
First use on or about Jan. 1, 1952.

SN 12,659. The Pacific Union Association of Seventh Day Adventists, d. b. a. Loma Linda Food Company, Glendale, Calif. Filed July 23, 1956.

Between Us

For Magazine Comprising a Staff Paper Published at Intervals.
First use May 13, 1956.

SN 12,821. M D Publications, Inc., New York, N. Y. Filed July 25, 1956.

M D INTERNATIONAL SYMPOSIA

Owner of Reg. No. 426,157.
For Series of Monographs Published Periodically Containing Symposia on Medical Subjects.
First use Apr. 13, 1956.

SN 17,297. Looart Studio Press, Inc., Colorado Springs, Colo. Filed Oct. 11, 1956.

LOOART

For Greeting Cards.
First use on or about Oct. 10, 1947.
Subj. to Intf. with SN 1,847.

CLASS 39

CLOTHING

SN 687,035. The Alligator Company, St. Louis, Mo. Filed May 9, 1955.

TRAVELWEIGHT

Owner of Reg. No. 288,723.
For Water Repellent Coats.
First use June 12, 1931.

SN 694,455. John B. Stetson Company, Philadelphia, Pa. Filed Sept. 9, 1955.

RAILBIRD

For Hats for Men.
First use Apr. 26, 1950.

SN 695,137. A. S. Beck Shoe Corporation, New York, N. Y. Filed Sept. 22, 1955.

CREAM PUFFS

For Shoes for Women of Leather, Fabric, and Rubber and Combinations Thereof.
First use Nov. 24, 1954.

SN 699,626. Deaton-Patterson Clothing Company, Memphis, Tenn. Filed Dec. 8, 1955.

Kings D P Needle

For Men's Clothing—Namely, Suits, Top Coats, Overcoats, Rain Coats, Sport Coats, Sport Jackets, Slacks, Dress Shirts, Sport Shirts, Hats, Neck Wear, Hosiery, Pajamas, and Handkerchiefs.
First use May 1953.

SN 700,576. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed Dec. 27, 1955.

CATHEDRAL

Owner of Reg. No. 306,678.
For Collars and Four-in-Hand Neckties for Men.
First use 1922 on collars.

SN 3,267. Baker Clothes, Inc., Philadelphia, Pa. Filed Feb. 24, 1956.

VIEN EASE

For Men's Clothing—Namely, Coats, Vests, and Trousers.
First use Mar. 1, 1955.

SN 4,466. B. W. Mayer, Ltd., New York, N. Y. Filed Mar. 13, 1956.

LEATHER BACK

Owner of Reg. No. 324,363.
For Neckties, Cravats, Mufflers, and Scarfs.
First use January 1918.

SN 6,984. Richard J. Cole, Inc., New York, N. Y. Filed Apr. 24, 1956.

MINUETTES

Owner of Reg. No. 613,218.
For Ladies' and Misses' Dresses.
First use Oct. 1, 1953.

SN 7,170. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed Apr. 26, 1956.

PAGE

For Outer Shirts.
First use Apr. 4, 1956.

SN 7,684. The Kaynee Company, Cleveland, Ohio. Filed May 4, 1956.

Kaynee

Owner of Reg. No. 90,312.
For Boys' Sport and Dress Shirts, Pajamas, Dress and Wash Trousers, Cabana Suits, Knitwear, Swimwear, and Jackets.
First use on or about Aug. 1, 1955.

SN 7,702. The Silvertex Company, Philadelphia, Pa. Filed May 4, 1956.

DURA-FLEX

For Men's and Boys' Suits, Overcoats, Topcoats, Rainwear and Jackets and Trousers.
First use Feb. 1, 1955.

SN 8,189. Braselli, Palm Springs, Calif. Filed May 14, 1956.

BRASELLI

For Ladies' Underwear, Blouses, Skirts, Halters and Shorts, Foundations, Brassieres, Girdles, Pajamas, Robes, and Petticoats.
First use Nov. 1, 1955.

SN 8,429. Oakloom Clothes, Inc., Baltimore, Md. Filed May 16, 1956.

Oakloom

For Men's Outer Clothing—Namely, Men's Suits Comprising Coats, Pants and Vests, Knickers, Top Coats, and Overcoats.
First use October 1935.

SN 9,053. Carol Robins, Inc., New York, N. Y. Filed May 25, 1956.

CAROL ROBINS

For Ladies' Dresses.
First use May 1, 1956.

SN 10,597. Hickey-Freeman Company, Rochester, N. Y. Filed June 20, 1956.

TROPI-LYTE

Owner of Reg. No. 314,642.
For Men's Suits.
First use in or about October 1952.

SN 10,666. Cooper's, Incorporated, Kenosha, Wis. Filed June 21, 1956.

THERMA-KNIT

For Men's and Boys' Underwear.
First use May 31, 1956.

SN 11,043. Triboro Hat Corp., New York, N. Y. Filed June 26, 1956.

PLANAR

For Men's and Boys' Wool Felt Hats.
First use May 18, 1956.

SN 11,135. Belk Stores Services, Inc., Charlotte, N. C. Filed June 28, 1956.

Eastover

For Men's Suits.
First use Apr. 12, 1956.

SN 11,147. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed June 28, 1956.

LADDER

For Swim Wear.
First use Mar. 2, 1955.

SN 11,150. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed June 28, 1956.

WATER BOY

For Swim Wear.
First use Apr. 3, 1956.

SN 11,151. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed June 28, 1956.

FIRST MATE

For Outer Shirts.
First use Apr. 9, 1956.

SN 11,301. Shelburne Shirt Co., Inc., New York, N. Y. Filed June 29, 1956.

CHESTERSHIRE

For Men's Dress Shirts.
First use May 10, 1941.

SN 12,867. Catalina, Inc., Los Angeles, Calif. Filed July 26, 1956.

YOUNG SUITOR'S

For Knitted Suits for Boys and Girls.
First use about Apr. 1, 1956.

SN 12,938. David Crystal, Inc., New York, N. Y. Filed July 27, 1956. Sec. 2(f).

COURTRAI

Owner of Reg. No. 401,000.
For Ladies' and Misses' Dresses, Dress Ensembles, Consisting of Dress and Coat.
First use January 1942.

SN 12,951. Glandore Knitting Mills Co., New York, N. Y. Filed July 27, 1956.

Glandore

For Ladies' and Misses' Sweaters.
First use June 1, 1956.

SN 12,980. Skylon Corporation, New York, N. Y. Filed July 27, 1956.

EYE-DEAS

For Ladies', Misses', and Children's Underwear—Namely, Panties and Briefs.
First use Feb. 1, 1956.

SN 13,757. Gerald Hosiery Mills, Inc., New York, N. Y. Filed Aug. 10, 1956.

SUPERAMA

For Ladies' Hosiery.
First use July 24, 1956.

SN 13,919. S. H. Kress and Company, New York, N. Y. Filed Aug. 14, 1956.

ADONIS

Owner of Reg. No. 340,874.
For Hosiery.
First use September 1914.

SN 14,249. Julius Kayser & Co., New York, N. Y. Filed Aug. 20, 1956.

HIGH-TOR

For Men's Hosiery.
First use July 27, 1956.

SN 14,383. American Biltrite Rubber Co., Inc., Chelsea, Mass. Filed Aug. 22, 1956.

EVERLITE

For Soles and Half Soles of Rubber and Rubber Composition.
First use in or about April 1948.

CLASS 40

FANCY GOODS, FURNISHINGS, AND NOTIONS

SN 11,957. Plasti-Stitch, Inc., Port Chester, N. Y. Filed July 11, 1956.

DUO-SEAL

For Pre-Cut Heat Seal Fabric Strips and Patches for Patching Holes in Fabrics, Hosiery, Garments; and Heat Seal Tape for Mending, Binding and Seaming and Hemming Fabrics, Rugs, Stair Treads, Awnings, Luggage, Work Clothes, Sails, Tarpaulins, Sticking on Contact and Finally Applied by Heat and Pressure.
First use Apr. 15, 1956.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

SN 700,022. Fieldcrest Mills, Inc., Spray, N. C. Filed Dec. 15, 1955.

Applicant makes no claim to exclusive rights to the words "Fashions for Bed and Bath" as shown on the drawing. The drawing is lined for gold. Owner of Reg. No. 500,882.
For Bedspreads, Blankets, Sheets, Pillow Cases, Towels, Bath Mats, and Bath Cloths.
First use Dec. 1, 1955.

SN 2,863. Deering, Milliken & Co., Inc., New York, N. Y. Filed Feb. 17, 1956.

ATTACHÉ

For Textile Fabrics Made of Wool, Cotton, and Synthetic Fibers and Combinations Thereof.
First use Feb. 25, 1954.

SN 8,992. Henry L. Sobel, d. b. a. King Morpheus Products, New York, N. Y. Filed May 24, 1956.

Heaven t' Seven

For Blankets and Comforters.
First use May 15, 1956.

SN 9,411. Titus Blatter & Co., New York, N. Y. Filed May 31, 1956.

MOTIQUE

For Piece Goods for Upholstery, Draperies, Slip Covers, Curtains, Bedspreads, and Daybed Covers.
First use Dec. 5, 1955.

SN 10,729. M. P. Tuttle Co., Inc., New York, N. Y. Filed June 21, 1956.

HONOR ROLL

For Dress, Blouse, and Sportswear Fabric.
First use Apr. 19, 1956.

SN 10,730. M. P. Tuttle Co., Inc., New York, N. Y. Filed June 21, 1956.

OBEDIENCE

For Dress Blouse Fabrics.
First use Apr. 19, 1956.

SN 11,808. J. P. Stevens & Co., Inc., New York, N. Y. Filed July 9, 1956.

Stevens UTICA

Owner of Reg. Nos. 87,383, 632,002, and others.
For Sheets and Pillow Cases.
First use Oct. 1, 1955.

SN 11,809. J. P. Stevens & Co., Inc., New York, N. Y. Filed July 9, 1956.

Stevens UTICA

Owner of Reg. Nos. 87,383, 632,002, and others.
For Sheets and Pillow Cases.
First use Oct. 1, 1955.

SN 12,404. Berkshire Hathaway, Inc., Providence, R. I. Filed July 19, 1956.

BERKWAY

For Cotton and Synthetic Piece Goods, Such as Batiste, Broadcloth, and the Like.
First use June 5, 1956.

CLASS 43

THREAD AND YARN

SN 17,385. Malina Company, New York, N. Y. Filed Oct. 12, 1956.

MALORA

For Yarn Made by the Lamination of a Metal Foil and a Plastic.
First use Sept. 12, 1956.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

SN 6,448. Middlebrooke-Lancaster Incorporated, Brooklyn, N. Y. Filed Apr. 16, 1956.

FORWARD LOOK

For Pin Curl Permanent Wave Kits.
First use Dec. 1, 1955.

SN 6,666. Youngs Rubber Corporation, New York, N. Y. Filed Apr. 10, 1956.

TROJAN BRAND

The drawing is lined for red, but no claim is made to color. The word "Brand" is disclaimed apart from the mark as shown. Owner of Reg. No. 634,127.
For Prophylactic Rubber Articles for the Prevention of Contagious Diseases.
First use Nov. 5, 1946.

SN 9,840. Biological Research, Inc., St. Louis, Mo. Filed June 8, 1956.

CRITOCAPS

For Hematocrit Tube Closures.
First use May 12, 1956.

SN 9,984. Nels J. Hvistendahl, Sioux City, Iowa. Filed June 11, 1956.

VISTE P D Q

For Amalgam Mixers and Capsules Containing the Ingredients and Adapted To Be Mixed by the Mixer.
First use May 24, 1956.

SN 10,088. Harold Supply Corp., New York, N. Y. Filed June 12, 1956.

Steriphane

For Surgical Equipment—Namely, Hypodermic Needles, Syringes, Sutures, and the Like.
First use May 15, 1954.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

SN 686,446. Hermetikfabrikken Thor A/S., Frederikstad, Norway. Filed Apr. 28, 1955.

For Canned Brisling Sardines.
First use in the year 1930; in commerce in the year 1930.

SN 693,686. Frank B. Lim, d. b. a. M-F Trading Company, San Francisco, Calif. Filed Aug. 25, 1955.

Society

Owner of Reg. No. 568,908.
For Canned Tuna, Canned Crab Meat, and Canned Mandarin Oranges.
First use July 12, 1951.

SN 694,212. El Capitan Products, Inc., Lancaster, Pa. Filed Sept. 6, 1955.

El Capitan

Owner of Reg. No. 107,062.
For Roasted Peanuts, in the Shell and Shelled and Cleaned.
First use Dec. 31, 1937.

SN 695,271. Bluhill Foods, Inc., Denver, Colo. Filed Sept. 26, 1955.

Royal Tudor

For Meat Sauces (Meatless).
First use on or about Aug. 1, 1955.

SN 695,474. Flavor Corporation of America, Chicago, Ill. Filed Sept. 28, 1955.

DRIBASE POULTRY-JOY

Owner of Reg. No. 554,727.
For Flavoring Materials for Poultry Feed.
First use Sept. 12, 1955.

SN 696,539. The Grand Union Company, East Paterson, N. J. Filed Oct. 17, 1955.

SILVER

For Coffee.
First use about May 1909.

SN 696,656. Lehigh Valley Egg Producers Cooperative Association, Bethlehem, Pa. Filed Oct. 18, 1955.

Wunderbor

"Wunderbor" is translated as "Wonderful."
For Fresh Eggs.
First use June 14, 1955.

SN 698,524. Hi-Life Packing Company, Chicago, Ill. Filed Nov. 18, 1955.

CAT LIFE

No claim is made to the exclusive use of the word "Cat" apart from the mark shown. Owner of Reg. Nos. 389,548 and 583,202.
For Cat Food.
First use Oct. 31, 1955.

SN 323. Fabro, Inc., Atlanta, Ga. Filed Jan. 9, 1956.

TWIN PET

For Canned Dog and Cat Food.
First use April 1954.

SN 1,401. D. F. Stauffer Biscuit Company, Inc., York, Pa. Filed Jan. 24, 1956. Sec. 2(f).

NIF-TY

Owner of Reg. No. 177,373.
For Cookies.
First use in or about 1920.

SN 1,748. Kenneth W. Winnicombe, d. b. a. Ceylon House Spice Co., San Francisco, Calif. Filed Jan. 30, 1956.

For Spices, Herbs, Seasonings, and Vinegars.
First use June 1, 1953.

SN 1,863. Flavor Corporation of America, Chicago, Ill. Filed Feb. 1, 1956.

FLACOA

For Food Flavoring Concentrates.
First use Jan. 13, 1956.

SN 2,814. The Procter & Gamble Company, Cincinnati, Ohio. Filed Feb. 16, 1956.

JIF

Owner of Reg. No. 599,453.
For Salted Shelled Nuts, Candied Nuts, and Nut Butters.
First use Jan. 24, 1956.

SN 2,852. The Borden Company, New York, N. Y. Filed Feb. 17, 1956.

FERMACTO

For Blend of Fermentation Products Consisting of Dried Extracted Streptomyces Fermentation Residue, Dried Grain Fermentation Solubles, and Dried Whey Fermentation Solubles Supplying Unidentified Growth Stimulating Factors for Poultry and Livestock Feeds.
First use Jan. 4, 1956.

SN 3,469. Serv-Agen Corp., Philadelphia, Pa. Filed Feb. 27, 1956. Sec. 2(f).

Heinle's

For Gravy Powder, Liquid Gravy Seasoning, Pure and Imitation Food Flavoring Extracts.
First use in the year 1936.

SN 4,520. Consolidated Foods Corporation, Chicago, Ill. Filed Mar. 14, 1956.

Owner of Reg. Nos. 180,558, 403,963, and others.
For Frozen Fruits and Vegetables.
First use Aug. 1, 1955, on frozen vegetables.

SN 4,521. Consolidated Foods Corporation, Chicago, Ill. Filed Mar. 14, 1956.

Monarch

Owner of Reg. Nos. 180,558, 403,963, and others.
For Frozen Fruits and Vegetables.
First use Aug. 1, 1955.

SN 4,522. Consolidated Foods Corporation, Chicago, Ill. Filed Mar. 14, 1956.

Monarch

Owner of Reg. Nos. 180,558, 403,963, and others.
For Frozen Fruits and Vegetables.
First use Aug. 1, 1955; and in 1878 on canned fruits and vegetables.

SN 4,876. A & N Zaninovich, Delano, Calif. Filed Mar. 19, 1956.

TROCHA

The Spanish word "Trocha" means "cross path" in English.
For Fresh Grapes.
First use Feb. 24, 1956.

SN 4,986. Red L Foods Corp., Long Island City, N. Y. Filed Mar. 21, 1956.

Tolas

For Frozen Pre-Cooked French Fried Cylindrical Turkey Croquettes.
First use Feb. 20, 1956.

SN 6,780. American National Foods, Inc., Los Angeles, Calif., now by change of name to American National Growers Corporation, Wilmington, Del. Filed Apr. 20, 1956.

BLUE GOOSE

Owner of Reg. Nos. 212,033, 375,506, and 507,436.
For Canned Vegetables, Canned Vegetable Juices, Dried Fruits, Dried Vegetables, Potato Chips, Tomato Catsup, Canned Shrimp, Pie Crust Mix, Mincemeat Pie Filling, Fruit Pie Filling, Apple Cider, and Frozen Foods, Namely, Vegetables, Fruits, Berries, Mixed Vegetables, French Fried Potatoes, Potato Patties, and Shrimp.
First use Sept. 13, 1950.

SN 8,673. Frank A. Lucich, Delano, Calif. Filed May 21, 1956.

Sall-n-Ann

For Fresh Grapes.
First use Aug. 1, 1943.

SN 8,807. Sunshine Biscuits, Inc., Long Island City, N. Y. Filed May 22, 1956.

YUM-YUMS

For Biscuits.
First use in the fall of 1904.

SN 8,808. Sunshine Biscuits, Inc., Long Island City, N. Y. Filed May 22, 1956.

SPACE JET

For Cookies.
First use Oct. 20, 1955.

SN 8,886. A. E. Staley Manufacturing Company, Decatur, Ill. Filed May 23, 1956.

STA-CREM

Owner of Reg. Nos. 55,577 and 55,578.
For Edible Starch, and Particularly Thermophile-Free Starch Sold to Canners.
First use May 5, 1956.

SN 9,131. Engelhorn Packing Co., North Bergen, N. J. Filed May 28, 1956.

EPCO

Owner of Reg. No. 615,922.
For Sliced Bacon, Frankfurters, Bologna, Sausage.
First use Dec. 26, 1952.

SN 9,168. S. Nitta & Sons, Santa Ana, Calif. Filed May 28, 1956.

For Fresh Vegetables.
First use 1947; and 1929 as to "Green Spear Farms."

SN 9,193. Stuart M. Stebbings, De Pere, Wis. Filed May 28, 1956.

PROTOSWEET

For Candy Containing Cheese.
First use May 10, 1956.

SN 9,194. Stuart M. Stebbings, De Pere, Wis. Filed May 28, 1956.

CHEESWEET

For Candy Containing Cheese.
First use May 1, 1956.

SN 9,384. P & W Produce Company, Inc., Los Angeles, Calif. Filed May 31, 1956.

SUN DISK

For Fresh Vegetables.
First use Apr. 28, 1956.

SN 10,297. Citrus Fruit Products Processing Corp., Lakeland, Fla., to Kraft Foods Company, Chicago, Ill. Filed June 15, 1956.

SUN Swept

For Fruit Salad and Orange Segments, Grapefruit Segments, and Pineapple Chunks.
First use Mar. 1, 1951.

SN 10,523. Cresca Company, Incorporated, New York, N. Y. Filed June 19, 1956.

Snick Snacks

No registration rights are claimed for the word "Snacks" apart from the mark as a whole.
For Cocktail Snacks—Namely, Roasted Corn Kernels, Cocktail Crackers, Shelled Nuts, and Fried Bacon Rinds.
First use May 28, 1956.

SN 10,624. Safeway Stores, Incorporated, Oakland, Calif. Filed June 20, 1956.

SKYLARK

For Bakery Goods—Namely, Bread, Rolls, and Buns.
First use May 15, 1944, on bread.

SN 10,874. Gold Badge Farms, Phoenix, Ariz. Filed June 25, 1956.

KACHINA

For Fresh Watermelons.
First use June 6, 1956.

SN 10,938. Strand, Inc., Galesburg, Ill. Filed June 25, 1956.

HARVEST CREAM

For Bread, Buns, and Rolls.
First use 1946.

SN 11,032. Perk Foods Co., d. b. a. Trix Dog Food Co., Chicago, Ill. Filed June 26, 1956.

TRIX

For Canned Dog Food.
First use June 14, 1956.

SN 11,122. Wesson Oil & Snowdrift Sales Co., New Orleans, La. Filed June 27, 1956.

Shur-Flake

For Oleomargarine.
First use Sept. 12, 1955.

SN 11,233. Cutler Growers Exchange, Cutler, Calif. Filed June 29, 1956.

GEM PAK

For Fresh Fruits and Vegetables.
First use June 4, 1956.

SN 11,262. Ivanhoe Packing Co., Inc., Ivanhoe, Calif. Filed June 29, 1956.

SIERRA GOLD

For Fresh Grapes.
First use Sept. 1, 1952.

SN 11,302. Smilen Foods, Inc., Brooklyn, N. Y. Filed June 29, 1956.

TOP HAT

For Coffee, Tea, and Mayonnaise.
First use October 1951.

CLASS 48

MALT BEVERAGES AND LIQUORS

SN 8,376. American Brewery, Inc., Baltimore, Md. Filed May 16, 1956. Sec. 2(f).

AMERICAN

Owner of Reg. No. 611,531.
For Beer.
First use 1933.

SN 12,528. George J. Meyer Malt & Grain Corporation, Buffalo, N. Y. Filed July 20, 1956.

MALT-A-MATION

For Malt for Brewing Purposes.
First use Jan. 30, 1956.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

SN 659,057. Guy Gautier & Co., Cognac (Charente), France. Filed Jan. 6, 1954.

GUY GAUTIER & Cº

For Brandy.
First use in 1697; in commerce in 1860.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

SN 8,465. Bestile Manufacturing Company, Ontario, Calif. Filed May 17, 1956.

GENUINE Scribo (SAY SCREEBO)

Applicant disclaims the word "Genuine" as a part of the mark.
For Chalkboards Consisting of Slate-Type Face on Masonite Base, for Home and Classroom Use.
First use May 4, 1956.

SN 12,530. Popell Bros., Inc., Chicago, Ill. Filed July 20, 1956.

"TROPIC GREEN"

For Materials Employed in Assembling Artificial Foliage Displays—Namely, Molds, Plastic, Stems, Completed Leaves and Petals, Floral Tape and the Like, in Kit Form or Sold Separately.
First use Nov. 11, 1955.

SN 13,225. Clifton D. Lewis, Hawthorne, N. J. Filed Aug. 1, 1956.

"FATHER NEPTUNE"

For Kits, Including Sea Shells, Pearls, Non-Precious Jewelry Parts, Tweezers and Plastic Cement, for Making Earrings and Brooches.
First use Feb. 23, 1956.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

SN 693,732. Bristol-Myers Company, New York, N. Y. Filed Aug. 26, 1955.

SENTRY

Owner of Reg. No. 424,141.
For Dentifrice.
First use Oct. 18, 1954.

SN 4,459. The Kendall Company, Boston, Mass. Filed Mar. 13, 1956.

FLING

Owner of Reg. No. 358,590.
For Anti-Perspirant.
First use Feb. 7, 1956.

SN 5,825. Crown Bay Co., St. Thomas, Virgin Islands, to Crown Bay Company, Ltd., St. Thomas, Virgin Islands.

CROWN BAY

Filed Apr. 5, 1956.
For Bay Rum.
First use Feb. 23, 1956.

SN 6,439. Lehn and Fink Products Corporation, Bloomfield, N. J. Filed Apr. 16, 1956.

HIDDEN CHARM

For Eau de Cologne.
First use Apr. 6, 1956.

SN 8,635. Helene Curtis Industries, Inc., Chicago, Ill. Filed May 21, 1956.

GOLDEN SECRET

For Cold Wave Lotion.
First use on or about Apr. 9, 1956.

SN 8,687. Noxzema Chemical Co., Baltimore, Md. Filed May 21, 1956.

NOON

For Suntan Cream Lotion.
First use May 5, 1956.

SN 8,688. Noxzema Chemical Co., Baltimore, Md. Filed May 21, 1956.

HIGH NOON

For Suntan Cream Lotion.
First use May 5, 1956.

SN 9,035. Fast Chemical Products Corp., Jackson Heights, N. Y. Filed May 25, 1956.

SING

For Mouth Wash Concentrate.
First use Dec. 12, 1955.

SN 9,276. Les Parfums Verchere (Parfums Jerome) S. A. R. L., Clichy (Seine), France. Filed May 29, 1956.

VAUDEVILLE

For Perfumes, Face Powder, Talcum Powder, Cosmetic Skin Creams, Bath Salts, Face Lotions, Brilliantines, Lipstick, Rouge, and Toilet Water.
First use 1945.

SN 9,366. La Marick Beauty Products, Inc., Charlotte, N. C. Filed May 31, 1956.

La Marick

Owner of Reg. No. 612,774.
For Hair Waving Lotion, Cleansing Cream, Hair Spray, Lipstick, Rouge, Facial Liquid Cleanser, Cream Rinse for Hair, Skin Freshener, and Hair Neutralizer.
First use Feb. 28, 1952.

CLASS 52

DETERGENTS AND SOAPS

SN 697,319. Frank Philabert, d. b. a. Chemical Solvent Company, Birmingham, Ala.; Olivia Montgomery Philabert and Olivia Philabert Burkey, executrices of said Frank Philabert, deceased, to Chemical Solvent Company, Birmingham, Ala. Filed Oct. 28, 1955.

LIGNATE

For Solvent Cleaner for Reducing to a Sludge Silica and Other Mineral Scales That Accumulate In Condenser Coils, Spray Heads, Water Jackets, Cooling Towers, Boilers and Pipe Lines, and the Like.
First use Aug. 30, 1955.

SN 4,030. Lazarus Laboratories, Inc., a division of West Disinfecting Company, Buffalo, N. Y. Filed Mar. 7, 1956.

IOPIPE

Owner of Reg. Nos. 585,758 and 589,987.
For Liquid Germicide Cleaner for Disinfecting Milking Equipment and for Pipe Line and In-Place Cleaning on Farms, Dairies, and Milk Plants.
First use Nov. 17, 1955.

SN 10,519. Colgate-Palmolive Company, New York, N. Y. Filed June 19, 1956.

POMP AND CIRCUMSTANCE

For Soap and Shampoo.
First use Nov. 22, 1955.

SN 10,746. Approved Products, Inc., Memphis, Tenn. Filed June 22, 1956.

gah-ZEL

For All Purpose Liquid Cleaner That Is Non-Flammable and Does Not Contain a Soap.
First use June 2, 1956.

SN 10,819. Union Carbide and Carbon Corporation, New York, N. Y. Filed June 22, 1956.

EVEREADY

Owner of Reg. Nos. 340,401, 592,632, and others.
For Chemical Composition for Use in Cleaning Windshields.
First use on or about Mar. 8, 1956.

SN 10,820. Union Carbide and Carbon Corporation, New York, N. Y. Filed June 22, 1956.

PRESTONE

Owner of Reg. Nos. 181,657, 598,269, and others.
For Chemical Composition for Use in Cleaning Windshields.
First use on or about Mar. 8, 1956.

SN 10,851. Colgate-Palmolive Company, New York, N. Y. Filed June 25, 1956.

RHYTHM

Owner of Reg. Nos. 339,485 and 358,134.
For Shampoo.
First use Sept. 16, 1955.

SN 10,862. EMC Recordings Corporation, St. Paul, Minn. Filed June 25, 1956.

LONG LIFE

For Combination Cleaning Fluid and Non-Oil Lubricant for Tape and Tape Machine Parts.
First use June 24, 1955.

SN 10,900. Jeanne Nadal Inc., Chicago, Ill. Filed June 25, 1956.

Jeanne Nadal

For Hair Shampoos, Toilet Soaps, and Soapless Cleaner for Household Use.
First use July 1947.

SERVICE MARKS

CLASS 101

ADVERTISING AND BUSINESS

SN 5,985. Displaymasters, Inc., Minneapolis, Minn. Filed Apr. 9, 1956.

For Advertising Display Services—Namely, Design and Production of Convention Displays for Others, Consultation in Regard to Such Displays, Installation, Maintenance and Operation of Such Displays at Conventions, and Storage of Such Displays.
First use on or before Aug. 1, 1949.

SN 6,526. International Bedaux Company, Inc., New York, N. Y. Filed Apr. 17, 1956.

Owner of Reg. Nos. 184,155, 517,275, and 606,542.

For Industrial Engineering—Namely, Efficiency Engineering in Connection With the Operation of Manufacturing Plants, the Conduct of Businesses, the Conduct of Administration and Clerical Services of Business Organizations and in Connection With the Manufacture and Sale of Products of Business Organizations.
First use Sept. 25, 1923.

CLASS 105

TRANSPORTATION AND STORAGE

SN 2,855. Chicago, Rock Island and Pacific Railroad Company, Chicago, Ill. Filed Feb. 17, 1956. Sec. 2(f).

Rock Island

For Railroad, Truck and Motor Vehicle Transportation, Both Passenger and Freight, of Others.
First use in 1878.

TRADEMARK REGISTRATIONS ISSUED
PRINCIPAL REGISTER

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

639,475. CHESLENE. Chester Packaging Products Corp. SN 667,930. Pub. 10–23–56. Filed 6–9–54.

639,476. CHESLON. Chester Packaging Products Corp. SN 667,931. Pub. 10–23–56. Filed 6–9–54.

639,477. POLY-FOAM. Applicator Enterprises, Inc. SN 681,130. Pub. 10–16–56. Filed 2–7–55.

639,478. MURDOCK AND DESIGN. Bell and Zoller Coal Company. SN 687,175. Pub. 10–23–56. Filed 5–10–55.

639,479. CLOCEL. The Davidson Rubber Company. SN 689,708. Pub. 10–23–56. Filed 6–17–55.

639,480. PLASTICOALS. Tamwell Enterprises. SN 690,913. Pub. 10–23–56. Filed 7–7–55.

639,481. CARV-IT STONE. United States Pumice Supply Company, d. b. a. United States Pumice Supply Co., Inc. and/or U. S. Pumice Supply Co., Inc. SN 691,728. Pub. 10–23–56. Filed 7–21–55.

639,482. DILU DUST. Magnet Cove Barium Corporation. SN 695,738. Pub. 10–23–56. Filed 10–3–55.

639,483. GOLF. Donovan Industries Inc. SN 41. Pub. 10–23–56. Filed 1–3–56.

639,484. SIMPLI–FIRE. Lyncrest Manufacturing Co., Inc. SN 684. Pub. 10–23–56. Filed 1–13–56.

639,485. REN AND DESIGN. Ren Plastics, Inc. SN 1,724. Pub. 10–23–56. Filed 1–30–56.

639,486. EPK ETC. AND DESIGN. Edgar Plastic Kaolin Co. SN 1,858. Pub. 10–23–56. Filed 2–1–56.

639,487. MANATEE. Manatee Fruit Company. SN 3,000. Pub. 10–23–56. Filed 2–20–56.

639,488. PLUSH. Donovan Industries, Inc. SN 3,931. Pub. 10–23–56. Filed 3–6–56.

639,489. SKYLARK. Beggs & Cobb, Incorporated. SN 4,608. Pub. 10–23–56. Filed 3–15–56.

639,490. MOBY DICK. Louve Ray Corporation. SN 4,650. Pub. 10–23–56. Filed 3–15–56.

639,491. ELASTI-HYDE. Midland Textiles Inc. SN 4,907. Pub. 10–23–56. Filed 3–20–56.

639,492. EAGLETS ETC. AND DESIGN. Kurashiki Rayon Company Limited. SN 5,105. Pub. 10–23–56. Filed 3–23–56.

639,493. BLACK KING AND DESIGN. Bear Coal Company. SN 5,272. Pub. 10–23–56. Filed 3–27–56.

639,494. CAMEL-TEX. Harry T. Campbell Sons' Corp. SN 5,491. Pub. 10–23–56. Filed 3–30–56.

639,495. KSH. K. S. H. Plastics, Inc. SN 5,530. Pub. 10–23–56. Filed 3–30–56.

639,496. THE GOOD EARTH. The Good Earth Soil Co., Inc. SN 12,475. Pub. 10–23–56. Filed 8–7–56.

CLASS 2

RECEPTACLES

639,497. PALCO AND DESIGN. Worcester Pressed Aluminum Corp. SN 697,880. Pub. 10–23–56. Filed 11–7–55.

639,498. PARAFOIL. Newark Paraffine & Parchment Paper Co. SN 698,364. Pub. 10–23–56. Filed 11–16–55.

639,499. THERM-A-CHEST. Knapp-Monarch Company. SN 69. Pub. 10–23–56. Filed 1–3–56.

639,500. VIBRATONE. Rossotti Lithograph Corporation. SN 278. Pub. 10–23–56. Filed 1–6–56.

639,501. RIBSTONE. Mason & Lawrence. SN 5,536. Pub. 10–23–56. Filed 3–30–56.

639,502. TRANS-VU. Chicago Specialty Manufacturing Co. SN 6,158. Pub. 10–23–56. Filed 4–11–56.

639,503. AUTO-SERV. Kimberly-Clark Corporation. SN 6,433. Pub. 10–23–56. Filed 4–16–56.

639,504. BONDWARE. Continental Can Company, Inc. SN 6,590. Pub. 10–23–56. Filed 4–18–56.

CLASS 3

BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

639,505. GOLD MINE. A. J. Siris Products Corp. SN 2,829. Pub. 10–23–56. Filed 2–16–56.

639,506. JANET DAVID MIAMI AND DESIGN. Cooper-Merritt Corporation. SN 7,178. Pub. 10–23–56. Filed 4–26–56.

CLASS 4

ABRASIVES AND POLISHING MATERIALS

639,507. KLEARSIGHT. General Industries Corporation. SN 656,405. Pub. 10–25–55. Filed 11–16–53.

639,508. LECTON. Cannon Chemical Company, Inc. SN 4,285. Pub. 10–23–56. Filed 3–12–56.

639,509. SILVERFOAM. Demert & Dougherty, Inc. SN 6,235. Pub. 10–23–56. Filed 4–12–56.

CLASS 5

ADHESIVES

639,510. BING. Sam'l Bingham's Son Mfg Co. SN 6,586. Pub. 10–23–56. Filed 4–18–56.

639,511. PERMACEL. Permacel Tape Corporation. SN 6,746. Pub. 10–23–56. Filed 4–19–56.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

639,512. BLITZ FOG. Northern Industries, Inc., d. b. a. The Blitz Fog Company, a division of Northern Industries, Inc. SN 687,718. Pub. 10–23–56. Filed 5–17–55.

639,513. POLY-CONE. National Polychemicals, Inc. SN 689,405. Pub. 7–17–56. Filed 6–13–55.

639,514. BRONOCO KWIK-DRI. The R. J. Brown Company. SN 690,527. Pub. 10–23–56. Filed 6–30–55.

639,515. EULAVA. General Aniline & Film Corporation. SN 692,839. Pub. 10–23–56. Filed 8–11–55.

639,516. MELANA. Imperial Chemical Industries Limited. SN 697,552. Pub. 10–23–56. Filed 11–2–55.

639,517. DYLOX. Chemagro Corporation, now by merger and change of name Chemagro Corporation (a new corporation). SN 698,580. Pub. 10–23–56. Filed 11–21–55.

639,518. KELTHANE. Rohm & Haas Company. SN 699,098. Pub. 10–23–56. Filed 11–29–55.

639,519. MUSCATOX. Farbenfabriken Bayer Aktiengesellschaft. SN 700,220. Pub. 10–23–56. Filed 12–19–55.

639,520. ICICOLOR AND DESIGN. Imperial Chemical Industries Limited. SN 700,793. Pub. 10–23–56. Filed 12–29–55.

639,521. ICICOLOR. Imperial Chemical Industries Limited. SN 700,794. Pub. 10–23–56. Filed 12–29–55.

639,522. PYRO. Olin Mathieson Chemical Corporation. SN 258. Pub. 10–23–56. Filed 1–6–56.

639,523. CONTROL-FLOW. Mud Control Laboratories, Inc. SN 899. Pub. 10–23–56. Filed 1–17–56.

639,524. PYRAID. Feller-Jones Corporation. SN 2,234. Pub. 10–23–56. Filed 2–7–56.

639,525. FILMERINE. Novocol Chemical Mfg. Co., Inc. SN 4,219. Pub. 10–23–56. Filed 3–9–56.

639,526. FRONTIER. Union Chemical & Materials Corporation, d. b. a. Frontier Chemical Company, Division of Union Chemical & Materials Corp. SN 4,248. Pub. 10–23–56. Filed 3–9–56.

639,527. LION. Monsanto Chemical Company. SN 4,656. Pub. 10–23–56. Filed 3–15–56.

639,528. MULTRANIL. Mobay Chemical Company. SN 5,226. Pub. 10–23–56. Filed 3–26–56.

639,529. FILMEEN. Dearborn Chemical Company. SN 5,827. Pub. 10–23–56. Filed 4–5–56.

CLASS 8

SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS

639,530. SCRIPTO. Scripto, Inc. SN 6,053. Pub. 10–23–56. Filed 4–9–56.

639,531. REALITE. Realite Co. SN 6,833. Pub. 10–23–56. Filed 4–20–56.

CLASS 9

EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES

639,532. CHARLES DALY. Charles Daly, Inc. SN 4,001. Pub. 10–23–56. Filed 3–7–56.

639,533. "SIDE-KICK." Harrington & Richardson, Inc. SN 7,597. Pub. 10–23–56. Filed 5–3–56.

639,534. BENJAMIN. Benjamin Air Rifle Company. SN 7,741. Pub. 10–23–56. Filed 5–7–56.

CLASS 10

FERTILIZERS

639,535. HORSE & LION. Badische Anilin- & Soda-Fabrik Aktiengesellschaft. SN 674,047. Pub. 10–23–56. Filed 9–30–54.

639,536. SOLU-BONE. Stauffer Chemical Company. SN 6,299. Pub. 10–23–56. Filed 4–12–56.

639,537. GRO-LIFE. Tibbetts Industries, Inc. SN 6,481. Pub. 10–23–56. Filed 4–16–56.

639,538. TERROGANIC. The Terre Co. SN 7,955. Pub. 10–23–56. Filed 5–8–56.

CLASS 11

INKS AND INKING MATERIALS

639,539. CLEARCO. Kurtz Bros. SN 4,549. Pub. 10–23–56. Filed 3–14–56.

CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

639,540. ROL-MASTER. Automatic Awning Co. of America, Inc. SN 6. Pub. 10–23–56. Filed 1–3–56.

639,541. SPEED-LAY PIPE SYSTEM. Albert Pipe Supply Co., Inc. SN 6,679. Pub. 10–16–56. Filed 4–19–56.

639,542. REPUBLIC SRK. Republic Steel Corporation. SN 7,278. Pub. 10–23–56. Filed 4–27–56.

639,543. FX. Illinois Tool Works. SN 7,443. Pub. 10–23–56. Filed 5–1–56.

639,544. TALON. Talon, Inc. SN 7,462. Pub. 10–23–56. Filed 5–1–56.

639,545. TCI. United States Steel Corporation. SN 8,042. Pub. 10–23–56. Filed 5–9–56.

639,546. GJ. Glynn-Johnson Corporation. SN 8,220. Pub. 10–23–56. Filed 5–14–56.

639,547. GJ AND DESIGN. Glynn-Johnson Corporation. SN 8,221. Pub. 10–23–56. Filed 5–14–56.

639,548. FLO-FORM. The H. M. Harper Company. SN 8,484. Pub. 10–23–56. Filed 5–17–56.

639,549. SYSTEM SAVER. Bell & Gossett Company. SN 8,616. Pub. 10–23–56. Filed 5–21–56.

CLASS 15

OILS AND GREASES

639,550. NU AERO. Pressure Products Co. SN 5,868. Pub. 10–23–56. Filed 4–5–56.

639,551. TRACON. Continental Oil Company. SN 6,408. Pub. 10–23–56. Filed 4–16–56.

639,552. TRANSIT AID. Transit-Aids Co. SN 7,292. Pub. 10–23–56. Filed 4–27–56.

639,553. HALO. Harold B. Sherfy, d. b. a. Halo Candle Company. SN 7,857. Pub. 10–23–56. Filed 5–7–56.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

639,554. LECTON CARE AND DESIGN. Cannon Chemical Company, Inc. SN 695,527. Pub. 10–23–56. Filed 9–29–55.

639,555. SOCK-O-PLASTIC POOLINE AND DESIGN. Peter A. Smits, d. b. a. Soc-Co Plastic Coating Company. SN 698,085. Pub. 10–23–56. Filed 11–10–55.

639,556. 3–D. The Lowe Brothers Company, d. b. a. Dayton Color Works. SN 4,335. Pub. 10–23–56. Filed 3–12–56.

639,557. TEXTITE. Textite Company Limited. SN 4,404. Pub. 10–23–56. Filed 3–12–56.

639,558. NU-STATIC. The Flintkote Company. SN 4,707. Pub. 10–23–56. Filed 3–16–56.

639,559. UNITINT. Seidlitz Paint and Varnish Company. SN 4,852. Pub. 10–23–56. Filed 3–19–56.

639,560. RHINO-FILM AND DESIGN. W. P. Fuller & Co. SN 5,991. Pub. 10–23–56. Filed 4–9–56.

639,561. DULUX 100. E. I. du Pont de Nemours and Company. SN 6,237. Pub. 10–23–56. Filed 4–12–56.

639,562. ANCHOR. The Irvin, Jewell and Vinson Company. SN 6,334. Pub. 10–23–56. Filed 4–13–56.

639,563. DURA-DRI. United States Gypsum Company. SN 6,768. Pub. 10–23–56. Filed 4–19–56.

639,564. SILICLAD. Clay-Adams, Inc. SN 6,790. Pub. 10–23–56. Filed 4–20–56.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

639,565. SUGRAMYCIN. The Upjohn Company. SN 686,240. Pub. 10–23–56. Filed 4–25–55.

639,566. VEGETATION FROM THE SEA AND DESIGN. Organic Sea Products Corp. SN 691,072. Pub. 10–23–56. Filed 7–11–55.

639,567. VITA-PEP. Robert L. Gaddy, d. b. a. R. L. Gaddy, Pharmacist. SN 691,560. Pub. 5–1–56. Filed 7–19–55.

639,568. LIBEPLEX. Consolidated Midland Corporation. SN 691,676. Pub. 2–28–56. Filed 7–21–55.

639,569. VIRESED. Brett Pharmaceuticals Inc. SN 693,122. Pub. 10–23–56. Filed 8–16–55.

639,570. REDIGENIC. Merck & Co., Inc. SN 697,000. Pub. 10–23–56. Filed 10–24–55.

639,571. REDIPLETE-M. Merck & Co., Inc. SN 697,002. Pub. 10–23–56. Filed 10–24–55.

639,572. REDISTAN. Merck & Co., Inc. SN 697,003. Pub. 10–23–56. Filed 10–24–55.

639,573. REDISTAN-M. Merck & Co., Inc. SN 697,004. Pub. 10–23–56. Filed 10–24–55.

639,574. TOPIDASE. Merck & Co., Inc. SN 697,006. Pub. 10–23–56. Filed 10–24–55.

639,575. ALFLOCIN. Merck & Co., Inc. SN 700,043. Pub. 10–23–56. Filed 12–15–55.

639,576. ALFLOBASE. Merck & Co., Inc. SN 700,044. Pub. 10–23–56. Filed 12–15–55.

639,577. STYP-TYPS. Arthur G. Burt. SN 700,182. Pub. 10–23–56. Filed 12–19–55.

639,578. CLYSODRAST. Aktiebolaget Ferrosan. SN 469. Pub. 10–23–56. Filed 1–11–56.

639,579. TELGAL. C. H. Boehringer Sohn. SN 557. Pub. 10–23–56. Filed 1–12–56.

639,580. BACTISUBTIL. Paladon Société à Responsabilité Limitée. SN 821. Pub. 10–23–56. Filed 1–16–56.

639,581. SELSUNEF. Abbott Laboratories. SN 1,185. Pub. 10–23–56. Filed 1–23–56.

639,582. SERPATONIL. Ciba Limited. SN 1,211. Pub. 10–23–56. Filed 1–23–56.

639,583. NEO-DELTA-CORTEF. The Upjohn Company. SN 1,298. Pub. 10–23–56. Filed 1–23–56.

639,584. CAPILLARIS-X. Capillaris Manufacturing Co. SN 1,507. Pub. 10–23–56. Filed 1–26–56.

639,585. SIPPYLAC. The Purdue Frederick Company. SN 3,031. Pub. 10–16–56. Filed 2–20–56.

639,586. MY-T-VITE. Imperial Drug Exchange Inc., d. b. a. New York Drug Concern. SN 4,640. Pub. 10–23–56. Filed 3–15–56.

639,587. NEO-RITAMINAL. Schenley Laboratories, Inc. SN 4,849. Pub. 10–23–56. Filed 3–19–56.

639,588. CO-PROLADYL. Eli Lilly and Company. SN 4,969. Pub. 10–23–56. Filed 3–21–56.

639,589. PAGITAN. Eli Lilly and Company. SN 4,970. Pub. 10–23–56. Filed 3–21–56.

639,590. AMECHOLIN. Ames Company, Inc. SN 7,146. Pub. 10–23–56. Filed 4–26–56.

639,591. HEN-OXO. Dr. A. D. Lewis Chemical Co., Inc. SN 7,198. Pub. 10–23–56. Filed 4–26–56.

639,592. ERGOVAL. Martin H. Smith Co. SN 7,220. Pub. 10–23–56. Filed 4–26–56.

639,593. 'COMPREN'. Eli Lilly and Company. SN 7,518. Pub. 10–23–56. Filed 5–2–56.

639,594. AMYTALILY SODICO. Eli Lilly and Company. SN 7,519. Pub. 10–23–56. Filed 5–2–56.

639,595. CHICK'N HELP! The Gland-O-Lac Company. SN 7,791. Pub. 10–23–56. Filed 5–7–56.

639,596. DESIGN OF ROOSTER. The Gland-O-Lac Company. SN 7,792. Pub. 10–23–56. Filed 5–7–56.

CLASS 19

VEHICLES

639,597. TOURNAPULL. Le Tourneau-Westinghouse Company. CONSOLIDATED CERTIFICATE. SN 678,789, pub. 10–16–56, filed 12–22–54, Cl. 19; SN 678,790, pub. 8–28–56, filed 12–22–54, Cl. 23.

CLASS 20

LINOLEUM AND OILED CLOTH

639,598. TOWN HOUSE. Armstrong Cork Company. SN 6,397. Pub. 10–23–56. Filed 4–16–56.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

639,599. G-STRING. Surface Conduction, Inc. SN 646,633. Pub. 2–9–54. Filed 5–7–53.

639,600. MASTER CHEF. New York Shipbuilding Corporation, d. b. a. Nesco Division of New York Shipbuilding Corporation. SN 682,353. Pub. 10–2–56. Filed 2–25–55.

639,601. AU-TEMP-CO. AND DESIGN. Au-Temp-Co. Corporation. CONSOLIDATED CERTIFICATE. SN 698,258, pub. 8–21–56, filed 11–15–55, Cl. 21; SN 8,918, pub. 10–16–56, filed 5–24–56, Cl. 26.

639,602. THERM-O-COOL AND DESIGN. Eagle Spring Water Company, Inc. SN 700,587. Pub. 10–23–56. Filed 12–27–55.

639,603. GLITEX. Genesee Laboratory, Incorporated. SN 3,674. Pub. 10–23–56. Filed 3–1–56.

639,604. HARI-KARI. John C. Hill, d. b. a. The Neodane Co. SN 7,006. Pub. 10–23–56. Filed 4–24–56.

639,605. MD AND DIAMOND DESIGN. Diamond Wire & Cable Company. SN 7,491. Pub. 10–23–56. Filed 5–2–56.

639,606. COAXWITCH. Bird Electronic Corporation. SN 7,746. Pub. 10–23–56. Filed 5–7–56.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

639,607. RESORTER. Lloyd A. Johnson, d. b. a. Lloyd Refrigeration. SN 3,194. Pub. 10–23–56. Filed 2–23–56.

639,608. HOLE IN THE HEAD. The Electric Game Company. SN 3,835. Pub. 10–23–56. Filed 3–5–56.

639,609. SHAMROCK CHECKERS. Eugene F. Sullins. SN 4,239. Pub. 10–23–56. Filed 3–9–56.

639,610. IRISH CHECKERS. Eugene F. Sullins. SN 4,240. Pub. 10–23–56. Filed 3–9–56.

639,611. HEIDI. Heide Hannah Pieringer. SN 5,050. Pub. 10–23–56. Filed 3–22–56.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

639,597. CONSOLIDATED CERTIFICATE. See Class 19.

639,612. SALAD CHEF. Rival Manufacturing Company, to Magic Hostess Corporation. SN 627,902. Pub. 7–13–54. Filed 4–10–52.

639,613. ZIPPER. Toro Manufacturing Corporation of Minnesota. SN 630,239. Pub. 10–23–56. Filed 5–24–52.

639,614. SHOPMATE. Portable Electric Tools, Inc. SN 649,248. Pub. 7–13–54. Filed 6–23–53.

639,615. H HUDSON ETC. AND DESIGN. H. D. Hudson Manufacturing Company. SN 665,046. Pub. 10–23–56. Filed 4–22–54.

639,616. QUIK-CHANGER. The Dayton Rubber Company. SN 672,272. Pub. 10–23–56. Filed 8–26–54.

639,617. UTD CO. Julius Michelson, d. b. a. Up-to-Date Tool Company. SN 697,919. Pub. 10–23–56. Filed 11–8–55.

639,618. GRADALL. The Warner & Swasey Company. SN 699,445. Pub. 10–23–56. Filed 12–5–55.

639,619. DREAM. Erwin Krusius, d. b. a. Gebr. Krusius. SN 602. Pub. 9–11–56. Filed 1–12–56.

639,620. TI-CO. Thomas Instrument Company. SN 1,294. Pub. 10–23–56. Filed 1–23–56.

639,621. DIAL YOUR SPEED. Roy G. Edgerton. SN 1,513. Pub. 10–23–56. Filed 1–26–56.

639,622. SELECT-O-MATIC. International Harvester Company. SN 2,636. Pub. 10–23–56. Filed 2–14–56.

639,623. "HI-CAP." Manning, Maxwell & Moore, Inc. SN 6,813. Pub. 10–23–56. Filed 4–20–56.

639,624. POMALIFT. Pomalift, Inc. SN 6,832. Pub. 10–23–56. Filed 4–20–56.

639,625. TRACTOCOMPRESSOR. Charles C. Riordan, d. b. a. Charles C. Riordan Company. SN 7,115. Pub. 10–23–56. Filed 4–25–56.

639,626. JAY JC AND DESIGN. Jay Corporation, to J. Leukart Machine Co., Inc. SN 7,190. Pub. 10–23–56. Filed 4–26–56.

639,627. TELSTA. Telsta Corporation. SN 7,226. Pub. 10–23–56. Filed 4–26–56.

639,628. SNAP-CUT AND DESIGN. Seymour Smith & Son, Inc. SN 7,459. Pub. 10–23–56. Filed 5–1–56.

639,629. MANCO. Manco Mfg. Co. SN 7,520. Pub. 10–23–56. Filed 5–2–56.

639,630. PEACE. George T. Tokunaga, d. b. a. Pacific Rake Co. SN 7,648. Pub. 10–30–56. Filed 5–3–56.

CLASS 24

LAUNDRY APPLIANCES AND MACHINES

639,631. LAUNDRY-ALL. Supreme Construction Corp. SN 657,575. Pub. 10–23–56. Filed 12–7–53.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

639,601. CONSOLIDATED CERTIFICATE. See Class 21.

639,632. EXECUTIVE. American Optical Company. SN 694,762. Pub. 10–23–56. Filed 9–16–55.

639,633. BERGLUND SWIFTWEIGHT. Industrial Scale Company. SN 698,875. Pub. 9–25–56. Filed 11–25–55.

639,634. BI-THERM. Taylor Instrument Companies. SN 5,465. Pub. 10–23–56. Filed 3–29–56.

639,635. PERMAFUSED. Taylor Instrument Companies. SN 5,467. Pub. 10–23–56. Filed 3–29–56.

639,636. PRECISOR. Taylor Instrument Companies. SN 5,468. Pub. 10–23–56. Filed 3–29–56.

639,637. TRAFFICORDER. Nortronics Company. SN 8,350. Pub. 10–23–56. Filed 5–15–56.

CLASS 27

HOROLOGICAL INSTRUMENTS

639,638. LAREX. Langendorf Watch Co. (Uhrenfabrik Langendorf), (Societe d'Horlogerie de Langendorf), (Lonville Watch Co.), Langendorf. SN 2,433. Pub. 10–23–56. Filed 2–10–56.

639,639. STUDENT. Bulova Watch Company, Inc. SN 3,815. Pub. 10–23–56. Filed 3–5–56.

639,640. LOVAL. S. H. DeRoy & Co. Inc. SN 7,429. Pub. 10–23–56. Filed 5–1–56.

639,641. VERI/MATIC. Gensler-Lee, Inc. SN 9,975. Pub. 10–23–56. Filed 6–11–56.

639,642. TEMPO/VERITAS. Gensler-Lee, Inc. SN 9,976. Pub. 10–23–56. Filed 6–11–56.

639,643. RAILROAD TIMEKEEPER. Hamilton Watch Company. SN 10,427. Pub. 10–23–56. Filed 6–18–56.

639,644. QUEENMATIC. Movado Watch Agency, Inc. SN 11,023. Pub. 10–23–56. Filed 6–26–56.

639,645. ACE. The E. Ingraham Company. SN 11,581. Pub. 10–23–56. Filed 7–5–56.

639,646. TIME SQUARE. The E. Ingraham Company. SN 11,582. Pub. 10–23–56. Filed 7–5–56.

639,647. COMET. The E. Ingraham Company. SN 11,583. Pub. 10–23–56. Filed 7–5–56.

CLASS 28

JEWELRY AND PRECIOUS-METAL WARE

639,648. LEADING LADY. W & H Jewelry Company, Inc. SN 577,760. Pub. 2–14–50. Filed 4–26–49.

639,649. TWIN TOP TUB. English Silver Manufacturing Corp. SN 672,389. Pub. 10–23–56. Filed 8–30–54.

639,650. RANDEL. Schreiber & Hiller. SN 696,322. Pub. 10–23–56. Filed 10–12–55.

639,651. DS. David Sarkin, Inc. SN 10,370. Pub. 10–23–56. Filed 6–11–56.

639,652. SIZE-O-MATIC. Flex-Let Corporation. SN 11,565. Pub. 10–23–56. Filed 7–5–56.

639,653. TOUCH OF BRILLIANCE. Speidel Corporation. SN 11,969. Pub. 10–23–56. Filed 7–11–56.

639,654. GOLDEN MAIL. Speidel Corporation. SN 11,970. Pub. 10–23–56. Filed 7–11–56.

639,655. WINTERSET. Speidel Corporation. SN 11,971. Pub. 10–23–56. Filed 7–11–56.

639,656. SPRINGTIME. The International Silver Company. SN 12,956. Pub. 10–23–56. Filed 7–27–56.

CLASS 29

BROOMS, BRUSHES, AND DUSTERS

639,657. BEVIL' EDG. The Hygienol Co. Inc. SN 3,097. Pub. 10–23–56. Filed 2–21–56.

639,658. GERBER AND DESIGN. Gerber Products Company. SN 4,950. Pub. 10–23–56. Filed 3–21–56.

CLASS 31

FILTERS AND REFRIGERATORS

639,659. SWEDEN AND DESIGN. Sweden Freezer Manufacturing Company. SN 3,049. Pub. 10–23–56. Filed 2–20–56.

639,660. TONRAC. American Blower Corporation. SN 3,799. Pub. 10–23–56. Filed 3–5–56.

639,661. SORBO-CEL. Johns-Manville Corporation. SN 8,335. Pub. 10–23–56. Filed 5–15–56.

CLASS 32

FURNITURE AND UPHOLSTERY

639,662. PLAYPARK. John G. Chapin, d. b. a. The Chapin Company. SN 696,867. Pub. 10–23–56. Filed 10–21–55.

639,663. BULMAN ETC. AND DESIGN. The E. O. Bulman Manufacturing Company, Inc. SN 191. Pub. 10–23–56. Filed 1–5–56.

639,664. BIB TREE. Dee R. Givens, d. b. a. Givens & Co. SN 3,845. Pub. 10–23–56. Filed 3–5–56.

639,665. REVO-FILE. Emil E. Knittel, d. b. a. Revo-File Company. SN 6,341. Pub. 10–23–56. Filed 4–13–56.

639,666. FLOTON AND DESIGN. Southwest Mattress Company. SN 9,190. Pub. 10–23–56. Filed 5–28–56.

639,667. MASTER-BILT. The J. C. Hirschman Co., Inc. SN 10,231. Pub. 10–23–56. Filed 6–14–56.

639,668. SELECTRIC FILE. Le Febure Corporation. SN 10,241. Pub. 10–23–56. Filed 6–14–56.

639,669. LE FEBURE FILEVATOR AND DESIGN. Le Febure Corporation. SN 10,242. Pub. 10–23–56. Filed 6–14–56.

CLASS 34

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639,670. COLD DIFFUSER. Carrier Corporation. SN 643,288. Pub. 10–23–56. Filed 3–9–53.

639,671. SKINNER. Young Sales Corporation, d. b. a. St. Louis Blow Pipe & Heater Co. SN 696,833. Pub. 10–23–56. Filed 10–20–55.

639,672. LITTLE GIANT AND DESIGN. Astoria Manufacturing Co., Inc. SN 4,170. Pub. 10–23–56. Filed 3–9–56.

639,673. DV AND DESIGN. Dura-Vent Corporation. SN 8,121. Pub. 10–23–56. Filed 5–11–56.

CLASS 36

MUSICAL INSTRUMENTS AND SUPPLIES

639,674. HIGHWAY HIFI AND DESIGN. Chrysler Corporation. SN 697,619. Pub. 10–16–56. Filed 11–3–55.

639,675. THE REED WITH A HEART AND DESIGN. Arnold Brilhart. SN 4,940. Pub. 10–23–56. Filed 3–21–56.

CLASS 37

PAPER AND STATIONERY

639,676. SOFTPULL. Thomson Paper Mills, Inc. SN 3,246. Pub. 10–23–56. Filed 2–23–56.

639,677. KARDLOK. Sperry Rand Corporation. SN 3,960. Pub. 10–23–56. Filed 3–6–56.

639,678. GOLD STAR. Crocker-McElwain Company. SN 3,999. Pub. 10–23–56. Filed 3–7–56.

639,679. CORRO-BAG. Sherman Paper Products Corporation. SN 4,157. Pub. 10–23–56. Filed 3–8–56.

639,680. CORRO-SLEEVES. Sherman Paper Products Corporation. SN 4,158. Pub. 10–23–56. Filed 3–8–56.

639,681. SIMPLIFORM. Brandt B. Olson, d. b. a. Olson Printing Co. SN 4,354. Pub. 10–23–56. Filed 3–12–56.

639,682. "BUDJET MAILER." Curtis 1000, Incorporated. SN 4,426. Pub. 10–23–56. Filed 3–13–56.

639,683. CONTAK-RAP. Daubert Chemical Company. SN 4,618. Pub. 10–23–56. Filed 3–15–56.

639,684. FLO-LINE. Shaw-Barton, Inc. SN 4,746. Pub. 10–23–56. Filed 3–16–56.

639,685. FIRMTEX. Eagle Pencil Company. SN 4,785. Pub. 10–23–56. Filed 3–19–56.

639,686. SOFTEX. Eagle Pencil Company. SN 4,786. Pub. 10–23–56. Filed 3–19–56.

639,687. SILVERLINE. Effanjay Pens, Inc. SN 4,787. Pub. 10–23–56. Filed 3–19–56.

639,688. DRIVE-IN-VELOPE. Curtis 1000, Incorporated. SN 5,032. Pub. 10–23–56. Filed 3–22–56.

639,689. PLACE-EASE. Milwaukee Lace Paper Company. SN 5,118. Pub. 10–23–56. Filed 3–23–56.

639,690. BELFAST AND DESIGN. Milwaukee Lace Paper Company. SN 5,120. Pub. 10–23–56. Filed 3–23–56.

639,691. SHANNON. Milwaukee Lace Paper Company. SN 5,122. Pub. 10–23–56. Filed 3–23–56.

639,692. MODERN LIVING. E. Errett Smith, Inc. SN 5,327. Pub. 10–23–56. Filed 3–27–56.

CLASS 38

PRINTS AND PUBLICATIONS

639,693. EXECUTIVE REVIEW. Harold Sabes, d. b. a. Executive Review. SN 3,893. Pub. 10–23–56. Filed 3–5–56.

639,694. B'NAI B'RITH MESSENGER. Jewish Publications, Inc. SN 5,428. Pub. 10–23–56. Filed 3–29–56.

639,695. EL CENTRO COMERCIAL AND DESIGN. Inter-American Center Authority. SN 5,639. Pub. 10–23–56. Filed 4–2–56.

639,696. HEMISFAIR AND DESIGN. Inter-American Center Authority. SN 5,640. Pub. 10–23–56. Filed 4–2–56.

639,697. INTERAMA ETC. AND DESIGN. Inter-American Center Authority. SN 5,641. Pub. 10–23–56. Filed 4–2–56.

639,698. STRAIGHT FROM THE VINE. The Taylor Wine Company, Inc. SN 5,686. Pub. 10–23–56. Filed 4–2–56.

639,699. THE LONG ISLAND WOMAN. Bay Publishing Co. Inc. SN 5,708. Pub. 10–23–56. Filed 4–3–56.

639,700. DURO-DAN AND DESIGN. Duro Decal Company, Inc. SN 5,717. Pub. 10–23–56. Filed 4–3–56.

639,701. STEROSAIC. Hugo G. Maas, d. b. a. Washington Commercial Co. SN 6,041. Pub. 10–23–56. Filed 4–9–56.

639,702. REPRESENTATION OF MUSICAL SYMBOLS. Ann Everson Torstrick, d. b. a. Music Charts. SN 6,073. Pub. 10–23–56. Filed 4–9–56.

639,703. McKITTRICK. McKittrick Directory of Advertisers, Inc. SN 6,181. Pub. 10–23–56. Filed 4–11–56.

639,704. SAM'S SUPERMARKET. United Feature Syndicate, Inc. SN 6,305. Pub. 10–23–56. Filed 4–12–56.

639,705. LEAF FROM A SECURITY BUYER'S NOTEBOOK. Josephthal & Company. SN 6,430. Pub. 10–23–56. Filed 4–16–56.

639,706. KALEIDOSCOPIC WONDERCOLOR AND DESIGN. Studio Films, Inc. SN 6,478. Pub. 10–23–56. Filed 4–16–56.

639,707. AM. The Vendo Company. SN 6,658. Pub. 10–23–56. Filed 4–18–56.

CLASS 39

CLOTHING

639,708. SUNLUKS. Handcraft Company, Inc. SN 2,427. Pub. 10–23–56. Filed 2–10–56.

639,709. KIBLER AND DESIGN. The Kibler Company. SN 3,196. Pub. 10–23–56. Filed 2–23–56.

639,710. PERMA-SEWN. Carmi-Ainsbrooke Corporation. SN 3,274. Pub. 10–23–56. Filed 2–24–56.

639,711. MILCAS AND DESIGN. Ephraim Milcas. SN 3,300. Pub. 10–23–56. Filed 2–24–56.

639,712. PREVIEWER AND DESIGN. Michaels Stern & Company, Incorporated. SN 3,541. Pub. 10–23–56. Filed 2–28–56.

639,713. JACK-VEST. C. Hart Manufacturing Company. SN 4,122. Pub. 10–23–56. Filed 3–8–56.

639,714. CHRISTIAN DIOR. Comptoir de l'Industrie Cotonniere, Etablissements Boussac, Société à Responsabilité Limitée. SN 4,289. Pub. 10–23–56. Filed 3–12–56.

639,715. MARI KAYNE. Daryl Dress Company. SN 4,304. Pub. 10–23–56. Filed 3–12–56.

639,716. DOCOMA. The Manhattan Shirt Company. SN 4,465. Pub. 10–23–56. Filed 3–13–56.

639,717. FIREFLITE. Joseph H. Cohen & Sons, Inc. SN 4,695. Pub. 10–23–56. Filed 3–16–56.

639,718. MASTER FITTER. Freeman Shoe Corporation. SN 4,894. Pub. 10–23–56. Filed 3–20–56.

639,719. BACHRACH'S. Bachrach's Millinery and Hat Blockers. SN 4,929. Pub. 10–23–56. Filed 3–21–56.

639,720. CONDE. Richards, Sutton & Thornton, Inc. SN 4,987. Pub. 10–23–56. Filed 3–21–56.

639,721. CLUBMAN AND DESIGN. A. Sagner's Son. SN 4,991. Pub. 10–23–56. Filed 3–21–56.

639,722. THE X RANGE. L. Greif & Bro., Inc. SN 5,097. Pub. 10–23–56. Filed 3–23–56.

639,723. AQUAMATES. Berkray Corporation. SN 5,157. Pub. 10–23–56. Filed 3–26–56.

639,724. POKE-A-LONGS. Cowden Manufacturing Co. SN 5,282. Pub. 10–23–56. Filed 3–27–56.

639,725. CHEVIOT HILLS. H. Freeman & Son, Inc. SN 5,294. Pub. 10–23–56. Filed 3–27–56.

639,726. BLENDENIMS. Tobias Kotzin, d. b. a. A–I Manufacturing Co. SN 5,305. Pub. 10–23–56. Filed 3–27–56.

639,727. TOURING TOPPER. Baker Clothes, Inc. SN 5,338. Pub. 10–23–56. Filed 3–28–56.

639,728. COMANCHE. Cluett, Peabody & Co., Inc. SN 5,339. Pub. 10–23–56. Filed 3–28–56.

639,729. JIB. Cluett, Peabody & Co., Inc. SN 5,402. Pub. 10–23–56. Filed 3–29–56.

639,730. NEWPORT. Cluett, Peabody & Co., Inc. SN 5,404. Pub. 10–23–56. Filed 3–29–56.

639,731. TOUR. Cluett, Peabody & Co., Inc. SN 5,410. Pub. 10–23–56. Filed 3–29–56.

639,732. WHITE MOUNTAIN. Salant & Salant, Inc. SN 5,747. Pub. 10–23–56. Filed 4–3–56.

639,733. SNIPAWAY. Seamprufe Incorporated. SN 5,799. Pub. 10–23–56. Filed 4–4–56.

639,734. "MAGIC FLEECE." Rockford Textile Mills, Inc. SN 6,049. Pub. 10–23–56. Filed 4–9–56.

639,735. DUBLINEN. Safe-In-Suds, Incorporated. SN 6,050. Pub. 10–23–56. Filed 4–9–56.

639,736. BONERO. Palm Beach Company. SN 6,277. Pub. 10–23–56. Filed 4–12–56.

639,737. RANGPUR. Palm Beach Company. SN 6,279. Pub. 10–23–56. Filed 4–12–56.

639,738. KING-COTT. Palm Beach Company. SN 6,366. Pub. 10–23–56. Filed 4–13–56.

639,739. "H" DESIGN. Huntington Mfg. Co., Inc. SN 6,428. Pub. 10–23–56. Filed 4–16–56.

639,740. MOPPETS. Moppets Inc. SN 6,455. Pub. 10–23–56. Filed 4–16–56.

639,741. DREAM WHIRL. Perfect Brassiere Co., Inc. SN 6,632. Pub. 10–23–56. Filed 4–18–56.

639,742. MY LAMB. Milam Manufacturing Company. SN 6,675. Pub. 10–23–56. Filed 4–27–56.

639,743. FRITZI OF CALIFORNIA. Fritzi of California, Inc. SN 6,715. Pub. 10–23–56. Filed 4–19–56.

639,744. JUSTAMERE. Loraine S. Matthews, d. b. a. Justamere Company. SN 6,736. Pub. 10–23–56. Filed 4–19–56.

639,745. SUNDOWN TONES. Palm Beach Company. SN 6,823. Pub. 10–23–56. Filed 4–20–56.

639,746. LUCKY DOTS. Alco of Texas, d. b. a. Alco of Texas, Inc. SN 7,056. Pub. 10–23–56. Filed 4–25–56.

639,747. CAPTAIN AIRE BY NATTYBOY AND DESIGN. The Birnie Company, Inc. SN 7,065. Pub. 10–23–56. Filed 4–25–56.

639,748. CATLIN. Cluett, Peabody & Co., Inc. SN 7,163. Pub. 10–23–56. Filed 4–26–56.

639,749. MET. Cluett, Peabody & Co., Inc. SN 7,167. Pub. 10–23–56. Filed 4–26–56.

639,750. HANDY-WAY AND DESIGN. R. W. Eldridge Company. SN 7,181. Pub. 10–23–56. Filed 4–26–56.

639,751. MERRILAM. Merriwether Knitwear Ltd. SN 7,688. Pub. 10–23–56. Filed 5–4–56.

CLASS 40

FANCY GOODS, FURNISHINGS, AND NOTIONS

639,752. BEAVER. Kalmia Braids, Incorporated. SN 5,644. Pub. 10–23–56. Filed 4–2–56.

639,753. REDI-THRED. U. T. L. Needle Incorporated. SN 5,688. Pub. 10–23–56. Filed 4–2–56.

639,754. ACCO. American Hard Rubber Company. SN 7,654. Pub. 10–23–56. Filed 5–4–56.

CLASS 41

CANES, PARASOLS, AND UMBRELLAS

639,755. LIVE FIBER. Narmco Inc. SN 4,826. Pub. 10–23–56. Filed 3–19–56.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

639,756. NYLCO. Bell Textile Co., Inc. SN 3,347. Pub. 10–23–56. Filed 2–27–56.

639,757. KURALON. Kurashiki Rayon Company Limited. SN 5,106. Pub. 10–23–56. Filed 3–23–56.

639,758. MYLU AND DESIGN. Mylu Corporation. SN 5,858. Pub. 10–23–56. Filed 4–5–56.

639,759. STRATA-THERM. Harry Ball & Son. SN 5,897. Pub. 10–23–56. Filed 4–6–56.

639,760. KITTIBEAU. Beaunit Mills, Inc. SN 7,231. Pub. 10–23–56. Filed 4–27–56.

639,761. MRS. BIRDIE BIRD'S EYE AND DESIGN. Sigmund Silver. SN 7,282. Pub. 10–23–56. Filed 4–27–56.

639,762. MR. BIRD BIRD'S EYE AND DESIGN. Sigmund Silver. SN 7,283. Pub. 10–23–56. Filed 4–27–56.

639,763. PERMA-TAFF. J. P. Stevens & Co., Inc. SN 7,461. Pub. 10–23–56. Filed 5–1–56.

639,764. QUALITRIQUE. J. P. Stevens & Co., Inc. SN 7,538. Pub. 10–23–56. Filed 5–2–56.

639,765. CONVERSATION PRINTS. Cone Mills Inc. SN 7,666. Pub. 10–23–56. Filed 5–4–56.

639,766. PEBL-GLO. Continental Mills, Inc. SN 7,668. Pub. 10–23–56. Filed 5–4–56.

CLASS 31

FILTERS AND REFRIGERATORS

639,659. SWEDEN AND DESIGN. Sweden Freezer Manufacturing Company. SN 3,049. Pub. 10–23–56. Filed 2–20–56.

639,660. TONRAC. American Blower Corporation. SN 3,799. Pub. 10–23–56. Filed 3–5–56.

639,661. SORBO-CEL. Johns-Manville Corporation. SN 8,335. Pub. 10–23–56. Filed 5–15–56.

CLASS 32

FURNITURE AND UPHOLSTERY

639,662. PLAYPARK. John G. Chapin, d. b. a. The Chapin Company. SN 696,867. Pub. 10–23–56. Filed 10–21–55.

639,663. BULMAN ETC. AND DESIGN. The E. O. Bulman Manufacturing Company, Inc. SN 191. Pub. 10–23–56. Filed 1–3–56.

639,664. BIB TREE. Dee R. Givens, d. b. a. Givens & Co. SN 3,845. Pub. 10–23–56. Filed 3–5–56.

639,665. REVO-FILE. Emil E. Knittel, d. b. a. Revo-File Company. SN 6,341. Pub. 10–23–56. Filed 4–13–56.

639,666. FLOTON AND DESIGN. Southwest Mattress Company. SN 9,190. Pub. 10–23–56. Filed 5–28–56.

639,667. MASTER-BILT. The J. C. Hirschman Co., Inc. SN 10,231. Pub. 10–23–56. Filed 6–14–56.

639,668. SELECTRIC FILE. Le Febure Corporation. SN 10,241. Pub. 10–23–56. Filed 6–14–56.

639,669. LE FEBURE FILEVATOR AND DESIGN. Le Febure Corporation. SN 10,242. Pub. 10–23–56. Filed 6–14–56.

CLASS 34

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639,670. COLD DIFFUSER. Carrier Corporation. SN 643,288. Pub. 10–23–56. Filed 3–9–53.

639,671. SKINNER. Young Sales Corporation, d. b. a. St. Louis Blow Pipe & Heater Co. SN 696,833. Pub. 10–23–56. Filed 10–20–55.

639,672. LITTLE GIANT AND DESIGN. Astoria Manufacturing Co., Inc. SN 4,170. Pub. 10–23–56. Filed 3–9–56.

639,673. DV AND DESIGN. Dura-Vent Corporation. SN 8,121. Pub. 10–23–56. Filed 5–11–56.

CLASS 36

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CLASS 37

PAPER AND STATIONERY

639,676. SOFTPULL. Thomson Paper Mills, Inc. SN 3,246. Pub. 10–23–56. Filed 2–23–56.

639,677. KARDLOK. Sperry Rand Corporation. SN 3,960. Pub. 10–23–56. Filed 3–6–56.

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639,682. "BUDJET MAILER." Curtis 1000, Incorporated. SN 4,426. Pub. 10–23–56. Filed 3–13–56.

639,683. CONTAK-RAP. Daubert Chemical Company. SN 4,618. Pub. 10–23–56. Filed 3–15–56.

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639,696. HEMISFAIR AND DESIGN. Inter-American Center Authority. SN 5,640. Pub. 10–23–56. Filed 4–2–56.

639,697. INTERAMA ETC. AND DESIGN. Inter-American Center Authority. SN 5,641. Pub. 10–23–56. Filed 4–2–56.

639,698. STRAIGHT FROM THE VINE. The Taylor Wine Company, Inc. SN 5,686. Pub. 10–23–56. Filed 4–2–56.

639,699. THE LONG ISLAND WOMAN. Bay Publishing Co. Inc. SN 5,708. Pub. 10–23–56. Filed 4–3–56.

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639,702. REPRESENTATION OF MUSICAL SYMBOLS. Ann Everson Torstrick, d. b. a. Music Charts. SN 6,073. Pub. 10–23–56. Filed 4–9–56.

639,703. McKITTRICK. McKittrick Directory of Advertisers, Inc. SN 6,181. Pub. 10–23–56. Filed 4–11–56.

639,704. SAM'S SUPERMARKET. United Feature Syndicate, Inc. SN 6,305. Pub. 10–23–56. Filed 4–12–56.

639,705. LEAF FROM A SECURITY BUYER'S NOTEBOOK. Josephthal & Company. SN 6,430. Pub. 10–23–56. Filed 4–16–56.

639,706. KALEIDOSCOPIC WONDERCOLOR AND DESIGN. Studio Films, Inc. SN 6,478. Pub. 10–23–56. Filed 4–16–56.

639,707. AM. The Vendo Company. SN 6,658. Pub. 10–23–56. Filed 4–18–56.

CLASS 39

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639,708. SUNLUKS. Handcraft Company, Inc. SN 2,427. Pub. 10–23–56. Filed 2–10–56.

639,709. KIBLER AND DESIGN. The Kibler Company. SN 3,196. Pub. 10–23–56. Filed 2–23–56.

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639,711. MILCAS AND DESIGN. Ephraim Milcas. SN 3,300. Pub. 10–23–56. Filed 2–24–56.

639,712. PREVIEWER AND DESIGN. Michaels Stern & Company, Incorporated. SN 3,541. Pub. 10–23–56. Filed 2–28–56.

639,713. JACK-VEST. C. Hart Manufacturing Company. SN 4,122. Pub. 10–23–56. Filed 3–8–56.

639,714. CHRISTIAN DIOR. Comptoir de l'Industrie Cotonniere, Etablissements Boussac, Société à Responsabilité Limitée. SN 4,289. Pub. 10–23–56. Filed 3–12–56.

639,715. MARI KAYNE. Daryl Dress Company. SN 4,304. Pub. 10–23–56. Filed 3–12–56.

639,716. DOCOMA. The Manhattan Shirt Company. SN 4,465. Pub. 10–23–56. Filed 3–13–56.

639,717. FIREFLITE. Joseph H. Cohen & Sons, Inc. SN 4,695. Pub. 10–23–56. Filed 3–16–56.

639,718. MASTER FITTER. Freeman Shoe Corporation. SN 4,894. Pub. 10–23–56. Filed 3–20–56.

639,719. BACHRACH'S. Bachrach's Millinery and Hat Blockers. SN 4,929. Pub. 10–23–56. Filed 3–21–56.

639,720. CONDE. Richards, Sutton & Thornton, Inc. SN 4,987. Pub. 10–23–56. Filed 3–21–56.

639,721. CLURMAN AND DESIGN. A. Sagner's Son. SN 4,991. Pub. 10–23–56. Filed 3–21–56.

639,722. THE X RANGE. L. Greif & Bro., Inc. SN 5,097. Pub. 10–23–56. Filed 3–23–56.

639,723. AQUAMATES. Berkray Corporation. SN 5,157. Pub. 10–23–56. Filed 3–26–56.

639,724. POKE-A-LONGS. Cowden Manufacturing Co. SN 5,282. Pub. 10–23–56. Filed 3–27–56.

639,725. CHEVIOT HILLS. H. Freeman & Son, Inc. SN 5,294. Pub. 10–23–56. Filed 3–27–56.

639,726. BLENDENIMS. Tobias Kotzin, d. b. a. A–1 Manufacturing Co. SN 5,305. Pub. 10–23–56. Filed 3–27–56.

639,727. TOURING TOPPER. Baker Clothes, Inc. SN 5,338. Pub. 10–23–56. Filed 3–28–56.

639,728. COMANCHE. Cluett, Peabody & Co., Inc. SN 5,339. Pub. 10–23–56. Filed 3–28–56.

639,729. JIB. Cluett, Peabody & Co., Inc. SN 5,402. Pub. 10–23–56. Filed 3–29–56.

639,730. NEWPORT. Cluett, Peabody & Co., Inc. SN 5,404. Pub. 10–23–56. Filed 3–29–56.

639,731. TOUR. Cluett, Peabody & Co., Inc. SN 5,410. Pub. 10–23–56. Filed 3–29–56.

639,732. WHITE MOUNTAIN. Salant & Salant, Inc. SN 5,747. Pub. 10–23–56. Filed 4–3–56.

639,733. SNIPAWAY. Seamprufe Incorporated. SN 5,799. Pub. 10–23–56. Filed 4–4–56.

639,734. "MAGIC FLEECE." Rockford Textile Mills, Inc. SN 6,049. Pub. 10–23–56. Filed 4–9–56.

639,735. DUBLINEN. Safe-In-Suds, Incorporated. SN 6,050. Pub. 10–23–56. Filed 4–9–56.

639,736. BONERO. Palm Beach Company. SN 6,277. Pub. 10–23–56. Filed 4–12–56.

639,737. RANGPUR. Palm Beach Company. SN 6,279. Pub. 10–23–56. Filed 4–12–56.

639,738. KING-COTT. Palm Beach Company. SN 6,366. Pub. 10–23–56. Filed 4–13–56.

639,739. "H" DESIGN. Huntington Mfg. Co., Inc. SN 6,428. Pub. 10–23–56. Filed 4–16–56.

639,740. MOPPETS. Moppets Inc. SN 6,455. Pub. 10–23–56. Filed 4–16–56.

639,741. DREAM WHIRL. Perfect Brassiere Co., Inc. SN 6,632. Pub. 10–23–56. Filed 4–18–56.

639,742. MY LAMB. Milam Manufacturing Company. SN 6,675. Pub. 10–23–56. Filed 4–27–56.

639,743. FRITZI OF CALIFORNIA. Fritzi of California, Inc. SN 6,715. Pub. 10–23–56. Filed 4–19–56.

639,744. JUSTAMERE. Loraine S. Matthews, d. b. a. Justamere Company. SN 6,736. Pub. 10–23–56. Filed 4–19–56.

639,745. SUNDOWN TONES. Palm Beach Company. SN 6,823. Pub. 10–23–56. Filed 4–20–56.

639,746. LUCKY DOTS. Alco of Texas, d. b. a. Alco of Texas, Inc. SN 7,056. Pub. 10–23–56. Filed 4–25–56.

639,747. CAPTAIN AIRE BY NATTYBOY AND DESIGN. The Birnie Company, Inc. SN 7,065. Pub. 10–23–56. Filed 4–25–56.

639,748. CATLIN. Cluett, Peabody & Co., Inc. SN 7,163. Pub. 10–23–56. Filed 4–26–56.

639,749. MET. Cluett, Peabody & Co., Inc. SN 7,167. Pub. 10–23–56. Filed 4–26–56.

639,750. HANDY-WAY AND DESIGN. R. W. Eldridge Company. SN 7,181. Pub. 10–23–56. Filed 4–26–56.

639,751. MERRILAM. Merriwether Knitwear Ltd. SN 7,688. Pub. 10–23–56. Filed 5–4–56.

CLASS 40

FANCY GOODS, FURNISHINGS, AND NOTIONS

639,752. BEAVER. Kalmia Braids, Incorporated. SN 5,644. Pub. 10–23–56. Filed 4–2–56.

639,753. REDI-THRED. U. T. L. Needle Incorporated. SN 5,688. Pub. 10–23–56. Filed 4–2–56.

639,754. ACCO. American Hard Rubber Company. SN 7,654. Pub. 10–23–56. Filed 5–4–56.

CLASS 41

CANES, PARASOLS, AND UMBRELLAS

639,755. LIVE FIBER. Narmco Inc. SN 4,826. Pub. 10–23–56. Filed 3–19–56.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

639,756. NYLCO. Bell Textile Co., Inc. SN 3,347. Pub. 10–23–56. Filed 2–27–56.

639,757. KURALON. Kurashiki Rayon Company Limited. SN 5,106. Pub. 10–23–56. Filed 3–23–56.

639,758. MYLU AND DESIGN. Mylu Corporation. SN 5,858. Pub. 10–23–56. Filed 4–5–56.

639,759. STRATA-THERM. Harry Ball & Son. SN 5,897. Pub. 10–23–56. Filed 4–6–56.

639,760. KITTIBEAU. Beaunit Mills, Inc. SN 7,231. Pub. 10–23–56. Filed 4–27–56.

639,761. MRS. BIRDIE BIRD'S EYE AND DESIGN. Sigmund Silver. SN 7,282. Pub. 10–23–56. Filed 4–27–56.

639,762. MR. BIRD BIRD'S EYE AND DESIGN. Sigmund Silver. SN 7,283. Pub. 10–23–56. Filed 4–27–56.

639,763. PERMA-TAFF. J. P. Stevens & Co., Inc. SN 7,461. Pub. 10–23–56. Filed 5–1–56.

639,764. QUALITRIQUE. J. P. Stevens & Co., Inc. SN 7,538. Pub. 10–23–56. Filed 5–2–56.

639,765. CONVERSATION PRINTS. Cone Mills Inc. SN 7,666. Pub. 10–23–56. Filed 5–4–56.

639,766. PEBL-GLO. Continental Mills, Inc. SN 7,668. Pub. 10–23–56. Filed 5–4–56.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

639,767. VET SONIC. Wilbur Rice Associates, Inc. SN 6,752. Pub. 10–23–56. Filed 4–19–56.

CLASS 45

SOFT DRINKS AND CARBONATED WATERS

639,768. PINE-ORA. Cerna Food Products Co. SN 3,577. Pub. 10–23–56. Filed 2–29–56.

639,769. 7 UP GUSTA A SU GUSTO AND DESIGN. The Seven-Up Company. SN 4,667. Pub. 10–23–56. Filed 3–15–56.

639,770. FROSTIE AND DESIGN. The Frostie Company. SN 6,918. Pub. 10–23–56. Filed 4–23–56.

639,771. TEXAN. Peter Salotti, d. b. a. Globe Beverage Company. SN 7,218. Pub. 10–23–56. Filed 4–26–56.

639,772. LUCKY GIANT. Sun Rise Bottling Company, Incorporated. SN 7,287. Pub. 10–23–56. Filed 4–27–56.

639,773. SUN RISE. Sun Rise Bottling Company, Incorporated. SN 7,288. Pub. 10–23–56. Filed 4–27–56.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

639,774. TRICK OR TREAT AND DESIGN. Frank H. Fleer Corporation. SN 689,714. Pub. 10–23–56. Filed 6–17–55.

639,775. TASTI. International Minerals & Chemical Corporation. SN 692,470. Pub. 10–23–56. Filed 8–4–55.

639,776. GRANADA. Florida Citrus Exchange. SN 692,835. Pub. 10–23–56. Filed 8–11–55.

639,777. STRIP CHEEZERS. Good Foods, Inc. SN 696,433. Pub. 10–23–56. Filed 10–14–55.

639,778. KRISPUDS AND DESIGN. The Colorado Potato Flake & Mfg. Co. SN 699,622. Pub. 10–23–56. Filed 12–8–55.

639,779. AGEN. Cascade Frozen Foods, Inc. SN 700,143. Pub. 10–23–56. Filed 11–29–55.

639,780. DARI-PRIDE. Henry M. Belzer, d. b. a. Wayside Cheese Company. SN 12. Pub. 10–23–56. Filed 1–3–56.

639,781. ST. JOE VALLEY. Ralph Sechler & Son, Inc., d. b. a. Ralph Sechler. SN 918. Pub. 10–23–56. Filed 1–17–56.

639,782. BOPCO. Bolsa Packing Company, d. b. a. Bolsa Packing Co., Inc. SN 1,144. Pub. 10–23–56. Filed 1–20–56.

639,783. BOLSA. Bolsa Packing Company, d. b. a. Bolsa Packing Co., Inc. SN 1,145. Pub. 10–23–56. Filed 1–20–56.

639,784. TROPICAL FLAKE. Wood & Selick Sweetened Coconut Company, Inc. SN 1,827. Pub. 10–23–56. Filed 1–31–56.

639,785. CAPRI. Pepperidge Farm Incorporated. SN 2,179. Pub. 10–23–56. Filed 2–6–56.

639,786. MONTE CARLO. Pepperidge Farm Incorporated. SN 2,182. Pub. 10–23–56. Filed 2–6–56.

639,787. FILLERYS. Fillerys Toffees Limited. SN 2,287. Pub. 10–23–56. Filed 2–8–56.

639,788. SNAPS. General Foods Corporation. SN 2,973. Pub. 10–23–56. Filed 2–20–56.

639,789. BURGERBITS. Standard Brands Incorporated. SN 3,560. Pub. 10–23–56. Filed 2–28–56.

639,790. QUA-BAR-BRAND. Wm. H. Heinemann Creameries, Inc. SN 3,608. Pub. 10–23–56. Filed 2–29–56.

639,791. HIGH SOCIETY. Archer-Daniels-Midland Company, d. b. a. Commander-Larabee Milling Co. SN 3,648. Pub. 10–23–56. Filed 3–1–56.

639,792. MOMENT. Theodorus Niemeijer N. V. SN 3,779. Pub. 10–23–56. Filed 3–2–56.

639,793. REWARD. The Quaker Oats Company. SN 3,956. Pub. 10–23–56. Filed 3–6–56.

639,794. PICADOR AND DESIGN. The Continental Fruit Packing Co., Limited. SN 4,100. Pub. 10–23–56. Filed 3–8–56.

639,795. FIFTH AVE. The Fall River Canning Company. SN 4,116. Pub. 10–23–56. Filed 3–8–56.

639,796. SMOKED TREATS. Cudahy Brothers Co. SN 4,301. Pub. 10–23–56. Filed 3–12–56.

639,797. KID-BITS. Cudahy Brothers Co. SN 4,302. Pub. 10–23–56. Filed 3–12–56.

639,798. META-GREEN. Monsanto Chemical Company. SN 4,347. Pub. 10–23–56. Filed 3–12–56.

639,799. STAGE COACH. Inn Maid Products, Inc. SN 4,455. Pub. 10–23–56. Filed 3–13–56.

639,800. TRAVELERS. Coffomat Inc. SN 4,515. Pub. 10–23–56. Filed 3–14–56.

639,801. DIVORCED. Redi Food Co., Inc. SN 4,570. Pub. 10–23–56. Filed 3–14–56.

639,802. PRAYING MONK. Arrowhead Ranches, Inc. SN 4,605. Pub. 10–23–56. Filed 3–15–56.

639,803. ADMIRAL. Douglas Food Corporation. SN 4,620. Pub. 10–23–56. Filed 3–15–56.

639,804. MARKET CHIEF. Harold Takesuye. SN 4,671. Pub. 10–23–56. Filed 3–15–56.

639,805. BLACK PALM ETC. AND DESIGN. Smyrna Imports Co., Inc. SN 4,747. Pub. 10–23–56. Filed 3–16–56.

639,806. MINITPAK. Trans-America Shrimp Co. SN 4,749. Pub. 10–23–56. Filed 3–16–56.

639,807. SUNNYBROOK. Hammond Standish & Co. SN 4,800. Pub. 10–23–56. Filed 3–19–56.

639,808. BIG DEAL. Philadelphia Chewing Gum Corporation. SN 4,830. Pub. 10–23–56. Filed 3–19–56.

639,809. LOTTO. Philadelphia Chewing Gum Corporation. SN 4,831. Pub. 10–23–56. Filed 3–19–56.

639,810. HOT-CHU. Philadelphia Chewing Gum Corporation. SN 4,832. Pub. 10–23–56. Filed 3–19–56.

639,811. SCHINDLER'S. Schindler's Peanut Products, Inc. SN 12,764. Pub. 10–23–56. Filed 7–16–56.

CLASS 47

WINES

639,812. BERINGER FAMILY BOTTLING. Beringer Bros., Inc. SN 7,745. Pub. 10–23–56. Filed 5–7–56.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

639,813. DESERT DRY. Stewart-Reynolds Co., Inc., to James Robertson Company. SN 698,658. Pub. 8–28–56. Filed 11–21–55.

639,814. MYERS'S. Myers Rum Company, Limited. SN 1,165. Pub. 9–18–56. Filed 1–20–56.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

639,815. C-E-Z. Clifford Scott, d. b. a. Scott Enterprises. SN 4,372. Pub. 10–23–56. Filed 3–12–56.

639,816. FUZE-ON. Aetna Supply Inc. SN 5,373. Pub. 10–23–56. Filed 3–29–56.

639,817. THE ORIGINAL PIGEON PIPER. Louis J. Neid, d. b. a. Twin City Pigeon Eliminating Co. SN 6,036. Pub. 10–23–56. Filed 4–9–56.

639,818. KLOSET-KAPE. Serabbe Manufacturing Company. SN 6,133. Pub. 10–23–56. Filed 4–10–56.

639,819. MUSTANG. The General Tire & Rubber Company. SN 6,246. Pub. 10–23–56. Filed 4–12–56.

639,820. MOISTURE-MASTER. Schofield Development Company Incorporated. SN 6,292. Pub. 10–23–56. Filed 4–12–56.

639,821. TITAN. Titan Pallet Co. Inc. SN 7,291. Pub. 10–23–56. Filed 4–27–56.

639,822. TUFFY ETC., AND DESIGN. Fulton Bag & Cotton Mills. SN 7,495. Pub. 10–23–56. Filed 5–2–56.

639,823. PLAST-O-DAMP. Ideal Roller and Manufacturing Company. SN 7,503. Pub. 10–23–56. Filed 5–2–56.

639,824. CREST-CARPET. The Paine & Williams Company. SN 7,834. Pub. 10–23–56. Filed 5–7–56.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

639,825. LUMINO. General Beauty Products, Inc. SN 670,925. Pub. 10–23–56. Filed 8–2–54.

639,826. IGOTINT. Hans Schwarzkopf. SN 694,600. Pub. 10–23–56. Filed 9–13–55.

639,827. GINGISOL. Dr. David J. Barben, d. b. a. Gingisol Laboratories. SN 6,669. Pub. 10–23–56. Filed 4–13–56.

639,828. PRE-NAY. Ortho Pharmaceutical Corporation. SN 12,558. Pub. 10–23–56. Filed 8–9–56.

CLASS 52

DETERGENTS AND SOAPS

639,829. PARASOL. Petrolite Corporation. SN 698,208. Pub. 10–23–56. Filed 11–14–55.

639,830. SOLVO. Petrolite Corporation. SN 698,210. Pub. 10–23–56. Filed 11–14–55.

639,831. EXAMIDE. Soluol Chemical Co., Inc. SN 700,674. Pub. 10–23–56. Filed 12–27–55.

639,832. NEO-CREME. Charles Fein, d. b. a. Neo Hi-Gloss Products. SN 6,197. Pub. 10–23–56. Filed 4–10–56.

639,833. HANDYMAN'S CLEANER. Lowebco, Inc. SN 6,123. Pub. 10–23–56. Filed 4–10–56.

639,834. PUREX PREMIER. Purex Corporation, Ltd. SN 6,954. Pub. 10–23–56. Filed 4–23–56.

639,835. AUTO-KLEEM. U. S. Sponge Corporation. SN 8,593. Pub. 10–23–56. Filed 5–18–56.

Service Marks

CLASS 100

MISCELLANEOUS

639,836. THE 'FAIR SHARE' PLAN. Thomas Richard Finn & Associates. SN 664,746. Pub. 10–23–56. Filed 4–19–54.

639,837. GLOBE DESIGN. Association for Applied Solar Energy. SN 4,759. Pub. 10–23–56. Filed 3–19–56.

CLASS 102

INSURANCE AND FINANCIAL

639,838. 3½ OVER 4 AND DESIGN. Gibraltar Savings and Loan Association of Beverly Hills. SN 692,714. Pub. 10–23–56. Filed 8–9–55.

CLASS 103

CONSTRUCTION AND REPAIR

639,839. FABRI-NU THE MIRACLE CLEANER AND DESIGN. Asheville Laundry. SN 1,839. Pub. 10–23–56. Filed 2–1–56.

CLASS 105

TRANSPORTATION AND STORAGE

639,840. ACROSS THE HALL—ACROSS THE CONTINENT. Lakewood Storage, Inc. SN 697,804. Pub. 1–31–56. Filed 11–7–55.

639,841. GARBER'S. Garber's Travel Service, Inc. SN 700,023. Pub. 10–23–56. Filed 12–15–55.

Collective Membership Mark

CLASS 200

639,842. DESIGN OF GREEK LETTERS AND CAP. Mortar Board, Inc. SN 696,251. Pub. 10–23–56. Filed 10–11–55.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

639,843. Ralph Richheimer, d. b. a. Belray Chemical Co., New York, N. Y. SN 697,498. Filed P. R. 11–1–55. Am. S. R. 10–24–56.

MINIT-STAIN

For Differential Blood Stain for Laboratory and Manufacturing Use Only.
First use June 24, 1955.

639,844. Webb Laboratories, Schenectady, N. Y. SN 699,032. Filed P. R. 11–28–55. Am. S. R. 10–16–56.

Tree-Fresh

For Chemical Compound for Keeping Christmas Trees Fresh, and Preventing the Needles From Drying and Falling.
First use Aug. 1, 1955.

CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

639,845. Hilti Rapid Fastening Systems, Inc., New York, N. Y. SN 3,404. Filed P. R. 2–27–56. Am. S. R. 11–6–56.

CONIC

For Studs and Pins (Fasteners).
First use Oct. 12, 1955.

639,846. Crescent Insulated Wire and Cable Company, Trenton, N. J. SN 4,102. Filed 3–8–56.

MULTITUBE

For Groups of Bendable Tubes for Use in Conducting Gases, Liquids, and Vapors, the Tubes Being Formed of Metal, Plastic or Resinous Material With or Without an Armor or Sheath Coating Surrounding the Groups of Tubes.
First use December 1952.

CLASS 14

METALS AND METAL CASTINGS AND FORGINGS

639,847. United States Steel Corporation, Pittsburgh, Pa. SN 691,402. Filed P. R. 7–15–55. Am. S. R. 9–14–56.

TAYLOR

For Rail Braces.
First use May 31, 1955.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

639,848. Eula B. Burrows, d. b. a. Burrows Ointment Co., Oklahoma City, Okla. SN 6,218. Filed P. R. 4–12–56. Am. S. R. 10–26–56.

Burrows Ointment

For Ointment for the Relief of Cold Sores, Chapped Hands and Face, Windburn, Sunburn, Superficial Burns and Scalds, Chafing and Prickly Heat.
First use Jan. 1, 1955.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

639,849. Photo-Crystals, Inc., Geneva, Ill. SN 682,355. Filed P. R. 2–25–55. Am. S. R. 11–14–56.

PHOTO-CRYSTALS

For Photo-Electric Cells.
First use on or about Jan. 27, 1955.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

639,850. Philip Cohen, d. b. a. Phillocraft Company, Philadelphia, Pa. SN 4,181. Filed P. R. 3–9–56. Am. S. R. 10–30–56.

ENGINEERED TO SERVE YOUR FUTURE

For Machine Stands, Machine Tables, Work Benches, Work Tables, Endless Sectional and Cutting Boards.
First use on or about Jan. 7, 1955, on machine tables.

CLASS 27

HOROLOGICAL INSTRUMENTS

639,851. Kiefer K. G., Pforzheim, Germany. SN 8,857. Filed 5–23–56.

KIEFER

For Watches.
First use July 1953; in commerce Feb. 20, 1954.

CLASS 28

JEWELRY AND PRECIOUS-METAL WARE

639,852. Kiefer K. G., Pforzheim, Germany. SN 8,856. Filed 5–23–56.

Kiefer

For Watch Bracelets (Not Including Watches).
First use September 1953; in commerce Feb. 20, 1954.

CLASS 32

FURNITURE AND UPHOLSTERY

639,853. George C. Swilley, d. b. a. Add-A-Drawer Chest Co., Moulton, Tex. SN 6,764. Filed P. R. 4–19–56. Am. S. R. 10–25–56.

ADD-A-DRAWER

For Chests of Drawers.
First use May 1, 1955.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

639,854. Acme Equipment Company, Muskogee, Okla. SN 688,883. Filed P. R. 6–6–55. Am. S. R. 10–30–56.

"ATTIC-AIR"

For Electric Ventilating Fans.
First use Dec. 1, 1952.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

639,855. Fyens Konservesfabrik A/S, Odense, Denmark. SN 685,829. Filed P. R. 4–19–55. Am. S. R. 7–23–56.

FYENS

For Canned Sardines.
First use Feb. 20, 1953; in commerce Feb. 20, 1953.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

639,856. Peggy Sage, Inc., d. b. a. Peggy Sage, Stamford, Conn. SN 695,942. Filed P. R. 10–5–55. Am. S. R. 11–5–56.

GAY MOMENT

For Nail Polish.
First use Sept. 26, 1955.

639,857. Revlon, Inc., New York, N. Y. SN 9,051. Filed 5–25–56.

'BLUE WHITE PLATINUM' FROSTED

For Nail Enamel.
First use Mar. 21, 1955.

639,858. Revlon, Inc., New York, N. Y. SN 9,052. Filed 5–25–56.

'PINK PLATINUM' FROSTED

For Nail Enamel.
First use Mar. 21, 1955.

Service Mark

CLASS 101

ADVERTISING AND BUSINESS

639,859. Gerard F. Burke, d. b. a. Gerard F. Burke Co. and Cooperative Bank Advertising, Boston, Mass. SN 671,015. Filed P. R. 8–3–54. Am. S. R. 7–30–56.

Co-operative

The essential feature of the mark is the representation of a percentage sign.
For Advertising Services—Namely, the Preparation of Advertising and Public Relations Material for Use by Cooperative Financial Organizations and Institutions.
First use May 14, 1954.

TRADEMARK REGISTRATIONS RENEWED

106,057. CAFE ROYAL. Cl. 46. 9–21–15.
113,399. LOFT CANDY ETC. Cl. 46. 10–17–16.
113,754. LOFT. Cl. 46. 10–31–16.
113,900. OLD HEIDELBERG CASTLE. Cl. 48. 11–7–16.
114,525. OLD HICKORY. Cl. 46. 12–19–16.
115,157. KEYLUBRIC. Cl. 15. 1–30–17.
115,866. DESIGN OF MISCELLANEOUS FIGURE. Cl. 18. 3–13–17.
337,614. JOYMOOR. Cl. 39. 8–11–36.
338,233. SPARTAN. Cl. 34. 9–1–36.
338,811. D F N. Cl. 31. 9–15–36.
338,829. BUCKET MAGIC AND DESIGN. Cl. 52. 9–15–36.
339,318. WEATHERVANE. Cl. 42. 10–6–36.
339,603. FOUR DOCTORS. Cl. 18. 10–13–36.
339,934. RED CHIEF. Cl. 46. 10–27–36.
339,994. JIFFY NAILS. Cl. 44. 10–27–36.
340,036. TYLOSE. Cl. 6. 10–27–36.
340,098. SPORTLEIGH. Cl. 39. 11–3–36.
340,393. BAROSA. Cl. 15. 11–10–36.
340,605. WINTER-FLO. Cl. 6. 11–17–36.
341,084. PERMALAWN. Cl. 1. 12–1–36.
341,117. HYDRONIZED. Cl. 51. 12–1–36.
341,347. ESSO AND DESIGN. Cl. 12. 12–8–36.
341,417. MULBINDER. Cl. 12. 12–8–36.
341,423. PHOS-COPPER. Cl. 14. 12–8–36.
341,603. BELLE OF ASCOT. Cl. 49. 12–15–36.
342,132. HYPROLAP. Cl. 23. 1–5–37.
342,133. TWIN-O-MATIC. Cl. 23. 1–5–37.
342,181. CLIPPER AND DESIGN. Cl. 21. 1–5–37.
342,573. CARBO-WELD. Cl. 37. 1–19–37.
343,135. SOUTHERN. Cl. 19. 2–9–37.
343,139. MYRIAD. Cl. 51. 2–9–37.
343,185. CLIPPER. Cl. 46. 2–9–37.
343,298. WHITE SEAL AND DESIGN. Cl. 49. 2–16–37.
343,372. PERM-JACK. Cl. 12. 2–16–37.
343,515. LUSTERLIN. Cl. 42. 2–23–37.
343,811. BARRETT HANDLING EQUIPMENT AND DESIGN. Cl. 19. 3–9–37.
343,838. JACQUELINE COCHRAN WINGS TO BEAUTY. Cl. 51. 3–9–37.

343,853. CHARLES MARCHAND. Cl. 51. 3-9-37.
343,932. DE LUXE. Cl. 18. 3-9-37.
343,933. MYRIAD. Cl. 52. 3-9-37.
344,131. PYRANOL TRANSFORMER. Cl. 21. 3-16-37.
344,223. LIBERTY. Cl. 13. 3-16-37.
344,255. ZEEN-X. Cl. 12. 3-16-37.
344,256. PROTOKOTE. Cl. 12. 3-16-37.
344,283. PERM-TEX. Cl. 12. 3-16-37.
344,415. WHITE STAR. Cl. 44. 3-23-37.
344,466. HAMMER BRAND AND DESIGN. Cl. 23. 3-23-37.
344,474. TYCOON. Cl. 46. 3-23-37.
344,658. ZEV AND DESIGN. Cl. 39. 3-30-37.
344,804. CAM-O-MATIC. Cl. 23. 4-6-37.
344,829. LOG FIRE. Cl. 39. 4-6-37.
344,887. AMERICAN GENTLEMAN. Cl. 27. 4-6-37.
344,888. GOLDEN GIRL. Cl. 27. 4-6-37.
344,889. GOLDEN KING. Cl. 27. 4-6-37.
344,890. GOLDEN QUEEN. Cl. 27. 4-6-37.
344,891. CONCURVE. Cl. 27. 4-6-37.
344,892 GOLDEN EAGLE. Cl. 27. 4-6-37.
344,893. GLOBE TROTTER. Cl. 27. 4-6-37.
344,894. WORLD'S FAIR. Cl. 27. 4-6-37.
344,975. SISTEX. Cl. 18. 4-13-37.
345,001. SACLETS. Cl. 46. 4-13-37.
345,053. SOLDERPREP. Cl. 52. 4-13-37.
345,054. CRANK-O-LAP. Cl. 23. 4-13-37.
345,102. CUDDLFORM. Cl. 39. 4-13-37.
345,130. NUODEX. Cl. 16. 4-13-37.
345,217. UNIPLASTIC. Cl. 12. 4-20-36.
345,234. SHULTON'S. Cl. 52. 4-20-37.
345,365. THE TAILORED MAN AND DESIGN. Cl. 39. 4-27-37.
345,427. MARLIN. Cl. 23. 4-27-37.
345,430. WHITMORE MFG. CO. ETC. AND DESIGN. Cl. 15. 4-27-37.

TRADEMARK REGISTRATIONS CANCELED

Section 7

559,973. M Z B AND DESIGN. Cl. 26. 6-10-52.
570,145. BLUE BOOK. Cl. 38. 2-10-53.
620,908. SUMMIT. Cl. 39. 2-7-56.

Section 8

267,469. TROPHY TREAD. Cl. 39. 2-18-30.
270,303. COMO AND DRAWING. Cl. 46. 5-6-30.

The following registrations issued Oct. 24, 1950

532,268. HATMAKER GUILD AND DESIGN. Cl. 39.
532,269. DURAPLASTIC. Cl. 2.
532,279. DEAUVILLE AND DESIGN. Cl. 39.
532,280. KING OHARA. Cl. 46.
532,286. "COMFIT-EAR." Cl. 39.
532,288. THE CANDY CART AND DESIGN. Cl. 46
532,293. WHITE HORSE. Cl. 46.
532,297. LIBERTY WICK. Cl. 34.
532,305. SENATE. Cl. 46.
532,306. KIRBY. Cl. 23.
532,308. THE WADE EXPRESS. Cl. 26.
532,315. BEATS ALL. Cl. 2.
532,320. MISS AMERICAN BEAUTY. Cl. 39.
532,331. SAVE-A-YEAR MYRA-MAE. Cl. 39.
532,345. PUFFS BY PFEIFFER. Cl. 39.
532,346. OLD MILL. Cl. 46.
532,349. FAMOUS FUNNIES. Cl. 38.
532,351. PETITE. Cl. 34.
532,355. LONG AND EMBLEM. Cl. 34.
532,356. DELIGHT 60. Cl. 39.
532,357. KWIK-E. Cl. 23.
532,358. WEDLOCK. Cl. 38.
532,362. THE FINGERLING. Cl. 39.
532,363. STORY LOOK TIME. Cl. 26.
532,366. ROTO-BRUSH. Cl. 21.
532,368. COLOVOGUES. Cl. 20.
532,369. PILZ. Cl. 38.
532,370. CLOTHES CLOSET AND DESIGN. Cl. 39.
532,378. SHELTRAIN AND DESIGN. Cl. 39.
532,379. ISCOMISTER. Cl. 23.
532,384. PHILADELPHIA BOX AND DESIGN. Cl. 46.
532,388. DOVELLE DOESKIN. Cl. 39.
532,389. ARTIC DOUGH AND DESIGN. Cl. 46.
532,392. LEGACY. Cl. 21.
532,393. GRUYERE EXTRA FIN ETC. Cl. 46.
532,396. TELE-PORT. Cl. 21.
532,400. GREEN FIELD. Cl. 46.
532,404. A GYREX PRODUCT. Cl. 26.
532,408. ROOMASTER. Cl. 34.
532,409. SKY-FRESH. Cl. 46.
532,412. "GLENCOE." Cl. 43.
532,414. OPTO VISION AND DESIGN. Cl. 26.
532,420. "FI-BORD." Cl. 21.
532,422. NAROBIA. Cl. 39.
532,425. "WESKETONE." Cl. 26.
532,427. HOSMER BEACONTROL. Cl. 21.
532,430. THOMAS A. EDISON (COPY OF SIGNATURE ETC.). Cl. 21.
532,431. RITE-HEAT. Cl. 34.
532,432. FALCON Cl. 26.
532,433. A LOUVRE MASTERPIECE. Cl. 39.
532,436. FAVORITE FIVES. Cl. 39.
532,441. CONDOR. Cl. 26.
532,444. HAWK. Cl. 26.
532,445. TIGERFOOT AND DESIGN. Cl. 39.
532,451. ADD AP ACK. Cl. 26.
532,453. PERSONALYSIS. Cl. 26.
532,454. FASHION PERSONALYSIS. Cl. 26.
532,455. ACTIONLINE. Cl. 39.
532,459. ROYAL GRANT. Cl. 46.
532,460. SNAPPY SERAPPY. Cl. 39.
532,461. MATYLON. Cl. 39.
532,462. KLIN-TRACER. Cl. 23.
532,471. TODDLER AND DESIGN. Cl. 38.
532,475. BE-AR AND DESIGN. Cl. 26.
532,478. GLO-VEST AND DESIGN. Cl. 21.
532,484. DRAPESTITCH. Cl. 39.
532,489. ELTECO AND DESIGN. Cl 23.
532,491. DOMESTIPAK. Cl. 2.
532,498. VOH. Cl. 26.
532,507. CUPID AND ARROW DESIGN. Cl. 26.
532,509. SUPER-MATIC. Cl. 26.
532,510. WOOFIES. Cl. 39.
532,511. HIDE-N-HOLD. Cl. 39.
532,520. TOM THUMB. Cl. 38.
532,525. CLIMATEMAKER. Cl. 26.
532,527. T. M. DESIGN. Cl. 38.
532,534. "321." Cl. 39.
532,535 LINOVECTOR. Cl. 34.
532,539. TEMPTROL. Cl. 34.
532,542. ELIMIN-ETTE. Cl. 23.
532,544. BROOKLURE. Cl. 34.
532,545. "RISER" AND DESIGN. Cl. 39.
532,555. GULLIVERS. Cl. 39.
532,556. FILE A WAY. Cl. 32.
532,557. SNAP CAP. Cl. 25.
532,558. DOLE AND DESIGN. Cl. 46.
532,560. "LUSTRE-WARE." Cl. 50.
532,561. "SAFE-T-PLAY." Cl. 22.
532,562. REMCO AND DESIGN. Cl. 2.
532,563. HOLBROOKE'S KITCHEN MAID CANDIES. Cl. 46.
532,564. TWIN FOLD. Cl. 3.
532,565. CARLTON. Cl. 3.
532,567. THE ARISTOCRAT OF WEAR. Cl. 39.
532,569 "LOC-BLOC" ETC. Cl. 23.
532,572. BATH MATES. Cl. 42.
532,574. HARMONIZED DESIGN BY LORD BALTIMORE. Cl. 39.
532,575. SHEAR BEAUTY MOUTON LAMB. Cl. 39.
532,576. CONVERTIBLE. Cl. 37.
532,578. COMPO HYDER. Cl. 16.
532,580. FOOD-SAVER. Cl. 2.
532,581. DUBL-SIX. Cl. 2.
532,582. FLICKACTION. Cl. 2.
532,585. PURSLITE. Cl. 21.
532,592. LI'GABLES. Cl. 3.
532,594. "GATTIS WEAR" AND DESIGN. Cl. 39.
532,596. STEADI-FLO. Cl. 50.
532,597. "AKOLA." Cl. 46.

532,599. BEST WISHES COME IN JACOBSON BOXES. Cl. 39.
532,600. E-Z-GARDS AND DESIGN. Cl. 13.
532,601. TERRY CHUM COME LETS WASH. Cl. 42.
532,604. BAFFIN BAY BALLS. Cl. 46
532,605. MERCHANTS' MAT CATALOG. Cl. 38.
532,607. DOSSERT AND DESIGN. Cl. 21.
532,608. ITCHEASE. Cl. 18.
532,611. STERI-LITE. Cl. 2.
532,612. TRES ANGLAIS. Cl. 39.
532,614. YOUR MUSIC. Cl. 38.
532,616. CEDARTREAT AND DESIGN. Cl. 2.
532,618. McVEIGH SEEDS AND DESIGN. Cl. 1.
532,619. THE COAT THAT LEADS A DOUBLE LIFE. Cl. 39.
532,620. LITEWRITER. Cl. 21.
532,621. KAY-HOLLYWOOD. Cl. 2.
532,624. WILLARD. Cl. 13.
532,626. JUST MIXIT AND DESIGN. Cl. 46.
532,629. NURLIZING. Cl. 106.
532,630. NURLIZED. Cl. 106.

The following registrations issued Oct. 31, 1950

532,631. PRIMELAC. Cl. 16.
532,634. PILLSBURY'S HEALTH BRAN. Cl. 46.
532,638. LEADS THE FIELD AND DESIGN. Cl. 46.
532,641. STORM SHADE. Cl. 12.
532,642. COOK. Cl. 13.
532,656. FIGURE OF A YOUTH DESIGN. Cl. 13.
532,663. "BUCKINGHAM" AND DESIGN. Cl. 19.
532,667. "BEN PULITZER" ETC. AND DESIGN. Cl. 39.
532,668. SURE POP. Cl. 13.
532,673. NECTAR. Cl. 46.
532,676. ENITAL. Cl. 44.
532,682. MINIT POP. Cl. 23.
532,683. RACE HORSE. Cl. 46.
532,687. KARU. Cl. 39.
532,690. YORKSTATE. Cl. 47.
532,693. PRESHON. Cl. 23.
532,698. VALLEY OF THE MOON. Cl. 47.
532,702. DESIGN OF LADY. Cl. 47.
532,704. DEGRITE. Cl. 16.
532,705. SUDS-A-TOY. Cl. 22.
532,712. INVISIBLE ACCESSORY. Cl. 51.
532,713. "TRAILBLAZER COAL." Cl. 1.
532,716. OLD MANOR COAL. Cl. 1.
532,719. MAGNE-SAFE ARROW AND DESIGN. Cl. 22.
532,720. ALUMISTEEL. Cl. 19.
532,721. AKORDIONIT. Cl. 39.
532,723. PHIL-TONE. Cl. 16.
532,729. JANE MADISON ORIGINAL. Cl. 39.
532,734. CONVERT-O-SHIELD. Cl. 19.
532,740. "7—11 IT'S A NATURAL." Cl. 22.
532,742. B. Q. X. Cl. 44.
532,745. "EVER KURL." Cl. 44.
532,748. ANALGEROL. Cl. 18.
532,749. OCCIANALGEROL. Cl. 18.
532,751. ICEFLEX. Cl. 31.
532,752. LAKE CREEK. Cl. 1.
532,755. 905 AND DESIGN. Cl. 16.
532,758. GLYCOLIZER. Cl. 21.
532,759. RICKY-TICKS. Cl. 39.
532,761. AMTEL AND DESIGN. Cl. 26.
532,762. ARRO-BAK. Cl. 22.
532,773. G C A AND DESIGN. Cl. 19.
532,780. VOLU-METRIC. Cl. 39.
532,784. GOLDEN BEACH. Cl. 51.
532,786. KIDDY KLAD AND DESIGN. Cl. 39.
532,788. TRAVLIN' CHEF. Cl. 50.
532,789. HYLENE. Cl. 6.
532,791. MICO AND DESIGN. Cl. 23.
532,792. NAP-PLAKS. Cl. 50.
532,799. OHIO SEAMLESS AND DESIGN. Cl. 13.
532,802. MRS. LYONS' BUFFINS. Cl. 46.
532,805. PENAIRE. Cl. 44.
532,809. FESTINOL. Cl. 16.
532,817. WEBSTERINE. Cl. 51.
532,818. THE THREE C's OF CHENILLE COLEDALE COLEBURN COLECREST. Cl. 42.

532,819. DUR MASCOT AND DESIGN. Cl. 51.
532,821. PATROL. Cl. 4.
532,823. VALLEY FORGE. Cl. 46.
532,825. FLORDANESE. Cl. 42.
532,828. WIEGROW. Cl. 18.
532,829. AUNETTES. Cl. 42.
532,830. HUFFY-BYKE. Cl. 19.
532,831. BEACH SHELL. Cl. 50.
532,834. AWNETTES. Cl. 42.
532,835. MILIT-AIRE. Cl. 26.
532,843. AUNT JEMIMA. Cl. 1.
532,844. WAXIOCA WITHIN LINES. Cl. 1.
532,845. CELCOS. Cl. 1.
532,853. TRU-LIFE. Cl. 50.
532,857. MASTA-TRACER. Cl. 23.
532,858. HUNCHBACK AND DESIGN. Cl. 22.
532,862. TELEPARTY HOSTCOAT. Cl. 39.
532,865. FORT ROSS. Cl. 46.
532,867. LAY Z EGG. Cl. 50.
532,868. SOLAR. Cl. 31.
532,874. PHOENIX AND DESIGN. Cl. 33.
532,877. GOLD MINOR. Cl. 46.
532,879. GLAMOUR. Cl. 12.
532,882. AJAX. Cl. 31.
532,884. THE HOUSE OF YEARS AND DESIGN. Cl. 33.
532,886. BRIMCO WITHIN DESIGN. Cl. 46.
532,887. KITTY GOT-CHA. Cl. 50.
532,888. SUNRAY. Cl. 19.
532,889. ROCKET. Cl. 31.
532,898. SHEERTAN. Cl. 1.
532,903. ALBYLON. Cl. 50.
532,904. C. S. C. IN TRIANGLE DESIGN. Cl. 30.
532,906. DYNAPLANE. Cl. 19.
532,908. PLANADYNE. Cl. 19.
532,910. PEP. Cl. 19.
532,912. CORAL STAR. Cl. 47.
532,916. LAWRENCE AND DESIGN. Cl. 42.
532,917. MECHIFUSED. Cl. 23.
532,920. SUTTASCOPE. Cl. 42.
532,921. SUTTASHEER. Cl. 42.
532,922. WAMCOOL. Cl. 42.
532,923. WAMLUSTA. Cl. 42.
532,924. WAMSHEER. Cl. 42.
532,926. TROPILIN. Cl. 42.
532,928. VELSET. Cl. 42.
532,929. BROOKMERE. Cl. 42.
532,931. DELLA ROBBIA. Cl. 42.
532,933. VELMERE. Cl. 42.
532,934. "SOPHARMA." Cl. 42.
532,935. DOO-DAT. Cl. 42.
532,940. NORZON. Cl. 42.
532,941. LINEN MAID AND DESIGN. Cl. 100.
532,942. NATIONAL COFFEE AND DESIGN. Cl. 13.
532,944. LABEL DESIGN. Cl. 46.
532,947. MONOBLOC. Cl. 23.
532,948. DREW-LUBE. Cl. 15.
532,952. QUALITY BEVERAGES. Cl. 45.
532,959. "BABY GURGLES." Cl. 22.
532,960. CUBA SUGAR CANE. Cl. 50.
532,963. PETITE BY COTTER. Cl. 44.
532,964. PIEL'S LIGHT BEER. Cl. 48.
532,965. CURVE SAFETY. Cl. 35.
532,967. OUTDOOR SPORTSMAN. Cl. 38.
532,968. CRAPOP. Cl. 45.
532,970. LA MODE. Cl. 39.
532,972. TOMORROW'S WATCH TODAY. Cl. 27.
532,973. BUSTAMANTE. Cl. 47.
532,976. CALHOUN PICTORIAL PRESS AND DESIGN. Cl. 38.
532,978. PAKAWAY. Cl. 44.
532,981. TRACTOR SENIOR. Cl. 22.
532,983. MILLER'S SNAP-E-CREEPER. Cl. 39.
532,989. HOT SPARK AND DESIGN. Cl. 8.
532,990. CARTER'S. Cl. 22.

Section 18

360,479. SPLIT-TABLETS AND DESIGN. Cl. 6. 9-20-38.
404,587. WEATHER KING. Cl. 12. 12-7-43.

REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

342,299. Jan. 12, 1937. E. I. du Pont de Nemours and Company, Wilmington, Del. Pub. by registrant.

ARIDEX

For Chemical Compound Being in the Nature of Textile Finish With Water Repellent Characteristics.

CLASS 17

TOBACCO PRODUCTS

126,161. July 29, 1919. General Cigar Co., Inc., New York, N. Y. Pub. by registrant.

Laddies

For Cigars.

150,823. Jan. 10, 1922. General Cigar Co., Inc., New York, N. Y. Pub. by registrant.

For Cigars.

153,727. Mar. 28, 1922. General Cigar Co., Inc., New York, N. Y. Pub. by registrant.

DYCKETTS

For Cigars.

165,753. Mar. 20, 1923. General Cigar Co., Inc., New York, N. Y. Pub. by registrant.

For Cigars.

204,265. Oct. 13, 1925. General Cigar Co., Inc., New York, N. Y. Pub. by registrant.

Robt. Burns

For Cigars.

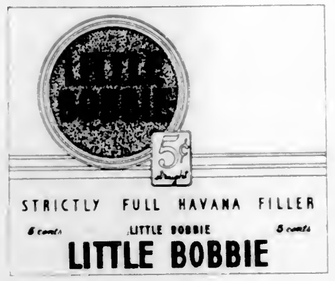
283,308. May 26, 1931. General Cigar Co., Inc., New York, N. Y. Pub. by registrant.

For Cigars.

290,939. Jan. 19, 1932. General Cigar Co., Inc., New York, N. Y. Pub. by registrant.

For Cigars.

317,674. Oct. 2, 1934. General Cigar Co., Inc., New York, N. Y. Pub. by registrant.



For Cigars.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

342,692. Jan. 26, 1937. Wayne Oil Burner Corporation, Fort Wayne, Ind. Pub. by Wayne Home Equipment Company, Inc., Fort Wayne, Ind.

WAYNE MISTOIL BURNER

For Oil Burners.

CLASS 39

CLOTHING

115,373. Feb. 6, 1917. Solomon Newman, New York, N. Y. Pub. by Sol Newman Inc., New York, N. Y.

Dauntless

For Trousers.

340,154. Nov. 3, 1936. J. Schoeneman, Incorporated, Baltimore, Md. Pub. by J. Schoeneman, Incorporated, Baltimore, Md.

BELRIDGE

For Coats, Vests, and Trousers for Men, Youths, and Boys.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

336,592. July 7, 1936. G. Verbeet, New York, N. Y., to Van Stolk's Commissiehandel, Rotterdam, Netherlands. Pub. by Van Stolk's Koninklijke Commissiehandel N. V., Rotterdam, Netherlands.

For Cheese.

336,593. July 7, 1936. G. Verbeet, New York, N. Y., to Van Stolk's Commissiehandel, Rotterdam, Netherlands. Pub. by Van Stolk's Koninklijke Commissiehandel N. V., Rotterdam, Netherlands.

For Cheese.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

114,633. Dec. 26, 1916. Fries & Fries, Cincinnati, Ohio. Pub. by Fries & Fries, Inc., Cincinnati, Ohio.

F&F

For Synthetic Perfume—Oils and Concentrated Flavors for Manufacturing Purposes.

CLASS 52

DETERGENTS AND SOAPS

339,405. Oct. 6, 1936. E. I. du Pont de Nemours and Company, Wilmington, Del. Pub. by registrant.

PERCLENE

For Dry Cleaning Fluid.

LIST OF REGISTRANTS OF TRADEMARKS

REGISTERED JANUARY 8, 1957

A-1 Mfg. Co. : *See*—
Kotzin, Tobias.

Abbott Laboratories, North Chicago, Ill. 639,581, pub. 10–23–56. Cl. 18.

Acme Equipment Co., Muskogee, Okla. 639,854. Cl. 34.

Acushnet Process Co., Acushnet (New Bedford), Mass. 532,286, canc. Cl. 39.

Add-A-Drawer Chest Co. : *See*—
Swilley, George C.

Adler, Harry, New York, N. Y. 337,614, ren. 8–11–56. Cl. 39.

Advance Pattern Co., Inc., New York, N. Y. 532,453, canc. Cl. 26.

Advance Pattern Co., Inc., New York, N. Y. 532,454, canc. Cl. 26.

Aetna Supply Inc., Arlington Heights, Ill. 639,816, pub. 10–23–56. Cl. 50.

Ajax Corp. of America, Chicago, Ill. 532,408, canc. Cl. 34.

Ajax Corp. of America, Chicago, Ill. 532,882, canc. Cl. 31.

Aktiebolaget Ferrosan, Malmo, Sweden. 639,578, pub. 10–23–56. Cl. 18.

Aktiebolaget Nils Adamssons Sjukvårdsaffär, Stockholm, Sweden. 532,676, canc. Cl. 44.

Albany Felt Co., Albany, N. Y. 532,903, canc. Cl. 50.

Albert Pipe Supply Co., Inc., Brooklyn, N. Y. 639,541, pub. 10–16–56. Cl. 13.

Alco of Texas, d. b. a. Alco of Texas, Inc., San Angelo, Tex. 639,746, pub. 10–23–56. Cl. 39.

Allied Printing and Lithograph Co., The, Columbus, Ohio. 532,358, canc. Cl. 38.

Alston-Lucas Paint Co. : *See*—
Eagle-Picher Co., The.

American Blower Corp., Detroit, Mich. 639,660, pub. 10–23–56. Cl. 31.

American Brake Shoe Co. : *See*—
Southern Wheel Co.

American Brake Shoe and Foundry Co., The : *See*—
Southern Wheel Co.

American Display Co., The, Dayton, Ohio. 532,990, canc. Cl. 22.

American Fashions, Inc., Chicago, Ill. 532,320, canc. Cl. 39.

American Felt Co., Glenville, Conn. 532,297, canc. Cl. 34.

American Hard Rubber Co., New York, N. Y. 639,754, pub. 10–23–56. Cl. 40.

American Maize-Products Co., New York, N. Y. 532,844, canc. Cl. 1.

American Optical Co., Southbridge, Mass. 639,632, pub. 10–23–56. Cl. 26.

American Spectacle Co., Inc., New York, N. Y. 532,835, canc. Cl. 26.

American Television Productions, Inc., Newark, N. J. 532,761, canc. Cl. 26.

American Thermo-Ware Co., New York, N. Y. 532,369, canc. Cl. 38.

American Tissue Mills, Holyoke, Mass. 532,580, canc. Cl. 2.

Ames Co., Inc., Elkhart, Ind. 639,590, pub. 10–23–56. Cl. 18.

Apex Electrical Mfg. Co., The, Cleveland, Ohio. 532,366, canc. Cl. 21.

Applicator Enterprises, Inc., New York, N. Y. 639,477, pub. 10–16–56. Cl. 1.

Archer-Daniels-Midland Co., d. b. a. Commander-Larabee Milling Co., Minneapolis, Minn. 639,791, pub. 10–23–56. Cl. 46.

Armstrong Cork Co., Lancaster, Pa. 639,598, pub. 10–23–56. Cl. 20.

Armstrong Paint & Varnish Works, Chicago, Ill. 532,704, canc. Cl. 16.

Arrowhead Ranches, Inc., Glendale, Ariz. 639,802, pub. 10–23–56. Cl. 46.

Artistic Pile Fabrics, Inc., North Bergen, N. J. 532,928, canc. Cl. 42.

Asheville Laundry, Asheville, N. C. 639,839, pub. 10–23–56. Cl. 103.

Association for Applied Solar Energy, Phoenix, Ariz. 639,837, pub. 10–23–56. Cl. 100.

Astoria Mfg. Co., Inc., Long Island City, N. Y. 639,672, pub. 10–23–56. Cl. 34.

Atom-Otive Mfg. Corp., Brooklyn, N. Y. 532,888, canc. Cl. 19.

Automatic Awning Co. of America, Inc., Chicago, Ill. 639,540 pub. 10–13–56. Cl. 13.

Au-Temp Co., Corp., New York, N. Y. 639,601. Pub. 8–21–56. Cl. 21; pub. 10–16–56, Cl. 26. (Consolidated certificate, Classes 21 and 26.)

Automatic Products Co., Milwaukee, Wis. 532,451, canc. Cl. 26.

B. M. C. Mfg. Corp., Binghamton, N. Y. 532,981, canc. Cl. 22.

Bachrach's Millinery and Hat Blockers, Washington, D. C. 639,719, pub. 10–23–56. Cl. 39.

Bacmo Postman Corp., New York, N. Y. 532,388, canc. Cl. 39.

Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany. 639,535, pub. 10–23–56. Cl. 10.

Baker Clothes, Inc., Philadelphia, Pa. 639,727, pub. 10–23–56. Cl. 39.

Ball, Harry & Son, New York, N. Y. 639,759, pub. 10–23–56. Cl. 42.

Ballowitz, Dr., & Co. Chemisch-Pharmaz. Fabrik G. m. b. H., Berlin-Pankow, Germany, to Split-Tablets Corp. 360,479, canc. Cl. 6.

Balstone, Cooke & Rayonese Ltd., Manchester, England. 532,934, canc. Cl. 42.

Bantam Beverages, Inc., Bethesda, Md. 532,968, canc. Cl. 45.

Barack Shoe Co., St. Louis, Mo. 532,759, canc. Cl. 39.

Barben, Dr. David J., d. b. a. Gingisol Laboratories, Cleveland, Ohio. 639,827, pub. 10–23–56. Cl. 51.

Barrett-Cravens Co., Northbrook, Ill. 343,811, ren. 3–9–57. Cl. 19.

Bass, Marvin C., d. b. a. Outdoor Sportsman Publishing Co., Little Rock, Ark. 532,967, canc. Cl. 38.

Bay Publishing Co. Inc., Garden City South, N. Y. 639,699, pub. 10–23–56. Cl. 38.

Beach Shell Co., The, Palm Beach, Fla. 532,831, canc. Cl. 50.

Bear Coal Co., Sommerset, Colo. 639,493, pub. 10–23–56. Cl. 1.

Beaunit Mills, Inc., New York, N. Y. 639,760, pub. 10–23–56. Cl. 42.

Beaver Dam Coal Co., Inc., Louisville, Ky. 532,713, canc. Cl. 1.

Becker, Franklin M., Inc., New York, N. Y. 532,616, canc. Cl. 2.

Beggs & Cobb, Inc., Boston, Mass. 639,489, pub. 10–23–56. Cl. 1.

Behr-Manning Corp., Troy, N. Y. 532,940, canc. Cl. 42.

Bell & Gossett Co., Morton Grove, Ill. 639,549, pub. 10–23–56. Cl. 13.

Bell Industries, Inc., Chicago, Ill. 532,560, canc. Cl. 50.

Bell-Savage Co., Minneapolis, Minn. 532,455, canc. Cl. 39.

Bell Textile Co., Inc., New York, N. Y. 639,756, pub. 10–23–56. Cl. 42.

Bell and Zoller Coal Co., Chicago, Ill. 639,478, pub. 10–23–56. Cl. 1.

Belray Chemical Co. : *See*—
Ralph Richheimer.

Belzer, Henry M., d. b. a. Wayside Cheese Co., Hillbert, Wis. 639,780, pub. 10–23–56. Cl. 46.

Benjamin Air Rifle Co., St. Louis, Mo. 639,534, pub. 10–23–56. Cl. 9.

Benrus Watch Co., to Benrus Watch Co., Inc., New York, N. Y. 344,887–94, ren. 4–6–57. Cl. 27.

Benrus Watch Co., Inc. : *See*—
Benrus Watch Co.

Beretmac Inc., New York, N. Y. 532,612, canc. Cl. 39.

Bergeron, Victor J., d. b. a. Trader Vic, Oakland, Calif. 532,944, canc. Cl. 46.

Beringer Bros., Inc., St. Helena, Calif. 639,812, pub. 10–23–56. Cl. 47.

Berkray Corp., New York, N. Y. 639,723, pub. 10–23–56. Cl. 39.

Bernard, Earl, New York, N. Y. 532,460, canc. Cl. 39.

Bindery Developers, Inc., New York, N. Y., to Conveyor and Machinery Manufacturers, Inc. 532,308, canc. Cl. 26.

Bingham's, Sam'l, Son Mfg. Co., Chicago, Ill. 639,510, pub. 10–23–56. Cl. 5.

Bird Electronic Corp., Cleveland, Ohio. 639,606, pub. 10–23–56. Cl. 21.

Birnie Co., Inc., The, Atlanta, Ga. 639,747, pub. 10–23–56. Cl. 39.

Bissell Varnish Co., The, Bridgeport, Conn. 532,631, canc. Cl. 16.

Blatz Brewing Co. : *See*—
North American Brewing Co.

Bliss Syrup & Preserving Co., Kansas City, Mo. 532,673, canc. Cl. 46.

Blitz Fog Co., Div. of Northern Industries, Inc., The : *See*—
Northern Industries, Inc.

Boehringer, C. H., Sohn, Ingelheim am Rhine, Germany. 639,579, pub. 10–23–56. Cl. 18.

Bolsa Packing Co., d. b. a. Bolsa Packing Co., Inc., Santa Ana, Calif. 639,782–3, pub. 10–23–56. Cl. 46.

Bolsa Packing Co., Inc. : *See*—
Bolsa Packing Co.

Borg-Warner Corp., Chicago, Ill. 532,355, canc. Cl. 34.

Borg-Warner Corp., Chicago, Ill. 532,641, canc. Cl. 12.

Bowland, Charles R., Spring Valley, Ill. 532,585, canc. Cl. 21.

Brandywine Mushroom Corp., West Chester, Pa. 532,823, canc. Cl. 46.

Branson, Lenna S., d. b. a. Crete-Stone Industries, Orlando, Fla. 532,879, canc. Cl. 12.

Brett Pharmaceuticals Inc., Richmond, Va. 639,569, pub. 10–23–56. Cl. 18.

Brilhart, Arnold, Carlsbad, Calif. 639,675, pub. 10–23–56. Cl. 36.

British Heat Resisting Glass Co., Ltd., The, Bilston, England. 532,874, canc. Cl. 33.

Broadway Machine & Mfg. Co. : *See*—
Brummer, Charles.

Brown, R. J., Co., The, St. Louis, Mo. 639,514, pub. 10–23–56. Cl. 6.

Brummer, Charles, d. b. a. Broadway Machine & Mfg. Co., Shelbyville, Ind. 532,600, canc. Cl. 13.

Buckeye Incubator Co., Springfield, Ohio. 532,431, canc. Cl. 34.

Buckingham Trailer Mfg. Corp., Chicago, Ill. 632,663, canc. Cl. 19.

Buffington Baking Corp., Newark, N. J. 532,802, canc. Cl. 46.

Buildice Co., Inc., Chicago, Ill. 532,889, canc. Cl. 31.

Bulman, E. O., Mfg. Co., Inc., The, Grand Rapids, Mich. 639,663, pub. 10–23–56. Cl. 32.
Bulova Watch Co., Inc., Flushing, N. Y. 639,639, pub. 10–23–56. Cl. 27.
Burke, Gerard F., d. b. a. Gerard F. Burke Co. and Cooperative Bank Advertising, Boston, Mass. 639,859. Cl. 101.
Burke, Gerard F., Co.: *See*—
Burke, Gerard F.
Burrows, Eula B., d. b. a. Burrows Ointment Co., Oklahoma City, Okla. 639,848. Cl. 18.
Burrows Ointment Co.: *See*—
Burrows, Eula B.
Burt, Arthur G., Norfolk, Va. 639,577, pub. 10–23–56. Cl. 18.
Buzby, Augustus C., to Keystone Lubricating Co., Philadelphia, Pa. 115,157, ren. 1–30–57. Cl. 15.
Byer, Irving, Co., The: *See*—
Byer, Irving M.
Byer, Irving M., d. b. a. The Irving Byer Co., New York, N. Y. 532,572, canc. Cl. 42.
Caldwell Seed Co., to Permalawn Products Co., Evanston, Ill. 341,084, ren. 12–1–56. Cl. 1.
Campbell, Harry T., Sons' Corp., Towson, Md. 639,494, pub. 10–23–56. Cl. 4.
Cannon Chemical Co., Inc., Cambridge, Mass. 639,508, pub. 10–23–56. Cl. 4.
Cannon Chemical Co., Inc., Cambridge, Mass. 639,554, pub. 10–23–56. Cl. 16.
Cannon Shoe Co., Baltimore, Md. 344,829, ren. 4–6–57. Cl. 39.
Capillaris Mfg. Co., Glen Ridge, N. J 639,584, pub. 10–23–56. Cl. 18.
Carbide and Carbon Chemicals Corp., to Union Carbide and Carbon Corp., New York, N. Y. 340,605, ren. 11–17–56. Cl. 6.
Carmi-Ainsbrooke Corp., New York, N. Y. 639,710, pub. 10–23–56. Cl. 39.
Carrier Corp., Syracuse, N. Y. 639,670, pub. 10–23–56. Cl. 34.
Cascade Frozen Foods, Inc., Burlington, Wash. 639,779, pub. 10–23–56. Cl. 46.
Case, Burgess C., Plainfield, N. J. 532,682, canc. Cl. 23.
Case, W. A., and Son Mfg. Co., Buffalo, N. Y. 532,624, canc. Cl. 13.
Celanese Corp. of America, to Handmacher-Vogel, Inc., New York, N. Y. 339,318, ren. 10–6–56. Cl. 42.
Celanese Corp. of America, New York, N. Y. 532,825, canc. Cl. 42.
Celanese Corp. of America, New York, N. Y. 532,845, canc. Cl. 1.
Cerna Food Products Co., Chicago, Ill. 639,768, pub. 10–23–56. Cl. 45.
Chadbourn Hosiery Mills, Inc., Charlotte, N. C. 532,780, canc. Cl. 39.
Chapin Co., The: *See*—
Chapin, John G.
Chapin, John G., d. b. a. The Chapin Co., Newton Lower Falls, Mass. 639,662, pub. 10–23–56. Cl. 32.
Chateau Wines Corp., Royal Oak, Mich. 532,912, canc. Cl. 47.
Chemagro Corp., New York, N. Y., now by merger and change of name Chemagro Corp. 639,517, pub. 10–23–56. Cl. 6.
Chester Packaging Products Corp., Yonkers, N. Y. 639,475–6, pub. 10–23–56. Cl. 1.
Chicago Specialty Mfg. Co., Chicago, Ill. 639,502, pub. 10–23–56. Cl. 2.
Chrysler Corp., Highland Park, Mich. 639,674, pub. 10–16–56. Cl. 36.
Ciba Ltd., Basel, Switzerland. 639,582, pub. 10–23–56. Cl. 18.
Clapp, Otis, & Son, Inc., Boston, Mass. 345,001, ren. 4–13–57. Cl. 46.
Clay-Adams, Inc., New York, N. Y. 639,564, pub. 10–23–56. Cl. 16.
Clay County Ice Co.: *See*
Mullins, J. F.
Cleveland Heater Co., The, Cleveland, Ohio. 532,668, canc. Cl. 13.
Climatemaker Slide Rule Service, to Climatemaker Slide Rule Co., Bloomington, Ill. 532,525, canc. Cl. 26.
Clothes Closet, The, Palo Alto, Calif. 532,370, canc. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 639,728–31, pub. 10–23–56. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 639,748–9, pub. 10–23–56. Cl. 39.
Cochran, Jacqueline, d. b. a. Jacqueline Cochran Beauty Salon and J. C. Laboratories, Chicago, Ill., and Roselle, N. J., to Jacqueline Cochran, Inc., Newark, N. J. 343,838, ren. 3–9–57. Cl. 51.
Cochran, Jacqueline, Beauty Salon: *See*
Cochran, Jacqueline.
Cochran, Jacqueline, Inc.: *See*—
Cochran, Jacqueline.
Coffomat Inc., Centralia, Wash. 639,800, pub. 10–23–56. Cl. 46.
Cohen, Joseph H., & Sons, Inc., New York, N. Y. 639,717, pub. 10–23–56. Cl. 39.
Cohen, Philip, d. b. a. Phillocraft Co., Philadelphia, Pa. 639,850. Cl. 23.
Coleman Carpet Mills, Inc., New York, N. Y. 532,818, canc. Cl. 42.
Colorado Potato Flake & Mfg. Co., The, Denver, Colo. 639,778, pub. 10–23–56. Cl. 46.
Commander-Larabee Milling Co.: *See*—
Archer-Daniels-Midland Co.
Comptoir de l'Industrie Cotonniere, Etablissements Boussac, Société à Responsabilite Limitée, Paris, France. 639,714, pub. 10–23–56. Cl. 39.
Cone Mills Inc., New York, N. Y. 639,765, pub. 10–23–56. Cl. 42.
Conlon-Moore Corp., Joliet, Ill. 532,351, canc. Cl. 34.
Consolidated Coal Co., The, St. Louis, Mo. 532,752, canc. Cl. 1.
Consolidated Cosmetics, Chicago, Ill. 532,712, canc. Cl. 51.
Consolidated Midland Corp., Katonah, N. Y. 639,568, pub. 2–28–56. Cl. 18.
Continental Can Co., Inc., New York, N. Y. 639,504, pub. 10–23–56. Cl. 2.
Continental Fruit Packing Co., Ltd., The, London, E. C., England. 639,794, pub. 10–23–56. Cl. 46.
Continental Mills, Inc., Philadelphia, Pa. 639,766, pub. 10–23–56. Cl. 42.
Continental Oil Co., Ponca City, Okla. 639,551, pub. 10–23–56. Cl. 15.
Convert-O-Shield, Inc., Santa Ana, Calif. 532,734, canc. Cl. 19.
Cook, A. D., Inc., Lawrenceburg, Ind. 532,642, canc. Cl. 13.
Cooper-Merritt Corp., Miami, Fla. 639,506, pub. 10–23–56. Cl. 3.
Cotter Mfg. Co. Inc., New York, N. Y. 532,963, canc. Cl. 44.
Cowden Mfg. Co., Kansas City, Mo. 639,724, pub. 10–23–56. Cl. 39.
Crescent Insulated Wire and Cable Co., Trenton, N. J. 639,846. Cl. 13.
Crete-Stone Industries: *See*—
Branson, Lenna S.
Crocker McElwain Co., Holyoke, Mass. 639,678, pub. 10–23–56. Cl. 37.
Cruver Mfg. Co., Chicago, Ill. 532,561, canc. Cl. 22.
Cudahy Brothers Co., Cudahy, Wis. 639,796–7, pub. 10–23–56. Cl. 46.
Curtis 1000, Inc., West Hartford, Conn. 639,682, pub. 10–23–56. Cl. 37.
Curtis 1000, Inc., West Hartford, Conn. 639,688, pub. 10–23–56. Cl. 37.
D Maulrone Winery: *See*—
Parducci & Domenici.
Daly, Charles, Inc., Elmsford, N. Y. 639,532, pub. 10–23–56. Cl. 9.
Darling, L. A., Co., Bronson, Mich. 532,853, canc. Cl. 50.
Daroff, H., & Sons, Inc., Philadelphia, Pa. 345,365, ren. 4–27–57. Cl. 39.
Daryl Dress Co., St. Louis, Mo. 639,715, pub. 10–23–56. Cl. 39.
Daubert Chemical Co., Chicago, Ill. 639,683, pub. 10–23–56. Cl. 37.
Davidson Rubber Co., The, Boston (Charlestown District), Mass. 639,479, pub. 10–23–56. Cl. 1.
Dayton Color Works: *See*—
Lowe Brothers Co., The.
Dayton Rubber Co., The, Dayton, Ohio. 639,616, pub. 10–23–56. Cl. 23.
Dearborn Chemical Co., Chicago, Ill. 639,529, pub. 10–23–56. Cl. 6.
Deluxe Clothing Mfg. Co., Baltimore, Md. 532,574, canc. Cl. 39.
Demert & Dougherty, Inc., Chicago, Ill. 639,509, pub. 10–23–56. Cl. 4.
Dermetics, Inc., Seattle, Wash., to Rilling-Dermetics Co., Bridgeport, Conn. 341,117, ren. 12–1–56. Cl. 51.
De Roy, S. H., & Co. Inc., Pittsburgh, Pa. 639,640, pub. 10–23–56. Cl. 27.
Dessert Mfg. Corp., Brooklyn, N. Y. 532,607, canc. Cl. 21.
Diamond Sales Corp., New York, N. Y. 532,471, canc. Cl. 38.
Diamond Wire & Cable Co., Sycamore, Ill. 639,605, pub. 10–23–56. Cl. 21.
Dilks, James J., Jr., d. b. a. Gyrex Mfg. Co., Haddon Heights and Camden, N. J. 532,404, canc. Cl. 26.
Dimple Tie Corp., New York, N. Y. 532,484, canc. Cl. 39.
Displaymasters, Inc., Minneapolis, Minn. 532,792, canc. Cl. 50.
Diversey Machine Works, Inc., Chicago, Ill. 532,576, canc. Cl. 37.
Donalds Ltd., Inc., Wilmington, Del. 339,603, ren. 10–13–56. Cl. 18.
Donovan Industries Inc., New York, N. Y. 639,483, pub. 10–23–56. Cl. 1.
Donovan Industries, Inc., New York, N. Y. 639,488, pub. 10–23–56. Cl. 1.
Douglas Food Corp., Chicago, Ill. 639,803, pub. 10–23–56. Cl. 46.
Drew, E. F., & Co., Inc., New York, N. Y. 532,948, canc. Cl. 15.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 339,405, 12(c) pub. 1–8–57. Cl. 52.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 342,299, 12(c) pub. 1–8–57. Cl. 6.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 532,780, canc. Cl. 6.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 639,561, pub. 10–23–56. Cl. 16.
Dura-Vent Corp., Redwood City, Calif. 639,673, pub. 10–23–56. Cl. 34.
Duro Decal Co., Inc., Chicago, Ill. 639,700, pub. 10–23–56. Cl. 38.
Dur Mascot Co., Brooklyn, N. Y. 532,819, canc. Cl. 51.
Eagle Pencil Co., New York, N. Y. 639,685–6, pub. 10–23–56. Cl. 37.
Eagle-Picher Co., The, from Alston-Lucas Paint Co., Cincinnati, Ohio. 532,578, canc. Cl. 16.
Eagle Spring Water Co., Inc., New York, N. Y. 639,602, pub. 10–23–56. Cl. 21.
Edgar Plastic Kaolin Co., Edgar, Fla. 639,486, pub. 10–23–56. Cl. 1.
Edgerton, Roy G., Miami, Fla. 639,621, pub. 10–23–56. Cl. 23.
Edison, Thomas A., Inc., West Orange, N. J. 532,430, canc. Cl. 21.
Effanjay Pens, Inc., New York, N. Y. 639,687, pub. 10–23–56. Cl. 37.

Eldridge, R. W., Co., Charlotte, N. C. 639,750, pub. 10–23–56. Cl. 39.
Electric Auto-Lite Co., The: *See*—
Prest-O-Lite Storage Battery Corp.
Electric Game Co., The, Holyoke, Mass. 639,608, pub. 10–23–56. Cl. 22.
Electro Tool & Engineering Co., Inc., Rockaway, N. J. 532,489, canc. Cl. 23.
Empire Box Corp., Garfield, N. J. 532,581, canc. Cl. 2.
English Silver Mfg. Corp., Brooklyn, N. Y. 639,649, pub. 10–23–56. Cl. 28.
Essex Rubber Co., Trenton, N. J. 267,469, canc. Cl. 39.
Esso Standard Oil Co.: *See*—
Gilbert & Barker Mfg. Co.
Standard Oil Co. of New Jersey.
Evans, John R., Co., Camden, N. J. 532,898, canc. Cl. 1.
Eversharp, Inc., Chicago, Ill. 532,745, canc. Cl. 44.
Executive Review: *See*—
Sabes, Harold.
Falk, Morris, Jr., Chicago, Ill. 532,557, canc. Cl. 25.
Fall River Canning Co., The, Fall River, Wis. 639,795, pub. 10–23–56. Cl. 46.
Famous Funnies, Inc., Waterbury, Conn. 532,349, canc. Cl. 38.
Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. 639,519, pub. 10–23–56. Cl. 6.
Farrell-Calhoun, Inc., Memphis, Tenn. 532,755, canc. Cl. 16.
Fawcett, Frederick J., to Frederick J. Fawcett, Inc., Boston, Mass. 343,515, ren. 2–23–57. Cl. 42.
Fawcett, Frederick J., Inc.: *See*—
Fawcett, Frederick J.
Feffer Furs, Inc., New York, N. Y. 532,575, canc. Cl. 39.
Fein, Charles, d. b. a. Neo Hi-Gloss Products, Chicago, Ill. 639,832, pub. 10–23–56. Cl. 52.
Feller-Jones Corp., New York, N. Y. 639,524, pub. 10–23–56. Cl. 6.
Felts, Inc., New York, N. Y. 532,279, canc. Cl. 39.
Fernandez, Alice L., d. b. a. Victory Enterprises, New York, N. Y. 532,626, canc. Cl. 46.
Fillerys Toffees Ltd., Birmingham, England. 639,787, pub. 10–23–56. Cl. 46.
Finn, Thomas Richard, & Associates, Kansas City, Kans. 639,836, pub. 10–23–56. Cl. 100.
Firth Sterling Steel & Carbide Corp., McKeesport, Pa. 532,917, canc. Cl. 23.
Fitz, Andrew W., Sr., d. b. a. Royal Products Co., Council Bluffs, Iowa. 338,829, ren. 9–15–56. Cl. 52.
Fleer, Frank H. Corp., Philadelphia, Pa. 639,774, pub. 10–23–56. Cl. 46.
Flex-Let Corp., East Providence, R. I. 639,652, pub. 10–23–56. Cl. 28.
Flight Refueling, Inc., Danbury, Conn. 532,527, canc. Cl. 38.
Flintkote Co., The, New York, N. Y. 639,558, pub. 10–23–56. Cl. 16.
Florida Citrus Exchange, Tampa, Fla. 639,776, pub. 10–23–56. Cl. 46.
Fonda Container Co., Inc., St. Albans, Vt. 532,491, canc. Cl. 2.
Foster Canning Co., Inc., The, also d. b. a. Glendale Canning Co., Farmingdale, N. J. 339,934, ren. 10–27–56. Cl. 46.
Foster Canning Co., Inc., The, Glendale, N. Y., to The Foster Canning Co., Inc., Farmingdale, N. J. 343,185, ren. 2–9–57. Cl. 46.
Melville, Frank D.: *See*—
Melville, Renata C.
Freeman, H., & Son, Inc., Philadelphia, Pa. 639,725, pub. 10–23–56. Cl. 39.
Freemen Shoe Corp., Beloit, Wis. 639,718, pub. 10–23–56. Cl. 39.
Friden Calculating Machine Co., Inc., San Leandro, Calif. 532,509, canc. Cl. 26.
Fries & Fries, by Fries & Fries, Inc., Cincinnati, Ohio. 114,633, 12(c) pub. 1–8–57. Cl. 51.
Fries & Fries, Inc.: *See*—
Fries & Fries.
Fritzi of California, Inc., San Francisco, Calif. 639,743, pub. 10–23–56. Cl. 39.
Frixon, Paul, Paris, France. 532,742, canc. Cl. 44.
Frontier Chemical Co., Div. of Union Chemical & Materials Corp.: *See*—
Union Chemical & Materials Corp.
Frosti Co., The, Baltimore, Md. 639,770, pub. 10–23–56. Cl. 45.
Fuller, W. P., & Co., San Francisco, Calif. 639,560, pub. 10–23–56. Cl. 16.
Fulton Bag & Cotton Mills, Atlanta, Ga. 639,822, pub. 10–23–56. Cl. 50.
Fyens Konservesfabrik A/S, Odense, Denmark. 639,855. Cl. 46.
Gaddy, R. L., Pharmacist: *See*—
Gaddy, Robert L.
Gaddy, Robert L., d. b. a. R. L. Gaddy, Pharmacist, Tallahassee, Fla. 639,567, pub. 5–1–56. Cl. 18.
Garber's Travel Service, Inc., Brookline, Mass. 639,841, pub. 10–23–56. Cl. 105.
Gattis Distributing Co.: *See*—
Gattis, Louie S., Jr.
Gattis, Louie S., Jr., d. b. a. Gattis Distributing Co., Greenville, S. C. 532,594, canc. Cl. 39.
General Aniline & Film Corp., New York, N. Y. 639,515, pub. 10–23–56. Cl. 6.
General Beauty Products, Inc., New York, N. Y. 639,825, pub. 10–23–56. Cl. 51.
General Cigar Co., Inc., New York, N. Y. 126,161, 12(c) pub. 1–8–57. Cl. 17.
General Cigar Co., Inc., New York, N. Y. 150,823, 12(c) pub. 1–8–57. Cl. 17.
General Cigar Co., Inc., New York, N. Y. 153,727, 12(c) pub. 1–1–57. Cl. 17.
General Cigar Co., Inc., New York, N. Y. 165,753, 12(c) pub. 1–8–57. Cl. 17.
General Cigar Co., Inc., New York, N. Y. 204,265, 12(c) pub. 1–8–57. Cl. 17.
General Cigar Co., Inc., New York, N. Y. 283,308, 12(c) pub. 1–8–57. Cl. 17.
General Cigar Co., Inc., New York, N. Y. 290,939, 12(c) pub. 1–8–57. Cl. 17.
General Cigar Co., Inc., New York, N. Y. 317,674, 12(c) pub. 1–8–57. Cl. 17.
General Electric Co., Schenectady, N. Y. 344,131, ren. 3–16–57. Cl. 21.
General Foods Corp., White Plains, N. Y. 639,788, pub. 10–23–56. Cl. 46.
General Industries Corp., Boston, Mass. 639,507, pub. 10–25–55. Cl. 4.
General Pencil Co., Jersey City, N. J. 342,573, ren. 1–19–57. Cl. 37.
General Tire & Rubber Co., The, Akron, Ohio. 639,819, pub. 10–23–56. Cl. 50.
Genesee Laboratory, Inc., Auburn, N. Y. 639,603, pub. 10–23–56. Cl. 21.
Gensler-Lee, Inc., San Francisco, Calif. 639,641–2, pub. 10–23–56. Cl. 27.
Gerber Products Co., Fremont, Mich. 639,658, pub. 10–23–56. Cl. 29.
Gibraltar Savings and Loan Association of Beverly Hills, Beverly Hills, Calif. 639,838, pub. 10–23–56. Cl. 102.
Gilbert & Barker Mfg. Co., West Springfield, Mass., to Esso Standard Oil Co., New York, N. Y. 338,233, ren. 9–1–56. Cl. 34.
Gingisol Laboratories: *See*—
Barben, Dr. David J.
Givens & Co.: *See*—
Givens, Dee R.
Givens, Dee R., d. b. a. Givens & Co., Downers Grove, Ill. 639,664, pub. 10–23–56. Cl. 32.
Gland-O-Lac Co., Omaha, Nebr. 639,595–6, pub. 10–23–56. Cl. 18.
Glendale Canning Co.: *See*—
Foster Canning Co., Inc., The.
Globe Knitwear Co., Philadelphia, Pa. 532,729, canc. Cl. 39.
Glove Beverage Co.: *See*—
Salotti, Peter.
Glycol Co.: *See*—
Templeton, John M.
Glycolizer Corp.: *See*—
Templeton, John M.
Glynn-Johnson Corp., Chicago, Ill. 639,546–7, pub. 10–23–56. Cl. 13.
Good Earth Soil Co., Inc., The, Fort Worth, Tex. 639,496. pub. 10–23–56. Cl. 1.
Good Foods, Inc., Culver City, Calif. 639,777, pub. 10–23–56. Cl. 46.
Got Cha Mfg. Corp., Chicago, Ill. 532,887, canc. Cl. 50.
Goudsmit, Felix K., Larchmont, N. Y. 532,478, canc. Cl. 21.
Greif, L., & Bro., Inc., Baltimore, Md. 639,722, pub. 10–23–56. Cl. 39.
Gulf States Paper Corp., Tuscaloosa, Ala. 532,315, canc. Cl. 2.
Gyrex Mfg. Co.: *See*—
Dilks, James J., Jr.
Gyrodyne Co. of America, Inc., New York, N. Y. 532,773, canc. Cl. 19.
Halo Candle Co.: *See*—
Sherfy, Harold B.
Hamilton Watch Co., Lancaster, Pa. 639,643, pub. 10–23–56. Cl. 27.
Hammond Standish & Co., Detroit, Mich. 639,807, pub. 10–23–56. Cl 46.
Handcraft Co., Inc., Princeton, Wis. 639,708, pub. 10–23–56. Cl. 39.
Handmacher-Vogel, Inc.: *See*—
Celanese Corp. of America.
Harper, H. M., Co., The, Morton Grove, Ill. 639,548, pub. 10–23–56. Cl. 13.
Harrington & Richardson, Inc., Worcester, Mass. 639,533, pub. 10–23–56. Cl. 9.
Harry Camp Millinery Co., San Francisco, Calif. 532,436, canc. Cl. 39.
Hart, C., Mfg. Co., Columbus, Ohio. 639,713, pub. 10–23–56. Cl. 39.
Hart Schaffner & Marx, Chicago, Ill. 620,908, canc. Cl. 39.
Harwood Mfg. Corp., New York, N. Y. 532,461, canc. Cl. 39.
Hawaiian Pineapple Co., Ltd., Honolulu, Hawaii, and San Francisco, Calif. 532,558, canc. Cl. 46.
Heilbrun, Van Baalen, & Co., Inc., New York, N. Y. 532,862, canc. Cl. 39.
Heinemann, Wm. H., Creameries, Inc., Kewaskum, Wis. 639,790, pub. 10–23–56. Cl. 46.
Heyden Chemical Corp.: *See*—
Nuodex Products Co., Inc.
Hill, John C., d. b. a. The Neodane Co., Gardena, Calif. 639,604, pub. 10–23–56. Cl. 21.
Hilti Rapid Fastening Systems, Inc., New York, N. Y. 639,845. Cl. 13.
Hirschmann, J. C., Co., Inc., The, Indianapolis, Ind. 639,667, pub. 10–23–56. Cl. 32.
Hirst & Thackway Ltd., Leeds, England. 532,678, canc. Cl. 39.
Hoff, Raymond, Sparta, Wis. 532,762, canc. Cl. 22.
Holbrooke Candies, Inc., Brooklyn, N. Y. 532,563, canc. Cl. 46.
Hudson, H. D., Mfg. Co., Chicago, Ill. 639,615, pub. 10–23–56. Cl. 23.
Huffman Mfg. Co., The, Dayton, Ohio. 532,830, canc. Cl. 19.
Huntington Mfg. Co., Inc., Chicago, Ill. 639,739, pub. 10–23–56. Cl. 39.

Hygienol Co., Inc., The, New Rochelle, N. Y. 639,657, pub. 10–23–56. Cl. 29.
Ideal Novelty & Toy Co., Hollis, N. Y. 532,959, canc. Cl. 22.
Ideal Roller and Mfg. Co., Chicago, Ill. 639,823, pub. 10–23–56. Cl. 50.
Illinois Tool Works, Chicago, Ill. 639,543, pub. 10–23–56. Cl. 13.
Imperial Chemical Industries Ltd., London, England. 639,516, pub. 10–23–56. Cl. 6.
Imperial Chemical Industries Ltd., London, England. 639,520–1, pub. 10–23–56. Cl. 6.
Imperial Drug Exchange Inc., d. b. a. New York Drug Concern, New York, N. Y. 639,586, pub. 10–23–56. Cl. 18.
Imperial Knife Co., Inc., Providence, R. I. 344,466, ren. 3–23–57. Cl. 23.
Industrial Scale Co., Portland, Oreg. 639,633, pub. 9–25–56. Cl. 26.
Industrial Undergarment Corp., Poughkeepsie, to Stardust, Inc., New York, N. Y. 345,102, ren. 4–13–57. Cl. 39.
Ingraham, E., Co., The, Bristol, Conn. 639,645–7, pub. 10–23–56. Cl. 27.
Inn Maid Products, Inc., Millersburg, Ohio. 639,799, pub. 10–23–56. Cl. 46.
Innis, Speiden, & Co., New York, N. Y. 532,379, canc. Cl. 23.
Inter-American Center Authority, Miami, Fla. 639,695–7, pub. 10–23–56. Cl. 38.
Interchemical Corp., New York, N. Y. 532,368, canc. Cl. 20.
Inter-Continental Trading Corp., New York, N. Y. 559,973, canc. Cl. 26.
International Harvester Co., Chicago, Ill. 639,622, pub. 10–23–56. Cl. 23.
International Minerals & Chemical Corp., Chicago, Ill. 639,775, pub. 10–23–56. Cl. 46.
International Silver Co., The, Meriden, Conn. 639,656, pub. 10–23–56. Cl. 28.
Interstate Electric Co., New Orleans, La. 532,868, canc. Cl. 31.
Irvin, Jewell and Vinson Co., The, Dayton, Ohio. 639,562, pub. 10–23–56. Cl. 16.
J. C. Laboratories: *See*—
Cochran, Jacqueline.
Jacobson Stores, Inc., Jackson, Mich. 532,599, canc. Cl. 39.
Jalkoff Furs Inc., New York, N. Y. 532,422, canc. Cl. 39.
Jay Corp., Columbus, Ohio. 639,626, pub. 10–23–56. Cl. 23.
Jean Pathe, New York, N. Y. 532,414, canc. Cl. 26.
Jesky, Stephen, d. b. a. Hunchback Lures, New Britain, Conn. 532,858, canc. Cl. 22.
Jewish Publications, Inc., Los Angeles, Calif. 639,694, pub. 10–23–56. Cl. 38.
Johns-Manville Corp., New York, N. Y. 639,661, pub. 10–23–56. Cl. 31.
Johnson, Lloyd A., d. b. a. Lloyd Refrigeration, Gibbon, Minn. 639,607, pub. 10–23–56. Cl. 22.
Jose Bustamante S. L., Jerez de la Frontera, Spain. 532,973, canc. Cl. 47.
Josephthal & Co., New York, N. Y. 639,705, pub. 10–23–56. Cl. 38.
Justamere Co.: *See*—
Matthews, Loraine S.
K. S. H. Plastics, Inc., High Ridge, Mo. 639,495, pub. 10–23–56. Cl. 1.
Kalle & Co. Aktiengesellschaft, Wiesbaden-Biebrich, Germany. 340,036, ren. 10–27–56. Cl. 6.
Kalmia Braids, Inc., Kalmia, N. C. 639,752 pub. 10–23–56. Cl. 40.
Karr, Dr. James J., New York, N. Y. 532,582, canc. Cl. 2.
Kathryn, Inc., Chicago, Ill. 532,784, canc. Cl. 51.
Keystone Lubricating Co.: *See*—
Buzby, Augustus C.
Kibler Co., The, Canton, Ohio. 639,709, pub. 10–23–56. Cl. 39.
Kiddy Klad Co., Inc., New York, N. Y. 532,786, canc. Cl. 39.
Kiefer, K. G., Pforzheim, Germany. 639,851–2. Cl. 27.
Kilmar Corp., Kilkenny, Minn. 532,427, canc. Cl. 21.
Kimberly-Clark Corp., Neenah, Wis. 639,503, pub. 10–23–56. Cl. 2.
Kinert, Goldie M., Washougal, Wash. 532,608, canc. Cl. 18.
Knapp-Monarch Co., St. Louis, Mo. 639,499, pub. 10–23–56. Cl. 2.
Knittel, Emil E., d. b. a. Revo-Flie Co., Freeport, N. Y. 639,665, pub. 10–23–56. Cl. 32.
Knox Co., The, to The Knox Co., Los Angeles, Calif. 344,975, ren. 4–13–57. Cl. 18.
Koepplin A. G., Basel, Switzerland. 532,393, canc. Cl. 46.
Kone Mfg. Co., The, Woodside, N. Y. 532,498, canc. Cl. 26.
Kotzin, Tobias, d. b. a. A-1 Mfg. Co., Los Angeles, Calif. 639,726, pub. 10–23–56. Cl. 39.
Kresky Mfg. Co., Inc., Petaluma, Calif. 532,910, canc. Cl. 19.
Krusius, Erwin, d. b. a. Gebr. Krusius, Solingen, Germany. 639,619, pub. 9–11–56. Cl. 23.
Krusius, Gebr.: *See*—
Krusius, Erwin.
Kurashiki Rayon Co. Ltd., Kurashiki City, Okayama Prefecture, Japan. 639,492, pub. 10–23–56. Cl. 1.
Kurashiki Rayon Co. Ltd., Okayama Prefecture, Japan. 639,757, pub. 10–23–56. Cl. 42.
Kurtz Bros., Clearfield, Pa. 639,539, pub. 10–23–56. Cl. 11.
Lake Union Sales Co., Seattle, Wash. 532,656, canc. Cl. 13.
Lakeview News, The: *See*
Udel, Alonzo E.
Lakewood Storage, Inc., Lakewood, Ohio. 639,840, pub. 1–31–56. Cl. 105.
La Mode Hosiery Corp., New York, N. Y., from Ludwig Neumann, d. b. a. Majestic Hosiery Co. 532,970, canc. Cl. 39.
Langendorf Watch Co. (Uhrenfabrik Langendorf), (Societe d'Horlogerie de Langendorf), (Lonville Watch Co.) Langendorf, Langendorf, Switzerland. 639,638, pub. 10–23–56. Cl. 27.
La Scala Corp., Orange, N. J. 532,621, canc. Cl. 2.
Lauerman Brothers Co., Marinette, Wis. 532,412, canc. Cl. 43.
Lawrence Products Co., Inc., Attalla, Ala. 532,916, canc. Cl. 42.
Lay Z Egg Cage Systems: *See*—
Zurlo, Carl J.
Le Febure Corp., Cedar Rapids, Iowa. 639,668–9, pub. 10–23–56. Cl. 32.
Le Ripolin (Société Anonyme Francaise de Peintures Laquées et d'Enduits Sous-Marins, Procedes LeFranc & Briegleb Reunis), Paris, France. 532,809, canc. Cl. 16.
Les Parfums Chypron Societe Anonyme, Bois-Colombes, Seine, France. 343,139, ren. 2–9–57. Cl. 51.
Les Parfums Chypron Societe Anonyme, Bois-Colombes, Seine, France. 343,933, ren. 3–9–57. Cl. 52.
Le Tourneau-Westinghouse Co., Peoria, Ill. 639,597. Pub. 10–16–56, Cl. 19; Pub. 8–28–56, Cl. 23. (Consolidated certificate, Classes 19, 23.)
Levin, Albert I., d. b. a. Little Charmer Blouse Co., Philadelphia, Pa. 532,511, canc. Cl. 39.
Lewis, Dr. A. D., Chemical Co., Inc., Atlanta, Ga. 639,591, pub. 10–23–56. Cl. 18.
Lighting Products, Inc., Highland Park, Ill. 532,420, canc. Cl. 21.
Lilly, Eli, and Co., Indianapolis, Ind. 639,588–9, pub. 10–23–56. Cl. 18.
Lilly, Eli, and Co., Indianapolis, Ind. 639,593–4, pub. 10–23–56. Cl. 18.
Lily-Tulip Cup Corp., New York, N. Y., from Universal Paper Products Co. 532,269, canc. Cl. 2.
Lincoln Stores, Inc., Quincy, Mass. 532,829, canc. Cl. 42.
Lincoln Stores, Inc., Quincy, Mass. 532,834, canc. Cl. 42.
Linen-Maid Service Co., Brooklyn, N. Y. 532,941, canc. Cl. 100.
Lisle Mills, Inc., Allentown, Pa. 532,721, canc. Cl. 39.
Litewriter Corp., New York, N. Y. 532,620, canc. Cl. 21.
Little Charmer Blouse Co.: *See*—
Levin, Albert I.
Loc-Bloc Machine Co., Portland, Oreg. 532,569, canc. Cl. 23.
Loft Candy Corp.: *See*
Loft, George W.
Loft, Inc.
Loft, George W., to Loft, Inc., of New York, N. Y., New York, N. Y. to Loft Candy Corp., Long Island City, N. Y. 113,399. ren. 10–17–56. Cl. 46.
Loft, Inc.: *See*—
Loft, George W.
Loft, Inc., New York, N. Y., to Loft Candy Corp., Long Island City, N. Y. 113,754, ren. 10–31–56. Cl. 46.
Louisiana State Rice Milling Co., Inc., Abbeville, La. 344,474, ren. 3–23–57. Cl. 46.
Lonve Ray Corp., Boston, Mass. 639,490, pub. 10–23–56. Cl. 1.
Lowe Brothers Co., The, d. b. a. Dayton Color Works, Dayton, Ohio. 639,556, pub. 10–23–56. Cl. 16.
Lowebco, Inc., Chicago, Ill. 639,833, pub. 10–23–56. Cl. 52.
Lynerest Mfg. Co., Inc., Paterson, N. J. 639,484, pub. 10–23–56. Cl. 1.
Maas, Hugo G., d. b. a. Washington Commercial Co., Washington, D. C. 639,701, pub. 10–23–56. Cl. 38.
MacDonald, Wilson, Toronto, Canada. 532,604, canc. Cl. 46.
Magic Hostess Corp.: *See*—
Rival Mfg. Co.
Magnet Cove Barium Corp., Houston, Tex. 639,482, pub. 10–23–56. Cl. 1.
Majestic Hosiery Co.: *See*—
La Mode Hosiery Corp.
Majestic Mfg. Co., St. Louis, Mo. 532,539, canc. Cl. 34.
Manatee Fruit Co., Tampa, Fla. 639,487, pub. 10–23–56. Cl. 1.
Manco Mfg. Co., Bradley, Ill. 639,629, pub. 10–23–56. Cl. 23.
Manhattan Shirt Co., The, New York, N. Y. 639,716, pub. 10–23–56. Cl. 39.
Manning, Maxwell & Moore, Inc., Muskegon, Mich. 639,623, pub. 10–23–56. Cl. 23.
Marchand, Charles, Co., The, New York, N. Y. 343,853, ren. 3–9–57. Cl. 51.
Marine Optical Mfg. Co., to Marine Optical Mfg. Co., Boston, Mass. 532,507, canc. Cl. 26.
Marinette Knitting Mills, Marinette, Wis. 532,567, canc. Cl. 39.
Marlin Firearms Co., The, New Haven, Conn. 345,427, ren. 4–27–57. Cl. 23.
Mary Host Candy Co., Orange, N. J. 532,877, canc. Cl. 46.
Mason & Lawrence, Elgin, Ill. 639,501, pub. 10–23–56. Cl. 2.
Masuda Brothers, Los Angeles, Calif. 532,280, canc. Cl. 46.
Matthews, Loraine S., d. b. a. Justamere Co., Silver City, N. Mex. 639,744, pub. 10–23–56. Cl. 39.
Mayfair Markets, Inc., Los Angeles, Calif. 532,597, canc. Cl. 46.
McCall Corp., New York, N. Y. 570,145, canc. Cl. 38.
McIntire Co.: *See*—
McIntire Connector Co.
McIntire Connector Co., Newark, to McIntire Co., Livingston, N. J. 338,811, ren. 9–15–56. Cl. 31.
McKittrick Directory of Advertisers, Inc., New York, N. Y. 639,703, pub. 10–23–56. Cl. 38.
McVeigh & Co., Inc., Kansas City, Mo. 632,618, canc. Cl. 1.
Melville, Renata C., d. b. a. Suds-A-Toy Co., from Renata C. Melville and Frank D. Melville, Madison, Wis. 532,705. canc. Cl. 22.
Merchants Matrix Cut Syndicate, Chicago, Ill. 532,605, canc. Cl. 38.
Merck & Co., Inc., Rahway, N. J. 639,570–6, pub. 10–23–56. Cl. 18.
Merriwether Knitwear Ltd., New York, N. Y. 639,751, pub. 10–23–56. Cl. 39.
Messina, Inc., New York, N. Y. 532,462, canc. Cl. 23.
Messina, Inc., New York, N. Y. 532,857, canc. Cl. 23.

Metronome Corp., New York, N. Y. 532,614, canc. Cl. 38.
Michaels Stern & Co., Inc., Rochester, N. Y. 639,712, pub. 10–23–56. Cl. 39.
Michelson, Julius, d. b. a. Up-To-Date Tool Co., Worcester, Mass. 639,617, pub. 10–23–56. Cl. 23.
Midland Textiles Inc., New York, N. Y. 639,491, pub. 10–23–56. Cl. 1.
Milam Mfg. Co., Tupelo, Mo. 639,742, pub. 10–23–56. Cl. 39.
Milcas, Ephraim, Los Angeles, Calif. 639,711, pub. 10–23–56. Cl. 39.
Miller Art Mfg. Co., New York, N. Y. 532,983, canc. Cl. 39.
Milwaukee Lace Paper Co., Milwaukee, Wis. 639,689–91, pub. 10–23–56. Cl. 37.
Mobay Chemical Co., St. Louis, Mo. 639,528, pub. 10–23–56. Cl. 6.
Monarch Wine Co., Inc., Brooklyn, N. Y. 532,702, canc. Cl. 47.
Monsanto Chemical Co., St. Louis, Mo. 639,527, pub. 10–23–56. Cl. 6.
Monsanto Chemical Co., St. Louis, Mo. 639,798, pub. 10–23–56. Cl. 46.
Moore & Weinberg Ltd., Manchester, England. 532,926, canc. Cl. 42.
Moppets Inc., New York, N. Y. 639,740, pub. 10–23–56. Cl. 39.
Mortar Board, Inc., Indianapolis, Ind. 639,842, pub. 10–23–56. Cl. 200.
Motor Installation Corp., Newark, N. J. 532,791, canc. Cl. 23.
Movado Watch Agency, Inc., New York, N. Y. 639,644, pub. 10–23–56. Cl. 27.
Mud Control Laboratories, Inc., Oklahoma City, Okla. 639,523, pub. 10–23–56. Cl. 6.
Mullins, J. F., d. b. a. Clay County Ice Co., Corning, Ark. 532,952, canc. Cl. 45.
Murphy, Boise R., Meade, Kans., to Old Hickory Butchers' Supply Co., Memphis, Tenn. 114,525, ren. 12–19–56. Cl. 46.
Murray China Corp., The, New York, N. Y. 532,392, canc. Cl. 21.
Music Charts: *See*—
Torstrick, Ann E.
Myers Rum Co., Ltd., Nassau, Bahamas. 639,814, pub. 10–23–56. Cl. 49.
Mylu Corp., Cartersville, Ga. 639,758, pub. 10–23–56. Cl. 42.
Myra-Mae Girls Coats, Inc., New York, N. Y. 532,331, canc. Cl. 39.
Narcia, Amadeo, Mexico City, Mexico. 532,748, canc. Cl. 18.
Narcia, Amadeo, Mexico City, Mexico. 532,749, canc. Cl. 18.
Narmco Inc., San Diego, Calif. 639,755, pub. 10–23–56. Cl. 41.
National Coffee Association of U. S. A., New York, N. Y. 532,942, canc. Cl. 13.
National Polychemicals, Inc., Wilmington, Del. 639,513, pub. 7–17–56. Cl. 6.
National Silver Co., New York, N. Y. 532,972, canc. Cl. 27.
Neld, Louis J., d. b. a. Twin City Pigeon Eliminating Co., St. Paul, Minn. 639,817, pub. 10–23–56. Cl. 50.
Neilson Chemical Co.: *See*—
Neilson, Howard R.
Neilson, Howard R., d. b. a. Neilson Chemical Co., to Neilson Chemical Co., Detroit, Mich. 345,053, ren. 4–13–57. Cl. 52.
Neiman-Marcus Co., Dallas, Tex. 532,362, canc. Cl. 39.
Neodane Co., The: *See*—
Hill, John C.
Neo Hi Gloss Products: *See*—
Fein, Charles.
Nerli, William, d. b. a. Vallauris-America Imports, San Francisco, Calif. 532,904, canc. Cl. 30.
Nesco Division of New York Shipbuilding Corp.: *See*—
New York Shipbuilding Corp.
Neumann, Ludwig: *See*—
La Mode Hosiery Corp.
Newark Paraffine & Parchment Paper Co., Newark, N. J. 639,498, pub. 10–23–56. Cl. 2.
Newberg Vineyards, The, Visalia, Calif. 532,638, canc. Cl. 46.
Newman, Sol, Inc.: *See*—
Newman, Soloman.
Newman, Soloman, by Sol Newman Inc., New York, N. Y. 115,373, 12(c) pub. 1–8–57. Cl. 39.
New Plastic Corp., Los Angeles, Calif. 532,751, canc. Cl. 31.
New Products Development, Inc., Schenectady, N. Y. 532,445, canc. Cl. 39.
New York Drug Concern: *See*—
Imperial Drug Exchange Inc.
New York Shipbuilding Corp., d. b. a. Nesco Division of New York Shipbuilding Corp., Milwaukee, Wis. 639,600, pub. 10–2–56. Cl. 21.
New York Wire Cloth Co., New York, N. Y., to New York Wire Cloth Co., York, Pa. 344,223, ren. 3–16–57. Cl. 13.
Nicolet Industries, Inc.: *See*—
Norristown Magnesia & Asbestos Co.
Niemeijer, Theodorus, N. V., Groningen, Netherlands. 639,792, pub. 10–23–56. Cl. 46.
Norristown Magnesia & Asbestos Co., Norristown, Pa., to Nicolet Industries, Inc., New York, N. Y. 343,372, ren. 2–16–57. Cl. 12.
Norristown Magnesia & Asbestos Co., Norristown, Pa., to Nicolet Industries, Inc., New York, N. Y. 344,283, ren. 3–16–57. Cl. 12.
North American Brewing Co., New York and Brooklyn, N. Y., to Blatz Brewing Co., Milwaukee, Wis. 113,900, ren. 11–7–56. Cl. 48.
Northern Industries, Inc., d. b. a. The Blitz Fog Co., Div. of Northern Industries, Inc., Milwaukee, Wis. 639,512, pub. 10–23–56. Cl. 6.
Norton Co., Worcester, Mass. 342,132, ren. 1–5–57. Cl. 23.
Norton Co., Worcester, Mass. 342,133, ren. 1–5–57. Cl. 23.
Norton Co., Worcester, Mass. 344,804, ren. 4–6–57. Cl. 23.
Norton Co., Worcester, Mass. 345,054, ren. 4–13–57. Cl. 23.
Nortronics Co., Minneapolis, Minn. 639,637, pub. 10–23–56. Cl. 26.
Novocol Chemical Mfg. Co., Inc., Brooklyn, N. Y. 639,525, pub. 10–23–56. Cl. 6.
Nu-Nail Co., to Nu-Nails, Chicago, Ill. 339,994, ren. 10–27–56. Cl. 44.
Nuodex Products Co., Inc., Elizabeth, N. J., to Heyden Chemical Corp., New York, N. Y. 345,130, ren. 4–13–57. Cl. 16.
Ohio Seamless Tube Co., The, Shelby, Ohio. 532,799, canc. Cl. 13.
Old Boone Distillery Co.: *See*—
Pendergast, T. J., Wholesale Liquor Co.
Pendergast, T. J., Wholesale Liquor Co., Inc.
Old Hickory Butchers' Supply Co.: *See*—
Murphy, Boise R.
Olin Mathieson Chemical Corp., New York, N. Y. 639,522, pub. 10–23–56. Cl. 6.
Olson, Brandt B., d. b. a. Olson Printing Co., Highland Park, Ill. 639,681, pub. 10–23–56. Cl. 37.
Olson Printing Co.: *See*—
Olson, Brandt B.
Organic Sea Products Corp., San Francisco, Calif. 639,566, pub. 10–23–56. Cl. 18.
Ortho Pharmaceutical Corp., Raritan, N. J. 639,828, pub. 10–23–56. Cl. 51.
Osborn, Charles L., Denver, Colo. 532,357, canc. Cl. 23.
Outdoor Sportsman Publishing Co.: *See*—
Bass, Marvin C.
Pacific Rake Co.: *See*—
Tokunaga, George T.
Paine & Williams Co., The, Cleveland, Ohio. 639,824, pub. 10–23–56. Cl. 50.
Paladon Société à responsabilité Limitée Saint-Eugene (Département d'Alger), Algiers. 639,580, pub. 10–23–56. Cl. 18.
Palm Beach Co., Portland, Maine. 639,736–8, pub. 10–23–56. Cl. 39.
Palm Beach Co., Portland, Maine. 639,745, pub. 10–23–56. Cl. 39.
Parducci & Domenici, d. b. a. D Madrone Winery, San Francisco, Calif. 532,698, canc. Cl. 47.
Paris Neckwear Co., Inc., The, New York, N. Y. 532,433, canc. Cl. 39.
Patrol Polishes Ltd., London, England. 532,821, canc. Cl. 4.
Pendergast, T. J., Wholesale Liquor Co., Kansas City, Mo., to Old Boone Distillery Co., Meadowlawn, Ky. 341,603, ren. 12–15–56. Cl. 49.
Pendergast, T. J., Wholesale Liquor Co., Inc., Kansas City, Mo., to Old Boone Distillery Co., Meadowlawn, Ky. 343,298, ren. 2–16–57. Cl. 49.
Pepperidge Farm Inc., Norwalk, Conn. 639,785–6, pub. 10–23–56. Cl. 46.
Perfect Brassiere Co., Inc., Jersey City, N. J. 639,741, pub. 10–23–56. Cl. 39.
Perfect Circle Corp., Hagerstown, Ind. 532,629–30, canc. Cl. 106.
Permacel Tape Corp., New Brunswick, N. J. 639,511, pub. 10–23–56. Cl. 5.
Permalawn Products Co.: *See*—
Caldwell Seed Co.
Petrolite Corp., St. Louis, Mo. 639,829–30, pub. 10–23–56. Cl. 52.
Pfeiffer, Frank H., Co., Inc., Worcester, Mass. 532,345, canc. Cl. 39.
Philadelphia Chewing Gum Corp., Havertown, Pa. 639,808–10, pub. 10–23–56. Cl. 46.
Phillips Petroleum Co., Bartlesville, Okla. 532,723, canc. Cl. 16.
Photo-Crystals, Inc., Geneva, Ill. 639,849. Cl. 21.
Piel Bros., Brooklyn, N. Y. 532,964, canc. Cl. 48.
Pieringer, Helde Hannah, New York, N. Y. 639,611, pub. 10–23–56. Cl. 22.
Pillsbury Mills, Inc., Minneapolis, Minn. 532,634, canc. Cl. 46.
Pomalift, Inc., Denver, Colo. 639,624, pub. 10–23–56. Cl. 23.
Portable Electric Tools, Inc., Chicago, Ill. 639,614, pub. 7–13–54. Cl. 23.
Preshon, Inc., Dayton, Ohio. 532,693, canc. Cl. 23.
Pressure Products Co., West Chester, Pa. 639,550, pub. 10–23–56. Cl. 15.
Prest-O-Lite Storage Battery Corp., Speedway, Inc., to The Electric Auto-Lite Co., Toledo, Ohio. 342,181, ren. 1–5–57. Cl. 21.
Pulitzer, Ben, Creations, Inc., New York, N. Y. 532,667, canc. Cl. 39.
Purdue Frederick Co., The, New York, N. Y. 639,585, pub. 10–16–56. Cl. 18.
Purex Corp., Ltd., South Gate, Calif. 639,834, pub. 10–23–56. Cl. 52.
Quaker Oats Co., The, Chicago, Ill. 532,843, canc. Cl. 1.
Quaker Oats Co., The, Chicago, Ill. 639,793, pub. 10–23–56. Cl. 46.
Quigley Shoe Corp., North Abington, Mass. 532,545, canc. Cl. 39.
Rand McNally & Co., Chicago, Ill. 532,520, canc. Cl. 38.
Realite Co., New York, N. Y. 639,531, pub. 10–23–56. Cl. 8.
Reden, Morey, New York, N. Y. 532,363, canc. Cl. 26.
Redi Food Co., Inc., New York, N. Y. 639,801, pub. 10–23–56. Cl. 46.
Rembrandt Confections, Inc., New York, N. Y. 532,288, canc. Cl. 46.
Remco Food Products, Inc., New York, N. Y. 532,562, canc. Cl. 2.
Ren Plastics, Inc., Lansing, Mich. 639,485, pub. 10–23–56. Cl. 1.
Republic Steel Corp., Cleveland, Ohio. 639,542, pub. 10–23–56. Cl. 13.

Revlon, Inc., New York, N. Y. 639,857–8. Cl. 51.
Revo-File Co.: *See*—
Knittel, Emil E.
Rice, Wilbur, Associates, Inc., Chicago, Ill. 639,767, pub. 10–23–56. Cl. 44.
Richards, Sutton & Thornton, Inc., New York, N. Y. 639,720, pub. 10–23–56. Cl. 39.
Richheimer, Ralph, d. b. a. Belray Chemical Co., New York, N. Y. 639,843. Cl. 6.
Rilling-Dermetics Co., The: *See*—
Dermetics, Inc.
Riordan, Charles C., Co.: *See*—
Riordan, Charles C.
Riordan, Charles C., d. b. a. Charles C. Riordan Co., Chicago, Ill. 639,625, pub. 10–23–56. Cl. 23.
Rival Mfg. Co., to Magic Hostess Corp., Kansas City, Mo. 639,612, pub. 7–13–54. Cl. 23.
Rivoli Mills, Inc., The, Chattanooga, Tenn. 532,510, canc. Cl. 39.
Robertson, James, Co.: *See*—
Stewart-Reynolds, Inc.
Rockford Textile Mills, Inc., McMinnville, Tenn. 639,734, pub. 10–23–56. Cl. 39.
Rohm & Haas Co., Philadelphia, Pa. 639,518, pub. 10–23–56. Cl. 6.
Rossotti Lithograph Corp., North Bergen, N. J. 639,500, pub. 10–23–56. Cl. 2.
Royal Products Co.: *See*—
Fitz, Andrew W., Sr.
Rubin, Kahn, Co., Chicago, Ill. 532,687, canc. Cl. 39.
Sabes, Harold, d. b. a. Executive Review, Chicago, Ill. 639,693, pub. 10–23–56. Cl. 38.
Safe-in-Suds, Inc., New York, N. Y. 639,735, pub. 10–23–56. Cl. 39.
Sage, Peggy: *See*—
Sage, Peggy, Inc.
Sage, Peggy, Inc., d. b. a. Peggy Sage, Stamford, Conn. 639,856. Cl. 51.
Sagner's, A., Son, Baltimore, Md. 639,721, pub. 10–23–56. Cl. 39.
St. Louis Blow Pipe & Heater Co.: *See*—
Young Sales Corp.
Salant & Salant, Inc., New York, N. Y. 639,732, pub. 10–23–56. Cl. 39.
Salotti, Peter, d. b. a. Glove Beverage Co., Chicago, Ill. 639,771, pub. 10–23–56. Cl. 45.
San Dimas Orange Growers Association, San Dimas, Calif. 532,293, canc. Cl. 46.
Sarkin, David, Inc., New York, N. Y. 639,651, pub. 10–23–56. Cl. 28.
Schenley Laboratories, Inc., New York, N. Y. 639,587, pub. 10–23–56. Cl. 18.
Schindler & Co., to Schindler & Co., Inc., New York, N. Y. 344,658, ren. 3–30–57. Cl. 39.
Schindler & Co., Inc.: *See*—
Schindler & Co.
Schindler's Peanut Products, Inc., Washington, D. C., and Baltimore, Md. 532,305, canc. Cl. 46.
Schindler's Peanut Products, Inc., Mt. Rainier, Md. 639,811, pub. 10–23–56. Cl. 46.
Schoeneman, J., Inc., by J. Schoeneman, Inc., Baltimore, Md. 340,154, 12(c) pub. 1–8–57. Cl. 39.
Schofield Development Co. Inc., North Sutton, N. H. 639,820, pub. 10–23–56. Cl. 50.
Scholl Mfg. Co., Inc., The: *See*—
Scholl Mfg. Co., The.
Scholl Mfg. Co., The, to The Scholl Mfg. Co., Inc., Chicago, Ill. 115,866, ren. 3–13–57. Cl. 18.
Scholl Mfg. Co., Inc., The, Chicago, Ill. 343,932, ren. 3–9–57. Cl. 18.
Schreiber & Hiller, Pforzheim, Germany. 639,650, pub. 10–23–56. Cl. 28.
Schwarzkopf, Hans, Hamburg-Altona, Germany. 639,826, pub. 10–23–56. Cl. 51.
Scott, Clifford, d. b. a. Scott Enterprises, Oklahoma City, Okla. 639,815, pub. 10–23–56. Cl. 50.
Scott Enterprises: *See*—
Scott, Clifford.
Scott & Fetzer Co., The, Cleveland, Ohio. 532,306, canc. Cl. 23.
Scott & Fetzer Co., The, Cleveland, Ohio. 532,542, canc. Cl. 23.
Scripto, Inc., Atlanta, Ga. 639,530, pub. 10–23–56. Cl. 8.
Seamprufe Inc., New York, N. Y. 639,733, pub. 10–23–56. Cl. 39.
Sears, Roebuck and Co., Chicago, Ill. 532,929, canc. Cl. 42.
Sears, Roebuck and Co., Chicago, Ill. 532,931, canc. Cl. 42.
Sears, Roebuck and Co., Chicago, Ill. 532,933, canc. Cl. 42.
Sechler, Ralph, & Son, Inc., St. Joe, Ind. 639,781, pub. 10–23–56. Cl. 46.
Seidlitz Paint and Varnish Co., Kansas City, Mo. 639,559, pub. 10–23–56. Cl. 16.
Serabbe Mfg. Co., Chicago, Ill. 639,818, pub. 10–23–56. Cl. 50.
Seven-Up Co., The, St. Louis, Mo. 639,769, pub. 10–23–56. Cl. 45.
Shane, C. B., Corp., Chicago, Ill. 532,619, canc. Cl. 39.
Sharp & Dohme, Inc., Philadelphia, Pa. 532,805, canc. Cl. 44.
Shaw-Barton, Inc., Coshocton, Ohio. 639,684, pub. 10–23–56. Cl. 37.
Shayne, John T., Inc., Chicago, Ill. 532,268, canc. Cl. 39.
Sheer Delight Hosiery Mills, Inc., Lodi, N. J. 532,356, canc. Cl. 39.
Sherfy, Harold B., d. b. a. Halo Candle Co., Seattle, Wash. 639,553, pub. 10–23–56. Cl. 15.
Sherman Paper Products Corp., Newton, Mass. 639,679–80, pub. 10–23–56. Cl. 37.
Shillings & Blashfield, Homer, Mich. 532,720, canc. Cl. 19.
Shoes Associated, Inc., New York, N. Y. 532,555, canc. Cl. 39.
Shulton, Inc., Clifton, N. J. 345,234, ren. 4–20–57. Cl. 52.
Siebel, J. E., Sons' Co., Inc., Chicago, Ill. 532,886, canc. Cl. 46.
Silveira & O'Connell, Sebastopol, Calif. 532,865, canc. Cl. 46.
Silver, Sigmud, New York, N. Y. 639,761–2, pub. 10–23–56. Cl. 42.
Siris, A. J., Products Corp., New York, N. Y. 639,505, pub. 10–23–56. Cl. 3.
Sky-Fresh Products, Inc., San Francisco, Calif. 532,409, canc. Cl. 46.
Sloane, W. & J., New York, N. Y. 532,884, canc. Cl. 33.
Smith, E. Errett, Inc., New York, N. Y. 639,692, pub. 10–23–56. Cl. 37.
Smith, Martin H., Co., New York, N. Y. 639,592, pub. 10–23–56. Cl. 18.
Smith, Seymour, & Son, Inc., Oakville, Conn. 639,628, pub. 10–23–56. Cl. 23.
Smits, Peter A., d. b. a. Soc-Co Plastic Coating Co., Paramount, Calif. 639,555, pub. 10–23–56. Cl. 16.
Smyrna Imports Co., Inc., New York, N. Y. 639,805, pub. 10–23–56. Cl. 46.
Soc-Co Plastic Coating Co.: *See*—
Smits, Peter A.
Soluol Chemical Co., Inc., Natick, R. I. 639,831, pub. 10–23–56. Cl. 52.
Southern Coal Co., Inc., Memphis, Tenn. 532,716, canc. Cl. 1.
Southern Wheel Co., to The American Brake Shoe and Foundry Co., to American Brake Shoe Co., New York, N. Y. 343,135, ren. 2–9–57. Cl. 19.
Southwest Mattress Co., Phoenix, Ariz. 639,666, pub. 10–23–56. Cl. 32.
Speidel Corp., Providence, R. I. 639,653–5, pub. 10–23–56. Cl. 28.
Sperry Rand Corp., New York, N. Y. 639,677, pub. 10–23–56. Cl. 37.
Spiegel, Inc., Chicago, Ill. 532,544, canc. Cl. 34.
Split-Tablet Corp.: *See*—
Ballowitz, Dr., & Co. Chemisch-Pharmaz. Fabrik G. m. b. H.
Sportleigh Hall, Inc.: *See*—
Weissman, Fred P., Inc.
Standard Brands Inc., New York, N. Y. 639,789, pub. 10–23–56. Cl. 46.
Standard Insulation Co.: *See*—
Steele, Dwight L.
Standard Oil Co. of New Jersey, Wilmington, Del., to Esso Standard Oil Co., New York, N. Y. 340,393, ren. 11–10–56. Cl. 15.
Standard Oil Co. of New Jersey, Wilmington, Del., to Esso Standard Oil Co., New York, N. Y. 341,347, ren. 12–8–56. Cl. 12.
Stardust, Inc.: *See*—
Industrial Undergarment Corp.
Stardust, Inc., Poughkeepsie and New York, N. Y. 532,534, canc. Cl. 39.
Starr Productions, to Starr Productions, Chicago, Ill. 532,960, canc. Cl. 50.
Stauffer Chemical Co., San Francisco, Calif. 639,536, pub. 10–23–56. Cl. 10.
Steele, Dwight L., d. b. a. Standard Insulation Co., Hagerstown, Md. 404,587, canc. Cl. 12.
Steelmasters, Inc., Chicago, Ill. 532,556, canc. Cl. 32.
Stevens, J. P., & Co., Inc., New York, N. Y. 639,763–4, pub. 10–23–56. Cl. 42.
Stewart-Reynolds Co., Inc., to James Robertson Co., Los Angeles, Calif. 639,813, pub. 8–28–56. Cl. 49.
Stone, Chas. J., Foundation Institute, Chicago, Ill. 532,475, canc. Cl. 26.
Strathmore Ripe Olive Co., Lindsay, Calif. 532,459, canc. Cl. 46.
Studio Films, Inc., Cleveland, Ohio. 639,706, pub. 10–23–56. Cl. 38.
Suds-A-Toy Co.: *See*—
Melville, Renata C.
Sullins, Eugene F., Galesburg, Ill. 639,609–10, pub. 10–23–56. Cl. 22.
Sullivan, Dr. F. W., West Allis, Wis. 532,400, canc. Cl. 46.
Sun Rise Bottling Co., Inc., North Tazewell, Va. 639,772–3, pub. 10–23–56. Cl. 45.
Supreme Construction Corp., Hackensack, N. J. 639,631, pub. 10–23–56. Cl. 24.
Surface Conduction, Inc., New York, N. Y. 639,599, pub. 2–9–54. Cl. 21.
Swank, Inc., Attleboro, Mass. 532,564, canc. Cl. 3.
Swank, Inc., Attleboro, Mass. 532,565, canc. Cl. 3.
Sweden Freezer Mfg. Co., Seattle, Wash. 639,659, pub. 10–23–56. Cl. 31.
Swilley, George C., d. b. a. Add-A-Drawer Chest Co., Moulton, Tex. 639,853. Cl. 32.
Synder Mfg. Co., Philadelphia, Pa. 532,396, canc. Cl. 21.
Takesuye, Harold, Mecca, Calif. 639,804, pub. 10–23–56. Cl. 46.
Talon, Inc., Meadville, Pa. 639,544, pub. 10–23–56. Cl. 13.
Tamwell Enterprises, Kansas City, Mo. 639,480, pub. 10–23–56. Cl. 1.
Taylor Instrument Companies, Rochester, N. Y. 639,634–6, pub. 10–23–56. Cl. 26.
Taylor Wine Co., The, Hammondsport, N. Y. 532,690, canc. Cl. 47.
Taylor Wine Co., Inc., The, Hammondsport, N. Y. 639,698, pub. 10–23–56. Cl. 38.
Telsta Corp., Redwood City, Calif. 639,627, pub. 10–23–56. Cl. 23.
Templeton, John M., d. b. a. Glycol Co., New York, N. Y., to Glycollzer Corp. 532,758, canc. Cl. 21.

Ternan, T. A. B., & Co.: *See*—
Ternan, Trevor A. B.
Ternan, Trevor A. B., d. b. a. T. A. B. Ternan & Co., Los Angeles, Calif. 532,935, canc. Cl. 42.
Terre Co., The, Rochelle Park, N. J. 639,538, pub. 10–23–56. Cl. 10.
Texas Co., The, New York, N. Y. 341,417, ren. 12–8–56. Cl. 12.
Textile Co. Ltd., Toronto, Ontario, Canada. 639,557, pub. 10–23–56. Cl. 16.
Thomas, Howard M.: *See*—
Thomas, Robert G.
Thomas Instrument Co., Phoenix, N. Y. 639,620, pub. 10–23–56. Cl. 23.
Thomas, Robert G., New York, N. Y., to Howard M. Thomas, Upper Montclair, N. J. 106,057, ren. 9–21–55. Cl. 46.
Thomson Paper Mills, Inc., New York, N. Y. 639,676, pub. 10–23–56. Cl. 37.
Tibbetts Industries, Inc., Camden, Maine. 639,537, pub. 10–23–56. Cl. 10.
Titan Pallet Co. Inc., New York, N. Y. 639,821, pub. 10–23–56. Cl. 50.
Tokunaga, George T., d. b. a. Pacific Rake Co., San Francisco, Calif. 639,630, pub. 10–30–56. Cl. 23.
Toro Mfg. Corp. of Minnesota, Minneapolis, Minn. 639,613, pub. 10–23–56. Cl. 23.
Torstrick, Ann Everson, d. b. a. Music Charts, Louisville, Ky. 639,702, pub. 10–23–56. Cl. 38.
Toy Enterprises of America, Inc. 532,719, canc. Cl. 22.
Trader Vic: *See*
Bergeron, Victor J.
Trans-America Shrimp Co., Nogales, Ariz. 639,806, pub. 10–23–56. Cl. 46.
Transit-Aids Co., Detroit, Mich. 639,552, pub. 10–23–56. Cl. 15.
Tulsa Fishing Tackle Co., Tulsa, Okla. 532,740, canc. Cl. 22.
Twin City Pigeon Eliminating Co.: *See*—
Neid, Louis J.
U. T. L. Needle Inc., Washington, D. C. 639,753, pub. 10–23–56. Cl. 40.
Udell, Alonzo E., d. b. a. The Lakeview News, Battle Creek, Mich. 532,976, canc. Cl. 38.
Unertl, John, Optical Co., Pittsburgh, Pa. 532,432, canc. Cl. 26.
Unertl, John, Optical Co., Pittsburgh, Pa. 532,441, canc. Cl. 26.
Unertl, John, Optical Co., Pittsburgh, Pa. 532,444, canc. Cl. 26.
Union Carbide and Carbon Corp.: *See*—
Carbide and Carbon Chemical Corp.
Union Chemical & Materials Corp., d. b. a. Frontier Chemical Co., Div. of Union Chemical & Materials Corp., Wichita, Kans. 639,526, pub. 10–23–56. Cl. 6.
United Feature Syndicate, Inc., New York, N. Y. 639,704, pub. 10–23–56. Cl. 38.
United Plastic Corp., Fitchburg, Mass. 532,611, canc. Cl. 2.
United States Gypsum Co., Chicago, Ill. 344,255–6, ren. 3–16–57. Cl. 12.
United States Gypsum Co., Chicago, Ill. 344,415, ren. 3–23–57. Cl. 44.
United States Gypsum Co., Chicago, Ill. 639,563, pub. 10–23–56. Cl. 16.
U. S. Luggage & Leather Products Co., New York, N. Y. 532,592, canc. Cl. 3.
U. S. Mfg. Corp., Decatur, Ill. 532,788, canc. Cl. 50.
United States Pumice Supply Co., d. b. a. United States Pumice Supply Co., Inc., and/or U. S. Pumice Supply Co., Inc., Hollywood, Calif. 639,481, pub. 10–23–56. Cl. 1.
U. S. Pumice Supply Co., Inc.: *See*—
United States Pumice Supply Co.
U. S. Sponge Corp., New York, N. Y. 639,835, pub. 10–23–56. Cl. 52.
United States Steel Corp., Pittsburgh, Pa. 639,545, pub. 10–23–56. Cl. 13.
United States Steel Corp., Pittsburgh, Pa. 639,847. Cl. 14.
U. S. Terry Products Co., New York, N. Y. 532,601, canc. Cl. 42.
Universal Insulation Co., to Zonolite Co., Chicago, Ill. 345,217, ren. 4–20–56. Cl. 12.
Universal Paper Products Co.: *See*
Lily-Tulip Cup Corp.
Upjohn Co., The, Kalamazoo, Mich. 630,565, pub. 10–23–56. Cl. 18.
Upjohn Co., The, Kalamazoo, Mich. 639,583, pub. 10–23–56. Cl. 18.
Up-To-Date Tool Co.: *See*—
Michelson, Julius.
Valencia Height Orchards Association, Covina, Calif. 532,346, canc. Cl. 46.
Valencia Height Orchards Association, Covina, Calif. 532,349, canc. Cl. 46.
Valentine Mfg. Co., Inc., New York, N. Y. 532,978, canc. Cl. 44.
Vallauris-America Imports: *See*—
Nerli, William.
Van Camp Sea Food Co., Inc., Terminal Island, Calif. 532,682, canc. Cl. 46.
Van Stolk's Commissiehandel: *See*—
Verbeet, G.
Van Stolk's Koninklyke Commissiehandel N. V.: *See*—
Verbeet, G.
Vendo Co., The, Kansas City, Mo. 639,707, pub. 10–23–56. Cl. 38.
Verbeet, G., New York, N. Y., to Van Stolk's Commissiehandel, by Van Stolk's Koninklyke Commissiehandel N. V., Rotterdam, Netherlands. 336,592, 12(c) pub. 1–8–57. Cl. 46.
Verbeet, G., New York, N. Y., to Van Stolk's Commissiehandel, by Van Stolk's Koninklyke Commissiehandel N. V., Rotterdam, Netherlands. 336,593, 12(c) pub. 1–8–57. Cl. 46.
Vezos Brothers, Buffalo, N. Y. 270,303, canc. Cl. 46.
Victory Enterprises: *See*—
Fernandez, Alice L.
Vulcan Radiator Co., The, Hartford, Conn. 532,535, canc. Cl. 34.
W & H Jewelry Co., Inc., Providence, R. I. 639,648, pub. 2–14–50. Cl. 28.
Wamsutta Mills, New Bedford, Mass. 532,920–4, canc. Cl. 42.
Ward, Ashley F., Inc., Cincinnati, Ohio. 532,989, canc. Cl. 8.
Warner & Swasey Co., The, Cleveland, Ohio. 639,618, pub. 10–23–56. Cl. 23.
Washington Commercial Co.: *See*—
Maas, Hugo G.
Wayne Home Equipment Co., Inc.: *See*—
Wayne Oil Burner Corp.
Wayne Oil Burner Corp., by Wayne Home Equipment Co., Fort Wayne, Ind. 342,692, 12(c) pub. 1–8–57. Cl. 34.
Wayside Cheese Co.: *See*—
Belzer, Henry M.
Webb Laboratories, Schenectady, N. Y. 639,844. Cl. 6.
Webster Mfg. Co., Chicago, Ill. 532,817, canc. Cl. 51.
Weissman, Fred P., Inc., to Sportleigh Hall, Inc., New York, N. Y. 340,098, ren. 11–3–56. Cl. 39.
Westerfield Pharmacal Co., Inc., Dayton, Ohio. 532,425, canc. Cl. 26.
Western Auto Stores: *See*—
Western Auto Supply Co.
Western Auto Supply Co., also d. b. a. Western Auto Stores, Kansas City, Mo. 532,965, canc. Cl. 35.
Westinghouse Electric Corp.: *See*—
Westinghouse Electric & Mfg. Co.
Westinghouse Electric & Mfg. Co., East Pittsburgh, to Westinghouse Electric Corp., Pittsburgh, Pa. 341,423, ren. 12–8–56. Cl. 14.
Whitman, Stephen F., & Son, Inc., Philadelphia, Pa. 532,384, canc. Cl. 46.
Whitmore Mfg. Co., The, Cleveland, Ohio. 345,430, ren. 4–27–57. Cl. 15.
Wiegel, Richard, North Bergen, N. J. 532,828, canc. Cl. 18.
Willys-Overland Motors, Inc., Toledo, Ohio. 532,906, canc. Cl. 19.
Willys-Overland Motors, Inc., Toledo, Ohio. 532,908, canc. Cl. 19.
Winey, Lloyd S., Lancaster, Pa. 532,596, canc. Cl. 50.
Wood & Selick Sweetened Coconut Co., Inc., New York, N. Y. 639,784, pub. 10–23–56. Cl. 46.
Worcester Pressed Aluminum Corp., Worcester, Mass. 639,497, pub. 10–23–56. Cl. 2.
Worthington Pump and Machinery Corp., Harrison, N. J. 532,947, canc. Cl. 23.
Young Sales Corp., d. b. a. St. Louis Blow Pipe & Heater Co., St. Louis, Mo. 639,671, pub. 10–23–56. Cl. 34.
Zion Industries, Inc., Zion, Ill. 532,389, canc. Cl. 46.
Zonolite Co.: *See*—
Universal Insulation Co.
Zurlo, Carl J., d. b. a. Lay Z Egg Cage Systems, Marysville, Wash. 532,867, canc. Cl. 50.

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January 15, 1957 Volume 714 Number 3

PATENTS

NOTICES

Erratum

All references to Patent No. 2,774,910 to Emil Sanford, assignor to Allen B. DuMont Laboratories, Inc., for Cathode Ray Sweep Correction System, appearing in the OFFICIAL GAZETTE of December 18, 1956, should be deleted as the application was withdrawn from issue and the patent was not issued.

Adjudicated Patents

(C. A. Del.) Van der Vliet and Stevens Patent No. 2,331,091 (260—397.2), for method of preparing a 7-dehydrosterol. Claims 12 and 24 *Held* valid and infringed. *Hartford National Bank and Trust Company et al.* v. *E. F. Drew & Co., Inc.* 237 F.2d 594; 111 USPQ 149.

(C. A. Mo.) Steffan Patent No. 2,678,843 (292—341.18), for keeper mechanism. Claims 1 and 2 *Held* invalid. *Steffan et al.* v. *Weber Heating & Sheet Metal Company et al.*, 237 F.2d 601; 111 USPQ 200.

Disclaimers

2,634,288.—*William P. Boyer* and *Jesse Roger Mangham*, Chesterfield County, Va. TETRAALKYL ESTERS OF ALKANE DIPHORPHONIC ACIDS. Patent dated Apr. 7, 1953. Disclaimer filed Dec. 5, 1956, by the assignee, *Virginia-Carolina Chemical Corporation.*

Hereby enters this disclaimer to claims 1, 2, 3, 6, 7, 8, 9, 10, 11, 12, 13, 15, and 17 of said patent.

2,661,036.—*Theodore H. Balch*, Salem, and *Ray F. Van De Mark*, West Salem, Oreg. REMOTE CONTROL OF SAWMILL SETWORKS BY ELECTROMECHANICAL MEANS. Patent dated Dec. 1, 1953. Disclaimer filed Dec. 4, 1956, by the assignee, *Elmer R. Worth, Sr.*

Hereby enters this disclaimer to claims 1, 7, 12, 13, 14, 16, 18, 21, and 22 of said patent.

2,689,449.—*Robert J. Clarkson*, Winnsboro, S. C. AUTOMATIC BALLOON CONTROL. Patent dated Sept. 21, 1954. Disclaimer filed Dec. 4, 1956, by the assignee, *United States Rubber Company.*

Hereby enters this disclaimer to claim 1 of said patent.

Patents Available for Licensing or Sale

2,764,666. Vaporizer. Leon M. Mantell, 61—61 Dry Harbor Road, Queens 79, New York, N. Y.

General Electric Company is prepared to grant non-exclusive licenses to domestic manufacturers on reasonable terms under the following patents.

Applications for license under the following 16 patents may be directed to: Hotpoint Co., 227 South Seeley Ave., Chicago 12, Ill.

Dishwashing Apparatus

2,657,695. Dishwashing Apparatus Provided With Centrifugal Separation Sump.
2,665,700. Liquid Inlet and Antiback-Siphoning Fixture.
2,671,037. Methods of Washing Dishes or the Like.
2,678,051. Washing Apparatus.
2,711,179. Dishwashing Machine.
2,704,083. Inlet Fitting for Dishwashers and the Like.
2,715,410. Drainage Control System for Dishwashers.
2,739,025. Dishwasher Rack.
2,751,917. Dishwashing Machine.

Kitchen Cabinet

2,611,922. Self-Closing Cabinet Hinge.

Waste Disposal Apparatus

2,750,121. Automatic Waste Disposal Apparatus.
2,742,236. Control System for Waste Disposal Apparatus.

Water Heating Apparatus

2,668,420. Combination Water Heating and Room Cooling System and Method Employing Heat Pumps.
2,668,692. Heat Exchanger.

Miscellaneous

2,637,044. Mounting Bracket for Faucets and the Like.
2,750,923. Hot Dip Galvanizing Apparatus.

Applications for license under the following 2 patents may be addressed to: General Electric Company, Transformer Division, 100 Woodlawn Ave., Pittsfield, Mass., Attention Patent Counsel.

2,601,060. Automatic Regulator Control.
2,756,397. Spacers for Dry Type Transformers.

Applications for license under the following 4 patents may be addressed to: Patent Counsel, General Engineering Laboratory, General Electric Company, 1 River Road, Schenectady 5, N. Y.

2,476,998. Heat Generation Indicator.
2,720,272. Rotary Propeller Having Twistable Blades.
2,730,387. Apparatus for Preventing Relative Motion Between a Shaft and a Hub.
2,746,834. Recording Device.

Applications for license under the following 4 patents may be addressed to: General Electric Company, Locomotive and Car Equipment Department, 2901 East Lake Road, Erie, Pa.

2,503,897. Excitation Systems for Dynamoelectric Machines.
2,648,018. Dynamoelectric Machine Member.
2,653,258. Electrical Conductor Lead for Commutators.
2,755,355. High Speed Circuit Breakers.

Applications for license may be addressed to: General Electric Company, Component Products Division, 1635 Broadway, Fort Wayne, Ind., Attention Patent Counsel.

2,764,745. Autotransformer.

Applications for license under the following 19 patents may be addressed to: General Electric Company, Patent Counsel,

New Applications Received During November 1956

Patents	5,887
Designs	398
Plants	12
Reissues	20
Total	6,317

Issue

Patents	893—No.	2,777,126 to No.	2,778,018, incl.
Designs	20—No.	179,532 to No.	179,551, incl.
Plants	5—No.	1,551 to No.	1,555, incl.
Reissues	2—No.	24,265 to No.	24,266, incl.
Total	920		

Industrial Power Components Division, 41 Woodford Ave., Plainville, Conn.

2,212,387. Time Switch.
2,278,252. Condition Control System and Apparatus.
2,314,240. Control Device.
2,340,099. Thermal Switch.
2,394,061. Condition Control System.
2,404,633. Switch Operating Mechanism.
2,415,672. Thermostatic Control Device.
2,423,316. Electric Timer.
2,519,889. Cyclic Burner Safety Control System.
2,534,984. Rod Brake.
2,595,846. Overload Protective Switch.
2,624,819. Snap Action Switch.
2,632,102. Flame Detector Apparatus.
2,722,613. Thermal-Electric Motor.
2,729,756. Electrical Thermal Motor.
2,738,397. Temperature Responsive Control Device.
2,740,858. Flow Switch.
2,741,676. Switch.
2,760,014. Switch Structure.

CONDITION OF PATENT APPLICATIONS AS OF NOVEMBER 30, 1956

Total number of pending applications (excluding Designs)	216, 863
Total number of pending Design applications	6, 276
Total number of applications awaiting action (excluding Designs)	114, 284
Total number of Design applications awaiting action	2, 832
Date of oldest new application	Aug. 1, 1955
Date of oldest amended application	Sept. 1, 1954

ROSA, M. C., Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
I. STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.
II. STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 23, 26, 37, 42, 44, 48, 51, 54, 69, 70.
III. YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
IV. FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
V. HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	8, 20, 29, 33, 36, 40, 41, 52, 66.
VI. MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS	1, 4, 5, 9, 10, 18, 22, 28, 45, 47.
VII. KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
CL. GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	12-22-55	1-27-55
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers	3-1-56	9-12-55
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys	4-13-56	3-31-55
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Feeding of Indefinite Lengths	3-7-56	3-13-55
5. (VI) ROBINSON, C. W., Harvesters; Potato Diggers; Stalk Pullers and Choppers; Stone Gatherers; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates	2-23-56	7-18-55
6. (I) SURLE, H., Carbon Chemistry (part), e. g. Natural Resins, Proteins, Heterocyclic Amides, Amines, General Organic Processes	11-10-55	9-2-55
7. (IV) GONSALVES, J. E., Optics, Photographic Apparatus	12-28-55	8-16-55
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture	11-17-55	3-9-55
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	3-2-56	3-16-55
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	12-23-55	4-15-55
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	2-13-56	5-3-55
12. (III) SPINTMAN, S., Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	1-25-56	11-8-54
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	2-13-56	1-3-55
14. (III) MANIAN, J. C., Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes	12-12-55	12-16-54
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	3-1-56	1-24-55
16. (II) LOVEWELL, N. N., Television; Telephony; Recorders	10-26-55	9-20-54
17. (IV) LEIGHEY, R. A., Paper Manufactures; Packaging; Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	12-28-55	1-18-55
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	1-16-56	2-3-55
19. (VII) PATRICK, P. L., Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners	2-17-56	6-1-55
20. (V) BROWN, L. M., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking	3-14-56	4-6-55
21. (III) MADER, R. C., Textiles	2-13-56	2-24-55
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows; Boring and Drilling	12-27-55	12-17-54
23. (II) ANDRUS, L. M., Cash and Fare Registers; Calculators and Counters; Education	10-17-55	10-11-54
24. (III) DRACOPOULOS, P. T. (HICKEY, T. J., acting), Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	3-5-56	3-17-55
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus	4-9-56	9-6-55
26. (II) YOUNG, R. R., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanism	4-2-56	11-3-55
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	3-7-56	5-27-55
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Chute, Skid, Guide and Way Conveyers; Fluid Current Conveyers; Pressure Modulating Relays; Pneumatic Dispatch; Store Service; Wheel Substitutes	12-2-55	4-4-55
29. (V) HABECKER, L. B., Tools; Woodworking; Button, Barrel and Wheel Making; Rubber Tire Removing Tools; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers	2-14-56	11-25-55
30. (VII) O'LEARY, R. A., Refrigeration; Heating Systems; Automatic Temperature and Humidity Regulation, Thermostats, Humidistats; Illuminating Burners; Miscellaneous Heating	6-4-56	9-20-55

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) HUTCHISON, E. W., Carbon Chemistry (part), e. g. Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Synthetic Resins (part)	12–23–55	4–11–55
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	3–5–56	9–16–55
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Building Structures; Roads and Pavements	3–19–56	2–1–55
34. (IV) SHANK, J. S. (acting), Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	1–12–56	1–3–55
35. (IV) BROMLEY, E. D., Dispensing; Filling and Closing Receptacles; Toilet, Kitchen and Table Articles; Sheet or Web Feeding	1–20–56	5–23–55
36. (V) McFADYEN, A. D., Measuring and Testing	11–29–55	11–25–55
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating	11–30–55	7–13–55
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g. Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	4–27–56	2–3–56
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	3–1–56	1–3–55
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	5–1–56	12–1–55
41. (V) GURLEY, R. B., Coin Controlled Apparatus; Dispensing Cabinets; Coin Handling; Mail, Fare or Other Collection Boxes or Chutes; Buckles, Buttons and Clasps; Racks; Fire Escapes; Ladders; Scaffolds	11–21–55	12–1–54
42. (II) MARANS, H., Electric Signaling; Signals and Indicators; Telegraphy; Electrical Connectors	8–10–55	1–4–55
43. (I) ARNOLD, D., Medicines, Poisons, Cosmetics; Sugar and Starch; Skins, and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus)	12–8–55	7–13–55
44. (II) EVANS, N. H., Antennas; Automatic Pilots; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	8–1–55	9–1–54
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances	12–23–55	3–25–55
46. (I) WILES, W. G., Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Surgery (part); Radioactive Medicines; Irradiation Chemistry; Carbon Chemistry (part)	1–9–56	2–1–55
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles	3–15–56	11–4–55
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Spark Plugs and Ignition Systems, Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers	11–8–55	11–12–54
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring	12–30–55	6–27–55
50. (I) BENGEL, W. G., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber	1–26–56	1–28–55
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Music	2–20–56	11–29–54
52. (V) NEFF, P. R., Supports; Joint Packing; Valved Pipe Joints or Couplings; Rod Joints or Couplings; Tool Handle Fastenings; Shaft Packing	1–12–56	1–6–55
53. (IV) REYNOLDS, E. R., (NINAS, G. A., acting), Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings and Shutters; Harness; Whip Apparatus	2–14–56	6–22–55
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g. X-Ray, Ultraviolet, Radioactive) Applications	3–1–56	2–9–55
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Sorting Solids; Centrifugal Bowl Separators; Comminutors	8–30–55	12–6–54
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	3–1–56	12–14–55
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings	6–4–56	1–9–56
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Food Apparatus; Closure Operators; Baths, Closets, Sinks and Spittoons	2–14–56	6–15–55
59. (I) HENKIN, B., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	2–29–56	5–4–55
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	1–24–56	1–27–55
61. (III) MORSE (Miss), E. L., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery	3–5–56	4–25–55
62. (IV) SHAPIRO, A., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination	3–5–56	10–11–55
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds	3–5–56	4–4–55
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	3–9–56	2–3–55
66. (V) LISANN, I., Geometric Instruments; Automatic Weighing Scales; Acoustics	3–2–56	10–11–54
67. (VII) KRAFFT, C. F., Laminated Fabrics; Ornamentation; Bleaching, Dyeing, Fluid Treatment of Textiles	11–25–55	4–18–55
69. (II) GALVIN, D. J., Wave Guides; Electric Meters; Sound Recording; Conductors; Insulators	3–1–56	9–29–54
70. (II) BREWRINK, J. L., Security laws administration.		
CLASS. DIVS. I BAILEY, J. S., Paper Making; Mineral Oils	3–19–56	2–17–56
CLASS. DIVS. II LADY, J. E., Oscillators; Amplifiers; Resistances and Rheostats	2–13–56	9–19–55
CLASS. DIVS. III WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres	2–23–56	10–5–55
CLASS. DIVS. IV BERLOWITZ, W. (acting), Harrows and Diggers; Plows; Fluid Sprinkling, Spraying and Diffusing	2–17–56	8–29–55
CLASS. DIVS. V ANGEL, C. D., Liquid Separation or Purification; Sewerage	3–1–56	3–1–56
DESIGNS (III) A—MONCURE, J. A. Industrial Arts	4–4–56	5–8–56
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	4–11–56	5–2–56

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during January 1957, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

Patents ..... Numbers 2,185,170 to 2,188,894, inclusive
Plant Patent ..... Numbers 352 to 360, inclusive

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,240,679, B. H. Stauffer, Muscle relaxing machine, **filed** May 27, 1955, D. C., S. D. Calif. (Los Angeles), Doc. 18254–T, *Bernard H. Stauffer* v. *Slenderella Systems of California, Inc.* Claim 1 held invalid and not infringed; 1st counterclaim sustained; complaint dismissed (notice Nov. 28, 1956).

2,360,882, J. R. Brock, Vending machine, **filed** Nov. 30, 1956, D. C. Minn. (Minneapolis), Doc. 5635, *The Vendo Co.* v. *Vendomatic, Inc. et al.*

2,416,596, S. Rosenthal, Fountain pen, **filed** Nov. 29, 1956, D. C., S. D. N. Y., Doc. 115/129, *Speedry Products Inc.* v. *Cushman & Denison Mfg. Co. Inc.*

2,442,133, P. Legarra, Intermittent siphon dosing device, **filed** Oct. 10, 1952, D. C., S. D. Calif. (Los Angeles), Doc. 14589–PH, *Laurence R. Rollins et al.* v. *Anchor Products, Inc.* Stipulation and order dismissing action with prejudice (notice Nov. 28, 1956).

2,470,693, T. R. Finke et al., Swivel ball antenna support; **2,694,539**, Finneburgh and Turk, Antenna mounting structure; **2,699,999**, A. G. Turk, Adjustable mounting for antenna, **filed** Nov. 29, 1956, D. C., N. D. Ohio (Cleveland), Doc. 33270, *The Gabriel Co. et al.* v. *Tenatronics Ltd. et al.*

2,601,886, J. Randolph, Resiliently mounted vehicle seat, **filed** Nov. 30, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c2014, *John Randolph* v. *Allis-Chalmers Mfg. Co. et al.*

2,667,290, J. E. McPhee, Liquid dispenser for bottles, **filed** June 9, 1954, D. C., S. D. Calif. (Los Angeles), Doc. 16830–C, *James E. McPhee* v. *Modern Sales Co.* and *Nu-Cal Mfg. Co. et al.* Stipulation and order dismissing action with prejudice (notice Nov. 28, 1956).

2,667,522, J. F. McElroy, Nitrogen derivatives of tetraacetic acids as rubber stabilizers; **2,726,967**, Eger and Engel, Paper backed adhesive tape, **filed** Jan. 18, 1956, D. C., E. D. Mich. (Detroit), Doc. 15,098, *Permacel Tape Corp.* v. *American Tape Co., Inc.* Stipulation and order dismissing action as to Patent No. 2,667,522 without prejudice Nov. 19, 1956.

2,694,539. (See 2,470,693.)

2,699,999. (See 2,470,693.)

2,726,967. (See 2,667,522.)

2,728,079, A. L. Williams, Breast support, **filed** Nov. 29, 1956, D. C. Mass (Boston), Doc. 56/1024–F, *Bleuette, Inc. et al.* v. *Bandeagon Mfg. Co. Inc.*

Des. 163,420, I. Roskin, Gem setting or similar article, **filed** Nov. 29, 1956, D. C., S. D. N. Y., Doc. 115/124, *I. Roskin Co., Inc.* v. *Alsan Mfg. Co. et al.*

REISSUES

JANUARY 15, 1957

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

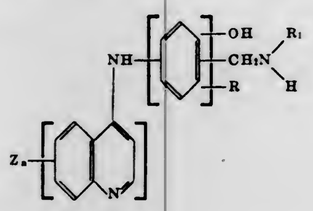
24,265
QUINOLINE COMPOUNDS AND PROCESS OF MAKING SAME

Joseph H. Burckhalter, Detroit, Eldon M. Jones and Albert L. Rawlins, Grosse Pointe Woods, Frank H. Tendick, Grosse Pointe Park, and Walter F. Holcomb, Detroit, Mich., assignors to Parke, Davis & Company, Detroit, Mich., a corporation of Michigan

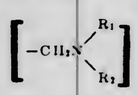
No Drawing. Original application November 5, 1945, Serial No. 626,908, now Patent No. 2,474,823, dated July 5, 1949. Application for reissue September 13, 1956, Serial No. 610,430

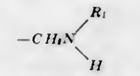
15 Claims. (Cl. 260—286)

1. A compound of the class consisting of a free base and its acid addition salts, said free base having the formula,



where Z is a member of the class consisting of hydrogen, halogen, —COO(lower alkyl), —OH, lower alkyl and lower alkoxy radicals, n is one of the integers consisting of one and two, R is a member of the class consisting of hydrogen, halogen, —OH, lower alkenyl and lower alkyl radicals and R_1 is a member of the class consisting of hydrogen, cyclohexyl, alkyl radicals containing 1 to 10 carbon atoms inclusive and alkenyl radicals containing 1 to 10 carbon atoms inclusive, the group





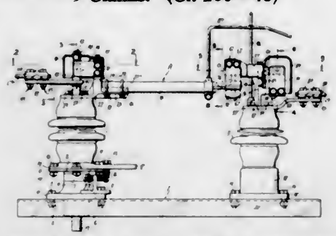
being attached to the aryl nucleus in one of the positions ortho and para to the hydroxyl group.

24,266
ELECTRICAL SWITCHES

Thomas B. Ortwig, Florrisant, Mo., assignor to James R. Kearney Corporation, St. Louis, Mo., a corporation of Missouri

Original No. 2,707,732, dated May 3, 1955, Serial No. 358,055, May 28, 1953. Application for reissue April 30, 1956, Serial No. 581,816

9 Claims. (Cl. 200—48)



1. A side break electrical switch comprising a base member, an insulator structure supported by said base member for rotary movement, a switch blade supported by said rotary insulator structure for movement therewith in a horizontal plane, a second insulator structure fixedly supported by said base member, and a contact structure supported by said fixed insulator structure, said contact structure including spaced contact elements, a shaft, a bearing for supporting said shaft horizontally for oscillatory movement, means for electrically connecting an incoming electrical conductor to said switch blade, and means for electrically connecting an outgoing electrical conductor to said spaced contact elements, said spaced contact elements receiving therebetween and in electrical contact therewith a portion of said switch blade.

PLANT PATENTS

GRANTED JANUARY 15, 1957

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,551
APRICOT TREE

Judson L. Crandall, Hanford, Calif.

Application September 21, 1955, Serial No. 535,778

1 Claim. (Cl. 47—62)

The new and distinct variety of apricot tree, substantially as herein described and illustrated, substantially like the Tilton variety as to size, shape and foliage of tree, but characterized especially by its early blossoming and by the novelty of its fruit, particularly its early maturity, exceptionally sweet flavor, and having pits showing three prominent ridges as illustrated.

1,552
ROSE PLANT

Thomas Edison Motose, Fairport, N. Y.

Application January 27, 1956, Serial No. 561,956

1 Claim. (Cl. 47—61)

A new and distinct variety of hybrid tea rose plant belonging to the continuous or recurrent blooming variety of the cultivated species of the Genus Rosa, characterized as to novelty by its unusual hardiness, vigor and tall upright growth; by its large, leathery, glossy dark green leaves; by the distinctive Tyrian Rose (Plate No. 12), Capucine Buff (Plate No. 3) and amber colorings of its flowering buds; by the Rose Color (Plate No. 12), Capucine Buff and amber colorings of its blooms; by its sweet fragrance resembling that of a dish of slightly crushed red, ripe raspberries covered with amber colored honey; by its abundant production of blooms; and by its greater resistance to mildew and black spot infections than its parental varieties, substantially as hereinabove shown and described.

1,553
CHRYSANTHEMUM PLANT

Eugene S. Boerner, Newark, N. Y., assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York

Application February 27, 1956, Serial No. 568,130

1 Claim. (Cl. 47—60)

A new and distinct variety of chrysanthemum plant of the semi-decorative type, substantially as herein shown and described, characterized particularly as to novelty by its free and airy growth, its leathery foliage, and the Bittersweet Orange, lightly overcast with Grenadine Red, general color tonality of its flowers, and their relatively large size.

1,554
CHRYSANTHEMUM PLANT

Eugene S. Boerner, Newark, N. Y., assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York

Application February 27, 1956, Serial No. 568,131

1 Claim. (Cl. 47—60)

A new and distinct variety of chrysanthemum plant of the semi-decorative type, substantially as herein shown and described, characterized particularly as to novelty by its vigor and hardines, its Light Green foliage, and the distinctive Coral Red, lightly overcast with Begonia Rose, general color tonality of its flowers.

1,555
CHRYSANTHEMUM PLANT

Eugene S. Boerner, Newark, N. Y., assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York

Application February 27, 1956, Serial No. 568,132

1 Claim. (Cl. 47—60)

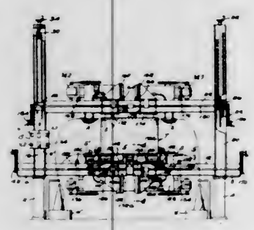
A new and distinct variety of chrysanthemum plant of the decorative type, substantially as herein shown and described, characterized particularly as to novelty by the attractiveness of its plant and flowers, the earliness of its bloom, the large size of its flowers, the long persistence of its blooms until after the first frosts, and the distinctive Pale Rhodonite Pink, lightly overcast with Rose Pink, general color tonality of its flowers.

PATENTS

GRANTED JANUARY 15, 1957

GENERAL AND MECHANICAL

2,777,126
APPARATUS FOR ASSEMBLING PLYWOOD BOXES
Robert A. Muller, New London, N. H., assignor to Atlas Plywood Corporation, Boston, Mass., a corporation of Massachusetts
Application February 18, 1954, Serial No. 411,120
11 Claims. (Cl. 1—106)

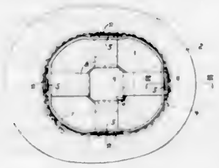


1. An improved box assembling machine comprising a box assembling frame, conveyor means for supporting and moving a box assembly through the frame, stitching heads arranged at two opposite sides of the frame for applying wire staples to the box assembly while supported in the assembling frame, power driven means for periodically moving the conveyor and box assembly into stitching positions, electromechanical control means for actuating the stitching heads in any one of the stitching positions, said stitching heads consisting of upper and lower pairs arranged in opposed relationship with respect to one another, the said box assembling frame including spaced-apart uprights, said uprights having transversely disposed therebetween upper and lower channel members in which said respective pairs of upper and lower stitching heads are adjustably mounted.

2,777,127
ATHLETE'S HEADGEAR
Michael T. Marietta, Dallas, Tex.
Application November 5, 1954, Serial No. 467,037
5 Claims. (Cl. 2—3)

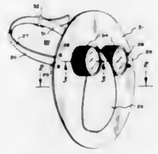
1. In an athlete's headgear the combination comprising a one-piece mask and helmet having at its rear a recess, a cover hingedly connected to the helmet for movement to and from a position closing the recess and operable means fastened in part to the helmet and in part to the cover for securing the cover to the helmet in recess-covering position.

2,777,128
PROTECTIVE HAT WITH SUSPENSION ATTACHMENT
Joseph R. Fisher, Penn Township, Allegheny County, Pa., assignor to Mine Safety Appliances Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application October 15, 1954, Serial No. 462,441
7 Claims. (Cl. 2—3)



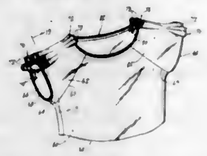
1. A protective hat comprising a rigid crown provided around its base with perforations, a lace passing in and out through said perforations to form inside the crown a plurality of circumferentially spaced loops, a headband inside the crown, a head-engaging cradle above the headband, and attaching tabs inside the crown around the headband and connected with the headband and cradle, each of said tabs being provided with a relatively stiff tongue projecting upwardly through one of said loops, whereby the cradle and headband support the crown and can be detached therefrom without removing the lace.

2,777,129
FACE SHIELD FOR WELDERS
Arthur P. Hummel, La Mesa, Calif.
Application September 30, 1954, Serial No. 459,234
4 Claims. (Cl. 2—8)



1. A welder's face and eye shield including a mask having a pair of horizontally-spaced openings therein; a pair of goggles attached to the mask, said goggles including a pair of eye cups, each of said cups having a portion extending from the rear of the mask forwardly through an opening in the mask, each of said cups including a shoulder disposed rearwardly of said portion and abutting the rear face of the mask, each of said cups including a spacer portion extendingf rearwardly of the shoulder forming rear edges adapted to abut the face of the wearer of the shield, said forwardly extending portions each providing a seat for a glass, each of said goggles including a collar attached to and surrounding said forwardly extending portion of the eye cup, the rear ends of the collars abutting the forward face of the mask for clamping the goggles to the mask, each of said collars having a rearwardly facing shoulder in clamping engagement with the front of the glass; and means for clamping the shield to the face of the wearer.

2,777,130
ADJUSTABLE SIZE GARMENTS
Claris Keller, Union, N. J.
Application June 14, 1954, Serial No. 436,465
2 Claims. (Cl. 2—75)



1. An adjustable size garment, comprising a garment body having neck and arm openings formed therein with opposite shoulder portions extending between each of said arm openings and the portion of the neck opening adjacent thereto, means including a pair of spaced arrays of loops extending along each of said shoulder portions with one array adjacent to the arm opening edge and the other adjacent to the neck opening edge of each of said shoulder portions, and a tie for each of said arrays of loops for drawing the same together and forming ornamental pleats in the material of said shoulder portions thereby to alter the size including the length of said garment in accordance with the extent to which said loops are drawn together.

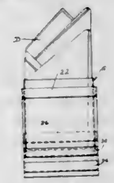
2,777,131
BOW TIE FORM
Charles B. Case, Denver, Colo.
Application February 1, 1954, Serial No. 407,327
1 Claim. (Cl. 2—154)

A form for a pretied bow tie comprising a pair of one-piece mating halves arranged to be interconnected so as to form a substantially rigid form, each half including a base portion having a surface for engaging a mating surface of the other half, a fabric-supporting arm extending outwardly from each base so as to be opposed to a fabric-supporting arm extending outwardly from the opposite mating half, a pair of rigid collar-gripping members spaced in close proximity to each other and extending outwardly from each base, said collar-gripping members being generally parallel to and spaced from said fabric-supporting arms whereby fabric mounted on said supporting arms does not contact a collar to which it is attached, and means for securing said halves together into a substantially rigid form.

2,777,132
ADJUSTABLE SLEEVE FOR DRESSES
Claris Keller, Union, N. J.
Application March 29, 1954, Serial No. 419,525
4 Claims. (Cl. 2—270)

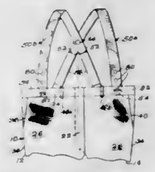
1. A sleeve having an adjustable size arm opening, comprising a tubular body adapted at one end to be attached to a garment and forming an arm opening at the other end thereof, means for adjusting the size of said arm opening and forming outwardly extending ornamental pleats along and on the outer surface of said tubular body and comprising a plurality of loops spaced along the inner surface of said tubular body adjacent to said opening, and a tie extending through said loops for drawing the same together to fit said opening to the arm of a wearer and form ornamental pleats in said tubular body according to the extent to which said loops are drawn together.

2,777,133
ADJUSTING MEANS FOR HANDKERCHIEF HOLDER
Harold H. Phillips, Jr., West Springfield, Mass.
Application April 5, 1955, Serial No. 499,325
1 Claim. (Cl. 2—279)



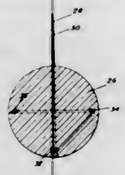
Adjusting means for use with a pocket display holder comprising a back, a guide member attached to said back at opposite sides thereof and providing a space between said back and guide member, and a plurality of pocket parts attached to said back at the lower half of said back at opposite side extremities and crosswise along bottom half portions of said pocket parts to thereby provide pockets between said back and pocket parts adapted to receive a portion of said holder.

2,777,134
GARMENT SUPPORT DEVICE
Alfred S. Kaufman, New York, N. Y.
Application February 11, 1954, Serial No. 409,618
1 Claim. (Cl. 2—301)



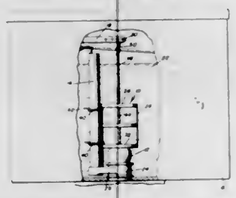
A garment support device for use as a suspender and a belt, comprising a first major garment elongated support means, a second major garment elongated support means, complementary snap fastener element means carried jointly by both said elongated support means intermediate their end portions, and adapted for snap pivotal releasable engagement when disposed in mutually overlying suspender type disposition, said major elongated support means being of equal overall length, and sufficiently long to encircle the waist of the wearer when separated and in mutually overlapping belt-like relation, said major elongated support means being constructed and arranged for sequential alternate wearing as a belt and as suspenders, a plurality of spaced button means carried on a first end portion of each of said garment support means for selective engagement with buttonholes carried on a waist portion of a garment, resilient extension members carried at the second end portions of said major elongated support means outwardly of their said location of releasable pivotal mutual engagement, for allowing their overall length to be increased upon application of stretching force, and end tab means carried on the outer ends of said resilient extension members, said end tab means having buttonholes formed therein for direct engagement with buttons carried on opposite waist portions of a garment to be supported, said resilient extension members being free of any covering or encasement.

2,777,135
TOILET TANK FLUSH VALVE BALL
Andrew W. Harkness, South Glens Falls, N. Y.
Application November 30, 1953, Serial No. 394,995
1 Claim. (Cl. 4—56)



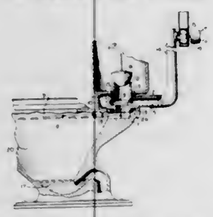
A toilet tank flush valve ball comprising a sphere of resilient material for selective sealing engagement with a valve seat, a flexible member embedded in said sphere, said flexible member having a knot in the embedded portion thereby preventing detachment of the flexible member, said flexible member terminating in a pair of integral extensions extending diametrically of the sphere, said extensions being arranged in perpendicular relation and provided with enlarged knots at remote ends of one of said extensions, said enlarged knots being disposed closely adjacent the surface of the sphere.

2,777,136
GUIDE AND BALL FLUSH VALVE
Andrew W. Harkness, South Glens Falls, N. Y.
Application November 5, 1953, Serial No. 390,295
3 Claims. (Cl. 4—57)



1. A ball valve guide comprising a pair of elongated members, a plurality of longitudinally spaced rings secured to said members, and a pair of longitudinally spaced supporting means positioned on one of said elongated members, said one of said elongated members projecting below the other of said members, the uppermost of said rings being generally oval shaped and having a minor axis of less length than the diameter of the other rings for limiting upward movement of a ball valve in a flush tank.

2,777,137
CLOSET BOWL VENTILATOR
John P. McFadden, Sioux City, Iowa
Application April 21, 1953, Serial No. 355,527
2 Claims. (Cl. 4—213)



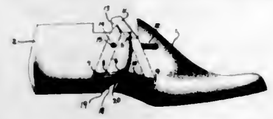
1. The combination with a toilet bowl having an upwardly facing water inlet opening and a flush tank having a flush water tube extending through the bottom thereof, the bowl and tank forming the elements of a close-coupled toilet assembly, of a ventilating fitting which spaces said bowl and tank apart, comprising a flat annular body inserted between said bowl and tank, with the flush water tube extending into the central opening of the body, the upper surface of the body surrounding the opening sloping upwardly and outwardly to the outer circumference of said tubular body and forming a seat for a bevel washer carried by said flush water tube, a concave circumferential channel formed in the inner wall of the annular body and extending completely around the side of the opening below the inner termination of said sloping portion, an integral air exhaust tubular portion formed on the outer side of said body and adapted to be connected to an air exhaust vent pipe of a suction producing device, said tubular portion communicating with the concave circumferential channel, the lower portion of the body being of reduced diameter to form a shoulder having the flat, horizontal portion facing downwardly in the axial direction of said opening, and a protruding tubular portion extending into the upwardly facing water inlet opening of the bowl and carrying a bevel washer, the protruding tubular portion and bevel washer centering and sealing the fitting to said bowl.

2,777,138
BABY BACK REST
Rodney D. Gallagher, Hamlet, Nebr.
Application November 20, 1953, Serial No. 393,304
1 Claim. (Cl. 5—327)

A baby back rest comprising a rigid base frame, upstanding apertured flanges on the respective side margins of the base frame, a rigid outwardly concave board hingedly connected to an end margin of said base frame for rotation around said margin toward and away from said base frame, said concave board being of sufficient width to be nestingly received between said flanges, respective strut rods pivotally connected to the respective side marginal portions of said board, respective lateral projections on the ends of said strut rods engageable in selected apertures of said flanges for detachably connecting the ends of said strut rods to the respective apertured flanges of the base frame to support said board in a selected upstanding position with respect to said base frame, a first flexible supporting strap adjustably secured to the side marginal portions of the board and extending across said board, a single flexible crotch strap extending from one lower side marginal portion of the board slidably through the intermediate portion of the lower end of the board and to the other lower side marginal portion of the board, means adjustably securing the ends of the crotch strap to said side marginal portions for supporting a baby against said board, respective additional adjustable flexible straps secured to the respective longitudinal sides of the base frame, and respective rigid channeled bracket members secured to the ends of said last-named straps for fastening said base frame to the opposite side edges of an underlying support.

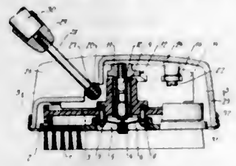
2,777,139
SHOE LAST
Jacob L. Sherman, Lowell, Mass.
Application December 2, 1955, Serial No. 550,656
7 Claims. (Cl. 12—136)

1. A shoe last of the type which may be broken and closed formed of front and rear sections with facing surfaces sloping away from each other at the bottom portions of the facing surfaces when the last is in its closed position, and a hinge interconnecting the sections



and adapted to pivot the sloping surface of one of the faces to engage the other surface when the last is in its broken position.

2,777,140
SURFACE WORKING DEVICES
Knud-Erik Vilhelm Oluf Gnatt Hastrup, Copenhagen, Denmark
Application December 23, 1952, Serial No. 327,646
Claims priority, application Denmark February 2, 1952
6 Claims. (Cl. 15—49)



5. A machine for treating floor surfaces comprising in combination: a floor treating member having a floor treating surface capable of supporting said machine on said floor surface and arranged for rotatable movement about an axis vertical to said floor surface, a carrier member supported on said treating member, said carrier member having bearing means for said treating member, to allow a relative rotation between said carrier member and said treating member about said vertical axis, a handle portion, a connection between said handle portion and said carrier member stiff in tangential direction relatively to said vertical axis to enable said treating member to effectuate a reciprocable movement by pushing and pulling said handle portion, and a weight member firmly connected with said carrier member with the center of gravity of the weight member being in offset lateral relationship with respect to the vertical axis and a vertical plane extending through the longitudinal axis of the handle portion.

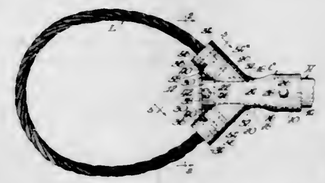
2,777,141
BATHING BRUSH
Raymond C. Nye, Los Angeles, Calif.
Application February 3, 1953, Serial No. 334,829
3 Claims. (Cl. 15—105)

1. A bathing brush of the character described including, two concavo-convex spherical suction cup sections in back to back relationship so their concave sides face out, and bristles of limited extent on and projecting from the concave side of one section and confined to the central portion thereof forming a brush within the confines of the section, and leaving a smooth annular sealing surface in said section surrounding the brush, there being circumferentially and radially spaced gripping projections on the opposed convex sides of the sections.

2,777,142
COMBINATION CONTAINER AND ROLLER PAN
John Lo Verde, Rochester, N. Y.
Application February 1, 1954, Serial No. 407,278
4 Claims. (Cl. 15—121.2)

1. A combination paint container and roller pan comprising, a shallow container adapted to hold a quantity of paint or the like for application to a roller applicator, said container having a bottom, and end and side walls, and being open at the top, an imperforate roller pan having side flanges and one end flange, each of said side flanges adjacent the end opposite from said end flange being pivotally secured with respect to said side walls centrally thereof and between the end walls, said pan being pivotally movable from an inclined position adapted to drain into said container, to a substantially upright position with respect to said container, means for positively locking said pan in said upright position, means for unlocking said locking means whereby to move said pan to an inclined position, and a carrying handle on said end flange for carrying the apparatus when said pan is in said upright position, said handle being located so as to be in a position of balance in respect to said container, whereby said container takes a level position when being carried.

2,777,143
MOP HOLDER
Peter P. Shepperd, East Moline, Ill.
Application March 22, 1954, Serial No. 417,611
9 Claims. (Cl. 15—147)



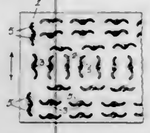
1. A mop holder of the character described, comprising: an elongated horizontal central tubular member having an upright terminal end and upper and lower wall portions having vertically alined apertures adjacent to said terminal end; a pair of cylindrical tubular, symmetrically arranged horizontal side members, one fixed to each side of the central member and projecting at an acute angle thereto to a terminal and beyond the terminal end of the central member, each side member having an upright slot therein in its wall portion proximate to the central member, said slots being in substantial transverse alinement with each other and with the terminal end of the central member; a mop-supporting loop having opposite ends, each end having thereon a cylindrical plug receivable in the respective side member and each plug having an annular groove therein alineable with the respective side member slot; an upright latch plate disposed across the terminal end of the central member and having opposite, transversely extending wing portions angled to the latch plate to lie respectively normal to the side members and respectively entering the side member slots and associated plug grooves; an upright pin carried in the central member apertures and affixed to the latch plate for mounting the latch plate for vertical movement between locking and releasing positions; at least one of said wing portions having a relieved part effective to clear its associated plug

groove when the latch plate is moved to releasing position; and biasing means acting between the central member and the pin for holding the plate in locking position.

2,777,144
ROTATABLE HEAD DUST MOP
Leslie J. Gombar, Detroit, Mich.
Application March 30, 1955, Serial No. 497,939
5 Claims. (Cl. 15—147)

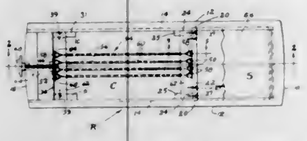
1. In a device of the character described in combination, a plate mounted for rotation about a spindle, an angular extension on said spindle terminating in a long archimedean or quick pitch threaded rod, tubular elements forming sections of a mop handle telescopingly housing said threaded rod, a bearing member secured for rotation with said rod, said bearing member being in rotatable relation with the leading end of one of said tubular members, a nut secured to the leading end of the other of said tubular members, said nut being in slidable engagement with the threaded portion of said rod, whereby to rotate said rod upon the reciprocation of the last named tubular member with respect to the other of said tubular members.

2,777,145
BRUSH
Maurice H. Krieger, Brooklyn, and David M. Ezorsky, New York, N. Y.
Application October 20, 1952, Serial No. 315,662
5 Claims. (Cl. 15—186)



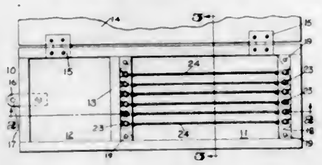
1. A brush comprising a base member having a plurality of rubber blades each formed of a flat strip having opposite edges, portions of said strips located between corresponding parts of said opposite edges being bunched and being fixed in said base member whereby said blades undulate along an axis extending transversely between said two opposite edges to provide troughs on the surfaces of said blades.

2,777,146
UTENSIL CLEANING DEVICE
Mary J. McDonald, Arlington, Mass.
Application March 2, 1953, Serial No. 339,546
5 Claims. (Cl. 15—210)



1. A cleaning device comprising supporting means, two supporting assemblies supported by said means and spaced apart, an anchoring rod mounted in each said assembly, and a cleaning member attached to said anchoring rods and extending between them embodying a maintaining member having loops at opposite ends into which said rods extend and an outer covering on said maintaining member extending between said rods.

2,777,147
FORK CLEANERS
Mary J. McDonald, Arlington, Mass.
Application March 28, 1952, Serial No. 279,002
1 Claim. (Cl. 15—210)



A tine cleaning device for forks and the like, comprising, a compartment, substantially rectangular in form, a vertically arranged post secured at each corner of the compartment, and each provided at its upper end with a fixed pin, a plurality of upstanding other pins, lying parallel to said fixed pins, and with the lower ends anchored in the bottom of the compartment, a plurality of strips of cleaning fabric removably secured at their ends on the upper portion of said other pins, and means at each end of said compartment and engaging with the upper end of said other pins to place the strips under tension, and to engage with the upper ends of the first-mentioned pins of the corner posts.

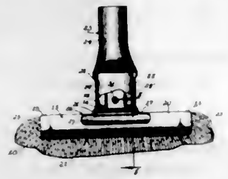
2,777,148
MOP ASSEMBLY
Robert Charles Belsky, Theodore B. Belsky, and Gloria B. Klarfeld, Holyoke, Mass.
Application May 4, 1956, Serial No. 582,711
3 Claims. (Cl. 15—228)

1. A mop assembly comprising a handle, a head, attaching means carried by one face of said head, detachable means for securing one end of said handle to said attaching means for pivotal movement, opposed downwardly and inwardly extending flange portions on the other face of said head, a flexible backing member having opposed edge portions seated in said flange portions with one face thereof substantially engaging the other face of said head, and a mop pad shaped to sheet form extending over the entire area of and secured to the other face of said backing member, said pad having portions adjacent the perimeter projecting beyond the boundary of said backing member, there being an aperture in said head through which a manually directed pressure may be applied to said one face of said backing member for releasing said backing member from engagement with said flange portions.

2,777,149
HANDLE SOCKET AND MOP HEAD FOR FLOOR AND WALL MOPS
Joseph Kalinowski, Philadelphia, Pa.
Application November 18, 1954, Serial No. 469,581
1 Claim. (Cl. 15—229)

In a mop, a broad U-shaped hanger including a reach bar and right angle arms, mop material folded over said hanger and forming a bight along the reach bar and arms thereof, a head plate consisting of a split substantially tubular body having flattened sides and forming a ridge opposite the split, said body receiving the bight of the mop material and the hanger with the arms of the latter projecting through holes in the ridge portion of said body

and said bight and hanger securely clamped by the edges of said body, sections of the body partially severed therefrom on opposite sides of the ridge midway the ends thereof and turned outwardly and in face to face contact, the severed sections forming a lateral opening through the body, a bridge produced by said severed sections, and a pair of spaced fingers projecting outwardly from the outer edge of said bridge, in combination with an elongated handle socket including a pair of jaws cooperating



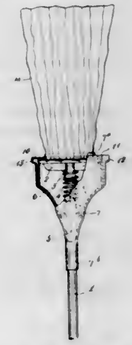
to form an open-ended channel extending transversely of the longitudinal axis of the socket receiving the bridge, one of said jaws having spaced channels extending substantially parallel to the longitudinal axis of the socket and communicating with the transverse channel and receiving the fingers projecting from the bridge, the jaws having lips at the open end of the transverse channel entering the opening in the head plate body inwardly of the bridge, and means drawing the jaws toward one another.

2,777,150
WINDSHIELD WIPER FOR A CURVED WINDSHIELD
Kenneth Joseph Laffan, Kingsford, near Sydney, New South Wales, and Leonard Gladwin Robinson, Sydney, New South Wales, Australia
Application November 20, 1953, Serial No. 393,482
Claims priority, application Australia November 27, 1952
1 Claim. (Cl. 15—245)

A windshield wiper comprising an elongated flexible blade, a channel section holder curved longitudinally and coextensive with said blade to snugly house the blade therein, means at each end of said housing to anchor the blade therein, means defining a transverse slot centrally in said blade, a pin fixedly mounted in said holder in registry with said slot and slidable therein to afford transverse flexure of said blade, a leaf spring housed in said holder bearing against the back of said blade to bias the latter outwardly of said holder, said pin being operable to maintain said blade in said holder against the bias of said leaf spring, and means on said holder for mounting said holder on an actuating arm.

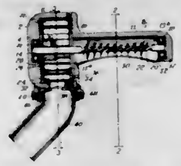
2,777,151
MOP
Dora H. Hasse, Parma, Ohio
Application August 24, 1953, Serial No. 375,981
1 Claim. (Cl. 15—246)

In a mop, a one-piece cover of elastic material that is open at only its forward and rearward ends and is adapted for engagement about the entire longitudinal extent of the clamping means of the mop and having its forward end portion of a comparatively greater width and having the edge about the forward opening thereof adapted for resilient retaining engagement over and forwardly beyond tthe edge of the clamping means of the mop, said cover at the two laterally opposite forward corner portions being offset laterally with enclosing projecting portions so as to engage about the clamping means of the mop and having pre-formed hollow enclosing knobs protruding laterally from said projecting portions so as to be adapted for free flexible engagement over and about the forward corner projections of the mop clamping means and in spaced enclosing relation thereto laterally so as to afford shock-absorbing cushions and means of manipulating engagement by the user, the



rearward end portion of the cover being of comparatively reduced diameter for snug, gripping engagement about the handle of the mop, said cover being readily separable from the mop and being adapted for attachment thereto by insertion of the handle of the mop through the larger end of the cover and resiliently engaging the forward edge portion thereof over and forwardly beyond the edge of the clamping means so as to enclose and protect the same, whereby the engagement of the two ends of the cover with the mop prevents accidental dislodgement thereof in either direction independently of the intermediate portion of the cover and thus constitutes the primary means of retaining the cover in effective and dependable position.

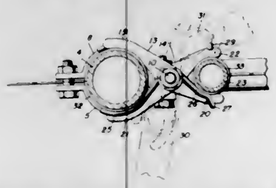
2,777,152
SUCTION OPERATED CLEANING BRUSH
Victor M. Cosentino, Stamford, Conn.
Application July 20, 1951, Serial No. 237,802
2 Claims. (Cl. 15—387)



1. A suction operated cleaning brush for Venetian blinds, comprising an enlarged wheel housing having a central axis, and a substantially smaller elongated brush housing joined to the wheel housing with its longitudinal axis in line with the axis of the wheel housing, said housings being connected to form an air passageway between them, each of said housings including a transversely extending end wall substantially perpendicular to the axes of said housings, a longitudinally extending rotatable shaft having its ends journaled in said end walls, an air operated wheel carried by said shaft and positioned in said wheel housing, said air wheel comprising a transverse

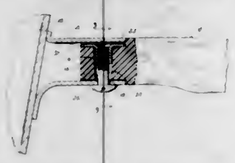
back plate positioned close to and adjacent said end wall of the wheel housing, and further comprising spaced rims supported by said back plate, and further comprising a plurality of narrow angled blades extending across and supported entirely by said rims, said blades having their long axes parallel to the axis of said rotatable shaft, the interior of the wheel being free and unobstructed, said wheel housing being provided with an air exit opening directly adjacent the outer edges of said air operated blades and communicating directly with said unobstructed interior of the wheel, a rotatable brush carried by said shaft and positioned in said brush housing, an air exit pipe secured to said wheel housing and in registry with said air exit opening, said elongated, smaller brush housing being of a size to fit between the slats of Venetian blinds and being provided with a longitudinally extending opening located adjacent said rotatable brush.

2,777,153
GATE CLOSER
Olin V. Markley, Aurora, Colo.
Application June 28, 1954, Serial No. 439,606
2 Claims. (Cl. 16—65)



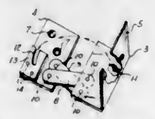
1. An automatic gate closer comprising a device adapted for attachment to a supporting structure adjacent the hinged edge of a gate and including a vertical pin positioned in spaced relation between the structure and the gate, a pair of arms swingably mounted at their central portions on the pin in crossed arrangement to engage the opposite end portions of each arm with both the supporting structure and the gate in an opposing relation with respect to the movement of the gate in either direction, spring means tensionally urging the arms in engagement with the gate, and resilient bumpers positioned on the supporting structure as well as on the gate for contact by the arms.

2,777,154
HANDLE ASSEMBLY FOR SAUCEPANS
Ralph N. Kircher and Arthur J. Schmitt, West Bend, Wis., assignors to West Bend Aluminum Co., West Bend, Wis., a corporation of Wisconsin
Application June 7, 1955, Serial No. 513,744
2 Claims. (Cl. 16—110)



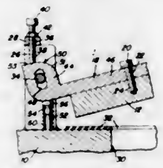
1. In a handle assembly for saucepans or the like: a socket having an elongated tubular portion terminating in an outer open end for receiving the tenon of a handle, said portion having a flat imperforate top and a flat bottom, said bottom having a hole located between the longitudinal center of said portion and said outer end; a handle having a tenon fitting within said portion from said open end, the inner end of said tenon being substantially spaced from the inner end of said portion, a hole in said tenon aligned with said hole in said bottom for receiving a bolt; a bolt passing through said hole in said portion and entering into said hole in said tenon; and a nut engaged by said bolt and drawn against the top of said tenon beneath said flat top, said nut having tenon engaging faces substantially parallel to the longitudinal axis of said bolt and spaced from said hole in said tenon on opposite sides of a plane passing through the axis of said hole in said tenon and normal to the longitudinal axis of said tenon; portions on the top of said tenon being in abutting relation with said tenon engaging faces whereby said faces and portions hold said tenon from dismemberment and disengagement with said handle when a break occurs in a section of said tenon containing said hole in said tenon.

2,777,155
HINGE
Bernard Fata, Bronx, N. Y.
Application November 17, 1953, Serial No. 392,701
5 Claims. (Cl. 16—164)



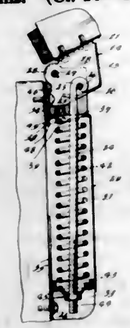
1. A hinge comprising: fixed and movable plates, the former of which is adapted to be secured to the horizontal jamb or floor of a doorway, while the latter is adapted to overlie the top or bottom edges of the door, a pair of links of equal length one end of each of which is pivoted to the fixed plate, while the other end of each link is pivoted to the movable plate, said pivots being located to position the links in overlapping superimposed relation when the hinge is in door closing position, one of said plates being provided with a limiting slot and the other plate having a stop pin adapted to engage said slot when the plates are in closed relation, one end of the fixed plate projecting beyond the corresponding end of the movable plate to provide operating clearance for the door when the corresponding edges of the plates are positioned at the edge of a door and against the door jamb.

2,777,156
HINGE
Norman A. Weisgarber, Middle River, Md.
Application November 26, 1951, Serial No. 258,271
4 Claims. (Cl. 16—179)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A hinge for use on an enclosure having a frame surrounding an opening and a door swingably mounted on said frame so as to close said opening and having a contact surface surrounding said opening and contacting said frame, said hinge comprising a pintle mounted on said frame and a hinge leaf secured to said door, said pintle being offset outwardly from the plane of said opening, said leaf comprising a cam portion, a slot in said cam portion embracing said pintle, said slot being elongated in a direction substantially perpendicular to the plane of said contact surface, said cam portion having a peripheral cam surface, a camming member mounted on said frame and contacting said cam surface, said cam surface and camming member being so related that as said door is closed and approaches its closed position said cam surface slides over said camming member and forces said leaf inwardly toward said frame, and resilient means acting on said cam portion in such a manner as to urge said cam surface against said camming member.

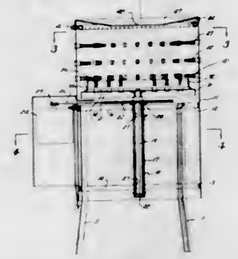
2,777,157
HINGE CONSTRUCTION FOR CABINETS AND THE LIKE
William O. Burke, Rockford, Ill., assignor to National Lock Company, Rockford, Ill., a corporation of Delaware
Application November 3, 1953, Serial No. 389,996
3 Claims. (Cl. 16—190)



1. A spring hinge assembly for pivotally mounting a relatively heavy lid upon the storage compartment of a cabinet and assisting in the raising of the lid and retaining the lid balanced in open position, consisting of a hollow hinge base adapted to be fixedly mounted upon the rear of the storage compartment and providing an enclosure including a rear wall, side walls having their ends projecting above and below the opposite ends of the rear wall and inturned flanges on said projecting ends adapted to anchor the hinge base to the rear of the storage compartment, a hinge wing adapted to be rigidly mounted upon the rear of the lid, means for pivotally connecting the hinge wing to the upper end of the hinge base, a spring-loaded hook bolt longitudinally movable in the hinge base and pivotally mounted at its upper end upon the lid wing, a retainer adjustably mounted on the lower end of the hook bolt for adjusting the spring-loading of said bolt, said hinge base being open at its lower end and adjacent its upper end provided with a transverse plate through which the upper end of the hook bolt projects, an elongated slot in said plate allowing the hook bolt limited lateral movement in said hinge base when the lid is moved to open and closed positions, a vertically arranged stop plate mounted in said hinge base above said transverse plate and connected to said inturned anchoring flanges adjacent the top of the hinge base, and stop members on the opposite sides of the hinge wing adapted to engage the stop plate when the lid and its hinge wing are moved to fully open position.

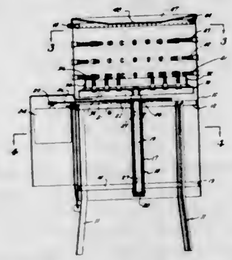
2,777,158
POULTRY PICKING MACHINE
Robert Donald Pitts and Flournoy Corey, Cedar Rapids, Iowa, assignors to Pickwick Company, Cedar Rapids, Iowa, a corporation of Iowa
Application February 21, 1955, Serial No. 489,468
8 Claims. (Cl. 17—11.1)

1. A poultry picking machine comprising a stationary cylindrical casing, a rotatable disc adjacent one end of said cylindrical casing, a shaft operatively connected to said disc for supporting and rotating the same, a plurality of resilient picking fingers extending inwardly from a major portion of the interior surface of said cylindrical casing and a plurality of resilient picking fingers extending from a major portion of said disc toward the interior



of said cylindrical casing, whereby feathered poultry placed in said machine is simultaneously, continuously rotated and defeathered by said resilient picking fingers.

2,777,159
METHOD OF PICKING FOWL
Robert Donald Pitts and Flournoy Corey, Cedar Rapids, Iowa, assignors to Pickwick Company, Cedar Rapids, Iowa, a corporation of Iowa
Original application February 21, 1955, Serial No. 489,468. Divided and this application July 5, 1956, Serial No. 596,020
2 Claims. (Cl. 17—45)

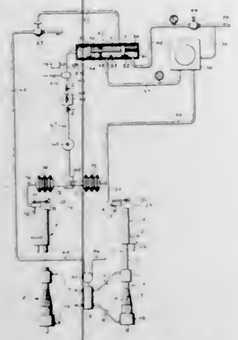


1. A method of picking fowls which comprises continuously maintaining feathered fowl on a horizontally extending annular plane by gravitational force, continuously applying a force to the lower surface of said fowl tending to convey said fowl freely and continuously in a circular path over said annular plane, applying intermittent forces to said fowl in a direction opposite to the forward path of movement thereof and at a point above the lower surface thereof which tend to retard the forward movement of the fowl in said circular path intermittently, and simultaneously cause the fowl to revolve, said continuously applied fowl-conveying force tending to scrape each surface of the fowl to which said force is applied as the same revolves during only the time the forward movement of said fowl is retarded to remove feathers from the surface thereof scraped, and continually applying said forces to said fowl until the feathers have been completely removed therefrom.

2,777,160
CONTROL SYSTEM, WET SPINNING PROCESS AND APPARATUS
Richard N. Rulison, Summit, N. J., Edward T. Jones, Jr., Cumberland, Md., and Russell O. Denyes, Maplewood, N. J., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
Application December 13, 1952, Serial No. 325,798
20 Claims. (Cl. 18—8)

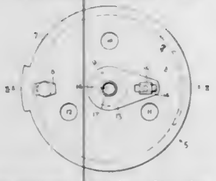
9. In an apparatus for the production of filaments by the extrusion of a spinning solution into a coagulating

bath, a sensing device for measuring the tension on the filaments and means operatively connected with said sens-



ing device for varying the coagulating power of said bath.

2,777,161
PRODUCTION OF ARTIFICIAL FILAMENTS
Bernard Henry Harper Evans, Tettenhall, Wolverhampton, England, assignor to Courtaulds Limited, London, England, a British company
Application April 27, 1953, Serial No. 351,426
Claims priority, application Great Britain June 30, 1952
2 Claims. (Cl. 18—8)



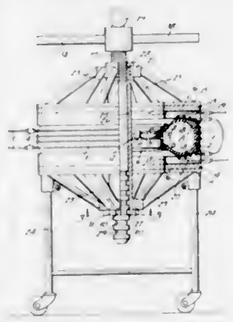
2. In a box spinning machine for the manufacture of artificial threads by extruding viscose through a nozzle into an aqueous coagulating bath containing at least one metal salt, which machine comprises a closed container including a thread-forming section, a spinning bath within said thread-forming section, a spinning nozzle in said bath, a spinning box for collecting the thread, a nesting for the spinning box, a thread-guiding device for leading the thread from the thread-forming section to the spinning box and a funnel for laying the thread in the spinning box, the combination of means for spraying finely divided water into the thread-forming section to create a moist atmosphere therein to reduce the tendency for the metallic salt of the spinning bath to crystallize on the thread as the thread is guided through the thread-forming section, a lid for the nesting of the spinning box having a central hole permitting the insertion and reciprocation of the funnel, a self-centering cover over said central hole, said cover having a central hole which makes a close but sliding fit for the funnel, and said lid having at least one restricted ventilation hole between said central hole of said lid and the periphery of said lid allowing a substantially unimpeded through-flow of atmosphere and so located that the atmosphere entering the nesting is substantially directed round and not into the spinning box.

2,777,162
PRESSING PUNCH AND DIE
William S. Banzhof, Jr., Morris Plains, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application October 29, 1952, Serial No. 317,491
3 Claims. (Cl. 18—16.5)

1. In a punch press, a die circular in cross-section, a punch having a central member, circular in cross-section and having a flexible material engaging end, an outer member of the punch having a cylindrical portion with a material engaging end adapted to enter the die with the

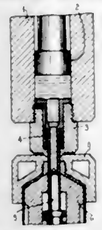
central portion, and means to mount the outer member for adjustment on the central member to compensate for wear on the material engaging ends.

2,777,163
TIRE RETREADING EQUIPMENT
Earle W. Hawkinson, Minneapolis, Minn., assignor to Paul E. Hawkinson Company, Minneapolis, Minn., a corporation of Minnesota
Application August 31, 1953, Serial No. 377,498
1 Claim. (Cl. 18—18)



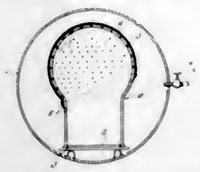
In a device of the class described the combination comprising an annular matrix section engageable with the tread portion of a tire casing, an annular curing rim engageable with the bead portions of a tire casing being cured in the matrix section and restraining the bead portions against separation, a pair of opposed annular pressure plates having concave casing engaging faces adapted to engage the side wall portions of a tire casing axially and radially outwardly of said curing rim and engageable with the opposite side edges of the matrix section to form therewith a deep cavity retread mold, said pressure plates having axially aligned openings and each plate having a head portion thereon extending axially outwardly therefrom, an integral guide and centering sleeve extending from one head portion and terminating adjacent the other head portion, a radial flange extending from the curing rim and having a central opening snugly embracing the guide and centering sleeve, an elongated screw extending through said one head portion and having threaded engagement with said other head portion and being detachably mounted in said one head portion, means for rotating said screw, said detachable mounting comprising a plurality of axially spaced annular grooves, a pair of levers pivoted on the outer end of said one head portion, each lever having an arcuate notch intermediate its ends, said notches engageable with selected grooves to provide major adjustments of the screw, and latch means holding the levers in operative position.

2,777,164
INJECTION MOULDING MACHINE
André M. Strahm, Villeneuve, Switzerland
Application January 7, 1954, Serial No. 402,735
2 Claims. (Cl. 18—30)



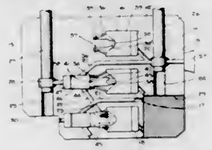
1. An injection moulding machine comprising a stationary injection head comprising a cylinder and a piston reciprocating in said cylinder, the said piston being adapted to press the moulding material disposed in said cylinder out of the latter, a hollow injection pipe disposed in one end of said cylinder opposite said piston and movable by means of said piston, the said injection pipe constituting a conduit for said moulding material, the said injection pipe being displaceable momentarily from a withdrawn position in said cylinder to an advanced position relative to said cylinder, a mould comprising a mandrel and a cap defining a moulding cavity with said mandrel, said cap having a central opening, a core disposed in said mandrel for axial movement therein, resilient means for maintaining said core in an advanced position relative to said mandrel and one end of said core penetrating said central opening of the cap and closing up the latter, said injection pipe having at one end a cross section identical with that of said core and the end face of the latter engages the end face of said injection pipe by means of said resilient means, said injection pipe pushing back said core against the action of said resilient means into said mandrel and penetrating through the central opening of said cap into said moulding cavity in its advanced position, thereby closing up the central opening of said cap, openings disposed at the extreme end of said injection pipe for feeding said moulding material into the moulding cavity, and said core assuming again its advanced position in the central opening of said cap upon filling said moulding cavity with moulding material and withdrawal of said piston in said cylinder.

2,777,165
METHOD OF MOLDING A PLASTIC BLANK UPON A HOLLOW FORM
Victor H. Hurt, Cranston, R. I., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application February 9, 1953, Serial No. 335,852
3 Claims. (Cl. 18—56)



1. The method of molding a thin plastic article on a curved form, which comprises providing a hollow molding form that has perforations in the molding area and which is completely closed to the passage of fluid to the interior of the form except through the perforations, placing over said perforated area a plastic blank having the approximate shape of said molding area and sealing the edges of this blank against a non-perforated area of the form so that it covers the entire perforated area of the form, then subjecting the blank and form to an elevated temperature, and maintaining a fluid pressure above atmospheric externally of the form sufficient to provide a pressure differential across the form at the elevated temperature so that the external pressure on said form exceeds the pressure within the form and molds the hot blank to the shape of the form.

2,777,166
METHOD OF FORMING DIE CAST PRODUCTS ON PRE-DIE CAST AND REMELTABLE CORES
Louis H. Morin, Bronx, N. Y.
Application April 23, 1952, Serial No. 283,916
10 Claims. (Cl. 18—59)



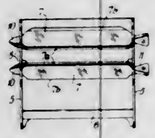
1. The method of forming die cast products, which comprises casting two cores for the product to be formed in a pair of cavities of a first cavity portion of a pair of dies, then moving the cast cores to a second cavity portion of the same dies and forming a product on the cores disposed in the second cavity portion, said product partially enclosing the cores and being formed of the same material as the cores, said product tending to exert a shrinkage action on the cores, said cores and product being cast at such a rate that they are at substantially the same temperature in said second cavity portion, said shrinkage tendency being thereby opposed, cooling said cores and product at the same rate so that they reach a final stage of cooling at substantially the same time having substantially the same temperature, forcibly removing the cores as substantially integral pieces from said product, said cores being used only once in said method, as described, and being either discarded or reused as sources of casting material for forming additional cores and products.

2,777,167
COTTON-BOLL-SEPARATING APPARATUS
Harold M. Knoth, Davenport, Iowa, assignor to Deere & Company, Moline, Ill., a corporation of Illinois
Application January 3, 1955, Serial No. 479,489
7 Claims. (Cl. 19—72)

7. Cotton-boll-separating apparatus, comprising: conveyor means including an elongated trough element and a flighted element movable lengthwise along said trough element to move indiscriminately intermingled green bolls and relatively lighter-weight ripe bolls along said trough

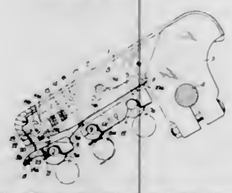
element from a receiving zone to a discharge zone, said trough element having in said discharge zone a first opening generally in alinement with the length of said trough element and affording a ripe boll exit, said trough further having a second opening ahead of and offset laterally to one side of said trough element from the first opening and affording a green boll exit; one of said elements being inclined laterally of the length of the trough element and downhill toward the green boll exit to influence all bolls gravitationally toward said green boll exit; and means counteracting said influence on only the ripe bolls to cause said ripe bolls to revert to the flighted portion to continue on to and through the ripe boll exit.

2,777,168
DRAFTING APPARATUS FOR TEXTILE FIBRES
Joseph Noguera, Salford, Manchester, England, assignor to Casablancas High Draft Company Limited, Salford, Manchester, England, a British company
Application July 21, 1952, Serial No. 299,988
Claims priority, application Great Britain August 9, 1951
2 Claims. (Cl. 19—131)



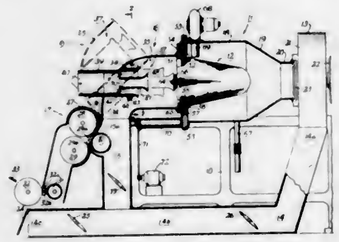
1. A tensor arm for selectively supporting with pressures of different intensities the front end of a belt loop in a drafting apparatus having superposed co-operating belts laterally guided by cradle side plates having slots in the forward ends thereof provided with seats, said arm comprising a flat elongated bar having two longitudinally extending belt guide edges positioned substantially 180 degrees apart and a neck adjacent each end of the bar and lying in substantially the same plane as the rear and laterally displaced with respect to the longitudinal axis of the bar and positioned laterally inwardly of said guide edges, each neck having opposite side edges positioned substantially 180 degrees apart and at different lateral distances from the longitudinal axis of the bar and from said guide edges and constituting seatings adapted to be selectively brought into seating engagement with the seats in the slots of the cradle side plates upon rotation of the bar through substantially 180 degrees about the longitudinal axis of the bar for selectively causing one guide edge of the bar to exert a pressure of one intensity on the belt and the other guide edge of the bar to exert a pressure of a different intensity on the belt.

2,777,169
DRAFTING MECHANISMS FOR TEXTILE FIBRES
Joseph Noguera, Salford, Manchester, England, assignor to Casablancas High Draft Company Limited, Salford, Manchester, England, a British company
Application January 19, 1953, Serial No. 331,867
Claims priority, application Great Britain January 30, 1952
7 Claims. (Cl. 19—135)



7. In a textile fibre drafting mechanism having consecutive roller pairs and an overlying top arm which is pivotable between working and raised positions and incorporates a saddle assembly for carrying and weighting the top rollers of said pairs, the combination of a separate front top roller saddle adapted to pivot about a rearward axis on said arm to enable said front top roller to be lifted with the saddle away from the drafting field and into a raised non-weighting position, whilst the arm is in the working position and weighting pressure continues to be applied to the preceding roller pairs, and conversely to permit said saddle to drop downwardly in relation to the arm for purposes of dismantling in the raised position of said arm, and co-operating manually releasable catch means provided respectively on said arm and saddle and adapted for automatic inter-engagement to retain the said front saddle in said raised non-weighting position and, alternatively, to limit downward displacement of the saddle in relation to the arm during raising of the latter.

2,777,170
BAT FORMING APPARATUS
Frederick R. Marindin, Bethel, Conn., assignor to Doran Brothers, Inc., Danbury, Conn., a corporation of Connecticut
Application June 26, 1953, Serial No. 364,269
13 Claims. (Cl. 19—148)

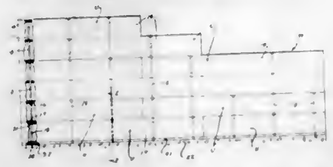


1. In fiber depositing apparatus, in combination, a forming chamber, means rotatably mounting a perforated form therein, said form having an open end disposed adjacent one end of said forming chamber, a blower for exhausting air from said forming chamber at the opposite end thereof, fiber feeding mechanism including a housing leading to and facing the open end of said form to provide a mixing area, and diffusing means including a tubular member extending into said mixing area axially and spaced from said housing to provide an annular space therebetween, said tubular member opening into the atmosphere to direct non-fiber-laden air to said form.

2,777,171
BIRD AND RODENT BARRIER
Fred S. Burnside and Hilmar R. Plath, Davenport, Iowa, and Charles B. Kaufmann, Moline, Ill.; said Burnside and said Plath assignors to said Kaufmann
Application January 19, 1951, Serial No. 206,772
5 Claims. (Cl. 20—1)

1. A barrier structure, comprising, an elongated generally planar and readily bendable base strip of relatively thin malleable sheet metal having a downwardly projecting longitudinal rib, longitudinally spaced transversely extending members of spring wire welded intermediate their ends to said rib, the ends of said transverse members extending outwardly and upwardly from opposite sides of said base strip.

2,777,172
PREFABRICATED BUILDING CONSTRUCTION
Claude J. Debbink, Oconomowoc, Wis.
Application March 7, 1955, Serial No. 492,605
2 Claims. (Cl. 20—4)



1. In a building construction, a wall or the like including a plurality of longitudinally extending units of predetermined dimensions, said units being adapted to be laid in courses and each course including at least a long unit and a shorter unit, with the joints of adjacent units in one course being out of alignment with adjacent joints of units in the next course, each of said units including spaced exterior finishing panels, and interior gridwork uniting said panels including equidistantly spaced partition strips, top, bottom and end closing strips for the panels united to the interior faces of said panels, said gridwork in conjunction with the panels and the top, bottom and end closing strips defining individual cells, means for uniting the units of one course with the units of another course including light metal joining strips having oppositely directed flanges, the adjacent edges of the units of the courses having grooves filled with a mastic and receiving said flanges, said joining strips for the ends of adjacent units having oppositely directed flanges and said ends of adjacent units being grooved to receive said flanges and sealing mastic, and tie rods extending transversely through the units and the courses of the units for tieing said courses together.

2,777,173
GLASS DOOR CONSTRUCTION
Robert D. Caswall, Rossford, Ohio, assignor to Libbey-Owens-Ford Glass Company, Toledo, Ohio, a corporation of Ohio
Application April 18, 1952, Serial No. 283,096
15 Claims. (Cl. 20—16)

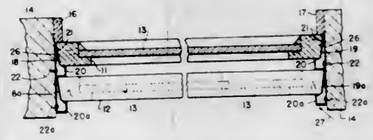
1. An adapter plate for the assembling of sash members with panel edge portions comprising, a channel-like member of easily pliable material having vertically corrugated, U shaped end sections spaced from one another and connected to one another by horizontally corrugated side sections.

2,777,174
STORM SHUTTER
Howard W. Carr, Miami, Fla.
Application September 19, 1955, Serial No. 535,193
4 Claims. (Cl. 20—40)

1. A combination storm shutter for window openings comprising a support member adapted to be mounted in said window opening, said support member having pointed end portions, extensible means mounted on said support member for increasing the length of said support member, a panel adapted to enclose said window opening

and fastening means mounted on said support member removably securing said panel on said window opening.

2,777,175
WINDOW MOUNTING
Irwin R. Lance and Irwin R. Lance II, O'Hara Township, Allegheny County, Pa.
Application October 21, 1953, Serial No. 387,426
9 Claims. (Cl. 20—52.2)

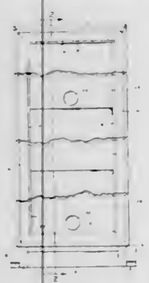


1. A fitting construction for operatively mounting a sash in a frame which comprises, a longitudinal member having a transversely-extending outer side panel portion for substantially flush mounting against a jamb portion of the frame, said member having a transversely-extending inner spring plate portion to provide a surface for operative movement of the sash thereon, said spring plate portion being resiliently connected to one transverse end of said side panel portion and extending transversely therealong in an inwardly-diverging relation that defines a substantially V-shaped section therewith, said member also having a guide portion connected to an opposite end of said panel portion and projecting inwardly therefrom at an angle thereto, and said spring plate portion having a diverging end positioned adjacent to said guide portion to define a somewhat box-like section therewith for guiding a side of the sash in its operative movement with respect to said spring plate portion.

2,777,176
VENTILATOR
Raymond P. Packard, Tacoma, Wash.
Application August 26, 1952, Serial No. 306,378
3 Claims. (Cl. 20—61)

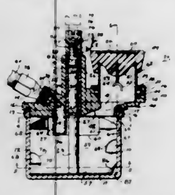
1. A ventilator comprising a frame including top and bottom and spaced side members, vertical stop members on the side members adjacent the inner edge of the latter, the surface of the stop members facing the side members being relieved obliquely outward, elongated resilient runner means secured between the side frame members and the side stop members and normally biased inwardly of the side members parallel to the relieved faces of the stop members and movable resiliently toward and away from the side members of the frame, the outer edge of the runner means being bent inwardly and form-

ing a substantially right angle, the bent outer edge of the runner means being spaced from the outward edge of the stop members to form a guide groove therebetween, an upper panel mounted slidably in the upper groove, and a lower panel mounted slidably in the lower groove, said slidable panels being narrower in width



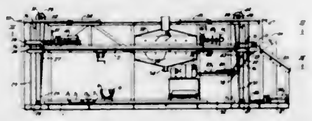
than the distance between the side members of the frame, the runners thereby resiliently engaging the lateral edges and the outer faces of the panels to secure the latter frictionally in the grooves and to form a weather seal therebetween while permitting movement of the panels toward and away from the side members of the frame.

2,777,177
INVESTMENT MIXER
Edmund A. Steinbock, Jr., and Robert Neiman, Louisville, Ky., assignors to Edmund A. Steinbock, Louisville, Ky.
Application November 9, 1951, Serial No. 255,704
7 Claims. (Cl. 22—35)



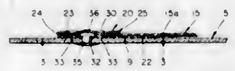
1. In a device of the class described the combination of a mixing container having a cylindrical body portion open at its top and provided with a bottom substantially normal thereto, a cover for the container open top, a mixing paddle within the container having a body portion of a length substantially equal to the transverse dimension of the container and a height upstanding from the bottom to a point below the undersurface of the cover, said paddle having a normal top edge and its sides substantially adjacent the container body portion and its lower edge substantially adjacent the container bottom with its top edge below the container top, a shaft rotatably supported by the cover connected with the mixing paddle, means carried by the shaft for connecting same with a driver, means including a port through the cover for connecting the interior of the mixing container with a device for creating a subatmospheric condition within the container, a sleeve depending from the cover laterally offset from the shaft and centrally bored in axial alignment with the port in the cover and with said sleeve depending to a point below the top edge of the paddle body portion, said container cover having a discharge opening therethrough, a mold forming housing operatively associated with said discharge opening, and said paddle body portion having a cut-out portion in its upper top edge to clear the sleeve upon rotation.

2,777,178
CASTING APPARATUS
Vincent Ralph Troglione, Pittsburgh, Pa., assignor to Ferguson Equipment Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application August 2, 1954, Serial No. 447,254
5 Claims. (Cl. 22—64)



1. Casting apparatus comprising upper and lower tracks, a row of mold-carrying trays in end-to-end engagement movable along each track, means for filling molds in the row of trays on one track, an elevator for receiving successive trays from one end of said one track and moving them vertically to the adjacent end of the other track, a second elevator at the opposite end of said other track, means for moving the second elevator vertically between the tracks, a tray-receiving ejector pivotally mounted on a horizontal axis on the second elevator, means for pushing the trays from the first elevator along said other track to push a tray at the opposite end of that track forward into said ejector on the second elevator, means for rocking the ejector in one direction to invert the tray carried thereby to eject castings from molds in the tray and for then rocking the ejector in the opposite direction to return the emptied tray to upright position on the second elevator the ejector being formed to hold the tray when the ejector is inverted, and means for pushing the emptied tray back out of the ejector and onto said one track, whereby to push a tray at the opposite end of the row onto the other elevator.

2,777,179
CLIP
Joseph C. Miller, Compton, Calif., assignor to Coast Envelope Company, Los Angeles, Calif., a corporation of California
Application May 3, 1954, Serial No. 427,224
2 Claims. (Cl. 24—66)



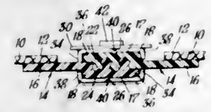
1. In a binder, retainer means for temporarily holding a flexible sheet against said binder, comprising a strip of resilient material bent transversely upon itself between its ends and defining opposed top and bottom jaws, the top one of which has a recess therein and the bottom one of which has a fastener-passing hole therethrough in register with said recess, said jaws being presprung to be normally substantially in contact with each other around said recess, and a fastener extending through said hole and securing said bottom jaw to said binder, said fastener having a headed top end of smaller diameter than said recess and projecting upwardly into said recess beyond the plane of the bottom surface of said top jaw whereby, when said sheet is inserted between said jaws, to emboss said sheet upwardly into said recess.

2,777,180
SAFETY POCKET KEY RING
Thomas J. Keating, Somerville, and Edmund J. Massello, Medford, Mass.
Application August 15, 1952, Serial No. 304,504
1 Claim. (Cl. 24—73)

A safety key ring comprising an elongated body portion having its lower end bent to form a key supporting ring, the end of the ring forming portion being bent to engage resiliently with an intermediate portion of the body portion to prevent accidental escape of keys from the ring, the upper end of the body portion being bent down at an acute angle, then upwardly in an arc greater than a semi-circle to form a supporting loop, the end

being further bent down to extend over and terminate in a ring-like end adjacent the acute angular portion, the ring portion at the lower end of the body portion and the loop at the upper end of the body portion lying in the same plane to provide a relatively flat key ring.

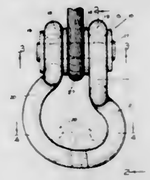
2,777,181
WATERPROOF CLOSURE
Hans George Morner, Scarsdale, N. Y.
Application September 15, 1951, Serial No. 246,730
2 Claims. (Cl. 24—201)



1. In combination, a slide having top and bottom walls forming an opening end and a closing end, inwardly extending flanges integral with said walls, a web at the opening end of said slide extending between two flanges to provide upper and lower spaces only at the opening end of said slide, the sum of the vertical distances of said upper and lower spaces being slightly greater than the vertical distance of the space at said closing end; and a fluid tight closure comprising a pair of cooperating flexible linear strips of elastomeric material which are substantial duplicates of each other, each of said strips being formed with a plurality of headed ribs and undercut grooves adapted to pass within the confines of said walls and flanges and to cooperate in forming a tight fit with an equal number of similarly constructed mating ribs and grooves in the opposing strip, said top and bottom walls each having an inwardly directed projection located intermediate said flanges and positioned in back of one corresponding rib on each strip, each of said projections having an opposed portion at a point spaced slightly forward of the closing edge of the slide, said portions at that point being spaced apart a distance equal to the engaged thickness of said strips, whereby said projections will force one rib of each strip into engagement with its groove before closure of the next rib and groove, said vertical distance of the space at the closing edge of said slide being equal to the engaged thickness of said strips whereby said top and bottom walls will force the outward ribs and grooves together after said first ribs have been forced into engagement by said projections.

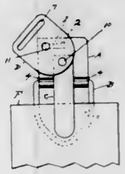
2,777,182
SPLIT CHOKER HOOK
Franklin M. Brawand, Estacada, Oreg.
Application January 19, 1953, Serial No. 331,879
5 Claims. (Cl. 24—242)

1. A load supporting device comprising a rigid support, said support comprising a substantially cylindrical construction having a central, peripheral groove for reception of the bight of a draft cable eye, and a pair of outer, peripheral grooves on opposite sides of said central groove, a first open hook having an eye engaging one of said outer grooves, and a second open hook having an elongated eye slidably engaging the other of said outer grooves whereby said second hook may be shifted radially with respect to said support, the free ends of said hooks



overlapping, one of said hook ends being provided with a radially directed opening and the other of said hook ends being provided with a radially directed finger capable of being inserted into said opening upon outward radial movement of said second hook whereby said hooks may be interlocked to provide a closed link pivotally dependent from said support.

2,777,183
GARTER GRIPS
Fred E. Mefford, Pittsburgh, Pa.
Application January 21, 1955, Serial No. 483,237
3 Claims. (Cl. 24—263)

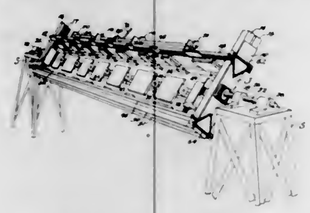


1. In a garter grip, the combination of a substantially flat base plate; a substantially flat tongue; and means to maintain said tongue in coplanar relation with said base plate, and to move said tongue longitudinally in a substantially straight line; said means including a longitudinal guideway in said base plate, the upper portion of said tongue being slidably disposed in said longitudinal guideway, a lateral guideway in said base plate, a yoke disposed astride said base plate, a pin connecting said yoke to said tongue, and a fulcrum pin located in said yoke and extending through said lateral guideway and adapted to travel therein to permit said yoke to be swung edgewise to slide said tongue along said longitudinal guideway.

2,777,184
DEVICE FOR MAKING STRUCTURAL CLAY TILE PANELS
Clarence B. Monk, Oak Lawn, John R. Alsterda, Mount Prospect, James E. Young, Chicago, and Paul V. Johnson, Park Forest, Ill., assignors, by direct and mesne assignments, to Structural Clay Products Research Foundation, Chicago, Ill., a trade association
Application November 8, 1952, Serial No. 319,486
1 Claim. (Cl. 25—1)

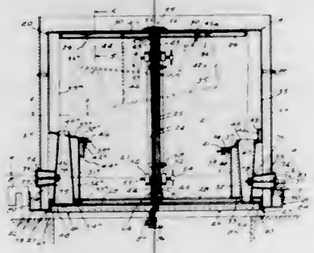
A jig for making tile panels comprising, in combination, a main frame, tile stops at the ends of the main frame, means on the main frame to receive a plurality of tile units in a substantially common plane, stop means on the main frame to space the tile units and form joint areas therebetween, side frames secured to the main frame on axes parallel to the longitudinal axis of the main frame and perpendicular to the tile stops, a plurality of pads along the side frames oriented to overlap the

joints between the tile units, pairs of opposed clamping bars movably connected to the side frames, and a plurality of pads oriented along the clamping bars to over-



lap the joints between the tiles thereby forming, with the side frame pads, a trough to permit injecting a cementitious material into the joints between the tile units.

2,777,185
FORM FOR CASTING TANKS
Woodrow W. Wehrung, Ottsville, Pa.
Application May 25, 1953, Serial No. 357,008
2 Claims. (Cl. 25—124)

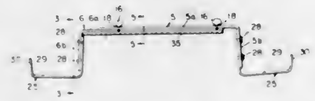


1. A mold of the character described comprising a core including a top wall and a side wall, a pallet removably disposed around the lower end of said core, a shell supported on said pallet around the core and extending to above the upper end of the core and spaced outwardly from the side wall thereof to define a space between the core and shell and above the core in which a tank or receptacle is adapted to be cast in an inverted position, said core having oppositely disposed outwardly opening recessed portions formed in the side wall thereof in which internal portions of the tank are adapted to be cast integrally with a side wall of the tank, and said core having hinged wall portions disposed above said recessed portions and swingable upwardly and inwardly to provide clearance openings in the core above the cavities formed by said recessed portions.

2,777,186
PROCESS FOR THE PRODUCTION OF PERMANENT LOCALLY GOFFERED EFFECTS AND PRODUCTS THEREFROM
Fritz Vonaesch, Wattwil, Switzerland, assignor to Heberlein Patent Corporation, New York, N. Y., a corporation of New York
No Drawing. Application December 21, 1953, Serial No. 399,601
10 Claims. (Cl. 26—69)

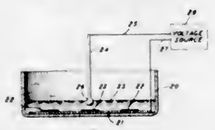
1. A process for the production of permanent locally goffered effects on a fabric alongside smooth portions thereof which comprises, printing a local pattern on cotton fabric with a formaldehyde resin precondensate, overall goffering the printed fabric, condensing the printed pattern, washing the condensed fabric to remove some of the goffering from the unprinted portion, and then impregnating the goffered goods with a mild goffer-removing agent to remove the remaining goffer in the unprinted portions without otherwise affecting the appearance thereof.

2,777,187
ARM-POSITIONING DEVICE FOR USE BY EMBALMERS
Guy A. Simone, Los Angeles, Calif.
Application March 30, 1953, Serial No. 345,348
1 Claim. (Cl. 27—21)



In a device for positioning the arms of a corpse, a pair of superimposed arms disposed to extend across and rest upon the chest of said corpse, one of said arms having a longitudinally disposed slot therethrough and the other of said arms having a headed screw threaded therein and extending through said slot whereby to provide relative longitudinal adjustment of said arms and retention of said arms in a position of adjustment, a depending outer end extension for each of said arms and a pair of U-shaped arm rests each having a substantially horizontal portion and a pair of substantially parallel, upright side portions, the side portion of each of said arm rests being vertically slidably adjustably secured to one of said respective extensions.

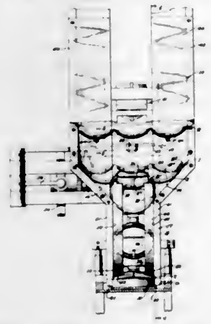
2,777,188
METHOD AND APPARATUS FOR PROCESSING FERROELECTRIC CRYSTAL ELEMENTS
Joseph P. Remeika, Berkeley Heights, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 21, 1954, Serial No. 476,745
7 Claims. (Cl. 29—25.35)



5. A method for uniformly aligning the domains in a ferroelectric crystal element which comprises immersing said element in a distilled water bath and while said element is immersed in said bath directing a field in a thickness direction in said element which is of an intensity to align a major portion of the ferroelectric domains of said crystal in said thickness direction.

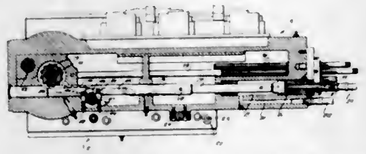
2,777,189
STRIP FORMING AND INSERTING MACHINE
Harry C. Evelyn, Decatur, Ill., assignor, by mesne assignments, to Crown Cork & Seal Company, Inc., Baltimore, Md., a corporation of New York
Application June 23, 1947, Serial No. 756,419
15 Claims. (Cl. 29—33)

15. Apparatus for inserting a threaded band in a cap shell comprising means to support a shell with its skirted portion uppermost, a rotary member, a chute having a first section including side walls spaced apart in accordance with the length of a threaded band in a direction parallel to the axis of said rotary member and converging to a point at which they are spaced apart by a distance corresponding to the inside diameter of the cap shells, said chute including a second and arcuate section including parallel side walls extending from the convergent ends of the side walls of said first section and arranged concentric with and adjacent a portion of the periphery of said rotary member, said rotary member having a series of circumferentially spaced projections on its periphery including means to guide the leading portion of the annular band into the shell and to press the trailing portion of the band into the shell, said rotary member having its axis so located with respect to said chute that rotation of



said member will cause one of said projections to engage a threaded band while the latter is in said first chute section and move the band through said second chute section, the chute side walls and rotary member cooperating to bend the band to the form of an annulus and maintain the band in annular form while it is placed within the shell.

2,777,190
RAM-TYPE TURRET LATHE HAVING POWER INDEX
Vigo Von Krogh Sundt, Madison, Wis., assignor to Gisholt Machine Company, Madison, Wis., a corporation of Wisconsin
Application December 20, 1951, Serial No. 262,593
3 Claims. (Cl. 29—46)



1. A power index for turret lathes and the like having a ram and a turret mounted thereon for indexing movement, comprising, means carried by said turret for effecting indexing movement thereof relative to said ram, clamping means to alternately clamp and release the turret in operating and indexing relation to the ram, a spindle carried by said ram and disposed to operate said clamping means, a control rod mounted for reciprocal movement within said ram, an abutment carried by said control rod, a pair of lugs carried by said spindle and angularly spaced about the spindle axis for alternate disposition in the path of said rod abutment upon rotation of the spindle, and a pair of stops disposed adjacent said spindle to limit rotation thereof in each direction of rotational movement by engagement with a corresponding lug when the lug is disposed without the path of said rod abutment to retain the other lug within said path, said rod being disposed to present the said rod abutment to engage one of said lugs in one direction of reciprocal rod movement and to engage the other lug in reverse rod movement to alternately effect clamping and releasing rotation of the spindle, and the final clamping position for said spindle being secured by confinement of the corresponding lug between said rod abutment and one of said stops.

2,777,191
BROACH FOR WELL PIPE
Stone E. Eklund, Torrance, Calif., assignor to The National Supply Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application November 10, 1952, Serial No. 319,657
6 Claims. (Cl. 29—95.1)

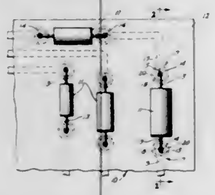
1. A broaching tool for enlarging the internal diameter of a well pipe at certain places of limited extent along the length of said pipe where said diameter is less than the desired minimum diameter, comprising in combination: a carrier having a series of broaching elements fixed thereon in axially spaced relationship, each broaching element being larger on diameter than the adjoining broaching element forward in the series, each broaching element having a plurality of circumferentially spaced arcuate cutting edges at the forward end thereof and having an inclined cutting edge extending rearwardly from at least one end of each arcuate cutting edge.

2,777,192
METHOD OF FORMING A PRINTED CIRCUIT AND SOLDERING COMPONENTS THERETO
Robert B. Albright and Harold W. Golden, Philadelphia, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application December 3, 1952, Serial No. 323,894
4 Claims. (Cl. 29—155.5)

2. The method of forming a printed circuit and of soldering components thereto, which method comprises forming a laminated structure by bonding to one side of a sheet of insulating material an etchable layer of conductive metal for which solder has no affinity and bonding on said layer a second etchable layer of conductive metal for which solder has an affinity, etching said layers to form a circuit of the first and second mentioned layers on said one side of said sheet, applying to and only upon spaced portions of the second mentioned layer of said circuit a combined resist and flux composition and then acid-treating said one side of said sheet to dissolve the second mentioned layer while utilizing said composition as a resist agent to prevent dissolution of said coated portions of said second mentioned layer to form a circuit of the first mentioned layer on said one side of said sheet and coated contact areas of the second mentioned layer

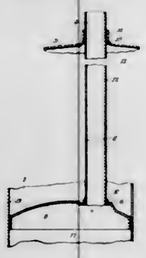
on spaced portions of said circuit, thereafter perforating the laminated structure at the coated contact areas and inserting component leads through the perforations so that the components remain on the other side of said sheet and the leads are secured in contact with the coated contact areas, and finally immersing said one side of said sheet in a molten solder bath while utilizing said composition as a fluxing agent at said areas and leads.

2,777,193
CIRCUIT CONSTRUCTION
Robert B. Albright and Harold W. Golden, Philadelphia, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application July 17, 1952, Serial No. 299,467
4 Claims. (Cl. 29—155.5)



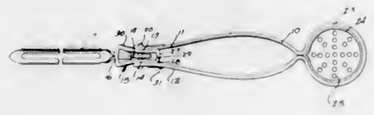
1. The method of forming a printed circuit and of soldering components thereto, which method comprises bonding a layer of aluminum to one side of a sheet of insulating material and a layer of copper to said aluminum layer to form a laminated structure, selectively etching said layers to form an aluminum circuit on said one side of said sheet and copper contact areas on spaced portions of said aluminum circuit, perforating the laminated structure at the contact areas, inserting component leads through the perforations so that the components remain on the other side of the sheet and the leads are secured in contact with the contact areas, and then immersing said one side of said sheet in a molten solder bath.

2,777,194
METHOD OF FORMING FLUID PRESSURE SEAL BETWEEN ELEMENTS OF A CONTAINER HAVING AN INTERIOR COATING OF PORCELAIN ENAMEL
Robert H. Ashley, Bryn Mawr, Pa., assignor to John Wood Company, New York, N. Y., a corporation of Delaware
Application August 9, 1954, Serial No. 448,723
11 Claims. (Cl. 29—458)



1. The method of joining, without metal welding, fired porcelain enamel coated steel elements of a container in fluid pressure tight relationship comprising assembling said elements with their respective fired procelain enamel coatings in direct contact at a limited area; subjecting only the immediate vicinity of said limited contact area to an induced high frequency electrical current for a period of time sufficient to raise the temperature of said fired porcelain enamel coatings at said limited contact area to cause an interfusion of said porcelain enamel coatings at said limited contact area; and cooling the assemblage to harden the interfused porcelain enamel coatings bonded at opposite sides to the respective steel elements.

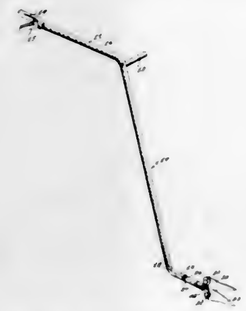
2,777,195
FOLDING PARING KNIFE
George Dalianis, Wappingers Falls, N. Y.
Application November 5, 1954, Serial No. 466,985
2 Claims. (Cl. 30—155)



1. A paring knife comprising a handle including a pair of resilient arms having the portions adjacent the free ends disposed in spaced relation, a resilient U-shaped member arranged so that its legs extend longitudinally between the free end portions of said arms with the bight exteriorly of said free end portions and having its legs connected to said free end portions for swinging movement about an axis extending transversely of said free end portions from the position in which its bight is exterior of said free end portions to a position in which its bight is between said free end portions, a blade positioned longitudinally of the free end portions of said arms and having a stem on one end extending loosely through the bight of said U-shaped member and connected to the legs of said U-shaped member for swinging movement therewith, said loose extension of said blade stem through the bight of said U-shaped member permitting limited turning movement of said blade, each of the legs of said U-shaped member having at its free end a flange, said flanges overlappingly engaging each other to resist the initiation of the movement of said U-shaped member from its position in which the bight is exteriorly of the free end portions of said arms toward the position in which the bight of the U-shaped member is between the free end portions of said arms and the movement of the U-shaped member from its position in which the bight of the U-shaped member is between the free end portions of the said arms toward the position in which the bight of the U-shaped member is exteriorly of the free end portions of said arms, and cooperating means on said free end portions of said arms and on the legs of said U-shaped member and interengaging each other to releasably hold the bight of said U-shaped member in either of its positions exteriorly of the free end portions of said arms or between the last-named portions.

2,777,196
DOUBLE PURPOSE GRASS SHEARS
Jacobus J. Zoetemelk, Toronto, Ontario, Canada
Application June 25, 1956, Serial No. 593,727
5 Claims. (Cl. 30—248)

1. A double purpose grass shear comprising a tubular handle member having upper and lower oppositely extending offset portions, a hand grip formed on the terminal end of the upper offset portion, a handle pivotally carried by said hand grip, a body slidably and pivotally mounted in the lower offset extension on said handle, means biasing said body toward the open end of said offset extension, a lateral head integrally formed on the outer end of said body, a pair of blades pivotally mounted on said head and arranged in shearing relation to each other, a cable secured at one end to said pivotal handle and extending through said tubular handle, and means connecting the opposite end of said cable to said



blades for actuating said blades upon movement of said pivoted handle.

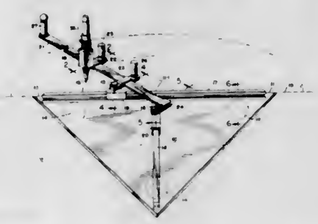
2,777,197
KNIFE BLADE HOLDER AND GUIDE
Stanley Rothman, Bronx, N. Y.
Application May 11, 1954, Serial No. 428,904
4 Claims. (Cl. 30—284)

1. A slicing guide for a knife having a blade portion and a handle portion, comprising a knife-engaging member adapted to be held against one of said portions, guide-blade-support means extending from said member, and a guide blade carried by said means, said blade being pivoted on said means to swing within a plane paralleling that of the knife blade, and being mounted for adjustment in a transverse direction toward and away from the knife blade, said means including a support bar rigid with said member and extending laterally outwardly therefrom, said means further including a tongue carried by the bar and extending transversely of the knife blade, and a block grooved complementarily to the tongue to receive the same, and slidably adjustable on the tougue to a selected spaced relationship to the knife blade, the guide blade being carried by said block.

2,777,198
MOTOR-DRIVEN TOOTH EXTRACTOR
Robert Wallace, San Francisco, Calif.
Application December 10, 1954, Serial No. 474,479
1 Claim. (Cl. 32—61)

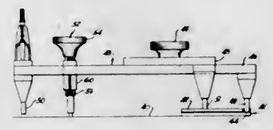
In a device of the character described, a support, a bracket universally mounted on said support, a motor housing rotatably supported in said bracket, a tubular member extending from said motor housing, a pair of rods rotatably mounted in said tubular member, each of said rods having a crank formed on the end thereof, a pair of pivoted forceps secured to said cranks, whereby rotation of said rods will cause said forceps to open and close for the engagement of a tooth therewith, the opposite ends of said rods from said cranks having a toggle connection for simultaneous movement of said rods about their axes, means for preventing retrograde movement of said rods when said forceps are in intimate engagement with a tooth, a motor mounted in said housing and a flexible rod extending from said motor to said forceps for transmitting high-frequency vibrations from said motor to said forceps.

2,777,199
ELLIPSOGRAPH
Anders Emil Neiglick, Winnetka, Ill.
Application June 30, 1953, Serial No. 365,139
1 Claim. (Cl. 33—18)



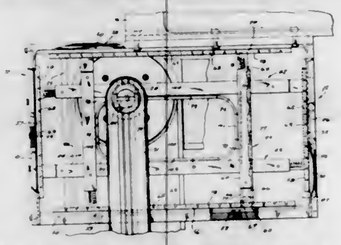
In an ellipsograph, a scribing beam, a scribing unit carried thereby comprising an arm extending across and having clamp means embracing said beam for sliding and locking engagement therewith, a bar extending upward from said arm and having a top portion bent to one side of said beam, a pencil-carrying block having a cylindrical extension on top thereof extending through a bore in said top portion of said bar, said block having a passage therethrough slidably fitting the vertical portion of said bar for limited vertical movement thereon, said block and its cylindrical extension having a bore therethrough to hold the pencil, and a compression spring bearing between said block and said top portion to normally urge said block downward.

2,777,200
SCRIBER
Edwin C. Wood, Denville, N. J.
Application April 3, 1953, Serial No. 346,641
2 Claims. (Cl. 33—18)



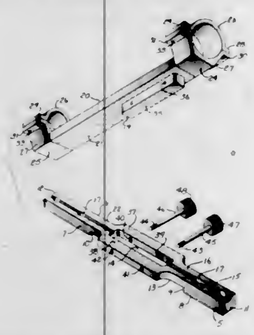
1. A spring post for a scriber having at least one arm, the arm having a pen point adjacent one end and an opening adjacent the pen point; the spring post comprising an externally threaded cylinder, said cylinder having a thumb screw at the top and a longitudinal bore through the bottom thereof, the bore being constricted at the bottom and forming a shoulder therein, a plunger slidably disposed in the bore, said plunger having a land formed on the inner end thereof, the land being in juxtaposition with the shoulder when the outer end of the plunger protrudes through the bottom of the bore for the maximum distance, a spiral spring disposed in the bore intermediate the land and the opposed end of the bore, and an internally threaded split sleeve disposed in the opening coacting with the externally threaded cylinder.

2,777,201
PATTERN SUPPORT AND ADJUSTABLE TEMPLATE
Theodore A. Wetzel, Milwaukee, Wis., assignor to Kearney & Trecker Corporation, West Allis, Wis., a corporation of Wisconsin
Application June 26, 1952, Serial No. 295,785
11 Claims. (Cl. 33—23)



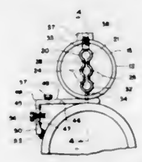
2. In an adjustable template for a tracing machine, a template holder comprising a hollow quadrilateral structure having its opposite inner sides spaced in parallelism and provided with inwardly extending rack teeth, a support plate carried by said structure immediately below the said rack teeth formed therein, two pairs of longitudinally extensible scales disposed to cooperate with said structure for producing a female type quadrilateral template of predetermined size, said scales being provided at their opposite ends with rack teeth disposed to engage the said inwardly extending rack teeth provided within said hollow structure, one pair of said scales being removably positionable between the other two of the said opposite inner sides of said structure in intersecting relationship with the first pair of said scales, and a resilient mechanism operatively associated with each of the said scales respectively disposed to effect extensible movement of each of the said scales into meshing engagement with the said rack teeth extending inwardly from each of the said opposite inner sides of said structure.

2,777,202
SCOPE MOUNT
Adriano E. Conte, Kansas City, Mo.
Application December 8, 1953, Serial No. 396,951
2 Claims. (Cl. 33—50)



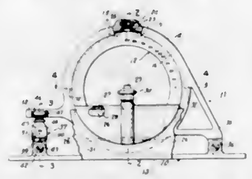
1. A mount for telescopic sights for a gun having a receiver comprising, an elongated base having a longitudinal recess in the bottom forming ends for engaging said receiver, said base having a longitudinal groove in its upper edge provided with openings vertically through the base, means engaging in said openings securing said base to the receiver, said base having an enlarged portion transversely of and at substantially the longitudinal center thereof and having spaced sides defining a rectangular shaped opening in said base, a scope adapter having an elongated body portion, the upper faceof which is curved to conform to the shape of the telescopic sight, means on the ends of said body of the scope adapter for engaging the telescopic sight and holding the same securely therein, said means including upper and lower mating semicircular members embracing said telescopic sight having ears provided with threaded openings and screws for securing said mating members together, a lug conforming to the shape of the opening in said base depending from substantially the center of the body of the scope adapter and engageable in said opening in the base, said lug having spaced transverse openings therethrough, the spaced sides of the enlarged portion of the base having spaced transverse openings therethrough, two of said openings in the base being threaded, and screws having shanks extending through the openings in said other side of the enlarged portion and through said depending lug on the adapter, the ends of said screws being threaded and engaging the threaded openings in the other side of the enlarged portion of the base for holding the scope adapter securely on said base.

2,777,203
REAR GUN SIGHT
Frederick R. Clift, North Vancouver, British Columbia, Canada
Application June 3, 1953, Serial No. 359,382
6 Claims. (Cl. 33—58)



1. A rear gun sight comprising an elongated tube adapted to be mounted on a gun in a substantially horizontal position through which a target may be seen, and a pair of spaced thin sight members extending from the top to the bottom of the tube spaced from the sides thereof and substantially midway between the ends thereof, said members being shaped outwardly from each other at a plurality of points throughout their lengths to form a plurality of spaced open sight indicators located one above the other, and said members being close and parallel to each other between the sight indicators to form thin unobstructed slots extending between and opening into the open indicators.

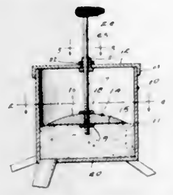
2,777,204
PROTRACTOR
Charles Ivan Graves, Romeo, Mich.
Application December 7, 1953, Serial No. 396,406
4 Claims. (Cl. 33—102)



1. A protractor comprising a base part presenting a straight edge surface which is free of projections and uninterrupted at and between its ends, an annular part having a pivotal connection to said base part on an axis paralleling and normal to the length of said surface, said annular part having an annular bearing surface, a rotatable member supported on said annular bearing surface,

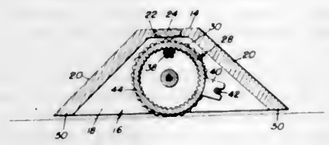
said member having an elongated straight edge element mounted thereon for longitudinal adjustment in a plane through said first named straight edge surface, an adjustment device to determine a coarse relative adjustment of said straight edge element and straight edge surface by rotation of said member on said part, and an adjustable coupling connected between said annular part and base part, in spaced relation to the pivotal connection thereof, to effect a fine relative adjustment of said straight edge element and surface by relative bodily shifting of said parts.

2,777,205
CORN PLANTER BOX GAUGE
Donald E. Plahn, Garretson, S. Dak., assignor of one-third to Leslie E. Johnson, Garretson, S. Dak.
Application September 21, 1953, Serial No. 381,240
1 Claim. (Cl. 33—126)



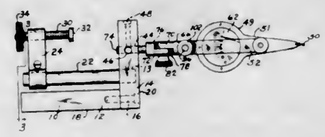
In a corn planter having a hopper and a lid on the upper end thereof, a gauge attachment comprising a weighted follower plate loosely engageable in said hopper, said plate having a flat lower surface and a convex upper surface, a tubular guide secured centrally of said lid, a rod fixed to said plate and slidably engaging through said guide, said rod being axially calibrated and the lower end thereof projecting below said plate whereby in the lowermost position of said plate the lower end of said rod will hold said plate above the bottom of the hopper, and a handle fixed to the upper end of said rod.

2,777,206
DISTANCE MEASURING DEVICE
Perry W. Sparrow, Phoenix, Ariz.
Application October 9, 1953, Serial No. 385,239
1 Claim. (Cl. 33—141)

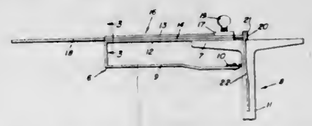


A measuring device comprising a trapezoidal housing having side walls and a top sight opening provided with a magnifying lens therein, a transverse shaft in said housing having its ends fixed in said side walls, a pair of hollow driving and driven counting disks rotatable on said shaft side-by-side and having internal circumferential teeth, the driving disk embodying a travelling wheel for rolling over a surface to rotate said driving disk, and said driving and driven disks bearing circumferentially spaced peripheral number symbols arranged in ascending numerical order in the same direction on each disk, a plate on said shaft between the driving and driven disks having an edge lug anchored to said housing to prevent rotation of said plate, and a twin transfer gear pinion journalled in said plate and meshing with said teeth and operatively connecting the driving gear to the driven gear to rotate the driven gear in the direction of rotation of the driving gear.

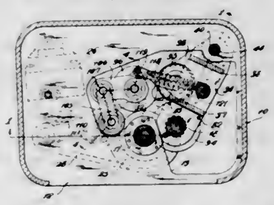
2,777,207
DIAL INDICATOR
Gerald C. Welch, Rochester, N. Y.
Application November 17, 1952, Serial No. 321,002
7 Claims. (Cl. 33—172)



1. In combination, a dial indicator having a frame, an indicating dial at one end and a work contact member at the other, and a support stud intermediate the ends projecting from the frame in a direction substantially normal to the plane of the dial and in the direction that said dial faces, and a transparent support bar having one end secured to said support stud, said bar being of a length to extend beyond the dial end of said dial indicator, said bar having plane opposed faces adapted to lie in planes parallel to the plane of said dial whereby the indicating dial is visible through the bar.

2,777,208
BEAM GAUGE
Casimir J. Skraban, Chicago, Ill.
Application September 20, 1955, Serial No. 535,384
4 Claims. (Cl. 33—174)

1. A beam gauge of the character described comprising: a substantially U-shaped frame adapted to straddle a flange of the beam at right angles thereto, a scale bar mounted for longitudinal sliding adjustment on one of the legs of said frame, rollers on the other leg of the frame operable on the beam beneath said flange, a straight edge mounted transversely on one end portion of said scale bar and engageable longitudinally on the beam, and an indicator pivotally mounted on one end portion of said straight edge and swingable in the longitudinal plane thereof for engagement with an end of the web of the beam to facilitate adjusting the scale bar to the desired position.

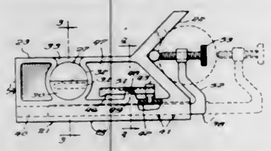
2,777,209
GEAR CHECKING APPARATUS
Otis E. Staples, Euclid, Ohio, assignor to The Cleveland Hobbing Machine Company, Euclid, Ohio, a corporation of Ohio
Application November 9, 1951, Serial No. 255,613
10 Claims. (Cl. 33—179.5)



1. A gear checking apparatus comprising a support having a gear spindle journalled thereon, power means for rotating said spindle, a member carried by said spindle and rotatable therewith, a friction wheel rotatable coaxial

with the axis of said spindle, a second gear spindle, a friction wheel on said second spindle, a train of idler friction wheels adapted to be in frictional driving relation, one of said train of idler wheels adapted to frictionally engage the first mentioned friction wheel and another of said train of idler wheels adapted to frictionally engage the second mentioned friction wheel, one of said train of idler friction wheels being tapered, means for selectively causing relative axial movement between said tapered wheel and a wheel in engagement therewith, and means for indicating relative angular movements of said member and said first mentioned friction wheel.

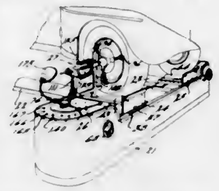
2,777,210
TOOL SETTING GAUGE
Lester L. Johnson, Tujunga, and Charles W. Downs, Sun Valley, Calif.
Application June 8, 1953, Serial No. 360,276
3 Claims. (Cl. 33—185)



1. In a tool setting gauge for machine tools, a gauge body having a V-shaped, work piece engaging end surface and a clamp means opposing said end surface operable to secure said gauge body to a cylindrical work piece, a tool point position indicating surface on said gauge body disposed in a plane bisecting the angle of said V-shaped end surface, a second flat surface on said gauge body and disposed in parallelism with said tool point position indicating surface, a cylindrical socket formed in one side of said gauge body and comprising an outer larger diameter portion generated about an axis parallel with the plane of said tool point position indicating surface, an inner smaller diameter portion concentrically disposed with respect to the axis of said larger diameter portion, and a shoulder portion disposed between said larger and smaller diameter portions, a level glass holding means mounted for rotation in said socket and comprising concentric larger and smaller diameter portions respectively fitting said larger and smaller diameter portions of said socket, and a shoulder on said holding means connecting said larger and smaller diameter portions and opposing said shoulder in said socket, a level glass carried by said holding means, and means extending through said gauge body from the side thereof opposite the side in which said socket is formed and engaging said holding means and effective to retain said holding means in said socket while permitting rotation of said holding means in said socket.

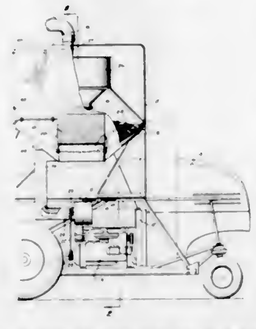
2,777,211
VEHICLE WHEEL TESTING DEVICE
Sidney W. Martin, Chicago, Ill., assignor to Bear Manufacturing Company, Rock Island, Ill., a corporation of Delaware
Original application June 30, 1950, Serial No. 171,347, now Patent No. 2,702,432, dated February 22, 1955. Divided and this application September 23, 1954, Serial No. 457,875
2 Claims. (Cl. 33—203.13)

1. In a vehicle wheel alignment analyzing device, a support for the vehicle wheel allowing relative movement thereof, a spindle extending outwardly substantially normal to the plane of the wheel and rotatable therewith, a spirit inclinometer mounted on said spindle and having calibrations for indicating camber, a housing for said inclinometer, a frame supported by said spindle adjacent said housing, restraining means engageable with said frame to prevent rotative movement thereof, and locking means supported by said frame and en-



gageable with said housing to prevent relative movement between said frame and housing.

2,777,212
APPARATUS FOR DRYING GRAIN AS THRASHED
Dean C. McOmber, Scott, Ohio
Application November 26, 1954, Serial No. 471,211
2 Claims. (Cl. 34—86)

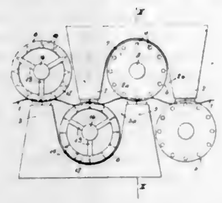


1. In a grain harvesting machine, an upstanding bin including a bottom and open at its top, an overhead delivery tube for conveying freshly harvested grain to said bin, a perforated partition disposed within and extending across said bin and spaced above said bottom for supporting grain thereon, the space between said partition and bin bottom forming a chamber, a housing adapted to surround and be superposed upon the engine exhaust manifold and the radiator of said harvesting machine, a blower positioned at the inlet end of said housing and connected to said housing inlet end, a conduit connecting the outlet end of said blower to the lower end of said chamber, a reserve bin carried by said first named bin in superimposed relation with respect to said partition, means for shifting said delivery tube to a position for delivering grain to said first named bin to a position for delivering grain to said reserve bin, and means operatively connected to said reserve bin for discharging grain held therein under the top surface of said partition after dried grain thereon has been removed.

2,777,213
SUPPORTING AND TRANSPORTING MEANS FOR WEB OR SHEET MATERIAL IN NOZZLE DRIERS
Julien Dungler, Basel, Switzerland
Application June 25, 1953, Serial No. 364,125
Claims priority, application France July 2, 1952
7 Claims. (Cl. 34—160)

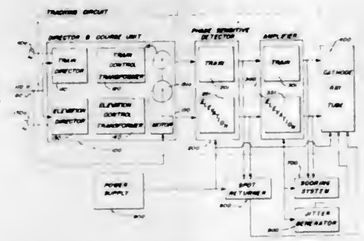
1. In supporting and conveying means for product-treating machines having spaced apart blowing nozzles for delivering fluid against one surface of a product in the form of webs, bands, and the like; channels spaced from each other for the discharge of the fluid delivered from said nozzles after its action on the product, each channel having opposite wall portions, a rotatable shaft in each channel, and a product-supporting skeleton roller

on each shaft provided with a product-supporting surface and extending with a relatively minor portion beyond the end of the wall defining the channel in which



the respective roller is located, each roller being of a diameter corresponding substantially to the greatest distance between said opposite wall portions of the respective channel.

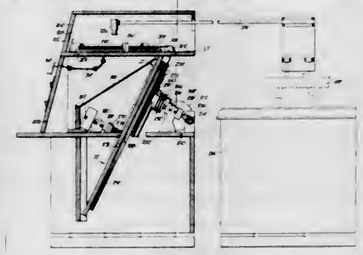
2,777,214
RADAR TRACKING DEMONSTRATING AND TRAINING INSTRUMENT
Henry P. Birmingham, Washington, D. C., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application May 11, 1951, Serial No. 225,768
3 Claims. (Cl. 35—10.4)



2. A device for simulating radar tracking comprising: a director and course unit having a control transformer system, means for rotating the rotor of one generator of said system in accordance with a desired pattern to represent a target course, and means for manually rotating the rotor of the other generator of said system for tracking the rotational movements of the first-mentioned rotor, said system producing a voltage signal output in accordance with the nonsynchronous displacement between the two rotors representing the tracking error; a cathode ray tube for receiving the signal as a potential difference across two of its beam deflecting plates; a phase sensitive detector for determining the direction of tracking error by the time phase relationship of said signal to the operating input voltage of said director unit and applying the signal to said plates as to effect beam deflection in one direction for one signal phase and in the other direction for the other signal phase, deflections of the cathode ray beam spot on the cathode ray tube screen thus indicating the magnitude and direction of tracking error; a jitter generator comprising a plurality of relaxation oscillators connected to said beam deflecting plates to impart a wander and jitter action to the cathode ray beam.

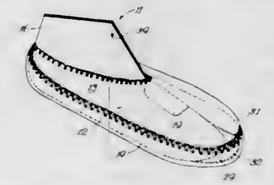
2,777,215
RADAR TRAINING DEVICES
Hubert A. Amman, Pueblo, Colo.
Application April 6, 1953, Serial No. 346,863
11 Claims. (Cl. 35—10.4)

1. In a machine for training in the use of radio detection and ranging apparatus capable of producing cathode ray tube screen presentations, said machine comprising means for producing an elongated constant beam of light; a device for moving said beam of light along a predetermined path of travel; structure having a pattern thereon of luminescent material representing range lines, ground clutter and the like, said pattern being within the path of travel of said beam of light; mechanism for producing a concentrated constant beam of light separate from the first mentioned elongated beam of light and



representing a target; means mounting said mechanism for movement through a predetermined path of travel; and a viewing panel within the path of travel of said elongated beam of light for picturing the elongated beam of light and said pattern, said panel having reflecting means thereon within the path of travel of said concentrated beam of light for depicting movement of said beams of light relative to each other and to the said pattern.

2,777,216
COLLAPSIBLE DISPLAY FORM FOR FOOTWEAR
William N. Norman, Chicago, Ill., assignor to Ripon Knitting Works, Ripon, Wis., a corporation of Wisconsin
Application March 30, 1955, Serial No. 497,894
8 Claims. (Cl. 35—57)

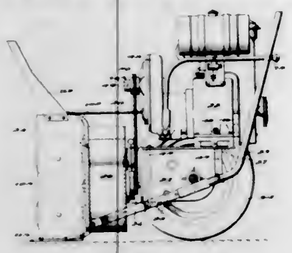


1. A footwear display form comprising a pair of complementary panels having the shape of an ankle and foot, means foldably connecting the panels adjacent the upper portions thereof so as to permit the form to be collapsed with the panels disposed flatwise against each other, foldable sole flaps at the lower portions of said panels adapted to be folded inwardly toward each other, and means for securing the folded sole flaps in overlapping relation for holding the lower portions of said panels in spread apart relation.

2,777,217
SNOW REMOVING APPARATUS
Walter E. Klauer, Dubuque, Iowa
Application January 5, 1951, Serial No. 204,531
4 Claims. (Cl. 37—43)

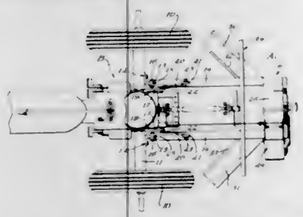
1. In a snow removing apparatus, a substantially circular blower casing mounted for rotary displacement about a horizontal axis, said blower having an inlet opening in its front face, a tangentially positioned outlet of substantially square cross section, a discharge chute having a square base, means for detachably securing said base in said outlet so as selectively to position said discharge chute to discharge snow and direct it to either side of the apparatus or forwardly thereof, the major portion of said discharge chute consisting of a pair of parallel side walls and a back wall, said side walls having curved rear edges,

the intermediate portion of said side walls being wider than two end portions thereof to prevent snow from



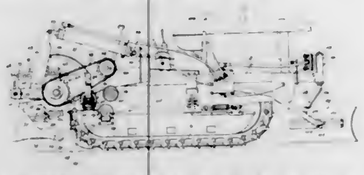
leaving the chute intermediate the ends thereof, the front of the chute opposite the back wall being open.

2,777,218
COMBINATION SNOW PLOW AND BLOWER
Ervin A. Kiecker, Fairfax, and Theodore G. Lange, Hector, Minn.
Application October 29, 1952, Serial No. 317,394
9 Claims. (Cl. 37—43)



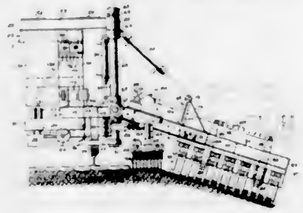
1. A snow plow and blower, including a rotor housing, a rotor rotatably supported within said housing, said housing having a pair of angularly spaced openings in the periphery thereof, a pair of alternately operable closures hingedly secured to said housing and movable from a position to close respectively said openings and to a position to open the same, locking link means connecting said closures to operate the same simultaneously and in unison to relative alternate opening and closing positions, said means including a lever hingedly secured to the housing, means hingedly connecting said lever to each of said closures, a crank supported by said housing, and a link connecting said crank to said lever, said crank and link being substantially parallel in both extreme positions of said lever.

2,777,219
TRENCHING MACHINE
Robert J. Brant, San Rafael, Calif.
Application April 24, 1953, Serial No. 350,911
5 Claims. (Cl. 37—86)



1. In a trenching machine, a vehicle including a supporting framework, an endless digging chain extending longitudinally of the vehicle at the rear end thereof, said chain including a lower flight which has a leading end extending into said framework, said chain being pivoted at its leading end upon the framework for swinging movement in a generally vertical plane, the leading end of said lower flight being elevated above the ground surface and the trailing end thereof being in engagement with the ground in trench digging position to excavate material responsive to driving of the chain, chain driving means mounted on said framework including a shaft common to the pivot axis of the chain and rotating in a direction to drive the lower bight in the direction of its leading end, said chain including digging elements adapted to throw material excavated by the chain upwardly and in front of said leading end, a deflector shield fixedly mounted on the framework above the chain at the leading end thereof in the path of the thrown material and having a top portion curved rearwardly about a center common to said pivot axis to turn the deflected material rearwardly along the chain above the same, said shield including a divider arranged for forming the material into twin streams gravitating along opposite sides of the chain during the rearward movement of said material, and downwardly divergent side deflector plates supported from the framework for swinging movement with the chain about said pivot axis and located at opposite sides of the chain in the path of said streams of gravitating material in positions such that the material will strike the plates for deflection thereby before reaching the ground surface to bank the material along opposite sides of the trench excavated by the chain.

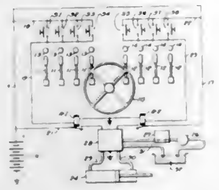
2,777,220
RAILWAY TRACK DRESSING APPARATUS
Sidney E. Bates, Chicago, Ill., assignor to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application September 14, 1951, Serial No. 246,584
2 Claims. (Cl. 37—105)



1. A railway track roadbed dressing apparatus comprising a vehicle to run on the track, a vertical mast rotatably supported on one side of the vehicle, a member slidably and nonrotatably mounted on the mast, a boom disposed on said one side of the vehicle and having one end mounted on the member for pivotal movement about a horizontal axis passing through the longitudinal axis of the mast, variable length means connected to the member and connected to the mast at a location spaced above the member to adjust the vertical position of the member on the mast, a rake carried by the boom, another variable length means connected to the boom and connected to the mast at a location spaced above the member to adjust the vertical angle of the boom to dispose the rake substantially on the roadbed surface outwardly of the track at an angle corresponding to the angle established for said surface to spread roadbed material thereon.

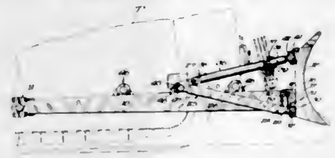
2,777,221
POWER STEERING CONTROL SYSTEM FOR ROAD GRADERS
Orlando M. Ciabattoni, Santa Barbara, Calif.
Application October 27, 1955, Serial No. 543,214
5 Claims. (Cl. 37—143)

2. In a road grader having power steering, a driver's position, a plurality of manual grading controls disposed to the right of the position and a plurality of manual grading controls disposed to the left of the position; a power steering control system comprising: a steering motor; a right steering control for the motor; a left steering control for the motor; a plurality of electric switches disposed immediately adjacent to the left manual grading controls; connections from these left switches to the left



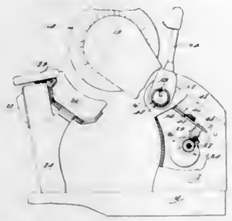
steering motor control; a plurality of electric switches disposed immediately adjacent to the right manual grading controls; and connections from these right switches to the right steering control, permitting the operator to steer the grader while operating the grader controls by merely actuating a switch adjacent to his control.

2,777,222
MOLDBOARD TILT COMPENSATION ARRANGEMENT
George S. Allin, Jr., Homewood, Ill., assignor to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application August 17, 1953, Serial No. 374,729
9 Claims. (Cl. 37—144)



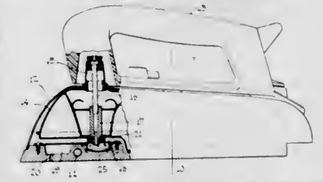
6. A dozer or like earth-moving device comprising a frame vertically swingable on a vehicle and carrying a moldboard tiltable transversely of the frame and swingable to selected angles relative to the pivot axis of the frame, a pair of thrust arms for determining the angle of the moldboard each connectible at one end to the frame at selected points thereon, and pivotal connections between the other ends of the thrust arms and the moldboard providing pivot axes angled toward each other.

2,777,223
IRONING MECHANISM
Herman August Sperlich, Highland Park, Mich., assignor to Ironrite, Inc., Mount Clemens, Mich., a corporation of Michigan
Application April 1, 1955, Serial No. 498,641
7 Claims. (Cl. 38—58)



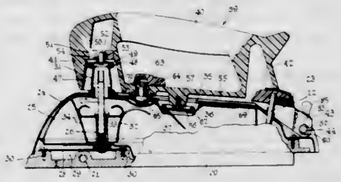
1. In an ironing machine having a stationary ironing element, a second ironing element moveable relative to said stationary element, and means for moving said second element relative to said stationary element, the combination comprising a level arm engaging on one end thereof with said moving means and on the other end connecting with said second ironing element for moving said second element relative to said stationary element, said lever arm comprising a compound leaf spring having a plurality of leaves in contact substantially along their length, said spring having attached means for separating one of its leaves from its other leaves.

2,777,224
STEAM PRESSING IRON
Herbert G. Lehmann, Easton, Conn., assignor to Casco Products Corporation, Bridgeport, Conn., a corporation of Connecticut
Application September 23, 1954, Serial No. 457,822
11 Claims. (Cl. 38—77)



1. In a steam iron having a heated sole plate, means providing a steam chamber above the sole plate and a passage to said chamber through which water may enter the chamber, said means having a movable wall juxtaposed to and in heat-receiving relation with the sole plate and arranged to be contacted by water droplets from said passage to convert said droplets into steam; and heat-responsive means for moving said wall away from the sole plate in response to heating of the wall above a predetermined temperature, thereby tending to obviate the transmission of excessive heat to said wall beyond that required to quickly convert water into moist steam.

2,777,225
STEAM IRON
Joseph H. Cone, Bridgeport, Conn., assignor to Casco Products Corporation, Bridgeport, Conn., a corporation of Connecticut
Application April 18, 1951, Serial No. 221,650
5 Claims. (Cl. 38—77)

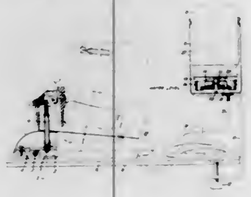


1. In a steam iron, a boiler having a wall provided with a filler opening, said wall having a rim portion extending around said opening; a stopper; a funnel-like seat for the filler opening, shaped for engagement by said stopper; means comprising crimped walls connecting the seat to the said rim portion of the boiler wall, yieldably mounting said seat on the wall around the filler opening; and means mounting the stopper on the boiler for movement between open position removed from the seat and closed position engaging the seat.

2,777,226
WATER AND POWER SUPPLY FOR STEAM IRONS
Frank E. Finlayson, Ontario, Calif., assignor to General Electric Company, a corporation of New York
Application October 6, 1954, Serial No. 460,643
4 Claims. (Cl. 38—77)

1. The combination of a steam iron and water supply system therefor comprising a water receptacle, means for

supporting said receptacle on an ironing board in a fixed position with respect to the ironing surface, a water container having an open mouth supported in a fixed inverted position in said receptacle to provide a substantially constant water level in said receptacle as defined by the level of said container mouth, said iron including a flash boiler and an inlet thereto near the front end of said iron, a flexible conduit connected to said



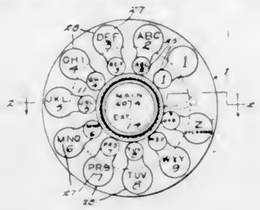
receptacle for supplying water therefrom to said inlet, said iron including a heel rest upon which said iron may be up-ended to a generally vertical position on the ironing board when not being used, said supporting means being arranged to maintain said receptacle and said container at a height such that the water level in said receptacle is below the height of said inlet when said iron is up-ended on its heel rest whereby no water is then supplied to said boiler.

2,777,227
PIVOTALLY CONNECTED BAR TYPE GATE
Frank Imhoff, Shiloh, Ohio
Application September 9, 1954, Serial No. 454,907
3 Claims. (Cl. 39—87)

1. A gate comprising, in combination, first and second rigid upright members, hinge means connected to the first said rigid upright member for securing said upright member to a fence post, a rigid cross-member, first pivot means securing the first said upright member to one end of said cross-member and second pivot means securing the second said upright member to the other end of said cross-member forming an H-shaped frame lying in a plane and with the axes of said first and second pivot means perpendicular to said plane and with the cross-member positioned substantially mid-way between the ends of said upright members, the parts of said frame being relatively movable within said plane and rigid to movement outside of said plane, and a plurality of horizontal members pivotally connecting the first and second upright members together, a portion of said plurality of horizontal members being located to one side of said cross-member and a portion of said horizontal members being located on the other side of said cross-member.

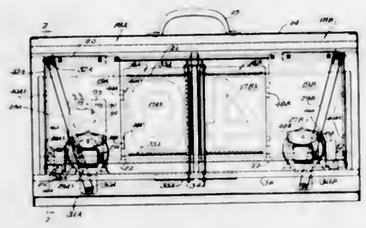
2,777,228
FINGER DIAL FOR DIAL TELEPHONES
Malcolm C. Andrews, Williamsport, Pa.
Application March 3, 1954, Serial No. 413,835
2 Claims. (Cl. 40—10.5)

1. An improved rotatable telephone finger dial for dial telephones having spaced finger receiving openings radially spaced from the periphery of the dial, the outer surface of said dial between said openings and the periphery thereof being provided with groups of luminous symbols, the different groups of symbols being arranged substantially in radial alignment with said finger openings, said groups of symbols being embossed or raised relatively



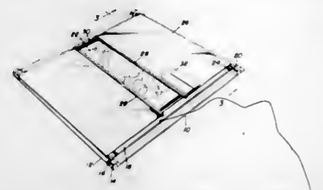
to the outer surface of the dial, and a raised or embossed border on the dial surrounding each group of symbols and having an inner open end opening into the adjacent finger opening.

2,777,229
COUNTING AND DISPLAY ANNUNCIATOR
Joseph O. Howard, Chicago, Ill.
Application October 14, 1953, Serial No. 386,064
12 Claims. (Cl. 40—53)



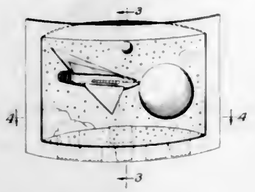
1. A counting display annunciator comprising a cabinet having card-display sight-openings behind which translucent number cards are to be positioned; a common slide bed behind said opening; a common slide rod behind said openings and extending in parallelism with and above said bed; a units card carrier and a tens card carrier supported by said rod to reciprocate across said bed from respectively opposite home positions at one side of said sight openings to advanced positions in alignment each behind one of said openings for purposes of depositing and picking up number cards thereat; separate reciprocating and electric motor drive means for each carrier; a set of sequential units number cards carried by said units carrier and slidably resting in said bed; a set of sequential tens number cards carried by said tens carrier and slidably resting in said bed; each carrier having spring pick-up finger means for scooping up a displayed card into one side of said set and holding the set of cards in the carrier; and each carrier having stationary card-blocking finger means associated therewith and shaped and positioned to block return of the trailing edge portion of the last card on the opposite side of the appertaining set to deposit said last card at said advanced postion cooperably with the pressing action of said pick-up finger means, upon return travel of the carrier to home position; circuit means and switch means connected with said motor means for separately energizing said motor means in sequential units and tens counting operations each consisting of a complete reciprocation of the appertaining carrier from home to advanced position and return respectively to effect an exchange of displayed number cards by picking up one card and depositing another for display; together with presser means acting automatically to move the deposited card into the display position occupied by the concurrently picked-up card.

2,777,230
PHOTO CARRYING BOARD AND PROTECTOR
Walter O. Brown, Bay Springs, Miss.
Application October 5, 1953, Serial No. 384,285
1 Claim. (Cl. 40—61)



A photo carrying board and protector comprising a rectangular base member, a photo carrying board supported in spaced parallelism to said base member, and a flexible transparent protector partially encircling said board, said protector having spaced edges forming an access opening to the surface of said board, said protector including a portion extending between the base and board and resilient means connecting the spaced edges adjacent the side extremities of said edges, said board being provided with upstanding spacing strips adjacent opposite edges thereof for spacing the protector from the upper surface of the board.

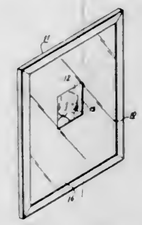
2,777,231
THREE DIMENSIONAL PICTURES
Herman R. Bollin, Chicago, Ill.
Application March 4, 1953, Serial No. 340,365
7 Claims. (Cl. 40—126)



1. A three dimensional picture comprising a sheet having a background picture printed thereon and a border on said sheet around said picture, said sheet being slit along the top and bottom edges of said picture, means interposed between said picture and said border in one of said slits to curve the picture inwardly and the border outwardly and a second pictorial element positioned in front of said picture, at least a portion of said element being spaced away from said picture.

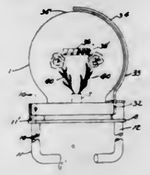
2,777,232
PICTURE FRAME
Robert M. Kulicke and John Wayne Jones, New York, N. Y.
Application November 10, 1954, Serial No. 467,998
7 Claims. (Cl. 40—155)

6. A picture frame and mount combination, comprising a picture mount assembly including a rigid backing having recesses in the rear surface thereof in proximity and parallel to its edges, each recess being located at a predetermined distance from the proximate edge of the backing and being located at a predetermined distance from the front face of the mount assembly, and individual frame elements formed of resilient material, each of said elements being channel-shaped to fit over a marginal portion of said mount assembly, each of said elements having a flat side and a flat front flange in perpendicular relation to form a square front corner and to lie flat against an edge and the front face of the picture mount assembly, each of said elements also having a rear flange and an inward projection on the latter flange to seat in one of the recesses of said backing, the edge of the projection being located at distances from inner surfaces of the side



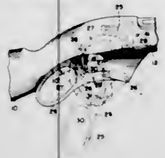
and front flange respectively less than the first-mentioned distances when the frame element is in its free state, whereby application of each frame element to said mount assembly stresses the rear flange of the element to effect tight fit of the frame elements.

2,777,233
MEMORIAL FLOWER HOLDER MARKERS
Alma E. Brandhorst, Cincinnati, Ohio
Application January 27, 1955, Serial No. 484,443
4 Claims. (Cl. 41—10)



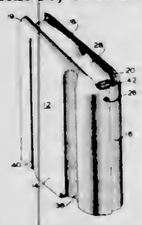
1. A memorial unit comprising a rectangular plate, a pair of vertical L-shape rods connected with the oppositely disposed corners of said plate and extending downwardly, the end of one of said rods extending upwardly of said plate, a rectangular frame formed in two L-shape arms and having lips extending inwardly of said frame, said arms being hingedly connected with the said upwardly extending end of said one of said rods, whereby said frame is capable of being manually opened and closed, the other ends of said arms being bent at angles and having holes therein, and adapted to contact each other when said frame is in closed position, a padlock having its bar received in said holes to lock said frame in closed position when said pad-lock is in locked position, a rectangular base received between the arms in said frame and being supported by said plate and said lips extending over said base when said frame is in closed position to prevent said base being removed from said frame, and said base having a hole in its upper surface, a vertical tube in said hole and being fixed to said base and extending upwardly therefrom to receive stems of flowers, the walls of said hole in said base being threaded, a transparent globe having a lower open threaded end through which said stems and flowers extend upwardly into said globe, said threaded end of said globe capable of being screwed into said threads of said walls of said hole in said base, and an upwardly extending arm fixed to one of said arms of said frame and being curved inwardly of said base and extending over the top of said globe in close proximity thereto to prevent said globe being removed from said base when said support is in closed position, a receptacle containing the remaining ashes of a deceased person fixed to said rods, and an identification plate fixed to the inner surface of said globe.

2,777,234
LEVER ACTION FIREARM
Ernest C. Neal, Chicago, Ill., assignor of one-half to Elmer Brandell, Chicago, Ill.
Continuation of application Serial No. 238,417, July 25, 1951. This application April 19, 1955, Serial No. 502,485
14 Claims. (Cl. 42—16)



1. A firearm comprising a frame formed with a cartridge chamber at the top of the frame, a bolt movable on the frame for opening and closing the chamber, pivot mounting means on the frame below the chamber, a bolt driving lever of C-shaped configuration pivoted at one end on said mounting means, the opposite end of said lever being drivingly connected with said bolt, a manually operable lever pivoted on said mounting means, and cam means drivingly connecting the manually operable lever with said C-shaped lever intermediate the ends thereof.

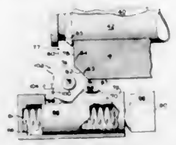
2,777,235
FIREARM MAGAZINE WITH NEGATOR COIL SPRINGS
Edward W. Hopkins, Longmeadow, Mass., assignor to the United States of America as represented by the Secretary of the Army
Application March 10, 1953, Serial No. 341,625
2 Claims. (Cl. 42—50)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A magazine for a firearm comprising a case for storing cartridges having a pair of lips with an exit port therebetween, a follower for engaging the cartridges and a pair of negator coil springs each having an end portion secured to said case and a remaining coiled portion disposed for serial engagement with said follower at points respectively corresponding to the cartridges to apply a constant pressure to each cartridge against said lips as said springs decompress, the increments of said spring between said points being arcuately formed to produce a substantially constant value of the pressure, for equal resistance to removal of the cartridges from said magazine.

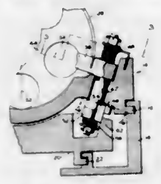
2,777,236
LINK EXTRACTOR FOR REVOLVER TYPE AUTOMATIC GUN
Walter F. Runge, Elmhurst, Ill., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Army
Application January 19, 1954, Serial No. 405,060
2 Claims. (Cl. 42—68)

2. In a revolver-type automatic gun including a recoil unit, a barrel disposed thereon, a drum with cartridge chambers rotatably disposed on the recoil unit, and an actuator axially slidable in rearward and forward strokes for successive rotation of the chambers to an extraction position, an extractor comprising a cylinder secured to the recoil unit, a piston provided with a flange having a pawl pivoted thereon and biased forwardly for projection of said pawl into the extractor groove of the discharged cartridge case, and a lever pivoted on the recoil



unit for respective engagement between the actuator in the forward movement thereof and said piston for removal of the discharged cartridge case from the drum responsive to the forward movement, and said pawl and said cylinder having surfaces for engagement during the forward stroke to accelerate said removal.

2,777,237
EXTRACTOR FOR REVOLVER TYPE AUTOMATIC GUN
William P. Murphy, West Springfield, Mass., assignor to the United States of America as represented by the Secretary of the Army
Application January 19, 1954, Serial No. 405,053
1 Claim. (Cl. 42—68)
(Granted under Title 35, U. S. Code (1952), sec. 266)

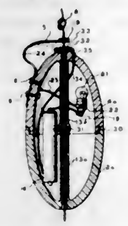


In a revolver-type automatic gun including a recoil unit, a drum provided with cartridge chambers and rotatably disposed on the recoil unit, and an actuator slidable in rearward and forward strokes with respect thereto for rotating the chambers to a drum extraction station, an extraction device comprising a shaft journaled in the recoil unit, a pawl secured to the upper end of said shaft, a spring biasing said shaft for normal position projection of said pawl into the extractor groove of cartridge cases chambered in the extraction station, an arm secured to the lower end of said shaft, a crank including a lug rotatably disposed on said shaft and biased for engagement of said lug and said arm, and an actuator striker for engaging said crank, said crank being responsive to the rearward strokes to displace said lug from said arm and responsive to the forward strokes to rotate said pawl and remove the cases from the drum, and said crank and said striker being constructed for disengagement before the ends of the forward strokes to permit said spring to control said pawl.

2,777,238
CASTING FLOATS FOR FISHING LINES
Herbert D. Taylor and Robert S. Taylor, Arlington, Va.
Application November 24, 1952, Serial No. 322,231
4 Claims. (Cl. 43—17)

1. A casting float for a fishing line having a hook end and a stop spaced from said hook end, comprising, a hollow shell constructde of two joined parts, an open tube providing a passageway extending axially through said shell, and having an internal diameter adequate to pass said fishing line freely, a source of electric power within said shell, an electric lamp within said shell responsive to power from said source for providing illumination, at least

a portion of said hollow shell in the path of illumination from said lamp being light transparent, a switch secured externally of said shell and to said shell, said switch having a stationary element and a movable element having an aperture, said movable element being constructed of resilient metal, means interconnecting said switch power source and lamp to supply said power to said lamp on

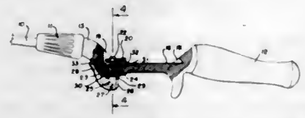


closure of said switch, means securing said movable element so that its aperture is adjacent to and co-axial with said open tube, said aperture being sufficiently large to enable free passage of said fishing line therethrough, but not to enable said stop to pass therethrough, said stop being positioned to actuate said movable element on predetermined travel of said hook away from said float in a predetermined direction.

2,777,239
FISHING RODS
Maurice E. Cushman, Verona, N. J.
Application July 1, 1954, Serial No. 440,829
12 Claims. (Cl. 43—18)

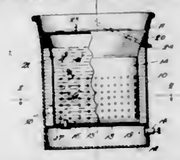
1. A fishing rod comprising a hollow member of flexible material having a root and a tip, and a line guide within the hollow of said member comprising a continuous spaced-turn helix of flexible hard wear resistant material, the outer run of said helix contacting the inner surface of said member substantially from at or near the root to the tip thereof.

2,777,240
REEL CLAMPS FOR FISHING RODS
Donald F. Hutchison, Denver, Colo., assignor to Wright & McGill Co., Denver, Colo.
Application July 26, 1954, Serial No. 445,511
1 Claim. (Cl. 43—22)



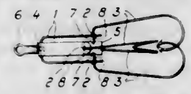
Means for securing the foot of a fishing reel to a fishing rod comprising: a reel seat portion to which said rod is secured; an elongated, flat reel seat formed in said portion and adapted to receive the foot of the fishing reel, said portion having a rear foot notch formed therein at the rear of said reel seat for receiving the rear foot of said reel; said reel seat having a V-shaped guide recess depressed downwardly therein at the forward extremity thereof; a clamping plate positioned over the forward extremity of said reel seat and provided with a pointed forward extremity extending into said guide recess and adapted to move vertically in the latter, wall portions of said recess acting to prevent lateral movement of said pointed extremity, there being a vertical passage through said reel seat portion below said clamping plate; there being an upper counterbore in said passage; an upper compression spring seated in said upper counterbore; there being a lower counterbore in said passage; a lower compression spring seated in said lower counterbore; a cylindrical plug positioned in said passage intermediate said counterbores and being vertically movable in said passage; an adjusting screw extending downwardly through said clamping plate into said plug to support the latter on said upper spring; a hinge tongue formed on the lower extremity of said plug and extending downwardly therefrom; a cam lever pivotally mounted on said hinge tongue; and a spring washer positioned between said cam lever and said lower compression spring and acting to maintain the latter in said lower counterbore, so that actuation of said cam lever will simultaneously compress said lower spring upwardly and said upper spring downwardly to resiliently clamp said clamping plate against the forward foot of said reel.

2,777,241
MINNOW BUCKET
Ralph Mullins, Keen Mountain, Va.
Application December 9, 1953, Serial No. 397,073
1 Claim. (Cl. 43—56)



A bait bucket comprising an outer receptacle having a bottom and side wall, a false bottom above and spaced from the first bottom and a valve in the side wall whereby air may be supplied to the space between said bottoms, a removable inner receptacle having a bottom, side walls and an outwardly flared portion, the flared portions of the outer and inner receptacle being concentric and so shaped as to position a major portion of the wall of the inner receptacle in spaced relation to the wall of the outer receptacle and provide a snug fit at their plane of contact, said portion of the outer receptacle above the false bottom defining a water containing chamber, the wall of the inner receptacle being perforated to allow passage of water from the outer to the inner receptacle, a removable perforated cover for the inner receptacle, said inner receptacle bottom and said false bottom having registering openings, and a valve within said registering openings adapted to supply air from the air space to the water within the inner container.

2,777,242
HOOK CARRIER FOR TROLLING-SPOONS AND THE LIKE
Nils Olsson, Jarbo, Sweden
Application July 29, 1953, Serial No. 371,023
1 Claim. (Cl. 43—37)



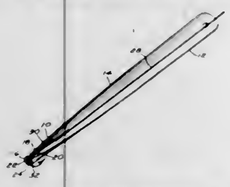
A fishing hook apparatus for use with a detachable spoon bait comprising in combination an elongate central body having means for attachment to a fishing line at its front end, a pair of centrally apertured U-shaped spring shanks arranged perpendicular to each other for longitudinal slidable movement on a reduced portion of said central body, the arms of the said shanks being main-

tained generally parallel and spaced from the central body, abutments on said central body limiting the sliding of said shanks in both directions thereon, said central body having oppositely located incisions near the rear end thereof, the rear end of each springy shank being provided with a hole, each of said holes being so located relative to one of said incisions that it is situated slightly forwardly of its related incision when the shanks are in their foremost position and slightly rearwardly of its related incision when the shank members are in their rearmost position, a fish hook for each of said springy shanks having a forwardly disposed, inwardly bent shank portion extending through said hole in the related springy shank, said bent shank portion having its free end formed as a knife-shaped rocker which enters said transverse incision and having a shoulder against which the inner face of said springy shank presses, whereby said springy shank tends to press said rocker into the corresponding incision in one or another inclined position depending on the position of said outer member relative to said central body and said hook is held in either retracted or extended fishing position.

2,777,243
FISH LURES OR SPOONS
Eddie Pope, Altadena, Calif.
Application February 9, 1953, Serial No. 335,763
1 Claim. (Cl. 43—42.5)

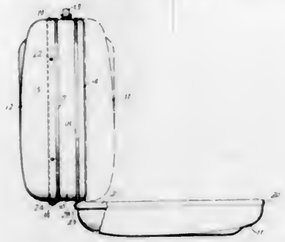
A fish lure, consisting of a substantially oval spoon of concavo-convex form having a coplanar upper edge, said spoon having a relatively narrow leading end and a wider tail end, said spoon also having a keel-like ridge projecting downwardly from its lower convex surface, lengthwise of the spoon and of serpentine shape, said ridge being of gradually decreasing width from said tail end toward said leading end, said ridge being of channel cross-sectional shape, and the sides of the channel extending normal to the plane of the upper edge of the spoon.

2,777,244
FISHHOOK EXTRACTOR
Ora Glenn McKinley, Houghton, N. Y.
Application September 13, 1954, Serial No. 455,644
7 Claims. (Cl. 43—53.5)



3. A fishhook extractor implement comprising an elongate member having an implement nose portion at one end and a handle portion at its other end and an intermediate body portion, said member having the form of a square ended strip of material with the corners of the square end turned upwardly and inwardly into close proximity to each other at the nose end of the implement to impart a slotted frustro-conical form to said nose portion, and with the edges of the strip spreading from said nose end and said strip being correspondingly less curved cross-sectionally toward the handle end of the implement to impart concavo-convex forms to said body and handle portions with greater and lesser degrees of concavity, respectively.

2,777,245
TYPEWRITER CARRYING CASE
Martin Aaron, Brooklyn, and Roland L. Barratt, Bainbridge, N. Y., assignors to American Plastics Corporation, New York, N. Y., a corporation of New York
Application April 18, 1955, Serial No. 502,048
3 Claims. (Cl. 45—68.2)



1. A typewriter carrying case comprising a load supporting, metal band member encircling the midportion of the case and presenting two opposite edge portions each extending around the periphery of a respective side of the band member, opposite first and second cover portions, each having a laterally offset flange portion extending about the periphery thereof and in telescoping relationship with a respective one of the edge portions of the band member, handle means connected to the band member at the top of the case, a pair of laterally outwardly offset, depending leg portions in the flange portion of each cover portion at the bottom of the carrying case, means connecting the flange portion of the first cover portion to the respective edge portions of the band member in a fixed position, and hinge means including a hinge strap extending into each of the leg portions of the second cover portion and being connected to the respective edge portion of the band member.

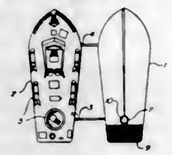
2,777,246
BOOKHOLDER
Louise Shields Diggs and William V. Johnson, Washington, D. C.
Application October 18, 1955, Serial No. 541,120
3 Claims. (Cl. 45—80)

1. In a bookholder, a backing plate arranged in an upright position, a U-shaped member arranged in an upright position disposed in back of said plate so that its bight is parallel to and spaced from the lower end of said plate with its legs leaning toward said plate, the free ends of its legs being connected to said plate to thereby permit said U-shaped member to be moved to a position lying against said plate, a lip projecting from the front face of said plate at the lower end thereof, a page holder having an intermediate portion extending along and overlying the front face of said plate adjacent said lip, and an extension projecting perpendicularly from each of the ends of said intermediate portion, one of the extensions extending along the adjacent side edge of said plate and the other extension being rearwardly of said plate adjacent the other side edge of said plate, the other extension being pivotally connected to said plate.

2,777,247
EXTENSIBLE JOINT STRUCTURES
Philip Rosenberg, New York, N. Y., assignor to Universal Steel Equipment Corporation, Long Island City, N. Y., a corporation of New York
Original application December 3, 1947, Serial No. 789,519, now Patent No. 2,639,789, dated May 26, 1953. Divided and this application January 28, 1953, Serial No. 333,629
4 Claims. (Cl. 45—139)

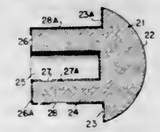
1. An adjustable joint comprising, in combination, a nut, a bolt, two sheet metal members to be joined, the first formed with an elongated longitudinal slot continuously wide enough to pass the shank of the bolt, and the second formed with a perforation having a central circular portion that passes the shank of the bolt and narrower aligned side extensions that overlie marginal wall material of the first member alongside the slot, a first die washer having a perforation adapted to pass and substantially to fit the bolt shank and having a projecting formation adapted to be passed through said perforation of the second member into engagement with marginal wall material of the first member alongside the slot thereof, and a second die washer having a rib adapted to fit into the slot, having a central perforation adapted to pass and substantially to fit the bolt shank, and having its body hollowed to provide a recessed area within the body and enclosed on at least three sides, the recessed area being disposed in alignment with the projecting formation of the first washer when the second washer is placed upon the bolt shank with the rib disposed in the slot, the projection of said first washer adapted to fit into and extend through the perforation of the second member and to engage and permanently deform marginal wall material of the first member, pressing it away from the second member and into the recessed area of the body of the second washer where it is shaped and locked in place by the surrounding washer body as pressure is exerted upon the washers by the bolt and nut.

2,777,248
MINIATURE TOY BOAT
Henry Hirsch and Benjamin L. Hirsch, Toledo, Ohio, assignors to Kellogg Company, Battle Creek, Mich., a corporation of Delaware
Application May 21, 1956, Serial No. 586,126
10 Claims. (Cl. 46—95)



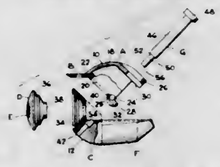
1. A toy boat consisting of a hull portion molded of flexible plastic material and a deck portion molded of like flexible plastic material, said hull portion constituting a container for effervescent powder, said hull portion having a stern which slopes upwardly and rearwardly when said toy boat is afloat, the exterior surface of said stern being broken into protuberances and valleys at least as numerous as seventy-five per lineal inch, said valleys sinking at least .005" below the apices of the protuberances, said hull portion being equipped with a nozzle extending from therewithin and having an emission orifice located adjacent the lower edge of said stern, said orifice having a thin lip which is slanted rearwardly and upwardly, said nozzle extending into said hull portion to a level substantially above the inner surface of the bottom of said hull portion, said deck portion being embossed with simulated combat materiel and having a flange adapted to be inserted into said hull portion whereby said deck portion is adapted to be fitted upon said hull portion with a substantially gas tight joint between said portions, said portions when so fitted together and squeezed functioning as a bulb from which fluid is expelled through said nozzle and into which fluid is drawn when said portions recover their shapes upon release of such squeeze.

2,777,249
EYE FOR DOLLS
John O. Wagner, Palisade, N. J.
Original application April 9, 1947, Serial No. 740,295, now Patent No. 2,685,760, dated August 10, 1954. Divided and this application June 16, 1953, Serial No. 367,918
1 Claim. (Cl. 46—165)



An artificial eye element consisting of a unitary body of transparent material, said body having a front portion defined by a hemispheroidal front surface providing a view through said front portion of means simulating eye parts, said front portion further having an annular rear surface extending radially inwardly to a substantially circular inner periphery, said body further comprising a substantially cylindrical portion extending rearwardly from said front portion, said cylindrical portion further being formed with a substantially coaxial recess extending forwardly from the rear surface thereof, and opacifying means located on said annular surface and on the surface of said recess and on the rear and outer surfaces of said cylinder, all of said opacifying means simulating eye parts, said opacifying means of said surface of said recess simulating an eye pupil and being in substantially spaced relation to said other opacifying means, the walls of said recess appearing to move outwardly at the rear as said eye element is viewed through said front surface at an angle of inclination to the axis of said cylindrical portion and of said recess.

2,777,250
DOLLS' EYES
Harvey W. Samo, Bayonne, and Albert Bashover, Newark, N. J., assignors to Margon Corporation, Bayonne, N. J., a corporation of New Jersey
Application November 6, 1953, Serial No. 390,562
12 Claims. (Cl. 46—166)



1. A doll's eye assembly of the sleeping-rolling type comprising an eyelid member and a separate eyeball

member having an iris and pupil represented thereon, the front surfaces of the eyelid and eyeball members having substantially the same radius of curvature lying in a substantially continuous spherical surface broken by a split line where the two members abut each other, said eyelid member having horizontally arranged pivot means formed as a part of said eyelid member, and means pivotally connecting said eyelid and eyeball members to each other so that both members oscillate together about said horizontally disposed pivot means to supply the sleeping movement and the eyeball member may oscillate laterally with respect to the eyelid member for the rolling movement.

2,777,251

SELF-OSCILLATING DOUBLE TONE WHISTLE

Austin Bailey, Maplewood, N. J., assignor to American Telephone and Telegraph Company, a corporation of New York

Application June 29, 1954, Serial No. 439,987
4 Claims. (Cl. 46—179)

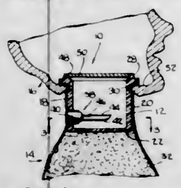
4. A fluid operable device for producing two sounds alternately at regular intervals comprising two fluid operated sound generators, and a fluid control valve connected to an inlet and to said generators for alternately directing fluid into each generator, said valve comprising a cylindrical casing having an inlet port and two outlet ports, oscillating means pivoted centrally in said casing and including a vane and spring restoring means, said oscillating means having a resonant frequency that governs the sound interval.

2,777,252

DOLL'S VOICE MECHANISM

Joseph Tancredi and Andrew Tancredi, Brooklyn, N. Y.

Application April 12, 1955, Serial No. 500,958
3 Claims. (Cl. 46—180)



1. A voice box forming a resonance chamber and entirely constituted of a hard synthetic plastic, said box comprising a cylindrical side wall and a thin stiff planar transverse sound reflecting end wall in one piece with the side wall, said side wall having an opening therethrough, said end wall having small through openings for the passage of air, and a reed-type sounding mechanism fitted in said side wall opening and located within said chamber, the interior surfaces of said walls being smooth so as to squelch even harmonics.

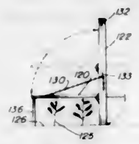
2,777,253

SYSTEM FOR IMPROVING GROWING CONDITIONS FOR PLANTS AND FARM ANIMALS IN UNFAVORABLE CLIMATES BY SOLAR ENERGY

Basil M. Bensin, College, Territory of Alaska, assignor of fifty percent to W. G. Atkinson, Tacoma, Wash.

Application April 30, 1952, Serial No. 285,273
3 Claims. (Cl. 47—1)

1. A system of producing on limited areas microclimatic conditions more favorable than climatic conditions prevailing naturally for the growing of plants through an increase of the radiation and heat received by the same which comprises adjustable reflector plates placed near the said plants, for reflecting sunlight impinging upon said plates towards the said plants, said re-



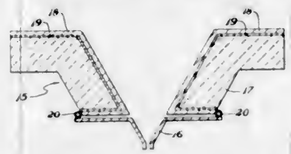
flector plates being also provided with means for increasing the absorption of solar heat by them, the heat absorbed by the reflector plates producing heat radiation and heating of the air near the said plants by the said reflector plates.

2,777,254

COATED REFRACTORY FOR CONTACTING MOLTEN GLASS AND METHOD OF MAKING SAME

August C. Siefert and Robert J. Cunningham, Newark, Ohio, assignors to Owens-Corning Fiberglas Corporation, Toledo, Ohio, a corporation of Delaware

Application October 22, 1952, Serial No. 316,282
7 Claims. (Cl. 49—81)



1. A method of producing a refractory member consisting essentially of depositing upon a zirconium silicate member a layer comprising alumina, spreading over said layer comprising alumina a foil of platinum, pressing said foil of platinum against said layer comprising alumina and heating the composite product to from about 2500° to 2800° F., for a sufficient length of time to cause the alumina to react with said zirconium silicate member and form a bond of aluminum zirconium silicate glass between said foil of platinum and said zirconium silicate member.

2. In glass handling apparatus, a refractory member comprising a block of zirconium silicate, over at least one face thereof a layer of precious metal, and between said zirconium silicate and layer of precious metal a reaction product of said zirconium silicate and alumina, said reaction product bonding said layer of precious metal to said block of zirconium silicate.

2,777,255

METHOD FOR PRODUCING IMPROVED MONOCRYSTALLINE REFRACTIVE MATERIAL

Leon Merker, New York, N. Y., assignor to National Lead Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application February 2, 1953, Serial No. 334,709
1 Claim. (Cl. 49—89)

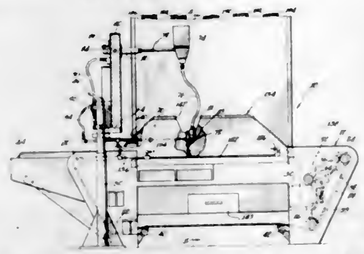
Method for producing an improved single crystal of strontium titanate prepared by co-fusion of finely divided strontium titanate particles which comprises annealing the single crystal of strontium titanate in an oxidizing atmosphere at temperatures from about 1000° C. to about 1700° C. for 12 to 180 hours to relieve the strains in said crystal and subsequently heating the crystal in an oxidizing atmosphere at temperatures from about 200° C. to about 500° C. for 6 to 80 hours to improve the color.

2,777,256

APPARATUS FOR GRAINING SURFACES

Jens A. Paasche, Chicago, Ill., assignor to Cline Electric Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application December 20, 1954, Serial No. 476,294
11 Claims. (Cl. 51—14)



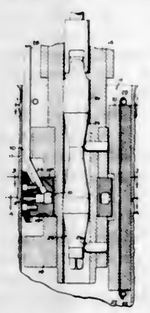
1. An apparatus for preparing surfaces of flat sheets for the application of a coating thereto comprising means providing a substantially enclosed chamber, means for conveying a sheet having a surface to be prepared through said chamber, said conveying means including an endless foraminous belt for supporting a sheet on one course thereof, spray means for directing a spray of abrasive particles against said surface of a sheet within said chamber, means for recovering reusable abrasive particles from said chamber, means admitting atmospheric air to said chamber on an outer side of said foraminous belt course, means including a blower and air confining means for exhausting air from said chamber and for creating a suction at an inner side of said foraminous belt course for retaining a sheet on said course, and means for cleaning said exhausted air so as to prevent contamination of the atmosphere surrounding said apparatus.

2,777,257

HONE WITH PRESSURE ACTUATED GAGE

Albert M. Johnson, Rockford, Ill., assignor to Barnes Drill Co., Rockford, Ill., a corporation of Illinois

Application August 19, 1953, Serial No. 375,267
8 Claims. (Cl. 51—34)



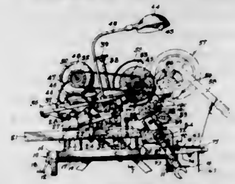
5. In a machine for honing a work bore, the combination of, a rotary spindle, a hone mounted on said spindle for rotation therewith including a body and honing elements mounted thereon for bodily radial adjustment to expand or contract the cylindrical abrading face defined by the outer edge surfaces of said elements, a carrier of smaller diameter than said abrading face mounted on said body for free floating movement transaxially of the hone, at least three nozzles mounted on and spaced around said carrier and terminating in outwardly and radially opening orifices terminating close to but short of said abrading face adapted when supplied with fluid under pressure to form a fluid jet directed outwardly against the wall of said work bore, and means for supplying fluid to said nozzles under a pressure of sufficient magnitude to cause said carrier to be located in said bore solely by the combined action of said jets on the bore wall, said orifices being disposed, when said honing elements are engaging said bore wall, sufficiently close to the wall to produce a combined resultant flow such as to maintain a fixed relationship between the diameter of the bore and the pressure of the fluid supplied to said nozzle.

2,777,258

SHARPENING MACHINE

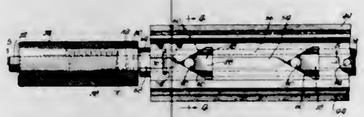
Elmer L. Avra, Sapulpa, Okla.; Lela M. Avra, administratrix of said Elmer L. Avra, deceased, assignor of sixty percent to Lela M. Avra, Paul E. Avra, Marvin L. Avra, and Darell E. Avra, and forty percent to W. D. Ball

Application September 1, 1953, Serial No. 377,846
3 Claims. (Cl. 51—48)



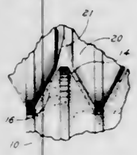
1. A lawn mower grinding machine comprising a frame including a pair of spaced parallel vertically disposed front legs, a pair of spaced parallel vertically disposed rear legs, crosspieces connecting the tops of said front legs together and the tops of said rear legs together, horizontally disposed spaced parallel side members interconnecting said front and rear legs together, a vertically disposed plate extending upwardly from the front end of each of said side members and secured thereto, lugs depending from said crosspieces, a pair of horizontally disposed spaced parallel screw members extending between said crosspieces and rotatably supported by said lugs, manually operable cranks for rotating said screw members, a plurality of spaced parallel vertically disposed posts extending upwardly from said side members and secured thereto, a first pair of horizontally disposed spaced parallel L-shaped angle irons secured to said posts, a second pair of spaced parallel horizontally disposed angle irons supported above said first angle irons, adjustable rods extending through said second angle irons and engaging said first angle irons, clamps interconnecting said first and second angle irons together, a horizontally disposed cylindrical rod supported by said second angle irons, an L-shaped bar supported by said second angle irons and arranged in spaced parallel relation in front of said cylindrical rod, braces interconnecting said L-shaped bar and cylindrical rod together, a platform mounted for movement along said cylindrical rod and L-shaped bar, wheels connected to said platform and engaging said rod and L-shaped bar, a motor supported on said platform and adapted to be connected to a source of electrical energy, a grinding wheel rotatably supported by said platform in front of said motor, belt and pulley means connecting said motor to said grinding wheel, a guide member mounted contiguous to said grinding wheel for engagement with the lawn mower being sharpened, and adjustable arms arranged in engagement with said screw members and connected to said L-shaped bar, means for supporting the lawn mower being sharpened, manually operable means for adjusting the elevation of said platform, and a cable having a hook adapted to be connected to the lawn mower, and a counterweight on the lower end of said cable for stabilizing the lawn mower during the sharpening thereof.

2,777,259
ROTATABLE HONE
Henry Robert Billeter, Deerfield, and Walter P. Kushmuk, Chicago, Ill., assignors to Ammco Tools, Inc., North Chicago, Ill., a corporation of Illinois
Application May 17, 1955, Serial No. 508,928
10 Claims. (Cl. 51—184.3)



1. A rotatable hone comprising a body having means for connection with driving means, a plurality of abrasive units mounted on the body together having a plurality of longitudinally extending abrasive elements distributed around the hone and each unit having portions disposed on diametrically opposite sides of the body, detent means in the body yieldingly biased outwardly in directions perpendicular to the side portions of the units and into openings therein for releasably retaining the units on the body, the units being releasable in response to movement thereof in the planes of the side portions, cam surfaces on said side portions of said abrasive units, and rigid pins extending from said body, said body being longitudinally movable with respect to said abrasive units whereby said cam surfaces cooperating with said cam pins and said detent means may positively move said abrasive units radially outwardly and inwardly.

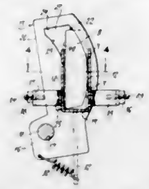
2,777,260
MACHINE TOOL
Raymond A. Mahlmeister, Dayton, Ohio, assignor to The Sheffield Corporation, Dayton, Ohio, a corporation of Ohio
Application January 29, 1954, Serial No. 407,070
11 Claims. (Cl. 51—206)



1. A method for forming a ribbed grinding wheel having the characteristic that it can be crush formed comprising forming the radially outer portions of the sides of the ribs to the final desired form to be used in grinding a workpiece by a cutting or shearing operation and forming the radially inner portions of the sides of the ribs to the final desired form to be used in grinding the workpiece by a crushing operation.

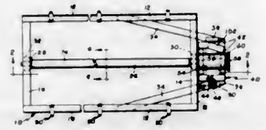
2,777,261
ORIENTATION TESTING DEVICE FOR WORK FEEDERS
John W. Rundt, Canton, Ohio, assignor to The Timken Roller Bearing Company, Canton, Ohio, a corporation of Ohio
Application June 19, 1952, Serial No. 294,438
7 Claims. (Cl. 51—215)

1. In a device for testing the orientation or articles that have an opening in at least one surface thereof so that improperly oriented articles may be arrested and properly oriented articles passed automatically, articles each having an opening in at least one surface, an inclined article guide chute of channel section, the articles passing along said chute impelled by gravity with the opening therein movable adjacent one side wall of said chute, and an article orientation testing member movably mounted adjacent to said chute in position to traverse the path of the articles moving in said chute, said testing member having an opening therethrough adapted to register with said chute whereby to receive and pass properly oriented articles and stop improperly oriented articles, the opening in said testing member having spaced article



testing margins adapted to be contacted by the articles impelled by gravity, one of said margins being adapted upon article contact to cause movement of said testing member transversely of the path of articles in said chute and another of said margins adapted to simultaneously move into the opening in properly oriented articles only to permit passage of said articles through the opening in said testing member.

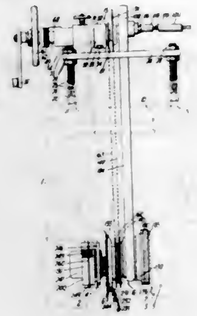
2,777,262
BED BLOCK RESURFACING MACHINE FOR ATTACHMENT TO A GARMENT DIE CUTTING MACHINE
Albert J. Rush, Chula Vista, Calif.
Application May 13, 1955, Serial No. 508,165
2 Claims. (Cl. 51—241)



1. A resurfacing machine for attachment to a garment die cutting machine having a fixed bed block and a die head vertically adjustable and horizontally swingable relative to the bed block; the resurfacing machine comprising: a generally rectangular frame for fixed attachment to a die head; said frame including a pair of side rails having upwardly extending flanges to engage the sides of the die head; end rails interconnecting said side rails; bearings fixed to said end rails; a plurality of clamps fixed to said side rails and having pivotally mounted clamp portions to engage the die head; bearings fixed to said end rails; a roller journalled at its ends in said bearings for rotation about an axis parallel to the lower surface of the die head; said roller having a longitudinal V-shaped groove therein; an abrasive sheet surrounding said roller and having its longitudinal edges turned into said groove; a wedge strip removably secured in said groove to retain said abrasive sheet; and a motor mounted on said frame and operatively connected to drive said roller.

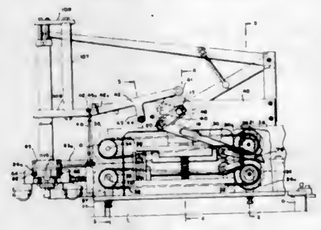
2,777,263
MACHINES FOR USE IN REPAIRING THE VALVE SEAT FACES OF PARALLEL SLIDE VALVES
Charles Albert Spence, deceased, late of London, England, by Pansy Dorothy Spence, executrix, London, England, assignor to Dewrance & Co. Limited, London, England, a British company
Application November 2, 1954, Serial No. 466,384
Claims priority, application Great Britain November 9, 1953
18 Claims. (Cl. 51—241)

4. A machine for repairing a first valve seat face of a valve of the parallel slide type having two opposed, flat, parallel valve seat faces respectively surrounding two coaxial bores in the valve body, comprising radially expansible clamping means adapted for insertion into one of the valve bores, an abutment member arranged to engage the second of the two valve seats, a reaction member operatively, connecting the clamping means to the abutment member and arranged, when the clamping means is expanded to engage and grip the said bore, to force the abutment member firmly against the said second valve seat so that the abutment member is positively located within the valve body by the second valve seat



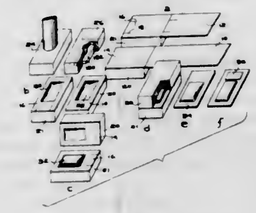
face in a desired relationship to the first valve seat face, gyratory means for applying a tooling action to the first valve seat face and adapted to be driven, a rotatable member adapted to be driven, a first bearing through which the gyratory means is rotatably mounted on the rotatable member, a second bearing which has an axis of rotation parallel with and eccentric to that of the first bearing and through which the rotatable member is rotatably mounted on the abutment member, and means for varying the relative positioning of the abutment member and gyratory means in the direction of the axis of rotation of the gyratory means.

2,777,264
APPARATUS FOR ASSEMBLING AND PACKAGING AN EDIBLE
Tamis C. Schenk, Richmond Hill, N. Y., assignor to Le Roy Food Products, Inc., Brooklyn, N. Y., a corporation of New York
Application July 11, 1952, Serial No. 298,300
4 Claims. (Cl. 53—154)



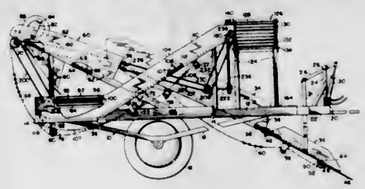
1. In apparatus for forming a composite carton consisting of a bag, a U-shaped tape liner, and a pair of spaced-apart edible wafers or crackers, said apparatus comprising means for intermittently pulling a continuous strip or tape, means for cutting the said tape, means for crimping the cut tape, means for severing the cut and crimped tape, plunger means for transporting spaced apart cookies upon said cut and crimped liner, the improvement which consists in means for feeding successive open top bags beneath said plunger means, means for initial opening of said folded bags, mechanical finger means adapted to engage the opposed inner walls of said successive bags and thereby to complete the bag opening so that the liner and spaced apart cookies are deposited in said open bag in spaced-apart relationship, upon downward movement of said plunger, and means for operating said plunger means and said mechanical finger means in synchronism.

2,777,265
APPARATUS FOR FOILING OR PACKAGING
Eino E. Lakso, Fitchburg, Mass., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware
Application August 22, 1952, Serial No. 305,822
16 Claims. (Cl. 53—194)



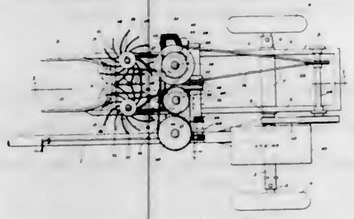
1. Apparatus of the class described comprising a source of a plurality of ribbons of covering material, means advancing said ribbons, means for cutting off short pieces from the leading ends of the advancing ribbons, pocket-forming means providing a pocket in each cut-off piece, and means moving one piece angularly about an axis to overlie the other piece forming a closed pocket between the pieces, and label applying means for applying a label to the said one piece.

2,777,266
POTATO HARVESTER
James G. Middleton, Elkton, and John D. Parrish, St. Augustine, Fla., assignors to Middleton & Parrish, Inc., Elkton, Fla., a corporation of Florida
Application February 8, 1955, Serial No. 486,908
5 Claims. (Cl. 55—51)



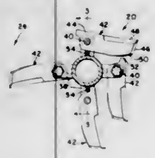
1. In a potato harvesting machine, a pair of conveyor side rails, an endless conveyor having an upwardly and rearwardly moving upper flight supported for movement between said side rails, said conveyor including a plurality of transverse bars spaced apart sufficient to permit the passage of potatoes therebetween, a chute having a fixed upper end portion extending completely across the conveyor and spaced closely below said upper flight in operative association therewith, said chute extending downwardly and forwardly from said upper end portion, said upper flight being operable to receive vines having potatoes attached thereto and to carry the same upwardly and rearwardly toward the upper end portion of said chute and cooperating with the latter to separate the attached potatoes from their vines, the potatoes thus separated falling onto said chute while their vines are carried off by said endless conveyor.

2,777,267
STALK AND ROOT PULLER AND SHREDDER
Ernest S. Thompson, Strathmore, Calif., assignor to said Thompson and Ethel Thompson, as joint tenants
Application December 7, 1953, Serial No. 396,682
4 Claims. (Cl. 55—64)



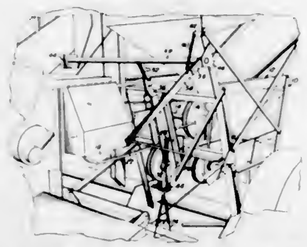
1. A plant pulling and shredding implement comprising a frame adapted to be pulled along a field over a row of plants to be pulled, a blade below and supported by the frame to cut through the roots of the plants, a pair of cooperating shredding cylinders upstanding from the frame rearwardly of the blade in position to receive cut plants therebetween and arranged to be driven so that their adjacent sides turn rearwardly; the cylinders including rows of radial teeth to engage and feed the plants rearwardly, a relatively stationary concave upstanding from the frame rearwardly of the cylinders in a transverse plane centrally therebetween and including forwardly projecting teeth to cooperate in plant shredding relation with the cylinder teeth; a transverse plate on the frame directly below the cylinders, a rough surfaced roller disposed in a transverse plane between the cylinders and recessed into the front of the plate with its top adjacent the level of the plate, means to guide the plants as cut by the blade toward the roller for engagement thereby, and means to drive the roller so that its forward side moves upwardly.

2,777,268
CROP HARVESTING ROTOR HAVING PIVOTED CROP ENGAGING MEMBERS
Arie E. Breed, Ottumwa, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application October 6, 1954, Serial No. 460,528
3 Claims. (Cl. 55—118)



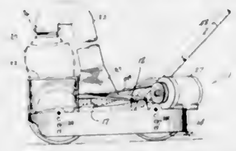
1. In a mobile crop-reducing machine adapted to advance over a field of crops: rotor means for reducing crops on the field as the machine advances, comprising a power-driven rotor shaft journaled on the machine with its rotational axis transverse to the line of advance and rotatable in one direction, said shaft having rigid thereon and projecting radially outwardly from the peripheral surface thereof a plurality of ears spaced both circumferentially and axially theerof, each ear having an aperture therein on an axis parallel to the shaft axis and closely radially outwardly of the peripheral surface of the shaft and each ear carrying a pivot pin; a plurality of crop-engaging members, one for each ear and each having an inner end and an outer end, said members being connected respectively to the pivot pins for rotation with the shaft to occupy operating positions in which said members respectively stand out radially from the shaft so that the outer ends thereof successively engage field-borne crops when the shaft is rotated in the aforesaid direction; and a plurality of one-way stop means respectively cooperative between the shaft and the inner ends of the members for preventing pivoting of the members relative to the shaft substantially past their operating positions and in the direction of rotation when the speed of the shaft increases, said stop means enabling counter-rotational pivoting of said members relative to the shaft in the event that rotation of the members with the shaft is impeded, each stop means including a shaft-proximate portion of the inner end of a member and a cooperative shaft-carried portion radially inwardly of the respective pivot axis.

2,777,269
HEADER DRIVE ASSEMBLY FOR COMBINES
Allen R. Uden, Matlock, Iowa
Application February 26, 1954, Serial No. 412,893
3 Claims. (Cl. 56—21)



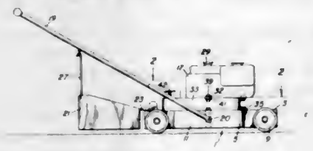
1. In combination with a combine including a power unit, a driven shaft for driving a header and a pick-up, a drive shaft connected to said power unit, and pulleys on said driven shaft and said drive shaft drivingly interconnected by a drive belt requiring tension thereon to drive said driven pulley and driven shaft; a remotely controllable clutch assembly, said clutch assembly including guide members having elongated slots therein normal to one span of the belt, an idler pulley shaft disposed in said slots, an idler pulley carried by said idler pulley shaft, an idler pulley shaft positioning member normal to one span of said belt, one end of said positioning member being carried by said shaft for slidable and pivotable movement relative to said guide members, spring urged means operatively connected to said idler pulley shaft for retaining said idler pulley in a belt released position, operating means connected to the other end of said positioning member for overriding said spring urged means whereby said idler pulley will be moved in a direction normal to one span of the belt to a belt tensioning position, and a brake attached to said positioning member intermediate the ends thereof, said brake being engaged with the driven pulley when said idler pulley is in a belt released position.

2,777,270
POWER MOWER WITH PNEUMATIC CONVEYING AND COLLECTING MEANS
Wayne G. Colclazier, Hugoton, Kans.
Application December 31, 1954, Serial No. 479,123
4 Claims. (Cl. 56—25.4)



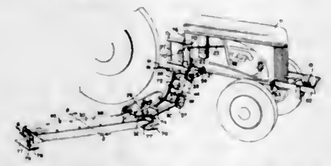
1. In a power lawn mower, a wheeled horizontal housing member, said housing member comprising a main plate and a depending flange extending along the margins of said main plate, a vertical shaft journaled in said main plate, a fan secured to said shaft below said main plate, a cutting blade secured to said shaft below said fan, said blade having a cutting edge at its outer portion, said fan having vanes extending over the path of the cutting edge of the blade, driving means on said main plate connected to said shaft, a conduit connected to said main plate at a point spaced outwardly from said shaft and located over the area swept by the vanes of the fan, and a porous collection receptacle carried on said main plate and secured around the end of said conduit.

2,777,271
GRASS BLOWER ATTACHMENTS FOR LAWN MOWERS
William R. Sutton, Odessa, Tex., assignor, by direct and mesne assignments, to The Huffman Company, Odessa, Tex., a partnership consisting of T. W. Huffman, Sr., and T. W. Huffman, Jr.
Application May 3, 1955, Serial No. 505,615
1 Claim. (Cl. 56—25.4)



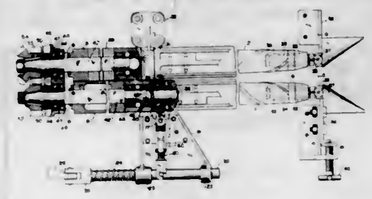
In a lawn mower having a flat top provided with depending side flanges forming the said top and open bottom rear discharge end for cut glass, a fan housing on said top, a motor supported on said fan housing and having a power shaft depending through said fan housing and top and having fixed thereon a blower fan in said fan housing and a horizontal cutter blade below said top, and means for distributing air from said fan housing rearwardly through the upper portion of said discharge end to blow cut grass out of said discharge end and create suction in said upper portion to lift cut grass from the ground comprising an upwardly opening transverse air distributing channel bar in the upper portion of said discharge end fitting endwise between the side flanges and having a front edge fixed to said top and a rear edge spaced below said top for the escape of air out of said bar, and an air discharge neck on said fan housing communicating through said top with one end portion of said bar.

2,777,272
UNDER-TREE MOWER AND HARVESTER
Alexander Smith and Burton D. Baggs, Jr., Sanford, Fla.
Application October 26, 1955, Serial No. 542,897
14 Claims. (Cl. 56—25.4)



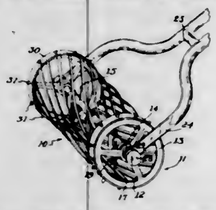
1. A mower adapted to be mounted upon a vehicle having a power plant for driving the same comprising a support, a first frame pivoted to said support and swingable from a depending to substantially horizontal position, a second frame pivoted to the outer end of the first frame and swingable from a position near the first frame to a position outwardly therefrom, a cutter bar pivotally connected to the end of the second frame remote from the first frame, means for the transmission of power from said vehicle to said cutter bar comprising a driveshaft carried by said support and having an axis concentric with that of the mounting pivot of the first frame, a driven shaft parallel to the first shaft and concentric with the pivot connecting the first and second frames, chain and sprocket means driving the second shaft from the first, a third shaft parallel to and driven from the second shaft, said third shaft having a bevelled gear on its inner end, a second bevelled gear at right angles to and driven from the first, a depending cutter shaft driven from said second bevelled gear, a rotary cutter on the lower end of said depending cutter shaft, a series of cutters spaced along and in substantially parallel relation to the lower surface of said cutter bar and driven from the first cutter shaft, and power means for moving said frames relative to each other to raise, lower, project, and retract said cutter bar, said power means including a pump driven from said power plant, a control valve, a hydraulic cylinder, a piston in said cylinder, a pressure line from said pump to said control valve and from said control valve to said hydraulic cylinder at opposite sides of the piston thereof, a piston rod connecting said piston with the first frame for swinging the same upon the movement of said piston, and a relief line from said control valve to said pump.

2,777,273
SNAPPING ROLL OPENING DEVICE FOR CORN PICKERS
Sherman C. Heth, Racine, Wis., assignor to J. I. Case Company, Racine, Wis., a company of Wisconsin
Application October 1, 1953, Serial No. 383,470
2 Claims. (Cl. 56—104)



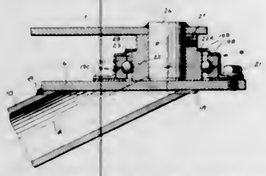
1. A corn picker having means to open the snapping rolls thereof to relieve clogging, comprising a mobile frame for field operation, a pair of upwardly and rearwardly inclined snapping rolls carried by said frame and spaced laterally to provide a slot therebetween for receiving standing corn stalks as the picker travels along a row of corn in a field, means carried by said frame and disposed adjacent the slot between said snapping rolls to feed the stalks along the slot, drive means carried by said frame and connected to said snapping rolls to rotate the same in a direction tending to pull the stalks therebetween to snap the ears of corn from the stalks, relatively fixed bearing means carried by said frame for supporting the lower ends of the snapping rolls, relatively separable bearing means rotatably supporting the corresponding upper ends of the snapping rolls, a toggle mechanism carried by said frame and including a link connected to the upper bearing for one of said snapping rolls and normally disposed at its dead-center position to secure said rolls in a given operable position, manually operable means including a handle located immediate to the operator's position and connected to said toggle mechanism to move the link away from dead-center and effect a momentary separation of said rolls to relieve clogging thereof at any selected time during operation of the rolls, said mechanism further including spring means to return said toggle link to dead-center and positively restore said rolls to said given operable position upon release of said handle.

2,777,274
ROLLER-TYPE LAWN MOWER
Gerald M. Beaumont, Saskatoon, Saskatchewan, Canada
Application May 16, 1955, Serial No. 508,635
9 Claims. (Cl. 56—249)



1. A trimming device revolvably mounted in a mounting bridle having handle means fastened thereto and arranged for manually propelling said trimming device, said device comprising a substantially cylindrical cutter drum, said drum being mounted for rotation in said mounting bridle upon rolling contact of the drum with a surface supporting material to be cut by said device, a plurality of openings in said drum arranged to allow vegetation to intrude therethrough, a cutter bar, and bar mounting means whereby said cutter bar is mounted in fixed relation to said mounting bridle and disposed within said cutter drum, said cutter bar being mated to the inner surface of said drum whereby a shearing action is obtained.

2,777,275
RAKE BAR BEARING ASSEMBLY
Lawrence H. Skromme, Manheim Township, Lancaster County, and Melvin J. Happe, New Holland, Pa., assignors to New Holland Machine Division of the Sperry Rand Corporation, New Holland, Pa., a corporation of Delaware
Original application April 5, 1952, Serial No. 280,752, now Patent No. 2,750,729, dated June 19, 1956. Divided and this application August 3, 1954, Serial No. 447,552
5 Claims. (Cl. 56—377)



1. In a side delivery rake, a spider supported for rotation about a fixed axis, an anti-friction bearing having an inner race fixedly supported on said spider and an outer race rotatable on said inner race about a axis parallel to said fixed axis, a rake bar disposed diagonally to said fixed axis and having one end fixedly connected to said outer race in a location such that the major axis of the bar and the rotational axis of said outer race intersect at substantially the center of the bearing.

2,777,276
METHOD AND APPARATUS FOR FALSE TWISTING YARN
Norman E. Klein, Pendleton, S. C., assignor to Deering Milliken Research Corporation, Pendleton, S. C., a corporation of Delaware
Application May 11, 1953, Serial No. 353,950
6 Claims. (Cl. 57—77.3)

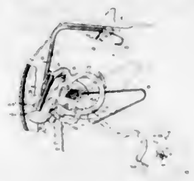
2. A false twister spindle comprising a tubular stator member, a socket of enlarged section at one end of said member, an anti-friction bearing having an inner and outer race, the outer race being received by said socket, a tubular rotor member coaxial with said stator member, a portion of reduced cross-section at one end thereof, said portion engaging said inner race, and a cross-member diametrically mounted in said rotor member, having its

longitudinal axis obliquely disposed with respect to the axis of said rotor member, the center portion of said cross-member being of reduced cross-section.

2,777,277
METHOD FOR PRODUCING CRIMPED SUPERPOLYAMIDIC THREADS AND NOVEL THREADS OBTAINED
Philip Charlois, Lyon, France, assignor to Vaucanson Silk Mills, Inc., New York, N. Y.
No Drawing. Application August 4, 1951, Serial No. 240,440
Claims priority, application France December 12, 1950
7 Claims. (Cl. 57—140)

1. The method of producing a high twist superpolyamidic crepe thread, comprising the steps of: sizing a standard low twist superpolyamidic thread; drying said sized thread in a conditioned atmosphere; twisting said dried sized thread for imparting a high twist thereto; kiln drying said high twist thread; steaming said kiln dried thread at a temperature at least as high as the temperature of said kiln drying; allowing said steamed thread to cool; and further sizing said cooled thread for fixing said high twist.

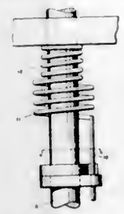
2,777,278
VARIABLE SIGNAL ALARM CLOCK
Helmut Junghans and Kurt Bäuerle, Schramberg-Sulgen, Germany
Application July 8, 1953, Serial No. 366,836
Claims priority, application Germany July 11, 1952
9 Claims. (Cl. 58—21.12)



1. In a spring motor alarm clock, sound producing, setting and controlling mechanism comprising a shaft, a hammer lever-arm mounted to oscillate with the shaft, a control lever with a pin mounted to oscillate on the alarm spring shaft of the clock, said control lever having a slot for receiving the alarm spring shaft and shiftable in its longitudinal direction by means of said slot in the lever, said hammer lever-arm having a bent portion in the form of a pin, a ratchet wheel mounted on a shaft of the escapement wheel of the clockwork, said control lever having an elongated arm portion terminating in a finger adapted to contact and cooperate with the ratchet wheel whereby the ratchet wheel will stop the control lever and a second arm portion for cooperation with the hammer lever-arm, a spring connected to the control lever to urge the later into contact with the ratchet wheel a distance controlled by the depth of the slot, said control lever when first actuated being controlled by the ratchet wheel for temporary engagement, and a cam disk mounted

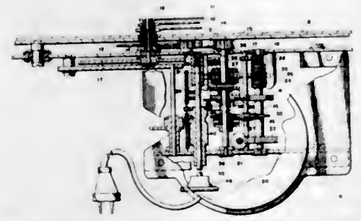
on the alarm spring shaft and cooperating with the pin of the control lever to shift the control lever away from the ratchet wheel to provide a more rapid operation of the hammer lever-arm.

2,777,279
RETAINER RING FOR BALANCE WHEEL STAFF
Fred Koehler, Lancaster, Pa., assignor to Hamilton Watch Company, Lancaster, Pa.
Application February 8, 1955, Serial No. 486,795
1 Claim. (Cl. 58—28)



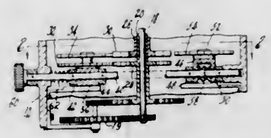
In an electric watch having a magnetically impulsed balance staff and a pair of time indicating hands, said watch comprising a coil spring carried by said staff, and having a free end extending along and parallel to said staff, a pair of washers frictionally mounted on said staff, said washers formed to cooperate the one with the other to provide a restricted space to receive the free end of said spring and to limit the movement of said spring within the confines of said space, and an indexing wheel periodically engaged by the free end of said spring, between the last coil of said spring and the washers to transmit the oscillating motion of the balance staff to rotative motion of the hands.

2,777,280
CLOCK HAND SETTING MECHANISM
Oscar R. Petters, Lancaster, Pa., assignor to Hamilton Watch Company, Lancaster, Pa.
Application May 18, 1954, Serial No. 430,541
3 Claims. (Cl. 58—80)



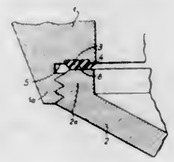
1. In an electric clock, indicating hands, a train of gears connected to said hands, a motor, a worm connected to and driven by said motor, a shaft mounted for rotation and having a worm gear connected to said worm, a second worm on said shaft, a pair of gears carried on said shaft and rotating therewith, a second shaft mounted at right angles to said first mentioned shaft, a worm gear carried on said second shaft and engaging said shaft carried worm, a third worm carried on said second shaft, a third shaft parallel to said first mentioned shaft, a third worm gear, means for frictionally mounting the third worm gear on said third shaft to permit the third shaft to be driven by said third worm and to also permit rotation of said third shaft at a faster rate of speed than said third worm through slippage between said shaft and said worm, a clutch carried by said third shaft, a gear carried by said clutch and connected with one of said first shaft carried gears, a second clutch carried by said third shaft, an idler shaft, an idler gear on said idler shaft, a gear carried by said second clutch and connected through said idler gear to the other of the first said shaft carried gears, means for selectively connecting either of said clutches with said third shaft causing rotation of said third shaft through said first shaft carried gears at a greater rate of speed than when turned by said third worm and means connecting said third mentioned shaft with said train of gears.

2,777,281
TIME ZONE TIMEPIECE
Jean E. Berry, Paris, France
Application April 27, 1954, Serial No. 425,940
4 Claims. (Cl. 58—80)



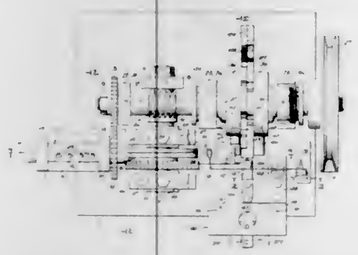
3. In a watch movement having a minute hand, a regular hour hand, an extra hour hand and reduction gearing connecting said minute hand and regular hour hand; a gear train normally connecting the two hour hands, said gear train including a pair of twelve-pointed star wheels, a setting device normally disconnected from said hour hands, and means for simultaneously separating said star wheels and operatively connecting said setting device with one of said hour hands.

2,777,282
FLUIDTIGHT WATCHCASE
Erwin Piquerez, Bassecourt, Switzerland
Application May 5, 1953, Serial No. 353,072
Claims priority, application Switzerland May 12, 1952
2 Claims. (Cl. 58—90)



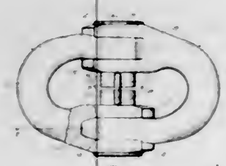
1. In a fluidtight watchcase, the combination of a case including two components, a case band and a case bottom adapted to be secured coaxially one inside the other and having each a plane surface perpendicular to the axis of the case, the plane surfaces facing each other and the plane surface formed on one of the case components being provided with an annular shallow groove facing the plane surface on the other component and extending transversely between two short surfaces coaxial with the case, and an annular elastic packing inserted between said plane surfaces and including a first annular section having a cross-section matching exactly the shallow groove and fitted therein and a second annular section in one with the first section and the cross-section of which through a radial plane is in the form of an isosceles triangle, the base of which registers with the outer surface of the first section lying in said plane surface of said one component and the two remaining sides of which triangle converge towards an apex facing the plane surface of the second component, the ridge formed by the apex of the cross-section of said second section of the packing being compressed and flattened by said plane surface on the second component of the case upon operative fitting of the two case components with reference to each other.

2,777,283
AUTOMATIC STOP MECHANISM FOR STAPLE MAKING MACHINE
Herbert W. Marano, Summit, N. J., assignor to Wilson Jones Company, Chicago, Ill., a corporation of Massachusetts
Original application March 23, 1951, Serial No. 217,247, now Patent No. 2,679,723, dated June 1, 1954. Divided and this application April 13, 1954, Serial No. 422,731
3 Claims. (Cl. 59—76)



1. A staple forming machine of the character described comprising a staple forming mechanism means for continuously delivering wire along a predetermined path to said staple forming mechanism, a guide leading from said staple forming mechanism, means for advancing staples along said guide in a stacked end to end relationship in a direction leading from said staple forming mechanism, an electric motor motivating said machine, a normally closed circuit network connecting said motor to a source of current and including an electric switch adapted to open said circuit and means responsive to a predetermined deviation of said wire from said predetermined path and to the elevation of said staples above a predetermined level relative to said guide to actuate said switch and open said motor circuit.

2,777,284
TWO PART CHAIN LINK WITH TWO ALIGNED PINS HOLDING SAID PARTS TOGETHER
John W. Page, Chicago, Ill., assignor to Page Engineering Company, a corporation of Illinois
Application September 13, 1954, Serial No. 455,615
2 Claims. (Cl. 59—85)

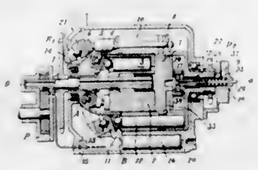


1. A chain link, comprising: two interchangeable half links cast of a hard material, difficult to machine, each having a U-shaped body portion with an eye portion at one extremity and a pair of spaced apertured ears at the other extremity, each eye portion being receivable between the ears of the other half link with the apertures and eye in lateral alignment; a pair of pins removably positioned in said aligned apertures and eye to secure said half links together, each pin having a cross bore therein adjacent its inner end the pins being generally aligned with each other and the cross bores being spaced laterally; and a manually bendable U-shaped keeper positioned with its legs in said cross bores to hold the pins in said securing position.

2,777,285
SYSTEM, METHOD AND APPARATUS FOR CLOSED CYCLE CONTROL
Donald McDonald, Skokie, Ill., assignor to Cook Electric Company, Chicago, Ill., a corporation of Illinois
Application May 15, 1952, Serial No. 287,955
33 Claims. (Cl. 60—6)

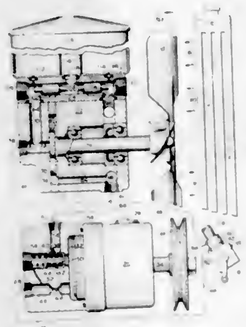
1. In a position control system having a controlling element, a controlled element, and means for positioning said controlled element, means for energizing said positioning means as an increasing non-linear discontinuous function of the position of said controlling element relative to said controlled element whereby increases in said discontinuous function produce increasing energy from said positioning means.

2,777,286
ROTARY PUMP AND MOTOR HYDRAULIC TRANSMISSION
Giovanni Badalini, Milan, Italy, assignor to S. p. A. Cambi Idraulici Badalini, Rome, Italy
Application May 12, 1953, Serial No. 354,609
Claims priority, application Italy August 6, 1952
2 Claims. (Cl. 60—53)



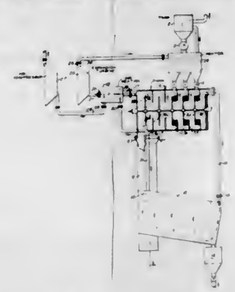
1. Hydraulic variable speed transmission suitable for traction purposes on small power motor vehicles particularly on two-wheel motor vehicles comprising a driving shaft and a driven shaft, a hydraulic multi-cylinder pump having the cylinder body which rotates with the driving shaft, a hydraulic multi-cylinder motor having the cylinder body which rotates with the driven shaft, the cylinder body of the motor surrounding the cylinder body of the pump and being concentric therewith, a stationary housing containing said multi-cylinder pump and motor, said pump and said motor being hydraulically interconnected in a closed circuit, a distributing valve plate interposed between the cylinder bodies of the pump and motor, said valve plate receiving in abutment the pump cylinder body and being fastened for rotation to the motor cylinder body, pistons reciprocating in the cylinders of the pump and motor, inlet and outlet ports for the liquid in the cylinders of the pump and motor, a first cap fastened to the motor cylinder body and having an inclined bottom against which the pump pistons abut for rotation, a swash plate pivoted to the stationary housing and receiving in rotatory abutment the motor cylinder pistons, a second cap fastened to the motor cylinder body opposite to the first cap, said second cap being provided with an extension axially bored and in the form of a driven shaft, the driving and the driven shaft each being journalled at one side of the stationary housing, said distributing valve plate and said second cap facing each other and being spaced apart from each other to form is distribution chamber for the liquid, the driving shaft being provided with an axial duct, an auxiliary pump mounted on the driving shaft to supply liquid under pressure to the hydraulic circuit of the multi-cylinder pump and motor through the said axial duct of the driving shaft, a spindle axially bored and located in the said bored extension of the second cap and provided at one end with an eccentric, a distributing ring valve for the oil to be conveyed to the motor mounted on the said eccentric, said ring valve being contained in the said distribution chamber and abuting against the said distributing valve plate and dividing the said distributing chamber in an inner and an outer portion, ducts in the said distributng valve plate which communicate the pump cylinders with the motor cylinders through the inner and the outer portions of the distribution chamber, the distributing ring valve being provided with radial ducts which communicate the said inner and outer portions of the distribution chamber, a spring biased stem valve slidably contained in the said axially bored spindle to keep closed the radial ducts of the said ring valve, said stem valve being axially bored to equalize the pressure at the two ends of the valve and being operable to open said radial duct against the action of the spring to by-pass the inlet and the outlet ports of the pump cylinders.

2,777,287
MOTOR-PUMP DRIVE FOR VEHICLE FAN
Ralph L. Tweedale, Birmingham, Mich., assignor to Vickers Incorporated, Detroit, Mich., a corporation of Michigan
Application February 24, 1953, Serial No. 338,460
8 Claims. (Cl. 60—12)



1. In a motor vehicle propelled by a variable speed prime mover, the combination of: a cooling fan rotatably disposed in an air space having a forwardly projected area; rotary fluid pumping mechanism having an inlet and an outlet and in a driving relation with the prime mover; flow rate controlling means associated with said pumping mechanism for providing a fluid supply having a substantially constant flow rate throughout a wide range of speeds; a rotary fluid pressure energy translating device having an inlet and an outlet, said device being capable of operation as either a pump or a motor and connected in a driving relation with the cooling fan; and fluid conduit means connecting the outlet of the pumping mechanism to the inlet of the device and the outlet of the device to the inlet of the pumping mechanism in substantially closed communication, whereby at low vehicle speeds the device operates as a motor to drive the fan at a speed in excess of said constant speed and at high vehicle speeds the fan drives the device at a substantially constant speed, causing it to operate as a pump and supercharge the inlet of the pumping mechanism.

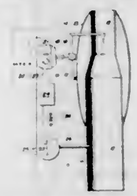
2,777,288
PROCESS AND APPARATUS FOR THE GENERATION OF MECHANICAL ENERGY FROM SOLID FUELS HAVING A HIGH WATER CONTENT
Carl Glinka, Krefeld-Uerdingen, Germany
Application April 2, 1952, Serial No. 280,088
24 Claims. (Cl. 60—39.04)



1. Method for the generation of mechanical energy by the combustion of solid fuels which comprises, establishing a first zone and a combustion zone, maintaining a mixture of water and solid fuel in said first zone, passing said mixture of water and solid fuel from said first zone into said combustion zone, burning said solid fuel in said combustion zone, recycling hot combustion gases out of said combustion zone, through said first zone to thereby remove the flue dust entrained in said combustion gases, evaporate a portion of the water contained within said first zone and cool said combustion gases, and thereafter passing said combustion gases into an expansion power engine for utilization therein.

9. Apparatus for the generation of mechanical energy by the combustion of solid fuels which may contain substantial amounts of moisture which comprises means defining a first substantially closed liquid chamber, means defining a combustion chamber, and an expansion power engine, means for passing solid fuel into said first chamber, conduit means connecting said first chamber and said combustion chamber, means for burning solid fuel in said combustion chamber, conduit means connecting said combustion chamber and said first chamber for passing combustion gases from said combustion chamber into said first chamber for their passage therethrough, means in said first chamber for the removal of at least a portion of the entrained particles contained in the combustion gases passing therethrough, and conduit means connecting said first chamber with said power engine.

2,777,289
FUEL FLOW CONTROL APPARATUS
Frank G. Boucher, Tulsa, Okla., assignor to the United States of America as represented by the Secretary of the Navy
Application August 14, 1953, Serial No. 374,451
5 Claims. (Cl. 60—39.28)



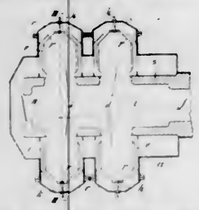
1. A pressure control apparatus for a combustion chamber having a fuel flow control valve, comprising an electric motor to maintain said valve in continuous motion, a stepping relay electrically connected to said motor for altering the direction of motion of said motor upon

actuation of said relay, and a pressure responsive switch operable by pressures within the combustion chamber for actuating said relay.

2,777,290
SPHERICAL INTERNAL COMBUSTION TURBINE
Edward W. Bailey, Fort Worth, Tex.
Application August 8, 1955, Serial No. 526,936
4 Claims. (Cl. 60—39.35)

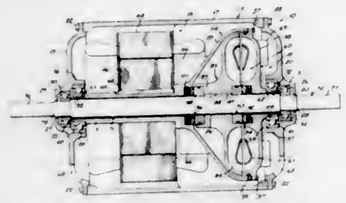
1. A turbine engine comprising a spherical housing, an axle passing through the center of said housing and projecting exteriorly from opposite sides thereof, said housing being fixed to said axle to rotate therewith, a cylindrical opening coaxially disposed within said axle and extending from one end thereof to a point within said housing for conducting air into the interior of said housing, another cylindrical opening coaxially disposed within said axle and extending from the other end thereof to a point within said housing for conducting fuel into the interior of said housing, a plurality of radially disposed air passages communicating between said first cylindrical opening and the interior of said housing, a plurality of radially disposed fuel passages communicating between said second cylindrical opening and the interior of said housing, a plurality of metal plates continuously connected to said axle between opposite walls of said housing and radially projecting from said axle therein, angularly set vanes extending between opposite interior walls of said housing and equally spaced from one another, pressure operated valves attached to the exterior of said housing and communicating between the interior and the exterior thereof, and means of ignition positioned within said housing.

2,777,291
COMBUSTION CHAMBER WITH REMOVABLE FLAME TUBES
Robert Francis Darling, Monkseaton, England, assignor to The Parsons and Marine Engineering Turbine Research and Development Association, Wallsend, England
Application May 10, 1952, Serial No. 287,211
Claims priority, application Great Britain June 12, 1951
2 Claims. (Cl. 60—39.65)



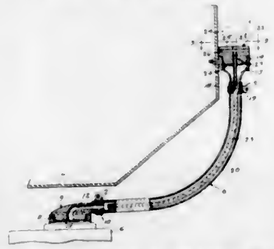
1. A combustion chamber comprising an outer cylindrical member, an inner member co-axial with the outer one, both inner and outer members being perforated in such a way that flame tubes can be inserted through the perforations in the outer member and fit into the perforations in the inner member, flame tubes fitting into the said perforations in the inner member and extending so that the longitudinal axes of these tubes lie at right angles to the longitudinal axis of the outer member, removable apertured covers fitting the perforations in the outer member and sprayers inserted through the apertures in the said covers.

2,777,292
ELECTRICALLY DRIVEN TURBINE TYPE FLUID COUPLING UNIT
Ambrose Mazzola, South Gate, Calif., assignor to Angelus Engineering Corporation, South Gate, Calif., a corporation of California
Application March 10, 1952, Serial No. 275,845
9 Claims. (Cl. 60—54)



1. In a power unit, the combination of: an elongated, substantially cylindrical unit housing; first and second end bells secured to the opposite ends of said unit housing, each of said end bells being provided with an axial bore and having first and second bearing seats encompassing said bore; first and second bearing means disposed, respectively, in said first and second bearing seats; an elongated, hollow drive shaft having an end disposed in said first bearing means in said first end bell and a rotatable transmission housing formed integrally with its other end, said transmission housing being journaled in said first bearing in said second end bell and having a drive rotor connected thereto; an elongated driven shaft extending through said drive shaft and said transmission housing and having its opposite ends journaled in said second bearings in said first and second end bells and projecting beyond said end bells; and a driven rotor in said transmission housing secured to said driven shaft.

2,777,293
FILLING ATTACHMENT FOR HYDRAULIC BRAKE MASTER CYLINDER
Henry Roy Hawkins, Ramhurst, Ga.
Application May 9, 1956, Serial No. 583,688
4 Claims. (Cl. 60—54.6)

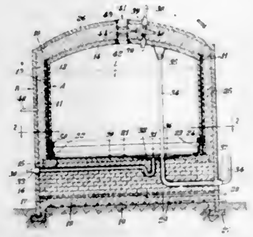


1. A filling attachment for a hydraulic brake master cylinder comprising a fitting adapted to engage in the filling opening of a hydraulic brake master cylinder, said fitting having a restricted extension in an upper portion thereof forming a stem and being provided with a bore having one end opening through said stem and an opposite end opening through a portion of the fitting disposed in the filling opening and adapted to communicate with the interior of the hydraulic cylinder, a funnel shape member having an enlarged open upper end and a restricted open lower end, means supporting said funnel shape member in a position remote from and above the level of said fitting, a conduit connecting the funnel member and fitting having one end engaging the restricted lower end of the funnel member and an opposite end engaging the stem of the fitting, and a cap for closing the open upper end of the funnel member, said cap being detachably connected to the funnel member and having venting means opening therefrom to the atmosphere, a tube forming a part of said vent means having one end extending into said cap and connected thereto, said cap having a bore, forming a part of said vent means and extending transversely therethrough and disposed above the level of the funnel member and having ends opening outwardly of the cap and an intermediate portion communicating with said tube end, said tube extending downwardly from the cap and fitting loosely in the funnel member and conduit and having an opposite end opening into said conduit remote from the funnel member.

2,777,294
METHOD OF LAYING PIPE
James M. Rosa, West Roxbury, and Pasquale Todisco, Somerville, Mass.
Application May 11, 1954, Serial No. 428,882
4 Claims. (Cl. 61—41)

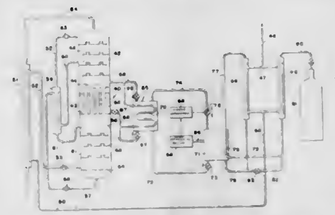
1. The method of laying pipe in wet loose soil comprising the steps of digging a trench until the wet loose soil is encountered, driving a box unit having an open top and bottom into the trench to the grade level to support the loose soil in the sides of the trench as the trench is dug through the loose soil to the grade level, backfilling the trench on either side of the unit to provide adequate lateral support for the ground on either side of the trench, laying the pipe at grade level, filling the box unit with soil after the pipe is laid, and withdrawing the box unit from the trench and leaving the filling in place so as to prevent displacement of the side walls of the trench as a result of removal of the unit.

2,777,295
CONCRETE RESERVOIR FOR LIQUEFIED GASES
Lyman A. Bliss, New York, and Peter M. Riede and John H. Beckman, Kenmore, N. Y., assignors to Union Carbide and Carbon Corporation, a corporation of New York
Application September 12, 1952, Serial No. 309,306
9 Claims. (Cl. 62—1)



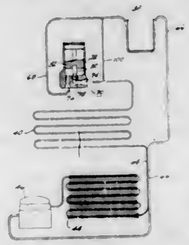
2. In a double-walled storage container for liquefied gases at low temperatures the combination comprising inner vessel substantially vertical side walls of prestressed reinforced concrete; a horizontal relatively thick flooring comprising heat-insulating material having substantial compressive strength, the vertical side wall being supported upon the peripheral portions of said flooring; a sheet-metal floor liner supported by the flooring, said floor liner having an upwardly extending sheet-metal peripheral flange adjacent said side wall; a horizontal continuous carbon steel bar imbedded and secured in the inner surface of said concrete side wall, said bar being a short distance of at least 6 inches above said sheet-metal floor liner; and the upper edge of said peripheral flange being secured gastightly to said bar by welding.

2,777,296
LIQUID PUMPING AND VAPORIZING SYSTEMS
Clarence J. Schilling, Allentown, Pa., assignor to Air Products Incorporated, a corporation of Michigan
Application August 13, 1952, Serial No. 304,127
22 Claims. (Cl. 62—2)



1. The method of transferring in liquid phase volatile liquid from a storage vessel held at a low pressure to a reservoir of a vaporizer under a relatively high pressure comprising withdrawing a first quantity of liquid from the storage vessel at the low pressure under the influence of gravity, increasing the pressure of the withdrawn first quantity of liquid to equal the relatively high pressure and conducting the first quantity of liquid material at the relatively high pressure to the reservoir under the influence of gravity, vaporizing liquid material in the reservoir, withdrawing a second quantity of liquid material from the storage vessel at the low pressure under the influence of gravity before vaporization of a predetermined portion of the first quantity of liquid material, and increasing the pressure of the second quantity of liquid to equal the relatively high pressure and conducting the second quantity of liquid material at the relatively high pressure to the reservoir under the influence of gravity at a time determined by vaporization of the predetermined portion of the first quantity of liquid material.

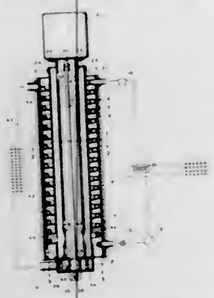
2,777,297
TWO EVAPORATOR REFRIGERATING SYSTEM
Ralph W. Doeg, Detroit, Mich., assignor to Nash-Kelvinator Corporation, Detroit, Mich., a corporation of Maryland
Application July 21, 1953, Serial No. 369,307
1 Claim. (Cl. 62—3)



In a refrigerating system, a refrigerant condensing element, a relatively low temperature refrigerant evaporator having an inlet connected to said condensing element and having an outlet, a relatively high temperature refrigerant evaporator having an outlet connected to the inlet of said relatively low-temperature evaporator and having an inlet connected to said condensing element, a pressure dif-

ferential valve interposed in the refrigerant circuit between the outlet of said relatively high temperature evaporator and the inlet of said relatively low temperature evaporator acting to maintain a predetermined pressure differential between said evaporators, and a small diameter tube by-pass having a flow capacity less than the flow capacity of said valve connecting the outlet of said relatively high temperature evaporator to the inlet of said relatively low temperature evaporator.

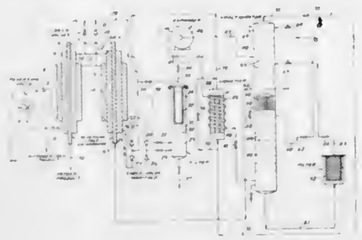
2,777,298
VEHICLE AIR CONDITIONER
John B. Duty, Abernathy, Tex.
Application August 11, 1953, Serial No. 373,609
9 Claims. (Cl. 62—117)



1. A refrigeration system comprising connected refrigerant translating, condensing, expanding, and evaporating elements, said evaporating element comprising a vertical coil, a first cylinder surrounding said coil, a second cylinder mounted axially within said coil, said cylinders extending beyond the ends of said coil, means enclosing the space between said cylinders, a tube extending axially of and within the inner cylinder, means for supporting said tube on the upper end of the inner cylinder, a motor mounted on the upper end of said tube, a stub shaft extending downwardly from said motor, a drive shaft extending downwardly within said tube, means coupling said stub and said drive shafts, an impeller mounted on said drive shaft and beyond the lower end of said tube, flange means extending from the lower end of said tube in proximity to said inner cylinder and spaced therefrom, said flange means extending laterally inwardly of said tube and defining an opening, said drive shaft extending through said opening, said opening defining the intake to said impeller, enclosure means for the lower end of said inner cylinder, said enclosure means having bearing guide means for said shaft, discharge means for said impeller extending through the lower end of said inner cylinder and beyond said outer cylinder, the lower portions of said inner cylinder and said tube being provided with openings for the passage of fluid from the space between the inner and outer cylinders to the impeller, conduit means extending from the discharge means of the impeller to heat transfer means for the space to be cooled, and means connecting the heat transfer means to the upper portion of the space between the inner and outer cylinders.

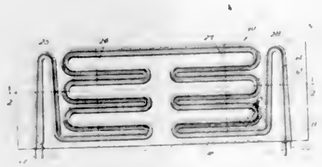
2,777,299
SEPARATING GAS MIXTURES
George T. Skaperdas, Flushing, N. Y., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware
Continuation of application Serial No. 693,799, August 29, 1946. This application April 13, 1953, Serial No. 348,188
16 Claims. (Cl. 62—123)

1. An apparatus for separating a gas mixture into output components including in combination a cold-exchanger consisting of at least two fluid conduits connected in operative cold exchange relation to effect cooling of a compressed gas mixture by countercurrent cold exchange with at least one of the cold expanded output components of the separation, means for conducting a compressed gas mixture to either of said fluid conduits, means for separating and removing a portion of the compressed gas mixture from said cold-exchanger at a point intermediate the ends thereof, a fluid mixing chamber, a fluid conduit connecting between said means for separating and removing a portion of the compressed gas mixture and said mixing chamber, another fluid conduit for conducting the remainder of said gas mixture from the cold end of said cold-exchanger to said mixing chamber, means for removing solid precipitated vapors from said gas mixture, a fluid transfer means connecting in operative relation said mixing chamber and said solids removal means, a gas expanding means, a fluid conduit connecting said gas expanding means and said solids removal means, a heat exchanger disposed in said last-mentioned fluid conduit and connected in operative relation with said fluid conduit connecting between said means for separating and removing a portion of the compressed gas mixture from said cold-exchanger and said mixing chamber for warming gas passing through the former conduit by heat exchange with gas passing through the latter conduit, means for liquefying and rectifying a gas mixture into higher and lower boiling output components, conduits connecting in operative relation said last-mentioned means with said gas expanding means and said solids removal means for passing gases therethrough from the latter to the former means, conduits having their origin in said means for liquefying and rectifying a gas mixture at least one of which connecting with said cold-exchanger for passing out of the output components of the separation therethrough in its vapor phase, means for passing said one of the output components to either of said two fluid conduits connected in operative cold exchange relation in said cold-exchanger, valve means for controlling flow of said compressed gas mixture and said one of the output components through the fluid conduits in said cold-exchanger and means for periodically so changing the valve means as to interchange the flow of the compressed gas mixture and said one of the output components between said fluid conduits in said cold exchanger.



2,777,300
SHEET METAL EVAPORATOR WITH HEATING MEANS
John S. Palmer, Evansville, Ind., assignor, by mesne assignments, to Whirlpool-Seeger Corporation, a corporation of Delaware
Application July 14, 1952, Serial No. 298,683
1 Claim. (Cl. 62—126)

A defrosting evaporator for household refrigerators, comprising a pair of plates of substantially rectangular form, one of said plates being embossed outwardly to form one continuous larger groove, which is sinuous throughout its length and is closed by the other plate for a refrigerant conduit, said conduit including an open V-shaped formation at each end of the plate, each of which is joined to one of a pair of central sinuous formations, each having a plurality of center to end passes with U-shaped joining portions, and including a long pass joining the pair of central sinuous portions, one of said plates also having a smaller groove following and close to the side of said larger groove to form a continuous cavity for an electric heater, and



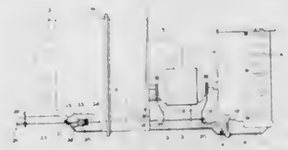
a bendable, insulated electric heater located inside said smaller groove, before the joining of said plates, and enclosed inside both sheets to spread its heat outwardly through the plates, for defrosting the entire evaporator quickly, the said plates being integrally secured together at all other areas except said grooves, and being bent to top open U shape, with inwardly extending attaching flanges at the top.

2,777,301
ALL-PURPOSE POWER AND AIR CONDITIONING SYSTEM
John Kuhn, Pacific Palisades, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California
Application June 30, 1952, Serial No. 296,439
20 Claims. (Cl. 62—136)

5. Air conditioning means for an enclosure, comprising: means for cooling and circulating air in a flow path including said enclosure; air expansion power means; and means for selectively connecting said air expansion power means in said path of flow upstream of said enclosure for one condition of operation and in said path of flow downstream from said enclosure for another condition of operation.

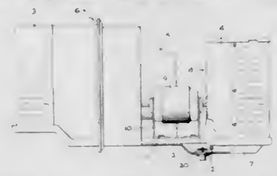
2,777,302
CONDENSATE SUMP DRAIN VALVE
William G. Spiegelhalter, Lawrence Park, Erie, Pa., assignor to General Electric Company, a corporation of New York
Application September 12, 1955, Serial No. 533,650
4 Claims. (Cl. 62—140)

1. In a reversible heat transfer system for an enclosure, a compressor, a pair of complementary interconnected evaporator-condenser units, one inside and the other outside said enclosure each having valve connections with said compressor and selectively operable for heating and cooling said enclosure, condensate accumulating means associated with the outdoor units, and drain means



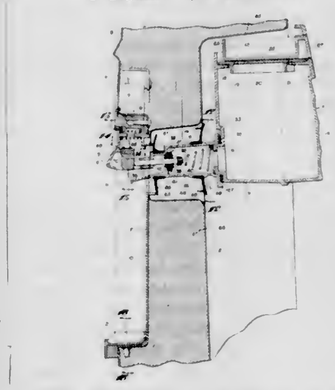
operable during said heating cycle only to drain said condensate accumulating means.

2,777,303
CONDENSATE SUMP DRAIN VALVE
John P. Slattery, Erie, Pa., assignor to General Electric Company, a corporation of New York
Application September 13, 1955, Serial No. 534,041
1 Claim. (Cl. 62—140)



In a reversible heat transfer system for an enclosure, a compressor, a pair of complementary interconnected evaporator-condenser units one inside and the other outside said enclosure each having valve connections with said compressor and selectively operable for heating and cooling said enclosure, a condensate sump arranged beneath said outside unit, an opening in said condensate sump, a tubular, resilient, gasket containing a central bore positioned within said opening, a thermally responsive bimetal disc supported on said gasket in sealing engagement therewith, said disc flexing when the outside air drops to a predetermined temperature to permit condensate to drain through said passage.

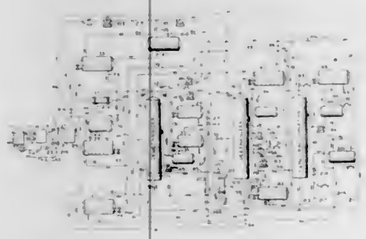
2,777,304
WATER DISPENSER FOR REFRIGERATOR
Alfred E. Nave, Cincinnati, Ohio, assignor to Avco Manufacturing Corporation, Cincinnati, Ohio, a corporation of Delaware
Application December 9, 1953, Serial No. 397,192
5 Claims. (Cl. 62—141)



5. A water dispenser for installation on a refrigerator door having an outer shell, an inner liner, and insulation therebetween, said shell, insulation, and liner defining

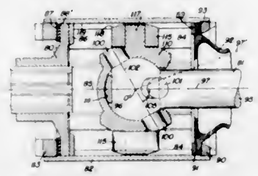
aligned openings therethrough, said water dispenser comprising a water tank; brackets secured to the liner for releasably supporting said tank; an inlet conduit pivotally secured to said tank for movement between an extended filling position and a closed position; a discharge spout secured to and projecting from said tank through the openings defined by the liner, insulation, and outer shell; an escutcheon plate secured to said outer shell surrounding said discharge spout; means extending between said escutcheon plate and the liner for retaining the insulation; resilient sealing means on said spout for preventing ingress and egress of air past said insulation retaining means; valve means within said spout; and a pivoted spring-loaded pushbar on the exterior of said door in position to impart movement to said valve means.

2,777,305
SEPARATION AND RECOVERY OF ETHYLENE
Joseph W. Davison, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application December 28, 1953, Serial No. 400,527
8 Claims. (Cl. 62—175.5)



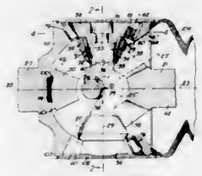
1. A process for the recovery of ethylene from a vaporous mixture containing ethylene at a superatmospheric pressure comprising the steps of separating C_4 and higher boiling hydrocarbons from said vaporous mixture and recovering these C_4 and higher boiling hydrocarbons as one product of the process, chilling the propane and lower boiling hydrocarbons and hydrogen, fractionating this chilled stream of propane and lower boiling hydrocarbons and hydrogen in a demethanizing operation to produce an overhead intermediate product comprising methane and a bottom product comprising C_2 and C_3 hydrocarbons, reducing the pressure of the C_2 and C_3 hydrocarbon bottom material from said demethanizing operation and fractionating same in a deethanizing operation to produce an overhead intermediate product comprising ethane and ethylene and a bottom intermediate product comprising C_3 hydrocarbons, condensing the ethane-ethylene overhead intermediate product, returning a portion of the ethane-ethylene condensate to reflux the deethanizing operation, reducing the pressure on the remainder of the ethane-ethylene condensate and fractionating same to produce an overhead intermediate ethylene product and an ethane bottoms product, withdrawing this latter ethane as one product of the process, condensing a portion of said overhead intermediate ethylene product, returning this condensate into the ethylene-ethane fractionating operation to reflux same, withdrawing the uncondensed portion of the ethylene as the main product of the process, withdrawing the C_3 hydrocarbon bottom product from said deethanizing operation and passing same in indirect heat exchange with the kettle material in said demethanizing operation to reboil same, withdrawing said C_3 hydrocarbon bottom product from the demethanizing reboiling operation, introducing a portion of this withdrawn liquid C_3 product into the upper portion of said demethanizing operation to supply liquid absorbent and reflux for said demethanizing operation, and withdrawing the remainder of the C_3 hydrocarbon as another product of the process.

2,777,306
UNIVERSAL JOINT
Ernest Wildhaber, Rochester, N. Y.
Application June 16, 1953, Serial No. 362,000
15 Claims. (Cl. 64—21)



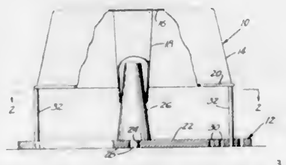
1. A universal joint for operatively connecting two end members which have intersecting axes, comprising a plurality of holders pivotally mounted on one of said end members on pivot axes fixed relative to said one end member and inclined to and intersecting the axis of said one end member in a common point, the other end member being provided with ways, means connecting said holders operatively to one another to turn on their pivots simultaneously in opposite directions, and parts rotatably mounted on said holders and engaging said ways.

2,777,307
UNIVERSAL JOINT
Ernest Wildhaber, Rochester, N. Y.
Application May 27, 1953, Serial No. 357,818
11 Claims. (Cl. 64—21)



11. A universal joint for operatively connecting two end members which have intersecting axes, comprising a plurality of holders pivotally mounted on one of said end members on pivot axes inclined to and intersecting on the axis of said one end member in a common point, the other end member being provided with ways, means operatively connecting said holders to one another to turn on their pivots simultaneously in opposite directions, and rollers rotatably mounted on said holders and engaging said ways.

2,777,308
COMBINATION CAKE PLATE AND COOLER FOR TUBE CAKES
Robert W. Roberts and Vivian G. Roberts, Santa Clara, Calif.
Application August 12, 1955, Serial No. 528,044
2 Claims. (Cl. 65—61)



2. A combination cake cooler and cake plate comprising a flat circular support plate having a center opening and having radially extending rows of apertures, said rows being angularly spaced uniformly about the marginal portion of said support plate; a plurality of pins corresponding in number to the number of rows of apertures removably engaged at one end in selected apertures of the respective rows and projecting upwardly from the support plate for supportably engaging the periphery of an inverted tube cake pan having a tapering tubular central column, and an upwardly tapering center post having the lower end removably engageable in said center opening, said center post being adapted to engage in said tubular center column of the cake pan.

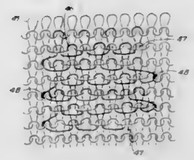
2,777,309
KNITTING MACHINE FOR FULL FASHIONED HOSIERY
Charles G. Newton, Hamilton, Ontario, Canada, assignor of fifty percent to Charles E. Church, Burlington, Ontario, Canada
Application October 1, 1953, Serial No. 383,632
7 Claims. (Cl. 66—146)

1. In a yarn tautening snapper mechanism for full-fashioned hosiery knitting machines, the combination with an oscillatable snapper through which knitting yarn passes to be engaged by a spring snapper jaw and means for oscillating the snapper and actuating the jaw, of a second jaw actuating means movable in synchronization with the movement of the snapper and actuated by the knitting machine.

2,777,310
STRETCH YARN AND FABRIC AND METHOD OF MAKING SAME
Marvin H. Comer, Burlington, N. C., assignor, by mesne assignments, to Alamance Industries, Inc., Burlington, N. C., a corporation of North Carolina
Application October 31, 1955, Serial No. 544,049
42 Claims. (Cl. 66—180)

1. That method of making a composite stretch yarn which includes twisting at least one end of cellulosic yarn a relatively few turns per inch in one direction, twisting at least one end of pre-treated stretch thermoplastic yarn of from 50 to 300 denier a substantially lesser number of turns than, and in the opposite direction from, the turns imparted to the cellulosic yarn, and then doubling the cellulosic and thermoplastic yarns while imparting a lesser number of turns per inch thereto than was originally imparted to the cellulosic yarn.

2,777,311
KNITTED FABRIC
Vincent Lombardi, South Miami, Fla.
Application September 30, 1952, Serial No. 312,246
16 Claims. (Cl. 66—201)

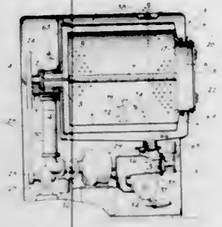


1. A knitted fabric comprising body yarn, and wrap yarn knit in a plurality of wales in each of a plurality of adjacent courses of a portion of the fabric, said body yarn being knit throughout the parts of the fabric at the sides of said portion and being incorporated in the fabric in said portion without plating, and said wrap yarn being caught into the knitted body yarn without knitting at the sides of said portion.

2,777,312
APPARATUS FOR HANDLING A PRINTED FABRIC WEB DURING DEVELOPMENT OF THE PRINT COLORS THEREON
James C. Thomas and Graves T. Gore, Trion, Ga., assignors to Riegel Textile Corporation, a corporation of Delaware
Application March 5, 1956, Serial No. 569,630
2 Claims. (Cl. 68—5)

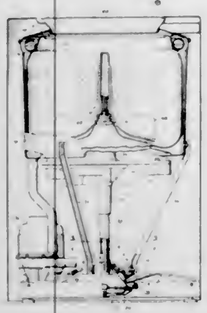
1. Apparatus for aging a printed fabric web to develop print colors thereon that require development by steam and acid vapor treatment after printing, said apparatus comprising a treating chamber, means for maintining a developing atmosphere of steam and acid vapor in said chamber, and means for plaiting a substantial length of said web in said chamber and thereby slowing its rate of travel sufficiently for complete color development within said chamber while allowing said web to be continuously delivered to and discharged from said chamber at a relatively rapid rate, said plaiting means comprising a J-tube structure having entrance leg and foot portions formed by spaced tubular elements, said entrance leg portion being arranged vertically in said chamber for receiving said web and directing it in plaited form to said foot portion under the weight of plaited web standing in said leg portion, and means to direct steam through said tubular elements and thereby heat said elements so as to prevent condensation thereon of vapor from said developing atmosphere.

2,777,313
APPARATUS FOR WASHING AND DRYING CLOTHES
Clarice B. Dodge, Wabash, Ind.
Application March 9, 1951, Serial No. 214,820
9 Claims. (Cl. 68—20)



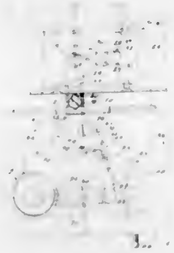
1. In a clothes dryer, means forming an air-tight receptacle, including a clothes-receiving drum, means for rotatably supporting said drum, closure means providing access to the interior of said drum for insertion and removal of clothes from said drum, means including a blower for supplying heated air to said drum, means including a vacuum pump for exhausting said drum and for creating a vacuum in said drum, valve means for starting and stopping the supply of air from said blower to said drum, means for controlling said exhausting means to start and stop evacuation of said drum, and means for regulating the operation of said valve means and said controlling means to subject the interior of said drum and the clothes therein periodically to a vacuum, said regulating means causing the supply of air to said drum from said blower to be discontinued during the pulling of a vacuum in the drum and stopping evacuation of said drum while air is being supplied to the drum so that the interior of said drum and the clothes therein are intermittently subjected to vacuum and rapidly returned to about atmospheric pressure, whereby drying is accomplished at relatively low temperatures and heat to compensate for heat lost by latent heat is supplied intermittently to clothes in the interior of said drum.

2,777,314
WASHING MACHINE VAPOR SEAL
Thomas R. Smith and William F. Scott, Newton, Iowa, assignors to The Maytag Company, Newton, Iowa, a corporation of Delaware
Application June 27, 1955, Serial No. 518,286
6 Claims. (Cl. 68—23)



1. In a washing machine having a cabinet enclosing a tub mounted for nutational movements about a point lying on a vertical axis passing through the center of said tub, a vapor seal sealing the interior of said tub from the interior of said cabinet comprising, a depending flange on said cabinet defining an access opening into said tub through said cabinet, a spherical segmental member connected to said tube adjacent said depending flange, a resilient sealing element fastened to said depending flange and contacting said segmental member in frictional engagement to provide a seal between said element and said segmental member during nutational movements of said tub, said segmental member having a radius of curvature equal to the distance between said segmental member and the point of nutation of said tub.

2,777,315
FOOD PEDAL OPERATED LATCH MECHANISM
William O. Burke, Rockford, Ill., assignor to National Lock Company, Rockford, Ill., a corporation of Delaware
Application April 16, 1954, Serial No. 423,595
9 Claims. (Cl. 70—144)



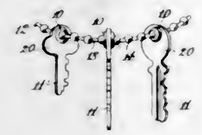
3. In a latch mechanism for a cabinet having a lid provided with a pivotally mounted strike hook, latch retaining means in the cabinet comprising a housing, a fixed keeper in the housing, a slotted plate slidably mounted adjacent one end on the keeper, a latch bolt pivotally mounted intermediate its length in the housing with one end of said latch bolt pivotally connected to the other end of the plate and thereat carrying a roller, means for spring-biasing the other end of the latch bolt, a projection on the housing, a cocking lever having one end pivotally mounted on the latch bolt and the other end of the cocking lever provided with a trigger part adapted to engage the projection when the strike hook is disengaged from the latch retaining means, means for spring-biasing the cocking lever to cocked position in which the trigger part engages the projection and the latch bolt is retained thereby in cocked position when the lid is open, said keeper and roller being so spaced apart that when the latch bolt is in cocked position and the lid is being closed, the strike hook enters the space between the keeper and the roller carried by the latch bolt, engages and trips the cocking lever to disengage it from the projection whereby the latch bolt is spring-biased to latching position with the roller on the latch bolt forcing the strike hook into latching engagement with the keeper, a projection on said slotted plate, and means including an arm pivotally connected to the latch bolt and provided with a projection for releasing the strike hook from the keeper by pivoting the latch bolt to withdraw its roller and longitudinally move the plate whereby the projection on the plate contacts and disengages the strike hook from the keeper.

2,777,316
SAFETY ATTACHMENT FOR A STOVE
Albert Mello, New Bedford, Mass.
Application June 23, 1953, Serial No. 363,631
1 Claim. (Cl. 70—177)

In combination, a support, a valve mounted on the support, a rotatable plug controlling the valve, a coupling bar having a first end connected to said plug and a second end, a knob secured on said second end, a locking bar having first and second ends, said locking bar extending crosswise of said coupling bar, means mounting said first end of the locking bar on said support for endwise movement in opposite directions from a locked position to an unlocked position, an opening in said locking bar through which said coupling bar extends, said opening having edges out of contact with said coupling bar in the unlocked position of the locking bar, said opening having a stop edge, said knob and coupling bar

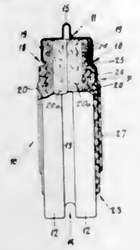
being rotatable together to closed position in which the burner valve is closed, said stop edge being positioned to engage a side of the coupling bar only in the locked position of the locking bar whereby rotation of the coupling bar is precluded, said means comprising an arm pivoted to said second end of the locking bar and to said support, and actuating means connected to said arm to swing said arm for moving the locking bar endwise between its locked and unlocked positions.

2,777,317
KEY HOLDING DEVICE
Max C. Oill, New York, N. Y.
Application July 7, 1954, Serial No. 441,807
7 Claims. (Cl. 70—457)



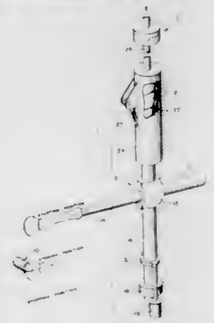
6. A device for holding lock keys assembled in spaced relation to each other, comprising a carrier part, and apertured grippers made of resilient material strung on said carrier part, said carrier part comprising a length of wire and globular beads on said wire in spaced relation to each other, said grippers severally being insertable in the usual eyes of the keys, the normal size of the aperture in each of said grippers being smaller than the diameter of each of said beads, so that said grippers severally may be assembled on said carrier part between adjacent beads, and also be removed from said carrier part subject to the yieldable gripping action of said grippers.

2,777,318
STRUCTURAL PLANKING UNIT FOR WALLS OR FLOORS
Clarence William Kinsman, New York, N. Y.
Application March 20, 1952, Serial No. 277,618
4 Claims. (Cl. 72—32)



1. A composite load carrying structural planking unit, comprising a hollow and enclosing rectangular structural metal body having a tongue on one edge and a groove on the opposite edge at the lengthwise extent and at the widthwise extent of said body, the metal body having a pair of opposite side faces, said metal body prior to assembly having rectangular apertures in both side faces thereof, and an inner cavity extending between the apertures, a layer of wire mesh having diagonally positioned wires welded together and placed inside said body, said mesh being bent outwardly of said metal body at one of said apertures and united in permanent union to the edges defining said aperture at one of said side faces so as to form a mesh layer extending sideways beyond said one side face of said body and in covering relation with said one aperture, the plane of the wire mesh being slightly outside the plane of said one side face of said body, a sectional core of fibrous insulation material filling the inner cavity of said body, said sectional core having a hard finished outer layer and at least one inner layer, the outer layer being made of material harder than said inner layer and secured to said inner layer, said outer layer extending through said aperture to provide an outer face, the plane of which is appreciably outside said one side face of said body, said diagonally positioned wire permitting a load to be carried by said wire mesh to augment the load carrying capacity of said metal body in horizontal, vertical and diagonal directions.

2,777,319
ROTARY TARGET PROJECTOR
William K. MacCurdy, Menlo Park, Calif., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application June 9, 1954, Serial No. 435,657
10 Claims. (Cl. 73—12)

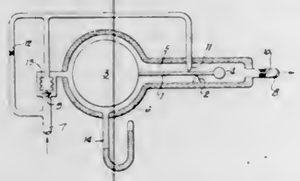


1. Controlled impact apparatus comprising a support mounted for rotation about an axis and translation along said axis, a stationary first member fixed at a given radial distance from said axis, a second member carried by said support at said given radial distance from said axis, said support being adapted to be driven to a predetermined angular velocity with said second member moving in a radial plane axially spaced from the radial plane including said stationary member, and selectively operable means for causing axial translation of said support during rotation of the latter whereby to bring said planes into coincidence and cause impact between said members.

2,777,320
GAS DENSITY METERS
Henri Boulestreau, Fontenay-aux-Roses, France, assignor to Soreg, Paris, France, a limited liability company of France
Application May 28, 1953, Serial No. 357,981
4 Claims. (Cl. 73—30)

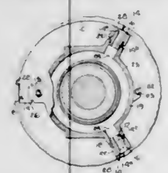
1. Apparatus for indicating density of a gas comprising structure providing an enclosed chamber having inlet

and outlet connections for flow through said chamber of a gas of which the density is to be measured, a baroscope balance mounted in said chamber for moving in response to variations in density of a gas flowing therein, means for varying the rate of flow through one of said connections to vary the absolute pressure of gas in said chamber, means for detecting the position of said baroscope bal-



ance, and power operated control means cooperating with said detecting means and flow rate varying means for operating the latter in response to changes in position of said balance to decrease and increase absolute pressure of gas in said chamber respectively as said balance moves in response to increase and decrease of said gas density, and means for measuring and indicating absolute pressure of gas in said chamber.

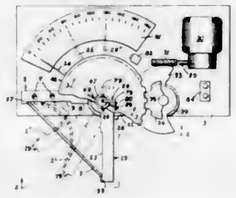
2,777,321
FLUID JET SIZE MEASURING DEVICE
Richard P. Price, Cleveland, Ohio, assignor to Barnes Drill Co., Rockford, Ill., a corporation of Illinois
Application September 29, 1953, Serial No. 382,957
3 Claims. (Cl. 73—37.9)



1. In a jet sizing device for measuring the diameter of a cylinder, the combination of, a support adapted to extend along the cylinder axis, a carrier mounted on said support for lateral floating transaxially of the cylinder, means on said carrier defining a plurality of orifices angularly spaced apart and opening radially toward said cylinder, and means defining a fluid supply chamber on said carrier communicating with each of said orifices, each of said orifices having a passage radially spaced from the periphery of the carrier and an expansion cavity defined by a wall diverging at an angle of about sixty degrees from the end of said passage to an enlarged opening at said carrier periphery.

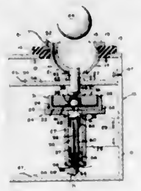
2,777,322
APPARATUS FOR TESTING THE FLEXIBILITY OF MATERIALS
Israel Weber and Leonard Berger, Philadelphia, Pa., assignors to the United States of America as represented by the Secretary of the Army
Application November 2, 1953, Serial No. 389,895
4 Claims. (Cl. 73—100)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. Apparatus for testing the flexibility of materials comprising: a pair of specimen receiving stops mounted for arcuate movement relative to each other, said stops being normally disposed angularly displaced from each other with respect to a reference point and equidistant from said reference point, mechanism for varying the angular displacement between said stops without altering the distance between said stops and said reference point, and an indicator so connected and arranged with



at least one of said stops to denote the variation in said angular displacement.

2,777,323
TESTING MEANS FOR A PRIMER
Harry W. L. Street, Silver Spring, Md.
Application May 28, 1952, Serial No. 290,610
5 Claims. (Cl. 73—35)
(Granted under Title 35, U. S. Code (1952), sec. 266)

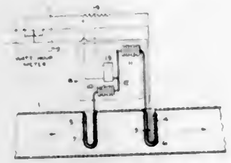


1. A device of the character disclosed for testing an explosive primer, the combination of primer firing means, a mass for driving said firing means into firing engagement with a primer, a normally charged cup-shaped electrode having an aperture within which said firing means is adapted to move without contact with the electrode, and an electronic timer having a starting connector connected to said electrode for developing a timer starting signal resulting from an increase in the capacity between the electrode and firing means as the mass moves within said electrode an amount sufficiently to drive said firing means into firing engagement with the primer.

2,777,324
APPARATUS FOR DETERMINING THE STORAGE QUALITY OF GRAIN
Norton Conrad Ives, San Jose, Costa Rica
Application January 21, 1953, Serial No. 332,305
2 Claims. (Cl. 73—73)

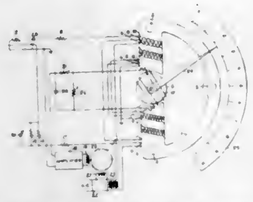
1. Apparatus for determining the storage quality of grain comprising a closed container adapted to be partially filled with grain, means extending into said container for recording the temperature of the grain in the container, a metal plate having a pair of faces and supported in said container so that one of said faces is disposed adjacent one of the walls of said container, means in contact with the other of said faces for progressively lowering the temperature of said plate, said one of said faces being shiny and having a thin film of wax applied to a portion thereof, with said waxed portion of said one face being immediately visually distinguishable from the unwaxed portion of said one face when the temperature of said plate has been lowered to the dew point temperature of the air in said container and means operatively associated with said plate for measuring the temperature thereof.

2,777,325
APPARATUS FOR INDICATING OR MEASURING THE FLOW OF LIQUID THROUGH A CONDUIT
Jacobus Groenhof and Johannes H. Bockmeulen, Delft, Netherlands, assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware
Application February 13, 1953, Serial No. 336,858
3 Claims. (Cl. 73—204)



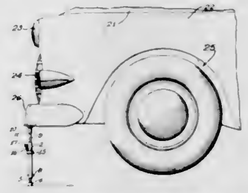
1. Apparatus for measuring the flow of liquid through a substantially horizontal conduit, said apparatus comprising first and second elongated cylindrical temperature responsive fluid filled pressure bulbs vertically positioned within said conduit and extending through the top of said conduit and substantially across the bore thereof, said second pressure bulb being positioned downstream of said first pressure bulb and in spaced relationship thereto, electrical heating means positioned adjacent said second pressure bulb for heating said second pressure bulb, electrical circuit means including switch means for controlling the input of said heating means to maintain a constant temperature differential between said first and second pressure bulbs, pressure transmission means in communication between said first and second pressure bulbs and said switch means of said circuit means for actuating said switch means in response to changes in differential pressure between said bulbs, and means for continuously measuring the current supplied to said heating means, the input of said heating means being dependent on the flow through said conduit.

2,777,326
ELECTRICAL TEMPERATURE MEASURING APPARATUS
Frederic P. Schwieg, Nahant, and Albert Hansen, Jr., Lynn, Mass., assignors to General Electric Company, a corporation of New York
Application March 20, 1953, Serial No. 343,577
13 Claims. (Cl. 73—362)



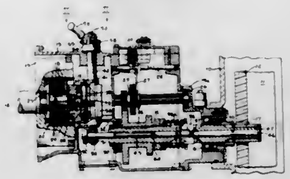
1. Condition responsive apparatus, comprising a magnetic core having a gap, a rotor within said gap, a primary winding and a pair of secondary windings on said core, a winding on said rotor, first and second impedance elements, said secondary windings and said impedance elements being connected together in a series circuit loop to form an impedance bridge, one of said impedance elements having a magnitude of impedance which varies as a function of changes in said condition to unbalance said bridge, connections for applying alternating current to said primary winding to energize said bridge, voltage-responsive means and a resistor connected in series with said rotor winding between the circuit junction of said two secondary windings and the circuit junction of said two impedance elements, said voltage-responsive means including means for moving said rotor to rebalance said bridge and a capacitor connected across said resistor and said rotor winding in series.

2,777,327
VIBRATION INDICATOR
Charles W. MacMillan, Rock Island, Ill., assignor to Bear Manufacturing Company, Rock Island, Ill., a corporation of Delaware
Application June 14, 1954, Serial No. 436,504
3 Claims. (Cl. 73—457)



1. A vibration indicating device which comprises, a tubular member, means for supporting said tubular member at one end portion thereof, a vibration bar telescopically carried at the opposite end portion of said tubular member for axial movement within said tubular member, resilient means carried within said tubular member and bearing upon an end of said vibration bar for resiliently holding the opposite end thereof in contact with a body the vibrations of which are to be indicated, said tubular member being stationary and independently supported relative to said body, a fulcrum rigidly mounted upon said tubular member, a pointer pivotally carried by said fulcrum, means for pivotally and slidably connecting a portion of said pointer on one side of said fulcrum to said vibration bar whereby axial movement of said bar swings said pointer about said fulcrum, and means for adjusting said supporting means to predetermined positions lengthwise with respect to said tubular member.

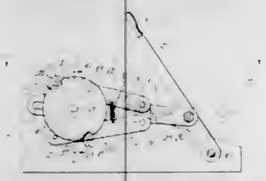
2,777,328
CONTROL FOR STARTER PINION ENGAGING MECHANISM
Harold H. Wagner, Peoria, Ill., assignor to Caterpillar Tractor Co., Peoria, Ill., a corporation of California
Application December 30, 1954, Serial No. 478,600
4 Claims. (Cl. 74—6)



1. In a starting mechanism for an engine having a ring gear, a starter driven pinion gear wherein the pinion

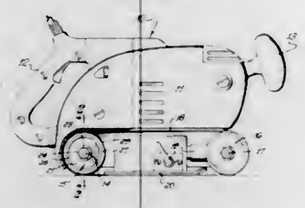
gear is slidably supported on a hollow shaft for movement to and away from the ring gear, and a friction clutch interposed between the starter and the pinion gear, control means for sequential operation of first, engaging the pinion gear with the ring gear, and second, engagement of the friction clutch, said control means comprising a rod slidable in the hollow shaft, a yoke engaging the rod and secured to a rock shaft, a control lever extending from the rock shaft, said lever being provided with a projecting lug to contact an ear extending from a sleeve surrounding said rock shaft and carrying a yoke to effect engagement of the clutch.

2,777,329
MOTION-TRANSMITTING DEVICE
Oscar H. Banker, Evanston, Ill., assignor to New Products Corporation, Chicago, Ill., a corporation of Delaware
Application April 22, 1952, Serial No. 283,739
9 Claims. (Cl. 74—96)



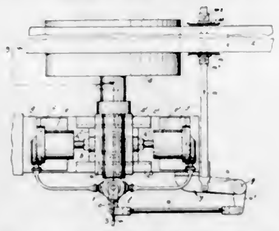
1. In combination, a rotatably mounted member which is adapted to be oscillated, a reciprocable power-transmitting element which is adapted to turn said oscillatable member in one direction when the element is reciprocated and is adapted to turn said oscillatable member in the opposite direction when the element is again reciprocated, two pawl-engaging detents on the oscillatable member at opposite sides of the center thereof, two pawls carried by the reciprocable element for one-way clutched engagement with said detents, and stationary means for preventing clutched engagement of each pawl with its detent when the other pawl is in clutched engagement with its detent.

2,777,330
BELT SUPPORTING DEVICE
Herbert Barclay, Los Angeles, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California
Application October 24, 1952, Serial No. 316,759
6 Claims. (Cl. 74—230.7)



6. A belt supporting device comprising: a body portion providing a substantially cylindrical rim; resilient sleeve means disposed on said rim to provide a belt-engaging outer surface with spaced grooves; and a resilient ring removably disposed in each groove, said rings having circular cross sections, the diameters of which are greater than the depths of said grooves, the peripheries of said rings projecting beyond the outer surface of said sleeve means to provide said belt-engaging surface with a crown effect.

2,777,331
AUTOMATIC GUIDES FOR TRAVELLING BANDS OR BELTS
John Cruickshanks, Edinburgh, Scotland, assignor to Bertrams Limited, Edinburgh, Scotland
Application October 28, 1952, Serial No. 317,341
Claims priority, application Great Britain October 29, 1951
2 Claims. (Cl. 74—241)

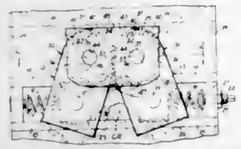


1. Apparatus for controlling the transverse position of a horizontal travelling band trained on a rotating roll comprising, a support, a shiftable bearing means for journalling the rotating roll and including a pivotable stem whereby the angular position of the axis of the rotating roll is shiftable with respect to the path of the travelling band, a pair of guides fixed to said support at one end of the rotating roll, a slidable bearing block adjustable between said guides and supporting the stem of said shiftable bearing means, a pair of hydraulic cylinders, each of said hydraulic cylinders secured to said support at a side of said slidable bearing block and having a piston reciprocable therein and provided with a piston rod fixed to said slidable bearing block, an hydraulic valve mounted on said slidable bearing block and having a control vane rotatably mounted therein and connected to each of said hydraulic cylinders for adjusting said slidable bearing block angularly relative to a normal operating position at right angles to the direction of movement of the travelling band, pump means connected to said hydraulic valve for supplying hydraulic pressure thereto, a feeler member on each side of the travelling band and being responsive to changes in the transverse position of the travelling band with respect to the rotating roll, a bell crank lever pivotally mounted on said support, a shiftable feeler rod connecting said feeler members to said bell crank lever, and a link connecting said bell crank lever to the control vane of said hydraulic valve, all adapted and arranged with the edge of the travelling band engaging and actuating said feeler members with said feeler rod and bell crank and link and the control of said hydraulic valve being responsive thereto and effecting actuation of said hydraulic cylinders and slidable bearing block therebetween whereby the adjusting movement of said bearing means away from its normal position is accomplished to maintain the travelling band in a desired transverse position on the rotating roll.

2,777,332
DRIVE, PARTICULARLY FOR VEHICLES
Friedrich K. H. Nallinger, Stuttgart, Germany
Application February 17, 1950, Serial No. 144,827
Claims priority, application Germany February 19, 1949
28 Claims. (Cl. 74—368)

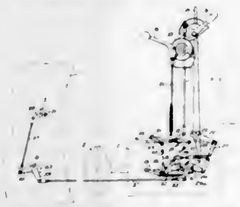
1. In a drive mechanism, two terminal shafts consisting of a drive shaft and a driven axle shaft; an intermediate shaft; a countershaft; gearing members providing a drive connection between said countershaft and one of said two terminal shafts; gearing members providing a reverse speed transmission between the other terminal shaft and said countershaft; means for coupling said last-mentioned terminal shaft to said intermediate shaft; a free wheeling device operatively connected with the gearing members providing a drive connection from said intermediate shaft on to said countershaft; another free wheeling device operatively connected between said intermediate shaft and said first mentioned terminal shaft whereby the two free wheeling devices will provide a drive power transmission in two directions opposite to one another; and an uncoupling device operatively connected in the intermediate shaft, for disengaging such coupling devices of the two free wheeling units as are connected to the intermediate shaft.

2,777,333
TIMING GEAR-TRAIN ASSEMBLIES
Theodore J. Gundlach, Belleville, Ill., assignor to T. J. Gundlach Corporation, Belleville, Ill., a corporation of Illinois
Application January 29, 1953, Serial No. 334,037
16 Claims. (Cl. 74—392)



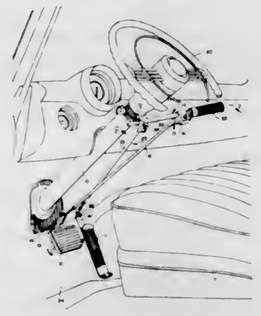
1. In a machine embodying a pair of variably separable, parallel, rotatable shafts operable in mutually timed relation, gearing connecting the shafts for operation in timed relation throughout a substantial range of separation of the shafts, a bracket structure for positioning the gearing, the bracket structure including bracket sections carried by said shafts, said sections having interfitted portions, each of the bracket sections carrying an element of the shaft-interconnecting gearing, and a pair of said sections being connected for movement relative to each other in variably divergent relation.

2,777,334
TRACTOR TRANSMISSION AND MOTOR CONTROL MEANS
Cyril Maurice Simpson, Coventry, England, assignor to The Daimler Company Limited, Coventry, Warwickshire, England
Application May 7, 1951, Serial No. 224,863
Claims priority, application Great Britain May 12, 1950
2 Claims. (Cl. 74—472)



1. A power transmission for tractors having an engine and a fuel control valve therefor, a hydraulic coupling and a pre-selector gear box for different gear ratios, comprising in combination, means for pre-selecting a gear ratio, means for making effective the pre-selected gear ratio, means including a manually operable lever for opening and closing the fuel control valve to control the operation of the engine, a manually operable lever forming part of said means for making effective a gear ratio, and means including a pin and slot mechanism interconnecting said levers for opening and closing the fuel control valve in such manner that the fuel control valve is adapted automatically to be at least partially closed just prior to making effective a pre-selected gear ratio and to be opened to its previous position just after the pre-selected gear ratio has been made effective.

2,777,335
HAND APPARATUS FOR CONTROLLING BRAKES AND ACCELERATORS
William M. Engberg and William D. Wells, Rockford, Ill.
Application October 4, 1954, Serial No. 459,898
3 Claims. (Cl. 74—481)

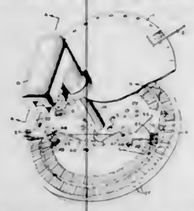


1. In apparatus for controlling the brakes and accelerator of a vehicle, the combination of, a mounting bracket adapted to be secured to the steering column of the vehicle, a member mounted on said bracket to swing bodily about a first axis extending transversely of said column, said member including a rigid hollow arm projecting outwardly from said axis and beneath the vehicle steering wheel, a shaft journaled on said member and extending through said hollow arm from the projecting end of the latter to a point beyond the other end thereof, said shaft cooperating with said member to define a lever swingable toward and away from the vehicle floorboard, a rod pivotally connected at one end to the projecting end portion of said hollow arm and adapted at its other end to be connected to the vehicle brake pedal for depressing the latter by swinging the lever including the arm toward said floorboard, a crank arm projecting rigidly from said shaft adjacent said other hollow arm end, a rod pivotally connected at one end to said crank arm and adapted to be connected at its other end to the vehicle accelerator pedal for depressing the latter by turning said shaft relative to said member, and a handle journaled on said projecting lever arm end and secured to the adjacent end of said shaft for swinging said lever bodily and for rotating said shaft relative to said member.

2,777,336
INDEX MECHANISM
Erick O. Schonstedt, Silver Spring, Md., assignor to the United States of America as represented by the Secretary of the Navy
Application October 17, 1952, Serial No. 315,440
8 Claims. (Cl. 74—527)
(Granted under Title 35, U. S. Code (1952), sec. 266)

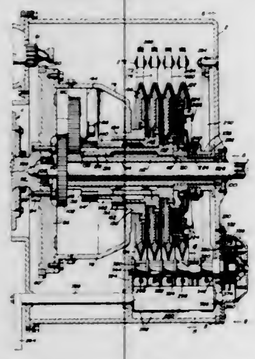
1. An indexing mechanism for rotating a shaft through a predetermined number of degrees comprising a rotatable shaft, an arm fixedly mounted on the shaft and normal thereto, a fixed circular plate coaxially mounted with respect to said rotatable shaft, locating means formed in said circular plate, said locating means comprising a plu-

rality of blocks having V-shaped grooves therein, roller means mounted on said arm and spring urged into engage-



ment with said locating means, and release means mounted on said shaft adapted to lift said roller means from engagement with the locating means.

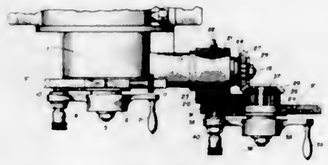
2,777,337
POWER TRANSMISSION
Clifford T. Hultin, Arlington, Va.
Application August 15, 1952, Serial No. 304,666
79 Claims. (Cl. 74—754)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a power transmission comprising driver and driven shafts, a planetary unit with controlled elements for transmitting torque between said driver and driven shafts at different gear ratios, said control elements comprising brake drums attached to different elements of said planetary unit, biased brake bands about said brake drums to thereby engage the different gear ratios, brake band ends having projecting cam follower surfaces and cam means positioned between said cam surfaces to permit the simultaneous disengagement of all the brake bands by rotating said cam means, the improvement which comprises positioning a rotary selector means between a series of oppositely disposed projecting lugs on said brake band ends adjacent said cam means, said rotary selector means incorporating a series of diametral perforations under the respective pairs of projecting lugs of the various brake bands to thereby permit said lugs to fall into the perforations depending upon the angular position of said rotary selector means to thereby effect engagement of the particular brake band with its brake drum, and means for selectively turning said rotary selector means.

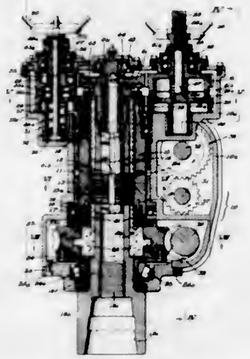
2,777,338
ATTACHMENT FOR INDEXING HEADS
James R. Thompson, Youngstown, Ohio
Application April 1, 1950, Serial No. 153,420
2 Claims. (Cl. 74—813)

1. In combination with an indexing head comprising a housing, a main spindle, an indexing spindle and a shaft selectively operable to rotate the main spindle at different gear ratios, index plate supporting means, index plate clamping means operable to restrain from rotation an index plate supported by the supporting means and means for rotating the main spindle intermittently through a plurality of angularly equal intervals in correspondence to divisions of an indexing plate comprising a predetermined number and arrangement of indexing holes when said plate is supported by said supporting means and restrained from rotation, an attachment including a bracket removably securable to the housing adjacent the end of said shaft, an auxiliary indexing spindle jour-



naled in the bracket, gearing interposed between the auxiliary indexing spindle and the shaft whereby to drive the shaft upon rotation of the auxiliary spindle when through release of the clamping means the index plate is free to rotate, index plate supporting means and means for rotating the auxiliary spindle intermittently through angularly equal intervals in correspondence to the divisions of an indexing plate similar to the first mentioned plate when supported by the last mentioned supporting means.

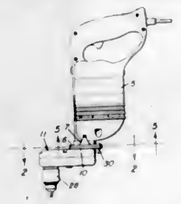
2,777,339
PORTABLE BORING MACHINE
John A. Hess, Columbus, Ohio
Application July 30, 1953, Serial No. 371,365
6 Claims. (Cl. 77—2)



1. In a portable boring machine, a casing; a sleeve rotatably supported within the casing and having a spur gear affixed to its upper end; a hollow tool-carrying spindle fitting within the sleeve and having a screw connection therewith; a drive gear in the lower portion of the casing with which the spindle has a sliding spline connection; a spur gear of a different size rotatably supported with the upper part of the casing above the first mentioned spur gear and provided with a relatively long pendant shaft prolongation, said prolongation extending partway down into the hollow of the spindle and having a sliding spline connection with the bore of the said spindle; a pair of normally idling and separated coaxial transmission gears in mesh respectively with the spur gear on the sleeve and with the spur gear spline-connected to the spindle; releasable means whereby said pair of gears can be clutched together to cause differential rotation of the sleeve relative to the spindle and concurrent axial movement of the latter through the medium of

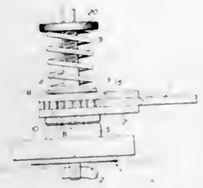
the screw connection between the sleeve and the spindle; a pair of normally idling and separated coaxially-arranged auxiliary upper and lower transmission gears in mesh respectively with the gear spline-connected to the spindle and the gear at the upper end of the sleeve, the upper auxiliary transmission gear being of the same size as the spindle gear and the lower auxiliary transmission gear being of the same size as the sleeve gear; and means whereby said auxiliary transmission gears can be clutched together to cause the sleeve and the spindle to rotate together at the same speed and in the same direction without impartation of attendant axial movement to said spindle.

2,777,340
OFFSET DRILLING ATTACHMENT
Leonard J. Hettwer and Hubert J. Hettwer, Scotts Mills, Oreg.
Application September 28, 1955, Serial No. 537,183
1 Claim. (Cl. 77—55)



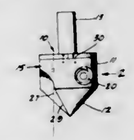
In combination with an electric drill having a drive spindle, a drive socket threaded onto said spindle, an elongated housing into one end of which said socket extends and on which said housing is rotatably mounted for swinging adjustment about the axis of said spindle, a driven shaft journalled in and extending out of the other end of said housing parallel with said spindle, gearing in said housing operatively connecting said socket to said shaft, a drill bit chuck on said shaft, and means for locking said housing in adjusted position to the drill comprising a pair of annular plates fixed to said drill and housing respectively, in surrounding concentric relation to said socket and spindle and relatively rotatable in engaging relation, one of said plates having a concentric series of spaced openings therein and the other having a spring pressed pin slidable therein into said openings selectively and offset to one side of said housing.

2,777,341
TREPANNING TOOL FOR CUTTING HOLES IN SHEET METAL BODIES OR THE LIKE
Albert George Marchant, Burgess Hill, England
Application November 13, 1953, Serial No. 392,008
Claims priority, application Great Britain November 14, 1952
2 Claims. (Cl. 77—69)



1. A trepanning tool for cutting out and removing a portion of the wall of a completely closed hollow container, said wall having a small pilot hole formed therein; said tool comprising a bolt having a first end, a catch member, means provided on the first end of the bolt for pivotally attaching the catch member thereto so that the catch member can be disposed in axial alignment with the bolt and be passed through the pilot hole to the interior of the container, said means securing the catch member to the bolt so that the catch member, in its position of axial alignment, lies within the cross-sectional area of the bolt and so that the catch member is free to be moved by gravity, when the bolt is moved out of its position perpendicular to the wall, into a position transverse to the bolt for gripping the inner surface of the wall, said bolt having an externally threaded second end, a spindle having an inner end formed with an axial bore within which the bolt is socketed, said bore being internally threaded to engage the threaded second end of the bolt, said spindle being of a slightly greater external diameter than the bolt and being adapted to bear on its inner end on the outer surface of the wall in clamping relation with the catch member, said spindle having a smooth outer surface, a cutter rotatably circumposed on said surface, a ratchet means rotatably circumposed on the surface and connected to the cutter, said spindle having an outer externally threaded end portion, a nut threaded on said threaded portion, and spring means coiled on the spindle and bearing between the nut and the ratchet means to adjust the cutter and hold it tightly engaged with the surface of the wall.

2,777,342
DEBURRING, CHAMFERING, COUNTERSINKING TOOL
Joseph W. Fried, Burbank, Calif.
Application April 23, 1954, Serial No. 425,233
2 Claims. (Cl. 77—73.5)

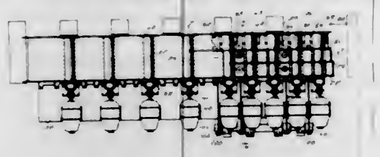


1. A tool of the class described comprising a body having an axial shank thereon by which the body may be rotated, said body having a conical surface of revolution formed thereon the axis of which is coincident with the axis of the shank, the body being divided on a diametrical plane into two parts one of which is movable laterally on said plane relatively to the other, there being a chip throat on each part one side of which terminates in an edge on said surface of revolution spaced from said diametrical plane, whereby when one part is displaced laterally to the other said edges will be located on surfaces of revolution slightly different from the mentioned surface of revolution and can consequently function as cutting edges, and means for holding the parts of the body in said laterally displaced position, comprising a bolt extending through one part and threaded into the other said bolt being on an axis inclined other than at right angles to said diametrical plane and other than parallel to a diameter at right angles to said diametrical plane.

2,777,343
TILTING TABLE
Edward T. Peterson, Reading, Pa., assignor, by mesne assignments, to Birdsboro Steel Foundry and Machine Company, Birdsboro, Pa., a corporation of Delaware
Application July 18, 1951, Serial No. 237,401
2 Claims. (Cl. 80—47)

1. In a rolling mill, a multiple high roll stand, a tilting table on one side of the roll stand, a stop on the opposite

side of the roll stand and mechanism interconnecting the tilting table and the stop to raise the stop on the



one side of the roll stand when the tilting table is raised on the opposite side.

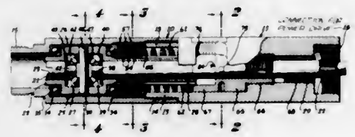
2,777,344
BOX STRAPPING TOOL
Harry A. Smith, Middletown, Conn., assignor to The Stanley Works, New Britain, Conn., a corporation of Connecticut
Application October 26, 1953, Serial No. 388,409
6 Claims. (Cl. 81—9.1)

1. In a box strapping tool of the type having a frame, a sealing mechanism supported in said frame for movement between a rest position and a sealing position, a magazine on said frame carrying a stack of seal members, a seal feeding member supported on said frame for reciprocation between a seal delivering position in alignment with the rest position of said sealing mechanism and a seal extracting position at said magazine, and a control handle for moving said sealing mechanism between its rest and sealing positions, linkage means interconnecting said sealing mechanism and seal feeding member for displacing said feeding member into said seal extracting position responsive to movement of said sealing mechanism to said sealing position, locking means on said linkage means for securing said feeding member in said extracting position, and trip means connected to said linkage means and operative to disengage said locking means to release said feeding member for movement from its seal extracting position to its seal delivering position responsive to movement of said sealing mechanism toward its rest position.

2,777,345
MAGAZINE-TYPE HAND TOOL FOR CRIMPING ELECTRICAL CONNECTORS
George S. Reider, Jr., Highspire, Pa., assignor to Aircraft-Marine Products, Inc., Harrisburg, Pa.
Application April 22, 1953, Serial No. 350,338
17 Claims. (Cl. 81—15)

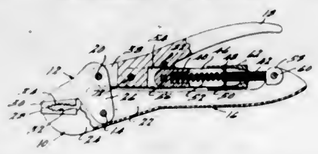
3. A hand tool for crimping electrical connectors comprising, in combination, a pair of pivoted handles, a pair of relatively movable crimping jaws effectively connected to said handles for relative movement toward and away from each other as said handles are pivoted, a track formed in one of said handles for supporting a strip of connectors to be crimped, and feed mechanism mounted on said one handle for sliding movement therealong, said feed mechanism having a part adapted to engage said strip of connectors and including a lever pivoted at one end to said part and at the other end pivotally connected by a lost motion linkage to the other handle, whereby as said handles are separated said feed mechanism is advanced after a predetermined delay to move said strip of connectors toward said crimping jaws.

2,777,346
PREDETERMINED TORQUE RELEASE UNIT FOR WRENCHES AND THE LIKE
Allen J. Brame, Los Angeles, Calif., assignor, by mesne assignments, to Thomas P. Walker, Los Angeles, Calif., as trustee
Application June 21, 1954, Serial No. 437,942
11 Claims. (Cl. 81—52.4)



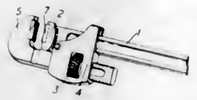
5. In a predetermined torque release unit for wrenches and the like, the combination of: a rotary drive member; a rotary output member in coaxial alignment with the drive member; a first gear and a second gear mounted on the adjacent ends respectively of said two members coaxially therewith; a planetary cage coaxial with said two gears; at least one planetary gear rotatably mounted on said cage and meshed with both said first and second gears; friction means surrounding one of said members to resist rotation of said cage; spring means extending longitudinally of said one member to place said friction means under pressure to create frictional resistance; and a bushing surrounding said one member in abutment against said spring means, said bushing being screw-threaded for longitudinal adjustment against said spring means to vary said pressure.

2,777,347
SELF-ADJUSTING TOGGLE CLAMP
Jack J. Sendoykas, Grosse Pointe Park, Mich.
Application October 27, 1954, Serial No. 465,005
15 Claims. (Cl. 81—84)



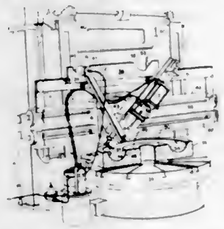
5. A self-adjusting toggle clamp comprising a pair of pivotally connected jaws, a fixed handle on one jaw, a movable handle, a pivot connecting said movable handle to the other of said jaws, telescoping members, one member being in the form of a collet and said collet being arranged to clampingly engage the other of said members, a pivot connecting one member to said movable handle, a pivot connecting the other member to said fixed handle, a tapered collar slidable on said collet and adapted to clamp the latter on said other member, and collar actuating means pivoted to the collar and to said movable handle.

2,777,348
JAW FACE ATTACHING MEANS FOR WRENCH JAW CONSTRUCTIONS
Frank Leslie Wraight, Halesowen, Birmingham, England
Application September 1, 1955, Serial No. 531,975
2 Claims. (Cl. 81—186)



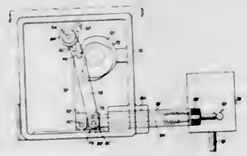
1. A wrench having gripping jaws, a groove transversely from side to side across the width of a jaw, a separate gripping plate mounted in the groove with the front and rear edges of said plate lying against the sides of the groove, a dowel pin receiving groove in the bottom of said plate receiving groove which runs longitudinally of the jaw and at right angles to said groove passing transversely across the jaw and is part circular in cross section with its centre on the outer side of the mouth of the dowel pin receiving groove, circular holes in the jaw at the side walls of the first mentioned groove and co-axial with said dowel pin receiving groove, a dove-tailed groove in the bottom of said gripping plate and in register with said dowel pin receiving groove and a dowel pin having notches in each side to form a dove-tail longitudinal projection and a part cylindrical portion of more than a half-circle in circumference so that the dowel pin is constrained to have axial movement only in the said dowel engaging grooves and thereby locks the gripping plate bedded on the bottom of said plate engaging groove, the dowel pin also engaging in said circular holes in each side of said plate engaging groove.

2,777,349
CONTROL SYSTEM
Clarence Johnson, South Euclid, Ohio, assignor to Bailey Meter Company, a corporation of Delaware
Original application October 29, 1945, Serial No. 625,237. Divided and this application December 7, 1951, Serial No. 260,429
5 Claims. (Cl. 82—11)



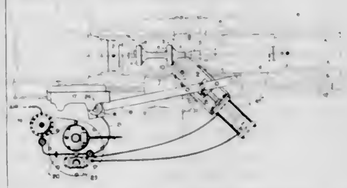
1. A machine tool for face turning comprising rotatable means for mounting a workpiece for rotation on an axis at right angles to the face to be turned, reversible drive means for said rotatable means, a first slide for reciprocation along a first path at right angles to said axis and diametrically across said face from one periphery to the opposite periphery, a second slide carried on said first slide for movement to and from the face of the workpiece along a second path at an angle to said axis and said first path, said angle being such as to facilitate the cutting of slopes that face in one radial direction on one side of said axis and slopes that face in the opposite direction on the other side of said axis so that the first slope will be cut from periphery to center and the opposite slopes will be cut as the first slide moves across center to the opposite periphery, a tool mounted on said second slide, means for reversing the rotation of said reversible drive means as the tool is carried past said axis, pattern and tracer mechanisms, one of said mechanisms mounted on said second slide and the other of said mechanisms being stationary, said pattern constituting a template which provides template control for the full movement of said second slide and tool diametrically of said face from periphery across center to the opposite periphery and, at least, presents patterns for the aforesaid slopes respectively on opposite sides of said axis, means for moving said first slide at a predetermined rate, and means for moving said second slide under the control of said pattern and tracer mechanism.

2,777,350
MACHINE TOOL CONTROL APPARATUS
Claude S. Doll and Claude E. Greene, Sidney, and Wayne B. Ailes, Pemberton, Ohio, assignors to The Monarch Machine Tool Company
Application November 28, 1951, Serial No. 258,632
9 Claims. (Cl. 82—14)



1. In a machine tool having a carriage movable on a bed, a tool holder carrying slide slidably mounted on the carriage and a pattern controlled tracer controlling a servomotor for moving the slide relative to the carriage, means for providing relative movement between said pattern and tracer in accordance with the relative movement between said slide and said bed, said tracer and said carriage being relatively movable along a given path, additional means for controlling the slide movement comprising a unit mounted on the carriage, a cam in said unit, a member connected to said cam movable into a position whereat the tracer engages the member before the tracer engages the pattern to determine a position of the slide independent of the pattern, motive means to turn the cam, and means responsive to the carriage position to actuate said motive means.

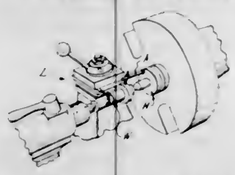
2,777,351
CONTROL SYSTEM
Clarence Johnson, South Euclid, Ohio, assignor to Bailey Meter Company, a corporation of Delaware
Application October 29, 1945, Serial No. 625,237
4 Claims. (Cl. 82—14)



1. In combination with a machine tool having a frame with work holder means for rotating a workpiece thereon and having a tool holder movable on the frame relative to the workpiece, means to move the tool holder at a given speed relative to the workpiece along a first path in a first feed direction, and controllable power means connected directly to and substantially in alignment with the tool holder for positioning the tool holder relative to the workpiece at a controllable speed and direction along a second path at an acute angle to said first path, whereby the movement of said tool holder along the

second path has a component along said first path, a pattern device, a tracer device having a movable finger adapted to scan the pattern device in accordance with the movement of the tool holder as it traverses the workpiece, said pattern and tracer devices contacting each other in a reference plane, the cutting movement of the tool holder being the vector resultant of the directions and speeds of the two motions, said controllable power means being controlled by the tracer and pattern devices and comprising a cylinder and a piston dividing the cylinder into two fluid chambers, a fluid pressure pump having an outlet and an inlet, a directional valve having a fluid entrance conduit and a fluid discharge conduit connected respectively to said outlet and inlet of said pump, said directional valve having two fluid directional control conduits connected respectively to said fluid chambers of said cylinder, said directional valve selectively controlling the flow of fluid from the pump outlet to a selected one of said fluid chambers and from the other of said fluid chambers to said pump inlet for moving the tool holder relative to the work holder means along said second path, means biasing said movable finger to a normal position uninfluenced by said pattern device causing said controllable power means to move said tool holder toward said work holder means, and said movable finger being mounted to be universally movable by contact with said pattern device throughout three hundred sixty degrees in said reference plane in a direction opposing said bias causing said controllable power means to move said tool holder away from said work holder means, said movable finger being responsive to relief and impedance from said pattern device, including impedance in a direction of said first feed direction for governing the directional valve.

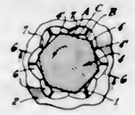
2,777,352
WORK DRIVER
Reginald S. Lanier, Minneapolis, Minn., assignor to Washington Machine & Tool Works, Inc., Minneapolis, Minn., a corporation
Application November 6, 1952, Serial No. 319,142
2 Claims. (Cl. 82—41)



1. A work carrier comprising a semi-rigid rubber body having a central opening formed therethrough adapted to be readily modified in size to receive the piece of work to be turned within a lathe in close-fitting engaging and driving relation, a rigid rod member having a pair of end portions one of which is bent into a substantially circular shape and imbedded within said body, the diameter of said circular end portion being larger than the diameter of the piece of work to be held by said body, the other end portion of said rod extending outwardly beyond the confines of said body and constituting a rigid dog member, said end portion extending outwardly from said body to engage the drive arm of the lathe and drive the piece of work held by said body during turning operations.

2,777,353
SCREW SOCKET CONSTRUCTION HAVING TOOL GUIDING MEANS FORMED THEREIN
Robert W. Willis, Long Beach, Calif.
Application October 30, 1952, Serial No. 317,640
6 Claims. (Cl. 85—45)

1. A member having a socket of non-circular cross section which is symmetrical about the axis of said socket for reception of a tool of corresponding cross section, said member having a plurality of recesses intersecting one another at the entrance of the socket and forming by said intersections at the outer end of each socket wall a tool

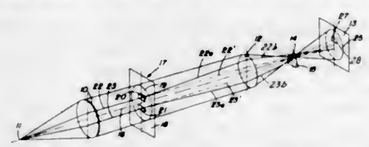


guiding ridge extending radially of the socket and being inwardly inclined from said entrance, said ridge providing substantially equal sloping edges leading to the bottom of the recess.

2,777,354
APPARATUS FOR RECORDING AND REPRODUCING VARIABLES
Michael E. Stickney, Alhambra, Calif., Royal Glen Madsen, Greenwich, Conn., and Lawrence R. Pugh, Monrovia, Calif., assignors to Beckman Instruments, Inc., South Pasadena, Calif., a corporation of California
Application September 15, 1950, Serial No. 185,122
14 Claims. (Cl. 88—14)

10. In an apparatus for recording a variable, the combination of: a rotatable member; means for varying the angular position of said member relative to a reference position through an angle proportional to any variation of the variable; means operable by said member for generating a sensible quantity varying continuously in magnitude as a sine function of said angle; means operable by said member for generating at least one additional sensible quantity varying as said sine function of said angle plus an additional constant angle; a record member; and means responsive to said sensible quantities and arranged to simultaneously record said varying quantities upon said record member.

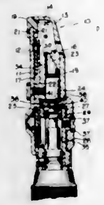
2,777,355
DEVICE FOR EVALUATING THE SENSITIVITY OF AN OPTICAL SYSTEM UTILIZING THE FOUCAULT KNIFE EDGE TEST
Walter F. Lindsey, Hampton, Va.
Application July 13, 1954, Serial No. 443,174
11 Claims. (Cl. 88—14)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. Optical sensitivity determination apparatus for use in schlieren type optical systems comprising collecting and condensing lenses and including a gas test section, a light source, an image screen, a Foucault knife-edge interceptor between said screen and condensing lens at the principal focus of said condensing lens, an elongated support adapted for placement between the lenses of and external to the gas test section and transverse to the optical axis of said schlieren system, and a plurality of juxtaposed pairs of prisms forming a line of prisms, the prisms of each pair being identical in form but opposed in

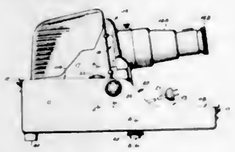
angularity, mounted on said support, the planes of light deviation of the prism pairs being parallel and the prism angle of each pair changing progressively from one support end to the other.

2,777,356
OPHTHALMOSCOPE
Raymond F. E. Stegeman, Greece, N. Y., assignor to Bausch & Lomb Optical Company, Rochester, N. Y., a corporation of New York
Application December 3, 1953, Serial No. 395,862
1 Claim. (Cl. 88—22)



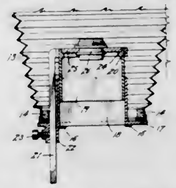
In an ophthalmoscope having a housing in which is positioned a light source, a condenser lens and a reflecting prism in optical alignment with each other, the combination of means for varying the character of a beam of light passing from said light source and lens to said prism, said means comprising a disc mounted to turn about an axis on the outer portion of the front wall of the housing, a cylindrical segment positioned within the housing above the lens in the path of light rays and having its concave portion facing the axis of the disc, said segment having a plurality of light modifying apertures, a narrow neck portion rigidly connecting the edge of the segment to the peripheral portion of the disc, the lower front wall of the housing having an arcuate slot through which the neck portion projects whereby the light modifying apertures may be brought selectively into alignment with the path of light rays by turning the disc.

2,777,357
CASE AND BASE STRUCTURE COMBINATION FOR PICTURE PROJECTORS
Ernest W. Goldberg, Wilmette, Ill.
Application November 7, 1949, Serial No. 125,919
12 Claims. (Cl. 88—24)



1. The combination with a projector of the class described of mounting means including a base in the form of a tray having a bottom with adjoining opposite side walls and trunnion means engaged respectively in a pair of said opposite side walls, and pivot means on the projector engaged in said trunnion means and mounting said projector for rocking motion, said tray defining a receptacle for lower portions of said projector and a stable rocking support for the latter, together with a rotilt adjustment including a rotatable member mounted on a wall portion of said tray eccentrically of said trunnion means, a spiral ridge defining a spiral track on said rotatable member, and follower means on said projector and situated eccentrically of its rocking axis through said trunnion means and working in said track to tilt the projector responsive to rotative movement of the rotatable member, said follower means and said rotatable member being relatively yieldable in the direction of said axis such that a tilting force applied to the projector will produce tilting movement independently of any rotation of the rotatable member.

2,777,358
LENS HOLDERS FOR PHOTOGRAPHIC PROJECTOR ENLARGERS
Frank H. Tutwiler, Huntsville, Tex.
Application December 1, 1953, Serial No. 395,503
2 Claims. (Cl. 88—24)



1. A lens-supporting attachment for application to photographic enlargers of the type having a lens board frame and an expansible bellows extending upwardly from said lens board frame, comprising: a frame plate having a medial opening therethrough; means for attaching said frame plate against said lens board frame; expansible means extending upwardly from said frame plate about the opening therein and within said bellows; lens-supporting means carried by the upper extremity of said expansible means; a post secured at its upper extremity to said lens-supporting means and extending downwardly through said frame plate; a guide tube mounted on said frame plate through which said post passes; and a set screw in said guide tube positioned to engage said post to lock the latter so as to support said lens-supporting means at any desired preset vertical position within the enclosure of said bellows.

2,777,359
MEANS OF CORRECTING ILLUMINATION FOR PRINTING COLOR FILMS
André Victor Leon Clement Debrie, Paris, France
Application March 10, 1953, Serial No. 341,493
Claims priority, application France March 25, 1952
3 Claims. (Cl. 88—24)

1. A film printing apparatus for illuminating a color film image in the plane of the latter with corrected light, comprising, in combination, a printing lamp means for directing a beam of light in a predetermined direction; a neutral-filter holding means having opposite side walls positioned substantially normal to and in the path of said beam of light and through which the light freely passes; three neutral gray filters arranged edge-to-edge and having plane faces normal to said light beam between said opposite side walls of said holding means, said neutral filters being constituted by alternate layers of opaque and transparent elements of predetermined thickness, so that the intensity of light flux passing through said neutral filters depends on the relative thicknesses of said opaque and transparent layers respectively; three color filters, each being colored with one of the elementary colors respectively, and each being aligned, in the path of said light beam, with one of said neutral filters respectively and presenting substantially the same cross-sectional area normal to the light beam as said neutral filters respective-

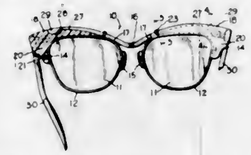
ly, so that three monochromatic beams of light, each regulated as regards intensity, issue beyond each of said aligned neutral and color filters respectively after having passed therethrough; and three light diverging means positioned, with respect to said lamp means, beyond said neutral and color filters, each of said light diverging means being aligned respectively with one of said color filters for superposing said monochromatic beams of light in the plane of the film image, said light diverging means consisting of planar-concave cylindric lenses arranged adjacent one another and having their plane faces arranged in a common plane, said plane faces being directed towards said lamp means.

2,777,360
INTERFERENCE-MICROSCOPE
Berndt Stephan Blaisse, Voorburg, Netherlands, assignor to N. V. Optische Industrie "De Oude Delft," Delft, Netherlands
Application May 15, 1952, Serial No. 287,923
Claims priority, application Netherlands May 18, 1951
3 Claims. (Cl. 88—39)

1. An interference-microscope in which the beam for imagery and that for obtaining the coherent background follow the same path geometrically comprising in combination means for supporting an object in an object plane to be illuminated by a beam of light, a condenser for concentrating said beam on said object plane, an objective having a numerical aperture larger than 0.3 focused on to said object plane for receiving the beam after it has left the object plane and producing an enlarged real image of the object, means for viewing the image, polarizing means located in the path of said beam before it reaches said object plane, a birefringent crystal plate located in the light path between said condenser and said means for supporting said object for dividing said beam into an ordinary ray and an extraordinary ray, a second birefringent crystal plate located in the path of said beam after it has left said object plane for recombining said ordinary and extraordinary rays and an analyzer located in the path of said beam after it has left said second plate, said second plate by virtue of its birefringence presenting mutually different optical path lengths to said ordinary and extraordinary rays when an object is present, whereby when a transparent object is examined comprising portions which have mutually different optical thicknesses supported at said object plane the image exhibits coincidentally viewable interference effects corresponding to the said portions of the object and resulting from the modification by the object of the relationship between the path lengths of at least one pair of said ordinary and extraordinary rays, said ordinary ray being focused at said object plane while said extraordinary ray is focused outside said object plane.

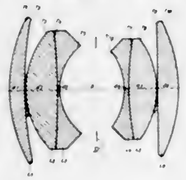
2,777,361
SPECTACLE FRAME HAVING COMBINED METALLIC AND NON-METALLIC PARTS
Raymond F. E. Stegeman, Greece, N. Y., assignor to Bausch & Lomb Optical Company, Rochester, N. Y., a corporation of New York
Application November 4, 1953, Serial No. 390,173
4 Claims. (Cl. 88—41)

1. In a spectacle having a lens rim extending along the upper edge of a lens, a non-metallic frame member having on its under side a groove in which the lens rim is positioned and a slideway carried by the rim adjacent the nasal portion thereof and in which the nasal end portion of the member is slidably received, the combination of means for releasably holding the frame member in the slideway comprising a resilient element positioned in a groove formed along the upper edge of the frame member, said element being carried by the lens rim adjacent the nasal portion of the rim, the frame member having a



notch adjacent to the last-named groove and a projecting tongue carried at the temporal end of the element and normally held in the notch by the resilience of the element whereby the element may be flexed to withdraw the tongue from the notch for selectively releasing the frame member and permitting removal of the member from the lens rim.

2,777,362
PHOTOGRAPHIC OBJECTIVE COMPRISING TWO DISPERSIVE MENISCUS COMPONENTS ENCLOSED BY TWO COLLECTIVE COMPONENTS
Johannes Berger, Heidenheim (Brenz), and Günther Lange, Konigsbronn, Germany, assignors to Carl Zeiss, Heidenheim (Brenz), Germany
Application March 10, 1954, Serial No. 415,222
Claims priority, application Germany March 17, 1953
5 Claims. (Cl. 88—57)



1. A photographic objective lens system comprising two meniscus dispersive components with their concave exterior surfaces facing one another and including between them a diaphragm, said dispersive components being arranged between two collective components, all said components being axially aligned and air separated from each other, the said dispersive components each comprising a collective lens element and a dispersive lens element the collective elements of said dispersive components being arranged between their respective dispersive elements and the adjacent collective components, wherein the average value of the Abbe ν numbers of the dispersive lens elements of said dispersive components is greater than that of their collective elements, one of the collective components having exterior surfaces of different curvature and being arranged as front component with its more strongly curved surface facing outwards, and the following limitations being simultaneously fulfilled:

$$0.5 \cdot f < D_s < 0.7 \cdot f$$
$$1.4\bar{r}_s < D_s < 2.0\bar{r}_s$$
$$0.3 \cdot f < \bar{r}_s < 0.4 \cdot f$$
$$0.24 \cdot f < D_s < 0.35 \cdot f$$
$$1.0\bar{r}_s < D_s < 1.2\bar{r}_z$$
$$0.2 \cdot f < \bar{r}_s < 0.3 \cdot f$$
$$0.6 \cdot f < L < 0.8 \cdot f$$
$$0.08 \cdot f < d_{11} < 0.25 \cdot f$$
$$0.08 \cdot f < d_{111} < 0.25 \cdot f$$
$$2.0\bar{r}_s < D_s < 3.0\bar{r}_s$$
$$0.9r_s < |r_A| < 1.2r_s$$

wherein:

D_s=the axial distance between the converging surfaces of the two meniscus dispersive components, and
$\bar{r}_s$=the arithmetic mean of the absolute values of the radii of these surfaces, and
D_s=the vertex distances of the surfaces bounding the diaphragm space, and
r_v=the radius of the surfaces bounding the diaphragm space on the object side, and
r_h=the radius of the surfaces bounding the diaphragm space on the image side, and
r_z=the arithmetic mean of the absolute amounts of the radii (r_v and r_h) of these surfaces,
L=the overall length of the objective, and
d_{11}=the midthickness of the dispersive component arranged at the object side of the diaphragm space, and
d_{111}=the midthickness of the dispersive component arranged at the image side of the diaphragm space,

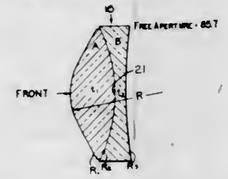
and the mean refractive index of the dispersive lens element in the dispersive component located at the image side of the diaphragm space being greater than the mean refractive index of the dispersive lens element of the dispersive component located at the object side of the diaphragm space, and likewise greater than the arithmetic mean of the refractive indices of the dispersive lens element of the dispersive lens component located at the object side and the collective element of the dispersive component located at the image side of the diaphragm space.

2,777,363
PHOTOGRAPHIC OBJECTIVE COMPRISING TWO COLLECTIVE AND TWO DISPERSIVE MEMBERS ENCLOSING A DIAPHRAGM
Rudolf Wanke and Harry Zöllner, Jena, Germany, assignors to VEB Carl Zeiss Jena, Jena, Germany
Application March 23, 1955, Serial No. 496,104
3 Claims. (Cl. 88—57)

1. Objective for photographic purposes with two dispersive meniscus members situated between two collective members arranged on opposite sides of the diaphragm of a camera, the concave surfaces of said meniscus members facing each other, the meniscus member situated in front of said diaphragm being uncemented, the meniscus member situated behind said diaphragm consisting of two cemented lenses, both said collective members being uncemented, the focal length of the foremost of said collective members being greater than 1.3 times and smaller than 1.6 times the focal length of said objective and the focal length of that part of said objective which is situated behind said diaphragm being greater than 0.75 times and smaller than 0.85 times the focal length of said objective proper.

2,777,364
FOCUSING LENS FOR OPHTHALMIC INSTRUMENT
Allen E. Murray, Rochester, N. Y., assignor to Bausch & Lomb Optical Company, Rochester, N. Y., a corporation of New York
Application January 16, 1956, Serial No. 559,463
2 Claims. (Cl. 88—57)

1. In an ophthalmic examination device, a projection lens by which an illuminated slit is focused upon the pupil of an eye to be examined and by which the light that is reflected from said eye is focused at an image plane located rearwardly of said lens and said slit, said lens being corrected for spherical and chromatic aberrations, sine condition and coma and comprising a front double convex element and a rear double concave element, the adjacent surfaces of the elements being cemented together, and an opaque mask having a diameter that is substantially .022 times the equivalent focal length of the lens and is located centrally on an interface be-



tween said front and rear elements so that reflections of light from the successive refractive surfaces are occluded from the field of view, the lens being constructed according to the technical data given herebelow, the foci, radii and thicknesses being given in millimeters, wherein R_1, R_2, R_3 are radii of refractive surface curvatures, t_1 and t_2 are axial thicknesses of the front and rear lens elements respectively, $n_D(A)$ and $n_D(B)$ are the refractive indices for the D line of the spectrum for the A and B elements respectively, and ν_A and ν_B are the Abbe numbers for the A and B elements respectively,

Equivalent focus=100
Back focus=68.47
R_1=aspheric curve, shaped according to mathematical expression

$$x=ay^2+by^4+cy^6+dy^8+ey^{10}$$

in which x and y are cartesian coordinates of the curve, the vertex radius R of the curve is $58<R<70$, and

coefficient $a=+8.5559\times10^{-3}$ to $+7.000\times10^{-3}$ inclusive
coefficient $b=-7.7608\times10^{-7}$ to -7.0216×10^{-7} inclusive
coefficient $c=+1.4921\times10^{-10}$ to $+1.2711\times10^{-10}$ inclusive
coefficient $d=-3.5136\times10^{-14}$ to -1.8920×10^{-14} inclusive
coefficient $e=-2.8470\times10^{-17}$ to -1.533×10^{-17} inclusive
$R_2=-52<R_2<-64$
$R_3=3.9\times10^2<R_3<3.93\times10^5$
$t_1=29<t_1<40$
$t_2=12.5<t_2<16$

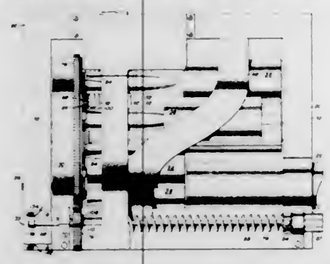
$$\frac{n_D(A)}{n_D(B)}=1.091 \text{ to } 1.009$$

$$\nu(A)-\nu(B)=21.9 \text{ to } 25.9$$

2,777,365
AUTOMATIC FIREARM
Daniel D. Musgrave, Cabin John Park, Md.
Application April 13, 1954, Serial No. 422,756
17 Claims. (Cl. 89—155)

10. In an automatic firearm for cartridge ammunition in combination: a main frame; a barrel mounted in said frame; a revolver mounted in said frame, said revolver having a cylindrical portion with longitudinal grooves therein and a flange at the rear end of said portion and the axis of said revolver being parallel to the axis of said barrel; firing cylinders slidable on said revolver and revolvable with said revolver; means for feeding cartridges to initial positions within said frame, the bases of said cartridges being juxtaposed said flange; a power cylinder in pressure communication with said barrel and a piston slidable therein adapted to be forced in one direction; a

spring urging the piston in the other direction; a shaft extending from said piston and having a groove in the surface thereof, the said groove having a complete single spiral turn portion and a straight axial portion merging thereinto at each end thereof; a stud in the wall of said cylinder engaging said shaft; a gear train between said shaft and said flange, whereby said flange and firing cylinders are rotated about the axis of the revolver by the



gases of explosion within said barrel; a cam on said frame and cam followers on said firing cylinders whereby angular rotation of said revolver and the firing cylinders about the axis of the revolver causes said firing cylinders to move longitudinally said revolver and successively encompass said cartridges and move said cartridges from said initial positions to positions axial the said barrel; and means for firing said cartridges when said cartridges are axial said barrel.

2,777,366
GAS SYSTEM FOR FIREARMS
Loren C. Cook, Rodeo, Calif.
Application April 22, 1953, Serial No. 350,541
4 Claims. (Cl. 89—191)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. For a firearm having a barrel, a cylinder attached to the barrel and provided with a cylindrical chamber open at both ends and a port for passing to said chamber a portion of the gases produced by a cartridge exploded in the barrel, a piston closing one end of said chamber and being slidably moved thereinto by the pressure of the gases received by said chamber, and an unattached member closing the opposite end of said chamber and being movable into said chamber by the pressure of a portion of the gases remaining in the barrel for blocking said port to entrap in said chamber the gases received therein and to increase the pressure of the entrapped gases by decreasing the size of said chamber.

2,777,367
METHOD FOR PRODUCING CONES FROM A FIBROUS PULP SUSPENSION
Daniel Fredrik Ednell, Ed, Sweden
Application June 2, 1954, Serial No. 434,019
3 Claims. (Cl. 92—57)

1. The method of forming textile cones or other articles from a fibrous pulp suspension, which method comprises providing a pool of the pulp suspension from which said articles are to be formed, immersing in said pool a conical reticulated surface proportioned in relation to the size of articles to be formed, applying suction interiorly of said reticulated surface, and reciprocating vertically said surface with respect to its longitudinal axis and simultaneously imparting a reversing arcuate vibratory motion

about said axis while completely immersed in said pulp suspension.

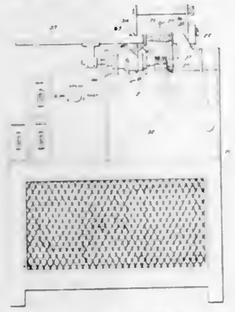
2,777,368
DEVICE FOR APPLYING A STRENGTHENING PATCH TO A SQUARE-BOTTOM-BAG
Lambert Koop, Bielefeld, Germany, assignor to Messrs. Fischer & Krecke (Maschinenfabrik), Bielefeld, Germany
Application February 17, 1954, Serial No. 410,979
4 Claims. (Cl. 93—8)

1. In a square-bottom-bag forming machine with means for opening and forming the bottom from a tubular blank, a device for applying a bag bottom strengthening patch to the bottom side-flaps of the bag, comprising means for feeding and cutting off a single bag bottom strengthening patch from a paper band, means to provide said patch on one side with two parallel gluing strips at a distance from one another, an applying roller for said patch having a width less than the distance of the gluing strips on said patch from one another, holding means on said applying roller for said patch acting on the side of and between said gluing strips upon said patch, a guide for said patch at the opposite side of the gluing strips cooperating with said applying roller, said guide and said applying roller being disposed in the area of said bottom opening and forming means of said square-bottom-bag forming machine and cooperating with these means during the folding of the bottom flaps and the forming of the bag bottom in such a manner that said strengthening patch is applied at first to the inside of the bag with the gluing strip facing the underside of the bag bottom flaps and then adhered to said flaps from the inside of the bag.

2,777,369
NECKBAND FORMING MACHINE
Frank E. Monks, Pittsburgh, Pa., assignor to Fuller Label & Box Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application April 30, 1953, Serial No. 352,140
5 Claims. (Cl. 93—79)

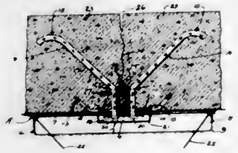
2. In a machine adapted to form a band from a single flat blank of sheet material, the combination of a mandrel having spaced holes spread over its entire forming surface for the establishment of predetermined pressure conditions thereover, a stack of blanks, a picker mounted for oscillating movement from a retracted position past said

mandrel to a pick-up position in contact with a blank in said stack, picker pressure means for producing suction in said picker when in the pick-up position and for maintaining this condition until said picker has moved past said mandrel on return to its retracted position, mandrel pressure means for producing a suction condition over the entire forming surface of said mandrel to accomplish formation of a neckband from the picker-delivered blank, heat seal means, mandrel moving means for oscillating



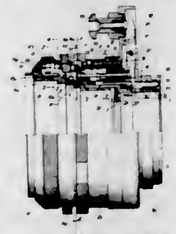
the mandrel and the formed neckband into engagement with said heat seal means to seal the overlapped margins thereof, means for freeing the sealed band from the mandrel, and means for nesting the bands successively freed including a stack tube axially aligned with said mandrel which receives the leading edge of the freed band, stacker means, and means for moving said stacker means into a position behind the rear edge of said freed band and for moving said stacker means into pushing engagement therewith to accomplish nesting in said stack tube.

2,777,370
CONCRETE EXPANSION JOINTS
John N. Heltzel, Warren, Ohio; The Union Savings & Trust Company, Warren Ohio, and Carl J. Heltzel, executors of said John N. Heltzel, deceased
Original application March 4, 1947, Serial No. 732,170. Divided and this application May 22, 1951, Serial No. 227,638
8 Claims. (Cl. 94—17)



1. In a contraction joint construction for roads, a beam embedded in the subgrade, a slab slidable on said beam, a pair of horizontally aligned plates embedded in the bottom surface of the slab and slidable on said beam, each of said plates having an upstanding flange portion, the opposed outer surfaces of said flange portions being in spaced opposition to each other and defining a bottom recess in said slab above said beam, an absorbent moisture expanded member in said recess and supported on said beam with opposite sides bearing against said opposed outer flange surfaces, the top surface of said slab having a crack line-indicating kerf between the planes of said flanges, said absorbent member during its expansion causing the slab to crack into two portions along the line of said kerf, an anchor member at each opposite side of the crack line and extending into the adjacent slab portion, said anchor members being functionally integral with the adjacent upstanding plate flange, said beam having longitudinally extending slots at opposite sides of the crack line of said slab and through which slots and adjacent plates the respective lower end portions of said anchor members extend, heads on the lower ends of said anchor members below said beam slots, whereby the slab portions at opposite sides of said crack line are connected to said beam for relative sliding movement thereon, and said absorbent member-receiving recess between the slab portions being of a heighth exceeding that of the absorbent member, and a compressible cushion member interposed between the top of said absorbent member and the superjacent slab portions at opposite sides of said crack line to absorb upward pressure from the absorbent member when the latter expands so as to avoid a raising of the slab portions at opposite sides of the crack line.

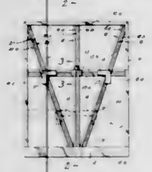
2,777,371
OPTICAL SYSTEM WITH AUTOMATIC DIAPHRAGM RETURN TO PRESELECTED POSITION
Karl Heinz Schütz, Bad Kreuznach, Germany, assignor to Jos. Schneider & Co., Kreuznach, Rhineland, Germany
Application October 21, 1952, Serial No. 315,921
Claims priority, application Germany January 15, 1952
4 Claims. (Cl. 95—64)



1. In a photographic objective of the type adapted to serve both for picture-taking and for view-finding purposes and comprising a lens barrel, a diaphragm in said lens barrel, diaphragm-adjusting means on said lens barrel selectively settable in a plurality of operating positions corresponding to various openings of said diaphragm, a support for said lens barrel and focusing means for axially displacing said lens barrel with respect to said support, said focusing means comprising a pair of threadedly mating tubes including a first, rotatable tube of restricted axial mobility on said support and a second, axially displaceable tube operatively joined to said lens barrel and held on said support against rotation; the combination with said lens barrel and focusing means of control means on said lens barrel operable to disengage said diaphragm from said diaphragm-adjusting means and to place said diaphragm in a wide-open position, spring means on said lens barrel tending to actuate said control means for removing said diaphragm from said wide-open position and returning it to a position determined by the setting of said diaphragm-adjusting means, detent means on a forward part of said lens barrel adapted to engage said control means for retaining said diaphragm in said wide-open position against the force of said spring means, and release means for inactivating said detent means, said release means including an actuating element positioned back of said tubes on said support and mechanism on said lens barrel operatively connecting said actuating element with said detent means; said mechanism comprising a clamp axially slidable in said second tube including cam means and normally open gripper means of limited relative axial mobility, pressure means bearing upon said cam means and, through the latter, upon said gripper means in a direction urging said gripper means toward said actuating element, an elongated transmission element passing through said gripper means and through said second tube substantially parallel to the axis of the latter, and coupling means operatively linking said trans-

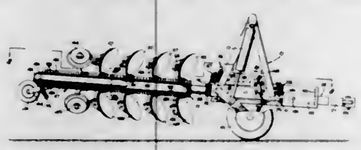
mission element with said second tube for axial entrainment thereby, said cam means closing said gripper means about said transmission element upon displacement of said gripper means by said actuating element against the action of said pressure means, said coupling means being at least partly resilient to a sufficient extent to enable axial displacement of said transmission member, relative to said second tube, in response to continued pressure upon said gripper means from said actuating element.

2,777,372
HOLDERS FOR FILMS, SHEETS, AND THE LIKE
Bill R. McNutt, Houston, Tex.
Application January 18, 1954, Serial No. 404,502
4 Claims. (Cl. 95—69)



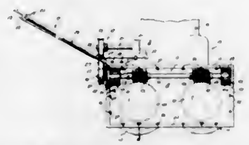
1. A holder for film and the like, including a substantially rectangular frame, a substantially central longitudinally slotted guide connected to the frame, an inclined slotted guide extending from one of the upper corners of the frame to substantially the midpoint of the lower portion of the frame, another inclined slotted guide extending from the other upper corner of the frame and extending to substantially the midpoint of the lower portion of the frame, a laterally extending slotted cross rail slidably mounted on said central guide and adapted to be moved to predetermined positions along the central guide, and retaining members adapted to engage the edge portions of a film positioned on the frame and having slidable connection with the inclined guides and the cross rail, whereby longitudinal movement of the cross rail imparts a simultaneous movement to the retaining members along the inclined guides for adjusting the retaining members both longitudinally and laterally with respect to the frame.

2,777,373
TWO-WAY ROLL-OVER DISC PLOW
Harry A. Pursche, Gardena, Calif.
Application October 31, 1952, Serial No. 318,051
9 Claims. (Cl. 97—26)



1. In a two-way plow assembly, the combination of: a frame, a carrier turnably mounted on the frame and provided with ground-engaging plow means for producing a right-hand furrow or a left-hand furrow, means on the frame whereby it may be raised to lift the carrier and plow means clear of the ground, independent means for turning the carrier to either of two operative positions relative to the frame to cause the plow means to produce a right-hand furrow or a left-hand furrow as desired, said means including a flexible tension element operatively connected to turn the carrier, a part movably mounted on the frame and having at least one end of the flexible tension element secured relative thereto, power means for shifting the flexible tension element to turn the carrier, latch means on the frame engageable with an element on the carrier for latching the carrier in at least one of its operative positions, and linkage means operatively connecting the latch means and said part whereby movement of said part under forces imparted by the end of the flexible tension element serves to actuate said latch means.

2,777,374
SELF-PROPELLED GARDEN CULTIVATOR
Philip H. Kinsey, Fort Myers, Fla.
Application September 21, 1954, Serial No. 457,399
6 Claims. (Cl. 97—41)



5. A self-propelled power driven garden cultivating or like machine comprising frame means providing a generally laterally extending support surface and depending, laterally spaced flange members; a pair of spaced, parallel, laterally extending, support drums of a diameter adapting said drums to support said frame means with its depending flanges in spaced relation above the surface of the ground journalled for rotation in said depending flanges; respective oppositely spiralling, axially extending, peripherally disposed, rib elements on the peripheries of said respective drums; drive means on said frame means including gear trains respectively drivingly connected to each of said support drums and arranged to drive said drums in the same direction; and handle means secured to said frame means and inclined upwardly therefrom in a direction generally normal to the axes of said support drums and adapted upon application of pressure upwardly or downwardly on the handle to distribute the weight of the machine equally between said support drums or shift the weight of the machine to one or the other of said drums whereby said drums will be effective to propel said machine forwardly between adjacent rows of garden plants and selectively toward one row of plants and then the other to break and cultivate the ground surface between said adjacent rows and between longitudinally spaced plants in said respective adjacent rows.

2,777,375
TRACTION BOOSTING POWER LIFT SYSTEM
Robert Carlin and Edward B. Heckenkamp, Milwaukee, Wis., assignors to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application July 11, 1955, Serial No. 521,126
10 Claims. (Cl. 97—46.07)

1. In combination with a tractor and an attached draft load imposing structure, a traction boosting power lift system comprising a tractor mounted servomotor operatively connected in lift force transmitting relation with said draft load imposing structure so that transmission of lifting force from said tractor to said attached structure by operation of said servomotor will cause transfer of weight from said structure and from steerable front wheels to drive wheels of said tractor mounted rearwardly of said front wheels; a second servomotor mounted on said draft load imposing structure and operatively connected in

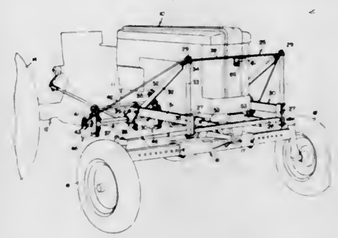
downward thrust transmitting relation with an up and down movable ground engaging running gear element of said attached structure, actuating means for said servomotors including a control mechanism responsive to variations of draft force transmitted from said tractor to said draft load imposing structure, so as to increase and decrease said lifting force in accordance with increases and decreases, respectively, of said draft force; and means operatively associated with said second servomotor for delaying downward movement of said running gear element by operation of said second servomotor until a lifting force in excess of a predetermined value has been applied to said draft load imposing structure by operation of said tractor mounted servomotor.

2,777,376
TRACTOR MOUNTED RELEASABLE IMPLEMENT
Roy F. Schwegler, Rock Island, Ill., assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Application December 27, 1951, Serial No. 263,618
11 Claims. (Cl. 97—47.14)

1. In a tractor mounted plow the combination of a tractor, a plow, a socket carried on said plow, a draft and lifting connection between the tractor and the plow for raising and lowering the plow and for leveling the plow, a latch carried by the draft and lifting connection for engaging said plow when said plow is draft positioned with respect to said draft and lifting connection for propelling the plow by reason of the forward movement of the tractor, said latch being responsive to the force required to move the plow through the ground and being releasable upon the attainment of a predetermined load, said draft and lifting connection including a rearwardly extending pilot shaft in longitudinal alignment with said socket for being received by said socket when said plow is draft connected to said tractor, said pilot shaft being laterally spaced with respect to said latch, and forwardly open means on said plow for snugly receiving said draft and lifting connection between said latch and said pilot shaft for stabilizing the plow with respect thereto for causing tilting of the plow in accordance with adjustment of the draft and lifting connection, said means being instantaneously releasable upon relative longitudinal movement in one direction between the plow and the tractor.

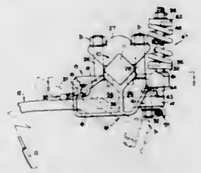
2,777,377
DRIVE-IN CULTIVATOR SUPPORT FOR TRACTORS
Theodore W. Johnson and George Dwight Hunter, Des Moines, Iowa, assignors to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application July 22, 1953, Serial No. 369,568
3 Claims. (Cl. 97—47.15)

3. An implement adapted to be detachably mounted on a tractor having a longitudinally extending tractor body, a pair of laterally spaced apart rear wheels, and two relatively widely spaced apart front steerable wheels, each of the latter being positioned at determinable distances from the tractor body and the rear wheels, said implement comprising: a pair of tool assemblies including tool supporting members; a transverse frame detachably connected to the front of the tractor and supporting vertical pivots at opposite ends thereof and intermediate the front wheels and the tractor body; a pair of elongated frame structures, each structure having one end mounted on a respective vertical pivot and adapted to swing over a front wheel and having an opposite end thereof connected to one of the tool assemblies, the vertical pivots being so spaced from the tractor body and the lengths of the



frame structures being such that as the tool assemblies are swung between inoperative positions laterally outwardly of the front wheels and operative positions laterally inwardly of and rearwardly of the front wheels said tool assemblies will pass between the front and rear wheels; and means on the tool supporting members detachably connecting the members to the tractor body for fixing the tool assemblies in their operative position.

2,777,378
SPRING CUSHIONED CLAMP
George D. Hunter, Des Moines, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application February 4, 1954, Serial No. 408,075
5 Claims. (Cl. 97—47.84)



1. In a ground-working implement including a tool-supporting means and a ground-working tool including an attaching section adapted to be swingably connected with said tool-supporting means, the improvement comprising tool-connecting means comprising a bracket having an upper portion shaped to receive said tool-supporting means, said bracket comprising an elongated member having an apertured portion at one end thereof, clamp means connected with said bracket for fixing the latter to said tool-supporting means, an elongated hinge member pivotally connected at one end with the apertured portion of said bracket and extending toward but terminating short of the other end of said bracket, means connecting a tool to said hinge member so that the tool is mounted under and extends beyond the other end of said hinge member, spacer means carried by said bracket at said other end thereof in a position to clear said hinge member and engage the upper face of the portion of said tool that extends outwardly from said other end of said hinge member for preventing contact of said upper portion of the bracket and the hinge member, and spring means connected to act against said bracket and said tool and hinge member for yieldably holding the upper face of said tool against said spacer means.

2,777,379
CULTIVATOR ATTACHMENT
John Leigh Heath, Phoenix, Ariz.
Application October 29, 1953, Serial No. 389,009
9 Claims. (Cl. 97—179)

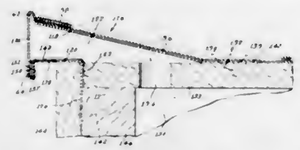
1. A cultivator attachment for row crops, comprising: a pair of mounting posts for attachment to a cultivator and adapted to be disposed at opposite sides of a row of crops; a pair of rigid flat sweeper blades sharpened along their confronting edges; means pivotally connecting said blades to said mounting posts stop means for limiting pivotal movement of said blades; yieldable means urging said blades to extend in a converging rearward direction from said posts, the extended portions of said blades being yieldably engageable with opposite sides of the stalks of a row crop and dull to minimize damage to said stalks.

2,777,380
PRECISION LAWN EDGER
Sterling R. Dickey, Ephrata, Wash., assignor to Gustave Miller, Washington, D. C.
Application May 28, 1953, Serial No. 357,972
6 Claims. (Cl. 97—227)

1. A precision lawn edger for trimming a lawn edge at a desired precise angle to a sidewalk or other element adjacent the lawn edge comprising a base to be supported on the sidewalk or other element, a pair of spaced apart guide teeth extending downwardly from an edge of said base along the sidewalk edge, one of said teeth being at the rear end of said base and the other of said guide teeth being slightly forward of the midpoint of said edge of said base, a pair of spaced apart brackets adjustably secured to said base, one of said brackets being adjacent the forward end of said base and the other of said brackets being at an intermediate point slightly forward of the intermediate guide tooth of said base, each bracket including a hinge cooperating means at its end, means for securing said brackets to said base with the hinge cooperating means at the guide teeth edge or at a selectively desired distance extending therefrom, a pair of opposed grooved blade guiding brackets, means for adjustably securing said grooved blade guiding brackets at a desired angle to said hinge cooperating means, and a lawn cutting blade guided between said opposed grooved guiding brackets.

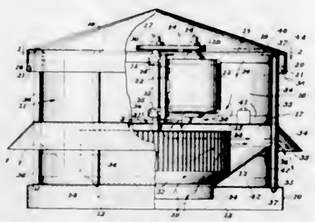
2,777,381
ROOF VENTILATING DEVICES
Eliot Fette Noyes, New Canaan, Arthur E. De Salvo, Rowayton, and John Black Lee, New Canaan, Conn.; said De Salvo and said Lee assignors to said Noyes
Application September 10, 1954. Serial No. 455,236
10 Claims. (Cl. 98—37)

1. A roof ventilating device comprising an enclosure adapted for securement to marginal portions of a roof, said enclosure having mutually converging upper and lower walls interconnected by an outer vertically extending wall defining a longitudinally extending opening, means providing for the flowing of air through said opening comprising laterally spaced openings defined in said lower wall, one of said last mentioned openings being an air inlet opening and the other of said last mentioned open-



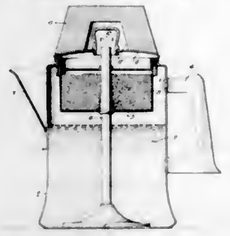
ings being an air outlet opening, said upper wall being adapted for the support of roofing material with said upper wall at an outer edge portion thereof having an upstanding abutment constituting a gravel stop, and said outer wall having a longitudinally extending extension portion projecting beyond said lower wall to shelter and conceal said air inlet opening.

2,777,382
AIR EXHAUSTER
Isel I. Solzman, Omaha, Nebr.
Application April 10, 1953, Serial No. 347,949
2 Claims. (Cl. 98—43)



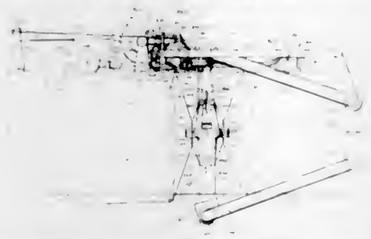
1. An air exhauster of the class described including an outer casing having an open upper end, said casing being separated by a transverse plate into an upper chamber and a lower chamber, said plate having a central restricted, metered opening communicating said chambers with each other, an operating shaft revolvably mounted in said upper chamber and extending through said central opening into said lower chamber, a centrifugal fan in said lower chamber and connected to said shaft, a motor in said upper chamber, means for connecting the motor to said operating shaft, a cover closing the upper end of the casing and spaced therefrom to provide an opening for introducing fresh air into the upper chamber to cool the motor, said fan having a cylindrically and inwardly tapered lower end portion, a substantially frusto-conical shaped inner housing mounted in the lower chamber and enclosing said fan, said housing having an upwardly diverging portion spaced from said transverse plate and coacting therewith to provide a mixing passage, said inner housing having a depending circular lower end portion positioned beneath said fan, the converging inclined portion of said fan being spaced from the adjacent inclined side of the housing and disposed substantially parallel therewith to form a restricted angular passage therebetween, and said lower chamber having a circumferentially disposed outlet communicating with said mixing chamber, said frusto-conical housing coacting with the fan to load the entire fan wheel so that it will do its maximum work in imparting energy to the air, said inner housing also converting a portion of the high velocity pressure at the discharge of the fan to static pressure.

2,777,383
CONDENSATION DEVICE
Nelson Le Roy Barnett, Charlotte Court House, Va.
Application June 5, 1953, Serial No. 359,730
2 Claims. (Cl. 99—293)



1. In a percolator having a coffee basket therein, the combination with a percolator having a top and a bulb in said top projecting upwardly therefrom, consisting of a solid metallic casing having a recess in its basal portion registering with and substantially housing said bulb, said casing being substantially taller than said bulb, said basal portion being complemental to and in physical contact with the greater area portion of said top, whereby heat may be conducted away from said top into said casing and thereby cause condensation of vapor and steam within said top.

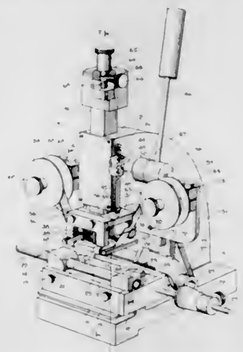
2,777,384
TWO-SPOOL NEEDLE-BORNE TIER
Edwin B. Nolt, New Holland, and John P. Tarbox, Philadelphia, Pa., assignors, by mesne assignments, to Sperry Rand Corporation, New Holland, Pa., a corporation of Delaware
Application March 9, 1953, Serial No. 341,055
8 Claims. (Cl. 100—11)



5. A wire tie mechanism comprising a bale case, a pair of twisters, means adapted to support said twisters within the case for rotation about axes spaced longitudinally of the bale case, said twisters normally being at rest and having radial slots opening away from each other in a common plane longitudinally of the bale case, a needle having relatively longitudinally spaced wire supporting points mounted for relative longitudinal movement with respect to the bale case, said points being normally spaced apart a distance greater than said twisters, means guiding said needle for movement into said bale case and beyond said twisters with said points to one side of said twisters, and means for thereafter moving said needle transversely of the bale case to position the said points in a common longitudinal plane with said twister slots.

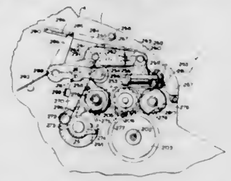
2,777,385
INTERMITTENT MARKING DEVICES
Andrew L. Bachy, Forest Hills, N. Y.
Application March 4, 1952, Serial No. 274,783
7 Claims. (Cl. 101—42)

1. An apparatus of the character described comprising a base plate, an upwardly and forwardly extended arm on said plate, means on the base plate for supporting and guiding a strip, a plunger mounted for vertically reciprocating movement in said arm toward and from said first named means, a marking unit, means at the lower end of the plunger for detachably and adjustably supporting said unit in different positions transversely with respect to said plunger, said unit comprising a plurality of adjustable elements to present at the lower surface of the unit a row of predetermined characters for marking a strip supported on said first named means, means coupled with the plunger and extending to opposed sides of the apparatus for supporting a pair of ribbon spools, means supported on said second named means and movable with



respect thereto for guiding a ribbon from said spools in predetermined position beneath said marking unit, tensional means normally supporting said plunger in raised position, means for actuating said plunger to move the same downwardly to bring the row of characters of said marking unit in pressure engagement with the strip supported in said first named means, said ribbon guide means including means for laterally shifting the position of the ribbon, means on said base plate for actuating said last named means in the descent of the plunger to move the ribbon out of the path of said row of characters on said marking unit, and pivotal means actuated by said plunger for pressing the ribbon against said row of characters for inking the same in the upper position of said plunger.

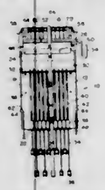
2,777,386
MULTIPLE ITEM RECEIPT PRINTING MECHANISMS
George H. Seeney, Chingford, London, England, assignor to The National Cash Register Company, Dayton, Ohio, a corporation of Maryland
Application February 27, 1953, Serial No. 339,264
Claims priority, application Great Britain March 13, 1952
6 Claims. (Cl. 101—66)



1. In a machine of the class described, the combination of function control members, printing mechanism for printing on record material, a record material feed roller, a pressure roller cooperable with the feed roller, a first engaging means operable during machine operations controlled by certain of the function control members to engage the pressure roller with the feed roller so as to feed the record material a certain extent, a second

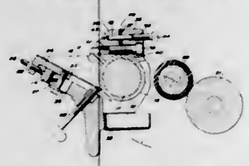
engaging mechanism operable during machine operations controlled by another one of the function control members to engage the pressure roller with the feed roller so as to feed the record material a greater extent, and means actuated by said another control device when actuated to render the second engaging mechanism active.

2,777,387
TAG PRINTING DEVICE
Herman I. Lippard, Lake Worth, Fla.
Application August 16, 1955, Serial No. 528,610
7 Claims. (Cl. 101—111)



1. In a tag printing device having a frame, a first series of rollers mounted adjacent one end thereof and a second series of rollers movably mounted on said frame adjacent the opposite or printing end thereof, endless type bands extending around said frame and trained around said ends, said bands constantly engaging said first series of rollers but being out of engagement with said second series of rollers when the type bands are in printing position, means carried by said frame to move said second series of rollers into engagement with said type bands and thereby place the bands out of printing position and into type setting position, and type aligning means carried by said frame normally engaging said type bands when said bands are in printing position and operatively connected to said first-named means whereby upon operation of said first-named means, said aligning means is moved from its normal position against said type bands to a position away from said type bands.

2,777,388
MOUNTING FOR FOUNTAIN ROLL
Henry F. Meyer, University Heights, Ohio, assignor to Harris-Seybold Company, Cleveland, Ohio, a corporation of Delaware
Application May 11, 1954, Serial No. 428,981
1 Claim. (Cl. 101—364)

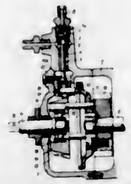


In an inking mechanism, a rotatable fountain roller having a fountain portion of a given diameter, a rigid fountain body comprising integral side walls having coaxial bores for journalling said fountain roller, said side walls being spaced apart a distance less than the length of said fountain portion, an ink metering fountain blade mounted on the body and having an edge adapted to closely engage the roller, said blade extending the full distance between the inner sides of said side walls and being inclined with respect to the roller to form an ink trough together with said roller and said side walls, said bores being of such size relation with respect to said fountain roller as to provide for adequate sealing to prevent entrance of ink into said bores, at least one of said bores being slotted to permit a small degree of flexing of a portion of the fountain body surrounding the bore remote from the main portion of the rigid fountain body, first screw means for exerting pressure to move the remote portion away from the main portion to permit ready insertion of the roller endwise through said bearing during assembly, second screw means for drawing the remote portion to the main portion, said first and second screw means being complementary to each other to enable locking of said remote and main portions in ink sealing association relative to the roller without restricting rotation of said roller, and compressible sealing means in said slot, said sealing means closely engaging the roller to prevent ink carried around said roller from entering the bore at the slot.

2,777,389
INITIATING DEVICE AND METHOD OF MANUFACTURE
Robert W. Lawrence, Wilmington, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware
Application June 13, 1952, Serial No. 293,346
8 Claims. (Cl. 102—28)

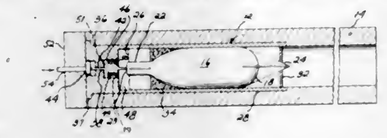
1. A blasting cap comprising a detonatable explosive waterproof outer shell containing a cavity and comprising a unitary mass of from about 15 to about 45% of a fissure-free synthetic waterproof resinous polymerization product containing dispersed therein from 55–85% of a particulate crystalline high explosive having an oxygen balance of not less than about —47; an initiator means in said cavity which comprises an electric resistance wire, and a pair of lead wires connected with the said resistance wire to convey flow of electric current therethrough from a source of electric current outside said shell; and a primer composition in said cavity in communication with said resistance wire and adapted in operative contact with said high explosive to cause detonation of same in response to heat developed by the flow of current through said wire.

2,777,390
FUEL INJECTION PUMP
Heinrich K. Links, Stuttgart, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application October 28, 1950, Serial No. 192,672
Claims priority, application Germany October 31, 1949
15 Claims. (Cl. 103—38)



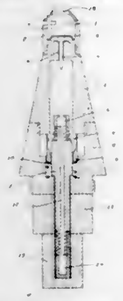
1. Fuel injection pump comprising a reciprocating pump piston, a driving shaft normal to said pump piston, means for positively driving the pump piston in the one stroke direction, means for positively driving the pump piston in the other stroke direction, wherein the first means for positively driving the pump piston are driven by and secured to the driving shaft while a shaft member separate from said driving shaft and bearing said second means is provided, said shaft member being axially arranged with respect to said driving shaft, and means for coupling said second means to said driving shaft in circumferential direction.

2,777,391
JET DART
James A. McNally, Dorchester, Mass.
Application December 30, 1954, Serial No. 478,948
7 Claims. (Cl. 102—38)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A jet dart comprising a bulb formed with a stub-nosed front end, a cylindrical neck-like rear end and a hermetically sealed chamber; compressed gas in the chamber of said bulb; piercing means secured to the stub-nosed front end of said bulb, and stabilizing fins secured about the neck-like rear end of said bulb, the ends of said fins defining a cylinder whose diameter is substantially equal to the diameter of said bulb; the neck-like rear end of said bulb being adapted to be punctured axially for permitting said compressed gas to escape rearwardly from the chamber of said bulb to propel said jet dart forwardly, the length of said jet dart approximating the length of a shotgun shell.

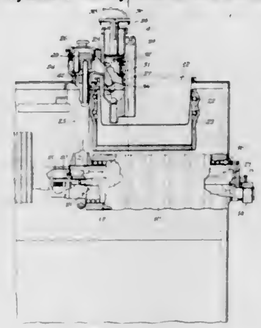
2,777,392
STRIKER MECHANISM FOR A FUSE
Aaro Kalevi Laakso, Helsinki, Finland
Application December 24, 1952, Serial No. 327,735
5 Claims. (Cl. 102—80)



1. A fuse of the sensitive type comprising a fixed head part, a firing pin movably mounted in said head part and adapted to make impact against a primer, a sheet-like member rigidly secured to said firing pin and adapted freely to move with clearance together with said firing pin within said head part of the fuse body and at least one central aperture and one transverse aperture in said head, said apertures providing for the flow of air therebetween forwardly of said sheet-like member and co-operating with said clearance to produce an air cushion behind said firing pin member for maintaining the firing pin in a forward position during flight of the projectile.

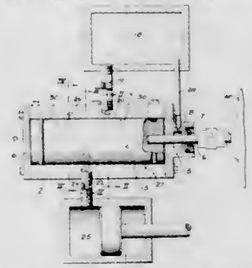
2,777,393
APPARATUS FOR MAINTAINING A PREDETERMINED QUANTITY OF LIQUID IN A CLOSED SPACE
Ben H. Woodruff, Chicago, Ill.
Application February 12, 1951, Serial No. 210,579
9 Claims. (Cl. 103—7)

1. Apparatus for maintaining a selected quantity of liquid in an enclosed space including in combination, a closed container for housing such liquid and air, an inlet port communicating with the interior of said container, a vertically disposed cylinder having an aperture therein communicating with said inlet port to expose the interior of said container to atmospheric pressure, a liquid supply chamber connected to said cylinder for supplying a liquid thereto and a piston of a selected mass movable downwardly in said cylinder solely under the force of gravity



to close said aperture and force an additional amount of liquid into said container under a predetermined pressure until the pressure of air in said container reaches said predetermined pressure.

2,777,394
PUMP FOR VISCOUS FLUIDS
Joseph Modrovsky, River Edge, N. J., and Walter A. Sherwood, Hempstead, N. Y., assignors to The Farmingdale Corporation, Farmingdale, N. Y., a corporation of New York
Application October 27, 1954, Serial No. 465,078
13 Claims. (Cl. 103—84)

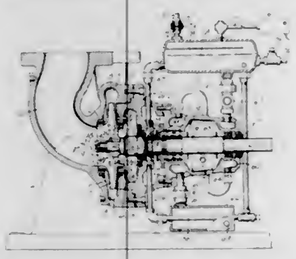


1. A pump for viscous fluids comprising, a fixed member having a surface the radial sections of which are circular, a rotatable member having a complementary surface also circular in section, concentric and interfitting with said first named surface with a clearance therebetween, at least one radially floating elongated axially disposed abutment slidably mounted in said fixed member, means acting to urge said abutment resiliently and continuously against the surface of said movable member along at least a major part of a generatrix of said surface, means for rotating the rotatable member, means for conducting fluid from a source of supply to the said clearance at a point downstream from each said abutment considered circumferentially with respect to the direction of rotation of the rotatable member, and means for withdrawing the fluid under pressure from a point adjacent to, and upstream from, each said abutment.

2,777,395
PUMP AND PACKING THEREOF
Donald R. Disbrow, Battle Creek, Mich., assignor to Union Steam Pump Company, Battle Creek, Mich.
Application March 12, 1952, Serial No. 276,110
11 Claims. (Cl. 103—111)

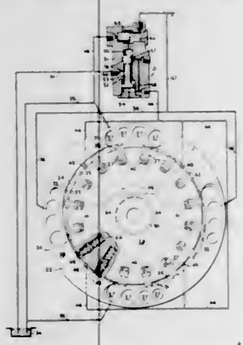
1. In a centrifugal pump, the combination of, a casing comprising a body member, a chambered head member

detachably mounted on the body member and having a gland box provided with an inwardly facing annular shoulder at its outer end and with an inwardly facing recess surrounding said gland box, an impeller, said body and said head members being provided with bearings for said impeller, an impeller shaft disposed through said gland box, a first gland member disposed in said gland box and having a flange at its inner end seated in said recess in said head member, said gland member having an inwardly extending annular flange at its outer end, a non-rotatable sealing member disposed in said gland member in thrust supported relation to said flange thereof, a spring biased sealing member connected to said shaft to rotate therewith and in axial thrust engagement with said non-rotatable sealing member, a conduit open-



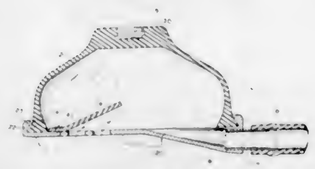
ing to the discharge of the pump and discharging upon said sealing members in the chamber of said head member in the plane of contact between the sealing members, said impeller having a circulation opening therein connecting said head member chamber with the intake of the pump, a second gland member disposed within said gland box and seating against the said shoulder thereof, a packing disposed within said second gland member to coact with said shaft and including a thrust element, a coil thrust spring for said packing disposed between its said thrust element thereof and said first gland member, a cooling liquid supply having a circulating connection with said gland box, said first gland member having an internal groove surrounding said non-rotatable sealing member and in communication with said gland box.

2,777,396
FLUID ENERGY TRANSLATING DEVICE
Cecil E. Adams and William E. Eschliman, Columbus, Ohio, assignors, by mesne assignments, to American Brake Shoe Company, New York, N. Y., a corporation of Delaware
Application May 15, 1953, Serial No. 355,372
14 Claims. (Cl. 103—136)



1. A fluid pressure energy translating device comprising a casing having side and peripheral walls forming a rotor chamber with inlet and outlet ports spaced circumferentially thereof; a rotor disposed for revolution in said chamber, said rotor being formed with radial slots; vane elements received by said slots, said vane elements engaging said side and peripheral walls to form fluid transfer pockets, said peripheral wall being shaped to increase the volumetric capacity of said fluid transfer pockets while they communicate with said inlet port and decrease such capacity while said pockets communicate with said outlet port, said casing having intermediate pressure ports disposed on either side of said outlet port and communicating with the fluid transfer pockets between said inlet and outlet ports, the spaces between said intermediate and adjacent inlet and outlet ports being at least as great as the space between adjacent vanes; passage means connected with said outlet, said inlet, and said intermediate pressure ports; and a pressure responsive valve connected with said passage means, said valve serving to alternately establish communication between the passage connected with said intermediate pressure ports and passages connected with a port containing pressure and exhaust to apply fluid from the pressure containing port at a pressure less than that in such port to said intermediate pressure ports.

2,777,397
BILGE PUMP
Herbert J. Atkinson, Sudbury, Mass.
Application February 19, 1954, Serial No. 411,449
1 Claim. (Cl. 103—148)



A bilge pump comprising a metal base plate having a continuous undercut peripheral flange, a heavy dome-like rubber bulb having its outer and lower edge portion seated within said undercut flange, a flap valve of sheet material having a specific gravity of less than 1 secured to the upper face of said base plate but with a major and unsecured portion thereof free to swing upward on inflow of liquid, said base plate having a plurality of inlet ports under said flap valve, and said base plate having a depressed portion with a single outlet passage therein which is freely open to the interior of said bulb at a point substantially removed from said inlet ports and valve, said depressed portion holding the base plate in an inclined position with respect to a flat supporting surface, so that free access to said inlet ports is provided, and said base plate having depending flanges disposed at opposite ends of a transverse diameter of said base plate and at the opposite side edges of said base plate and engaging said flat supporting surface to prevent rocking of the base plate on said surface when one edge thereof is elevated by said depressed portion.

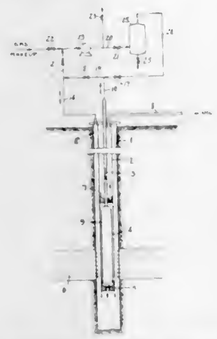
2,777,398
GAS LIFT VALVE AND CONTROL SYSTEM
Paul G. Carpenter, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application December 2, 1952, Serial No. 323,570
5 Claims. (Cl. 103—232)

1. A tubular valve structure, adapted for gas-lifting of liquid from a well, comprising in combination an upper tubular member and a lower tubular member, the lower end portion of the upper tubular member and the upper end portion of the lower tubular member having ports and being telescopically engaged over a length of each of

said end portions of said members such that the ports of each can be brought into register with the ports of the other, the said lower tubular member having at least one sealed space in the tube wall thereof to provide it with

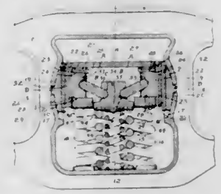
a density such that rise of a fluid into which it is placed to a level above said ports in said upper end portion of said lower tubular member will float said lower tubular member upwardly to bring said ports into register.

2,777,399
PNEUMATIC PUMPING SYSTEM
Roscoe C. Clark, Jr., Midland, Tex., assignor to Continental Oil Company, Ponca City, Okla., a corporation of Delaware
Application July 15, 1953, Serial No. 368,159
2 Claims. (Cl. 103—234)



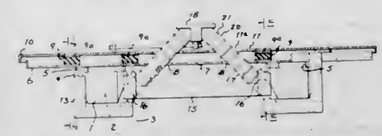
1. In a fluid operated pumping apparatus for raising charges of liquid in a well which comprises in combination: a source of fluid under pressure, a well head, a casing, a tubing within said casing extending downwardly from the well head into the liquid to be pumped wherein the outside diameter of said tubing is less than the inside diameter of said casing, a closure in the lower end of said tubing, a second closure in said tubing above said first mentioned closure thus forming a liquid accumulation chamber, a check valve in said first mentioned closure to prevent the flow of liquids out of said liquid accumulation chamber, a check valve in said second mentioned closure to prevent the flow of well liquids into said liquid accumulation chamber, a bell open at the bottom within said accumulation chamber rigidly mounted thereon and extending downwardly from the upper portion of said accumulation chamber, and terminating at a point above the first mentioned closure, wherein the outside diameter of said bell is less than the inside diameter of said accumulation chamber thus providing a vertical passageway between said bell and said accumulation chamber, a gas injection tube connected to the upper end of said bell, and valved conduits connecting said source to said casing and said gas injection tube, whereby fluid under pressure may be supplied to said casing, and, alternately, to said gas injection tube.

2,777,400
FRICTION SHOCK ABSORBING MEANS FOR RAILWAY CAR TRUCKS
Eric G. Forssell, Kenmore, N. Y., assignor to W. H. Miner, Inc., Chicago, Ill., a corporation of Delaware
Application March 2, 1953, Serial No. 339,655
7 Claims. (Cl. 105—197)



6. In a railway car truck including a truck side frame having vertical bolster guides presenting friction surfaces thereon, the combination with a bolster vertically movable between said guides; of spring means supporting said bolster on said truck side frame; friction shoes carried by said bolster; a spring follower; and toggle links each swiveled on said shoes and follower, respectively, and actuated by said spring means through said follower for forcing the shoes against said friction surfaces.

2,777,401
AXLE CONTROLLED TRUCK
William T. Rossell, New York, N. Y., assignor to Transit Research Corporation, New York, N. Y., a corporation of New York
Application March 16, 1955, Serial No. 494,736
9 Claims. (Cl. 105—197)

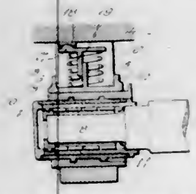


1. In a rail truck a pair of axles each having journal bearings near each end thereof, said bearings each having flanges at each side thereof, friction blocks anchored atop each of said flanges, a lower truck frame resting on said friction blocks, means limiting the possible relative horizontal movements of said frame and said blocks, an upper frame, springs supporting said upper frame on said lower frame, and a bolster springingly supported by said upper frame, said bolster transmitting the loading of a car body substantially equally through the upper frame and the springs separating said frames onto said friction blocks whereby frictional resistance to relative horizontal movements of said axles varies with the loading imposed by the car body.

2,777,402
PEDESTAL ASSEMBLY FOR RAIL TRUCKS
William T. Rossell, New York, N. Y., assignor to Transit Research Corporation, New York, N. Y., a corporation of New York
Application September 19, 1952, Serial No. 310,378
6 Claims. (Cl. 105—225)

1. A pedestal assembly for a rail truck comprising pedestal guides, a journal box, springs supporting said pedestal guides from said journal box, said journal box

having a flat top surface, a friction plate interposed between said springs and said journal box, said journal box having horizontal clearance with respect to said pedestal and being capable of horizontal movements with respect to said friction plate and said pedestal guides as permitted by said clearance, said plate having vertical projections



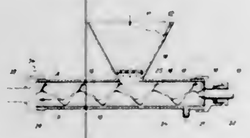
adjacent at least one of said pedestal guides and means constantly jamming said vertical projections into contact with at least one of said guides, said spring means jamming said projections against said pedestal guide or guides with a force greater than the force tending to displace it when said journal box moves horizontally with respect to said pedestal guides.

2,777,403

CONTINUOUSLY OPERATING STUFFING AND DIVIDING MACHINE FOR DOUGHLIKE MATERIAL

Bedřich Mládek, Prague, Czechoslovakia, assienor to Vyvoj Praha, Narodni podnik, Prague, Czechoslovakia, a corporation of Czechoslovakia

Application July 28, 1953, Serial No. 370,852
Claims priority, application Czechoslovakia August 1, 1952
2 Claims. (Cl. 107—14)



1. A continuously operating stuffing and dividing machine for dough-like material comprising an elongated cylindrical casing having an unobstructed interior from end to end thereof, a conveyor screw rotatably mounted in said casing and extending along the entire length of the latter, said casing having an entry hopper opening directly into said casing in a radial direction intermediate the ends of the casing for the introduction of the material into said casing, means for rotating said screw to propel material introduced into said casing toward one end of the latter, a suction orifice opening into said casing at a location spaced from said entry hopper in the direction toward the other end of said casing, and means for applying a suction to said orifice, the action of said screw on the material to propel the latter toward said one end of the casing being greater than the action resulting from the suction applied to said orifice and tending to draw the material from said entry toward said orifice thereby to prevent clogging of the latter by the material.

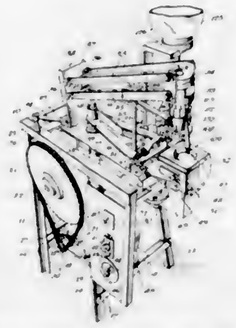
2,777,404

MACHINE FOR BAKING EDIBLE CUPS

Christ J. Halset, Chicago, Ill., assignor to Ideal Machine Co. Inc., Chicago, Ill., a corporation of Illinois

Application May 17, 1952, Serial No. 288,493
5 Claims. (Cl. 107—66)

1. In a machine for baking edible cups, the combination of a frame, a shaft mounted for rotation relative to said frame, power means adapted to rotate said shaft, a pair of mold halves together constituting a mold and mounted on said frame for reciprocating movement toward and away from each other, means connecting said mold halves and said shaft whereby rotation of said shaft will impart reciprocating movement to said mold halves, a mold core mounted for substantially vertical movement into and out of the mold constituted by said mold halves, means connecting said mold core and said shaft whereby rotation of said shaft will impart substantially vertical movement to said core with respect to said mold halves, a batter feeder arm mounted for movement toward and away from said pair of mold halves, means connecting said batter feeder arm and said shaft whereby rotation of said shaft will impart movement to said batter feeder



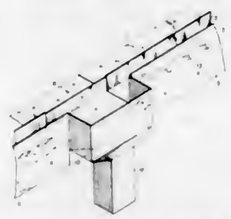
arm toward and away from said pair of mold halves, a pump mounted on said frame and associated with said batter feeder arm and adapted to supply batter to said batter feeder arm, a batter supply tank adapted to supply batter to said pump, means connecting said pump and said shaft and adapted to operate said pump, electrically operated heating elements associated with said core and with said pair of mold halves, heat-responsive control elements associated with said heating elements and said core and pair of mold halves, a cut-off arm mounted for rotation with said shaft, a cut out switch mounted for actuation by said cut-off arm, and time-delay means operated responsive to the operation of said switch whereby rotation of said shaft is stopped for a predetermined period and then restarted.

2,777,405

ROOF GUTTER AND DOWNSPOUT ASSEMBLY

Drez Ager, Miami, Fla.

Application July 8, 1953, Serial No. 366,826
2 Claims. (Cl. 108—28)



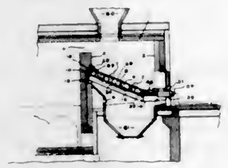
2. In a roof gutter assembly, a trough section formed from a single elongated sheet bent along parallel fold lines longitudinally thereof to define a rear anchor strip adapted to underlie the marginal edge portion of a roof covering, a rear upstanding pleat formed by the frontal continuation of said anchor strip to define a stop member receiving said roof covering thereagainst, a trough bottom disposed in a common plane with said anchor strip and formed from the forward continuation of said rear pleat, a front upstanding pleat spaced forwardly of said rear pleat and formed from the forward continuation of said trough bottom to define, in common with said rear pleat and said trough bottom, a continuous water-collecting gutter, said front pleat rising higher than said rear pleat to define a barrier confining said water therebehind, said front pleat including a downwardly directed fold extending below said trough bottom to define a flashing member, a spillway section in endwise abutting relation to said trough section for reception of water therefrom, said spillway section having an anchor strip, stop member pleat and trough bottom each adapted to partially underlie corresponding parts of said trough section in slideable relation therewith to permit the longitudinal adjustment of said spillway section relative to said trough section, there being a downspout head in operative association with said spillway section and connected therewith by a flashing member formed from a frontal downwardly-directed continuation of said spillway trough bottom to simultaneously form the rear wall of said head, said head having laterally-extending flanges adapted for slideable engagement with said front pleat to form a continuous frontal enclosure surrounding said spillway section.

2,777,406

REFUSE BURNING FURNACE

James F. Turner, Baltimore, Md., and Christian P. Breidenbaugh, deceased, late of Baltimore, Md., by Lillie Mae Breidenbaugh, executrix, Baltimore, Md., assignors to Flynn & Emrich Company, Baltimore, Md., a corporation of Maryland

Application August 11, 1952, Serial No. 303,758
9 Claims. (Cl. 110—8)



1. A furnace combustion chamber for burning refuse having a front wall and a bridgewall and an escape flue over the bridgewall, a grate sloping angularly downwardly from adjacent the top of the bridgewall toward the front wall, the grate having grate bars therein pivoted horizontally at their forward edges adapted to be upwardly tilted at their rear edges to feed burning refuse forwardly, the furnace chamber having an opening in its top over the grate and adjacent the bridgewall, through which refuse is dropped to the grate near its upper end and adjacent the escape flue, the refuse adapted to be progressively spread and burned by upwardly tilting the grate bars, means to admit air under the grate, the air passing through the grate and across the top of the grate to the escape flue, to facilitate the burning of the refuse on the grate, its drying when turned up by the grate bars and the consumption of gases escaping from the refuse.

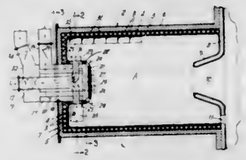
2,777,407

FUEL BURNING APPARATUS

Ewald Schindler, Oberhausen, Germany, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application September 29, 1952, Serial No. 311,963
Claim priority, application Germany October 2, 1951
5 Claims. (Cl. 110—28)

1. A cyclone furnace having a circumferential wall defining a combustion chamber of generally circular cross section about a central axis, burner means associated with an end wall of said chamber and comprising a distributor head formed with nozzles extending outwardly with respect to said axis for discharging a primary air-fuel mixture in jets directed toward said circumferential wall along circumferentially separate paths, conduit means arranged axially of said burner means for supplying said



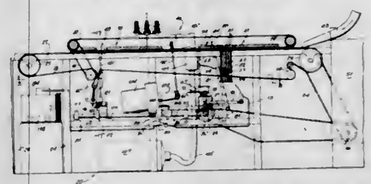
air-fuel mixture to said distributor head and thereby to said nozzles, means adjacent said end wall for introducing secondary air into said chamber in a stream directed tangentially along the inner face of said circumferential wall, said burner means including a head member in which openings are formed about the discharge ends of said nozzles, and means for admitting air to the interior of said head member for discharge through said openings.

2,777,408

MACHINE FOR ATTACHING TAGS TO TEA BAGS AND THE LIKE

George Beck, La Marque, Tex., assignor to Thomas J. Lipton Co., Inc., Hoboken, N. J., a corporation of New Jersey

Application August 21, 1953, Serial No. 375,598
6 Claims. (Cl. 112—2)



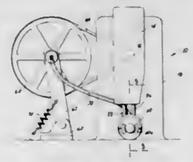
3. A machine for automatically attaching a tag and a string to a bag comprising a pair of conveyor belts which travel one above the other along an operative stretch, the lower belt having an exposed strip beyond one edge of the upper conveyor belt, means for introducing the bags between the upper and lower belts one at a time, such that at least a portion of the bag overlies the exposed strip of the lower conveyor belt, a storage hopper for a plurality of tags, means for feeding the tags onto the exposed strip of the lower conveyor belt between successive bags, and a sewing machine for attaching a string to the bag and to the tag as the conveyor belts present the bags and the tags to the sewing machine.

2,777,409

FEED MEANS FOR SEWING MACHINES

Ragnar W. Winberg, Floral Park, N. Y.

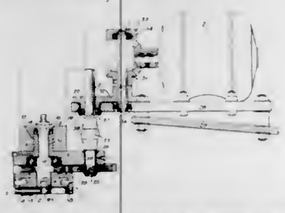
Application March 17, 1954, Serial No. 416,900
16 Claims. (Cl. 112—214)



1. In combination with a sewing machine having a drive, a throat plate having a feed slot, and an oscillating

feed dog operative through said feed slot for periodically advancing one ply of a multiple-ply assembly along a feed path, a rotary feed wheel disposed in operative relation to said throat plate, and means connecting said rotary feed wheel to said drive whereby a further ply of said multiple-ply assembly is advanced along said feed path in timed relation to the periodic advance of said one ply, said means including an elongated flexible coupling placed in torsion in response to operation of said drive and arranged to unload intermittently to impart motion to said feed wheel.

2,777,410
APPARATUS FOR SCORING CAN LIDS
Benno Walensky, London, England
Application October 17, 1950, Serial No. 190,559
5 Claims. (Cl. 113—15)

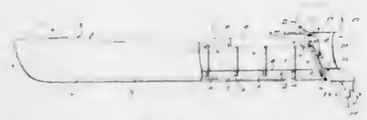


1. In combination in a scoring press apparatus for scoring metal closures for containers to provide a residual thickness of metal at the base of the score which varies not more than a few thousandths of an inch, a knife element of closed configuration mounted on said press, stop means of closed configuration mounted on said press and surrounding said knife element, a rotatably mounted roller assembly housing having a plurality of roller elements journaled therein, means to move said rollers into cooperating scoring relation with said knife element, said roller elements being constructed of such length as to ride on said stop means and to press a closure against said knife element to produce a required score and drive means for rotating said roller assembly comprising a stationary motor and means to transmit the rotary motion of the motor to the rotatable roller assembly in any position of the latter.

2,777,411
METHOD OF MAKING LINED BOTTLE CAPS
William Geisler, Tenafly, N. J., assignor to Wilbro Corporation, Maywood, N. J., a corporation of New Jersey
Application February 16, 1954, Serial No. 410,584
2 Claims. (Cl. 113—80)

1. The method of making bottle caps which comprises interposing a sheet of metal between die members, one of said members having a plurality of accurately spaced circular cavities in the face contacting the sheet of metal and passages from said cavities through the die member to the opposite face, simultaneously filling said cavities through said passages with a molding compound of compressible gasket-forming material, detaching the material filling the cavities from the material in the passages while maintaining such material in the cavities in contact with the metal, cutting the metal sheet to form separate disks each with a piece of molded rubber attached thereto concentric with the disk and shaping the disk to form a bottle cap.

2,777,412
OUTBOARD MOTOR BOAT
Elmer C. Kiekhaefer, Cedarburg, Wis.
Application October 8, 1951, Serial No. 250,263
1 Claim. (Cl. 114—57)

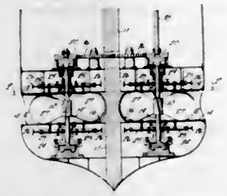


In an outboard motor boat, a motor unit having a drive shaft housing and bracket means pivotally supporting said housing, an underwater gear case fixed to the lower end of said housing and having a propeller, and an engine fixed to the upper end of said housing and operative to drive said propeller, said unit being angularly disposed so that its center of gravity is approximately located above said bracket; said boat having a transom receiving said bracket means secured thereto at the upper edge thereof and supporting the motor unit, said transom having a forward rake so that the lower edge thereof is located below and rearwardly of the center of gravity of the motor unit respecting the forward direction of propeller thrust, said boat further including a framework and outer planking secured to said framework, said planking extending rearwardly over the side edges and beneath the lower edge of the transom, and means fastening the ends of said planking to the transom to effect and maintain a tight seal at the joints therebetween, said outboard motor boat being characterized by the fact that the several forces upon the transom effected by the thrust of the propeller and by the weight of the motor respectively are in opposed relation and the strain imposed upon said fastening means at said joints is substantially reduced.

2,777,413
SIDE TANK CONSTRUCTION FOR BULK CARGO VESSELS
Wilford G. Bartenfeld, Lakewood, Ohio
Application October 14, 1952, Serial No. 314,637
3 Claims. (Cl. 114—78)

1. In a side tank construction for bulk cargo vessels, the combination comprising fore and aft bulkheads, bilge floors, side shell plating, frames fixed to the bilge floors and to the side shell plating, main deck brackets extending inwardly from and supported by said frames, web frames positioned before and after said side shell frames and extending inwardly from the side shell plating, the web frames having openings at their inner edges below said main deck brackets, a stringer passing into and longitudinally through said openings of the web frames and fixed to said main deck brackets, tank top plating supported by said bilge floors, side tank plating, and the side tank plating being supported by said tank top plating and by and between said bulkheads and by said stringer, said web frames constituting the sole structural members directly interconnecting said side shell plating and said side tank plating.

2,777,414
BOAT PROPULSION MECHANISM WITH PROPELLERS IN COMPARTMENTS
Rudolph W. Miller, Brooklyn, N. Y.
Application June 13, 1955, Serial No. 515,067
2 Claims. (Cl. 115—52)

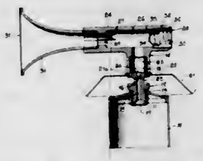


1. In a boat having in the rear portion of its hull two water-tight partitions extending from one side of the boat to the other side and a vertical beam supporting walls and extending through said partitions to the bottom of the boat half-way between the sides of the boat and which partitions and walls together provide two separate compartments for housing respectively two propellers revolving in opposite directions in a single plane, the said transverse partitions forming the top and bottom sides of said compartments, the said walls forming the inner end sides of both said compartments, while at their outer ends, which are flush with the respective sides of the boat, said compartments are open to the surrounding water, one at one side of the boat and the other at the other side; the combination with each propeller of a partial arcuate casing therefor open at each end thereof and held in position by bracing it to said walls of said compartment in which that propeller is housed and near the inner end of said compartment, said partial casing having a contour conforming to the orbit described by the free ends of the blades of said propeller and a radius of curvature which leaves a very narrow clearance space between said casing and said blade ends.

2,777,415
BARRICADE STRUCTURE AND FITTING THEREFOR
Algy E. Martin, North Hollywood, and Mearl D. Lorimor, Los Angeles, Calif., assignors to Light Products, Inc., Beverly Hills, Calif., a corporation of California
Application August 30, 1954, Serial No. 453,082
4 Claims. (Cl. 116—63)

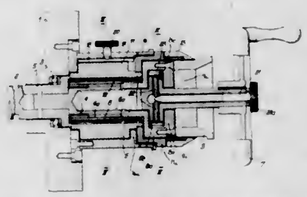
1. Combined standard and fixture box comprising: a joint having three angularly spaced sockets therein adapted to receive shaft members therein, said sockets having intersecting axes disposed in a substantially vertical plane, said joint also having a fourth socket extending horizontally from said vertical plane and adapted also to receive a shaft member; said joint having a substantially flat vertical face opposite said fourth socket, said face having three substantially horizontal threaded bores communicating with the respective three sockets; each of said sockets having a shaft member secured therein; a plurality of set screws one in each of said threaded bores and securing said shaft members in said sockets; said joint having a pair of apertured ears extending outwardly from each side of said face; a fixture box having one side thereof abutting said joint face, said box side having openings aligned with the threaded bores in said joint to give access to said set screws; said box side having an aperture registering with the aperture in one of said ears, thereby to receive a bolt for securing a fixture within said box, the head of said bolt being opposite side joint face, said face having a fourth threaded bore generally centrally located therein and said box side having a generally centrally located opening therein registering with said last named bore in said face for receiving a screw for holding said box to said joint.

2,777,416
FIRE ALARM DEVICE
Willard C. Messick, Summit, N. J., assignor to Fyr-Larm Co., Inc., Summit, N. J., a corporation of New Jersey
Application November 13, 1953, Serial No. 391,848
7 Claims. (Cl. 116—106)



1. In a self-contained, temperature sensitive signalling device of the type having a cylinder containing a supply of vaporizable fluid under pressure such as dichlorodifluoromethane therein, the improvement which comprises a fitting of heat conducting material located in an opening in the top of a cylinder, said fitting having a passageway extending therethrough and communicating with the interior of the cylinder, an annular shoulder in said passageway forming a restricted orifice therein at a point intermediate its ends, and a plug of fusible material closing one end of said passageway, said plug being located in the passageway on the side of the orifice away from the interior of the cylinder and being in contact with the annular shoulder forming said orifice and with the sides of said passageway.

2,777,417
ADJUSTING APPARATUS
Heinz Domin, Ahlen, Westphalia, Germany, assignor to Firma Linnemann-Schnetzer K. G., Ahlen, Westphalia, Germany
Application January 31, 1955, Serial No. 485,254
Claims priority, application Germany February 11, 1954
14 Claims. (Cl. 116—115)



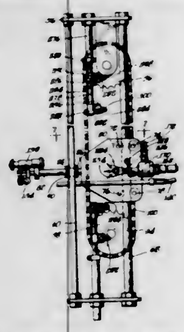
1. In an adjusting apparatus, in combination, a nut having an inner coarse thread of a pitch large enough to cause said nut to turn when an axial force is applied thereto; a spindle having a fine thread of a pitch which is a fraction of the pitch of said coarse thread, said spindle extending with clearance into said nut; means interconnecting said spindle and nut for preventing axial displacement of said spindle with respect to said nut and for freeing said spindle for turning movement about its axis with respect to said nut; and an element, to be adjusted, having a tu-

bular portion extending into and filling the space between said nut and spindle, said tubular portion having an inner threaded surface in threaded engagement with said fine thread of said spindle and an outer threaded surface in threaded engagement with said coarse thread of said nut.

2,777,418
APPARATUS FOR DEVELOPING A POWDER IMAGE ON A XEROGRAPHIC PLATE
Robert W. Gundlach, Spencerport, N. Y., assignor to The Haloid Company, Rochester, N. Y., a corporation of New York
Application February 8, 1954, Serial No. 408,713
2 Claims. (Cl. 118—51)

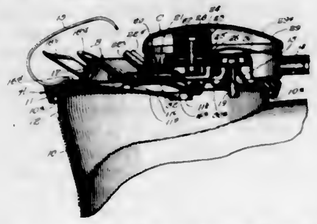
1. A portable apparatus for developing a powder image by gravitating developer powder over the insulating image surface of a flat xerographic plate having a conductive metal backing, which consists of a powder receptacle adapted to be manually oscillated to gravitate the developer powder over the surface of said plate, means for supporting the xerographic plate in the powder receptacle, a development electrode consisting of a uniformly flat conducting plate that is uniformly spaced from said image surface a distance of approximately 3/32", means for removably supporting the development electrode above the plate in the powder receptacle, and electric charging means connected to said conductive backing and to said development electrode and operating to impose on said development electrode a charge having a potential of from 60 volts to 90 volts, said potential being greater than the potential of the background areas of the image on the plate and less than the potential of the image areas and acting to prevent adherence of developer powder to the background areas and to effect uniform adherence of the developer powder to the image areas and thereby producing uniformly black image areas.

2,777,419
SPRAYING APPARATUS FOR SUCCESSIVE ARTICLES CARRIED BY A CONVEYOR
Jens A. Paasche, Chicago, Ill., assignor to Cline Electric Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application April 5, 1951, Serial No. 219,439
6 Claims. (Cl. 118—323)



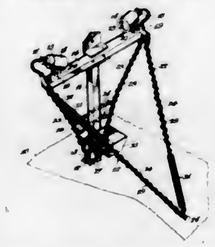
1. In a spraying mechanism, a base, track means including three rods mounted upon said base in triangular relationship with the longitudinal axes of the rods substantially parallel, means fixing said rods against longitudinal movement relative to each other and to said base carriage, means for carrying a spraying device movable along said rods and relatively to said base including a pair of spaced apart plates, one of said rods being disposed between said plates, a pair of wheels mounted between said plates and embracingly contacting said one rod at points spaced longitudinally therealong, and a wheel means attached to and disposed from said carriage means and contacting each of the other of said rods whereby to provide three point support for said carriage means in directions both longitudinal and transverse with respect to the axes of said rods.

2,777,420
MILKING APPARATUS
Lorell John Schilling, Galesville, Wis., assignor to Schilling Electric Company, a corporation of Wisconsin
Application February 16, 1951, Serial No. 211,381
9 Claims. (Cl. 119—14.39)



1. Milking apparatus of the character described, comprising: milk withdrawing means including an inflation having a flexible body portion for receiving a teat and a milk tube leading therefrom and comprising part of a milk delivery passageway; pulastor means operatively associated with said milk withdrawing means for alternately expanding and contracting the teat-receiving portion of the inflation; means operatively associated with said milk passageway for maintaining a vacuum within at least a part of said milk passageway, said milk passageway being exterior of said pulsator means; and valve means operatively associated with said milk passageway and operative in synchronization with said pulsator means for periodically opening and closing communication between the interior of the body portion of the inflation and the part of the milk delivery passageway maintained under vacuum, the volume of the portion of said milk passageway between said valve means and said inflation being substantially equal to the volume of said inflation.

2,777,421
ANIMAL RUBBING INSECTICIDE APPLICATOR
John Hiebert, Hillsboro, Kans.
Application December 7, 1954, Serial No. 473,626
5 Claims. (Cl. 119—157)



1. A device for applying an insecticide to live stock including a container of insecticide, a link chain supported in a functioning position, a helical spring surrounding a portion of said chain and having its opposite ends connected with certain links respectively of the chain, and a wick interlaced with the links of the chain and touching said spring, said wick having one end thereof extending into said container immersed in the insecticide to imbibe and become saturated with the insecticide so as to distribute it to surfaces of the chain and said spring.

2,777,422
BALL POINT WRITING UNIT
Eugene P. Cofield, Jr., Herbert W. Sams, and Le Roy A. Woodward, Atlanta, Ga., assignors to Scripto, Inc., a corporation of Georgia
Application September 13, 1955, Serial No. 534,133
5 Claims. (Cl. 120—42.4)

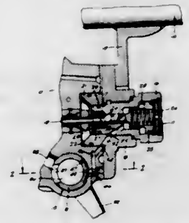
5. In a ball point writing unit comprising an ink reservoir tube fitted at the forward end with a ball point and vented to the atmosphere at the opposite rearward closed end, and a supply of ink disposed in said tube for feeding therefrom under atmospheric pressure by said ball point, the improvement of a three component, leakproof sealing system located within said ink tube between said supply of ink and the rearward vented end of the tube, said sealing system consisting essentially of two spaced pistons and a sealing liquid retained between and around said pistons, and movable as an integrated unit under all conditions of operation and use of said ink tube for following and sweeping the ink supply toward the ball point when used for writing and for preventing escape of ink from the vented rearward end of the ink tube when said ink tube is inverted and even when a dry socket exists at the ball point, said sealing liquid being a thin, flowable, nonevaporative, thixotropic liquid having a minimum yield value that permits the liquid to sweep clean the adhering ink from the inner wall of the ink tube as the sealing system follows the ink toward the ball point when the ink tube is in writing position and within a maximum yield value that prevents breaking of the seal around the pistons when the system is moving at the relatively rapid rate encountered upon inversion of the pen and under dry socket condition at the ball point, the supply of sealing liquid being sufficient in amount to effect at all times an ink tight seal between pistons and ink tube and provide a surplus to compensate for the small amount of liquid that adheres to the inner wall of the ink tube, the forward piston in the sealing assembly being disposed on top of and in contact with the ink supply and the rearward piston being disposed on top of and in contact with said sealing liquid supply, the density of said pistons being such that said forward piston substantially floats on the ink supply and the rearward piston substantially floats on said sealing liquid supply.

2,777,423
FOUNTAIN PEN OF THE PUMP TYPE
Ernest B. Blockert, New York, and Anthony Marino, Brooklyn, N. Y.
Original application September 12, 1949, Serial No. 115,284, now Patent No. 2,649,075, dated August 8, 1953. Divided and this application May 11, 1953, Serial No. 355,048
3 Claims. (Cl. 120—50)

1. In a fountain pen of the class described, in combination, a pen section having a mouth at one end and a central bore of somewhat smaller diameter, thus presenting an annular shoulder at said mouth, a channel feed having parallel longitudinal fissures, said feed frictionally held in the central bore of the pen section with one end extending into the said mouth, thereof, a pen nib frictionally held in the upper part of the annular space between the section mouth and the said feed, having the lower annular space unoccupied, said channel feed having a blind passage inside of said feed and open at one end thereof but closed at a point near the nib end of the feed, said feed further having a channel in its upper part extending from the end of the feed opposite said pen section to a point in underlying relation to the pen nib, the feed having two ink holes and one air hole

providing communication between its said channel and its said blind passage, a narrow strip of thin flexible metal extending in said blind passage of the feed, one end of said strip terminating at said closed end of the blind passage and its opposite end extending somewhat beyond the opposite end of said feed, the end of said narrow strip of thin metal being hook-shaped to be frictionally held in the blind passage of said feed, a breather tube one end of which is frictionally held in the open end of the blind passage of the feed, the other end of said metal strip extending into said breather tube, and a deflector at the other end of said breather tube.

2,777,424
AUTOMATIC WATER VALVE FOR ROCK DRILLS
George H. Fuehrer, Downey, Calif., assignor to Thor Power Tool Company, Aurora, Ill., a corporation of Delaware
Application November 16, 1953, Serial No. 392,134
6 Claims. (Cl. 121—10)

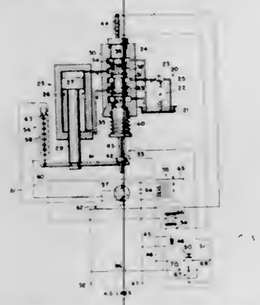


1. In a water valve for pneumatic drilling apparatus, a valve element including an actuating piston movable between a position permitting the flow of water to the drill steel of said drilling apparatus and a position blocking water flow thereto, means to admit air under pressure to a chamber adjacent said valve element and housing said actuating piston to effect shifting of said piston and valve element to one of said positions, and means to vent said air pressure to the atmosphere during the period of its admission to said chamber, said vent means having a cross-sectional area sufficiently large to prevent said air pressure from building up to a value sufficient to effect valve element shifting to said one position, the discharge end of said vent means being disposed to facilitate blocking thereof by the operator's finger to effect shifting of said valve element to said one position, said vent means being operatively associated with said throttle valve of said drilling apparatus, and means associated with said throttle valve to block said vent means continuously when said throttle valve is in a predetermined controlling position.

2,777,425
ELECTRONIC CONTROL SYSTEM FOR HYDRAULIC MOTOR

Cecil E. Adams and Kenneth C. Goodman, Columbus, Ohio, assignors, by mesne assignments, to American Brake Shoe Company, New York, N. Y., a corporation of Delaware

Application September 16, 1953, Serial No. 380,578
12 Claims. (Cl. 121—38)

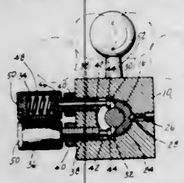


1. Control mechanism for hydraulic apparatus of the type having a reversible fluid motor with a movable element, a source of fluid pressure and a reversing valve between said pressure source and said fluid motor comprising electro-responsive means for actuating said valve to cause the operation of said fluid motor in one direction; means responsive to the movement of the movable element of said fluid motor when operating in said one direction to maintain a flow of electrical energy to said electro-responsive means to hold the same in position to cause the continuation of the operation of said fluid motor in said one direction, said movement responsive means serving to reduce the flow of electrical energy to said electro-responsive means when the movement of the movable element of said fluid motor ceases; and means for actuating said reversing valve to cause reverse operation of said motor when the flow of electrical energy to said electro-responsive means is reduced.

2,777,426
HYDRAULIC SPEED CONTROL VALVE

Horace McKay Steele, Huntington, Ind., assignor to Model Engineering & Manufacturing, Inc., Huntington, Ind., a corporation

Application December 7, 1953, Serial No. 396,402
2 Claims. (Cl. 121—46.5)

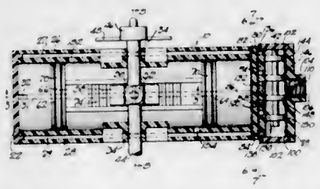


1. A hydraulic speed control valve having a body with an internal bore for receiving a valve stem, an operating lever connected with said stem for rotating it in said bore, a pair of diametrically opposed stop faces on said stem, a corresponding pair of stop members adjustably mounted in said body for engagement by said stop faces upon predetermined angular displacement of said stem in either direction, said stop members, each comprising a plunger slidably mounted in a tubular sleeve threadedly adjustable in said body, a casing on said sleeve housing a compression spring biasing said stem and stop member toward said stop face to provide a spring biased adjustable stop unit, inlet and exhaust ports communicating with said bore positioned to be selectively controlled by the angular displacement of said stem, said ports being operatively connected with a source of hydraulic pressure and mechanism to be operated thereby, respectively, and a reduced diametrically disposed web-like portion on said stem extending in the plane of said bores for closing said bores when in one position, partially opening said bores to permit of limited passage of fluid therethrough upon said stem being rotated in either direction to stop member and stop face engagement, and fully open said bores to permit full and unobstructed flow of fluid therethrough upon the engaged stop member being displaced by further movement of said stem against the tension of its compression spring.

2,777,427
FLUID PRESSURE MOTOR

Elton F. Nichols, Livonia, Mich., assignor to Sprague Devices, Inc., Michigan City, Ind., a corporation of Indiana

Application May 24, 1954, Serial No. 431,937
12 Claims. (Cl. 121—150)



1. A fluid pressure motor comprising a sealed tubular body having an elongated piston chamber and a plurality of longitudinal passages open at one end and respectively communicating with said chamber at spaced points along the length of said chamber, a piston unit reciprocable in said chamber, a valve mounted at one end of said body and having a valve chamber, an outlet and an inlet, a wall separating said valve chamber and piston chamber and having a plurality of passages therein, some of said last named passages communicating with said first passages, portions of other wall passages extending therethrough to connect spaced portions of said valve chamber to said outlet, a pressure responsive valve element having similar opposed ends and shiftable in said valve chamber between two operative positions for controlling in one of two predetermined paths the flow of fluid from said inlet to and through said valve chamber, wall and chamber passages to a selected part of said piston chamber and for connecting the opposite part of said piston chamber in communication with said outlet, said piston being responsive to fluid pressure and being operative to change said flow path at a predetermined position in each of two opposite strokes thereof to divert fluid flow to an end of said valve chamber to shift said valve element so as to reverse the path of fluid flow in said piston chamber and the direction of movement of said piston in said chamber.

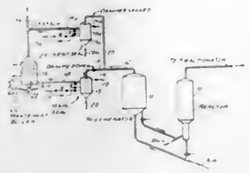
2,777,428
APPARATUS

Oliver F. Campbell and William Harrison Decker, Whiting, Ind., assignors to Sinclair Refining Company, New York, N. Y., a corporation of Maine

Application April 1, 1953, Serial No. 346,176
5 Claims. (Cl. 122—4)

1. A waste heat recovery system which comprises a generating source of flue gases, a waste heat boiler, a sealing arrangement, connecting ducts joining the sealing arrangement with the generating source and with the waste heat boiler, a vent duct connected to the connecting duct on the upstream side of the sealing arrangement provided with means to open and close the vent duct to the passage of the stream of flue gases;

in which the sealing arrangement comprises a damper located in the duct connecting the generating source and the sealing arrangement and a water seal vessel located on the downstream side of the damper, the water seal vessel comprising a closed vessel down into which the connecting duct from the generating source of the flue

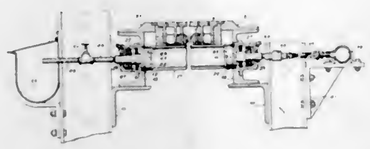


gases extends and out of which near its top extends the duct connecting the sealing arrangement to the waste heat boiler, an inlet line for admitting water to the closed vessel and a drain line for discharging water from the closed vessel with valve means in each of the inlet and drain lines to control the rate of the flow through these lines.

2,777,429
CHAIN-GRATE HEAT MACHINE

William Millen Duncan, Alton, Ill.

Application May 25, 1955, Serial No. 511,007
1 Claim. (Cl. 122—371)



In a chain-grate machine, a fixed supporting framework, a wide endless chain of grate-forming links, means supporting said chain grate so as to have generally horizontal upper and lower reaches and for moving the chain substantially continuously, the upper reach of chain constituting a continuous grate onto which material is fed at one end and upon which the material is heated as the chain moves, the supporting means of the upper reach of chain being constituted by a plurality of hollow rollers in horizontally spaced relationship from one another along and beneath the upper reach of the chain, each of said rollers being journalled at its ends on said framework transversely thereof to support a portion of the upper reach of chain, a water inlet manifold mounted on the framework along one side of the chain, rotary joints interconnecting one end of each roller with said inlet manifold, and each roller having a separate adjustable outlet valve connected at its other end, thereby to permit selective variation in the water flow through individual rollers.

2,777,430
METHOD FOR INJECTING WATER INTO THE COMBUSTION CHAMBER OF HIGH SPEED DIESEL ENGINES

Siegfried Meurer, Nurnberg, Germany, assignor to Maschinenfabrik Augsburg-Nurnberg, A. G., Nurnberg, Germany

Application July 22, 1955, Serial No. 523,914
5 Claims. (Cl. 123—25)

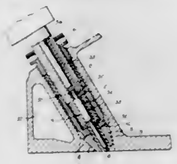
1. A method of injecting water into the combustion chamber of a diesel-type engine in which substantially all the fuel is first deposited as a film on the wall of the combustion chamber and then vaporized and burned, comprising injecting water in the combustion chamber

to form a water film thereon, and then vaporizing said water film from said wall.

2,777,431
INJECTION NOZZLE ARRANGEMENT

Siegfried Meurer, Nurnberg, Germany, assignor to Maschinenfabrik Augsburg-Nurnberg A. G., Nurnberg, Bavaria, Germany, a firm

Application August 26, 1954, Serial No. 452,359
Claims priority, application Germany August 28, 1953
8 Claims. (Cl. 123—32)

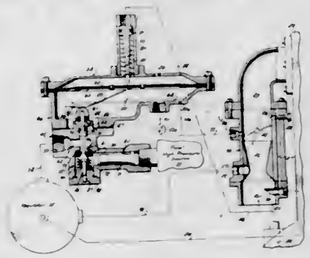


1. A cylinder head and injection nozzle arrangement for internal combustion engines, comprising a cylinder head, steeply tapered conical nozzle bore means in said cylinder head, an injection nozzle including a nozzle stem, a similarly tapered conical packing body of a higher thermal conductivity than said injection nozzle surrounding said injection nozzle and adapted to be freely slipped on the nozzle stem in a dismantled condition and being flush with the free end of said nozzle stem, and resilient means for forcing the conical packing body into said conical nozzle bore of the cylinder head, in such a way that the conical packing body in an assembled condition fits tightly in the conical bore of the cylinder head and when heated fits tightly on the nozzle stem.

2,777,432
GAS FUEL FEED SYSTEMS, AND PRESSURE REGULATORS, WITH SAFETY CUT-OFFS, FOR INTERNAL COMBUSTION ENGINES AND THE LIKE

Roy F. Ensign, San Marino, Calif., assignor to Ensign Carburetor Company, Huntington Park, Calif., a corporation of California

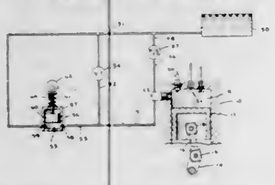
Application June 1, 1954, Serial No. 433,662
21 Claims. (Cl. 123—120)



1. In a gas fuel feed system for an internal combustion engine having an intake manifold, the combination of a carbureter having a throttle controlled mixture passage

whose outlet beyond the throttle is adapted to be connected to the manifold, a source of fuel under pressure, a pressure regulator mechanism which comprises a body and a pressure operatable diaphragm enclosing a diaphragm chamber, an inlet and an outlet for said chamber, a fuel passage connection between the outlet and the carbureter to feed fuel thereto under regulated pressure, an inlet controlling valve operatively connected to said diaphragm so that pressure in the diaphragm chamber causes the valve to close, a reference pressure means, means independent of the reference pressure means constantly exerting a force on the valve tending to close it, means actuatable by subatmospheric pressure to apply the reference pressure force to the valve in a direction tending to open it, said last mentioned means embodying body walls and an actuating diaphragm enclosing an actuating diaphragm chamber, and a reciprocable actuating pin extending through the body wall structure between the first mentioned diaphragm chamber and the actuating diaphragm chamber, and a fluid passage connection leading from the mixture passage at a point beyond the throttle to the actuating diaphragm chamber.

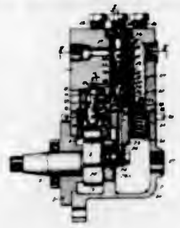
2,777,433
INTERMITTENT FUEL INJECTION SYSTEM
Calvin D MacCracken, Tenafly, N. J., assignor to Jet-Heet, Inc., Englewood, N. J., a corporation of New York
Application January 8, 1952, Serial No. 265,507
17 Claims. (Cl. 123—139)



1. In a fuel supply system for intermittently injecting fuel into a combustion chamber, in combination, an atomizing nozzle of the return flow type having fuel supply and fuel return lines connected thereto and having a discharge orifice opening into said combustion chamber and in continuous open communication inside said nozzle with both said lines, means to supply fuel to said nozzle continuously through said supply line, and valving means in said return line for cyclically varying the fuel flow through said return line from 100% of the amount of fuel flowing through said supply line to less than 100% of said amount.

2,777,434
INJECTION PUMP FOR MULTI-CYLINDER ENGINES
Ulrich Aldinger, Stuttgart, Germany, assignor to Robert Bosch G. m. b. H., Stuttgart, Germany
Application August 23, 1954, Serial No. 451,385
Claims priority, application Germany August 29, 1953
11 Claims. (Cl. 123—139)

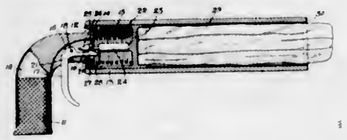
1. In a fuel injection pump for a multi-cylinder engine, in combination, a reservoir for holding a supply of fuel; distributor means for distributing fuel to the engine cylinders in a predetermined sequence during one cycle of operation of said distributor means; a pump cylinder communicating with said reservoir and said distributor means; a piston in said pump cylinder; cam means engaging said piston for moving the latter in said pump cylinder through a plurality of pressure strokes equal to the number of engine cylinders during one cycle of said distributor means, said piston being urged toward said cam means to be maintained in operative relationship thereto and being moved in its suction strokes by the pressure of the fuel in said reservoir and pump cylinder; and valve means communicating with said pump cylinder, reservoir and distributor means for directing fuel from said reservoir to said pump cylinder during the suction strokes of said piston and from said pump cylinder to said distributor means during pressure strokes of said piston, said valve means being in the form of a pair of non-return valves carried by said distributor means, the latter having between said non-return valves a chamber in constant communication with said pump cylinder.



2,777,435
BOW WITH AUTOMATIC ARROW HOLDER
Wendell R. Brooks, Dearborn, Mich.
Application September 28, 1953, Serial No. 382,530
6 Claims. (Cl. 124—23)

5. An archery apparatus comprising a bow and an arrow securing device, said device including a base which is secured to said bow, located on that side of the bow over which the arrow passes and at a position adjacent the path of the arrow, a pivot mounted on said base, a keeper rotatably mounted on said pivot and spring biased into a position out of registry with the base, a stop on the base preventing rotation of the keeper against the spring bias past the base, and an arrow receptacle supported on the end of the keeper remote from the pivot, said keeper being positioned so that contact between the arrow receptacle and an arrow moving in the direction urged by the bow string will rotate the keeper against the spring bias and against the stop, said keeper being rotatable only in a single plane normal to its pivot axis and in its arrow engaging position being placed laterally of the bow.

2.777.436
NEWSPAPER GUN
Ralph H. Renner, Noblesville, Ind.
Application April 14, 1955, Serial No. 501,339
2 Claims. (Cl. 124—27)



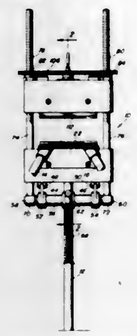
1. A device of the class described comprising an elongated hollow, substantially cylindrical barrel, a hollow cylindrical member open at both ends and having a transverse bore intermediate the ends thereof, said hollow cylindrical member being slidably mounted within said

barrel, a rearwardly extending shank connected to said transverse wall, a reduced neck at the rear end of said shank, a substantially conical enlargement at the end of said neck, a coil spring surrounding said shank within said hollow cylindrical member with one end thereof in abutment with said transverse wall, a pistol grip formed at the upper end thereof with a cylindrical enlargement secured within said barrel, said cylindrical enlargement on the outer face thereof having a substantially cylindrical recess receiving the end of said spring therewithin, said pistol grip having a cutout portion extending upwardly from the lower edge thereof and communicating with said recess, a trigger pivotally mounted within said cutout portion and including a forwardly extending finger integrally formed with a hook adapted to engage said conical tip, said barrel being adapted to receive therewithin a newspaper or the like when said coil spring is retracted, and spring means for normally retaining said hook in engagement with said conical tip.

2,777,437
BOW STRING GUIDE
Wesley M. Allen, Windsor, Mo.
Application March 21, 1955, Serial No. 495,708
1 Claim. (Cl. 124—30)

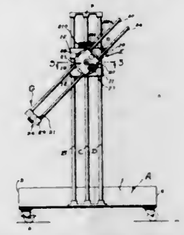
In combination with the bowstring of an archer's bow, an arrow nock locating device comprising a lower bead and an upper bead, each of said beads being spheroidal in shape, made of resilient material and having a bore of a diameter normally less than that of the bowstring in the area of the bowstring at which an arrow is to be fitted, said bowstring extending through said bore, said upper and lower beads being mounted to define between them the upper and lower boundary respectively, of the nock-receiving area, said area being substantially as wide as the arrow at the nock.

2,777,438
ARTIFICIAL STONE CUTTER
Elmer F. Mangis, Frankfort, Ind.
Application September 9, 1955, Serial No. 533,348
1 Claim. (Cl. 125—23)



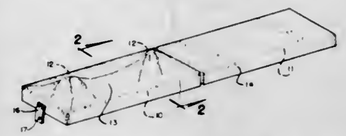
A stone cutter comprising a stand, a pair of platform sections carried by said stand, a blade carrying bracket positioned between said platform sections and secured thereto, a lower blade secured in said bracket, support bearings secured to said bracket, a shaft journaled in said bearings, said shaft having eccentric end portions, a pair of standards forming upper blade support means engaging said eccentric end portions, an upper blade bracket, said standards being threaded, a pair of sprockets threadedly engaged on said standards, said sprockets being mounted on said upper blade bracket, means for rotating said sprockets to adjust said upper blade bracket, an upper blade mounted in said upper blade bracket, and means for rotating said shaft to depress said upper blade, one of said platform sections having a tray resiliently mounted thereon, said tray normally extending above said lower blade.

2,777,439
MANIPULATOR
Eugene F. Tuttle, North Hollywood, Calif.
Application October 11, 1954, Serial No. 461,568
15 Claims. (Cl. 128—25)



2. For use with a manipulating device having a supporting structure, a housing carried on the supporting structure and a rotor rotatably supported by the housing, mechanism for controlling the torque required to rotate the rotor comprising: a block forming part of the rotor and being rotatably journalled within the housing; a braking device rotatable along with the rotor; a reaction ring mounted within the housing with which the braking device coacts for imposing a pre-determined amount of resistance to the rotation of the rotor; means coacting with the reaction ring and the housing for selectively preventing rotation of the ring relative to the housing and adjustment means having engagement with the brake device and with the block for imposing a predetermined load upon the braking device, said adjustment means including a pressure plate engageable with the braking device and rods having connection to the plate and also having adjustable connection with the block.

2,777,440
MUSCLE RELAXER
Paul G. Baker, Chicago, Ill.
Application December 29, 1955, Serial No. 556,339
1 Claim. (Cl. 128—69)

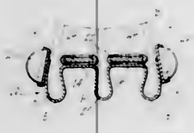


A muscle relaxer for the small of the back comprising a supporting board, a pair of separable resilient balls positioned on said board and in longitudinally spaced relationship and adapted to be positioned on opposite sides of the spine when said board rests below the small of the back, and a fabric covering enclosing said balls and securing the same to said board while permitting their lateral adjustment relative to each other, a second board identical in size and shape with said first board and having one end hingeably connected thereto, whereby to permit said second board to be flapped under said first board and to raise the device for increased pressure of said balls on the back muscles.

2,777,441

WITHDRAWN

2,777,442
NASAL FILTER
Joseph Zelano, New York, N. Y.
Application April 11, 1955, Serial No. 500,353
5 Claims. (Cl. 128—206)



1. A nose filter comprising a nose-engaging yoke; filter support means carried by said yoke at one side thereof; ornament support means carried by the yoke at the other side thereof, and proportioned to increase the area of said filter bearing against the nose at the location of the ornament support means; filter means carried by the filter support means, and an ornament carried by the ornament support means, said filter including, in addition to the first-named yoke, a pair of side yokes at opposite sides of the first-named yoke, the first-named yoke being adapted to receive the septum of the nose and the side yokes being adapted to receive the opposite sides of the nose.

2,777,443
AIR-WAY PUNCTURE DEVICE
James G. Thomas, Skokie, and Cyrus R. Broman, Evanston, Ill., assignors to Baxter Laboratories, Inc.
Application March 29, 1955, Serial No. 497,574
6 Claims. (Cl. 128—214)

1. A puncture device for the air passage diaphragm in a stopper closing the mouth of a parenteral administration container comprising a thermoplastic sleeve having a needle permanently anchored axially therein and means closing the end of said sleeve opposite the sharpened end of said needle, said sleeve being adapted to be removably mounted on the plug-in portion of a parenteral administration set to protect said plug-in portion against contamination during storage.

2,777,444
SANITARY FILTERED MEDICATED HOT WATER BAGS
Clyde M. Johnson, Washington, D. C.
Application September 22, 1954, Serial No. 457,703
7 Claims. (Cl. 128—227)

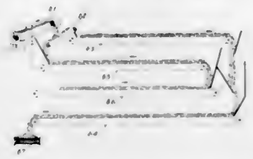
1. A douching device of disposable, impervious material comprising an open-mouthed receptacle capable of supporting a fluid and having a discharge opening at one end, a discharge tube fitted into said latter opening and extending into a receptacle, a cup positioned in said receptacle adjacent said opening and about said tube, a support about said tube for supporting a soluble medicament within said cup, said tube being perforated for

a portion of its length to permit the discharge of a fluid from said receptacle.

2,777,445
ELECTRICAL THERAPEUTICAL DEVICE FOR INTERNAL APPLICATION
Fred J. Hart, Salinas, Calif., assignor to Electronic Medical Foundation, San Francisco, Calif., a corporation of California
Application July 12, 1952, Serial No. 298,517
8 Claims. (Cl. 128—303.12)

1. In an electrical therapeutic device, a hollow internal applicator having an entry for conductors at one end and being closed at the other end, a thermally operated switch mounted in said applicator, said switch having make and break contactors mounted in heat conducting relation to the interior wall of said closed end and being adapted for connection to an electrical power supply system and a heat conducting member conductively connected with said thermally operated switch and establishing thermal contact with the internal walls of the closed end of said hollow applicator.

2,777,446
APPARATUS AND METHOD FOR CONDITIONING CUT TOBACCO
Stanislaus Bogaty, Philadelphia, Pa., assignor to Proctor & Schwartz, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application December 10, 1953, Serial No. 397,399
5 Claims. (Cl. 131—136)



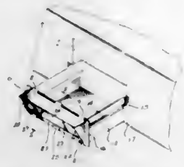
1. In apparatus for bulking cut tobacco and similar material comprising, a supporting structure, a conveyor system carried by said supporting structure including a plurality of spaced superimposed conveyors, feed mechanism including a reversible feed conveyor operable in one direction to deposit material on one of said conveyors and in the other direction to deposit material on another of said conveyors, drive means to drive said one and

said another conveyors in one direction, a chute extending transversely of said supporting structure adjacent said one conveyor operable to receive material therefrom and transfer the same to a third of said conveyors, a second chute extending transversely of said supporting structure adjacent said another conveyor operable to receive material therefrom and deposit the same on a fourth of said conveyors, drive means to drive said third and said fourth conveyors in a direction opposite to the direction of travel of said one conveyor, and means to remove material from said third and fourth conveyors.

2,777,447
COMBINATION WRITING IMPLEMENT AND CIGARETTE HOLDER
Heinz Gossler, Heidelberg, Germany
Application September 10, 1953, Serial No. 379,437
Claims priority, application Germany January 14, 1953
3 Claims. (Cl. 131—178)

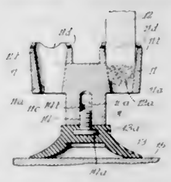
1. In a device adapted for alternative use as a holder for a smoking article as well as a writing instrument; two tubular members, one of said members being of substantially uniform diameter throughout a major portion of its length and carrying at one end a cartridge-equipped ball tip, the other end of said one member being provided with a recess to receive said smoking article therein, the other member being provided with a mouth piece at one end and being of a diameter sufficiently large at the other end to frictionally engage said one member over said ball tip end for smoking purposes and over said recessed end to lengthen said writing instrument, selectively, and said one tubular member having channel means extending adjacent said ball tip from the outer surface of said one tubular member through its wall, to thereby establish communication between said other end of said one tubular member and said mouth piece, respectively.

2,777,448
CIGARETTE DISPOSAL DEVICE
George A. Albert, National City, Calif.
Application December 30, 1955, Serial No. 556,715
3 Claims. (Cl. 131—237)



3. In a cigarette disposal device, a vertical support, a horizontal drawer having a front wall, means slidably mounting said drawer on said support for inward and outward movement with respect thereto, a first cigarette-extinguishing plate hinged to the top edge of said front wall, a second cigarette-extinguishing plate hinged to the bottom edge of said first plate, forwardly projecting flange elements on the end portions of the first plate adapted to limit outward rotation of the second plate with respect to the first plate, a horizontal rod element connecting the forward edge portions of said flange elements, and spring means connecting the top edge portion of said second plate to said rod element adapted to bias said second plate forwardly to define a cigarette-receiving receptacle between said second and first plates, said receptacle being swingable upwardly to an inverted position over the drawer.

2,777,449
SMOKER'S APPLIANCE
Lee R. Foster, Berwyn, Ill.
Application February 18, 1955, Serial No. 489,117
2 Claims. (Cl. 131—256)



2. A smoker's appliance, comprising: a base member; a plurality of upwardly extending tubular members on said base member having their top edges substantially coplanar and spaced above the base member, each tubular member being adapted to receive the lighted end of a cigarette for snuffing the same, said top edges having depressed portions at least four of which are linearly aligned for cooperation in supporting a cigarette laid across said depressed portions; a mounting member for mounting the appliance on a support; and means for attaching the mounting member and the base member together in a selected one of a plurality of angularly arranged positions.

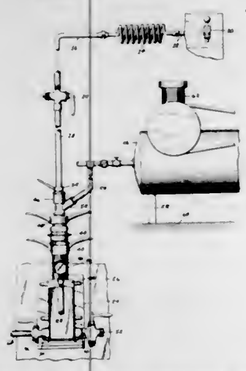
2,777,450
HOLDERS AND OPENERS FOR HAIRPINS
Roman Zipperlin, Belleville, N. J.
Application October 26, 1954, Serial No. 464,787
2 Claims. (Cl. 132—1)

1. A holder and opener for hair pins having a pair of resilient legs comprising a base, a pair of laterally spaced uprights rising from said base, a rectangular rigidly mounted pin holding blade extending substantially horizontally across said uprights and having front and rear edges, and a pin opening blade extending along the rear edge of said holding blade and having end trunnions journaled in said uprights and rotatably mounting said opening blade for rotation into horizontal and vertical positions, respectively, said holding blade and the opening blade when in horizontal position being adapted for straddling by the legs of hair pins shoved rearwardly onto said holding blade, said opening blade when rotated into vertical position flexing one leg of the hair pins away from the other to open said pins, and a crank arm on one of said trunnions for rotating said opening blade, said opening blade having lateral end ears fixed to said trunnions and offsetting said opening blade from said trunnions for rotation about an offset axis whereby to facilitate flexing one leg of said pins away from the other leg.

2,777,451
HAIR SETTING DEVICE
Sanford Steve Kriesman and William Elliot Rosen, Philadelphia, Pa., assignors of twelve and two-thirds percent to Budd Granoff, New York, N. Y.
Continuation of application Serial No. 360,632, June 10, 1953. This application September 18, 1953, Serial No. 380,902
5 Claims. (Cl. 132—36)

1. A hair setting device comprising a clamp having a pair of pivoted spring-tensioned arms adapted to receive therebetween a tress of hair in the form of a pin curl, a container mounted on the outer surface of one of said arms and adapted to retain a heat generating means therein, and a disk carried at the bottom of said container above the other of said arms, said disk including a protuberance adapted to enter the center of the pin curl and retain the same in its proper position during the setting operation.

2,777,452
CLEANING APPARATUS FOR BEER DISPENSING SYSTEMS
Michael J. Zwosta and Joseph M. Zwosta, Brooklyn, N. Y.
Application October 30, 1952, Serial No. 317,792
1 Claim. (Cl. 134—102)



A cleaning device for a beer dispensing system including a beer rod, said device comprising a mixing tank, an inlet port in said mixing tank, a source of water under pressure, a pipe connecting said source to said inlet port through which water under pressure may enter said mixing tank, a valve controlling the flow through said pipe and inlet port, an outlet port in said mixing tank through which the contents of said tank may be drained out, a valve controlling the flow through said outlet port, a tubular receptacle connected to said mixing tank and communicating therewith, a screw cap engaging the top of said tubular receptacle, a screw collar engaging said screw cap, a tubular housing, a second screw collar rotatably mounted on said tubular housing and engageable with the first mentioned screw collar to secure the tubular housing thereto, and a clamp which is in screw threaded engagement with the tubular housing and which is frictionally engageable with a beer rod which is inserted through said clamp, tubular housing, screw collars, screw cap, tubular receptacle and mixing tank, said tubular receptacle being sufficiently long to receive a major part of said beer rod, said tubular housing being provided with an inlet port, a tube connected to said inlet port and a source of compressed air connected to said tube, whereby air under pressure may be introduced into said tubular housing, tubular receptacle and mixing tank at the same time that water under pressure is introduced therein through the first mentioned inlet port, thereby causing a turbulent mixing of the water and air in and around the beer rod and forcing said turbulent mixture of air and water under pressure through said beer rod and the beer dispensing system connected therewith.

2,777,453
MASK-WASHING MACHINE
Harry Szczepanski, Grand Rapids, Mich.
Application November 19, 1954, Serial No. 470,036
2 Claims. (Cl. 134—200)

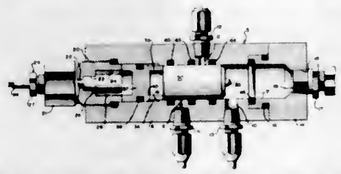
2. In a processing machine having a work chamber provided with spraying means: a cover for said chamber; spaced opposite bracket means mounted on said cover and having a resilient portion provided with sets of apertures and capable of deflection to increase the distance between said bracket means; and work-receiving rack means suspended from said bracket means within said chamber, said rack means having portions engaging said apertures, said rack means being positionable at selected distances from said spray means corresponding to the positions of said sets of apertures.

2,777,454
COLLAPSIBLE OR PORTABLE LAWN OR BEACH UMBRELLA
Robert Kramer, Chicago, Ill.
Application February 4, 1954, Serial No. 408,067
1 Claim. (Cl. 135—5)

A portable collapsible beach or lawn umbrella comprising a flexible cover member adapted to be supported in either a fully extended substantially flat condition to form a substantially rectangularly shaped cover or with either of its opposite corresponding end portions extending downwardly from the medial portion thereof to provide end flaps, and means for supporting said cover member in either of its two said conditions comprising snap elements carried by the corner portions of the cover member and other snap elements connected to the cover member along opposite corresponding sides thereof intermediate the corners thereof, rods each comprising telescopically arranged tubular members, each of said rods at

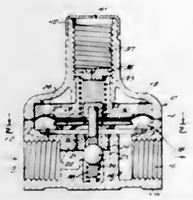
corresponding ends having heads for snapped engagement with the snap elements carried by the corner portions of said cover member for supporting the cover member in said substantially flat rectangular condition or for engagement with the intermediate snap elements for supporting the cover member with its end portions extending downwardly from the medial portion thereof, said telescopically arranged tubular members of each rod having friction means for retaining the tubular members in a predetermined adjusted position, said cover member when not supported by said rods adapted to be folded to provide a roll within which said rods are confined when in contracted position.

2,777,455
HIGH PRESSURE CONTROL VALVE
Roland G. Daudelin, Silver Spring, Md.
Application July 31, 1951, Serial No. 239,602
9 Claims. (Cl. 137—68)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A high pressure valve of the character disclosed including, in combination, a body member, means forming a first fluid circuit through said body member, means forming a second fluid circuit through said body member, a piston movably disposed in said body member and initially positioned for closing the first fluid circuit through said body member, means for energy transfer actuation of said piston, an electroresponsive detonator disposed in said body member and fireable responsive to an electric signal to effect drive of said energy transfer means for movement of said piston from said initial position to a second position for closing said second fluid circuit, and means forming a part of said body member for communicating pressure from said first fluid circuit to said piston for maintaining said piston in said second position against a lesser pressure in said second fluid circuit.

2,777,456
GAS PRESSURE REGULATORS
Victor Ey, Woodside, N. Y.
Application May 14, 1952, Serial No. 287,741
4 Claims. (Cl. 137—73)

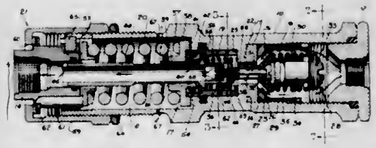


1. In fluid pressure regulator, a valve body having a fluid chamber, an inlet and an outlet port, a flexible diaphragm subdividing said chamber into opposite compartments, a partition wall separating said inlet and outlet ports, said partition having a flow passageway establishing communication between said inlet port and one of said compartments and providing a valve seat, the outlet port having communication with said last mentioned compartment, a valve adapted to seat on said valve seat for regulating the flow of fluid through said passageway, a head carried by said diaphragm, a fusible stem operatively connected with said head and engaging said valve for movement of the valve in opening direction with the movement of said diaphragm upon decrease in pressure in said last mentioned compartment, said stem being exposed to the side walls of said last mentioned compartment between said partition wall and said diaphragm, means biasing said valve toward said valve seat, means biasing said diaphragm for normally maintaining the valve in open relation, and means for adjusting the bias of said last mentioned means for varying the pressure in said last mentioned compartment.

2,777,457
FLUID PRESSURE CHARACTERIZING RELAY
George E. Luppold, Jr., Altadena, Calif., assignor to Bailey Meter Company, a corporation of Delaware
Application June 21, 1951, Serial No. 232,835
1 Claim. (Cl. 137—85)

A regulating mechanism comprising, in combination, a first beam pivotally supported at one end, a pilot valve operatively connected to the other end of the first beam, a second beam pivotally supported at one end, a spring connecting the first and second beams, a first fluid pressure responsive device, a first passage to the first fluid pressure responsive device for conducting a fluid pressure with a specific non-linear variation thereto, a connection between the first fluid pressure responsive device and the second beam, said connection having a cam arranged to position the second beam about its pivot and having a configuration complemental to the specific non-linear variation with which to move the second beam with a linear variation against the spring force and thereby the first beam to actuate the pilot valve to establish a linear fluid pressure output, a second fluid pressure responsive device acting upon the first beam for swinging the latter about its pivot against the spring force, a second passage means connecting the pilot valve linear output fluid pressure and the second fluid pressure responsive device, and a third passage connected to the second passage to receive and transmit the linear fluid pressure output of the pilot valve.

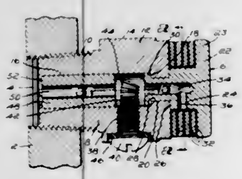
2,777,458
PRESSURE REDUCER
George T. Stern, Orange, N. J., assignor to Specialties Development Corporation, Belleville, N. J., a corporation of New Jersey
Application August 30, 1954, Serial No. 453,091
10 Claims. (Cl. 137—116.5)



9. A pressure reducer of the class described comprising, a body having a bore, an inlet, an outlet, and a valve seat between said inlet and said outlet provided

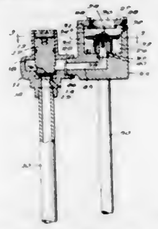
with a port, a valve member in said bore between said inlet and said seat for engaging said seat and formed with a recess extending towards said inlet, the area defined by said port being equal to the area defined by said recess, tubular piston means in said bore between said outlet and said seat including valve seat means provided with an opening, a regulating spring opposing movement of said piston means adapted to yield and permit movement of said piston means in a direction towards said outlet wnen fluid under pressure in said outlet reaches a predetermined value, a tubular member carried by said piston means for movement therewith extending through said opening and formed with flange means adapted to engage said seat means, said tubular member having an open outlet end adjacent said outlet and having an inlet end adjacent said port formed with inlet means in fluid flow communication with said port, said open outlet end and said inlet means constituting the sole openings in said stem means, spacer means having a radial aperture extending through said port and positioned between said tubular member and said valve member, said valve member having an aperture for establishing communication between said recess and said spacer means, means for urging said valve member against said spacer means and towards said seat, means for urging said tubular member in a direction to cause said flange means to engage said valve seat means, a guide member in said bore adjacent said inlet formed with a projection slideably engaging said recess, a rod adjustably secured to said inlet end of said tubular member and extending through said spacer and said aperture in said valve member into said recess and formed with an enlarged portion in said recess of greater width than said valve member aperture, and said body having a port between said piston and said outlet providing communication between said bore and the atmosphere.

2,777,459
AIR VENTING VALVE FOR USE WITH HOT WATER RADIATORS
Warren T. Ferguson, Newton Highlands, Mass., assignor to Anderson Products, Incorporated, Cambridge, Mass., a corporation of Massachusetts
Application October 8, 1953, Serial No. 384,866
6 Claims. (Cl. 137—197)



1. An air venting valve comprising a valve body having a threaded portion at one end for screw threaded engagement with a radiator, a passage through said body, a shank fixed with respect to and extending from said body, a flange on the end of said shank and spaced from the end of said body, a plurality of hygroscopic elements mounted on said shank between said body and flange and another passage through said shank leading from said body passage to the interior of said hygroscopic elements, the combined thicknesses of said hygroscopic elements when dry being such that air reaching said elements through said passages may pass thereby to the atmosphere, but when said elements are moistened by water coming through said passages, said elements will expand and press with sufficient force against the end of said body and said flange to substantially stop further flow of water through said passages.

2,777,460
CONVERTIBLE BALL COCK
Bennett Svirsky, Los Angeles, Calif., assignor of one-half to Sidney Breier, Los Angeles, Calif.
Application March 5, 1954, Serial No. 414,335
4 Claims. (Cl. 137—218)

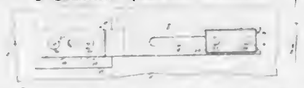


1. In water control means for a toilet tank, a housing having a supply chamber therein, a supply pipe communicating with the interior of said chamber, a float operated valve for controlling the admission of fluid mounted in said supply chamber, a tubular outlet member extending laterally from one side of said supply chamber, an antisyphon body having a horizontal inlet communicating with the interior thereof, a tubular member projecting laterally from said antisyphon body at the horizontal inlet for engagement with the outlet member of the supply chamber, a tubular coupling member having an inner part fitted into an opening in a side of said antisyphon body and an outer part projecting from the body, and a discharge tube having one end part slidably fitted on said outer part of the tubular coupling member, said inner part of the tubular coupling member being adapted to be removed from said antisyphon body and to engage the interior of the said supply chamber outlet member when said antisyphon body is detached from the supply valve housing for non-antisyphon use of the supply housing.

2,777,461
FUEL TANK FILLING APPARATUS WITH AUTOMATIC SHUT-OFF
Ernest Wildhaber, Brighton, N. Y.
Application May 8, 1951, Serial No. 225,240
20 Claims. (Cl. 141—198)

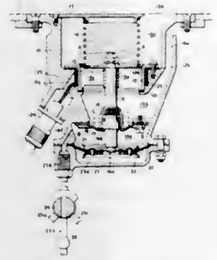
1. The combination with a liquid storage tank having a filling opening, a float, a float-operated switch, an electrical outlet, and electrical conducting means connecting said switch in circuit with said outlet, of a portable delivery conduit adapted to be disposed removably in said filling opening for conducting liquid to said tank, electrically-operated control means controlling the delivery of liquid from said conduit to said tank, a source of electrical energy constantly connected with said portable delivery conduit, and an electrical connector carried by said conduit and connectable to said outlet to connect said switch in circuit with said source of electrical energy and said electrical-operated control means, whereby when said switch is actuated upon the liquid reaching a predetermined level in said tank, said electrically-operated control means is also actuated to shut off flow of liquid from said conduit to said tank.

2.777.462
GATE FOR IRRIGATION PIPE
Paul J, Hohnstein, Hastings, Nebr.
Application May 11, 1954, Serial No. 429,085
5 Claims. (Cl. 137—315)



1. In an irrigation pipe having a discharge opening, a gate for controlling the discharge of fluid through said discharge opening, comprising an elongated spring support mounted within the pipe adjacent to said opening, said spring support having a partially closed open-ended slot extending inwardly from one end thereof, a wear plate, rivets securing said wear plate within said pipe, said rivets passing through said slot slidably securing said gate within said pipe, the side edges of the open end of said slot being inwardly curved providing a valve stop, the portion of said slot beyond said curved portion having its edges diverging towards the free end of said spring support so as to guide the open end of the spring support over said rivets and secure said support within the pipe, portions of said spring support at the free end of said slot being expandable to release said spring support from said rivets upon the application of force in one direction and a valve secured to the other end of said spring support movable with respect to said discharge opening for controlling discharge of water therethrough.

2,777,463
FUEL TANK FOR AIRCRAFT
Arthur Charles Boswell, Preston, England, assignor to The English Electric Company Limited, London, England, a British company
Application April 6, 1953, Serial No. 346,929
Claims priority, application Great Britain April 25, 1952
8 Claims. (Cl. 137—341)

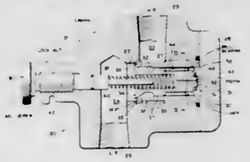


1. An aircraft fuel tank, comprising in combination: a tank, a valve casing fitted into the said tank, and having a valve seat, a valve head seated on the said seat and controlling thereby a vent passage from the interior of the said tank through the said seat to the ambient atmosphere, the space on one side of the said valve head being in operation in fluid communication with air under aerodynamic pressure and the space on the other side of the said valve head being in fluid communication with the interior of the said tank; first pressure responsive means located in the said casing and of an effective area equivalent to that of the said valve head mechanically connected therewith, the space in the said casing on one side of the said first pressure responsive means being in operation in fluid communication with air under aerodynamic pressure in the opposite direction and cancelling out the action of the latter on the said valve head, and the space in the said casing on the other side of the said first pressure responsive means being in fluid communication with air under static air pressure acting on the said first pressure responsive means in the opposite direction of the action of the aerodynamic pressure on the same, second pressure responsive means located in the said casing and of an effective area different from that of the said valve head, the space in the said casing on one side of the said second pressure responsive means being in fluid communication with the interior of the said tank and the space in the said casing on the other side of the said second pressure responsive means being in fluid communication with air under static pressure acting in the opposite direction of the action of the static pressure on the said second pressure responsive means, the latter being thus controlled by the difference between the pressure in the interior of the said tank and the static air pressure, and resilient means operatively connected to said valve head and casing and biasing the said valve head on to the said seat.

2,777,464
FLOW CONTROL DEVICES
Neal J. Mosely, Mount Lebanon, Pa., assignor to Detroit Controls Corporation, a corporation of Michigan
Application March 7, 1951, Serial No. 214,386
3 Claims. (Cl. 137—516.13)

1. In a flow controlling device for maintaining constant flow of a liquid independently of pressure variations, a conduit, a circular supporting member in said conduit having a plurality of flow apertures spaced around the periphery thereof, a resiliently elastic deformable member secured to said supporting member substantially centrally of said apertures, said elastic member being of corrugated construction and having a peripheral edge having a projected diameter less than that of said supporting member, and said elastic member being operable upon increase of fluid pressure thereagainst to be deformed toward a flattened condition against said supporting member and to expand diametrically to cause said peripheral edge to restrict said flow apertures.

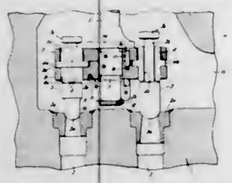
2,777,465
ANTIFRICTION BEARING SUPPORTED SPOOL
Cecil E. Adams, Columbus, Ohio, assignor, by mesne assignments, to American Brake Shoe Company, New York, N. Y., a corporation of Delaware
Application September 5, 1951, Serial No. 245,239
1 Claim. (Cl. 137—543.23)



As an article of manufacture, an adjustable hydraulic pressure relief valve including a body having a bore and spaced high pressure and low pressure ports communicating therewith, a liner sleeve in said bore forming a valve seat between said ports and having means providing communication between the high pressure port and the sleeve interior, an end cap on said body retaining said liner sleeve in position and closing one end of said bore, a valve element in said liner sleeve for controlling communication between said ports, said valve element having a conical head cooperating with said seat and a piston portion disposed in said liner sleeve between said means and said cap, an extension projecting from said piston portion on the opposite side from said head, a set of circumferentially spaced balls between the exterior wall of said extension and the inner wall of said liner sleeve adjacent said piston portion, a second set of balls between the exterior wall of said extension and the inner wall of said liner sleeve adjacent the end of said extension, spacing means between said sets of balls, said sets of balls supporting said head and piston portion in concentric relation with respect to said seat and bore respectively, the piston portion being spaced a limited distance from the wall of said liner sleeve, said body including a second bore in axial alignment with said valve element, a piston in said second bore, spring means disposed be-

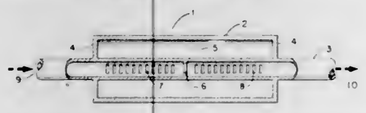
tween said piston and valve element for urging said conical head into engagement with said seat, an adjusting screw in said second bore engaging said piston for adjusting the pressure applied by said spring to said valve element thereby to adjust the pressure at which said valve will open, and means for locking said adjusting screw in position.

2,777,466
VALVE MECHANISM
Franklin R. Ericson, Leominster, Mass., assignor to General Electric Company, a corporation of New York
Application October 28, 1955, Serial No. 543,350
3 Claims. (Cl. 137—630.15)



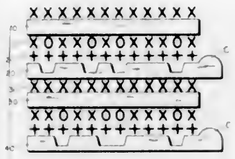
1. A multiple valve comprising a housing defining a valve chamber and a plurality of outlet ports for discharging fluid from the valve chamber, each port having an inlet portion defining a valve seat, a plurality of unitary valve head members each comprising a stem portion with an enlarged seating portion at one end adapted to sealingly engage one of said valve seats, each stem having at its other end a second enlarged portion adapted to be contacted to move the valve head member to an open position, means for supporting and positioning the valve head members to regulate the flow of fluid through said outlet ports, said means comprising two plate members each defining a plurality of openings which are aligned and cooperate with corresponding openings in the other plate member to define pairs of cooperating openings in which the valve head stem portions are loosely supported, the diameter of the openings in each plate member being larger than the diameter of the adjacent valve head end portions, at least one lifting rod for moving the valve head members to open position, means securing the plates together and to the lifting rod, a longitudinally divided bushing disposed in each pair of cooperating openings in the plate members around said stem portions, said bushing and plates having cooperating abutting and interfitting portions to prevent both radial and axial displacement of the bushing portions relative to the plates, the diameter of the bushing bore being slightly larger than the valve stem whereby the valve head member is free to slide in the bushing bore and compensate for slight misalignment between the valve seat and bushing bore.

2,777,467
FLUID MIXING DEVICE
Loyd E. Powell and Gleason Tapp, Plainville, Kans.
Application June 9, 1954, Serial No. 435,461
2 Claims. (Cl. 138—37)



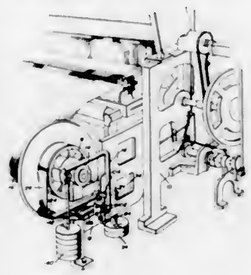
1. A fluid mixing device comprising in combination a hollow conduit provided with a sealing partition extending across the passage therethrough thus dividing said conduit into two compartments, a group of perforations in the walls of each of said compartments wherein the total cross-sectional area of the perforations in each of the two compartments is substantially equal to the cross-sectional area of said conduit, and a second conduit enclosing the first mentioned conduit in the area of said perforations and in sealing engagement with the outside of said first mentioned conduit in areas which are axially more remote from said partition than said perforations thus forming a chamber around said first mentioned conduit the cross-sectional area of said chamber being at least equal to the cross-sectional area of said first mentioned conduit.

2,777,468
METHODS OF WEAVING CARPETS AND RUGS
Robert J. Jackson, Hazardville, Conn., assignor, by mesne assignments, to Bigelow-Sanford Carpet Company, Inc., Thompsonville, Conn., a corporation of Delaware
Original application December 9, 1949, Serial No. 132,113, now Patent No. 2,713,877, dated July 26, 1955. Divided and this application May 2, 1955, Serial No. 505,320
3 Claims. (Cl. 139—39)



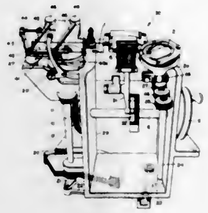
1. A process for weaving in a wire loom a pile fabric floor covering having a warp pile face comprising some weftwise rows composed of high and low loops and other weftwise rows composed of cut tufts, said loops and tufts being woven into a backing structure including stuffer warps, a series of holding wefts lying on one side of the stuffer warps, a series of non-holding wefts lying on the other side of the stuffer warps and a binder warp looped about both series of wefts and holding the wefts under tension against the stuffer warps, said process comprising weaving the pile warps over a set of wires, forming high and low loops on a cut-out wire with a blade prior to withdrawal, withdrawing said wire and thereby converting said low loops to high loops and cutting all of the loops on said wire, forming loops of a uniform height on other wires prior to withdrawal and thereby producing a floor covering having a row of high and low loops, a succeeding row of high cut tufts and other rows of high and low loops.

2,777,469
TENSIONING MEANS FOR LOOM WARP BEAMS
Ray M. Taylor, Quakertown, Pa.
Application January 4, 1954, Serial No. 401,834
5 Claims. (Cl. 139—100)



1. A tensioning mechanism for a loom warp beam comprising a friction brake band adapted to embrace a loom warp beam head, brake actuating means engaging said brake band for varying the frictional gripping force of said band upon a beam head, a warp tension weight, means connecting said warp tension weight to said brake band for exerting pull opposite to that of the warp threads, a flexible element having one end secured to said brake band, said connecting means including a lever pivoted intermediate its ends, said weight being connected to one end of said lever and means connecting the other end of said flexible element to the other end of said lever, a slack take-up means on said other end of said lever for adjusting the length of said flexible element.

2,777,470
BOBBINLESS LOOM FOR WEAVING RIBBONS
Gisberto Vallaguzza, Milan, Italy; Idelbe Vallaguzza, legal heir of said Gisberto Vallaguzza, deceased
Application February 25, 1948, Serial No. 10,688
In Italy December 16, 1946
Section 1, Public Law 690, August 8, 1946
Patent expires December 16, 1966
7 Claims. (Cl. 139—124)

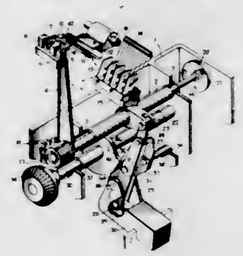


1. A weaving loom for tapes, ribbons and like products, comprising a selvedge spool, a reciprocating needle cooperating with said selvedge spool for interlooping a weft thread entrained by said needle with a selvedge thread payed out by said spool, and mechanism for reciprocating said needle with respect to said spool, said mechanism including a stationary support, a plurality of parallel arms separately pivoted on said support, link means interconnecting said arms for parallel movement, said link means and said arms constituting an articulated frame, means rigidly securing said needle to said link means, and drive means coupled with said frame for oscillating said frame with respect to said support.

2,777,471
GRIPPER SHUTTLE
George N. Peterson, Grafton, Mass., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a corporation of Massachusetts
Application August 3, 1953, Serial No. 371,913
12 Claims. (Cl. 139—125)

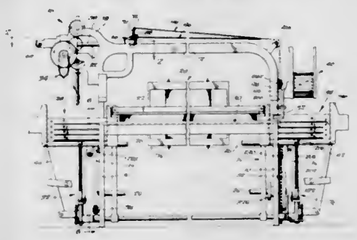
1. In a one piece gripper shuttle to engage substantially parallel checking surfaces of a shuttle box, the shuttle having longitudinal and transverse axes at right angles to each other, two pairs of resilient thread gripping jaws forming parallel parts of the exterior surfaces of the shuttle to engage said checking surfaces of the shuttle box, one pair at each end of the shuttle, equidistant from said transverse axis and the jaws of each pair normally engaging each other along said longitudinal axis.

2,777,472
SHUTTLE PICKING MECHANISM
Erwin Pfarrwaller, Winterthur, Switzerland, assignor to Sulzer Freres, S. A., Winterthur, Switzerland, a corporation of Switzerland
Application October 29, 1953, Serial No. 388,957
Claims priority, application Switzerland November 3, 1952
8 Claims. (Cl. 139—145)



1. A shuttle picking mechanism for weaving machines comprising a shuttle picking lever having a hub having an annular surface portion, a shaft means for said lever, a power accumulator connected with said shaft means for rotating the latter, said shaft means having an annular surface portion corresponding to and being fully, frictionally engaged by the annular surface portion of said hub, and means for pressing said annular surface portions against each other.

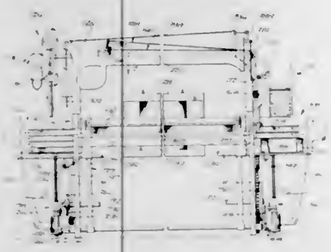
2,777,473
AUTOMATIC WEFT REPLENISHING LOOM
George A. Litchfield, Jr., Ridgewood, N. J., assignor to Forstmann Woolen Co., Passaic, N. J., a corporation of New Jersey
Application September 11, 1953, Serial No. 379,687
18 Claims. (Cl. 139—232)



1. In an automatic weft-replenishing loom operating with two or more shuttles operative in any sequence including sequences in which each shuttle is active for but one pick at a time, a shifting shuttle box at each end of the loom, a magazine for reserve weft-carriers at at least one end of the loom, the shifting shuttle box at the end or ends of the loom at which a magazine is positioned having at least one cell shiftable to and from race plate level by the head motion of the loom and a cell positioned immediately above the uppermost of said first-named cells, said last-named cell being movable to and from race plate level by said head motion and as a unit with said first-named cells thus constituting an active cell in normal weaving operations, and means operative only as an incident to initiation of a transfer cycle for moving said last-named cell vertically relative to said first-named cells into a transfer position wherein a weft-carrier within said last-named cell may be replaced by a reserve weft-carrier from said magazine, said last-namel cell when in said transfer position being spaced from the uppermost of said first-named cells a distance sufficient to permit dis-

charge of an exhausted weft-carrier through the bottom thereof irrespective of whether there may be a shuttle in the next cell therebeneath.

2,777,474
AUTOMATIC WEFT REPLENISHING LOOM
George A. Litchfield, Jr., South Duxbury, Mass., assignor to Forstmann Woolen Co., Passaic, N. J., a corporation of New Jersey
Application March 2, 1954, Serial No. 413,544
9 Claims. (Cl. 139—232)

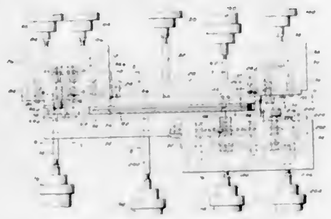


1. In an automatic weft-replenishing loom having a shiftable multi-cell shuttle box at each end of the loom, a head motion including box shifting mechanism for moving said shuttle boxes in a predetermined sequence incident to weaving, and transfer means for projecting a weft-carrier into one of said shuttle boxes to replace an exhausted weft-carrier; the combination of normally-inactive auxiliary box shifting means adapted to move said one shuttle box into a transfer position and to maintain it in said transfer position until transfer is complete independently of movement imparted thereto by said head motion, said auxiliary box shifting means including a cam, a follower constantly engaged with said cam, means for rotating said cam for moving said follower through a complete predetermined path in each beat of the loom, a lever, means for selectively connecting said lever with said follower for movement therewith, and means for transmitting motion of said lever to said one shuttle box; and means responsive to initiation of operation of said transfer means for moving said connecting means into operative position.

2,777,475
PILE FABRIC
Peter J. Austin, Newburgh, N. Y., assignor to The Firth Carpet Company, Inc., New York, N. Y., a corporation of New York
Application June 1, 1954, Serial No. 433,581
5 Claims. (Cl. 139—406)

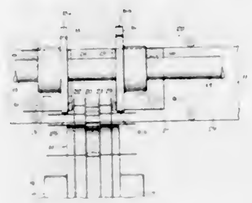
1. A pile fabric floor covering comprising a plurality of spaced upper level wefts, a plurality of spaced lower level wefts intermediate the upper level wefts, stuffer warp material lying between said upper and lower level wefts, and background pile warp ends interwoven with said upper and lower level wefts and floating over a plurality of upper wefts and alternately lying on the back of the fabric at consecutive intervals, to form a tapestry weave, and pile yarn warp ends bound into the fabric above the stuffer warps by upper level wefts and extending above the face of the tapestry weave as face pile.

2,777,476
MACHINE FOR BENDING PREFORMED SINUOUS WIRE STRIPS
Harry H. Fante, Riverside, and August T. Gonia, Berwyn, Ill., assignors, by mesne assignments, to Rockwell Spring and Axle Company, Coraopolis, Pa., a corporation of Pennsylvania
Application October 9, 1952, Serial No. 313,892
21 Claims. (Cl. 140—71)



20. In a machine for bending at a plurality of spaced-apart intervals a preformed sinuous wire strip having loop portions connected together by substantially straight wire portions: a frame; a plurality of wire-engaging heads mounted on the frame along opposite lateral edges of a wire strip disposed in the machine with the heads movable toward and away from the lateral edges of the strip to engage and release loops of the strip; said heads arranged in pairs to engage oppositely facing adjacent loops of the strip; one head of each pair rotatable to bend the strip at the straight wire portion between the loops engaged by the pair of heads by twisting said straight wire portion; means mounted on the frame and coupled with each head to reciprocate the head; means mounted on the frame and coupled with the rotatable heads to rotate them; wire strip supporting means mounted on the frame and disposed beneath a wire strip positioned to be engaged by the heads to support the strip at spaced intervals therealong; wire-positioning means mounted on the frame and independent of said heads and supporting means and including a part shiftable toward and away from a wire strip supported on said supporting means to engage and position the strip longitudinally in the machine; and means for synchronizing operation of the heads with the positioning means whereby upon longitudinal positioning of a strip in the machine by the wire-positioning means, the means for reciprocating the heads will move the heads to engage the strip and thereafter the means for rotating the heads will rotate the heads to bend the strip.

2,777,477
CUTTING AND FORMING MECHANISM
Jack J. Zimmerman, Riverside, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application January 23, 1953, Serial No. 332,875
5 Claims. (Cl. 140—71)



1. A mechanism for removing the excess length of a pair of contact wires extending from the ends of an electrical component and for forming such wires into a desired configuration, said mechanism including in combination, a rotatable carriage comprising a pair of spaced parallel discs for supporting a series of components of the above mentioned type about their peripheries in two corresponding series of peripheral notches with the contact wires of such components extending axially beyond the sides of said discs and respectively supported in said notches, a pair of flat rectangular shaped forming members each having an upper edge, an inner side and an outer side and disposed in planes parallel to the planes of the sides of said discs with their inner sides adjacent to an arcuate portion of the sides of said discs so that said notches successively pass downwardly past the respective upper edges of said forming members, and each of said forming members having at least a portion of its upper edge tapered inwardly to form a knife edge at the outer side thereof, the contact wires of a component being formed between said forming members and said carriage as said carriage is rotated, a pair of rotary cutting members rotating in the opposite direction to the direction of rotation of the carriage and respectively disposed with their inner sides contiguous to the outer sides of said forming members and each having at least one arm coacting with the respective sides of said notches and in shearing relation with the aforesaid knife edge of said forming members so that portions of the contact wires extending over the outer sides of said forming members are sheared off by said cutting members, and means for rotating said rotary cutting members and said discs in timed relation to one another, first to cut and then to bend the wires of said electrical component.

2,777,478
WIRE BENDING APPARATUS
Roger H. Stohlquist, Rockford, Ill., assignor to Odin Corporation, Rockford, Illl., a corporation of Illinois
Application January 10, 1955, Serial No. 480,642
11 Claims. (Cl. 140—105)

1. An apparatus for undulating wire stock comprising a series of wire retaining members, means supporting said members for movement along an endless path of travel, and means disposed along said path of travel for successively turning said members transversely of said path of travel to undulate wire stock retained thereby.

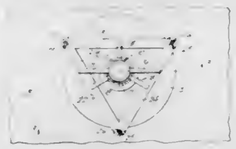
2,777,479
METHOD OF BREAKING CONCRETE WALL TIES
Eddie Beanum, Wayne, Mich.
Application July 31, 1953, Serial No. 371,674
1 Claim. (Cl. 140—149)

A method of breaking off concrete wall tie terminals consisting of first enclosing a terminal with a tube, next swinging the tube to bend the terminal to substantially right angles to the tie, and finally oscillating said tube and terminal about the axis of said tie whereby to twist off said terminal.

2,777,480
METHOD OF PACKAGING WAX AND THE LIKE
Frank Raymond Linda, San Francisco, Calif.
Application April 18, 1955, Serial No. 502,022
6 Claims. (Cl. 141—11)

2. The method of packaging wax or the like material which comprises applying heat to wax to melt the same, continuously feeding the wax in molten condition into a cooling zone, continuously applying pressure to convey the wax through said zone to supercool the same so as to maintain it in fluid state below its melting point, continuously feeding the wax from said zone, and continuously packaging the wax in flexible containers of cellulosic material.

2,777,481
RAILROAD CAR FILLING DEVICE
Fred M. Atkinson, David F. Mattson, and Albert Leigh Paulson, Minneapolis, Minn., assignors to Atkinson Bulk Transport Company, Minneapolis, Minn., a corporation of Minnesota
Application September 9, 1954, Serial No. 454,882
5 Claims. (Cl. 141—388)



1. A bulk-container-filling device for filling a container having a material inlet to substantially maximum capacity with pressurized fluidized pulverulent material, said device comprising a seal member adapted to fit over and seal the material inlet of such a container, said seal member having a centrally disposed opening formed therethrough, and a rigid spout mounted on said seal member and extending through said opening, said spout having an upper end adapted to be connected to a source of fluidized pulverulent material under relatively high pressures, and constituting a material inlet, said spout having a lower end portion extending substantially parallel to the plane of said seal member and constituting a discharge outlet for such fluidized pulverulent material, said spout being swingable about an axis extending substantially normal to said lower end portion and said seal member to effect discharge of such fluidized pulverulent material in all directions as desired and thereby fill the container to substantially maximum capacity.

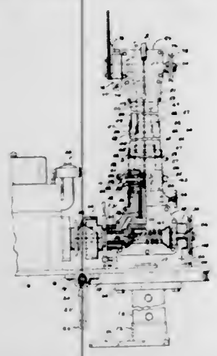
2,777,482
LIMBING ATTACHMENT FOR POWER DRIVEN CHAIN SAWS
Royce Chamberlain and John C. De Mille, Orderville, Utah
Application February 24, 1953, Serial No. 338,194
2 Claims. (Cl. 143—32)

1. In a power chain saw, the combination comprising an engine, a plate-like chain-supporting member extending forwardly from the engine and rigidly coupled thereto, a supporting frame for said power chain saw

including a pair of longitudinal members at the sides of said engine for rigidly engaging the same, said members having rear portions terminating respectively in a pair of rearwardly extending handles, a pair of downwardly projecting prongs at the respective forward portions of said longitudinal members, said prongs being

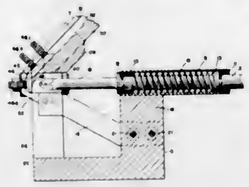
offset laterally from the chain and symmetrically arranged with respect thereto, said prongs being located in the region of the balance point of the power chain saw to enable forward rocking movement of the saw into engagement with the work about at least one of said prongs as a fulcrum.

2,777,483
TREE PRUNER AND TRIMMER BASED ON A PORTABLE PLATFORM
Gabriel A. Cherem, Detroit, Mich.
Application March 2, 1955, Serial No. 491,747
9 Claims. (Cl. 143—43)



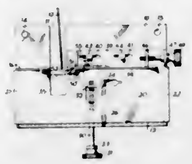
1. A tree trimmer comprising a platform, a mounting bracket secured to said platform, a first gear housing pivotally mounted upon said bracket and having a drive shaft adapted for connection to a power source and a driven shaft projecting therefrom, a series of telescopically arranged guide sleeves with the lower end of the lowermost of said sleeves secured to said gear housing axially of its driven shaft, a second gear housing adjustably spaced from said first gear housing and including a drive shaft projecting thereinto and a driven shaft projecting therefrom adapted to carry a saw, the upper end of the uppermost of said guide sleeves being secured to said second gear housing axially of its drive shaft, thereby providing a telescoping boom for said saw, a series of rotatable telescopically aligned tubes slidably engaging each other in driving relation with the lower end of the lowermost of said tubes secured to the driven shaft of said first gear housing and with the upper end of the uppermost tube secured to the drive shaft of said second gear housing, the outer ends of the uppermost and lowermost drive tubes being closed defining a sealed expansible cylinder, and a fluid pressure source joined to the interior of the lowermost of said tubes for hydraulically extending said tubes longitudinally.

2,777,484
POWER OPERATED SCREW DRIVING ARRANGEMENT
Garth S. Groneman, Hawthorne, Calif., assignor to North American Aviation, Inc.
Application October 10, 1955, Serial No. 539,402
6 Claims. (Cl. 144—32)



3. A device for driving a plurality of screws comprising a rotatable bit movable in an axial direction; means for effecting rotation of said bit; jaw means, said jaw means including a receptacle portion for receiving a screw in axial alignment with said bit; screw supply means connected with said jaw means for individually feeding screws thereto, said jaw means when closed including an open side adjacent said screw supply means and having guide means communicating with said screw supply means and said receptacle portion for directing a screw from said screw supply means through said open side to said receptacle portion of said jaw means while advancing such a screw to a position more remote in an axial direction from said bit than said screw feed means; means for releasing said jaws upon axial movement of said bit for permitting said bit to advance a screw from said jaws to drive the same into threaded engagement with a threaded aperture; means for returning said bit to its original position following a driving operation thereby; and means for returning said jaws to their original position when said bit is returned.

2,777,485
MEANS FOR CUTTING UNIFORMLY SPACED TENONS
Benjamin J. Farrow, Wimborne, England
Application May 26, 1955, Serial No. 511,344
4 Claims. (Cl. 144—198)

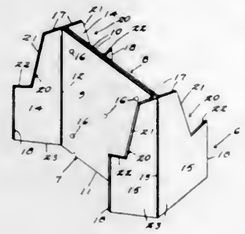


4. A gauge and work-feeding device comprising a base plate, a first stop means carried by the base plate, second stop means carried by the base plate, means for adjusting the second stop means in the direction towards and away from a cutting tool, a gauge plate slidably mounted on said base plate and limited in movement between the first stop means and the second stop means, spring means urging said gauge plate away from the cutting tool and towards the first stop means, an upstanding abutment on said gauge plate for engagement by the work, means for adjusting said abutment transversely of the gauge plate, a pair of projections on said abutment extending away from the cutting tool above the gauge plate, and means for adjusting one of said projections on the abutment transversely of the gauge plate in relation to the other projection, said projections being thus adapted to enter and fit the gaps in the work in turn after each is cut to position the work for succeeding cuts.

2,777,486
ROTATABLE TOOL HOLDER FOR LATHE-TYPE ROTARY CUTTING TOOLS
Armond D. Glover, Meadville, Pa.
Application March 25, 1954, Serial No. 418,602
6 Claims. (Cl. 144—231)

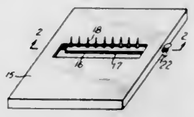
1. A rotatable tool holder of the class described comprising a rectangular-shaped body member having a pair of spaced apart substantially rectangular-shaped elongated tool receiving channels therein, a pair of interiorly threaded annular members carried by said body member with one co-operating with and extending into each of said channels having their axes substantially in alignment with the axes of the respective channels and extending outwardly through an opening in the outer side of said body member, a cutting tool substantially rectangular-shaped in cross section slidably arranged in each of said channels having the cutting edges thereof extending outwardly from opposite sides of said body member, each of said cutting tools having an exteriorly threaded portion which cooperates with the interior threads of the respective annular members to effect movement of the cutting tools longitudinally of said channels upon rotatable movement of the respective annular members, whereby said cutting tools may be adjusted selectively in said body member, and means carried by said body member for securely clamping both of said tools in their adjusted positions in said channels.

2,777,487
SAWHORSE LEG CUTTING JIG
John W. Potts, Carrollton, Ohio
Application July 9, 1954, Serial No. 442,385
6 Claims. (Cl. 145—129)



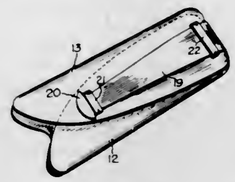
1. A sawhorse leg cutting jig comprising a substantially flat wall forming a parallelogram having straight top and bottom edges disposed parallel to one another and straight parallel side edges disposed at inclines relative to the top and bottom edges, flanges projecting outwardly in the same direction from said side edges and disposed in planes at substantially a right angle to the plane of said wall and parallel to one another, each of said flanges having a notch formed in the upper outer corner thereof including an edge extending downwardly from the upper edge of said flange and disposed in outwardly diverging relation relative to said wall from the upper to the lower end thereof, and each notch including a bottom edge extending downwardly and inwardly from the outer edge of the flange and merging at its inner end with the lower end of said first mentioned notch edge.

2,777,488
CARVING BOARDS WITH RETRACTABLE SPIKES
Jack Gilbert, Newburgh, and Harry Preble, Jr., Cross River, N. Y., assignors to General Slicing Machine Co., Walden, N. Y., a corporation of New York
Application September 15, 1955, Serial No. 534,454
5 Claims. (Cl. 146—215)



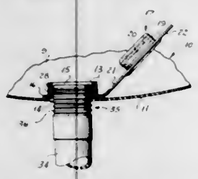
1. In a unitary structure of the character described, a carving board having a space therein opening in the top surface of such board, a member rotatably mounted within said space for movement therein about an axis substantially parallel to the surfaces of the board and at least one spike carried by said member whereby in one position of said member, said spike or spikes will extend uprightly above the upper surface of the board and when said member is moved substantially a quarter turn, said spike or spikes will be positioned so that at least their points will lie within said space in the board; said spike-carrying member comprising a rod capable of some longitudinal movement and lying in a hole in said board; said hole having a part which is of non-circular cross section; said rod having a similar non-circular section adjacent said non-circular part of the hole and shiftable thereinto to become engaged therein at least when the spike-carrying member is in position where the spike or spikes it carries extend uprightly above the upper surface of the board; said non-circular part of the hole and non-circular portion of the rod constituting a locking means.

2,777,489
SPECTACLE CASE
Raymond F. E. Stegeman, Greece, N. Y., assignor to Bausch & Lomb Optical Company, Rochester, N. Y., a corporation of New York
Application May 6, 1955, Serial No. 506,639
2 Claims. (Cl. 150—1)



1. An open end spectacle case formed of flexible sheet material and comprising a middle panel, a first panel connected to and extending along one side of the middle panel, a second panel similarly connected to the other side of the middle panel, a straplike projection of appreciable width extending from the bottom end of the middle panel, said first and second panels being folded in overlapping relation on the middle panel to form an enclosure, said first panel having a pair of horizontally extending slits adjacent each end to provide a pair of loops, said second panel having a slot adjacent each end thereof, said second panel overlying said first panel with said slots positioned, respectively, over the spaces between the pairs of slits in said first panel, said projection overlying said second panel and extending through the loops, and an enlarged portion on the free end of the projection which is wider than the adjacent loop whereby said panels and projection are held in position to form an open end case.

2,777,490
CLOSURE DEVICE FOR FLEXIBLE-WALLED HOLLOW ARTICLES
Otto Munk, Packanack Lake, N. J., assignor to Halkey-Roberts Corporation, Paramus, N. J., a corporation of New Jersey
Application October 26, 1955, Serial No. 542,870
5 Claims. (Cl. 150—8)

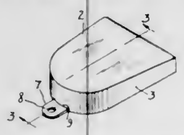


1. A closure device adapted for incorporation in the wall of a flexible-walled hollow article adapted to retain fluid under pressure, comprising an annular body, the body having a passage therethrough, a movable closure member adapted to fit within such opening to close it by being applied to the opening, the closure member comprising a cup-like body of plastic material having a relatively thin flexible side wall and a thin flexible disc-like end member distortable by normal pressures within the article, the end member when lying within the opening and not subjected to appreciable outwardly directed pressure being dished so as to present its convex side to the interior of the hollow article.

2,777,491
MANUFACTURE OF DRAW-CORD BAGS AND THE PRODUCT THEREOF
George H. Ashton, Sappington, Mo., and George E. Nelson, Seattle, Wash., assignors to Bemis Bro. Bag Company, St. Louis, Mo., a corporation of Missouri
Application October 13, 1954, Serial No. 461,987
16 Claims. (Cl. 150—11)

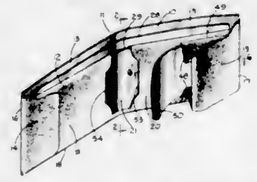
1. A bag comprising individual tubular hems at the mouth of the bag, the ends of which hems have adjacent openings at the corners of the mouth, and a length of heat sealing plastic cord located in each tubular hem and extending from the openings of said hem, said cords being heat sealed to one another at points outside of said openings and adjacent each corner.

2,777,492
MOLDED PLASTIC CONTAINER
Harry M. Kikuchi, Cleveland, Ohio
Application June 5, 1953, Serial No. 359,920
2 Claims. (Cl. 150—37)



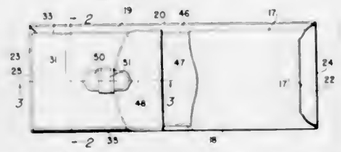
1. A molded flexible plastic pouch having a tray portion integral therewith adapted to project outwardly from the mouth of said pouch and comprising an extension of one side of said pouch, said pouch comprising two generally parallel side portions joined by an arcuate wall portion, a flange on said tray about the edge thereof projecting generally normal thereto and adapted snugly to embrace said pouch wall portion when said tray is flexed against the latter, the ends of said flange being spaced from the mouth of said pouch and said flange following an arcuate contour corresponding to that of the outer side of said pouch wall portion to enable it thus snugly to embrace the latter, a tab extending from the end of said pouch opposite to the mouth thereof, the portion of the free edge of said flange which is opposed thereto in closed position being notched and dimensioned to receive and laterally frictionally to grip said tab, and a small lug raised on the inner side of said flange adjacent such notch, said pouch wall portion adjacent said tab having a small aperture therein positioned to engage said lug.

2,777,493
JOINT STRUCTURES IN BILLFOLDS OR OTHER ARTICLES OF FLEXIBLE SHEET MATERIAL
John Harwood, Walsall, England
Application May 20, 1953, Serial No. 356,181
Claims priority, application Great Britain April 1, 1953
8 Claims. (Cl. 150—38)



1. In a bill fold formed of flexible sheet material of the general class specified, the provision of a bill receiving compartment formed of back and front members connected together integrally with each other along a fold line forming the bottom of the compartment, one of said members being cut transversely to the fold line and adjacent thereto to provide an upwardly extending tab having its lower extremity situated close to but above said fold line so that the latter presents a continuous folded edge free from cuts or discontinuities, and a partition member in said compartment connected at its lower edge with said tab.

2,777,494
BILLFOLDS
Jac B. Anderson, West Bend, Wis., assignor to Enger-Kress Company, West Bend, Wis., a corporation of Wisconsin
Application June 24, 1952, Serial No. 295,189
1 Claim. (Cl. 150—38)



In a billfold having an outer wall and having a panel folded from a longitudinal edge of said outer wall to a superimposed position on the inner side of said outer wall and having slits spaced inwardly from its side and end edges, a pocket forming member superimposed on said panel having gusset forming extensions folded from its side edges beneath the latter, said member also having a gusset forming extension folded from the edge of its outer end beneath said end, said last mentioned extension being adjacent an end edge of the outer wall of the billfold, tongues projecting from said side gusset forming extensions with each tongue received in one of the slits of the panel, a tongue projecting from said end gusset forming extension and received in a slit of the panel and having its ends in overlapping relationship with adjacent ends of tongues of said side gusset-forming extensions, means for securing said tongues to the undersurface of said panel, the location of the slits in the panel inwardly of the edges of the pocket forming member providing for expansible movement of the pocket forming member at its sides as well as at its outer end, and a flap folded from said end edge of the outer wall over the adjacent end of said panel and having a portion projecting through the same slit of the panel which receives the tongue of the end gusset forming extension, a closure flap for said pocket secured at one edge to said panel adjacent the inner end of said pocket forming member along a line which extends transversely of the billfold and having an elongated tongue projecting from its opposite edge, and an external loop on said pocket forming member extending transversely thereof positioned to slidably receive said tongue in any position of expanded movement of the pocket forming member, means located inwardly of the edge of the end of said pocket forming member for securing said flap portion in said position beneath said tongue of the end gusset forming extension.

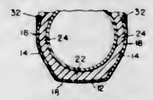
2,777,495
NUT DEFORMED INTO LOCKING ENGAGEMENT BY CONTACT WITH WORKPIECE
George Pavlinetz, Carteret, N. J.
Application January 9, 1951, Serial No. 205,149
7 Claims. (Cl. 151—21)

1. A locking nut comprising axially spaced continuous sheet metal rims containing substantially equal aligned axial threaded openings, a perforate sheet metal wall converging substantially throughout its length defining mutually converging spaced yieldable struts interconnecting said rims and integral therewith, one of said rims providing convergent work engaging elements deformable under strut transmitted forces to contract its axial opening, and helical edge forming means defining another of said rim threaded openings.

2,777,496
FASTENER SECURED TO STRIP BY STAKING
Aman Ullah Khan, St. Joseph, Mich., assignor to Prestole Corporation, Toledo, Ohio, a corporation of Michigan
Application December 22, 1955, Serial No. 554,878
1 Claim. (Cl. 151—41.72)

A fastener including an elongate relatively narrow sheet metal strip having an aperture therein, said strip having a pair of slits extending transversely of the strip on opposite sides of the aperture therein and terminating in inwardly spaced relationship with respect to the longitudinal edges of the strip, portions of the strip longitudinally outwardly of the slits being bent upwardly to form a pair of dome-like projections each of which terminates at its inner edge in a plane extending generally perpendicular to the plane of said strip, and a polygonal nut having opposed walls and an internally threaded aperture, said nut engaging one face of said strip at a position intermediate the slits in said strip with the internally threaded aperture in the nut aligned with the aperture in said strip, said edges of said dome-like projections being spaced apart in the direction of the length of said strip substantially the same distance as the distance between said opposed walls of said nut and engaging said opposed walls of said nut to prevent any substantial relative rotation between said nut and said strip, the aperture in said strip extending outwardly in the direction of the length of said strip on opposite sides of the aperture in the nut and communicating with the space beneath the dome-like projections, said nut having integral staked portions aligned with the aperture in said strip and partially sheared from the nut so as to project outwardly from the central portions of said opposed walls into the space beneath said dome-like projections to engage the underside of said dome-like projections and retain said nut in assembled relationship with said strip.

2,777,497
ABRASIVELY COATED ANTI-SKID COVER FOR TIRE CASINGS
Vernon H. Hildebrant, Morrow, Ohio
Application February 9, 1952, Serial No. 270,780
3 Claims. (Cl. 152—175)

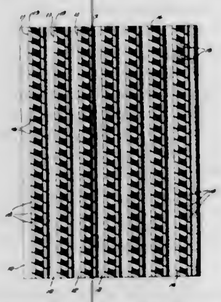


1. An anti-skid cover for a tire casing, said cover being of ring-like form generally U-shaped in cross section having a tread portion and side wall portions integral therewith, and being formed entirely of relatively thin, flexible, elastic, rubber strip material, said cover having an abrasive outer surface formed by incorporating abrasive material in said tread and side wall portions, said cover being of dimensions circumferentially and transversely less than the circumferential and transverse dimensions of the fully expanded tire casing, the side wall portions of the cover being of less width than the width of the side wall portions of the tire casing, said cover being readily stretchable as a unit over the fully expanded tire casing when the latter is seated on a rim mounted on a wheel, the tread portion and side wall portions of said cover throughout the entire area of the same tightly and constantly embracing by contraction the surfaces of the tread portion and side wall portions of the tire casing when the cover is applied thereto so as to resist any movement of the cover relative to the tire casing when the tire casing is in actual use on a roadway, the marginal edges of the side wall portions of the cover being provided with integral means to enhance the embracing action of the edges with the side walls of the tire, said marginal edges being substantially uniformly spaced radially outwardly from the beads of the tire casing, the cover being securely but removably held on the tire casing solely by reason of its elasticity and constant contracting frictional engagement therewith.

2,777,498
SKID RESISTING TIRE TREADS
David E. Crooker, Ontonagon, Mich., and Evan A. Frary, Marshfield, Wis.; said Frary assignor to Lloyd L. Felker, Marshfield, Wis.
Application January 21, 1954, Serial No. 405,393
4 Claims. (Cl. 152—211)

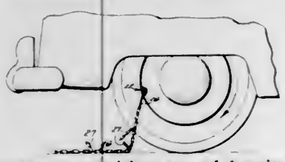
1. In a tire having a rubber tread portion formed with a plurality of laterally spaced circumferentially extending rider strips, there being grooves between said rider strips having bottoms, at least one of said rider strips having its road engaging surface formed with a longitudinally extending convexity which is of less width than the rider strip, a helical metal ice-gripping coil extending longi-

tudinally within said rider strip, said coil having a side portion projecting into said convexity and said coil portion in the convexity including portions of convolutions which extend transversely of the rider strip at an oblique angle, and said convexity having transverse recesses, each



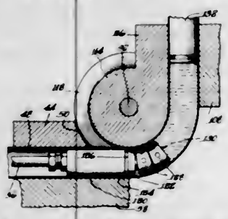
recess being between a pair of said oblique convolutions, and there being a transverse slit in each recess extending inwardly between a pair of said coil convolutions to divide the rider strip into transverse blocks, there being a convolution portion of the coil below the bottom of a slit and connecting one block with the next adjacent block.

2,777,499
WRAP-ON TIRE CHAIN APPLICATOR
Eric Robert Erving, Baker, Oreg.
Application September 28, 1954, Serial No. 458,885
4 Claims. (Cl. 152—213)



1. A tire chain comprising spaced longitudinally disposed chains connected with cross chains, and having shanks with heads on ends thereof extended from the ends, and hollow lugs, L-shaped in cross section having horizontally disposed and vertically disposed legs, said vertically disposed legs having slots adapted to receive the shanks extended from the chains therein and the horizontally disposed legs having recesses for receiving heads of the shanks therein, and said sockets being adapted to be positioned on a rim of a wheel for temporarily retaining ends of said longitudinally disposed chains on said rims.

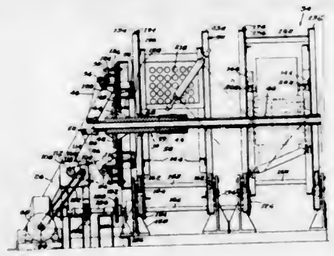
2,777,500
TUBE BENDING APPARATUS AND METHOD
Carl Roger Ekholm and Robert L. Krabbe, Elgin, Ill., assignors to Flexonics Corporation, Maywood, Ill., a corporation of Illinois
Application March 4, 1955, Serial No. 492,264
10 Claims. (Cl. 153—40)



3. The method of producing bends in tubing which comprises inserting a plug in an end of a section of tubing, expanding said plug to seal the end of the tubing, sealing the tubing at a location spaced from said plug to provide a sealed length of tubing, introducing hydraulic fluid under pressure into said sealed length of tubing, clamping said sealed length of tubing adjacent the end in which the plug is inserted, the plug and the hydraulic fluid under pressure serving as a reaction base for clamping, and bending the sealed length of tubing while maintaining the hydraulic fluid therein under pressure.

5. Apparatus for producing bends in tubing comprising first means for sealing a length of tubing, second means for sealing said length of tubing at a position spaced along the length of tubing from said first sealing means, means for introducing fluid pressure into said tubing between said first and second sealing means, means for bending said length of tubing between the first and second sealing means, and means for pulling said length of tubing over one of said sealing means during such bending, fluid pressure being maintained in said length of tubing during said bending and pulling to effect uniform deformation of said tubing.

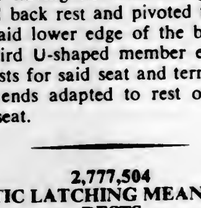
2,777,501
APPARATUS FOR CONTINUOUSLY FORMING PLASTIC TUBING
Herbert C. Fischer, Wellesley Hills, Mass., assignor to National Fibre Glass Co., Inc., West Hanover, Mass., a corporation of Massachusetts
Application July 30, 1954, Serial No. 446,899
29 Claims. (Cl. 154—1.8)



1. In a tube forming machine, a mandrel having a tip portion thereof arranged to project substantially within the tube as it is formed and having an axially disposed return conduit therein, a plurality of endless conveyor elements having portions thereof extending longitudinally externally of the mandrel disposed with relation with one another to provide a tube forming surface and having the return portions of said endless conveyor elements disposed within said return conduit, a wrapper rotatable about the longitudinal axis of the mandrel and providing support for a strip of organic plastic material, actuating means connected with said endless conveyor elements for advancing said elements to move said tube forming surface toward the tip of the mandrel, and means rotating the wrapper to wrap said strip material about the conveyor tube supporting means at an overlapping lead angle.

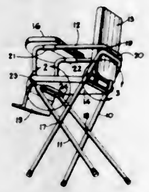
2,777,502
CHILD'S AUTO SAFETY SEAT
Julius C. Travis, San Rafael, Calif.
Application January 3, 1956, Serial No. 557,097
2 Claims. (Cl. 155—10)

1. In combination with the seat cushion and seat back of an automobile, a child's chair positioned on said seat and engaging the seat and back, a retaining strap secured to the body of the automobile and extending through the sides of said chair and engaging a cushioning element



carried by said chair, to cushion any forward movement of said chair with relation to said automobile seat.

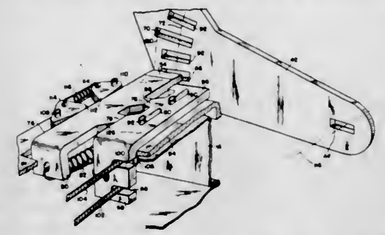
2,777,503
FOLDING HIGH CHAIR
William J. Grace, Santa Monica, Calif.
Application May 9, 1955, Serial No. 506,805
4 Claims. (Cl. 155—147)



1. A folding high chair comprising, in unfolded operative position: A first inverted U-shaped member; a second inverted U-shaped member shorter and narrower than said first member; means pivoting together the respective legs of said first and second U-shaped members in scissors fashion whereby said second member may be scissored through said first member; a seat member; a foot rest member; first coupling means pivoting the front edge of said seat and the upper edge of said foot rest members together and to the central portion of said second inverted U-shaped member; a back rest member; second coupling means pivoting the rear edge of said seat and the lower edge of said back rest member together and to the upper portion of said first inverted U-shaped member; and a third horizontally disposed U-shaped member having its central U-portion encircling the rear of said back rest and pivoted thereto at a point spaced above said lower edge of the back rest, the free ends of said third U-shaped member extending forward to form arm rests for said seat and terminating in downwardly turned ends adapted to rest on the front edge corners of said seat.

2,777,504
AUTOMATIC LATCHING MEANS FOR BACK RESTS
Elmer A. Herider, Dearborn Township, Wayne County, and Kennard Pitts, East Detroit, Mich., assignors to Rockwell Spring and Axle Company, Coraopolis, Pa., a Pennsylvania corporation
Application October 24, 1955, Serial No. 542,348
13 Claims. (Cl. 155—162)

1. Latching means comprising a swinging striker plate provided with a row of spaced plunger receiving means in series alignment with one another in the direction of swing, a stationary locking device confronting the striker plate during a portion of its swing and provided with a self-advancing biased plunger having a normal protruding position disposed in the path of the row of plunger receiving means for selective latching registry therewith to lock the striker plate in adjusted positions against movement, at least one of said plunger receiving means having a portion laterally offset from the row, and means for retracting and deflecting the plunger laterally of the path of the row in the direction of the aforesaid lateral

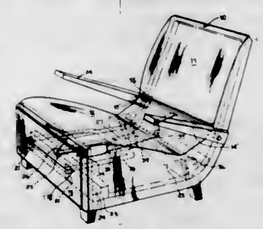


offset such that it registers only with and automatically advances only into said one plunger receiving means.

2,777,505
KNEELER ACCESSORY FOR A CHAIR
Bror W. Henrikson and Benjamin J. Oom, Grand Rapids, Mich., assignors to American Seating Company, Grand Rapids, Mich., a corporation of New Jersey
Application February 8, 1954, Serial No. 408,742
3 Claims. (Cl. 155—166)

1. A kneeler accessory for a chair having spaced upstanding rear legs connected by a horizontally disposed tiebar above the lower extremities of said legs, said accessory comprising a pair of horizontally spaced frames, a kneeler bar having its opposite ends secured to said frames respectively, said frames being adapted for pivotal attachment to said tiebar whereby the frames and the kneeler bar may be swung in union about the tiebar to a lowered position wherein the frames extend rearwardly from the tiebar into contact with the floor and support the kneeler bar in a horizontal position of use, and to a raised position wherein the frames extend upwardly from the tiebar and support the kneeler bar in a raised position of non-use between the rear legs of the chair, and laterally outwardly extending feet on the frames adapted to contact the rear legs of the chair to limit the raising movement of the accessory.

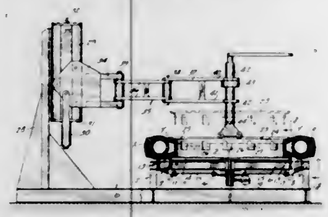
2,777,506
CHAIR WITH A COLLAPSIBLE FOOTREST
Jay R. Martin, Chicago, Ill.
Application February 6, 1952, Serial No. 270,144
6 Claims. (Cl. 155—171)



3. A chair of the class described comprising a seat reclining portion and an integral substantially vertical back rest portion, said seat portion having a hollow base, a

foot rest having one edge hinged to said seat portion, a center bar carried by said chair within said hollow base and extending longitudinally of said seat portion, mechanism carried by said center bar within said base for latching said foot rest in an inoperative position with respect to said seat portion, arm rests on said back rest portion, one of said arm rests pivotally carried by said back rest portion and operatively connected to said mechanism for releasing said foot rest for movement to an operative position with respect to said seat portion, said mechanism including a trigger carried by said center bar and operatively connected to said arm rest for releasing said foot rest for movement to an operative position, means carried by said center bar for retaining said foot rest in an operative position with respect to said seat portion, means pivotally carried by said foot rest and cooperating with said retaining means for retaining said foot rest in an operative position with respect to said seat portion, said means including a substantially U-shaped supporting bar having a bight portion movable over said center bar within said hollow base and cooperating with said retaining means and said mechanism for positioning said foot rest in an operative or inoperative position with respect to said seat portion, and means for urging said foot rest into operative position with respect to said seat portion upon actuation of said trigger.

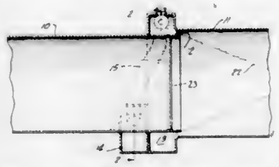
2,777,507
DEVICE FOR MOUNTING RIMS ON PNEUMATIC TIRE CASINGS
Charles E. Branick, Fargo, N. Dak.
Application April 19, 1954, Serial No. 423,903
2 Claims. (Cl. 157—1)



1. In a device for mounting rims on pneumatic tire casings, a base, a skeleton-like platform on said base for supporting pneumatic tire-equipped rim sections in a horizontal position, means for locking said rim sections against upward and rotary movements with respect to said platform, a carriage, structure mounting said carriage on said base in laterally spaced relation to said rim mounting means for reciprocal movements in a vertical plane, an arm pivotally secured to said carriage for swinging movements of its free end in a horizontal plane overlying said rim supporting platform, said arm comprising pivotally interconnected sections, and a depending presser foot element rotatably carried by the free end of said arm and operative responsive to movements of said carriage, said presser foot element being provided with laterally spaced flanged rollers adapted to ride upon the upwardly projecting circumferential flange of a tire rim section.

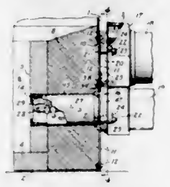
2,777,508
PILOT BURNER FOR COMBUSTION HEATER
Peter L. Jurisich, Torrance, Calif., assignor to Douglas Aircraft Company, Inc., Santa Monica, Calif.
Application April 16, 1952, Serial No. 284,486
10 Claims. (Cl. 158—4)

1. An internal combustion device, comprising: coaxially endwise nested conduit sections, the periphery of the inner end of the inner section being radially spaced inwardly of the adjacent end of the outer section so as to define an annular gap between the adjacent ends of the conduit sections; substantially hollow means surrounding the nested pipe sections upstream of said gap and



communicating on its inner, downstream portion with said gap; means for supplying said hollow member with a fuel and a combustion-supporting gas; and means for igniting the contents of said hollow means.

2,777,509
FLUID FUEL BURNER FOR FREE STANDING AND PLATE MOUNTING INSTALLATIONS
Reginald W. Beckett, Elyria, Ohio
Application March 28, 1950, Serial No. 152,353
23 Claims. (Cl. 158—4)



1. In combination in a fluid fuel burning heating device, a heater structure comprising means defining a combustion chamber, a wall spaced from such chamber, and an air tube extending between the chamber and wall and having a base portion extending through an aperture in the wall, and a burner structure detachably mounted on the wall of the heater structure and wholly supported thereby, the burner structure comprising a housing having connected internal fan and air chambers and an apertured wall disposed in spaced confronting relation to the heater structure wall, the housing fan chamber being in communication with the space between the heater structure wall and the burner housing wall through an aperture in the burner housing wall, the housing air chamber being in communication with the air tube through another aperture in the housing wall, the base portion of the air tube having an axially directed end face locatingly abutted against the housing wall, the air tube being wholly supported by the heater structure independently of the burner structure, supporting means of separable components securing the housing to the heater structure wall in mounting the burner structure for facile detachment and replacement of the latter separately from and independently of the air tube, a fan in the fan chamber and drive means therefor, a nozzle and means supporting the nozzle within the air tube in position to project fluid fuel into the combustion chamber.

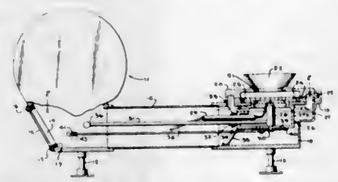
3. In a fuel burner having a housing formed with connected fan and air chambers and with an opening through one wall of the housing into the air chamber, an air tube having a base ring receivable against the housing wall in registering the air tube with the wall opening, the base ring having an outwardly directed circumferentially extending radial flange and a substantially cylindrical extension, the air tube including a substantially cylindrical element received within the base ring extension, the base ring flange being formed with a plurality of circumferentially spaced through openings, fasteners in the flange openings, and circumferentially extending means projecting axially from one face of the base ring flange, the last named axially projecting means being discontinuous in the regions of the fastener openings.

6. In a fuel burner of the type having a housing formed with connected fan and air chambers and with an opening through one wall of the housing into the air chamber, an air tube registered with the wall opening, and a fuel conduit assembly extending through the air tube and including a bracket with a foot portion secured to the housing within the air chamber of the latter, the improvement which comprises a base ring on the air tube and receivable against the housing wall in registering the air tube with the wall opening, the fuel conduit bracket except the secured foot portion thereof being disposed substantially wholly within the base ring, and means within the ring providing circumferentially spaced shoulders for receiving and locating therebetween a portion of the fuel conduit bracket.

11. In combination in a fluid fuel burner having an open faced housing and a closure plate across the open face of the housing, an air tube including a base ring receivable flatwise against the outer surface of the closure plate, the base ring and the closure plate being formed with aligned openings to receive fastening elements and the housing having anchorages aligned with the openings for the securement of such fastening elements in supporting the air tube on the housing, and said anchorages being spaced from the inner surface of the closure plate to provide clearances for the heads of fasteners extending through the base ring openings in the optional support of the air tube independently of the housing.

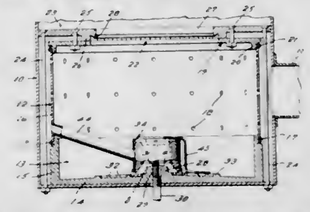
16. A heater-burner combination comprising a heater having a supporting wall formed with an aperture, an oil burner housing having connected internal fan and air chambers and a wall formed with an opening into the air chamber, and an air tube registering with said opening in the housing to receive air from the air chamber, the air tube being formed to extend into the heater through said aperture in the wall of the latter and including a base portion, flange means carried by the base portion of the air tube and interposed as a spacer between the heater and burner housing walls, said spacer flange means having oppositely directed faces disposed one against the outside of the heater wall and the other against the burner housing wall, the flange means of the air tube base also being formed to receive fasteners for securing the air tube to the heater wall, fasteners connecting the flange means to the heater wall, and deformable packing material interposed between the air tube base portion and the wall of the burner housing and extending around the opening in the latter.

2,777,510
VERTICAL FLAME OIL BURNER
Jack Berger, Laurelton, N. Y.
Application June 18, 1954, Serial No. 437,689
2 Claims. (Cl. 158—28)



1. In a vertical flame oil burner, in combination, an elongated air tube; a first housing means closing one end portion of said air tube; a second housing means closing an opposite end portion of said air tube; flame control means mounted on said first housing means and having a passage transverse to said tube for controlling a flame which is propagated transversely to the length of said tube through said passage in said flame control means; a hollow housing located in said first housing means and communicating with said passage in said flame control means, said hollow housing having a wall formed with at least one air passage therethrough; a nozzle extending transversely to said tube and being located in said hollow housing for directing a flame transversely to the length of said tube and through said passage in said flame control means; ignition electrode means also located in said hollow housing; leaf spring means connected to said hollow housing and engaging an inner surface portion of said first housing means, for urging said hollow housing into engagement with said flame control means; fuel supply means connected to said nozzle in said assembly and extending therefrom along the interior of said air tube towards said second housing means, said fuel supply means being removably connected to said second housing means and adapted to be connected with a source of fuel located outside of said second housing means; current supply means connected to said ignition electrode means in said hollow housing and extending therefrom along the interior of said air tube towards said second houisng means and being removably connected to said second housing means; valve means located on said wall of said hollow housing for controlling flow of air through said air passage therein; operating means connected to said valve means for operating same and extending from said valve means through said tube to said second housing means and terminating outside of the same; and closure means in said second housing means opposite said opposite end portion of said air tube for closing and opening said second housing means for providing upon being opened, a passage through which said hollow housing and assembly together with said fuel supply means and current supply means may be removed from and inserted into said air tube without disturbing the latter.

2,777,511
POT TYPE OIL BURNER AND LOW FIRE PILOT UNIT
Carl B. Richardson, Norfolk, Va.
Application March 24, 1953, Serial No. 344,352
3 Claims. (Cl. 158—91)



1. A pot type oil burner comprising the combination of a main combustion chamber defined by bottom and side walls, a vertically disposed oil inlet port located centrally of said bottom wall and extending therethrough and a pilot burner comprising a lower ring supported by its lower edge on said bottom wall and concentric with said oil inlet port, an outer cylindrical sleeve supported on said ring, an inner cylindrical sleeve supported on said ring and concentric with said outer sleeve, a plurality of apertures in said inner sleeve, an upper ring carried by said inner and outer sleeves and closing the opening therebetween to provide an annular air chamber, said upper ring having a vertically disposed burner opening concentric with said inlet port and of less diameter than said inner sleeve, a forced draft tube communicating with said air chamber and extending substantially radially thereof exteriorly of said combustion chamber, a rod extending into said inlet port a substantial distance and through said burner opening in concentric relation thereto and a plurality of radially disposed grooves in the lower

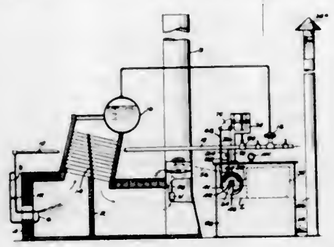
edge of said lower ring whereby upon a limited flow of oil to said inlet port and the flow of air through said tube to said air chamber and through said apertures said pilot burner will burn with a low flame and maintain said rod at a relatively high temperature to preheat said oil and burn any carbon deposit tending to form in said inlet port and upon increasing the flow of oil in excess of that burnable in said pilot burner said excess oil will flow outwardly through said grooves and the reduced burner opening in said upper ring will force flame outwardly through said grooves to ignite said excess oil in said main combustion chamber.

2,777,512
GAS IGNITER FOR PULVERIZED COAL BURNERS
Lowell E. Johnson, Alliance, Ohio, and George Musat, East Elmhurst, N. Y., assignors to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application July 14, 1952, Serial No. 298,674
7 Claims. (Cl. 158—115)

1. A gas igniter constructed and arranged for mounting in operative relation to furnace main fuel burners, said igniter comprising a tubular flame retainer having an outer end and a discharge end; means, including walls of said retainer and an elongated partition therein, forming a raw gas passage extending longitudinally through said retainer; a gas supply conduit extending into said retainer through the outer end thereof in juxtaposition with said passage, with its gas discharge axis in spaced substantially parallel relation to that of said passage; mixing means communicating with the discharge end of said conduit and arranged to admix air with the gas discharged therefrom, and including a nozzle having its discharge axis in spaced substantially parallel relation to that of said passage and its discharge end substantially upstream of the discharge end of said retainer; tubular shielding means extending through the outer end of said retainer in substantially parallel juxtaposed relation to said supply conduit; a spark-creating electrode assembly including a relatively elongated substantially rectilinear electrode removably supported in insulated relation through said shielding means to extend in substantially parallel spaced relation to said supply conduit, said shielding means constituting a cooperating electrode; the sparking end of said electrode assembly being longitudinally intermediate the discharge ends of said nozzle and said retainer; and a raw gas conduit connected to said raw gas passage.

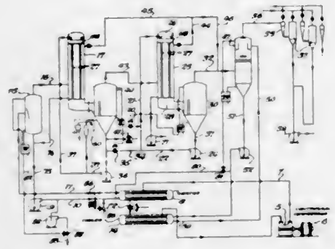
2,777,513
CONTROL APPARATUS AND PROPORTIONING DEVICE FOR FUEL AND COMBUSTION AIR
Duluth G. Cooper, Hodge, La.
Application January 22, 1953, Serial No. 332,617
1 Claim. (Cl. 158—119)

In a combustion chamber and pressure-fired boiler apparatus having conduit means for furnishing fuel under pressure to the combustion chamber, means for mixing combustion air with the fuel, damper means for regulating the demand for said combustion air, a combustion control comprising hydrostatically operated pressure sensing means connected to said fuel conduit means, a rotatable cam proportioning device responsive to the pressure sensing means, connector means responsive to movement of the proportioning device for operatively connecting the said damper to the proportioning device, a connector adjusting device for changing the setting of the damper



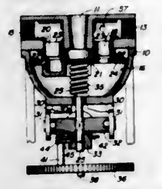
relative to the proportioning device and a valve structure under the control of the said proportioning device for closing the said fuel conduit means in response to a drop in pressure below a predetermined minimum value therein.

2,777,514
METHOD AND APPARATUS FOR CONCENTRATING LIQUIDS
Albert W. Eckstrom, Buffalo, N. Y., assignor, by mesne assignments, to Blaw-Knox Company, Pittsburgh, Pa., a corporation of Delaware
Application March 11, 1949, Serial No. 80,813
7 Claims. (Cl. 159—17)



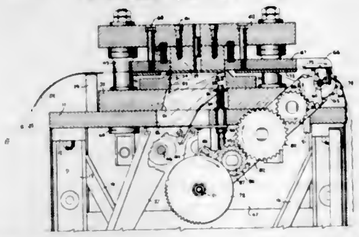
4. Apparatus for concentrating liquids by low temperature evaporation under partial vacuum, including a compressor for a refrigerant, a water heater, means connecting said compressor and said heater for conducting hot refrigerant gases from the compressor to said heater, said heater having a passage in which said hot refrigerant gases flow in heat exchange relation with water, a flash chamber, means connecting said heater and flash chamber for conducting heated liquid from said heater to said flash chamber for vaporizing same, means for conducting vapor from said flash chamber to a steam chest in which the liquid under treatment to be concentrated flows in heat exchange relation to said water vapor, a barometric condenser to which vapors from said liquid under treatment are conducted, means for providing a partial vacuum in said condenser, said steam chest and flash chamber and on the liquid under treatment, an expansion valve connected with said heater for liquefied refrigerant discharged therefrom, a cooler into which liquefied refrigerant is discharged in heat exchange relation to cooling water used in said condensate, means for circulating cooling water in a circuit including said condenser and said cooler, thermostatically controlled means responsive to the temperature of the water passing from said heater to said flash chamber for admitting cooling water to the water passing to said flash chamber, means for withdrawing treated liquid from said apparatus, and means for withdrawing surplus water from said heater.

2,777,515
AUTOMATICALLY CONTROLLED, MULTI-WAY, ROTARY PLATE VALVE
Albert Y. Stirling, Salt Lake City, Utah
Application September 24, 1953, Serial No. 382,107
4 Claims. (Cl. 161—7)



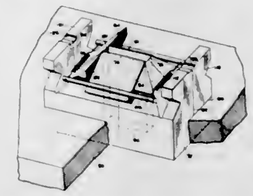
1. In combination with a multi-way, rotary plate valve, which includes a stationary valve body provided with an internal chamber, a plurality of inlet and outlet flow passages communicating with said chamber by way of respective ports provided with valve-seating means, and a valve plate within said chamber comprehending the said ports, said valve plate being affixed to a valve stem which projects through said valve body exteriorly of the said chamber for both rotative and reciprocative movement in the selective seating and unseating of said valve plate relative to said valve-seating means; automatic control structure, comprising a camming trackway concentrically encircling the exteriorly projecting portion of said valve stem, said trackway being made up of a plurality of cam members secured to and projecting outwardly from the said valve body in mutually spaced relationship such that the spaces between cam members correspond with respective seated positions of said valve plate; a rotating carriage journaled on said exteriorly projecting portion of the valve stem in juxtaposition to said trackway; a plurality of rollers individually rotatably mounted on said carriage in mutually spaced and circular arrangement corresponding to said camming trackway, so as to ride upon said trackway during rotation of said carriage; a hub affixed to the outer end portion of said valve stem; means for rotating said carriage; a lost motion connection between said carriage and said hub, whereby said carriage may rotate momentarily without imparting rotation to said hub; alignment means between said carriage and said hub for limiting rotative motion of the hub relative to the carriage; timing control means for operating said rotating means at and for predetermined time periods; and resilient means normally urging said valve plate toward said valve seating means.

2,777,516
FORM PUNCHING MACHINE WITH FORM TIPPING MECHANISM TO FACILITATE DISCHARGE OF THE CUT FORMS
John T. Davidson, Dayton, Ohio, assignor to The Standard Register Company, Dayton, Ohio, a corporation of Ohio
Application October 5, 1951, Serial No. 249,877
1 Claim. (Cl. 164—20)



A strip feeding device, including guide means for continuous web of paper material, said web containing imprinted forms, die and punch elements in opposed relation, said die presenting a central opening and said punch being reciprocable into and out of said opening, feeding means for advancing the web between said die and punch elements, said elements acting to cut successive forms from said web, a chute beneath said die through which the cut forms descend, a plunger reciprocable in said chute and through the opening in said die to tilt the cut forms for passage through the chute and to raise the uncut portion of the web for continued movement beyond the die and punch, and means for operating said die, said feeding means and said plunger in timed relation to one another, so that the top of the plunger is below the lowermost portion of the punch during the descent of the punch and is raised upwardly to follow the punch to the level of the top of the die on the upstroke of the punch.

2,777,517
APPARATUS FOR PROVIDING TAPE ENDS ON SLIDE FASTENER STRINGERS
Robert I. Prupis, West Orange, and Albert Bashover, Newark, N. J., assignors to Conmar Products Corporation, Newark, N. J., a corporation of New Jersey
Original application November 14, 1950, Serial No. 195,652, now Patent No. 2,697,227, dated December 21, 1954. Divided and this application April 15, 1954, Serial No. 423,452
16 Claims. (Cl. 164—36)

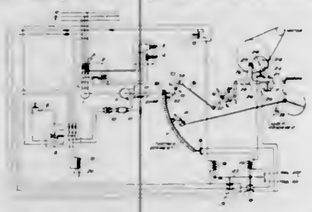


1. A die for providing tape ends on slide fastener stringers, said die comprising a pair of generally parallel cutting edges, said cutting edges being spaced apart a distance slightly greater than the combined width of the fastener elements of a pair of meshed slide fastener stringers, and means for engaging and locating said fastener elements between said cutting edges, said means comprising a locating member associated with each cutting edge, said member having an edge extending lengthwise of, substantially parallel and coextensive with, and normally above its associated cutting edge in substantially vertical alinement therewith, said locating member being movable to a retracted position which is to one side of and no higher than its associated cutting edge during the cutting operation.

2,777,518
MACHINE TOOL
Heinrich Naderhoff, Goppingen, Wurttemberg, Germany, assignor to L. Schuler A. G., Goppingen, Wurttemberg, Germany
Application February 12, 1952, Serial No. 271,125
Claims priority, application Germany March 1, 1951
5 Claims. (Cl. 164—50)

1. An electrical control arrangement for a slotting or the like machine of the kind in which a work carrier or feed mechanism therefor is moved back to a starting position after the completion of a pre-determined number of intermittent slotting or punching work operations, comprising a push button switch for switching-on a power driven high speed return of the work carrier or feed mechanism after insertion of a blank workpiece, and means operative for automatically switching-on the high

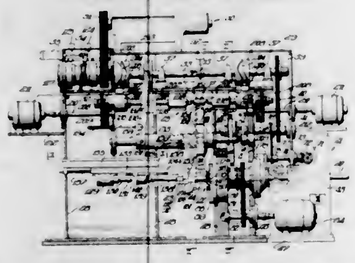
speed return and then switching-off the high speed return on reaching the end position, automatically switching-on the drive for a tool and, dependently thereon, the intermittent working feed.



2,777,519
APPARATUS FOR CUTTING CONTINUOUS FILAMENTS INTO SHORT LENGTHS
Raymond Holden Speakman, Harpenden, England, assignor to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain
Application November 30, 1953, Serial No. 395,239
Claims priority, application Great Britain December 3, 1952
4 Claims. (Cl. 164—61)

1. An apparatus for cutting filaments into short lengths, wherein a bundle of filaments in zig-zag form is cut, comprising a feed mechanism including a pair of feed rolls, a tube and an air stream, said air stream conveying the filaments down said tube and laying the bundle of filaments into the nip of two circular disc knife blades mounted to rotate in opposite directions about axes through their centers, the centers of said circular discs being spaced apart by a distance just less than the sum of their radii and their axes being off parallel so that the blades are slightly canted and cut with a continuous shearing action through each cross member of the zig-zag folds, and means positioned before said knife blades for making zig-zag folds in the fiber bundle.

2,777,520
MACHINE FOR CUTTING OFF LENGTHS OF TUBING
Alfred E. Grzenkowski, Buffalo, and Raymond W. Rademaker, Kenmore, N. Y., assignors to Houdaille Industries, Inc., Buffalo, N. Y., a corporation of Michigan
Application April 30, 1956, Serial No. 581,798
9 Claims. (Cl. 164—61)



1. In combination in a machine of the character described, means for intermittently feeding succeeding lengths of stock tubing to a cutting station, means for cutting pieces of predetermined size from the forward end of the stock length at the cutting station, means for carrying the cut pieces of predetermined size from the cutting station, and means responsive to the feeding of the trailing end of the stock tubing of a length of less than said predetermined size to the cutting station causing the trailing end to be ejected from the cutting station so that it is not received by said carrying means.

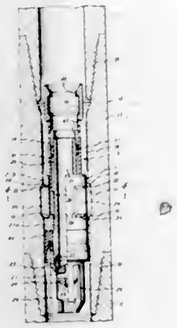
2,777,521
SHEET SLITTING MACHINE
Henry W. Tanis, Hatfield, Pa., assignor to Greene, Tweed & Co., North Wales, Pa.
Application February 16, 1955, Serial No. 488,651
12 Claims. (Cl. 164—76)

1. A sheet slitting machine comprising a horizontal table adapted to support a length of sheet material laid thereon, a carriage, means supporting said carriage for reciprocating movement relative to said table in the longitudinal direction of the latter, means associated with said carriage for grasping one edge of the sheet material to a draw a length thereof onto said table during the movement of said carriage in one direction away from one end of the table, rotary cutting means mounted on said carriage and operative to slit sheet material on said table as the carriage is displaced relative to the table, means for reciprocating said carriage relative to said table, and means effecting operation of said rotary cutting means in response to the displacement of said carriage relative to said table.

2,777,522
TUBING ANCHOR
John S. Page, Long Beach, Calif.
Application June 8, 1953, Serial No. 408,080
12 Claims. (Cl. 166—212)

1. A tubing anchor including, an elongate tubular body having opposed flanges spaced apart longitudinally of the body, a shoe fixed on the body to be stationary relative thereto, a movable shoe located between the flanges and spaced from the stationary shoe circumferentially of the body and movable radially of the body, the movable shoe having a back opposing the body and having a recess therein, and means adapted to operate the movable shoe including, a boss on the body, a bore in the boss and having a bottom with a passage therethrough opening into the tubular body, the boss projecting into the recess and having a detachable liner carried in the bore, said liner having a cylindrical inner wall, and a piston slidable in the liner and carrying the movable shoe, the liner having a stop part adapted to limit outward movement of the piston therein when there is fluid under pressure in the tubular body to act upon the piston through said passage.

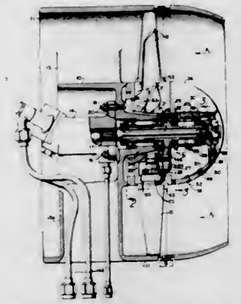
2,777,523
REMOVABLE DRILL PIPE FLOAT VALVE
Cicero C. Brown and George McCray, Houston, Tex.
Application September 24, 1953, Serial No. 382,138
6 Claims. (Cl. 166—219)



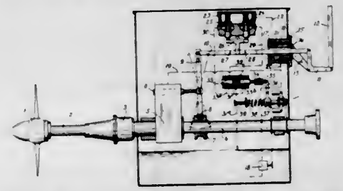
1. A float valve for pipe strings, comprising, a tubular body adapted to be connected into a pipe string to form a part thereof, a tubular valve casing removably insertible in the bore of said body, an annular latching groove in the bore wall of the body, a tubular slip cage mounted on the exterior of said casing, a plurality of latching slips mounted in said cage for radial movement therein, a tubular mandrel slidably mounted on the exterior of said casing to move longitudinally into and out of said cage between the slips and the exterior of said casing whereby downward movement of said mandrel into said cage will be operative to urge said slips radially outwardly into locking engagement with said groove and upward movement of said mandrel will be operative to release said slips for retraction from said groove, cooperating stop members arranged on the mandrel and the casing to limit relative longitudinal movement therebetween, means carried by the mandrel for connection to a pulling means, an annular sealing member mounted on the casing below the slip cage to form a slidable seal with the bore wall of said body, and a flow choke means in the bore of said casing to restrict the flow of fluid between the portions of said body above and below said seal.

2,777,524
RAM AIR DRIVEN TURBINE
James E. Chapman, Charles F. Drexel, and James E. Young, Los Angeles, Calif., assignors to The Garrett Corporation, Los Angeles, Calif., a corporation of California
Application June 1, 1953, Serial No. 358,636
10 Claims. (Cl. 170—68)

1. In a constant speed turbine, a rotatable shaft, a plurality of adjustable pitch blades rotatable about the axis of said shaft, a pitch adjusting member having means rotatably coupling all of said blades, centrifugal flyweights disposed for swinging movement about axes located eccentric to and substantially parallel with said shaft, said flyweights being rotatably coupled to said pitch adjusting member and a plurality of torsion members spaced radially from said shaft, said torsion members having torsion axes substantially coinciding with the axes of swinging movement of said flyweights, said torsion members being coupled to said flyweights and to said pitch adjusting member, whereby said torsion members tend to resist the centrifugal force developed by said flyweights when rotating.



2,777,525
CONTROLLABLE PITCH PROPELLER
Nils Johannes Liaaen, Alesund, Norway
Application March 12, 1952, Serial No. 276,154
3 Claims. (Cl. 170—160.19)

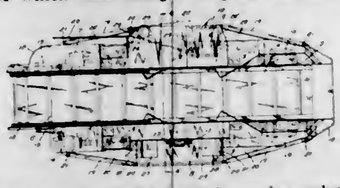


1. A controllable pitch propeller control system comprising, in combination, a servomotor for the adjustment of the propeller blade pitch, servomotor control means, manually operative means for actuating said control means, a governor operatively dependent upon the propulsion engine load, means operatively connecting the said governor and said servomotor control means for automatically varying the position of the servomotor control means from the position to which it has been set by said manually operative means, a valving device controlling the operative condition of said last-mentioned means, and operating means for said valving device actuable by the manually operative means and comprising members provided in such position on the said manually operative means as to actuate said valving device by continued ordinary movement of the said manually operative means beyond the range of lower pitch settings at a predetermined highest propulsion engine load for ahead and astern, respectively.

2,777,526
LOW HEIGHT MINE HAULAGE VEHICLE
Victor I. Dudley, Franklin, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Original application October 27, 1950, Serial No. 192,571, now Patent No. 2,698,104, dated December 28, 1954. Divided and this application April 29, 1953, Serial No. 351,911
14 Claims. (Cl. 180—2)

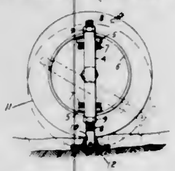
1. A reversible material haulage vehicle for use in underground mines having low headroom comprising a vehicle body of flat top low height construction, pairs of front and rear wheels for said body adapted to travel over a mine floor, the height of the vehicle being substantially determined by the height of said wheels, a material receiving compartment arranged lengthwise of said vehicle body and extending between said wheels, the

vehicle having a relatively long wheel base in comparison to the overall length of the vehicle to provide elongated spaces at the sides of the body beyond the outer sides of said compartment intermediate the front and rear wheels, respectively for receiving auxiliary equipment and to provide a station for the operator, said wheels being so arranged with respect to the body that the wheel base is made relatively long as aforesaid, reducing the overhang of the ends of the body longitudinally beyond the wheels and without increasing the overall length of the vehicle, said body having a relatively wide central portion at the sides of which said elongated spaces are located, said



overhanging ends of the body becoming relatively narrow as they extend towards the opposite ends of the vehicle whereby the latter may readily negotiate the sharply curved and restricted passageways of a mine irrespective of the direction in which the vehicle is traveling, said narrow ends of said body providing spaces at the inner sides thereof for receiving said wheels, the wheel receiving spaces having transverse upright walls at their adjacent ends with said walls located at the remote ends of said central wide portion of said body, said operator's station extending outwardly beyond the outer sides of the adjacent wheels.

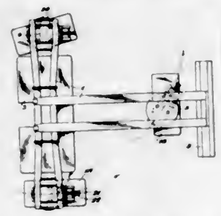
2,777,527
TRACTION DEVICE FOR MOTOR VEHICLES
Clifford Leslie Kleem, Young, New South Wales, Australia, assignor to Reginald Brian Omant and Robert Ian Grant, both of Young, New South Wales, Australia
Application March 17, 1954, Serial No. 416,829
Claims priority, application Australia March 27, 1953
2 Claims. (Cl. 180—7)



1. A device for lifting a vehicle wheel including a rim, upon power rotation thereof, comprising: a tube, means adjacent each end of said tube disposable within the rim and rigidly engageable therewith for supporting the tube diametrically of the rim, a rod slidably mounted in said tube and being threaded adjacent each end thereof, a nut supported on each threaded end of the rod and being engageable with a corresponding end of the tube for adjustment of the rod whereby one end thereof projects beyond the periphery of the wheel, and a road engaging foot pivotally connected to said one end of the rod.

2,777,528
MACHINE TURNABLE AND SHIFTABLE IN ALL DIRECTIONS ON THE GROUND, PARTICULARLY FOR DRIVING PILES AND THE LIKE
André Paul Jourdain, Embourg-Lez-Liege, Belgium, assignor to Compagnie Internationale des Pieux Armes Frankignoul, Societe Anonyme, Liege, Belgium
Application January 12, 1954, Serial No. 403,533
Claims priority, application France November 26, 1953
6 Claims. (Cl. 180—8)

5. A machine movable on the ground comprising a platform, a plurality of turrets positioned in spaced distribution on said platform, supporting members secured to said platform and supporting said platform on the ground, a plurality of jacks coupled to said turrets for bearing on the ground, said turrets being each rotatable about a vertical axis, coupling means coupling



said jacks to said turrets for allowing linear motion of said jacks with respect to said platform, and means for rotating said turrets with respect to said platform when the jacks are off the ground and the machine is supported by the supporting members.

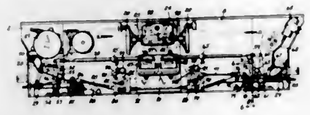
2,777,529
WEIGHT DISTRIBUTION AND TRACTION CONTROL MEANS FOR THREE-AXLE VEHICLES
Henry C. Harbers, Pasadena, Calif., assignor to Cook Bros. Equipment Co., Los Angeles, Calif., a corporation of California
Application July 29, 1953, Serial No. 371,049
3 Claims. (Cl. 180—22)

1. In a vehicle: a frame; means for operably supporting said frame, said means including a driving axle, a third axle, and means operably interconnecting said axles for cooperative carrying of the load which has a normal static weight distribution between the axles; and hydraulic means for resisting the tendency of said load distribution to shift under certain operating conditions, said hydraulic means comprising a snubber device for each side of the vehicle, each of said snubber devices having a hydraulic cylinder; a piston operably received therein; means, including a piston rod, connecting said piston with the means operably interconnecting said axles forwardly of and adjacent to the connection of the last-mentioned means to said third axle so that said piston moves in the cylinder with movement of the third axle toward and away from said frame; a reservoir for hydraulic fluid; means freely connecting one end of the cylinder with said reservoir; and means restrictably connecting the other end of said cylinder with said reservoir, said cylinder, reservoir and connections therebetween comprising a closed hydraulic system.

2,777,530
OPERATOR CONTROL STATION FOR MINE HAULAGE VEHICLE
Victor I. Dudley, Franklin, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Original application October 27, 1950, Serial No. 192,571, now Patent No. 2,698,104, dated December 28, 1954. Divided and this application May 1, 1953, Serial No. 352,452
16 Claims. (Cl. 180—77)

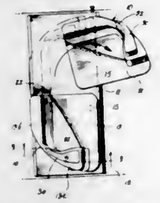
1. In a vehicle of the character disclosed, means providing an operator's station having a supporting structure including a bottom platform and of sufficient length to accommodate an operator in a reclined position in said station, a shiftable supporting means mounted on said

platform and located within said station near one end thereof against which the operator may rest when he assumes such reclined position on said platform, said shiftable supporting means including a movable back rest and pairs of links connected to said supporting structure and to said back rest for supporting the latter for swing-



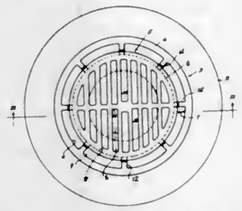
ing movement between its lowered inoperative position near the platform of the operator's station and its elevated supporting position wherein the operator may rest thereagainst, and stop means provided by said supporting structure for limiting movement of said back rest in either shifted position thereof.

2,777,531
EMERGENCY CRASH SEAT
Norman R. Erickson, Daly City, Calif.
Application October 22, 1954, Serial No. 464,073
6 Claims. (Cl. 180—82)



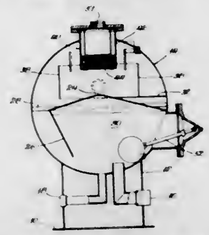
1. In a vehicle of the character described, a seat mounting base, a passenger seat mounted thereon and normally facing in the direction of travel of the vehicle, a securing pivot for said seat fixed in the base and pivotally securing the seat adjacent its side, forward corner, said seat being adapted to turn on its pivot under influence of inertial forces of the seat and its occupant incident to abnormal deceleration of the moving vehicle.

2,777,532
SURFACE DRAINS
Martin A. Sisk, Pittsburgh, Pa.
Application May 22, 1953, Serial No. 356,749
1 Claim. (Cl. 182—31)



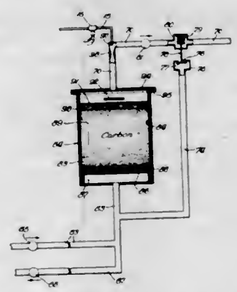
In a surface drain comprising a drain body provided with an inlet having a peripheral rim and a grate, a peripheral side wall extending downwardly from said rim to an outlet, said peripheral side wall having a portion (*e*) extending from said rim downwardly to a portion (*f*) that extends inwardly and downwardly to a succeeding downwardly extending portion (*g*) that is spaced radially inward from the first-mentioned side wall portion (*e*), a plurality of relatively narrow lugs integral with said peripheral side wall at points spaced widely apart circumferentially of the drain body, said lugs extending inwardly from said first-mentioned side wall portion (*e*) and upwardly from said second-mentioned side wall portion (*f*), said lugs having laterally extending seating shoulders for the vertical support of said grate and portions extending upwardly from said shoulders for laterally securing the grate, said grate having a perforate body within a peripheral rim engaging said seating shoulders and said upwardly extending portions of the lugs, with the outer edge of said rim of the grate spaced at an interval inwardly from said rim of the drain body and forming therewith a relatively wide drainage slot that extends in substantial continuity around the periphery of said inlet, whereby in service the entire internal surface of the drain body is flushed by an unrestricted downsweeping flow of drainage liquid.

2,777,533
OIL AND GAS SEPARATOR
Allmon F. Segrest, Sand Spring, Okla., assignor to Graver Tank & Mfg. Co., Inc., East Chicago, Ind., a corporation of Delaware
Application July 21, 1955, Serial No. 523,540
5 Claims. (Cl. 183—2.7)



1. In a spherical separator, an influent inlet at one side of the separator, a horizontal plate below the inlet extending partially around the separator and secured to the inner surface thereof, an upwardly concave baffle extending across a major portion of the cross-section of the separator and generally below the plate, vent means at the apex of said baffle, a cylindrical ring in the separator and above the plate, a deflector adjacent the inlet to direct the incoming influent across the internal surface of the separator, the plate and the external surface of the ring, and gas and oil outlets at the top and bottom of the separator, respectively.

2,777,534
CARBON ADSORBER COOLING MEANS
Dan McDonald, Aurora, Ill.
Application November 23, 1951, Serial No. 257,915
3 Claims. (Cl. 183—4.1)



1. In a system for adsorbing and recovering a solvent vapor adsorbable by activated carbon, a carbon adsorber having a solvent vapor inlet and an outlet, means for causing flow of solvent vapor and non-adsorbable gase-

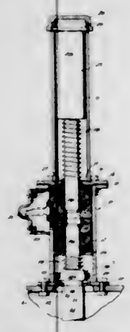
ous fluids into said adsorber from said inlet and said fluids to said outlet, a solvent vapor conduit connected to said inlet, a take-off conduit connected to said outlet for exhausting said fluids therefrom, means imposing suction on the take-off conduit and thereby on the vapor inlet conduit, an air admission conduit connected to said solvent vapor conduit and having an inlet port operable to the atmosphere, a normally closed valve controlling said port, and a thermostat in said take-off conduit exposed to fluids flowing therethrough and having operating connection to said valve effective for opening it responsive to a predetermined high temperature of said fluids.

2,777,535

ELECTRIC RAPPER FOR PRECIPITATORS

William F. Hull, Torrance, Calif., assignor to Western Precipitation Corporation, Los Angeles, Calif., a corporation of California

Application October 25, 1954, Serial No. 464,487
4 Claims. (Cl. 183—7)



1. In an electrical precipitator, the combination comprising: a precipitator shell having an opening in one wall; an electrode assembly within the shell and having an element of the assembly located at the opening in the shell; a rapper housing detachably mounted on and in contact with the exterior of the shell at the opening therein, said housing having an opening in registration with the opening in the shell; hammer means within the rapper housing; anvil means within the rapper housing adapted to be struck by the hammer means and engageable with a face of the element of the electrode assembly through the registering openings in the shell and housing; and spring means within the housing holding the anvil in continuous engagement with said face of the element of the electrode assembly.

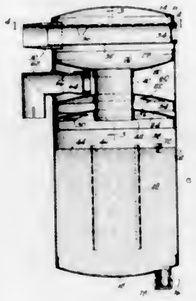
2,777,536

WATER-QUENCH SPARK ARRESTOR MUFFLER

Dean G. Thomas and Richard J. Jasensky, Stoughton, Wis., assignors to Nelson Muffler Corporation, Stoughton, Wis., a corporation of Wisconsin

Application June 10, 1953, Serial No. 360,757
6 Claims. (Cl. 183—22)

1. An internal combustion engine exhaust muffler, comprising a closed tank, means within said tank providing upper and lower spaced apart chambers, said lower chamber being adapted to contain a cooling liquid, means entering an upper portion of the tank for conducting exhaust gases into said upper chamber and for directing the gases generally away from a bottom side of said upper chamber, conduit means for conducting gases from said upper chamber and for directing said gases against a cooling liquid in said lower chamber, said conduit means communicating with a central portion of said bottom side of said upper chamber so that said gases may be expanded and cooled in said upper chamber before entering said conduit means, and means providing a tortuous passageway extending transversely of the tank between said chambers and exiting from the tank adja-



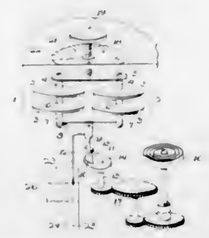
cent said upper chamber for conducting said exhaust gases from said lower chamber to the exterior of said tank.

2,777,537

PRESSURE RESPONSIVE APPARATUS

Louvan E. Wood, Glenarm, Md., assignor to Bendix Aviation Corporation, Baltimore, Md., a corporation of Delaware

Application March 18, 1953, Serial No. 343,209
7 Claims. (Cl. 185—37)



1. Pressure responsive apparatus, comprising: pressure-responsive means including a pair of substantially identical hermetically sealed diaphragm assemblies each having substantially identical normal deflection-pressure characteristics, said diaphragm assemblies being arranged side by side, the corresponding ends of said diaphragms at one end of said assemblies being held fixed and the corresponding ends of the diaphragms at the opposite end of said assemblies being free to move, a common member to which said movable ends are each pivotally connected, motor means, means driven by said pressure-responsive means through a predetermined path, said driven means normally cooperating with said motor means to prevent operation thereof until a predetermined ambient pressure is attained and also being adapted to permit operation of said motor means before said predetermined pressure is attained should the deflection-pressure characteristic be abnormal, means for indicating the presence of such abnormal deflection-pressure characteristics, said driven means including an elongated member affixed to said common member and extending and moving in a direction substantially parallel to the direction of motion of said diaphragm assemblies, a rotatable abutment member, said elongated member moving through a substantially straight-line path of travel in response to normal operation of said diaphragm assembly to cooperate with said abutment member and prevent rotation of same through a predetermined range of ambient pressure, said abutment member being operatively connected to said motor means.

2,777,538

VEHICLE FRAME ENGAGING ACCESSORY FOR AUTOMOBILE HOISTS

John D. Cochin, South San Francisco, Calif.

Continuation of application Serial No. 370,354, July 27, 1953. This application June 29, 1956, Serial No. 594,794
5 Claims. (Cl. 187—8.75)

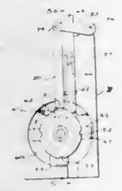
3. In a vehicle lift of the type comprising a pair of elongate parallel rails, and a plurality of vehicle frame engaging accessories slidably mounted on said rails, the combination comprising: each said accessory comprising a sliding shoe mounted for slidable movement longitudinally of an associated rail; an elongate pivot arm rotatably mounted on said shoe for swinging movement in a horizontal plane; an elongate sliding plate of substantially the same length as said pivot arm slidably mounted relative to said arm; a vehicle engaging means carried adjacent the upper and outer end extremities of said sliding plate; the said vehicle engaging means slidably movable with said plate from a retracted position within the vertical plane of the arm, to an extended position located a substantial distance laterally outwardly beyond the vertical plane of said arm.

2,777,539

SPRING-APPLIED DISK PARKING BRAKE

Loren F. Thorla, Jr., Zanesville, Ohio

Application December 5, 1952, Serial No. 324,219
3 Claims. (Cl. 188—71)



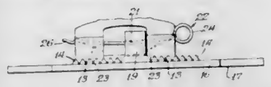
3. In a holding brake for a vehicle having driving means for propelling the vehicle, a brake surface fixedly mounted on said driving means for rotation therewith, a friction surface held against rotation and mounted for movement into and out of engagement with the brake surface, spring means yieldably urging said friction surface into engagement with said brake surface, whereby said driving means will be held against rotation and thus prevent movement of the vehicle, a push rod operatively connected to said friction surface for moving same to a retracted position against the force of the spring means responsive to rectilinear movement of said push rod, whereby to permit movement of the vehicle, a generally oval cam rotatably mounted in the plane of said push rod for rotation around a point substantially in alignment with said push rod, said cam engaging the end of the rod at its periphery, said periphery being cammingly engageable with the rod to move the rod rectilinearly responsive to rotation of the cam and being formed with respective detent notches at the ends of the major and minor diameters of the cam lockingly engageable with the ends of said rod to retain the rod and the friction surface in either a retracted or a released position, and means for rotating said cam.

2,777,540

BRAKE HEAD MOUNTING ARRANGEMENT

Fred E. Bachman, St. Louis, Mo., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey

Application January 12, 1951, Serial No. 205,710
6 Claims. (Cl. 188—73)



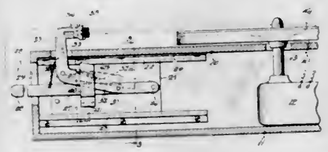
1. In a disk brake, a brake lever, a brake head supported on said lever, resilient means to secure said brake head in fixed position on said lever, and means to vary the position of the brake head linearly transversely of the lever.

2,777,541

PHONOGRAPH BRAKE MECHANISM

Robert Larson, Batavia, and Robert Shoemaker, St. Charles, Ill., assignors to Du Kane Corporation, a corporation of Illinois

Application March 18, 1953, Serial No. 343,182
5 Claims. (Cl. 188—74)



1. A brake construction for a disc record phonograph having a turntable upon which a disc record rests during normal playing position with the record edge overlying the turntable edge, said construction comprising a flat support member disposed in a generally vertical plane, said support member having a pair of flanged tracks along the top and bottom edges thereof, said tracks extending horizontally and below the plane of the disc record, a flat plate having edge portions cooperating with the flanged edges, the flanged edges and edge portions of the plate providing sufficient friction to maintain said plate in adjusted position on said member, said plate being adjustable toward or away from the record, an arm pivotally secured upon said plate, a brake pad disposed on the free end of said arm so that said arm when moved on its pivot on the plate will cause said brake pad to move toward or away from the edge of the disc record for an adjusted plate position, said plate being adjustable to a position where the brake pad can be moved into record edge engaging position upon proper movement of said arm, spring means for biasing said arm to a position where the brake pad is furthest from any edge of the record, and means for restraining said arm against its spring bias so that the brake pad is in its closest position.

2,777,542

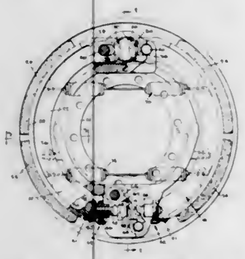
FRICTION BRAKE

Robert C. Russell, South Euclid, Ohio, assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Application December 2, 1952, Serial No. 323,565
9 Claims. (Cl. 188—78)

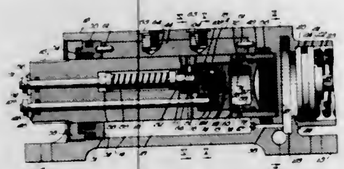
1. In a brake, the combination of a rotatable drum, a pair of shoes adapted for braking cooperation with the drum and having pairs of opposed ends, actuating means engageable with one pair of said ends to apply the shoes, and means cooperating with the other pair of said ends to substantially equalize the braking action between the shoes comprising a pair of pivotal levers engageable with one another and with one lever engageable with one end of one shoe and with the other lever engageable with

one end of the other shoe, said levers being identical in size and shape and each including an arm offset to one side of its pivot axis having a substantially flat surface engageable with the flat surface of the arm on the other lever and said flat surface of each arm being on the



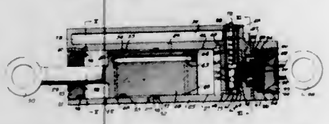
outside most remote from the pivot axis of its lever and with the pivot axis of one lever located radially inwardly of its point of engagement with its assocated shoe and the pivot axis of the other lever being disposed radially outwardly of its point of engagement with its associated shoe.

2,777,543
DAMPER WITH FLUID INERTIA MOTOR
Bernard E. O'Connor, Buffalo, N. Y., assignor to Houdaille Industries, Inc., a corporation of Michigan
Application February 9, 1952, Serial No. 270,803
10 Claims. (Cl. 188—93)



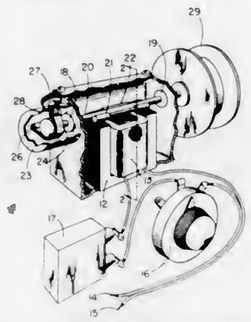
1. In a flutter damper, a housing having a cylindrical chamber therein, an elongated rotary piston within said chamber, said chamber having fluid reaction members therein extending into slidable engagement with said rotary piston and cooperating therewith and dividing said chamber into a plurality of working chambers, displacement ports leading from said working chambers at points spaced therealong, and an artificial fluid inertia passageway connecting said displacement ports from opposed working chambers together and comprising a rotary inertia fluid motor compensating for the elasticity of the parts of said damper and the damping medium contained therein upon relative oscillatable movement between said housing and rotary piston.

2,777,544
FREQUENCY SENSITIVE MECHANICAL DAMPING SYSTEM
Bernard E. O'Connor, Buffalo, N. Y., assignor to Houdaille Industries, Inc., a corporation of Michigan
Application July 21, 1951, Serial No. 237,937
11 Claims. (Cl. 188—93)



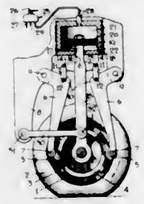
1. A mechanical vibration damper comprising, in combination, means defining a housing having a chamber therein, a piston operable in the chamber to displace fluid from one portion of the chamber to another portion of the chamber, and means defining fluid displacement passageway between the portions of the chamber, said passageway having therein throttling valve structure for imposing restriction upon passage of the displaced fluid through the passageway and also having therein an artificial fluid inertia motor operative to impose a substantial effective fluid mass compensating for the elasticities in the system.

2,777,545
ROTATION RETARDING DEVICE FOR A REEL CARRYING SHAFT
John F. Rockett, Jr., Medford, Mass., assignor to Columbia Broadcasting System, Inc., Salem, Mass., a corporation of New York, doing business under the name of Hytron Radio & Electronics Co., a division
Application July 5, 1952, Serial No. 297,215
3 Claims. (Cl. 188—164)



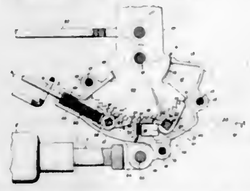
2. A rotation retarding device comprising, a core of magnetic material having a substantially E-shaped cross-section, a coil wound about the center leg of said core, a source of voltage, means connected between said source and said coil for varying the voltage supplied thereto, a rotatable main shaft supported in proximity to and along the open side of said E-shaped core, and first and second auxiliary rotatable shafts disposed on opposite sides of and parallel to said main shaft, said first auxiliary shaft contacting the end legs of said E-shaped core and said main shaft adjacent its ends, said second auxiliary shaft contacting the center leg of said E-shaped core and said main shaft adjacent its center, whereby a flux path is defined through said main and auxiliary shafts, rotation thereof being variably retardable by said means for varying said voltage.

2,777,546
AIRPLANE BRAKE EQUIPMENT
Cecil S. Kelley, Pittsburgh, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application March 27, 1953, Serial No. 344,972
11 Claims. (Cl. 188—176)



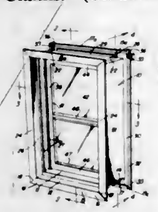
10. An apparatus for braking a wheel of a vehicle having a frame vertically movable relative to said wheel, said apparatus comprising in combination, a load carrying element carried by said frame and having a generally vertically disposed bore closed at its upper end, movable abutment means slidably disposed in said bore and subject at its upper side to pressure of fluid in a chamber defined between it and the upper end of said bore and subject at its lower side to atmospheric pressure, rod means coaxially connected to the lower side of said movable abutment means and projecting exteriorly of said element and anchored at its projecting end for vertical movement with the wheel, a brake shoe, a brake lever pivotally connected to said brake shoe and fulcrumed on said element and operably connected to said rod means, and a communication via which fluid under pressure may be vented from said chamber for causing downward movement of the frame and element relative to said rod means for thereby causing said brake shoe to apply to the wheel a braking force corresponding to the load imposed by the frame on the wheel and via which fluid under pressure may be supplied to said chamber for causing upward movement of the frame and element relative to said rod means for effecting a reduction in such braking force of a degree corresponding to the extent of such fluid pressure induced upward movement of the frame and element.

2,777,547
SLACK ADJUSTER
Glenn F. Couch, Williamsville, N. Y., assignor to The Symington-Gould Corporation, Depew, N. Y., a corporation of Maryland
Application October 3, 1951, Serial No. 249,499
7 Claims. (Cl. 188—198)



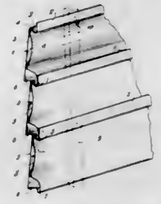
3. In a slack adjuster for railway cars, the combination with a car underframe, an air cylinder connected thereto, a piston rod movable in said cylinder and brake actuating rods, of a lever member to which said brake rods are pivotally connected, a member floating between and pivoted to said piston rod and lever member means carried by one of said members and engageable with said other member for drivably connecting said members in a plurality of angular settings, and means connected to said underframe and operative to cause said carried means and therethrough said members to change in position relative to each other on development of a predetermined slack in said brake actuating rods.

2,777,548
WINDOW FRAME ASSEMBLY
Letha F. Adams, Smithdale, Miss.
Application June 11, 1956, Serial No. 590,617
9 Claims. (Cl. 189—64)



1. A window frame assembly comprising a bottom wall having a downwardly offset outer sill terminating in an outer lower facing at right angles to said sill, means releasably connecting an inner lower facing to the inner edge of said bottom wall, a pair of side walls, means for connecting the lower edges of said side walls to the ends of said bottom wall, a pair of outer vertical facings connected to the forward edges of said side walls and lying in the same plane as said outer lower facing, means releasably connecting the lower ends of said vertical outer facings to said lower outer facing, an upper outer facing, means releasably connecting the ends of said upper outer facing to the upper ends of said vertical outer facings, a pair of guide plates positioned against the inner faces of said side walls, said guide plates having vertically extending, laterally spaced ridges defining tracks therebetween, a pair of vertical inner facings, means releasably connecting the lower ends of said inner vertical facings to the ends of said inner bottom facing, an upper inner facing, means releasably connecting the ends of said upper inner facing to the upper ends of said vertical inner facings, a top wall, means releasably connecting the ends of said top wall with the upper ends of said side walls and window means positioned within a pair of oppositely disposed ridges.

2,777,549
REINFORCED SIDING MATERIAL OR THE LIKE
Carl O. Roebuck, Akron, Ohio
Application November 2, 1953, Serial No. 389,574
9 Claims. (Cl. 189—86)

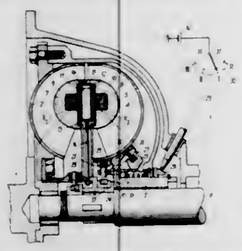


1. A metal siding comprising a shaped metal strip adapted for interlocking engagement with adjacent similar pieces of metal siding, said metal strip comprising a top nailing edge section, an upwardly open downwardly extending top gutter connecting to said top nailing edge section, a downwardly open upwardly extending rib connecting to said top gutter, a flat main siding section extending downwardly and outwardly from said upwardly extending rib, a bottom flat siding section connecting to said main siding section and extending inwardly therefrom at substantially a right angle thereto, a downwardly extending bottom rib connected to said bottom siding section and protruding downwardly therefrom for engaging a top gutter of an adjacent piece of metal siding, and an integral resilient curved reinforcing section connected to said bottom rib and extending up to and engaging said upwardly extending rib, said reinforcing section extending the length of the said main siding section and contacting said main siding section at spaced vertical points to reinforce such main siding section.

2,777,550
FLUID COUPLING WITH ELECTROMAGNETIC CLUTCH
Hans Joachim M. Förster, Harthausen a. F., Kreis Esslingen (Neckar), Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application October 26, 1950, Serial No. 192,238
Claims priority, application Germany October 29, 1949
14 Claims. (Cl. 192—3.2)

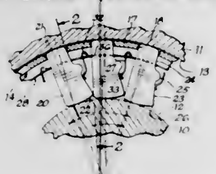
1. In a fluid drive, the combination comprising a driving shaft, a hydrodynamic device composed of a primary member permanently connected with said driving shaft and of a secondary member adapted to be impelled by

said primary member, said primary and secondary members defining an annular space therebetween, a driven shaft, a pair of auxiliary clutches disposed in said annular space, one of said clutches being adapted to connect and to disconnect said driven shaft to and from said primary member and the other one of said auxiliary clutches being adapted to connect and to disconnect said driven shaft to and from said secondary member, actuating means adapted to cause alternative engagement of one or the



other of said auxiliary clutches, and a spring-urged member controlling said actuating means, said spring-urged member being mounted on said hydrodynamic device and movable in response to the rotary speed thereof to cause said actuating means, when said speed exceeds a certain limit, to connect said driven shaft to said primary member and to cause said actuating means, when said speed drops below a certain limit, to disconnect said driven shaft from said primary member.

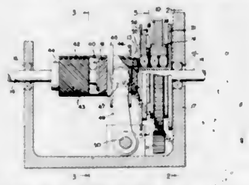
2,777,551
SPRAG MECHANISM
Oscar H. Banker, Evanston, Ill., assignor to New Products Corporation, Skokie, Ill., a corporation of Delaware
Application December 24, 1954, Serial No. 477,454
17 Claims. (Cl. 192—45.1)



1. A sprag mechanism for establishing a driving connection between machine elements having concentric cylindrical surfaces, comprising a cylindrical cage of inverted channel shape in radial cross section and having slots in the central portion thereof, a plurality of sprags extending through the slots at their radially outer ends and contacting one another at their radially inner end regions, said sprags being adapted to contact said surfaces to establish a drive therebetween, and resilient means tending to rotate each sprag about an axis parallel to the axis of the mechanism and into wedging relation with the said concentric cylindrical surfaces.

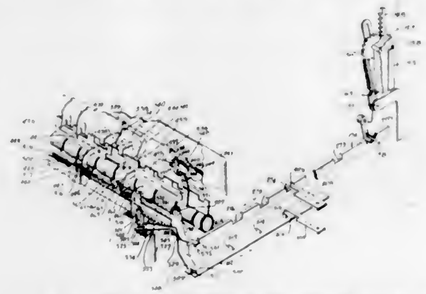
2,777,552
CONTROLLED ACCELERATION CLUTCH MECHANISM
Theodore F. Flavin, Vestal, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 31, 1954, Serial No. 479,114
12 Claims. (Cl. 192—52)

1. A selective controlled-acceleration clutch mechanism comprising, rotary drive and driven elements, rotary coupling means having axial displacement for selectively completing and interrupting a variable-ratio mechanical driving connection between said elements, and means for selectably controlling said coupling means selectably to actuate said driving connection and for controlling



said axial displacement thereof to provide controlled differential drive ratios between said elements.

2,777,553
DEVICES FOR MAKING CHANGE
Lincoln M. Keefe, Woodside, N. Y., assignor to Stewart Products Corporation, a corporation of Delaware
Application December 14, 1948, Serial No. 65,259
6 Claims. (Cl. 194—2)

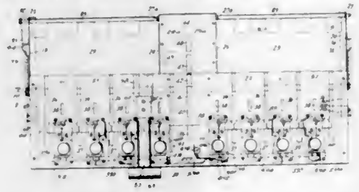


1. In a change maker, supporting means for at least two stacks of coins, pivoted lever-like coin ejectors below said stacks, each for individually ejecting the bottom coin from its stack, a rockable member spanning all said ejectors and having a clearance slot therein for and aligned with each ejector, which normally straddles the latter without engaging the same when said member is rocked, a shutter comprising a plate reciprocably carried on said member, other slots formed in said shutter which normally uncover all said first slots, the solid portions of said shutter between said other slots being adapted to sequentially cover said first slots as said shutter is moved away from its normal position, urging means for urging said shutter in a direction away from normal to one of a plurality of selective positions, releasable resetting means for returning said shutter to its normal position, means connected to said shutter and moved therewith by said urging means, key means positioned to be engaged by and to thereby arrest said connected means thereby defining one of said selective positions after said resetting means is released, and means to rock said member to effect the ejection of a coin from the selected stack.

2,777,554
COIN OPERATED RELEASE MECHANISM AND CHANGE-MAKER FOR FREEING A SELECTIVE DISPENSING DEVICE FOR OPERATION
Louis Steiner, Belle Harbor, N. Y., assignor to Mills Industries, Incorporated, a corporation of Illinois
Application April 1, 1948, Serial No. 18,444
3 Claims. (Cl. 194—2)

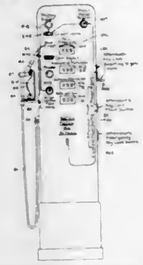
1. In combination, a support, a control member movably mounted thereon, means for moving said control member, coin operated means to releasably lock said control member against movement, said last means comprising first, second, third and fourth nickel latches having means to block movement of said control member, said control member having means to receive first, second,

third and fourth nickels, said latches having means adapted to be engaged by said four nickels, respectively, to move said latches out of blocking position upon initial movement of said control member, an extra latch having means to block movement of said control member, first and second dime operated members, said control member having means to receive first and second dimes, said dime operated members having means engageable by said dimes, respectively, to move said dime operated members upon initial movement of said control member, a quarter operated member, means on said control member to receive a quarter, said quarter operated member having means adapted to be engaged by said quarter for moving said quarter operated member upon initial movement of said control member, means controlled by said quarter operated member to move said nickel latches and said



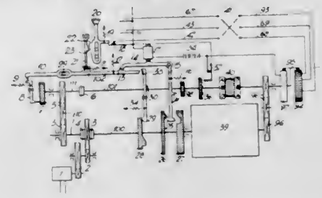
extra latch out of blocking position upon moving said quarter operated member, whereby to permit movement of said control member upon receipt of a quarter, only, in said control member, means controlled by movement of said first dime operated member to move the extra latch and the fourth nickel latch out of blocking position, means controlled by movement of the second dime operated member to move said second and third nickel latches out of blocking position, whereby the control member may also be moved by receipt therein of either two dimes and one nickel or one dime and three nickels, a plurality of penny storing means, a mechandise ejecting means associated with each penny storing means, means controlled by each of said ejecting means for actuating the means for moving the control member, and means controlled by each ejecting means for dispensing a predetermined number of the pennies stored in the penny storing means associated therewith.

2,777,555
COIN CONTROLLED LIQUID DISPENSING APPARATUS AND THE LIKE
Thomas A. Banning, Jr., Chicago, Ill.
Application October 13, 1950, Serial No. 189,928
70 Claims. (Cl. 194—13)



1. In a self-service prepay liquid fuel stand, the combination of a motor driven pump, a liquid meter having a rotatable element rotatable in proportion to volume of liquid metered, a valved nozzle, a liquid connection from the pump to the meter, a liquid connection from the meter to the nozzle, a movable support for the nozzle having a released position and a nozzle supporting position, pump motor switch means in connection with said movable support and including a circuit closed position corresponding to nozzle unsupported position of said movable support, a "prepay" amount counter including a plurality of numerical orders disks and means to carry tens from order to order for either increasing or decreasing readings of said counter, operative connections from the rotatable element of the meter to the units order disk of the "prepay" amount counter including means to cause the "prepay" counter to count to lower numbers as the rotatable element of the meter rotates, said operative connections including yieldable means permitting movement of the units order disk independently of movement of the rotatable element of the meter, a "zeroizing" device in connection with the "prepay" counter and including an element movable to a zero responsive position when all of the orders disks of said counter stand at zero position and movable to a count responsive position when any of said orders disks stand at any position other than zero, a "prepay" counter setting motor, a motor driven element adjacent to the units order disk of the "prepay" counter, driving connections from the motor to said motor driven element, a counter drive electromagnetic clutch between said motor driven element and the said units order disk, the motor rotating the units order disk to higher reading positions when the clutch is drivingly engaged, a mixed coin receptacle for coins of a plurality of denominations, means in connection with said receptacle to release the coins one at a time, means to energize the clutch as each coin is released to effect motor drive to the units order disk for units order disk rotation in the increasing count direction, means to discontinue clutch energization at completion of an amount of such drive proportional to the denomination of each coin so released, switch means in connection with said "prepay" counter zeroizing device and movable to a pump motor current discontinue position when said device is in position corresponding to zero reading of all the orders disks of said counter and to a pump motor current supply position when any orders disk of said counter is not at zero position, and circuits for supply of current to the pump motor including said "prepay" zeroizing switch means and said valve nozzle movable support switch means in series with each other.

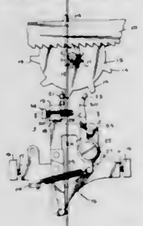
2,777,556
POWER-DRIVEN CIPHERING DEVICES
Boris Caesar Wilhelm Hagelin, Zug, Switzerland
Application December 29, 1952, Serial No. 328,482
Claims priority, application Switzerland January 23, 1952
9 Claims. (Cl. 197—4)



8. In a ciphering device, the combination of a group of keys for setting up signs to be enciphered or deciphered, a type means for reproducing respectively the signs set up by said group of keys, a shaft for supporting said type means, a motor, means for transmitting power from the motor to the shaft, an electric circuit including a key-operated contact, a selector means connected to said shaft for rotation thereby, distribution means for cooperation with said selector means, an electromagnet operable under the joint control of said contact and said selector means, a bell crank having one arm thereof constituting an armature for said electromagnet and having its other arm provided with a cam follower means on its end and a projection intermediate the cam follower means and the pivot of said bell crank for arresting the type means in a first

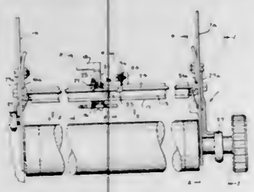
position in response to movement of said bell crank from a normal position upon de-energization of said electromagnet, a mechanism for moving said type means to a second position, and means for actuating said mechanism for causing it to effect said movement of said type means to said second position and having cam means connected thereto arranged to act on said cam follower means and to restore said bell crank to said normal position.

2,777,557
TYPEWRITER ESCAPEMENT MECHANISM
John E. Finch, Sr., Jersey City, N. J.
Application November 25, 1953, Serial No. 394,402
6 Claims. (Cl. 197—88)



1. In a typewriter machine, the combination with a rack and pinion gear and an escapement wheel, of a tiltable dog rocker, a fixed dog member on the rocker for contact with the teeth of the escapement wheel, a tiltable member on the rocker for making alternate contact with said teeth, said tiltable member having its upper end provided with an inclined cutaway portion, and adjustable means on the rocker forming contact with the tiltable member, said adjustable means having an inclined face to make contact with the cutaway portion of the tiltable member.

2,777,558
LOCKED-IN-MESH-RACK-AND-PINION MECHANISM FOR TYPEWRITER
John E. Finch, Sr., Jersey City, N. J.
Application November 25, 1953, Serial No. 394,403
14 Claims. (Cl. 197—96)



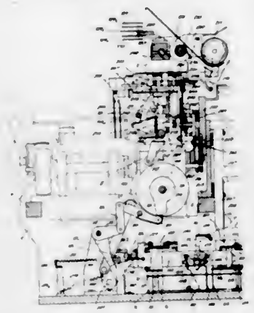
1. In a typewriter machine, a rack and pinion, a post member extending upwardly of the machine, locking means pivoted to the member for contacting said rack, a tabulator rack lift lever, a claw member pivoted to the lever, and a rack lock release cross rod operable by said claw member to release the locking means upon actuation of the rack lift lever.

2,777,559
LINE SPACING MECHANISM FOR BUSINESS MACHINES
Lora Evans Tapp, Clarksville, Ind.; Lloyt E. Tapp, Loretta Sue Tapp, Larry Wayne Tapp and Lucille Marie Tapp, sole heirs of said Lora Evans Tapp, deceased
Application August 14, 1952, Serial No. 304,453
26 Claims. (Cl. 197—120)
(Granted under Title 35, U. S. Code (1952), sec. 266)

3. In combination with a power source, a carriage which may be shifted back and forth, a line spacing mechanism on the carriage, a flexible cable for operating the line spacing mechanism, a cam follower arm to which the cable is secured, a rotary camshaft, a cam fixed to the camshaft and adapted when rotated to swing the cam follower arm to pull the cable, a clutch inter-

posed between the power source and the camshaft, and a carriage-tripped mechanism operable only at a certain point in the cycle of the carriage to move parts of the clutch to effect power drive of the camshaft through a single revolution and hence operation of the line spacing mechanism through a single cycle.

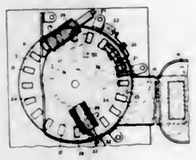
2,777,560
TABULATING MECHANISM FOR CALCULATING MACHINES
Francisco Campos, Paris, France, assignor to Societe Anonyme dite: Societe des Brevets Logabax
Application February 19, 1951, Serial No. 211,597
Claims priority, application France February 12, 1951
5 Claims. (Cl. 197—177)



1. In a calculating machine having a frame, a carriage movable transversely of said frame, a printing roller adapted to hold a record sheet rotatably mounted in said carriage, and a tabulating bar mounted on and controlling said carriage, a positive control device for controlling the movement in both directions of said carriage, and the rotation of said printing roller, comprising an electric motor in the machine, two parallel flange plates held in said frame and having opposed inner faces, two intermeshing toothed wheels each mounted for rotation on an axially bored socket carried by the inner face of one of said flange plates, a pinion adapted to be rotated by said motor and engaging one of said toothed wheels, two ratchet wheels each mounted for rotation on an axially bored socket carried by the inner face of the other of said flange plates and respectively coaxial with said toothed wheels, two pinions fast with said ratchet wheels, respectively, meshing with a common driving wheel, said driving wheel cooperating with a rack mounted for sliding a small distance on said movable carriage, a shaft slidingly mounted in the axial borings of the sockets of each pair of said ratchet and toothed wheels, at least one trigger-like ratchet member oscillatingly mounted on each of said toothed wheels, on a shaft perpendicular to the axis of

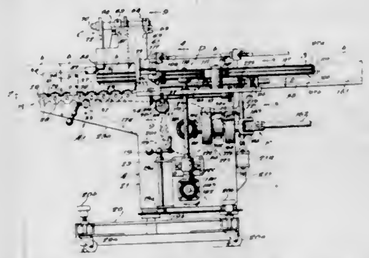
the bore of the socket thereof, and adapted to engage the corresponding ratchet wheel, means connecting each of said ratchet members with the corresponding slidable shaft, whereby the longitudinal movement of said shaft causes the corresponding ratchet member to alternately engage said ratchet wheel, a lever pivotally mounted in the frame of the machine and having two arms extending, respectively, in the vicinity of the said two sliding shafts, means connecting said arms of said lever with said sliding shafts, whereby the oscillation of said lever causes the longitudinal sliding of said shafts in opposed directions, means for causing the said lever to oscillate in said frame, resilient means for locking said lever in three different positions corresponding, respectively, to the engaging of the ratchet member of a first of said toothed wheels with the corresponding ratchet wheel and disengaging of the ratchet member of the second of said toothed wheels from the corresponding ratchet wheel, to the disengaging of the ratchet members of both said toothed wheels from the corresponding ratchet wheels, and to the disengaging of the ratchet member of said first toothed wheel from the corresponding ratchet wheel and engaging of the ratchet member of said second toothed wheel with the corresponding ratchet wheel, means cooperating with said tabulating bar for locking the said carriage against longitudinal movement and for releasing said carriage, and means operable by said rack for imparting a fractional rotation to the printing roller.

2,777,561
FEEDING OF ARTICLES IN WRAPPING OR PACKAGING MACHINES
Alfred German Rose, Gainsborough, England, assignor to Rose Brothers (Gainsborough) Limited, Gainsborough, England, a British company
Application July 7, 1953, Serial No. 368,778
Claims priority, application Great Britain July 9, 1952
16 Claims. (Cl. 198—33)



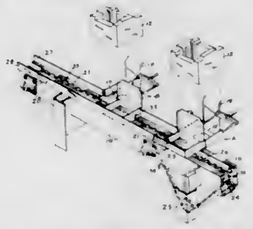
2. A device for feeding articles to a wrapping or packaging machine, comprising a pocketed feed wheel arranged for intermittent rotation about a substantially vertical axis, automatic means for feeding articles to the surface of the wheel in the region of the pockets to be carried by the wheel towards a transfer station, the intermittent motion of the wheel agitating the articles so as to cause them to tend to fall into the pockets, a feeler member arranged over the pockets of the wheel adjacent the feeding means and freely extending towards the surface of the wheel so as to be engaged by surplus articles as they accumulate on said surface and to be raised thereby to operate a device controlling the operation of the automatic feeding means, a guiding member extending across the path of movement of the pockets at a position between the feeler member and the transfer station so as to deflect surplus articles on to a portion of the wheel surface inside the ring of pockets to allow that surface to carry the articles back towards the feeding position, that portion thus acting as the conveying means, means for deflecting the surplus articles on the surface back into the path of movement of the pockets as they move towards the feeding position, and means for transferring the articles in succession from the pockets at the transfer station.

2,777,562
MACHINE FOR FEEDING BOOKS TO A CASING-IN MACHINE
John O. McCahon and Robert G. Proctor, Crawfordsville, Ind., assignors, by mesne assignments, to R. R. Donnelley & Sons Company, Chicago, Ill., a corporation of Delaware
Application October 3, 1955, Serial No. 537,931
8 Claims. (Cl. 198—34)



1. A book feed device for a casing-in machine comprising: a base; a driven book infeed at one end of said base to support and feed books seriatim with their spines uppermost; a book support guide on the base which has a receiving end adjacent and substantially coplanar with the inner end of the infeed and a discharge end portion below its receiving end; a pair of transversely spaced, laterally movable carriages flanking the support guide; book forwarding means comprising a belt unit on each carriage, said belt units including vertically spindled grooved sheaves and V-belts on said sheaves with facing, parallel, book-gripping runs spaced above the support guide so that said belts may carry books horizontally with their lower portions free; escapement means between said infeed and said forwarding means adapted to release books seriatim to the forwarding means in spaced relationship to one another; reciprocating means for moving said carriages inwardly to engage the V-belts with a book as it is released by said escapement; intermittent drive means adapted to drive said belt units only while they are engaged with a book; means for fanning the lower portions of the pages of a book in the forwarding means while the forward ends of the pages are spaced above the discharge end portion of the support guide; and a longitudinal knife edge on the base midway between the belt units onto which a book with its pages fanned is carried by the forwarding means.

2,777,563
CARTON FORMING AND CONVEYING MECHANISM
Albert R. Lubersky, Stockton, Calif., assignor to Fibreboard Products Inc., San Francisco, Calif., a corporation of Delaware
Application May 10, 1954, Serial No. 428,493
4 Claims. (Cl. 198—34)



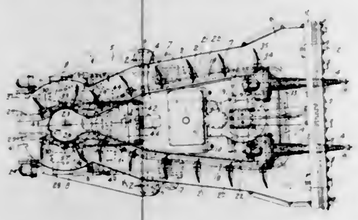
4. A conveyor for cartons or the like which comprises a track upon which cartons may slide, two receiving stations spaced on said track for simultaneous reception of two cartons, a first carton advancing mechanism under-

lying the leading station and having carton engaging elements at intervals shorter than the space between said stations, a second carton advancing mechanism underlying the other station with carton engaging elements at intervals equal to two of the intervals on the first carton advancing mechanism, said second advancing mechanism being arranged to move cartons to a position for engagement by the engaging elements on the first such mechanism, and means for driving said first and second mechanisms at the same speed.

2,777,564
CONVEYOR SYSTEMS
George E. Russell, Jr., Beverly, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application February 23, 1955, Serial No. 489,893
5 Claims. (Cl. 198—109)

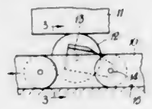
1. A conveyor system comprising a first conveyor having a work engaging run extending upwardly around a pivot roll and then downwardly, a second conveyor having a single run contiguous with substantial portions of the work engaging run of said first conveyor, means for oscillating the downwardly extending portions of said contiguous runs as a unit about said pivot roll, said second conveyor having its return run extending above its downwardly extending portion, means within said return run for compensating for variations in conveyor length due to oscillation of said contiguous runs, said means including a fixed roll and a movable roll about which the return run passes, and means operated by said oscillating means for moving said movable roll to wrap more or less of the return run about the fixed roll to compensate for varying amounts of conveyor which are wrapped around said pivot roll.

2,777,565
CONVEYOR MECHANISM FOR MINING APPARATUS
Joseph F. Joy, Pittsburgh, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application December 12, 1952, Serial No. 325,651, which is a division of application Serial No. 194,259, November 6, 1950. Divided and this application May 17, 1955, Serial No. 508,968
7 Claims. (Cl. 198—109)



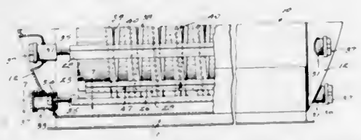
1. In a conveyor mechanism, a conveyor having a rearward discharge frame portion and a forward frame portion, an endless conveyor element guided for circulation along said frame portions, means for mounting said rearward frame portion for horizontal swinging movement about an upright axis, said axis lying between the opposite runs of said endless conveyor element within the orbit of said conveyor element at points spaced substantial distances from the remote end portions of said conveyor, driving means for said conveyor element comprising a terminal driving element coaxial with said swivel and drivingly engaging said opposite runs of said conveyor element, and guiding means coacting with said conveyor for maintaining the opposite runs of said conveyor element in driven engagement with said driving element in all angular positions of said rearward frame portion about its swivel axis.

2,777,566
CONVEYOR SYSTEMS
Donald Mayer King, Hitchin, England
Application June 4, 1952, Serial No. 291,716
Claims priority, application Great Britain June 6, 1951
2 Claims. (Cl. 198—183)



1. A conveyor comprising a pair of endless driven chains disposed in spaced parallel relationship and adapted together to underlie and to impart movement along a predetermined path to loads or load carriers, a plurality of supporting arms pivotally mounted in spaced relationship along each chain, freely rotatable rollers carried by said arms, said rollers serving actually to engage and support the loads or load carriers, means associated with said arms whereby they will normally assume positions such that the rollers will be projected relatively to the chains, a stationary surface disposed adjacent the path of movement of each chain and means in at least one section of the conveyor path to engage said arms and to depress the same into a position wherein said rollers will be caused frictionally to engage said stationary surface thereby to cause a positive rotary motion to be imported to said rollers with a resultant variation of the speed of travel of the loads or load carriers.

2,777,567
ADJUSTABLE CONTINUOUS SPIRAL GUIDE FOR CONTAINERS
Lee E. Russell, Plant City, Fla.
Application October 14, 1953, Serial No. 385,910
7 Claims. (Cl. 198—211)



1. The combination with an elongated driven reel having circumferentially spaced container supporting members disposed around the periphery of the reel and each extending substantially from end-to-end thereof, and a casing surrounding and rotatably supporting said reel; of an adjustable continuous spiral guide spirally wound within said casing around the reel including a stationary section and a movable section, said guide sections each including a spiral flange extending from end-to-end thereof and disposed perpendicular to the periphery of the reel and between which flanges containers disposed in said supporting members of the reel are adapted to fit for movement longitudinally of the reel as the containers travel around said spiral guide, means connected to the casing and to spaced portions of the stationary spiral guide section for supporting said stationary section immovably relatively to the casing,

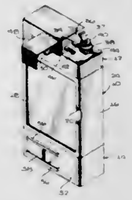
and a second means adjustably connected to the casing and secured to the movable spiral guide section and actuated for uniformly moving the convolutions of said movable spiral guide section toward and away from the complementary convolutions of the stationary spiral guide section for varying the width of the spiral guide convolutions to accommodate the machine to containers of different sizes.

2,777,568
TRAP BOX FOR VEHICLE CHANGE HOLDER
Emery C. Booth, Takoma Park, Md., assignor of a joint interest to Olga M. Booth, Takoma Park, Md.
Application June 1, 1954, Serial No. 433,661
1 Claim. (Cl. 206—.81)

The combination of a change holder, a box for housing the latter when not in use, said box having a hinged cover, means for mounting the box on a conveyance including a bracket adapted to be secured to the conveyance and means for attaching the box to said bracket, means manipulable to disable said attaching means but so manipulable only when accessible by way of the top of the box when said cover is lifted, means carried by the change holder engageable with a wall of the box for releasably suspending the coin holder from the box at its exterior, means carried by the cover effective when the cover is closed for preventing release of said suspending means, and a single locking means carried partially by the box and partially by said cover for locking the cover closed thereby to lock the box closed and for holding the change holder in protective confinement should it then be housed in the box for maintaining ineffective said means for releasing said suspending means should the change holder then be suspended from the box at its exterior and for maintaining said manipulable means in protective confinement to prevent unauthorized manipulation of said disabling means thereby to prevent detachment of the box from the conveyance, said means for attaching the box to said bracket including a lock having a spring member secured near one end to the inside of the rear wall of the box, a reentrant bend in said member establishing a nose directed toward said rear wall, said lock further including a keeper for said nose carried by the bracket and said rear wall having an opening alignable with said keeper to allow entry of said nose into the keeper to lock the box to the bracket, said means manipulable to disable said attaching means being constituted by a finger-piece carried by said member at its end opposite to its first-named end, one of said bracket and box elements having edge formations so shaped as to establish opposed vertical channels hook-shaped in cross-section and the other of said bracket and box elements having edge portions slidable in said channels, the rear wall of said box having a downturned hooked flange at its upper edge engaged over the top edge of the bracket when said spring member is in locking engagement with said keeper.

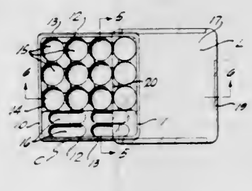
2,777,569
COMBINATION CIGARETTE CASE, LIGHTER AND ASH RECEIVER
Willie L. Starke, Jr., Richmond, Va.
Application April 24, 1953, Serial No. 350,914
2 Claims. (Cl. 206—38)

1. A smoking accessory comprising a cigarette case having one end open and the other end closed, said case having a portion of reduced cross sectional area adjacent the closed end thereof, a skirt extending about and projecting from the open end of said case, a lighter assembly including a bottom wall and a skirt extending about and projecting from said wall positioned so that the bottom wall abuts and closes the open end of said case with the skirt frictionally embracing the skirt projecting from one end of said case, and ash receiver means embodying a receptacle



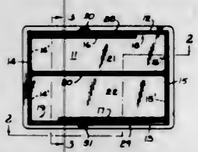
open at one end arranged so that its open end frictionally embraces the reduced portion on said case, said receptacle being provided with an opening in the wall thereof for insertion therethrough of the lighted end of a cigarette, and a closure mounted on the wall of said receptacle for movement over and away from said receptacle wall opening.

2,777,570
CAPSULE AND TABLET POCKET CARRIER
Lee S. Mytinger, Rolling Hills, Calif.
Application August 3, 1954, Serial No. 447,506
4 Claims. (Cl. 206—42)



1. A capsule and tablet carrying device which includes: a substantially rectangular one-piece container formed with a bottom and side walls having smooth external surfaces, the interior surface of which bottom is divided into a raised portion and a lowered portion substantially parallel to one another, said bottom raised portion being formed with a plurality of annular cavities disposed in side-by-side relationship for holding tablets, said bottom lower portion being formed with a plurality of elongate cavities disposed end-to-end in at least one row extending substantially the length of said container, each of which elongate cavities is capable of holding a capsule; two flanges extending outwardly from the upper edges of opposite side walls of said container; a rectangular lid formed with two lips of substantially L-shaped transverse cross section that extend the length of opposite sides thereof and slidably engage said flanges; a downwardly extending catch member formed on one end of said lid that removably engages the upper exterior edge portion of one of the end walls of said container when said lid is in a container-closing position to so maintain it against inadvertent opening; and a downwardly disposed stop member formed on the end of said lid opposite that on which said catch member is formed, said stop member abutting against the exterior surface of said container when said lid is in the closed position to serve both as a stop and an opening means when outward pressure is applied thereto.

2,777,571
PILL AND CAPSULE DISPENSER
Adolph Schlesser, Glendale, Calif.
Application March 21, 1955, Serial No. 495,635
1 Claim. (Cl. 206—42)

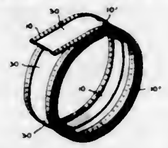


A non-metallic, transparent dispensing container of the character referred to comprising a rectangular base plate having side walls and end walls inwardly from the outer edge of said plate, said base plate having a central longitudinal partition dividing the plane thereof into two compartments and connecting said end walls, one end of each of said end walls extending slightly beyond the respective ends of said side walls and at opposite sides thereof to form stops, one of said side walls extending from one of said end walls to near one end of the opposite end wall to define an opening for one of said compartments, and the other of said side walls extending from said opposite end wall to near one end of the other of said end walls to define an opening in the other of said compartments; said plate having a longitudinal groove paralleling each side of said side walls, said end walls having near the top thereof a plurality of depressions; a rectangular cover cooperating with said side walls and end walls of said base plate to form therewith an enclosure for said compartments, said cover having depending lips inwardly from the edges thereof provided with detents for engagement with the depressions in said end walls to lock said cover in removable engagement with said end walls, said cover plate having grooves at each side inwardly from the edges thereof and paralleling the outside of said side walls, said grooves in said cover plate being in line with the grooves in said base plate and rigid gates mounted to slide in the grooves of said base plate and cover plate to cover or uncover the openings in said compartments, the longitudinal movement of said gates being limited by the extended ends of said end walls.

2,777,572
LIPSTICK CASE
Thomas Joseph Cusack, Flushing, N. Y., assignor to The Virjune Manufacturing Company, Waterbury, Conn., a corporation of Connecticut
Application August 14, 1953, Serial No. 374,257
1 Claim. (Cl. 206—56)

In a lipstick container, the combination comprising, an inner casing having a cylindrical guide portion and an integral flanged base portion, said cylindrical guide portion being provided with a vertical slot said base portion forming an annular seat at one end of said cylindrical guide portion the other end of said guide portion being provided with an outwardly flared portion, a sleeve cam surrounding said guide portion and having a helical slot therein, the end of said sleeve cam being in abutting engagement respectively with said annular seat and said flared portion, an intermediate cylindrical shell surrounding said sleeve cam and in frictional engagement with said sleeve cam for relative rotation therewith, a cylindrical lipstick carrier cup located within said inner casing and having a guiding pin extending through said vertical slot and said helical slot for moving said cup axially within said guide portion, a cylindrical clutch band loosely mounted on said guide portion below and in axial register with said intermediate shell the ends of said clutch band loosely abutting respectively said annular seat and one end of said intermediate shell, and a cylindrical outer cover cap of greater inside diameter than the outer diameter of said intermediate shell and said clutch band, said clutch band having a plurality of elongated outwardly projecting, rounded nibs for frictionally engaging the inside surface of said cover cap to avoid elevation of said lipstick into contact with the outside cover cap when the flanged base of said inner casing is rotated relative to said outer cap when said cap is in place.

2,777,573
COILED PRODUCT
Morris Goldsmith, Port Chester, N. Y., assignor to Elgen Manufacturing Corporation, Long Island City, N. Y., a corporation of New York
Original application January 4, 1954, Serial No. 402,096. Divided and this application September 13, 1955, Serial No. 537,203
2 Claims. (Cl. 206—59)

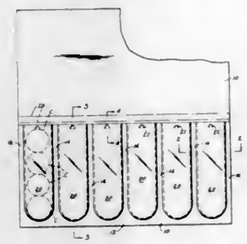


1. A coil of a length of folded flexible connector stock material, said length comprising two elongated metal strips and an elongated strip of fabric secured therebetween, each of said metal strips having one of its side marginal portions fixedly secured along the length thereof to an opposite side marginal portion of said elongated strip of fabric by bending the marginal portions of said metal strips into clamping engagement with the marginal portions of said strip of fabric, the other side marginal portions of the metal strips being in overlapping relation, said secured together strips forming said length being coiled to form said coil wherein the marginal portions of said metal strips remote from said secured marginal portions overlap each other and the strip of fabric circumferentially in said coil, and the said strip of fabric being substantially unwrinkled througout its length in said coil.

2,777,574
PHONOGRAPH RECORD HOLDER
Arthur Brody, South Orange, N. J.
Application November 17, 1954, Serial No. 469,466
2 Claims. (Cl. 206—62)

2. A record holder comprising a record-holding sheath of stiff cardboard, a protective envelope within which the sheath is removably fitted, said envelope being composed of transparent plastic and provided with an elongated pocket at its rear end extending beyond the rear end of the sheath when the sheath is fitted in the envelope, the pocket being open at one end and constituting an integral extension of joined front and back panels of the envelope, said front and back panels being fused together in a transverse seam adjacent to the end of the envelope, said seam constituting a flexible hinge line upon which the pocket can be flexed, and a strip containing informative material fitted within the pocket and removable out of the open end of the pocket.

2,777,575
COIN HOLDER
Gail A. Chamberlin, Irvington, N. J.
Application May 1, 1956, Serial No. 581,889
1 Claim. (Cl. 206—.83)

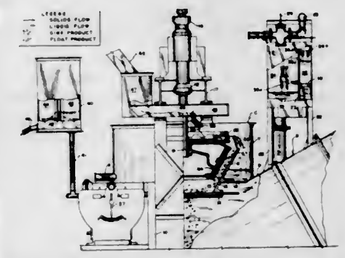


A coin holder comprising a thin, flexible backing sheet; and a receptacle member overlying said backing sheet and having a connection to the backing sheet adapted to permit full separation of the receptacle member from the backing sheet, said receptacle member being formed with a plurality of outwardly offset, elongated pocket members cooperating with the backing sheet in defining a plurality of side by side pockets, said pockets being closed at one end and being formed open at their other ends for insertion of a plurality of coins, the pocket members adjacent the open ends thereof having inwardly struck lugs forming abutments limiting the coins against movement out of the pocket members, whereby to effect release of the coins responsive primarily to full separation of the receptacle member from the backing sheet, said lugs including elongated, sloping surfaces disposed obliquely to the plane of the backing sheet to provide cam surfaces against which the coins will bear when inserted in the pockets, the pocket members being of a resilient material so as to be biased outwardly to permit passage of the coins past the lugs, said sloped surfaces merging into short abutment surfaces disposed approximately normally to the plane of the backing piece to prevent retrograde movement of the coins out of the pocket members.

2,777,576
SEPARATING APPARATUS
Calvin Stevenson, Anaconda, Mont.
Application March 5, 1954, Serial No. 414,458
3 Claims. (Cl. 209—136)

1. An apparatus for separating fine particles from a mass of material comprising a vertically inclined chute having an open front and closed sides and back, a cover plate overlying the open front of said chute but being spaced away from the sides thereof, a plurality of vertically spaced step baffle plates mounted in said chute, each of said baffle plates being vertically inclined and having its uppermost edge spaced a greater distance from said cover plate than its lower edge, each of the baffle plates mounted within said chute extending transversely thereacross between the sides thereof and being spaced from the cover and from the back thereof to provide two continuous and direct passageways from the top to the bottom of said chute, means for introducing material from which fines are to be separated into the upper end of the continuous passageway between the baffle plates and the cover, whereby said material flows to the bottom of the chute over the inclined baffle plates, and means for causing a current of air to flow through the space between said cover plate and the sides of the chute and through the material flowing over said baffle plates into the passageway between the baffle plates and the back of the chute, whereby fine particles in said material are separated therefrom and collected in said current of gas.

2,777,577
ORE CONCENTRATION AND APPARATUS THEREFOR
Harry L. McNeill, Denver, Colo.
Application March 12, 1951, Serial No. 215,077
12 Claims. (Cl. 209—159)

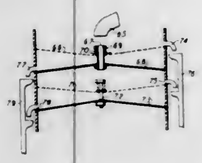


1. In a rotary concentrator of the type having an annular treatment zone within a space defined by a massive rotary impeller, a tank wall disposed substantially parallel to the sides of said impeller, and having an overflow for float product adjacent the top of said annular zone, the improvement which comprises an annular feed distributor mounted on and substantially concentric with the top surface of the impeller for conjoint rotation therewith and adapted to receive pulp fed to the concentrator, said distributor having a series of elongated channel recesses in its top surface disposed at intervals throughout its circumferential extent for the discharge of maximum size submerged solids in the feed at a point below the effective overflow level of the distributor.

2,777,578
SCREENING MECHANISM
Robert P. Miller, San Gabriel, and Frank Mathewson and Gotthold Harry Meinzer, Glendale, Calif.; Nell Watson Meinzer, administratrix of said Meinzer, deceased, assignors, by direct and mesne assignments, of forty percent to The Farmers and Merchants National Bank of Los Angeles, executor of the estate of Paul W. Prutzman, deceased
Original application September 10, 1949, Serial No. 114,966, now Patent No. 2,714,961, dated August 9, 1955. Divided and this application January 25, 1952, Serial No. 268,314
2 Claims. (Cl. 209—243)

2. In a screening mechanism, the combination of: two vertically spaced screens; a receiving pan between the screens; a conduit disposed centrally through the

upper screen and the receiving pan; means for feeding material simultaneously onto the central area of the upper screen and through the conduit for feed onto the central area of the lower screen; and means for subject-

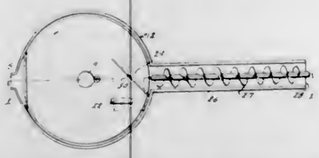


ing said screens to combined gyratory and tilting motion to cause radially outward movement of material on the screen; the screens being inclined toward their central areas to retard the radial movement of the material.

2,777,579
SCREEN CLOTH SUPPORTING FRAME FOR A VIBRATING SCREEN
Alexander J. Roubal, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application March 12, 1953, Serial No. 341,876
10 Claims. (Cl. 209—412)

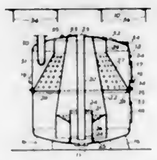
5. A screen cloth supporting frame for a vibrating screen, comprising, spaced parallel side members, transverse members connecting the side members intermediate their ends, a plurality of plates mounted on said transverse members having projecting portions which are flexibly yieldable in a direction parallel to said side members, and a plurality of bars mounted on said frame in longitudinally aligned relation parallel to said side members with each bar being longitudinally spaced from an adjacent bar to define an air gap therebetween and thereby provide for linear expansion of the bars, at least one of each pair of adjacent bars having one end thereof attached to a projecting portion of one of said plates and the other end thereof operably attached to one of said transverse members.

2,777,580
CLASSIFIER
Harlowe Hardinge, York, Pa.
Application October 31, 1951, Serial No. 254,001
13 Claims. (Cl. 209—444)



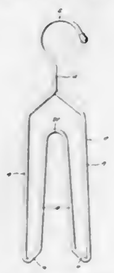
1. An apparatus for classifying particles which settle at different rates in a liquid comprising a container having a liquid therein, means for discharging particles to be classified into the container, a disc in the container upon which the settled particles are adapted to collect lying underneath the surface of the liquid, means to rotate the disc whereby eddy currents are generated in the liquid, and stationary scraper means angularly disposed across a portion of said disc surface to remove continuously the settled particles from said disc.

2,777,581
APPARATUS FOR SEPARATING OIL AND WATER
Douglas G. Unthank, London, England, assignor of one-half to Henry Arthur John Silley, London, England
Application January 7, 1954, Serial No. 402,741
Claims priority, application Great Britain January 9, 1953
3 Claims. (Cl. 210—61)



1. Apparatus for separating oil and water comprising a closed container formed of upper and lower casing parts separably connected together along a horizontal plane in the mid-section of the container, three conduits carried by said upper casing part within the container and disposed one within the other to provide a passage through which liquid passing through the container is caused to flow and to change direction abruptly at least twice, the upper end of said innermost conduit being connected to an outlet port for liquid formed in the said upper casing part, the middle conduit having its upper end open within the outer conduit and its lower end extending to the bottom of the container when the casing parts thereof are secured together, means closing the upper end of said outermost conduit above the upper end of said middle conduit, the lower end of the outermost conduit terminating adjacent the bottom wall of said lower casing part, sealing means carried by the end wall of said lower casing part and engaging the end portion of said middle conduit when the said upper and lower casing parts are secured together to seal the joint between the bottom wall of said lower casing part and the adjacent end of the middle conduit, the said sealing means permitting movement of the middle conduit relative to the lower casing part upon separation of the said upper and lower casing parts, a perforated baffle disposed in the section of said passage formed between the container wall and the outermost conduit, means mounting said perforated baffle on the inner wall of the said lower casing part adjacent said horizontal plane and in a position to extend into the said upper casing part when the two casing parts are secured together, and means for introducing liquid to be separated into the upper casing part above the said perforated baffle and outside of said conduits.

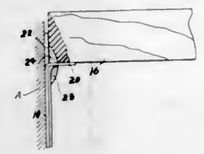
2,777,582
NECKTIE HANGER
Laurence William Van Dusen, Escondido, Calif.
Application November 23, 1953, Serial No. 393,877
3 Claims. (Cl. 211—119)



1. In a necktie hanger, the combination of hanger attaching means, a single pair of substantially parallel smooth, vertical legs connected with said attaching means

and lying in a single plane, a straight cross bar extending from each leg in a direction toward the other leg, each of said cross bars forming an acute angle with its associated leg, the cross bars being of a length corresponding substantially to the width of an intermediate portion of a necktie, and a unitary upstanding structure having smooth side surfaces and being attached to said cross bars substantially centrally of said legs and extending generally parallel with both of said legs, said unitary upstanding structure, legs and cross bars cooperating together to retain a plurality of neckties on said hanger in superposed relation, with portions of the lowermost necktie resting flatly on said cross bars and the remaining neckties assuming a relation generally complementary thereto, whereby any one of said neckties may be removed from said hanger without disturbing the superposed positions of the remainder of said neckties.

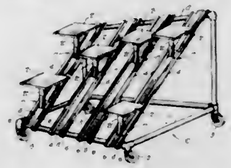
2,777,583
AUXILIARY SHELF SUPPORTS
William A. Beltz, West Boylston, Mass.
Application February 1, 1954, Serial No. 407,459
1 Claim. (Cl. 211—135)



The combination of a supporting structure including a horizontal bottom member and end walls adjacent thereto, with a shelf construction comprising a pair of brackets, each bracket comprising a main body, co-planar end extensions at each end of the main body and a pair of spaced lateral projections adjacent each end of the body, each one of said brackets having one end extension adapted to be inserted between an end wall and the bottom member with a lateral projection overlying the latter in contact therewith, said brackets extending upright in close contact with the respective end walls and at least partially held in upright position by the said inserted end and bottom member, and a shelf of penetrable material resting on the other lateral projection at the other end of the bracket, said shelf being of a length to conform to the spacing of the brackets, and a longitudinally extending lateral projection in the area of the upper extending end, said last-named projection being at right angles to the main body of the bracket and located between the respective lateral projections at the upper end of the bracket, said longitudinal projection being relatively thin and self-penetrating as to the shelf and inter-engaging the end portion of the shelf and forming a mechanical connection therewith when the shelf is seated upon the upper lateral projections, the shelf being free of the end walls and serving to hold the brackets thereto in fixed relation, said longitudinal projection comprising a partly cut out member bent out to form a tab, said tab extending above and below the uppermost lateral projections and forming below the latter a support and reenforcement for the shelf-engaged portion of the tab above the projection.

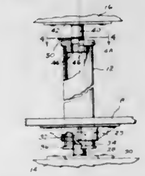
2,777,584
FLORAL DISPLAY RACK
Alvin Richard Dobrin, Beachwood Village, and Morris Lange, Cleveland Heights, Ohio
Application October 20, 1955, Serial No. 541,771
3 Claims. (Cl. 211—137)

1. A display rack of the class described, comprising in combination, a base, an upright support on the base, an inclined track sloped from the top of the support to the base, the said track having an upset central portion bounded by laterally extending infaced channels, a shoe slidably mounted on said track and movable longitudinally thereof, the said shoe having an upset central portion mating with the central portion of the track and laterally extending feet slidably engaged in the track



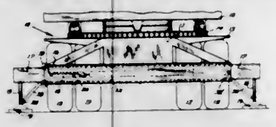
channels, a load carrying platform, including a supporting post, mounted on the central portion of the shoe, and spring biased locking means mounted on the post, frictionally engageable with the central portion of the track, to hold the shoe and supported platform against the pull of gravity in adjusted positions on the inclined track.

2,777,585
DEMOUNTABLE REVOLVING SHELF ASSEMBLY FOR KITCHEN CABINETS AND THE LIKE
Robert A. Jorgensen, Edmonds, Wash., assignor to Washington Steel Products, Inc., Tacoma, Wash., a corporation of Washington
Application April 13, 1953, Serial No. 348,418
2 Claims. (Cl. 211—139)



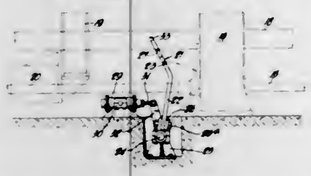
1. An easily assembled demountable revolving shelf assembly comprising a pair of vertically spaced structural supports, first pivot means mounted on the inner side of the lower of said supports, a vertical supporting post rotatably mounted on and supported by said first pivot means, shelves surrounding and supported by said post, second pivot means mounted on the inner side of the upper of said supports in axial alignment with said first pivot means, the end of the post remote from said first pivot means being tubular, the post being dimensioned so that said remote end is spaced from the inner end of said second pivot means when said post is rotatably mounted on and supported by said first pivot means, said second pivot means comprising a spindle projecting downwardly from said upper support, connecting means slidably disposed on said spindle, said connecting means having a lower portion dimensioned to fit within the bore defined by the tubular portion of said post and an upwardly disposed outwardly extending flange limiting the movement of said connecting means within the bore of said post, said connecting means being longer than the space between the inner end of said spindle and the said remote end of said post and shorter than the space between the upper support and the remote end of the post, keeper means intermediate the length of said spindle and acting as a stop against the upper portion of said connecting means to retain the lower portion of said connecting means within said bore and securing means movably securing said keeper means to said spindle to permit said connecting means to be slid out of engagement with said post and to permit removal and insertion of said post while said post is supported by said first pivot means.

2,777,586
OUTRIGGER SUPPORT FOR MOBILE CRANE OR SHOVEL
Martin C. Boysen, Joseph, and Kenneth E. Towers, Enterprise, Oreg.
Application April 12, 1954, Serial No. 422,442
5 Claims. (Cl. 212—145)



1. In a mobile crane or the like, an outrigger support comprising a horizontally extending outrigger box carried by the frame of said crane; a tubular outrigger beam telescopically associated with said outrigger box; power means operably connected to selectively extend and retract said outrigger beam; a supporting jack carried by the beam normally disposed in an inoperative position and operably connected for movement by said power means to a depending position at the outer end of said outrigger beam; and means normally securing said beam and jack together in said inoperative position and actuable at a selected one of a number of predetermined relative telescopic positions of said box and beam to a releasing position, whereby said power means successively effects telescopic movement of said beam to said telescopic position and subsequently moves said jack to its operative position.

2,777,587
DISPLACEABLE BILLET SUPPORT FOR ROTARY PEELER
Melmoth W. Hunter, Lorain, Ohio, assignor to United States Steel Corporation, a corporation of New Jersey
Application October 15, 1953, Serial No. 386,257
2 Claims. (Cl. 214—1)



1. Means for receiving the trailing end of a billet as it emerges from a continuous rotary billet peeler having a plane vertical face on the exit side, said means comprising a trestle of plate including spaced upstanding legs and a beam supported thereby sloping downwardly from one of said legs toward the other, said trestle being disposed transversely below the path of the billet on the exit side of the peeler, the upper portion of the trestle forming a dihedral angle with the remainder whereby said upper portion lies flat against said face of the peeler when tilted into engagement therewith, a rock shaft tranverse to and below said path adjacent the exit side of the peeler, said trestle being mounted on said shaft, a crank on said shaft and a fluid-pressure cylinder pivoted to the crank for tilting said trestle toward and from the peeler.

2,777,588
REFUSE TRUCK WITH PACKER AND EJECTOR PLATE
William A. Williams, San Antonio, Tex., assignor, by direct and mesne assignments, to Seal-Press Inc., a corporation of Texas
Application June 14, 1954, Serial No. 436,445
10 Claims. (Cl. 214—82)

1. In a refuse truck, a horizontally disposed body having forward and rearward ends, said rearward end being open, an end gate hingedly secured adjacent its uppermost portion to said rearward end of the cylindrical body and forming a closure therefor, the edge of said body defining its rearward end being rearwardly inclined from a vertical plane so that the uppermost portion thereof projects beyond the lowermost portion and said end gate is correspondingly rearwardly inclined, an ejector plate movable longitudinally within said body, said ejector

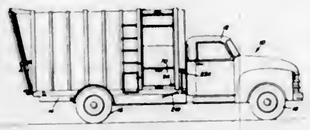
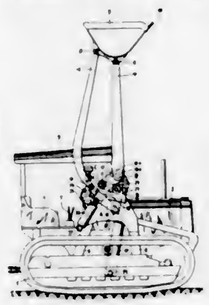


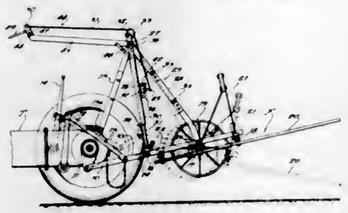
plate being sloped with respect to said vertical plane oppositely from said end gate whereby the ejector plate and end gate are disposed in mutually convergent relation, a track longitudinally arranged in said body along the bottom and in the center thereof, said track having generally horizontal flanges which protrude on opposite sides thereof, and guides on said ejector plate and movably disposed on said flanges to constrain the motion of said ejector plate as it travels in said body.

2,777,589
VEHICLE-MOUNTED EXCAVATING AND MATERIAL-HANDLING EQUIPMENT
Hermann Stüdle and Jean-Pierre Marti, Neuchatel, Switzerland, assignors to Draize S. A., a society of Switzerland
Application March 24, 1954, Serial No. 418,338
Claims priority, application Switzerland March 26, 1953
6 Claims. (Cl. 214—140)



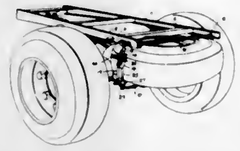
1. In a vehicle-mounted excavating and material-handling equipment, the combination of a scoop and, on each side of the vehicle, of a first lever pivotally mounted about a first fixed axis, a pair of crank arms pivotally mounted about a second fixed axis extending in parallel to the first one, a first boom articulated at one end to said scoop and at the other end, at two different points, both to said lever and to said pair of crank arms, a first piston having a rod articulated to said lever for driving said boom in a plane substantially vertical and adapted for rotating said boom through an angle of almost 180° when said lever rotates itself through an angle of almost 90°, a second lever pivotally mounted about a third fixed axis extending in parallel to said two first axes, a second boom articulated at one end to said scoop and at the other end to said second lever, and a second piston having a rod articulated to said second lever, thereby said first piston being adapted for driving said scoop from a lowered position in front of the vehicle towards a position behind it by passing over the vehicle, and said second piston being adapted for swinging said scoop in order to dump its contents in front of the vehicle as well as behind it, said scoop thereby always moving parallel to itself when it is driven by said first piston.

2,777,590
LINKAGE DEVICE FOR CONNECTING AN IMPLEMENT TO THE HYDRAULIC LIFT MECHANISM OF A TRACTOR
Maurice Moriarty, Vayland, S. Dak.
Application March 16, 1954, Serial No. 416,640
14 Claims. (Cl. 214—140)



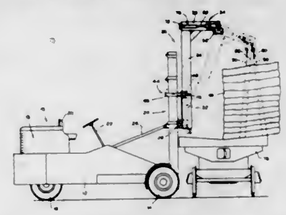
1. A device for linking an implement to a tractor provided with a pair of lift arms with which the implement is pivotally connected, hydraulic mechanism for swinging the lift arms in a vertical plane, and a support bar pivoted on the tractor in a longitudinal plane which extends between the lift arms, comprising: first link means pivotally secured to the support bar and to the pivotal connection between the lift arms and the implement; second link means pivotally secured to the support bar and to a part of the implement which is spaced longitudinally from said pivotal connection, one of said link means being of fixed length and the other having a pair of telescoping members; compressible means for normally extending said telescoping members to their greatest length; and latch means adjacent the telescoping members which have portions detachably engageable with said members, said latch means being movable between a disengaged position and an engaged position to latch said telescoping members together in any desired position, so that movement of the lift arms with the latch means in engaged position moves the implement bodily while movement of the lift arms with the latch means in disengaged position changes the relative positions of the telescoping members and rocks the implement.

2,777,591
TIRE CARRIERS FOR TRUCKS
David Nick Manzatuik, Toronto, Ontario, Canada, assignor to Emil E. Schlesinger, Toronto, Ontario, Canada
Application April 19, 1955, Serial No. 502,291
1 Claim. (Cl. 214—451)



In a carrier for supporting a tire beneath the frame of a vehicle, a tire supporting plate extending transversely of the vehicle frame, a leg depending downwardly at one side of said frame and extending loosely through said plate, a nut screwing onto the lower end of said leg and supporting said plate at one end thereof, said plate at its other end having a slot extending inwardly thereof, an arm swingingly depending from the vehicle frame at the side opposed to that at which said leg is positioned, said arm terminating in an inverted-U-shaped part providing parallel arms, a second, relatively short, leg extending through said plate within said slot therein, said second leg being threaded externally from its lower end, means threading onto said threaded lower end of said second leg and providing an adjustable support for said plate, a horizontally disposed pivot pin extending laterally from opposite sides of said second leg in a direction parallel to the longitudinal axis of the vehicle frame, a pair of links pivotally mounted at their lower ends on said pivot pin in spaced relation to one another, said links overlapping the ends of said parallel arms of said swingingly mounted arm at the inner sides of said parallel arms, and a handled leverage member including spaced parallel arms having pivotal connection intermediate their ends with the said parallel arms of said swingingly mounted arm and having pivotal connection at their ends beyond the face of said swingingly mounted arm towards the vehicle frame with said links whereby movement of the handle part of said leverage member in a downward arc will cause upward movement of said second leg to raise said tire supporting plate and bring the tire thereon to a clamped position between said plate and the frame of the vehicle.

2,777,592
LOAD ENGAGING ATTACHMENT FOR INDUSTRIAL TRUCKS
Edward P. Repke, Coloma, Mich., assignor to Clark Equipment Company, a corporation of Michigan
Application March 19, 1954, Serial No. 417,399
6 Claims. (Cl. 214—513)



1. For use with an industrial truck having an upwardly and downwardly movable load supporting carriage, the combination of frame means pivotally mounted at its lower end to the load supporting carriage and having a forwardly extending portion, a plurality of cables suspended at their upper ends from the forwardly extending portion of said frame means, hook means for securing the lower ends of said cables together whereby a load supporting sling is defined, power operated means carried by the load supporting carriage for pivoting said frame means forwardly and rearwardly relative to the load supporting carriage whereby the distance between said cable means and the load supporting carriage may be selectively varied so that a load may be engaged and deposited by said cable means at varying distances from the load supporting carriage, second power operated means carried by said frame means for releasing said hook means whereby the lower ends of said cables may be disconnected so as to permit the cables to be withdrawn from the load, and means connected in operative relation with the said second power operated means whereby the said hook means may be released only when the load is resting on a support.

2,777,593
REFUSE LOADING AND COMPACTING TRUCK
Arthur W. Nelson, Brooklyn, N. Y.
Application October 18, 1954, Serial No. 462,938
6 Claims. (Cl. 214—519)

1. A refuse truck comprising a refuse storing chamber having intersecting rear and bottom walls including a pivoted hopper separated from the chamber by a hopper wall and an aperture through the hopper wall spaced

vertically from the bottom wall for the passage of refuse therethrough, in combination with a motor operated endless chain moving longitudinally in the hopper and including refuse lifters urging the refuse through the aperture, in further combination with a refuse compacting

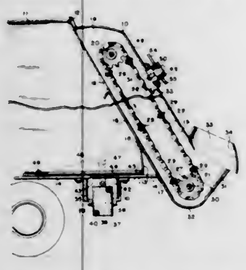
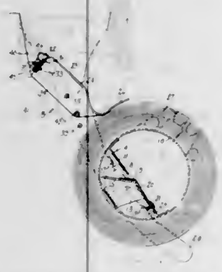


plate pivoted to the bottom wall at one end and another plate end adjacent the rear wall, including a hydraulically actuated piston periodically acting on the plate to cause periodical pivotal reciprocation, including means periodically responsive to the chain movement, hydraulically actuating the piston according to a specific sequence.

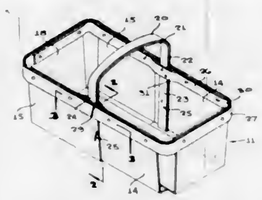
2,777,594
HAND TAPE DISPENSERS
Alfred P. Krueger, Southbury, Conn., assignor to Derby Sealers, Incorporated, Ansonia, Conn., a corporation of Connecticut
Application May 3, 1954, Serial No. 426,981
8 Claims. (Cl. 216—33)



1. A hand holdable tape dispensing device comprising a cylindrical tape roll supporting member adapted to receive a roll of tape thereon, a yoke member having a body portion and spaced legs to straddle said supporting member, means on the latter member providing guideways to slidably receive said legs, and cooperating means on said supporting member and said legs to permit said legs to slide freely through said guideways in one direction but normally prevent movement of the legs in the other direction.

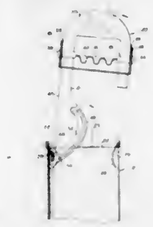
2,777,595
BASKET
Harold H. Roof, Lexington, S. C.
Application December 17, 1954, Serial No. 475,899
3 Claims. (Cl. 217—125)

1. A basket comprising a pair of transversely extending strips of flexible sheet material which overlap each other and which have upstanding side wall flaps at their opposite ends which also overlap each other, a longitudinally extending strip of flexible sheet material overlying the intermediate portions of said first-named strips, said last-named strip having upstanding end wall flaps subsantially the same in height as said first-named upstanding flaps, means connecting the overlapped intermediate portions of the transverse strips and the longitudinal strip, a transversely extending handle strap having depending ends disposed inwardly adjacent the overlapping portions of the upstanding wall flaps of the first-



named strips, means connecting said depending ends to said overlapping portions of the upstanding wall flaps of said first-named strips, and means connecting the top margins of said upstanding wall flaps.

2,777,596
DEVICE FOR CONVERTING DISCARDED BEVERAGE CAN INTO WELL TYPE ASH TRAY
William M. Puvogel, Woodside, Calif.
Application September 21, 1954, Serial No. 457,489
10 Claims. (Cl. 220—1)



8. For combination with a discarded beverage can of predetermined size having a triangular opening in the top thereof with the triangular tab from said opening bent downwardly along the wall of the can, a device for converting the can into an ash tray comprising; a blade portion of a size for insertion into the can, a hook on the blade for insertion into the triangular can opening for engaging the triangular can tab to fulcrum thereon for swinging the device thereabout, a sharpened cutting edge on said blade for severing the can top diametrically as the device is swung about said fulcrum to carry the cutting edge downwardly into the can, a can top spreading element on the blade rearwardly of the cutting edge thereof for spreading the severed edges of the can top apart, thereby to widen the slot formed in the can top by the blade sufficiently to pass a discarded cigarette therethrough, an ash tray mounted transversely of the upper end of the blade for resting on the can top when the blade is inserted fully into the can, an edge of the tray being disposed alongside and above the slot in the can top whereby, upon a predetermined tilting of the ash tray, ashes and cigarette butts thereon will gravitate therefrom through the slot in the can top into the can.

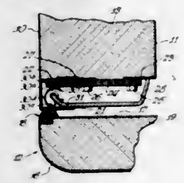
2,777,597
STACKABLE TOTE BOX CONSTRUCTION
George H. Ruff, Trenton, N. J.
Application June 1, 1955, Serial No. 512,546
11 Claims. (Cl. 220—4)

3. A tote box of the character described comprising, in combination, a rectilinear channel member formed with a floor and integral walls, a pair of identical end members rigidly secured to and partially closing the ends

of said channel member, the top portions of said end members being of inverted V-formation and having perpendicular integral flanges projecting from their outer edges, the bottom portions of said end members having therein central V-shaped notches corresponding with the shape of the top portions and having perpendicular integral flanges projecting from their edges, and V-shaped end supporting members having perpendicular integral

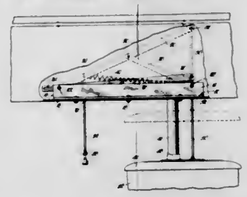
flanges in interfitting engagement with the flanges around said V-shaped notches, said end supporting members being rigidly secured to said end members, thereby providing V-shaped recesses open at the bottom and one side formed for coengagement with corresponding top end formations and end surfaces of another identical tote box to effect longitudinal and lateral alignment of a pair of such boxes when stacked one upon the other.

2,777,598
REFRIGERATOR CONSTRUCTIONS
Edward M. Gaul, Evansville, Ind., assignor, by mesne assignments, to Whirlpool-Seeger Corporation, a corporation of Delaware
Application September 14, 1953, Serial No. 379,767
3 Claims. (Cl. 220—15)



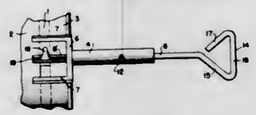
3. A breaker strip assembly for household refrigerators comprising an outer shell provided with a door opening at its forward end, said door opening being bordered by an inwardly open flange arrangement having a rectangular groove therein, a liner in said shell and having an outwardly turned flange located backwardly of the front of said shell, insulation between said liner and shell, and insulating means for supporting said liner from said shell, said flange arrangement including a face flange on the shell outwardly of said groove, a breaker strip comprising a member of uniform cross-section having a body adapted to traverse the space between the grooved shell and liner, said body having an inwardly extending flange on its inner side, said flange having its edge engaging the outwardly turned flange on the liner, said body also engaging behind said face flange and having an inwardly turned edge flange in said groove and a plurality of spring clips engaging over said edge, each spring clip having a U-shaped formation which clamps said edge and an integral C-shaped formation which is compressed between the rear of the face flange and said insulating means and tending to retain said breaker strip in said groove, the said insulating means comprising an integral frame of rigid insulating material secured to said shell and to said liner for closing the space in front of the insulation and effecting a rigid support of the liner.

2,777,599
AUTOMATIC LID CONTROL FOR POPCORN KETTLES
Samuel M. Waas, Kansas City, Mo., assignor to Manley, Inc., Kansas City, Mo., a corporation of Missouri
Application December 8, 1954, Serial No. 473,974
6 Claims. (Cl. 220—47)



1. In a popcorn machine, a support; an elongated element; pivot means at one end of said element mounting the same on the support for swinging movement on a horizontal axis; means slidably securing the element to said pivot means; a member pivotally connected to the element at the opposite end of the latter and depending therefrom for vertical reciprocation as the element is swung; a kettle having a lid connected to the member at the lowermost end of the latter; and spring means coupled with said element for sliding the same in one direction on said pivot means to swing said member upwardly and lift the lid rectilinearly after the lid is initially elevated from the kettle by popped corn in the latter.

2,777,600
CAN OPENER
Pearl C. Woolfolk, Camden, N. J.
Application August 13, 1953, Serial No. 373,949
13 Claims. (Cl. 220—52)

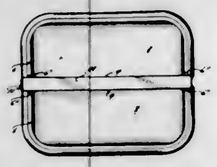


1. An implement for removing a sealing strip from about a can comprising a sleeve having an axially extending bore, a yoke at the front end of said sleeve extending transversely thereof and having forwardly extending arms spaced from opposite sides of the sleeve, a key passing through the bore of said sleeve and being slidable longitudinally through the bore from a retracted position to a forwardly extended position between the arms and being also rotatable in the bore, said key being provided with a slot leading from its front end to receive an end of a sealing strip which is wound about the key between the arms of the yoke when the key is turned while in its extended position, a turning member at the rear end of said key, a portion of the key within said sleeve being of reduced diameter and having shoulders at its front and rear ends, and a pin screwed into a threaded side opening in the sleeve with its inner end extending into the reduced portion of the key between said shoulders and thereby limiting sliding movement of the key.

2,777,601
CONTAINER AND EASY OPENING COVER THEREFOR
William E. Cheeley, Louisville, Ky., assignor to Reynolds Metals Company, Richmond, Va., a corporation of Delaware
Application May 23, 1956, Serial No. 586,804
3 Claims. (Cl. 220—54)

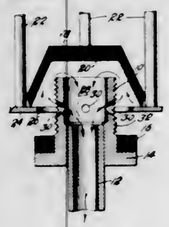
1. In containers, a cover made of manually tearable metal and having a peripheral downwardly extending

channel formation with a bridge separating opposed channel areas at opposite ends of the cover in such manner that the ends of each channel section abut vertical walls formed by the bridge areas, the metal being weakened



by opposed lines extending across the cover and across said bridge areas, the metal between the weakened lines forming a tear strip, one end thereof being extended as a lip, and a plastic film bonded to one surface of said tear strip area, as and for the purpose set forth.

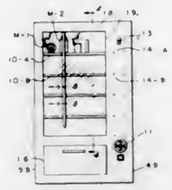
2,777,602
PAPER CUP HANDLING
William H. Genich, Racine, Wis., assignor to Racine Confectioners' Machinery Co., Racine, Wis., a corporation of Wisconsin
Application November 23, 1954, Serial No. 470,781
2 Claims. (Cl. 221—39)



1. In a machine for separating a cup from a plurality of its fellows, the combination of a magazine for a stack of inverted internested crinkle cups having outwardly flaring side walls, said magazine having a bottom opening of a diameter less than the mouth diameter of said cups, a hollow picker of less diameter than said opening raisable therethrough for engaging at its top the bottom wall of the lowermost cup of said stack and lifting the stack, means for sealing said opening around the thus raised picker following raising of the stack by the picker to lift the mouth of the lowermost cup above the bottom of the magazine, there being a top opening and side openings in the picker and there being a hollow tubular picker carrier whereby a suction pull set up through said carrier will suck in air through said picker openings, and means comprising a screw thread on the exterior of the picker in communication with said side openings and disposed about substantially the entire exterior of the picker for acting in the presence of said suction to cause collapse onto the picker of the side wall of the lowermost cup thereby to reduce the mouth diameter of said cup to less than the diameter of said circular opening.

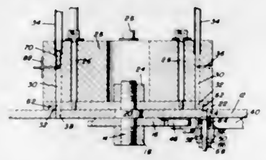
2,777,603
VENDING MACHINE
Harold D. Baum, Chicago, Ill.
Application April 4, 1952, Serial No. 280,612
15 Claims. (Cl. 221—84)

1. A vending machine for miscellaneous articles, comprising a set of spaced superposed shelves; a plurality of spaced, juxtaposed channels in each shelf; conveyors in such channels; a plurality of article holders spaced along and secured to each of said conveyors, such holders extending from the upper run of the conveyor upwardly through and from the respective channel, spacing the articles which rest and slide on the respective shelf, by at least one half the front roller circumference of each conveyor and holding such articles against tilting; an actuator lug secured to each article holder, extending downwardly through and from the respective channel; an actuator rod extending adjacent to and parallel with each of said conveyors, adapted to be reciprocated along the conveyor



over predetermined distances greater than said respective spacing of articles, and adapted when moved in one direction to contact an actuator lug and to impel it and the parts secured thereto by a distance substantially equal said respective spacing; and motor control means so to reciprocate a selected actuator rod and thereby to discharge a selected, displayed article from its channel.

2,777,604
SHELL DISPENSER
Grant Welch, Knoxville, Tenn.
Application November 13, 1953, Serial No. 391,799
4 Claims. (Cl. 221—113)

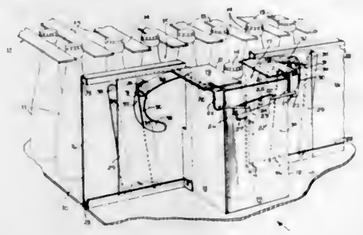


1. A shell dispenser comprising a base plate, a shaft rotatably mounted in said base plate, a disk mounted on said shaft, a casing secured to said disk, a plurality of apertures in said disk, a plurality of cartridge receiving chambers in said casing in alignment with said apertures, a delivery opening in said base plate, and operating means secured to said shaft for rotating said disk so that said apertures and hence said chambers are successively aligned with said opening, and locking means for resiliently lockingly holding said disk with said apertures in alignment with said opening, said locking means including a bifurcated link pivotally attached to a lever having cam surfaces on the bifurcated portions thereof, a housing secured to said base plate, a hole through said base plate, a plurality of recesses in said disk, a pin having a collar thereon in said housing, resilient means engaging said collar urging said pin through said hole and into one of said recesses, a member on said pin, the cam surfaces on said bifurcated portions engaging said member to withdraw said pin from said one of said recesses upon actuation of said lever.

2,777,605
COIN-CONTROLLED BOTTLE DISPENSER
Lee S. Watlington, Bloomington, Ill.
Application June 29, 1953, Serial No. 364,598
4 Claims. (Cl. 221—133)

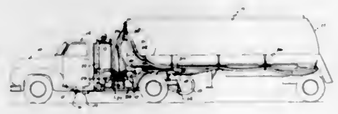
1. A dispensing apparatus having a storage chamber for bottles or cartons, one vertical wall of said chamber having formed in the horizontal edges thereof opposite guiding grooves, a partition in said chamber above the bottom wall thereof and having a plurality of parallelly extending slots, said chamber having a guideway common

to said slots, said vertical wall having formed therein a bottle passage having communication with said guideway, an enclosure carried by said vertical wall providing an open top delivery area having communication through said bottle passage with said guideway, a pair of oppositely disposed plates extending in a vertical direction with respect to said vertical wall and movable in parallel relation with respect to said wall with edge portions engaging in said grooves and having arcuate slots formed therein, a pair of bottle obstructing members



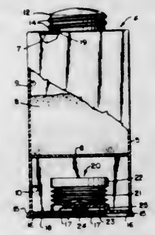
pivotally carried in a horizontal plane by said enclosure and movable about a horizontal axis into and from bottle obstructing position with respect to the open top, means for pivotally moving said members from and into bottle obstructing position with respect to said open top, and arms extending from said members and having means engaging said slots for camming said plates into bottle obstructing position with respect to said bottle passage prior to movement of said members from bottle obstructing position with respect to said open top.

2,777,606
FUEL CHARGING DEVICE FOR A TRACTOR TANK TRAILER
Charles Beatty Moore and Happy I. Franklin, El Paso, Tex.
Application December 31, 1954, Serial No. 479,102
3 Claims. (Cl. 222—26)



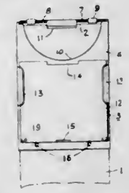
1. For use with a vehicle comprising a tractor having a power take-off and a tank trailer arranged in tandem relation with respect to said tractor and having the front end swivelly connected to said tractor, a fuel charging device comprising a pump having an input shaft disposed on said tractor adjacent the connected front end of said tank trailer and having the input shaft operatively connected to said power take-off, an outlet fitting projecting from the bottom of said tank trailer intermediate the front and back ends, a first conduit connecting said outlet fitting to the inlet end of said pump, a filter positioned adjacent said pump, an air eliminator exteriorly of said filter and in communication with the interior of said filter adjacent the top thereof, a water collector depending from the bottom of said filter, a second conduit connecting said filter to the outlet end of said pump, a metering device positioned adjacent said pump and said filter, an air separator arranged adjacent said metering device and connected in communication with said metering device and in communication with the interior of said tank trailer adjacent the top thereof, a branch conduit extending from said separator, a third conduit connecting said filter to said branch conduit, and an outlet fitting on said metering device adapted to be connected to a flexible fuel discharge hose.

2,777,607
SOUND-EMITTING HAND-INVERTIBLE DISPENSING CONTAINER FOR FLUENT MATERIAL
Ferdinando L. Bellandi, Sao Paulo, Brazil
Application March 16, 1955, Serial No. 494,644
3 Claims. (Cl. 222—39)



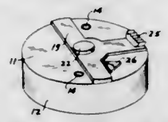
1. A sound-emitting dispensing container for fluent material, including a housing having outer walls and a partition wall defining a first compartment having an opening, and a second compartment; means for dispensing fluent material from said first compartment through said opening upon inverting said housing; and movable means within said second compartment, including a portion fixedly secured to one of said walls, to emit a sound upon inverting said housing.

2,777,608
SOAP POWDER DISPENSER ATTACHMENT
James Sheffler, Wilkinsburg, Pa.
Application September 18, 1953, Serial No. 380,958
2 Claims. (Cl. 222—80)



1. A dispenser for granular material from a box provided with an opening flap, comprising, in combination, a casing mounted on a corner of the box and being formed with a recess registering with the opening flap, a door frictionally mounted on said casing and being vertically adjustable to open and to cover said recess, means carried by said casing for limiting the adjusting movement of said door on said casing, a clamping member carried by said casing for holding the opening flap in the open position, and a pair of prongs carried by said casing and piercing the box for maintaining said casing in position on the box.

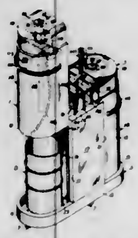
2,777,609
DISPENSER FOR CANNED LIQUIDS
Marvin Willis, Ecorse, Mich.
Application June 4, 1954, Serial No. 434,415
3 Claims. (Cl. 222—86)



1. In a cover for the upper end of a liquid-containing can, which cover includes, a flat, circular top having two tubular spikes arranged in a diametrical alinement and depending from the top downwardly for entry into the can, the upper ends of the spikes being open and

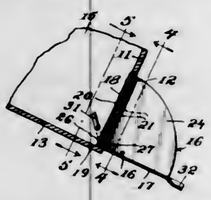
being flush with the upper surface of said cover, a flat bar diametrically disposed on the top and being pivotally connected, midway its length, to the center thereof, the end portions of the bar normally covering the upper ends of the spikes, and a horizontal operating arm extending at right angle from the mid-portion of the bar towards the periphery of the top, and a stop block affixed to the upper surface of said top between the arm and one end portion of the bar to limit the extent of the rotary movement of the bar.

2,777,610
LUBRICANT DISPENSING APPARATUS
Alexander P. Fox, University City, and August D. Reisert, Bel-Nor, Mo., assignors to The McNeil Machine & Engineering Company, Akron, Ohio, a corporation of Ohio
Application May 14, 1953, Serial No. 354,934
16 Claims. (Cl. 222—130)



1. Apparatus for dispensing lubricant from a drum, comprising a base for supporting a drum, a hose-receiving compartment fixed on the base, vertical track means on said compartment, a drum housing vertically slidable on said track means between a lowered drum-enclosing position on the base and a raised access position above the base, said housing having an open side closed by the compartment when the housing is in lowered position, an open bottom, and a top cover, a lance pump carried by the drum housing interiorly thereof for entry into a drum on the base upon lowering the housing from its raised position, the pump having an outlet, and a hose extending out of the compartment through a hose opening and having a connection with the pump outlet, said hose being adapted to be pulled out of the compartment for use and returned to the compartment for storage.

2,777,611
CONTAINER WITH FOLDABLE SIFTER SPOUT
Sam Kamin, Houston, Tex.
Application November 10, 1953, Serial No. 391,280
3 Claims. (Cl. 222—189)

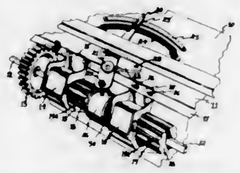


1. The combination with a box having spaced side walls having side edges, a top wall having a front end, a front wall having an upper end and a pouring opening in said top wall spaced from said side walls, said opening reaching from a point intermediate the ends of said top wall to a point near said front end of the top wall, a spout comprising an imperforate wall having a free end and another end, a perforate sifter wall having a free end and another end, said imperforate and perforate walls being disposed at right angles to each other and being fixed together at their other ends so as to define a juncture, sector wings extending between said imperforate and perforate walls and secured thereto along their side edges, said imperforate wall being wider than said pouring opening and being located above said top wall and said perforate wall being disposed within the box below said top wall, hinge means hinging said sector wings to the box side walls on an axis adjacent to said juncture and located near to the front end of the top wall and the upper edge of the front wall.

2,777,612
COMPRESSION TYPE DISPENSING DEVICE
Richard E. Bensen, Philadelphia, Pa.
Application May 15, 1951, Serial No. 226,420
9 Claims. (Cl. 222—209)

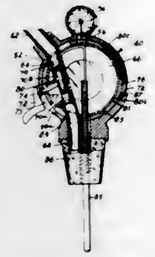
1. In a dispensing device; a resilient and flexible body enclosing a chamber, and having first and second orifices; and a controllably reversing diaphragm member within said chamber having an enclosed displaceable extremity and an open extremity secured to said body intermediate its ends and partitioning said chamber into first and second sections respectively communicating with said first and second orifices; said diaphragm member being positioned to assume two complementarily similar terminal positions by the reversing of said diaphragm member by having its enclosed displaceable extremity pass through its open secured extremity; said first terminal position minimizing the volume of said second section while said second terminal position minimizes the volume of said first section of said chamber; said first section being adapted to contain a dispensable substance for expulsion through said first orifice upon displacing of said member toward said second terminal position; said member being displaced toward said second terminal position upon the restricting of said second orifice and compressing of said body.

2,777,613
ADJUSTABLE COUPLING ATTACHMENT FOR SHAFTS
Henry W. Hartje, Glasston, N. Dak.
Application March 1, 1955, Serial No. 491,357
3 Claims. (Cl. 222—268)



1. In a mechanism for automatically maintaining a shaft shifting mechanism under tension and in proper unvarying position: a passaged hub member through which the shaft extends; said hub member having a pair of bushings mounted in the opposite ends thereof; a projecting stud on said hub member; fixed means on said shaft to prevent said hub member from longitudinal thrust in one direction; a tension spring on said shaft and engaging the outer face of one of said bushings; a thrust collar mounted on said shaft and normally engaging the opposite end of said spring; said spring being adapted to maintain said hub member in a uniform position on said shaft; and a manually operable lever having one end portion thereof engaging said stud, and releasable means for locking said lever in desired position.

2,777,614
MEASURING AND DISPENSING DEVICE FOR LIQUOR
Joseph P. Arena, Astoria, N. Y.
Application June 11, 1952, Serial No. 292,938
1 Claim. (Cl. 222—442)



A liquor measuring and dispensing device of the character described, comprising a housing having a liquor chamber formed therein, mounting means for mounting said housing in the neck of a bottle, a liquor flow tube in said mounting means providing communication between said liquor chamber and said bottle, a breather tube in said mounting means to serve as an air passage between said liquor chamber and said bottle, a pouring spout formed in said housing and communicating with said liquor chamber, an air vent formed in said housing and connecting with said liquor chamber, and a slide valve mounted in said housing for closing off the flow tube from the liquor chamber when it is in one position and for closing off the pouring spout from the liquor chamber when it is in another position, a trigger being connected to said slide valve for moving it manually from one of said positions to the other position, and a spring being connected to said slide valve for moving it from the other position to the first position when the trigger is released, said slide valve comprising a connecting tube provided in the liquor chamber and a plunger mounted within said connecting tube, one end connected to the pouring spout and the other end connected to the flow tube, openings formed in opposite ends of said connecting tube to provide communication between said connecting tube and the liquor chamber, said plunger being slidably mounted in said connecting tube for longitudinal movement into closing and opening positions relative to said openings in the connecting tube, said trigger being connected to said plunger for moving it in one direction and a spring acting against said trigger for moving the plunger in the opposite direction, whereby communication is provided between the flow tube and the liquor chamber when the plunger is in one position and whereby communication between the pouring spout and the liquor chamber is provided when the plunger is in another position, and a vent control valve operatively connected to the slide valve for controlling the air vent.

2,777,615
SHAKER TOP WITH POURING SPOUT
James C. De Shazor, Jr., Portland, Oreg., assignor to Columbia Basin Plastics Company, Portland, Oreg.
Application January 11, 1956, Serial No. 558,515
5 Claims. (Cl. 222—480)

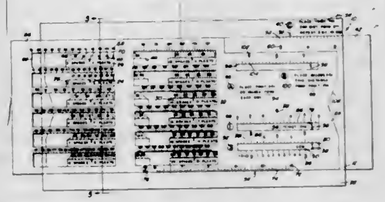
1. In combination with a container for granular material, said container having a hole formed through a wall thereof, a combined shaker and pouring means for said granular material inserted in said hole and secured therein, said combined means comprising a stator, a rotor and a pouring spout, said spout being hingedly secured to said rotor by said stator to be movable into and out of pouring position about a horizontal axis and said rotor being rotatably secured to said stator to rotate between

limit positions in either direction about a vertical axis, said rotor and stator including means cooperable at one limit of rotation of said rotor to form a shaker means for said salt and said spout and said stator including means cooperable at said one limit of rotation to prevent the opening of said spout and at the other limit of rotation of said rotor to release said spout for movement to its pouring position.

2,777,616
SHAKER TOP
James C. De Shazor, Jr., Portland, Oreg., assignor to Columbia Basin Plastics Company, Portland, Oreg.
Application April 18, 1955, Serial No. 501,952
1 Claim. (Cl. 222—555)

A dispensing insert for a wall of a granular material dispensing container said wall being formed with a hole therethrough to receive said insert and said insert consisting of a one piece molded plastic stator and a one piece molded plastic rotor, said stator comprising a cylindrical side band, a planar annular top flange formed on one end of said side band to overhang said side band radially inwardly and outwardly thereof and a flat bottom member secured at its periphery to said side band at the other end thereof, and said rotor being rotatably secured to said stator with the outer edge of said rotor confined between the inner surface of said cylindrical side band, the inner surface of the inwardly overhanging part of said top flange and the inner surface of said bottom member.

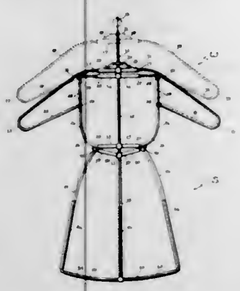
2,777,617
CALCULATOR FOR AND METHOD OF FORMING DRAPERY PLEATS
Charles M. Matt, Reading, Pa.
Application June 3, 1955, Serial No. 513,031
7 Claims. (Cl. 223—34)



1. A device for computing the disposition of drapery pleats comprising a generally flat rectangular tubular

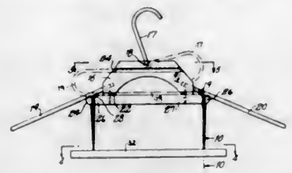
sleeve member having at least the upper portion formed of transparent material, indicia imprinted on said sleeve, a first plate member slidably mounted in said sleeve, a second plate member slidably mounted in said sleeve in overlying relation to the first plate member, said first plate member having a plurality of narrow slots therein, said second plate member having a plurality of wide slots therein in overlying relation to the narrow slots in the first member, numerical indicia positioned above each of the wide and narrow slots, index lines associated with the numerical indicia, said indicia on the sleeve including an arrow for selectively aligning the index lines therewith, said indicia over the narrow slot being viewed through the wide slots and said indicia on the sleeve being viewed through the narrow slots, the indicia on the second member indicating the initial size of the drapery material, the indicia on the first member indicating the size of the complete drapery panel, and means spaced from said slots for indicating the disposition of the drapery pleats.

2,777,618
GARMENT FORMS
Mary Elizabeth Burwell Wilklow, Denver, Colo.
Application November 4, 1954, Serial No. 466,740
24 Claims. (Cl. 223—69)



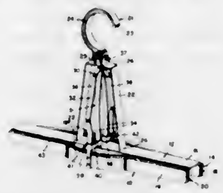
1. A garment form comprising a central support including a rod having means at its upper end for suspending said rod in vertical position, a lower cross arm at the lower end and an intermediate cross arm at an intermediate position of said rod, each said cross arm extending laterally to each side of said rod, with at least the upper end of said rod being non-circular in cross-section; an upper cross arm having a central hole conforming in shape to said rod cross section and movable on said rod to different vertical positions; a left side bracket and a right side bracket, each side bracket having a corner at the upper end between an inwardly extending upper bar and a generally upright side bar with the lower portion of said side bar curving inwardly to an inwardly extending lower bar, each said upper bar interfitting with said intermediate cross arm and each said lower bar interfitting with said lower cross arm, one of each said upper and lower cross arm and each said upper and lower bar, respectively, being hollow to form a socket and the other fitting into said socket; and a left sleeve bracket and a right sleeve bracket, each sleeve bracket having a downwardly and outwardly extending side and a lower bar extending at an acute angle thereto and connected therewith at the outer ends thereof, each side having a curve therein connecting with an inwardly extending upper tip which interfits with said upper cross arm, one of each said upper tip and each said upper cross arm being hollow to form a socket and the other fitting into said socket, and the inner end of each sleeve bracket lower bar and each side bracket side bar having interfitting means for connecting said inner end to said side bar at various positions along the latter.

2,777,619
GARMENT HANGER
Harold C. Cook, Sr., Long Island City, N. Y.
Application May 2, 1952, Serial No. 285,698
7 Claims. (Cl. 223—90)



1. A garment hanger comprising a one-piece body member, a pair of recesses in the end of said member, and a stiff resilient wire bent to U-shape and having its ends extending into said pair of recesses with the bend thereof under bias tending to separate said ends, said wire forming a shoulder support for a coat or like garment, said recesses having diameters very slightly in excess of the diameter of said wire and the longitudinal axis of each leg of the bent wire shoulder support making a small angle with the axis of the recess into which said leg extends, whereby the wire is secured in the recess by a wedging action.

2,777,620
GARMENT HANGER FOR TROUSERS, COATS, ETC.
Norman Edward Brooke, Washington, D. C.
Application December 22, 1954, Serial No. 476,870
22 Claims. (Cl. 223—91)



1. A garment hanger comprising a bar element constituting one jaw, a pair of elongated members attached to said bar element and rising in upwardly convergent relation thereabove, suspension means connected with and extending above said convergent members substantially midway of the ends of the bar element, a pair of leg members distinct from the elongated members and connected with the suspension means and extending down between the elongated members, one leg member being coupled at its lower end to the bar element, the other leg member being of spring character and biased to spring laterally from the bar element, a jaw member carried by said other leg, and means slidable on and encircling only the leg members and adapted when slid in one direction thereon to flex said other leg member in a direction to move the jaw member into gripping relation with the bar element.

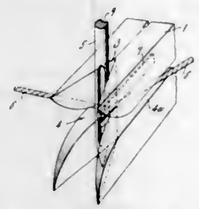
2,777,621
GARMENT HANGER
Ralph P. Murray, Los Angeles, Calif.
Application October 25, 1954, Serial No. 464,304
4 Claims. (Cl. 223—94)

1. A garment hanger comprising a frame provided with opposite spaced sides and having a slideway comprising aligned slots formed in the sides, a pair of garment-hanging arms having their adjacent ends disposed between the frame sides, but having the ends of each arm removed from each other, said arms being held within the frame by connections comprising pins extending through the

sides of the frame and through the ends of each arm, said connections forming a pivot for each arm, the arms being movable on said pivots between a spread position for supporting a garment and a folded position with their outer ends adjacent, a hanger bail having one end extending into the frame in the space between the sides

thereof and between the arm pivots, and a slide member engaged in said slideway and fixedly connected to said end of the bail to hold the latter non-rotationally, said member and bail being movable together, said pivoted ends of the arms, when the arms are folded, being in the path of movement of the slide member and movable thereby to spread position.

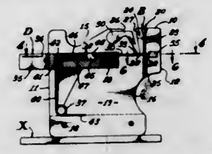
2,777,622
THREADER FOR SEWING MACHINE NEEDLES
Ewald Fehlmann, Zurich, Switzerland
Application February 16, 1954, Serial No. 410,547
Claims priority, application Switzerland February 18, 1953
3 Claims. (Cl. 223—99)



1. A threading device for a needle having an eye for receiving a thread comprising a holder provided with a pair of wedge-shaped notches intersecting each other at right angles, adjacent opposite faces at the forward ends defining said notches being curvilinearly shaped, and a springy tongue fixed in said holder and extending edgewise with its free end beyond the intersection of said notches, said tongue lying in a plane bisecting the angle of one of said notches and extending into the other of said notches, the end of said tongue remote from said holder being provided with a recess forming a seat for said thread to facilitate retention of the same in predetermined position relative to the eye of the needle, whereby upon placing a thread in said one notch and across said recess of said tongue and upon placing said needle in said other notch, movement of said holder longitudinally of said needle will cause said tongue and said thread thereacross to register with and pass through the eye of said needle for threading purposes.

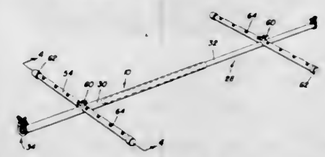
2,777,623
NEEDLE THREADING DEVICE
Rudolf Balzer, Sepulveda, Calif.
Application October 26, 1953, Serial No. 388,368
3 Claims. (Cl. 223—99)

1. A needle threading device including, a body having front and rear ends and a top, an elongate vertically disposed needle receiving guideway entering the top at the front end of the body, a vertically disposed thread receiving slot in the top of the body adjacent and to the rear of the guideway, and threading means including a straight horizontally disposed passageway in the body communicating with the lower end of the slot and guideway and terminating forward of the guideway, a horizontally disposed plunger positioned in and adapted to reciprocate in the passageway and intersect the guideway and the slot to engage a thread engaged in the base of the



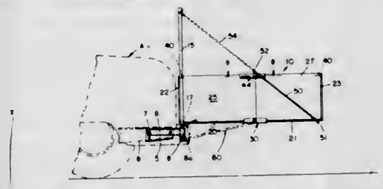
slot and push it through the eye of a needle engaged in the guideway and in alignment with the passageway, and actuating means at the rear end of the body for the plunger, said actuating means having an actuator accessible at the exterior of the body and positioned in and adapted to reciprocate longitudinally in the body and a resilient coupling between the actuator and plunger yieldingly operating the plunger.

2,777,624
ADJUSTABLE CLOTHES HANGER
Jean O. Nelson, San Antonio, Tex.
Application November 1, 1954, Serial No. 466,029
1 Claim. (Cl. 224—42.1)



A clothes hanger adapted to be supported transversely in a hollow body having hooks at opposite sides thereof comprising an elongated bar adapted to extend horizontally in a hollow body, supporting plates on opposite ends of said bar upstanding therefrom and apertured to fit over said ends, attaching extension plates for said first plates vertically adjustably secured thereto above said bar for extension bodily thereon and having upwardly and outwardly inclined apertured portions adapted to receive said hooks, and cross bars on said first named bar adapted to support garment hangers, and having dovetailed notches therein for retaining garment hangers in the same.

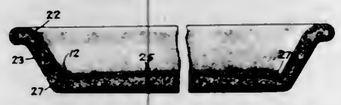
2,777,625
CARGO CARRYING ATTACHMENT FOR AUTOMOBILE
Dina Kronhaus and Luba M. Lifschutz, Los Angeles, Calif.
Application October 4, 1954, Serial No. 459,948
3 Claims. (Cl. 224—42.43)



1. In a cargo carrying attachment for an automobile, a body composed of a pair of end-to-end arranged bottom wall portions hingedly connected together at their contiguous ends to swing relative to each other, side walls

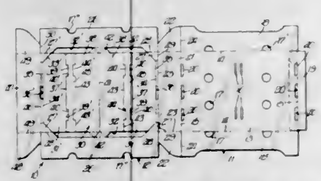
hingedly connected at their bottom edge portions to the side edge portions of said bottom wall members to swing between positions perpendicular to and parallel with said bottom wall members, an end wall hingedly secured at its bottom edge portion to an end portion of one of said bottom wall members, a second end wall hingedly secured at its bottom edge portion to the opposite end portion of said other bottom wall member, said end walls being swingable between positions perpendicular to and parallel with said bottom wall members, means for suspending the inner one of said bottom plates from the chassis of an automobile comprising a pair of brackets attachable to the rear end of the chassis frame of said automobile and each presenting an upwardly disposed sleeve-like portion, a pair of upright posts having their bottom ends fitting in said respective sleeve-like portions, means securing said posts to the inner one of said bottom plate members, and bracing members extending from said posts to the outer one of said bottom plate members.

2,777,626
TRAY WITH CORK SURFACE PORTIONS AND METHOD OF MAKING
Richard S. French, Waterville, Maine, assignor to Keyes Fibre Company, Portland, Maine, a corporation of Maine
Application January 28, 1954, Serial No. 406,702
16 Claims. (Cl. 229—2.5)



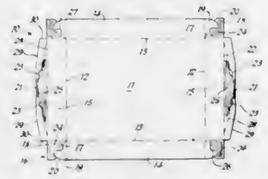
8. A tray having a bottom wall and an upstanding peripheral wall consisting essentially of cellulose fiber and a cured thermosetting resin, a cork liner comprising a sheet of cork bonded to the inner surface only of said bottom wall by a continuous phase of said thermosetting resin extending from said base into said cork liner and terminating short of the outer surface of said cork liner.

2,777,627
PAPERBOARD SHIPPING CRATE AND INTERLOCKED CRATE UNIT
Walton B. Crane, Woodland Hills, Calif., assignor to Allied Plastics Company, Los Angeles, Calif., a corporation of California
Application March 9, 1953, Serial No. 341,075
12 Claims. (Cl. 229—27)



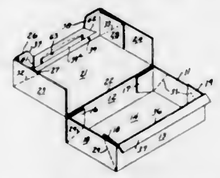
1. A paperboard crate for the shipment of produce and the like comprising a bottom forming member, upstanding side wall panels integrally connected by creases to said bottom forming member and end wall structures connected to said side wall panels and to said bottom member, said end wall structures each comprising an upturned flap integrally hinged to said bottom member, a depending outer end wall panel in external covering relation to said flap, an inner end wall panel integrally hinged to the upper edge of said outer end wall panel and depending inwardly of the container, in relation to said end wall structure, said inner end wall panel being provided with a terminal flap integrally hinged thereto adjacent the lower end thereof, which flap is bendable inwardly about the hinge thereof upon wedging engagement with said bottom member, said flap having an integral tongue at the hinge line thereof projecting outwardly for abutting engagement with said upturned end wall flap to maintain predetermined spacing of said inner and outer end wall panels.

2,777,628
CARDBOARD FOLDING BOX CONSTRUCTION
Sidney Conescu, Neponsit, N. Y.
Application November 2, 1954, Serial No. 466,345
2 Claims. (Cl. 229—31)



1. In a folding box having hinged side and end panels which are edgewise connected to each other by a diagonally folding web arranged to lie in the set up condition of the box against one of the panels, said last mentioned panel having a locking flap defined by a fold, the combination wherein said flap is provided with diagonally inwardly directed S-shaped hinging cuts and diagonal crease lines extending from a point located a short distance inwardly from the extreme end of said flap and intersecting said fold and extending to the outer end of said S-shaped hinging cuts, said cuts and crease lines provided to each side of said locking flap, said flap having a substantial medial portion thereof and the portion between said hinging cuts and part of said crease line and said fold connected to said panel to leave the ends free for spreading over said web, said cuts having a portion thereof contoured to provide an outwardly projecting portion which frictionally contacts the said panel to hold the bent flap braced when the flap is spread for setting up the box.

2,777,629
FOLDING CARTON WITH SELF-LOCKING COVER
Belmont D. Osteen, Birmingham, Ala., assignor to Birmingham Paper Company, a corporation of Alabama
Application September 30, 1955, Serial No. 537,753
2 Claims. (Cl. 229—36)



1. In a cardboard container including a lower rectangular box portion and an upper cover portion hinged along the upper edge of one side of the box portion, a downwardly inclined outturned flap along the upper edge of the opposite side of the box portion, a side wall on the cover portion disposed to fit over the last mentioned side of the box portion, an upwardly inclined inturned flap on the side wall of the cover portion formed by downwardly divergent cuts in the cover portion the inner ends of which are joined by a scored line to form a hinge for the flap, said flap having a longitudinal slit therein the lower side of which is disposed to be engaged by the lower edge of the flap on the box portion when the cover is closed.

2,777,630
FLEXIBLE CONTAINER
Arvid F. Moberger, Melrose, Mass.
Application November 5, 1953, Serial No. 390,291
2 Claims. (Cl. 229—45)

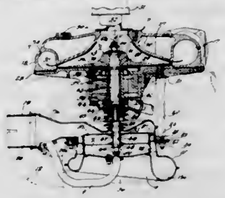
1. A container made of resilient material comprising, in detachable and cooperable combination, a body and a cover; said cover fitting over and enclosing the rim of said body; the walls of said body being provided with interior arcuate slits extending vertically upwards and pressor portions; the wall of said cover having cut out portions forming exterior arcuate tabs extending vertically upwards and open sections positioned above said tabs; the vertical height of said tab being greater than the vertical height of said slit; said pressor portions being contiguous to and extending over said cut-out portions and positioned above said slits, the cooperation of said tabs, slits and pressor points providing releasable closures.

2,777,631
STATEMENT SHEET AND ENVELOPE
Joseph Zalkind, New York, N. Y.
Application October 14, 1953, Serial No. 386,058
2 Claims. (Cl. 229—73)

1. An article of the class described comprising a main panel, one end of said panel being folded to form an envelope therewith and another end of said panel being folded to form a record sheet, wherein the margins adjacent the fold line between said panel and record sheet are secured together to effect a double thickness relatively stiff edge for insertion in a business machine, wherein the envelope formed at the end of said panel comprises glue flaps at the sides therefrom extending the length of said panel at the side edges thereof and terminating between said secured margins at the ends thereof.

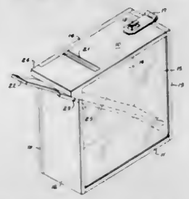
2,777,632
SUPERCHARGER FOR INTERNAL COMBUSTION ENGINES
Floyd F. Kishline and Harry F. Wood, Kenosha, Wis., assignors to American Motors Corporation, a corporation of Maryland
Application April 7, 1953, Serial No. 347,292
9 Claims. (Cl. 230—116)

1. A supercharger comprising a lower turbine wheel housing and an upper blower housing, said upper housing including a complementary cover, an impeller, an impeller holder and a lower cover, said complementary cover and the upper part of said holder forming an impeller enclosure, said holder provided with a centrally vertically disposed bore, a bushing inserted within said bore and having a free end overlapping the end of said bore and pressed down on the end of said bore, said holder having an opening in the bottom for communication with the interior of said holder, said lower cover closing said opening and in conjunction with said holder forming a reservoir, a turbine wheel disposed in said turbine wheel housing, said impeller having a bore therein, an impeller shaft, said shaft including three distinct sections of differ-



ent diameters, one of said sections rotatable within the bushing in said holder, one end of said shaft mounting said impeller, said turbine wheel mounted on and rotatable with the opposite end of said shaft, a driving plate secured to said opposite end of the shaft and engaged with said wheel, said impeller rotated by movement of said wheel.

2,777,633
BALLOT BOX
Brooks Phillips, Salisbury, N. C.
Application January 28, 1954, Serial No. 406,755
3 Claims. (Cl. 232—2)

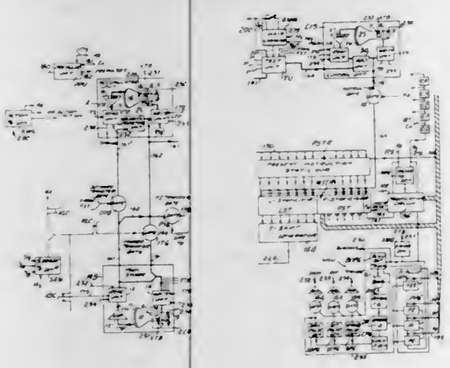


1. A rectangular ballot box for flat planar ballots comprising side, top and bottom walls, one of said side walls having a first transverse slot adjacent its upper end, a paddle mounted in said first slot, said paddle extending inwardly and downwardly at an inclined angle within said box and having a handle portion extending outwardly from said first slot, said top wall having a second transverse slot spaced from its juncture with said one side wall, the length of said slots and width of said paddle being substantially coextensive with the width of said box between remaining opposite side walls, whereby successive ballots may be introduced to said box and stacked upon said inclined paddle, and said paddle being movable outwardly through said first slot relative to said box to permit successive stacks of said ballots to fall downwardly in superposed relation upon the bottom of said box.

2,777,634
ELECTRONIC DIGITAL COMPUTING MACHINES
Frederic Calland Williams, Timperley, and Tom Kilburn, Manchester, England, assignors to National Research Development Corporation, London, England, a corporation of Great Britain
Application August 14, 1950, Serial No. 179,262
Claims priority, application Great Britain August 17, 1949
11 Claims. (Cl. 235—61)

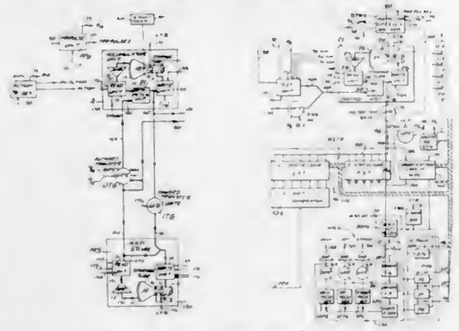
1. An electronic digital computing machine of the type operating in the serial mode with number and instruction words signalled dynamically as electric pulse signal trains and comprising rhythmic data storage means controlled by an electric timing waveform to operate once during a predetermined minor cycle period and having a plurality of separate storage address locations for holding number word and instruction data signals.

electric signal controlled address selecting means for said data storage means for rendering any one of said storage locations accessible for deriving an output signal train therefrom, a main staticisor having an input terminal for receiving an instruction pulse signal train and including a plurality of separate sections each responsive to a separate digit position pulse signal train of an instruction signal and providing alternative output control potentials in accordance with the significance of such digit position signal, circuit means supplying output control potentials from selected sections of said main staticisor as the controlling signals to said address selecting means, a rhythmic computing organ also controlled by an electric timing waveform to operate once during each minor cycle period for performing an arithmetical operation with pulse train number-representing signals applied thereto during such minor cycle period, an instruction staticisor having an input terminal for receiving an instruction pulse signal train and including a plurality of separate sections each responsive to separate digit position signals of such an instruction pulse signal train, signal transfer means connecting each section of said instruction staticisor to the related digit-responsive section of said main staticisor for setting-up each section of said main staticisor in accordance with the setting of related section of said instruction staticisor, timing means providing



electric timing waveforms for said data storage means and said computing organ and defining a normal machine operating rhythm comprising three minor cycles or beats during each major cycle or bar which constitutes the time period required for the selection and obeying of an instruction pulse signal train to perform a single computation step, and a control system including signal transfer channels between said data storage means, said computing organ and said input terminals of said main and instruction staticisors for governing the selection and transfer of data signal trains between said data storage means and said computing organ under the control of a selected instruction pulse signal train, said control system being rhythmically operated by said timing waveforms and including means whereby an instruction pulse signal train is applied to said input terminal of said instruction staticisor during one beat of said operating rhythm bar to cause setting thereof in accordance with the configuration of the individual digit signals of said instruction pulse signal train and having further means whereby said signal transfer means is operated to transfer the respective settings of the different sections of said instruction staticisor in parallel to the related sections of said main staticisor before the commencement of the digit handling period of the next following beat of said bar.

2,777,635
ELECTRONIC DIGITAL COMPUTING MACHINES
Geoffrey Colin Tootill, Shrivenham, near Swindon, Frederic Calland Williams, Timperley, and Tom Kilburn, Manchester, England, assignors to National Research Development Corporation, London, England, a corporation of Great Britain
Application August 14, 1950, Serial No. 179,261
Claims priority, application Great Britain August 17, 1949
14 Claims. (Cl. 235—61)



1. An electronic digital computing machine of the type operating with the serial form of number representation by an electric pulse signal train occurring within each of a succession of beat time intervals and wherein the coefficient of each digit of the number is signalled by the pulse signal content of the successively occurring digit-intervals of such train and comprising a rhythmically operating main data storage device controlled by a beat timing waveform and having a plurality of separate storage locations for holding both number word and instruction word data items, each of x digits length capable of expression as a pulse train in one beat time interval, a computing organ controlled by said beat timing waveform for performing an arithmetical operation with basic-length number words having a pretermined number of digits w therein, a control system controlled by said beat timing waveform and a bar timing waveform for governing the selection and transfer of number words between said storage device and said computing organ under the control of selected instruction words and timing means including electric waveform generating means providing said beat and said bar defining waveform for defining a normal machine operating rhythm as consisting of a plurality of minor cycles or beats during each major cycle or bar which constitutes the time period required for the obeying of an instruction word to perform a single computation step, said beat defining waveform defining each beat interval as having a number of operative digit-intervals x which is a sub-multiple n of the number of digits w in said basic length number word and said control system including means altering the form of said bar defining waveform for effecting transference of a basic length number word between said main data storage device and said computing organ in n successive beats under the control of a single instruction word.

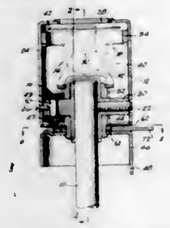
2,777,636
MATHEMATICAL DEVICE FOR WRITING INSTRUMENTS
Jack Weiser, Los Angeles, Calif.
Application September 8, 1953, Serial No. 378,885
6 Claims. (Cl. 235—87)

1. In an instrument of the class described, a mathematical device comprising: a barrel having thereon a plurality of tables for respectively different branches of mathematical computations, each table being composed of circumferentially extending rows of numbers, with the rows of

one table alternating with the rows of the other table along the length of the barrel; said barrel having rows of circumferentially extending control numbers, one row for each of said tables; a casing rotatably mounted on said barrel and having a plurality of circumferentially spaced rows of openings, one row for each of said tables and extending longitudinally of the barrel; said openings being

provided with accompanying indicia designating predetermined number values for the respective openings; said casing having circumferentially spaced control windows, one for each of said rows of control numbers, in which control numbers of the respective rows thereof will appear when predetermined numbers of the respective tables thereof appear in the openings of the respective rows thereof.

2,777,637
SHAFT REVOLUTION COUNTER
Morton P. Matthew, Takoma Park, Md., assignor to The Ahrendt Instrument Company, College Park, Md.
Application February 27, 1956, Serial No. 567,982
9 Claims. (Cl. 235—103)

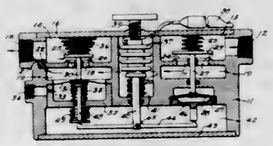


1. A shaft revolution counter for counting the number of revolutions of an input shaft, said shaft revolution counter comprising: an annular base plate concentrically mounted on the input shaft adjacent its end; a hollow knob having an open end, said knob being affixed at its open end to the periphery of said base member and having a window in its opposite end whereby said base member and said knob define a chamber which may be viewed through said window; first and second spur gears, said first spur gear being journaled over the input shaft adjacent said base member and external of the chamber defined by said knob and base member; means for constraining said first spur gear to a fixed position independent of rotation of the input shaft; a mechanical counter mounted on said second spur gear, said mechanical counter having a counter shaft and a plurality of indicia-bearing counter wheels responsive to rotation of the counter shaft for indicating the number of incremental angular units of rotation made by said counter shaft; means for journaling said second spur gear concentric with the input shaft and within the chamber defined by said base member and said knob and with said indicia bearing counter wheels adjacent said knob window; first and second planetary gears meshing with said first and second spur gears respectively; a gear shaft journaled in said base plate, said first and second planetary gears being affixed to opposite ends of said gear shaft whereby said mechanical counter is maintained in a fixed position relative to said means for constraining said first spur gear; and means mounted within said knob for rotating said counter shaft in accordance with rotation of the input shaft with respect to said first spur gear whereby a stabilized visual display corresponding to the rotational position of the input shaft is presented through said knob window.

2,777,638
THERMOSTATIC CONTROL VALVE
Charles W. Wood, Lebanon, Ohio, assignor to Standard-Thomson Corporation, Dayton, Ohio, a corporation of Delaware
Application May 28, 1953, Serial No. 358,059
6 Claims. (Cl. 236—34)

1. In a fluid control valve, a body member having a flow passage therethrough, a support member extending from one side of the body member and attached thereto, a guide member attached to the body member and extending from the opposite side of the body member, a movable valve member operable to close the flow passage, comprising a casing having a solid end wall provided with an aperture therein, the casing being attached to the valve member and encircled by the guide member, resilient means abutting the guide member and the movable valve member urging the valve member to closed position, an elastic cylinder retained within the casing and having the ends thereof abutting opposite end walls of the casing, the elastic cylinder having a cavity therein extending a portion of the length thereof, a thermal responsive material surrounding the elastic cylinder, and a pin attached to the support member and extending into the elastic cylinder through the aperture in the casing.

2,777,639
VALVE STRUCTURE
Richard D. Grayson, La Canada, Calif., assignor to General Controls Co., Glendale, Calif., a corporation of California
Application March 21, 1955, Serial No. 495,746
8 Claims. (Cl. 236—48)



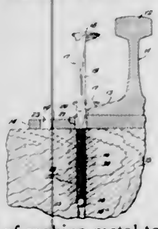
1. In a valve structure: a casing having an inlet and an outlet and a chamber therebetween; an inlet valve controlling flow from said inlet to said chamber and an outlet valve controlling flow from the chamber to said outlet; means, including means responsive to variation of a controlling condition, for producing mechanical force for actuating said valves; means for applying said force gradually to the valves and arranged so that when said condition varies in a given sense the inlet valve is opened before movement of the outlet valve in opening direction can be effected by said force, and the outlet valve is closed before the inlet valve is closed when the condition varies in the opposite sense; said chamber having a restricted opening leading to said outlet and by-passing the outlet valve so that when the inlet valve is open and the outlet valve is closed fluid can flow from said inlet to said outlet through the chamber and said restricted opening; means for supplying pressure fluid to said inlet; and a motor, operated in response to the change of fluid pressure in said chamber occurring upon closing and upon reopening of said inlet valve, for actuating said outlet valve independently of said force-applying means and of the inlet valve, said motor being arranged to effect opening of the outlet valve upon closing of the inlet valve, and delayed closing of the outlet valve upon reopening of the inlet valve; said means for applying said force to the

valves being arranged so that it is capable of actuating the outlet valve to open position against the force of said motor.

2,777,640
TEMPERATURE CONTROL CIRCUIT
Alvin B. Kaufman, Los Angeles, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application October 19, 1953, Serial No. 387,005
5 Claims. (Cl. 236—78)

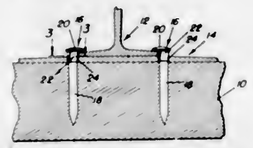
1. A temperature control circuit, comprising: a Wheatstone bridge circuit including a first branch having two adjacent arms, each having a resistor therein, the magnitude of both these resistors being substantially equal, and a second branch having two adjacent arms, a first arm including a control potentiometer and the second arm including a balancing resistor; a temperature sensing element controlling the magnitude of said balancing resistor; means for applying an alternating voltage across said two branches of said Wheatstone bridge circuit; an output from said Wheatstone bridge circuit, said output being taken from a node between said control potentiometer and said balancing resistor to the opposite node of said bridge; a voltage gain transformer connected to said output; a pentode, the control grid and cathode of which are adapted to be connected to the output of said voltage gain transformer; a phasing condenser connected to said control grid for providing a desired phase adjustment to the alternating current signal resulting from bridge unbalance in one voltage direction, and a 180° out-of-phase signal resulting from bridge unbalance in the opposite voltage direction; a resistor of high resistance connecting the plate of said pentode to a plate supply voltage; a voltage divider connected to a screen grid in said pentode for maintaining said screen grid at a stable low potential; a thyratron having a connection from a control grid thereof to the plate of said pentode; means for providing D. C. bias on said thyratron grid; a relay coil connected in the plate circuit of said thyratron; and a plurality of switches actuated by said relay coil, said switches being connected to a temperature controlled device, whereby said device is governed by bridge unbalance resulting from temperature variations sensed by said temperature sensitive element.

2,777,641
REHABILITATION OF ENLARGED SPIKE HOLES IN RAIL FASTENINGS
Jacob Rush Snyder, Cleveland, Ohio
Application October 24, 1951, Serial No. 252,958
15 Claims. (Cl. 238—366)



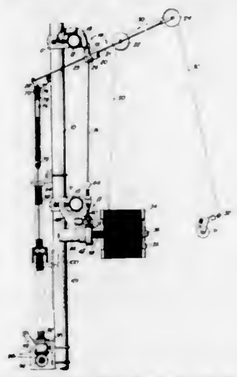
1. In a method of making metal-to-wood rail fastenings of the kind employing wood-hardening glue in a preformed fastening hole extending through a wood member, the step of advancing a substantially spherical rigid element in said hole and seating said element against the wood defining the sides of the hole such that the seated element forms a substantially fluid-tight closure for said hole at a point spaced a substantial distance from the outer end of said hole.

2,777,642
RAILROAD SPIKE WITH SPACE COMPENSATING MEANS
Lee Spencer, Scottsdale, Ariz.
Application July 17, 1953, Serial No. 368,722
8 Claims. (Cl. 238—375)



1. In combination, a wooden tie, a metal tie plate superimposed thereon, said plate having rail shoulders and oversize spike holes, a rail resting on said tie plate between said shoulders, and hold-down spikes driven through said holes into said tie, said spike embodying a shank, head and a tapered neck joining the head and shank, said shank embedded in the tie at right angles to the plane of the tie plate, said neck having four equidistant extruded flat-faced abutments and intervening receding surfaces, the latter spaced from the adjacent edges of the cooperating spike hole and the abutments each having tight-binding engagement with its respective edge, said abutments being longitudinally disposed and terminating at their lower ends substantially flush with the bottom of the tie plate, whereby said neck is wedged at four points in the hole and is thereby so firmly lodged in the hole that, despite the oversize tolerance dimension of the hole, the tie plate cannot shift relative to the tie or the spike.

2,777,643
TENSIONING MECHANISM FOR WINDING MACHINES
James E. Bancroft, Jamaica, N. Y., assignor to Allied Control Company, Inc., New York, N. Y., a corporation of New York
Application December 24, 1952, Serial No. 327,777
7 Claims. (Cl. 242—45)



1. In a machine for simultaneously winding a plurality of coils, in combination, means for holding a plurality of spools of wire to be wound into coils, separate braking means acting to tension the wire drawn from each of said spools, pivoted arms having guide means over

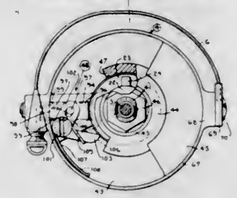
which each of the wires passes coupled with said braking means, a movable tension adjusting bar, tensioning springs attached at one end to each of said arms and at their other ends to said bar, and means for adjusting the position of said bar to simultaneously adjust the tension applied by said springs to said arms.

7. A dual spring tension unit comprising a light spring and a heavier spring each of helical coil form arranged in end to end relationship, a coupling having a bore and connected with the adjacent ends of the two springs, a fitting having a bore attached to the other end of the light spring, a draw rod passing through the bores in said fitting and said coupling, means for fixing the position of said fitting on said rod, a stop member on said rod adapted to limit the extension of the light spring by engagement with said coupling and thereby to transmit the pull on the rod to the heavier spring, and means within the heavier spring pretensioning the heavier spring to the tension of the light spring at its maximum extension as determined by said stop member; said last mentioned means comprising a rigid tube adapted at one end to engage said coupling, and a plug engaging the other end of said tube and the end of said heavier spring, the bore of said tube freely receiving said stop member, and the combined lengths of said tube and said plug being such as to maintain said heavier spring in a slightly extended position and under the tension exerted by the light spring at its maximum extension.

2,777,644
WEB WINDING APPARATUS
Frank Raymund Nicholson, Buffalo, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application December 30, 1953, Serial No. 401,134
5 Claims. (Cl. 242—65)

1. Web winding apparatus comprising in combination a positively driven drive shaft, a multiplicity of individual primary driving means mounted on said drive shaft for free rotation thereon, spacing means secured on said drive shaft for rotation therewith and arranged to maintain adjacent primary driving means in spaced relationship, said spacing means being in frictional driving contact with said primary driving means, a stationary shaft spaced from and parallel to the drive shaft, a multiplicity of indivdual secondary driving means rotatably mounted on said stationary drive shaft, each of said secondary driving means being aligned with a primary driving means, a power transmitting linkage connecting each of said aligned primary and secondary driving means, a plurality of pivot arms rotatably mounted on said stationary shaft, each arm being disposed adjacent a secondary driving means, rotatable core-supporting means mounted on the free end of each of said arms, a power transmitting linkage connecting each secondary driving means and the core-supporting means on the arm adjacent thereto, a core upon which web is wound rigidly mounted on each of said core-supporting means, and a web driving roll in peripheral rotating contact with said cores and webs being wound thereon.

2,777,645
SPINNING REEL
Morris E. Wood, Bronson, Mich., assignor to Higbie Manufacturing Company, Rochester, Mich., a corporation of Michigan
Application June 25, 1954, Serial No. 439,337
27 Claims. (Cl. 242—84.4)



3. An assembly for a spinning reel, said assembly comprising a rotor having a base wall and a cylindrical side wall, said base wall being formed with raised substantially radially extending formations to provide an open ended guideway, a slidable member disposed in the guideway and having an outer extremity extending outwardly from the side wall of the rotor, means on the member engageable with the rotor for limiting outward movement of the member, said member having a projection thereon, a lever pivotally mounted on the base wall of the rotor and provided with a slot receiving the projection on the member in a manner whereby oscillatory movement of the lever will impart reciprocatory movement to the member, and a spring acting on the lever for normally urging the member outwardly.

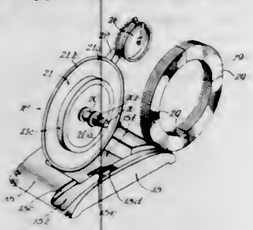
2,777,646
EXPANSIBLE-CONTRACTIBLE HOSE REEL
Joseph A. Manahan, Newton Highlands, Mass.; Dorothy Manahan, administratrix of said Joseph A. Manahan, deceased
Application July 5, 1952, Serial No. 297,224
11 Claims. (Cl. 242—86)

1. A fire hose reel comprising a hub, spaced heads, and a series of resilient arms arranged between the heads, each arm of the series being fixed at one end to the hub and being free at its other end, each arm being of arcuate curvature with its convex side outwardly exposed, successive arms of the series overlapping, the outer convex surfaces of the several arms collectively constituting a support for the hose.

2,777,647
COIL UNREELER
Thomas J. Fullerton, Palos Heights, and Robert A. Rosenblum, Chicago, Ill., assignors to Acme Steel Company, Chicago, Ill., a corporation of Illinois
Application April 28, 1953, Serial No. 351,679
4 Claims. (Cl. 242—105)

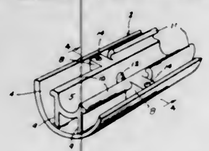
1. The combination in a coil unreeler, of a supporting base, and a reel carried by said base for supporting a coil of flexible strip material, said base having an inclined ramp extending upwardly from the end thereof whereby said coil may be rolled to a position opposite said reel,

said base being further provided with a cavity for positioning said coil opposite said reel, and with an inclined



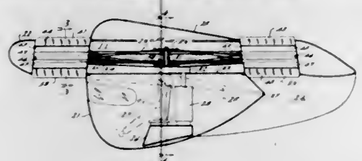
surface over which the lower part of said coil may be caused to slide to a position beneath a part of said reel.

2,777,648
ARBOR FOR SHAFT
Morris E. Wood, Bronson, Mich., assignor to Higbie Manufacturing Company, a corporation of Michigan
Application November 4, 1952, Serial No. 318,595
3 Claims. (Cl. 242—119)



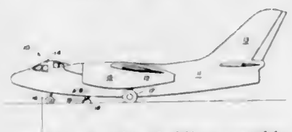
3. A pair of arbor sections for a shaft, each of said sections comprising an elongated shell having an outer substantially arcuate wall, internal bearing means for engaging a shaft, a central radial formation, a pair of corresponding axially extending substantially diametrically disposed groove formations carried by the bearing means and located at one side of the radial formation, and a pair of corresponding axially extending substantially diametrically disposed tongue formations located at the other side of the radial formation, the groove and tongue formations on the respective sections being yieldably cooperative to secure the sections about a shaft to form an arbor therefor, and means for keying at least one of the sections to a shaft.

2,777,649
FLUID SUSTAINED AIRCRAFT
Samuel B. Williams, Birmingham, Mich.
Application August 13, 1952, Serial No. 304,135
5 Claims. (Cl. 244—23)



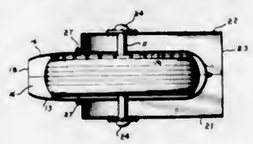
2. In a helicopter or the like, a rotor having rotor blades thereon, a shroud outwardly spaced from and surrounding said rotor blades, said shroud being of streamlined airfoil shape from front to rear and serving to reduce aerodynamic drag in forward flight, upper and lower inner shroud members on opposite sides of said rotor and spaced inwardly from said outer shroud, mutually facing surfaces on said inner and outer shrouds for directing air through said rotor blades, at least one set of vanes located above said rotor joined to said inner upper shroud member and to said outer shroud member, said vanes defining turning passageways for directing the incoming air downwardly to the rotor, a set of stationary radially disposed blades located below said rotor joined to said lower inner shroud member and to said outer shroud member, and a set of parallel blades located below said radially disposed blades and disposed normal to the forward flight direction, said parallel blades being tiltable for controlling the direction of air discharged from the craft.

2,777,650
AIRCRAFT CATAPULT AND LANDING BARRIER ARRANGEMENT
John P. Fosness, Pacific Palisades, and James E. Harrison, Redondo Beach, Calif., assignors to North American Aviation, Inc.
Application January 19, 1954, Serial No. 404,838
7 Claims. (Cl. 244—63)



2. In a catapult-engaging bridle assembly, a cylinder member having an internal bore and a cylinder head fixed to an end of said cylinder member, a piston member having a head portion telescopically engaging the bore of said cylinder member, the said piston member having an internal bore, an inner piston member fixedly supported from the cylinder head of said cylinder member and telescopically engaging the bore of said piston member, means for admitting fluid under pressure between the cylinder head of said cylinder member and the head portion of said piston member for extension of said bridle assembly, and means for admitting fluid under pressure between said inner piston and the head portion of said piston member for retraction of said piston member within said cylinder member.

2,777,651
AIRCRAFT LANDING WHEEL ROTATING MEANS
Edward C. Gates, Syracuse, N. Y.
Application May 24, 1955, Serial No. 510,614
5 Claims. (Cl. 244—103)

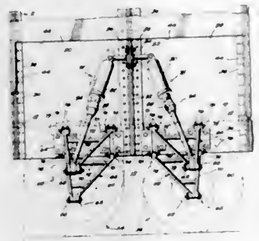


1. In combination, an aircraft wheel having a plurality of vanes thereon, a covering surrounding substantially all of the wheel and having an exhaust opening therein at the periphery thereof and an inlet opening thereon adjacent the center of said wheel, an air scoop on said covering over the inlet opening for directing air from the airstream against the center of said wheel, said vanes on said wheel lying in the path of air passing over the wheel from the center to the periphery thereof for rotating said wheel when said centrally directed air impinges against them while passing to said exhaust opening.

2,777,652
RETRACTIBLE TANDEM WHEEL LANDING GEAR
Daniel Grudin, Trenton, N. J., assignor to Stronkoff Aircraft Corporation, West Trenton, N. J., a corporation of New York
Application February 2, 1954, Serial No. 407,757
16 Claims. (Cl. 244—104)

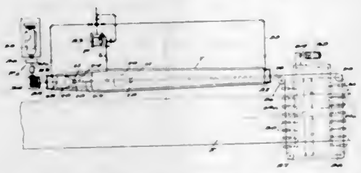
1. In an aircraft having a fuselage, a landing gear assembly comprising: a pair of tandem wheels, each

mounted for rotation on a separate stub axle; a pair of linkages extending laterally of the fuselage and connecting each of said axles thereto for movement in a vertical plane; a pair of compression struts, one for each of said axles and each having the lower end thereof pivotally



connected to its corresponding axle; a rocker arm having the opposite ends thereof connected to the upper ends of said struts for relative angular movement between said arm and each of said struts; and means fixed to the fuselage mounting a central portion of said arm for rocking movement.

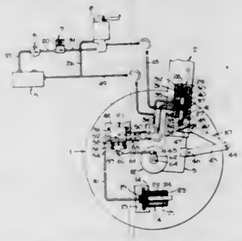
2,777,653
EXPEDITIONARY AIRCRAFT ARRESTING SYSTEM
Robert B. Cotton, Media, Pa., and Donald B. Doolittle, Wilmington, Del., assignors to All American Engineering Company, Wilmington, Del., a corporation of Delaware
Application May 13, 1955, Serial No. 508,045
9 Claims. (Cl. 244—110)



1. Means for arresting aircraft traversing a runway surface comprising a sealed elongated liquid filled tube with a bore tapered in the arresting direction, an arresting piston in said tapered bore, said piston having an outside diameter less than said bore, an aircraft arresting cable loop coupled at each free end of the loop to the said piston and extending therefrom through the arresting end of the tube, said loop being reeved around a pair of spaced apart runway sheaves on each side of the runway surface, to thereby form a pair of longitudinally spaced apart runway pendants across the runway, either of said pendants when hooked by an aircraft landing on the runway imparting an accelerating pull on said piston, whereby the piston is pulled through said liquid in the tapered bore of the tube, and a portion of the liquid is squeezed between said outer diameter of said piston and the adjacently surrounding tapered bore without accelerating the mass of said liquid as said piston is pulled toward the tapered arresting end of the tube.

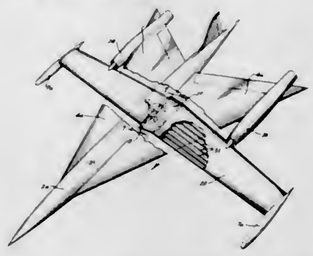
2,777,654
AIRPLANE BRAKE CONTROL APPARATUS
Charles W. Berkoben, Irwin, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application August 25, 1953, Serial No. 376,295
3 Claims. (Cl. 244—111)

1. In a fluid pressure operable brake control apparatus for the landing wheel of an airplane having resilient body supporting structure comprising two relatively moving members, one connected to the body of the airplane and the other to said wheel, the combination comprising a source of fluid under pressure, a brake cylinder device responsive to fluid pressure for effecting a brake application on said wheel and to relief of such pressure for effecting a brake release, conduit means providing for flow of fluid under pressure from said source to said brake cylinder device, manually operable valve means for controlling the pressure of fluid supplied to said brake cylinder device, a release valve device interposed in said conduit means between said manually operable valve means and said brake cylinder device, said release valve device having one position for effecting supply of fluid under pressure to said brake cylinder device and operable to another position for relieving said brake cylinder device of fluid pressure, control means arranged to respond to a slipping condition of said wheel for effecting operation of said release valve device to its said other position and to



respond to cessation of said slipping condition for effecting operation of said release valve device to its said one position, an interceptor valve device mounted on said one supporting member and interposed in said conduit means between said manually operable valve means and said release valve device, said interceptor valve device being operable to one position to close communication through said conduit means and operative to another position to open said communication, and a hinged lever device comprising a first arm having one end pivotally connected to said one supporting member and a second arm having one end pivotally connected to said other supporting member, with the opposite ends of said arms pivotally connected to each other, said lever device being adapted to effect operation of said interceptor valve device to its said one position upon disengagement of said landing wheel with the ground and to effect operation of said interceptor valve device to its said other position upon engagement of said landing wheel with the ground.

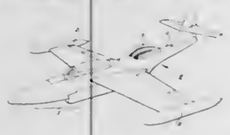
2,777,655
AIRPLANE WITH SEPARABLE FUEL TANKS
Connelly L. Graham, Covina, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application March 26, 1951, Serial No. 217,535
2 Claims. (Cl. 244—135)



1. In a supersonic speed airplane having a main wing and a main fuel system, means for increasing the performance and range of said airplane comprising an

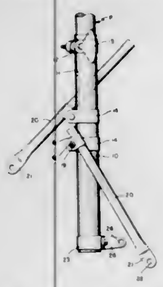
auxiliary wing spaced below the lower side of said airplane, said auxiliary wing having a conventional aerodynamic form suitable only for subsonic speed flight, a streamlined vertical support pedestal connected to the top center of said auxiliary wing, said pedestal extending across the full root chord of said auxiliary wing, releaseable support means normally securing the top of said pedestal to the lower side of said airplane, along two spaced fore-and-aft attachment lines, and including extreme fore-and-aft positioning means between said pedestal and said airplane, said positioning means being freely separable in a relative downward direction only, fuel tanks carried by said auxiliary wing, auxiliary fuel system means connecting said fuel tanks to said main fuel system through said pedestal and including a pull-apart coupling, and jettison actuating means connected to said releasable support means adapted to quickly release said support means and jettison said auxiliary wing, pedestal and fuel tanks from said airplane.

2,777,656
AUXILIARY FUEL CELL
John R. Clifton, Rolling Hills, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application April 28, 1953, Serial No. 351,643
5 Claims. (Cl. 244—135)



2. An airplane having a particular area of the external surface thereof formed from elastic material prestressed to maintain a predetermined surface contour position in flight, means inside of said area sealed to said elastic material to form a chamber of which said elastic material is the external wall, means for inserting fuel under pressure into said chamber from outside said airplane to distend said elastic material outwardly into the airstream over said particular area thereby to increase the fuel capacity of said chamber, and means for conducting fuel from said chamber into the engines of said airplane.

2,777,657
TRACTOR MOUNTED SUPPORT FOR UMBRELLAS
Lawson J. Zent, Huntington, Ind., assignor to The Hettrick Manufacturing Company, Toledo, Ohio, a corporation of Ohio
Application December 22, 1955, Serial No. 554,855
1 Claim. (Cl. 248—41)

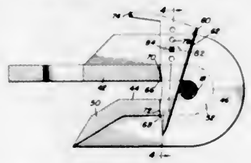


An umbrella pole mounting for farm tractors comprising an upright tube adapted to receive the lower end of the umbrella pole, a base strap clamp on the base portion of the tube, a bracket carried by said base strap clamp for rigid attachment to the tractor frame, a pair of brace strap clamps on said tube above said base clamp, each of said brace strap clamps having a pair of end portions with aligned apertures extending therethrough, bolts extending through the apertures in said end portions, each of said bolts extending beyond one of the respective clamp end portions, a smaller strap clamp on each of said projecting bolt ends and a brace arm extending through each of the smaller strap clamps, the smaller strap clamps having end portions with aligned apertures extending therethrough and through which said bolts respectively extend, a nut on each of said bolts thereby to secure and tighten said brace arms, brace clamps, and smaller strap clamps, the lower end of each brace arm being adapted to be rigidly attached to a tractor part, whereby said brace arms may be selectively affixed in various directions for rigidly holding said supporting tube in upright position against lateral movement.

2,777,658
BATH MAT HANGER
Howard T. Flinn, Phoenix, Ariz.
Application October 2, 1952, Serial No. 312,723
1 Claim. (Cl. 248—158)

A bath mat hanger of the character described comprising a base including a pair of spaced, parallel side bars, said side bars including upwardly curved end portions providing rockers, a weight mounted transversely on the side bars adjacent the other end portions thereof, and a frame for supporting a mat in suspension, rising from the side bars and being inclined over the base, said frame including a pair of spaced, parallel uprights integral with the upwardly curved end portions of the side bars, a panel mounted between the uprights, and a bar extending transversely between the upper end portions of the uprights, said weight maintaining said frame in a substantially upright position by gravity, said uprights having vertical slots in said upper end portions for the reception of the mat for frictionally anchoring said mat to the frame.

2,777,659
CARRIAGE BRACKET FOR HEAD ANCHOR
Charles H. Meysan, Lone Pine, and Frank H. Dodge, Live Oak, Calif.
Application June 22, 1954, Serial No. 438,522
3 Claims. (Cl. 248—226)



1. In a head anchor, a carriage comprising a substantially U-shaped plate, one leg of said U-shaped plate having a sheave mounting aperture therein, the other leg of said plate having a portion bent out to provide a diverging lip, said plate having a notch in the bight portion, said notch extending into the leg portions, an upstanding rib adjacent each side of said notch, said ribs merging into said lip on the lip side of said plate and terminating in spaced relation to the end of the other leg of the plate,

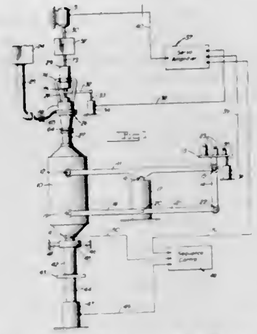
a wedge slidably mounted in said notch, one face of said wedge being longitudinally convex for wedging a cable into said bight, the other side of said wedge being transversely concave to tighten said wedge in said notch.

2,777,660
ADJUSTABLE SHORES
Henry P. Albrecht, Minneapolis, Minn.
Application November 27, 1953, Serial No. 394,574
2 Claims. (Cl. 248—354)

1. An adjustable supporting column comprising a tubular lower section having the upper end thereof open, an upper section having a plurality of longitudinally spaced diametrical openings therethrough telescopically received in the open upper end portion of said tubular lower section for initial axial extending and retracting movements, an extension element threadably engaged with the upper end portion of said lower section, a collar overlying and engaging said extension element and having independent rotary and axial movement therewith on said upper section, operating means on said extension element for rotating same to provide vernier axial adjustment of said upper section through said collar, said collar having pairs of diametrically opposed longitudinally spaced step-like portions each pair of which provide a supporting surface selectively supporting the ends of a pin inserted through a selected opening in said upper section providing an intermediate axial adjustment of said upper section between said initial and vernier adjustments, aligned diametrical openings in said extension element alignable with a selected opening in the upper section for receiving means to secure the sections together for transportation or storage.

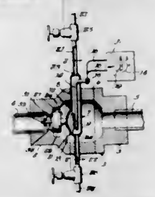
2,777,661
WEIGHING SYSTEM
Roger L. Merrill and Thomas M. Boland, Columbus, and William Hecox, Groveport, Ohio, assignors, by mesne assignments, to The Battelle Development Corporation, Franklin, Ohio, a corporation of Delaware
Application July 2, 1953, Serial No. 365,730
1 Claim. (Cl. 249—3)

An apparatus for filling containers with a predetermined weight of a fluid comprising a weigh chamber, a servo-controlled flow valve for directing a flow of fluid into said chamber, a servomotor means for varying the flow rate of said fluid through said control valve, servo-amplifying means connected to first circuit means and to said servomotor means, scale balance means, said chamber being balanced on one arm of said balance means, weight means on the other arm of said balance means, said weight means balancing said balancing means when said predetermined weight of fluid is present in said chamber, a first differential transformer operatively associated with said balance means and providing first output voltage from it, secondary windings depending upon the mechanical displacement of said balance means, a second differential transformer associated with said flow valve and providing a second output voltage from its secondary windings proportional to said flow rate, said first differential transformer being positioned to provide no output voltage when said balancing means is balanced, said second differential transformer being positioned to provide no output voltage when said flow valve is closed and said flow is thereby stopped, second circuit means connecting said secondary windings in series opposition to the input circuit of said servoamplifier means, so that



the resultant voltage difference of the two said output voltages incident to said flow of material into said chamber causes actuation of said servomotor means to continuously reduce said flow rate during a filling cycle and to stop said flow when said predetermined weight is present in said chamber, an emptying valve in said chamber positioned to empty said chamber into a container positioned below said emptying valve, and sequence-control means for preventing said flow during emptying through said emptying valve and for preventing emptying through said emptying valve until said predetermined weight of fluid is present in said chamber and said flow has stopped.

2,777,662
MULTI-HEAT MOTOR ACTUATED VALVES
George E. Hansen, Elmwood Park, Ill., assignor to Crane Co., Chicago, Ill., a corporation of Illinois
Application August 17, 1951, Serial No. 242,381
4 Claims. (Cl. 251—11)

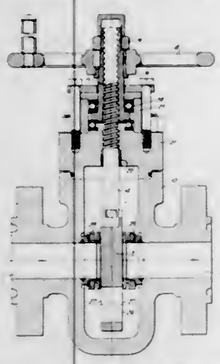


1. In a valve actuating mechanism, the combination comprising a valve casing, a chamber in the said casing and a valve seat in the chamber, means for supplying heated fluid to the said valve casing, the said fluid supply means comprising an inner casing within the chamber of said first named casing, a bimetallic element forming a wall of the said inner casing, a heating rod for affecting the temperature of the said inner casing, a closure member connected with the said bimetallic element and being responsive to changes in temperatures of fluid within the said inner casing effected by the said fluid heating means thereby to open and close the valve, and means cooperating with the said fluid supply means for regulating the input of the fluid means to the said inner casing.

2,777,663
RADIATOR CONNECTING DEVICE
Axel Nore Alexander Axlander, Stocksund, Sweden
Application August 28, 1951, Serial No. 244,009
Claims priority, application Sweden August 30, 1950
7 Claims. (Cl. 251—148)

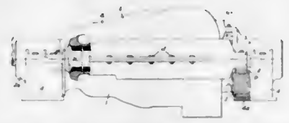
1. A connecting device for apparatus having an inlet adapted to be connected to a fluid supply conduit and an outlet adapted to be connected to a fluid return conduit, said device comprising a housing having an internal partition whereby to provide an admission chamber and a discharge chamber within the housing, said admission chamber having a supply delivery opening and a supply admission opening, said discharge chamber having a discharge admission opening and a discharge delivery opening, and means providing a passage extending through said partition and opening in the direction of flow from said supply admission opening to said supply delivery opening and forming a constriction in the path for flow of fluid through said admission chamber past said passage from said discharge delivery to said discharge admission opening of the admission chamber.

2,777,664
VALVE CONSTRUCTION
Austin U. Bryant, Berkeley, Calif., assignor to Grove Valve and Regulator Company, Emeryville, Calif., a corporation of California
Application December 26, 1951, Serial No. 263,155
5 Claims. (Cl. 251—174)



1. In a valve construction, a body having fluid flow passages, a valve member within the body and movable between open and closed positions, said member having a valve working surface, and means carried by the body forming a valve working surface adapted to cooperate with and seal with respect to the valve working surface of the valve member, said last named means comprising an annular metal sealing unit, the unit having one rigid annular portion sealed with respect to the body and another rigid annular portion forming an annular valve working surface and sealed with respect to the valve working surface of the valve member, said portions being integrally joined by a bellows-like resilient metal portion which is normally stressed within its elastic limit whereby said valve working surfaces are urged together into sealing engagement, said valve working surfaces being in direct rubbing contact when the valve member is moved, and a rigid sleeve carried by the body and serving to limit compression of said bellows-like portion, said sleeve closely interfitting said bellows-like portion and serving to directly transmit thrust from said other rigid annular portion to the valve body, whereby the thrust caused by fluid pressure applied to the valve member in closed position of the same is carried by said sleeve.

2,777,665
TURBINE SHELL SUPPORT STRUCTURE
Arthur Martinson, Scotia, N. Y., assignor to General Electric Company, a corporation of New York
Application August 11, 1954, Serial No. 449,056
7 Claims. (Cl. 253—39)

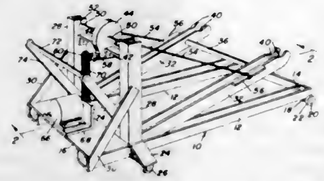


1. In an elastic fluid turbine, the combination of a casing having a shaft extending therethrough, at least one bearing pedestal formed separately from the casing and having bearing means supporting said shaft, the casing having arms extending axially from the end thereof adjacent said pedestal, means supporting each casing arm on the pedestal and comprising a pair of angle plate members having opposed substantially parallel inclined surfaces secured to the casing arm and pedestal respectively, a key plate member interposed between the angle plates and having a first outer surface abutting and adapted to slide on an inclined surface of an adjacent angle plate, said key plate member being so oriented relative to the casing that the plane containing said first surface passes substantially through the centerline of the shaft, whereby the desired location of the casing arm relative to the pedestal may readily be effected during assembly by removing and machining the key plate member without substantially disturbing the pedestal or removing the casing

2,777,666
TURBINE NOZZLE STRUCTURE
John E. Corr, Scotia, and Joseph H. Ouellette, Albany, N. Y., assignors to General Electric Company, a corporation of New York
Application December 6, 1951, Serial No. 260,229
5 Claims. (Cl. 253—78)

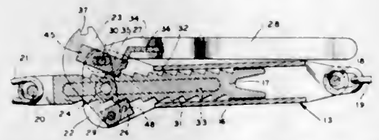
1. A turbine nozzle structure including a first member provided with an arcuate nozzle passage extending axially therethrough, a pair of radially spaced arcuate band members fused to the first member to form radially spaced inner and outer wall portions of the nozzle passage, and a plurality of circumferentially spaced nozzle blades extending radially across the nozzle passage, each blade having a thin exit edge portion, the root and tip portions of each blade being thickened adjacent the exit edge and occupying recesses of similar shape in the respective band members, said thickened edge portions within the confines of said recesses each being provided with an axial slot extending inwardly a substantial distance from the extremity of the thickened edge, whereby said thin blade edge portion is free to expand and contract in a direction radially of the nozzle passage.

2,777,667
PORTABLE TRUCK DUMP
Walter L. Stafford, Moyock, N. C., and Eugene T. White, Jr., Northwest, Va.
Application April 8, 1954, Serial No. 421,793
2 Claims. (Cl. 254—4)



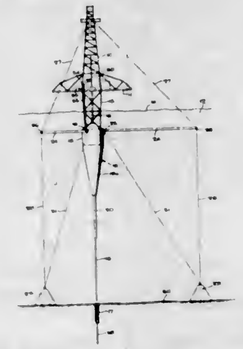
1. A truck dump which is portable and adapted to hoist the forward end of a truck in a manner to incline the truck body and facilitate dumping a load from the body by way of the usual tail gate at the rear end thereof comprising, in combination, a low-lying mobile horizontal frame embodying a pair of spaced parallel frame members channel-shaped in cross-section and with their channels opening upwardly, a horizontal plate overlying and rigidly fastened to corresponding end portions of said frame members and providing a platform, a pair of vertical channel-shaped standards having their lower ends telescoping into the channels of said frame members and abutting an adjacent longitudinal edge portion of said platform, horizontal support means fixed to the upper end portions of the respective standards and partially bridging the space between said standards, a gear housing supported by said support means and having a gear wheel mounted for rotation therein, said gear wheel being provided with complemental axially aligned shafts with their outer ends supported between the upper end portions of said standards, a prime mover mounted on said platform, an operating connection between said prime mover and gear wheel, a pair of lift arms mounted for operation directly above and in alignment with the channels of said frame members and having portions foldable into said channels, ends of said lift arms extending into the lower channel portions of the respective standards, means pivotally connecting said ends to said standards, and flexible connectors having corresponding ends wound for operation around their respective shafts and their opposite ends operatively connected with their respective lift arms.

2,777,668
LOAD BINDER DEVICE
John Richard Huber, Warrington, Pa., assignor to Eastern Rotorcraft Corporation, Doylestown, Pa., a corporation of Pennsylvania
Application March 20, 1953, Serial No. 343,613
2 Claims. (Cl. 254—72)



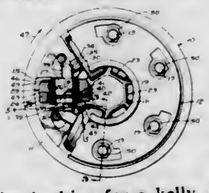
2. A load securing device having an outer elongated housing of rectangular section, a telescoping rectangular member having a series of ratchet teeth formed on two opposite sides, ratchet mechanism including a link mounted on a pivot member supported in the outer housing, an elongated slot in said telescoping member, said pivot member extending into said slot and acting as a position limiting stop for the motion of said telescoping member, a pair of spring loaded pawls supported on said link, one engageable with each series of ratchet teeth, and a manual actuator attached to said link for oscillation thereof for length adjustment of the device, the attachment between said link and said manual actuator incorporating a pivot and slot construction to permit slidable and pivotal motion of the handle from an operating position to a folding position, said link having a notch, a projection from said actuator to engage said notch when in operating position, said actuator being movable on its pivot to a position in which it contacts one of said pawls to cause disengagement from the ratchet teeth, and a stop reacting between the other of said pawls and said link to permit disengagement of said other pawl.

2,777,669
MARINE WELL DRILLING APPARATUS
Cornelius G. Willis and David G. Willis, Los Angeles, Calif., said David G. Willis assignor to said Cornelius G. Willis
Application December 27, 1948, Serial No. 67,518
8 Claims. (Cl. 255—2.5)



8. In combination: marine oil well apparatus including a platform and a derrick mounted upon the platform, a fully submerged floating member constituting the sole supporting means for said apparatus and positioned directly below the derrick, the member having a centrally positioned vertical opening extending therethrough, structural framework means extending upwardly from the submerged floating member to maintain the said apparatus above water level, means providing a vertical conductor conduit for well tools extending from above water level and axially insertable centrally through said vertical opening in the submerged floating member to the ocean floor, and inclined tension elements secured to means on the ocean floor and to said floating member for maintaining said floating member in submerged position and for minimizing lateral movement thereof.

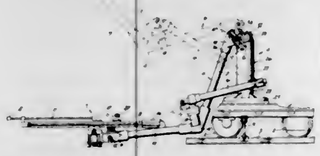
2,777,670
ROLLER KELLY BUSHING
Spencer W. Long, Inglewood, Calif., assignor to The National Supply Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application December 15, 1952, Serial No. 325,975
1 Claim. (Cl. 255—23)



In a roller drive bushing for a kelly, the combination of: a body having horizontal clamping surfaces, a cover

cooperating with the body to define a central opening and a series of reecsses radiating from said central opening, the cover having horizontal clamping surfaces facing the clamping surfaces on said body, a plurality of drive roller assemblies each including a stationary shaft having a central cylindrical portion, a kelly-contacting drive roller rotatably mounted on each of said central cylindrical portions, each roller extending into one of said recesses, each shaft having laterally extending generally rectangular trunnions projecting from opposite ends of the central cylindrical portion, the trunnions being offset with respect to the roller axis, each trunnion having vertical side faces, and parallel top and bottom surfaces confronting the horizontal clamping surfaces on said body and cover, respectively, shoulder means on the body disposed radially outwardly of said trunnions a predetermined distance from the center of said central opening and engaging the adjacent vertical side faces of said trunnions to form fixed abutments to positively limit radial outward movement of said drive roller assemblies relative to said central opening, shoulder means on said body at the radially inner side faces of said trunnions and bordering on the peripheral edge of said central opening, cooperating with said first-mentioned shoulder means to form pockets for said trunnions, both of said shoulder means being of a height less than the vertical side faces of said trunnions, torque-receiving means on the body whereby it may be rotated about a central axis, and clamp means connecting the body and cover and acting to maintain the horizontal clamping surfaces in engagement with said parallel trunnion surfaces.

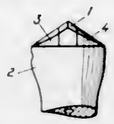
2,777,671
DRILLING APPARATUS
George H. Fuehrer, Downey, Calif., assignor to Independent Pneumatic Tool Co., Aurora, Ill., a corporation of Delaware
Application February 10, 1953, Serial No. 336,105
17 Claims. (Cl. 255—51)



17. In a rock drilling apparatus for use in mining and tunneling operations, a movable support, a pedestal having a hollow base anchored on said support, a column mounted on said pedestal for rotation about a vertical axis passing therethrough, said column having an inner portion extending downwardly through said pedestal to said base, a drill supporting boom mounted at the upper end of said column and rotatable therewith to position laterally a rock drill relative to the face to be drilled, a flange member disposed within said base and non-rotatably associated with said inner column portion, and fluid operated means to effect a locking and unlocking action between said flange member and said base to thus selectively prevent rotation of said column and said boom.

2,777,672
PERCUSSION DRILLING BIT
Didrik Wilhelm Haglund and Stig Per Gustav Höglund, Sandviken, Sweden, assignors to Sandvikens Jernverke Aktiebolag, Sandviken, Sweden, a joint-stock company
Application March 22, 1950, Serial No. 151,072
Claims priority, application Sweden March 26, 1949
4 Claims. (Cl. 255—64)

1. A percussion drill bit having a body provided with a substantially flat end face facing in the direction of drilling, at least two separate insert-securing members brazed to said face and arranged beside each other, at least two of said members having side walls facing each other and spaced apart, and forming an elongated groove therebetween, an elongated cutting insert of hard metal

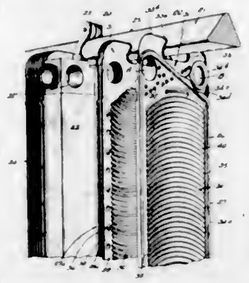


sintered carbides in said groove and brazed to said securing members, the width of said groove formed by said securing members being substantially equal to the width of said insert, and said insert-securing members being composed of a material having a coefficient of expansion close to that of the material of said cutting insert.

2,777,673
FOLDING FENCE
Arthur E. May, Jr., Lake Grove, and Boris Michael Fingerut, Coos Bay, Oreg.
Application August 9, 1954, Serial No. 448,488
6 Claims. (Cl. 256—33)

1. A foldable fence comprising a plurality of identical wire frames, each of said frames comprising an upright wire adapted to be thrust into the ground, and a wire form affixed to said upright wire, said wire form comprising an intermediate upright portion and a pair of arms extending laterally from the top and bottom respectively of said upright portion, said arms lying in an upright plane passing through said upright portion, extending in the same direction from the upright portion, and being inclined toward each other, whereby said form defines three sides of a regular trapezoid, each of said arms having an open snap hook at its end releasably embracing the upright portion of the wire form of an adjoining frame.

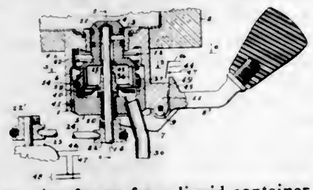
2,777,674
PLATE TYPE HEAT EXCHANGER
Alden H. Wakeman, Lakemills, Wis., assignor to The Creamery Package Mfg. Company, Chicago, Ill., a corporation of Illinois
Application May 29, 1953, Serial No. 358,264
7 Claims. (Cl. 257—245)



1. In a plate heat exchanger capable of disassembly through which a heat transfer medium circulates, a pair of removable complemental thermal conductive plates, said plates being arranged in contacting face-to-face

relation to form a plurality of elongated substantially parallel passageways therebetween for such medium, the widths of said passageways becoming progressively narrower from the center passageway outwardly toward the sidewise spaced passageways each plate comprising an elongated center portion having a plurality of elongated crescentic corrugations formed therein, said corrugations being arranged in substantially coextensive relation and extending crosswise of said center portion and transverse to the direction of flow of such circulating medium to effect turbulence of the latter, the direction of curvature of the corrugations on one plate being opposite from the direction of curvature of the corrugations on the other plate whereby only segments of the corrugations of said plates are in contact with one another when said plates are in assembled relation, and define said passageways the portions of the corrugations of said complemental plates disposed between said contacting corrugation segments defining said center passageway being in staggered spaced relation with respect to one another, when said plates are assembled, to effect uniform rate of flow of such medium through all of said passageways, and means formed on each plate and disposed on opposite sides of said center portion and communicating with said passageways to effect circulation of such medium therethrough.

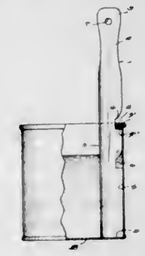
2,777,675
DISPENSING FAUCETS
William Stelzer and Walter Eickele, Summit, N. J.; said Stelzer assignor to said Eickele
Application August 3, 1955, Serial No. 526,305
13 Claims. (Cl. 259—8)



1. A dispensing faucet for a liquid container having an outlet, comprising manually operable valve means including a stopper to dispense liquid from said container, a blender chamber having ribbed walls, a central restricted passage in communication with said valve means and said chamber to transmit liquid from said valve means to said chamber, an impeller shaft extending coaxially into said chamber and said restricted passage, said impeller shaft being smaller than said restricted passage to permit the flow of liquid in the clearance between said shaft and said restricted passage, an impeller secured to said shaft within said chamber to turn with said shaft, bearings to support said shaft, said stopper, chamber, central restricted passage, impeller shaft, impeller, and bearings forming a unit movable with respect to said outlet, and air passage from the atmosphere in communication with said restricted passage for the entrainment of air in the liquid passing through said restricted passage, said shaft in said restricted passage being formed to increase the suction in said restricted passage to draw in an increased amount of air into said restricted passage, a pulley mounted on said impeller shaft, power means including a belt to drive said impeller shaft, and a discharge spout connected to said chamber.

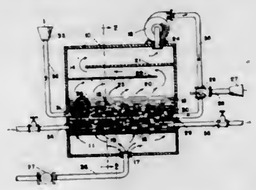
2,777,676
PAINT PADDLE
Charles A. Carter, Altadena, Calif.
Application October 18, 1954, Serial No. 462,765
1 Claim. (Cl. 259—144)

A paint stirring paddle comprising a thin, elongated strip of rigid metal reinforced by being curved longitudinally from end to end thereof and comprising a handle portion and a blade portion having parallel straight side edges terminating at a square distal end; said blade portion at one side edges thereof being provided with a notch so disposed that when the distal end of said blade is resting on the bottom of a container said notch will be horizontally opposite the cover engaging rim of the container and being of such size and configuration as to clear the container rim when said side edge having said notch is in contact with the side wall of the container;



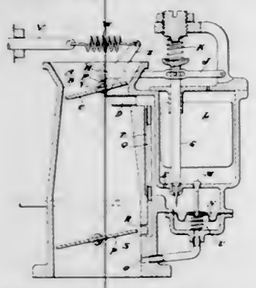
the lower edge of said notch at the juncture with said side edge further including an upwardly extending projection adapted to be engaged with the recess between the container side wall and the adjacent side of the cover engaging groove in the container top rim for optional use as a cleaning means for said recess or as a fulcrum engageable with the side of said recess adjacent the cover engaging groove and about which said paddle may be angularly moved edgewise incident to cutting into settled pigment at the bottom of the container.

2,777,677
AIR TEMPERING EQUIPMENT
William Bunch, Grand Prairie, Tex.
Application October 6, 1954, Serial No. 460,579
5 Claims. (Cl. 261—10)



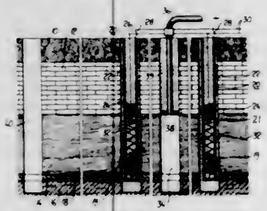
1. An air tempering unit comprising in combination, a cabinet, minutely perforated panel disposed across said cabinet dividing it into an air distributing chamber and a secondary chamber; baffles staggered across said secondary chamber for diverting air drawn from said first mentioned chamber through the perforations in said panel into said secondary chamber, said panel being adapted to support a quantity of water thereon without it appreciably leaking through said perforations but allowing air under pressure to pass upwardly through the panel and water and be humidified thereby and tempered by evaporation before continuing by the baffles; a main inlet for supplying air to the distributing chamber, a main outlet for the outflow of the tempered and humidified air, and a device for inducing the air to flow through the chambers from the main inlet to the main outlet under pressure, with the addition of a tubular coil disposed in the secondary chamber to be immersed by said water, connections between the said outlet and said coil for transmitting the tempered air therethrough and an additional outlet for exteriorly dispersing the air after it passes through the coil.

2,777,678
CARBURETOR
Stanley M. Udale, Detroit, Mich., assignor to Holley Carburetor Company, Detroit, Mich., a corporation of Michigan
Application July 28, 1953, Serial No. 370,724
3 Claims. (Cl. 261—41)



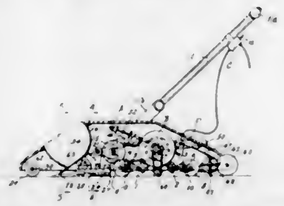
1. In a carburetor of the variable venturi type having a constant level fuel supply chamber, an air entrance of venturi form, a shaft unsymmetrically located transversely through the throat thereof, an unbalanced butterfly valve mounted on said shaft and having its downstream wing longer than its upstream wing, a fuel nozzle connected to said fuel chamber and having its discharge outlet in said throat below said upstream wing, a mixture outlet having a manually controlled throttle valve therein, a second fuel nozzle also connected to said fuel chamber and having a double fuel outlet divided by said throttle valve when in its idling position so that the discharge from the said second nozzle increases as the throttle is moved away from its idling position, a fixed fuel orifice supplying fuel to the first mentioned nozzle, a variable fuel orifice and a needle valve therefor, said variable orifice supplementing the supply of fuel from said fixed orifice to said first mentioned nozzle, mechanical linkage interposed between said needle valve and said unbalanced butterfly valve so arranged that as the unbalanced butterfly valve is sucked open after the throttle has been opened the needle valve is moved to admit more fuel to the first mentioned nozzle, yieldable means adapted to oppose opening of both the unbalanced butterfly valve and of the fuel controlling needle valve.

2,777,679
RECOVERING SUB-SURFACE BITUMINOUS DEPOSITS BY CREATING A FROZEN BARRIER AND HEATING IN SITU
Fredrik Ljungström, Fiskebackskil, Sweden, assignor to Svenska Skifferolje Aktiebolaget, Orebro, Sweden, a joint-stock company of Sweden
Application May 20, 1952, Serial No. 288,945
Claims priority, application Sweden March 7, 1952
5 Claims. (Cl. 262—3)



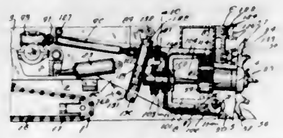
1. A method of gasifying in situ and recovering bituminous sub-surface deposits which includes the steps of cooling a zone down to a temperature at least as low as the freezing temperature of water to create a barrier zone for a selected area to be treated, heating the deposit in said selected area to produce gaseous products while maintaining the barrier zone, wherein the selected area is heated along a portion thereof to produce a heat front and said heat front is caused to travel generally parallel to itself within said area, and said barrier zone includes a cold front generally parallel with said heat front travelling in spaced relation thereto in advance thereof, and wherein the heat front is maintained by heat supplied to boreholes, the barrier zone is maintained by refrigerant supplied to boreholes, and the boreholes in the barrier zone are successively thawed to remove ice therein prior to the approach of the heat front to provide for gas movement in the thawed boreholes as the heat and cold fronts advance.

2,777,680
MACHINE FOR REMOVING FLOOR COVERINGS
John F. Robb, Cleveland Heights, Ohio, assignor to John W. Robb, Cleveland Heights, Ohio, and Frank B. Robb, Cleveland, Ohio, as trustees
Application April 17, 1950, Serial No. 156,269
2 Claims. (Cl. 262—9)



1. In a machine for removing floor coverings, in combination, a portable base, members supporting the said base to travel over a floor, a cutter unit carried by the base and comprising a rigid horizontal cutting blade, means to support and guide the cutting blade for horizontal movement parallel to the floor on which the base travels with the underside of the blade in close relation to the floor surface, a motor, rigid reciprocal drive connecting means between the motor and the cutting blade for effecting unyielding forward movements of the blade to separate and lift floor covering material from the floor, in which the motor is on the base and the last means includes handle means connected to the base adjustable to positions to operably connect, and disconnect, the motor and the cutting blade, and a molding strip lifting device operable from the motor and carried by the base, and means operable when the handle means is in a predetermined position for drivingly connecting the motor and said lifting device.

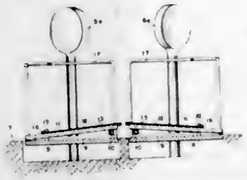
2,777,681
MINING AND LOADING MACHINE WITH UPPER AND LOWER RELATIVELY MOVABLE DISINTEGRATING HEAD PORTIONS
Charles F. Ball, Franklin, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application September 15, 1951, Serial No. 246,776
52 Claims. (Cl. 262—9)



1. In a mining apparatus, the combination comprising a mobile base, a frame structure swivelly mounted at the rear end of said base to swing horizontally relative thereto into positions wherein the outer portion of said frame structure overhangs the sides of said base, an elongated

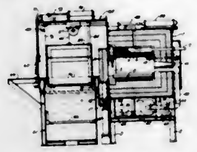
centrally located support pivotally mounted at its rearward portion on said swingable frame structure for tilting movement relative thereto, a mine vein disintegrating head mechanism carried at the outer end of said tiltable support in advance of said outer portion of said swingable frame structure and embodying a lower disintegrating head portion extending transversely the full width of said frame structure and a cooperating relatively adjustable upper disintegrating head portion, said head portions cooperating to form an opening in a solid mine vein of such dimensions as to receive said outer portion of said frame structure and said outer end of said support, and means for mounting said tiltable support on said frame structure for rectilinear guided movement back and forth relative thereto whereby said disintegrating head mechanism may be sumped forwardly into the mineral of the vein or may be retracted from the vein.

2,777,682
MULTIPLE LOAD WEIGHING ASSEMBLY
Linus E. Dohogne, Paragould, Ark., assignor to National Cotton Compress and Cotton Warehouse Association, Memphis, Tenn.
Application May 21, 1954, Serial No. 431,410
5 Claims. (Cl. 265—71)



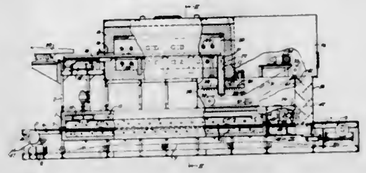
1. A dual load weighing assembly comprising two independent scale mechanisms mounted side by side on a common foundation, each including a main weighing platform and associated indicating dial, said main platforms lying in a common plane with an operating clearance space between them, to respectively weigh simultaneously presented loads, auxiliary load receiving platforms superimposed on respective main platforms, means on respective main platforms movably supporting said auxiliary platforms for relative lateral displacement in diverging directions, means normally urging respective auxiliary platforms to converge, and stop means limiting the converging movement of said auxiliary platforms to maintain a clearance between their adjacent edges.

2,777,683
UNIVERSAL HEAT TREATING APPARATUS
Vernon H. Ferguson, Pittsburgh, Pa.
Application February 21, 1952, Serial No. 272,785
2 Claims. (Cl. 266—4)



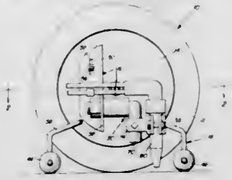
1. Universal heat treating apparatus, comprising a furnace with a doorway, a cooling chamber with a doorway, a vestibule forming a closed passage connecting said doorways, doors for said doorways, a roller conveyor in the vestibule for conveying work from the furnace to the cooling chamber, sprockets mounted on the ends of the conveyor rollers, an endless driving chain normally meshing with the tops of all of said sprockets for turning the rollers, an open top tank below said conveyor, a group of the conveyor rollers above the tank being movable as a unit downward into it, and means for moving said group of rollers downward away from said chain to lower work into the tank.

2,777,684
HEAT TREATING APPARATUS
Vernon H. Ferguson, Pittsburgh, Pa.
Application July 13, 1953, Serial No. 367,417
1 Claim. (Cl. 266—4)



An integral compact heat treating unit for metal articles, comprising a horizontally rectangular flat base frame having front and rear ends, a framework mounted on the base frame between said ends, a lower tunnel furnace mounted in the lower part of said framework longitudinally thereof and having an entrance near the rear end of the framework and an exit at its opposite end, an endless conveyor extending through the furnace, conveyor-supporting means rotatably mounted in the opposite ends of the framework beyond the furnace, an upper tunnel furnace supported by the upper part of the framework directly above the lower furnace and having at its opposite ends an entrance and an exit with the entrance located above said lower furnace exit, a conveyor in the upper furnace, an enclosed quenching tank mounted between the two furnaces below the exit of the upper furnace, a conveyor in the tank positioned to receive heated articles from the upper furnace exit and to carry them back through the tank and out of its rear end, an enclosed cleaning tank supported by said framework directly behind the lower furnace between it and said rear conveyor-supporting means, said endless conveyor extending through the cleaning tank, a chute behind the quenching tank extending from the rear end of said quenching tank conveyor down to the cleaning tank to deliver quenched articles to the endless conveyor in the cleaning tank, and means in the cleaning tank for cleaning said articles as they are carried toward the lower furnace entrance by said endless conveyor.

2,777,685
CUTTING TORCH GUIDE
Glenn L. Colson, Lawrence, Kans.
Application January 8, 1953, Serial No. 330,312
6 Claims. (Cl. 266—23)



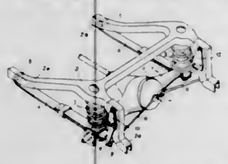
5. A burner tip guide comprising a rolling disc having a hub, a stationary disc journaled on said hub, a burner tip support adjustably mounted on said stationary disc, stabilizing wheels for said rolling disc disposed at one side thereof, said support comprising an elongated flat plate having longitudinally spaced slots therein, fasteners extending through said slots and adjustably securing said plate to said stationary disc, an arm extending from said plate at right angles to said disc, a clamping bar secured

to said arm and a clamp on said bar for clamping a burner tip thereto, said clamping bar comprising an L-shaped member, one leg of said member being rotatively received in said arm, means securing said one leg in selected rotated positions on said arm, the other leg of said member constituting a guide shank, said clamp being mounted on said shank, said securing means comprising a spacing sleeve on said one leg abutting one face of said arm, and a nut threaded on the free end of said one leg abutting the opposite face of said arm.

ERRATUM

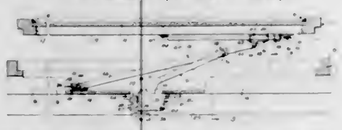
For Class 266—30 see:
Patent No. 2,778,018

2,777,686
REAR WHEEL SUSPENSION FOR MOTOR VEHICLES
Dante Giacosa and Angelo Mosso, Turin, Italy
Application August 12, 1954, Serial No. 449,298
5 Claims. (Cl. 267—16)



1. Rear axle suspension for motor vehicles comprising in combination helical springs interposed between the frame and axle, longitudinal reaction arms articulated at one end to the frame and secured by their other end to the axle, substantially rigid rods extending transversely of the vehicle from a central portion of the axle, depending leaf springs secured to the frame, an eye-shaped end at the depending portion of each spring, each of said rods being hinged at one end of the axle and at its other end to the said eye-shaped end.

2,777,687
WINDOW OPERATOR
Deane N. Jewett, Erin Township, Fraser, and Richard S. Jewett, East Detroit, Mich., assignors to Detroit Hardware Manufacturing Co., Detroit, Mich., a corporation of Michigan
Application December 29, 1952, Serial No. 328,332
1 Claim. (Cl. 268—109)

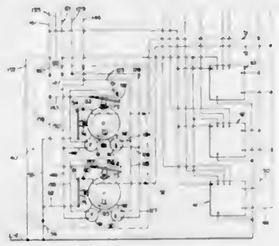


A window operating device for mounting upon the sill of a window frame having a vertically-swinging sash pivoted thereto, said device comprising an elongated guide member attached to the edge of the sash opposite the pivots thereof and disposed parallel to said sash edge and sill, a pivot element adapted to be fixedly mounted on the window sill, an elongated window operating bar of flexible material having its inner end pivotally mounted on said pivot element, a first slider pivotally connected to the outer end of said operating bar and slidably engaging said guide member for travel to and fro therealong, a second slider having a slot therethrough slidably engaging said operating bar for travel back and forth therealong, a power arm having its inner end adapted to be pivotally mounted on the window sill in spaced relationship to said pivot element and having its outer end pivotally connected to said second slider, and mechanism operatively connected to said power arm for swinging said power arm around its pivot in a direction outwardly from said window sill toward said sash.

2,777,688
WINDOW OPERATING MECHANISM
Louis B. Ehrlich and Herbert I. Chambers, Toledo, Ohio
Application June 15, 1951, Serial No. 231,752
9 Claims. (Cl. 268—124)

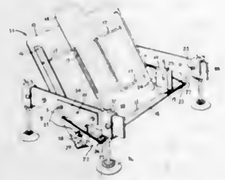
1. A window operating mechanism comprising an oscillatable member having connections with the window pane for moving the same between selected positions, a reversible electric motor, a lubricant containing sealed casing, an input shaft journaled within the casing adapted to be connected to said electric motor, an output shaft supported in the casing extending to the exterior, a pinion connected to the external portion of the output shaft and adapted to be connected to the oscillatable member, a worm wheel fixed to the output shaft located within said casing for driving said pinion, a planar section formed on the worm wheel at substantially right angles to the axis of rotation of the output shaft, a planar surface formed on the casing in parallel relation to said planar section, a worm meshing said worm wheel providing a speed reduction and being connected to said input shaft within said casing, a cambered sealing washer of compressible resilient material having its body extending angularly from its inner to the outer periphery so that diametrically opposed surfaces of its upper and lower faces are only engaging respectively the planar section of said worm wheel and the planar surface of the casing adjacent thereto at different radial distances from the axis of rotation of the worm wheel to provide a seal between the output shaft and the housing, and means in said casing projecting at one end of its planar surface for loosely retaining said sealing washer in concentric relation with the axis of rotation of the worm wheel.

2,777,689
FOLDER CONTROL
Charles L. Martin, Moline, Ill., assignor to American Machine and Metals, Inc., East Moline, Ill., a corporation of Delaware
Application March 26, 1953, Serial No. 344,762
2 Claims. (Cl. 270—81)



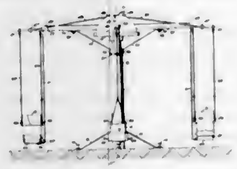
1. A control system for article folding apparatus comprising article folding means; a plurality of timing devices each operable to selectively control the operation of said folding means and being of the type having first and second rates of operation; sensing means responsive to the lengths of the articles being folded and adapted to control the rates of operation of said timing devices; terminal means adapted to be connected to a source of electrical energy; and a sequence controller operable to sequentially transfer control by said sensing means to each of said timing devices for successively fed articles such that one timing device controls the operation of said folding means for a single article being folded, said sequence controller including a solenoid electrically connected to said terminal means through said sensing means for controlled energization thereby and sequence switch means connected to said solenoid for actuation thereby, said solenoid being operable upon energization to actuate said sequence switch means to permit the timing device associated at that time with said sensing means to shift from one rate of operation to another and to cause control by said sensing means to be transferred to another of said timing devices.

2,777,690
ADJUSTABLE PACK HOLDER
John T. Davidson, Dayton, Ohio, assignor to The Standard Register Company, Dayton, Ohio, a corporation of Ohio
Application November 10, 1950, Serial No. 195,120
1 Claim. (Cl. 271—2.1)



Apparatus for the building of record strip holding and receiving tray stations and guides to and from such stations, including stanchion elements each presenting regularly spaced apart mounting holes over its full length, first and second sets of clamp devices for installation in said mounting holes, trays gripped and held by said first devices, and guides gripped and held by said second devices, said stanchions being selectively interconnected to define a desired framework and said clamp devices being selectively installed along the stanchions of said framework to locate and to receive said trays and said guides, said apparatus comprising a universal kit of interchangeable parts for the selective construction of adjustable pack holders.

2,777,691
CHILD'S MERRY-GO-ROUND
Elroy J. Malone, Memphis, Tenn.
Application March 16, 1955, Serial No. 494,657
11 Claims. (Cl. 272—33)



1. A child's merry-go-round swing comprising an upstanding cylindrical shaft, a supporting plate non-rotatably attached to said shaft, a race plate journalled on said shaft above said supporting plate, a plurality of roller bearings rotatably attached to said supporting plate, said race plate being supported by said roller bearings, a ratchet wheel non-rotatably mounted to said shaft above said race plate; a plurality of supporting and actuating means attached to said race plate, each of said supporting and actuating means comprising a radially extending supporting beam having inner and outer ends, said inner end being rigidly connected to said race plate, a swing suspended from said outer end of said supporting beam, a floor board rockably mounted in said swing, a lever pivotally mounted on said race plate, a spring connected at one end to said lever and at the other end to said race plate, cable means connected at one end to said lever and at the other end to said floor board for actuating said lever responsive to actuation of said floor board against the tension of said spring, a pawl having an outer and an inner arm, said pawl being pivotally connected intermediate its length to said lever at a point inwardly eccentric with respect to the pivot point of said lever, the inner arm of said pawl being engageable with said ratchet wheel, an upstanding lug rigidly mounted on said lever, said lug abuttable with the outer arm of said pawl, a spring attached at one end to said lever and the other end abutting the inner arm of said pawl for urging said pawl in abutting contact with said lug, actuation of said lever being effective through abutment of said lug with said outer arm to pivot said pawl for engagement with said ratchet wheel to effect rotation of said supporting and actuating means about said shaft.

2,777,692
SUPPORT MEMBER FOR HIGH JUMP CROSS BAR
Sebastian J. Marzucco, Wynnewood, Pa.
Application January 25, 1955, Serial No. 483,949
1 Claim. (Cl. 272—59)

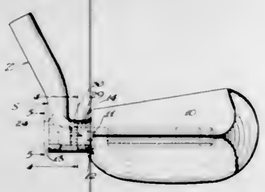
A support for a high jump cross bar comprising a base adapted to be buried in the ground, a substantially horizontal stabilizing pin secured to said base, a standard telescoped within said base and releasably secured to said base, a cross bar support member comprising a tubular member adjustably telescoped with said standard, a member telescoped within the upper end of said tubular member, a pad adapted to support a cross bar and secured to the top of said second mentioned member, a pair of bosses on said pad adapted to engage a cross bar, spring means biasing said second mentioned member upwardly and stop means to limit the upward travel of said second mentioned member.

2,777,693
BOWLING BALL INSERT PAD
Charles F. Mitchell, Akron, Ohio
Application August 8, 1955, Serial No. 526,887
1 Claim. (Cl. 273—63)

A grip means for use with a bowling ball having a thumb hole therein, which grip means comprises a patch of resilient material having about 60% cork and about 40% of a rubber-like material therein and with the cork being present in small particles distributed uniformly throughout the patch, and an adhesive member including a base with a pressure-sensitive adhesive coating on both sides thereof adhesively secured by one coating of the

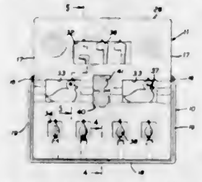
pressure-sensitive adhesive to the patch and being adapted to be secured by the other coating to a side of a hole in a ball, said patch being of a size to extend substantially the full length of and about one third of the circumference of the hole in which it is positioned, the patch being of uniform thickness throughout except for a portion tapering substantially to a feather edge at the top of the patch and a transversely extending recess extending completely across the patch adjacent but spaced from the lower end thereof to aid in preventing suctional engagement of a bowler's thumb and said patch because of the plurality of foraminous cork areas exposed for suction and gripping action on the surface of the patch.

2,777,694
ADJUSTABLE HEAD GOLF CLUB
Charles V. Winter, Skokie, Ill.
Application March 27, 1952, Serial No. 278,795
1 Claim. (Cl. 273—79)



An adjustable golf club comprising a head having a generally flat heel face and formed with a bore extending inward through the heel face and threaded adjacent to its inner end, said head being provided with a plurality of spaced cut-outs each extending inwardly through said heel face and opening laterally into said bore and through the outer surface of said head, a sleeve having an axial through bore and arranged with one end abutting the heel face of said head and the bore of said sleeve in axial alignment with the bore of said head, a plurality of lugs projecting from said one end of said sleeve and respectively removably force fitted in said cut-outs to fixedly secure said sleeve in said abutting relation with said heel face, a plurality of internal V-shaped ribs located about and extending longitudinally along the bore of said sleeve, a hosel base having one face firmly abutting the other end of said sleeve and formed with a through bore in axial alignment with the bores of said sleeve and head, a reduced annular extension on said one face of said base surrounding the bore of said base and extending through the bore of said sleeve and into the bore of the head terminating short of the threaded portion in the latter bore, a plurality of external V-shaped ribs located about the periphery of and extending longitudinally along said reduced extension in nonrotating interfitting engagement with the internal ribs of said sleeve, said reduced extension being slidably withdrawable from and reinsertable in said sleeve and head bores longitudinally of said interfitting ribs to nonrotatably connect said extension and sleeve in a selected position of relative rotation, and a headed bolt extending slidably inward through the bore of said base, said extension and sleeve and into threaded engagement with the bore of said head with the head of said bolt abutting said base to clamp together said base, sleeve and head.

2,777,695
TARGET GAME
David Cohn, Brooklyn, N. Y., assignor to T. Cohn Incorporated, Brooklyn, N. Y., a corporation of New York
Application October 4, 1955, Serial No. 538,306
8 Claims. (Cl. 273—102)

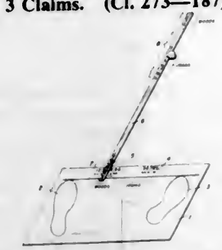


1. A target for use with a toy gun, said target comprising a base, a normally forwardly facing upstanding plate mounted on said base for rotation about a generally horizontal axis, said plate being provided with a through opening, a flange extending rearwards from the lower bounding portion of said plate opening, said flange being formed with a through aperture, there being a through aperture formed in said plate in the region above said plate opening, a mark piece arranged in said plate opening, a securing foot depending from said mark piece loosely through said flange aperture to mount said mark piece for limited swinging movement between a set position in said plate opening and a down position rearwards of said plate, and a forwardly projecting tab on an upper portion of said mark piece engaging through said plate aperture to retain said mark piece in its set position and withdrawable from said plate aperture to release said mark piece for movement to its down position when said mark piece is impinged on its front side by a missile, rotation of said plate serving to re-engage said tab in said plate aperture so that said mark piece is replaced in its set position upon return of said plate to its forward facing upstanding position.

2,777,696
MULTI-PURPOSE CABLE FITTING
Harry S. Magill, Torrance, Calif., assignor to Northrop Aircraft Inc., Hawthorne, Calif., a corporation of California
Application April 22, 1955, Serial No. 503,148
10 Claims. (Cl. 273—105.3)

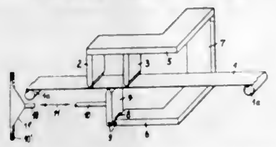
1. A fitting of the class described, comprising: a housing having a cavity therein and opposed end walls; a first piston operationally mounted in said cavity; a deformable member mounted in said cavity between said piston and one of said end walls and being permanently reshaped in response to predetermined movements of said piston; portions of said end walls, piston, and member defining respective aligned apertures through which a cable may be threaded; portions of said housing defining at least one cartridge receiving chamber in fluid communication with said cavity at a position between said piston and the other one of said end walls; a firing pin assembly mounted in said housing adapted to fire a cartridge positioned in said chamber; trigger means mounted on said housing and having neutral and non-neutral positions; said assembly normally being responsive to movements of said trigger means in that said cartridge will be fired at such times as said trigger means is moved from neutral to a non-neutral position.

2,777,697
GOLF INSTRUCTION DEVICE
Eugene A. Crossot, Milwaukee, Wis., assignor of one-half to Archie Berkowitz, Milwaukee, Wis.
Application April 26, 1952, Serial No. 284,582
3 Claims. (Cl. 273—187)



1. A device to indicate a golf player's stance, comprising a mat adapted to lie on a flat surface and a strip removably attachable thereto, a facsimile of at least the left foot print of a human on the upper surface of said mat, on the same surface a series of attachment means for removably attaching said strip, said attachment means being disposed in a straight line adapted to be placed substantially parallel to any desired line of flight of a golf ball, and being substantially equal in number to the clubs used in playing the game of golf, and spaced apart according to a series of predetermined preferred distances from said facsimile, attaching means near one end of said strip for attaching said strip to said mat at said attachment means therein and a series of indicating means on said strip consisting of marks spaced apart from one end of said strip at distances in accordance with a series of predetermined preferred positions for placement of a golf ball when played respectively with each of a predetermined number of clubs.

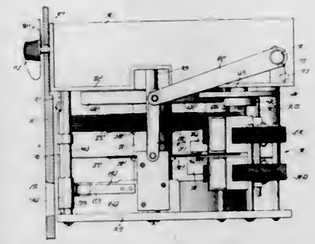
2,777,698
MAGNETIC RECORDERS
Alfons Kürzeder, Nordlingen, Germany
Application April 1, 1953, Serial No. 346,102
7 Claims. (Cl. 274—4)



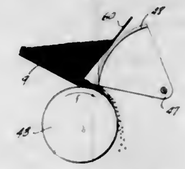
1. Arrangement for magnetically recording oscillations in a magnetizable record carrier comprising, in combination, means for moving the record carrier along a predetermined path; a magnet body having a south pole end and a north pole end; two pole portions on one of said pole ends on said magnetic body arranged adjacent to the path of said record carrier spaced from each other in direction of said path so as to form a gap between themselves; one pole portion on the other of said pole ends of said magnetic body arranged immediately adjacent said gap; means for mounting said one pole portion on said magnet body movable relative to the same in direction of the path of said record carrier; and means for oscillating the thus movably mounted pole end portion in accordance with the oscillations to be recorded.

2,777,699
AUTOMATIC RECORD PLAYER
Ben H. Woodruff, Chicago, Ill.
Application August 20, 1949, Serial No. 111,509
36 Claims. (Cl. 274—10)

1. An automatic record player for playing a plurality of disc records having center openings therein, such record player comprising a downwardly extending rotatable spindle, means for supporting a plurality of disc records beneath said spindle in vertical alignment therewith, vertically movable carrier means for moving said supporting means to a storage position in which the records as a group are positioned with said center openings about said spindle, record handling means on said spindle for retaining the records temporarily in said storage position and for holding the records one at a time in a given playing position on said spindle, said carrier means returning said supporting means to a position beneath said spindle when said records are retained in said storage position and means for operating said record handling means to move the records individually from said storage position to said playing position and to release the played records from said playing position whereby the records are returned to said record supporting means.

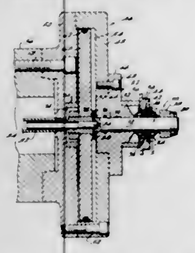


2,777,700
GRAVEL DISTRIBUTING DEVICE FOR ROAD SURFACING MACHINES
Lucien Valantin, Blainville-sur-l'Eau, France
Application June 17, 1952, Serial No. 293,918
Claims priority, application France June 21, 1951
5 Claims. (Cl. 275—2)



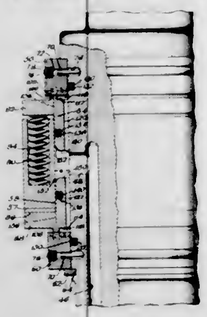
1. Gravel distributing mechanism for a road surfacing machine comprising, in combination with a hopper for gravel having a linear discharge opening and a back wall above said opening including a pair of stationary, spaced-apart inclined guide plates, a gravel distributing roller adjacent said hopper below said opening to receive gravel passing therethrough, means for regulating the width of the gravel distribution on the surface being coated comprising a plurality of laterally adjacent shutters freely slidable between the stationary inclined guide plates from a lower position wherein the lower edges of said shutters are adjacent said roller to an upper position wherein the discharge opening is freed for passage of the gravel between the lower edges of the shutters and the roller, and means for regulating the depth of the gravel passing through said opening comprising a plurality of sectors rotatably mounted adjacent said discharge opening for varying the height of said opening, said sectors having their arcuate peripheries disposed above said distributing roller with the lower end of the periphery of each sector substantially engageable with the periphery of the roller to close said opening against passage of gravel, and means for selectively moving said sectors relatively to said distributing roller to vary the distance between the periphery of said roller and the lower end of the arcuate periphery of each sector.

2,777,701
EXPANSION ARBOR
George Hohwart, Farmington Township, Oakland County, and Ernest F. Hohwart, Detroit, Mich., assignors to N. A. Woodworth Company, Ferndale, Mich., a corporation of Michigan
Application January 8, 1953, Serial No. 330,283
2 Claims. (Cl. 279—2)



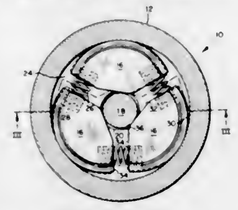
1. A chucking arbor comprising an elongated tubular body having an inherently resilient clamping portion provided with a generally cylindrical threaded surface adapted to engage corresponding threads of a workpiece to be chucked by the arbor, a cylinder on the body at one end of said clamping portion, a power piston in said cylinder, and means interconnecting said piston and said body at the end of said clamping portion remote from said cylinder, whereby movement of the piston in one direction stresses the body axially to prepare said threaded surface for engagement with the workpiece and movement of the piston in the opposite direction stresses the body axially to engage the threads of the body with the threads of the work.

2,777,702
ROTATABLE FLUID CONVEYING CONNECTION WITH PRESSURE BALANCED SEALS
Ralph Rodal, Richmond, Ind., assignor to National Automatic Tool Company, Inc., Richmond, Ind., a corporation of Indiana
Application March 29, 1951, Serial No. 218,130
6 Claims. (Cl. 279—20)



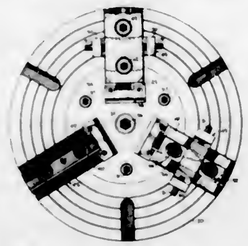
3. In a rotatable connection to supply a fluid lubricant under pressure to a rapidly rotatable spindle, means on the spindle forming an annular shoulder, a bearing sleeve around the spindle adjacent the shoulder and restrained against rotation, an annular ridge spaced radially outwardly on the bearing sleeve from the spindle having a face for sealing engagement with the shoulder, a first end surface on the sleeve facing away from the shoulder, a second end surface on the sleeve between the ridge and the spindle, resilient means urging the shoulder and the sleeve into sealing engagement, passage means to supply lubricant to the first end surface to provide lubricant pressure forces on the sleeve tending to urge it against the shoulder, and additional passage means to supply lubricant to the second end surface and the face of the ridge to provide lubricant pressure forces on the sleeve for counterbalancing the first mentioned forces, the area of the first end surface being approximately equal to the sum of the area of the second end surface plus one-half the area of the face of the ridge.

2,777,703
CAM ACTUATED COLLET
Harold D. Pickett and Lawrence Beckwith, Sr., San Diego, Calif.
Application January 25, 1955, Serial No. 484,089
5 Claims. (Cl. 279—56)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A collet comprising a sleeve having a cavity, a plurality of circumferentially spaced jaws disposed within the cavity, means for maintaining said jaws in spaced relation, each of said jaws having an outer peripheral surface adapted to rock on the wall of the cavity and only one inner opposite lateral cam surface adapted to engage the object to be secured, each lateral cam surface being continuous throughout its engaging surface and having a high point of engagement and a low point of engagement whereby rotation of the jaws on the sleeve wall will wedge the object between said high points of the cam surfaces.

2,777,704
PRECISION CHUCK JAWS
Harry E. Sloan, Hartford, Conn., assignor to The Cushman Chuck Company, Hartford, Conn., a corporation of Connecticut
Application June 17, 1954, Serial No. 437,371
10 Claims. (Cl. 279—123)



9. A chuck jaw adapter-set for an American Standard serrated type chuck having a master jaw provided with a rack on its outer face and a guide slot along said rack, and a standard top jaw having a longitudinal spline on its under surface, said adapter-set together with said master and top jaws comprising a jaw assembly permitting precise radial adjustment of the top jaw intermediate the step-by-step positions afforded such top jaw by the rack of the master jaw; said adapter-set comprising an adapter plate arranged to be disposed between the top and master jaws of the chuck, said plate having a drop-center extending longitudinally thereof to provide on a first side a guide tongue engageable with the guide slot of the master jaw of the chuck and on its opposite side a guide slot within which the spline of the top jaw is engageable; said plate having on said first side serrations complementary to and engageable with the serrations of the master jaw, and having on said opposite side a surface obliquely inclined with respect to said serrations; a key engageable in the keyway of the top jaw and interposed between said adapter plate and the top jaw, said key having a surface complementary to and slidably engageable with said obliquely inclined surface on said adapter plate; and means entirely external to said keyway for adjustably moving said key transversely of said adapter plate in sliding contact with said obliquely inclined surface of said plate whereby precise movement of the top jaw radially of the chuck may be effected.

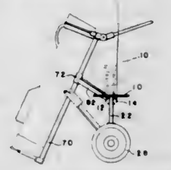
2,777,705
BALL SKI BINDING WITH OSCILLATABLE BOOT TOE FASTENING AND RELEASE
Donald A. Goodman, Missoula, Mont.
Application October 26, 1953, Serial No. 388,091
5 Claims. (Cl. 280—11.35)

1. In a ski binding, means for fastening a boot to a ski comprising boot toe fastening means engageable with a toe socket on a boot, means pivotally mounting said toe fastening means on said ski for oscillation about an axis perpendicular to said ski into socket disengaging position, and a yielding detent means for yieldingly latching said boot toe fastening means against oscillation, said means pivotally mounting said boot toe fastening means comprising a plate fixed to said ski, said detent means comprising a vertically spaced resilient apertured tongue on said plate, an apertured flange on said boot toe fastening means and a ball in the aperture in said flange adapted to snap into the aperture in said tongue.

2,777,706
COMBINED BABY CARRIAGE, BASSINET AND STROLLER
Matilda D. Welsh, Ladue, Mo.
Application June 25, 1954, Serial No. 439,180
9 Claims. (Cl. 280—31)

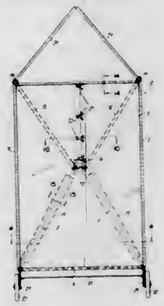
1. A baby carriage of the character described, comprising, a foldable chassis including pivotally connected scissor bars, a rigid horizontal frame member formed with a front end-bow and supported by said bars, and an end frame formed with a rear end-bow and having a pivotal joint with said frame member; a bassinet having a frame jointed for downward movement of part thereof, and means removably mounting said bassinet frame on said chassis with its joint aligned with said pivotal joint of said frame member, whereby said aligned joints accommodate downward movement of said end frame and said part of said bassinet frame to position the lowered part of the bassinet as a leg rest for the child.

2,777,707
RETRACTABLE GOLF CART SEAT
Albert P. Cloes, Seattle, Wash.
Application May 20, 1954, Serial No. 431,103
4 Claims. (Cl. 280—36)



1. A retractable golf cart seat to attach to a longitudinal structural member of a golf bag cart and to rest on a wheel of the cart, comprising: a cantilevered supporting arm clamped at one end to said longitudinal member and extending generally in the direction of said wheel; a base member secured to the other end of said supporting arm; a first upper pivoting arm having one end pivotally connected to said base member and carrying at its other end a seat located over said wheel; an upright strut having its upper end pivotally connected to said seat and a second lower pivoting arm having one end pivotally connected to the intermediate portion of said strut and having its other end pivotally connected to said base member below the point of pivotal connection of said first pivoting arm, whereby the pivots between said pivoting arms, said base member and said strut form a substantially parallelogrammatic outline; the lower end of said strut being in position to rest on said wheel and to lock the wheel in place under the weight of a user; means to normally bias said strut upward to a point above said wheel formed by a bell crank having one arm pivotally connected to the upper end of said strut at the point of pivotal connection with said seat and having its intermediate portion bearing on said seat outward of said strut and spring compression means between the other arm of said bell crank and the adjacent wall of said strut thereby providing force biasing said strut upward.

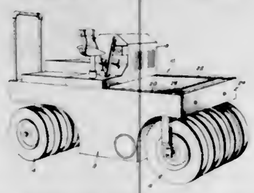
2,777,708
PORTABLE PARCEL CARRIERS
David D. Patterson, Seward, Nebr.
Application February 24, 1954, Serial No. 412,192
6 Claims. (Cl. 280—37)



1. A portable parcel carrier comprising a collapsible wire framework adapted to fold from a flat collapsed position to open position, in which latter position the framework defines a rectilinear structure, said framework including two spaced parallel frame-members which define opposite margins of the bottom of the carrier when the framework is in open position, said members being adapted to swing toward each other when the framework is folded into collapsed position, a swingable element operatively mounted on each of said frame-members for

rotation about said frame-member as an axis, a collapsible fabric shell operatively mounted on the framework for forming an open-topped rectilinear receptacle when the framework is in open position, ground-engaging wheels operatively mounted on each of said swingable elements and being positioned for projecting downwardly below the bottom of the shell when the latter is in open receptacle-forming position, spring means associated with each of the swingable elements for biasing said elements upwardly into nested position substantially within the framework when the latter is in collapsed inoperative position, and a flexible strap connected at its opposite ends to the swingable elements and extending outwardly therefrom and thence downwardly under the bottom of the framework and thereby swinging said wheels into upright, operative position as the framework is unfolded to open position.

2,777,709
LOAD EQUALIZING WHEEL MOUNTING FOR COMPACTORS
Arthur L. Tucker, Oklahoma City, Okla.
Application December 21, 1955, Serial No. 554,526
6 Claims. (Cl. 280—104)



1. A wheel mounting comprising three transversely spaced wheel supports, a first transverse load transmitting bar mounted for pivotal movement on a first pivot, connecting means connecting an adjacent pair of said wheel supports to opposite ends of said first load transmitting bar, a second transverse load transmitting bar mounted for pivotal movement on a second pivot, other connecting means connecting the other of said wheel supports to one end of said second load transmitting bar, said first pivot being carried by the opposite end of said second load transmitting bar, said other end of said second load transmitting bar being bifurcated, one of said ends of said first load transmitting bar being disposed within the confines of said second load transmitting bar.

2,777,710
DETACHABLE SPLASH GUARD FOR TRUCKS AND TRAILERS
William Panchesine, Cape May, N. J.
Application February 15, 1955, Serial No. 488,727
3 Claims. (Cl. 280—154.5)

1. A splash guard structure for use with a vehicle comprising a support adapted for removable mounting on the chassis of said vehicle behind a rear wheel thereof, said support comprising a tubular member having a relatively wide slot in its lower portion and extending throughout the length thereof, a guard member including a cylindrical head portion axially slidable within said tubular member, and a flap portion depending from the head portion and extending through said slot, said slot being substantially wider than the thickness of said flap, and said cylindrical head portion being rotatable about its axis within said tubular member for oscillation of said flap through a range limited by the edges of said slot.

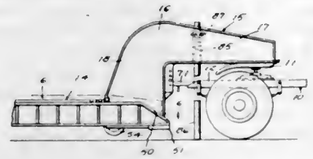
2,777,711
PORTABLE FOLDING TYPE BICYCLE
Norishige Yokomaki, Tokyo, Japan, assignor of one-third to Sigeo Kitakami, and one-third to Yoshimasa Ono, both of Tokyo, Japan
Application August 28, 1951, Serial No. 243,996
3 Claims. (Cl. 280—287)

1. A portable folding type bicycle comprising a framework divided into a front sectional frame and a rear sectional frame with the division point approximately midway of the length of the frame-work when the bicycle is in active service position, and hinge means connecting said sectional frames pivotally at such division point to thereby enable movement of said frame sections between such service position and a position in which the two wheels of the bicycle are located substantially side-by-side in spaced and approximately parallel relation, the pivotal axis of said hinge being located on a vertical axis of the bicycle frame in extended service position, a member on one of the sections having an upwardly extending recess at a part of a hanger portion with which a crank shaft is engaged, the other frame section carrying a downward projection co-operative with said recess and constituting therewith a coupling for the pair of frame sections, said coupling also having spring means carried by one section and haivng a lop adapted to engage a hook-like element carried by the other section to thereby hold the frame sections resiliently and firmly in engaged position but capable of being uncoupled, and a fixing lever co-operative with the spring means for maintaining the latter in either position and for movement thereof between such positions.

2,777,712
BOAT TRAILER WITH BOAT CLAMPING MEANS
Fred Linneman, Estelline, S. Dak.
Application January 22, 1951, Serial No. 207,153
7 Claims. (Cl. 280—414)

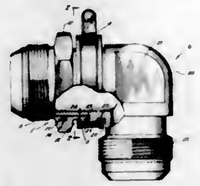
3. A boat trailer comprising a pair of parallel side members having forwardly converging end portions, a pair of wheel supports carried by said side members, a cross bar joining said side members, a lifting strap, means rotatably mounted on the side members and connected to the strap for raising the strap in order to clamp a boat between the cross bar and the strap, means for locking the straps raised, means mounted on said forwardly converging end portions for supporting one end of a boat, a pair of elongated spring members mounted on said supports and overlying said side members, clamps slidably adjustable on said side members and pivoted to the ends of said spring members, said clamps and said spring members constituting the sole means for attaching the supports to the side members, and wheel fenders attached to and depending from said clamps and underlying the side members, said means mounted on the forwardly converging end portions for supporting one end of a boat including a pair of upstanding arms, a housing slidably and adjustably mounted on said arms and a spring urged locking plunger carried by the housing.

2,777,713
RAISABLE TRAILER DRAWBAR
Dean Austin Parker, Richmond, Mich.
Application March 29, 1954, Serial No. 419,500
2 Claims. (Cl. 280—425)



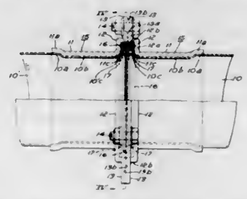
1. In combination, a tractor vehicle having a fifth wheel, a trailer, an inverted L-shaped drawbar having a forward end attached to said fifth wheel, reciprocably slidable movable means mounted on said drawbar for vertical movement with respect thereto, whereby said movable means may assume various heights above the ground, actuating means comprising a jack screw secured to said movable means, a nut threadably engaging said jack screw, and means for rotating said nut, said last-mentioned means comprising a power take-off means on said tractor vehicle and means drivingly connecting said nut with said power take-off means, said actuating means being adapted for raising or lowering said movable means, and coupling means for connecting the forward end of said trailer to said movable means, whereby the height of said trailer forward end may be varied, said movable means including a cross bar raisable by said jack screw and safety stop means for holding said cross bar in raised position, said means including a pivoted shaft, lever means secured to said shaft and arcuate shoes on said lever means engaging under said cross bar, and spring means normally biasing said shoes to lever engaging position.

2,777,714
CLAMP-LOCK SWIVEL ELBOW
George S. Lamphere, Torrance, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application June 15, 1953, Serial No. 361,665
1 Claim. (Cl. 285—98)



A swivel pipe joint comprising: a first tubular member; a second tubular member telescoped thereinto and freely rotatable relative thereto; means defining a circumferential groove in one of the opposed surfaces of said members adjacent the inner end of said second member; a resilient O-ring packing in said groove and contacting the bottom thereof and the other of said surfaces to provide a seal between the latter, the contact between said ring and said other surface constituting a first bearing engagement between said members; an exterior enlargement on said second member outside and adjacent the outer end of said first member; an exterior enlargement on said first member adjacent said outer end thereof, said enlargements defining oppositely facing exterior shoulders on said members; means defining an axially facing circumferential groove in said second member enlargement opposed to said first member end; a lip on said first member received and rotatable in said groove and engaging with the outer side wall thereof to constitute a second bearing engagement between said members spaced axially from said first bearing engagement; and a clamping ring detachably engaged with said shoulders to retain said members in their telescoped relation while permitting rotation therebetween.

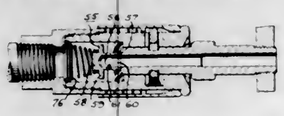
2,777,715
FLANGE COUPLING WITH SEALING MEANS RESPONSIVE TO INTERNAL OR EXTERNAL PRESSURE
Walter O. Beyer, Pittsburgh, Pa.
Application June 24, 1952, Serial No. 295,317
2 Claims. (Cl. 285—112)



1. A flange coupling providing a fluid-pressure-sensitive seal which is effective as to both positive and negative fluid pressure and which has a pair of substantially identical end structures, each end structure comprising a tube end portion of thin section and a one-piece body part of thicker section; each said body part having a longitudinally-extending tubular sleeve portion in secure position about an associated tube end portion, having an annular side wall projecting radially-outwardly from a back end of said sleeve portion, having a tubular back wall projecting longitudinally-backwardly from said side wall and cooperating with the back wall of the other body part to define a plane of cleavage between the pair of end structures, and having a flange wall projecting radially-outwardly from said back wall along the plane of cleavage; means for holding said flange walls of the body parts in a coupled relationship, said side and back walls of the body parts defining a radially-inwardly-open three-sided pocket; each tube end portion having radially-outwardly offset shoulders interlocking with the tubular sleeve portion of an associated body part, and having an annular ledge projecting longitudinally-inwardly of and at a position that is radially-outwardly offset within the pocket; each said ledge defining an annular positioning groove with the side wall of the associated body part, each said groove being radially-inwardly offset with respect to its associated ledge, a fluid pressure-sensitive resilient annular gasket of substantially V-section, said ledges being longitudinally spaced-apart when said flange walls are secured together to define a substantially four-sided pocket having a fluid-receiving annular passageway on its inner side along the plane of cleavage, said gasket being securely positioned inside the four-sided pocket with its base along a back wall of the four-sided pocket without tightening-down said flange walls by said means, said gasket having a pair of side legs along side walls of the four-sided pocket, said side legs having a greater length than the radial depth of the four-sided pocket to provide an elastic latching-snap fit within said grooves due to the radially-inwardly offset relation of the grooves with re-

spect to said ledges; and said gasket being securely held in position at its base and side legs between the back wall of the four-sided pocket and said grooves, to expand outwardly against the side and back walls of the pocket upon an application of positive fluid pressure, and to contract inwardly from its base along the plane of cleavage from the back wall of and expand outwardly along side portions of the back wall and along the side walls of the four-sided pocket upon an application of negative fluid pressure.

2,777,716
SOCKET TYPE HOSE COUPLER WITH RECIPROCATING DETENT
Russell J. Gray, Meadeville, Minn., assignor to Gray Company, Inc., Minneapolis, Minn., a corporation of Minnesota
Application October 11, 1949, Serial No. 120,641
2 Claims. (Cl. 285—276)

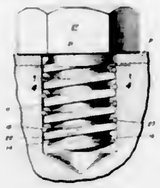


1. A hose coupler for quick-attachable and quick-detachable connection with a bevel-ended nipple having a rearwardly facing coupler-engaging shoulder, said coupler comprising a generally tubular body member having an axial bore therethrough communicating with a rear end opening adapted to be connected to a hose and with a front end opening adapted telescopically to receive said nipple, a guideway formed in said body member transversely of said bore, a key slidable in said guideway having an opening defined by a margin and yieldably biased to a locking position seating said margin behind said shoulder when the nipple is inserted through said front end opening and the bevel-end thereof engages said margin so as slidably to displace the key, thereby to attach the body member to the nipple, and means for detaching the body member from the nipple comprising a sleeve surrounding the body member having a fixed camming surface extending radially outwardly from its front end portion, an internal groove behind said camming surface normally accommodating a portion of the key, and a spring biasing the sleeve to a position adjacent the front end of the body member, in which position of the sleeve the margin is disposed in locking position, whereby retracting said sleeve against said spring bias will cause the camming surface to engage the key and slide the same in said guideway so as to unseat said margin from behind said shoulder and simultaneously pull the body member off the nipple.

2,777,717
LOCKING DEVICE FOR MACHINE ASSEMBLIES
Paul K. Koehler, Union, N. J., assignor to American Can Company, New York, N. Y., a corporation of New Jersey
Application February 16, 1953, Serial No. 336,934
1 Claim. (Cl. 287—52)

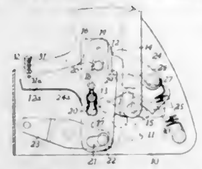
In a machine assembly, the combination of a machine part, a cylindrical axial bore formed in said part, a cylindrical transverse bore formed in said machine part and intersecting said axial bore to provide a common opening between said bores, the cylindrical wall of said transverse bore adjacent each side of said common opening forming a pair of spaced overhanging shoulders extending from said opening to the lines of intersection between said wall and a plane passing through the axis of said transverse bore and extending parallel to the axis of said axial bore, a shaft disposed in said axial bore for carrying said machine part, said shaft being provided adjacent said common opening with a flat face recessed to a depth at least as great as the depth of intersection between said bores so that said transverse bore is completely unobstructed by said shaft, and a locking device positioned in said unobstructed transverse bore, said locking device comprising a pair of longitudinally spaced wedge members each having a wedging face, said faces being opposed to each other and diverging toward said shaft, a tightening bolt disposed in axial alignment with and coupling said wedge members for drawing said wedge members toward each other, and a locking tooth interposed between said wedge members, said locking tooth having a wedging face on each end thereof parallel to and engaging a said wedge member face adjacent thereto and having a flat locking face extending chordally of said transverse bore and disposed in alignment with said common opening and in opposition to and in parallelism with said flat recessed shaft face and spaced from said face, each portion of said locking tooth beneath said overhanging shoulders being spaced from said shoulders a distance when measured in a plane extending at right angles to said first named plane at least as great as the spacing between said flat locking faces, whereby when said wedge members are drawn together by said tightening bolt said locking tooth is cammed laterally of said transverse bore through said common opening without interference from said overhanging shoulders to bring its said flat locking face into pressured engagement against said flat recessed shaft face to force said machine part into tight frictional engagement with said shaft and to key said machine part against rotation relative to said shaft.

2,777,718
QUICK ACTING CONNECTOR
Conrad R. Vegren, Washington, D. C.
Application April 1, 1953, Serial No. 346,290
8 Claims. (Cl. 287—119)
(Granted under Title 35, U. S. Code (1952), sec. 266)



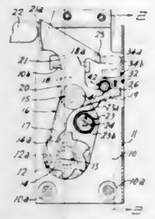
1. In a connector assembly, a male member and a female member, one of said members having a first helical groove contiguous with a second helical groove of a depth materially less than that of said first groove such that the first and second grooves form a single stepped groove, radially and axially tensioned resilient means seated in said first groove, said first groove being of a depth to contain said means with the outer surface thereof substantially flush with the mating surface of said one member, means to release said resilient means for movement into contact with the mating surface of the other of said members upon axial assembly of the members, the contiguous relationship of said first groove and said second groove of the single stepped groove permitting the resilient means to be caused to move from said first groove into said second groove upon relative rotation of the members, said resilient means thereby being frictionally urged between the mating surface of the other of said members and said second groove to effectively lock said members against axial separation.

2,777,719
VEHICLE DOOR FASTENERS
Philip Swingewood Jeavons, South Yardley, Birmingham, England, assignor to Wilmot-Breeden Limited, Birmingham, England
Application January 10, 1956, Serial No. 558,323
3 Claims. (Cl. 292—280)



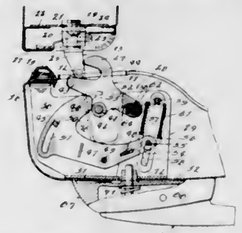
1. A vehicle door fastener comprising in combination, a body part adapted to be mounted adjacent the free edge of the door, a rotary toothed catch on the body part for engagement with a striker on a relatively fixed part of the vehicle body, a spring-loaded pawl pivoted on the body part for engagement with a catch, a slide having pin and slot connection with the body part, means for imparting angular movement to the slide from the outside of the door, locking means operable from the inside of the door for imparting sliding movement to the slide between a locked position and an unlocked position, a stud or other projection on the slide for imparting a catch releasing movement to the pawl when angular movement is imparted to the slide in the unlocked position, a detent operable by the pawl to move the slide to the unlocked position when the pawl is actuated in a catch releasing direction with the slide in the locked position, a lever pivotally mounted on the body part for angular movement with the slide and having an arm extending beside an arm of the pawl, and release means operable from the inside of the door which can be preset to act either upon the arm of the pawl or on the arm of the said lever.

2,777,720
DOOR LOCK
John H. Roethel, Coral Gables, Fla., assignor to Roethel Engineering Corporation, Detroit, Mich., a corporation of Michigan
Application August 20, 1953, Serial No. 375,430
9 Claims. (Cl. 292—280)



1. In a door latch mechanism for a swinging door, a support comprising a plate portion for disposition at the door jamb and having a flange extending from the inner edge thereof, a latch bolt mounted on said plate portion to rotate about an axis and having a series of tooth-like projections extending around the periphery thereof, a detent engaging latch device secured to said bolt to rotate therewith about said axis and having a corresponding series of tooth-like abutments, detent means pivotally mounted on said plate portion and engageable with any one of said abutments for holding said bolt in latching position, a lever pivotally mounted on said plate portion and having a part disposed in opposing relation to a part of said detent means, said parts being separate to permit pivotal actuation of the detent means independently of said lever, outer manually operable means for swinging said lever toward said flange to cause said lever part by engagement with said part of the detent means to pivotally actuate the detent means thereby to disengage the same from said latch device, said lever having an arm extending in the direction of the flange, inner manually operable swingable means engageable upon being swung in one direction with said lever arm to swing said lever toward said flange, a blocking member swingably mounted on said flange and shiftable in one direction into position to block swinging movement of said lever toward the flange, said blocking member and said inner manually operable swingable means being movable independently of each other about a common pivot axis, and manually operable means for shifting said blocking member in said one direction, said directions of movement of said blocking member and said inner manually operable means being counter to each other.

2,777,721
REFRIGERATOR LATCH
William O. Burke and Robert S. Larson, Rockford, Ill., assignors to National Lock Company, Rockford, Ill., a corporation of Delaware
Application May 21, 1954, Serial No. 431,538
4 Claims. (Cl. 292—332)

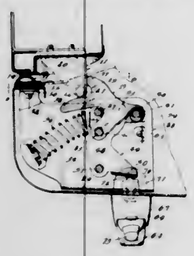


1. A refrigerator latch comprising a pivotally mounted latch bolt on a refrigerator door adapted to be rotated into and out of latching engagement with a keeper on a refrigerator cabinet, a supporting housing in the door, means for pivotally mounting the latch bolt at one end thereof in the housing and limiting its movement to rotation about said pivotal mounting means, a latch-engaging part on the other end of the latch bolt, a roller carried by the latch bolt intermediate its ends, means for spring-biasing said latch bolt to its cocked, unlatched position when the door is opened, and a spring-loaded cam member pivotally mounted intermediate its ends in the housing and having a cam face in contact with the roller and provided with a recess for receiving and retaining the roller and latch bolt in cocked, unlatched position when the cam member is rotated to release the latch bolt and the door is opened, a slot in one end of said cam member and a fixed pin projecting therethrough for limiting the arc of travel of said cam member, a slotted link pivotally mounted at one end in the housing, a pin in the other end of the cam member connected to the link through a longitudinal slot in the link, and an expansion spring carried by the link for spring-biasing the cam member and maintaining its cam face in contact with the roller.

2,777,722
LATCH CONSTRUCTION
William O. Burke, Rockford, Ill., assignor to National Lock Company, Rockford, Ill., a corporation of Delaware
Application May 18, 1954, Serial No. 430,476
4 Claims. (Cl. 292—332)

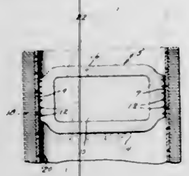
3. A latch construction comprising a rotatable latch member adapted to be rotated into and out of latching

engagement with a keeper, a supporting housing, a latch operating member pivotally mounted adjacent one end in the housing and provided with an arcuate slot adjacent its other end, a compression spring engaging and spring-loading the other end of the latch operating member for biasing said latch operating member and moving the latch member into latching engagement, means for pivotally mounting the latch member in the housing for rotation about a fixed axis, toggle mechanism for connecting the latch operating member to the latch member and consisting of a toggle link pivotally connected at one end to the latch operating member and its other end movable over the latch operating mem-



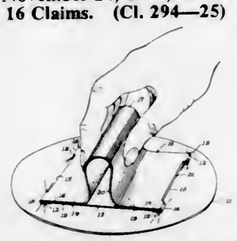
ber and this other end provided with a pin projecting into the arcuate slot and pivotally connecting this other end to the latch member, and means for rotating the latch operating member to compress the spring and move the toggle and latch member to unlatched and cocked position in which the pin in the arcuate slot is disposed at one side of a plane connecting the pivotal mounting for the latch member and the toggle link in the latch operating member, and trip means on the latch member for rotating the latch member, toggle link and pin from unlatched, cocked position to latching engagement in which the spring snaps the latch member into latching engagement and the pin is moved in the arcuate slot to the other side of said plane.

2,777,723
DOFFING TOOL
Knute M. Schmidt, Elizabethton, Tenn., assignor to North American Rayon Corporation, New York, N. Y., a corporation of Delaware
Application June 6, 1952, Serial No. 292,167
6 Claims. (Cl. 294—25)



1. A doffing tool comprising a plurality of resilient contacting surfaces adapted for frictional engagement with the internal periphery of a spinning spool, spaced connecting members constituting a flexible hand grip integral with and supporting said contacting surfaces, said hand grip being capable of compressional distortion when gripped by the hand, said tool having dimensions so as to permit its ready insertion within a spinning spool with said contacting surfaces being movable into frictional engagement with the inner periphery of said spool by means of compressional pressure applied to said hand grip.

2,777,724
FILTER PAD PICK-UP DEVICE
Joseph H. Carter, Rockford, Ill.
Application November 24, 1952, Serial No. 322,323
16 Claims. (Cl. 294—25)



1. In combination, a flat filter pad or the like suitably supported in flat condition, and a pickup device comprising an elongated frame member that is small in area in relation to the pad having downwardly projecting portions on opposite ends defining fixed pickup jaws having work engaging bottom extremities in substantially coplanar relationship in a horizontal plane resting on top of the pad leaving marginal portions outwardly therefrom loose, inwardly movable pickup jaws disposed in outwardly spaced relation to said fixed jaws having work engaging bottom extremities in substantially the same horizontal plane with said fixed jaws and having portions mounted on opposite ends of said frame member guiding the movable jaws for movement toward the fixed jaws, whereby the cooperating jaws are adapted to gather loose portions of the paid therebetween and grip the same to permit lifting the pad with the frame member, and means for operating said movable jaws.

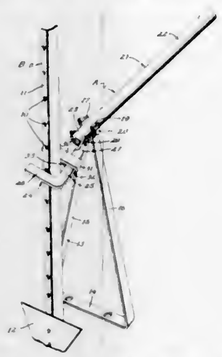
2,777,725
PAN LIFTING DEVICE
Ralph K. Weir, Los Angeles, Calif.
Application April 11, 1955, Serial No. 500,571
1 Claim. (Cl. 294—34)

A receptacle lifting device including a fixed jaw, a fixed jaw handle member secured at one end to said fixed jaw, a movable jaw, a movable jaw handle member secured at end to said movable jaw, a tubular handle bent outwardly at opposite sides forming a pair of longitudinal side edge groove guides, respectively, through which guides extend the side edges of said fixed jaw handle member and said movable jaw handle member, a wall extending transversely of said tubular handle under said fixed jaw handle member to the lower sides of said opposite groove guides, said transverse wall being provided with a longitudinal slot, a set screw extended through said slot and seated in said fixed jaw handle member with the head of said set screw engageable with said transverse wall for adjusting said tubular handle longitudinally with relation to said fixed jaw handle member, and a finger piece secured to said movable jaw handle member, to be engaged by a finger of one's hand in which said handle is held, for enabling said finger, engaging said finger piece, to draw said movable jaw toward said fixed jaw, for gripping the side wall of a receptacle between and by said jaws, for lifting said receptacle by said lifting device.

2,777,726
POST REMOVING DEVICE
Louis R. Lundgren and Otto W. Swenson, St. Paul, Minn.
Application March 16, 1951, Serial No. 216,002
2 Claims. (Cl. 294—92)

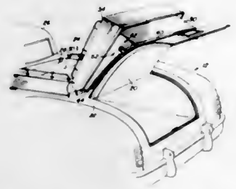
1. A post elevating device including a flat bar of generally rectangular cross section forming an elongated

body portion having a downwardly sloping end and a handle end, a substantially flat right angularly extending arm integral with said downwardly sloping end of said body portion to extend laterally therefrom with the integral inner edge portions of said body and said arm being adapted to engage against two sides of a post, and a freely slidably flat arm having a slip bearing at one end thereof designed to encircle said body and slidably support said freely slidable flat arm for movement longitudinally of said body, said arm extending in the same direction from said body as said first named arm and being substantially parallel thereto with its inner edge portion being adapted to engage against a side of a post



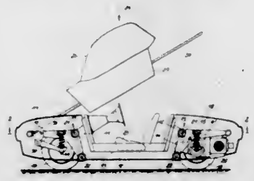
opposite the inner edge of said integral arm, said downwardly extending end portion of said body being curved outwardly and downwardly so that the upper surface curves convexly from the sloping end bearing the angularly extending arm toward the handle end portion thereof, whereby said slip arm bearing being freely slidable on said elongated body when tilted downwardly makes the side edge of said slidable arm engageable with the side of the post opposite that engageable by said first mentioned arm and upward tilting movement of the free end of the body exerts a force upon said adjustable arm tending to lock said adjustable arm bearing against said body.

2,777,727
VEHICLE CONVERSION UNIT
Daniel A. Reilly, Belmar, N. J.
Application December 16, 1954, Serial No. 475,687
5 Claims. (Cl. 296—21)



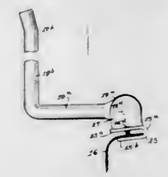
1. A vehicle conversion unit for converting a convertible type passenger vehicle to a flower carrier, said vehicle conversion unit being in the form of an upper body having a forward cab portion, an intermediate flower well, and a rear tonneau portion, said rear tonneau portion being adapted to overlie a vehicle trunk in its normal body forming position and having connectors of the hold down type at opposite sides thereof releasably and slidably engageable with side flanges of a trunk lid, said tonneau portion being pivotally connected to said flower well for pivoting about an axis transverse of said body, said axis being intended to be positioned forwardly of the vehicle trunk, whereby the vehicle trunk lid may be raised when said vehicle conversion unit is in position.

2,777,728
MOTOR VEHICLE ACCESSIBLE BY MEANS OF A PIVOTAL CAP
Béla Barényi, Stuttgart-Rohr, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application October 7, 1952, Serial No. 313,559
Claims priority, application Germany September 23, 1949
7 Claims. (Cl. 296—28)



1. In a motor car of the coupe type, the combination comprising an open body including a passenger space, a cap closing said passenger space, said cap including a roof portion, front, side and rear windows and a part of the side walls of the vehicle, substantially horizontal bars attached externally to said side walls of said cap and extending lengthwise of said body on either side thereof beyond said cap, and means for pivotally connecting said bars to said body, whereby said bars may be swung to lift said cap into opened position.

2,777,729
AUTOMOBILE HAND REST
Jacob N. Nieratko, Englewood, N. J.
Application July 1, 1952, Serial No. 296,587
2 Claims. (Cl. 296—49.2)

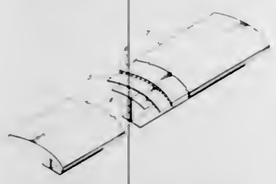


1. A hand rest for the outside of an automobile comprising a securing means for attachment to the door or other part of an automobile, a projecting portion extending outwardly relatively to the securing member, an upwardly extending portion on the projecting portion at a distance from the securing member to permit the hand or wrist of the user to be supported thereby and held close to the outside of the automobile, and a connection device for holding the securing member and the outwardly projecting portion in fixed relative positions, said connection device including a connecting member having two adjusting surfaces in planes at a substantial angle to each other with a pivotal connection between one surface and the securing member and another pivotal connection between the other surface and the outwardly projecting portion.

2,777,730
ARMREST FOR VEHICLE WINDOW SILLS
Ralph E. Parshall, Houston, Tex.
Application November 3, 1955, Serial No. 544,655
3 Claims. (Cl. 296—49.2)

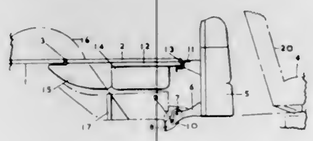
1. In the combination of a vehicle door and arm rest, a rigid body member having cushioning means and covering means mounted thereon, a vehicle door, a hinge securing said body member to the said door comprising a pair of longitudinal strips of adhesive tape, said tape having a portion thereof secured to the body mem-

ber longitudinally and to the right of the longitudinal axis of the body member, said tape extending downwardly from said body member and having the adhesive sides thereof abutting, forming a depending spacing means, and the lower portion of said tape extending



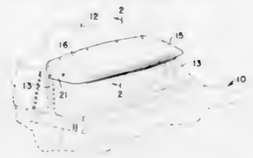
downwardly and being spread outwardly in opposite directions and adhering to the vehicle door on the inside upper edge thereof, the outside margin of said tape being parallel with the outside margin of the inside panel of said door and abutting against the outer edge thereof.

2,777,731
MOTOR ROAD VEHICLES
Richard Burzi, Northfield, Birmingham, England, assignor to The Austin Motor Company Limited, Birmingham, England
Application August 3, 1955, Serial No. 526,165
Claims priority, application Great Britain August 18, 1954
4 Claims. (Cl. 296—66)



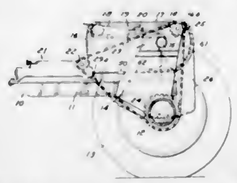
3. A motor road vehicle of the kind referred to and comprising in combination, front seating, an additional passenger seat which normally occupies a forwardly-collapsed out-of-way position, in which it is disposed vertically on edge to the rear of said front seating, a load-supporting platform constituted by a full width horizontal rear fixed part and a full width forward part, the latter being divided in the vertical centre plane of the body into two half portions each of which has pivotal connection with the rear fixed platform part about a common transverse axis and each of which half portions of the platform forward part normally occupies a substantially horizontal position but can be turned up into a position in which it constitutes a backrest for said additional passenger seat when the latter is erected for use, two platform extension pieces which normally occupy positions beneath the substantially horizontal platform forward part constituted by said half portions and have pivotal connections respectively with the forward edges of such half portions so that, when a half portion of the platform forward part on either side of the vertical centre plane has been raised well clear of the additional seat, its associated extension piece can be swung about its pivotal connection into an aligned and forwardly projecting position and said raised half portion of the platform forward part with its aligned extension piece can then be lowered together about the pivotal connection with the rear fixed platform part until they become supported by said extension piece engaging down upon the upper edge of the collapsed additional seat, the platform rear fixed part and one of the half portions of the platform forward part with its aligned extension piece then jointly affording a full length bed on the corresponding side of the vertical centre plane of the vehicle body.

2,777,732
CLEAR VISION RAIN VISORS
Thomas S. Walsh, Ozone Park, N. Y.
Application December 1, 1954, Serial No. 472,433
1 Claim. (Cl. 296—95)



In combination with a vehicle having a sloping windshield and a roof having the forward portion thereof curving downward toward and meeting the top edge of the windshield, a rain visor comprising a hood having a front edge and a rear edge, said hood having the rear edge thereof secured to said roof spaced rearwardly from said top edge of the windshield, said hood having a larger radius of curvature than said forward portion of the roof and extending tangentially forward from the roof over said forward portion of the roof and the windshield, a transverse baffle mounted between the hood and the top of the windshield and in sealing contact along its top and bottom edges between the hood and the windshield, said baffle being curved in cross-section and having the concave side thereof facing forward, a vane having a rear edge and a front edge, said vane being mounted under said hood and spaced therefrom with said rear edge thereof positioned near but spaced forward from said baffle and with said front edge thereof positioned near the front edge of the hood thereby providing for the wind moving upward along the windshield a smoothly curved passage between said baffle and the rear edge of the vane and thence forward between the hood and the vane, said vane being curved in cross-section at a radius of curvature intermediate between that of the baffle and that of the hood whence said passage between the hood and the vane tapers toward the forward edge thereof which is defined by the forward edges of the hood and the vane.

2,777,733
CONTROL DEVICE FOR MATERIAL DISTRIBUTING HOPPER
Raymond J. Miller, Detroit, and Clarence B. Richey, Royal Oak, Mich., assignors, by mesne assignments, to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application February 7, 1951, Serial No. 209,726
3 Claims. (Cl. 298—20)



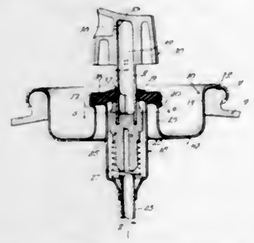
1. For use with a material distributor having a ground wheel and pivoted hopper, a control device comprising, in combination, a cylinder, a piston in said cylinder, means connecting said piston to the pivoted hopper to pivot the same, a pump housing associated with said cylinder, said housing having a bore, a pump piston in said bore, means driven by said ground wheel for imparting a compression stroke only to said pump piston, a piston regulator in said bore constructed and arranged for axial movement therein, a spring pressed plunger in said regulator, said plunger being in contact with said pump piston for imparting a suction stroke to said pump

piston, a fluid reservoir, first fluid passage means for withdrawing fluid from said reservoir into said bore on said suction stroke, second fluid passage means for delivering fluid from said bore to said cylinder on the compression stroke of said pump piston for delivery to said cylinder, and means for varying the axial position of said regulator in said bore to vary the effective stroke of said pump piston by limiting the suction stroke imparted thereto by said plunger, whereby said hopper is incrementally pivoted as a function of the travel of said ground wheel.

2,777,734

WITHDRAWN

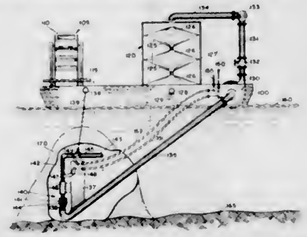
2,777,735
AEROSOL DISPENSERS
Edward H. Green, Addison, Ill.
Application December 14, 1955, Serial No. 553,055
7 Claims. (Cl. 299—95)



1. An aerosol dispenser, comprising: a cover for a container; an elastic ring with a central hole secured in the cover, a casing secured on the cover under the elastic ring, provided with a valve-chamber communicatively connected to the container; a valve-plunger movable in said chamber, underlying in its entirety the elastic ring, having its upper end adapted to seat on the under face of the elastic ring around said hole, for closing said chamber, and provided with a socket extending downwardly from the upper end of the plunger and a closed side and bottom; means for urging the plunger to seat on the elastic ring for closing the chamber; a tubular stem separate from the plunger, having a sliding and sealing fit with the hole in the elastic ring, slidable through the hole in the ring in the plunger, into and out of the socket, and for operatively and detachably connecting the stem to the plunger, and provided with an elongated slit which is closed by the elastic ring when the plunger is seated on the ring and communicates with the valve-chamber when the plunger is separated from the ring, for the flow of fluid from said chamber into the stem, and a press-button supported on and movable with the stem, and provided with an expansion chamber communicatively connected with the hollow stem and a discharge orifice.

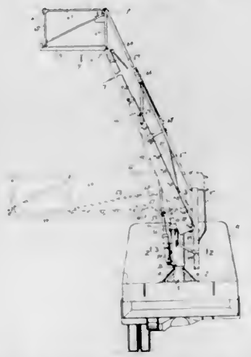
2,777,736
HYDRAULIC CONVEYOR WITH GRANULAR SLURRY CONTROL VALVE
Harry B. Cannon, Lakeland, Fla.
Application November 20, 1953, Serial No. 393,359
5 Claims. (Cl. 302—14)

1. A system for controlling the flow of granular slurries from a storage station containing packed granular material to an operating station comprising a conduit connecting said stations, a slurry pump in said conduit, valve means cooperating with said conduit at said storage station for selectively governing flow of granular material from said storage station into said conduit, a fluid passageway in said valve means normally communicating between said conduit and a source of fluid, a metering control valve in said passageway, and control mechanism



connected to said valve means and said metering control valve for simultaneously supervising the flow of granular material and fluid in said conduit to maintain a slurry having a predetermined density.

2,777,737
LADDER-SUPPORTED WORK PLATFORMS
Roy O. Balogh, Clayton, Mo., assignor to McCabe-Powers Auto Body Co., St. Louis, Mo., a corporation of Missouri
Application January 14, 1953, Serial No. 331,241
7 Claims. (Cl. 304—29)

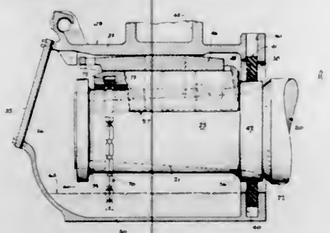


1. A ladder supported work platform comprising an upright pedestal, a support member rotatably mounted on the pedestal, a ladder swingably mounted at its one end upon the support member for movement from a substantially horizontal position to an upwardly inclined position, a plurality of flat-topped steps rockably mounted in the ladder in spaced parallel relation to each other, first link means pivotally interconnecting all of said steps for maintaining the flat tops of said steps in horizontal position, a work platform hingedly mounted upon the other end of the ladder, second link means operatively connecting the work platform and the pedestal for maintaining the work platform in horizontal position, and an access ladder mounted upon the upright pedestal in outwardly spaced substantially parallel relation thereto by parallelogram linkage, said access ladder being pivotally connected at vertically spaced points to the first and second link means.

2,777,738
JOURNAL BEARING LUBRICATOR
Isaac Eugene Cox, Kirkwood, Mo., assignor to American Brake Shoe Company, Wilmington, Del., a corporation of Delaware
Application August 25, 1954, Serial No. 452,147
12 Claims. (Cl. 308—85)

1. A lubricator for the bearing of a railway journal extended into a journal box afforded therefor comprising a journal bearing having a reservoir formed in the back

thereof in which lubricant may be retained, a passage in the bearing leading from said reservoir to the face of the bearing to permit the bearing to be lubricated by lubricant supplied to said reservoir, an undercut slot formed in the bearing over the journal and having shoulders extended laterally across the bearing from one side thereof to the other, another passage in the bearing leading from said slot to said reservoir through which lubricant may be



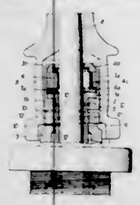
passed to said reservoir, and an endless T-shaped chain arranged in the slot to dip into a reservoir for lubricant in the bottom of the journal box, said chain including flanges disposed to travel above the shoulders of said slot to retain the chain against displacement, and said chain including web portions extended through said slot to engage the periphery of the journal so that rotation of the journal causes the chain to traverse said slot and transport lubricant to the passage leading to said reservoir.

2,777,739

METHOD OF ASSEMBLING BEARINGS FOR SPINNING OR TWISTING SPINDLES

Karl Beerli, Niederuster, Switzerland, assignor to Spindel-, Motoren- und Maschinenfabrik A. G., Uster, Switzerland

Application July 24, 1953, Serial No. 369,999
Claims priority, application Switzerland July 28, 1952
2 Claims. (Cl. 308—149)



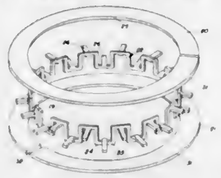
1. A mounting for rotatably supporting a textile mill spindle comprising a journal casing having a tubular portion thereon, an internal annular shoulder in said casing from which said tubular portion extends axially, a bushing within said journal casing and having an external annular flange against said internal shoulder and of substantially the same outside diameter as the inside diameter of said tubular portion and terminating at the inside diameter of said tubular portion, an annular member against said external annular flange having substantially the same outside diameter as the internal diameter of said tubular portion, an anti-friction bearing against said annular member having an outer bearing race with an outside diameter substantially the same as the inside diameter of said tubular portion, an upper annular member against said anti-friction bearing having an outside diameter substantially the same as the inside diameter of said tubular portion, and an inwardly extending flange on the end of said tubular portion against said upper annular member, said tubular portion being axially shrink-stressed, whereby said bushing flange, said annular member, said anti-friction bearing and said upper annular member are maintained between said internal shoulder and said inwardly extending flange.

2,777,740

PISTON-RING CONSTRUCTION

Hsia-si Pien, Drexel Hill, Pa., assignor to Wilkening Manufacturing Co., Philadelphia, Pa., a corporation of Delaware

Application January 22, 1954, Serial No. 405,565
5 Claims. (Cl. 309—24)



1. A composite 3-piece non-bottoming piston-ring adapted to be confined within the ring-receiving groove of a piston comprising a pair of parallel-spaced sealing-rings adapted to be disposed closely adjacent the side-walls of said ring-receiving groove, an axially corrugated spring-metal spacer-and-expander disposed between a pair of sealing-rings with its ends abutting each other, said spacer-and-expander comprising an axially corrugated relatively thin member having radially outwardly extending sealing-ring seating tabs extending from the innerside of its peaks for a distance substantially greater than the cross-sectional thickness of said peaks, the axially outermost surface of said outwardly-extending radial tabs comprising a supporting surface on which the sealing-rings are seated, the radially outer surface of the peaks of said axially corrugated member which is juxtaposed to said radial supporting surface overlapping and engaging the inner peripheral edges of the sealing-rings, said sealing-rings and spacer-and-expander being so constructed and arranged that when the sealing-rings are collapsed to sealing diameter and confined within the side-walls of said ring-receiving groove with the spacer-and-expander disposed between them and the aforesaid spacer-and-expander sealing-ring engaging outer surface engaged with the inner peripheral edges of said sealing-rings, the spacer-and-expander will be compressed circumferentially and will urge the sealing-rings outwardly by means of the aforesaid ring-engaging surfaces.

2,777,741

DEVICE FOR PROVIDING A SLIDABLE SEAL BETWEEN A PISTON AND CYLINDER

Oskar Vielmo, Stuttgart-Mohringen, Germany, assignor to Robert Bosch G. m. b. H. Stuttgart, Stuttgart, Germany

Application June 22, 1954, Serial No. 438,510
Claims priority, application Germany June 22, 1953
8 Claims. (Cl. 309—33)

1. A device for providing a slidable sealed engagement between a piston and a cylinder, comprising, in combination, a sheet metal member having an annular cylindrical portion and at one end of said cylindrical portion an inwardly directed annular flange, said sheet metal member being adapted to be placed on a piston with the inner face of said flange engaging the front face of the piston and with the inner face of said cylindrical portion adapted to engage the outer cylindrical face of the piston; and an annular sealing member joined to the outer face of said sheet metal member at said flange thereof and extending from said flange along the outer surface of said sheet metal member toward but not up to the free end of said cylindrical portion of said sheet metal member to leave at said latter end of said sheet metal member a free cylindrical portion which may be bent inwardly for attaching said sheet metal member and said sealing member therewith to the piston.

2,777,742

FOLDING TABLE AND SUPPORTING STRUCTURE THEREFOR

Robert E. Schieber, Detroit, Mich., assignor to Schieber Manufacturing Company, Detroit, Mich., a corporation of Michigan

Application September 14, 1953, Serial No. 379,763
1 Claim. (Cl. 311—92)

In a folding table construction or the like, the combination including a pair of top members pivotally connected together for movement into a common plane with their edges in abutment, a pair of end supporting structures, one of said end supporting structures pivotally connected to each of said top members at a position spaced from the pivotally connected edges thereof, a center supporting structure pivotally secured to each of said top members adjacent the pivotally connected edges thereof, floor-engaging means carried by each of said supporting structures, and means for maintaining said supporting structures in a substantially vertical position as the table is folded, said last-mentioned means comprising a strut pivotally connected at one end to one of said top members, the other end of said strut pivotally connected to the supporting structure connected to the other of said top members, a second strut pivotally connected at one end to said other top member, the other end of the second strut pivotally connected to the supporting structure connected to said one top member, and a tie member, one end of said tie member pivotally connected to one of said end supporting structures, the other end of said tie member pivotally connected to said center supporting structure.

2,777,743

MANUFACTURE OF LAMPS WITH LUMINESCENT SCREENS

Robert S. Wells, Rugby, and Eric J. G. Beeson, Southwell, England, assignors to General Electric Company, a corporation of New York

Application May 19, 1953, Serial No. 355,942
Claims priority, application Great Britain June 19, 1952
1 Claim. (Cl. 316—11)

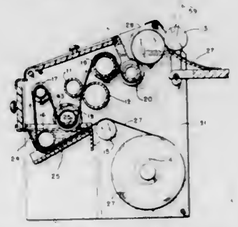
In the manufacture of an electric lamp comprising a glass bulb having its interior surface coated with a manganese-activated magnesium arsenate phosphor which is adversely affected by heating in vacuo during the step of outgassing, the method which comprises outgassing the lamp by baking it at an elevated temperature in the range of 300–600° C. while continually evacuating the lamp to remove occluded gases from the walls thereof, flushing the lamp with oxygen as it cools from the outgassing temperature to a temperature of approximately 150° C., and re-evacuating the lamp at the lower temperature before it has time to re-absorb harmful quantities of gas.

2,777,744

FACSIMILE RECORDER

Roger G. Olden and Charles J. Young, Princeton, N. J., assignors to the United States of America as represented by the Secretary of the Army

Application June 2, 1955, Serial No. 512,901
3 Claims. (Cl. 346—74)



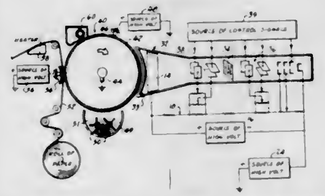
1. In combination in a facsimile system, a recording paper feed means, a printing means, means including a trough for wetting said paper with a liquid, and a plurality of guide rollers intermediate the paper feed and the printing means, one of said rollers extending partially into said trough, said last mentioned roller including means for withdrawing liquid from said trough and depositing it into the interior of said roller, and means on said roller for permitting escape of said liquid from said roller to wet said recording paper in its passage over said roller.

2,777,745

ELECTROSTATIC RECORDING APPARATUS

Joseph T. McNaney, San Diego, Calif., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware

Application October 4, 1952, Serial No. 313,167
9 Claims. (Cl. 346—74)



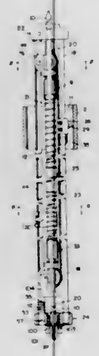
1. Recording apparatus comprising a cathode ray tube having an inner target area, at least one conductive element disposed on said inner target area, means including a source of electrons for projecting a beam of electrons toward said target area to excite said element, a conductive member disposed externally of and spaced from said tube and adjacent said target area, a source of direct current potential having one terminal coupled to said source of electrons in the tube the other terminal connected to the conductive member, an electrostatically polarizable member positioned intermediate the conductive member and externally of said tube adjacent said target area for storing electrostatic charges corresponding to the excitation produced on the conductive element.

2,777,746

AMPLIFYING RECORDER FOR TUBING CALIPERS

John V. Fredd, Dallas, Tex., assignor to Otis Pressure Control, Inc., Dallas, Tex., a corporation of Delaware

Application February 24, 1955, Serial No. 490,389
9 Claims. (Cl. 346—111)



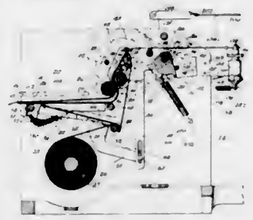
1. A recorder for use in a self-contained mechanically operated tube caliper comprising, in combination with an enclosing chart, a drive frame positioned concentrically of the chart and of a length to cooperate therewith, a threaded lead screw extending the length of the drive frame, a travelling nut in relative rotating engagement with the lead screw and in sliding contact with said frame, stylus means in sliding engagement with the frame positioned to scribingly engage the enclosing chart, spaced apart pulleys at opposite ends of the frame, resilient means positioned by said frame and urging said pulleys apart, a flexible cable linking the travelling nut and stylus means together over said pulleys, and reciprocable means engaging the pulleys to move the same longitudinally of said frame during the calipering operation.

2,777,747

ELECTROCARDIOGRAPH

Warren E. Gilson, Madison, and Sherrill K. Rasmussen, Milton, Wis., assignors to The Burdick Corporation, Milton, Wis., a corporation of Delaware

Original application May 2, 1950, Serial No. 159,608, now Patent No. 2,674,992, dated April 13, 1954. Divided and this application July 31, 1953, Serial No. 371,574
3 Claims. (Cl. 346—136)



3. In an electrocardiograph, the combination of a tape roll support, tape tensioning means adapted to engage tape trained from said roll support, a thin elongated tape support for tape trained from said tensioning means, a rotary tape pulling roller, driving means connected to rotate said roller, a tape clamping roller for holding against said pulling roller tape trained from said elongated tape support, a support freely swingable relative to said elongated tape support and said tensioning means and connected to support said clamping roller, means pivotally supporting said swingable roller support, said pivotal support means and the immediately coacting portion of said swingable roller support being formed to provide for translation of the latter, guide means coacting with said roller support to constrain said clamping roller in the vicinity of said pulling roller for movement toward the latter in a predetermined direction making a large acute angle with a line extending through the axes of both rollers, a spring connected to said roller support to urge the latter in a direction for carrying said clamping roller toward said driving roller, and leverage multiplying means including a manual operator therefor coacting with said roller support to move the latter to a tape threading position in which said clamping roller is carried away from said pulling roller.

CHEMICAL

2,777,748

PROCESS FOR AGING AZOIC PRINTED FABRICS

James C. Thomas, Graves T. Gore, and Drue L. Simmons, Trion, Ga., assignors to Riegel Textile Corporation, a corporation of Delaware

No Drawing. Application July 6, 1955, Serial No. 520,353
1 Claim. (Cl. 8—71)

In the printing of textile fabrics with insoluble azo colors that require development by steam and acid treatment, the improvement which comprises training a printed fabric continuously from a printing station past a preliminary treatment station at the printing speed, and treating the fabric at such preliminary treatment station with steam at atmospheric pressure and dilute acid for a period of about 20 to 60 seconds, sufficient only to develop partially the color pattern for making the pattern visible and thereby disclosing possible defects in the printing, storing the partially developed printed fabric for a period of hours sufficient to permit the acid remaining therein to effect a progressive further development of the color pattern and finally subjecting the fabric to a further acid and steam treatment to develop fully the printed pattern.

2,777,749

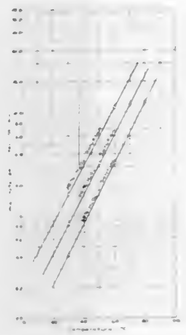
PROCESS FOR APPLICATION OF HYDROGEN PEROXIDE TO MATERIALS

James H. Young, Niagara Falls, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application May 29, 1953, Serial No. 358,503
12 Claims. (Cl. 8—104)

1. In a method for treating and reacting a solid material with hydrogen peroxide, the improvement comprising applying hydrogen peroxide to said material by contacting said material, while said material has a free water content of 5% to 75% based on the dry weight of the material, with hydrogen peroxide vapor and continuing said contact until 0.01 to 3.0% of hydrogen peroxide based on the dry weight of the material has been absorbed, and reacting the absorbed hydrogen peroxide with said solid material in the absence of any further amount of hydrogen peroxide.

10. A method for bleaching wood pulp comprising contacting wood pulp having a free water content of not less than about 5% nor more than 75%, based on the dry weight of said pulp, with a gaseous mixture of H_2O_2 vapor and an inert gas, and maintaining said contact until said pulp has absorbed an amount of H_2O_2 equal to 0.1 to 3% of the dry weight of the pulp, and



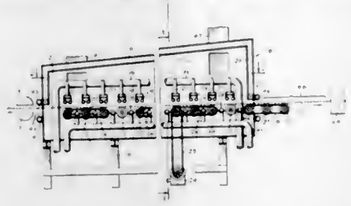
bleaching said pulp with the absorbed H_2O_2 in the absence of any further amount of hydrogen peroxide.

2,777,750

PROCESS OF STABILIZING THERMOPLASTIC KNITTED FABRIC CONTAINING CELLULOSE ESTER YARNS WITH SUPERHEATED STEAM

Basil S. Sprague, New Providence, Murray N. Carroll, Summit, and Robert H. Roughsedge, Ramsey, N. J., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

Application November 13, 1952, Serial No. 320,282
9 Claims. (Cl. 8—131)



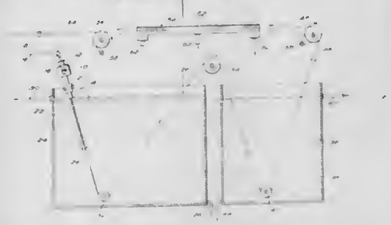
6. A process for improving the dimensional stability of warp knitted fabric containing cellulose acetate yarns after said fabric has been subjected to hot water under such conditions that the number of wales per inch of the fabric has been increased, which comprises stretching said fabric to a definite width to decrease the number of wales per inch and subjecting said fabric containing 50–120%, based on the weight of the dried fabric, of water to superheated steam having a temperature above about 230° F., maintaining said fabric at said definite width and at a moisture conten: above the saturation regain value of said cellulose ester throughout the treatment with superheated steam, said treatment with superheated steam being continued until said cellulose ester is swollen and the internal stresses in the yarns are released and the dimensions of the fabric are stabilized to subsequent washing, the time and temperature of said treatment being insufficient to effect fusion or coalescence of said yarns, removing the fabric from contact with the superheated steam before the moisture content of said cellulose ester has been reduced below said saturation regain value so that said fabric still carries an excess of water on the surface of said yarns, and cooling the treated fabric, said fabric being supported throughout substantially its entire area while it is subjected to the superheated steam.

2,777,751

PROCESS FOR SPINNING AQUEOUS-SALINE SOLUTIONS OF ACRYLONITRILE POLYMERS

Arthur Cresswell, Stamford, and Percival W. Cummings, Jr., Cos Cob, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

Application March 8, 1951, Serial No. 214,616
11 Claims. (Cl. 18—54)



1. A method of forming shaped structures from an acrylonitrile polymerization product which comprises extruding an aqueous solution of an acrylonitrile polymerization product containing a major proportion by weight of combined acrylonitrile through a shaped orifice into a liquid coagulating bath comprising an aqueous solution containing from about 3% to about 25%, by weight, of a water-soluble thiocyanate which yields highly hydrated ions in an aqueous solution, said coagulating bath being at a temperature not exceeding +10° C. and said acrylonitrile polymerization product being dissolved in a concentrated aqueous solution of the same water-soluble thiocyanate which is a component of the said liquid coagulating bath.

2,777,752

RECOVERY OF CADMIUM AS SULPHATE FROM CADMIUM OXIDE CONTAINING DUSTS

Robert E. Lund, Rochester, and Don E. Warnes, Monaca, Pa., assignors to St. Joseph Lead Company, New York, N. Y., a corporation of New York

No Drawing. Application November 10, 1953, Serial No. 391,384
6 Claims. (Cl. 23—117)

1. Process for the recovery of cadmium as sulfate from bag house dust, Cottrell dust and like material containing a substantial portion of its cadmium content in the form of water-insoluble oxide compounds together with at least one metal sulfate of the group consisting of zinc sulfate and ferric sulfate in at least about equimolar proportion to the cadmium oxide content of the material, which comprises heating the material at a temperature of from about 400° C. to about 700° C. until at least a major portion of the cadmium oxide content of the material has reacted with said metal sulfates to convert the cadmium oxide to water-soluble cadmium sulfate and to convert said metal sulfates to water-insoluble oxidic compounds of said metals, and thereafter leaching the material to recover the cadmium sulfate therefrom.

2,777,753

SEPARATION OF COBALT FROM NICKEL

Felix A. Schaufelberger, Rye, and Alfred M. Czikk, Flushing, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 15, 1956, Serial No. 591,525
4 Claims. (Cl. 23—117)

1. In a hydrometallurgical process for recovering a substantially nickel-free cobalt solution from a liquor containing dissolved nickel sulfate and cobalt sulfate which

comprises adjusting the solutes contents of said liquor to provide about 5 mols of ammonia for each mol of dissolved cobalt and about 5 mols of ammonia for each mol of dissolved nickel and a sulfate ion concentration at least sufficient to satisfy the dissolved cobalt content in its trivalent state and dissolved nickel in its bivalent state; oxidizing the adjusted liquor with a sulfur-free, oxygen-bearing oxidizing gas; introducing sulfuric acid into said oxidized liquor to produce a hydrogen ion concentration greater than that equivalent to a pH of about 4 whereby a substantially cobalt-free nickel-bearing precipitate is formed; and separating said precipitate leaving a substantially nickel-free cobalt-bearing liquor, the improvement in combination therewith which comprises: prior to acid addition, slowly and steadily heating said oxidized liquor to its boiling point and gently boiling said liquor.

2,777,754

PURIFICATION OF ANHYDROUS HYDROGEN FLUORIDE

Viktor Weinmayr, Pitman, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 13, 1951, Serial No. 236,684

6 Claims. (Cl. 23—153)

1. A process for eliminating sulfur dioxide from anhydrous hydrogen fluoride containing a small amount of the said sulfur dioxide as an impurity which comprises contacting the hydrogen fluoride in the liquid phase at a temperature between 20° and 200° C. with an inorganic oxidizing agent selected from the group consisting of manganese dioxide, potassium permanganate and the chlorates, chromates, dichromates and peroxides of sodium and potassium, the amount of oxidizing agent being at least stoichiometrically equivalent to the amount of sulfur dioxide originally present in the hydrogen fluoride, until the sulfur dioxide is completely oxidized.

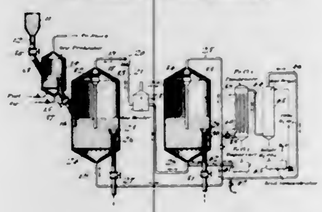
2,777,755

TREATMENT OF IRON BEARING MATERIAL

John E. Eberhardt, Bethlehem, Pa., assignor to Bethlehem Steel Company, a corporation of Pennsylvania

Application August 8, 1952, Serial No. 303,209

12 Claims. (Cl. 23—200)



1. A process for treating oxidic ore containing iron to separate iron from the gangue, comprising the steps of charging the ore into a chloridizing chamber, maintaining the ore at a temperature at least as high as the boiling point of ferric chloride, passing gas consisting predominantly of hydrochloric acid through the chloridzing chamber and in contact with the ore therein to produce a gaseous mixture containing ferric chloride and water vapor, elevating the temperature of this gaseous mixture after it has left the chloridizing chamber to form ferric oxide in the solid phase and hydrochloric acid gas and returning at least a portion of this latter gas to the chloridizing chamber.

2,777,756

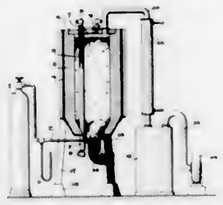
PROCESS FOR MANUFACTURING TITANIUM TETRACHLORIDE AND ARRANGEMENT THEREOF

Kenji Anazawa, Amagasaki, and Eiichi Tsuruta, Nishinomiya, Japan, assignors to Furukawa Electric Co., Ltd. and Furukawa Mining Co., Ltd., Tokyo, Japan

Application March 2, 1954, Serial No. 413,676

Claims priority, application Japan August 13, 1953

1 Claim. (Cl. 23—262)



Apparatus for manufacturing titanium tetrachloride comprising a vessel for containing liquid chlorine, a chlorination furnace lined with fire brick, a heating body of the class consisting of graphite and silicon carbide in said chlorination furnace, a quartz pipe covering said heating body, a conduit connecting said vessel with said chlorination furnace, a cover mounted on said chlorination furnace, a receiver and a gas discharging pipe thereof, a pump effective through said gas discharge pipe, a conduit connecting said receiver to said chlorination furnace, and a condenser operative in said receiver.

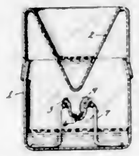
2,777,757

VESSEL FOR CONTINUOUS EXTRACTION

Hans Burgeff, Wurzburg, Germany

Application June 24, 1952, Serial No. 295,264

1 Claim. (Cl. 23—267)



A vessel for the continuous extraction of chemical and microbiological materials comprising a container formed of glass in two parts, one of said parts being the top part and the other of said parts being the bottom part, said top part having a slightly outwardly flared skirt portion extending over and fitting against the inwardly tilted top portion of said bottom part, the inner surface of said skirt portion being lapped against said inwardly tilted top portion of said bottom part to form a lapped glass seal so that said container may be readily opened for removal of the contents from said bottom part, the upper one of said parts having a substantially conical depression extending down well into said container and formed integral therewith, said conical depression being adapted to hold a volatile liquid exposed to the outer atmosphere so as to permit said liquid to evaporate and cool surfaces of said substantially conical depression inside of said container, the bottom part of said container being adapted to receive a quantity of liquid therein, an extraction container for receiving the material to be extracted, means for supporting said extraction container beneath the lower-most part of said conical depression so that the vapor formed from the liquid in the bottom part of said container and condensing on the cooled bottom surface of said cone runs to said lower-most part thereof and drops into said extraction container, said extraction container having a perforation in the bottom thereof to allow the extract to drip therefrom.

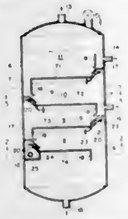
2,777,758

LIQUID-LIQUID CONTACTING APPARATUS

Oldrich S. Pokorny and Michael H. Farmer, Sarnia, Ontario, Canada, assignors to Esso Research and Engineering Company, a corporation of Delaware

Application October 15, 1954, Serial No. 462,590

4 Claims. (Cl. 23—270.5)



1. An apparatus for countercurrently contacting two partially miscible liquids having different specific gravities wherein one of the liquids is present as a continuous phase and the second liquid as a discontinuous phase which comprises a vessel adapted to contain liquids, a plurality of vertically spaced, horizontally disposed, transverse imperforate plates within said vessel dividing the vessel into a plurality of vertically superposed treating stages, conduit means for introducing the two liquids in stages at opposite ends of said vessel, the heavier liquid being introduced within the uppermost stage, conduit means for removing the contacted liquids from the vessel, each transverse plate having a first lip member at one margin of the plate and a second lip member at the opposite margin of the plate, the first lip members of successive plates being laterally opposite one another within said vessel, each first lip member inclined at an angle of about 45° with respect to its transverse plate and extending in opposite directions from this transverse plate, the laterally outer end of each said first lip member located vertically nearer than the laterally inner end to the continuous phase liquid entrance to said vessel and being sealed to a horizontally disposed third lip member terminating in spaced relation with the wall of said vessel, a vertically disposed baffle plate spaced laterally inward from the inner end of each said first lip member and vertically spaced from the adjacent transverse plate, the second lip member of each transverse plate being vertically disposed and terminating in vertical spaced relationship with the first lip member of the next adjacent transverse plate, the terminal portion of each said second lip being inclined at an angle of about 45° toward the center line of said vessel, a deflector plate sealed to the inner wall surface of said vessel and extending inward of said vessel vertically intermediate and spaced from the first lip member of each plate and the second lip member of the next adjacent plate, the inner portion of each said deflector plate being perforate, the perforate portion being spaced laterally inward of the inner terminal intermediate its respective transverse plate and the inner terminal of its respective second lip member.

2,777,759

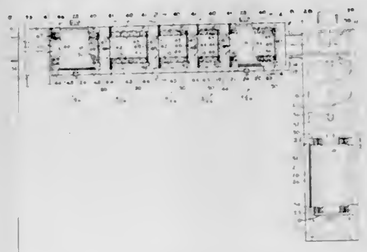
AIR PROCESSING APPARATUS

Edward Sokolik, New Brighton, Minn.

Application February 13, 1953, Serial No. 336,749

2 Claims. (Cl. 23—284)

1. Air conditioning apparatus comprising an elongated cylindrical housing, said housing including a pair of substantially semi-cylindrical housing sections adapted to be separated for providing access to the interior of the housing, said housing having air inlet and outlet openings at opposite ends thereof, air blower means adjacent one end of the housing for causing air to pass longitudinally therethrough, a plurality of separate cylindrical air purifying cartridges mounted within the cylindrical housing in longitudinally spaced relation axially of the housing and readily removable therefrom when the pair of housing sections are separated, each cartridge comprising a pair of concentrically spaced inner and outer cylindrical foraminous sleeves, the outer sleeve of each cartridge being concentrically spaced from the side wall of the housing, an end wall closing corresponding ends of the inner and outer sleeves of each cartridge and preventing the passage of air into the sleeves axially in one direction, an annular wall adjacent the other corresponding ends of



the sleeves of each cartridge and covering the annular space between the inner and outer sleeve and between the outer sleeve and side wall of the housing, whereby the air passing through the housing flows longitudinally of each cartridge between its outer sleeve and the side wall of the housing and then radially inwardly through the foraminous sleeves of each cartridge and then axially of the bore of the inner sleeve of each cartridge and then radially outwardly in the space between each adjacent pair of cartridges, and a specifically different air purifying chemical agent disposed within and substantially filling the annular space between the inner and outer sleeves of each cartridge and adapted to remove from the air a specific gaseous impurity when the air flows radially inwardly through the particular cartridge sleeves and chemical agent.

2,777,760

VINYL ACETATE REACTOR

Francis H. Dineen, Niagara Falls, N. Y., Samuel A. McNeight, Richland, Wash., and William H. Vining, Niagara Falls, N. Y., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

Application October 31, 1952, Serial No. 318,064

10 Claims. (Cl. 23—288)

7. Apparatus for fluidizing particulate solids comprising a vertical, elongated cylindrical chamber for contain-

ing the fluidized solids, a gas-impervious cone located coaxially in the lower part of said chamber and means for flowing fluidizing gases upwardly through the annular space between the base of said cone and the side walls of said chamber, said cone having a base area equal to between about one-fourth and three-fourths of the cross-sectional area of said chamber and the conical surface of said cone having an angle greater than the angle of repose of said particulate solids, the apex of said cone extending to a vertical height not exceeding three-fifths of the vertical height of said reaction chamber.

2,777,761

COMPOSITION FOR ELIMINATING SLAG, SOOT, AND FLY ASH

Paul T. Tarnoski, Oak Park, Ill., assignor to Chemical & Engineering Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application June 3, 1954, Serial No. 434,349
1 Claim. (Cl. 44—5)

A fly ash, slag, soot and carbon eliminator which is extremely light, has a density of not over 0.40, is capable of being air borne and which is extremely volatile in the combustion chamber and back passes of a boiler, comprising from about 40% to 50% by weight of ammonium chloride, about 5% to 10% of copper sulfate, about 30% to 40% of wood flour, and enough mineral coloring matter to make 100%.

2,777,762

METHOD AND COMPOSITION FOR THE CONTROL OF UNDESIRABLE VEGETATION

Burton V. Toornman, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application November 16, 1953, Serial No. 392,500
8 Claims. (Cl. 71—2.3)

1. A method which comprises the step of contacting seeds and emerging seedling rootlets, while positioned in a growth medium, with a growth inhibiting amount of 2,6-dichloroanisole.

2,777,763

METHOD OF PRODUCING TITANIUM

Thomas P. Whaley, Royal Oak, Mich., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application September 14, 1955, Serial No. 534,392
4 Claims. (Cl. 75—84)

1. A process for the preparation of titanium comprising reacting essentially anhydrous titanium dioxide at elevated temperature of at least about 700° C. for at least about 30 minutes with a molten anhydrous calcium halide and an alkali metal in proportions such that the amount of calcium halide is at least 100 percent in excess in moles and the amount of alkali metal is at least 140 percent in excess in moles of the amounts required by the equation

$$2CaX_2+4M+TiO_2 \rightarrow Ti+2CaO+4MX$$

where X is halogen and M is alkali metal.

2,777,764

PROCESS OF RECOVERING PRECIOUS METALS FROM REFRACTORY SOURCE MATERIALS

Norman Hedley and Howard Tabachnick, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application July 9, 1954, Serial No. 442,454
19 Claims. (Cl. 75—105)

1. A process of recovering locked precious metals from refractory source materials which comprises heating under pressure said source material in a slurry in an aqueous non-alkaline oxidizing medium to a temperature over 120° C., recovering from the said slurry the insoluble material, and recovering the precious metals from said insoluble material by cyanidation.

2,777,765

LOW MELTING CRUSHABLE TUNGSTEN ALLOY

John L. Benham, Lewiston, N. Y., assignor to Union Carbide and Carbon Corporation, a corporation of New York

No Drawing. Application October 11, 1955, Serial No. 539,925
7 Claims. (Cl. 75—122)

1. An alloy containing 26% to 33% tungsten, 25% to 32% chromium, and the remainder iron and incidental impurities.

2,777,766

CORROSION RESISTANT ALLOYS

William O. Binder, Niagara Falls, N. Y., assignor to Union Carbide and Carbon Corporation, a corporation of New York

No Drawing. Application June 4, 1952, Serial No. 291,813
4 Claims. (Cl. 75—134)

1. An alloy article resistant to oxidizing-type and reducing-type corrosive media, which article is composed of an alloy consisting of 18% to 25% chromium; 35% to 50% nickel; 2% to 12% molybdenum; 0.1% to 5% in the aggregate of at least one metal selected from the group consisting of tantalum and columbium; up to 5% tungsten; up to 2.5% copper; less than 0.25% carbon; the remainder iron and incidental impurities, the iron content being at least 15% and the individual constituents of said alloy being so proportioned that the left hand side of the following equation is at least equal to the right hand side:

$$\text{Percent Cr}-\tfrac{2}{3}(\text{percent Mo}+0.3(\text{percent w}))=6.6(\text{percent Ni})^{0.25}$$

2,777,767

SELF-FLUXING SILVER ALLOY FILLER METAL

Theodore I. Leston, New York, N. Y., assignor to Eutectic Welding Alloys Corporation, New York, N. Y., a corporation of New York

No Drawing. Application September 10, 1953, Serial No. 379,473
3 Claims. (Cl. 75—157.5)

1. A self-fluxing silver brazing alloy composed of the following materials in the ranges indicated:

	Percent
Copper	53–56
Zinc	9–11
Manganese	0.05–0.5
Iron	0.10–0.5
Nickel	6.0–9.0
Silver	25.0–28.0

2,777,768

ALPHA TITANIUM ALLOYS

Lee S. Busch and George W. Bauer, Indianapolis, Ind., assignors to Mallory-Sharon Titanium Corporation, Niles, Ohio, a corporation of Delaware

No Drawing. Application August 3, 1953, Serial No. 372,161
7 Claims. (Cl. 75—175.5)

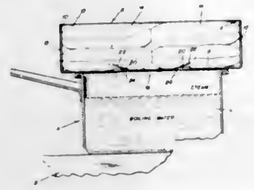
1. An alpha titanium alloy composed of in excess of 90% titanium, 0.50% to 5% aluminum, and the balance of said alloy being substantially only vanadium and silicon.

2,777,769

VENDIBLE COMMODITY PACKAGE

Hiram Morris Hodges, Jacksonville, Fla., assignor of fifty percent to Edna Beaty, Jacksonville, Fla.

Application November 24, 1953, Serial No. 393,988
1 Claim. (Cl. 99—172)



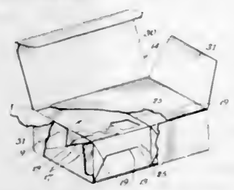
A vendible commodity protecting and marketing package for ready-to-eat bakery products and wherein the package containing the product lends itself to steaming for purposes of freshening, if necessary, the stated product comprising, in combination, a box open at the top and having a bottom and complemental upstanding marginal walls, said bottom being provided with a plurality of centrally positioned but distributively spaced steam admitting vents, said vents being formed by struck-out individual tongues which are normally flush with the bottom but are susceptible of being forcibly pressed upwardly and into the commodity space of the box in which position the vents are then open and readied for use, ready-to-eat bakery products accessibly contained in said commodity space, an imperforate air tight protective wax paper wrapper completely encasing said box, said wrapper being moisture-proof but rupturable under the action of intentionally applied finger pressure, the bottom portion of the wrapper spanning the bottom wall and vents and being readily rupturable when a finger is lined up with a given vent and the cooperating portion of the wrapper is ruptured and the stated finger is pressed against the tongue in a manner to force the same inwardly into the interior of the box whereby one or more of said vents are thus opened up to admit steam into said space, and another portion of said wrapper being substantially transparent and spanning the open top of said box and serving as a so-called inspection window.

2,777,770

PACKAGING

Guy Norwood Fisher, Wilmette, Ill., assignor to Kraft Foods Company, Chicago, Ill., a corporation of Delaware

Application June 27, 1950, Serial No. 170,649
3 Claims. (Cl. 99—178)



1. A method of packaging cheese in wedge-shaped blocks which comprises the steps of providing a trough of V-shaped cross-section, inserting a pliable envelope containing a fluid mass of the cheese into said trough, placing the assemblage of trough, envelope, and fluid cheese in a container adapted to snugly enclose said assemblage whereby said fluid cheese retains the shape of said trough regardless of the position of said container, and cooling said container to thicken said cheese.

2,777,771

EDIBLE POWDERS AND METHOD OF PRODUCING SAME

Robert Alexander Spencer Templeton, Gosmore, Hitchin, England

No Drawing. Application December 14, 1951, Serial No. 261,747
Claims priority, application Great Britain March 12, 1951
11 Claims. (Cl. 99—207)

1. The method of preparing edible products which comprises adding to a powder of a cooked starchy vegetable substance a different vegetable substance in wet form in such amount that the moisture content of the resultant mixture never substantially exceeds 50%, mixing the powder with the different vegetable substance, and drying the last-named mixture under conditions such that the temperature thereof is maintained below about 50° C.

2,777,772

COMPOSITION FOR MAINTAINING CLEAR VISION IN WINDSHIELDS

Donald F. Stedman, Ottawa, Ontario, Canada, assignor to National Research Council, Ottawa, Ontario, Canada, a body corporate of Canada

No Drawing. Application June 22, 1953, Serial No. 363,415
5 Claims. (Cl. 106—13)

1. A composition for rendering window surfaces water and rain repellent comprising essentially substituted polysilicane, consisting only of carbon, hydrogen and silicon and having not less than one Si–Si linkage and at least one of a group consisting of alkyl and aryl radicals attached to at least one Si atom in said linkage, in admixture with carbon black and 15 to 50% of its weight of rouge having a particle size larger than that of the carbon black.

2,777,773

BARIUM TITANATE OF INCREASED DIELECTRIC CONSTANT AND PIEZOELECTRIC RESPONSE AND METHOD OF PRODUCING SAME

Robert M. Callahan, Alexandria, Va., assignor to the United States of America as represented by the Secretary of the Navy

No Drawing. Application July 1, 1953, Serial No. 365,564
4 Claims. (Cl. 106—39)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A method of producing barium titanate which comprises calcining a powder mixture of barium carbonate and titanium dioxide containing the former in slight molar excess over the latter and between about .01 and .04% by weight of added antimony trioxide at a temperature between about 1125 and 1175° for a period of time between about 2 and 4 hours.

2,777,774

OPTICAL GLASS

Gustav Weissenberg, Marburg (Lahn), and Norbert Meinert, Munchhausen, Germany, assignors to Ernst Leitz, G. m. b. H., Wetzler (Lahn), Germany, a corporation of Germany

No Drawing. Application January 21, 1953, Serial No. 332,558
Claims priority, application Germany February 26, 1952
2 Claims. (Cl. 106—47)

1. Optical crown glass the glass forming constituents of which consist essentially of at least one metaphosphate of the group consisting of magnesium, calcium, strontium and barium, boron trioxide and at least one carbonate of the group consisting of magnesium, calcium, strontium, barium and lithium and being the heat reaction product of a batch having from 57% to 86% by weight of said metaphosphate and from about 8.6% to about 12.6% of boron trioxide and from 0.9% to 34.4% of said carbonate group.

2,777,775
PRODUCTION OF ARTIFICIAL FILAMENTS, THREADS, AND THE LIKE
John Harold Edwards and Ernest Edward Tallis, Coventry, England, assignors to Courtaulds Limited, London, England, a British company
Application May 13, 1954, Serial No. 429,640
Claims priority, application Great Britain June 25, 1953
1 Claim. (Cl. 106—165)

Viscose containing at least 0.1 millimole per 100 grams of the viscose of thiocarbanilide.

2,777,776
FREE-FLOWING POWDERED WAXES
Joseph A. Kieras, New London, Pa., assignor to The Atlantic Refining Company, Philadelphia, Pa., a corporation of Pennsylvania
No Drawing. Application May 3, 1954, Serial No. 427,358
6 Claims. (Cl. 106—272)

1. A free-flowing powdered wax composition comprising a physical mixture of a powdered friable wax and from 0.25 percent to 2.0 percent powdered tri-calcium orthophosphate said tri-calcium orthophosphate being distributed on the surface of the particles of the powdered wax.

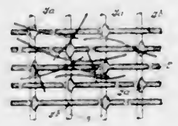
2,777,777
PROCESS FOR PREPARING CADMIUM RED PIGMENT
Benjamin W. Allan and Frank O. Rummery, Baltimore, Md., assignors to The Glidden Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application May 21, 1953, Serial No. 356,596
20 Claims. (Cl. 106—301)

1. A process for preparing cadmium red pigment by precipitation and subsequent calcination which comprises the step of precipitating cadmium sulfide from aqueous ionic solutions of its component elements and simultaneously therewith coprecipitating selenium in a water-insoluble form from an aqueous solution which contains dissolved water-soluble selenium acid radicals selected from the group consisting of selenious acid radicals, selenic acid radicals and mixtures thereof as a result of dissolving in said aqueous solution oxidic selenium compound selected from the group consisting of selenium dioxide, selenium trioxide, and mixtures thereof.

2,777,778
PROCESS FOR PREPARING CADMIUM RED PIGMENT
Benjamin W. Allan and Frank O. Rummery, Baltimore, Md., assignors to The Glidden Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application July 19, 1952, Serial No. 299,920
8 Claims. (Cl. 106—301)

1. The process for preparing cadmium red pigment which comprises: providing a finely-divided crude pigment mass composed essentially of (*a*) cadmium sulfide greencake, (*b*) selenium dioxide and (*c*) reducing agent selected from the group consisting of selenium, sulfur, binary selenium-sulfur compounds and mixtures thereof; said selenium dioxide being present in such quantity that the selenium thereof plus any selenium in said reducing agent together provide all of the selenium required to convert said greencake to a red pigment of desired shade, and said reducing agent being present in a total amount sufficient to form SO_2 with at least one-third of any oxygen of said selenium dioxide which is in excess of one atomic equivalent thereof for each atomic equivalent of the total selenium in said crude pigment mass; and calcining said crude pigment mass to effect its conversion to cadmium red pigment.

2,777,779
FACED TEXTILE MATERIAL
Kenneth J. Harwood, Neenah, and Harvey J. Le Daln, Appleton, Wis., assignors, by mesne assignments, to Kimberly-Clark Corporation, a corporation of Delaware
Application January 21, 1949, Serial No. 71,904
12 Claims. (Cl. 117—25)



1. Textile fabric comprising interlaced threads, and adhesive bonding intersecting thread portions to each other to stabilize the thread positions in the fabric, portions of some of the threads intermediate said intersections being substantially free of adhesive so as to preserve the normal softness of said intermediate thread portions whereby the normal softness of the fabric before stabilization thereof as aforesaid, is preserved to a high degree.

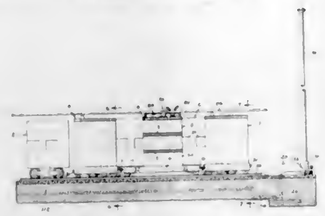
2,777,780
METHOD OF DESENSITIZING CLAY-COATED RECORD SHEET
Marjorie J. Cormack and Ned A. Thacker, Dayton, Ohio, assignors to The National Cash Register Company, Dayton, Ohio, a corporation of Maryland (incorporated in 1926)
Application November 9, 1954, Serial No. 467,792
4 Claims. (Cl. 117—36)

1. The method of deactivating portions of record material sensitized with minute particles of inorganic adsorbent electron acceptor materials which cause the formation of color in an electron donor aromatic double bond color-reactant compound adsorbed thereon, by reason of an electron donor-acceptor color reaction which converts said compound to a more highly polarized conjugated form, giving it a distinctive color, including the step of applying to selected areas of the sensitized record material, before any of the organic color-reactant is applied, highly polar, non-volatile non-color-forming adsorbate material sufficient to occupy the normally available adsorbent sites on the particles of such areas.

2,777,781
TRANSFER SHEET HAVING WAXY TOP PROTECTIVE COATING
James W. Kordig, Skokie, Gildo Fato, Bellwood, and Walter A. Raczynski, Park Ridge, Ill., assignors to Ditto, Incorporated, Chicago, Ill., a corporation of West Virginia
Application March 4, 1955, Serial No. 492,180
4 Claims. (Cl. 117—36)

1. A transfer sheet adapted for use with a pressure or impact instrumentality such as a pencil or the keys of a typewriter, comprising a base coated with a transfer composition, and a film essentially comprising a wax containing a minor proportion of a polyethylene resin coated on said transfer composition, a polyethylene resin having a molecular weight of at least approximately 1200 and present in at least approximately 1% with the wax as to give substantially increased sheen and reduced offsetting over the wax composition free of the polyethylene resin.

2,777,782
METHOD FOR THE EXTERIOR FINISHING OF VEHICLES
John W. Sheffer, Williamsport, Pa., and Edmund A. Watson, Ridgewood, N. J., assignors to ACF Industries, Incorporated, a corporation of New Jersey
Application November 21, 1952, Serial No. 321,884
1 Claim. (Cl. 117—49)

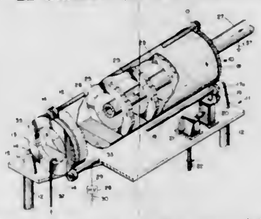


The method of exterior finishing the side of a railway car in uninterrupted successively concurrent steps comprising progressively heating the car side wall from end to end in continuously advancing full height sections thereof, progressively spray painting said full height car side wall sections as soon as they have been heated from within an isolated area adjacent to and progressively enveloping said car side wall sections being spray painted while maintaining a sub-atmospheric pressure within said isolated enveloping area to prevent escape of paint overspray from the perimeter thereof, simultaneously progressively establishing an outlet for exhaust of said paint overspray from said isolated enveloping area into an otherwise closed fixed discharge trough coextensive with the side of the railway car, and then progressively applying drying heat to said full height car side wall sections as soon as they have been spray painted, said first heating step, said spray painting and said second heating step being carried out so that the distance between the points of performing the separate steps is maintained substantially constant.

2,777,783
METHOD OF COATING A SURFACE WITH POLYHALOCARBON RESIN AND ARTICLE FORMED THEREBY
Pierre R. Welch, Washington, D. C.
No Drawing. Application February 9, 1954, Serial No. 409,267
25 Claims. (Cl. 117—75)

1. An article coated with a tightly adhering monolithic coating made up of a plurality of tightly adherent baked layers comprising a fused polyhalocarbon resin and a non-polyhalocarbon extender resin compatible with and capable of withstanding the fusion temperature of the polyhalocarbon resin, the layer adhering directly to the article containing 0% to about 70% by weight of polyhalocarbon resin, and at least one layer superimposed thereon containing about 25% to about 70% by weight of fused polyhalocarbon resin, the surface layer of said coating comprising about 70% to 100% fused polyhalocarbon, said percentages being based on the total resin content of the coating, the proportion of polyhalocarbon resin in the superimposed layers increasing and the proportion of extender resin decreasing from the initial layer to the final layer.

2,777,784
METHOD AND APPARATUS FOR SPRAY COATING OF ARTICLES
Emery P. Miller, Williams Creek, Ind., assignor to Ransburg Electro-Coating Corp., a corporation of Indiana
Application November 27, 1951, Serial No. 258,439
12 Claims. (Cl. 117—93)

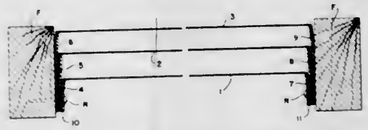


1. The method of applying coating material to an article by electrostatic deposition which comprises passing the article along a horizontal path, encircling the path with means providing a plurality of annular vertically arranged atomizing edges, continuously rotating said means, and continuously dipping the lower portion of the means in a pool of coating material to feed the material to said edges and creating an electrostatic charge differential between the article and the coating material at said edges of sufficient strength to be capable of electrostatically atomizing said material and electrostatically depositing the atomized material on the article.

2,777,785
COMPOSITION FOR AND METHOD OF TREATING METALS AS WELL AS THE TREATED PRODUCT
Ludwig K. Schuster, Philadelphia, and Alfonso L. Baldi, Jr., Drexel Hill, Pa., assignors to Heintz Manufacturing Company, Philadelphia, Pa., a corporation of Pennsylvania
No Drawing. Application July 30, 1953, Serial No. 371,427
16 Claims. (Cl. 148—6.2)

1. A stabilized solution consisting essentially of chromic acid, a reducing agent for the chromic acid, and water, the reducing agent being one that at 80° F. coexists in dissolved condition with the chromic acid for at least about one day without producing a precipitate, the solution also containing about 0.01 to 0.5% of a dissolved manganese compound.

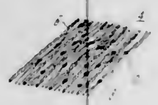
2,777,786
THERMAL INSULATION
Alexander Schwartz and Emile Fogelson, New York, N. Y., assignors to Leobarb Corporation, New York, N. Y., a corporation of New York
Application April 22, 1954, Serial No. 424,953
7 Claims. (Cl. 154—45)



1. An improved thermal insulation which comprises a plurality of insulating sheets at least one of which is aluminum foil, the sheets being relatively narrow and of indefinite length and superposed one over the other, said sheets consisting of a front sheet, at least one intermediate sheet, and a back sheet, each of said insulating sheets having a flanged edge portion on each of the edges thereof, a plurality of relatively stiff edge strips of different widths, one of each of said edge strips extending along and attached to each of the flanged edge portions of the insulating sheets, the narrowest edge strips being attached

directly to the front sheet, the widest edge strips being attached directly to the back sheet, the edge strips of intermediate width being attached to an intermediate sheet and to the back sheet, the flanged edge portions of the insulating sheets and the edge strips being connected together and forming attachment edge portions, the insulating sheets being of different widths, the back sheet being widest, the intermediate sheet being narrower and the front sheet being the narrowest, the attachment edge portions being arranged to lie close to framing structures, whereby the stiff edge strips resiliently hold their respective attached insulating sheets taut, said insulation being adaptable to being rolled into package form and when unrolled and the edge strips are held apart and parallel to each other the insulating sheets are held spaced apart.

2,777,787
FELT SHEETING
Lawrence D. Bragg, Jr., Andover, Mass., assignor, by mesne assignments, to The General Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application November 15, 1952, Serial No. 320,667
2 Claims. (Cl. 154—48)



1. Felt sheeting exhibiting a dry weight in the neighborhood of 3 to 6 ounces per square yard and composed primarily of nylon and wool fibers, said nylon fibers constituting about 30 to about 35 percent by weight of the fiber content of the sheeting, said sheeting comprising at least eight layers each containing nylon and wool fibers primarily oriented in one direction in the plane of the layer, said layers being superimposed one upon another with the fiber orientations of adjacent layers in angular relationship of not more than about 60°, the fibers of the top and bottom layers being oriented in the same direction, said nylon fibers being bonded together at their intersections by butadiene-acrylonitrile copolymer, said layers being compacted to form a web exhibiting substantially uniform stretch and strength in all directions.

2,777,788
COMPOSITE SHEET MATERIAL
Lawrence D. Bragg, Jr., Andover, Mass., assignor, by mesne assignments, to The General Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application November 15, 1952, Serial No. 320,668
2 Claims. (Cl. 154—48)

1. Flexible sheet material comprising a lamina of polyvinyl plastic and a coextensive multilayer lamina of felt sheeting; said felt sheeting exhibiting a dry weight in the neighborhood of 3 to 6 ounces per square yard and being composed primarily of nylon and wool fibers, said nylon fibers constituting about 30 to about 35 percent by weight of the fiber content of the sheeting, said sheeting comprising at least eight layers each containing nylon and wool fibers primarily oriented in one direction in the plane of the layer, said layers being superimposed one upon another with the fiber orientations of adjacent layers in angular relationship of not more than about 60°, the fibers of the top and bottom layers being oriented in the same direction, said nylon fibers being bonded together at their intersections by butadiene-acrylonitrile copolymer, said layers being compacted to form a web exhibiting substantially uniform stretch and strength in all directions; said laminae being coextensively secured together, without embedment of either lamina in the other, by a vinyl adhesive selected from the group consisting of vinyl chloride and vinyl chloride-vinyl acetate polymer disposed essentially only at the meeting surfaces of said laminae.

2,777,789
FLOOR COVERING
Dale D. Smith, Royal Oak, Mich., assignor to Harley Earl, Inc., Detroit, Mich., a corporation of Michigan
Application October 27, 1954, Serial No. 464,965
20 Claims. (Cl. 154—49)

11. In a protective covering, a relatively flat matrix formed of a resilient material, said matrix including a plurality of spaced substantially parallel ribs, the upper surfaces of said ribs being substantially co-planar, said matrix also including a plurality of spaced cross pieces extending transversely of said ribs, said ribs and cross pieces defining a plurality of apertures in said matrix, the upper surfaces of alternate cross pieces being disposed below the plane of the upper surfaces of said ribs, and a strand of yarn-like material woven through said apertures whereby said yarn is substantially disposed below said upper surfaces of said ribs.

2,777,790
METHOD OF MAKING REPRODUCTION FIXTURES
Steven P. Kish, Lansing, Mich.
Application October 1, 1953, Serial No. 383,438
1 Claim. (Cl. 154—110)

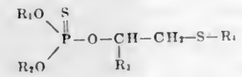
The method of making reproduction fixtures such as dies, models, assembly fixtures, checking fixtures, spotting racks, and the like comprising the steps of covering the surface to be reproduced with a flexible sheet material of a thickness equal to the desired thickness of a surface layer to be provided on the fixture, laying strips of an uncured mastic thermosetting resin material side by side and in successive superposed layers on said sheet material with the strips in each layer disposed transversely with respect to the strips in adjacent layers, curing said resin material, then removing the cured resinous material and stripping away the sheet material from said surface, repositioning the cured resin material above and spaced from said surface, confining the space between said resin layers and said surface, then filling said space with a plastic resin material to provide an outer surface layer on said cured resin layers and in intimate contact with said surface, and then curing the resinous material of said outer layer.

2,777,791
COMPOSITIONS AND METHOD FOR COMBATING BACTERIAL AND FUNGAL INFECTIONS IN PLANTS
Frederick C. Visor, Jericho, George L. McNew, Hastings on Hudson, George Koch, Jamaica, and Alvaro Goenaga, New York, N. Y., assignors to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware
No Drawing. Application June 14, 1954, Serial No. 436,694
9 Claims. (Cl. 167—16)

1. A composition useful in combating bacterial and fungal diseases of plants, comprising as the principal active ingredients a streptomycin-type antibiotic and a substantially water-insoluble copper fungicide.

2,777,792
PEST COMBATING AGENTS
Karl Lutz and Otto Jucker, Basel, Switzerland, assignors to Sandoz A. G., Basel, Switzerland, a Swiss firm
No Drawing. Application September 1, 1955, Serial No. 532,108
Claims priority, application Switzerland September 1, 1954
11 Claims. (Cl. 167—22)

6. A pest controlling composition consisting essentially of a thionophosphoric acid ester which corresponds to the formula



wherein each of R_1, R_2 and R_4 represents a lower alkyl group and R_3 represents a lower alkoxymethyl group, and a pesticide carrier therefor.

2,777,793
FUNGICIDAL COMPOSITION AND METHODS OF APPLYING
Clifton R. Neumoyer, Ambler, Pa., assignor to The Pennsylvania Salt Manufacturing Company, Philadelphia, Pa., a corporation of Pennsylvania
No Drawing. Application April 2, 1953, Serial No. 346,514
7 Claims. (Cl. 167—30)

6. The method of controlling fungus on plants which comprises contacting the stems and foliage of the plants with a finely-divided mixture of 5-chloro-2-hydroxy-α-(trichloromethyl)benzyl alcohol and a solid inert extender.

2,777,794
POLYCHLORINATED PYRENE AS A PARASITICIDE
Eugene E. Kenaga, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application January 13, 1954, Serial No. 403,900
5 Claims. (Cl. 167—30)

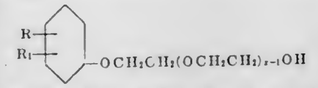
1. A composition comprising an inert parasiticide carrier in admixture with a chlorine addition derivative of pyrene having an average chlorine analysis of from 5.73 to 6.2 chlorine atoms per mole and prepared by mixing pyrene with an excess of liquid chlorine at a temperature below −20° C. and under sufficient pressure to keep the chlorine liquified, while exposing the mixture to diffused daylight at an intensity not to exceed 85 foot candles.

2,777,795
SAND-GRAIN CORE INSECTICIDAL COMPOSITION
John F. Les Veaux, Middleport, and Edward F. Orwoll, Medina, N. Y., assignors to Food Machinery and Chemical Corporation
No Drawing. Application October 16, 1952, Serial No. 315,188
6 Claims. (Cl. 167—42)

1. An insecticidal composition in the form of a pellet comprising a core of a grain of silica of 20 to 60 mesh and a coating upon said silica grain of a finely ground argillaceous mineral powder not larger than about 325 mesh carrying an organic insecticide.

2,777,796
SPERMICIDAL COMPOSITION
Nathaniel M. Elias, New York, N. Y.
No Drawing. Application November 30, 1951, Serial No. 259,287
16 Claims. (Cl. 167—58)

1. A non-toxic spermicidal composition comprising a vehicle, a substance of the class consisting of glyceryl, ethylene glycol and propylene glycol monoesters of unsaturated fatty acids having from 10 to 18 carbons in the chain, and mixtures thereof, and a polyethylene glycol monoether of alkyl phenol of the following general formula



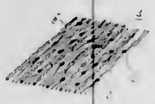
in which R is an alkyl radical, R_1 is a member of the class consisting of an alkyl group and hydrogen and x is an integer greater than 0, said polyethylene glycol monoether of alkyl phenol being present in sufficient quantities with respect to said substance as to enhance the spermicidal capacity of said substance.

2,777,797
VITAMIN PRODUCTS
Melvin Hochberg, North Arlington, and Melvin J. MacMillan, Cranford, N. J., assignors to Nopco Chemical Company, Harrison, N. J., a corporation of New Jersey
No Drawing. Application June 4, 1952, Serial No. 291,796
8 Claims. (Cl. 167—81)

1. A highly stable fat-soluble-vitamin-containing composition of matter wherein the fat-soluble vitamin content is available biologically, said composition of matter comprising a multiplicity of small, substantially solid spheroidal particles consisting esentially of (*a*) normally solid wax-like material having a melting point of at least 45° C., (*b*) fat-soluble-vitamin-containing material selected from the group consisting of fat-soluble vitamin A containing material and fat-soluble vitamin D containing material, (*c*) vegetable flour and (*d*) edible antioxidant, said substances *a*, *b*, *c* and *d* being intimately combined with each other, said composition having been produced by forming (*a*), (*b*), (*c*) and (*d*) into a substantially uniform molten mass, thereafter forming very small fluid droplets from the molten mass and projecting the very small droplets through the air until they are substantially solidified, said spheroidal particles having (*a*), (*b*) and (*d*) in substantially solid solution forming a continuous phase with particles of (*c*) suspended therein and measuring about 5% to about 50% of the combined weights of (*a*), (*b*), (*c*) and (*d*), the quantity by weight of (*a*) in said spheroidal particles measuring between 15% and 60% of the total weight thereof, and substantially all of said spheroidal particles passable through a 10 mesh screen and retainable on a 100 mesh screen.

directly to the front sheet, the widest edge strips being attached directly to the back sheet, the edge strips of intermediate width being attached to an intermediate sheet and to the back sheet, the flanged edge portions of the insulating sheets and the edge strips being connected together and forming attachment edge portions, the insulating sheets being of different widths, the back sheet being widest, the intermediate sheet being narrower and the front sheet being the narrowest, the attachment edge portions being arranged to lie close to framing structures, whereby the stiff edge strips resiliently hold their respective attached insulating sheets taut, said insulation being adaptable to being rolled into package form and when unrolled and the edge strips are held apart and parallel to each other the insulating sheets are held spaced apart.

2,777,787
FELT SHEETING
Lawrence D. Bragg, Jr., Andover, Mass., assignor, by mesne assignments, to The General Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application November 15, 1952, Serial No. 320,667
2 Claims. (Cl. 154—48)

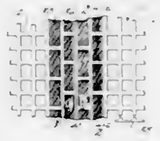


1. Felt sheeting exhibiting a dry weight in the neighborhood of 3 to 6 ounces per square yard and composed primarily of nylon and wool fibers, said nylon fibers constituting about 30 to about 35 percent by weight of the fiber content of the sheeting, said sheeting comprising at least eight layers each containing nylon and wool fibers primarily oriented in one direction in the plane of the layer, said layers being superimposed one upon another with the fiber orientations of adjacent layers in angular relationship of not more than about 60°, the fibers of the top and bottom layers being oriented in the same direction, said nylon fibers being bonded together at their intersections by butadiene-acrylonitrile copolymer, said layers being compacted to form a web exhibiting substantially uniform stretch and strength in all directions.

2,777,788
COMPOSITE SHEET MATERIAL
Lawrence D. Bragg, Jr., Andover, Mass., assignor, by mesne assignments, to The General Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application November 15, 1952, Serial No. 320,668
2 Claims. (Cl. 154—48)

1. Flexible sheet material comprising a lamina of polyvinyl plastic and a coextensive multilayer lamina of felt sheeting; said felt sheeting exhibiting a dry weight in the neighborhood of 3 to 6 ounces per square yard and being composed primarily of nylon and wool fibers, said nylon fibers constituting about 30 to about 35 percent by weight of the fiber content of the sheeting, said sheeting comprising at least eight layers each containing nylon and wool fibers primarily oriented in one direction in the plane of the layer, said layers being superimposed one upon another with the fiber orientations of adjacent layers in angular relationship of not more than about 60°, the fibers of the top and bottom layers being oriented in the same direction, said nylon fibers being bonded together at their intersections by butadiene-acrylonitrile copolymer, said layers being compacted to form a web exhibiting substantially uniform stretch and strength in all directions; said laminae being coextensively secured together, without embedment of either lamina in the other, by a vinyl adhesive selected from the group consisting of vinyl chloride and vinyl chloride-vinyl acetate polymer disposed essentially only at the meeting surfaces of said laminae.

2,777,789
FLOOR COVERING
Dale D. Smith, Royal Oak, Mich., assignor to Harley Earl, Inc., Detroit, Mich., a corporation of Michigan
Application October 27, 1954, Serial No. 464,965
20 Claims. (Cl. 154—49)



11. In a protective covering, a relatively flat matrix formed of a resilient material, said matrix including a plurality of spaced substantially parallel ribs, the upper surfaces of said ribs being substantially co-planar, said matrix also including a plurality of spaced cross pieces extending transversely of said ribs, said ribs and cross pieces defining a plurality of apertures in said matrix, the upper surfaces of alternate cross pieces being disposed below the plane of the upper surfaces of said ribs, and a strand of yarn-like material woven through said apertures whereby said yarn is substantially disposed below said upper surfaces of said ribs.

2,777,790
METHOD OF MAKING REPRODUCTION FIXTURES
Steven P. Kish, Lansing, Mich.
Application October 1, 1953, Serial No. 383,438
1 Claim. (Cl. 154—110)

The method of making reproduction fixtures such as dies, models, assembly fixtures, checking fixtures, spotting racks, and the like comprising the steps of covering the surface to be reproduced with a flexible sheet material of a thickness equal to the desired thickness of a surface layer to be provided on the fixture, laying strips of an uncured mastic thermosetting resin material side by side and in successive superposed layers on said sheet material with the strips in each layer disposed transversely with respect to the strips in adjacent layers, curing said resin material, then removing the cured resinous material and stripping away the sheet material from said surface, repositioning the cured resin material above and spaced from said surface, confining the space between said resin layers and said surface, then filling said space with a plastic resin material to provide an outer surface layer on said cured resin layers and in intimate contact with said surface, and then curing the resinous material of said outer layer.

2,777,791
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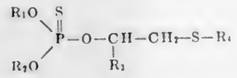

wherein each of R_1, R_2 and R_4 represents a lower alkyl group and R_3 represents a lower alkoxymethyl group, and a pesticide carrier therefor.

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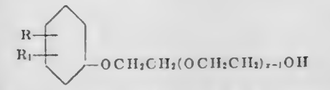

in which R is an alkyl radical, R_1 is a member of the class consisting of an alkyl group and hydrogen and x is an integer greater than 0, said polyethylene glycol monoether of alkyl phenol being present in sufficient quantities with respect to said substance as to enhance the spermicidal capacity of said substance.

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Melvin Hochberg, North Arlington, and Melvin J. MacMillan, Cranford, N. J., assignors to Nopco Chemical Company, Harrison, N. J., a corporation of New Jersey
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1. A highly stable fat-soluble-vitamin-containing composition of matter wherein the fat-soluble vitamin content is available biologically, said composition of matter comprising a multiplicity of small, substantially solid spheroidal particles consisting esentially of (*a*) normally solid wax-like material having a melting point of at least 45° C., (*b*) fat-soluble-vitamin-containing material selected from the group consisting of fat-soluble vitamin A containing material and fat-soluble vitamin D containing material, (*c*) vegetable flour and (*d*) edible antioxidant, said substances *a*, *b*, *c* and *d* being intimately combined with each other, said composition having been produced by forming (*a*), (*b*), (*c*) and (*d*) into a substantially uniform molten mass, thereafter forming very small fluid droplets from the molten mass and projecting the very small droplets through the air until they are substantially solidified, said spheroidal particles having (*a*), (*b*) and (*d*) in substantially solid solution forming a continuous phase with particles of (*c*) suspended therein and measuring about 5% to about 50% of the combined weights of (*a*), (*b*), (*c*) and (*d*), the quantity by weight of (*a*) in said spheroidal particles measuring between 15% and 60% of the total weight thereof, and substantially all of said spheroidal particles passable through a 10 mesh screen and retainable on a 100 mesh screen.

2,777,798
STABLE FAT-SOLUBLE VITAMIN-CONTAINING COMPOSITION
Melvin Hochberg, North Arlington, and Melvin J. MacMillan, Cranford, N. J., assignors to Nopco Chemical Company, Harrison, N. J., a corporation of New Jersey
No Drawing. Application February 19, 1953, Serial No. 337,876
18 Claims. (Cl. 167—81)

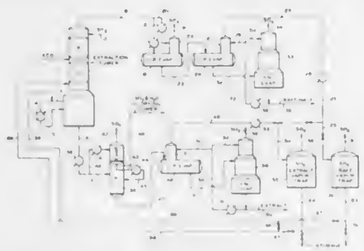
1. A highly stable fat-soluble-vitamin-containing composition of matter wherein the fat-soluble vitamin content is available biologically, said composition of matter comprising a multiplicity of small, substantially solid spheroidal particles consisting essentially of (*a*) normally solid wax-like material having a melting point of at least 45° C., (*b*) fat-soluble-vitamin-containing material selected from the group consisting of fat-soluble-vitamin-A-containing material and fat-soluble-vitamin-D-containing material, (*c*) an edible surface-active material, and (*d*) an edible antioxidant, said substances (*a*), (*b*), (*c*) and (*d*) being intimately combined with each other, said composition having been produced by forming (*a*), (*b*), (*c*) and (*d*) into a substantially uniform molten mass, thereafter forming very small fluid droplets from the molten mass and projecting the very small droplets through the air until they are substantially solidified, said spheroidal particles having (*a*), (*b*), (*c*) and (*d*) in substantially solid solution, the quantity by weight of (*a*) in said spheroidal particles being between about 15% and 70% of the combined weights of (*a*), (*b*), (*c*), and (*d*), and the quantity by weight of (*c*) being between about 0.5% and 40% of the combined weights of (*a*), (*b*), (*c*), and (*d*), and substantially all of said spheroidal particles being passable through a 10 mesh screen and being retainable on a 100 mesh screen.

2,777,799
GEOMICROBIAL PROSPECTING METHOD FOR PETROLEUM
John B. Davis, Dallas, Tex., assignor, by mesne assignments, to Socony Mobil Oil Company, Inc., a corporation of New York
No Drawing. Application August 28, 1952, Serial No. 306,957
7 Claims. (Cl. 195—103.5)

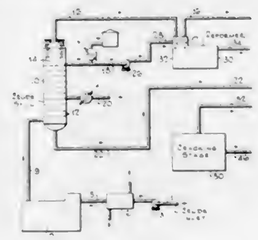
1. A geomicrobial method for prospecting for petroleum comprising collecting earth samples from a prospect zone, contacting each of said earth samples with oxygen and with a hydrocarbon at least some of whose molecules contain carbon atoms having an atomic weight of 14 to form a reaction mixture with each of said earth samples, maintaining each of said reaction mixtures at an incubating temperature for a time sufficient for the formation by any microbes contained in said earth samples of microbial metabolism products from the hydrocarbon, and analyzing at least a portion of each of said reaction mixtures for the quantity of carbon atoms having an atomic weight of 14 which have entered into a microbial metabolic process said quantity being a measure of the number of hydrocarbon-consuming microbes contained in each of said earth samples anomalous variations of which are indicative of the presence of an underlying petroleum deposit.

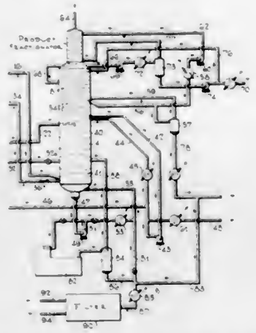
2,777,800
SOLVENT EXTRACTION OF HYDROCARBON OILS
Norris W. Mitchell and Carl S. Kelley, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware
Application May 10, 1954, Serial No. 428,602
21 Claims. (Cl. 196—14.47)

1. In the operation of a selective solvent extraction system in which; an oil to be extracted and a selective solvent are fed to a solvent extraction zone; a raffinate phase and an extract phase are removed from said zone; solvent recovery from said raffinate phase and from said extract phase is carried out by distillation; fouling of the extract phase portion of said zone occurs; the improvement which comprises: permitting a portion of relatively low-boiling components of said oil to distill overhead with said solvent in said distillation; separating said solvent from said low-boiling oil; and introducing said low-boiling oil into admixture with said extract phase in said zone, said low-boiling oil being adapted to prevent fouling of said zone.



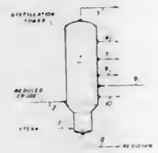
2,777,801
COMBINATION CRUDE DISTILLATION AND OIL REFINING PROCESS
Raymond E. Bittner, Westfield, and Channing C. Nelson, Cranford, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application December 3, 1951, Serial No. 259,654
12 Claims. (Cl. 196—49)





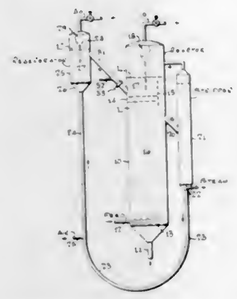
1. Improved process for the production of high quality petroleum products boiling in the motor fuel boiling range which comprises passing a reduced crude containing gas oil constituents boiling up to about 1150° F. into a fractionation zone operated at a pressure in the range of about 5 to 15 p. s. i. g., removing from said fractionation zone at a point above the point of introduction of said reduced crude a gas oil fraction containing hydrocarbon constituents boiling up to about 1150° F., subjecting said gas oil fraction to a catalytic cracking operation at temperatures in the range from about 800° F. to 1000° F. and pressures in the range from atmospheric to 50 lbs. per sq. in. gauge, removing from said catalytic cracking operation cracked products and introducing the same into said fractionation zone at a point below the point of introduction of said reduced crude.

2,777,802
EXTRACTIVE DISTILLATION OPERATION FOR PREPARATION OF CATALYTIC CRACKING FEED STOCKS
Nick P. Peet, Baytown, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application December 10, 1954, Serial No. 474,477
14 Claims. (Cl. 196—49)



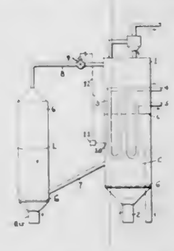
1. In a distillation process wherein a metals contaminated petroleum hydrocarbon feed stock containing a substantial portion of hydrocarbon constituents boiling above 900° F. is charged to a distillation tower and fractionated therein to segregate at least a heavy gas oil distillate fraction including said constituents boiling above 900° F., the improvement which comprises countercurrently contacting said constituents boiling above 900° F. in vapor phase in said tower prior to withdrawal of the same under extractive distillation conditions with a refluxing agent introduced into said tower below the point of withdrawal of the heaviest distillate fraction, said refluxing agent comprising an extraneously derived high molecular weight asphaltic material substantially free from metal contaminants, whereby a heavy gas oil fraction having a significantly reduced content of metal contaminants is obtained.

2,777,803
FLUID HYDROFORMING PROCESS WITH INVERSE TEMPERATURE GRADIENT
Robert J. Fritz, Lloyd A. Nicolai, and Edward W. S. Nicholson, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application December 26, 1951, Serial No. 263,443
3 Claims. (Cl. 196—50)



1. In a process for hydroforming hydrocarbons in contact with finely divided hydroforming catalyst particles consisting essentially of a Group VI metal oxide dispersed upon a carrier in accordance with the fluidized solids technique at temperatures of from about 850°–950° F., pressures of from about 50 to 500 pounds per square inch, and at catalyst to oil weight ratios of from about 0.5–1 to about 1.5–1 the improvement which comprises maintaining two dense, fluidized beds of hydroforming catalyst in vertically spaced relation to each other in a reaction zone maintaining the upper dense fluidized bed at a substantially higher temperature than the lower dense fluidized bed, passing hydrocarbon feed vapors preheated to about 800–1050° F. and hydrogen-rich gas preheated to 1050–1300° F. upwardly through said beds in series, the amount of hydrogen-rich gas being about 1,000 to about 8,000 cubic feet per barrel of liquid feed continuously withdrawing a stream of spent catalyst particles from the lower dense bed in the reaction zone, regenerating the withdrawn spent catalyst particles by burning carbonaceous deposits therefrom at temperatures of about 1050–1300° F., recycling hot regenerated catalyst particles to the upper dense fluidized bed in the reaction zone, maintaining a high rate of entrainment of catalyst particles from the lower dense bed to the upper dense bed in the reaction zone in order to control the temperature of the freshly regenerated catalyst in contact with the hydrogen-containing reaction mixture in said upper dense bed.

2,777,804
REGENERATOR TEMPERATURE CONTROL
Lloyd Arthur Nicolai, Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware
Continuation of application Serial No. 289,121, May 21, 1952. This application December 23, 1954, Serial No. 477,377
2 Claims. (Cl. 196—50)



1. The method of controlling the temperature of a powdered catalyst which is circulated continuously between a hydroforming reaction zone and an oxidative regeneration zone which comprises continuously supplying hydroforming catalyst particles containing carbonaceous deposits to a dense fluidized bed of catalyst superimposed by a dilute phase in the regeneration zone, disposing a cooling means in said regeneration zone, which cooling means is at least partially submerged in the said dense fluidized bed of catalyst, treating the catalyst in the regeneration zone with an oxygen-containing gas to burn carbonaceous deposits therefrom, providing a dense, fluidized bed of powdered catalyst of the same composition as that in the hydroforming reaction zone-regeneration zone circulation system in a third zone which third zone is of substantially smaller size than said regeneration zone which third zone is in communication with the said regeneration zone, and varying the degree of submergence of the cooling means in the dense fluidized bed of catalyst in the regeneration zone responsive to temperature conditions prevailing in said bed by causing catalyst to flow between the regeneration zone and the said third zone, thereby varying the amount of heat removed from the catalyst undergoing regeneration thus controlling the tem-

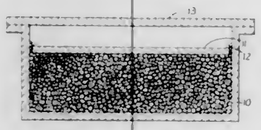
perature of the catalyst in said regeneration zone and maintaining the circulation rate of regenerated catalyst from the regenerator to the reactor at a substantially constant value.

2,777,805
REACTIONS CATALYZED BY PLATINUM OR PALLADIUM CATALYSTS
Philip Andrew Lefrancois, Jersey City, Earl W. Riblett, Tenafly, and William P. Burton, Little Silver, N. J., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware
No Drawing. Application January 30, 1952, Serial No. 269,114
12 Claims. (Cl. 196—50)

1. A reforming process which comprises subjecting a naphtha fraction to contact with a reforming catalyst under suitable reforming conditions, the catalyst is prepared by the method consisting essentially of combining a compound of a metal selected from the group consisting of platinum and palladium, a silicon compound in an amount to provide a finished catalyst containing about 0.5 to about 15% by weight of silica, and an auxiliary carrier material, and treating the resultant mixture to obtain a metal selected from the group consisting of platinum and palladium supported on silica and the auxiliary carrier material.

6. A hydrocarbon conversion process which comprises subjecting a hydrocarbon reactant to contact with a catalyst under suitable conversion conditions, the catalyst is prepared by the method which consists essentially of combining a compound of a metal selected from the group consisting of platinum and palladium, a silicon compound in an amount to provide a finished catalyst containing about 0.5 to about 15% by weight of silica, an activating agent selected from the class consisting of mercury, zinc, cadmium and a compound of such metals, and an auxiliary carrier material, and heating the resultant mixture at an elevated temperature for a period sufficient to obtain a residue of a metal selected from the group consisting of platinum and palladium supported on silica and the auxiliary carrier material.

2,777,806
METHOD OF PRODUCING A CARBON TUBE FROM COAL
Charles Desmond Greaves and Bernard Roy Atkins, London, England, assignors to C. D. Patents Limited, London, England, a British company
Application October 31, 1950, Serial No. 193,313
Claims priority, application Great Britain November 23, 1949
2 Claims. (Cl. 202—29)



1. A method of producing a porous carbon tube from strongly coking coal, which process comprises filling the coal, all of which passes a sieve of ½ millimeter mesh and rests on a sieve of ¼ millimeter mesh, into an annular cavity between an inner cardboard cylinder and an outer co-axial, refractory, cylindrical container, vibrating the container when it is in an upright position and thereby compacting the coal without applying external pressure thereto, sealing the container, and firing the container and its contents in an upright position to a temperature of above 550° C. at a rate of temperature rise so restricted as to avoid intumescence of the coal.

2,777,807
PROCESS OF SUPPRESSING FOAM FORMATION IN DISTILLATION OF ACRYLONITRILE
Cyrus Pyle and Gilbert Meredith Turner, New Castle, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application November 22, 1952, Serial No. 322,156
3 Claims. (Cl. 202—39.5)

1. In a continuous process for distilling acrylonitrile and water mixtures in a fractionating column in which acrylonitrile and water are fed into the column near the top, the improvement of suppressing the formation of foam in the system which comprises adding near the top of the column at least five parts per million of a foam suppressant consisting of tricresyl phosphate based on the combined acrylonitrile and water fed into the top of the system.

2,777,808
REGENERATIVE COKE OVEN BATTERY
Rudolf Wessolek, Gelsenkirchen, Germany, assignor, by mesne assignments, to Koppers Company, Inc., Pittsburgh, Pa., a corporation of Delaware
Application December 22, 1951, Serial No. 262,967
6 Claims. (Cl. 202—139)

1. Apparatus for introducing air for de-lumination of the heating gas or for removal of graphite in fuel gas passages of chamber ovens, comprising: horizontal chamber ovens for the production of gas and coke; heating flues for heating the coking chambers of the oven; rich gas conduits in the oven structure for feeding rich gas for combustion in the heating flues, said conduits extending from a region adjacent exterior surfaces of the oven inwardly to the heating flues; means for supplying rich gas for heating purposes and air in limited quantities to the rich gas conduits at said region adjacent exterior surfaces of the oven, characterized by the air admission inlets of said means being located inside each rich gas conduit at the rich gas admission end thereof, in the region thereof nearest the exterior surface of the oven and terminating for discharge of the air at an intermediate position therein, in advance of the outlet of said conduits to the heating flues, at which, during the operation of the oven, the temperature is above the ignition point of the gas-air mixture.

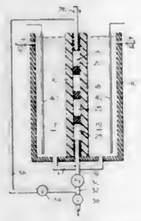
2,777,809
PREPARATION OF URANIUM
Morris Kolodney, New York, N. Y., assignor to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application March 25, 1948, Serial No. 17,101
9 Claims. (Cl. 204—1.5)

1. The process which comprises electrodepositing uranium from a fused bath including from 5 to 75 percent uranium trichloride and at least one chloride of a metal of the class consisting of alkali metals and alkaline earth metals at a temperature between 600° C. and 800° C. and in a non-oxidizing atmosphere.

2,777,810
BATH FOR ELECTROPLATING SILVER
Barnet D. Ostrow, North Bellmore, N. Y., assignor to Elechem Corp., Jersey City, N. J., a corporation of New Jersey
No Drawing. Application October 3, 1956, Serial No. 613,610
12 Claims. (Cl. 204—46)

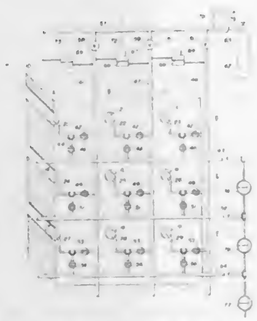
1. An electrolytic bath for depositing silver comprising an aqueous solution of silver cyanide containing a soluble selenium compound in which the selenium has a valence of —2, the amount of selenium present in said bath being .0001 to .01 gram per liter.

2,777,811
TREATMENT OF ELECTROLYTIC SOLUTIONS
Wayne A. McRae, Arlington, and Norman W. Rosenberg, Newton, Mass., assignors to Ionics, Incorporated, Cambridge, Mass., a corporation of Massachusetts
Application January 5, 1953, Serial No. 329,639
11 Claims. (Cl. 204—151)



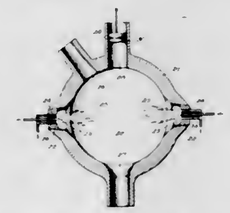
4. The method of treating an electrolytic solution comprising flowing a first stream of the solution in a tortuous path between and in contact with an anion permeable membrane and a cation permeable membrane, passing a direct electric current in series across said membranes and solution, dividing the effluent of said first stream of solution into a second stream and a third stream, combining only the second stream with the first stream and flowing them together between and in contact with said membranes, and withdrawing said third stream.

2,777,812
LEAK DETECTION SYSTEM
Robert W. Powell, Sayville, N. Y., and Paul H. Lee, Belle Haven, Va., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application March 12, 1952, Serial No. 276,172
4 Claims. (Cl. 204—193)



1. Leak detection apparatus adapted for use with a plurality of hermetically sealed pressurized containers arranged in a pattern having first and second dimensions which comprises, in combination, a first series of manifolds connected by separate conduits to containers arranged along said first dimension, a second series of manifolds connected by separate conduits to containers arranged along said second dimension, each container being connected to one manifold in said first series and one manifold in said second series, a first series of separately operable valves located in the conduits between the first series of manifolds and the containers and a second series of separately operable valves located in the conduits between the second series of manifolds and the containers, said valves being disposed with a separate valve in each series serving each container, a fluid source connected to said first series of manifolds, supply valves in said first series of manifolds, means for indicating a differential pressure between adjacent manifolds of said first series and means for indicating a differential pressure between adjacent manifolds in said second series.

2,777,813
APPARATUS FOR THE PERFORMANCE OF ENDOTHERMIC REACTIONS BETWEEN SOLID AND GASEOUS MEDIA
Friedrich Totzek, Essen, Germany, assignor, by mesne assignments, to Koppers Company, Inc., Pittsburgh, Pa., a corporation of Delaware
Application May 25, 1951, Serial No. 228,237
3 Claims. (Cl. 204—193)



1. Apparatus for gasifying a finely-divided, solid, carbonaceous fuel with a free oxygen-containing gas and chemically combined oxygen-containing fluid capable of reacting endothermically with said fuel, comprising means for suspending said fuel in sufficient free oxygen-containing gas to burn a sufficient portion, but not all, of said fuel to heat the remainder of said fuel to elevated temperatures, means for jetting said suspension into a reactor at ignition temperatures, wherein said suspension ignites and burns as it flows through a combustion zone within said reactor, means for introducing said fluid into said reactor, means for peripherally enveloping said jet as it issues into said reactor and ignites in said combustion zone within a segregated, annular stream of said fluid, flowing in the same direction as said suspension along, outside of, and around the periphery of said jet and combustion zone and forming an insulating layer between said combustion zone and the walls of said reactor, means for, thereafter, commingling the annular stream of said fluid with the reaction products and said preheated remainder of said fuel flowing from said combustion zone, means for generating sonic waves outside of said reactor and means for subjecting the reactants within said reactor to said sonic waves.

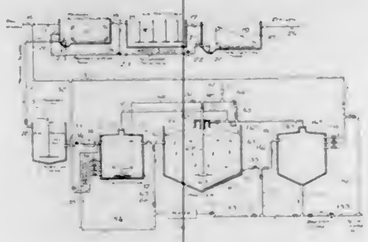
2,777,814
WATER HEATING AND DEMINERALIZING APPARATUS
Allen Latham, Jr., Jamaica Plain, Mass., assignor, by mesne assignments, to General Electric Company, Schenectady, N. Y., a corporation of New York
Application December 2, 1954, Serial No. 472,596
1 Claim. (Cl. 204—301)

A water heating and treating appliance comprising a storage tank having a water inlet in its bottom portion and a water outlet in its top portion; an electrodialysis

cell of the type having a plurality of alternately spaced permselective anion and cation exchange membranes dividing said cell into a plurality of compartments including a cathode compartment and an anode compartment, said cell having a water inlet communicating with all of said compartments, a waste discharge outlet communicating with said anode and cathode compartments and the compartments alternately spaced therefrom, a demineralized water outlet communicating with the remaining of said compartment; said inlet of said cell being connected to the bottom portion of said tank and said water outlet of said cell being connected to the lower end of a heating

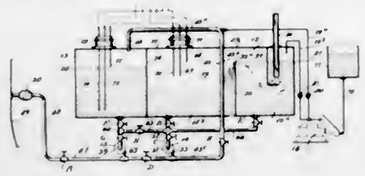
chamber having an electrical heating element in heat transfer relation therewith, the upper end of said heating chamber being connected by a conduit to the upper portion of said tank, a discharge conduit connected to said discharge outlet of said cell, a constant flow valve and an electrically actuated shut-off valve in said discharge conduit, means for supplying electrical energy to said cell and said heating element including a rectifier for supplying direct current to said cell, and a control system including a thermostat located in the bottom of said tank for simultaneously energizing said heating element, said cell and said shut-off valve when the water temperature in said tank decreases to a predetermined value.

2,777,815
SEWAGE DIGESTION PROCESS
Tom H. Forrest, Evanston, Ill., assignor to Chicago Pump Company, a corporation of Delaware
Application June 8, 1953, Serial No. 360,005
9 Claims. (Cl. 210—2)



1. In the anaerobic digestion of sewage sludge, the improvement comprising the steps of continuously circulating methane-containing digester gas within an enclosed container containing sludge undergoing digestion to digest the sludge, removing at least a portion of the digested sludge from said container and introducing the same into a second container, and holding the digested sludge in said second container in a quiescent state to enable the digested solids to settle to the bottom thereof, the removal of the digested sludge from said first mentioned container being effected without interruption of the flow of digester gas within said first mentioned container.

2,777,816
AUTOMATIC SEWAGE TREATMENT AND DISPOSAL UNIT
George P. Schumacker, Lakewood, and Egerton B. Williams, Bay Village, Ohio, assignors to The American Ship Building Company, Cleveland, Ohio, a corporation of New Jersey
Application September 7, 1951, Serial No. 245,572
12 Claims. (Cl. 210—2)



1. A prefabricated sewage disposal unit for shipboard use comprising; a unitary structure constituting a preformed base; a substantially closed tank mounted on said base and having therein a sewage receiving and storage chamber and a sewage treating chamber; a transfer pump; a delivery pump; driving motors connected with said pumps to drive the same; means on said base forming foundations for said transfer and delivery pumps and their driving motors and having said pumps and motors mounted thereon; conduit means connecting the intake of said transfer pump with said receiving chamber; conduit means connecting the discharge of said transfer pump with said treating chamber; conduit means connecting the intake of said delivery pump with said treating chamber; and conduit means extending from said delivery pump and adapted for connection with an overboard discharge means; said base, tank, pumps, driving motors and conduit means being all assembled in their connected and operative relation to constitute a prefabricated unit adapted to be tested and transported as such prior to installation for its intended regular service operation on a ship.

2,777,817
FLUIDIZING LECITHIN
Emil F. Werly, Minneapolis, Minn., assignor to Pillsbury Mills, Inc., Minneapolis, Minn., a corporation of Delaware
No Drawing. Application October 3, 1952, Serial No. 313,047
3 Claims. (Cl. 252—1)

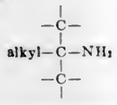
1. The method of fluidizing and controlling the viscosity of lecithin in the conversion thereof from a plastic state to a liquid state, which consists in the controlled mixture therewith of 2 to 6% of a glyceride oil from the group consisting of corn oil, soybean oil, lard oil, peanut oil, and cottonseed oil, and adding 2 to 8% of a liquid monoglyceride from the group consisting of mono-olein, mono-linolein and mono-linolenin until the plastic product has been fluidized to a liquid.

2,777,818
COMPOSITION AND METHOD FOR CONTROLLING SCALE IN OIL WELLS
Marvin Gambill, Hobbs, N. Mex., assignor to United Chemical Corporation of New Mexico, Hobbs, N. Mex.
Application October 8, 1954, Serial No. 461,063
6 Claims. (Cl. 252—8.55)

1. A composition for controlling scale formation in systems where conditions are conducive to formation of scale or liquid contacting surfaces which comprises an alkali metal polyphosphate, a polyamino polycarboxylic acid chelating agent, and a cactus extract, the amount thereof being such that the weight ratio of phosphate to chelating agent to cactus extract is in the range from about 1:1:1 to about 10:1:0.1.

2,777,819
LUBRICATING COMPOSITIONS
Paul H. Williams, Berkeley, and Francis C. Younger, El Cerrito, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application April 27, 1954, Serial No. 426,025
3 Claims. (Cl. 252—32.5)

1. A lubricating composition comprising a major amount of a mineral lubricating oil and from about 0.1% to 10% of a tertiary branched aliphatic primary alkylamine trichloromethanephosphonate, said amine portion of the salt containing at least 8 carbon atoms and having the structural formula



2,777,820
LUBRICANT COMPOSITIONS
Daniel A. Hirschler, Jr., Birmingham, Mich., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application January 17, 1956, Serial No. 559,521
2 Claims. (Cl. 252—59)

1. An improved crankcase lubricant composition for spark ignition internal combustion engines consisting essentially of a crankcase lubricating oil and from about 3 to about 15 percent by weight based on the weight of said oil of acenaphthene.

2,777,821
ANTIFREEZE COMPOSITIONS CONTAINING TRICRESYL PHOSPHATE AS A FOAM INHIBITOR
Edward F. Harford, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application October 29, 1953, Serial No. 389,165
2 Claims. (Cl. 252—78)

1. An antifreeze composition consisting of ethylene glycol having dissolved therein from 2 to 3% of borax and from 0.01 to 0.07% of tricresyl phosphate, based on the weight of glycol.

2,777,822
SILICA-ALUMINA CRACKING CATALYST PRODUCTION
Charles P. Wilson, Jr., Cincinnati, Ohio, assignor to W. R. Grace & Co., New York, N. Y., a corporation of Connecticut
No Drawing. Application April 27, 1953, Serial No. 351,487
6 Claims. (Cl. 252—453)

1. A process for producing a silica-alumina hydrocarbon cracking catalyst comprising the steps of commingling sulfuric acid with sodium silicate solution to form a silica hydrogel in aqueous slurry at a pH of between 9.5 and 10.5, aging said hydrogel in said slurry, commingling the resulting hydrogel slurry with an additional quantity of sulfuric acid to reduce the pH to about 7.0, commingling therewith an amount of aluminum sulfate solution sufficient to produce the final product having the desired alumina to silica ratio, said alum solution containing about 1½% to 2½% of sulfuric acid, adding to the resulting mixture sufficient ammonia to precipitate the alumina and filtering, washing, and drying the resulting product.

2,777,823
IRON CATALYST FOR CATALYTIC CARBON MONOXIDE HYDROGENATION
Walter Rottig, Oberhausen-Sterkrade-Nord, Germany, assignor to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany, and Lurgi Gesellschaft fuer Waermetechnik m. b. H., Frankfurt am Main Heddernheim, Germany, a German corporation
No Drawing. Application March 26, 1952, Serial No. 278,740
Claims priority, application Germany April 5, 1951
3 Claims. (Cl. 252—459)

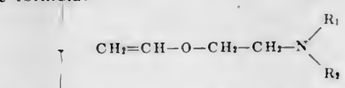
1. In a method for the production of precipitated iron catalyst for the catalytic hydrogenation of carbon monoxide having a ratio of alkali oxide to SiO_2, calculated as $K_2O:SiO_2$ of 1:4 to 1:5, the improvements which comprises adding to an iron hydroxide suspension of siliceous material other than potassium water glass consisting predominantly of SiO_2 and additionally SiO_2 in the form of potassium water glass, said siliceous material and said potassium water glass being added in proportional amounts sufficient to produce a ratio of 20–25 parts by weight of SiO_2 for each 100 parts by weight of iron, and recovering a catalyst having a ratio of alkali oxide to SiO_2 calculated as $K_2O:SiO_2$ of 1:4 to 1:5.

2,777,824
PROCESS FOR MAKING MICRO-RETICULATED MATERIAL
Harry R. Leeds, Bronx, N. Y., assignor to The Perma-Stamp Products Corporation, New York, N. Y., a corporation of New York
No Drawing. Application June 27, 1950, Serial No. 170,700
8 Claims. (Cl. 260—2.5)

1. A process for the production of plastic resin having a microporous microreticulated structure which comprises heating a mixture comprising a thermoplastic resin selected from the group consisting of polyvinyl chloride, polyvinyl acetate, polyethylene and polyvinyl butyral, a plasticizer for the resin and an organic liquid which is a nonsolvent for the resin, to a temperature at which said resin fuses under a pressure sufficient to maintain said liquid in the liquid phase until a microreticulated structure is formed.

2,777,825
CELLULOSIC PLASTIC COMPOSITIONS
Maurice Louis Auguste Fluchaire and Jean Auguste Phélisse, Lyon, France, assignors to Societe des Usines Chimiques Rhone-Poulenc, Paris, France, a French body corporate
No Drawing. Application April 6, 1953, Serial No. 347,158
Claims priority, application France April 10, 1952
9 Claims. (Cl. 260—17)

1. A composition capable of being dyed with acid dyes and with metalliferous dyes which comprises an intimate admixture of a cellulose derivative selected from the group consisting of a cellulose ether and a cellulose ester and a polymeric ether selected from the group consisting of the basic polymers of aminoethyl vinyl ethers of the formula:



and their acid salts where R_1 and R_2 when taken separately are each selected from the class consisting of hydrogen atoms, methyl and ethyl groups and when taken

together constitute a —CH_2—CH_2—CH_2—CH_2— chain, said polymeric ether being present in a proportion of 1 to 20% by weight of the acid cellulose derivative.

2,777,826

VINYL CHLORIDE POLYMERS STABILIZED WITH METAL SALTS OF CARBOXYLIC ACIDS MIXED WITH ORGANIC TITANATES

Harold M. Olson, Vermilion, Ohio, assignor to The Harshaw Chemical Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application June 30, 1953, Serial No. 365,228
2 Claims. (Cl. 260—23)

1. A stabilized resin of improved clarity, being a resin of the class consisting of polyvinyl chloride and copolymers of vinyl chloride with mono-ethylenically unsaturated compounds copolymerizable therewith in which vinyl chloride is the major constituent, said resin being stabilized by the use of a metallic stabilizer of the class consisting of cadmium, barium, calcium, zinc, and tin compounds of aliphatic carboxylic acids having from 3 to 18 carbon atoms in proportion from 0.1% to 10% based upon the weight of resin and cooperating means incorporated in said resin for producing improved clarity, said means comprising a tetra alkyl titanate wherein each alkyl group contains from 3 to 18 carbon atoms incorporated therein in proportion from 0.2% to 10% based upon the weight of the resin.

2,777,827

SILICONE RUBBER—ESTERIFIED SILICA COMPOSITION

Clinton M. Doede, Hamden, and Frederick L. Kilbourne, Jr., Woodmont, Conn., assignors to The Connecticut Hard Rubber Company, New Haven, Conn., a corporation of Connecticut

No Drawing. Application June 17, 1952, Serial No. 294,066
8 Claims. (Cl. 260—37)

1. The method of making vulcanized silicone rubber which comprises preparing an intimate mixture including a high-molecular-weight polysiloxane rubber gum which is essentially a nonelastic dimethyl silicone polymer, and an organophilic powder in a supercolloidal state of subdivision having an internal structure of inorganic amorphous silica, with a specific surface area of 250 to 400 M^2/g. and an average pore diameter of at least 4 millimicrons, the internal structure having directly chemically bound to it —OR groups where R is a normal butyl radical, the organophilic solid being present in amounts sufficient to effect vulcanization of the rubber and being the sole curing agent, and heating said mixture for at least 10 minutes at a temperature of at least 230° F. to form a vulcanized product.

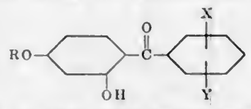
2,777,828

STABILIZATION OF MIXTURES OF UNSATURATED POLYESTERS AND COPOLYMERIZABLE MONOMERS BY MEANS OF HYDROXY SUBSTITUTED BENZOPHENONES

Harold M. Day and Victor E. Hasler, Noroton Heights, Conn., and Warren S. Forster, Somerville, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application April 3, 1953, Serial No. 346,792
22 Claims. (Cl. 260—45.4)

1. A light-stable resinous composition comprising a copolymerizable mixture of (1) between about 20 and 80 parts by weight of an unsaturated polyester resin, (2) between about 20 and about 80 parts of a monomeric compound containing a polymerizable $CH_2{=}C<$ group, (3) a polymerization catalyst for (1) and (2), and (4) 0.01%-5%, based on the total weight of (1) and (2), of a compound having the general formula:



wherein R is an alkyl group having between 1 and 4 carbon atoms, X is a member selected from the group consisting of alkyl groups having between 1 and 4 carbon atoms, alkoxy groups having between 1 and 4 carbon atoms, halogen atoms and hydrogen and Y is a member selected from the group consisting of alkyl groups having between 1 and 4 carbon atoms, alkoxy groups having between 1 and 4 carbon atoms, halogen atoms, a hydroxyl group and hydrogen.

2,777,829

UNSATURATED ALKYD RESIN COMPOSITIONS CONTAINING CHOLINE CHLORIDE

Robert Cott Andrews, Benzenville, and Norman G. Peterson, Chicago, Ill., assignors to The Glidden Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application August 28, 1953, Serial No. 377,265
12 Claims. (Cl. 260—45.4)

9. The method of preparing a stabilized, uncatalyzed, copolymerizable mixture comprising (1) a polymerizable unsaturated alkyd resin whose molecule contains a plurality of polymerizably reactive $\Delta^{2,3}$-enedioyl groups and (2) a liquid, ethylenically unsaturated compound copolymerizable with said unsaturated alkyd resin, which comprises: incorporating a small amount of choline chloride in said unsaturated alkyd resin and thereafter by means of heat combining the resulting mass with said ethylenically unsaturated compound to form a homogeneous solution stabilized against premature gelling in the course of at least several hours while exposed to temperatures of about 200° F.

2,777,830

DYEABLE POLYESTERS

Joseph Clois Shivers, Jr., West Chester, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 7, 1953, Serial No. 353,688
11 Claims. (Cl. 260—75)

1. A shaped article prepared from a linear fiber-forming polymeric dicarboxylic acid-diglycol ester by a hot-melt extruding process, the said polymeric ester having an imido side group which upon hydrolysis with hydrazine is converted to an NH_2 group, and is then dyeable with acid dyes.

2,777,831

PROCESSABLE, STORABLE, ISOCYANATE-MODIFIED POLYESTERS

Nelson V. Seeger, Silver Lake, and Thomas G. Mastin, Akron, Ohio, assignors, by mesne assignments, to The Goodyear Tire & Rubber Company, a corporation of Ohio

No Drawing. Application August 22, 1952, Serial No. 305,914
18 Claims. (Cl. 260—75)

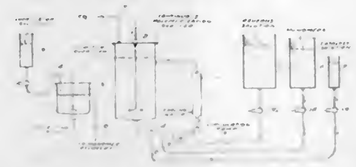
1. The processable, storable elastomeric reaction product of (A) a material prepared from bifunctional ingredients including at least one dibasic carboxylic acid containing at least 3 carbon atoms and at least one complementary bifunctional reactant in which the functional groups are selected from the class consisting of the hydroxyl group and the hydrogen-bearing amino groups, the hydrogen-bearing amino groups being present in an amount not to exceed 30% of the total functional groups of said complementary bifunctional reactant, said material having an acid number from 0 to 12 and the sum of the hydroxyl and acid numbers of said material being from 30 to 152, and (B) at least one tolylene diisocyanate used in an amount ranging from 0.85 to 1.10 mols per mol of said material.

2,777,832

CONTINUOUS PROCESS FOR THE POLYMERIZATION OF ACRYLONITRILE

William Charles Mallison, Stamford, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

Application May 22, 1951, Serial No. 227,643
19 Claims. (Cl. 260—80.5)



1. A process for producing a polymer which comprises continuously feeding, for polymerization, acrylonitrile with up to about 15% by weight of a different monoethylenically unsaturated compound, copolymerizable therewith, into an agitated polymerization zone, said polymerization occurring in the presence of a polymerization catalyst, said zone being an aqueous polymer suspension having a monomer concentration of from about 1 to 10% and a substantially constant quantity of polymer in the form of compact rounded discrete particles, said quantity being an amount of from about 19 to 40% of the weight of the suspension, said zone being maintained under substantially steady state conditions, including a substantially constant temperature within the range of about 20° C. to 70° C., the concentration of monomer in the feed being such as to maintain the amount of monomer and polymer in the polymerization zone substantially constant.

2,777,833

HIGH PRESSURE POLYMERIZATION PROCESS FOR ETHYLENE-1-CHLORO-1-FLUOROETHYLENE COPOLYMERS

William R. Richard, Jr., Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application November 28, 1952, Serial No. 323,123
6 Claims. (Cl. 260—87.7)

1. In the production of normally solid polymers by high pressure polymerization of ethylene in aqueous media, the improvement which comprises subjecting from 55 to 95 parts by weight ethylene and from 45 to 5 parts by weight 1-chloro-1-fluoroethylene to copolymerization in the presence of at least 10 parts by weight water as the sole reaction medium, at a temperature within the range of 35 to 125° C. and a pressure of at least 5,000 pounds per square inch with the further proviso that said pressure is at least 20,000 pounds per square inch when said 1-chloro-1-fluoroethylene exceeds 25 parts by weight, and recovering resulting easily processed high copolymer.

2,777,834

COPOLYMERIZATION OF VINYL CHLORIDE WITH VINYLIDENE CHLOROFLUORIDE AT HIGH PRESSURES

John D. Calfee, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application November 22, 1952, Serial No. 322,158
5 Claims. (Cl. 260—87.7)

1. A method of making self-compatible homogeneous high molecular weight copolymers of vinyl chloride with 1-chloro-1-fluoroethylene, which comprises subjecting a monomeric material comprising from about 65 to about 5 weight percent vinyl chloride and from about 35 to 95 weight percent 1-chloro-1-fluoroethylene to copolymerization at a pressure of at least 20,000 pounds per square inch for a time sufficient to convert more than 60 weight percent of the monomeric material to a normally solid homogeneous high molecular weight copolymer.

2,777,835

POLYMERIZATION OF 1-CHLORO-1-FLUOROETHYLENE

John D. Calfee, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application November 22, 1952, Serial No. 322,157
7 Claims. (Cl. 260—92.1)

1. A process which comprises polymerizing a monomeric material consisting of 1-chloro-1-fluoroethylene at conditions including the presence of a free radical promoting catalyst, a temperature within the range of 0° C. to 150° C., and a pressure of at least about 35,000 pounds per square inch producing a solid homopolymer of 1-chloro-1-fluoroethylene having, in comparison with homopolymer produced at autogenous pressure of liquid 1-chloro-1-fluoroethylene, increased toughness, molecular weight, resistance to flow at elevated temperatures, and hot mill processability, and having a copper bar softening point of at least 125° C.

2,777,836

PRODUCTION OF VINYL CHLORIDE POLYMERS

Kenneth Boothby Everard, Welwyn Garden City, and Ivan Harris, Brookmans Park, England, assignors to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

No Drawing. Application September 24, 1953, Serial No. 382,203
Claims priority, application Great Britain October 15, 1952
16 Claims. (Cl. 260—92.8)

1. In a process for the production of aqueous dispersions of a polymer of vinyl chloride by polymerizing a member of the group consisting of vinyl chloride and vinyl chloride together with up to its own weight of a copolymerizable ethylenically unsaturated material, the improvement comprising obtaining polymer particles of large uniform size by initiating the polymerization in the absence of an emulsifying agent and in an aqueous medium containing in solution a polymerization catalyst and an electrolyte yielding polyvalent metallic cations in an aqueous solution, and subsequently introducing an emulsifying agent after polymerization has commenced, but before the polymer dispersion thus formed begins to coagulate the amount of said electrolyte present at any stage of the process being insufficient to cause coagulation of the polymer dispersion, said emulsifying agent being introduced in an amount sufficient to provide mechanical stability but insufficient to impair the properties of the polymer contained in the dispersion produced.

2,777,837

OLEORESINOUS ROSINAMINE CONDENSATIONS

Maynard B. Unger, Chicago, Ill., assignor to The Sherwin-Williams Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application October 14, 1952, Serial No. 314,751
12 Claims. (Cl. 260—102)

12. A process for modifying the character of continuous dry film-forming coating compositions which comprises incorporating therein the substantially neutral amide of rosinamine and an unsaturated drying oil fatty acid.

2,777,838

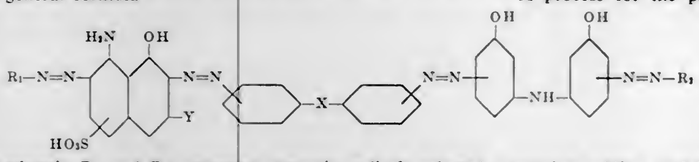
POLYAZO-DYESTUFFS

Richard Huss, Arthur Siebert, and Josef Weissert, Frankfurt am Main, Germany, assignors to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Application May 21, 1954, Serial No. 431,595

4 Claims. (Cl. 260—168)

1. Polyazo-dyestuffs corresponding to the following general formula



wherein R_1 and R_2 represent aromatic radicals selected from the group consisting of radicals of the benzene and naphthalene series, X stands for one of the group consisting of the diphenyl bond, —CH=CH—, —NH—CO—NH—, —CO—, —O—, —S—, —NH— and —CONH—, and Y stands for a member of the group consisting of hydrogen and the sulfonic acid group, and wherein the dyestuff molecule contains at least two sulfonic acid groups.

2,777,839

GREY TRISAZO DYESTUFFS

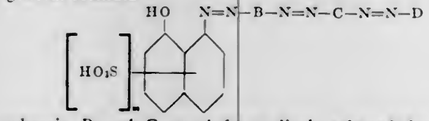
Klaus Böckmann, Leverkusen, and Karl Taube, Leverkusen-Bayerwerk, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application April 7, 1954, Serial No. 421,673

Claims priority, application Germany April 18, 1953

4 Claims. (Cl. 260—169)

1. Trisazo dyestuffs corresponding as free acids to the general formula



wherein B and C stand for radicals selected from the group consisting of radicals of the benzene and the naphthalene series bearing the —N=N— bridges in p-position to each other, with one of the radicals B and C being substituted by at least one and not more than two substituents of the group consisting of lower alkyl and lower alkoxy, and D stands for an amino-hydroxynaphthalene-sulfonic-acid selected from the group consisting of 1-amino-7-hydroxy- and 2-amino-8-hydroxynaphthalene-sulfonic acids bearing the —N=N— bridge in o-position the hydroxy group, *m* being one of the integers 1 and 2.

2,777,840

ASYMMETRICAL UREA DERIVATIVES OF MONOAZO-DYESTUFFS

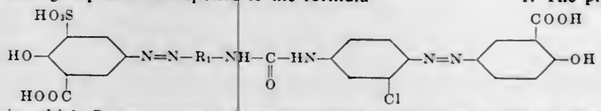
Hans Wilhelm Liechti, Riehen, and Raymond Gunst, Binningen, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application April 29, 1952, Serial No. 285,058

Claims priority, application Switzerland May 25, 1951

5 Claims. (Cl. 260—175)

1. A disazo-dyestuff which contains a single sulfonic acid group and corresponds to the formula



in which R_1 represents a benzene radical in which the groups —N=N— and —NH— are in para-position relatively to one another.

2,777,841

PROCESS FOR THE PRODUCTION OF CAPROLACTAM

Lorraine Guy Donaruma, Woodbury, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 1, 1955, Serial No. 525,792

1 Claim. (Cl. 260—239.3)

A process for the production of caprolactam which comprises adding cyclohexanone semicarbazone in concentrated sulfuric acid to an aqueous solution of sodium nitrite, said solution containing at least one mole of water per mole of said cyclohexanone semicarbazone and the temperature during said addition being maintained below about 60° C.

2,777,842

Δ^5-3-ETHYLENEDIOXY-11-KETO-ETIENOYL-PYRUVIC ACID

Lewis H. Sarett, Princeton, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application September 17, 1952, Serial No. 310,135

2 Claims. (Cl. 260—239.55)

1. Δ^5-3-ethylenedioxy-11-keto-etienoylpyruvic acid.

2,777,843

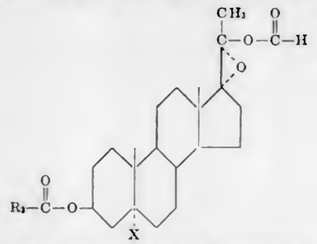
PREPARATION OF 4-PREGNEN-17α-OL-3,20-DIONE

John M. Chemerda, Metuchen, Earl M. Chamberlin, Westfield, and Edward W. Tristram, Cranford, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application December 2, 1954, Serial No. 472,756

5 Claims. (Cl. 260—239.55)

1. Compounds having the structural formula:



wherein R^3 is a hydrocarbon radical containing less than 9 carbon atoms and X is a halogen.

2,777,844

SULFONAMIDE PURIFICATION PROCESS

John C. Paterson, New City, N. Y., and John E. Gordon, Middlesex Borough, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application February 28, 1956, Serial No. 568,194

9 Claims. (Cl. 260—239.95)

1. The process for producing a free-flowing sulfathiazole powder stable to sterilization which comprises heating sulfathiazole in from about 4 to 10 parts by weight, based on said sulfathiazole, of a propanol containing at least 15% but not more than 40% water to a temperature greater than 65° C. but not higher than the boiling point of said propanol until a solution is obtained, cooling the said solution below about 30° C., isolating the insoluble matter, and removing therefrom the product of a particle size such that it passes through a 30 mesh screen and is stopped by an 80 mesh screen.

2,777,845

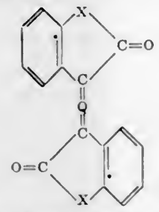
DYES PREPARED FROM DIALDEHYDES BY CONDENSING WITH HOMOPHTHALIC ACID AND WITH N-SUBSTITUTED OXINDOLES

Aaron Oken, Newark, Del., and Herman E. Schroeder, Kennett Square, Pa., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

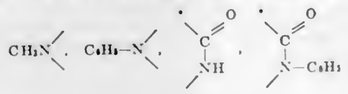
No Drawing. Application December 8, 1955, Serial No. 551,740

3 Claims. (Cl. 260—240)

1. The compound



wherein X is taken from the group consisting of



and

Q is taken from the group consisting of =C—C= and

and, the asterisks indicate the common point of attachment for the X substituents.

2,777,846

PROCESS OF PRODUCING MORPHOLINE FROM DIETHANOLAMINE

George Joseph Laemmle, Jr., Austin, Tex., assignor to Jefferson Chemical Company, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application September 27, 1954, Serial No. 458,685

9 Claims. (Cl. 260—247)

1. The process of producing morpholine from diethanolamine, which comprises mixing the diethanolamine with oleum and heating the reaction mixture to convert the diethanolamine to morpholine.

2,777,847

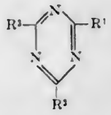
PRODUCTS

Christoph J. Grundmann and Alfred Kreutzberger, Columbus, Ohio, assignors to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application June 25, 1954, Serial No. 439,462

4 Claims. (Cl. 260—248)

1. Perbromides of the 1,3,5-triazine selected from the group consisting of the perbromide of 1,3,5-triazine and perbromides of 1,3,5-triazine represented by the following formula:



where R^1 is selected from the group consisting of lower alkyl groups having 1–4 carbon atoms, phenyl, chlorophenyl and tolyl and R^2 and R^3 are lower alkyl groups having 1–4 carbon atoms.

2,777,848

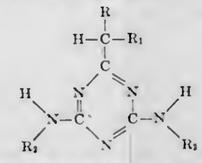
METHOD OF PREPARING GUANAMINES

Frederic C. Schaefer, Darien, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application August 5, 1955, Serial No. 526,777

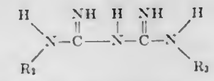
4 Claims. (Cl. 260—249.9)

1. A method of preparing a guanamine of the formula



in which R represents a member of the group consisting of hydrogen and an alkyl radical containing not more than eighteen carbon atoms, R_1 represents a member of the group consisting of hydrogen and an alkoxy radical containing not more than six carbon atoms, and R_2 and R_3 are chosen from the group consisting of hydrogen, phenyl, tolyl, naphthyl, and an alkyl radical containing not more than eighteen carbon atoms, which comprises reacting a nitrile of the formula

with a biguanide of the formula



in the presence of a basic catalyst in an inert organic solvent, and recovering the thus-formed guanamine from the reaction mixture.

2,777,849

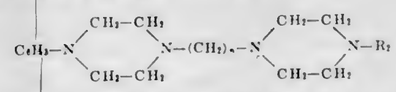
1,1'-ALKYLENEDIPIPERAZINES AND METHODS OF PREPARING SAME

Frederick L. Bach, Jr., and Herbert J. Brabander, Pearl River, and Samuel Kushner, Nanuet, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application July 23, 1954, Serial No. 445,452

4 Claims. (Cl. 260—268)

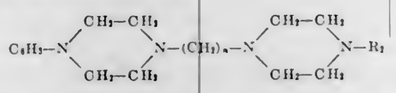
3. Compounds selected from the group consisting of those having the general formula



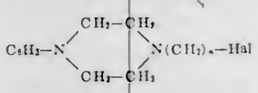
wherein *n* is a positive integer from 2 to 10, R_2 is a member of the group consisting of pyridyl and pyrimidyl radicals

and the therapeutically useful quaternary and mineral acid salts thereof.

4. A method of preparing unsymmetrical piperazines having the general formula



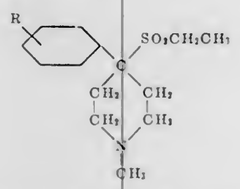
wherein n is a positive integer from 2 to 10 and R_2 is a member of the group consisting of pyridyl and pyrimidyl radicals which comprises the steps of reacting a member of the group consisting of N-pyridyl piperazine and N-pyrimidyl piperazine with a 1-(omega-haloalkyl)-4-phenyl piperazine having the formula



wherein n is as defined above and Hal is halogen in the presence of an acid acceptor.

2,777,850
4-ETHANESULFONYL-4-ARYL-1-METHYLPIPERIDINES AND THEIR PREPARATION
Sydney Archer, Albany, N. Y., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware
No Drawing. Application February 16, 1953, Serial No. 337,231
10 Claims. (Cl. 260—293.4)

1. A member of the group consisting of a basic sulfone having the formula



where R is a member of the group consisting of H and methoxy, and acid addition salts thereof.

2,777,851
PYRIDYL-3-METHYL PHOSPHATE AND SALTS THEREOF
Robert Frank Long and Alexander Lang Morrison, Welwyn Garden City, England, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey
No Drawing. Application April 9, 1956, Serial No. 576,809
Claims priority, application Great Britain April 29, 1955
8 Claims. (Cl. 260—297)

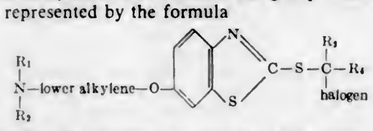
1. A compound selected from the group consisting of pyridyl-3-methyl phosphate and the alkali metal, alkaline earth metal and ammonium salts thereof.

2,777,852
2-LOWER-ALKYLSULFINYL-6-LOWER ALKOXY-BENZOTHIAZOLE
Norbert Steiger, Nutley, N. J., assignor to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey
No Drawing. Application November 9, 1954, Serial No. 467,890
3 Claims. (Cl. 260—306)

1. 2-lower alkylsulfinyl-6-lower alkoxy-benzothiazole.

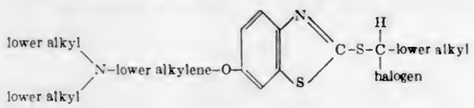
2,777,853
MERCAPTO BENZOTHIAZOLE COMPOUNDS
Norbert Steiger, Nutley, N. J., assignor to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey
No Drawing. Application September 6, 1955, Serial No. 532,768
9 Claims. (Cl. 260—306)

1. A compound selected from the group consisting of bases represented by the formula



wherein NR_1R_2 represents a member of the group consisting of a dilower alkylamino group and a saturated, nitrogen-containing heteromonocyclic radical having 5 to 6 atoms in the ring, R_3 is a member of the group consisting of hydrogen and lower alkyl, and R_4 is a member of the group consisting of hydrogen, alkyl groups having less than 13 carbon atoms, phenyl, benzyl, halophenyl and halobenzyl, and salts of said bases.

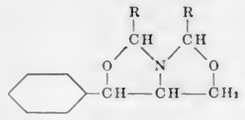
2. Compounds represented by the formula



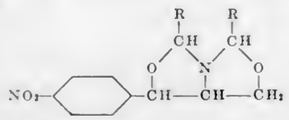
2,777,854
PROCESS FOR THE PRODUCTION OF ORGANIC AMINO DIOLS
William H. Edgerton, Huntington Woods, and James R. Fisher, Royal Oak, Mich., assignors to Parke, Davis & Company, Detroit, Mich., a corporation of Michigan
No Drawing. Application December 27, 1954, Serial No. 477,915
15 Claims. (Cl. 260—307)

11. 1 - aza - 4 - (p - nitrophenyl) - 3,7 - dioxabicyclo-[3.3.0] octane.

14. Process which comprises reacting a 1 - aza - 4-phenyl - 3,7 - dioxabicyclo[3.3.0]octane compound of formula,



with nitric acid under anhydrous conditions at a temperature below about 25° C. to obtain a 1 - aza - 4 - (p-nitrophenyl)-3,7 - dioxabicyclo[3.3.0]octane compound of formula,



where R is a member of the class consisting of hydrogen, lower alkyl, phenyl and nitrophenyl.

2,777,855
AMIDES OF HYDROXYBENZOTRIAZOLE CARBOXYLIC ACIDS
Mario Scalera, Somerville, and Frederic Henry Adams, Bound Brook, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application December 1, 1954, Serial No. 472,528
20 Claims. (Cl. 260—308)

1. Aromatic amides of 5-hydroxybenzo-1,2,3-triazole carboxylic acids in which the carboxylic group is bound

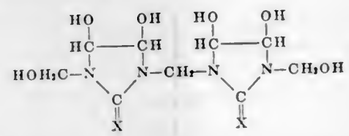
to a carbon adjacent to that to which the hydroxyl group is bound, the aromatic group in said aromatic amide portion of the molecule, being free of carboxylic and sulfonic acid groups, said aromatic group having at least half its carbons as aromatic carbons, and the said aromatic group having no more than three fused rings.

2,777,856
PROCESS FOR CHLORINATING A BASIC CYCLIC GUANIDINE
Arthur J. Stokes, Washington, D. C.
No Drawing. Application November 29, 1944, Serial No. 565,783
5 Claims. (Cl. 260—309.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A method of chlorinating only the ring nitrogen atoms of a basic cyclic guanidine in which all of the nitrogen atoms are directly linked to a reactive hydrogen atom which comprises dissolving the cyclic guanidine compound in aqueous acid to form a solution of the acid salt of the cyclic guanidine and reacting the resulting solution with chlorine.

2,777,857
METHYLENE-1-BIS-4,5-DIHYDROXYTETRAHYDRO-3-HYDROXYMETHYLIMIDAZOLS
Josef König, Krefeld-Linn, Germany, assignor to Phrix-Werke Aktiengesellschaft, Hamburg, Germany, a corporation of Germany
No Drawing. Application December 17, 1954, Serial No. 476,085
Claims priority, application Germany December 31, 1953
6 Claims. (Cl. 260—309.7)

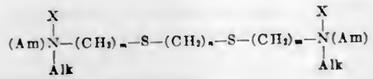
1. As a new chemical compound, a methylene-1-bis-4,5-dihydroxy-tetrahydro-3-hydroxymethylimidazol compound of the formula



wherein X is a member of the group consisting of oxygen and sulfur.

2,777,858
DIAMINO COMPOUNDS AND PROCESS FOR THE PRODUCTION THEREOF
Emil Girod, Riehen, near Basel, and Franz Häfliger, Basel, Switzerland, assignors, by mesne assignments, to Geigy Chemical Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application December 6, 1951, Serial No. 260,312
Claims priority, application Switzerland December 12, 1950
6 Claims. (Cl. 260—313)

1. A diammonium compound of the formula



wherein (Am)N represents a member selected from the group consisting of a lower dialkylamino radical and a cyclic alkylene imino radical with 5 to 6 ring members, Alk represents a lower alkyl group, and X is a monovalent anion selected from the group consisting of a halogen of a molecular weight of at least 35 and a lower monoalkylsulfate radical with 1 to 2 carbon atoms, m is an integer from 2 to 3 inclusive, and n is an integer from 10 to 12 inclusive.

2,777,859
WARFARIN-ALKALI METAL DERIVATIVES AND PROCESSES OF PREPARING THE SAME
Karl Paul Link, Middleton, Wis., assignor to Wisconsin Alumni Research Foundation, Madison, Wis., a corporation of Wisconsin
No Drawing. Application February 5, 1953, Serial No. 335,391
7 Claims. (Cl. 260—343.2)

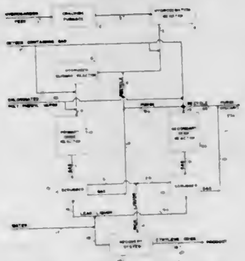
1. In the process of preparing an aqueous solution of warfarin-alkali metal derivative, the improvement which comprises slowly adding with stirring aqueous alkali metal hydroxide to an excess of water wet warfarin, warming the resulting aqueous reaction mixture containing warfarin-alkali metal derivative in solution in the presence of the excess warfarin in suspension, and then removing the excess warfarin from the solution.

2,777,860
CATALYSIS
Robert B. Egbert, Roslyn Heights, and Mitchell Becker, Rego Park, N. Y., assignors to Chempatents, Inc., New York, N. Y., a corporation of Delaware
No Drawing. Application July 22, 1954, Serial No. 445,199
2 Claims. (Cl. 260—346.8)

1. A process for the preparation of maleic anhydride which comprises the partial oxidation of benzene with molecular oxygen in the presence of a catalyst consisting essentially of a refractory support in particulate form of about 0.2 to about 0.5 inch average diameter, and having a surface area in the range of 0.002 to 10 square meters per gram and a mixture of about 1 part MoO_3, 1.5 to 8 parts V_2O_5, 0.1 to 0.01 part P_2O_5, 0.1 to 0.01 part Na, and 0.1 to 0.01 part Ni, containing about 3 to 15 parts per weight of support per part of said mixture, said catalyst being obtained by providing the catalyst support with a mixture of the precursor of the above materials, drying at a temperature up to about 175° C., heating at a temperature in the range of about 175 to 320° C. with a linear air flow through the catalyst in the range of 0 to 7.7 cm./min. and then heating at a temperature in the range of 320 to 400° C. with a linear air flow in the range of 0.58 to 21.1 cm./min. at a temperature in the range of about 400° C. to 550° C., and recovering maleic anhydride from the reaction mixture.

2,777,861
WITHDRAWN

2,777,862
PROCESS FOR THE CATALYTIC OXIDATION OF OLEFINS
Robert B. Egbert, Roslyn Heights, N. Y., assignor to Chempatents, Inc., New York, N. Y., a corporation of Delaware
Application December 11, 1953, Serial No. 397,556
3 Claims. (Cl. 260—348.5)



1. A process for the preparation of ethylene oxide by the partial oxidation of a feed gaseous mixture comprising

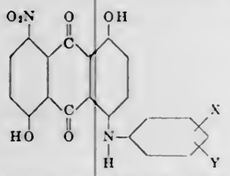
about 4.5% ethylene, an approximately equal amount of hydrogen, about 6% oxygen, and inerts, which process comprises contacting said mixture with a first silver catalyst at a temperature in the range of about 210 to 220° C. to give a substantially hydrogen free gaseous mixture comprising about 4.5% ethylene together with inerts, adding an amount of oxygen containing gas to provide in the mixture an amount of oxygen in the range of 5 to 10%, then contacting said gaseous mixture with a second catalyst containing silver at a temperature in the range of 240 to 320° C. to give a gaseous mixture comprising about 1% ethylene oxide together with ethylene and inerts, separating the ethylene oxide therefrom, returning a portion of the resulting gas as recycle to make up the feed gaseous mixture, and discarding the remainder of said gas.

2,777,863
1,5-DIHYDROXY-8-NITRO-4-AMINOANTHRAQUINONE COMPOUNDS

Joseph B. Dickey and Edmund B. Towne, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application August 17, 1951, Serial No. 242,429
8 Claims. (Cl. 260—380)

1. The anthraquinone compounds having the general formula:



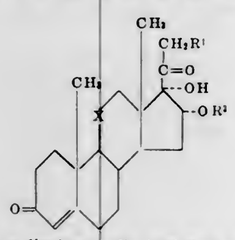
wherein X represents a member selected from the group consisting of a monohydroxyalkyl group having one to three, inclusive, carbon atoms and a dihydroxyalkyl group having two or three, inclusive, carbon atoms and Y represents a member selected from the group consisting of a hydrogen atom, a chlorine atom, a hydroxy group, a methoxy group and a methyl group.

2,777,864
16-OXY-CORTISONE, 16-OXY-HYDROCORTISONE AND PROCESS

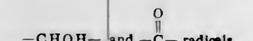
Seymour Bernstein and William S. Allen, Pearl River, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application July 19, 1954, Serial No. 444,348
13 Claims. (Cl. 260—397.45)

1. Compounds of the group having the general formula:



in which X is a divalent radical of the group consisting of



R^1 is a member of the group consisting of hydroxyl and lower alkanoyloxy radicals, and R^2 is a member of the group consisting of hydrogen and lower alkanoyl radicals.

2,777,865
OXIDATION OF FATTY ACIDS

Roger L. Logan, Elkins Park, Pa., assignor to Kessler Chemical Co., Inc., Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application January 12, 1953, Serial No. 330,924
7 Claims. (Cl. 260—413)

1. The process for the preparation of dibasic and monobasic acids from monohydroxy aliphatic acid compounds comprising maintaining caustic in a molten state at a temperature not in excess of about 475° C. and adding the selected monohydroxy aliphatic acid compound to the caustic gradually in small portions, said reaction being carried out in an atmosphere substantially free from oxygen, and acidulating the thus formed salts with a mineral acid.

2,777,866
RECOVERY OF TETRAALKYL-LEAD COMPOUNDS

Sidney M. Blitzer, Orland M. Brown, and William B. Grandjean, Baton Rouge, La., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

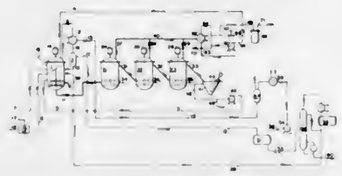
Application August 17, 1953, Serial No. 374,746
7 Claims. (Cl. 260—437)

1. The improved process of separating tetraethyllead and the solids of a reaction mixture, said solids including finely divided lead, alkali metal chloride, and minor quantities of alkaline reacting components, comprising forming a slurry of the reaction mixture with ethyl chloride and dissolving the tetraethyllead therein, the ethyl chloride being provided in the proportions of at least two parts by weight to one part of the sum of the weights of the tetraethyllead and the solids, intimately mixing the so-formed slurry with an aqueous dilute acid solution in proportions of at least one part by volume of solution to four parts by volume of the slurry, and providing acid in excess of the quantity required to neutralize the alkaline reacting components, then maintaining the mixture at quiescent conditions for a time sufficient to settle the solids and stratify the liquids, the solution of tetraethyllead being floated on the aqueous solution.

2,777,867
RECOVERY OF ALKYLLEAD COMPOUNDS

Albert P. Giraitis, William B. Brandjean, and Clarence M. Neher, Baton Rouge, La., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

Application August 3, 1953, Serial No. 371,975
9 Claims. (Cl. 260—437)



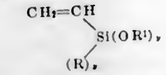
9. In the continuous recovery of a tetraalkyllead the alkyl groups thereof having up to 3 carbon atoms from an alkylated slurry mixture produced in a pressurized alkylation, the slurry including excess alkyl chloride, tetraalkyllead, and reacted solids, said solids comprising finely divided lead solids and sodium chloride, the improvement comprising vaporizing the excess alkyl chloride in the presence of an aqueous solution of an antiagglomerant for the lead solids, said vaporizing being at a pressure approximately midway between the alkylation pressure and atmospheric pressure, thereby forming a slurry of the lead solids, tetraalkyllead and the aqueous solution, continuously feeding the slurry to a steam distilling zone and agitating therein only sufficiently to maintain the lead solids in nonuniform distribution in the aqueous phase while steam distilling the tetraalkyllead, and withdrawing at a point remote from the bottom of the stream distilling zone a slurry having less tetraalkyllead than the slurry within the zone.

2,777,868
POLYMERIZATION OF VINYLALKOXYSILANES

Robert Y. Mixer, Kenmore, and Donald L. Bailey, Snyder, N. Y., assignors to Union Carbide and Carbon Corporation, a corporation of New York

No Drawing. Application August 13, 1953, Serial No. 374,138
4 Claims. (Cl. 260—448.2)

1. In the polymerization of vinylalkoxysilanes in the presence of an organic peroxide containing a tertiary butoxy group to form homopolymers, which vinylalkoxysilanes have the structure:



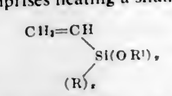
where R is a monovalent hydrocarbon radical, R^1 is an alkyl radical, x is an integer from 0 to 2, y is an integer from 1 to 3, and $x+y=3$, the improvement which resides in carrying out the polymerization in the presence of an alkylchlorosilane in an amount varying from a trace to 0.001% by weight of the vinylalkoxysilane, said alkylchlorosilane having the structure R''_nSiCl_{4-n}, where R'' is an alkyl radical, and n is an integer from 1 to 3.

2,777,869
POLYMERIZATION OF VINYLALKOXYSILANES

Donald L. Bailey, Snyder, and Robert Y. Mixer, Kenmore, N. Y., assignors to Union Carbide and Carbon Corporation, a corporation of New York

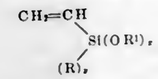
No Drawing. Application August 13, 1953, Serial No. 374,137
13 Claims. (Cl. 260—448.2)

1. Process for making homopolymers of vinylalkoxysilanes which comprises heating a silane of the structure—



where R is a monovalent hydrocarbon radical, R^1 is an alkyl radical, x is an integer from 0 to 2, y is an integer from 1 to 3, and $x+y=3$, in the presence of an organic peroxide containing a tertiary butoxy group.

9. Homopolymers of monovinylalkoxysilanes polymerized through the vinyl group, said homopolymers being colorless to light-colored viscous liquids having a viscosity of about 1000 cs. to about 67,000 cs. at 25° C., and said monovinylalkoxysilanes having the structure—



where R is a monovalent hydrocarbon radical, R^1 is an alkyl radical, x is an integer from 0 to 2, y is an integer from 1 to 3, and $x+y=3$.

2,777,870
FLUORINE-CONTAINING SILOXANES

Earl T. McBee, West Lafayette, Ind., and Ogden R. Pierce, Midland, Mich., assignors to Purdue Research Foundation, West Lafayette, Ind., a corporation of Indiana

No Drawing. Application February 7, 1955, Serial No. 486,734
7 Claims. (Cl. 260—448.8)

1. A polykis lower-perfluoroalkyl substituted alkoxy lower-siloxane having not more than three silicon atoms.

2,777,871
BIS N-SUBSTITUTED CARBAMIC ACID ESTERS OF POLYHYDRIC ALCOHOLS AND PROCESS

Franklin Strain, Barberton, Ohio, assignor to Columbia-Southern Chemical Corporation, Allegheny County, Pa., a corporation of Delaware

No Drawing. Application August 5, 1952, Serial No. 302,812
14 Claims. (Cl. 260—468)

1. A method of preparing a carbamate which comprises contacting a primary monoamine with a bis-chloroformate of a polyglycol and an acid neutralizing agent; the proportions of amine and acid neutralizing agents being two equivalents, respectively, per mole of chloroformate, and recovering from the resultant reaction mixture an ester amide of (*a*) the amine and (*b*) a bis acid carbonate of the polyglycol, wherein both acid groups of (*b*) are amidated with (*a*).

11. Diethylene glycol bis (N-isopropyl) carbamate.

12. Diethylene glycol bis (N-cyclohexyl) carbamate.

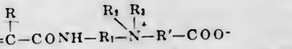
13. A diester amide of (*a*) a chloroaniline and (*b*) a dihydric alcohol bis (acid carbonate) wherein both acid groups of (*b*) are amidated with (*a*), said dihydric alcohol containing up to 10 carbon atoms.

2,777,872
UNSATURATED ORGANIC COMPOUNDS

Comer Drake Shacklett, Roselle, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

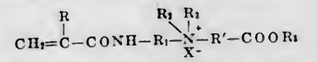
No Drawing. Application November 2, 1953, Serial No. 389,873
19 Claims. (Cl. 260—482)

1. The compounds of the general formula:



wherein R is a member taken from the group consisting of hydrogen, alkyl radicals of 1 to 3 carbon atoms, phenyl and cyclohexyl, R_1 is a saturated aliphatic hydrocarbon radical of 1 to 6 carbon atoms, R_2 is an alkyl radical of 1 to 3 carbon atoms, R_3 is an alkyl radical of 1 to 3 carbon atoms, and R′ is a saturated aliphatic hydrocarbon radical of 2 to 4 carbon atoms.

8. The compounds of the general formula:



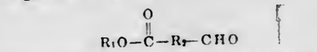
wherein R is a member taken from the group consisting of hydrogen, alkyl radicals of 1 to 3 carbon atoms, R_1 is a saturated aliphatic hydrocarbon radical of 1 to 6 carbon atoms, R_2 is an alkyl radical of 1 to 3 carbon atoms, R_3 is an alkyl radical of 1 to 3 carbon atoms, R_5 is an alkyl radical of 1 to 4 carbon atoms, and R′ is a saturated aliphatic hydrocarbon radical of 2 to 4 carbon atoms, and X is a halogen taken from the group consisting of chlorine, bromine and iodine.

2,777,873
PREPARATION OF ESTERS OF ω-AMINO ACIDS

Robert H. Hasek, Kingsport, Tenn., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application July 1, 1954, Serial No. 440,843
6 Claims. (Cl. 260—482)

1. A method for the preparation of ω-amino acid esters which comprises heating an anhydrous aldehydic ester having the general formula:



with an anhydrous nitrogen compound having the general formula:

wherein R represents a member selected from the group consisting of an atom of hydrogen and an alkyl group containing from 1 to 8 carbon atoms, R_1 represents an alkyl group containing from 1 to 4 carbon atoms and R_2 represents a divalent alkylene group containing from 2 to 10 carbon atoms in an anhydrous solvent medium selected from the group consisting of a saturated monohydric aliphatic alcohol containing from 1 to 4 carbon atoms and benzene, at from 115° to 160° C. and a pressure of from 1 to 1000 atmospheres, in the presence of hydrogen and a hydrogenation catalyst, in the proportions of from 1 to 20 moles of the said nitrogen compound to each mole of the said aldehydic ester, and recovering the formed ω-amino acid ester from the reaction mixture.

2,777,874

METAL COMPLEXES AND METHODS OF MAKING SAME

Peter A. Asseff, Cleveland, Thomas W. Mastin, Willoughby, and Alan Rhodes, Euclid, Ohio, assignors to The Lubrizol Corporation, Wickliffe, Ohio, a corporation of Ohio

No Drawing. Application November 3, 1952, Serial No. 318,528
26 Claims. (Cl. 260—504)

1. A process which comprises preparing and mixing a mass in which, at 50° C., at least 50% of the total mass is in the liquid state, and in which mass the active components consist of: A, at least one oil-soluble organic acid compound; B, at least one organic metal compound derived from a metal-free organic compound having: (*a*) an ionization constant in water of at least about 1×10^{-10} at about 25° C.; (*b*) a water solubility at 50° C. of at least about 0.0005%; and (*c*) in saturated aqueous solutions at about 25° C. a pH of not greater than about 7, the relative amounts of A and B used being in the range of from about one equivalent of A to about 10 equivalents of B to about 10 equivalents of A to about one equivalent of B; C, water, in an amount equal to at least about one-tenth mole per mole of B; maintaining the mass at a temperature and for a period of time sufficient to drive off substantially all free water and water of hydration which may be present; and then treating the mass with an acidic material of which the ionization constant is higher than the ionization constant of the organic compound from which was derived component B and in amounts sufficient to liberate a substantial proportion of said organic compound of component B.

2,777,875

WITHDRAWN

2,777,876

SYNTHESIS OF α-CHLOROISOBUTYRIC ACID

Ernest A. Ikenberry, Donald G. Kundiger, and Donald D. Wheeler, Manhattan, Kans., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application September 23, 1953, Serial No. 381,993
5 Claims. (Cl. 260—531)

1. The method for preparing α-chloroisobutyric acid which comprises reacting 1,1,1-trichloro-2-methyl-2-propanol with partially hydrated aluminum chloride in the presence of a nitro-aromatic hydrocarbon as reaction solvent at a temperature of from about 55° to about 110° C., said hydrated aluminum chloride consisting of the product resulting from the combination of anhydrous aluminum chloride with water in the proportions of one mole of the chloride to from about 0.5 to 1.5 moles of water.

2,777,877

PROCESS FOR THE PRODUCTION OF UREA

Giacomo Fauser, Milan, Italy, assignor to Montecatini, Società Generale per l'Industria Mineraria e Chimica, a corporation of Italy

Application March 6, 1953, Serial No. 340,780
Claims priority, application Italy March 11, 1952
1 Claim. (Cl. 260—555)

In the process for producing urea from ammonia and carbon dioxide, which comprises mixing in an enclosed space carbon dioxide with ammonia in excess over the stoichiometric amount and heating the mixture under pressure, the improvement of adding to the mixture an amount of water which is more than 6 and less than 20% of the total mixture, heating to about 170° C. at a pressure of about 160 atm. for a time sufficient to produce urea, subjecting the reacted mixture to a pressure drop of 120–150 atm., heating the mixture rapidly to 130°–140° C., gravity-separating an aqueous urea solution from unreacted ammonia and carbon dioxide vapors, cooling said vapors to 60°–90° C. and condensing them at a pressure of 20–45 atm., dissolving the condensed vapors in aqueous ammonia, scrubbing vapors rising during said condensation with water, adding the scrubbing liquid to said aqueous ammonia solution, recycling at least part of said solution into contact with additional carbon dioxide and ammonia in said enclosed space, and adjusting the ratio between said recycling solution and said additional carbon dioxide and ammonia so as to provide the mixture with said excess of ammonia over the stoichiometric amount and said 6–20% of water.

2,777,878

PREPARATION OF TETRAETHYLTHIURAMDISULFIDE

James C. Counts, La Porte, and Robert T. Nelson and William R. Trutna, Pasadena, Tex., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application June 1, 1954, Serial No. 433,544
6 Claims. (Cl. 260—567)

1. A process for the preparation of tetraethylthiuram disulfide which comprises oxidizing a salt of diethyl dithiocarbamic acid by mixing an aqueous solution of said salt with gaseous chlorine diluted with an inert gas so that there is present during the oxidation reaction at least 75 volumes of said inert gas per volume of gaseous chlorine.

2,777,879

PROCESS FOR PREPARING TRIAMINODIPHENYL ETHERS

Louis Spiegler, Woodbury, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application January 24, 1956, Serial No. 561,156
5 Claims. (Cl. 260—571)

1. In the process for preparing a triaminodiphenyl ether by reacting a dinitrohalobenzene taken from the group consisting of 2,4-dinitrohalobenzene and 2,6-dinitrohalobenzene with an alkali metal salt of a nitrophenol to form a trinitrodiphenyl ether followed by catalytic hydrogenation of said trinitrodiphenyl ether, the improvement wherein said trinitrodiphenyl ether is prepared in aqueous dioxane resulting in an aqueous salt layer and a dioxane layer, said layers being separated, said dioxane layer containing trinitrodiphenyl ether then being catalytically hydrogenated to yield the corresponding triaminodiphenyl ether and aqueous dioxane, said aqueous dioxane then being recovered by distillation from said triaminodiphenyl ether and recycled for use in the preparation of said trinitrodiphenyl ether.

2,777,880

PRODUCTION OF AROMATIC COMPOUNDS

Peter Smith, Norton-on-Tees, England, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain

No Drawing. Application June 18, 1953, Serial No. 362,663
Claims priority, application Great Britain August 5, 1952
16 Claims. (Cl. 260—592)

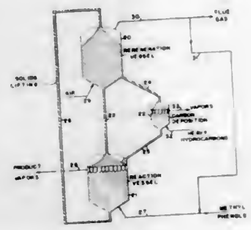
1. A process for the production of aromatic ketones which comprises the step of reacting an aromatic carboxylic acid selected from the group consisting of benzoic acid, alkyl substituted benzoic acid, halogen substituted benzoic acid, nitro substituted benzoic acid and naphthoic acid with a member of the class consisting of acetone, aldehydes having the formula RCHO, wherein R is selected from the class consisting of hydrogen, lower alkyl and phenyl and an alcohol selected from the group consisting of primary and secondary lower alkanols and benzyl alcohol, said reaction being carried out at a temperature between about 260° C. and about 500° C. in the presence of a decarboxylation catalyst selected from the group consisting of chromium oxide, cadmium chromite, zinc chromite, iron chromite, zinc cadmium chromite, zinc iron chromite, cadmium oxide, copper, a reduced copper oxide-zinc oxide mixture, and a metal of group VIII of the periodic system.

2,777,881

CATALYTIC CONVERSION OF METHYL PHENOLS

Martin B. Neuworth, Pittsburgh, Pa., assignor to Pittsburgh Consolidation Coal Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application June 18, 1953, Serial No. 362,470
Claims priority, application Great Britain August 6, 1952
15 Claims. (Cl. 260—621)



1. The method for isomerizing and disproportionating methyl phenols selected from the class consisting of unsubstituted cresols, unsubstituted xylenols and unsubstituted trimethyl phenols, which comprises contacting said methyl phenols in a vapor phase at a temperature of 450–700° F. with a silica-alumina catalyst having carbon deposited thereon in an amount equal to from at least 5 percent to about 20 percent of the weight of said catalyst, and collecting the product vapors.

2,777,882

DEHYDROCHLORINATION OF BENZENE HEXACHLORIDE

David D. Humphreys, Baton Rouge, La., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 5, 1951, Serial No. 260,101
6 Claims. (Cl. 260—650)

1. A process for the dehydrochlorination of a benzene hexachloride comprising contacting said benzene hexachloride at a temperature of at least 180° C. with less than 10 percent by weight of the benzene hexachloride of a catalytic compound represented by

$$M_mX_x$$

wherein M is a metal selected from the group consisting of alkali and alkaline earth metals; X is a halide and *m* and *x* are small whole numbers.

2,777,883

ISOBUTYLENE ALLYLIC MONOCHLORIDE

Robert R. Chambers and Robert L. Foster, Park Forest, Ill., assignors to Sinclair Refining Company, New York, N. Y., a corporation of Maine

No Drawing. Application February 25, 1954, Serial No. 412,632
3 Claims. (Cl. 260—654)

1. A composition of matter selected from the group consisting of triisobutylene allylic monochloride and tetraisobutylene allylic monochloride.

2,777,884

PROCESS FOR PRODUCING SODIUM ACETYLIDE AND IMPROVED SODIUM ACETYLIDE PRODUCT

Thomas F. Rutledge, Madison, and Alio J. Buselli, New Providence, N. J., assignors to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York

No Drawing. Application November 9, 1953, Serial No. 391,139
5 Claims. (Cl. 260—665)

1. A process for producing mono-sodium acetylide which comprises reacting acetylene in a high state of purity, practically free of acetone, and finely divided sodium particles dispersed in a liquid medium inert with respect to said reactants and products of reaction, and conducting the reaction at a temperature of from about 60° C. to about 110° C. to obtain substantially quantitative yields of mono-sodium acetylide based on conversion of said sodium, said mono-sodium acetylide being of high purity, virtually white, and in a pulverulent state.

2,777,885

PREPARATION OF PHENYL MAGNESIUM CHLORIDE

Hugh E. Ramsden, Metuchen, N. J., assignor to Metal & Thermit Corporation, New York, N. Y., a corporation of New Jersey

No Drawing. Application May 12, 1954, Serial No. 429,393
13 Claims. (Cl. 260—665)

1. A method of preparing phenyl magnesium chloride which comprises reacting chlorobenzene with magnesium at reflux temperatures in the presence of an inorganic sulfate catalyst and recovering said phenyl magnesium chloride.

2,777,886

PREPARATION OF PHENYL MAGNESIUM CHLORIDE

Hugh E. Ramsden, Metuchen, N. J., assignor to Metal & Thermit Corporation, New York, N. Y., a corporation of New Jersey

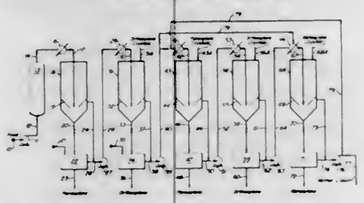
No Drawing. Application May 12, 1954, Serial No. 429,394
15 Claims. (Cl. 260—665)

1. A method of preparing phenyl magnesium chloride which comprises reacting chlorobenzene with magnesium at reflux temperatures in the presence of catalytic amount of copper sulfide, and recovering said phenyl magnesium chloride.

2,777,887
PROCESS FOR PREPARING CYCLOPENTADIENYLSODIUM
Viktor Weinmayr, Landenberg, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application November 24, 1953, Serial No. 394,232
7 Claims. (Cl. 260—665)

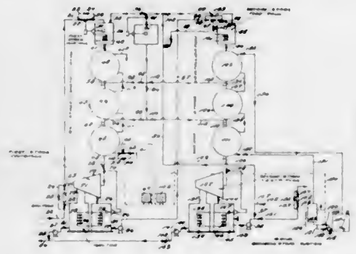
1. The process for preparing cyclopentadienylsodium which comprises reacting, in a liquid medium under anhydrous conditions, cyclopentadiene with a dispersion of sodium in an inert liquid hydrocarbon, said liquid medium consisting essentially of a liquid aliphatic ether having up to 6 carbon atoms in each alkyl group.

2,777,888
SEPARATION OF RECOVERY OF XYLENE ISOMERS
Melvern C. Hoff, Highland, and Kenneth C. Peterson, Hammond, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application May 1, 1953, Serial No. 352,434
3 Claims. (Cl. 260—674)



1. A process of recovering and separating the individual xylene isomers from a mixture of the isomers and other miscible hydrocarbons boiling within substantially the same temperature range, which process comprises recovering, prior to crystallization of metaxylene, para- and ortho-xylene in at least one sequence of crystallizations by crystallizing para-xylene from the mixture by cooling it to a temperature just above the highest spontaneous crystallization temperature of the other components of the mixture and below the equilibrium crystallization temperature of para-xylene, separating para-xylene crystals from the mother liquor, cooling the mother liquor to a temperature below the equilibrium crystallization temperature of ortho-xylene and just above the highest spontaneous crystallization temperature of the other components of the liquor and seeding the mother liquor with ortho-xylene, crystallizing and thereafter separating crystals of ortho-xylene therefrom, and cooling mother liquor from which para-xylene and ortho-xylene have been separated to below the equilibrium crystallization temperature of meta-xylene and to just above the highest spontaneous crystallization temperature of remaining other components of the second mother liquor, seeding the second liquor with a crystal of meta-xylene and thereby crystallizing and recovering meta-xylene from the mixture.

2,777,889
CRYSTALLIZATION OF POLYCYCLIC HYDROCARBONS
Carl Naumann, Philadelphia, Pa.
Application November 19, 1951, Serial No. 257,144
4 Claims. (Cl. 260—674)



1. The process of removing crystallizable polycyclic hydrocarbons from hydrocarbon oil containing such compounds, which comprises continuously progressing hydrocarbon oil, initially at a temperature from 90 to 170° F. through a plurality of generally horizontal closed chambers of a first stage and there cooling the oil and agitating the oil and crystals which form by rotors at a speed not in excess of 5 R. P. M. with continuous scraping adjacent to but out of contact with the chamber walls for a time in excess of 8 hours, continuously removing the crystals that form from the oil by centrifuging, then continuously progressing the oil remaining after the removal of the crystals initially at a temperature of below 100° F. through a plurality of generally horizontal closed chambers of a second stage and there cooling the oil and agitating the oil and crystals that form by rotors at a speed not exceeding 5 R. P. M. with continuous scraping adjacent to but out of contact with the chamber walls for a time in excess of 8 hours, and continuously removing the second stage crystals from the oil by centrifuging, the process throughout the first and second stages being carried out in a closed system.

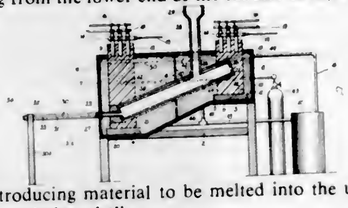
2,777,890
PROCESS OF PREPARING OILY BUTADIENE POLYMERS AND PRODUCTS THEREOF
Carol K. Ikeda, Wallingford, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application June 15, 1953, Serial No. 361,861
12 Claims. (Cl. 260—680)

1. The process of producing oily polymers of butadiene-1,3 which comprises (1) polymerizing butadiene-1,3 at from −20° to +20° C. in the presence of boron trifluoride etherate containing from 0.1 to 1.4 mols of water per mol of boron trifluoride etherate, and (2) increasing the viscosity of the resulting polymer by treating a solution thereof in inert solvent with boron trifluoride.

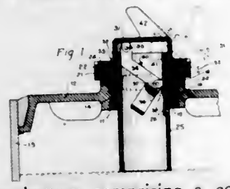
ELECTRICAL

2,777,891
ELECTRIC MELTING FURNACE
Steele D. Williams, Avalon, Pa.
Application June 4, 1954, Serial No. 434,367
14 Claims. (Cl. 13—6)

1. A melting furnace of the class described comprising a tubular shell constituting an electric resistance unit, carbon columns in which the ends of said tube are embedded and with which the tube ends are in good electrical contact, metal terminal assemblies on each of the carbon columns, said tube being supported in said columns with one end higher than the other, a discharge tube leading from the lower end of the tubular shell, and means for introducing material to be melted into the upper end of the tubular shell.

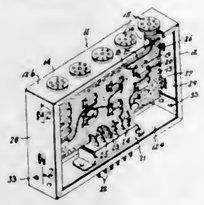


2,777,892
CLOSURE ASSEMBLY FILLING OPENINGS OF STORAGE BATTERIES
Leon A. Doughty, Glenside, Pa., assignor to C & D Batteries, Inc., Conshohocken, Pa., a corporation of Pennsylvania
Application February 21, 1955, Serial No. 489,379
8 Claims. (Cl. 136—170)



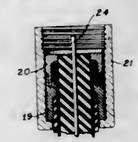
6. A storage battery comprising a cover having an internally threaded filling opening, a collar threaded into said opening, said collar having a split section radially distortable against the wall of said opening, a filling tube traversing said collar having an external, downwardly disposed circumferential bevel, a closure carried by said tube, said collar section having a projection in the axial path of movement of said bevel to be forced radially outward by the insertion of said tube to lock said tube in a selected rotated position, and a clamping ring holding said tube against axial movement.

2,777,893
MOUNTING FOR ELECTRICAL EQUIPMENT
Charles R. De Rosso, San Gabriel, Calif., assignor to Clary Corporation, a corporation of California
Application March 15, 1954, Serial No. 416,148
5 Claims. (Cl. 174—52)



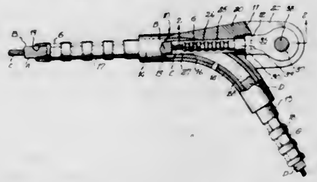
1. A mounting for electrical circuit components comprising a hollow rectangular frame, a sheet-like component supporting card of an insulating material which is softer than the material of the said frame, two bendable tabs extending inwardly from each of at least two opposite sides of said frame, the said tabs on each said side diverging from each other, each said tab extending approximately 45° to the length of the respective side and having a notch opening at one end thereof into the interior of said frame and closed at the opposite end thereof, the side edges of each said notch converging toward said closed end, said side edges being effective upon inward bending of said tabs to penetrate and grip the opposite sides of an adjacent edge of said card whereby to space said card from the sides of said frame and to prevent movement of said card in all directions relative to said frame.

2,777,894
MALE CONNECTOR
Henry J. Arbeiter, Cornwell Heights, and Eric Winston, Philadelphia, Pa., assignors to Jerrold Electronics Corporation, Philadelphia, Pa., a corporation of Delaware
Application March 5, 1956, Serial No. 569,494
1 Claim. (Cl. 174—75)



A connector for a coaxial cable which includes a central conductor, inner insulation, a conductive sheath and outer insulation, comprising a two part cylindrical collar, the lower part of which has an interior bore the top of which just fits over the conductive sheath and the bottom of which fits over the outer insulation, whereby it seats on the cable at a point where the outer insulation is stripped from it, and has a cylindrical well in its upper portion, and the upper part of which has an opening fitting over the inner insulation and a cylindrical projection on its bottom whose inner surface is spaced from the inner wall of the well by a distance just smaller than the thickness of the sheath, and a cutting edge between the outside of the projection and the inner edge of the outside wall of the well.

2,777,895
DEAD END CONNECTORS
Martin D. Bergan, Westfield, N. J., assignor to The Thomas & Betts Co., Elizabeth, N. J., a corporation of New Jersey
Application July 22, 1952, Serial No. 300,166
7 Claims. (Cl. 174—94)

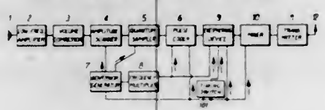


1. An article of manufacture constituting a separable element of a dead end fitting for anchoring the steel core of a conductor, said article comprising two parts, one part constituting a clevis pre-shaped to its desired configuration, and the other part forming a crimpable tubing having the tensile strength and relative non-conductive capacity characterizing S. A. E. 1025 cold-drawn seamless steel tubing, the clevis provided at one end with a ring-like hub and at its end which forms the hub provided with a socket whose outer portion forms an unthreaded recess and whose inner portion is threaded and the tubing at one end provided with an axially extending bore and with its other end externally threaded and screwed into the threaded portion of the socket, the portion of the tubing beyond its threaded end portion forming a knurled band of slightly greater diameter than the threaded portion located in the unthreaded recess and said hub being shrunk in squeezed engagement with the band to lock the clevis and tubing in permanently fixed relation in whatever position they may happen to be relatively rotated when secured together.

2,777,896
MAGNETICALLY LOADED COMPOSITE CONDUCTORS
Harold S. Black, New Providence, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application June 29, 1951, Serial No. 234,293
6 Claims. (Cl. 178—45)

1. In an electromagnetic wave guiding system, a conducting medium comprising a multiplicity of elongated conducting magnetic portions spaced by means including magnetic insulating material and means for launching high frequency electromagnetic waves in said system, there being a sufficient number of conducting portions to carry a substantial portion of the current induced by said waves and each of said conducting portions having at least one dimension in a direction substantially transverse to the direction of wave propagation down the length thereof which is small compared with its appropriate skin depth at the highest frequency of operation with said high frequency waves, whereby the said conducting medium is substantially penetrated by the electric field of said waves.

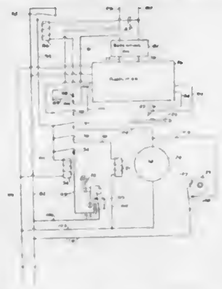
2,777,897
SECRECY COMMUNICATION SYSTEM
Edgar Gretener, Zurich, Switzerland, and Fritz Schröter, Madrid, Spain; said Schröter assignor to said Gretener
Application April 20, 1951, Serial No. 221,996
Claims priority, application Switzerland April 22, 1950
8 Claims. (Cl. 179—1.5)



1. A method for keeping secret speech in communication channels, said method comprising converting the audio speech waves to an electrical speech message signal varying in frequency and amplitude with the audio speech waves, converting the speech message signal to a second signal of code pulse combinations significant of the amplitudes of the speech message signal, combining an enciphering pulse combination with each code pulse combination to develop an enciphered pulse signal, transmitting the enciphered pulse signal to a receiver station, deciphering each received pulse combination by combining therewith the identical pulse combination employed for enciphering the same, thereby to develop the original code pulse combination, and converting the developed code pulse combination back to the original speech message signal.

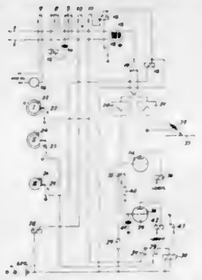
2,777,898
REPRODUCING APPARATUS
John J. Shively, New York, N. Y., assignor to Telephone Answering and Recording Corporation, New York, N. Y., a corporation of Delaware
Original application August 1, 1951, Serial No. 239,773. Divided and this application December 8, 1954, Serial No. 473,940
2 Claims. (Cl. 179—6)

1. In a telephone answering device adapted to be operatively associated with a telephone line, in combination, a movable member having thereon a medium carrying a message recording, reproducing means cooperative with said movable member and having a normal stop position adjacent the beginning of said message recording, means operable by an electric current to drive said movable member in said cooperative relation with said reproducing means and to operatively connect said reproducing means to said telephone line, whereby said answering message may be transmitted to said associated telephone line, said



normally connecting means being rendered operative by interruption of said electric current during said transmission to disconnect said telephone line from said reproducing means, and means operable immediately by restoration of said current to re-set said reproducing means to said normal stop position irrespective of the portion of said transmission wherein said interruption has occurred.

2,777,899
TELEPHONOGRAPH WITH DEVICE FOR REPETITION OF ANNOUNCEMENTS
Max G. Handschin, Kusnacht, near Zurich, Switzerland, assignor to Promundo, Schaan, Liechtenstein, a firm
Application December 31, 1951, Serial No. 264,319
4 Claims. (Cl. 179—6)



1. In a telephonograph including a message recording device and a replying device, a repetition device for the arbitrary initiation of a repetition by the replying device comprising in combination, electronic valve controlled switching means connected to control initiation of said repetition device, time-delay means for delaying actuating of said switching means a predetermined time interval, and sound-actuated switching means for controlling the operation of said valve-controlled switching means through said time delay means in response to an incoming speech signal of a duration exceeding said predetermined time interval, whereby only an incoming speech signal of minimum predetermined duration is required to initiate a repetition by the reply device.

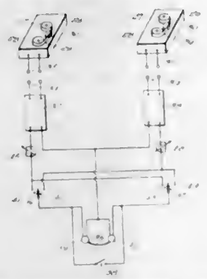
2,777,900
REDUCTION OF QUADRATURE DISTORTION
Frank Augustus Cowan, New York, N. Y., assignor to American Telephone and Telegraph Company, a corporation of New York
Application December 30, 1952, Serial No. 328,785
5 Claims. (Cl. 179—15.5)

1. In a vestigial sideband system, a main transmitter for producing vestigial sideband signals in response to a

modulating wave, a main receiver including an envelope detector for recovering said wave from said signals, and a circuit interconnecting said main transmitter and receiver and including a transmission path and a distortion reduction system connected in tandem, said distortion

reduction system comprising an auxiliary receiver having transmission characteristics similar to those of said main receiver, a phase inverter connected to the output of said auxiliary receiver, and an auxiliary transmitter connected to the output of said phase inverter and having characteristics similar to those of said main transmitter.

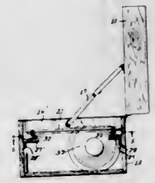
2,777,901
BINAURAL APPARATUS FOR TEACHING LANGUAGES
Leon E. Dostert, Washington, D. C.
Application November 7, 1951, Serial No. 255,211
5 Claims. (Cl. 179—100.2)



1. A bilingual system employing a pair of magnetic record reproducers one of which is constituted by a known language record and the other of which is constituted by a correlated unknown language record, a telephone headset including a pair of reproducing telephone receivers, a separate circuit leading to each telephone receiver, one side of each of said circuits being connected in common with said pair of magnetic record reproducers, a selector switch individual to the other side of each of said circuits, a pair of contacts for each of said switches over which the individual switches are movable, one contact of each of said pair of contacts being connected together and to one side of one of said magnetic record reproducers and the other contact of each of said pair of contacts being connected together and to one side of the other of said magnetic record reproducers, and a selector switch bridging the circuit between the aforesaid selector switches whereby the known and unknown languages may be selectively reproduced separately in said separate telephone receivers or reproduced simultaneously in both of said telephone receivers for comparing the phonetic characteristics of the known and unknown languages.

2,777,902
PHONOGRAPH CABINET
Peter C. Goldmark, New Canaan, Conn., assignor to Columbia Broadcasting System, Inc., New York, N. Y., a corporation of New York
Application August 19, 1952, Serial No. 305,246
6 Claims. (Cl. 179—100.4)

1. A phonograph comprising a lower box section having a bottom and side walls, an upper cover section hinged to said box section and forming a tight fit therewith in the closed position, the cover section being in its closed position during normal phonograph operation, a record turntable and an associated electromechanical pickup mounted on a supporting base plate, supporting brackets extending around a portion only of the inner perihery of said side walls, said base plate being mounted substantially horizontally on said brackets, an electroacoustic loudspeaker mounted in said box section with at least the major portion thereof below the plane of said base plate, and an open space between said base plate and



the adjacent side walls around substantially the entire periphery thereof whereby the volumes both above and below said base plate form a closed acoustic chamber for said loudspeaker, said box and cover sections being unitary and substantially imperforate to the exterior except for an opening registered with the front of a loudspeaker.

2,777,903
PORTABLE SELF-CONTAINED ELECTRONIC STETHOSCOPE
Oliver E. Turner, Pittsburgh, Pa.
Application December 7, 1955, Serial No. 551,681
18 Claims. (Cl. 179—107)

1. A portable self contained electronic stethoscope comprising a generally rectangular container having front and back portions detachably fitted together along a median plane, a front wall on said front portion and a rear wall on said back portion, a grille in the lower part of said front wall, a loudspeaker disposed rearwardly of said grille, an outwardly opening hollow cone fixed in the upper portion of said rear wall and projecting rearwardly thereof, a diaphragm closing the outer end of said cone, a microphone disposed substantially at the apex of said cone, an amplifier disposed in said container and connected to said microphone and loudspeaker, volume and tone controls for said amplifier and batteries disposed in said container and connected to said amplifier whereby upon placing said diaphragm in contact with the body of a patient, said diaphragm will vibrate and transmit sound waves to said microphone for amplification by said amplifier and propagation by said loudspeaker.

2,777,904
CONSTANT OUTPUT AMPLIFIER
Samuel C. Milbourne, Fair Lawn, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application April 11, 1952, Serial No. 281,738
3 Claims. (Cl. 179—171)

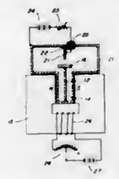
1. In an amplifier having an output and having an input adapted to receive an A. C. input signal of varying amplitude, means for deriving a first A. C. signal from said input signal including a current-sensitive first resistance element having a negative temperature coefficient of

resistance and electrically coupled in circuit between the source of input signals and said amplifier input to vary the amplitude of said first signal as a direct function of said input signal, means including a negative feedback circuit coupled to said amplifier output for developing a second A. C. signal of the same frequency as said first signal but substantially 180° out of phase therewith, said feedback circuit including a second resistance element having a negative temperature coefficient of resistance, means for additionally modifying the amplitude of said first signal as a function of said input signal and for modifying the amplitude of said second signal as a function of said input signal so that the amplitudes of said modified first and second signals vary directly by substantially equal amounts in response to variation in the amplitude of said input signal, said modifying means including heater means for indirectly heating the resistance of said first and second elements as a function of said input signal, means for algebraically adding said modified first and second signals to produce a resultant A. C. signal having a substantially constant magnitude corresponding to the difference in the amplitudes of said modified first and second signals, and means for amplifying said resultant signal to develop an amplified resultant signal at said amplifier output.

2,777,905
LOW DISTORTION AMPLIFIER
Dunford A. Kelly, Los Angeles, Calif.
Application August 28, 1952, Serial No. 306,915
4 Claims. (Cl. 179—171)

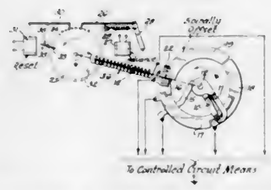
1. In an amplifier, the combination of: a power amplifying stage comprising two amplifying devices operating in push-pull, a low frequency output transformer, a high frequency feedback transformer, the outputs of said amplifying devices being connected together through the primary windings of said high frequency and low frequency transformers, respectively, in series, negative feedback driver amplifier means for said power amplifying means, an input amplifier stage connected to said driver amplifier means, a degenerative feedback loop connected from the secondary winding of said low frequency transformer to said input stage and including in series the secondary winding of said high frequency transformer, whereby said degenerative feedback is effective over both low and high frequency ranges.

2,777,906
ASYMMETRIC WAVE GUIDE STRUCTURE
William Shockley, Madison, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application June 26, 1953, Serial No. 364,291
12 Claims. (Cl. 179—171)



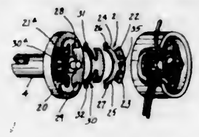
6. In combination, a hollow conductive wave guide having a passageway therethrough, and a septum of a Hall effect material within said passageway and having one edge contacting a wall of said passageway.

2,777,907
ROTARY SWITCH WITH SPIRAL OVERTRAVEL
Donald E. Hooker, Skokie, Ill., assignor to Raymond T. Moloney, Chicago, Ill.
Application January 2, 1953, Serial No. 329,244
3 Claims. (Cl. 200—11)



1. In a rotary switch, rotatable contact means including a first radial contact arm of predetermined radial length; a second radial contact arm angularly displaced from said first arm and of greater radial length than the latter and having a returned end portion projecting angularly back to a position of radial alignment substantially opposite the end of said first contact arm; and arcuate stationary contact means positioned to be traversed by said rotatable contact means and including at least two electrically separated arcuate portions concentric to the rotative axis of said rotatable contact means and each lying at a radial distance therefrom to be contacted by one of said radially-aligned end portions of the rotatable contact arms, whereby said aligned end portions occupy a predetermined angular area and substantial radial portions of said contact arms are angularly offset and do not overlie each other.

2,777,908
ELECTRIC SWITCHES
William C. Crimmins, Marion, Ind., assignor to Appliance Manufacturing Co. Inc., Van Buren, Ind., a corporation
Application October 14, 1955, Serial No. 540,503
4 Claims. (Cl. 200—11)

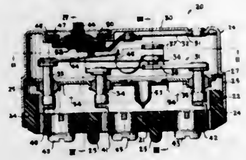


1. A switch comprising a pair of stationary contacts, and a movable wiper for bridging the pair, said wiper comprising a substantially flat sheet-like metal piece with two spaced wiping surfaces at one edge on one side of the piece and a single point support midway between said wiping surfaces on the other side of said piece so that said piece will rock on said point support and permit said surfaces to level on said stationary contacts, and means to impart wiping and rocking motion to said piece across said stationary contacts, said means consisting of an elongated hinge along the opposite edge of said piece, spaced from and substantially parallel to a line through said wiping surfaces.

2,777,909
PRE-POSITIONED CONTACT SET
Solomon Weil, Jersey City, N. J., assignor to Kem Manufacturing Company, Inc., a corporation of New Jersey
Application February 3, 1955, Serial No. 485,910
2 Claims. (Cl. 200—31)

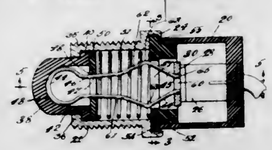
1. A contact set for installation onto the breaker plate of an ignition system having a conventional cylindrical pivot post extending therefrom, said contact set comprising a contact arm provided with a spring, contact button, rubbing block and an insulated pivot bushing fixed to said arm having a lateral surface and an inner exposed surface for mounting directly on the pivot post for rotation thereon, and a bracket having a contact button, an insulated terminal and an aperture through which the pivot post may extend, said bracket provided with an integrally formed projecting retainer positioned about said aperture and engaging the outer lateral surface of the contact arm insulating bushing for locating the bushing directly over said aperture, whereby when said contact set is positioned over the breaker plate, the pivot post will enter the aperture of the bracket and automatically center itself in the pivot bushing with the contact button in exact position for use.

2,777,910
HERMETICALLY SEALED SWITCH
Richard H. Jordan, Mansfield, and Theodore Y. Korsgren, Columbus, Ohio, assignors to Acro Manufacturing Company, Columbus, Ohio
Application June 29, 1953, Serial No. 364,593
6 Claims. (Cl. 200—67)



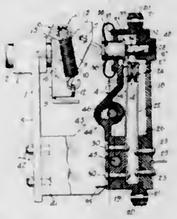
1. In a hermetically sealed switch, a closed casing having an opening formed therein; a snap switch disposed in said casing, said switch having a movable operating member; a ferrule secured in the opening in said casing; a flexible rubber diaphragm clamped in place in said ferrule; a push button supported in place in registration with the central portion of said diaphragm; and means for guiding and retaining said push button, said means being secured in place by said ferrule.

2,777,911
HILL-AND-VALLEY SWITCH
Charles L. Cox, Jr., Los Angeles, Calif., assignor to Hetherington, Inc., Sharon Hill, Pa., a corporation of Delaware
Application November 24, 1954, Serial No. 470,844
6 Claims. (Cl. 200—77)



1. In an electric switch including a housing, spaced contacts having contact portions in a common shorting plane in the housing, a shorting bar in the housing having an interior opening and movable from a position remote from the contacts to a position in the shorting plane against the contacts, push button means reciprocable in the housing and retracting spring means for the push button means, the invention which comprises a generally U-shaped hill-and-valley spring having opposed arms, secured at one end to the push button, extending at the other end through the opening in the shorting bar, and having opposed cooperating hump portions which are adapted to pass through the opening in the shorting bar and deflect the shorting bar toward and away from the shorting plane, and an insulating guide secured to the housing, having a slot through which the hill-and-valley spring passes between the push button and the shorting bar and restraining the hill-and-valley spring against turning.

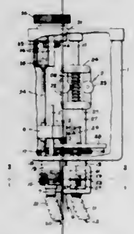
2,777,912
ADJUSTABLE CENTRIFUGAL SWITCH ASSEMBLY
William A. Haines, Jr., Troy, Ohio, assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application May 21, 1954, Serial No. 431,529
7 Claims. (Cl. 200—80)



1. The combination of a switch member and centrifugal actuator with said actuator being mounted on a rotatable shaft and having a switch actuating member responsive to a predetermined speed of rotation of the shaft, said switch member comprising a housing, a pair of resilient switch contacts secured within said housing, switch means extending between one of said contacts and the switch actuating member and adapted to engage and disengage the contacts upon actuation by the switch actuating member, stop means in the housing in the path of the switch means to limit the movement of the switch means by the switch actuating member when the switch means is initially assembled with said switch actuating member, a frame disposed adjacent the rotatable shaft, adjustable securement means securing the switch housing to said frame so that when the switch member is initially assembled with the centrifugal actuator prior to a clamping of the securement means and the shaft is in non-rotating position the switch actuating member is disposed in engagement with the switch and the switch means is manually held in engagement with the stop

and the contacts are in engagement with each other whereby the switch member is accurately located relative to the centrifugal actuator, and a relief space being formed between said switch means and the stop means upon release of the switch means after a clamping of the securement means to thereby eliminate undue pressure on the actuator that might result in its operation at an unintended lower speed.

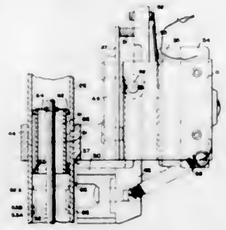
2,777,913
SPEED CONTROLLING DEVICE FOR AUTOMOBILES
Leslie Kovach, Fitchburg, Mass.
Application September 28, 1954, Serial No. 458,737
2 Claims. (Cl. 200—80)



1. A speed regulating device for automobiles having an ignition circuit and a speedometer, said device including a casing, a pair of normally closed contacts located within the casing and connected in the ignition circuit of the automobile, contact setting means to move the contacts bodily to set them for any selected speed limit between zero miles per hour and a predetermined maximum speed, driving connections for the speedometer, a rotary governor device located in the casing, means operatively connecting said governor device to said driving connections whereby said governor device is rotated concurrently with the operation of the speedometer, said governor device having means operative to open the contacts when it is idle and said contacts are set for zero speed and also to open said contacts when they are set for a predetermined selected speed and the automobile is operating at a speed greater than said predetermined selected speed, said contact setting means including a manually operable setting knob mounted on the casing and having a portion located outside the casing by which said knob can be turned and also having a portion extending into the interior of the casing and provided with teeth, a slidable locking latch located within the casing and having at one end teeth for engagement with the teeth of the setting knob, said locking latch being movable between an inoperative position in which its teeth are out of engagement with the teeth of the setting knob and an operative position in which its teeth are in locking engagement with those of the setting knob, and key operated means to move the locking latch from one position to another.

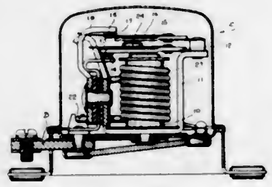
2,777,914
MAGNETIC SWITCH
John Rowland Brown, Cleveland, Ohio, assignor to The Reliance Gauge Column Company, a corporation of Ohio
Application October 8, 1953, Serial No. 384,895
13 Claims. (Cl. 200—84)

1. A magnetic switch assembly for use with a liquid reservoir having a variable liquid level, comprising, a guide housing on said reservoir, an armature inside said housing, means to move said armature in accordance with said liquid level, a switch assembly cooperating with said armature, said switch assembly including a magnet having a pole piece and movable between first and second limit positions to actuate said switch between first and second positions, said armature being magnetic and having an elongated spool shaped body with first and second end portions projecting outwardly beyond said body, means to urge said magnet away from said housing into said first limit position, positioning of said armature in the housing substantially adjacent said magnet establishing a



magnetic attraction such that the magnetic force overcomes said urging means to move said magnet to said second limit position, said limit positions being so regulated that a first gap between said magnet pole piece in said second limit position and said armature body is at least as large and generally of the same magnitude as a second gap between said magnet pole piece in said first limit position and one of said armature projecting end portions.

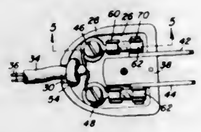
2,777,915
REGULATOR
Russell B. Hussey, East Longmeadow, Mass., assignor to American Bosch Arma Corporation, a corporation of New York
Application May 18, 1953, Serial No. 355,481
3 Claims. (Cl. 200—103)



1. In a device of the character described, a core, coil means for energizing said core, a switch and armature means spaced opposite one end of said core, a second armature means for controlling a current limiting switch, said second armature means being spaced opposite said same one end of said core and beyond said first armature means, said core, said first armature means and second armature completing a series magnetic flux path with intervening air gaps therebetween, said first and second armatures being selectively operated in accordance with variable energization of said coil means.

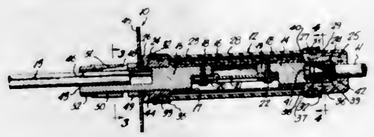
2,777,916
APPLIANCE PROTECTOR
Harold G. Cooper, Defiance, Ohio
Application April 18, 1955, Serial No. 501,852
1 Claim. (Cl. 200—115.5)

A fused electrical plug for the protection of appliances comprising a casing having an upper body member, a lower body member, and fastening means detachably securing the body members in overlying position, the facing surfaces of said members being hollow and having peripheral walls in abutting engagement, said facing surfaces of the body members having enlarged central areas disposed in abutting engagement thereby forming a generally U-shaped hollow interior, a pair of contact prongs extending through said walls in parallel relation with the prongs being disposed against the walls of the central areas, the inner end of each prong having a laterally offset portion on the upper edge thereof, an inverted U-shaped clip mounted on the offset portion of each prong, said clips opening downwardly and being disposed alongside the adjacent prong, the peripheral walls having facing notches therein remote from the prongs for receiving a pair of electrical conductors with the electrical conductors being secured together in the bight portion of the hollow interior of the casing for providing a strain relief, a pair of terminal plates mounted in the upper end of the hollow



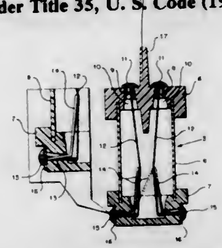
interior of the casing, said electrical conductors being connected electrically to said terminal plates, an offset portion on each terminal plate, and a U-shaped clip mounted on each offset portion of the terminal plates, each of said clips having a bight portion overlying the offset portion with the legs thereof extending downwardly in alignment with the clips mounted on said prongs, and a cartridge type fuse interconnecting each pair of aligned clips with the legs of the clips having concave facing surface for surface engagement with the cartridge fuse, the outer surfaces of the body members being flat with one surface having recesses for receiving indicia designating the size of the fuse.

2,777,917
SAFETY APPLIANCES FOR MINE LOCOMOTIVES
Edward C. Whitfield, Kitts, Ky., assignor of one-third to Jean Cameron Whitfield and one-third to Augustus C. Whitfield, Kitts, Ky.
Application June 22, 1954, Serial No. 438,495
10 Claims. (Cl. 200—115.5)



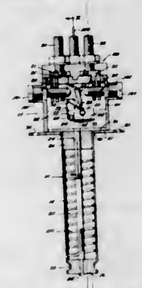
1. A safety device adapted to be disposed in series circuit relation with a trailing cable for mine locomotives and the like comprising an outer elongated cylindrical casing sleeve, an electrically conductive terminal member coaxially disposed within said casing sleeve, said terminal member having anchoring means in one end thereof comprising an axially disposed socket opening toward the adjacent end of said terminal member, said socket having a constricted threaded entrance, a threaded plug adapted to be received in said constricted entrance and having an aperture therein for receiving the conductive components of a trailing cable therethrough, a conical divider insert disposed in said socket with its apex facing the entrance thereof for spreading the ends of the trailing cable conductive components forced against the same radially of the axis of said conductive components to occupy a diameter greater than that of said constricted entrance for clamping said trailing cable within said socket, and means associated with the opposite end of said terminal member for conductively coupling the same with an overhead trolley wire to supply current therethrough to said trailing cable conductive components.

2,777,918
POLYPHASE ELECTRIC CIRCUIT PROTECTIVE DEVICE
Charles Sears, Trenton, N. J.
Application April 18, 1955, Serial No. 502,255
4 Claims. (Cl. 200—118)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A polyphase electric circuit protective device having line and load connections, a first filament destructable at an overload condition connecting a first line connection with a first load connection, a second filament destructable at an over-load condition connecting a second line connection with a second load connection, means responsive to the destruction of said first filament for electrically and physically connecting within said device said first load connection to said second filament for also destroying said second filament, and means responsive to the destruction of said second filament for electrically and physically connecting within said device said second load connection to said first filament for also destroying said first filament thereby insuring complete isolation of a load from the power source.

2,777,919
THERMOSTATIC SWITCH
Wayne E. Harness, North Hollywood, Calif., assignor, by mesne assignments, to Walter Kidde & Company, Inc., Belleville, N. J., a corporation of New York
Application January 11, 1954, Serial No. 403,165
12 Claims. (Cl. 200—137)

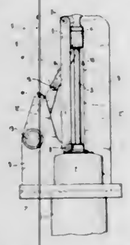


1. In a thermostatic switch: an elongated tubular temperature responsive member having its outer end provided with means for attachment to a support and its inner end adapted to extend into a fluid whose temperature is to be measured; an axially extending rigid rod disposed within said member having an inner end fixed to said inner end of the member and its outer end projecting outwardly of the member and being longitudinally movable relative thereto, the member and the rod having different temperature expansion coefficients; means for heating said member, said heating means being in heat transfer relation with virtually the entire length of the member; and means controlled by longitudinal movement of the outer end of said rod for energizing said heating means when the outer end of the rod is in one predetermined position and for de-energizing said heating means when the outer end of the rod is in another predetermined position.

2,777,920
ELECTRIC SWITCHING DEVICES FOR HIGH TENSION

Hendrik A. Hidde Nijland, Laren, Netherlands, assignor to N. V. "Coq," Utrecht, Netherlands

Application July 8, 1954, Serial No. 442,075
Claims priority, application Netherlands July 14, 1953
3 Claims. (Cl. 200—163)

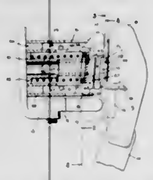


1. An electric switching device for high tension comprising, in combination, for each phase of the device fixed switching contacts, a rod-shaped movable switching contact cooperating with said fixed contacts and adapted to be removed from and inserted into the switching device, while the fixed switching contacts are alive, means for keeping the fixed switching contacts spaced apart and guiding the movable switching contact, said distance and guiding means and said cooperating switching contacts constituting a complete switching unit, a stationary supporting structure, said switching unit being detachably mounted in said supporting structure, a driving mechanism for driving said switching rod in axial direction and being directly supported by said stationary structure independently of said switching unit, a movable member adapted to be moved by the driving mechanism parallelly to the switching rod which is detachably connected to said movable member, a guiding arrangement for said movable member, said arrangement being directly mounted on said supporting structure, at least a part of said guiding arrangement being movably mounted, a driving member forming part of the driving mechanism proper and coupling means interconnecting said movable member and said driving member, said coupling means, while maintaining the interconnection of the movable member and the driving member, permitting said movable member after disengagement of the switching rod and withdrawal of the movable part of the guiding arrangement to be moved from its ordinary path into a position, in which said member can not interfere with the removal of the switching unit from the supporting structure.

2,777,921
FACE-ON-FACE CONTACT PAIR FOR CIRCUIT BREAKERS

André Latour, Grenoble, France, assignor to Etablissements Merlin & Gerin, Grenoble, France

Application June 7, 1954, Serial No. 434,802
Claims priority, application France June 16, 1953
7 Claims. (Cl. 200—170)

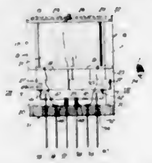


1. Contact making and breaking device with face-on-face contacts, particularly for high tension circuit breakers comprising stationary and movable contact pieces and carrier members carrying the same and with at least the face of one of said pieces shaped with a recess disposed within the plane of contact of the contact pieces, thereby subdividing the contact making and breaking surface into two current transmitting portions spaced apart from each other; both said contact pieces being further shaped each with a slot of a median plane parallel to the plane of contact between said pieces, in proximity thereto and perpendicularly of the direction of separation of the contact pieces; said slots being applied to said contact pieces so as, seen in their projection upon said plane of contact, to cover said recess, thereby to provide two parallel paths of the current, one path at each side of said recess, the one path confined between the recess and the slot of the one of said contact pieces, the other path between said recess and the slot of the other contact piece, and thus to subdivide the current flux and conduct and concentrate the same in two parallel branches circulating in the same sense in both contact pieces, and produce between both contact pieces attractive electrodynamic forces for substantially compensating the repulsive forces otherwise obtaining therebetween.

2,777,922
ELECTROMAGNETIC SWITCH

John H. Horman, Tuckahoe, N. Y., assignor to Allied Control Company, Inc., New York, N. Y., a corporation of New York

Application September 17, 1953, Serial No. 380,760
5 Claims. (Cl. 200—87)

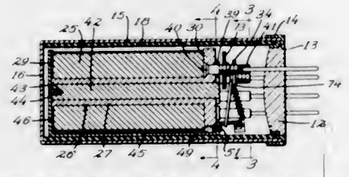


3. A miniature relay comprising, a substantially flat supporting frame and core member composed of sheet-metal and having a pair of spaced-apart parallel core elements and a pair of end tongues parallel thereto and spaced therefrom on either side thereof, an armature comprising a cross-head and a stem, said stem being positioned in the space between said core elements, means anchoring said stem against longitudinal movement while permitting free rotation thereof within the limits of movement of the armature, said cross-head being adapted to bridge the gaps between said core members and said end tongues and having its ends positioned on opposite sides of said frame, a magnet coil surrounding said core elements, said tongues extending beyond the ends of said core elements, and a header assembly supported on the ends of said tongues and carrying switching means adapted to be actuated by movement of said armature.

2,777,923
RELAYS

Ralph H. Munson and Barton Thomas Setchell, St. Paul, Minn.

Application August 8, 1952, Serial No. 303,312
7 Claims. (Cl. 200—87)

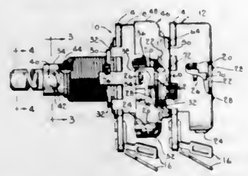


1. A relay including a relay coil spool, a spool head forming one end of said spool, a series of angularly spaced conducting members on said spool head, a relay coil encircling said spool, a relay armature, means hingedly supporting said armature for movement toward or away from said spool head, said conducting members being on opposite sides of said armature and within the confines of said spool head, said armature extending between said conducting members and movable through a distance less than the length of said conducting members, contacts on certain of said conducting members spaced in a direction axially thereof selectively engageable with said armature to define said movable distance of the armature, and a relay base including angularly spaced prong pins extending therethrough, said prong pins being aligned with and connected to said conducting members.

2,777,924
REPLACEMENT TYPE DUAL VARIABLE RESISTOR

Karl W. Youngbeck, Milwaukee, Wis., assignor to Globe-Union Inc., Milwaukee, Wis., a corporation of Delaware

Application December 24, 1953, Serial No. 400,285
1 Claim. (Cl. 201—55)

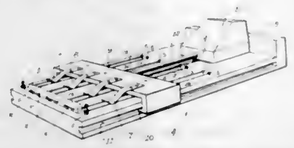


A multiple unit control of the replacement type, comprising a first unit having a mounting face for engagement with a panel and a sleeve shaft rotatably mounted therein and extending outwardly of said mounting face, and a second unit adapted to be snap-fitted onto said first unit and having a small shaft extending through said sleeve shaft and projecting outwardly thereof, the outwardly projecting portion of said sleeve shaft having a pair of opposed flats with spaced grooves cut in from the faces of said flats and extending longitudinally thereof, the grooves in one flat being alined with the grooves in the other flat so that said sleeve shaft may be conveniently cut to provide a slotted end.

2,777,925
MECHANO-ELECTRICAL TRANSDUCER

James M. Stolz, Los Angeles, Calif.

Application June 10, 1954, Serial No. 435,793
12 Claims. (Cl. 201—62)

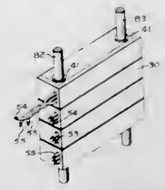


1. A mechano-electrical transducer, comprising: a plurality of sets of electrical conductors including at least a first set and a last set, each set including a first electrical conductor having electrical resistance which is a function of the length thereof from a first point thereon to a second point thereon, and a second electrical conductor having electrical resistance which is a function of the length thereof from a first point thereon to a second point thereon; means electrically connecting the first point of the second electrical conductor of the first set to the first point of the first electrical conductor of the last set; electrical contact means cooperably arranged for electrical contact with said first and second electrical conductors of each set whereby to independently electrically connect said first and second electrical conductors of each set, said electrical contact means comprising a unit relatively movably mounted for simultaneous movement as a unit with respect to each set of electrical conductors whereby said electrical contact means may be relatively moved in electrical contact with and independently communicating said first and second electrical conductors of each set between said first points thereon and said second points thereon whereby to effectively vary the electrical resistance from said first point on said first electrical conductor of said first set to said first point on said second electrical conductor of said last set as a function of the position of the unitary electrical contact means with respect to said plurality of sets of electrical conductors.

2,777,926
VARIABLE RESISTOR

Marlan E. Bourns, Riverside, Calif.

Application January 12, 1953, Serial No. 330,642
22 Claims. (Cl. 201—62)

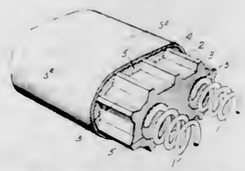


1. A variable resistor comprising: a housing member having two opposite substantially flat side portions; a resistance element and a conductor mounted in said housing member; a slider mounted in said housing; screw means engaging said slider and adapted upon turning to cause longitudinal travel of said slider; means restraining said slider against rotation; spring contact members on said slider engaging said resistance element and said conductor, means for making external connections to said resistor and said conductor, including an opening parallel to said two flat side portions through one end of said housing member, and an opening substantially perpendicular to said flat side portions to permit close and rapid assembly with other variable resistors.

2,777,927
MULTIPLE ELECTRIC HEATER ASSEMBLY

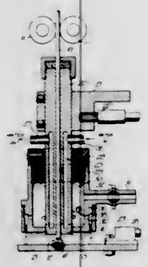
Irving G. Glenn, New York, N. Y.

Application September 30, 1955, Serial No. 537,868
6 Claims. (Cl. 201—67)



1. A flexible electric heating unit assembly, comprising a multitubular insulator preformed of frangible material, a plurality of electric heating elements snugly fitting the tubular portions of the insulator with their terminals projecting beyond the same, a metal sheath closely enclosing the aforesaid assembly, but leaving the terminals exposed, and a filling of granular insulating material in the unoccupied space within the sheath, the ends of the sheath being sealed preparatory to a pressure processing step that crushes and compacts the insulating material in and about the heating elements, the unit when completed being flexible and permitting cold bending on any radius without displacing the heating elements.

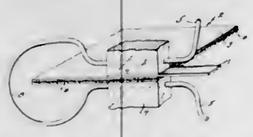
2,777,928
ARC WELDING METHOD AND MEANS
Arthur A. Bernard, Chicago, Ill., assignor to National Cylinder Gas Company, Chicago, Ill., a corporation of Delaware
Application October 16, 1950, Serial No. 190,397
13 Claims. (Cl. 219—8)



1. In an apparatus for arc welding a base metal, a metal electrode to form an arc for transferring metal from the electrode to the base metal, and means including an annular nozzle to form an annular continuous curtain of shielding gas surrounding the arc, said curtain of gas being the only means for enclosing said arc and arc generated gas, said curtain of gas being directed against the base metal at such an angle that no component of said curtain of gas is directed toward said arc to enclose the arc and the arc-generated gas and to exclude atmospheric air from access to the arc while being itself substantially excluded from the arc and from deleterious intermingling with arc-generated gases.

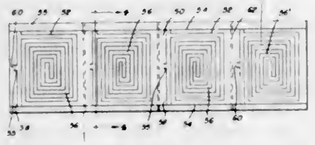
9. A method of arc welding which comprises: feeding a fusible metal electrode toward a base metal through a metallic nozzle and gas confining and distributing means to maintain an arc between said electrode and base metal accompanied by an arc-generated gaseous envelop thereabout, continuously discharging a shielding gas from the arc end of said nozzle and gas confining and distributing means to maintain an unbroken envelop of shielding gas around the region of said arc-generated gas of such character that it excludes atmospheric air from contact with the arc and is itself substantially excluded from contact with the arc by said arc-generated gas, and circulating a coolant through said metallic gas confining and distributing means to extract heat therefrom.

2,777,929
METHOD AND APPARATUS FOR WELDING METAL ELEMENTS
Joseph B. Brennan, Cleveland, Ohio
Application July 21, 1952, Serial No. 300,018
5 Claims. (Cl. 219—10)



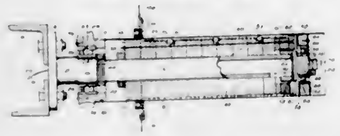
1. An apparatus for welding together metal elements comprising a pair of pressing elements of refractory dielectric material mounted for pressing together said metal elements at least over a portion of their area, and a high frequency electric current conductor associated with each dielectric pressing element for inducing a heating current in said metal elements to heat to welding temperature an area of the metal elements while subjected to pressure of the dielectric pressing elements.

2,777,930
HEATING UNIT
Max Nathanson, Montreal, Quebec, Canada
Application April 28, 1954, Serial No. 426,169
2 Claims. (Cl. 219—19)



1. An electrical heating panel comprising a base sheet of non-conducting material, a resistance circuit printed on a first side of said non-conducting material, a cover sheet of non-conducting material disposed on the printed side of said base sheet, an aluminum foil sheet disposed on the second side of said base sheet, said base sheet, said cover sheet and said foil being bonded together into a panel structure, and said printed circuit comprising a plurality of bus lines extending substantially the full length of said panel, and a plurality of heating sections disposed between said bus lines, the said heating sections being spaced apart so that the panel may be bisected by cutting it along a line extending between adjacent heating sections to reduce the wattage output of the panel by removing one or more heating sections therefrom.

2,777,931
THREAD-ADVANCING DRYING UNIT
Howard Bundegaard, Rowayton, and Witold Roman Kocay, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
Application February 5, 1954, Serial No. 408,458
1 Claim. (Cl. 219—19)

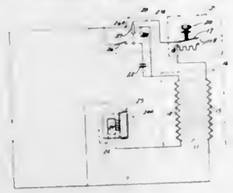


A thread-advancing drying unit comprising a pair of spaced, converging, cantilevered, rotatable, hollow rolls whereby in operation a wet thread or the like advances from the feed-on end to the take-off end of said rolls; means for rotating each of the rolls of the said pair at the same peripheral speed; a hollow, stationary, cantilevered shaft extending lengthwise within each of said rolls, said shaft being adapted to receive lead-in and return wires; and a removable, hollow, electrical heating unit snugly fitted and held in position upon the said shaft within each of said rolls, said heating unit including (*a*) a hollow insulating cartridge, (*b*) a plurality of separate windings of an electrical resistance element, said plurality of separate windings extending along the outer periphery of said cartridge and being closely adjacent to the portion of the roll which is to be heated, (*c*) a thermostat connected to each of said separate windings for individually controlling the temperature thereof, and (*d*) means for connecting the ends of each of the said separate windings to the said lead-in and return wires.

2,777,932
TEMPERATURE RESPONSIVE CONTROL CIRCUIT
Leslie A. Barr and Wesley D. Henry, Logansport, Ind., assignors to Essex Wire Corporation
Application September 20, 1954, Serial No. 457,247
4 Claims. (Cl. 219—20)

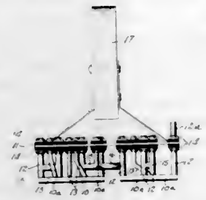
1. In a control system for electrically heated fabrics having a heater conductor and a feeler conductor separated

by a thermally sensitive material which at one temperature substantially insulates said conductors and at a second higher temperature provides a conductive path between said conductors: an alternating voltage power source; a nonlinear circuit having only a stable high current resonant state and a stable low current reactive state, said nonlinear circuit including in a series connection a capacitor, said feeler conductor, and a saturable inductor having inductance values variable in accordance with the current in said inductor; a circuit for connecting said nonlinear circuit to said power source; a switch connected in series with said heater conductor; means responsive to the current state of said nonlinear circuit for operating said switch; a circuit connecting said heater conductor and



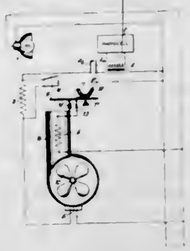
switch to said power source; said nonlinear circuit being in said high current state when said feeler conductor is initially insulated from said heater conductor whereby said switch is operated to energize said heater conductor; said nonlinear circuit abruptly changing to the low current state when said thermally sensitive material conducts between said feeler conductor and said heater conductor to load said nonlinear resonant circuit whereby said switch is released to deenergize said heater conductor; and thermally operate means for limiting the number of repeated changes between said high current and low current states in said nonlinear circuit as the conductive state of the thermally sensitive material changes with temperature reversals.

2,777,933
BRANDING IMPLEMENTS
Mark L. Weaver, Salt Lake City, Utah, and Wright Weaver, Idaho Falls, Idaho, assignors to Weavers' Electric Brand, Salt Lake City, Utah, a corporation of Utah
Application December 15, 1953, Serial No. 398,297
7 Claims. (Cl. 219—30)



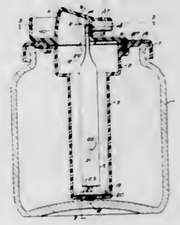
1. In an electrical branding iron for livestock, the combination of a plurality of individual branding elements in the form of respective electrical resistance bars having brand-applying faces and such extensive cross-sectional area as will make for relatively low resistance to current flow therethrough, said branding elements being arranged with their brand-applying faces lying in a common plane and in the form of a given brand; a base member; a plurality of elongate supporting legs securely mounting said branding elements on said base member in heat-dissipating spaced relationship thereto, said plurality of legs including legs of relatively good electrical conductivity united with and supporting respectively opposite ends of the respective branding elements; and electrical conductors located intermediate the lengths of said legs and electrically interconnecting said legs in series, leaving a pair of said legs as terminals for connection with a source of electricity, the said base member being electrically insulated with respect to said legs.

2,777,934
HOT AIR HEATER
Erwin E. Falkenthal, Berlin-Dahlem, Germany
Application April 6, 1954, Serial No. 421,343
Claims priority, application Germany November 14, 1953
11 Claims. (Cl. 219—39)



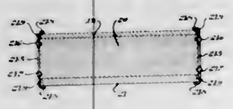
5. A hot air drying arrangement comprising, in combination, an air blower; electric operating means for driving said air blower; a photocell arrangement including a source directing light at a photocell so as to actuate the same; relay means in electric circuit with said photocell and said electric operating means and responsive to the output of said photocell for actuating said electric operating means when said light is blocked from said photocell; a heater element mounted in the path of the air stream created by said blower; and movable heater element operating means at least partly arranged in the path of the air stream created by the blower so as to be moved by the same, said heater element operating means including a mercury switch which is connected with said heater element for operating the same when moved by the air stream created by the blower.

2,777,935
ELECTRIC VAPORIZER
Joy B. Schmitt and William H. Corbett, Somerset, Pa., assignors to The De Vilbiss Company, Toledo, Ohio, a corporation of Ohio
Application December 19, 1955, Serial No. 553,904
5 Claims. (Cl. 219—40)



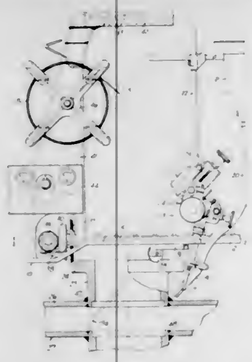
1. In an electric steam vaporizer of the type described, a receptacle for the water to be heated, a pair of vertically elongated electrodes of generally strip form extending into the receptacle and constituting a heating element, the main portion of each electrode being flat in a vertical plane and in opposed, parallel, spaced relation with the main portion of the other electrode, the upper end of each electrode being flattened in a vertical plane ninety degrees crosswise of the plane of the main portion and offset from that side of the main portion facing away from the main portion of the other electrode, and a pair of electrical terminals lying parallel in a horizontal plane with each fixed to the upper end of one of the electrodes.

2,777,936
MAKING BIMETALLIC BILLET
Laurence J. Berkeley, Danville, Ill., assignor to Superior Steel Corporation, Pittsburgh, Pa., a corporation of Virginia
Application March 11, 1954, Serial No. 415,594
2 Claims. (Cl. 219—73)



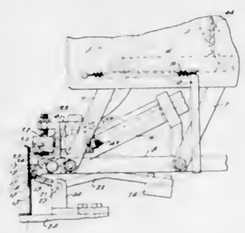
2. A method of making a bimetallic billet comprising disposing a backing component and a facing component in face-to-face relationship with the opposed faces substantially horizontal, disposing members each having a web and a flange for holding the components together with their webs in generally vertical position against the backing component at opposite sides of the backing component but with their flanges out of firm holding relationship with the facing component, advancing the assembled components and flanged members, during such advance supporting and advancing with the assembled components and flanged members two masses of flux at different elevations against the outside face of the web of each of the flanged members, during such advance progressively drawing arcs from the outside faces of the webs of the flanged members within each of the four masses of flux and thereby in regions protected from the atmosphere melting zones completely through the webs of the flanged members and into the backing component to integrate the flanged members to the backing component, delivering flux from the upper mass of flux against the outside face of the web of each flanged member for reuse in the corresponding lower mass of flux and crimping the flanges of the flanged members into firm holding relationship with the facing component.

2,777,937
WELDING APPARATUS
Austin U. Bryant, Berkeley, Calif., assignor to Grove Valve & Regulator Company, Emeryville, Calif., a corporation of California
Application November 2, 1954, Serial No. 466,325
5 Claims. (Cl. 219—125)



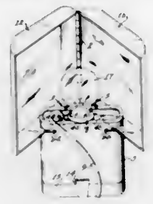
1. In welding apparatus for circular welding operations on hubs having a circular end, a frame, means including tracking wheels engaging the circular end of the hub for supporting the frame and for rotation of the frame about the axis of the hub, means for driving the tracking means at a constant rate, and a welding head carried by the frame and disposed for a circular welding operation between the hub and an adjacent work piece.

2,777,938
WELDING MACHINE
Werner G. Hess, Dearborn, Mich., assignor, by mesne assignments, to Dana Corporation, Toledo, Ohio, a corporation of Virginia
Application May 18, 1953, Serial No. 355,784
4 Claims. (Cl. 219—130)



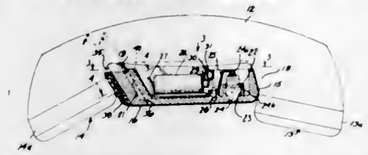
1. In a welding device, a welding rod, means for supporting the welding rod for movement into and out of engagement with the workpiece, a section of a filelike element, and means for mounting the section of the element in the path of movement of the welding rod toward the workpiece for removing the crusted flux from the end of the rod before the end engages the workpiece. piece.

2,777,939
PHOTOGRAPHIC ILLUMINATOR UNIT
Hans Späth, Landshut, Germany, assignor to Agfa Camera-Werk Aktiengesellschaft, Munich, Germany, a corporation of Germany
Application June 24, 1952, Serial No. 295,272
Claims priority, application Germany August 14, 1951
2 Claims. (Cl. 240—1.3)



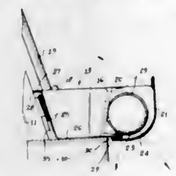
1. A photographic pocket flash unit comprising a battery casing and a reflector element, said reflector element including two vertically hinged halves of like concave configuration having bottom edges, spring means connected to each of said halves for urging said halves in a direction to form an enclosure therebetween, said battery casing being elongated in shape with ovate top and bottom portions, said casing and reflector halves being of such sizes and shapes as to allow said casing to be totally enclosed within said enclosure formed by said reflector halves, said top portion of said casing including socket means for operatively supporting a flash lamp, said casing including clamp means for mounting said unit upon a camera, said casing having elongated front and rear wall portions connected by oppositely disposed rounded end wall portions and a pair of oppositely disposed slots adjacent said top portion and extending inwardly toward the socket means from the end wall portions, said bottom edges of said reflector halves having notches adapted to engage said slots in order to mount said reflector halves at a predetermined angle behind a flash lamp supported upon said top portion of said casing, and said spring means urging said notches into engagement with said slots to securely mount said reflector upon said top portion of said casing.

2,777,940
TELEPHONE ILLUMINATOR
Irving J. Spiro, Sherman Oaks, and Leonard E. Marlow, North Hollywood, Calif., assignors to Borman Engineering, Inc., North Hollywood, Calif., a corporation of California
Application November 2, 1953, Serial No. 389,632
6 Claims. (Cl. 240—2.17)



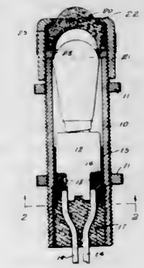
1. A light attachment for a portable telephone instrument having an elongate handle and telephone instrument heads extending laterally from opposite ends of said handle, comprising an elongate rigid casing element, illuminating means carried by said casing element, a rigid spacer element, said elements having interlocking end faces, said elements being arranged to fit end to end between said instrument heads and in engagement with the side of said handle, and resilient means on the end face of one of said elements opposite said interlocking end faces, said resilient means being engageable with one of said heads whereby to yieldably retain the end face of the other of said elements opposite said interlocking end faces against the other of said heads to maintain said elements on said instrument and parallel to the length of said handle.

2,777,941
ILLUMINATOR FOR MUSICAL INSTRUMENTS
Jack C Cookerly and George R. Hall, North Hollywood, Calif.
Application March 1, 1954, Serial No. 413,350
3 Claims. (Cl. 240—4)



1. In a light for simultaneously illuminating a sheet music rack and the key board of a musical instrument on which said rack is disposed above and rearwardly of said keyboard, an elongated light casing, comprising: a top panel having an upturned flange along portions of the front edge of the panel; a front panel having its top edge turned over to engage said top panel flange to secure said front panel thereto, the lower portion of said front panel being curved inwardly under said top panel; a rear panel and a bottom panel defining an elongated angle section, the top edge of said rear panel having a rearwardly extending flange lip, the rear edge of said top panel being turned under said flange lip, the front edge of said bottom panel having a downwardly directed flange, the rear under edge of said front panel being turned upwardly to engage said downwardly directed flange; side plates secured adjacent the opposite longitudinal end portions of said top and front panels and said angle section to close the ends of said casing; means on said rear panel for securing said casing to the base of said music rack, said top panel and said front panel having a slot means therein for passing light within said casing to said music rack and said keyboard respectively, said front panel including an internal reflector for directing reflected light through the top panel slot means, and an elongated element forming a light shade and having one longitudinal edge turned upwardly for engaging said downwardly directed flange on the bottom panel whereby said element is adapted to be positioned to block light from the slot in said front panel.

2,777,942
LIGHTING UNIT
Ray F. Lester, Syracuse, N. Y., assignor to Crouse-Hinds Company, Syracuse, N. Y., a corporation of New York
Application December 3, 1953, Serial No. 395,930
2 Claims. (Cl. 240—11.2)



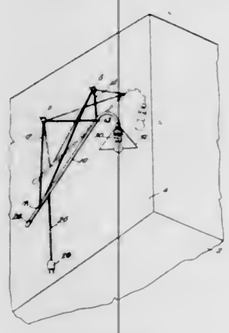
1. A lighting unit comprising a tubular body threaded externally throughout its entire length, a sleeve threaded on one end of the body and being formed with an internal bead spaced outwardly from the end of the body, an annular member threaded in the sleeve and abutting against the end of the body, a lens mounted in the sleeve and being positioned upon said annular member, said lens being formed with a cylindrical portion extending in concentrically spaced relation from the outer end portion of the sleeve, the marginal surface of the outer end portion of said lens being spaced inwardly from said bead, the annular space between said lens and sleeve being filled with a cementitious material sealing the lens in the sleeve in flame tight relation thereto, the opposite end of said body being threaded internally, a lamp receptacle mounted in the body intermediate the ends thereof and being sealed thereto in flame tight relation, with sealing compound filling the internally threaded portion of said body between said receptacle and the extremity of the body.

2,777,943
LOW VOLTAGE GUIDE LIGHT
Arthur W. Moeller, Waterloo, Iowa
Application September 9, 1955, Serial No. 533,452
2 Claims. (Cl. 240—52)

1. A lamp assembly comprising an outer casing of cylindrical formation, said casing being formed at one end with a portion threaded both internally and externally; a lamp bulb engaged in one end of the outer casing and including an electrically conductive side wall and a base terminal; an inner casing receiving the electrically conductve side wall of the lamp bulb and disposed in electrical contact with said side wall, said inner casing being spaced inwardly from the wall of the outer casing; an electrically insulative liner of cylindrical formation interposed between the outer and inner casings in the space between the same, said inner casing at one end including an elongated, electrically conductive tongue

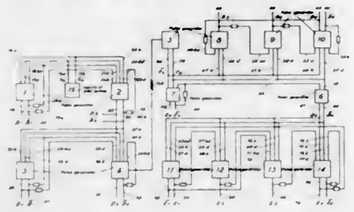
projecting beyond the other end of the outer casing; a block of electrically insulative material confined within the inner casing, said block at one end being engaged by one end of the inner casing and terminating at its other end adjacent the base terminal of the bulb; an electrically conductive rod extending axially of and within the block, said rod projecting at its opposite ends beyond opposite ends of the block with one end of the rod being engaged against the base terminal of the bulb; a tongue secured to the other end of the rod and projecting beyond said other end of the outer casing in laterally spaced relation to the first named tongue, for connection of a pair of electrical leads to the respective tongues, the lamp bulb including a circumferential collar and said inner casing being formed at one end with an outwardly directed lip, the lamp assembly including an annular, electrically insulative washer extending about the side wall of the bulb and interposed between the collar of said bulb and said lip of the inner casing, and a cover for the bulb threaded to engage the internal threads of the casing portion, said cover bearing against the collar of the bulb to shift the same axially within the outer casing, thereby to tightly bind against each other the lip, washer, and bulb.

2,777,944
WALL LAMP
James P. Koch, Boston, Mass.
Application November 23, 1953, Serial No. 393,677
2 Claims. (Cl. 240—73)



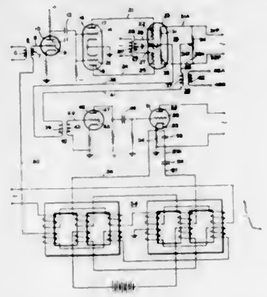
1. In an adjustable wall lamp structure for attachment to a vertically extending wall surface, a pair of fastening elements adapted to be secured to the said wall surface in spaced-apart relationship along a substantially horizontally extending line passing through the wall surface, said fastening elements presenting ring portions, a substantially rigid support consisting of a tubular body, said tubular body presenting at one end thereof openings extending through to opposite wall portions to define a cord slideway, a cord member slidably disposed through the cord slideway and threaded through the said ring portions of the fastening members, extremities of the cords extending from the said ring portions into anchored relationship with respect to an opposite end of the said tubular body and said cord member being of a length to adjustably locate the rigid support in an inclined position with respect to the vertical wall surface, an electrical lighting means supported at one end of the tubular support, said cord and rigid support being adjustable in the ring portions of the fastening elements to vary the angle of inclination at which the rigid support extends and to vary the spaced relationship of the said electrical lighting means with respect to the vertical wall surface in any desired position of inclination of the rigid support with respect to the wall surface.

2,777,945
PULSE PRODUCING SYSTEM WITH INTERRELATED REPETITION FREQUENCIES
Henri Gerard Feissel, Paris, France, assignor to Compagnie des Machines Bull, Paris, France (Societe Anonyme)
Application January 13, 1953, Serial No. 331,060
Claims priority, application France January 24, 1952
12 Claims. (Cl. 250—27)



1. Pulse producing system comprising a device fed by a pair of pilot periodic pulse trains having the same recurrence frequency, each pulse of a said train being simultaneous and of opposite polarity with a pulse of the other train of the same pair, said system generating a pair of output periodic pulse trains having the same recurrence frequency submultiple of those of the said pilot trains, each pulse of a said output train being simultaneous and of opposite polarity with a pulse of the other train of said pair, this said device comprising an amplifier with two outputs and generating said output pulse trains, a first gating circuit with two inputs and one output, a first input of which is fed by said first pilot train and the second input of which is connected to a second output of said amplifier across a delay circuit, a first buffer circuit with two inputs and one output, a first input of which is fed by said second pilot train and the second input of which is connected to the second input of said first gating circuit, a second gating circuit with two inputs and one output, a first input of which is connected to the output of the said first buffer circuit and the second input to the first output of said amplifier, a second buffer circuit with two inputs and one output, the first input of which is connected to the output of the first gating circuit and the second input to the output of said second gating circuit, the output of said second buffer circuit being connected to the input of the said amplifier.

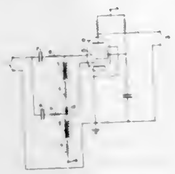
2,777,946
ELECTRONIC INTEGRATOR
John C. Owen, Palisades Park, N. J., and Alfred Bennett, Bronx, N. Y., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application April 12, 1952, Serial No. 282,054
9 Claims. (Cl. 250—27)



1. Apparatus for producing electric potential variations that are the integrated value of electric potential

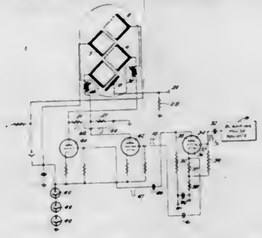
variations from a given source, comprising an amplifier having input and output circuits, means for applying the electrical potential variations to be converted to the input circuit of the amplifier, a phase responsive electron discharge device having input and output circuits, a connection between the output circuit of the amplifier and the input circuit of the phase responsive electron discharge device, a normally balanced Wheatstone bridge network having thermally responsive resistors constituting two adjacent branches, said Wheatstone bridge being energized across one pair of diagonal terminals by an alternating current potential, a means for thermally changing the resistance value of said resistors, connections from the output circuit of the phase responsive electron discharge device to the thermal changing means, a second amplifier having input and output circuits, connections from the second pair of diagonal terminals of the Wheatstone bridge to the input circuit of the second amplifier, a cathode resistor shunted by a condenser in the output circuit of the second amplifier, and a feedback circuit from the output circuit of the second amplifier to the input circuit of the first amplifier, said feedback circuit comprising a second condenser and an amplifying means serially connected to provide a feedback voltage to the input circuit of the first amplifier proportional to the rate of change of the electrical variations developed across the second pair of diagonal terminals of the Wheatstone bridge that is just sufficient to wash out the electrical potential variations to be integrated whereby a control is effected upon the said rate of change so that the electrical variations developed across the second pair of diagonal terminals of the Wheatstone bridge constitute the time integral of the electrical potential variations applied to the input circuit of the first amplifier, and output means for utilizing the electrical variations developed across the second pair of diagonal terminals of the Wheatstone bridge.

2,777,947
PULSE WIDTH DISCRIMINATOR
Conrad H. Hoeppner, Washington, D. C., and Carl Harrison Smith, Jr., Arlington, Va.
Application March 18, 1946, Serial No. 655,355
2 Claims. (Cl. 250—27)
(Granted under Title 35, U. S. Code (1952), sec. 266)



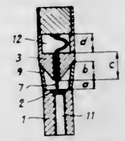
1. A pulse discriminator circuit for accepting pulse signals of desired duration and rejecting all other pulse signals comprising, first and second resonant circuits having different resonant frequencies in odd harmonic relation such that upon being shocked into naturally damped oscillation by the beginning of a pulse-type signal of desired duration, the resulting oscillations of each will be reinforced by a second oscillation initiated by the ending of said signal, limiter means for applying uniform amplitude pulses of various widths to said first and second resonant circuits in common, and coincidence means connected to an oscillatory voltage output point in each of said resonant circuits, said coincidence means being operative to produce an output signal responsive only to simultaneous attainment of a respective reinforced voltage extreme at each of said output points.

2,777,948
BLANKING CIRCUIT FOR ELECTRON MULTIPLIER
J Alvin Henderson, Fort Wayne, Ind., assignor, by mesne assignments, to Farnsworth Research Corporation, Fort Wayne, Ind., a corporation of Indiana
Application June 14, 1951, Serial No. 231,627
8 Claims. (Cl. 250—27)



1. A circuit for inserting a pulse signal into a signal energy wave comprising an electron multiplier amplifier for said signal wave, having a plurality of electrodes including a collector electrode and a plurality of secondary emissive electrodes, an output circuit coupled to said collector electrode, means for normally biassing said electrodes to successively greater positive potentials, a signal source, first means for applying a signal from said source to one of said secondary emissive electrodes in positive polarity only, and second means for simultaneously applying a signal from said source to a succeeding one of said secondary emissive electrodes in negative polarity only whereby said signal energy wave will be blocked from said output circuit for the duration of said source signal.

2,777,949
CRYSTAL DIODE FOR MICROWAVES
Hans Bertil Håård, Hagersten, Sweden, assignor to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a company of Sweden
Application March 3, 1953, Serial No. 340,101
Claims priority, application Sweden March 3, 1952
12 Claims. (Cl. 250—31)

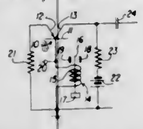


1. A crystal diode for use in connection with the mixing and detecting of microwaves of different lengths, comprising a first and a second cylindrical electrode, said first electrode including a semi-conductive member and said second electrode including a conical member fixedly mounted relative to the first electrode and having a longitudinal bore, and a metal wire having a diameter thin relative to the diameters of said cylindrical electrodes, the said wire being secured to one end of said second electrode and extending axially movable to said bore, the other end of the wire being pointed and engaging said semi-conducting member with a pressure contact.

2,777,950
OSCILLATOR
John A. Doremus, Chicago, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application March 23, 1953, Serial No. 343,963
4 Claims. (Cl. 250—36)

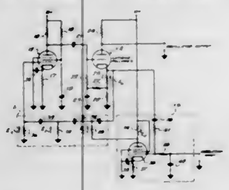
1. An oscillator circuit which operates at a predetermined frequency including in combination, a point-contact transistor of the PNP type having base, emitter, and col-

lector electrodes, an electro-mechanical device including a magnetic vibrating reed structure and a winding positioned about said reed structure, with said reed structure being of such configuration that said winding has a sharp maximum impedance peak at said predetermined frequency, means connecting said winding between said base electrode of said transistor and a reference potential, and circuit means connected to said emitter and collector



electrodes of said transistor for biasing the same, said winding providing feedback for sustaining oscillations in the circuit and providing a direct current path from said base electrode to said reference potential, said electromechanical device being the sole frequency selective means in the oscillator circuit and providing feedback for sustaining oscillations only at said predetermined frequency.

2,777,951
FREQUENCY MODULATING SYSTEMS FOR PHASE-SHIFT OSCILLATORS
John Charlton, Levittown, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application December 10, 1952, Serial No. 325,105
14 Claims. (Cl. 250—36)

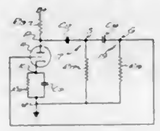


1. A variable frequency phase-shift oscillator, comprising an amplifier having input and output terminals and a regenerative feedback circuit coupled therebetween, said feedback circuit including a plurality of frequency sensitive phase-shift sections including series and shunt impedance means therein, and a frequency control circuit coupled to said feedback circuit, said frequency control circuit comprising means for receiving a first alternating voltage version from a first point in said feedback circuit, and supplying a second alternating voltage version to at least one point further along said feedback circuit from said first point, a substantial impedance portion of at least one of said shunt impedance means being connected between said further point in said feedback circuit and at least one of said series impedance means, said control circuit including means for varying the relation between said first alternating voltage version and said second alternating voltage version.

6. A phase-shift oscillator, comprising an amplifier having input and output terminals and a regenerative feedback circuit coupled therebetween, said feedback circuit including a frequency sensitive phase-shift network having input and output coupling terminals with the meshes of said phase-shift network being connected in tandem therebetween, said input and output coupling terminals of said network being connected between said output and said input terminals of said amplifier, respectively, said phase-shift network comprising a plurality of phase-shifting impedance meshes including series and shunt impedance branches with each of said meshes comprising a resistive impedance branch and a reactive impedance branch, the total phase shift produced between said input and output terminals of said network being a predetermined amount at a predetermined oscillator frequency, and frequency control means including a variable-mu discharge device having its grid coupled to the input of said phase-shift network and its plate coupled to a different point in said network for inserting a variable control voltage at oscillator frequency in series with a shunt impedance branch of at least one of said phase-shift meshes, the magnitude and phase of said voltage partially determining the total phase-shift produced through the phase-shift network and consequently said oscillator frequency, said frequency control means including output load means coupled to the anode of said discharge device and forming a part of the shunt impedance branch of said one of said phase-shift meshes, said load means having an impedance value which is a small fraction of the dynamic plate resistance of said discharge device and a small fraction of the shunt impedance branch of which it is a part.

14. A variable frequency phase shift oscillator, comprising an amplifier having input and output circuits and a regenerative feedback circuit coupled therebetween, said feedback circuit including multi-section frequency sensitive phase-shift means therein, each section comprising a series capacitor and a shunt resistor, a frequency control circuit including an electron discharge device having an input coupled to said amplifier output circuit for receiving an input voltage therefrom and providing a variable control voltage output which is a version of said input voltage, and plate load resistor means having a terminal coupled to the anode of said discharge device and to a terminal of one of said shunt resistors, said plate resistor means having a very low value of resistance compared to the dynamic plate resistance of said discharge device and comprising means for inserting said variable control voltage in series with said one of said shunt resistors.

2,777,952
PHASE-SHIFT OSCILLATOR
Benjamin F. Spencer, Malverne, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application March 4, 1954, Serial No. 414,021
11 Claims. (Cl. 250—36)

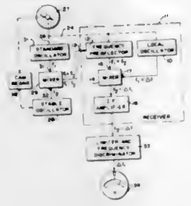


1. A phase-shift oscillator, comprising an amplifier tube including a cathode, a grid and a plate, phase-shift means in the plate circuit of said tube, said phase-shift means being connected to said plate and said grid for shifting the phase of an oscillator voltage component at said plate by a predetermined amount which is appreciably less than 180 degrees at a predetermined frequency, and reactive impedance means coupled to said cathode to provide an oscillator voltage drop of predetermined magnitude and phase angle thereacross at said frequency, said phase-shift means and said reactive impedance means comprising means for establishing substantially a 180 degree phase difference between grid-cathode and plate-cathode oscillator voltages at said frequency.

2,777,953
SYSTEM FOR CALIBRATING OSCILLATORS
Robert D. Tollefson, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application October 6, 1955, Serial No. 538,925
9 Claims. (Cl. 250—36)

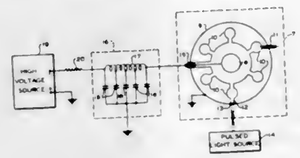
1. A system for determining the frequency error of a given oscillator comprising a standard oscillator that is

calibrated to a required degree of accuracy and is of the same type as said given oscillator, said standard oscillator and said given oscillator being tuned as nearly to the same frequency as initial lack of calibration of said given oscillator permits, a stable oscillator providing a fixed frequency output, a first mixer connected to the outputs of said stable oscillator and said standard oscillator to provide first order sum and difference mixed output frequencies, a frequency preselector having its input connected to the output of said first mixer and passing one of the first-order mixed-output frequencies, a second



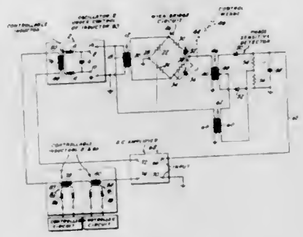
mixer having one input connected to the output of said frequency preselector and the other input connected to the output of said given oscillator, filter means connected to the output of said second mixer to pass only the heterodyned frequency which is the difference between the given oscillator frequency and the preselector output frequency, and means connected to the output of said filter means to reduce the filter means output frequency by the value of the stable oscillator frequency and to detect the remaining frequency which is the frequency error of the given oscillator.

2,777,954
MAGNETRON PULSING CONTROL CIRCUIT
Milton G. White, Princeton, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application May 7, 1946, Serial No. 667,754
2 Claims. (Cl. 250—36)



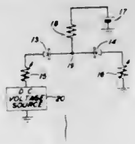
1. An arrangement for pulsing a magnetron of the type in which a constant, unidirectional magnetic field is applied axially through the cavity spaces of the anode block comprising, in combination, a photo-emissive cathode centrally disposed within said anode block with its longitudinal axes parallel to the direction of said magnetic field, a pulse-forming network, a resistor in series therewith, a source of direct current voltage connected to the series combination of said pulse-forming network and said resistor for energizing said network, said network being connected between said cathode and said anode block such that a radial electric field exists between said cathode and said anode block whenever said pulse-forming network is energized, a source of intermittent light external of said anode block, an aperture extending through said block and serving as a light transmission path for directing light radiated from said source upon cathode whereby electrons emitted therefrom in response to such illumination are returned to said cath ode under the influence of said magnetic field to produce secondary emission and providing a low impedance conductive path between said cathode and said anode block for deenergizing said network, said network being energized from said direct current voltage source during the period of time said light source is off, and means for extracting the oscillatory signal produced by the magnetron in response to its excitation by the deenergization of said network.

2,777,955
CONTROLLABLE INDUCTOR OSCILLATOR WITH BRIDGE CONTROL CIRCUIT
William D. Gabor, Norwalk, Conn., assignor to C. G. S. Laboratories, Inc., Stamford, Conn., a corporation of Connecticut
Application December 29, 1953, Serial No. 400,839
7 Claims. (Cl. 250—36)



1. Apparatus for stabilizing a tuned circuit comprising a signal generator, a resonant tuned circuit associated with the generator and including a first controllable inductor wound on a saturable ferrite core, an output circuit for the generator, a bridge circuit coupled to the generator output circuit, a phase-sensitive detector coupled to the generator output circuit and to the output of the bridge circuit, said detector including at least one non-linear circuit element, a feed-back circuit coupling the detector output to said control winding, and a second controllable inductor having a control winding connected to said feed-back circuit.

2,777,956
SQUARE WAVE GENERATOR
Ernest R. Kretzmer, New Providence, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application July 2, 1954, Serial No. 441,026
7 Claims. (Cl. 250—36)



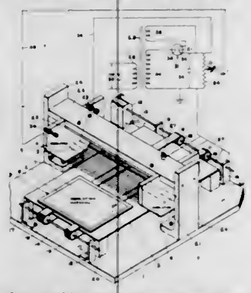
1. A wave generator including a plurality of semiconductor asymmetrically conducting devices having like terminals connected together, said devices having a reverse conduction characteristic including a region of high resistance for applied voltages below a critical value and a region of substantially constant voltage with superimposed noise voltages above said critical voltage, a constant potential source of a potential at least equal to said critical value, and means for connecting said devices in parallel with said source, said devices being connected in reverse conduction relationship with respect to said source whereby current flows through the device having the lowest instantaneous noise voltage.

2,777,957

CORONA DISCHARGE DEVICE

Lewis E. Walkup, Columbus, Ohio, assignor, by mesne assignments, to The Haloid Company, Rochester, N. Y., a corporation of New York

Application April 6, 1950, Serial No. 154,295
2 Claims. (Cl. 250—49.5)



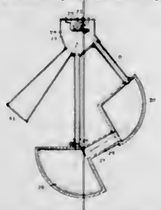
1. A device for uniformly charging the photoconductive insulating coating layer supported on a conductive backing of an electrophotographic plate, comprising a movable support for advancing said plate at constant speed in a plane parallel to its surface, an elongated corona discharge electrode comprising at least one fine conductive strand in spaced parallel relation to said plane extending across the path of travel of said plate, a conductive shield partially surrounding said corona discharge electrode and shielding said electrode on the side away from the plate, a conductive grille disposed in a plane parallel to said plate between said corona discharge electrode and said plane of plate advance, a corona-generating potential source connected to said corona discharge electrode to apply a corona-generating potential between said corona electrode and said grille and between said corona electrode and said shield to generate a corona discharge from said corona electrode, contact means for making contact with said conductive backing of said electrophotographic plate, and a lower potential source connected between said grille and said contact means to apply a charging field through the photoconductive insulating layer of the plate and to limit the potential applied to said photoconductive insulating coating by said corona discharge.

2,777,958

MAGNETIC ELECTRON LENS

Jan Bart Le Poole, Delft, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee

Application January 14, 1952, Serial No. 266,298
Claims priority, application Netherlands February 10, 1951
7 Claims. (Cl. 250—49.5)



1. In an electron microscope including an electron beam source, and viewing means disposed in the path of the electron beam for producing a visible image therefrom, a magnetic lens for deflecting and focussing said beam on said viewing means comprising a pair of opposed spaced ferromagnetic pole members defining two opposed mirror-symmetrical pole surfaces each being a surface of revolution formed by a generatrix approximating a part of a parabola the apex of which lies on the axis of revolution and shaped in the form of a sector of a circle having an angle of not less than 90° and not more than 270°, and a ferromagnetic yoke connecting said pole members and forming therewith a closed magnetic circuit including an air-gap between the pole-members.

2,777,959

CONTROL APPARATUS FOR PRODUCING PULSES

John E. Richardson, Los Angeles, Calif., assignor to The Magnavox Company, Los Angeles, Calif., a corporation of Delaware

Application October 17, 1955, Serial No. 540,702
8 Claims. (Cl. 307—88)

1. In combination, a relay, a magnetic member including a core having properties of saturation and having properties for inhibiting the production of any voltage across the magnetic member upon the saturation of the core, an output member connected across the magnetic member to receive a flow of current during the production of voltage across the magnetic member, a switch connected in a circuit with the magnetic member, means for alternately opening and closing the switch, means for alternately producing a flow of current in one direction through the magnetic member during the opening of the switch to produce flux of a particular polarity in the magnetic member, and means for alternately producing a flow of current in an opposite direction through the magnetic member during the closure of the switch to produce a flow of current through the magnetic member for the production of saturating flux of a polarity opposite to the particular polarity and to produce a voltage pulse in the output member during the production of the saturating flux.

2,777,960

MULTIPLE TRANSMITTER-ANTENNA SWITCHING SYSTEM

Walter S. Lemmon, Riverside, Conn., and Mark L. MacAdam, Brockton, Mass., assignors to Radio Industries Corporation, New York, N. Y., a corporation of New York

Application February 11, 1953, Serial No. 336,338
4 Claims. (Cl. 307—115)

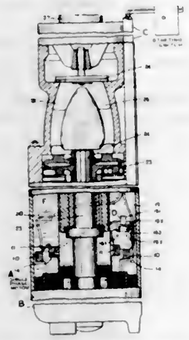
4. A multiple transmitter-antenna switching system, comprising a pair of similar ring-shaped conductors disposed in parallel spaced-apart relationship on a common axis, a pair of transmitter conductors connected respectively to said ring-shaped conductors at corresponding points on their peripheries, a plurality of pairs of circuit breaking switches of the evacuated envelope type each having a fixed contact and a movable contact, said switches being mounted about said ring-shaped conductors with the fixed contacts of each pair of switches being respectively connected to corresponding points of said ring-shaped conductors by respective connectors having lengths small enough to render negligible, at frequencies as high as 30 megacycles per second, the dead end or stub effects of any such connectors leading to open switches, the points of connection of said respective switches to said ring-shaped conductors being spaced along the peripheries of the latter from one another and from the connections to said transmitter conductors, and means for operating in synchronism the switches of each pair.

2,777,961

SUBMERSIBLE ELECTRICALLY DRIVEN PUMPS

Thomas Edward Penlington, Birmingham, England, assignor to Beresford & Son Limited, Birmingham, England, a limited liability company of Great Britain

Application July 29, 1953, Serial No. 371,027
Claims priority, application Great Britain May 26, 1953
1 Claim. (Cl. 310—86)



A submersible electrically driven pump incorporating in combination a pump section and an electric motor section which itself embodies in combination a submersible casing, a single-phase-split-phase electric motor which is contained within said casing and which has a main winding, a starting winding and an auxiliary winding which is always in inductive relationship at least with the main winding, a liquid tight chamber which is sealed from the space occupied by the rotor of the electric motor which is filled with a liquid coolant, a gravity operated electrical contact making and breaking contrivance for controlling the electric circuit through the starting winding of the electric motor, said contrivance being normally closed and being contained within said liquid chamber and immersed in the liquid coolant therein and which derives its energising electromotive force from the electromotive force generated in said auxiliary winding, said contrivance being adapted to break said circuit to said starting winding after said motor attains operating speed, a thermo actuated switch in circuit with said main winding, said switch being immersed in said liquid coolant and being adapted to break the circuit to said main winding upon overheating of said coolant, and a control means for the electric motor which is adapted to be located at the surface and provision for connecting the said control means to the main winding by way of a 2-core cable which is led into the liquid tight chamber aforesaid.

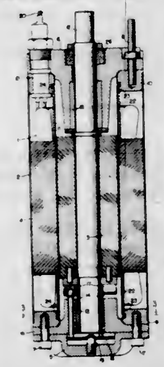
2,777,962

DYNAMOELECTRIC MACHINE CONSTRUCTION

John T. Maynard, West Allis, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York

Application April 4, 1955, Serial No. 498,924
4 Claims. (Cl. 310—86)

1. In a dynamoelectric machine, a tubular core, a winding wound on said core and extending longitudinally from the core, a shell secured to the outer surface of the core and extending axially beyond each end of the core, end plates secured to the outer shell axially removed from the opposite ends of the core to form a chamber in conjunction with the core with the longitudinally extending winding disposed therein, a liner located inside the annular core and extending beyond the end of the core and over the inner surface of said



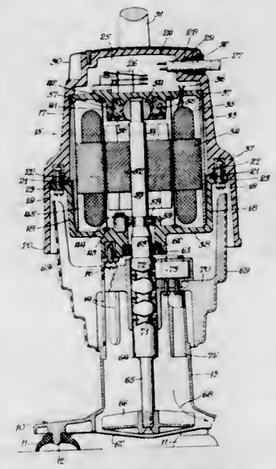
end plates to close the inside of said chamber, a circumferential groove provided in each end plate facing the liner and a pliable sealing material disposed in each of said grooves between the liner and the end plates, the said liner being expanded to compress the sealing material and form a fluid-tight joint therebetween with said joint sealing off the winding and securing the liner securely in place.

2,777,963

SEALED WASHING MACHINE MOTOR

William H. Kuntz, Grand Rapids, Mich., assignor to Ami Incorporated, Grand Rapids, Mich., a corporation of Delaware

Application November 17, 1953, Serial No. 392,561
2 Claims. (Cl. 310—86)



1. In a portable electric washing machine including a base adapted to be temporarily positioned in any convenient washing receptacle and a supporting column projecting upwardly from the base, the combination of an induction motor mounted in vertical position on said supporting column and comprising stationary field poles with electrical windings thereon; with a watertight insulating housing of annular configuration entirely surrounding said

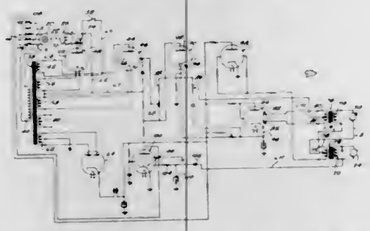
field poles and windings on the outside and inside thereof; said housing consisting of an internal cylindrical sleeve immediately inside the field poles, insulating end plates engaging each end of the sleeve, and an outer insulating shell interconnecting said end plates and including a continuous annular skirt extending below the lowermost portion of said field windings; said housing having static compression seals comprising resilient rubber rings clamped between the cylinder, end plates and outer shell; with aligned bearings and a rotatable armature within said internal cylindrical sleeve, and a driveshaft projecting downwardly therefrom.

2,777,964

VARIABLE SPEED CONTROLS FOR MOTORS

Alphonse Di Mino, Brooklyn, N. Y., assignor to Old Town Corporation, Brooklyn, N. Y., a corporation of New York

Application September 13, 1952, Serial No. 309,505
10 Claims. (Cl. 310—95)



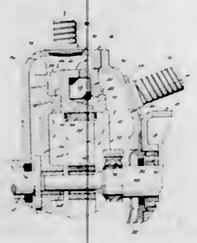
1. In apparatus of the character described, work-drive means, means for obtaining a signal voltage as a function of the speed of said drive means, means for obtaining a signal voltage as a function of the velocity of the work in said apparatus, and means for utilizing said voltages to control the speed of said drive means, whereby to maintain said velocity substantially constant, said utilizing means including a pair of transformers each having a primary winding adapted to receive one of said voltages, respectively, and means for coupling the primary winding of one of said transformers and the secondary winding of the other of said transformers, whereby to produce a composite control voltage, said voltage means having a phase relationship such that the voltages thereof are additive as said work velocity increases.

2,777,965

POWER TRANSMITTING MECHANISM

Martin P. Winther, Gates Mills, Ohio, assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Application January 19, 1953, Serial No. 331,895
7 Claims. (Cl. 310—105)



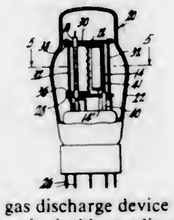
1. Mechanism adapted for use with an internal combustion engine, in air intake flow relation therewith, comprising an electromagnetic clutch to be air-cooled, driven from an output member of the engine, a housing enclosing the clutch having air intake and discharge openings therein, said clutch including relatively rotatable input and output members, one of said clutch members having axial air passages therethrough providing for the cooling thereof, and said other clutch member having radial flow passages therethrough and air-impelling means arranged thereon axially disposed to one side of the air passages through said one clutch member, said intake opening being axially disposed to one side of the axial passages, and said discharge opening being radially adjacent the outlet of the fan means, and one of said clutch members having close running clearance with the housing intermediate the air intake and discharge openings in the housing to so provide separate chambers, one adjacent the air intake opening in the housing and the other adjacent the air discharge opening in the housing with the air passages and air-impelling means in consecutive order intermediate the chamber adjacent the air intake opening and the chamber adjacent the air discharge opening.

2,777,966

GAS DISCHARGE DEVICES

John A. Olmstead, Verona, and Edward O. Johnson, Princeton, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application March 8, 1954, Serial No. 414,748
10 Claims. (Cl. 313—191)



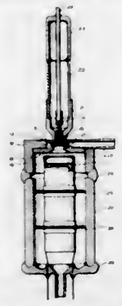
1. A noise free gas discharge device comprising a sealed envelope having an ionizable medium therein, a hollow conductive shielding element supported within said envelope, an apertured control electrode dividing the space enclosed by said shielding element into two compartments, a cathode in the first of said compartments, an anode in the other of said compartments, the size of the apertures in said apertured control electrode being less than the mean free path of the electrons of said ionizable medium, and the electrode geometry of said device being such that the ratio of the arc voltage drop to the ionization potential is less than 3.

2,777,967

HIGH FREQUENCY OSCILLATOR

George H. Vineyard, Columbia, Mo., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application April 18, 1946, Serial No. 662,982
10 Claims. (Cl. 315—5)



1. An oscillator comprising, a first cavity resonator, means adjacent said first cavity resonator for directing a

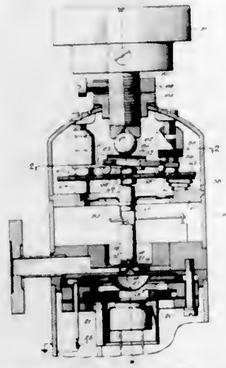
beam of electrons axially through said first resonator, an annular cavity resonator of larger dimension than said first resonator and disposed concentrically therewith, means defining an annular coupling gap extending radially outward from said first cavity resonator into said annular cavity resonator for coupling energy thereto from said first resonator, and means coupled to said annular cavity resonator for extracting energy from said annular cavity resonator at the resonant frequency of said first cavity resonator.

2,777,968

TUNING MECHANISM FOR MICROWAVE RESONATOR ELECTRON TUBES

David E. Kenyon, Cold Spring Harbor, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware

Application July 14, 1952, Serial No. 298,861
13 Claims. (Cl. 315—5)



12. High-frequency tube apparatus, comprising a housing, electron gun means supported by said housing for producing and directing an electron beam along a predetermined axis within said housing, a hollow resonator rigidly mounted within said housing, said resonator including an axial beam passage therethrough including entrance and exit electron permeable grid elements defining a resonator gap along said axis, said resonator further including a flexible wall portion for supporting said exit grid element for relative axial displacement with respect to said entrance grid element, an actuating member substantially aligned with said axis and supported at one end by said flexible wall portion, a flexible diaphragm supported between said housing and said actuating member adjacent the other end thereof for maintaining said actuating member substantially coaxial with said axis, first and second motion-reducing levers supported within said housing transverse said axis at locations beyond said actuating member, and an adjustable tuning screw supported in a wall of said housing for displacing said actuating member through said levers to thereby change the spacing between said grid elements and the frequency of said resonator, said levers comprising means for displacing said actuating member at a reduced rate compared with the rate of displacement of said tuning screw.

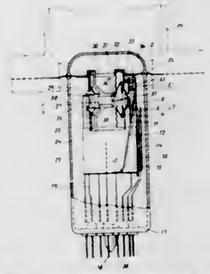
2,777,969

ELECTRON DISCHARGE DEVICE FOR MICROWAVES

Regnar Holmfrid Svensson, Copenhagen, Denmark, assignor to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a company of Sweden

Application April 10, 1952, Serial No. 281,532
4 Claims. (Cl. 315—5)

1. In an electron discharge device, a cavity resonator including a wall portion in form of a diaphragm and components coacting with the diaphragm, support means supporting said diaphragm, the said support means comprising two elongated support members joined at one end and secured to the diaphragm with their joined ends, the other ends of the support members being fixedly mounted relative to the components of the cavity resonator



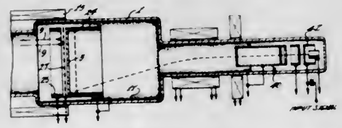
coacting with the diaphragm, one of said support members being disposed in a plane parallel to the plane of the diaphragm, and heating means for heating said parallel support member to vary the length thereof thereby causing a change in the position of the diaphragm relative to the components of the cavity resonator coacting therewith for the purpose of tuning the device.

2,777,970

TELEVISION CAMERA STORAGE TUBE

Paul K. Weimer, Princeton, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Army

Application October 3, 1950, Serial No. 188,197
11 Claims. (Cl. 315—11)



1. An electron discharge device comprising, an envelope, a dielectric target sheet mounted within said envelope, an electron collector within said envelope and spaced from said dielectric target sheet, an electron emitting foraminous electrode closely spaced from one surface of said dielectric sheet and positioned between said dielectric sheet and said collector electrode for supplying electrons to said collector electrode, means including a cathode electrode within said envelope for establishing a charge pattern on the other surface of said dielectric target sheet by secondary electron emission, an electrode closely spaced from said other surface of said dielectric sheet for collecting the secondary electrons therefrom.

2,777,971

INFORMATION STORAGE MEANS

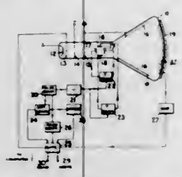
Frederic Calland Williams, Timperley, and Tom Kilburn, Davyhulme, England, assignors, by mesne assignments, to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application May 16, 1949, Serial No. 93,612
Claims priority, application Great Britain May 22, 1948
37 Claims. (Cl. 315—12)

1. A method of writing information into or reading information from a cathode ray tube storage means in which the information is stored on a raster of lines, comprising the steps of exploring said lines in a predetermined sequence and exploring a selected one of said lines in alternation with each step of said predetermined sequence.

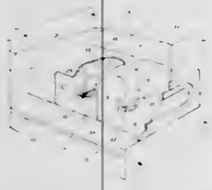
16. Electrical information storage means comprising a cathode ray tube, an electric charge-retaining record-

ing surface in said tube, an electron gun in said tube producing a beam of electrons bombarding said surface, control means between said electron gun and said recording surface directing the movement of said beam in lines upon said surface, and scan means coupled to said control means and causing said beam to explore said lines se-



quentially, auxiliary means coupled to said tube to cause said beam to scan a selected part of said surface, a control circuit coupled to said auxiliary means to vary the part of said surface selected for scanning, and further means operable to render said auxiliary means operative and said scan means inoperative, and to render said auxiliary means inoperative and said scan means operative.

2,777,972
WAVE GUIDE DISCHARGE CELLS
Edward John Whitmore and George Seymour Baldock, Edinburgh, Scotland, assignors to Ferranti Limited, Hollinwood, England, a company of the United Kingdom of Great Britain and Northern Ireland
Application January 18, 1954, Serial No. 404,704
Claims priority, application Great Britain January 22, 1953
4 Claims. (Cl. 315—39)

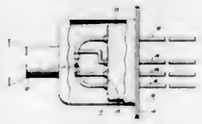


1. A waveguide discharge cell comprising a waveguide section containing a plurality of cell elements each of which includes a pair of co-operating main discharge electrodes formed as flat metallic sheets across said waveguide section, the operative surfaces of the electrodes being in the form of straight knife edges at an angle to each other in the range 45 to 90 degrees inclusive.

2,777,973
METHOD AND APPARATUS FOR ELECTRIC ARC WELDING
Richard B. Steele, New Providence, Rawlins E. Purkhiser, Springfield, and Nelson E. Anderson, Berkeley Heights, N. J., assignors to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York
Application March 16, 1955, Serial No. 494,594
9 Claims. (Cl. 315—171)

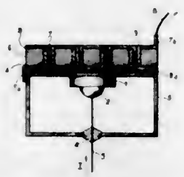
1. Direct current eelctric arc welding apparatus comprising a first transformer secondary winding and a second transformer secondary winding, said first and second transformer secondary windings being in magnetic circuits energized from the same single phase alternating current source and said first secondary winding having a higher open circuit voltage than said second secondary winding, a first full wave rectifier connected to rectify the output of said first secondary winding and apply the same to an electrode and a workpiece, a second full wave rectifier connected to rectify the output of said second secondary winding and apply the same to said electrode and said workpiece in parallel with the output of said first rectifier, current limiting means in the higher voltage rectifier circuit to limit the arc current derived therefrom to a minor proportion of the total arc current, and means for causing the output of the two rectifiers to be out of phase by an amount which will provide a voltage between said electrode and said workpiece at all times great enough to maintain the arc.

2,777,974
PROTECTION OF SEMICONDUCTIVE DEVICES BY GASEOUS AMBIENTS
Walter H. Brattain, Chatham, and Charles G. B. Garrett, Morristown, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application June 8, 1955, Serial No. 514,038
16 Claims. (Cl. 317—234)



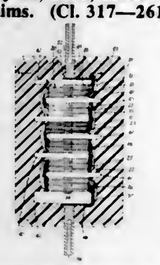
11. A semiconductive device comprising a body of germanium material having contiguous zones respectively of n-type and p-type material, the superficial extent of the p-type zone being less than that of the n-type zone, an envelope, means for mounting the body in the envelope, and means for maintaining the p-type conductivity of the surface of the p-type zone consisting of an ambient atmosphere of oxygen sealed within said envelope.

2,777,975
COOLING DEVICE FOR SEMI-CONDUCTING ELEMENTS
Pierre Algrain, Paris, France, assignor to Compagnie Generale de Telegraphie Sans Fil, a corporation of France
Application July 1, 1955, Serial No. 519,471
Claims priority, application France July 3, 1954
4 Claims. (Cl. 317—234)



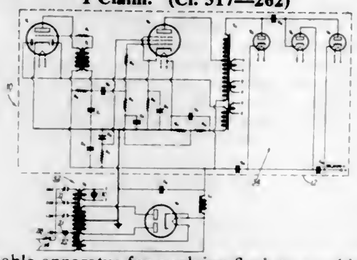
1. In combination, a semi-conductor having a terminal, at least one heat absorbing electrothermic couple in thermal contact and electrical connection with said semiconductor and having a terminal, whereby said semiconductor is cooled by a current flowing between said terminals.

2,777,976
HIGH VOLTAGE CAPACITOR
Harold E. Brafman, North Adams, Mass., assignor to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts
Application May 24, 1955, Serial No. 510,740
4 Claims. (Cl. 317—261)



1. A high voltage capacitor having a series-connected stack of varnish-impregnated capacitor sections each of which includes a multiplicity of interleaved copper foils between ½ and 2 mils thick insulated from one another by mica sheets, the alternate foils of the individual sections being connected in parallel, terminals connected to the ends of the stack, and a resin casing at least about one-eighth inch thick molded directly about the stack and the adjacent portions of the terminals, and clamping the stacked components together.

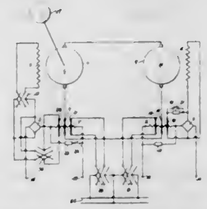
2,777,977
FLOCKAGE APPARATUS FOR THE DECORATION OF DIVERSE OBJECTS
Joseph Everard, Etterbeek, Brussels, Belgium, assignor to Otto Heimbach, Middletown, N. Y.
Application February 19, 1953, Serial No. 337,842
1 Claim. (Cl. 317—262)



Portable apparatus for applying flock to an object comprising a conductive applicator having a surface on which the flock may be placed, a high-voltage conductor connected to said applicator, and a high-voltage generator connected to said conductor for electrostatically charging said applicator whereby any flock thereon will become charged, said generator including an oscillator circuit, a voltage-increasing circuit coupled to said oscillator circuit, and a rectifying circuit coupled to said voltage-increasing circuit, the output terminal of said rectifying circuit being connected to said conductor, said generator being completely encased in an insulating medium.

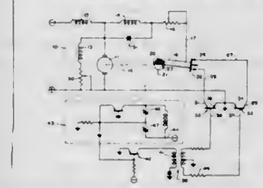
2,777,978
APPARATUS FOR REGULATING THE NUMBER OF REVOLUTIONS OF ELECTRIC MOTORS BY MEANS OF WARD-LEONARD CONTROL
Ulrik Hindenburg Krabbe and Harald Mann Sørensen, Fruens Boge, Denmark, assignors to Thomas B. Thridge, Odense, Denmark, a firm
Application November 25, 1952, Serial No. 322,424
Claims priority, application Denmark December 14, 1951
7 Claims. (Cl. 318—154)

1. A system for controlling the revolutions of an electric motor, comprising a prime mover, a direct current generator having a field and an armature and driven by the prime mover, a direct current motor having a field and an armature, means connecting the two armatures in a closed circuit, a first alternating current supply line, a first rectifier and a first inductive reactance device connected in series with the alternating current line, means including a first reversing switch connecting the output of the rectifier to the field of the generator, an impedance and a switch in series connected to by-pass the inductive reactance device, a first generator-field control winding, means including a reversing switch connecting the control winding to the output of the rectifier, a second generator-field control winding, means including a reversing switch connecting the second control winding to a direct current supply, a generator-armature current winding connected in the closed armature circuit, the said three windings being so disposed that the magnetic fields set up by the currents flowing in the windings add vectorially to vary the inductive reactance of the inductive reactance device in accordance with the resultant magnitude and direction



of those magnetic fields and hence to vary the current reaching the rectifier; a second alternating current supply line, a second rectifier and a second inductive reactance device connected in series with the second alternating current line, means connecting the output of the rectifier to the field of the motor, an impedance connected to by-pass the second reactance device, a first motor-field control winding, means including an impedance and a switch in parallel therewith connecting the first motor-field control winding to the output of the rectifier, a second motor-field control winding and means including a reversing switch connecting the second motor-field control winding to a direct current supply, a motor-armature current winding connected in the closed armature circuit; the first and second motor-field control windings and the motor armature current winding being so disposed that the magnetic fields set up by the currents flowing in these windings add vectorially to vary the inductive reactance of the inductive reactance device in accordance with the resultant magnitude and direction of those magnetic fields and hence to vary the current reaching the second rectifier.

2,777,979
MOTOR CONTROLLER
Theodore A. Hansen, Park Ridge, Ill., assignor to Teletype Corporation, Chicago, Ill., a corporation of Delaware
Application February 12, 1954, Serial No. 409,864
7 Claims. (Cl. 318—314)



1. In a control system for a motor having an auxiliary field winding, a source of energy connected to said motor and to one terminus of said auxiliary field winding, a

pair of transistors each having a base electrode, a collector electrode and a grounded emitter electrode, a single source of alternating potential connected to both said base electrodes for alternatively driving the base electrodes negative, means for adjusting the frequency of the alternating potential source to the desired period of rotation of the motor, and a contactor driven by the motor for alternately connecting the collectors to the other terminus of said field winding whereby the transistors are alternately energized to supply energy from the source to the field winding for periods of time dependent upon the magnitude of the applied base potential.

2,777,980

SEASONAL CONTROL MEANS FOR BATTERY CHARGING

Friedrich Menzel, Stuttgart, Germany

Application July 15, 1953, Serial No. 368,032

14 Claims. (Cl. 320—22)

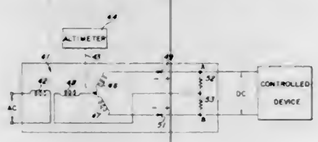
1. In an arrangement of the character described, in combination, a generator; regulating means for maintaining the output voltage of said generator at a predetermined level; actuating means for actuating said regulating means to change the output voltage of said generator by a predetermined amount during operation of said actuating means; a load connected to said generator; a switch connected in circuit between said generator and said load; and de-actuating means operated by said switch when moved into position connecting said generator with said load for de-actuating said actuating means to maintain the output voltage of said generator at said predetermined level thereof despite the action of said actuating means.

2,777,981

A. C. TO D. C. CONVERTER

John D. Rector, Edgar H. Fritze, and Leo P. Kammerer, Cedar Rapids, Iowa, assignors to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa

Application April 5, 1955, Serial No. 499,317

4 Claims. (Cl. 321—8)

2. A synchronous error signal translating device comprising, a synchro having an exciting field and three mutually space-related windings with three output potential terminals, the input to said device comprising the position of the exciting field relative to the said three windings, two diodes connected in like polarity to two of said potential points, a resistor completing a series circuit with said diodes across said potential points, and a connection between the midpoint of said resistor and the third potential point, the voltage across said resistor being the output of said device.

2,777,982

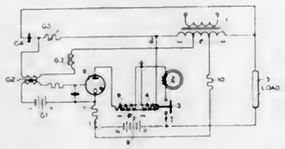
ELECTRIC CONTACT CONVERTERS WITH ELECTROMAGNETICALLY CONTROLLED CONTACTS

Erich Rolf and Michael Belamin, Nurnberg, Germany, assignors to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt, Germany, a German corporation

Application March 25, 1952, Serial No. 278,386

Claims priority, application Germany April 9, 1951

13 Claims. (Cl. 321—48)



1. An electric contact converter having alternating current supply means, synchronous contact means connected to said supply means, and a saturable reactor series-connected with said contact means for flattening the current wave during step intervals near the current zero passages, in combination, electromagnet means for controlling said contact means, said electromagnet means having a main coil for holding said contact means in closed condition and having a control coil for initiating the closing of said contact means, said main coil being series-connected with said contact means to be traversed by contact current, and a control circuit including said control coil and connected parallel to the series connection of said reactor and said contact means for passing periodic control current through said control coil.

2,777,983

CAPACITOR-EXCITED ASYNCHRONOUS ALTERNATORS FOR SINGLE-PHASE LOADS

Fritz Kümmel, Erlangen, Germany, assignor to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt and Erlangen, Germany, a corporation of Germany

Application February 16, 1956, Serial No. 566,023

Claims priority, application Germany, March 19, 1955

4 Claims. (Cl. 321—58)

1. With a capacitively excited asynchronous alternator having star-connected three-phase windings and three respective terminals connected to said windings, the combination of an excitation device for operating a single-phase load, comprising a single-phase output circuit connected to two of said terminals, a capacitor and a saturable reactor connected in parallel across said two terminals, a capacitor connected between the star-point of the alternator and the one of said two terminals that has lagging phase voltage relative to the other, and a capacitor connected between said star-point and the third one of said terminals.

2,777,984

ELECTRICAL GENERATOR REGULATOR

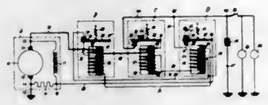
Friedrich Menzel, Stuttgart, Germany

Application July 15, 1953, Serial No. 368,031

5 Claims. (Cl. 322—25)

2. Apparatus of the character described comprising, in combination, a generator having a shunt field winding in series with a shunt field resistor; a load connected to said generator; electromagnetic switch means connected between said load and said generator, said switch means

being open below a predetermined first output voltage level of said generator and automatically closing when said first predetermined voltage level is reached; electromagnetic regulating means including means for short-circuiting said resistor and said field winding respectively for regulating said output voltage of said generator by short-circuiting said resistor until a second predetermined output voltage level is reached which is higher than said first output voltage level, said regulating means tending to maintain the output voltage at said second predetermined output voltage level by alternately opening and closing the short



circuit across said resistor while the current produced by said generator increases to a desired value, said regulating means continuing to maintain the output voltage at said second predetermined output voltage level after the desired current value is reached by alternately opening and closing the short circuit across said field winding; and electromagnetic control means operative when said output current of said generator reaches a predetermined value and automatically reducing said second predetermined output voltage level in accordance with further increase of said output current.

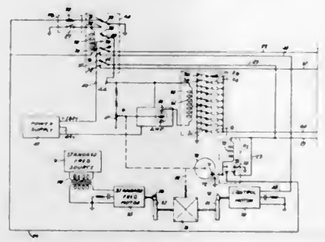
2,777,985

MOTOR OR INVERTER SPEED REGULATION

Charles B. Grady, Jr., West Orange, N. J., assignor to The W. L. Maxson Corporation, New York, N. Y., a corporation of New York

Application October 3, 1955, Serial No. 537,933

9 Claims. (Cl. 322—39)



1. A frequency regulator for controlling the output frequency of an alternator driven by a direct current motor, said direct current motor having a field winding adapted for energization in varying degrees for controlling the frequency of said alternator output, said regulator comprising first control means responsive to the speed of said motor for regulating the current through said winding to control the speed of said motor over relatively wide limits, a constant frequency alternating current source, a second motor connected to said source, a third motor connected to said alternator, a differential for comparing the speeds of said second and third motors, second control means responsive to said differential for controlling the current in said winding for regulating the speed of the first motor over relatively narrow limits, third means responsive to a predetermined amount of over-speed of the third motor relative to the second motor for permanently preventing the second control means from controlling the current through the winding and connecting the first control means to the motor winding and thereafter maintaining the first motor under control of the first control means regardless of speed.

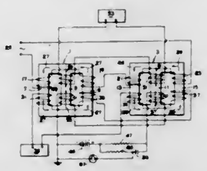
2,777,986

CONTROL APPARATUS FOR SATURABLE CORE DEVICE

Alfred Bennett, New York, N. Y., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application June 1, 1950, Serial No. 165,508

10 Claims. (Cl. 323—56)



1. In a device of the kind described, a pair of magnetically permeable cores, a primary winding on each of said cores adapted to be energized by an alternating current source, a biasing winding on each of said cores adapted to be energized by a direct current source and to produce a unidirectional magnetic flux in each of said cores, a control winding on each of said cores adapted to be connected to a source of direct current signals and arranged to decrease the unidirectional magnetic flux in one of said cores and to increase the unidirectional magnetic flux in the other of said cores in response to the direct current signals, a secondary winding on each of said cores adapted to be connected to a device responsive to alternating current signals and having induced therein alternating current signals corresponding to the direct current signals, and means to periodically produce equal unidirectional magnetic flux in said cores to provide balanced residual magnetism in said cores when the direct current signal is zero.

2,777,987

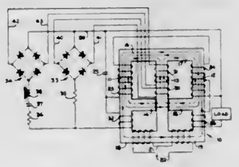
VOLTAGE REGULATOR COMPENSATING VOLTAGE AND FREQUENCY CHANGES

Forest C. Deal, Indianapolis, Ind.

Application January 13, 1954, Serial No. 403,948

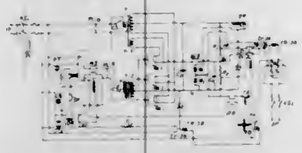
4 Claims. (Cl. 323—56)

(Granted under Title 35, U. S. Code (1952), sec. 266)



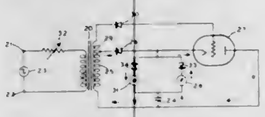
1. A voltage regulating device including a leakage reactance transformer having a primary winding, a secondary winding, and a voltage compensating winding coupled to said secondary winding, the invention which comprises; a low-turn winding on said leakage reactance transformer wound in reverse to said secondary winding; full wave rectification means having rectified output; a series resonant circuit the reactance of which varies inversely with frequency coupled in series to said full wave rectification means, said serially coupled full wave rectification means and said series resonant circuit being coupled in circuit with said low-turn winding supplying the current to be rectified; and a direct current coil coupled to the rectified output of said full wave rectification means and reactively associated with said secondary winding whereby the output voltage remains constant for variations in voltage and frequency in said primary winding.

2,777,988
DEVICE FOR WELDING FAULTY POINT OF COMMUNICATION CABLES
Kunizo Katsumaru, Suginami-ku, Tokyo, Shigenori Hayashi, Sakyo-ku, Kyoto, and Ryoichi Iwai, Ikoma-gun, Nara-ken, Japan, assignors to Nippon Denshin Denwa Kosha, Tokyo, Japan, a corporation of Japan
Application February 3, 1953, Serial No. 334,792
5 Claims. (Cl. 324—51)



1. A device for welding faulty points of communication cables comprising a means for impressing a breakdown voltage to communication cables and a means for impressing a welding voltage having a larger current capacity than said breakdown voltage thereto, said means being operable to impress said welding voltage automatically and without interruption in response to breakdown in said cable caused by said breakdown voltage whereby the fault is welded.

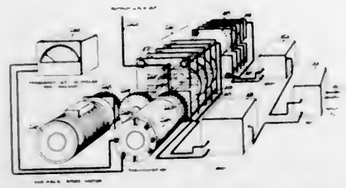
2,777,989
DEVICES FOR TESTING CAPACITORS
Henry W. Adams, Jr., Darby, Pa.
Application April 23, 1953, Serial No. 350,739
5 Claims. (Cl. 324—60)



3. In a system for testing capacitors, a transformer having a primary winding and secondary winding, means to connect said primary winding to a source of alternating voltage, a charging circuit for a capacitor to be tested connected across a part of said secondary winding, a current meter in said charging circuit, a unidirectionally conductive device serially included in said charging circuit to effect flow of time-spaced current pulses of only one polarity to said capacitor, a discharge circuit for said capacitor, a current meter in said discharge circuit, a grid-controlled electron tube serially included in said discharge circuit to conduct discharge current from said capacitor to the last-mentioned meter, and means connecting another part of said secondary winding to the grid of said tube to apply a cut-off potential to the grid only during the charging pulses, thereby effectively to open said discharge circuit during the charging pulses.

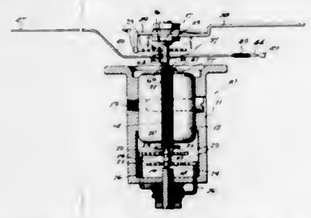
2,777,990
FREQUENCY MEASURING CIRCUIT
Charles L. Hastings, Burlington, N. C., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application November 9, 1951, Serial No. 255,627
4 Claims. (Cl. 324—79)

1. An apparatus for measuring the unknown frequency of a voltage comprising a precision source of constant frequency voltage, means for providing voltages in phase quadrature with the frequency of said precision source, four groups of stator condenser plates oriented in two symmetrical pairs, means for feeding said quadrature voltages to said stator condenser plates so that the groups in each oriented pair have voltages 180° out of phase, a first group of rotatable metallic condenser plates positioned with their axis of rotation at the mid-point of the first pair of stator condenser plates, a second group of rotatable metallic condenser plates in quadrature with said first group and with their axis of rotation at the mid-point of said second pair of stator condenser plates, adjustable means for rotating said groups of rotatable metallic condenser plates at a constant speed so that the voltage of said rotatable plates has a frequency equal to the sum of the frequency of said constant frequency source and the speed of rotation of said rotatable plates, a pair of diode tubes each having a cathode and an



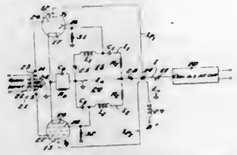
anode, means to connect the voltage of said rotatable plates to the cathode of a first of said diodes, means to connect the voltage of unknown frequency to the cathode of the second of said diodes, a cathode follower tube having an input electrode, a cathode and an anode, means to connect together the anodes of said diodes and the input electrode of said cathode follower tube, filter means connected to said diode anodes, and means connected to the cathode of said cathode follower tube to indicate the difference between the frequencies of the unknown voltage and the output voltage of said rotatable plates.

2,777,991
GALVANOMETER CONSTRUCTION
John A. Obermaier, River Forest, Ill.
Application August 3, 1953, Serial No. 372,092
2 Claims. (Cl. 324—155)



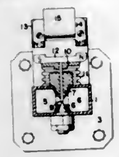
1. A pointer system for a galvanometer of the moving coil type having a pivot base mounted to the coil and a stub shaft provided with a pivot point journalled to permit swinging movement of the coil comprising; an elongate pointer and a cross arm member both mounted normal to the shaft and slidable therethrough and the shaft having transverse openings therein for accommodating said pointer and cross arm member, said cross arm member and pointer being perpendicular one relative the other, a tension member spaced from said shaft and secured to said pointer and having a resilient extension bearing against the cross arm member and exerting a force thereon parallel with the axis of said stub shaft and in a direction away from the said pointer to exert binding friction of said pointer and cross arm member within their respective openings to retain same engaged to said stub shaft, said tension member being substantially L-shaped, one part of the tension member arranged perpendicular to the pointer axis and attached thereto, and the other part of the tension member being bifurcated and arranged in a plane substantially perpendicular to the shaft straddling the same and engaging the cross arm member on opposite sides of said shaft, at least one of the bifurcations having an integral continuation protruding beyond the cross arm member for providing an electrical terminal, said one part having a hair spring securing lug integral therewith.

2,777,992
REACTANCE TUBE CIRCUIT
Eldon Anderson, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application March 16, 1953, Serial No. 342,627
6 Claims. (Cl. 332—24)



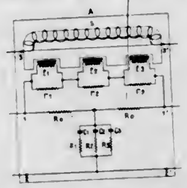
6. A modulator circuit for varying the frequency of an oscillator comprising, a pair of electron tubes with their plates and cathodes connected together respectively, the oscillator connected to the plates of said first and second electron tubes, a first phase shifting circuit connected between the plates of said tubes and ground and comprising a resistor, a capacitor and an inductor and connected in series with one terminal of said inductor connected to ground, a second phase shifting circuit connected between the plates of said tubes and ground and comprising a resistor, an inductor and a capacitor and connected in series with one terminal of said capacitor connected to ground, an input transformer with its primary connected to an input voltage, the secondary of said input transformer with its center point connected to ground, one end of said secondary connected to a first control grid of the first electron tube, the other end of said secondary connected to a first control grid of the second electron tube, a second control grid of the first electron tube connected to the other terminal of said inductor of the first phase shifting circuit, a second control grid of the second electron tube connected to the other terminal of said capacitor of the second phase shifting circuit, and first and second grid resistors connected between the second grids of the first and second electron tubes and ground.

2,777,993
MICROWAVE SHUTTER DEVICE
Ray S. Braden, Melrose, Mass., assignor to Bomac Laboratories Inc., Beverly, Mass., a corporation of Massachusetts
Application July 18, 1955, Serial No. 522,813
3 Claims. (Cl. 333—13)



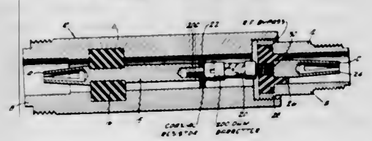
1. In a microwave transmission device having an evacuated metallic envelope, opposed discharge gap electrode structure positioned therein with at least one of said electrodes having a hollow passageway therethrough and a shutter member extending within said passageway to contact the opposed electrode, magnetic means for axially moving said shutter member comprising a permanent type magnet secured at one end of said shutter member, an electromagnet in register with and spaced from said permanent magnet to attract or repel said permanent magnet by control of the polarity of said electromagnet to thereby alter the transmission characteristics of said device.

2,777,994
LEVEL REGULATING DEVICES FOR TRANSMISSION SYSTEMS FOR COAXIAL CABLES
Jean Louis Hurault, Paris, France, assignor to Compagnie Industrielle des Telephones, Paris, France, a corporation of France
Application November 14, 1951, Serial No. 256,239
11 Claims. (Cl. 333—16)



1. In a signal transmission system, in combination, a transmitting station; a receiving station; a plurality of amplifier stations intermediate said transmitting and receiving stations; a coaxial transmission line interconnecting said transmitting station with said receiving station through said amplifier stations, each of said amplifier stations including therein a compensating network for correcting for attenuation changes in said transmission line comprising, in combination, a T network having a vertical branch consisting of a plurality of circuits in parallel, each of said circuits consisting of a resistance in series with a capacitor, and a horizontal branch having two equal resistances; a shunting branch shunting said horizontal branch, said shunting branch consisting of a plurality of circuits connected in series, the number of circuits in said shunting branch being equal to the number of circuits in said vertical branch of said T network, each of said circuits of said shunting branch consisting of a resistance in parallel with an inductance, the product of the impedance of the vertical branch and the impedance of said shunting branch being equal to the square of one of the resistances of said horizontal branch; a magnetizable member, said magnetizable member having recesses in which are located the inductances of said shunting branch; and means including said coaxial transmission line for transmitting a direct control current to said magnetizable member for magnetizing said magnetizable member, whereby changes in the attenuation of said transmission line may be compensated for by adjusting the direct control current supplied to said magnetizable member.

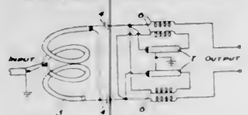
2,777,995
BROAD BAND BARRETTER MOUNT
Philip A. Henning, Los Angeles, Calif., assignor to Gilfillan Bros. Inc., Los Angeles, Calif., a corporation of California
Application January 23, 1953, Serial No. 332,844
1 Claim. (Cl. 333—22)



Wide frequency band power measuring apparatus of the character described comprising a coaxial fitting having an outer conducting sleeve and an inner central input conductor and a central output conductor, a ring-shaped resistance mounted coaxially in said fitting between said sleeve and said input conductor and in a plane where the impedance is almost entirely real, a bilaterally conducting impedance whose magnitude is changeable with the intensity of current flow therethrough, but insensitive to changes in direction of cur-

rent flow therethrough, aligned in said fitting and serially connected between said central input conductor and said central output conductor, and dielectric material coaxially disposed between said central output conductor and said sleeve and serving as an element of a radio frequency bypass condenser axially aligned in said fitting and connected between said sleeve and conductor, a source connectible between said input conductor and said outer conducting sleeve, said resistance being in one arm of a parallel circuit and said bilaterally conducting impedance and bypass condenser being serially connected in a second arm of said parallel circuit, the joint impedance of said parallel circuit being substantially equal to the impedance of said source.

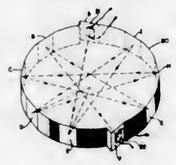
2,777,996
IMPEDANCE MATCHING DEVICE
Warren B. Bruene, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application December 23, 1954, Serial No. 477,334
2 Claims. (Cl. 333—26)



1. An impedance-matching system comprising a coaxial transmission line, a length of coiled coaxial line less than one-half the wavelength of the highest operating frequency, said coaxial transmission line having its center conductor and outside conductor connected to the center conductor and outside conductor, respectively, and intermediate the ends of said coiled coaxial line, an impedance transformation means comprising a plurality of two conductor coiled transmission lines having a certain impedance and at least one pair of sections of coaxial cable having an impedance equal to the impedance of each of said coiled transmission lines, an open wire transmission line, a pair of capacitance elements, the first side of each capacitance element connected respectively to one end of the outside conductor of said coiled coaxial line, one end of the center conductor of said coiled coaxial line connected to the outside conductor of the opposite end of said coiled coaxial line, a first conductor of each coiled transmission line having its first end connected to the second side of one of said capacitance elements, respectively, one end of the center conductor of each of said sections of coaxial cable individually connected to the second side of said capacitance elements, the other end of said center conductors connected individually to one end of the second conductors of said coiled transmission lines, the other ends of said second conductors of each of said coiled transmission lines individually connected to the second side of the opposite capacitance element as the first end of its related first conductor and its related center conductor, the second ends of said first conductors of said coiled transmission lines individually connected to one side of the open wire transmission line whereby maximum power transfer is obtained through said impedance-matching system.

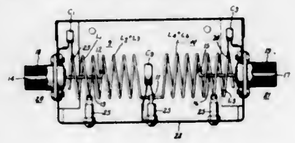
2,777,997
ULTRASONIC DELAY LINES
David L. Arenberg, Rochester, Mass., and Robert M. Ashby, Pasadena, Calif.
Application November 6, 1951, Serial No. 255,128
23 Claims. (Cl. 333—30)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. An ultrasonic delay line comprising, a regular polygonal fused quartz propagation medium having n facets on the edge thereof, n being an odd integer, all of said facets lying in planes normal to the top and bottom surfaces of said medium, two of the facets lying in planes at an angle of $90/n°$ to radii to the points of tangency



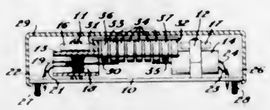
between said polygon and the inscribed circle of said polygon, the remaining facets being located in planes normal to radii to the points of tangency between said polygon and the inscribed circle of said polygon.

2,777,998
ELECTRICAL WAVE FILTER
Neal H. Shepherd, Syracuse, N. Y., assignor to General Electric Company, a corporation of New York
Application September 11, 1952, Serial No. 308,991
4 Claims. (Cl. 333—70)



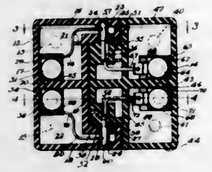
3. The combination, in a filter, of a pair of input and a pair of output terminals, a pair of inductance coils reversely wound with respect to each other and arranged adjacent to one another with their axes collinear, adjacent ends of said coils being connected together, impedance means for connecting said adjacent ends to one of said input and one of said output terminals, impedance means for connecting the remote end of one of said coils to said one input terminal, impedance means for connecting the remote end of the other of said coils to said one output terminal, individual means extending from within said coils for connecting intermediate points of each of said coils to respective other ones of said input and output terminals.

2,777,999
FREQUENCY REJECTION SYSTEM FOR MECHANICAL FILTER
James C. Hathaway, Glendale, Calif., assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application May 7, 1953, Serial No. 353,627
13 Claims. (Cl. 333—71)



1. An electromechanical filter comprising, a base plate, a pair of stand-offs mounted on said base plate, a pair of hollow cylinders supported by said stand-offs, a driving coil mounted in one of said cylinders, a pick-up coil mounted in the other cylinder, a pair of supporting discs mounted respectively to said cylinders, a plurality of coupling wires extending between the peripheries of said supporting discs, a pair of curve shaping discs attached to said coupling wires adjacent said supporting discs, a plurality of active discs supported by said coupling wires between said curve shaping discs, a first end wire attached to the periphery of one of the end active discs and extending through the driving coil, and a second end wire attached to the periphery of the other end active disc and extending through the pick-up coil.

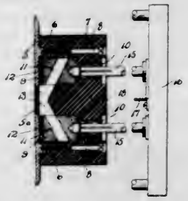
2,778,000
CONDUCTIVE HINGE FOR REFRIGERATOR DOOR
John R. Mills, Evansville, Ind., assignor, by mesne assignments, to Whirlpool-Seeger Corporation, a corporation of Delaware
Application June 14, 1952, Serial No. 293,623
2 Claims. (Cl. 339—4)



2. In a hinge structure, a hinge butt comprising a substantially flat body portion having walls extending thereabout to form two compartments, portions of one of said walls being formed to have a cylindrical shape, two bearings, each of said bearings formed in one of said portions of said one wall, said bearings positioned longitudinally therein in a spaced apart relationship along a common axis, a pair of passageways, each of said passageways formed through one of said portions, each of said passageways positioned in said portions between one of said bearings and one of said compartments, a hinge leaf comprising a substantially flat body portion having walls extending thereabout to form two compartments, one of said walls of said hinge leaf being formed to have a cylindrical shape, a pair of openings formed through said one wall of said hinge leaf and positioned longitudinally therein in a spaced apart relationship along a common axis, each of said openings further positioned to open into one of said compartments of said hinge leaf, a pair of pins, each of said pins fixedly mounted in one of said openings and pivotally mounted in one of said bearings, said hinge butt and said hinge leaf further formed of a material which is a relatively poor conductor of electricity, a pair of covers, one of said covers mounted to abut said portions and to extend over the other walls of said hinge butt, the other of said covers mounted to abut said one wall of said hinge leaf and to extend over the other walls of said hinge leaf, electrical conductor means mounted in each of said compartments, said means being positioned and cooperating with said pins so that an electrical circuit is completed from one of said compartments of said hinge butt, through one of said pair of passageways, through one of said pins, to one of said compartments of said hinge leaf, and another electrical circuit is completed between the other compartment of said hinge butt, the other passageway of said pair of passageways, the other of said pins, to the other of said compartments of said hinge leaf, and mounting means extending from said flat body portion of said hinge butt and said hinge leaf for mounting said hinge structure to a cabinet and door.

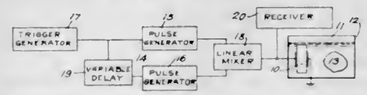
2,778,001
PRIMARY DISCONNECT PLUG FOR WELDING TRANSFORMERS
Preston E. Girton, Grand Rapids, Mich., assignor to Kirkhof Manufacturing Corporation, Grand Rapids, Mich., a corporation of Michigan
Application August 13, 1953, Serial No. 374,062
1 Claim. (Cl. 339—147)

A transformer cover having an elongated opening therethrough, an elongated plate detachably secured to said cover at and closing said opening, said plate adjacent each end having an interiorly threaded boss at its inner side extending inwardly at right angles to the boss, an elongated body of insulating material located at its outer end against the inner side of said plate, said bosses extending into the body, screws extending from the inner end of said body into said bosses, two terminals in said

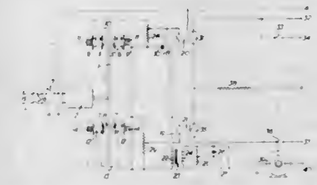


body, one adjacent to and insulated from each screw, insulating disks between said plate and the inner ends of said terminals, said body having a recess between and exposing the outer end portions of said terminals at adjacent sides thereof, and said plate having an opening therethrough in conjunction with said recess.

2,778,002
METHOD OF PRODUCING SHORT PULSE ECHO SIGNALS
Douglass H. Howry, Denver, Colo.
Application November 22, 1954, Serial No. 470,444
7 Claims. (Cl. 340—3)



1. In an electromechanical transducer apparatus including means for transmitting pulses of mechanical energy through a body of transmission medium and for receiving echoes of the pulses from within the medium, the method of limiting the duration of response to received echoes which comprises energizing the transmitting means to transmit two discrete pulses of energy through the medium, and timing said pulses so that an echo of the first pulse energizes the receiving means to produce vibration thereof and initiate the production of electrical oscillations and the corresponding echo of the second pulse energizes the receiving means in phase opposite that of a vibration of the receiving means following the initial vibration produced by the first pulse whereby further vibration of the receiving means is substantially prevented.

2,778,003
AIRSPEED INDICATOR
Frederick John Holmes, Tring, England
Application April 29, 1955, Serial No. 505,015
Claims priority, application Great Britain April 30, 1954
2 Claims. (Cl. 340—27)

1. Audible airspeed indicating apparatus for aircraft, such apparatus comprising a disc of magnetically permeable material having two concentric circles of apertures therein, each circle having its apertures on equiangularly spaced radii of said disc, but the two circles having a

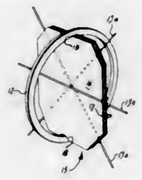
different number of apertures; means for rotating said disc about its axis; a pair of pole pieces of magnetically permeable material positioned to scan each circle of apertures; a permanent magnet bridging each pair of pole pieces; a pick-up coil for each pair of pole pieces, such coil comprising two series windings, one wound about each of said pole pieces; circuit means for selectively controlling the output from the two pick-up coils; and means for interrupting said output, said circuit means and interrupting means being controlled by means responsive to airspeed.

2,778,004
INSTRUMENT AID FOR AIRCRAFT RADIO NAVIGATION
William P. Lear, Pacific Palisades, and Edward F. O'Brien, Santa Monica, Calif., assignors to Lear, Incorporated, Santa Monica, Calif.
Application April 11, 1955, Serial No. 500,384
5 Claims. (Cl. 340—27)

1. An instrument aid for use in aircraft radio navigation comprising: a rotatable bearing selector, said bearing selector being a ring-shaped member with heading markings on one surface adjacent its periphery, a fiducial marker adjacent said one surface, manual control means for rotating said bearing selector to align a desired heading marking with said fiducial marker, a deviation pointer adjacent said one surface, first electro-mechanical means coupled to said pointer and operable to receive D.-C. signals to rotate said pointer, said first means in the absence of D.-C. signals holding said pointer in a neutral position in which it is aligned with said fiducial marker and said desired heading marking, said first means responding to first D.-C. signals of one sense to rotate said pointer to the right of said marker and responding to D.-C. signals of opposite sense to rotate said pointer to the left of said marker, a "To-From" indicator flag said indicator flag being located within said bearing selector and substantially parallel to said one surface thereof, second electro-mechanical means to receive second D.-C. signals, said second means being coupled to said indicator flag, and said second means being operative in the presence of said second D.-C. signals of one sense to rotate said indicator flag to a first position and in the presence of said D.-C. signals of opposite sense to rotate said indicator flag to a second position, said indicator flag in said first position presenting a "To" indication to view at a predetermined location, said indicator flag in said second position presenting a "From" indication to view also at said predetermined location.

2,778,005
CORE MATRIX
Lloyd W. Allen, Santa Clara County, Calif., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application January 20, 1955, Serial No. 482,980
4 Claims. (Cl. 340—174)

2. A magnetic core assembly comprising a laminated wafer, a plurality of conductors separately interspersed by the laminations of said wafer, each said conductor lying in a plane parallel to the plane of said wafer and having terminals extending from the said wafer, a closed magnetic core disposed about said wafer and said conductors in such a way that said conductors extend through said core so that an electrical current flowing in any of said conductors generates a magnetic flux in said core, and a receptacle for said wafer and said core having a plurality

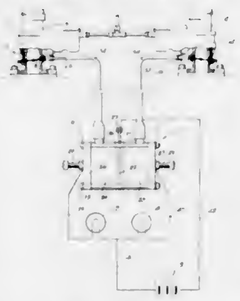


of connectors corresponding to the said terminals, each said terminal being adapted to be detachably fastened in a said connector.

2,778,006
MAGNETIC CONTROL SYSTEMS
Sadia S. Guterman, Dorchester, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application February 23, 1955, Serial No. 489,989
13 Claims. (Cl. 340—174)

1. A magnetic control system comprising a plurality of saturable magnetic cores of substantial remanence and a relatively open hysteresis loop characteristic having saturation controlling windings serially connected to an energizing source, driver means for controlling flow of energy from said source to said windings, means for applying an initial triggering pulse to said driver means, and means controlled by the flux conditions in the respective cores to apply a predetermined number of additional triggering pulses to said driver means.

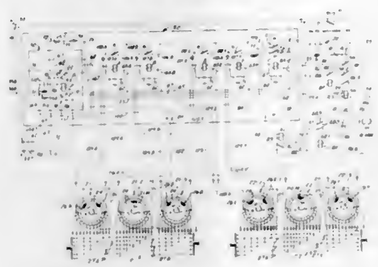
2,778,007
MULTI-CARBURETOR SYNCHRONIZER
Walter Berchin, New York, N. Y., and William Berchin, Conemaugh, Pa.
Application December 9, 1955, Serial No. 552,197
3 Claims. (Cl. 340—236)



1. In combination with an internal combustion engine having dual carburetors, a signal switch chamber, a flexible diaphragm having a conductive portion mounted in the intermediate portion of said chamber, defining respective compartments on opposite sides thereof, respective conduit means connecting the respective compartments to the respective dual carburetors, and respective

electrodes in said compartments respectively engageable by said conductive portion of said diaphragm responsive to an unbalance of pressure in said compartments.

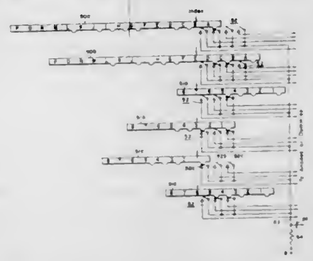
2,778,008
WHEEL SLIP DETECTOR
Rosser L. Wilson, Mahwah, and Erwin R. Knauer, Woodcliff Lake, N. J., assignors to American Brake Shoe Company, Wilmington, Del., a corporation of Delaware
Application March 7, 1952, Serial No. 275,282
15 Claims. (Cl. 340—268)



2. In an apparatus for detecting the need of a control operation with respect to at least three independently rotatable elements, a master switch operatively associated with one of said elements, secondary switches respectively associated with the other of said elements, each of said switches including a plurality of commutator bars arranged consecutively about the circumference of a circle, the commutator bars of said master switch being arranged in sets in each of which there are as many commutator bar sets as there are secondary switches, means respectively electrically connecting corresponding commutator bars in said sets with commutator bars in a particular secondary switch to thereby connect the commutator bars of the secondary switches with the commutator bars of the master switch in a predetermined manner, said master switch having a single master brush and said secondary switches each having first and second brushes angularly spaced from each other, said brushes being operatively associated with the commutator bars of their respective switches and being driven rotatively by the associated rotatable element, slow-to-release relays allocated one to each of said secondary switches and each having an energizing circuit including said master brush and said first brush of the secondary switch to which the relay is allocated, each of said relays having a set of relay contacts, a final relay, and circuit connections from the respective second brushes to the contacts of the related relay and each including a rectifier, said circuit connections being arranged in parallel and being connected to one end of the operating coil of said final relay to afford an energizing circuit for said final relay including said master brush and any one of said contacts that may be closed.

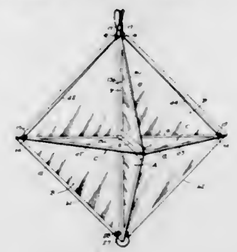
2,778,009
ENCODING MECHANISM FOR A SUBSCRIPTION TYPE OF COMMUNICATION SYSTEM
Jack E. Bridges, Franklin Park, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois
Application February 20, 1953, Serial No. 337,969
1 Claim. (Cl. 340—348)

An encoding apparatus for a subscription type of communication system comprising: a plurality of groups of similar switch elements, each group representing $(m)^n$ possible switching combinations, where m is the number of operating positions of each switch element in any group and n is the number of such elements included within any such group; N separate input circuits each coupled to a different one of said switch elements; common signal-translating means connected to all of said switch elements; a corresponding plurality of switch actuators individually associated with an assigned one of said groups to effect actuation of the switch elements of such



assigned group and having $(m)^n$ operating positions each of which establishes a selected one of said switching combinations in its assigned group of switch elements; and the total number of switch elements in all of said groups being equal to N.

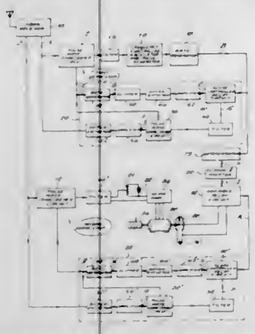
2,778,010
REFLECTOR TARGET
Nathaniel Nelson Leonard, West Los Angeles, Calif., assignor to Claude C. Slate & Associates, Los Angeles, Calif., a copartnership
Application August 10, 1953, Serial No. 373,134
1 Claim. (Cl. 343—18)



In a collapsible reflector target: a plurality of panel members each having reflector surfaces on both faces thereof, said panel members, in the expanded target, occupying three equal areas of square form disposed in planes each intersecting both of the others at right angles along axes of intersection each constituting a common median diagonal axis of two of the areas; said panel members comprising a single square base panel coextensive with one of said areas, a pair of isoceles right triangular half panel sections having hypotenuse margins hinged to opposite sides of said base panel along a first one of said median diagonal axes thereof and together constituting another of said areas, and four isosceles right triangular quarter panels arranged in pairs each having respective side margins hinged to opposite sides of a respective half panel section along a second one of said median diagonal axes and having free side margins arranged to abut respective faces of said base panel along the third one of said median diagonal axes and to thereby brace said half panel sections to maintain their respective plane normal to the plane of said base section, said quarter panel sections being adapted for hinging movement around said second axis to positions folded in face-to-face engagement with the respective half sections to which they are hinged, with said free side margins substantially registering with said first axis, whereby to allow said half panel sections to be folded about said first axis to positions in substantially face-to-face re-

lation to said base panel, whereby the target becomes fully collapsed; and means for expanding the target from said fully collapsed condition to a fully open condition, comprising means to anchor one corner of said base panel at one end of said first median diagonal axis means defining a pair of apertures in the opposite corner of the base panel on opposite sides of said first axis, means defining a lateral aperture in each of the other two corners of said base panel, and a harness comprising a plurality of cords each attached to the free corner of a quarter section, passing through a respective one of said lateral apertures thence extended to said opposite corner of the base panel and passing through one of the apertures therein, the cords of opposed quarter panel sections on opposite sides of the base panel being passed in opposite through a common lateral aperture and again through a common one of said pair of apertures, with all of said cords extending away from the target along an extension of said first axis, whereby all quarter sections may be simultaneously moved toward their open positions by exerting a common pull against all cords simultaneously in opposition to said anchor means.

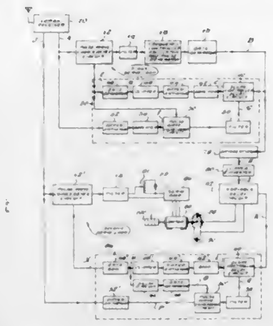
2,778,011
APPARATUS FOR TIME-DELAY MEASUREMENT
Robert L. Frank, New York, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application December 7, 1949, Serial No. 131,677
10 Claims. (Cl. 343—103)



1. In combination, a sampling circuit having an input circuit adapted to be connected to a first source of recurrent pulses, a first variable delay means responsive to the output of said sampling circuit and having an input circuit adapted to be connected to a second source of recurrent pulses for producing signals delayed with respect to the pulses produced by said second source a time which varies in accordance with the magnitude of the signal produced by said sampling circuit, a second variable delay circuit responsive to the output of said first delay circuit and having a control circuit connected to said input circuit for producing signals delayed with respect to the signals produced by said first delay circuit a time which varies inversely in accordance with the rate of increase in the magnitude of the pulses of said first series, and means for actuating said sampling means in response to the signals produced by said second delay circuit.

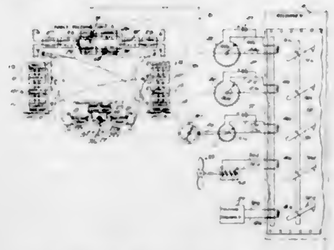
2,778,012
PULSE SYNCHRONIZER
Philip W. Crist, Hempstead, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application December 7, 1949, Serial No. 131,684
12 Claims. (Cl. 343—103)

1. In combination, an input circuit adapted to be connected to a source of recurrent control pulses, a differentiator connected to said input circuit, and a generator connected to said input circuit and to the output of said differentiator and responsive to a predetermined magni-



tude of said control pulses and the magnitude of the signal produced by said differentiator for producing a series of pulses in synchronism with said control pulses.

2,778,013
RADIO SURVEYING APPARATUS
James E. Hawkins, Broken Arrow, Okla., assignor to Seismograph Service Corporation, Tulsa, Okla., a corporation of Oklahoma
Application April 10, 1953, Serial No. 348,087
5 Claims. (Cl. 343—105)



1. In a radio position finding system of the hyperbolic continuous wave type employing phase comparison in pairs of signals radiated from at least three spaced transmitting points to provide a pair of indications from which the position of a mobile craft relative to the known positions of the transmitting points may be determined, the combination of receiving apparatus on said mobile craft and including phase measuring means for measuring the phase relationships between said signals, means controlled by said phase measuring means for recording said phase relationships on a record medium, and means for simultaneously recording the movement of the craft on the same record medium at a position correlated with the records of said phase relationships, thereby to facilitate accurate identification of the position of said mobile craft at all times.

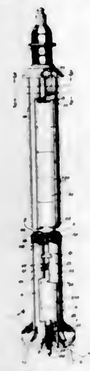
2,778,014
ANTENNA SYSTEM
Howard J. Rowland, Attleboro, Mass., assignor, by mesne assignments, to The Gabriel Company, Cleveland, Ohio, a corporation of Ohio
Application October 16, 1951, Serial No. 251,516
33 Claims. (Cl. 343—770)

1. An antenna system for transmitting radio-frequency energy of a predetermined wavelength comprising a plurality in excess of two of substantially parallel transmission-line conductors of length at least equal to the said predetermined wavelength, one of the transmission-line conductors being symmetrically disposed with respect to the other transmission-line conductors, means for energizing

the said one transmission-line conductor with radio-frequency energy of the said predetermined wavelength and the said other transmission-line conductors in anti-phase therewith, and a plurality of branch conductors equal in number to one less than the plurality of transmis-

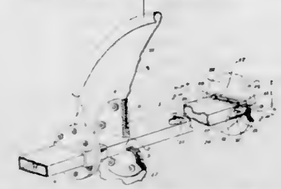
sion-line conductors completely disposed within the space between the transmission-line conductors connected at one of their ends to said one transmission-line conductor and at their other ends to the respective other transmission-line conductors and each of length not greater than substantially one-half the said predetermined wavelength.

2,778,015
ANTENNA
Lan J. Chu, Lexington, Mass., assignor to The Gabriel Company, Cleveland, Ohio, a corporation of Ohio
Application May 22, 1953, Serial No. 356,808
24 Claims. (Cl. 343—770)



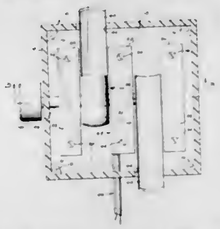
1. An antenna system for transmitting radio-frequency energy of a predetermined wavelength comprising a plurality in excess of two of substantially parallel transmission-line conductors of length at least equal to the said predetermined wavelength, all but one of the transmission-line conductors comprising tubular columns symmetrically disposed with respect to the said one transmission-line conductor, means for energizing the said one transmission-line conductor with radio-frequency energy of the said predetermined wavelength and the said other transmission-line conductors in anti-phase therewith, and a plurality of branch conductors equal in number to one less than the plurality of transmission-line conductors completely disposed within the space between the transmission-line conductors connected at one of their ends to the said one transmission-line conductor and at their other ends to points disposed along the outer surfaces of the respective tubular column transmission-line conductors and each of length not greater than substantially one-half the said predetermined wavelength.

2,778,016
WAVE GUIDE ANTENNA
Lan J. Chu, Lexington, Mass., assignor to The Gabriel Company, Cleveland, Ohio, a corporation of Ohio
Application January 23, 1953, Serial No. 332,839
22 Claims. (Cl. 343—771)



1. A longitudinally extending wave guide closed at one end having a pair of slots in oppositely disposed sides of the guide near the said end and a conducting surface disposed at substantially right angles to the said sides of the wave guide at the said end and extending transversely beyond the said sides of the guide.

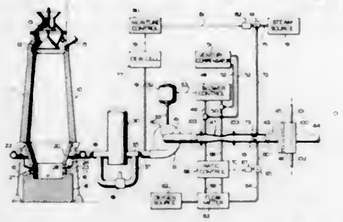
2,778,017
PORTABLE ANTENNA
Charles Dorcsjak, Cranford, N. J., assignor to Marjo Technical Products Co., Linden, N. J., a corporation of New Jersey
Application January 21, 1953, Serial No. 332,225
2 Claims. (Cl. 343—823)



1. In a portable antenna, an insulative flat base having ends and sides and an upper surface, a removable insulative cover comprising a top wall and end walls and side walls depending from said top wall, said walls having lower edges removably resting upon the upper surface of the base, means removably securing the cover to the base, end supports secured to and rising from the upper surface of the base near to and spaced from the end walls of the cover, a middle support secured to and rising from the upper surface of the base between and spaced from said end supports, said supports comprising lower blocks having upper edges provided with longitudinally aligned semi-circular bearing recesses and upper blocks having lower edges resting upon the upper edges of the lower blocks, said lower edges having semi-circular bearing recesses registered with the bearing recesses of the lower blocks, a non-conductive shaft journaled in the registered bearing recesses, one of said cover end walls having an opening aligned with the bearing recesses and said shaft having an end portion extending out of the cover through said opening, a knob on said end portion, each of the cover side walls having a slot in line with the space between an end support and the middle support, the slots being located on a level above said shaft, a flexible resilient conductive tape extending through each of said slots, the tapes having inner ends wound around and secured to the shaft between the middle support and related end supports and outer ends, stops on the outer ends of the tapes for engagement with related side walls of the cover, the inner ends of the tapes being wound in the same direction on the shaft, and contact means connected to the inner ends of the tapes and arranged to be connected to a lead-in cable.

2,778,018
METHOD OF AND APPARATUS FOR OPERATING METALLURGICAL FURNACES
Julius H. Strassburger, Steubenville, Ohio, assignor to National Steel Corporation, a corporation of Delaware
Application October 3, 1952, Serial No. 312,877
14 Claims. (Cl. 266—30)

1. In a blast furnace installation including a blast furnace having tuyere means through which compressed blast gas is discharged into the furnace, compressor means for compressing blast gas and blowing compressed blast gas to the tuyere means, a first conduit means for conducting blast gas to the compressor means, the blast gas including atmospheric air containing a varying amount of water vapor, measuring means in the first conduit means for measuring the rate of flow of the blast gas, control means operative responsively to the measuring means for controlling the compressor means, a second conduit means for introducing oxygen to the blast gas, a third conduit means connected to the first conduit means up-stream of the measuring means for introducing water vapor into the

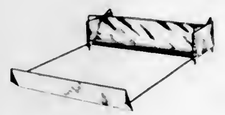


blast gas, and means for controlling the flow of water vapor through the third conduit means to maintain a constant quantity of water vapor in the blast gas.

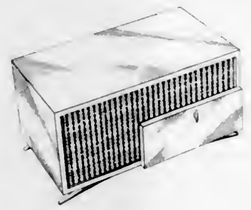
DESIGNS

JANUARY 15, 1957

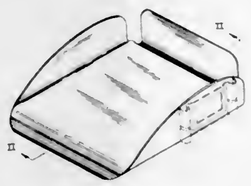
179,532
MIRROR VIEWING DEVICE
Robert B. J. Biggins, Kansas City, Mo.
Application February 4, 1955, Serial No. 34,362
Term of patent 7 years
(Cl. D57—1)



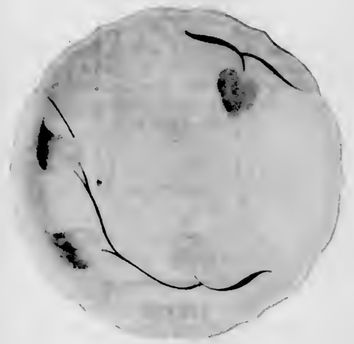
179,533
SPEAKER CABINET
George A. Brettell, North Hollywood, Calif., assignor to Ampex Loudspeaker Corporation, North Hollywood, Calif., a corporation of California
Application January 17, 1956, Serial No. 39,824
Term of patent 14 years
(Cl. D56—4)



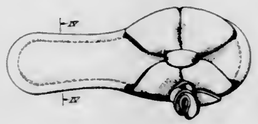
179,534
LETTER TRAY
Earle C. Bullock and David D. Hunting, East Grand Rapids, Mich., assignors to Steelcase Inc., Grand Rapids, Mich., a corporation of Michigan
Application July 28, 1954, Serial No. 31,638
Term of patent 14 years
(Cl. D74—9)



179,535
PLATE OR SIMILAR ARTICLE
Edwena E. Cook, Mattydale, N. Y.
Application April 13, 1955, Serial No. 35,494
Term of patent 14 years
(Cl. D44—15)



179,536
SLIPPER
Nickolas F. Fillips, Pittsburgh, Pa., assignor to Sani-Foam Products, Inc., Pittsburgh, Pa., a corporation of Pennsylvania
Application July 10, 1956, Serial No. 42,189
Term of patent 3½ years
(Cl. D7—7)



179,537
INFANT'S SAFETY TUB
Frances L. Floyd and Marlenna Phifer, Culver City, Calif.
Application June 6, 1955, Serial No. 36,373
Term of patent 3½ years
(Cl. D4—4)

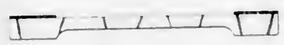
179,538
BALL POINT PEN
Robert J. Harper, Scarsdale, Robert H. Ensign, Bronxville, and Sidney H. Bradd, Jr., New York, N. Y., assignors to Scripto, Inc., a corporation of Georgia
Application June 28, 1956, Serial No. 42,076
Term of patent 14 years
(Cl. D74—17)

179,539
LOCK SET KNOB OR SIMILAR ARTICLE
Carl C. Hillgren, Newport Beach, Calif., assignor to Hillgren Manufacturing Company, Huntington Park, Calif., a corporation of California
Application November 14, 1955, Serial No. 38,870
Term of patent 7 years
(Cl. D50—3)

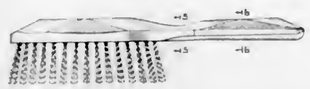
179,540
MICROPHONE STAND
Josef S. Knechtsberger, Chicago, Ill., assignor to Shure Brothers, Incorporated, Chicago, Ill., a corporation of Illinois
Application April 27, 1954, Serial No. 30,216
Term of patent 14 years
(Cl. D26—14)

179,541
CURTAIN FABRIC
Jay Curtis Lafferty, Jr., Philadelphia, Pa., assignor to North American Lace Co., Inc., Philadelphia, Pa.
Application August 29, 1956, Serial No. 42,770
Term of patent 3½ years
(Cl. D47—6)

179,542
HONING TOOL
Frederick W. Lindblad, Batavia, Ill.
Application November 2, 1954, Serial No. 32,934
Term of patent 14 years
(Cl. D37—1)



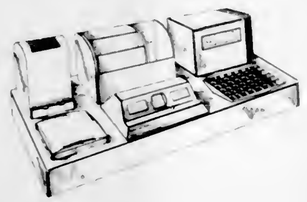
179,543
HAIRBRUSH OR SIMILAR ARTICLE
Joseph W. Mayer, Troy, N. Y., assignor to Johnson & Johnson, a corporation of New Jersey
Application March 12, 1956, Serial No. 40,561
Term of patent 14 years
(Cl. D86—10)



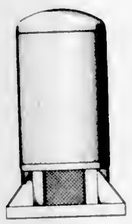
179,544
HAIRBRUSH OR SIMILAR ARTICLE
Joseph W. Mayer, Troy, N. Y., assignor to Johnson & Johnson, a corporation of New Jersey
Application March 12, 1956, Serial No. 40,563
Term of patent 14 years
(Cl. D86—10)

179,545
COMBINED COLLAPSIBLE TUBE AND DISPENSER CLOSURE CAP FOR ADHESIVES
Henry E. McDaniel, Wollaston, Mass., assignor, by mesne assignments, to The Borden Company, New York, N. Y., a corporation of New Jersey
Application July 24, 1952, Serial No. 20,744
Term of patent 14 years
(Cl. D58—17)

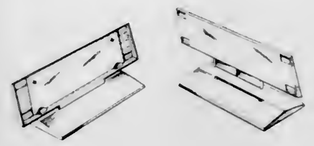
179,546
COMBINATION DESK UNIT
Harry J. Miele, Williamsport, Pa.
Application February 20, 1956, Serial No. 40,212
Term of patent 14 years
(Cl. D74—1)



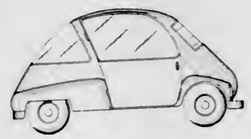
179,547
FILLING STATION UNIT
David Gregory Norris, Shreveport, La., assignor to The J. B. Beaird Company, Inc., Shreveport, La., a corporation of Delaware
Application February 14, 1956, Serial No. 40,159
Term of patent 14 years
(Cl. D52—2)



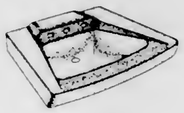
179,548
DESK CALENDAR
John J. Olson, St. Paul, Minn., assignor to Brown & Bigelow, St. Paul, Minn.
Application December 2, 1955, Serial No. 39,142
Term of patent 14 years
(Cl. D74—5)



179,549
AUTOMOBILE OR SIMILAR ARTICLE
Lorenzo Amilcare Rivolta, Bresso, Italy
Application November 2, 1954, Serial No. 32,915
Term of patent 14 years
(Cl. D14—3)



179,550
LAVATORY
Walter D. Teague, Annandale, N. J., Robert J. Harper, Scarsdale, and Alban G. Jackson, New York, N. Y., assignors to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware
Application December 9, 1955, Serial No. 39,265
Term of patent 14 years
(Cl. D4—2)



179,551
COSMETIC CASE
Grace Gilbert Van Voorhis, Bronx, N. Y., assignor to Revlon, Inc., New York, N. Y., a corporation of Delaware
Application July 23, 1956, Serial No. 42,354
Term of patent 14 years
(Cl. D86—10)

LIST OF REISSUE PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 15TH DAY OF JANUARY, 1957

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Burckhalter, Joseph H., E. M. Jones, A. L. Rawlins, F. H. Tendick and W. F. Holcomb, to Parke, Davis & Co. Quinoline compounds and process of making same. Re. 24,265, 1–15–57, Cl. 260—286.

Holcomb, Walter F.: *See*—
Burckhalter, Joseph H., Jones, Rawlins, Tendick, and Holcomb. Re. 24,265.

Jones, Eldon M.: *See*—
Burckhalter, Joseph H., Jones, Rawlins, Tendick, and Holcomb. Re. 24,265.

Kearney, James R., Corp.: *See*—
Ortwig, Thomas B. Re. 24,266.

Ortwig, Thomas B., to James R. Kearney Corp. Electrical switches. Re. 24,266, 1–15–57, Cl. 200—48.

Parke, Davis & Co.: *See*—
Burckhalter, Joseph H., Jones, Rawlins, Tendick, and Holcomb. Re. 24,265.

Rawlins, Albert L.: *See*—
Burckhalter, Joseph H., Jones, Rawlins, Tendick, and Holcomb. Re. 24,265.

Tendick, Frank H.: *See*—
Burckhalter, Joseph H., Jones, Rawlins, Tendick, and Holcomb. Re. 24,265.

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Boerner, Eugene S., to Jackson & Perkins Co. Chrysanthemum plant. 1,553, 1–15–57, Cl. 47—60.

Boerner, Eugene S., to Jackson & Perkins Co. Chrysanthemum plant. 1,554, 1–15–57, Cl. 47—60.

Boerner, Eugene S., to Jackson & Perkins Co. Chrysanthemum plant. 1,555, 1–15–57, Cl. 47—60.

Crandall, Judson L. Apricot tree. 1,551, 1–15–57, Cl. 47—62.

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American Radiator & Standard Sanitary Corp.: *See*—
Teague, Walter D., Harper, and Jackson. 179,550.

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Brettell, George A. 179,533.

Beaird, J. B., Co., Inc., The: *See*—
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Cook, Edwena E. Plate or similar article. 179,535, 1–15–57, Cl. D44—15.

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Fillips, Nickolas F., to Sani-Foam Products, Inc. Slipper. 179,536, 1–15–57, Cl. D7—7.

Floyd, Frances L., and M. Phifer. Infant's safety tub. 179,537, 1–15–57, Cl. D4—4.

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Mayer, Joseph W. 179,544.

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Lafferty, Jay C., Jr., to North American Lace Co., Inc. Curtain fabric. 179,541, 1–15–57, Cl. D47—6.

Lindblad, Frederick W. Honing tool. 179,542, 1–15–57, Cl. D37—1.

Mayer, Joseph W., to Johnson & Johnson. Hairbrush or similar article. 179,543, 1–15–57, Cl. D86—10.

Mayer, Joseph W., to Johnson & Johnson. Hairbrush or similar article. 179,544, 1–15–57, Cl. D86—10.

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Miele, Harry J. Combination desk unit. 179,546, 1–15–57, Cl. D74—1.

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TO WHOM

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Fullerton, Thomas J., and Rosenblum. 2,777,647.
Adams, Cecil E., and W. E. Eschliman, to American Brake Shoe Co. Fluid energy translating device. 2,777,396, 1–15–57, Cl. 103—136.
Adams, Cecil E., and K. C. Goodman, to American Brake Shoe Co. Electronic control system for hydraulic motor. 2,777,425, 1–15–57, Cl. 121—38.
Adams, Cecil E., to American Brake Shoe Co. Antifriction bearing supported spool. 2,777,465, 1–15–57, Cl. 137—543.23.
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Adams, Henry W., Jr. Devices for testing capacitors. 2,777,989, 1–15–57, Cl. 324—60.
Adams, Letha F. Window frame assembly. 2,777,548, 1–15–57, Cl. 189—64.
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Späth, Hans. 2,777,939.
Ahrendt Instrument Co., The: *See*—
Matthew, Morton P. 2,777,637.
Aigrain, Pierre, to Compagnie Generale de Telegraphie Sans Fil. Cooling device for semi-conducting elements. 2,777,975, 1–15–57, Cl. 317—234.
Ailes, Wayne B.: *See*—
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Aircraft-Marine Products, Inc.: *See*—
Reider, George S., Jr. 2,777,345.
Air Products Inc.: *See*—
Schilling, Clarence J. 2,777,296.
Air Reduction Co., Inc.: *See*—
Rutledge, Thomas F., and Buselli. 2,777,884.
Steele, Richard B., Purkhiser, and Anderson. 2,777,973.
Alamance Industries, Inc.: *See*—
Comer, Marvin H. 2,777,310.
Albert, George A. Cigarette disposal device. 2,777,448, 1–15–57, Cl. 131—237.
Albrecht, Henry P. Adjustable shores. 2,777,660, 1–15–57, Cl. 248—354.
Albright, Robert B., and H. W. Golden, to Philco Corp. Method of forming a printed circuit and soldering components thereto. 2,777,192, 1–15–57, Cl. 29—155.5.
Albright, Robert B., and H. W. Golden, to Philco Corp. Circuit construction. 2,777,193, 1–15–57, Cl. 29—155.5.
Aldinger, Ulrich, to Robert Bosch G. m. b. H. Injection pump for multi-cylinder engines. 2,777,434, 1–15–57, Cl. 123—139.
All American Engineering Co.: *See*—
Cotton, Robert B., and Doolittle. 2,777,653.
Allan Benjamin W., and F. O. Rummery, to The Glidden Co. Process for preparing cadmium red pigment. 2,777,777, 1–15–57, Cl. 106—301.
Allan, Benjamin W., and F. O. Rummery, to The Glidden Co. Process for preparing cadmium red pigment. 2,777,778, 1–15–57, Cl. 106—301.
Allen, Lloyd W., to International Business Machines Corp. Core matrix. 2,778,005, 1–15–57, Cl. 340—174.
Allen, Wesley M. Bow string guide. 2,777,437, 1–15–57, Cl. 124—30.
Allen, William S.: *See*—
Bernstein, Seymour, and Allen. 2,777,864.
Allied Control Co., Inc.: *See*—
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Horman, John H. 2,777,922.
Allied Plastics Co.: *See*—
Crane, Walton B. 2,777,627.
Allin, George S., Jr., to Pullman-Standard Car Mfg. Co. Moldboard tilt compensation arrangement. 2,777,222, 1–15–57, Cl. 37—144.
Allis-Chalmers Mfg. Co.: *See*—
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Roubal, Alexander J. 2,777,579.
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American Brake Shoe Co.: *See*—
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Adams, Cecil E., and Eschliman. 2,777,396.
Adams, Cecil E., and Goodman. 2,777,425.
Cox, Isaac E. 2,777,738.
Wilson, Rosser L., and Knauer. 2,778,008.
American Can Co.: *See*—
Koehler, Paul K. 2,777,717.

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Bernstein, Seymour, and Allen. 2,777,864.
Bundegaard, Howard, and Kocay. 2,777,931.
Cresswell, Arthur, and Cummings. 2,777,751.
Day, Harold M., Hasler, and Forster. 2,777,828.
Hedley, Norman, and Tabachnick. 2,777,764.
Mallison, William C. 2,777,832.
Paterson, John C., and Gordon. 2,777,844.
Scalera, Mario, and Adams. 2,777,855.
Schaefer, Frederic C. 2,777,848.
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American Machine and Metals, Inc.: *See*—
Martin, Charles L. 2,777,689.
American Motors Corp.: *See*—
Kishline, Floyd F., and Wood. 2,777,632.
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American Seating Co.: *See*—
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Aminco Tools, Inc.: *See*—
Billeter, Henry R., and Kushmuk. 2,777,259.
Anazawa, Kenji, and E. Tsuruta, to Furukawa Electric Co., Ltd. and Furukawa Mining Co., Ltd. Process for manufacturing titanium tetrachloride and arrangement thereof. 2,777,756, 1–15–57, Cl. 23—262.
Anderson, Eldon, to Collins Radio Co. Reactance tube circuit. 2,777,992, 1–15–57, Cl. 332—24.
Anderson, Jac B., to Enger-Kress Co. Billfolds. 2,777,494, 1–15–57, Cl. 150—38.
Anderson, Nelson E.: *See*—
Steele, Richard B., Purkhiser, and Anderson. 2,777,973.
Anderson Products, Inc.: *See*—
Ferguson, Warren T. 2,777,459.
Andrews, Malcolm C. Finger dial for dial telephones. 2,777,228, 1–15–57, Cl. 40—10.5.
Andrews, Robert C., and N. G. Peterson, to The Glidden Co. Unsaturated alkyd resin compositiona containing choline chloride. 2,777,829, 1–15–57, Cl. 260—45.4.
Angelus Engineering Corp.: *See*—
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Archer, Sydney, to Sterling Drug Inc. 4-ethanesulfonyl-4-aryl-1-methylpiperidines and their preparation. 2,777,850, 1–15–57, Cl. 260—293.4.
Arena, Joseph P. Measuring and dispensing device for liquor. 2,777,614, 1–15–57, Cl. 222—442.
Arenberg, David L., and R. M. Ashby. Ultrasonic delay lines. 2,777,997, 1–15–57, Cl. 333—30.
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Murphy, William P. 2,777,237.
Olden, Roger G., and Young. 2,777,744.
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Ashley, Robert H., to John Wood Co. Method of forming fluepressure seal between elements of a container having an interior coating of porcelain enamel. 2,777,194, 1–15–57, Cl. 29—458.
Ashton, George H., and G. E. Nelson, to Bemis Bro. Bag Co. Manufacture of draw-cord bags and the product thereof. 2,777,491, 1–15–57, Cl. 150—11.
Asseff, Peter A., T. W. Mastin, and A. Rhodes, to The Lubrizol Corp. Metal complexes and methods of making same. 2,777,874, 1–15–57, Cl. 260—504.
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Atkinson, Fred M., Mattson, and Paulson. 2,777,481.
Atkinson, Fred M., D. F. Mattson, and A. L. Paulson, to Atkinson Bulk Transport Co. Railroad car filling device. 2,777,481, 1–15–57, Cl. 141—388.

Atkinson, Herbert J. Bilge pump. 2,777,397, 1–15–57, Cl. 103—148.
Atkinson, W. G.: *See*—
Bensin, Basil M. 2,777,253.
Atlantic Refining Co.: *See*—
Kleras, Joseph A. 2,777,776.
Atlas Plywood Corp.: *See*—
Muller, Robert A. 2,777,126.
Austin Motor Co. Ltd., The: *See*—
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Nave, Alfred E. 2,777,304.
Avra, Elmer L., deceased; L. M. Avra, administratrix of said E. L. Avra, 60% to L. M., P. E., M. L., and D. E. Avra, and 40% to W. D. Ball. Sharpening machine. 2,777,258, 1–15–57, Cl. 51—48.
Avra, Lela M.: *See*—
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Avra, Marvin L.: *See*—
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Babcock & Wilcox Co., The: *See*—
Johnson, Lowell E., and Musat. 2,777,512.
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Bach, Frederick L., Jr., H. J. Brabander, and S. Kushner, to American Cyanamid Co. 1,1'-alkylenedipiperazines and methods of preparing same. 2,777,849, 1–15–57, Cl. 260—268.
Bachman, Fred E., to American Steel Foundries. Brake head mounting arrangement. 2,777,540, 1–15–57, Cl. 188—73.
Bachy, Andrew L. Intermittent marking devices. 2,777,385, 1–15–57, Cl. 101—42.
Badalini, Giovanni, to S.-p. A. Cambi Idraulici Badalini. Rotary pump and motor hydraulic transmisalon. 2,777,286, 1–15–57, Cl. 60—53.
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Bailer, Austin, to American Telephone and Telegraph Co. Self-oscillating double tone whistle. 2,777,251, 1–15–57, Cl. 46—179.
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Bailey, Donald L., and R. Y. Mixer, to Union Carbide and Carbon Corp. Polymerization of vinylalkoxysilanes. 2,777,869, 1–15–57, Cl. 260—448.2.
Bailey, Edward W. Spherical internal combustion turbine. 2,777,290, 1–15–57, Cl. 60—39.35.
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Johnson, Clarence. 2,777,351.
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Baker, Paul G. Muscle relaxer. 2,777,440, 1–15–57, Cl. 128—69.
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Balogh, Roy O., to McCabe-Powers Auto Body Co. Ladder-supported work platforms. 2,777,737, 1–15–57, Cl. 304—29.
Balzer, Rudolf. Needle threading device. 2,777,623, 1–15–57, Cl. 223—99.
Bancroft, James E., to Allied Control Co., Inc. Tensioning mechanism for winding machines. 2,777,643, 1–15–57, Cl. 242—45.
Banker, Oscar H., to New Products Corp. Motion-transmitting device. 2,777,329, 1–15–57, Cl. 74—96.
Banker, Oscar H., to New Products Corp. Sprag mechanism. 2,777,551, 1–15–57, Cl. 192—45.1.
Banning, Thomas A., Jr. Coin controlled liquid dispensing apparatus and the like. 2,777,555, 1–15–57, Cl. 194—13.
Banzhof, William S., Jr., to Western Electric Co., Inc. Pressing punch and die. 2,777,162, 1–15–57, Cl. 18—16.5.
Barclay, Herbert, to The Garrett Corp. Belt supporting device. 2,777,330, 1–15–57, Cl. 74—230.7.
Barényi, Béla, to Daimler-Benz Aktiengesellschaft. Motor vehicle accessible by means of a pivotal cap. 2,777,728, 1–15–57, Cl. 296—28.
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Johnson, Albert M. 2,777,257.
Price, Richard P. 2,777,321.
Barnett, Nelson L., R. Condensation device. 2,777,383, 1–15–57, Cl. 99—293.
Barr, Leslie A., and W. D. Henry, to Essex Wire Corp. Temperature responsive control circuit. 2,777,932, 1–15–57, Cl. 219—20.
Barratt, Roland L.: *See*—
Aaron, Martin, and Barratt. 2,777,245.
Bartenfeld, Wilford G. Side tank construction for bulk cargo vessels. 2,777,413, 1–15–57, Cl. 114—78.
Bashover, Albert: *See*—
Samo, Harvey W., and Bashover. 2,777,250.
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Baxter Laboratories, Inc.: *See*—
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Beaumont, Gerald M. Roller-type lawn mower. 2,777,274, 1–15–57, Cl. 56—249.
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Beerli, Karl, to Spindel-, Motoren - und Maschinenfabrik A. G. Method of assembling bearings for spinning or twisting spindles. 2,777,739, 1–15–57, Cl. 308—149.
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Remelka, Joseph P. 2,777,188.
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Bellandi, Ferdinando L. Sound-emitting hand-invertible dispensing container for fluent material. 2,777,607, 1–15–57, Cl. 222—39.
Belsky, Robert C. and T. B., and G. B. Klarfeld. Mop assembly. 2,777,148, 1–15–57, Cl. 15—228.
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Belsky, Robert C. and T. B., and Klarfeld. 2,777,148.
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Milbourne, Samuel C. 2,777,904.
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Bennett, Alfred, to Bendix Aviation Corp. Control apparatus for saturable core device. 2,777,986, 1–15–57, Cl. 323—56.
Bensen, Richard E. Compression type dispensing device. 2,777,612, 1–15–57, Cl. 222—209.
Bensin, Basil M., 50% to W. G. Atkinson. System for improving growing conditions for plants and farm animals in unfavorable climates by solar energy. 2,777,253, 1–15–57, Cl. 47—1.
Berchin, Walter and W. Multi-carburetor synchronizer. 2,778,007, 1–15–57, Cl. 340—236.
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Beresford & Son Ltd.: *See*—
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Bergan, Martin D., to The Thomas & Betts Co. Dead end connectors. 2,777,895, 1–15–57, Cl. 174—94.
Berger, Jack. Vertical flame oil burner. 2,777,510, 1–15–57, Cl. 158—28.
Berger, Johannes, and G. Lange, to C. Zeiss. Photographic objective comprising two dispersive meniscus components enclosed by two collective components. 2,777,362, 1–15–57, Cl. 88—57.
Berger, Leonard: *See*—
Weber, Israel, and Berger. 2,777,322.
Berkeley, Laurence J., to Superior Steel Corp. Making bimetallic billet. 2,777,936, 1–15–57, Cl. 219—73.
Berkoben, Charles W., to Westinghouse Air Brake Co. Airplane brake control apparatus. 2,777,654, 1–15–57, Cl. 244—111.
Berkowitz, Archie: *See*—
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Bernard, Arthur A., to National Cylinder Gas Co. Arc welding method and means. 2,777,928, 1–15–57, Cl. 219—8.
Bernstein, Seymour, and W. S. Allen, to American Cyanamid Co. 16-oxy-cortisone, 16-oxy-hydrocortisone and process. 2,777,864, 1–15–57, Cl. 260—397.45.
Berry, Jean E. Time zone timepiece. 2,777,281, 1–15–57, Cl. 58—80.
Bertrams Ltd.: *See*—
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Bethlehem Steel Co.: *See*—
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Beyer, Walter O. Flange coupling with sealing means responsive to internal or external pressure. 2,777,715, 1–15–57, Cl. 285—112.

Bigelow-Sanford Carpet Co., Inc.: *See*—
Jackson, Robert J. 2,777,468.

Billeter, Henry R., and W. P. Kushmuk, to Ammco Tools, Inc. Rotatable hone. 2,777,259, 1–15–57, Cl. 51—184.3.

Binder, William O., to Union Carbide and Carbon Corp. Corrosion resistant alloys. 2,777,766, 1–15–57, Cl. 75—134.

Birdsboro Steel Foundry and Machine Co.: *See*—
Peterson, Edward T. 2,777,343.

Birminghani, Henry P., to the United States of America as represented by the Secretary of the Navy. Radar tracking demonstrating and training instrument. 2,777,214, 1–15–57, Cl. 35—10.4.

Birmingham Paper Co.: *See*—
Osteen, Belmont D. 2,777,629.

Bittner, Raymond E., and C. C. Nelson, to Esso Research and Engineering Co. Combination crude distillation and oil refining process. 2,777,801, 1–15–57, Cl. 196—49.

Black, Harold S., to Bell Telephone Laboratories, Inc. Magnetically loaded composite conductors. 2,777,896, 1–15–57, Cl. 178—45.

Blaisse, Berndt S., to N. V. Optische Industrie "De Oude Delft." Interference-microscope. 2,777,360, 1–15–57, Cl. 88—39.

Blaw-Knox Co.: *See*—
Eckstrom, Albert W. 2,777,514.

Bliss, Lyman A., P. M. Riede, and J. H. Beckman, to Union Carbide and Carbon Corp. Concrete reservoir for liquefied gases. 2,777,295, 1–15–57, Cl. 62—1.

Blitzer, Sidney M., O. M. Brown, and W. B. Grandjean, to Ethyl Corp. Recovery of tetraalkyl-lead compounds. 2,777,866, 1–15–57, Cl. 260—437.

Blockert, Ernest B., and A. Marino. Fountain pen of the pump type. 2,777,423, 1–15–57, Cl. 120—50.

Böchmann, Klaus, and K. Taube, to Farbenfabriken Bayer Aktiengesellschaft. Grey trisazo dyestuffs. 2,777,839, 1–15–57, Cl. 260—169.

Bockmeulen, Johannes H.: *See*—
Groenhof, Jacobus, and Bockmeulen. 2,777,325.

Bogaty, Stanislaus, to Proctor & Schwartz, Inc. Apparatus and method for conditioning cut tobacco. 2,777,446, 1–15–57, Cl. 131—136.

Boland, Thomas M.: *See*—
Merrill, Roger L., Boland, and Hecox. 2,777,661.

Bollin, Herman R. Three dimensional pictures. 2,777,231, 1–15–57, Cl. 40—126.

Bomac Laboratories Inc.: *See*—
Braden, Ray S. 2,777,993.

Booth, Emery C., assor. of a joint interest to O. M. Booth. Trap box for vehicle change holder. 2,777,568, 1–15–57, Cl. 206—0.81.

Booth, Olga M.: *See*—
Booth, Emery C. 2,777,568.

Borman Engineering, Inc.: *See*—
Spiro, Irving J., and Marlow. 2,777,940.

Bosch, Robert, G. m. b. H.: *See*—
Aldinger, Ulrich. 2,777,434.
Vielmo, Oskar. 2,777,741.

Boswell, Arthur C., to The English Electric Co. Ltd. Fuel tank for aircraft. 2,777,463, 1–15–57, Cl. 137—341.

Boucher, Frank G., to the United States of America as represented by the Secretary of the Navy. Fuel flow control apparatus. 2,777,289, 1–15–57, Cl. 60—39.28.

Boulestreau, Henri, to Sorag. Gas density meters. 2,777,320, 1–15–57, Cl. 73—30.

Bourns, Marlan E. Variable resistor. 2,777,926, 1–15–57, Cl. 201—62.

Boysen, Martin C., and K. E. Towers. Outrigger support for mobile crane or shovel. 2,777,586, 1–15–57, Cl. 212—145.

Brabander, Herbert J.: *See*—
Bach, Frederick L., Jr., Brabander, and Kushner. 2,777,849.

Braden, Ray S., to Bomac Laboratories Inc. Microwave shutter device. 2,777,993, 1–15–57, Cl. 333—13.

Brafman, Harold E., to Sprague Electric Co. High voltage capacitor. 2,777,976, 1–15–57, Cl. 317—261.

Bragg, Lawrence D., Jr., to The General Tire & Rubber Co. Felt sheeting. 2,777,787, 1–15–57, Cl. 154—48.

Bragg, Lawrence D., Jr., to The General Tire & Rubber Co. Composite sheet material. 2,777,788, 1–15–57, Cl. 154—48.

Brame, Allen J., to T. P. Walker, as trustee. Predetermined torque release unit for wrenches and the like. 2,777,346, 1–15–57, Cl. 81—52.4.

Brandell, Elmer: *See*—
Neal, Ernest C. 2,777,234.

Brandhorst, Alma E. Memorial flower holder markers. 2,777,233, 1–15–57, Cl. 41—10.

Brandjean, William B.: *See*—
Giraitis, Albert P., Brandjean, and Neher. 2,777,867.

Branick, Charles E. Device for mounting rims on pneumatic tire casings. 2,777,507, 1–15–57, Cl. 157—1.

Brant, Robert J. Trenching machine. 2,777,219, 1–15–57, Cl. 37—86.

Brattain, Walter H., and C. G. B. Garrett, to Bell Telephone Laboratories, Inc. Protection of semiconductive devices by gaseous ambients. 2,777,974, 1–15–57, Cl. 317—234.

Brawand, Franklin M. Split choker hook. 2,777,182, 1–15–57, Cl. 24—242.

Breed, Arie E., to Deere Manufacturing Co. Crop harvesting rotor having pivoted crop engaging members. 2,777,268, 1–15–57, Cl. 55—118.

Breidenbaugh, Christian P.: *See*—
Turner, James F., and Breidenbaugh. 2,777,406.

Breidenbaugh, Lillie M.: *See*—
Turner, James F., and Breidenbaugh. 2,777,406.

Breier, Sidney: *See*—
Svirsky, Bennett. 2,777,460.

Brennan, Joseph B. Method and apparatus for welding metal elements. 2,777,929, 1–15–57, Cl. 219—10.

Bridges, Jack E., to Zenith Radio Corp. Encoding mechanism for a subscription type of communication system. 2,778,009, 1–15–57, Cl. 340—348.

Brody, Arthur. Phonograph record holder. 2,777,574, 1–15–57, Cl. 206—62.

Broman, Cyrus R.: *See*—
Thomas, James G., and Broman. 2,777,443.

Brooke, Norman E. Garment hanger for trousers, coats, etc. 2,777,620, 1–15–57, Cl. 223—91.

Brooks, Wendell R. Bow with automatic arrow holder. 2,777,435, 1–15–57, Cl. 124—23.

Brown, Cicero C., and G. McCray. Removable drill pipe float valve. 2,777,523, 1–15–57, Cl. 166—219.

Brown, John R., to The Reliance Gauge Column Co. Magnetic switch. 2,777,914, 1–15–57, Cl. 200—84.

Brown, Orland M.: *See*—
Blitzer, Sidney M., Brown, and Grandjean. 2,777,866.

Brown, Walter O. Photo carrying board and protector. 2,777,230, 1–15–57, Cl. 40—61.

Bruene, Warren B., to Collins Radio Co. Impedance matching device. 2,777,996, 1–15–57, Cl. 333—26.

Bryant, Austin U., to Grove Valve and Regulator Co. Valve construction. 2,777,664, 1–15–57, Cl. 251—174.

Bryant, Austin U., to Grove Valve & Regulator Co. Welding apparatus. 2,777,937, 1–15–57, Cl. 219—125.

Bunch, William. Air tempering equipment. 2,777,677, 1–15–57, Cl. 261—10.

Bundegaard, Howard, and W. R. Kocay, to American Cyanamid Co. Thread-advancing drying unit. 2,777,931, 1–15–57, Cl. 219—19.

Burdick Corp., The: *See*—
Gilson, Warren E., and Rasmussen. 2,777,747.

Burgeff, Hans. Vessel for continuous extraction. 2,777,757, 1–15–57, Cl. 23—267.

Burke, William O., to National Lock Co. Hinge construction for cabinets and the like. 2,777,157, 1–15–57, Cl. 16—190.

Burke, William O., to National Lock Co. Foot pedal operated latch mechanism. 2,777,315, 1–15–57, Cl. 70—144.

Burke, William O., and R. S. Larson, to National Lock Co. Refrigerator latch. 2,777,721, 1–15–57, Cl. 292—332.

Burke, William O., to National Lock Co. Latch construction. 2,777,722, 1–15–57, Cl. 292—332.

Burnside, Fred S., H. R. Plath, and C. B. Kaufmann, said Burnside and said Plath assignors to said Kaufmann. Bird and rodent barrier. 2,777,171, 1–15–57, Cl. 20—1.

Burton, William P.: *See*—
Lefrancois, Philip A., Riblett, and Burton. 2,777,805.

Burzl, Richard, to The Austin Motor Co. Ltd. Motor road vehicles. 2,777,731, 1–15–57, Cl. 296—66.

Busch, Lee S., and G. H. Bauer, to Mallory-Sharon Titanium Corp. Alpha titanium alloys. 2,777,768, 1–15–57, Cl. 75—175.5.

Buselli, Alio J.: *See*—
Rutledge, Thomas F., and Buselli. 2,777,884.

C & D Batteries, Inc.: *See*—
Doughty, Leon A. 2,777,892.

C. D. Patents Ltd.: *See*—
Greaves, Charles D., and Atkins. 2,777,806.

C. G. S. Laboratories, Inc.: *See*—
Gabor, William D. 2,777,955.

Calfee, John D., to Monsanto Chemical Co. Copolymerization of vinyl chloride with vinylidene chlorofluoride at high pressures. 2,777,834, 1–15–57, Cl. 260—87.7.

Calfee, John D., to Monsanto Chemical Co. Polymerization of 1-chloro-1-fluoro-ethylene. 2,777,835, 1–15–57, Cl. 260—92.1.

Callahan, Robert M., to the United States of America as represented by the Secretary of the Navy. Barium titanate of increased dielectric constant and piezoelectric response and method of producing same. 2,777,773, 1–15–57, Cl. 106—39.

Campbell, Oliver F., and W. H. Decker, to Sinclair Refining Co. Apparatus. 2,777,428, 1–15–57, Cl. 122—4.

Campos, Francisco, to Societe Anonyme dite: Societe des Brevets Logabax. Tabulating mechanism for calculating machines. 2,777,560, 1–15–57, Cl. 197—177.

Cannon, Harry B. Hydraulic conveyor with granular slurry control valve. 2,777,736, 1–15–57, Cl. 302—14.

Carlin, Robert, and E. B. Heckenkamp, to Allis-Chalmers Mfg. Co. Traction boosting power lift system. 2,777,375, 1–15–57, Cl. 97—46.07.

Carpenter, Paul G., to Phillips Petroleum Co. Gas lift valve and control system. 2,777,398, 1–15–57, Cl. 103—232.

Carr, Howard W. Storm shutter. 2,777,174, 1–15–57, Cl. 20—40.

Carroll, Murray N.: *See*—
Sprague, Basil S., Carroll, and Roughsedge. 2,777,750.

Carter, Charles A. Paint paddle. 2,777,676, 1–15–57, Cl. 259—144.

Carter, Joseph H. Filter pad pick-up device. 2,777,724, 1–15–57, Cl. 293—25.

Casablancas High Draft Co. Ltd.: *See*—
Noguera, Joseph. 2,777,168.
Noguera, Joseph. 2,777,169.

Casco Products Corp.: *See*—
Cone, Joseph H. 2,777,225.
Lehmann, Herbert G. 2,777,224.

Case, Charles B. Bow tie form. 2,777,131, 1–15–57, Cl. 2—154.

Case J. I., Co.: *See*—
Heth, Sherman C. 2,777,273.
Schwegler, Roy F. 2,777,376.

Caswall, Robert D., to Libbey-Owens-Ford Glass Co. Glass door construction. 2,777,173, 1–15–57, Cl. 20—16.

Caterpillar Tractor Co.: *See*—
Wagner, Harold H. 2,777,328.

Celanese Corp. of America: *See*—
Rulison, Richard N., Jones, and Denyes. 2,777,160.
Sprague, Basil S., Carroll, and Roughsedge. 2,777,750.

Chamberlain, Royce, and J. C. De Mille. Limbing attachment for power driven chain saws. 2,777,482, 1–15–57, Cl. 143—32.

Chamberlin, Earl M.: *See*—
Chemerda, John M., Chamberlin, and Tristram. 2,777,843.

Chamberlin, Gail A. Coin holder. 2,777,575, 1–15–57, Cl. 206—83.

Chambers, Herbert I.: *See*—
Ehrlich, Louis B., and Chambers. 2,777,688.

Chambers, Robert R., and R. L. Foster, to Sinclair Refining Co. Isobutylene allylic monochloride. 2,777,883, 1–15–57, Cl. 260—654.

Chapman, James E., C. F. Drexel, and J. E. Young, to The Garrett Corp. Ram air driven turbine. 2,777,524, 1–15–57, Cl. 170—68.

Charlois, Philip, to Vaucanson Silk Mills, Inc. Method for producing crimped superpolyamidic threads and novel threads obtained. 2,777,277, 1–15–57, Cl. 57—140.

Charlton, John, to Sperry Rand Corp. Frequency modulating systems for phase-shift oscillators. 2,777,951, 1–15–57, Cl. 250—36.

Cheeley, William E., to Reynolds Metals Co. Container and easy opening cover therefor. 2,777,601, 1–15–57, Cl. 220—54.

Chemerda, John M., E. M. Chamberlin, and E. W. Tristram, to Merck & Co., Inc. Preparation of 4-pregnen-17α-ol-3-20-dione. 2,777,843, 1–15–57, Cl. 260—239.55.

Chemical & Engineering Co.: *See*—
Tarnoski, Paul T. 2,777,761.

Chempatents, Inc.: *See*—
Egbert, Robert B. 2,777,862.
Egbert, Robert B., and Becker. 2,777,860.

Cherem, Gabriel A. Tree pruner and trimmer based on a portable platform. 2,777,483, 1–15–57, Cl. 143—43.

Chicago Pump Co.: *See*—
Forrest, Tom H. 2,777,815.

Chu, Lan J., to The Gabriel Co. Antenna. 2,778,015, 1–15–57, Cl. 343—770.

Chu, Lan J., to The Gabriel Co. Wave guide antenna. 2,778,016, 1–15–57, Cl. 343—771.

Church, Charles E.: *See*—
Newton, Charles G. 2,777,309.

Ciabattoni, Orlando M. Power steering control system for road graders. 2,777,221, 1–15–57, Cl. 37—143.

Ciba Ltd.: *See*—
Liechti, Hans W., and Gunst. 2,777,840.

Clark Equipment Co.: *See*—
Repke, Edward P. 2,777,592.

Clark, Roscoe C., Jr., to Continental Oil Co. Pneumatic pumping system. 2,777,399, 1–15–57, Cl. 103—234.

Clary Corp.: *See*—
De Rosso, Charles R. 2,777,893.

Cleveland Hobbing Machine Co., The: *See*—
Staples, Otis E. 2,777,209.

Clift, Frederick R. Rear gun sight. 2,777,203, 1–15–57, Cl. 33—58.

Clifton, John R., to Northrop Aircraft, Inc. Auxiliary fuel cell. 2,777,656, 1–15–57, Cl. 244—135.

Cline Electric Mfg. Co.: *See*—
Paasche, Jens A. 2,777,256.
Paasche, Jens A. 2,777,419.

Cloes, Albert P. Retractable golf cart seat. 2,777,707, 1–15–57, Cl. 280—36.

Coast Envelope Co.: *See*—
Miller, Joseph C. 2,777,179.

Cochin, John D. Vehicle frame engaging accessory for automobile hoists. 2,777,538, 1–15–57, Cl. 187—8.75.

Cofield, Eugene P., Jr., H. W. Sams, and L. A. Woodward, to Scripto, Inc. Ball point writing unit. 2,777,422, 1–15–57, Cl. 120—42.4.

Cohn, David, to T. Cohn Inc. Target game. 2,777,695, 1–15–57, Cl. 273—102.

Cohn, T., Inc.: *See*—
Cohn, David. 2,777,695.

Colclazier, Wayne G. Power mower with pneumatic conveying and collecting means. 2,777,270, 1–15–57, Cl. 56—25.4.

Collins Radio Co.: *See*—
Anderson, Eldon. 2,777,992.
Bruene, Warren B. 2,777,996.
Hathaway, James C. 2,777,999.
Tollefson, Robert D. 2,777,953.

Colson, Glenn L. Cutting torch guide. 2,777,685, 1–15–57, Cl. 266—23.

Columbia Basin Plastics Co.: *See*—
De Shazor, James C., Jr. 2,777,615.
De Shazor, James C., Jr. 2,777,616.

Columbia Broadcasting System, Inc.: *See*—
Goldmark, Peter C. 2,777,902.
Rockett, John F., Jr. 2,777,545.

Columbia-Southern Chemical Corp.: *See*—
Strain, Franklin. 2,777,871.

Comer, Marvin H., to Alamance Industries, Inc. Stretch yarn and fabric and method of making same. 2,777,310, 1–15–57, Cl. 66—180.

Compagnie des Machines Bull: *See*—
Feissel, Henri G. 2,777,945.

Compagnie Generale de Telegraphie Sans Fil: *See*—
Airgrain, Pierre. 2,777,975.

Compagnie Industrielle des Telephones: *See*—
Harault, Jean L. 2,777,994.

Compagnie Internationale des Pieux Armes Frankignoul, Societe Anonyme: *See*—
Jourdain, André P. 2,777,528.

Cone, Joseph H., to Casco Products Corp. Steam iron. 2,777,225, 1–15–57, Cl. 38—77.

Conescu, Sidney. Cardboard folding box construction. 2,777,628, 1–15–57, Cl. 229—31.

Conmar Products Corp.: *See*—
Prupis, Robert I., and Bashover. 2,777,517.

Connecticut Hard Rubber Co., The: *See*—
Doede, Clinton M., and Kilbourne. 2,777,827.

Conte, Adriano E. Scope mount. 2,777,202, 1–15–57, Cl. 33—50.

Continental Oil Co.: *See*—
Clark, Roscoe C., Jr. 2,777,399.

Cook Bros. Equipment Co.: *See*—
Harbers, Henry C. 2,777,529.

Cook Electric Co.: *See*—
McDonald, Donald. 2,777,285.

Cook, Harold C., Sr. Garment hanger. 2,777,619, 1–15–57, Cl. 223—90.

Cook, Loren C. Gas system for firearms. 2,777,366, 1–15–57, Cl. 89—191.

Cookerly, Jack C., and G. R. Hall. Illuminator for musical instruments. 2,777,941, 1–15–57, Cl. 240—4.

Cooper, Duluth G. Control apparatus and proportioning device for fuel and combustion air. 2,777,513, 1–15–57, Cl. 158—119.

Cooper, Harold G. Appliance protector. 2,777,916, 1–15–57, Cl. 200—115.5.

Corbett, William H.: *See*—
Schmitt, Joy B., and Corbett. 2,777,935.

Corey, Flournoy: *See*—
Pitts, Robert D., and Corey. 2,777,158.
Pitts, Robert D., and Corey. 2,777,159.

Cormack, Marjorie J., and N. A. Thacker, to The National Cash Register Co. Method of desensitizing clay-coated record sheet. 2,777,780, 1–15–57, Cl. 117—36.

Corr, John E., and J. H. Ouellette, to General Electric Co. Turbine nozzle structure. 2,777,666, 1–15–57, Cl. 253—78.

Cosentino, Victor M. Suction operated cleaning brush. 2,777,152, 1–15–57, Cl. 15—387.

Cotton, Robert B., and D. B. Doolittle, to All American Engineering Co. Expeditionary aircraft arresting system. 2,777,653, 1–15–57, Cl. 244—110.

Couch, Glenn F., to The Symington-Gould Corp. Slack adjuster. 2,777,547, 1–15–57, Cl. 188—198.

Counts, James C., R. T. Nelson, and W. R. Trutna, to E. I. du Pont de Nemours and Co. Preparation of tetraethylthiuramdisulfide. 2,777,878, 1–15–57, Cl. 260—567.

Courtaulds Ltd.: *See*—
Edwards, John H., and Tallis. 2,777,775.
Evans, Bernard H. H. 2,777,161.

Cowan, Frank A., to American Telephone and Telegraph Co. Reduction of quadrature distortion. 2,777,900, 1–15–57, Cl. 179—15.5.

Cox, Charles L., Jr., to Hetherington, Inc. Hill-and-valley switch. 2,777,911, 1–15–57, Cl. 200—77.

Cox, Isaac E., to American Brake Shoe Co. Journal bearing lubricator. 2,777,738, 1–15–57, Cl. 308—85.

Crane Co.: *See*—
Hansen, George E. 2,777,662.

Crane, Walton B., to Allied Plastics Co. Paperboard shipping crate and interlocked crate unit. 2,777,627, 1–15–57, Cl. 229—27.

Creamery Package Mfg. Co., The: *See*—
Wakeman, Alden H. 2,777,674.

Cresswell, Arthur, and P. W. Cummings, Jr., to American Cyanamid Co. Process for spinning aqueous-saline solutions of acrylonitrile polymer. 2,777,751, 1–15–57, Cl. 18—54.

Crimmins, William C., to Appliance Mfg. Co. Inc. Electric switches. 2,777,908, 1–15–57, Cl. 200—11.

Crist, Philip W., to Sperry Rand Corp. Pulse synchronizer. 2,778,012, 1–15–57, Cl. 343—103.

Crompton & Knowles Loom Works: *See*—
Peterson, George N. 2,777,471.

Crooker, David E., and E. A. Frary; said Frary to L. L. Felker. Skid resisting tire treads. 2,777,498, 1–15–57, Cl. 152—211.

Crossot, Eugene A., ½ to A. Berkowitz. Golf instruction device. 2,777,697, 1–15–57, Cl. 273—187.

Crouse-Hinds Co.: *See*—
Lester, Ray F. 2,777,942.

Crown Cork & Seal Co., Inc.: *See*—
Evelyn, Harry C. 2,777,189.

Cruickshanks, John, to Bertrams Ltd. Automatic guides for travelling bands or belts. 2,777,331, 1–15–57, Cl. 74—241.

Cummings, Percival W., Jr.: *See*—
Cresswell, Arthur, and Cummings. 2,777,751.

Cunningham, Robert J.: *See*—
Siefert, August C., and Cunningham. 2,777,254.

Cusack, Thomas J., to The Virjune Mfg. Co. Lipstick case. 2,777,572, 1–15–57, Cl. 206—56.

Cushman Chuck Co., The: *See*—
Sloan, Harry E. 2,777,704.

Cushman, Maurice E. Fishing rods. 2,777,239, 1–15–57, Cl. 43—18.

Czikk, Alfred M.: *See*—
Schaufelberger, Felix A., and Czikk. 2,777,753.

Daimler-Benz Aktiengesellschaft: *See*—
Barényi, Béla. 2,777,728.
Förster, Hans J. M. 2,777,550.
Links, Heinrich K. 2,777,390.

Daimler Co. Ltd., The: *See*—
Simpson, Cyril M. 2,777,334.

Dallanis, George. Folding paring knife. 2,777,195, 1–15–57, Cl. 30—155.

Dana Corp.: *See*—
Hess, Werner G. 2,777,938.

Darling, Robert F., to The Parsons and Marine Engineering Turbine Research and Development Association. Combustion chamber with removable flame tubes. 2,777,291, 1–15–57, Cl. 60—39.65.

Daudelin, Roland G. High pressure control valve. 2,777,455, 1–15–57, Cl. 137—68.

Davidson, John T., to The Standard Register Co. Form punching machine with form tipping mechanism to facilitate discharge of the cut forms. 2,777,516, 1–15–57, Cl. 164—20.

Davidson, John T., to The Standard Register Co. Adjustable pack holder. 2,777,690, 1–15–57, Cl. 271—2.1.

Davis, John B., to Socony Mobil Oil Co., Inc. Geomicrobial prospecting method for petroleum. 2,777,799. 1–15–57, Cl. 195—103.5.

Davison, Joseph W., to Phillips Petroleum Co. Separation and recovery of ethylene. 2,777,305, 1–15–57, Cl. 62—175.5.

Day, Harold M., V. E. Hasler, and W. S. Forster, to American Cyanamid Co. Stabilization of mixtures of unsaturated polyesters and copolymerizable monomers by means of hydroxy substituted benzophenones. 2,777,828, 1–15–57, Cl. 260—45.4.

Deal, Forest C. Voltage regulator compensating voltage and frequency changes. 2,777,987, 1–15–57, Cl. 323—56.

Debbink, Claude J. Prefabricated building construction. 2,777,172, 1–15–57, Cl. 20—4.

Debrie, André V. L. C. Means of correcting illumination for printing color films. 2,777,359, 1–15–57, Cl. 88—24.

Decker, William H.: *See*—
Campbell, Oliver F., and Decker. 2,777,428.

Deere & Co.: *See*—
Knoth, Harold M. 2,777,167.

Deere Manufacturing Co.: *See*—
Breed, Arle E. 2,777,268.
Hunter, George D. 2,777,378.
Johnson, Theodore W., and Hunter. 2,777,377.

Deering Milliken Research Corp.: *See*—
Klein, Norman E. 2,777,276.

De Mille, John C.: *See*—
Chamberlain, Royce, and De Mille. 2,777,482.

Denyes, Russell O.: *See*—
Rullison, Richard N., Jones, and Denyes. 2,777,160.

Derby Sealers, Inc.: *See*—
Krueger, Alfred P. 2,777,594.

De Rosso, Charles R., to Clary Corp. Mounting for electrical equipment. 2,777,893, 1–15–57, Cl. 174—52.

De Salvo, Arthur E.: *See*—
Noyes, Eliot F., De Salvo, and Lee. 2,777,381.

De Shazor, James C., Jr., to Columbia Basin Plastics Co. Shaker top with pouring spout. 2,777,615, 1–15–57, Cl. 222—480.

De Shazor, James C., Jr., to Columbia Basin Plastics Co. Shaker top. 2,777,616, 1–15–57, Cl. 222—555.

Detroit Controls Corp.: *See*—
Mosely, Neal J. 2,777,464.

Detroit Hardware Mfg. Co.: *See*—
Jewett, Deane N. and R. S. 2,777,687.

De Vilbiss Co., The: *See*—
Schmitt, Joy B., and Corbett. 2,777,935.

Dewrance & Co. Ltd.: *See*—
Spence, Charles A. 2,777,263.

Dickey, Joseph B., and E. B. Towne, to Eastman Kodak Co. 1,5 - dihydroxy - 8 - nitro-4-aminoanthraquinone compounds. 2,777,863, 1–15–57, Cl. 260—380.

Dickey, Sterling R., to G. Miller. Precision lawn edger. 2,777,380, 1–15–57, Cl. 97—227.

Diggs, Louise S., and W. V. Johnson. Bookholder. 2,777,246, 1–15–57, Cl. 45—80.

Di Mino, Alphonse, to Old Town Corp. Variable speed controls for motors. 2,777,964, 1–15–57, Cl. 310—95.

Dineen, Francis H., S. A. McNeight, and W. H. Vining, to E. I. du Pont de Nemours & Co. Vinyl acetate reactor. 2,777,760, 1–15–57, Cl. 23—288.

Disbrow, Donald R., to Union Steam Pump Co. Pump and packing thereof. 2,777,395, 115–57, Cl. 103—111.

Ditto, Inc.: *See*—
Kordig, James W., Fato, and Raczynski. 2,777,781.

Dobrin, Alvin R., and M. Lange. Floral display rack. 2,777,584, 1–15–57, Cl. 211—137.

Dodge, Clarice B. Apparatus for washing and drying clothes. 2,777,313, 1–15–57, Cl. 68—20.

Dodge, Frank H.: *See*—
Meysan, Charles H., and Dodge. 2,777,659.

Doede, Clinton M., and F. L. Kilbourne, Jr., to The Connecticut Hard Rubber Co. Silicone rubber-esterified silica composition. 2,777,827, 1–15–57, Cl. 260—37.

Doeg, Ralph W., to Nash-Kelvinator Corp. Two evaporator refrigerating system. 2,777,297, 1–15–57, Cl. 62—3.

Dohogne, Linus E., to National Cotton Compress and Cotton Warehouse Association. Multiple load weighing assembly. 2,777,682, 1–15–57, Cl. 265—71.

Doll, Claude S., C. E. Greene, and W. B. Alles, to The Monarch Machine Tool Co. Machine tool control apparatus. 2,777,350, 1–15–57, Cl. 82—14.

Domin, Heinz, to Firma Linnemann-Schnetzer K. G. Adjusting apparatus. 2,777,417, 1–15–57, Cl. 116—115.

Donaruma, Lorraine G., to E. I. du Pont de Nemours and Co. Process for the production of caprolactam. 2,777,841, 1–15–57, Cl. 260—239.3.

Donnelley, R. R., & Sons Co.: *See*—
McCahon, John O., and Proctor. 2,777,562.

Doolittle, Donald B.: *See*—
Cotton, Robert B., and Doolittle. 2,777,653.

Doran Brothers, Inc.: *See*—
Marindin, Frederick R. 2,777,170.

Doresjak, Charles, to Marjo Technical Products Co. Portable antenna. 2,778,017, 1–15–57, Cl. 343—823.

Doremus, John A., to Motorola, Inc. Oscillator. 2,777,950, 1–15–57, Cl. 205—36.

Dostert, Leon E. Binaural apparatus for teaching languages. 2,777,901, 1–15–57, Cl. 179—100.2.

Doughty, Leon A., to C & D Batteries, Inc. Closure assembly filling openings of storage batteries. 2,777,892, 1–15–57, Cl. 136—170.

Douglas Aircraft Co., Inc.: *See*—
Jurisich, Peter L. 2,777,508.

Dow Chemical Co., The: *See*—
Ikenberry, Ernest A., Kundiger, and Wheeler. 2,777,876.
Kenaga, Eugene E. 2,777,794.
Toorman, Burton V. 2,777,762.

Downs, Charles W.: *See*—
Johnson, Lester L., and Downs. 2,77,210.

Draize S. Z.: *See*—
Stildie, Hermann, and Martl. 2,777,589.

Drexel, Charles F.: *See*—
Chapman, James E., Drexel, and Young. 2,777,524.

Dudley, Victor L., to Joy Mfg. Co. Low height mine haulage vehicle. 2,777,526, 1–15–57, Cl. 180—2.

Dudley, Victor L., to Joy Mfg. Co. Operator control station for mine haulage vehicle. 2,777,530, 1–15–57, Cl. 180—77.

Du Kane Corp.: *See*—
Larson, Robert, and Shoemaker. 2,777,541.

Duncan, William M. Chain-grate heat machine. 2,777,429, 1–15–57, Cl. 122—371.

Dungler, Julien. Supporting and transporting means for web or sheet material in nozzle driers. 2,777,213, 1–15–57, Cl. 34—160.

Du Pont, E. I., de Nemours and Co.: *See*—
Counts, James C., Nelson, and Trutna. 2,777,878.
Dineen, Francis H., McNeight, and Vining. 2,777,760.
Donaruma, Lorraine G. 2,777,841.
Harford, Edward F. 2,777,821.
Ikeda, Carol K. 2,777,890.
Nicholson, Frank R. 2,777,644.
Oken, Aaron, and Schroeder. 2,777,845.
Pyle, Cyrus, and Turner. 2,777,807.
Shacklett, Comer D. 2,777,872.
Shivers, Joseph C., Jr. 2,777,830.
Spiegler, Louis. 2,777,879.
Weinmayr, Viktor. 2,777,754.
Weinmayr, Viktor. 2,777,887.
Young, James H. 2,777,749.

Duty, John B. Vehicle air conditioner. 2,777,298, 1–15–57, Cl. 62—117.

Eastern Rotorcraft Corp.: *See*—
Huber, John R. 2,777,668.

Eastman Kodak Co.: *See*—
Dickey, Joseph B., and Towne. 2,777,863.
Hasek, Robert H. 2,777,873.

Eaton Mfg. Co.: *See*—
Russell, Robert C. 2,777,542.
Winther, Martin P. 2,777,965.

Eberhardt, John E., to Bethlehem Steel Co. Treatment of iron bearing material. 2,777,755, 1–15–57, Cl. 23—200.

Eckstrom, Albert W., to Blaw-Knox Co. Method and apparatus for concentrating liquids. 2,777,514, 1–15–57, Cl. 159—17.

Edgerton, William H., and J. R. Fisher, to Parke, Davis & Co. Process for the production of organic amino diols. 2,777,854, 1–15–57, Cl. 260—307.

Ednell, Daniel F. Method for producing cones from a fibrous pulp suspension. 2,777,367, 1–15–57, Cl. 92—57.

Edwards, John H., and E. E. Tallis, to Courtaulds Ltd. Production of artificial filaments, threads, and the like. 2,777,775, 1–15–57, Cl. 106—165.

Egbert, Robert B., and M. Becker, to Chempatents, Inc. Catalysis. 2,777,860, 1–15–57, Cl. 260—346.8.

Egbert, Robert B., to Chempatents, Inc. Process for the catalytic oxidation of olefins. 2,777,862, 1–15–57, Cl. 260—348.5.

Ehrlich, Louis B., and H. I. Chambers. Window operating mechanism. 2,777,688, 1–15–57, Cl. 268—124.

Eickele, Walter: *See*—
Steizer, William, and Eickele. 2,777,675.

Ekholm, Carl R., and R. L. Krabbe, to Flexonics Corp. Tube bending apparatus and method. 2,777,500, 1–15–57, Cl. 153—40.

Eklund, Stone E., to The National Supply Co. Broach for well pipe. 2,777,191, 1–15–56, Cl. 29—95.1.

Elechem Corp.: *See*—
Ostrow, Barnet D. 2,777,810.

Electronic Medical Foundation: *See*—
Hart, Fred J. 2,777,445.

Elgen Mfg. Corp.: *See*—
Goldsmith, Morris. 2,777,573.

Elias, Nathaniel M. Spermicidal composition. 2,777,796, 1–15–57, Cl. 167—58.

Engberg, William M., and W. D. Wells. Hand apparatus for controlling brakes and accelerators. 2,777,335, 1–15–57, Cl. 74—481.

Enger-Kress Co.: *See*—
Anderson, Jac B. 2,777,494.

English Electric Co. Ltd., The: *See*—
Boswell, Arthur C. 2,777,463.

Ensign Carburetor Co.: *See*—
Ensign, Roy F. 2,777,432.

Ensign, Roy F., to Ensign Carburetor Co. Gas fuel feed systems, and pressure regulators, with safety cut-offs, for internal combustion engines and the like. 2,777,432, 1–15–57, Cl. 123—120.

Erickson, Norman R. Emergency crash seat. 2,777,531, 1–15–57, Cl. 180—82.

Ericson, Franklin R., to General Electric Co. Valve mechanism. 2,777,466, 1–15–57, Cl. 137—630.15.

Erving, Eric R. Wrap-on fire chain applicator. 2,777,499, 1–15–57, Cl. 152—213.

Eschliman, William E.: *See*—
Adams, Cecil E., and Eschliman. 2,777,396.

Essex Wire Corp.: *See*—
Barr, Leslie A., and Henry. 2,777,932.

Esso Research and Engineering Co.: *See*—
Bittner, Raymond E., and Nelson. 2,777,801.
Fritz, Robert J., Nicolai, and Nicholson. 2,777,803.
Nicolai, Lloyd A. 2,777,804.
Peet, Nick P. 2,777,802.
Pokorny, Oldrich S., and Farmer. 2,777,758.

Etablissements Merlin & Gerin: *See*—
Latour, André. 2,777,921.

Ethyl Corp.: *See*—
Blitzer, Sidney M., Brown, and Grandjean. 2,777,866.
Giraitis, Albert P., Brandjean, and Neher. 2,777,867.
Hirschler, Daniel A., Jr. 2,777,820.
Humphreys, David D. 2,777,882.
Whaley, Thomas P. 2,777,763.

Eutectic Welding Alloys Corp.: *See*—
Leston, Theodore I. 2,777,767.

Evans, Bernard H. H., to Courtaulds Ltd. Production of artificial filaments. 2,777,161, 1–15–57, Cl. 18—8.

Evelyn, Harry C., to Crown Cork & Seal Co., Inc. Strip forming and inserting machine. 2,777,189, 1–15–57, Cl. 29—33.

Everard, Joseph, to O. Heimbach. Flockage apparatus for the decoration of diverse objects. 2,777,977, 1–15–57, Cl. 317—262.

Everard, Kenneth B., and I. Harris, to Imperial Chemical Industries Ltd. Production of vinyl chloride polymers. 2,777,836, 1–15–57, Cl. 260—92.8.

Ey, Victor. Gas pressure regulators. 2,777,456, 1–15–57, Cl. 137—73.

Ezorsky, David M.: *See*—
Krieger, Maurice H., and Ezorsky. 2,777,145.

Falkenthal, Erwin E. Hot air heater. 2,777,934, 1–15–57, Cl. 219—39.

Fante, Harry H., and A. T. Gonia, to Rockwell Spring and Axle Co. Machine for bending preformed sinuous wire strips. 2,777,476, 1–15–57, Cl. 140—71.

Farbenfabriken Bayer Aktiengesellschaft: *See*—
Böckmann, Klaus, and Taube. 2,777,839.

Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning: *See*—
Huss, Richard, Siebert, and Weissert. 2,777,838.

Farmer, Michael H.: *See*—
Pokorny, Oldrich S., and Farmer. 2,777,758.

Farmers and Merchants National Bank of Los Angeles: *See*—
Miller, Robert P., Mathewson, and Meinzer. 2,777,578.

Farmingdale Corp., The: *See*—
Modrowsky, Joseph, and Sherwood. 2,777,394.

Farnsworth Research Corp.: *See*—
Henderson, J Alvin. 2,777,948.

Farrow, Benjamin J. Means for cutting uniformly spaced tenons. 2,777,485, 1–15–57, Cl. 144—198.

Fata, Bernard. Hinge. 2,777,155, 1–15–57, Cl. 16—164.

Fato, Glido: *See*—
Kordig, James W., Fato, and Raczynski. 2,777,781.

Fauser, Giacomo, to Montecatini, Società Generale per l'Industria Mineraria e Chimica. Process for the production of urea. 2,777,877, 1–15–57, Cl. 260—555.

Fehlmann, Ewald. Threader for sewing machine needles. 2,777,622, 1–15–57, Cl. 223—99.

Feissel, Henri G., to Compagnie des Machines Bull. Pulse producing system with interrelated repetition frequencies. 2,777,945, 1–15–57, Cl. 250—27.

Felker, Lloyd L.: *See*—
Crooker, David E., and Frary. 2,777,498.

Ferguson Equipment Corp.: *See*—
Troglione, Vincent R. 2,777,178.

Ferguson, Vernon H. Universal heat treating apparatus. 2,777,683, 1–15–57, Cl. 266—4.

Ferguson, Vernon H. Heat treating apparatus. 2,777,684, 1–15–57, Cl. 266—4.

Ferguson, Warren T., to Anderson Products, Inc. Air venting valve for use with hot water radiators. 2,777,459, 1–15–57, Cl. 137—197.

Ferranti Ltd.: *See*—
Whitemore, Edward J., and Baldock. 2,777,972.

Fibreboard Products Inc.: *See*—
Lubersky, Albert R. 2,777,563.

Finch, John E., Sr. Typewriter escapement mechanism. 2,777,557, 1–15–57, Cl. 197—88.

Finch, John E., Sr. Locked-in-mesh-rack-and-pinion mechanism for typewriter. 2,777,558, 1–15–57, Cl. 197—96.

Fingerut, Boris M.: *See*—
May, Arthur E., Jr., and Fingerut. 2,777,673.

Finlayson, Frank E., to General Electric Co. Water and power supply for steam irons. 2,777,226, 1–15–57, Cl. 38—77.

Firma Linnemann-Schnetzer K. G.: *See*—
Domin, Heinz. 2,777,417.

Firth Carpet Co., Inc., The: *See*—
Austin, Peter J. 2,777,475.

Fischer, Herbert C., to National Fibre Glass Co., Inc. Apparatus for continuously forming plastic tubing. 2,777,501, 1–15–57, Cl. 154—1.8.

Fischer & Krecke, Messrs., (Maschinenfabrik): *See*—
Koop, Lambert. 2,777,368.

Fisher, Guy N., to Kraft Foods Co. Packaging. 2,777,770, 1–15–57, Cl. 99—178.

Fisher, James R.: *See*—
Edgerton, William H., and Fisher. 2,777,854.

Fisher, Joseph R., to Mine Safety Appliances Co. Protective hat with suspension attachment. 2,777,128, 1–15–57, Cl. 2—3.

Flavin, Theodore F., to International Business Machines Corp. Controlled acceleration clutch mechanism. 2,777,552, 1–15–57, Cl. 192—52.

Flexonics Corp.: *See*—
Ekholm, Carl R., and Krabbe. 2,777,500.

Flinn, Howard T. Bath mat hanger. 2,777,658, 1–15–57, Cl. 248—158.

Fluchaire, Maurice L. A., and J. A. Phélisse, to Societe des Usines Chimiques Rhone-Poulenc. Cellulosic plastic compositions. 2,777,825, 1–15–57, Cl. 260—17.

Flynn & Emrich Co.: *See*—
Turner, James F., and Breidenbaugh. 2,777,406.

Fogelson, Emile: *See*—
Schwartz, Alexander, and Fogelson. 2,777,786.

Food Machinery and Chemical Corp.: *See*—
Les Veaux, John F., and Orwoll. 2,777,795.

Ford Motor Co.: *See*—
Miller, Raymond J., and Richey. 2,777,733.

Forrest, Tom H., to Chicago Pump Co. Sewage digestion process. 2,777,815, 1–15–57, Cl. 210—2.

Forssell, Eric G., to W. H. Miner, Inc. Friction shock absorbing means for railway car trucks. 2,777,400, 1–15–57, Cl. 105—197.

Förster, Hans J. M., to Daimler-Benz Aktiengesellschaft. Fluid coupling with electromagnetic clutch. 2,777,550, 1–15–57, Cl. 192—3.2.

Forster, Warren S.: *See*—
Day, Harold M., Hasler, and Forster. 2,777,828.

Forstmann Woolen Co.: *See*—
Litchfield, George A., Jr. 2,777,473.
Litchfield, George A., Jr. 2,777,474.

Fosness, John P., and J. E. Harrison, to North American Aviation, Inc. Aircraft catapult and landing barrier arrangement. 2,777,650, 1–15–57, Cl. 244—63.

Foster, Lee R. Smoker's appliance. 2,777,449, 1–15–57, Cl. 131—256.

Foster, Robert L.: *See*—
Chambers, Robert R., and Foster. 2,777,883.

Fox, Alxander P., and A. D. Reisert, to The McNeil Machine & Engineering Co. Lubricant dispensing apparatus. 2,777,610, 1–15–57, Cl. 222—130.

Frank, Robert L., to Sperry Rand Corp. Apparatus for time-delay measurement. 2,778,011, 1–15–57, Cl. 343—103.

Franklin, Happy I.: *See*—
Moore, Charles B., and Franklin. 2,777,606.

Frary, Evan A.: *See*—
Crooker, David E., and Frary. 2,777,498.

Fredd, John V., to Otis Pressure Control, Inc. Amplifying recorder for tubing calipers. 2,777,746, 1–15–57, Cl. 346—111.

French, Richard S., to Keyes Fibre Co. Tray with cork surface portions and method of making. 2,777,626, 1–15–57, Cl. 229—2.5.

Fried, Joseph W. Deburring, chamfering, countersinking tool. 2,777,342, 1–15–57, Cl. 77—73.5.

Fritz, Robert J., L. A. Nicolai, and E. W. S., Nicholson, to Esso Research and Engineering Co. Fluid hydroforming process with inverse temperature gradient. 2,777,803, 1–15–57, Cl. 196—50.

Fritze, Edgar H.: *See*—
Rector, John D., Fritz, and Kammerer. 2,777,981.

Fuehrer, George H., to Thor Power Tool Co. Automatic water valve for rock drills. 2,777,424, 1–15–57, Cl. 121—10.

Fuehrer, George H., to Independent Pneumatic Tool Co. Drilling apparatus. 2,777,671, 1–15–57, Cl. 255—51.

Fuller Label & Box Co.: *See*—
Monks, Frank E. 2,777,369.

Fullerton, Thomas J., and R. A. Rosenblum, to Acme Steel Co. Coil unreeler. 2,777,647, 1–15–57, Cl. 242—105.

Furukawa Electric Co., Ltd.: *See*—
Anazawa, Kenji, and Tsuruta. 2,777,756.

Furukawa Mining Co., Ltd.: *See*—
Anazawa, Kenji, and Tsuruta. 2,777,756.

Fyrlarm Co., Inc.: *See*—
Messick, Willard C. 2,774,416.

Gabor, William D., to C. G. S. Laboratories, Inc. Controllable inductor oscillator with bridge control circuit. 2,777,955, 1–15–57, Cl. 250—36.

Gabriel Co., The: *See*—
Chu, Lan J. 2,778,015.
Chu, Lan J. 2,778,016.
Rowland, Howard J. 2,778,014.

Gallagher, Rodney D. Baby back rest. 2,777,138, 1–15–57, Cl. 5—327.

Gambill, Marvin, to United Chemical Corp. of New Mexico. Composition and method controlling scale in oil wells. 2,777,818, 1–15–57, Cl. 252—8.55.

Garrett, Charles G. B.: *See*—
Brattain, Walter H., and Garrett. 2,777,974.

Garrett Corp., The: *See*—
Barclay, Herbert. 2,777,330.
Chapman, James E., Drexel, and Young. 2,777,524.
Kuhn, John. 2,777,301.

Gates, Edward C. Aircraft landing wheel rotating means. 2,777,651, 1–15–57, Cl. 244—103.

Gaul, Edward M., to Whirlpool-Seeger Corp. Refrigerator constructions. 2,777,598, 1–15–57, Cl. 220—15.

Geisler, William, to Wilbro Corp. Method of making lined bottle caps. 2,777,411, 1–15–57, Cl. 113—80.

General Controls Co.: *See*—
Grayson, Richard D. 2,777,639.

General Dynamics Corp.: *See*—
McNaney, Joseph T. 2,777,745.

General Electric Co.: *See*—
Ericson, Franklin R. 2,777,466.
Finlayson, Frank E. 2,777,226.
Latham, Allen, Jr. 2,777,814.
Martinson, Arthur. 2,777,665.
Schwieg, Frederic P., and Hansen. 2,777,326.
Shepherd, Neal H. 2,777,998.
Slattery, John P. 2,777,303.
Spiegelhalter, William G. 2,777,302.
Wells, Robert S., and Beeson. 2,777,743.

General Slicing Machine Co.: *See*—
Gilbert, Jack, and Preble. 2,777,488.

General Tire & Rubber Co., The: *See*—
Bragg, Lawrence D., Jr. 2,777,787.
Bragg, Lawrence D., Jr. 2,777,788.

Genich, William H., to Racine Confectioners' Machinery Co. Paper cup handling. 2,777,602, 1–15–57, Cl. 221—39.

Giacosa, Dante, and A. Mosso. Rear wheel suspension for motor vehicles. 2,777,686, 1–15–57, Cl. 267—16.

Gilbert, Jack, and H. Preble, Jr., to General Slicing Machine Co. Carving boards with retractable spikes. 2,777,488, 1–15–57, Cl. 146—215.

Gilfillan Bros. Inc.: *See*—
Henning, Philip A. 2,777,995.

Gilson, Warren E., and S. K. Rasmussen, to The Burdick Corp. Electrocardiograph. 2,777,747, 1–15–57, Cl. 346—136.

Giraitis, Albert P., W. B. Brandjean, and C. M. Neher, to Ethyl Corp. Recovery of alkyllead compounds. 2,777,867, 1–15–57, Cl. 260—437.

Girod, Emil, and F. Hafliger, to Geigy Chemical Corp. Diamino compounds and process for the production thereof. 2,777,858, 1–15–57, Cl. 260—313.

Girton, Preston E., to Kirkhof Mfg. Corp. Primary disconnect plug for welding transformers. 2,778,001, 1–15–57, Cl. 339—147.

Gisholt Machine Co.: *See*—
Sund, Vigo V. K. 2,777,190.

Glenn, Irving G. Multiple electric heater assembly. 2,777,927, 1–15–57, Cl. 201—67.

Glidden Co., The: *See*—
Allan, Benjamin W., and Rummery. 2,777,777.
Allan, Benjamin W., and Rummery. 2,777,778.
Andrews, Robert C., and Peterson. 2,777,829.

Glinka, Carl. Process and apparatus for the generation of mechanical energy from solid fuels having a high water content. 2,777,288, 1–15–57, Cl. 60—39.04.

Globe-Union Inc.: *See*—
Youngbeck, Karl W. 2,777,924.

Glover, Armond D. Rotatable tool holder for lathe-type rotary cutting tools. 2,777,486, 1–15–57, Cl. 144—231.

Goenaga, Alvaro: *See*—
Visor, Frederick C., McNew, Koch, and Goenaga. 2,777,791.

Goldberg, Ernest W. Case and base structure combination for picture projectors. 2,777,357, 1–15–57, Cl. 88—24.

Golden, Harold W.: *See*—
Albright, Robert B., and Golden. 2,777,192.
Albright, Robert B., and Golden. 2,777,193.

Goldmark, Peter C., to Columbia Broadcasting System, Inc. Phonograph cabinet. 2,777,902, 1–15–57, Cl. 179—100.4.

Goldsmith, Morris, to Elgen Mfg. Corp. Coiled product. 2,777,573, 1–15–57, Cl. 206—59.

Gombar, Leslie J. Rotatable head dust mop. 2,777,144, 1–15–57, Cl. 15—147.

Gonia, August T.: *See*—
Fante, Harry H., and Gonia. 2,777,476.

Goodman, Donald A. Ball ski binding with oscillatable boot toe fastening and release. 2,777,705, 1–15–57, Cl. 280—11.35.

Goodman, Kenneth C.: *See*—
Adams, Cecil E., and Goodman. 2,777,425.

Goodyear Tire & Rubber Co., The: *See*—
Seeger, Nelson V., and Mastin. 2,777,831

Gordon, John E.: *See*—
Paterson, John C., and Gordon. 2,777,844.

Gore, Graves T.: *See*—
Thomas, James C., and Gore. 2,777,312.
Thomas, James C., Gore, and Simmons. 2,777,748.

Gossler, Heinz. Combination writing implement and cigarette holder. 2,777,447, 1–15–57, Cl. 131—178.

Grace, W. R., & Co.: *See*—
Wilson, Charles P., Jr. 2,777,822.

Grace, William J. Folding high chair. 2,777,503, 1–15–57, Cl. 155—147.

Grady, Charles B., Jr., to The W. L. Maxson Corp. Motor or inverter speed regulation. 2,777,985, 1–15–57, Cl. 322—39.

Graham, Connelly L., to Northrop Aircraft, Inc. Airplane with separable fuel tanks. 2,777,655, 1–15–57, Cl. 244—135.

Grandjean, William B.: *See*—
Blitzer, Sidney M., Brown, and Grandjean. 2,777,866.

Granoff, Budd: *See*—
Kriesman, Sanford S., and Rosen. 2,777,451.

Grant, Robert I.: *See*—
Kleem, Clifford L. 2,777,527.

Graver Tank & Mfg. Co., Inc.: *See*—
Segrest, Allmon F. 2,777,533.

Graves, Charles I. Protractor. 2,777,204, 1–15–57, Cl. 33—102.

Gray Co., Inc.: *See*—
Gray, Russell J. 2,777,716.

Gray, Russell J., to Gray Co., Inc. Socket type hose coupler with reciprocating detent. 2,777,716, 1–15–57, Cl. 285—276.

Grayson, Richard D., to General Controls Co. Valve structure. 2,777,639, 1–15–57, Cl. 236—48.

Greaves, Charles D., and H. R. Atkins, to C. D. Patents Ltd. Method of producing a carbon tube from coal. 2,777,806, 1–15–57, Cl. 202—29.

Green, Edward H. Aerosol dispensers. 2,777,735, 1–15–57, Cl. 299—95.

Greene, Claude E.: *See*—
Doll, Claude S., Greene, and Ailes. 2,777,350.

Greene, Tweed & Co.: *See*—
Tanis, Henry W. 2,777,521.

Gretener, Edgar, and F. Schröter, said Schröter assignor to said Gretener. Secrecy communication system. 2,777,897, 1–15–57, Cl. 179—1.5.

Groenhof, Jacobus, and J. H. Bockmenlen, to Shell Development Co. Apparatus for indicating or measuring the flow of liquid through a conduit. 2,777,325, 1–15–57, Cl. 73—204.

Groneman, Garth S., to North American Aviation, Inc. Power operated screw driving arrangement. 2,777,484, 1–15–57, Cl. 144—32.

Grove Valve and Regulator Co.: *See*—
Bryant, Austin C. 2,777,664.
Bryant, Austin C. 2,777,937.

Grudin, Daniel, to Stronkoff Aircraft Corp. Retractible tandem wheel landing gear. 2,777,652, 1–15–57, Cl. 244—104.

Grundmann, Christoph J., and A. Kreutzberger, to Olin Mathieson Chemical Corp. Products. 2,777,847, 1–15–57, Cl. 260—248.

Grzenkowski, Alfred E., and R. W. Rademaker, to Houdaille Industries, Inc. Machine for cutting off lengths of tubing. 2,777,520, 1–15–57, Cl. 164—61.

Gundlach, Robert W., to The Haloid Co. Apparatus for developing a powder image on a xerographic plate. 2,777,418, 1–15–57, Cl. 118—51.

Gundlach, T. J., Corp.: *See*—
Gundlach, Theodore J. 2,777,333.

Gundlach, Theodore J., to T. J. Gundlach Corp. Timing gear-train assemblies. 2,777,333, 1–15–57, Cl. 74—392.

Gunst, Raymond: *See*—
Liechti, Hans W., and Gunst. 2,777,840.

Guterman, Sadia S. to Raytheon Mfg. Co. Magnetic control systems. 2,778,006, 1–15–57, Cl. 340—174.

Hård, Hans B., to Telefonaktiebolaget L M Eriesson. Crystal diode for microwaves. 2,777,949, 1–15–57, Cl. 250—31.

Hafliger, Franz: *See*—
Girod, Emil, and Hafliger. 2,777,858.

Hagelin, Boris C. W. Power-driven ciphering devices. 2,777,556, 1–15–57, Cl. 197—4.

Haglund, Didrik W. and S. P. G. Höglund, to Sandvikens Jernverks Aktiebolag. Percussion drilling bit. 2,777,672, 1–15–57, Cl. 255—64.

Haines, William A., Jr., to A. O. Smith Corp. Adjustable centrifugal switch assembly. 2,777,912, 1–15–57, Cl. 200—80.

Halkey-Roberts Corp.: *See*—
Munk, Otto. 2,777,490.

Hall, George R.: *See*—
Cookerly, Jack C., and Hall. 2,777,941.

Haloid Co., The: *See*—
Gundlach, Robert W. 2,777,418.
Walkup, Lewis E. 2,777,957.

Halset, Christ J., to Ideal Machine Co., Inc. Machine for baking edible cups. 2,777,404, 1–15–57, Cl. 107—66.

Hamilton Watch Co.: *See*—
Koehler, Fred. 2,777,279.
Petters, Oscar R. 2,777,280.

Handschin, Max G., to Promundo. Telephonograph with device for repetition of announcements. 2,777,809, 1–15–57, Cl. 179—6.

Hansen, Albert, Jr.: *See*—
Schwieg, Frederic P., and Hansen. 2,777,326.

Hansen, George E., to Crane Co. Multi-heat motor actuated valves. 2,777,662, 1–15–57, Cl. 251—11.

Hansen, Theodore A., to Teletype Corp. Motor controller. 2,777,979, 1–15–57. Cl. 318—314.

Happe, Melvin J.: *See*—
Skromme, Lawrence H., and Happe. 2,777,275.

Harault, Jean L., to Compagnie Industrielle des Telephones. Level regulating devices for transmission systems for coaxial cables. 2,777,994, 1–15–57, Cl. 333—16.

Harbers, Henry C., to Cook Bros. Equipment Co. Weight distribution and traction control means for three-axle vehicles. 2,777,529, 1–15–57, Cl. 180—22.

Hardinge, Harlowe. Classifier. 2,777,580, 1–15–57, Cl. 209—444.

Harford, Edward F. to E. I. du Pont de Nemours and Co. Antifreeze compositions containing tricresyl phosphate as a foam inhibitor. 2,777,821, 1–15–57, Cl. 252—78.

Harkness, Andrew W. Toilet tank flush valve ball. 2,777,135, 1–15–57, Cl. 4—56.

Harkness, Andrew W. Guide and ball flush valve. 2,777,136, 1–15–57, Cl. 4—57.

Harley, Earl, Inc.: *See*—
Smith, Dale D. 2,777,789.

Harness, Wayne E., to Walter Kidde & Co., Inc. Thermostatic switch. 2,777,919, 1–15–57, Cl. 200—137.

Harris, Ivan: *See*—
Everard, Kenneth B., and Harris. 2,777,836.

Harris-Seybold Co.: *See*—
Meyer, Henry F. 2,777,388.

Harrison, James E.: *See*—
Fosness, John P., and Harrison. 2,777,650.

Harshaw Chemical Co., The: *See*—
Olson, Harold M. 2,777,826.

Hart, Fred J., to Electronic Medical Foundation. Electrical therapeutical device for internal application. 2,777,445, 1–15–57, Cl. 128—303.12.

Hartford National Bank and Trust Co., trustee: *See*—
Le Poole, Jan B. 2,777,958.

Hartje, Henry W. Adjustable coupling attachment for shafts. 2,777,613, 1–15–57, Cl. 222—268.

Harwood, John. Joint structures in bill-folds or other articles of flexible sheet material. 2,777,493, 1–15–57, Cl. 150—38.

Harwood, Kenneth J., and H. J. Le Dain, to Kimberly-Clark Corp. Faced textile material. 2,777,779, 1–15–57, Cl. 117—25.

Hasek, Robert H., to Eastman Kodak Co. Preparation of esters of ω-amino acids. 2,777,873, 1–15–57, Cl. 260—482.

Hasler, Victor E.: *See*—
Day, Harold M., Hasler, and Forster. 2,777,828.

Hasse, Dora H. Mop. 2,777,151, 1–15–57, Cl. 15—246.

Hastings, Charles L., to Western Electric Co., Inc. Frequency measuring circuit. 2,777,990, 1–15–57, Cl. 324—79.

Hastrup, Knud-Erik V. O. G. Surface working devices. 2,777,140, 1–15–57, Cl. 15—49.

Hathaway, James C., to Collins Radio Co. Frequency rejection system for mechanical filter. 2,777,999, 1–15–57, Cl. 333—71.

Hawkins, Henry R. Filling attachment for hydraulic brake master cylinder. 2,777,293, 1–15–57, Cl. 60—54.6.

Hawkins, James E., to Seismograph Service Corp. Radio surveying apparatus. 2,778,013, 1–15–57, Cl. 343—105.

Hawkinson, Earle W., to Paul E. Hawkinson Co. Tire retreading equipment. 2,777,163, 1–15–57, Cl. 18—18.

Hawkinson, Paul E., Co.: *See*—
Hawkinson, Earle W. 2,777,163.

Hayashi, Shigenori: *See*—
Katsumaru, Kunizo, Hayashi, and Iwai. 2,777,988.

Heath, John L. Cultivator attachment. 2,777,379, 1–15–57, Cl. 97—179.

Heberlein Patent Corp.: *See*—
Vonaesch, Fritz. 2,777,186.

Heckenkamp, Edward B.: *See*—
Carlin, Robert, and Heckenkamp. 2,777,375.

Hecox, William: *See*—
Merrill, Roger L., Roland, and Hecox. 2,777,661.

Hedley, Norman, and H. Tabachnick, to American Cyanamid Co. Process of recovering precious metals from refractory source materials. 2,777,764, 1–15–57, Cl. 75—105.

Heimbach, Otto: *See*—
Everard, Joseph. 2,777,977.

Heintz Mfg. Co.: *See*—
Schuster, Ludwig K., and Baldi. 2,777,785.

Heltzel, Carl J.: *See*—
Heltzel, John N. 2,777,370.

Heltzel, John N., deceased: The Union Savings & Trust Co. and C. J. Heltzel, executors. Concrete expansion joints. 2,777,370, 1–15–57, Cl. 94—17.

Henderson, J Alvin, to Farnsworth Research Corp. Blanking circuit for electron multiplier. 2,777,948, 1–15–57, Cl. 250—27.

Henning, Philip A., to Gilfillan Bros. Inc. Broad band barretter mount. 2,777,995, 1–15–57, Cl. 333—22.

Henrikson, Bror W., and B. J. Oom, to American Seating Co. Kneeler accessory for a chair. 2,777,505, 1–15–57, Cl. 155—166.

Henry, Wesley D.: *See*—
Barr, Leslie A., and Henry. 2,777,932.

Hercules Powder Co.: *See*—
Lawrence, Robert W. 2,777,389.

Herider, Elmer A., and K. Pitts, to Rockwell Spring and Axle Co. Automatic latching means for back rests. 2,777,504, 1–15–57, Cl. 155—162.

Hess, John A. Portable boring machine. 2,777,339, 1–15–57, Cl. 77—2.

Hess, Werner G., to Dana Corp. Welding machine. 2,777,938, 1–15–57, Cl. 219—130.

Heth, Sherman C., to J. I. Case Co. Snapping roll opening device for corn pickers. 2,777,273, 1–15–57, Cl. 56—104.

Hetherington, Inc.: *See*—
Cox, Charles L., Jr. 2,777,911.

Hettrick Mfg. Co., The: *See*—
Zent, Lawson J. 2,777,657.

Hettwer, Hubert J.: *See*—
Hettwer, Leonard J. and H. J. 2,777,340.

Hettwer, Leonard J. and H. J. Offset drilling attachment. 2,777,340, 1–15–57, Cl. 77—55.

Hidde Nijland, Hendrik A., to N. V. "Coq". Electric switching devices for high tension. 2,777,920, 1–15–57, Cl. 200—163.

Hiebert, John. Animal rubbing insecticide applicator. 2,777,421, 1–15–57, Cl. 119—157.

Higbie Mfg. Co.: *See*—
Wood, Morris E. 2,777,645.
Wood, Morris E. 2,777,648.

Hildebrant, Vernon H. Abrasively coated anti-skid cover for tire casings. 2,777,497, 1–15–57, Cl. 152—175.

Hirsch, Henry and B. L., to Kellogg Co. Miniature toy boat. 2,777,248, 1–15–57, Cl. 46—95.

Hirschler, Daniel A., Jr., to Ethyl Corp. Lubricant compositions. 2,777,820, 1–15–57, Cl. 252—59.

Hochberg, Melvin, and M. J. MacMillan, to Nopco Chemical Co. Vitamin products. 2,777,797, 1–15–57, Cl. 167—81.

Hochberg, Melvin, and M. J. MacMillan, to Nopco Chemical Co. Stable fat-soluble vitamin-containing composition. 2,777,798, 1–15–57, Cl. 167—81.

Hodges, Hiram M., 50% to E. Beaty. Vendible commodity package. 2,777,769, 1–15–57, Cl. 99—172.

Hoeppner, Conrad H., and C. H. Smith, Jr. Pulse width discriminator. 2,777,947, 1–15–57, Cl. 250—27.

Hoff, Melvern C., and K. C. Peterson, to Standard Oil Co. Separation of recovery of xylene isomers. 2,777,888, 1–15–57, Cl. 260—674.

Hoffmann-La Roche Inc.: *See*—
Long, Robert F., and Morrison. 2,777,851.
Steiger, Norbert. 2,777,852.
Steiger, Norbert. 2,777,853.

Höglund, Stig P. G.: *See*—
Haglund, Didrik W., and Höglund. 2,777,672.

Hohnstein, Paul J. Gate for irrigation pipe. 2,777,462, 1–15–57, Cl. 137—315.

Hohwart, Ernest F.: *See*—
Hohwart, George and E. F. 2,777,701.

Hohwart, George and E. F., to N. A. Woodworth Co. Expansion arbor. 2,777,701, 1–15–57, Cl. 279—2.

Holley Carburetor Co.: *See*—
Udale, Stanley M. 2,777,678.

Holmes, Frederick J. Airspeed indicator. 2,778,003, 1–15–57, Cl. 340—27.

Hooker, Donald E., to R. T. Moloney. Rotary switch with spiral overtravel. 2,777,907, 1–15–57, Cl. 200—11.

Hopkins, Edward W., to the United States of America as represented by the Secretary of the Army. Firearm magazine with negator coil springs. 2,777,235, 1–15–57, Cl. 42—50.

Horman, John H., to Allied Control Co., Inc. Electromagnetic switch. 2,777,922, 1–15–57, Cl. 200—87.

Houdaille Industries, Inc.: *See*—
Crzenkowski, Alfred E., and Rademaker. 2,777,520.
O'Connor, Bernard E. 2,777,543.
O'Connor, Bernard E. 2,777,544.

Howard, Joseph O. Counting and display annunciator. 2,777,229, 1–15–57, Cl. 40—53.

Howry, Douglass H. Method of producing short pulse echo signals. 2,778,002, 1–15–57, Cl. 340—3.

Huber, John R., to Eastern Rotorcraft Corp. Load binder device. 2,777,668, 1–15–57, Cl. 254—72.

Huffman Co., The: *See*—
Sutton, William R. 2,777,271.

Hull, William F., to Western Precipitation Corp. Electric rapper for precipitators. 2,777,535, 1–15–57, Cl. 183—7.

Hultin, Clifford T. Power transmission. 2,777,337, 1–15–57, Cl. 74—754.

Hummel, Arthur P. Face shield for welders. 2,777,129, 1–15–57, Cl. 2—8.

Humphreys, David D., to Ethyl Corp. Dehydrochlorination of benzene hexachloride. 2,777,882, 1–15–57, Cl. 260—650.

Hunter, George D., to Deere Mfg. Co. Spring cushioned clamp. 2,777,378, 1–15–57, Cl. 97—47.84.

Hunter, George D.: *See*—
Johnson, Theodore W., and Hunter. 2,777,377.

Hunter, Melmoth W., to United States Steel Corp. Displaceable billet support for rotary peeler. 2,777,587, 1–15–57, Cl. 214—1.

Hurt, Victor H., to United States Rubber Co. Method of molding a plastic blank upon a hollow form. 2,777,165, 1–15–57, Cl. 18—56.

Huss, Richard, A. Siebert, and J. Weissert, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Polyazo-dyestuffs. 2,777,838, 1–15–57, Cl. 260—168.

Hussey, Russell B., to American Bosch Arma Corp. Regulator. 2,777,915 1–15–57, Cl. 200—103.

Hutchison, Donald F., to Wright & McGill Co. Reel clamps for fishing rods. 2,777,240, 1–15–57, Cl. 43—22.

Hytron Radio & Electronics Co.: *See*—
Rockett, John F., Jr. 2,777,545.

Ideal Machine Co. Inc.: *See*—
Halset, Christ J. 2,777,404.

Ikeda, Carol K., to E. I. du Pont de Nemours and Co. Process of preparing oil butadiene polymers and products thereof. 2,777,890, 1–15–57, Cl. 260—680.

Ikenberry, Ernest A., D. G. Kundiger, and D. D. Wheeler, to The Dow Chemical Co. Synthesis of α-chloroisobutyric acid. 2,777,876, 1–15–57, Cl. 260—531.

Imhoff, Frank. Pivotally connected bar type gate. 2,777,227, 1–15–57, Cl. 39—87.

Imperial Chemical Industries Ltd.: *See*—
Everard, Kenneth B., and Harris. 2,777,836.
Smith, Peter. 2,777,880.
Speakman, Raymond H. 2,777,519.

Independent Pneumatic Tool Co.: *See*—
Fuehrer, George H. 2,777,671.

International Business Machines Corp.: *See*—
Allen, Lloyd W. 2,778,005.
Flavin, Theodore F. 2,777,552.
Williams, Frederic C., and Kilburn. 2,777,971.

Ionics, Inc.: *See*—
McRae, Wayne A., and Rosenberg. 2,777,811.

Ironrite, Inc.: *See*—
Sperlich, Herman A. 2,777,223.

Ives, Norton C. Apparatus for determining the storage quality of grain. 2,777,324, 1–15–57, Cl. 73—73.

Iwai, Ryoichi: *See*—
Katsumaru, Kunizo, Hayashi, and Iwai. 2,777,988.

Jackson, Robert J., to Bigelow-Sanford Carpet Co., Inc. Methods of weaving carpets and rugs. 2,777,468, 1–15–57, Cl. 139—39.

Jasensky, Richard J.: *See*—
Thomas, Dean G., and Jasensky. 2,777,536.

Jeavons, Philip S., to Wilmot-Breeden Ltd. Vehicle door fasteners. 2,777,719, 1–15–57, Cl. 292—280.

Jefferson Chemical Co., Inc.: *See*—
Laemmle, George J., Jr. 2,777,846.

Jerrold Electronics Corp.: *See*—
Arbeiter, Henry J., and Winston. 2,777,894.

Jet-Heet, Inc.: *See*—
MacCracken, Calvin D. 2,777,433.

Jewett, Deane N. and R. S., to Detroit Hardware Mfg. Co. Window operator. 2,777,687, 1–15–57, Cl. 268—109.

Jewett, Richard S.: *See*—
Jewett, Deane N. and R. S. 2,777,687.

Johnson, Albert M., to Barnes Drill Co. Hone with pressure actuated gage. 2,777,257, 1–15–57, Cl. 51—34.

Johnson, Clarence, to Bailey Meter Co. Control system. 2,777,349, 1–15–57, Cl. 82—11.

Johnson, Clarence, to Bailey Meter Co. Control system. 2,777,351, 1–15–57, Cl. 82—14.

Johnson, Clyde M. Sanitary filtered medicated hot water bags. 2,777,444, 1–15–57, Cl. 129—227.

Johnson, Edward O.: *See*—
Olmstead, John A., and Johnson. 2,777,966.

Johnson, Leslie E.: *See*—
Plahn, Donald E. 2,777,205.

Johnson, Lester L., and C. W. Downs. Tool setting gauge. 2,777,210, 1–15–57, Cl. 33—185.

Johnson, Lowell E., and G. Musat, to The Babcock & Wilcox Co. Gas igniter for pulverized coal burners. 2,777,512, 1–15–57, Cl. 158—115.

Johnson, Paul V.: *See*—
Mohk, Clarence B., Alsterda, Young, and Johnson. 2,777,184.

Johnson, Theodore W., and G. D. Hunter, to Deere Mfg. Co. Drive-in cultivator support for tractors. 2,777,377, 1-15-57, Cl. 97—47.15.

Johnson, William V.: *See*—
Diggs, Louise S., and Johnson. 2,777,246.

Jones, Edward T., Jr.: *See*—
Rulison, Richard N., Jones, and Denyes. 2,777,160.

Jones, John W.: *See*—
Kulicke, Robert W., and Jones. 2,777,232.

Jordan, Richard H., and T. Y. Korsgren, to Acro Mfg. Co. Hermetically sealed switch. 2,777,910, 1-15-57, Cl. 200—67.

Jorgensen, Robert A., to Washington Steel Products, Inc. Demountable revolving shelf assembly for kitchen cabinets and the like. 2,777,585, 1-15-57, Cl. 211—139.

Jourdain, André P., to Compagnie Internationale des Pieux Armes Frankignoul, Societe Anonyme. Machine turnable and shiftable in all directions on the ground, particularly for driving piles and the like. 2,777,528, 1-15-57, Cl. 180—8.

Joy, Joseph F., to Joy Mfg. Co. Conveyor mechanism for mining apparatus. 2,777,565, 1-15-57, Cl. 198—109.

Joy Mfg. Co.: *See*—
Ball, Charles F. 2,777,681.
Dudley, Victor I. 2,777,526.
Dudley, Victor I. 2,777,530.
Joy, Joseph F. 2,777,565.

Jucker, Otto: *See*—
Lutz, Karl, and Jucker. 2,777,792.

Junghans, Helmut, and K. Bäuerle. Variable signal alarm clock. 2,777,278, 1-15-57, Cl. 58—21.12.

Jurisich, Peter L., to Douglas Aircraft Co., Inc. Pilot burner for combustion heater. 2,777,508, 1-15-57, Cl. 158—4.

Kalinowski, Joseph. Handle socket and mop head for floor and wall mops. 2,777,149, 1-15-57, Cl. 15—229.

Kamin, Sam. Container with foldable sifter spout. 2,777,611, 1-15-57, Cl. 222—189.

Kammerer, Leo F.: *See*—
Rector, John D., Fritze, and Kammerer. 2,777,981.

Katsumaru, Kunizo, S. Hayashi, and R. Iwai, to Nippon Denshin Denwa Kosha. Device for welding faulty point of communication cables. 2,777,988, 1-15-57, Cl. 324—51.

Kaufman, Alfred S. Garment support device. 2,777,134, 1-15-57, Cl. 2—301.

Kaufman, Alvin B., to Northrop Aircraft, Inc. Temperature control circuit. 2,777,640, 1-15-57, Cl. 236—78.

Kaufmann, Charles B.: *See*—
Burnside, Fred S., Plath, and Kaufmann. 2,777,171.

Kearney & Trecker Corp.: *See*—
Wetzel, Theodore A. 2,777,201.

Keating, Thomas J., and E. J. Massello. Safety pocket key ring. 2,777,180, 1-15-57, Cl. 24—73.

Keefe, Lincoln M., to Stewart Products Corp. Devices for making change. 2,777,553, 1-15-57, Cl. 194—2.

Keller, Claris. Adjustable size garments. 2,777,130, 1-15-57, Cl. 2—75.

Keller, Claris. Adjustable sleeve for dresses. 2,777,132, 1-15-57, Cl. 2—270.

Kelley, Carl S.: *See*—
Mitchell, Norris W., and Kelley. 2,777,800.

Kelley, Cecil S., to Westinghouse Air Brake Co. Airplane brake equipment. 2,777,546, 1-15-57, Cl. 188—176.

Kellogg Co.: *See*—
Hirsch, Henry and B. L. 2,777,248.

Kellogg, M. K., Co., The: *See*—
Lefrancois, Philip A., Riblett, and Burton. 2,777,805.
Skaperdas, George T. 2,777,299.

Kelly, Dunford A. Low distortion amplifier. 2,777,905, 1-15-57, Cl. 179—171.

Kem Mfg. Co., Inc.: *See*—
Weil, Solomon. 2,777,909.

Kenaga, Eugene E., to The Dow Chemical Co. Polychlorinated pyrene as a parasiticide. 2,777,794, 1-15-57, Cl. 167—30.

Kenyon, David E., to Sperry Rand Corp. Tuning mechanism for microwave resonator electron tubes. 2,777,968, 1-15-57, Cl. 315—5.

Kessler Chemical Co., Inc.: *See*—
Logan, Roger L. 2,777,865.

Keyes Fibre Co.: *See*—
French, Richard S. 2,777,626.

Khan, Aman U., to Prestole Corp. Fastener secured to strip by staking. 2,777,496, 1-15-57, Cl. 151—41.72.

Kidde, Walter, & Co., Inc.: *See*—
Harness, Wayne E. 2,777,919.

Kiecker, Ervin A., and T. G. Lange. Combination snow plow and blower. 2,777,218, 1-15-57, Cl. 37—43.

Kiekhaefer, Elmer C. Outboard motor boat. 2,777,412, 1-15-57, Cl. 114—57.

Kieras, Joseph A., to The Atlantic Refining Co. Free-flowing powdered waxes. 2,777,776, 1-15-57, Cl. 106—272.

Kikuchi, Harry M. Molded plastic container. 2,777,492, 1-15-57, Cl. 150—37.

Kilbourne, Frederick L., Jr.: *See*—
Doede, Clinton M., and Kilbourne. 2,777,827.

Kilburn, Tom: *See*—
Tootill, Geoffrey C., Williams, and Kilburn. 2,777,635.
Williams, Frederic C., and Kilburn. 2,777,634.
Williams, Frederic C., and Kilburn. 2,777,971.

Kimberly-Clark Corp.: *See*—
Harwood, Kenneth J., and Le Dain. 2,777,779.

King, Donald M. Conveyor systems. 2,777,566, 1-15-57, Cl. 198—183.

Kinsey, Philip H. Self-propelled garden cultivator. 2,777,374, 1-15-57, Cl. 97—41.

Kinsman, Clarence W. Structural planking unit for walls or floors. 2,777,318, 1-15-57, Cl. 72—32.

Kircher, Ralph N., and A. J. Schmitt, to West Bend Aluminum Co. Handle assembly for saucepans. 2,777,154, 1-15-57, Cl. 16—110.

Kirkhof Mfg. Corp.: *See*—
Girton, Preston E. 2,778,001.

Kish, Steven P. Method of making reproduction fixtures. 2,777,790, 1-15-57, Cl. 154—110.

Kishline, Floyd F., and H. F. Wood, to American Motors Corp. Supercharger for internal combustion engines. 2,777,632, 1-15-57, Cl. 230—116.

Kitakami, Sigeo: *See*—
Yokomaki, Norishige. 2,777,711.

Klarfeld, Gloria B.: *See*—
Belsky, Robert C. and T. B., and Klarfeld. 2,777,148.

Klauer, Walter E. Snow removing apparatus. 2,777,217, 1-15-57, Cl. 37—43.

Kleem, Clifford L., to R. B. Omant and R. I. Grant. Traction device for motor vehicles. 2,777,527, 1-15-57, Cl. 180—7.

Klein, Norman E., to Deering Milliken Research Corp. Method and apparatus for false twisting yarn. 2,777,276, 1-15-57, Cl. 57—77.3.

Knauer, Erwin R.: *See*—
Wilson, Rosser L., and Knauer. 2,778,008.

Knoth, Harold M., to Deere & Co. Cotton-boll-separation apparatus. 2,777,167, 1-15-57, Cl. 19—72.

Kocay, Witold R.: *See*—
Bundegaard, Howard, and Kocay. 2,777,931.

Koch, George: *See*—
Visor, Frederick C., McNew, Koch, and Goenaga. 2,777,791.

Koch, James P. Wall lamp. 2,777,944, 1-15-57, Cl. 240—73.

Koehler, Fred, to Hamilton Watch Co. Retainer ring for balance wheel staff. 2,777,279, 1-15-57, Cl. 58—28.

Koehler, Paul K., to American Can Co. Locking device for machine assemblies. 2,777,717, 1-15-57, Cl. 287—52.

Kolodney, Morris, to the United States of America as represented by the United States Atomic Energy Commission. Preparation of uranium. 2,777,809, 1-15-57, Cl. 204—1.5.

König, Josef, to Phrix-Werke Aktiengesellschaft. Methylene-1-bis-4,5-dihydroxytetrahydro-3-hydroxymethylimidazols. 2,777,857, 1-15-57, Cl. 260—309.7.

Koop, Lambert, to Messrs. Fischer & Krecke, (Maschinenfabrik). Device for applying a strengthening patch to a square-bottom-bag. 2,777,368, 1-15-57, Cl. 93—8.

Koppers Co., Inc.: *See*—
Totzek, Friedrich. 2,777,813.
Wessolek, Rudolf. 2,777,808.

Kordig, James W., G. Fato, and W. A. Raczynski, to Ditto, Inc. Transfer sheet having waxy top protective coating. 2,777,781, 1-15-57, Cl. 117—36.

Korsgren, Theodore Y.: *See*—
Jordan, Richard H., and Korsgren. 2,777,910.

Kovach, Leslie. Speed controlling device for automobiles. 2,777,913, 1-15-57, Cl. 200—80.

Krabbe, Ulrik H., and H. M. Sørensen, to T. B. Thridge. Apparatus for regulating the number of revolutions of electric motors by means of Ward-Leonard Control. 2,777,978, 1-15-57, Cl. 318—154.

Kraft Foods Co.: *See*—
Fisher, Guy N. 2,777,770.

Kramer, Robert. Collapsible or portable lawn or beach umbrella. 2,777,454, 1-15-57, Cl. 135—5.

Kretzmer, Ernest R., to Bell Telephone Laboratories, Inc. Square wave geenrator. 2,777,956, 1-15-57, Cl. 250—36.

Kreutzberger, Alfred: *See*—
Grundmann, Christoph J., and Kreutzberger. 2,777,847.

Krieger, Maurice H., and D. M. Ezorsky. Brush. 2,777,145, 1-15-57, Cl. 15—186.

Kriesman, Sanford S., and W. E. Rosen, 12½% to B. Granoff. Hair setting device. 2,777,451, 1-15-57, Cl. 132—36.

Kronhaus, Dina, and L. M. Lifschutz. Cargo carrying attachment for automobile. 2,777,625, 1-15-57, Cl. 224—42.43.

Krueger, Alfred P., to Derby Sealers, Inc. Hand tape dispensers. 2,777,594, 1-15-57, Cl. 216—33.

Kuhn, John, to The Garrett Corp. All-purpose power and air conditioning system. 2,777,301, 1-15-57, Cl. 62—136.

Kulicke, Robert M., and J. W. Jones. Picture frame. 2,777,232, 1-15-57, Cl. 40—155.

Kümmel, Fritz, to Siemens-Schuckertwerke Aktiengesellschaft. Capacitor-excited asynchronous alternators for single-phase loads. 2,777,983, 1-15-57, Cl. 321—58.

Kundiger, Donald G.: *See*—
Ikenberry, Ernest A., Kundiger, and Wheeler. 2,777,876.

Kuntz, William H., to Ami Inc. Sealed washing machine motor. 2,777,963, 1-15-57, Cl. 310—86.

Kürzeder, Alfons. Magnetic recorders. 2,777,698, 1-15-57, Cl. 274—4.

Kushmuk, Walter P.: *See*—
Billeter, Henry R., and Kushmuk. 2,777,259.

Kushner, Samuel: *See*—
Bach, Frederick L., Jr., Brabander, and Kushner. 2,777,849.

Laakso, Aaro K. Striker mechanism for a fuse. 2,777,392, 1-15-57, Cl. 102—80.

Laemmle, George J., Jr., to Jefferson Chemical Co., Inc. Process of producing morpholine from diethanolamine. 2,777,846, 1-15-57, Cl. 260—247.

Laffan, Kenneth J., and L. G. Robinson. Windshield wiper for a curved windshield. 2,777,150, 1-15-57, Cl. 15—245.

Lakso, Elno E. to Sterling Drug Inc. Apparatus for folling or packaging. 2,777,265, 1-15-57, Cl. 53—194.

Lamphere, George S., to Northrop Aircraft, Inc. Clamp-lock swivel elbow. 2,777,714, 1-15-57, Cl. 285—98.

Lance, Irwin R. and I. R., II. Window mounting. 2,777,175, 1-15-57, Cl. 20—52.2.

Lance, Irwin R., II: *See*—
Lance, Irwin R. and I. R., II. 2,777,175.

Lange, Gunther: *See*—
Berger, Johannes, and Lange. 2,777,362.

Lange, Morris: *See*—
Dobrin, Alvin R., and Lange. 2,777,584.

Lange, Theodore G.: *See*—
Kiecker, Ervin A., and Lange. 2,777,218.

Lanier, Reginald S., to Washington Machine & Tool Works, Inc. Work driver. 2,777,352, 1-15-57, Cl. 82—41.

Larson, Robert, and R. Shoemaker, to Du Kane Corp. Phonograph brake mechanism. 2,777,541, 1-15-57, Cl. 188—74.

Latham, Allen, Jr., to General Electric Co. Water heating and demineralizing apparatus. 2,777,814, 1-15-57, Cl. 204—301.

Latour, André, to Etablissements Merlin & Gerin. Face-on-face contact pair for circuit breakers. 2,777,921, 1-15-57, Cl. 200—170.

Lawrence, Robert W., to Hercules Powder Co. Initiating device and method of manufacture. 2,777,389, 1-15-57, Cl. 102—28.

Lear, Inc.: *See*—
Lear, William P., and O'Brien. 2,778,004.

Lear, William P., and E. F. O'Brien, to Lear, Inc. Instrument aid for aircraft radio navigation. 2,778,004, 1-15-57, Cl. 340—27.

Le Dain, Harvey J.: *See*—
Harwood, Kenneth J., and Le Dain. 2,777,779.

Lee, John B.: *See*—
Noyes, Eliot F., De Salvo, and Lee. 2,777,381.

Lee, Paul H.: *See*—
Powell, Robert W., and Lee. 2,777,812.

Leeds, Harry R., to The Perma-Stamp Products Corp. Process for making micro-reticulated material. 2,777,824, 1-15-57, Cl. 260—2.5.

Lefrancois, Philip A., E. W. Riblett, and W. P. Burton, to The M. W. Kellogg Co. Reactions catalyzed by platinum or palladium catalysts. 2,777,805, 1-15-57, Cl. 196—50.

Lehmann, Herbert G., to Casco Products Corp. Steam pressing iron. 2,777,224, 1-15-57, Cl. 38—77.

Leitz, Ernst, G. m. b. H.: *See*—
Weisenberg, Gustav, and Meinert. 2,777,774.

Lemmon, Walter S., and M. L. MacAdam, to Radio Industries Corp. Multiple transmitter-antenna switching system. 2,777,960, 1-15-57, Cl. 307—115.

Leobarb Corp.: *See*—
Schwartz, Alexander, and Fogelson. 2,777,786.

Leonard, Nathaniel N., to Claude C. Slate & Associates. Reflector target. 2,778,010, 1-15-57, Cl. 343—18.

Le Poole, Jan B., to Hartford National Bank and Trust Co., as trustee. Magnetic electron lens. 2,777,958, 1-15-57, Cl. 250—49.5.

Le Roy Food Products, Inc.: *See*—
Schenk, Tamis C. 2,777,264.

Lester, Ray F., to Crouse-Hinds Co. Lighting unit. 2,777,942, 1-15-57, Cl. 240—11.2.

Leston, Theodore I., to Eutectic Welding Alloys Corp. Self-fluxing silver alloy filler metal. 2,777,767, 1-15-57, Cl. 75—157.5.

Les Veaux, John F., and E. F. Orwoll, to Food Machinery and Chemical Corp. Sand-grain core insecticidal composition. 2,777,795, 1-15-57, Cl. 167—42.

Liaaen, Nils J. Controllable pitch propeller. 2,777,525, 1-15-57, Cl. 170—160.19.

Libbey-Owens-Ford Glass Co.: *See*—
Caswall, Robert D. 2,777,173.

Liechti, Hans W., and R. Gunst, to Ciba Ltd. Asymmetrical urea derivatives of monoazodyestuffs. 2,777,840, 1-15-57, Cl. 260—175.

Lifschutz, Luba M.: *See*—
Kronhaus, Dina, and Lifschutz. 2,777,625.

Light Products, Inc.: *See*—
Martin, Algy E., and Lorimor. 2,777,415.

Linda, Frank R. Method of packaging wax and the like. 2,777,480, 1-15-57, Cl. 141—11.

Lindsey, Walter F. Device for evaluating the sensitivity of an optical system utilizing the Foucault knife edge test. 2,777,355, 1-15-57, Cl. 88—14.

Link, Karl P., to Wisconsin Alumni Research Foundation. Warfarin-alkali metal derivatives and processes of preparing the same. 2,777,859, 1-15-57, Cl. 260—343.2.

Links, Heinrich K., to Daimler-Benz Aktiengesellschaft. Fuel injection pump. 2,777,390, 1-15-57, Cl. 103—38.

Linneman, Fred. Boat trailer with boat clamping means. 2,777,712, 1-15-57, Cl. 280—414.

Lippard, Herman I. Tag printing device. 2,777,387, 1-15-57, Cl. 101—111.

Lipton, Thomas J., Co., Inc.: *See*—
Beck, George. 2,777,408.

Litchfield, George A., Jr., to Forstmann Woolen Co. Automatic weft replenishing loom. 2,777,473, 1-15-57, Cl. 139—232.

Litchfield, George A., Jr., to Forstmann Woolen Co. Automatic weft replenishing loom. 2,777,474, 1-15-57, Cl. 139—232.

Ljungstrom, Fredrik, to Svenska Skifferolje Aktiebolaget. Recovering sub-surface bituminous deposits by creating a frozen barrier and heating in situ. 2,777,679, 1-15-57, Cl. 262—3.

Logan, Roger L., to Kessler Chemical Co., Inc. Oxidation of fatty acids. 2,777,865, 1-15-57, Cl. 260—413.

Lombardi, Vincent. Knitted fabric. 2,777,311, 1-15-57, Cl. 66—201.

Long, Robert F., and Alexander L. Morrison, to Hoffmann-La Roche Inc. Pyridyl-3-methyl phosphate and salts thereof. 2,777,851, 1-15-57, Cl. 260—297.

Long, Spencer W., to The National Supply Co. Roller kelly bushing. 2,777,670, 1-15-57, Cl. 255—23.

Lorimor, Meral D.: *See*—
Martin, Algy E., and Lorimor. 2,777,415.

Lo Verde, John. Combination container and roller pan. 2,777,142, 1-15-57, Cl. 15—121.2.

Lubersky, Albert R., to Fibreboard Products Inc. Carton forming and conveying mechanism. 2,777,563, 1-15-57, Cl. 198—34.

Lubrizol Corp., The: *See*—
Asseff, Peter A., Mastin, and Rhodes. 2,777,874.

Lund, Robert E., and D. E. Warnes, to St. Joseph Lead Co. Recovery of cadmium as sulphate from cadmium oxide containing dusts. 2,777,752, 1-15-57, Cl. 23—117.

Lundgren, Louis R., and O. W. Swenson. Post removing device. 2,777,726, 1-15-57, Cl. 294—92.

Luppold, George E., Jr., to Bailey Meter Co. Fluid pressure characterizing relay. 2,777,457, 1-15-57, Cl. 137—85.

Lurgi Gesellschaft fuer Waermetechnik m. b. H.: *See*—
Rottig, Walter. 2,777,823.

Lutz, Karl, and O. Jucker, to Sandoz A. G. Pest combating agents. 2,777,792, 1-15-57, Cl. 167—22.

MacAdam, Mark L.: *See*—
Lemmon, Walter S., and MacAdam. 2,777,960.

MacCracken, Calvin D., to Jet-Heet, Inc. Intermittent fuel injection system. 2,774,433, 1-15-57, Cl. 123—139.

MacCurdy, William K., to the United States of America as represented by the Secretary of the Navy. Rotary target projector. 2,777,319, 1-15-57, Cl. 73—12.

MacMillan, Charles W., to Bear Mfg. Co. Vibration indicator. 2,777,327, 1-15-57, Cl. 73—457.

MacMillan, Melvin J.: *See*—
Hochberg, Melvin, and MacMillan. 2,777,797.
Hochberg, Melvin, and MacMillan. 2,777,798.

Madsen, Royal G.: *See*—
Stickney, Michael E., Madsen, and Pugh. 2,777,354.

Magill, Harry S., to Northrop Aircraft, Inc. Multi-purpose cable fitting. 2,777,696, 1-15-57, Cl. 273—105.3.

Magnavox Co., The: *See*—
Richardson, John E. 2,777,959.

Mahlmeister, Raymond A., to The Sheffield Corp. Machine tool. 2,777,260, 1-15-57, Cl. 51—206.

Mallison, William C., to American Cyanamid Co. Continuous process for the polymerization of acrylonitrile. 2,777,832, 1-15-57, Cl. 260—80.5.

Mallory-Sharon Titanium Corp.: *See*—
Busch, Lee S., and Bauer. 2,777,768.

Malone, Elroy J. Child's merry-go-round. 2,777,691, 1-15-57, Cl. 272—33.

Malone, Dorothy: *See*—
Manahan, Joseph A. 2,777,646.

Manahan, Joseph A., deceased; D. Manahan, administratrix. Expansible-contractible hose reel. 2,777,646, 1-15-57, Cl. 242—86.

Mangis, Elmer F. Artificial stone cutter. 2,777,438, 1-15-57, Cl. 125—23.

Manley, Inc.: *See*—
Waas, Samuel M. 2,777,599.

Manzatuik, David N., to E. E. Schlesinger. Tire carriers for trucks. 2,777,591, 1-15-57, Cl. 214—451.

Marano, Herbert W., to Wilson Jones Co. Automatic stop mechanism for staple making machine. 2,777,283, 1-15-57, Cl. 59—76.

Marchant, Albert G. Trepanning tool for cutting holes in sheet metal bodies or the like. 2,777,341, 1-15-57, Cl. 77—69.

Margon Corp.: *See*—
Samo, Harvey W., and Bashover. 2,777,250.

Marietta, Michael T. Athlete's headgear. 2,777,127, 1-15-57, Cl. 2—3.

Marindin, Frederick R., to Doran Brothers, Inc. Bat forming apparatus. 2,777,170, 1-15-57, Cl. 19—148.

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Blockert, Ernest B., and Marino. 2,777,423.

Marjo Technical Products Co.: *See*—
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Markley, Olin V. Gate closer. 2,777,153, 1-15-57, Cl. 16—65.

Marlow, Leonard E.: *See*—
Spiro, Irving J., and Marlow. 2,777,940.

Marti, Jean-Pierre: *See*—
Stidde, Hermann, and Marti. 2,777,589.

Martin, Algy E., and M. D. Lorimor, to Light Products, Inc. Barricade structure and fitting therefor. 2,777,415, 1-15-57, Cl. 116—63.

Martin, Charles L., to American Machine and Metals, Inc. Folder control. 2,777,689, 1-15-57, Cl. 270—81.

Martin, Jay R. Chair with a collapsible footrest. 2,777,506, 1-15-57, Cl. 155—171.

Martin, Sidney W., to Bear Mfg. Co. Vehicle wheel testing device. 2,777,211, 1-15-57, Cl. 33—203.13.

Martinson, Arthur, to General Electric Co. Turbine shell support structure. 2,777,665, 1-15-57, Cl. 253—39.

Marzucco, Sebastian J. Support member for high jump cross bar. 2,777,692, 1-15-57, Cl. 272—59.

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Meurer, Siegfried. 2,777,431.

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Mastin, Thomas W.: *See*—
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Matt, Charles M. Calculator for and method of forming drapery pleats. 2,777,617, 1-15-57, Cl. 223—34.

Matthew, Morton P., to The Ahrendt Instrument Co. Shaft revolution counter. 2,777,637, 1-15-57, Cl. 235—103.

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Maxson, W. L., Corp., The: *See*—
Grady, Charles B., Jr. 2,777,985.

May, Arthur E., Jr., and B. M. Fingerut. Folding fence. 2,777,673, 1-15-57, Cl. 256—33.

Maynard, John T., to A. O. Smith Corp. Dynamoelectric machine construction. 2,777,962, 1-15-57, Cl. 310—86.

Maytag Co., The: *See*—
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Mazzola, Ambrose, to Angelus Engineering Corp. Electrically driven turbine type fluid coupling unit. 2,777,292, 1-15-57, Cl. 60—54.

McBee, Earl T., and O. R. Pierce, to Purdue Research Foundation. Fluorine-containing siloxanes. 2,777,870, 1–15–57, Cl. 260—448.8.
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McCahon, John O., and R. G. Proctor, to R. R. Donnelley & Sons Co. Machine for feeding books to a casing-in machine. 2,777,562, 1–15–57, Cl. 198—34.
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McDonald, Dan. Carbon adsorber cooling means. 2,777,534, 1–15–57, Cl. 183—4.1.
McDonald, Donald, to Cook Electric Co. System, method and apparatus for closed cycle control. 2,777,285, 1–15–57, Cl. 60—6.
McDonald, Mary J. Utensil cleaning device. 2,777,146, 1–15–57, Cl. 15—210.
McDonald, Mary J. Fork cleaners. 2,777,147, 1–15–57, Cl. 15—210.
McFadden, John P. Closet bowl ventilator. 2,777,137, 1–15–57, Cl. 4—213.
McKinley, Ora G. Fishhook extractor. 2,777,244, 1–15–57, Cl. 43—53.5.
McNally, James A. Jet dart. 2,777,391, 1–15–57, Cl. 102—38.
McNaney, Joseph T., to General Dynamics Corp. Electrostatic recording apparatus. 2,777,745, 1–15–57, Cl. 346—74.
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Dineen, Francis H., McNeight, and Vining. 2,777,760.
McNeil Machine & Engineering Co., The: *See*—
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McNeill, Harry L. Ore concentration and apparatus therefor. 2,777,577, 1–15–57, Cl. 209—159.
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McNutt, Bill R. Holders for films, sheets, and the like. 2,777,372, 1–15–57, Cl. 95—69.
McOmber, Dean C. Apparatus for drying grain as thrashed. 2,777,212, 1–15–57, Cl. 34—86.
McRae, Wayne A., and N. W. Rosenberg, to Ionics, Inc. Treatment of electrolytic solutions. 2,777,811, 1–15–57, Cl. 204—151.
Mefford, Fred E. Garter grips. 2,777,183, 1–15–57, Cl. 24—263.
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Meinzer, Nell W.: *See*—
Miller, Robert P., Mathewson, and Meinzer. 2,777,578.
Mello, Albert. Safety attachment for a stove. 2,777,316, 1–15–57, Cl. 70—177.
Menzel, Friedrich. Seasonal control means for battery charging. 2,777,980, 1–15–57, Cl. 320—22.
Menzel, Friedrich. Electrical generator regulator. 2,777,984, 1–15–57, Cl. 322—25.
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Merker, Leon, to National Lead Co. Method for producing improved monocrystalline refractive material. 2,777,255, 1–15–57, Cl. 49—89.
Merrill, Roger L. and T. M. Boland, and W. Hecox, to The Battelle Development Corp. Weighing system. 2,777,661, 1–15–57, Cl. 249—3.
Messick, Willard C., to Fyrlarm Co., Inc. Fire alarm device. 2,777,416, 1–15–57, Cl. 116—106.
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Ramsden, Hugh E. 2,777,886.
Meurer, Siegfried, to Maschinenfabrik Augsburg-Nurnberg A. G. Method of injecting water into the combustion chamber of high speed diesel engines. 2,777,430, 1–15–57, Cl. 123—25.
Meurer, Siegfried, to Maschinenfabrik Augsburg-Nurnberg A. G. Injection nozzle arrangement. 2,777,431, 1–15–57, Cl. 123—32.
Meyer, Henry F., to Harris-Seybold Co. Mounting for fountain roll. 2,777,388, 1–15–57, Cl. 101—364.
Meysan, Charles H., and F. H. Dodge. Carriage bracket for head anchor. 2,777,659, 1–15–57, Cl. 248—226.
Middleton, James G., and J. D. Parrish, to Middleton & Parrish, Inc. Potato harvester. 2,777,266, 1–15–57, Cl. 55—51.
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Miller, Emery P., to Ransburg Electro-Coating Corp. Method and apparatus for spray coating of articles. 2,777,784, 1–15–57, Cl. 117—93.
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Miller, Joseph C., to Coast Envelope Co. Clip. 2,777,179, 1–15–57, Cl. 24—66.
Miller, Raymond J., and C. B. Richey, to Ford Motor Co. Control device for material distributing hopper. 2,777,733, 1–15–57, Cl. 298—20.
Miller, Robert P., F. Mathewson, and G. H. Meinzer, deceased (N. W. Meinzer, administratrix), 40% to The Farmers and Merchants National Bank of Los Angeles, executor of the estate of P. W. Prutzman, deceased. Screening mechanism. 2,777,578, 1–15–57, Cl. 209—243.
Miller, Rudolph W. Boat propulsion mechanism with propellers in compartments. 2,777,414, 1–15–57, Cl. 115—52.
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Mills, John R., to Whirlpool-Seeger Corp. Conductive hinge for refrigerator door. 2,778,000, 1–15–57, Cl. 339—4.
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Miner, W. H., Inc.: *See*—
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Mixer, Robert Y., and D. L. Bailey, to Union Carbide and Carbon Corp. Polymerization of vinylalkoxysilanes. 2,777,868, 1–15–57, Cl. 260—448.2.
Mládek, Bedřich, to Vyvoj Praha, Narodni Podnik. Continuously operating stuffing and dividing machine for doughlike material. 2,777,403, 1–15–57, Cl. 107—14.
Moberger, Arvid F. Flexible container. 2,777,630, 1–15–57, Cl. 229—45.
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Modrovsky, Joseph, and W. A. Sherwood, to The Farmingdale Corp. Pump for viscous fluids. 2,777,394, 1–15–57, Cl. 103—84.
Moeller, Arthur W. Low voltage guide light. 2,777,943, 1–15–57, Cl. 240—52.
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Hooker, Donald E. 2,777,907.
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Monk, Clarence B., J. R. Alsterda, J. E. Young, and P. V. Johnson, to Structural Clay Products Research Foundation. Device for making structural clay tile panels. 2,777,184, 1–15–57, Cl. 25—1.
Monks, Frank E., to Fuller Label & Box Co. Neckband forming machine. 2,777,369, 1–15–57, Cl. 93—79.
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Calfee, John D. 2,777,835.
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Montecatini Società Generale per l'Industria Mineraria e Chimica: *See*—
Fauser, Giacomo. 2,777,877.
Moore, Charles B., and H. I. Franklin. Fuel charging device for a tractor tank trailer. 2,777,606, 1–15–57, Cl. 222—26.
Moriarty, Maurice. Linkage device for connecting an implement to the hydraulic lift mechanism of a tractor. 2,777,590, 1–15–57, Cl. 214—140.
Morin, Louis H. Method of forming die cast products on pre-die cast and remeltable cores. 2,777,166, 1–15–57, Cl. 18—59.
Morner, Hans G. Waterproof closure. 2,777,181, 1–15–57, Cl. 24—201.
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Mosely, Neal J., to Detroit Controls Corp. Flow control devices. 2,777,464, 1–15–57, Cl. 137—516.3.
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Zimmerman, Jack J. 2,777,477.
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Mullins, Ralph. Minnow bucket. 2,777,241, 1–15–57, Cl. 43—56.
Munk, Otto, to Halkey-Roberts Corp. Closure device for flexible-walled hollow articles. 2,777,490, 1–15–57, Cl. 150—8.
Munson, Ralph H., and B. T. Setchell. Relays. 2,777,923, 1–15–57, Cl. 200—87.
Murphy, William P., to the United States of America as represented by the Secretary of the Army. Extractor for revolver type automatic gun. 2,777,237, 1–15–57, Cl. 42—68.
Murray, Allen E., to Bausch & Lomb Optical Co. Focusing lens for ophthalmic instrument. 2,777,364, 1–15–57, Cl. 88—57.
Murray, Ralph P. Garment hanger. 2,777,621, 1–15–57, Cl. 223—94.
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Musgrave, Daniel D. Automatic firearm. 2,777,365, 1–15–57, Cl. 89—155.
Mytinger, Lee S. Capsule and tablet pocket carrier. 2,777,570, 1–15–57, Cl. 206—42.
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Hidde Nijland, Hendrik A. 2,777,920.
N. V. Optische Industrie "De Onde Delft": *See*—
Blaisse, Berndt S. 2,777,360.
Naderhoff, Heinrich, to L. Schuler A. G. Machine tool. 2,777,518, 1–15–57, Cl. 164—50.
Nallinger, Fredrich K. H. Drive, particularly for vehicles. 2,777,332, 1–15–57, Cl. 74—368.
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Nathanson, Max. Heating unit. 2,777,930, 1–15–57, Cl. 219—19.
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National Cash Register Co., The: *See*—
Cormack, Marjorie J., and Thacker. 2,777,780.
Seeney, George H. 2,777,386.

National Cotton Compress and Cotton Warehouse Association: *See*—
Dohogne, Linus E. 2,777,682.
National Cylinder Gas Co.: *See*—
Bernard, Arthur A. 2,777,928.
National Fibre Glass Co., Inc.: *See*—
Fischer, Herbert C. 2,777,501.
National Lead Co.: *See*—
Merker, Leon. 2,777,255.
National Lock Co.: *See*—
Burke, William O. 2,777,157.
Burke, William O. 2,777,315.
Burke, William O. 2,777,722.
Burke, William O., and Larson. 2,777,721.
National Research Council: *See*—
Stedman, Donald F. 2,777,772.
National Research Development Corp.: *See*—
Tootill, Geoffrey C., Williams, and Kilburn. 2,777,635.
Williams, Frederic C., and Kilburn. 2,777,634.
National Steel Corp.: *See*—
Strassburger, Julius H. 2,778,018.
National Supply Co., The: *See*—
Eklund, Stone E. 2,777,191.
Long, Spencer W. 2,777,670.
Naumann, Carl. Crystallization of polycyclic hydrocarbons. 2,777,889, 1–15–57, Cl. 260—674.
Nave, Alfred E., to Avco Mfg. Corp. Water dispenser for refrigerator. 2,777,304, 1–15–57, Cl. 62—141.
Navy, United States of America as represented by the Secretary of the: *See*—
Birmingham, Henry P. 2,777,214.
Boucher, Frank G. 2,777,289.
Callahan, Robert M. 2,777,773.
MacCurdy, William K. 2,777,319.
Schonstedt, Erick O. 2,777,336.
Vineyard, George H. 2,777,967.
White, Milton G. 2,777,954.
Neal, Ernest C., ½ to E. Brandell. Lever action firearm. 2,777,234, 1–15–57, Cl. 42—16.
Nelier, Clarence M.: *See*—
Giraitis, Albert P., Brandjean, and Neher. 2,777,867.
Neiglick, Anders E. Ellipsograph. 2,777,199, 1–15–57, Cl. 33—18.
Nelson, Arthur W. Refuse loading and compacting truck. 2,777,593, 1–15–57, Cl. 214—519.
Nelson, Channing C.: *See*—
Bittner, Raymond E., and Nelson. 2,777,801.
Nelson, George E.: *See*—
Ashton, George H., and Nelson. 2,777,491.
Nelson, Jean O. Adjustable clothes hanger. 2,777,624, 1–15–57, Cl. 224—42.1.
Nelson Muffler Corp.: *See*—
Thomas, Dean G., and Jasensky. 2,777,536.
Nelson, Robert T.: *See*—
Counts, James C., Nelson, and Trutna. 2,777,878.
Neumoyer, Clifton R., to The Pennsylvania Salt Mfg. Co. Fungicidal composition and methods of applying. 2,777,793, 1–15–57, Cl. 167—30.
Newworth, Martin B., to Pittsburgh Consolidation Coal Co. Catalytic conversion of methyl phenols. 2,777,881, 1–15–57, Cl. 260—621.
New Holland Machine division of the Sperry Rand Corp.: *See*—
Skromme, Lawrence H., and Happe. 2,777,275.
New Products Corp.: *See*—
Banker, Oscar H. 2,777,329.
Banker, Oscar H. 2,777,551.
Newton, Charles G., 50% to C. E. Church. Knitting machine for full fashioned hosiery. 2,777,309, 1–15–57, Cl. 66—146.
Nichols, Elton F., to Sprague Devices, Inc. Fluid pressure motor. 2,777,427, 1–15–57, Cl. 121—150.
Nicholson, Edward W. S.: *See*—
Fritz, Robert J., Nicolai, and Nicholson. 2,777,803.
Nicholson, Frank R., to E. I. du Pont de Nemours and Co. Web winding apparatus. 2,777,644, 1–15–57, Cl. 242—65.
Nicolai, Lloyd A.: *See*—
Fritz, Robert J., Nicolai, and Nicholson. 2,777,803.
Nicolai, Lloyd A., to Esso Research and Engineering Co. Regenerator temperature control. 2,777,804, 1–15–57, Cl. 196—50.
Nieratko, Jacob N. Automobile hand rest. 2,777,729, 1–15–57, Cl. 296—49.2.
Nippon Denshin Denwa Kosha: *See*—
Katsumaru, Kunizo, Hayashi, and Iwai. 2,777,988.
Noguera, Joseph, to Casablancas High Draft Co. Ltd. Drafting apparatus for textile fibres. 2,777,168, 1–15–57, Cl. 19—131.
Noguera, Joseph, to Casablancas High Draft Co. Ltd. Drafting mechanisms for textile fibres. 2,777,169, 1–15–57, Cl. 19—135.
Nolt, Edwin B., and J. P. Tarbox, to Sperry Rand Corp. Two-spool needle-borne tier. 2,777,384, 1–15–57, Cl. 100—11.
Nopco Chemical Co.: *See*—
Hochberg, Melvin, and MacMillan. 2,777,797.
Hochberg, Melvin, and MacMillan. 2,777,798.
Norman, William N., to Ripon Knitting Works. Collapsible display form for footwear. 2,777,216, 1–15–57, Cl. 35—57.
North American Aviation, Inc.: *See*—
Fosness, John P., and Harrison. 2,777,650.
Groneman, Garth S. 2,777,484.
North American Rayon Corp.: *See*—
Schmidt, Knute M. 2,777,723.
Northrop Aircraft, Inc.: *See*—
Clifton, John R. 2,777,656.
Graham, Connelly L. 2,777,655.
Kaufman, Alvin B. 2,777,640.
Lamphere, George S. 2,777,714.
Magill, Harry S. 2,777,696.
Noyes, Eliot F., A. E. De Salvo, and J. B. Lee; said De Salvo and said Lee assors. to said Noyes. Roof ventilating devices. 2,777,381, 1–15–57, Cl. 98—37.
Nye, Raymond C. Bathing brush. 2,777,141, 1–15–57, Cl. 15—105.
Obermaier, John A. Galvanometer construction. 2,777,991, 1–15–57, Cl 324—155.
O'Brien, Edward F.: *See*—
Lear, William P., and O'Brien. 2,778,004.
O'Connor, Bernard E., to Houdaille Industries, Inc. Damper with fluid inertia motor. 2,777,543, 1–15–57, Cl. 188—93.
O'Connor, Bernard E., to Houdaille Industries, Inc. Frequency sensitive mechanical damping system. 2,777,544, 1–15–57, Cl. 188—93.
Odin Corp.: *See*—
Stohlquist, Roger H. 2,777,478.
Oill, Max C. Key holding device. 2,777,317, 1–15–57, Cl. 70—457.
Oken, Aaron, and H. E. Schroeder, to E. I. du Pont de Nemours and Co. Dyes prepared from dialdehydes by condensing with homophthalic acid and with N-substituted oxindoles. 2,777,845, 1–15–57, Cl. 260—240.
Old Town Corp.: *See*—
Di Mino, Alphonse. 2,777,964.
Olden, Roger G., and C. J. Young, to the United States of America as represented by the Secretary of the Army. Facsimile recorder. 2,777,744, 1–15–57, Cl. 346—74.
Olin Mathiesen Chemical Corp.: *See*—
Grundmann, Christoph J., and Kreutzberger. 2,777,847.
Olmstead, John A., and E. O. Johnson, to Radio Corp. of America. Gas discharge devices. 2,777,966, 1–15–57, Cl. 313—191.
Olson, Harold M., to The Harshaw Chemical Co. Vinyl chloride polymers stabilized with metal salts of carboxylic acids mixed with organic titanates. 2,777,826, 1–15–57, Cl. 260—23.
Olsson, Nils. Hook carrier for trolling-spoons and the like. 2,777,242, 1–15–57, Cl. 43—37.
Omant, Reginald B.: *See*—
Kleem, Clifford L. 2,777,527.
Ono, Yoshimasa: *See*—
Yokomaki, Norishige. 2,777,711.
Oom, Benjamin J.: *See*—
Henriksson, Bror W., and Oom. 2,777,505.
Orwoll, Edward F.: *See*—
Les Veaux, John F., and Orwoll. 2,777,795.
Osteen, Belmont D., to Birmingham Paper Co. Folding carton with self-locking cover. 2,777,629, 1–15–57, Cl. 229—36.
Ostrow, Barnet D., to Elechem Corp. Bath for electroplating silver. 2,777,810, 1–15–57, Cl. 204—46.
Otis Pressure Control, Inc.: *See*—
Fredd, John V. 2,777,746.
Ouellette, Joseph H.: *See*—
Corr, John E., and Ouellette. 2,777,666.
Owen, John C., and A. Bennett, to Bendix Aviation Corp. Electronic integrator. 2,777,946, 1–15–57, Cl. 250—27.
Owens-Corning Fiberglas Corp.: *See*—
Siefert, August C., and Cunningham. 2,777,254.
Paasche, Jens A., to Cline Electric Mfg. Co. Apparatus for graining surfaces. 2,777,256, 1–15–57, Cl. 51—14.
Paasche, Jens A., to Cline Electric Mfg. Co. Spraying apparatus for successive article carried by a conveyor. 2,777,419, 1–15–57, Cl. 118—323.
Packard, Raymond P. Ventilator. 2,777,176, 1–15–57, Cl. 20—61.
Page Engineering Co.: *See*—
Page, John W. 2,777,284.
Page, John S. Tubing anchor. 2,777,522, 1–15–57, Cl. 166—212.
Page, John W., to Page Engineering Co. Two part chain link with two aligned pins holding said parts together. 2,777,284, 1–15–57, Cl. 59—85.
Palmer, John S., to Whirlpool-Seeger Corp. Sheet metal evaporator with heating means. 2,777,300, 1–15–57, Cl. 62—126.
Panchesine, William. Detachable splash guard for trucks and trailers. 2,777,710, 1–15–57, Cl. 280—154.5.
Parke, Davis & Co.: *See*—
Edgerton, William H., and Fisher. 2,777,854.
Parker, Dean A. Raisable trailer drawbar. 2,777,713, 1–15–57, Cl. 280—425.
Parrish, John D.: *See*—
Middleton, James G., and Parrish. 2,777,266.
Parshall, Ralph E. Armrest for vehicle window sills. 2,777,730, 1–15–57, Cl. 296—49.2.
Parsons and Marine Engineering Turbine Research and Development Assn., The: *See*—
Darling, Robert F. 2,777,291.
Paterson, John C., and J. E. Gordon, to American Cyanamid Co. Sulfonamide purification process. 2,777,844, 1–15–57, Cl. 260—239.95.
Patterson, David D. Portable parcel carriers. 2,777,708, 1–15–57, Cl. 280—37.
Paulson, Albert L.: *See*—
Atkinson, Fred M., Mattson, and Paulson. 2,777,481.
Pavlinetz, George. Nut deformed into locking engagement by contact with workpiece. 2,777,495, 1–15–57, Cl. 151—21.
Peet, Nick P., to Esso Research and Engineering Co. Extractive distillation operation for preparation of catalytic cracking feed stocks. 2,777,802, 1–15–57, Cl. 196—49.
Penlington, Thomas E., to Beresford & Son Ltd. Submersible electrically driven pumps. 2,777,961, 1–15–57, Cl. 310—86.
Pennsylvania Salt Mfg. Co., The: *See*—
Neumoyer, Clifton R. 2,777,793.
Perma-Stamp Products Corp., The: *See*—
Leeds, Harry R. 2,777,824.
Peterson, Edward T., to Birdsboro Steel Foundry and Machine Co. Tilting table. 2,777,343, 1–15–57, Cl. 80—47.
Peterson, George N., to Crompton & Knowles Loom Works. Gripper shuttle. 2,777,471, 1–15–57, Cl. 139—125.

Peterson, Kenneth C.: *See*—
Hoff, Melvern C., and Peterson. 2,777,888.
Peterson, Norman G.: *See*—
Andrews, Robert C., and Peterson. 2,777,829.
Petters, Oscar R., to Hamilton Watch Co. Clock hand setting mechanism. 2,777,280, 1–15–57, Cl. 58—80.
Pfarrwaller, Erwin, to Sulzer Freres, S. A. Shuttle picking mechanism. 2,777,472, 1–15–57, Cl. 139—145.
Pfizer, Chas., & Co., Inc.: *See*—
Visor, Frederick C., McNew, Koch, and Goenaga. 2,777,791.
Phélisse, Jean A.: *See*—
Fluchaire, Maurice L. A., and Phélisse. 2,777,825.
Philco Corp.: *See*—
Albright, Robert B., and Golden. 2,777,192.
Albright, Robert B., and Golden. 2,777,193.
Phillips, Brooks. Ballot box. 2,777,633, 1–15–57, Cl. 232—2.
Phillips, Harold H., Jr. Adjusting means for handkerchief holder. 2,777,133, 1–15–57, Cl. 2—279.
Phillips Petroleum Co.: *See*—
Carpenter, Paul G. 2,777,398.
Davison, Joseph W. 2,777,305.
Phrix-Werke Aktiengesellschaft: *See*—
König, Josef. 2,777,857.
Pickett, Harold D., and L. Beckwith, Sr. Cam actuated collet. 2,777,703, 1–15–57, Cl. 279—56.
Pickwick Co.: *See*—
Pitts, Robert D., and Corey. 2,777,158.
Pitts, Robert D., and Corey. 2,777,159.
Plen, Hsia-Si, to Wilkening Mfg. Co. Piston-ring construction. 2,777,740, 1–15–57, Cl. 309—24.
Pierce, Ogden R.: *See*—
McBee, Earl T., and Pierce. 2,777,870.
Pillsbury Mills, Inc.: *See*—
Werly, Emil F. 2,777,817.
Piquerez, Erwin. Fluidtight watch case. 2,777,282, 1–15–57, Cl. 58—90.
Pitts, Kennard: *See*—
Herider, Elmer A., and Pitts. 2,777,504.
Pitts, Robert D., and F. Corey, to Pickwick Co. Poultry picking machine. 2,777,158, 1–15–57, Cl. 17—11.1.
Pitts, Robert D., and F. Corey, to Pickwick Co. Method of picking fowl. 2,777,159, 1–15–57, Cl. 17—45.
Pittsburgh Consolidation Coal Co.: *See*—
Neuworth, Martin B. 2,777,881.
Plahn, Donald E., ½ to L. E. Johnson. Corn planter box gauge. 2,777,205, 1–15–57, Cl. 33—126.
Plath, Hilmar R.: *See*—
Burnside, Fred S., Plath, and Kaufmann. 2,777,171.
Pokorny, Oldrich S., and M. H. Farmer, to Esso Research and Engineering Co. Liquid-liquid contacting apparatus. 2,777,758, 1–15–57, Cl. 23—270.5.
Pope, Eddie. Fish lures or spoons. 2,777,243, 1–15–57, Cl. 43—42.5.
Potts, John W. Sawhorse leg cutting jig. 2,777,487, 1–15–57, Cl. 145—129.
Powell, Loyd E., and G. Tapp. Fluid mixing device. 2,777,467, 1–15–57, Cl. 138—37.
Powell, Robert W., and P. H. Lee, to the United States of America as represented by the United States Atomic Energy Commission. Leak detection system. 2,777,812, 1–15–57, Cl. 204—193.
Praha, Vyvoj, Narodni Podnik: *See*—
Mládek, Bedřich. 2,777,403.
Preble, Harry, Jr.: *See*—
Gilbert, Jack, and Preble. 2,777,488.
Prestole Corp.: *See*—
Khan, Aman U. 2,777,490.
Price, Richard P., to Barnes Drill Co. Fluid jet size measuring device. 2,777,321, 1–15–57, Cl. 73—37.9.
Proctor, Robert G.: *See*—
McCahon, John O., and Proctor. 2,777,562.
Proctor & Schwartz, Inc.: *See*—
Bogaty, Stanislaus. 2,777,446.
Promundo, Schaan: *See*—
Handschin, Max G. 2,777,899.
Prupis, Robert L., and A. Bashover, to Conmar Products Corp. Apparatus for providing tape ends on slide fastener stringers. 2,777,517, 1–15–57, Cl. 164—36.
Prutzman, Paul W.: *See*—
Miller, Robert P., Mathewson, and Meluzer. 2,777,578.
Pugh, Lawrence R.: *See*—
Stickney, Michael E., Madsen, and Pugh. 2,777,354.
Pullman-Standard Car Mfg. Co.: *See*—
Allin, George S., Jr. 2,777,222.
Bates, Sidney E. 2,777,220.
Purdue Research Foundation: *See*—
McBee, Earl T., and Pierce. 2,777,870.
Purkhiser, Rawlins E.: *See*—
Steele, Richard B., Purkhiser, and Anderson. 2,777,973.
Pursche, Harry A. Two-way roll-over disc plow. 2,777,373, 1–15–57, Cl. 97—26.
Puvogel, William M. Device for converting discarded beverage can into well type ash tray. 2,777,596, 1–15–56, Cl. 220—1.
Pyle, Cyrus, and G. M. Turner, to E. I. du Pont de Nemours and Co. Process of suppressing foam formation in distillation of acrylonitrile. 2,777,807, 1–15–57, Cl. 202—39.5.
Racine Confectioners' Machinery Co.: *See*—
Genich, William H. 2,777,602.
Raczynski, Walter A.: *See*—
Kordig, James W., Fato, and Raczynski. 2,777,781.
Rademaker, Raymond W.: *See*—
Grzenkowski, Alfred E., and Rademaker. 2,777,520.
Radio Corp. of America: *See*—
Olmstead, John A., and Johnson. 2,777,966.
Radio Industries Corp.: *See*—
Lemmon, Walter S., and MacAdam. 2,777,960.
Ramsden, Hugh E., to Metal & Thermit Corp. Preparation of phenyl magnesium chloride. 2,777,885, 1–15–57, Cl. 260—665.
Ramsden, Hugh E., to Metal & Thermit Corp. Preparation of phenyl magnesium chloride. 2,777,886, 1–15–57, Cl. 260—665.
Ransburg Electro-Coating Corp.: *See*—
Miller, Emery P. 2,777,784.
Rasmussen, Sherrill K.: *See*—
Gilson, Warren E., and Rasmussen. 2,777,747.
Raytheon Mfg. Co.: *See*—
Guterman, Sadia S. 2,778,006.
Rector, John D., E. H. Fritze, and L. P. Kammerer, to Collins Radio Co. A. C. to D. C. converter. 2,777,981, 1–15–57, Cl. 321—8.
Reider, George S., Jr., to Aircraft-Marine Products, Inc. Magazine-type hand tool for crimping electrical connectors. 2,777,345, 1–15–57, Cl. 81—15.
Reilly, Daniel A. Vehicle conversion unit. 2,777,727, 1–15–57, Cl. 296—21.
Reisert, August D.: *See*—
Fox, Alexander P., and Reisert. 2,777,610.
Reliance Gauge Column Co., The: *See*—
Brown, John R. 2,777,914.
Remeika, Joseph P., to Bell Telephone Laboratories, Inc. Method and apparatus for processing ferroelectric crystal elements. 2,777,188, 1–15–57, Cl. 29—25.35.
Renner, Ralph H. Newspaper gun. 2,777,436, 1–15–57, Cl. 124—27.
Repke, Edward P., to Clark Equipment Co. Load engaging attachment for industrial trucks. 2,777,592, 1–15–57, Cl. 214—513.
Reynolds Metals Co.: *See*—
Cheeley, William E. 2,777,601.
Rhodes, Alan: *See*—
Asseff, Peter A., Mastin, and Rhodes. 2,777,874.
Riblett, Earl W.: *See*—
Lefrancois, Philip A., Riblett, and Burton. 2,777,805.
Richard, William R., Jr., to Monsanto Chemical Co. High pressure polymerization process for ethylene-1-chloro-1-fluoro-ethylene copolymers. 2,777,833, 1–15–57, Cl. 260—87.7.
Richardson, Carl B. Pot type oil burner and low fire pilot unit. 2,777,511, 1–15–57, Cl. 158—91.
Richardson, John E., to The Magnavox Co. Control apparatus for producing pulses. 2,777,959, 1–15–57, Cl. 307—88.
Richey, Clarence B.: *See*—
Miller, Raymond J., and Richey. 2,777,733.
Riede, Peter M.: *See*—
Bliss, Lyman A., Riede, and Beckman. 2,777,295.
Riegel Textile Corp.: *See*—
Thomas, James C., and Gore. 2,777,312.
Thomas, James C., Gore, and Simmons. 2,777,748.
Ripon Knitting Works: *See*—
Norman, William N. 2,777,216.
Robb, Frank B.: *See*—
Robb, John F. 2,777,680.
Robb, John F., to J. W. and F. B. Robb, as trustees. Machine for removing floor coverings. 2,777,680, 1–15–57, Cl. 262—9.
Robb, John W.: *See*—
Robb, John F. 2,777,680.
Roberts, Robert W. and V. G. Combination cake plate and cooler for tube cakes. 2,777,308, 1–15–57, Cl. 65—61.
Roberts, Vivian G.: *See*—
Roberts, Robert W. and V. G. 2,777,308.
Robinson, Leonard G.: *See*—
Laffan, Kenneth J., and Robinson. 2,777,150.
Rockett, John F., Jr., to Columbia Broadcasting System, Inc., doing business under name of Hytron Radio & Electronics Co. Rotation retarding device for a reel carrying shaft. 2,777,545, 1–15–57, Cl. 188—164.
Rockwell Spring and Axle Co.: *See*—
Fante, Harry H., and Gonia. 2,777,476.
Herider, Elmer A., and Pitts. 2,777,504.
Rodal, Ralph, to National Automatic Tool Co., Inc. Rotatable fluid conveying connection with pressure balanced seals. 2,777,702, 1–15–57, Cl. 279—20.
Roebuck, Carl O. Reinforced siding material or the like. 2,777,549, 1–15–57, Cl. 189—86.
Roethel Engineering Corp.: *See*—
Roethel, John H. 2,777,720.
Roethel, John H., to Roethel Engineering Corp. Door lock. 2,777,720, 1–15–57, Cl. 292—280.
Rolf, Erich, and M. Belamin, to Siemens-Schuckertwerke Aktiengesellschaft. Electric contact converters with electromagnetically controlled contacts. 2,777,982, 1–15–57, Cl. 321—48.
Roof, Harold H. Basket. 2,777,595, 1–15–57, Cl. 217—125.
Rosa, James M., and P. Todisco. Method of laying pipe. 2,777,294, 1–15–57, Cl. 61—41.
Rose, Alfred G., to Rose Brothers (Gainsborough) Ltd. Feeding of articles in wrapping or packaging machines. 2,777,561, 1–15–57, Cl. 198—33.
Rose Brothers (Gainsborough) Ltd.: *See*—
Rose, Alfred G. 2,777,561.
Rosen, William E.: *See*—
Kriesman, Sanford S., and Rosen. 2,777,451.
Rosenberg, Norman W.: *See*—
McRae, Wayne A., and Rosenberg. 2,777,811.
Rosenberg, Philip, to Universal Steel Equipment Corp. Extensible joint structures. 2,777,247, 1–15–57, Cl. 45—139.
Rosenblum, Robert A.: *See*—
Fullerton, Thomas J., and Rosenblum. 2,777,647.
Rossell, William T., to Transit Research Corp. Axle controlled truck. 2,777,401, 1–15–57, Cl. 105—197.
Rossell, William T., to Transit Research Corp. Pedestal assembly for rail trucks. 2,777,402, 1–15–57, Cl. 105—225.
Rothman, Stanley. Knife blade holder and guide. 2,777,197, 1–15–57, Cl. 30—284.

Rottig, Walter, to Ruhrchemie Aktiengesellschaft and Lurgi Gesellschaft fuer Waermetechnik m. b. H. Iron catalyst for catalytic carbon monoxide hydrogenation. 2,777,823, 1–15–57, Cl. 252—459.
Roubal, Alexander J., to Allis-Chalmers Mfg. Co. Screen cloth supporting frame for a vibrating screen. 2,777,579, 1–15–57, Cl. 209—412.
Roughsedge, Robert H.: *See*—
Sprague, Basil S., Carroll, and Roughsedge. 2,777,750.
Rowland, Howard J., to The Gabriel Co. Antenna system. 2,778,014, 1–15–57, Cl. 343—770.
Ruff, George H. Stackable tote box construction. 2,777,597, 1–15–57, Cl. 220—4.
Ruhrchemie Aktiengesellschaft: *See*—
Rottig, Walter. 2,777,823.
Rullson, Richard N., E. T. Jones, Jr., and R. O. Denyes, to Celanese Corp. of America. Control system, wet spinning process and apparatus. 2,777,160, 1–15–57, Cl. 18—8.
Rummery, Frank O.: *See*—
Allan, Benjamin W., and Rummery. 2,777,777.
Allan, Benjamin W., and Rummery. 2,777,778.
Rundt, John W., to The Timken Roller Bearing Co. Orientation testing device for work feeders. 2,777,261, 1–15–57, Cl. 51—215.
Runge, Walter F., to the United States of America as represented by the Secretary of the Army. Link extractor for revolver type automatic gun. 2,777,236, 1–15–57, Cl. 42—68.
Rush, Albert J. Bed block resurfacing machine for attachment to a garment die cutting machine. 2,777,262, 1–15–57, Cl. 51—241.
Russell, George E., Jr., to United Shoe Machinery Corp. Conveyor systems. 2,777,564, 1–15–57, Cl. 198—109.
Russell, Lee E. Adjustable continuous spiral guide for containers. 2,777,567, 1–15–57, Cl. 198—211.
Russell, Robert C., to Eaton Mfg. Co. Friction brake. 2,777,542, 1–15–57, Cl. 188—78.
Rutledge, Thomas F., and A. J. Buselli, to Air Reduction Co., Inc. Process for producing sodium acetylide and improved sodium acetylide product. 2,777,884, 1–15–57, Cl. 260—665.
S. p. A. Cambi Idraulici Badalini: *See*—
Badalini, Giovanni. 2,777,286.
St. Joseph Lead Co.: *See*—
Lund, Robert E., and Warnes. 2,777,752.
Samo, Harvey W., and A. Bashover, to Margon Corp. Dolls' eyes. 2,777,250, 1–15–57, Cl. 46—166.
Sams, Herbert W.: *See*—
Cofield, Eugene P., Jr., Sams, and Woodward. 2,777,422.
Sandoz A. G.: *See*—
Lutz, Karl, and Jucker. 2,777,792.
Sandvikens Jernverks Aktiebolag: *See*—
Haglund, Didrik W., and Höglund. 2,777,672.
Sarett, Lewis H., to Merck & Co., Inc. $\Delta^{1,3}$-3-ethylenedioxy-11-keto-etienoylpyruvic acid. 2,777,842, 1–15–57, Cl. 260—239.55.
Scalera, Mario, and F. H. Adams, to American Cyanamid Co. Amides of hydroxybenzotriazole carboxylic acids. 2,777,855, 1–15–57, Cl. 260—308.
Schaefer, Frederic C., to American Cyanamid Co. Method of preparing guanamines. 2,777,848, 1–15–57, Cl. 260—249.9.
Schaufelberger, Felix A., and A. M. Czikk, to American Cyanamid Co. Separation of cobalt from nickel. 2,777,753, 1–15–57, Cl. 23—117.
Schenk, Tamis C., to Le Roy Food Products, Inc. Apparatus for assembling and packaging an edible. 2,777,264, 1–15–57, Cl. 53—154.
Schieber Mfg. Co.: *See*—
Schieber, Robert E. 2,777,742.
Schieber, Robert E., to Schieber Mfg. Co. Folding table and supporting structure therefor. 2,777,742, 1–15–57, Cl. 311—92.
Schilling, Clarence J., to Air Products Inc. Liquid pumping and vaporizing systems. 2,772,296, 1–15–57, Cl. 62—2.
Schilling Electric Co.: *See*—
Schilling, Lorell J. 2,777,420.
Schilling, Lorell J., to Schilling Electric Co. Milking apparatus. 2,777,420, 1–15–57, Cl. 119—14.39.
Schindler, Ewald, to The Babcock & Wilcox Co. Fuel burning apparatus. 2,777,407, 1–15–57, Cl. 110—28.
Schlesinger, Emil E.: *See*—
Manzatuik, David N. 2,777,591.
Schlesser, Adolph. Pill and capsule dispenser. 2,777,571, 1–15–57, Cl. 206—42.
Schmidt, Knute M., to North American Rayon Corp. Doffing tool. 2,777,723, 1–15–57, Cl. 294—25.
Schmitt, Arthur J.: *See*—
Kircher, Ralph N., and Schmitt. 2,777,154.
Schnitt, Joy B., and W. H. Corbett, to The De Vilbiss Co. Electric vaporizer. 2,777,935, 1–15–57, Cl. 219—40.
Schneider, Jos., & Co.: *See*—
Schutz, Karl H. 2,777,371.
Schonstedt, Erick O., to the United States of America as represented by the Secretary of the Navy. Index mechanism. 2,777,336, 1–15–57, Cl. 74—527.
Schroeder, Herman E.: *See*—
Oken, Aaron, and Schroeder. 2,777,845.
Schroter, Fritz: *See*—
Gretener, Edgar, and Schroter. 2,777,897.
Schuler, L., A. G.: *See*—
Naderhoff, Heinrich. 2,777,518.
Schumacker, George P., and E. B. Williams, to The American Ship Building Co. Automatic sewage treatment and disposal unit. 2,777,816, 1–15–57, Cl. 210—2.
Schuster, Ludwig K., and A. L. Baldi, Jr., to Heintz Mfg. Co. Composition for and method of treating metals as well as the treated product. 2,777,785, 1–15–57, Cl. 148—6.2.
Schutz, Karl H., to Jos. Schneider & Co. Optical system with automatic diaphragm return to preselected position. 2,777,371, 1–15–57, Cl. 95—64.
Schwartz, Alexander, and E. Fogelson, to Leobarb Corp. Thermal insulation. 2,777,786, 1–15–57, Cl. 154—45.
Schegler, Roy F., to J. I. Case Co. Tractor mounted releasable implement. 2,777,376, 1–15–57, Cl. 97—47.14.
Schwieg, Frederic P., and A. Hansen, Jr., to General Electric Co. Electrical temperature measuring apparatus. 2,777,326, 1–15–57, Cl. 73—362.
Scott, William F.: *See*—
Smith, Thomas R., and Scott. 2,777,314.
Scripto, Inc.: *See*—
Cofield, Eugene P., Jr., Sams, and Woodward. 2,777,422.
Seal-Press Inc.: *See*—
Williams, William A. 2,777,588.
Sears, Charles. Polyphase electric circuit protective device. 2,777,918, 1–15–57, Cl. 200—118.
Seeger, Nelson V., and T. G. Mastin, to The Goodyear Tire & Rubber Co. Processable, storable, isocyanate-modified polyesters. 2,777,831, 1–15–57, Cl. 260—75.
Seeney, George H., to The National Cash Register Co. Multiple item receipt printing mechanisms. 2,777,386, 1–15–57, Cl. 101—66.
Seismograph Service Corp.: *See*—
Hawkins, James E. 2,778,013.
Segrest, Allmon F., to Graver Tank & Mfg. Co., Inc. Oil and gas separator. 2,777,533, 1–15–57, Cl. 183—2.7.
Sendoykas, Jack J. Self-adjusting toggle clamp. 2,777,347, 1–15–57, Cl. 81—84.
Setchell, Barton T.: *See*—
Munson, Ralph H., and Setchell. 2,777,923.
Shacklett, Comer D., to E. I. du Pont de Nemours and Co. Unsaturated organic compounds. 2,777,872, 1–15–57, Cl. 260—482.
Sheffer, John W., and E. A. Watson, to ACF Industries, Inc. Method for the exterior finishing of vehicles. 2,777,782, 1–15–57, Cl. 117—49.
Sheffield Corp., The: *See*—
Mahlmeister, Raymond A. 2,777,260.
Sheffler, James. Soap powder dispenser attachment. 2,777,608, 1–15–57, Cl. 222—80.
Shell Development Co.: *See*—
Groenhof, Jacobus, and Bockmeulen. 2,777,325.
Williams, Paul H., and Younger. 2,777,819.
Shepherd, Neal H., to General Electric Co. Electrical wave filter. 2,777,998, 1–15–57, Cl. 333—70.
Shepperd, Peter P. Mop holder. 2,777,143, 1–15–57, Cl. 15—147.
Sherman, Jacob L. Shoe last. 2,777,139, 1–15–57, Cl. 12—136.
Sherwin-Williams Co., The: *See*—
Unger, Maynard B. 2,777,837.
Sherwood, Walter A.: *See*—
Modrovsky, Joseph, and Sherwood. 2,777,394.
Shively, John J., to Telephone Answering and Recording Corp. Reproducing apparatus. 2,777,898, 1–15–57, Cl. 179—6.
Shivers, Joseph C., Jr., to E. I. du Pont de Nemours and Co. Dyeable polyesters. 2,777,830, 1–15–57, Cl. 260—75.
Shockley, William, to Bell Telephone Laboratories, Inc. Asymmetric wave guide structure. 2,777,906, 1–15–57, Cl. 179—171.
Shoemaker, Robert: *See*—
Larson, Robert, and Shoemaker. 2,777,541.
Siebert, Arthur: *See*—
Huss, Richard, Siebert, and Weissert. 2,777,838.
Siefert, August C., and R. J. Cunningham, to Owens-Corning Fiberglas Corp. Coated refractory for contacting molten glass and method of making same. 2,777,254, 1–15–57, Cl. 49—81.
Siemens-Schuckertwerke Aktiengesellschaft: *See*—
Kümmel, Fritz. 2,777,983.
Rolf, Erich, and Belamin. 2,777,982.
Silley, Henry A. J.: *See*—
Unthank, Douglas G. 2,777,581.
Simmons, Drue L.: *See*—
Thomas, James C., Gore, and Simmons. 2,777,748.
Simone, Guy A. Arm-positioning device for use by embalmers. 2,777,187, 1–15–57, Cl. 27—21.
Simpson, Cyril M., to The Daimler Co. Ltd. Tractor transmission and motor control means. 2,777,334, 1–15–57, Cl. 74—472.
Sinclair Refining Co.: *See*—
Campbell, Oliver F., and Decker. 2,777,428.
Chambers, Robert R., and Foster. 2,777,883.
Sisk, Martin A. Surface drains. 2,777,532, 1–15–57, Cl. 182—31.
Skaperdas, George T., to The M. W. Kellogg Co. Separating gas mixtures. 2,777,299, 1–15–57, Cl. 62—123.
Skraban, Casimir J. Beam gauge. 2,777,208, 1–15–57, Cl. 33—174.
Skromme, Lawrence H., and M. J. Happe, to New Holland Machine division of the Sperry Rand Corp. Rake bar bearing assembly. 2,777,275, 1–15–57, Cl. 56—377.
Slate, Claude C.: *See*—
Leonard, Nathaniel N. 2,778,010.
Slattery, John P., to General Electric Co. Condensate sump drain valve. 2,777,303, 1–15–57, Cl. 62—140.
Sloan, Harry E., to The Cushman Chuck Co. Precision chuck jaws. 2,777,704, 1–15–57, Cl. 279—123.
Smith, A. O., Corp.: *See*—
Haines, William A., Jr. 2,777,912.
Maynard, John T. 2,777,962.
Smith, Alexander, and B. D. Baggs, Jr. Under-tree mower and harvester. 2,777,272, 1–15–57, Cl. 56—25.4.
Smith, Carl H., Jr.: *See*—
Hoeppner, Conrad H., and Smith. 2,777,947.
Smith, Dale D., to Harley Earl, Inc. Floor covering. 2,777,789, 1–15–57, Cl. 154—49.
Smith, Harry A., to The Stanley Works. Box strapping tool. 2,777,344, 1–15–57, Cl. 81—9.1.

Smith, Peter, to Imperial Chemical Industries Ltd. Production of aromatic compounds. 2,777,880, 1–15–57, Cl. 260—592.

Smith, Thomas R., and W. F. Scott, to The Maytag Co. Washing machine vapor seal. 2,777,314, 1–15–57, Cl. 68—23.

Snyder, Jacob R. Rehabilitation of enlarged spike holes in rail fastenings. 2,777,641, 1–15–57, Cl. 238—366.

Societe Anonyme dite: Societe des Brevets Logabax: *See*—
Campos, Francisco. 2,777,560.

Societe des Usines Chimiques Rhone-Poulenc: *See*—
Fluchaire, Maurice L. A., and Phellise. 2,777,825.

Socony Mobil Oil Co., Inc.: *See*—
Davis, John B. 2,777,799.

Sokolik, Edward. Air processing apparatus. 2,777,759, 1–15–57, Cl. 23—284.

Solzman, Isel I. Air exhauster. 2,777,382, 1–15–57, Cl. 98—43.

Soreg: *See*—
Boulestreau, Henri. 2,777,320.

Srensen, Harald M.: *See*—
Krabbe, Ulrik H., and Srensen. 2,777,978.

Sparrow, Perry W. Distance measuring device. 2,777,206, 1–15–57, Cl. 33—141.

Spärh, Hans, to Agfa Camera-Werk Aktiengesellschaft. Photographic illuminator unit. 2,777,939, 1–15–57, Cl. 240—1.3.

Specialties Development Corp.: *See*—
Stern, George T. 2,777,458.

Spence, Charles A., deceased, by P. D. Spence, executrix, to Dewrance & Co. Ltd. Machines for use in repairing the valve seat faces of parallel slide valves. 2,777,263, 1–15–57, Cl. 51—241.

Spence, Pansy D.: *See*—
Spence, Charles A. 2,777,263.

Spencer, Benjamin F., to Sperry Rand Corp. Phase-shift oscillator. 2,777,952, 1–15–57, Cl. 250—36.

Spencer, Lee. Railroad spike with space compensating means. 2,777,642, 1–15–57, Cl. 238—375.

Sperlich, Herman A., to Ironrite, Inc. Ironing mechanism. 2,777,223, 1–15–57, Cl. 35—58.

Sperry Rand Corp.: *See*—
Charlton, John. 2,777,951.
Crist, Philip W. 2,778,012.
Frank, Robert L. 2,778,011.
Kenyon, David E. 2,777,968.
Nolt, Edwin B., and Tarbox. 2,777,384.
Spencer, Benjamin F. 2,777,952.

Spiegelhalter, William G., to General Electric Co. Condensate sump drain valve. 2,777,302, 1–15–57, Cl. 62—140.

Spiegler, Louis, to E. I. du Pont de Nemours and Co. Process for preparing triaminodiphenyl ethers. 2,777,879, 1–15–57, Cl. 260—571.

Spindel-, Motoren-und Maschinenfabrik A. G.: *See*—
Beerli, Karl. 2,777,739.

Spiro, Irving J., and L. E. Marlow, to Borman Engineering, Inc. Telephone illuminator. 2,777,940, 1–15–57, Cl. 240—2.17.

Sprague, Basil S., M. N. Carroll, and R. H. Roughsedge, to Celanese Corporation of America. Process of stabilizing thermoplastic knitted fabric containing cellulose ester yarns with superheated steam. 2,777,750, 1–15–57, Cl. 8—131.

Sprague Devices, Inc.: *See*—
Nichols, Elton F. 2,777,427.

Sprague Electric Co.: *See*—
Brafman, Harold E. 2,777,976.

Stafford, Walter L., and E. T. White, Jr. Portable truck dump. 2,777,667, 1–15–57, Cl. 254—4.

Standard Oil Co. (Illinois): *See*—
Hoff, Melvern C., and Peterson. 2,777,888.

Standard Register Co., The: *See*—
Davidson, John T. 2,777,516.
Davidson, John T. 2,777,690.

Standard-Thomson Corp.: *See*—
Wood, Charles W. 2,777,638.

Stanley Works, The: *See*—
Smith, Harry A. 2,777,344.

Staples, Otis E., to The Cleveland Hobbing Machine Co. Gear checking apparatus. 2,777,209, 1–15–57, Cl. 33—179.5.

Starke, Willie L., Jr. Combination cigarette case, lighter and ash receiver. 2,777,569, 1–15–57, Cl. 206—38.

Stedman, Donald F., to National Research Council. Composition for maintaining clear vision in windshields. 2,777,772, 1–15–57, Cl. 106—13.

Steele, Horace M., to Model Engineering & Mfg., Inc. Hydraulic speed control valve. 2,777,426, 1–15–57, Cl. 121—46.5.

Steele, Richard B., R. E. Purkhiser, and N. E. Anderson, to Air Reduction Co., Inc. Method and apparatus for electric arc welding. 2,777,973, 1–15–57, Cl. 315—171.

Stegeman, Raymond F. E., to Bausch & Lomb Optical Co. Ophthalmoscope. 2,777,356, 1–15–57, Cl. 88—22.

Stegeman, Raymond F. E., to Bausch & Lomb Optical Co. Spectacle frame having combined metallic and non-metallic parts. 2,777,361, 1–15–57, Cl. 88—41.

Stegeman, Raymond F. E., to Bausch & Lomb Optical Co. Spectacle case. 2,777,489, 1–15–57, Cl. 150—1.

Steiger, Norbert, to Hoffmann-La Roche Inc. 2-lower-alkylsulfinyl-6-lower alkoxy-benzothiazole. 2,777,852, 1–15–57, Cl. 260—306.

Steiger, Norbert, to Hoffmann-La Roche Inc. Mercapto benzothiazole compounds. 2,777,853, 1–15–57, Cl. 260—306.

Steinbock, Edmund A.: *See*—
Steinbock, Edmund A., Jr., and Meiman. 2,777,177.

Steinbock, Edmund A., Jr., and R. Meiman, to E. A. Steinbock. Investment mixer. 2,777,177, 1–15–57, Cl. 22—35.

Steiner, Louis, to Mills Industries, Inc. Coin operated release mechanism and changemaker for freeing a selective dispensing device for operation. 2,777,554, 1–15–57, Cl. 194—2.

Stelzer, William, and W. Eickele, said Stelzer assignor to said Eickele. Dispensing faucets. 2,777,675, 1–15–57, Cl. 259—8.

Sterling Drug Inc.: *See*—
Archer, Sydney. 2,777,850.
Lakso, Eino E. 2,777,265.

Stern, George T., to Specialties Development Corp. Pressure reducer. 2,777,458, 1–15–57, Cl. 137—116.5.

Stevenson, Calvin. Separating apparatus. 2,777,576, 1–15–57, Cl. 209—136.

Stewart Products Corp.: *See*—
Keefe, Lincoln M. 2,777,553.

Stickney, Michael E., R. G. Madsen, and L. R. Pugh, to Beckman Instruments, Inc. Apparatus for recording and reproducing variables. 2,777,354, 1–15–57, Cl. 88—14.

Stirling, Albert Y. Automatically controlled, multi-way, rotary plate valve. 2,777,515, 1–15–57, Cl. 161—7.

Stohlquist, Roger H., to Odin Corp. Wire bending apparatus. 2,777,478, 1–15–57, Cl. 140—105.

Stokes, Arthur J. Process for chlorinating a basic cyclic guanidine. 2,777,856, 1–15–57, Cl. 260—309.5.

Stolz, James M. Mechano electrical transducer. 2,777,925, 1–15–57, Cl. 201—62.

Strahm, André M. Injection moulding machine. 2,777,164, 1–15–57, Cl. 18—30.

Strain, Franklin, to Columbia-Southern Chemical Corp. Bis N-substituted carmabic acid esters of polyhydric alcohols and process. 2,777,871, 1–15–57, Cl. 260—468.

Strassburger, Julius H., to National Steel Corp. Method of and apparatus for operating metallurgical furnaces. 2,778,018, 1–15–57, Cl. 266—30.

Street, Harry W. L. Testing means for a primer. 2,777,323, 1–15–57, Cl. 73—35.

Stroukoff Aircraft Corp.: *See*—
Grudin, Daniel. 2,777,652.

Structural Clay Products Research Foundation: *See*—
Monk, Clarence B., Alsterda, Young, and Johnson. 2,777,184.

Stüdle, Hermann, and J. Marti, to Draize S. A. Vehicle-mounted excavating and material-handling equipment. 2,777,589, 1–15–57, Cl. 214—140.

Sulzer Freres, S. A.: *See*—
Pfarrwaller, Erwin. 2,777,472.

Sund, Vigo V. K., to Gisholt Machine Co. Ram-type turret lathe having power index. 2,777,190, 1–15–57, Cl. 29—46.

Superior Steel Corp.: *See*—
Berkeley, Laurence J. 2,777,936.

Sutton, William R., to The Huffman Co. Grass blower attachments for lawn mowers. 2,777,271, 1–15–57, Cl. 56—25.4.

Svenska Skifferolje Aktiebolaget: *See*—
Ljungstrom, Fredrik. 2,777,679.

Svensson, Regnar H., to Telefonaktiebolaget L M Ericsson. Electron discharge device for microwaves. 2,777,969, 1–15–57, Cl. 315—5.

Svirsky, Bennett, ½ to S. Breier. Convertible ball cock. 2,777,460, 1–15–57 Cl. 137—218.

Swenson, Otto W.: *See*—
Lundgren, Louis R., and Swenson. 2,777,726.

Symington-Gould Corp., The: *See*—
Couch, Glenn F. 2,777,547.

Szczepanski, Harry. Mask-washing machine. 2,777,453, 1–15–57, Cl. 134—200.

Tabachnick, Howard: *See*—
Hedley, Norman, and Tabachnick. 2,777,764.

Tallis, Ernest E. *See*—
Edwards, John H., and Tallis. 2,777,775.

Tancredi, Andrew: *See*—
Tancredi, Joseph and A. 2,777,252.

Tancredi, Joseph and A. Doll's voice mechanism. 2,777,252, 1–15–57, Cl. 46—180.

Tanis, Henry W., to Greene, Tweed & Co. Sheet slitting machine. 2,777,521, 1–15–57, Cl. 164—76.

Tapp, Gleason: *See*—
Powell, Loyd E., and Tapp. 2,777,467.

Tapp, Larry W.: *See*—
Tapp, Lora E. 2,777,559.

Tapp, Lloyt E.: *See*—
Tapp, Lora E. 2,777,559.

Tapp, Lora E., deceased, L. E., L. S., L. W., and L. M. Tapp, heirs. Line spacing mechanism for business machines. 2,777,559, 1–15–57, Cl. 197—120.

Tapp, Loretta S.: *See*—
Tapp, Lora E. 2,777,559.

Tapp, Lucille M.: *See*—
Tapp, Lora E. 2,777,559.

Tarbox, John P.: *See*—
Nolt, Edwin B., and Tarbox. 2,777,384.

Tarnoski, Paul T., to Chemical & Engineering Co. Composition for eliminating slag, soot, and fly ash. 2,777,761, 1–15–57, Cl. 44—5.

Taube, Karl: *See*—
Bockmann, Klaus, and Taube. 2,777,839.

Taylor, Herbert D. and R. S. Casting floats for fishing lines. 2,777,238, 1–15–57, Cl. 43—17.

Taylor, Ray M. Tensioning means for loom warp beams. 2,777,469, 1–15–57, Cl. 139—100.

Taylor, Robert S.: *See*—
Taylor, Herbert D. and R. S. 2,777,238.

Telefonaktiebolaget L M Ericsson: *See*—
Häärd, Hans B. 2,777,949.
Svensson, Regnar H. 2,777,969.

Telephone Answering and Recording Corp.: *See*—
Shively, John J. 2,777,898.

Teletype Corp.: *See*—
Hansen, Theodore A. 2,777,979.

Templeton, Robert A. S. Edible powders and method of producing same. 2,777,771, 1–15–57, Cl. 99—207.

Thacker, Ned A.: *See*—
Cormack, Marjorie J., and Thacker. 2,777,780.

Thomas & Betts Co., The: *See*—
Bergan, Martin D. 2,777,895.

Thomas, Dean G., and R. J. Jasensky, to Nelson Muffler Corp. Muffler water-quench spark arrestor. 2,777,536, 1–15–57, Cl. 183—22.

Thomas, James C., and G. T. Gore, to Riegel Textile Corp. Apparatus for handling a printed fabric web during development of the print colors thereon. 2,777,312, 1–15–57, Cl. 68—5.

Thomas, James C., G. T. Gore, and D. L. Simmons, to Riegel Textile Corp. Process for aging uzoic printed fabrics. 2,777,748, 1–15–57, Cl. 8—71.

Thomas, James G., and C. R. Broman, to Baxter Laboratories, Inc. Air-way puncture device. 2,777,443, 1–15–57, Cl. 128—214.

Thompson, Ernest S.; assor. to said Thompson and Ethel Thompson. Stalk and root puller and shredder. 2,777,267, 1–15–57, Cl. 55—64.

Thompson, Ethel: *See*—
Thompson, Ernest S. 2,777,267.

Thompson, James R. Attachment for indexing heads. 2,777,338, 1–15–57, Cl. 74—813.

Thor Power Tool Co.: *See*—
Fuehrer, George H. 2,777,424.

Thorla, Loren F., Jr. Spring-applied disk parking brake. 2,777,539, 1–15–57, Cl. 188—71.

Thridge, Thomas B.: *See*—
Krabbe, Ulrik H., and Sørensen. 2,777,978.

Timken Roller Bearing Co., The: *See*—
Rundt, John W. 2,777,261.

Todisco, Pasquale: *See*—
Rosa, James M., and Todisco. 2,777,294.

Tollefson, Robert D., to Collins Radio Co. System for calibrating oscillators. 2,777,953, 1–15–57, Cl. 250—36.

Toornman, Burton V., to The Dow Chemical Co. Method and composition for the control of undesirable vegetation. 2,777,762, 1–15–57, Cl. 71—2.3.

Tootill, Geoffrey C., F. C. Williams, and T. Kilburn, to National Research Development Corp. Electronic digital computing machines. 2,777,635, 1–15–57, Cl. 235—61.

Totzek, Friedrich, to Koppers Co., Inc. Apparatus for the performance of endothermic reactions between solid and gaseous media. 2,777,813, 1–15–57, Cl. 204—193.

Towers, Kenneth E.: *See*—
Boysen, Martin C., and Towers. 2,777,586.

Towne, Edmund B.: *See*—
Dickey, Joseph B., and Towne. 2,777,863.

Transit Research Corp.: *See*—
Rossell, William T. 2,777,401.
Rossell, William T. 2,777,402.

Travis, Julius C. Child's auto safety seat. 2,777,502, 1–15–57, Cl. 155—10.

Tristram, Edward W.: *See*—
Chemerda, John M., Chamberlin, and Tristram. 2,777,843.

Troglione, Vincent R., to Ferguson Equipment Corp. Casting apparatus. 2,777,178, 1–15–57, Cl. 22—64.

Trutna, William R.: *See*—
Counts, James C., Nelson, and Trutna. 2,777,878.

Tsuruta, Elichi: *See*—
Amizawa, Kenji, and Tsuruta. 2,777,756.

Tucker, Arthur L. Load equalizing wheel mounting for compactors. 2,777,709, 1–15–57, Cl. 280—104.

Turner, Gilbert M.: *See*—
Pyle, Cyrus, and Turner. 2,777,807.

Turner, James F., and C. P. Breidenbaugh, deceased (by L. M. Breidenbaugh, executrix), to Flynn & Emrich Co. Refuse burning furnace. 2,777,406, 1–15–57, Cl. 110—8.

Turner, Oliver E. Portable self-contained electronic stethoscope. 2,777,903, 1–15–57, Cl. 179—107.

Tuttle, Eugene F. Manipulator. 2,777,439, 1–15–57, Cl. 128—25.

Tutwiler, Frank H. Lens holders for photographic projector enlargers. 2,777,358, 1–15–57, Cl. 88—24.

Tweedale, Ralph L., to Vickers Inc. Motor-pump drive for vehicle fan. 2,777,287, 1–15–57, Cl. 60—12.

Udale, Stanley M., to Holley Carburetor Co. Carburetor. 2,777,678, 1–15–57, Cl. 261—41.

Uden, Allen R. Header drive assembly for combines. 2,777,269, 1–15–57, Cl. 56—21.

Unger, Maynard B., to The Sherwin-Williams Co. Oleoresinous rosinamine condensations. 2,777,837, 1–15–57, Cl. 260—102.

Union Carbide and Carbon Corp.: *See*—
Bailey, Donald L., and Mixer. 2,777,869.
Benham, John L. 2,777,765.
Binder, William O. 2,777,766.
Bliss, Lyman A., Riede, and Beckman. 2,777,295.
Mixer, Robert Y., and Bailey. 2,777,868.

Union Savings & Trust Co., The: *See*—
Heitzel, John N. 2,777,370.

Union Steam Pump Co.: *See*—
Disbrow, Donald R. 2,777,395.

United Chemical Corp. of New Mexico: *See*
Gambill, Marvin. 2,777,818.

United Shoe Machinery Corp.: *See*—
Russell, George E., Jr. 2,777,564.

United States Atomic Energy Commission, United States of America as represented by the: *See*—
Kolodney, Morris. 2,777,809.
Powell, Robert W., and Lee. 2,777,812.

United States Rubber Co.: *See*—
Hurt, Victor H. 2,777,165.

United States Steel Corp.: *See*—
Hunter, Melmoth W. 2,777,587.

Universal Steel Equipment Corp.: *See*—
Rosenberg, Philip. 2,777,247.

Unthank, Douglas G., ½ to H. A. J. Silley. Apparatus for separating oil and water. 2,777,581, 1–15–57, Cl. 210—61.

VEB Carl Zeiss Jena: *See*—
Wanke, Rudolf, and Zollner. 2,777,363.

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ISSUED JANUARY 15, 1957

NOTE.—First number = class, second number = subclass, third number = patent number

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Classification of Designs

D 4— 2: Des. 179,550
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OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
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TRADEMARKS

NOTICES

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

TM 350,859 (ANN SUTTON CREATION), Lew L. Gluck, Inc., Women's and misses' dresses, **filed** Oct. 29, 1956, D. C., S. D. N. Y., Doc. 114/171, *Samuel Litt et al.* v. *Sutton Casuals Inc.* Consent judgment; defendant enjoined Nov. 28, 1956.

TM 415,269 ("MARY BALL CANDY KITCHEN" and design), Mary Ball Candy Kitchen, Candy; **TM 554,956** ("MARY BALL CANDIES," etc. and design), **TM 605,630** ("DEEP SOUTH BOX" and design), Mary Ball Candy Kitchens, Inc., same, **filed** Nov. 29, 1956, D. C., N. D. Ala. (Birmingham), Doc. 8586, *Mary Ball Candy Kitchens, Inc.* v. *Plantation Candies et al.*

TM 554,956. (See TM 415,269.)

TM 565,945 (VITRAMON), Vitramon Inc., Capacitors, **filed** Nov. 29, 1956, D. C., S. D. N. Y., Doc. 115/144, *Vitramon Inc.* v. *The Newhope Corp. et al.*

TM 605,630. (See TM 415,269.)

CONDITION OF TRADEMARK APPLICATIONS AS OF NOVEMBER 30, 1956

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)] 7,523
Date of oldest new application ..... May 17, 1956
Date of oldest amended application ..... June 7, 1956

MERCHANT, JOHN, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application: New	Amended
I. STERBA, J. R., Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 44 and Certification Marks (Goods) Class A	5-21-56	8-17-56
II. SHRYOCK, R. F., Classes 6, 18, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200; and Certification Marks (Services) Class B	5-17-56	7-23-56
III. WENDT, C. M., Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 36, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 50, 52	6-15-56	6-7-56
Renewals (All Classes)	11-7-56	11-20-56
Sec. 12 (c) Publications (All Classes)	10-5-56	11-19-56

Applications Filed During the Month of November 1956—1,678

Registrations Issued ..... 325—No. 639,860 to No. 640,184
Renewals Issued 56

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.
As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

SN 7,370. Phillips Premier Corporation, Boston, Mass. Filed Apr. 30, 1956.

CLEARON

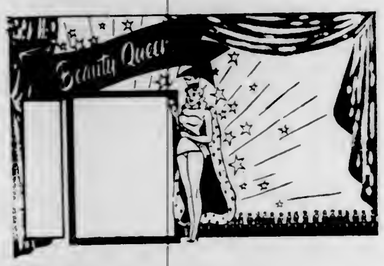
For Vinyl Film in Sheet Form.
First use Feb. 25, 1956.

SN 7,875. Superior Tanning Company, Chicago, Ill. Filed May 7, 1956. Sec. 2(f).

KATZ KROME

For Leather Made From Cattlehides and Horsehides.
First use in 1907.

SN 8,161. Sexton Plant Company, Tyler, Tex. Filed May 11, 1956.



For Rose Bushes.
First use Sept. 15, 1955.

SN 8,402. Garden State Tanning Inc., New York, N. Y Filed May 16, 1956.

PINEBUCK

For Processed Leather Hides
First use Apr. 20, 1956.

SN 8,404. Garden State Tanning Inc., New York, N. Y. Filed May 16, 1956.

LIEGE

For Processed Leather Hides.
First use Apr. 20, 1956.

SN 8,981. Personal Products Corporation, North Brunswick Township, New Brunswick, N. J. Filed May 24, 1956.

CEL-FIBE

For Commercial Wadding, Border Felt, Packaging, and Cushioning Materials.
First use Mar. 5, 1956

SN 11,140. Ward M. Canaday, Frederiksted, St. Croix, Virgin Islands. Filed June 28, 1956.

SAINT CROIX SENEPOL

Owner of Reg. No. 593,722.
For Cattle.
First use Dec. 29, 1952.

CLASS 2

RECEPTACLES

SN 4,264. America House, Ltd., New York, N. Y. Filed Mar. 12, 1956.

AMERICA HOUSE

Owner of Reg. No. 405,036.
For Wooden and Base Metal Boxes for General and Ornamental Use; Box Covers and Box Holders Made of Metal, Wood or Cardboard; Metal, Cardboard, and Leather Wastebaskets; Wooden Serving Trays; Empty Base Metal and Plastic Compacts.
First use 1943.

SN 5,684. Standard Packaging Corporation, Chicago, Ill. Filed Apr. 2, 1956.

FLEX O TAINER

For Flexible, Moisture-Proof, Composition Bags.
First use Mar. 14, 1956.

SN 7,183. G. H. P. Cigar Co., Inc., New York, N. Y. Filed Apr. 26, 1956.

FOLD-A-PAK

For Paperboard Packages for Cigars.
First use Jan. 26, 1956.

SN 13,598. Packing Material Company, Inc., Detroit, Mich. Filed Aug. 8, 1956.

FIBERTAINER

For Collapsible Containers Made From Corrugated Fiber Board and Reinforced With Wood Cleats.
First use in October 1954.

SN 14,053. Bristol Metal Products Corp., Bristol, Tenn. First use Aug. 16, 1956.

BRISMET

For Storage Tanks.
First use June 18, 1956.

CLASS 3

BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

SN 4,261. America House, Ltd., New York, N. Y. Filed Mar. 12, 1956.

AMERICA HOUSE

Owner of Reg. No. 405,036.
For Leather Portfolios and Briefcases; Leather and Cloth Purses and Pocketbooks for Ladies.
First use 1943.

CLASS 4

ABRASIVES AND POLISHING MATERIALS

SN 5,528. Terry Huskey, d. b. a. Shar P Razor Hone Co., Beech Grove, Ind. Filed Mar. 30, 1956.

SHAR-P

For Razor Hone.
First use Mar. 20, 1956.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

SN 687,183. Carrier Corporation, Syracuse, N. Y. Filed May 10, 1955.

CARRINOL

For Solution To Prevent Formation of Frost on Coils of Unit Coolers.
First use Sept. 15, 1954.

SN 687,854. Dade Reagents, Inc., Miami, Fla. Filed May 19, 1955.

DADE

For Rabbit Brain for the Determination of Prothrombin Time, Blood Typing Serums, Syphilis Serology Control Serums, Blood Grouping Serums, and Blood Chemistry Control Solution, All for Laboratory Use.
First use Jan. 1, 1955.

SN 689,168. Shell Chemical Corporation, New York, N. Y. Filed June 8, 1955.

NEMAGON

For Soil Fumigant.
First use Apr. 29, 1955.

SN 695,257. Air Reduction Company, Incorporated, New York, N. Y. Filed Sept. 26, 1955.

COLFOAM

Owner of Reg. No. 615,605.
For Urea Formaldehyde Spheres.
First use July 1, 1952.

SN 697,959. Samuel Cabot, Incorporated, Boston, Mass. Filed Nov. 9, 1955.

Bar Brand

For Wood Preservatives.
First use Oct. 5, 1955.

SN 698,768. Calgon, Incorporated, Pittsburgh, Pa. Filed Nov. 23, 1955.

ODOREX

For Materials for Use in Treating Potable Water Supplies for Reducing Tastes and/or Odors Therein.
First use May 19, 1955.

SN 699,416. National Research and Chemical Company, Hawthorne, Calif. Filed Dec. 5, 1955.

AMMODEL

For Ammonia Type Developer for Developing Prints.
First use April 1955.

SN 699,799. W. R. Grace & Co., New York, N. Y. Filed Dec. 12, 1955.

DRC

Owner of Reg. No. 569,140.
For Catalyst Used in the Catalytic Reforming of Hydrocarbons.
First use Sept. 7, 1951.

SN 700,473. The L. Martin Company, New York, N. Y., to Columbian Carbon Company, New York, N. Y. Filed Dec. 22, 1955.

The words "Lamp Black," "The L. Martin Co., Inc.," and "New York, N. Y." are disclaimed apart from the mark as shown.
For Lamp Black Having a General Utility in the Industrial Arts.
First use in 1902.

SN 700,528. Röhm & Haas G. m. b. H., Darmstadt, Germany. Filed Dec. 23, 1955.

ARAMOL

For Softening Agent for Hides and Skins for Leather Manufacture.
First use Jan. 18, 1952; in commerce March 1953.

SN 205. H. W. Le Fevre, d. b. a. Le Fevre & Son, Oklahoma City, Okla. Filed Jan. 5, 1956.

EX-IT

For Air Sanitizer.
First use June 1, 1955.

SN 2,154. Merck & Co., Inc., Rahway, N. J. Filed Feb. 6, 1956.

DIVASIL

For Silver Oxide.
First use Jan. 12, 1956.

SN 3,850. Hard-N-Tuff Corporation, New York, N. Y. Filed Mar. 5, 1956. Sec. 2(f).

HARD-N-TUFF

Owner of Reg. No. 551,153.
For Carburizing Compound for Hardening and Alloying Steel.
First use July 1, 1949.

SN 4,337. Mallinckrodt Chemical Works, St. Louis, Mo. Filed Mar. 12, 1956.

NEMORAD

For Nematocide.
First use Feb. 14, 1956.

SN 4,773. Ciba Limited, Basel, Switzerland. Filed Mar. 19, 1956.

OREMASIN

Owner of Swiss Reg. No. 157,201, dated July 6, 1955, and U. S. Reg. No. 403,997.
For Coal Tar Colors.

SN 5,896. Allied Chemical & Dye Corporation, New York, N. Y. Filed Apr. 6, 1956.

NEUTRANYL

For Dyestuffs.
First use Mar. 12, 1954.

SN 6,028. Mesa Plastics Company, Los Angeles, Calif. Filed Apr. 9, 1956.

DIALL

For Thermosetting Molding Compounds.
First use Nov. 26, 1952.

SN 6,263. McCampbell & Company, Inc., New York, N. Y. Filed Apr. 12, 1956.

WEST COAST FINISH

Applicant disclaims the word "Finish."
For Non-Durable Type Water Repellent Finish Applied to Cotton Textiles.
First use June 13, 1955.

SN 6,269. National Disinfectant Company, Dallas, Tex. Filed Apr. 12, 1956.

PSYCON

For Chemical Preparation for Destroying the Larvae and Pupae of Filter Flies (Psychoda) in Sewage Plant Filters and the Like.
First use on or about Mar. 6, 1956.

SN 6,785. Basic, Incorporated, Cleveland, Ohio. Filed Apr. 20, 1956.

KELLEYCHEM

For Hydrated Lime and Dolomitic Lime for Industrial Use.
First use prior to the year 1945.

SN 7,093. Kraft Foods Company, Chicago, Ill. Filed Apr. 25, 1956.

KARTASIZE

For Modified Irish Moss for Industrial Use.
First use Mar. 9, 1956.

SN 7,103. National Lead Company, New York, N. Y. Filed Apr. 25, 1956.

PROVINITE

For Organic or Metallo-Organic Material for Use in Stabilization of Clear Vinyl Film and Sheeting, and Dispersion Resin Systems.
First use Apr. 8, 1955.

SN 7,250. Food Machinery and Chemical Corporation, New York, N. Y. Filed Apr. 27, 1956.

BEDRENCH

For Sterilant for Plant Bed Soils.
First use Oct. 14, 1955.

SN 7,437. Hess & Clark, Inc., Ashland, Ohio. Filed May 1, 1956.

FATAL-FLY

For Dry Bait Fly Killer.
First use Apr. 18, 1956.

SN 7,448. Mock Seed Company, Pittsburgh, Pa. Filed May 1, 1956.

Owner of Reg. No. 550,409.
For Chemical Weed Exterminator Used in Combination With Fertilizer.
First use Mar. 21, 1956.

SN 7,529. Parker Rust Proof Company, Detroit, Mich. Filed May 2, 1956.

BONDERITE

Owner of Reg. Nos. 208,659 and 512,301.
For Chemical Compositions for Producing a Corrosion Inhibiting Finish on Metals and/or Preparing Metal Surfaces for the Subsequent Application of Finish Coats and/or Conditioning Metal Surfaces To Facilitate Metal Deformation Operations.
First use Mar. 5, 1929.

SN 7,563. The Borden Company, New York, N. Y. Filed May 3, 1956.

POLYCRYL

For Synthetic Resin Emulsions and Solutions.
First use Dec. 14, 1955.

SN 7,759. Ciba Limited, Basel, Switzerland. Filed May 7, 1956.

COMBATEX

Owner of Swiss Reg. No. 156,449, dated May 24, 1955.
For Chemical Products for Use as Auxiliary Agents in the Textile Industry; Finishing Agents.

SN 8,022. Walter Ratner, Chicago, Ill. Filed May 9, 1956.

PELLIN

For Insecticide.
First use June 3, 1955.

SN 8,590. Tide-Tan Corporation, Dallas, Tex Filed May 18, 1956.

TIDE-STAR

For Pre-Gelatinized Starch for Producing Low Filter Loss Characteristics in Well Drilling Mud.
First use Feb. 11, 1956.

SN 8,738 Leo L. Goldfarb, d. b. a. Marple Drug Co., Broomall, Pa. Filed Apr. 23, 1956.

DIAPERTONE

For Baby Diaper Rinse.
First use Feb. 2, 1956.

SN 8,765. The Garland Company, Cleveland, Ohio. Filed May 22, 1956.

DURATRON

For Dust-On Colorant and Hardener for Concrete Floors, Applied by Dusting Over Fresh Concrete.
First use Jan. 13, 1956.

SN 9,822. Stan Stanton, d. b. a. Fla-Pil Enterprises, Arlington, Va. Filed June 7, 1956.

"FIA-PIL"

For Chemical Fire Kindler.
First use June 6, 1956.

SN 10,332. Herman Meyer Drug Co., Inc., Garwood, N. J. Filed June 15, 1956.

SARINE

For Corrosion and Scale Inhibitors.
First use Apr. 4, 1951.

SN 10,822. Union Carbide and Carbon Corporation, New York, N. Y. Filed June 22, 1956.

Linde

Owner of Reg. Nos. 434,784, 441,626, and others.
For Synthetic Zeolites for Use as Adsorbents, Ion Exchange Agents, Catalysts, and for Other Uses in the Industrial Arts.
First use Mar. 15, 1954.

SN 11,815. Union Carbide and Carbon Corporation, New York, N. Y. Filed July 9, 1956.

UNION CARBIDE

For Organo-Silicon Compositions—Namely, Silicones, Silanes, and Silicone-Organo Copolymers for Use in the Industrial Arts.
First use Jan. 19, 1956, on silicones.

SN 11,925. Fred Herman & Sons, Inc., Houston, Tex. Filed July 11, 1956.

For Bleach.
First use Jan. 1, 1956.

SN 11,998. American Potash & Chemical Corporation, Los Angeles, Calif. Filed July 12, 1956.

TRONACARB

Owner of Reg. Nos. 306,280, 545,294, and 577,317.
For Alkali Carbonate Mixture.
First use May 31, 1956.

SN 12,675. Joseph W. Storer, d. b. a. Dry Chemical Pacific, Modesto, Calif. Filed July 23, 1956.

Enz

For Chemical Preparations for the Treatment of Septic Tanks, Cesspools, Grease, and Odors.
First use Nov. 11, 1955.

SN 13,206. Formea Chemical Corporation, Cleveland, Ohio. Filed Aug. 1, 1956.

FORMEA

For Thermosetting Molding Powders.
First use on or about Aug. 1, 1954.

SN 13,459. Leslie A. Ludeking, d. b. a. Northel Distributors, Minneapolis, Minn. Filed Aug. 6, 1956.

NORTHEL

For Septic Tank Reactivators.
First use on or about Jan. 1, 1953.

SN 13,888. R. T. Vanderbilt Company, Inc., New York, N. Y. Filed Aug. 13, 1956.

VANBLACK

For Carbon Blacks Such as Used in the Rubber Industry.
First use Aug. 2, 1956.

SN 14,258. Metadier (Canada) Limited, Montreal, Quebec, Canada. Filed Aug. 20, 1956.

TRANSDERMINE

Owner of Canadian Reg. No. 102,853, dated Mar. 9, 1956.
For Synthetic Lecithin, a Fatty Substance Used as a Base for Ointments and Cosmetics.

SN 14,764. Royce Chemical Company, Carlton Hill, N. J. Filed Aug. 28, 1956.

NEOWET

For Wetting Agents.
First use May 1950.

CLASS 8

SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS

SN 11,870. Pacific Import Co., Inc., New York, N. Y. Filed July 10, 1956.

PAC

For Pocket Cigarette Lighters.
First use in August 1953.

CLASS 10

FERTILIZERS

SN 9,681. Soil Builders International Corp., New York, N. Y. Filed June 5, 1956.

The drawing is lined for yellow and red. Owner of Reg. No. 596,976.
For Fertilizer, Soil Builder, and Conditioner.
First use Apr. 26, 1954.

SN 13,395. Smith-Douglass Company, Incorporated, Norfolk, Va. Filed Aug. 3, 1956.

NUTRONITE

For Organic Fertilizer.
First use Oct. 1, 1954.

SN 13,627. Vital Earth Corp., New York, N. Y. Filed Aug. 8, 1956.

FAS-T

For Fertilizers.
First use Feb. 28, 1956.

CLASS 11

INKS AND INKING MATERIALS

SN 12,391. Standard Manifold Company, Chicago, Ill. Filed July 18, 1956.

PROTECTOR

For Typewriter Ribbons.
First use June 15, 1955.

SN 13,246. Roll-O-Graphic Corporation, New York, N. Y. Filed Aug. 1, 1956.

EEZY-LITH No. 10

For Ink and Etching Compound for Lithographing Machine.
First use in June 1950.

13,593. Manifold Supplies Company, New York, N. Y. Filed Aug. 8, 1956.

SELECTRIC

For Carbon Paper.
First use July 3, 1956.

CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

SN 693,653. Walter F. Ames, d. b. a. Walter F. Ames Mfg. Co., Philadelphia, Pa. Filed Aug. 25, 1955.

WALCO

For Stainless Steel Sinks and Counter Tops.
First use 1934.

SN 700,741. Marino Lathing Supply Company, New Hyde Park, N. Y. Filed Dec. 28, 1955.

LAWN TRIM
FOR PERFECT LAWN CONTROL

Applicant disclaims the words "For Perfect Lawn Control."
For Metal Grass and Root Barrier for Lawn Control.
First use May 15, 1955.

SN 3,857. Harvey Machine Co., Inc., Torrance, Calif. Filed Mar. 5, 1956.

Harcraft

Owner of Reg. No. 422,165.
For Builder's Hardware, Namely: Hinges and Plumbing Supplies—Namely, Nozzles, Couplings, Fittings, Valves, Faucets, and Shower Apparatus.
First use Jan. 27, 1944.

SN 10,074. The William L. Bonnell Company, Inc., Newnan, Ga. Filed June 12, 1956.

BON-DEE

For Sink Frames.
First use May 17, 1956.

SN 16,001. Markwell Manufacturing Co. Inc., New York, N. Y. Filed Oct. 8, 1956.

MASTER

For Staples Used in Stapling Machines for Fastening Papers, Cardboard, Fabrics, Metal, Together, Also for Fastening Papers, Cardboard, Metal, on to Wood.
First use Dec. 27, 1940.

CLASS 15

OILS AND GREASES

SN 6,717. Gasteria, Inc., Indianapolis, Ind. Filed Apr 19, 1956

BONDED

Owner of Reg. No. 300,665.
For Oil.
First use Feb. 11, 1956.

SN 11,614. Frank Joseph Ruff, d. b. a. Auto-Pep Sales Co., Belleville, N. J. Filed July 5, 1956.

AUTO-PEP

For Gasoline and Diesel Oil Pellets.
First use Apr. 11, 1956.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

SN 679 351. Jolly J. Taylor, d. b. a. Joe Taylor Company, Los Angeles, Calif. Filed Jan. 3, 1955.

CHEMICALLY SUN-SCREENED

For Coating Compositions, Such as Paint and Lacquer, Specifically for Finishes.
First use Sept. 18, 1953.

SN 700,551. Advance Solvents & Chemical Corporation, New York, N. Y., to Carlisle Chemical Works, Inc., Reading, Ohio. Filed Dec. 27, 1955.

ADVANATE

For Paint Driers.
First use Sept. 28, 1955.

SN 950. Biwax Corporation, Skokie, Ill. Filed Jan. 18, 1956.

BIWAX

For Waxes and Compounds in the Nature of: Impregnating Compounds for Eliminating Moisture in a Coil or Foil Winding; Sealing Compounds for Surface Sealing of Units; Dipping Compounds for Dipping of Any Assembled Electronic Unit To Provide a Moisture Barrier; Fungus Resistant Compounds for Impregnating, Insulating, Potting or Dipping Electronic Units; Compounds Characterized by Having Good Resistance to Corona Losses.
First use Jan. 3, 1930.

CLASS 17

TOBACCO PRODUCTS

SN 10,172. Larus & Brother Company, Richmond, Va. Filed June 13, 1956.

EXECUTIVE

Owner of Reg. No. 422,820.
For Smoking Tobacco.
First use June 12, 1956.

SN 10,173. Larus & Brother Company, Richmond, Va. Filed June 13, 1956.

EDGEWORTH EXECUTIVE MIXTURE

No claim is made to the term "Mixture" apart from the mark in its entirety. Owner of Reg. Nos. 128,095, 609,030, and 422,820.
For Smoking Tobacco.
First use June 12, 1956; in 1895 as to "Edgeworth."

SN 11,678. The American Tobacco Company, New York, N. Y. Filed July 25, 1956.

HIT PARADE

For Cigarettes.
First use July 24, 1956

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

SN 694,586. Meyer Chemical Company, Detroit, Mich., now by change of name Meyer and Company. Filed Sept. 13, 1955.

DURACAPS

For Timed-Disintegration Capsules Wherein the Active Ingredients Are Released Slowly in the Human Gastro-Intestinal Tract To Give a Prolonged Effect in the Body.
First use Nov. 19, 1954.

SN 694,879. Richard S. Hammergren, d. b. a. R. H. Laboratories, St. Paul, Minn. Filed Sept. 19, 1955.

PRESAY

For Cleaning Deodorant and Douche for Feminine Hygiene.
First use on or about Aug. 17, 1955.

SN 696,661. O. W. Meyer, d. b. a. Farmers Friend Mineral Co., Napoleon, Ohio. Filed Oct. 18, 1955.

PHENOMIN

For Vitamin and Mineral Feed Supplement for Cows, Hogs, Horses, Sheep, Chickens, Turkeys, Geese, Ducks, and Domestic Fur Bearing Animals.
First use Oct. 1, 1955

SN 697,813. Merck & Co., Inc., Rahway, N. J. Filed Nov 7, 1955. Sec. 2(f).

MULFORD

Owner of Reg. No. 229,367.
For Antigenic Preparations for Veterinary Use.
First use on or about Dec. 30, 1902.

SN 134. Samuel Belber, d. b. a. Zerell Drug Company, Philadelphia, Pa. Filed Jan. 4, 1956.

CALACTIN

For Geriatric and Prenatal Nutritional Supplements
First use June 29, 1955.

SN 4,135. Merck & Co., Inc., Rahway, N. J. Filed Mar. 8, 1956.

JENIMIDE

For Chemotherapeutic Agent for Use in Antibacterial Therapy.
First use Feb. 13, 1956.

SN 4,412. Mine Safety Appliances Company, Pittsburgh, Pa. Filed Apr. 12, 1956.

MSA
SAFETY EQUIPMENT HEADQUARTERS

The words "Safety Equipment Headquarters" are disclaimed apart from the mark as shown. Owner of Reg. No. 403,728.
For Medicinal Preparations—Namely, Mixtures of Oxygen and Carbon Dioxide for Respiratory Therapy, Medicated Bandages Including Swabs Impregnated With Antiseptics, Ammonia Preparations, Preparations for Wounds and Burns Including Protective Hand Creams, Antiseptic Applicator Vials, Creosote Wash, Poison Ivy Preparations, Boric Acid Preparations, Sodium Bicarbonate, Castor Oil, Aspirin Tablets, Salt Tablets.
First use at least as early as January 1953.

SN 7,239. Ciba Pharmaceutical Products Inc., Summit, N. J. Filed Apr. 27, 1956.

ANTIVY

For Antipruritic Preparation for Topical Use.
First use Apr. 20, 1956.

SN 7,935. Phoenix Laboratories, Inc., East Orange, N. J. Filed May 8, 1956.

NUCLITOL

For Vitamin Preparation.
First use Nov. 3, 1952.

SN 8,847. Hess & Clark, Inc., Ashland, Ohio. Filed May 23, 1956.

NICOZINE

For Anthelmintics for Poultry.
First use Apr. 1, 1943.

SN 9,655. Marcelle Cosmetics, Inc., Chicago, Ill. Filed June 5, 1956.

JUNITAR

For Pharmaceutical Preparation To Be Mixed With Bath Water To Form a Soothing, Anti-Pruritic, Anti-Inflammatory Tar Bath for External Application to the Human Body.
First use May 24, 1956.

SN 11,662. Carter Products, Inc., New York, N. Y. Filed July 6, 1956.

CARTESIA

For Laxatives.
First use May 15, 1956.

SN 11,695. The Wm. S. Merrell Company, Cincinnati, Ohio. Filed July 6, 1956.

Shadow-Kote

For Protective Coating for Tablets of Medicinal and Pharmaceutical Preparations for Internal Use.
First use June 28, 1956.

SN 11,696. The Wm. S. Merrell Company, Cincinnati, Ohio. Filed July 6, 1956.

BENDECTIN

For Antinausea Preparation.
First use June 25, 1956.

SN 11,729. Abbott Laboratories, North Chicago, Ill. Filed July 9, 1956.

TRON-OTO

For Antibiotic and Anesthetic Preparation for Relief of Ear Infections.
First use June 7, 1956.

SN 11,818. The Upjohn Company, Kalamazoo, Mich. Filed July 9, 1956.

UNIMYCIN

For Antibiotic Preparation.
First use Mar. 30, 1956.

SN 11,819. The Upjohn Company, Kalamazoo, Mich. Filed July 9, 1956.

RAYCELLIN

For Antibiotic Preparation.
First use Mar. 30, 1956.

SN 11,909. George A. Breon & Company, New York, N. Y. Filed July 11, 1956.

STASANIL

For Systemic Antihemorrhagic Agent.
First use June 6, 1956.

SN 11,974. Sterling Drug Inc., New York, N. Y. Filed July 11, 1956.

DEFOMAIR

For Preparation for Aerosol Inhalation in Cardiopulmonary Disorders.
First use July 2, 1956.

SN 11,996. American Home Products Corporation, d. b. a. Wyeth Laboratories Division of American Home Products Corporation, Radnor, Pa. Filed July 12, 1956.

EQUAMINE

For Psychochemical Agent in Dosage Form.
First use May 22, 1956.

SN 11,997. American Home Products Corporation, d. b. a. Wyeth Laboratories Division of American Home Products Corporation, Radnor, Pa. Filed July 12, 1956.

PEN·VEE·CIDIN

For Antibiotic-Analgesic-Antihistaminic Combined in Dosage Form.
First use June 28, 1956.

SN 12,097. C. F. Kirk Company, New York, N. Y. Filed July 13, 1956.

HEMOMIN-GEL

For Vitamin B-12 and Gelatin Therapeutic Preparation for Administration by Parenteral Injection.
First use July 2, 1956.

SN 12,371. Mykola Koska, d. b. a. M. Koska, Philadelphia, Pa. Filed July 18, 1956.

CO-SKIN

For Medicinal for Treatment of Skin Sores, Irritations, Bruises, Cuts, Eczema, Ivy Poison, and Skin Injuries.
First use June 1, 1956.

SN 12,374. Miracle Drug Products, Inc., Atlanta, Ga. Filed July 18, 1956.

Crampex

For Pharmaceutical in Tablet Form for Relieving Functional Menstrual Pain.
First use Feb. 3, 1956.

SN 12,458. Riker Laboratories, Inc., Los Angeles, Calif. Filed July 19, 1956.

TRISERPINE

For Medicinal Preparation for the Treatment of Cardiovascular Disorders.
First use May 3, 1956.

SN 12,501. Eastern Research Laboratories, Inc., Baltimore, Md. Filed July 20, 1956.

ULTRA-GESIC

For Pharmaceutical Preparation for the Treatment of Simple Headaches, Neuralgias, and Colds.
First use July 3, 1956.

SN 12,521. Merck & Co., Inc., Rahway, N. J. Filed July 20, 1956.

BE-DELTRA

For Preparation Containing Steroid Compound for Use in Hormonal Therapy.
First use June 4, 1956.

SN 12,522. Merck & Co., Inc., Rahway, N. J. Filed July 20, 1956.

FLUDRONASAL

For Preparation Containing Steroid Compound for Use in Treatment of Nasal Disorders.
First use June 4, 1956.

SN 12,523. Merck & Co., Inc., Rahway, N. J. Filed July 20, 1956.

INTRAFACT

For Preparation for Use in Treatment of Anemias and Other Cases of Impoverished Blood Conditions and Other Metabolic Deficiencies.
First use June 4, 1956.

SN 12,524. Merck & Co., Inc., Rahway, N. J. Filed July 20, 1956.

BE-HYDELTRA

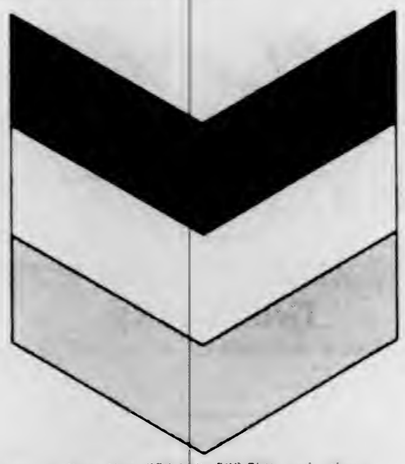
For Preparation Containing Steroid Compound for Use in Hormonal Therapy.
First use June 4, 1956.

SN 12,667. Harold C. Ridenhour, d. b. a. V. I. R. Products Company, Anaheim, Calif. Filed July 23, 1956.

Vi-Rad'nt

For Vitamin and Mineral Preparations in Tablet and Capsule Form for Use as a Dietary Food Supplement.
First use June 16, 1956.

SN 12,857. Standard Oil Company of California, San Francisco, Calif. Filed Aug. 14, 1956.



Owner of Reg. Nos. 356,109, 533,798, and others.
For Veterinary Preparation for Use in the Control of Screw Worms and Fleece Worms.
First use June 25, 1956.

SN 13,026. Cramer Chemical Co., Gardner, Kans. Filed July 30, 1956.

BUTTERFLY

For Medicinal Preparation for Use in Relieving Nervousness and Stomach Disorder Due to Tension and Nervousness.
First use May 15, 1956.

SN 13,055. The S. E. Massengill Company, Bristol, Tenn. Filed July 30, 1956.

PARTEROL

For Pharmaceutical Preparation for Use in Veterinary Medicine To Prevent Relapses in Cases of Uncomplicated Milk Fever.
First use Aug. 24, 1955.

SN 13,056. The S. E. Massengill Company, Bristol, Tenn. Filed July 30, 1956.

RENIR

For Tablet for Use in Treating Hypertension, for Relieving Anxiety and for Neurosis.
First use July 19, 1956.

SN 13,074. Schenley Laboratories, Inc., New York, N. Y. Filed July 30, 1956.

JOURAPHENE

For Antihistamines.
First use July 12, 1956.

SN 13,075. Schenley Laboratories, Inc., New York, N. Y. Filed July 30, 1956.

NEUTRAPEN

For Penicillinase for Aqueous Injection.
First use July 12, 1956.

SN 13,123. Abbott Laboratories, North Chicago, Ill. Filed July 31, 1956.

THERIODIDE

For Capsules Embodying Radioactive Substances Adsorbed on Interior of Capsule for Use in Medical Treatment.
First use June 28, 1956.

SN 13,554. V-M Nutri Food, Inc., d. b. a. C. H. Compere & Son, Evanston, Ill. Filed Aug. 7, 1956.

V-M

Nutrall-plus

For Dietary Supplement Including Vitamins and Minerals.
First use July 16, 1956.

SN 13,555. V-M Nutri Food, Inc., d. b. a. C. H. Compere & Son, Evanston, Ill. Filed Aug. 7, 1956.

V-M

Nutrall

For Dietary Supplement Including Vitamins and Minerals.
Filed July 16, 1956.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

SN 1,852. Owen G. Duncan, d. b. a. Wisconsin Storage Battery Co., Racine, Wis. Filed Feb. 1, 1956.

WISCO

For Storage Batteries.
First use in May 1932.

SN 2,394. Ultra Violet Products, Inc., San Gabriel, Calif. Filed Feb. 9, 1956. Sec. 2(f).

BLAK-RAY

For Long-Wave Ultra-Violet Lamps for Use In Activating Light-Emitting Material.
First use Jan. 16, 1951.

SN 7,411. Amplifier Corporation of America, New York, N. Y. Filed May 1, 1956.

MAGNERASER

For Demagnetizing Equipment Comprising a Coil of Wire Contained in a Housing and Energized by A. C. Current To Produce an A. C. Magnetic Field Which Is Used To Demagnetize Magnetizable Objects.
First use June 15, 1949.

SN 9,868. Jarco Metal Products Corp., New York, N. Y. Filed June 8, 1956.

Owner of Reg. Nos. 523,202, 512,470, and 531,544.
For Flashlights and Parts Thereof.
First use Dec. 10, 1948.

SN 10,163. Growler Alarm Corp., New York, N. Y. Filed June 13, 1956.

The wording on the drawing is disclaimed apart from the mark.
For Fire and Police Alarms of an Electric Nature.
First use Apr. 10, 1956.

SN 11,440. Ward Leonard Electric Co., Mount Vernon, N. Y. Filed July 2, 1956.

MAG-A-TROL

Owner of Reg. No. 587,227.
For Electric Lighting Control Apparatus, Specifically a Magnetic Amplifier Type of Light Dimmer.
First use May 11, 1956.

SN 12,106. Ray-O-Vac Company, Madison, Wis. Filed July 13, 1956.

sports-man

Owner of Reg. No. 588,682.
For Dry Cells and Dry Cell Batteries.
First use July 9, 1956; Sept. 29, 1949, as to "Sportsman."

SN 12,251. David Bogen Co., Inc., New York, N. Y. Filed July 17, 1956. Sec. 2(f).

Bogen

Owner of Reg. Nos. 432,144 and 612,983.
For Sound Equipment—Namely, Amplifiers, Intercommunication Systems, Radio Tuners and Receivers, Television Preamplifiers, and Record Players.
First use Sept. 1, 1933, on amplifiers and intercommunication systems.

SN 12,252. David Bogen Co., Inc., New York, N. Y. Filed July 17, 1956.

db

Owner of Reg. Nos. 429,247 and 423,968.
First use June 14, 1948.

SN 12,410. Champion Industries, Inc., South San Gabriel, Calif. Filed July 19, 1956.

melody queen

For Electronic and Electrical Equipment, Apparatus, Machines, and Supplies With Particular Reference to High Fidelity and Other Sound Equipment.
First use Aug. 19, 1955.

SN 12,724. Hughes Aircraft Company, Culver City, Calif. Filed July 24, 1956. Sec. 2(f).

HUGHES

For Semiconductor Diodes.
First use on or before Feb. 30, 1951.

SN 13,690. Simplex Wire & Cable Company, Cambridge, Mass. Filed Aug. 9, 1956.

ANHYDREX

For Insulated Electrical Conducting Wire and Cable.
First use Mar. 13, 1935.

SN 13,951. Frank Adam Electric Company, St. Louis, Mo. Filed Aug. 15, 1956.

KLAMPSWFUZ

For Circuit Interrupting and Protective Devices—Namely, Combination Switches and Fuses.
First use in 1936.

SN 14,179. Sweden Freezer Manufacturing Company, Seattle, Wash. Filed Aug. 17, 1956. Sec. 2(f).

SWEDEN

Owner of Reg. No. 523,137.
For Electrically-Powered Juicing Machine.
First use Oct. 1, 1950.

SN 14,296. Telerad Manufacturing Corporation, New York, N. Y. Filed Aug. 20, 1956.

TELE-FLEX

For Waveguides and Parts Therefor.
First use on or about Mar. 1, 1956.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

SN 2,136. Healthways, Los Angeles, Calif. Filed Feb. 6, 1956.

HEALTHWAYS AQUA FLITE

Owner of Reg. Nos. 441,837 and 588,547.
For Water Skis and Bindings and Harnesses for Such Water Skis.
First use Nov. 1, 1951.

SN 7,749. Bowling Supplies Co., Indianapolis, Ind. Filed May 7, 1956.

Dick Weber

For Thumb Cot for Bowlers.
First use Mar. 23, 1956.

SN 7,885. Universal Bowling & Golf Corporation, Chicago, Ill. Filed May 7, 1956.

Universal

Owner of Reg. No. 443,883.
For Golf Equipment Comprising: Balls, Clubs, Carts, Bags, Club Head Covers, Gloves, and Shoes.
First use on or about Oct. 31, 1955.

SN 9,678. Slim-Tone Products Co., North Hollywood, Calif. Filed June 5, 1956.

SLIM-TONE EXERLOUNGER

For Exercising Apparatus—Namely, a Lounge Having Oscillating Mechanism Associated Therewith Upon Which Lounge the User Reclines in Any Desired Position.
First use Feb. 10, 1956.

SN 9,917. Ideal Products, Inc., Sykesville, Pa. Filed June 11, 1956.

BLACK CAT

The drawing is lined for red but no claim is made to color.
For Snelled Fish Hooks.
First use April 1956.

SN 12,498. Creme Lure Company, Akron, Ohio. Filed July 20, 1956.

KING OF BAITS

For Fish Baits and Lures.
First use Aug. 1, 1950.

SN 12,500. Eagle Rubber Co., Inc., Ashland, Ohio. Filed July 20, 1956.

FLEXITE

For Inflated Plastic Balls.
First use July 5, 1956.

SN 18,678. Kilgore, Inc., Westerville, Ohio. Filed Nov. 1, 1956.

K

For Toy Pistols.
First use July 1, 1912.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

SN 630,706. Ex-Cell-O Corporation, Detroit, Mich. Filed June 4, 1952.

Pure-Pak

Owner of Reg. No. 352,763.
For Machines for Filling and Closing Containers, and Machines for Filling and Closing Containers for Comestibles, Functional Unit Portions of Such Machines, and Individual Parts Thereof.
First use Sept. 20, 1934.

SN 683,684. Rodney Hunt Machine Co., Orange, Mass. Filed Mar. 17, 1955.

RANGETTE

For Textile Bleaching Apparatus.
First use September 1951.

SN 689,413. Reid Brothers Company, Inc., Beverly, Mass. Filed June 13, 1955. Sec. 2(f).

REID

The drawing is lined for red.
For Grinding Machines.
First use January 1945.

SN 698,241. The Union Fork and Hoe Company, Columbus, Ohio. Filed Nov. 14, 1955.

FLAMEHARD

For Handles for Hand-Operated Farm and Garden Tools.
First use Oct. 11, 1955.

SN 698,242. The Union Fork and Hoe Company, Columbus, Ohio. Filed Nov. 14, 1955.

FLAMECOTE

For Handles for Hand-Operated Farm and Garden Tools.
First use Oct. 11, 1955.

SN 1,147. Borg-Warner Corporation, Chicago, Ill. Filed Jan. 20, 1956.

SATIN-SHEEN

For Shovels, Spades, and Hand Operated Scoops and Parts Thereof for Replacement and Repair.
First use Dec. 23, 1955.

SN 1,272. Power Products Corporation, Grafton, Wis. Filed Jan. 23, 1956.

HUSH-TONE

For Mufflers for Internal Combustion Engines.
First use on or about Dec. 14, 1955.

SN 1,332. Clarkson (Engineers) Limited, Nuneaton, Warwickshire, England. Filed Oct 5 1956.

DEDLOCK

Owner of British Reg. No. B736,782 dated Dec. 3, 1954.
For Cutters, Chucks, and Shanks, All Being for Use in Machine Tools.
First use May 1951; in commerce 1952.

SN 3,598. Eaton Manufacturing Company, Cleveland, Ohio. Filed Feb. 29, 1956.

ROLL-FORM

For Blades for Jet Engines.
First use June 1, 1955.

SN 7,740. The Bellows Co., Akron, Ohio. Filed May 7, 1956.

CARBI-DRILL

For Heavy Duty Drilling Machine.
First use Dec. 8, 1953.

SN 8,332. The Gyromat Corporation, Fairfield, Conn. Filed May 15, 1956.

GYROVISC

For Apparatus for Controlling the Viscosity of Fluid or Solid Fluid Suspensions, for Example, Conting Compositions Such as Paints, Enamels, and the Like.
First use on or about July 1, 1955.

SN 8,478. George E. Failing Company, Enid, Okla. Filed May 17, 1956. Sec. 2(f).

Failing

Owner of Reg. Nos. 534,020 and 602,346.
For Portable Earth Drilling Machines, Swivel Stems, Shifter Sleeves, and Core Bits.
First use in November 1949 on core bits.

SN 8,872. Pettibone Mulliken Corporation, Chicago, Ill. Filed May 23, 1956.

ROTO-MOLD

For Pit-Mounted and Floor-Mounted Turntables for Supporting and Positioning Flasks in Foundries.
First use July 24, 1953.

SN 8,875. Pettibone Mulliken Corporation, Chicago, Ill. Filed May 23, 1956.

ROTO-FEED

For Hopper-Type Apparatus Adapted for Use in a Foundry and To Supply Sand to a Molding Machine.
First use Feb. 22, 1952.

SN 13,505. Air-O-Flex Equipment Co., Minneapolis, Minn. Filed Aug. 7, 1956.

HYDR-O-FLEX

For Dumping Attachments for Boxcars and Trucks.
First use Apr. 1, 1949.

SN 13,813. Buck Mfg. Co., Los Gatos, Calif. Filed Aug. 13, 1956.

BUX

For Electromagnetic Drill Vises and Electromagnetic Plate Clamps.
First use August 1955.

SN 13,819. Comfort Equipment Company, Kansas City, Mo. Filed Aug. 13, 1956.

CAMEL-BACK

For Trailer-Type Field Sprayers and Parts Thereof.
First use Apr. 24, 1956.

SN 13,874. Rome Plow Company, Cedartown, Ga. Filed Aug. 13, 1956. Sec. 2(f).

ROME

Owner of Reg. No. 412,754.
For Plowing Harrows.
First use in or about February 1932.

SN 14,340. E. Hunt and Company Limited, Barking, Essex, England. Filed Aug. 21, 1956.

BEKEN

Owner of British Reg. No. 651,696, dated Sept. 13, 1946.
For Mixing Machines.

CLASS 24

LAUNDRY APPLIANCES AND MACHINES

SN 672,630. Caloric Stove Corporation, Philadelphia, Pa., to Caloric Appliance Corporation, Philadelphia, Pa. Filed Sept. 2, 1954.

Gyro-Spin

For Rotating Tubs for Automatic Washing Machines.
First use on or about Aug. 24, 1954.

SN 685,963. Davis Specialties, Inc., Evanston, Ill., to Bishop David Freeman Co., Evanston, Ill. Filed Apr. 21, 1955.

Fabric-Safe

For Press Plates.
First use on or about Dec. 29, 1954.

SN 689,835. Bill Glover, Inc., Kansas City, Mo. Filed June 20, 1955.

AUTOMAT

For Laundry Washing Machines.
First use June 24, 1954.

SN 694,820. Tingue, Brown & Co., New York, N. Y. Filed Sept. 16, 1955.

BESTEEL

For Steel Wool Pads of Stainless Steel Used To Cover or Dress the Rolls of Commercial Flatwork Ironers.
First use Aug. 8, 1952.

SN 6,614. Goldman Pressing Machine Corp., New York, N. Y. Filed Apr. 18, 1956.

AIRMATIC

For Machines Used in Industry for Pressing Garments and Fabrics.
First use Jan. 31, 1956.

SN 7,047. Southwire Company, Carrollton, Ga. Filed Apr. 24, 1956.

SOUTHWIRE

Owner of Reg. No. 617,151.
For Clothesline.
First use on or about July 8, 1955.

CLASS 25

LOCKS AND SAFES

SN 14,209. Arrow Lock Corporation, Brooklyn, N. Y. Filed Aug. 20, 1956.

CAVALIER

For Locks.
First use July 13, 1956.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

SN 686,924. Silva Industries, Inc., New York, N. Y. Filed May 5, 1955.

Orienteering

For Compasses and Protractors Used in Connection With Map and Compass Reading.
First use Mar. 2, 1955.

SN 6,373. Polarad Electronics Corporation, d. b. a. Stark Products, Long Island City, N. Y. Filed Apr. 13, 1956.

STARK

For Thickness Gauges.
First use Oct. 25, 1955.

SN 8,819. Anemostat Corporation of America, New York, N. Y. Filed May 23, 1956.

ANEMOTHERM

For Instrument for Measuring the Temperature, Velocity, and Other Conditions of Air and Gases.
First use July 14, 1948.

SN 9,170. Peerless Camera Stores, Inc., New York, N. Y. Filed May 28, 1956.

EVA-PAK

For Electronically Operated Flash Devices and Parts Thereof and Power Generators for Use in Connection With Devices for Electronically Producing Flashes for Photography.
First use Mar. 15, 1956.

SN 10,928. Scientific Glass Apparatus Co., Inc., Bloomfield, N. J. Filed June 25, 1956. Sec. 2(f).

INTER-JOINT

Owner of Reg. No. 386,889.
For Interchangeable Tubular Glass Parts, Stoppers and Stop-Cocks for Glass Chemical Apparatus and Glass Scientific Appliances for Laboratory Uses.
First use Feb. 21, 1940.

SN 11,860. Kay Electric Company, Pine Brook, N. J. Filed July 10, 1956.

MICROLTER

For Vacuum Tube Voltmeters.
First use June 19, 1956.

SN 12,217. Rahn Granite Surface Plate Company, Dayton, Ohio. Filed July 16, 1956.

Planekator

For Calibration Instruments.
First use Mar. 19, 1956.

SN 12,265. Eastman Kodak Company, Rochester, N. Y. Filed July 17, 1956.

SIGNET

Owner of Reg. Nos. 537,865 and 609,564.
For Photographic Cameras and Carrying Cases, Photographic Projectors, and Photocopying Apparatus.
First use Feb. 17, 1950, on photographic cameras.

CLASS 27

HOROLOGICAL INSTRUMENTS

SN 8,349. Nivada S. A., Grenchen, Switzerland. Filed May 15, 1956.

COMPENSAMATIC

Owner of Swiss Reg. No. 98,235, dated July 23, 1940.
For Watches, Parts of Watches, and Watch Cases.

CLASS 28

JEWELRY AND PRECIOUS-METAL WARE

SN 4,681. R. Wallace & Sons Manufacturing Company, Wallingford, Conn. Filed Mar. 15, 1956.

JOHN ALDEN

For Sterling Silver Flatware, i. e. Knives, Forks, and Spoons.
First use in 1910.

SN 14,862. Marcelle D'Orsay, d. b. a. Dorsay Products, New York, N. Y. Filed Aug. 30, 1956.

PINKIES

For Earring Attachments To Relieve Pressure Upon the Ears by Earrings.
First use July 2, 1956.

CLASS 29

BROOMS, BRUSHES, AND DUSTERS

SN 2,724. Seymour E. Salzberg, Bayside, N. Y. Filed S. R. Feb. 15, 1956; amended P. R. Aug. 7, 1956.

Painter Mate

For Brushes for Use by Painters.
First use May 21, 1954.

CLASS 31

FILTERS AND REFRIGERATORS

SN 2,759. Cold Corporation of America, Chicago, Ill. Filed Feb. 16, 1956.

CUBE-FREEZE

For Commercial Ice Making Machines.
First use Nov. 4, 1954.

CLASS 32

FURNITURE AND UPHOLSTERY

SN 689,047. Kroehler Mfg. Co., Naperville, Ill. Filed June 7, 1955.

LUX-I-FOAM

For Upholstery Construction for Living Room Furniture Cushioning, Namely, a Combination of Innerspring Construction With Resilient Foam Material.
First use on or about May 13, 1954.

SN 690,997. Paul Becker, d. b. a. Driverest, Springfield, Ill. Filed July 11, 1955.

SACROREST

For All Purpose Back Rest.
First use Oct. 10, 1954.

SN 795. The Illinois Shade Cloth Corporation, Chicago Heights, Ill. Filed Jan. 16, 1956.

VINYLIN 4

For Window Shades.
First use Nov. 1, 1949.

SN 9,644. Kay Manufacturing Corporation, Brooklyn, N. Y. Filed June 5, 1956.

KAY-ARC

For Coil Springs and Sinuous Springs for Use in Furniture and Bedding.
First use May 16, 1956.

SN 15,355. Detroit Macoid Corporation, Detroit, Mich. Filed Sept. 10, 1956.

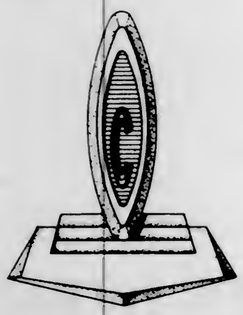
TEL-ACOUST

For Telephone Booths.
First use July 6, 1956.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

SN 10,399. Caloric Appliance Corporation, Philadelphia, Pa. Filed June 18, 1956.



The drawing is lined for blue, but no particular color is claimed.
For Cooking Stoves.
First use Feb. 1, 1956.

SN 13,494. Whitehall Engineering Company, Chicago, Ill. Filed Aug. 6, 1956.

KOOL-A-BOUT

For Portable Room Air Conditioner.
First use Mar. 15, 1956.

SN 13,882. Tec Torch Company, Carlstadt, N. J. Filed Aug. 13, 1956.

Visuweld

For Welding Torches.
First use June 8, 1956.

SN 14,088. Mitchell Manufacturing Company, Chicago, Ill. Filed Aug. 16, 1956.

"Pancake"

For Electrically Operated Room Air Conditioners.
First use Mar. 5, 1956.

SN 14,167. The Phoenix Glass Company, Monaca, Pa. Filed Aug. 17, 1956.

DIRECTO-LENS

For Prismatic Lenses for Glass Lighting Fixtures.
First use June 8, 1956.

SN 14,178. Surface Combustion Corporation, Toledo, Ohio. Filed Aug. 17, 1956.

JANITROL

Owner of Reg. Nos. 278,558, 596,698, and others.
For Apparatus for Conditioning Air Consisting of or Comprising Cooling Apparatus.
First use May 4, 1953.

CLASS 36

MUSICAL INSTRUMENTS AND SUPPLIES

SN 10,614. Morgan Development Laboratories, Inc., Westport, Conn. Filed June 20, 1956.

MAGIC MIRROR MOVIES

For Phonograph Attachments and Records Used Therewith, Said Attachments Comprising a Praxinoscopic Reflecting Drum To Be Placed Over and Be Supported Upon the Turntable and Said Records Comprising Flat Mechanically Grooved Phonograph Records and Disks Thereon Containing Praxinoscopic Pictures.
First use Apr. 30, 1956.

SN 13,732. Columbia Broadcasting System, Inc., Bridgeport, Conn. Filed Aug. 10 1956.

For Grooved Phonograph Records.
First use Apr. 12, 1956.

CLASS 37

PAPER AND STATIONERY

SN 691,493. The Maryland Paper Products Co., Baltimore, Md. Filed July 18, 1955.

SWEETHEART

Owner of Reg. Nos. 377,958 and 379,130.
For Paper Towels, Paper Napkins, Paper Toilet Tissue, Paper Facial Tissue, Wax Paper, Wrapping Paper for Frozen Foods, Rolls of Paper for Business Machines, and Paper Bags.
First use May 31, 1955.

SN 698,506. Cushman and Denison Mfg. Co., Inc., New York, N. Y. Filed Nov. 18, 1955.

CADO

For Binders and Binder Clips, Adapters, Vaporizers and Cleansers for Fountain Markers; and Key Index Files, Including Racks, Boards, Tags, Index Controls, Location Guides, and Other Similar Parts.
First use about 1940.

SN 698,916. Recording & Statistical Corporation, New York, N. Y. Filed Nov. 25, 1955.

SHORT-WRITE

For Printed Blank Forms Comprising Insurance Policies.
First use Feb. 28, 1955

SN 3,275. Carpenter Paper Company, Omaha, Nebr. Filed Feb. 24, 1956. Sec. 2(f)

KANT-LOOK

Owner of Reg. No. 425,363.
For Correspondence Envelopes.
First use January 1936.

SN 3,848. Gulf States Paper Corporation, Tuscaloosa, Ala. Filed Mar. 5, 1956.

Hemlock

For Paper Bags.
First use on or about Sept. 27, 1954.

SN 6,646. Sitrue Incorporated, New York, N. Y. Filed Apr. 18, 1956.

IMPERIAL

For Toilet Tissue.
First use Dec. 1, 1948.

SN 11,784. Moss Key-Rec Systems, Inc., Dayton, Ohio. Filed July 9, 1956.

KEY-REC

For Partially Printed Business Forms.
First use in or about January 1944.

SN 11,923. Erving Paper Mills, Erving, Mass. Filed July 11, 1956.

QUIX

For Paper Napkins.
First use June 27, 1956.

CLASS 38

PRINTS AND PUBLICATIONS

SN 687,170. Audit Bureau of Circulations, Chicago, Ill. Filed May 10, 1955.

News AUDITED PAID CIRCULATION Bulletin

The words "Audited Paid Circulation," "News," and "Bulletin" are disclaimed apart from the mark as shown.
For Periodical Bulletins, Reports, and Compilations of Data, Relating to Auditing of the Paid Circulation of Newspapers and Periodicals.
First use Apr. 25, 1952.

SN 699,503. Corydon M. Johnson Co. Incorporated, Bethpage, N. Y. Filed Dec. 6, 1955.

For Printed Matter Comprising Books, Advertising, Drawings, Pictures, and Articles.
First use 1946.

SN 785. Harper & Brothers, New York, N. Y. Filed Jan. 10, 1956. Sec. 2(f).

HARPER

For Books.
First use in 1833.

SN 6,511. The Evening Star Newspaper Company, Washington, D. C. Filed Apr. 17, 1956.

TV TELEVUE

For Weekly (Sunday) Television Magazine.
First use Mar. 25, 1956.

SN 10,089. Heidrick and Struggles, Chicago, Ill. Filed June 12, 1956.

EXECUTREND

For Economic Statistical Reports.
First use July 10, 1954.

SN 12,954. Hear, Inc., Beverly Hills, Calif. Filed July 27, 1956.

HEAR
THE VOICE OF HOLLYWOOD

For Regularly Published Magazine.
First use June 28, 1956.

SN 12,975. Morton Schindel, d. b. a. Weston Woods Studios, Weston, Conn. Filed July 27, 1956.

PICTURE BOOK PARADE

For Motion Picture and Sound Films.
First use October 1955.

SN 13,177. Seraphic Society for Vocations, Westmont, Ill. Filed July 31, 1956. Sec. 2(f).

VOCATION NOTES

For Monthly Publication.
First use October 1945.

SN 13,320. Stanley Greetings, Inc., Dayton, Ohio. Filed Aug. 2, 1956. Sec. 2(f).

Stanley

For Greeting Cards.
First use January 1916.

CLASS 39

CLOTHING

SN 654,728. Gotham Hosiery Company, Inc., now Chadbourn Gotham, Inc., Charlotte, N. C. Filed Oct. 14, 1953.

The design of the box apart from the mark shown is disclaimed. The hatched areas indicate gold and the unhatched areas on opposite sides of the gold band may be of different colors. Owner of Reg. Nos. 91,959, 576,238, and others.
For Women's Hosiery.
First use June 22, 1953.

SN 700,062. Towne & King, Inc., Redwod City, Calif. Filed Dec. 15, 1955.

TOWNELLA

For Knitted Outerwear—Namely, Sweaters for Men and Women and Shirts and Dresses for Women.
First use Oct. 18, 1955.

SN 700,134. W. E. Stephens Mfg. Co., Inc., Nashville, Tenn. Filed Dec. 16, 1955. Sec. 2(f) as to "Years Wear."

The words "Work and Play Clothes" are disclaimed apart from the mark as shown. The drawing is lined for blue and red. Owner of Reg. Nos. 249,536 and 518,028.
For Work Shirts, Work Pants, Jeans, and Jackets.
First use Nov. 29, 1955; Aug. 21, 1925, as to "Years Wear" on work shirts.

SN 630. Stein's Stores Inc., New York, N. Y. Filed Jan. 12, 1956.

STEINAIRE

Owner of Reg. No. 559,115.
For Men's Suits.
First use January 1952.

SN 2,830. Robert Slayton, Los Angeles, Calif. Filed Feb. 16, 1956.

Sebastian

For Ladies' and Men's Sportswear—Namely, Ladies' Sweaters, Jackets, Coats, Pants, Knitted Hoods, Stoles, Capes, Suits, Skirts, Slacks, Blouses, Shirts, Shorts, and Belts and Men's Sweaters, Shirts, Jackets, and Shorts.
First use July 18, 1952.

SN 6,957. Roydon Wear, Inc., McRae, Ga. Filed Apr. 23, 1956.

Telfair

For Boys' Outerwear and Sportswear in Infant, Junior and Student Sizes—Namely, Play Shorts, Camp Shorts, Bermuda Shorts, Walking Shorts, Long Trousers, Sportswear Trousers, and Slacks.
First use Feb. 28, 1954.

SN 7,841. Plymouth Manufacturing Co., Boston, Mass. Filed May 7, 1956.

Plymouth
OF BOSTON

Applicant disclaims the wording "Of Boston" apart from the mark as shown.
For Men's Topcoats and Raincoats.
First use Oct. 5, 1926.

SN 8,307. Harold Athey, Los Angeles, Calif. Filed May 15, 1956.

Mister Cravate
OF CALIFORNIA

The words "Of California" are disclaimed apart from the mark as shown.
For Neckties.
First use Apr. 27, 1956.

SN 9,870. Liberty Hosiery Mills, Inc., Gibsonville, N. C. Filed June 8, 1956.

DOTTIE SWISS

For Ladies' Hosiery.
First use May 30, 1956.

SN 9,871. Liberty Hosiery Mills, Inc., Gibsonville, N. C. Filed June 8, 1956.

BECKY LYNN

For Ladies' Hosiery.
First use May 30, 1956.

SN 9,872. Liberty Hosiery Mills, Inc., Gibsonville, N. C. Filed June 8, 1956.

FANCY FIGURE

For Ladies' Hosiery.
First use May 30, 1956.

SN 9,873. Liberty Hosiery Mills, Inc., Gibsonville, N. C. Filed June 8, 1956.

MADEMOISELLE

For Ladies' Hosiery.
First use May 30, 1956.

SN 10,456. Nature Girl Undies, Inc., New York, N. Y. Filed June 18, 1956.

DIAL-A-GIFT

For Panties, Slips, Half Slips, Gowns, Pajamas, Robes, and Peignoirs.
First use June 11, 1956, on pajamas.

SN 10,695. Marx & Newman Company, Inc., New York, N. Y. Filed June 21, 1956.

Medici

For Ladies' Shoes.
First use Aug. 12, 1955.

SN 11,145. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed June 28, 1956.

CAMP 'N CAMPUS

For Outer Shirts.
First use Feb. 7, 1956.

SN 11,194. Schwarz & Co., Newark, N. J. Filed June 28, 1956.

Halbrandt

For Boys' and Men's Knitted Briefs, Athletic Shirts, T Shirts and Woven Shorts.
First use Mar. 19, 1956.

SN 11,333. Samuel Broome, d. b. a. Broadway Neckwear, New York, N. Y. Filed July 2, 1956.

BROADWAY

For Men's Neckwear.
First use 1919.

SN 12,701. Anglo-American Agencies Corporation, New York, N. Y. Filed July 24, 1956.

For Men's Shoes.
First use Mar. 28, 1956; Apr. 27, 1955, as to "Antonio De Palma."

SN 13,037. Margaret Holden, Washington, D. C. Filed July 30, 1956.

MARELCO

For Women's and Misses' Slips.
First use June 16, 1956.

SN 13,076. Patricia Scott Inc., d. b. a. Scott Enterprises, New York, N. Y. Filed July 30, 1956.

CLOUD MASTER

For Ladies' and Misses' Coats.
First use Apr. 4, 1956.

SN 13,082. Slumbertogs, Inc., New York, N. Y. Filed July 30, 1956.

RED LETTER DAY

For Women's and Children's Pajamas and Nightgowns.
First use June 14, 1956.

SN 13,116. Chas. Chipman's Sons Co., Inc., New York, N. Y. Filed July 10, 1956.

Gail Evans

For Women's and Children's Hosiery.
First use June 7, 1935.

SN 13,154. The La Resista Corset Company, Bridgeport, Conn. Filed July 31, 1956.

FLEXITE

For Corsets, Corselets, Girdles, Panty Girdles, and Brassieres.
First use on about Dec. 1, 1955.

SN 13,412. Beltx Corporation, St. Louis, Mo. Filed Aug. 6, 1956.

RIS-GAY

For Ladies' Garters.
First use Apr. 21, 1948.

SN 13,457. Lofties Knitting Mills, Inc., Brooklyn, N. Y. Filed Aug. 6, 1956.

LOFTYLON

For Ladies', Misses', and Girls' Knitted Outerwear—Namely, Dresses, Jackets, Sweaters, Cardigans, and Skirts.
First use June 4, 1956.

SN 13,547. Boris Smoler & Sons, Inc., Chicago, Ill. Filed Aug. 7, 1956.

BETTER HALF

Owner of Reg. Nos. 581,961 and 425,206.
For Ladies' and Misses' Dresses.
First use in or about January 1945.

SN 13,610. Morris B. Sachs, Inc., Chicago, Ill. Filed Aug. 8, 1956.

CHARTLEY

For Men's and Boys' Suits, Top Coats, and Over Coats.
First use Nov. 11, 1944.

SN 13,818. The M. M. Cohn Company, Little Rock, Ark. Filed Aug. 13, 1956.

MIMCO

For Women's and Children's Leather Gloves, Hosiery, and Underwear.
First use May 1936.

SN 13,856. Liberty Hosiery Mills, Inc., Gibsonville, N. C. Filed Aug. 13, 1956.

DIXI ANNA

For Ladies' Hosiery.
First use Aug. 6, 1956.

SN 14,103. Summit Sportwear Co., Boston, Mass. Filed Aug. 16, 1956. Sec. 2(f).

ORIGINAL
British Walker
Summit of Boston

Owner of Reg. No. 569,806.
For Ladies' and Misses' Sportswear Including Skirts and Shorts.
First use June 9, 1951.

CLASS 40

FANCY GOODS, FURNISHINGS, AND NOTIONS

SN 1,853. The Eastern Venetian Blind Company, d. b. a. Eastern Machine Products Co., Baltimore, Md. Filed Feb. 1, 1956.

Eastern

Owner of Reg. Nos. 615,769, 635,929, and others.
For Prefabricated Parts Used in the Manufacture of Venetian Blinds—Namely, Venetian Blind Tape; and Prefabricated Parts Used in the Manufacture of Drapery—Namely, Drapery Pleater Tape.
First use at least as early as Sept. 1, 1947.

SN 12,387. Armand Schwab & Co., Inc., New York, N. Y. Filed July 18, 1956.

"TEXTRAW"

For Millinery Braids.
First use June 5, 1956.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

SN 9,060. Shirley Fabrics Corp., New York, N. Y. Filed May 25, 1956.

FLICKER

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use May 2, 1955.

SN 9,608. Tootal Broadhurst Lee Company Limited, Manchester, England. Filed June 4, 1956.

TEBILIZED DOUBLE TESTED

Applicant disclaims the words "Double Tested" apart from the mark shown. Owner of U. S. Reg. Nos. 354,658 and 371,830.
For Textile Piece Goods of Cotton, Linen, and Rayon.
First use Jan. 18, 1956; in commerce May 11, 1956.

SN 9,609. Tootal Broadhurst Lee Company Limited, Manchester, England. Filed June 4, 1956.

The words "Double Tested" are disclaimed apart from the mark as shown. Owner of U. S. Reg. Nos. 354,658 and 371,830.
For Textile Piece Goods of Cotton, Linen, and Rayon.
First use Jan. 18, 1956; in commerce May 11, 1956.

SN 12,007. Bates Manufacturing Company, Lewiston, Maine. Filed July 12, 1956.

DYNELON

Owner of Reg. No. 633,242.
For Bedspreads and Blankets.
First use Nov. 12, 1951, on bedspreads.

SN 12,069. Cone Mills, Inc., New York, N. Y. Filed July 13, 1956.

Conespun

Owner of Reg. Nos. 291,017, 334,013, and others.
For Fabrics in the Piece of Cotton and Synthetic Fibers.
First use May 8, 1956.

SN 12,884. Fruit of the Loom, Inc., d. b. a. Tarnmoor Fabrics, Providence, R. I. Filed July 26 1956.

AMERICAN PRINCESS

For Cotton Piece Goods.
First use July 19, 1956.

SN 12,967. Pepperell Manufacturing Company, Boston, Mass. Filed July 27, 1956.

SCHOONER

For Cotton Piece Goods.
First use June 19, 1956.

SN 13,135. E. T. Barwick Mills, Inc., Chamblee, Ga. Filed July 31, 1956.

Adolphus

For Fine Textured Carpets.
First use June 1, 1956.

SN 13,190. Berkshire Hathaway, Inc., Providence, R. I. Filed Aug. 1, 1956.

BERKREST

For Cotton and Synthetic Piece Goods, Such as Batiste, Broadcloth, and the Like.
First use July 18, 1956.

SN 13,191. Berkshire Hathaway, Inc., Providence, R. I. Filed Aug. 1, 1956.

BERKEASE

For Cotton and Synthetic Piece Goods, Such as Batiste, Broadcloth, and the Like.
First use July 10, 1956.

CLASS 45

SOFT DRINKS AND CARBONATED WATERS

SN 7,040. Rivella International A. G., Rothrist, Switzerland. Filed Apr. 24, 1956.

RIVELLA

For Soft Drinks (Table Waters).
First use July 30, 1951.

SN 7,671. The Frostie Company, Baltimore, Md. Filed May 4, 1956.

Frostie Old Fashion

For Root Beer, and Syrups and Extracts Therefor.
First use June 1942.

SN 11,733. Forrest Additon, d. b. a. The Spoon-Tang Company, Fort Lauderdale, Fla. Filed July 9, 1956.

SPOON-TANG

For Concentrate for Making Soft Drinks.
First use June 28, 1956.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

SN 606,229. Moriarty Meat Company, Chicago, Ill. Filed Nov. 10, 1950.

MORIARTY'S
SHAMROCK

For Cured Corn Beef.
First use October 1950; February 1937 as to "Moriarty's" and "Shamrock" and the representation of a shamrock.

SN 691,521. Superba Packing Co., Ltd., San Francisco, Calif., to Lucca Ravioli Co., San Francisco, Calif. Filed July 18, 1955.

SUPERBA

Owner of Reg. No. 184,321.
For Canned Chicken Tamales, Canned Turkey Tamales, Canned Meatless Tamales, Canned Chicken Ravioli, Canned Garbanzos Ceci and Canned Mushroom Gravy.
First use Sept. 1, 1919, on canned chicken ravioli and canned mushroom gravy.

SN 696,223. Eastern States Farmers' Exchange, Incorporated, West Springfield, Mass. Filed Oct. 11, 1955.

BEEFMIX

For Concentrate Feed for Beef Cattle Containing Diethylstilbestrol.
First use Oct. 3, 1955.

SN 697,685. E. F. Kemp Corp., Somerville, Mass. Filed Nov. 4, 1955.

KEMPAC

Owner of Reg. Nos. 577,734 and 577,735.
For Salted Nuts and Shelled Nuts in Their Natural State.
First use June 6, 1947.

SN 700,231. Holsteinische Schinkenbräucherei "Holstenhof" G. m. b. H., Elmshorn, Germany. Filed Dec. 19, 1955.

HOLSTENHOF

The word "Holstenhof" can be translated as "Holsten Farm" or "Holsten Estate."
For Canned Boiled Ham.
First use Feb. 7, 1935; in commerce Sept. 14, 1954.

SN 420. Joseph A. Goodhue, d. b. a. Goodhue's, Worcester, Mass. Filed Jan. 10, 1956. Sec. 2(f).

Goodhue's

For Bread, Frozen Uncooked Dough, Frozen Uncooked Pies, Frozen Uncooked Muffins, Frozen Uncooked Cookie Dough.
First use Feb. 28, 1949.

SN 1,670. Chicken of the Sea, Incorporated, Terminal Island, Calif. Filed Jan. 30, 1956. Sec. 2(f).

CHIP-N-CHUNK

Owner of Reg. No. 518,033.
For Canned Tuna.
First use June 4, 1948.

SN 6,230. John Costa, d. b. a. Costa & Company, Stockton, Calif. Filed Apr. 12, 1956.

BELLA NAPOLI

"Bella Napoli" means "beautiful Naples."
For Fresh Grapes.
First use September 1955.

SN 6,919. General Foods Corporation, White Plains, N. Y. Filed Apr. 23, 1956.

LADY BAKER

Owner of Reg. Nos. 55,841, 277,604, and 378,713.
For Cocoa.
First use Apr. 4, 1956.

SN 8,522. Wanoca Foods, Inc., Wadesboro, N. C. Filed May 17, 1956.

WANOCA

For Pickles, Pickle Relish, Cocktail Onions, and Peppers.
First use Aug. 10, 1955.

SN 8,628. Certified Grocers of Illinois, Inc., Chicago, Ill. Filed May 21, 1956.

VPM

For Fluid Skimmed Milk Fortified With Vitamins.
First use Apr. 16, 1956.

SN 8,846. Hanover Canning Company, Hanover, Pa. Filed May 23, 1956.

For Canned Beans.
First use Nov. 24, 1948.

SN 9,020. B. J.'s Bakery Company, d. b. a. BJ's Bakery, Chicago, Ill. Filed May 25, 1956.

For Cakes.
First use Apr. 24, 1956.

SN 10,204. Weldon Farm Products, Inc., New York, N. Y. Filed June 13, 1956.

The word "Alba" appearing on the drawing is lined for red, the blue color background is disclaimed apart from the mark as shown. Owner of Reg. Nos. 568,453, 607,096, and 609,989.
For Nonfat Dry Milk Solids—Namely, Dry Skim Milk.
First use February 1956.

SN 10,205. Weldon Farm Products, Inc., New York, N. Y. Filed June 13, 1956.

The word "Alba" is lined for blue. The red color background is disclaimed apart from the mark shown. Owner of Reg. Nos. 568,453, 607,096, and 609,989.
For Nonfat Dry Milk Solids—Namely, Dry Skim Milk.
First use February 1956.

SN 11,281. John Morrell & Co., Ottumwa, Iowa. Filed June 29, 1956.

HI-LO

For Fresh Sausage.
First use Apr. 13, 1956.

SN 11,550. De-Raef Corporation, Kansas City, Mo. Filed July 5, 1956.

MICULT

For Cultured Milk Solids Combined With Supplemental Minerals.
First use June 11, 1956.

SN 11,551. De-Raef Corporation, Kansas City, Mo. Filed July 5, 1956.

CUL-SO-CURD

For Milk Solids Combined With Supplemental Minerals.
First use June 26, 1956.

SN 11,744. Breakstone Bros., Inc., New York, N. Y. Filed July 9, 1956.

For Mozzarella Cheese.
First use Apr. 23, 1956.

SN 11,781. Maize Industries, Earlville, Ill. Filed July 9, 1956.

KOR-CHEES

For Cheese Flavored Corn Chips.
First use Dec. 1, 1947.

SN 12,926. Edward C. Palmer, Edward C. Palmer, Jr., and William E. Palmer, trustees of the Estate of William B. Palmer, d. b. a. Palmer Candy Company, Sioux City, Iowa. Filed Aug. 8, 1956.

KEEPSAKE

For Candy.
First use Sept. 23, 1922.

SN 18,674. Falls Canning Company, Oconto Falls, Wis. Filed Nov. 2, 1956.

U and I

For Canned Vegetables.
First use about 1915.

CLASS 47

WINES

SN 700,548. William & Humbert Limited, London, England. Filed Dec. 23, 1955.

AS YOU LIKE IT

For Sherry Wine.
First use in the year 1930; in commerce December 1935.

CLASS 48

MALT BEVERAGES AND LIQUORS

SN 12,187. M. K. Goetz Brewing Company, St. Joseph, Mo. Filed July 16, 1956. Sec. 2(f) as to "Goetz."

The drawing is lined for gold, yellow, and blue. Owner of Reg. Nos. 32,494, 328,131, and others.
For Beer.
First use Apr. 25, 1956; June 1, 1890, as to "Goetz."

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

SN 677,808. Croizet, Eymard & Cie, Charente, France. Filed Dec. 7, 1954. Sec. 2(f).

CROIZET

Owner of Reg. Nos. 347,030 and 347,031.
For Cognac.
First use 1805; in commerce 1805.

SN 13,219. Heublein, Inc., d. b. a. G. F. Heublein & Bro., Hartford, Conn. Filed Aug. 1, 1956.

VODBASE

For Whiskey.
First use July 12, 1956.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

SN 4,262. America House, Ltd., New York, N. Y. Filed Mar. 12, 1956.

AMERICA HOUSE

Owner of Reg. No. 405,036.
For Ornamental Block Prints on Fabrics; Ornamental Tiles; Imitation Fruit; Glass, Wood, Pottery, and Base Metal Statuettes and Figurines, and Christmas Stockings.
First use 1943.

SN 13,990. R. Laucke Company, Milwaukee, Wis. Filed Aug. 15, 1956.

WILDWOOD

For Camping Equipment Comprising Units of Tents and Sleeping Bags.
First use 1922.

SN 15,001. Anri Woodcarvings, Inc., Boston, Mass. Filed Sept. 4, 1956.

KUOLT

For Wood Carvings Including Creches and Creche Figures.
First use August 1954.

CLASS 51

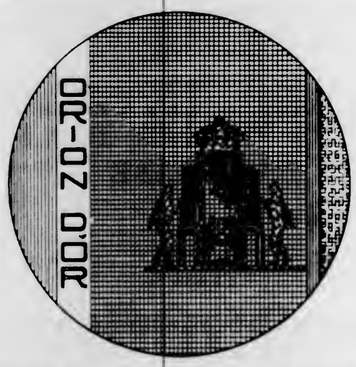
COSMETICS AND TOILET PREPARATIONS

SN 678,073. Ferdinand Mülhens, d. b. a. Eau de Cologne- & Parfümerie-Fabrik Glockengasse No. 4711, gegenuber der Pferdepost von Ferd. Mülhens, Cologne (Rhine), Germany. Filed Dec. 6, 1954.

SPARTA

Owner of German Reg. No. 457,757, dated June 27, 1933.
For Eau de Cologne, Perfumes, Oils for Preventing and Alleviating Sunburn, Dentifrices, Hair Tonics, Face Powder, Body Powder, Bath Powder, Talcum Powder, and Cosmetic Salves.

SN 686,246. Juan Llurba Vila, Havana, Cuba. Filed Apr. 25, 1955.



The Spanish word "D'or" means gold. The drawing is lined for red, black, gold, and white. Owner of Cuban Reg. No. 68,344, dated Mar. 5, 1945.
For Essences of Perfumes, Perfumed Skin Beautifying Lotions, Perfumed Powders and Talcum Powder, Bath Salts, Pomades and Perfumed Oils for the Hair, Beautifying Skin Creams, Rouge, Lipstick, Eyebrow Pencils and Eyelash Pencils, Fingernail Enamels, Beautifying Face Paints, Depilatories, Shaving Creams and Soaps, Tooth Pastes, Powders and Liquids, Hair Dye.

SN 9,862. Houbigant, Inc., New York, N. Y. Filed June 8, 1956.

HALYARD

For Eau de Cologne, After Shaving Lotion, and Shaving Cream.
First use June 1, 1956.

SN 10,100. Nulox Corporation of America, Houston, Tex. Filed June 12, 1956.

SPRALOX

For Liquid Hair Lotion.
First use May 7, 1956.

SN 10,493. Taylor Products Company, Inc., Chicago, Ill. Filed June 18, 1956.

LANTARCRUDO

For Hair and Scalp Oil.
First use Jan. 3, 1956.

SN 10,518. Colgate-Palmolive Company, New York, N. Y. Filed June 19, 1956.

POMP AND CIRCUMSTANCE

For Hair Dressing, After Shave Lotion, Liquid Deodorant, and Lather Shaving Cream.
First use Nov. 16, 1955.

CLASS 52

DETERGENTS AND SOAPS

SN 697,366. Florin Chemical Corporation, Philadelphia, Pa. Filed Oct. 31, 1955.

SUP-R ZIP

For Cleaner for Upholstery, Rugs, and Other Textile Materials, as Well as for Other Surfaces.
First use on or about Sept. 26, 1955.

SN 698,435. K4 Products Co., Olean, N. Y. Filed Nov. 17, 1955.

KRWOSH

For Liquid Detergent for Washing Motor Vehicles and Having Incidental Polishing Properties.
First use June 21, 1955.

SN 4,449. R. M. Hollingshead Corporation, Camden, N. J. Filed Mar. 13, 1956.

WHIZ

Owner of Reg. Nos. 221,399, 565,465, and others.
For Cleaning and Polishing Materials in Paste, Liquid, Powder, and Solid Forms for Leather and Imitation Leather Articles, Windshields, Lenses for Automobile Lamps, Articles of Glass, Stoves and Metal Parts; Dry Cleaners; Cleaning Fluids for Fabric, Cloth, Upholstery, Leather and Imitation Leather; Preparations for Cleaning and Softening Brake and Transmission Linings and Clutch Facings; Soaps in Paste, Liquid, Powder, or Solid Form, But Not Including Paste Grit Soap.
First use September 1905.

SN 7,021. Kleen-O-Products, Inc., Los Angeles, Calif. Filed Apr. 24, 1956.

KLEEN-O-MATIC

For Transmission Cleaner.
First use Mar. 12, 1956.

SN 8,259. Old Colony Paint & Chemical Co., Los Angeles, Calif. Filed May 14, 1956.

Owner of Reg. No. 624,342.
For Paint and Varnish Remover and Concrete Cleaner.
First use in 1938.

SN 10,906. Phillips Petroleum Company, Bartlesville, Okla. Filed June 25, 1956.

Owner of Reg. No. 552,445.
For Glass and Metal Cleaner, Pre-Wax Cleaner, Soluble Powder Type Radiator Cleaner, and Liquid Acid Type Radiator Flush.
First use July 28, 1933.

SERVICE MARKS

CLASS 101

ADVERTISING AND BUSINESS

SN 695,588. Waples Platter Company, Fort Worth, Tex. Filed Sept. 29, 1955.

For Preparing and Supplying Various Types of Advertising to Retail Grocers.
First use January 1954.

SN 7,179. Dun & Bradstreet, Inc., New York, N. Y. Filed Apr. 26, 1956.

KEY ACCOUNT SERVICE

The word "Service" is disclaimed apart from the mark as shown.
For Furnishing Financial and Credit Information to Business Organizations To Aid Them in Making Business Decisions and in Determining the Advisability of Granting Credit or Insurance.
First use in December 1954.

SN 8,095. Marion C. Pugh, d. b. a. Marion Pugh Lumber Company, College Station, Tex. Filed May 10, 1956.

DOCTOR FIXIT

For Services Comprising Complete Technical and Promotional Assistance to Lumber Yards With Regard to Their Setting Up a Home Repair and Remodeling Service, Said Assistance Embracing Every Aspect of Such a Venture.
First use May 1, 1953.

CLASS 102

INSURANCE AND FINANCIAL

SN 679,700. The Little Studio, Inc., New York, N. Y. Filed Jan. 21, 1955.

THE LITTLE STUDIO

For Services in Connection With Viewing, Selecting, Arranging for Exhibitions in Galleries, and Consigning to Such Galleries Works of Art for Sale on a Commission Basis to the Public.
First use February 1952.

SN 692,551. Springfield National Bank, Springfield, Mass. Filed Aug. 5, 1955. Sec. 2(f) as to "Springfield"

SPRINGFIELD NATIONAL BANK 1893

For Banking Services.
First use Dec. 31, 1952.

CLASS 103

CONSTRUCTION AND REPAIR

SN 700,797. Lincoln Rug Company, Inc., Newark, N. J. Filed Dec. 29, 1955.

SPARK-L-ENE

For Cleaning, Repairing, and Altering of Rugs and Carpets of Oriental, Domestic, or Special Construction.
First use Dec. 1, 1952.

CLASS 104

COMMUNICATION

SN 676,120. KTTV Inc., Los Angeles, Calif. Filed Nov. 5, 1954.

That good looking channel eleven!

Applicant makes no claim to the channel designation "Eleven" apart from the mark as shown.
For Television Broadcasting Services.
First use Jan. 5, 1953.

CLASS 105

TRANSPORTATION AND STORAGE

SN 688,913. Detroit Marine Terminals, Inc., Detroit, Mich. Filed June 6, 1955.

The World At Your Door

For Providing Terminal Facilities for Common Carriers by Water—Namely Unloading and Loading Domestic and Foreign Ships, Furnishing Wharfage, Dock, Warehouse, or Other Terminal Facilities in Connection Therewith.
First use Apr. 15, 1955.

SN 698,260. The Baltimore & Ohio Railroad Company, Baltimore, Md. Filed Nov. 15, 1955.

TOFCEE

For Transportation of Freight in Trailers Mounted Upon Flat Cars.
First use on or about July 20, 1954.

SN 698,261. The Baltimore & Ohio Railroad Company, Baltimore, Md. Filed Nov. 15, 1955.

No claim is made to the words "Trailer Freight Service" and "On Flat Car" except in the association shown. Owner of Reg. Nos. 503,804, 607,763, and others.
For Transportation of Freight in Trailers Mounted Upon Flat Cars.
First use on or about July 20, 1954.

CLASS 106

MATERIAL TREATMENT

SN 674,959. Fusion Metal Coating Company, Detroit, Mich. Filed Oct. 18, 1954. Sec. 2(f).

FUSECOAT

For Application of Protective Metal Coatings to Customers' Metal Products.
First use Oct. 8, 1948.

CLASS 107

EDUCATION AND ENTERTAINMENT

SN 682,221. John Wesley Wright, Greenville, S. C. Filed Feb. 23, 1955.

KIDS KORRAL

For Title of an Entertainment Program—Namely, a Program Designed for the Entertainment of Children, Rendered Through the Medium of Television.
First use Jan. 4, 1954.

SN 692,592. General Dynamics Corporation, Rochester, N. Y. Filed Aug. 8, 1955.

XY

Owner of Reg. No. 577,407.
For Educational Training in the Theory, Operation, and Maintenance of Step-by-Step Telephone Equipment.
First use Jan. 15, 1951.

SN 697,658. WSRS, Inc., Cleveland Heights, Ohio. Filed Nov. 3, 1955.

MR. UNIVAX

For Title of a Series of Radio Programs—Namely, Entertainment Consisting of a "Disc Jockey" Recorded Music Show.
First use Oct. 28, 1955.

SN 698,009. Warren H. Anderson, Amarillo, Tex. Filed Nov. 10, 1955.

THE PLAINSMAN

For Title of a Television Show of the Western Adventure Type.
First use May 1954.

SN 699,152. Keeshan-Miller Enterprises Corp., New York, N. Y. Filed Nov. 30, 1955.

CAPTAIN KANGAROO

For Title of an Entertainment Service for Children Rendered Through the Medium of Television Broadcast Programs, Featuring the Characterization of an Elderly Gentleman Who Runs a Treasure House and Attached Farm Area, and Including Puppets, Story-Telling, Play, Dancing, and Talking With Guests.
First use June 1, 1955.

SN 699,153. Keeshan-Miller Enterprises Corp., New York, N. Y. Filed Nov. 30, 1955.

CAPTAIN KANGAROO'S

SONGTIME

For Title of an Entertainment Service for Children Rendered Through the Medium of Television Broadcast Programs, Consisting of Music and Song, and Comprising a Separate Segment of a Longer Program.
First use Sept. 21, 1955.

SN 699,154. Keeshan-Miller Enterprises Corp., New York, N. Y. Filed Nov. 30, 1955.

CAPTAIN KANGAROO'S

PLAYTIME

For Title of an Entertainment Service for Children Rendered Through the Medium of Television Broadcast Programs, Consisting of Games and Play, and Comprising a Separate Segment of a Longer Program.
First use Sept. 21, 1955.

SN 1,190. American Royal Association, d. b. a. American Royal, Kansas City, Mo. Filed Jan. 23, 1956.

AMERICAN ROYAL

For Educational, Informational, and Entertainment Services in the Nature of a Stock and Horse Show.
First use 1931.

SN 1,191. American Royal Association, d. b. a. American Royal, Kansas City, Mo. Filed Jan. 23, 1956.

For Educational, Informational, and Entertainment Services in the Nature of a Stock and Horse Show.
First use 1931.

COLLECTIVE MEMBERSHIP MARKS

CLASS 200

SN 638,110. Theatrical Mutual Associations of United States and Canada, Brooklyn, N. Y. Filed Nov. 14, 1952.

For Indicating Membership in the Association.
First use 1898.

SN 3,863. Kappa Phi Sigma Sorority, Norwalk, Calif. Filed Mar. 5, 1956.

For Indicating Membership in a Non-Academic Sorority.
First use Feb. 15, 1954.

TRADEMARK REGISTRATIONS ISSUED
PRINCIPAL REGISTER

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

639,860. PLASTYLITE. Plastylite Corporation. SN 693,932. Pub. 10–30–56. Filed 8–30–55.

639,861. FIRE-FLAKES. The Disco Manufacturing Company. SN 696,780. Pub. 10–30–56. Filed 10–20–55.

639,862. LURAPLAST. Lurie Plastics, Inc. SN 698,185. Pub. 9–25–56. Filed 11–14–55.

639,863. PET PAMPER. Southern Ezy-Mix Co. SN 3,472. Pub. 10–30–56. Filed 2–27–56.

639,864. CRYLOR. Crylor. SN 5,592. Pub. 10–30–56. Filed 4–2–56.

639,865. SILKISUADE. Thomas B. Harvey Leather Company. SN 5,633. Pub. 10–30–56. Filed 4–2–56.

639,866. LUVITHERM. Badische Anilin- & Soda-Fabrik Aktiengesellschaft. SN 5,701. Pub. 10–30–56. Filed 4–3–56.

639,867. SULLVAC. O'Sullivan Rubber Corporation. SN 6,129. Pub. 10–30–56. Filed 4–10–56.

639,868. TURTLEBACK. E. I. du Pont de Nemours and Company. SN 6,241. Pub. 10–30–56. Filed 4–12–56.

639,869. FORTIFLEX. Celanese Corporation of America. SN 7,421. Pub. 10–30–56. Filed 5–1–56.

639,870. STRONG FLEX AND DESIGN. Lynn Innersole Co. SN 7,924. Pub. 10–30–56. Filed 5–8–56.

639,871. NATIONAL. National Lead Company. SN 8,143. Pub. 10–30–56. Filed 5–11–56.

639,872. MOO-MIX. Lowe Seed Company. SN 8,238. Pub. 10–30–56. Filed 5–14–56.

639,873. REPRESENTATION OF INDIAN FIGURE. Lowe Seed Company. SN 8,239. Pub. 10–30–56. Filed 5–14–56.

639,874. SYNROCK. The V. L. Smithers Manufacturing Co. SN 8,274. Pub. 10–30–56. Filed 5–14–56.

639,875. FIRETABS. Firetabs Corporation. SN 8,328. Pub. 10–30–56. Filed 5–15–56.

CLASS 3

BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

639,876. PET-TOTER. Nathan Products Corporation. SN 8,088. Pub. 10–30–56. Filed 5–10–56.

639,877. SOCIALITE. United States Trunk Company. SN 10,043. Pub. 10–30–56. Filed 6–11–56.

639,878. IMPACTO. Boyle Leather Goods Co., Inc. SN 10,126. Pub. 10–30–56. Filed 6–13–56.

639,879. JETALUM. Platt Luggage, Inc. SN 12,214. Pub. 10–30–56. Filed 7–16–56.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

639,880. AMOCOL. Atlas Powder Company. SN 685,421. Pub. 3–20–56. Filed 4–13–55.

639,881. PENTA PLUS 40. Chapman Chemical Company. SN 700,431. Pub. 10–30–56. Filed 12–22–55.

639,882. DULTEX. Soluel Chemical Co., Inc. SN 700,680. Pub. 10–30–56. Filed 12–27–55.

639,883. USCOLITE. U. S. Oil Company. SN 929. Pub. 10–30–56. Filed 1–17–56.

639,884. SCOTCHFOAM. Minnesota Mining and Manufacturing Company. SN 4,040. Pub. 10–30–56. Filed 3–7–56.

639,885. DU PONT AND DESIGN. E. I. du Pont de Nemours and Company. SN 4,622. Pub. 10–30–56. Filed 3–15–56.

639,886. FLO-SET. The Halold Company. SN 4,798. Pub. 10–30–56. Filed 3–19–56.

639,887. MANNOGAL. Morningstar, Nicol, Inc. SN 5,123. Pub. 10–30–56. Filed 3–23–56.

639,888. STARGUM. Morningstar, Nicol, Inc. SN 5,124. Pub. 10–30–56. Filed 3–23–56.

639,889. KWIK. The M. W. Dunton Company. SN 5,611. Pub. 10–30–56. Filed 4–2–56.

639,890. CURA-TABS. Soap Specialties, Inc. SN 5,872. Pub. 10–30–56. Filed 4–5–56.

CLASS 7

CORDAGE

639,891. ELEGO. Chicago Printed String Company. SN 6,983. Pub. 10–30–56. Filed 4–24–56.

639,892. ORANGE TOP AND DESIGN. Plymouth Cordage Company. SN 11,033. Pub. 10–30–56. Filed 6–26–56.

CLASS 8

SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS

639,893. FLIPEX. Technomat Manufacturing Corporation. SN 10,494. Pub. 10–30–56. Filed 6–18–56.

CLASS 9

EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES

639,894. MONARK AND DESIGN. Federal Cartridge Corporation. SN 678,444. Pub. 10–30–56. Filed 12–16–54.

CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

639,895. SILBOND. Home Decorators, Inc. SN 700,107. Pub. 10–30–56. Filed 12–16–55.

639,896. PRESFOAM. Scovill Manufacturing Company. SN 700,533. Pub. 10–30–56. Filed 12–23–55.

639,897. THOMSON SAFETY-LOCK AND LETTER T. Standard-Thomson Corporation. SN 6,065. Pub. 10–30–56. Filed 4–9–56.

639,898. KABOB KING AND DESIGN. Harold Weinberger, d. b. a. Ronald Lee Company. SN 8,733. Pub. 10–30–56. Filed 5–21–56.

639,899. EKCO BRITE. Ekco Products Company. SN 8,940. Pub. 10–30–56. Filed 5–24–56.

639,900. VULCATHENE. J. S. & F. Folkard Limited. SN 8,947. Pub. 10–30–56. Filed 5–24–56.

639,901. HI-CARB. The Ferry Cap & Set Screw Company. SN 9,036. Pub. 10–30–56. Filed 5–25–56.

639,902. RISDON AND DESIGN. The Risdon Manufacturing Company. SN 9,176. Pub. 10–30–56. Filed 5–28–56.

639,903. SSS. Southwest Steel Rolling Mills. SN 9,191. Pub. 10–30–56. Filed 5–28–56.

639,904. PERMA NETTING. The Gilbert & Bennett Mfg. Co. SN 9,218. Pub. 10–30–56. Filed 5–18–56.

CLASS 15

OILS AND GREASES

639,905. SLIPKOTE. Esso Standard Oil Company. SN 4,625. Pub. 10–30–56. Filed 3–15–56.

639,906. BASEKOTE. Esso Standard Oil Company. SN 4,626. Pub. 10–30–56. Filed 3–15–56.

639,907. RED LINE. Union Oil Company of California. SN 8,731. Pub. 10–30–56. Filed 5–21–56.

639,908. LUB-A-KIT. Panef Manufacturing Co., Inc. SN 8,798. Pub. 10–30–56. Filed 5–22–56.

639,909. LUB-A-CABLE. Panef Manufacturing Co., Inc. SN 8,800. Pub. 10–30–56. Filed 5–22–56.

639,910. UMF. Shell Oil Company. SN 8,805. Pub. 10–30–56. Filed 5–22–56.

639,911. SLIC-SEAL. Hoke Incorporated. SN 8,075. Pub. 10–30–56. Filed 5–10–56.

639,912. SULACSO. The Standard Oil Company. SN 8,276. Pub. 10–30–56. Filed 5–14–56.

639,913. ISOMERATE. The Pure Oil Company. SN 8,354. Pub. 10–30–56. Filed 5–15–56.

639,914. D-A AND DESIGN. D-A Lubricant Company, Inc. SN 8,387. Pub. 10–30–56. Filed 5–16–56.

639,915. DROMUS. Shell Oil Company. SN 10,556. Pub. 10–30–56. Filed 6–19–56.

639,916. FENELLA. Shell Oil Company. SN 10,557. Pub. 10–30–56. Filed 6–19–56.

639,917. MACRON. Shell Oil Company. SN 10,558. Pub. 10–30–56. Filed 6–19–56.

639,918. CASSIS. Shell Oil Company. SN 10,559. Pub. 10–30–56. Filed 6–19–56.

639,919. CLAVUS. Shell Oil Company. SN 10,560. Pub. 10–30–56. Filed 6–19–56.

639,920. ASPA. Shell Oil Company. SN 10,561. Pub. 10–30–56. Filed 6–19–56.

639,921. GEARPOID. Magie Bros. Oil Co. SN 13,404. Pub. 10–30–56. Filed 8–13–56.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

639,922. S-I-P AND DESIGN. Standard Industrial Products, Inc. SN 677,743. Pub. 10–30–56. Filed 12–3–54.

639,923. ARDROX. Brent Chemical Products Limited. SN 697,465. Pub. 10–30–56. Filed 11–1–55.

639,924. PAINT-MATE. Larsen Products Corporation. SN 5,732. Pub. 10–30–56. Filed 4–3–56.

639,925. TORLON. Perry-Austen Manufacturing Co., Inc. SN 5,786. Pub. 10–30–56. Filed 4–4–56.

639,926. PLEXI-CHIC. Indianapolis Paint & Color Company. SN 6,013. Pub. 10–30–56. Filed 4–9–56.

639,927. SOLDERITE. The P. D. George Company. SN 6,247. Pub. 10–30–56. Filed 4–12–56.

639,928. GIL-CHEM. Gilman Paint and Varnish Company. SN 6,802. Pub. 10–30–56. Filed 4–20–56.

639,929. DESIGN OF GROTESQUE FIGURES IN A CIRCLE. McCloskey Varnish Company. SN 6,814. Pub. 10–30–56. Filed 4–20–56.

639,930. STUCCOGARD. Benjamin Moore & Co. SN 6,947. Pub. 10–30–56. Filed 4–23–56.

CLASS 17

TOBACCO PRODUCTS

639,931. VANITY FAIR. Stephano Brothers. SN 10,565. Pub. 10–30–56. Filed 6–19–56.

639,932. DRY SLITZ. M. Marsh and Son. SN 11,017. Pub. 10–30–56. Filed 6–26–56.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

639,933. AUREOMYCIN. American Cyanamid Company. SN 691,736. Pub. 10–16–56. Filed 7–22–55.

639,934. REDIPLETE. Merck & Co., Inc. SN 697,001. Pub. 10–30–56. Filed 10–24–55.

639,935. HYDROBALM. Merck & Co., Inc. SN 697,005. Pub. 10–30–56. Filed 10–24–55.

639,936. SOMATROPE. Gray Pharmaceutical Co., Inc. SN 697,289. Pub. 10–30–56. Filed 10–28–55.

639,937. SOMATONIN. Gray Pharmaceutical Co., Inc. SN 697,290. Pub. 10–30–56. Filed 10–28–55.

639,938. MIRACLE. Burnett's Foods, Inc., d. b. a. Burnett's Pet Foods. SN 697,469. Pub. 10–30–56. Filed 11–1–55.

639,939. FLUOTHANE. Imperial Chemical (Pharmaceuticals) Limited. SN 2,635. Pub. 10–30–56. Filed 2–14–56.

639,940. SLUMBASAFE. Slumbasafe, Inc. SN 4,854. Pub. 10–30–56. Filed 3–19–56.

639,941. MALCADYNE. Organon Inc. SN 6,951. Pub. 10–30–56. Filed 4–23–56.

639,942. ADRESTAT. Organon Inc. SN 7,273. Pub. 10–30–56. Filed 4–27–56.

639,943. NUGESTORAL. Organon Inc. SN 7,274. Pub. 10–30–56. Filed 4–27–56.

639,944. TETRASULE. Professional Drug Service, Inc., d. b. a. Storck Pharmaceuticals. SN 7,373. Pub. 10–30–56. Filed 4–30–56.

639,945. MYLOX. Shulton, Inc. SN 7,383. Pub. 10–30–56. Filed 4–30–56.

639,946. DRISTAN. Whitehall Pharmacal Company. SN 7,408. Pub. 10–30–56. Filed 4–30–56.

639,947. FOROMADIL. Ciba Limited. SN 7,758. Pub. 10–30–56. Filed 5–7–56.

639,948. DONNAGESIC. A. H. Robins Company, Inc. SN 7,937. Pub. 10–30–56. Filed 5–8–56.

639,949. MANNCOR. Chicago Pharmacal Company. SN 8,057. Pub. 10–30–56. Filed 5–10–56.

639,950. ME-BA. Arthur D. Frame, d. b. a. The Denver Pharmacal Co. SN 8,123. Pub. 10–30–56. Filed 5–11–56.

639,951. QUIMAR. Armour and Company. SN 8,182. Pub. 10–30–56. Filed 5–14–56.

639,952. HI-VITE. Anchor Serum Company of Indiana, Inc. SN 8,460. Pub. 10–30–56. Filed 5–17–56.

639,953. MEVASINE. Merck & Co., Inc. SN 8,496. Pub. 10–30–56. Filed 5–17–56.

639,954. LEUKERAN. Burroughs Wellcome & Co. (U. S. A.) Inc. SN 8,531. Pub. 10–30–56. Filed 5–18–56.

639,955. ACI-JEL. Ortho Pharmaceutical Corporation. SN 13,119. Pub. 10–30–56. Filed 8–10–56.

639,956. NIDOXITAL. Ortho Pharmaceutical Corporation. SN 13,121. Pub. 10–30–56. Filed 8–10–56.

CLASS 19

VEHICLES

639,957. PAN AMERICAN. Mid-States Corp. SN 643,701. Pub. 6-23-53. Filed 3-16-53.

639,958. SKYLINE. Skyline Coach Company, Inc. SN 675,836. Pub. 6-28-55. Filed 11-1-54.

639,959. SKYPAK AND DESIGN. Winzen Research, Inc. SN 687,518. Pub. 10-30-56. Filed 5-13-55.

639,960. NSU AND DESIGN. NSU-Werke Aktiengesellschaft. SN 692,799. Pub. 10-30-56. Filed 8-10-55.

639,961. LOAD KING. Hansen Manufacturing Company. SN 5,358. Pub. 10-30-56. Filed 3-28-56.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

639,962. REDDI-LITE. American Emergency Lighting Co. SN 694,182. Pub. 10-30-56. Filed 9-6-55.

639,963. ARCTICAIRE. Fasco Industries Inc. SN 5,625. Pub. 10-30-56. Filed 4-2-56.

639,964. ZENITH. Marshall-Wells Company. SN 8,004. Pub. 10-30-56. Filed 5-9-56.

639,965. TOPLINER. Technical Appliance Corporation. SN 8,172. Pub. 10-30-56. Filed 5-11-56.

639,966. SHOWBOAT. Channel Master Corporation. SN 8,191. Pub. 10-30-56. Filed 5-14-56.

639,967. COPPER JAC. Channel Master Corporation. SN 8,192. Pub. 10-30-56. Filed 5-14-56.

639,968. NOISERASER. Librascope, Incorporated. SN 8,234. Pub. 10-30-56. Filed 5-14-56.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

639,969. DESIGN OF GROTESQUE ARCHER. Harry C. Stockfleth, d. b. a. The Sabre Archery Company. SN 2,588. Pub. 10-30-56. Filed 2-13-56.

639,970. ACK-ACK. Ack-Ack, Inc. SN 4,503. Pub. 10-30-56. Filed 3-14-56.

639,971. "PIXIE." The Cleveland Skate Co., Inc. SN 4,694. Pub. 10-30-56. Filed 3-16-56.

639,972. DRUM-A-DITTY. Noble & Cooley Co. SN 4,737. Pub. 10-30-56. Filed 3-16-56.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

639,973. WIDIA. Alfried Krupp von Bohlen und Halbach, d. b. a. Fried. Krupp. SN 652,726. Pub. 8-2-55. Filed 9-3-53.

639,974. A NEW SHARP-DRILL FOR EVERY HOLE AND DESIGN. Phillips Drill Company. SN 694,448. Pub. 10-30-56. Filed 9-9-55.

639,975. LADY DUFF. Duff Baking Mix Corporation. SN 694,978. Pub. 10-30-56. Filed 9-20-55.

639,976. RONDO AND DESIGN. Gustav August Seewer, d. b. a. Konstruktionswerkstätte Burgdorf G. A. Seewer. SN 699,529. Pub. 10-30-56. Filed 12-6-55.

639,977. RIVITOR. The Tomkins-Johnson Company. SN 700,544. Pub. 10-30-56. Filed 12-23-55.

639,978. CLINCHOR. The Tomkins-Johnson Company. SN 700,545. Pub. 10-30-56. Filed 12-23-55.

639,979. TOMCO AND DESIGN. Thompson Distributing Co. SN 6,385. Pub. 10-30-56. Filed 4-13-56.

639,980. ROBOT. Firma Bettermann Elektro GMBH. SN 6,513. Pub. 10-30-56. Filed 4-17-56.

CLASS 24

LAUNDRY APPLIANCES AND MACHINES

639,981. GYPSY KART. The Padbloc Company, Inc., d. b. a. Leisurehouse. SN 1,716. Pub. 10-30-56. Filed 1-30-56.

639,982. CYCLA FABRIC. Sears, Roebuck and Co. SN 7,940. Pub. 10-30-56. Filed 5-8-56.

639,983. HYDROSWIRL. Sears, Roebuck and Co. SN 7,941. Pub. 10-30-56. Filed 5-8-56.

639,984. GE AND DESIGN. General Electric Company. SN 8,124. Pub. 10-30-56. Filed 5-11-56.

639,985. GENERAL ELECTRIC GE AND DESIGN. General Electric Company. SN 8,125. Pub. 10-30-56. Filed 5-11-56.

639,986. I. B. C. Herbert Glatt, d. b. a. Magla Products. SN 10,869. Pub. 10-30-56. Filed 6-25-56.

CLASS 25

LOCKS AND SAFES

639,987. ILLINOIS. The Illinois Lock Company. SN 5,724. Pub. 10-30-56. Filed 4-3-56.

639,988. DIAMOND AND BAR DESIGN. Briggs & Stratton Corporation. SN 6,896. Pub. 10-30-56. Filed 4-23-56.

639,989. DESIGN OF FIVE STARS. Herring-Hall-Marvin Safe Company. SN 6,923. Pub. 10-30-56. Filed 4-23-56.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

639,990. SW AND DESIGN. Southwest Pump Company. SN 695,059. Pub. 10-30-56. Filed 9-22-55.

639,991. PULSESCOPE. Waterman Products Company, Inc. SN 696,678. Pub. 10-30-56. Filed 10-18-55.

639,992. IGNITION MASTER AND DESIGN. Carl G. Steffenson. SN 699,171. Pub. 10-30-56. Filed 11-30-55.

639,993. DATAFLO. Underwood Corporation. SN 699,995. Pub. 10-30-56. Filed 12-14-55.

639,994. SWIVALIGN. Norton Company. SN 4,979. Pub. 10-30-56. Filed 3-21-56.

CLASS 28

JEWELRY AND PRECIOUS-METAL WARE

639,995. S. E. B. AND DESIGN. National Silver Company. SN 12,922. Pub. 10-30-56. Filed 7-27-56.

639,996. N. S. CO. National Silver Company. SN 12,923. Pub. 10-30-56. Filed 7-27-56.

639,997. N. S. C. National Silver Company. SN 12,924. Pub. 10-30-56. Filed 7-27-56.

639,998. NATIONAL. National Silver Company. SN 12,925. Pub. 10-30-56. Filed 7-27-56.

CLASS 29

BROOMS, BRUSHES, AND DUSTERS

639,999. RALON. National Automotive Fibres, Inc. SN 8,685. Pub. 10-30-56. Filed 5-21-56.

640,000. MODEL-D. The Cutino Company. SN 8,386. Pub 10-30-56. Filed 5-16-56.

640,001. TARZAN. American Associated Companies. SN 9,762. Pub. 10-30-56. Filed 6-7-56.

640,002. STATICLOTH AND DESIGN. Interelectronics Corporation. SN 10,887. Pub. 10-30-56. Filed 6-25-56.

CLASS 30

CROCKERY, EARTHENWARE, AND PORCELAIN

640,003. BIG PAY-OFF DINNERWARE ETC. AND DESIGN. The Homer Laughlin China Company. SN 9,358. Pub. 10-30-56. Filed 5-31-56.

CLASS 31

FILTERS AND REFRIGERATORS

640,004. AQUA MAGIC. Hal J. Ellison, d. b. a. Amerdec Laboratories. SN 688,317. Pub. 10-30-56. Filed 5-26-55.

640,005. WAUKESHA DIESEL-ICER. Waukesha Motor Company. SN 689,321. Pub. 10-30-56. Filed 6-10-55.

640,006. UNIVERSAL. Universal Water Softener Co. SN 7,293. Pub. 10-30-56. Filed 4-27-56.

CLASS 32

FURNITURE AND UPHOLSTERY

640,007. UNIVERSAL. Universal Major Elec. Appliances, Inc., to Universal Major Corporation. SN 676,686. Pub. 10-30-56. Filed 11-15-54.

640,008. WALLACE FOLD'N TWO ETC. AND DESIGN. Wallace Products, Inc. SN 696,067. Pub. 10-30-56. Filed 10-6-55.

640,009. WHITE MOUNTAIN AND DESIGN. The Maine Manufacturing Company. SN 698,889. Pub. 10-30-56. Filed 11-25-55.

640,010. HOME-MARK AND DESIGN. Retail Stores Service, Inc. SN 699,925. Pub. 10-30-56. Filed 12-13-55.

640,011. PRINCE-OF-EASE. Kittinger Company, Inc. SN 2,298. Pub. 10-30-56. Filed 2-8-56.

640,012. DIET LINER. Diets Unlimited, Inc. SN 2,691. Pub. 10-30-56. Filed 2-15-56.

640,013. X-SELL-ISL. Louis R. Mahrt and D. Robert Laughter, trustees for Standard-Dayton Corporation. SN 4,386. Pub. 10-30-56. Filed 6-20-56.

640,014. LEV-L-LINE. Louis R. Mahrt and D. Robert Laughter, trustees for Standard-Dayton Corporation. SN 4,387. Pub. 10-30-56. Filed 6-20-56.

640,015. RAPID-RAP. Louis R. Mahrt and D. Robert Laughter, trustees for Standard-Dayton Corporation. SN 4,388. Pub. 10-30-56. Filed 6-20-56.

640,016. GB CLIP-ER. Glaser Bros. SN 6,248. Pub. 10-30-56. Filed 4-12-56.

640,017. REVITALIZER. The Englander Company, Inc. SN 7,779. Pub. 10-30-56. Filed 5-7-56.

640,018. PEERLESS. Nachman Corporation. SN 7,823. Pub. 10-30-56. Filed 5-7-56.

640,019. INLINE. Ward Furniture Manufacturing Co. SN 10,735. Pub. 10-30-56. Filed 6-21-56.

640,020. ROOM-MAKER. Ogden Manufacturing Company. SN 10,904. Pub. 10-30-56. Filed 6-25-56.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

640,021. SUNNYWALL AND DESIGN. Crane Co. SN 8,473. Pub. 10-30-56. Filed 5-17-56.

640,022. BASCO. H. R. Basford Co. SN 8,615. Pub. 10-30-56. Filed 5-21-56.

640,023. TD AND TWO CIRCLES DESIGN. Dalmine S. p. A. SN 8,905. Pub. 10-30-56. Filed 4-30-56.

640,024. THERMOVAC. Frank A. Bellato. SN 8,922. Pub. 10-30-56. Filed 5-24-56.

640,025. "WINTERCOTE." Reuben L. Miller, d. b. a. Miller-Prager Co. SN 9,162. Pub. 10-30-56. Filed 5-28-56.

CLASS 35

BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

640,026. CONE-PAK. Hercules Tool Company. SN 662,633. Pub. 5-3-55. Filed 3-15-54.

640,027. THORO-LOK. The Dayton Rubber Company. SN 683,762. Pub. 10-30-56. Filed 3-18-55.

640,028. THORO-SEAL. The Dayton Rubber Company. SN 683,763. Pub. 10-30-56. Filed 3-18-55.

640,029. ZEPHYR. Carlisle Corporation. SN 7,484. Pub. 10-30-56. Filed 5-2-56.

CLASS 36

MUSICAL INSTRUMENTS AND SUPPLIES

640,030. SOUNDOGRAM AND DESIGN. Cinex Mfg. Co. SN 6,159. Pub. 10-30-56. Filed 4-11-56.

640,031. EMI. Electric & Musical Industries (U. S.) Limited. SN 6,703. Pub. 10-30-56. Filed 4-19-56.

640,032. UFIP. Buegeleisen & Jacobson, Inc. SN 8,924. Pub. 10-30-56. Filed 5-24-56.

CLASS 37

PAPER AND STATIONERY

640,033. WIZARD. The Mutual Paper Co., Inc. SN 1,709. Pub. 10-30-56. Filed 1-30-56.

640,034. SKWIREX. N. V. Papierfabriek Gennep. SN 1,979. Pub. 10-30-56. Filed 2-2-56.

640,035. PANDA-PARCH AND DESIGN. Huff, Barnes & Opie, Inc. SN 2,786. Pub. 10-30-56. Filed 2-16-56.

640,036. DENTA-DISCS. Ward Paper Company. SN 3,255. Pub. 10-30-56. Filed 2-23-56.

640,037. INDIAN LAKES. Ward Paper Company. SN 3,256. Pub. 10-30-56. Filed 2-23-56.

640,038. ALL-TEMP. Arkell Safety Bag Company. SN 3,986. Pub. 10-30-56. Filed 3-7-56.

640,039. PEN-O-RAMA AND DESIGN. Murray Hecht, d. b. a. Lindenware Co. SN 5,299. Pub. 10-30-56. Filed 3-27-56.

640,040. PAUL COLEMAN'S. Paul Coleman. SN 5,506. Pub. 10-30-56. Filed 3-30-56.

640,041. ON-THE-LEVEL. Nashua Corporation. SN 5,738. Pub. 10–30–56. Filed 4–3–56.

640,042. ZIPPERSEAL. Rapinwax Paper Company. SN 5,792. Pub. 10–30–56. Filed 4–4–56.

640,043. SNAP-RITE. Gulfstream Press Inc. SN 5,836. Pub. 10–30–56. Filed 4–5–56.

640,044. TEMPL-MARK. The Robert Howard Company. SN 7,347. Pub. 10–30–56. Filed 4–30–56.

CLASS 38

PRINTS AND PUBLICATIONS

640,045. PARLI-GUIDE. Jack L. Strickland. SN 844. Pub. 10–30–56. Filed 1–16–56.

640,046. IEN. Thomas Publishing Company. SN 7,127. Pub. 10–30–56. Filed 4–25–56.

640,047. HOUSE & GARDEN'S BOOK OF BUILDING. The Conde Nast Publications Inc. SN 7,176. Pub. 10–30–56. Filed 4–26–56.

CLASS 39

CLOTHING

640,048. MELOMERE. M. K. M. Hosiery Mills, Inc. SN 74. Pub. 10–30–56. Filed 1–3–56.

640,049. RATCATCHER. Samuel B. Firestone, d. b. a. Variety Sportswear. SN 1,028. Pub. 10–30–56. Filed 1–18–56.

640,050. JEANE SCOTT. Jeane Scott, Ltd. SN 2,359. Pub. 10–30–56. Filed 2–9–56.

640,051. ROGER MASON BRAND A. H. AND DESIGN. A. Haupt, Inc. SN 2,983. Pub. 10–30–56. Filed 2–20–56.

640,052. OLD SCHOOL TIE BY HADLEY. The Cashmere Corporation of America. SN 3,078. Pub. 10–30–56. Filed 2–21–56.

640,053. BALLET-SKIN. S. Capezio, Inc. SN 3,145. Pub. 7–31–56. Filed 2–23–56.

640,054. CANTILEVER ACTION. Standard Knitting Mills, Inc. SN 3,561. Pub. 10–30–56. Filed 2–28–56.

640,055. A RITTER ORIGINAL. Ritter Bros. Inc. SN 4,989. Pub. 10–30–56. Filed 3–21–56.

640,056. THOMAS. Susan Thomas. SN 5,000. Pub. 10–30–56. Filed 3–21–56.

640,057. SHADOW LINE AND DESIGN. Shadowline, Inc. SN 5,323. Pub. 10–30–56. Filed 3–27–56.

640,058. COUNTRY CLUB RELAXABLES. Palm Beach Company. SN 6,824. Pub. 10–30–56. Filed 4–20–56.

640,059. "EDEN ROC." H. & J. Block, Inc. SN 7,748. Pub. 10–30–56. Filed 5–7–56.

640,060. MOTOR-BRIEFER. March & Mendl, Inc. SN 8,243. Pub. 10–30–56. Filed 5–14–56.

640,061. FLEX-O-BACK. The La Resista Corset Company. SN 8,419. Pub. 10–30–56. Filed 5–16–56.

640,062. RED ROBIN. Petrie Stores Corporation. SN 8,690. Pub. 10–30–56. Filed 5–21–56.

640,063. NUDIMOLD. Kork-Ease, Inc. SN 9,153. Pub. 10–30–56. Filed 5–28–56.

640,064. ALL AMERICAN. Southern Handkerchief Manufacturing Co. SN 9,303. Pub. 10–30–56. Filed 5–29–56.

640,065. U. S. AMBASSADRESS OF FASHION. Chester H. Roth Co., Inc. SN 9,593. Pub. 10–30–56. Filed 6–4–56.

640,066. LEISURE-ALLS. The House of Perfection, Inc. SN 9,794. Pub. 10–30–56. Filed 6–7–56.

640,067. STRETCH-A-MAGIC AND DESIGN. Super-Form Brassiere, Inc. SN 9,823. Pub. 10–30–56. Filed 6–7–56.

640,068. ELMBROOK ETC. AND DESIGN. Salkin & Linoff, Incorporated. SN 10,374. Pub. 10–30–56. Filed 6–7–56.

640,069. P. S. PARADISE SHOES. Brauer Bros. Shoe Company. SN 13,405. Pub. 10–30–56. Filed 8–23–56.

CLASS 40

FANCY GOODS, FURNISHINGS, AND NOTIONS

640,070. "FREHAND" AND DESIGN. Frehand Bobby Pin Corp. SN 5,517. Pub. 10–30–56. Filed 3–30–56.

640,071. ELIAAN. Adnah A. Nickell. SN 6,949. Pub. 10–30–56. Filed 4–23–56.

640,072. KENPIN. Bartmann & Bixer, Inc. SN 9,434. Pub. 10–30–56. Filed 6–1–56.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

640,073. FLUFFLITE. The Robitshek-Schneider Company, d. b. a. Great Western. SN 686,779. Pub. 10–30–56. Filed 5–3–55.

640,074. MIRACLE TEX. Aldon Rug Mills, Inc. SN 864. Pub. 10–30–56. Filed 1–17–56.

640,075. MIRACLE PLUSH. Aldon Rug Mills, Inc. SN 865. Pub. 10–30–56. Filed 1–17–56.

640,076. CLIP-DOT. Stoffel & Co., Inc. SN 7,390. Pub. 10–30–56. Filed 4–30–56.

640,077. TERRY TOWNE OF NEW YORK. Moe Lichtenstein, Inc. SN 7,445. Pub. 10–23–56. Filed 5–1–56.

640,078. KOOLTEX. John Taylors, Limited. SN 8,362. Pub. 10–30–56. Filed 5–15–56.

640,079. GOLDEN WHEAT. D. B. Fuller & Co., Inc. SN 8,398. Pub. 10–30–56. Filed 5–16–56.

640,080. MARSHMALLOW. D. B. Fuller & Co., Inc. SN 8,399. Pub. 10–30–56. Filed 5–16–56.

640,081. FAIRTONE. D. B. Fuller & Co., Inc. SN 8,400. Pub. 10–30–56. Filed 5–16–56.

640,082. ZIP-O-MAGIC. Oliver and Kaufman, Inc. SN 8,434. Pub. 10–30–56. Filed 5–16–56.

640,083. SATINIQUE. Shirley Fabrics Corp. SN 8,447. Pub. 10–30–56. Filed 5–16–56.

640,084. PIN-A-WIDTH. Bartmann & Bixer, Inc. SN 8,528. Pub. 10–30–56. Filed 5–18–56.

640,085. WARRENA. The Warren Woolen Company. SN 8,594. Pub. 10–30–56. Filed 5–18–56.

640,086. SOLITE. Wennonah Cotton Mills Company. SN 8,595. Pub. 10–30–56. Filed 5–18–56.

640,087. STAYSMOOTH. D. B. Fuller & Co., Inc. SN 8,952. Pub. 10–30–56. Filed 5–24–56.

640,088. SURESET. D. B. Fuller & Co., Inc. SN 8,953. Pub. 10–30–56. Filed 5–24–56.

640,089. ADRIATIC. D. B. Fuller & Co., Inc. SN 9,038. Pub. 10–30–56. Filed 5–25–56.

640,090. BELFIORE. Malden Mills, Inc. SN 9,371. Pub. 10–30–56. Filed 5–31–56.

640,091. DOUBLE DEAL. D. B. Fuller & Co., Inc. SN 9,459. Pub. 10–30–56. Filed 6–1–56.

640,092. MAGNELINER. Ames Shower Curtain Co., Inc. SN 9,516. Pub. 10–30–56. Filed 6–4–56.

640,093. ZIP-KWIK. American Quilt Covers Manufacturers, Inc. SN 9,688. Pub. 10–30–56. Filed 6–6–56.

640,094. DIAMOND DUST. D. B. Fuller & Co., Inc. SN 9,785. Pub. 10–30–56. Filed 6–7–56.

640,095. NOVALLURE. William Skinner & Sons. SN 9,820. Pub. 10–30–56. Filed 6–7–56.

640,096. DURALOOM. Duraloom Carpet Mills, Inc. SN 10,062. Pub. 10–30–56. Filed 6–5–56.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

640,097. TRINIDEX. Don Baxter, Inc. SN 699,054. Pub. 10–30–56. Filed 11–29–55.

640,098. TRINIDEX. Baxter Laboratories, Inc. SN 699,055. Pub. 10–30–56. Filed 11–29–55.

640,099. PATRICIAN. Aronab Products Co. SN 6,888. Pub. 10–30–56. Filed 4–23–56.

640,100. DE TREY'S. Emmanuel de Trey. SN 6,908. Pub. 10–30–56. Filed 4–23–56.

CLASS 45

SOFT DRINKS AND CARBONATED WATERS

640,101. TOM MOORE AND DESIGN. Thomas Moore, d. b. a. Thomas Moore & Co. SN 7,267. Pub. 10–30–56. Filed 4–27–56.

640,102. DAILY DOUBLE. Seminole Flavor Company. SN 7,853. Pub. 10–30–56. Filed 5–7–56.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

640,103. BANG-UP. E. J. Russell, d. b. a. Russell Packing Company. SN 626,642. Pub. 10–30–56. Filed 3–18–52.

640,104. SOUTHERN PRIDE AND DESIGN. Southern Produce Company, Inc. SN 684,350. Pub. 10–30–56. Filed 3–28–55.

640,105. DAIRY SWEET C. Dairy Service Corporation. SN 687,262. Pub. 10–30–56. Filed 5–11–55.

640,106. SPICEAL. S. B. Penick & Company. SN 690,189. Pub. 10–30–56. Filed 6–24–55.

640,107. BONUS. Bonus Foods Ltd. SN 690,220. Pub. 10–30–56. Filed 6–27–55.

640,108. CHICK-CHILI. Sansone's Sea Seasoned Food Products, Inc. SN 690,491. Pub. 10–30–56. Filed 6–29–55.

640,109. PEACE RIVER. McDonald & Olliff, Inc. SN 692,409. Pub. 10–30–56. Filed 8–3–55.

640,110. DEL-FROST. Bowman Dairy Company. SN 694,047. Pub. 10–30–56. Filed 9–1–55.

640,111. MIDDLESEX. Middlesex Foods Inc. SN 695,009. Pub. 10–30–56. Filed 9–20–55.

640,112. AL'S. Marshall W. Alber, d. b. a. Al's. SN 695,258. Pub. 10–30–56. Filed 9–26–55.

640,113. HORSEY AND DESIGN. J. William Horsey Corporation. SN 695,727. Pub. 10–30–56. Filed 10–3–55.

640,114. CAN-PAK. Canada Packers, Inc. SN 697,472. Pub. 10–30–56. Filed 11–1–55.

640,115. SERVE-UR-SELF. E. F. Kemp Corp. SN 697,559. Pub. 10–30–56. Filed 11–2–55.

640,116. HILLCO. H. G. Hill Company, d. b. a. Hill Stores. SN 699,149. Pub. 10–30–56. Filed 11–30–55.

640,117. SARGENTI. A. Sargenti Co., Inc. SN 699,251. Pub. 10–30–56. Filed 12–1–55.

640,118. DESIGN OF HAND HOLDING 3 STALKS OF GRAIN. Eckhart Milling Co. SN 47. Pub. 10–30–56. Filed 1–3–56.

640,119. COLUMBIA. A. Zerega's Sons, Inc. SN 1,036. Pub. 10–30–56. Filed 1–18–56.

640,120. BEEFARONI. American Home Products Corporation, d. b. a. American Home Foods, Division of American Home Products Corporation. SN 1,756. Pub. 10–30–56. Filed 1–31–56.

640,121. PF. Pepperidge Farm Incorporated. SN 2,181. Pub. 10–30–56. Filed 2–6–56.

640,122. DRESDEN. Pepperidge Farm Incorporated. SN 2,183. Pub. 10–30–56. Filed 2–6–56.

640,123. BRUSSELS. Pepperidge Farm Incorporated. SN 2,184. Pub. 10–30–56. Filed 2–6–56.

640,124. BIARRITZ. Pepperidge Farm Incorporated. SN 2,185. Pub. 10–30–56. Filed 2–6–56.

640,125. VENICE. Pepperidge Farm Incorporated. SN 2,186. Pub. 10–30–56. Filed 2–6–56.

640,126. BORDEAUX. Pepperidge Farm Incorporated. SN 2,187. Pub. 10–30–56. Filed 2–6–56.

640,127. ROCKACRES FARM. P. O. Schwarzer & Son. SN 2,580. Pub. 10–30–56. Filed 2–13–56.

640,128. BERLINER'S FARMBELT AND DESIGN. Berliner & Marx. SN 4,172. Pub. 10–30–56. Filed 3–9–56.

640,129. MOKA-RIS. The Kenya Coffee Co. Limited. SN 4,645. Pub. 10–30–56. Filed 3–15–56.

640,130. JOLLY POPS. Blaney Candies, Inc. SN 4,936. Pub. 10–30–56. Filed 3–21–56.

640,131. SUTTER PAK. Pratt-Low Preserving Company. SN 5,055. Pub. 10–30–56. Filed 3–22–56.

640,132. CINDERELLA AND DESIGN. International Milling Company. SN 5,360. Pub. 10–30–56. Filed 3–28–56.

640,133. BEACH ROAD. Irvin Dethlefsen, Inc. SN 5,623. Pub. 10–30–56. Filed 4–2–56.

640,134. MERCATO. Escalon Packers, Inc., d. b. a. Mercato Products Company. SN 7,720. Pub. 10–30–56. Filed 5–10–56.

CLASS 47

WINES

640,135. MONTE CRISTO. Beverage Distributors, Inc., d. b. a. Peralta Wine Company. SN 7,475. Pub. 10–30–56. Filed 5–2–56.

640,136. BARENGO. P. C. Barengo, d. b. a. Barengo Wine Company. SN 8,113. Pub. 10–30–56. Filed 5–11–56.

640,137. M. MISA. Ricardo Lopez de Carrizosa y Martel, d. b. a. Manuel Misa and as M. Misa. SN 9,370. Pub. 10–30–56. Filed 5–31–56.

CLASS 48

MALT BEVERAGES AND LIQUORS

640,138. DESIGN OF CROWN. M. K. Goetz Brewing Company. SN 7,344. Pub. 10–30–56. Filed 4–30–56.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

640,139. GALLO. E. & J. Gallo Winery. SN 2,971. Pub. 10–30–56. Filed 2–20–56.

640,140. LONDON HILL. H. Stone & Co., Ltd. SN 8,171. Pub. 10–30–56. Filed 5–11–56.

640,141. JUGO. Schenley Distillers, Inc. SN 9,494. Pub. 10–30–56. Filed 6–1–56.

640,142. JUGOS. Schenley Distillers, Inc. SN 9,495. Pub. 10–30–56. Filed 6–1–56.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

640,143. BOTTOMS UP. International Hanger Corporation. SN 7,349. Pub. 10–30–56. Filed 4–30–56.

640,144. EXCELLA-CRAFT. Rock of Ages Corporation. SN 9,898. Pub. 10–30–56. Filed 6–8–56.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

640,145. MUSKETEER TOILETRIES AND DESIGN. Lentheric, Inc. SN 691,309. Pub. 10–30–56. Filed 7–14–55.

640,146. SESQUIROLENE. Albert Verley & Company. SN 692,660. Pub. 10–30–56. Filed 8–8–55.

640,147. FLORANTHEME. Albert Verley & Company. SN 692,663. Pub. 10–30–56. Filed 8–8–55.

640,148. LADY LENNOX. Norman W. Siebras, d. b. a. Lady Lennox Co. SN 699,852. Pub. 10–30–56. Filed 12–12–55.

640,149. ESSENTIAL. Coty, Inc. SN 575. Pub. 10–30–56. Filed 1–12–56.

640,150. LAN-O-SHEEN. Para Laboratories. SN 5,045. Pub. 10–30–56. Filed 3–22–56.

640,151. DID. William Meeks, Jr., d. b. a. Drug Industries. SN 5,225. Pub. 10–30–56. Filed 3–26–56.

CLASS 52

DETERGENTS AND SOAPS

640,152. MAG-WAND AND DESIGN. Gladen Enterprises, Inc. SN 658,715. Pub. 10–30–56. Filed 12–29–53.

640,153. WHISK—ETC. AND DESIGN. The Metalife Company, d. b. a. C & S Products. SN 670,210. Pub. 9–18–56. Filed 7–19–54.

640,154. CLEARZIT. North American Industries, Inc. SN 2,053. Pub. 10–30–56. Filed 2–3–56.

640,155. SPOMAC. S & M Distributors, Inc. SN 7,377. Pub. 10–30–56. Filed 4–30–56.

640,156. SPEEDY WHITE. Modern Chemical Specialties Corp. SN 7,522. Pub. 10–30–56. Filed 5–2–56.

Service Marks

CLASS 100

MISCELLANEOUS

640,157. ASC AND DESIGN. Asco Sound Corporation. SN 642,516. Pub. 10–30–56. Filed 2–20–53.

640,158. PHO-TECT. Pho-Tect Corporation. SN 684,150. Pub. 10–30–56. Filed 3–24–55.

640,159. THUMPER. McCollum Exploration Company. SN 694,437. Pub. 10–30–56. Filed 9–9–55.

640,160. GEOGRAPH. McCollum Exploration Company. SN 694,438. Pub. 10–30–56. Filed 9–9–55.

640,161. B/G. B/G Foods, Inc. SN 698,763. Pub. 10–30–56. Filed 11–23–55.

CLASS 101

ADVERTISING AND BUSINESS

640,162. THE BEACON=AD=CO. LIGHTS THE WAY AND DESIGN. John R. Hedger, d. b. a. The Beacon-Ad-Co. SN 683,883. Pub. 10–30–56. Filed 3–21–55.

640,163. CREDI-PHONIC ETC. AND DESIGN. Credit Exchange, Inc. SN 685,889. Pub. 10–30–56. Filed 4–20–55.

CLASS 103

CONSTRUCTION AND REPAIR

640,164. CORINIZING. Stanley Schkurman, d. b. a. Corinizing Process of America. SN 686,103. Pub. 10–30–56. Filed 4–22–55.

640,165. FEDERAL ELECTRIC CORPORATION SERVICE AND DESIGN. Federal Electric Corporation. SN 2,772. Pub. 10–30–56. Filed 2–16–56.

640,166. EC—ETC. AND DESIGN. Elchleay Corporation. SN 3,370. Pub. 10–30–56. Filed 2–27–56.

CLASS 104

COMMUNICATION

640,167. UNITED STATES INDEPENDENT TELEPHONE ASSOCIATION AND DESIGN. United States Independent Telephone Association. SN 693,507. Pub. 10–30–56. Filed 8–22–55.

CLASS 105

TRANSPORTATION AND STORAGE

640,168. THE TRAVELMART AND DESIGN. Charles F. Lawson, d. b. a. The Travelmart. SN 696,655. Pub. 10–30–56. Filed 10–18–55.

CLASS 106

MATERIAL TREATMENT

640,169. "AQUAFREE." BJ Service, Inc. SN 691,427. Pub. 10–30–56. Filed 7–18–55.

CLASS 107

EDUCATION AND ENTERTAINMENT

640,170. DR. JAZMO. Northwest Louisiana Broadcasting Corporation. SN 687,719. Pub. 10–30–56. Filed 5–17–55.

640,171. MUSICARNIVAL. Musicarnival, Inc. SN 698,995. Pub. 10–30–56. Filed 11–28–55.

640,172. LET'S FIND OUT. Storer Broadcasting Company. SN 4,998. Pub. 10–30–56. Filed 3–21–56.

Collective Membership Mark

CLASS 200

640,173. DESIGN OF SHIELD. Sigma Tau Gamma Fraternity. SN 699,008. Pub. 10–30–56. Filed 11–28–55.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

640,174. Nettle Manufacturing Co., Boston, Mass. SN 684,457. Filed P. R. 3–29–55. Am. S. R. 9–28–56.

A-DRESS-R

For Addressing Machines, Listing Table for Addressing Machine; Also, Cabinets, Trays, and Plates for Addressing Machines.
First use Sept. 21, 1950.

640,175. Franz Xaver Meiller Fahrzeug- und Maschinenfabrik K. G., Munich, Germany. SN 699,714. Filed P. R. 12–9–55. Am. S. R. 9–6–56.

MEILLER

Owner of German Reg. No. 673,713, dated Mar. 30, 1955.
For Tilt Bridges for Trucks Powered With Internal Combustion Engines and Trailers, Hydraulic Armatures, Such as Pumps, Hydraulic Presses, Valves, and Controls; Bucket Loader Adapted To Be Attached to Vehicles, Especially Tractors, Tilting Devices and Unloading Devices for Trucks and Trailers.

640,176. Franz Xaver Meiller Fahrzeug- und Maschinenfabrik K. G., Munich, Germany. SN 699,715. Filed P. R. 12–9–55. Am. S. R. 9–6–56.

MEILLER KIPPER

Owner of German Reg. No. 673,712, dated Nov. 24, 1954.
For Dumping Devices for Pourable Materials, Tilt Bridges for Trucks Powered With Internal Combustion Engines, and Tilting Devices and Unloading Devices for Trucks and Trailers.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

640,177. Tracgser Copper Works, Inc., Maspeth, N. Y. SN 673,065. Filed P. R. 9–10–54. Am. S. R. 2–23–56.

COPPER CORE

The exclusive right to the use of the word "Copper" apart from the mark as shown is hereby disclaimed.
For Automatic Gas Water Heaters.
First use June 13, 1952.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

640,178. Fantastic, Inc., Chicago, Ill., to Nathalie Wollard, New York, N. Y., and Anacleto Mora, Milan, Italy, jointly SN 697,622. Filed 11–3–55.

Owner of Reg. Nos. 557,524, 570,707, and 576,244.
For Home Permanent Waving Kit Comprising a Bottle of Waving Lotion, a Bottle of Developer, a Packet of End Papers, a Cellulose Sponge, a Paper Cap, and a Booklet of Instructions.
First use August 1953.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

640,179. Farmers' Rice Growers Cooperative, San Francisco, Calif. SN 1,596. Filed P. R. 1–27–56. Am. S. R. 10–15–56.
For Rice.

GOLDEN STATE

First use Oct. 1, 1947.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

640,180. Ann Ives, Incorporated, New York, N. Y. SN 684,224. Filed P. R. 3–25–55. Am. S. R. 10–24–56.

Body 'n Sheen

For Hair Conditioners Sold in Beauty Parlors.
First use Feb. 24, 1955.

CLASS 50

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640,143. BOTTOMS UP. International Hanger Corporation. SN 7,349. Pub. 10–30–56. Filed 4–30–56.

640,144. EXCELLA-CRAFT. Rock of Ages Corporation. SN 9,898. Pub. 10–30–56. Filed 6–8–56.

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640,147. FLORANTHEME. Albert Verley & Company. SN 692,663. Pub. 10–30–56. Filed 8–8–55.

640,148. LADY LENNOX. Norman W. Siebras, d. b. a. Lady Lennox Co. SN 699,852. Pub. 10–30–56. Filed 12–12–55.

640,149. ESSENTIAL. Coty, Inc. SN 575. Pub. 10–30–56. Filed 1–12–56.

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640,158. PHO-TECT. Pho-Tect Corporation. SN 684,150. Pub. 10–30–56. Filed 3–24–55.

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640,160. GEOGRAPH. McCollum Exploration Company. SN 694,438. Pub. 10–30–56. Filed 9–9–55.

640,161. B/G. B/G Foods, Inc. SN 698,763. Pub. 10–30–56. Filed 11–23–55.

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640,172. LET'S FIND OUT. Storer Broadcasting Company. SN 4,998. Pub. 10–30–56. Filed 3–21–56.

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640,173. DESIGN OF SHIELD. Sigma Tau Gamma Fraternity. SN 699,008. Pub. 10–30–56. Filed 11–28–55.

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For Addressing Machines, Listing Table for Addressing Machine; Also, Cabinets, Trays, and Plates for Addressing Machines.
First use Sept. 21, 1950.

640,175. Franz Xaver Meiller Fahrzeug- und Maschinenfabrik K. G., Munich, Germany. SN 699,714. Filed P. R. 12–9–55. Am. S. R. 9–6–56.

MEILLER

Owner of German Reg. No. 673,713, dated Mar. 30, 1955.
For Tilt Bridges for Trucks Powered With Internal Combustion Engines and Trailers, Hydraulic Armatures, Such as Pumps, Hydraulic Presses, Valves, and Controls; Bucket Loader Adapted To Be Attached to Vehicles, Especially Tractors, Tilting Devices and Unloading Devices for Trucks and Trailers.

640,176. Franz Xaver Meiller Fahrzeug- und Maschinenfabrik K. G., Munich, Germany. SN 699,715. Filed P. R. 12–9–55. Am. S. R. 9–6–56.

MEILLER KIPPER

Owner of German Reg. No. 673,712, dated Nov. 24, 1954.
For Dumping Devices for Pourable Materials, Tilt Bridges for Trucks Powered With Internal Combustion Engines, and Tilting Devices and Unloading Devices for Trucks and Trailers.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

640,177. Trageser Copper Works, Inc., Maspeth, N. Y. SN 673,065. Filed P. R. 9–10–54. Am. S. R. 2–23–56.

COPPER CORE

The exclusive right to the use of the word "Copper" apart from the mark as shown is hereby disclaimed.
For Automatic Gas Water Heaters.
First use June 13, 1952.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

640,178. Fantastic, Inc., Chicago, Ill., to Nathalie Wollard, New York, N. Y., and Anacleto Mora, Milan, Italy, jointly. SN 697,622. Filed 11–3–55.

Owner of Reg. Nos. 557,524, 570,707, and 576,244.
For Home Permanent Waving Kit Comprising a Bottle of Waving Lotion, a Bottle of Developer, a Packet of End Papers, a Cellulose Sponge, a Paper Cap, and a Booklet of Instructions.
First use August 1953.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

640,179. Farmers' Rice Growers Cooperative, San Francisco, Calif. SN 1,596. Filed P. R. 1–27–56. Am. S. R. 10–15–56.
For Rice.

GOLDEN STATE

First use Oct. 1, 1947.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

640,180. Ann Ives, Incorporated, New York, N. Y. SN 684,224. Filed P. R. 3–25–55. Am. S. R. 10–24–56.

Body 'n Sheen

For Hair Conditioners Sold in Beauty Parlors.
First use Feb. 24, 1955.

640,181. Cherubino Verna, d. b. a. Cherubino Verna, Philadelphia, Pa. SN 684,807. Filed P. R. 4-4-55. Am. S. R. 10-31-56.

MIELE

For Shaving Cream.
First use Mar. 28, 1954.

640,182. Revlon Products Corporation, New York, N. Y., to Revlon, Inc., New York, N. Y. SN 685,126. Filed P. R. 4-7-55. Am. S. R. 11-6-56.

'LOVE THAT PINK!'

Owner of Reg. No. 564,129.
For Lipstick and Nail Enamel.
First use Mar. 24, 1955.

640,183. Revlon Products Corporation, New York, N. Y., to Revlon, Inc., New York, N. Y. SN 693,566. Filed P. R. 8-23-55. Am. S. R 11-6-56.

'CHERRIES A LA MODE'

For Lipstick and Nail Enamel.
First use July 21, 1955.

640,184. Revlon Products Corporation, New York, N. Y., to Revlon, Inc., New York, N. Y. SN 697,848. Filed P. R. 11-7-55. Am. S. R. 11-6-56.

MAJORCA

For Toilet Water.
First use Oct. 14, 1955.

TRADEMARK REGISTRATIONS RENEWED

111,711. TOWELS AND DESIGN. Cl. 42. 8-1-16.
111,993. VELOUR. Cl. 12. 8-15-16.
113,158. LLF. Cl. 8. 10-10-16.
113,159. LA+. Cl. 8. 10-10-16.
113,260. TISRITE. Cl. 37. 10-10-16.
113,261. KEITH. Cl. 37. 10-10-16.
114,197. SUGAR CREEK AND DESIGN. Cl. 46. 12-5-16.
114,568. STONEGA. Cl. 1. 12-19-16.
114,732. FREEZONE. Cl. 18. 1-2-17.
114,837. MAGNOLIA. Cl. 12. 1-2-17.
115,030. RODA. Cl. 1. 1-16-17.
115,080. COUNTRY CLUB. Cl. 48. 1-23-17.
115,348. KELLOGG'S. Cl. 46. 2-6-17.
116,044. DESIGN OF DIAMOND. Cl. 23. 4-3-17.
327,654. TROPIC MOON. Cl. 46. 9-3-35.
336 836. VELOX. Cl. 26. 7-21-36.
338 173. GOLDCRAFT AND DESIGN. Cl. 46. 9-1-36.
338,347. COMPANIA ARGENTINA DE QUEBRACHO ETC. Cl. 6. 9-1-36.
338,533. MICRO-LITE. Cl. 21. 9-8-36.
339,539. PHARMAGEL AND DESIGN. Cl. 18. 10-13-36.
339,960. ARTONA. Cl. 26. 10-27-36.
340,450. BRUSH. Cl. 21. 11-10-36.
340 489. PROTECTOID. Cl. 1. 11-10-36.
340,513. BERNARD'S WALDENSIAN WINE AND DESIGN. Cl. 47. 11-10-36.
340 608. PROTECTOID. Cl. 2. 11-17-36.
340,804. PROTECTOID. Cl. 37. 11-24-36.
341,057. ATHLETE BAR. Cl. 46. 12-1-36.
341,089. LUMARITH. Cl. 34. 12-1-36.
341,158. FRESH GRENNAN AND DESIGN. Cl. 46. 12-1-36.
341,159. FRESH GRENNAN CAKES AND DESIGN. Cl. 46. 12-1-36.
341,199. BLACK JACK AND DESIGN. Cl. 11. 12-1-36.
341,233. MARVEL. Cl. 29. 12-1-36.
341,473. RAYLIG. Cl. 12. 12-8-36.
341,819. NO-RUB AND DESIGN. Cl. 4. 12-22-36.
342,072. ALBANY PACKING CO.'s FIRST PRIZE AND DESIGN. Cl. 46. 1-5-37.
342,890. KRUSTEAZ. Cl. 46. 2-2-37.
343,011. ARGUS. Cl. 26. 2-9-37.
343 290. BLUE NUN. Cl. 47. 2-16-37.
343 322. SILKOOL. Cl. 39. 2-16-37.
343 502. FARANDOLE. Cl. 51. 2-23-37.
343 589. TOWERTOWN. Cl. 39. 2-23-37.
343,685. HASRT. Cl. 46. 3-2-37.
343,923. CONCENTAL. Cl. 6. 3-9-37.
343,980. DEDICACE. Cl. 51. 3-9-37.
344,141. HYDRECO. Cl. 23. 3-16-37.
344,385. MICROFLEX. Cl. 21. 3-23-37.
344,665. REX. Cl. 23. 3-30-37.
344,885. SUMALIN. Cl. 39. 4-6-37.
345,075. VITA-BEST AND DESIGN. Cl. 46. 4-13-37.
345,103. HAPPY STEPPERS ETC. Cl. 39. 4-13-37.
345,111. NICKY. Cl. 39. 4-13-37.
345 247. KLEX. Cl. 52. 4-20-37.
345 254. CASHMERE BOUQUET. Cl. 52. 4-20-37.
345,255. CASHMERE BOUQUET. Cl. 51. 4-20-37.
345 310. SUPER SUDS AND DESIGN. Cl. 52. 4-20-37.
345,447. CUTLER-HAMMER AND DESIGN. Cl. 21. 4-27-37.

TRADEMARK REGISTRATIONS CANCELED

Section 8

34,685. CLIMAX. Cl. 12. 5-22-'00.
88,061. CANDACO. Cl. 42. 8-27-12.
132 626. BEAVER. Cl. 12. 6-29-20.
177,564. LINO. Cl. 32. 12-18-23.
199,755. CERTAIN-TEED. Cl. 44. 6-16-25.
221,037. BEAVER. Cl. 12. 11-23-26.
223,766. DIXIES. Cl. 2. 2-8-27.
271,967. HOMER HOOPRE. Cl. 38. 6-24-30.
273,456. COMMANDANTE. Cl. 46. 8-5-30.
274,904. WONDER-CUT. Cl. 46. 9-9-30.
276,244. SANSHEEN. Cl. 39. 10-14-30.
276,389. THOM McAN GRACE-FOOTE. Cl. 39. 10-21-30.
277,751. CHALFONT AND REPRESENTATION OF GIRL. Cl. 39. 11-25-30.
277,784. HOSTESS TWINKIES. Cl. 46. 11-25-30.
284,081. PULLPROOF. Cl. 51. 6-16-31.
289,405. NEIGHBORLY NEIGHBORS. Cl. 38. 11-24-31.
294,403. MODES OF THE MOMENT! AND DRAWING. Cl. 38. 5-24-32.
343 598. REPRESENTATION OF HAND GRASPING NECKTIES. Cl. 39. 2-23-37.
345,926. EMPIRE LOOMCRAFT FABRICS. Cl. 42. 5-11-37.
356,551. STRENGTH FOR THE DAY. Cl. 38. 5-3-38.
361,509. ALACROME. Cl. 12. 10-18-38.
369,590. RADIOSCOPE. Cl. 44. 8-1-39.
374,152. CAVELTEEN. Cl. 42. 1-2-40.
378,362. STARGLEAM. Cl. 42. 6-4-40.
382,197. PLASTISIZED PLASTER AND DESIGN. Cl. 12. 10-22-40.
383,442. THE ADVENTURES OF PATSEY. Cl. 38. 12-10-40.
383,447. OH, DIANA! Cl. 38. 12-10-40.
392,796. LAM-VEL. Cl. 42. 3-3-42.
394 352. CURLGLO. Cl. 42. 3-31-42.
396,027. CAVEL-TWILL. Cl. 42. 6-23-42.

397,445. CAVELKING. Cl. 42. 9-8-42.
397,447. CAVEL-DUCK. Cl. 42. 9-8-42.
400,199. THINGS TO COME. Cl. 38. 2-16-43.
401,149. CAVELCREST. Cl. 42. 4-27-43.
401,150. CAVELPOINT. Cl. 42. 4-27-43.
401,151. CAVEL-SPUN. Cl. 42. 4-27-43.
409,028. REPRESENTATION OF LAMB. Cl. 6 and 51. 9-12-44.
417,292. BEAVER. Cl. 44. 10-23-45.
432,616. TRUE ENOUGH. Cl. 38. 9-9-47.
500,605. MAZELITE. Cl. 21. 6-8-48.
528 914. LUMBER TOX AND DESIGN. Cl. 6. 8-8-50.
530,421. SATINTONE. Cl. 7. 9-5-50.
530,941. NO-SLIP. Cl. 29. 9-19-50.
531,737. HI-I. Q. NGE. Cl. 37. 10-10-50.
532,907. JO-JOY. Cl. 22. 10-31-50.

The following registrations issued Nov. 7, 1950

532,994. CLIMAX. Cl. 23.
532,995. MOUNT WHITNEY. Cl. 12.
532,997. AMERICAN MAPLE AND DESIGN. Cl. 32.
532,998. DESIGN OF A SEPARATOR. Cl. 21.
533,003. TIRE-DOX. Cl. 23.
533,007. DIAGONALLY DIVIDED RECTANGLE WITH LION ON BOX. Cl. 46.
533,015. DESIGN OF TOP HAT, GLOVES AND CANE. Cl. 19.
533,017. CUE-PINE. Cl. 46.
533,020. COMPO-TUFF. Cl. 23.
533,021. TEKNIBAKE. Cl. 46.
533,022. TEKNIBLEN. Cl. 46.
533,025. LLOYD. Cl. 32.
533,030. PACE MAKER. Cl. 23.
533,038. PENTO. Cl. 51.
533,043. MRS. LANE'S. Cl. 16.
533,048. NITROLIG. Cl. 6.
533,054. SYNTRONIC. Cl. 21.
533,056. FRANK'S. Cl. 18.
533 060. WINDOWLITE. Cl. 4.
533,065. D & D TRACTOR WORK WARMER. Cl. 23.
533,066. W & S LUMBER. Cl. 12.
533,071. SERGEANT'S AND REPRESENTATION OF DOG'S HEAD. Cl. 52.
533,075. STEEL-CO-LITE. Cl. 4.
533,081. BLENDEX. Cl. 52.
533,084. REGLOBINOL. Cl. 18.
533,088. S ALADDIN. Cl. 46.
533,090. CITATION. Cl. 51.
533,095. "U S TRAC" AND DESIGN "AROUND THE WORLD". Cl. 23.
533,096. "WHIP-R-STIR". Cl. 23.
533,097. YOUTHAGAIN. Cl. 51.
533,098. TOUPE AND HEAD DESIGN. Cl. 51.
533,102. MERTHON 642. Cl. 6.
533,104. "PHOTOCHART". Cl. 38.
533,105. THE OHIO SEAMLESS TUBE CO., OHIO SPECIAL QUALITY. Cl. 13.
533,106. "SUNRAY". Cl. 44.
533,120. ROYAL CROWN STEEL TILE AND DESIGN. Cl. 12.
533,122. RHEINGOLD. Cl. 48.
533,125. SPRA-FERT. Cl. 23.
533,126. VIDEO PACK. Cl. 23.
533,131. CAP'N CORKY. Cl. 23.
533,133. "DIRECTOR". Cl. 23.
533,143. HOUSE OF AKABAR. Cl. 51.
533,144. SERMAT. Cl. 23.
533,145. JETSIT. Cl. 6.
533,146. CALM MASTER AND DESIGN. Cl. 19.
533,159. CLONITIN. Cl. 18.
533,160. STROLINER. Cl. 19.
533,162. T. M. DESIGN. Cl. 21.
533,164. PERM-A-LIFT. Cl. 23.
533,166. MALTOP. Cl. 48.
533,168. THE PACK HOUSE. Cl. 8.
533,170. ARABESQUE. Cl. 51.
533,172. CIRCLE WITH LIGHTNING STROKE DESIGN. Cl. 21.
533,181. TESTAPENTYLATE. Cl. 18.
533,182. VENDOMATIC. Cl. 23.
533,186. WAXENE. Cl. 6.
533,189. STONZMENT. Cl. 12.
533,192. DEXSOFOR. Cl. 18.
533,193. ARISTOCRAT. Cl. 23.
533 194. ABEX. Cl. 18.
533,195. KOOLIE KISCO AND REPRESENTATION OF CHINESE. Cl. 21.
533,205. ANNOUNCEMENTS GLENVIEW NORTHBROOK NORTHFIELD. Cl. 38.
533,207. GILRON WITHIN OVAL. Cl. 6.
533,208. ZOTOS FLUID-CUT. Cl. 23.
533,223. WRESIN. Cl. 16.
533,225. STITCH-KIT. Cl. 2.
533,229. PETITE. Cl. 8.
533 230. RONDA. Cl. 22.
533 234. SUPREME HITCH. Cl. 23.
533 236. COLA-CA-CHEWS. Cl. 46.
533,238. PLASTICIZE AND DESIGN. Cl. 52.
533,239. CAMEL-FUR. Cl. 39.
533,240. "COBBS FLORIDA ORANGE" AND DESIGN Cl. 45.
533,241. HOLLYWOOD AT A PRICE. Cl. 39.
533,244. MELLO-TIP. Cl. 17.
533,248. TANKIT. Cl. 13.
533,251. EVERYTHING HINGES ON HAGER. Cl. 13.
533,252. HI-SCOR. Cl. 22.
533,253. MORTON ELECTRO DRAIN. Cl. 21.
533,254. GEM-TONE. Cl. 28.
533 258. PLAY-BILT. Cl. 39.
533,266. KENTLEY. Cl. 2.
533,268. PARIS AT A PRICE. Cl. 39.
533,272. NEW FREEDOM GAS KITCHEN. Cl. 34.

The following registrations issued Nov. 14, 1950

533,274. PURA SUDS. Cl. 52.
533,275. HIPAWAY. Cl. 44.
533,278. REPRESENTATION OF CIRCULAR DOT AND BOX. Cl. 51.
533,280. XCEL. Cl. 6.
533,288. FARMER JONES. Cl. 46.
533,290. SUSANNE. Cl. 39.
533,292. DEXTER. Cl. 39.
533,294. NORUSTAIN ARROW. Cl. 44.
533,295. ASK FOR AUTH'S REPRESENTATION OF A CIRCLE. Cl. 46.
533,301. MODELL'S. Cl. 50.
533,304. MOTION FITTED. Cl. 39.
533,309. TIRE PACK. Cl. 19.
533,317. TY-LINE. Cl. 39.
533 320. WILD WING. Cl. 46.
533,324. PL POLYNORM. Cl. 12.
533,325. DUTCHIES. Cl. 42.
533,327. HELISPOON. Cl. 44.
533,332. SO-DYE-RECT. Cl. 6.
533,333. SO-DYE-SAN. Cl. 6.
533,339. QUARTEX. Cl. 1.
533,341. OYSTERSHEL. Cl. 39.
533,343. GROWING GIFTS AND DESIGN. Cl. 1.
533,346. PLAID-PAK. Cl. 1.
533,353. ANN PHILLIPS. Cl. 39.
533,355. KING. Cl. 1.
533,356. NOVELLA. Cl. 42.
533,360. MOTO GARD. Cl. 19.
533,362. WERRCRAFT. Cl. 39.
533,363. PILLOPAK. Cl. 1.
533,364. THIA-GELL. Cl. 18.
533,365. RAMER. Cl. 1.
533,366. MYANESIN. Cl. 18.
533,369. DE 85. Cl. 12.
533,372. "PUTNEY'S FIT-ALL FITS ALL FEET AND DESIGN. Cl. 39.
533,374. KING KORN. Cl. 46.
533,376. "PURE" AND DESIGN. Cl. 23.
533,381. "FROSTY MANOR". Cl. 46.
533,382. MIDDLEBURG AND STAR DESIGN. Cl. 1.
533,384. VOGUE MAGIC. Cl. 52.
533,388. FARM MASTER AND DESIGN. Cl. 44.
533,391. CASU-ROLL. Cl. 39.
533,397. LAUNDRAZYME. Cl. 6.
533,399. ROTOL. Cl. 52.
533,400. STEVEX. Cl. 52.
533,402. SESAM. Cl. 12.
533,405. IT AND DESIGN. Cl. 42.
533,410. "CARANDA". Cl. 6.
533,413. "VESPER". Cl. 52.
533,415. TOP SKIN. Cl. 6.

533,416. JIM-WADE. Cl. 28.
533,421. GRAMINOL. Cl. 18.
533,422. DODACITE. Cl. 18.
533,425. TYTRU. Cl. 39.
533,426. MILRAY. Cl. 52.
533,427. MIRRAY. Cl. 52.
533,430. SLEEPARONG. Cl. 39.
533,431. BUT N'TUCK. Cl. 39.
533,434. RED DOT AND DOT DESIGN. Cl. 51.
533,436. NYLO-STRETCH. Cl. 39.
533,439. A . . . BARCLAY CLOVER. Cl. 39.
533,440. KOSHER GIRL. Cl. 46.
533,441. AROSLOPE. Cl. 39.
533,445. TRUON. Cl. 39.
533,451. F. A. B. FRED A. BLOCK ORIGINAL AND DESIGN. Cl. 39.
533,458. MONTY IN SHIELD OUTLINE. Cl. 39.
533,462. B Q BAYLE QUALITY. Cl. 46.
533,464. MANJET. Cl. 39.
533,465. MANPEAK. Cl. 39.
533,467. CARESS. Cl. 28.
533,469. ACE JR. Cl. 12.
533,470. ACETTE. Cl. 12.
533,480. PROLAN. Cl. 6.
533,486. EVENING SHADOW. Cl. 42.
533,488. PAMYLON. Cl. 42.
533,494. RAMBLEWEAVE. Cl. 42.
533,497. STATUE OF LIBERTY AND DESIGN. Cl. 101.
533,498. MICROLOG. Cl. 100.
533,503. ARGIRO. Cl. 21.
533,507. PERRY'S. Cl. 46.
533,511. TALENTOYS. Cl. 22.
533,517. HORNER'S LIQUID SHAVE. Cl. 51.
533,520. PEASE-FABRICATED HOME. Cl. 12.
533,523. PLASTI-CREEL AND DESIGN. Cl. 22.
533,524. KRAKUS. Cl. 46.
533,525. DARGAN SUPERIOR LUMBER. Cl. 12.
533,527. MILLER. Cl. 12.
533,528. STREAMLINER. Cl. 23.

TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

114,239. STELLITE. Cl. 14. 12–5–16. The Haynes Stellite Co. Union Carbide and Carbon Corp., New York, N. Y. Amended:

STELLITE

199,104. PLIO AND DESIGN. Cl. 39. 6–2–25. The Gano-Downs Clothing Company, Denver, Colo. Corrected: In the original certificate, lines 2 and 16; in the heading and signature to the statement; in line 1 of the statement; and in the renewal certificate, lines 1 and 4, "The Gano-Downs Company" should be *The Gano-Downs Clothing Company.*

340,084. BETNER ARISTO-PAC ETC. AND DESIGN. Cl. 2. 11–3–36. Benj. C. Betner Co. Continental Can Co., Inc., New York, N. Y. Amended: In the statement, lines 6, 7, and 8, ', no claim being made to the words "Perfect Package" apart from the mark as shown' is deleted, and the drawing is amended to appear:

ARISTO-PAC

343,718. TREE STYLE. Cl. 46. 3–2–37. Mor-Pak Preserving Corp., San Francisco, Calif. Corrected: In line 4 of the certificate and in line 4 of the statement, "California" should be *Nevada.*

539,617. MARCHAND'S. Cl. 6. 3–20–51. The Charles Marchand Co., New York, N. Y. Corrected: In the last line of column 1 of the statement, "342,853" should be *343,853.*

TRADEMARK REGISTRATIONS—NEW CERTIFICATES

New Certificates issued under sections 7(c), 7(f), 7(g) of the Trademark Act of 1946 for the unexpired term of the original registrations.

56,161. EXECUTIVE BLOTTING. Cl. 37. District of Columbia Paper Mfg. Co. 8–28–06. New Cert. Sec. 7(c), to Rochester Paper Company, Rochester, Mich., 1–15–57.

207,376. WINKER'S. Cl. 46. The D. L. Clark Co. 12–29–25. New Cert. Sec. 7(c), to Beatrice Foods Co., Chicago, Ill., 1–15–57.

279,861. HONEST SQUARE AND DESIGN. Cl. 46. The D. L. Clark Company. 2–3–31. New Cert. Sec. 7(c), to Beatrice Foods Co., Chicago, Ill., 1–15–57.

294,868. YELOW GOLD. Cl. 46. The D. L. Clark Company. 6–7–32. New Cert. Sec. 7(c), to Beatrice Foods Co., Chicago, Ill., 1–15–57.

316,323. ZAG-NUT. Cl. 46. The D. L. Clark Company. 8–21–34. New Cert. Sec. 7(c), to Beatrice Foods Co., Chicago, Ill., 1–15–57.

430,806. D. L. C. ETC. AND DESIGN. Cl. 46. The D. L. Clark Company. 6–24–47. New Cert. Sec. 7(c), to Beatrice Foods Co., Chicago, Ill., 1–15–57.

431,442. ZIG ZAG. Cl. 46. The D. L. Clark Company. 7–22–47. New Cert. Sec. 7(c), to Beatrice Foods Co., Chicago, Ill., 1–15–57.

434,326. FLORA. Cl. 37. District of Columbia Paper Mills, Inc. 11–18–47. New Cert. Sec. 7(c), to Rochester Paper Company, Rochester, Mich., 1–15–57.

560,064. CLARK. Cl. 46. The D. L. Clark Company. 6–17–52. New Cert. Sec. 7(c), to Beatrice Foods Co., Chicago, Ill., 1–15–57.

585,381. MINT APPETIZERS. Cl. 46. The D. L. Clark Company. 2–9–54. New Cert. Sec. 7(c), to Beatrice Foods Co., Chicago, Ill., 1–15–57.

591,194. ECONOMY. Cl. 37. The Mead Corporation. 6–15–54. New Cert. Sec. 7(c), to Rochester Paper Company, Rochester, Mich., 1–15–57.

593,658. CLARKETTES. Cl. 46. The D. L. Clark Company. 8–10–54. New Cert. Sec. 7(c), to Beatrice Foods Co., Chicago, Ill., 1–15–57.

607,397. BOOMER. Cl. 46. The D. L. Clark Company. 6–14–55. New Cert. Sec. 7(c), to Beatrice Foods Co., Chicago, Ill., 1–15–57.

612,909. DORCO. Cl. 14. Down River Casting Co. 9–27–55. New Cert. Sec. 7(c), to Down River Casting Company, Rockwood, Mich., 1–15–57.

REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

443,273. Aug. 23, 1949. American Latex Products Corporation, Los Angeles, Calif. Pub. by registrant.

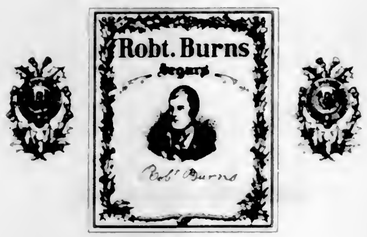
MOLTEX

For Foam Rubber Material, in Sheet and Block Form for Use in the Manufacture of Various Articles of Merchandise.

CLASS 17

TOBACCO PRODUCTS

290,160. Dec. 22, 1931. General Cigar Co., Inc., New York, N. Y. Pub. by registrant.



Robt. Burns

For Cigars.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

369,115. July 18, 1939. Whittaker Laboratories, Inc., Peekskill, N. Y. Pub. by registrant.

For Cream-Like Spermicidal Substances for Treatment of Body Tissues.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

336,661. July 14, 1936. Totsy Manufacturing Co., Inc., Springfield, Mass. Pub. by registrant.

Totsy Togs

For Doll's Clothing.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

401,914. June 15, 1943. L & L Mfg. Co., Van Dyke, Mich. Pub. by L & L Manufacturing Company, East Detroit, Mich.

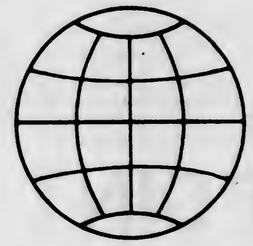
L & L

For Tools for Use With Hydraulic Accessories Such as Flaring Tools.

CLASS 35

BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

329,488. Oct. 29, 1935. Atlas Supply Company, Newark, N. J. Pub. by registrant.



For Rubber Tires and Tubes.

CLASS 39

CLOTHING

364,712. Feb. 14, 1939. Great Western Glove Co., Jasper, Ind. Pub. by Jasper Glove Company, Inc., Jasper, Ind.

For Gloves and Mittens, Made From Canton Flannel, Jersey, Cotton, Leather, and Combinations Thereof.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

220,747. Nov. 16, 1926. The Governor and Company of Adventurers of England Trading into Hudson's Bay, d. b. a. Hudson's Bay Company, London, England, and Winnipeg, Manitoba, Canada Pub. by registrant.

HUDSONS BAY "POINT"

For Woolen Blankets.

223,137. Jan. 18, 1927. The Governor and Company of Adventurers of England Trading into Hudson's Bay, d. b. a. Hudson's Bay Company, London, England, and Winnipeg, Manitoba, Canada. Pub. by registrant.

For Blankets Made of Wool.

274,403. Aug. 26, 1930. The Governor and Company of Adventurers of England Trading into Hudson's Bay, d. b. a. Hudson's Bay Company, London, England, and Winnipeg, Manitoba, Canada. Pub. by registrant.

POINT

For Blankets Made of Wool, Both in the Piece and Not in the Piece.

291,625. Feb. 23, 1932. The Governor and Company of Adventurers of England Trading into Hudson's Bay, d. b. a. Hudson's Bay Company, London, England, and Winnipeg, Manitoba, Canada. Pub. by registrant.

For Woolen Blankets.

291,639. Feb. 23, 1932. The Governor and Company of Adventurers of England Trading into Hudson's Bay, d. b. a. Hudson's Bay Company, London, England, and Winnipeg, Manitoba, Canada. Pub. by registrant.

For Woolen Blankets.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

158,556. Sept. 5, 1922. The United States Dental Manufacturing Co., Cleveland, Ohio. Pub. by registrant.

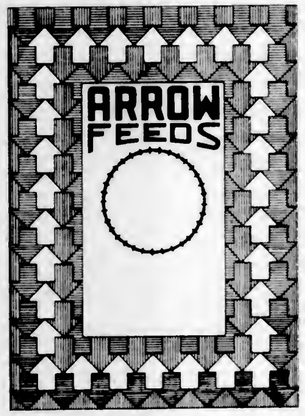
Champion

For Dental Tools—Namely, Burs, Broaches, Mandrels, Revolving Bur Cases, Broach Holders, Hypodermic Needles, Dental Handle Cutting Instruments, and Nerve-Canal Instruments.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

443,960. May 2, 1950. Arrow Mills, Inc., Houston, Tex. Pub. by Continental Grain Company, Houston, Tex.



For Poultry, Livestock, and Dairy Feeds.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

376,025. Mar. 12, 1940. The Governor and Company of Adventurers of England Trading into Hudson's Bay, d. b. a. Hudson's Bay Company, London, England, and Winnipeg, Manitoba, Canada. Pub. by registrant.

HUDSON'S BAY
1670

For Whisky and Cognac.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

284,585. July 7, 1931. Société Anonyme M. Naef & Cie., Geneva, Switzerland. Pub. by Firmenich, Incorporated, New York, N. Y.

« A N T H E R O S I A »

For Artificial and Synthetical Perfumes, Essential Oils.

CLASS 52

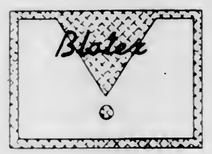
DETERGENTS AND SOAPS

328,307. Sept. 24, 1935. Atlas Supply Company, Newark, N. J. Pub. by registrant.

ATLAS

For Cleaning Compound for Glass.

386,149. Mar. 25, 1941. The Blotex Co., Springfield, Ohio. Pub. by registrant.



For Detergent for Removing Grease From Wall Paper and Similar Surfaces.

LIST OF REGISTRANTS OF TRADEMARKS

REGISTERED JANUARY 15, 1957

Ace Industries Co., Youngstown, Ohio. 533,469, canc. Cl. 12.
Ace Industries Co., Youngstown, Ohio. 533,470, canc. Cl. 12.
Ack-Ack, Inc., East Detroit, Mich. 639,970, pub. 10–30–56. Cl. 22.
Acme Cement Plaster Co., St. Louis, Mo. 34,685, canc. Cl. 12.
Aktiebolaget Marabou, Sundbyberg, Sweden. 533,088, canc. Cl. 46.
Aktiengesellschaft A. & R. Moos, Weisslingen, Switzerland. 533,356, canc. Cl. 42.
Albany Packing Co., Inc., Albany, to Tobin Packing Co., Inc., Rochester and Albany, N. Y. 342,072, ren. 1–5–57. Cl. 46.
Alber, Marshall W., d. b. a. Al's, Independence, Kans. 640,112, canc. Cl. 46.
Aldon Rug Mills, Inc., Lenni Mills, Pa. 640,074, pub. 10–30–56. Cl. 42.
Aldon Rug Mills, Inc., Lenni Mills, Pa. 640,075, pub. 10–30–56. Cl. 42.
Al's: *See*—
Alber, Marshall W.
Amerdic Laboratories: *See*—
Ellison, Hal J.
American Alcolac Corp., New York, N. Y. 533,194, canc. Cl. 18.
American Associated Companies, Atlanta, Ga. 640,001, pub. 10–30–56. Cl. 29.
American Bakeries Co.: *See*—
Grennan Bakeries, Inc.
American Cyanamid Co., New York, N. Y. 639,933, pub. 10–16–56. Cl. 18.
American Emergency Lighting Co., Philadelphia, Pa. 693,962, pub. 10–30–56. Cl. 21.
American Encaustic Tiling Co., Inc.: *See*—
American Encaustic Tiling Co, Ltd.
American Encaustic Tiling Co, Ltd., Zanesville, Ohio, Maurer, N. J., and New York, N. Y., to American Encaustic Tiling Co, Inc., New York, N. Y., and Lansdale, Pa. 111,993, ren. 8–15–56. Cl. 12.
American Gas Association, Inc., New York, N. Y. 533,272, canc. Cl. 34.
American Home Foods, Division of American Home Products Corp.: *See*—
American Home Products Corp.
American Home Products Corp., d. b. a. American Home Foods, Division of American Home Products Corp., New York, N. Y. 640 120. pub. 10–30–56. Cl. 46.
American Latex Products Corp., Los Angeles, Calif. 443,273, 12(c) pub. 1–15–57. Cl. 1.
American Marietta Co.: *See*—
Southern Cement Co.
American Quilt Covers Manufacturers, Inc., New York, N. Y. 640 093, pub. 10–30–56. Cl. 42.
American Safety Razor Co., Brooklyn, N. Y. 533,126, canc. Cl. 23.
American Syrup & Sorghum Co., St. Louis, Mo. 533,288, canc. Cl. 46.
American Television, Inc., Chicago, Ill. 533,172, canc. Cl. 21.
Amerise, William, d. b. a. Hazleton Macaroni Co., Hazleton, Pa. 533,440 canc. Cl. 46.
Ames Shower Curtain Co., Inc, New York, N. Y. 640,092, pub. 10–30–56. Cl. 42.
Anchor Serum Co. of Indiana, Inc., Indianapolis, Ind. 639 952, pub. 10–30–56. Cl. 18.
Aqua Mfg. Co., Inc., New York, N. Y. 533,436, canc. Cl. 39.
Argus Cameras, Inc.: *See*—
International Radio Corp.
Arkell Safety Bag Co., New York, N. Y. 640,038, pub. 10–30–56. Cl. 37.
Armour and Co., Chicago, Ill. 639,951, pub. 10–30–56. Cl. 18.
Arnold Hoffman & Co., Inc.: *See*—
Paper Makers Chemical Corp.
Aronab Products Co., San Francisco, Calif. 640,099, pub. 10–30–56. Cl. 44
Arrow Mfg. Co., Denver, Colo. 533,528, canc. Cl. 23.
Arrow Mills Inc. by Continental Grain Co., Houston, Tex. 443 960 12(c) pub. 1–15–57. Cl. 46.
Arrow Supply & Tool Co., New York, N. Y. 533,294, canc. Cl. 44.
Artloom Corp., Philadelphia, Pa. 394 352, canc. Cl. 42.
Asco Sound Corp., New York, N. Y. 640,157, pub. 10–30–56. Cl. 100.
Associated Press, The, New York, N. Y. 271,967, canc. Cl. 38.
Associated Press, The, New York, N. Y. 289,405, canc. Cl. 38.
Associated Press, The, New York, N. Y. 294,403, canc. Cl. 38.
Associated Press, The, New York, N. Y. 383,442, canc. Cl. 38.
Associated Press, The, New York, 383,447, canc. Cl. 38.
Associated Press, The, New York, N. Y. 400,199, canc. Cl. 38.
Associated Press, The, New York, N. Y. 432,616, canc. Cl. 38.
Atalanta Products Corp., New York, N. Y. 533,524, canc. Cl. 46.
Atlas Powder Co., Wilmington, Del. 639,880, pub. 3–20–56. Cl. 6.
Atlas Supply Co., Newark, N. J. 328,307, 12(c) pub. 1–15–57. Cl. 52.
Atlas Supply Co., Newark, N. J. 329,488, 12(c) pub. 1–15–57. Cl. 35.
Auth-Loeffler, Inc., Washington, D. C. 533,295, canc. Cl. 46.
B/G Foods, Inc., Chicago, Ill. 640,161, pub. 10–30–56. Cl. 100.
BJ Service, Inc., Long Beach, Calif. 640,169, pub. 10–30–56. Cl. 106.
Babson Bros. Co., Chicago, Ill. 532,998, canc. Cl. 21.
Bachman Chocolate Mfg. Co., Mount Joy, Pa. 341,057, ren. 12–1–56. Cl. 46.
Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany. 639,866, pub. 10–30–56. Cl. 1.
Baker Brush Co., Inc., New York, N. Y. 530,941, canc. Cl. 29.
Barclay-Clover, Inc., New York, N. Y. 533,439, canc. Cl. 39.
Barengo, P. C., d. b. a. Barengo Wine Co., Reno, Nev. 640,136, pub. 10–30–56. Cl. 47.
Bartmann & Bixer, Inc., New York, N. Y. 640,072, pub. 10–30–56. Cl. 40.
Bartmann & Bixer, Inc., New York, N. Y. 640,084, pub. 10–30–56. Cl. 42.
Basford, H. R. Co., San Francisco, Calif. 640,022, pub. 10–30–56. Cl. 34.
Baumritter, T., Co. Inc., New York, N. Y. 532,997, canc. Cl. 32.
Baxter, Don, Inc., Glendale, Calif. 640,097, pub. 10–30–56. Cl. 44.
Baxter Laboratories, Inc., Morton Grove, Ill. 640,098, pub. 10–30–56. Cl. 44
Beaver Co., The, Buffalo, N. Y. 132,626, canc. Cl. 12.
Beaver Products Co., Inc., The, Buffalo, N. Y. 221,037, canc. Cl. 12.
Beechwood Co., Inc., The, Stowe, Pa. 533,325, canc. Cl. 42.
Behr, Philip W., d. b. a. Pilopak Co., New York, N. Y. 533,363, canc. Cl. 1.
Bellato, Frank A., Stockton, Calif. 640,024, pub. 10–30–56. Cl. 34.
Belmont, Edgar, d. b. a. County Specialties, Port Chester, N. Y. 533,146, canc. Cl. 19.
Berliner & Marx, New York, N. Y. 640,128, pub. 10–30–56. Cl. 46.
Bernard, Mellie C., d. b. a. The Waldensian Winery, Icard, N. C. 340,513, ren. 11–10–56. Cl. 47.
Betner, Benj. C., Co. Continental Can Co., Inc., New York, N. Y. 340,084. Am. 7(d). Cl. 2.
Beverage Distributors, Inc., d. b. a. Peralta Wine Co., San Francisco, Calif. 640,135, pub. 10–30–56. Cl. 47.
Blaney Candies, Inc., Great Neck, N. Y. 640,130, pub. 10–30–56. Cl. 46.
Block, Fred A., Inc., Chicago, Ill. 533,451, canc. Cl. 39.
Block, H. & J., Inc., New York, N. Y. 640,059, pub. 10–30–56. Cl. 39.
Blotex Co., The, Springfield, Ohio. 386,149, 12(c) pub. 1–15–57. Cl. 52.
Bonus Foods Ltd., Vancouver, British Columbia, Canada. 640,107, pub. 10–30–56. Cl. 46.
Boswell, Reginald A., London, England. 533,365, canc. Cl. 1.
Botany Worsted Mills, Passaic, N. J. 343,598, canc. Cl. 39.
Botany Worsted Mills, Passaic, N. J. 409,028, canc. Cl. 6 and 51.
Bowman Dairy Co., Chicago, Ill. 640,110, pub. 10–30–56. Cl. 46.
Boyle Leather Goods Co., Inc., New York, N. Y. 639,878, pub. 10–30–56. Cl. 3.
Brauer Bros. Shoe Co., St. Louis, Mo. 640,069, pub. 10–30–56. Cl. 39.
Brent Chemical Products Ltd., London, England. 639,923, pub. 10–30–56. Cl. 16.
Brewer-Titchener Corp., The, Cortland, N. Y. 533,360, canc. Cl. 19.
Briggs & Stratton Corp., Milwaukee, Wis. 639,988, pub. 10–30–56. Cl. 25.
British Drug Houses, Ltd., The, London, England. 533,366, canc. Cl. 18.
Brush Development Co., The, to Clevite Corp., Cleveland, Ohio. 340,450, ren. 11–10–56. Cl. 21.
Buegeleisen & Jacobson, Inc., New York, N. Y. 640,032, pub. 10–30–56. Cl. 36.
Burgess Battery Co., Freeport and Chicago, to Burgess Vibrocrafters, Inc., Lake Zurich, Ill. 533,162, canc. Cl. 21.
Burnett's Foods, Inc., d. b. a. Burnett's Pet Foods, Newark, N. J. 639,938, pub. 10–30–56. Cl. 18.
Burnett's Pet Foods: *See*—
Burnett's Foods, Inc.
Burroughs Wellcome & Co. (U. S. A.) Inc., Tuckahoe, N. Y. 639,954, pub. 10–30–56. Cl. 18.
C C Mfg. Co., Chicago, Ill. 533,075, canc. Cl. 4.
C & S Products Mo. Corp.: *See*—
Metalife Co.
Canada Packers, Inc., New York, N. Y. 640,114, pub. 10–30–56. Cl. 46.
Cannon Mfg. Co., to Cannon Mills Co., Kannapolis, N. C. 111,711, ren. 8–1–56. Cl. 42.
Cannon Mills Co.: *See*—
Cannon Mfg. Co.
Capezio, S., Inc., New York, N. Y. 640,053, pub. 7–31–56. Cl. 39.
Carlisle Corp., Carlisle, Pa. 640,029, pub. 10–30–56. Cl. 35.
Cashmere Corp. of America, The, Cleveland, Ohio. 640,052, pub. 10–30–56. Cl. 39.

Catz American Co., Inc., New York, N. Y. 533,017, canc. Cl. 46.
Celanese Corp. of America: *See*—
Celluloid Corp.
Celanese Corp. of America, New York, N. Y. 639,869, pub. 10–30–56. Cl. 1.
Celluloid Corp., Newark, N. J., to Celanese Corp. of America, New York, N. Y. 340,489, ren. 11–10–56. Cl. 1.
Celluloid Corp., Newark, N. J., to Celanese Corp. of America, New York, N. Y. 340,608, ren. 11–17–56. Cl. 2.
Celluloid Corp., Newark, N. J., to Celanese Corp. of America, New York, N. Y. 340,804, ren. 11–24–56. Cl. 37.
Celluloid Corp., Newark, N. J., to Celanese Corp. of America, New York, N. Y. 341,089, ren. 12–1–56. Cl. 34.
Central Chemical Corp., Hagerstown, Md. 533,102, canc. Cl. 6.
Certain-teed Products Corp., Ardmore, Pa. 199,755, canc. Cl. 44.
Certain-teed Products Corp., Ardmore, Pa. 382,197, canc. Cl. 12.
Certain-teed Products Corp., Ardmore, Pa. 417,292, canc. Cl. 44.
Chalfont Hosiery Mills, Chalfont, Pa. 277,751, canc. Cl. 39.
Channel Master Corp., Ellenville, N. Y. 639,966, pub. 10–30–56. Cl. 21.
Channel Master Corp., Ellenville, N. Y. 639,967, pub. 10–30–56. Cl. 21.
Chapman Chemical Co., Memphis, Tenn. 639,881, pub. 10–30–56. Cl. 6.
Cherubino Verna, d. b. a. Cherubino Verna, Philadelphia, Pa. 640,181. Cl. 51.
Chicago Pharmacal Co., Chicago, Ill. 639,949, pub. 10–30–56. Cl. 18.
Chicago Printed String Co., Chicago, Ill. 530,421, canc. Cl. 7.
Chicago Printed String Co., to Chicago Printed String Co., Chicago, Ill. 639,891, pub. 10–30–56. Cl. 7.
Christina, Vincent, & Co., Inc., New York, N. Y. 533,084, canc. Cl. 18.
Churchill, Cadwallader W., d. b. a. Pacific Coast Pumice Co., Bishop, Calif. 532,995, canc. Cl. 12.
Ciba Ltd., Basel, Switzerland. 639,947, pub. 10–30–56. Cl. 18.
Cinex Mfg. Co., New York, N. Y. 640,030, pub. 10–30–56. Cl. 36.
Clark, Robert H., d. b. a. Robert H. Clark Co., Beverly Hills, Calif. 533,278, canc. Cl. 51.
Clark, Robert H., Co.: *See*—
Clark, Robert H.
Clatt, Herbert, d. b. a. Magla Products, Newark, N. J. 639,986, pub. 10–30–56. Cl. 24.
Cleveland Skate Co., Inc., The, Cleevland, Ohio. 639,971, pub. 10–30–56. Cl. 22.
Clevite Corp.: *See*—
Brush Development Co., The.
Clover Farm Stores Corp., Cleveland, Ohio. 533,043, canc. Cl. 16.
Cluett, Peabody & Co. Inc., Troy, N. Y. 533,441, canc. Cl. 39.
Cobbs Co., The, Little River (Miami), Fla. 533,240, canc. Cl. 45.
Coleman, Paul, Pascagoula, Miss. 640,040, pub. 10–30–56. Cl. 37.
Colgate-Palmolive Co.: *See*
Colgate-Palmolive-Peet Co.
Colgate-Palmolive-Peet Co., Jersey City, N. J., to Colgate-Palmolive Co., New York, N. Y. 345,247 ren. 4–20–57. Cl. 52.
Colgate-Palmolive-Peet Co., Jersey City, N. J., to Colgate-Palmolive Co., New York, N. Y. 345,254, ren. 4–20–57. Cl. 52.
Colgate-Palmolive-Peet Co., Jersey City, N. J., to Colgate-Palmolive Co., New York, N. Y., 345,255, ren. 4–20–57. Cl. 51.
Colgate-Palmolive-Peet Co., Jersey City, N. J., to Colgate-Palmolive Co., New York, N. Y. 345,310, ren. 4–20–57. Cl. 52.
College of Electronic Medicine, Blanche & Jeanne R. Abrams Memorial Foundation, San Francisco, Calif. 369,590, canc. Cl. 44.
Collins & Aikman Co., Philadelphia, Pa. 88,061, canc. Cl. 42.
Collins & Aikman Corp., Philadelphia, Pa. 374,152, canc. Cl. 42.
Collins & Aikman Corp., Philadelphia, Pa. 378,362, canc. Cl. 42.
Collins & Aikman Corp., Philadelphia, Pa. 392,796, canc. Cl. 42.
Collins & Aikman Corp., Philadelphia, Pa. 396,027, canc. Cl. 42.
Collins & Aikman Corp., Philadelphia, Pa. 397,445, canc. Cl. 42.
Collins & Aikman Corp., Philadelphia, Pa. 397,447, canc. Cl. 42.
Collins & Aikman Corp., Philadelphia, Pa. 401,149, canc. Cl. 42.
Collins & Aikman Corp., Philadelphia, Pa. 401,150, canc. Cl. 42.
Collins & Aikman Corp., Philadelphia, Pa. 401,151, canc. Cl. 42.
Comfort Mfg. Co., Chicago, Ill. 284,081, canc. Cl. 51.
Commander Milling Co., Minneapolis, Minn. 273,456, canc. Cl. 46.
Commanditaire Vennootschap Pento Cosmetic, Amsterdam, Netherlands. 533,038, canc. Cl. 51.
Commercial Solvents Corp., New York, N. Y. 533,480, canc. Cl. 6.
Compania Argentina de Quebracho "Marca Formosa" S. A., Buenos Aires, Argentina. 338,347, ren. 9–1–56. Cl. 6.
Conde Nast Publications, Inc., The, New York, N. Y. 640,047, pub. 10–30–56. Cl. 38.
Continental Baking Co., Wilmington, Del., and New York, N. Y. 274,904, canc. Cl. 46.
Continental Baking Co., Wilmington, Del., and New York, N. Y. 277,784, canc. Cl. 46.
Continental Can Co., Inc.: *See*—
Betner, Benj. C., Co.
Continental Grain Co.: *See*—
Arrow Mills, Inc.
Continental Mills, Inc., Seattle, Wash. 342,890, ren. 2–2–57. Cl. 46.
Coty, Inc., New York, N. Y. 640,149, pub. 10–30–56. Cl. 51.
County Specialties: *See*—
Belmont, Edgar.
Crane Co., Chicago, Ill. 640,021, pub. 10–30–56. Cl. 34.
Credit Exchange, Inc., New York, N. Y. 640,163, pub. 10–30–56. Cl. 101.
Crylor, Paris, France. 639,864, pub. 10–30–56. Cl. 1.
Cutino Co., The, Kansas City, Mo. 640,000, pub. 10–30–56. Cl. 29.
Cutler-Hammer, Inc., Milwaukee, Wis. 345,447, ren. 4–27–57. Cl. 21.
D-A Lubricant Co., Inc., Indianapolis, Ind. 639,914, pub. 10–30–56. Cl. 15.
D & D Co., Fort Dodge, Iowa. 533,065, canc. Cl. 23.
Daggett & Ramsdell, Inc., Newark, N. J. 533,170, canc. Cl. 51.
Dairy Service Corp., Washington, D. C. 640,105, pub. 10–30–56. Cl. 46.
Dalmine S. p. A., Milan, Italy. 640,023, pub. 10–30–56. Cl. 34.
DanD Products Co., Chicago, Ill. 533,096, canc. Cl. 23.
Danielson, Gideon R., Geneva, Ill. 533,225, canc. Cl. 2.
D'Aoust, Eleanor M., Philadelphia, Pa. 533,143, canc. Cl. 51.
Dargan Lumber Mfg. Co., Conway, S. C. 533,525, canc. Cl. 12.
Davenport, Gertrude, Inc., New York, N. Y. 533,430, canc. Cl. 39.
Dayton Rubber Co., The, Dayton, Ohio. 640,027, pub. 10–30–56. Cl. 35.
Dayton Rubber Co., The, Dayton, Ohio. 640,028, pub. 10–30–56. Cl. 35.
De Carrizosa, Ricardo Lopez, y Martel, d. b. a. Manuel Misa and as M. Misa, Jerez de la Frontera, Spain. 640,137, pub. 10–30–56. Cl. 47.
Dental Pharmaceutical Corp. of America, Chicago, Ill. 533,434, canc. Cl. 51.
Denver Pharmacal Co., The: *See*—
Frame, Arthur D.
Dethlefsen, Irvin, Inc., Watsonville, Calif. 640,133, pub. 10–30–56. Cl. 46.
De Trey, Emmanuel, Lausanne, Switzerland. 640,100, pub. 10–30–56. Cl. 44.
Diamond Power Specialty Co., Detroit, Mich., to Diamond Power Specialty Corp., Lancaster, Ohio. 116,044, ren. 4–3–57. Cl. 23.
Diamond Power Specialty Corp.: *See*—
Diamond Power Specialty Co.
Diets Unlimited, Inc., Philadelphia, Pa. 640,012, pub. 10–30–56. Cl. 32.
Disco Mfg. Co., The, Norwich, Conn. 639,861, pub. 10–30–56. Cl. 1.
Douglass, Earl L., Germantown, Philadelphia, Pa. 356,551, canc. Cl. 38.
Dowler, W. Dent, Los Angeles, Calif. 533,511, canc. Cl. 22.
Duff Baking Mix Corp., Newark, N. J. 639,975, pub. 10–30–56. Cl. 23.
Dunton, M. W., Co., The, Providence, R. I. 639,889, pub. 10–30–56. Cl. 6.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 639,868, pub. 10–30–56. Cl. 1.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 639,885, pub. 10–30–56. Cl. 6.
Duraloom Carpet Mills, Inc., New York, N. Y. 640,096, pub. 10–30–56. Cl. 42.
Eagle-Picher Co., The, Cincinnati, Ohio. 533,369, canc. Cl. 12.
Eagle Signal Corp., Moline, Ill. 344,385, ren. 3–23–57. Cl. 21.
Eastern Corp., Bangor, Maine. 533,048, canc. Cl. 6.
Eastman Kodak Co., Rochester, N. Y., to Eastman Kodak Co., Flemington, N. J. 336,836, ren. 7–21–56. Cl. 26.
Eckhart Milling Co., Chicago, Ill. 640,118, pub. 10–30–56. Cl. 46.
Economy Specialty Co.: *See*—
Miele, John.
Edible Gelatin Manufacturers' Research Society of America, to Gelatin Manufacturers Institute of America, Inc., New York, N. Y. 339,539, ren. 10–13–56. Cl. 18.
Edinburg Citrus Association, Edinburg, Tex. 327,654, ren. 9–3–55. Cl. 46.
Ehn, Clifford F., to The Edward Wesley Co., Cincinnati, Ohio, to Whitehall Pharmacal Co., New York, N. Y. 114,732, ren. 1–2–57. Cl. 18.
Eichleay Corp., Pittsburgh, Pa. 640,166, pub. 10–30–56. Cl. 103.
Ekco Products Co., Chicago, Ill. 639,899, pub. 10–30–56. Cl. 13.
Electric & Musical Industries (U. S.) Ltd., New York, N. Y. 640,031, pub. 10–30–56. Cl. 36.
Ellison, Hal J., d. b. a. Amerdle Laboratories, Chicago, Ill. 640,004, pub. 10–30–56. Cl. 31.
Empire Silk Co., Paterson, N. J. 345,926, canc. Cl. 42.
Englander Co., Inc., The, Chicago, Ill. 640,017, pub. 10–30–56. Cl. 32.
Erwin, Frank B., d. b. a. Toupe Laboratories, Dearfield, Ill. 533,098, canc. Cl. 51.
Escalon Packers, Inc., d. b. a. Mercato Products Co., Escalon, Calif. 640,134, pub. 10–30–56. Cl. 46.

Esquire Custom Seat Cover Co.: *See*—
Harnish, Phares.
Esso Standard Oil Co., New York, N. Y. 639,905, pub. 10–30–56. Cl. 15.
Esso Standard Oil Co., New York, N. Y. 639,906, pub. 10–30–56. Cl. 15.
Excel Automatic Products, Inc., Newark, N. J. 533,229, canc. Cl. 8.
Fantastic, Inc., Chicago, Ill., to Nathalie Wollard, New York, N. Y., and Anacleto Mora Institutl Richerche Industriali, Milan, Italy. 640,178. Cl. 44.
Farmers' Rice Growers Cooperative, San Francisco, Calif. 640,179. Cl. 46.
Fasco Industries Inc., Rochester, N. Y. 639,963, pub. 10–30–56. Cl. 21.
Fashion Park, Inc., Rochester, N. Y. 533,239, canc. Cl. 39.
Federal Cartridge Corp., Minneapolis, Minn. 639,894, pub. 10–30–56. Cl. 9.
Federal Electric Corp., Clifton, N. J. 640,165, pub. 10–30–56. Cl. 103.
Fisch and Co., Los Angeles, Calif. 533,391, canc. Cl. 39.
Folkard, J. S. & F., Ltd., Middlesex, England. 639,900, pub. 10–30–56. Cl. 13.
Ferry Cap & Set Screw Co., The, Cleveland, Ohio. 639,901, pub. 10–30–56. Cl. 13.
Firestone, Samuel B., d. b. a. Variety Sportswear, New York, N. Y. 640,049, pub. 10–30–56. Cl. 39.
Firetabs Corp., Bala-Cynwyd, Pa. 639,875, pub. 10–30–56. Cl. 1.
Firma Bettermann Elektro G. m. b. H., (Kreis Iserlohn), Westphalia, Germany. 639,980, pub. 10–30–56. Cl. 23.
Firmenich, Inc.: *See*—
Societe Anonyme M. Naef & Cie.
Frame, Arthur D., d. b. a. The Denver Pharmacal Co., Denver, Colo. 639,950, pub. 10–30–56. Cl. 18.
Freehand Bobby Pin Corp., Long Island City, N. Y. 640,070, pub. 10–30–56. Cl. 40.
French, Edward R., d. b. a. Top Tunes Co., Ocean City, N. J. 533,497, canc. Cl. 101.
Frosty Manors, Inc., St. Louis, Mo. 533,381, canc. Cl. 46.
Fuller, D. B., & Co., Inc., New York, N. Y. 640,079, pub. 10–30–56. Cl. 42.
Fuller, D. B., & Co., Inc., New York, N. Y. 640,080, pub. 10–30–56. Cl. 42.
Fuller, D. B., & Co., Inc., New York, N. Y. 640,081, pub. 10–30–56. Cl. 42.
Fuller, D. B., & Co., Inc., New York, N. Y. 640,087, pub. 10–30–56. Cl. 42.
Fuller, D. B., & Co., Inc., New York, N. Y. 640,088, pub. 10–30–56. Cl. 42.
Fuller, D. B., & Co., Inc., New York, N. Y. 640,089, pub. 10–30–56. Cl. 42.
Fuller, D. B., & Co., Inc., New York, N. Y. 640,091, pub. 10–30–56. Cl. 42.
Fuller, D. B., & Co., Inc., New York, N. Y. 640,094, pub. 10–30–56. Cl. 42.
Galax Knitting Co., Inc., Galax, Va. 533,290, canc. Cl. 39.
Gallo, E. & J., Winery, Modesto, Calif. 640,139, pub. 10–30–56. Cl. 49.
Gano-Downs Clothing Co., The, Denver, Colo. 199,104, cor. Cl. 39.
Gelardin, Albert: *See*
Micro-Lite Co., Inc.
Gelatin Manufacturers Institute of America, Inc.: *See*—
Edible Gelatin Manufacturers' Research Society of America.
General Cigar Co., Inc., New York, N. Y. 290,160, 12(c) pub. 1–15–57. Cl. 17.
General Electric Co., Schenectady, N. Y. 639,984, pub. 10–30–56. Cl. 24.
General Electric Co., Schenectady, N. Y. 639,985, pub. 10–30–56. Cl. 24.
Genseke Brothers: *See*
Genseke, Herbert J.
Genseke, Herbert J., d. b. a. Genseke Brothers, Chicago, Ill. 533,186, canc. Cl. 6.
George, P. D., Co., The, St. Louis, Mo. 639,927, pub. 10–30–56. Cl. 16.
Govaert Photo-Producten N. V., Mortsel, Belgium. 339,960, ren. 10–27–56. Cl. 26.
Giesler, J. R., & Associates, Los Angeles, Calif. 533,193, canc. Cl. 23.
Gilbert & Bennett Mfg. Co., The, Georgetown, Conn. 639,904, pub. 10–30–56. Cl. 13.
Gilbert Originals, Inc., Chicago, Ill. 533,341, canc. Cl. 39.
Gilman Paint and Varnish Co., Chattanooga, Tenn. 639,928, pub. 10–30–56. Cl. 16.
Gilron Products Co., Cleveland, Ohio. 533,207, canc. Cl. 6.
Gladen Enterprises, Inc., Bay City, Mich. 640,152, pub. 10–30–56. Cl. 52.
Glaser Bros., San Francisco, Calif. 640,016, pub. 10–30–56. Cl. 32.
Goetz M. K., Brewing Co., St. Joseph, Mo. 115,080, ren. 1–23–57. Cl. 48.
Goetz, M. K., Brewing Co., St. Joseph, Mo. 640,138, pub. 10–30–56. Cl. 48.
Golden State Co., Ltd., San Francisco, Calif. 533,021, canc. Cl. 46.
Golden State Co., Ltd., San Francisco, Calif. 533,022, canc. Cl. 46.
Governor and Co. of Adventurers of England Trading into Hudson's Bay, The, d. b. a. Hudson's Bay Co., London, England and Winnipeg, Canada. 220,747, 12(c) pub. 1–15–57. Cl. 42.
Governor and Co. of Adventurers of England Trading into Hudson's Bay, The, d. b. a. Hudson's Bay Co., London, England and Winnipeg, Canada. 223,137, 12(c) pub. 1–15–57. Cl. 42.
Governor and Co. of Adventurers of England Trading into Hudson's Bay, The, d. b. a. Hudson's Bay Co., London, England and Winnipeg, Canada. 274,403, 12(c) pub. 1–15–57. Cl. 42.
Governor and Co. of Adventurers of England Trading into Hudson's Bay, The, d. b. a. Hudson's Bay Co., London, England and Winnipeg, Canada. 291,625, 12(c) pub. 1–15–57. Cl. 42.
Governor and Co. of Adventurers of England Trading into Hudson's Bay, The, d. b. a. Hudson's Bay Co., London, England and Winnipeg, Canada. 291,639, 12(c) pub. 1–15–57. Cl. 42.
Governor and Co. of Adventurers of England Trading into Hudson's Bay, The, d. b. a. Hudson's Bay Co., London, England and Winnipeg, Manitoba, Canada. 376,025, 12(c) pub. 1–15–57. Cl. 49.
Gray Pharmaceutical Co., Inc., Newton, Mass. 639,936, pub. 10–30–56. Cl. 18.
Gray Pharmaceutical Co., Inc., Newton, Mass. 639,937, pub. 10–30–56. Cl. 18.
Great Western: *See*—
Robitshek-Schneider Co., The.
Great Western Glove Co., by Jasper Glove Co., Inc., Jasper, Ind. 364,712, 12(c) pub. 1–15–57. Cl. 39.
Grennan Bakeries, Inc., to American Bakeries Co., Chicago, Ill. 341,158, ren. 12–1–56. Cl. 46.
Grennan Bakeries, Inc., to American Bakeries, Co., Chicago, Ill. 341,159, ren. 12–1–56. Cl. 46.
Grove, Howard S., Los Angeles, Calif. 533,090, canc. Cl. 51.
Gulfstream Press Inc., Miami, Fla. 640,043, pub. 10–30–56. Cl. 37.
Gunn Furniture Co., The, Grand Rapids, Mich. 177,564, canc. Cl. 32.
Guth, Edwin F., Co., The, St. Louis, Mo. 500,605, canc. Cl. 21.
Hager, C. & Sons Hinge Mfg. Co., St. Louis, Mo. 533,251, canc. Cl. 13.
Halold Co., The, Rochester, N. Y. 639,886, pub. 10–30–56. Cl. 6.
Hansen Mfg. Co., Elk Point, S. D. 639,961, pub. 10–30–56. Cl. 19.
Harnish, Phares, d. b. a. Esquire Custom Seat Cover Co., Wyandotte, Mich. 533,015, canc. Cl. 19.
Hart, Schaffner & Marx, Chicago, Ill. 343,322, ren. 2–16–57. Cl. 39.
Hart, Schaffner & Marx, Chicago, Ill. 343,589, ren. 2–23–57. Cl. 39.
Harvey, Thomas B., Leather Co., Philadelphia, Pa. 639,865, pub. 10–30–56. Cl. 1.
Harwick, Hollywood, Calif. 533,168, canc. Cl. 8.
Haserot Co., The, Cleveland, Ohio. 343,685, ren. 3–2–57. Cl. 46.
Haupt A., Inc., Brooklyn, N. Y. 640,051, pub. 10–30–56. Cl. 39.
Haynes Stellite Co., The, Union Carbide and Carbon Corp., New York, N. Y. 114,239. Am. 7(d). Cl. 14.
Hecht, Murray, d. b. a. Lindenware Co., New York, N. Y. 640,039, pub. 10–30–56. Cl. 37.
Hedger, John R., d. b. a. The Beacon-ad-Co., Decatur, Ill. 640,162, pub. 10–30–56. Cl. 101.
Hercules Powder Co.: *See*—
Paper Makers Chemical Corp.
Hercules Steel Products Corp., Gallon, Ohio. 533,309, canc. Cl. 19.
Hercules Tool Co., Tulsa, Okla. 640,026, pub. 5–3–55. Cl. 35.
Hermanos, Argiro, Buenos Aires, Argentina. 533,503, canc. Cl. 21.
Herring-Hall-Marvin Safe Co., Hamilton, Ohio. 639,989, pub. 10–30–56. Cl. 25.
Hessler Silas A., d. b. a. Scott Detergents, Philadelphia, Pa. 533,081, canc. Cl. 52.
Heywood-Wakefield Co., Gardner, Mass. 533,025, canc. Cl. 32.
Hill, H. G., Co., d. b. a. Hill Stores, Nashville, Tenn. 640,116, pub. 10–30–56. Cl. 46.
Hill Stores: *See*—
Hill, H. G.
Hipaway Mfg. Co., Swissvale, Pa. 533,275, canc. Cl. 44.
Hogan and Hogan, Andover, Mass. 533,236, canc. Cl. 46.
Hoke Inc., Englewood, N. J. 639,911, pub. 10–30–56. Cl. 15.
Hollister, Lloyd, Inc., Glenview, Ill. 533,205, canc. Cl. 38.
Home Decorators, Inc., Newark, N. Y. 639,895, pub. 10–30–56. Cl. 13.
Horner, Adolph, d. b. a. Savoye Specialty Co., New York, N. Y. 533,517, canc. Cl. 51.
Horsey, J. William, Corp., Plant City, Fla. 640,113, pub. 10–30–56. Cl. 46.
Hotchkiss, E. H., Co., The, Norwalk, Conn. 533,133, canc. Cl. 23.
Houbigant, Inc., New York, N. Y. 343,502, ren. 2–23–57. Cl. 51.
Houbigant, Inc., New York, N. Y. 343,980, ren. 3–9–57. Cl. 51.
House of Perfection, Inc., The, New York, N. Y. 640,066, pub. 10–30–56. Cl. 39.
Howard, Robert, Co., The, Palo Alto, Calif. 640,044, pub. 10–30–56. Cl. 37.
Hudson's Bay Co.: *See*—
Governor and Co. of Adventurers of England Trading into Hudson's Bay, The.
Huff, Barnes & Ople, Inc., Pittsburgh, Pa. 640,035, pub. 10–30–56. Cl. 37.
Hydraulic Equipment Co., Cleveland, Ohio, to New York Air Brake Co., The, New York, N. Y. 344,141, ren. 3–16–57. Cl. 23.
Illinois Lock Co., The, Chicago, Ill. 639,987, pub. 10–30–56. Cl. 25.
Imex Corp., Philadelphia, Pa. 533,410, canc. Cl. 6.
Imperial Chemical (Pharmaceuticals) Ltd., London, England. 639,939, pub. 10–30–56. Cl. 18.

Imperial Textile Co. of New York, Inc., New York, N. Y. 533,405, canc. Cl. 42.
Indianapolis Paint & Color Co., Indianapolis, Ind. 639,926, pub. 10–30–56. Cl. 16.
Individual Drinking Cup Co., Inc., Easton, Pa. 223,786, canc. Cl. 2.
Indoor Gardener, Inc., West Hempstead, N. Y. 533,343, canc. Cl. 1.
Interelectronics Corp., New York, N. Y. 640,002, pub. 10–30–56. Cl. 29.
International Hanger Corp., Cleveland, Ohio. 640,143, pub. 10–30–56. Cl. 50.
International Milling Co., Minneapolis, Minn. 640,132, pub. 10–30–56. Cl. 46.
International Radio Corp., to Argus Cameras, Inc., Ann Arbor, Mich. 343,011, ren. 2–9–57. Cl. 26.
Ives, Ann, Inc., New York, N. Y. 640,180. Cl. 51.
Jasper Glove Co., Inc.: *See*—
Great Western Glove Co.
Juvenile Shoe Corp. of America, The, Aurora, Mo. 345,103, ren. 4–13–57. Cl. 39.
Kayser, Julius, & Co., New York, N. Y. 276,244, canc. Cl. 39.
Kehoe Preserving Co., Clay City, Ind. 533,320, canc. Cl. 46.
Keith Paper Co., Turners Falls, to Strathmore Paper Co., Springfield, Mass. 113,260, ren. 10–10–56. Cl. 37.
Keith Paper Co., Turners Falls, to Strathmore Paper Co., Springfield, Mass. 113,261, ren. 10–10–56. Cl. 37.
Kellogg Co.: *See*—
Kellogg Toasted Corn Flake Co.
Kellogg Toasted Corn Flake Co., to Kellogg Co., Battle Creek, Mich. 115,348, ren. 2–8–57. Cl. 46.
Kemp, E. F., Corp., Somerville, Mass. 640,115, pub. 10–30–56. Cl. 46.
Kenley, Joan, Inc., New York, N. Y. 533,241, canc. Cl. 39.
Kenley, Joan, Inc., New York, N. Y. 533,268, canc. Cl. 39.
Kent Productions, Inc., Grand Rapids, Mich. 533,266, canc. Cl. 2.
Kenya Coffee Co., Ltd., The, London, England. 640,129, pub. 10–30–56. Cl. 46.
Klaeo Co., Inc., St. Louis, Mo. 533,195, canc. Cl. 21.
Kittinger Co., Inc., Buffalo, N. Y. 640,011, pub. 10–30–56. Cl. 32.
Kork-Ease, Inc., Brooklyn, N. Y. 640,063, pub. 10–30–56. Cl. 39.
Krupp von Bohlen und Halbach, Alfried, d. b. a. Fried. Krupp, Essen, Germany. 639,973, pub. 8–2–55. Cl. 23.
L & L Mfg. Co., Van Dyke, by L & L Mfg. Co., East Detroit, Mich. 401,914, 12(c) pub. 1–15–57. Cl. 23.
Lady Lennox Co.: *See*—
Slebras, Norman W.
Lagunke, Nelson P., d. b. a. Stamp-Ade Co., Cleveland, Ohio. 531,737, canc. Cl. 37.
La Resista Corset Co., The, Bridgeport, Conn. 640,061, pub. 10–30–56. Cl. 39.
Larsen Products Corp., Bethesda, Md. 639,924, pub. 10–30–56. Cl. 16.
Laughlin, Homer, China Co., The, Newell, W. Va. 640,003, pub. 10–30–56. Cl. 30.
Lawrence Products Co., Inc., Attalla, Ala. 633,494, canc. Cl. 42.
Lawson, Charles F., d. b. a. The Travelmart, Elyria, Ohio. 640,168, pub. 10–30–56. Cl. 105.
Leisurehouse: *See*—
Padbloc Co., Inc.
Lentheric, Inc., New York, N. Y. 640,145, pub. 10–30–56. Cl. 51.
Leston Co., St. Louis, Mo. 533,462, canc. Cl. 46.
Levine Produce Co., David City, Nebr. 533,374, canc. Cl. 46.
Liberty Products Mfg. Co. Inc., Kansas City, Mo., from General Finance Corp., to Climax Engine & Pump Mfg. Co. 532,994, canc. Cl. 23.
Librascope, Inc., Glendale, Calif. 639,968, pub. 10–30–56. Cl. 21.
Lichtenstein, Moe, Inc., New York, N. Y. 640,077, pub. 10–23–56. Cl. 42.
Liebmann Breweries, Inc., Brooklyn, N. Y. 533,122, canc. Cl. 48.
Lindenware Co.: *See*—
Hecht, Murray.
Lion Specialty Co., Chicago, Ill. 533,007, canc. Cl. 46.
Lish Brothers, New York, N. Y. 533,431, canc. Cl. 39.
Louisville Cement Co., Louisville, Ky. 533,189, canc. Cl. 12.
Lowe Seed Co., Aroma Park, Ill. 639,872, pub. 10–30–56. Cl. 1.
Lowe Seed Co., Aroma Park, Ill. 639,873, pub. 10–30–56. Cl. 1.
Lurie Plastics, Inc., Petersburg, Va. 639,862, pub. 9–25–56. Cl. 1.
Lynn Innersole Co., Boston, Mass. 639,870, pub. 10–30–56. Cl. 1.
M. K. M. Hosiery Mills, Inc., Boston, Mass. 640,048, pub. 10–30–56. Cl. 39.
Macaroni, Hazleton, Co.: *See*—
Amerise, William.
MacFee, Vernon A., Doster, Mich. 533,125, canc. Cl. 23.
Macklanburg-Duncan Co., Oklahoma City, Okla. 361,509, canc. Cl. 12.
Magic Bros. Oil Co., Franklin Park, Ill. 639,921, pub. 10–30–56. Cl. 15.
Magla Products: *See*—
Glatt, Herbert.
Mahrt, Louis R., and R. D. Laughter, trustees for Standard-Dayton Corp., Dayton, Ohio. 640,013, pub. 10–30–56. Cl. 32.
Mahrt, Louis R., and R. D. Laughter, trustees for Standard-Dayton Corp., Dayton, Ohio. 640,014, pub. 10–30–56. Cl. 32.
Mahrt, Louis R., and R. D. Laughter, trustees for Standard-Dayton Corp., Dayton, Ohio. 640,015, pub. 10–30–56. Cl. 32.
Maine Mfg. Co., The, Nashua, N. H. 640,009, pub. 10–30–56. Cl. 32.
Major Corp.: *See*—
Universal Major Elec. Appliances, Inc.
Malden Mills, Inc., Lawrence, Mass. 640,090, pub. 10–30–56. Cl. 42.
Manhattan Shirt Co., The, New York, N. Y. 533,464, canc. Cl. 39.
Manhattan Shirt Co., The, New York, N. Y. 533,465, canc. Cl. 39.
March & Mendl, Inc., New York, N. Y. 640,060, pub. 10–30–56. Cl. 39.
Marchand, Charles, Co., The, New York, N. Y. 539,617, cor. Cl. 6.
Marsh, M., and Son, Wheeling, W. Va. 639,932, pub. 10–30–56. Cl. 17.
Marshall-Wells Co., Duluth, Minn. 639,964, pub. 10–30–56. Cl. 21.
Marta Cigar Co., New York, N. Y. 533,244, canc. Cl. 17.
McCloskey Varnish Co., Philadelphia, Pa. 639,929, pub. 10–30–56. Cl. 16.
McCollum Exploration Co., Houston, Tex. 640,159, pub. 10–30–56. Cl. 100.
McCollum Exploration Co., Houston, Tex. 640,160, pub. 10–30–56. Cl. 100.
McDonald & Olliff, Inc., Wauchula, Fla. 640,109, pub. 10–30–56. Cl. 46.
McGreevey, Werring & Howell, Inc., New York, N. Y. 533,362, canc. Cl. 39.
McLellan, E. W., Co., San Francisco, Calif. 533,346, canc. Cl. 1.
Meeks, William, Jr., d. b. a. Drug Industries, Dallas, Tex. 640,151, pub. 10–30–56. Cl. 51.
Meiller, Franz Xaver, Fahrzeug-und Maschinenfabrik K. G., Munich, Germany. 640,175–6. Cl. 23.
Melville Shoe Corp., New York, N. Y. 276,389, canc. Cl. 39.
Mendelson, Albert A., Portland, Oreg. 533,425, canc. Cl. 39.
Mercato Products Co.: *See*—
Escalon Packers Inc.
Merck & Co., Inc., Rahway, N. J. 639,934, pub. 10–30–56. Cl. 18.
Merck & Co., Inc., Rahway, N. J. 639,935, pub. 10–30–56. Cl. 18.
Merck & Co., Inc., Rahway, N. J. 639,953, pub. 10–30–56. Cl. 18.
Metalife Co., The, d. b. a. C & S Products Mo. Corp., St. Louis, Mo. 640,153, pub. 9–18–56. Cl. 52.
Micro-Lite Co.: *See*—
Micro-Lite Co., Inc.
Micro-Lite Co., Inc., to Albert Gelardin, d. b. a. Micro-Lite Co., New York, N. Y. 338,533, ren. 9–8–56. Cl. 21.
Middleburg Tanning Corp., Philadelphia, Pa. 533,382, canc. Cl. 1.
Middlesex Foods Inc., New Brunswick, N. J. 640,111, pub. 10–30–56. Cl. 46.
Mid-States Corp., Chicago, Ill. 639,957, pub. 6–23–53. Cl. 19.
Miele, John, d. b. a. Economy Specialty Co., Jersey City, N. J. 533,426, canc. Cl. 52.
Miele, John, d. b. a. Economy Specialty Co., Jersey City, N. J. 533,427, canc. Cl. 52.
Miller-Bryant-Pierce Co., The, Aurora, Ill., to Smith-Corona Inc., Syracuse, N. Y. 341,199 ren. 12–1–56. Cl. 11.
Miller-Prager Co.: *See*—
Miller, Reuben.
Miller, Reuben L., d. b. a. Miller-Prager Co., Brooklyn, N. Y. 640,025, pub. 10–30–56. Cl. 34.
Miller Ventilated Awning Co., Inc., Montgomery, Ala. 533,527, canc. Cl. 12.
Minnesota Mining and Mfg. Co., St. Paul, Minn. 639,884, pub. 10–30–56. Cl. 6.
Misa, M.: *See*—
De Carrizosa, Ricardo Lopez, y Martel.
Misa, Manuel: *See*—
De Carrizosa, Ricardo Lopez, y Martel.
Modell, Henry, & Co., Inc., New York, N. Y. 533,301, canc. Cl. 50.
Modern Chemical Specialties, Rochester, N. Y. 640,156, pub. 10–30–56. Cl. 52.
Moore, Benjamin, & Co., New York, N. Y. 639,930, pub. 10–30–56. Cl. 16.
Moore, Thomas, d. b. a. Thomas Moore & Co., Minneapolis, Minn. 640,101, pub. 10–30–56. Cl. 45.
Morningstar, Nicol, Inc., New York, N. Y. 639,887, pub. 10–30–56. Cl. 6.
Morningstar, Nicol, Inc., New York, N. Y. 639,888, pub. 10–30–56. Cl. 6.
Mor-Pak Preserving Corp., San Francisco, Calif. 343,718, cor. Cl. 46.
Morton Mfg. Co., Chicago, Ill. 533,253, canc. Cl. 21.
Musicarnival, Inc., Cleveland, Ohio. 640,171, pub. 10–30–56. Cl. 107.
Mutual Paper Co., Inc., The, Brooklyn, N. Y. 640,033, pub. 10–30–56. Cl. 37.
N. V. Papierfabriek Gennep, Gennep, Netherlands. 640,034, pub. 10–30–56. Cl. 37.
Nachman Corp., Chicago, Ill. 640,018, pub. 10–30–56. Cl. 32.
Nashua Corp., Nashua, N. H. 640,041, pub. 10–30–56. Cl. 37.
Nathan Products Corp., New York, N. Y. 639,876, pub. 10–30–56. Cl. 3.
National Automotive Fibres, Inc., Detroit, Mich. 639,999, pub. 10–30–56. Cl. 29.
National Lead Co., New York, N. Y. 639,871, pub. 10–30–56. Cl. 1.
National Metal Products Co.: *See*—
Sorrenti, Alfred.
National Silver Co., New York, N. Y. 639,995, pub. 10–30–56. Cl. 28.

National Silver Co., New York, N. Y. 639,996, pub. 10–30–56. Cl. 28.
National Silver Co., New York, N. Y. 639,997, pub. 10–30–56. Cl. 28.
National Silver Co., New York, N. Y. 639,998, pub. 10–30–56. Cl. 28.
Nettle Mfg. Co., Boston, Mass. 640,174. Cl. 23.
New York Air Brake Co., The: *See*—
Hydraulic Equipment Co.
Nickell, Adnah A., Glendale, Calif. 640,071, pub. 10–30–56. Cl. 40.
Noble & Cooley Co., Granville, Mass. 639,972, pub. 10–30–56. Cl. 22.
North American Industries, Inc., New York, N. Y. 640,154, pub. 10–30–56. Cl. 52.
North Brothers Mfg. Co., Philadelphia, Pa. 533,020, canc. Cl. 23.
Northwest Louisiana Broadcasting Corp., Shreveport, La. 640,170, pub. 10–30–56. Cl. 107.
Norton Co., Worcester, Mass. 639,994, pub. 10–30–56. Cl. 26.
Norwich Knitting Co., to Norwich Mills, Inc., Norwich, N. Y. 345,111, ren. 4–13–57. Cl. 39.
Norwich Mills, Inc.: *See*—
Norwich Knitting Co.
Nsu-Werke Aktiengesellschaft, Necarsulm, Wurttemberg, Germany. 639,960, pub. 10–30–56. Cl. 19.
Oakland Fur Dyeing Co., Inc., Brooklyn, N. Y. 533,355, canc. Cl. 1.
Oceana Imports Inc., New York, N. Y. 533,458, canc. Cl. 39.
Ogden Mfg. Co., Louisville, Ky. 640,020, pub. 10–30–56. Cl. 32.
Ohio Seamless Tube Co., The, Shelby, Ohio. 533,105, canc. Cl. 13.
Oliver and Kaufman, New York, N. Y. 640,082, pub. 10–30–56. Cl. 42.
Organon Inc., Orange, N. J. 639,941, pub. 10–30–56. Cl. 18.
Organon Inc., Orange, N. J. 639,942, pub. 10–30–56. Cl. 18.
Organon Inc., Orange, N. J. 639,943, pub. 10–30–56. Cl. 18.
Ortho Pharmaceutical Corp., Raritan, N. J. 639,955, pub. 10–30–56. Cl. 18.
Ortho Pharmaceutical Corp., Raritan, N. J. 639,956, pub. 10–30–56. Cl. 18.
O'Sullivan Rubber Corp., Winchester, Va. 639,867, pub. 10–30–56. Cl. 1.
Pacific Coast Pumice Co.: *See*—
Churchill, Cadwallader W.
Pacific Mills Boston, Mass., and New York, N. Y. 533,488, canc. Cl. 42.
Padbloc Co., Inc., d. b. a. Leisurehouse, Wichita, Kans. 639,981, pub. 10–30–56. Cl. 24.
Palm Beach Co., Portland, Maine. 640,058, pub. 10–30–56. Cl. 39.
Palmer, G. E., Co., Inc., Detroit, Mich. 533,060, canc. Cl. 4.
Panef Mfg. Co., Inc., Milwaukee, Wis. 639,908, pub. 10–30–56. Cl. 15.
Panef Mfg. Co., Inc., Milwaukee, Wis. 639,909, pub. 10–30–56. Cl. 15.
Paper Makers Chemical Corp., to Hercules Powder Co., Wilmington, Del., to Arnold, Hoffman & Co., Inc., Providence, R. I. 343,923, ren. 3–9–57. Cl. 6.
Para Laboratories, New York, N. Y. 640,150, pub. 10–30–56. Cl. 51.
Parke, Davis & Co., Detroit, Mich. 533,159, canc. Cl. 18.
Pease Woodwork Co., Inc., Cincinnati, Ohio. 533,520, canc. Cl. 12.
Penick, S. B., & Co., New York, N. Y. 640,106, pub. 10–30–56. Cl. 46.
Pepperidge Farm Inc., Norwalk, Conn. 640,121, pub. 10–30–56. Cl. 46.
Pepperidge Farm Inc., Norwalk, Conn. 640,122, pub. 10–30–56. Cl. 46.
Pepperidge Farm Inc., Norwalk, Conn. 640,123, pub. 10–30–56. Cl. 46.
Pepperidge Farm Inc., Norwalk, Conn. 640,124, pub. 10–30–56. Cl. 46.
Pepperidge Farm Inc., Norwalk, Conn. 640,125, pub. 10–30–56. Cl. 46.
Pepperidge Farm Inc., Norwalk, Conn. 640,126, pub. 10–30–56. Cl. 46.
Perfect Garment Co.: *See*—
Sobelman, Morris.
Perry-Austen Mfg. Co., Inc., Grasmere, Staten Island, N. Y. 639,925, pub. 10–30–56. Cl. 16.
Perry Co., The, Camilla, Ga. 533,507, canc. Cl. 46.
Peterson Products Corp., Chicago, Ill. 533,144, canc. Cl. 23.
Petrie Stores Corp., Chicago, Ill. 640,062, pub. 10–30–56. Cl. 39.
Phillips, Ann., New York, N. Y. 533,353, canc. Cl. 39.
Phillips Drill Co., Michigan City, Ind. 639,974, pub. 10–30–56. Cl. 23.
Phipps Products Inc., Boston, Mass. 533,274, canc. Cl. 52.
Pho-Tect Corp., Houston, Tex. 640,158, pub. 10–30–56. Cl. 100.
Photochart, Hollywood, Calif. 533,104, canc. Cl. 38.
Pillopak Co.: *See*—
Behr, Philip.
Plastic Sheeting Co., Portland, Oreg. 533,523, canc. Cl. 22.
Plasticize Laboratories: *See*—
Smith, Nervin F.
Plastylite Corp., North Plainfield, N. J. 639,860, pub. 10–30–56. Cl. 1.
Platt Luggage, Inc., Chicago, Ill. 639,879, pub. 10–30–56. Cl. 3.
Plymouth Cordage Co., Plymouth, Mass. 639,892, pub. 10–30–56. Cl. 7.
Polk Miller Products Corp., Richmond, Va. 533,071, canc. Cl. 52.
Pratt-Low Preserving Co., Santa Clara, Calif. 640,131, pub. 10–30–56. Cl. 46.
Professional Drug Service, Inc., d. b. a. Storck Pharmaceuticals, St. Louis, Mo. 639,944, pub. 10–30–56. Cl. 18.
Pro-Phy-Lac-Tic Brush Co., Florence, Mass. 341,233, ren. 12–1–56. Cl. 29.
Pure Oil Co., The, Chicago, Ill. 533,280, canc. Cl. 6.
Pure Oil Co., The, Chicago, Ill. 533,376, canc. Cl. 23.
Pure Oil Co., The, Chicago, Ill. 639,913, pub. 10–30–56. Cl. 15.
Putney, Stephen, Shoe Co., Richmond, Va. 533,372, canc. Cl. 39.
Qualtop Beverages, Inc., Rochester, N. Y. 533,166, canc. Cl. 48.
Quartex Corp., Chicago, Ill. 533,339, canc. Cl. 1.
Ranier Pulp & Paper Co., San Francisco, Calif., to Rayonier Inc., Wilmington, Del. 341,473, ren. 12–8–56. Cl. 12.
Rapinwax Paper Co., Minneapolis, Minn. 640,042, pub. 10–30–56. Cl. 37.
Rayonier Inc.: *See*—
Ranier Pulp & Paper Co.
Rebbeck, Ruth B., Paterson, N. J. 533,056, canc. Cl. 18.
Retail Stores Service, Inc., Baltimore, Md. 640,010, pub. 10–30–56. Cl. 32.
Revlon Products Corp., to Revlon, Inc., New York, N. Y. 640,182. Cl. 51.
Revlon Products Corp., to Revlon, Inc., New York, N. Y. 640,183. Cl. 51.
Revlon Products Corp., to Revlon, Inc., New York, N. Y. 640,184. Cl. 51.
Risdon Mfg. Co., The, Naugatuck, Conn. 639,902. pub. 10–30–56. Cl. 13.
Ritter Bros. Inc., New York, N. Y. 640,055, pub. 10–30–56. Cl. 39.
Robins, A. H., Co., Inc., Richmond, Va. 639,948, pub. 10–30–56. Cl. 18.
Robitshek-Schneider Co., The, d. b. a. Great Western, Minneapolis, Minn. 640,073, pub. 10–30–56. Cl. 42.
Robles, Jose G. A., Kansas City, Mo. 532,907, canc. Cl. 22.
Rock of Ages Corp., Burlington, Vt. 640,144, pub. 10–30–56. Cl. 50.
Ronda, Charlotte, d. b. a. Ronda Creations, New York, N. Y. 533,230, canc. Cl. 22.
Ronda Creations: *See*—
Ronda, Charlotte.
Ross, Howard L., d. b. a. Howard L. Ross Associates, New York, N. Y. 533,131. Cl. 23.
Roth, Chester H., Co., Inc., New York, N. Y. 640,065, pub. 10–30–56. Cl. 39.
Ross, Howard L., Associates: *See*—
Ross, Howard L.
Rotol Chemical Corp., New York, N. Y. 533,399, canc. Cl. 52.
Royal Crown Steel Tile Co., Philadelphia, Pa. 533,120, canc. Cl. 12.
Russell, E. J., d. b. a. Russell Packing Co., Salinas, Calif. 640,103, pub. 10–30–56. Cl. 46.
Russell Packing Co.: *See*—
Russell, E. J.
S & M Distributors, Inc., Madison, N. Y. 640,155, pub. 10–30–56. Cl. 52.
Sabre Archery Co., The: *See*—
Stockfleth, Harry C.
Safeway Stores, Inc., Baltimore, Md., and Oakland, Calif. 533,413, canc. Cl. 52.
Sales Affiliates, Inc., New York, N. Y. 533,208, canc. Cl. 23.
Salkin & Linoff, Inc., Minneapolis, Minn. 640,068, pub. 10–30–56. Cl. 39.
Sansone's Sea Seasoned Food Products, Inc., St. Louis, Mo. 640,108, pub. 10–30–56. Cl. 46.
Sargenti, A., Co., Inc., New York, N. Y. 640,117, pub. 10–30–56. Cl. 46.
Savoye Specialty Co.: *See*—
Horner, Adolph.
Schenley Distillers, Inc., New York, N. Y. 640,141, pub. 10–30–56. Cl. 49.
Schenley Distillers, Inc., New York, N. Y. 640,142, pub. 10–30–56. Cl. 49.
Schering Corp., Bloomfield, N. J. 533,421, canc. Cl. 18.
Schkurman, Stanley, d. b. a. Corinizing Process of America, New York, N. Y. 640,164, pub. 10–30–56. Cl. 103.
Schlumberger Well Surveying Corp., Houston, Tex. 533,498, canc. Cl. 100.
Schwarzer, P. O., & Son, Manlius, N. Y. 640,127, pub. 10–30–56. Cl. 46.
Scott Detergents: *See*—
Hessler, Silas A.
Scott, Jeane, Ltd., New York, N. Y. 640,050, pub. 10–30–56. Cl. 39.
Scovill Mfg. Co., Brooklyn, N. Y. 639,896, pub. 10–30–56. Cl. 13.
Sears, Roebuck and Co., Chicago, Ill. 533,054, canc. Cl. 21.
Sears, Roebuck and Co., Chicago, Ill. 533,388, canc. Cl. 44.
Sears, Roebuck & Co., Chicago, Ill. 639,982, pub. 10–30–56. Cl. 24.
Sears, Roebuck and Co., Chicago, Ill. 639,983, pub. 10–30–56. Cl. 24.
Seewer, Gustav A., d. b. a. Konstruktionswerkstätte Burgdorf G. A. Seewer, Burgdorf, Canton of Berne, Switzerland. 639,976, pub. 10–30–56. Cl. 23.
Seminole Flavor Co., Chattanooga, Tenn. 640,102, pub. 10–30–56. Cl. 45.
Sessions Co., Inc., Enterprise, Ala. 338,173, canc. Cl. 46.
Shadowline, Inc., Morganton, N. C. 640,057, pub. 10–30–56. Cl. 39.
Shrago, A. M., & Sons, Goldsboro, N. C. 533,292, canc. Cl. 39.
Sharp & Dohme, Inc., Philadelphia, Pa. 533,422, canc. Cl. 18.
Sharp, Tom C., d. b. a. Tom C. Sharp Drug Co., Nashville, Tenn. 533,364, canc. Cl. 18.

Sharp, Tom C., Drug Co.: *See*—
Sharp, Tom C.
Shell Oil Co., New York, N. Y. 639,910, pub. 10–30–56. Cl. 15.
Shell Oil Co., New York, N. Y. 639,915, pub. 10–30–56. Cl. 15.
Shell Oil Co., New York, N. Y. 639,916, pub. 10–30–56. Cl. 15.
Shell Oil Co., New York, N. Y. 639,917, pub. 10–30–56. Cl. 15.
Shell Oil Co., New York, N. Y. 639,918, pub. 10–30–56. Cl. 15.
Shell Oil Co., New York, N. Y. 639,919, pub. 10–30–56. Cl. 15.
Shell Oil Co., New York, N. Y. 639,920, pub. 10–30–56. Cl. 15.
Shirley Fabrics Corp., New York, N. Y. 640,083, pub. 10–30–56. Cl. 42.
Shulton, Inc., Clifton, N. J. 639,945, pub. 10–30–56. Cl. 18.
Sichel, H., & Sons Ltd., Adelphi, London, England. 343,290, ren. 2–16–57. Cl. 47.
Siebras, Norman W., d. b. a. Lady Lennox Co., Memphis, Tenn. 640,148, pub. 10–30–56. Cl. 51.
Sigma Tau Gamma Fraternity, St. Louis, Mo. 640,173, pub. 10–30–56. Cl. 200.
Sittleman Reuben: *See*—
Vita-Fresh Dog Food Corp.
Skinner, William, & Sons, New York, N. Y. 640,095, pub. 10–30–56. Cl. 42.
Skyline Coach Co., Inc., Elkhart, Ind. 639,958, pub. 6–28–55. Cl. 19.
Shmbasafe, Inc., New York, N. Y. 639,940, pub. 10–30–56. Cl. 18.
Smith-Corona Inc.: *See*—
Miller-Bryant-Pierce Co., The.
Smith, J. P., Shoe Co., Chicago, Ill. 533,304, canc. Cl. 39.
Smith, Kline & French Laboratories, Philadelphia, Pa. 533,192, canc. Cl. 18.
Smith, Nervin P., d. b. a. Plasticize Laboratories, Miami, Fla. 533,238, canc. Cl. 52.
Smithers, W. L., Mfg. Co., The, Akron, Ohio. 639,874, pub. 10–30–56. Cl. 1.
Soap Specialties, Inc., Philadelphia, Pa. 639,890, pub. 10–30–56. Cl. 6.
Sobelman, Morris, d. b. a. Perfect Garment Co., Baltimore, Md. 344,885, ren. 4–6–57. Cl. 39.
Societe Anonyme d'Exploitation des Papeteries L. Lacroix Fils, Angouleme, France. 113,158, ren. 10–10–56. Cl. 8.
Societe Anonyme d'Exploitation des Papeteries L. Lacroix Fils, Angouleme, France. 113,159 ren. 10–10–56. Cl. 8.
Société Anonyme M. Naef & Cie., Geneva, Switzerland, by Firmenich, Inc., New York, N. Y. 284,585, 12(c) pub. 1–15–57. Cl. 51.
Soluol Chemical Co., Inc., Natick, R. I. 639,882, pub. 10–30–56. Cl. 6.
Sorrenti, Alfred, d. b. a. National Metal Products Co., New York, N. Y. 532,252, canc. Cl. 22.
Southern Cement Co., to American Marietta Co., d. b. a. Southern Cement Co., Birmingham, Ala. 114,837, ren. 1–2–57. Cl. 12.
Southern Dyestuff Corp., Charlotte, N. C. 533,332, canc. Cl. 6.
Southern Dyestuff Corp., Charlotte, N. C. 533,333, canc. Cl. 6.
Southern Ezy-Mix Co., Memphis, Tenn. 639,863, pub. 10–30–56. Cl. 1.
Southern Handkerchief Mfg. Co., Greenville, S. C. 640,064, pub. 10–30–56. Cl. 39.
Southern Produce Co., Inc., New Orleans, La. 640,104, pub. 10–30–56. Cl. 46.
Southwest Pump Co., Bonham, Tex. 639,990, pub. 10–30–56. Cl. 26.
Southwest Steel Rolling Mills, Los Angeles, Calif. 639,903, pub. 10–30–56. Cl. 13.
Speedways Conveyors, Inc., Buffalo, N. Y. 533,164, canc. Cl. 23.
Sprusil, Charles J., Corona, N. Y. 533,415, canc. Cl. 6.
Stamp-Ade Co.,: *See*—
Lagamke, Nelson P.
Standard-Dayton Corp.: *See*—
Mabrt, Louis R., and R. D. Laughter.
Standard Industrial Products, Inc., Evansville, Ind. 639,922, pub. 10–30–56. Cl. 16.
Standard Knitting Mills, Inc., Knoxville, Tenn. 640,054, pub. 10–30–56. Cl. 39.
Standard Oil Co., The, Cleveland, Ohio. 639,912, pub 10–30–56. Cl. 15.
Standard-Thomson Corp., Vandalia, Ohio. 639,897, pub. 10–30–56. Cl. 13.
Steel Products Mfg. Co. now by change of name Swing-A-Way Mfg. Co., St. Louis, Mo 533,030, canc. Cl. 23.
Steffenson, Carl G., Philadelphia, Pa. 639,992, pub. 10–30–56. Cl. 26.
Stephano Brothers, Philadelphia, Pa. 639,931, pub. 10–30–56. Cl. 17.
Stet Chemical Co., South Bend, Ind. 533,400, canc. Cl. 52.
Stichting Polynormbouw, Amsterdam, Holland. 533,324, canc. Cl. 12.
Stockheth, Harry C., d. b. a. The Sabre Archery Co., Chatham, N. J. 639,969, pub. 10–30–56. Cl. 22.
Stoffel & Co., Inc., New York, N. Y. 640,076, pub. 10–30–56. Cl. 42.
Stone H., & Co., Ltd., Philadelphia, Pa. 640,140, pub. 10–30–56. Cl. 49.
Stonega Coke and Coal Co., Philadelphia, Pa. 114,568, ren. 12–19–56. Cl. 1.
Stonega Coke and Coal Co., Philadelphia, Pa. 115,030, ren. 1–16–57. Cl. 1.
Storck Pharmaceuticals: *See*—
Professional Drug Service, Inc.
Storer Broadcasting Co., Miami Beach, Fla. 640,172, pub. 10–30–56. Cl. 107.
Stratmore Paper Co.: *See*—
Keith Paper Co.
Strickland, Jack L., Fort Worth, Tex. 640,045, pub. 10–30–56. Cl. 38.
Strollner Mfg. Co., Union City, N. J. 533,160, canc. Cl. 19.
Stuempges, C. L., Seattle, Wash. 533,254, canc. Cl. 28.
Sugar Creek Creamery Co., Watseka, Danville, and Pana, to Sugar Creek Creamery Co., Danville, Ill. 114,197, ren. 12–5–56. Cl. 46.
Sunray Establishment, Vaduz, Liechtenstein. 533,106, canc. Cl. 44.
Super-Form Brassiere, Inc., New York, N. Y. 640,067, pub. 10–30–56. Cl. 39.
Superior Products Co., Magnolia, Ohio. 533,234, canc. Cl. 23.
Svenska Karosseri Verkstaderna Aktiebolag, Katrineholm, Sweden. 533,402 canc. Cl. 12.
Swing-A-Way Mfg. Co.: *See*—
Steel Products Mfg. Co.
Taylor Engineering Co., Inc., Elgin, Ill. 533,003, canc. Cl. 23.
Taylors John, Ltd., Huddersfield, England. 640,078, pub. 10–30–56. Cl. 42.
Technical Appliance Corp., Sherburne, N. Y. 639,965, pub. 10–30–56. Cl. 21.
Technomat Mfg. Corp., New York, N. Y. 639,893, pub. 10–30–56. Cl. 8.
Thomas Publishing Co., New York, N. Y. 640,046, pub 10–30–56. Cl. 38.
Thomas, Susan, New York, N. Y. 640,056, pub. 10–30–56. Cl. 39.
Thompson Distributing Co., Algona, Iowa. 639,979, pub. 10–30–56. Cl. 23.
Timely Accessories, Inc., New York, N. Y. 533,317, canc. Cl. 39.
Tobin Packing Co., Inc.: *See*—
Albany Packing Co., Inc.
Tomkins-Johnson Co., The, Jackson, Mich. 639,977, pub. 10–30–56. Cl. 23.
Tomkins-Johnson Co., The, Jackson, Mich. 639,978, pub. 10–30–56. Cl. 23.
Top Tunes Co.: *See*
French, Edward R.
Totsy Mfg. Co., Inc., Springfield, Mass. 336,661, 12(c) pub. 1–15–57. Cl. 22.
Toupe Laboratories: *See*—
Erwin, Frank B.
Trageser Copper Works, Inc., Maspeth, N. Y. 640,177 Cl. 34.
Travelmart, The: *See*—
Lawson, Charles F.
Trubenizing Process Corp., New York, N. Y. 533,445, canc. Cl. 39.
Underwood Corp., New York, N. Y. 639,993, pub. 10–30–56. Cl. 26.
Union Carbide and Carbon Corp.: *See*—
Haynes Stellite Co., The.
Union Oil Co. of Calif., Los Angeles, Calif. 639,907, pub. 10–30–56. Cl. 15.
United States Dental Mfg. Co., The, Cleveland, Ohio. 158,556, 12(c) pub. 1–15–57. Cl. 44.
United States Independent Telephone Association, Washington, D. C. 640,167, pub. 10–30–56. Cl. 104.
U. S. Oil Co., East Providence, R. I. 639,883, pub. 10–30–56. Cl. 6.
U. S. Tractor Corp., Wilmington, Del., and Warren, Ohio. 533,095, canc. Cl. 23.
United States Trunk Co., Fall River, Mass. 639,877, pub. 10–30–56. Cl. 3.
Universal Major Elec. Appliances, Inc., Baltimore, Md., to Major Corp., New York, N. Y. 640,007, pub. 10–30–56. Cl. 32.
Universal Water Softener Co., Melrose Park, Ill. 640,006, pub. 10–30–56. Cl. 31.
Upjohn Co., The, Kalamazoo, Mich. 533,181, canc. Cl. 18.
Valgarde, Inc., New York, N. Y. 533,097, canc. Cl. 51.
Variety Sportswear: *See*—
Firestone, Samuel B.
Vendomatic, Torrance, Calif. 533,182, canc. Cl. 23.
Verley, Albert, & Co., Linden, N. J. 640,146, pub. 10–30–56. Cl. 51.
Verley, Albert, & Co., Linden, N. J. 640,147, pub. 10–30–56. Cl. 51.
Vita-Fresh Dog Food Corp., Long Island City, to R. Glttleman, New York, N. Y. 345,075, ren. 4–13–57. Cl. 46.
Vogue Rubber Co., Chicago, Ill. 533,384, canc. Cl. 52.
Wade, James D., d. b. a. Jim Wade & Co., Shreveport, La. 533,416, canc. Cl. 28.
Wade, Jim, & Co.: *See*—
Wade, James D.
Waldesbuhl, Paul N., Bremgarten, Argau, Switzerland. 533,327, canc. Cl. 44.
Waldensian Winery, The: *See*—
Bernard, Mellie C.
Wallace Products, Inc., Philadelphia, Pa. 640,008, pub. 10–30–56. Cl. 32.
Wallerstein Co., Inc., New York, N. Y. 533,397, canc. Cl. 6.
Ward Furniture Mfg. Co., Fort Smith, Ark. 640,019, pub. 10–30–56. Cl. 32.
Ward Paper Co., Merrill, Wis. 640,036, pub. 10–30–56. Cl. 37.
Ward Paper Co., Merrill, Wis. 640,037, pub. 10–30–56. Cl. 37.
Warren Woolen Co., The, Stafford Springs, Conn. 640,085, pub. 10–30–56. Cl. 42.
Waterman Products Co., Inc., Philadelphia, Pa. 639,991, pub. 10–30–56. Cl. 26.

Waukesha Motor Co., Waukesha, Wis. 640,005, pub. 10–30–56. Cl. 31.
Weinberger, Harold, d. b. a. Ronald Lee Co., Newark, N. J. 639,898, pub. 10–30–56. Cl. 13.
Weinreich Brothers Co., New York, N. Y. 533,467, canc. Cl. 28.
Wennonah Cotton Mills Co., Lexington, N. C. 640,086, pub. 10–30–56. Cl. 42.
Werman, A., & Sons, Inc., Brooklyn, N. Y. 533,258, canc. Cl. 39.
Wesco Waterpaints, Inc., Berkeley, Calif. 533,223, canc. Cl. 16.
Wesley, Edward, Co., The: *See*—
Eha, Clifford F.
Whitehall Pharmacal Co.: *See*
Eha, Clifford F.
Whitehall Pharmacal Co., New York, N. Y. 639,946, pub. 10–30–56. Cl. 18.
Whittaker Laboratories, Inc., Peekskill, N. Y. 369,115, 12(c) pub. 1–15–57. Cl. 18.
Wilbert Products Co., Inc., New York, N. Y. 341,819, ren. 12–22–56. Cl. 4.
Willis, W. P., & Co., Inc., New York, N. Y. 533,486, canc. Cl. 42.
Wilson-Jones Co., Chicago, Ill. 344,665, ren. 3–30–57. Cl. 23.
Wilson & Stokes Lumber Co., Trenton, N. J. 533,066, canc. Cl. 12.
Winzen Research, Inc., Minneapolis, Minn. 639,959, pub. 10–30–56. Cl. 19.
Wollard, Nathalie: *See*—
Fantastic, Inc.
Wood Treating Chemicals Co., St. Louis, Mo. 528,914, canc. Cl. 6.
Yurdin, Alfred, d. b. a. Tankit Co., New York, N. Y. 533,248, canc. Cl. 13.
Zerega's, A., Sons, Inc., Fair Lawn, N. J. 640,119, pub. 10–30–56. Cl. 46.

U. S. GOVERNMENT PRINTING OFFICE 0—1957

PATENTS

NOTICES

Erratum

All references to Patent No. 2,776,750 to William Aubrey Smith, Vernon L. Mattson and Gene Meyer, assignors to The American Metal Company, Limited, for Froth Flotation Concentration of Potash Ores Containing Sylvite, appearing in the OFFICIAL GAZETTE of January 8, 1957, should be deleted as the application was withdrawn from issue and the patent was not issued.

Adverse Decisions in Interferences

In the designated interferences involving the indicated claims of the following patents final decisions have been rendered that the respective patentees were not the first inventors with respect to the claims listed.

Re. Pat. 24,051, G. W. Walcott, Flaring tool, decided Nov. 27, 1956, Interference No. 87,028, claim 1.

Pat. 2,533,369, E. C. Hartwig, Electronic sequence timer, decided June 29, 1956, Interference No. 85,711, claim 6.

Pat. 2,591,686, L. J. Du Mais and F. J. Prokop, Picture screen stand, decided Nov. 30, 1956, Interference No. 87,722, claim 4.

Pat. 2,600,337, C. B. Stadum, Electronic sequence timer, decided June 29, 1956, Interference No. 86,521, claims 1, 2, and 4.

Pat. 2,623,168, C. B. Stadum, E. C. Hartwig, and W. E. Large, Heat control circuit, decided June 29, 1956, Interference No. 86,837, claims 9, 10, and 11.

Pat. 2,676,904, R. Jeanloz, O. Hechter, G. Pincus, and V. Schenker, Chemical method for introduction of 11-hydroxyl substituents into steroids, decided Dec. 7, 1956, Interference No. 87,617, claims 1 and 3.

Pat. 2,681,777, F. H. S. Rossire, Automatic steering system, decided Dec. 13, 1956, Interference No. 87,406, claims 4, 5, and 6.

Pat. 2,690,233, J. J. Dreznes, Combination air cleaner and silencer, decided Nov. 29, 1956, Interference No. 87,445, claims 1, 2, and 3.

Pat. 2,691,940, F. R. McFarland, Transmission, decided Dec. 12, 1956, Interference No. 87,782, claim 5.

Disclaimer

2,718,677.—*George W. Cornell*, Miami, Fla. THRESHOLD AND DOOR SEALING CONSTRUCTION. Patent dated Sept. 27, 1955. Disclaimer filed Nov. 6, 1956, by the inventor and *W. Elder Cornell, Jr.*, assignee of one-half interest, assenting.

Hereby enter this disclaimer to claim 17 of said patent.

Patents Available for Licensing or Sale

2,758,603. Process and Apparatus for Curing Tobacco. Runar Rafael Heljo, Mäyrätie 2 D, Helsinki, Finland. Correspondence to Michael S. Striker, 511 Fifth Ave., New York 17, N. Y.

General Electric Company is prepared to grant non-exclusive licenses to domestic manufacturers on reasonable terms under the following 36 patents.

Applications for licenses under the following 18 patents may be directed to: Hotpoint Co., 227 South Seeley Ave., Chicago 12, Ill.

Clothes Washing Apparatus

2,646,673. Clothes-Washing Machine.

2,711,076. Turbine Type Hydraulic Coupling.

2,711,189. Auxiliary Water Storage Tank for Clothes Washing Machines and the Like.

2,723,737. Clutch and Fluid Drive Units for Clothes Washing Machines and the Like.

2,726,513. Clutch and Fluid Coupling.

Clothes Drying Machines

2,695,460. Clothes Drying Machine.

2,720,037. Clothes Drying Machines.

Electric Cooking Ranges and Heating Elements Therefor

2,233,182. Electric Heater.

2,597,825. Combination Electric and Ultra High-Frequency Heating Apparatus.

2,632,838. Ultra High-Frequency Electromagnetic Radiation Heating Method and Apparatus.

2,686,250. Electric Heating Apparatus.

2,716,694. Combination Electric and Ultra-High Frequency Heating Apparatus.

Electric Dishwashers

2,257,436. Washing Apparatus.

2,271,993. Valve Construction for Washing Apparatus.

2,657,695. Dishwashing Apparatus Provided With Centrifugal Separation Sump.

2,668,589. Cyclic Control Program System.

Food Waste Disposers

2,719,011. Waste Disposal Comminutor With Rotary Impeller and Stationary Ring of Successively Differently Facing Cutting and Abrading Elements.

Miscellaneous

2,186,848. Trailer Truck.

Applications for licenses under the following 13 patents may be addressed to: General Electric Company, Aircraft Gas Turbine Division, Cincinnati 15, Ohio, Attention Counsel.

2,345,564. Bearing Arrangement.

2,348,748. Gas Turbine.

New Applications Received During November 1956

Patents	5,887
Designs	398
Plants	12
Reissues	20
Total	6,317

Issue

Patents	1,002	No. 2,778,019 to No. 2,779,020, incl.
Designs	36	No. 179,552 to No. 179,587, incl.
Plants	1	No. 1,556
Reissues	1	No. 24,267
	1,040	

2,362,514. Centrifugal Compressors.

2,368,501. Filter Control for Aircraft Engines and Superchargers.

2,388,997. Cooling Arrangement for Gas Turbines.

2,392,858. High Speed Rotors for Centrifugal Compressors and the Like.

2,424,436. Pipe Couplings.

2,451,835. Supercharger Control Systems.

2,453,524. Centrifugal Compressors.

2,454,580. Methods of Manufacturing Bladed Rotors.

2,541,850. Shaft Seal Arrangements.

2,605,081. Cooling Means for Gas Turbine Wheels.

2,622,023. Titanium-Base Alloys.

Applications for licenses under the following 5 patents may be addressed to: General Electric Company, Patent Counsel, Industrial Power Components Division, 41 Woodford Ave., Plainville, Conn.

2,231,584. Electric Discharge Apparatus.

2,264,035. Starting Circuit for Electric Discharge Devices.

2,314,311. Apparatus for Starting and Controlling Electric Discharge Devices.

2,334,567. Apparatus for Starting and Controlling Discharge Devices.

2,477,131. Junction Box.

CONDITION OF PATENT APPLICATIONS AS OF NOVEMBER 30, 1956

Total number of pending applications (excluding Designs)	216,863
Total number of pending Design applications	6,276
Total number of applications awaiting action (excluding Designs)	114,284
Total number of Design applications awaiting action	2,832
Date of oldest new application	Aug. 1, 1955
Date of oldest amended application	Sept. 1, 1954

ROSA, M. C., Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
I. STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.
II. STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 23, 26, 37, 42, 44, 48, 51, 54, 69, 70.
III. YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
IV. FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
V. HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	8, 20, 29, 33, 36, 40, 41, 52, 66.
VI. MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS	1, 4, 5, 9, 10, 18, 22, 28, 45, 47.
VII. KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
CL. GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	12-22-55	1-27-55
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers	3-1-56	9-12-55
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys	4-13-56	3-31-55
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Feeding of Indefinite Lengths	3-7-56	3-13-55
5. (VI) ROBINSON, C. W., Harvesters; Potato Diggers; Stalk Pullers and Choppers; Stone Gatherers; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates	2-23-56	7-18-55
6. (I) SURLE, H., Carbon Chemistry (part), e. g. Natural Resins, Proteins, Heterocyclic Amides, Amines, General Organic Processes	11-10-55	9-2-55
7. (IV) GONSALVES, J. E., Optics, Photographic Apparatus	12-28-55	8-16-55
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture	11-17-55	3-9-55
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	3-2-56	3-16-55
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	12-23-55	4-15-55
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	2-13-56	5-3-55
12. (III) SPINTMAN, S., Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	1-25-56	11-8-54
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	2-13-56	1-3-55
14. (III) MANIAN, J. C., Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes	12-12-55	12-16-54
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	3-1-56	1-24-55
16. (II) LOVEWELL, N. N., Television; Telephony; Recorders	10-26-55	9-20-54
17. (IV) LEIGHEY, R. A., Paper Manufactures; Packaging; Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	12-28-55	1-18-55
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	1-16-56	2-3-55
19. (VII) PATRICK, P. L., Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners	2-17-56	6-1-55
20. (V) BROWN, L. M., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking	3-14-56	4-8-55
21. (III) MADER, R. C., Textiles	2-13-56	2-24-55
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows; Boring and Drilling	12-27-55	12-17-54
23. (II) ANDRUS, L. M., Cash and Fare Registers; Calculators and Counters; Education	10-17-55	10-11-54
24. (III) DRACOPOULOS, P. T. (HICKEY, T. J., acting), Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	3-5-56	3-17-55
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus	4-9-56	9-6-55
26. (II) YOUNG, R. R., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanism	4-2-56	11-3-55
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	3-7-56	5-27-55
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Chute, Skid, Guide and Way Conveyers; Fluid Current Conveyers; Pressure Modulating Relays; Pneumatic Dispatch; Store Service; Wheel Substitutes	12-2-55	4-4-55
29. (V) HABECKER, L. B., Tools; Woodworking; Button, Barrel and Wheel Making; Rubber Tire Removing Tools; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers	2-14-56	11-25-55
30. (VII) O'LEARY, R. A., Refrigeration; Heating Systems; Automatic Temperature and Humidity Regulation, Thermostats, Humidistats; Illuminating Burners; Miscellaneous Heating	6-4-56	9-20-55

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) HUTCHISON, E. W., Carbon Chemistry (part), e. g. Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Synthetic Resins (part)	12-23-55	4-11-55
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	3-5-56	9-16-55
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Building Structures; Roads and Pavements	3-19-56	2-1-55
34. (IV) SHANK, J. S. (acting), Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	1-12-56	1-3-55
35. (IV) BROMLEY, E. D., Dispensing; Filling and Closing Receptacles; Toilet, Kitchen and Table Articles; Sheet or Web Feeding	1-20-56	5-23-55
36. (V) McFADYEN, A. D., Measuring and Testing	11-29-55	11-25-55
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating	11-30-55	7-13-55
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g. Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	4-27-56	2-3-56
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	3-1-56	1-3-55
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	5-1-56	12-1-55
41. (V) GURLEY, R. B., Coin Controlled Apparatus; Dispensing Cabinets; Coin Handling; Mail, Fare or Other Collection Boxes or Chutes; Buckles, Buttons and Clasps; Racks; Fire Escapes; Ladders; Scaffolds	11-21-55	12-1-54
42. (II) MARANS, H., Electric Signaling; Signals and Indicators; Telegraphy; Electrical Connectors	8-10-55	1-4-55
43. (I) ARNOLD, D., Medicines, Poisons, Cosmetics; Sugar and Starch; Skins, and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus)	12-8-55	7-13-55
44. (II) EVANS, N. H., Antennas; Automatic Pilots; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	8-1-55	9-1-54
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances	12-23-55	3-25-55
46. (I) WILES, W. G., Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Surgery (part); Radioactive Medicines; Irradiation Chemistry; Carbon Chemistry (part)	1-9-56	2-1-55
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles	3-15-56	11-4-55
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Spark Plugs and Ignition Systems, Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers	11-8-55	11-12-54
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring	12-30-55	6-27-55
50. (I) BENGEL, W. G., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber	1-26-56	1-28-55
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Music	2-20-56	11-29-54
52. (V) NEFF, P. R., Supports; Joint Packing; Valved Pipe Joints or Couplings; Rod Joints or Couplings; Tool Handle Fastenings; Shaft Packing	1-12-56	1-6-55
53. (IV) REYNOLDS, E. R., (NINAS, G. A., acting), Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings and Shutters; Harness; Whip Apparatus	2-14-56	6-22-55
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g. X-Ray, Ultraviolet, Radioactive) Applications	3-1-56	2-9-55
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Sorting Solids; Centrifugal Bowl Separators; Comminutors	8-30-55	12-6-54
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	3-1-56	12-14-55
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings	6-4-56	1-9-56
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Food Apparatus; Closure Operators; Baths, Closets, Sinks and Spittoons	2-14-56	6-15-55
59. (I) HENKIN, B., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	2-29-56	5-4-55
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	1-24-56	1-27-55
61. (III) MORSE (Miss), E. L., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery	3-5-56	4-25-55
62. (IV) SHAPIRO, A., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination	3-5-56	10-11-55
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds	3-5-56	4-4-55
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	3-9-56	2-3-55
66. (V) LISANN, I., Geometric Instruments; Automatic Weighing Scales; Acoustics	3-2-56	10-11-54
67. (VII) KRAFFT, C. F., Laminated Fabrics; Ornamentation; Bleaching, Dyeing, Fluid Treatment of Textiles	11-25-55	4-18-55
69. (II) GALVIN, D. J., Wave Guides; Electric Meters; Sound Recording; Conductors; Insulators	3-1-56	9-29-54
70. (II) BREWRINK, J. L., Security laws administration.		
CLASS. DIVS. I BAILEY, J. S., Paper Making; Mineral Oils	3-19-56	2-17-56
CLASS. DIVS. II LADY, J. E., Oscillators; Amplifiers; Resistances and Rheostats	2-13-56	9-19-55
CLASS. DIVS. III WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres	2-23-56	10-5-55
CLASS. DIVS. IV BERLOWITZ, W. (acting), Harrows and Diggers; Plows; Fluid Sprinkling, Spraying and Diffusing	2-17-56	8-29-55
CLASS. DIVS. V ANGEL, C. D., Liquid Separation or Purification; Sewerage	3-1-56	3-1-56
DESIGNS (III) A—MONCURE, J. A. Industrial Arts	4-4-56	5-8-56
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	4-11-56	5-2-56

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during January 1957, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

Patents ..... Numbers 2,185,170 to 2,188,894, inclusive
Plant Patent ..... Numbers 352 to 360, inclusive

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,125,758, H. F. Waters, Machine for manufacturing bags, **filed** Jan. 19, 1955, D. C., E. D. N. Y. (Brooklyn), Doc. 15136, *George P. Converse & Co. Inc.* v. *Vertrod Corp.* Case dismissed under Rule 21, Dec. 10, 1956.

2,222,333, Wenzel and Kramer, Rubber bed and type holder therefor, **filed** Dec. 6, 1956, D. C., S. D. N. Y., Doc. 115/219, *Base-Lock Rubber Type Co.* v. *Consolidated Stamp Mfg. Co. Inc.*

2,238,946, R. M. Roberts, Carpet fastener, **filed** May 24, 1956, D. C., E. D. N. Y. (Brooklyn), Doc. 16584, *Roberts Mfg. Co.* v. *American Tackless Corp.* Consent judgment Dec. 12, 1956.

2,241,365, M. C. Meyer, Curved surface light reflecting ornament; **2,395,492,** same, Light reflecting ornament, **filed** Mar. 11, 1955, D. C., E. D. N. Y. (Brooklyn), Doc. 15347, *The Richelieu Corp.* v. *Mastercraft Plastics Co. Inc.* Case dismissed under Rule 21, Dec. 10, 1956.

2,384,806, 2,549,361, E. Berdach, Undergarment, **filed** Dec. 6, 1956, D. C., S. D. N. Y., Doc. 115/225, *Lily of France, Inc.* v. *S. Klein Department Stores, Inc.*

2,395,492. (See 2,241,365.)

2,398,817, N. C. Turner, Method of separating gases or the like; **2,398,818,** same, Apparatus for separating gases and the like, **filed** Dec. 10, 1956, D. C. Conn. (New Haven), Doc. 6477, *Burrell Corp.* v. *The Perkin-Elmer Corp.*

2,398,818. (See 2,398,817.)

2,461,464, R. Aronstein, Filter for fluorescent screens, **filed** Dec. 6, 1956, D. C., S. D. N. Y., Doc. 115/217, *Transmirra Products Corp. et al.* v. *Allen B. Du Mont Laboratories, Inc. et al.*

2,526,029, J. N. Judelson, Machine for cutting materials into strips, **filed** Nov. 16, 1950, D. C., E. D. N. Y. (Brooklyn), Doc. 11229, *David N. Judelson et al.* v. *M. & S. Plastic Cutting & Trimming, Inc.* Order of dismissal Dec. 10, 1956.

2,533,850, F. P. Syracuse, Utility handbag having double compartment with individual closures and independently accessible bottle pockets, **filed** Dec. 7, 1956, D. C., E. D. Mo. (St. Louis), Doc. 10988(*x*2), *Frances P. Syracuse* v. *H. Daust Mfg. Co.*

2,549,361. (See 2,384,806.)

2,675,634, K. C. Knapp, Earth loosening apparatus, **filed** May 15, 1956, D. C., N. D. Tex. (Wichita Falls), Doc. 1035, *Kenneth C. Knapp* v. *Ted Price, doing business as Ted Price Construction Co.* Injunction issued restraining defendant, Ted Price, as an individual, and Ted Price Construction Co from infringing patent (notice Dec. 10, 1956).

2,694,182, Edlen and Diambra, Impedance-matching tap-off coupler for wave transmission lines; **2,694,183,** same, Tap-off coupler with fixed attenuation for coaxial lines, **filed** Dec. 6, 1956, D. C. Md. (Baltimore), Doc. 9308, *Entron of Maryland, Inc.* v. *Jerrold Mid-Atlantic Corp.*

2,694,183. (See 2,694,182.)

2,707,579, V. C. Vincent, Water pistol, **filed** June 3, 1955, D. C., E. D. N. Y. (Brooklyn), Doc. 15602, *Palmer Plastics Inc.* v. *Nathan Kaplan et al.* Order of dismissal under Rule 21, Dec. 10, 1956.

2,723,598, T. C. Mann, Power actuated router, **filed** Dec. 10, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c2064, *Ekstrom-Carlson & Co.* v. *Onsrud Machine Works, Inc.*

2,768,101, B. R. Fairchild, Process for removing incrustation from a surface, **filed** Dec. 7, 1956, D. C., S. D. Fla. (Miami), Doc. 7307–M, *Bufkin R. Fairchild* v. *Poe Roof Co.*

2,772,734, D. N. Judelson, Bias cutting machine, **filed** Dec. 5, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c2040, *Oscar I. Judelsohn, Inc.* v. *Quick Service Textiles, Inc.*

Des. 178,091, L. W. Sparks, Watch or similar article, **filed** Dec. 10, 1956, D. C. Conn. (New Haven), Doc. 6476, *Vacheron & Constantin-Le Coultre Watches, Inc.* v. *Benrus Watch Co., Inc.*

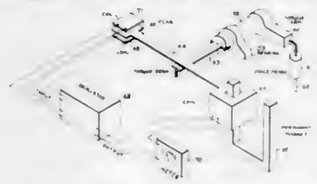
REISSUES

JANUARY 22, 1957

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,267
ELECTRONIC DISPLACEMENT MEASURING MEANS
Hans J. Ostermann, Westport, Arno G. K. Wilkens, Shelton, and Charles B. Bryan, New Haven, Conn., assignors to Manning, Maxwell & Moore, Inc., Bridgeport, Conn., a corporation of New Jersey
Original No. 2,593,339, dated April 15, 1952, Serial No. 554,128, September 14, 1944. Application for reissue April 1, 1954, Serial No. 427,403
(Filed under Rule 47(a) and 35 U. S. C. 116)
13 Claims. (Cl. 340—187)

10. In a control system, the combination including means having a planar control element displaceable in an amount proportional to the deviation of a variable from a preset condition, means including a planar control inductor positioned adjacent said control element for developing an output current which varies in accordance with movement of said control element in a line perpendicular to the plane of said inductor, an output circuit including means energized by said output current for applying a



force to said displaceable means in opposition to the displacement of said displaceable means and proportional to said output current, and a work circuit energized by said output current.

PLANT PATENTS

GRANTED JANUARY 22, 1957

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,556
ROSE PLANT
Harris H. Blixen, Edwardsville, Ill., assignor to Woodlawn Gardens, Inc., Edwardsville, Ill., a corporation of Illinois
Application March 12, 1956, Serial No. 571,110
1 Claim. (Cl. 47—61)

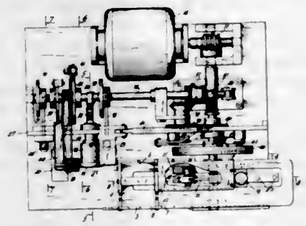
A new and distinct variety of rose plant, substantially as herein shown and described, and characterized as to novelty particularly by the uniform all-over dark red color tonality of the blooms which do not pale when stored in refrigeration, its abundance of large flowers, the large size and pointed shape of the buds, its large green leaves with red veining, its sturdy stiff stems, and its upright vigorous growth.

PATENTS

GRANTED JANUARY 22, 1957

GENERAL AND MECHANICAL

2,778,019
MACHINES FOR ATTACHING TICKETS TO MERCHANDISE
Joseph Welmont, Bogota, N. J., assignor to A. Kimball Company, New York, N. Y., a corporation of New York
Application February 24, 1953, Serial No. 338,369
6 Claims. (Cl. 1—3)



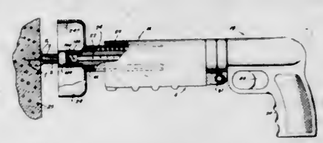
1. Apparatus for stapling unstapled tickets to merchandise, comprising, in combination, means for feeding separated, individual unstapled tickets from a supply thereof, means for receiving an unstapled ticket which has been fed by said feeding means and for holding said ticket during a stapling operation, means for advancing said receiving means from the position where it receives the ticket to stapling position, and means for driving a staple through said ticket and for clinching said staple to said ticket.

2,778,020
STUD DRIVING TOOL
Virginius R. Erickson and Benjamin B. Bullwinkle, Portland, Oreg., assignors, by mesne assignments, to Oregon Saw Chain Corp., Portland, Oreg., a corporation of Oregon
Original application December 29, 1949, Serial No. 135,744, now Patent No. 2,722,003, dated November 1, 1955. Divided and this application July 18, 1955, Serial No. 522,746
1 Claim. (Cl. 1—44.5)

In a stud driving tool, a breech plug insert for transitional mounting in the barrel of the tool, said barrel having a bore, said insert including a portion of larger diameter at one end having a seat for a cartridge and a stud positioning extension of reduced diameter at the other end for insertion into said bore and having a passage communicating with the opening of said seat.

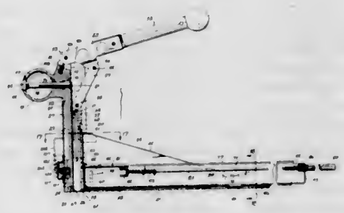
2,778,021
FASTENER DEVICE
Elmer F. Pfaff, Mantua, Ohio
Application December 12, 1955, Serial No. 552,501
5 Claims. (Cl. 1—44.5)

1. A coupling applicator for securing fasteners of the type described including an orificed coupling and a headed impaling pin, comprising a barrel extension member one end of which is adapted to abut with a work surface and having at its other end means for attaching said member at the muzzle of the barrel of a powder actuated driving tool having a barrel bore for ejection of said pin, a passageway through said extension member of a diameter larger than said barrel bore and in axial alignment therewith when said member is attached at said muzzle, said pasageway being adapted to receive one end of said coupling in substantial axial alignment with said barrel bore, means on said extension member for yieldably retaining said coupling in said member in substantial axial alignment ahead of said muzzle to enable said pin to be driven into the orifice of said coupling upon



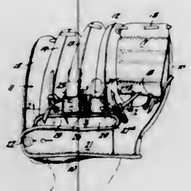
actuation of said tool, and a recess at said abutting end of said member in registry with said passageway to receive the other end of said coupling, said recess being of a diameter sufficiently in excess of the diameter of said passageway to prevent resistance to separation of said barrel extension member and said coupling after the fastener is driven, said pasageway and recess having an overall length at least substantially equal to the length of said coupling whereby the entire coupling is receivable therein substantially flush with said first end of said member and in abutment with the work surface.

2,778,022
STAPLE MAGAZINE AND FEED MEANS FOR STAPLING MACHINES
Werner Schafroth, Havertown, Pa., assignor to International Staple and Machine Company, Havertown, Pa., a corporation of Pennsylvania
Original application October 3, 1950, Serial No. 188,117, now Patent No. 2,722,001, dated November 1, 1955. Divided and this application June 6, 1955, Serial No. 516,189
7 Claims. (Cl. 1—49)



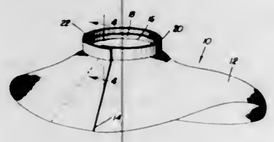
1. In a stapling machine of the character described, a frame providing a space adapted to receive a staple to be driven, a magazine carrying a staple cartridge adapted to supply staples to said space, and means for detachably supporting said magazine in operative position relative to said frame, said means including spring-biased pivotable support for yieldably holding said magazine in assembled position relative to said frame.

2,778,023
BASEBALL GLOVE
Walter T. Tompkins, Nocona, Tex.
Application September 22, 1955, Serial No. 535,783
10 Claims. (Cl. 2—19)



1. A baseball glove comprising a padded front section, including palm, finger and thumb portions, back portions respectively cooperating with said finger and thumb portions to form finger and thumb sheaths, the back portions of certain finger sheaths terminating medially of said palm, a wrist strap extending across the wrist edge of said palm portion and with the medially terminating back portions of said certain finger sheaths defining an opening in the back of said glove, a flexible strap secured across the backs of said certain finger sheaths at transversely spaced points over the root portions thereof to define finger receiving loops in registry with the respective sheaths, whereby certain of the fingers of the wearer may be projected exteriorly of the glove through said opening and through said loops, rearwardly of and in registering, controlling relation with their respective finger sheaths, while the remaining fingers and thumb are inserted within the glove in their respective sheaths.

2,778,024
NECK PROTECTOR
Henry G. Randolph, Houston, Tex.
Application November 9, 1954, Serial No. 467,809
1 Claim. (Cl. 2—50)

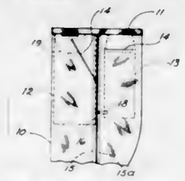


A neck protector for use by barbers comprising an enlarged sheet of flexible material having a centrally disposed neck-receiving opening therein, said opening being defined by an upstanding continuous flange, said sheet of material having a laterally extending entrance slit forming an entrance to said opening, said slit having free edges disposed in overlapped relation, and an upstanding member having an adhesive covering on the entire inner surface thereof, said upstanding member being equal in length to the upstanding flange and adhesively secured to the outer surface thereof, said upstanding flange extending less than one-half of the vertical height of the upstanding member whereby the adhesive surface above the upper edge of the upstanding flange will secure the upstanding member to a person's neck in sealed relation and releasably retain the edges of the slit in the sheet of material and the ends of the upstanding member in overlapped relation, thereby forming a protector to prevent foreign material from engaging the neck and shoulders of a person receiving a hair cut.

2,778,025
VEIL CONSTRUCTION
Edith S. Burrows, Washington, D. C., assignor of one-fourth to Laforest S. Saulsbury, New York, N. Y.
Application November 24, 1954, Serial No. 470,984
2 Claims. (Cl. 2—207)

1. A veil formed of open mesh material and a pattern formed of material of greater rigidity than the veil material attached to the mash material centrally of the veil and spaced inwardly from both sides thereof and said pattern adapted to overlie the rims and the ear pieces of the glasses on a wearer's face and comprising two spaced oval portions having view openings adapted to be aligned with the lenses of the glasses and through which the eyes may look, an interconnecting portion extending between the two oval portions and adapted to overlie the bridge of the glasses and temple cover portions extending respectively from the respective outer ends of the oval portions and adapted to overlie the ear pieces of the glasses, said pattern being sufficiently self-supporting to hold the shape of its view openings in front of the lenses of the glasses yet flexible enough to permit the extension of the temple cover portions over the ear pieces of the glasses upon the veil being shaped or tensioned about the face.

2,778,026
POCKET STRUCTURE FOR WASHABLE WORK CLOTHES
Samuel Rosenthal, Cleveland, Ohio
Application January 26, 1955, Serial No. 484,149
3 Claims. (Cl. 2—247)



2. A pair of washable working pants including a waistband and leg portions, side seams in said leg portions, free over-lapping edges in said side seams, rectangular side pockets in said pants, the length of said side pockets being approximately double the width thereof, each of said side pockets having a hand opening in the upper portion thereof between said waistband and its contiguous side seam, the length of said opening being no greater than one-half the length of the pocket, the top of each pocket being sewed to said waistband and the near side edge of each pocket being sewed throughout its length to the adjacent overlapped edge of its contiguous side seam, whereby the free lower corner of the pocket is restrained from turning inside-out and protruding through said hand opening during the washing operation of the pants.

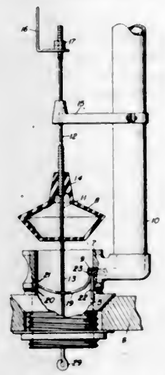
2,778,027
SLEEVE AND GLOVE CLOSURE
John G. Bacon, Roslyn Heights, N. Y.
Application April 12, 1954, Serial No. 422,317
1 Claim. (Cl. 2—270)

A sleeve and glove closure comprising a unitary tubular article of predetermined length including a pair of

tubular members, one within the other and stitched together to provide a constricted annular zone intermediate

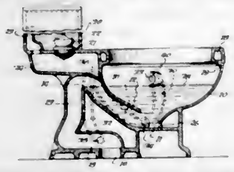
both ends thereof, said zone being flexible but less yieldable than other portions of said article, and a separable double thickness of fabric at at least one end thereof.

2,778,028
FLUSH VALVE GUIDE FOR FLUSH TANKS
Norman Weiner, Minneapolis, Minn.
Application January 20, 1955, Serial No. 483,130
1 Claim. (Cl. 4—57)



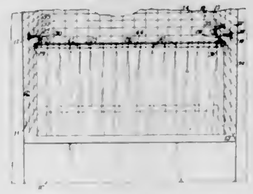
In a flush tank, the combination of an outlet having a valve seat and inner side walls and also having a passage leading to an overflow pipe, a ball valve adapted to engage the valve seat, and upper and lower guide means for the valve, said lower guide means comprising a rod extending downwardly from the valve, a resilient strap metal guide having downwardly projecting flanges at its end portions positioned internally of the outlet, said guide having a concave central portion, said flanges engaging said inner side walls of said outlet, and a shoulder projecting laterally at the junction of one of the flanges and inserted in said passage to support the guide in the outlet.

2,778,029
NON-OVERFLOW WATER CLOSET
Willard G. Young, Robinson, Ill., assignor, by mesne assignments, to Case Manufacturing Corporation, Robinson, Ill., a corporation of New York
Application November 25, 1953, Serial No. 394,361
2 Claims. (Cl. 4—75)



1. In a water closet having a bowl with a well at the bottom thereof, and a jet opening in the wall of said well and a main trapway communicating at its entrance end with said well opposite said jet opening, said main trapway including a steeple and upleg and downleg on opposite sides thereof, the combination therewith of means arranged to prevent the overflow of the bowl in the event said main trapway becomes plugged and providing an auxiliary syphonic trapway having interconnected riser, ascending and descending passages, a steeple between said ascending and descending passages and arranged at a higher level than said first mentioned steeple, the upper end of said riser passage being ported to the interior of the bowl above the normal level of water maintained therein, the low point of juncture between said riser and ascending passages being ported to said well at a location in the said wall thereof between said jet opening and the entrance to said main trapway and at about the same elevation as said jet opening whereby water discharged therefrom flows transversely of such port, and the lower end of said descending passage being ported to said downleg.

2,778,030
SHOWER STALL
Jean Goché, Marysville, Ohio
Application January 14, 1954, Serial No. 403,992
1 Claim. (Cl. 4—149)

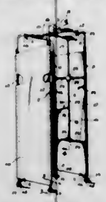


In a shower stall, opposed side walls with the front edges thereof defining the open front of said stall, a bottom for said shower stall and having an upstanding retaining portion along the front thereof for collecting and conveying shower water, socket-like mounting members on said opposed side walls in the same horizontal plane and equidistant from the front edges of said side walls, a straight rod having outer ends and a uniform cross section throughout with the median portion of the rod between the outer end portions thereof being positioned flush with the front edges of said side walls, each end portion of said rod having an inward bend and an outward bend a substantial distance therefrom with said bends being with respect to said front edges of said stall side walls, the outer ends of said rod being non-rotatably supported within said mounting members with the ends of said rod between said outer ends and said outward bends being only slightly longer than said mounting members whereby the portions of said rod between said outward and inward bends are slightly spaced from said opposed side walls, and a shower curtain having its upper edge suspended from said rod and its lower edge within said bottom retaining portion with said shower curtain extending the length of said median portion and said end portions whereby appreciable amounts of each end portion of said shower curtain is adjacent and parallel to said opposed side walls to prevent the escape of water around the ends of said shower curtain and to guide shower water downwardly into the bottom of the shower stall.

2,778,031
EMERGENCY SHOWER
Hugh H. Logan, La Canada, Calif.
Application August 26, 1952, Serial No. 306,448
6 Claims. (Cl. 4—152)

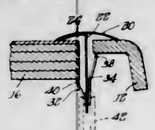
1. In an emergency shower, a pipe system, a plurality of shower heads supported and interconnected by said pipe system, said shower heads being positioned about an area employed by a user and being inwardly directed to

spray water at all sides of the user, a water supply pipe connected to said system, a quick opening valve disposed in said supply pipe, an elongated vertical vane extending, in normal position, into said area to be engaged by the



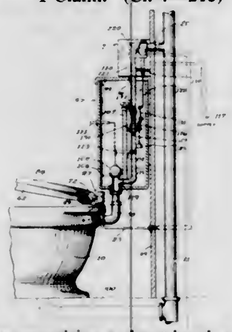
body of said user when entering said area, means mounting said vane for horizontal pivotal movement about a vertical axis at one edge of the vane, and means operatively connecting the vane and valve for opening of the latter upon swinging of the vane from said normal position.

2,778,032
SELF-LOCKING SINK FRAME
William J. Meehan, Peoria, Ill.
Application September 22, 1952, Serial No. 310,865
12 Claims. (Cl. 4—187)



1. A molding frame for sealing between the upper lateral lip of a kitchen sink and the edge of a surrounding cover-sheet for a counter, including a rigid elongated body member being substantially T-shaped in cross-section and having a horizontal flange portion with a single leg which depends between the lip and said edge; an elongated attaching element being substantially U-shaped in cross-section and thrust upwardly to envelop the major vertical portion of said leg; an upwardly and outwardly slanting flange integral with said element and coacting with the horizontal flange portion of said member for impinging the sink lip; an upwardly and outwardly slanting spring arm carried by said element and coacting with said horizontal portion for impinging the edge of said cover-sheet; and means for rigidly anchoring said attaching element to said body leg.

2,778,033
VENTILATOR FOR WATER CLOSETS
Charles J. Majauskas, Chicago, Ill.
Application July 11, 1955, Serial No. 521,202
1 Claim. (Cl. 4—213)



In a device comprising a closet bowl, a water tank having an inlet and a discharge outlet communicating with said bowl, a valve for controlling discharge of water from said tank to said outlet, and an overflow pipe having its upper end open to atmosphere and having its lower end in direct communication with said discharge outlet; suction means for exhausting odors from said bowl, said suction means including a control unit mounted above the water tank and having an electrically operated solenoid and an electrically operated exhaust blower in communication with an exhaust pipe extending into said tank for direct communication with said discharge outlet, a leverage system mounted within said tank for actuating a valve for closing the upper end of said overflow pipe, yieldable means engaging said leverage system for continuously urging said valve open, said solenoid being connected to said leverage system and adapted when energized for actuating said valve closed, and means for actuating said solenoid and said blower in synchronism.

2,778,034
COMBINATION FURNITURE
Margaret Williams Smith, Pasadena, Calif.
Application October 26, 1950, Serial No. 192,242
1 Claim. (Cl. 5—2)

A piece of furniture which comprises a cabinet having enclosed storage space for clothing and the like, said cabinet having floor engaging casters and having a flat top about waist-high above the floor, a drawer in said cabinet just beneath said top thereof, a removable tub in said drawer, means for supporing said drawer for slidable movement from a position within said cabinet to a position partially outside of said cabinet and in which the outside part of said tub is clear of the top of said cabinet, said last mentioned means being arranged to prevent tipping of said drawer when in said partially outside position thereof, a separately removable tray within said tub, a slatted enclosure mounted on the top of said cabinet and extending about shoulder high, said enclosure having four interconnected side members and being open at the top thereof to form a crib, one of the sides of said enclosure being shiftable to provide ready access to the interior thereof, said shiftable side of said enclosure being arranged to face said top when said top is clear of said cabinet whereby an infant may be shifted directly between said tub and said crib, and means for detachably retaining said enclosure on the top of said cabinet.

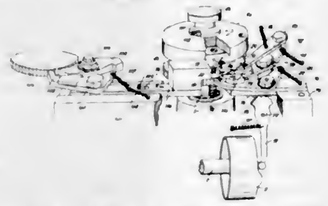
2,778,035
METAL BOAT SEAM
Leonard Tykwinski, Little Falls, Minn.
Application October 28, 1952, Serial No. 317,169
3 Claims. (Cl. 9—6)

1. In a boat hull construction, a bow and bottom formed of a single sheet of material having curved portions joined together by a bow plate, side pieces secured to said bottom and said bow by seams which partly lie in the chine line and partly sweep upwardly and forwardly, gunwales secured to upper edges of said bow and said side pieces, said gunwales overlying and intersecting said seams.

2,778,036
OAR LOCK AND PROTECTOR
Carl R. Bergman, Minocqua, Wis.
Application July 31, 1953, Serial No. 371,555
1 Claim. (Cl. 9—26)

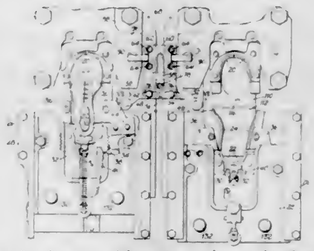
An oar lock comprising a ring having a trackway formed in the inner face thereof, a pair of arcuate plates adapted to be mounted upon opposite sides of an oar, a bulged portion extending centrally outwardly from each of said plates and having a non-circular recess in the inner face thereof, a pair of pins each having a head affixed in closely fitting relation in one of said recesses, said pins extending radially outwardly in diametrically opposite directions with respect to the oar, a roller revolubly mounted on the outer end of each pin and positioned in said trackway.

2,778,037
SCREW CUTTING MACHINE FOR PROGRESSIVELY CUTTING SINGLE OR MULTIPLE PITCH THREAD
Pierre Edouard Renoux, Argenteuil, France, assignor to Societe Anonyme dite: Cri-Dan, Paris, France, a French company
Application July 23, 1952, Serial No. 300,441
Claims priority, application France July 25, 1951
7 Claims. (Cl. 10—101)



1. Device for effecting simple or multiple threadings with a threading machine-tool, comprising a shaft controlling the longitudinal displacements of the tool-holder, a driven ratchet-wheel, a cam mounted on said shaft, an oscillating lever actuated by said cam, a set of teeth on said lever, a rack meshing with said set of teeth, a slide carried by said rack, a pawl carried by said slide and driven in a reciprocating movement by said cam for actuating said driven ratchet wheel in one direction, a rotatable shaft having said driven ratchet wheel fixedly mounted thereon, a second pawl for retaining said driven ratchet wheel from rotation in an opposite direction, a disc capable of being locked in any desired angular position on said shaft of said driven ratchet-wheel, a finger carried by said disc, a second finger freely positioned on said shaft for being displaced by said first-mentioned finger after the desired number of thread cuts has been achieved without any transversal feed of the tool taking place, and during the next movement imparted to said driving pawl by said cam, said free finger being positioned for engaging said retaining pawl upon displacement of said free finger withdrawing said retaining pawl from and releasing said driven ratchet wheel, said driving pawl and retaining pawl being relatively positioned for causing portions thereof to engage upon movement of said driving pawl and withdrawal of said retaining pawl preventing said driving pawl from engagement with said driven ratchet wheel, a member integral with said driven ratchet wheel and adapted to bring back said free finger into its initial position, a spring for returning said driven ratchet wheel to its initial position upon being released, said rotary disc having a projection provided on the periphery thereof, a second slide against which said projection abuts when said first mentioned finger abuts said free finger, a pawl carried by said second slide, a driving ratchet-wheel being actuated by said second slide carried pawl providing a further transversal feed of the tool after the desired number of cuts.

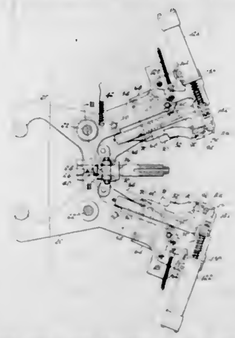
2,778,038
MACHINES FOR SHAPING STITCHDOWN UPPERS OVER LASTS
Ernest L. Butler, Lynn, and Otis M. Holmes, Beverly, Mass., assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application March 11, 1954, Serial No. 415,478
18 Claims. (Cl. 12—7.5)



1. In a lasting machine, toe wipers, heel wipers, side wipers, means for actuating the side wipers, and means for augmenting the lasting pressure applied by the side wipers widthwise of a shoe in the machine.

8. In a machine for shaping shoe uppers over lasts, the combination with toe wipers, of a plate for supporting a last and shoe parts thereon in upright position, a bed plate on which the last supporting plate is mounted for angular movement in the plane of the bottom of a last supported on the work supporting plate, said work supporting plate being characterized by a recess having a shape complemental to the contour of the forepart of a last bottom, and means on the bed plate for determining the angular position of the work supporting plate.

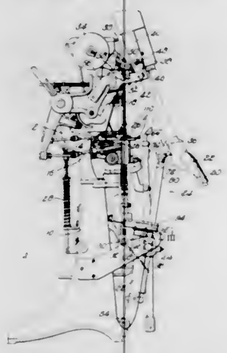
2,778,039
LASTING MACHINES
Arthur R. Hubbard, Beverly, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application September 23, 1955, Serial No. 536,182
18 Claims. (Cl. 12—12)



5. In a lasting machine having a wiper supporting member an a wiper carried by said member and adapted to

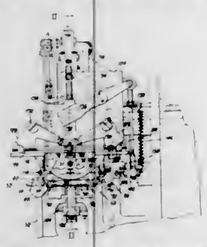
wipe the marginal portion of the upper of a shoe inwardly over an insole on its last, means for connecting one end of the wiper to said supporting member, a block for supporting the other end of the wiper and provided with an inclined pressure surface, a pressure member pivotally mounted on the wiper supporting member and having a projecting portion for engaging said pressure surface, and operating means for causing said pressure member to swing on the wiper supporting member and thereby move the block together with that end of the wiper which is supported thereon toward the bottom of the shoe.

2,778,040
HEEL END ASSEMBLING MACHINES
Herbert J. Willmott, Beverly, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application January 27, 1955, Serial No. 484,427
8 Claims. (Cl. 12—12.3)



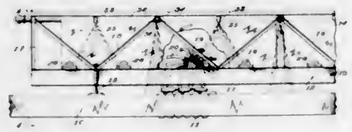
7. In an assembling machine, the combination with means for fastening a shoe upper to an insole on a last bottom, of a work support comprising a carrier, a spindle mounted on the carrier for endwise movement relatively to the carrier, and a stabilizer operating on the spindle between its extremities to hold the spindle against endwise movement and against rotation on its longitudinal axis and against movement widthwise of a last on the support.

2,778,041
HEEL SEAT FITTING MACHINES
Antonio P. Charron, Nashua, N. H., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application February 7, 1955, Serial No. 486,474
14 Claims. (Cl. 12—31.5)



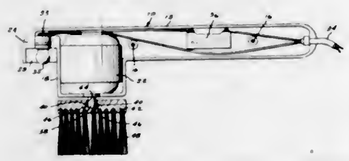
8. In a heel seat fitting machine, a crease plate which has front edges and has extending thicknesswise through it and to its front edges an opening having a rear relatively narrow U-shaped portion and a forward relatively wide entrant portion and which has dished outsole supporting and planar knife engaging faces bordering said opening and a pair of fingers which extend generally longitudinally of the crease plate but converge slightly as they extend forward of the crease plate and which separate a forward end of the U-shaped portion of the opening from rear lateral margins of the entrant portion of the opening, a bulger having a median presser portion having a length equal to the length of said opening and having lateral presser portions which are spaced from a forward portion of said median presser portion and form therewith channels which extend slightly inward as they extend forward, means for moving the bulger relatively to the crease plate at right angles to said planar knife engaging face to cause median and forward lateral portions of a heel seat portion of an outsole upon the crease plate to be forced through the opening and below the knife engaging face of the crease plate and to cause intermediate portions of the heel seat portion of the outsole to be wrapped around and supported by said fingers, a knife movable along said planar face of the crease plate to form on the outsole a heel seat tab having holddown wings at its forward lateral margins, and means for forming heel breast receiving shoulders on the outsole.

2,778,042
APPARATUS FOR CLEANING POTATOES
Rodney J. Hession, New Orleans, La.
Application November 12, 1952, Serial No. 319,978
1 Claim. (Cl. 15—3.14)



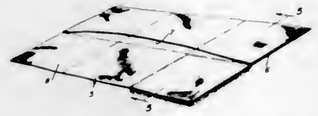
A potato cleaning machine comprising a table, conveyor means mounted on said table for rotating and advancing the potatoes, said conveyor consisting of a plurality of closely spaced transverse rollers, a plurality of spaced buffing members mounted for rotation above the table and adapted to buff the potatoes advancing on the table, said buffing members rotating in a direction opposite to the direction of the rollers, each of said buffing members comprising a shaft and a plurality of groups of fabric strips spaced along said shaft, each group consisting of several strips angularly mounted with respect to each other, the strips in each group lying in a plane inclined with respect to the plane of the table, and a plurality of liquid spraying devices mounted above the buffing members with some of the liquid spraying devices mounted between spaced buffing members whereby the fluid is directed against the potatoes being advanced.

2,778,043
ROTARY POLISHING DEVICE HAVING MEANS TO ILLUMINATE THE WORK
Myron C. Arf, Minneapolis, Minn.
Application September 11, 1953, Serial No. 379,572
1 Claim. (Cl. 15—28)



In a polishing device, a hollow casing comprising an elongated flat handle having a free end and another end, said other end terminating in an enlarged cylindrical housing extending crosswise of the handle and projecting beyond one side of the handle, said casing further including a lamp shield on the side of the housing remote from the handle, said housing having an outer end and said shield having an open side facing in the same direction in which said cylindrical housing extends, an electric motor enclosed in said housing having a shaft extending axially of said housing and projecting axially beyond said outer end of the housing, a brush secured to said shaft beyond the outer end of the housing, an electric bulb mounted within said shield, and energizing means connected to said motor and said bulb.

2,778,044
CULINARY WASHING PAD
Chester B. Mikulski, Pawtucket, R. I.
Application June 29, 1954, Serial No. 440,058
1 Claim. (Cl. 15—118)



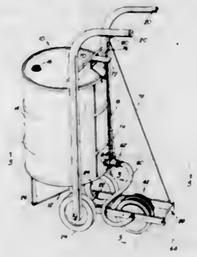
A combination cleaning device of the character described comprising a flexible fabric sheet including a pocket for the reception of a powdered detergent and further including a flap foldable over the pocket about a longitudinal line for closing said pocket, and a pad on one end portion of the flap, the intermediate portion and the other end portion of the flap being free of said pad, said other end portion of the folded flap and the corresponding end portion of the pocket being foldable transversely in either direction on their intermediate portions, said one end portion of the folded flap and the corresponding end portion of the pocket being transversely foldable selectively in one direction on their intermediate portions to conceal the pad and provide a washing device, or in the opposite direction to leave the pad exposed for providing a scouring device.

2,778,045
DENTIFRICE-CONTAINING CAPSULES
Isaiah Bly and Simon Bly, Jr., Bronx, N. Y.
Application October 31, 1952, Serial No. 317,892
1 Claim. (Cl. 15—131)

A dentifrice capsule comprising a thin hollow brittle shell of edible material conical in shape, a discardable handle removably connected to the shell, and a dentifrice in the shell completely encased therein, said shell having a weakened portion encircling its tip for the tip to be bitten off to remove the dentifrice and apply it with the remaining portion of the cone before the handle is discarded, said weakened portion being zig-zag in formation, said handle being connected to the shell adjacent its base and being disposed radially thereof.

2,778,046
WET LINE MARKER
Albert L. Fisher, Stockton, Mo.
Application November 4, 1954, Serial No. 466,891
3 Claims. (Cl. 15—131.05)

2. A marking wheel assembly comprising a normally horizontal tubular axle, a plurality of wheel forming disks journaled on said axle, means retaining said disks in spaced relation, a discharge opening in said axle for gravity feeding marking liquid down between said disks, said disks being arranged in sets, disks of one set being of a greater diameter than the disks of the other set, said



disks of said one set being freely mounted on said axle for vertical movement whereby all of said disks simultaneously engage a surface being marked.

2,778,047
STAPLE STRIP ROTARY BRUSH AND METHOD OF MAKING
Niels E. Nielsen, Summit, N. J., assignor to Newark Brush Company, Kenilworth, N. J., a corporation of New Jersey
Application January 13, 1954, Serial No. 403,728
7 Claims. (Cl. 15—198)

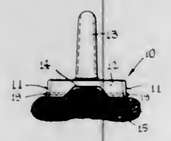
1. A rotary brush of the character described having a pair of disc shaped plates of substantially the same diameter, one plate having an inwardly projecting circular shoulder portion radially spaced a substantial distance from its outer rim and forming a principal brush support, a relatively narrow strip of strong material having groups of staples carrying brush material fastened thereto, said strip being in circular form and fitted onto said shoulder portion support, the other plate having a narrow shoulder and being fastened to the innerside of said shoulder portion, each plate having fingers which project into the brush material on the final assembly of the brush structure.

2,778,048
STAPLE PLATE ROTARY BRUSH AND METHOD OF MAKING
Niels E. Nielsen, Summit, N. J., assignor to Newark Brush Company, Kenilworth, N. J., a corporation of New Jersey
Application January 13, 1954, Serial No. 403,727
6 Claims. (Cl. 15—198)

1. A rotary brush of the character described, having a pair of disc shaped plates, one main plate only having an inwardly projecting circular hub portion radially spaced a substantial distance from the outer rim of the plate, wire brush material positioned around said hub portion and ex-

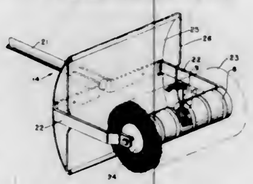
tending outwardly beyond the disc edge, staples having ends going through said inwardly projecting hub portion for holding the brush material to the hub, the staple ends being bent over on the inner side of the hub portion, while the other plate is fastened to the hub portion of the first mentioned plate so as to form a backing for the brush material.

2,778,049
SCOURING PAD HOLDER
Alfonse H. Meyer, Naugatuck, Conn., assignor of one-third to Milton N. Forde, Naugatuck, and one-third to Clarence I. McCall, Waterbury, Conn.
Application October 8, 1953, Serial No. 384,859
8 Claims. (Cl. 15—209)



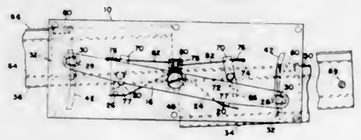
1. A holder for a scouring pad, comprising a generally flat base having a groove in its underside adapted to receive a portion of the scouring pad and having pairs of parallel bores extending substantially parallel to its upper and lower surfaces and communicating with said groove; pairs of tines connected by yoke members, said tines being adapted to pierce said portion of the pad and being carried respectively in said pairs of bores for longitudinal straight-line movement on the base between pad-retaining positions wherein they extend into the groove of the base and pad-releasing positions wherein they are retracted from the groove; manually-engageable means including said yoke members, for actuating the tines between said positions; cooperable retaining means including portions of said base and said yoke members, preventing complete removal of the tines from the base; and a handle attached to and upstanding from the base, adapted to be grasped by the hands of a user to manipulate the holder and scouring pad secured thereto.

2,778,050
PAINT APPLICATOR
Jacob A. Meinhardt, Elmhurst, Ill.
Application July 29, 1952, Serial No. 301,491
1 Claim. (Cl. 15—248)



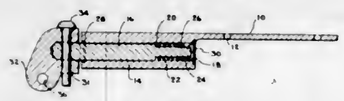
As an article of manufacture, a paint applicator having in combination a handle, a roller, supporting means for said roller comprising a pair of confronting Z-shaped members, each consisting of spaced generally parallel legs interconnected by a web portion arranged normal to said legs, said members disposed in a common plane with said handle with the web portions of said members arranged in endwise alignment, said members having certain corresponding legs secured to one end of said handle and other corresponding legs supporting said roller, whereby the axis of said roller is arranged to be supported transversely of the axis of said handle, an applicator guard comprising an arcuate plate, said plate secured medially to the aligned web portions of said Z-shaped members, a rectangular frame having two opposite sides thereof cooperating with rolled over ends of said guard to provide rigidity to said plate, the two other opposite sides of said frame subtending said arcuate plate, said other opposite sides of said frame provided centrally thereof with inwardly disposed offset portions coacting with the roller supporting legs of said Z-shaped member to hold said rectangular frame substantially perpendicular to the plane of said Z-shaped members, whereby said guard plate is held substantially concentric with said roller to shield the operator from spattered paint.

2,778,051
PIVOTED TRACK MECHANISM FOR FLUSH SLIDING DOORS
Darwin D. Menz, San Diego, Calif.
Application January 23, 1953, Serial No. 332,932
8 Claims. (Cl. 16—96)



1. A pivoted track mechanism for flush type sliding doors including a mounting plate, an arm element pivotally mounted thereon, door guiding means having two parts each pivotally attached at their adjacent ends to said arm element, locking means comprising a pair of latches on said plate and cooperating lugs correspondingly positioned on said arm element to retain said two parts in an offset relation, and release means for said locking means comprising a latch trip mechanism mounted on said plate, and trip mechanism operating members securable to the doors for engagement of the trip mechanism when the doors are closed.

2,778,052
COMBINATION EXPANSION HINGE FOR TRANSPORTATION VEHICLE DOOR
Matt L. Lucas, Minneapolis, Minn.
Application August 24, 1955, Serial No. 530,389
7 Claims. (Cl. 16—130)



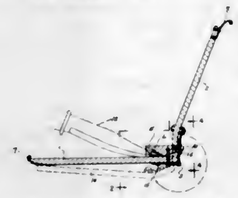
1. A hinge comprising a housing adapted to be fixed to a door, said housing having an axial bore with a restriction in the said bore spaced from the ends thereof, a bolt slideable and turnable in said bore, said bolt having a reduced diameter portion at one end, at least a part of said reduced portion machined to receive a mating member, a mating member on the machined portion, an expanding spring circumposed on said reduced diameter portion of said bolt between the said mating member and the restriction in the said bore, and an offset hinge member secured to the other end of the said bolt.

2,778,053
SEPARABLE HINGED MOUNTING FOR MOTORS OR THE LIKE
Theophil A. Hess and Paul B. McKain, Chicago, Ill., assignors to Duro Metal Products Co., Chicago, Ill., a corporation of Illinois
Application September 13, 1954, Serial No. 455,423
1 Claim. (Cl. 16—171)

A separable mounting for a motor or the like comprising a part having a broad hook formed thereon, a second part having a hinge pin secured thereto in a manner to leave a free span of the pin, said free span being adapted to be received in the hook, and cylindrical means for retaining the pin in the hook, said means being mounted on the part having the hook and being shiftable across the open end of the hook to a position wherein its axis is disposed transversely of the axis of the pin to prevent egress of the pin from the hook, said hook having a groove across the bottom thereof within which the free span of the pin is received and a shoulder adjacent the

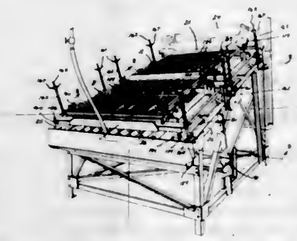
groove, and an opening in the end region of the hook aligned with a slot in the body of the hook; and the cylindrical means for retaining the pin in the hook comprising a rod received in the opening and having one end bent to form a hook which is adapted to pass through the slot in the broad hook and to be turned relative to said slot, said shoulder being of substantially the same thickness as the bent end of the rod whereby said bent end may be held out of the path of movement of the pin as it enters or leaves the groove.

2,778,054
BUTCHERING AND SKINNING DEVICES
Norman A. Whittaker, Seattle, Wash.
Application January 11, 1954, Serial No. 403,212
6 Claims. (Cl. 17—1)



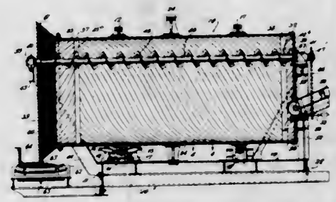
1. A skinning and butchering device comprising two leaves in opposed relation and hingeably connected, one of said leaves being tapered around its sides, means forming an aperture in one leaf, a pin attached to the other leaf positioned to thrust through the said aperture, means for locking said pin beyond said aperture, a block mounted on one of the leaves, and means forming a slot in said block adapted to receive a cutting edge therein.

2,778,055
MACHINE FOR PEELING SHRIMP
Fernand S. Lapeyre and James M. Lapeyre III, New Orleans, and Emile M. Lapeyre, Houma, La., assignors to The Peelers Company, Houma, La., a partnership
Application April 10, 1952, Serial No. 281,507
5 Claims. (Cl. 17—2)



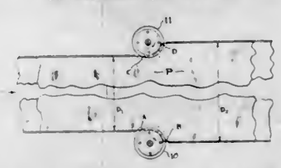
1. A machine for peeling shrimp or the like, comprising a bottom roller on said machine, parallel side rollers on said machine disposed on opposite sides of the bottom roller and spaced therefrom and elevated therefrom to form a peeling channel with the bottom roller for the shrimp, insert rollers operatively associated with the machine and positioned between the bottom and side rollers, and hold-down means for said insert rollers operatively associated with said bottom and side rollers extending movably down through the spaces between the bottom and side rollers and having a resilient connection to said machine.

2,778,056
METHOD AND APPARATUS FOR AGGLOMERATING FINELY DIVIDED SOLID MATERIAL
Ira H. Wynne, Duluth, Minn., assignor to Oglebay, Norton and Company, Cleveland, Ohio, a corporation of Delaware
Application March 27, 1952, Serial No. 278,777
12 Claims. (Cl. 18—1)



6. An apparatus of the character described for producing ball-like bodies from finely divided material comprising a hollow cylinder rotatably supported with its axis extending substantially horizontally, means adjacent one end of said cylinder to introduce finely divided material into the interior thereof, means to rotate said cylinder, a helical scraping means rotatably supported adjacent the inner surface of said cylinder and adapted to engage and scrape material adhering to the said inner surface, and means to rotate said scraping means in a reverse direction to that of the cylinder rotation and at a faster speed than the speed of the cylinder thereby producing helical grooves in the material adhering to the interior of the cylinder, whereby the finely divided material not adhering to the cylinder has a complex rolling motion imparted thereto resulting in production of ball-like bodies which are discharged from the other end of said cylinder.

2,778,057
METHOD AND APPARATUS FOR CONTINUOUSLY STRETCHING PLASTIC FILM
Stanley M. Clark, Parma, Ohio
Application April 2, 1953, Serial No. 346,307
13 Claims. (Cl. 18—1)

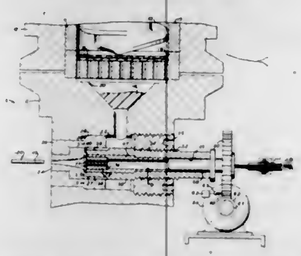


1. Apparatus for continuously stretching plastic film in a lateral direction, comprising two pairs of roller members disposed on opposite sides of said sheet as it moves forward in a longitudinal direction, each pair of roller members being cantilever-supported with exposed flat end faces adapted to grip the edges of the sheet therebetween, said pairs of members being driven in opposite directions about axes substantially transverse to the plane of said film, whereby to pull said edges through diverging arcuate paths substantially in the plane of the sheet.

2,778,058
FILAMENT STRETCHING APPARATUS
Rudolf Gabler, Tamins, Switzerland, assignor to Inventa AG. fuer Forschung und Patentverwertung Luzern, Lucerne, Switzerland
Application August 11, 1950, Serial No. 178,802
Claims priority, application Switzerland January 11, 1950
2 Claims. (Cl. 18—8)

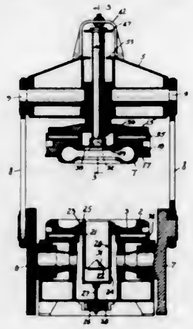
1. A device for stretching filiform materials of synthetic linear polymers a multiple of their original length, comprising: two systems of rollers between which the filiform material is stretched, a braking device disposed between said rollers and around which said filiform material is wound at least once, said braking device consisting of a generally cylindrically shaped holder and a plurality of fixed braking pins recessed in the surface of the holder, means for cooling the holder and the pins to dissipate the heat generated by stretching the filiform material at said braking device, means for rotating said holder axially to adjust the braking effect.

2,778,059
METHODS OF AND APPARATUS FOR MAKING INSULATED MULTICONDUCTOR WIRE
George E. Henning, Baltimore, and Alfred S. Windeler, Towson, Md., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York, and Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Original application February 3, 1954, Serial No. 407,872. Divided and this application February 3, 1955, Serial No. 485,848
7 Claims. (Cl. 18—13)



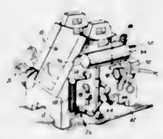
1. The method of manufacturing insulated, multiconductor wires, which comprises simultaneously advancing a plurality of conductors in spaced relationship, oscillating the spaced conductors rotatably as they are thus advanced, and simultaneously applying a common covering of insulating material over the advancing spaced, oscillating conductors, whereby variations in the covering of insulating material are uniformly distributed along the length of the resulting composite product.

2,778,060
TIRE CURING PRESS
James W. Brundage, Akron, Ohio, assignor to National Rubber Machinery Company, Akron, Ohio, a corporation of Ohio
Application May 12, 1953, Serial No. 354,451
9 Claims. (Cl. 18—17)



1. In a tire mold, the combination of a mold section provided with molding surfaces corresponding to one side wall and a portion of the tread of a tire adapted to be vulcanized therein, a bead ring having a peripheral surface corresponding to the interior surface of one bead of the tire, said bead ring and mold section being interfitted for relative axial movement in a direction to at least partially withdraw said bead ring relative to said mold section to thereby correspondingly withdraw such peripheral surface from within the tire bead therearound, and means for so relatively moving said mold section and bead ring.

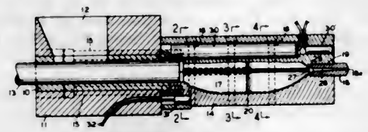
2,778,061
TIRE VULCANIZING MOLD
John F. Risewick, Oskaloosa, Iowa
Application April 10, 1952, Serial No. 281,606
6 Claims. (Cl. 18—18)



5. In a tire vulcanizing mold having a steam producing system and a water feed system therefor, the combination therewith of a means in the water feed system for preheating the water before it enters the mold; said means comprising, a water reservoir in the water feed system, and said water reservoir mounted on the mold so as to receive heat therefrom by conduction.

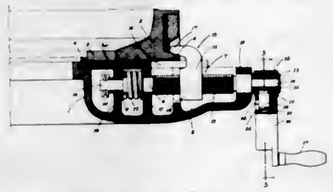
2,778,062
PLASTIC MOLDING MACHINE
Ernest P. Moslo, Cleveland Heights, and Arthur H. Radde, Middlefield, Ohio; said Radde assignor to said Moslo
Application August 20, 1949, Serial No. 111,428
3 Claims. (Cl. 18—30)

2. Means for heating plastic material including two blocks meeting in a plane and extending from a ram end to a nozzle end, there being a through passageway in said blocks parallel to and adjacent said plane and extending from said ram end to said nozzle end, there being a plurality of narrow passageways lying in planes passing through said through passageway and extending radially outwardly therefrom and in communication therewith, no



substantial part of said narrow passageways lying in said first named plane, and means holding said blocks together.

2,778,063
MATRIX LATCHING DEVICE
Arnold Duerksen, Lodi, Calif., assignor to Super Mold Corporation of California, Lodi, Calif., a corporation of California
Application December 14, 1953, Serial No. 397,953
13 Claims. (Cl. 18—38)

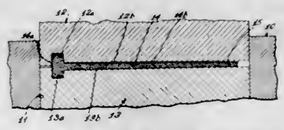


1. In a tire mold having a matrix supporting plate, a circular matrix section removably seated on the plate, and a plurality of devices mounted on the mold and spaced circumferentially of the matrix section to clamp the matrix section to the plate; each such device comprising a rotatable shaft mounted on the mold adjacent the plates radially of the matrix section, a portion of the shaft being threaded, a member mounted on said threaded portion for advance along the same upon rotation of the shaft, said member projecting through a slot in the plate and including an element to overhang and engage a peripheral flange on the matrix section, the shaft at its outer end being arranged for manual rotation, means journaling the shaft on the mold for rotation and limited axial movement, and means between the shaft and mold and including a spring to yieldably resist outward movement of the shaft.

7. In a tire mold having a matrix supporting plate, a circular matrix section removably seated on the plate, and a plurality of devices mounted on the mold and spaced circumferentially of the matrix section to secure the matrix section to the plate; each device comprising a rotatable shaft disposed adjacent the plate radially of the matrix section, means journaling the shaft on the mold for rotation and limited axial movement, a portion of the shaft being threaded, a member mounted on said threaded portion for inward advance along the same upon rotation of the shaft, initially separate elements on said matrix section and shaft mounted member adapted for engagement to secure the matrix section to the plate upon such advance of said member along the shaft, means to rotate the shaft, and means between the shaft and mold and including a spring to yieldably resist outward movement of the shaft.

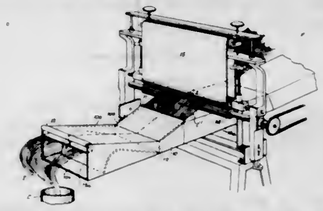
2,778,064
COINING METHOD AND APPARATUS
Clyde C. Clark, Willoughby, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application October 20, 1951, Serial No. 252,220
3 Claims. (Cl. 18—59.3)

2. The method of coining a pre-formed compact having an elongate body of maximum thickness along a longitudinal center of mass and relatively thin lateral edge portions which includes the steps of, pinching a localized portion of the body at one end and at the longitudinal center of mass to block longitudinal flow in the thickest



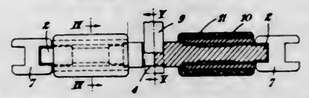
part of the body, and thereafter progressively compressing the compact from the opposite ends of the body to facilitate lateral expansion of a compact toward the edges.

2,778,065
METHOD OF AND MEANS FOR CONTINUOUSLY SPREADING FILAMENTS
Jack Doleman, Chadderton, England, assignor to The British Rayon Research Association, Manchester, England, a British association, and T. M. M. (Research) Limited, Rossendale, England, a British company
Application August 13, 1952, Serial No. 304,149
Claims priority, application Great Britain August 14, 1951
16 Claims. (Cl. 19—65)



8. A method of opening and spreading continuous textile filaments consisting in pulling the filaments endwise and in the form of an endless tow or bundle into a passage, and simultaneously subjecting said filaments to a contra-flow air draught, said filaments being caused to undergo a change of direction at a region where they are subject to the influence of said air draught so that they are tensioned by said draught against the endwise pull but, before and up to said change of direction are relatively untensioned and free to be opened and spread by said draught.

2,778,066
TOP ROLL FOR DRAFTING FRAMES
John Walmsley, Oswaldtwistle, Accrington, England, assignor to The Morgan Crucible Company Limited, London, England, a British company
Application July 28, 1952, Serial No. 301,308
Claims priority, application Great Britain July 31, 1951
7 Claims. (Cl. 19—142)

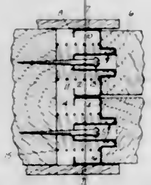


1. A shaft, said shaft having an annular recess, and a sintered metal bush surrounding said shaft and being accommodated in the recess, said bush projecting above the surface of the adjacent parts of the shaft.

2,778,067
WINDOW STRUCTURE
Walter A. Curtze, Erie, Pa.
Application November 18, 1955, Serial No. 547,711
2 Claims. (Cl. 20—12)

1. In a window frame having jambs, a floating metal guide channel on one of the jambs having a web spaced

from said one jamb with the center part of the web formed to a tongue and groove member for mating with a sash and guiding its opening and closing movement, the channel having side flanges extending inward from the web toward the jamb, a plurality of cup-shaped wells fixed to the tongue and groove member and extending inward toward the jamb with the bottom walls of the wells between the side flanges and having screw holes therein, screws ex-

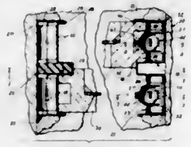


tending through the holes into the jamb and having heads within the wells in all positions of the channel and normally spaced from the bottom walls of the wells, and coil springs surrounding the wells and extending from the inner side of the web to the jamb to bias the channel away from the jamb, said springs having small diameter turns at one end telescoped over and gripping the wells to support the springs and larger diameter turns spaced from the side walls of the wells.

2,778,068
WINDOW CONSTRUCTION
Albert Kaufman and Louis Kaufman, Brooklyn, N. Y.
Application August 24, 1954, Serial No. 451,839
5 Claims. (Cl. 20—49)

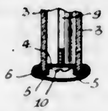
1. In a window construction wherein a window sash is slidable in a frame and swingable inwardly for cleaning and ventilating purposes, a channeled sheet metal slide mounted for reciprocating movement within a guideway of said frame, a window sash fitted with a sheet metal edging pivotally mounted to said slide at the lower end thereof with the adjacent contacting faces of said sheet metal slide and said sheet metal edging being in close frictional engagement for weather-sealing purposes, and a unitary pivoted joint between said slide and said edging comprising a polygonally headed bolt extending from said edging into the channel of said sheet metal slide whereat it is capped with a nut, the head of said bolt being seated in a correspondingly shaped recess in the face of said edging remote from said contacting faces to fix said bolt against relative rotation therewith, a convexity in said edging surrounding said bolt cooperating with an annular concavity in said sheet metal slide to permit rotary movement between said edging and said slide, and a plurality of apertured spacers including smooth compressible apertured washers mounted on said bolt between the head thereof and said nut to effect a controlled degree of compression of said convexity against said annular concavity which remains unaffected by the pivotal movements of said sash relative to said slide.

2,778,069
REMOVABLE WINDOW WITH SASH BALANCE
Arthur M. Starck, Norwalk, and William E. Gency, Old Greenwich, Conn., assignors to A. M. S. Corporation, South Norwalk, Conn., a corporation of Delaware
Application August 31, 1954, Serial No. 453,318
6 Claims. (Cl. 20—52.2)



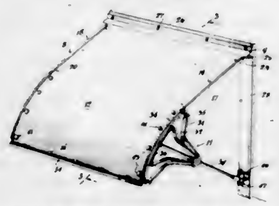
1. A window including a sash, a frame having guideways in which the sash slides, the guideway on one side of the frame being movable to provide clearance for removing the sash from the frame, a sash balance, a detachable connection between the sash balance and the sash, and means for locking the sash balance in the position it occupies at the time the sash is removed, said means comprising an operating element that is actuated by removal of the sash, and a spring-pressed lock that contacts with a surface extending parallel to the guideway.

2,778,070
WINDOW PANE UNIT
Marcel Royer, Montreal, Quebec, Canada
Application December 2, 1955, Serial No. 550,739
2 Claims. (Cl. 20—56.5)



1. In a double pane window unit, a pair of spaced panes, a double-grooved member in which the edges of said panes are seated, sealing strip spanning the outside of said double-grooved member, the edges of said sealing strip being inserted in the grooves of said member.

2,778,071
AWNINGS
George W. Anderson, Port Washington, N. Y.
Application April 27, 1954, Serial No. 425,796
2 Claims. (Cl. 20—57.5)



1. In an awning supportable from a wall structure, a cover comprising a resilient sheet of plastic material inherently capable of restoring itself to a flat condition after being curved, a bead attached to said sheet at its inboard edge, a channel member enclosing the outboard edge of said sheet and having a flange extending outwardly from said sheet, a moulding having a longitudinal channel for retaining said bead and a slot for the passage of said sheet, means carried by said moulding and engaging the ends of said bead for locking said bead within said channel, means for attaching said moulding to a wall structure, a frame at each side edge of said cover, each frame having a convex surface underlying the under surface of said

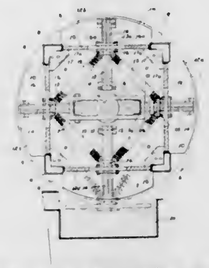
sheet at a side edge thereof and a flange parallel to said convex surface and engaging the upper surface of said sheet and thereby restraining the portion of said sheet between said frames in a state of curvature corresponding to the arc of the convex surfaces of said frames, means for locking the side edges of said sheet between the flanges and the convex surfaces of said frames, said locking means comprising removable studs engaged in holes in said sheet and in said frames, and means for attaching said frames to said wall structure.

2,778,072
COMPARTMENT DOOR AND SEAL THEREFOR
Matthew Palisca, Jamaica, N. Y.
Application February 26, 1953, Serial No. 338,989
3 Claims. (Cl. 20—69)
(Granted under Title 35, U. S. Code (1952), sec. 266)

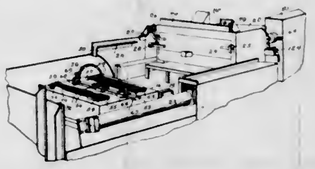
1. A fluid-tight compartment door assembly comprising; means defining a door opening; a coaming framing the opening in said means; a door for sealing the opening by engaging said coaming, said door including a body portion, a continuous flange of substantially constant width projecting from one surface of said body portion and forming a first closed loop, the inner surface of said flange being flat in cross section and sloping slightly in toward the center of said body portion, the inside dimensions of the first closed loop measured at the rim of said flange being bigger than the outside dimensions of said coaming, a continuous projection of substantially the same width as said flange projecting from the one surface of said body portion within the area enclosed by said flange and forming a second closed loop spaced by a substantially constant distance from said flange, the outer surface of said projection being flat in cross section and sloping slightly out toward said flange, the outside dimensions of the second closed loop measured at the rim of said projection being smaller than the inside dimensions of said coaming by substantially the same amount that the inside dimensions of the first closed loop measured at the rim of said flange is bigger than the outside dimensions of said coaming, said flange and said projection and the body portion of said door included therebetween defining a channel, the thickness of said coaming being a minor fraction of the distance between the rims of said flange and said projection, a seal in the form of a cylindrical resilient readily deformable member disposed in the channel and is of such length that it extends throughout the channel forming a loop, the diameter of said seal being such that when not compressed it makes substantially only line contact with said flange and said projection and said body portion, the diameter of said seal being somewhat bigger than the gap between the rim of said flange and the rim of said projection whereby said seal is retained loosely in the channel, whereby said compartment door assembly is adapted to effect a fluid-tight seal regardless of minor distortions, warpings, misalignment or the like in said door assembly.

2,778,073
APPARATUS FOR PRODUCING SHELL MOLDS
Robert Douglas Cheyne, Gunnersbury, London, England, assignor to Polygram Casting Company Limited, London, England
Application June 14, 1952, Serial No. 293,528
Claims priority, application Great Britain June 23, 1951
9 Claims. (Cl. 22—20)

1. In apparatus for making moulds and parts thereof, for casting metals, from a dry moulding mixture of the kind referred to, the combination of a plurality of patterns, pattern supports on which said patterns are mounted, an oven, an investment station, means for moving each pattern support in turn from said investment station, through said oven and back to said investment station, a container for moulding mixture adjacent to said investment station, means for moving each pattern support, when at the investment station, towards said container and for applying moulding mixture within said container to a corresponding pattern under a pressure and for a time sufficient to cause the pattern to become invested with a coating of the moulding mixture, and means for removing said coating of moulding mixture from the pattern after said coating has been cured by passage through the oven.



2,778,074
MACHINE FOR MAKING SHELL MOLDS
William F. Zimmermann, Union, N. J., assignor to Shell-O-Matic, Inc., Newark, N. J., a corporation of New Jersey
Application July 22, 1954, Serial No. 445,021
28 Claims. (Cl. 22—20)

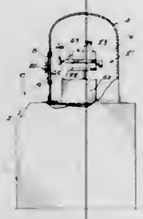


1. A shell molding machine comprising a frame, a hopper mounted rotatably on said frame, a pattern box mounted swingably on said hopper, power means connected to said hopper to rotate said hopper, switch means actuable by said pattern box, and circuit means connecting said switch means with said power means to effect rotation of said hopper.

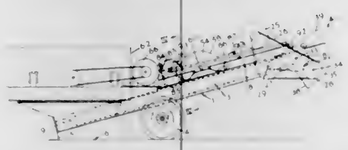
2,778,075
CENTRIFUGAL CASTING APPARATUS
Karl H. Huppert, Chicago, Ill.
Application April 19, 1955, Serial No. 502,452
2 Claims. (Cl. 22—65.1)

1. A centrifugal casting apparatus comprising: a support, a casing including a vacuum chamber associated with said support, said casing having an opening, a closure member connected over said opening, means associated with said chamber to provide a vacuum therein, a casting unit disposed in said vacuum chamber, said unit comprising a crucible having a receiving opening and a discharge opening, heating means disposed adjacent said crucible for heating the same, a refractory enclosure enclosing said heating means and said crucible, said enclosure including a heat-transferring refractory member disposed over the discharge opening of said cru-

cible, said refractory member having a bore in registry with said discharge opening, a tubular passage in said enclosure communicating with said receiving opening, a mold-supporting structure connected to said casting unit, said structure including horizontally extending arms projecting outwardly from said enclosure, a transversely extending bar pivotally supported on said arms, a mold support carried on said bar, means adjustably connecting said mold support to said bar for relative horizontal movement whereupon a mold with a sprue may be clamped against said heat-transferring refractory and preheated thereby, the sprue adapted to be in communication with said bore, and means connected to said casting unit for rotating said casting unit about a vertical axis during vacuum in said chamber whereby molten material is centrifugally discharged to said pre-heated mold.

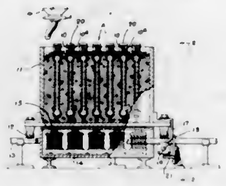


2,778,076
MEANS FOR TEMPERING FOUNDRY SAND
Millard J. Bell, Grand Rapids, Mich.
Application January 14, 1952, Serial No. 266,303
1 Claim. (Cl. 22—89)



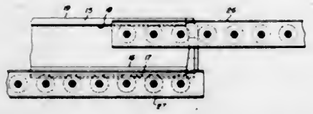
In foundry sand conditioning equipment for handling used foundry sand and adapted to cool the sand and restore the sand's moisture content, the combination comprising: a portable frame; an inclined conveyor bed mounted on said frame and having an endless conveyor belt; means for driving said belt; means for discharging hot, dry, used foundry sand on one end of said belt, a wheel having a plurality of radially projecting flexible paddles; means for rotatably mounting said wheel above said belt and intermediate and substantially spaced from each of the ends thereof with said paddles arranged transversely of said belt; said paddles extending substantially the full width of said belt; said wheel being spaced from said belt only sufficiently to permit said paddles to pass said belt without contact therewith a hood above said wheel for preventing sand from being thrown out of said equipment; means for rotating said wheel in the same direction as the movement of said belt and at a peripheral speed substantially greater than the speed of said belt; a first nozzle for spraying water on the hot sand being carried by said belt, said nozzle being between the sand receiving end of said belt and said wheel; a second nozzle for spraying water on said sand, said second nozzle being between said wheel and the sand discharge end of said belt, whereby the top surface portion of said sand is wetted and cooled by water discharged from said first nozzle and said wetted and cooled sand is mixed with hot, dry sand on said belt by said wheel and the resulting mixture is sprayed with water discharged from said second nozzle.

2,778,077
SHOT COMPACTING IN THE SHELL MOLDING PROCESS
Robert S. L. Andrews, Guelph, Ontario, Canada, assignor, by mesne assignments, to Industrial Development Bank, Ottawa, Ontario, Canada, a corporation of Canada
Application October 20, 1955, Serial No. 541,749
9 Claims. (Cl. 22—90)



1. In the shell molding process, the steps of assembling a mold in a mold box, producing a magnetic field substantially symmetrically around the mold, and backing the mold in the mold box with particulate magnetic backing material while maintaining the magnetic field.

2,778,078
FOUNDRY FLASK
Lester C. Young, Cleveland, Ohio, assignor to Spo, Inc., a corporation of Ohio
Application January 4, 1952, Serial No. 264,967
3 Claims. (Cl. 22—96)

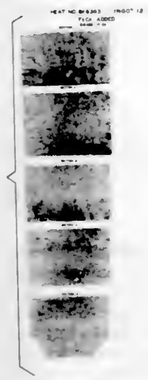


1. A foundry flask comprising, a section including an annular retainer wall composed of two opposing end walls and two opposing side walls, said annular retainer wall having a top edge and a bottom edge, each said end wall having a first flange extending laterally outwardly therefrom in the region of said top edge, said first flange having a bottom rail surface to suspend said section from above, a second flange extending laterally outwardly from each end wall in the region of said bottom edge, said second flange having a bottom rail surface upon which said section is supported from beneath, each said side wall having bumper pad means extending laterally therefrom a predetermined distance to abut adjacent pad means of adjacent sections, whereby a series of said flasks may be accurately spaced in side by side relationship and be moved upon said flanges upon a roller conveyor by said abutment of said pad means when one section is moved against another section.

2,778,079
METHOD OF CONTROLLING THE FORMATION OF CRYSTALS IN MOLTEN METAL AS IT SOLIDIFIES
Dennis J. Carney, Chicago, Ill., and Bernard R. Queneau, Pittsburgh, Pa., assignors to United States Steel Corporation, a corporation of New Jersey
Application May 21, 1952, Serial No. 289,076
2 Claims. (Cl. 22—215)

1. In a method of refining the grain of ferritic steel as cast, the steps including adding to the steel while molten, but not substantially earlier than the teeming

thereof into a mold, from one ounce to four pounds per ton of a metal selected from the group consisting of



chromium, iron, molybdenum, silicon and ferritic alloys thereof comminuted to from 8 to 300 mesh.

2,778,080
HANDKERCHIEF HOLDER
Walter Kernicki, Grand Rapids, Mich.
Application June 29, 1953, Serial No. 364,586
1 Claim. (Cl. 24—3)

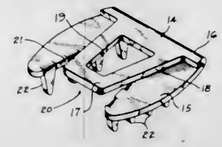
A handkerchief holder comprising a front leaf and a back leaf each of substantially rectangular shape, means connecting said leaves together at their lower edges, said leaves being adapted to engage a flat-folded handkerchief over substantially all of the front and back surfaces except for the upper front portion thereof, said connecting means including means for urging said leaves together to compress said handkerchief therebetween, said front leaf being of lesser height than said back leaf, said holder being adapted for insertion into a lapel pocket with the front leaf concealed within the pocket, with the handkerchief projecting out of the pocket, and with the upper part of the back leaf concealed behind the upper edges of the folded handkerchief, and substantial upper portion of each of said leaves being vertically fluted, the flutings of the front leaf nesting with the flutings of the back leaf to effect a fluted condition in the upper marginal edges of the folded handkerchief engaged between said leaves.

2,778,081
PIN STEM JOINT AND CATCH
Erik A. Nygard, Woonsocket, R. I.; Hulda Nygard, administratrix of said Erik A. Nygard, deceased, assignor to Hulda Nygard
Application November 24, 1953, Serial No. 394,081
6 Claims. (Cl. 24—156)

4. A pin stem catch and joint comprising a base, a catch having an arm extending generally perpendicular thereto then laterally over the base and then toward the base to provide a retaining hook for the pin stem and a guard extending generally perpendicular to the base adjacent said hook with its surface facing the hook spaced from the hook a distance less than the diameter of the pin stem to be received in the hook, said hook being spaced from the base a distance less than the diameter of the pin stem, said guard and hook being

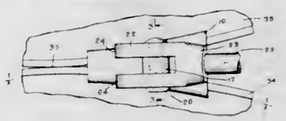
relatively resilient to spread apart as pin stem pressure is exerted on them and for said hook to be moved from said base, said joint and pin stem being so biased that the pin stem will swing in an arc on the hook side of the entrance to said hook so that when released from passing between said guard and hook and said hook and base, it will move toward said arm beneath the hook.

2,778,082
TROUSER WAISTBAND HOOK
Hooker Stoughton, Waterbury, Conn., assignor to Scovill Manufacturing Company, Waterbury, Conn., a corporation of Connecticut
Application April 20, 1953, Serial No. 349,810
5 Claims. (Cl. 24—227)



1. A garment fastener comprising a pair of identical sheet metal hook members each having a base plate, said plate being formed with a central recess opening through one end of said plate, the sides of said recess diverging toward said open end, and a tongue formed as an integral part of said plate and set out from said body plate an amount substantially equal to its metal thickness, the sides of said tongue converging toward the free end of the tongue, that portion of said tongue adjacent the end which is attached to said plate overlying one end of said recess to provide therewith a tapered pocket to wedgingly receive the end of the tongue by endwise insertion of the free end of the tongue into the open end of the recess of a complementary member, and the remaining portion of said tongue extending toward the open end of said recess in spaced relation to the edges thereof.

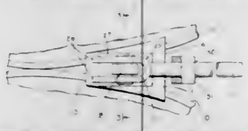
2,778,083
DRUM RING CLAMPS
Jack G. Imparato, Brooklyn, N. Y., assignor of one-half to John J. Imparato, Brooklyn, N. Y.
Application October 23, 1953, Serial No. 387,851
4 Claims. (Cl. 24—263)



1. A clamp of the class described, comprising a pair of substantially V-shaped sheet metal plates having flanged sides and narrow and wide ends, the stock of the plates, including that in the flanges, being substantially of the same thickness throughout, said flanged sides forming, on adjacent surfaces of the plates, opposed channels extending the major portion of the width of said plates and extending from the narrow to the wide end thereof.

a rod passing through aligned apertures in said plates, said rod having an enlarged apertured end, means fixed to the other end portion of the rod and arranged in close proximity to the adjacent plate when the clamp is in operative position for retaining the plates against displacement from said end portion, a pivot pin in the aperture of said enlarged end of the rod, a cam unit mounted on said pivot pin, said pivot pin and the central portion of the rod being substantially of the same thickness, said unit including a forked portion, within which the enlarged end of the rod is disposed, the forked portion of the unit including a crosshead having an aperture centrally thereof, in which an operating tool is adapted to be arranged to actuate said unit, and the cam portion of the unit operatively engaging one of the plates of a channel in moving the same in the direction of the other channel in movement of said channels into clamping engagement with predetermined curved relatively flaring workpieces arranged in the channels of said plates.

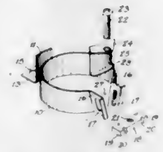
2,778,084
DRUM CLAMPS
Jack G. Imparato, Brooklyn, N. Y., assignor of one-half to John J. Imparato, Brooklyn, N. Y.
Application March 22, 1954, Serial No. 417,743
4 Claims. (Cl. 24—263)



1. A clamp for engaging rings of adjacent drums, said clamp comprising a pair of plates of channel cross-sectional form and substantially one thickness throughout, the plates having curved flanged sides and wide and contracted ends to conform with and engage drum rings adjacent abutment of said rings, said plates having elongated rectangular apertures substantially centrally thereof, and elongated bar arranged snugly but freely in said apertures, the bar having, at one end, a transverse pin projecting beyond side surfaces of the bar and retaining said plates against displacement from said end of the bar, a cam member pivoted to the other end of the bar and retaining said plates against displacement from said end, the cam member being yoke-shaped in form and defined by side plates joined by a crosshead, said bar being disposed between the side plates of the cam member, one channel plate being arranged on the bar adjacent said pin, the other channel plate being arranged between the first plate and said cam member, the side plates of the cam member having eccentric cam surfaces for moving said plates into operative position, a pin fixed to the crosshead of the cam member and projecting therebeyond, and said pin being adapted to receive a tool for actuating the cam member in moving the plates into clamping position upon the rings of said drums.

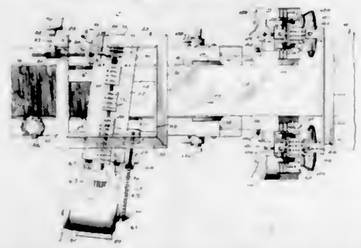
2,778,085
BAND CLAMP OF THE AXIALLY OPERABLE TYPE
Fred Allen Bernard, Woodland Hills, Calif., assignor, by mesne assignments, to Aeroquip Corporation, Jackson, Mich., a corporation of Michigan
Application May 23, 1955, Serial No. 510,218
6 Claims. (Cl. 24—268)

1. In a band clamp: a band having at its ends, circumferentially spaced ears turned outwardly and disposed in planes converging in a direction parallel to the band axis, said ears having slots elongated in said converging direction; a connector bar extending through said slots and having, at its ends, heads bearing against the outer faces of said ears along the margins of said slots, with a camming engagement such as to draw said ears together when the bar is moved toward the more widely spaced extremities of the ears; a bridge yoke bridging the gap between said ears as a continuation of the internal band surface, said yoke having at one side an arm provided with a screw bearing aperture and at its other side a flange, the end portions of the respective side edges of



said band being embraced between said arm and flange; and an actuator screw extending through said bearing aperture and having means connecting it to said bar and arm for exerting a pull between said bar and arm whereby said bar may be moved into camming engagement with said ears, with said flange transferring the reaction load to the edge of said band.

2,778,086
APPARATUS FOR SCORING COLUMN FROM WHICH BRICKS ARE MADE
James W. Wilcox, Alliance, Ohio, assignor to The Alliance Clay Product Company, Alliance, Ohio, a corporation of Ohio
Application February 20, 1953, Serial No. 337,927
4 Claims. (Cl. 25—1)

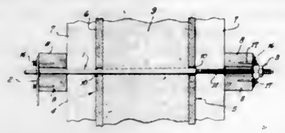


2. In apparatus for providing transverse scoring of a surface of a moving plastic column, a pair of side members disposed transversely of the column and adjacent the surface thereof to be scored, a pair of shafts supported on said side members, a sprocket wheel on each shaft, a sprocket chain trained about said sprocket wheels arranged in a plane generally transversely of the direction of movement of the plastic column, means driving one of said sprocket wheels to move the sprocket chain, a plurality of brushes secured to said sprocket chain, said brushes having bristles for engaging the surface of the column to be scored, said side members having slots therein, frame members, a bar extending longitudinally of the column through said slots to support the side members so that they may be moved in a plane parallel to the face of the column to be scored, and means securing the side members in the adjusted position.

2,778,087
TIE FOR CONCRETE FORMS
Harry J. Krueper, Jr., Los Angeles, Calif.
Application September 8, 1953, Serial No. 378,946
6 Claims. (Cl. 25—131)

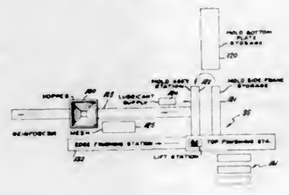
6. In a tie for preventing the spreading of opposed walls of a concrete form, a rod member, an elongated plate member engaging the rod member at one of said walls, and means on the rod member engageable with the exterior of the other of said walls, said plate member having a keyhole slot and plane parallel faces between

the slot and the edges of the plate, said slot having a reduced portion of less width than the diameter of an end portion of the rod member and a wider portion greater than the diameter of said end of said rod member, a marginal edge of said slot being inwardly offset from the plane face of said plate member at the reduced



portion of the slot, the inwardly offset portion tapering inwardly from said reduced portion of said slot towards said wider portion, said rod having a reduced portion of less width than the reduced portion of said slot to provide a shoulder on said rod in contact with the tapered marginal edge of said slot which is inwardly offset from the plane outer face of said plate.

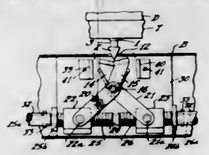
2,778,088
MANUFACTURE OF ROOFING SLABS AND THE LIKE
Robert W. Sterrett, Atlanta, Ga., assignor to Southern Zonolite Company, Atlanta, Ga., a corporation of Georgia
Application December 23, 1950, Serial No. 202,504
3 Claims. (Cl. 25—154)



3. A continuous method of manufacturing lightweight building slabs and the like, which comprises providing a mold including a removable bottom plate and a side frame, said side frame having guide edges along opposite sides thereof, providing a reinforcing mesh with depending leg members and placing said mesh within said mold with the leg members resting upon said bottom and supporting the mesh in spaced relation below said guide edges, casting a slab in said mold about said reinforcing mesh to embed the same in said slab and to fill said mold above said guide edges, allowing partial curing of the slab to occur, abrading away the entire top surface of the partially cured slab extending above said guide edge, and exerting upward pressure on the bottom surface of said bottom plate to lift said bottom plate and with it the slab to remove the same from the side frame.

2,778,089
CLOSING AND LOCKING DEVICES FOR CASKETS
Alphonse J. Woltering, Cincinnati, Ohio, assignor to Cincinnati Coffin Co., Cincinnati, Ohio, a corporation of Ohio
Application July 30, 1953, Serial No. 371,380
6 Claims. (Cl. 27—17)

1. In a casket, a shaft journaled in the main body portion of the casket and having oppositely threaded portions, nuts arranged for opposite axial movement on said oppositely threaded portions of said shaft, one nut being on one threaded portion and another nut being on the oppositely threaded portion toggle links pivotally connected to said oppositely traveling nuts one link being connected to one nut and another link to the other nut, an opposed spring pressed latches pivotally affixed to the

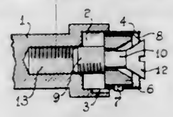


toggle links and a headed stud mounted in the casket cover for engagement with said latches.

2,778,090
METHOD OF TREATING SYNTHETIC YARN
Albert A. Hasler, Hazleton, Pa., assignor to The Duplan Corporation, New York, N. Y., a corporation of Delaware
Application December 30, 1952, Serial No. 328,826
5 Claims. (Cl. 28—72)

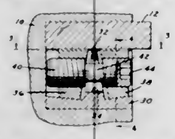
1. A method of crimping nylon yarn consisting in winding the treated yarn upon a small diameter tube of a material capable of shrinkage, placing within the tube a cylindrical core of considerably less diameter than the interior diameter of the tube and which core is relatively non-shrinkable in the presence of steam, and shrinking the yarn and the tube by steaming the same to an extent permitted by the core.

2,778,091
HOLE SAW
Zoltan O. St. Palley, Branford, Conn.
Application February 28, 1955, Serial No. 491,115
3 Claims. (Cl. 29—103)



1. A hole saw holder having a cylindrical cavity and a groove in the side wall of said cavity extending to the open end of said cavity; a split annular saw blade recessed in said cavity, said blade having a slot; a split annular spring coaxially disposed within said saw blade; an expansible clamping ring, consisting of segments surrounded and held together by said spring; a stud secured to one of said segments and being adapted to pass through said slot of the saw blade and to extend into said groove of the holder; a screw coaxially disposed in said cavity with threaded connection with said holder and having a shoulder and a conical head disposed inside said clamping ring; said shoulder being adapted to engage and to move said clamping ring outwardly from said cavity when said screw being unscrewed from said holder; and said conical head being adapted to move said clamping ring inwardly to the end of said cavity, and then to expand said clamping ring, causing it to press said saw blade against the side wall of said cavity, when said screw being screwed inwardly into said holder.

2,778,092
TOOL HOLDER
William Bader, Ferndale, Mich., assignor to Wesson Tool Company, Ferndale, Mich., a corporation of Michigan
Application September 28, 1954, Serial No. 458,861
3 Claims. (Cl. 29—105)

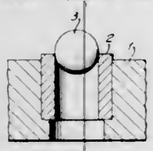


1. A double wedge lock for inserted blade cutters and the like to be received in a partially cylindrical hole in a cutter body adjacent an insert recess, which lock comprises a recess container element having a crescent-shaped cross section and a transverse, perforated septum between the ends thereof, the recesses of said container on opposite sides of said septum having convergently inclined circular back walls tapering outwardly to a smaller dimension, reversely inclined wedges of corresponding circular form seated in said recesses in end-to-end relation having wedge faces inclined to the axes of said container and complemental to the circular walls of said recesses, and a screw passing through the perforated septum out of contact with said container having a threaded relation with each of said wedges in a manner wherein rotation of said screw in any single direction will cause a transverse motion of said screw with respect to said container and an axial and opposite movement of said wedges with respect to each other in said container.

2,778,093
LITHOGRAPHIC PLATE DAMPENING ROLLER
Norman A. Mack, Riverside, Ill.
Application January 29, 1953, Serial No. 333,873
5 Claims. (Cl. 29—119)

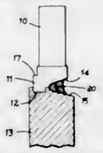
1. A lithographic dampening roller jacket, comprising a resiliently knitted textile fabric tube having integrally mounted on its exterior surface a cylindrical layer of microporous liquid-absorbent synthetic rubber sponge composition of uniform thickness, said fabric tube being expansible and contractible and adapted to be slid on and off of the roller and having portions extending beyond both ends of said layer and adapted to be constricted over the ends of a cylindrical roller, and said layer of sponge rubber being impregnated with polyvinyl acetate.

2,778,094
MANUFACTURE OF CHAIN ROLLERS
Lewis H. Whitney, Farmington, Conn., assignor to Whitney Chain Company, Hartford, Conn., a corporation of Connecticut
Application April 5, 1954, Serial No. 421,032
4 Claims. (Cl. 29—148.4)



1. The method of making a chain roller which includes the steps of hardening the roller, mounting the hardened roller in a containing fixture closely fitting its outside diameter and forcing through the roller a hardened ball having a diameter greater than, but less than 1.013 of, the hole size of the roller.

2,778,095
METHOD OF WELDING TURBINE BLADES
Christian Schörner, Augsburg, Germany, assignor to Maschinenfabrik Augsburg-Nurnberg A. G., Augsburg, Germany, a corporation of Germany
Application December 24, 1952, Serial No. 327,715
Claims priority, application Germany January 3, 1952
3 Claims. (Cl. 29—156.8)



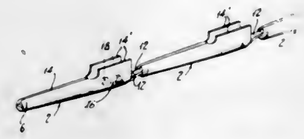
1. The method of welding a turbine blade around the rim of a turbine rotor comprising the steps of forming a groove in the rim of said rotor, forming an aligning lug at the radially inner end of said blade along one edge thereof for interlocking engagement with said groove in said rotor, forming on said blade and said rotor adjacent said lug and said groove cooperating surfaces to provide a welding gap between said blade and said rotor adjacent said lug and said groove, mounting said blade on said rotor with said lug engaged in said groove to form an interlocking joint positioning and supporting said blade on said rotor against thermally induced deformations during welding, welding a first seam between said blade and said rotor in said welding gap uniting said blade and said rotor adjacent said interlocking joint, thereafter machining away said lug and said groove forming a second welding gap between said blade and said rotor adjacent said first seam and aligned therewith, and welding another seam in said gap joining said first seam to unite said blade to said rotor substantially throughout contiguous areas thereof.

2,778,096
MANUFACTURE OF SEPARATOR FOR DIALYZING APPARATUS
Constant John Weema, Madison, Ohio
Application September 10, 1952, Serial No. 308,847
2 Claims. (Cl. 29—163.5)

1. The process of making a spacing element for the flexible dialyzing diaphragm of a dialyzing apparatus, comprising the steps of providing a sheet of metal resistant to the material encountered by the spacing element in the apparatus; piercing said sheet to provide a plurality of spaced openings; laterally stretching said metal to enlarge said openings; flattening the metal into a plane to eliminate the distortions of the metal caused by said stretching; and corrugating the flattened sheet of metal, along corrugation lines bisecting laterally adjacent openings.

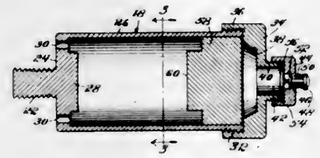
2,778,097
STRIP OF TAPER PIN CONNECTORS
Quentin Berg, New Cumberland, Pa., assignor to Aircraft-Marine Products Inc., Harrisburg, Pa.
Application March 24, 1950, Serial No. 151,795
3 Claims. (Cl. 29—193.5)

1. A taper pin type connector for use in strip form in a connector applying machine comprising a pin portion and a ferrule-forming portion integral therewith, said ferrule-forming portion being a U-shaped channel with a pair of upstanding ears having sides substantially parallel to the longitudinal axis of said strip, said pin portion being shaped up from sheet metal with the pin portion having tapering edges abutting to form an elongated tapered tubular pin which linearly converges from



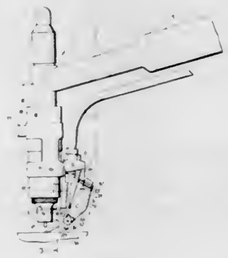
the ferrule-forming portion to the socket-entering end of the pin, and a short, narrow connecting portion of said strip integrally extending from the pin end to a ferrule-forming end of the adjacent connector for integrally joining like connectors in a strip of such connectors, the short connecting portion extending from said pin end lying opposite the side of the pin axis from the abutting edges of the sheet metal forming said pin.

2,778,098
EXPLOSIVE POWERED HAMMERING APPARATUS
John Jamieson and William F. Jamieson, Philadelphia, Pa.
Application July 3, 1953, Serial No. 366,032
1 Claim. (Cl. 29—254)



An explosive powered hammering apparatus for loosening an axle relative to a wheel drum secured thereto, comprising: a cylindrical barrel having an axial bore extending from end to end of the barrel and formed to a constant diameter, said barrel being formed open at one end and including at its other end an end wall integral with the side wall of the barrel, said end wall being integrally formed at its center portion with a circular anvil concentric with the end wall, the anvil being thickened relative to the portions of the end walls surrounding the same, said anvil facing inwardly of the barrel, said end wall having air exhaust apertures in the portion of the same surrounding the anvil, said apertures being spaced equidistantly about the anvil in a series disposed circumferentially of the anvil; a threaded, axial stud integral with the center portion of the end wall and projecting in a direction away from the barrel; an adaptor formed at its opposite ends with threaded recesses, one of said recesses being adapted for engagement of the stud therein, the other recess being adapted for engagement therein of a complementarily threaded, axially extending terminal part of the axle; a cap normally closing the open end of the barrel, said cap being formed with a peripheral, internally threaded flange and the barrel having external threads at its open end engageable with the threads of the flange, the cap having a shallow concavity in its inner surface and a centrally disposed charge receiving recess communicating with said concavity, the cap including an externally threaded axial stud at its center projecting outwardly of the barrel and formed with an opening communicating with said recess; a cartridge cover threadedly attached to the cap stud to close the opening thereof; a firing pin mounted in the cartridge cover for movement under the impact of a hammer-like tool in an axial direction, inwardly of the charge receiving recess; an explosive charge engaged in said recess for detonation responsive to said movement of the firing pin; and a floating piston slidably mounted within the bore of the barrel, said piston having a center boss corresponding in diameter to the diameter of the anvil and faced in the direction of the anvil, said boss and anvil having flat surfaces normal to the axis of the barrel and adapted to contact over their full areas on movement of the piston against the anvil under the force of the exploded charge.

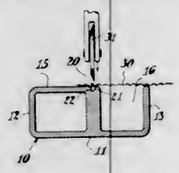
2,778,099
METHOD OF WELDING AND APPARATUS THEREFOR
Nelson E. Anderson, Berkeley Heights, and Lawrence M. Layden, New Providence, N. J., assignors to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York
Application May 15, 1952, Serial No. 287,874
4 Claims. (Cl. 29—484)



1. Welding apparatus comprising a welding torch adapted to supply heat to a welding zone on a workpiece in a plane below the torch to form a weld puddle in said zone, a filler wire guide mounted on the barrel of said welding torch adjacent the heat supplying end thereof, a bore extending through said guide, a flexible conduit secured to the end of the guide remote from said end of the barrel of the torch and adapted to lead a filler wire into said bore, means for feeding a filler wire through said flexible conduit and said guide, and means supported by said guide adjacent the wire discharge end of said bore for imparting a permanent curvature to said wire as it emerges from said bore and directing the permanently curved filler wire toward the welding zone to engage the workpiece at the edge of said weld puddle, said permanent curvature of said filler wire conditioning the wire to support the entire weight of said welding torch on said workpiece whereby the torch need merely be guided along said workpiece in forming a weld.

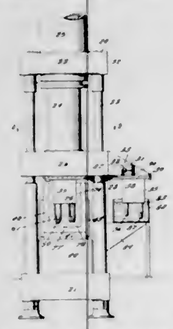
3. A welding method comprising establishing a weld puddle on a workpiece by supplying heat thereto from a welding torch above the plane of said workpiece, continuously supplying a filler wire to the welding zone, supporting the entire weight of the torch by imparting a permanent curvature to the filler wire just prior to its contact with the workpiece so that it is permanently curved when it contacts the workpiece, guiding said filler wire so that it will engage the workpiece substantially at the edge of the weld puddle, and transmitting at least a portion of the reaction force imposed by the workpiece on the filler wire to the welding torch to support said torch on said workpiece and the remainder of said reaction force to the torch to propel the torch along said workpiece.

2,778,100
SCREENS, PARTS THEREFOR AND METHODS FOR PRODUCING SAID SCREENS
Leonard M. Lipman, Hillside, N. J., assignor to Warner Mfg. Corp., Jersey City, N. J., a corporation of New Jersey
Application December 5, 1952, Serial No. 324,173
1 Claim. (Cl. 29—509)



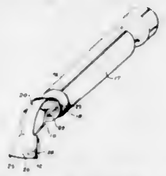
The method for assembling a screen with a screen frame including a plurality of stiles secured together in the form of a rectangle, with one of said stiles including a spline channel for accommodating a screen-locking spline and a top facing adjacent said channel with a shoulder in said top facing, said shoulder extending the full length of the top facing and spaced from that face of the channel further therefrom a distance equal to the sum of the height of said channel and approximately 10–100% of the width of said channel, comprising laying a length of screening material on said screen frame, spline-locking a free end of said screen in one of said channels, shearing said screen along said shoulder and spline-locking the cut end of said screen in the channel adjacent thereto.

2,778,101
PROCESS FOR FORGING HOLLOW TUBULAR OBJECTS
Arthur E. Dullum, Jersey City, N. J.
Application August 5, 1952, Serial No. 302,798
1 Claim. (Cl. 29—535)



The method of forging a hollow tubular metallic object, using separable die halves which together form a cylindrical die cavity, which comprises placing between the die halves a heated polygonal blank whose corners extend out far enough to be gripped by the cylindrical walls of the die cavity when the die is closed but whose cross section is insufficient to fill the die cavity with metal of the blank when the die is thus closed, closing the die halves and thus squeezing the polygonal blank to grip the same by lateral engagement of the walls of the die cavity against the blank and at the same time deforming the blank at the corners while leaving free space between the blank and the cylindrical interior walls of the die at some points so there is not a tendency to force out metal of the blank and form a flash between the die halves, partially piercing the cavity in the blank but leaving unpierced blank material at the forward end while thus gripping the initial free lateral space at points around the blank and thereby forcing the material of the blank out into engagement with the interior cylindrical walls of the die throughout the circumference, releasing the interior piercing pressure on the blank, then releasing the lateral gripping pressure on the blank by separating the die halves, gripping the blank in a further cylindrical die cavity by bringing die halves together, simultaneously further piercing the blank and deforming the previously pierced portion to thin the wall and form the desired cylindrical shape, releasing the interior piercing pressure on the blank and then releasing the lateral gripping pressure on the blank by separating the die halves.

2,778,102
CAN OPENER AND ANTI-SPLASH SHIELD COMBINATION
Richard W. Luce, Southport, Conn.
Application January 11, 1955, Serial No. 481,092
4 Claims. (Cl. 30—16)



1. A can opener and anti-splash shield combination comprising a can-piercing member including a can rim-engaging member, a handle therefor, and a resilient anti-splash shield mounted on said can-piercing member and rigidly held thereon by said handle, said shield having a central arch section rearwardly of and integral with a portion overlying and normally in resilient contact with the upper face of said can-piercing member inwardly from the tip thereof and extending substantially beyond said tip, said portion of the shield at the point at which it normally engages said can-piercing member and said can-piercing member being substantially equal in width, the width of said portion of the shield then increasing to a maximum at its outer end.

2,778,103
CAN OPENING DEVICE
Archie C. Hudson, Toronto, Ontario, Canada
Application December 30, 1954, Serial No. 478,813
1 Claim. (Cl. 30—16)

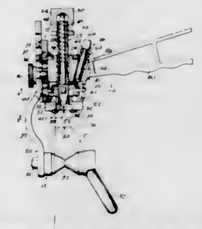
A lever-like can puncturing device comprising a stamping formed from substantially rigid and flat sheet metal stock and providing an elongated handle adapted to overlie a can end, one end of said handle adapted to extend beyond one can side wall, a broadened and flat head portion constituting the other end of said handle, the free end of said head portion having a right angularly bent extension to provide a downwardly extending gauge member which approximates the width of said head portion and is adapted to oppose an opposite can side wall; a downwardly bent can end-piercing member struck in part from each of said gauge member and head portion but only in minor part from the latter, said piercing member providing a pointed free end, the gauge member being of a length greater than that of said piercing member and providing can sidewall-engaging free end and side portions which outwardly frame the corresponding portions of said piercing member; the bent inner end portion of said piercing member having a longitudinally extending stamped-in-flex-resisting reinforcement, said piercing member providing a short straight portion immediately adjacent its bent inner end portion, said straight portion being spaced from and substantially parallel to the gauge member, whereby to provide a can end bead-receiving space which is closed at its inner end by said head portion; a can wall-stock piercing and deflecting portion extending inwardly from said pointed piercing member end to said straight portion and being inclined away from said gauge member, whereby to partially sever and deflect the can wall-stock inwardly toward said gauge membmer when the head portion is pressed downwardly; the can end-overlying head portion providing down pressure-receiving areas which lie forwardly, rearwardly and to opposite sides of the piercing member whereby great lever-action incorporating force can be readily transmitted to the latter from the operator's hand, the straight portion of said piercing member subsequently acting on the inwardly deflected can wall portion to cause it to substantially overlie the adjacent can side wall, and the first-mentioned end of said handle enabling the operator to maintain said head portion in operative position preparatory to and during the piercing of a can end.

2,778,104
HAIR TRIMMER
Leon M. Coles, Port Chester, N. Y.
Application December 22, 1952, Serial No. 327,270
2 Claims. (Cl. 30—30)

1. In a hair trimmer, a cap member having parallel longitudinal edges, a handle member adjustably connected to said cap member, and a guard member disposed between said cap member and said handle member adapted through adjustment of said handle member to clamp a conventional double-edged razor blade between itself and said cap member with the cutting edges of said blade projecting outwardly beyond the longitudinal edge of said cap member, said guard member having parallel longitudinal marginal edge portions projecting outwardly beyond the longitudinal edges of said blade, and said guard member including a body part and a movable part carried by said body part and constituting at least a section of one longitudinal marginal edge portion of said guard member, said movable part being relatively movable between an operative position contiguous to one blade edge and an inoperative position removed from said one blade edge, and having locking means respectively engageable by a part of said handle member through adjustment of said handle to retain said movable part in its respective operative and inoperative positions.

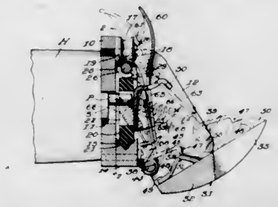
2,778,105
CUTTER FOR THE INSULATION OF CABLES
Anthony Carta, Los Angeles, Calif., assignor to Taca Cable Stripper Mfg. Corp., Los Angeles, Calif., a corporation of California
Application February 20, 1956, Serial No. 566,618
11 Claims. (Cl. 30—91)

1. A tool of the character described, comprising a body having a handle, a bracket arm having a rotationally adjustable two-position connection with said body, cable-centering means carried by said arm in endwise relation-ship to said body, and cable-clamping and -cutting means carried by the body and axially movable toward and from



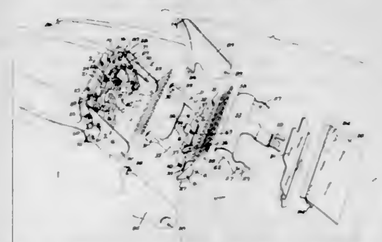
the cable-centering means to clamp and cut a cable in both positions of the cable-centering means.

2,778,106
HAIR CLIPPING IMPLEMENT
Fred L. Hazelquist, Menlo Park, Calif.
Application January 17, 1952, Serial No. 266,816
20 Claims. (Cl. 30—201)



10. In a hair clipper, a frame supported operating mechanism including a vibrating member, a hair penetrating comb rigidly secured to the frame, a blade freely slidable on the comb between opposite sides thereof as well as from the outer free edge to the base of the comb, said blade being pivotally connected to the vibrating member to vibrate against the comb in a cutting operation, and manual means co-operating with said pivotal connection to advance and retract said blade, as it vibrates, toward and from said free edge and for holding same in any position between said free edge and base of the comb.

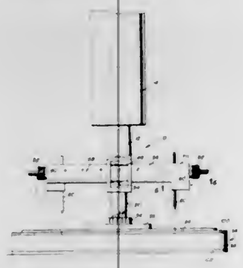
2,778,107
BARBERING TOOL
Fred L. Hazelquist, Menlo Park, Calif.
Application December 22, 1952, Serial No. 327,385
6 Claims. (Cl. 30—201)



3. In a hair cutting device; a supporting base; a long toothed comb rigidly supported by the base and having a working surface; a vibratory member slidably mounted on said supporting base; a cutting blade on the working surface of the comb; a swingable member pivotally connected to the vibratory member to vibrate therewith and operatively engaged with said cutting blade; manually operable means engaged with said swingable member for moving said swingable member and said cutter blade to and fro lengthwise of the comb teeth to any desired posi-

tion of the blade between the free and base ends of the comb teeth; said vibratory member imparting vibratory movement to the swingable member and to said blade transversely of the comb teeth in any position of the swingable member lengthwise of said comb teeth; said cutting blade being concave to said comb working surface to provide a retaining space for holding a lubricating wick in engagement with the comb whereby contacting surfaces of the blade and the comb are effectively lubricated in any sliding position of the blade on the comb.

2,778,108
ADJUSTABLE GASKET CUTTER
Milton L. Welsh, Pattersonville, N. Y.
Application November 15, 1955, Serial No. 546,891
2 Claims. (Cl. 30—300)



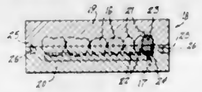
2. In a gasket cutter, a vertical support shank, a shaft member depending out of said shank and having a lower end provided with a member for engaging material to be cut into gaskets, a pair of laterally spaced side-by-side arm members slidably mounted in said support shank at opposite sides thereof for longitudinal adjustment on the support shank, said arm members each including an angulated end portion extending toward the other arm member, and downwardly extending cutter assemblies removably carried by said angulated portions, said angulated end portions including transverse bore portions extending therethrough in diametric alignment with respect to the longitudinal axis of the support shaft member, the bore portions terminating in vertical groove portions in the angulated end portions of said arm members, clamp screws extending through the longitudinal bore portions of said arm members and including at one end enlarged end portions terminating in the vertical groove portions of said arm members, clamp screws including lock nut elements on the end portions extending out of said arm members, the cutter assemblies each including an elongated blade element having an intermediate longitudinal slot portion extending therethrough, each blade element being disposed on its respective clamp screw element with the elongated end portion thereof engageable thereon for retaining each blade in a vertically adjustable position on said arm members.

2,778,109
CITRUS FRUIT SPOON
James L. Haynes, Kansas City, Mo.
Application July 26, 1956, Serial No. 600,315
5 Claims. (Cl. 30—324)

1. In a citrus fruit spoon, a concavo-convex bowl having an oval edge and provided with a number of series of marginal serrations extending inwardly from said edge, there being a median series of identical serrations at one end of the bowl and a pair of side series of identical serrations extending from said median series of serrations toward the opposite end of the bowl, the serrations of each series consisting of a plurality of spaced-apart teeth having blunt terminal ends and edges, the teeth forming the serrations of the median series being rec-

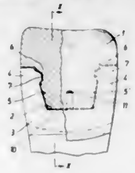
tangular, the teeth forming the serrations of the side series having an isosceles trapezoidal configuration.

2,778,110
COMPLETE SET OF TEETH AND METHOD OF MAKING
Raymond Gooris, Brooklyn, N. Y.
Application June 29, 1953, Serial No. 364,556
2 Claims. (Cl. 32—2)



2. As an article of manufacture, a block of artificial teeth for a false teeth plate for use in making sets of false teeth, comprising a plurality of molded teeth arranged in proper plate forming relation, and a separate stainless steel bar secured to and extending along the bottom of the teeth for the entire length of the teeth holding said teeth rigidly in their proper plate forming relation, said stainless steel bar being embedded in each tooth, said bar being arcuate-shaped in simulation of the shape of the teeth in the mouth and having notches along one edge thereof.

2,778,111
ARTIFICIAL TOOTH WITH METAL ANCHORAGE
Hermann Bitter, Osnabruck, Germany
Application March 22, 1955, Serial No. 495,906
Claims priority, application Germany June 15, 1954
5 Claims. (Cl. 32—10)



1. An artificial tooth comprising a tooth body with a recess of U-shaped section approximately in the middle longitudinal plane, a metal anchorage of U-shaped section inserted and fixed in said recess, and lateral arms formed on said anchorage projecting toward the point of the tooth and narrowing from the neck toward the point of the tooth but terminating at a distance therefrom sufficient to prevent the anchorage from being visible from the outer side through the material of the tooth.

2,778,112
FOOT MEASURING DEVICE
Harry Van Buren, Carlsbad, N. Mex.
Application April 3, 1952, Serial No. 280,227
1 Claim. (Cl. 33—3)

A measuring instrument comprising a base member having a longitudinal slot, an indentation on said mem-

ber, said indentation lying in a plane parallel to said slot, a second member, a pin mounted in said second member and slidably connected in said slot, a second slot formed in said second mentioned member, a second pin connected to said base member, said second pin extending through said second mentioned slot, means mounted on said second pin for engaging said second member so as to secure said second member in position on said base

member, a support connected to said second member and extending laterally thereof, and an indicating element pivotally connected to said support, said indicating element comprising a blade and having a portion extending at right angles to said blade and parallel to said slots, said indicating element being pivotal to a position in which said blade is in alignment with the longitudinal axis of said first mentioned slot and extending laterally of said slot.

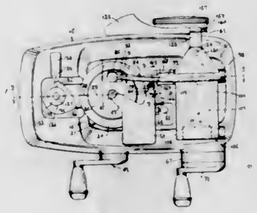
2,778,113
DRESSMAKER'S TAPE
Edith F. Norman, Fox Lake, Ill.
Application December 3, 1953, Serial No. 395,990
5 Claims. (Cl. 33—13)

2. A dressmaker's tape comprising an elongated strip of paper, said paper being transversely crinkled, and a fold extending longitudinally of said strip of paper to provide a U cross section when the tape is flat, there being a row of spaced openings through the paper along the fold for substantially the entire length of the strip.

2,778,114
WAISTLINE TAPE
Edith F. Norman, Fox Lake, Ill.
Application March 5, 1953, Serial No. 340,605
3 Claims. (Cl. 33—13)

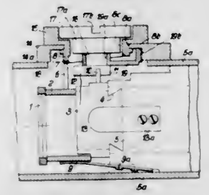
3. A waistline tape comprising an elongated tape of flat, flexible sheet material, a deep scoring in said sheet material parallel to its length and extending along its longitudinal median line and forming a longitudinal valley therein for centering the movement of a marking means such as chalk or interlacing chalk string, and a plurality of spaced openings through said tape and intercepting said scoring.

2,778,115
LENS CUTTING MACHINE
Oscar W. Dillon, Sturbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts
Application December 9, 1954, Serial No. 474,183
16 Claims. (Cl. 33—28)



1. In a cutting machine of the character described, a base, a spindle rotatable in said base, a work table carried by the spindle for rotation therewith, a first lever in said base pivotal about the axis of said spindle, pattern means carried by said lever and rotatable in synchronism with said lever and rotatable in synchronism with said work table, a second lever extending in the opposite direction from said first lever and pivotal therewith about the axis of the spindle, a shaft rotatably mounted in the base and having a third lever thereon and movable therewith, one end of said third lever being operatively connected adjacent one end of said second lever, whereby rotary motion of said shaft will result from movement of said pattern means and first lever about the axis of the spindle, a rocker arm pivotally attached at one end to said shaft for movement therewith and extending into overlying relation with said work table, cutting means carried by said rocker arm, and clamp means operable to engage and clamp work on said work table in position to be engaged by said cutting means.

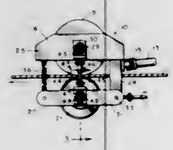
2,778,116
ADJUSTMENT MEANS FOR SIGHTING TELESCOPES
Eduard Reuss, Kassel, Germany, assignor to Hertel & Reuss, Kassel, Germany, a firm
Application July 6, 1954, Serial No. 441,318
Claims priority, application Germany December 4, 1953
8 Claims. (Cl. 33—50)



1. Adjustment means for the cross-hairs in a sighting telescope comprising two coaxially positioned disk means of which one is adapted for elevation adjustment and the other for lateral adjustment of said cross-hairs, a peripheral cam-shaped surface on one of said disk means.

an end cam-shaped surface on the other of said disk means, respective follower means cooperable with said cam-shaped surfaces, respective displaceable carrier means for said follower means disposed within said telescope, and resilient means for biasing said carrier means with said follower means against said cam-shaped surfaces, to thereby maintain contact of said follower means with said cam-shaped surfaces, respectively.

2,778,117
MEASURING DEVICE
Kurt Wilhelm Heinemann, Houston, Tex., assignor to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Delaware
Application February 11, 1955, Serial No. 487,506
19 Claims. (Cl. 33—134)



1. In apparatus for measuring wire, cable or a like article, a measuring wheel and an auxiliary wheel mounted for rotating engagement with such an article, an output shaft, means for coupling said measuring wheel to said output shaft with a fixed speed ratio, and means for transmitting torque from said auxiliary wheel to said output shaft while permitting slippage therebetween.

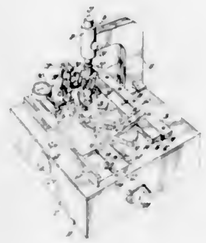
2,778,118
BUILDERS LAYOUT TAPE
George D. Manville, Malibu, Calif.
Application June 22, 1954, Serial No. 438,460
8 Claims. (Cl. 33—137)

2. A builders layout tape having measuring indicia thereon and a binding spring clip slidable along the tape, and including a slide with a yielding tape bed and a lever pivoted on the slide and having a clamping hub to bind the interposed tape onto said bed at any desired location along the tape, said lever having a window to disclose said measuring indicia.

6. An end assembly for a builders layout tape comprising a tape end pivot device attached to a free end of said tape and extending at right angles to the edges of said tape and in the plane of said tape, a pair of plates arranged edge to edge on said pivot device to have an outward opposite quarter turn, means for limiting the rotation of said plates to said quarter turns, said plates being foldable to be substantially in the plane of said tape.

2,778,119
INVOLUTE CURVE CHECKING DEVICE
Roy A. Jumisco, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 20, 1954, Serial No. 424,304
1 Claim. (Cl. 33—179.5)

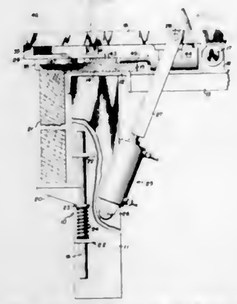
An involute curve checking device including a base member having an arcuate surfaced member mounted thereon for rotation, a straight edged member disposed on one side of said arcuate surfaced member and frictionally and tangentially engaged therewith, a slide block member disposed on the other side of said arcuate surfaced member in adjustable parallel spaced relation to said straight edged member, a transfer bar pivotally mounted on said base member between said straight edged and slide block members and having the ends thereof engaged with said spaced members, said arcuate surfaced member being adapted to receive a gear toothed member axially thereof and for rotation therewith, said slide block member including gauge means having an adjustable pointer disposed for light engagement with a tooth of said gear member, the rotational and pivotal axes of said arcuate surfaced member and said transfer bar and the points of engagement of said transfer bar with said slide block and said pointer with said gear member being in planes parallel to said straight edged and slide block members, a second arcuate surfaced member mounted on said base member in spaced relation to said first mentioned arcuate surfaced member and having an axis of rotation on a line intersecting the axis of rotation of said first mentioned arcuate member and parallel to said straight edged member, said second arcuate surfaced member having a radius of curvature the same as said first mentioned arcuate member and being frictionally and tangentially engaged by said straight edged member, said transfer bar being secured to said second arcuate surfaced member for pivotal movement therewith, the points of engagement of said transfer bar with said spaced members being aligned through the pivotal center of said transfer bar, and means imputing rectilinear movement of said straight edged member and relative involute movement therethrough to said gear member and pointer.



2,778,120
APPARATUS FOR FACILITATING THE ADJUSTMENT OF VALVE STEMS OF INTERNAL COMBUSTION ENGINE FOR TAPPET CLEARANCE
Evan Melrion Arthur, West Heath, Birmingham, England
Application January 5, 1954, Serial No. 402,315
1 Claim. (Cl. 33—181)

An appliance for facilitating the adjustment of a valve stem for tappet clearance, comprising a base frame formed of two L-shaped sheet metal members placed back to back to form a foot support and two upstanding sheet metal webs, the abutting backs of such sheet metal members forming the central plane of the appliance, upstanding lugs at each end of the webs which each have a semi-cylindrical wall which are opposed and the hole thus formed screw threaded, a screwed adjusting pin which engages each said screw threaded hole, the walls of which spring press on the screwed pin to spring grip the pin and hold it tight in any position to which it is adjusted, opposed outwardly inclined lugs on the webs to form V-shaped cradles for a valve stem, each screw pin forming respectively an abutment head on one side of the base frame against which the valve head on the stem is adapted to contact when supported by the V-shaped cradles and an adjustable abutment at the other side of the base frame for contacting the tappet end of the valve stem and to test, by a feeler gauge, the amount removed from the stem.

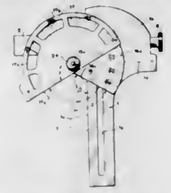
2,778,121
AUTOMATICALLY ADJUSTABLE EXPANSIBLE ROUTING TEMPLATE
Edmonds L. Guerrant, Fort Worth, Tex., assignor to Ready Hung Door Corporation, Fort Worth, Tex., a corporation of Texas
Application June 25, 1953, Serial No. 364,076
5 Claims. (Cl. 33—197)



1. An expansible routing template for simultaneously forming a hinge mortise in a door and a door jamb when one face of the door is positioned against one edge of the jamb, and when the stop forming a part of the latter is positioned away from the door, said template comprising a pair of telescoping plates having a single routing opening formed therebetween, at least one projecting locater secured to one of said plates and arranged to engage the outer edge of said door, means fixedly securing the last said plate relative to said door, at least one projecting locater on the remaining movable plate and arranged to engage the side of said stop adjacent said door, and means moving said jamb and the last said locater toward said door and positioning the latter against its projecting locater.

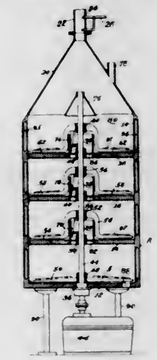
2,778,122
TOOL GAUGE
Wladyslaw Oleksin, Brooklyn, N. Y.
Application January 19, 1955, Serial No. 482,735
5 Claims. (Cl. 33—201)

1. A tool-bit gauge, comprising an elongated planar body structure forming a handle and having a straight first edge parallel to its longitudinal direction, a bar rigidly joined with said structure and extending transverse to said first edge, a slider mounted on said bar and having pivot means defining a pivot axis perpendicular to the plane of said structure, said slider being displaceable along said bar for setting said pivot axis to a desired spacing from said first edge, a flat member disposed in parallel relation to the plane of said structure and in face-to-face relation to said structure, said flat member having a straight second edge and being pivotally mounted on said pivot means of said slider for angular adjustment of said second edge about said pivot axis to a desired angular position



relative to said first edge, and another member having a straight third edge and being mounted on said slider in face-to-face relation to said first-mentioned member, said other member being pivotally adjustable about said pivot axis for setting said third edge to a desired angular position relative to said second edge.

2,778,123
APPARATUS AND METHOD FOR SEPARATING SOLIDS, SOLVENTS, AND GASES
Arthur E. Kurtz, Willow Street, Pa., assignor, by mesne assignments, to Wurster & Sanger, Inc., a corporation of Illinois
Application September 27, 1954, Serial No. 458,528
10 Claims. (Cl. 34—32)

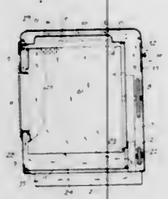


9. A process for separating a solvent from solids comprising the steps of feeding said solids downwardly to a series of vertically spaced hearths in a closed container while heating and stirring the solids on said hearths, injecting steam into said solids on said hearths, causing the gases to pass upwardly centrally through at least one of said hearths, flowing a solvent in counter-current to the upwardly moving gases, and permitting the expansion of said gases above the uppermost hearth.

2,778,124
DRYERS
Walter L Kauffman II, Erie, Pa., assignor to Lovell Manufacturing Company, Erie, Pa., a corporation of Pennsylvania
Application January 15, 1954, Serial No. 404,182
3 Claims. (Cl. 34—133)

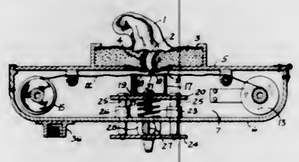
1. In a clothes dryer, a drum, a cylindrical casing surrounding the drum, a cabinet housing the casing, said cabinet having a top wall above the casing, a front wall spaced in front of the drum and forming the front wall of the casing and a back wall spaced to the rear of the casing, a front wall spaced in front of the drum and forming the front wall of the casing and a back wall spaced to the

rear of the casing, means for heating air and circulating the heated air through the drum including a fan at the lower rear part of the cabinet having intake duct means extending toward the front of the cabinet and communicating with the interior of the casing along the length of the duct, a discharge duct for the fan leading outside the cabinet, said casing having an opening to the cabinet in the top of the casing at the front communicating with



the space between the drum and the front wall of the cabinet, louvers in the top of the back wall of the cabinet for conducting cooling air between the top wall of the cabinet and over the top of the casing to said opening, and manually operable means for closing the louvers to shut off the flow of cooling air so the top wall of the cabinet will become a heated surface on which folded articles can be stacked.

2,778,125
TEACHING DEVICE SIMULATING THE HUMAN EAR
Irvin Hantman, Washington, D. C.
Application September 16, 1955, Serial No. 534,757
5 Claims. (Cl. 35—17)



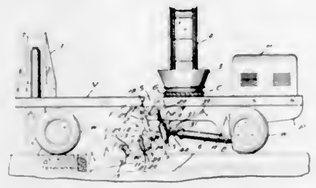
1. A device for teaching students manipulations and operative procedures relating to the ear, comprising a receptacle having a wall, a simulated ear and ear canal secured to said wall, said ear canal communicating internally of said receptacle, a simulated handle of the malleus secured adjacent said ear canal and extending into said receptacle, an extensive sheet which simulates tympanic membrane extending in proximity to said handle of the malleus, means for pressing a small area of said sheet against said handle of the malleus and for tensioning a further area of said sheet surrounding said small area, and means for replacing said further area and said small area at will by moving said sheet.

2,778,126
PLOW APPARATUS FOR HIGH SPEED SNOW REMOVAL WITHOUT WINDROWING
Jean R. Shannon, deceased, late of Clintonville, Wis., by Gladys L. Shannon, executrix, Clintonville, Wis., assignor to The Four Wheel Drive Auto Company, Clintonville, Wis., a corporation of Wisconsin
Application June 8, 1953, Serial No. 359,996
6 Claims. (Cl. 37—42)

1. A snowplow comprising the combination with a propelling vehicle adapted for high speed travel, of a moldboard blade set obliquely with respect to the path of vehicle travel and having a forwardly directed concave surface progressively decreasing in radius from the bottom to the top thereof, the height of said blade being sufficient so that material encountered thereby will be lifted and progressively increased in angular velocity in traversing a helical path along said blade, an end corner at the top of the blade being upwardly and outwardly in-

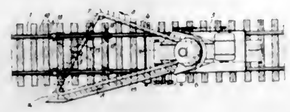
clined from said concave surface and comprising a substantially tangential extension of said concave surface to permit the material to lift before it leaves the blade for dispersion in the course of its centrifugal discharge from the blade.

2,778,127
FLUID OPERATED SHOVEL
Edson B. Steele, deceased, late of Rocky Grove, Pa., by Julia M. Steele, administratrix, Johnsonburg, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application October 4, 1952, Serial No. 313,148
3 Claims. (Cl. 37—103)



1. A frame providing a horizontal transverse axis, a shovel, an arm structure pivotally connected at one end at said horizontal axis and at its other end pivotally connected to said shovel, a triangular plate pivoted at one corner thereof on said arm structure between the ends of the latter, a link connecting another corner of said triangular plate with said shovel at a point nearer the top of the latter than the connection of said arm structure with said shovel, a rocker having oppositely extending arms and rockable about said horizontal axis, a link pivotally connected at one end to said triangular plate at the third corner of the latter and at its other end to one of the arms of said rocker, a first cylinder and piston mechanism pivotally connected to said frame at a point on the latter on the other side of said horizontal axis from the pivotal connection of said arm structure to said shovel and to the other arm of said rocker, a link connected with said arm structure at a point on the latter nearer the pivotal connection of the latter with the frame than is the pivotal connection of said plate with said arm structure, a second cylinder and piston mechanism pivotally connected at one end to said frame at a point on the latter on the same side of said horizontally axis as the pivotal connection of said first cylinder and piston mechanism to said frame, and at its other end pivotally connected to said link last mentioned, means for controlling supply and venting of fluid with respect to said two cylinder and piston mechanisms, and means including a further link pivotally connected at one end to said frame and at its other end relative to said arm connected link for controlling movement of said latter link to cause said arm structure to undergo a swinging movement through an arc intersecting a plane through the longitudinal axis of said last cylinder and piston mechanism.

2,778,128
MACHINE FOR CLEARING AWAY THE BALLAST FROM RAILWAY TRACKS
Jacques Drouard, Paris, and Georges Boulard, Neuilly-sur-Seine, France
Application December 15, 1952, Serial No. 326,046
Claims priority, application France January 3, 1952
1 Claim. (Cl. 37—104)

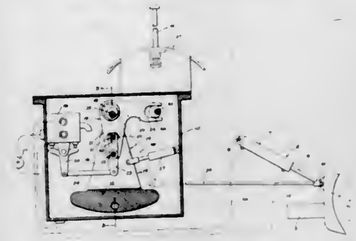


A machine for clearing away the ballast from railway tracks comprising a carriage adapted to roll on the track above the ballast to be treated, a driven endless chain having excavator portions and elevator portions supported by said carriage in a plane inclined with respect to said track and further positioned for being driven along a substantially triangular closed path, a triangularly shaped trough supported by said carriage and having said chain riding therein and said trough having two sides thereof of different lengths and extending forwardly of said carriage at an angle laterally of said carriage with each side capable of reaching outside of and below said track and with the third side thereof extending diagonally of the longitudinal direction of said track between said two sides thereof for guiding the excavator porton of said endless chain substantially horizontally in a straight line beneath the ties of said track from one side to the other side thereof and at acute angles relative to the longitudinal axis of said track whereby the foremost point of said excavator portion, with respect to the direction of travel of the ballast as it is cleared away by said excavator portion, is constantly ahead both with respect to the longitudinal direction of said track and the direction of travel of the machine.

2,778,129
OFFSET CUTTING EDGE FOR SCRAPERS
Edward R. Fryer, Willoughby, Ohio, assignor, by mesne assignments, to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 16, 1951, Serial No. 226,601
7 Claims. (Cl. 37—141)

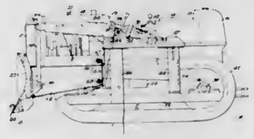
1. A cutter comprising a cutter base having a forwardly protruding section, locating means on said protruding section, another locating means on said base in a zone laterally removed from said section spaced behind and to a side of said first locating means, said other locating means being parallel to said locating means on said protruding section, a plurality of blades at least one for said section and one for said zone, means to removably attach each blade on said base, each blade being double edged, a locating means on each blade coacting with one of the locating means on said base, said locating means being transversely spaced generally vertical apertures, said locating means on each blade being spaced a given distance closer to one cutting edge than to the other, the distance in the rearward direction between the spaced locating means on the base and said given distance being equal, whereby the blades may be interchanged and turned end for end to provide various cutting edge contours.

2,778,130
LEVEL CONTROL SYSTEM FOR BULLDOZER BLADES
Raymond A. Gurries, San Jose, and John Curlett, Los Gatos, Calif., assignors, by direct and mesne assignments, to Gurries Manufacturing Co., San Jose, Calif., a corporation of California
Application March 16, 1955, Serial No. 494,738
7 Claims. (Cl. 37—144)



1. In combination with a tractor and a tool member mounted thereon for up and down movement relative to the tractor; a normally inactive hydraulic ram connected to the tractor and member to raise and lower the latter relative to the tractor and normally maintaining the member rigid with the tractor, a conduit system to supply fluid to the ram including a normally closed valve, a mechanism mounted on the tractor and including a fixed case in which the valve is mounted, a pendulum disposed in the case for swinging movement in a plane lengthwise of the tractor, the valve including an actuating arm, a first lever linked to the arm, a shaft supported in the case on which the pendulum is hung, an eccentric secured on the shaft, a second lever, the latter lever being pivoted intermediate its ends on the eccentric, means pivoting the first lever on said second lever adjacent one end of the latter, an anchor point for the other end of said second lever, means connecting the pendulum and first lever to swing the latter in a valve opening direction upon relative swinging of the pendulum so as to actuate the ram and move the tool member, and means between the tool member and shaft to rotate the shaft and the eccentric thereon to cause said second lever to swing about the anchor point as an axis in a direction to swing the first lever in a valve closing direction upon movement of the member to a pre-set level.

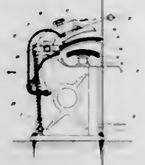
2,778,131
BULLDOZER TRACTOR
Charles H. Herr, Jr., Springfield, Ill., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application May 5, 1951, Serial No. 224,717
6 Claims. (Cl. 37—144)



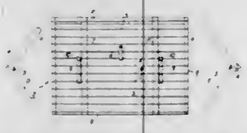
5. An excavating tractor comprising in combination: a main frame having a rear final drive housing and a pair of laterally spaced parallel push beams fixedly secured at their rearward ends to said housing to form a rigid unitary structure; a pair of self-laying track units pivotally connected at their rearward ends to opposite lateral sides, respectively, of said final drive housing for independent vertical swinging movement relative to said main frame and each other about a transverse axis, said track units being disposed on laterally outward sides of said push beams, respectively, in parallel relation to the latter; an

engine for driving said track units mounted on forward portions of said push beams in proximate transverse alignment with forward portions of said track units; a bulldozer structure fixedly secured to said push beams for movement therewith, said bulldozer structure including a transversely disposed blade positioned forwardly of and adjacent to said engine and extending laterally in front of said track units; a double acting hydraulic jack at each side of said main frame operatively interposed between the latter and the adjacent track unit for raising and lowering said blade by vertically swinging said main frame relative to said track units about said transverse axis; and hydraulic pressure means for actuating said jacks including equalizing fluid connections between corresponding ends of said jacks to afford relative vertical swinging movement between said track units without imparting vertical swinging movement to said main frame, said jacks upon actuation in one direction by said pressure means being operative to swing said main frame downwardly and transfer weight from said track units to said main frame to urge the cutting edge of said blade downwardly into material being excavated.

2,778,132
GARMENT IRONING MACHINE HAVING A BOTTOM PAD AND A HEATED METAL COVER
Elbert H. Posey, Nurnberg, Germany
Application June 25, 1953, Serial No. 364,058
6 Claims. (Cl. 38—21)



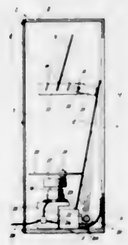
1. In a garment ironing machine having a bottom pad and a heated oscillating cover, the improvement comprising an intermediate member mounted to oscillate with said cover, a pad on the upper surface of said intermediate member, a heating body on the surface of said intermediate member directed toward the bottom pad, and means for applying force in one and the same direction to first press the cover against the pad on the intermediate member and to subsequently press the intermediate member against the bottom pad.

2,778,133
LIVESTOCK GUARD AND GATE
Malcolm C. Story, Bozeman, Mont.
Application April 4, 1955, Serial No. 498,964
1 Claim. (Cl. 39—5)

A stock guard consisting of a series of equally spaced horizontal bars of suitable size piping of proper length, sills for supporting the ends of said bars, two other sills attached to the ends of said first mentioned sills and forming a rectangular crib or form to support the guard, two main stringers resting on the latter sills and positioned downwardly from the horizontal bars so that the said bars are supported thereby, three of the horizontal bars at the center of the guard forming a horizontal hinged section, said hinged section, or gate being adapted to be raised through an arc of 90 degrees to an upright position thus forming an iron barrier which prevents further movement of vehicles on the road, said three gate bars being joined together by cleats which are hinged to the main stringers, a heavy iron strap hinged to one of the adjacent bars adapted to be raised and padlocked to the top center of the gate when the gate is upright.

2,778,134
BLOCK TYPE OR THREE DIMENSION SIGN
Claude S. Willey, Mount Clemens, Mich., assignor to Willey Sign Company, Incorporated, Mount Clemens, Mich., a corporation of Michigan
Application March 2, 1953, Serial No. 339,659
3 Claims. (Cl. 40—130)

1. A block sign letter or the like comprising a base, illuminating means affixed to the base, and a translucent channel member affixed to the base over the illuminating means and comprising a translucent plastic hollow block in which the back of the channel is formed by shallow U-shaped ribs joined by sharp valleys which comprise surfaces extending deeply inwardly of the block to focus and converge the light rays toward the outside of the letter thereby forming lens affording bright lines when the block is illuminated from the inside while the U-shaped ribs present concave surfaces diffusing the rays of light and presenting a soft light background in contrast to the bright lines produced by the valleys.

2,778,135
ANIMATED SIGN
George Arthur Strader and Ludwig Martin Eymann, Sacramento, Calif.
Application July 23, 1954, Serial No. 445,432
5 Claims. (Cl. 40—132)

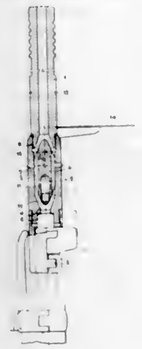


1. A sign comprising a support, a source of light on the support, one sign panel, means mounting said one sign panel on the support for motion between one position illuminated by said source of light and another position non-illuminated thereby, another sign panel, means mounting the other sign panel on the support in a position for viewing separately from said sign panel and for illumination from said source of light, and power means operative to recurringly cause movement of said one sign panel between said positions thereof; the other sign panel being disposed relative to said source of light and said one side panel such that the latter, when in said illuminated position only, blocks illumination of said other sign panel from said source.

2,778,136
ORNAMENTATION OF PLAQUES
Austin B. Belgard, Evanston, Ill.
Application November 20, 1953, Serial No. 393,373
4 Claims. (Cl. 41—34)

1. In combination with a plaque having a pair of openings therethrough, an ornament element having an inner surface adapted to abut the plaque, a U-shaped spring catch having a pair of spring legs extending along said inner surface of said element, said catch being secured to the element at one place so as to provide at least one free spring leg flexible along a plane parallel to the surface of said element, said legs having point portions adapted to be extended through the openings of the plaque to secure said element against said plaque with said surface abutting said plaque.

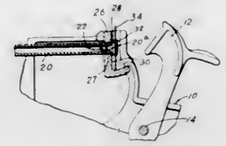
2,778,137
GRENADE LAUNCHER
Edgar William Brandt, Geneva, Switzerland, assignor to Societe Anonyme Belge de Macanique et d'Armement, Brussels, Belgium, a corporation of Belgium
Application August 7, 1953, Serial No. 372,950
Claims priority, application Luxemburg September 15, 1952
2 Claims. (Cl. 42—1)



1. A grenade launcher having a front portion to hold a grenade and a rear portion to be fixedly attached to a gun barrel, said rear portion comprising a chamber of greater diameter than the internal caliber of said launcher, a core of generally oblong shape inside said chamber, frangible means to secure said core axially in said chamber, said core having longitudinal passages at its periphery for normally causing propulsion gases to diverge and pass through said longitudinal passages, and said core being adapted to stop an inadvertently fired bullet in the launcher.

2,778,138
CAP GUN CONSTRUCTION
Arthur K. Melin, Pasadena, Calif.
Application October 20, 1952, Serial No. 315,613
9 Claims. (Cl. 42—54)

1. In a cap gun having a frame and a hammer pivotally mounted on the frame for firing a percussion cap, a tube having a flared terminal section and for holding and directing a projectile mounted on the frame with the rear end of the tube positioned in the path of the hammer, the tube having at its rear end a forwardly facing annular shoulder projecting outwardly beyond the tube and engaging an element of said frame to hold the tube



against forward displacement, and anvil means rigidly mounted on the rear end of the tube, said anvil having a narrow, approximately flat, annular surface in a plane transverse to the axis of the tube against which a cap rests in position to be struck by the hammer.

2,778,139
ATTACHMENT FOR UNDERWATER HARPOON GUNS
Paul Furnari, Brooklyn, N. Y.
Application April 4, 1955, Serial No. 498,858
3 Claims. (Cl. 43—6)

1. A combined harpoon gun and underwater scanning and sighting attachment therefor comprising a stock, a harpoon firing mechanism mounted in said stock, a handle extending from one side of said stock adjacent one end thereof, said stock having a groove formed in the side thereof opposite said handle, an elongated hollow member, a web mounted on said member and extending radially thereof, said web having its outer edge parallel to the axis of said member, an eye guard fixed to one end of said member, a transparent member and watertight seal detachably secured to the opposite end of said member, means on said transparent member forming a sight, means in said first named member adjacent said eye guard forming a sight adapted to cooperate with said first named sight to aim said gun, and means for securing said web in said groove to attach said first named member to said stock.

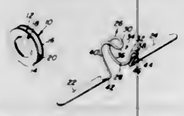
2,778,140
METHOD AND APPARATUS FOR CONTROLLING AQUATIC ANIMALS
Vernon C. Applegate, Rogers City, William L. Stahl, Ypsilanti, and Bernard R. Smith, Rogers City, Mich., assignors to the United States of America
Application March 9, 1953, Serial No. 341,054
25 Claims. (Cl. 43—17.1)

1. A method of selectively controlling the movements of aquatic animals in a body of water comprising energizing a predetermined portion of said water body with an A. C. voltage gradient of predetermined nonlethal magnitude, said predetermined portion comprising a vertical planar sector extending substantially from the surface to the bottom of said water and substantially spanning said water body, energizing a second substantially vertical planar sector of said water body with an A. C. voltage gradient of lethal magnitude, said

second planar sector being substantially parallel with and adjacent to said predetermined portion, and energizing

the portion of said water body not spanned by said A. C. gradient sector with a D. C. voltage gradient of predetermined magnitude.

2,778,141
FISHING LINE GUIDE
Alfred E. Haas, Greenwich, N. Y.
Application December 10, 1954, Serial No. 474,543
1 Claim. (Cl. 43—24)



A fishing line guide comprising, in combination, a mounting embodying a first attaching foot adapted to rest on a fishing rod, a length of wire provided intermediate its ends with a substantially C-shaped stirrup, a connection between the lower end portion of said stirrup and an adjacent end portion of said first attaching foot embodying a keeper bend disposed lateral to the stated lower end portion of said stirrup, a substantially semicircular wire end spaced in approximate parallelism with respect to the bight portion of said stirrup and having an upper end portion connected to the upper end portion of the stirrup by way of a lateral keeper bend, the lower end portion of said wire-end being in alignment with said first foot, and a second foot having one end connected to the last-named lower end portion and coplanar to and in alignment with said first-named foot, and a guide eye having marginal flanges, said guide eye being releasably mounted in said stirrup, each flange having a keeper notch therein, and the respective keeper bends being releasably seated in the respective keeper notches.

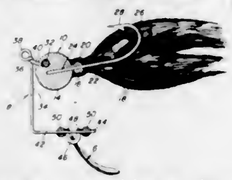
2,778,142
TROT-LINE ROD
Harry Chester Berry, Little Rock, Ark.
Application May 16, 1955, Serial No. 508,538
2 Claims. (Cl. 43—27.4)

1. A trot-line rod comprising an elongated partly cylindrical tubular member, a handle fixed to one end of said member, one edge of said member being reverted to provide a rounded hook engaging edge, a rubber friction member projecting partly into said member and confronting said rounded edge, and means supporting said rubber member.

2,778,143
FISHING PLUG
Louis E. Bratz, Sr., Seattle, Wash.
Application February 14, 1955, Serial No. 487,947
11 Claims. (Cl. 43—42.05)

1. A fishing plug comprising a plug body of generally elongated form normally disposed generally horizontally with one side constituting the top thereof, said plug body having a bore extending from a top location near the front end thereof to a bottom location at least as far rearwardly from said front end as said top location, said plug body having a hook-retaining groove in the bottom thereof extending longitudinally from a location rearwardly of said bottom location through the rear end of said plug body, both ends of said groove being open for the reception of the shank portion of a fish hook extending lengthwise therethrough, a line connector passed slidably through the bore of said plug body, the upper end of said line connector being adapted to be connected to a fishing line and being sufficiently small to pass through said bore to permit run-up of said plug body on the fishing line, and a fish hook having at least one hook element, an eye fastened to the lower end of said line connector, and an elongated shank portion interconnecting said eye and said hook element, said shank portion being resiliently compressible transversely of said shank portion, said resiliently compressible shank portion being retentively engageable in said groove by pressing the same laterally into said groove to be compressed and held by friction between opposite side walls of said groove, said fish hook being releasable from said groove by the strike of a fish to free the plug body for run-up thereof on the fishing line.

2,778,144
FISHING LURE
R Clyde Jones and Clayton W. Bradshaw, Tulsa, Okla.
Application December 19, 1955, Serial No. 553,748
3 Claims. (Cl. 43—42.11)



1. An artificial bait comprising a circular relatively heavy head having oppositely projecting substantially conical cheek portions, said head embodying an annular peripheral edge portion, the latter having a radial outstanding knob-like extension, a fish hook having a shank extending through said extension and embedded in said head, hackle members attached by wrappings to said extension and cooperating with the shank of said hook, said head being provided with an aperture, and a pin having an intermediate portion secured in said aperture and end portions projecting beyond the opposite cheek portions and constituting artificial eyes.

2,778,145
FISHING LURE
Alvin K. Momb, Dunseith, N. Dak.
Application March 18, 1955, Serial No. 495,131
1 Claim. (Cl. 43—42.51)

A screw type lure which revolves in a spiralling manner when trolled or similarly propelled through a body

of water and decoys a fish thereto under the illusion that said lure is a sinuously twisting live bait, comprising a rigid strip member embodying a leading end portion, a trailing end portion, and an intervening body portion, said end portions being approximately flat and otherwise basically the same in construction, being substantially in a plane which is common to both and being longitudinally aligned with each other and therefore rotatable around a common axial center line, and said body portion being only a single U-shaped bend which is laterally offset and has a convex outer marginal edge furtherest from the axial center line and a concave inner marginal edge nearer the axial center line and which is

in a position which is wholly to one side of said axial center line, said leading end portion having an eye formed therein, and a swivel directly connected to said eye, whereby said end portions rotate within the limits of a relatively small circular path and the outermost marginal edge portion of the bight of said body portion rotates within the limits of an appreciably larger circular path, the inner end of said leading end portion being joined to the adjacent end of the said body portion by a first twist and the inner end of the trailing end portion being joined to the adjacent end of said body portion by a second twist, and said twists turning in the same direction.

2,778,146
FISHING BOBBER
Guy C. Peck, Akron, Ohio
Application January 25, 1956, Serial No. 561,284
6 Claims. (Cl. 43—43.11)

1. A fishing bobber assembly comprising an elongated buoyant body of substantially circular cross section and tapered toward one end and having two openings in a side-by-side relation extending in a lengthwise direction through said body, one of said openings adapted to slidably receive a line therein, and a resilient wire element of a length substantially equal to that of said body having means on one end for attachment of said line and means on the opposite end for attachment of a leader, a weight having at least a portion thereof of a size larger than the periphery of the other of said openings attached to said wire element adjacent said line attachment end adapted to abut the peripheral edge of the opening to limit the movement of the wire element into said opening, said opening being of a size to slidably receive the wire element and a leader in a side by side relation when preparing to cast or throw out the line, the weight withdrawing the wire element and leader from the opening when the bobber hits the water.

2,778,147
QUICK CHANGE FISHING LINE FLOATS
Patrick H. Peck, Jr., Duncan, Okla.
Application August 4, 1953, Serial No. 372,312
3 Claims. (Cl. 43—44.91)

1. A fishing float comprising a float body, elongated, plastic guide members for use with said float body, said float body having a slot formed therein for receiving a fishing line, the depth of which slot is approximately one-half the thickness of said float body, the body of said float having a bore formed in each end thereof, said bores being coaxial with said body, said elongated plastic guide members having an outside diameter in close fitting relation with said bores of said float body, said guide members each having an integral, relatively thin wall portion at one end thereof, as compared to the length thereof, each of said end portions having an aperture formed therein, said apertures being of a size slightly larger than the size of the fishing line to enable a free sliding movement of the line therethrough, said end wall portions forming a bearing surface, of restricted length, for said fishing line, said guide members each having a counterbore extending throughout the balance of the length thereof, each of said guide members having a slit formed in a side thereof, said slits being in communication with said respective counterbores and with said apertures in said end wall portions, each of said guide members having a V-notch formed therein in communication with the respective slits at the end of the respective guide members opposite said apertures, and said plastic guide members being resilient so that the adjacent edges of the respective slits will normally be in abutting relation, but which will yield upon insertion or removal of the said fishing line into or out of said guide members.

2,778,148
MOLE TRAP
Charles F. Schmidt, Jeffersontown, Ky.
Application March 9, 1953, Serial No. 340,947
2 Claims. (Cl. 43—80)

1. An improvement in a mole trap of the type having a frame, an earth anchor on said frame adapted to be pushed into the earth alongside a mole burrow, a mole capturing mechanism operatively arranged on the frame in position to penetrate said burrow when sprung and a trigger mechanism arranged on the frame in position to extend over and adjacent said burrow when the capturing mechanism is operatively arranged, comprising: a spacer connected to the trigger mechanism for relative universal movement, said spacer being carried by the trigger mechanism in position to extend from the trigger

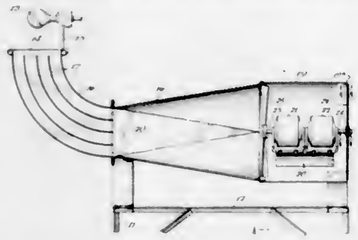
mechanism downwardly through a top opening in said burrow into a mole obstructing position within said burrow and to cause the trigger mechanism to be released when said spacer is moved by a mole.

2,778,149
ANIMAL TRAP
George Edwards, Livingston, Mont.
Application September 27, 1954, Serial No. 458,450
1 Claim. (Cl. 43—83.5)

An animal trap comprising a base plate of ovate shape and having an upstanding toothed marginal flange at its front end forming a lower stationary jaw, a bait cup fixed on said base plate inwardly of the flange, an upper plate substantially coextensive in area to the base plate and pivoted to the latter and having a downwardly projecting toothed marginal flange at its front end forming a movable jaw coacting with the stationary jaw, an inverted channel-shaped trip pivoted at its central portion to the base plate and including a ring at its front end forming an elevated step surrounding the bait cup and positioned between the jaws, said trip including a pair of spaced apart parallel flanges, a cross bar supported by said flanges in a transverse position below the top of the trip, said cross bar being positioned on the trip at a point rearwardly of the pivot therefor, spring means closing the upper jaw, an elongated catch pivoted to the base plate and having a front end portion resting on top of the cross bar for actuation by the trip upon a depressing movement of the latter, an upwardly extending lip having a forwardly projecting detent at the rear end of the catch, and a downwardly projecting keeper at the rear portion of the upper plate engageable by the detent of said lip to secure the movable jaw in set position.

2,778,150
INSECT EXTERMINATOR
William A. Pohlman, Chicago, Ill., assignor to Gardner Manufacturing Company, Horicon, Wis.
Application March 21, 1955, Serial No. 495,520
3 Claims. (Cl. 43—139)

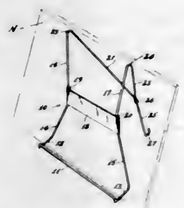
1. In an insect exterminator: an insect receiving and conducting conduit having an inlet end and a discharge end which opens directly to the atmosphere; a pair of electric motors mounted in tandem in said conduit with their shafts axially positioned therein, said motors having different normal operating speeds; a propeller type fan on one motor shaft which extends entirely across the conduit; and a chopper member on the other motor shaft, said chopper member including a hub and a plurality of radially extending spokes on said hub effectively in the plane of the discharge end of the conduit and extending entirely thereacross, said spokes having unobstructed outer ends so that insect particles may be flung off the spokes by centrifugal force and discharged outside the exterminator.



2,778,151
SLIDING DRAWER AND ADAPTER FOR TELEPHONE BASE
Carlos Hickerson, Jr., El Paso, Tex.
Application February 3, 1955, Serial No. 486,000
2 Claims. (Cl. 45—.5)

1. For use in conjunction with a dial telephone stand characterized by a flat-bottomed face having four depending corner pads on the underneath side and providing feet, said feet elevating said underside of the base above a stationary support surface and defining a handily available and usable space within the encompassing limits of said pads and marginal vertical wall portions of said base, an attachment type accessory designed and adapted to fit into and occupy said space and characterized by a one-piece, relatively stationary adapter unit comprising a generally flat-faced bottom adapted to underlie the underneath side of the telephone base and of an area comparable to that of the area of said telephone base, a pair of spaced parallel duplicate angle members having vertical flanges affixed to the top surface of the central portion of said bottom, said members being commensurate in length with the length of the bottom and embodying horizontal flanges overlying said top surface in spaced parallelism and defining an open ended channel-like drawer accommodation space and a pair of drawer-attaching tracks, said horizontal flanges being directed toward each other and being coplanar, said bottom having lengthwise portions extending outwardly of the respective angle members with their outer longitudinal edge portions adapted to project between the respective adjacent pairs of the aforementioned forward and rearward pads and being provided along said outward edges with vertical upstanding stabilizing flanges, the upper edges of said flanges being flush with each other and substantially coplanar with the top surfaces of the horizontal flanges above mentioned, the latter surfaces and said upper edges being adapted to rest firmly against the underneath side of the telephone base, the exterior vertical surfaces of said stabilizing flanges being adapted to remain flush with the vertical wall portions of said base, a readily insertable and removable drawer occupying said drawer space with longitudinal portions slidable back and forth in said tracks, said drawer being of a length less than the over-all drawer space and having a front which is substantially flush with the front ends of said tracks.

2,778,152
WIRE NEWSPAPER AND BOOKHOLDER
Theodore Russell, Naugatuck, Conn.
Application January 15, 1954, Serial No. 404,170
1 Claim. (Cl. 45—57)



In a book and newspaper holder, a unitary wire tripod comprising a pair of downwardly extending outwardly divergent front leg portions having forwardly extending feet joined by upwardly extending portions to a horizontally extending straight rail portion spaced forwardly of the plane of said leg portions and above the plane of said feet, a pair of upwardly extending outwardly divergent upper rail portions extending respectively from said leg portions and coplanar therewith, a pair of downwardly convergent rear arm portions joined respectively to said upper rail portions by inverted U-shaped portions, said rear arm portions being disposed in a plane angularly related to the plane of said front leg and upper rail portion, one of said rear arm portions terminating in a loop connected to the other of said rear arm portions, said other arm portion extending downwardly to provide a rear supporting leg and terminating in an upwardly curled hook portion adapted for detachable engagement with said horizontal straight rail portion for collapsing said holder, and a sheet metal clip extending horizontally between the respective junctions of said leg portions and said upper rail portion and having curled end margins embracing said wire tripod at said respective junctions.

2,778,153
BOOK SUPPORT
Fredrick R. Raby, Windsor, Ontario, Canada
Application June 29, 1955, Serial No. 518,875
3 Claims. (Cl. 45—57)

1. In a book support, an upper structure comprising a horizontal bar from the ends of which extend a pair of inverted hairpin-like clips for engagement with the back portion of the book, the open ends of said clips converging toward one another, a lower structure in the form of a U-shaped element the upper ends of the legs of which are pivotedly connected at the ends of said horizontal bar, and stop means carried by the lower structure engageable with the upper structure for limiting the swinging extent of said lower structure on said upper structure whereby said lower structure may, when the device is in position on a book, be swung inwardly substantially flush with the back of the book or outwardly to operate as a support for the book.

2,778,154
CAPTIVE GLIDERS
Camille Florent Dauwe, Ghent, Belgium
Application September 9, 1953, Serial No. 379,232
Claims priority, application Belgium September 17, 1952
7 Claims. (Cl. 46—77)

1. A glider of the class described, comprising: an elongated fuselage; a tail structure at the rear of said fuselage; a pair of wings connected to said fuselage forwardly of said tail structure and extending laterally outwardly from said fuselage, one of said wings being effectively rigid during flight and having a fixed angle of attack; pivot means included in the other of said wings intermediate said fuselage and the outer end of said other wing, said pivot means causing said other wing to include an outwardly disposed flap portion movable about a pivotal axis which is oblique with respect to the longitudinal axis of said fuselage for changing the effective angle of attack of said other wing in response to pivotal movement of said flap portion; resilient means acting on said flap portion and yieldingly urging said flap portion downwardly to change the effective angle of attack of said other wing with respect to said one wing and bank said glider in a turn in a predetermined direction; and a manipulating string connected to said fuselage for pulling said fuselage through the air and increasing the air pressure beneath said flap portion, for urging said flap portion upwardly against the yielding action of said resilient means to change the effective angle of attack of said other wing in the direction opposite to said first-named change and bank said glider in a turn directed oppositely to said predetermined direction.

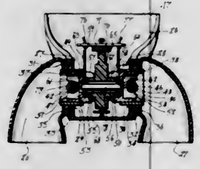
2,778,155
DOLL WITH MECHANISM FOR MOVABLE LIPS
Robert K. Ostrander, Maplewood, N. J.
Application March 9, 1956, Serial No. 570,479
9 Claims. (Cl. 46—141)

6. A doll having a head and body of flexible plastic material, the head and body being joined at a neck of the doll and the head having a mouth formed by lips which have a bias toward open position and a socket with surfaces consisting of a roof, back and bottom of the mouth, the head behind the mouth socket and downwardly to the neck being hollow and the body having a hollow portion extending from the neck downwardly for at least a part of the length of the body, a lip actuator comprising a first lever having an upper portion with an end against the inside surface of the head behind the upper lip, a second lever having an upper portion with an end against the inside surface of the head behind the lower lip, a pivot connection between the levers behind the mouth socket, each of the levers having a lower portion extending downwardly through the neck and into the hollow part of the body, the lower portions of the levers diverging within the body, the first lever toward the front

of the doll and the second lever toward the back of the doll, means imparting a bias to the actuator to hold the

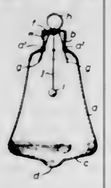
lower portions of the levers away from one another, and means holding the upper portions of the actuator in contact with the inside surface of the head behind the lips.

2,778,156
WALKING, SITTING, AND STANDING DOLL
Joseph Zanca, Brooklyn, N. Y.
Application July 21, 1955, Serial No. 523,452
8 Claims. (Cl. 46—149)



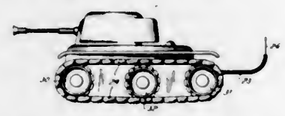
1. A sitting, standing and walking doll comprising a body having a hollow lower portion with opposed leg openings, a pair of legs having annular upper hip boss portions, outer flange rings adapted to fit around said boss portions of the legs and extend inside the leg openings of the body, inner flange rings adapted to fit inside said boss portions to hold the boss portions between the inner and outer flange rings, and means pivotally and removably to hold the outer flange rings in said leg openings of the body, said means being pins extending through the outer flange rings, boss portions and inner flange rings and a resilient member extending between and removably connected with said pins.

2,778,157
TOY BELLS
Richard Gratzer, Liverpool, England
Application November 12, 1954, Serial No. 468,485
Claims priority, application Great Britain
November 13, 1953
1 Claim. (Cl. 46—174)



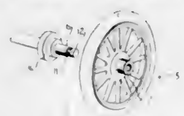
An ornamental bell comprising a hollow closed bottom bell-shaped body provided with an annular shoulder and an open neck extending outwardly from said shoulder, an apertured cap mounted on and enclosing said body neck, a coil spring having integral biased-apart spring arms extending through the aperture of said cap and into said body neck frictionally engaging said annular shoulder tending to retain said cap on said body neck, a clapper, and a member carrying said clapper swingably connected to said coil spring and extending through the aperture of said cap and said body neck depending with said clapper within said bell shaped body.

2,778,158
REMOTE CONTROLLED VEHICLE TOY
Max Ernst, Nurnberg, Germany
Application February 10, 1954, Serial No. 409,470
Claims priority, application Germany February 12, 1953
9 Claims. (Cl. 46—219)



1. A remote controllable toy comprising in combination: control means arranged for conveying a control movement to said toy and comprising a hollow flexible shaft member and a core member extending through said hollow shaft member, one of said members being rotatable and the other of said members being fixedly connected to said toy, a first driving wheel and a second driving wheel arranged in axial alignment with each other and supported by said toy, separate gear train means arranged for driving connection with said wheels respectively, and coupling means arranged for rotation by said hollow shaft member, said coupling means being operable in response to a relative movement between said hollow shaft member and said core member for selectively moving into position for driving engagement with one or both of said gear trains or into position for disengaging at least one of said gear trains.

2,778,159
WHEEL MOUNTING
Raymond A. Irwin, Manitowoc, Wis., assignor to Kaysun, Inc., Manitowoc, Wis., a corporation of Wisconsin
Application March 31, 1954, Serial No. 419,950
1 Claim. (Cl. 46—221)

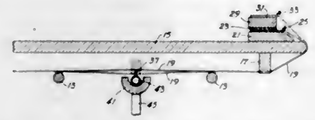


Means for retaining a wheel molded of plastic material on an axle of a toy vehicle comprising: a hub forming an integral part of the wheel and extending a substantial distance out from one side of the wheel, said hub having a bore therethrough slightly larger in diameter than the axle so that the wheel has a smooth running fit on the axle, the wall of the hub being relatively thin and of substantially uniform cross section throughout the length thereof; an integral radially inturned relatively thin-walled flange on the axially outer end of the hub, said hub and flange by virtue of their relatively thin walls and the fact that they are formed of plastic material being slightly resilient to permit slight expansion of the aperture defined by the flange; and a coaxial button-like extension on the outer end of the axle, the neck portion of which has a diameter substantially smaller than that of the axle and slightly smaller than the normal size of the aperture defined by the flange, and the head of said extension having a diameter slightly larger than that of the normal size of the aperture defined by said flange and being tapered at its outer end so that the flange aperture may be momentarily expanded by camming co-operation between the flange and the tapered outer end of the head, to permit the wheel to be axially pushed onto the axle with a detent-like action to a position in which the flange encircles the neck portion of said extension and axially outward displacement of the wheel off of the axle is precluded by engagement of the outer face of the flange with the underside of the head.

2,778,160
PRODUCTION OF FOAMED SLAG AND LIKE MATERIAL OF LIGHT WEIGHT
Marcel Gallai-Hatchard, Cheam, England
No Drawing. Application August 29, 1952, Serial No. 307,155
Claims priority, application Great Britain September 6, 1951
3 Claims. (Cl. 49—77.5)

1. A method for producing a foamed aggregate from molten blast furnace slag and like smelts comprising pouring a layer of molten slag onto a substantially level surface, passing a foaming agent upwardly into the molten slag from underneath to completely foam the slag to its peak volume and continue passing this agent without interruption as a rapid chilling medium at an increased pressure and volume to substantially penetrate throughout the foamed slag to stabilize the volume of the foam at approximately the peak of foaming before any settling occurs.

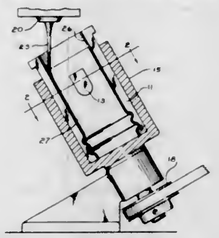
2,778,161
METHOD OF UNDULATING RODS FOR ELECTRODE STRUCTURES
Renn Zaphiropoulos, Oakland, Calif., assignor to Chromatic Television Laboratories, Inc., New York, N. Y., a corporation of California
Application September 15, 1953, Serial No. 380,205
6 Claims. (Cl. 49—81)



1. The method of forming a grid of substantially taut strands disposed in a common plane to undulate an elongated rod which comprises the steps of displacing adjacent strands in opposite directions from the common plane, inserting the elongated rod between the displaced strands, applying pressure against the rod from opposite directions through adjacent strands, progressively applying heat at local regions to the rod to reduce it at heated regions to a softened state so that undulation occurs as the taut displaced strands return to the common plane, and thereupon progressively discontinuing the heating at the local regions so that the rod will harden in the undulated shape.

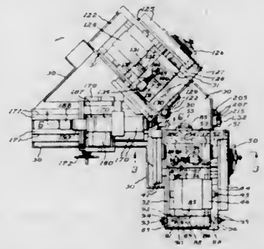
2,778,162
CENTRIFUGAL CASTING OF GLASS ARTICLES
James W. Giffen, Corning, N. Y., assignor to Corning Glass Works, Corning, N. Y., a corporation of New York
Application April 12, 1954, Serial No. 422,379
1 Claim. (Cl. 49—85)

The method of forming a tubular article which includes rotating a mold having a cylindrical cavity about the axial center of such cavity while in a plane intermediate to horizontal and vertical, directing a vertically flowing stream of glass, of small cross section compared to the mold cavity cross section, against the cavity wall near its upper end to feed and distribute glass over the mold surface by means of gravity and centrifugal action to form



such an article within such mold cavity, and retaining the article in intimate contact only with the mold cavity wall solely by centrifugal action until the glass becomes set.

2,778,163
VALVE GRINDING MACHINE
Carl G. Flygare, Worcester, Mass., assignor to Norton Company, Worcester, Mass., a corporation of Massachusetts
Application November 29, 1954, Serial No. 471,682
10 Claims. (Cl. 51—3)

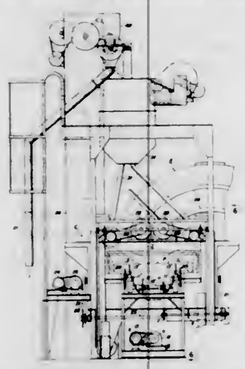


1. In a valve grinding machine having a base, a rotatable work supporting spindle for supporting a valve to be ground, a transversely movable wheel head on said base, a rotatable grinding wheel spindle thereon, spaced bearings on said head to support said spindle, said spindle being arranged for an axial movement within said bearings, a grinding wheel on said spindle, the axis of said spindle being arranged parallel to an element of the finish ground work piece, an operative face on said grinding wheel which is shaped so that a portion of the operative element of said wheel face is at an acute angle to and the remainder of said wheel element is aligned with an element of the surface to be ground, means operatively connected to impart an axial feeding movement to the wheel spindle so that the first portion of said wheel face gradually grinds the work piece to approximately the desired extent after which the second portion of said face finish grinds the work piece, and means to stop the axial feeding movement of the wheel spindle when the work piece has been ground to a predetermined size.

2,778,164
PIPE CLEANING APPARATUS WITH NOVEL UP-ENDING WHEEL
John A. Lasater and Thomas A. Deakins, Chattanooga, Tenn., assignors to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware
Application October 20, 1955, Serial No. 541,624
6 Claims. (Cl. 51—9)

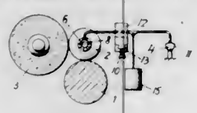
1. In a pipe cleaning installation comprising shot-blasting apparatus which receives individual lengths of pipe to be cleaned and which impinges blasts of cleaning shot upon and into each received pipe length while supporting the length in substantially horizontal-axis posi-

tion, and conveyor means which discharges each shot blasted pipe length from said blasting apparatus via a discharge side thereof with the pipe axis still horizontal and with a quantity of cleaning shot within the pipe interior, the combination of an up-ending wheel at said discharge side of the shot-blasting apparatus there mounted for rotation about a generally horizontal axis and in a generally vertical plane that is substantially parallel to the aforesaid horizontal positioning of each discharged pipe length, said up-ending wheel having a plurality of recessed spokes and being disposed so that rotation of the wheel brings those spokes into successive register with the aforesaid discharge side of the shot-blasting apparatus, each of said spokes being adapted when in



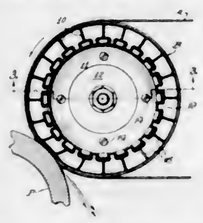
said position of register to receive from the blasting apparatus via said conveyor means a length of said shot-blasted pipe having its axis still horizontal and with cleaning shot still inside thereof, drive means for said up-ending wheel and for said conveyor means effective to rotate the wheel spokes upwardly past said shot-blasting apparatus and synchronized to time each discharge of a cleaned pipe length from said blasting apparatus with registration of one of said wheel spokes with the blasting apparatus discharge side, and collector means associated with the hub of said up-ending wheel for receiving the aforesaid quantity of cleaning shot which drains by gravity from each length of cleaned pipe that during rotation of the wheel is moved by a carrying spoke into the vertical up-ended position.

2,778,165
CENTERLESS GRINDING MACHINE
Wilhelm Stahlecker, Tubingen, and Hans Grill, Sussen, Germany
Application November 30, 1953, Serial No. 395,241
Claims priority, application Germany December 6, 1952
9 Claims. (Cl. 51—103)



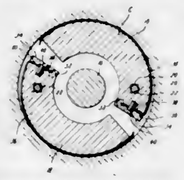
6. Centerless grinding machine for grinding a substantially cylindrical body having an axle protruding from said body comprising, in combination, a frame; a driving roller mounted substantially horizontally on said frame and adapted to drive the cylindrical body by frictional engagement therewith when the body is placed on top thereof; means for driving said roller; a grinding wheel; means for rotatably mounting and driving said grinding wheel; means for placing said grinding wheel in engagement with the body so as to grind the outer surface thereof; a bracket; means at one end of said bracket for pivotally mounting the same on said frame so as to be pivotable in various directions; at least one half-shell of a bearing secured to the other end of said bracket and partly embracing said axle from above; means acting upon said bracket for pressing said half-shell upon said axle to press the body upon said driving roller so as to be driven thereby; means for restraining said bracket for moving in at least one direction about said pivotable mounting means so that the body to be ground, aside from rotating about its own axis, can move independently only in a circular direction about the pivoting point of said bracket within a plane passing through said pivoting point and extending at a right angle to the axis of the body, as well as about an axis lying within said plane and substantially connecting the axis to be ground with said pivoting point; and eccentric means for positively moving said bracket laterally about its pivoting point within a substantially horizontal plane.

2,778,166
CONTACT WHEEL AND RIM FOR THE SAME
William J. Cosmos, Chicago, Ill.
Application March 17, 1955, Serial No. 494,942
6 Claims. (Cl. 51—141)



1. A removable rim for a contact wheel comprising an endless flexible belt; a series of flexible ribs spaced around the inside of the belt, secured thereto and extending across the same and short radial distances inwardly therefrom to inner edges parallel with and separate from one another; each flexible rib substantially consisting of a fabric-reinforced member impregnated with rubberlike material, having a tubular inner edge portion, a flat portion extending outwardly therefrom and an outer portion the cross sectional area of which expands from the flat portion, said several portions being substantially as long as the rim is wide; and a rigid member secured to each inner edge for securing the same to a hub structure.

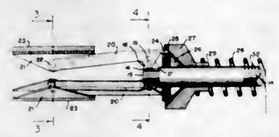
2,778,167
ROTARY HONE
Jason W. Klumpp, Pasadena, Tex., assignor of one-half to John C. Cosgrove, Harris County, Tex.
Application November 19, 1954, Serial No. 470,013
4 Claims. (Cl. 51—184.1)



1. In a rotary hone for honing the interior of a cylinder, a frame shaped to be inserted in a cylinder, means for supporting the frame in the cylinder and for rotating the same therein about an axis substantially parallel to the axis of the cylinder, weight means movably carried by the frame for outward radial movement relative to said axis upon rotation of the frame, said weight means having

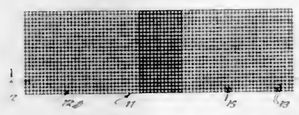
substantially semi-cylindrical external surfaces positioned in substantially parallel relation to said axis and abrasive means on said surfaces.

2,778,168
CYLINDER HONING TOOLS
James T. Clark, Fort Morgan, Colo.
Application August 8, 1955, Serial No. 527,064
4 Claims. (Cl. 51—184.4)



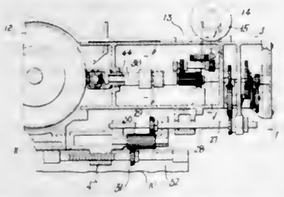
1. A cylinder honing tool comprising: a shaft; a spider hub secured on the forward extremity of said shaft; a plurality of ears projecting radially from said spider hub; a hone arm hingedly mounted on each ear and extending forwardly therefrom; a hone element tiltably mounted on the forward extremity of each hone arm; a lever secured to each hone arm and projecting rearwardly from the hinge point thereof; a resiliently compressible disc-like member surrounding said shaft and positioned between said shaft and said levers and acting in consequence of its inherent resiliency to urge said levers outwardly so as to urge said hone elements radially inward; and adjustable means for urging said lever inwardly against said compressible member.

2,778,169
FLEXIBLE ABRASIVE BANDS
Albert L. Ball, Worcester, Mass., assignor to Bay State Abrasive Products Company, Westboro, Mass., a corporation of Massachusetts
Application October 20, 1953, Serial No. 387,099
8 Claims. (Cl. 51—188)



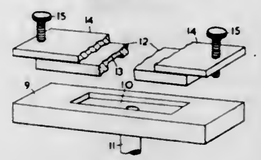
1. A flexible abrasive band comprising a strip of open mesh fabric, the ends of said strip being adhesively joined in overlapping relation, said band having an abrasive deposit on substantially all of the exposed surfaces of the yarns of said strip, and the overlapping ends of said strip being so disposed that the mesh openings of said ends are in registry.

2,778,170
METHOD OF GRINDING, INCLUDING GRINDING WHEEL FORMING
Ernest V. Flanders, Springfield, Vt., assignor to Jones and Lamson Machine Company, a corporation of Vermont
Application November 20, 1953, Serial No. 393,260
4 Claims. (Cl. 51—283)



1. During a grinding operation, the method of maintaining the working point on the periphery of a grinding wheel in proper relation to a workpiece being ground, said wheel having a desired form, that comprises grinding said workpiece with said wheel whereby the diameter of said wheel decreases at a determinable attrition rate, feeding substantially radially into said wheel a member shaped to the complement of the desired form of said wheel at a constant, positive forming rate greater than said attrition rate, rotating said wheel and said member at different peripheral speeds and simultaneously advancing said wheel towards said workpiece at a rate substantially equal to said forming rate.

2,778,171
PRODUCTION OF AIR-TIGHT PACKAGES
Gerald Taunton, Wells, England, assignor to The Wilts United Dairies Limited, Trowbridge, England, a British company
Application February 26, 1953, Serial No. 339,017
Claims priority, application Great Britain April 7, 1952
12 Claims. (Cl. 53—9)



1. A method of evacuating an envelope comprising the steps of forming an envelope consisting of a flexible, fluid-tight sheet material having along an edge of said envelope two overlying sheet portions having edges forming an opening in said envelope, providing at least one of said sheet portions at the face thereof directed toward the other sheet portion with a plurality of spacing projections forming between said overlying sheet portions a passage communicating with said opening; and evacuating the interior of said envelope through said opening and said passages formed by said projections between said sheet portions.

2,778,172
METHOD OF PACKAGING HOSIERY
Joseph Warren Malley, Flushing, N. Y., assignor, by mesne assignments, to S. D. Arrowood & Co., Inc., New York, N. Y., a corporation of New York
Application September 25, 1952, Serial No. 311,374
6 Claims. (Cl. 53—21)

1. In a method of packaging hosiery, the steps of laying a pair of stockings flat on a surface with the heels thereof located at a heel mark on said surface and with the tops thereof extending toward a second mark on the surface spaced from said heel mark by a known distance, then placing a strip of paper face down over the legs of the stockings with one end of said strip being located at said second mark and the other end extending to a point intermediate the tops and the heels of the stockings, said strip

having a measurement scale printed on the face thereof and being positioned with the scale extending over the tops of the stockings, said scale measuring the distance from the second mark to the tops of the stockings and expressing said distance in terms of the distance from the heel mark to the tops of the stockings, then folding the feet of the stockings over the strip at one end thereof and then folding the strip together with the stockings.

2,778,173
METHOD OF PRODUCING AIRTIGHT PACKAGES
Gerald Taunton, Wells, England, assignor to Wilts United Dairies Limited, Trowbridge, England, a British company
Application August 24, 1951, Serial No. 243,515
Claims priority, application Great Britain November 29, 1950
5 Claims. (Cl. 53—22)

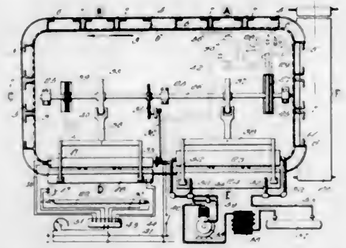
1. A fluid-tight packaging process comprising the steps of forming a closed package envelope consisting of a flexible fluid-tight sheet material having a first sheet portion formed with an evacuating opening, a second sheet portion overlying the first sheet portion, and having in at least one of said sheet portions at the face thereof directed toward the other sheet portion a plurality of spacing projections forming between said overlying sheet portions a passage communicating with said opening; removing fluid from the interior of the envelope through said evacuating opening and said passage formed by said projections between said sheet portions; and then sealing said opening.

2,778,174
METHOD OF AND APPARATUS FOR ASSEMBLING ROD-LIKE STRUCTURAL MEMBERS
Erwin L. Malone, Maplewood, N. J., assignor to Wall Wire Products Company, Plymouth, Mich., a corporation of Michigan
Application July 14, 1953, Serial No. 367,926
10 Claims. (Cl. 53—35)

9. The method of filling a holding fixture having rod-holding provisions thereon adapted to receive the ends of a series of rods, which comprises positioning said holding fixture above a locating fixture provided with locating means on its upper surface, raising said locating fixture to a position in which said upper surface is above said rod-holding provisions, moving a bundle of rods across and in contact with said surface in such manner that individual rods may fall from the bundle into the locating means, and lowering the locating fixture to a position in which said upper surface is disposed below said rod-holding provisions.

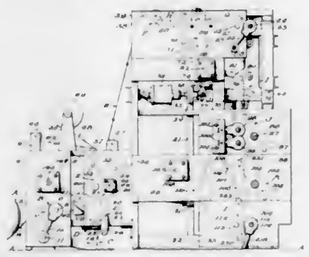
2,778,175
METHOD OF SEALING CONTAINERS
William H. Bryce, Memphis, Tenn., assignor to Dixie Wax Paper Company, Dallas, Tex.
Application November 1, 1950, Serial No. 193,390
1 Claim. (Cl. 53—39)

The method of sealing wax coated paper bags which comprises the steps of applying heat to each face of the open end portion of the bag, simultaneously bending said end portion laterally of the bag sealing off the interior of the bag from the portion thereof being heated, discontinuing the application of heat to the inner face only of said bent end portion, pressing said bent end portion together forming a fold thereof, applying heat to the outer faces of the remaining end portion of the bag including said fold, simultaneously forming a bend laterally of said



bag below said fold, discontinuing the application of heat to the inner face of said second bent portion of the bag, pressing said bent portion together forming a second fold, thereafter quick cooling the sealed end portion of said bag while under pressure and forming corrugations in said folds during the pressing and cooling thereof.

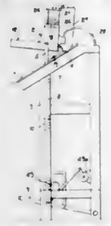
2,778,176
WRAPPER CUTTING, GLUING, AND FEEDING APPARATUS
Heinrich Ernst Haase, Chicago, Ill., assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York
Application May 18, 1953, Serial No. 355,705
36 Claims. (Cl. 53—64)



1. In apparatus of the character described, means for drawing wrapper lengths from a continuous rolled web of paper, means for applying glue stripes along the marginal edges of the paper while the wrapper lengths are being fed longitudinally, means for cutting the paper thus drawn and glued into wrapper lengths, and means for applying a glue stripe along the trailing transverse edge of each said wrapper length while it is being fed in the direction of the length of said marginal glue stripes thereon.

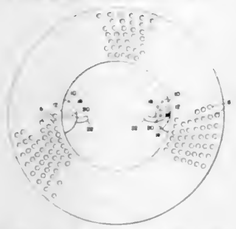
27. In apparatus of the character described, means for drawing wrapper lengths from a continuous rolled web of paper, means for applying glue stripes along the marginal edges of the paper while the wrapper lengths are being fed longitudinally, means for cutting the paper thus drawn and glued into wrapper lengths, means for applying a glue stripe along the trailing transverse edge of each said wrapper length while it is being fed in the direction of the length of said marginal glue stripes thereon, and rigid U-shaped means for receiving each glued and cut wrapper length with the leading end thereof moving downwardly and effective to turn said leading end upwardly for shaping the wrapper length partially about a grouping of cans with a free loop depending below the can grouping and so that an operator can with facility grasp the trailing end of the wrapper length and draw it over the can grouping and into lapped relation to the leading end to complete the wrapping and sealing of the wrapper about said can grouping.

2,778,177
CONTAINER EVACUATING AND SEALING MACHINE
Reid A. Mahaffy, Cedar Grove, William E. Young, Ramsey, and John R. Harder, Cedar Grove, N. J., assignors to Standard Packaging Corporation, New York, N. Y., a corporation of Virginia
Application November 16, 1953, Serial No. 392,120
14 Claims. (Cl. 53—86)



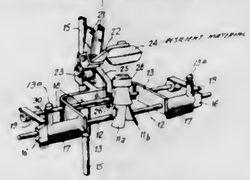
1. A container evacuating and sealing machine including structure forming an upwardly facing declining surface on which the container gravitationally slides downwardly due to the declination, releasable means for holding the container stationary on the surface, an open-bottomed hollow head constructed to cover the container held by said means on the declining surface, means for mounting the head so it may be opened and closed relative to said surface and which is free from the sliding path of the container, means for evacuating the head when it is closed, and means for sealing the container when the head is closed, the container automatically sliding downwardly on the surface when the head is opened and the holding means is released.

2,778,178
CAPSULE FILLING RING ASSEMBLY
Richard J. Bartlett, Chalfonte, Pa., assignor to Smith, Kline & French Laboratories, Philadelphia, Pa., a corporation of Pennsylvania
Application September 8, 1954, Serial No. 454,757
3 Claims. (Cl. 53—287)



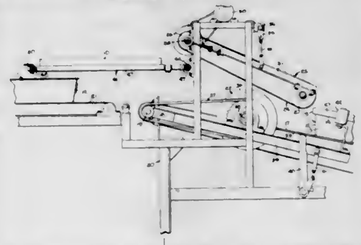
1. A capsule filling ring assembly comprising a pair of rings having radially extending mating surfaces, means including a pair of pins mounted in one of said rings and a pair of bores for receiving said pins in the other of said rings for positioning said rings in predetermined relative positions with their mating surfaces in engagement with each other, a plurality of longitudinally extending bores in each of said rings positioned in alignment with the bores in the other of said rings when the rings are in said predetermined relative positions, the bores in one of said rings being adapted to hold capsule bodies and the bores in the other of said rings being adapted to hold capsule caps, and cam means engageable with said pins for releasably locking said rings in said predetermined relative positions.

2,778,179
CONTAINER CAP-SEAL AND SEALING APPARATUS
Janina Miliez, Paris, France
Application January 5, 1954, Serial No. 402,225
Claims priority, application France June 24, 1953
3 Claims. (Cl. 53—291)



1. In apparatus for applying deformable plastic cap-seals having open lower ends to the necks of containers; the combination of a stand, a pair of shoehorn-like elements having tapered ends directed upwardly and converging in that direction, means carried by said stand and supporting said elements for movement toward and away from each other so that, when said elements are moved toward each other, the elements can be inserted into the open lower end of a cap-seal and, when said elements are thereafter moved away from each other, the cap-seal on the elements is expanded to fit over the neck of a container extended upwardly between the elements, a pressure member, means supporting said pressure member so that the latter is movable generally vertically above said elements, an operating member, means operatively connecting said operating member to said elements and to said pressure member so that manipulation of said operating member causes said pressure member to press downwardly on a cap-seal positioned on said elements as the latter are moved away from each other, releasable means operative, in one position, to hold said elements in spaced apart relationship, and means controlled by said operating member for disposing said releasable means in said one position after manipulation of said operating member so that said elements will remain spaced apart to facilitate the upward movement of the neck of a container between said elements for removing a cap-seal from said elements to contract onto the container neck.

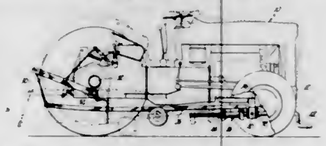
2,778,180
LID REMOVING APPARATUS
Floyd E. Eyster, Rockford, Ill.
Application February 21, 1955, Serial No. 489,719
12 Claims. (Cl. 53—381)



10. In lid removing apparatus, the combination of, a conveyor for supporting and advancing a covered article along a predetermined path, a pair of disks spaced apart transversely of said path a distance greater than the width of the article but less than the width of a lid thereon and having lid engaging surfaces on their peripheries extending upwardly above the lid and forwardly along the path from positions below the edges of the lid overhanging the article, a pressure member having a lid engaging surface spaced along said path behind said disks and positioned in the path of the lid of an article on said con-

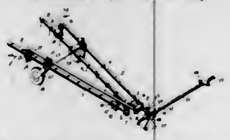
veyor to engage the top of the lid as the article passes beneath the member, and means for advancing said conveyor and said lid engaging surfaces of said disks and said member forwardly and in the same direction along said path, said member cooperating with said conveyor to advance the lid against and onto said disk peripheries and with the latter to lift the lid and carry the same away from the article.

2,778,181
ROLLER ATTACHMENT FOR TRACTORS
Elzie R. Gray, Kansas City, Mo.
Application September 13, 1954, Serial No. 455,389
4 Claims. (Cl. 55—6)



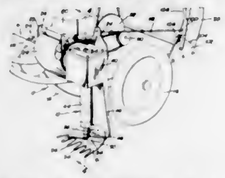
1. In a pressing attachment for tractors having a power lift at the rearmost end thereof and a pair of rear, driven wheels normally engaging the ground, an elongated tongue beneath the tractor and between the wheels in substantial parallelism with the normal path of travel of the tractor; a horizontal axle intersecting said path of travel and secured to the tongue therebeneath and intermediate the ends thereof, forwardly of the center of the wheels; a roller for each wheel respectively rotatably mounted on the axles, one on each side repectively of the tongue, and having a portion in the path of the wheel; manually actuated structure at the forward end of the tongue interconnecting the tongue and the tractor for reciprocating the tongue to force the rollers into and out of frictional engagement with the wheels therebeneath whereby the tractor supplies pressing weight for said rollers and the means for driving the same, said structure pivotally connecting the tongue for vertical swinging movement relative to the tractor; a slotted bracket depending from the tractor between said wheels and engaging the tongue for holding the same against lateral horizontal swinging the relative to the tractor; and means at the rear end of said tongue coupling the tongue with said power lift for swinging the tongue vertically to raise the rollers when the same are moved forwardly from beneath the wheels.

2,778,182
FOLDABLE DRAG HARROW DRAW BAR
Harvey R. Malmgren, Winnipeg, Manitoba, Canada, assignor to Malmgren Implement Mfg. Co., St. Boniface, Manitoba, Canada
Application February 4, 1955, Serial No. 486,240
7 Claims. (Cl. 55—89)



1. A foldable drag harrow drawbar comprising in combination a relatively short main drawbar, a castoring wheel and fork assembly pivotally secured to the forward end of said main drawbar, a pair of drag harrow drawbar arms pivotally secured by the inner ends thereof to the rear end of said main drawbar, a bracing bar for each of said drag harrow arms, each of said bracing bars being pivotally secured by the rear ends thereof to a point adjacent the outer ends of each of said drag harrow drawbar arms, the forward ends of said bracing arms, when said harrow drawbar is in the folded position, adapted to be detachably secured to said main draw bar, and an extension draw bar detachably secured to said castoring wheel and fork assembly when said harrow drawbar is in the folded position, and adapted to be rigidly secured to the front end of said main drawbar, as an extension thereof, when said harrow drawbar is in the extended position, the said forward ends of said bracing arms adapted to be secured adjacent the forward end of said extension draw bar when said harrow drawbar is in the extended position.

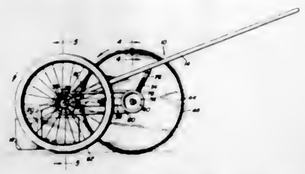
2,778,183
LAWN MOWER TRIMMER ATTACHMENT
William V. Evans, Redondo Beach, Calif.
Application November 24, 1953, Serial No. 394,019
1 Claim. (Cl. 56—25.4)



A trimmer adapted to be mounted on a power mower of the type having a wheeled frame and a power shaft, said trimmer comprising a hollow casing having a lower wall adapted to be mounted on the frame of the mower in a vertical operative position, a depending tubular shaft housing integral with the lower wall of the housing and terminating in a lower end, a vertical shaft journaled in said shaft housing and having an upper end extending into the hollow casing and having a lower end projecting longitudinally from the lower end of the shaft housing, a gear secured to the upper end of the shaft and being disposed within the casing, a horizontal stub shaft extending into said casing and terminating in an inner end within the casing and a outer end disposed exteriorly of the casing, a gear mounted on the inner end of the horizontal shaft in meshing engagement with the gear on the upper end of the vertical shaft, a pulley on the outer end of the horizontal shaft and adapted to receive rotative power from the power shaft of the power mower, a depending bracket on said casing terminating in a lower end extending perpendicularly and in substantially parallel relation to the lower wall of the casing and in spaced relation to the lower end of the shaft housing, a cutter plate mounted on the upper surface of the lower end of the bracket, said cutter plate having a plurality of projecting fingers in the same plane as the plate with the fingers having sharpened edges disposed in spaced relation, said vertical shaft having a cutter bar slidably mounted on the lower end thereof, said shaft having the lower end non-rotatively received in an opening in said cutter bar, said cutter bar having sharpened edges and rotatably engaging the upper surface of the cutter plate for cutting coaction with the sharpened fingers, and a coil spring encircling the lower end of the shaft with one end disposed against the cutter bar and the other end terminating adjacent the lower end of the shaft housing, a thrust collar on said shaft in engagement with the lower end of the shaft housing and the other end of the spring thereby resiliently retaining the cutter bar against the cutter plate.

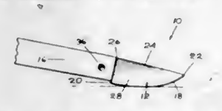
2,778,184
MECHANICAL FRUIT PICKER
Carl P. Beck, Oceano, and Joseph E. Roesbery, Raymond, Calif.
Application July 26, 1955, Serial No. 524,383
4 Claims. (Cl. 56—328)

1. A fruit gathering machine of the type adapted to be pushed by a walking attendant, said machine comprising a handle which includes a pair of sides, an axle assembly having a pair of spindles and connected to said sides, a pair of drums having fruit piercing pins arranged in circumferential rows on said drums, support arms rotatably disposed on said axle assembly and supporting said drums for swinging movement about said axle assembly and rearwardly thereof, a plurality of fruit strippers carried by said axle assembly and having ends dis-



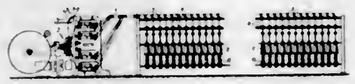
posed between said rows of pins, a fruit container disposed below and in advance of said frame and in line with the opposite ends of said strippers to accept the fruit that is stripped from said drums, a fruit container supporting base connected to the forward ends of said sides of said handle, and means including machine support wheels on said spindles for rotating said drums at a speed proportional to the forward speed of the machine.

2,778,185
SWEEP RAKE TOOTH POINT
John R. Hansen, Manning, Iowa
Application March 6, 1956, Serial No. 569,833
3 Claims. (Cl. 56—400)



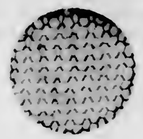
1. A sweep rake tooth point comprising a body having a mounting shank on one end and having an arcuate lower surface and a straight upper surface, the extended ends of the upper and lower surfaces meeting at a point slightly below a plane through the high point of the body and parallel to the mounting shank, and said body having tapering and upwardly and inwardly inclined side surfaces, said mounting shank having indentations therein for receiving nodes of a sweep rake tooth for securing the point in the tooth.

2,778,186
TEXTILE PROCESSING APPARATUS
Wilhelm Lüttgen and Walter Nachtmann, Bad Kissingen, Germany, assignors to Luttgen Kommanditgesellschaft, Bad Kissingen, Germany
Application November 21, 1951, Serial No. 257,448
Claims priority, application Germany November 24, 1950
6 Claims. (Cl. 57—50)



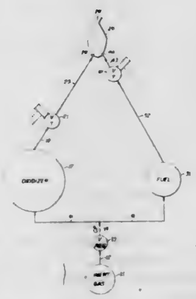
3. Textile processing apparatus comprising, in combination, a spinning machine comprising a plurality of guide rollers arranged substantially in a horizontal plane to receive rovings from a carding machine and to change the direction along which the rovings move, said guide rollers being parallel to each other and of progressively shorter lengths as they approach one end of said spinning machine, and the longer of each pair of adjacent guide rollers having its opposite ends located beyond the opposite ends of the shorter of said pair of guide rollers; and guide means operatively connected to said spinning machine for continuously guiding rovings respectively along straight lines from a carding machine directly to said guide rollers of said spinning machine.

2,778,187
COMPOSITE YARN
William J. Leath, Charlotte, N. C., and Frank E. Bobo, Jr., Gainesville, Ga., assignors, by mesne assignments, to Patentex, Inc., New York, N. Y., a corporation of New York
Original application August 3, 1954, Serial No. 447,600. Divided and this application September 2, 1954, Serial No. 453,783
6 Claims. (Cl. 57—140)



1. Composite yarn adapted for the production therefrom of knitted and woven textile products having an unusual stretchability, one yarn component of said composite yarn being twisted sufficiently to induce substantial liveliness therein and thereby impart to the textile product produced from the yarn said unusual stretchability, said lively yarn being plied with a temporary restraining yarn that subdues said liveliness sufficiently to permit practical handling of the lively yarn in knitting and weaving operations, said restraining yarn being removable by dissolving with chemicals that have no effect on said twisted yarn, said twisted yarn being heat-set and thereby stabilized against adverse effects on its liveliness upon encountering elevated temperature conditions, and said twisted yarn being adapted to resume said substantial liveliness upon removal of said temporary restraining yarn.

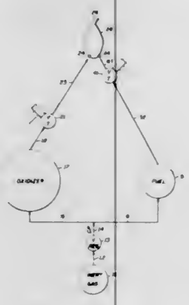
2,778,188
LIQUID HYDROCARBON ROCKET PROPELLANT
Don R. Carmody, Crete, and Alex Zletz, Park Forest, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application December 17, 1951, Serial No. 262,021
8 Claims. (Cl. 60—35.4)



1. A method of generating gas, which method comprises injecting separately and essentially simultaneously into the combustion chamber of the gas generator (1) a hypergolic liquid hydrocarbon fuel boiling over the range of about 250° to 400° F., which fuel is derived from the liquid product of the pyrolysis of a hydrocarbon selected from the class consisting of ethane, propane, butane, propylene, butylene, naphthas, and gas oils in the vapor phase at a temperature between about 1250°

and 1800° F. at a cracking zone pressure of not more than 100 p. s. i. a. and for a cracking zone residence time between about 0.05 and 5 seconds by separating a liquid product from other cracking products and distilling said liquid product to obtain said fuel and (2) a nitric acid oxidizer containing not more than 5 weight percent of non-acidic materials, in an amount and at a rate sufficient to initiate a hypergolic reaction with and to support combustion of the fuel.

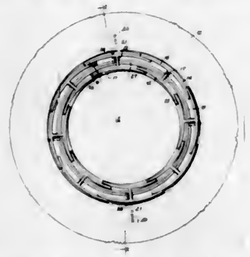
2,778,189
LIQUID HYDROCARBON ROCKET FUEL
Don R. Carmody, Crete, and Alex Zletz, Park Forest, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application December 17, 1951, Serial No. 262,022
8 Claims. (Cl. 60—35.4)



1. A method of generating gas, which method comprises injecting separately and essentially simultaneously into the combustion chamber of the gas generator (1) a hypergolic liquid hydrocarbon fuel, which fuel is derived from the liquid product of the pyrolysis of a hydrocarbon selected from the class consisting of ethane, propane, butane, propylene, butylene, naphthas, and gas oils, in the vapor phase at a temperature between about 1250° and 1800° F., at a cracking zone pressure of not more than 100 p. s. i. a., for a cracking zone residence time between about 0.05 and 5 seconds, separating a liquid product from other cracking products, distilling said liquid product to obtain a light oil boiling over the range of 100° and 400° F., chilling said oil to a temperature of at least about —70° F. for a time sufficient to form a separate solid phase and removing said phase to obtain said liquid hypergolic fuel, which fuel is characterized by a freezing point of at least about —70° F., and (2) a nitric acid oxidizer containing not more than 5 weight percent of non-acidic materials, in an amount and at a rate sufficient to initiate a hypergolic reaction with and to support combustion of the fuel.

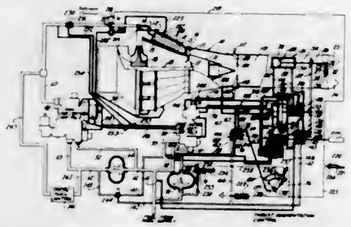
2,778,190
VARIABLE AREA NOZZLE FOR JET ENGINES
Walter R. Bush, Huntington, N. Y., assignor to Republic Aviation Corporation, Farmingdale, N. Y., a corporation of Delaware
Application June 8, 1950, Serial No. 166,938
19 Claims. (Cl. 60—35.5)

4. A variable area nozzle to form a continuation of and define the exit orifice for a conduit, said nozzle comprising a plurality of sections slidably mounted with reference to the discharge end of the conduit and to each other, means for reciprocating the sections in unison relatively to the discharge end of the conduit, and actuating means engaging the sections aft of the discharge end of the conduit and adapted to move the sections laterally with respect to each other during their reciprocation relative to the discharge end of the conduit to thereby



vary the effective area of the exit orifice established by the nozzle for the conduit.

2,778,191
TAIL PIPE OR AFTERBURNING CONTROL FOR TURBOJET ENGINES
Thomas J. Thompson, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application June 3, 1948, Serial No. 30,828
19 Claims. (Cl. 60—35.6)



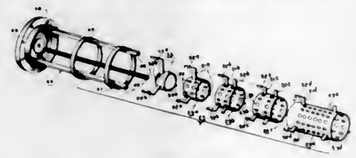
4. In a system for obtaining thrust augmentation in a turbojet engine by burning fuel in a chambered area after the turbine in addition to the fuel supplied to the burners before the turbine, a main fuel control for metering fuel to said burners, a conduit for metered fuel, an afterburning fuel control provided with a variable metering restriction, and means for maintaining a fuel head across said restriction including a fuel head regulating valve and coacting pressure responsive means for controlling said valve subjected to a differential pressure varying with variations in the flow of fuel through said conduit.

16. In a system for obtaining thrust augmentation in a turbojet engine by burning fuel in a chambered area after the turbine in addition to that supplied to the normal burner system before the turbine, a fuel control device for supplying afterburning fuel to said chambered area, and means for igniting the afterburning fuel comprising means for increasing the quantity of fuel supplied to one or more but not all of the burners without varying the overall quantity of fuel supplied to all of the burners to cause a spurt of flame to be projected outwardly through the turbine into said chambered area without any substantial variation in engine speed.

2,778,192
COMBUSTOR BASKET STRUCTURE
Pieter J. Kroon, Swarthmore, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application October 22, 1953, Serial No. 387,660
6 Claims. (Cl. 60—39.32)

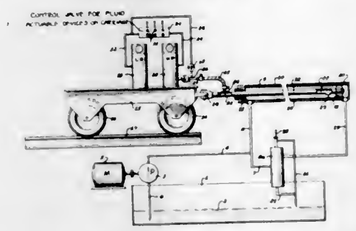
1. A combustor basket structure for a gas turbine or the like comprising an open framework including a plurality of elongated members disposed substantially parallel

to each other in angularly spaced relation about a common axis, means connecting said elongated members to each other, a plurality of tubular members supported in said framework in overlapping end-to-end relation with each other and providing a combustion chamber wall, and



mutually cooperating keying means provided on said elongated members and each of said tubular members for centrally positioning said tubular members in said framework, said tubular members being removable from said framework by movement in axial direction.

2,778,193
HYDRAULIC SAW MILL FEED WORKS
Wiley T. Stockett, Jr., Mesa, Ariz., assignor to Gardner Machines, Inc., Richfield, Utah, a corporation of Utah
Application April 30, 1953, Serial No. 352,088
3 Claims. (Cl. 60—97)



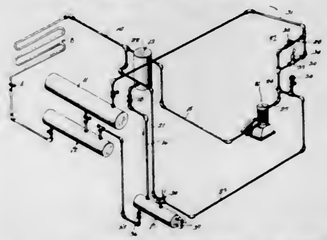
1. In a fluid pressure operating and control circuit for actuating a movable member, a reservoir, a supply of fluid in said reservoir, a pump, a motor to drive said pump, a cylinder, a solid piston reciprocatable in said cylinder, a piston rod fixed to said solid piston extending outwardly from one end of said cylinder, a variable control valve, a pressure line continuously connecting fluid pressure from said pump to said control valve and to the rod end pressure chamber of said cylinder, a line connecting pressure discharge from said valve to the head end pressure chamber of said cylinder, an atmospheric discharge drain line from said control valve to said reservoir, a control stem in said control valve actuable to cause said valve to differentially vary the relative pressure applied to said rod end pressure chamber and said head end pressure chamber of said cylinder, a hollow passageway in said piston rod, a port in said piston rod adjacent said piston connecting said hollow passageway directly into said rod end pressure chamber, and an outlet port in said piston rod located outside of said cylinder communicating with said hollow passageway, and fluid pressure actuating devices mounted on said movable member connected to said outlet port of said piston rod.

2,778,194
FLOW CONTROL GATES
George Van Leeuwen, Salem, Oreg.
Application June 4, 1952, Serial No. 291,629
1 Claim. (Cl. 61—28)

A flow control gate assembly having a removable gate unit with a rectangular opening for use in an unlined ditch having sloping earth walls requiring periodic cleaning by mechanical ditch cleaning equipment, said assembly comprising a wall structure for supporting said gate unit in a ditch, said wall structure comprising separate, interfitting bottom and sloping side panels adapted to conform to and be permanently incorporated in the earth walls of the ditch, outstanding transverse flanges on said panels adapted to be embedded in the walls of the ditch, arcuate shoulders on said flanges, a horizontal cross bar resting transversely across the top edges of said side wall panels and having ends projecting beyond said side panels, a tension band around said arcuate shoulders, means releasably securing the ends of said band to said

projecting ends of said cross bar, and triangular filler plates depending from said bar, said plates having sloping outer edges engaging the inner surfaces of said side panels and spaced parallel inner edges defining said rectangular opening, said inner edges having guides for gate boards, rectangular gate boards in said guides, said cross bar and filler plates constituting said gate unit and being readily removable from said bottom and side wall structure for the passage of said ditch cleaning equipment when said securing means has been released.

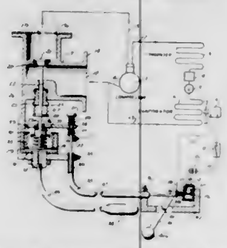
2,778,195
REFRIGERANT LIQUID RETURN MEANS
Robert F. Christensen, Crystal Lake, Ill., assignor to The Creamery Package Mfg. Company, Chicago, Ill., a corporation of Illinois
Application October 20, 1953, Serial No. 387,095
5 Claims. (Cl. 62—3)



1. In a refrigerating system having a compressor, a condenser, a liquid refrigerant receiver, a high pressure conduit connecting the discharge side of the compressor with the condenser and the receiver in sequence, an evaporator, an accumulator, a low pressure conduit connecting the evaporator and the accumulator in sequence with the suction side of the compressor, the accumulator being adapted to separate and retain liquid refrigerant from the gaseous refrigerant flowing to the compressor, a trap, a conduit connection for drainage of liquid refrigerant from the accumulator into the trap, valve means in said drainage conduit operable to open said connection when the pressure in the trap is not greater than the pressure in the accumulator and to close said connection when the trap pressure exceeds the accumulator pressure, a conduit connection for transfer of the liquid from the trap into the receiver, valve means in said transfer conduit operable to open said connection when the trap pressure exceeds the receiver pressure and to close said connection when the trap pressure is less than the receiver pressure, a conduit connection for venting flash gaseous refrigerant from the trap into the low pressure suction conduit intermediate the evaporator and the accumulator, a conduit connection for admitting high pres-

sure gaseous refrigerant to the trap from the discharge conduit intermediate the compressor and the condenser, valve means controlling the vent connection and the high pressure gaseous refrigerant connection and operable to selectively open to the trap either connection simultaneously with closing the other connection, and control means for operating said valve means automatically actuated by the high and low levels of liquid refrigerant in the trap; the combination of a pressure differential unit interposed in the compressor discharge conduit intermediate the condenser and the junction of the discharge conduit with the high pressure gaseous refrigerant connection to the trap, said unit having a pair of gaseous refrigerant flow passages endwardly connected in parallel and forming a section of the discharge conduit, a shut-off valve controlling one of said passages and operable to fully open or close said one passage, pressure conversion means controlling the other of said passages and adapted, when said shut-off valve is closed, to effect a differential pressure in the discharge conduit substantially greater on the compressor side of said unit than the pressure imposed on the condenser and receiver, and means for operating said shut-off valve associated with the automatic control means actuated by the liquid level in the trap, whereby the high level of liquid in the trap causes the greater differential pressure to be imposed on the trap effectively to force the liquid from the trap into the receiver.

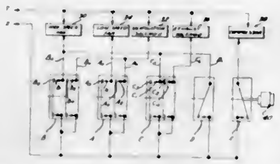
2,778,196
AUTOMATIC CONTROL APPARATUS FOR REFRIGERATION SYSTEM
William E. Davis, Houston, Tex.
Application August 18, 1952, Serial No. 304,895
9 Claims. (Cl. 62—3)



7. A refrigeration system comprising a compressor having a compression chamber in combination with a prime mover having duties requiring variable speeds of operation independent of the amount of refrigeration required, said compressor being connected to said prime mover to be driven thereby at speeds dependent on the speed of said prime mover, a condenser, evaporator, and expansion restricting means, means for connecting said units in series to form a closed refrigerating system, and a restricting means having an opening with a throat of such maximum size as to limit, regardless of the speed of operation of the compressor, the maximum flow of gas through the compressor to a predetermined maximum mass within the capacity of the compressor to handle and located in the low pressure side of the system upstream from the compression chamber of the compressor.

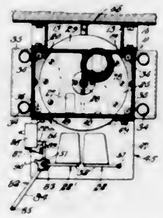
2,778,197
ROOM AIR CONDITIONER CONTROL CIRCUIT
Thomas B. Legeza, Westchester, and Edward E. Modes, Chicago, Ill., assignors to The Dole Valve Company, Chicago, Ill., a corporation of Illinois
Application December 19, 1955, Serial No. 554,091
5 Claims. (Cl. 62—4)

1. Control means for an air conditioning system which has fan means, ventilating means admitting ventilating air through said system, exhaust means providing exhaust by said system, and cooling means for cooling air passing through said system; comprising switch means operable by a single control member and adapted to energize said fan means, said ventilating means, and said exhaust



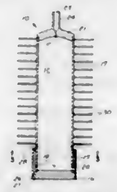
means; and a thermal element powered switch means adjustable by said single control member to set the operating temperature thereof and responsive to the temperature of the room being conditioned to establish a circuit adapted to energize said cooling means.

2,778,198
ICE MAKING MACHINE
Dudley E. Heath, Hastings on Hudson, N. Y., assignor to Servel, Inc., New York, N. Y., a corporation of Delaware
Application December 12, 1952, Serial No. 325,553
12 Claims. (Cl. 62—7)



1. An ice making machine comprising an ice freezing mold, a cooling element in thermal contact with the mold, a space below the mold for storing ice delivered from the mold, said mold being mounted for movement relative to the cooling element from an upright to an inverted position overlying the storage space, mechanism between the mold and space to intercept and hold the ice falling from the inverted mold and thereafter release ice to the storage space, and means connected to move the mold to inverted position and actuate the intercepting mechanism in timed relation.

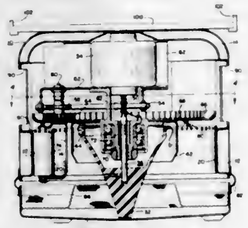
2,778,199
REFRIGERATING UNIT
Leonard H. Read, Hoxsie, R. I.
Application May 17, 1955, Serial No. 508,900
3 Claims. (Cl. 62—92)



1. In a refrigerating unit utilizing a liquefied gas as a refrigerant, the combination of an expansion chamber, a cap provided on one end of said expansion chamber, a capillary opening in said cap leading into said chamber from the source of supply of a liquefied gas, a plug secured to the other end of said expansion chamber, a tube secured

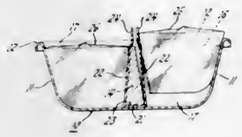
to said plug and radially spaced from said expansion chamber to provide a well and a plurality of capillary openings leading from said expansion chamber to said well said liquefied gas having a first stage of expansion after passing through said first mentioned capillary opening and into said chamber and a second stage of expansion after passing through said plurality of capillary openings and into said well, water in said well, said water acting as a valve to stop the flow of gas through said plurality of capillary openings as said gas passing through said water freezes said water.

2,778,200
ICE MAKING APPARATUS
Richard S. Gaugler, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 20, 1953, Serial No. 393,366
8 Claims. (Cl. 62—107)



1. In combination with a refrigerator having a primary refrigerating system including a primary evaporator, a self-contained automatic ice maker comprising a secondary refrigerating system, said secondary refrigerating system having a secondary condenser arranged in thermal exchange relationship with said primary evaporator and having a secondary evaporator connected to said condenser, means for delivering a stream of water to be frozen into thermal exchange relationship with a portion of said secondary evaporator, means for causing removal of ice thus formed, said last named means including means for delivering the ice in a multiplicity of pieces to a given storage area, and means for removably supporting said self-contained ice maker in said refrigerator.

2,778,201
FREEZING DEVICE
Edmund F. Schweller, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 3, 1954, Serial No. 466,485
2 Claims. (Cl. 62—108.5)

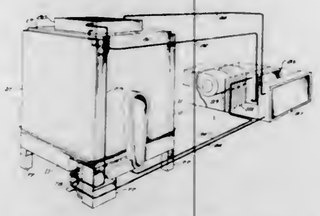


1. A freezing device comprising, an elongated tray, a grid within said tray, said grid including a plurality of of spaced apart transverse upright walls extending continuously across said tray and a single upright wall extending longitudinally of the tray through said transverse walls and immovably interlocked therewith relative thereto, said walls dividing the interior of said tray into rows of compartments in which water is to be frozen into separated ice blocks, at least the long side walls of said tray being inclined outwardly from the bottom to the top thereof, a plurality of separate and independent ice ejecting members associated with said immovable longitudinal grid walls, one of said ice ejecting members being disposed between each of said plurality of transverse grid walls and straddling said longitudinal wall, said ejecting members each having legs lying along and engaging the sides of said longitudinal grid wall and a bight portion intermediate said legs underlying said longitudinal grid wall, said bight portion of said ejecting members being secured to the bottom of said longitudinal grid wall whereby either leg of each of said ejecting members is pivotally movable independently of the other leg thereof relative to said immovable longitudinal grid wall, a portion of the legs of said ejecting members being extended upwardly beyond the top of said immovable longitudinal grid wall to provide finger engaging tabs thereabove offset relative to one another in a direction lengthwise of said device, and one of said tabs on an ejecting member being selectively engageable to apply force thereto and move a leg of said member away from said immovable longitudinal grid wall without moving the other leg thereof to pry a single ice block at a side of said longitudinal grid wall against an inclined wall of said tray to elevate the block relative to the tray while leaving all other ice blocks in the device bonded to walls of said grid and tray.

2,778,202
DISPENSER FOR SEMIFROZEN BEVERAGES AND AGITATOR MEANS THEREFOR
Harry C. Fischer, Canal Winchester, and Louis P. Benua, Gahanna, Ohio, assignors to The Ebco Manufacturing Company, Columbus, Ohio, a corporation of Ohio
Application February 14, 1955, Serial No. 488,049
2 Claims. (Cl. 62—114)

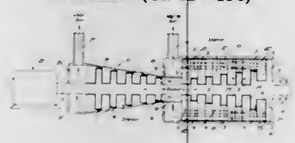
1. In a dispenser for semifrozen beverages; a receptacle body having upstanding side walls and a bottom; a heat-transfer plate carried by and forming a part of the bottom of said receptacle, said plate having an upper flat surface arranged for direct contact with a beverage contained in said receptacle body; means for cooling said plate and a beverage contained in said body to at least partially freeze the beverage; rotary agitator drive means extending upwardly from the contact portion of said plate to above the normal level of a beverage contained in said receptacle body; a combined agitator and scraper connected to be driven in rotation by said agitator drive means and disposed immediately above the upper surface of said plate for removing frozen beverage particles formed thereon during operation of said dispenser; and a second agitator driven by said drive means and slidably mounted thereon above said agitator and scraper, said second agitator having a pair of radially opposed and angularly pitched blades thereon operable during rotation of said drive means to maintain said second agitator at or near the upper surface of a beverage contained in said receptacle body for imparting stirring movement to the upper regions of the beverage during agitation of the lower regions thereof by said combined agitator and scraper.

2,778,203
AIR CONDITIONING SYSTEM HAVING A COOLING TOWER OR THE LIKE
William F. R. Griffith, Tucson, Ariz.
Application April 13, 1954, Serial No. 422,937
10 Claims. (Cl. 62—129)



6. The combination with a cooling tower or the like of a type comprising a bottom cool water reservoir, an evaporative pad system, a water system delivering water to said pad system and an air system for delivering air through said pad system to a discharge opening of a space conditioning system including water coils, means for withdrawing water from said reservoir and delivering the same through said water coils and thence to said water system above said evaporative pads, a refrigerant compressor, a refrigerant condenser positioned to receive cool air from said air discharge opening, and a refrigerant expansion coil receiving liquid refrigerant from said condenser, and means for passing air through said water and refrigerant expansion coils.

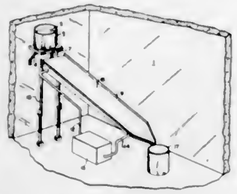
2,778,204
CONDITIONING APPARATUS AND COMPRESSOR THEREFOR
George E. Frank, Eugene, Oreg.
Application August 10, 1953, Serial No. 373,190
13 Claims. (Cl. 62—136)



1. An air conditioning system comprising an axial air compressor, a motor for driving the compressor, means comprising substantially axially extending air passageways in the stator of the compressor, means for directing cooling air into said passageways for cooling the compressed air through heat exchange relation within the compressor with a current of relatively cool air, said passageways being substantially coextensive with the stator blading, a compressed air motor arranged to aid in the drive of the compressor, the latter discharging the cooled, compressed air into the air motor for expansion therein, and separate discharge conduits for the heated cooling air and the cooled expanded air.

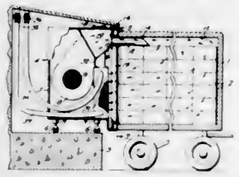
2,778,205
REMOVAL OF WATER FROM NON-AQUEOUS LIQUIDS
Carl Berger, Dayton, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio
Application August 3, 1953, Serial No. 371,815
9 Claims. (Cl. 62—170)

1. In the method of removing contaminating water from a liquid with which the water is immiscible and in which liquid the water-contaminant is present in finely dispersed particles, which method comprises flowing the water-contaminated liquid over ice with the vapor phase of the water-contaminant particles and the vapor phase of the ice in sufficient proximity to each other to co-act



to cause water-contaminant particles to solidify and settle out on the ice.

2,778,206
METHOD FOR PRE-COOLING TRANSPORTATION VEHICLES
Broadus Wilson, Raleigh, N. C., and Hipolit M. Hincz, Miami, Fla., assignors to Southern Air Conditioning Corporation, a corporation of Florida
Original application September 12, 1949, Serial No. 115,231, now Patent No. 2,634,589, dated April 14, 1953. Divided and this application November 24, 1952, Serial No. 328,750
5 Claims. (Cl. 62—171)



4. That method of preparing for shipment, produce packed in crates having square rigid substantially imperforate ends and flexible spaced side slats secured to said ends and bowed concave outwardly by the produce packed therein to form a central cross section larger than said ends, comprising, packing said crates tightly into the load carrying compartment of a vehicle in longitudinally-disposed end-to-end and side-by-side contact to form a plurality of horizontal layers stacked to a distance below the ceiling of the compartment not greater than the vertical dimension of one of said layers, to thereby define a space of low height over the entire area of the load, directing a stream of chilled air horizontally into said space from one end only of the compartment and under a pressure head of about one-half inch of water to cause at least a portion of the entering air to carry to the remote end of the compartment before entering the load, withdrawing air from said one end of the compartment opposite and over the end area of the load, re-chilling the withdrawn air and then recirculating the withdrawn air as aforesaid.

2,778,207
SELF-ADJUSTING FINGER RING HAVING SPRING BIASED PIVOTED MEMBERS
Leo Thaler, Great Neck, N. Y., assignor to J. Fiddelman & Son, Inc., New York, N. Y., a corporation of New York
Application December 18, 1953, Serial No. 399,057
9 Claims. (Cl. 63—15.6)

1. A finger ring comprising a band defining a finger receiving opening, said band having an elongated recess extending circumferentially of the band and throughout a substantial portion thereof and communicating with said opening, a housing positioned in a portion of said recess and extending lengthwise of the recess, a member slidably mounted in said housing for slidable movement lengthwise of said housing and

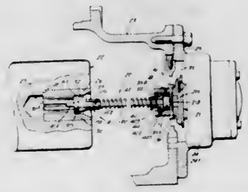
said recess, resilient means located in said housing disposed lengthwise of said recess and engaging one side of said slidable member to bias the same toward one end of said housing, a movable member pivotally mounted on said housing for movement about a fixed axis, said movable member having a cam-shaped end on one side of said axis slidingly engaging an opposite side of said slidable member and having a free finger engaging end on the other side of said axis, said movable member ex-

tending substantially lengthwise of a portion of said recess and being receivable in said portion of the recess, the finger engaging end of said movable member normally projecting into the finger receiving opening of said band under the influence of said resilient means through said slidable member on the cam-shaped end of said movable member and such finger engaging end being retractable about said fixed axis against the yielding pressure of said resilient means on said slidable member and such cam-shaped end.

2,778,208
TRANSPARENCY IN THE FORM OF AN ARTICLE OF JEWELRY FOR PERSONAL WEAR AS A PENDANT
Maurice B. Flint, Kansas City, Kans.
Application March 30, 1954, Serial No. 419,748
1 Claim. (Cl. 63—23)

A pendant comprising a pair of circular, axially aligned, plano-convex, transparent lenses of equal diameter each having an outer convex face and an inner planar face, said inner faces being in spaced, parallel opposition to each other; a pair of circular, disc-like, opalescent elements between the lenses and each having an outer planar face and an inner planar face parallel thereto, the outer face of each element being in engagement with the inner face of a corresponding lens, the inner faces of the elements being in spaced, parallel opposition to each other, the elements being axially aligned with each other and the lenses, the elements being of lesser diameter than the lenses; a pair of circular, disc-like, translucent members between the elements and each having an outer planar face and an inner planar face parallel thereto, the outer face of each member being in engagement with the inner face of a corresponding element, the inner faces of the members being in spaced, parallel, proximate opposition to each other, the members being axially aligned with and of diameter equal to that of the elements; a relatively thin, sheet-like, opaque, silhouette-forming pattern between the members and oppositely engaged by a portion of the inner faces of the latter; transparent, cementitious material securing each lens to the adjacent element, each element to the adjacent member and each member to the pattern and the other member; an annular ring circumscribing the elements and the members in engagement with their circumferential margins, the ring being of lesser inner diameter than the lenses and having an inner circumferential part thereof disposed between and in engagement with a radially outer portion of the lenses; and a fastening loop of smaller diameter than the ring mounted on the outer circumferential margin of the latter.

2,778,209
DRIVE SHAFT ASSEMBLIES
Rosser L. Wilson, Mahwah, N. J., assignor to American Brake Shoe Company, Wilmington, Del., a corporation of Delaware
Application March 29, 1954, Serial No. 419,356
1 Claim. (Cl. 64—1)



In a railway journal box assembly comprising a journal box, a journal extending into said journal box and having a splined drive socket in the end thereof facing the inside of said journal box, and a rotary mechanism supported on said journal box in spaced relationship with respect to said journal, a flexible coupling shaft assembly comprising: a first connecting head, having a non-circular opening extending therethrough, mechanically coupled to said rotary mechanism; an elongated straight shaft, having a non-circular cross-sectional configuration complemental to the cross-sectional configuration of said connecting head opening, inserted axially into said connecting head opening; means interconnecting said shaft and said first connecting head for preventing axial movement of said shaft with respect to said head; a second connecting head, having a non-circular opening extending therethrough complemental in cross-sectional configuration to said shaft mounted on said shaft in axially movable engagement therewith and extending into said journal drive socket; at least two fork members affixed to and extending from said second connecting head into sliding engagement with the splines of said drive socket to lock said second connecting head to said journal while permitting axial movement of said second connecting head with respect to said journal; and an expansive coil spring encompassing said shaft in engagement with said two connecting heads to urge said two heads away from each other.

2,778,210
CROCHETING FRAME
Bina F. Reizman, Venice, and Joseph B. Berman, Huntington Park, Calif.
Application September 30, 1953, Serial No. 383,302
3 Claims. (Cl. 66—1)

1. An improved crocheting frame comprising: a bifurcated frame member including two longitudinal, virtually parallel, laterally spaced rods effectively joined together

to form one closed end, said rods of said bifurcated frame member being effectively separated at the end thereof remote from said closed end to effectively form an open end, said closed end being effectively provided with pivot means effectively cooperable with the frame member and the lap of a person using the device to allow easy and selective rotation of said frame member about an imaginary longitudinal axis virtually parallel to said frame member whereby to facilitate crocheting operations, said pivot means including base means adapted to rest on the lap of a person using the device and pivotal connection means effectively pivotally connecting said base means and said closed end.

2,778,211
KNITTING MACHINE NEEDLE OF THE SLIDING TONGUE TYPE

Donald W. Rhoads, Reading, Pa., assignor, by mesne assignments, to Nanco, Incorporated, Reading, Pa., a corporation of Pennsylvania

Application October 8, 1951, Serial No. 250,212
13 Claims. (Cl. 66—120)

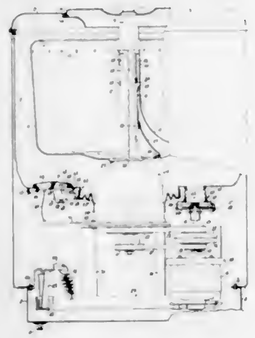
1. A knitting machine needle of the sliding tongue type comprising a shank having a longitudinal groove therethrough and a hook at one end thereof, a needle tongue having a stem extending through and slidably received in said longitudinal groove, said tongue and hook having complementary mating surfaces engageable with each other for closing the hook, one of said surfaces comprising a knife edge with beveled sides and the other of said surfaces comprising a V-shaped groove having beveled sides.

2,778,212
WATER LOAD RESPONSIVE DIAPHRAGM OPERATED CONTROL DEVICE FOR CLOTHES WASHERS

Carl S. Dayton, Louisville, and David L. Clark, Buechel, Ky., assignors to General Electric Company, a corporation of New York

Application January 21, 1953, Serial No. 332,435
10 Claims. (Cl. 68—12)

1. In a washing machine of the type having a fixed outer tub, a substantially imperforate wash basket within said tub and including washing means therein, a drive mechanism operable to drive said washing means and to rotate said basket, means resiliently supporting said basket relative to said tub, water fill means discharging into said basket, overflow means discharging from said basket into said tub, and control means sequentially operating said fill means and said drive mechanism comprising a manually controlled switch for said fill means and drive mechanism, a water level switch carried by said tub and having a first position rendering said water fill means effective and a second position de-energizing said water fill means and energizing said drive mechanism following operation of said manual switch, resilient means normally biasing said water level switch to said first position regardless of water level within said tub, a flexible connection between said last named resilient means and said resiliently supported basket operable responsive to weight

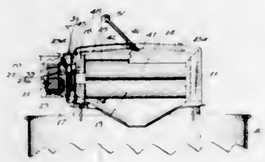


of said basket and basket contents to counteract the biasing force on said switch, and a water level switch actuator oriented with respect to said tub to sense the quantity of overflow liquid therein, whereby said water level switch operates to said second position responsive both to weight of the contents of said basket and to water level within said tub.

2,778,213
MANUAL CONTROLS FOR MOTOR-OPERATED WRINGERS

Irving Naxon, Chicago, Ill.

Application August 19, 1952, Serial No. 305,202
1 Claim. (Cl. 68—253)

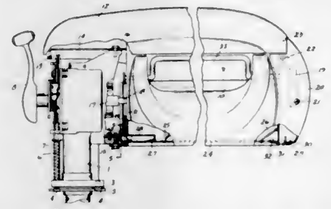


In a wringer, a housing of inverted U-form and receiving a pair of horizontal superposed wringer rolls and comprising an upper roll and a lower roll between its sides, the upper roll supported by and freely movable relative to the lower one, an electric motor connected to operate the lower roll, a normally open switch for the motor, a manually operable upwardly and downwardly swingable overhead control arm carried by and rising obliquely from a journal in the housing top and effective on a manual downswing to press and maintain the upper roll against the motor-operated lower roll, and means operated by the control arm upon downward swinging thereof to close the motor switch, the motor having terminals and said switch comprising a pair of normally vertically spaced blades leading to the motor terminals, the upper blade thereof adapted to be pressed into contact with the lower blade, said means comprising a rod connected with one end to the housing and extending with the other end over the upper blade, and a crank extended from the control arm in the region of the journal and opposite said rod, the downswing of the control arm operating by way of said crank to bear on the rod and cause the same to press the upper blade into contact with the lower one.

2,778,214
WRINGER

Carl Moon, Detroit, Mich.

Application August 21, 1953, Serial No. 375,756
2 Claims. (Cl. 68—263)

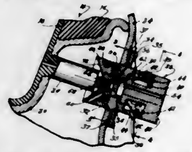


1. In a wringer, a support, a roll carrying frame pivoted on the support and including releasable and resettable roll pressure sustaining means and a safety release for the roll pressure sustaining means, a part associated with the safety release moveable to one position in the set condition of the safety release and to another position in the released condition of the safety release, means actuated in response to a predetermined amount of pivotal movement of the frame relative to the support for releasing the safety release, resetting means for the roll pressure sustaining means and the safety release, and means adapted to engage said part in said other position but not in said one position for restricting the pivotal movement of the frame to less than the predetermined amount required for releasing the safety release until the roll pressure sustaining means and the safety release for the roll pressure sustaining means are reset.

2,778,215
LOCK DEVICE FOR AUTOMOBILE WHEEL PLATES

Vincent J. Redmond, Bronx, N. Y.

Application March 24, 1954, Serial No. 418,359
6 Claims. (Cl. 70—231)



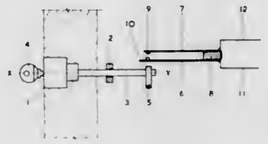
1. A device for locking a wheel plate upon an automobile wheel having a valve, comprising a body portion, means thereon adapted to bear against said wheel plate to prevent movement thereof in a direction outwardly of said wheel, a cap nut rotatably mounted in the body portion and threadedly engaged with said valve, said cap nut having an opening of arcuate shape adapted to receive a key of like configuration, a cap rotatable on the body portion, said cap having a semi-circular-shaped slot aligned with said apertures, a plug mounted in the body portion to hold the cap nut in place therein, the body portion being tubularly formed from end to end with the cap and plug being engaged in opposite ends thereof, and with the cap nut being disposed between said cap and plug, the cap being freely rotatable in its associated end of the body portion and the plug being made rigid with the body portion at the other end thereof.

2,778,216
AUTOMATIC LOCKING MEANS FOR VEHICLE DOORS

Georges Ulrich, Marseille, France

Application March 8, 1954, Serial No. 414,668
2 Claims. (Cl. 70—264)

1. A locking system for the doors, hood and other openable structural elements of a motor vehicle comprising a latch for each such element, a rotary stop member mounted adjacent each latch and having alternate radial lug portions and spaces such that rotation of said stop member brings lugs and spaces alternately into alignment with the latch respectively to prevent and allow movement thereof into unlatched position, a rotatable operating arm mounted concentrically adjacent each stop member and spring-loaded in one direction, ratchet means connecting each associated stop member and operating arm for step by step unidirectional drive of the stop member when the arm is angularly reciprocated, a solenoid mounted in fixed position adjacent each operating arm and having an axially slidable plunger coupled to the operating arm for moving the arm against the spring loading when the solenoid is energised, electrical wiring connecting the solenoid with the usual supply battery of the vehicle, and a switch in said wiring for completing and breaking the supply circuit to the solenoid.



2,778,217
KEY CASE

Nick J. Duyn, Tucson, Ariz.

Application March 19, 1956, Serial No. 572,414
4 Claims. (Cl. 70—456)

1. A key case comprising a case body with front and rear plates joined together at their tops with two spaced narrow webs, said plates having spaced bead portions between the webs, each such plate comprising a generally rectangular key shank-retaining portion and a rounded offset for receiving the key heads, said offset portions having holes, a key retainer extending through said holes for engagement through the usual holes in the key heads, said plates normally converging away from said webs, a pair of parallel kerfs being provided at the top of the rear plate immediately adjacent said webs to thereby form a separate tab, and a fulcrum secured to the front plate with its apex engaging said tab portion below the top thereof, whereby when tops of the plates at said tab portion are squeezed between the thumb and fingers said plates are caused to diverge because of the rear plate rocking around the said fulcrum, whereby keys functionally held between the plates may be permitted to drop from between them by the biasing action of gravity.

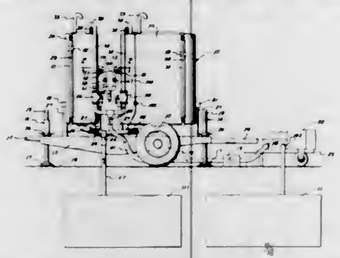
2,778,218
METER AND TANK CALIBRATING EQUIPMENT

Charles L. Sault, Long Beach, Calif.

Application September 28, 1953, Serial No. 382,659
12 Claims. (Cl. 73—3)

1. Calibrating equipment comprising a first tank, a second tank of smaller horizontal cross section than the first, inlet means for filling liquid into the first tank, means acting to overflow downwardly from the first tank into the second any liquid filled into the first tank above a predetermined level at which the liquid volume in the first tank is accurately known, and means for accurately indicating the volume of liquid which thus overflows into

said second tank, said inlet means being adapted to fill liquid into the first of said tanks without simultaneously



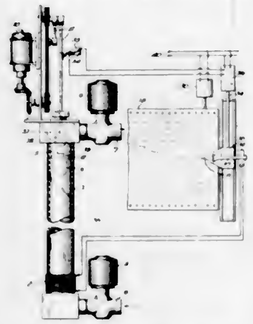
filling liquid into the second tank except by overflow from the first.

2,778,219
IMPACT TESTER FOR BRITTLE MATERIALS
William J. Wachter, Euclid, Ohio
Application December 15, 1954, Serial No. 475,592
5 Claims. (Cl. 73—12)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. An impact tester for determination of the total and toss energy expended on fracture of brittle elongated material specimens, comprising a base, an impact hammer mounted on said base for pivotal swinging movement thereabove, means for holding the specimen on said base in position to be impacted by the hammer in its swinging movement including two rotatable drums each provided with a peripheral specimen grip having a guide edge approximately radial with reference to the drum center whereby one edge of a specimen when positioned in said grips lies on the line between the drum centers of rotation, means connected to said hammer for indicating the total energy of specimen fracture, means connected to said specimen holding means for indicating the toss energy due to specimen fracture, and resilient means for holding said drums normally in position to receive the specimen and to restore said drums after toss rotation to normal specimen receiving position.

2,778,220
DEVICE FOR MEASURING THE VISCOSITY OF LIQUIDS
Wilhelm Kuhlmann and Georg Hahn, Duisburg, Germany, assignors to Brabender O. H., Duisburg, Germany, a firm
Application August 7, 1953, Serial No. 372,874
Claims priority, application Germany August 21, 1952
7 Claims. (Cl. 73—57)

1. A device for periodically automatically measuring the viscosity of a liquid flowing through a pipeline comprising a vertically disposed cylindrical measuring receptacle, inlet and outlet means carried by said receptacle, valve means for periodically automatically connecting said inlet and said outlet means to said pipeline to admit successive portions of the liquid flowing therein to flow into said receptacle in parallel to the flow thereof in said pipeline, a drop body which is freely movable inside said receptacle and adapted to fall through the portion of said liquid admitted thereinto, means for recording the time of fall of said drop body through said liquid portion in



said receptacle, a vertically movable magnet, means for moving said magnet downwardly to attract said fallen drop body and for thereafter moving it upwardly with said drop body attracted thereto to place said drop body in position for subsequent fall through another portion of liquid admitted into said receptacle.

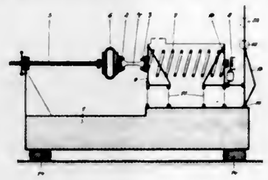
2,778,221
VIBRATION TESTING ATTACHMENT FOR AIRCRAFT ENGINES
Forrest L. Kirby, Hamlin, Tex.
Application February 18, 1955, Serial No. 489,173
4 Claims. (Cl. 73—70)

1. A vibration testing attachment comprising a threaded stud having an end portion, a standard, said standard having one end with a cavity therein and being internally threaded at the other end thereof for reception of a vibration meter, and cam locking means pivotally connected to said standard for locking said standard on said end portion of said stud with said end portion extending into said cavity, said cam locking means extending into said cavity to engage said end portion of said stud.

2,778,222
DYNAMIC MATERIAL TESTING MACHINE
Klaus Federn, Darmstadt, Germany, assignor to Carl Schenck Maschinenfabrik G. m. b. H., Darmstadt, Germany, a corporation of Germany
Application May 19, 1954, Serial No. 430,931
Claims priority, application Germany June 26, 1953
2 Claims. (Cl. 73—92)

1. An oscillatory fatigue testing machine, comprising a rigid base, two aligned holding means mounted on said base for accommodating a specimen between each other, one of said holding means being oscillatorily connected with said base for movement in the alignment direction, an abutment structure spaced from said one holding means in said direction and being oscillatorily mounted on said

base for movement in said direction, a load transmitting spring disposed between said one holding means and said structure, a lever having a fulcrum at said base and being oscillatory in said direction, said lever having a point linked with said structure at a distance from said fulcrum, and a weight mounted on said lever and displace-

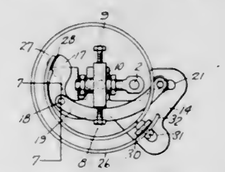


able along said lever over a range of displacement spaced more than said distance from said fulcrum for varying the force-amplifying leverage of said weight relative to said structure, said weight and abutment forming an oscillator assembly together with said spring and the specimen, and oscillation generating means connected with said oscillator assembly for exciting it to resonant oscillations.

2,778,223
FLOWMETER
Jack T. Kimbrell, Overland Park, Kans., assignor to Puritan Compressed Gas Corporation, Kansas City, Mo., a corporation of Missouri
Application November 2, 1953, Serial No. 389,799
1 Claim. (Cl. 73—209)

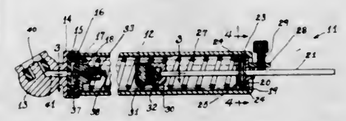
A flow meter comprising an elongated, normally upright, transparent, cylindrical measuring tube having a longitudinal, downwardly tapered gas passage therethrough and an annular extended portion on each end thereof respectively; a substantially L-shaped metallic body having an upper leg portion overlying the uppermost end of the tube and a substantially longer lower leg portion extending downwardly alongside the tube to a level below the lowermost end of the latter, said upper leg having an annular recess therein for receiving the uppermost extended portion of the tube, there being an elongated upper vertical bore in said upper leg in alignment with the passage and an inturned annular flange on said upper leg extending into the bore at the lowermost end of the latter presenting a shoulder, said upper leg having an upper horizontal bore communicating with said upper vertical bore intermediate the ends of the latter, there being an intermediate horizontal bore within the lower leg and a lower horizontal bore through the lower leg adjacent the lowermost end thereof, there being an elongated vertical bore interconnecting said upper and intermediate horizontal bores; an end section secured to the lowermost end of the lower leg immediately below the lowermost end of the tube and provided with an annular recess for receiving the lowermost extended portion of the tube, said section having an inlet port communicating with said lowermost horizontal bore and an outlet port, there being ducts in said section interconnecting the inlet port with the lowermost end of the passage and the outlet port with the intermediate horizontal bore respectively; a ring of resilient plastic material snugly fitted within the upper vertical bore and resting on the shoulder to present a valve seat; a valve within the upper vertical bore and having a lowermost downwardly tapered valve head, said valve being reciprocable to and from a position engaging the seat and closing the passage, said valve having an intermediate reduced portion of lesser diameter than the greatest diameter of said head; an O-ring in said reduced portion for slidingly engaging the walls of the upper vertical bore; an externally threaded vertical stem secured to the uppermost end of the valve; a horizontal disposed hub complementally threaded on said stem, there being an opening in one face of the upper leg exposing a portion of the hub, whereby the valve may be reciprocated by rotation of the hub upon the stem; a cap section; means releasably attaching the cap section to the uppermost end of the upper leg in closing relationship to said upper vertical bore for limiting reciprocation of the valve away from the seat; a metallic ball within the passage responsive to flow of gas therethrough, the diameter of said ball being smaller than the smallest diameter of the passage; and calibrated means on the outermost face of the lower leg adjacent the tube for indicating the rate of flow of gas through the meter as a function of the position of the ball.

2,778,224
TEMPERATURE COMPENSATED TANGENT
Robert Ritson Douglas, Erie, Pa., assignor to American Meter Company, Incorporated, Erie, Pa., a corporation of Delaware
Application June 27, 1955, Serial No. 518,001
7 Claims. (Cl. 73—281)



4. In a gas meter tangent, a bracket for connection to a crankshaft, a wrist pin movably mounted on said bracket, a crank arm having one end pivoted on the bracket, a link connected between the other end of the crank arm and the wrist pin, and a thermostat responsive to gas temperature mounted on the bracket and connected to the crank arm for turning the crank arm, said bracket having a guide way for the wrist pin extending along a center line connecting the crankshaft and wrist pin.

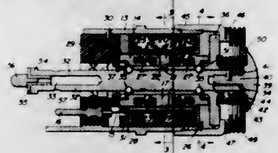
2,778,225
COMBINATION TIRE PRESSURE GAUGE AND REGULATOR
Frederick P. Schur, Arlington, Va.
Application May 25, 1953, Serial No. 357,300
2 Claims. (Cl. 73—389)



1. A combination tire pressure gauge and pressure regulator comprising a tubular barrel provided at one

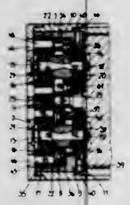
end with an apertured head for engagement with the mouth of a tire valve stem and at its other end with an end wall element formed with a slot, a piston in said barrel adjacent said apertured head, a flat, graduated indicating rod extending slidably through the slot of said end wall element, friction means in said barrel adjacent said end wall element yieldably engaging said indicating rod, a coiled spring in said barrel surrounding said rod and bearing between said piston and said friction means, an outwardly projecting lug on said end wall element extending parallel to the slot and parallel to and adjacent to said indicating rod, a clamping screw threadedly engaged through said lug and being clampingly engageable with the indicating rod for at times rigidly locking the rod in a predetermined fixed position relative to the barrel, a normally closed movable valve on the piston, and an abutment element adjustably mounted on the inner end of the rod arranged to engage and open the valve responsive to the movement of the piston to a position adjacent the inner end of the locked rod.

2,778,226
ELECTROMAGNETIC TRIP
Arthur R. Lardin, Amityville, N. Y., assignor to McLean Development Laboratories, Inc., Dallas, Tex., a corporation
Application August 4, 1954, Serial No. 447,840
6 Claims. (Cl. 74—2)



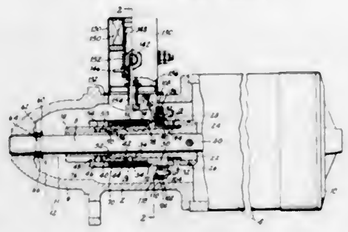
1. A release mechanism comprising a loaded member; two individual locking means for retaining said member in cocked position; means surrounding said member and energizable by electrical impulse for generating a magnetic field; a stationary core disposed within said magnetic field; and two opposed spring biased armatures disposed within said magnetic field and surrounding said member at opposite ends of said core and movable axially toward said core for releasing said locking means from said loaded member, one armature releasing one locking means and the other armature the other locking means, whereby said loaded member is moved into operative position upon application of said electrical impulse.

2,778,227
GYROSCOPES
Adolf Roesch, Pforzheim, Germany
Application July 6, 1953, Serial No. 366,270
Claims priority, application Germany October 29, 1952
19 Claims. (Cl. 74—5.7)



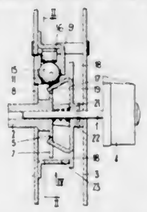
1. A gyroscope comprising, in combination, a gyroscope rotor having a pair of opposite shaft portions extending therefrom along the axis thereof; at least three rollers engaging and turnably supporting each of said shaft portions, each roller having a diameter substantially greater than the diameter of each shaft portion of said gyroscope rotor and each roller having its axis parallel to said rotor axis; support means supporting said rollers for rotation about their axes; and a plurality of drive means operatively connected to said rollers, respectively, for independently driving the same to rotate said shaft portions and gyroscope rotor therewith.

2,778,228
ENGINE STARTER DRIVE
Paul L. Schneider and William H. Taylor, Anderson, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 2, 1954, Serial No. 447,343
7 Claims. (Cl. 74—7)



1. Engine starting apparatus comprising an electric starting motor, a pinion rotatable thereby to crank the engine, means for moving the pinion into and out of engagement with a gear of the engine to be started and for operatively coupling the motor and pinion to cause the pinion to be rotated by said motor, said last named means including a helically splined sleeve rotatable with the motor shaft and having a notch formed therein, a second sleeve which is rotatable on the first sleeve to move the pinion into engagement with the engine gear but rotatable therewith after the pinion is in engaging position to effect rotation of the engine gear, a spring biased detent carried by the second sleeve movable into engagement with said notch when the pinion is fully engaged with the engine gear to hold the pinion in gear engaging position, a latch member rotatively movable into engagement with the detent when the latter engages the notch to hold the detent in such position, and means for moving the latch out of engagement with the detent when the starting motor is deenergized.

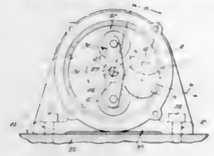
2,778,229
DEVICES FOR TRANSMITTING ROTARY MOTION
Arthur Ian Forbes Simpson, Leamington Spa, and Arthur Warrington, Coventry, England, assignors to The General Electric Company Limited, London, England
Application October 29, 1954, Serial No. 465,700
Claims priority, application Great Britain October 29, 1953
9 Claims. (Cl. 74—10.41)



1. A device for transmitting rotary motion comprising a driving shaft, a driven shaft which is required to be positively located in one or more positions, means to mount the driving shaft coaxially with the driven shaft so as to permit relative longitudinal movement of the driving

shaft, a first part which is coupled to the driven shaft to prevent rotation of that part relative to the driven shaft and which is shaped to have one or more indentations corresponding one to each of said positions, a pair of fixed parts, a ball, means to spring-bias the said ball so that when the driven shaft is located in any one of said positions the ball is urged along a guide which is defined by a pair of opposite sides of the appropriate indentation of the first part and by the pair of fixed parts and which guide is tapered to cause the ball to take up a position in which it makes four point contacts one with each of the opposite sides of the said pair thereof and with each of the said fixed parts, a second part, means to couple this second part to the driving shaft to prevent longitudinal movement of that part relative to the driving shaft so that upon longitudinal moving of the driving shaft relative to the driven shaft a surface of the second part bears against the said ball and moves it against the spring-bias thereby releasing the first part, and means providing mechanical coupling between the first and second parts at least when the said ball is moved against the spring-bias by the second part to release the first part and which allows at least some relative rotation of the two parts when the driven shaft is positively located.

2,778,230
POSITIVE DRIVE VIBRATORY MECHANISM
Edwin F. Peterson, Kewanee, Ill.
Application August 9, 1952, Serial No. 303,532
16 Claims. (Cl. 74—61)

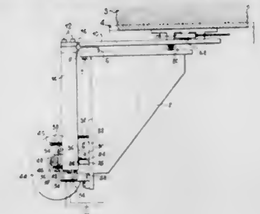


1. A vibratory mechanism comprising a casing, a pair of rolling elements carried within said casing, actuating means to arcuately propel said elements about said casing comprising a first drive means to abuttingly propel one element about said casing, a second and separate drive means to abuttingly propel the other element about said casing, and coacting angularly positioned members on each of said drive means including orientation means therebetween to secure said independent drive means together in a given selected operative angular relation with respect to each other to provide a predetermined and similarly spaced operative driving relationship between said pair of rolling elements within said casing, each of said drive means having portions thereof extended outwardly of said casing, said positioning and orientation means being positioned externally of said casing for connection with said outwardly extended portions of said first and second drive means.

2,778,231
DEVICE WITH AN UNBALANCE ELEMENT
Marc Lamort De Gail, Vitry-le-Francois, France, assignor to E & M Lamort Fils, Vitry-le-Francois, France, a company of France
Application May 25, 1954, Serial No. 432,240
Claims priority, application France June 1, 1953
13 Claims. (Cl. 74—87)

1. In a vibrating apparatus, in combination, a support; first eccentric flywheel means mounted on said support for rotation relative thereto about an axis; second eccentric flywheel means mounted on said support for rotation relative thereto about said axis independently of said first flywheel means; and clutch means for non-rotatably connecting said first and second flywheel means to each other, whereby when said first and second flywheel means are non-rotatably connected to each other the same may rotate about said axis together while forming compound flywheel means having a predetermined degree of eccentricity and when said first and second flywheel means are disconnected from each other one of said flywheel means may be angularly displaced about said axis independently of the other of said flywheel means and may thereafter be non-rotatably connected to said one flywheel means so that said first and second flywheel means may thereupon rotate about said axis together while forming compound flywheel means having a different degree of eccentricity.

2,778,232
PRECISION CARRIAGE DISPLACEMENT DEVICE
Raymond P. Mork, Needham, Mass., assignor to Time, Incorporated, New York, N. Y., a corporation of New York
Application September 24, 1952, Serial No. 311,269
13 Claims. (Cl. 74—125.5)

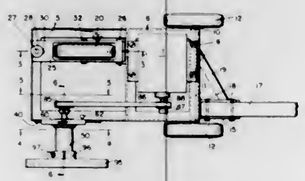


1. A precision carriage displacement device adapted for use on a machine having a movable carriage adapted to be displaced in a given direction, said device comprising, a lever, a bar secured to one end of said lever to be displaceable in said direction responsive to motion with high mechanical advantage of said lever about a pivot point, said bar having formed therein at its juncture with said lever a reduced cross section portion highly stiff to deformation in said direction but deformable normal thereto to permit incremental relative angular movement between said lever and said bar, a support adapted to be secured to a stationary part of the machine, and affixed to said lever at said pivot point, said support having formed therein between said part and said point a reduced cross section portion highly stiff to deformation in said direction but deformable normal thereto under a moment of said lever about said bar, an electromagnet means interposed between said carriage and said bar to of itself provide therebetween a rigid mechanical link through said electromagnet means upon magnetizing thereof, said link locking said carriage to said bar, a stop block on said support and a stop block on said lever engageable with said support stop block to determine the amount of displacement of said carriage.

2,778,233
POWER UNIT FOR SUPPORTING INTERCHANGEABLE POWER OPERATED TOOLS
Frank R. Perry, Los Angeles, Calif., assignor to Turco Products, Inc., a corporation of California
Application July 6, 1954, Serial No. 441,423
2 Claims. (Cl. 74—219)

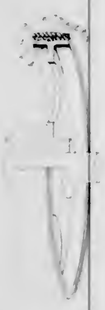
1. In a power unit for operating interchangeable tools, a base, a driving shaft rotatably carried by said base, a first pulley on said shaft, a bearing sleeve having a driven

shaft journalled therein, a driven pulley secured on the inner end of said driven shaft, the outer end of said driven shaft being adapted to receive a tool, a continuous belt extending about said pulleys, means for retaining said bearing sleeve and its carried driven shaft in parallel relation to said driving shaft, said means comprising an upright plate carried by said base forwardly of said first pulley, said plate having an upwardly opening bearing sleeve receiving slot defined by a bottom wall, a front side



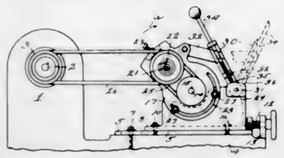
wall and a rear side wall inclining rearwardly and upwardly towards said first pulley whereby to permit said bearing sleeve to be inserted in said slot when said belt is loosely disposed about said pulleys, and adjustable means for placing said belt in tension about said pulleys and for retaining said bearing sleeve in said slot, said last mentioned means comprising a holding member carried by said plate and operatively cooperating with said bearing sleeve to urge the latter first downwardly and forwardly along said rear wall and thence against said bottom wall.

2,778,234
WHEEL ASSEMBLY
Andrew G. Carter, Grand Rapids, Mich., assignor to Carter Products Company, Inc., Grand Rapids, Mich., a corporation of Michigan
Application August 9, 1951, Serial No. 241,108
4 Claims. (Cl. 74—230.7)



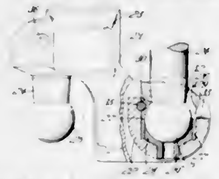
1. A wheel assembly comprising a rim having a substantially cylindrical periphery provided with an intermediate annular grove, a tire embracing said rim on both sides of said groove and having a substantially cylindrical circumferentially stressed relatively inextensible core member, cover material secured to the outer surface of said core member, a plurality of resilient axially spaced deformable pads of substantially uniform height secured to the inner surface of said core member and engaging substantially cylindrical portions of said periphery on both sides of said groove, the height of said pads establishing an inner diameter slightly less than the outer diameter of said cylindrical periphery before application of said tire thereto, and annularly disposed resilient engaging means secured to the inner surface of said core member and projecting into said groove.

2,778,235
VARIABLE SPEED DRIVE
George H. Amonsen, Minneapolis, Minn.
Application January 9, 1953, Serial No. 330,436
2 Claims. (Cl. 74—230.17)



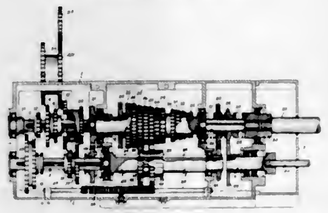
1. A variable speed drive having selectable speed ranges comprising a motor base, an upwardly extending flange attached to said motor base, a motor having a shaft, said motor mounted on said motor base, a rockable bearing plate positioned substantially parallel to said flange, said rockable bearing plate having a shaft opening and an arcuate opening concentric with said shaft opening, bolt means secured to said flange and extending through said arcuate opening in said rockable plate, said motor shaft being rotatably mounted in said shaft opening in said rockable bearing plate, a counter shaft rotatably mounted in said rockable bearing plate parallel to said motor shaft, a pulley carried by each said motor shaft and counter shaft, means for operatively connecting said pulleys, an expandable and contractable variable speed pulley mounted on said counter shaft, a driven pulley, belt means for operatively connecting said variable speed and said driven pulleys, a lever pivoted to said flange for rotation about one end in the plane of said bearing plate, a link connected between said lever and said bearing plate to rock said bearing plate in response to rotation of said lever about its pivoted end and means for limiting the allowable rotation of said lever to establish a predeterminable speed range, said last mentioned means comprising means for varying the distance between said motor shaft and said driven pulley.

2,778,236
TOOL CARRYING CHAINS FOR USE ON COAL CUTTERS AND THE LIKE
Sidney Ernest Proctor, Aylesbury, England, assignor to Austin Hoy & Co. Ltd., Aylesbury, England, a British company
Application September 13, 1954, Serial No. 455,559
Claims priority, application Great Britain September 28, 1953
9 Claims. (Cl. 74—246)



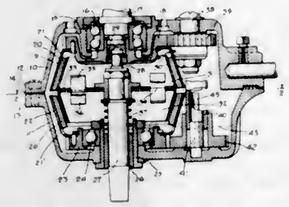
1. In a link of a tool-carrying chain, adjacent links of which are connected by ball and socket joints, a ball-receiving socket comprising at least two parts the inside surfaces of which define the seating for the ball, at least one of the parts being removably mounted in a bore in the link to enable the ball on the near link to be inserted and withdrawn, and wherein the wall of the said bore and the removable socket part are adapted for connection one to the other by an interfitting recess and projection which extend circumferentially of the bore and are interrupted to permit assembly by relative endwise movement followed by relative rotation, means being provided to hold the removable socket-part against rotation after assembly.

2,778,237
GEAR CASE, SUITABLE FOR LATHES OR MACHINE TOOLS OR MACHINES IN GENERAL
Giordano Romi, Santa Barbara d'Oeste, Brazil, assignor to Maquinas Agricolas "Romi" Limitada, Santa Barbara d'Oeste, Brazil, a Brazilian firm
Application January 18, 1954, Serial No. 404,472
Claims priority, application Brazil January 21, 1953
13 Claims. (Cl. 74—333)



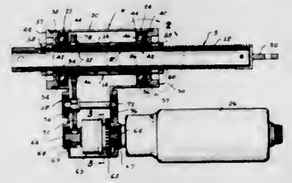
1. In a gear transmission, in combination, support means; a pair of shafts turnably carried by said support means; a plurality of gears of different diameters respectively located beside each other on one of said shafts and fixed to said one shaft for rotation therewith; an additional gear; means mounting said additional gear on said other of said shafts for axial movement therealong and for rotation therewith; manually operable means operatively connected to said additional gear for selectively placing the same in driving cooperation with one of said plurality of gears on said one shaft; power transmission means carried by said support means and having a first position operatively engaging said one shaft for rotating the latter and a second position operatively engaging said other shaft for rotating the latter, so that when said power transmission means is in its first position a drive will be transmitted through said one shaft and one of said plurality of gears to said additional gear and said other shaft and when said transmission means is in its second position power will be transmitted through said other shaft and additional gear to one of said plurality of gears and said one shaft; and power take-off means carried by said support means and having a first position operatively engaging said one shaft to receive power therefrom and a second position operatively engaging said other shaft to receive power therefrom, so that when said take-off means is in its first position and said transmission means is in its second position power will be delivered from said one shaft and when said take-off means is in its second position and said transmission means is in its first position power will be delivered from said other shaft.

2,778,238
SEALED FORWARD AND REVERSE DRIVE FOR A TAPPER
Melvin H. Emrick, Manhasset, N. Y.
Application November 9, 1953, Serial No. 391,051
11 Claims. (Cl. 74—377)



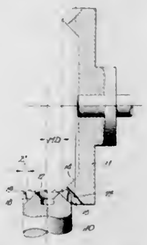
1. A tapping device of the character described, comprising a two part casing defined by upper and lower casing parts, forward and reverse drive shells rotatably mounted in the casing, a drive shaft directly coupled with the forward drive shell, a gearing including part of the forward drive shell for actuating said reverse drive shell, a driven shaft rotatably mounted in the casing and having a double conical head disposed within and operatively engaging said shells in the forward and reverse drive of said driven shaft, the cones of said head extending upwardly and downwardly forming upper and lower chambers in said head, said shells having friction facings secured thereto, abutting walls of said conical heads having apertures placing said upper and lower chambers in communication with each other, and said shells having elongated apertures placing the casing externally of the shells in communication with the chambers of said head.

2,778,239
MECHANICAL ACTUATOR
Vaino A. Hoover, Los Angeles, Calif.
Application April 6, 1953, Serial No. 347,136
6 Claims. (Cl. 74—424.8)



1. A mechanical actuator, comprising: an externally threaded actuating screw; a coaxial drive sleeve surrounding said screw; a frame; and bearing means interposed between said frame and the end portions of said sleeve for rotatably supporting said sleeve upon said frame, said sleeve having internal threads along a small fraction of the length of said sleeve at a location intermediate the ends thereof, said internal threads being engaged with the threads of said screw, whereby to effect axial movement of said screw in response to rotation of said sleeve, the bore in said sleeve on opposite sides of said internal threads having a diameter exceeding the maximum diameter of the threads on said screw.

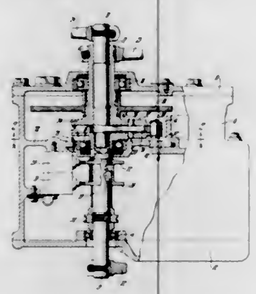
2,778,240
GEAR CONSTRUCTION
Arthur Prester, Philadelphia, Pa., assignor to Ocean City Manufacturing Company, Philadelphia, Pa., a corporation of Pennsylvania
Application March 18, 1953, Serial No. 343,061
14 Claims. (Cl. 74—459.5)



1. In a gear having a plurality of teeth formed in one end surface thereof, an intermediate surface of concave arcuate form between adjacent tooth root portions facing obliquely outwardly, and oppositely disposed working surfaces on each tooth projecting upwardly from said tooth root portion thereof and converging inwardly toward each other, an imaginary line on one working surface of a tooth parallel to and spaced a predetermined distance from the intermediate surface adjacent said one

working surface being parallel to an imaginary line on the other working surface of the tooth parallel to and spaced said predetermined distance from the intermediate surface adjacent said other working surface.

2,778,241
DISCRIMINATOR DEVICE
Arthur W. Gaubatz, Indianapolis, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 31, 1951, Serial No. 254,142
8 Claims. (Cl. 74—479)

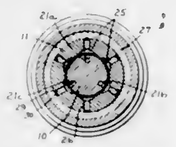


1. A mechanical movement comprising two disks mounted for rotation about a common axis concentric with the disks, a driven member rotatable about the same axis, a coupling member for coupling the driven member to either of the disks, the coupling member being pivoted on the driven member on an axis parallel to the first said axis and outside the perimeter of the disks, the coupling member comprising two arms extending to the peripheries of the disks at circumferentially spaced points, mutually engaging means on the first arm and the first disk, mutually engaging means on the second arm and the second disk, the mutually engaging means coupling the coupling member to the disks, a cam on the periphery of each disk, and cam followers on the arms adapted to engage the said cams to pivot the coupling member to engage the arms with the disks selectively in response to the relative degree of rotation of the disks.

2,778,242
BORESCOPE
Kenneth T. Miller, Jr., Longmeadow, Mass.
Application March 8, 1956, Serial No. 570,361
1 Claim. (Cl. 74—502)

Mechanism for reciprocating and rotating a borescope in the bore of a gun barrel comprising, an elongated open ended main tube having a forward open end and a rear open end for receiving the end of a gun barrel, a clamp for a gun barrel rearwardly of the rear end of said tube having a seat in one side thereof provided with angularly disposed faces for one side of a barrel and a screw in an opposite side thereof for engaging an opposite side of a barrel and holding a barrel in the seat thereof, an arm rigidly connected to said clamp and extending radially outwardly therefrom, tubular guide means having an elongated forward rigid end portion and an elongated rear end portion, the rigid portion of said guide means extending axially of said tube and having discs in spaced relation and fixed thereto which are disposed in said tube for positioning the rear extremity of the rigid end of said guide means adjacent the end of a barrel in the rear end of said tube, the rigid end of said guide tube extending forwardly and outwardly relative to the forward end of said tube and returning rearwardly in the form of a U and terminating outwardly of a side of said tube and in substantial parallelism therewith, the rear portion of said guide means being flexible and having a forward end secured to the extremity of the rigid portion of said guide means and a rear end in said arm, an elongated flexible shaft reciprocable and rotatable in said guide means having a manually engageable member fixed thereto adjacent the rear end of the rear portion of said guide means and a forward end portion extending from the rear extremity of the rigid portion of said guide means arranged for connection to a borescope in the bore of a barrel having an end in the rear end of said tube.

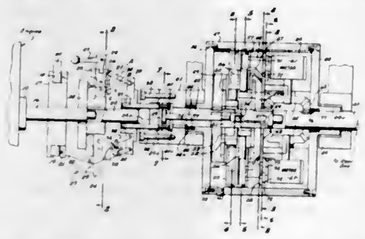
2,778,243
DEVICE FOR AUTOMATIC BALANCING OF ROTATING MACHINE PARTS
Georges Darrieus, Houilles, France, assignor to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland, a joint-stock company
Application June 22, 1953, Serial No. 363,158
Claims priority, application France June 26, 1952
2 Claims. (Cl. 74—573)



1. In an apparatus for automatically balancing a body mounted for rotation about its axis comprising a sleeve bearing surrounding a shaft portion of the body, means providing a film of lubricating liquid between said sleeve and shaft, a balancer member containing a plurality of arcuate chambers positioned symmetrically and concentrically about the axis of the body, each chamber having a balancing mass therein movable along an arcuate path defined by the chamber and conduit means leading from the chambers on opposite sides of the balancing masses therein to outlets at the surface of said shaft and hence to said liquid film, said liquid which forms said film also filling said chambers and conduit means whereby unequal pressures produced in said film at different points circumferentially thereof as a result of any unbalance in the body produce a compensating displacement of said balancing masses to restore the body to a balanced state accompanied by a corresponding flow of said liquid to and from said chambers from and to said bearing sleeve, respectively, the improvement wherein said bearing sleeve includes a plurality of circumferentially spaced and separate chambers open to and confronting said shaft in alignment with the said outlets thereon and each said bearing chamber includes a liquid inlet thereto having an area smaller than that of the bearing chamber, the areas of each liquid inlet and its associated bearing chamber being in such ratio that rapid shifting of said balancing masses as well as adequate lubrication of the bearing are ensured.

2,778,244
HYDRAULIC POWER TRANSMISSIONS
Leo W. Cornwall, El Cajon, Calif.
Application April 21, 1955, Serial No. 502,918
3 Claims. (Cl. 74—687)

1. A hydraulic power transmission, comprising a driving shaft and means for rotating said shaft; a driven shaft connected with and in alignment with said driving shaft and means for varying the rotation thereof relative thereto; a closed housing filled with lubricating oil and connected to said driving shaft and rotating therewith; a variable capacity pump mounted within said housing and means operatively connecting the same with said driving shaft and said driven shaft; a plurality of fixed capacity motors and a gear train operatively connecting the same



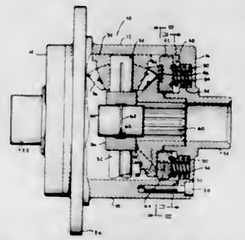
with said driving shaft and said driven shaft; means cooperating with said means for causing, controlling, and terminating the flow of oil from said variable capacity pump to said fixed capacity motors, and means for connecting and disconnecting said driven shaft with and from said driving shaft in accordance with said flow of oil.

2,778,245
DIFFERENTIAL TRANSMISSION
Ray F. Thornton, Dexter, Mich., assignor of one-sixth to Irving Grant, one-sixth to B. L. Diamond, and one-half to J. M. R. Lyeth, Jr., Detroit, Mich.
Application August 31, 1951, Serial No. 244,611
3 Claims. (Cl. 74—711)

1. In a differential transmission unit, the combination of a rotatable gear case, a power transmission gear train operatively positioned within said case, said gear train including a spider, a plurality of pinion gears rotatably mounted on the legs of said spider, a pair of oppositely disposed differential gears meshed with said pinion gears, said differential gears abutting bearing surfaces of said spider on their inner sides and abutting the wall of said casing on their outer sides to prevent axial movements thereof, and a plurality of independent resilient, relatively closely spaced, detent means operatively disposed between the end wall of said casing and notched outer side walls of the differential gears for resisting rotative movement of said differential gears until predetermined torque is applied thereto, and means resiliently biasing said plungers against rotation and into said notched side walls.

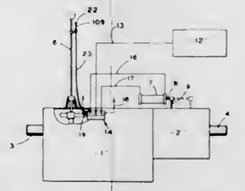
2,778,246
DIFFERENTIAL TRANSMISSION
Ray F. Thornton, Dexter, Mich., assignor of one-sixth to Irving Grant, one-sixth to B. L. Diamond, and one-half to J. M. R. Lyeth, Jr., Detroit, Mich.
Application January 28, 1952, Serial No. 268,473
12 Claims. (Cl. 74—711)

1. In a differential transmission unit, the combination of a rotatable gear case, a power transmission gear train operatively positioned within said case, and clutch means operatively disposed between said gear train and said gear case for opposing relative rotative movement of members of said gear train, said clutch means including a clutch plate mounted against rotation in said case and adapted to engage one of the gears of said gear train,



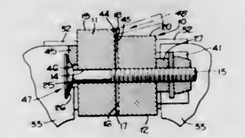
and spring means in engagement with said case to bias said plate against said one gear.

2,778,247
TRANSMISSION CONTROL SYSTEM
Charles M. Perkins, Kalamazoo, Mich., assignor to Fuller Manufacturing Company, a corporation of Delaware
Application May 27, 1955, Serial No. 511,492
9 Claims. (Cl. 74—745)



1. Control structure for a transmission having a main shiftable gear unit and an auxiliary shiftable gear unit, comprising in combination: a double acting power cylinder, means connecting said power cylinder to said auxiliary unit for shifting said auxiliary unit; a source of pressure fluid, first means conducting said pressure fluid from said source to a first end of said power cylinder, second means conducting pressure from said source to a second end of said power cylinder, valve structure associated with said first and second means; manually initiable means for relieving pressure fluid in one end of said power cylinder and urging said valve structure in a direction to conduct pressure fluid to the opposite end of said power cylinder, and automatic means responsive to the positioning of an operating part of the main unit in selected positions for respectively preventing and permitting said valve to move in response to said urging.

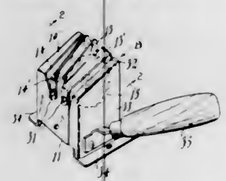
2,778,248
BAND SAW SETTING AND FILING CLAMP
Bartell T. Jeppesen, Lynwood, Calif.
Application April 26, 1954, Serial No. 425,348
5 Claims. (Cl. 76—73)



1. In a band saw setting and filing clamp the combination of: a pair of jaw bars; a pair of bolts uniting said bars adjacent their opposite ends in parallel spaced relation for limited movement towards and away from each other; spring means urging said bars to their maximum spacing, said clamp being insertable between the jaws of a vise to shift said bars into clamping relation

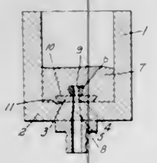
with a saw blade disposed between said bars; and supports provided on said bars which overlie said vise jaws, when said clamp is in use, to support said clamp on said vise, said supports being pivotally related to said bars and rotatable to rest on said vise jaws with said clamp in either of two horizontal positions with opposite bar edges turned upwardly, one of said bars being wider than the other and with one edge flush with the corresponding edge of the other bar, said one bar thus having one edge extending outward beyond the corresponding edge of the other bar, said extending edge being bevelled to the desired setting pitch of the teeth of said saw.

2,778,249
SHARPENING DEVICE
Herbert L. Roberts, Toronto, Ontario, Canada
Application May 12, 1955, Serial No. 507,949
1 Claim. (Cl. 76—89)



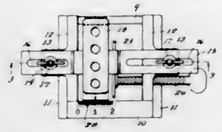
A sharpening device comprising a frame made up of enclosing walls including a top wall and a frontal wall, said top wall having a slotted aperture presenting a guideway receptive to an edged tool to be sharpened, a stud rotatably mounted in a hole provided in said frontal wall and having a forwardly projecting end, means providing spaced stop faces on said stand, one of said stop faces defining a frusto-conical surface immediately adjacent the periphery of the stand and further defining a radial thrust surface engaging the inner side of said frontal wall to limit axial movement of the stud in a forward direction, a sharpening disc having a central hole by which it is mounted upon the stud between said stop faces, the hole in the disc being somewhat larger than the diameter of the portion of the stud between said stop faces so that the disc may cant when an edged tool is drawn across the peripheral portion thereof subjacent said guideway, a knurled collar rigid with said forwardly projecting end of said stud for turning said stud and disc, and a pair of abutment elements on said frontal wall and disposed at diametrically opposite sides of the stud so as to contact the disc in the canted position of the disc.

2,778,250
ENVELOPED DIAMOND DIE AND METHOD OF MAKING SAME
Antonie Wobbe Ploegsma, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application January 16, 1951, Serial No. 206,241
Claims priority, application Netherlands February 16, 1950
1 Claim. (Cl. 76—107)



A method of manufacturing an envelope for diamond dies comprising the steps of: placing a diamond with a flat portion thereof on the flat surface of a plate and providing an aligned bore through said diamond and said plate, placing said plate with said diamond thereon in a mould which has a diameter substantially greater than that of the plate and which is provided with an aperture so that said aperture aligns with the bores of said diamond and said plate, filling said mould with a molten material having substantially the same melting temperature and the same coefficient of expansion as does said plate, and applying a negative pressure to said mould via said aligned aperture and bores until said material has substantially solidified.

2,778,251
MITER DRILL JIG
Peter J. Gunas, Manchester, Conn.
Application November 15, 1954, Serial No. 468,651
2 Claims. (Cl. 77—62)

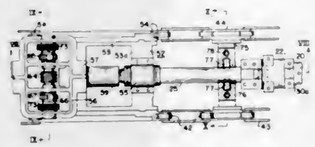


1. A drill jig for use in drilling dowel holes in mitered portions including a base comprising a pair of oppositely disposed side members and an intermediate bottom plate connecting said side members and disposed angularly thereto, the said side members having outwardly extending flanges along their upper edges, a drill guide member slidable upon said flanges transversely to the base and adjustably secured to said base, the said bottom plate having a flange thereon projecting inwardly above the flanges on said side members, a tie bar secured to said outwardly extending flanges opposite to the flange on said bottom plate, and a plate secured to said drill guide member and slidable between said tie bar and flange on the bottom plate.

2,778,252
SELF-THINNED HEAVY-DUTY TWIST DRILL STRUCTURE
Carl J. Oxford, Jr., Birmingham, Mich., assignor to National Twist Drill & Tool Company, Rochester, Mich., a corporation of Michigan
Application September 26, 1956, Serial No. 612,333
6 Claims. (Cl. 77—70)

1. A self-thinned heavy-duty twist drill having an end portion intended to be ground away in resharpening which is of substantially uniform transverse cross-section longitudinally of said drill, said drill having flutes providing lands connected by a web and having a cutting end provided with a substantially straight chisel edge with its center coincident with the axis of said drill, said lands having at their leading sides contiguous outer and inner surfaces extending lengthwise thereof in angular relationship to each other, the outer surfaces extending inwardly from the periphery of the drill and the inner surfaces extending inwardly from substantially the inner edges of the outer surfaces to the web, the outer and inner surfaces intersecting the sharpened end of said drill to form outer and inner cutting edges, said outer cutting edges being substantially straight and occupying substantially planar surfaces parallel to each other and which surfaces are substantially parallel to and spaced ahead in the direction of rotation of a plane containing the axis of said drill by an amount between one fifth and one-half of the drill radius, said inner cutting edges extending inwardly and rearwardly with respect to the direction of rotation from substantially the inner ends of said outer cutting edges to the ends of said chisel edge, the inner ends of said outer cutting edges being spaced from the drill axis by an amount between two-fifths and three-fifths of the drill radius, the width of said web interconnecting said lands throughout the resharpenable length of said drill being such as to require no thinning during repeated resharpening.

2,778,253
APPARATUS FOR ROLLING TUBES
Benjamin Brownstein, Ellwood City, Pa.
Original application March 12, 1954, Serial No. 415,897. Divided and this application January 10, 1955, Serial No. 480,750
2 Claims. (Cl. 80—11)



1. Apparatus for rolling tubes in a mill including a table, an endless chain secured to opposite sides of the table, corresponding tracks to guide the endless chains, a mandrel mounted on the table for rotation having a concentric gear at one end, a shaft mounted on the table transversely thereof having a worm gear engageable with the concentric gear, means to reciprocate the chains in their tracks whereby the mandrel is thrust forwardly and retracted, and means responsive to the movement of the table to rotate the shaft and thereby the mandrel whereby in each successive thrust different areas of the mandrel are directly subjected to the forces of the mill rolls.

2,778,254
SCISSORS TYPE CROWN CAP REMOVER
Charles J. Carapellotti, Philadelphia, Pa.
Application May 17, 1954, Serial No. 430,112
1 Claim. (Cl. 81—3.46)

A crown cap remover comprising a pair of members pivoted together in face to face relationship, each member having a handle portion at one end thereof, opposite side edges of one member, adjacent the pivot, lying in common planes with corresponding side edges of the other member in one position of the handle portions, one side edge of said one member having a hook-like notch adjacent the pivot, said notch forming a wall which lies closer to the pivot than the adjacent corresponding side edge of said other member and terminating in a lip which crosses and extends further from the pivot than said corresponding side edge, whereby the lip may be engaged under a crown cap skirt and said corresponding side edge can be extended across the top of said cap upon separation of the handle portions, and thereafter squeezing of the handle portions will result in a gripping and lifting of the cap skirt so that subsequent movement of the handle portions together will effect a removal of the cap from the bottle.

2,778,255
CUTTING TOOL FOR COAXIAL CABLES
Kenneth T. Miller, Longmeadow, Mass.
Application March 16, 1955, Serial No. 494,768
1 Claim. (Cl. 81—9.5)

A tool for dressing the end portion of coaxial cable to expose the center conductor and insulation therearound and the outer braided conductor comprising in combination, a pair of separate elongated members formed from strip steel of greater transverse width than thickness to have elongated lower handle and intermediate portions in horizontal superposed relation and elongated upper jaw portions, said intermediate portions being pivotally connected for swinging of said handle portions in horizontal planes between open and closed positions of the jaw portions, said jaw portions being offset in horizontal planes relative to their respective handle portions and offset vertically to lie in the same horizontal plane and provide a pair of cooperating jaws having inner adjacent edges for abutment in closed position thereof, said jaws having upper and lower faces and said upper faces provided with transverse knife grooves with the groove of one jaw member in alignment with the groove of the other jaw member, elongated knives in said grooves provided with elongated slots and having cooperating sharp inner end edges, clamp screws threaded in said jaws and extending through said slots for adjustment of said knives in said grooves, and adjacent inner edges of said jaws provided with half-round cooperating cutouts below inner edges of the knives forming a round guideway for cable disposed below inner edges of aligned knives of said jaws.

2,778,256
MULTIPLE PICK HAMMER
Albert S. Molnar, Valley Stream, N. Y.
Application February 23, 1955, Serial No. 490,081
1 Claim. (Cl. 81—15)

A multiple pick hammer for shaping sheet metal, comprising a generally cylindrical steel head and a wooden handle attached thereto, one face of said head being convexly curved throughout and carrying a plurality of conical pick elements uniformly spaced on said convex face on a circular line along its perimeter, a second group of conical pick elements uniformly spaced on a circular line spaced inwardly from the first mentioned circular line, and a single conical pick element disposed at the center of said second mentioned circular line, all of said pick

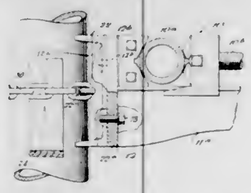
elements having axes disposed parallel to each other and being of uniform length so that the free ends of all of

said pick elements are so disposed as to present a convex pick-formed striking face on said head.

2,778,257
RESILIENT COVER FOR VISE JAW
John J. Linskey and Eugene H. Call, Akron, Ohio
Application June 2, 1954, Serial No. 433,885
2 Claims. (Cl. 81—38)

1. A vise-jaw covering of the character described, comprising; a resilient base portion having a longitudinally extending surface thereof positionable against a face of a vise-jaw in abutting relationship thereto; a resilient flange, tapering outwardly in cross-sectional configuration at an acute angle from said surface adjacent one edge portion thereof; a second resilient flange extending outwardly from an opposed edge portion of said surface; said tapered resilient flange including an outer surface and an inner surface engageable over a portion of a vise-jaw; said outer surface being defined by a plurality of adjoining, longitudinally extending planar surfaces, one of which is shiftable into substantially perpendicular relationship with respect to said first-mentioned longitudinally extending surface upon placement of said covering over a vise-jaw.

2,778,258
SECURING MEANS FOR A VISE
Elra F. Howe, Chicago, Ill.
Application August 23, 1954, Serial No. 451,359
2 Claims. (Cl. 81—41)

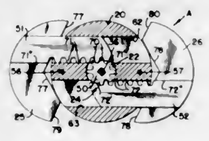


1. In a vise: a first base plate provided with two flat, support-engaging, normally disposed portions, one of said portions having at least one hole therethrough; a second base plate having a notched support-engaging surface, at least one threaded hole in said second base plate, said holes being in axial registration; threaded means cooperating with the registering holes in the base plates to connect said base plates in juxtaposition; and means for securing one of said base plates to a support to mount the vise thereon.

2,778,259
MOVABLE JAW WRENCH AND HYDRAULICALLY CONTROLLED STOP DEVICE THEREFOR
John Moir, Minneapolis, Minn.
Application February 19, 1953, Serial No. 337,730
2 Claims. (Cl. 81—84)

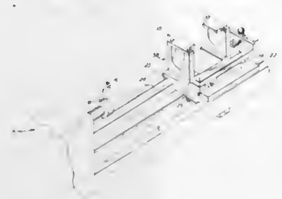
1. In a hydrostatically controlled stop or abutment means a cylinder having a bore therein, and end walls at the ends of the bore, a piston slidable in said bore, a piston rod connected at one end to said piston and passing through one of said end walls, the other end of said piston rod forming a stop, said piston dividing said bore into a pressure chamber and a storage chamber, one on each side thereof, means including a passageway for bringing said chambers into communication, a manually controlled valve in said passageway, a liquid disposed in and completely filling said chambers and passageway and means communicating with said storage chamber and controlling the pressure therein and maintaining at all times a super-atmospheric pressure therein.

2,778,260
LATERALLY ADJUSTABLE JAW TYPE SOCKET WRENCH
Bogdan Urosh Jovanovich, Rockville, Md.
Application November 22, 1955, Serial No. 548,419
8 Claims. (Cl. 81—127)



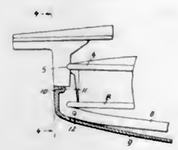
7. A socket wrench comprising a main body portion, adjustable jaws supported by said main body portion, means for the initial relative spacing of the said adjustable jaws, and a spring loaded toothed locking clutch the teeth of which intermesh with teeth carried by said main body portion for securely locking said adjustable jaws in a fixed position with respect to said main body portion subsequent to the initial relative spacing thereof.

2,778,261
WORK HOLDING FIXTURE FOR A LATHE
Howard W. Garbe, Allentown, Pa., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application June 3, 1952, Serial No. 291,418
2 Claims. (Cl. 82—38)



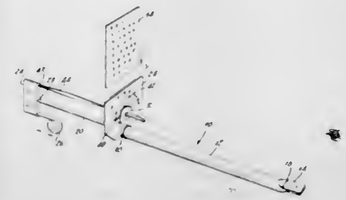
1. A work holding fixture comprising a rotatably movable carriage adapted to receive and support work having an aperture therein with its centerline coincident with the axis of rotation of the carriage, a stationary base, members interposed between the carriage and the base and adapted for movement relative to each other and the base to cause movement of the carriage parallel with and perpendicular to the centerline, the uppermost member having companion apertures therein, the first disposed in alignment with the aperture of the carriage and the second disposed at an angle with respect to the first aperture, a spindle disposed in the aperture of the carriage and the first aperture of the uppermost member and having an outwardly projecting head to engage the carriage and an aperture, with a tapered surface, in alignment with the second aperture, a spring disposed concentric with the spindle between the uppermost member and the head to urge the head of the spindle free of the carriage to free the carriage for rotation, an element with a tapered surface disposed in engagement with the tapered surface of the aperture in the spindle to hold the spindle against rotation, and means disposed in the second aperture to move the element in one direction to free the spindle for movement by the spring and in another direction to cause the spindle to clamp the carriage against movement.

2,778,262
RESONANCE DEVICE FOR STRINGED MUSICAL INSTRUMENT
Hermann Gutsche, Berlin-Neukolln, Germany
Application June 9, 1953, Serial No. 360,557
Claims priority, application Germany May 29, 1953
14 Claims. (Cl. 84—296)



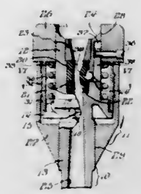
1. A stringed instrument comprising, in combination, a sounding body having a back, a neck pivotally mounted on said sounding body, said neck and sounding body being adapted to have at least one string connected therebetween, an oscillating sounding board formed so that its outline corresponds to that of the body and mounted so as to be substantially coextensive therewith, a bar adjacent to the back for transmitting oscillations of said neck about its pivotal mounting to said sounding board, and means for transmitting such oscillations to said back of said body, said sounding board being spaced from said body at least over the major portion of its area.

2,778,263
SLIDE TYPE MUSICAL INSTRUMENT
Louis A. Ruben, Bayonne, N. J.; Charlotte Ruben executrix of said Louis A. Ruben, deceased
Application December 7, 1953, Serial No. 396,461
7 Claims. (Cl. 84—330)



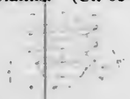
1. A slide whistle of the character described comprising a wind pipe having a mouthpiece at one end thereof and an axially bored bushing disposed in the other end thereof, a piston slidably located in said wind pipe, a piston rod engaging said piston and extending through said bushing and terminating in a finger piece, an upwardly directed transverse plate mounted on said wind pipe and spaced from and having a front face directed toward said mouthpiece, said plate front face having indicia located thereon, a follower bushing having a noncircular bore and supported above said wind pipe for rotation about an axis parallel to the longitudinal axis of said wind pipe, an indicating element extending transversely from said follower and rotatable therewith and confronting the said front face of said plate, a support mounted on said piston rod and projecting vertically thereof and a twisted bar of non-circular cross section engaging said support and registering with said follower bore whereby movement of said piston rod is accompanied by rotation of said follower and indicator element.

2,778,264
MOUTHPIECE FOR MUSICAL WIND INSTRUMENTS
Karl Eduard Schatz, Ludwigshafen (Rhine), Germany, assignor to Charles K. Etzel, Stockton, Calif.
Application April 30, 1956, Serial No. 581,431
5 Claims. (Cl. 84—398)



1. A mouthpiece, for a trumpet or the like, comprising a tubular shank component; a cup component for contact by the lips of the player, engaged, with capacity for limited longitudinal sliding movement, about one end of the shank component; incorporated spring means yieldingly resisting such sliding movement; a tubular element of resilient material set axially into the bore of the cup component; and means actuated, upon movement of the cup component by lip pressure against the force of the spring means, for distorting the tubular element laterally to progressively vary the cross section of the passage therethrough, as and for the purpose set forth.

2,778,265
SOLID CUP-POINT SET SCREW
Calvin O. Brown, Cary, Ill., assignor, by mesne assignments, to Set Screw & Mfg. Company, Bartlett, Ill., a corporation of Illinois
Application June 15, 1953, Serial No. 361,537
2 Claims. (Cl. 85—1)



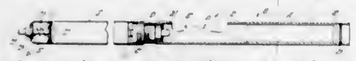
1. In a set screw having a solid body portion with a cup-point at one end and an American National Standard thread about the body and wherein the cup annulus has an outer flank and an inner flank converging toward one another away from the thread and terminating at one end of each in a relatively sharp work-engaging edge at the juncture of said ends, said edge being substantially concentric with the thread axis of the screw and the other end of the outer flank terminating substantially at the root of the thread and having a diameter substantially equal to the standard root diameter of the thread for the particular screw number or nominal size, those improvements wherein the maximum diameter of the cup at the flank juncture edge is not substantially greater than the minimum diameter specified for such dimension for an American National Standard cup-point set screw of the particular screw number or nominal size, wherein the perpendicular height of the cup-point from its juncture with the thread to the said flank juncture edge as measured parallel to the screw axis is substantially equal to one-half of the difference between the thread root diameter of the screw and the said minimum cup diameter multiplied by the natural tangent of the angle included between the cup flanks, and wherein the said angle is substantially 60° and neither flank is at an angle substantially more or less than 30° to the thread axis.

2,778,266
CAMMED SHOULDER STAPLE
William A. Forrester, Herrin, Ill., assignor to International Staple and Machine Company, Herrin, Ill., a corporation of Pennsylvania
Application May 17, 1954, Serial No. 430,283
6 Claims. (Cl. 85—49)

1. A staple having a flat head, two perpendicular legs, and a pair of opposed inwardly inclined shoulders extending between and joining each of said legs with said head, each shoulder being of a height of substantially half the distance from said head to the end of its associated leg and forming an extension on said leg which joins with the flat head at an angle of not more than about 30°, said angle being formed between a first line connecting said head junction with the junction of said extension at the leg and a second line vertically extending above said leg, and each of said shoulders extending inwardly about one-half the height of said shoulder.

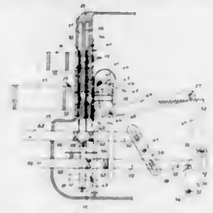
2,778,267
BORESCOPE
Kenneth T. Miller, Jr., Longmeadow, Mass.
Application March 16, 1955, Serial No. 494,767
4 Claims. (Cl. 88—14)

1. A device for examining the bore of the barrel of a firearm comprising in combination, an elongated tube construction insertable in the bore of a fire arm having forward and rear end portions and provided intermediate said forward and rear end portions with an elongated opening through the side wall at one side thereof, a lens in said tube adjacent the extremity of the forward portion thereof, a reflector in said tube intermediate the forward and rear portions thereof having upper forward and rear reflecting surfaces in said opening, said reflect-



ing surfaces being angularly disposed relative to the longitudinal axis of said tube and relatively diverging forwardly and rearwardly relative to a central portion of said reflector, a lamp socket in said tube rearwardly of the rear reflecting surface having a light bulb rearwardly thereof, a battery in said tube rearwardly of and in contact with said socket, and an on-off switch in said tube at the extremity of the rear portion thereof for connecting said battery in a circuit including said socket and lamp.

2,778,268
KINEMATOGRAPHIC MULTI-OBJECTIVE CAMERA
Paul Ferdinand Royet, Aurec-sur-Loire, France
Application January 21, 1953, Serial No. 332,426
Claims priority, application France February 2, 1952
14 Claims. (Cl. 88—16)

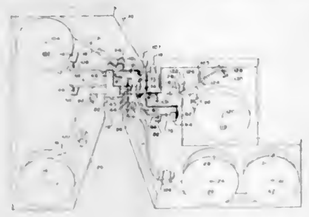


1. In a kinematographic multi-objective camera, the combination of a film guideway, at least two objectives registering with the guideway and the spacing of which is equal exactly to a multiple of the spacing between two successive film pictures, a view-taking shutter adapted to assume a reciprocating movement over the film guideway and provided with gates adapted to register with the corresponding objectives during said reciprocating movement, a shiftable selecting shutter moving in a plane parallel to the first view-taking shutter longitudinally of the film guideway and provided with one gate adapted to selectively uncover the location of one objective according to the position assumed by the selecting shutter, a gearwork controlling the progression of the film along its guideway and the operation of the view-taking shutter, a part adapted to lock said gearwork against operation, means urging the locking part into its operative position, a member carried by the selecting shutter and adapted to engage the film for urging it into movement in unison with the shifting of the selecting shutter, spring means urging said last mentioned member into its operative position, and hand-operable means adapted to mechanically provide for the shifting of the sliding shutter and for the operation of the locking part and of the film engaging member.

2,778,269
PHOTOGRAPHIC APPARATUS
Philip D. Bartlett, Worcester, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
Application December 31, 1951, Serial No. 264,301
2 Claims. (Cl. 88—24)

1. Photographic apparatus for processing a first strip of photosensitive material having a succession of frames

containing latent images, said photographic apparatus employing a second strip of receptive material for receiving visible images by transfer from said frames and a third strip of masking material having a succession of openings therein registrable with said frames, said photographic apparatus comprising a first pair of pressure-applying rollers defining an initial point of superposition toward which said first strip, said second strip and said third strip advance in order that said first strip and said second strip become superposed and said third strip becomes interposed therebetween, a second pair of rollers defining a terminal point of superposition from which said first strip, said second strip and said third strip advance in order that said first strip and said third strip become separated from said second strip, a first supply spool for carrying a roll of said first strip, a second supply spool for carrying a roll of said second strip, a third supply spool for carrying a roll of said third strip, means for receiving said first strip, said second strip and said third strip, said first strip being disposed in a first path which extends from said first supply spool through said initial and terminal points of super-

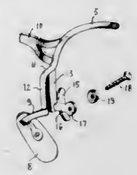


position to said receiving means, said second strip being disposed in a second path which extends from said second supply spool through said initial and terminal points of superposition to said receiving means, said third strip being disposed in a third path which extends from said third supply spool through said initial and terminal points of superposition to said receiving means, a first sprocket disposed along said first path between said first supply spool and said initial point of superposition, a second sprocket disposed along said second path between said second supply spool and said initial point of superposition and along said third path between said third supply spool and said initial point of superposition, a third sprocket disposed along said first path between said terminal point of superposition and said receiving means and along said third path between said terminal point of superposition and said receiving means, a fourth sprocket disposed along said second path between said terminal point of superposition and said receiving means, and a lens and shutter assembly disposed along said first path between said first sprocket and said initial point of superposition.

2,778,270
OPHTHALMIC MOUNTING
Hy Pomerance, New York, N. Y.
Application March 26, 1953, Serial No. 344,741
7 Claims. (Cl. 88—41)

1. In an ophthalmic mounting the combination of a bridge, a pair of eye wires releasably connected to opposite ends of said bridge, and front plaques secured to said eye wires interfitting with the ends of said bridge, said bridge having longitudinally extending channels in the ends thereof in which the inner portions of said eye wires seat and interengaging means on said inner portions of said wires and in said channels connecting said bridge and eye wires, said means including recesses in said bridge inwardly of said channels, a pair of barrels on said inner portions of said eye wires, bores intersecting said recesses, and screws extending through said bores securing said barrels in said recesses.

2,778,271
OPHTHALMIC MOUNTINGS
Charles L. MacGregor, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts
Application October 30, 1951, Serial No. 253,812
1 Claim. (Cl. 88—47)

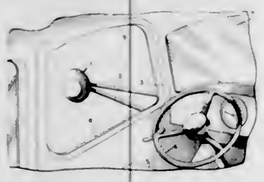


A lens supporting structure for the lenses of an ophthalmic mounting, said structure comprising a pair of relatively rigid temple supporting bars shaped to follow rearwardly in adjacent relation with the upper edges of the lenses when assembled therewith, said temple supporting bars having temple connection means adjacent their temporal ends and having relatively rigid portions bent rearwardly and downwardly to form offset portions adjacent the upper nasal edges of the lenses and relatively rigid portions extending downwardly from said offset portions in rearwardly spaced and substantially parallel relation with the nasal sides of the lenses, a bridge connecting said relatively rigid temple supporting bars above said rearwardly bent portions and a pair of single downwardly extending relatively long and flat blade spring members each secured at the upper end thereof to each of said rearwardly bent portions with their side surfaces of greatest dimension disposed in substantially normal relation with and rearwardly of the plane of the lenses and being positioned between and spaced from the nasal sides of the lenses and from the rearwardly spaced downwardly extending portions of said temple supporting bars, said blade springs being shaped to follow the nasal contours of said lenses below the bridge in substantially parallel relation with said downwardly extending portions of the temple supporting bars, lens connection means secured adjacent the lower end of and extending forwardly of each of said blade springs and a rearwardly extending nose pad supporting arm secured adjacent the lower end of each of the relatively rigid downwardly extending nasal portions of the temple supporting bars, said blade springs having sufficient tension to normally retain the upper edges of the lenses, when connected thereto, in predetermined aligned relation with the temple supporting bars while being sufficiently resilient to permit flexing to provide a torsional strain relieving function when force is exerted on the lenses and said bridge connections with the temple supporting bars above said rearwardly bent portions permitting said relatively rigid downwardly extending portions to be adjusted independently of the blade springs to aid in fitting the pads to the nose of the wearer.

2,778,272
OPTICAL OBJECTIVE SYSTEM DEVICE OF VARIABLE FOCAL LENGTH
Lucien Reymond, Paris, France, assignor to Société d'Optique et de Mecanique de Haute Precision, Paris, France, a corporation of France
Application May 3, 1954, Serial No. 427,117
Claims priority, application France May 13, 1953
9 Claims. (Cl. 88—57)

1. In an optical device, a fixed lens, a substantially fixed object plane located at a finite distance from said fixed lens, an image plane substantially fixed at a finite distance from said fixed lens, said object plane and said image plane being substantially coaxial with said fixed lens, a movable coaxial lens on each side of said fixed lens movable as a unit and substantially fixed in distance apart one from the other, said movable lenses having substantially equal focal lengths, the distances between said fixed lens and said object plane and between said fixed lens and said image plane not exceeding approximately ten times the distance between said movable lenses, and said fixed lens being located substantially symmetrically with respect to said object plane and to said image plane, whereby as said movable lenses are moved from one extreme position to their other extreme position the image plane passes four times through the same position with reduced displacement thereof.

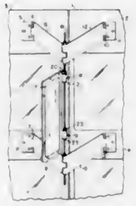
2,778,273
REARVIEW MIRROR
Robert E. Fellmeth, Lake Geneva, Wis.
Application March 3, 1953, Serial No. 340,016
2 Claims. (Cl. 88—87)



1. A rear view mirror for mounting upon the side of an automotive vehicle comprising a centrally disposed and substantially flat circular reflecting area, a spherical convex peripheral reflecting surface integral with and completely circumscribing said central area and extending rearwardly therefrom in continuously increasing diameters, and means for securing the mirror to the automotive vehicle at a position whereby the vehicle operator may view as reflections in said mirror objects directly behind the automotive vehicle, as well as objects in the areas around said mirror.

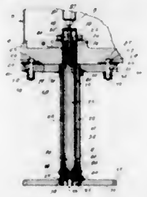
2,778,274
MIRROR MOUNTINGS
Otto A. Behling, Jr., Bridgeville, Pa.
Application January 14, 1955, Serial No. 481,838
5 Claims. (Cl. 88—93)

1. In combination with a multiple section folding type door for a vehicle, a mirror mounting for said door comprising spaced pivotal supports mounted on adjacent sections of said door, an arm mounted to pivot on each of said supports, said arms extending toward each other and being pivotally connected with respect to each other, one of said arms adapted to mount a mirror thereon so that when said door is closed the sections on which said supports are mounted move swingably away from each



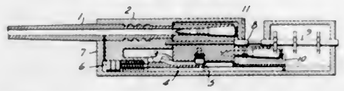
other and the mirror is projected outwardly from the door, and when said door is opened, the said sections move toward each other and the mirror is substantially withdrawn in between the sections of the door.

2,778,275
PHOTOFLASH CARTRIDGE EJECTOR
Willis L. Wells, St. Louis, Mo., assignor to Lambert Engineering Company, St. Louis, Mo., a corporation of Missouri
Application June 25, 1952, Serial No. 295,513
7 Claims. (Cl. 89—1.5)



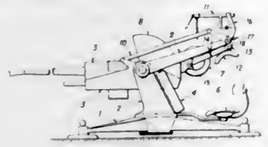
7. In an aircraft photoflash cartridge ejector of the type in which a multiplicity of cartridges are carried for selective ejection, the improvement which comprises a casing, cartridge firing means mounted within the said casing, said cartridge firing means including contact plugs each having a spring-biased firing contact and a spring-biased grounding wedge insulated from one another and extending beyond said casing, and a rack, constructed to carry said cartridges, mounted on said casing for movement, when loaded with cartridges, between a position at which the heads of the cartridges in the rack are remote from said casing and a position at which the heads of the cartridges are immediately adjacent said casing, each of said cartridges being brought into operative engagement with the firing contact and grounding wedge of one of said contact plugs when said rack is positioned adjacent said casing.

2,778,276
MECHANISM ON AUTOMATIC FIREARMS WITH REVOLVER DRUMS
Erwin Hepperle, Zurich, Switzerland, assignor to Machine Tool Works Oerlikon, Administration Company, Zurich-Oerlikon, Switzerland, a company of Switzerland
Application March 22, 1951, Serial No. 216,885
2 Claims. (Cl. 89—33)



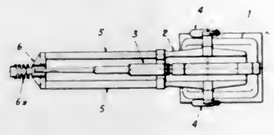
1. In an automatic firearm with a revolver drum, in combination a toothed starwheel arranged coaxially with and behind the drum for moving a cartridge belt into the gun, means coupling said starwheel with said drum, a longitudinally movable slide for successively moving cartridges from their belt links while in the starwheel to an intermediate position in one stroke, and in the next stroke from the intermediate position into a cartridge chamber of the drum, movable spring-biased elements mounted on the hub of the star wheel for engagement with the bottoms of the cartridges when in their intermediate position to secure them against movement to the rear.

2,778,277
SIGHT MOUNTING FOR A GUN WITH A CRADLE MOUNT
Heinrich Herlach, Zurich, Switzerland, assignor to Machine Tool Works Oerlikon, Administration Company, Zurich-Oerlikon, Switzerland, a Swiss company
Application May 2, 1952, Serial No. 285,726
4 Claims. (Cl. 89—41)



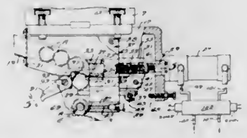
1. In a gun having a cradle mount and a sight; a sight mount hinged to said cradle mount for rotation about a horizontal axis, said sight being pivoted to said sight mount for elevating movement about a further axis, a shoulder rest adapted to be carried by a gunner, means movably connecting the shoulder rest with the sight mount and providing a relative movement of the sight mount relatively to the shoulder rest when the shoulder rest is held by the gunner, said sight mount swinging about said horizontal axis during said relative movement, and other means controlling said relative movement depending upon said elevating movement of the sight to increase the distance of said further axis from said shoulder rest with an increase in the elevation of the sight.

2,778,278
GUN-CARRIAGE WITH MUZZLE BRAKE
Heinrich Herlach and Oskar Schwager, Zurich, Switzerland, assignors to Machine Tool Works Oerlikon, Administration Company, Zurich-Oerlikon, Switzerland, a company organized under Swiss laws
Application April 12, 1952, Serial No. 281,952
5 Claims. (Cl. 89—42)



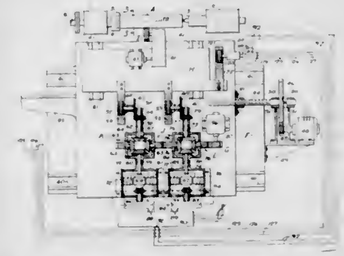
1. In a gun carriage having a cradle pivoted for azimuthal rotation, said cradle being swingable for rotation about a substantially vertical axis, in combination, two parallel guns located upon said cradle on opposite sides of said axis, means supporting said guns for reciprocal movement upon said cradle whereby recoil forces which are eccentric to said axis are transmitted to said cradle during firing, baffle means carried by said cradle adjacent to the muzzles thereof and comprising surfaces extending transversely to a plane passing through the axes of said guns, said surfaces being located forwardly of the muzzles and comprising portions located between the guns, and extending alongside the guns, said surfaces comprising other portions extending transversely to the guns, whereby gases emerging from the muzzles exert forces upon said cradle which are opposed to said recoil forces.

2,778,279
LOADING MECHANISM
Alexander D. F. Moncrieff, Detroit, Mich., assignor to Michigan Tool Company, Detroit, Mich., a corporation of Delaware
Original application October 1, 1948, Serial No. 52,388, now Patent No. 2,693,133, dated November 2, 1954. Divided and this application February 1, 1954, Serial No. 411,673
1 Claim. (Cl. 90—1.6)



In a gear shaving machine or the like having a rotary toothed cutter the combination of drive means for rotating the cutter, means for delivering a gear to the cutter, releasable holding means for holding a gear in engagement with the cutter during machining, and electro-responsive means actuated as a result of the release of said holding means for actuating said drive means for a predetermined interval for the purposes of moving the machined gear away from said holding means and properly meshing a delivered gear with the cutter.

2,778,280
PATTERN CONTROLLED MACHINE TOOL
Lev A. Trofimov, Willoughby, Ohio, assignor to Fairchild Engine and Airplane Corporation, a corporation of Maryland
Application August 28, 1953, Serial No. 377,051
6 Claims. (Cl. 90—13.5)



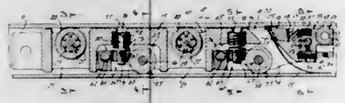
1. In an apparatus for forming a workpiece corresponding to a pattern piece of variable radius with respect to an axis, the combination of a rotatable support for the pattern and the workpiece, a drive transmission for imparting rotation to said rotatable supports in unison, a stylus engageable with the periphery of the pattern piece, a forming tool supported for movement toward and away from the axis of rotation of the supporting means for the workpiece, and drive means for moving the forming tool toward and away from the axis of rotation of the workpiece comprising a pair of electrodynamic units, means for impressing voltages on each of said electrodynamic units, a gear transmission in driving engagement with each of said units normally urging the forming tool in opposite directions, thereby maintaining the forming tool stationary, and means controlled by movements of the stylus for varying the voltages impressed on the electrodynamic units, thereby causing one of said units to become the driving unit and the other of said units to become the driven unit, whereby the movement is imparted to the forming tool toward or away from the axis of rotation of the workpiece, while backlash is overcome by the dragging effect of the other unit.

2,778,281

INSIDE BEAD TRIMMER WITH VERTICALLY ADJUSTABLE TAIL ROLLS DOWNSTREAM OF CUTTING EDGE

Ernst W. Allardt, Alliance, Ohio, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application January 9, 1953, Serial No. 330,553
8 Claims. (Cl. 90—24)



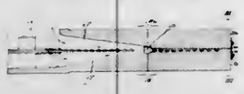
1. An inside bead trimmer for severing a bead from the inner surface of a welded tube, said bead trimmer comprising an elongated body adapted to be disposed within the tube so as to permit relative longitudinal motion between the tube and the body; a bead cutter normally fixed to the body and having a cutting edge projecting therebeyond; roller means mounted in said body and engageable with the inner surface of the tube to maintain said cutter engaged with the bead; a pair of tail rolls adjustably and rotatably mounted on said body downstream of the cutter in laterally spaced relation to each other for engagement with the tube on either side of the weld-affected zone thereof; and means operable to adjust and maintain rigidly the position of said tail rolls relative to said body and cutter to accurately maintain a pre-set depth of cut.

2,778,282

PULP REFINING APPARATUS

Lionel M. Sutherland, Morrisville, Pa., assignor to Sutherland Refiner Corporation, Trenton, N. J., a corporation of New Jersey

Application March 10, 1955, Serial No. 493,375
7 Claims. (Cl. 92—26)



1. The combination, in a pulp refining apparatus, of a pair of spaced relatively rotated disks between which the pulp to be refined is passed; said disks respectively having grooves in their confronting working faces extending from their centers to their peripheries; and control elements in the form of bands affixed respectively to the peripheries of the disks to partially overlap the delivery ends of the grooves in said disks.

2,778,283

PREPARATION OF COATED ASBESTOS-CEMENT PRODUCTS

Phillip S. Bettoli, Belle Mead, George L. Brown, Moorestown, and Clarence R. Eckert, Englewood, N. J., and Benjamin B. Kine, Levittown, Pa.

No Drawing. Application May 28, 1953, Serial No. 358,192
11 Claims. (Cl. 92—40)

5. As an article of manufacture, a formed product comprising an asbestos-cement composition having its surface coated with a water-insoluble copolymer containing, in the polymer molecule, a lower alkyl ester of an acid selected from the group consisting of acrylic, methacrylic, and itaconic acids, and 0.25 to 6 molar percent of carboxyl-containing monomeric units derived from at least one member of the class consisting of acrylic, methacrylic, and itaconic acids, said copolymer being cross-linked by a polyvalent metal.

2,778,284

METHOD OF AND APPARATUS FOR APPLYING AQUEOUS DISPERSIONS IN MANUFACTURE OF PAPERBOARD AND THE LIKE

Chester R. MacDonald, Ramsey, N. J., assignor to The Patent and Licensing Corporation, New York, N. Y., a corporation of Massachusetts

Application May 14, 1954, Serial No. 429,750
11 Claims. (Cl. 92—41)

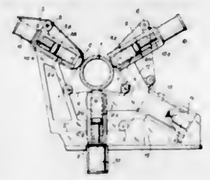
1. Apparatus of the class described, comprising the combination with a multi-cylinder paper machine, of means positioned between an adjacent pair of the paper-forming cylinders for interposing a film of an aqueous dispersion of waterproofing material or the like between the moving paper plies formed in succession on said pair of cylinders, said means comprising: (1) a supply box for maintaining a bath of said dispersion; (2) a roll partially submerged in and rotatable in said bath, said box and roll being located at a position such that the path of rotation of the roll is at a considerable distance below the path of movement of said plies; and (3) a perforated pipe positioned adjacent said roll with its axis parallel to and above the axis of said roll, the diameter of said pipe being less than that of said roll, said perforations extending along the peripheral surface of the pipe in a manner such that air forced therethrough will be directed substantially horizontally against the surface of said roll adjacent the top thereof in the direction of travel of the plies.

2,778,285

MACHINE FOR MANUFACTURING WELDLESS ASBESTOS-CEMENT PIPES

Camillo Pasquale, Turin, Italy, assignor to R. C. M. Revisione Costruzione Macchine Societa in nome collettivo, Turin, Italy

Application August 31, 1954, Serial No. 453,275
Claims priority, application Italy September 1, 1953
6 Claims. (Cl. 92—66)



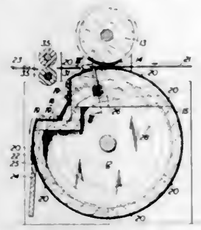
1. In a machine for manufacturing weldless asbestos-cement pipes, a rotatable cylindrical mandrel on which is spirally wound a continuous web of asbestos-cement having a breadth equalling the length of the pipe to be made, a continuous conveyer belt feeding said web to said mandrel, at least one frame, a set of three parallel pressure cylinders, disposed tangentially to said mandrel and having a length at least equal to that of the pipe to be made, said cylinders being displaceable in planes intersecting one another along a straight line parallel with the mandrel and distributed at equal angular intervals about said line, said set comprising a lower cylinder displaceable in a vertical plane and two upper cylinders arranged symmetrically with respect to said plane, each of said cylinders being supported at its opposite ends by a pair of double-acting hydraulic jacks on the frame, said conveyer belt having an upper run for feeding said continuous asbestos-cement web to the mandrel and a lower return run and travelling successively through the points of tangency between pressure cylinders and the mandrel, the path of the belt between the upper and lower runs of the conveyer being so arranged that the belt successively passes through the point of tangency between the upper pressure cylinder adjacent the upper run of the conveyer and the mandrel, the point of tangence between the lower pressure cylinder and the mandrel and the point of tangence between the other upper pressure cylinder and the mandrel, whereby the mandrel may be introduced and removed from the machine at the top upon removal of the upper pressure cylinders from the surface of the mandrel, means associated with each pressure cylinder for positively driving said pressure cylinders and imparting to them the same peripheral speed for driving the mandrel and said conveyer belt, and means for controlling said hydraulic jacks.

2,778,286

STRIPPING MACHINES

William Edward Walker, Enfield, England

Application July 20, 1953, Serial No. 369,167
14 Claims. (Cl. 93—36)



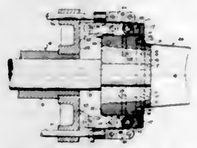
1. In a stripping machine for stripping cut blanks the combination of a first roller, a sheet detachably secured round said first roller and penetratable at any desired point by pins, and a plurality of headed pins inserted in said sheet at positions selected in accordance with the location of unwanted material in the blanks, the heads of said pins being located between said sheet and said first roller, and a second roller cooperating with said first roller and receiving in the surface thereof said pins as said rollers rotate.

2,778,287

APPARATUS FOR CURLING CONTAINERS

George Arlington Moore, New York, N. Y.

Application January 18, 1954, Serial No. 404,417
12 Claims. (Cl. 93—36.5)



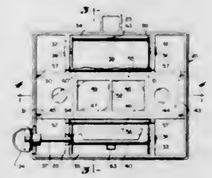
1. Apparatus for curling conically shaped containers which includes a curling die comprising a central truncated body having four adjacent sloping sides to coincide with the angle of taper of the container side wall, each of said sloping sides being mounted with a slidable arcuate shaped segment part having a semi-circular groove disposed transversely of said sloping side, each arcuate shaped segment being attached with another arcuate shaped plate that is provided with a semi-circular groove facing the first mentioned groove to form a semi-circular annular hollow cavity having a cross sectional wall extending radially around more than three quarters of its circumference, said segments being combined as units and coupled together in spaced relationship to form separating slots disposed in bias relationship to said annular cavities, said truncated body being the means with which to register said annular segments with a container body to be curled, said combined segments being adapted to move non-rotarily but longitudinally upon a marginal portion of the body of the container and entrain said marginal portion within said cavities, each of said cavities being adapted to move progressively and transversely coincident with the tapering wall of the container, said longitudinal and transverse movement coacting to effect a curled rim upon the mouth of the container.

2,778,288

STEREOSCOPIC CAMERA

Arnold M. Steffen, Los Angeles, Calif.

Application December 16, 1952, Serial No. 326,255
2 Claims. (Cl. 95—18)



1. A stereo-camera comprising a box, a pair of fixed double reflector means mounted in side by side juxtaposition in said box, a pair of horizontally separated lenses mounted in the front of the box to invert and reverse the image of an object respectively viewed through said lenses and for respectively throwing said images upon one reflector of each of said double reflector means, a pair of windows formed in said box in side by side contiguous relationship between and aligned with said lenses in a position to receive, respectively, corresponding images thrown from the other reflector of each of said reflector means, roll film holding and guiding means within said box including a single vertical film guide centered between said lenses for training a single roll of film past and over both said windows for receiving thereon substantially simultaneous side-by-side images projected thereon from said reflector means, and shutter means for said lenses including a common control for selectively exposing said film, the over-all width of both of said windows being less than that of the film to permit left and right eye images to be formed on the single film in paired side-by-side relationship respectively therealong, the emulsion side of said film being exposed through said windows and said emulsion thereby facing rearwardly relative to the camera and normally towards the taker.

2,778,289

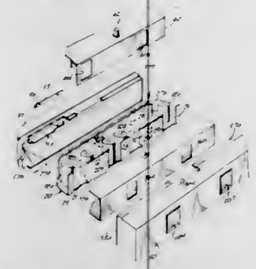
STEREO-PHOTOGRAPHIC METHODS AND APPARATUS

August W. Stellpflug, Norwalk, and Wilfred E. Tait, New Canaan, Conn., assignors to The Lionel Corporation, New York, N. Y., a corporation of New York

Application July 16, 1953, Serial No. 368,392
12 Claims. (Cl. 95—18)

1. A film magazine comprising an elongated frame member having a base, two upwardly extending coplanar film guiding flanges along the front of the base spaced from one another and from the ends of the base, five film guide rollers mounted on the base for rotation about vertical axes, two of the rollers being near the ends of the base, one end roller disposed to guide film onto the front of one of the front flanges, the other end roller disposed to guide film so that it may be pulled from the other front flange, two of the rollers being centrally disposed between and to the rear of the front flanges, one disposed to receive film from the first front flange and the other to deliver it to the other front flange, the

fifth roller being disposed in a position to form a film loop between the centrally disposed rollers, film-shielding means disposed in front of the film as it extends from one end roller to the other and having a picture-framing aperture in front of each of said first mentioned



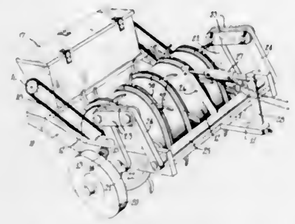
front flanges through which the film may be exposed, and an inverted channel-shaped apertured shutter member disposed about the frame and shielding means and reciprocable therealong, the shutter being movable between positions where it opens and closes the apertures in the film-shielding means.

2,778,290
DISK PLOW
Clarett B. Greeson and Richard W. Bushmeyer, Rockford, Ill., assignors to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Application April 19, 1951, Serial No. 221,872
7 Claims. (Cl. 97—46.27)

6. In a disk plow of the type having a plurality of disks disposed in line and connected to be supported in transport from a frame, said frame being supported at one end on substantially symmetrically disposed ground engaging elements, and at the other end on a ground engaging element which is offset relatively to said frame whereby to introduce a moment into said frame tending to twist it in one direction, a torsion rod lying along said frame and connected with said ground engaging elements so as to raise said frame relatively thereto when said rod is rocked in one direction, and actuating means connected with said frame at the end adjacent the offset ground engaging element and connected also to said rod for rotating the same in a frame raising direction, said direction being so chosen that the reaction of said actuating means on said frame will introduce therein a twisting moment at said end adjacent said offset supporting element which moment is opposite in direction to that introduced into said frame by said offset ground engaging element whereby to substantially neutralize said twisting moment.

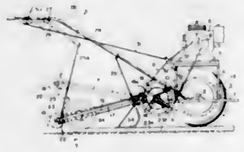
2,778,291
ROTARY RENOVATOR
James F. Kerns, Sheridan, Wyo.
Application October 19, 1954, Serial No. 463,099
2 Claims. (Cl. 97—52)

1. A rotary soil renovator comprising a drum rotatably mounted on a frame, means for drawing said frame across the surface of ground to be renovated, and a plurality of soil piercing teeth connected to said drum on the periphery thereof, each said tooth having a base portion positioned between a pair of peripheral channel walls secured to and extending completely around said drum, said base



portion extending in the direction of rotation of said drum for retention under a bearing platform secured to and bridging said channel walls, and separable means for positively preventing undesired separation of said tooth from said channel.

2,778,292
SOD ROLL FORMING MACHINE
Charles Kavan, Detroit, Mich.
Application July 8, 1953, Serial No. 366,748
1 Claim. (Cl. 97—226)

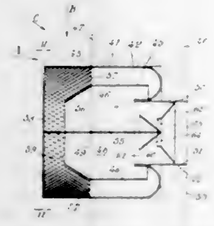


In a sod roll forming machine, a frame and ground wheels mounting such frame, an auxiliary frame, means mounting the auxiliary frame for up and down travel on the main frame, a sod cutter mounted on the auxiliary frame and comprising a blade elongated transversely of the machine and inclined forwardly toward its cutting edge, a roller journaled on the auxiliary frame rearwardly of said blade and having at least its major portion disposed above and to the rear of said blade and having the forward portion of its periphery adjacent to the vertical plane containing said cutting edge, whereby said roller is engaged by a length of sod severed and upwardly deflected by the blade, means for rotatively driving the roller in a direction to impel it upwardly past the blade, and means for manually raising and lowering said auxiliary frame to permit an advance of the blade and roller above a formed sod roll.

2,778,293
VENTILATING DEVICES
Paul Richalet, Le Chesnay, France
Application March 23, 1953, Serial No. 343,998
Claims priority, application France February 23, 1953
3 Claims. (Cl. 98—42)

1. A ventilating device for causing a gaseous fluid to flow out from a space to be ventilated to the external atmosphere under the effect of wind blowing in said external atmosphere, said space being separated from said atmosphere by a wall provided with a hole at least substantially symmetrical about an axis transverse to said wall, this device comprising, in combination, an annular piece fitted in said hole and including an at least substantially cylindrical portion coaxial with said hole from its outer edge along the side wall thereof, an at least substantially cylindrical portion coaxial with said hole and

extending inside said first mentioned cylindrical portion, said second mentioned cylindrical portion being shorter in the direction of said axis than said first mentioned cylindrical portion, and a toroidal curved portion joining the inner ends of said two cylindrical portions, a cylindrical piece coaxial with said two cylindrical portions and disposed intermediate said cylindrical portions, but located at a smaller distance from the second mentioned cylindrical portion than from the first mentioned one, the outer edge of said cylindrical piece being located substantially flush with the outer face of said wall and the inner edge thereof being at a distance from said toroidal curved portion whereby said two pieces form between them an annular passage bent at 180°, starting from said outer face of the wall and opening into the cylindrical

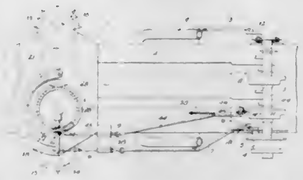


chamber formed inside said cylindrical piece, a frusto-conical extension converging toward the external atmosphere from said outer edge of said cylindrical piece, a solid screen transverse to said axis carried by said annular piece at a distance from the outer face of said wall on the outside thereof, the edge of said screen being substantially opposite the edge of said annular piece, the second cylindrical portion of said annular piece defining on its inside a central passage connecting said cylindrical chamber with the space, on the inner side of said wall, to be ventilated, and baffle means located at least partly in said central passage for imposing a substantial resistance to the flow of air therethrough from said cylindrical chamber toward said space and a low resistance to the flow of air therethrough from said space toward said cylindrical chamber.

2,778,294
HOLDER FOR COOKING TACO-SHELLS
Joseph A. Ulloa, Riverbank, Calif.
Application September 2, 1954, Serial No. 453,879
7 Claims. (Cl. 99—426)

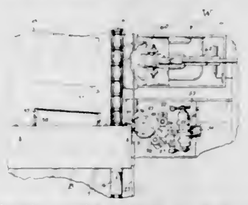
1. A holder for cooking a taco shell comprising a U-shaped support open at its forward end and of a length and height sufficient to contain a shell to be cooked in a U-shaped folded form, a transverse back wall provided with the support, a handle member above and connected to the backwall, the support including a transversely curved bottom portion, a cylindrical member projecting forwardly from the back wall in parallel and concentric relation to said curved bottom portion of the support and spaced therefrom a distance greater than the thickness of a shell, and means mounted in the support to engage and eject a shell from the support and including a transverse flange element slidable on said cylindrical member.

2,778,295
BALE METERING MECHANISM
Otto W. Luek, New Holland, and John P. Tarbox, Philadelphia, Pa., assignors, by mesne assignments, to Sperry Rand Corporation, New Holland, Pa., a corporation of Delaware
Application May 14, 1954, Serial No. 429,818
19 Claims. (Cl. 100—4)



1. In an automatic baler having a banding mechanism adapted for actuation through a trip means, the combination comprising a metering and tripping element mounted on the baler for movement from a predetermined starting position into actuating engagement with said trip means, a bale retarding mechanism in driven interlocking engagement with the bales formed by said baler, mechanism establishing a disengageable driving connection between said element and the bale retarding mechanism whereby said element may be moved by said retarding mechanism into actuating engagement with the trip means, and means immobilizing said element as it engages and actuates said trip means, said driving connection remaining operative during such immobilization to secure said bale retarding mechanism against movement during said immobilization.

2,778,296
SINGLE END LUMBER PRINTER
Edwin W. De Koning, Portland, Oreg.
Application October 1, 1954, Serial No. 459,793
20 Claims. (Cl. 101—5)

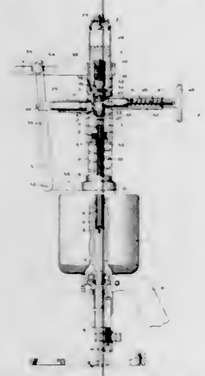


1. In combination with single end lumber marker means for pressing a mark into the end grain of one end only of each board in turn as plural boards are moved one by one edgewise past the marker means, hold down means adjacent said marker means engageable yet rotatable with the edgewise movement of said end of the board as it is marked to resist endwise movement while allowing edgewise movement of the board past the marker means, said hold down means including a vertically adjustable journalled roller adapted frictionally yet yieldably to contact and roll upon the surface of the moving board, said roller having an elastic surface engaging the face surface of the board adjacent the roller means and having means for constraining axial movement of said roller in response to pressure exerted against the end of the board.

2,778,297
CLOTH MARKING DRILL
Harry Fleisher, Staten Island, N. Y.
Application April 7, 1954, Serial No. 421,479
20 Claims. (Cl. 101—26)

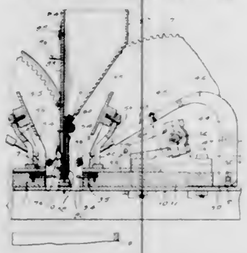
1. Cloth marking drill comprising an upright guide, a slide confined to non-rotating vertical movement on said

guide, a needle carrying sleeve rotatably connected with and vertically movable with said slide, a cloth piercing hollow marking needle connected with the lower end of said sleeve, a hollow driving shaft surrounding and having sliding driving engagement with said sleeve, a marking medium container on said slide and means on said slide between said container and the upper end of said sleeve for effecting and controlling flow of marking me-



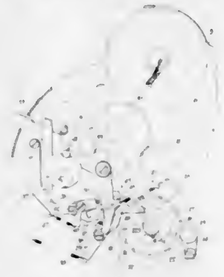
dium from the container into said needle carrying sleeve in the vertical movements of the slide on the guide, including a vertically shiftable pump mounted on said slide and connected between the container and sleeve and actuating means for the same operable by vertical movements of the slide, said actuating means including a relatively stationary vertically extending cam and a connection extending from the vertically shiftable pump into operative engagement with said cam.

2,778,298
PRINTING PRESS FOR FROZEN EDIBLE STICKS AND STICKS HOLDING MOLDED CANDY
D. Park Russey, Abilene, Tex.
Application October 28, 1953, Serial No. 388,782
6 Claims. (Cl. 101—44)



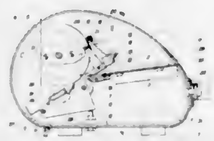
1. A printing press for round sticks comprising a base, a pair of aligned slide members carried by said base, a type member on the inner end of each slide member, means reciprocating said slide members, a forked rock lever associated with each slide member, means mounting said rock levers on said base, an inking roller shaft, an inking roller on said shaft, means slidably carried by said rock lever supporting said shaft, means connecting said lever with a slide member whereby said lever will rock with movement of said slide member, an inking plate, means supporting said plate in a position to be engaged by said roller, means supporting a stick between said type members, means actuated by said inking roller for removing said stick from said supporting means when said slide members are substantially at the end of their outward movement, and means feeding sticks to said supporting means.

2,778,299
STENCIL DUPLICATING MACHINES
Thomas G. Howe, Tottenham, England, assignor to Gestetner Limited, London, England, a corporation of Great Britain
Application December 14, 1953, Serial No. 398,164
6 Claims. (Cl. 101—118)



1. A stencil duplicating machine comprising a frame, a cylinder rotatably mounted in the frame and carrying the stencil, a pressure roller, a support for the pressure roller whereby the roller is movable towards the cylinder to press a sheet of paper against the stencil, means for advancing the pressure roller to engage a sheet of paper fed into the machine to press it against the stencil, said means for advancing the pressure roller being driven from said cylinder driving means, a clutch to interrupt the drive to the means for advancing said pressure roller, means for disengaging said clutch, means to detect each sheet of paper as it is fed forward for duplicating and for actuating said clutch-disengaging means on the absence of paper, spring means urging the detector means into engagement with the paper sheet, a cam-follower means for actuating said clutch-disengaging means and to retract the paper detector from the paper, spring means to maintain the follower in engagement with the cam and a common means for driving the cylinder, said cam and the means for advancing the pressure roller.

2,778,300
DUPLICATING MACHINE HOUSING STRUCTURE
Wilhelm Ritzerfeld, Berlin-Dahlem, and Gerhard Ritzerfeld, Berlin-Grunewald, Germany
Application July 29, 1953, Serial No. 371,104
4 Claims. (Cl. 101—132.5)

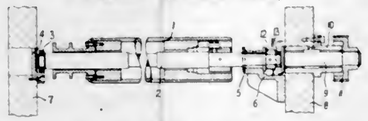


1. In a duplicating machine for printing copy sheets, a combined housing and feed table structure, comprising, in combination, a main structure consisting of a single bent sheet composed of a bottom wall portion having a front end and adapted to receive printed copy sheets, a front wall portion extending upwardly from said front end of said bottom wall portion and having a top end, and a feed table wall portion extending rearwardly from said top end of said front wall portion above said bottom wall portion and adapted to support copy sheets, said wall portions having lateral edges; a pair of upright side walls secured to said lateral edges of said wall portions; a duplicating cylinder turnably mounted on and extending between said side walls; means for holding one end of a master sheet on said duplicating cylinder; and a reinforcing rod extending in close proximity to the surface of said duplicating cylinder parallel to said axis of said duplicating cylinder normal to said side walls and being secured to the same for reinforcing said side walls, said reinforcing rod being adapted to hold the master sheet on the duplicating cylinder.

2,778,301
COATED PAPER PLANOGRAPHIC PRINTING PLATE
Frederic E. Brinnick and Arthur Reilly, Westbrook, and Towers Doggett, Windham, Maine, assignors to S. D. Warren Company, Boston, Mass., a corporation of Massachusetts
No Drawing. Application May 22, 1953, Serial No. 356,888
4 Claims. (Cl. 101—149.2)

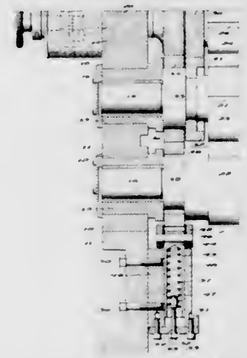
2. Coated paper product suitable for use in preparing a planographic printing plate which comprises a paper-base, on one side of said paper base an oleophilic barrier-coat substantially impervious to water, over said barrier coat a first layer of mineral-coating free from hydrous mineral matter and consisting essentially of insolubilized casein adhesive and precipitated mineral pigment selected from the group consisting of precipitated barium sulfate and titanium dioxide, and over said first layer of mineral coating a hydrophilic layer of mineral-coating consisting essentially of titanium dioxide, cellulose derivative adhesive and a cured amino-aldehyde resin, said hydrophilic layer being free from hydrous mineral pigment and being insoluble throughout its depth.

2,778,302
ROLL DRIVE FOR PRINTING PRESSES
Robert Wilhelm Reinartz, Augsburg, Germany, assignor to Maschinenfabrik Augsburg-Nurnberg A. G., Augsburg, Germany, a corporation of Germany
Application March 23, 1953, Serial No. 343,954
Claims priority, application Germany March 29, 1952
3 Claims. (Cl. 101—216)



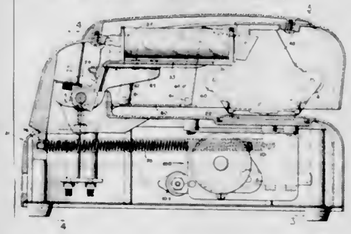
1. In a printing press of the character described having a driven roll mounted in a limited space with limited accessibility and main gear drive means on the outside of said press, the combination which comprises an axle for said roll having a diameter substantially less than the diameter of said roll, bearing brackets rigidly mounted in said press for receiving and supporting each end of said axle, said bearing brackets being open at the top thereof for lifting said roll in a radial direction directly free of said press, means on said bearing brackets preventing displacement of said roll in all axial and radial directions except said lifting direction to maintain said roll accurately aligned and positioned in said press, said bearing brackets extending not substantially higher than the diameter of said axle for lifting said roll directly free of said press and said brackets by movement of said roll through a distance substantially less than the diameter thereof, a drive shaft for said roll rigidly mounted in said press and extending from said main gear drive means on the outside of said press into said press adjacent one of said bearing brackets and axially aligned therewith, coupling means including interlocking tenon and socket means on one end of said roll axle and the inner end of said drive shaft for cooperating engagement adjacent said bearing bracket as the sole driving connection for said roll when positioned in said press, and said socket of said coupling means including a substantial circumferential opening for disengaging said tenon therefrom in one angular position of said coupling means upon lifting said roll radially from said press and in the absence of axial displacement of said roll or said coupling means.

2,778,303
ROTARY OFFSET PRINTING PRESS ROLL SUPPORT
Laszlo M. Stempel, Metuchen, N. J., assignor to John Waldron Corporation, New Brunswick, N. J., a corporation of New Jersey
Application November 4, 1953, Serial No. 390,133
11 Claims. (Cl. 101—218)



1. In a rotary type printing press having a plate cylinder for mounting a circumferentially discontinuous printing plate thereon, a blanket cylinder for mounting a printing blanket thereon, and an impression cylinder having a continuous cylindrical surface, means providing bearings positioning the first and second cylinders to contact plate and blanket and the second and third cylinders to contact blanket and surface, the combination of cylindrical bearers fixed rigidly on the ends of the first and second cylinders of "contact" diameters and held in engagement with each other by said bearings, means to adjust the bearings of the impression cylinder to change its contact pressure with the blanket, free running support rings one loosely surrounding but wholly dependent of and radially spaced from a reduced neck on each end of the third cylinder and means independent of said necks supporting and urging said rings against the bearers on the blanket cylinder at a pressure independent of the adjusted pressure between blanket and impression cylinders.

2,778,304
TIME STAMP
Michael Juhas, Torrington, Conn., assignor to General Time Corporation, New York, N. Y., a corporation of Delaware
Application August 30, 1952, Serial No. 307,275
4 Claims. (Cl. 101—298)



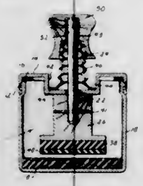
1. In a time stamp, the combination with a base of a hollow casing open along a portion of one of its sides,

stamping mechanism, an arm carrying said stamping mechanism, a member about which both the casing and the arm are adapted to rotate and on which the casing is also adapted to slide, and cooperating latching members on the arm and casing normally fastening the arm and casing together and adapted to be released from each other by sliding movement of said casing.

2,778,305
DEVICE FOR MARKING TUBULAR ARTICLES
Ira S. Gottscho, Milburn, N. J., Malcolm Hirschey, Woodside, N. Y., and Andrew J. Alessi, Jr., Colonia, N. J., assignors to Adolph Gottscho, Inc., Hillside, N. J., a corporation of New York
Application April 3, 1953, Serial No. 346,562
4 Claims. (Cl. 101—329)

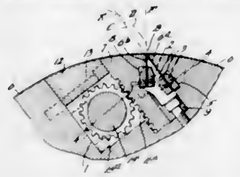
1. In a portable device for marking a tubular article; the combination of a frame movable bodily along an article to be marked, a marking roller for supporting type on the periphery thereof, means rotatably mounting said marking roller on said frame in a position exposing type on the periphery of the roller to printing contact with the surface of a tubular article to be marked, inking mechanism carried by said frame and including an ink transfer roller rotatably mounted on said frame in rolling contact with said marking roller, a combination guiding and driving roller having a central, circumferential groove, and means carried by said frame rotatably supporting said guiding and driving roller out of contact with said marking roller but with the surface portions of the said guiding and driving roller at the opposite sides of said groove in rolling contact with said transfer roller and in a position to effect rolling contact with a tubular article received in said groove as said frame is moved along the tubular article so that said transfer roller transmits the rotation of said guiding and driving roller to said marking roller while said guiding and driving roller laterally locates said frame and marking roller with respect to the tubular article in said groove.

2,778,306
SEALED STAMP PAD
Carl C. Harris, Orange, Mass.
Application August 28, 1953, Serial No. 377,031
3 Claims. (Cl. 101—333)



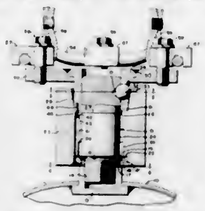
1. A marking device comprising an open topped container, a stamp pad positioned in the bottom of the container to hold a supply of marking fluid, a cap for said container, cooperating means on said cap and container for releasably securing said cap to said container in gas tight relation, an indicia carrying stamp disposed within said container and below the lower edge of said cap, handle means carrying said stamp and extending through the cap for moving the stamp into and out of engagement with said pad, and a flexible member attached to said handle means and to said cap to form a gas tight seal therebetween which remains unbroken during use of said stamp, said flexible member being yieldable to permit movement of said stamp into contact with said pad.

2,778,307
PLATE CLAMPING MEANS
Franz Heller, Mount Vernon, N. Y., assignor, by mesne assignments, to American Type Founders Co., Inc., Elizabeth, N. J., a corporation of Delaware
Application April 14, 1953, Serial No. 348,706
2 Claims. (Cl. 101—415.1)

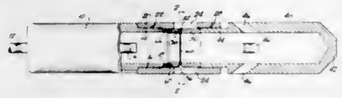


1. In a clamping device for securing a flexible printing plate to the periphery of a rotary printing cylinder which has a longitudinally extending gap on its periphery, in combination, means for detachably securing one end portion of said plate to said cylinder within said gap whereby the end portion is bent around one of the edges of said gap, a jaw member detachably receiving the other end portion of said plate and movably disposed within said gap, means for guiding a face on said jaw member for movement in a chordal direction at an angle with respect to the cylinder diameter which intersects said gap edge, said direction of movement diverging outwardly of said diameter away from said gap edge and said first mentioned end portion of the plate, a plurality of toothed racks spaced longitudinally on said jaw face, a shaft rotatably mounted in the cylinder, means at one end of said shaft for rotating it, a plurality of pinions fixed along the shaft for meshing engagement with said racks whereby rotation of said shaft moves said jaw, said racks being so disposed on said jaw face that the displacement between each rack and the edge of said jaw face innermost of the cylinder is progressively greater the further such rack is removed from said shaft rotating means.

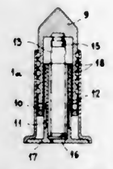
2,778,308
PARACHUTE RELEASE MECHANISM
Gordon L. Fogal, Silver Spring, Md., and Graham B. Brown, Ridgewood, N. J.
Application August 1, 1951, Serial No. 239,828
9 Claims. (Cl. 102—4)
(Granted under Title 35, U. S. Code (1952), sec. 266)



7. An impact operated parachute release mechanism comprising, in combination, a mine having a tail plate, a parachute having one end of each of a plurality of shroud lines secured thereto, a collector ring having said shroud lines secured thereto at the opposite ends thereof, an attaching flange having a depending tubular portion at the axis thereof and having said collector ring secured to said flange, said tubular portion having a plurality of elongated slots therein, a stud secured to and extending from the tail plate of said mine and into said tubular portion, a plurality of locking balls, said stud having a plurality of shallow bores for receiving said balls, said balls also extending through said slots and being of less diameter than the length of said slots, a cylindrical inertia member having an axial bore therethrough, said inertia member having an enlarged outwardly tapered portion to said axial bore, the wall of said tapered portion retaining said balls in the elongated slots and the shallow bores, severable means for initially securing said inertia member to said tubular portion and severable by shock of the opening of the parachute to release said inertia member from said tubular portion, said balls preventing separation of the stud and tubular member when the severable means is severed, a deformable ring for holding said inertia member in retaining position with respect to said balls and for releasing said inertia member as the mine strikes the surface of a body of water.

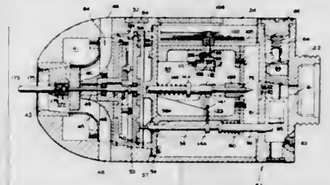
2,778,309
GAS PRESSURE BLASTING DEVICE
Edward C. Filstrup, St. Joseph, Mich., assignor to Armstrong Coalbreak Company, Benton Harbor, Mich., a corporation of Michigan
Application August 14, 1952, Serial No. 304,273
7 Claims. (Cl. 102—25)

1. A blasting device comprising a two-part cartridge adapted to contain gas at high pressure, one of said parts having an end portion removably secured in the other part, a pair of clamping rings rotatably and freely axially slidable in said other part, one clamping ring being engaged by said end portion, each of said cartridge parts having lateral apertures therein, the apertures in said other part being intersected by the clamping ends of said clamping rings, a shear plate clamped between said rings, and an annular resilient sealing member encircling and sealing the clamping ring at the charge pressed side of said shear plate.

2,778,310
SAFETY DEVICE FOR PROJECTILES
Edgar William Brandt, Geneva, Switzerland, assignor to Anstalt fur die Entwicklung von Erfindungen und Gewerblichen Anwendungen "Energa," Vaduz, Liechtenstein, a corporation of Liechtenstein
Application April 22, 1952, Serial No. 283,600
1 Claim. (Cl. 102—78)



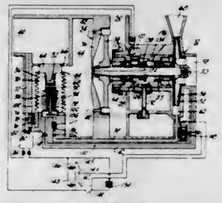
A safety and delay device for a projectile fuse, comprising a support with a longitudinally extending passage through which fire is to be transmitted, an annular seat at the rear of said passage, a seal removably held on said seat, an obturator axially movable on the support, and a resilient compression thrust member within the passage and attached at its ends to the seal and to the obturator for projecting the obturator and seal forwardly from the support under the force of inertia.

2,778,311
BOMB FUZE
George I. Roberts, Maywood, and James E. Bevins, Ramsey, N. J., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application January 31, 1952, Serial 269,206
10 Claims. (Cl. 102—81.2)



8. A barometric bomb fuze assembly adapted for functioning at a predetermined altitude, comprising a firing pin biased for movement to a firing position, a pivoted detent member, a pivotally mounted lever engageable by said detent member for maintaining said pin in a non-firing position, means yieldably urging said lever to release said firing pin and acting in opposition to said detent member, and pressure responsive means displaceable in response to variations in pressure to move said detent member out of engagement with said lever when a predetermined altitude is attained, whereby said yieldable means pivots said lever to release said pin to a firing position.

2,778,312
FLUID PUMP AND CONTROLS THEREFOR
Ward C. Suttle and Elmer A. Haase, South Bend, Ind., assignors to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application June 10, 1950, Serial No. 167,638
13 Claims. (Cl. 103—12)

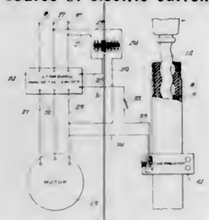


1. The combination with a fluid pump and a fluid device for driving said pump, of means for controlling the fluid to said device comprising a valve mechanism, manual means associated with said mechanism for starting and stopping said device, and electrical means responsive to a predetermined pump discharge pressure for rendering said device inoperative.

2,778,313
CONTROL MEANS FOR PUMPING APPARATUS
Robert H. Hill, Fort Wayne, Ind., assignor, by mesne assignments, to Perfect Circle Corporation, Hagerstown, Ind., a corporation of Indiana
Application December 17, 1951, Serial No. 262,156
6 Claims. (Cl. 103—25)

1. In combination, a pump of the positive displacement progressing cavity type having elongated helical stator and rotor members, at least one of said members having a resilient surface portion contacting the other member and in pumping relation therewith, said surface portion having a tendency to adhere to the other member when overheated and said pump having a tendency to overheat unless operated with an adequate supply of working material in the liquid state for proper lubrication of said rotor and stator members, an electric motor operatively connected to the pump, conductors connected to said motor for supplying electric current to the motor,

magnetic switch means interposed in said conductors for controlling the supply of current to the motor, a source of electric current for energizing said switch means, and a thermostat attached to said pump and connected in circuit with said source of electric current for energizing



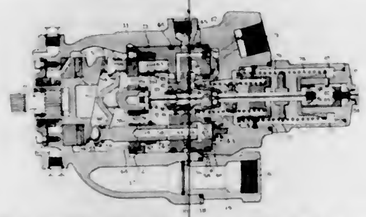
and deenergizing said switch means in response to changes in pump temperature below and above a predetermined temperature range whereby to prevent overheating and consequent damage to said resilient surface portion.

2,778,314

SHARP RESPONSE SPRING LOADED PRESSURE MOTOR FOR CONTROLLING REGULATED DEVICES

Dougal H. Siver, Watertown, N. Y., assignor to The New York Air Brake Company, a corporation of New Jersey

Application February 24, 1954, Serial No. 412,239
9 Claims. (Cl. 103—37)



1. The combination of means enclosing a space in which fluid pressure is effective; a controller movable from a neutral position toward a position in which it serves to limit said fluid pressure; an expansible chamber motor comprising means enclosing a motor chamber and a movable abutment subject to pressure in said motor chamber; an actuating connection between said abutment and said controller through which motion of the abutment in response to rising fluid pressure causes motion of said controller toward its pressure limiting position; means affording a restricted inlet connection from said enclosed space to said motor chamber; spring means biasing said abutment in opposition to pressure in said motor chamber with a minimum force approximately sufficient to balance a desired pressure; and adjustable flow restricting means controlling a bleed passage from said motor chamber and adjusted by motion of said abutment, said flow-restricting means having a maximum flow capacity approximating that of said restricted inlet communication, from which maximum the flow-restricting means reduces the bleed flow as the abutment moves the controller in the pressure limiting direction.

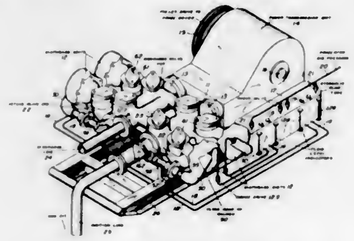
2,778,315

PUMP FOR ABRASIVE FLUIDS

Robert R. Crookston and Leon Blagg, Houston, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application February 24, 1954, Serial No. 412,291
21 Claims. (Cl. 103—44)

1. Apparatus for pumping abrasive fluids which comprise, in combination, at least a first and a second housing each provided with two passageways, said housings having a first relatively flat inner surface and a second concave inner surface, an internally reinforced tire-shaped diaphragm arranged in each of said housings between said passageways adapted to be supported by said flat surface and by said concave surface separating the interior of said housings into first and second chambers, at least a piston cylinder connected to said housings, a piston in



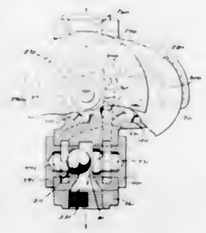
said cylinder, means attached to said piston for reciprocating said piston in said cylinder, said piston cylinder being connected to said housing to reciprocate hydraulic fluid into and out of said first chambers, means for regulating amounts of said hydraulic fluid and means connected to said housings for introduction and discharge of abrasive fluid into and out of said second chambers on movement of said diaphragm by said hydraulic fluid.

2,778,316

REVERSIBLE PUMP WITH AUTOMATIC VALVING

Hiram H. Haight and Wayland Z. Haight, Wauwatosa, Wis.

Application February 12, 1952, Serial No. 271,206
13 Claims. (Cl. 103—117)



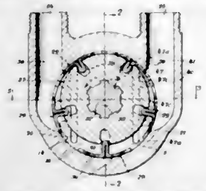
1. A pump casing having bores, opposing closures for one of said bores, said bore comprising a pump chamber, opposing closures for the other of said bores, said other bore comprising a valve chamber, pumping mechanism in the pump chamber provided with a driving shaft for which the closures first mentioned provide bearings, dual valve cages carried by the closures for said other bore in axially spaced relation and provided with valve seats, the said cages having axially aligned passages of materially smaller cross section than the bore cross section and leading from the first mentioned bore to said seats, and a valve pressure-operated from one of said seats across the axial spacing between said cages to the other according to the direction of discharge through said passages, the said casing having an annular discharge port intersecting the path of said valve, said port having a radial extent substantially at least equal to the cross section of the bore whereby to provide circumferential discharge from said passages to said port, the said closures providing axial clearance between said seats communicating with said port for the discharge through said port of fluid from one of said seats.

2,778,317

ROTARY FLUID PRESSURE PUMPS AND MOTORS OF THE ECCENTRIC VANE TYPE

David Hamilton Cockburn, Iver, England

Application October 25, 1954, Serial No. 464,537
12 Claims. (Cl. 103—134)



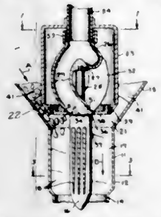
1. A hydraulic pump or motor comprising a casing defining a substantially cylindrical working chamber, with a circumferential wall and two end walls, a rotor mounted eccentrically within said casing, a plurality of grooves extending longitudinally in the circumference of the rotor, a plurality of vane elements of T-shape in cross section each having its stem portion mounted in the corresponding groove of the rotor with freedom to slide radially therein and to rock therein, and having a transverse head portion slidably engaging with the circumferential wall of the casing in a fluid-tight manner, inlet and outlet ports formed in the circumferential wall of the casing, and a by-pass passage formed in an end wall of the casing and arranged to allow pressure liquid to pass around the corresponding end of the vane elements and thus escape from that part of the working chamber adjacent the top dead centre after the transverse head portion of each vane element has closed the outlet port.

2,778,318

EJECTOR PUMP CONVEYANCE OF MATERIAL

Kurd von Haken, Murnau, Upper Bavaria, Germany, assignor of one-half to Kenneth R. Marsden, Chicago, Ill.

Application January 7, 1953, Serial No. 330,152
Claims priority, application Germany February 8, 1952
2 Claims. (Cl. 103—262)



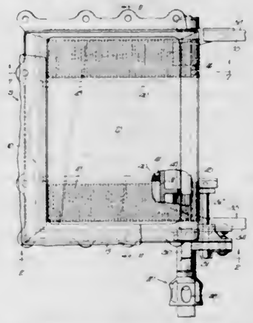
1. In a pump of the ejector type for use in conveying a material flow, in combination, a stationary wall structure comprising a tubular section, a stationary cylindrical member concentrically disposed within and spaced from the interior of said tubular section and defining with the interior surface of said wall thereof an annular chamber, a plurality of stationary radial vanes secured in said chamber and each extending between said member and said surface, said vanes being angularly spaced from each other throughout said chamber forming a series of parallel passages, a stationary casing supported co-axially near said chamber and being spaced from the end of said vanes defining in said structure a cavity, said casing having a fluid inlet opening, an impeller disposed in said casing and being journalled for rotation about the axis of said casing and including curved blades extending to said inlet opening and forming at least one nozzle terminating adjacent said cavity and opposite said passages, said nozzle being inclined at an angle to said vanes, whereby said impeller is rotated by reaction of the fluid flowing between said blades and striking said vanes after discharge from said nozzle and fluid will continuously be discharged from said nozzle into said cavity and be intermittently discharged into each passage, and an extension formed on said structure near said cavity and operable to admit material from the exterior into said cavity for continuous conveyance thereof through said passages by the action of said fluid.

2,778,319

HOPPER DISCHARGE OUTLET

George B. Dorey, Westmount, Quebec, Canada, assignor to Enterprise Railway Equipment Company, Chicago, Ill., a corporation of Illinois

Application October 12, 1951, Serial No. 251,032
5 Claims. (Cl. 105—282)



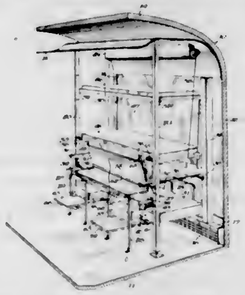
1. In a discharge outlet including a four sided opening defined in part by walls having a marginal edge surface extending around the opening, a sliding gate movably mounted to close the opening adapted to engage said marginal edge, and supporting means for the gate including a pair of rail members extending lengthwise in the direction of movement of the gate and spaced from the side edges of the opening to provide a discharge area on each side of the rails and constituting the sole support for said gate in its closed position.

2,778,320

BERTH SECTION ARRANGEMENT

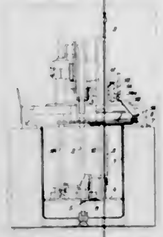
Kenneth J. Austgen and James E. Candlin, Jr., Hammond, Ind., assignors to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware

Application December 22, 1952, Serial No. 327,396
14 Claims. (Cl. 105—317)



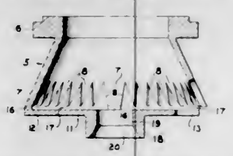
1. In an enclosure having a floor, a berth arranged in spaced relation above the floor and supported in the enclosure, a pair of seats supported from the floor below and transversely of the berth and each seat having an arm adjacent the vertical plane of the side of the berth, and a removable platform positioned upon the arms of the pair of seats adapted to afford access to the berth.

2,778,321
MACHINE FOR THE AUTOMATIC MOULDING AND AUTOMATIC DELIVERY OF ICE CREAM
Richard Hirschson, Hannover, Germany
Application January 2, 1953, Serial No. 329,361
27 Claims. (Cl. 107—1)



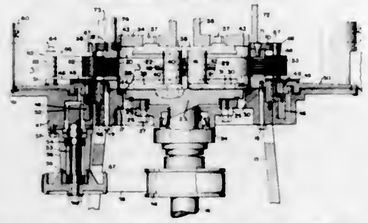
1. A machine for the moulding and delivery of ice cream, comprising a rotatable bulk storage receptacle for ice cream, a plate so disposed therewithin, that its lower face is adapted to rest on the upper surface of a bulk of ice cream stored in said receptacle, a mould mounted on said plate, said mould having an opening lying in a plane normal to said plate, an opening through said plate, located adjacent the opening of said mould, a scraper arranged adjacent the lower sides of the plate underneath said opening in the plate and so shaped as to charge ice cream from said bulk, into said mould through said plate and mould openings, means to lift the charge of ice cream from the mould, said means being arranged upon the upper side of the plate and including a vertically movable base plate, a receiving chamber at the upper position of said lifting means for receiving said charge of ice cream, an ejector to convey the charge of ice cream from said lifting means into said receiving chamber, means to return said lifting means to its lower position immediately after the charge of ice cream has been ejected into said upper receiving chamber, at least one container for wafers to be applied to the charge of ice cream, and means for pushing wafers into position above and below said charge of ice cream in said receiving chamber.

2,778,322
EXTRUSION NOZZLE
Frank T. Moser, Easton, Pa.
Application March 2, 1953, Serial No. 339,740
4 Claims. (Cl. 107—14)



1. An extrusion nozzle, comprising a frusto-conical shaped sleeve member having open ends, the larger open end being provided with outwardly inclined teeth in comb like formation extending along its entire peripheral portion, and a plate member of substantially the same size and contour as the said larger open end, said plate having an orifice extending therethrough and being provided with radially directed teeth in comb-like formation extending along its entire peripheral portion, said plate and tubular members being joined by leg-like means in the form of relatively wide teeth on each at points spaced circumferentially of their respective peripheral portions, so that the respective teeth of said members are in spaced confronting relationship, said means being provided with a weld between pairs of confronting teeth forming the leg-like means of said members, the teeth of each pair also being wider at their ends than the remaining teeth of said members, so that spaced openings between said members are formed which are arcuate and have comb-like edges.

2,778,323
CRUMBLES ADAPTOR FOR PELLET MACHINE
John W. Money, Akron, Ohio, assignor to The Quaker Oats Company, Chicago, Ill., a corporation of New Jersey
Application July 22, 1953, Serial No. 369,694
9 Claims. (Cl. 107—14)



1. In a pellet machine having a perforated die ring, an impactor unit rotatable within said die to extrude feed mix therethrough, and a rotatable conveyor plate outside of the die to receive the extruded feed mix, an adaptor for cutting said feed mix into fragments of crumble size, said adaptor comprising a ring gear secured on said die ring, a series of circumferentially spaced corrugated cutter wheels carried on said conveyor plate adjacent the outer surface of said die ring, and pinions on said cutter wheels meshing with said ring gear for driving the cutter wheels as the conveyor plate is rotated, said pinions being so constructed and arranged as to drive said cutter wheels at peripheral speeds approximately two and one-half times their orbital speed.

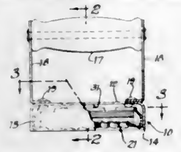
2,778,324
COLLAPSIBLE PASTRY BOARD
Edith M. Mattson, St. Paul, Minn.
Application October 12, 1953, Serial No. 385,520
3 Claims. (Cl. 107—46)

1. A collapsible pastry board comprising a pair of independent rigid panels in abutting end to end relationship when in assembled operative position, said panels in assembled position providing spaced apart outer ends and having complementary adjacent inner ends fitting in face to face relation to thus present a working coplanar surface, a removable slightly stretchable covering member for said coplanar surface, said covering being of slightly less extent than the distance between said outer ends of the assembled panels, and anchoring means provided at the corresponding outer ends of said covering, said anchoring means including elements for embracing portions of both the outer end faces and adjacent margins under surfaces of said panels when in assembled relationship, the underlying portions of said elements extending inwardly a substantial distance from the outer ends of said panels, and the inner end portions of said anchoring elements being connected with the lateral edge portions of said covering member in inwardly spaced relation from the outer ends thereof to hold said pair of panels in assembled end to end coplanar relation.

2,778,325
PATTY MAKING IMPLEMENT
Dominec J. Cesare, Chicago, Ill.
Application March 30, 1955, Serial No. 497,994
3 Claims. (Cl. 107—47)

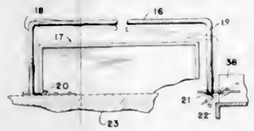
1. An implement for cutting and forming patties from two pieces of superimposed dough or the like enclosing

a desired filling substance comprising: a parallelepipedic shell including a horizontal top wall and a continuous vertical wall defining an open bottom, the lower rectangular edge of said vertical wall being sharpened for cutting the dough, a die member having a vertical wall coextensive with and complemental to said vertical shell wall frictionally engaged therewithin to maintain operative relation of said shell and die member but to allow manual withdrawal from and reinsertion into said shell through the open bottom, said die member having a pressing face spaced upwardly from said sharpened edge for sealing the margin of the cut patty substantially concurrently



with the cutting action, and means for altering the spacing of said pressing face and cutting edge including means defining a notch in the upper margin of the die member vertical wall and a protuberance for interfit with said notch on the lower surface of said horizontal top wall, said notch and protuberance being adapted for interfit in only one relative position of the die member and shell and adapted to interfere in the reversed relative position of the die member and shell which results from withdrawing the die member from said interfitting position, rotating the same 180° in its plane and reinserting the same in the shell.

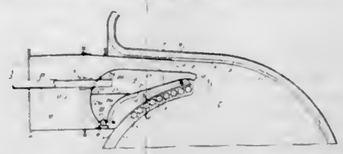
2,778,326
PANIC LATCH FOR REFRIGERATOR DOORS AND THE LIKE
Casimir Guzik, Cleveland, Ohio
Application September 10, 1954, Serial No. 455,238
1 Claim. (Cl. 109—63.5)



A panic lock for refrigerator doors and the like, comprising a panic bar secured to the inside of a refrigerator door, said bar being moveably secured at the hinge side of the door; the other end of said bar contacting a latch and latch mechanism, said latch and latch mechanism being mounted in the door and adapted to be operated from the exterior of said door by a pin member passing through the door; an elongated tray having side and end walls on the inside of said door, said panic bar surrounding and extending longitudinally of said elongated tray adjacent the top thereof and being parallel with the side wall of the tray, whereby the door may be opened from the interior by contacting the panic bar and the latch mechanism, said door may be opened independently of the mechanism on the exterior side of the door whether in a locked or unlocked position.

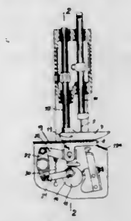
2,778,327
CYCLONE FURNACE
Andreas Sifrin, Heinz Eberhardt, and Hermann Hennecke, Oberhausen, Rhineland, Germany, assignors to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application February 27, 1953, Serial No. 339,306
7 Claims. (Cl. 110—28)

1. In a cyclone furnace having a circumferential boundary defining a combustion chamber of generally circular cross section about a central axis, said boundary at a location spaced from one end of said chamber being of scroll-like formation and defining an air inlet port elongated in a direction parallel to said axis and opening into said chamber in tangential relation to said circumferential boundary, means for introducing a fluent fuel-air mixture into said chamber comprising a nozzle member disposed



within said inlet port and terminating in a discharge tip adjacent the inner end of the port, support means for said nozzle member arranged for pivotal adjustment thereof toward and away from said circumferential boundary and thereby with respect to the radially inner and outer walls of said port, and means for directing air into said chamber through a space separating said nozzle member from said boundary.

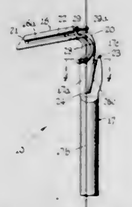
2,778,328
PORTABLE SEWING-MACHINE
Léon Doyen and Louis Doyen, Lyon, France
Application October 19, 1954, Serial No. 463,280
Claims priority, application France November 17, 1953
2 Claims. (Cl. 112—11)



1. A portable sewing machine comprising a machine body including a narrow elongated tubular section adapted to serve as a grip for the operator's hand and two short parallel tubular transverse sections perpendicular to the elongated section and rigid with the outer ends thereof respectively, a carrier rod rigid with one transverse section of the body, parallel with the elongated section and projecting into proximity with the second transverse section, a presser foot pivotally secured to the projecting end of the carrier rod round an axis perpendicular to the plane defined by the axes of the two sections, a needle adapted to reciprocate inside the said first transverse section in parallelism with the axis of the elongated section in register with said presser foot, an apertured needle plate rigid with the second transverse section of the body, facing the presser foot and including a lateral portion forming an acute angle with the said presser foot, a feed dog carried by the second transverse section in close proximity with the said needle plate and adapted to engage a fabric held between the latter and the presser foot through the aperture in the needle plate, a thread-finger and thread-feeding means carried by the second extreme section, a rotary control member for the said thread finger, a portable driving motor independent of the machine body, a yielding shaft operatively connecting the said driving motor with the said control member, means inserted between the said control member and the feed dog to constrain the latter to execute first a forwardly and upwardly directed movement to make it assume a tilted position substantially underneath the lateral portion of the needle plate and parallel therewith, then a speedy rising movement

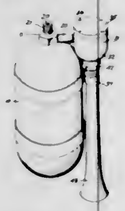
adapted to make the feed dog engage the fabric held between the presser foot and the needle plate, a rearward movement operatively shifting the fabric and finally a downwardly directed return motion, and switching means carried by the machine body within reach of a finger of the operator's hand grasping the elongated section of the machine body and controlling the operation of the motor.

2,778,329
LOOPER WITH REMOVABLE THREAD WIRE
John D. Howell, New City, and Clarence R. Nelson, Central Nyack, N. Y., assignors to Willcox & Gibbs Sewing Machine Company, New York, N. Y., a corporation of New York
Application May 27, 1954, Serial No. 432,879
5 Claims. (Cl. 112—199)



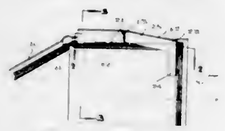
1. A longitudinal looper for a sewing machine comprising a looper portion and a depending shank portion adapted to be mounted in a carrier, and a detachable thread wire having an anchoring portion at one end releasably interlocked with said shank portion, an intermediate portion encircling the shank portion, and a thread-engaging portion at the other end overlying the side of the looper portion adjacent the juncture of the looper portion and shank portion.

2,778,330
FIRE ALARM
David M. Jacoby, Doylestown, Pa., assignor to Evergard Fire Alarm Co. Incorporated, Philadelphia, Pa., a corporation of Pennsylvania
Application May 5, 1953, Serial No. 353,136
2 Claims. (Cl. 116—106)



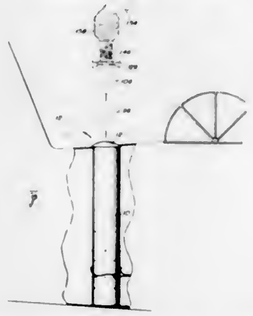
1. A fire alarm including a generally cylindrical vessel containing gas under pressure, an outlet on the longitudinal axis of said vessel for permitting the escape of gas from said vessel, a gas-operated sound-creating instrument having an inlet through which gas is passed to actuate the instrument, a conduit interconnecting the outlet of said vessel and said instrument for permitting gas released from said vessel outlet to be passed through said instrument and to sound said gas-operated sound-creating instrument, a portion of said conduit disposed perpendicular to the longitudinal axis of said vessel, a fusible plug in said conduit for preventing passage of gas from said vessel to said instrument, a plug-receiving cavity in communication with said conduit, said plug receiving cavity constructed and arranged to receive the plug, said cavity being disposed out of the plane of the center axis of the inlet of said gas-operated sound-creating instrument.

2,778,331
BOOKMARK
Samuel Rodolfo Solis Bonilla, Retalhuleu, Guatemala
Application December 3, 1954, Serial No. 472,952
4 Claims. (Cl. 116—119)



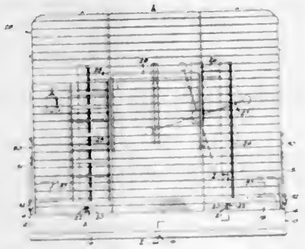
1. A book mark comprising a sheet having opposed end edges and a side edge connecting said end edges together, there being an L-shaped slot adjacent each end thereof, each slot having the short leg extending perpendicularly inwardly from the associated end edge with the long leg substantially parallel to said associated end edge with the terminating end of said long leg spaced from said side edge, the portion of said sheet separated by each of said slots defining a bendable tab, said tabs being adapted to be inserted between adjacent pages of a book with the portion of said sheet along said one side edge and above the long legs of said slots surmounting said adjacent pages.

2,778,332
MEANS FOR LOCATING CRASHED AIRPLANES
Thomas William Talbot, Santa Monica, Calif., assignor of one-half to Reed Tollefsen, Pacific Palisades, Calif.
Application March 15, 1954, Serial No. 416,161
2 Claims. (Cl. 116—124)



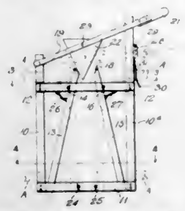
1. An inertia actuated indicator for crashed airplanes comprising a housing, a pendulum mounted in said housing, a casing having a combustion chamber in said housing, an explosive cartridge in said chamber, a firing pin for firing said explosive charge, said firing pin being adapted to be struck by a firing hammer, a firing hammer holder having a recess therein, said slide being received in said recess, a plate attaching said firing hammer holder to said housing, a headed pin attaching said hammer to said holder and said holder to said plate, a spring for urging said hammer outwardly of said holder, a collar on said holder, a detent carried by said pendulum, and resilient means urging said holder normally into engagement with said detent, said resilient means extending between said plate and said collar so that when said pendulum is subjected to a predetermined acceleration to disengage said detent from said holder, said resilient means will urge said holder to move with respect to said plate to urge said headed pin outwardly while said spring will urge said hammer to move with respect to said holder to strike said firing pin, a gas container carried by said casing, a deflated balloon in said housing, an outlet conduit connecting the balloon with said gas container sealed by a plug, resilient means locking said plug in said chamber when said resilient means are in said housing, valve means for controlling flow of gas between said container and said balloon, a hollow reel interconnecting said valve means with said outlet conduit, a cable secured at one end to said balloon and secured at the other end thereof to said reel, and means associated with said valve means for disconnecting said valve means from said reel, said means for disconnecting said valve means from said reel including a cover plate for the reel, a release pin detachably securing said cover plate to said reel, a holding spring holding said release pin in position to secure said cover plate to said reel, a bellows mounted on said reel in communication with said valve and said balloon and engaging said holding spring so that upon inflation of said balloon said bellows will actuate said holding spring to disengage said release pin from said cover plate to disengage said cover plate from said reel.

2,778,333
COMBINED CAGE AND PLAYPEN FOR BIRDS
Joseph H. Babros and Joseph Komada, Los Angeles, Calif.; said Komada assignor to said Babros
Application April 15, 1955, Serial No. 501,694
1 Claim. (Cl. 119—17)



A bird cage comprising a base frame having a bottom, front, rear, and side walls, the upper portions of the side walls extending inwardly to provide a seat for the bottom of a wire cage, a tray slidable through the front wall on the bottom of the base frame, supporting structure mounted on the base frame above the tray so as not to be disturbed upon removal of the tray, and an open-bottomed wire cage seated upon the seat at the tops of the walls of the base frame, hooks resiliently mounted on the cage and means on the base frame engaged by the hooks for releasably attaching the cage to the base frame whereby upon disengagement of the hooks from said means the cage may be detached from the base frame and removed without disturbing the supporting structure on the base frame.

2,778,334
CATTLE HOLDING GATE
Richard S. Moore, Garrison, Tex.
Application March 1, 1955, Serial No. 491,270
1 Claim. (Cl. 119—98)

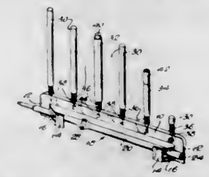


A cattle holding gate of the class described comprising a frame, a cross bar carried by said frame, a pair of holding clamps hinged to said cross bar in spaced relation near their upper ends and having upwardly extending portions, each upwardly extending portion being beveled outwardly and upwardly at the upper extremity thereof, an actuating wedge, a supporting arm pivotally supported upon said frame, means for pivotally supporting said actuating wedge upon said arm above the upper ends of said holding clamps, a guide for the lower ends of said holding clamps carried by said frame, means for limiting the swing of said lower ends of said holding clamps in said guide, means for yieldably holding the lower ends of said holding clamps in a spread-apart position and their upper ends in an inwardly swung position toward each other, said actuating wedge tapering downwardly between said upper ends of said holding clamps and being movable into contact with said beveled extremities of said upper ends of said holding clamps to force said upper ends apart and to thereby swing said lower ends together to a closed position as said arm is swung downwardly to force said wedge between said upper ends of said holding clamps.

2,778,335
BIRD HARNESS
Virginia J. Hirsch, Kansas City, Mo.
Application July 5, 1955, Serial No. 519,929
7 Claims. (Cl. 119—169)

1. A bird harness comprising a continuous length of flexible material presenting a leash; a releasable ring catch secured to the leash; a first wing-receiving loop extending from the catch; a neck-impaling collar having a pair of segments; a catch-receiving eye attached to the collar at one end of the segments; a clip interconnecting the segments at the opposite end thereof, said opposite end of one of the segments extending from said first loop at the clip; a second wing-receiving loop extending from said opposite end of the other of said segments at the clip; and a catch-receiving eye attached to the second loop.

2,778,336
BALL POINT PEN CARTRIDGE ADAPTER
Alfred T. Liguori, Bronx, N. Y., assignor to Delva Plastics, Inc., Bronx, N. Y., a corporation of New York
Application March 18, 1954, Serial No. 416,987
1 Claim. (Cl. 120—8)



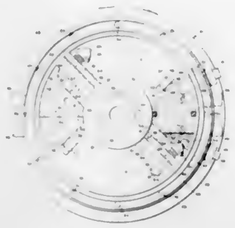
An adapter device of the character described, comprising a base member and a plurality of rod shaped adapter elements of varying lengths having their lower portions threaded and terminating in tapered tips, said adapter elements being integrally formed with said base member, said tapered tips being joined to said base member to define zones of weakness at said joints which permit the selective detachment of said adapter elements from said base member without substantial impairment of said adapter elements.

2,778,337
RETRACTABLE BALL PEN
Charles K. Lovejoy, Atlanta, Ga., assignor to Scripto, Inc., a corporation of Georgia
Application October 19, 1953, Serial No. 386,946
2 Claims. (Cl. 120—42.03)

1. A retractable ball pen comprising a tubular barrel, a ball point and reservoir unit housed within said barrel for shifting relative to said barrel between retracted and projected positions, the ball point element of said unit being press fitted within the forward end of said reservoir and formed with an enlargement adjacent said forward end for limiting the press fitted depth of said ball point element and cooperating with said barrel for positioning said ball point element when projected for writing, said barrel being formed adjacent its writing end with an inwardly facing annular shoulder providing an annular seat for the ball point enlargement at the projected position of said ball point and reservoir unit and positioning said ball point element firmly in alignment with the barrel when projected for writing, the reservoir of said unit being formed of an easily bendable plastic material having insufficient stability itself for adequately supporting the ball point element when projected for writing, said tubular barrel being relatively thin walled and internally ribbed for a major portion of its length to support the reservoir and limit the bending thereof so as to prevent undue cocking of the ball point element and assuring proper seating of the ball point element at the barrel shoulder when projected for writing, and feed means for shifting said ball point and reservoir unit between retracted and projected positions having a relatively rigid screw type propelling member engaging screw threads formed in said barrel rearwardly of said internally ribbed length and formed with a forwardly projecting clutch shank that is press fitted within the rear end of said reservoir, said ball point and reservoir unit following the movement of said propelling member whereby operation of said feed means freely shifts said ball point and reservoir unit between retracted and projected positions and locks said ball point and reservoir unit in the projected position for writing.

2,778,338
INTERNAL FLUID SHUT OFF FOR HYDRAULIC MOTOR
Homer J. Shafer, Mansfield, Ohio, assignor to Shafer Valve Company, Mansfield, Ohio, a corporation of Ohio
Application January 27, 1953, Serial No. 333,496
2 Claims. (Cl. 121—38)

1. In a hydraulic motor including a cylindrical housing having transverse end walls, an impeller vane oscillating in said casing on a shaft axially thereof, and a stationary shoe extending radially of the cylinder and partitioning the cylinder into chambers, the side and end faces of said vane having a continuous U-shaped groove therein of rectangular cross section, a U-shaped continuous seal of resilient material in said groove having a rounded cross section and forming a pressure seal between the vane and the end and side walls of said housing, and the seal being molded to form sharp straight line transverse outer



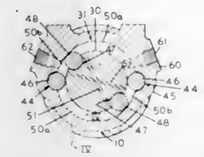
corners equal in breadth to the cross sectional breadth of the groove and fitting tightly in the corners of the housing walls to form a pressure seal between the vane and the housing at those points.

2,778,339
BY-PASS VALVE MEANS FOR HYDRAULIC SERVO SYSTEM
Joseph J. Mancusi, Jr., Eastchester, N. Y., assignor to Hydra-Power Corporation, New Rochelle, N. Y., a corporation of New York
Application June 9, 1953, Serial No. 360,477
8 Claims. (Cl. 121—38)

1. In an hydraulically actuatable system: a casing defining a chamber; a member movably mounted in such casing and forming therein two separate subchambers, a selected one of such subchambers being enlargeable, the other being concurrently diminishable in volume in response to movement of such member; and a pair of oppositely facing one-way compound by-pass valves in said movable member for permitting flow through such movable member respectively in opposite directions, each of such valves having means for resiliently urging same closed against a preselected low pressure acting in the respective flow direction of the valve, each of said valves having means for closing same to stop the flow in such respective direction in response to pressure acting in such direction reaching a preselected higher value.

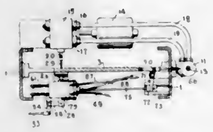
2,778,340
HYDRAULIC TORQUE VANE-TYPE MOTORS
Leo O. Greeley, Cadillac, Mich., assignor to F. J. McCarthy, Inc., Cadillac, Mich., a corporation of Michigan
Application March 13, 1953, Serial No. 342,236
6 Claims. (Cl. 121—38)

1. A torque motor comprising: an elongated housing having a circular, elongated central chamber therein; a rotor of circular cross section journaled in each end of said housing; said rotor having a diameter in excess of a major portion of the diameter of said central chamber; a pair of diametrically positioned channels in said housing, opening into said central chamber and extending the length thereof; a pair of diametrically positioned channels in said rotor, opening into said central chamber and extending the length thereof; a rod-like compressible plastic vane seated in each of said channels, said vanes each having an approximately equal cross sectional height and width and being of sufficient cross section to extend between said housing and said rotor for dividing said central chamber into two pairs of operating compart-



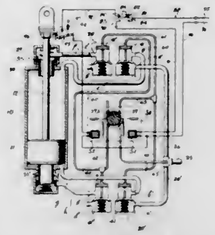
ments; a pair of fluid ports, each communicating with one of said pairs of operating compartments; the portions of said vanes seated in said channels of said rotor and of said housing being of lesser cross sectional area than said channels whereby a gap is defined between said vanes and the walls of said channels, said gap communicating with said chamber for receiving the fluid operating said motor and compressing said vanes against a portion of the walls of said channels and the opposite wall of said chamber.

2,778,341
AUTOMATIC CONTROL FOR HYDRAULIC PAPER CUTTERS
Michael E. Papanoli, Spring Lake, and James Wesley Lee, Grand Haven, Mich., assignors to The Challenge Machinery Company, Grand Haven, Mich., a corporation of Michigan
Application June 25, 1953, Serial No. 363,958
3 Claims. (Cl. 121—38)



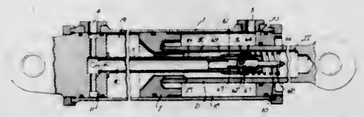
1. The combination with a machine having a movable element and pressure means for moving the element in working and return directions, including a source of pressure for said pressure means and a valve to control said pressure, of means for actuating said valve comprising a body, an operating member movably mounted on the body and connected to the valve, manual means for moving the operating member, two cams movable on said body, each having a cam face engageable with a part of said operating member to move it to different positions, a spring for each cam acting to move it with its face against said part of the operating member, automatic means acting to move said cams against tension of their springs and without engaging their cam faces with said part of the operating member during movement of the element before completion of its working stroke, individual latch means acting to hold said cams cocked with their springs under tension and separate means acting to release said cams to permit their springs to move them with their faces against the said parts of the operating member, the first cam acting to move the operating member and valve to element return position and the second cam acting to move the operating member and valve to neutral position, the latch for the first cam being released at the end of the element working stroke and the latch for the second cam being released at the end of the return stroke.

2,778,342
POPPET TYPE VALVE DISTRIBUTING SYSTEM FOR A SERVO-MOTOR
Henry W. Ringman, Everett, Wash., assignor to Sumner Iron Works, Inc., Everett, Wash., a corporation of Washington
Application August 10, 1953, Serial No. 373,288
5 Claims. (Cl. 121—38)



1. A double acting power device for use in combination with a source of supply of fluid pressure medium and a mechanism to be actuated, said device comprising a power cylinder, a piston reciprocally fitted in the cylinder and having a piston rod extended therefrom for connection with the said mechanism to be actuated, said cylinder having at least one inlet port and one exhaust port at one end thereof, a valve mechanism interconnected with the cylinder and said valve mechanism including two valve chambers, one of said chambers being connected, respectively, with the source of supply of pressure medium and the cylinder inlet port, and the other chamber having an atmospheric exhaust connection and a connection with the cylinder exhaust port, valves contained in the respective chambers, each valve being movable between an open position, providing direct communication between the two connections respectively that open to its chamber and a closed position at which valves close the communication between their respective connections, spring means normally urging the valves to their closed positions, a control valve connected with the source of pressure medium and having connections leading therefrom to each of the valve chambers for the admission of pressure medium thereto to actuate the valves, a sleeve valve in the end of the cylinder adjacent the exhaust port operable to close the exhaust port, spring means acting against said sleeve valve to urge it to open position, and means on the sleeve valve providing for its actuation to closed position by the piston as it approaches its limit of travel toward the valve.

2,778,343
SNUBBER FOR DOUBLE-ACTING HYDRAULIC ACTUATORS
John B. Crosetto, Jr., Mercer Island, and George C. Newell, Jr., Seattle, Wash., assignors to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application December 23, 1953, Serial No. 400,013
6 Claims. (Cl. 121—38)



1. In combination with a cylinder headed at one end, and having a closure of smaller area at its opposite end, a piston reciprocably slidable within said cylinder and having a rod projecting through and slidably packed within said closure, the piston dividing the cylinder space into a head end space and a rod end space, a head end port and a rod end port for admission of pressure fluid

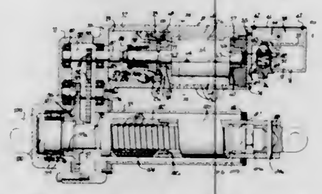
to the respective spaces and for venting of fluid from the other such space, to effect reciprocation of the piston in one sense or the other, a passage intermediate the head end port and the head end space including a valve port of a size to permit substantially unrestricted inflow to and outflow from the head end space, valve means cooperating with said valve port to throttle both inflow to the head end space and outflow from the same, resilient means urging the valve means into valve-open position, and contact means including elements positioned adjacent the opposite limit positions of the piston and piston rod, and complemental elements operatively connected to the valve means, interengageable as the piston approaches either limit position to shift the valve means in opposition to said resilient means into throttling position.

2,778,344

PNEUMATIC POWERED LINEAR ACTUATOR

William A. Compton, Euclid, James W. Johnson, Cleveland, and Robert A. Paetz, University Heights, Ohio, assignors to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application November 6, 1953, Serial No. 390,580
9 Claims. (Cl. 121—39)



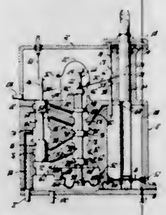
1. A pneumatic-powered linear actuator adapted for high temperature operation which comprises a reversible pneumatic motor, means for selectively feeding a gaseous fluid under pressure to drive said motor in opposite directions, a motor brake, a pneumatic release for said brake effective to free the motor whenever gaseous fluid is fed to said motor under sufficient pressure to drive the motor, a reduction gear train driven by said motor, and an extensible screw mechanism driven by said gear train to deliver linear actuating power.

2,778,345

HYDRAULIC WINDSHIELD WIPER MOTOR

John Dolza, Davisburg, and Earl R. Pierce, Birmingham, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application March 11, 1954, Serial No. 415,486
12 Claims. (Cl. 121—164)



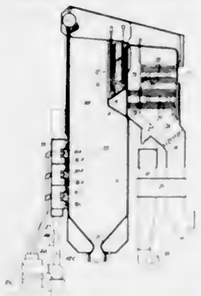
1. A wiper motor comprising a housing, a piston reciprocable therein, means actuated by the piston at either end of its running stroke for subjecting opposite sides of the piston to differential pressures in alternate directions to reciprocate the same, means for controlling the speed of piston operation and for parking the piston outside of the running range of movement, and means for equalizing the pressures on opposite sides of the piston while the piston is in the parked position.

2,778,346

METHOD OF AND APPARATUS FOR CONTROLLING VAPOR SUPERHEAT TEMPERATURES

Charles H. Woolley, Cranford, and Edwin Durham, Westfield, N. J., assignors to The Babcock & Wilcox Company, Rockleigh, N. J., a corporation of New Jersey

Application May 16, 1950, Serial No. 162,168
7 Claims. (Cl. 122—479)



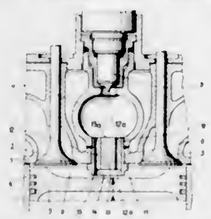
2. The method of maintaining a substantially uniform superheated vapor temperature over an extended operating capacity range of a vapor generator having an elongated fluid-cooled furnace with a heating gas outlet in one end portion thereof and convection vapor superheater elements positioned beyond said fluid-cooled furnace outlet in the path of heating gas flow which comprises, introducing fuel and air for combustion into the opposite end and intermediate portions of said furnace, said introduction of combustion fuel and air comprising introducing a substantially uniform flow of fuel and air into the intermediate portion of said furnace throughout a selected upper range of vapor generating rates while varying the fuel and air introduced into said opposite end portion in accordance with the actual change of vapor generating rates, directly varying the fuel and air introduced to both of said opposite end and intermediate portions of said furnace equally in accordance with vapor generating rates below said selected upper range of vapor generating rates, and by-passing at least a portion of the heating gases leaving said furnace around a portion of said vapor superheater elements at the upper vapor generating rates to lower vapor superheat temperatures.

2,778,347

FUEL INJECTION TYPE INTERNAL COMBUSTION ENGINE HAVING A SUBDIVIDED COMBUSTION SPACE

Werner von Mallinckrodt, Friedrichshafen am Boden See, Germany, assignor to Maybach-Motorenbau G. m. b. H., Friedrichshafen, Germany, a German firm

Application December 24, 1953, Serial No. 400,218
Claims priority, application Germany January 3, 1953
2 Claims. (Cl. 123—32)



1. An injection type internal combustion engine comprising a cylinder, a piston reciprocable in said cylinder and having a head, a cylinder head, a combustion chamber in said cylinder head, fuel injection means connected with said cylinder head and terminating in said

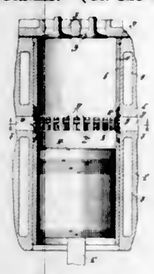
combustion chamber for injecting fuel thereinto, said combustion chamber having an outlet, an insert in said outlet, said insert extending into said cylinder and having an end surface parallel and adjacent to said piston head when the piston is in inner dead center position, said insert having a substantially cylindrical shallow recess facing said piston head, and a plurality of bores extending through said insert and connecting said combustion chamber with said recess for passing a combustible mixture from said combustion chamber into said recess and into said cylinder, said combustion chamber having a substantially spherical configuration, the portions of the combustion chamber located at the diameter of the combustion chamber extending coaxially of the longitudinal axis of said insert being flattened.

2,778,348

ENGINE SCAVENGING MEANS

Worth H. Percival, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application November 25, 1953, Serial No. 394,241
11 Claims. (Cl. 123—65)



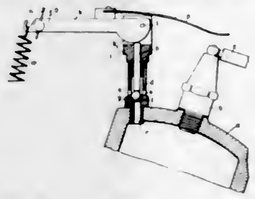
1. A fluid deflecting device adaptable for association within the outlet opening of a fluid flow passage for the right angle deflection of a fluid passing therethrough and comprising a plurality of deflector plates adjacently arranged, means for securing said plates together and in parallel spaced relation to each other across said opening, said plates having a radius of curvature substantially equal to the distance separating said plates and being extended in the same direction to lie tangential to and terminate at a plane transversely of the direction of fluid flow through said passage.

2,778,349

VACUUM BRAKE FOR TWO-STROKE ENGINES FOR MOTOR VEHICLES

Kurt Thommen, Niederdorf, Switzerland, assignor to Schneto A. G., Niederdorf, Switzerland

Application August 31, 1953, Serial No. 377,655
Claims priority, application Switzerland June 9, 1953
3 Claims. (Cl. 123—97)



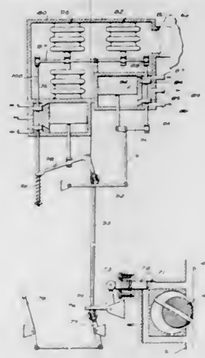
1. Means for braking a two-stroke internal combustion engine comprising: a duct by which the interior of the engine cylinder can communicate with the atmosphere, a valve body, formed with air-outlet apertures, screwed into the said duct, a valve seat in the valve body, a valve ball seated upon the valve seat, a locking rod capable of holding the valve ball firmly upon the valve seat, a guiding member, in which the locking rod is longitudinally slidable, secured to the valve body, means normally applying a longitudinal thrust to the outer end of the locking rod to hold the valve ball on its seat, and means for short-circuiting the engine ignition and at the same time putting out of action the means normally applying a thrust to the locking rod, the means for applying a thrust to the locking rod and the means for putting the said thrust-applying means out of action comprising: a lever fulcrumed on the guiding member and having an eccentrically curved portion which bears upon the outer end of the locking rod, a spring normally impelling the curved portion of the lever against the locking rod, and means for lifting the lever against the action of the spring to allow the ball valve to open when a braking effect is desired.

2,778,350

ENGINE FUEL CONTROLLER, INCLUDING INDUCTION AIR PRESSURE AND TEMPERATURE SENSORS

Ferdinando Carlo Reggio, Tampa, Fla.

Continuation of application Serial No. 457,758, September 22, 1954, which is a division of application Serial No. 496,296, July 27, 1943, which is a division of application Serial No. 254,355, February 3, 1939, all abandoned. This application July 27, 1956, Serial No. 600,614
23 Claims. (Cl. 123—119)



1. In control apparatus for a combustion engine having an air intake system and a fuel feed sysem for supplying liquid fuel to said engine, the combination with a fuel regulating valve in said fuel system movable to vary the rate of supply of liquid fuel to the engine, of a pressure responsive device including an evacuated bellows insensitive to temperature variations for sensing the pressure in said air intake system, an operative connection including a variable-ratio lever mechanism for actuating said fuel regulating valve from said pressure responsive device, and means responsive to temperature in said air intake system and insensitive to pressure variations therein for controlling the ratio of said lever mechanism.

2,778,351

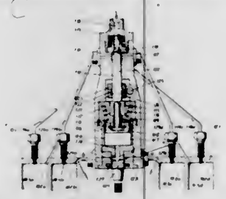
INJECTION UNIT FOR COMBUSTION ENGINES

Heinrich K. Links, Stuttgart, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany

Application September 18, 1951, Serial No. 247,152
Claims priority, application Germany September 21, 1950
10 Claims. (Cl. 123—139)

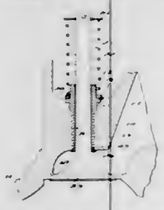
1. Injection pump comprising a pump cylinder, a plurality of injection nozzles, a plurality of injection pipes connected to said pump cylinder in spaced relationship along the circumference thereof and leading to said in-

jection nozzles, a pump piston movable in said pump cylinder, groove-like control means operated by said pump piston for opening and closing said injection pipes during rotary and axial movement of said pump piston thereby supplying fuel to said injection pipes, a suction line connected to said pump cylinder in a part thereof untraversed by said piston, means separate from said piston for controlling said suction line, a drive shaft coaxial with said



pump piston, and means including a cylinder member for coupling said pump piston for simultaneous rotation and relative axial displacement with said drive shaft, a piston member, said cylinder member and said piston member being axially movable with respect to each other by the force exerted on said piston member by a pressure medium, and means for connecting one of said members with said drive shaft and the other member to said pump piston.

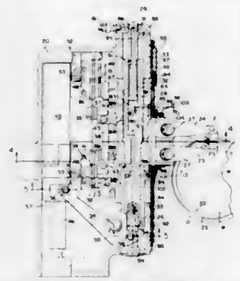
2,778,352
METHOD, SYSTEM AND DEVICE FOR REBUILDING INTERNAL COMBUSTION ENGINES
Arthur C. Kimberly, Cochran, Ga.
Application August 10, 1954, Serial No. 448,906
6 Claims. (Cl. 123—188)



5. In a cylinder, an exhaust valve assembly for a reconditioned valve boss bore in said cylinder, including a valve and a filler combination, said valve boss bore having a multiple counterbored portion to form surfaces, said filler combination comprising a ferrule having a shrink fit connection between the outer circumference thereof and the inner wall of said valve boss bore, said ferrule comprising a tubular sleeve having a straight end and a multi-flanged end, spaced apart sealing surfaces formed by said flanges in sealing engagement with said counterbore surfaces and a valve guide sleeve secured within said ferrule, said guide sleeve being formed with an annular outturned flange overlapping the straight end of the ferrule and the rim surface of the cylinder around the valve boss.

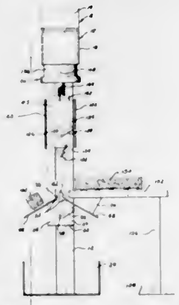
2,778,353
WHEEL DRESSER
Leonard O. Carlsen, Rochester, and William C. Critchley, Brighton, N. Y., assignors to The Gleason Works, Rochester, N. Y., a corporation of New York
Application January 5, 1954, Serial No. 402,348
12 Claims. (Cl. 125—11)

1. A dresser comprising a frame, a pair of tool carriers mounted on the frame for independent angular motion about a common axis and for motion in unison along said axis, a cam carrier mounted on the frame for motion parallel to said axis, means for effecting opposite parallel motions of the tool carriers and the cam carrier, and cam means on the cam carrier and cooperating cam follower means on the tool carriers, and lying in the



path of the cam means, for effecting angular motions of the tool carriers in time with their motion along said axis.

2,778,354
STONE CUTTING MACHINE
Paul S. Crowl, Oklahoma City, Okla.
Application April 1, 1955, Serial No. 498,491
6 Claims. (Cl. 125—23)

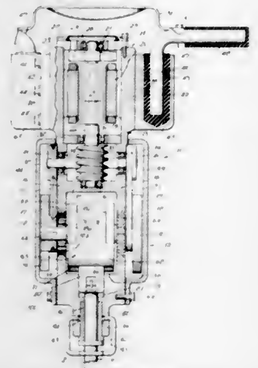


1. A stone cutting machine, comprising a frame, a pair of heads on said frame, one of said heads being movable on said frame toward and away from the other head, a row of knives slidably carried by each of said heads, said rows being arranged in opposed relation for cutting a stone positioned therebetween, a shaft rotatably carried by each of said heads, cam means on said shafts for engaging said knives and moving said knives independently into contact with the adjacent surface of the stone upon rotation of said shafts, and a power system for moving said one head and rotating said shafts.

2,778,355
DEMOLITION HAMMER
Russell G. Bourdon, Muskegon, Mich., assignor to The Kaydon Engineering Corp., Muskegon, Mich., a corporation of Michigan
Application May 12, 1954, Serial No. 429,344
5 Claims. (Cl. 125—33)

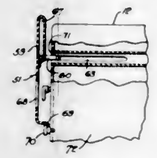
1. A percussive device of the class described, comprising in combination, an elongated housing, an electrical motor mounted within said housing and adjacent one end thereof, a hammer mass mounted for rotation within said housing and adjacent the opposite end thereof, worm and worm gear means driven by said motor, a shaft means paralleling the axis of rotation for said hammer mass and arranged to be driven by said worm and worm gear means, pulley wheel means mounted at opposite ends of said shaft means and outwardly of said housing, a pair of sheave wheel members mounted coaxially with said mass and rotatable therewith outwardly of said housing, belt means interconnecting each of said pulley wheels

with one of said sheave wheel members to drive said rotating hammer mass, a hammer arm member pivotally connected to said mass for free arcuate movement between limits and radially of said mass about an axis located inwardly of the periphery of said mass, a cam projection formed on the outer periphery of said arm member, a striker pivotally carried by said housing adjacent said arm member for movement about an axis paralleling the axis of pivotal movement for said arm member, an appendage formed on said striker and arranged to be engaged by said cam projection when said arm is swung centrifugally to its radially outermost position, during rotation of said mass; said arm after engaging



said appendage swinging inwardly toward said mass to bypass said striker, shock absorbing means mounted between said arm and mass for absorbing repercussion of said arm after engaging said striker and for reversing the directional movement of said hammer arm to bolster its delivery of a succeeding blow to the striker, an impact tool mounted for rectilinear movement coaxially of said housing and extending outwardly of its said opposite end, said impact tool means having a shank portion disposed adjacent said striker for receiving percussive blows therefrom, and spring means mounting between said striker and housing for maintaining said striker and the said adjacent end of said tool means in constant contact throughout the rotational cycle of said mass.

2,778,356
GUARD FOR A DOMESTIC RANGE
Paul I. Pugach, Englewood, N. J.
Application April 24, 1952, Serial No. 284,017
1 Claim. (Cl. 126—42)

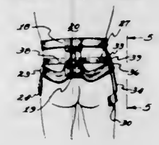


In a range having a heating surface supported in a horizontal plane by spaced parallel end members and a front member secured along corresponding edges, the end members having aligned horizontal slidways formed therein and the front member having a horizontal slot in the plane of the slideways; the improvements comprising a guide slidably disposed in each slideway, a guard slidably disposed through the horizontal slot in the front member and between the slideways, said guard having a depth less that the depth of the heating surface, hinged means for securing the inner edge of each side of said guard to one guide, and means for releasably maintaining the guard in a plane substantially perpendicular to the plane of the heating surface with one edge protruding thereabove when withdrawn from the slideways.

2,778,357
BIOPSY PUNCH
Ludwig Leibinger, Muhlheim (Danube), Germany, and Howard Glenn Frank, New York, N. Y.
Application November 5, 1953, Serial No. 390,354
Claims priority, application Germany November 6, 1952
2 Claims. (Cl. 128—2)

1. A biopsy punch comprising a pair of elongated mutually hinged members extending in a common plane containing a hinge, inter-engaging jaw members having complementarily shaped male and female portions integral with said elongated members extending therefrom and inclined outwardly from said common plane to one side thereof, and an actuating handle integral with each elongated member and extending therefrom to the other side of said common plane.

2,778,358
ORTHOPEDIC SPINAL AND HIP JOINT ATTACHMENT
Sol Keles, Phoenix, Ariz.
Application October 15, 1953, Serial No. 386,297
1 Claim. (Cl. 128—78)

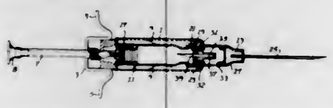


In an orthopedic hip brace, a semi-circular upper body contacting member and a semi-circular lower body contacting member interconnected therewith adapted to engage the back of the wearer having ends at the sides of the wearer located respectively above and below the waist line, strap means for securing said body contacting members to the wearer connected to the ends of said members, a first pressure plate on one end of said lower body contacting member adapted to engage a hip of the wearer, a second pressure plate on the opposite end of said upper body contacting member from said first mentioned pressure plate, a third pressure plate adapted to engage the side of the leg of the wearer below said second mentioned pressure plate, a hinge connection means between said second and third mentioned pressure plates arranged for non-engaging position on the wearer, and strap means engaging said hinged connection means to move said first mentioned pressure plate toward said second and third mentioned pressure plates for any position of the body and legs of said wearer.

2,778,359
HYPODERMIC SYRINGE DEVICE
Benjamin Friedman, New York, N. Y.
Application April 9, 1954, Serial No. 422,118
11 Claims. (Cl. 128—218)

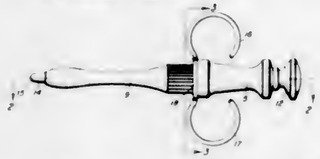
6. In combination, a cartridge having at one end thereof a relatively wide flange portion forming a shoulder surface, said cartridge being hollow and having an axial opening extending through said flange portion and communicating with the hollow interior of the cartridge, said flange portion having an end face, a plug for said cartridge formed of resilient yieldable material and having an enlarged flange portion contacting said end face, a hollow needle extending coaxially of the cartridge and through said plug and having one end in communication with the interior of the cartridge, and mounting means for securing said needle and cartridge in assembled relation to the barrel of a hypodermic syringe device, said mounting means comprising a needle mounting member have a bore therethrough for receiving said needle, means on said mounting member for securely gripping said needle, said needle mounting member having an upwardly extending externally threaded portion adapted to be screwed upwardly into an internally threaded portion of a syringe barrel, said mounting means further comprising closure means engaging said cartridge shoulder surface and said plug flange portion for maintaining the latter in sealed engagement against said end face of the cartridge and for maintaining the cartridge in secure assembled relation within a syringe barrel.

2,778,360
HYPODERMIC SYRINGE
John J. Miskel, Brooklyn, N. Y., assignor to Chas. Pfizer & Co., Inc., New York, N. Y., a corporation of Delaware
Application May 9, 1955, Serial No. 506,913
7 Claims. (Cl. 128—218)



1. A hypodermic syringe comprising a cylindrical cartridge provided with a frangible membrane dividing said cartridge into two compartments, a slidable plunger at one end of said cartridge adapted to operate against a body of liquid within said cartridge between said plunger and said membrane and thereby rupture the same, a perforable seal at the other end of said cartridge for receiving a hypodermic needle, and a filter separating the contents of said cartridge from the point of discharge therefrom for effectively preventing the ejection of particles resulting from rupture of said frangible membrane.

2,778,361
SUPPOSITORY INJECTOR
Carl N. Huston, Anderson, Ind.
Application March 28, 1955, Serial No. 496,971
1 Claim. (Cl. 128—271)



An injector of the class described comprising in combination, a handle, a barrel connected to the handle, a ring clamped between the handle and the barrel, a pair of finger engaging loops carried by the ring and projecting outwardly at diametrically opposite sides of the handle, said handle and said barrel having axially aligned bores, said barrel being adapted for receiving a soluble body at the front end of the bore of the barrel, and a plunger working in the bores of the handle and barrel for ejecting said body.

2,778,362
SURGICAL GARMENT
Edith N. S. Pollock and Marie Louise Baker, New Orleans, La.
Application March 21, 1955, Serial No. 495,614
8 Claims. (Cl. 128—283)

1. A surgical garment for use by a colostomy patient comprising a front portion having a circular opening therethrough, a flap secured to said front portion and extending angularly upwardly and to one side to overlie said opening, a resilient ring adapted to receive the stub of a colon therethrough, a plastic bag having an open end detachably wrapped about said ring, said bag extending through said ring and being received between said flap and said front portion.

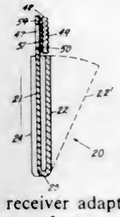
2,778,363
SMOKING DEVICE
Charles K. Anderson, South San Francisco, Calif.
Application January 31, 1955, Serial No. 485,125
2 Claims. (Cl. 131—181)

1. A smoking device comprising a body portion, a pair of concentric spaced tubes secured to said body portion and forming an inner and outer tube, said outer tube having its free end reduced to form a port, said inner tube having its free end flared and engaging said outer tube, said inner tube having slots formed in the flared end thereof, said inner tube having a plurality of openings formed therein at a point in close proximity to said body portion, a filter holder slidably engaging said body portion and having a tubular portion extending into said inner tube to a point adjacent said openings in said inner tube, and spring means carried by said tubular portion to force tobacco deposited in said inner tube toward said reduced end of said outer tube.

2,778,364
FILTER CIGARETTE HOLDER
Henrietta M. Nagle, New York, N. Y.
Application May 31, 1955, Serial No. 512,126
3 Claims. (Cl. 131—182)

1. A smoking device comprising a main tubular housing having a bore formed therethrough, said housing being reduced at its rearward end to form a mouthpiece, a forward end portion of said main tubular housing delineating a ferrule for receiving a substantial tobacco containing rearward end portion of a cigarette, a tubular cigarette ejecting means slidably engaging said main housing bore, said main housing having a slot, actuating pin and knob means carried by said ejecting means and extending through said slot for allowing forward and rearward motion of said ejecting means for ejecting said cigarette from said housing as desired, said ejecting means having an ejecting means bore formed therein, tubular shaft support means slidably engaging said ejecting means bore for forward and backward movement therein, a tobacco expanding shaft means carried by said tubular shaft support means and extending forwardly thereof, said ejecting means having an opening through which said shaft means is extensible forwardly of said ejecting means, whereby on forward movement of said shaft means it penetrates into the said tobacco within said ferrule, compressing it outwardly and forming an annular compacted mass of tobacco for filtering purposes, through which smoke is constrained to flow, and means accessible from outside said main housing for moving said shaft support means and said shaft forwardly and backwardly, for smoking either with or without filtration as desired.

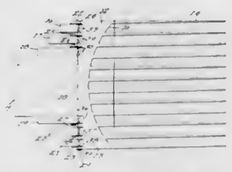
2,778,365
DISPOSABLE ASH RECEIVER
Daniel Silverman and Arnold H. Ungerman, Tulsa, Okla.
Application June 26, 1950, Serial No. 170,388
4 Claims. (Cl. 131—235)



3. A disposable ash receiver adapted to be removably attached to a supporting surface comprising, a top opening receptacle of heat resistant sheet material, one wall of said receptacle having an extension projecting upwardly beyond said open top, pressure sensitive adhesive carried by breaker strip means and operatively exposed over a portion of one surface of said extension through an aperture therein, the opposite surface of said breaker strip means being roughened to form a crunching surface for extinguishing cigarettes, whereby when said exposed adhesive is pressed against a supporting surface, pressure of a cigarette against said crunching surface serves to increase the attachment of said extension to said supporting surface.

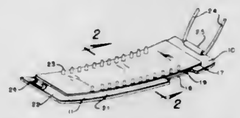
2,778,366
CREW AND FLAT TOP HAIR CUTTING COMB
Marvel L. Richmond, Lafayette, Calif.
Application May 3, 1955, Serial No. 505,639
4 Claims. (Cl. 132—45)

1. A comb for use in cutting crew and flat top haircuts comprising a head having spaced tines extended therefrom and pairs of legs of different lengths pivotally mounted in the head and adapted to nest in planes parallel to a plane through the head and also adapted to extend



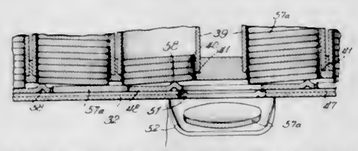
to positions perpendicular to the head for spacing the comb from the surface of a head to facilitate cutting hair thereon.

2,778,367
BARRETTE
Claude D. Gresham and Ernest Hoffmann, Omaha, Nebr., assignors to Tip-Top Products Company, Omaha, Nebr., a corporation of Nebraska
Application January 26, 1955, Serial No. 484,159
2 Claims. (Cl. 132—48)



1. A barrette including a body having an elongated opening, a soft pliable elongated insert in said opening and projecting outwardly from opposite sides thereof to provide an outer surface and an inner surface, said outer surface being of less width than the inner surface and connected thereto by an intermediate portion of less width than the outer surface so that the longitudinal sides of the inner and outer surfaces overlap the intermediate portion to provide longitudinally extending grooves on opposite sides of the body and coextensive in length therewith, said inner surface having outwardly and laterally extending flexible teeth, the inner longitudinal sides of the elongated opening extending inwardly into said grooves so as to maintain the insert in a fixed position, and means for detachably connecting the barrette to the hair of the wearer.

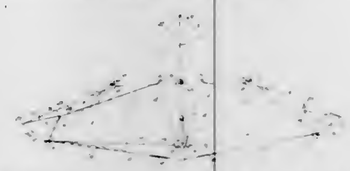
2,778,368
AUXILIARY COIN CHANGING MACHINE
Peter S. Jaskowiak, Elmwood Park, Ill.
Application November 30, 1951, Serial No. 259,204
2 Claims. (Cl. 133—2)



1. In a change-making apparatus having a stacked-coin holder, a dispenser having a coin recess therein adapted to be moved past one end of the holder, said dispenser being formed of material which is thinner than the thinnest coin to be received in the coin recess, such that a coin disposed in the said recess normally protrudes above the surface of the dispenser, and means on the dispenser disposed adjacent the leading edge of the coin recess for raising the leading edge of the end coin in the holder above the leading edge of the coin in the dispenser, whereby to prevent engagement between a

coin in the holder and a coin in the dispenser as the dispenser moves past the end of the holder as aforesaid.

2,778,369
FOLDABLE AND PORTABLE AIRCRAFT SHELTER
Murville E. Tang, Los Angeles, Calif.
Application January 5, 1953, Serial No. 329,585
11 Claims. (Cl. 135—1)

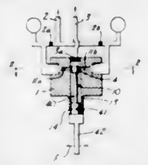


1. A shelter structure for aircraft and the like, including an A-frame forming the main upright support thereof, two upper arms connected at their rearward ends to said A-frame on opposite sides of the apex thereof, and extended forwardly and secured together at their forward ends, two lower arms connected at their rearward ends to said A-frame adjacent the lower end of the latter and extended forwardly and upwardly, a cover supporting and anchoring cable connected to the forward ends of said upper arms and extended rearwardly over said A-frame and anchored to the ground to hold said upper arms upwardly, cover supporting cables connected to the forward ends of said upper arms and extended in opposite directions and connected to the forward ends of said lower arms, guy wires leading from the outer ends of said lower arms to anchor means in the ground at the opposite outer sides of said lower arms to hold said upper arms and said lower arms in operative positions, and a cover for said structure, connected with said cover supporting cables.

2,778,370
KNEE REST FOR CRUTCH
William M. Chamblee, Sunray, Tex.
Application January 10, 1955, Serial No. 480,712
8 Claims. (Cl. 135—49)

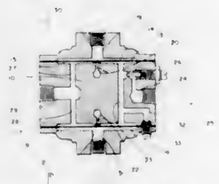
1. A knee rest attachment for a crutch having a central, upstanding stem and a pair of side members secured to said stem, said knee rest attachment comprising a socket, which socket telescopes over said upstanding stem, a pair of lugs extending outwardly from each side of said socket and adapted to bindingly engage on opposite sides of said side members, a knee rest member secured to said socket, and said member having a curved bottom and a curved, upstanding end portion, the axes of said curved portions lying within a vertical medial plane which is substantially parallel to the faces of said side members.

2,778,371
VALVE STRUCTURE
Tord Dannevig, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application July 22, 1955, Serial No. 523,665
10 Claims. (Cl. 137—82)



1. A valve structure comprising a valve body having a main bore of circular cross-section, a smaller cross-bore substantially axially intersecting said main bore, to define at least one port, a stem of a cross-section less than that of said main bore, means at one end of, coaxial with, and rigid with respect to said stem, having a circular cross-section and fitting snugly within said main bore to mount the stem coaxially within such main bore, a valve closure of a circular cross-section slightly less than that of the main bore, supported coaxially upon and rigid with said stem distant from said mounting means and apposite said port, and normally centralized within the main bore, and flexible means interposed between the valve body and the stem-mounting means, for lateral deflection of the stem and the closure from its centralized valve-open position into port-closed position, and vice versa, by application and relief of a deflecting force in the vicinity of said stem-mounting means.

2,778,372
PNEUMATIC PRESSURE RESPONSIVE DEVICES
Howard R. Jaquith, Rochester, N. Y., assignor to Taylor Instrument Companies, Rochester, N. Y., a corporation of New York
Application February 18, 1953, Serial No. 337,566
9 Claims. (Cl. 137—111)

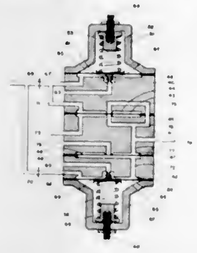


1. In a fluid pressure responsive device adapted to transmit fluid from one of two sources of fluid pressure, a pair of spaced compartments within said device and a pair of movable members respectively dividing each of said compartments into a pair of chambers, one of said chambers in each of said compartments having a sealable discharge opening therein, the sealing of said discharge openings being respectively controlled by the position of said movable members with respect thereto, said ones of said chambers having said discharge openings therein interconnected by a passage extending therebetween.

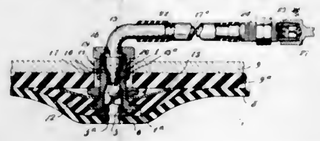
2,778,373
PNEUMATIC PRESSURE SELECTORS
Howard R. Jaquith, Rochester, N. Y., assignor to Taylor Instrument Companies, Rochester, N. Y., a corporation of New York
Application February 18, 1953, Serial No. 337,565
6 Claims. (Cl. 137—112)

6. A fluid pressure selector adapted to transmit fluid from one of two sources of fluid pressure and comprising

an enclosing casing having a compartment and a flexible member dividing said compartment into a pair of chambers, one of said chambers being always in communication with one of said sources of fluid pressure, the other of said chambers being always in communication with the other of said sources of fluid pressure, the entire peripheral portion of said flexible member being fixed and sealingly maintained so as to define an impervious wall between said pair of chambers, said flexible member being otherwise movable in response to changes in fluid pressure from said sources, each of said chambers having a sealable discharge port therein, said flexible member being positioned within said casing substantially normal to the axes of said discharge ports, said casing having an output passage physically connected to said sealable ports and in communication with each of said chambers through said ports, the sealing of said discharge ports being controlled by the position of said flexible member with respect thereto, said flexible member being responsive to a differential pressure between said sources of fluid pressure in said chambers to seal off said discharge port in one of said chambers and permit the passage of fluid from one of said sources through the other of said ports into said output passage.

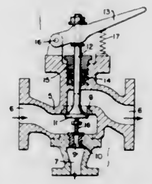


2,778,374
VALVE FOR SUPERSIZED TIRES
Ralph K. Boyer, Cleveland, Ohio, assignor to The Dill Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application May 13, 1953, Serial No. 354,685
3 Claims. (Cl. 137—223)



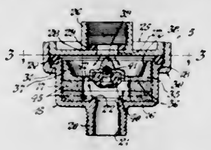
2. The combination of a valve stem adapted for use with inner tubes of supersize tires comprising a body portion having a restricted portion intermediate its ends to form an upper conical chamber and a lower conical chamber, a freely moving nylon ball within the lower chamber and adapted to cooperate with the restricted portion to form a sealing contact therewith, the said body portion being provided with an outwardly extending flange, a body of cured rubber surrounding the lower portion of said stem and flange, a thimble provided with an extending flange, said thimble having a press fit within the lower part of the said stem thereby compressing rubber between the flange on the said body portion and on the thimble to prevent seepage of fluid along the lower end of the chamber in the valve stem, a tubular member having an end thereof formed with a conical surface of slightly less angle than the conical surface of the upper chamber of the aforesaid body portion, means cooperating with the aforesaid body portion for engaging with a portion of the said tubular member to thereby force a portion of the conical surface of the said extension into line contact with the conical surface in the upper chamber of the aforesaid body portion thereby to provide a sealing relationship.

2,778,375
COMBINED SLUDGE-REMOVING AND DESALTING DEVICE FOR STEAM BOILERS
Hans-Martin Pape, Bremen, and Johann Schulze, Osterholz-Scharmbeck, Germany
Application June 12, 1953, Serial No. 361,356
8 Claims. (Cl. 137—244)



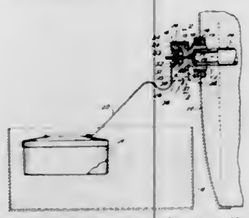
1. A combined sludge-removing and desalting device comprising a valve casing having inlet and outlet passages, a valve seat in said casing between said passages, a quickly closing valve body cooperating with said valve seat, means connected with said valve body for moving it away from said valve seat for sludge removing, means within said casing below said valve body forming a perpendicular throttling desalting passage communicating with said inlet passage, said casing having formed therein a second outlet passage communicating with said throttling passage, and a pin adjustably mounted on said valve body and movable therewith, said pin being located away from said throttling passage when the valve is closed and engaging said throttling passage when the valve is open for cleaning the throttling passage.

2,778,376
AUTOMATIC SHUT-OFF VALVE
Frank Reginald Chester, Santa Monica, Calif.
Application August 28, 1953, Serial No. 377,105
4 Claims. (Cl. 137—268)



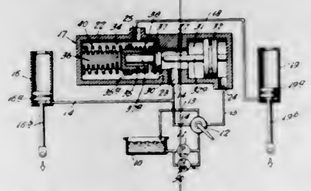
1. An automatic shut-off valve for installation in a water supply line, comprising: a housing having an inlet port and an outlet port, and an internal valve seat surrounding said outlet port and having a water deflecting surface; an annular mass of water-soluble material disposed within said housing and surrounding said seat; a valve member slidable within said housing and having an axial, downwardly projecting valve plug, said member having flow passages located radially outwardly of said valve seat and adjacent the internal surface of said annular mass, said plug being engageable with said seat when the member descends within the housing due to erosion of said supporting mass caused by the passage of water through said housing and said annular mass, the water being deflected by said surface with a swirling action and producing turbulence within the interior of said mass.

2,778,377
FLOAT CONTROLLED VALVE
Clyde C. Manchester, Stryker, Ohio
Application December 30, 1954, Serial No. 478,772
2 Claims. (Cl. 137—448)



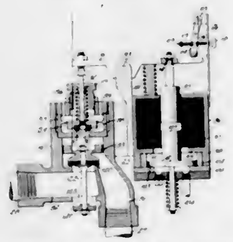
1. In a device of the class described, a liquid container and means supplying liquid thereto and maintaining a substantially constant level therein, comprising a fixed valve body having a liquid passage therethrough terminating in a port above said liquid level, a float in the container, a lever attached to said float, a pintle in said body below said port upon which said lever is mounted, said lever carrying a soft rubber valve piece for contacting and closing said port when said float is in its raised position, said lever having an integral hood enclosing the top, front and sides of said valve body and directing downwardly the flow of liquid from said port, said pintle having a rebent end outside the hood which normally extends downwardly by gravity along one side wall of the hood and then inwardly and upwardly within the hood to hold the pintle against accidental withdrawal but which may be swung laterally to clear the side wall of the hood and permit withdrawal of the pintle.

2,778,378
COMBINATION SEQUENCE AND LOCKING VALVE
Frank G. Presnell, Los Angeles, Calif., assignor to Bendix Aviation Corporation, North Hollywood, Calif., a corporation of Delaware
Application July 28, 1952, Serial No. 301,353
5 Claims. (Cl. 137—469)



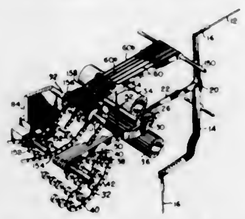
1. A valve of the type described for connection between a control valve and a motor comprising: a body having a motor port and a pair of control ports and defining a chamber connected to said motor port; a check valve connecting said chamber to one control port operative to open in response to flow from said one control port to said chamber; a piston element cooperating with said check valve and movable into and out of a position in which it resists free opening of said check valve, yieldable means interposed between said piston element and check valve urging said check valve toward a position to prevent flow from said chamber to said one control port, force means exerting a predetermined force on said piston element urging it into said position for resisting opening of said check valve, said piston element including two opposed faces one of which constitutes a surface exposed to the pressure in said chamber and so directed and proportioned that predetermined pressure thereon acts to overcome said force means and move said piston element out of said position to permit normal check valve action of said check valve, the other face being associated with means isolating said other face from existing pressure in said chamber; and means in said valve body, responsive to a selected pressure in said other port, said last mentioned means being engageable with the check valve and operative to overcome the force of the yieldable means interposed between the check valve and the piston to permit flow between the chamber and the first mentioned control port.

2,778,379
CONTROL SYSTEM FOR FLUID OPERATED MECHANISM
Julius W. Timmerman, Waukesha, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application January 2, 1952, Serial No. 264,370
7 Claims. (Cl. 137—620)



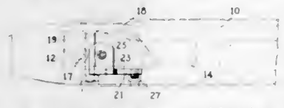
1. In combination, a conduit for conveying fluid under pressure, a valve connected to said conduit for controlling the flow of fluid through said conduit and comprising a fluid operated valve member, a pilot valve connected to said valve, said pilot valve upon opening thereof reducing the pressure on one side of said valve member to initiate operation of said valve, a lever arm biased to a first position, said lever arm when in said first position biasing said pilot valve to valve seated position and when moved to a second position releasing said pilot valve for operation thereof, means for actuating said lever arm to said second position to release said pilot valve, biasing means for holding said pilot valve closed after release of said lever arm until a predetermined fluid pressure exists at said pilot valve, and pneumatic means actuated upon the flow of fluid through said valve, said pneumatic means actuating said lever arm to close said pilot valve after a predetermined flow of fluid through said conduit.

2,778,380
LOOM ATTACHMENT FOR AUXILIARY PATTERN CHAIN
Clyde E. McVety, Piqua, Ohio, assignor to The Orr Felt and Blanket Company, Piqua, Ohio, a corporation of Ohio
Application June 5, 1953, Serial No. 359,740
11 Claims. (Cl. 139—77)



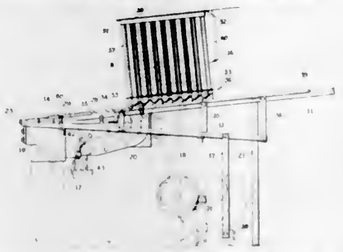
1. In a loom; a vibrator lever for controlling the harness of the loom, a basic pattern chain movable beneath the vibrator lever and having cams spaced therealong for lifting the lever, an auxiliary lever directly over the vibrator lever, an auxiliary pattern chain movable beneath the auxiliary lever and having cams spaced therealong for lifting the auxiliary lever, means connecting said chains for movement in unison, and an inextensible connection extending vertically between the auxiliary lever and said vibrator lever and connected to both thereof whereby lifting of the auxiliary lever will also lift the vibrator lever, said connection including lost motion means whereby said vibrator lever can lift independently of said auxiliary lever.

2,778,381
SHUTTLE FOR LOOMS
Floyd Y. Collins, Greenwood, S. C., assignor to Draper Corporation, Hopedale, Mass., a corporation of Maine
Application March 21, 1955, Serial No. 495,540
9 Claims. (Cl. 139—207)



1. A loom shuttle having in combination, a shuttle body, a bobbin holding spring and a spring cover, bolt means for anchoring said spring and cover in the shuttle body and supplementary threaded means for adjustably restraining said spring laterally and cooperating threaded means for adjusting the elevation of the spring independently of the said laterally effective means.

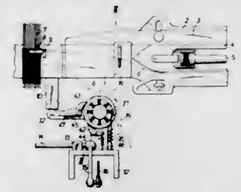
2,778,382
BOBBIN REPLENISHING MEANS FOR LOOMS
Waldo H. Banks, Hopedale, Mass., assignor to Draper Corporation, Hopedale, Mass., a corporation of Maine
Application August 17, 1955, Serial No. 528,928
17 Claims. (Cl. 139—245)



1. In combination with a loom having a shuttle, a battery for holding a plurality of filling packages from which the loom shuttle is periodically replenished, means for automatically supplying filling packages to said battery which comprises an inclined supporting track, a partitioned container movable by gravity along said track and stop means at the track for engaging said partitioned container to stop it so its compartments align with the battery as successive compartments become empty, and means responsive to the presence of a filling package at the entrance portion of said battery for controlling the said stop means.

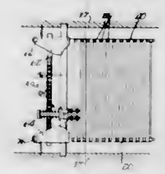
2,778,383
LOOSE THREAD WINDING UP AND STRETCHING DEVICE FOR AUTOMATIC LOOMS
Niklaus Brunner, Arbon, Switzerland, assignor to Societe Anonyme Adolphe Saurer, Arbon, Switzerland, a joint-stock company of Switzerland
Application February 18, 1954, Serial No. 411,200
Claims priority, application Switzerland April 8, 1953
5 Claims. (Cl. 139—260)

1. A device for winding up and stretching the loose ends of the weft thread in automatic looms, comprising in combination a thread gripper, a rotary member with a roughened surface, means for moving said gripper with the loose thread end toward and into contact with said



member and to present said thread to said member in a position to be wound around it and be stretched and means for then cutting said stretched thread.

2,778,384
LATTICE FORMING MACHINE
Marius Regle and Louis Lemaire, Paris, France, assignors to Welding Research, Inc., Chicago, Ill., a corporation of Illinois
Application April 5, 1952, Serial No. 280,742
8 Claims. (Cl. 140—3)



2. In a lattice making machine for concurrently distributing a plurality of spaced apart threads on thread receiving means, the combination comprising shuttle means mounted for reciprocating movement along a predetermined path of travel, spaced thread receiving means mounted for movement substantially transversely of the said predetermined path of travel of said shuttle means, means for moving said thread receiving means, spaced guide means on said shuttle means disposed for concurrently guiding a plurality of continuous threads spaced apart laterally in the direction of movement of said thread receiving means, and means adjacent each end of the path of travel of the shuttle means for shifting said guide means transversely of the said predetermined path of travel of the shuttle means in different amounts at opposite ends thereof adjacent the thread receiving means for looping the threads on said thread receiving means in spaced relation.

2,778,385
APPARATUS AND METHOD FOR FORMING SINUOUS WIRE STRUCTURAL AND HEAT EXCHANGE ELEMENTS
John R. Gier, Jr., Cleveland, Ohio
Application March 17, 1953, Serial No. 342,823
17 Claims. (Cl. 140—71)

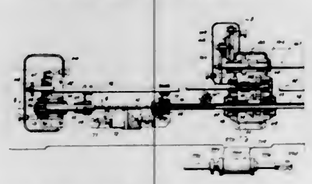
10. The method of forming wire into elongated sinuous elements comprising the steps of weakening straight wire to facilitate bending at regularly spaced intervals along its length, and gathering the wire into sinuous form by feeding the straight wire positively against abutments moving in the direction of feed of the straight wire while maintaining the linear rate of motion of the abutments less than the rate of feed of the straight wire.

15. Apparatus for forming sinuous wire elements having flattened ligaments connected by generally parallel legs comprising means to flatten the wire alternately and oppositely along its length during travel of the wire along a predetermined path, a pair of grooved and notched feed rolls arranged along said path beyond said flatten-

ing means in the direction of wire travel, the grooves receiving the wire between the flattened parts and the notches of the rolls receiving alternately the flattened parts, a rotatable gear-like member arranged along said path and spaced from said feed rolls in the direction of wire travel and having its axis of rotation perpendicular

to that of said feed rolls, wire confining guides between said rolls and member and diverging in the direction of wire motion, said guides having an axial dimension exceeding the length of two legs of the wire, and means to drive said rolls at one speed and said member at a slower speed.

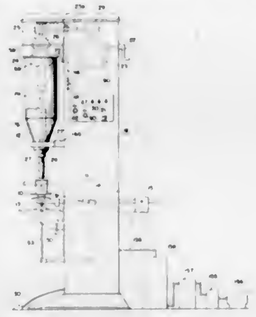
2,778,386
GRID WINDING MACHINE
James B. Lindsay, Milburn, N. J., assignor to Kahle Engineering Company, North Bergen, N. J., a co-partnership
Application October 28, 1952, Serial No. 317,295
8 Claims. (Cl. 140—71.5)



1. A drive means for a grid winding machine having a rotating side wire feeding spindle and a rotating draw sleeve spaced from and mounted concentrically with the spindle to draw side wires through the spindle as the draw sleeve is moved by a lead screw and having grid forming tools mounted between the spindle and the draw sleeve comprising a drive motor, a first belt coupling means between said drive motor and said side wire feeding spindle, a second belt connection means between said motor and said draw sleeve whereby said side wire feeding spindle and said draw sleeve are rotated in synchronism, a gear means connecting said draw sleeve and the lead screw whereby the lead screw is turned at a rate proportional to the rate of rotation of said draw sleeve, and a gear and cam means connecting said draw sleeve and said grid forming tools whereby the motion of the tools is synchronized with the rotation of the side wire moving sleeve, the spindle and the lead screw.

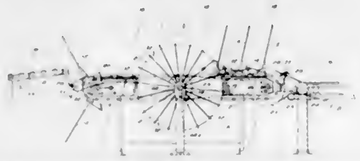
2,778,387
FILLING MACHINE
William Robert Diehl, Plymouth Valley, Norristown, Pa., assignor to Stokes and Smith Company, Philadelphia, Pa., a corporation of Pennsylvania
Application January 8, 1953, Serial No. 330,288
22 Claims. (Cl. 141—57)

1. A filling machine suited for filling containers by pack-filling, weigh-filling, volume-filling, or vacuum-filling, comprising means for pack-filling containers, means for weigh-filling containers, means for volume-filling containers, means for vacuum-filling containers, all of said means comprising a plurality of components and having common thereto a group of components including a drive motor, an auger operable by said motor to feed material into a container, clutch means for operatively connecting and disconnecting said motor with said auger, and brake



means for selectively preventing rotation of said auger by said motor, and selective means set by an operator for operatively connecting said group of common components and the other components of one of said means for filling containers in accordance with the means of filling selected by the operator and for automatically rendering inoperative the other components utilized in the non-selected filling means.

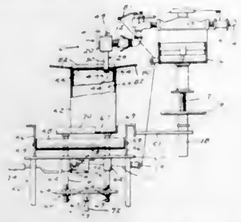
2,778,388
TIRE INFLATING MACHINE
Homer S. Harrison, Detroit, Mich., assignor to Allied Steel and Conveyors, Inc., Detroit, Mich., a corporation of Michigan
Application March 31, 1953, Serial No. 345,981
13 Claims. (Cl. 141—101)



1. In a tire inflating machine wherein a conveyor carries a plurality of wheels with inflating apparatus coupled thereto, means for effecting a rapid initial inflation from a high pressure source and an accurate final inflation from a final lower pressure source, said means comprising a member having a plurality of outlet ports, means for connecting said outlet ports to individual wheels on said conveyor, a common inlet surface of said member intersected by said ports, means for progressively conducting high and final air pressure to isolated portions of said inlet surface communicating respectively with outlet ports associated with wheels moving in predetermined initial and final portions of their travel along said conveyor.

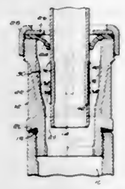
2,778,389
MULTIPLE RECEPTACLE FILLING APPARATUS
Howard R. McGillivray, Riverside, Ill.
Application August 26, 1955, Serial No. 530,848
8 Claims. (Cl. 141—172)

8. In combination with a device for dispensing a predetermined quantity of a liquid under pressure, a manifold unit supported by said dispensing device and through which the liquid therefrom passes, said manifold unit comprising a container, into which the liquid is discharged under pressure, and a plurality of corresponding nozzles having inlet ends opening into said container and downwardly opening discharge ends, downwardly opening valves for closing said nozzles, and means individual to



said nozzles normally maintaining the valves thereof in closed positions, the liquid under pressure opening said valves simultaneously, whereby equal quantities of the liquid under pressure will be discharged from each nozzle when the liquid under pressure is supplied to said manifold unit.

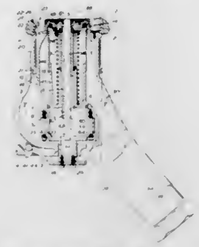
2,778,390
SPOUT FOR FILLING NOZZLE IN COMBINATION WITH TIGHT FILL CONNECTION
Robert G. Young, Jr., Beverly, Mass., assignor to Scully Signal Company, Cambridge, Mass., a corporation of Massachusetts
Application May 4, 1953, Serial No. 352,923
3 Claims. (Cl. 141—310)



1. A filling connection comprising, an outer fixed cylindrical pipe open at its upper end, an inner movable cylindrical pipe open at its lower end of less diameter than said outer pipe and fitting into said outer pipe and being movable therein from an intermediate position to a fully inserted filling position, resilient sealing means between the inner surface of said outer pipe and the outer surface of said inner pipe, said sealing means being carried by one said pipe and resiliently pressing against the surface of the other said pipe throughout the travel of said inner pipe from said intermediate position to said filling position, a longitudinally extending groove on the surface against which said sealing means presses, said groove being longer axially of said pipes than said sealing means when the said pipes are in said intermediate position, and said groove terminating short of said sealing means when said pipes are fully engaged in said filling position whereby a tight seal is provided for filling and negative fluid pressure may be vented when said inner pipe is withdrawn from said outer pipe to said intermediate position.

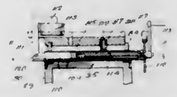
2,778,391
COUPLING WITH CUT-OFF DEVICE FOR COUPLING PIPEWAYS WITH PIPES OR OUTLETS OF TANKS AND OTHER RECEIVERS
Jacques Muller, La Garenne-Colombes, France
Application February 5, 1954, Serial No. 408,529
Claims priority, application France February 13, 1953
10 Claims. (Cl. 141—349)

1. A coupling with a cut-off device for connecting pipes with the fitting of any tank provided with a non-return valve, of the type embodying an attaching device designed to be applied to said fitting axially, engaged thereto by a partial rotary turn and fixed by axial clamping, comprising in combination a coupling case, an axial extension on said case, an abutment ring rigid with said axial extension; a sleeve slidably mounted on said case, a stirrup



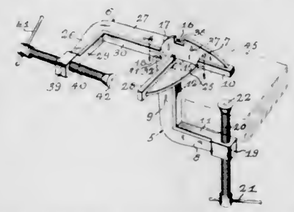
pivoted to said sleeve, slidably mounted on said axial extension of the case; a coupling handle pivoted to said stirrup, and a cam rigid with said coupling handle, arranged and adapted to co-operate with said case and abutment ring to produce an axial relative displacement between the case and the stirrup when said handle is rotated.

2,778,392
ROLLER GAGE MEANS FOR PORTABLE LUMBER SAW MILL
Emil Peterson, Middle River, Minn.
Application December 10, 1954, Serial No. 474,353
1 Claim. (Cl. 143—173)



In a device of the character described, including a saw table, the provision of a thickness gauge comprising a transversely extending hollow frame mounted on said table and having rectangular cross sectional area, a bar slidable in said frame and having similar cross sectional area, said bar extending outwardly of one end of said frame and terminating in an upwardly and inwardly directed inverted L-shaped supporting member, a shaft vertically dependent from said supporting member, a gauge wheel mounted on said shaft, a threaded shaft extending into the other end of said frame and threadably connected to the inner end of said rod, a cog wheel affixed to said threaded shaft, a handle rotatably mounted on said threaded shaft adjacent said cog wheel, and a ratchet pivoted upon said handle and provided with a pair of teeth selectively engageable with said cog wheel.

2,778,393
ADJUSTABLY INTERLOCKABLE C-CLAMPS
Jan Golasowski, Cowansville, Quebec, Canada
Application August 24, 1953, Serial No. 376,179
6 Claims. (Cl. 144—304)



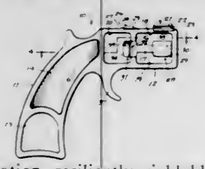
1. A clamp assembly comprising a pair of separately formed C clamps, each comprising a fixed jaw member,

a spaced parallel screw carrying jaw member, an intermediate member integrally connecting a corresponding end of said fixed and screw carrying jaw members, and a screw threaded through the free end of said screw carrying jaw member, one of said clamps being provided along the inner edge of its fixed jaw member with a recess extending into the adjacent inner edge of its intermediate member and the other clamp being provided along the inner edge of its intermediate member with a recess extending into the adjacent inner edge of its fixed jaw member, said C clamps being interfitted with one member of each clamp disposed between the jaws of the other clamp and with a section of at least one clamp between its inner and outer edges lying within the recess of the remaining clamp.

2,778,394
BURNISHING DEVICES AND METHODS
Dale L. Schubert, Tacoma, Wash.
Application August 23, 1952, Serial No. 305,961
3 Claims. (Cl. 144—309)

1. The method of finishing the edge of a hardboard sheet which comprises darkening and densifying such sheet edge substantially comparable to a face of such sheet by pressing a rapidly moving hard surface against such edge, the pressure and speed of such hard surface being sufficient to burn and compact such sheet edge to effect such darkening and densifying.

2,778,395
HANDSAW WITH BLADE HAVING A T-SLOT
Harold S. Forsberg, Stratford, Conn.
Application December 20, 1954, Serial No. 476,227
2 Claims. (Cl. 145—31)



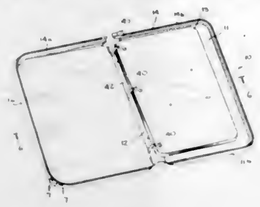
1. In combination, resiliently yieldable a blade having a T-slot including a head and a stem forwardly spaced from its butt end, the head of said T-slot being transverse to the blade, and a holder for mounting said blade, said holder comprising a handle portion and a shank portion, and means on said shank portion for mounting said blade, said means comprising a T-lug including a head and a stem, the head of the lug extending transversely of said shank portion, and a locking cam in longitudinally spaced and aligned relation to said T-lug including a cam rise portion rising longitudinally in a direction away from said T-lug, the head of said T-slot being adapted to have the head of said T-lug passed through it, and the stem of said T-slot being adapted to be engaged by the stem of said T-lug beneath its head upon longitudinal movement of the blade, the head of said T-slot being engageable by said locking cam upon upward flexing of the end portion of said blade adjacent said T-slot as said end portion is longitudinally moved over and beyond said locking cam, the total length of said T-slot being such that when the outer end of its stem is adjacent the outer end of the stem of said T-lug the outer end of the head of said T-slot is adjacent the outer end of said locking cam, and the width of said end portion of said blade being substantially greater than the transverse thickness of said shank portion whereby free spaces are provided at each side of said shank portion beneath said end portion of said blade for applying upward finger pressure on said end portion to flex it upwardly out of locking relation of said T-slot with said locking cam.

2,778,396
RATCHET HANDLE WITH STRAIGHT CRANK ARM
Cecil B. Swain, San Quentin, Calif.
Application September 9, 1955, Serial No. 533,287
1 Claim. (Cl. 145—71)

A holder for a bit or like tool element comprising an elongated, axially bored handle having a longitudinal groove paralleling the bore thereof, said handle having a transverse slot extending through substantially half its thickness and communicating between one end of the groove and the corresponding end of the bore; a block abutting at one end against the handle and having an axial bore registering with that of the handle; an elongated stem rotatably engaged in the bores of the handle and block and terminating at one end, beyond the block, in a bit-receiving head, said stem having at its other end a reduced, headed, axial extension; a filler piece of substantially semi-circular outer configuration fixedly engaged in the slot and formed with a shoulder fitting under the headed extension to hold the stem and handle assembled with each other for relative rotation while maintained against relative axial movement, said filler piece having a bottom recess opening into the groove; means interengaging between the stem and block for driving the stem and head; and an auxiliary handle pivotally connected to the block to swing about an axis normal to the axis of rotation of the stem, between a first position in which said auxiliary handle projects radially, outwardly from the block normally to said axis of rotation of the stem, and a second position in which the auxiliary handle extends longitudinally of the first named handle within the groove, the auxiliary handle and first named handle being thus adapted for interengagement with one another in the second named position of the auxiliary handle, thus to connect the first named handle and block for joint rotation when the auxiliary handle is in the second named position thereof, said auxiliary handle including a spring loaded detent engaging in the bottom recess of the filler piece in the second named position of the auxiliary handle.

2,778,397
COVER FOR A LOOSE LEAF NOTEBOOK OR THE LIKE
Kathleen C. Carrasco, New York, N. Y.
Application November 26, 1954, Serial No. 471,236
2 Claims. (Cl. 150—1.6)

1. A portfolio comprising in combination a cover and zipper means for opening and closing said cover, said cover comprising a rectangular piece of flexible material, said cover having a front portion and a rear portion, the side, top and bottom edges of said front and rear portions being turned substantially perpendicular to the body of said cover and being joined at their adjacent ends, said zipper means including a zipper track mounted on the peripheral edges of said front portion



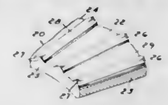
and a zipper track mounted on the peripheral edges of said rear portion, a slide fastener slidably attached to one of said tracks and adapted to be slidably attached to and detached from the other of said tracks in a manner to engage and disengage said tracks, whereby the zipper tracks may be completely separated from one another when the cover is open permitting the front and rear portions to lie in a plane.

2,778,398
SCRUB PAIL ACCESSORY
Elizabeth G. Edwards, Philadelphia, Pa.
Application October 25, 1955, Serial No. 542,664
1 Claim. (Cl. 150—52)

An accessory of the character described for substantially cylindrical scrub pails of the type including a bail, said accessory comprising: a flexible, foldable receptacle for the reception of the lower portion of the pail, said receptacle including a substantially cylindrical wall terminating in an inturned lower end portion and a quilted, laminated, pad-like bottom having its marginal portion turned and stitched beneath said lower end portion of said wall for providing an annular seam constituting a cushion for receiving thereon the peripheral portion of the pail bottom, a hem on the upper end of said wall, an elastic band in said hem for contracting the upper portion of the receptacle for frictionally gripping the pail, and pairs of tapes secured on said hem at diametrically opposite points and adapted to be tied to the end portions of the bail for positively securing the receptacle on the pail.

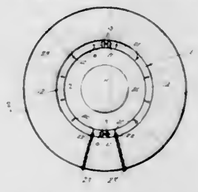
2,778,399
WASHER HAVING BITING TEETH ON INNER AND OUTER PERIPHERY THEREOF
Edward L. Mroz, Detroit, Mich.
Application April 24, 1953, Serial No. 350,947
4 Claims. (Cl. 151—35)

1. A washer having gripping and reinforcing characteristics comprising a member having a first face with diametrically opposed plane portions adapted to engage a flat workpiece and inner and outer peripheral edges substantially normal to said first face, a second flat face parallel to said first face, and teeth disposed on said first face adjacent both said edges and equally spaced from each other by relatively substantial distance; each said tooth having an equilateral triangular back portion lying on the plane of one said edge with the equilateral sides thereof rising above the plane of said face and terminating in an upwardly directed point at the plane of said edge



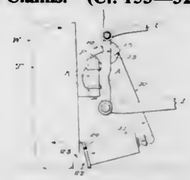
and having an arcuately sloping portion leading from said point and sides inwardly from said edge and merging with said face; said member being adapted to lie with its face contiguous to a surface to reinforce same and said teeth being adapted to penetrate into material behind the contiguous surface.

2,778,400
TRACTION DEVICE FOR PNEUMATIC TIRES
Merritt J. Charlton, Spokane, Wash.
Application July 6, 1954, Serial No. 441,408
1 Claim. (Cl. 152—236)



A traction device for a pneumatic tire having an annular rim, comprising inner and outer anchor rings, each said ring consisting of opposed, semi-circular sections having out-turned ears at the ends thereof and having a cross sectional configuration terminating in an outwardly disposed, semi-circular bead adapted to hook over the annular rim edge, means clamping companion ones of said ears together for releasably securing the anchor rings to the inner and outer sides of said rim, the inner one of said rings being provided with a plurality of circumferentially spaced hooks having elongated bills extending inwardly toward the axis of said rim, the outer one of said rings having a plurality of circumferentially spaced snap hooks, and cross chains extending across the tread of the tire and releasably anchored at opposed ends to said hooks.

2,778,401
CAMBER CORRECTING METHOD AND MEANS
Edward D. Wilkerson, Livingston, N. J.
Application April 22, 1955, Serial No. 503,077
14 Claims. (Cl. 153—32)



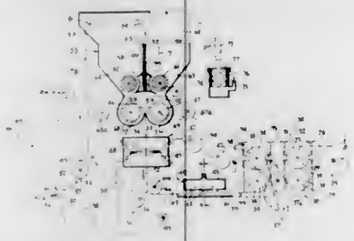
1. In a method of correcting the camber of a wheel mounted on a support arm and embodying the utilization of a ram to operate a support arm bending tool; the step of transmitting the reaction thrust of the ram to the lower portion of the wheel in a direction to laterally slide said wheel portion as dictated by the direction in which the support arm is being bent.

2,778,402
FLEXIBLE MANDRELS FOR BENDING WAVE GUIDES
Francis J. Fuchs, Jr., Winston-Salem, N. C., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application December 18, 1951, Serial No. 262,246
13 Claims. (Cl. 153—63)

1. A mandrel for bending hollow members comprising a rigid stem, a flexible body comprising a plurality of centrally apertured overlapping rings having arcuate projections being slidably movable within the overlapping portion of the apertures of adjacent rings, means for detachably connecting an end of the flexible body to an end of the stem, and a flexible strip having its ends secured to the stem and passing over the flexible body and around its free end and thereunder.

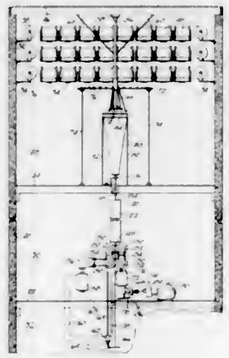
13. A mandrel for supporting the interior of hollow members during a bending operation comprising a rigid stem, a flexible body, and means for detachably connecting one end of the flexible body to an end of the stem, said flexible body being variable in length and consisting only of a series of detachable apertured interlocking elements of ring-like cross section in a plane parallel to the longitudinal axis of the mandrel and having projections which extend laterally from the annular body portions thereof and into slidable engagement with the apertures of adjacent links.

2,778,403
AEROSOL FILTER MAKING MACHINE
Edward J. Hackney, Charles D. Faucette and Frederick R. Darkis, Durham, N. C., assignors to Liggett & Myers Tobacco Co., New York, N. Y., a corporation of New Jersey
Original application October 7, 1953, Serial No. 384,684. Divided and this application July 6, 1954, Serial No. 444,884
14 Claims. (Cl. 154—1)



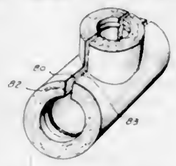
1. In a machine for making aerosol filters, in combination, braking means, a pair of powered rollers each having a tread of hard high-dielectric material, said powered rollers being adapted to draw a tow of textile filaments from a supply reel through said braking means and to stretch the same over one of said treads whereby to give said filaments an electrostatic charge by the friction of the filaments over said tread, an applicator chamber adapted to receive the charge tow passing from between said powered rollers, and power-driven means to agitate the atmosphere within said chamber.

2,778,404
METHOD AND APPARATUS FOR MAKING BONDED FIBER GLASS SHAFTS
John M. Macy, South Bend, and Claude M. Rodgers, Mishawaka, Ind., and Dean C. Gilmore, Spencer, Iowa, assignors to South Bend Bait Company, South Bend, Ind., a corporation of Indiana
Application March 8, 1954, Serial No. 414,716
6 Claims. (Cl. 154—1.7)



1. The method of making shafts from a plurality of fibers bonded by a thermosetting synthetic resin, consisting of the steps of withdrawing fibers from a plurality of spools in a downward direction and maintaining a predetermined tension on each, guiding said fibers in converging relation, immersing said fibers in a container of resin while in spaced relation, bunching said resin wetted fibers in said container to selected close spaced parallel relation, releasing the fibers from close bunched relation while moving downwardly in said container to accommodate further wetting thereof by said resin, rebunching said fibers to compact parallel relation adhered by said resin while withdrawing the fibers downwardly from the bottom of the container, and heating said adhered and bunched fibers to set said resin while pulling the same downwardly under predetermined tension.

2,778,405
PIPE JOINT COVERING AND METHOD OF MAKING THE SAME
Joseph F. Stephens, Kansas City, Mo., and Glenn W. Kerr, Mission, Kans., assignors to Gustin-Bacon Manufacturing Co., Kansas City, Mo., a corporation of Missouri
Application March 11, 1953, Serial No. 341,636
8 Claims. (Cl. 154—28)



1. A single piece, preformed, resilient, pipe joint insulation formed of glass fibers having an average diameter of less than ten microns bonded with a binder in an amount between seventeen percent and fifty-five percent by weight, based on the weight of the glass fibers, and having a density between two pounds and five pounds per cubic foot, said pipe joint insulation being formed generally in the shape of a pair of intersecting tubes formed with a slit, said slit lying substantially in a plane common to the longitudinal axes of both tubes, said insulation being adapted to spring back to its preformed shape when released after being deflected.

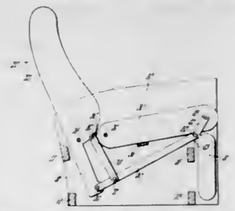
2,778,406
ASPHALTIC COMPOSITE MONOLITHIC SHIELD
Lloyd F. Bramble, Houston, Tex., assignor to Gulf States Asphalt Company, Inc., Houston, Tex., a corporation of Texas
Application September 8, 1955, Serial No. 533,136
3 Claims. (Cl. 154—41)

1. An asphaltic composite monolithic shield for use in covering pipe lines, comprising an intermediate asphalt-sand composition layer having an upper and a lower surface, a layer of fibrous reinforcing material on each of said surfaces of said asphalt-sand composition layer, and bonded thereto to form a composite monolithic sheet, said sheet having a thin outer coat of waterproof asphalt thereon rendering said reinforcing material impervious to moisture for preventing the shrinking thereof, and said asphalt-sand composition layer consisting essentially of asphalt in the amount of 15% to 40% and sand in the amount of 60% to 85%, the asphalt in said composition layer having a melting point (ball and ring) in the range of 175° F.–230° F. and a penetration at 77° F. of from 5–35, whereby said shield is substantially non-curling, non-cracking, non-shrinking and resistant to impacts.

2,778,407
FOLDABLE DECK CHAIR
Walter Schweizer, Zurich, Switzerland
Application July 6, 1953, Serial No. 366,328
1 Claim. (Cl. 155—105)

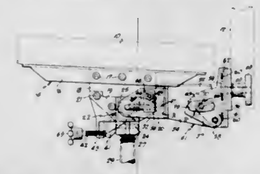
A foldable deck chair comprising in combination two symmetrical frame members and a flexible fabric body supporting member which is not directly attached to either of said frame members, each of said frame members comprising a portion adapted to form a side of a back rest part of the unfolded deck chair, a portion adapted to form a side of the seat part of said unfolded chair, two legs, and an arm rest, means for pivotally connecting the two legs adjacent the ends of the seat side part so that, in folding, said legs may be pivoted inwardly to a position below and substantially parallel to the seat forming part, stop means limiting the outward pivotal movement of said legs, means for pivotally connecting the back rest side part of said frame to the seat side part adjacent one end of the latter so that said back rest side part may be pivoted inwardly to a position above and substantially parallel to said seat side part, means pivotally mounting one end of said arm rest on said back rest side part, adjustable means at the other end of said arm rest for selectively holding the back rest side part in one of at least two positions with respect to said seat side part, at least two collapsible means for holding said two frame members in spaced relation when said chair is in open unfolded position, said flexible fabric body supporting member having a relatively inflexible rod member at each end thereof, means adjacent the top of each of the back rest side parts of the frame members receiving the ends of said inflexible rod member when the chair is in open unfolded position, means adjacent the opposite ends of said chair for receiving the other of said inflexible rod members, said seat side part of each of said frame members comprising a track groove in which a foot rest part is slidably mounted, retaining means comprising a roller extending over said foot rest part to position the said foot rest part with respect to the track groove.

2,778,408
RECLINING CHAIR
Albert P. Krikorian, Agawam, Mass.
Application August 9, 1954, Serial No. 448,439
2 Claims. (Cl. 155—106)



1. An article of repose comprising a support having spaced opposite side walls, a seat, first coaxial pivotal connections between said seat and the opposite side walls of said support, a back-rest, second coaxial pivotal connections between said back-rest and the opposite side walls of said support and being independent of and spaced from said first pivotal connections, said first and second pivotal connections providing the sole connection between said seat and back-rest and said support, said back-rest including a downward extension rigid therewith, a pair of linkage mechanisms, each linkage mechanism of said pair thereof including, a primary actuator pivotally connected to the downward extension of said back-rest, a connector link pivotally connected to said seat forwardly of said first pivotal connections and pivotally connected to said primary actuator, a secondary actuator, a pivotal connection between said secondary actuator and seat independent of said first and second pivotal connections, a pivotal connection between said primary and secondary actuators, said secondary actuators guiding said primary actuator angularly relative to said support whereby coordinated movements of the members of each linkage mechanism of said pair thereof effect the angularization of said seat relative to said first pivotal connections upon reclination of said back-rest.

2,778,409
CONTROL FOR POSTURE CHAIRS
Gustaf A. Soderberg, Bridgeport, Conn., assignor, by direct and mesne assignments, of thirty-three and one-third percent to H. Manton Ahlberg and thirty-three and one-third percent to Siegfried J. Ullmann, Stratford, Conn.
Application April 28, 1955, Serial No. 504,476
8 Claims. (Cl. 155—152)



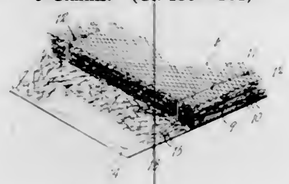
2. In a chair control of the character described, an elongated transversely extending body member including upright end walls at its opposite ends, a supporting post

to which said body is secured, backwardly and forwardly extending seat supporting spider arms mounted on the body adjacent its opposite ends, a torque bar extending longitudinally of the body and through openings in said end walls, a rearwardly extending tiltable frame including side members at its opposite ends supported on said bar, means for supporting a back rest on said frame, means for securing one end of the bar against turning, the other end of the bar being bent laterally forming a laterally extending arm, and locking means locking said arm to the frame to place a torque strain on the bar by backward tilting movement of the frame.

2,778,410
CHAIR
Paul Bode, Kassel-Harleshausen, Germany
Application October 19, 1950, Serial No. 190,985
1 Claim. (Cl. 155—164)

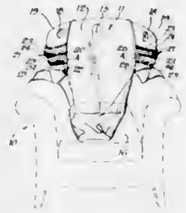
In a chair construction, a pair of leg elements each comprising a front leg member, a rear leg member, said leg members converging upwardly and joined at their upper ends by a third member, a seat supported on said leg elements, and a back bar connected to each of said rear leg members at substantially its lower end, said back bar diverging from said rear legs and extending upwardly substantially beyond said seat, said back bars supporting a back rest, the said chair construction providing for nesting a plurality of like chairs, in the nesting of which the leg elements of each chair overlie the leg elements of the chair therebeneath, and the juncture of rear leg members and back bars of each chair are received within the space defined by the upward divergence of the rear leg member and back bar of the chair therebeneath.

2,778,411
UPHOLSTERED SPRING STRUCTURES AND SUPPORTING MATS THEREFOR
Ivan F. Clark, Lyons, Mich., assignor to Ivan Clark Manufacturing Company, Lyons, Mich.
Application August 5, 1954, Serial No. 448,108
5 Claims. (Cl. 155—181)



1. An upholstery supporting mat for spring structures comprising, a resilient padding body of multiply felted fibrous material and of substantially uniform thickness throughout, a top ply of loosely woven fabric, said top ply and the felted plies of the padding body having rows of stitches therethrough securing them together and holding the felted plies against substantial lateral movement relative to each other, the fabric ply constituting a reinforcing element and protecting the surface of the felted padding material from bunching and scuffing, and a bottom ply of plastic material, the plastic ply being adhesively secured throughout to the under side of the padding body, the side of the plastic sheet opposite from that secured to padding body constituting a spring structure engaging surface and being relatively smooth to minimize wear and to facilitate free movement of a spring structure for supporting the mat.

2,778,412
SLIP COVERS
Philip S. Trubitt, Chicago, Ill., assignor to Sam Pass, Chicago, Ill.
Application July 15, 1954, Serial No. 443,492
3 Claims. (Cl. 155—182)

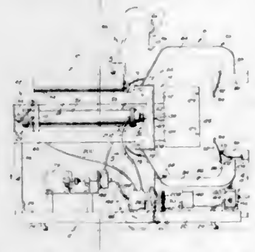


1. A slip cover for the front and rear surfaces of the back of an article of furniture comprising a front and a rear panel secured together by a seam along the upper edges thereof and each of a width to span the major portion of the respective surface of the article back, shoulder cover sections each secured to said slip cover only along one edge thereof to the upper portions of the edges of both said panels and extending laterally over and depending over the respective shoulders of the article, and a supplementary shoulder cover section at each side of said panels having front and rear vertical edges secured to the side edges of said panels and an upper edge overlapping and confining the depending portions of the respective shoulder cover section.

2,778,413
COVER FOR CUSHION IN UPHOLSTERED FURNITURE
Jacob Benjamin Katzner, Baltimore, Md., assignor to Moses W. Rosenfeld and Harry B. Gorfine, Trustees, Baltimore, Md.
Application August 23, 1954, Serial No. 451,451
6 Claims. (Cl. 155—182)

1. A cushion cover for covering a plurality of cushions of different sizes and including a cover panel for each of the top and bottom faces of a cushion, and a front panel for covering the front face of the cushion, said front panel being elongated and having a length substantially greater than the width of the widest cushion in a range of cushion sizes which the cover is designed to fit, said front panel being secured along its longitudinal edges to the front edges of said cover panels for at least a distance approximately equal to the width of the narrowest cushion in such range of cushion sizes, the front edges of said cover panels being secured to one end of said front panel and the side edges of said cover panels adjacent to such end of the front panel being connected together so that the secured front and side edges of said cover panels and said front panel form a pocket for the reception of a cushion, the rear edge and the other side edge of each cover panel being free from the rear edge and other side edge of the other cover panel and said front panel, and each of said cover panels being substantially greater in area than the areas of the top and bottom faces of such widest cushion so that such free cover edges can be folded on the sides of such cushion, cords attached to the longitudinal edges of said front panel and extending from the closed side of the cover for a distance substantially greater than the width of such widest cushion to facilitate the proper folding of the other end of said front panel around the front portion of the side of the cushion over which the free side edges of said cover panels are folded and in overlapping relation to such side edges, and fastening means along the free rear and side edges of said cover panels for holding the same and the folded end of said front panel in folded condition on the cushion.

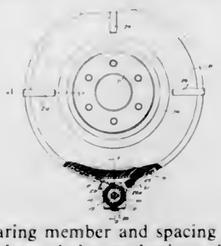
2,778,414
TIRE PULLER ASSEMBLY WITH CIRCUMFERENTIALLY DISTRIBUTED THRUST MEMBERS
Charles T. Oglesby, Webb City, Okla.
Application June 7, 1955, Serial No. 513,827
4 Claims. (Cl. 157—1.2)



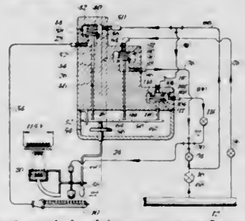
1. A tire handling device including a support frame, a vertically adjustable tire and rim elevator means on said frame for supporting a tire and rim assembly for rotation about a horizontal axis, a horizontally reciprocable ram assembly movable into overlying relation to said elevator means, and a plurality of abutment arms carried on fixed pivot means on said frame and rotatable into overlying relation to said elevator means and including portions engageable with a tire of a tire and rim assembly for retaining a tire in a substantially fixed position relative to said ram assembly, said ram assembly including a longitudinally extending ram guide frame carried on said support frame, a ram frame reciprocably supported in said ram guide frame, a fluid motor operatively connected between said ram guide frame and said ram frame, and means for operating said motor, said ram guide frame and said ram frame including elongated overlapping angular frame portions, said ram assembly including a cylindrical tire rim engaging element and a second cylindrical tire rim engaging element fixed concentrically on the tire rim engaging element of said ram assembly.

2,778,415
BEAD SEATING TOURNIQUET FOR TUBELESS TIRES
James J. Murray, Ferndale, Mich.
Application December 20, 1954, Serial No. 476,473
1 Claim. (Cl. 157—1.21)

A device for use in assembling a tubeless tire to a wheel rim comprising in combination a curved, inverted channel-like bearing member for contacting an outer circumferential portion of said tire, a drum rotatably supported by said bearing member, a cable secured at one end to said drum and removably secured at the other end to said bearing member, means for keeping said cable centered on the tread of the tire, said means comprising a plurality of inverted U shaped members, having eyes for slidably receiving said cable, crank means to rotate said drum, whereby to shorten the length of said cable, means to lock said rotating means, and means for supporting said bearing member and spacing same from the floor when the tire and rim are horizontally disposed.



2,778,416
FLUID FUEL BURNER CONTROL SYSTEM
Thomas J. Davidson, Los Angeles, Calif., assignor to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware
Application January 26, 1954, Serial No. 406,147
7 Claims. (Cl. 158—135)

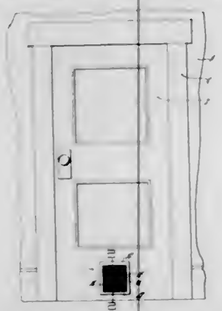


1. In a control and ignition system for a main fuel burner having a source of fuel supply, comprising a single pilot burner for igniting the main burner, a first valve means operable for controlling fuel flow to the main burner and being biased to a flow preventing position, a second valve means operable for controlling fuel flow to said pilot burner and being biased to a flow preventing position, a third valve means operable for controlling fuel flow to said pilot burner and being biased to a flow supplying position, thermally responsive means located to be heated by said pilot burner, main valve means operable for controlling fuel flow to said main burner through said first valve means and to said pilot burner through said third valve means, a pilot supply conduit and a connection from said main valve means direct to said pilot burner for augmenting the fuel flow thereto from said third valve means when said thermally responsive means is heated below a predetermined temperature, flow control means in said connection, means operatively associated with said thermally responsive means for operating said first and second valve means to flow supplying position and said third valve means to flow preventing position when said thermally responsive means is heated to said predetermined temperature, said pilot burner thereby being supplied with fuel through said second valve means and said pilot supply conduit, and flow control means cooperable with said second valve means and cooperable with said flow control means in said connection for reducing said fuel supply to the pilot burner but in an amount sufficient to maintain heating of said thermally responsive means to said predetermined temperature.

2,778,417
ANIMAL EXIT
Gleason Novitz, Dalton, Mass.
Application February 21, 1955, Serial No. 489,343
1 Claim. (Cl. 160—181)

The combination with the rectangular opening of a portion of a building having spaced upper and lower

horizontal sides and opposite vertical sides of closure means for said opening comprising, a frame for securing in said opening having upper and lower members for the upper and lower sides of said opening and vertical side members for the sides of said opening, said upper member provided with an elongated groove in the lower side thereof, and a multiplicity of elongated straight bristle-like

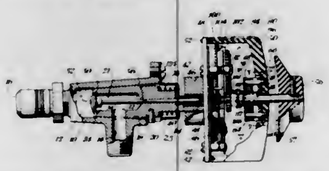


members, said bristle-like members having upper ends secured in and filling said groove of said upper member and freely depending vertically therefrom in closely adjacent intermingled relation with lower ends thereof being closely adjacent and free of the lower member, said bristle-like members being flexible for separation thereof by the passage of an animal therethrough and sufficiently stiff to assume a normal straight condition.

2,778,418
PRESET TIMER
Lawrence J. Laviana, Kensington, Conn., assignor to M. H. Rhodes, Inc., Hartford, Conn., a corporation of Delaware
Application June 2, 1955, Serial No. 512,631
6 Claims. (Cl. 161—1)

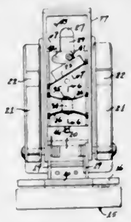
1. In a timer having timing means and a control member for controlling an operation to be timed and movable between an off position and on operating position, a release for synchronizing movement of the control member with starting of the timing means comprising a manually releasable latch engageable with said control member in the off position thereof, and a stop associated with the latch simultaneously engageable with said timing means to prevent running thereof.

2,778,419
TIMER CONTROLLED VALVE
Clarence Wantz, Los Angeles, Calif.
Application December 2, 1952, Serial No. 323,686
10 Claims. (Cl. 161—9)



7. A control device for flowable fluids comprising in combination a valve casing having inlet and outlet passages, a valve seat intermediate said passages, a valve member cooperable with said seat and movable between positions for controlling fluid flow between said passages, a valve stem operatively connected to said valve member, means for actuating said valve stem and moving said valve member between said positions, a second valve seat intermediate said passages, a second valve member movable toward and away from said second valve seat for controlling fluid flow between said passages, means for biasing said second valve member toward said second valve seat, an operating member extending through said valve stem and operatively associated with said second valve member for actuating the same, manually operable means including a threaded element for imparting axial movement to said operating member and moving said second valve member away from said second seat, detent means including a second threaded element positioned for frictional engagement with said first threaded element for producing a resistive force substantially equal to the force of said biasing means for holding said second valve member away from said second seat, said resistive force being produced in opposition to the force of said biasing means, and timing means for rotating one of said threaded elements to release said detent means and free said second valve member for movement to said biased position.

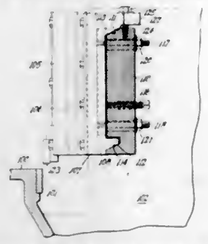
2,778,420
TAPE SPLICING DEVICE
Edward Simon, New York, N. Y., assignor to Robins Industries Corp., New York, N. Y., a corporation of New York
Application April 14, 1954, Serial No. 423,048
5 Claims. (Cl. 164—45)



1. A tape splicer comprising, in combination, a base member; a manually operable arm member; means connecting said arm member to said base member for movement with respect thereto toward and away from an operating position where a portion of said arm member is located over and adjacent to a portion of said base member; a pair of cooperating cutting elements respectively carried by said member at said portions thereof and directed toward and cooperating with each other when said arm member is in said operating position, said cutting elements respectively being in the form of an anvil and a cutter having three cutting blades, said cutter being carried by said arm member and said anvil being carried by said base member and having an anvil surface toward which the cutting edges of the cutting blades are directed when said arm member is in said operating position; positioning means forming a unit with said anvil and cooperating therewith for positioning a pair of tape portions in overlapping relation extending over a predetermined elongated anvil surface portion having a width equal to that of said tape portions; and means connecting one of said cutting elements to the member carrying the same for movement in a direction transverse to said elongated portion of said anvil surface between a pair of cutting positions, one of said cutting blades extending across said elongated anvil surface portion when said arm member is in said operating position and said one cutting element is in one of said cutting positions, for cutting off parts of the tape portions and forming abutting edges at the ends of the thus cut tape portions, and the other two cutting blades being spaced from each other by a distance

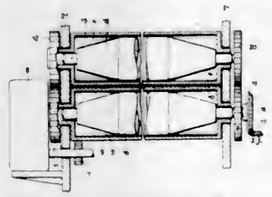
approximately equal to the width of said elongated anvil surface portion and being respectively located approximately along the edges of said surface portion when said arm member is in said operating position and said one cutting element is in the other of said pair of cutting positions, for trimming from the tape portions an adhesive element joining the tapes together and extending beyond the edges of the tapes.

2,778,421
SHEAR
Frederick E. Munschauer, Buffalo, N. Y., assignor to Niagara Machine & Tool Works, Buffalo, N. Y.
Original application October 6, 1948, Serial No. 53,128, now Patent No. 2,645,287, dated July 14, 1953. Divided and this application March 6, 1953, Serial No. 340,722
2 Claims. (Cl. 164—47)



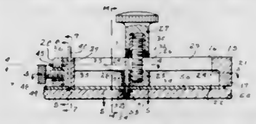
2. In a machine for shearing metal sheets and the like, a pair of end frame means and a bed extending therebetween and fixed rigidly thereto, said bed including a work table having a stationary lower shear knife fixed to the rear edge thereof, a reciprocable crosshead including an upper shear knife, means carried by each of said end frame means for guiding the opposite end portions of said crosshead in a generally vertical path of movement to effect shearing strokes, a pair of vertically spaced inclined guide surfaces on said end frame means and cooperating inclined guide surfaces on each of said crosshead guide means mounting the latter for movement along the inclined surfaces of said end frame means for adjusting the horizontal clearance between the shear knives, and means for locking the crosshead guide means in any desired position of lineal adjustment along said inclined surfaces.

2,778,422
CROSS CUTTING MACHINES OF THE ROTARY CUTTER DRUM TYPE
Rudi Weber, Heidenheim (Brenz), Germany, assignor to Jagenberg-Werke Akt.-Ges., Dusseldorf, Germany
Application February 8, 1954, Serial No. 408,949
9 Claims. (Cl. 164—61)



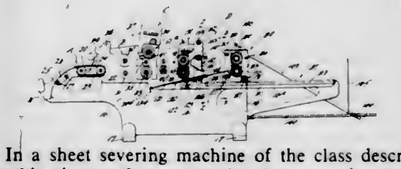
1. A cutter drum arrangement for rotary cross cutters for cutting travelling webs and which cross cutters are of the type in which the peripheral speed of the cutters at the moment of cutting is adjustable to the speed of the travelling web, said cutter drum arrangement including a non-uniformly rotatable jacket of lightweight construction and thin-walled cross-section, cutting means carried thereby and a stable core of substantially greater weight than the weight of the jacket, housed within the jacket and adapted to make supporting contact with the interior of the jacket at least opposite the cutting means and at least at the moment of cutting and said core being free of the non-uniform movement of the jacket.

2,778,423
CUTTING IMPLEMENT ADAPTED FOR THE CUTTING OF CIRCLES
Charles H. Zimmerman, Norwood, Ohio, assignor to Zimmerman Packing Company, Norwood, Ohio, a corporation of Ohio
Application July 22, 1949, Serial No. 106,217
3 Claims. (Cl. 164—71)



1. In a cutting implement of the class described the combination of an elongated body member substantially rectangular in plan having an integral head end, a top and a flat bottom for sliding on the material being cut, a passageway in said body member integral head and extending obliquely transversely of the body member, said passageway having its opposed obliquely extending sides parallel, one of said passageway sides passing through the body member bottom substantially at the longitudinal center thereof, a cutter blade of a width substantially equal to the width of the passageway disposed in said oblique passageway, said cutter blade having dissimilar length sides joined by an upwardly extending end and having the longer side formed to a keen edge terminating in a point from which the upwardly extending cutter blade end extends and with said keen edge adjacent the side of the passageway that passes through the longitudinal center of the bottom so that the point is projected below the body member bottom at the longitudinal center thereof, means for securing said cutter blade in the passageway, said body member having a slot extending thercinto from said bottom behind the head end, a pivot block in the slot movable toward and from the body member head end, said pivot block having a top, bottom, sides and ends and being of a height and width substantially equal to the depth and width of the slot and when secured in position having its bottom flush with the bottom of the body member, means securing the pivot block in adjusted positions in and longitudinally of said slot, and means carried by said pivot block nearer one of its ends than the other and movable with said pivot block toward the body member head end and providing an axis on which the body member moves in actuating the cutter blade in an arc or circle.

2,778,424
STRIP SEVERING MACHINES
Louis Fred Hageman, Lewiston, and Carl R. Mabon, Niagara Falls, N. Y., assignors to Moore Business Forms, Inc., Niagara Falls, N. Y., a corporation of Delaware
Application June 18, 1953, Serial No. 362,476
7 Claims. (Cl. 164—84.5)



1. In a sheet severing machine of the class described, in combination: a frame; a pair of cooperating feeding and restraining rolls on said frame between which said

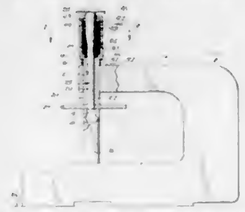
strip is fed, means on said frame for feeding said strip to said pair of rolls, and means for driving at least one of said rolls at substantially the same peripheral speed as the linear feeding rate of said strip; a pair of cooperating pull rolls mounted on said frame beyond said first pair of rolls, means for adjusting the distance between said pairs of rolls in accordance with the length of the sheet to be severed; a transverse severing blade carried by said frame between the two pairs of rolls and against which the sheet is adapted to be abruptly brought in order to sever it, and means mounting said blade for movement to and from its operative position adjacent the path of the strip between said pairs of rolls, whereby one of said pairs of rolls may be brought very close to the other for severing the strip into very short lengths; means for driving said pull rolls at a faster peripheral speed than the linear feed of said strip; means for intermittently causing said restraining rolls to alternately separate and come into gripping contact with the strip; and means for timing said last named means in accordance with the length of the sheet to be severed and the spacing of the two pairs of rolls.

6. The method of bursting successive cards and intervening stubs from a travelling web of cardboard, which comprises providing weakened transverse severance lines across the web for ready separation thereof, alternate lines marking the forward edges of one of the narrow stubs and the forward edge of one of the longer cards, passing said web between a pair of restraining rolls and thence between a pair of pull rolls, driving said pull rolls at a faster speed than said restraining rolls and maintaining them continually in gripping position with respect to the web and its component elements, bringing the restraining rolls intermittently into and out of gripping contact with the web, causing the gripping restraining rolls to grip the web upon a card area immediately in advance of the line marking the forward edge of the following stub area at substantially the same time the next preceding stub area enters the bite of the second gripping pull rolls, and causing the restraining rolls to remain in gripping contact with the web until shortly after the said line marking the forward edge of said stub area passes the bite of the restraining rolls at which time the pull rolls have seized the forward edge of the preceding card area, whereby the successive stub and card areas are snatched from the web along said lines of severance.

2,778,425
APPARATUS FOR PERFORATING SHEET MATERIAL
Walter Paul, Lengerich, Germany, assignor to Windmöller & Hölscher, Lengerich, Germany
Application February 6, 1953, Serial No. 335,425
14 Claims. (Cl. 164—99)

1. Apparatus for perforating strips of sheet material at regular intervals comprising, in combination, support means; a guide roller mounted for rotation about its axis on said support means and being adapted to guide a strip of sheet material; perforating means mounted on said support means for rotation about an axis parallel to said roller axis and being movable through a cylindrical space located next to said roller to perforate a strip of sheet material passing thereover; drive means mounted on said support means for driving said perforating means and including a first crank turnable about a predetermined axis parallel to said roller axis; a second crank connected to said perforating means for rotation therewith and being located opposite said first crank; and adjustable connecting means for connecting said second crank to said first crank at an adjustable distance from said predetermined axis so as to regulate the speed with which said perforating means is rotated by said drive means.

2,778,426
PERFORATING APPARATUS
Paul H. Taylor, Grand Island, N. Y., assignor to Wales-Strippit Corporation, North Tonawanda, N. Y., a corporation of New York
Application September 4, 1953, Serial No. 378,545
8 Claims. (Cl. 164—110)



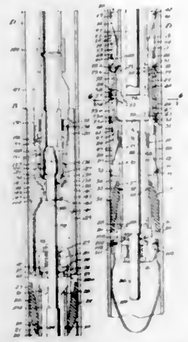
1. Punching apparatus comprising a support, a tubular stripper member reciprocable in said support, said stripper member having a tubular guide portion at one end whose bore is of relatively small diameter, said stripper member being formed with a chamber adjoining said guide portion and axially aligned with the bore of said guide portion, said chamber being of larger internal diameter than the bore of said guide portion, a punch having a shank of relatively small diameter, a head of larger diameter, and an intermediate conical portion connecting said head and said shank, said shank being reciprocable in said bore and being guided thereby, and said head being reciprocable in said chamber, and a compressible solid stripping medium surrounding said head and said conical portion and filling the space in said chamber around said punch.

2,778,427
ACIDIZING WELLS
Paul H. Cardwell and Parke D. Muir, Tulsa, Okla., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application February 18, 1952, Serial No. 272,266
4 Claims. (Cl. 166—42)

1. In a method of acidizing an earth formation penetrated by the bore of a well the steps which consist in injecting into the earth formation through the well bore an aqueous solution containing from 2 to 25 percent by weight of HCl and having dispersed therein from 0.65 to 4 percent by weight of a water-soluble cellulose ether, and thereafter injecting into the earth formation between 1 and 25 times as much in volume of an aqueous solution containing from 2 to 25 percent of HCl by weight free from cellulose ether.

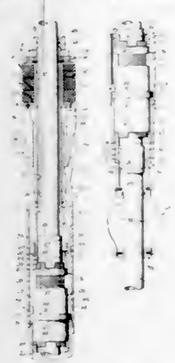
2,778,428
RELEASABLE APPARATUS FOR RETRIEVING SUBSURFACE WELL DEVICES
Reuben C. Baker, Coalinga, and Martin B. Conrad, Downey, Calif., assignors to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California
Application October 12, 1953, Serial No. 385,335
17 Claims. (Cl. 166—125)

1. In apparatus for retrieving a device from a well bore: a member adapted to be connected to a running-in string to be lowered in the well bore and to be disposed over the device; latch means carried by said member and adapted to be coupled to the device; means for moving said latch means longitudinally of said member in one direction; said member having a surface thereon engaged by said latch means when moved in said one direction



to shift said latch means laterally inward toward a position to be coupled to the device; and fluid pressure operated means for moving said latch means longitudinally of said member in the opposite direction to allow said latch means to shift laterally outward of the device to a position uncoupled from the device.

2,778,429
WELL APPARATUS
Romney W. Masters, Avenal, Calif.
Application May 18, 1953, Serial No. 355,497
10 Claims. (Cl. 166—139)

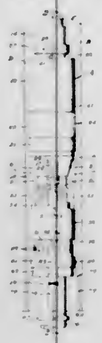


8. A well packer, adapted for use on a rotatable tubing string lowered into a well having a casing, comprising an upper dog secured to the string; a lower dog secured to the string in downwardly spaced relation to the upper dog, the dogs having ends disposed toward each other; an upper clutch cylinder rotatably mounted on the string in fixed position longitudinally of the string upwardy adjacent to the upper dog; a lower clutch cylinder rotatably mounted on the string in fixed longitudinal position on the string downwardly adjacent to the lower dog, the lower clutch cylinder having ribs radially extended therefrom elongated longitudinally of the string; a telescopic control member rotatably and slidably mounted on the string between the dogs, the control member including a nipple and a collet screw-threadedly interconnected in circumscribing relation to the string, the nipple being above the collet and having an upwardly disposed recess adapted to receive the upper dog in driving connection thereto upon downward movement of the string relative to the control member and the collet having a downwardly disposed recess adapted to receive the lower dog in driving connection thereto upon upward movement of the string relative to the control member; a packer ring mounting sleeve rigidly secured to the nipple and extended upwardly therefrom on the tubing string; a housing rotatably supported on the collet in fixed longitudinal relation thereon enclosing the control member and having an upper end portion slidably mounted on the packing ring mounting sleeve, the housing having ribs longitudinally thereof inwardly extended adjacent to the upper clutch cylinder and the packing ring mounting sleeve being longitudinally slotted adjacent to ribs of the housing; a drive pin rigidly mounted on the upper clutch cylinder and radially extended therefrom through the slot in the packing ring mounting sleeve; a lug mounted on the extended end of the pin externally of the packing ring mounting sleeve engageable with the ribs on the housing when the string is raised relative thereto releasably interconnecting the packing ring mounting sleeve and the housing in fixed rotational position; a plurality of elongated leaf springs arranged longitudinally of the string; means mounting the springs on the housing in frictional engagement with the casing of the well into which the string is lowered whereby the springs resist rotation and longitudinal movement of the housing in the casing; an extension sleeve rigidly mounted on the collet and downwardly extended therefrom within the housing; inwardly extended, longitudinally adjacent, ribs mounted on the extension sleeve and the housing; elongated lugs outwardly extended from the lower clutch cylinder concurrently engageable with the ribs on the extension sleeve and the housing when the string is lowered releasably interconnecting the extension sleeve and housing in fixed rotational relation; a slip mandrel mounted on the upper end portion of the housing in downwardly spaced relation to the upper end portion of the packing ring mounting sleeve having downwardly convergent sides, said mandrel being non-rotatably keyed to the housing for reciprocal movement longitudinal thereof; a plurality of slips each having outwardly disposed teeth slidably mounted on the faces of the mandrel for reciprocal movement longitudinally thereof; a flange secured to the housing in spaced relation below each slip; a link pivotally interconnecting each flange with its respective slip; an enlarged compression collar rigidly mounted in circumscribing relation on the upper end of the packing ring mounting sleeve in spaced relation to the upper end of the mandrel; and a plurality of resiliently compressible packing rings mounted in circumscribing relation on the packing ring mounting sleeve between the collar and the upper end of the mandrel.

2,778,430
RETRIEVABLE WELL APPARATUS
Reuben C. Baker, Coalinga, Calif., assignor to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California
Application October 4, 1954, Serial No. 460,117
8 Claims. (Cl. 166—139)

1. In a well tool for use in a well conduit: a first member adapted for connection to a tubular string; a second member telescopically arranged with respect to said first member; means for transmitting the turning effort of said first member to said second member; conduit engageable means cooperable with said second member for resisting movement of said second member in said well conduit; means comprising a threaded connection between said conduit engageable means and second member for moving said conduit engageable means longitudinally of said members upon rotation of said first member and second member; and friction brake

fingers on said conduit engageable means frictionally engaging said second member for resisting movement



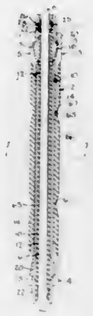
of said second member relative to said conduit engageable means.

2,778,431
WELL PACKER REINFORCING
John Lynes, Albuquerque, N. Mex., assignor to Lynes, Inc., Houston, Tex., a corporation of Texas
Original application October 19, 1944, Serial No. 559,338, now Patent No. 2,630,864, dated March 10, 1953. Divided and this application January 21, 1953, Serial No. 332,335
8 Claims. (Cl. 166—187)

1. An inflatable packer reinforcing assembly comprising, a pair of spaced heads, a tubular body, said body including a plurality of longitudinally extending strands in contiguous relation to each other and arranged so that adjacent strands are in overlapping relation and resilient material in which said strands are embedded, and lugs on each of said heads about which said strands are looped for securing said body to each of said heads.

2,778,432
PACKER BRAID REINFORCING AND RETAINER
George H. Allen, La Porte, Tex., assignor to Lynes, Inc., Houston, Tex., a corporation of Texas
Continuation of application Serial No. 217,015, March 22, 1951. This application March 15, 1956, Serial No. 571,660
15 Claims. (Cl. 166—187)

1. A hydraulically inflatable packer comprising a composite sleeve like body, a head at each end thereof, said body comprising an inner resilient expansible and contractible liner, a reinforcing sheath thereabout, said sheath comprising a plurality of strips of coated wire extending longitudinally between said heads, said strips extending circumferentially of said liner and each of said strips overlapping the next adjacent strip the full length thereof between said heads whereby said sheath is expansible and contractible as said liner expands and contracts, and an expansible and contractible covering overlying said sheath, each head comprising a nipple, a hollow skirt thereon, an annular beveled face on the lower end of said

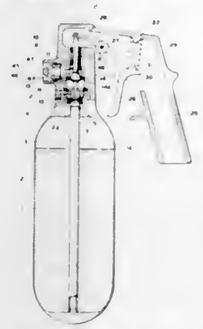


skirt, a tapered bowl in said skirt, a wedge collar slidable into said skirt within said bowl, the end of said sheath extending into said bowl to receive said collar so that wedging of said collar in the end of said sheath and said sheath in the bowl provides an anchor to resist axial pull on said sheath relative to said head.

2,778,433
WELL TOOLS
Cicero C. Brown, Houston, Tex.
Application August 10, 1953, Serial No. 373,261
6 Claims. (Cl. 166—226)

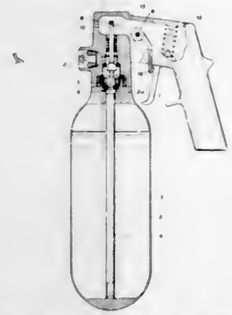
1. A well tool which is adapted to be lowered within a well pipe and including a tubular housing, a locking element mounted in said housing for radial movement with respect thereto, an actuating mandrel extending axially within the housing and movable to different longitudinal positions with respect thereto, means on the actuating mandrel for coacting with the locking element upon longitudinal movement of the mandrel with respect to the housing to move the locking element to radially expanded position, a lowering sleeve adapted to encompass the upper end of the mandrel and the housing, frangible means connecting the lowering sleeve to the housing and to the mandrel with said mandrel in such position relative to the housing that the locking element is in a retracted position, and an annular member mounted in the well pipe within which the tool is lowered having a locking recess therein, said recess being adapted to receive the locking element when the same is in radially expanded position to lock the housing against displacement within the well pipe.

2,778,434
FIRE-EXTINGUISHING APPARATUS
Harlan G. Hastert and Arthur B. Guise, Marinette, Wis., assignors to Ansul Chemical Company, Marinette, Wis., a corporation of Wisconsin
Application August 31, 1954, Serial No. 453,224
4 Claims. (Cl. 169—31)



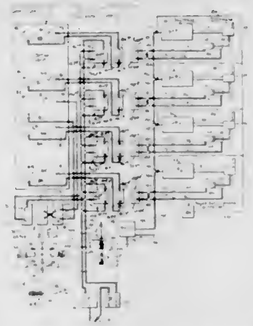
1. A fire-extinguishing apparatus comprising a container for storing a pressurized fire-extinguishing agent, a frangible disc for sealing the mouth of said container, a removable actuating head comprising a housing having a passage therethrough, a sealing seat in said passage, a discharge conduit connected to outlet of said housing passage, an axially movable plunger positioned perpendicularly to said frangible disc, the lower end of said plunger being provided with a cutting edge adapted to pierce said frangible disc, said plunger being provided with a sealing plug positioned above said cutting edge, a lever for actuating said plunger, said plunger being adapted upon actuation of said lever to pierce said frangible disc and allow passage of said fire-extinguishing agent through said housing passage and discharge conduit and a spring associated with said actuating lever, whereby upon manual release of said lever said plunger is thereafter actuated away from said frangible seal to position said sealing plug in sealing engagement with said sealing seat and effect a pressure tight seal, said sealing plug sealing with and aided by the pressure in said container.

2,778,435
SAFETY DEVICE FOR FIRE-EXTINGUISHING APPARATUS
Roy E. Downham, Marinette, Wis., and Alden W. Allen, Minneapolis, Minn., assignors to Ansul Chemical Company, Marinette, Wis., a corporation of Wisconsin
Application October 25, 1955, Serial No. 542,573
5 Claims. (Cl. 169—31)



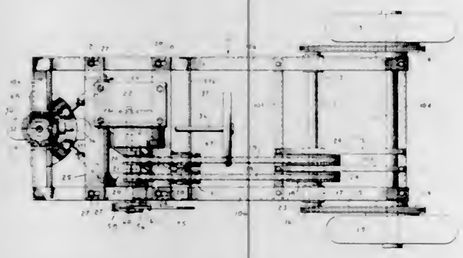
1. A fire-extinguishing apparatus comprising a pressure container for the fire-extinguishing agent, a frangible seal closing the mouth of said container, a housing having a passage therethrough connected to said container, a sealing seat in said passage, an axially movable plunger in said passage positioned perpendicularly to said frangible seal, said plunger being provided with a cutting edge for piercing said frangible seal and with a sealing plug positioned to close on said sealing seat, said plunger being adapted upon manual actuation to pierce the frangible disc and to allow passage of said fire-extinguishing agent through the housing passage into a discharge nozzle connected thereto and upon release of manual actuation the plunger is thereafter adapted to be automatically actuated away from said frangible seal and to position said sealing plug in sealing engagement with said sealing seat to affect a pressure tight seal, and locking means to immobile said plunger to prevent puncturing of the frangible seal or positioning of said sealing plug in sealing contact with said sealing seat unless said locking means is released.

2,778,436
CONTROLS FOR VARIABLE PITCH PROPELLERS AND THE LIKE
Thomas A. Banning, Jr., Chicago, Ill.
Original application January 18, 1945, Serial No. 573,382, now Patent No. 2,569,444, dated October 2, 1951. Divided and this application September 28, 1951, Serial No. 248,699
18 Claims. (Cl. 170—135.2)



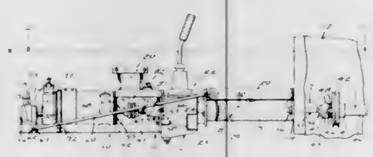
1. In a multi-motored installation including a plurality of variable blade-pitch propellers and means to drive said propellers, means to control blade-pitches of the propellers including in combination a blade-pitch control cylinder for each propeller, a positive displacement blade-pitch control plunger working in the blade-pitch control cylinder of each propeller, means connecting each blade-pitch control plunger and the blades of the corresponding propeller effective to cause blade-pitch variation simultaneously with the shift of such plunger in its cylinder, together with means to actuate the blade-pitch control plungers in the cylinders of the propellers comprising in combination a pair of liquid displacement cylinders corresponding to each of the blade pitch-control cylinders, a displacement plunger in each liquid displacement cylinder, a liquid conduit connecting each end of each blade-pitch control cylinder to one of the liquid displacement cylinders of the pair corresponding to such blade-pitch control cylinder, and means to simultaneously actuate the displacement plungers in all of the liquid displacement cylinders, said means being constituted to cause movement of the plunger of one liquid displacement cylinder of each pair of said cylinders in one direction for displacement of liquid from such cylinder through the conduit connecting such liquid displacement cylinder to one end of the corresponding blade-pitch control cylinder and to cause movement of the other plunger of such pair of liquid displacement plungers in a direction to permit movement of liquid through the conduit connecting the other end of such blade-pitch control cylinder to the other liquid displacement cylinder of such pair of liquid displacement cylinders.

2,778,437
VEHICLE WHEEL DRIVE BELTS SELECTIVELY CONTROLLED IN RESPONSE TO STEERING
William H. Robinson, Honey Brook, and Miles L. Sensenig, Lancaster, Pa., assignors, by mesne assignments, to Sperry Rand Corporation, New Holland, Pa., a corporation of Delaware
Application December 15, 1954, Serial No. 475,348
13 Claims. (Cl. 180—6.34)



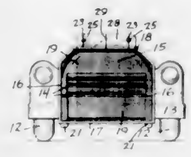
11. In a self-propelled vehicle including a pair of laterally spaced drive wheels, a steering mechanism for said vehicle, a power unit carried by said vehicle, separate power transmission mechanisms operatively connected between said power unit and the respective drive wheels, each such mechanism including a drive belt, the combination with said vehicle of a single control cam, means connecting said cam to said steering mechanism for movement responsive to actuation of the steering mechanism, and a pair of belt tighteners, one for each drive belt, said belt tighteners comprising a pair of rigid levers pivoted on said vehicle, corresponding ends of said levers being swingable toward and away from tightening engagement with the respective drive belts, said levers having their other ends in direct, continual contact with said control cam for actuation thereby, said cam having cam surfaces positioned to alternately pivot said levers to permit slippage of one of said belts as the vehicle is turned in either direction.

2,778,438
POWER TRANSMITTING ATTACHMENT FOR VEHICLES
Felix Lawrence Johannes, Dyersville, Iowa
Application May 12, 1954, Serial No. 429,179
3 Claims. (Cl. 180—53)



1. In combination with a vehicle having an engine and a shaft rotatably driven by the engine, a power transmitting attachment comprising a combination bumper and support having an inner portion and an outer portion, fastenings detachably securing said inner portion against an end of the vehicle, a transmission including a housing having an inner side and an outer side, fastening elements detachably securing said inner side of the housing to the outer portion of the bumper and support for mounting the transmission on the outer side of said outer portion, said outer portion including an opening, said transmission having an input shaft extending inwardly therefrom loosely through said opening, a drive shaft forming a driving connection between the rotatably driven shaft and the input shaft, an elongated frame having an inner end and an outer end, fastening members securing the inner end of the frame to the outer side of the transmission housing, said frame extending from the transmission in a direction away from the bumper and support, a power supply means disposed on and secured to said frame, said power supply means including a shaft extending therefrom toward the transmission, said transmission having an output shaft extending from the housing toward said power supply means, and a coupling connecting said output shaft to the shaft of said power supply means.

2,778,439
COMBINATION RADIATOR SCREEN AND INSECT DEFLECTOR FOR WINDSHIELDS
August F. Pfingsten, Rock Rapids, Iowa
Application October 2, 1953, Serial No. 383,851
1 Claim. (Cl. 180—68)

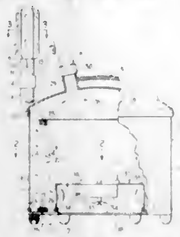


A combination radiator screen and insect deflector for windshields comprising a radiator screen member, an insect deflector member adjustably mounted on said screen member and extending upwardly therefrom, said insect deflector member including a flat sheet member, said flat sheet member being angularly inclined to deflect wind forces toward and above a windshield, means for adjustably mounting and securing said insect deflector member to said screen member so that said insect deflector member can be positioned at desired vertical heights, said adjustable securing means including a pair of angularly positioned bars secured to the upper edge of said screen member, block received by said bars for adjustable movement thereof, said insect deflector member being secured to said blocks.

2,778,440
ACOUSTIC RESISTOR
Gerrit Schenkel and Jacob Izaak de Haan, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application March 13, 1953, Serial No. 342,144
Claims priority, application Netherlands April 3, 1952
3 Claims. (Cl. 181—32)

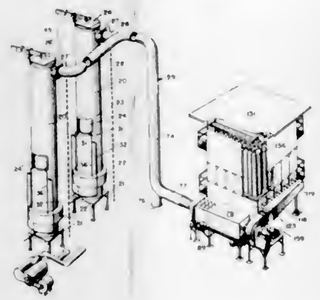
3. In an electrodynamic microphone, a dome-shaped diaphragm and an acoustic resistor mounted behind said diaphragm, said resistor comprising a dome-shaped body constituted of two spirally-wound strips and a third strip wound at spaced intervals about only one of said two strips and abutting the other strip, said strips defining narrow air passages spaced along its length and extending at right angles to the surface of said diaphragm, said diaphragm and resistor being spaced apart by the same distance along all of their confronting surfaces.

2,778,441
BED DEODORIZERS
James R. Herriott, Alamo, Calif.
Application December 21, 1953, Serial No. 399,398
4 Claims. (Cl. 183—4)



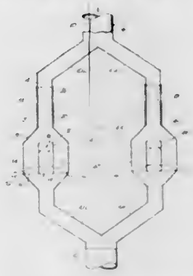
1. In a bed deodorizer, a housing having a cylindrical side wall, a ring-shaped bottom with a central opening therein and having a cover with a suction intake therein, means for supporting the bottom of the housing in spaced relation to a supporting surface, a cylindrical deodorizing magazine mounted on the bottom in concentric relation to the housing wall so as to leave an annular space between the latter and the magazine, and having a deflecting cover thereon, and a motor mounted inside the magazine and near the bottom thereof and having a fan facing the bottom opening, whereby air sucked through the intake is made to pass through said annular space and through the magazine and is discharged through the bottom opening.

2,778,442
METHOD AND APPARATUS FOR REMOVING SUSPENDED SOLIDS FROM HOT GAS
William O. Jenkins, Norwalk, and Harold B. Menardi, El Segundo, Calif., assignors to Whiting Corporation, Harvey, Ill., a corporation of Illinois
Application January 8, 1952, Serial No. 265,412
10 Claims. (Cl. 183—6)



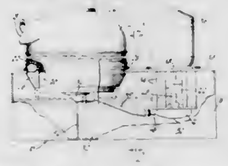
1. Apparatus for removing solids from a stream of hot gas comprising a fabric filtering element adapted for filtering solids from gas below a maximum gas temperature, a conduit for conveying the hot gas and suspended solids, at least a portion of said conduit defining a heat radiating surface exposed to the hot gas and to the atmosphere, a fan having an inlet communicating with the conduit and an outlet communicating with the filtering element, water sprays discharging into the gas stream upstream from the fan for cooling said gas by evaporation of water therein, valves regulating operation of the sprays and limiting the quantity of water added to less than that required to saturate the gas stream at discharge temperature and thermostatic means exposed to the gas stream regulating operation of the valves whereby the temperature of gas passing the thermostatic means is maintained below said maximum temperature.

2,778,443
ELECTROSTATIC PRECIPITATOR AND AIR CONDITIONING SYSTEM INCORPORATING THE SAME
Robert A. Yereance, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application April 5, 1954, Serial No. 420,888
12 Claims. (Cl. 183—7)



1. Electrostatic precipitator apparatus comprising a pair of precipitator units, means to pass through said units a gaseous medium containing particles to be separated from said medium by said precipitator apparatus, each of said units comprising an inlet passage for the gaseous medium, an outlet passage for the gaseous medium, means creating a grounding zone for relieving the particles of charge which entered through said inlet passage, insulated conductive means forming a priming electrode maintained at high potential of one polarity and arranged to be passed by the moving particles following their passage through said grounding zone, thereby to induce in such particles a charge of opposite polarity, insulated conductive means forming an electrode-condenser element having on one side a surface impinged by some of said charged particles to receive charge therefrom and on its opposite side an electrode surface sustaining a high potential established by the accumulated charge, means including said electrode surface and a grounded conductor spaced therefrom defining a passage for the gaseous medium carrying the remainder of the charged particles and leading to said outlet passage, whereby said latter particles are repelled from said high-potential electrode surface to said grounded conductor for collection on the latter, and means electrically interconnecting the priming electrode of each such unit with the electrode-condenser of the other such unit.

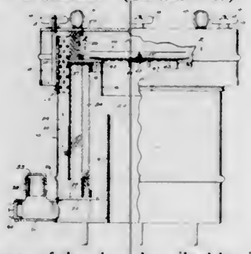
2,778,444
AIR CLEANER ASSEMBLY
Donald B. Lewis, Lapeer, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 10, 1954, Serial No. 409,390
3 Claims. (Cl. 183—13)



1. An air cleaner assembly for automotive use which includes a liquid bath air cleaner having a filter housing and a liquid sump disposed beneath said filter housing, a liquid reservoir and settling tank secured to said air cleaner, said sump being disposed within said tank, means for carrying over liquid from said sump into said filter housing, means for draining excess liquid from said filter

housing into said tank, and pump means mounted within said tank and connected to said sump for circulating liquid from said tank to said sump.

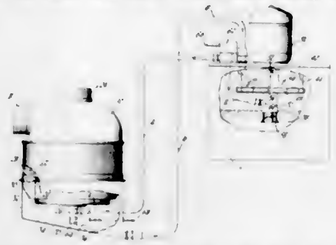
2,778,445
FILTER WITH RELIEF VALVE
Jacob K. Brixius, Cleveland, Ohio, assignor to Air-Maze Corporation, Cleveland, Ohio, a corporation of Delaware
Application October 29, 1954, Serial No. 465,491
3 Claims. (Cl. 183—13)



2. In a cleaner of the class described having an annular filter element, a central tubular fluid outlet positioned axially of said element, a housing forming an annular chamber about said element and forming a liquid bath receiving sump below said element, there being gaseous fluid inlet means on said housing above said sump, partition means for guiding the fluid from said element to said outlet including a wall opposite the end of said tubular outlet, and a planar outlet opening through said wall substantially axially aligned with said tubular outlet and substantially at right angles to the axis of said outlet, said outlet opening being substantially unobstructed; the combination therewith of a flexible flat circular valve closing said outlet opening, fold guide means presenting a generally convex surface to said valve member and holding that portion of said valve engaged by said fold guide means in approximately the plane of said opening leaving the periphery of said valve free, said guide means contacting said valve surface over a relatively narrow area, said guide means extending for such a distance across a diameter of said valve member that the stiffness of that unsupported length of said valve member when in open position beyond the ends of said guide means is sufficient to resist folding of said valve member downstream along a line transversely of the axis of said fold guide means, said valve being of material of such flexibility that its peripheral portions lying laterally of said fold guide means are adapted to fold upwardly along parallel lines of fold by jet action of gaseous fluid in reverse flow through said tubular outlet, said fold defined by the surfaces of said guide means, said convex surfaces providing a smooth gradual fold in said valve, said circular valve being of sufficient diameter to engage the inner surface of the top of said cleaner to prevent undue valve curling and fluttering, and stiff coarse hardware mesh screen fixed across the outlet opening substantially in the plane of said opening and on the side of said valve near said tubular outlet.

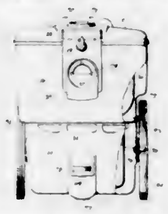
2,778,446
AIR CLEANER ASSEMBLY
Charles W. McKinley, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 30, 1953, Serial No. 401,163
2 Claims. (Cl. 183—14)

1. An air cleaner assembly comprising a liquid bath air cleaner and a fluid tank adapted to retain a quantity of liquid therein, said tank being disposed in spaced relation apart from said air cleaner, fluid flow lines connected between said tank and said air cleaner, a fluid pump associated with said tank and connected between said flow lines and said liquid, check valves disposed within one of said fluid flow lines at the opposite ends thereof, one of said valves being adapted to close the inlet end of said one line and the other of said valves to open the outlet end of said one line, said pump being operable



to supply liquid through said one line and to exhaust fluid from said air cleaner through the other of said lines, and means for simultaneously closing said one valve to prevent fluid flow to said air cleaner and for opening said other valve for draining liquid from said one line during periods of inoperation of said air cleaner assembly.

2,778,447
VACUUM CLEANER ASSEMBLY
Carl E. Meyerhoefer, Brooklyn, N. Y., assignor, by mesne assignments, to Lewyt Corporation, Brooklyn, N. Y., a corporation of New York
Application October 14, 1953, Serial No. 386,077
4 Claims. (Cl. 183—37)

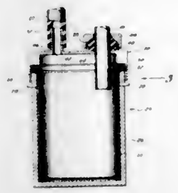


1. A vacuum cleaner assembly including in combination a casing formed with an inlet opening adjacent its upper end, means mounted adjacent said opening to provide a detachable coupling for the end of a hose, wheels connected with the casing and extending adjacent and below the latter to support the same at two spaced points, a further support extending from said casing between said wheels and substantially in line with said inlet opening, a motor-blower unit within said casing adjacent its lower end, a filter between said unit and inlet opening, the center of gravity of said assembly being disposed above the axis of said wheels, a cover hingedly connected with said casing at a point adjacent the upper end of the latter, said casing being rotatable around the wheel axis to bear against a supporting surface at a point adjacent that at which said cover is hingedly connected, said casing being formed with an opening in its lower face, a cap closing such opening and means disposed adjacent said opening and providing a coupling for a hose connectible therewith.

2,778,448
RESIN TRAP
Loinel R. Graves, Long Beach, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application April 1, 1955, Serial No. 498,571
1 Claim. (Cl. 183—43)

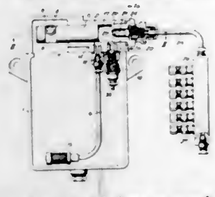
A resin trap comprising a container the interior of which is normally under negative pressure; disposable means within the container for receiving excess resin; a cover for said container; structure on said container for releasably locking said cover thereon; a pair of

spaced apart nipples on said cover one of which is externally threaded; a resilient gasket inserted into said threaded nipple; an enlargement on the other of said nipples; a member threaded onto said threaded nipple;



a conduit slidable onto and over said nipple having the enlargement thereon for applying negative pressure to said container; and a conduit slidable through said member, gasket and threaded nipple and into said container for carrying the excess resin thereinto.

2,778,449
FLUID DISTRIBUTING APPARATUS
Gottlob Schiesswohl, Stuttgart-Botnang, Albert Allgaier, Gerlingen, and Willy Voit, Stuttgart-Bad Cannstatt, Germany, assignors to Robert Bosch G. m. b. H., Stuttgart, Germany
Application April 7, 1953, Serial No. 347,382
Claims priority, application Germany April 25, 1952
2 Claims. (Cl. 184—7)



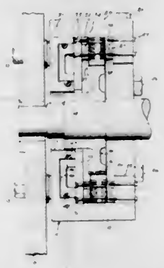
1. Apparatus for supplying a predetermined amount of fluid, such as a lubricant or the like to at least one predetermined station comprising, in combination, a piston pump for pumping the fluid; conduit means communicating with and extending downstream from said piston pump for receiving fluid under pressure therefrom and guiding the fluid along a desired path; fluid measuring means communicating with said conduit means downstream of said piston pump for delivering a measured amount of fluid from said conduit means, said measured amount being less than the amount delivered by said piston pump at each pressure stroke; overflow valve means communicating with and extending downstream from said piston pump parallel to said conduit means for discharging from said piston pump fluid in excess of said measured amount during each pressure stroke of the piston pump; and non-return valve means located in said conduit means adjacent said piston pump for permitting fluid to flow only from said piston pump to said fluid measuring means and for reducing the pressure of the fluid located in said conduit means between said non-return valve means and said fluid measuring means after termination of the pressure stroke of the pump.

2,778,450
ACCUMULATOR FOR MECHANICAL ENERGY
Louis Debuit, Grenoble, France, assignor to Etablissements Merlin & Gerin, Grenoble, France
Application November 24, 1954, Serial No. 471,000
Claims priority, application France December 9, 1953
15 Claims. (Cl. 185—37)

1. An accumulator for mechanical energy comprising as a structural unit, an elastically compressible and expansible, energy storing and releasing system, a driving mechanism operatively connected therewith for loading said elastic system with mechanical energy and subsequently receiving the stored energy therefrom, a hydraulic blocking system for operation with an incompressible fluid associated with said elastic system and including fluid conducting means and variable volume fluid chambers for displacing said fluid in one direction during loading of said elastic system and by the same and thereupon block-

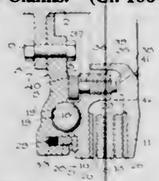
ing and holding by means of said incompressible fluid said elastic system tensioned, said unit further including control means associated with said hydraulic blocking system, thereby to allow displacement of said incompressible fluid in the opposite direction and release of said hydraulic blocking system, and thus to release the energy stored in the elastic system upon the driving mechanism and impart to an outside member coupled thereto an intensive motion.

2,778,451
DISC BRAKE
Robert G. Friedman, Tiffin, Ohio, assignor to The National Machinery Company, Tiffin, Ohio, a corporation of Ohio
Application August 14, 1953, Serial No. 374,293
3 Claims. (Cl. 188—72)



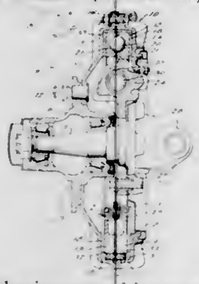
1. A friction brake including a fixed member and a relatively rotatable central shaft, a pair of pressure plates surrounding said shaft secured against rotation with respect to said fixed member, one of said pressure plates being mounted for axial movement, a friction plate comprising an open-ended ring shaped body substantially surrounding said shaft and positioned between said pressure plates, a splined hub secured to said shaft having a greater diameter than said shaft, an internal spline on said friction plate fitting the spline of said hub and mounting said friction plate for axial sliding movement thereon, the open ends of said ring being spaced apart a distance greater than the diameter of said shaft and less than the diameter of said hub, whereby said ring may be slid axially out of said mounting means and removed radially from said shaft.

2,778,452
SELF-ADJUSTING DISC BRAKE
Lester F. Dasse, St. Joseph, Mich., assignor, by mesne assignments, to Lambert Brake Corporation, St. Joseph, Mich., a corporation of Michigan
Application April 7, 1955, Serial No. 499,830
8 Claims. (Cl. 188—72)



1. A friction device of the class described, comprising a pair of relatively fixed plates disposed in side-by-side spaced relation, a plurality of relatively rotatable and axially shiftable discs disposed between said plates, one of said discs constituting an axially and slightly rotatively shiftable actuator disc disposed in contiguous relation to one of said plates, actuator means for shifting the actuator disc toward the other of said plates to shift said discs toward the latter plate and into engagement with one another, camming means between said actuator disc and one of said plates for shifting the actuator disc axially towards the other plate upon slight rotation of the actuator disc relative to said plates, relatively rotatable members respectively connected to said discs to transmit torque between said relatively rotatable members, and automatic adjuster means including a one-way shiftable member disposed between said actuator disc and one of said plates for limiting axial movements in one direction of said actuator disc towards and away from the respective plates while allowing slight rotation of said actuator disc.

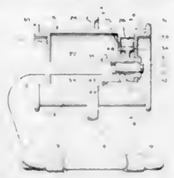
2,778,453
BRAKE
John C. Hatfield, Lake Orion, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application January 16, 1953, Serial No. 331,703
6 Claims. (Cl. 188—73)



1. A brake mechanism comprising an annular rotatable housing having axially spaced walls and an interconnecting wall, braking members positioned between said spaced walls and relatively movable to respectively engage the internal surfaces of said walls thereby to brake said housing, and a rigid scraper for the internal surface of said interconnecting wall supported by said housing on the last mentioned surface and restrained against rotation with the housing by at least one of said braking members, said housing having a discharge opening.

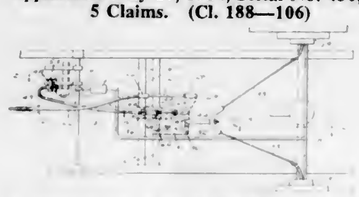
2,778,454
PORTABLE ROTARY FILE
Richard P. Scholfield, White Plains, N. Y., assignor to Wheeldex Manufacturing Co., Inc., White Plains, N. Y., a corporation of New York
Application February 14, 1950, Serial No. 144,052
6 Claims. (Cl. 188—82.4)

4. In a rotary file assembly of the type including a supporting shaft, a drum, a clutch core on the shaft within the drum, means disposed interiorly of the drum and rotatable therewith making one-way clutching engagement with said core, and means for frictionally clamping the



core on the shaft, the improvement which comprises a split sleeve hub extension integral with the core having radially projecting ribs adjacent each split and a spring clip embracing the ribs on opposite sides of each split to contract the sleeves upon the shaft.

2,778,455
AUXILIARY ACTUATING ATTACHMENT FOR VEHICLE BRAKE SYSTEM
Stanley G. Roach, St. Albans, W. Va.
Application May 17, 1954, Serial No. 430,221
5 Claims. (Cl. 188—106)

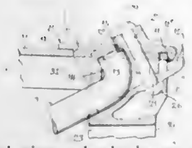


1. In combination with a hydraulic brake system of a motor vehicle including a pedal for actuating the hydraulic brake system, and a mechanically actuated parking brake of the vehicle including a lever fulcrumed for swinging movement relatively to the vehicle for mechanically applying the vehicle parking brake when swung in one direction; an auxiliary brake actuating attachment comprising a flexible cable having one end connected to said lever at a point spaced from the lever fulcrum, means anchoring the other end of said cable immovably to a part of the vehicle above and adjacent a portion of the brake pedal, a flexible casing enclosing a portion of said cable and terminating in spaced relationship to the cable ends, means fixedly positioning one end of said flexible casing relatively to the cable and to said lever, said casing having a rigid opposite end located adjacent the brake pedal, and a lost motion means secured to and movable with the brake pedal and having a portion slidably engaging said rigid casing end and having another portion slidably engaging the cable beyond said rigid casing end and normally spaced from said rigid end of the casing a distance greater than the normal travel of the brake pedal portion engaged by said lost motion means during normal application of the brakes by the hydraulic brake system, said last mentioned portion of the lost motion means being movable into engagement with the rigid casing end as a result of an excessive brake pedal travel toward a brake applying position to cause said rigid casing end to be displaced away from the anchored cable end whereby a pull is exerted on the cable causing the cable to slide through the casing in a direction inwardly through the first mentioned fixed casing end for exerting a pull on said lever to apply the parking brake of the vehicle, said lost motion means comprising a yoke shaped member, a clamp securing said yoke shaped member to the brake pedal, said yoke shaped member having a lower leg slidably engaging said rigid casing end and an upper leg disposed above and normally spaced from said rigid casing end and constituting the portion slidably engaging said cable, said first mentioned fixed casing end comprising an externally threaded sleeve, a clamp detachably secured to a frame portion of the vehicle, and said sleeve being secured to and supported in a fixed position relatively to the vehicle by said clamp.

2,778,456
DISK TYPE BRAKE
John L. F. Ross, Cleveland, Ohio, assignor to The Ajax Manufacturing Company, Euclid, Ohio, a corporation of Ohio
Application April 22, 1953, Serial No. 350,440
12 Claims. (Cl. 188—170)

11. A brake for a rotatable body comprising a friction plate, a brake plate at one side of said friction plate, means for securing one of such plates to said body for rotation therewith, means for holding the other of such plates against rotation, a second brake plate at the opposite side of said friction plate, the brake and friction plates being mounted for limited relative movement frictionally to engage and to release the same, a plurality of plungers of substantial diameter extending axially through the brake plates to key the two rotatively, said plungers being connected with one brake plate to move therewith and passing through the other brake plate in close sliding fits, compression springs in said plungers, and stop means on said body in engagement with the outer ends of said springs, the latter urging the brake and friction plates into braking engagement.

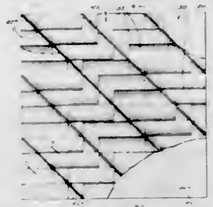
2,778,457
FABRICATED BRAKE BEAM
David M. Light, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application December 15, 1951, Serial No. 261,893
8 Claims. (Cl. 188—223.1)



1. In a brake rigging, a brake beam comprising a channel-shape compression member having spaced flanges and a connecting web, a pair of adapters snugly engaged between said flanges at opposite ends of said member and engaged with said web, a tension rod having abutment shoulders facing inwardly from its ends for interlocking engagement with said adapters, a strut interposed between the medial portions of said member and said rod, and means to secure each adapter and the adjacent ends of said member and rod in assembled relation, said member and adapters having complementary wedge surfaces acting during assembly of the beam to move the adapters apart to thus stress the member and rod.

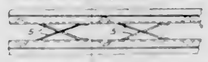
2,778,458
MULTI-STRUT OR MULTI-CELL PANELS
Alfred Briggs, Chicago, Ill.
Application September 5, 1951, Serial No. 245,159
1 Claim. (Cl. 189—34)

An integral structural unit consisting of three flat parallel metal sheets equally spaced apart, a pair of preformed metal brace members, one disposed between the middle sheet and each of the two outside sheets, each of said brace members being similar, said brace members formed with parallel ridge members transverse to the plane of said member and parallel diagonal ridge members connecting said transverse ridge members, alternate rows of said diagonal ridge members sloping in opposite directions, aligned diagonal ridge members converging



to a peak at spaced intervals, said peaks arranged in diagonal rows in the plane of said structural unit, said brace members between successive parallel sheets arranged at right angles to each other so that the ridge members in each member form a checker-board of struts throughout the area of said unit, all of said elements coated with fusible metal and heat-sealed together.

2,778,459
STEEL GIRDERS
Kurt Hecker, Paul Jordan, and Willy Kaiser, Frankfurt am Main, and Herbert Vögeli, Neu-Isenburg, near Frankfurt am Main, Germany
Application July 3, 1951, Serial No. 234,930
Claims priority, application Germany July 4, 1950
3 Claims. (Cl. 189—37)



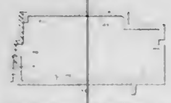
1. A girder and like structure comprising two elongated plates having surfaces substantially parallel to and spaced from each other, both said plates having spaced apart first protuberances of substantially equal configuration and extending in transverse direction to the plates and recessed in said surfaces thereof, and second protuberances in the form of tongue members of substantially equal length struck out of the material of said plates and arranged to extend in lengthwise direction thereof and within the space between two adjacent transversely extending first protuberances, said tongue members of one plate being disposed alternately in one of two parallel, longitudinal rows, the tongue members of the other plate extending in planes parallel to each other and intersecting with the planes in which said tongue members of said one plate extend, the free ends of said tongue members of said plates abutting the respective surfaces of said plates, to thereby space said surfaces of said plates from each other.

2,778,460
AWNING-TYPE WINDOWS
Charles I. Girschowitch, Cyn Wyd, Pa.
Original application March 13, 1951, Serial No. 215,234, now Patent No. 2,663,389, dated December 22, 1953. Divided and this application December 14, 1953, Serial No. 398,171
1 Claim. (Cl. 189—62)

An awning-type window, the frame thereof having a head member, which consists of a main strip of metal having an apron adjacent its rear edge at the underside of the main strip, the forward edge of the main strip having a strip, one free edge of which is above the main

strip while its lower edge projects below the main strip and terminates in a downwardly and outwardly curved angle portion extending the full length of the main strip to form an eave at the head of the frame, and a strip having a straight edge attached to the angle portion of the main strip and at the forward edge of the main strip, and its lower projecting edge being bent outwardly and substantially parallel to the downwardly and outwardly curved portion of the main strip.

2,778,461
AWNING TYPE WINDOWS
Charles I. Girschowitch, Cyn Wyd, Pa.
Original application March 13, 1951, Serial No. 215,234, now Patent No. 2,663,389, dated December 22, 1953. Divided and this application December 14, 1953, Serial No. 398,172
1 Claim. (Cl. 189—75)



An awning type window having a hollow extruded metal sill, and two hollow extruded metal jambs attached to the sill, each jamb consisting of three extruded metal members, one of the members constituting the inner wall of the jamb as well as a portion of the outer wall of the jamb and having a relatively wide flat portion and a short right-angled edge at its inner face and a right-angled recessed portion that constitutes a portion of the outer face of the jamb, a second member having a strip attached to the outer face of the short right-angled edge of the inner wall member and having the outer parallel edge thereof extended beyond and parallel to the portion so attached, and the third member forming the wall attached or face portion of the jamb and having an upturned right-angled recessed portion to receive the parallel edge of the second member and having its other parallel edge attached to the first member.

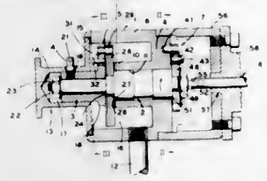
2,778,462
FLUID MOTOR AND TRANSMISSION
Robert C. Helke, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 27, 1952, Serial No. 306,614
2 Claims. (Cl. 192—.03)

1. In an actuator of the type including, a cylinder and a reciprocable piston disposed in said cylinder capable of fluid pressure actuation in either direction, the improvement which comprises releasable locking means operatively associated with said piston for preventing movement thereof when no fluid pressure is exerted thereon, said locking means comprising a first annular member normally restrained against rotation, a second annular member operatively connected with said piston so as to rotate in response to piston reciprocation, said second annular member being supported for axial movement relative to said first annular member, and resilient means acting on said second annular member for urging it into engagement with said first annular member, said members being coaxially arranged and having coengaging faces, each member having a plurality of teeth projecting axially from its face, the ends of said teeth lying in different planes, whereby when the members are moved toward each other by said resilient means and rotated relative to each other due to piston movement, the teeth thereof will effect positive engagement of the members within a predetermined relative rotative movement therebetween so as to lock said piston against movement.

2,778,463
COMBINATION FUEL AND BRAKE CONTROL FOR MOTOR VEHICLES
Joseph V. Rook, San Antonio, Tex.
Continuation of application Serial No. 437,151, June 16, 1954. This application October 24, 1955, Serial No. 542,236
16 Claims. (Cl. 192—3)

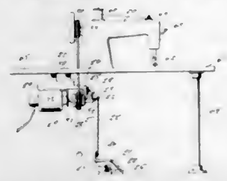
1. Control mechanism for the fuel and brake systems of a motor vehicle, comprising: a support; a fuel feed lever connected to the vehicle fuel system and pivoted to the support for movement downwardly and upwardly respectively between fuel-decrease and fuel-increase positions; means biasing said lever to its fuel-decrease position; an actuator lever pivoted to the support above the feed lever for up and down movement; means biasing the actuator lever upwardly and away from the feed lever; a single pedal mounted for forward and reverse movement between front and rear ends of a fore-and-aft control range; a force-transmitting device interconnecting the pedal and the actuator lever for movement of the two in unison so that forward and reverse movements of the pedal respectively incur downward and upward movements of the actuator lever; feed lever pick-up means carried by one lever and initially in disengaged relation to the other lever during downward movement of the actuator lever and operative to effect an interconnection between the levers at a point in downward movement of the actuator lever corresponding to an intermediate position of the pedal in its control range, said pick-up means enabling downward overtravel of the actuator lever as respects the feed lever but operative to apply a lifting force to said feed lever upon upward movement of the actuator lever as the pedal moves reversely from said intermediate position, and said pick-up means being releasable substantially when the pedal reaches the rear end of said control range so that the feed lever is automatically returned by its biasing means to its fuel-decrease position irrespective of further reverse movement of the pedal; and a brake control element connected to the vehicle brake system and biased to a rear brake-off position and movable to a forward brake-on position, said element being arranged to be engaged and moved forwardly by the pedal as the pedal moves forwardly from said intermediate position in its control range.

2,778,464
INTERMITTENT DRIVE FOR A COUNTING DEVICE
Leonard T. Cookson, Kalamazoo, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan
Application March 13, 1952, Serial No. 276,337
7 Claims. (Cl. 192—12)



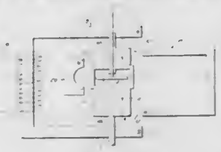
1. For use with a counter having a rotatable shaft, a device for converting that portion of reciprocating motion which is in a selected direction into intermittent unidirectional rotary motion, the combination comprising: a generally cup shaped base member having a central opening therein positioned co-axially with respect to the annular portion thereof; a shaft extending through the opening and rotatably supported with respect to said cup shaped base member; a driving disk mounted on said shaft for rotation therewith and located adjacent one axial end of said base member; a sleeve on said shaft and rotatable with respect thereto and located adjacent said driving disk and on the side thereof remote from said base member; a plurality of clutch disks eccentrically and rotatably supported upon said driving disk and arranged around the periphery of said sleeve; means urging said clutch disks into peripheral engagement with said sleeve for rotating said driving disk intermittently in a single rotative direction upon oscillation of said sleeve; a braking disk arranged on said shaft for rotation therewith and disposed adjacent the other axial end of said base member; uni-directional braking means operatively arranged between said braking disk and said base member for permitting rotation of said shaft only in the direction in which it will normally be driven by said driving disk and preventing rotation of said shaft in a reverse direction; means connecting said shaft to the input shaft of the counter and means translating said reciprocating motion into oscillating motion of said sleeve.

2,778,465
MANUALLY ACTUATED NON-YIELDING CLUTCH
Charles Stenchever, Middle Village, and Frank Mastandrea, Maspeth, N. Y.
Application May 28, 1954, Serial No. 433,082
1 Claim. (Cl. 192—18)



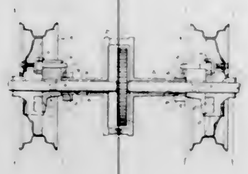
A manually maintained engagement type positive clutch comprising a motor driven flywheel provided with friction drive means annularly disposed about the flywheel periphery, in combination with a pulley having friction engaging surfaces spaced from and parallel to the first said means, said pulley being rotatably mounted about a shaft which is biased axially away from said flywheel, said shaft being journalled within a housing and provided with manually operated non-yielding means for causing axial shaft movement towards the flywheel, said latter means being spring biased, whereby said shaft is normally urged to a position of clutch disengagement, in further combination with a pulley belt attached to the periphery of said pulley at one end and the periphery of a second pulley at the other end, said second pulley driving a second shaft, said manually operated non-yielding means comprising a lever operated by a foot pedal, said lever being connected to a pinion gear journalled in the housing, and said shaft being provided with gear teeth for coaction with the pinion gear, said lever being mounted on a bracket adjustably connected to the housing whereby the bracket can be moved vertically and laterally, and said lever being connected to a chain, the latter being connected to a hinged plate located near the operator's foot, and said hinged plate being spring pressed toward said lever, said pinion gear being also connected at the side remote from said lever to a second lever, the latter being spring biased in a direction which causes the flywheel and the pulley to be disengaged, and said first shaft having an end remote from the pinion gear, a head, said head having a ring affixed peripherally thereto, including a second ring spaced from and surrounding the first said ring and affixed to the pulley, and ball bearings retained between said two rings, one of said rings having sloping surfaces about the peripheral surface, and the other of said rings having sloping surfaces about its interior surface, said surfaces being oppositely disposed, whereby retaining pressure is applied to the ball bearings, and said pulley being formed with a central bore encompassing the two rings, a transverse shoulder protruding inwardly from said bore providing an outer bearing surface for said other ring and a closure disc lodging in an annular groove in the pulley providing an inner bearing for said other ring, whereby said rings and the ball bearings are retained within the pulley central bore, and said pulley having a transverse surface on the side remote from the flywheel, and said casing being provided with a surface spaced from and parallel to the surface of said pulley, including a brake lining disc affixed to the latter, whereby pressure contact is had between the latter and the brake lining when the clutch is disengaged.

2,778,466
MAGNETIC BRIDGE CIRCUIT TO CANCEL HYSTERESIS EFFECTS IN MAGNETIC CLUTCHES
Edward Gordon Perry, Jr., Dallas, Tex., assignor to Texas Instruments Incorporated, Dallas, Tex., a corporation of Delaware
Application May 1, 1953, Serial No. 352,420
4 Claims. (Cl. 192—21.5)



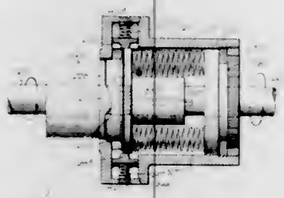
1. In a magnetic clutch including a driving member, a driven member coaxially mounted therewith and separated therefrom by a gap, a field core, and a field coil arranged to pass flux through said field core and axially through said driving member, gap, and driven member, the improvement which comprises a core member having one end mounted adjacent but spaced by an air gap from said field core and said driving member and its other end mounted adjacent but spaced by an air gap from said driven member whereby a portion of the flux passing through said field core during energization of said field coil will pass through said core member so that upon de-energization of said field coil, said core member, due to its residual magnetism, will pass a flux through said clutch members in opposition to the flux passing through said clutch members due to residual magnetism of said field core.

2,778,467
RATCHET DRIVE MECHANISM
Arthur J. Lewis, Stratford, Conn., assignor to The Baird Machine Company, Stratford, Conn., a corporation of Connecticut
Application March 11, 1954, Serial No. 415,516
8 Claims. (Cl. 192—50)



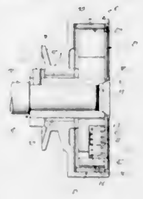
1. An overrunning differential ratchet drive for a vehicle including a drive shaft support, a drive shaft rotably mounted on the support, laterally spaced wheels rotatably mounted on the drive shaft, and a ratchet drive between each wheel and the shaft including a ratchet portion on the wheel having a ratchet surface provided with a series of spaced teeth and recesses therebetween spaced outwardly from the shaft and arranged concentrically with respect thereto, a block mounted on the shaft for rotation therewith adjacent the wheel, a driving pawl movably mounted on the block having forward and reverse driving positions thereon and provided with a pair of spaced forward and reverse driving teeth selectively engageable with the ratchet teeth, means operable on rotation of the shaft in forward or reverse direction to move the pawl to bias the corresponding driving tooth into engagement with said ratchet surface including a friction member mounted for rotation on the support and a pawl operating connection between said friction member and pawl, and cam means on the pawl engageable by the ratchet teeth on overrunning rotation of the wheel relative to the shaft in either direction for reversing the driving position of the pawl, the spacing and positioning of the pawl teeth relative to the ratchet surface being such that with the pawl in said reversed position with one pawl tooth leaving the trailing edge of a ratchet tooth, the other pawl tooth is positioned in one of said recesses for engagement with but spaced from the leading face of another ratchet tooth.

2,778,468
OVERLOAD RELEASE CLUTCHES
Mesrop K. Babaian, Newark, N. J., assignor, by mesne assignments, to Centric Clutch Company, a corporation of New Jersey
Application November 18, 1952, Serial No. 321,147
2 Claims. (Cl. 192—56)



1. An overload release clutch for transmitting power between a first shaft and a second shaft comprising a rotatable casing, a first clutching member mounted on said first shaft, a second clutching member in said casing slidably mounted on said second shaft and rotatable therewith, one of said clutching members having teeth formed on an end thereof, the other clutching member having notches adapted to receive said teeth, said teeth being adapted to be moved out of said notches on overload, spring means normally holding said second clutching member in engagement with said first clutching member, and holding means for holding one of said members disengaged from the other on overload, said holding means comprising spring pressed pawls mounted in said casing and pivotable within said casing in a plane perpendicular to the axis of rotation of said second shaft, said pawls having detents, and a collar on said second member, said collar having a substantially conical surface, and the detents of said pawls being positioned to engage said conical surface on overload; in combination with resiliently mounted pins adapted to be moved outwardly of said casing by said pawls on overload to signal disengagement of said clutch, and to be moved inwardly to reset said pawls.

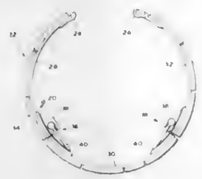
2,778,469
CENTRIFUGAL CLUTCH
Elmer L. McIntyre, Dearborn, Mich., assignor to Morse Chain Company, Ithaca, N. Y., a corporation of New York
Application September 19, 1951, Serial No. 247,261
2 Claims. (Cl. 192—105)



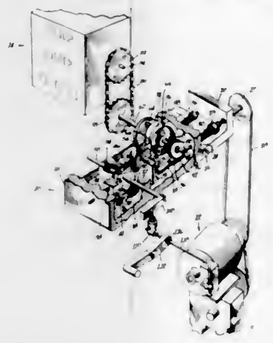
1. A centrifugal clutch comprising a rotatable drum, an annular friction lining loosely disposed in the drum, a rotatable driving hub, a radial clutch plate fixed to the hub and formed with a plurality of circumferentially spaced cut-out portions and having a group of laterally projecting ears at the marginal regions of each of said cut-out portions, centrifugally responsive weights disposed in circular array, each weight having a central cavity formed therein for loosely receiving a group of ears whereby the weighis are loosely supported so as to be susceptible to radial movement with respect to the hub, a coil spring disposed in each cavity, said coil spring being maintained under a compressive load by the engagement by one end thereof with one of said ears and by the engagement of the other end thereof with the corresponding weight whereby the particular weight is urged radially toward said hub, said weights being individually operable responsive to centrifugal force to overcome their respective springs permitting the weights to move outwardly away from the hub to effect engagement of the weights with a friction surface of said lining to induce rotary movement of said drum responsive to progressive engagement of said weights with said lining, and said lining with said drum.

2,778,470
FLEXIBLE BRAKE OR CLUTCH BAND
David N. Goldberg, Wheeling, W. Va.
Application January 26, 1954, Serial No. 406,104
22 Claims. (Cl. 192—107)

1. An articulated brake or clutch shoe assembly comprising a pair of hinged shoe sections, and hinge means for coupling said sections together comprising a male hinge member having a web portion of appreciable width disposed transversely of the end of one of said sections, a pintle means connected to said web portion, and a female hinge member for connection to said male member, said female member having a socket extending transversely of the end of the other of said sections for receiving said pintle member and a slot portion in communication with said socket for receiving said web member.

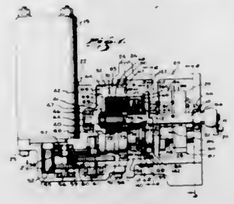


2,778,471
AUTOMATIC RESETTING MECHANISM FOR COMPUTERS
George Kuhn, Silver Spring, Md., assignor to The Wayne Pump Company, Salisbury, Md., a corporation of Maryland
Application February 15, 1955, Serial No. 488,391
3 Claims. (Cl. 192—138)



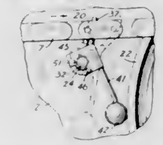
1. An automatically interruptable power drive mechanism for rotating a driven element a limited number of revolutions comprising a drive shaft having a worm fixed thereon, means supporting said drive shaft for rotation and axial translation, a planetary unit supported adjacent said drive shaft and including a driving sun gear, a driven carrier having planetary pinions meshing with said sun gear and an orbit gear meshing with said planetary pinions, a slidable latch element mounted adjacent said orbit gear and including structure for cooperating with said orbit gear to selectively arrest rotation of the latter, means normally biasing said latch element into engagement with said orbit gear to brake the latter, control means including a locking means positioned to cooperate with said latch and including structure adapted to retain said latch disengaged from said orbit against said bias means, a drive motor connected to rotate said drive shaft, a linkage mechanism interconnected between said control means and said motor and including structure for selectively energizing and deenergizing said motor, said control means further including structure operatively connected to said linkage for simultaneously releasing said locking means from said latch member upon movement of said linkage to energize said motor, said drive shaft being adapted to translate axially upon stoppage of rotation of said driven element and including structure for releasing said latch element from engagement with said orbit gear upon the occurrence of such condition.

2,778,472
ACTUATING MECHANISM
James E. Young, Los Angeles, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California
Application September 21, 1951, Serial No. 247,689
5 Claims. (Cl. 192—142)



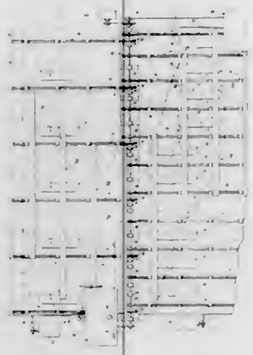
1. In a multi-stage actuating mechanism: an output actuating member; power means for operating said actuating member; a slippable driving connection between said power means and said actuating member including a housing driven by said power means; releasable means for positively locking the output actuating member in various predetermined positions; selective control means for the locking means for locking said actuating member in any of the various positions; means controlled by the locking means for stopping operation of the power means when said locking means locks the actuating member in a selected position; cams carried by said housing so as to be operated by the power means for releasing the locking means; means limiting movement in both directions of said actuating member; and means limiting movement of the actuating member and cams relative to each other.

2,778,473
LAST LINE INDICATOR
Yuan Shuen Wang, Hong Kong, China
Application September 21, 1954, Serial No. 457,442
4 Claims. (Cl. 197—189)



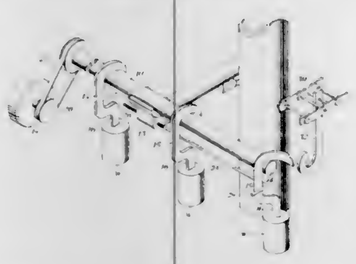
1. In combination, a typewriter carriage having a frame including a frame arm, a platen having a platen shaft journaled through said frame arm, said platen shaft having a free end having a platen rotating knob thereon, a first sprocket wheel circumposed upon and fixed to rotate with said platen shaft, a second sprocket wheel rotatably mounted on said frame arm in laterally spaced relation to said first sprocket wheel, an endless sprocket chain trained around and extending between said sprocket wheels, a trip finger on and projecting laterally from said sprocket chain, and bell mechanism mounted on said frame arm, said bell mechanism comprising a bell, a bell hammer lever having a hammer arm normally disposed in contact with the bell, a trip lever associated with and held in operative engagement with the bell hammer lever at all times during normal operation of the machine and movable relative to and out of operative engagement with the bell hammer lever only when the sprocket chain is moved backwardly in response to rotation of the platen in a direction opposite to that in which it is rotated during normal operation of the machine, spring means associated with said frame arm and said bell hammer lever and urging the bell hammer lever toward effective engagement with the bell, and a trip arm on said trip lever arranged for operative engagement with the trip finger on the sprocket chain as the platen is rotated in one direction.

2,778,474
MULTIDIRECTIONAL LUMBER TRANSFER MECHANISM AND METHOD
Edwin W. De Koning, Portland, Oreg.
Application September 27, 1954, Serial No. 458,475
18 Claims. (Cl. 198—19)



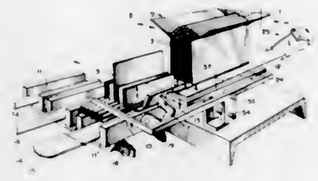
1. A lumber transfer mechanism, comprising an elongated table top having a first end and a second end, longitudinal means adjacent one edge of said table top defining a zero reference line, first conveyor means for moving an elongated board edgewise in a direction parallel said reference line from said first to said second end at a continuous constant velocity, second conveyor means intermediate said table ends for moving said board endwise across the table to a position with the terminal end of the board aligned with said reference line, and means intermediate said second conveyor and said second table end for crowding and pushing said board endwise with a preselected force.

2,778,475
CONVEYOR APPARATUS
Wilbur E. Milligan, Quincy, Mass.
Application March 11, 1954, Serial No. 415,663
4 Claims. (Cl. 198—33)



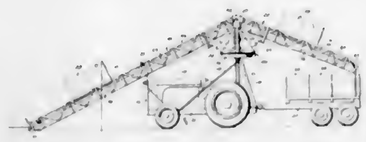
4. Conveyor apparatus comprising a rotatable shaft having a free end and adapted to be mounted sloping downward from the horizontal toward said free end, at least one hook carried on said shaft and movable longitudinally of said shaft toward said free end upon rotation of said shaft, a conveyor adjacent said free end including at least one hook movable in a path beyond said free end, abutment means adjacent said free end, said abutment means including a surface extending substantially parallel with said path to be engageable by the first said hook upon said longitudinal movement and coacting with said shaft upon continued rotation thereof for swinging at least a portion of said first hook beyond said free end into said path to be picked up by the second said hook.

2,778,476
CONVEYING AND TRANSPORTING MECHANISM FOR ELONGATED ARTICLES
Harry E. Engleson, Chicago, and Elmer D. Sramek, Cicero, Ill., assignors to F. B. Redington Co., Chicago, Ill., a corporation of Delaware
Application March 21, 1955, Serial No. 495,415
13 Claims. (Cl. 198—35)



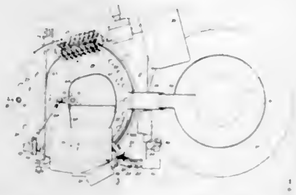
4. In a machine for packaging elongated articles, apparatus for placing said articles into a conveyer bucket, said apparatus comprising a plurality of parallel movable dividing partitions for holding articles mutually parallel, bunching means including a bunching member positioned on each side of said plurality of partitions and disposed substantially parallel with the partitions, means cooperating with said plurality of partitions to position a predetermined number of said elongated articles between each adjacent pair of said plurality of partitions and between each bunching member and partition adjacent thereto, and means operatively associated with the bunching means for lifting the plurality of partitions from the articles positioned therebetween, said bunching means being operable to bunch the elongated articles into close spaced relation as the partitions are lifted.

2,778,477
APPARATUS FOR STACKING
Ezra C. Lundahl, Logan, Utah
Application February 2, 1955, Serial No. 485,660
8 Claims. (Cl. 198—91)



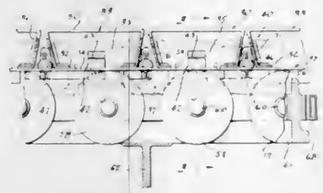
1. A portable loading conveyor apparatus for transferring bales of hay and like articles from one location to another comprising a vehicle, a substantially vertically extending support mounted on said vehicle, a first member fixed on said support, a second member rotatably engaged with and supported by said first member, shaft means supported by said second member, a pair of conveyor supporting arms arranged in end to end relation pivotally mounted at their adjacent ends on said shaft means, endless conveyor means extending around said arms, drive means mounted on said second member operatively connected to move said conveyor means around said arms, elevating means operatively connecting each of said arms with said second member for pivoting each of said arms with respect to said second member so that said arms can be independently pivoted to different angular positions respecting the vertical to facilitate transfer of articles from one elevation to another, and means to supply power from the vehicle to said elevating means and said drive means through said first member and said second member to enable substantially free rotation of said second member through an arc of at least 360°.

2,778,478
FEED MECHANISM FOR WRAPPING MACHINES
Leonard Brook, Leeds, England, assignor to The Forgrove Machinery Company Limited, Leeds, England, a company of Great Britain
Application January 4, 1954, Serial No. 402,089
Claims priority, application Great Britain August 4, 1953
7 Claims. (Cl. 198—107)



1. In a wrapping machine, the combination of an intermittently rotating horizontal feed disc for conveying tablets from a loading station to a lifting station, said disc having near its rim a series of circumferentially spaced pockets to accommodate the tablets, means at the loading station for delivering tablets on to the feed disc, a lifting device at the lifting station for lifting the tablets in succession from the pockets of said feed disc, a tray for confining the tablet delivered onto the feed disc, said tray being formed by a portion of the feed disc and fixed walls extending across and around the feed disc, a rotary brush in contact with the feed disc, which permits only of passage of tablets contained in said pockets from the tray to the lifting station, a scattering member mounted within the tray for pivotal movement across the feed disc about a vertical axis near the centre of the feed disc, and mechanism for oscillating said scattering member about its pivot to scatter outwardly tablets accumulated near the centre of the feed disc.

2,778,479
CONVEYOR FOR SPRAY TYPE PASTEURIZER
George L. N. Meyer, Milwaukee, Wis., assignor to Geo. J. Meyer Manufacturing Company, Cudahy, Wis., a corporation of Wisconsin
Application January 21, 1953, Serial No. 332,151
8 Claims. (Cl. 198—195)



1. A conveyor for a spray type pasteurizer or the like, said pasteurizer including a casing, said conveyor comprising a plurality of elongated conveyor elements having inwardly and downwardly sloping sides, a conveyor chain comprising a plurality of links pivoted together between the inner divergent ends of the sides, a roller mounted between each of the conveyor elements on the chain pivots, means carried by the casing to support the conveyor adjacent the sides thereof through said roller, a flat plate member carried by each of said conveyor elements intermediate the sides of the conveyor, pivot pins connecting the said plates intermediate the conveyor elements on axes coaxial with said rollers, to form a continuous flexible intermediate support between the sides of the conveyor, and means carried by the casing contacting the flexible support to prevent buckling of the conveyor elements.

2,778,480
CONVEYOR ELEMENT
Donald A. Dobbins, Burbank, Calif.
Application January 27, 1955, Serial No. 484,552
4 Claims. (Cl. 198—195)

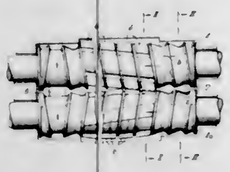
2. A conveyor element, comprising: spaced parallel linkages, each linkage consisting of a plurality of sheet-metal links each having a flat horizontal plate portion provided with at least one ear projecting longitudinally at each end, each of said ears having transversely-spaced, longitudinal slits, the metal between the slits providing bearing strips, said strips being integral with said plate portion throughout and being of semi-circular shape, said strips providing semi-cylindrical bearing sockets arranged in reverse order alternately above and below the plane of the plate portion with the axes of the bearing sockets in alignment and extending transversely of the plate portion within said plane, said bearing sockets together providing a substantially continuous transverse bearing, each of said ears having a cross-bar joining said bearing strips at the free end of the ear, the ears of adjoining links interfitting in hinge-leaf fashion with their bearing socket portions coaxially aligned transversely of the linkage; rods extending transversely between the linkages with their ends rotatable in said bearing portions to pivotally connect said links; and interengaging detent means on said rod ends and on at least one of said bearing socket portions by which the links and rods are retained in pivotal connection.

2,778,481
DRIVE MECHANISM FOR CONVEYOR SYSTEMS
Robert John Brooks, Hitchin, England, assignor to Geo. W. King Limited, Hitchin, England, a British company
Application November 8, 1951, Serial No. 255,405
Claims priority, application Great Britain November 9, 1950
3 Claims. (Cl. 198—203)

1. A driving chain comprising a succession of inner and outer links, each of said links consisting of a pair of link elements disposed in parallel relationship with the outer end portions of the elements of said pair of links overlapping the end portions of the preceding and succeeding inner links, the inner end portions of said pair of links overlapping each other, connecting bushes extending through registering apertures in the overlapping portions of said links, thereby hingedly to interconnect the same and a plurality of flat strip like members disposed on the centre line of the chain at spaced points therealong, the opposite end portions of each of said members being sandwiched between the elements of successive inner links, one end portion of said member being pivotally mounted on the connecting bush extending through the outer elements of the adjacent inner link, the other end portion of said member being arcuately slotted and receiving the connecting bush extending through the outer elements of the next inner link in succession thereby to allow hinge movements of said links while the relative disposition of the successive links controls the

position of said member with respect to the links, said members also each being formed with at least one projection which is adapted to extend outwardly from the chain to form a driving abutment each of said members being provided with a central slot, each of the slots extending from its associated bush respectively to opposite sides of the chain.

2,778,482
SCREW CONVEYOR
Albert Lasch, Stuttgart-Bad Cannstatt, and Alfred Stroebel, Stuttgart-Weil im Dorf, Germany, assignors to Werner & Pfleiderer Maschinenfabriken und Ofenbau, Stuttgart, Germany
Application August 15, 1955, Serial No. 528,424
Claims priority, application Germany August 13, 1954
12 Claims. (Cl. 198—213)



12. A screw conveyor comprising, in combination, a housing; a pair of similar conveyor screws having oppositely directed alternate helical screw grooves and screw ribs and being rotatably mounted in said housing adjacent each other in such a manner that said screw grooves register with each other during simultaneous rotation of said conveyor screws, the screw groove of each of said conveyor screws having a substantially rectangular cross-sectional configuration; and a plurality of transverse vanes in the screw groove of each of said conveyor screws, the transverse vanes of each one of said conveyor screws extending outwardly beyond the screw rib of said one conveyor screw and being shaped so as to project into the screw groove of the other of said conveyor screws.

2,778,483
NON-WRAP FINGERS FOR AUGER DRUM OF COMBINE
Benjamin L. Nikkel, Windom, Kans.
Application December 19, 1952, Serial No. 326,857
1 Claim. (Cl. 198—217)

In an agricultural implement, a receiving trough including an upper wall and spaced parallel end walls, a flange depending from said upper wall and secured thereto, an inclined baffle secured to said flange, there being a plurality of spaced parallel slots in the lower edge of said baffle defining in said baffle spaced parallel stripping sections, a shaft journalled in said end walls, an auger drum mounted on said shaft, a plurality of spaced apart fingers each having curved portions complementary to and secured to the outer periphery of said drum, said fingers further including inclined leading edges, said fingers adapted to register with the slots in said baffle, oppositely disposed flights on said drum for carrying the grain from the ends of the receiving trough towards the center thereof, a bottom wall provided with a downwardly extending arcuate section arranged below said drum, said fingers being provided with rearward outer blunt corners, said fingers being arranged spirally about the central portion of the drum.

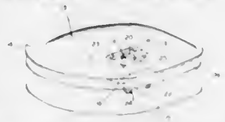
2,778,484
CONVEYORS
Joseph Harold Foster, Seattle, Wash.
Application October 11, 1954, Serial No. 461,611
15 Claims. (Cl. 198—218)

1. A conveyor unit for flipping successive batches of particulate material in a given sense along a given path from its receiving end past its discharge end, comprising a sheet of relatively inelastic material extending from end to end of the unit, and flexible lengthwise, means to anchor the discharge end of said sheet, leaving it otherwise free to flex, means defining a plurality of interconnected and substantially inelastic bladders disposed transversely above said sheet, at longitudinally spaced intervals, and secured at their transverse edges to said flexible sheet of material, and means for admission of air under pressure to the bladders, to inflate them and so to curl up the sheet of material, and for discharge of air to deflate them.

2,778,485
VACUUM TUBE GETTER BODY MATERIAL
Ernesto Gabbrielli, Milan, Italy
Application April 27, 1953, Serial No. 351,138
4 Claims. (Cl. 206—0.4)

1. A vacuum tube getter body comprising a strip of supporting material, at least one layer of getter material condensed on said strip from the vapor state, and a thin layer of protective metal condensed onto the exposed surface of said getter material from the vapor state.

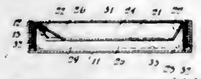
2,778,486
COMBINED CORD SPOOL AND SHAVER SUPPORT
Louis C. Carissimi, Fairfield, Conn., assignor to Sperry Rand Corporation, a corporation of Delaware
Application July 2, 1954, Serial No. 441,054
2 Claims. (Cl. 206—16)



1. A unitary device for supporting an appliance and its associated cord, which comprises an appliance-supporting plate curved to the shape of the appliance, a cord spool integrally connected therebelow and comprising spaced plates and a connecting hub, said hub comprising spaced plates with ears at the upper and lower corners thereof, the spool plates and the supporting plate having slits therein through which the ears pass and are bent over to hold the hub plates and the other plates together as a unit, and a strap lying in a plane perpendicular to said spool plates and said hub plates and connecting two adjacent edges of the hub plates.

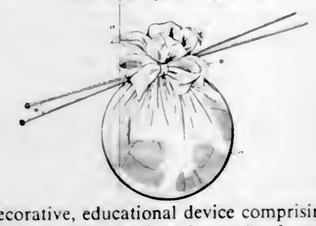
2,778,487
DISPLAY CONTAINER
Abner A. Raeburn, New York, N. Y.
Application July 19, 1954, Serial No. 444,210
2 Claims. (Cl. 206—45.19)

1. A display container having a platform therein adapted to mount merchandise to be displayed comprising a rectangular box member having a bottom and side walls extending upwardly from said bottom, a rectangular platform member in said box providing an upper mounting surface, upwardly extending border portions projecting from each of the margins of said platform member recessed therebetween, downwardly extending flaps projecting from each of said border portions and lying immediately adjacent the respective inner faces of said side walls between the bottom of said box member and the upper edges of the side walls thereof, the width of



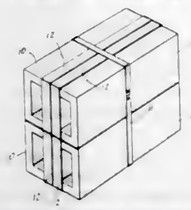
said flaps being greater than the width of said border portions, and a substantially U-shaped cut formed in said platform member adjacent a margin thereof which extends into the immediately adjacent border portion at said margin, said cut forming a hinged tab which is bent upwardly on a fold line which is substantially parallel to and spaced inwardly from said margin and which is inclined towards said border portion to bear thereagainst and serve as a display panel for an article and to bear identifying information pertinent thereto.

2,778,488
EDUCATIONAL OR INSTRUCTIVE CHILD'S KNITTING KIT
Joan S. Brown, Washington, D. C.
Application January 30, 1956, Serial No. 562,046
7 Claims. (Cl. 206—47)



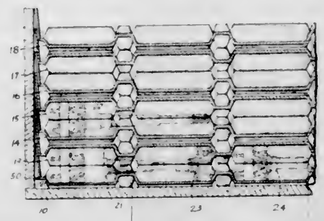
1. A decorative, educational device comprising a package including a core, a series of strands of multi-colored yarn wound upon said core and forming a ball, a series of prizes distributed within said yarn located at different distances from said core and adapted to be discovered one at a time as the yarn is unwound, and a pair of single end colored anodized aluminum knitting needles, a wrapper for said ball, said wrapper comprising a sheet of colored plastic having its ends gathered together, and a bow of ribbon of a color which contrasts with the color of the yarn on the exterior of said ball, binding said gathered ends together and fastening said knitting needles to the package.

2,778,489
BUILDING TILE PACKAGE
George W. Shoemaker, Brazil, Ind., assignor to Arketex Ceramic Corporation, Brazil, Ind., a corporation
Application October 20, 1953, Serial No. 387,165
1 Claim. (Cl. 206—65)



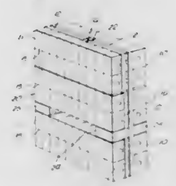
A package of glazed building tile comprising a pair of units, each unit including a tile and a protective cover engaging and covering the glazed face thereof, each cover comprising a panel of substantially the same area as the glazed face to be protected, end and side panels integral with the end and side edges of said protective panel and hinged to the side and end edges thereof to snugly embrace portions of the sides and ends of said tiles, said pair of units being assembled and bound together with said protective covers in face to face engagement with one another.

2,778,490
PACKAGING WITH MOLDED PULP CUSHIONING PADS
Richard L. Emery, Fairfield, Maine
Application December 16, 1953, Serial No. 398,562
7 Claims. (Cl. 206—65)



1. A packing device comprising a molded pulp sheet having alternate rows of recesses and ribs on each surface thereof whereby the recesses on one surface form the ribs on the opposite surface and the ribs on said one surface form the recesses on the opposite surface, said alternate rows of recesses and ribs being parallel with each other while being positioned in completely separate lateral planes, each recess being provided with a ridge extending in a direction parallel to the direction of said rows and extending the full length of the recess in said direction, and each rib being provided with a groove extending the full length of the rib in a parallel direction to said ridges, said recesses and ribs having complementary sizes and shapes and said ridges and grooves also having complementary sizes and shapes.

2,778,491
BUILDING MATERIALS PACKAGE
Robert B. Taylor, Elmhurst, and Paul V. Johnson, Park Forest, Ill., assignors to Structural Clay Products Research Foundation, Chicago, Ill., a trade association
Application October 11, 1954, Serial No. 461,462
4 Claims. (Cl. 206—65)

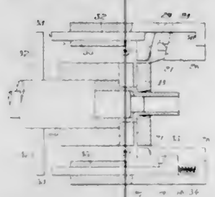


4. A package of like bricks comprising, in combination, at least two modular units of a plurality of bricks, each of the units comprising at least one column of uniformly oriented brick bound with a tension strap forming an elongated rigid unit, a pair of spaced blocks between two of the units, the units being positioned in spaced relation with their longitudinal axes parallel and defining a single uninterrupted opening therebetween, said uninterrupted opening being of a length equal to the combined width of at least three bound bricks along the axis of the openings, and a package tension strap binding the units into a single package.

2,778,492
DISPLAY AND DISPENSING DEVICE
Abner A. Raeburn, New York, N. Y.
Application June 26, 1953, Serial No. 364,448
2 Claims. (Cl. 206—79)

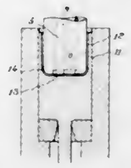
1. In combination a sheet of material formed with a pair of oblong openings extending perpendicular to an edge of said sheet and parallel to each other, said openings—in their ends adjacent such sheet edge—being enlarged and of reduced area adjacent their opposite ends, an article carried by said sheet and received in said openings, said article comprising a part having an outer display face, a pair of pins each having one of their ends connected to the rear face of said part to extend substantially perpendicular with respect thereto and at points spaced from each other, retaining means mounted adjacent the opposite ends of said pins and extendible one through the enlarged ends of each of said openings to shift said part adjacent the outer sheet face to span the distance between said openings, said article being thereupon movable in a direction parallel to said sheet towards those ends of the openings which are of reduced area and a strip connected to such sheet to extend away from said edge of the same, said strip overlying the outer sheet face and enlarged opening and having an edge underlying said article part, said edge being common to both said pins and engageable therewith to prevent said article from moving in the direction of the enlarged ends of the openings.

2,778,493
APPARATUS FOR THE PRODUCTION OF TUBULAR BODIES WITH VARIABLE CROSS-SECTION
Alfred Kreidler, Stuttgart, Germany
Application December 23, 1952, Serial No. 327,569
Claims priority, application Germany December 31, 1951
3 Claims. (Cl. 207—3)



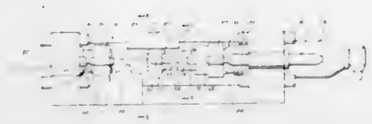
1. An extrusion apparatus for making an elongated body having a length of large cross section and a length of small cross section comprising a pressure chamber having opposite ends and adapted to receive a blank, ram means extending through one end of said chamber adapted to apply pressure to the blank, a first die having a die aperture the size of a large cross section adapted to restrict the other end of said chamber, a first stop means for holding said first die against movement in its operative position, a second die having a die aperture the size of the smaller cross section ahead of and in alignment with said first die and adapted to further restrict the said other end of said chamber, said second die being adapted to move in the direction of the extruded length, a second stop means capable of holding said second die in its operative position against movement in the direction of the extruded length, said aforesaid structure being such that said second die sizes the body to a length of the smaller cross section, and, upon release of said second stop means, allows the first die to finish the large cross section, the shoulder formed by the different cross sections carrying said second die along with the extruded product and means responsive to the progress of the extrusion operation for releasing said second stop means for movement to release said second die, so that the second die may be carried with the extruded body upon finishing a predetermined length of the portion of the smaller cross section of said elongated body so as to render said second die inoperative and to permit continuation of extrusion of said elongated body through said first die only.

2,778,494
EXTRUSION APPARATUS FOR THIN-WALLED HOLLOW TUBING
Alfred Kreidler, Stuttgart, Germany
Application December 17, 1952, Serial No. 326,428
Claims priority, application Germany December 31, 1951
1 Claim. (Cl. 207—9)



In a forming press for producing hollow workpieces by pressing out the core from solid main blanks by means of a relatively thin auxiliary blank disposed on the face of the said main blank which is subjected to pressure, a reciprocating ram having passages extending longitudinally therethrough, grooves disposed in the front face of the said ram, the said passages terminating into said grooves, the latter bearing against the said auxiliary blank, the said passages and grooves being adapted to pass a cooling medium through the said ram for cooling the ram face and the said auxiliary blank.

2,778,495
EXTRUSION PRESS
Gerhard P. Krause, Harrison, N. Y., assignor, by mesne assignments, to Baldwin-Lima-Hamilton Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application March 9, 1953, Serial No. 341,163
4 Claims. (Cl. 207—9)

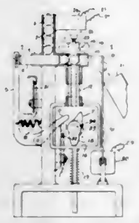


1. An extrusion press comprising a frame, die means fixedly positioned with respect to the frame, a container movably mounted on the frame and having an opening therethrough adapted to support a billet, means for moving the container toward the die means to effect abutting engagement between the die means and the inner end of the container for the duration of the extrusion and for moving the container away from the die means when the extrusion is completed, an extrusion stem adapted to enter the outer end of the container opening to force the billet material through the die means, a ram for actuating said stem, operating means for actuating said ram toward and away from said container, sealing means movably connected to said ram and adapted to engage the outer end of said container for forcing the container against the fixed die to effect a tight seal between the die and container, means for moving said sealing means relative to said ram, while the ram is in retracted position, to a position adjacent to but spaced from the outer end of the container, and said means for moving said sealing means including means yieldable under predetermined pressure so that the movement of said ram together with the sealing means connected thereto will move the sealing means into engagement with the outer end of the container to effect sealing engagement under said predetermined pressure throughout the extrusion operation.

2,778,496
COAL CLEANING
Arthur Algernon Hirst, Bramhall, England, assignor to The National Coal Board, London, England
Application March 27, 1951, Serial No. 217,724
Claims priority, application Great Britain March 31, 1950
7 Claims. (Cl. 209—13)

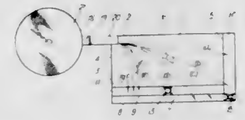
1. Apparatus for the cleaning of coal from its associated impurities comprising in combination a pulsatory action washer box a settling vessel for the reception of preliminarily washed fines from said pulsatory action washer box, a slurry main connecting the settling vessel to a dewatering shaker, separating means arranged in the slurry main providing a refuse product outlet, and a fluid connection between the outlet and a section of the pulsatory action washer box washing bed shielded from the current carrying the main coal current therethrough.

2,778,497
BALL SORTER
Everett H. Bickley, Narberth, Pa.
Application June 15, 1953, Serial No. 361,516
20 Claims. (Cl. 209—72)



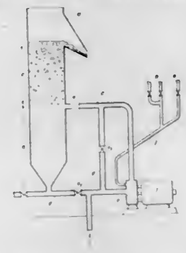
1. A sorting apparatus for bearing balls, comprising means for feeding bad and good balls to an inspection point for scanning one at a time, an electrical pick-up means for scanning each ball by surface contact to detect an imperfection on said surface, means for rotating said balls while being scanned, means to discharge each ball after inspection by said scanning pick-up, and electrical means responsive to pick-up contact with an imperfection indicating a bad ball to vary said discharge means, whereby bad balls are sorted from good balls.

2,778,498
SEPARATION OF MATERIALS
George Clarkson Vincent, Norton-on-Tees, England, assignor to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain
Application June 27, 1955, Serial No. 518,225
Claims priority, application Great Britain July 2, 1954
2 Claims. (Cl. 209—118)



1. Apparatus for separating whole spheroidal solid particles from mixtures with broken particles which comprises in combination an inclined plane, means for continuously vibrating the plane, a receptacle at the lower edge of the plane arranged in spaced relation thereto to define a gap between said edge of the plane and the receptacle and a further receptacle below the gap so defined together with means for feeding the mixture of solid particles on to the plane with a velocity having a component across the plane.

2,778,499
METHOD OF FROTH FLOTATION
Eric Alfred Charles Chamberlain, Corstorphine, Edinburgh, Scotland, Percy Lloyd Waters, Forest Hill, London, England, and William Swan Robertson, Edinburgh, Scotland, assignors to Coal Industry (Patents) Limited, London, England, a company of Great Britain
Application September 16, 1952, Serial No. 309,872
4 Claims. (Cl. 209—166)

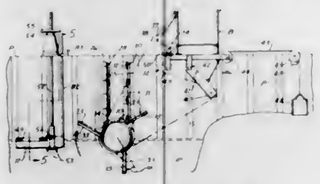


1. A method for the recovery of coal from a water borne suspension of coal or of coal and dirt, wherein a conditioning agent, a frothing agent and air are introduced into a main flow of the suspension, the main flow containing said agents and air is subjected to a mixing and agitating action, and a part only of the main flow is then treated for removal of the froth formed thereby, a part of the aerated and agitated main flow variable at will being by-passed without froth removal to unite with the main flow prior to the mixing and agitating action.

2,778,500
OIL SKIMMING DEVICE
Norman C. Fuller, Fairview Park, Ohio, assignor to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
Application April 18, 1955, Serial No. 501,781
11 Claims. (Cl. 210—51)

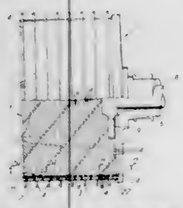
10. Apparatus for skimming a stream or the like comprising a partially submerged barrier traversing the full width of the stream, vertically open guideways engaging

opposite ends of barrier and guiding movement of said barrier substantially in a vertical plane, and a skimming



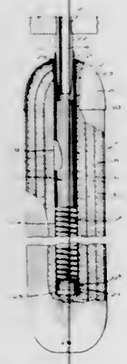
trough disposed at water level along one side of the stream and adjacent the upstream side of said barrier.

2,778,501
CENTRIFUGAL BASKET STRIP LININGS
Joseph Hertrich, Hamilton, Ohio, assignor to The Western States Machine Company, Hamilton, Ohio, a corporation of Utah
Application December 6, 1949, Serial No. 131,476
14 Claims. (Cl. 210—76)



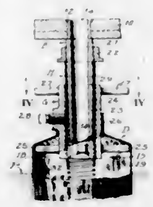
9. A centrifugal basket lining material comprising a long narrow strip presenting an even front surface, an even surface along one side and surfaces grooved transversely entirely thereacross at intervals along the other side and the back of the strip, the respective side and back grooves being in alignment.

2,778,502
COMBINED QUICK-COUPLER AND HOLLOW CORE FOR AN OIL-REFINING PACK
Albert R. White, Glendale, Calif.
Application June 22, 1953, Serial No. 363,214
4 Claims. (Cl. 210—170)



2. In a combination: a stationary tubular fitting having a bore extending lengthwise therethrough for the passage of oil; the fitting having a relatively long tapered section on the exterior thereof; the tapered section being smooth and gradually increasing in diameter from an outer end of the fitting; an oil-refining pack of substantial thickness and material and having an elongated coil spring partially enclosed therein with the spring constituting a hollow, flexible core for the pack through which oil will flow; the spring having one end section projecting through and beyond an end of the pack with the interior bore defined by the spring being exposed; the tapered section of the fitting being exposed to facilitate the piloting and endwise slipping of the spring end thereover; the bore defined by the coils in the projecting end of the spring being less than the diameter at the larger end of the tapered section; whereby the outermost coils will grip the fitting when they reach a point on the taper of the fitting which is slightly larger than the bore defined by the spring interior, and holds at this point when the outermost coils are firmly shoved onto the tapered section; thereby providing a quick-coupling between the pack and the fitting; the pack being quickly uncoupled when the pack and spring are turned in a direction tending to unwind and expand those spring coils that grip the fitting; the fitting having sufficient length to extend into the pack and coil spring when the latter is quick-coupled to the fitting to prevent oil flow around the fitting and into the pack; the spring coils adjacent to the end of the spring, contacting each other while the spring coils that lie farther within the pack, being spaced apart for the passage of oil therethrough.

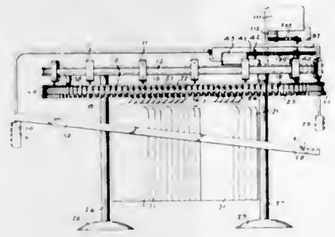
2,778,503
QUICK-COUPLERS FOR SECURING OIL-REFINING ELEMENTS IN HOUSINGS
Albert R. White, Glendale, Calif.
Application June 22, 1953, Serial No. 363,215
4 Claims. (Cl. 210—170)



1. In combination: a stationary tubular fitting having a bore extending lengthwise therethrough for the passage of oil; the fitting defining a relatively long tapered section on the exterior thereof; the tapered section being smooth and gradually increasing in diameter from an outer end of the fitting; an oil-refining pack of substantial thickness and material, and having an elongated coil spring partially enclosed therein, with the spring constituting a hollow, flexible core for the pack through which oil will flow; adjacent coils of the pack-enclosed spring part being spaced apart for passage of oil therebetween; the spring having one end section projecting through and beyond an end of the pack, with the interior bore defined by the spring being exposed; a collar encircling the spring and being clamped thereto; the collar having one end section thereof disposed within and being secured to the pack, and its opposite end section arranged exteriorly of the pack and exposed for manual grasping; the tapered section of the fitting being exposed to facilitate the piloting and endwise slipping of the spring thereover, when the collar is telescoped over the fitting; the bore defined by the coils in the projecting end of the spring being less than the diameter at the larger end of the tapered section, whereby the outermost coils will grip the fitting, when they reach a point on the taper of the fitting which is slightly larger than the bore defined by the interior of the spring, and holds at this point when the outermost coils are firmly shoved into the tapered section, thereby providing a quick-coupling between the pack and the fitting; the pack being quickly uncoupled when the collar

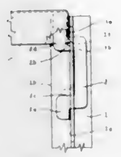
is turned in a direction tending to unwind and expand the outermost coils of the spring; the fitting having sufficient length to expand downwardly into the pack when the latter is quick-coupled to the fitting to prevent oil flow around the fitting and into the pack.

2,778,504
GARMENT DISPENSER
William Lloyd Byrne, Indianapolis, Ind., assignor to B & G Machinery Co., Inc., Indianapolis, Ind., a corporation of Indiana
Application June 30, 1954, Serial No. 440,477
4 Claims. (Cl. 211—1.5)



1. In a garment storage and dispenser device, the combination with a supporting structure, a plurality of garment holding members carried by said structure movable around the structure in an endless path past a dispensing station, and a motor moving said holders along said path, of a plurality of cams one for each of a selected number of said holders; said cams being driven by said motor at the same speed as that of said holders; group selector switches actuated by part of said cams; motor drive direction switches being actuated by other of said cams; manual switches, one for each of said group selected number of holders; and circuit means initially interconnecting a manual switch with a corresponding selector and motor drive direction switch.

2,778,505
SHELF BRACKET
Irving Levitt and Bennie Levitt, Montreal, Quebec, Canada
Application September 18, 1953, Serial No. 381,023
2 Claims. (Cl. 211—136)



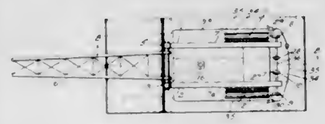
1. For removable attachment to a vertically disposed T-shaped pillar having spaced vertically elongated perforations in one of the webs thereof, a shelf-supporting bracket comprising a flat rigid member with a non-central portion intermediate its ends in offset relation to the ends by a distance at least equal to the thickness of the perforated web of the pillar, the reach of said member on one side of the offset being longer than the reach on the other and the offsetting step thereof greater than the offsetting step of the shorter reach and wherein the shorter reach is of a length just less than the height of the vertically elongated perforations in the vertically disposed pillar, the several parts of said flat bracket member being all in a common plane that when the bracket is applied to said pillar is disposed vertically and extending at right angles to the perforated surface of the pillar and with the non-central offset portion of the bracket on one side of said pillar and the end reaches on the other side, the longer reach extending upwardly and being spaced from the confronting side of the pillar in the form of a shelf-supporting hook because of its greater off-setting step.

2. In combination with a pillar-supported bracket as set forth in claim 1, a shelf rested on the top of the longer, upwardly extending reach of said bracket and having a depending marginal flange lying between said reach and pillar, said flange being deeper than the height of the bracket reach and having a notch on its lower edge to straddle the offsetting step thereof.

2,778,506
HOIST MECHANISMS
Robert J. Harry, Alliance, Ohio, assignor to The Alliance Machine Co., Alliance, Ohio, a corporation of Ohio
Application June 29, 1953, Serial No. 364,635
4 Claims. (Cl. 212—21)

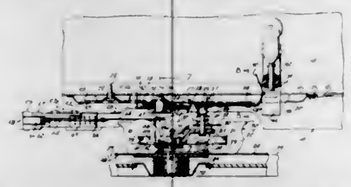
1. A hoisting mechanism comprising a frame, hoisting ropes depending from said frame, a lifting block depending from said frame on said hoisting ropes, means on the frame raising and lowering said lifting block relative to said frame by varying the length of said ropes, springs positioned on opposite sides of the block and extending vertically therefrom toward the frame, said springs being of such size as to be capable of absorbing the kinetic energy of the moving lifting block and the raising and lowering means, a striker plate connecting the ends of the springs remote from the block and adapted to engage the frame at any angle of approach capable of being made by the lifting block whereby to engage the frame and absorb the kinetic energy of the lifting block and the raising and lowering means.

2,778,507
VEHICLE-MOUNTED REVOLVING CRANE
Hans Scheuerpflug, Nurnberg, Germany, assignor to the firm Maschinenfabrik Augsburg-Nurnberg A. G., Nurnberg, Germany, a firm
Application December 19, 1955, Serial No. 554,058
Claims priority, application Germany December 17, 1954
7 Claims. (Cl. 212—38)



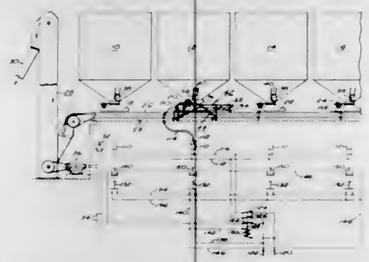
1. A portable revolving crane, comprising a pair of longitudinal girders, a platform and a traverse connecting said girders, load drums mounted on the longitudinal girders, so as to be outwardly directed, a luffing drum mounted on the traverse, and gears for driving said load and luffing drums, said gears being arranged substantially between the longitudinal girders and behind the platform, so as to be freely accessible from the upper and lower sides.

2,778,508
COMBINED TRUCK AND COUPLER MECHANISM FOR TOY CARS
Richard E. Beger, Jersey City, N. J., assignor to The Lionel Corporation, New York, N. Y., a corporation of New York
Application October 26, 1953, Serial No. 388,371
12 Claims. (Cl. 213—211)



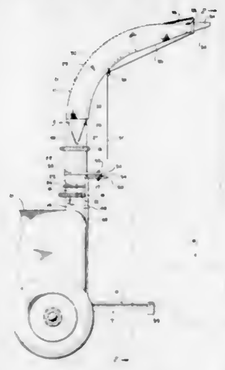
11. A pre-assembled truck coupler unit adapted for securement to the floor of a toy car, comprising a truck having a body, wheels cooperable with wheel-bearing rails, an insulated current collector cooperable with a central power rail, and an armature pivoted about a horizontal axis and adapted to be attracted downwardly by a magnet underneath the same, a coupler arm pivotally secured to the truck body above the axis of the armature and carrying a coupler normally latched in closed position, armature actuated devices for releasing the coupler including a radially reciprocable plunger connected to the armature above its axis, a mounting plate means to pivotally secure the truck body to the mounting plate coaxially with the pivot for the coupler arm, a current collecting plate insulatedly secured to the mounting plate, and a conducting shoe connected to the current collector and spring pressed against the conducting shoe.

2,778,509
GRAIN ELEVATOR APPARATUS
Henry Peter Donsbach, Jr., (known as Harry J. Donsbach), Buffalo, N. Y.
Application March 11, 1954, Serial No. 415,646
9 Claims. (Cl. 214—17)



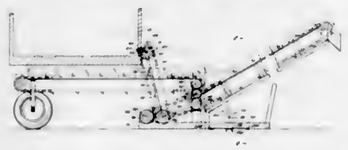
1. In a grain elevator, a belt conveyor adapted for conducting grain from storage in the grain elevator, a storage bin having an outlet gate including discharge chute means at one side of the conveyor, and a mobile variable rate dispensing device, said dispensing device comprising a generally rectangular frame having two rear legs and a single offset front leg, each of said legs being provided with a caster for movement of the device along the elevator building floor, a screw conveyor supported by said frame and having an inlet and an outlet, said outlet being arranged forwardly beyond said front leg for discharge onto said belt conveyor when the device is placed in an operative position with said front leg adjacent to said belt conveyor, an inlet hopper hingedly mounted on said dispensing device and arranged to receive flow from said chute means when said dispensing device is in said position and to deliver flow to said inlet, said hopper having side walls extending in vertically overlapping relation with the side walls of said chute means when said device is positioned in operative relation thereto and being arranged to be tipped on its hinge mount for being shifted with said device into and out of said operative relation, and drive means for said screw conveyor comprising an electric motor of substantially constant speed characteristic and a stepless variable ratio transmission connected in the line of drive, said transmission being manually settable over a range of speed outputs extending down to zero and being manually lockable in a setting so selected.

2,778,510
SWIVEL DISCHARGE STACK FOR AGRICULTURAL HARVESTER
Noble Mayhill, Wichita, Kans., and Charles S. Brandt, Nevada, Ohio, assignors to The Cobey Corporation, Galion, Ohio, a corporation of Ohio
Application October 14, 1952, Serial No. 314,616
2 Claims. (Cl. 214—42)



1. In combination, a mobile blower unit, a vertically extending discharge stack rotatably secured to the outlet of said blower unit, said stack having a radial extension provided with a discharge opening therein, connecting means mounted on said blower unit for pivotally securing a trailing carrier thereto, and actuating means provided on said blower unit for maintaining said discharge opening in overlying relationship to the trailing carrier, said actuating means comprising an axially rotatable shaft mounted on said blower unit, an actuating member detachably secured to said shaft for pivotal movement relatively to said blower unit and supported on said connecting means for pivotal movement therewith, a lever arm fixedly secured to said stack, a crank arm fixedly secured to said shaft and means for slidably and pivotally securing said lever arm to said crank arm to effect angular rotation of said stack in response to axial rotation of said shaft.

2,778,511
WAGON BOX TO ELEVATOR POWER TRANSFER UNIT
Karl Hueftle, Cozad, Nebr.
Application April 24, 1953, Serial No. 350,971
4 Claims. (Cl. 214—46)

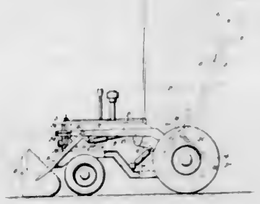


1. In combination: a power transfer unit for use with an elevating conveyor having a frame, a generally horizontal conveyor having a frame and having one end disposed above the lower end of said elevating conveyor for delivering material thereto, a material storage unit having one end disposed above said horizontal conveyor for the convenient delivery of material to said horizontal conveyor; a power driven first shaft disposed along the outside of said material storage unit and journaled thereto, said power driven shaft terminating at a point spaced apart from the delivery end of said material storage unit; a power transfer unit frame, means pivotally attaching the lower end of said power transfer unit frame to said horizontal conveyor frame in a manner whereby the upper end of said power transfer unit frame is adapted to be pivotally swung outwardly and then downwardly away from said storage unit while pivoting about its lower end to reach a position lying substantially horizontally; a first gear at the upper end of said power transfer unit frame; a second shaft journaled to the upper end of said power transfer unit frame and mounting said first gear thereon, means detachably connecting said second shaft to said first shaft, means detachably anchoring the upper end of said power transfer unit frame to said material storage unit, a third shaft journaled to the lower end of said power transfer unit frame, a second gear mounted on said third shaft; means operably interconnecting said first and second gears, and means interconnecting said third shaft and said conveyors for operation of said conveyors from said third shaft, the construction being such that when said power transfer unit is disposed in a generally horizontal position the said means detachably connecting said second shaft to said first shaft is usable for connecting said second shaft to another power supply source such as the power takeoff shaft of a tractor.

2,778,512
PORTABLE TRUCK CRANE
Secondo B. Strona, Pomona, Calif.
Application February 28, 1955, Serial No. 491,052
8 Claims. (Cl. 214—75)

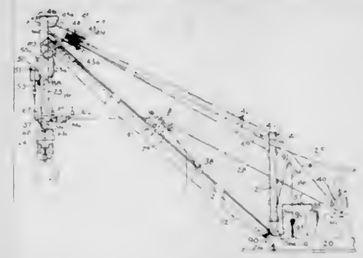
1. Ambulatory crane apparatus for attachment to a trucking vehicle platform in overhead freight moving relation therewith, comprising a horizontally extending track and hoist assembly including an elongated movable track having upper and lower flanges, a hoist suspended from said lower flange for movement beneath and in the direction of said track, a parallel pair of I-beams extending over and at an angle to said track and a pair of carriages respectively movably suspended from the lower oppositely extending flanges of said I-beams and mounting said track for horizontal movement in the direction of extent of said I-beams in overhead relation to said platform and for overhang at the rear end thereof, said carriages including fixed elements freely supporting said upper flange to accommodate displacement of said I-beams changing the relative spacing therebetween and track displacement in the direction of track elongation for adjusting the amount of said overhang, and supports positioned beneath and mounting said I-beams with relative spacing less than the length of said track, said supports including bases removably connectible to side portions of said platform.

2,778,513
LOADING APPARATUS
Franz Braun, Munich, Germany, assignor to F. X. Meiller, Fahrzeug- und Maschinenfabrik, Munich, Germany
Application March 15, 1954, Serial No. 416,330
Claims priority, application Germany March 14, 1953
7 Claims. (Cl. 214—131)



1. In a loading apparatus, in combination, support means; a first arm carried by said support means for turning movement between a lower load receiving position and an upper load delivering position; a second arm turnably carried by said first arm for movement with the same between said positions and for turning movement with respect to said first arm, said second arm extending downwardly from said first arm when the latter is in said load receiving position and said second arm being located beyond a vertical dead center position when said first arm is in said load delivering position thereof; load carrying means on which a load is adapted to rest by gravity, said load carrying means being fixed to said second arm; linkage means pivotally connected at a pair of spaced portions thereof respectively to said first and second arms for first raising said second arm with respect to said first arm, during movement of said linkage means, to lift a load partly toward said load delivering position and for then raising both said arms in their thus attained relative position together with said load carrying means, said linkage means including a lost motion connection located between said spaced portions of said linkage means for limiting the extent of free turning movement of said second arm with respect to said first arm to determine the end positions of said second arm when said first arm is in said load receiving and load delivering positions thereof, respectively; and moving means connected to said linkage means for moving the latter to thus raise said arms.

2,778,514
LOG LOADER APPARATUS
Leland O. McLean, Marion, Ohio
Application April 15, 1952, Serial No. 282,399
7 Claims. (Cl. 214—147)



7. In apparatus for loading logs and the like, the combination of a support, a boom mounted on said support and pivotally connected thereto on a horizontal axis, a gantry extending upwardly from said support for supporting said boom, a forearm pivotally connected on a horizontal axis to the outer end of said boom, actuating means for said boom and forearm, a fluid pressure cylin-

der mounted on the forearm and having a piston rod protruding therefrom, a rope attached to the end of the piston rod, a pivoted swivel on the outer end of said forearm, a tong assembly including a pair of tong arms pivotally connected intermediate their ends, a link connecting the upper end of each tong arm to said pivoted swivel on the end of said forearm, the other end of said rope attached to the pivoted connection of said tong arms to open the same when pulled, and means for rotating said tong arms on said swivel to properly position them as the tongs are lowered to straddle a log.

2,778,515
HAND TRUCK FOR TRANSPORTING AND SERVICING TELEVISION SETS
Alfred H. Hanson, Garrison, N. Y., assignor to The Fairbanks Company, New York, N. Y., a corporation of New Jersey
Application October 27, 1954, Serial No. 464,970
5 Claims. (Cl. 214—374)

1. A hand truck for transporting and servicing television sets, said hand truck comprising an open wheeled frame including a pair of side bars and a cross bar connecting the upper ends of said side bars, said frame having a longitudinally-extending upper portion and a forwardly-inclined lower portion, a pair of buckles respectively mounted on said side bars at the junction of said upper and lower frame portions, a belt for mounting television cabinets on said trucks, said belt being releasably and adjustably held at its end portions by said buckles, a loop centrally mounted on the upper end of said frame and sized to hold a central portion of said belt for clamping a television cabinet between said belt and the upper portion of said frame, and means mounted on said cross bar for suspending a television chassis against the upper portion of said frame.

2,778,516
EASY LIFT PRODUCE TRUCK
Robert G. Knight, Fort Myers, Fla.
Application October 8, 1954, Serial No. 461,133
8 Claims. (Cl. 214—384)

1. A hand truck for conveying containers having outwardly extending projections formed thereon comprising a pair of side members, cross braces interconnecting said side members, a pair of wheels rotatably mounted upon said side members adjacent the lower ends thereof, and a substantially semi-circular load engaging bracket mounted on said side members and extending forwardly therefrom and adapted to engage the projections on the containers, said bracket having a shoulder formed near each of the forwardly extending ends thereof and on the lower side thereof and facing forwardly and away from said side members, said shoulders being adapted to engage the projections on the containers to move the containers into convenient lifting position and the upper side of said lifting bracket being adapted to engage beneath the projections on the containers to lift the containers.

2,778,517
OUTBOARD MOTOR LOADER FOR VEHICLE
Seymore Weinstein, Oak Park, and Jack Walker, Allen Park, Mich.
Application March 14, 1955, Serial No. 493,898
6 Claims. (Cl. 214—450)

1. An outboard motor loader comprising a stationary first frame adapted for positioning within the trunk compartment of a vehicle, a motor mounting second frame normally supported on said first frame in juxtaposition, said second frame including a pair of elongated upright walls having opposed longitudinal transverse slots therethrough, and a pair of elongated opposed links with their respective opposite ends inturned and in alignment, the opposed upper ends of said links extending loosely through said slots and longitudinally movable therein, the opposed lower ends of said links extending pivotally through corresponding apertures formed in said first frame adjacent its rear end whereby the second frame may be manually withdrawn rearwardly and upwardly from said first frame pivotally supported at its front end by said links, the rearward free end of said second frame adapted to rest upon the ground surface.

2,778,518
REFUSE TRUCK AND ELEVATOR HEAD SHAFT THEREFOR
Robert E. Brown, Hartsdale, N. Y., assignor to City Tank Corporation, Corona, N. Y., a corporation of New York
Application October 27, 1953, Serial No. 388,550
11 Claims. (Cl. 214—518)

1. In a refuse truck loader, a tailgate structure on which said loader is mounted, said loader having mounted on said tailgate the combination of spaced conveyor chains for cyclically directing lift elements connected between the same along a loading chute towards a fill opening, substantially independently integrated chain guides for each of said conveyor chains, a common head shaft having spaced sprockets for driving said chains, each of said sprockets being in driving connection with one of said conveyor chains, supports for said head shaft including bearing retainers therefor, means for mounting said supports for said bearing retainers on said chain guides.

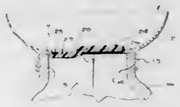
2,778,519
CAP AND ADVERTISING INSERT
James W. McFarlane, Muncie, Ind., assignor to Ball Brothers Company, Incorporated, Muncie, Ind., a corporation of Indiana
Application April 26, 1954, Serial No. 425,480
3 Claims. (Cl. 215—38)

1. In a closure for containers, a rigid closure member having a continuous depending flange formed thereon for encircling and engaging the neck portion of a container; a ring shaped gasket fitted within said flange with the outer edge portion thereof in frictional engagement with said flange; an elongated strip of pliable material having an end portion thereof located within the confines of said member and between the top portion thereof and said gasket, and a portion extending through the central opening of said gasket and formed and folded to fit within the space surrounded by said gasket; and a liner with the edge portion thereof removably engaging the inner face of said flange and with one face thereof lying against said gasket and confining the folded portion of said strip within the space surrounded by said gasket and treated on the outer face thereof to adhere to the lip of a container when moved into contact therewith by a sealing movement of said member.

2,778,520
BOTTLE CAP
Robert C. Hyde, Jr., Livonia, Mich.
Application July 20, 1954, Serial No. 444,598
2 Claims. (Cl. 215—46)

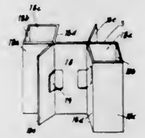
2. A bottle cap including a top, a semi-circular tongue partly severed from the top along an arcuate line to form a relatively narrow arcuate flange at the adjacent perimeter of the top, said tongue being united with the top along a transverse line, said tongue being depressed below the plane of the top to underlie the flange at the arcuate edge of the tongue, said cap also including a crimped skirt for attaching the cap to a bottle and having notches in its edge portion in alignment with the transverse united line of the tongue, and a handle integrally formed with the skirt and extending downwardly therefrom and adapted to bend the cap at the notched portion thereof and along said transverse line upon upward pressure subjected to the handle to pry the cap from the bottle.

2,778,521
CLOSURE CAP FOR LIQUID CONTAINERS
Charles E. Cagle, Birmingham, Ala.
Application January 13, 1956, Serial No. 559,042
3 Claims. (Cl. 215—74)



1. A closure cap comprising a bowl-shaped member, a depending skirt element secured to said bowl-shaped member and being formed and arranged to be engaged on the rim of a liquid container, the bottom wall of said bowl-shaped member being formed with a pair of side-by-side aperture portions, and a valve member pivoted in said bottom wall and having respective opposing flap elements engageable respectively beneath and above the rims of said aperture portions, whereby one of said flap elements is rotatable downwardly to admit liquid through the closure cap and the other flap element is rotated upwardly to allow liquid to be dispensed through the closure cap.

2,778,522
DIVISIBLE RECEPTACLE
Aaron Berke, New York, N. Y.
Application May 26, 1955, Serial No. 511,355
1 Claim. (Cl. 217—33)

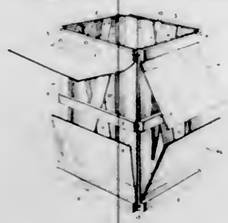


A division member for a receptacle, said member consisting of a flat central section, flat sections hinge-connected one to each side of the central section and extending laterally therefrom in opposite directions, flat sections hinge-connected one to each of the last-named sections extending longitudinally of said member. other flat sections one hinge-connected to each longitudinally extending section and bent towards the plane of the central section, and additional flat sections one hinge-connected to each of said other sections and bent towards the central section and lying substantially in the plane of the central section, and flat sections one hinge-connected along one edge to each of said additional sections, adjacent the central section and extending laterally outward therefrom in opposite directions, the opposite edges of the last-named sections being free and means for affixing the last-named laterally extending sections to the central section.

2,778,523
COLLAPSIBLE CRATE
James Finis Dedmon, Milan, Tenn.
Application May 17, 1952, Serial No. 288,455
2 Claims. (Cl. 217—43)

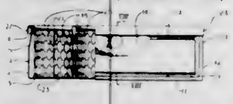
1. A collapsible wirebound tubular crate comprising a plurality of spaced apart hingedly connected side wall members, each side wall member having inner vertical slats arranged adjacent to the sides thereof, outer spaced horizontal cleats arranged exteriorly of the slats of each wall member, continuous and encircling binding wires connecting the wall members together and extending on the inside of the cleats and on the outside of the slats, a flap of flexible material associated with each wall member at each end thereof and arranged outwardly of the

respective wall member at the corresponding end thereof, the outer free end of the flap of each wall member being impinged between the outside of the respective slat and the inside of the respective cleat at the corresponding end of the wall member and extending in a direction toward the opposite end of the wall member, the flaps of each wall member being adapted to be folded over the outer



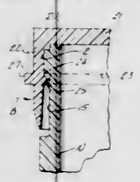
edge of the respective outer cleat and folded at right angles to the corresponding wall member and extended inwardly of the crate to provide closures at each end, and staples straddling the binding wires and extending into the respective flaps and into the respective horizontal cleats of each wall member, said flaps on each end of each wall being of a length sufficient to span the distance between the opposite side wall members of the crate.

2,778,524
BOTTLE CRATE AND CELL UNIT THEREFOR
Ernest H. Bock, Bethlehem, W. Va., assignor to Wheeling Steel Corporation, Wheeling, W. Va., a corporation of Delaware
Application January 15, 1954, Serial No. 404,260
2 Claims. (Cl. 220—21)



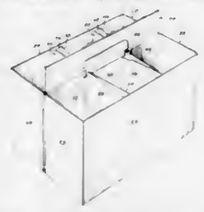
2. A bottle crate having a bottom of expanded metal, a metal top with bottle openings therein and bottle cells of expanded metal extending between the top and bottom respectively in vertical alignment with the bottle openings in the top, the bottle cells having outwardly projecting feet at their upper extremities welded to the top and inwardly projecting feet at their lower extremities welded to the bottom.

2,778,525
CONTAINER
Herman B. Lermer, South Orange, N. J., assignor to Lermer Plastics Mfg. Co., Garwood, N. J., a corporation of New Jersey
Application August 29, 1955, Serial No. 531,099
3 Claims. (Cl. 220—60)



1. A container comprising a body portion open at its upper end, a rib formed on the outer wall of the body portion and projecting therefrom adjacent the upper edge of the body portion and defining, with the upper edge thereof, a shouldered recess, said body having a recessed portion at its outer wall beneath the rib, a closure cap for cooperation with the rib of said body portion to close the upper end of the body portion, said cap comprising a top closure portion and a depending flange of more flexible material than the rib portion of the body portion, an internal rib formed on the flange of the cap, the parts being so proportioned that when the cap is positioned on the body portion, the internal rib of the flanged portion of the cap will first contact the rib of the body portion and flex outwardly, riding along the outer face thereof and will then snap inwardly and into registering engagement with the lower end of the rib securing the cap on the body portion, said cap having an internal bead at the juncture of the top and flange portions thereof of complementary outline to the shouldered recess intermediate the upper edge and rib adapted for registration with and to snap into the recess when the cap is assembled on the body portion, to provide a double registration of the cap at the upper and lower ends of the body portion rib.

2,778,526
PARTITION STRUCTURE FOR COMPARTMENTED CARTONS
Homer W. Forrer, Atlanta, Ga., assignor to Atlanta Paper Company, a corporation of Georgia
Application March 24, 1954, Serial No. 418,331
5 Claims. (Cl. 220—113)

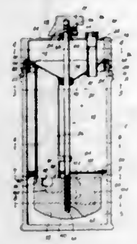


4. A collapsible compartmented carton for carrying bottles and other similar articles, said carton comprising a medially foldable bottom wall, opposed side walls on said bottom wall, a medial panel structure formed as a carrying handle at its upper portion and extending below said upper portion to the bottom of said carton when erected as a complete medial partition therefor, transverse partition panels foldably connected at opposite sides of said panel structure below said handle portion for partitioning said carton transversely, a relatively narrow attaching flap foldably connected sidewise to each of said transverse partition panels and fixedly secured to one of said side walls in face-to-face contact therewith, cushioning panels foldably connected in adjacent spaced parallel relation with respect to each of said transverse partition panels, a majority of said cushioning panels being foldably connected sidewise to the attaching flaps and being spaced from said partition panels at one side edge by the width of said attaching flaps, said majority of cushioning panels being extended inwardly towards said medial partition with the other side edge being disposed against the adjacent transverse partition panel immediately adjacent said medial partition when said carton is erected and being free to allow collapsing thereof when said carton is collapsed.

2,778,527
METERING AND DISPENSING DEVICE
Andrew L. Appel, St. Louis, Mo.
Application September 22, 1954, Serial No. 457,621
10 Claims. (Cl. 222—42)

1. In a device adapted for mounting on the open upper end of a container of the type described: a cover member for the container; a pipe for filling the container with granulated or powdered material; a removable cap for closing the upper end of the pipe; a frusto-conical cup member invertedly disposed and supported within the cover member in spaced relation relatively to the top wall of the cover member; a shaft rotatably supported

centrally of the top wall of the cover member and the cup member; a knob affixed to the upper projecting end of said shaft to effect the rotation thereof; a metering drum affixed to the lower end of the shaft, said drum having formed therein a plurality of cavities each sized for the reception of a predetermined quantity of the material; a stationary tube opening at its upper end into

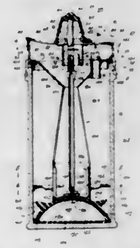


said cup member and having its lower end surface coplanar with and contiguously disposed to the upper surface of said metering drum for delivering to said cup member the contents of one of said cavities when the container is tilted; and a primary discharge opening in the top wall of the cover member for dispensing said contents automatically in consequence of tilting the container.

2,778,528
SHOT MEASURING DEVICE
Lyle Shellman Corcoran, Hollywood, Calif.
Application June 21, 1954, Serial No. 438,260
6 Claims. (Cl. 222—46)

1. Apparatus for non-mutilating measurement of spherical shot for firearm cartridges, comprising: a casing including a transverse bearing portion having an internal cylindrical bearing wall, having a discharge opening in the lower side of said bearing wall, and having a hopper opening in the upper side thereof; a hopper supported by said casing and communicating with said hopper opening for delivering shot therethrough; a valve rotatably mounted in said bearing; stop means for limiting the rotation of said valve to less than 360° of movement and for arresting the valve at charging and discharge positions respectively; and means for imparting rotary movements to said valve, consisting in a forward delivery movement from the charging position to the discharge position, and a return loading movement from the discharge position to the charging position; said valve having a cylindrical outer wall closely fitted to said internal bearing wall, having a measuring chamber with a mouth in its said outer wall, positioned for communication with said hopper and opening when the valve is in the charging position and for communication with said discharge opening when in said discharge position, and said valve having in its said outer wall a recess extending circumferentially from said mouth in the direction of said return movement of the valve; said measuring chamber being of relatively large proportions and said recess being relatively long in relation to the shot diameter; said recess having a forward end of maximum depth opening into said measuring chamber and being of gradually decreasing depth toward its rear end, with said rear end merging smoothly with the said outer wall of the valve, the bottom of said recess having a low inclination such as to lift excess shot into the hopper opening without jamming such shot against the forward edge of the hopper opening in the forward movement of the valve.

2,778,529
METERING AND DISPENSING DEVICE
Andrew L. Appel, St. Louis, Mo.
Application October 18, 1954, Serial No. 462,853
7 Claims. (Cl. 222—50)

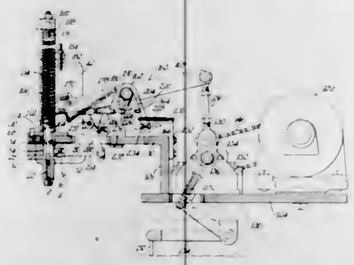


1. In a device for use with a container of the type described: a combined metering and dispensing assembly for granular material mounted in the container including means to divide said container into an upper and a lower compartment, the metering mechanism of said assembly being disposed in the lower of said compartments; a control assembly for regulating the metering mechanism of said combined assembly mounted on and closing the upper end of the container; means through which the container is adapted to be filled with granular material after removal of the control assembly without disturbance of the metering and dispensing assembly aforesaid; means normally sealing the filled container contents from atmosphere; means incorporated in the control assembly for discharging selected metered quantities of material from said container in response to tilting the container into a discharge position; means incorporated in said combined metering and dispensing assembly for automatically agitating the non-metered material therein prior to, during, and subsequently to a discharge operation, said means being embodied in the aforesaid means that divides the container into an upper and a lower compartment; and manually operable means incorporated in the control assembly for preselecting the quantity of material to be first metered and thereafter dispensed.

2,778,530
IMPACT EXTRUDER FOR JET OF ADHESIVE
Frederick S. Sillars, Beverly, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application June 1, 1953, Serial No. 358,809
12 Claims. (Cl. 222—70)

4. In an adhesive extruding machine, a nozzle holder provided with a cylindrical chamber, a restricted nozzle partially closing the outlet of said chamber, a cylindrical piston fitting said chamber and slidable therein, power-operated, cyclical means for automatically filling the chamber beneath the piston with adhesive at a predetermined time, compressible means, a hammer arranged for operation by said compressible means to deliver a blow against the piston thereby to extrude the adhesive, power means operating in timed relation to said filling means

for moving the hammer away from the piston against said compressible means, and means operating in timed



relation with the filling of the nozzle chamber for releasing said hammer to strike the piston.

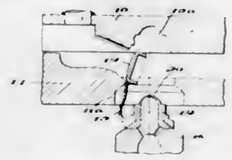
2,778,531
CONDUIT FLOW CONTROL SYSTEM
David L. Lauer, Chicago, Ill.
Application February 12, 1953, Serial No. 336,587
7 Claims. (Cl. 222—75)

1. A system for controlling the flow of liquid through a conduit, comprising a flexible fluid flow conduit equipped at one end with a nozzle, a valve connecting the other end of said conduit to a supply of liquid, a solenoid for operating said valve, a switch mounted upon said nozzle, and an electric circuit for energizing said solenoid and having said switch interposed therein, said switch being manually closeable to complete said circuit and being automatically opened upon the release of the manual closing force thereon, and including a ring mounted upon said nozzle and equipped with a raised contact extending about the perimeter of said ring, a movable outer contact member concentrically disposed about said ring, and resilient separators normally spacing said raised contact and outer contact member apart while being yieldable to accommodate engagement between any peripheral portion of said raised contact with an adjacent portion of said concentric contact member when said member is moved inwardly upon the application of a manual force directed thereagainst.

2,778,532
SOAP MEASURING DISPENSER
Donald E. Raverty and Richard J. Raverty, St. Paul, Minn.
Application June 2, 1955, Serial No. 512,755
1 Claim. (Cl. 222—89)

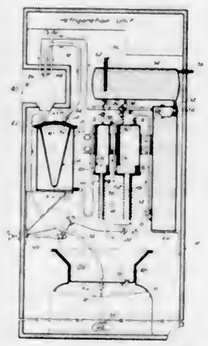
A granular material dispensing means for attachment to a fibrous carton containing the granular material, said dispensing means comprising a tubular carton piercing member, a spring clip carried by said member engageable on the outer side of the carton wall to frictionally hold said member in said carton, a right-angularly disposed measuring container secured to and extending laterally of said member, a closure for the outer open end of said container, a slide bar extending lengthwise of said container and fixed at its outer end to said closure, guide means for said bar, means urging said bar to maintain said closure in closed position, said container including a wall extending over the outer end of said member having a delivery opening communicating with said member, said bar normally engaging over said delivery opening and said bar having an opening normally registering with said delivery opening.

2,778,533
DISPENSING CLOSURE
Andre Savary, Castagnola Tessin, Switzerland
Application July 6, 1951, Serial No. 235,508
2 Claims. (Cl. 222—92)



1. A combined end structure and dispensing closure for collapsible walled tubes, comprising an annular piece of moldable material sealed directly to the collapsible walls of the tube and having a dispensing passage therein, an integral, rupturable sealing wall closing said passage prior to the initial placing in use, a sealing cap for closing said dispensing passage after the initial placing in use, and a connection between said cap and said piece to protect against loss of said cap, said annular piece, sealing wall, cap and connection being formed integral and wherein said annular piece has an enlarged base portion for receiving the tube walls and a cylindrical cap receiving portion, said rupturable sealing wall comprising a dome shaped continuation of said piece at the outer end of said dispensing passage.

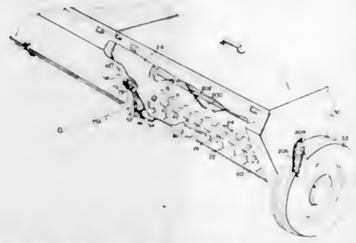
2,778,534
LIQUID DISPENSING MACHINE
Arthur C. Ramsey, Fort Bliss, Tex.
Application June 8, 1953, Serial No. 360,077
12 Claims. (Cl. 222—129.4)



1. A liquid dispenser comprising a pair of liquid containers; pump means connected with one of said containers; a fluid receptacle; a collapsible, bag-like membrane disposed in said receptacle and connected with the other container; an outlet conduit for said pump means and said membrane respectively; a cylinder coupled with said receptacle; a piston reciprocably mounted in said cylinder for alternately pumping fluid into and out of said receptacle to contract and expand said membrane; and

means for simultaneously actuating said pump means and said piston to draw predetermined amounts of liquids from said containers and expel the same through corresponding conduits.

2,778,535
AGRICULTURAL MATERIAL DISTRIBUTOR
Robert E. Seltzer, Bellevue, Ohio, assignor to Spred-All, Inc., Bellevue, Ohio, a corporation of Ohio
Application March 11, 1953, Serial No. 341,640
7 Claims. (Cl. 222—139)

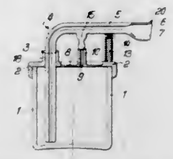


1. In an agricultural material distributor; a hopper having feed openings in the bottom, a center partition in said hopper, an agitator shaft extending from the center partition through each side of the hopper and out the end thereof, stationary inner hubs rigid with the ends of the hopper journalling the outer ends of the shafts, outer hubs rotatable on the inner hubs and clutch means to connect the outer hubs with said shafts, ground wheels on said outer hubs for supporting said distributor and for driving said outer hubs, a bearing supporting member secured to said center position, and bearing means for the inner ends of said shafts slidably mounted on said supporting member.

2,778,536
DISPENSER
Walter Graves, Manchester, and Willys P. Wagner, Franklin, Mich., assignors to Franklin Foods, Inc., Hazel Park, Mich., a corporation of Michigan
Application December 10, 1953, Serial No. 397,346
5 Claims. (Cl. 222—184)

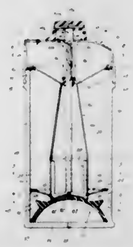
1. A dispenser for comestibles such as peanuts and the like comprising a base adapted to support a container for said comestibles and to receive the contents of said container, said base having a downwardly sloping bottom terminating in a generally horizontally directed port through which the contents are discharged from the base, and opposed vertical ways at opposite sides and in front of said port, a hollow metering element pivoted to the base in front of said port adapted to receive comestibles discharged therethrough, a manual actuator having guide lugs in and movable along said ways and pivoted to said metering element laterally of the pivot axis of the element and operative to rock the same in one direction to dump the contents thereof, said element having a closure apron movable generally across said port to close the same progressively as the metering element is rocked to dump said contents, spring means in the ways acting upwardly across said guide lugs to hold the actuator normally raised, and stop means engaging said metering element to limit upward movement of said actuator and positioning said element to open said discharge port and with the port-closing apron immediately below and in juxtaposition to said port.

2,778,537
LIQUID DISPENSER
Kurt Kanno, Werl (Aspe), near Salzuflen, Germany
Application July 19, 1954, Serial No. 444,187
Claims priority, application Germany July 24, 1953
22 Claims. (Cl. 222—205)



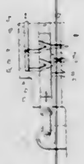
1. A liquid dispenser comprising, in combination, a closed container; pump means associated with said container for varying the pressure therein; and a combined conduit and operating member for placing the interior of said container in communication with the exterior thereof, said combined conduit and operating member being mounted on said container for pivotal movement relative thereto and operatively associated with said pump means for operating the latter when said combined conduit and operating member is pivoted relative to said container thereby causing discharge of liquid through said combined conduit and operating member while the same is pivoted relative to said container.

2,778,538
METERING AND DISPENSING DEVICE
Andrew L. Appel, St. Louis, Mo.
Application November 22, 1954, Serial No. 470,307
10 Claims. (Cl. 222—243)



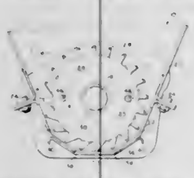
1. A device for metering and dispensing quantities of granular material from a mass of material contained in a container of the character described, said device including: a cover member for the upper end of the container; means to divide the container into a lower and an upper compartment; means for filling both said compartments with material; metering mechanism disposed in the lower compartment adapted to segregate quantities of material from the mass; manually rotatable means mounted on the cover member for selecting the quantity of material to be segregated, and for simultaneously actuating the mechanism aforesaid; means automatically effective upon release of the manually rotatable means for returning said mechanism to inactive status; a normally flap-closed discharge opening in the cover member; and means adapted to automatically deliver the segregated quantity of material from the metering mechanism to said opening in response to the tilting of the container into an angular position wherein the discharge opening is disposed in a plane below that of the metering mechanism.

2,778,539
DEVICE FOR FUEL-METERING, IN PARTICULAR, FUEL-INJECTION FOR INTERNAL COMBUSTION ENGINES
Wolf-Dieter Bensinger, Muhlacker, Wurttemberg, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Original application September 27, 1949, Serial No. 118,093, now Patent No. 2,673,662, dated March 30, 1954. Divided and this application February 24, 1954, Serial No. 412,349
1 Claim. (Cl. 222—250)



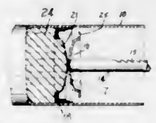
A fluid metering and supply device comprising a housing having first and second parallel bores therein, a control valve having a uniform diameter throughout its length and mounted for automatic reciprocation in the first bore, a needle-shaped piston member with rounded ends axially movable in the second bore, a pair of abutments limiting the movement of the piston member in the second bore and defining therewith two end spaces, one of the abutments being fixed in the housing and the other being axially movable therein, communication ducts between the end spaces and the first bore, two discharge ducts opening into the first bore, one of said discharge ducts being at a level above its associated communication duct, the other of said discharge ducts being at a level below its associated communication duct, a supply duct opening into the first bore between the two discharge ducts, two bifurcated conduit means in the control valve each having a single opening on one side of the control valve positioned to coact with the supply duct and one of the respective discharge ducts, and having two spaced openings on the other side of the control valve to coact with one of the communication ducts, whereby one end space, in one end position of the valve, is in communication with the supply duct while the other is in communication with one of the discharge ducts, whereas, in the other end position of the valve, the one space is in communication with the other discharge duct while the other is in communication with the supply duct.

2,778,540
AGRICULTURAL MATERIAL DISTRIBUTOR
Robert E. Seltzer, Bellevue, Ohio, assignor, by mesne assignments, to Spred-All, Inc., Bellevue, Ohio, a corporation of Ohio
Application February 20, 1952, Serial No. 272,588
9 Claims. (Cl. 222—274)



1. In an agricultural material spreader; a horizontal hopper, a plurality of feed openings distributed in a line along the bottom of the hopper, said feed openings being substantially rectangular with a pair of their opposite side edges extending in a direction normal to the said line, an agitator shaft in the hopper extending parallel to said line, an agitator and feed blade on the shaft located above each of said openings, each said blade comprising a flat central portion and teeth extending from the periphery thereof part-way through and sweeping closely by the side edges of the associated feed opening when the said shaft is driven in rotation, succesive of said teeth being formed angularly outwardly from the plane of the blade in respectively opposite directions, and shutter means mounted externally of said hopper adjustable thereon for varying the effective size of said feed openings.

2,778,541
CAULKING GUN
William A. Sherbondy, Pepper Pike, Ohio
Application September 1, 1955, Serial No. 532,087
4 Claims. (Cl. 222—327)

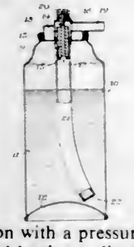


2. A caulking gun comprising a cylindrical container provided with a dispensing nozzle at one end and a piston fitted into the other end, and a cartridge support and piston actuator assembly provided with a reciprocable piston actuator which is engageable with said piston to axially move the latter into said container to force the contents therefrom through said nozzle, said piston comprising a rigid annulus including an outer part having a skirt which has a snug sliding fit in said container and an inner part having a skirt telescoped within the skirt of the said outer part, and a film of flexible material having a peripheral portion gripped between the skirts of said outer and inner parts of said annulus and a resilient center portion that is axially displaceable relative to said skirts by the back pressure of the contents upon release of piston-actuating force on said actuator, whereby said contents may be compressed during the forcing thereof through said nozzle, but no extrusion of said contents through said nozzle takes place after the release of pressure upon said contents until pressure is again applied.

2,778,542
MEASURING AND DISPENSING DEVICE FOR COFFEE, SUGAR, AND THE LIKE
Rudy F. Ries, Beechhurst, and Thomas G. Palsulich, Fresh Meadows, N. Y.
Application May 21, 1952, Serial No. 289,104
1 Claim. (Cl. 222—362)

A measuring and dispensing device of the character described, comprising a cover which is adapted to fit over and frictionally engage the open top portion of a coffee can or the like, and a combination measuring and dispensing device on said cover for measuring and dispensing a predetermined quantity of the contents of said can, said cover having a top wall which is adapted to cover the open top of the can and a downwardly extending annular flange which is adapted to encircle and frictionally engage the open top portion of said can, said measuring and dispensing device comprising a cylindrical housing which is connected to the top wall of the cover, an opening being formed through said cover to the inside of said cylindrical housing to provide communication between said cylindrical housing and the inside of a can on which said cover may be mounted, said cylindrical housing being entirely open at its back end and provided with a wall at its forward end which only partly closes said forward end, leaving an opening through which the contents of the can may be dispensed, and a drum rotatably mounted in said cylindrical housing, said drum having an opening at its forward end which is registrable with the forward opening in the cylindrical housing, said drum having a back wall which closes its back end, said back wall being provided with a radially outwardly extending annular flange which is engageable with the back end of the cylindrical housing to prevent axial displacement of said drum relative to said cylindrical housing in forward direction, a central shaft being secured at its back end to said back wall of the drum and projecting forwardly therefrom axially thereof, the forward end of said shaft being journaled into said front wall of the cylindrical housing and projecting forwardly therefrom, a cotter pin being attached to said forwardly projecting end of the shaft to prevent axial displacement of said shaft and the drum in rearward direction relative to said cylindrical housing, said drum having a side opening which is registrable with the opening which is formed through the cover to the inside of the cylindrical housing to admit some of the contents of the can to enter said drum when the can is tilted to point its open top end in downward direction, said side opening in the drum and said opening in the forward end of the drum being so situated relative to each other and to the opening formed through the cover to the inside of said cylindrical housing and the opening in the forward end of said cylindrical housing, that when said side opening in the drum is in registration with the opening through the cover, the forward end opening in the drum is out of registration with the forward end opening of the cylindrical housing, and when said forward end openings of said drum and cylindrical housing are in registration with each other, said side opening in the drum is out of registration with said opening through the cover, a handle being provided on the back wall of said drum so that it may be turned about its longitudinal axis first to register the side opening in said drum with the opening through the cover in order to admit some of the contents of the can into said drum, and then to register the forward opening in said drum with the forward opening in said cylindrical housing to dispense the contents of said drum.

2,778,543
METERING DISPENSER
George S. Urlaub, West Hempstead, N. Y., assignor of one-half to Harry B. Hollander, Middletown, N. J.
Application July 27, 1953, Serial No. 370,559
7 Claims. (Cl. 222—394)



1. The combination with a pressurized sealed container for a dispensible fluid having a dip tube discharge nozzle and a normally closed main valve for controlling the movement of material through the dip tube to the nozzle, means for actuating said valve of a hinged flap on the dip tube having an orifice for limiting the discharge from the nozzle, of said fluid in a metered quantity, upon actuation of said main valve.

2,778,544
SUGAR DISPENSER
Ace E. King, Kansas City, Mo.
Application October 4, 1954, Serial No. 459,910
5 Claims. (Cl. 222—456)

1. A sugar dispenser comprising a normally upright, cylindrical container having a bottom wall, a side wall and a top cover, the side wall having an opening therein adjacent the bottom of the container, and combination spout and measuring bin assembly comprising an L-shaped, channelled member having its shorter leg extending substantially horizontally into the container through said opening and its longer leg extending upwardly from the opening along the exterior of the side wall and in engagement with the latter to present an open-top spout outside the container, there being an upwardly extending end piece on the member and extending laterally thereacross within the container to present open top, measuring bin within the container in communication with the lower extremity of said spout.

2,778,545
EXPANDABLE STOPPER WITH SPOUT
Angelo Sapia, North Andover, Mass., assignor to Sapient Sales Co., Inc., Lawrence, Mass., a corporation of Massachusetts
Application September 22, 1954, Serial No. 457,725
4 Claims. (Cl. 222—482)

1. A bottle stopper having an elongated, exteriorly threaded, hollow tube of rigid material; a stationary disc threaded on the inner end of the tube; an annular pushing member slideably mounted around the intermediate portion of the tube; a cylindrical plug of distortable material sleeved on said tube between said disc and said member; an elongated, movable cylinder of rigid material threadedly engaging the exterior threads of said tube above said pushing member for radially expanding said plug, said cylinder being of uniform cross sectional area throughout its length; cap means on the outer end of said tube including a cover pivoted to open and close said outer end, and an air conduit of rigid material fixed to an inner wall of said hollow tube, said conduit extending from the plane of the outer end of said tube the full length of the tube and projecting below the tube inner end for a substantial distance.

2,778,546
COMBINED FLEXIBLE WALLED BAG AND POURING SPOUT
Milton H. Klausmann, Maplewood, N. J., assignor to Seal-Spout Corporation, Newark, N. J., a corporation of New Jersey
Application December 4, 1953, Serial No. 396,146
1 Claim. (Cl. 222—531)

A new article of manufacture comprising a bag whose walls are formed of thin, flexible and tearable material

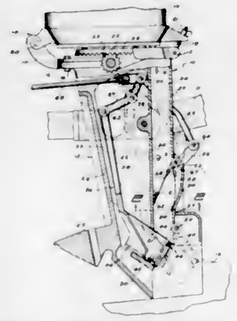
that is inherently incapable of supporting a metallic pouring spout and of resisting tearing incident to opening and closing of the spout, a plate of relatively thin, stiff and bendable non-metallic material that is tearable with difficulty, said plate being positively and permanently secured in flatwise abutting relation to the inner surface of said bag wall, said plate having a pair of approximately parallel slits extending therethrough and said bag wall having a slit in register with each of said slits in said plate, and a metallic pouring spout having an approximately rectangular body and sector-shaped wings, said wings projecting through said slits of said plate and said bag wall with the outer surface of each wing engaging the juxtaposed wall

of the corresponding slit and with said body of the spout in overlying relation to the portions of said plate and said bag wall between said slits, the area of said plate being greater than the area of said body of the spout, means positively connecting said body of the spout to said portions of the bag wall and to said portions of the plate between said slits with the portion of the bag wall between said slits clamped between said body of the spout and said plate so that upon forcible outward pulling of one end of the spout, said portions of the plate and said portions of the bag wall will be torn outwardly by and with said body and bent at the other end of said body of the spout to form a pouring opening in the bag, whereafter said spout may be swung to open and close said opening.

2,778,547
ROTATABLE CONTAINER CLOSURE
Per Albin Atterby, Lidingo, near Stockholm, Sweden
Application August 19, 1952, Serial No. 305,256
2 Claims. (Cl. 222—553)

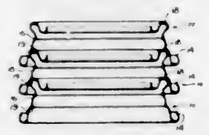
1. In dispensing heads for collapsible tubes for containing plastic substances, a thick-walled rigid hollow container head having a substantially hemispherical convex upper portion with a smooth external surface and a generally cylindrical lower portion having a smooth external surface and having a diameter equal to the maximum diameter of said upper portion, the surface of said upper portion smoothly merging at its line of maximum diameter into the upper end of said lower portion, a neck having a smooth external surface of a diameter smaller than said maximum diameter and connected integrally with the lower end of said lower portion of the head, said head having an aperture formed in its convex upper portion and constituting an outlet located entirely to one side of the axis of said head, a cap of non-metallic, flexible, readily deformable and elastically distensible material having a smooth internal surface slidably contacting the external surfaces of said upper and lower portions of said head over their whole area, the internal dimensions of said cap and the elasticity thereof being selected to cause a tensionless sealing fit of said cap on said head whereby rotation of said cap relative to said head is permitted without leakage of the contents of said container between said head and said cap, an inwardly projecting flanged lower edge on said cap opposite said neck and having an internal diameter intermediate the neck diameter and said maximum diameter but capable of enlargement to slightly more than said maximum diameter by elastic distension of said cap, said cap having a single opening constituting an outlet in a location allowing the same to be aligned with the outlet opening in the head by rotation of said cap on said head, and an external operating rib formed on said cap entirely to one side of said opening therein whereby said cap may be rotated on said head.

2,778,548
PLANTER VALVE
William E. Knapp, Moline, and Robert R. Roth, Rock Island, Ill., assignors to Minneapolis-Moline Company, Hopkins, Minn., a corporation of Minnesota
Application October 16, 1953, Serial No. 386,438
6 Claims. (Cl. 222—556)



1. A valve for speed planters comprising a vertical seed tube, a valve member pivotally mounted within the tube, control means on the valve member for moving the member about its pivot between positions opening and closing the tube, and said member including a closure gate formed of a single plate of resilient metal which is longitudinally slotted along one edge to provide a plurality of parallel horizontally spaced resilient fingers adapted to bear endwise against a wall of the tube when the member is in closing position.

2,778,549
CAN NOZZLE AND THE LIKE
Zeth F. Ahlquist, Chicago, Ill., assignor to Zeth F. Ahlquist and Allan R. Nilson, general partners, and Olof G. Nilson, Edna Nilson, J. Edward Martin, Carl B. Olson and Frances H. Ahlquist, limited partners, doing business under the firm name of International Machine and Tool Works, Chicago, Ill.
Application August 31, 1953, Serial No. 377,421
3 Claims. (Cl. 222—574)



1. An article of manufacture comprising a metallic sleeve tapered in substantially frustro-conical shape from one axial edge to the other and having an enlarged bead formed around its smaller diameter marginal edge, the external diameter of said bead being less than the internal diameter of said sleeve at its opposite marginal edge, and said sleeve having an inwardly extending circumferential boss formed in its medial portion axially inward from said opposite marginal edge to define an internal diameter less than the external diameter of said bead for axial engagement by the bead of the adjacent article to limit the extent of nesting between adjacent articles, whereby to permit nested stacking of a plurality of said articles during storage or shipment without wedged locking therebetween.

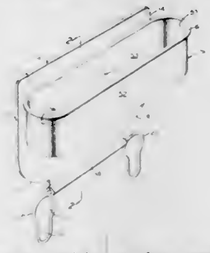
2,778,550
SLEEVE HOLDER FOR PRESSING MACHINE
Russell G. McLagan, Milford, Ohio, assignor to The American Laundry Machinery Company, Cincinnati, Ohio, a corporation of Ohio
Application June 9, 1954, Serial No. 435,425
4 Claims. (Cl. 223—57)

1. In a pressing machine of the type wherein the body portion of a sleeved garment is supported on a buck, the sleeves being outside the pressing area, and a pressing member is disposed for alternate movement to pressing position against said buck and to withdrawal movement away from said buck, sleeve clamp means supported on said buck and including a fixed clamping member and a movable clamping member, spring biasing means disposed to induce clamping movement of said movable clamping member whereby to grip a garment sleeve and hold it in clamped position, and means automatically responsive to movement of said pressing member into pressing engagement with said buck for causing unclamping movement of said movable clamping member to release said sleeve.

2,778,551
CLOTHES DRYING DEVICE
John R. Moore, Milan, Mich.
Application May 10, 1955, Serial No. 507,254
1 Claim. (Cl. 223—68)

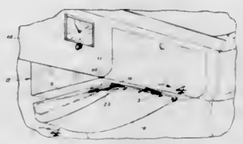
In a clothes drying device, an inverted U-shaped supporting bracket, a transverse bar secured to the upper end thereof and having upturned extremities, a loop disposed centrally of said bar and the bight of said U-shaped. bracket supporting hook means engaging in said loop, a ring pivotally mounted between the lower extremities of said supporting bracket, said ring being swingable from a position perpendicular to said leg to a position parallel thereto, brace means for securing said ring in perpendicular position, said last mentioned means including a link, pivotally secured to one of the legs of said U-shaped bracket, a transverse pin at the free end of said link, said ring having an aperture therein for the reception of said pin, the length of said link being such that when said pin is engaged in said aperture said ring is held in perpendicular relation to said U-shaped supporting bracket.

2,778,552
GUN REST
Carl A. Thompson, Yuba City, Calif.
Application January 17, 1955, Serial No. 482,100
4 Claims. (Cl. 224—1)



1. A gun rest comprising a plate vertically mountable on a belt, the vertical dimension of said plate being substantially in excess of the vertical dimension of said belt; a pair of vertical, parallel, spaced loops mounted on the inner side of said plate adjacent the vertical edges thereof; a belt confining clip depending from the upper edge of said inner side of said plate intermediate said pair of loops and displaced toward said plate from the plane of said pair of loops; a pair of tabs mounted on the outer side of said plate and projecting outwardly therefrom; an elongated cup, means for pivotally mounting said cup on the outer side of said plate for tilting movement about a horizontal axis normal to the plane of said plate from a horizontal attitude to an angular attitude inclined with respect to the horizontal and determined by abutment between said cup and the adjacent of said pair of tabs; and a friction block surrounding said pivot means and engaging said cup and said plate whereby the angular motion of said cup is characterized by substantial resistance to rotation.

2,778,553
REFUSE BAG FOR AUTOMOBILES
Marlyn Satrom and Jean M. Satrom, Rochester, Minn., assignors to Satrom Company, Inc., Minneapolis, Minn., a corporation of Minnesota
Application October 26, 1955, Serial No. 542,845
7 Claims. (Cl. 224—42.42)

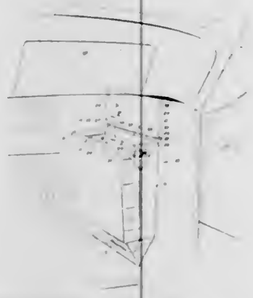


1. A refuse bag comprising an elongated enclosure of flexible material having an opening at one end, a frame disposed within the bag and extending substantially the length thereof, said frame comprising opposing jaws resiliently interconnected for yieldable opening movement at the open end of the enclosure, said enclosure being connected to both of said jaws adjacent said open end, a handle on one of said jaws projecting outwardly beyond the enclosure opening and the other jaw, and means on the other of said jaws for detachably connecting the frame to a support means.

2,778,554
APPARATUS FOR DISPOSING OF TRASH
Onni A. Porkola, Northboro, Mass.
Application November 5, 1954, Serial No. 466,962
2 Claims. (Cl. 224—42.46)

1. An apparatus for disposing of trash comprising an open-mouthed receptacle portion, a rectilinear frame fastened to the mouth of the portion to hold it open and

having eyes formed therein, the eyes lying in a common plane which extends at an obtuse angle to the plane of the remainder of the frame, a hanger formed of wire consisting of a straight intermediate portion and uprights, there being straight transition portions extending between the intermediate portion and the uprights and lying at an obtuse angle to the intermediate portion, each transi-

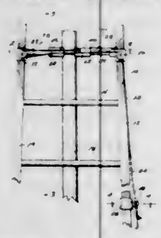


tion portion lying loosely within an eye and constituting therewith a hinged joint such that the hanger and frame may be rotated relative to one another about an axis parallel to the intermediate portion from an operative position wherein the frame is held rigidly at a right angle to the hanger to an inoperative position wherein the frame and hanger are in juxtaposition.

2,778,555
BAG CARRIER
Joseph J. Poryle, Forest Hills, N. Y.
Application June 12, 1953, Serial No. 361,325
14 Claims. (Cl. 224—45)

1. A carrier for a bag having a strap, comprising an open-ended tubular container provided with at least one generally transverse slot in its wall, said slot defining a projecting wall portion adapted to overlie a bag strap inserted in said slot, and a tubular insert displaceably hugging the inner wall surface of said container for releasably clamping said inserted strap in position within said slot.

2,778,556
LADDER ATTACHMENT FOR CLAMPING A LADDER TO A POLE OR LIMB
Willard P. Johnson, La Verne, Calif.
Application September 18, 1953, Serial No. 380,911
1 Claim. (Cl. 228—60)



A ladder attachment for clampingly engaging a structural or natural object to secure a ladder in an upright position comprising a track, clamping means releasably mounting the track transversely of the sides of a ladder, a pair of complementary jaws slideable on the track, means carried by the jaws and track for preventing rotation of the jaws on the track, said clamping means for the track including clamps adapted to be mounted on the sides of a ladder and having bearing sockets rotatably receiving the ends of the track, means carried by the sockets to releasably locate the track against rotative movement, a cable and pulley means for urging the jaws together and locking means associated with the cable to lock the jaws in clamping engagement of an object.

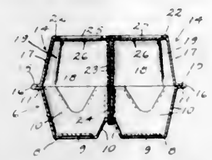
2,778,557
UNITARY CONTAINER
George Arlington Moore, New York, N. Y.
Application May 28, 1952, Serial No. 290,455
10 Claims. (Cl. 229—16)

1. A container of sheet material comprising side walls folded and being arranged in opposing pairs and having a flat bottom end wall integrally related with said side walls, two of said opposing side walls being of single thickness and being folded upwardly from two parallel corner edges of said bottom wall, the other pair of opposing side walls being of multiple thickness, each multiple wall layer being folded inwardly from a vertical corner edge of said single thickness side walls, and being adhesively secured together in overlapping relationship, said bottom wall being provided with two opposed extending wall portions, each of said portions having a pair of opposed triangular defined extensions that project outwardly into each bottom end of each side wall layer of multiple thickness, said extending wall portions being folded upwardly from two opposed transverse corner edges of said bottom end wall and an upper marginal portion thereof being folded outwardly and downwardly in a self-superimposed relation to its dependent wall, the opposed vertical corner edges of said folded wall portions being disposed in abutment with interior surface margins of said single thickness side walls, said folded extending wall portions being disposed in the interior of the container and the folds causing said triangular wall extensions to fold and form corner closing pleats that co-act with said folded self-superimposed margins and thereby seal the lower base ends of said multiple side walls upwardly adjacent said bottom end wall, said folded portions being adhesively secured together in seam forming relationship.

2,778,558
CARTON
Louis M. Butterfield, Kittery, Maine
Application January 19, 1955, Serial No. 482,833
3 Claims. (Cl. 229—29)

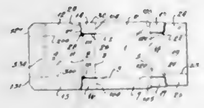
1. A carton of the character described comprising a bottom section having a plurality of upwardly opening article containing recesses or cells including two aligned longitudinal rows of cells, said bottom section having longitudinal side flanges and being provided with a longitudinal slot disposed midway of said side flanges between the recesses or cells located adjacent each of said side flanges, and a pair of cover sections, said cover sections having outer side portions hingedly connected to said

side flanges, said cover sections being disposed above longitudinal halves of the bottom section when in closed positions and including adjacently disposed inner side walls extending upwardly from said bottom section, said adjacently disposed side walls having depending tongues extending downwardly through the slot of the bottom section for retaining the cover sections in closed posi-



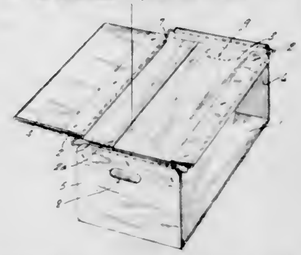
tions and for cooperating with said inner side walls to divide the carton into longitudinal halves, said slot extending to adjacent the ends of the bottom section and being disposed above the level of the bottoms of the cells, and said bottom section having end portions disposed in alignment with said slot and which are readily severable for dividing the carton into corresponding halves each provided with a cover.

2,778,559
BLANK FOR PACKAGING OF BOOKS AND THE LIKE
Arwed C. Boitel, Evanston, Ill., assignor to Atlas-Boxmakers, Inc., Chicago, Ill., a corporation of Delaware
Application May 12, 1952, Serial No. 287,282
1 Claim. (Cl. 229—40)



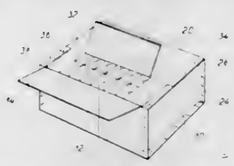
A blank for a book wrap or the like comprising a generally rectangular sheet of corrugated paperboard whose corrugations run parallel to the long dimension thereof; said sheet being scored perpendicularly to its longer dimension to delineate an intermediate panel, a pair of end panels hinged respectively to said intermediate panel along score lines at opposite ends thereof, and a pair of cover panels beyond the end panels and each hinged to its adjacent end panel along a score line; and said sheet being scored parallel with its longer dimension to delineate side flaps at opposite sides of each of said intermediate and cover panels; and corner flaps at each end of both side flaps of the intermediate panel, each of said corner flaps being hinged to its adjacent side flap of the intermediate panel along a score line which is offset inwardly a distance substantially equal to the thickness of the blank from the score line hinging its adjacent end panel to the intermediate panel, each of said corner flaps being severed from its adjacent end panel and from the side flaps of its adjacent cover panel; and the line severance defining the end edge of the cover panel side flap adjacent a corner flap extending a short distance to form a shoulder outwardly of and in substantial alignment with the score line between the adjacent end and cover panels, said line of severance extending outwardly from said shoulder to a point which is disaligned with said score line a distance at least equal to the thickness of the blank, said disalignment being in the direction toward the nearest end of the blank, the opposite end edge of said cover panel side flap defining a second shoulder adjacent the terminal edge of said cover panel, and the distance between said shoulders being greater, by less than two thicknesses of blank, than the distance between the score lines which hinge the corner flaps to their associated intermediate panel side flaps.

2,778,560
COLLAPSIBLE BOX
Edward J. Pfeiffer, New York, N. Y.
Application November 5, 1954, Serial No. 467,056
8 Claims. (Cl. 229—41)



5. A collapsible box structure having two rectangular paperboard bottoms one positioned above the other in parallel relationship, a rectangular wire frame positioned above said bottoms in parallel relation thereto, one of said bottoms having two paperboard quadrilateral box end sections each box end section being integral with and at right angles to said bottom in its unfolded position and having a fold line at its lower edge at the joint with said bottom and pivotally connected at its top edge to said frame for pivotal movement through an angle of 90° with respect to said bottom and through an angle of 90° with respect to said frame in pivoting from its unfolded to its folded position, whereby said box end sections and said bottom swing as a unit on said frame during repeated folding and unfolding, and the other of said bottoms having two paperboard quadrilateral box side sections, each side section being integral with and at right angles to said other bottom in its unfolded position and having a fold line at its lower edge at the joint with said other bottom and pivotally connected at its top edge to said frame for pivotal movement through an angle of 90° with respect to said other bottom and through an angle of 90° with respect to said frame in pivoting from its unfolded to its folded position, whereby said box side sections and said other bottom swing as a unit on the wire frame at right angles to the first mentioned swinging movement during repeated folding and unfolding of the box.

2,778,561
MAILING BOXES
Oluf Ulrich Bruno Jensen Brunaa, Jyderup, Denmark
Application December 21, 1953, Serial No. 399,326
1 Claim. (Cl. 229—51)



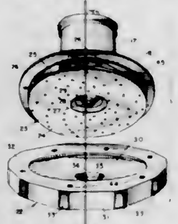
A mailing box of cardboard, or fibrous material, comprising two inset end walls, integral flanges along the edges of said end walls and protruding outwardly from the box, a bottom wall, a front wall, and a rear wall, edge flaps being connected to said bottom wall, front wall and rear wall along the edges thereof adjacent the flanges of said end wall, said edge flaps being bent around said end wall flanges in engagement with the inner surfaces of said flanges, and fastening means securing said edge flaps to said end wall flanges, a lid, the rear edge of the latter being hingedly connected to the upper edge of said rear wall, the front edge of said lid being adapted to extend adjacent the upper edge of said front wall upon closing

said lid, side edge flaps being provided along the rearmost portions of the side edges of said lid and being foldable around the upper flanges of the inset end walls, whereby to engage the inner surface thereof for stabilization, a closing flap hingedly connected at one end of said walls to the upper edge of said front wall of the box, edge flaps provided along the full extent of the side edges of said closing flap, the edge flaps on the closing flap being foldable around the foremost portion of the upper flanges of said inset end walls, the rearmost portions of the side edges of the lid extending from the rear wall of the box and forwardly, substantially terminating at the rear ends of the side flaps of the closing flap, when said box is in a closed position.

2,778,562
CONTAINER CLOSURE STRUCTURE
James O. Tilly, Tulsa, Okla.
Application April 1, 1953, Serial No. 346,097
4 Claims. (Cl. 229—51)

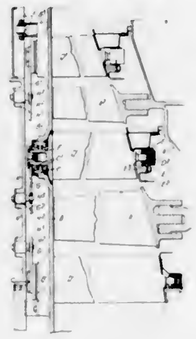
1. In a box having sets of inner and outer closing flaps, the free facing edges of the inner and outer flaps being spaced from each other, respectively, to form a finger inserting space between said flaps when said flaps are in closed position, a single ply liner interposed between said sets of flaps, and closing said finger inserting space, said liner being united to one set of flaps by spaced areas of adhesive distributed in a uniform pattern over substantially the entire interface surface area between said one set of flaps and said liner, said liner being united to the other set of flaps over substantially the entire interface area between said liner and said other set of flaps, and the free facing edges of said outer flaps comprising cutting edges for tearing out the portion of said liner between said free edges of said outer flaps whereby said finger space is opened to permit the manual separation of said sets of flaps.

2,778,563
VACUUM AND BLOWER PRODUCER
Dewey I. Doyle, Grand Rapids, Mich., assignor to Doyle Vacuum Cleaner Company, Grand Rapids, Mich., a corporation of Michigan
Application March 16, 1953, Serial No. 342,521
17 Claims. (Cl. 230—114)



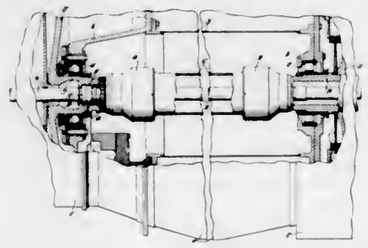
1. A vacuum and blower producing machine comprising in combination a fan wheel including a plurality of circumferentially spaced involute blades, the center of the generating circle for each blade being offset from the center of the wheel, means for rotating said fan wheel, a stationary housing around said fan wheel having an inlet port therein, and a plurality of exhaust ports around the periphery thereof, the total area of said exhaust ports being substantially equal to the area of said inlet port.

2,778,564
STATOR BLADE RING ASSEMBLIES FOR AXIAL FLOW COMPRESSORS AND THE LIKE
Frank B. Halford, Edgware, and George F. Clarke, Stanmore, England, assignors to The De Havilland Engine Company Limited, Leavesden, England, a British company
Application December 6, 1954, Serial No. 473,408
4 Claims. (Cl. 230—114)



1. A stator blade ring assembly for an axial flow compressor or the like comprising at least two rings of stator blades spaced apart in the axial direction with each blade extending outwardly from the center part of the compressor, across an annular passage through which the working fluid is to flow, each blade mounted to pivot about an axis which is coincident with or parallel to its longitudinal axis, at least one outer blade supporting ring in which the outer ends of the blades are pivotally supported, a cam member rigidly secured to the outer end of each blade and projecting therefrom in a direction having a substantial radial component relatively to the pivotal axis of the blade, the shape of the cam members secured to the blades of one ring being different from the shape of the cam members secured to the blades of another ring, an operating sleeve surrounding the blade supporting ring and carrying a series of follower members respectively engaging the cam members, and movable bodily in a direction parallel to the axis of the blade-supporting ring so that the follower members act simultaneously on the cam members to rock the blades of one ring about their pivotal axes simultaneously with, but through a different angle from, the blades of another ring.

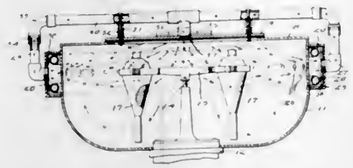
2,778,565
TURBINE AND COMPRESSOR COUPLING
Robert P. Atkinson, Indianapolis, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 9, 1952, Serial No. 287,065
6 Claims. (Cl. 230—116)



1. A gas turbine assembly comprising a compressor rotor and a turbine rotor coaxially aligned in spaced

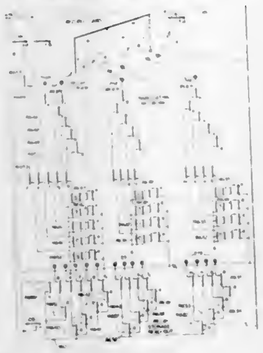
relationship, each rotor having a bearing supported end portion facing the other rotor, said rotors being subject to slight axial misalignment during turbine operation, and means for transmitting power between said rotors while accommodating for said misalignment comprising a torsion shaft having a spherically piloted connection at one end with said turbine rotor end portion and having a spherically piloted connection at the other end with said compressor rotor end portion and a pair of radially floatable coupling members each connecting a respective end of said torsion shaft with a respective rotor end portion.

2,778,566
CENTRIFUGE HEATING DEVICE
Gilbert J. Garrett, Pampa, Tex.
Application September 23, 1953, Serial No. 381,866
3 Claims. (Cl. 233—11)



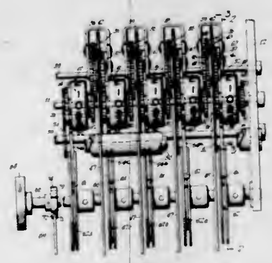
1. In a closed chamber centrifuge having air therein and having a pair of oppositely disposed receptacles mounted on a rotatable vertically disposed central supporting post for horizontal rotation on a pair of horizontal oppositely extending supporting arms, a means for heating and circulating the air about said receptacles, said means comprising in combination said receptacles and supporting arms, a pair of conduits for a circulating heating medium, a series of openings between said conduits, and a return conduit means leading from said openings to the central area of said chamber, whereby when said arms and said receptacles are rotated, the air in said chamber will be forced through said openings, heated by said pair of conduits and returned to said chamber for recirculation through said return conduit means, said pair of conduits positioned near a side wall of said chamber.

2,778,567
RELAY CALCULATOR
Hans P. Luhn, Armonk, and Stephen Hnat, New York, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application November 23, 1951, Serial No. 257,814
5 Claims. (Cl. 235—61)



5. In a calculator, a first factor receiving device, said device comprising four relays respectively representative of the values 0, 1, 3 and 5, a first and second set of contacts controlled by said first device, a second factor receiving device, said second device comprising four relays respectively representative of the values 0, 1, 3 and 5, a third and fourth set of contacts controlled by said second device, means for entering a factor in each said device as represented by the corresponding relays being energized either singly or in combination, comparing means including said first and third set of contacts interconnected in such a manner so as to determine the relative magnitude of said factors, electrical circuit connections interconnecting said second and fourth set of contacts in accordance with a table of addition, electron discharge means for controlling the energization of said relays of said first device, there being one for each corresponding relay, means for extending said circuit connections to said discharge means, and means for applying simultaneously a positive and negative pulse to said discharge means to cause said relays of said first device to be reset to register the sum of said factors, said positive pulse being passed through said interconnected second and fourth set of contacts to cause energization of selected ones of said discharge means when a predetermined relationship between said factors is detected by said comparing means, said negative pulse causing those discharge means receiving only a negative pulse to be de-energized.

2,778,568
NUMERAL WHEEL REGISTERING MECHANISM
Alva G. Russell, Stamford, Conn., assignor to Pitney-Bowes, Inc., Stamford, Conn., a corporation of Delaware
Application July 1, 1955, Serial No. 519,479
12 Claims. (Cl. 235—136)

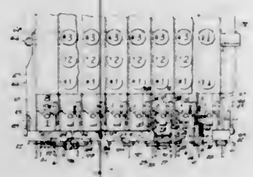


1. Registering mechanism comprising numeral wheels, reduction transfer gear drive units between pairs of numeral wheels to provide continuous reduction transfer throughout all of the numeral wheels connected with the transfer drive units, and means to effect a reverse adjustment of the transfer gear drive units while the gears remain in their meshed transfer driving relation, whereby the numerals of the numeral wheels are returned to reading alignment when desired.

2,778,569
SPLIT CLEARING MECHANISM
Lawrence W. Brugman, Chicago, and Raymond F. Koch, Evanston, Ill., assignors to Felt & Tarrant Mfg. Co., Chicago, Ill., a corporation of Illinois
Application June 26, 1953, Serial No. 364,362
3 Claims. (Cl. 235—144)

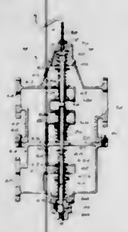
1. In a calculating machine having a multi-denominational order accumulator with a numeral wheel, a numeral wheel driving gear train including a carrying gear, and a carry winding spring in each order; an actuator for said accumulator including an actuating member for driving each said gear train to cause the carrying gear therein to wind up its associated carry winding spring;

detent means normally engaging each said gear train to prevent reverse actuation thereof in response to unwinding of the associated carry winding spring; and zeroizing means selectively operable to disengage all of said detent means from said gear trains to permit said carry winding springs to unwind to return all of said numeral wheels to zero position to clear said accumulator; detent engaging means associated with said detent means in certain of the orders of said accumulator and comprising part of said zeroizing means, and selectively operable



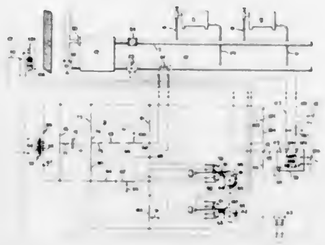
control means movable from a first to a second position to cause movement of said detent engaging means to an inoperative position to prevent disengagement of said detent means in said certain orders in response to subsequent operation of said zeroizing means, and movable from said second back to said first position, after operation of said zeroizing means, to cause movement of said detent engaging means to disengage the detent means in said certain orders from their associated gear trains to effect immediate return of the numeral wheels in said certain orders to zero position.

2,778,570
FLUID FLOW REGULATOR
Clifford C. Carson, Washington, D. C.
Application November 20, 1952, Serial No. 321,748
3 Claims. (Cl. 236—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)



2. Heat transfer apparatus comprising a pair of heat exchanger coils, a regulator for controlling the flow of heat transfer medium into said coils, means for supplying said medium to said regulator, and means for controlling said regulator, said regulator being provided with a separate transfer medium outlet chamber for each of said coils and with means independently communicating each of the coils with each of said separate chambers, said regulator further including a pair of valves selectively openable in opposite directions for directing medium flow alternately into one or the other of said outlet chambers, a third valve openable in the same direction and in sequential relationship with one of said pair of valves, and means for maintaining the other of said pair closed during said sequential opening, said regulator control means including movable means for controlling said valves, and temperature-responsive means for moving said movable means in opposite directions, said third valve being disposed for directing medium flow into the outlet chamber of said closed valve whereby said sequential opening supplements heat transfer by permitting medium flow through both of said exchanger coils.

2,778,571
TEMPERATURE CONTROL WITH NIGHT SET-BACK
Gene T. Gaddis, Edina, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application October 5, 1953, Serial No. 384,122
11 Claims. (Cl. 236—46)

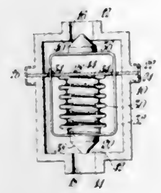


1. In temperature control apparatus, control means for controlling temperature changing apparatus; network circuit means for controlling said control means, said network circuit comprising a pair of power input terminals and a plurality of parallel branches connected between said terminals; a first branch including a resistance element having a movable tap thereon; a second branch including a tap and temperature responsive resistance means responsive to the effectiveness of said temperature changing apparatus; and a third branch including an output terminal, temperature responsive switch means, time responsive switch means, and outdoor temperature responsive resistance means; connection means including a second output terminal connecting said movable tap and said tap; and further connection means connecting said output terminals to said control means, said first mentioned switch means rendering said controlling means inoperative during selected periods when a condition indicative of a need of operation of said temperature changing apparatus is above a predetermined value.

2,778,572
TEMPERATURE REGULATOR
Alexander Murdoch, Jr., Port Washington, N. Y.
Application December 23, 1953, Serial No. 400,156
3 Claims. (Cl. 236—46)
(Granted under Title 35, U. S. Code (1952), sec. 266)

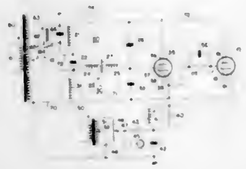
2. A temperature regulator comprising a control arm, a slot on each end of said control arm, thermostat means pivotally retained in one of said slots, a link member pivotally secured in the other slot, a slot intermediate the length of said link member, temperature responsive means including a rod, said rod being pivotally retained in said last named slot, and an anemometer actuated bell crank lever pivotally secured at one end to said link member, said link member integrating the temperature and wind conditions to actuate the control arm.

2,778,573
THERMOSTATIC STEAM TRAP
David L. Morgan, Shelton, Conn., assignor to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware
Application October 31, 1955, Serial No. 543,968
2 Claims. (Cl. 236—56)



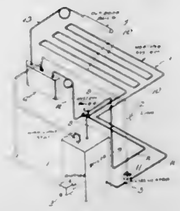
1. A steam trap comprising a casing having an inlet and an outlet passage at opposite ends thereof communicating with a chamber intermediate said passages, a pair of oppositely disposed valve seats adjacent said passages respectively, a relatively fixed support extending across said chamber, a strap member guided by said support and having opposite ends extending adjacent said opposite ends of said casing, a pair of valve members carried by said strap member and being cooperable with said valve seats respectively for controlling flow through said passages, and an expansible and contractible element containing a volatile fluid and mounted between said support and one end of said strap member, said element being responsive to temperature variations of the fluid in said chamber for positioning said valve members relative to said seats, said element being also responsive to pressure variations in said chamber for positioning said valve members relative to said seats.

2,778,574
OSCILLATING CONTROL APPARATUS
Warren Moore, Jr., and Robert J. Ehret, Philadelphia, Pa., assignors to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application June 11, 1952, Serial No. 292,908
11 Claims. (Cl. 236—78)



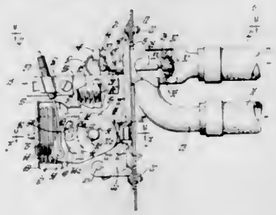
1. Control apparatus comprising, an electronic device having an output and an input, an oscillating circuit having a pair of tank circuits, one of which is operatively connected to said output circuit and the other of which is operatively connected to said input circuit, said oscillating circuit having a single inductive element common to said pair of tank circuits, a condition responsive element having a vane adapted to vary the effect of said inductive element on said oscillating circuit and cause said oscillating circuit to go into and out of oscillation in accordance with the relative position of said responsive element with respect to said inductive element, and an additional variable electrical coupling connected between said inductive element and said input to vary the coupling in said oscillating circuit.

2,778,575
HEAT CONTROL APPARATUS CONTROLLED BY OUTSIDE TEMPERATURE
Henry T. Kucera, La Grange, Ill.
Application August 29, 1952, Serial No. 307,001
5 Claims. (Cl. 236—91)



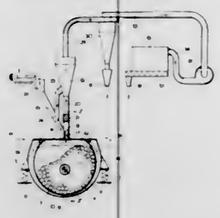
1. A heat transfer apparatus comprising a fluid circulation system, heat transfer means for heating the fluid, a circulator for circulating the fluid in the system, a first thermometrically controlled actuator controlled by temperature outside the heat transfer field for determining the on- and off-periods of said heat transfer means, a second thermometrically controlled actuator controlled by the temperature of the fluid for controlling the on- and off-periods of circulation and, means controlled by said second actuator for varying the on- and off-periods of the heat transfer means.

2,778,576
TEMPERATURE RESPONSIVE ACTUATING DEVICES
Rodney M. Johnston, Lockport, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 6, 1951, Serial No. 219,655
6 Claims. (Cl. 236—99)



6. In a device of the class described, the combination of a valve adapted for movement between fully open and fully closed position, operating means for said valve including an actuating lever, a temperature responsive bellows having a normally substantially stationary end and a normally movable end and a counterbalancing spring disposed between said normally substantially stationary end of said bellows and said lever, an adjusting lever for adjusting said temperature responsive means to condition it for operation within different ranges of temperature variation, means for connecting the said normally substantially stationary end of said bellows to said adjusting lever, means for rocking said adjusting lever to adjust said temperature responsive means, means for locking said actuating lever in positions corresponding to fully open and fully closed positions of said valve, and means enabling expansion of said temperature responsive means when said valve is held in fully open and fully closed positions, said last mentioned means comprising a two arm spring, a fixed support, one of said arms engaging said fixed support, and means for pivotally mounting said adjusting lever on the other of said arms.

2,778,577
OSCILLATORY MILL WITH AIR SEPARATION
Gerhard Linke, Mulheim-Ruhr, Germany, assignor to N. V. Tema, The Hague, Netherlands, a corporation of the Netherlands
Application May 23, 1955, Serial No. 510,307
Claims priority, application Germany July 19, 1951
2 Claims. (Cl. 241—47)

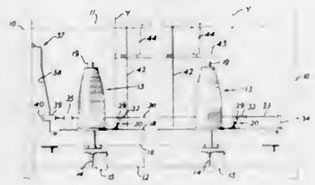


1. Oscillatory mill with air separation, comprising a rotary operating shaft carrying unbalanced masses, a grinding container mounted on said shaft, said container being provided in its upper wall with an outlet opening connected to an upstanding air discharge pipe and in another wall with a plurality of inlet openings for air and material to be ground, a jacket open at its upper edge and surrounding said container to which it is connected so as to oscillate therewith, and means for supplying material to be ground together with separating-air to the space between the container and the jacket from which they pass through said inlet openings into the container.

2,778,578
WINDING MACHINE
John Vernon Keith, Warwick, R. I., assignor to Universal Winding Company, Cranston, R. I., a corporation of Massachusetts
Application May 4, 1954, Serial No. 427,542
3 Claims. (Cl. 242—18)

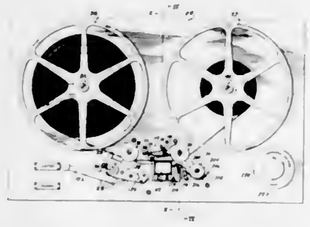
1. A winding machine for winding a strand of yarn comprising the combination of a rotatable drum, yarn traversing means spaced from said drum, a rotatable arbor for holding a winding package of yarn, and mounting means carrying said arbor for movement toward and away from said drum and traversing means whereby a winding package carried by said arbor can contact and be driven by said drum and the axis of said arbor will shift as the package increases in diameter to maintain substantially the same relationship between said traversing means and the periphery of the winding package from start to finish of the winding cycle, said mounting means comprising an arm, means rotatably mounting said arbor adjacent one end of said arm, means comprising a rotatable eccentric and a bearing journaled on said eccentric and having said arm secured thereto holding the other end of said arm for pivotal and longitudinal movement, and guide means controlling the longitudinal position of said arm as said arm pivots due to growth of the winding package.

2,778,579
VERTICAL REDRAW
Dimitri G. Soussloff, Warwick, and Bernard Andrews, Smithfield, R. I., assignors to Universal Winding Company, Cranston, R. I., a corporation of Massachusetts
Application February 4, 1954, Serial No. 408,178
6 Claims. (Cl. 242—45)



1. In a machine for winding yarn the combination comprising a rotatable spindle for rotating a package core, reciprocating traverse means for moving a yarn guide longitudinally of said core, a rod rotatably journaled on said traverse means adjacent said core, a yarn guide carried by said rod substantially coaxially therewith, a tension applying member carried by said rod in spaced relation to said guide to provide a yarn passage therebetween, a lever fixed to said rod, and means for pivoting said lever to swing said tension applying member around said guide as said traverse means reciprocates to change the tension applied to a strand of yarn running through said passage.

2,778,580
DRIVING, BRAKING AND REELING MEANS FOR AN ELONGATED STRIP
Hugh A. Howell, Valparaiso, Ind., and Elmer B. Offutt, Kansas City, Mo., assignors to The Indiana Steel Products Company, Chicago, Ill., a corporation of Indiana
Original application May 12, 1947, Serial No. 747,540, now Patent No. 2,639,333, dated May 19, 1953. Divided and this application October 27, 1952, Serial No. 317,945
12 Claims. (Cl. 242—55)

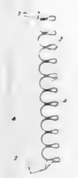


3. In a reeling mechanism for controlling transfer of an elongated medium between a pair of reels, first and second rotatable supports for said reels; drive means; control means actuatable into first, second and stop positions; first clutch means actuated by said control means for coupling said drive means to said first reel support only in said first position of said control means; second clutch means actuated by said control means for coupling said drive means to said second reel support only in said second position of said control means; and brake means actuated by said control means for impeding rotation of only said first reel support on actuation of said control means from said second position to said stop position.

2,778,581
REEL FOR TAPE RECORDER AND PLAYER
Howard Herman Lorenz, Benton Harbor, Mich., assignor to V-M Corporation, Benton Harbor, Mich., a corporation of Michigan
Application May 6, 1954, Serial No. 427,959
10 Claims. (Cl. 242—70)

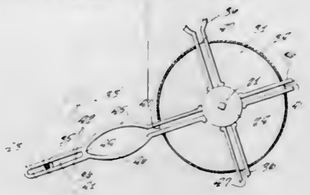
1. A reel for a tape recorder and player comprising a hub about which a tape may be wound, and a tape-receiving slot in said hub which opens through the outer periphery of said hub at two circumferentially spaced points, said slot being composed of two separated radial portions joined by a circumferential portion, the radial portions emerging at said points respectively at abrupt angles with the hub periphery, said slot also being open on one lateral side of said hub whereby a segment of tape may be inserted into said slot and wound around said hub.

2,778,582
MEANS FOR HOLDING ELECTRIC CABLE IN A COILED CONDITION
Evan Meirion Arthur, West Heath, Birmingham, England
Application January 5, 1954, Serial No. 402,316
1 Claim. (Cl. 242—96)



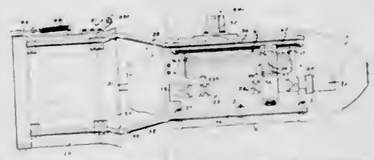
A holder for storing a surplus length of electric cable or holding a length of cable in a coiled condition, comprising a member which is adapted to be fixed to and detached from the cable by lateral engagement or disengagement with the cable and which holder is formed of a length of spring material bent to form a connected row of coil holding U-shaped spring clips arranged horizontally one above the other and parallel to one another and with their mouths arranged transversely of and at the front of the holder, so that a length of cable, extending from the portion to which the holder is fixed, can be arranged in coils with each successive coil held in successive clips of the row, and means for detachably fixing each end of the holder to the cable by an engagement laterally of the cable comprising a U-shaped spring mounting clip at each end of and bent from said length of material forming the holder, said latter U-shaped spring clips being arranged at the back of the holder with their axes at right angles to the said coil holding spring clips and lengthwise of the holder and with their mouths facing laterally of the holder in opposite directions, so that a length of cable to which the holder is mounted passes longitudinally of and behind said parallel row of coil holding clips from the said mounting clip at the one end of the holder to the said mounting clip at the other end of the holder.

2,778,583
SKEIN HOLDER FOR YARN
Della V. Thurston, Eureka, Calif.
Application June 21, 1954, Serial No. 438,052
2 Claims. (Cl. 242—114)



1. In a skein holder, a wheel assembly mounted on a stationary support for rotation in a vertical plane, comprising a plurality of spaced radially projecting arms, each of said arms having a closed longitudinal slot at the outer end and a pair of resilient expansible legs at the inner end thereof, an outwardly protruding arcuate portion intermediate said slot and each leg normally biasing each of said legs toward an open position relative to the other said leg, said wheel having portions defining a slot for receiving each of said arms, and said slot defining portions engaging said legs to maintain said legs in said wheel in a closed position against the action of said arcuate portions.

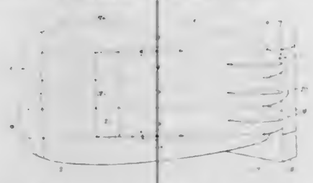
2,778,584
AIR DRIVEN TOW TARGET REEL
Woodrow W. Wilson, Norman, Okla., assignor to the United States of America as represented by the Secretary of the Air Force
Application November 21, 1955, Serial No. 548,284
6 Claims. (Cl. 244—3)
(Granted under Title 35, U. S. Code (1952), sec. 266)



3. A tow target cable reel device fixed to the exterior of the fuselage of an aircraft adjacent the bottom thereof substantially opposite a tow target receiving support, said tow target cable reel device comprising an elongated cylindrical casing having tapered front and rear ends facing forwardly and rearwardly respectively relative to the flight axis of said aircraft, said casing having an elongated opening in the side thereof facing said tow target receiving support for receiving the tow cable therethrough, a tow target cable reel journalled within said casing on an axis substantially parallel to the said flight axis, a drive shaft journalled in said casing and extending forwardly beyond the front end of the casing, reduction drive gear means connected between said shaft and said reel for rotating said reel from said drive shaft at a slower relative speed, an air-driven turbine fixed on the forward end of the drive shaft for rotating said shaft from the slip stream air passing said fuselage, a cylindrical housing surrounding the periphery of said air-driven turbine and extending forwardly thereof to direct air entering the forward end of said housing through said air turbine for actuation thereof, a butterfly valve for closing the forward end of said housing, spring means between the housing and butterfly valve for moving said butterfly valve toward one of its open or closed positions, cable means connected to said butterfly valve for rotat-

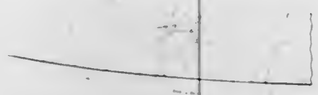
ing said valve to its opposite position, spaced longitudinal supporting means fixed to the exterior of the casing and extending forwardly beyond the periphery of said air turbine and connected adjacent their forward ends to said housing for supporting said housing in spaced aligned relation to said casing.

2,778,585
DYNAMIC LIFT AIRSHIP
Donald B. Tschudy, Canton, Ohio, assignor to Goodyear Aircraft Corporation, Akron, Ohio, a corporation of Delaware
Application January 3, 1955, Serial No. 479,532
5 Claims. (Cl. 244—30)



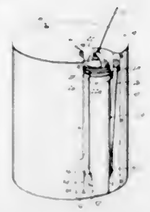
1. A non-rigid airship including a fabric body portion containing lifting gas and shaped like an airfoil so as to provide increased aerodynamic lift in the forward flight of the airship, a load-carrying compartment positioned in the body portion substantially at the center of dynamic lift of the body portion, a pair of engine nacelles mounted rearwardly of the compartment and at opposite sides of the body portion, a landing wheel carried by each nacelle, a control cabin mounted at the center of the front of the body portion, a landing wheel carried by the cabin, reinforcing means stiffening the entire bow of the body portion, reinforcing means stiffening the stern of the body portion, and elevator and rudder means mounted on the last-named means of the body portion.

2,778,586
SUPERSONIC PILOTED AIRPLANE WITH ADJUSTABLE NOSE
Gilbert A. Nyerges and Maurice F. Muzzy, Seattle, Wash., assignors to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application May 2, 1955, Serial No. 505,372
8 Claims. (Cl. 244—120)



1. In an airplane capable of high speed flight, a fuselage structure enclosing a pilot's station, and terminating immediately ahead of that station in forwardly facing windows disposed generally transverse to the longitudinal axis of the fuselage structure to afford vision directly forwardly from the pilot's station, but to present a protuberance into the airstream, an elongated nose separate from the fuselage structure, of a shape to constitute with the fuselage structure a substantially uninterrupted streamlined body, masking said windows and shielding such protuberance, when the longitudinal axes of the nose and of the fuselage structure are axially aligned in high speed flight position, means supporting the nose from the fuselage structure for movement between the high speed flight position and a low speed flight position, wherein the longitudinal axis of the nose is lowered relative to the longitudinal axis of the fuselage structure to unmask said windows, and means operable from the pilot's station to effect movement of the nose between the two such positions.

2,778,587
DELAYED OPENING PARACHUTE CASE
Harold J. Moran, Trenton, N. J., assignor to Switlik Parachute Company, Inc., Trenton, N. J.
Application April 18, 1955, Serial No. 501,993
6 Claims. (Cl. 244—150)

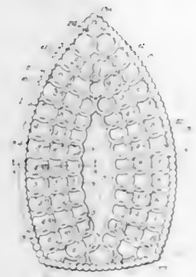


1. A delayed opening parachute case comprising a container, open at the top, adapted to enclose a parachute, a lid closing the top of said container, said lid having at one side a catch portion hingably engaging said container, a timer in an elongated housing secured at its upper end to the opposed side of said lid and extending downwardly along the outside of said container, and being received in a recess formed in the wall of said container so as to be substantially flush with the outer wall thereof, an elongated tension spring connected at its opposite ends to the outer wall of said container near its upper edge and the central portion of said spring being stretched downwardly and hooked under tension beneath the lower portion of said housing to urge said housing and said lid upwardly, a fastener engaging said housing to hold said lid down in closing position on said container against the force of said spring, said timer including a releasing element adapted for connection to a static line and a movable member adapted to cooperate with said fastener and disengage the same a predetermined time interval after said static line is pulled to allow said tension spring to open said lid and release said parachute.

2,778,588
HOLDER FOR BROOMS AND THE LIKE
Leonardo Capocci, Providence, R. I.; Anna Bruno, administratrix of said Leonardo Capocci, deceased, assignor to Luisa Capocci, Providence, R. I.
Application December 29, 1952, Serial No. 328,427
1 Claim. (Cl. 248—112)

A device for holding household implements, comprising a base plate adapted to be attached to a support base, said base plate having a pair of spaced, aligned hinge rolls, and a holder formed from a single piece of resilient wire and including a cross piece rotatably mounted in said hinge rolls, a leg depending downwardly at each end of the cross piece, said legs being in parallel relation, a spring coil at the lower end of each leg, additional spring means mounted on said holder cross piece between said hinge rolls, said additional spring means comprising a coil spring having one end grippingly engaged by said base plate and its other end in engagement with one of said legs whereby to normally bias said legs upwardly, said holder further comprising a pair of arms extending outwardly and upwardly from each spring coil at an angle of about 45° to its associated leg, said arms being curved upwardly in generally parallel relation and having at their ends a curled eye portion, said arms being adapted to releasably receive therebetween a broom handle or the like.

2,778,589
SUPPORTING PAD FOR HOT FLAT IRONS
Edwin F. Peterson, Kewanee, Ill.
Application February 18, 1952, Serial No. 272,000
5 Claims. (Cl. 248—117.3)

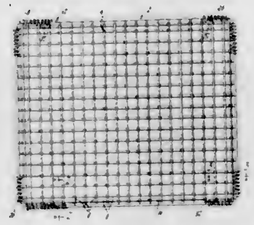


1. A pad to support a sad-iron comprising an integrally formed flexible body constructed from a flexible rubber-like material capable of withstanding sad-iron operating temperatures, said body comprising an upper surface provided with a plurality of spaced projections to collectively receive a sad-iron thereon, and said body having a continguous and flexibly constituted bottom surface conformable to the normal contour and irregularities of a pad supporting surface, and said spaced projections each comprising a boss member with a conical top encircling a cavity formed in said member, said conical top of each member presenting a feather edge disposed in a position to flatly receive a sad-iron thereon.

2,778,590
METAL HANDLING AND STORAGE BOLSTER
Herman F. Jeannero, Canton, Ohio
Application July 15, 1952, Serial No. 298,993
2 Claims. (Cl. 248—120)

1. A metal handling and storage bolster for billets, bars, tubes and the like, said bolster comprising a spaced pair of similar end frames, each end frame being in the form of a vertical plate having an upright extension at each end and a substantially straight horizontal load-bearing flanged upper edge therebetween, and a substantially horizontal lower edge for contact with a supporting surface, there being a transverse aperture near each end of each frame, a pair of rod-like side members having their opposite ends located through said apertures, said rod-like members having a smaller diameter than that of said aperture to define radial spaces between the adjacent surfaces of the rod and the walls of the apertures whereby the frames and rod-like members of the bolster may move relative to each other to compensate for unevenness in the supporting surface, and integral shoulders upon said side members spaced on opposite sides of the end frames for providing limited axial and angular displacement of the side members relative to the end frames.

2,778,591
WIRE PALLET
Raymond W. Chalmers, deceased, late of Detroit, Mich., by Elsie M. Chalmers, executrix, Detroit, Mich.
Application January 21, 1953, Serial No. 332,434
5 Claims. (Cl. 248—120)



1. A pallet for use with a lifter mechanism having pick-up arms, comprising a relatively flat load supporting portion, a rim portion secured about the perimeter of said load supporting portion, said rim defining four relatively straight portions, and a plurality of helical springs, each of said springs being disposed in surrounding relation to said straight portions whereby said load supporting portion is supported slidably above the surface on which said pallet is disposed, said springs being adapted for limited rotation responsive to slidable movement of said pick-up arms beneath said pallet.

2,778,592
SUPPORT FOR ROTARY FILES
Richard P. Scholfield, White Plains, N. Y., assignor to Wheeldex Manufacturing Co., Inc., White Plains, N. Y., a corporation of New York
Original application February 14, 1950, Serial No. 144,052. Divided and this application April 16, 1952, Serial No. 282,540
2 Claims. (Cl. 248—158)

1. A support for a rotary file, comprising a single elongated tubular rod having a substantial portion of its length bent from one free end thereof along a substantially circular line to lie in a single plane, extending over, and substantially enclosing, an area of substantial size and constituting a supporting base, another, intermediate portion of its length bent to curve gradually and directly upwardly and laterally from the other end of said base portion, and another substantially straight terminal portion at the end of the intermediate portion, gradually turned laterally and inwardly therefrom in substantially parallel relation to and spaced from the base portion, within a vertical projection thereof, the terminal portion having a free end and constituting an axle upon which a filing drum may be journalled, and a plug forced into the interior of the free open end of the terminal portion with a tight frictional fit and having a radially projecting flange adapted to retain a drum on said axle.

2,778,593
COLLAPSIBLE STANDS
Roy L. Stover, Wichita, Kans.
Original application November 15, 1945, Serial No. 629,601. Divided and this application May 5, 1952, Serial No. 286,049
2 Claims. (Cl. 248—170)

1. A collapsible stand that comprises an elongated stem of substantially uniform thickness throughout its length, a plurality of radially-directed axially extending grooves in said stem at the lower end of said stem, said grooves extending to the bottom face of said stem, a plurality of legs, each of said legs having a short substantially straight upper portion and an elongated lower portion and an intermediate bent portion, each of said upper portions of said legs having an opening at the upper end thereof, pivots that span the said grooves in said stem and extend through said openings in said upper portions of said legs, said legs being selectively rotatable about said pivots to retracted position and to extended position, said legs having the major part of the length of the upper portions thereof extending outwardly from said grooves and having the bottoms thereof disposed adjacent said stem at a point above the bottom face of said stem whenever said legs are in retracted position, said legs having the major part of the length of the upper portions thereof disposed within said grooves and having the bottoms thereof disposed outwardly of and below the bottom face of said stem whenever said legs are in extended position, a sliding member that closely encircles said stem and that translates freely along the surface of said stem to selectively overlie said grooves and enclose and confine said upper ends of said legs and thereby lock said legs in extended position or to lie above said point on said stem and engage said bottoms of said legs and thereby lock said legs in retracted position, and a helical spring that encircles the upper end of said stem and can yield to permit said sliding member to move to a position above said point on said stem but can thereafter urge said sliding member toward said point to engage and hold the bottoms of said legs, and a surface on said stand above said point which resists movement of said helical spring away from the lower end of said stand, whereby movement of said sliding member above said point on said stem can compress said helical spring, the portion of said stem between said point and said bottom face being free of obstructions to the translating movement of said sliding member whereby said sliding member can respond to gravitational forces to automatically move into leg-locking position.

2,778,594
SUPPORT FOR CAN OPENERS AND THE LIKE
Lawrence M. Boho, Chicago, Ill.
Application June 26, 1953, Serial No. 364,368
1 Claim. (Cl. 248—205)

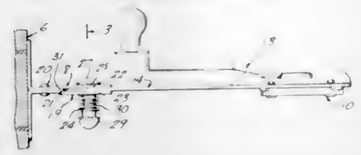
A support for can openers and other kitchen appliances comprising a bracket having a depending supporting leg, a block of wood fitted flat against the outer face of the leg adapted to receive any pattern of fastening screws for supporting a socket of a kitchen appliance, a frame for encasing said block to prevent splitting thereof, said frame including a front wall having a relatively large central portion thereof cut out to expose the block to

view, side walls on the front wall engaging the sides of the block and the leg, end walls on the front wall engaging the ends of the block and terminating short of the leg, said front wall having internally threaded sockets, and screws passing through said leg and threaded into said sockets for drawing the frame toward the leg and the block in intimate contact with the leg.

2,778,595
STEP LADDER SCAFFOLD BRACKET
James W. Mastin, Council Bluffs, Iowa
Application July 6, 1953, Serial No. 366,142
1 Claim. (Cl. 248—238)

A bracket for attachment to a ladder comprising: two elongated side members adapted to extend longitudinally of the upright side styles of said ladder, a transverse cross bar attached at its ends to said side members and adapted to receive a scaffold thereon, transverse gripping straps extending transversely of said elongated side members respectively and extending outwardly from the normally underside of each of said side members and attached thereto respectively at the normally upper ends of said side members and having hooked outer ends for gripping around the opposite side of said ladder upright styles respectively, said transverse gripping straps being adapted to be disposed extending transversely across the top of a rung of said ladder whereby the pressure of said scaffold downwardly against said bracket will be borne at least in part by the said rung of said ladder, said elongated side members being adapted to be disposed with their normally lower ends resting upon the respective ladder upright styles whereby a portion of the pressure of the scaffold upon said bracket is carried by the ladder upright styles, and each side member having attached thereto at least two style engaging tabs projecting outwardly from said side members respectively on the underside thereof and at the normally lower ends thereof, the said style engaging ears of each bracket side member being spaced apart for receiving therebetween in close proximity the opposite sides of the respective ladder upright styles so as to prevent said side members from moving transversely of said ladder styles.

2,778,596
CAN OPENER SUPPORTING MECHANISM
Richard Goodenough, New York, N. Y., assignor to Joseph A. Cahil, doing business as Cahil Manufacturing Company, New York, N. Y.
Application July 8, 1952, Serial No. 297,674
1 Claim. (Cl. 248—293)

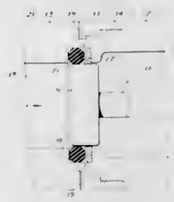


A utensil supporting mechanism comprising an arm upon which a utensil is mountable having an inner end in the form of a plate disposed in a vertical plane, a bracket comprising a pair of closely spaced, parallel vertical plates defining an open channel, said bracket being adapted to be mounted upon a supporting surface with the inner end of the arm received in the channel, said vertical plates and the inner end of said arm being provided with aligned polygonal apertures, a pivot shaft mounted in said apertures for axial sliding movement, said shaft comprising a polygonal-sectioned first portion adapted to mesh in said apertures and lock the utensil bearing arm selectively in either of two right angularly spaced positions, a substantially cylindrical second portion on said shaft adjoining the first portion, said shaft being axially movable in the apertures to disengage the polygonal portion from and to engage the cylindrical portion with the apertures, whereby the arm can be swung in the bracket between said two right angularly spaced positions, means normally urging the shaft into a position in which the polygonal portion mates with the polygonal apertures, said bracket being provided with a substantially vertical limit stop abutment in the channel and wherein the inner end of the utensil bearing arm is substantially rectangular and the inner edge thereof is adapted to engage the limit stop abutment when the arm is presented in operative position, whereby said limit stop abutment terminates swinging movement of the arm in one direction, and a portion of the upper longitudinal edge of the inner end of the arm engages the limit stop abutment when the arm is in its inoperative position, whereby said abutment also terminates swinging movement of the arm in the other direction, and wherein said means urging the shaft into a position in which the polygonal portion mates with said apertures comprises a spring.

2,778,597
BASE STRUCTURE
Fred C. Haumerson, Racine, Wis., assignor to Walker Manufacturing Company of Wisconsin, Racine, Wis., a corporation of Wisconsin
Application January 20, 1951, Serial No. 207,031
6 Claims. (Cl. 248—346)

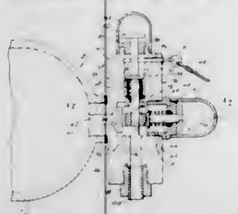
1. A base structure for supporting the end of a thrust bar comprising, in combination, a multi-sided arched member having an opening at its apex, a socket in alignment with said opening and adapted to receive the end of a thrust bar, said socket comprising a bottom section to receive the end of the thrust bar, said socket having arms extending upwardly from said bottom section and folded at an angle of substantially 90 degrees thereto and parallel to the axis of the opening, said arms having wings located intermediate the bottom section and the top ends of the arms and extending transversely thereof for a substantial distance, the top edges of said wings being inclined to the axis of said opening and engaging the sides of said arch on the under side of the arch, said arms extending upwardly through said arched member and the top ends thereof being bent over against the tops of the arch sides so that said socket is clamped to said arch by said wings and arms.

2,778,598
VALVE WITH PRESSURE SEALING DEVICE
Thomas J. Bolling, Jr., Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application July 20, 1953, Serial No. 368,933
7 Claims. (Cl. 251—63)



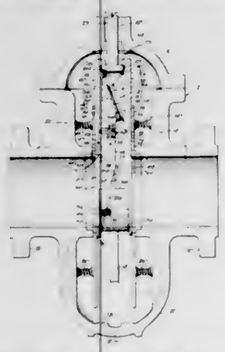
1. A device for sealing against high pressure which comprises, in combination: a housing provided with a first passageway for flow of fluids under high pressure having an annular recess arranged in an interior wall of the housing opening into and communicating with said first passageway; said housing being provided with at least a second passageway communicating said recess with an exterior surface of the housing under a pressure less than the fluid pressure within the first passageway and having a point of entry into said recess remote from the opening of the recess into the first passageway; a first deformable annular packing member arranged in said recess and defining an arcuate surface having a vertical cross-sectional diameter less than the greatest and greater than the smallest cross-sectional diameter of the recess; a second deformable annular packing member defining in vertical cross section substantially a rectangular surface and arranged in said recess in contact with said first deformable packing member downstream from the flow of fluid under high pressure; said second packing member having at least a beveled surface adjacent said second passageway, a cross-sectional diameter across its minor axis less than the vertical cross-sectional diameter of the first packing member and a cross-sectional diameter across its major axis equal to the cross-sectional diameter of the first packing member such that said first and second packing members project into the first passageway; said first and second deformable packing members also being in contact with the wall of the recess to fill substantially the recess; and a sealing member arranged in said first passageway for closing said first passageway; said first and second packing members projecting into said first passageway a sufficient distance to form a seal with said sealing member on movement of said sealing member into contact with said second and first packing members such that said first packing member is confined in said recess by said sealing member and by said second packing member, said sealing member moving upstream in said first passageway into contact with said second and first packing members in sequence and downstream out of contact with said first and second packing members in sequence.

2,778,599
PARACHUTE INFLATING MEANS
Herman J. Paul, Jr., Zanesville, Ohio
Application January 16, 1953, Serial No. 331,690
3 Claims. (Cl. 251—66)



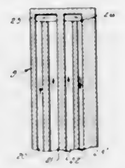
1. In an inflating means for a parachute, a valve body having a chamber therein, said body being provided with an inlet extending inwardly from one side intermediate the ends thereof and communicating with said chamber and adapted to be connected to a source of gas under pressure, there being a discharge passage in said body extending inwardly from one end thereof and in communication with said chamber, a valve disc in said chamber and normally seating upon a seat provided on the end of said inlet communicating with said chamber, a stem extending transversely through said chamber and having one end fixed to said disc, said stem being mounted in said body for movement of said valve disc into and out of seating engagement with said seat, a lock pin positioned within said body intermediate said chamber and the other end of said body and extending slidably through a non-circular transverse opening in said stem and mounted in said body for movement into and out of engagement with the transverse opening in said stem, and means releasably engaging said lock pin and operable exteriorly of said body for holding said pin in engagement with the transverse opening in said stem.

2,778,600
GATE VALVE
Kurt B. Bredtschneider and Richard Fennema, Chicago, Ill., assignors to Crane Co., Chicago, Ill., a corporation of Illinois
Application July 5, 1952, Serial No. 297,328
6 Claims. (Cl. 251—196)



1. In a valve having a housing including a valve chamber and a pair of fluid passages communicating transversely therewith from opposite sides and provided with spaced parallel valve seats around the inner termini of said fluid passages, an expansible valve assembly reciprocally mounted within said valve chamber and comprising a pair of closure members having parallel outer surfaces for seating contact with said valve seats and a member intermediate said closure members having upper and lower wedge surface means cooperating with at least one of said closure members for effecting transverse expansion of said valve assembly against said valve seats in open and closed positions at substantially each extremity of travel thereof, one of said closure members extending only partly along said intermediate member, said intermediate member having a lower portion extending transversely to one side, said latter portion having an outer surface for contact with one of said valve seats in substantially the open expanded valve condition, said outer surface being normally flush and in line with the outer seating surface of said partly extending closure member thereabove, stop means and abutment surfaces therefor within the valve chamber cooperating with the said intermediate member at end limits of closure member travel whereby at each of said limits of the valve assembly travel the said intermediate member is moved into engagement with the said closure elements, means for actuating the said valve assembly, resilient means comprising leaf springs for supporting and positioning said intermediate member and at least one of said closure members relative to each other during the travel of the valve assembly between the end limits of reciprocal movement thereof to maintain the closure and wedge members in substantially the same plane and thereby prevent substantial transverse expansion of said valve assembly during such movement.

2,778,601
FLUID COOLED TURBINE BLADE CONSTRUCTION
Ernst R. G. Eckert, Xenia, Ohio, assignor to the United States of America as represented by the Secretary of the Air Force
Application May 28, 1951, Serial No. 228,728
1 Claim. (Cl. 253—39.15)
(Granted under Title 35, U. S. Code (1952), sec. 266)



A turbine blade for a turbine wheel for a combustion turbine comprising, a thin blade member including a root section at one end for mounting in the peripheral portion of the turbine wheel and including a blade section of airfoil cross section comprising the greater portion of the length of said blade member, said blade member being provided with two pairs of adjacent longitudinally extending passages with one passage of each pair being located adjacent to the central longitudinal axis of the blade member and the other passage of each pair being located adjacent to one longitudinal edge of the blade member, and means providing two separate transverse passage-connecting spaces at the outer end of the blade member to connect the passages of each pair thereof, whereby cooling fluid reaching the inner ends of said passages flows outwardly through the passages adjacent to the central longitudinal axis of the blade member when the turbine wheel is in motion in a combustion turbine and after passing along the respective transverse spaces flows inwardly through the passages adjacent to the longitudinal edges of the blade member.

2,778,602
TRAVELING BLOCK
Jessee E. Fate, Jr., Tulsa, Okla.
Application February 2, 1954, Serial No. 407,660
4 Claims. (Cl. 254—192)

1. A traveling block for transporting a hook, comprising a pair of stationary side plates, at least one sheave rotatably secured between the side plates, a bracket secured to the side plates below the sheave, a connecting member pivotally secured to the bracket, and a shaft pivotally secured in a horizontal direction in the con-

necting member at right angles to the pivotal connection of the connecting member in the bracket, said shaft being arranged to extend through the upper end of the hook whereby the hook will be pivotally secured to the traveling block to permit pivotal rotation thereof in four directions.

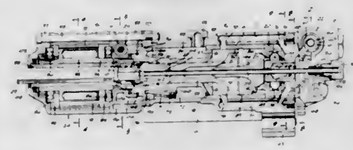
2,778,603
PREPARATION OF WELL DRAIN HOLES FOR PRODUCTION
John S. McCune and William E. Hanks, Long Beach, Calif., assignors to Oilwell Drain Hole Drilling Co., Long Beach, Calif., a corporation of California
Application June 22, 1953, Serial No. 363,029
7 Claims. (Cl. 255—1.6)

5. Apparatus comprising an elongated unit to be lowered into a well and constructed to be longitudinally flexible and thereby adapted to curve laterally from the main well bore into a laterally extending drain hole, said unit including an elongated longitudinally flexible apertured tubular liner through which the well fluid flows in passing from said drain hole into the main bore, a mass of filter particles carried by said tubular liner at a location to be in the path of said well fluid through the drain hole, a tubular upper section connectable to the upper end of said liner for lowering the liner into a well, a connection between said upper section and liner preformed to be broken by manipulation of the upper section from the surface of the earth to permit upward removal of the upper section without said liner and filter mass, a drill bit carried at the lower end of said liner, and a hose extending longitudinally in said liner and acting to deliver circulation fluid to said bit during lowering of the unit in a well, said filter particles being contained within said liner at the outside of said hose.

2,778,604
METHOD FOR PREVENTING LOST RETURNS
Carl E. Reistle, Jr., Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application September 1, 1954, Serial No. 453,459
7 Claims. (Cl. 255—1.8)

1. A method for preventing loss of aqueous drilling fluid to a thief formation penetrated by a well bore during a drilling operation in which aqueous drilling fluid is normally circulated down a hollow drill stem and up the well bore which comprises locating at a level penetrating the thief formation in said well where aqueous drilling fluid is being lost a body of dehydrated citrus pulp having the characteristic of increasing in bulk volume when contacted with water, said citrus pulp being coated with a material slowly displaceable in water, contacting said body with an alkaline aqueous medium in place under pressure for a sufficient time to displace the coating and to cause the pulp to increase in bulk volume a sufficient amount to seal off said thief formation, and then resuming normal circulation of said drilling fluid.

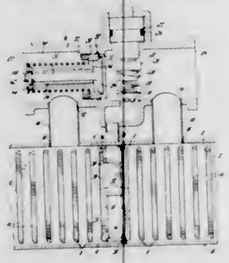
2,778,605
ROCK DRILL
Wilbur B. Hunn, South Gate, Calif., assignor to Thor Power Tool Company, Aurora, Ill., a corporation of Delaware
Application June 30, 1953, Serial No. 365,190
17 Claims. (Cl. 255—43)



10. In a pneumatic rock drilling apparatus, a casing, a rotary motor mounted at the forward drill-supporting end of said casing, said motor having a rotor provided with radially slidable vanes, drill chuck means mounted axially of said rotor, a drill steel for cutting engagement with a rock face to be bored having a shank end mounted in said chuck means and axially movable with respect thereto, piston hammer means mounted in said casing rearwardly of said motor and operable to percussively shift said drill steel axially of said rotor as the rotor rotates, a first air passage means to conduct air to the inner edges of said vanes to shift the same to their outer operative positions, second air passage means to conduct air into driving contact with said vanes to effect rotation of said rotor and drill steel, third air passage means to conduct air to said piston hammer means to effect percussion of said drill steel, and independently operable valve means in each of said second and third passages to control the flow of air therethrough whereby said piston

hammer can be operated to deliver percussive blows to said drill steel and said drill can be rotated or held stationary at the user's option.

2,778,606
HEAT EXCHANGERS
William H. Lloyd, Frank A. Disinger, and John R. Hayden, Lockport, N. Y., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 2, 1952, Serial No. 264,392
1 Claim. (Cl. 257—2)

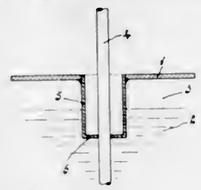


A heat exchanger comprising two elongated tanks, one of said tanks having a transverse partition dividing the interior into two compartments, a group of parallel tubes connecting one of said compartments with the other of said tanks, said one compartment having an inlet, a second group of parallel tubes connecting the other of said compartments to the said other of said tanks, the said other compartment having an outlet, adjacent tubes of each of said groups defining an air space extending in a direction transverse to said tanks, a fin sheet in said air space contacting the adjacent tubes, a tube structure extending from one of said tanks to the other between said groups of tubes and defining a U-shaped passage leading from said one compartment parallel with said tubes and communicating with the said outlet, said passage having a larger cross sectional width along its length than any of said tubes, temperature sensitive valve means associated with said outlet and arranged to control fluid flow through said passage, and said tube structure being aligned with said groups of tubes transverse to said air spaces.

2,778,607
RECOVERY OF HEAT CONTAINED IN COOLING FLUID OF TRANSFORMERS AND ALTERNATORS
Renato Quintilii Leoni, Milan, Italy
Application August 17, 1954, Serial No. 450,472
6 Claims. (Cl. 257—24)

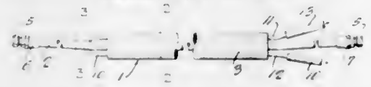
1. In a steam power plant having a main condenser receiving exhaust steam from a turbine, a pump for withdrawing condensate from the condenser, a boiler feed water line connected to the outlet of the pump to deliver the condensate to the boiler, and electrical apparatus cooled by a circulating fluid coolant; means for recovering heat from the coolant comprising a heat pump system including an evaporating heat exchanger having the coolant circulated therethrough; a closed circuit in communication with said evaporating heat exxchanger for circulating an intermediate fluid through the latter for evaporation by the heat of the coolant; a compressor in said closed circuit for compressing the evaporated intermediate fluid; and a condensing heat exchanger in said feed water line and in said closed circuit for delivering heat to the condensate by condensation of the compressed evaporated intermediate fluid.

2,778,608
DEVICE FOR WATER-COOLED OIL COOLERS
Curt Flegel, Hamburg-Gr.-Borstel, Germany, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application May 10, 1952, Serial No. 287,196
Claims priority, application Germany May 18, 1951
2 Claims. (Cl. 257—198)



1. A cooling device for lowering the temperature of liquid insulation for high voltage electrical apparatus comprising a container having one surface provided with a re-entrant portion, a cooling pipe having liquid flowing therethrough, said re-entrant portion having an aperture in a wall parallel to said surface for the passage therethrough of said cooling pipe, said liquid insulation surrounding part of said re-entrant portion, and part of said pipe extending below the liquid level being spaced from said liquid by said re-entrant portion, and another part of said pipe extending through said liquid insulation.

2,778,609
COMPOSITE HOSE WITH TEMPERATURE CONTROL
Donald J. Peeps, Toledo, Ohio, assignor to The DeVilbiss Company, Toledo, Ohio, a corporation of Ohio
Application December 10, 1954, Serial No. 474,561
7 Claims. (Cl. 257—241)

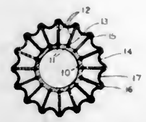


1. A compact, flexible composite hose for conveying a material under temperature control having a centrally located cylindrical conduit of substantial wall thickness providing a passage for the material, an extruded, integral, homogeneous, solid-bodied casing tightly encompassing the conduit for a major portion of its length, said casing having an elliptical cross section with its center on the longitudinal axis of the conduit, two cylindrical bores in the casing extending the full length thereof, said bores being on diametrically opposite sides of the conduit with their longitudinal axes crossing the longest diametric line of the elliptical cross section and means directing heat transfer medium through the bores.

2,778,610
CATALYST FINNED TUBING AND METHOD OF MAKING
Ernest Bruegger, Canal Fulton, Ohio, assignor to The Griscom-Russell Company, Massillon, Ohio, a corporation of Delaware
Application March 11, 1953, Serial No. 341,767
9 Claims. (Cl. 257—262.19)

2. In heat exchanger apparatus, an elongated tube, said tube having a plurality of grooves generally wedge-

shaped in cross section spaced about and extending axially of the tube exterior, said grooves having inwardly tapering side walls extending from mouth openings to base portions of lesser width than the width of the mouth openings, a plurality of catalyst-coated fins having root edge portions approximately the same thickness as the width of said mouth openings and of greater thickness than the width of said base portions, said fin root edges being held wedge-engaged and seated one in each of said

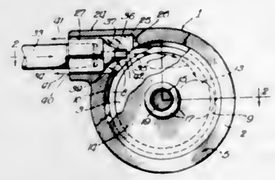


grooves, a plurality of compression rings peripherally surrounding the outer portions of said fins at spaced intervals longitudinally of said tube, the ring members being peripherally sinuous in shape with alternate ridges and valleys, the ridges engaging the outer portions of said fins, the valleys being located between adjacent fins radially inwardly of the outer fin portions, and the rings being tensioned to hold the fin root edges pressure-seated in said grooves.

2,778,611
SYSTEM FOR AERIAL PICK-UP FROM SURFACE VESSELS
Robert B. Cotton, Media, Pa., assignor, by mesne assignments, to All American Engineering Company, Wilmington, Del., a corporation of Delaware
Application December 19, 1951, Serial No. 262,420
2 Claims. (Cl. 258—1.2)

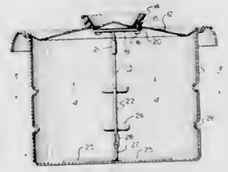
1. A mobile water based station comprising a water planing member adapted to be towed by a craft on land or water, spaced poles having their lower ends connected to each side of the said member, fastener means attached to the upper ends of the poles, a rope detachably connecting said fastener means arranged in a loop, and a pick-up container connected to the said loop and tethered to the upper surface of said member by a breakable link.

2,778,612
VIBRATORY MECHANISM
Edwin F. Peterson, Kewanee, Ill.
Application August 9, 1952, Serial No. 303,531
16 Claims. (Cl. 259—1)



1. A vibrator comprising a chamber, a rolling element in said chamber, and fluid conducting means to actuate said element about said chamber comprising a throat connected with said chamber, and a fittting carried by and confined within said throat, an inlet nozzle on said fitting arranged to direct fluid along a given path into said chamber, said fitting having an external configuration unlike the configuration of said throat opening to provide at least one port to exhaust fluid from the interior of said chamber out of said throat and over said fitting.

2,778,613
COOKING VESSEL WITH STIRRER
George B. Long, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 21, 1953, Serial No. 356,573
4 Claims. (Cl. 259—122)



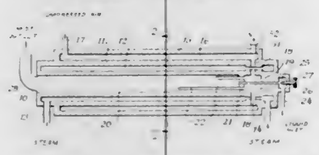
1. In combination: a cooking vessel; a cover for said vessel; a handle on the outer side of said cover; fasteners for said handle with heads on the inner side of said cover; a stirring device including a wire structure having wire portions engageable with said heads; and a sliding key on said stirring device to move and detachably lock said wire portions of said stirring device to said heads.

2,778,614
MIXER
Edward Koch, Norwich, Conn.
Application March 22, 1954, Serial No. 417,693
11 Claims. (Cl. 259—132)

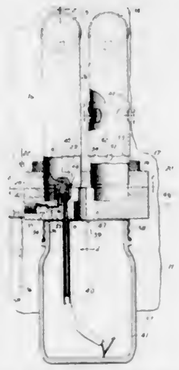
1. A mixer comprising a pair of rotatably mounted concentric shafts, a stationary sleeve enclosing the shafts, a pair of contrarotating impellers mounted in coaxial abutting relation on the lower ends of said shafts and having radial blades helically inclined in opposite directions, a stationary diffuser comprising radial vanes extending outwardly from said sleeve in coaxial abutting relation with the upper impeller and having its radial vanes inclined oppositely to the upper impeller blades, a stationary open-ended tube coaxially enclosing said stationary diffuser and impellers intermediate its length, said tube being fixed to the stationary diffuser and supported thereby, and means for driving said shafts in opposite directions to propel material to be mixed upwardly through said tube.

2,778,615
BEATER WITH RESILIENTLY YIELDABLE BLADES
Paul T. Hahn, Milwaukee, Wis., assignor to John Oster Manufacturing Company, Milwaukee, Wis., a corporation of Wisconsin
Application October 25, 1954, Serial No. 464,343
3 Claims. (Cl. 259—134)

1. A beater for a food mixer comprising: a shaft; a plurality of substantially C-shaped blade elements carried by the shaft, the upper and lower arms of each of said elements extending toward the shaft axis, the lower arms being disposed beneath the end of the shaft and connected together; a sleeve slidably mounted on the shaft, and to which the upper arms are secured; a downwardly bowed spring blade medially fixed to the lower end portion of the shaft with the extremities of said blade adjacent to the medial portions of the C-shaped blade elements; and means connecting the extremities of said spring blade to the blade elements so that the spring blade when in its normal free state yieldingly maintains the blade elements in a predetermined position with respect to the shaft from which they are displaceable upwardly against the resiliency of the spring blade.

2,778,616
MEANS FOR ATOMIZING LIQUIDS, PARTICULARLY FOR LUBRICATING SHEET METAL DURING ROLLING
Geoffrey Edgar Turpin, Sketty, Swansea, Wales, assignor to The Steel Company of Wales Limited, Port Talbot, Wales
Application December 7, 1954, Serial No. 473,713
Claims priority, application Great Britain January 28, 1954
2 Claims. (Cl. 261—14)

2. An apparatus for producing a spray of atomised liquid, such as heated palm oil, comprising an inner tube, an oil injection nozzle disposed within one end of said inner tube, spray delivery means at the other end of said inner tube, an intermediate tube surrounding the inner tube but spaced therefrom to form an intermediate annular heating jacket, means for passing heating fluid along said heating jacket, an outer tube surrounding the intermediate tube but spaced therefrom to form an outer annular chamber, which is of small radial thickness and is shorter in axial length than the heating jacket, said outer annular chamber being carried wholly upon the outside of the intermediate tube, means for feeding compressed air into the outer annular chamber at that end thereof adjacent the delivery end of the inner tube, transfer conduit means forming a connection for compressed air extending inwards from the outer annular chamber, a multiple nozzle device which is disposed in the bore of the inner tube adjacent the inlet end thereof, and which comprises a wall closing the bore of said tube, a plurality of air nozzle tubes mounted in the wall and directed towards the delivery end of said inner tube, said air nozzle tubes being of different lengths and having their delivery ends disposed at positions spaced along the length of the inner tube and being fed with heated air from the transfer conduit means and delivering it at spaced points along the length of the inner tube, and fins anchored to the outside of the intermediate tube and extending outwards within the outer annular chamber to increase the transmission of heat to the compressed air before it reaches the transfer conduit means.

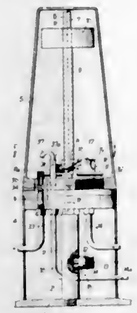
2,778,617
COMPARTMENT HUMIDIFIER
Samuel Y. Gibbon, Jenkintown, Pa., assignor to Air-Shields, Inc., Bucks County, Pa., a corporation of Delaware
Application April 22, 1953, Serial No. 350,452
6 Claims. (Cl. 261—19)



6. A humidifier device for attachment to the ported wall of an enclosed chamber, said device comprising a pair of vertical ducts, each having an elbow at its upper end and having means for supporting said humidifier device to the porting in said wall, said ducts supporting an atomizer positioned in a zone adjacent the lower end of one duct for supplying a mixture of gas and vapor to the chamber, the other of said ducts providing for return circulation of gas from said chamber; a flow channel between the lower ends of said ducts; and means for controlling the amount of returned gas passing into the first-named duct for re-circulation.

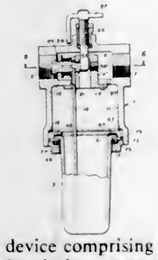
2,778,618
APPARATUS FOR IMPREGNATING A LIQUID WITH A GAS
Hugo Bill, Winterthur, Switzerland, assignor of one-half to Eugen Benninger, Zurich, Switzerland
Application July 28, 1954, Serial No. 446,343
Claims priority, application Switzerland September 15, 1953
1 Claim. (Cl. 261—19)

An apparatus for impregnating a liquid with a gas comprising a container, a feed conduit for the liquid, a feed conduit for the gas, a discharge conduit for the impregnated liquid, a vent conduit for the excess gas, said conduits being connected with the interior of the container, a float provided in said container and responsive to the liquid level therein, a gas inlet valve connected with said float and adapted to be opened upon the raising of said float, automatically operating pressure responsive means for regulating the feed of liquid to said container in accordance with the pressure therein, a control piston arranged in said feed conduit for the gas and adapted to open the passage for the gas into the container, and an auxiliary piston operatively connected with said control piston, said discharge conduit being provided with two inlet openings for the impregnated liquid, one of said



openings having a larger sectional area than the other and being adapted to be closed by said auxiliary piston upon operation of the control piston.

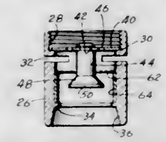
2,778,619
DEVICE FOR ATOMIZING LIQUID
Harold J. Goodyer, Evanston, Ill., assignor to Air Conversion Research Corp., Chicago, Ill., a corporation of Illinois
Application June 19, 1953, Serial No. 362,886
9 Claims. (Cl. 261—63)



1. An atomizing device comprising a cap member having a hollow space therein between an inlet and an outlet, a spring pressed closure for said inlet normally held in a closed position, said closure having a passageway through which fluid is adapted to pass from the inlet to the outlet when the closure is in the closed position, means providing a substantially closed circuit for passing gas from said inlet to said outlet, said last mentioned means including said passageway, means providing a Venturi tube, and a downwardly opening chambered element vertically mounted in said hollow space, means providing an opening providing communication between said chambered element and said hollow space, a liquid container connected with said cap, and a siphon tube extending from inside of said container and connected to said circuit at the outlet end of said Venturi tube.

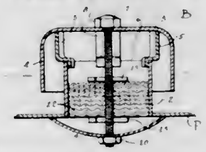
2,778,620
WATER AERATING DEVICES
Joseph J. Goodrie, Chicago, Ill.
Original application September 1, 1951, Serial No. 244,772. Divided and this application September 30, 1953, Serial No. 383,160
1 Claim. (Cl. 261—76)

A water aerating device comprising a cylinder, internal screw threads at the upper end of the cylinder for attaching the same to a source of water, an integral internal shoulder just below the screw-threaded portion, a plurality of air inlet ports in the cylinder below the shoulder, a perforated disc resting on the shoulder whereby jets of water issuing from the perforations create a Venturi action to bring in air through the ports, a primary water and air mixing means in the casing adjacent the ports, said water and air mixing means including a cylindrical block centrally mounted in the perforated disc and extending below the same, said cylindrical block terminating in an outwardly flared frusto-conical portion positioned below the air ports, a screen in the cylinder surrounding the block and positioned on the same just above the frusto-conical portion thereof, wherein the jets of water issuing



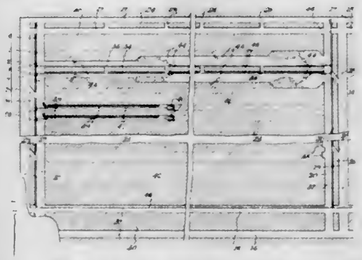
from the perforated disc impinge upon the said screen and frusto-conical portion and are broken up and mixed with air which has entered the ports, a second integral internal annular shoulder in the casing adjacent the lower end thereof, a sleeve on the second shoulder for supporting the screen, and an outwardly flared exit portion of the cylinder below the sleeve, said sleeve fitting around the interior of the casing, and, with the screen and the frusto-conical element, comprising a secondary water and air mixing chamber.

2,778,621
ENTRAINMENT-OBVIATING BUBBLE CAP
Marlin U. Zimmerman, Jr., Cleveland, Ohio, assignor to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
Application December 8, 1953, Serial No. 396,847
3 Claims. (Cl. 261—114)



1. In a bubble-cap fractionator, entrainment-preventing means comprising a bubble-cap with a plurality of wire mesh discs of non-uniform mesh dimension in its vapor-riser, spiders between which such are held, a stem extending centrally through the whole, a hold-down member held by the lower end of said stem to engage against the bottom of the plate beyond the vapor-riser, and a nut on the upper end of the stem bearing against the top of the bubble-cap.

2,778,622
MINING METHOD PROVIDING FOR CONTINUOUS PROGRESSION OF MINING MACHINERY
Carl A. Reis, South Carrollton, Ky.
Application October 23, 1950, Serial No. 191,637
5 Claims. (Cl. 262—1)



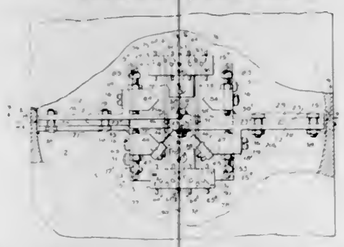
1. A method of room and pillar mining a panel consisting in forming entries on opposite sides of a projected

panel, cutting the coal from the panel to form rooms therethrough from one of said entries to the other forming rooms open at both ends and with supporting pillars between them, and slabbing the coal from the lateral walls of the rooms, said room cutting and also said slabbing being carried on in the same continuous progressive sequence in a single direction in each room from one entry to the other, then from said other entry back to the one and then again from said one entry to the other and so forth throughout the whole panel.

2,778,623
ANGULAR ACCELEROMETER
Louis D. Statham, Beverly Hills, Calif., assignor to Statham Laboratories, Inc., Los Angeles, Calif., a corporation of California
Application December 29, 1952, Serial No. 328,416
9 Claims. (Cl. 264—1)

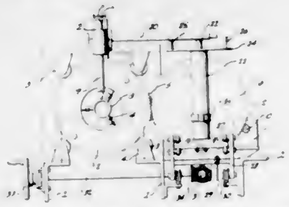
1. A motion sensing device comprising a case, a closed chamber in said case, said chamber being in the form of a cylinder and having opposing cylindrical walls, a liquid inertial mass in said chamber, a paddle in said chamber and immersed in said liquid, a hinge for said paddle, said hinge being connected to said paddle, a mounting for said hinge in said chamber, said mounting being connected to said case and to said hinge, said paddle being rotatably mounted about said hinge on the axis of said cylinder, for limited angular motion of said paddle about said axis and with respect to said case on angular acceleration of said case about said axis, said paddle extending from one wall to the opposing wall, opposing edges of said paddle being adjacent the opposing cylindrical walls, said hinge restraining motion of said paddle with respect to said case in the absence of angular acceleration of said case about said axis, and a motion sensing device connected to said paddle to sense the angular displacement of said paddle with respect to said case.

2,778,624
ANGULAR ACCELEROMETER
Louis D. Statham, Beverly Hills, Calif., assignor to Statham Laboratories, Inc., Los Angeles, Calif., a corporation of California
Application May 24, 1954, Serial No. 431,764
17 Claims. (Cl. 264—1)



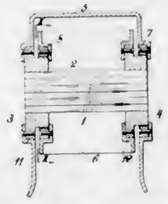
1. A motion sensing device, comprising a case, a closed chamber in said case, a liquid inertial mass in said chamber, a paddle in said chamber immersed in said liquid, said paddle being of substantially no effective mass when immersed in said liquid, said liquid being the inertial mass and the effective rotor of said device, a mounting for said paddle fixedly mounted in said chamber and connected to said case, said paddle being movably mounted in said chamber with one edge of said paddle adjacent, but out of contact with, an enclosing wall of said chamber, the separation between the edge of the paddle and said wall forming a fluid communicating passageway, said paddle being positioned on said mounting for limited motion on said mounting with respect to said case on acceleration of said case, said mounting restraining motion of said paddle with respect to said case in the absence of acceleration of said case, and means for sensing said motion.

2,778,625
PIPE CUTTING MACHINE OF THE PANTOGRAPH TYPE
Harry Willis Evans, Anaheim, Calif.
Application July 15, 1955, Serial No. 522,297
4 Claims. (Cl. 266—23)



4. A pipe cutting machine comprising a frame, a chuck journaled on the frame, a disc journaled on the frame and arranged in alignment with the chuck, drive means extending to the disc, an external gear on the disc, an external gear on the chuck meshing with the gear on the disc whereby the disc and chuck are simultaneously rotated, pipe engaging means on the chuck to engage and hold the pipe, a cutting torch, a carriage, means mounting the carriage on the frame for horizontal movement on the frame, manual means to adjust the carriage horizontally on the frame, a plate, means mounting the plate on the carriage for horizontal movement thereon, a sleeve rising from the plate, mounting means on the sleeve to support the torch in a vertical position and adjacent the pipe, a rod extending horizontally from said sleeve, said rod supporting the torch in a vertical position and adjacent the pipe, a cam, means pivotally mounting the cam on a vertical face of the disc, a stylus on the sleeve, said stylus engaging the cam, and means urging the plate towards the cam to press the stylus against the cam.

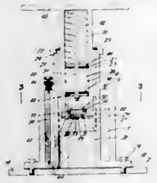
2,778,626
TORSION SPRING ASSEMBLY
Otto Klepp, Vienna, Austria
Application June 8, 1954, Serial No. 435,252
Claims priority, application Austria June 17, 1953
6 Claims. (Cl. 267—1)



1. In a torsion spring assembly comprising a torsion spring, the combination of a first bushing and a second bushing fast on mutually opposite ends of said spring, each of said bushings comprising a peripheral cylindrical

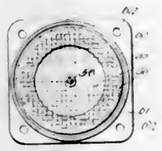
bearing portion surrounding said spring, and two lever means, one of which is non-rotatably connected to said first bushing and rotatably mounted on said bearing portion of said second bushing, whereas the other lever means is rotatably mounted on said bearing portion of said first bushing and non-rotatably connected to said second bushing.

2,778,627
HYDRAULICALLY ADJUSTABLE SUPPORTING DEVICE
Miles D. Sands, Westminster, Colo.
Application February 16, 1954, Serial No. 410,681
2 Claims. (Cl. 267—1)



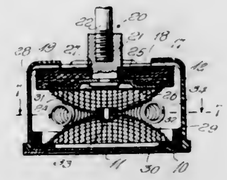
1. A hydraulically adjustable supporting device comprising: a vertically positioned pressure cylinder; a tubular plunger mounted to move vertically in said pressure cylinder and projecting above the top of the latter; a closed bottom in said cylinder; means for sealing the lower extremity of said plunger to said pressure cylinder; a floating piston mounted for vertical reciprocation in said plunger; a closed top in said tubular plunger; a reservoir casing surrounding said cylinder in spaced relation thereto; a fluid passage communicating between said reservoir casing and said cylinder; hydraulic fluid contained in said cylinder and in said tubular plunger below the floating piston therein to support the latter; and manually controlled valve means in said passage which, when opened, allows said plunger to be lifted to draw fluid from said reservoir to said cylinder, and, when closed, prevents flow from said cylinder to said reservoir casing so that said floating piston will be supported at a desired height.

2,778,628
VIBRATION ISOLATOR
Kenneth W. Johnson, Dayton, Ohio
Application November 2, 1953, Serial No. 389,710
2 Claims. (Cl. 267—1)



1. A device of the character described comprising a base, a hollow casing affixed to said base, a top having an opening affixed to that end of said casing remote from said base, a ring of compressed screen material disposed in said casing, a concavo-convex yieldable element affixed to said base below said ring, a like element disposed in said casing above said ring, said yieldable elements each having its peripheral edge engaged in a face of said ring, a third yieldable element centrally affixed to the yieldable element above said ring and having its peripheral edge abutting the underside of said cover, an anchoring element extending through said opening, and a flange affixed to the inner end of said anchoring element and bearing against the concave side of said third yieldable element.

2,778,629
VIBRATION DAMPENER
Kenneth W. Johnson, Dayton, Ohio
Application September 1, 1954, Serial No. 453,644
6 Claims. (Cl. 267—1)



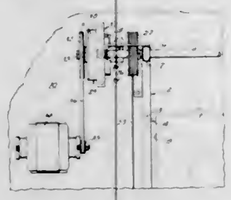
1. A device of the character described comprising a hollow cylindrical casing, a base affixed to one end of said casing, a top having a circular opening on the other end of said casing, an anchoring element extending outwardly through said opening, a washer affixed to the inner end of said anchoring element, a circular pad surrounding said anchoring element and mounted atop said washer within said casing, a ring of yieldable material mounted on said base and abutting the inner wall of said casing, an inwardly directed flange formed integrally with said ring, an upper concavo-convex yieldable element having its peripheral edge bearing against the under side of said pad, a like lower yieldable element having its peripheral edge bearing against said flange, and a fastener centrally interconnecting said yieldable elements.

2,778,630
AWNING-TYPE WINDOW AND OPERATING MEANS THEREFOR
Howard A. Pearson, Miami, Fla., assignor, by mesne assignments, to Leonard Window Corporation, a corporation of Florida
Application July 22, 1953, Serial No. 369,591
1 Claim. (Cl. 268—23)

An awning type window comprising a frame, a tier of sashes, means pivotally mounting the upper ends of the sashes on the sides of said frame, a pair of elongated guides for each sash mounted in opposed relation on the frame and disposed in downwardly and outwardly inclined positions adjacent the pivoted upper ends of the sashes, each of said guides being a channeled metal strip having parallel side walls with inturned flanges to provide an undercut channel of T-shape in cross section, a slide in each of said guides comprising a molded plastic block having a sliding fit in the channel of its guide and a rib projecting outwardly between the flanges of that

guide, a metal pivot pin anchored in each of said blocks with its end projecting through the rib and outwardly beyond the flanges of the associated guide, a pair of operating links for each sash pivotally mounted at one end on a pair of said pins and pivotally connected at their other ends to the sides of the associated sash below its center line, a vertical travel link at each side of the frame mounted on said pivot pins at each side of the frame, and means to simultaneously move said travel links to actuate said blocks in their guides.

2,778,631
GARAGE DOOR ACTUATING MECHANISM
Philip G. Ginte, St. Paul, Minn., assignor to Liftronic, Inc., St. Paul, Minn., a corporation of Minnesota
Application April 8, 1955, Serial No. 500,178
10 Claims. (Cl. 268—59)



5. A device for opening and closing doors of the overhead type having a door-operating shaft rotatably journaled marginally of the doorway, said device comprising, a casing, an input shaft journaled in the casing, an output shaft axially aligned with the input shaft and journaled in the casing for rotation responsive to that of the input shaft and at a relatively slower speed, said output shaft having driving connection with said door-operating shaft, and a fixed frictional mount for the casing permitting the casing to rotate about the axis of the input and output shafts when the door-operating shaft is stopped and a predetermined torque is applied to the input shaft.

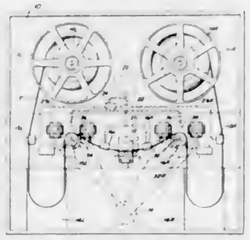
2,778,632
DOOR ACTUATING MECHANISM
Jean Mercier, New York, N. Y.
Application February 28, 1955, Serial No. 490,798
12 Claims. (Cl. 268—66)

1. Mechanism of the character described for moving a door from closed position with respect to an opening in a wall, through an angle of substantially 180 degrees to open position, said mechanism comprising a hinge connection between one edge of said door and the adjacent edge of said opening, a substantially L-shaped lever having the free end of one of its legs pivotally mounted to the inner surface of said wall laterally spaced from the edge of the opening to which said door is hinged, a rod pivotally connected at one end to the free end of the other leg of said lever and pivotally connected at its other end to the inner surface of said door and a hydraulic actuator is pivotally connected at one end to the inner surface of said wall, laterally displaced from said pivotal mount of the lever and the other end of said hydraulic actuator is pivotally connected to said lever near the junction between its legs.

2,778,633
MACHINE FOR CUTTING, FOLDING AND PRESSING LABELS
Frank A. Ross, Ross Township, Allegheny County, Pa., assignor to Leon Hershaft, Yonkers, N. Y.
Application October 22, 1953, Serial No. 387,761
8 Claims. (Cl. 270—61)

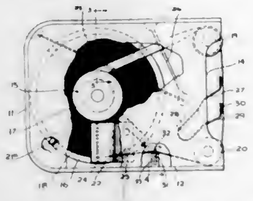
1. A machine for automatically cutting, folding and pressing labels comprising, in combination, a knife mechanism, means for feeding a strip of labels to said knife mechanism, said knife mechanism being adapted to sever the end label of said label strip, mechanism for folding said severed label, transfer means adapted to seize said end label as it is being severed by said knife mechanism and to carry it to said folding mechanism, pressing means to permanently crease said folded label in one pressing operation, said pressing means including a pair of parallel stationary members being heated along their front undersurfaces, said stationary members having longitudinally disposed conveying channels on their undersurfaces, each said channel being longer than the length of an individual label, said channels forming depending lips along the inner edges of said stationary members, a pair of parallel pressing members disposed below said heated members and being adapted to move upwardly at periodic intervals so as to press the folded ends of a label against the heated surfaces of said stationary members, and a pair of reciprocating jaw means adapted to receive a folded label from said folding mechanism and carry it into the pressing mechanism so that the folded ends of said label lie between the heated surfaces of the stationary members and the pressing members and said jaw means being further adapted to convey said label, after it has been pressed, between said stationary members and said pressing members in such a manner that the folded ends of said label move freely in said conveying channels.

2,778,634
TWO WAY SUCTION TAPE FEEDING MEANS
Theodore C. Gams, Monsey, N. Y., and Paul J. Kiefer, Jr., Clifton, N. J., assignors, by mesne assignments, to Underwood Corporation, New York, N. Y., a corporation of Delaware
Application April 26, 1952, Serial No. 284,597
18 Claims. (Cl. 271—2.3)



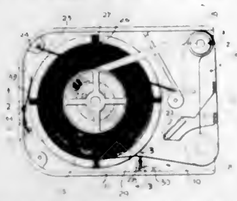
1. A high speed tape feeding apparatus comprising a capstan over the periphery of which the tape passes, said capstan continuously rotating at a high speed and being formed with apertures in its periphery, capstan valve means having a first and second position, suction being admitted to the apertures when said valve means is in the first position and suction being removed from the apertures when said valve means is in the second position, said capstan being effective while suction is acting to grip and advance the tape and being ineffective upon removal of suction to grip the tape, suction gripping means continuously engaging the tape, and means for continuously admitting suction to said gripping means to render the gripping means effective to arrest tape motion substantially instantaneously upon removal of suction from the capstan.

2,778,635
STATIC ELIMINATOR FOR ENDLESS MAGNETIC TAPE CARTRIDGES
George H. Eash, Toledo, Ohio, assignor to George H. Poulsen, Toledo, Ohio; The Toledo Trust Company and Charles I. Poulsen, executors of the estate of said George H. Poulsen, deceased
Application August 24, 1954, Serial No. 451,931
4 Claims. (Cl. 271—2.18)



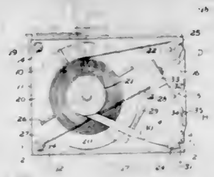
1. A magnetic cartridge comprising a coil of magnetic tape in a housing, the housing having substantially flat walls overlying the opposite faces of the coil, means rotatably mounting the coil in the housing with a loop of the tape exposed outside the housing for coaction with recording or reproducing instrumentalities, means for removing static from the coil, said means comprising a rod formed essentially of graphite and extending across the face of the coil in contact with the adjacent edge of the convolutions, and a spring device carried by the adjacent flat housing wall and pressing against said rod for resiliently urging same into contact with the edges of the convolutions.

2,778,636
ENDLESS TAPE CARTRIDGE
George H. Eash, Toledo, Ohio, assignor to George H. Poulsen, Toledo, Ohio; The Toledo Trust Company and Charles I. Poulsen, executors of the estate of said George H. Poulsen, deceased
Application July 13, 1954, Serial No. 443,090
2 Claims. (Cl. 271—2.18)



1. In an endless tape cartridge having a casing, a rotatable reel within the casing, an endless coil of magnetic tape wound upon said reel, and guide elements over which a portion of the tape passes to the outside of and from the center of the coil, the improvement which comprises a solid graphite block within the casing for automatically and continuously applying a thin coating of graphite to the tape as it travels thereby to lubricate same and assist in equalizing the charges of static electricity generated between the tape convolutions on the reel, and graphite strips on the reel with which the edges of the tape convolutions engage for militating against the accumulation of charges of static electricity generated in the relative movement of the convolutions.

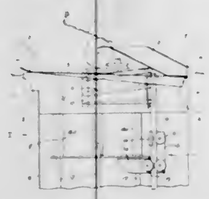
2,778,637
ENDLESS MAGNETIC TAPE CARTRIDGE
George H. Eash, Toledo, Ohio, assignor to George H. Poulsen, Toledo, Ohio; The Toledo Trust Company and Charles I. Poulsen, executors of the estate of said George H. Poulsen, deceased
Application July 30, 1954, Serial No. 446,903
4 Claims. (Cl. 271—2.18)



1. A single-reel magnetic tape cartridge for use with a recording playback machine of the type having a transducer head and a drive wheel spaced therefrom for pulling the tape past the transducer head, said cartridge comprising: a substantially shallow housing having flat closely spaced top and bottom walls and substantially short upstanding peripheral walls extending all around the housing except at one end thereof to leave said end of the housing open at least at two transversely spaced zones, the spacing of which corresponds to that of the drive wheel and transducer head of a recording playback machine which is to receive the cartridge; a reel in the housing spaced from said open end thereof, said reel having a disk-like flange flatwise overlying the bottom housing wall and having a hub projecting upwardly from said flange, coaxial thereof; cooperating means on the reel hub and the housing mounting the reel for free rotation on an axis fixed with respect to the housing and normal to the reel flange and to the bottom housing wall; an endless spirally coiled roll of tape on said reel encircling the hub thereof and edgewise supported by the reel flange, said roll having a loop projecting therefrom toward the open end of the housing, one portion of said loop joining with the inner convolution of the roll and another portion of said loop joining with the outer convolution of the roll; spaced guide members carried by the housing in the interior thereof and at the same level as said reel, said guide members being arranged adjacent said open end of the housing, and around which said loop is trained to be held thereby with an intermediate portion of the loop extending between said guide members and with two spaced areas of said intermediate portion of the loop exposed for cooperation with the drive wheel and transducer head of a recording playback machine having the cartridge in place thereon, one of said guide members having that portion of the loop which joins with the inner convolution of the roll trained thereover, and the other guide member comprising a roller freely rotatably mounted on the housing with its axis in fixed parallel relationship to the reel axis and having that portion of the loop which joins with the outer convolution of the roll trained thereover, said roller being adapted to be positioned opposite the drive wheel of a recording playback machine having the cartridge in place thereon to maintain that exposed area of the loop which is in con-

tact with the roller in flatwise frictional driving engagement with the drive wheel of a recording playback machine; and biasing means for yieldingly holding said other exposed portion of the loop in flatwise engagement with the transducer head of a recording playback machine having the cartridge in place thereon, said biasing means comprising a spring member mounted in the housing and having a resilient portion projecting toward the open end of the housing between said guide members to bear upon said other exposed portion of the loop and press the same outwardly toward engagement with the transducer head.

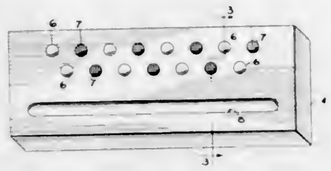
2,778,638
APPARATUS FOR STACKING LETTERS AND LIKE ARTICLES
Arthur Frederick Whillock, Chesham, and Francis Edward Williams, Rickmansworth, England, assignors to Hall Telephone Accessories Limited, London, England
Application June 22, 1951, Serial No. 233,084
Claims priority, application Great Britain June 23, 1950
8 Claims. (Cl. 271—87)



1. In a letter stacking apparatus, a stacking trough having a telescopic letter supporting floor comprising a series of freely internesting elongated hollow sections supported for relative sliding movement longitudinally of the trough, a backrest supported on the outermost of the said internesting sections and movable therewith, a positively driven feeding helix disposed adjacent one end of said floor and adapted to feed letters one by one into the said trough so as to rest edgewise on said telescopic sections and stack face to face against the said backrest thereby to displace the said backrest and telescopic sections longitudinally of the trough in a direction away from the helix, and means supporting said series of internesting sections for said longitudinal movement from a collapsed position in which the sections are substantially fully superposed one upon the other with said backrest positioned immediately adjacent the delivery end of the helix, to a fully extended position in which the said sections extend successively longitudinally of the trough with the innermost section lying adjacent the delivery end of the helix whereby relative longitudinal movement between the letters and the respective telescopic section upon which they are stacked is substantially eliminated.

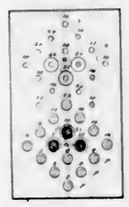
2,778,639
PUZZLE GAME
Calvin O. Brown, Bartlett, Ill., assignor to Set Screw & Mfg. Company, Bartlett, Ill., a corporation of Illinois
Substituted for abandoned application Serial No. 294,648, June 20, 1952. This application July 27, 1955, Serial No. 524,728
6 Claims. (Cl. 273—130)

1. A puzzle game including a board having a plurality of rows of playing piece receiving stations indicated thereon, the stations of each row being arranged in a predetermined definite pattern, the pattern of each row bearing a definite pattern relationship to the pattern of each other row, a playing piece home station row adjacent to the receiving station rows, said home station row including means for receiving and retaining the playing pieces of a set in a selected sequence, and a set of playing pieces in number equal to the total number of receiving stations of all of the receiving station rows, the playing



pieces being differentiated into at least two distinct groups with a plurality of playing pieces in each group.

2,778,640
PUZZLE GAME BOARD AND PIECES
Calvin O. Brown, Cary, Ill., assignor, by mesne assignments, to Set Screw & Mfg. Company, Bartlett, Ill., a corporation of Illinois
Application April 14, 1953, Serial No. 348,660
9 Claims. (Cl. 273—133)

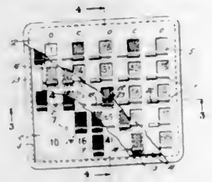


3. A puzzle game comprising a playing board having thirty-three playing stations indicated thereon in spaced relation to one another, the stations being arranged in two groups adjacent to one another and each of which forms a parallelogram in pattern and is substantially symmetrical with respect to the other, one station being common to both pattern groups, said one station forming the apex of the juncture between a pair of adjacent sides of each of the patterns, there being one station at each of opposite sides of said one station disposed symmetrically with respect to said pattern groups.

2,778,641
PUZZLE GAME APPARATUS
Calvin O. Brown, Cary, Ill., assignor, by mesne assignments, to Set Screw & Mfg. Company, Bartlett, Ill., a corporation of Illinois
Application January 29, 1953, Serial No. 334,007
6 Claims. (Cl. 273—133)

1. A puzzle game comprising a playing board having a plurality of playing stations marked thereon in a circular pattern with the stations in spaced relation to one another, the total of the playing stations being an odd number at least eleven, and a plurality of playing pieces, the total of the playing pieces being an odd number at least six less than the number of stations, at least one of the playing pieces being specially distinguished from the other playing pieces.

2,778,642
BINGO BOARDS
James Fielding Moore and Fritz B. Hansen, Englewood, Colo.
Application April 15, 1955, Serial No. 501,526
2 Claims. (Cl. 273—135)



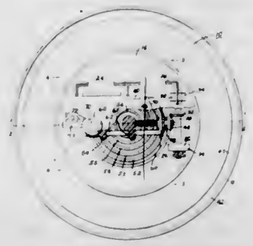
1. In a bingo board of the type having a windowed front board with a movable tab for each window, each of said tabs being adapted to slide slidewardly across its respective window, and having guide slots in said front board through which finger members project from said tabs for imparting sideward movement to the latter, means for allowing said tabs to be independently moved to a window-covering position and simultaneously moved to a window-opening position, comprising: a transparent sheet positioned against the back of said front board, forwardly of said tabs, and covering all of said windows, the finger members of said tabs projecting forwardly through a second series of guide slots in said sheet, thence through the guide slots in said front board, the slots in said sheet being substantially equal in length to the length of the slots in said front board, and being positioned to register with the slots in the front board so that said finger members may be independently moved in the aligned slots of both said front board and said sheet to a window-covering position; and means for moving said transparent sheet laterally to move the slots therein longitudinally of the slots in said front board so as to simultaneously return all of the tabs to a window-opening position.

2,778,643
CARD SHUFFLER
George M. Williams, New Orleans, La.
Application August 9, 1954, Serial No. 448,430
8 Claims. (Cl. 273—149)

1. A mechanical card shuffler comprising a base, a central mechanical thumb mounted intermediate ends of said base for vertical movement, fingers carried by said base on opposite sides of said thumb for clamping packs of cards to said base with edges in flexed engagement with said thumb, means for selectively moving said thumb upwardly from said base from between said cards.

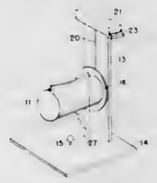
2,778,644
CARD SHUFFLER AND DEALER
James R. Stephenson, Dayton, Ohio
Application October 3, 1955, Serial No. 537,994
18 Claims. (Cl. 273—149)

1. In a card dealing device, a stationary support having pocket means formed thereon for receiving cards, a platform rotatably mounted on said support, said pocket means having a base a portion of which is in the shape of a conical frustum diverging outwardly and downwardly, means for positioning a deck of cards on said platform, and variable speed ratio means for feeding



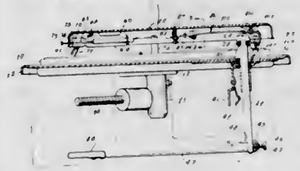
cards from said deck into a predetermined number of piles in said pocket means.

2,778,645
GOLF PRACTICE DEVICE
Luther G. Simjian, Greenwich, Conn., assignor to The Reflectone Corporation, Stamford, Conn., a corporation of Connecticut
Application February 2, 1954, Serial No. 407,648
10 Claims. (Cl. 273—185)



1. A game apparatus comprising, a rotatable cylinder movable about a horizontal axis and resiliently stressed to return to a normal position, a captive ball secured by a flexible cord to the surface of the cylinder, a lever pivotally mounted on the surface of the cylinder for contact by the flexible cord when the ball is propelled by an external force from a start position, a light projector mounted adjacent to said cylinder for projecting a spot of light on a viewing screen to simulate a ball, coupling means between the cylinder and the projector for moving the projector about a horizontal axis when the cylinder is rotated by the force of the propelled ball, and coupling means between the lever and the projector for moving the projector about a vertical axis when the lever is moved by the force of the propelled ball acting through the flexible cord.

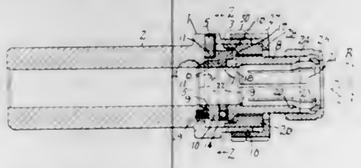
2,778,646
TONE ARM ASSEMBLY
Walter C. Hironimus, Charlotte, Mich., assignor to Wilcox-Gay Corporation, Charlotte, Mich., a corporation of Michigan
Application October 9, 1951, Serial No. 250,424
10 Claims. (Cl. 274—23)



1. A tone arm having a sound translating element at one end and being pivotally mounted on an axially rotatable vertical post for rotation in a vertical plane, said sound translating element having a stylus, means varying

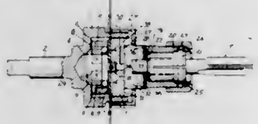
the pressure on said stylus, said means comprising a spring, a metal plate secured to one end of said spring, said metal plate and said spring being pivoted for rotation in a vertical plane; means transmitting the upward pressure of said spring through said metal plate to said tone arm; a latch attached to the other end of said spring; a latch plate secured to said vertical post; said latch engaging said latch plate for low pressure on said stylus, said latch disengaging said latch plate for higher pressure on said stylus.

2,778,647
FLOATING TOOL HOLDER
Milton L. Benjamin and Stanley S. Benjamin, Cleveland, Ohio, assignors to Erickson Tool Company, a corporation of Ohio
Application March 26, 1954, Serial No. 418,976
5 Claims. (Cl. 279—16)



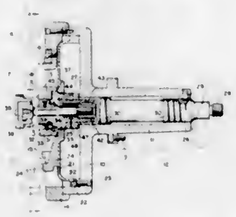
1. In a floating holder for tools and the like, the combination of a housing, a tool gripping assembly having a universally tiltable and transversely movable positive driving connection with said housing, said assembly comprising a plurality of adjacent members having such transversely movable positive driving connection with each other, one of said members and said housing having diametrically opposed, interfitting radial slots and coaxial, radial pins to provide such universally tiltable positive drive connection, and means for clamping said members together in said housing.

2,778,648
COMPENSATING DRIVER FOR TAP CHUCKS AND THE LIKE
Milton L. Benjamin and Stanley S. Benjamin, Cleveland, Ohio, assignors to Erickson Tool Company, a corporation of Ohio
Application March 26, 1954, Serial No. 419,043
1 Claim. (Cl. 279—18)



In a tool holder, the combination of a housing assembly, a holder shank projecting outwardly from said housing assembly and adapted to hold a tool therein of the type having a non-circular cross-section tang, said holder having an end portion non-rotatably engaged with said housing assembly and providing an adjacent outwardly facing shoulder, a clamp nut threadedly engaged with said housing assembly and having an inturned flange which engages such shoulder to clamp said shank and housing assembly together, said shank being formed with a circular cross-section bore diametrically thereacross, a circular cross-section compensating driver axially slidably keyed in such bore and having a slot formed in its side adapted to receive such tang therein, said driver having a portion thereof disposed within the flange of said nut so as to be retained thereby against withdrawal from the bore of said shank, and a set screw longitudinally threaded into a portion of said driver outward beyond such flange and having its inner end extending into such slot to frictionally engage a side of such tang.

2,778,649
DIAPHRAGM CHUCK
Theodore F. Klem, Webster, and Charles H. Satterlee, Rochester, N. Y., assignors to The Gleason Works, Rochester, N. Y., a corporation of New York
Application May 10, 1954, Serial No. 428,717
12 Claims. (Cl. 279—46)

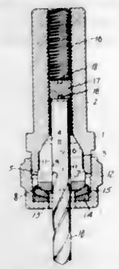


1. A chuck comprising a body having a front face adapted to seat a workpiece, a resilient diaphragm secured at its periphery to the body and having a central opening, jaws on the diaphragm for clamping the workpiece with radial pressure, an actuator slidable in the body and extending axially through said opening, the actuator coacting with the diaphragm to flex the latter and thereby effect clamping motion of the jaws when the actuator is moved rearwardly in the body from a neutral position, the actuator being movable forwardly of said neutral position free of the diaphragm, means including a draw rod extending axially through the actuator for drawing the work against the front face of the body, the actuator cooperating with said means to release the pressure thereof on the work upon forward motion of the actuator from said neutral position.

2,778,650
COLLET CHUCK
Milton L. Benjamin and Stanley S. Benjamin, Cleveland, Ohio, assignors to Erickson Tool Company, a corporation of Ohio
Application March 11, 1954, Serial No. 415,546
5 Claims. (Cl. 279—46)

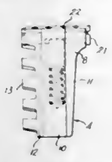
1. A two-piece collet chuck comprising a body, and a collet therewithin, said body and collet being threaded together and formed with complementary wedge surfaces effective, upon screwing in of said collet, to radially contract the latter, said collet being formed with only one diametrical slot through each end terminating short of the opposite end to render the same readily contractible from end to end and being formed adjacent to one end with parallel wrench-engaging flats which are disposed in planes normal to the slot through such one end whereby contraction of said collet is ineffective to vary the distance between and parallelism of such flats.

2,778,651
CHUCK STOPS FOR DRILLS
Milton L. Benjamin and Stanley S. Benjamin, Cleveland, Ohio, assignors to Erickson Tool Company, a corporation of Ohio
Application March 26, 1954, Serial No. 418,977
3 Claims. (Cl. 279—47)



1. In combination, a tool which is subject to torsion and axial thrust loads when rotated and axially fed into engagement with a workpiece, a chuck for gripping said tool, and an adjustable stop member threadedly engaged with said chuck and having an end surface against which said tool abuts, the interengaged threads of said chuck and stop member being substantially coaxial with said tool and being of hand opposite to the torque and thrust loads imposed on said tool when rotated and axially fed as aforesaid whereby, in the event of relative rotary slippage between said tool and chuck under the influence of torque load on said tool, and upon continued axial feed of said chuck and tool relative to a workpiece, the frictional engagement between the abutting surfaces of said stop member and tool tends to induce a relative rotation of said stop member and chuck in the direction of axial feed to thus increase thrust load between the abutting surfaces of said stop member and tool and thereby build up a torque resistance between such abutting surfaces to arrest rotary slippage between said chuck and tool.

2,778,652
CHUCK JAWS
Carl H. Ingwer and Anton J. Janik, Elyria, Ohio, assignors to The Ridge Tool Company, Elyria, Ohio
Application February 24, 1955, Serial No. 490,274
7 Claims. (Cl. 279—123)



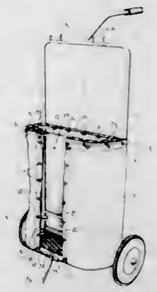
1. A jaw for a chuck having a portion arranged in opposition to a work piece, said portion being provided with a longitudinal seat, a removable work engaging insert disposed in said seat, and means on said insert for engaging the jaw at opposite ends to limit longitudinal movement thereof in the seat.

2,778,653
FOLDING PERAMBULATORS
Jack Denby and Maurice Landi, London, England
Application April 14, 1954, Serial No. 423,095
8 Claims. (Cl. 280—37)

1. A folding perambulator comprising a base, sides and a back which together form a seat member, two pairs of wheels, one on each side of the seat member, a supporting member for each wheel, the supporting members for the pair of wheels on one side of the seat member being pivotally connected to that side of the seat member and the supporting members for the other pair of wheels being pivotally connected to the other side of the seat member so as to enable each pair of wheels to be swung between a collapsed position in which it lies close above the base of the seat member and a wheeling position, link mechanism interconnecting the supporting members for each pair of wheels and adapted to cause the wheels, when they are swung into the collapsed position, to approach

one another to such an extent that they lie within the area of the base of the seat member and, when they are swung into the wheeling position, to recede from one another to such an extent that their extremities lie beyond the front and rear ends of the seat member, locking means for releasably holding each pair of wheels in the wheeling position, and a back member hinged to the back of the seat member so as to be foldable over the wheels when they are in the collapsed position to form a portable pack.

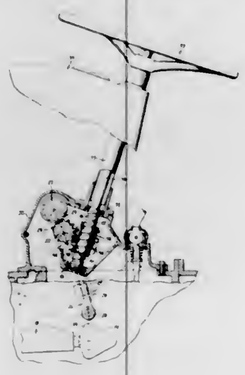
2,778,654
GARDEN TOOL CART
Frederick E. Gottlieb, Menomonee Falls, Wis.
Application May 24, 1954, Serial No. 431,887
3 Claims. (Cl. 280—47.24)



1. A cart for garden tools and the like comprising: a straight elongated axle having a pair of wheels rotatably mounted near the ends thereof; an upright U-shaped rear frame member having its legs extending downwardly and secured at their lower ends to the axle; a straight rod having its ends connected with the legs of the rear frame member intermediate the bight of the rear frame member and the axle and parallel to the latter; a substantially U-shaped bottom frame member secured to the axle with the bight of its U spaced forwardly of the axle and its legs extending rearwardly and secured at their rear ends to the lower ends of the legs of the rear frame member; a pair of substantially L-shaped upper frame members each secured at one end to a leg of the rear frame member adjacent to said rod and extending forwardly therefrom and toward the other upper frame member, the adjacent free ends of said upper frame

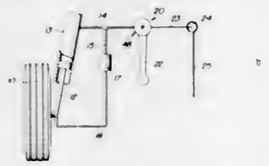
members being spaced from one another; a pair of upright frame members each extending from the free end of one of said upper frame members downwardly to the bight of the bottom frame member, said upright frame members being parallel to the legs of the rear frame member and one another; a fabric covering extending from one of said upright frame members around the rear frame member to the other upright frame member, and from the bottom frame member to the top frame members, said covering providing upright body walls having an opening therein at the front thereof, between the upright members; means providing a bottom wall in said body; and a downwardly extending leg on the front of said bottom frame member to enable the cart to stand upright when said leg engages the ground and to permit the cart to be freely movable on its wheels when tilted rearwardly.

2,778,655
STEERING MECHANISM FOR TRACTORS
Richard W. Hautzenroeder, Detroit, Mich., assignor to Massey-Harris-Ferguson Inc., Racine, Wis., a corporation of Maryland
Application November 22, 1954, Serial No. 470,488
2 Claims. (Cl. 280—93)



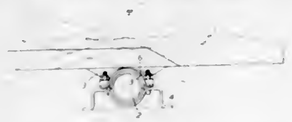
1. In a tractor having dirigible wheels adjustable for different tread widths and stabilized by a pair of radius rods respectively pivoted to opposite sides of the tractor body and swingable about said pivots in the adjustment of the wheels, steering mechanism including a gear box mounted on the tractor body, a generally vertically disposed steering shaft journaled at its lower end in said gear box, a pair of take-off shafts journaled on said gear box and respectively projecting at opposite sides of the box, steering arms fixed on the projecting ends of said shafts, drag links of equal length connecting the arms with the respective wheels, and driving connections between said steering shaft and one of said take-off shafts and between the two take-off shafts whereby the latter may be rocked simultaneously in opposite directions to swing said steering arms through substantially equal arcs, said take-off shafts being located ahead of the radius rod pivots and one of said take-off shafts being disposed below and rearwardly of the other take-off shaft, and said arms extending rearwardly and downwardly from said shafts and at the same angle when in the straight-ahead steering position, the arm fixed on the upper shaft being sufficiently longer than the other arm to locate their connections with the drag links in vertical alinement with each other and with the radius rod pivots in such straight ahead steering position of the wheels so as to maintain the relationship between the steering mechanism and the wheels constant in all adjusted positions of the wheels for different tread widths.

2,778,656
INERTIA CONTROLLED FLUID PRESSURE SUSPENSION FOR VEHICLES
Claude Hector May, Columbus, Ohio, assignor to The Murray Corporation of America, a corporation of Delaware
Application March 17, 1951, Serial No. 216,182
Claims priority, application Union of South Africa March 21, 1950
10 Claims. (Cl. 280—124)



1. In a vehicle provided with a frame and wheels, a suspension device comprising: fluid suspension means connected between each wheel and said frame; and valve means associated with each said fluid suspension means for regulating the fluid pressure therein; each said valve means having a valve member pivotably connected to said frame, connected through resilient means to the axle of said wheel, and connected to a suspended weight; wherein the axis of said pivotable connection is so positioned as to permit movement of said weight in a direction having a substantial component of motion in a lengthwise direction in said vehicle, whereby the position of said weight will be responsive to acceleration and deceleration forces when present during motion of said vehicle, and having a substantial component of motion perpendicular to said lenghtwise direction, whereby the position of said weight will be responsive to centrifugal forces when present during the operation of said vehicle.

2,778,657
TURNTABLE MOUNTINGS FOR TRAILER-TRACTOR FIFTH-WHEELS
William David Chaplin, Dereham, Norfolk, England, assignor to Cranes (Dereham) Limited, Dereham, England
Application December 27, 1954, Serial No. 477,875
3 Claims. (Cl. 280—440)



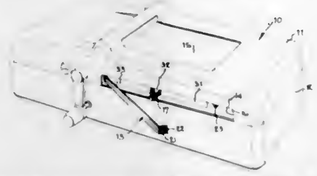
1. A turntable for connecting a semi-trailer to a tractor comprising an arcuate channel shaped member and a tubular member, one of said members being fixed to the turntable and the other of said members being fixed to the tractor, rubber bushes, and means for clamping said tubular member within the channel shaped member with said rubber bushes interposed therebetween, said rubber bushes comprising two rubber blocks each bent into semi-circular shape by said clamping means.

2,778,658
FLEXIBLE INDEX STRIPS IN SHEET FORM
Hall Young Kaighin, New York, N. Y., assignor to Acme Visible Records, Inc., Crozet, Va., a corporation of Delaware
Application July 27, 1954, Serial No. 445,962
1 Claim. (Cl. 281—43)

A thin, flat, flexible single-thickness sheet of homogeneous composition throughout its thickness consisting of white nonfibrous plastic material, one surface of said sheet having a matte finish adapted to receive typed ink impressions, said sheet being formed with parallel longitudinally spaced transverse slits of limited depth opening to said surface only defining a plurality of hingedly connected elongated strips separable from each other responsive to pivotal movement of one strip into back-to-

back engagement with its adjacent strip, each strip including forwardly projecting ridges on its longitudinal defining edges, said strips jointly and severally being sufficiently resilient to return from a bowed to a flat condition.

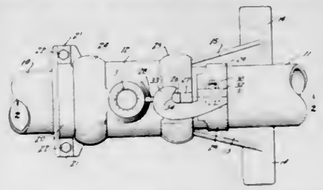
2,778,659
CARBON PAPER TEAR-OFF KNIFE FOR AUTOGRAPHIC REGISTERS
Russell Katz, Hamilton, Ohio, assignor to Paul Benninghofen and F. B. Diesbach, Hamilton, Ohio, trustees
Application August 2, 1954, Serial No. 447,126
1 Claim. (Cl. 282—19)



In an autographic register having a writing platen over which strips of manifolding stationery are advanced by mechanical means in one direction and over which sheets of carbon paper are adapted to be pulled manually in a direction at 90 degrees to the direction of the advancing movement of the strips of manifolding stationery, said sheets of carbon paper being interleaved between the strips of manifolding stationery, carbon paper tear-off means comprising an apron depending from the side of the writing platen toward which the carbon paper is adapted to be pulled, a carbon paper tear-off knife adapted to swing horizontally between a closed position in which it clamps the free ends of said carbon paper sheets against said apron and an open position in which it is swung outwardly away from the side of said apron, releasable latch means to hold said carbon paper tear-off knife in said closed position, an aperture in said apron in the area thereof which is adjacent to the mid-portion of said carbon tear-off knife when said knife is in its closed end latched position, and a leaf spring mounted behind said apron, said leaf spring having an elongated free end portion disposed to spring outwardly through the aperture in the apron to swing said carbon paper tear-off knife toward its open position when the latch is released and at the same time push outwardly the free ends of the carbon paper sheets into a position where they may be readily grasped.

2,778,660
COUPLING FOR IRRIGATION PIPE
Ray E. Tipton, Denver, Colo.
Application February 8, 1954, Serial No. 408,891
1 Claim. (Cl. 285—6)

A pipe coupling for two adjacent sections of above ground irrigation pipe, comprising a barrel on the forward end of each section, an internally threaded boss for the reception of a conventional form sprinkling nozzle on each barrel, a relatively wide transversely extending foot at the forward end of each barrel, an inclined semi-conical trough extending upwardly and rearwardly from said foot to the bottom and sides of said forward end of said barrel, said forward ends each being provided with an internal sealing ring groove, a resilient expansion sealing ring of V-shaped cross section in each groove, the forward end of each barrel also having a second sealing groove; each of said second grooves having a second sealing ring therein, and an inclined bottom to exert a wedging sealing pressure on said second sealing rings, a pair of spaced bosses to provide space for said grooves; a coupling lug having a rounded rear end projecting upwardly from the foremost of said bosses, a semi-cylindrical pipe yoke surrounding the upper half of each section adjacent the rear extremity of each barrel, outwardly extending bolt ears on each pipe yoke, a U-shaped clamp



strap surrounding the lower half of each section, bolts clamping each said yoke and its adjacent clamp strap, an encircling band clamped adjacent the rear end of each section, two upstanding ears on each said encircling band, the upper extremity of one of said last mentioned ears being turned at right angles to the other of said ears and extending rearwardly from said last mentioned other ear to form a flat attachment hook lying in a plane parallel to a plane tangential to the circumference of said section, said hook being provided with a lug receiving socket adapted to engage about the rounded rear face of said coupling lug, the arrangement being such that one of said sections may be grasped at a point remote from its rear end, and its rear end, guided by said semi-conical trough into the barrel of the other of said sections, said hook being initially positioned out of alignment with said coupling lug, and rotated to engage said hook with said coupling lug to clamp said two sections together.

2,778,661
FLEXIBLE FLUID LINE COUPLING
Francis Leighton, Altadena, Calif., assignor, by mesne assignments, to Aeroquip Corporation, Jackson, Mich., a corporation of Michigan
Application July 18, 1955, Serial No. 522,807
16 Claims. (Cl. 285—110)

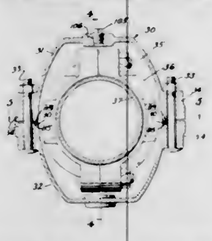
1. In a tube coupling, in combination: a pair of tube sections having external annular end beads; a plurality of collar segments collectively constituting a connector collar of larger diameter than said beads, adapted to surround said beads and having end flanges extending radially inwardly and directly engaging the remote sides of the beads to establish an end-load bearing connection directly between the tube sections, with the ends of the tube sections out of contact with one another; a circum-

ferentially continuous retainer collar surrounding said segmental collar and bearing against the periphery thereof to hold the segments against spreading; a sleeve of soft compressible resilient material surrounding said retainer collar; a pair of seal rings integral with the respective ends of said sleeve and extending radially inwardly therefrom in engagement with the ends of said retainer collar and segmental collar and in direct sealing engagement with said tubing sections, said sleeve and seal rings cooperatively defining an annular recess in which the collars are received; and a sheath of split collar form surrounding and confining and supporting said sleeve and the seal rings.

2,778,662
AXIALLY AND RADIALLY SEALED DIVIDED SLEEVE TYPE PIPE CLAMP

Telford L. Smith, South San Francisco, Calif.

Application July 10, 1953, Serial No. 367,239
5 Claims. (Cl. 285—343)

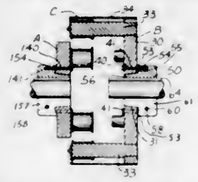


1. A sleeve-type pipe clamp capable of withstanding high fluid pressures without leaking, including in combination: a pair of mating, generally semicylindrical metal half-sleeves, each of said half-sleeves having a recess adjacent each end thereof defined by a shoulder having a radial wall, each of said radial walls having axially extending bolt openings therein, said half-sleeves also being provided with a pair of generally axially extending cooperating tongue and groove connections joining the recesses of each respective half-sleeve adjacent each end, the groove being totally disposed in one of said half-sleeves and the tongue being totally disposed in the other of said half-sleeves, the tongue and groove both being rounded in cross-sectional configuration with the radius of curvature of said groove being greater than the radius of curvature of said tongue, a pair of side gaskets, one in each of said grooves, each of said side gaskets being oversized in relation to the respective groove and being substantially rectangular in cross-sectional configuration in unstressed relaxed condition with a generally flat upper surface having transversely extending thin lips at each upper edge and substantially U-shaped in cross-sectional configuration when compressed in the respective groove by the respective tongue with the side gasket filling the space in the respective groove caused by the differential radii of the groove and tongue with the lips being forced outwardly around the curved surface of the respective tongue, bolts joining said half-sleeves together and tightening them toward each other causing said tongues and grooves to deform and press said side gaskets into said U-shaped configuration; a generally semicylindrical end gasket half-ring having inner and outer axially extending walls disposed within each recess with one radial wall of the gasket half-ring lying snugly against the radial wall of the recess in the respective half-sleeve and with the inner axially extending wall of the gasket half-ring being adapted to lie around a pipe, a generally semicylindrical rigid metal pressure half-ring for each gasket half-ring, each of said pressure half-rings having one radial face engaging the other radial wall of the respective gasket half-ring, said other radial wall of each end gasket half-ring and said one radial face of each pressure half-ring being of special cooperating configuration to force the outer axially extending wall of the respective gasket half-ring tightly against the shoulder of the respective half-sleeve and the inner axial extending wall of the respective gasket half-ring against a pipe, each of said gasket half-rings and said pressure half-rings having axially extending bolt receiving openings therein axially aligned with the bolt openings in said radial wall of the shoulder of the respective half-sleeve with the radial innermost openings being blind and threaded, and bolts extending axially inwardly through the aligned openings and threaded into said blind openings to tighten and urge said pressure half-rings toward the adjacent radial wall of the respective half-sleeve to tighten the respective gasket half-ring therebetween.

2,778,663
COUPLING FOR SPLIT HUB AND SHAFT

Bruno E. Prevost, North Andover, Mass., assignor to John W. Bolton & Sons, Inc., Lawrence, Mass., a corporation of Massachusetts

Application September 3, 1948, Serial No. 47,569
1 Claim. (Cl. 287—52.03)

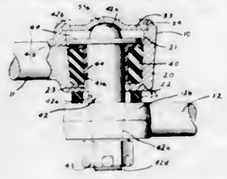


A device for mounting a coupling pin disc on a shaft, said device comprising a split, contractile hub of resilient metal mounted on said shaft and having a bore of less diameter than the shaft; a relatively thick and elongated rearward portion of said hub extending from the rearward end thereof to an annular vertical shoulder intermediate of said hub; a relatively thin and shorter forward portion of said hub tapering from said shoulder to the forward end of the hub with a gradually decreasing cross sectional area to form a seat for the bore of said disc; fastening bolts passing through smooth holes in said disc and engaged in threaded holes in the shoulder of said hub, said bolts being arranged to secure the disc to the hub and hold the forward portion of the hub in contracted position on the shaft and a bolt, threaded in one side of the split in the rearward portion of the hub, and in contact with the opposite side of said split, adapted to disengage said rearward portion from the shaft and to also disengage the forward portion thereof when said disc has been slidably unseated from said hub.

2,778,664
PERMANENTLY LUBRICATED RESILIENT CONNECTOR FOR STEERING LINKAGES

Edward J. Herbenar, Detroit, Mich., assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application July 6, 1954, Serial No. 441,541
4 Claims. (Cl. 287—85)



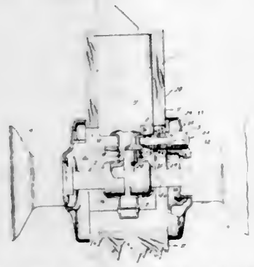
1. A permanently lubricated resilient connector adapted for vehicle steering linkages which comprises a cup-

shaped housing having a tapered bore terminating at its reduced diameter end in an end wall provided with an aperture, a solid elastomeric bushing ring seated in said bore against said end wall, a bearing having a low coefficient of friction carried by said ring and having a cylindrical portion lining the bore of the ring and having an outturned flange portion overlying the major portion of the top of the ring, a stud rotatably mounted in the cylindrical portion of the bearing and having an outturned shoulder overlying the flange of the bearing and in rotatable relation therewith, said aperture being slightly larger in diameter than said stud whereby said stud may shift laterally within said aperture, said stud and the cylindrical portion of said bearing cooperating with said end wall to substantially confine said rubber bushing against movement through said aperture, a closure cap for the open top of the tapered bore in the housing, and means positioning said closure cap to exert an axial thrust load on said stud to urge the shoulder thereof against the flange of the bearing, and cooperating surfaces on said stud and said closure cap forcing said outturned shoulder to move axially towards said aperture upon lateral shifting of said stud, said elastomeric ring deforming under such axial shifting of the stud to increase the form factor of the ring to sharply increase resistance to further lateral shifting of said stud without interfering with the free rotation of the stud.

2,778,665
PUSH-BUTTON ASSEMBLY

Herbert W. Young and Paul H. Grevengoed, Grand Rapids, Mich., assignors to National Brass Company, Grand Rapids, Michigan

Application May 6, 1954, Serial No. 428,057
4 Claims. (Cl. 292—1)



1. A push-button assembly for a door lock, said lock including roll-back means, locking means adapted to block the movement of said roll-back means, an actuating member slideably mounted for movement along a path substantially parallel to the axis of said roll-back means for positioning said locking means, a rose-reinforcement plate having an aperture therein disposed opposite said actuating member, and a rose plate superimposed over said rose-reinforcement plate and having an opening adjacent said rose-reinforcement plate aperture, said push-button assembly comprising: a button member having a portion thereof slideably and rotatably received in said aperture, and an exterior portion slideably and non-rotatably received in said opening, said button member being internally threaded on an axis parallel to the axes of said aperture and said opening; shaft means having a threaded portion adapted to cooperate with the threads of said button member, said shaft means having abutment means adjacent the inner end thereof; a bracket member fixed with respect to said rose-reinforcement plate and having an aperture slideably and non-rotatably receiving said shaft means; and spring means confined between said abutment means and a surface fixed with respect to said rose-reinforcement plate and thereby urging said shaft means and button member inwardly.

2,778,666
LOCKING SEAL

Sigurd M. Moberg, Pompton Plains, N. J., assignor to E. J. Brooks Company, Newark, N. J., a corporation of New Jersey

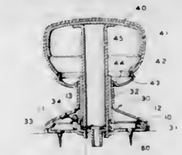
Application May 26, 1955, Serial No. 511,255
7 Claims. (Cl. 292—325)

1. A seal of bendable sheet metal comprising a dished front member and a back member hingedly connected to said front member, the two said members having interlocking means adjacent margins thereof opposite from the points of such hinged interconnection, said interlocking means comprising an integral locking tongue, on and substantially perpendicular to the general plane of said back member, having a prong at its free end and a neck, narrower than said prong, between the latter and said back member, and a flat locking plate integral with said front member and overlying a dished portion of the latter in substantially coplanar relationship to said hinged interconnection, the said plate being formed with an elongate aperture therein to admit said prong therethrough, and having ledges defining opposite ends of a bay enlargement of said aperture of less length than said aperture and located at one end of the latter intermediate the ends thereof, and said dished portion having an inner cam surface below and spaced from said plate and adapted to coact with said prong, when the latter is pushed through said aperture, to bend said tongue to move the latter's said neck into said bay enlargement and opposite sides of said prong into perpendicular locking position underneath said ledges; the spacing of said cam surface from said plate being only slightly less than the combined lengths of said prong and of that part of said neck which passes through said aperture in closing the seal, whereby said bending of the tongue leaves the latter substantially perpendicular to said plate.

2,778,667
CONCEALED KNOB ANCHOR

Herbert Young, Grand Rapids, Mich., assignor to National Brass Company, Grand Rapids, Mich., a corporation of Michigan

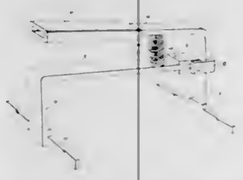
Application March 1, 1952, Serial No. 274,432
1 Claim. (Cl. 292—352)



A handle assembly for a door latch having a knob, comprising: a tubular shank mounted on and extending away from said door, said shank having a collar portion of increased diameter adjacent the inner end thereof; a cup member of larger diameter than the inside of said shank adjacent said collar portion rotatably received in said collar portion, said cup member having an opening in the bottom and in the side thereof, and a stem for engaging a latch mechanism; a tubular knob sleeve rotatably received within said shank and within said cup and fixed with respect to said knob, and having an axially-

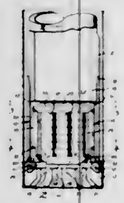
projecting ear formed to engage the opening in the bottom of said cup member in rotary driving relationship, said ear having an opening therein, said sleeve also having a notched portion adjacent said ear whereby a substantial portion of the end of said sleeve is maintained in spaced relationship with the bottom of said cup member; a locking key having a wing portion formed to be slideably received in said notch for limited radial movement, said locking key having a finger adapted to engage the opening in said ear and the opening in the side of said cup member; and means acting on said locking key to move said finger radially outward.

2,778,668
BATTERY CARRIER
Bernard R. Tomek and Olaf S. Mykleby, Aberdeen, S. Dak.
Application June 3, 1954, Serial No. 434,134
3 Claims. (Cl. 294—16)



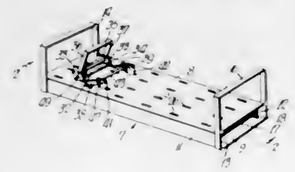
1. A battery carrier of the class described, comprising a vertical pressure arm having a right angled horizontal portion providing a handle, a horizontal yoke secured to said pressure arm, said yoke having spaced ends extending a substantial distance beyond the inner surface of said pressure arm, a main arm including a right angled depending portion, disposed under said handle in vertical alignment therewith, a pivot block mounted for vertical pivotal movement between the ends of said yoke, to which said main arm is secured, an expansion spring disposed between said handle and said main arm, normally biasing said pressure arm and main arm apart, a chain extending through said spring, connected between said pressure arm and main arm restricting movement of said arms away from each other, and jaws on said pressure arm and main arm for clamping a battery when said depending portion and pressure arm are in substantially vertical position.

2,778,669
MAGNETIC FISHING TOOL
John S. Goodwin, Whittier, Calif., assignor to Globe Oil Tools Company, Los Nietos, Calif., a corporation of California
Application October 17, 1952, Serial No. 315,256
13 Claims. (Cl. 294—65.5)



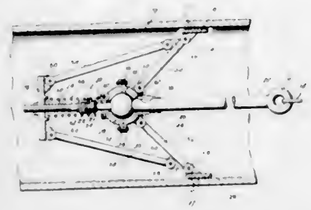
1. A well fishing tool to be applied to a drill string including, a tubular body attached to the lower end of the string to depend therefrom, the body having an annular toothed head at the lower end thereof with an upwardly facing top within the body and having downwardly disposed ports threin at the lower end portion thereof and above the head, and a self-contained magnetic pick-up unit supported within the body and seated on said top and with a head exposed at the lower end portion of the body of the unit and having opposite magentic poles to catch and hold parts loose in the well, the unit being spaced in the body establishing a passage in the body between the exterior of the unit and the interior of the body and connecting the string and the ports.

2,778,670
STICK HOLDER
Aaron Friedman, New York, N. Y., assignor to Joe Lowe Corporation, New York, N. Y., a corporation of Delaware
Application July 31, 1953, Serial No. 371,599
4 Claims. (Cl. 294—87.26)



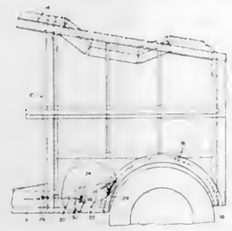
1. In a portable carrier consisting of a frame structure having apertured top and bottom fixed plates and manipulating means carried by one of said plates for moving an intermediate plate having similarly spaced apertures therethrough adapted to be mounted therebetween, the combination of an intermediate plate adapted to be connected with said manipulating means and having a plurality of longitudinally spaced depending legs along each side for engaging the top surface of said bottom plate and holding the same in spaced relation therewith, said legs having their length extending longitudinally of said intermediate plate and having a width equal to the thickness of the metal from which said intermediate plate was formed.

2,778,671
PIPE HANDLING DEVICE
Gladstone H. Langston, Texas City, Tex.
Application April 24, 1952, Serial No. 284,037
4 Claims. (Cl. 294—95)



1. A device for handling tubular articles comprising an operating shaft, a ball bearing on said shaft, a bearing support in which said bearing is rotatably mounted to permit axial rotation of said shaft relative to said support, a connector member, means connecting said member to said shaft and along which said member is movable upon rotation of said shaft, anchoring means including arms pivotally connected to one end to said support and movable radially toward and away from said shaft and surface gripping elements pivotally connected to the other ends of said arms, means connecting said anchoring means and said connector member and movable with said member to move said anchoring means into and out of engagement with a surrounding tubular article.

2,778,672
PAYLOAD RAISING DEVICE FOR VEHICLES FOR HAULING AUTOMOBILES
Paul J. Huebshman, Dearborn, Mich., assignor to Whitehead & Kales Company, River Rouge, Mich., a corporation of Michigan
Application February 12, 1951, Serial No. 210,523
6 Claims. (Cl. 296—1)



1. In an automobile haulaway vehicle having tracks for receiving automobiles for transport and over which automobiles are driven in loading and unloading, upwardly convex fenders in alignment with said tracks overlying wheels of the vehicle, said fenders extending substantially above said tracks and constituting obstacles to movement of automobiles along said tracks, a pair of adjustable track means movable between an upper position in which they constitute inclined ramps between said tracks and said fenders and a lower position in which they support wheels of the automobile substantially in the plane of said tracks and directly adjacent said fenders, each of said track means comprising a first track section pivoted to one of said tracks at a point spaced from the adjacent fender and having a free end portion extending toward said fender, and a second track section hinged at one end to the free end of said first track section and having its other end slidable on said fender, and means underlying said track sections for raising and lowering said track sections.

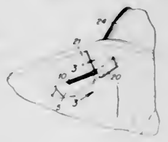
2,778,673
MOTOR VEHICLE BODY FIXED AND HINGED PANEL JOINTS CONSTRUCTION
Béla Barényl, Stuttgart-Rohr, and Karl Wilfert, Stuttgart-Degerloch, Germany, assignors to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application December 29, 1952, Serial No. 328,368
Claims priority, application Germany December 28, 1951
2 Claims. (Cl. 296—28)

1. A passenger motor vehicle body forming a passenger compartment comprising a top covering said passenger compartment and having a transversely extending front wall forming the windshield and a transversely extending rear wall, upwardly extending lateral housing elements encasing the vehicle wheels and forming fender portions therefor, a transversely extending bumper at the front end of the vehicle, and a hood extending forwardly from the lower edge of said transversely extending front wall between the lateral housing elements encasing the front wheels and downwardly to said front bumper, said top, said lateral housing elements and said front bumper being fixedly attached to the vehicle while said hood is mounted to be movable with respect thereto, the edges of the panels constituting said hood on all sides thereof forming lines of intersection with the edges of the panels constituting the fixedly attached body parts consisting of said transversely extending front wall, the lateral housing elements for the front wheels and said front bumper, the forwardly and downwardly extending parts of said hood and said fixedly attached body parts each having panel portions adjacent the lines of intersection thereof of substantial extent disposed at considerable angles to one another so that inequalities or non-parallelism of adjoining edges of the panels are not readily noticeable.

2,778,674
AIRPORT AND TRANSFER BUSES
Andre C. Attendu, Montreal, Quebec, Canada, assignor to Stadler, Hurter & Company, Montreal, Quebec, Canada
Application December 8, 1953, Serial No. 396,898
6 Claims. (Cl. 296—28)

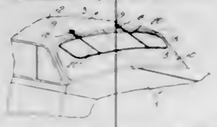
1. A vehicle adapted for the transportation of passengers to and from aircraft; comprising in combination, a main chassis, wheels mounted on said chassis, a lower body mounted on said chassis, spaced apart standards extending from said chassis, an upper passenger carrying body mounted between said standards for vertical movement relative to said lower body, means on said upper body and upright standards to guide the travel of said upper body, hydraulic jacks mounted on said chassis and including pistons engaged with said upper body, and means for actuating said jacks, said upper body including an access opening provided with a bellows extension mounted on a supporting frame, said bellows extension supporting frame being slidably mounted on said upper body, a door mounted for pivotal movement on said bellows supporting frame and in the front portion of said bellows extension, and a power means mounted on said upper body adapted to extend or retract said bellows extension supporting frame.

2,778,675
COMBINED AUTOMOBILE HOOD ORNAMENT AND BUG DEFLECTOR
Clarence W. Saucerman, Salem, Wis.
Application December 6, 1954, Serial No. 473,147
4 Claims. (Cl. 296—91)



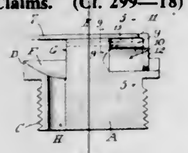
1. A bug deflector for motor vehicles comprising an elongated body adapted for attaching on top of the hood of the vehicle in front of the windshield thereof, a pair of quadrangular shaped wings, ball and socket means swivelly connecting the wings to the body in an outwardly projecting position at opposite sides thereof, and clamping means for the ball of said ball and socket means securing the wings in adjusted position to project either horizontally or in an edgewise upstanding position from the body.

2,778,676
WINDSHIELD VISOR AND SUPPORTING MEANS THEREFOR
John P. Francis, Haverhill, Mass.
Application June 29, 1954, Serial No. 439,953
4 Claims. (Cl. 296—95)



3. A rain visor for the windshield of a motor vehicle comprising a flat one piece longitudinally rigid and laterally flexible visor panel having each of the extreme side longitudinal flat portions thereof extending farther rearwardly than the central rear lateral edge with the rear lateral edge of said one piece visor panel being additionally contoured laterally and when attached to the windshield to flexibly engage against the lateral and the downward contour of the uppermost lateral windshield area and the molding projection thereof in freely supporting the rear lateral edge of the said one piece visor panel in both rain sealing engagement and friction supporting abutment therewith independently of the attachable support for supporting the said one piece visor panel, a visor support supported in spaced relation above the roof top of said vehicle, and roof engaging means mounted on said roof top for clampingly engaging and supporting said support therefrom, said support extending from and above the said roof engaging means and inwardly of the side edges of the visor panel in engaging and supporting the outer portion of said visor panel as the sole means of attachable support for supporting the said visor panel.

2,778,677
ADJUSTABLE LAWN SPRINKLER HEAD
Alma M. Gould and Harvey A. Gould, Burbank, Calif.
Application March 3, 1955, Serial No. 491,826
6 Claims. (Cl. 299—18)



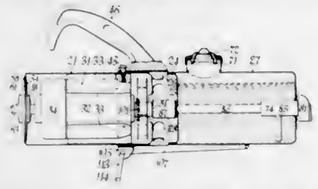
1. In a sprinkler nozzle head having a flange formed with a flat upper face formed with a semi-circular dished recess having an upstanding back wall extending above said face, said head having an upper flat surface leading from said back wall on a plane above the flat upper face of said flange, said head being formed with an upwardly opening water discharge orifice leading through the bottom of said recess, a slide plate having a flat face seated on said surface and having an outwardly curved arcuate forward marginal portion protruding over said recess from the upper edge of said back wall, a cylindrical bore leading into said nozzle head from a side thereof, said upper surface being formed with an open ended channel opening downwardly to said bore, and means on said slide plate frictionally engaging said bore adapted to hold said slide plate in various adjusted positions relative to said back wall.

2,778,678
DEODORANT DISPENSER
Ronald E. Shields, Milford, Robert T. Findlay, Stratford, and Francis Fitzgerald, Bridgeport, Conn.
Application July 12, 1954, Serial No. 442,544
5 Claims. (Cl. 299—24)

1. A dispenser of the character described comprising a hollow elongated holder having perforated longitudinal substantially flat side and top walls when in a horizontal position, means for mounting the holder on an upright support with the side wall inclined to the surface of the support comprising a suction cup, a supporting strap comprising a substantially flat strip extending over and

spaced from the side wall secured to the holder and means securing the cup to the strap with the axis of the cup inclined to the side wall so that when the device is secured in a horizontal position to an upright surface by said cup the side wall is inclined to said surface, and a solid vaporizable material within the holder.

2,778,679
AEROSOL GENERATOR
Joseph D. Lear, Silver Creek, N. Y., assignor to Silver Creek Precision Corporation, Silver Creek, N. Y.
Application August 24, 1953, Serial No. 375,964
2 Claims. (Cl. 299—63)

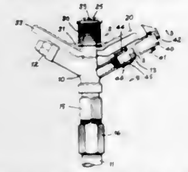


2. An aerosol generator comprising a casing having a motor driven impeller and a fan mounted therein, together with a reservoir for liquid adapted to be supplied to said impeller, and a standard connected to said casing for supporting said casing upon a surface at different angles, said casing having a hinge plate secured to the circumference thereof, said plate having depending lugs formed with apertures, a rod bent into a generally triangular formation having free ends pivotally mounted in said apertures, one of said ends being bent outwardly from the sides and base of said formation to provide a leg, said leg being bent substantially parallel to said formation to form a foot, said leg being of less length than the height of said formation, whereby said standard may be swung to support said casing either on the base of said formation or said foot.

2,778,680
WATER SPRINKLER FOR LAWNS, GARDENS, TRUCK FARMS AND GOLF COURSES, AND THE LIKE
Stanley W. Bonser, Gilbert, Pa.
Application December 5, 1955, Serial No. 551,098
3 Claims. (Cl. 299—63)

1. A water sprinkler comprising an impeller, means for rotating said impeller, oppositely disposed peripheral openings in said impeller, a first baffle extending downwardly through the outer edges of said openings and angled thereto, water baffle means for directing the water in said impeller against said baffle, and air baffle means for discharging the air upwardly against said first baffle to finely disperse the water particles and to create a spray of mist-like quality over a relatively large area, said impeller means comprising a hollow conical member, said means for rotating said conical member comprising a base member, an electric motor mounted within said base member and including a drive shaft extending upwardly therethrough, said impeller being mounted at the small end thereof on said drive shaft, and means for supplying current to said motor, said openings in said impeller being substantially rectangular, said first baffle plate comprising a rectangular plate secured to the outer edges of said openings and extending downwardly and inwardly towards the center of said impeller, said water baffle means comprising a pair of elongated baffles of V-shaped cross section aligned radially with said openings and first baffles and adapted to direct the water outwardly thereagainst, said air baffle means comprising complementary baffles of V-shaped cross section secured to the undersurface of said impeller in vertical alignment with said water baffles and being adapted to direct the air particles outwardly against said first baffles and to diffuse with said water particles into a fine mist-like spray.

2,778,681
ROTARY SPRINKLER, INCLUDING IMPACT ABSORBING MEANS
Wray E. Dudley, Troy, Ohio, assignor to The Skinner Irrigation Company, Troy, Ohio, a corporation of Ohio
Application January 4, 1954, Serial No. 402,073
5 Claims. (Cl. 299—69)



1. A rotary sprinkler comprising a sprinkler body, a driving nozzle projecting from said sprinkler body for discharging a driving jet, an impact arm mounted on said sprinkler body for rotational movement with respect thereto, a deflector carried by said arm for movement into the path of said driving jet to cause said arm to swing in one direction away from said nozzle, a spring connected with said arm and said body for causing said arm to swing in the opposite direction toward said nozzle, means on said arm forming an impact face overhanging said driving nozzle for impact with an intermediate portion thereof under the driving force of said spring to rotate said body with a step-by-step movement, a sleeve of wear-resisting material carried on said nozzle in overlying relation with said intermediate portion thereof to cushion said impact between said nozzle and said impact face, and means forming a releasable connection between said sleeve and said nozzle providing for rotation of said sleeve about the axis of said nozzle to present a fresh portion thereof for engagement by said impact face.

2,778,682
LIQUID APPLYING APPARATUS
Vinton J. Vincent, Lawrence, Kans.
Application January 17, 1955, Serial No. 482,027
1 Claim. (Cl. 299—102)

In apparatus for applying a uniform coat of liquid flowing by gravity from an inverted container having a single opening to horizontal surfaces, a spray head comprising an elongated, inverted, substantially V-shaped, hollow body having an elongated, uniformly perforated, normally horizontal bottom wall, a pair of spaced, substantially parallel, normally upright, substantially triangular side walls, a pair of angularly converging top wall sections, and a tubular neck merging with said top wall sections therebetween and with said side walls adjacent the uppermost vertices of the latter and extending upwardly therefrom in a normally vertical direction, one

of said top wall sections being at least substantially twice as long as the other, the internal cross-sectional area of the neck being greater than the combined areas of the perforations in the bottom wall, whereby an air lock is established and maintained within the body with a predetermined depth of said liquid within the latter; and coupling means on the necking adapting the spray head for direct attachment to said container with the neck in communication with said opening of the container.

2,778,683
STEAM DISTRIBUTOR TUBE
Joseph R. Gillis, Kalamazoo, Mich.; Esther M. Gillis, administratrix of said Joseph R. Gillis, deceased
Application August 10, 1953, Serial No. 373,137
4 Claims. (Cl. 299—106)

1. A steam distributing tube comprising, a hollow tubular casting with parallel end flanges, said end flanges having bolt holes therein for the attachment of other flanges and plates thereto, said tube being rounded on its upper half and tapering downwardly on its under half in inner and outer cross section and having a longitudinally extending slot formed through said tapered underside from the interior of the tube to the bottom edge thereof, external bosses on said tapered sides at longitudinally spaced points along said tube, the bosses on one side being tapped and the bosses on the other side having aligned holes therein receiving screws acting to clamp the sides of said slot together, intermediate bosses formed on one side of said tube between said first bosses and having tapped holes therein receiving spreader screws, internal bosses on the inside of said tube opposite said intermediate bosses and having surfaces engaged by the ends of said spreader screws to spread the sides of said slot, and a top boss on one end of said tube adapted to be drilled to form a supply opening into said tube, said screws being generally parallel and perpendicular to said slot, said slot being formed immediately between the adjacent edges of said casting.

2,778,684
DIVERSIFIED SPRAY DEVICE
Rudolph K. Forst, Lansdale, Pa.
Application August 12, 1955, Serial No. 527,931
6 Claims. (Cl. 299—117)

1. A spraying device comprising, a cylindrical housing, a nozzle projecting from one end of said cylindrical housing, a discharge fitting connected to said nozzle and residing within said housing, the discharge fitting having in-

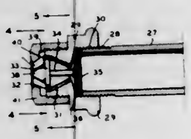
duction openings in its walls, a cylindrical filter screen within said housing having one end in spring-biased contact with said discharge fitting, guide vanes circumferen-

tially disposed about the end of said cylindrical filter screen adjacent to the discharge fitting, and a valve on the other end of said cylindrical housing.

2,778,685
JET ASSEMBLY
Emil Umbricht, Jackson, Mich., assignor to Ajem Laboratories, Inc., Detroit, Mich.
Application February 2, 1953, Serial No. 334,420
12 Claims. (Cl. 299—121)

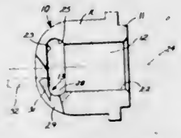
1. In a power washer for spraying cleaning liquid with high hydraulic force over surfaces to be cleaned, a jet assembly comprising a body having a passageway for conducting cleaning liquid and an orifice for ejecting the liquid in a substantially solid stream, a generally bullet-shaped director, said director having a rounded tip portion with radius of curvature not significantly greater than a distance equal to one-half the mean diameter of said orifice, said director having a back portion of a diameter between 1.5 and 2.5 times the mean diameter of said orifice and means supporting said director in front of and spaced from said orifice with its tip in alignment with and facing toward said orifice.

2,778,686
SAFETY DEVICE FOR OIL BURNERS
Blake N. Daniel, Bronx, N. Y.
Application November 5, 1954, Serial No. 466,971
4 Claims. (Cl. 299—150)



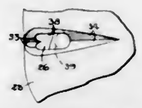
1. An oil burner tip for mounting on a burner tube comprising a body having means at one end for attachment to a burner tube, said body having external threads at its other end and a conically recessed seat in said one end, said body further having a central bore extending axially and a plurality of fuel passages arranged around said central bore and extending from said other end of said body to said recessed seat, a conical valve for cooperation with said seat, a stem secured at one end to said valve and extending through said central bore, said stem having a disk at its opposite end, said stem being longer than said bore in order that force on said disk will unseat said valve allowing fuel to enter said passages, a fuel nozzle on the other end of said body, said fuel nozzle having an aperture and a plurality of fuel channels extending radially from said central aperture at the end of said nozzle adjacent said body, an internally threaded collar threaded on to said external threads of said body holding said nozzle in position thereby holding said disk against said body and holding said valve open to allow fuel to flow from said burner tube through said body and said nozzle.

2,778,687
SPRAY NOZZLE
Lester O. Hegstad, Roscoe, Ill., assignor to Hanson Equipment Company, South Beloit, Ill., a corporation of Illinois
Application October 11, 1954, Serial No. 461,486
7 Claims. (Cl. 299—153)



1. A nozzle comprising a body having an elongated internal recess defined at one end portion by a tubular wall and at its other end portion by a generally flat wall disposed radially of the recess and spaced axially from the tubular wall and an annular wall of arcuate cross sectional shape, said annular wall merging with and joining said flat wall and said tubular wall and defining an internal groove extending radially and outwardly beyond the tubular wall, and surfaces on the exterior of said body defining an external groove and intersecting said flat and annular walls along lines defining the edges of an orifice elongated in an axial plane of said annular wall, said lines diverging gradually from one end of said orifice adjacent the bottom of said internal groove to a point adjacent said flat wall, then diverging abruptly to a maximum spacing, and finally extending in parallel at the maximum spacing and along the flat wall to a point spaced radially and inwardly from said tubular wall where they converge to define the other end of the orifice.

2,778,688
SPRAYING APPARATUS
Cady S. Corl, Minneapolis, Minn., assignor to Hanson Equipment Company, South Beloit, Ill., a corporation of Illinois
Application April 8, 1953, Serial No. 347,480
3 Claims. (Cl. 299—154)

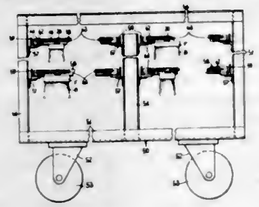


3. A spray nozzle comprising a body having an internal recess defined by a wall including an outwardly curved portion, external surfaces on said body intersecting said wall along lines defining an elongated orifice extending around said arcuate wall portion and having a V-shaped end and a U-shaped end, the width of said orifice from said V-shaped end to said U-shaped end first increasing gradually to a point intermediate the ends, then increasing abruptly to a greater width, and finally remaining constant at the greater width throughout the remainder of the orifice length to the U-shaped end.

2,778,689
CURING OF THE BRISTLE-BONDING AGENTS IN BRUSHES
William R. Evans, Baltimore, Md., assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa., a corporation
Application January 30, 1953, Serial No. 334,287
5 Claims. (Cl. 300—21)

1. In the method of forming brush bristle portions, the steps of inserting bunches of brush bristles in ferrous metal ferrules, pouring a liquid bonding agent about the butts of the bristles in the ferrules, hanging the portions magnetically by their ferrules and with their tips downward and with a substantial space between

contiguous portions and circulating a gaseous medium about and between the brush bristle portions at a tem-



perature to effect curing of the bonding agent, until a substantial cure is effected.

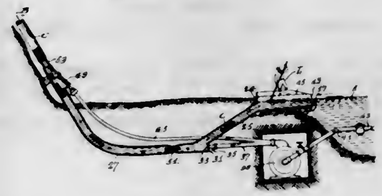
2,778,690
SPOKE NIPPLE FOR BICYCLE WHEEL
Anthony J. Horling, Jr., Cranford, N. J.
Application May 15, 1953, Serial No. 355,327
1 Claim. (Cl. 301—58)

In combination, a wheel spoke nipple having first and second ends, a nipple bore extending axially in said nipple from said first end to a point intermediate the ends of the nipple, a counterbore in said nipple extending from said second end of the nipple to said nipple bore and being coaxial with said nipple bore, said counterbore being larger in diameter than said nipple bore and said nipple bore being not substantially larger in diameter than a wheel spoke to be accommodated therein, a key groove extending along and opening into said counterbore, an insert in said counterbore of softer material than said nipple and a wheel spoke, said insert having a key portion engaged in said key groove, said insert further having an insert bore coaxial with the nipple bore, said insert bore being initially unthreaded, and a wheel spoke extending in said nipple bore through said first end of the nipple, said spoke having a threaded portion self-threaded in the insert bore.

2,778,691
STAPLING MACHINES
Herbert K. Hazel, Arlington, Va., assignor to Melpar, Inc., Alexandria, Va., a corporation of New York
Application June 7, 1955, Serial No. 513,782
2 Claims. (Cl. 302—2)

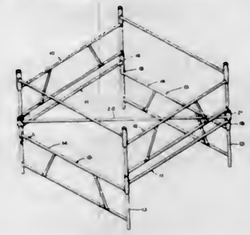
1. A conveyor system for objects, comprising an elongated generally open horizontal chute, said chute having the transverse cross section of an upwardly open channel, a plurality of pneumatic passageways positioned in the bottom of said chute, said passageways making an acute angle with the longitudinal dimension of said chute in the desired direction of travel of one of said objects, whereby said objects are subjected to a lifting force and a propelling force simultaneously by pneumatic fluid passing through said passageways, wherein is further provided a delivery station adjacent and beyond a delivery end of said chute, said delivery station including a cam, said cam having a camming surface arranged to raise a forward portion of one of said objects in response to the kinetic energy imparted to said one of said objects by its movement along said conveyor to a level substantially the same as the level of a rearward portion of said one of said objects as said rearward portion leaves said conveyor.

2,778,692
LOG CONVEYING
Clifford Makinson, Rosemere, Quebec, Canada, assignor to Terry Machinery Company Limited, Montreal, Quebec, Canada, a corporation of Canada
Application April 14, 1955, Serial No. 501,377
7 Claims. (Cl. 302—14)



1. An apparatus for conveying logs from a basin to a terminus of elevation higher than the basin comprising in combination, an enclosed conduit leading to a terminus remote from said basin, a branch diagonally entering said conduit at a point shortly following said basin, a jet nozzle entering said branch, a pump connected to said jet nozzle for supplying water at a high pressure into said branch, a venturi throat in said conduit in advance of the branch whereby a stream of water is set up in the conduit by jet projection into said branch to draw logs from said basin into said conduit and convey them into a stream caused by the jet from the basin to the terminus.

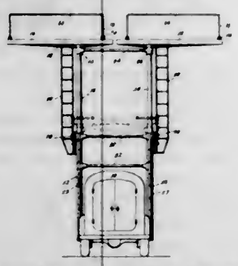
2,778,693
SECTIONAL SCAFFOLDING CONSTRUCTION
Zigmund J. Jagiel, Toledo, Ohio
Application April 10, 1953, Serial No. 348,071
2 Claims. (Cl. 304—2)



1. A sectional scaffolding structure including four upright corner posts each composed of sections superimposed on one another in end-to-end abutment, truss bar means integrally interconnecting adjacent lower post sections to form a first pair of opposite similar side frame members, sleeve members telescopically engaging over the upper ends of the post sections of the first pair of side frame members and supported on the truss bar means immediately therebeneath, said sleeve members extending for a spaced distance above the upper ends of said lower post sections, a second pair of similar side frame members similar to said first pair of side frame members above the first pair of side frame members, the lower ends of the post sections of the second pair of side frame members being telescopically received in said sleeve members and laterally retained and supported in superimposed abutment on the upper ends of the post sections of the first pair of side frame members, each of the sleeve members being provided with a longitudinally extending

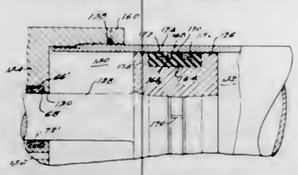
slotted opening extending upwardly for a spaced distance from the bottom of the sleeve member, the slotted opening in each of said sleeve members downwardly engaging over the truss bar means extending from the post section immediately therebeneath; whereby the sleeve members are vertically supported and retained against lateral twisting relative to said post sections, and tie bar means rigidly interconnecting the sleeve members on one side frame member of the first pair thereof with the sleeve members on the adjacent corresponding post sections of the other side frame member of the first-named pair.

2,778,694
MOBILE SWINGING LIFT PLATFORM EQUIPMENT
Maurice E. Mitchell, Muncie, Ind., assignor to Mitchell Maintenance Company, Inc., Muncie, Ind., a corporation of Indiana
Application August 15, 1952, Serial No. 304,588
2 Claims. (Cl. 304—29)



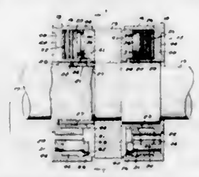
1. Platform apparatus, comprising a generally rectangular platform, a guardrail carried by L-shaped supports pivotally mounted at the extreme end of the horizontal leg thereof on the platform on a central longitudinal axis, said rail structure being movable about said axis between a storage position in which the vertical portions of said support depend past one side of the platform and an operative position in which the vertical portions upstand adjacent the opposite side of the platform.

2,778,695
SEALING STRUCTURE
Mark J. Sturtevant, St. Clair Shores, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application October 9, 1952, Serial No. 313,938
7 Claims. (Cl. 308—3.5)



1. Fluid sealing structure for the radially short space between opposed surfaces of first and second cylindrical members one within the other having telescoping diameters, the first of said members having a shallow annular groove and the second member having a cylindrical surface opposed to said groove, said sealing structure being receivable in said groove and comprising an endless, solid, rubber-like ring having a body portion of elongated cross sectional shape in contact with the bottom wall of said groove and having a thickened portion forming a peripherally extending centering nose of rounded cross-section, said nose being provided with a transverse notch therethrough, said ring being operatively assembled with the centering nose thereof in contact with the cylindrical surface of the second member, said nose being deformed by pressure exerted radially on the ring by said cylindrical surface, said pressure being greatest substantially midway between the axial ends of the area of contact of the centering nose with the cylindrical surface, said transverse notch providing for the free communication of fluid pressure between opposite sides of the centering nose, said ring further having a thickened end portion reversely bent on itself to provide an offset with an unsupported peripheral lip having a surface engageable with said cylindrical surface, said lip being deformed by pressure exerted thereon by said cylindrical member to define a predetermined area of sealing contact therewith in absence of substantial fluid pressure being communicated thereto past said centering nose, said seal being deformed additionally by such latter named pressure to increase the pressure of said lip surface against said cylindrical surface and to increase the area of sealing contact from that of said predetermined area.

2,778,696
THRUST BEARING STRUCTURE
Ralph D. Lease, Royal Oak, Mich.
Application January 12, 1955, Serial No. 481,402
8 Claims. (Cl. 308—160)

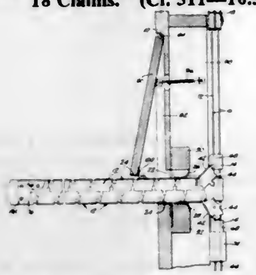


1. A thrust bearing comprising, an annular body adapted to be mounted around a shaft, means forming a circumferential array of cages on said body, said cages having generally rectangular shape, a plurality of spring elements having generally rectangular shape and fitting non-rotatably in said cages, said spring elements having generally flat plate-like form with means forming spaced apart generally straight parallel lands on one face, leveling plate means supported by said spring elements at locations intermediate said lands, and thrust shoe means for receiving thrust from a shaft around which said bearing is adapted to be mounted, said thrust shoe means being supported by said leveling plate means, whereby said spring elements deflect as beams responsive to thrust on said shoe means.

2,778,697
SELF-LOCKING CONNECTOR
Elmer R. Nuttall, Philadelphia, Pa., assignor to France Packing Company, Philadelphia, Pa., a corporation of Pennsylvania
Application November 3, 1955, Serial No. 544,736
5 Claims. (Cl. 309—43)

1. In means for connecting the ends of a length of open-wound coil spring to produce an annular spring assembly, a self-locking connector designed for threaded engagement with the ends of the coil and having opposite longitudinal edge portions provided with recesses spaced in accordance with the convolutions of the spring and relatively arranged to receive the latter, the said recesses forming a continuous series throughout one of the edges and an interrupted series at the opposite edge so as to provide at the latter edge an intermediate unrecessed portion forming a common abutment for both terminal ends of the coil, said abutment precluding angular movement of the connector in the coil about its longitudinal axis in either direction.

2,778,698
RETRACTABLE PLATFORM
John A. Gaylord, Pacific Palisades, Calif., assignor of one-half to Rocket Jet Engineering Corp., Glendale, Calif., a corporation of California
Application September 30, 1955, Serial No. 537,736
18 Claims. (Cl. 311—16.5)

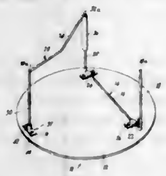


1. A retractable platform comprising: a layer of blocks pivotally connected to one another, a second layer of blocks pivotally connected to one another, and means for releasably interconnecting said layers to form a platform.

2,778,699
FOLDING TABLE FOR AUTOMOBILES
Elizabeth La Butte, Tecumseh, Ontario, Canada
Application April 4, 1955, Serial No. 499,165
3 Claims. (Cl. 311—21)

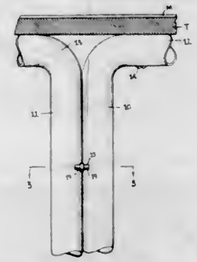
1. A fold-away table installed inside of a car, comprising a slotted table top, a bar running through said slot and attached to said car, and flange means for supporting said table top in a horizontal position.

2,778,700
COLLAPSIBLE LEG ASSEMBLIES FOR TABLE TOP
Nathan Mayer, Bronx, N. Y.
Application February 17, 1955, Serial No. 488,860
6 Claims. (Cl. 311—77)



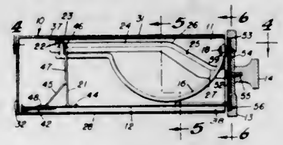
1. A furniture assembly comprising a top, and support means operatively connected to said top for movement from an extended position providing a pedestal support for said top to a collapsed position underlying and abutting said top, said support means including a first section having spaced legs and an interconnecting cross bar, means pivoted connecting said cross bar to the undersurface of said top whereby said legs may be swung to an extended position at substantially right angles to said top, a second section having a prop, and means pivotally connecting said second section to said first section whereby said prop may be swung to an extended position spaced from said legs and cooperating therewith to form a tripod support.

2,778,701
FRICTIONAL FASTENING METHOD AND DEVICE
Paul Fleischer, University Heights, Ohio, assignor to Fred Ornstein, Cleveland, Ohio
Application June 3, 1952, Serial No. 291,525
11 Claims. (Cl. 311—109)



4. Means for securing a pair of hollow structural members in substantially contiguous relationship, comprising two hollow structural members, each of said members having an aperture in the wall thereof, and a fastener element extending longitudinally through said apertures into each of said members, the longitudinal axis of said fastener element being disposed at an acute angle to the axis of each of said apertures sufficient to cause said element to be frictionally gripped by edge portions of each of said apertures.

2,778,702
CONTAINER HOLDER
Alton L. Franks, Lantana, Fla.
Application March 15, 1955, Serial No. 494,409
6 Claims. (Cl. 312—242)

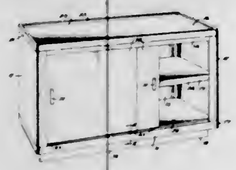


1. A container holder comprising an elongated casing, rectangular shaped in cross section, adapted to be positioned in an instrument panel of a motor vehicle, a tray slidably mounted in the casing, loops pivotally mounted on the tray, a partition having a slot with an inclined section therein in the casing and mounted on the longitudinal center thereof, said loops having right angularly disposed ends extended into the slot of the partition and positioned to follow the inclined section of the slot, for folding the loops to nested positions in the tray upon movement of the tray into the casing and for opening the loops to horizontally disposed positions upon outward movement of the tray in the casing.

2,778,703
COMBINATION DISPLAY TABLE AND CASE
Morris M. McBride, Arlington Heights, Ill., assignor to Eldon Company, Chicago, Ill., a partnership consisting of Morris M. McBride and Joseph F. Houdek
Application April 6, 1953, Serial No. 347,031
2 Claims. (Cl. 312—265)

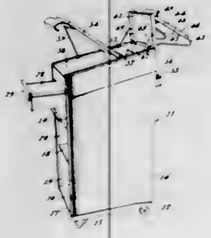
1. A display table and cabinet structure comprising a bottom panel, a front and a rear panel each being supported upon said bottom panel, said front and rear panels each being provided with a pair of lateral members ex-

tending inwardly from the vertical edges of said panels and formed integrally therewith, said members having curled inner edges defining vertically extending tubular connecting portions having longitudinally closed vertical passages therethrough, an elongated shaft extending through each of the vertical passages of said tubular connecting portions and being secured at its lower end to said bottom panel, a pair of end panels supported upon said bottom panel, each of said end panels having vertical cor-



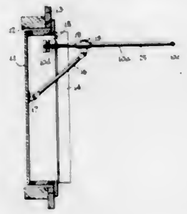
ner portions and providing lateral members extending inwardly from the said corner portions and disposed in contiguous relation with the lateral members of said front and rear panels, the lateral members of said end panels providing cylindrical hook portions slidably receiving said connecting portions therein, and a top panel supported upon said front, rear and end panels and secured to the upper ends of said shafts, whereby, all of said panels are interlocked to provide a rigid cabinet structure.

2,778,704
OPEN TOP CABINET WITH CARD HOLDER
William H. Joachim, Rockville Centre, N. Y.
Application November 16, 1953, Serial No. 392,280
1 Claim. (Cl. 312—309)



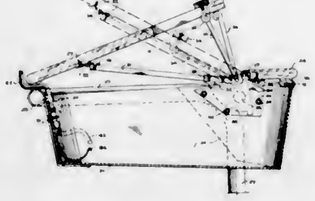
In a cabinet comprising a plurality of open top compartments, individually associated hinged cover members for said compartments, said cover members when in a closed position being in a common plane slightly inclined toward the front of said cabinet with the forward one of said cover members providing a smooth writing surface on the top thereof, the second one of said cover members being hinged at the back edge of said cabinet and having rigidly secured thereto on the upper surface thereof and extending upwardly therefrom with said cover member in a closed position a substantially flat card holder, said card holder with said second cover member in a closed position being inclined slightly toward the back of said cabinet, said card holder including means for holding flat cards at the inclined angle to present the same in a readily readable position from the front of said cabinet, means for limiting the open position of said second cover member to less than a vertical position with the weight of said card holder thereon biasing the same in its limited open position, said card holder with said second cover in an open position extending substantially beyond the back of said cabinet and presenting the card therein in an upwardly inclined position when viewed from the back of said cabinet.

2,778,705
CLOTHES RACK OR DRYER
Frederick W. Barker, Pound Ridge, N. Y.
Application April 28, 1954, Serial No. 426,202
4 Claims. (Cl. 312—313)



1. A clothes rack or dryer comprising a cabinet; an I frame in the cabinet and having one end pivotally connected to the cabinet whereby said frame can be swung outwardly to project from the cabinet; a rigid supporting bar having one end pivotally connected to the cabinet and the other end connected to a slide slidable on the stem of the I; releasable means locking the slide to the stem when the frame is in projecting position; and clothes-supporting means connected to and extending between the ends of the I frame.

2,778,706
ADJUSTABLE DESK TOP
William B. MacWhirter, East Grand Rapids, Mich.
Application February 27, 1953, Serial No. 339,348
2 Claims. (Cl. 312—316)

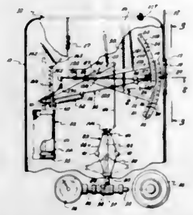


1. In combination, a storage box formed of a bottom wall, front and rear walls and opposite sidewalls; housing plate attached to each of said side walls; hinge plate pivotally attached to housing plate, allowing hinge plate to swing between housing plate and sidewall; hinge plates transversely connected by hinge member to provide unison movement of hinge plates; hinge member swingably attached to desk top along rear upper edge of said member, intermediate front and rear edge and on bottom of desk top; desk top supported along side edges by leg extensions of torque member pivotably attached to hinge plates; leg extensions having attachment means to desk top whereby said desk top may be held in selected, rearwardly, downwardly inclined, elevated positions with respect to said storage box; means for limiting travel of hinge member about hinge plate pivots; means for limiting travel of desk top about swinging attachment to hinge member.

2,778,707
MAXIMUM SPEED INDICATING DEVICES
Joseph H. Webster, Medford, Oreg.
Application August 31, 1953, Serial No. 377,387
11 Claims. (Cl. 346—18)

1. Apparatus for use in a motor vehicle comprising means responsive to changes in speed of the vehicle, an

element movable by said speed responsive means in accordance with said speed changes, holding means operable to retain said element in a position representing the maximum speed at which the vehicle has been traveling even after a reduction in speed to a lower value, and means in addition to said holding means then operable after a delay period following said reduction in speed but while the vehicle is still moving to release said holding

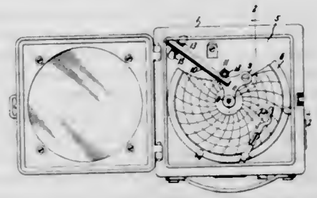


means and permit return of said element to a condition representing the actual reduced speed of the vehicle, said holding means being constructed to positively retain said element in said maximum speed position for a substantial period of time without permitting any return of said element toward said reduced speed condition, and to then allow relatively rapid return of said element in said direction when released by said additional means.

2,778,708
ELECTRICAL RECORDING APPARATUS
Anthony H. Lamb, Hillside, and Earl F. Adams, Union, N. J., assignors to Weston Electrical Instrument Corporation, Newark, N. J., a corporation of New Jersey
Application June 29, 1953, Serial No. 364,876
2 Claims. (Cl. 346—74)

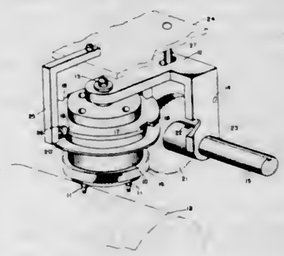
1. Recording apparatus comprising means producing a voltage that varies in correspondence with changes in a variable condition; a sensitive relay having a movable coil motionally responsive to the said voltage, said movable coil carrying a movable contact adapted to engage a cooperating fixed contact when the said voltage exceeds a predetermined value; a power relay having an operating coil and a pair of normally-open contacts; a motor; a voltage source; circuit elements connecting the operating coil of the power relay across the said voltage source upon closure of the sensitive relay contacts; circuit elements connecting the motor across said voltage source upon closure of the contacts of the power relay; reset means to separate the movable contact of the sensitive relay from the cooperating fixed contact; means momentarily actuating the said reset means when the motor is energized; means maintaining the circuit from the motor to the voltage source closed during the period when said reset means is actuated to reset the sensitive relay contacts; normally stationary chart paper; means moving the chart paper during periods when the said motor is energized; a stylus normally spaced from a surface of the chart paper; and means bringing the stylus into contact with the chart paper during periods when the operating coil of the power relay is energized.

2,778,709
RECORDER
Roger E. Lewis, Elizabeth, N. J., assignor to Weston Electrical Instrument Corp., Newark, N. J., a corporation of New Jersey
Application October 26, 1953, Serial No. 388,085
3 Claims. (Cl. 346—121)



1. An improved arrangement for removably securing to a recorder of the class comprising a housing, a mechanical clock mechanism for rotating a shaft having a threaded end adjacent a hub and a winding stem for said mechanism having an end portion noncircular in section, and a hub nut for threading upon said shaft to clamp a circular chart to said hub, a stem-including winding key with a socket for non-rotatably receiving the end portion of said stem, said improved arrangement comprising a clip secured in fixed position at a point spaced from the edge of the chart and adapted to receive the stem of the winding key, and means rotatably securing the hub nut to the winding key, the arrangement being such that the stem of the winding key is receivable by the clip when the hub nut is threaded upon said shaft.

2,778,710
TURRET TYPE MULTI-PEN RECORDING MECHANISM
John Komas, Binghamton, N. Y., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
Application February 17, 1955, Serial No. 488,741
4 Claims. (Cl. 346—139)



1. In a recorder having a record sheet support and a carriage movable across said support, marking means movable with said carriage for tracing a record graph on a sheet placed on said support, said marking means comprising a cylindrical turret having a plurality of pens mounted at the underside thereof, means for supporting said turret for vertical and rotational movement, a cam flange on said turret having a plurality of slots coinciding with the number of pens and positioned above said pens, a locking roller carried by the carriage and adapted to enter one of the slots to prevent rotation of the turret, and means for raising the turret to disengage the locking roller from its slot and rotate the turret until the locking roller enters a second slot to prevent further rotation of the turret.

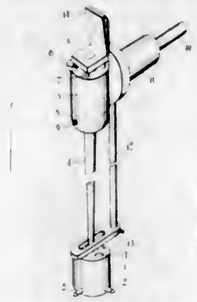
2,778,711

PEN MECHANISMS

John E. Fielden, Wythenshawe, Manchester, England, assignor, by mesne assignments, to Robertshaw-Fulton Controls Company, Greensburg, Pa.

Application April 13, 1953, Serial No. 348,228
Claims priority, application Great Britain April 21, 1952
6 Claims. (Cl. 346—139)

1. A marking device for a recording instrument comprising a rotatable hollow member, a spindle mounted for slidable movement in said rotatable member, bearing means carried by said spindle for movement laterally of said rotatable member, a shaft journaled at one end in said bearing means and extending normal to said spindle, a plurality of spaced marking means on the other end of said shaft, means for connecting said rotatable member to said shaft for imparting pivotal movement thereto upon rotation of said rotatable member, and means for connecting said shaft to said rotatable member for imparting axial rotation to said shaft upon said lateral movement of said bearing means.



CHEMICAL

2,778,712

DIGESTION OF PHOSPHATE ROCK

Paul Caldwell, Evergreen Park, Ill., assignor to Cannac Research and Development Company, a joint venture

No Drawing. Application July 2, 1954, Serial No. 441,150
8 Claims. (Cl. 23—109)

1. In the production of tricalcium phosphate in the form of a precipitate obtained by ammoniation of an acidic aqueous medium resulting from the nitric acid digestion of fluorine-containing phosphate rock, said aqueous medium which is subjected to ammoniation containing the acid-solubilized calcium and phosphrous components of the rock in proportions such that the calcium component is present in amount substantially sufficient to combine with the phosphorus component in the form of tricalcium phosphate, the improvement which comprises imparting to the thus-precipitated tricalcium phosphate product an increased resistance to reversion to a citrate-insoluble phosphatic product during subsequent drying by adding to said calcium-containing aqueous medium prior to ammoniation an amount of potassium chloride sufficient not only to provide a stoichiometric equivalent for the acid-soluble fluorine component of the rock in the form of potassium fluosilicate but to further provide from about one-third mol to about one and one-half mols of potassium chloride per mol of calcium nitrate in said aqueous medium.

2,778,713

HYDROTHERMAL TREATMENT OF AN AGGLOMERATE OF SYNTHETIC MICA CRYSTALS

Tokiti Noda, Los Angeles, Calif.

No Drawing. Application December 23, 1953, Serial No. 400,089
12 Claims. (Cl. 23—110)

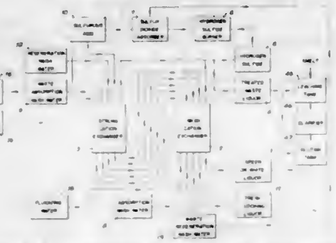
1. The method of treating an agglomerate of synthetic mica crystals and deleterious binding material prior to separating individual crystals therefrom which comprises superheating above about 100 degrees C. a mass of such an agglomerate of synthetic mica crystals in an aqueous solution in the presence of a soluble fluoride composition as a hydrolysis suppressor to render the mass amenable to separation into individual crystals and substantially remove the deleterious binding material from the crystals.

2,778,714

METHOD FOR RECOVERING BASE IONS FROM WASTE SULFITE LIQUOR AND PRODUCING SULFITE COOKING LIQUOR

Andrew A. Kasper, Watertown, and William E. Katz, Boston, Mass., assignors to Ionics Incorporated, Cambridge, Mass, a corporation of Massachusetts

Application April 26, 1952, Serial No. 284,604
4 Claims. (Cl. 23—129)



1. A method of recovering valuable constituents from waste liquor from a pulping operation and producing fresh cooking liquor which comprises passing water upwardly through at least one substantially vertically disposed bed of synthetic organic cation exchange resin which is at least partially in the hydrogen form disposed on a pervious support, substantially to fill the void spaces in said bed with water and to provide a layer of water within and below said pervious support, passing an aqueous alkaline solution having sodium and sulfide constituents derived from the smelting of said waste liquor upwardly into said layer of water and through said bed of cation exchange resin whereupon at least a portion of the exchangeable hydrogen of said cation exchange resin is replaced with sodium and gaseous hydrogen sulfide is evolved, maintaining the flow of said aqueous alkaline solution at a fluidizing velocity for said bed, and subsequently passing an aqueous solution of available sulfurous acid through said bed of cation exchange resin and collecting the effluent from the later.

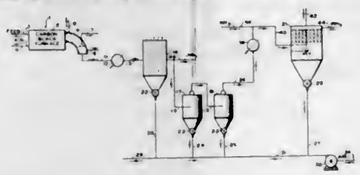
2,778,715

CARBON BLACK COLLECTING SYSTEM EMPLOYING ORLON BAG FILTERS

Oliver K. Austin, Borger, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware

Application November 13, 1953, Serial No. 391,934
20 Claims. (Cl. 23—209.9)

1. In a process for recovering carbon black from a hot gaseous effluent from a carbon black furnace wherein said effluent is passed through a plurality of cooling and carbon black separating zones, and the carbon black so separated is recovered, the improvement which comprises injecting into said effluent a member selected from the group consisting of aliphatic amines having boiling points below 250° F., piperidine and ammonia.

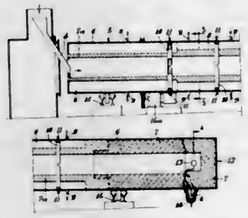


2,778,716

ROTARY FURNACE

Glen D. Bagley, Lewiston, N. Y., assignor to Union Carbide and Carbon Corporation, a corporation of New York

Application October 1, 1952, Serial No. 312,629
5 Claims. (Cl. 23—279)



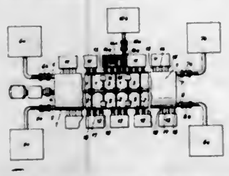
1. An axially-inclined rotary furnace comprising a rotating low temperature section and a stationary high temperature head section axially aligned therewith and connected thereto so as to form a gas-tight seal; said low temperature section having air inlet means directly communicating between the interior and exterior thereof, and means for introducing unreacted mix into said furnace in the low temperature section; said stationary head section having electrode means passing through to the interior thereof and so positioned as to provide at least one arcing zone at the interior of said section; and discharge means positioned in said stationary section for removing the reacted product from said rotary furnace.

2,778,717

PROCESS AND APPARATUS FOR THE SEPARATION OF MIXTURES OF SUBSTANCES BY CONTINUOUS COUNTERCURRENT DISTRIBUTION IN SOLVENTS

Peter Decker, Munich, Germany

Application November 20, 1951, Serial No. 257,388
Claims priority, application Germany November 21, 1950
5 Claims. (Cl. 23—310)



1. Process for the separation of mixtures of substances by continuous counter-current distribution in solvents, in which two solvents with different specific gravities, which are insoluble or only partly soluble with one another are conducted in contact past one another horizontally in counter-current flow and the mixture of substances to be separated is fed at a position situated between the iniet and discharge positions of the solvents, which comprises passing the solvent of lesser specific gravity horizontally along the upper part of said apparatus in one direction and passing the solvent of greater specific gravity horizontally along the lower part of said apparatus in the opposite direction, flowing said solvents through a plurality of closely adjacent mixing spaces, agitating said solvents along the whole contact surface of said solvents, said solvents flowing from one mixing space to the next adjacent mixing space through upper and lower separating zones outside of and separate from said mixing spaces, removing said solvents from the top of said one mixing space, introducing said removed solvents into an upper separating zone, whereby the lighter solvent is separated from droplets of the heavier solvent, feeding back the heavier solvent into said one mixing space and passing the lighter solvent into the adjacent mixing space, simultaneously removing said solvents from the bottom of said one mixing space, introducing said bottom removed solvents into a lower separating zone, whereby the heavier solvent is separated from droplets of the lighter solvent, feeding back the lighter solvent from said lower separating zone into said one mixing space, and passing the heavier solvent from said lower separating zone into the adjacent mixing space.

2,778,718

COMMINUTED COAL FINES AND METHOD OF COMMINUTING AGGLOMERATED COAL FINES

Waldemar Hartmann, Mountain Lakes, N. J.

No Drawing. Application July 7, 1955, Serial No. 520,631
7 Claims. (Cl. 44—16)

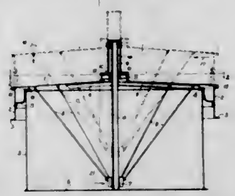
1. A process of producing non-adherent disintegrated coal fines from coal silt containing adherent —200 mesh particles, which comprises treating an agglomerated compact adhesive coal silt containing a substantial proportion of —200 mesh particles and from 10% to 30% of water by weight of the silt, incorporating with said silt a composition selected from the group consisting of spent sulfite liquor and the powdered solid form of sulfite liquor, said composition containing solids of spent sulfite liquor in a proportion of about .1% to 3% by weight of the silt, and mixing the composition and the coal silt into a mixture containing less than 30% of water by weight of the silt and until the coal silt is breakable by mechanical action.

2,778,719

BALANCING OR STABILIZING MECHANISM FOR VERTICALLY MOVABLE TANK ROOFS

John H. Wiggins, Chicago, Ill.

Application June 12, 1952, Serial No. 293,071
4 Claims. (Cl. 48—176)



1. In a tank having its upper end closed by a disc-like roof that is vertically movable with respect to the tank in order to vary the internal volume of the tank beneath the roof, the combination comprising, an upstanding substantially rigid vertical guide post fixed at its lower end at the center of the tank and having its

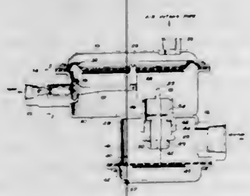
upper end portion extending through an opening in the center of the roof, roller means for guiding said roof upon said post for articulate tilting movements with respect thereto and also for guided vertical movements along said post, said roller means being so constructed and arranged as freely to accommodate tilting movement of said roof with respect to said post and with respect to the horizontal when an unbalancing off-center load is applied to said roof, an upwardly extending housing hermetically covering said opening in said roof and containing said roller means, said upper portion of said post extending upwardly into said housing, and an annular balancing weight for said roof encompassing said post and arranged for guided vertical sliding movements thereon, said annular balancing weight being of substantial mass and being suspended beneath said roof solely from the peripheral portion thereof by a plurality of substantially equally spaced flexible suspension members having their respective upper ends secured to said peripheral portion of said roof at circumferentially spaced locations thereon and having their lower ends secured to said weight, the mass of said balancing weight tending to maintain said roof in a horizontal attitude and causing said roof to return to said horizontal attitude when an unbalancing off-center load is removed from said roof.

2,778,720

GAS CARBURETOR SYSTEM

Theodore A. St. Clair, Cleveland, Ohio, and Owen L. Garretson, Roswell, N. Mex., assignors to The Weatherhead Company, Cleveland, Ohio, a corporation of Ohio

Application May 25, 1951, Serial No. 228,314
2 Claims. (Cl. 48—184)



2. A fuel system for a combustion engine having an air intake conduit provided with a flow restriction and a venturi downstream from said flow restriction, a source of fuel under pressure, a regulating system connecting said source to the throat of said venturi, said regulating system including a differential pressure regulator having a regulating chamber adapted to control the flow of fuel from said source, said regulator being referenced to said intake conduit between said restriction and said venturi, a cutoff regulator having a chamber, means connecting the first-named regulator directly to said cutoff regulator, said means having a passageway connecting said regulating chamber with said cutoff chamber, a valve seat in said passageway, a cutoff valve having a stem and a soft resilient disc, one face of said disc adapted to engage said valve seat to isolate said regulating chamber from said cutoff chamber, said one face of said disc being exposed to the pressure in said venturi, the opposite face of said disc being exposed by means of said passageway to the pressure in said regulating chamber, a cutoff diaphragm connected to said cutoff valve, said diaphragm having one side exposed to the pressure in said venturi and its opposite side open to atmosphere, said diaphragm having an effective area exceeding the area of said disc, said cutoff valve being biased toward closed position whereby a predetermined pressure drop in said venturi produced by cranking the engine moves the cutoff valve to open position permitting fuel to flow to said venturi under the control of said regulator.

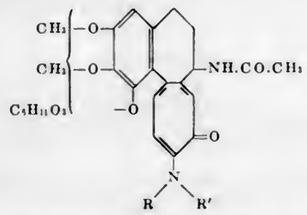
2,778,721

COLCHICOSAMIDES, METHOD OF MAKING, AND COMPOSITIONS CONTAINING SAME

Paul Bellet, Paris, France, assignor to UCLAF, a corporation of France

No Drawing. Application December 18, 1953, Serial No. 399,180
Claims priority, application France February 25, 1953
17 Claims. (Cl. 71—2.5)

15. An antimitotic composition for agricultural, and industrial use, comprising not less than 0.1 percent of a colchicosamide of the formula



wherein R indicates a substituent selected from the group consisting of hydrogen, an alkyl, hydroxy alkyl, and aralkyl radical, and R′ indicates a substituent selected from the group consisting of hydrogen, an alkyl, hydroxy alkyl, aralkyl radical, an amino group, and an arylamino group, and R and R′, together with the nitrogen atom, forming a heterocyclic nucleus, and a significant amount of a carrier substance compatible with said colchicosamide.

2,778,722

DEFLUORINATION OF PHOSPHATE ROCK

Clinton A. Hollingsworth, Lakeland, Fla., assignor to Smith-Douglass Company, Incorporated, Norfolk, Va., a corporation of Virginia

No Drawing. Application January 19, 1954, Serial No. 405,023
3 Claims. (Cl. 71—44)

1. The method of defluorinating by calcination phosphate rock containing fluorapatite, which comprises loosening the fluorapatite lattice prior to calcination by treating the phosphate rock with an aqueous solution of hydrochloric acid in amount of from 10 to 30% by weight of HCl based on the combined weight of rock and HCl, subjecting the treated rock to a drying operation at a temperature within the range of 200 to 800° F. in the course of which more than half of the hydrochloric acid admixed with the rock is volatilized, and calcining the dried rock without substantial fusion at a temperature of at least 2400° F. in the presence of water vapor and thereby producing a tricalcium phosphate product containing less than one part of fluorine for each 100 parts of phosphorus.

2,778,723

METHOD FOR ELIMINATING THE EXPLOSIVE REACTION IN A THERMIT PROCESS

Osamu Ujike and Natsuo Sato, Tokyo, Japan, assignors to Toshio Yoshida

No Drawing. Application January 30, 1953, Serial No. 334,348
1 Claim. (Cl. 75—27)

In a thermit process wherein powdered magnesium is used as a deoxidation agent of a metal oxide without explosive reaction, the improvement which consists of first adding and mixing approximately one and one-third portions by weight of sodium chloride to the required quantity of powdered magnesium and then igniting the mixture.

2,778,724

PROCESS FOR PRODUCTION OF METALLIC IRON CONCENTRATES AND TITANIUM DIOXIDE CONCENTRATES FROM ORES CONTAINING ILMENITE

Olav Moklebust, Hauge i Dalane, Norway, assignor to National Lead Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application December 31, 1953, Serial No. 401,712
Claims priority, application Norway February 9, 1953
9 Claims. (Cl. 75—30)

1. Process for producing a metallic iron concentrate and a titanium dioxide concentrate from ilmenite containing material which comprises forming an admixture of said ilmenite containing material and at least one compound of sodium, reducing said admixture at a temperature of from about 1100° C. to about 1200° C. in the presence of a solid carbonaceous reducing agent, whereby the ilmenite containing material is reduced without sintering or melting, cooling the reduced product, removing excess reducing agent, gangue, and ashes, grinding the reduced ilmenite containing material to fine particle size and separating same into an iron concentrate and a titanium dioxide concentrate the sodium compound being added in an amount so that the proportion TiO_2/Na_2O is between 25 and 35 in said titanium dioxide concentrate.

2,778,725

METHOD FOR MAKING POWDERED VANADIUM METAL

Charles M. Brown, Lewiston, N. Y., assignor to Union Carbide and Carbon Corporation, a corporation of New York

No Drawing. Application July 18, 1952, Serial No. 299,759
8 Claims. (Cl. 75—84)

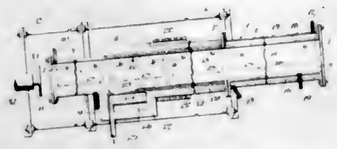
5. A process for producing from massive vanadium an ingot of vanadium metal amenable to cold-rolling which comprises making a lump of massive vanadium metal the cathode in an acid electrolye selected from the group consisting of dilute sulphuric, dilute hydrochloric, and dilute phosphoric acids, and passing current through the electrolyte, until the hydrogen content of said vanadium is increased by electrolysis to between 0.01 and 0.50% hydrogen, whereby the vanadium is made brittle, removing the embrittled massive vanadium from said electrolyte, crushing said embrittled massive vanadium, melting the crushed vanadium to the molten state in an inert atmosphere, whereby the added hydrogen is driven off, and casting an ingot from the molten vanadium metal.

2,778,726

PURIFICATION OF REFRACTORY METALS

Charles H. Winter, Jr., Wilmington, Del., and John N. Tully, New Providence, N. J., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

Application April 29, 1952, Serial No. 284,866
6 Claims. (Cl. 75—84.5)



1. A process for removing a by-product salt contaminant from a solid refractory metal reaction product recovered from the reduction of a metal halide with a reducing metal, comprising charging said reaction product upwardly and in intermittent stages through a closed, elongated treating conduit inclined at an angle from the horizontal and from an inlet to a discharge outlet of said conduit, during its passage through said conduit heating said reaction product, under substantially atmospheric pressure, to a temperature above the melting point of said salt contaminant but below the melting point of the metal component present in said reaction product, removing said by-product from said reaction product and the system during said heating and while said product is being successively passed through melting, draining and vaporization zones maintained in said conduit, maintaining a counterflow of an inert gas over the reaction product during its treatment in said vaporization zone and flowing said gas from said vaporization zone into and through said melting and draining zones, and prior to discharge of the resulting purified metal product from said conduit cooling it to a non-reactive temperature.

2,778,727

METHOD OF CONCENTRATING METAL VALUES FROM SULFUR SOLUTIONS

Felix Alfred Schaufelberger, Stamford, Conn., assignor to Chemical Construction Corporation, a corporation of Delaware

No Drawing. Application August 16, 1954, Serial No. 450,278
5 Claims. (Cl. 75—108)

1. A method for treating a sulfur dioxide-saturated leach liquor, containing as soluble compounds thereof at least one diluent metal selected from the group consisting of iron, manganese and magnesium, and not more than 15 weight percent combined weight in metal values selected from the group consisting of nickel, cobalt and copper, to selectively concentrate said metal values, which comprises the steps of treating said leach liquor with a reducing gas under a positive overpressure at a temperature of from about 120° C. to about 250° C., whereby metal values are precipitated as insoluble sulfur compounds thereof, maintaining said temperature and pressure conditions until precipitation of metal values substantially ceases and separating resultant solids and liquid.

2,778,728

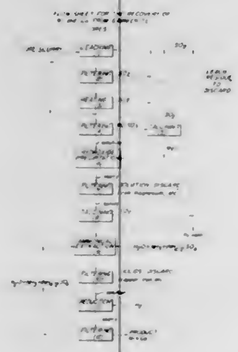
HYDROMETALLURGICAL SEPARATION OF NICKEL AND COBALT

Tuhin K. Roy, Elizabeth, and Harry G. Bocckino, Iselin, N. J., assignors to Chemical Construction Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application June 18, 1954, Serial No. 437,888
13 Claims. (Cl. 75—119)

1. In a hydrometallurgical process for the separation of elemental cobalt from solutions containing dissolved cobalt and nickel, wherein a solution containing cobalt and nickel salts is treated with a non-sulfidizing reducing gas at temperatures above about 250° F., until precipitation of elemental nickel substantially ceases at a hydrogen ion concentration above that equivalent to about that of an aqueous 0.1% free sulfuric acid solution, so-precipitated nickel is removed and residual solution is treated to precipitate cobalt; the improved method of producing elemental cobalt containing not more than 0.75% nickel which comprises the steps of; adding prior to the cobalt precipitation step, sufficient soluble-salt-forming acid-neutralizing agent to the liquor to produce a pH in the range of about 3–5; continuing said treating step at said pH range until the nickel:cobalt mol ratio in solution is less than about 1:133; stopping the addition of neutraliz-

ing agent; separating so-precipitated nickel metal from resulting liquor and recovering cobalt from resultant substantially-nickel free liquor.

2,778,729
RECOVERY OF NICKEL AND COBALT VALUES FROM GARNIERITE ORES
Felix A. Schaufelberger, Stamford, Conn., assignor to Chemical Construction Corporation, New York, N. Y., a corporation of Delaware
Application August 16, 1954, Serial No. 450,274
7 Claims. (Cl. 75—119)

6. In a process of treating an aqueous slurry of unreduced and unroasted garnierite ore with sulphur dioxide gas and separating values in nickel and cobalt from diluent magnesium and iron in solution, the improvement which comprises: supplying said slurry with sulphur dioxide gas in sufficient amount to produce a positive overpressure while maintaining a temperature of from about 30° C. to about 200° C.; maintaining said temperature and pressure until non-ferrous metal extraction substantially ceases; separating residual solids from resultant leach liquor, whereby a solution is obtained comprising dissolved sulphur-containing salts of nickel, magnesium, iron and salts of cobalt when the ore contains cobalt; treating said solution to a temperature of from about 70° C. to about 100° C. for sufficient time to effect precipitation of magnesium as a sulphite salt in excess of 10–12 grams of magnesium per liter; collecting magnesium-bearing precipitate; calcining said precipitate to produce magnesium oxide and sulphur dioxide; collecting said magnesium oxide and treating said solution of reduced magnesium content with collected magnesium oxide to precipitate insoluble oxide compounds of nickel and cobalt.

2,778,730
PLUTONIUM ALLOY AND METHOD OF SEPARATING IT FROM URANIUM
Frank H. Spedding and Thomas A. Butler, Ames, Iowa, assignors to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application September 29, 1944, Serial No. 556,498
15 Claims. (Cl. 75—122.7)

1. The method of recovering plutonium contained in a large quantity of uranium which comprises melting with the uranium from 2 to 5 percent of tin, cooling the mass, converting the free uranium in the resultant mass to uranium hydride, and separating the hydride from the plutonium-tin phase.

15. A uranium-tin-plutonium alloy containing about 78% by weight of uranium, about 20% of tin, and plutonium.

2,778,731
CORROSION-RESISTANT AUSTENITIC STEEL NOT REQUIRING NICKEL
Dennis J. Carney, Chicago, Ill., assignor to United States Steel Corporation, a corporation of New Jersey
No Drawing. Application November 19, 1953, Serial No. 393,219
2 Claims. (Cl. 75—126)

1. Alloy steel consisting of from .06 to .15% carbon, from 14 to 20% manganese, from 17 to 18.5% chromium, from .05 to 1.00% nickel, from .25 to 1.0% silicon, from .25 to 1.0% nitrogen and the balance iron except for residual impurities usually present in such steel, the ratio of nitrogen to chromium being between .015 and .035, said steel exhibiting good corrosion resistance, good rolling and forging qualities and being highly austenitic.

2,778,732
BORON-CONTAINING FERROSILICON
Robert A. Aeberly, Elmhurst, Ill., and Ralph A. Clark, Berkley, Mich., assignors to Union Carbide and Carbon Corporation, a corporation of New York
No Drawing. Application October 12, 1954, Serial No. 461,924
9 Claims. (Cl. 75—130)

1. The process of producing malleable iron, which comprises adding to a cupola charge of iron, silicon and manganese, containing carbon and incidental impurities, an alloy consisting of silicon in the range between 15 percent and 90 percent, between 0.01 percent and 0.20 percent boron, the remander iron; said boron thus introduced comprising between 0.0005 percent and 0.003 percent of said charge, forming a cast iron article and annealing said article at the annealing temperature to substantially convert and precipitate in the form of temper carbon the carbon present in said cupola iron.

6. An alloy which in its normal use is to be added to a cupola charge of iron, silicon, carbon and manganese in the production of malleable iron, which alloy consists of between 15 percent and 90 percent silicon, 0.01 percent to 0.20 percent boron, the remainder iron.

2,778,733
APPARATUS FOR THE MANUFACTURE OF UREA, FORMED OF ALUMINUM BRONZE
Jean Leon Maurice Frejacques, Paris, France, assignor to Pechiney, Compagnie de Produits Chimiques et Electrometallurgiques, Paris, France, a corporation of France
No Drawing. Application December 7, 1953, Serial No. 396,729
Claims priority, application France December 13, 1952
4 Claims. (Cl. 75—161)

1. Apparatus for use in the synthesis of urea from ammonia and carbon dioxide, characterized in that the parts of the apparatus in contact with the hot reaction medium are formed of aluminum bronze, containing

	Percent
Aluminum	8 to 10
Manganese	0.2 to 1
Iron	0.02 to 0.4
Constituents other than copper less than	0.3

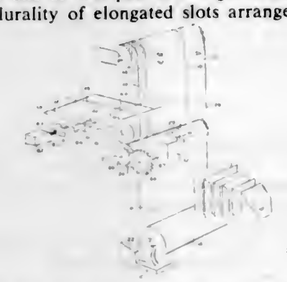
Balance copper;

the ratio of iron to manganese being less than 0.5.

2,778,734
PHOTOGRAPHIC APPARATUS AND PHOTOGRAPHIC PRODUCT USABLE THEREWITH
Murry N. Fairbank, Belmont, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
Application November 3, 1951, Serial No. 254,677
8 Claims. (Cl. 96—29)

6. A photographic product comprising a base having a pair of opposed elongated edges, a coating on one side

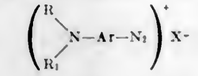
of said base capable of receiving a photographic image, said base and said coating being practically electrically nonconducting, said base and said coating being provided with a plurality of rows, each row of said plurality being adjacent to one of said pair of elongated edges and providing a plurality of elongated slots arranged in end-to-



end relation and separated from each other by sections of said base, the added lengths of said slots constituting the major proportion of the length of said row, said rows being at different distances from the edges of said base to which they are respectively adjacent, and at least a water-permeable mask covering only the portions of said base provided with said plurality of rows.

2,778,735
PHOTO-SENSITIVE COATED PAPER PLATE FOR PHOTO-LITHOGRAPHY
Frederic E. Brinnick, Westbrook, Towers Doggett, Windham, and Raymond L. Oransky, Portland, Maine, assignors to S. D. Warren Company, Boston, Mass., a corporation of Massachusetts
Application October 1, 1953, Serial No. 383,696
5 Claims. (Cl. 96—75)

1. A photo-sensitive coated paper product capable of being transformed by actinic light into a planograph printing plate comprising a paper base having a calendered coating layer thereon, said coating consisting essentially of an insolubilized carboxymethylhydroxyethyl cellulose adhesive in which the ratio of carboxymethyl groups to hydroxyethyl groups is within the range from 0.3 to 1 and in which the degree of substitution of anhydroglucose units is greater than 0.8 and a greater quantity of a non-hydrous pigment of the group consisting of blanc fixe and titanium dioxide and a photo-sensitive layer over said coating, said layer comprising a photo-sensitizer taken from the group consisting of (1) diazonium salts corresponding to the formula



wherein

R stands for a member of the group consisting of aryl groups and aryl groups substituted by a member selected from the group consisting of alkyl, alkoxy and carboxyl groups and halogens,

R_1 stands for a member of the group consisting of hydrogen and alkyl,

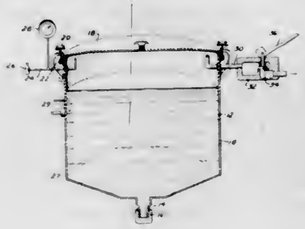
N stands for nitrogen,

Ar stands for an aromatic residue selected from the group consisting of phenylene and phenylene substituted by a member of the group consisting of alkyl, alkoxy, aroxy, arylsulfamido, and halogen, and

X stands for the equivalent of an anion of an acid

(2) the condensates of (1) with aldehydes, (3) sulfonates obtained by reaction of a sulfite upon (1), and (4) sulfonates obtained by reaction of a sulfite upon (2).

2,778,736
METHOD OF DEEP FAT COOKING FOODS UNDER PRESSURE
Chester Wagner, Eaton, Ohio
Application April 9, 1954, Serial No. 422,148
3 Claims. (Cl. 99—1)



1. An improved method of deep fat cooking foods under pressure in a minimum of time which consists of the steps of establishing a bath of hot oil, said bath of oil being heated to about 310° to 325° F., introducing the food to be cooked into said hot bath of oil and allowing it to cook for a time sufficient to brown the food, and thereafter enclosing the same and continuing the cooking while simultaneously maintaining the food in said bath of hot oil and cooking the same under a pressure of up to about 15 pounds per square inch and while thus immersed in said hot oil for a period of time to cook the food.

2,778,737
PROCESS AND METHOD OF MAKING SPARKLING BEVERAGE JELLY
Fred B. Du Bridge, San Jose, Calif.
No Drawing. Application August 2, 1954, Serial No. 447,398
2 Claims. (Cl. 99—129)

1. The method of making sparkling beverage type jelly which comprises degasifying a sparkling type beverage, admixing the latter with pectins and sugars, subjecting the mixture to heat sufficient to assure jelling thereof, allowing the heat treated mixture to cool to a condition of sufficient viscosity to prevent the rapid rise of gas bubbles therein, filling transparent containers with the thus cooled mixture, introducing discrete gas bubbles throughout the mixture in the container, and setting the jelly with the discrete bubbles distributed therein.

2,778,738
PEPPER
Harold J. Fagen, Highland Park, Ill., assignor to Kraft Foods Company, Chicago, Ill., a corporation of Delaware
No Drawing. Application August 31, 1954, Serial No. 453,429
5 Claims. (Cl. 99—140)

1. A process for manufacturing a pepper solution which comprises the steps of preparing an oleoresin of pepper, the oleoresin including a solid phase and a liquid phase, mixing propylene glycol with said oleoresin, heating said mixture to a temperature above about 150° F. for a time sufficient to solubilize the solid phase, and reducing the temperature.

2,778,739
PACKAGE FOR BEVERAGE INFUSION MATERIAL
Joseph J. Rodth, Swansea, Mass., assignor, by mesne assignments, to Sealpak Corporation, a corporation of New York
Application July 16, 1954, Serial No. 443,789
5 Claims. (Cl. 99—171)

4. A hermetically sealed package of liquid soluble food material to be extracted by infusion comprising a gen-

erally cup-shaped body having an annular flange at the upper edge of the side wall thereof, a closure for said body extending across the opening of said cup and engaging the said flange and welded thereto, a metal disk within said cup engaging the bottom wall of said cup and

having an apertured central raised portion extending into engagement with said closure, said disk being apertured adjacent said central portion for the passage of the effusion solution from said package, beverage infusion material in said cup and about said central raised portion.

2,778,740
EMULSION PAINT
Ralph Sterling Armstrong, East Chicago, Ind., assignor to The Sherwin-Williams Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application December 14, 1953, Serial No. 398,228
18 Claims. (Cl. 106—170)

1. An emulsion coating composition characterized by its capacity to tolerate calcium sulfate ions without emulsion break-down upon application consisting of a continuous aqueous phase, a discontinuous oil phase and a pigmentary solid phase; said aqueous phase consisting essentially of a fluid colloidal solution of water soluble cellulose derivatives characterized by their aqueous gel forming quality at low solids concentrations and at least one salt-free organic nonionic detergent of molecular weight above 550 containing a plurality of oxyalkylene units of not more than 3 carbon atoms each and a hydrophobic organic group containing at least 8 carbon atoms wherein said oil phase consists essentially of a non-volatile oleoresinous varnish vehicle of low acid value and said pigmentary phase comprises calcium sulfate containing pigment.

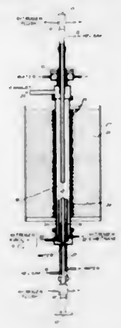
2,778,741
ELIMINATION OF HAZE FROM FINISHES
Ira Weber, Long Island City, N. Y., assignor to Interchemical Corporation, New York, N. Y., a corporation of Ohio
No Drawing. Application March 2, 1953, Serial No. 339,943
3 Claims. (Cl. 106—193)

1. The method of producing a transparent colored film of organic film forming material free of haze, and containing a fluorescent dyestuff which would normally produce haze in the film, which consists in adding to the composition used for producing the film, a small amount of a colored heavy metal salt soluble in the film forming composition and selected from the group consisting of salts of iron, cobalt, nickel and copper.

2,778,742
METHOD OF IMPREGNATING A POROUS FERROUS PART WITH COPPER
Paul J. Shipe, Xenia, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
No Drawing. Application May 25, 1953, Serial No. 357,338
6 Claims. (Cl. 117—37)

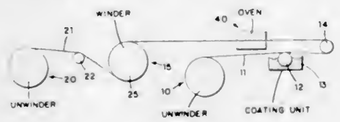
1. In a method for impregnating a porous ferrous part with a cupreous metal wherein the ferrous part, after impregnation, is substantially free from pits, channels and the like, the steps comprising; mixing a desired quantity of cupreous metal with from 1 to 5% by weight thereof of cast iron powder, placing said mixture upon said ferrous part to be impregnated in a desired position relative thereto, heating the ferrous part with the mixture of cupreous metal and cast iron powder thereon to a temperature above the melting point of the cupreous metal and below the melting point of iron for a time sufficient to obtain equilibrium temperature conditions in said mixture and said part whereupon said cupreous metal dissolves a desired portion of the iron in the cast iron and then infiltrates said ferrous part, and finally removing any residue of said mixture from said infiltrated part.

2,778,743
METHOD OF MAKING ELECTRICAL CARBON-FILM RESISTORS
Brice M. Bowman, Erie, Pa., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application November 16, 1954, Serial No. 469,111
5 Claims. (Cl. 117—46)



1. The method of making borocarbon-film electrical resistors with increased stability against heat, moisture, and abrasion due to increased adherence and coherence of the film, which method comprises contacting at an elevated temperature a non-conducting core with a gaseous mixture comprising chemically-bound carbon, chemically-bound boron, and chemically-bound silicon, in which mixture the ratio of the number of bound boron atoms to the number of bound carbon atoms lies between 1.00 and 0.01 and the ratio of the number of bound silicon atoms to the number of bound carbon atoms lies between 3.00 and 0.01.

2,778,744
METHOD OF MAKING THERMOPLASTIC TAPE
Frederick W. Holt, Jr., Troy, Ohio, assignor to The Brown-Bridge Mills Company, Inc., Troy, Ohio, a corporation of Ohio
Application April 20, 1953, Serial No. 349,819
4 Claims. (Cl. 117—66)

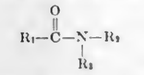


1. In a method of producing a web having thereon a coating of a predetermined selected thermoplastic adhesive which is normally solid at room temperature and which is adapted to become usefully tacky upon fusion by heating above room temperature and then to remain tacky for a substantial period after cooling to room temperature, the steps of continuously advancing a web of a material to which said selected adhesive is permanently adherent following setting from the fused state while in

contact therewith and both surfaces of which are substantially identical with respect to said adherence of said adhesive thereto, continuously forming on one side of said advancing web a fused tacky film of said adhesive, continuously applying to the resulting coated and tacky side of said web a second web of a selected different material to which said adhesive is substantially non-adherent even after setting from the fused state while in intimate contact therewith, winding the resulting composite web in a roll with said second web in contact with the back side of said coated web to which said tacky coated side would adhere in said roll in the absence of said second web, causing said film to set to non-tacky consistency while said composite web is wound in said roll, thereafter unwinding said roll and removing said second web therefrom, and winding said coated web in a second roll with said coated side thereof in direct contact with said back side thereof.

2,778,745
PROCESS OF APPLYING ADHERENT AMIDE CONTAINING COATINGS TO A WOOD BASE AND ARTICLE PRODUCED THEREBY
Robert William La Berge, Philadelphia, and Clyde George Murphy, Springfield, Pa., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware
Application March 21, 1952, Serial No. 277,906
5 Claims. (Cl. 117—72)

3. The process of increasing the adhesion of a coating composition comprising an organic film-forming agent, plasticizer and a volatile solvent to a wood base which comprises adding to the said composition from 0.5% to 10% based on the non-volatile, film-forming content of the said composition of a liquid amide boiling between 100° C. and 225° C. having the following formula:



in which R_1 is selected from the class consisting of hydrogen and the methyl group, R_2 is selected from the class consisting of hydrogen, methyl and ethyl groups and R_3 is selected from the class consisting of saturated aliphatic hydrocarbon radicals having from 1 to 12 atoms inclusive, the allyl group and the 2-cyanoethyl group.

2,778,746
PROCESS OF COLORING OF GLASS FABRICS
Robert Steinman, Los Angeles, and William F. Eberz, Capistrano Beach, Calif., assignors to Alexander H. Kerr and Company, Incorporated, Los Angeles, Calif., a corporation of Nevada
No Drawing. Application October 26, 1955, Serial No. 543,012
14 Claims. (Cl. 117—76)

1. A process for coloring a bare glass fabric which comprises coating the bare glass fabric with a thin film of a poly-substituted siloxane and a dilute aqueous solution containing a water soluble hydrolysis product of an alkyl alkoxysilane containing not more than 7 carbon atoms in the alkyl group dissolved therein, the silane compound being in the A stage of cure, said solution also having dispersed therein a small amount of a water dispersible coloring agent and a small amount of a noncationic wetting agent, and heat treating the glass fabric to fix a coating on the glass fabric.

2,778,747
PROCESS OF PREPARING TRIALLYL PHOSPHATE-POLYHALOMETHANE POLYMERS AND PROCESS OF FLAMEPROOFING TEXTILE THEREWITH
Jeremiah William Weaver, New Orleans, La., assignor to the United States of America as represented by the Secretary of Agriculture
No Drawing. Application January 13, 1954, Serial No. 403,943
7 Claims. (Cl. 117—136)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A process comprising reacting a mixture of triallyl phosphate, a halomethane wherein the halogen group consists of chlorine, and an organic peroxide at the decomposition temperature of the organic peroxide, polymerizing the reaction mixture so produced by maintaining it at a moderately elevated temperature until solid polymers which are soluble in the ethylene chloride-methyl alcohol azeotrope which boils at 61° C. are produced, and isolating the solid polymers.

6. The process of flameproofing a combustible organic textile which comprises impregnating the textile with a solution consisting essentially of a polymer produced by the process of claim 1 dissolved in the ethylene chloride-methyl alcohol azeotrope which boils at 61° C., and evaporating the azeotrope.

2,778,748
DESTATICIZATION OF PLASTIC ARTICLES
Richard G. Rowe, Redding Ridge, and Guiles Flower, Jr., Darien, Conn., assignors to Dictaphone Corporation, Bridgeport, Conn., a corporation of New York
No Drawing. Application April 11, 1952, Serial No. 281,907
4 Claims. (Cl. 117—138.8)

1. An anti-static plastic article consisting of a sound recording medium molded from an organic molding plastic selected from the group consisting of synthetic resins and cellulosic plastics, and having a thin layer of heptadecyl imidazoline ethanol thereon.

2,778,749
PAPER PRODUCTS AND MANUFACTURE THEREOF
John P. Bainbridge, Jr., Marblehead, and Edward S. Blake, Lynnfield, Mass., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application December 22, 1952, Serial No. 327,448
19 Claims. (Cl. 117—154)

1. A cellulosic fiber paper product comprising a substance selected from the class consisting of aliphatic disulfonic acids having at least 10 carbon atoms, halogen-containing aliphatic disulfonic acids having at least 10 carbon atoms and containing up to 2 halogen atoms which are attached to a carbon atom of said acid and water-soluble salts of said compounds, said substance being present in an amount sufficient to soften the surface of said paper product.

2,778,750
ION EXCHANGE PURIFICATION OF WHEY IN THE PREPARATION OF LACTOSE
Maurice E. Hull, La Grange, Ill., assignor to Armour and Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application March 24, 1953, Serial No. 344,480
3 Claims. (Cl. 127—31)

1. A process for recovering crystalline lactose of reduced protein and ash content from fresh pasteurized whey without denaturing the whey proteins, comprising reducing the calcium concentration of fresh whey to less than 0.02% by passing the whey through a cation exchange material in the sodium cycle, heating the whey of

reduced calcium content at pasteurizing temperatures without appreciably denaturing the whey proteins, concentrating the pasteurized whey without removing the whey proteins, said heating and concentrating steps being carried out with said whey at an acid pH, and then crystallizing lactose from the concentrated whey in the presence of the undenatured whey proteins.

2,778,751
HYDROLYSIS OF WOOD WITH CONCENTRATED HYDROCHLORIC ACID

Theodor Riehm, Mannheim-Rheinau, Germany, assignor to Deutsche Bergin-Aktiengesellschaft, Mannheim-Rheinau, Germany

Application March 18, 1953, Serial No. 343,103
Claims priority, application Germany March 21, 1952
7 Claims. (Cl. 127—37)

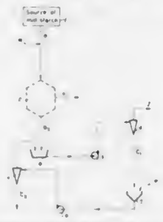
1. In the hydrolysis of wood with concentrated hydrochloric acid, the steps which comprise providing a plurality of separate stationary columns of lignin-containing prehydrolyzed cellulosic material, said columns being connected in series to form a saccharification unit, introducing continuously concentrated hydrochloric acid containing about 40% by weight of HCl in to said unit to hydrolyze the cellulose to sugar, said concentrated hydrochloric acid forming in said unit a zone of fresh concentrated hydrochloric acid and in front thereof in the direction of flow a zone of acid sugar solution, intermittently withdrawing said acid sugar solution at a point spaced by the length of at least one column from the point of admission of said concentrated hydrochloric acid, introducing continuously water into said unit at a point rearwardly of the admission of said concentrated hydrochloric acid for removing hydrochloric acid from the residual lignin, said water forming a washing zone and in front thereof in the direction of flow a zone of dilute hydrochloric acid, intermittently advancing in the direction of flow the admission of said concentrated hydrochloric acid and said water and the withdrawal of said acid sugar solution, continuously withdrawing a portion of said dilute hydrochloric acid at a point located between the points of admission of said water and of said concentrated hydrochloric acid, and adjusting the admissions and withdrawals of the liquids so as to maintain a substantial equilibrium between the amounts of withdrawn and introduced HCl and a substantially uniform concentration in said zones during their advance through the unit.

2,778,752
CORN-STARCH PROCESS INVOLVING VORTICAL CLASSIFICATION

Herman J. Vegter, Koog aan de Zaan, Netherlands, assignor to Stamicarbon N. V., Heerlen, Netherlands

Application August 26, 1952, Serial No. 306,366
Claims priority, application Netherlands September 5, 1951
4 Claims. (Cl. 127—67)

1. In the wet milling process of manufacturing corn starch wherein a mill stream containing process water, starch, bran, gluten, cell conglomerates and heavy contaminations is produced, the improvement for lowering the protein content of the final starch product which comprises the steps of screening said mill stream to remove coarse cell conglomerates and bran particles exceeding a size within the range of from 110 to 200 microns therefrom, vortically separating the screened mill



stream into two fractions, the first of said fractions containing the bulk of the cell conglomerates exceeding a size within the range of from 40 to 80 microns and heavy contaminations, and the second of said fractions containing the major portion of the process water, starch, bran and gluten, and then separating the final starch product from said second fraction.

2,778,753
TOBACCO PRODUCTS AND METHOD OF MAKING

Leo J. Novak, Dayton, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio

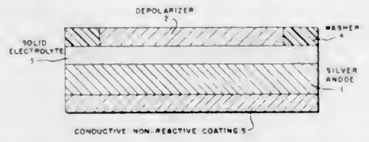
Application February 11, 1955, Serial No. 487,699
19 Claims. (Cl. 131—17)

1. A tobacco product adapted to be smoked and comprising tobacco particles bonded together by a substance selected from the group consisting of carboxymethyl dextran containing an average of 0.5 to 3.0 carboxymethyl per groups per anhydroglucose unit and alkali metal salts thereof.

2,778,754
ELECTRODE FILMS FOR MINIATURE OR HIGH RATE BATTERIES

William Shorr, Little Silver, N. J., assignor to the United States of America as represented by the Secretary of the Army

Application August 3, 1954, Serial No. 447,686
4 Claims. (Cl. 136—137)
(Granted under Title 35, U. S. Code (1952), sec. 266)

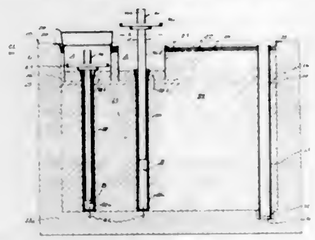


1. Method of making an iodine depolarizer electrode for miniaturized high rate batteries using the system silver/solid crystalline electrolyte/iodine comprising mixing a solution of iodine in an organic solvent with a film forming liquid containing a dispersion of an elastomer in an organic solvent and a finely divided electrically conductive inert material, casting said mixture on to the surface of a flat plate so as to obtain a thin coating which after evaporation of the solvent forms a film of about 1 to 10 mils thickness and stripping the dried film from the plate.

2,778,755
METHOD FOR THE CONTROLLED COOLING OF STEEL FORGINGS

Victor Brown, Elmhurst, and John H. Nelson, Palos Park, Ill., assignors to Kropp Forge Company, Chicago, Ill., a corporation of Illinois

Application January 27, 1953, Serial No. 333,468
1 Claim. (Cl. 148—21.5)

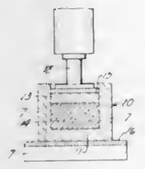


A method of cooling a hot steel forging at 800–1000° C. having surface area A, and emissivity e, which comprises enclosing the hot forging separate and apart from other articles to be cooled in a non-absorbing non-conducting atmosphere to prevent appreciable convection and conduction cooling thereof, exposing substantially all of the forging surface to a solid conductor-radiator of surface area A_2 and emissivity e_2 such that $Ae=A_2e_2$ while maintaining the conductor-radiator spaced from the forging and enclosing the conductor-radiator in an insulator in loose particulate form to controllably reduce heat transmission therethrough from said conductor-radiator while cooling the forging to effect the austenite-pearlite transition in the forging at 625–675° C.

2,778,756
PROCESS FOR HARDENING STEEL

Nikolajs Bredzs, Chicago, Ill.

Application June 22, 1953, Serial No. 363,272
2 Claims. (Cl. 148—21.5)



1. The method of treating a mass of hardenable steel consisting in heating the mass to a temperature at least slightly above its transformation temperature to form a homogeneous austenitic structure, maintaining said article at such temperature throughout while simultaneously applying a pressure amounting to at least 15 tons per square centimeter over the surface of said mass to minimize the formation of a pearlite structure upon cooling, and permitting said article to cool at a moderate rate under the influence of said pressure whereby the steel will be transformed directly from an austenitic structure to substantially a martensitic structure.

2,778,757
CARBURIZED TUNGSTEN ALLOY ARTICLE

William W. Wellborn, Pittsburgh, Pa., assignor to Firth Sterling, Inc., Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application August 28, 1953, Serial No. 377,250
1 Claim. (Cl. 148—32)

A composite article comprising an integrally bonded core and a carburized case, said core comprising by weight about 80 to 97% tungsten and 3 to 20% binder metal, said binder metal consisting substantially entirely of at least one member of the group consisting of nickel, cobalt and iron and at least one member of the group consisting of copper and silver, the copper and silver being from zero percent to a percent not over ½ the percent of said binder metal, said case containing tungsten carbide formed in situ and bonded by said binder metal.

2,778,758
GLASS LAMINATE, ARTICLE AND METHOD

James E. Henning, Madison, Wis., assignor to Bjorksten Research Laboratories, Inc., a corporation of Illinois

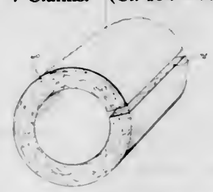
No Drawing. Application July 28, 1952, Serial No. 301,393
4 Claims. (Cl. 154—2.75)

1. A laminate comprising in combination: sheets of glass each having at least one surface coated with the reaction product of a multihaloalkanol and a substance selected from the group consisting of tri- and tetrahalides of titanium and silicon and laminated thereinbetween an interlayer material comprising polyhaloethylene.

2,778,759
THERMAL PIPE INSULATION

Joseph F. Stephens, Kansas City, Mo., and Glenn W. Kerr, Mission, Kans., assignors to Gustin-Bacon Manufacturing Co., Kansas City, Mo., a corporation of Missouri

Application November 5, 1952, Serial No. 318,856
7 Claims. (Cl. 154—44)



1. A single piece, preformed, resilient, thermal pipe insulation formed of glass fibers having an average diameter of less than ten microns bonded with a binder in an amount between fifteen percent and thirty-five percent by weight based on the weight of the thermal insulation and having a density between two pounds and five pounds per cubic foot, said insulation being formed generally in the shape of a hollow cylinder having an axially extending slit, said thermal pipe insulation being adapted to spring back to substantially its preformed shape when released after being deflected along the axially extending slit.

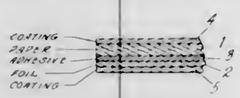
2,778,760
MOISTURE PROOF HEAT SEALABLE WRAPPING MATERIAL

Reginald H. Hurst, Parchment, Mich., assignor to Kalamazoo Vegetable Parchment Company, Parchment, Mich.

Application July 8, 1954, Serial No. 442,069
9 Claims. (Cl. 154—50)

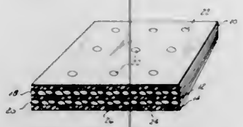
1. A laminated moisture proof heat sealable wrapping sheet comprising, an outer ply of printable white paper, an inner ply of aluminum foil of a thickness of .00025 to

.0005 of an inch, the plies being bonded throughout with microcrystalline wax, the laminated sheet being coated on both sides with a heat sealable high gloss transparent coating consisting of a blend of microcrystalline wax, paraffine wax and polyethylene resin of a molecular weight of 10,000 to 22,000, the percentage of the microcrystalline wax being 35% to 100% of the paraffine wax,



the percentage of the polyethylene resin being 2% to 10% of the waxes, the coating on the paper ply being over any printed matter thereon, the coating on the aluminum foil ply reinforcing the foil and minimizing breaking and scuffing thereof and preventing corrosion thereof, the inner aluminum foil ply acting to give a blue-white cast to the outer paper ply.

2,778,761
LAMINATED PLASTIC ASSEMBLY
Leonard P. Frieder, Great Neck, and Walter S. Finken, Brooklyn, N. Y.; said Finken assignor to said Frieder
Application January 9, 1952, Serial No. 265,598
5 Claims. (Cl. 154—52.5)



1. A relatively rigid missile-retarding assembly including in combination a stack of a plurality of sheets of fibrous material each uniformly impregnated with a synthetic resin and having their adjacent surfaces bonded to each other by means of a synthetic resin, said bond being discontinuous in all directions, the aggregate area through which the sheets are so secured being small with respect to the remainder of the surface area of the sheets, which remainder area is free of securing means to permit the sheets to deflect differentially with respect to one another under the impact of a missile.

2,778,762
ELECTRIC CAPACITOR AND METHOD OF MAKING SAME
Paul Eisler, London, England, assignor to Technograph Printed Circuits Limited, London, England, a company of Great Britain
Application July 26, 1951, Serial No. 238,668
Claims priority, application Great Britain November 11, 1948
3 Claims. (Cl. 154—80)

1. A method of making electric capacitors and printed circuits containing capacitors, which comprises applying to a metal foil a thin coating consisting of a flexible adherent insulating matrix in which are embedded long and relatively narrow flakes of a material of high permittivity extending throughout the thickness of the matrix, orientating these flakes so that their major axes all lie approximately parallel, superimposing a conductive layer over the coating, and folding the multi-layer product about an axis parallel to the major axis of the said flakes.

3. In a capacitance means having electrodes in form of two metal foils, several dielectric layers disposed between the two foils, each dielectric layer being composed of a hardened insulation layer adhering to an adjacent metal foil and an adjacent layer and of a multitude of elongated flake-like elements of high permittivity material embedded in the insulation material of the respective layer and distributed throughout the said material in a spaced relationship such that the flat sides of said elements and portions of the insulation material therebetween are disposed substantially parallel to the planes of said foils, the thickness of each of said layers being approximately equal to the thickness of the elements embedded therein and the elements in different layers being staggered relative to each other so as to form substantially continuous pathways of high permittivity material between the metal foils.

2,778,763
PRODUCTION OF COMPOSITE GLASS AND ASBESTOS YARN
Izador J. Novak, Trumbull, Conn., assignor to Raybestos-Manhattan, Inc., Passaic, N. J., a corporation of New Jersey
Application January 18, 1954, Serial No. 404,791
2 Claims. (Cl. 154—91)

1. A smooth uniform-diameter fiber glass-asbestos yarn comprised of multiple continuous unmodified fine straight filaments of glass yarn coated and spaced by dry residue of a liquid colloidal dispersion of predominantly unit chrysotile asbestos fibers of from about .02 to about .05 microns in diameter, said asbestos fibers providing a cushioning mat for said glass filaments.

2. In a process of forming composite fiber glass-asbestos yarn of improved physical properties and of smooth character and substantially uniform diameter, the improvement which comprises applying to a plurality of spaced fine glass filaments a fluid stably suspended colloidal dispersion of predominantly unit chrysotile asbestos fibers of from about .02 to about .05 microns in diameter containing organic chrysotile asbestos colloidizing agent, consolidating the resulting coated filaments into a roving, and drying to volatilize liquid content and to leave the asbestos fiber as a fine, smooth, adherent internal cushion and filling between and around the glass filaments.

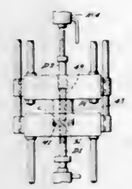
2,778,764
METHOD OF SIZING GLASS FIBERS TO FORM STRANDS
Albert R. Morrison, Newark, Ohio, assignor to Owens-Corning Fiberglas Corporation, a corporation of Delaware
Application September 13, 1951, Serial No. 246,504
10 Claims. (Cl. 154—91)

1. In the method of sizing glass fibers to form strands, the steps of coating the glass filaments before being arranged in strand formation with a cationic dispersion of a polyamide resin to deposit the polyamide resin as fine particles on the surfaces of the glass filaments, and then

heating the filaments when in strand form at a temperature sufficient to dry and fuse the particles of polyamide

resin to coat the filaments substantially throughout their lengths and bind the filaments together in the strand.

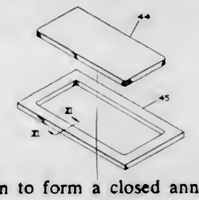
2,778,765
METHOD OF MOLDING BODIES OF FIBROUS RESINATED MATERIAL
Joseph B. Dym, Pittsburgh, Pa.
Application March 5, 1952, Serial No. 274,942
1 Claim. (Cl. 154—110)



The method of molding bodies of irregular contour composed of fibrous resinated material with a die having a cutting surface corresponding to said contour which comprises the steps of confining a plurality of layers of said material in a cavity of predetermined dimensions, compressing said material while confined in said cavity into a homogeneous readily formable mass, said material being substantially completely enclosed in said cavity when so compressed, and while said mass is formable cutting said contour therein with said die while said material is still substantially completely enclosed and compressed in said cavity, and thereafter causing said mass to solidify substantially fully while said die is still in engagement with it and while said material is still substantially completely enclosed and compressed in said cavity.

2,778,766
METHOD OF FORMING A COMBINATION HOLLOW DOOR AND SOLID FRAME
George E. Kloote, Grand Rapids, and Joseph A. Potchen Marne, Mich., assignors to Haskelite Manufacturing Corporation, Grand Rapids, Mich., a corporation of New York
Application March 24, 1954, Serial No. 418,386
7 Claims. (Cl. 154—118)

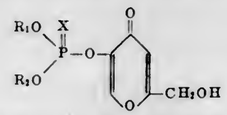
1. In the method of fabricating a combination hollow door and solid frame, the steps which include: providing a panel having a central opening, surrounded by a solid border and having facing sheet supporting means seated therein; severing the frame portion of said panel from



the door portion to form a closed annular frame and a hollow core door.

2,778,767
PHOSPHORUS DERIVATIVES OF KOJIC ACID AND PROCESS OF PREPARATION
Jean Metivier, Arpajon, France, assignor to Societe des Usines Chimiques Rhone-Poulenc, Paris, France, a French body corporate
No Drawing. Application March 2, 1956, Serial No. 568,967
Claims priority, application France October 23, 1956
10 Claims. (Cl. 167—33)

1. A phosphorus derivative of kojic acid of the general formula:



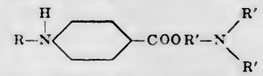
where X is selected from the group consisting of oxygen and sulphur atoms and R_1 and R_2 are each an alkyl radical containing at most 4 carbon atoms.

2,778,768
PESTICIDAL ETHYLENEBISDITHIOCARBAMATES WITH HYDROXY ETHYL CELLULOSE COMPOSITIONS AND METHODS
George L. Brown, Moorestown, N. J., and Edward A. Nolan, Philadelphia, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application June 19, 1953, Serial No. 362,974
7 Claims. (Cl. 167—42)

1. A pesticidal composition which comprises an aqueous solution containing 17% to 30% of disodium ethylenebisdithiocarbamic acid, between 0.4% and 3.5% of the weight thereof of an alkali-soluble, water-insoluble hydroxyethyl cellulose, dissolved with the aid of sodium hydroxide, and between 0.1% and 2.5% of the weight of said ethylenebisdithiocarbamate of a compound from the class consisting of condensed naphthalene-formaldehyde sodium sulfonate and sodium lignosulfonates.

2,778,769
HEPARIN-AMINOBENZOATE COMPOSITIONS
Marvin Jay Fahrenbach, Pearl River, and Kenneth Austen Burke, Nanuet, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application November 3, 1951, Serial No. 254,809
4 Claims. (Cl. 167—74)

1. A new composition of matter comprising the solid product obtained by reacting substantially equivalent amounts of heparin and an aminobenzoate local anesthetic having the following formula



in which R is a member of the group consisting of hydrogen and alkyl radicals and R′ represents alkyl radicals.

2,778,770

PROCESS FOR OBTAINING EPINEPHRINE FREE ADRENAL CORTICAL HORMONES

Emil Gilbert Conason, Brooklyn, N. Y., assignor to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application April 13, 1954, Serial No. 422,991

2 Claims. (Cl. 167—77)

1. Process for obtaining epinephrine-free adrenal cortical hormones that comprises subjecting adrenal glands to proteolysis by digesting the glands in an aqueous medium at a hydrogen ion concentration of about pH 5.2 in the presence of a proteolytic enzyme, at a temperature of about 50° C., to liberate the desired physiologically active hormones of the glands from proteinaceous tissue materials, said proteolysis being effected in the presence of an epinephrine-antagonistic agent, separating the resulting aqueous phase, concentrating it by vacuum evaporation, precipitating solids, extracting the aqueous phase with a solvent to obtain the desired physiologically active epinephrine-free adrenal cortical hormones, and removing the solvent.

2,778,771

STABILIZING OF VITAMIN B_{12} SOLUTIONS

George Herman Michel, Dumont, N. J., and Kenneth Wilbur Knight, Suffern, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application May 16, 1952, Serial No. 288,297

4 Claims. (Cl. 167—81)

2. A storage stable aqueous solution containing at least 10 micrograms of vitamin B_{12} activity per milliliter, a substantial part of which is hydroxocobalamin and from about 100 micrograms to 10,000 micrograms per milliliter of ammonium sulfate as a stabilizing agent.

2,778,772

DIMETHYL PHENYL PIPERAZINIUM IODIDE COMPOSITIONS AND PROCESS FOR STIMULATION OF THE AUTONOMIC GANGLION SYSTEM

Graham Chen, Detroit, Mich., assignor to Parke, Davis & Company, a corporation of Michigan

No Drawing. Application November 4, 1952, Serial No. 318,761

4 Claims. (Cl. 167—84.5)

1. A composition for the stimulation of the sympathetic and parasympathetic ganglia comprising an aqueous solution containing 0.5 to 5 milligrams per milliliter of 1,1-dimethyl-4-phenylpiperazinium iodide.

2,778,773

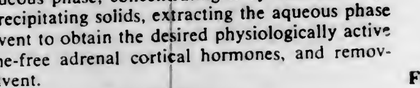
GUANIDINE SALTS OF N-HIGHER ALIPHATIC AMINO CARBOXYLIC ACIDS AND COMPOSITIONS THEREOF

William Wendell Wellman, Jersey City, N. J., assignor to Colgate-Palmolive Company, a corporation of Delaware

No Drawing. Application June 1, 1953, Serial No. 358,960

19 Claims. (Cl. 167—93)

1. A guanidine salt represented by the formula:



wherein R—CO— is a higher aliphatic acyl group, R′ is a divalent lower aliphatic radical, X is selected from the group consisting of hydrogen and alkyl groups, and Y is selected from the group consisting of hydrogen and monovalent organic groups.

16. An oral preparation comprising a minor amount of guanidinium N-saturated higher fatty acyl sarcosinate having about 12 to 16 carbon atoms in said acyl group.

2,778,774

GRANULAR VERMICULITE DEODORANTS

David Buslik, Farrell, Pa.

No Drawing. Application December 6, 1954, Serial No. 473,455

1 Claim. (Cl. 167—94)

A dry granular odoriferous composition comprising an absorptive material of granular particles of exfoliated vermiculite, substantially 98% of said particles being between No. 4 U. S. screen mesh and No. 30 U. S. screen mesh and at least 25% by weight of the absorptive material of the liquid odorant Neutroleum Alpha absorbed in said material, the said composition remaining dry and having the characteristic of freely evolving the odorant vapors at a slow rate so that spaces may be deodorized for long periods of time by disposing a small quantity of the composition therein.

2,778,775

PROCESS FOR PRODUCING ACETONE AND BUTYL ALCOHOL

Firmin Boinot, Grand-Rue, Melle, Deux-Sevres, France, assignor to Les Usines de Melle (Societe Anonyme), Saint-Leger-les Melle, France, a corporation of France

No Drawing. Application February 19, 1953, Serial No. 337,885

2 Claims. (Cl. 195—44)

1. A process which comprises fermenting a mixture of molasses must and sterile milk serum with suitable bacteria to produce acetone and butyl alcohol, the proportion of milk serum being about 2 to 15% by volume of the total volume of serum and molasses must.

2,778,776

MANUFACTURE OF 21 HYDROXY STEROIDS

Albert Wettstein and Ernst Vischer, Basel, and Charles Meystre, Arlesheim, Switzerland, assignors to Ciba Pharmaceutical Products Inc., Summit, N. J.

No Drawing. Application June 29, 1955, Serial No. 518,922

11 Claims. (Cl. 195—51)

1. In a process for the production of 21-hydroxylated pregnane compounds, the step which comprises subjecting a compound of the pregnane series, in which compound the 21 position is unsubstituted, to the action of enzymes produced by aerobically cultivating a fungus selected from the group consisting of the species *Ophiobolus herpotrichus* and *Sclerotinia fructicola*, and separating the resultant 21-hydroxylated steroid.

2,778,777

REMOVAL OF METAL COMPONENTS FROM PETROLEUM OILS

Ray Powell, Darien, Conn., assignor to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application February 16, 1954, Serial No. 410,727

9 Claims. (Cl. 196—40)

1. The method of treating crude petroleum containing minute amounts of water-insoluble heavy metal compounds included in the group consisting of compounds of vanadium, nickel, iron, chromium and molybdenum which comprises contacting said crude petroleum containing minute amounts of heavy metal compounds included in said group with dilute sulfuric acid of the order of 10 percent strength acid in an amount substantially in excess of the stoichiometric amount required for reaction with said heavy metal compounds converting said heavy metal compounds to water-soluble metal salts, forming an aqueous phase containing said salts, and separating resulting purified oil from said aqueous phase.

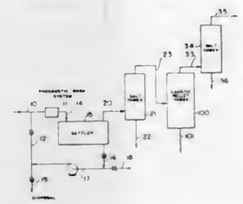
2,778,778

PROCESS FOR REMOVING SILICA FROM HYDROCARBONS BY TREATING WITH CAUSTIC SODA

Frank A. Apgar, Chicago, Ill., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine

Application October 21, 1950, Serial No. 191,420

5 Claims. (Cl. 196—41)



1. A process which comprises bringing hydrocarbon stock, formed by the catalytic conversion of other hydrocarbon stock in the presence of a silica-base catalyst and containing finely dispersed constituents of the silica-base catalyst, into intimate contact with caustic alkali having a strength equivalent to at least 48° Baumé, whereby the finely dispersed constituents of the silica-base catalyst are substantially completely removed from the first mentioned hydrocarbon, and then separating the first-mentioned hydrocarbon substantially free of silica-base inorganic material from the caustic alkali.

2,778,779

REMOVAL OF ARSENIC IN HYDROCARBON OILS BY USE OF A READILY REDUCIBLE METAL OXIDE AND WATER

George R. Donaldson, Riverside, Ill., assignor to Universal Oil Products Company, Chicago, Ill., a corporation of Delaware

No Drawing. Application June 14, 1952, Serial No. 293,654

12 Claims. (Cl. 196—50)

3. The process of producing reformed gasoline from an arsenic-containing hydrocarbon charge which comprises treating the charge with a readily reducible metal oxide and water, separating therefrom a gasoline fraction having an arsenic content of less than about 0.015 part per million and less than that of said charge, and reforming said gasoline fraction in the presence of a catalyst comprising alumina and platinum.

2,778,780

WIRE ROPE LUBRICANT COMPRISING A BLOWN PETROLEUM EXTRACT AND A PARAFFINIC RESIDUUM

Joseph W. Romberg, Port Neches, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application November 26, 1952, Serial No. 322,813

4 Claims. (Cl. 196—149)

1. A wire rope lubricant consisting essentially of a blend of about 30 to 80 percent by volume of an asphaltic product having a softening point in about the range 140–250° F. with about 70–20 percent by volume of a paraffin base residuum having a viscosity in the lubricating oil range, said asphaltic product being obtained by air blowing a petroleum extract obtained by extracting a paraffin base distillate oil having a viscosity in the lubricating oil range with a selective solvent for non-paraffinic hydrocarbons, said blend having a penetration at 77° F. in about the range 90–120 and a softening point in about the range 130–145° F.

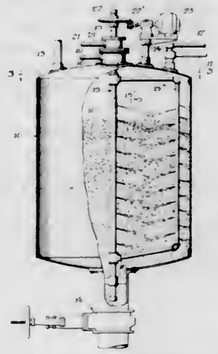
2,778,781

PROCESS FOR THE CONTINUOUS COKING OF HYDROCARBONS

Arthur D. Smith, Chicago, Ill., assignor to Jenkins Petroleum Process Company, Chicago, Ill., a corporation of Illinois

Application May 25, 1953, Serial No. 357,245

6 Claims. (Cl. 202—23)



1. A continuous process for producing coke pellets of predetermined size from the pyrolysis of hydrocarbon oil which comprises subjecting coke pellets of relatively small size obtaining as a flowing bed to progressive accretion of carbon derived from the concurrent pyrolysis of contacting said hydrocarbon oil, continuously withdrawing said coke pellets from further carbon accretion as said predetermined size is attained, and concurrently during said carbon accretion and said withdrawing continuously passing a rotating curtain of steam through a relatively small portion of said bed per unit of contact time.

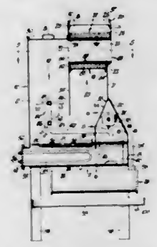
2,778,782

METHOD AND APPARATUS FOR CONCENTRATING AQUEOUS SOLUTIONS OF HYGROSCOPIC ORGANIC SUBSTANCES

Robert C. Stutz, Buffalo, N. Y., assignor to Niagara Blower Company, New York, N. Y., a corporation of New York

Application August 15, 1951, Serial No. 241,999

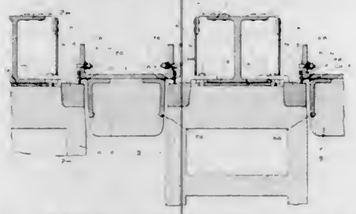
6 Claims. (Cl. 202—46)



1. A method of concentrating aqueous solutions of hygroscopic organic substances having boiling points higher than the normal boiling point of water without substantial loss of the substance, which comprises maintaining a body of said solution, withdrawing a stream of said solution from said body, spraying said withdrawn stream into a stream of gas to transfer from said sprayed solution to said stream of gas mixed vapors of water and said substance whereby the excess solution sprayed into said stream of gas is concentrated in the sprayed droplets projected by said sprays, and returning said droplets substantially directly to said body for recirculation through the sprays provided by so spraying said withdrawn stream of solution, heating said sprayed and re-

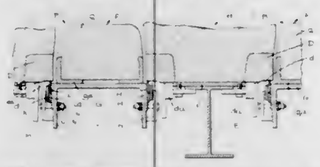
circulated stream of solution to a temperature above the initial dewpoint temperature of said stream of gas and not substantially higher than the normal boiling point of water, passing the stream of gas containing said mixed vapors in indirect heat exchange relation to the stream of gas prior to having the solution sprayed therein thereby to cool said stream of gas containing said mixed vapors to a temperature at which it is completely saturated with water vapor thereby to condense substantially all said substance from the gas in the form of an aqueous solution thereof, and returning the aqueous solution of the substance so condensed from the water vapor saturated gas to said body.

2,778,783
MEANS PROTECTING BUCKSTAYS AGAINST OVERHEATING
Carl Otto, Manhasset, N. Y.
Application May 26, 1953, Serial No. 357,582
3 Claims. (Cl. 202—239)



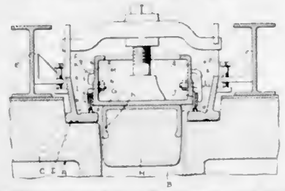
1. In a coke oven battery structure comprising horizontal coking chambers, heating walls alternating with the coking chambers along the length of the battery, end walls having openings therein to provide access to said coking chambers, and vertical buckstays anchored to the battery structure and bearing against the ends of the heating walls, the combination with said buckstays of vertical heat shields each interposed between a buckstay and the coke oven opening adjacent the buckstay and in position to substantially restrict the transfer of heat to the buckstay from said adjacent oven opening, said heat shield being fixedly operatively secured at one edge and being free at its opposite edge.

2,778,784
SELF-SEALING COKE OVEN DOORS
Carl Otto, Manhasset, N. Y.
Application May 18, 1953, Serial No. 355,606
9 Claims. (Cl. 202—248)



4. In a coke oven battery having a peripheral wall and a plurality of spaced heating walls with coking chambers therebetween, said peripheral wall having a plurality of openings providing access to said coking chambers, and a door frame fixed to said peripheral wall and surrounding one of said wall openings and being provided with a sealing surface; a door for operably closing said one peripheral wall opening, comprising a door body, a sealing strip extending around the peripheral edge of said door body in surface-to-surface relationship therewith and disposed in planes substantially perpendicular to the plane of said sealing surface, said sealing strip being divided into two strip portions in substantialy abutting edge-to-edge relationship with the free edge of one of said strip portions being adapted to engage said sealing surface of said door frame in sealing relation therewith, the plane of abutment of said abutting edges of said sealing strip portions being at an angle to the planes in which said sealing strip is disposed, and means for clamping both said sealing strip portions against the peripheral edge of said door body.

2,778,785
SELF-SEALING DOORS
Carl Otto, Manhasset, N. Y.
Application July 17, 1953, Serial No. 368,779
2 Claims. (Cl. 202—248)



1. A self-sealing door for coke ovens and the like comprising in combination, a door body normally extending across an opening in a door frame having an outwardly facing sealing surface, a door sealing unit supported by said door body and normally in engagement with said door frame surface and uniting with said door body to form a removable closure for said opening, and comprising a plurality of strips surrounding said door body and having their flat sides perpendicular to said sealing surface, means connected to said door body for applying pressure to the outer side of said unit and thereby frictionally opposing movement of each strip in the direction of its flat sides relative to said door body, said unit strips having inner edges normally in engagement with said door frame surface and separated from one another by a space whereby said unit and sealing surface cooperate to provide a labyrinth seal against leakage between said surface and unit, the outer edge of the strip closest to said door body being farther away from said sealing surface then the outer edge of the strip spaced from said door body, whereby the outer edges of both sealing strips are positioned to receive hammer blows to individually adjust their positions relative to said sealing surface.

2,778,786
COATING A CARBONACEOUS SURFACE WITH RHENIUM
Harry Pearlman, Whittier, Louis Silverman, Los Angeles, and Curtiss A. Smith, Whittier, Calif., assignors, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application November 17, 1953, Serial No. 392,754
10 Claims. (Cl. 204—37)

1. A process for securely bonding a coating of rhenium to a carbonaceous part comprising electroplating said part with rhenium and immediately heating said plated part in a vacuum to at least 1100° C. whereby said rhenium forms a protective coating over said carbonaceous part with good bonding strength at temperatures as high as 1000° C.

2,778,787
ELECTRODEPOSITION OF IRON ZINC ALLOYS
Frederick William Salt, Swansea, Wales, assignor to The British Iron & Steel Research Association, London, England
No Drawing. Application March 15, 1954, Serial No. 416,397
17 Claims. (Cl. 204—43)

10. A method for the electrodeposition of iron-zinc alloys in which the bath contains a source of iron and zinc ions, an ammonium salt, an aliphatic hydroxy-acid supplying a chelate group to the ferric ion and an alkali metal chloride different from said ammonium salt in proportions sufficient respectively to prevent decreasing acidity at the cathode, to prevent substantial precipitation of ferric hydroxide from the bath and to prevent the anode becoming passive.

2,778,788
COPPER PLATING BRIGHTENER
Daniel R. France, Brooklyn, N. Y.
No Drawing. Application June 15, 1955, Serial No. 515,778
6 Claims. (Cl. 204—52)

1. A copper plating solution brightener comprising the following in the following proportions, four ounces molybdic acid, one ounce lead tartrate, five grams ammonium acetate, one hundred cubic centimeters ammonium hydroxide, two hundred centimeters wetting agent, four grams sodium stannate, four grams cadmium oxide, one half ounce sodium cyanide, one half ounce sodium chloride, eight ounces sodium hydroxide and water sufficient to make one gallon of brightener.

2,778,789
ELECTROLYTIC PROTECTIVE COATING FOR MAGNESIUM
William McNeill, Philadelphia, Pa., assignor to the United States of America as represented by the Secretary of the Army
No Drawing. Application June 2, 1954, Serial No. 434,093
7 Claims. (Cl. 204—56)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A method of producing hard and compact protective coatings on magnesium and magnesium-base alloys which comprises making the magnesium articles the electrodes and electrolytically treating them under progressively increasing potential to a selected terminating voltage of any amount up to just over 300 volts, depending on the quality of the coating desired, in an aqueous solution whose solute ingredients are a chromate, a phosphate and a fluoride that yield non-metallic cations only, and whose pH is maintained in a range of about 5.5 to 9.0 with an alkalinity agent yielding non-metallic cations only.

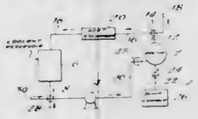
2,778,790
DECORATING ANODIZED ALUMINUM
Charles John Sobol, Chicago, Ill., assignor to Croname, Incorporated, Chicago, Ill., a corporation of Illinois
Application June 30, 1953, Serial No. 365,058
4 Claims. (Cl. 204—58)

1. The method of decorating unsealed anodized aluminum comprising printing on the unsealed anodized surface with water insoluble but water permeable vehicle and water insoluble dye, then, before removing excess vehicle from the printed surface, hot water sealing through the water permeable, insoluble vehicle left on the sealed surface of the aluminum and then after sealing, removing the vehicle.

2,778,791
ELECTROLYTIC METHOD OF CLEANING CONTAINERS
Ira J. Duncan, Detroit, Mich., assignor to Detrex Corporation, Detroit, Mich., a corporation of Michigan
No Drawing. Application July 20, 1953, Serial No. 369,253
4 Claims. (Cl. 204—141)

2. In a method of cleaning baking containers containing at least two dissimilar members respectively selected from each of the following groups: (1) tin and tin oxide and (2) aluminum and aluminum oxide, said surfaces also having carbonized incrustations thereon, which dissimilar members tend to enter into galvanic corrosive activity in the presence of strongly alkaline electrolyte whereby said electrolyte attacks the tin or tin oxide, the novel method of inhibiting such corrosive activity without interfering with said cleaning comprising placing said baking containers in a boiling alkali cleaner solution containing an alkaline inhibitor selected from the group consisting of the alkali metal chromates and silicates, passing through said containers and said solution a direct current with the containers as anodes, and maintaining the potential drop across the solution at a value to produce a current density of 1–5 amperes per square foot.

2,778,792
METHOD FOR UNLOADING REACTORS
Leo Szilard, Chicago, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application April 19, 1946, Serial No. 663,452
1 Claim. (Cl. 204—154)



In a method of unloading a neutronic reactor containing uranium metal as the fissionable material, the improvement which consists of passing steam and hydrogen in contact with the uranium metal in the reactor to oxidize the uranium metal to uranium oxide, then dissolving the uranium oxide in situ with nitric acid, and removing the solution from the reactor.

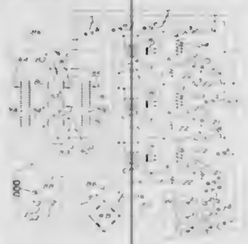
2,778,793
MANUFACTURE OF SILICONE ELASTOMERS WITH THE AID OF A SILENT DISCHARGE
Frederick L. Thomas and Francis F. Koblitz, Madison, Wis., assignors to Bjorksten Research Laboratories, Inc., a corporation of Illinois
No Drawing. Application July 19, 1952, Serial No. 299,914
3 Claims. (Cl. 204—165)

1. A process of preparing a transparent polysiloxane resin, which comprises the step of exposing a linear transparent polydialkyl siloxane gum to a silent electrical discharge of about 15,000 volts.

2,778,794
ELECTROLYTIC GRINDING APPARATUS
George E. Comstock 3d, Holden, Mass., assignor to Norton Company, Worcester, Mass., a corporation of Massachusetts
Application March 16, 1953, Serial No. 342,371
18 Claims. (Cl. 204—218)

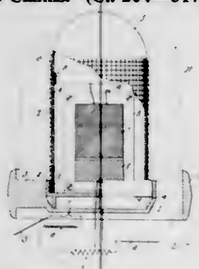
1. In electrolytic grinding apparatus, in combination, means for supplying alternating current, rotatable conductive means having a face which rotatively moves relative to a work-piece, with means for operatively supporting a work-piece in juxtaposition to the rotatively

moving face of said conductive means and comprising means for supplying an electrolyte to the interface between the supported work-piece and said rotating conductive means whereby interface current may vary with changing conditions at the interface, means for supplying electrical energy to said interface and for limiting current flow across the latter against high-energy arc-over comprising a transformer having a core with primary windings energized from said alternating current supply means and unidirectionally energizable control winding means for affecting the saturation of said core and secondary windings of which the magnetic coupling with the primary windings is affected by said control winding means, said transformer and its core having the characteristic of operating, for currents in said control winding means less than a selected limiting value, on the sloping part of its core saturation curve and of operating, at currents that tend to exceed said selected limiting value, at and



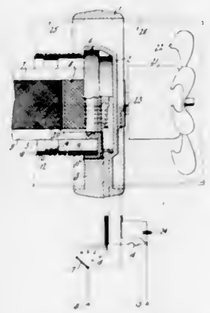
beyond the knee in said core saturation curve, said secondary windings being connected in circuit, by means which include rectifier means, with said interface, the work-piece being positive and said conductive means negative, and with said control winding means, for unidirectional energization of said control winding means to affect the magnetic coupling between the primary and secondary windings and shift the operating point of said transformer and its core along said sloping part of the saturation curve as interface conditions vary current demand up to substantially said selected limiting value and to shift the operating point to and beyond the knee in the saturation curve as interface current demand tends to exceed said limiting value whereby the voltage effective at said interface is substantially constant throughout interface current changes up to substantially said selected value and is diminished as interface current demand tends to exceed said selected value.

2,778,795
OZONE APPARATUS
Hannes Trüb, Zurich, Switzerland
Application March 13, 1953, Serial No. 342,194
Claims priority, application Switzerland March 15, 1952
3 Claims. (Cl. 204—317)



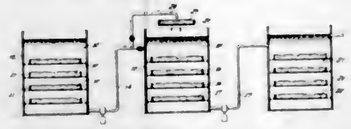
1. An ozone producing apparatus comprising an annular casing, a horizontal supporting base located interiorly of said casing and arranged substantially concentrically with the latter, radial arm members interconnecting said base, and said casing and retaining the same in spaced relation with respect to one another to provide a first annular channel between said casing and said base, said first channel thereby constituting a first flow path for air from which ozone is to be produced, a sealed glass dome having a cylindrical wall portion and supported on said base, said wall portion being arranged substantially concentrically with said base, a first cylindrical electrode disposed within said dome and substantially concentrically with said cylindrical wall portion thereof, a second cylindrical electrode surrounding said cylindrical wall portion of said dome and arranged in concentric relation therewith, a transformer disposed on said base and within said dome, said transformer having a low-voltage primary winding and a high-voltage secondary winding, said secondary winding being electrically connected across said first and second electrodes, electric circuit means connected to said primary winding for applying low voltages to the latter, a hood having an open top and an open bottom and supported by said radial arm members within said casing, said hood being spaced from and surrounding said second electrode and being arranged substantially concentrically with the latter and with said cylindrical wall portion of said dome to thereby provide a second annular channel communicating with said first annular channel and constituting a second flow path for said air during production of said ozone therefrom, and an electric resistance element constituting a part of said electric circuit means and supported by said base in said first path of flow, whereby said resistance element controls the voltages applied to said primary winding and additionally heats said air prior to arrival thereof at said second electrode in said second channel, whereby said air and said ozone produced therefrom will rise by convection through said second annular channel for exhaust through said open top of said hood.

2,778,796
OZONE APPARATUS
Hannes Trüb, Zurich, Switzerland
Application March 13, 1953, Serial No. 342,195
Claims priority, application Switzerland March 15, 1952
1 Claim. (Cl. 204—318)



Apparatus for producing ozone comprising an annular casing having an axis disposed substantially horizontally, a support member having opposite sides and arranged within and substantially concentrically with said casing, radial arm members interconnecting said support member and said casing and maintaining the same in spaced relation with respect to one another to thereby provide a first annular channel therebetween for passage of air from which ozone is to be produced, a sealed glass dome having a cylindrical wall part with inner and outer surfaces, said wall part of said dome being supported by said support member at one side thereof and in axial alignment with said axis of said casing, a coating of electrically conductive material on said inner surface of said cylindrical wall part, said coating constituting a first electrode, a woven wire mesh surrounding said wall part and located directly on said outer surface of said wall part, said wire mesh constituting a second electrode, whereby said electrodes are spaced from one another only by the thickness of said cylindrical wall part of said dome, a transformer located within said dome and supported by said support member at said one side thereof, said transformer including a low-voltage primary winding provided with a number of tapping points and a high-voltage secondary winding electrically connected across said electrodes, a first substantially cylindrical hood surrounding said second electrode and having open opposite ends, said first hood being supported at one of its open ends by said annular casing adjacent said one side of said support member and in axial alignment with said axis of said casing, said first hood being spaced from said second electrode to thereby provide a second annular channel for passage of said air during production of ozone therefrom and communicating with said first annular channel, a fan supported by said support member at the other side thereof and having an axis of rotation aligned with said axis of said casing, a second substantially cylindrical hood surrounding said fan and having open opposite ends, said second hood being supported at one of its open ends by said casing adjacent said other side of said support member and in axial alignment with said axis of said casing, whereby said air is drawn by said fan into said second hood through the other open end thereof and is thereafter moved by said fan through said first annular channel into said second annular channel for contact with said second electrode, electric circuit means connected to said primary winding for applying voltages thereto, and a tap selector switch constituting part of said electric circuit means and connected to said tapping points on said primary winding for adjusting said voltages applied to the latter.

2,778,797
METHOD OF TREATING WATERS CONTAMINATED WITH ORGANIC MATERIALS
Ralph W. Dickenson, Anaheim, Calif.
Application November 24, 1952, Serial No. 322,321
15 Claims. (Cl. 210—2)



1. The method of treating waters subject to contamination by putrifiable organic materials contained therein, that includes introducing to the water a non-putrifying aqueous extract prepared by disintegration and water leaching of a desert plant material of the group consisting of prickly pear cactus, greasewood, and yucca plants, allowing the resulting aqueous solution to digest over an extended period in excess of one week together with the fibrous plant pulp, and thereafter separating the resulting liquid for use as the extract.

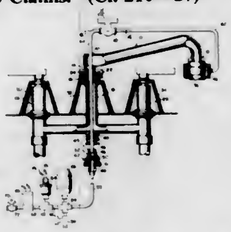
2,778,798
COLOR INDICATION MEANS AND METHOD FOR ION EXCHANGE MATERIAL
George H. Klumb and Murl B. Sailsbury, Northbrook, and Robert E. Schulze, Deerfield, Ill., assignors to Culligan, Inc., Northbrook, Ill., a corporation of Delaware
No Drawing. Application November 10, 1953, Serial No. 391,382
4 Claims. (Cl. 210—24)

1. The method of evaluating the quality of liquids treated by a loose mass of ion exchange material including an anion exchanger of the quaternary ammonium type, comprising applying to said mass of material an FD & C triphenylmethane indicating dyestuff possessing no deleterious properties from a physiological standpoint, said dyestuff being adsorbed by said material and when adsorbed imparting no substantial change in color to the ion exchange material until such material reaches a state of substantial exhaustion when the color of the dyestuff appears.

2,778,799
WATER SOFTENING APPARATUS
Lynn G. Lindsay, St. Paul, Minn., assignor to The Lindsay Company, St. Paul, Minn., a corporation of Minnesota
Application July 17, 1953, Serial No. 368,739
7 Claims. (Cl. 210—24)

1. For water softening apparatus having a softener tank and a brine tank, the improved control which comprises; a first semi-automatic valve having an upper brine tank port, a lower brine tank port, a hard water port and an outlet port connected to said softening tank, a second semi-automatic valve having a service outlet port, a waste outlet port and a port connected to said softener tank, manually actuatable means for severally setting said valves in a first position to cause the flow of liquid from said hard water port through said valves and through said brine and softener tanks to the waste pipe for regenerating and flushing operations, means for actuating said valves to a second position to cause flow of liquid from said hard water port through said valves and through the softener tank to the service outlet port, and separate and independently operable time control means operatively connected to said first and second valves respectively and adapted to be manually set independently one of the other to terminate the regenerating and flushing operations respectively at selected different times and to initiate the softening operation automatically.

2,778,800
OZONE FAUCET
John F. Sheahan, Scottdale, Pa.
Application June 11, 1953, Serial No. 360,964
5 Claims. (Cl. 210—27)



1. Liquid treating apparatus comprising a T fitting having two inlet legs and one outlet leg and means for supplying water to said outlet leg including valves, and a spout swivelly connected to the outlet leg of said fitting, an aerator mounted on the discharge end of said spout, a housing substantially surrounding said aerator, said

housing forming a chamber enclosing the air inlet openings of said aerator, a first conduit extending from said housing along the side of said spout downwardly through an opening in said spout and extending through said T fitting, packing means rotatably connecting said conduit to said T fitting, a second conduit, a swivel connection connecting said first conduit to said second conduit, a switch normally inoperative and connected to said second conduit, but being constructed to be operable upon a reduction of pressure in said last named conduit, said switch serving to initiate a supply of ozone to said second conduit for discharge through said aerator into a stream of liquid being supplied through said faucet upon reduction of pressure in said second conduit.

2,778,801
STABILIZATION OF FORMALDEHYDE-HYDROGEN SULFIDE REACTION PRODUCTS

Earl L. Humphrey, Verona, and Willard B. Morse, New Kensington, Pa., assignors to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

No Drawing. Application November 30, 1953, Serial No. 395,298
12 Claims. (Cl. 252—8.55)

1. A composition of matter effective for inhibiting corrosive attack of metal equipment by aqueous well fluids containing sulfides, carbon dioxide or mixtures thereof which comprises a solution in a water-miscible oxygen-containing organic solvent of a preformed aqueous oily liquid product of reaction, at a reaction temperature not exceeding about 80° F. and a reaction time not exceeding about 30 hours, of an aqueous solution of formaldehyde and hydrogen sulfide, said solution containing at least about 30 percent by volume of said solvent, and said solution additionally containing a small amount, sufficient to retard the precipitation of solids from said solution, of a compound selected from the group consisting of 1-acetyl-2-thiohydantoin, 2-benzothiazolyl hydrazine, o-dimethylaminomethyl-p-octyl phenol, and diphenylamine.

2,778,802
INTERMETALLIC COMPOUNDS OF GROUPS III AND V METALS CONTAINING SMALL AMOUNTS OF NICKEL, COBALT OR IRON

Robert K. Willardson, Harvey L. Goering, and Theodore C. Harman, Columbus, Ohio, assignors, by mesne assignments, to The Battelle Development Corporation, Columbus, Ohio, a corporation of Delaware

Application April 26, 1954, Serial No. 425,396
9 Claims. (Cl. 252—62.3)

1. An intermetallic compound composed of elements of the third and fifth periodic groups and containing from 0.001 to 5 atomic percent of a first series transition metal of the group consisting of nickel, cobalt, and iron, and characterized by increased mobility and increased magnetoresistance as compared with the mobility and magnetoresistance of the same compound without said transition metal.

2,778,803
MAGNETICALLY HARD MATERIALS

Henry L. Crowley, South Orange, N. J., assignor, by mesne assignments, to Aerovox Corporation, New Bedford, Mass., a corporation of Massachusetts

No Drawing. Application February 6, 1953, Serial No. 335,596
6 Claims. (Cl. 252—62.5)

1. The method of preparing a magnetically hard material which comprises forming under pressure into shaped articles an oxide mixture consisting essentially of ferric oxide, barium carbonate and lead oxide in which the relative proportions by weight of ferric oxide and barium carbonate respectively are 2 to 4 parts to 1 part, and in which the amount by weight of lead oxide is 1 to 10%, gradually heating the shaped articles over a period of at least 24 hours to 1100–1300° C., holding the shaped articles at a temperature within the range of 1100–1300° C. for several hours, and gradually cooling the shaped articles to room temperature.

2,778,804
OLEFIN POLYMERIZATION CATALYST AND PROCESS

Eugene S. Corner, Maplewood, and Charles S. Lynch, Plainfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

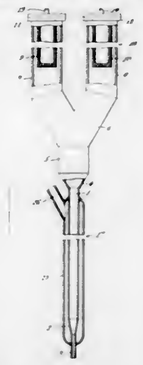
Application July 31, 1951, Serial No. 239,524
12 Claims. (Cl. 252—435)

1. The process of producing an olefin polymerization catalyst which comprises forming an intimate mixture comprising a silica hydrogel and a phosphoric acid, said hydrogel containing from about 50 to about 90% by weight of water, drying the mixture, and then calcining the catalyst at an elevated temperature.

2,778,805
IRON SYNTHESIS CATALYST

Henry G. McGrath, Union, N. J., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

Original application February 1, 1947, Serial No. 725,835, now Patent No. 2,598,647, dated May 27, 1952. Divided and this application April 14, 1952, Serial No. 282,150
4 Claims. (Cl. 252—474)



2. A fused hydrogenation catalyst comprising iron and between 0.1 and 1.5 weight percent of a promoter selected from at least one member of a group consisting of an alkali metal compound and an alkaline earth compound, the weight percent of the promoter being calculated as an oxide thereof based on iron.

2,778,806
PRINTING INK

William M. Hutchinson, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application July 25, 1952, Serial No. 300,967
6 Claims. (Cl. 260—19)

1. A printing ink composition comprising coloring matter and driers dispersed in a viscous vehicle comprising a mixed ester of hydroxylated polybutadiene, which has been hydroxylated after polymerization of the butadiene, said ester being the reaction product of an acid selected from the group consisting of polycarboxylic acids containing 2 to 20 carbon atoms per molecule and resinous acids containing 16 to 30 carbon atoms per molecule, said polycarboxylic acid being used in an amount equivalent to 1 to 20% of the hydroxy groups in said polymer and said resinous acid being used in an amount of from 1 to 99% of the hydroxy groups in said polymer; and an unsaturated fatty acid containing 12 to 24 carbon atoms per molecule, said unsaturated fatty acid being used in an amount from 1 to 90% of the hydroxy groups in said polymer after esterification with said acid selected from the group consisting of said polybasic acids and resinous acids; and a vegetable drying oil, said drying oil comprising up to 95% of the total vehicle.

2,778,807
OIL EXTENDED SYNTHETIC RUBBER COMPOSITIONS

Jesse K. Boggs, Princeton, Francis P. Ford, Roselle, and James H. McAteer, Cranford, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application May 26, 1953, Serial No. 357,628
4 Claims. (Cl. 260—33.6)

1. A composition comprising a vulcanized synthetic rubber prepared by mixing 100 parts of a diolefin rubbery polymer and about 10 to 50 parts by weight of a raffinate obtained by extracting from about 20 to about 43% of the aromatics from a naphthenic crude oil fraction, said raffinate containing between 0 and 21% aromatics and having less than 10 to 20% of its constituents boiling below about 700° F., and curing the mixture formed by heating same in the presence of a vulcanizing quantity of sulfur.

2,778,808
OIL EXTENDED SYNTHETIC RUBBER COMPOSITIONS

Walter L. Dunkel, Roselle Park, and Francis P. Ford and William C. Dowling, Roselle, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application May 27, 1953, Serial No. 357,812
7 Claims. (Cl. 260—33.6)

1. A composition of matter comprising a rubber and a plasticizing amount of an extender oil consisting of a raffinate having approximately the following properties:

Boiling range ° F.	668-977 (81%)
Specific gravity	0.90–0.92
Aniline point ° F.	190–210
Iodine No. (cg./g.)	16–20
Viscosity (SSU at 100° F.)	700–750
Percent aromatics	30–40
Pour point ° F.	0 to −30
Viscosity index	40–55

said raffinate having been obtained by the phenol extraction of a Colombian crude oil distillate having approximately the following properties:

Boiling range ° F.	500–977 (82%)
Specific gravity	0.92–0.96
Aniline point ° F.	175–180
Iodine No. (cg./g.)	21–22
Viscosity (SSU at 100° F.)	900–950
Percent aromatics	40–50
Pour point ° F.	0 to −30
Viscosity index	20–25

2,778,809
METHOD AND COMPOSITION FOR THE IMPROVEMENT OF SOIL STRUCTURE

Dorsey R. Mussell, Clare, and Harold H. Roth, Bay City, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application January 2, 1953, Serial No. 329,445
8 Claims. (Cl. 260—41)

1. A composition for the treatment of soil which comprises a finely divided solid carrier and in intimate admixture therewith a water-soluble sulfonate of a poly-(alkenyl-aromatic) compound, said poly(alkenyl-aromatic) compound having a solution viscosity before sulfonation of at least 500 centipoises and said sulfonate having a Brookfield viscosity of from about 35 to 1000 centipoises.

2,778,810
ELASTOMERS DERIVED FROM POLYISOCYANATE MODIFIED POLYESTERS

Erwin Müller, Leverkusen-Bayerwerk, and Siegfried Petersen, Leverkusen-Schlebusch, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application September 23, 1952, Serial No. 311,146
11 Claims. (Cl. 260—45.4)

1. A process of producing polymeric products, which comprises reacting a dehydrated, substantially linear polyester having from 0.6 to 2.4 percent by weight of hydroxyl groups with an organic polyisocyanate in an excess of from about 190 to 600 percent over the amount necessary to combine with the hydroxyl groups of said polyester, and causing the isocyanate-modified polyester thus formed to react with a diprimary aromatic diamine in a proportion to combine with at least one fourth to at most all of the isocyanate groups present.

2,778,811
CONDENSATION AND POLYMERISATION PRODUCTS OF ALDEHYDES WITH KETONE CYANOHYDRINS AND A METHOD OF MAKING SAME

Arthur Ullrich, Neckargemuend, Germany

No Drawing. Application August 20, 1952, Serial No. 305,510
14 Claims. (Cl. 260—67)

3. In a process of producing resinous condensation and polymerization products, the step comprising heating, in the absence of water, a cyanohydrin of a ketone with an aliphatic aldehyde in the presence of a basic agent to a temperature between about 60° C. and about 80° C. for a period of time sufficient to inter-resinify said cyanohydrin with said aldehyde.

2,778,812
WATER SOLUBLE COPOLYMERS OF SO_2, AN ACRYLIC ACID AND A VINYL ALKYL ETHER

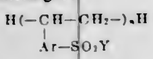
Robert R. Dreisbach and John F. Mulloy, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application November 23, 1953, Serial No. 393,594
5 Claims. (Cl. 260—79.3)

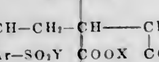
1. A water-soluble ternary polymer of sulfur dioxide, at least one acid from the group consisting of acrylic and methacrylic acids, and a vinyl alkyl ether in which the alkyl group contains from 1 to 4 carbon atoms, the amount of sulfur dioxide being from 1 to 8 percent, that of the acid being from 60 to 79 percent, and that of the ether being from 20 to 39 percent of the polymer weight

2,778,813
COLOR PHOTOGRAPHIC MATERIAL FROM RESINOUS SULFONYL CHLORIDES
Bela Gaspar, Beverly Hills, and Gustave B. Linden, North Hollywood, Calif.; said Linden assignor to said Gaspar
No Drawing. Application May 8, 1951, Serial No. 225,267
6 Claims. (Cl. 260—79.3)

1. A soluble non-diffusing dye-forming high molecular weight polymeric compound of a general formula selected from the group consisting of



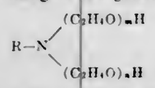
and



where X is selected from the group consisting of hydrogen, alkyl, and alkali metal radicals, Ar is an aromatic radical, *n* is an integer substantially greater than 2, a portion of the Y radicals are each a dye-forming radical of the formula —NHR. where R is a member of the class consisting of phenol, naphthol, phenylamino, naphthylamino, pyrazolone and acylacetanilide groups, said dye-forming radical having an available dye coupling position, and the remaining portion of said Y radicals are each an O-cation group, the polymeric portion of said compound to which said —SO_2Y groups are attached having a molecular weight of at least 1000.

2,778,814
ALKYL ARYL SULFONIC ACID AMINE SALT EMULSIFYING AGENTS
Robert William Behrens, Newport, Del., and William Colvin Griffin, West Chester, Pa., assignors to Atlas Powder Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application November 7, 1952, Serial No. 319,428
5 Claims. (Cl. 260—98)

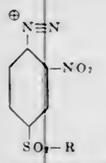
1. The salt of an alkyl aryl sulfonic acid, containing an alkyl radical of from 8 to 16 carbon atoms and no substituent other than alkyl, and a polyoxyethylene ether of an amine conforming to the generic formula



where R is a hydrocarbon radical containing from 12 to 20 carbon atoms, *m* and *n* are each at least 1 and the sum of $m+n$ is from 3 to 30.

2,778,815
PROCESS FOR THE PRODUCTION OF AROMATIC O-HYDROXYDIAZO COMPOUNDS
Hans Ackermann, Riehen, near Basel, and Guido Schetty, Basel, Switzerland, assignors to J. R. Geigy A. G., Basel, Switzerland, a Swiss firm
No Drawing. Application July 16, 1954, Serial No. 443,963
Claims priority, application Switzerland July 20, 1953
7 Claims. (Cl. 260—141)

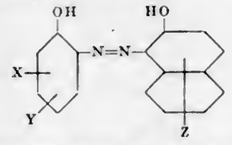
1. Process for the manufacture of an aromatic o-hydroxy diazonium compound comprising neutralising the sulphuric acid solution of a diazonium compound of the general formula:



wherein R represents a member selected from the group consisting of lower aliphatic radicals and aromatic radicals of the benzene series, by contacting it with an alkaline reagent up to a pH of 6–11, whereby the nitro group is replaced by the hydroxyi group.

2,778,816
COBALTIFEROUS AND CHROMIFEROUS AZO-DYESTUFFS
Arthur Buehler, Rheinfelden, and Christian Zickendraht, Binningen, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm
No Drawing. Application August 15, 1952, Serial No. 304,629
Claims priority, application Switzerland August 17, 1951
11 Claims. (Cl. 260—151)

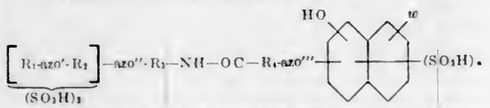
1. A metalliferous azo-dyestuff containing one atom of a metal selected from the group consisting of chromium and cobalt bound in complex union to substantially two molecules of the same monoazo dyestuff free from sulfonic acid and carboxylic acid groups and corresponding to the formula



in which Y represents a sulfonic acid amide group containing a single sulfur atom, X represents a member selected from the group consisting of a nitro group, a methyl group, a chlorine atom and a hydrogen atom, and Z represents a member selected from the group consisting of a hydrogen atom, a bromine atom, a methyl group, a methoxy group and a sulfonic acid aryl ester group, at most one of the symbols X and Z being hydrogen when Y is the group —SO_2NH_2.

2,778,817
POLYAZO DYESTUFFS
Philippe Grandjean, Basel, Switzerland, assignor, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company, trustee
No Drawing. Application December 13, 1954, Serial No. 474,990
Claims priority, application Switzerland December 24, 1953
7 Claims. (Cl. 260—173)

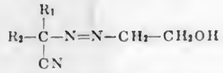
1. A polyazo dyestuff which corresponds to the formula



wherein each of R_1 and R_2 stands for a member selected from the group consisting of substituted and unsubstituted radicals of the benzene and naphthalene series, the substituents being chosen from the class consisting of chlorine atoms, lower alkyl, lower alkoxy and sulfonic acid groups, R_3 stands for a member selected from the group consisting of substituted and unsubstituted radicals of the benzene series, the substituents being chosen from the class consisting of lower alkyl, lower alkoxy and acylamino groups, the acyl group being carboxylic acid acyl, R_4 stands for a member selected from the group consisting of substituted and unsubstituted radicals of the benzene series, the substituents being chosen from the class consisting of chlorine and bromine atoms, lower alkyl and lower alkoxy groups, *w* stands for an acylamino group, the acyl group being carboxylic acid acyl, *n* stands for one of the numerals 1 and 2, and wherein —azo''— is linked in para-position with respect to –azo'– and to –NH–CO–, and wherein —azo'''— is linked in ortho-position with respect to —OH and is linked in one of the para- and meta-positions with respect to —NH—CO—.

2,778,818
AZO NITRILES CONTAINING BETA-HYDROXYALKYL SUBSTITUENTS
Archibald Miller Hyson and Ralph Courtenay Schreyer, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application August 18, 1954, Serial No. 450,801
7 Claims. (Cl. 260—192)

1. An azo compound having the following general formula

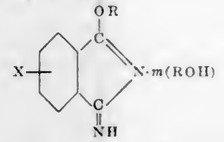


wherein R_1 and R_2 are alkyl radicals having from 1 to 7 carbon atoms.

2,778,819
1-ALKOXY-3 IMINO-ISOINDOLENINE DERIVATIVES
Fritz Baumann, Leverkusen-Bayerwerk, and Berthold Bienert and Georg Rösch, Leverkusen-Wiesdorf, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany
No Drawing. Original application August 21, 1950, Serial No. 180,695, now Patent No. 2,683,643, dated July 13, 1954. Divided and this application July 2, 1952, Serial No. 296,944
Claims priority, application Great Britain August 25, 1949
10 Claims. (Cl. 260—319)

1. The process for the production of monomeric 1-alkoxy-3-imino-isoindolenine derivatives which essentially comprises treating at temperatures from —30° to +60° an o-arylene dinitrile in the presence of a lower aliphatic alcohol with substantially equimolar quantities of a compound selected from the group consisting of alkali metal alcoholates, alkaline earth metal alcoholates, alkali metal hydroxides and alkali metal amides and recovering the resulting 1-alkoxy 3-imino isoindolenine derivative.

6. As new compounds



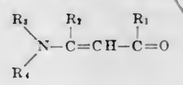
wherein R stands for an alkyl radical, having a carbon chain of not more than 6 carbon atoms, X stands for a substituent selected from the group consisting of hydrogen, phenyl, lower alkyl, lower alkoxy, phenoxy and halogen, and *m* stands for 0 and 1.

2,778,820
PROCESS FOR THE CONTINUOUS PRODUCTION OF CELLULOSE ESTERS
Roland Clevy, Le Peage-de-Roussillon, and Jean Robin, Roussillon, France, assignors to Societe "Rhodiaceta," Paris, France, a body corporate of France
Application March 13, 1953, Serial No. 342,214
Claims priority, application France October 29, 1952
4 Claims. (Cl. 260—229)

1. A process for the continuous production of cellulose esters which comprises defibering commercially obtainable dried cellulose in an amount of water corresponding to 15 to 30 times the weight of the cellulose, continuously eliminating said water, the last stage of this elimination being effected continuously by systematic displacement of the water with a lower aliphatic acid solvent for the cellulose ester being produced, and esterifying continuously the cellulose thus impregnated with acid, without intermediate drying, by means of a lower aliphatic acid anhydride in the presence of an esterification catalyst and an organic solvent for the cellulose ester being produced by submitting the reaction mass of cellulose and esterifying agents to a general transfer movement in a predetermined direction and simultaneously to a reciprocating movement directed alternately in the said direction and in direction opposite thereto.

2,778,821
PRODUCTION OF COMPOUNDS OF THE PYRIMIDINE SERIES
Heinrich Pasedach, Ludwigshafen (Rhine), and Matthias Seefelder, Ludwigshafen (Rhine)-Oppau, Germany, assignors to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany
No Drawing. Application January 17, 1955, Serial No. 482,404
Claims priority, application Germany January 19, 1954
8 Claims. (Cl. 260—239.75)

1. An improved process for the production of compounds of the pyrimidine series which comprises reacting at from ordinary temperature up to about 150° C. a compound of the general formula



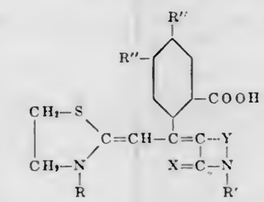
in which R_1 and R_2 represent members of the group consisting of hydrogen, methyl and phenyl radicals and R_3—N—R_4 represents the amino radical of a secondary amine selected from the group consisting of saturated lower aliphatic secondary amines, pyrrolidine, piperidine and N-lower alkyl anilines, with a compound of the general formula

R—C(=NH)—NH_2

in which R represents a member of the group consisting of hydrogen, lower alkyl, phenyl, amino, sulfhydryl, benzene-sulfonylamino and para-aminobenzene sulfonylamino groups.

2,778,822
PHOTOGRAPHIC SENSITIZING DYES
John Charles Firestine, South River, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application May 26, 1953, Serial No. 357,627
11 Claims. (Cl. 260—240.4)

1. The chemical compounds of the general formula:



wherein X is a chalcogen taken from the group consisting of oxygen and sulfur, Y constitutes the atoms necessary to complete a 5-membered heterocyclic ketomethylene ring, R is a member taken from the group consisting of alkyl and aralkyl radicals, R' is a member taken from the group consisting of alkyl, aryl, carboxyalkyl, carboxyaryl, sulfoaryl, and aralkyl radicals, and one radical R'' is hydrogen and the other is a member taken from the group consisting of hydrogen, aryl, aryloxy, and alkoxy radicals.

2,778,823

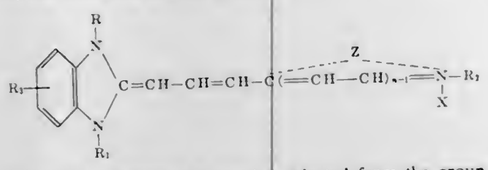
BENZIMIDAZOLOCARBOCYANINE DYES

Leslie G. S. Brooker and Earl J. Van Lare, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application August 23, 1954, Serial No. 451,696

14 Claims. (Cl. 260—240.6)

1. A carbocyanine dye selected from those represented by the following general formula:



wherein R represents a member selected from the group consisting of an alkyl group containing from 1 to 4 carbon atoms and a mononuclear aromatic group of the benzene series containing from 6 to 7 carbon atoms, R_1 and R_2 each represents an alkyl group containing from 1 to 4 carbon atoms, R_3 represents a member selected from the group consisting of an acetyl group and a R′—NHCO— group wherein R′ represents an alkyl group containing from 1 to 4 carbon atoms, X represents an acid radical, *n* represents a positive integer of from 1 to 2, and Z represents the non-metallic atoms necessary to complete a heterocyclic nucleus selected from the group consisting of those of the thiazole series, those of the benzothiazole series, those of the naphthothiazole series, those of the thianaphtheno-7′,6′,4,5-thiazole series, those of the oxazole series, those of the benzoxazole series, those of the naphthoxazole series, those of the selenazole series, those of the benzoselenazole series, those of the naphthoselenazole series, those of the 2-quinoline series, those of the 4-quinoline series, those of the 1-isoquinoline series, those of the 3-isoquinoline series, those of the benzimidazole series, those of the 3,3-dialkylindolenine series, and those of the pyridine series.

2,778,824

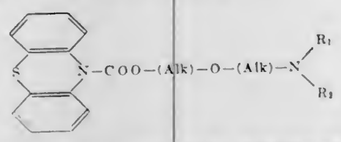
BASIC ALKOXYALKYL ESTERS OF PHENOTHIAZINE-10-CARBOXYLIC ACID

Carl von Seemann, Westmount, Quebec, Canada, assignor to American Home Products Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application July 13, 1955, Serial No. 521,927

9 Claims. (Cl. 260—243)

1. A compound selected from the group which consists of the basic esters of the formula:



where Alk represents a straight chain alkylene group containing two carbon atoms, and R_1 and R_2 each represent lower alkyl; their acid addition salts with hydrochloric, hydrobromic, sulfuric, maleic, oxalic, tartaric, citric, picric and picrolonic acids; and their methochloride, methobromide, ethobromide, methiodide, ethiodide and methosulfate quaternary ammonium salts.

2,778,825

SUBSTITUTED N-CARBAMYL DERIVATIVES OF 2-METHYL-OXAZOLIDINES AND 2-METHYL-TETRAHYDRO-1,3-OXAZINES AND THEIR PREPARATION

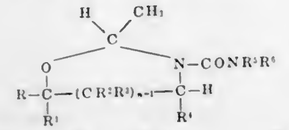
Sidney Melamed, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application October 29, 1954, Serial No. 465,718

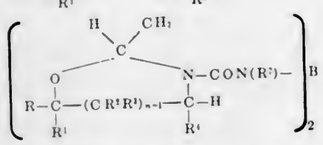
12 Claims. (Cl. 260—244)

1. As a new composition of matter, a compound selected from the group consisting of those having the structure of one of Formulas I and II:

I



II



where *n* is an integer having a value of 1 to 2, R is selected from the group consisting of hydrogen, cyclohexyl, vinyl, and alkyl groups having 1 to 16 carbon atoms, R^1 is selected from the group consisting of hydrogen and alkyl groups having 1 to 4 carbon atoms, R^2 is selected from the group consisting of hydrogen and methyl, R^3 is selected from the group consisting of hydrogen and methyl, R^4 is selected from the group consisting of hydrogen and alkyl groups having 1 to 16 carbon atoms, R^5 when not directly connected to R^6 to form a ring is selected from the group consisting of saturated aliphatic and cycloaliphatic groups having 1 to 24 carbon atoms, R^6 when not directly connected to R^5 to form a ring is selected from the group consisting of saturated aliphatic and cycloaliphatic groups having 1 to 24 carbon atoms, R^5 and R^6, when directly connected together, consist of an aliphatic hydrocarbon radical and form a saturated 5- to 6-membered ring with the adjoining N atom, R^7, when it is a monovalent group, is a hydrocarbon group having 1 to 7 carbon atoms, but when the two R^7 substituents are directly connected together, they constitute a $—C_2H_4—$ linkage forming a piperazine ring with the —N—B—N— linkage, and B is selected from the group consisting of divalent aliphatic hydrocarbon groups having 2 to 18 carbon atoms, and divalent residues of benzene.

2,778,826

PREPARATION OF BASIC NITROGEN COMPOUNDS

Claude J. Schmidle, Moorestown, N. J., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application April 26, 1954, Serial No. 425,713

10 Claims. (Cl. 260—247)

1. A process for preparing organic tertiary amino compounds which comprises reacting in the presence of a catalyst from the class consisting of sulfuric, arylsulfonic, alkanesulfonic, and phosphoric acids and sulfonated cation-exchange resins in hydrogen form a mono-olefinically unsaturated hydrocarbon having a vinylidene group, formaldehyde, and a secondary amine having an —NH group as the sole group reacting with formaldehyde and having N-substituents which are members of the class consisting of saturated divalent aliphatic chains having

a length of four to five atoms which form a heterocycle with the amino nitrogen and lower alkyl, and benzyl groups.

2,778,827

PROCESS FOR THE MANUFACTURE OF DERIVATIVES OF 4:4′-DIAMINOSTILBENE-2:2′-DISULFONIC ACID

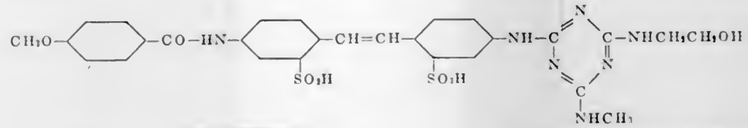
Franz Ackermann, Binningen, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application October 11, 1950, Serial No. 189,682

Claims priority, application Switzerland October 28, 1949

9 Claims. (Cl. 260—249.6)

1. An optical bleaching agent which comprises an alkali salt of 4-[(para-methoxy-benzoyl)-amino]-4′-[2-methylamino - 4 - (β - hydroxyethylamino) - 1:3:5 - triazyl-(6)-amino]-stilbene-2:2′-disulphonic acid of the formula



2,778,828

METHOD FOR PRODUCING MELAMINE

André Claude Vialaron, Lannemezan, France, assignor to Societe des Produits Azotes, Paris, France, a French company

Application December 9, 1955, Serial No. 552,171

Claims priority, application France December 9, 1952

4 Claims. (Cl. 260—249.7)

1. A method for producing melamine devoid of any substantial amount of by-products, consisting in forming an aqueous solution of a cyan derivative of ammonia of the formula $(CN_2H_2)X$, wherein X means a whole number not greater than 2 and which solution contains 50% to 80% water, creating a fine dispersion of said solution in a confined area maintained at substantially atmospheric pressure, heating said dispersion while so confined to a temperature ranging between about 200 and 300° C. and collecting the resulting pure melamine.

2,778,829

NEW 5:6-DIHYDRO-BENZO (C) CINNOLINE DERIVATIVES AND A PROCESS FOR THEIR PREPARATION

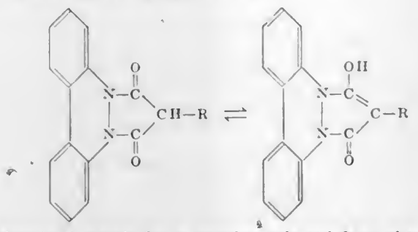
Max Matter, Worb, near Berne, Switzerland, assignor to Haco Gesellschaft A. G., Gumligen, Berne, Switzerland

No Drawing. Application January 10, 1955, Serial No. 480,990

Claims priority, application Switzerland January 20, 1954

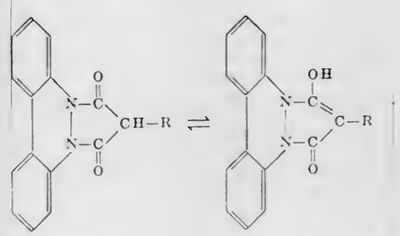
7 Claims. (Cl. 260—250)

1. A compound selected from the class consisting of a free acid and its salts with therapeutically useful bases, said free acid having the formula

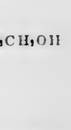


wherein R stands for a member selected from the group consisting of H, lower alkyl, lower alkoxyalkyl, phenoxy-lower alkyl, furfuryl, tetrahydrofurfuryl, tetrahydropyran-2-methyl, lower alkylene, benzyl, cyclohexyl, cyclopentyl, cyclohexylidene and cyclopentylidene.

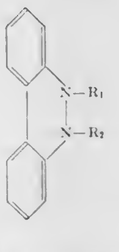
7. A process for the manufacture of compounds corresponding to the formula



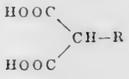
wherein R stands for a member selected from the group consisting of H, lower alkyl, lower alkoxyalkyl, phenoxy-lower alkyl, furfuryl, tetrahydrofurfuryl, tetrahydro-



pyran-2-methyl, lower alkylene, benzyl, cyclohexyl, cyclopentyl, cyclohexylidene and cyclopentylidene, said process comprising condensing, in the presence of an acid condensing agent, a compound of the formula



wherein R_1 and R_2 each represents a member selected from the group consisting of H, lower fatty acid acyl and benzoyl, with a compound of the formula



wherein R has the meaning hereinbefore given.

2,778,830

PRODUCTION OF 2-AMINOPYRIMIDINES

Heinrich Pasedach, Ludwigshafen (Rhine), and Matthias Seefelder, Ludwigshafen, Rhine-Oppau, Germany, assignors to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

No Drawing. Application July 26, 1954, Serial No. 445,890

2 Claims. (Cl. 260—256.4)

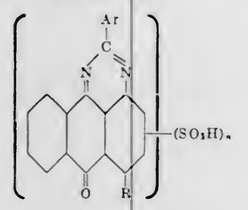
1. An improved process for the production of 2-aminopyrimidine which comprises introducing a solution of chromium trioxide in about 50 to 60% sulfuric acid into a solution of about equivalent amounts of guanidine carbonate and propargyl alcohol in excess about 50 to 60% sulfuric acid at from about 50° to 60° C.

2,778,831
DYESTUFFS OF THE ANTHRAPYRIMIDINE SERIES

Frank Lodge and James Wardleworth, Blackley, Manchester, England, assignors to Imperial Chemical Industries Limited, a corporation of Great Britain

No Drawing. Application October 18, 1954, Serial No. 463,026
Claims priority, application Great Britain October 21, 1953
6 Claims. (Cl. 260—261)

1. New acid dyestuffs which in their free acid form are represented by the formula:



wherein Ar represents a member selected from the group consisting of a-naphthyl-, β-naphthyl-, p-phenylphenyl-, and p-phenoxyphenyl-radicals, R represents a member selected from the group consisting of an aniline radical carrying in the 4-position a cyclohexyl radical, an aniline radical carrying in the 4-position an alkyl radical containing at least 4 and not more than 12 carbon atoms, and an aniline radical carrying on the 3- and 4-positions a reduced ring, and n is a whole number greater than 1 with a sulphonating agent selected from the group consisting of sulfuric acid and oleum until the resulting mixture is completely soluble in water.

2,778,832
REDUCTION OF CODEINONE TO CODEINE

Marshall D. Gates, Jr., Pittsford, N. Y., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application June 22, 1954, Serial No. 438,600
11 Claims. (Cl. 260—285)

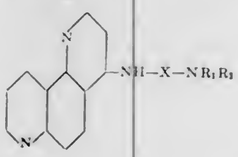
1. The process for reducing a codeinone compound which comprises intimately contacting a codeinone compound with a reducing agent from the group consisting of alkali metal aluminum hydrides and alkali metal borohydrides to produce the corresponding codeine compound.

2.778,833
4-AMINO-10-HYDROXY-1,7-PHENANTHROLINES

Alexander R. Surrey, Albany, N. Y., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

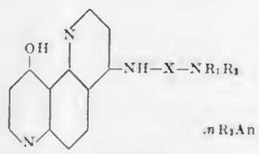
No Drawing. Application October 21, 1954, Serial No. 463,809
40 Claims. (Cl. 260—286)

1. A compound selected from the group consisting of a 4-substituted-amino-10-hydroxy-1,7-phenanthroline, its acid addition salts and quaternary ammonium salts, said phenanthroline having the formula

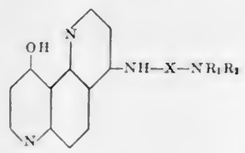


where X is a member of the group consisting of an alkylene radical having two to eight carbon atoms and having its two free valence bonds on different carbon atoms, a 2-hydroxy-1,3-propylene radical, and an oxa-alkylene radical having four to eight carbon atoms and having its oxygen atom at least one carbon atom removed from each terminal carbon atom bearing a free valence bond and NR_1R_2 is a member of the group consisting of di-(lower alkyl)amino, N-(lower alkyl)-N-(lower beta-hydroxyalkyl)amino, N-(lower alkyl)-N-benzylamino, N-(lower alkyl)-N-(lower alkylated-benzyl)amino, N-(lower alkyl)-N-(lower alkoxylated-benzyl)amino, N-(lower alkyl)-N-(halogenated-benzyl)amino, 1-piperidyl, (lower alkylated)-1-piperidyl, 1-pyrrolidyl, (lower alkylated)-1-pyrrolidyl and 4-morpholinyl.

21. A process for the preparation of a quaternary ammonium salt having the formula



where X is a member of the group consisting of an alkylene radical having two to eight carbon atoms and having its two free valence bonds on different carbon atoms, a 2-hydroxy-1,3-propylene radical, and an oxa-alkylene radical having four to eight carbon atoms and having its oxygen atom at least one carbon atom removed from each terminal carbon atom bearing a free valence bond, NR_1R_2 is a member of the group consisting of di-(lower alkyl) amino, N-(lower alkyl)-N-(lower beta-hydroxyalkyl)-amino, N-(lower alkyl)-N-benzylamino, N-(lower alkyl)-N-(lower alkylated-benzyl)amino, N-(lower alkyl)-N-(lower alkoxylated-benzyl)amino, N-(lower alkyl)-N-(halogenated-benzyl)amino, 1-piperidyl, (lower alkylated)-1-piperidyl, 1-pyrrolidyl, (lower alkylated)-1- pyrrolidyl and 4-morpholinyl, n is an integer from 1 to 4, R_3 is a member of the group consisting of lower alkyl, benzyl, (lower alkylated)-benzyl, (lower alkoxylated)-benzyl, halogenated-benzyl and nitrobenzyl, and An is a non-toxic anion, which comprises treating the corresponding basic phenanthroline having the formula



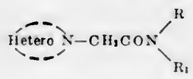
with at least n molar equivalents of the ester, R_3An.

2,778,834
SUBSTITUTED GLYCINAMIDES

William F. Bruce, Havertown, and Joseph Seifter, Philadelphia, Pa., assignors to American Home Products Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application November 18, 1954, Serial No. 469,847
4 Claims. (Cl. 260—287)

1. A compound selected from the group consisting of substituted glycinamides having the formula



the designation

representing a heterocyclic radical of the group consisting of pyrrolidino and 1,2,3,4-tetrahydro-3-methyl-isoquinolino, while R stands for a lower alkyl radical and R_1 represents an aralkyl radical having 1 to 4 carbon atoms in the alkyl chain; and the non-toxic acid-addition salts thereof.

2,778,835
SYNTHESIS OF 1-BENZAMIDO-1-PHENYL-3-PIPERIDINOPROPANE

Albert Pohland, Indianapolis, Ind., assignor to Eli Lilly and Company, Indianapolis, Ind., a corporation of Indiana

No Drawing. Application March 18, 1955, Serial No. 495,364
3 Claims. (Cl. 260—294)

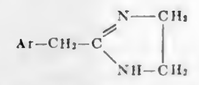
1. The method of preparing 1-benzamido-1-phenyl-3-piperidinopropane which comprises reacting 1-phenyl-3-piperidinopropanol and benzonitrile in the presence of concentrated sulfuric acid at a temperature between about 30° C. and about 100° C., and isolating the 1-benzamido-1-phenyl-3-piperidinopropane which is formed in the reaction.

2,778,836
SUBSTITUTED 2-METHYL-Δ² IMIDAZOLINES

Henri Morren, Forest-Brussels, Belgium, assignor to Union Chimique Belge, S. A., Brussels, Belgium, a corporation of Belgium

No Drawing. Application February 3, 1955, Serial No. 486,015
Claims priority, application Belgium April 2, 1954
4 Claims. (Cl. 260—309.6)

1. A compound selected from those represented by the formula



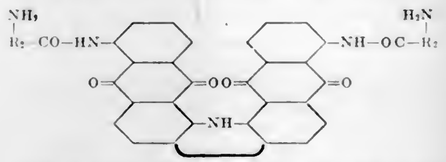
wherein Ar is an aromatic radical selected from the group consisting of 5,6,7,8-tetrahydro-1-naphthyl, 5,6,7,8-tetrahydro-2-naphthyl and p-phenoxyphenyl radicals.

2,778,837
NEW ANTHRAQUINONE VAT DYESTUFFS

Theodor Holbro, Basel, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a firm of Switzerland

No Drawing. Application July 6, 1954, Serial No. 441,635
Claims priority, application Switzerland July 29, 1953
5 Claims. (Cl. 260—316)

1. An anthraquinone vat dyestuff of the formula



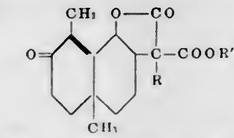
in which R_2 represents an anthraquinone radical bound to the $—NH_2$ group in its 1-position and to the —CO— group in 2-position and containing at the most one further substituent which is in 4-position of the anthraquinone radical and is selected from the group consisting of hydrogen and halogen atoms and nitro, nitrile and benzoylamino groups.

2,778,838
DERIVATIVES OF DIHYDROSANTONIN AND A PROCESS FOR THEIR PREPARATION

Yasuo Abe, Osaka, Tadatsugu Harukawa, Kyoto, Hisashi Ishikawa, Kobe, Takuichi Miki, Hyogo, Masao Sumi, Osaka, and Tadashi Toga, Hyogo, Japan, assignors to Takeda Pharmaceutical Industries, Ltd., Higashi-ku, Osaka, Japan

No Drawing. Application September 22, 1954, Serial No. 457,792
Claims priority, application Japan October 2, 1953
5 Claims. (Cl. 260—343.3)

2. A compound which corresponds to the general formula



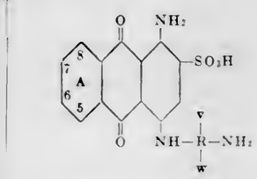
wherein R is a member selected from the group consisting of hydrogen and methyl, and R′ is a member selected from the group consisting of hydrogen and lower alkyl, and the lactone ring is transfused.

2,778,839
GREEN SUBSTANTIVE DYESTUFFS OF THE ANTHRAQUINONE SERIES

Albin Peter, Binningen, and Wolfgang Frey, Neuewelt, Switzerland, assignors, by mesne assignments, to Sani & Co., Newark, N. J., as nominee of Fidelity Union Trust Company

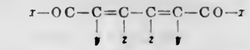
No Drawing. Application November 2, 1953, Serial No. 389,877
Claims priority, application Switzerland November 7, 1952
6 Claims. (Cl. 260—368)

1. A green substantive dye obtained by condensing a 1-aminoanthraquinone-2-sulfonic acid corresponding to the formula



(a)

wherein R stands for a member selected from the group consisting of phenyl and diphenyl radicals, v stands for a member selected from the group consisting of hydrogen, lower alkyl, lower alkoxy and halogen, w stands for a member selected from the group consisting of hydrogen and lower alkyl, and wherein the nucleus A is a nucleus selected from the group consisting of the unsubstituted nucleus, a nucleus substituted in one of the positions 5, 6, 7 and 8 by a sulfonic acid group, a nucleus substituted in one of the positions 6 and 7 by a halogen atom and a nucleus substituted in both positions 6 and 7 by halogen atoms, with a member selected from the group consisting of the same 1-aminoanthraquinone-2-sulfonic acid and a 1-aminoanthraquinone-2-sulfonic acid different from the first one but corresponding to the aforesaid formula, by treating them with such a quantity of a dicarboxylic acid halide corresponding to the formula



wherein x stands for a member selected from the group consisting of chlorine and bromine, y stands for a member selected from the group consisting of hydrogen and chlorine, one z stands for a member selected from the group

consisting of hydrogen and methyl, the other z stands for hydrogen, that there are for each molecule of the dicarboxylic acid halide two molecules of 1-aminoanthraquinone-2-sulfonic acid.

2,778,840

METHOD OF PREPARING 7-DEHYDROCHOLESTEROL

Hermann Schaltegger, Neuenegg, near Bern, Switzerland, assignor to Dr. A. Wander A. G., Bern, Switzerland

No Drawing. Application February 5, 1953, Serial No. 335,398
Claims priority, application Switzerland February 15, 1952
3 Claims. (Cl. 260—397.2)

1. In a process of producing 7-dehydrocholesterol from 7-bromo cholesteryl esters, the steps comprising dissolving a 7-bromo cholesteryl ester selected from the group consisting of lower aliphatic acid esters and benzoic acid ester of 7-bromo cholesterol, in an inert hydrocarbon solvent having a boiling point above 100° C., adding to said solution a concentrated aqueous solution of a hydrogen bromide-binding compound selected from the group consisting of an alkali metal hydroxide, an alkali metal carbonate, an alkali metal bicarbonate, an alkaline earth metal hydroxide, an alkaline earth metal carbonate, and mixtures thereof, heating the reaction mixture at a temperature above 100° C. to effect dehydrohalogenation, adding to said reaction mixture an amount of a lower aliphatic alcohol sufficient to form a homogeneous one-phase solution, and continuing heating until dehydrohalogenation and saponification are substantially complete.

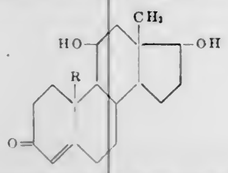
2,778,841

11-HYDROXYTESTOSTERONE, 11-HYDROXY-19-NORTESTOSTERONE AND THEIR PRODUCTION

Jack W. Ralls, Morton Grove, Ill., assignor, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware

No Drawing. Application December 21, 1953, Serial No. 399,631
8 Claims. (Cl. 260—397.45)

1. An 11β-hydroxysteroid having the formula



wherein R is a member of the group consisting of hydrogen and methyl.

2,778,842

4,21-DIHALO-17α-HYDROXYPREGNANE-3,11,20-TRIONE

Gunther S. Fonken, Kalamazoo, Robert H. Levin, Kalamazoo Township, Kalamazoo County, and A Vern McIntosh, Jr., Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application July 14, 1953, Serial No. 367,984
4 Claims. (Cl. 260—397.45)

1. A 4,21-dihalo-17α-hydroxypregnane-3,11,20-trione selected from the group consisting of 4,21-dichloro-17α-hydroxypregnane - 3,11,20 - trione, 4,21 - dibromo - 17α-hydroxypregnane, 3,11,20-trione, and 4-chloro-21-bromo-17α-hydroxypregnane-3,11,20-trione.

2,778,843

URANIUM CHELATES OF DI(SALICYLAL)ALKYLENEDIIMINE AND PROCESS FOR THEIR PREPARATION

Horace D. Brown, Plainfield, N. J., and Frederick J. Wolter, Cleveland, Ohio, assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application April 25, 1949, Serial No. 89,580
25 Claims. (Cl. 260—429.1)

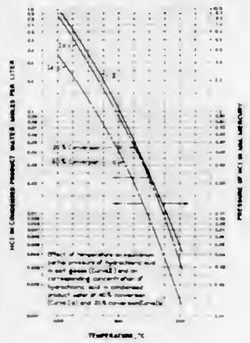
1. A tetravalent uranium chelate compound of a di-(salicylal)alkylenediimine wherein the divalent alkylene radical contains at least two carbon atoms and joins the two nitrogen atoms by means of two carbon atoms.

2,778,844

HALOGEN INHIBITED SYNTHESIS OF HYDROCARBONS

Thomas G. Day, South Charleston, and George F. Hurley, St. Albans, W. Va., assignors to Union Carbide and Carbon Corporation, a corporation of New York

Application January 4, 1952, Serial No. 264,926
3 Claims. (Cl. 260—449.6)



1. In the synthesis of hydrocarbons by the reaction of carbon monoxide and hydrogen at synthesis conditions of temperature and pressure in the presence of an iron catalyst wherein the catalyst is inhibited during synthesis by maintaining therein an iron halide of the group consisting of chloride, bromide and iodide and wherein a product gas containing olefines, water and a hydrogen halide of said group is formed throughout the synthesis reaction; the improvement which comprises separating the hydrogen halide from the water by passing said product gas through a stripper bed of iron-containing particles at a temperature substantially below said synthesis temperature but above the dew point of said product gas, removing most of the hydrogen halide from the product gas by converting it to an iron halide in said bed, and reusing the iron halide formed in said bed as a source of halide for inhibition of the synthesis catalyst.

2,778,845

SYNTHESIS OF ORGANIC COMPOUNDS AND CATALYST THEREFOR

Henry G. McGrath, Union, and Louis C. Rubin, West Caldwell, N. J., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application September 24, 1953, Serial No. 382,218
4 Claims. (Cl. 260—449.6)

1. A process for hydrogenating carbon monoxide which comprises flowing a gaseous mixture comprising hydrogen and a carbon monoxide through a reaction zone in the presence of a catalyst comprising elementary iron obtained by the reduction of naturally occurring magnetite as the

major component and between about 0.8 and about 1.5 weight percent of manganese oxide and between about 0.2 and about 2.5 weight percent of an alkali compound as promoters based on ultimate catalyst at a temperature between about 550° F. and about 650° F. and a pressure between about 80 and about 600 pounds per square inch gage such that hydrogen and carbon monoxide are converted to organic compounds including hydrocarbons and recovering organic compounds thus produced as products of the process.

2,778,846

CHLOROFORMATE PRODUCTION

Francis W. Theis, Akron, and Kenneth W. Richardson, Jr., Barberton, Ohio, assignors to Columbia-Southern Chemical Corporation

Application February 26, 1954, Serial No. 412,712
14 Claims. (Cl. 260—463)

1. A method of preparing a chloroformate which comprises establishing countercurrently flowing streams of phosgene and liquid alcohol, contacting such streams at temperatures conducive to the formation of chloroformate but below that at which substantial carbonate is formed, withdrawing evolved hydrogen chloride from one end of the countercurrent contact system and produced chloroformate from the other end thereof while maintaining the temperature adjacent the chloroformate withdrawal point substantially above that adjacent the point of hydrogen chloride withdrawal.

2,778,847

PROCESS FOR PRODUCING ACRYLONITRILE

Yoshisato Fujisaki, Kochi-shi, Kochi-ken, and Tsuyoshi Takemoto, Onorison, Toyoda-gun, Hiroshima-ken, Japan, assignors to Asahi Kasei Kogyo Kabushiki Kaisha, Osaka, Japan, a corporation of Japan

No Drawing. Application August 21, 1953, Serial No. 375,824
5 Claims. (Cl. 260—465.3)

1. A process for the preparation of acrylonitrile, which comprises introducing hydrogen cyanide and acetylene into an aqueous solution containing dissolved therein, as catalyst, (*a*) a cuprous halide selected from the group consisting of cuprous chloride, cuprous bromide and cuprous iodide and (*b*) cuprous cyanide, the quantity of cuprous cyanide being 1 to 13% by weight of the cuprous halide, whereby reaction between the hydrogen cyanide and acetylene takes place with formation of acrylonitrile.

2,778,848

PREPARATION OF ACRYLATES

Andrew Neuman, North Hills, Harry T. Neher, Bristol, and Edward H. Specht, Philadelphia, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application January 21, 1953, Serial No. 332,506
12 Claims. (Cl. 260—486)

1. A process for preparing acrylic esters which comprises reacting together between 30° and 90° C. acetylene, nickel carbonyl, an acid which forms a nickelous salt from the nickel carbonyl in the reaction mixture and which makes available for reaction the carbonyl therefrom, the acid being used in a proportion sufficient to initiate reaction, and a monohydric alcohol of three to twelve carbon atoms, and, while these substances are reacting, passing into the reaction mixture and there reacting between 30° and 90° C. acetylene, carbon monoxide, nickel carbonyl, water, and a said alcohol.

2,778,849

PURIFICATION OF PLASTICIZER ESTERS

Oscar Ackelsberg, Bloomfield, N. J., assignor, by mesne assignments, to William M. Hackman, Watchung, N. J.

No Drawing. Application September 25, 1953, Serial No. 382,476
10 Claims. (Cl. 260—475)

1. The process of deodorizing and purifying di-alkyl esters of organic dicarboxylic acids having up to and including twelve carbon atoms in the alkyl group, and to a purity between about ninety-nine and one hundred percent, which esters are liquid and stable at a temperature between about one hundred and about one hundred and sixty degrees, which method comprises maintaining such ester at a temperature from about one hundred degrees to any higher temperature below that at which the ester is adversely affected, while subjecting such ester to subatmospheric pressure within the range of about one hundred millimeters of mercury and less and simultaneously injecting live steam into the body of liquid ester and in a quantity and for a time sufficient for it to reach the desired purity within the above recited range.

2,778,850

BIS(TRIFLUOROETHYL) FUMARATE

John T. Barr, Neshaminy, and Francis E. Lawlor, Wyndmoor, Pa., assignors to The Pennsylvania Salt Manufacturing Company, Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application September 29, 1955, Serial No. 537,576
3 Claims. (Cl. 260—485)

1. Bis(trifluoroethyl) fumarate.

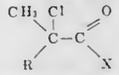
2,778,851

PREPARATION OF α-CHLORO-α-METHYL ALIPHATIC ACIDS AND ACID-CHLORIDES

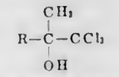
Donald G. Kundiger, Joe G. Peterson, and Ernest A. Ikenberry, Manhattan, Kans., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application September 3, 1953, Serial No. 378,404
14 Claims. (Cl. 260—539)

1. A method for the production of at least one member of the group consisting of α-chloro-α-methyl aliphatic acids and acid-chlorides, having the formula



wherein R represents a straight chain lower alkyl radical containing from 1 to 6 carbon atoms, inclusive, and X represents a member of the group consisting of chlorine and hydroxyl, which comprises reacting a 1,1,1-trichloro-2-methyl-2-alkanol of the formula



wherein R has the above significance, with sulfuric acid, the reaction being carried out at 10°–75° C. and employing sulfuric acid of 90 to 106 percent concentration.

2,778,852

PRODUCTION OF CHLOROCARBOXYLIC ACID CHLORIDES

Karl Adam and Hans-Georg Trieschmann, Ludwigshafen (Rhine), Germany, assignors to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

No Drawing. Application July 10, 1953, Serial No. 367,358
Claims priority, application Germany July 12, 1952
2 Claims. (Cl. 260—544)

1. An improved process for the production of chlorocarboxylic acid chlorides which comprises reacting phos-

gene at about 80° to 180° C. on a lactone selected from the group consisting of gamma-butyrolactone, gamma-valerolactone and delta-valerolactone.

2,778,853

DEAMINATION PROCESS

Everett M. Schultz, Broad Axe Village, Ambler, Pa., assignor to Merck & Co., Inc., a corporation of New Jersey

No Drawing. Application September 10, 1952, Serial No. 308,931

2 Claims. (Cl. 260—590)

1. A process for the deamination of a beta-tertiary amino ketone having the general formula

$$R{-}CO{-}\underset{\displaystyle R'}{\underset{|}{CH}}{-}CH_2{-}NX\cdot Y$$

wherein R is selected from the group consisting of aliphatic, aromatic, and araliphatic radicals; R′ is selected from the group consisting of hydrogen, aliphatic, aromatic, and araliphatic radicals; —NX is the residue of a secondary amine selected from the group consisting of dialkylamine and dialkylamines wherein the alkyl groups are linked to form a heterocyclic ring with the nitrogen atom, and Y is a salt forming acid selected from the group consisting of mineral acids and strong organic acids by hydrogenolysis over Raney nickel yielding a product having the general formula

$$R{-}CO{-}\underset{\displaystyle R'}{\underset{|}{CH}}{-}CH_3$$

wherein R and R′ have the meaning assigned above.

2,778,854

PURIFIED POLYETHENOXY ALKYLPHENYL ETHERS

Emil M. Stoltz, Joliet, Ill., assignor, by mesne assignments, to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia

No Drawing. Application April 21, 1953, Serial No. 350,219

10 Claims. (Cl. 260—613)

2. A mixture comprising all the non-aqueous content of the condensation reaction of alkyl phenol and ethylene oxide, and containing water-dispersible polyethenoxy ethers of alkyl phenol formed from ethylene oxide and alkyl phenol and relative to the amount of said ethers a minor proportion of non-fluorescent material, said latter being the product of oxidizing with an aqueous solution of hydrogen peroxide fluorescent substance produced in side reactions attending the said formation of said ethers from alkyl phenol and ethylene oxide.

2,778,855

PRODUCTION OF HYDROXY ETHERS

Edward C. Shokal, Walnut Creek, and Paul A. Devlin, San Francisco, Calif., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

No Drawing. Application June 1, 1953, Serial No. 358,977

15 Claims. (Cl. 260—613)

1. A process for producing a hydroxy ether which comprises reacting an epoxide compound having at least one hydrogen atom attached to each of the carbon atoms to which an epoxy oxygen atom is directly linked with an organic hydroxy compound of the group consisting of the alcohols and phenols in the presence of about 0.001 to 0.1 mole of perchloric acid per epoxide equivalent of the initial reaction mixture.

2,778,856

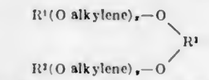
REACTION OF ACETALS AND ALKYLENE OXIDES

Raymond I. Hoaglin and Donald H. Hirsh, South Charleston, W. Va., assignors to Union Carbide and Carbon Corporation, a corporation of New York

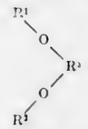
No Drawing. Application March 19, 1952, Serial No. 277,537

13 Claims. (Cl. 260—615)

6. A process for making an acetal of the general formula



in which R^1 and R^2 are alkyl groups, R^3 is an alkylidene group, each not having more than four carbon atoms to the group thereof, and x and y are integers, not more than 4, which comprises reacting an alkyl acetal of the formula



wherein R^1, R^2 and R^3 are as stated above, with an alkylene oxide containing not more than four carbon atoms to the molecule at a temperature of from 0° C. to 60° C. in the presence of a Friedel-Crafts metal halide catalyst.

2,778,857

METHOD FOR MAKING 5-CHLORO-O-CRESOL AND 4,5-DICHLORO-O-CRESOL

Floyd L. Beman and Andrew J. Dietzler, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application April 26, 1954, Serial No. 425,752

8 Claims. (Cl. 260—623)

3. A method for making 5-chloro-o-cresol which comprises heating a liquid mixture of 2-bromo-4-chlorotoluene and a molecular excess of aqueous alkali at a hydrolysis temperature between 125° and 240° C.

2,778,858

MAKING 2,2-DIMETHYLOLPROPANE

Francis L. Meinhofer, Allentown, Pa., assignor to Trojan Powder Company, a corporation of New York

Application September 29, 1953, Serial No. 383,080

2 Claims. (Cl. 260—635)

1. In making dimethylolpropane of the formula

$$(CH_3)_2C(CH_2OH)_2$$

the process which comprises mixing 1 mole of isobutyraldehyde with an aqueous solution of approximately 2 moles of formaldehyde, introducing an alkali metal hydroxide in increments and in the total proportion of about 1 mole into the mixed aldehydes, raising the temperature of the resulting mixture during the time of adding the first 5 percent of the alkali metal hydroxide to a temperature within the range 60°–80° C., thereafter maintaining the temperature of the resulting mixture during the reaction period within the range 60°–85° C., and continuing contact of the reacting materials, after the last of the hydroxide is added, until there is no further substantial decrease in alkalinity of the mixture, whereby dimethylol propane is produced in good yield and quality.

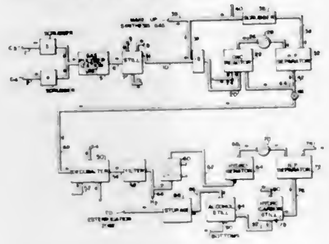
2,778,859

SULFUR-FREE OXO ALCOHOLS

Frank B. Johnson, Warren M. Smith, and James E. Moise, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application May 27, 1953, Serial No. 357,782

4 Claims. (Cl. 260—638)



1. An improved process for producing alcohols which comprises passing at least a single hydrocarbon stream rich in low molecular weight normally gaseous olefinic compounds and contaminated with minor amounts of sulfur compounds to a sulfur removal zone, scrubbing said hydrocarbon stream with an alkaline treating agent in the sulfur removal zone, withdrawing from said sulfur removal zone prior to polymerization an olefinic stream substantially reduced in sulfur content and containing no more than about 10 parts per million of sulfur compounds, passing said stream to a polymerization zone, contacting said stream with a light olefin polymerization catalyst to produce a liquid polymeric olefinic mixture, separating a C_7 olefin containing fraction of said olefinic mixture, passing said fraction to a carbonylation zone, treating said separated fraction in said zone with CO and H_2 in the presence of a cobalt catalyst at elevated temperatures and pressures whereby an aldehyde product is formed, reducing said aldehyde product in a hydrogenation zone and recovering an alcohol product of superior properties.

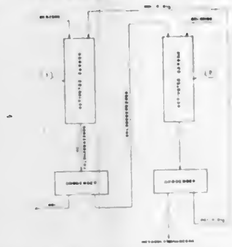
2,778,860

PREPARATION OF HEXACHLOROBENZENE

George McCoy, Philadelphia, and Charles E. Inman, Roslyn, Pa., assignors to The Pennsylvania Salt Manufacturing Company, Philadelphia, Pa., a corporation of Pennsylvania

Application January 31, 1952, Serial No. 269,322

8 Claims. (Cl. 260—650)



1. The method of preparing hexachlorobenzene comprising heating material of the group comprising benzene and chlorobenzenes of less than 6 atoms of combined chlorine in the presence of activated carbon at a temperature of 230 to 500° C. together with an excess of chlorine to the stoichiometric quantity necessary to convert the materials of said group to hexachlorobenzene.

7. The process of making hexachlorobenzene comprising preparing a slurry of benzene hexachloride and material selected from the group consisting of benzene and chlorobenzenes, passing a portion of said slurry into a first reactor containing activated carbon while maintaining said first reactor at a temperature of not less than 190° C. to decompose the benzene hexachloride into trichlorobenzene and HCl, passing a second portion of said fluid mixture, together with chlorine in excess to the stoichiometric amount necessary to convert said slurry to hexachlorobenzene, into a second reactor containing activated carbon while maintaining said second reactor at a temperature of not less than 230° C. to form hexachlorobenzene, cooling the exit vapors which consist essentially of hexachlorobenzene, HCl and chlorine from said second reactor to condense out said hexachlorobenzene and passing the HCl formed therein together with the unreacted chlorine into said first reactor together with fresh charges of benzene hexachloride.

2,778,861

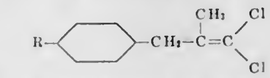
ALUMINUM CHLORIDE-CATALYZED REACTION OF TETRACHLOROMETHYLPROPANE

Donald G. Kundiger and Huey Pledger, Jr., Manhattan, Kans., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

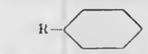
No Drawing. Application March 11, 1953, Serial No. 341,834

6 Claims. (Cl. 260—651)

1. A method for preparing compounds having the formula



wherein R is selected from the group consisting of chlorine, bromine and lower alkyl radicals of from 1 to 4 carbon atoms, inclusive, which comprises reacting 1,1,1,2-tetrachloro-2-methylpropane with a compound of the formula



wherein R has the significance as set forth above, said reaction being carried out in the presence of a catalytic amount of anhydrous aluminum chloride and at a temperature of from about 70° to 100° C.

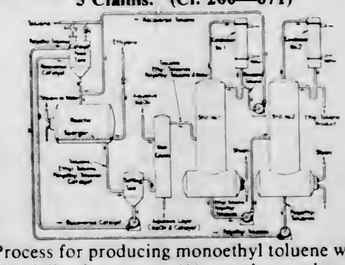
2,778,862

PROCESS FOR ETHYLATING TOLUENE

William F. Gorham, Glen Ridge, and John A. Stenstrom, Bloomfield, N. J., assignors to Union Carbide and Carbon Corporation, a corporation of New York

Application May 19, 1953, Serial No. 355,923

5 Claims. (Cl. 260—671)



1. Process for producing monoethyl toluene which comprises the following steps—(1) reacting a mixture consisting of ethylene and toluene containing at least one mol toluene per mol of ethylene at a temperature between 60°

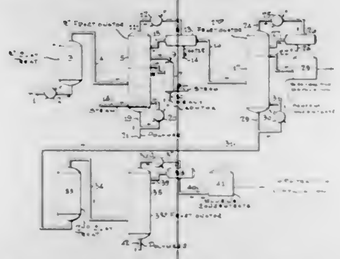
C. and 90° C. in the presence of aluminum chloride until a constant equilibrium reaction product is obtained substantially free from methyl substituted benzenes other than toluene and comprising essentially a reaction product comprising mono-ethyl toluene isomers, polyethyl toluenes and toluene, (2) separating the polyethyl toluenes from the reaction product, (3) mixing the separated polyethyl toluenes with a reaction charge of ethylene and toluene in substantially the same molar proportions and amounts by weight as the reaction charge of step 1, and (4) reacting the mixture of step (3) according to step (1) at a reaction temperature between 60 and 90° C. and in the presence of aluminum chloride until a constant equilibrium reaction product is obtained substantially free from methyl substituted benzenes other than toluene, said reaction product comprising essentially mono-ethyl toluene isomers, toluene and an amount of polyethyl toluenes substantially equivalent to that obtained in step 1.

2,778,863

TREATMENT OF AROMATIC AND UNSATURATED DISTILLATES

Daniel S. Maisel, Union, and Brook I. Smith and Harold W. Scheeline, Elizabeth, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application March 19, 1952, Serial No. 277,486
4 Claims. (Cl. 260—674)



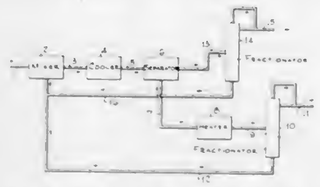
1. In a process for segregating C_8 and C_7 aromatic hydrocarbon concentrates suitably freed of reactive diolefins for extractive distillation from a naphtha containing mainly olefinic and aromatic hydrocarbons, the steps which comprise contacting said naphtha in liquid phase with clay at 250° F. to about 500° F.; passing the clay-treated naptha and resulting polymers of reactive diolefins from the clay into a first fractional distillation zone; distilling a light distillate portion of the clay-treated naphtha hydrocarbons containing the aromatic hydrocarbons to be segregated from said polymers with added steam in said first distillation zone; substantially freeing the light distillate of water; passing the said light hydrocarbon distillate substantially free of water into a second fractional distillation zone; separating in said second fractional distillation zone concentrates of C_6 and C_7 aromatic hydrocarbons, the C_8 aromatic concentrate being a water-free distillate boiling in the range of 165° to 185° F.; then subjecting said C_8 aromatic concentrate to an extractive distillation to recover purified benzene.

2,778,864

PROCESS FOR SEPARATING PURE PARA XYLENE BY COMPLEXING WITH ANTIMONY TRICHLORIDE

Merrell R. Fenske, State College, Pa., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application April 7, 1951, Serial No. 219,866
6 Claims. (Cl. 260—674)



1. A process for separating para xylene from a C_8 aromatic hydrocarbon fraction containing more than 13 weight percent of para xylene, which comprises mixing the hydrocarbon fraction at an elevated temperature with a complexing agent consisting essentially of antimony trichloride in a ratio of at least 1 mole of antimony trichloride per mole of aromatic feed, cooling the resulting mixture until a eutectic liquid phase and a solid complex of para xylene with antimony trichloride is formed, mixing the cooled mixture of eutectic liquid and solid complex with a liquid fluorocarbon that is immiscible with the hydrocarbons present and has a density between that of the eutectic liquid and of the solid complex, separating the solid complex from the eutectic liquid, and recovering para xylene from the separated solid complex.

ELECTRICAL

2,778,865

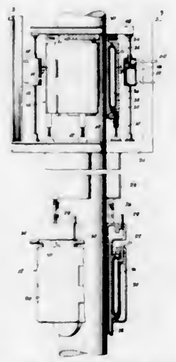
SUSPENSION MECHANISM FOR CONTINUOUS TYPE ELECTRODES AND METHOD OF OPERATION

Ole Andreas Kongsgaarden, Vagsbygd, pr. Kristiansand S, Norway, assignor to Elektrokemisk A/S, Oslo, Norway, a corporation of Norway

Application January 9, 1956, Serial No. 558,166

7 Claims. (Cl. 13—16)

1. A suspension mechanism for the electrode of an electric furnace which includes a main clamp, means for supplying yielding pressure to the clamp to tighten it so that it will support the weight of the electrode, means for supplying electric current to the clamp for transmission to the electrode and means for applying an external force to the electrode that acts in addition to the weight of the electrode to overcome the frictional grip of the main clamp and force the electrode to slide slowly down through the main clamp of the suspension mechanism whereby the electrode may be lowered through the clamp and the contact surfaces between the clamp and electrode wiped clean of insulating dust generated in the furnace.



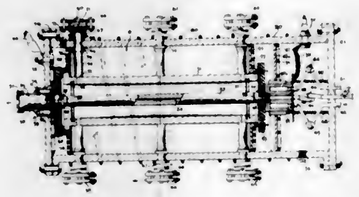
2,778,866

ELECTRIC FURNACE

Manuel C. Sanz, Los Angeles, Carl R. Malmstrom, Whittier, James M. Nuding, Los Angeles, and Hubert P. Yockey, Oakland, Calif., assignors to North American Aviation, Inc.

Original application March 24, 1947, Serial No. 736,630. Divided and this application January 14, 1949, Serial No. 70,822

3 Claims. (Cl. 13—20)



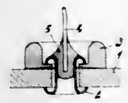
1. In a high-temperature furnace provided with a casing, a container located interiorly of said casing and supported in spaced relation thereto, insulating means between said casing and said container, a carbon element in said container, and electrodes carried by said container and supporting said carbon element at the ends thereof, the engaging ends of said electrodes and carbon element being shaped in the form of ball-and-socket joints.

2,778,867

WIRING SUPPORT FOR USE AT HIGH VOLTAGES

Peter Johannes Hubertus Janssen, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee

Application January 12, 1952, Serial No. 266,165
Claims priority, application Netherlands
February 12, 1951
4 Claims. (Cl. 174—35)



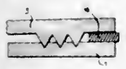
1. A wiring support for use at high voltages comprising an insulating, apertured supporting plate, a solderable metal member secured in said aperture of said plate, a wire soldered to said metal member by a solder drop, a conductive, substantially cup-shaped screening body of non-solderable material secured by said metal member to said supporting plate, said screening body having external rounded forms which electrically screen the solder drop, said screening body also having its bottom, which rests on said plate, hollowed by being slightly conical so that the outer edge rests on said plate.

2,778,868

INTEGRAL RADIO FREQUENCY ATTENUATION SEAL

Walter E. Stinger, Drexel Hill, Pa.

Application April 7, 1953, Serial No. 347,424
2 Claims. (Cl. 174—35)
(Granted under Title 35, U. S. Code (1952), sec. 266)



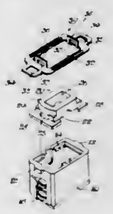
2. A casing member with at least one flat surface having a plurality of concentric continuous ring shaped grooves forming intermittent recesses therein, said grooves being substantially V-shaped in cross-sectional configuration, a cover member having a flat surface opposed to the grooved flat surface of said casing member, said cover member flat surface having integral concentric ring shaped serrations protruding therefrom, the serrations being substantially V-shaped in cross-sectional configuration for bearingly interfitted engagement with said grooves, said serrations having an altitude of greater magnitude than the depth of said grooves and aligned with and inserted in said grooves in mating relationship, peripheral securing means whereby a minimum of force need be exerted by said securing means to hold the cover to the case for effective radio frequency sealing, and a resilient gasket mounted circumferentially between the respective flat surfaces of the casing member and the cover member for effecting an air, water, and oil seal.

2,778,869

MOUNTING FOR ELECTRIC WIRING DEVICES

Robert H. Bentley, Hartford, Conn., assignor to The Arrow-Hart & Hegeman Electric Company, Hartford, Conn., a corporation of Connecticut

Application November 5, 1953, Serial No. 390,398
2 Claims. (Cl. 174—53)



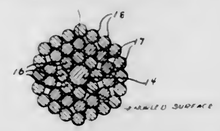
1. In an electric wiring device, an insulating casing having a neck extending therefrom, a mounting plate having an opening receiving said neck, endwise extensions from said plate bendable at right angles out of the plane of said plate and having apertures therein, nubs on opposite ends of said casing received in said plate apertures when said extensions are bent toward said casing, a supporting bridge for said device having a hole receiving said neck, outward extensions from said plate having slots therein, said outward extensions being bent up at right angles from the plane of the plate and entering said bridge hole, said slots being in the plane of the supporting bridge, one margin of said bridge hole being extended into one of said slots, the opposite margin of said bridge hole being bendable to extend into an opposite slot thereby to securely hold said mounting plate and casing on said bridge.

2,778,870

COMPOSITE CABLE FOR CONDUCTING ELECTRICITY

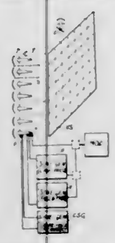
Vincent B. Nolan, Miami, Fla., assignor to Bethea Company, Inc., a corporation of Alabama

Application November 19, 1953, Serial No. 393,079
7 Claims. (Cl. 174—128)



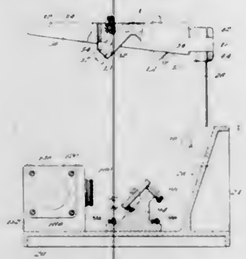
1. In a composite cable for conducting electricity, a high tensile strength core wire having relatively shallow and rounded serrations on the outer surface thereof, and a plurality of electrically conductive wires stranded around said core wire with the inner surface of said conductive wires in frictional contact with the serrations on said outer surface of the core wire.

2,778,871
ELECTRONIC SYSTEMS FOR LARGE-SCREEN COLOR TELEVISION
Egon Nicolas Muller, Esch/Alzette, Luxembourg; Nicolas Muller, legal representative of said Egon Nicolas Muller, deceased
Application June 28, 1951, Serial No. 233,958
16 Claims. (Cl. 178—5.4)



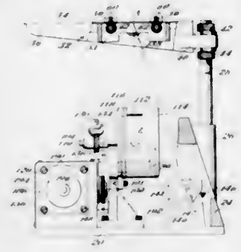
1. In a television system for reproducing pictures in additive primary colors from video signals denoting elemental picture detail representative of a predetermined number of primary colors in accordance with a predetermined scheme, an array of cathode-ray tubes having means for defining electron beams and mosaic target means adapted to fluoresce upon electron beam impact in each of said primary colors to provide rasters based upon additive color synthesis, means for scanning said beams across the associated target means in predetermined relationship to said video scheme and concurrently modulating said beams under the control of said video signals whereby each tube reproduces a color raster which substantially represents one of N portions of the complete color picture being generally similar to, but slightly larger than, the respective portion, said N portions jointly representing the complete picture, optical means whereby individually to project and locate an image of the respective rasters on a projection screen to reconstitute a substantially complete color picture wherein adjacent portions overlap, and means for reducing the brilliancy of marginal areas of individual rasters whereby to compensate increased brilliancy due to said overlap.

2,778,872
OPTICAL SCANNER
Alexander Nyman, Dover, Mass., assignor to Alden Products Co., Brockton, Mass., a corporation of Massachusetts
Application September 28, 1951, Serial No. 248,713
4 Claims. (Cl. 178—7.1)



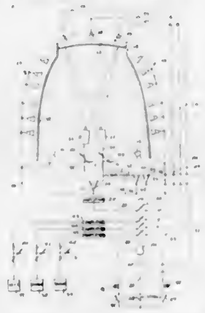
1. Facsimile apparatus for scanning successive subject copy areas of elemental width and length comprising a light source, first optical means between said source and copy for focusing an elongate illuminating line of elemental width directly on the copy, said optical means being the sole means of defining said width, light utilization means, scanning means providing a scanning aperture between the copy and said utilization means, said scanning means being effectively movable lengthwise of said illuminating line and said aperture being of width to define the length of said elemental area, means for moving said scanning means, and second optical means focusing an image of the illuminated line of copy on the moving aperture, whereby the two respective dimensions of successive elemental areas of said copy are separately defined, one in said scanning plane and one at said aperture so as to allow sharp focusing of both dimensions independently.

2,778,873
OPTICAL SCANNING APPARATUS
Alexander Nyman, Dover, Mass., assignor to Alden Products Co., Brockton, Mass., a corporation of Massachusetts
Application May 19, 1951, Serial No. 227,144
19 Claims. (Cl. 178—7.1)



1. Optical scanning apparatus for a subject copy comprising feeding means for moving the copy relatively to a predetermined path, illuminating means for projecting a spot of light upon said copy including means for moving said spot transversely to the direction of movement of the copy, a light sensitive device responsive to variations in light intensity, an optical system for directing light rays coming from the portion of the copy illuminated by the spot to impinge upon said light sensitive device, said system including an aperture member having a helically shaped light transmitting portion interposed in the optical path of said light rays between the copy and the light sensitive device, means for rotating the aperture member about the axis of the helix, and a connection between said moving means and said rotating means for synchronizing movement of both of said means so that selected elements of the copy are successively imaged on the device.

2,778,874
STEREOPHONIC SOUND SYSTEM
William A. Mueller, Los Angeles, Calif., assignor to Warner Bros. Pictures, Inc., Burbank, Calif., a corporation of Delaware
Application April 6, 1953, Serial No. 347,109
5 Claims. (Cl. 179—1)



4. In a stereophonic sound system, the combination comprising: a complete composite sound source, an audio source of selected music and sound effects; left, center and right positioned sound recordings; a plurality of auditorium loudspeakers; a plurality of stage loudspeakers positioned on the left, center, and right positions of the auditorium stage; and a control circuit including: means for selectively connecting said composite sound source and said audio source to said center positioned stage loudspeakers and to said auditorium loudspeakers; and means for connecting simultaneously with the selected connection to the auditorium loudspeakers, the left, center and right positioned sound recordings to the left, center and right positioned stage loudspeakers, respectively.

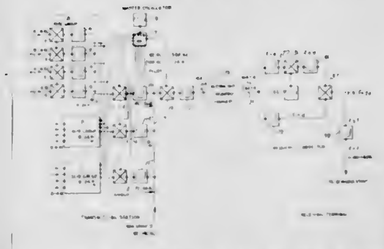
2,778,875
LOUD-SPEAKER CONTROL SYSTEM
Richard E. Wiles, Jr., and Brooks C. Noah, Mission, Kans.
Application August 8, 1955, Serial No. 527,047
1 Claim. (Cl. 179—1)

In an audio system including electrical apparatus having a pair of audio signal output terminals and a main loud-speaker adjacent the apparatus and having a pair of audio signal input terminals, an auxiliary loud-speaker having a pair of audio signal input terminals, said auxiliary loudspeaker being disposed remotely from said apparatus; a pair of potentiometers adjacent said auxiliary loudspeaker and each having a resistance element and a variable tap thereon; conductive means for coupling said resistance elements in parallel with each other and in series between said output terminals; conductive means for coupling one output terminal with one input terminal of the main loudspeaker; conductive means for coupling the other output terminal with one input terminal of the auxiliary loudspeaker; conductive means for coupling the tap of one potentiometer with the other input terminal of said main loudspeaker; and conductive means for coupling the tap of the other potentiometer with the other input terminal of said auxiliary speaker.

2,778,876
REMOTE CONTROL FOR RECORDING EQUIPMENT
Charles Robert Gordon, Hamilton, Ontario, Canada
Application June 17, 1955, Serial No. 516,083
4 Claims. (Cl. 179—6)

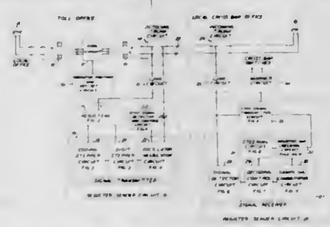
1. In a remote switching device for an automatic telephone system, a pair of conductors insulated from ground connected between an automatic telephone exchange and a subscriber's station, one of said conductors and ground defining a first channel, the other of said conductors and ground defining a second channel, a utilization circuit at the subscriber's station, a first means in one of said conductors responsive to a potential impressed thereon to establish a holding circuit, a second means in the other of said conductors responsive to a potential impressed thereon to extend the holding circuit to said utilization circuit, and means including elements of said first and second means adapted co-operatively to operate said utilization circuit when said first and second means are operated in a selected sequence.

2,778,877
FREQUENCY CORRECTING METHOD AND APPARATUS
Robert S. Caruthers, Palo Alto, Calif., assignor to Lenkurt Electric Co., Inc., San Carlos, Calif., a corporation of Delaware
Application May 29, 1953, Serial No. 358,274
15 Claims. (Cl. 179—15)



7. The method of restoring to known substantially exact frequencies a band of message signals the frequencies whereof have been shifted by modulation on a carrier whose frequency differs from its nominal value by an unknown error, which comprises the steps of including a pilot signal of known frequency value in said band prior to said modulation, filtering said band to separate said band into two portions, one comprising said pilot frequency only and the other comprising the remaining frequencies of said band, modulating one of said portions onto a locally derived carrier of substantially exact frequency to shift the relative frequencies of said pilot and said band so that the pilot frequency signal is of a value outside of the range of frequencies comprising said band, intermodulating the signals representing said pilot and said band to develop two sidebands whereof one departs from its nominal frequencies by twice said unknown error and in the other whereof the frequency errors in the two intermodulated signals are combined in opposite senses so as substantially to cancel such errors, and filtering out said first mentioned sideband to leave a band of signals whose frequencies have been restored to substantially their exact nominal values.

2,778,878
REPETITION TELEPHONE DIALING BY PULSE CODE MODULATED CARRIER
William A. Malthaner, New Providence, and Henry E. Vaughan, Chatham, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application April 26, 1950, Serial No. 158,218
23 Claims. (Cl. 179—18)



2. In combination, a line, means for seizing one end of said line, a plurality of digit registers connected to said

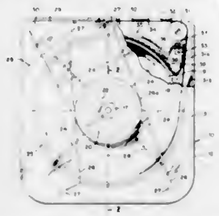
line responsive to seizure of said one end of the line, means for setting said registers to register a plurality of letter code and numerical digits, each digit being any one of a plurality of different letters or numerical values, means operative in response to the setting of said registers for transmitting a seizure signal over said line, signal transmitting means at said one end of said line for cyclically and repeatedly transmitting signals over said line, said signals being in succession a start signal, a synchronizing signal and coded digit signals, one coded signal for each letter or numerical digit to be transmitted, the particular code for each digit being determined by the setting of the corresponding register, and means including signal receiving means associated with said one end of said line for stopping the transmission of signals by said signal transmitting means upon receipt of a signal incoming over said line to said one end of the line.

21. In combination, an electronic valve having at least cathode and grid electrodes and one other electrode, means for applying a signal to said grid electrode, a cathode impedance coupled to said cathode electrode, means for utilizing the voltage developed across said impedance, and controllable means for applying a control potential to said other electrode, thereby to cause said valve to conduct in response to the application of said potential and to cause said signal to produce a voltage across said impedance wherein the controllable means includes the anode-cathode path of an electron discharge device structure connected in series between a source of unidirectional potential and the said other electrode of the electronic valve.

2,778,879
CONTROL DEVICE FOR USE IN AUTOMATIC SIGNALLING SYSTEM
Robert Bertold Buchner and Nicolaas Scheffer, Hilversum, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application July 19, 1951, Serial No. 237,624
Claims priority, application Netherlands July 27, 1950
2 Claims. (Cl. 179—18)

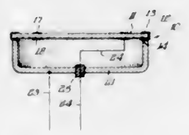
1. A control device for use in automatic signalling systems comprising a selector switch having a plurality of marked contacts for adjusting to a predetermined marked contact, said switch being provided with a wiper carriage, an automatically operating release clutch mechanism provided with driving and driven elements for actuating said wiper carriage, said clutch mechanism having a resilient means operatively connecting the driving and driven elements thereof, a part of said clutch mechansim connected to said wiper carriage and after release of said clutch mechanism still being subjected to a driving force in the original direction of movement of said clutch mechanism, a testing circuit including a slow operating relay testing the criteria of the marking contacts of said switch, arresting means for stopping said wiper carriage so that said switch adjusts to said marked contact, and said testing circuit being completed a predetermined time after the disconnection of said arresting means and after the wipers of said switch have passed several marking contacts.

2,778,880
ENDLESS MAGNETIC TAPE CARTRIDGE AND RECORDING PLAY-BACK INSTRUMENT MOUNTING SAME
George H. Eash, Toledo, Ohio, assignor to The Toledo Trust Company and Charles I. Poulsen, coexecutors of the estate of George H. Poulsen, deceased
Application August 4, 1955, Serial No. 526,406
8 Claims. (Cl. 179—100.2)



6. In combination with a recording play-back instrument having a rotatable drive capstan and a transducer head arranged closely in a row, an endless magnetic tape cartridge comprising a housing closed except for openings to receive said capstan and transducer head, a single spiral roll of tape within said housing having a loop guided to pass said openings and fed from the center of the roll and delivered to the outside of the roll, a rotatable reel in the housing supporting said roll, an elongate slot in the bottom wall of the housing, a finger carried by said instrument to enter said elongate slot and movable to urge the cartridge into operative engagement with said capstan and transducer head, and means for actuating said finger for effecting such movement.

2,778,881
MICROPHONE
Donald H. Fryklund, Metuchen, N. J., assignor to Gulton Industries, Inc., a corporation of New Jersey
Application August 3, 1951, Serial No. 240,127
14 Claims. (Cl. 179—110)

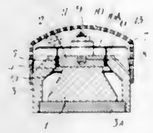


1. A microphone comprising a titanate ceramic disc, supporting means secured to the edge of the disc for stationarily supporting the disc, said disc being mechanically flexed by wave energy in the direction of its central axis, a first annular electrode on the disc adjacent the edge thereof, a second annular electrode on the disc spaced inwardly from the first annular electrode, said disc being polarized between the first and second annular electrodes to make the same piezoelectric, and electrical connections to the respective electrodes for producing an electrical voltage in accordance with mechanical flexing of the disc.

2,778,882
MICROPHONES
George Raoul Pontzen and Robert Richard Clark, London, England, assignors to Lustraphone Limited, London, England, a British company
Application November 2, 1951, Serial No. 254,567
Claims priority, application Great Britain January 11, 1951
3 Claims. (Cl. 179—115.5)

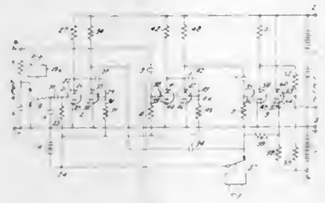
1. A microphone comprising an effectively plane diaphragm, supporting means for the diaphragm permitting vibration of the latter, said means engaging the diaphragm

over an area which leaves substantially the whole of the peripheral extent of the diaphragm substantially freely accessible to the atmosphere surrounding the microphone whereby both faces of the diaphragm become substantially freely accessible to the atmosphere surrounding the microphone, a coil supported from the diaphragm to move in correspondence with the vibration of the diaphragm, means for establishing a magnetic field whereby



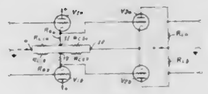
movement of the coil in the field causes an electromotive force to be induced in the wires of the coil, and the diaphragm having at least one aperture within the area covered by the coil, the arrangement thus being such that sound waves from a relatively distant source cause substantially no vibration of the diaphragm and sound waves from a relatively close source not in the plane of the diaphragm cause vibration of the diaphragm.

2,778,883
PARALLEL AMPLIFYING SYSTEM
Philip S. T. Buckerfield, Kilsby, Rugby, England, assignor to The British Thomson-Houston Company Limited, a British company
Application February 13, 1953, Serial No. 336,859
3 Claims. (Cl. 179—171)



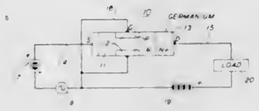
1. An amplifying system for amplifying both unidirectional and alternating voltages comprising an input terminal, an output terminal, and a common input and output terminal, a first capacitance and resistance connected in series in the order named between said input and said common terminal, a second resistance and capacitance connected in series in the order named between said input and said common terminal, said first capacitance and resistance being proportioned to pass with greater effectiveness the higher frequencies of said voltage, said second resistance and capacitance being proportioned to pass with greater effectiveness the lower frequencies of said alternating voltages, an alternating current amplifier and a direct current amplifier, means for applying the voltages appearing across said first resistance to the input of said alternating current amplifier, means for applying the voltages appearing across said second capacitance to said direct current amplifier, a third capacitance connected to couple the output of said first amplifier to said output terminal, a third resistance connected to couple the output of said second amplifier to said output terminal, said resistances and capacitances being proportioned and arranged to form a pair of T networks arranged in parallel between the input and output of said system with the series resistance branch of one of said networks paralleling the series capacitance branch of the other of said networks, and the shunt capacitance branch of said first T network paralleling the shunt resistance branch of said second T network, said elements being substantially proportioned as they would be in a parallel T filter network to pass substantially uniformly with inappreciable phase shift unidirectional and alternating voltages of frequencies from zero up to the rejection frequency of said filter, whereby said system amplifies uniformly said voltages without appreciably shifting the phase thereof.

2,778,884
DIFFERENTIAL AMPLIFIER
Ernest Amatniek, New York, N. Y., assignor to Joseph Greenspan, doing business under the name and style of Process and Instruments, Brooklyn, N. Y., a sole proprietorship
Application November 26, 1952, Serial No. 322,735
4 Claims. (Cl. 179—171)



1. A balanced two-stage electronic amplifier comprising two cathode follower-connected input tubes having their cathode loads returned to a point of fixed potential through substantially equal resistances, two plate loaded output tubes having their cathodes connected together and coupled to points in the cathode circuits of said input tubes separated by equal resistances from said point of common potential, voltage coupling means between the cathodes of said input tubes and the grids of said output tubes, the ratio of the resistance between the cathode of each of said input tubes and each of said points of equal resistance to the resistance between each of said points of equal resistance and said point of fixed potential being substantially equal to the reciprocal of the amplification factor of each of said output tubes.

2,778,885
SEMICONDUCTOR SIGNAL TRANSLATING DEVICES
William Shockley, Madison, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application October 31, 1952, Serial No. 317,884
1 Claim. (Cl. 179—171)

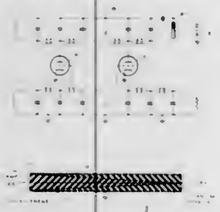


A signal translating device comprising a body of semiconductive material having therein an extended region of one conductivity type which region is characterized by a constricted intermediate portion and an end portion which is of conductivity higher by a factor of at least several hundred than the remainder of said region, the body further including a pair of juxtaposed zones of the opposite conductivity type on opposite sides of the constricted intermediate portion of the extended region for defining therewith a pair of juxtaposed rectifying junctions, a gate connection to the pair of juxtaposed zones, a drain connection to the high conductivity end portion of the extended region, a source connection to the opposite end of the extended region, an input circuit connected between the source and gate connections, and an output circuit connected to the drain connection.

2,778,886
DISTRIBUTED TRIODE AMPLIFIERS
Emmett H. Bradley, Alexandria, Va., assignor to Melpar, Inc., Alexandria, Va., a corporation of New York
Application December 30, 1952, Serial No. 328,598
12 Claims. (Cl. 179—171)

1. A triode distributed amplifier, comprising a rectilinear anode conductor, a rectilinear grid conductor, a rectilinear cathode conductor, said conductors all subsisting in parallel planes, a plurality of at least three triode vacuum tubes each having a cathode, an anode and only a single grid electrode intermediate the anode and cathode, planar external terminals for said anodes, cathodes and grid electrodes, said planar external terminals subsisting respectively in said parallel planes, means connecting said anode terminals at phase distributed points directly to said anode conductor, means connecting said cathode terminals at like phase distributed points directly to said cathode conductor, and means connecting said grid terminals at like phase distributed points directly to said grid conductor, terminals for a source of signals having components within the band 0–1000 mc./s. connected between said cathode conductor and said grid conductor adjacent one end of these, and at least one output load connected between one pair of said conductors adjacent the other end thereof.

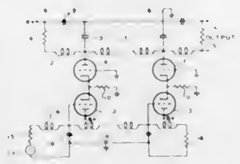
2,778,887
DISTRIBUTED AMPLIFIER TRANSMISSION LINE TERMINATIONS
Emmett H. Bradley, Arlington, Va., assignor to Melpar, Inc., Alexandria, Va., a corporation of New York
Application December 30, 1952, Serial No. 328,599
9 Claims. (Cl. 179—171)



1. In combination, a distributed amplifier having a plurality of vacuum tubes each having an anode and having a transmission line and means for connecting said transmission line to said anodes at points of various delay along said line, said line having a predetermined characteristic impedance, a source of anode voltage for said vacuum tubes, and a matching impedance interposed between said transmission line and said source, said impedance comprising an elongated co-axial transmission line structure having relatively small reflection and a relatively flat resistance characteristic over a wide ultra high frequency band, and having negligible resistance to direct current.

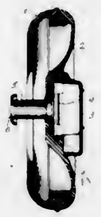
2,778,888
DISTRIBUTED AMPLIFIERS
Emmett H. Bradley, Arlington, Va., assignor to Melpar, Inc., Alexandria, Va., a corporation of New York
Application December 30, 1952, Serial No. 328,600
9 Claims. (Cl. 179—171)

1. In a distributed amplifier, a first phase delay transmission line, a second phase delay transmission line, means terminating each of said transmission lines in its characteristic impedance, a plurality of vacuum amplifier tube pairs, each of said tubes having an anode, a cathode and a control electrode and being of a type wherein sufficient capacitive feed-back exists between anode and grid to involve problems of unstable operation when employed for amplification at ultra high frequencies, means connecting the anodes of the first tubes of each pair to distributed points along said first transmission line, means connecting the control electrode of each of said first tubes to a point of fixed A. C. reference potential, and a load impedance connecting the



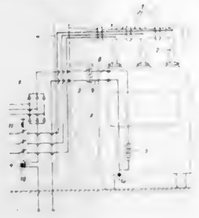
cathode of each of said first tubes to said point of fixed reference potential, means connecting the control electrode of each of said second tubes to like distributed points along said second transmission line, means connecting one of the remaining electrodes of each of said second tubes to said point of reference potential, and means connecting the other of the remaining electrode of each of said second tubes to the cathode of the other tube of its pair, means for applying input signal to one of said transmission lines, means for deriving output signal from at least one of said transmission lines, and means for applying positive anode potential to the anodes of said first tubes via said first transmission line.

2,778,889
TELEPHONE EAR PIECE
Erich Hausdorf, Ottawa, Ontario, Canada
Application June 19, 1953, Serial No. 362,699
1 Claim. (Cl. 179—182)



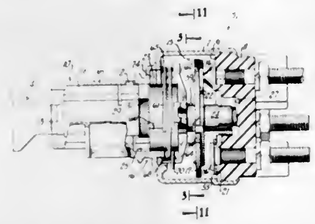
A telephone earpiece for use in conjunction with the human ear, comprising an annular shell having an inwardly turned flange for engaging the pinna and designed for support by the upper part of the junction of the pinna and the ear, a receiver chamber adapted to hold a device for transforming electrical signals into audible signals centrally disposed in said shell and a sound tube having an ear tip communicating with the interior of said receiver chamber, and protruding from said receiver chamber perpendicularly with respect to said shell to a distance beyond said shell whereby the location of the center of gravity of the earpiece causes thrust of the ear tip against the auditory meatus, said sound tube and ear tip being symmetrical with respect to an axis passing through the center of the sound tube, and said tip having a cross-sectional shape of a semicircle of revolution.

2,778,890
ARRANGEMENT FOR THE SAFETY GROUNDING OF VEHICLES WITH INERTIA MASS IMPULSION
Bjarne Storsand, Zurich, Switzerland, assignor to Ateliers de Construction Oerlikon, Zurich-Oerlikon, Switzerland, a corporation of Switzerland
Application January 31, 1952, Serial No. 269,272
Claims priority, application Switzerland February 26, 1951
3 Claims. (Cl. 191—1)



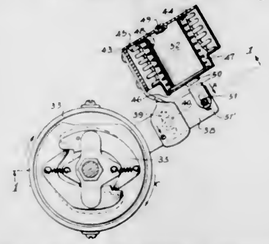
1. In an automatic safety grounding mechanism for a vehicle provided with a rotating mass drive, in which the rotating mass is revolved rapidly at a stopping point by energy derived from a stationary current supply line, the combination of a plurality of stationary charging contacts at said stopping point arranged next to one another and connectable to the current supply line through a switch, a plurality of principal contacts on the vehicle adapted to connect with corresponding ones of said stationary charging contacts, stationary ground contacts at said stopping point, a pair of ground contacts mounted on the vehicle and adapted to engage said stationary ground contacts, a storage battery carried by the vehicle, a control circuit including said stationary and vehicle-mounted ground contacts and an electro-magnet and said storage battery, said control circuit being completed only when said vehicle-mounted ground contacts engage said stationary ground contacts, a spring normally holding said switch open, and means operatively connecting said electro-magnet to said switch to close said switch whenever said control circuit is completed.

2,778,891
ELECTRIC SWITCH
Edward N. Jacobi, Milwaukee, Wis., assignor to Briggs & Stratton Corporation, Milwaukee, Wis., a corporation of Delaware
Application December 10, 1954, Serial No. 474,417
11 Claims. (Cl. 200—11)



1. In an electrical switch: a terminal head having a pair of spaced apart stationary contacts on one side thereof and having terminals for connecting said contacts in an electrical circuit; a contactor overlying said side of the terminal head and comprising an insulative carrier having an electrically conductive bridging member thereon cooperable with the stationary contacts; means on the switch mounting the contactor for tilting motion toward and from said side of the terminal head and for back and forth sliding motion substantially parallel to said side of the terminal head, so that sliding motion of the contactor in one direction carries the bridging member into engagement with both of said stationary contacts, and sliding motion of the contactor in the opposite direction causes an end portion on the bridging member to slide off one of the stationary contacts to effect disruption of an electrical circuit controlled thereby; yieldable biasing means acting upon the contactor in a direction to urge the same toward the contact side of the terminal head to thereby assure pressure engagement between the bridging member and the stationary contacts; movable actuating means on the switch; means drivingly connecting the contactor with said actuating means whereby the latter slides the contactor back and forth without interfering with tilting of the contactor relative to the actuating means and to the terminal head; and cooperating cam means on the insulative carrier and on a part fixed with respect to the terminal head, brought into cooperative engagement substantially at the time said end portion of the bridging member begins to slide off said one stationary contact, during sliding movement of the contactor in said one direction, for tilting said contactor about a fulcrum comprising the other of said stationary contacts in a direction to carry said end portion of the bridging member away from said one stationary contact to thus effect simultaneous sliding and lifting of said end portion of the bridging member off said one stationary contact and thereby minimize the possibility of arcing as the circuit controlled by said stationary contacts is disrupted.

2,778,892
ATMOSPHERIC TIMING CONTROL
Albert G. Vanderpoel, Los Angeles, Calif.
Application November 7, 1952, Serial No. 319,333
3 Claims. (Cl. 200—31)

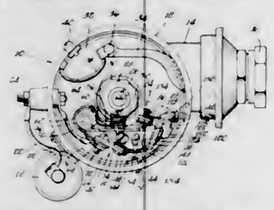


1. A spark timing mechanism comprising a cam, a cam drive shaft, a centrifugal spark advance mechanism for adjusting the angular disposition of said cam on said cam shaft, a breaker plate, means for adjusting the angular relation of said breaker plate about said shaft, said means including an arm, a motion transmitting connection between said arm and said plate, a sealed diaphragm chamber, a diaphragm plate sealing said chamber, one side of said diaphragm being adjacent the interior of said chamber, the other side of said diaphragm being exposed to atmospheric pressure, and a connection between said arm and said diaphragm.

2,778,893
IGNITION MECHANISM
Stephen C. Baker, North Riverside, Ill.
Application February 1, 1954, Serial No. 407,435
17 Claims. (Cl. 200—31)

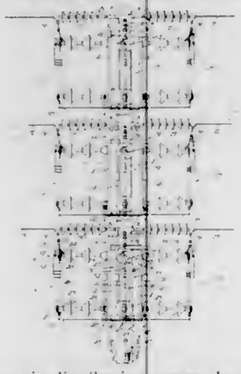
1. A circuit maker and breaker for ignition systems comprising a relatively stationary contact point, a periodically movable breaker arm, a relatively movable contact point carried by said arm in substantially confronting relation to the first contact point and movable into and out of engagement therewith, means for advancing and retarding such movement into and out of engagement, ratchet means connected to one of said contacts for orbitally moving that contact substantially about the axis

of the other, a pawl for moving said ratchet and means for moving said pawl from time to time to effect such



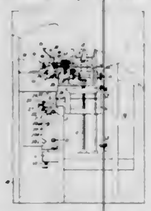
movement, said pawl moving means being operated in accordance with the movement of said advancing and retarding means.

2,778,894
GROUP OPERATED SWITCHES MOUNTED ON ONE POLE
Stanley C. Killian and Manfred Stene, Chicago, Ill., assignors to H. K. Porter Company, Inc. of Pittsburgh, Chicago, Ill., a corporation of Pennsylvania
Application June 14, 1954, Serial No. 436,399
12 Claims. (Cl. 200—48)



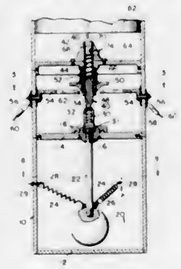
1. In an electric distribution system having a plurality of lines and a single pole, a plurality of switches each controlling current flow in one of the lines, said switches being mounted on the pole with their longitudinal axes disposed parallel to one another and the pole and in circumferentially spaced relation to one another about the pole.

2,778,895
CLUTCH INTERLOCKED CIRCUIT BREAKER CARRIER MECHANISM
Emil E. Hebbel, Sharon Hill, and Charles D. Eichelberger, Ridley Park, Pa., assignors to General Electric Company, a corporation of New York
Application October 25, 1951, Serial No. 253,018
9 Claims. (Cl. 200—50)



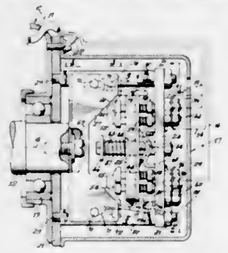
1. In combination, a disconnectable circuit breaker having a switch member and a closing mechanism coupled to said switch member, a locking member cooperating with said mechanism and having a locking position for preventing closure of the breaker and a released position for permitting closure of the breaker, blocking means positively coupled to said switch member for holding the locking member in said released position when the circuit breaker is closed, a carrier mechanism for the circuit breaker having driving clutch members movable into engagement for operating the mechanism to carry the circuit breaker to and from a connected position, and mechanical interlocking connections between one of the clutch members and the locking member for preventing engagement of the clutch members when the locking member is held in said released position by said blocking means and for moving the locking member to the locking position when the clutch members are engaged.

2,778,896
AUTOMATIC CONTROLLABLE "G" IMPACT SWITCH
Reed Tollefsen, Pacific Palisades, Calif.
Application January 24, 1955, Serial No. 483,717
11 Claims. (Cl. 200—61.5)



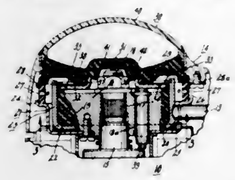
1. An automatic controllable "G" impact switch comprising a casing, a pendulum swingably mounted in the casing, an extension beyond the pivotal point of the pendulum, a spring impelled pin in the housing normally in contact with the end of the extension and automatic control means connected to the spring impelled pin, springs in the housing connected to the pendulum for normally maintaining the same in static relationship, means for adjusting the tension on said springs, said adjusting means including screw-eyes in the housing, the pivotal support for the pendulum comprising a ball and socket joint, the extension of the pendulum being hollow, a spring pressed ball in the extension, the end of the operating pin adjacent the pendulum extension being concave for normal reception of the spring pressed ball.

2,778,897
GENERATOR OUTPUT REVERSING SWITCH
Herbert J. Wieden, Pasadena, Calif., assignor to Union Asbestos & Rubber Company, Chicago, Ill., a corporation of Illinois
Application March 7, 1955, Serial No. 492,727
15 Claims. (Cl. 200—61.39)



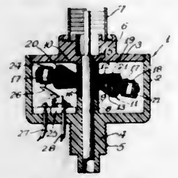
1. A switch for reversing an output circuit of an electrical generator comprising first contact means, second contact means mounted for rotary movement about a predetermined axis between different positions relative to said first contact means and adapted to engage said first contact means differently in said different positions to thereby reverse said output circuit, means for rotatively shifting said second contact means in opposite directions relative to the first contact means and between said positions in response to reversals in the direction of rotation of said generator, and means acting to displace said first and second contact means relatively apart in essentially the direction of said axis during said rotational shifting of the second contact means relative to the first.

2,778,898
STEERING WHEEL ASSEMBLY
Carroll K. Lenning, Lansing, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 31, 1952, Serial No. 318,015
7 Claims. (Cl. 200—61.54)



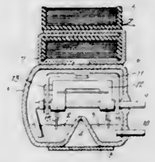
1. A steering wheel including a hub assembly, a rim, and a plurality of spokes interconnecting said rim and said hub assembly, said hub assembly including a hub insert member, the connection between said hub insert member and said spokes including vibration dampening means comprising a rubber cushion circumscribing said hub insert member and a spoke retaining member circumscribing said cushion, one of said members having a plurality of circumferentially spaced radially extending tangs, the other of said members having a like number of circumferentially spaced tang receiving grooves therein, said cushion being adherently bonded to and interlocked with said hub insert member, said cushion also being adherently bonded to and interlocked with said spoke retaining member, said spokes being attached to said spoke retaining member whereby all steering loads between said hub insert and said rim are sustained by said rubber cushion.

2,778,899
SWITCH ACTUATING DEVICE
Lewis E. Thatcher, Chicago, Ill., assignor to Gaylord Products, Incorporated, Chicago, Ill., a corporation of Delaware
Application October 7, 1955, Serial No. 539,200
6 Claims. (Cl. 200—80)



1. A device which is operably responsive to the rotary speed of a body to actuate an electric switch which comprises, a rotatable body, a rotor constructed of resilient material mounted upon said rotatable body, said rotor having a hollow interior for holding a liquid, a disc mounted upon said rotatable body and extending radially into said liquid in said hollow rotor, an electric switch positioned adjacent said rotor, a resiliently impelled actuating arm carried by said switch to actuate said switch when said arm is moved, said actuating arm being so disposed with respect to said rotor as to exert a resilient force upon said rotor to deform said rotor and cant the same laterally when said rotor is stationary, said liquid reacting upon said disc within said rotor to exert a lateral force upon said rotor in opposition to the force of said actuating arm when said rotor rotates above a predetermined speed to displace said arm and actuate said switch.

2,778,900
MERCURY RELAY OF IMPULSE TYPE
Alvar Lenning, Stockholm, Sweden, assignor to Ab Inreco, Stockholm, Sweden, a corporation of Sweden
Application January 31, 1955, Serial No. 485,175
Claims priority, application Sweden February 4, 1954
4 Claims. (Cl. 200—112)



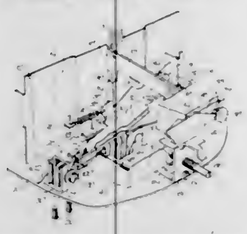
1. An electromagnetically operated impulse relay comprising, in combination, a horizontally disposed cylindrical glass bulb, a partition dividing the lower wall section of said bulb into two portions, a pool of mercury in each of said portions, a pair of contact electrodes extending through said bulb walls, each of said electrodes making contact with one of said mercury pools, a shaft extending longitudinaly through said bulb on the center line thereof, a generally U-shaped magnetic armature member pivoted by its arms on said shaft, a contact carrying member also pivoted on said shaft and a lost motion connection between said armature member and said contact carrying member whereby said armature member imparts motion to and receives motion from said contact carrying member to cause said contact carrying member to move past dead center position while said armature member is held in dead center position.

2,778,901
SPACE THERMOSTAT
Lewis L. Cunningham, Los Altos, Calif.
Application March 21, 1955, Serial No. 495,559
20 Claims. (Cl. 200—137)

1. A space thermostat comprising a rigid tube of temperature sensitive metal, an axially threaded hub secured in one end of said tube, an insulating plug secured in the other end of said tube, said plug having an axial hole formed therethrough, an abutment plug guided in said axial hole, said abutment plug having an abutment shoulder formed thereon and an axial bore formed therethrough, a temperature insensitive rod within said tube axially aligned therewith, said rod being formed with threads of different pitch around its respective ends, one end of said rod being threadedly engaged through said hub, a nut threadedly engaged on the other end of said

rod to support said abutment plug, a pair of lever arms extending longitudinally within said tube on opposite sides of said rod, one end of each of said arms being hingedly supported on said insulating plug, a pair of switch contacts carried one each on the respective other ends of said arms, means biasing said lever arms towards the closed position of said switch contacts, each of said arms having abutments formed thereon in engagement with said abutment shoulder on said abutment plug to restrain said biasing means, a cap for said one end of said tube, said cap being secured on said rod outside said hub, a dial on said cap, an index for said dial on said tube, said nut being rotatable on said rod to calibrate said dial, means adapted to prevent the rotation of said nut after said dial is calibrated and said rod being rotatable in said hub and said nut by said cap for setting said thermostat.

2,778,902
IMPACT RELEASE TOASTER SWITCH
Charles D. Visos, St. Louis, Mo., assignor to Knapp-Monarch Company, St. Louis, Mo., a corporation of Delaware
Application October 10, 1955, Serial No. 539,481
5 Claims. (Cl. 200—138)

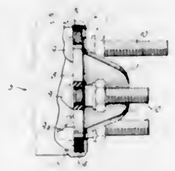


1. A control mechanism comprising, in combination, a potentializable impact means, thermally controlled means for potentializing said impact means, abutment means for engaging the potentialized impact means to trigger same after a predetermined potentialization has occurred, means positioned to be actuated by transfer of kinetic energy from the potentialized impact means after triggering thereof, and an elongated bracket rigidly mounted at one end thereof and being adapted for potentializing distortion thereof by swinging from a normal position, wherein said bracket is slightly distorted, toward said potentializable impact means to, thereby, further distort and potentialize said bracket for return to said normal position, said elongated bracket carrying said abutment means and thermally controlled means for movement therewith.

2,778,903
SWITCH POSITION INDICATORS
Albert F. Hopkins, Jr., Alexandria, Va.
Application April 23, 1954, Serial No. 425,340
3 Claims. (Cl. 200—167)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A switch position indicator adapted to be placed over the faceplate of a standard lever type household light switch comprising a flat rectangular holder member having an elongated rectangular center aperture for receiving the switch lever, said holder member having counterbored holes positioned to coincide with the screw holes in said faceplate, the longer edges of said holder member being folder over to provide spaced channels, colored indicia on a portion of said holder member and a rectangular slider member having a centrally located rectangular aperture of such dimensions as to closely engage the base of the lever of said switch, the edges of the longer sides of said slider member being retained in said spaced channels, said slider member being movable by said lever to selectively cover and uncover said indicia in accordance with the position of said switch.

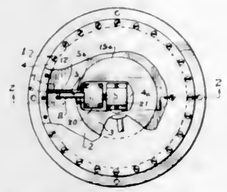
2,778,904
SWITCH TERMINAL HEAD HAVING INSULATIVE TERMINAL SEPARATORS
Edward N. Jacobi, Milwaukee, Wis., assignor to Briggs & Stratton Corporation, Milwaukee, Wis., a corporation of Delaware
Application February 21, 1955, Serial No. 489,441
2 Claims. (Cl. 200—168)



1. In a switch of the type having a housing with a tubular wall portion; means on said housing wall portion, near one end thereof, providing a pair of radially inwardly projecting axially opposed circumferential shoulders; a flat disk of insulative material having its peripheral portion tightly confined between said shoulders and thereby secured across said end of the housing, said disk having a pair of opposite substantially radially elongated slots opening to its periphery; a pair of studs secured in said disk at opposite sides of a line joining said slots and spaced from the center of the disk, each of said studs having a head exposed at the inner face of the disk to provide a stationary switch contact in the housing and an elongated body portion projecting through the disk and beyond said end of the housing to provide a terminal to which a conductor may be connected; and a flat insulative partition member disposed edgewise on the outer face of the disk and extending thereacross in line with said opposite slots, said partition member having a tongue at each end thereof projecting into one of said slots in the disk and snugly fitting the same so as to hold the partition member substantially perpendicular to the outer face of the disk, said tongues having portions in said slots projecting substantially radially outwardly to the periphery of the disk and tightly confined between said shoulders on the housing wall, whereby the partition member is fixed to the housing in a position interposed between said terminals to preclude inadvertent contact between conductors secured to said terminals.

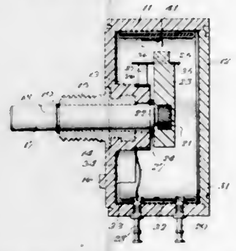
2,778,905
MOTION SENSING DEVICE
Louis D. Statham, Beverly Hills, Calif., assignor to Statham Laboratories, Inc., Los Angeles, Calif., a corporation of California
Application August 13, 1951, Serial No. 241,539
19 Claims. (Cl. 201—48)

1. In a motion responsive device, a housing having a cylindrical wall, a cover to said housing, a cylindrical core located concentrically within said cylindrical housing, a chamber in said core, a bottom to said housing, a barrier wall positioned between said core and said cylindrical wall, an aperture in said wall, a paddle of a lesser area than the aperture in said wall and located within said aperture, an electrical strain wire gage mounted in said cylindrical core, an arm, one end of said arm secured to said paddle, a flat spring secured to the opposite



end of said arm, said spring being securely mounted adjacent the inner end of said arm within said chamber in the above mentioned cylindrical core, an extension on said arm, a weight adjustably mounted on said extension, and electrical resistance strain wires connected to said arm.

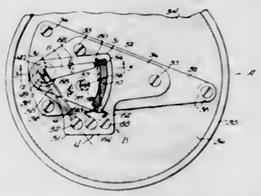
2,778,906
VARIABLE RESISTOR OR POTENTIOMETER CONSTRUCTION
Lauren M. Burgess, Lexington, Mass., assignor, by mesne assignments, to Acton Laboratories, Inc., Acton, Mass.
Application July 9, 1953, Serial No. 367,028
2 Claims. (Cl. 201—48)



2. The combination in a precision variable resistor or potentiometer having a cylindrical casing provided with a resistance element adjacent the inner cylindrical wall, said casing having an end wall provided with a boss, a shaft carried by said boss, an arm of insulating material molded on to the inner end of said shaft, said arm at its outer end having a radially projecting stud, a continuous metal surface carried by said casing and connected to a terminal mounted on said casing, a plurality of terminals mounted on said casing connected to said resistance element, and a unitary contact structure for engaging said resistance element and said continuous metal surface, said contact structure having an opening and adjacent locking lugs to receive the stud of said arm to frictionally lock said structure in position on said arm, said structure having a resilient arm carrying a contact for engaging said resistance element, and a plurality of resilient members each carrying a contact for engaging said continuous metal surface.

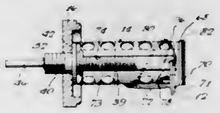
2,778,907
MACH NUMBER SENSOR
Victor Earle Hamren, Los Angeles, Calif., assignor to Topp Industries Inc., Los Angeles, Calif., a corporation of California
Application June 1, 1954, Serial No. 433,771
12 Claims. (Cl. 201—48)

1. A potentiometer for attachment to a Mach number air speed responsive control instrument embodying: a casing; means in said casing responsive to air speed changes; linkage receiving movement from said responsive means and translating it into rotary movement; a shaft to which said rotary movement is transmitted by said linkage; an aneroid, responsive to changes in altitude, connected to said linkage for adjusting the ratio of said translation; said casing including a head having an opening through which said shaft extends with clearance for self aligning adjustment, said potentiometer comprising a platform member secured to said head and spaced therefrom; a bracket member secured to said platform, parallel thereto; a cylindrical extension attached to said shaft in end-to-end, coaxial relation thereto and projecting through said members; an antifriction bearing mounted in one



of said members, encircling said extension, and having self-aligning, low-drag bearing contact therewith; a potentiometer resistor mounted on said bracket, concentric with said extension and in a plane parallel to that of said bracket, a potentiometer wiper arm arranged to sweep the length of said resistor; an insulator cap by which said arm is mounted to the outer end of said extension; and electric connections to said wiper arm and to the respective ends of said resistor, the contact of said wiper arm with said resistor, and said bearing contact, constituting the sole elements of torsional drag against said shaft other than that of a universal bearing at the end of said shaft opposite said extension.

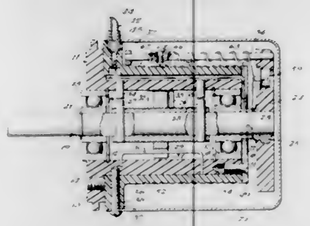
2,778,908
VARIABLE ELECTRICAL RESISTOR
Joseph R. Altieri, Watertown, Mass., assignor to Acton Laboratories, Inc., Acton, Mass.
Application October 19, 1954, Serial No. 463,222
4 Claims. (Cl. 201—56)



1. A variable multiturn resistor comprising a container having a cylindrical sleeve and a cover at one end of the sleeve, a helical screw disposed on the axis of the sleeve and attached to the cover, said screw being provided with an axial bore extending therethrough, a shaft rotatably disposed in the bore of the screw, a cylindrical cage provided with a slot parallel to the axis thereof rotatably and concentrically disposed about the screw, means to couple the cage to the shaft, a traveling nut rotatably mounted on the screw and having a protruding portion slidably disposed within the slot in the cage, a helical coil comprising a flat ribbon of electrically conducting material mounted to the interior of the container approximately concentric to the screw, a spring electrical contact mounted to the traveling nut in slidable contact with the helical coil, said shaft extending through the mouth of the bore remote from the cover, the means for coupling the cage to the shaft comprising a split ring disposed about the portion of the shaft exterior to the bore, a tapered collet surrounding the split ring, a ring having a tapered aperture therein confronting the tapered surface of the tapered collet disposed about the collet, a base ring disposed adjacent to the tapered ring

and attached to the end of the cage, and means to draw the tapered ring to the base ring thereby wedging the split ring to the shaft.

2,778,909
MULTITURN POTENTIOMETER
Frederick B. MacLaren, Huntington, N. Y., assignor to Acton Laboratories, Inc., Acton, Mass.
Application August 11, 1954, Serial No. 449,199
4 Claims. (Cl. 201—56)

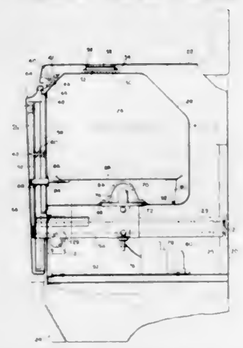


1. A multiturn potentiometer comprising a cylindrical base, a shaft coaxially mounted therein, a drum carried by said base and having externally two parallel helical grooves, a self-supporting helical resistance wire mounted in one of said grooves, each turn of said wire being individually fixed in position in said groove, an arm carried at one end of said shaft, support means carried by the end of said arm parallel to the surface of said drum, a movable contact carriage slidably mounted on said support means, said carriage having a pair of wire elements in engagement with said helical resistance wire, said wire elements each having a portion in engagement with said other groove, and means within said base for limiting the rotation of said shaft to a predetermined number of turns.

2,778,910
APPARATUS FOR SUBMERGED ARC WELDING
George G. Landis, South Euclid, and Harold S. Payne, Cleveland Heights, Ohio, assignors to The Lincoln Electric Company, Cleveland, Ohio, a corporation of Ohio
Application November 12, 1952, Serial No. 319,906
1 Claim. (Cl. 219—130)

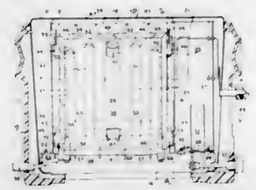
Electric arc welding apparatus of the type adapted to simultaneously deposit a pile of granular welding flux on a proposed weld bead and to deposit molten metal on such weld bead, comprising in combination an elongated generally vertically extending flux hopper of a predetermined cross-sectional size, a flux discharge passage at the lower end of said hopper having a cross-sectional area less than that of the hopper, an electrode discharge nozzle disposed in said passage, means for feeding an electrically energized electrode generally coaxially through said nozzle toward a workpiece, a vacuum source connected to said hopper at a point remote from said passage and adapted to cause a flow of air inwardly through said passage to either pick up welding flux or prevent welding flux in said hopper from falling out of said passage, and means for controlling said vacuum source in relation to said hopper whereby when it is desired to effect a weld, flux may be discharged through the flux passage on to the workpiece simultaneously with the feeding of an electrode towards the workpiece.

2,778,911
DOMESTIC APPLIANCE
James M. Valentine, Vandalia, Ohio, assignor to General Motors Corporation, Dayton, Ohio, a corporation of Delaware
Application August 12, 1952, Serial No. 304,037
3 Claims. (Cl. 219—10.55)



1. An electronic oven including metal walls enclosing an oven compartment, said metal walls including a door having a metal wall portion for completing the enclosure of the compartment, a combined horizontal metal shield and food supporting tray spaced above the bottom of the oven and having its edges spaced from the metal walls of the oven compartment, the central portion of the bottom wall having an opening therein, and an electromatic wave generating apparatus including a microwave power tube having a portion extending through said opening into the space above the bottom of the oven compartment beneath said metal shield for discharging wave energy into the oven compartment.

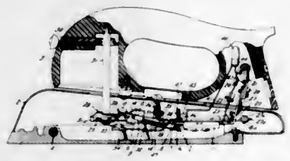
2,778,912
TOASTING APPARATUS
Reed A. Palmer, Mansfield, Harry H. Barker, Lexington, and James R. Chivers, Loudenville, Ohio, assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application July 19, 1954, Serial No. 444,112
4 Claims. (Cl. 219—19)



3. In a toaster, the combination of a casing structure enclosing a chamber, a pair of toasting units spaced apart within the chamber and defining a toasting well therein, each of said units including a heat reflecting plate, spaced upper and lower insulating strips supported solely by the plate and each having a plurality of openings spaced

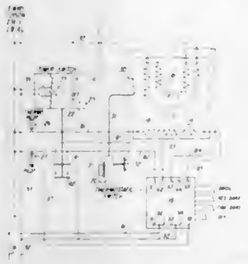
longitudinally therein, a pre-formed heater convoluted of stiff wire and having respective portions inserted in said openings from one side of the strips, the vertical spacing of the openings in the upper and lower strips and the length of the convolutions of the wire increasing progressively from the ends of the strips to the center thereof and a plurality of horizontally spaced, vertically extending guard wires secured to the plate and supported solely thereby, and means for attaching the toasting units to the casing structure.

2,778,913
TEMPERATURE CONTROL AND SIGNAL CIRCUIT
Frank E. Finlayson, Ontario, Calif., assignor to General Electric Company, a corporation of New York
Application October 6, 1954, Serial No. 460,642
9 Claims. (Cl. 219—20)



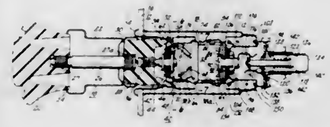
1. In an electric flatiron or the like including a heating element and a signal device, a combined temperature control and signal circuit comprising a first normally closed switch for controlling energization of the heating element including a movably mounted switch arm, a temperature-responsive element, a flexible signal control switch arm interposed between said movable heating element switch arm and said temperature-responsive element and electrically insulated with respect thereto, signalling means, a normally open switch contact on said flexible switch arm cooperable with said heating element switch arm, a second normally closed switch operated to open position by motion of said flexible switch arm, and means transmitting motion of said temperature-responsive element upon increasing temperature to close said normally open switch contact to energize said signalling means, open said first normally closed switch to de-energize said heating element, and open said second normally closed switch to de-energize said signalling means in sequence.

2,778,914
CONTROL CIRCUITS FOR ELECTRIC OVENS
Ben J. Vallorani, River Forest, Ill., assignor to General Electric Company, a corporation of New York
Application October 22, 1954, Serial No. 463,957
10 Claims. (Cl. 219—20)



1. An electric oven comprising first and second electric heating elements respectively disposed adjacent to the top and adjacent to the bottom of said oven, said first heating element having a resistance somewhat lower than that of said second heating element, a three-wire Edison electric current supply source provided with first and second outside lines and a neutral line, a first supply connection for energizing said first heating element across said first outside line and said neutral line, a second supply connection for energizing said second heating element across said first and second outside lines, a third supply connection for energizing said first and second heating elements in series relation across said second outside line and said neutral line, a unitary control switch having off and bake positions, said control switch being operative into its off position to interrupt said first and second and third supply connections and operative into its bake position to prepare said first and second and third supply connections, and a thermostatic switch provided with a thermal element operatively associated with said oven and responsive to the temperature therein and having cold and hot positions, said thermostatic switch being operative into its cold position to complete said first and second prepared supply connections and to interrupt said third prepared supply connection in the bake position of said control switch, said thermostatic switch being operative into its hot position to interrupt said first and second prepared supply connections and to complete said third prepared supply connection in the bake position of said control switch, whereby the amplitude of the temperature variation in said oven closely follows that of the thermal element of said thermostatic switch in the bake position of said control switch.

2,778,915
CIGAR LIGHTER
Clarence H. Jorgensen, East Rochester, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 21, 1953, Serial No. 375,599
15 Claims. (Cl. 219—32)

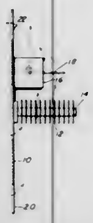


1. In an electric cigar lighter, a supporting member, an igniting unit insertable in said supporting member to be supported thereby and completely removable therefrom for use, a heating element at the insertable end of said igniting unit, said igniting unit being movable in said supporting member to a position to effect completion of a circuit through said heating element, said heating element comprising a spiral coil having a substantially flat portion forming an igniting element and a substantially conical portion through both of which current is adapted to pass when the igniter element is moved to a position to bring the heating element in circuit with the current source, the apex of said conical portion of the coil being positioned adjacent the flat portion thereof.

2,778,916
HUMIDIFIER FOR ELECTRIC HEATERS
Robert A. Holloway, Mayfield, Ky.
Application May 7, 1954, Serial No. 428,188
1 Claim. (Cl. 219—38)

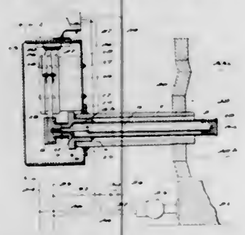
A humidifier comprising an open elongated trough-like container adapted to be mounted on the interior of a casing wall having vertical spaced apertures for circulation of air past the container, a water supply conduit communicating with said container, a float operated valve in said conduit, a float in said container operatively connected to said valve for maintaining a constant water level in said container, a partial closure on said container in overlying relation to the float and valve for protecting

the same, said partial closure leaving the major portion of the container open for exposing the surface of the water contained therein to the circulating air, an electric heating element supported on the casing wall below the con-



tainer, said heating element forming the sole means for producing air flow over the water surface and for heating the water whereby the air will entrain moisture vapor from the water.

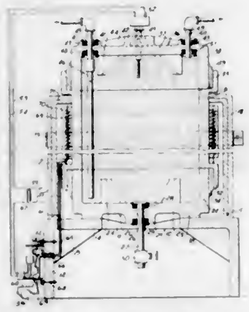
2,778,917
ELECTRICAL SAFETY CONTROL APPARATUS
Timothy J. Sullivan, Butte, Mont., assignor to Sullivan Valve and Engineering Company, Butte, Mont., a corporation of Montana
Application March 22, 1954, Serial No. 417,862
5 Claims. (Cl. 219—38)



1. The combination with a boiler having electrically energized means for heating the same, and a permanently connected electrical network for supplying power to said electrically-energized means, said network including a switch with an operating lever biased for movement to open said switch to de-energize said electrically-energized means; of an over-temperature safety control comprising a fusible plug means for supporting said fusible plug on said boiler in position to be subject to over-heating within the same, said supporting means comprising a mounting tube with an open inner end mounted in said boiler, a linkage connected at one end to said fusible plug and carrying at its opposite end a knob positioned to engage and block movement of said switch operating lever, said mounting tube having an apertured closure at its outer end to support the outer end of said linkage, means operative upon heating of said fusible plug to a preselected temperature to move said linkage to displace said knob from blocking engagement with said switch operating lever, said tube and linkage having cooperative elements constituting valve means to seal said aperture in the outer end of said tube on movement of said linkage to displace said knob from said blocking engagement.

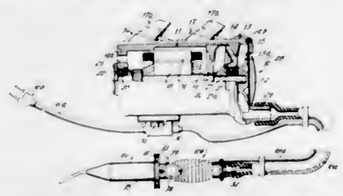
2,778,918
HOT WATER HEATER AND STORAGE TANK
Raphael P. Muccilli, New York, N. Y.
Application January 20, 1955, Serial No. 483,042
6 Claims. (Cl. 219—38)

1. An electric water heater and storage tank comprising a base member, a bottom header member supported on said base member, a cylindrical member having a water-tight connection with said bottom header, an upper header having a water-tight connection with the upper end of said cylindrical member, said headers and cylindrical member being of ceramic material, an electric heating system arranged upon the outer surface of said cylindrical member, casing members supported on the base member and surrounding the cylindrical member and the heating units, and inlet and outlet water pipes leading



water into and out of said tank, said inlet and outlet water pipes being contained in one of said headers, said cylindrical member having radially offset cylindrical flanges adapted to surround the header members and radially offset therefrom to provide annular spaces therearound and sealing material disposed in the annular spaces between the outer surfaces of the header member and said cylindrical flanges.

2,778,919
APPARATUS FOR SHAPING OR WELDING THERMOPLASTIC MATERIALS
Pierino Vicario, Cassano d'Adda, Italy, assignor to Gerd Lester, Chappaqua, N. Y.
Application December 27, 1955, Serial No. 555,690
Claims priority, application Italy December 30, 1954
7 Claims. (Cl. 219—39)

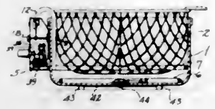


1. A portable air heater for shaping and welding thermoplastic materials, comprising a portable electric air blower, means for supporting the electric blower on the operator's body to allow free use of the operator's hands, an electrical heater unit, a handle connected with said heater unit and heat-insulated therefrom, a nozzle member surrounding said heater unit and removably connected with said handle, a flexible hose interconnecting said air blower with said handle, and air channel means in said handle allowing passage of compressed air through said hose handle past said heater unit and out said nozzle member.

2,778,920
DEEP PAN COOKER
Joseph Pavelka, Jr., St. Louis, Mo.
Application March 11, 1953, Serial No. 341,690
9 Claims. (Cl. 219—43)

8. An immersion heating unit for application to the upright wall of a cooking vessel including a substantially rigid upright heating element, and a switch and thermostat housing opposed to said upright heating element,

there being a substantially rigid support structure fixed to the upper end of said heating element, said housing being pivotally suspended from said support structure,



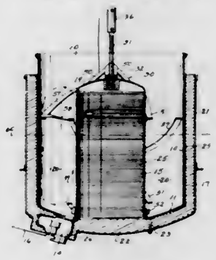
and a member associated with said support structure and having a part projecting therefrom for manual operation and a part engageable with said box to positively move it towards said upright heating element to form a clamp.

2,778,921
WARMING DEVICE FOR HEATING VARIABLE QUANTITIES OF MATERIAL OF DIFFERENT INITIAL TEMPERATURES TO THE SAME FINAL TEMPERATURE
Ivar Jepson, Oak Park, Ill., assignor to Sunbeam Corporation, Chicago, Ill., a corporation of Illinois
Application March 24, 1952, Serial No. 278,157
4 Claims. (Cl. 219—44)

1. A cover assembly adapted for use with a heating device of the type in which the heating interval is determined by the quantity of water placed in the device, comprising an elongated cover member having a first axis extending longitudinally and vertically therethrough, an elongated structure defining a cylindrical cavity having a second axis extending longitudinally therethrough and providing a cover handle, means mounting said structure on said cover with said second axis disposed substantially perpendicular to said first axis, said structure defining an opening disposed therein substantially concentric with said second axis at one end of said structure displaced radially from said first axis, a piston mounted within said cylindrical cavity for movement along said second axis relative to said opening to vary the effective volume of said cavity, and means carried on said cover for manually adjusting the position of said piston relative to said cavity.

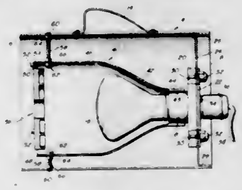
4. A baby bottle warmer for automatically heating a baby bottle and the contents thereof to the same ultimate temperature irrespective of the quantity of material in said bottle, comprising a heating chamber including a dome shaped cover having steam escape passageways, said assembled chamber and cover completely enclosing a baby bottle and associated nipple disposed in said chamber except for the openings provided by said passageways, said dome shaped cover including a substantially straight walled bottom portion located intermediate the length of said bottle and a curved wall top portion located adjacent said nipple, means for supporting such a bottle within said chamber, heating means for converting water placed in said chamber to steam, said steam escape passageways being located in said cover near both said top portion and said bottom portion of said cover whereby a jacket of steam envelops a bottle and nipple disposed within said chamber for uniformly heating said bottle and contents and sterilizing said nipple.

2,778,922
TREATING TANK FOR THERMOPLASTIC MATERIALS AND THE LIKE
Hugo E. Birkner, Jr., Kent, Ohio, assignor to Sta-Warm Electric Co., Ravenna, Ohio, a corporation of Ohio
Application August 27, 1953, Serial No. 376,936
4 Claims. (Cl. 219—44)



1. A tank for treating thermoplastic materials and the like comprising a pair of vertically extending cylinders positioned one within the other with their axes coextensive, the inner cylinder having a diameter materially smaller than the diameter of the outer cylinders to provide an annular material receiving space between the two cylinders, closure means for the bottom of said space, means to heat the outer walls of said cylinders, an agitator disposed within the space between the two cylinders, said agitator comprising a plurality of relatively narrow blades spiraled vertically adjacent the inner wall of the outer cylinder and a plurality of relatively narrow blades spiraled vertically about the outer wall of the inner cylinder, one set of blades being spiraled clockwise and the other set of blades being spiraled counter-clockwise, and means to rotate said agitator.

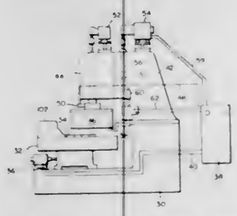
2,778,923
PERINEAL HEATING LAMP
Raymond L. Armstrong, Cortland, and Gerald H. Morenus and George H. Morenus, Homer, N. Y.
Application October 10, 1955, Serial No. 539,368
2 Claims. (Cl. 219—45)



1. For use in concentrating and directing heat rays and light rays to the perineum for relief of pain, a perineal heater comprising an elongate open-ended portable housing having a flat bottom designed and of an area to rest firmly on the mattress of a hospital bed, a spider supported across the rearward end of said housing and having edges spaced from surrounding portions of said housing, electric lamp socket means accessibly mounted on said spider and including a socket member projecting concentrically into said housing, an electric lamp fitted into said socket member, a bell-shaped shade of a length less than the length of said housing and appreciably longer than said lamp, said shade having a tapering neck at one end enclosing said lamp and said neck terminating in an internally milled collar frictionally and removably fitted over and supported by said socket member, said housing also having an enlarged body and terminal mouth portion at its opposite end terminating just inwardly of the adjacent and cooperating end of said housing, said housing being of a cross-section greater than the

cross-section of said shade, cooperating means between said housing and shade whereby the shade is supported with all portions thereof spaced from the encompassing portions of said housing, a guard-forming grille supported removably in the mouth portion of said shade, and a handle mounted atop said housing.

2,778,924
APPARATUS AND METHOD FOR PRODUCING FLAT SURFACES
John P. Hill, Detroit, Mich., assignor to Goddard & Goddard Company, Detroit, Mich., a corporation of Michigan
Application March 22, 1954, Serial No. 417,907
13 Claims. (Cl. 219—69)



1. The method of machining a flat surface by electrical discharge which comprises providing a tubular electrode having a plane end surface perpendicular to its axis, rotating said electrode, and relatively traversing a work piece across the end of said electrode in a path such that the work piece moves from a position outside the protected outer surface of the electrode through a position entirely within the projected inner surface of the electrode to a position entirely outside the projected outer surface of the electrode, and maintaining a high frequency electrical discharge between the electrode and work piece during traverse of the end surface of the electrode by the work piece.

2,778,925
ELECTRICAL DISCHARGE CUTTING MACHINE
John G. Gross and Henry Gill, Cincinnati, Ohio, assignors to The Cincinnati Milling Machine Co., Cincinnati, Ohio, a corporation of Ohio
Application February 25, 1955, Serial No. 490,664
23 Claims. (Cl. 219—69)

1. In a machine for trepanning holes or slots in a work surface by electrical discharges, the combination of a base, a work table mounted on said base, a tool support mounted on said base adjacent to said work table, a tool carriage slidably mounted on said tool support for movement to and from said work table, said tool carriage comprising a lower slide supporting an upper slide, a tool electrode carried by said upper slide, power operable rapid traversing means to advance and retract said lower slide, means to energize said traversing means, positive stopping means to define the limits of said advancement and retraction, power operable feeding means to advance and retract said upper slide and electrode, means trip operable by said advancing lower slide to energize said feeding means and said electrode to effect the trepanning operation by electrical discharges, means trip operable by said advancing upper slide to reverse said traversing means to retract said slides and electrode after completion of the trepanning operation, and means trip operable by said retracting lower slide to reverse said feeding means to retract said upper slide, and means trip operable by retraction of said upper slide to deenergize said feeding means.

2,778,926
METHOD FOR WELDING AND SOLDERING BY ELECTRON BOMBARDMENT
Wilhelm Schneider, Frankfurt am Main, Germany, assignor to Licentia Patentverwaltungs G. m. b. H., Berlin-Grunewald, Germany
Application September 4, 1952, Serial No. 307,943
Claims priority, application Germany September 8, 1951
4 Claims. (Cl. 219—117)

1. A method for producing systems having a unidirectional electric conductivity including a crystal means consisting of a crystalline semi-conductive material from the group comprising silicon and germanium and a contact means, comprising the steps of attaching said contact means to said crystal means by joining surface portions of said crystal means and of said contact means; and bombarding said surface portions by electrons so as to heat the same and to produce a permanent connection between said surface layer portions.

2,778,927
WELDING ROD HOLDER
William Martin Warren, Dallas, Tex.
Application September 27, 1955, Serial No. 536,813
2 Claims. (Cl. 219—144)

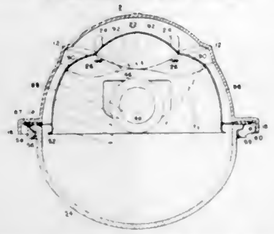
1. A welding rod holder comprising an elongated tubular frame member, a pair of parallel arms at the forward end of said member, a wheel disposed between said arms having a diametrical opening, a pair of set screws loosely engaging through said arms and threaded into said wheel, one of said screws projecting into said opening for securing a welding rod therein, a plurality of keepers formed in the periphery of said wheel, an elongated slide bar, guide means for said bar carried by said frame member, a locking bolt carried by said bar engageable in a selected keeper, a spring constantly urging said bar forwardly to locking position, a finger piece fixed to said bar, insulating means about said finger piece, and an insulated handle fixed to the rear of said frame member.

2,778,928
WELDER'S HELMET AND ARC CURRENT CONTROLLING APPARATUS
Edward S. Morrell, Chippewa Falls, Wis., assignor to George Toebe, Chippewa Falls, Wis.
Application February 21, 1955, Serial No. 489,660
7 Claims. (Cl. 219—147)

1. In combination with a welding helmet, a movable shutter and an arc circuit controlling apparatus, means for moving the shutter into eye protecting position including an electromagnet, an arc welding circuit including a welding electrode and the work, a normally open main switch in said arc welding circuit, means including an electromagnet for closing said switch after the shutter has moved into eye protecting position, a branch circuit including the first magnet energized upon the engagement of the weld rod with the work normally in series with the

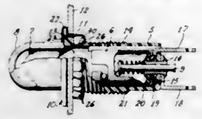
second magnet, means shunting the first magnet upon movement of the shutter to eye protecting position, whereby to bring about increased current value through the second magnet for energizing said second magnet to close the main switch.

2,778,929
LUMINAIRE
Robert W. Loehr, Lakewood, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application December 31, 1952, Serial No. 328,958
5 Claims. (Cl. 240—25)



1. A luminaire comprising, an ovate spheroidal housing having an open bottom, a generally similarly shaped reflector mounted in said housing with its longitudinal axis generally coincident with the longitudinal axis of said housing, means for supporting an elongated light source generally centrally and longitudinally within said reflector, said reflector being comprised in part of adjoined differently shaped longitudinally extending light ray reflecting portions, and each of said light ray reflecting portions being located with respect to an inserted elongated light source to reflect incident light rays in avoidance thereof and at an angle less than the cut-off angle of the reflector.

2,778,930
INDICATOR LIGHT WITH SNAP-IN MOUNTING
Frank A. Harrington, Brea, and Weston W. Bowles, Anaheim, Calif., assignors to Marco Industries Company, Anaheim, Calif., a corporation of California
Application January 19, 1956, Serial No. 560,107
7 Claims. (Cl. 240—52)

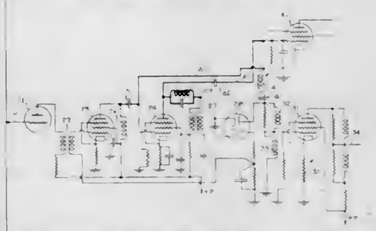


1. In an indicator light for installation in an opening in a mounting panel: a barrel having a forward end provided with a radially outwardly projecting flange and an external thread defining a groove beginning adjacent said flange; and a grommet of spring sheet material including a collar portion of U-section having a forward portion terminating in a flange projecting radially inwardly, and having a rear web portion and a plurality of spring fingers integrally joined to said rear web portion and projecting axially therefrom, said fingers terminating in claws projecting radially inwardly and received in said groove, said fingers having curved shoulder portions joining them to said claws, said shoulder portions having normal maximum diameter slightly larger than said panel opening, and being adapted to flex said fingers inwardly in response to axial pressure against the grommet, whereby to snap the grommet through said opening, said claws being cooperable with said thread, in response to rotation of the barrel relative to the grommet, to effect a threading action by which said barrel is drawn into the grommet until said barrel flange seats against said grommet flange and said collar seats against said panel, whereby to secure the barrel to the grommet and the grommet to the panel.

2,778,931
FOLDING FLASHLIGHT HOLDER
Ruben A. Cruz, Seattle, Wash.
Application April 3, 1953, Serial No. 346,748
7 Claims. (Cl. 240—52.5)

1. A flashlight holder comprising two attached together spaced apart resilient flashlight gripping members each having an outwardly, laterally spaced mounting plate; and two supporting members each having two spaced apart bearing parts pivotally and frictionally connected with the respective said spaced mounting plates and each having a base portion of substantial width.

2,778,932
REFLEX AMPLIFIER CIRCUITS
Rinaldo E. De Cola and Charles E. Honeywell, Park Ridge, Ill., assignors to Admiral Corporation, Chicago, Ill.
Application June 15, 1951, Serial No. 231,854
2 Claims. (Cl. 250—20)



2. In a television receiver, the combination of an amplifying tube having an input and an output, means for applying to the input of said tube a composite television signal which includes a video carrier amplitude modulated by video information and a sound carrier frequency modulated by sound information, said sound carrier having a different frequency and a substantially lower amplitude than said video carrier, a video detector having an

input and an output, signal transfer means coupled between the output of said amplifying tube and the input of said detector and operative to pass to the detector the amplified modulated video and sound carriers and to prevent from passing to the detector signals at substantially the difference frequency between said carriers, a first load coupled to the output of the detector to recover the video information, a feedback network coupled to the output of said detector as a second load and parallel resonant at substantially said difference frequency, said feedback network including inductance means and the input of said amplifying tube as its resonance-determining elements and being operative to feed back from the detector to the amplifying tube a signal having a carrier at said difference frequency which is frequency modulated by sound information, and means coupled to the output of said amplifying tube for passing the amplified difference frequency carrier which is frequency modulated by sound information.

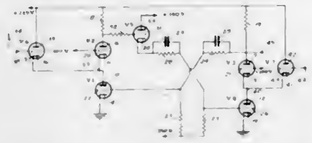
2,778,933
AMPLITUDE MODULATION DETECTOR WHICH IS PHASE RESPONSIVE
Philip W. Crist, Sea Cliff, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application August 25, 1951, Serial No. 243,710
4 Claims. (Cl. 250—20)

1. A pulse receiver comprising in combination, tuned radio-frequency amplifier means for amplifying recurrent pulse modulated radio-frequency signals, an electronic switch connected to the output of said tuned radio-frequency amplifier means and receiving said amplified pulse modulated radio-frequency signals, pulse producing means coupled to said electronic switch, said pulse producing means producing short output pulses at the recurrence frequency of the received pulse modulated radio-frequency signals, local oscillator means coupled to said pulse producing means for energizing said pulse producing means, means including a phase detector coupled to said radio-frequency amplifier means and said local oscillator means for synchronizing the frequency of said local oscillator means with the received radio-frequency carrier signal, the recurrent short output pulses from said pulse producing means being synchronized to the output of said local oscillator means for energizing said electronic switch at predetermined instants of time, said electronic switch sampling predetermined portions of said received pulse modulated radio-frequency signals, and low pass filter means coupled to the output of said electronic switch for storing the sampled portions of said received pulse modulated radio-frequency signals.

2,778,934
NEUTRALIZED AMPLIFIER SYSTEM FOR ULTRA-HIGH TO VERY HIGH FREQUENCY CONVERTER
Ben H. Tongue, Westfield, N. J.
Application June 15, 1953, Serial No. 361,800
5 Claims. (Cl. 250—20)

1. An electric system for amplifying a predetermined radio frequency having, in combination, an electron tube provided with an anode, a cathode and a control electrode, an input circuit comprising a coil connected to the control electrode and capacitively and inductively connected to the cathode through the capacitance of the tube between its control electrode and cathode and the primary winding of a closely coupled autotransformer, respectively, the inductance of the coil being tuned with the said capacitance and the inductance of the primary winding of the autotransformer to resonate at the predetermined radio frequency, means for connecting the secondary winding of the autotransformer through a capacitor to the anode of the tube, the primary and secondary autotransformer windings being of value to produce substantially a 180-degree phase shift between the control electrode and the connection between the secondary winding and the said capacitor sufficient substantially to neutralize the control electrode-to-anode capacitance of the tube, an output circuit connected between the anode and the cathode comprising a step-down bifilar transformer having a primary winding connected between the anode of the tube and ground, a source of anode potential, and means for connecting the negative terminal of the source to the cathode of the tube and the positive terminal to ground, the step-down transformer being tuned to resonate at a pair of frequencies, one above and one below the said predetermined radio frequency.

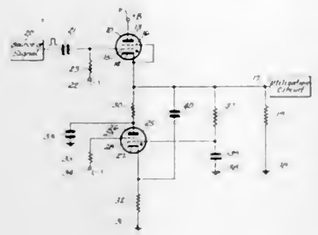
2,778,935
CASCODE MULTIVIBRATOR
Richard L. Roplequet, Portland, Oreg., assignor to Tektronix, Inc., Portland, Oreg., a corporation of Oregon
Application August 18, 1953, Serial No. 374,959
16 Claims. (Cl. 250—27)



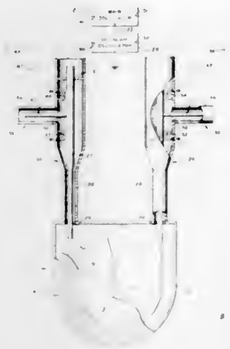
1. A trigger-actuated multivibrator comprising a plurality of electron discharge devices arranged in a normally conducting side and a normally non-conducting side, each electron discharge device having cathode, grid and plate elements, one side of the multivibrator comprising a pair of electron discharge devices, the cathode of one electron discharge device of the pair being connected to the plate of the other electron discharge device of the pair, means connecting the plate of the said one electron discharge device of the pair and the grid of the said other electron discharge device of the pair to the other side of the multivibrator, the remaining elements of each electron discharge device being connected to a source of operating potential, and signal conductor means connecting a triggering signal to the said cathode-plate connection.

2,778,936
ONE SHOT MULTIVIBRATOR
Robert B. Trousdale, Webster, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application August 27, 1952, Serial No. 306,691
8 Claims. (Cl. 250—27)

1. In combination, a potential supply circuit, a utilization circuit, an electronic switch comprising a first electron discharge valve of the gas type for connecting said supply circuit to said utilization circuit, said valve having a control electrode, a signal source connected to said control electrode, the receipt of a predetermined signal from said signal source rendering said electronic switch effective to interconnect said supply and utilization circuits, a second electron discharge valve of the gas type, means for connecting the plate of said second valve to the cathode of said first valve, means including a capacitor for firing said second valve, and means including said connecting means for extinguishing the discharge through said first valve in response to the discharge through said second valve, the flow of current through said second valve being immediately terminated following extinguishment of the discharge through said first valve due to automatic removal of plate potential therefrom.



2,778,937
CYCLOTRON SQUARE WAVE RF SYSTEM
Guido B. Rossi, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application April 22, 1954, Serial No. 425,061
10 Claims. (Cl. 250—27)



1. In a radio-frequency system for a cyclotron having a pair of dee electrodes, the combination comprising an oscillator developing a voltage with a fundamental frequency component and a third harmonic frequency component having a peak value substantially one-ninth that of the fundamental component, two quarter-wavelength transmission line systems respectively connected to said dee electrodes, and coupling means connected between said oscillator and said systems, each of said systems including means resonant at the third harmonic frequency disposed to maximize the third harmonic component at said dee electrodes and provide a substantially square wave of voltage.

2,778,938
CONTROLLED FREQUENCY MICROWAVE GENERATION
Lowell E. Norton, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application April 27, 1953, Serial No. 351,182
13 Claims. (Cl. 250—36)

1. A microwave generator comprising a gas cell having means for producing a periodic time and spatial modulating field, a modulation oscillator connected to apply energy at a frequency *fm* to said means, said cell having an input, means to apply energy to said cell at one frequency displaced from the molecular resonance of the gas by half the said modulation frequency *fm*, thereby to provide at the said gas cell output energy at another frequency displaced from the molecular resonance of the gas by *fm*/2, and a feedback path from said output to said input, said feedback path including a mixer and an amplifier, said modulation oscillator being coupled to said mixer to mix with the gas cell output.

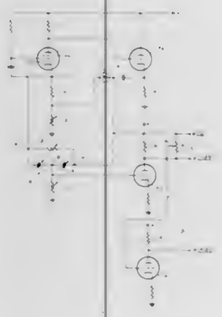
2,778,939
SELF-LATCHING OSCILLATOR
Jerrier A. Haddad, Fishkill, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application November 25, 1952, Serial No. 322,436
5 Claims. (Cl. 250—36)

1. An apparatus for producing electrical oscillations comprising in combination, an electrical oscillating circuit, said circuit including an electron discharge tube, said circuit oscillating when the electron discharge tube is in a conducting condition, a control circuit providing a negative bias, connected to said electron discharge tube to maintain the tube in a non-conductive condition, means pulsing the tube into a conducting condition, a gaseous discharge tube energized by the output of said oscillating circuit when the tube is in a conducting condition and electrical means, controlled through said energized gaseous discharge tube to said control circuit, to overcome said bias and maintain said oscillating circuit in an operating condition.

2,778,940
MULTI-PHASE OSCILLATOR
Peter G. Sulzer, Kensington, Md., assignor to Frank H. McIntosh, Chevy Chase, Md.
Application July 14, 1954, Serial No. 443,201
12 Claims. (Cl. 250—36)

1. A variable frequency oscillator which produces a plurality of output voltages of fixed relative phase angle, comprising a first amplifier having two input terminals and an output terminal, a second amplifier having an input terminal and an output terminal, means connecting

the output terminal of said first amplifier to the input terminal of said second amplifier, a wide-band regenerative coupling connected between the output terminal of said second amplifier and a first of said two input terminals of said first amplifier, a degenerative feed-back loop connected from the output terminal of said second amplifier to the second of said two input terminals of said first amplifier, said degenerative feed-back loop containing a frequency determining bridged-T network, said bridged-T



network including two cross arm impedances, each having two terminals, a bridging impedance and a leg impedance in which the impedances in the cross arm of the T are equal in value and in which the ratio of the value of the bridging impedance to the value of the impedance in the leg of the T is of a predetermined value, and leads for deriving two output voltages at said two terminals of said one of said cross arm impedances, a third amplifier having a control grid and an output circuit, and means for connecting one of said leads to said control grid.

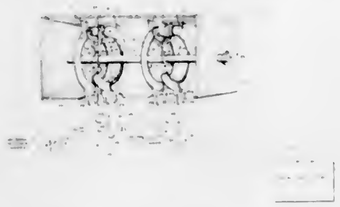
2,778,941
WIDE RANGE OSCILLATOR
Robert A. Lebowitz, Brooklyn, N. Y., assignor to Polytechnic Research & Development Co., Inc., Brooklyn, N. Y., a corporation of New York
Application November 6, 1952, Serial No. 319,090
10 Claims. (Cl. 250—36)

1. An oscillation generator comprising an electron tube having a cathode, an anode and a control grid, a tuned circuit connected between the control grid and the anode and comprising a transmission line having a short-circuiting slider for varying the length thereof, a high-frequency choke coil connected in the space-current lead to said cathode, a variable condenser connected directly between said anode and said cathode independently of said choke coil, and common operating means for operating said slider and said variable condenser simultaneously to increase the capacitance of said condenser as the length of said line is increased.

2,778,942
ELECTRICAL CONTROL APPARATUS
Robert J. Ehret, Philadelphia, and Warren Moore, Jr., North Hills, Pa., assignors to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application July 9, 1954, Serial No. 442,236
10 Claims. (Cl. 250—36)

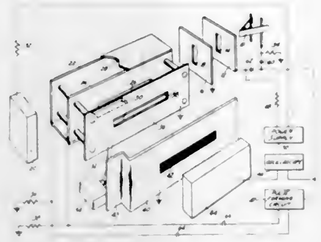
1. In a controller having an output which varies proportionally with an input variable, the combination comprising, a transistor having a base electrode, emitter electrode, and collector electrode, a resonant reactive circuit connected in the collector-base circuit, a movable member positioned in impedance adjusting relation adjacent to a reactive element of said resonant circuit, a regenerative feedback connection from a tap on said resonant circuit to said emitter electrode, said feedback connection providing a signal to initiate circuit oscillations, and an inductive element connected in said feedback circuit so that when said reactive element is tuned, the intensity of oscillations will vary proportionally with the movement of said movable member.

2,778,943
TUNABLE ELECTRIC CIRCUIT ELEMENTS
Isaac S. Blonder, Westfield, N. J.
Application August 6, 1953, Serial No. 372,650
11 Claims. (Cl. 250—40)



1. A tunable circuit comprising a pair of similar substantially planar conducting annular plates each split at a single region to provide a pair of terminals, and ribbed along its outer periphery to provide a transmission loop raised out of the plane of the plate, the plates being juxtaposed with the raised loops facing each other, means for connecting together a terminal of each plate, means for feeding energy to the other terminals of the plates, a conductive contactor positioned between the plates and provided with a pair of electrically connected arms for bearing respectively upon oppositely disposed points of the raised loops of each of the pair of plates, and means for enabling movement of the contactor to different points along the loops to vary the impedance of the same between the said other terminals, thereby to tune the circuit.

2,778,944
ELECTRON MULTIPLIER
Daniel B. Harrington, Detroit, Mich., assignor to Bendix Aviation Corporation, Detroit, Mich., a corporation of Delaware
Application January 19, 1953, Serial No. 331,882
14 Claims. (Cl. 250—41.9)



1. In combination, means for providing a plurality of ions, means for accelerating the ions in a lateral beam, a first plate disposed to receive at least a lateral portion of the ion beam and to produce a number of electrons substantially proportionate to the number of ions in the lateral portion, a second plate disposed to receive the electrons produced by the first plate and to produce a substantially proportionately increased number of electrons, a third plate disposed in opposed relationship to the second plate to receive the electrons produced by the second plate and to produce a substantially proportionate number of electrons, means disposed to isolate the third plate from the second plate and to pass to the third plate the electrons produced by the second plate, a fourth plate disposed to receive the electrons produced by the third plate and to produce a substantially proportionately increased number of electrons, and means for indicating the relative times at which electrons are produced by the fourth plate.

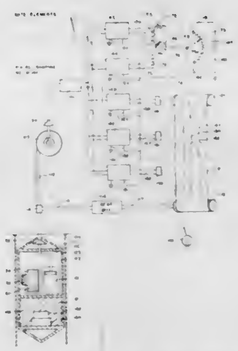
2,778,945
ELECTRICAL MEASURING APPARATUS
Marvin C. Burk, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application May 24, 1954, Serial No. 431,805
11 Claims. (Cl. 250—41.9)

1. Apparatus to measure an alternating electrical signal comprising, in combination, a first amplifier, the signal to be measured to be applied to the input terminals of said first amplifier, a second amplifier, the output terminals of said first amplifier being connected to the input terminals of said second amplifier, one of said amplifiers being tuned to have a maximum gain at a frequency less than the frequency of the signal to be measured, the other of said amplifiers being tuned to have a maximum gain at a frequency greater than the frequency of the signal to be measured, a phase sensitive detector adapted to compare two signals, means connecting the output terminals of said second amplifier to a first set of input terminals of said detector, means to apply a second electrical signal of the same frequency as the frequency of the signal to be measured to the second set of input terminals of said detector, and means to measure the output of said detector.

2,778,946
CORONA DISCHARGE DEVICE AND METHOD OF XEROGRAPHIC CHARGING
Clyde R. Mayo, Rochester, N. Y., assignor to The Haloid Company, Rochester, N. Y., a corporation of New York
Application April 18, 1951, Serial No. 221,582
5 Claims. (Cl. 250—49.5)

3. A corona discharge device adapted to be relatively moved in one direction across a surface to be charged comprising a plurality of regulating wires extending transversely to the direction of movement, a shield extending along the length of said wires, a first corona discharge source positioned between said shield and said wires, a second corona discharge source positioned beneath said shield and first in the direction of movement, means to generate corona discharge from said discharge sources, and means to apply a field regulating potential to said regulating wires.

2,778,947
AUTOMATIC PROPORTIONAL COUNTER
Serge A. Scherbatskoy, Tulsa, Okla.
Application May 17, 1951, Serial No. 226,874
The terminal portion of the term of the patent subsequent to August 4, 1970, has been disclaimed
16 Claims. (Cl. 250—71)

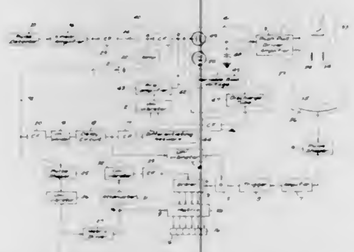


1. Apparatus for analyzing heterogeneous radiation having a plurality of distinct components, comprising a radiation-sensitive element, means coupled thereto operative to produce a train of electric pulses responsively to impingement of said radiation on said sensitive element, the pulses from each component of radiation having a characteristic distinct range of magnitudes, a source of substantially monoenergetic radiation mounted near said sensitive element for impingement of its radiation thereon, the pulses produced by said pulse-producing means responsively to such monoenergetic radiation being distinct in magnitude from the pulses produced responsively to the types of radiation to be analyzed, a plurality of gate elements mutually fed by said pulse-producing means, each of said gate elements being responsive only to pulses having magnitudes lying within an upper limit and a lower limit, said upper and lower limits defining the transmission band of such gate element, the respective transmission bands of the gate elements being so selected that the pulses from each component of radiation to be analyzed fall within the transmission band of at least one gate element, and means coupled to the pulse-producing means operative

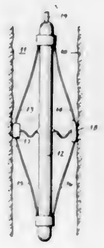
responsively to changes in the magnitude of the pulses derived from said monoenergetic radiation to shift simultaneously the upper and lower limits of said transmission bands of all said gate elements without substantially affecting the widths of said transmission bands or their relationships to one another.

2,778,948
ELECTRO-THERAPEUTIC APPARATUS
Helmuth Berger, Erlangen, Germany
Application July 7, 1952, Serial No. 297,531
8 Claims. (Cl. 250—79)

1. In an electro-therapeutical apparatus having a source of rays and a screen, in combination with a fixed structural element, a vertical column, a horizontal arm carried by said column and carrying said source and screen, at least two rigid connecting elements, one of said connecting elements having an end adjustably and rigidly connected to said structural element, the other one of said rigid connecting elements extending towards said structural element from said arm and having an end positively connected to said arm, and means adjustably and rigidly interconnecting the other two ends of said connecting elements.

2,778,949
ELECTROSTATIC PULSE ANALYZER SYSTEM
Casimer J. Borkowski and Frank M. Porter, Oak Ridge, Tenn., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application April 6, 1954, Serial No. 421,464
13 Claims. (Cl. 250—83.3)

8. A pulse height distribution analyzer comprising a radiation detector for converting radiations into pulses, an electrostatic analyzer for converting pulses into electrical impulses corresponding in number to the magnitude of the pulses, a pulse shaper for coupling the analyzer to the detector for stretching the trailing edges of the pulses, means connected between the detector and the pulse shaper for limiting the passage of pulses when there is a pulse being analyzed in the system, a scaler fed by the analyzer for sorting and counting the impulses, and means interposed between the analyzer and scaler for passing the impulses resulting from the trailing edges of the pulses.

2,778,950
METHODS AND APPARATUS FOR LOCALIZED NEUTRON LOGGING
Hugh B. Frey, Jr., Ridgefield, and Jay Tittman, Danbury, Conn., assignors to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Delaware
Application December 30, 1952, Serial No. 328,676
18 Claims. (Cl. 250—83.6)

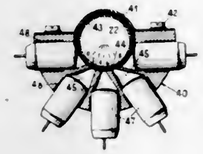


8. Apparatus for detecting surface irregularities in the side wall of a borehole containing hydrogenous liquid comprising a source emitting substantially only slow neutrons, means for resiliently forcing said source against the side wall of the borehole to squeeze the bulk of the hydrogenous liquid away from the space between said source of slow neutrons and the side wall, a detector of thermal neutrons adjacent said neutron source, and means for shielding said detector from the borehole liquid whereby said detector is responsive primarily to neutrons thermalized by the residual liquid in the space between said source and detector and the adjacent side wall of the borehole.

2,778,951
NEUTRON LOGGING METHOD AND APPARATUS
Jay Tittman, Danbury, Conn., assignor to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Delaware
Application December 12, 1952, Serial No. 325,582
15 Claims. (Cl. 250—83.6)

6. Neutron logging apparatus for investigating formations traversed by a borehole containing hydrogenous fluid comprising a detector responsive to low energy neutrons, a low energy neutron shield surrounding said detector with the exception of window means facing the wall of the borehole, a source of high energy neutrons located in predetermined relation to said detector, said source and said detector being so related that the latter detects low energy neutrons received substantially only through a zone in contact with the wall of the borehole through which high energy neutrons from said source are radiated into the surrounding formations, means for forcing said detector and said source toward the wall of the borehole, and a pad of material substantially transparent to neutrons in the space between the window means of said detector and the borehole wall for displacing the hydrogenous fluid from said space.

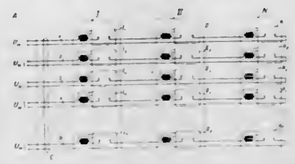
2,778,952
ELECTRONIC IMPULSE COUNTING DEVICES
Ulysse Baldé, Zurich, Switzerland, assignor to Mithra A.-G., Zurich, Switzerland
Application September 21, 1954, Serial No. 457,458
Claims priority, application Switzerland June 15, 1954
1 Claim. (Cl. 250—217)



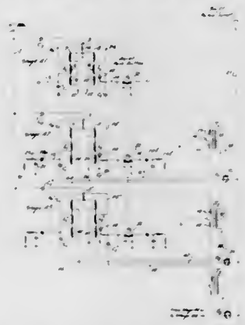
An electronic impulse counting device comprising in combination: a cathode ray tube having a fluorescent screen, a cathode, an apertured screen arranged between the said fluorescent screen and cathode, and beam deflector means which under the influence of the incoming impulses are apt to deflect the electron beam emitted by the said cathode stepwise through the said apertured screen on to the said fluorescent screen, a casing closely enclosing from outside light the said cathode ray tube with recesses forming light compartments separated from one another in juxtaposition to the openings in the said apertured screen, and photo-electric converters mounted in the said recesses, facing the said fluorescent screen, the said recesses of the said casing forming light-compartments flaring out from the side adjacent the said cathode ray tube towards the said photo-electric converters.

2,778,953
ELECTRIC SYSTEM FOR MOTOR VEHICLES
Pier Luigi Torre and Brenno Primetti, Milan, Italy
Application April 19, 1955, Serial No. 511,008
Claims priority, application Italy April 22, 1954
2 Claims. (Cl. 307—10)

1. An electric circuit distributing system for automotive vehicles, connected to an alternating current line, comprising: an impedance transformer in combination with a flywheel magneto provided with a low voltage coil for the lighting circuit and the electric horn, with a high voltage coil for the ignition spark plug, and with a cam-operated switch; a storage battery; a starting motor; a headlight having three different light sources; a tail light; an electric horn; a switch, and a rectifier; said impedance transformer being adapted to regulate the battery charging current, respectively during daylight and night driving, and comprising, besides a primary winding inserted between said rectifier and the low voltage coil of the flywheel magneto, a secondary winding with one terminal thereof grounded and with the other terminal connected to a contact of said switch for operating the headlight so that when the latter is cut-in, said secondary winding is grounded, thus bringing about short-circuit operation of said secondary winding, thereby reducing the reactance of the winding connected in series with said low voltage coil of said flywheel magneto.

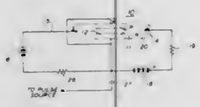
2,778,954
REMOTE POWER SUPPLY SYSTEM FOR AMPLIFIER STATIONS IN TELECOMMUNICATION CABLES
François Job, Paris, and Pierre Jean-Marie Clavier, Nogent-sur-Marne, France
Application October 15, 1954, Serial No. 462,491
Claims priority, application France October 17, 1953
7 Claims. (Cl. 307—64)

2. A power supply system for telecommunication equipment comprising a telephone cable, a main station, a power source thereof coupled to said telephone cable, a plurality of conductor pairs in said telephone cable, a number of spaced amplifier stations positioned along said cable, and an equal number of power supply circuits for said amplifier stations, each of said power supply circuits respectively coupling one of said amplifier stations to said power source, each of said power supply circuits consisting of a number of said conductor pairs in parallel connection, the number of said conductor pairs being proportional to the distance of the associated amplifier station from said main station, the conductors each being included in only one of said power supply circuits, each one of said power supply circuits being further comprised by an extra number of said conductor pairs in parallel connection in that portion nearest to the associated amplifier station and comprised between the associated amplifier station and the amplifier station next nearer said main station.

2,778,955
SHIFT REGISTER
Carl L. Isborn, Hawthorne, Calif., assignor, by mesne assignments, to The National Cash Register Company, a corporation of Maryland
Application April 12, 1954, Serial No. 422,550
8 Claims. (Cl. 307—88)

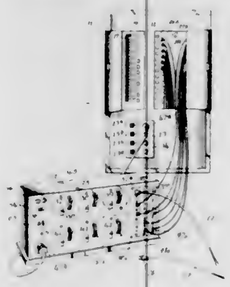


8. A shift register comprising: an A. C. supply; a chain of stages connected to said A. C. supply, each said stage comprising a ferro-resonant type flip-flop circuit having a pair of branch circuits, only one of which can have relatively high current while the other simultaneously has relatively low current, each of said branch circuits comprising a series arrangement of a capacitor, a non-linear inductor, and a primary winding; a trigger input circuit for each said flip-flop circuit; a trigger signal source; a cold cathode gas tube for connecting said trigger signal source to the input circuit of each said flip-flop circuit except the first in the chain; and a secondary wind-

ing responsive to the output of the combined primary windings of corresponding branches of adjacent flip-flop circuits for generating a voltage to ionize the gas tube connected to the input of the higher order flip-flop circuit when said branches are in opposite operating states, whereby the circuit status of each said flip-flop circuit is shifted to the succeeding flip-flop circuit in response to successive trigger signals from said source.

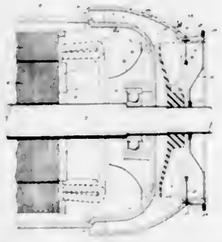
2,778,956
SEMICONDUCTOR SIGNAL TRANSLATING DEVICES
George C. Dacey, Chatham, and Ian M. Ross, Summit, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application October 31, 1952, Serial No. 318,053
18 Claims. (Cl. 307—88.5)

1. A signal translating device comprising a body of semiconductive material having a region of one conductivity type, source and drain connections to spaced points on said region, means biasing said drain relative to said source at the polarity to attract majority carriers from said source to said drain, means contiguous with said region between said points defining a rectifying junction therewith, means biasing said junction in the reverse direction, means for varying the potential across said junction, a load circuit connected to said drain, and means adjacent said drain for enhancing minority carrier flow therefrom toward said junction.

2,778,957
SWITCHBOARD
Theodore Fuchs, Evanston, Ill., assignor to Isadore M. Fixman and Thomas W. Butler, doing business as Hub Electric Company, Chicago, Ill.
Application April 15, 1954, Serial No. 423,299
9 Claims. (Cl. 307—112)



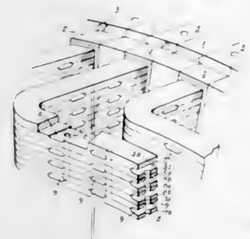
7. In combination, a control panel board for a three-wire electric power system for use in connection with a power distribution hookup, said panel board comprising two bus bars, circuit breakers connected to said bus bars, a jack connected to each circuit breaker so that each circuit breaker is in series between a jack and a bus bar, said panel board having a circuit breaker panel having said breakers suitably mounted, said panel board also having a jack panel containing the jacks suitably mounted, said panel board containing a compartment wherein a plurality of single wire flexible insulated cables are provided, each such cable having a plug at one end for cooperation with said jacks, each such cable having the other end adapted for connection to a load or the like, said insulated cables having sufficient slack so that each plug may be removed from a jack and pulled outside of the panel, said panel board also including at least one power socket having three terminals, said socket having two terminals connected to said two bus bars, the third terminal of said socket being connected to the third wire of the system, a neutral connection in said panel for said third wire, at least one portable switchboard adapted to be associated with said panel board, said portable switchboard comprising a physically separate cabinet, means including a flexible cable for detachably connecting said three-pole socket to three wires in said portable switchboard, one of said wires being a neutral and the other two wires being bus bars for said portable switchboard, a plurality of control panels for said portable switchboard, each such control panel having a dimmer control and indicating light and circuit breaker, means connecting the circuit breaker for each panel between a bus bar and the dimmer, the other terminal of the dimmer being connected to the neutral wire, said indicating light being connected across said dimmer, an output wire from said dimmer, a power distribution panel for said switchboard, said panel having a number of sub-panels, there being one sub-panel for each control panel of said portable switchboard, at least one jack for each sub-panel, means for connecting the output wire for a dimmer control to the jack corresponding to the sub-panel for that control panel, the jacks in the sub-panels being adapted to accommodate the plugs on the flexible cables in the panel board whereby a flexible cable going to any desired load may be disconnected from the circuit breaker in the panel board and plugged into the sub-panel in the portable switchboard for the purpose of providing dimmer control in said load fed by said flexible cable.

2,778,958
DYNAMOELECTRIC MACHINE
Clarence L. Hamm, Marblehead, Mass., and Frederick W. Baumann, Scotia, N. Y., assignors to General Electric Company, a corporation of New York
Application October 28, 1954, Serial No. 465,176
2 Claims. (Cl. 310—57)



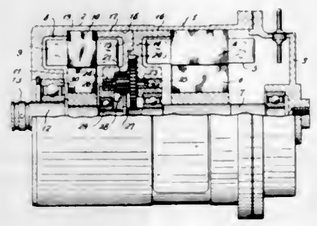
1. A totally enclosed dynamoelectric machine for use in dust or fibrous laden air containing fibers of predetermined maximum length, said machine consisting of a stator frame and end bells, a stator and a rotor in said frame and a circulator for passing fluid past said rotor and stator into heat exchange relationship with said frame and end bells, the improvement comprising a cooling air circuit external to said machine including a rotor shaft extension protruding through one of said end bells for receiving a machine cooling fan, air directing means respectively encompassing a portion of said frame and an adjacent end bell and having an inlet adjacent the discharge end of said fan, air straightening vanes in said air directing means channeling air from said fan over said adjacent end bell and the outer peripheral surface of said frame, baffle means attached to said air directing means and positioned axially outward from said fan, said baffle means comprising a first baffle surrounding said shaft and having a central opening positioned in parallel relationship with said fan, a second baffle of solid construction around said shaft spaced by spacer means from said first baffle, said spacer means being of a greater diameter in a direction generally normal to flow of ventilating medium than said predetermined maximum length of fibers, whereby said fan draws cooling air radially inwardly and discharges same in an opposite direction outwardly past said adjacent end bell and said stator frame for effecting cooling of said machine.

2,778,959
DYNAMO ELECTRIC MACHINE COOLING
William Norman Kilner, Hale, England, assignor to Metropolitan-Vickers Electrical Company Limited, London, England, a British company
Application July 15, 1954, Serial No. 443,585
Claims priority, application Great Britain July 22, 1953
3 Claims. (Cl. 310—64)



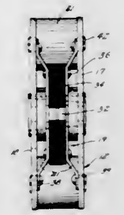
1. A high speed dynamoelectric machine having a stator and a rotor having a core provided with slots, windings to said rotor including conductors arranged in the slots in the core, end turns to said windings projecting beyond the ends of the core, cooling gas passages spaced apart in said end turns and extending radially outwards from the inner surfaces of the windings, discharge passages extending laterally across said radial cooling gas passages and terminating in edges defining discharge ports in each side surface of said end turns, and means for preventing gas discharging through the outer surfaces of the windings.

2,778,960
SPECIALLY COUPLED MOTOR-GENERATOR APPARATUS
Robert L. Anderson, Rocky River, Ohio, assignor to The Hertner Electric Company, Cleveland, Ohio, a corporation of Ohio
Application April 29, 1954, Serial No. 426,331
6 Claims. (Cl. 310—113)



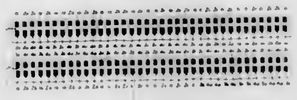
1. A motor-generator apparatus comprising a housing shell, motor stator means secured in said shell, motor rotor means, a generator stator means positioned in said shell, a generator rotor means, positioning disc means received in and positioned by said shell intermediate said motor stator means and generator stator means, individual shafts for said motor rotor means and said generator rotor means, speed change gear means positioned by said disc means, gears secured to said shafts and engaging said gear means to couple said shafts together, and bearing means positioned by said shell and disc means journalling said shafts in said shell.

2,778,961
FLYWHEEL TYPE MAGNETO
Ivar Jepson, Oak Park, and Lewis John Craft, Jr., Elmhurst, Ill., assignors to Sunbeam Corporation, Chicago, Ill., a corporation of Illinois
Application January 8, 1954, Serial No. 402,882
11 Claims. (Cl. 310—153)



1. In an inductor type flywheel magneto assembly, a flywheel containing a magnetic material, a stationary winding core having its poles lying adjacent the outer periphery of the flywheel, a permanent magnet having pole pieces, non-magnetic means mounting said magnet and pole pieces on said flywheel with the faces of the pole pieces facing the exterior periphery of the flywheel, said flywheel having portions of magnetic material extending on opposite sides of said magnet and pole pieces and spaced therefrom and from portions of said non-magnetic means by a distance which is large as compared to the spacing of the winding core poles from the periphery of the flywheel whereby the shunting effect of the flywheel is small when the magnet pole pieces are in registry with the poles of the winding core.

2,778,962
ARMATURE WINDING WITH FOUR PARALLELS PER PHASE
Hamilton D. Taylor, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application February 11, 1954, Serial No. 409,619
8 Claims. (Cl. 310—202)

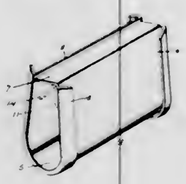


1. A dynamoelectric machine comprising a polyphase winding and a multi-slot core therefor, said winding including a number of phase belts each provided with two parallel connected circuits, each circuit in each phase belt being provided with six series connected coils each having two coil sides, the twelve coil sides of each circuit respectively lying in twelve of the slots of said core, and the twelve adjacent coil sides of the two parallel connected circuits disposed in each phase belt being arranged in the sequence: 122121121221, where the numerals "1" indicate the six coil sides serially connected in one of the circuits in the phase belt and the numerals "2" indicate the six coil sides serially connected in the other of the circuits in the phase belt.

2,778,963
POLYPHASE GENERATORS
Rudolph Habermann, Jr., Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application June 10, 1955, Serial No. 514,511
12 Claims. (Cl. 310—202)

1. A dynamoelectric machine comprising a polyphase winding and a multi-slot core therefor, each phase of said winding including three parallel connected circuits arranged in two series connected sections respectively disposed in two oppositely poled phase belts, each circuit in each phase belt being provided with a number of series connected coils each having two coil sides and arranged in corresponding ones of the slots in said core, the adjacent coil sides of the three circuits of any given phase being disposed in a first sequence in one of the corresponding phase belts and the adjacent coil sides of the three circuits of the given phase being disposed in a second sequence in the other of the corresponding phase belts, whereby the three phase voltages respectively induced in the three parallel connected circuits of any phase of said winding having a high degree of congruency with a magnitude of unbalance not in excess of 0.4% and a phase angle displacement not greater than 0.15°, so as to introduce no substantial differences in the I^2R losses in the three parallel connected circuits of any phase of said winding.

2,778,964
SLOT LINER-CLOSER FOR DYNAMOELECTRIC MACHINE CORE MEMBER
Roy L. Balke, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York
Application December 29, 1954, Serial No. 478,345
4 Claims. (Cl. 310—214)

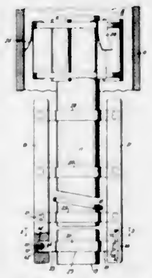


1. For use in the slots of a dynamoelectric machine core member, a slot liner member of resilient insulating material comprising a portion adapted to line the interior of a slot, and a flap portion bendably secured to one end of said lining portion and of sufficient length to bridge across to the other end of said lining portion, said flap portion being resiliently biased to bridging position between said ends of said lining portion and being adapted to bend inwardly to permit the insertion of coils in the slot and to spring back thereafter again to bridge across said lining portion thereby to wedge the coils in the slot.

2,778,965
DYNAMOELECTRIC MACHINE HOUSING ASSEMBLY
Karl M. Feiertag and Lawrance W. Wightman, Fort Wayne, Ind., assignors to General Electric Company, a corporation of New York
Application October 31, 1955, Serial No. 543,757
5 Claims. (Cl. 310—254)

1. A substantially tubular machine housing member, and an end flange member arranged in axial contact with an end of said housing member at a predetermined number of peripherally spaced locations in excess of two, said flange member being axially spaced from said housing member intermediate said locations, means at each of said locations axially clamping said flange member to said housing member with a predetermined force, and means on said flange member in radial contact with said housing member to cause correct relative radial positioning of said members.

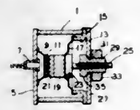
2,778,966
SUPPORT STRAP FOR ELECTRON GUN ASSEMBLIES
Albert J. Faustini, Gainesville, Fla., and Robert T. McKenzie, North Syracuse, N. Y., assignors to General Electric Company, a corporation of New York
Application March 2, 1955, Serial No. 491,653
11 Claims. (Cl. 313—82)



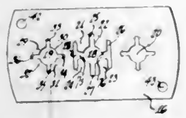
1. Support strap means for a cathode ray tube electrode element, said strap means comprising, a body portion adapted to be affixed to said electrode element, and terminal portions adapted to be anchored in insulative members, said terminal portions being formed to provide recesses to receive, under pressure, flowable material of said members therewithin.

2,778,967
SPARK GAP
John H. Johnstone, Jr., Paramus, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application May 16, 1952, Serial No. 288,258
2 Claims. (Cl. 313—148)

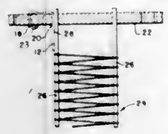
1. A spark gap comprising a sealed envelope having one of its walls formed by a flexible diaphragm, a bridge secured to said envelope exteriorly thereof and positioned adjacent said diaphragm, a pair of electrodes within said envelope, one of said electrodes being rigidly supported within said envelope and said other electrode being movable with said diaphragm, a conductive spacer connecting said movable electrode with said diaphragm, and means for adjusting said last-mentioned electrode comprising a threaded shank fixed to said movable electrode and extending exteriorly of said envelope, an adjusting



member threaded on said shank and engaging said bridge, and a lock nut threaded on said adjusting member and adapted to lock said bridge between said nut and said member to positively hold said adjustable electrode against movement in opposite directions and in adjusted position relative to said fixed electrode.

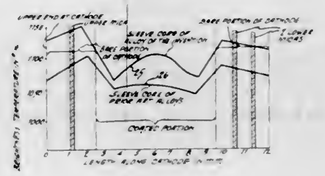
2,778,968
ELECTRODE CAGE FOR ELECTRON DISCHARGE DEVICES
Frank J. Pilas, Kearny, Roy K. Wolke, Maplewood, and John A. Chase, Nutley, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application May 26, 1951, Serial No. 228,386
7 Claims. (Cl. 313—261)

2. An electron discharge device having a mount including a tubular cathode, and a pair of insulating spacer plates between which said cathode is mounted and supported, each of said spacer plates having an aperture therein and a plurality of slots communicating with and extending from said aperture and providing a plurality of flexible tongues the free ends of which terminate at said aperture and engage the ends of said cathode, the ends of two of said slots remote from said aperture terminating in slots transverse to said two of said slots.

2,778,969
GRID STOP
Stanley J. Gartner, Emporium, Pa., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application December 6, 1954, Serial No. 473,242
3 Claims. (Cl. 313—292)



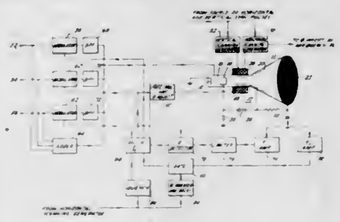
2. A grid stop assembly comprising an insulating wafer with spaced apart openings therethrough, a resilient strap having one end curved against a first face of said wafer with the portion adjacent the curved end passing through one of said openings to the opposite second face of the wafer, the other end of said strap passing through the second of the openings from said second face of the wafer to and beyond the first face, the strap having an intermediate portion connecting the two ends of the strap, said intermediate portion being bowed, with the bow engaging the second face of the wafer, and a grid provided with side rods having one side rod secured to said other end of the strap.

2,778,970
CORE ALLOY FOR INDIRECTLY HEATED CATHODES
Emil Gideon Widell, Bloomfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application June 7, 1952, Serial No. 292,248
1 Claim. (Cl. 313—337)



A core for an indirectly heated cathode, said core being made of an alloy consisting by weight of from 0.04 to 0.15% carbon, 0.04 to 0.10% silicon, 0.04 to 0.07% magnesium, coba.. in an amount to preserve the magnetic shielding property of said core at an operating temperature of said cathode in a range from 958° K. to 1123° K., the amount of siad cobalt being substantially rectilinearly related to said temperature from a lower limit of 30% to an upper limit of 50%, and the remainder substantially nickel, whereby said core is adapted to shield an electron emitting coating on the outer surface of said core from magnetic fields, the temperatures in said range being sufficiently low to prevent appreciable loss of said magnesium from said alloy.

2,778,971
INDEXING SYSTEM FOR COLOR TELEVISION
David E. Sunstein, Cynwyd, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application January 25, 1952, Serial No. 268,306
25 Claims. (Cl. 315—12)



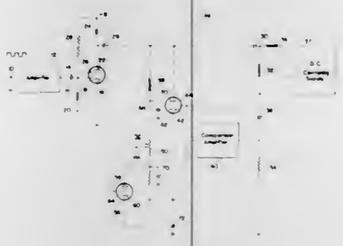
1. A cathode-ray tube system comprising a cathode-ray tube having a source of a beam of charged particles and a beam intercepting member, said beam intercepting member comprising a plurality of groups each of a plurality of discrete first elemental areas having a first given response characteristic upon impingement by said charged particles and comprising second elemental areas having a second given response characteristic upon impingement by said charged particles detectably different from the response characteristic of said first elemental areas, the said first elemental areas recurring throughout part of each of said groups at a given periodicity equal to an integer multiple of the periodicity of said groups, said second elemental areas recurring at a periodicity which is an integral multiple of the periodicity of said groups of first elemental areas, means for scanning said beam across said first and second elemental areas thereby to energize said first and second areas and to produce variations in said second response characteristic at rates equal to the fundamental and to higher harmonics of the rate of beam scanning across successive ones of said second

elemental areas, output means coupled to said beam intercepting member and responsive to said variations to produce a signal quantity having a signal component which varies at one of said higher harmonic rates, and means coupled to said output means for selectively deriving said signal component from said signal quantity.

2,778,972
APPARATUS FOR INDICATING VARIABLES ON OSCILLOGRAPH WITH X AND Y AXES
Greer Ellis, Pelham, N. Y.
Application March 10, 1953, Serial No. 341,576
5 Claims. (Cl. 315—24)

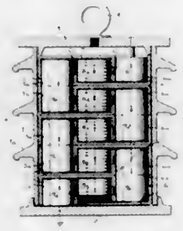
1. Apparatus for supplying signals to X and Y axis terminals of an oscillograph, said apparatus including a first circuit that supplies signals to the X axis terminals, a second circuit that supplies signals to the Y axis terminals, an amplifier in each of the circuits, repetitive switching means for each circuit movable between two positions, in one of which the signals from the respective circuits are supplied to the oscillograph, and in the other of which the signal from the circuit of that switching means is shut off from the oscillograph and means to produce a phase difference between the operations of the repetitive switching means in the respective circuits.

2,778,973
DAMPER CIRCUIT
Edward R. Wainshilbaum, Rockland, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application October 21, 1955, Serial No. 542,113
3 Claims. (Cl. 315—27)



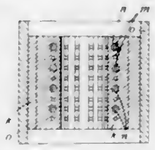
1. In a damper circuit for a transformerless scanning circuit for an electromagnetically deflected cathode-ray tube having a damper tube having an anode, a cathode, and a control grid; the improvements comprising an inductor, the resistor element of a potentiometer and a fixed resistor connected in series with each other and forming a circuit between the plate and cathode of the damper tube, a linearity control tube having an anode, a cathode and a control grid, said control tube being connected to shunt the fixed resistor, the anode of the control tube being connected to the cathode of the damper tube, the cathode of the control tube being connected between the resistor element of the potentiometer and the fixed resistor, and the grid of the control tube being connected to the movable arm of the potentiometer.

2,778,974
LIGHTNING ARRESTER
René Périllard, Wettingen, Switzerland, assignor to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland, a joint-stock company
Application December 18, 1953, Serial No. 398,913
Claims priority, application Switzerland August 22, 1952
8 Claims. (Cl. 315—36)



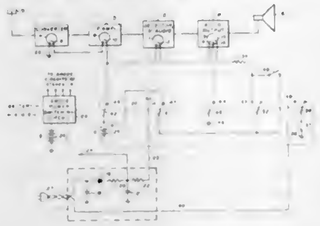
1. In a lightning arrester, the combination comprising an outer insulator casing and a lightning arrester assembly disposed within said casing, said assembly comprising a plurality of like pairs of building units of insulating material stacked vertically one upon the other, the building units of each pair being each provided with wall portions defining at least two recesses opening to the same side of the unit, two corresponding recesses of each pair confronting each other and forming a closed chamber and the two other corresponding recesses of each pair being non aligned and facing in opposite directions, said other non-aligned recesses confronting respectively corresponding recesses of the building units in the unit pairs next above and below in said assembly and forming other closed chambers, lightning arrester elements in said closed chambers, and means connecting said arrester elements in series from one end of the assembly to the other.

2,778,975
MAGNETRONS
Robert Dunsmuir, Rugby, Thomas William Ceri Fisher, Lilbourne, near Rugby, and Nigel Sutton Nicholls, Malvern, England, assignors to The British Thomson-Houston Company Limited, a British company
Application November 13, 1953, Serial No. 391,926
Claims priority, application Great Britain November 18, 1952
3 Claims. (Cl. 315—39.69)



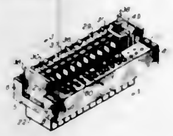
1. In an electron discharge device of the magnetron type, an anode structure, comprising in combination, a cylindrical yoke member, a plurality of radially inwardly extending separate anode segments, each of said segments having a passage therein positioned transversely and parallel to the inner edge thereof, said passages being of large and small size in alternate segments and having threaded therethrough a strap contacting the periphery of said small passages and spaced from the periphery of said larger passages, to connect together the alternate assembled segments.

2,778,976
POWER SUPPLY CHANGEOVER ARRANGEMENT
Allan Holstrom, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application August 9, 1954, Serial No. 448,597
3 Claims. (Cl. 315—96)



1. In a radio receiver, a first group of electron discharge devices having filaments connected in series; a second group of electron discharge devices having filaments connected in series, one electron discharge device in said second group having first and second filament sections connected in series, and a center tap therebetween; first and second sources of filament power; first switch means having a first position operative to connect said filaments of said electron discharge devices in said first and second groups in series to said first source of filament power, and having a second position operative to connect the series-connected filaments of said first group of electron discharge devices in parallel with the series-connected filaments of said second group of electron discharge devices up to and including said first filament section of said one electron discharge device, operative also to connect said second filament section of said one electron discharge device in parallel with the foregoing said parallel connection, and further operative to disconnect said first source of power from said filaments and to connect said second source of power across said parallel connections; second switch means operative to disconnect said second filament section of said one electron discharge device from said second source of power; and means for cancelling the effect of said second switch means when said first switch means is in said first position.

2,778,977
COMPONENT MOUNTING ASSEMBLAGE
Samuel Lubkin, Brooklyn, N. Y., assignor, by mesne assignments, to Underwood Corporation, New York, N. Y., a corporation of Delaware
Application May 22, 1952, Serial No. 289,235
17 Claims. (Cl. 317—101)

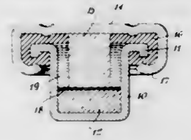


1. An assemblage comprising a base member having a pair of holes extending therethrough, the surface bounding said holes being insulative, a component having two wire leads each of substantial length, the length of each of said holes being slightly less than the length of each of said wire leads, each of said wire leads extending through a corresponding hole and slidably and frictionally engaging a portion of the inside surface between the entrance and exit thereof providing support for said component, the portion of each of said leads extending from the exit of the associated hole having an altered shape for preventing withdrawal of said lead from said hole.

2,778,978
MULTIVIBRATOR LOAD CIRCUIT
Glen G. Drew, Franklin Township, Somerset County, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application September 19, 1952, Serial No. 310,457
13 Claims. (Cl. 317—137)

1. In a multivibrator circuit, a pair of electronic devices each having an output electrode and each provided with two other electrodes for controlling current flow internally of said device with respect to said output electrode, a first resistance individual to and operative as an active load for each device and connecting the output electrode thereof to a fixed direct-current potential, a resistance common to and operative as an active load for said devices and having one terminal thereof connected to said fixed direct-current potential, and an electromagnetic relay individual to and operative as an active load for each device, said relay being connected between the output electrode of its associated device and the other terminal of said common resistance.

2,778,979
TANTALUM ELECTROLYTIC CAPACITORS WITH SOLID DEPOLARIZER
James M. Booe, Indianapolis, Ind., assignor to P. R. Mallory & Co., Inc., Indianapolis, Ind., a corporation of Delaware
Application April 29, 1955, Serial No. 504,739
16 Claims. (Cl. 317—230)

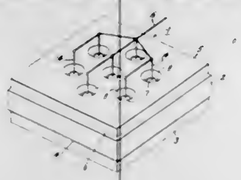


1. An electrolytic capacitor comprising, in combination, a tantalum anode having a dielectric film thereon, a cathode of a metal selected from the group consisting of copper and silver, an electrolyte of sulfuric acid having a concentration between 5% and 75% and being substantially saturated with ions of the cathode metal in contact with said anode and cathode, and a compound of the cathode metal in solid form in contact with said electrolyte, said compound being soluble in the electrolyte and being adapted to maintain the concentration of ions of the cathode metal therein at saturation during the operative life of the capacitor.

2,778,980
HIGH POWER JUNCTION SEMICONDUCTOR DEVICE
Robert N. Hall, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application August 30, 1954, Serial No. 453,018
9 Claims. (Cl. 317—235)

1. A junction transistor comprising a wafer of semiconductive material of one conductivity type having opposed major surfaces, a first opposite conductivity type inducing electrode contacting one major surface of said wafer and inducing therein a surface adjacent region of opposite conductivity type, a second electrode having

therein a plurality of spaced apertures contacting the opposite major surface of said wafer, and a third electrode comprising a plurality of discrete junction type contacts

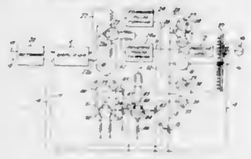


centrally disposed within said second electrode apertures and contacting therein exposed surface portions of said wafer.

2,778,981
INDEXING MECHANISM
Clair E. Singleton, Redondo Beach, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application January 18, 1954, Serial No. 404,553
7 Claims. (Cl. 318—120)

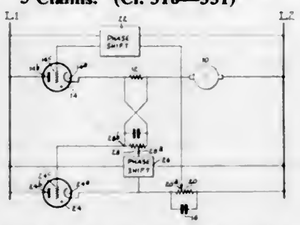
4. Indexing mechanism, comprising: a single-notch circular cam rotatably mounted and adapted to be driven in a clockwise or counter-clockwise direction from an index position; a pivotally mounted lever arm having a roller on the end thereof, said roller engaging with the notch on said circular cam to align said lever arm in index position; a first and second switching means having respective actuating pins, said first switching means positioned on one side of said lever arm with the actuating pin touching the side of said lever arm, and said second switching means positioned on the other side of said lever arm with the actuating pin touching the other side of said lever arm in the index position, said first switch actuated by said lever arm due to clockwise rotation of said cam from said index position and said second switching means actuated by said lever arm due to counter-clockwise rotation of said cam from said index position; a fixture having an extended rod thereon, said fixture attached to rotate with said cam with the extended rod aligned with said notch on said cam; a T-shaped member mounted diametrically opposed said pivoted lever arm and restrained to lateral movement, said extended rod to engage with the central projection of said member to move said member laterally in one direction or the other depending upon the direction of cam rotation after nearly 180 degrees rotation from the index position; a third and fourth switching means having respective actuating pins, said third switching means positioned to one side of said T-shaped member with the actuating pin touching one end of the cross bar of said member and said fourth switching means positioned to the other side of said T-shaped member with the actuating pin touching the other end of the cross bar, said third switching means actuated only when the extended rod on said fixture rotating clockwise engages the central projection of said T-shaped member moving said member laterally to actuate said third switching means and said fourth switching means actuated only when the extended rod on said fixture rotating counter-clockwise engages the central projection of said T-shaped member moving said member laterally to actuate said fourth switch, whereby respective means connected to said switching means are controlled according to the actuation of said respective switching means; a stepper motor having a left rotary solenoid coil and a right rotary solenoid coil and coupled to rotate said cam in discrete incremental steps; a pulser for generating ground pulses; a source of power connected to said first and second switching means; and connecting means, when excited, for connecting the output of said pulser to an end of each said solenoid coils, said first switching means in actuated position connected to excite said connecting means and in unactuated position connected to the other end of said right rotary solenoid coil, said second switching means in actuated position connected to excite said connecting means and in unactuated position connected to the other end of said left rotary solenoid coil, whereby when said pulser is energized, said left solenoid coil is periodically energized if said first switching means is actuated and said right solenoid coil is periodically energized if said second switching means is actuated, until said cam assumes index position and said first and second switching means are in unactuated positions.

2,778,982
THYRATRON MOTOR CONTROL LIMIT CIRCUIT
John R. Loeffler, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application September 28, 1955, Serial No. 537,095
12 Claims. (Cl. 318—257)



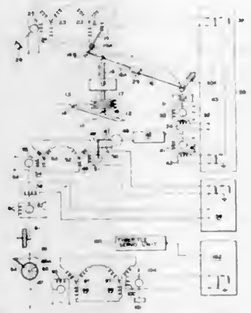
1. In a system for controlling the speed of a direct current motor in response to a signal proportional to the difference between the existing speed of the motor and the desired speed of the motor, means for preventing the application of undesirably large amounts of excess power from energizing the motor as a result of rapid changes in the desired speed, said means including a means for generating a reversible signal proportional to existing motor speed, and a means continuously responsive to said difference signal and said reversible signal for limiting the maximum amplitude of said difference signal to a value slightly greater than said reversible signal.

2,778,983
LOAD CURRENT AND VOLTAGE CONTROL MEANS FOR ELECTRICAL SYSTEMS
William H. Elliot, Whitefish Bay, Wis., assignor to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware
Application September 2, 1955, Serial No. 532,151
5 Claims. (Cl. 318—331)



1. In combination: a control system comprising an electrical load, a thyratron connected to apply unidirectional current to the load from an alternating current source, means to provide a feedback voltage proportional to load voltage, means to provide a reference voltage and circuit means to compare said feedback and reference voltages and to apply a voltage proportional to the difference therebetween to the control electrode and cathode of the thyratron to control conductivity of the latter; means to measure the current supplied to the load and to provide a control voltage proportional thereto; and means sensitive to said control voltage and acting when said control voltage attains a selected magnitude to interrupt provision of said reference voltage.

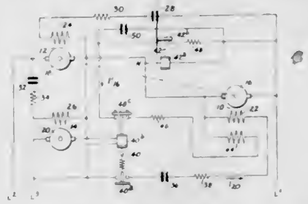
2,778,984
INDICATING AND CONTROL SYSTEM FOR FLUID SUSTAINING CRAFT
Charles Russell, Coytesville, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application April 27, 1951, Serial No. 223,326
9 Claims. (Cl. 318—489)



1. In a system of the class described for fluid sustained craft, a member movably mounted on the craft and displaceable from a reference position in accordance with variation in the dynamic pressure of the fluid, the dynamic pressure on said member varying non-linearly with uniform changes in craft speed, a first electrical signal generator operable by said member to effect an output corresponding to the displacement of said member, means drivably connected with said member and movable in response to the output of said signal generator non-linearly with uniform changes in craft speed for returning said member to the reference position, a second electrical signal generator, and non-linear motion translating means actuated in response to the operation of said first-mentioned means for operating said second signal generator to provide an electrical signal as a linear function of craft speed changes.

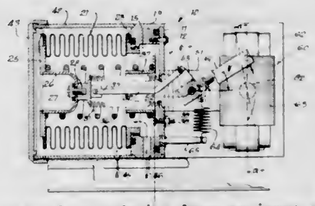
2,778,985
SYSTEM FOR THE GENERATION OF POLYPHASE ALTERNATING CURRENTS
Norbert L. Schmitz, Madison, Wis., assignor to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware
Application May 29, 1952, Serial No. 290,641
4 Claims. (Cl. 322—28)

4. In a polyphase generating system comprising a plurality of electrodynamic machines adapted to be driven in unison and each having a field winding and an armature excitable thereby, the combination of, a like plurality of phase shifting means each adapted to supply dephased separate-excitation current to the field winding of a machine from the armature of another of said machines, one of said phase shifting means being normally disconnected whereby supply of separate-excitation current from the armature of one machine to the field winding of another machine is prevented, a self-excitation circuit for said other machine including an auxiliary field winding normally rendering said circuit non-oscillatory, means including means operable at a predetermined voltage of



the armature of said other machine to render said circuit oscillatory and means operable following rendering of said circuit oscillatory at a given voltage of said one machine to connect said one phase shifting means and disconnect said self-excitation circuit.

2,778,986
DEVICE FOR TRANSLATING FLUID PRESSURE INTO AN ELECTRICAL POTENTIAL
Harry N. Eklund, Los Angeles, Calif., assignor to Lear, Incorporated, Grand Rapids, Mich., a corporation of Illinois.
Application September 22, 1954, Serial No. 457,584
3 Claims. (Cl. 323—47)



1. Apparatus for producing from an input voltage E_i an output voltage E_o which varies with a dynamic fluid pressure q in accordance with the relationship

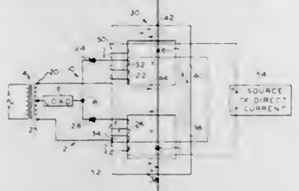
$$\frac{E_o}{E_i} = \frac{K}{1+bq}$$

where K and b are constants, comprising an autotransformer having primary and secondary turns, a wiper in contact with and movable over said primary turns, said input voltage being connected across the primary turns between said wiper and a terminal of said autotransformer, whereby the effective number of primary turns is varied as said wiper is moved, leads connected to the terminals of said secondary turns to derive said output voltage therefrom, a mechanically movable device responsive to said pressure, and means connecting said device and said wiper for moving said wiper linearly in response to variations in said pressure, whereby said output voltage varies with said pressure in accordance with said relationship.

2,778,987
MULTIBRANCH MAGNETIC AMPLIFIER WITH BENEFICIALLY INTERRELATED MAGNETIC PATH
William F. Schmidt, Jr., St. Johns, Mo., assignor to Vickers, Incorporated, Detroit, Mich., a corporation of Michigan
Application April 19, 1954, Serial No. 423,957
12 Claims. (Cl. 323—89)

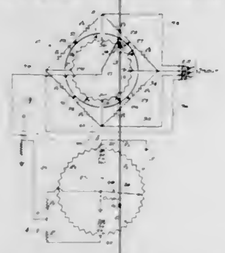
1. A magnetic amplifier comprising a pair of branches each including a reactor load winding and in series therewith for self-saturation a half-wave rectifier having recur-

ring alternate active and inactive periods with respect to a supply voltage across the branches, the respective rectifiers in the two branches being poled to alternate with each other with respect to their active periods, saturable core means comprising a plurality of magnetic sections defining first, second and third magnetic paths, one load winding encircling one path and operable to fire it into



saturation, the other load winding encircling the second path and operable to fire it into saturation, the third path being encircled by both loads, said windings being operable to provide flux components in the third path in the same direction, and direct current control winding means on said core means and relates to affect both load windings in the same sense at the same time in response to a control signal of given polarity.

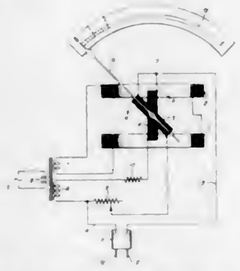
2,778,988
ELECTRICAL PHASE SHIFTING DEVICE
George E. Pihl, Abington, Mass., assignor to Acton Laboratories, Inc., Acton, Mass.
Application January 21, 1955, Serial No. 483,307
8 Claims. (Cl. 323—123)



1. An electrical phase shifting device comprising a phase shifting potentiometer having a wiper arm in contact with its resistance element, at least two taps on said resistance element spaced apart a selected distance, a plurality of sources of voltages applied to said taps having a phase relationship which is a function of the spacing between said taps, a commutator having a segment associated with said spaced distance between taps of said resistance element, a first resistor connected between said one of said two taps and said commutator segment, a second resistor connected between said other of said two taps and said commutator segment, a contacting element movable on said commutator and connected to said wiper arm, said wiper arm sensing a phase varying voltage as it moves along said resistance element between said two taps.

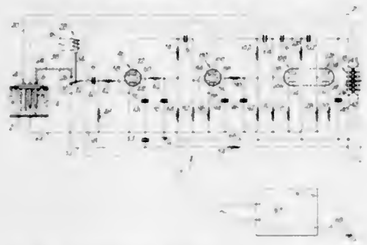
2,778,989
DYNAMOMETER INSTRUMENT
John H. Miller, Short Hills, N. J., assignor to Weston Electrical Instrument Corporation, Newark, N. J., a corporation of New Jersey
Application January 30, 1953, Serial No. 334,179
3 Claims. (Cl. 324—30)

2. In a salinity meter of the type for measuring the salinity of water and comprising a field winding for establishing a magnetic field; a circuit for energizing the field winding from a source of alternating current potential; a scale calibrated in terms of salinity; a movable system pivotally supported for angular movement in the magnetic field and carrying a pointer; the improvement wherein the movable system comprises a first and second coil, which coils are disposed at an acute angle to each other, the first said coil having a greater number of coil turns than the said second coil; a circuit for energizating the said coils serially from a source of alternating current potential to develop torques in the opposite sense in the said first and second coils; an electrolytic cell shunted



across the said first coil and adapted to be positioned in the water being tested, which cell is substantially non-conductive with zero salinity of the water and becomes increasingly conductive with increasing salinity thereof; and the said pointer assuming one scale extreme position upon energization of the said field winding and first and second coils when the said electrolytic cell is substantially non-conductive, the deflection of the pointer from the said one scale extreme position increasing with increased salinity of the said water being tested.

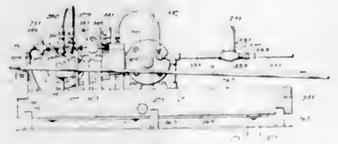
2,778,990
HYDROGEN ION CONCENTRATION MEASURING APPARATUS
Wilfred H. Howe, Sharon, and Leon G. S. Wood, Wollaston, Mass., assignors to The Foxboro Company, Foxboro, Mass., a corporation of Massachusetts
Application April 13, 1953, Serial No. 348,498
34 Claims. (Cl. 324—30)



19. A pH measuring system comprising, in combination, a stainless steel pipe for carrying a solution whose pH is to be determined, first and second electrochemical half cells adaptable for insertion into said stainless steel pipe for immersion in said solution, a temperature sensor adaptable for insertion into said stainless steel pipe for immersion in said solution and including at least two temperature-sensitive resistor elements and a thermocouple bead, a current amplifier having input and output circuits each including first and second terminals, said input circuit including a blocking capacitor and said second input terminal being connected to said stainless steel pipe, a phase-sensitive rectifier connected to said current amplifier output circuit and having an output load circuit including first and second terminals said first rectifier output terminal being connected to said second electrochemical half cell, switch means including a movable arm and

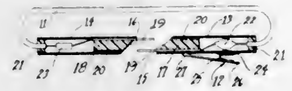
first and second fixed contacts, said movable arm being connected to said first current amplifier input terminal, an inductive winding magnetically associated with said movable arm for driving said arm in a vibratory manner, a coaxial cable having inner and outer conductors, said inner conductor being connected between said first electrochemical half cell and said first fixed contact and said outer conductor being connected to said second fixed contact, feedback means coupling said rectifier second output load circuit terminal to said second fixed contact, and a temperature compensating network connected to said rectifier output load circuit and including said temperature-sensitive resistors and said thermocouple bead.

2,778,991
SPLICE DETECTION PROCEDURES AND APPARATUS
Charles M. Winkleman, Richmond, Ind., assignor to Belden Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application June 27, 1951, Serial No. 233,915
8 Claims. (Cl. 324—34)



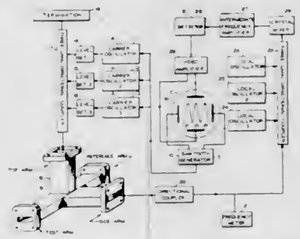
8. Apparatus for marking a moving strand of jacketed wire at preselected points comprising in combination a detector adapted to detect a magnetized portion of said strand and produce an electric signal, an amplifier connected to said detector, a solenoid actuating circuit connected to said amplifier and controlled thereby, said circuit including a thyratron tube responsive to said signal, said thyratron tube having a plate circuit including a solenoid and a restoring switch connected in series, means for energizing said amplifier and said solenoid actuating circuit, and means for marking the moving strand in timed response to said signal including a movable marking device, a piston actuated means connected to said marking device, a source of fluid pressure for operating said piston actuated means, a control valve for varying fluid pressure in said piston actuated means to adjust the rate of movement of said marking device and accommodate the apparatus for varying rates of wire movement, a conduit for connecting said source of pressure to said piston actuated means, a valve in said conduit which is controlled by said solenoid, and switch actuating means on said piston for operating said restoring switch in the plate circuit thyratron.

2,778,992
ELECTRICAL CIRCUIT DEVICE
William O. McFarland, Newton Falls, Ohio
Application November 6, 1953, Serial No. 390,549
3 Claims. (Cl. 324—51)



1. Means for testing electrical circuits, comprising a pair of complementary cylindrical members arranged in end to end abutting relation with the line of abutment disposed at a bias in a single flat plane to facilitate assembly, each of said members being substantially closed at its opposite ends by longitudinally spaced closure plugs of insulating material, each of said members having an elongated current conducting probe housed within and projecting longitudinally from a said closure plug at the inner abutting end of the member, said plugs at said inner abutting ends of the members each having a longitudinal aperture for receiving the projecting end of a said probe to protect the probes when said members are disposed in abutting and connected relation, a current flow indicating circuit having cooperating portions thereof housed within each of said cylindrical members between said closure plugs and respectively electrically connected to the inner ends of said probes, and a flexible insulated conductor wire having its opposite ends projecting through said closure plugs at the opposite non-abutting ends of said members and electrically connected to said current flow indicating circuit.

2,778,993
IMPEDANCE BRIDGE
Louis B. Young, Cambridge, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application December 10, 1945, Serial No. 634,115
13 Claims. (Cl. 324—58)

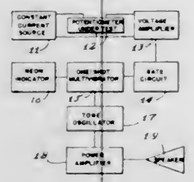


9. A multifrequency impedance bridge comprising four wave guide arms of substantially the same impedance connected together at a common junction point, two of said arms being aligned, the remaining two of said arms being perpendicular to one another and to said aligned arms, a known impedance coupled to one of said aligned arms, an unknown impedance coupled to the other of said aligned arms, a plurality of oscillators, each generating a microwave signal at a predetermined separate frequency, means for coupling said oscillator to a common transmission line, means coupling said transmission line to one of said remaining two arms, means coupled to the other of said remaining two arms for detecting bridge unbalance, a cathode ray indicator, a sawtooth wave generator, means for modulating the output of said oscillators in response to the amplitude of the output of said sawtooth wave generator, means to apply the output of said sawtooth wave generator to said cathode ray indicator to deflect said ray horizontally, and means to apply the output of said detecting means to said cathode ray indicator to deflect said beam vertically to display the unbalance of said bridge at each of said plurality of frequencies.

2,778,994
METHOD OF AND APPARATUS FOR NOISE MEASUREMENT OR INDICATION IN AN ELECTRIC CIRCUIT
Joseph R. Altieri, Watertown, Mass., assignor, by mesne assignments, to Acton Laboratories, Inc., Acton, Mass.
Application May 14, 1953, Serial No. 355,104
18 Claims. (Cl. 324—63)

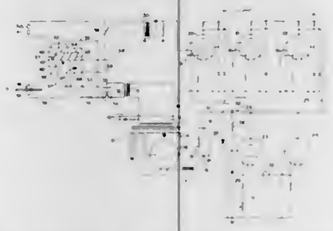
7. A system for testing potentiometers to determine whenever the parasitic transient resistance between the contact arm and the resistance element exceeds a predetermined value comprising a constant current source connected to the movable arm and one terminal of the resistance element, a voltage amplifier connected to said arm and the other terminal of the resistance element, a gate circuit controlled by said amplifier, a single shot

multivibrator controlled by said gate circuit, and means controlled by said multivibrator for producing a visual



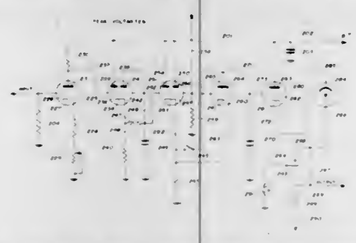
signal and an audible signal whenever said predetermined value has been exceeded.

2,778,995
ELECTRICAL TESTING INSTRUMENT
Bernard Gross, San Diego, and John C. Yager, National City, Calif., assignors to Rohr Aircraft Corporation, Chula Vista, Calif., a corporation of California
Application August 24, 1953, Serial No. 375,943
7 Claims. (Cl. 324—64)



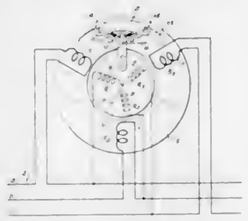
1. An instrument for determining the suitability of a metal part for spotwelding comprising in combination: two hollow electrodes having aligned openings therethrough and adjacent flat faces of large area; means responsive to fluid pressure for compressing the part between said flat faces; means connected to said electrodes to supply electrical current of predetermined amplitude thereto; sleeves composed of insulating material within said openings; metal plungers within said sleeves and having opposed flat faces in contact with the part; and a meter having its terminals connected to said plungers and responsive to variations in voltage thereof.

2,778,996
TRANSIENT PEAK VOLTMETER
Clifford M. Ryerson, Kinsale, and James T. Bull, Falls Church, Va.
Original application February 16, 1950, Serial No. 144,552, now Patent No. 2,736,192, dated February 28, 1956. Divided and this application April 11, 1952, Serial No. 281,880
3 Claims. (Cl. 324—102)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A peak voltmeter comprising an input signal amplifier for receiving a signal voltage, a cathode follower responsive to variations in the output thereof, a one-way valve or rectifier and a signal receiving condenser connected in series to form a rectifier-condenser pair, voltage output means from said cathode follower being connected across said rectifier-condenser pair, said cathode follower and amplifier cooperating to vary the potential across said rectifier in response to input signals to charge said condenser in accordance with increases therein, a second cathode follower responsive to the voltage thus impressed on said condenser, the input of said second cathode follower being connected across said condenser, a second rectifier and a storage condenser connected in series to form a second rectifier-condenser pair, voltage output means from said cathode follower connected across said second rectifier-condenser pair, said second cathode follower varying the potential across said second rectifier in response to the voltages impressed on said receiving condenser to charge said storage condenser in accordance with increases therein, voltage output being taken across said storage condenser, an output terminal for delivering the input signal peak as a steady voltage, a voltage regulator tube connecting said storage condenser to said output terminal, a source of negative voltage, and a resistor connecting said source to said output terminal, the type of voltage regulator tube and the value of said resistor being selected to exactly balance the amplification factor of said signal amplifier and reproduce the peak amplitude of the signal voltage.

2,778,997
POLYPHASE HIGH TORQUE DYNAMIC WATTMETERS
Richard C. Cathcart, Chicago, Ill., assignor to Askania Regulator Company, Chicago, Ill., a corporation of Illinois
Application December 26, 1950, Serial No. 202,764
6 Claims. (Cl. 324—107)

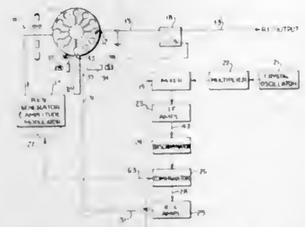


1. In a dynamic polyphase torque motor wattmeter of the type including a stator, a rotor, and independently energizable polyphase stator and rotor winding systems each of which comprises plural sets of windings respectively corresponding to sets of windings of the other system, the respective sets of each system being energizable by different phases of polyphase current to produce a rotating magnetic field, and the windings of one of said systems having reactances effective to shift currents energizing them relative to currents energizing the windings of corresponding sets of the other system; means for proportioning magnitude of output torque of said rotor to true electrical power of a polyphase load circuit in and across the respective lines of which the corresponding winding sets of the different said systems respectively may be effectively coupled as wattmeter current and voltage windings, said means comprising a resilient mechanical system biasing said rotor and stator to a positional relation wherein corresponding magnetic axes of said corresponding winding sets are angularly related to develop maximum torque while the corresponding winding sets of the respective systems respectively are energized by currents having an out of phase relation corresponding to the current shifting effect of said winding reactances.

2,778,998
LOW-FREQUENCY RESPONSIVE MEANS
Wilbur T. Harris, Southbury, Conn., assignor to The Harris Transducer Corporation, Woodbury, Conn., a corporation of Connecticut
Application May 3, 1952, Serial No. 285,991
4 Claims. (Cl. 324—143)

1. An electromechanical filter, compring two separate electrical coils, each coil having a pair of opposed generally parallel legs, first rigid means fixedly holding said coils with respect to each other such that the essential plane of one pair of legs is substantially at a right angle with the essential plane of the other pair of legs, said coils being in spaced relation on an oscillation axis with each pair of legs symmetrically disposed about said axis, two polarized magnets, second rigid means fixedly holding said magnets with respect to each other such that a first plane of polarization is defined diametrically across said axis at the axial location of said legs of one pair and such that a second plane of polarization is defined diametrically across said axis at the axial location of said legs of the other pair, said planes of polarization being substantially at a right angle with respect to each other, and means torsionally resiliently connecting one of said rigid means to the other of said rigid means on said axis.

2,778,999
AUTOMATIC FREQUENCY CONTROL FOR FREQUENCY MODULATED GENERATORS
Ben Warriner IV, Ithaca, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York
Application November 15, 1952, Serial No. 320,636
2 Claims. (Cl. 332—19)

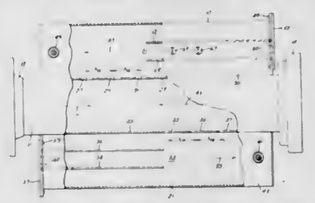


1. An automatic frequency control for a frequency-modulated microwave generator comprising, a modulation signal generator producing a modulation signal, means for frequency modulating the carrier signal of said microwave generator by said modulation signal to produce a frequency-modulated output signal, a fixed frequency oscillator, mixing means having impressed thereon a portion of said frequency-modulated output signal and a signal derived from said fixed frequency oscillator producing therefrom a difference signal, a discriminator having said difference signal impressed thereon and producing therefrom an output signal whose amplitude varies in proportion to the frequency variation of said difference signal, subtracting means having impressed thereon the output signal of said discriminator and said modulation signal producing therefrom a direct current signal whose amplitude is proportional to the difference of said discriminator output signal and said modulation signal, and means for applying said direct current signal to said microwave generator to maintain the unmodulated signal thereof at a constant frequency.

2,779,000
HIGH FREQUENCY FILTER, COMBINER AND LIKE ARRANGEMENTS
Boleslaw Marian Sosin, Great Baddow, Chelmsford, England, assignor to Marconi's Wireless Telegraph Company Limited, London, England, a company of Great Britain
Application January 24, 1952, Serial No. 267,961
Claims priority, application Great Britain
February 2, 1951
4 Claims. (Cl. 333—6)

1. A high frequency filter, combiner or like circuit arrangement comprising a four arm bridge circuit including concentric tubular conductor structures with a T-connected stub in each of two opposite arms, one pair of external connection points in one of the remaining arms, connection points for the connection of a balancing impedance in the other remaining arm and a second pair of external connection points in one diagonal, the arms of the bridge circuit being constituted by the impedance of the stubs and resistance presented by the concentric tubular conductor structures in which one of the T-connected stubs has an input impedance which is the reciprocal of that of the other, said other stub comprising three impedances (Z_1, Z_2, and Z_3) of which Z_1 and Z_2 are in the "cross bar" of the T, the concentric tubular conductor structure constituting impedance Z_1 being open circuited at its far end and the concentric tubular conductor structure constituting impedance Z_2 being short circuited at its far end, Z_1 constituting an impedance equivalent to a circuit having an electrical length slightly less than an odd number, including one, of quarter wave lengths long at the operating frequency and Z_2 constituting an impedance equivalent to a circuit having an electrical length which is short in relation to the wave length of the operating frequency.

2,779,001
DIRECTIONAL COUPLER
John K. Records, North Syracuse, N. Y., assignor to General Electric Company, a corporation of New York
Application May 28, 1952, Serial No. 290,405
8 Claims. (Cl. 333—10)



1. A directional coupler, comprising a first waveguide section adapted to propagate electromagnetic wave

energy, a second waveguide section having an output portion, means including a common wall for said waveguide sections having a plurality of spaced apertures therein for interconnecting said sections, whereby part of said energy is directionally coupled into said second section, said coupler normally having imperfect directivity in effecting energy transfer to said output portion, and terminating means in said second section presenting an impedance mismatch with respect to said second section, whereby to reflect part of the coupled energy in predetermined amount and phase, to said output portion, said terminating means being adjustable to establ sh said predetermined amount and phase in such a way that the effect of said reflected part of said coupled energy is to cancel the directivity-reducing energy at said output portion.

2,779,002

COAXIAL TRANSMISSION LINE TERMINATION

Harry R. Foster, Lake Valhalla, and Elmo E. Crump, West Caldwell, N. J., assignors to Ohmega Laboratories, Pine Brook, N. J., a partnership

Application February 10, 1954, Serial No. 409,358
3 Claims. (Cl. 333—22)

3. Termination means for a coaxial high frequency electrical transmission line comprising, at least one tubular member of suitable finely divided magnetic material, such as ferrite located between the parts of said line near their ends, means for applying magnetic lines of force across said line over said magnetic material and a resistor connected across the coaxial parts of the line adjacent said magnetic material and being cooperative with said magnetic material to produce a perfect termination.

2,779,003

DIELECTRIC DISC PHASE-SHIFTER FOR WAVEGUIDE

Philip J. Allen and John H. Dunn, Washington, D. C.

Application September 25, 1950, Serial No. 186,622
3 Claims. (Cl. 333—31)
(Granted under Title 35, U. S. Code (1952), sec. 266)

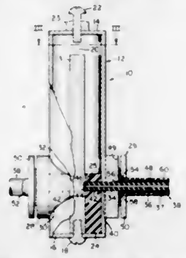
1. Apparatus for producing a sinusoidal variation in the phase shift of energy in a hollow waveguide system comprising a circular plate made of a dielectric material rotatably mounted about a given axis, said axis being in the center of said plate, the thickness of said plate gradually increasing in value from one edge to the other diametrically opposite edge thereof, said plate protruding into a hollow waveguide through a narrow slot in the walls thereof, said slot being parallel to the axis of the waveguide, said given axis being perpendicular to said waveguide axis. means for rotating said plate at a constant angular rate whereby the phase of said energy varies continuously according to a sine function.

2,779,004

TEMPERATURE COMPENSATED RESONANT CAVITY

Charles H. Bredall, Pacific Palisades, and John B. Shannon, Camarillo, Calif.

Application February 4, 1955, Serial No. 486,302
6 Claims. (Cl. 333—82)
(Granted under Title 35, U. S. Code (1952), sec. 266)



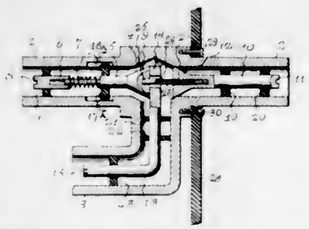
1. A temperature-compensated electrical apparatus including an encolsed resonant device adapted to receive a coupling conductor extending therein, a solid dielectric substance in said device and capable of supporting said coupling conductor, said dielectric having a dielectric constant that varies inversely with temperature substantially to compensate for resonant frequency variations due to dimensional changes in said device with changes in temperature.

2,779,005

COAXIAL JACK

Robert H. Tanner and John Rywak, Belleville, Ontario, Canada, assignors to Northern Electric Company Limited, Montreal, Quebec, Canada, a corporation of Canada

Application September 6, 1955, Serial No. 532,409
2 Claims. (Cl. 333—97)



1. A jack for coaxial transmission lines comprising: a hollow metallic housing having a chamber therewithin extending horizontally and vertically in a somewhat T-shaped manner; a pair of movable conductive members axially disposed along the common axis within the horizontal section of the housing; a fixed conductive member coaxially disposed within the vertical section of the housing; means for connecting one extremity of each of the three members to their respective transmission lines; contact members secured to the other extremity of each of the three conductive members, the contact member secured to the fixed conductive member being apertured and disposed between the movable conductive members; an insulated rod member disposed to reciprocate through the said aperture and having one extremity secured to a selected contact member of one of the movable conductive members and the other extremity arranged so that the other movable conductive member and its associated contact member may be rotatably advanced or retracted on the rod member; means associated with the selected contact member to prevent the rotation of the rod member, the movable contact members being arranged so that when one of these members is in engagement with the apertured contact member the other movable contact member, being in the retracted position, is in engagement with the housing so as to provide a substantial continuation of the inner surface of the chamber and means for urging the selected contact member into yieldable engagement with the apertured member.

2,779,006

SPURIOUS MODE SUPPRESSING WAVE GUIDES

Walter J. Albersheim, Interlaken, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Original application December 2, 1949, Serial No. 130,670. Divided and this application October 10, 1951, Serial No. 250,752
13 Claims. (Cl. 333—98)

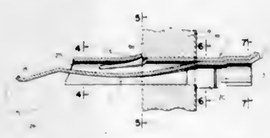
1. A hollow pipe wave guide of circular cross-section for the transmission of high frequency electromagnetic TE_{01} waves comprising a plurality of conductive ring members coaxially arranged with respect to a common longitudinal axis and spaced along said axis, and a continuous casing or sheath of lossy dielectric material surrounding said members.

2,779,007

PLUGBOARD CONTACTOR

James M. Cunningham, Endicott, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application December 21, 1951, Serial No. 262,768
4 Claims. (Cl. 339—18)



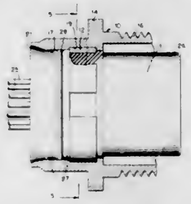
1. As a new article of manufacture, an electrical contactor for a plugboard panel comprising a body portion having a plurality of wing sections, a spring tongue having a plurality of wing sections at one extremity, said tongue being folded under said body portion and protruding beyond the marginal surface of said body portion, the wing sections of said body portion forming a barrel which envelops said tongue and is concentric with the wing sections of said tongue, a pair of locking members formed by slots in said body portion and extending from said barrel, a resilient member formed by a U-shaped incision in said body portion and projecting above said barrel, said resilient member being so constructed and arranged to cooperate with said locking members, whereby said contactor may be snapped into a fixed position on said panel, and a contact making terminal carried at the protruding end of said tongue for making an electrical connection with a mating contactor.

2,779,008

ELECTRICAL CONNECTOR HAVING RESILIENT INSERT

Edward Clarke Quackenbush, Hamden, Conn., assignor to Whitney Blake Company, New Haven, Conn., a corporation of Connecticut

Application January 31, 1955, Serial No. 484,939
5 Claims. (Cl. 339—59)



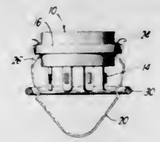
1. In an electrical connector which comprises an open-ended rigid shell, a resilient body disposed within said shell and a contact member embedded lengthwise in said resilient body exposed at one end for axial-mating contact with a correspondingly disposed contact member of a complementary connector, the improvement which comprises a groove medially positioned about the inner surface of said shell, a band embedded in said resilient body projecting out from the surface thereof into said groove whereby said resilient body is locked in lengthwise position within said rigid shell, said band being slotted transversely to permit it to be compressed inwardly to pass said resilient body lengthwise into said rigid shell from one end to a position at which said band registers with said groove whereupon said band expands into said groove an outward taper defined at one end of said rigid shell on the inner surface thereof to produce compression of said band as said resilient body is passed into said rigid shell at said tapered end thereof, and an outwardly tapered portion on the outer surface of said resilient body disposed similarly to said taper in the inner end surface of said rigid shell.

2,779,009

CORONA SOCKET

Wade E. Barre, Warren, Pa., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application June 1, 1953, Serial No. 358,936
6 Claims. (Cl. 339—143)



1. A corona socket comprising a base with tube pin engaging elements and wire terminals, a mount and a ring, the base being provided with opposed peripheral recesses, the moun: being provided with a pair of arms the ends of which engage in said recesses, and the ring being mounted on the arms intermediate the ends thereof and surrounding the wire terminals of the base.

2,779,010

TERMINAL BOARD FOR ANTENNA LEAD

Marion J. Pifer, Williamsville, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application June 10, 1953, Serial No. 360,746
7 Claims. (Cl. 339—198)

1. A terminal comprising two right angularly related metallic portions, one of the portions having a screw-receiving opening therethrough, the other of said portions

on the side thereof which is outside of the angle formed between the two portions having a pin receiving socket, the axis of the socket being parallel to the axis of the

opening in the first portion, and a prolongation on the portion having a pin receiving socket, said prolongation extending in the direction of the axis of the pin receiving socket and beyond the socket to form a terminal.

2,779,011
MANUFACTURE OF ELECTRICAL SOCKET CONTACTS
Stanley Thomas Deakin, Ewell West, England, assignor to The Edison Swan Electric Company Limited, London, England, a British company
Application January 17, 1955, Serial No. 482,263
Claims priority, application Great Britain February 1, 1954
6 Claims. (Cl. 339—258)

5. A socket contact member having a tag portion extending longitudinally in one direction and a pair of prongs extending in the opposite direction, said prongs being rotated in the same angular direction about their individual longitudinal axes into planes which are parallel to each other, the root ends of said prongs having opposite bends produced by the rotation thereof, said bends extending about axes of curvature extending laterally and each bend having a varying radius of curvature, the radius of curvature of each bend being greatest along the longitudinal center line of the contact member and decreasing progressively to the outside thereof.

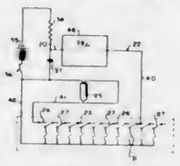
2,779,012
ELECTRICAL WIRING DEVICE
John D. Lawrence, Trenton, N. J.
Application May 17, 1954, Serial No. 430,061
16 Claims. (Cl. 339—269)

1. An electrical wiring device comprising, in combination, a metal wire supporting member having an opening therethrough and provided at one end thereof with electrical contact means, a resilient metal clamping arm rigidly connected at one end thereof to said supporting member in overlapping relation therewith and with the other end of said clamping arm free for movement from and toward said supporting member, said clamping arm having therein a through threaded opening of a lesser diameter than that of the opening in said supporting member and in concentric relation therewith; and a headed clamping screw projecting through the opening in said supporting member and the threaded opening in said clamping arm, the free end of said clamping arm being liftable away from said supporting member by means of said screw to permit a wire to be inserted transversely across said supporting member between said member and said clamping arm.

2,779,013
OVERLOAD INDICATOR
Joseph R. Chotro, Riverside, Calif.
Application April 13, 1955, Serial No. 501,093
3 Claims. (Cl. 340—52)

1. A device of the class described for use with a vehicle having a body, an axle connected to said body by springs, and wheels rotatably mounted on said axle, said device comprising a pair of telescoping tubular members, one of said members being attached to said body, a flexible connection securing the other of said members to said axle, a tension spring enclosed within and attached to said tubular members, said spring yieldingly urging said members together, means preventing rotation of said tubular members with respect to one another, a preliminary warning indicator and an overload indicator, and an electrical circuit connected to said indicators and including a pair of longitudinally spaced contacts on one of said tubular members and a third contact on the other member to successively engage first one and then the other of said spaced contacts as said members are moved together, said one contact being connected to said preliminary warning indicator, and said other contact being connected to said overload indicator, said third contact engaging said one contact to actuate said preliminary warning indicator when said springs have been deflected a predetermined amount by a maximum safe load on said vehicle body, and said third contact engaging said other contact to actuate said overload indicator when said springs have been deflected an additional amount by an illegal overload on said vehicle body.

2,779,014
STEPPING SWITCH
Whitman D. Mounce, Houston, Tex.
Application March 21, 1950, Serial No. 151,028
4 Claims. (Cl. 340—147)
(Granted under Title 35, U. S. Code (1952), sec. 266)



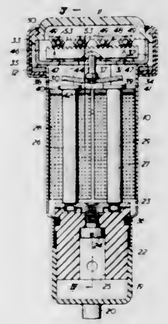
1. A stepping switch of the character disclosed adapted to close an electric circuit through the switch to an apparatus to be energized after a predetermined number of electrical impulses have been applied to the switch including, in combination, a plurality of pairs of electrically connected contact devices including a fixed contact member and a flexible contact member, said flexible contact member being arranged for contacting the fixed contact member of the adjacent pair of devices, a conducting terminal plate, an elongated insulating block, said flexible contact member being disposed between said block and the fixed contact member, a plurality of fusible elements respectively connected at one of the ends thereof to said flexible contact members and commonly connected at the other of the ends thereof to said terminal plate for initially biasing said flexible contact members out of contact with the respective fixed contact members of each adjacent pair and in a plane transverse to the longitudinal axis of said block, and circuit means for receiving said impulses and connected to a first selected one of said flexible contact members for rupturing the fusible element connected thereto thereby to release the selected flexible contact member for movement into engagement with the fixed contact member of the next succeeding contact device whereby said electric circuit is progressively advanced through the switch in response to each of said electrical impulses.

2,779,015
DEPTH INDICATOR FOR CONDUCTIVE LIQUID
Brooks Walker, Piedmont, and Henry J. Schultz, Hayward, Calif.; said Schultz assignor to said Walker
Application April 11, 1955, Serial No. 500,367
10 Claims. (Cl. 340—249)

1. A tester for the level of a conductive liquid in a container, including in combination: a ground for said container; a source of direct-current electromotive energy; a switch, condenser means, and electrically responsive indicator means connected in series with said source; resistance means in shunt with said condenser means; and a probe in parallel with at least said indicator means positioned to probe from above down to a predetermined depth only if said liquid, whereby when said switch is closed a surge of direct current from said source passes through said condenser and, when said probe contacts said liquid, through said liquid to ground, said surge, when said probe does not contact said liquid, passing to said indicator means and actuating it.

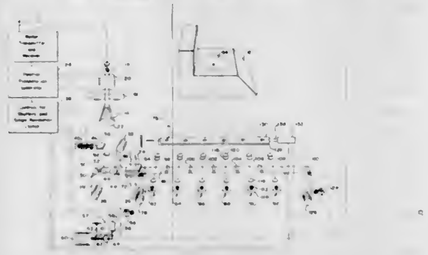
2,779,016
ELECTRICALLY OPERATED INDICATING INSTRUMENTS
Maurice S. Snell, Cranham, England, assignor to Dowty Equipment Limited, Cheltenham, England
Application December 4, 1953, Serial No. 396,270
Claims priority, application Great Britain December 8, 1952
2 Claims. (Cl. 340—378)

1. An indicating instrument for use in a space of restricted frontal area, comprising an elongated casing, a display head of an area approximating the available frontal area fixed to one end of the casing, indicating devices movably mounted in said head, an actuator mounted in said head, behind the indicating devices, for shifting transversely of the head to either side of a neutral position, and operatively connected to said indicating devices to move the same between three indicating positions, corresponding respectively to the three positions of the actuator, a yoke of magnetic material the two limbs whereof are directed lengthwise within the casing, two coils mounted on said yoke in side by side disposition, directed lengthwise of the casing, an armature having two limbs directed lengthwise of and located alongside the limbs of the yoke, and tiltably mounted thereon, said armature



having also two arms positioned for attraction by the pole pieces of the respective coils when energized, whereby to tilt the armature in one or the other sense from a neutral position, means operatively connecting the armature and said actuator for shifting of the latter in opposite senses as the armature tilts in opposite senses, and spring means operatively connected to the actuator to retain the same yieldingly in its neutral position.

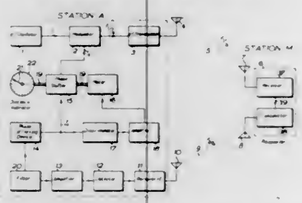
2,779,017
APPARATUS AND METHOD FOR INDICATING THE POSITION AND MOTION OF PHENOMENA IN SPACE
Edwin H. Land and William A. Shurcliff, Cambridge, Mass., assignors to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
Application September 1, 1951, Serial No. 244,822
22 Claims. (Cl. 343—7.7)



1. Apparatus for analyzing a field of view containing moving phenomena and stationary phenomena, said apparatus comprising means for producing a plurality of successive records of said field of view, each of said records containing bright indications of said moving phenomena and said stationary phenomena on a dark background, means for rendering visible the image of at least one of said records in one type of light, means for rendering visible the image of at least one other of said records in a distinctively different type of light, each of said images containing bright indications of said moving phenomena and said stationary phenomena on a dark background, and means for superposing said images in registered relation in order to produce a composite picture containing characteristic indications of said moving phenomena and characteristic indications of said station-

ary phenomena, said characteristic indications of moving phenomena being different from said characteristic indications of stationary phenomena.

2,779,018
ELECTRO-MAGNETIC DISTANCE MEASURING DEVICE
Jacques A. Gregoire and Michel J. Cambornac, Paris, France, assignors to Office National d'Etudes et de Recherches Aeronautiques, Paris, France, a corporate body of France
Application July 3, 1950, Serial No. 171,944
Claims priority, application France July 7, 1949
3 Claims. (Cl. 343—12)



1. A system for measuring the distance between a first point and a second point comprising at said first point a first radio frequency transmitter having a modulation part and adapted to transmit a first amplitude-modulated signal, a variable phase-shifter having its output coupled to the modulation part of said first transmitter, a first radio frequency receiver at said second point for receiving and demodulating said first signal, connection means for applying said demodulated first signal to a second transmitter at said second point, said second transmitter retransmitting toward said first point a second signal amplitude-modulated by the same frequency as the first signal, a second radio frequency receiver at the first point for deriving the modulation component of said second signal, connection means between the second receiver and the input of the variable phase-shifter for applying the modulation component of said second signal to said variable phase-shifter, whereby the whole closed path including the first transmitter, the transmission path between the first transmitter and the first receiver, the connection means between the first receiver and the second transmitter, the transmission path between the second transmitter and the second receiver and the phase-shifter inserted between the second receiver and the first transmitter tends to self-oscillate on a modulation frequency for which its total phase-shift is an integral multiple of a cycle for a given distance between the first and second points, and a follow-up unit adapted to control the phase-shifter and comprising a frequency discrimination means having its input connected to the input of the phase-shifter, said frequency discrimination means being tuned to a given fixed frequency and giving at its output a voltage proportional to the difference between the frequency at which the whole closed path tends to self-oscillate and the given fixed frequency to which said frequency discrimination is tuned, and a motor driving the variable phase-shifter and fed by said voltage, whereby the self-oscillation frequency of the whole path is compelled to be equal to the tuning frequency of the discrimination means.

2,779,019
NAVIGATIONAL RADAR REFLECTOR SYSTEMS
Sven Öberg, Stockholm, Sweden, assignor to Svenska Aktiebolaget Gasaccumulator, Stockholm-Lidingo, Sweden, a company
Original application April 13, 1951, Serial No. 220,757. Divided and this application October 11, 1954, Serial No. 461,585
3 Claims. (Cl. 343—18)

1. A reflector system intended for radar purposes, comprising, a first aggregate of reflectors including a first reflector for receiving a signal beam and reflecting a first portion of said beam back to its transmitter, a second reflector for receiving a second portion of said beam from said first reflector, said reflectors having cooperating reflecting surfaces disposed in beam aligned relationship to cause diminishing portions of said second portion of said beam to be reflected back and forth, the remaining portions of said second portion being directed back to the transmitter, the second aggregate of reflectors like said first aggregate of reflectors and cooperating with said first aggregate to indicate a complicated radar picture, said first and second reflectors in said first aggregate being spaced a distance different from that between similar reflectors in said second aggregate to provide for different lengths of the paths for repeated reflection in order to create a code-like grouping of indications.

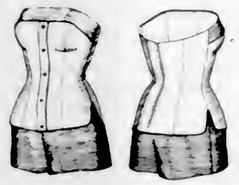
2,779,020
FREQUENCY MODULATED MULTIPLEX SYSTEMS
Raymond M. Wilmotte, Washington, D. C., assignor to Padevco, Inc., Washington, D. C., a corporation of Delaware
Application January 24, 1950, Serial No. 140,244
21 Claims. (Cl. 343—200)

1. In a communications system, a source of first modulation voltage, a source of second modulation voltage, means responsive to said first modulation voltage for generating a frequency modulated carrier having frequency deviations continuously substantially proportional to said first modulation voltage, means responsive to said first and second voltages for generating a further frequency modulated carrier having frequency deviations continuously substantially proportional to the algebraic sum of said first modulation voltage and said second modulation voltage, and means for transmitting said carriers.

DESIGNS

JANUARY 22, 1957

179,552
BATHING SUIT OR SIMILAR ARTICLE
Milo Anderson, Hollywood, Calif., assignor to Catalina, Inc., a corporation of California
Application December 7, 1955, Serial No. 39,183
Term of patent 3½ years
(Cl. D3—17)

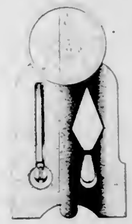


179,553
BATHING SUIT OR SIMILAR ARTICLE
Milo Anderson, Hollywood, Calif., assignor to Catalina, Inc., a corporation of California
Application December 7, 1955, Serial No. 39,211
Term of patent 3½ years
(Cl. D3—17)

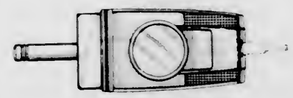
179,554
PHOTOGRAPHIC PROCESSING TANK OR SIMILAR ARTICLE
Albert J. Bachelder, Lexington, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
Application March 26, 1956, Serial No. 40,778
Term of patent 14 years
(Cl. D61—1)

179,555
HAND WHEEL WRENCH
Wayne K. Bergman, Toledo, Ohio
Application February 28, 1956, Serial No. 40,396
Term of patent 14 years
(Cl. D54—16)

179,556
DOOR KNOCKER
Edward S. Blankenship, Nashville, Tenn.
Application September 16, 1954, Serial No. 32,303
Term of patent 14 years
(Cl. D10—7)

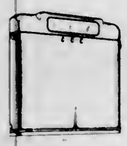


179,557
COMBINED ELECTRICAL POWER CONNECTOR AND THERMOSTATIC CONTROL
Melvin H. Boldt, Glenview, Ill., assignor to National Presto Industries, Inc., Eau Claire, Wis., a corporation of Wisconsin
Application June 1, 1956, Serial No. 41,736
Term of patent 14 years
(Cl. D52—7)



179,558
ASH TRAY
Robert L. Carruthers, Denver, Colo.
Application September 19, 1955, Serial No. 37,984
Term of patent 14 years
(Cl. D85—2)

179,559
TRAILER
Patrick J. Chisholm, Hickman Mills, Mo., assignor to Keystone Trailer & Equipment Co., Inc., Kansas City, Mo., a corporation of Missouri
Application October 8, 1954, Serial No. 32,596
Term of patent 14 years
(Cl. D14—3)



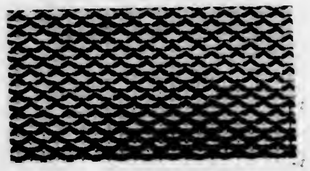
179,560
DESK BASE FOR WRITING INSTRUMENTS
Donald W. Doman, Janesville, Wis., assignor to The Parker Pen Company, Janesville, Wis., a corporation of Wisconsin
Application August 1, 1956, Serial No. 42,476
Term of patent 14 years
(Cl. D74—1)

179,561
CONTROL INSTRUMENT
Henry Dreyfuss, South Pasadena, Calif., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application April 11, 1956, Serial No. 41,020
Term of patent 14 years
(Cl. D52—7)

179,562
CONTROL INSTRUMENT
Henry Dreyfuss, South Pasadena, Calif., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application April 12, 1956, Serial No. 41,041
Term of patent 14 years
(Cl. D52—7)

179,563
ELECTRIC SHAVER
Robert O. Ernest, Oak Park, Ill., assignor to Sunbeam Corporation, Chicago, Ill., a corporation of Illinois
Application September 13, 1955, Serial No. 37,907
Term of patent 14 years
(Cl. D22—3)

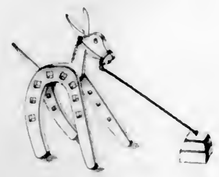
179,564
TEXTILE FABRIC
Henry E. Goforth, Winnsboro, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application September 17, 1956, Serial No. 42,954
Term of patent 14 years
(Cl. D92—1)



179,565
TEXTILE FABRIC
Henry E. Goforth and Clement R. Howell, Winnsboro, S. C., and James F. Fulton, Birmingham, Mich., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application September 21, 1956, Serial No. 43,039
Term of patent 14 years
(Cl. D92—1)

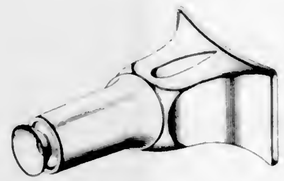
179,566
COMBINED FILING AND STORAGE CABINET AND VIEWING SCREEN FOR PHOTOGRAPH TRANSPARENCIES
Robert W. Haggar, Hamilton, Ontario, Canada
Application August 29, 1955, Serial No. 37,688
Term of patent 14 years
(Cl. D61—1)

179,567
COMBINED FIGURINE AND PAPER WEIGHT
John Norris Hall, Atlanta, Ga.
Application April 2, 1956, Serial No. 40,877
Term of patent 14 years
(Cl. D29—23)



179,568
PIN OR SIMILAR ARTICLE
Jesse Walton Hand, Cape Girardeau, Mo.
Application June 13, 1955, Serial No. 36,477
Term of patent 14 years
(Cl. D45—19)

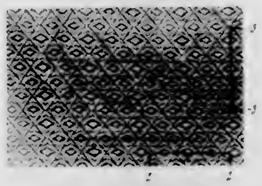
179,569
ELECTRIC MEGAPHONE
Frederick Lee Hardesty, Silver Spring, Md.
Application September 2, 1955, Serial No. 37,762
Term of patent 14 years
(Cl. D26—14)



179,570
PHONOGRAPH TONE ARM
Walter T. Heintze, New Canaan, Conn., assignor to Rek-O-Kut Company, Long Island City, N. Y., a firm
Application May 3, 1956, Serial No. 41,333
Term of patent 14 years
(Cl. D26—14)

179,571
TEXTILE FABRIC
Clement R. Howell, Winnsboro, S. C., and James F. Fulton, Birmingham, Mich., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application September 17, 1956, Serial No. 42,947
Term of patent 14 years
(Cl. D92—1)

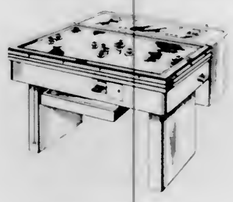
179,572
TEXTILE FABRIC
Clement R. Howell, Winnsboro, S. C., and James F. Fulton, Birmingham, Mich., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application September 17, 1956, Serial No. 42,949
Term of patent 14 years
(Cl. D92—1)



179,573
TEXTILE FABRIC
Clement R. Howell, Winnsboro, S. C., and James F. Fulton, Birmingham, Mich., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application September 17, 1956, Serial No. 42,950
Term of patent 14 years
(Cl. D92—1)

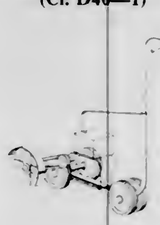
179,574
CONFECTION OR THE LIKE
Henry E. Jaeger, Bronx, N. Y., assignor to Henry Heide, Incorporated, New York, N. Y., a corporation of New York
Application January 31, 1956, Serial No. 39,986
Term of patent 7 years
(Cl. D82—2)

179,575
COIN-CONTROLLED GAME APPARATUS
Steven F. Kordek, Chicago, Ill., assignor to Genco, Inc., Chicago, Ill., a corporation of Illinois
Application April 16, 1956, Serial No. 41,081
Term of patent 14 years
(Cl. D34—5)



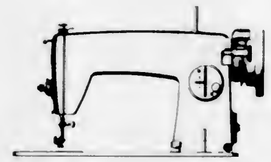
179,576
COMBINED MAGAZINE STAND AND PLANTER
Jack S. Lane, Van Nuys, Calif.
Application January 16, 1956, Serial No. 39,796
Term of patent 3½ years
(Cl. D33—2)

179,577
POWER LAWN EDGER
Fred J. Machovec, Pasadena, Calif.
Application September 6, 1955, Serial No. 37,799
Term of patent 14 years
(Cl. D40—1)

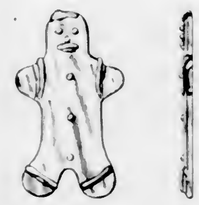


179,578
ICE CRUSHER
Alfred W. Madl, Milwaukee, Wis., assignor to The John Oster Manufacturing Co., Milwaukee, Wis., a corporation of Wisconsin
Application April 26, 1956, Serial No. 41,218
Term of patent 14 years
(Cl. D89—1)

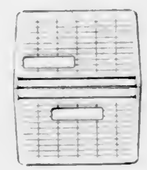
179,579
SEWING MACHINE
Shigetoshi Miyata, Mizuho-ku, Nagoya, Japan, assignor to Nihon Mishin Seizo Kabushiki Kaisha, Nagoya, Japan
Application April 8, 1954, Serial No. 29,914
Claims priority, application Japan November 6, 1953
Term of patent 14 years
(Cl. D70—1)



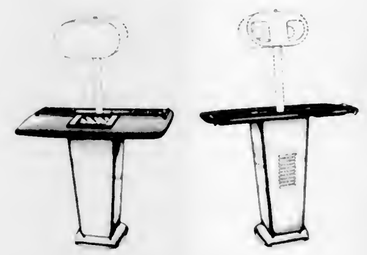
179,580
GINGERBREAD COOKY
Harold Pollard, Sussex, N. J.
Application August 6, 1956, Serial No. 42,522
Term of patent 14 years
(Cl. D8—1)



179,581
TOWEL DISPENSING CABINET
Roger I. Protas, Pittsburgh, Pa., assignor, by mesne assignments, to Blairsville Machine Products Company, Blairsville, Pa., a corporation of Pennsylvania
Application April 9, 1956, Serial No. 40,977
Term of patent 14 years
(Cl. D4—3)



179,582
COMBINED SCORE TABLE AND SCORE PROJECTOR OR SIMILAR ARTICLE
Richard G. Reineman, Covina, Calif., assignor to The Brunswick-Balke-Collender Company, Chicago, Ill., a corporation of Delaware
Application June 15, 1956, Serial No. 41,906
Term of patent 14 years
(Cl. D34—5)



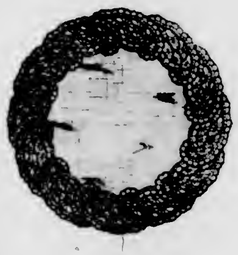
179,583
BATHING SUIT
Edith M. Stenbeck, Manhattan Beach, Calif., assignor to Catalina, Inc., a corporation of California
Application December 7, 1955, Serial No. 39,185
Term of patent 3½ years
(Cl. D3—17)

179,584
ELECTRIC HAIR CLIPPER
John F. Wahl and Leo J. Wahl, Sterling, Ill., assignors to Wahl Clipper Corporation, Sterling, Ill., a corporation of Illinois
Application February 6, 1956, Serial No. 40,046
Term of patent 14 years
(Cl. D22—3)

179,585
DISPLAY CABINET
Robert B. Welch, Portland, Oreg., assignor to Revolva Products, Inc., Portland, Oreg., a corporation of Oregon
Application December 6, 1954, Serial No. 33,396
Term of patent 14 years
(Cl. D80—9)

179,586
HOLDER FOR A FISHING ROD
Llewellyn H. Wise, Ashland, Ky.
Application January 3, 1956, Serial No. 39,583
Term of patent 14 years
(Cl. D31—4)

179,587
PAPER DOILY OR SIMILAR ARTICLE
Gustav Zappe, Milwaukee, Wis., assignor to Milwaukee Lace Paper Company, Milwaukee, Wis., a corporation of Wisconsin
Application January 12, 1956, Serial No. 39,708
Term of patent 14 years
(Cl. D59—2)



LIST OF REISSUE PATENTEES

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PATENTS WERE ISSUED ON THE 22ND DAY OF JANUARY, 1957

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Bryan, Charles B.: *See*—
Ostermann, Hans J., Wilkens, and Bryan. Re. 24,267.

Manning, Maxwell & Moore, Inc.: *See*—
Ostermann, Hans J., Wilkens, and Bryan. Re. 24,267.

Ostermann, Hans J., A. G. K. Wilkens, and C. B. Bryan, to Manning, Maxwell & Moore, Inc. Electronic displacement mensuring means. Re. 24,267, 1–22–57, Cl. 340—187.

Wilkens, Arno G. K.: *See*—
Ostermann, Hans J., Wilkens, and Bryan. Re. 24,267.

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Blixen, Harris H., to Woodlawn Gardens, Inc. Rose plant. 1,556, 1–22–57, Cl. 47—61.

Woodlawn Gardens, Inc.: *See*—
Blixen, Harris H. 1,556.

LIST OF DESIGN PATENTEES

Anderson, Milo, to Catalina, Inc. Bathing suit or similar article. 179,552, 1–22–57, Cl. D3—17.

Anderson, Milo, to Catalina, Inc. Bathing suit or similar article. 179,553, 1–22–57, Cl. D3—17.

Bachelder, Albert J., to Polaroid Corp. Photographic processing tank or similar article. 179,554, 1–22–57, Cl. D61—1.

Bergman, Wayne K. Hand wheel wrench. 179,555, 1–22–57, Cl. D54—16.

Blairsville Machine Products Co.: *See*—
Protas, Roger I. 179,581.

Blankenship, Edward S. Door knocker. 179,556, 1–22–57, Cl. D10—7.

Boldt, Melvin H., to National Presto Industries, Inc. Combined electrical power connector and thermostatic control. 179,557, 1–22–57, Cl. D52—7.

Brunswick-Balke-Collender Co.: *See*—
Reineman, Richard G. 179,582.

Carruthers, Robert L. Ash tray. 179,558, 1–22–57, Cl. D85—2.

Catalina, Inc.: *See*—
Anderson, Milo. 179,552.
Anderson, Milo. 179,553.
Stenbeck, Edith M. 179,583.

Chisholm, Patrick J., to Keystone Trailer & Equipment Co., Inc. Trailer. 179,559, 1–22–57, Cl. D14—3.

Doman, Donald W., to The Parker Pen Co. Desk base for writing instruments. 179,560, 1–22–57, Cl. D74—1.

Dreyfuss, Henry, to Minneapolis-Honeywell Regulator Co. Control instrument. 179,561, 1–22–57, Cl. D52—7.

Dreyfuss, Henry, to Minneapolis-Honeywell Regulator Co. Control instrument. 179,562, 1–22–57, Cl. D52—7.

Ernest, Robert O., to Sunbeam Corp. Electric shaver. 179,563, 1–22–57, Cl. D22—3.

Fulton, James F.: *See*—
Goforth, Henry E., Howell, and Fulton. 179,565.
Howell, Clement R., and Fulton. 179,571.
Howell, Clement R., and Fulton. 179,572.
Howell, Clement R., and Fulton. 179,573.

Genco, Inc.: *See*—
Kordek, Steven F. 179,575.

Goforth, Henry E., to United States Rubber Co. Textile fabric. 179,564, 1–22–57, Cl. D92—1.

Goforth, Henry E., C. R. Howell, and J. F. Fulton, to United States Rubber Co. Textile fabric. 179,565, 1–22–57, Cl. D92—1.

Haggar, Robert W. Combined filing and storage cabinet and viewing screen for photograph transparencies. 179,566, 1–22–57, Cl. D61—1.

Hall, John N. Combined figurine and paper weight. 179,567, 1–22–57, Cl. D29—23.

Hand, Jesse W. Pin or similar article. 179,568, 1–22–57, Cl. D45—10.

Hardesty, Frederick L. Electric megaphone. 179,569, 1–22–57, Cl. D26—14.

Heide, Henry, Inc.: *See*—
Jaeger, Henry E. 179,574.

Heintze, Walter T., to Rek-O-Kut Co. Phonograph tone arm. 179,570, 1–22–57, Cl. D26—14.

Howell, Clement R.: *See*—
Goforth, Henry E., Howell, and Fulton. 179,565.

Howell, Clement R., and J. F. Fulton, to United States Rubber Co. Textile fabric. 179,571, 1–22–57, Cl. D92—1.

Howell, Clement R., and J. F. Fulton, to United States Rubber Co. Textile fabric. 179,572, 1–22–57, Cl. D92—1.

Howell, Clement R., and J. F. Fulton, to United States Rubber Co. Textile fabric. 179,573, 1–22–57, Cl. D92—1.

Jaeger, Henry E., to Henry Heide, Inc. Confection or the like. 179,574, 1–22–57, Cl. D82—2.

Keystone Trailer & Equipment Co., Inc.: *See*—
Chisholm, Patrick J. 179,559.

Kordk, Steven F., to Genco, Inc. Coin-controlled game apparatus. 179,575, 1–22–57, Cl. D34—5.

Lane, Jack S. Combined magazine stand and planter. 179,576, 1–22–57, Cl. D33—2.

Machovec, Fred J. Power lawn edger. 179,577, 1–22–57, Cl. D40—1.

Madl, Alfred W., to The John Oster Mfg. Co. Ice crusher. 179,578, 1–22–57, Cl. D89—1.

Milwaukee Lace Paper Co.: *See*—
Zappe, Gustav. 179,587.

Minneapolis-Honeywell Regulator Co.: *See*—
Dreyfuss, Henry. 179,561.
Dreyfuss, Henry. 179,562.

Miyata, Shigetoshi, to Nihon Mishin Seizo Kabushiki Kaisha. Sewing machine. 179,579, 1–22–57, Cl. D70—1.

National Presto Industries, Inc.: *See*—
Boldt, Melvin H. 179,557.

Nihon Mishin Sizo Kabushiki Kaisha: *See*—
Miyata, Shigetoshi. 179,579.

Oster, John, Mfg. Co., The: *See*—
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Parker Pen Co., The: *See*—
Doman, Donald W. 179,560.

Polaroid Corp.: *See*—
Bachelder, Albert J. 179,554.

Pollard, Harold. Gingerbread cooky. 179,580, 1–22–57, Cl. D8—1.

Protas, Roger I., to Blairsville Machine Products Co. Towel dispensing cabinet. 179,581, 1–22–57, Cl. D4—3.

Reineman, Richard G., to The Brunswick-Balke-Collender Co. Combined score table and score projector or similar article. 179,582, 1–22–57, Cl. D34—5.

Rek-O-Kut Co.: *See*—
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Welch, Robert B. 179,585.

Stenbeck, Edith M., to Catalina, Inc. Bathing suit. 179,583, 1–22–57, Cl. D3—17.

Sunbeam Corp.: *See*—
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United States Rubber Co.: *See*—
Goforth, Henry E. 179,564.
Goforth, Henry E., Howell, and Fulton. 179,565.
Howell, Clement R., and Fulton. 179,571.
Howell, Clement R., and Fulton. 179,572.
Howell, Clement R., and Fulton. 179,573.

Wahl Clipper Corp.: *See*—
Wahl, John F. and L. J. 179,584.

Wahl, John F. and L. J., to Wahl Clipper Corp. Electric hair clipper. 179,584, 1–22–57, Cl. D22—3.

Wahl, Leo J.: *See*—
Wahl, John F. and L. J. 179,584.

Welch, Robert B., to Revolva Products, Inc. Display cabinet. 179,585, 1–22–57, Cl. D80—9.

Wise, Llewellyn H. Holder for a fishing rod. 179,586, 1–22–57, Cl. D31—4.

Zappe, Gustav, to Milwaukee Lace Paper Co. Paper doily or similar article. 179,587, 1–22–57, Cl. D59—2.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 22ND DAY OF JANUARY, 1957

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Ab Inreco: *See*—
Lenning, Alvar. 2,778,900.

A. M. S. Corp.: *See*—
Starck, Arthur M., and Gency. 2,778,069.

Abe, Yasuo, T. Harukawa, H. Ishikawa, T. Miki, M. Sumi, and T. Toga, to Takeda Pharmaceutical Industries, Ltd. Derivatives of dihydrosantonin and a process for their preparation. 2,778,838, 1–22–57, Cl. 260—343.3.

Ackelsberg, Oscar, to W. M. Hackman. Purification of plasticizer esters. 2,778,849, 1–22–57, Cl. 260—475.

Ackermann, Franz, to Ciba Ltd. Process for the manufacture of derivatives of 4:4'-diaminostilbene-2:2'-disulfonic acid. 2,778,827, 1–22–57, Cl. 260—249.6.

Ackermann, Hans, and G. Schetty, to J. R. Geigy A. G. Process for the production of aromatic O-hydroxydiazo compounds. 2,778,815, 1–22–57, Cl. 260—141.

Acme Visible Records, Inc.: *See*—
Kaighin, Hall Y. 2,778,658.

Acton Laboratories, Inc.: *See*—
Altieri, Joseph R. 2,778,908.
Altieri, Joseph R. 2,778,994.
Burgess, Lauren M. 2,778,906.
MacLaren, Frederick B. 2,778,909.
Pihl, George. 2,778,988.

Adam, Karl, and H.-G. Trieschmann, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of chlorocarboxylic acid chlorides. 2,778,852, 1–22–57, Cl. 260—544.

Adams, Earl F.: *See*—
Lamb, Anthony H., and Adams. 2,778,708.

Admiral Corp.: *See*—
De Cola, Rinaldo E., and Honeywell. 2,778,932.

Aeberly, Robert A., and R. A. Clark, to Union Carbide and Carbon Corp. Boron-containing ferrosilicon. 2,778,732, 1–22–57, Cl. 75—130.

Aeroquip Corp.: *See*—
Bernard, Fred A. 2,778,085.
Leighton, Francis. 2,778,661.

Aerovox Corp.: *See*—
Crowley, Henry L. 2,778,803.

Agriculture, United States of America as represented by the Secretary of: *See*—
Weaver, Jeremiah W. 2,778,747.

Ahlberg, H. Manton: *See*—
Soderberg, Gustaf A. 2,778,409.

Ahlquist, Frances H.: *See*—
Ahlquist, Zeth F. 2,778,549.

Ahlquist, Zeth F., to Z. F. Ahlquist and A. R. Nilson, general partners, and O. G. and E. Nilson, J. E. Martin, C. B. Olson, and F. H. Ashquist, limited partners, d. b. a. International Machine and Tool Works. Can nozzle and the like. 2,778,549, 1–22–57, Cl. 222—574.

Air Conversion Research Corp.: *See*—
Goodyer, Harold J. 2,778,619.

Aircraft-Marine Products Inc.: *See*—
Berg, Quentin. 2,778,097.

Air Force, United States of America as represented by the Secretary of the: *See*—
Eckert, Ernst R. G. 2,778,601.
Wilson, Woodrow W. 2,778,584.

Air-Maze Corp.: *See*—
Brixius, Jacob K. 2,778,445.

Air Reduction Co., Inc.: *See*—
Anderson, Nelson E., and Layden. 2,778,099.

Air-Shields, Inc.: *See*—
Gibbon, Samuel Y. 2,778,617.

Ajax Mfg. Co., The: *See*—
Ross, John L. F. 2,778,456.

Ajem Laboratories, Inc.: *See*—
Umbricht, Emil. 2,778,685.

Aktiengesellschaft Brown, Boveri & Cie.: *See*—
Darrieus, Georges. 2,778,243.
Périllard, René. 2,778,974.

Albersheim, Walter J., to Bell Telephone Laboratories, Inc. Spurious mode suppressing wave guides. 2,779,006, 1–22–57, Cl. 333—98.

Alden Products Co.: *See*—
Nyman, Alexander. 2,778,872.
Nyman, Alexander. 2,778,873.

Alessi, Andrew J., Jr.: *See*—
Gottscho, Ira S., Hirschey, and Alessi. 2,778,305.

All American Engineering Co.: *See*—
Cotton, Robert B. 2,778,611.

Allardt, Ernst W., to The Babcock & Wilcox Co. Inside bead trimmer with vertically adjustable tail rolls downstream of cutting edge. 2,778,281, 1–22–57, Cl. 90—24.

Allen, Alden W.: *See*—
Downham, Roy E., and Allen. 2,778,435.

Allen, George H., to Lynes, Inc. Packer braid reinforcing and retainer. 2,778,432, 1–22–57, Cl. 166—187.

Allen, Philip J., and J. H. Dunn. Dielectric disc phase-shifter for waveguide. 2,779,003, 1–22–57, Cl. 333—31.

Allgaier, Albert: *See*—
Schlesswohl, Gottlob, Allgaier, and Volt. 2,778,449.

Alliance Clay Products Co., The: *See*
Wilcox, James W. 2,778,086.

Alliance Machine Co., The: *See*—
Harry, Robert J. 2,778,506.

Allied Steel and Conveyors, Inc.: *See*—
Harrison, Homer S. 2,778,388.

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Herr, Charles H., Jr. 2,778,131.
Timmerman, Julius W. 2,778,379.

Altieri, Joseph R., to Acton Laboratories, Inc. Variable electrical resistor. 2,778,908, 1–22–57, Cl. 201—56.

Altieri, Joseph R., to Acton Laboratories, Inc. Method of and apparatus for noise measurement or indication in an electric circuit. 2,778,994, 1–22–57, Cl. 324—63.

Amatniek, Ernest, to J. Greenspan, d. b. a. Process and Instruments. Differential amplifier. 2,778,884, 1–22–57, Cl. 179—171.

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Wilson, Rosser L. 2,778,209.

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Fahrenbach, Marvin J., and Burke. 2,778,769.
Michel, George H., and Knight. 2,778,771.

American Home Products Corp.: *See*—
Bruce, William F., and Seifter. 2,778,834.
Von Seemann, Carl. 2,778,824.

American Laundry Machinery Co., The: *See*—
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American Meter Co., Inc.: *See*—
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American Optical Co.: *See*—
Dillon, Oscar W. 2,778,115.
MacGregor, Charles L. 2,778,271.

American Steel Foundries: *See*—
Light, David M. 2,778,457.

American Type Founders Co., Inc.: *See*—
Heller, Franz. 2,778,307.

Amonsen, George H. Variable speed drive. 2,778,235, 1–22–57, Cl. 74—230.17.

Anderson, Charles K. Smoking device. 2,778,363, 1–22–57, Cl. 131—181.

Anderson, George W. Awnings. 2,778,071, 1–22–57, Cl. 20—57.5.

Anderson, Nelson E., and L. M. Layden, to Air Reduction Co., Inc. Method of welding and apparatus therefor. 2,778,099, 1–22–57, Cl. 29—484.

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Andrews, Bernard: *See*—
Soussloff, Dimitri G., and Andrews. 2,778,579.

Andrews, Robert S. L., to Industrial Development Bank. Shot compacting in the shell molding process. 2,778,077, 1–22–57, Cl. 22—90.

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Brandt, Edgar W. 2,778,310.

Ansul Chemical Co.: *See*—
Downham, Roy E., and Allen. 2,778,435.
Hastert, Harlan G., and Guise. 2,778,434.

Apgar, Frank A., to Sinclair Refining Co. Process for removing silica from hydrocarbons by treating with caustic soda. 2,778,778, 1–22–57, Cl. 196—41.

Appel, Andrew L. Metering and dispensing device. 2,778,527, 1–22–57, Cl. 222—42.

Appel, Andrew L. Metering and dispensing device. 2,778,529, 1–22–57, Cl. 222—50.

Appel, Andrew L. Metering and dispensing device. 2,778,538, 1–22–57, Cl. 222—243.

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Armstrong Coalbreak Co.: *See*—
Filstrup, Edward C. 2,778,309.

Armstrong, Ralph S., to The Sherwin-Williams Co. Emulsion paint. 2,778,740, 1–22–57, Cl. 106—170.

Armstrong, Raymond L., and Gerald H. and George H. Morenus. Perineal heating lamp. 2,778,923, 1–22–57, Cl. 219—45.

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McNeill, William. 2,778,789.
Shorr, William. 2,778,754.

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Asahi Kasei Koyo Kabushiki Kaisha: *See*—
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Askania Regulator Co.: *See*—
Cathcart, Richard C. 2,778,997.

Ateliers de Construction Oerlikon: *See*—
Storsand, Bjarne. 2,778,890.

Atkinson, Robert P., to General Motors Corp. Turbine and compressor coupling. 2,778,565, 1–22–57, Cl. 230—116.

Atlanta Paper Co.: *See*—
Forrer, Homer W. 2,778,526.

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Boltel, Arwed C. 2,778,559.

Atlas Powder Co.: *See*—
Behrens, Robert W., and Griffin. 2,778,814.

Attendu, Andre C., to Stadler, Hurter & Co. Airport and transfer buses. 2,778,674, 1–22–57, Cl. 296—28.

Atterby, Per A. Rotatable container closure. 2,778,547, 1–22–56, Cl. 222—553.

Augstgen, Kenneth J., and J. E. Candlin, Jr., to Pullman-Standard Car Mfg. Co. Berth section arrangement. 2,778,320, 1–22–57, Cl. 105—317.

Austin Hoy & Co. Ltd.: *See*—
Proctor, Sidney E. 2,778,236.

Austin, Oliver K., to Phillips Petroleum Co. Carbon black collecting system employing Orlon bag filters. 2,778,715, 1–22–57, Cl. 23—209.9.

B & G Machinery Co., Inc.: *See*—
Byrne, William L. 2,778,504.

Babaian, Mesrop K., to Centric Clutch Co. Overload release clutches. 2,778,468, 1–22–57, Cl. 192—56.

Babcock & Wilcox Co., The: *See*—
Allardt, Ernst W. 2,778,281.
Sifrin, Andreas, Eberhardt, and Hennecke. 2,778,327.
Woolley, Charles H., and Durham. 2,778,346.

Babros, Joseph H., and J. Komada, said Komada assor. to said Babros. Combined cage and playpen for birds. 2,778,333, 1–22–57, Cl. 119—17.

Bacon, John G. Sleeve and glove closure. 2,778,027, 1–22–57, Cl. 2—270.

Bader, William, to Wesson Tool Co. Tool holder. 2,778,092, 1–22–57, Cl. 29—105.

Badische Anilin- & Soda-Fabrik Aktiengesellschaft: *See*—
Adam, Karl, and Trieschmann. 2,778,852.
Pasedach, Heinrich, and Seefelder. 2,778,821.
Pasedach, Heinrich, and Seefelder. 2,778,830.

Bagley, Glen D., to Union Carbide and Carbon Corp. Rotary furnace. 2,778,716, 1–22–57, Cl. 23—279.

Bainbridge, John P., Jr., and E. S. Blake, to Monsanto Chemical Co. Paper products and manufacture thereof. 2,778,749, 1–22–57, Cl. 117—154.

Baird Machine Co., The: *See*—
Lewis, Arthur J. 2,778,467.

Baker, Marie L.: *See*—
Pollock, Edith N. S., and Baker. 2,778,362.

Baker Oil Tools, Inc.: *See*—
Baker, Reuben C. 2,778,430.
Baker, Reuben C., and Conrad. 2,778,428.

Baker, Reuben C., and M. B. Conrad, to Baker Oil Tools, Inc. Releasable apparatus for retrieving subsurface well devices. 2,778,428, 1–22–57, Cl. 166—125

Baker, Reuben C., to Baker Oil Tools, Inc. Retrievable well apparatus. 2,778,430, 1–22–57, Cl. 166—139.

Baker, Stephen C. Ignition mechanism. 2,778,893, 1–22–57, Cl. 200—31.

Baldé, Ulysse, to Methra A.-G. Electronic impulse counting devices. 2,778,952, 1–22–57, Cl. 250—217.

Baldwin-Lima-Hamilton Corp.: *See*—
Krause, Gerhard P. 2,778,495.

Balke, Roy L., to General Electric Co. Slot liner-closer for dynamoelectric machine core member. 2,778,964, 1–22–57, Cl. 310—214.

Ball, Albert L., to Bay State Abrasive Products Co. Flexible abrasive bands. 2,778,169, 1–22–57, Cl. 51—188.

Ball Brothers Co., Inc.: *See*—
McFarlane, James W. 2,778,519.

Banks, Waldo H., to Draper Corp. Bobbin replenishing means for looms. 2,778,382, 1–22–57, Cl. 139—245.

Banning, Thomas A., Jr. Controls for variable pitch propellers and the like. 2,778,436, 1–22–57, Cl. 170—135.2.

Barényi, Béla, and K. Wilfert, to Daimler-Benz Aktiengesellschaft. Motor vehicle body fixed and hinged panel joints construction. 2,778,673, 1–22–57, Cl. 296—28.

Barker, Frederick W. Clothes rack or dryer. 2,778,705, 1–22–57, Cl. 312—313.

Barker, Harry H.: *See*—
Palmer, Reed A., Barker, and Chivers. 2,778,912.

Barr, John T., and F. E. Lawlor, to The Pennsylvania Salt Mfg. Co. Bis(trifluoroethyl) fumarate. 2,778,850, 1–22–57, Cl. 260—485.

Barre, Wade E., to Sylvania Electric Products, Inc. Corona socket. 2,779,009, 1–22–57, Cl. 339—143.

Bartlett, Philip D., to Polaroid Corp. Photographic apparatus. 2,778,269, 1–22–57, Cl. 88—24.

Bartlett, Richard J., to Smith & French Laboratories. Capsule filling ring assembly. 2,778,178, 1–22–57, Cl. 53—287.

Battelle Development Corp., The: *See*—
Willardson, Robert K., Goering, and Harman. 2,778,802.

Baumann, Frederick W.: *See*—
Hamm, Clarence L., and Baumann. 2,778,958.

Baumann, Fritz, B. Bienert, and G. Rösch, to Farbenfabriken Bayer Aktiengesellschaft. 1-alkoxy-3 imino-isoindolenine derivatives. 2,778,819, 1–22–57, Cl. 260—319.

Bay State Abrasive Products Co.: *See*—
Ball, Albert L. 2,778,169.

Beck, Carl P., and J. E. Roesbery. Mechanical fruit picker. 2,778,184, 1–22–57, Cl. 56—328.

Beger, Richard E., to The Lionel Corp. Combined truck and coupler mechanism for toy cars. 2,778,508, 1–22–57, Cl. 213—211.

Behling, Otto A., Jr. Mirror mountings. 2,778,274, 1–22–57, Cl. 88—93.

Behrens, Robert W., and W. C. Griffin, to Atlas Powder Co. Alkyl aryl sulfonic acid amine salt emulsifying agents. 2,778,814, 1–22–57, Cl. 260—98.

Belden Mfg. Co.: *See*—
Winkleman, Charles M. 2,778,991.

Belgard, Austin B. Ornamentation of plaques. 2,778,136, 1–22–57, Cl. 41—34.

Bell, Millard J. Means for tempering foundry sand. 2,778,076, 1–22–57, Cl. 22—89.

Bell Telephone Laboratories, Inc.: *See*—
Albersheim, Walter J. 2,779,006.
Bowman, Brice M. 2,778,743.
Dacey, George C., and Ross. 2,778,956.
Drew, Glen G. 2,778,978.
Henning, George E., and Windeler. 2,778,059.
Malthaner, William A., and Vaughan. 2,778,878.
Shockley, William. 2,778,885.

Bellet, Paul, to U C L A F. Colchicosamides, method of making, and composition containing same. 2,778,721, 1–22–57, Cl. 71—2.5.

Beman, Floyd L., and A. J. Dietzler, to The Dow Chemical Co. Method for making 5-chloro-o-cresol and 4,5-dichloro-o-cresol. 2,778,857, 1–22–57, Cl. 260—623.

Bendix Aviation Corp.: *See*—
Harrington, Daniel B. 2,778,944.
Johnstone, John H., Jr. 2,778,967.
Presnell, Frank G. 2,778,378.
Roberts, George L., and Bevins. 2,778,311.
Russell, Charles. 2,778,984.
Suttle, Ward C., and Haase. 2,778,312.
Thompson, Thomas J. 2,778,191.

Benjamin, Milton L. and S. S., to Erickson Tool Co. Floating tool holder. 2,778,647, 1–22–57, Cl. 279—16.

Benjamin, Milton L. and S. S., to Erickson Tool Co. Compensating driver for tap chucks and the like. 2,778,648, 1–22–57, Cl. 279—18.

Benjamin, Milton L. and S. S., to Erickson Tool Co. Collet chuck. 2,778,650, 1–22–57, Cl. 279—46.

Benjamin, Milton L. and S. S., to Erickson Tool Co. Chuck stops for drills. 2,778,651, 1–22–57, Cl. 279—47.

Benjamin, Stanley S.: *See*—
Benjamin, Milton L. and S. S. 2,778,647.
Benjamin, Milton L. and S. S. 2,778,648.
Benjamin, Milton L. and S. S. 2,778,650.
Benjamin Milton L. and S. S. 2,778,651.

Benninger, Eugen: *See*—
Bill, Hugo. 2,778,618.

Benninghofen, Paul: *See*—
Katz, Russell. 2,778,659.

Bensinger, Wolf-Dieter, to Daimler-Benz Aktiengesellschaft. Device for fuel-metering, in particular, fuel-injection for internal combustion engines. 2,778,539, 1–22–57, Cl. 222—250.

Bentley, Robert H., to The Arrow-Hart & Hegeman Electric Co. Mounting for electric wiring devices. 2,778,869, 1–22–57, Cl. 174—53.

Benua, Louis P.: *See*—
Fischer, Harry C., and Benua. 2,778,202.

Berg, Quentin, to Aircraft-Marine Products Inc. Strip of taper pin connectors. 2,778,097, 1–22–57, Cl. 29—193.5.

Berger, Carl, to The Commonwealth Engineering Co. of Ohio. Removal of water from non-aqueous liquids. 2,778,205, 1–22–57, Cl. 62—170.

Berger, Helmuth. Electro-therapeutic apparatus. 2,778,948, 1–22–57, Cl. 250—79.

Bergman, Carl R. Oar lock and protector. 2,778,036, 1–22–57, Cl. 9—26.

Berke, Aaron. Divisible receptacle. 2,778,522, 1–22–57, Cl. 217—33.

Berman, Joseph B.: *See*—
Reizman, Bina F., and Berman. 2,778,210.

Bernard, Fred A., to Aeroquip Corp. Band clamp of the axially operable type. 2,778,085, 1–22–57, Cl. 24—268.

Berry, Harry C. Trot-line rod. 2,778,142, 1–22–57, Cl. 43—27.4.

Bethea Co., Inc.: *See*—
Nolan, Vincent B. 2,778,870.

Bettoll, Phillip S., G. L. Brown, C. R. Eckert, and B. B. Kine. Preparation of coated asbestos-cement products. 2,778,283, 1–22–57, Cl. 92—40.

Bevins, James E.: *See*—
Roberts, George L., and Bevins. 2,778,311.

Bickley, Everett H. Ball sorter. 2,778,497, 1–22–57, Cl. 209—72.

Bienert, Berthold: *See*—
Baumann Fritz, Bienert, and Rösch. 2,778,819.

Bill, Hugo, ½ to E. Benninger. Apparatus for impregnating a liquid with a gas. 2,778,618, 1–22–57, Cl. 261—19.

Birkner, Hugo E., Jr., to Sta-Warm Electric Co. Treating tank for thermoplastic materials and the like. 2,778,922, 1–22–57, Cl. 219—44.

Bitter, Hermann. Artificial tooth with metal anchorage. 2,778,111, 1–22–57, Cl. 32—10.

Björksten Research Laboratories, Inc.: *See*—
Henning, James E. 2,778,758.
Thomas, Frederick L., and Koblitz. 2,778,793.

Blagg, Leon: *See*—
Crookston, Robert R., and Blagg. 2,778,315.

Blake, Edward S.: *See*—
Bainbridge, John P., Jr., and Blake. 2,778,749.

Blonder, Isaac S. Tunable electric circuit elements. 2,778,943, 1–22–57, Cl. 250—40.

Bly, Isaiah and S., Jr. Dentifrice-containing capsules. 2,778,045, 1–22–57, Cl. 15—131.

Bly, Simon, Jr.: *See*—
Bly, Isaiah and S. 2,778,045.

Bobo, Frank E., Jr.: *See*—
Leath, William J., and Bobo. 2,778,187.

Boeckino, Harry G.: *See*—
Roy, Tuhin K., and Boeckino. 2,778,728.

Bock, Ernest H., to Wheeling Steel Corp. Bottle crate and cell unit therefor. 2,778,524, 1-22-57, Cl. 220—21.

Bode, Paul. Chair. 2,778,410, 1-22-57, Cl. 155—164.

Boeing Airplane Co.: *See*—
Crosetto, John B., and Newell. 2,778,343.
Dannevig, Tord. 2,778,371.
Nyerges, Gilbert A., and Muzzy. 2,778,586.
Yereance, Robert A. 2,778,443.

Boggs, Jesse K., F. P. Ford, and J. H. McAteer, to Esso Research and Engineering Co. Oil extended synthetic rubber compositions. 2,778,807, 1-22-57, Cl. 260—33.6.

Boho, Lawrence M. Support for can openers and the like. 2,778,594, 1-22-57, Cl. 248—205.

Boinot, Firmin, to Les Usines de Melle (Societe Anonyme). Process for producing acetone and butyl alcohol. 2,778,775, 1-22-57, Cl. 195—44.

Boitel, Arwed C., to Atlas-Boxmakers, Inc. Blank for packaging of books and the like. 2,778,559, 1-22-57, Cl. 229—40.

Bolling, Thomas J., Jr., to Esso Research and Engineering Co. Valve with pressure sealing device. 2,778,598, 1-22-57, Cl. 251—63.

Bolton, John W., & Sons, Inc.: *See*—
Prevost, Bruno E. 2,778,663.

Bonser, Stanley W. Water sprinkler for lawns, gardens, truck farms and golf courses, and the like. 2,778,680, 1-22-57, Cl. 299—63.

Booe, James M., to P. R. Mallory & Co., Inc. Tantalum electrolytic capacitors with solid depolarizer. 2,778,979, 1-22-57, Cl. 317—230.

Borkowski, Casimer J., and F. M. Porter, to the United States of America as represented by the United States Atomic Energy Commission. Electrostatic pulse analyzer system. 2,778,949, 1-22-57, Cl. 250—83.3.

Bosch, Robert, G. m. b. H.: *See*—
Schlesswohl, Gottlob, Allgaier, and Volt. 2,778,449.

Boulard, Georges: *See*—
Drouard, Jacques, and Boulard. 2,778,128.

Bourdon, Russell G., to The Kaydon Engineering Corp. Demolition hammer. 2,778,355, 1-22-57, Cl. 125—33.

Bowles, Weston W.: *See*—
Harrington, Frank A., and Bowles. 2,778,930.

Bowman, Brice M., to Bell Telephone Laboratories, Inc. Method of making electrical carbon-film resistors. 2,778,743, 1-22-57, Cl. 117—46.

Boyer, Ralph K., to The Dill Mfg. Co. Valve for supersized tires. 2,778,374, 1-22-57, Cl. 137—223.

Brabender o. H.: *See*—
Kuhlmann, Wilhelm, and Hahn. 2,778,220.

Bradley, Emmett H., to Melpar, Inc. Distributed triode amplifiers. 2,778,886, 1-22-57, Cl. 179—171.

Bradley, Emmett H., to Melpar, Inc. Distributed amplifier transmission line terminations. 2,778,887, 1-22-57, Cl. 179—171.

Bradley, Emmett H., to Melpar, Inc. Distributed amplifiers. 2,778,888, 1-22-57, Cl. 179—171.

Bradshaw, Clayton W.: *See*—
Jones, R Clyde, and Bradshaw. 2,778,144.

Bramble, Lloyd F., to Gulf States Asphalt Co., Inc. Asphaltic composite monolithic shield. 2,778,406, 1-22-57, Cl. 154—41.

Brandt, Charles S.: *See*—
Mayhill, Noble, and Brandt. 2,778,510.

Brandt, Edgar W., to Societe Anonyme Belge de Macanique et d'Armement. Grenade launcher. 2,778,137, 1-22-57, Cl. 42—1.

Brandt, Edgar W., to Anstalt fur die Entwicklung von Erfindungen und Gewerblichen Anwendungen "Energa." Safety device for projectiles. 2,778,310, 1-22-57, Cl. 102—78.

Bratz, Louis E., Sr. Fishing plug. 2,778,143, 1-22-57, Cl. 43—42.05.

Braun, Franz, to F. X. Meiller. Loading apparatus. 2,778,513, 1-22-57, Cl. 214—131.

Bredall, Charles H., and J. B. Shannon. Temperature compensated resonant cavity. 2,779,004, 1-22-57, Cl. 333—82.

Bredtschneider, Kurt B., and R. Fennema, to Crane Co. Gate valve. 2,778,600, 1-22-57, Cl. 251—196.

Bredza, Nikolajs. Process for hardening steel. 2,778,756, 1-22-57, Cl. 148—21.5.

Briggs, Alfred. Multi-strut or multi-cell panels. 2,778,458, 1-22-57, Cl. 189—34.

Briggs & Stratton Corp.: *See*—
Jacobi, Edward N. 2,778,891.
Jacobi, Edward N. 2,778,904.

Brinnick, Frederic E., A. Reilly, and T. Doggett, to S. D. Warren Co. Coated paper planographic printing plate. 2,778,301, 1-22-57, Cl. 101—149.2.

Brinninck, Frederic E., T. Doggett, and R. L. Oransky, to S. D. Warren Co. Photo-sensitive coated paper plate for photo-lithography. 2,778,735, 1-22-57, Cl. 96—75.

British Iron & Steel Research Association: *See*—
Salt, Frederick W. 2,778,787.

British Rayon Research Association, The: *See*—
Doleman, Jack. 2,778,065.

British Thomson-Houston Co. Ltd., The: *See*—
Buckerfield, Philip S. T. 2,778,883.
Dunsmuir, Robert, Fisher, and Nicholls. 2,778,975.

Brixius, Jacob K., to Air-Maze Corp. Filter with relief valve. 2,778,445, 1-22-57, Cl. 183—13.

Brook, Leonard, to The Forgrove Machinery Co. Ltd. Feed mechanism for wrapping machines. 2,778,478, 1-22-57, Cl. 198—107.

Brooker, Leslie G. S., and E. J. Van Lare, to Eastman Kodak Co. Benzimidazolocarbocyanine dyes. 2,778,823, 1-22-57, Cl. 260—240.6.

Brooks, E. J., Co.: *See*—
Moberg, Sigurd M. 2,778,666.

Brooks, Robert J., to Geo. W. King Ltd. Drive mechanism for conveyor systems. 2,778,481, 1-22-57, Cl. 198—203.

Brown-Bridge Mills Co., Inc., The: *See*—
Holt, Frederick W., Jr. 2,778,744.

Brown, Calvin O., to Set Screw & Mfg. Co. Solid cup-point set screw. 2,778,265, 1-22-57, Cl. 85—1.

Brown, Calvin O., to Set Screw & Mfg. Co. Puzzle game. 2,778,639, 1-22-57, Cl. 273—130.

Brown, Calvin O., to Set Screw & Mfg. Co. Puzzle game board and pieces. 2,778,640, 1-22-57, Cl. 273—133.

Brown, Calvin O., to Set Screw & Mfg. Co. Puzzle game apparatus. 2,778,641, 1-22-57, Cl. 273—133.

Brown, Charles M., to Union Carbide and Carbon Corp. Method for making powdered vanadium metal. 2,778,725, 1-22-57, Cl. 75—84.

Brown, Cicero C. Well tools. 2,778,433, 1-22-57, Cl. 166—226.

Brown, George L.: *See*—
Bettoli, Phillip S., Brown, Eckert, and Kline. 2,778,283.

Brown, George L., and E. A. Nolan, to Rohm & Haas Co. Peaticidal ethylenebisdithiocarbamates with hydroxy ethyl cellulose compositions and methods. 2,778,768, 1-22-57, Cl. 167—42.

Brown, Graham B.: *See*—
Fogal, Gordon L., and Brown. 2,778,308.

Brown, Horace D., and F. J. Wolter, to the United States of America as represented by the United States Atomic Energy Commission. Uranium chelates of di (salicylal) alkylenediimine and process for their preparation. 2,778,843, 1-22-57, Cl. 260—429.1.

Brown, Joan S. Educational or instructive child's knitting kit. 2,778,488, 1-22-57, Cl. 206—47.

Brown, Robert E., to City Tank Corp. Refuse truck and elevator head shaft therefor. 2,778,518, 1-22-57, Cl. 214—518.

Brown, Victor, and J. H. Nelson, to Kropp Forge Co. Method for the controlled cooling of steel forgings. 2,778,755, 1-22-57, Cl. 148—21.5.

Brownstein, Benjamin Apparatus for rolling tubes. 2,778,253, 1-22-57, Cl. 80—11.

Bruce, William F., and J. Seifter, to American Home Products Corp. Substituted glycinamides. 2,778,834, 1-22-57, Cl. 260—287.

Bruegger, Ernest, to The Griscom-Russell Co. Catalyst finned tubing and method of making. 2,778,610, 1-22-57, Cl. 257—262.19.

Brugman, Lawrence W., and R. F. Koch, to Felt & Tarrant Mfg. Co. Split clearing mechanism. 2,778,569, 1-22-57, Cl. 235—144.

Brunaa, Oluf U. B. J. Mailing boxes. 2,778,561, 1-22-57, Cl. 229—51.

Brundage, James W., to National Rubber Machinery Co. Tire curing press. 2,778,060, 1-22-57, Cl. 18—17.

Brunner, Niklaus, to Societe Anonyme Adolphe Saurer. Loose thread winding up and stretching device for automatic looms. 2,778,383, 1-22-57, Cl. 139—260.

Bruno, Anna: *See*—
Capocci, Leonardo. 2,778,588.

Bryce, William H., to Dixie Wax Paper Co. Method of sealing containers. 2,778,175, 1-22-57, Cl. 53—39.

Buchner, Robert B., and N. Scheffer, to Hartford National Bank and Trust Co., as trustee. Control device for use in automatic signalling system. 2,778,879, 1-22-57, Cl. 179—18.

Buckerfield, Philip S. T., to The British Thomson-Houston Co. Ltd. Parallel amplifying system. 2,778,883, 1-22-57, Cl. 179—171.

Buehler, Arthur, and C. Zickendraht, to Ciba Ltd. Cobaltiferous and chromiferous azo-dyestuffs. 2,778,816, 1-22-57, Cl. 260—151.

Bull, James T.: *See*—
Ryerson, Clifford M., and Bull. 2,778,996.

Bullwinkle, Benjamin B.: *See*—
Erickson, Virginius R., and Bullwinkle. 2,778,020.

Burgess, Lauren M., to Acton Laboratories, Inc. Variable resistor or potentiometer construction. 2,778,906, 1-22-57, Cl. 201—48.

Burk, Marvin C., to Phillips Petroleum Co. Electrical measuring apparatus. 2,778,945, 1-22-57, Cl. 250—41.9.

Burke, Kenneth A.: *See*—
Fahrenbach, Marvin J., and Burke. 2,778,769.

Burrows, Edith S., ¼ to L. S. Saulsbury. Veil construction. 2,778,025, 1-22-57, Cl. 2—207.

Bush, Walter R., to Republic Aviation Corp. Variable area nozzle for jet engines. 2,778,190, 1-22-57, Cl. 60—35.5.

Bushmeyer, Richard W.: *See*—
Greeson, Clarett B., and Bushmeyer. 2,778,290.

Buslik, David. Granular vermiculite deodorants. 2,778,774, 1-22-57, Cl. 167—94.

Butler, Ernest L., and O. M. Holmes, to United Shoe Machinery Corp. Machines for shaping stitchdown uppers over lasts. 2,778,038, 1-22-57, Cl. 12—7.5.

Butler, Thomas A.: *See*—
Spedding, Frank H., and Butler. 2,778,730.

Butler, Thomas W.: *See*—
Fuchs, Theodore. 2,778,957.

Butterfield, Louis M. Carton. 2,778,558, 1-22-57, Cl. 229—29.

Byrne, William L., to B & G Machinery Co., Inc. Garment dispenser. 2,778,504, 1-22-57, Cl. 211—1.5.

Cagle, Charles E. Closure cap for liquid containers. 2,778,521, 1-22-57, Cl. 215—74.

Cahil, Joseph A.: *See*—
Goodenough, Richard. 2,778,596.

Cahil Mfg. Co.: *See*—
Goodenough, Richard. 2,778,596.

Caldwell, Paul, to Cannac Research and Development Co. Digestion of phosphate rock. 2,778,712, 1-22-57, Cl. 23—109.

Call, Eugene H.: *See*—
Linskey, John J., and Call. 2,778,257.

Cambornac, Michel J.: *See*—
Gregoire, Jacques A., and Cambornac. 2,779,018.

Candlin, James E., Jr.: *See*—
Augatgen, Kenneth J., and Candlin. 2,778,320.

Cannac Research and Development Co.: *See*—
Caldwell, Paul. 2,778,712.

Capocci, Leonardo, deceased; A. Bruno, administratrix, to L. Capocci. Holder for brooms and the like. 2,778,588, 1-22-57, Cl. 248—112.

Capocci, Luisa: *See*—
Capocci, Leonardo. 2,778,588.

Carapellotti, Charles J. Scissors type crown cap remover. 2,778,254, 1-22-57, Cl. 81—3.46.

Cardwell, Paul H., and P. D. Muir, to The Dow Chemical Co. Acidizing wells. 2,778,427, 1-22-57, Cl. 166—42.

Carissimi, Louis C., to Sperry Rand Corp. Combined cord spool and shaver support. 2,778,486, 1-22-57, Cl. 206—16.

Carlsen, Leonard O., and W. C. Critchley, to The Gleason Works. Wheel dresser. 2,778,353, 1-22-57, Cl. 125—11.

Carmody, Don R., and A. Zletz, to Standard Oil Co. Liquid hydrocarbon rocket propellant. 2,778,188, 1-22-57, Cl. 60—35.4.

Carmody, Don R., and A. Zletz, to Standard Oil Co. Liquid hydrocarbon rocket fuel. 2,778,189, 1-22-57, Cl. 60—35.4.

Carney, Dennis J., and B. R. Queneau, to United States Steel Corp. Method of controlling the formation of crystals in molten metal as it solidifies. 2,778,079, 1-22-57, Cl. 22—215.

Carney, Dennis J., to United Steel Corp. Corrosion-resistant austenitic steel not requiring nickel. 2,778,731, 1-22-57, Cl. 75—126.

Carrasco, Kathleen C. Cover for a loose leaf notebook or the like. 2,778,397, 1-22-57, Cl. 150—1.6.

Carson, Clifford C. Fluid flow regulator. 2,778,570, 1-22-57, Cl. 236—1.

Carta, Anthony, to Tara Cable Stripper Mfg. Corp. Cutter for the insulation of cables. 2,778,105, 1-22-57, Cl. 30—91.

Carter, Andrew G., to Carter Products Co., Inc. Wheel assembly. 2,778,234, 1-22-57, Cl. 74—230.7.

Carter Products Co., Inc.: *See*—
Carter, Andrew G. 2,778,234.

Caruthers, Robert S., to Lenkurt Electric Co., Inc. Frequency correcting method and apparatus. 2,778,877, 1-22-57, Cl. 179—15.

Case, J. I., Co.: *See*—
Greeson, Clarett B., and Bushmeyer. 2,778,290.

Case Mfg. Corp.: *See*—
Young, Willard G. 2,778,029.

Catheart, Richard C., to Askania Regulator Co. Polyphase high torque dynamic wattmeters. 2,778,997, 1-22-57, Cl. 324—107.

Centric Clutch Co.: *See*—
Babaian, Mesrop K. 2,778,468.

Cesare, Dominec J. Patty making implement. 2,778,325, 1-22-57, Cl. 107—47.

Challenge Machinery Co., The: *See*—
Papanoli, Michael E., and Lee. 2,778,341.

Chalmers, Elsie M.: *See*—
Chalmers, Raymond W. 2,778,591.

Chalmers, Raymond W., deceased, by E. M. Chalmers, executrix. Wire pallet. 2,778,591, 1-22-57, Cl. 248—120.

Chamberlain, Eric A. C., P. L. Waters, and W. S. Robertson, to Coal Industry (Patents) Ltd. Method of froth flotation. 2,778,499, 1-22-57, Cl. 209—166.

Chamblee, William M. Knee rest for crutch. 2,778,370, 1-22-57, Cl. 135—49.

Chaplain, William D., to Cranes (Dereham) Ltd. Turntable mountings for trailer-tractor fifth-wheels. 2,778,657, 1-22-57, Cl. 280—440.

Charlton, Merritt J. Traction device for pneumatic tires. 2,778,400, 1-22-57, Cl. 152—236.

Charron, Antonio P., to United Shoe Machinery Corp. Heel seat fitting machines. 2,778,041, 1-22-57, Cl. 12—31.5.

Chase, John A.: *See*—
Pilas, Frank J., Wolke, and Chase. 2,778,968.

Chemical Construction Corp.: *See*—
Roy, Tubin K., and Boeckino. 2,778,728.
Schaufelberger, Felix A. 2,778,729.
Schaufelberger, Felix A. 2,778,727.

Chen, Graham, to Parke, Davis & Co. Dimethyl phenyl piperazinium iodide compositions and process for stimulation of the autonomic ganglion system. 2,778,772, 1-22-57, Cl. 167—84.5.

Chester, Frank R. Automatic shut-off valve. 2,778,376, 1-22-57, Cl. 137—268.

Cheyne, Robert D., to Polygram Casting Co. Ltd. Apparatus for producing shell molds. 2,778,073, 1-22-57, Cl. 22—20.

Chivers, James R.: *See*—
Palmer, Reed A., Barker, and Chivers. 2,778,912.

Chotro, Joseph R. Overload indicator. 2,779,013, 1-22-57, Cl. 340—52.

Christensen, Robert F., to The Creamery Package Mfg. Co. Refrigerant liquid return means. 2,778,195, 1-22-57, Cl. 62—3.

Chromatic Television Laboratories, Inc.: *See*—
Zaphiropoulos, Renn. 2,778,161.

Chrysler Corp.: *See*—
Hatfield, John C. 2,778,453.
Stortevant, Mark J. 2,778,695.

Ciba Ltd.: *See*—
Ackermann, Franz. 2,778,827.
Buehler, Arthur, and Zickendraht. 2,778,816.
Holbro, Theodor. 2,778,857.

Ciba Pharmaceutical Products Inc.: *See*—
Wettstein, Albert, Vischer, and Meystre. 2,778,776.

Cincinnati Coffin Co.: *See*—
Woltering, Alphonse J. 2,778,089.

Cincinnati Milling Machine Co., The: *See*—
Gross, John G., and Gill. 2,778,925.

City Tank Corp.: *See*—
Brown, Robert E. 2,778,518.

Clark, Clyde C., to Thompson Products, Inc. Coining method and apparatus. 2,778,064, 1-22-57, Cl. 18—59.3.

Clark, David L.: *See*—
Dayton, Carl S. and Clark. 2,778,212.

Clark, Ivan F., to Ivan Clark Mfg. Co. Upholstered spring structures and supporting mats therefor. 2,778,411, 1-22-57, Cl. 155—181.

Clark, Ivan, Mfg. Co.: *See*—
Clark, Ivan F. 2,778,411.

Clark, James T. Cylinder honing tools. 2,778,168, 1-22-57, Cl. 51—184.4.

Clark, Ralph A.: *See*—
Aeberly, Robert A., and Clark. 2,778,732.

Clark, Robert R.: *See*—
Pontzen, George R., and Clark. 2,778,882.

Clark, Stanley M. Method and apparatus for continuously stretching plastic film. 2,778,057, 1-22-57, Cl. 18—1.

Clarke, George F.: *See*—
Halford, Frank B., and Clarke. 2,778,564.

Clavier, Pierre J.: *See*—
Job, François, and Clavier. 2,778,954.

Clavy, Roland, and J. Robin, to Societe "Rhodiaceta." Process for the continuous production of cellulose esters. 2,778,820, 1-22-57, Cl. 260—229.

Coal Industry (Patents) Ltd.: *See*—
Chamberlain, Eric A. C., Waters, and Robertson. 2,778,499.

Cobey Corp., The: *See*—
Mayhill, Noble, and Brandt. 2,778,510.

Cockburn, David H. Rotary fluid pressure pumps and motors of the eccentric vane type. 2,778,317, 1-22-57, Cl. 103—134.

Coles, Leon M. Hair trimmer. 2,778,104, 1-22-57, Cl. 30—30.

Colgate-Palmolive Co.: *See*—
Wellman, William W. 2,778,773.

Collins, Floyd Y., to Draper Corp. Shuttle for looms. 2,778,381, 1-22-57, Cl. 139—207.

Columbia Southern Chemical Corp.: *See*—
Theis, Francis W., and Richardson. 2,778,846.

Combustion Engineering, Inc.: *See*—
Lasater, John A., and Deakins. 2,778,164.

Commonwealth Engineering Co. of Ohio, The: *See*—
Berger, Carl. 2,778,205.
Novak, Leo J. 2,778,753.

Compton, William A., J. W. Johnson, and R. A. Paetz, to Thompson Products, Inc. Pneumatic powered linear actuator. 2,778,344, 1-22-57, Cl. 121—39.

Comstock, George E., 3d, to Norton Co. Electrolytic grinding apparatus. 2,778,794, 1-22-57, Cl. 204—218.

Conason, Emil G., to Schenley Industries, Inc. Process for obtaining epinephrine free adrenal cortical hormones. 2,778,770, 1-22-57, Cl. 167—77.

Conrad, Martin B.: *See*—
Baker, Reuben C., and Conrad. 2,778,428.

Continental Can Co., Inc.: *See*—
Haase, Heinrich E. 2,778,176.

Cookson, Leonard T., to The Upjohn Co. Intermittent drive for a counting device. 2,778,464, 1-22-57, Cl. 192—12.

Corcoran, Lyle S. Shot measuring device. 2,778,528, 1-22-57, Cl. 222—46.

Corl, Cady S., to Hanson Equipment Co. Spraying apparatus. 2,778,688, 1-22-57, Cl. 299—154.

Corner, Eugene S., and C. S. Lynch, to Esso Research and Engineering Co. Olefin polymerization catalyst and process. 2,778,804, 1-22-57, Cl. 252—435.

Corning Glass Works: *See*—
Giffen, James W. 2,778,162.

Cornwall, Leo W. Hydraulic power transmissions. 2,778,244, 1-22-57, Cl. 74—687.

Cosgrove, John C.: *See*—
Klumpp, Jason W. 2,778,167.

Cosmos, William J. Contact wheel and rim for the same. 2,778,166, 1-22-57, Cl. 51—141.

Cotton, Robert B., to All American Engineering Co. System for aerial pick-up from surface vessels. 2,778,611, 1-22-57, Cl. 258—1.2.

Craft, Lewis J., Jr.: *See*—
Jenson, Ivar, and Craft. 2,778,961.

Crane Co.: *See*—
Bredtschneider, Kurt B., and Fennema. 2,778,600.

Cranes (Dereham) Ltd.: *See*—
Chaplin, William D. 2,778,657.

Creamery Package Mfg. Co.: *See*—
Christensen, Robert F. 2,778,195.

Crist, Philip W., to Sperry Rand Corp. Amplitude modulation detector which is phase responsive. 2,778,933, 1-22-57, Cl. 250—20.

Critchley, William C.: *See*—
Carlsen, Leonard O., and Critchley. 2,778,353.

Croname, Inc.: *See*—
Sobol, Charles J. 2,778,790.

Crookston, Robert R., and L. Blagg, to Esso Research and Engineering Co. Pump for abrasive fluids. 2,778,315, 1-22-57, Cl. 103—44.

Crosetto, John B., Jr., and G. C. Newell, Jr., to Boeing Airplane Co. Snubber for double-acting hydraulic actuators. 2,778,343, 1-22-57, Cl. 121—38.

Crowl, Paul S. Stone cutting machine. 2,778,354, 1-22-57, Cl. 125—23.

Crowley, Henry L., to Aerovox Corp. Magnetically hard materials. 2,778,803, 1-22-57, Cl. 252—62.5.

Crumb, Elmo E.: *See*—
Foster, Harry R., and Crumb. 2,779,002.

Cruz, Ruben A. Folding flashlight holder. 2,778,931, 1-22-57, Cl. 240—52.5.

Culligan, Inc.: *See*—
Klumb, George H., Sailsbury, and Schulze. 2,778,798.

Cunningham, James M., to International Business Machines Corp. Plugboard contactor. 2,779,007, 1-22-57, Cl. 339—18.

Cunningham, Lewis L. Space thermostat. 2,778,901, 1-22-57, Cl. 200—137.

Curlett, John: *See*—
Gurries, Raymond A., and Curlett. 2,778,130.

Curtze, Walter A. Window structure. 2,778,067, 1-22-57, Cl. 20—12.

Cutler-Hammer Inc.: *See*—
Elliot, William H. 2,778,983.
Schmitz, Norbert L. 2,778,985.

Dacey, George C., and I. M. Ross, to Bell Telephone Laboratories, Inc. Semiconductor signal translating devices. 2,778,956, 1-22-57, Cl. 307—88.5.

Daimler-Benz Aktiengesellschaft: *See*—
Barényi, Béla, and Wilfert. 2,778,673.
Bensinger, Wolf-Dieter. 2,778,539.
Links, Heinrich K. 2,778,351.

Daniel, Blake N. Safety device for oil burners. 2,778,686, 1-22-57, Cl. 299—150.

Dannevig, Tord, to Boeing Airplane Co. Valve structure. 2,778,371, 1-22-57, Cl. 137—82.

Darkis, Frederick R.: *See*—
Hackney, Edward J., Faucette, and Darkis. 2,778,403.

Darrieus, Georges, to Aktiengesellschaft Brown, Boveri & Cie. Device for automatic balancing of rotating machine parts. 2,778,243, 1-22-57, Cl. 74—573.

Dasse, Lester F., to Lamberi Brake Corp. Self-adjusting disc brake. 2,778,452, 1-22-57, Cl. 188—72.

Dauwe, Camille F. Captive gliders. 2,778,154, 1-22-57, Cl. 46—77.

Davidson, Thomas J., to Robertshaw-Fulton Controls Co. Fluid fuel burner control system. 2,778,416, 1-22-57, Cl. 158—135.

Davis, William E. Automatic control apparatus for refrigeration system. 2,778,196, 1-22-57, Cl. 62—3.

Day, Thomas G., and G. F. Hurley, to Union Carbide and Carbon corp. Halogen inhibited synthesis of hydrocarbons. 2,778,844, 1-22-57, Cl. 260—449.6.

Dayton, Carl S., and D. L. Clark, to General Electric Co. Water load responsive diaphragm operated control device for clothes washers. 2,778,212, 1-22-57, Cl. 68—12.

Deakin, Stanley T., to The Edison Swan Electric Co. Ltd. Manufacture of electrical socket contacts. 2,779,011, 1-22-57, Cl. 339—258.

Deakins, Thomas A.: *See*—
Lasater, John A., and Deakins. 2,778,164.

Debuit, Louis, to Etablissements Merlin & Gerin. Accumulator for mechanical energy. 2,778,450, 1-22-57, Cl. 185—37.

Decker, Peter. Process and apparatus for the separation of mixtures of substances by continuous countercurrent distribution in solvents. 2,778,717, 1-22-57, Cl. 23—310.

De Cola, Rinaldo E., and C. E. Honeywell, to Admiral Corp. Reflex amplifier circuits. 2,778,932, 1-22-57, Cl. 250—20.

Dedmon, James F. Collapsible crate. 2,778,523, 1-22-57, Cl. 217—43.

De Haan, Jacob L.: *See*—
Schenkel, Gerrit, and de Haan. 2,778,440.

De Havilland Engine Co. Ltd., The: *See*—
Halford, Frank B., and Clarke. 2,778,564.

De Koning, Edwin W. Single end lumber printer. 2,778,296, 1-22-57, Cl. 101—5.

De Koning, Edwin W. Multidirectional lumber transfer mechanism and method. 2,778,474, 1-22-57, Cl. 198—19.

Delva Plastics, Inc.: *See*—
Lignori, Alfred T. 2,778,336.

Denby, Jack, and M. Landi. Folding perambulators. 2,778,653, 1-22-57, Cl. 280—37.

Detrex Corp.: *See*—
Duncan, Ira J. 2,778,791.

Deutsche Bergin-Aktiengesellschaft: *See*—
Riehm, Theodor. 2,778,751.

De Vilbiss Co., The: *See*—
Peeps, Donald J. 2,778,609.

Devlin, Paul A.: *See*—
Shokal, Edward C., and Devlin. 2,778,855.

Diamond, B. L.: *See*—
Thornton, Ray F. 2,778,245.
Thornton, Ray F. 2,778,246.

Dickenson, Ralph W. Method of treating water contaminated with organic materials. 2,778,797, 1-22-56, Cl. 210—2.

Dietaphone Corp.: *See*—
Rowe, Richard G., and Flower. 2,778,748.

Diehl, William R., to Stokes and Smith Co. Filling machine. 2,778,387, 1-22-57, Cl. 141—57.

Diesbach, F. B.: *See*—
Katz, Russell. 2,778,659.

Dietzler, Andrew J.: *See*—
Beman, Floyd L., and Dietzler. 2,778,857.

Dill Mfg. Co., The: *See*—
Boger, Ralph K. 2,778,374.

Dillon, Oscar W., to American Optical Co. Lens cutting machine. 2,778,115, 1-22-57, Cl. 33—28.

Disinger, Frank A.: *See*—
Lloyd, William H., Disinger, and Hayden. 2,778,606.

Dixie Wax Paper Co.: *See*—
Bryce, William H. 2,778,175.

Dobbins, Donald A. Conveyor element. 2,778,480, 1-22-57, Cl. 198—195.

Doggett, Towers: *See*—
Brinnick, Frederic E., Doggett, and Oransky. 2,778,735.
Brinnick, Frederic E., Reilly, and Doggett. 2,778,301.

Dole Valve Co., The: *See*—
Legoza, Thomas B., and Modes. 2,778,197.

Doleman, Jack, to The British Rayon Research Association, and T. M. M. (Research) Ltd. Method of and means for continuously spreading filaments. 2,778,065, 1-22-57, Cl. 19—65.

Dolza, John, and E. R. Pierce, to General Motors Corp. Hydraulic windshield wiper motor. 2,778,345, 1-22-57, Cl. 121—164.

Donaldson, George R., to Universal Oil Products Co. Removal of arsenic in hydrocarbon oils by use of a readily reducible metal oxide and water. 2,778,779, 1-22-57, Cl. 196—50.

Donsbach, Harry J.: *See*—
Donsbach, Henry P., Jr. 2,778,509.

Donsbach, Henry P., Jr. (known as H. J. Donsbach). Grain elevator apparatus. 2,778,509, 1-22-57, Cl. 214—17.

Dorey, George B., to Enterprise Railway Equipment Co. Hopper discharge outlet. 2,778,319, 1-22-57, Cl. 105—282.

Douglas, Robert R., to American Meter Co., Inc. Temperature compensated tangent. 2,778,224, 1-22-57, Cl. 73—281.

Dow Chemical Co., The: *See*—
Beman, Floyd L., and Dietzler. 2,778,857.
Cardwell, Paul H., and Muir. 2,778,427.
Dreisbach, Robert R., and Malloy. 2,778,812.
Kundiger, Donald G., Peterson, and Ikenberry. 2,778,851.
Kundiger, Donald G., and Pledger. 2,778,861.
Mussell, Dorsey R., and Roth. 2,778,809.

Dowling, William C.: *See*—
Dunkel, Walter L., Ford, and Dowling. 2,778,808.

Downham, Roy E., and A. W. Allen, to Ansul Chemical Co. Safety device for fire-extinguishing apparatus. 2,778,435, 1-22-57, Cl. 169—31.

Dowty Equipment Ltd.: *See*—
Snell, Maurice S. 2,779,016.

Doyen, Léon and Louis. Portable sewing-machine. 2,778,328, 1-22-57, Cl. 112—11.

Doyen, Louis: *See*—
Doyen, Léon and Louis. 2,778,328.

Doyle, Dewey I., to Doyle Vacuum Cleaner Co. Vacuum and blower producer. 2,778,563, 1-22-57, Cl. 230—114.

Doyle Vacuum Cleaner Co.: *See*—
Doyle, Dewey I. 2,778,563.

Draper Corp.: *See*—
Banks, Waldo H. 2,778,382.
Collins, Floyd Y. 2,778,381.

Dreisbach, Robert R., and J. F. Mulloy, to The Dow Chemical Co. Water soluble copolymers of SO_2, an acrylic acid and a vinyl alkyl ether. 2,778,812, 1-22-57, Cl. 260—79.3.

Drew, Glen G., to Bell Telephone Laboratories, Inc. Multivibrator load circuit. 2,778,978, 1-22-57, Cl. 317—137.

Drouard, Jacques, and G. Boulard. Machine for clearing away the ballast from railway tracks. 2,778,128, 1-22-57, Cl. 37—104.

Du Bridge, Fred B. Process and method of making sparkling beverage jelly. 2,778,737, 1-22-57, Cl. 99—129.

Dudley, Wray E., to The Skinner Irrigation Co. Rotary sprinkler, including impact absorbing means. 2,778,681, 1-22-57, Cl. 299—69.

Duerksen, Arnold, to Super Mold Corp. of California. Matrix latching device. 2,778,063, 1-22-57, Cl. 18—38.

Duilium, Arthur E. Process for forging hollow tubular objects. 2,778,101, 1-22-57, Cl. 29—535.

Duncan, Ira J., to Detrex Corp. Electrolytic method of cleaning containers. 2,778,791, 1-22-57, Cl. 204—141.

Dunkel, Walter L., F. P. Ford, and W. C. Dowling, to Esso Research and Engineering Co. Oil extended synthetic rubber compositions. 2,778,808, 1-22-57, Cl. 260—33.6.

Dunn, John H.: *See*—
Allen, Philip J., and Dunn. 2,779,003.

Dunsmuir, Robert, T. W. C. Fisher, and N. S. Nicholls, to The British Thomson-Houston Co. Ltd. Magnetrons. 2,778,975, 1-22-57, Cl. 315—39.69.

Duplan Corp., The: *See*—
Hasler, Albert A. 2,778,090.

Du Pont, E. I., de Nemours and Co.: *See*—
Firestine, John C. 2,778,822.
Hyson, Archibald M., and Schreyer. 2,778,818.
La Berge, Robert W., and Murphy. 2,778,745.
Winter, Charles H., Jr., and Tully. 2,778,726.

Durham, Edwin: *See*—
Woolley, Charles H., and Durham. 2,778,346.

Duro Metal Products Co.: *See*—
Hess, Theophil A., and McKain. 2,778,053.

Duyn, Nick J. Key case. 2,778,217, 1-22-57, Cl. 70—456.

Dym, Joseph B. Method of molding bodies of fibrous resinated material. 2,778,765, 1-22-57, Cl. 154—110.

E & M Lamort Fils: *See*—
Lamort De Gail, Marc. 2,778,231.

Eash, George H., to G. H. Poulsen, deceased; The Toledo Trust Co. and C. I. Poulsen, executors. Static eliminator for endless magnetic tape cartridges. 2,778,635, 1-22-57, Cl. 271—2.18.

Eash, George H., to G. H. Poulsen, deceased; The Toledo Trust Co. and C. I. Poulsen, executors. Endless tape cartridge. 2,778,636, 1-22-57, Cl. 271—2.18.

Eash, George H., to G. H. Poulsen, deceased; The Toledo Trust Co. and C. I. Poulsen, executors. Endless magnetic tape cartridge. 2,778,637, 1-22-57, Cl. 271—2.18.

Eash, George H., to The Toledo Trust Co. and C. I. Poulsen, co-executors of the estate of G. H. Poulsen, deceased. Endless magnetic tape cartridge and recording play-back instrument mounting same. 2,778,880, 1-22-57, Cl. 179—100.2.

Eastman Kodak Co.: *See*—
Brooker, Leslie G. S., and Van Lare. 2,778,823.

Ebco Mfg. Co., The: *See*—
Fischer, Harry C., and Benua. 2,778,202.

Eberhardt, Heinz: *See*—
Sifrin, Andreas, Eberhardt, and Hennecke. 2,778,327.

Eberz, William F.: *See*—
Steinman, Robert, and Eberz. 2,778,746.

Eckert, Clarence R.: *See*—
Bettoll, Phillip S., Brown, Eckert, and Kline. 2,778,283.

Eckert, Ernst R. G., to the United States of America as represented by the Secretary of the Air Force. Fluid cooled turbine blade construction. 2,778,601, 1-22-57, Cl. 253—39.15.

Edison Swan Electric Co. Ltd., The: *See*—
Deakin, Stanley T. 2,779,011.

Edwards, Elizabeth G. Scrub pail accessory. 2,778,398, 1-22-57, Cl. 150—52.

Edwards, George. Animal trap. 2,778,149, 1-22-57, Cl. 43—83.5.

Ehret, Robert J.: *See*—
Moore, Warren, Jr., and Ehret. 2,778,574.

Ehret, Robert J., and W. Moore, Jr., to Minneapolis-Honeywell Regulator Co. Electrical control apparatus. 2,778,942, 1-22-57, Cl. 250—36.

Eichelberger, Charles D.: *See*—
Hebbel, Emil E., and Eichelberger. 2,778,895.

Eisler, Paul, to Technograph Printed Circuits Ltd. Electric capacitor and method of making same. 2,778,762, 1-22-57, Cl. 154—80.

Eklund, Harry N., to Lear, Inc. Device for translating fluid pressure into an electrical potential. 2,778,986, 1-22-57, Cl. 323—47.

Eldon Co.: *See*—
McBride, Morris M. 2,778,703.

Elektrokemisk A/S: *See*—
Konesgaarden, Ole A. 2,778,865.

Elliot, William H., to Cutler-Hammer Inc. Load current and voltage control means for electrical systems. 2,778,983, 1-22-57, Cl. 318—331.

Ellis, Greer. Apparatus for indicating variables on oscillograph with X and Y axes. 2,778,972, 1-22-57, Cl. 315—24.

Emery, Richard L. Packaging with molded pulp cushioning pads. 2,778,490, 1-22-57, Cl. 206—65.

Emrick, Melvin H. Sealed forward and reverse drive for a tapper. 2,778,238, 1-22-57, Cl. 74—377.

Engleson, Harry E., and E. D. Sramek, to F. B. Redington Co. Conveying and transporting mechanism for elongated articles. 2,778,476, 1-22-57, Cl. 198—35.

Enterprise Railway Equipment Co.: *See*—
Dorey, George B. 2,778,319.

Erickson Tool Co.: *See*—
Benjamin, Milton L. and S. S. 2,778,647.
Benjamin, Milton L. and S. S. 2,778,648.
Benjamin, Milton L. and S. S. 2,778,650.
Benjamin, Milton L. and S. S. 2,778,651.

Erickson, Virginius R., and B. B. Bullwinkle, to Oregon Saw Chain Corp. Stud driving tool. 2,778,020, 1-22-57, Cl. 1—44.5.

Ernst, Max. Remote controlled vehicle toy. 2,778,158, 1-22-57, Cl. 46—219.

Esso Research and Engineering Co.: *See*—
Boggs, Jesse K., Ford, and McAteer. 2,778,807.
Bolling, Thomas J., Jr. 2,778,598.
Corner, Eugene S., and Lynch. 2,778,804.
Crookston, Robert R., and Blagg. 2,778,315.
Dunkel, Walter L., Ford, and Dowling. 2,778,808.
Fenske, Merrell R. 2,778,864.
Johnson, Frank B., Smith, and Moise. 2,778,859.
Maisel, Daniel S., Smith, and Scheeline. 2,778,863.
Reistle, Carl E., Jr. 2,778,604.

Etablissements Merlin & Gerin: *See*—
Debuit, Louis. 2,778,450.

Etzel, Charles K.: *See*—
Schatz, Karl E. 2,778,264.

Evans, Harry W. Pipe cutting machine of the pantograph type. 2,778,625, 1-22-57, Cl. 266—23.

Evans, William R., to Pittsburgh Plate Glass Co. Curing of the bristle-bonding agents in brushes. 2,778,689, 1-22-57, Cl. 300—21.

Evans, William V. Lawn mower trimmer attachment. 2,778,183, 1-22-57, Cl. 56—25.4.

Evergard Fire Alarm Co. Inc.: *See*—
Jacoby, David M. 2,778,330.

Eymann, Ludwig M.: *See*—
Strader, George A., and Eymann. 2,778,135.

Eyster, Floyd E. Lid removing apparatus. 2,778,180, 1-22-57, Cl. 53—381.

Fagen, Harold J., to Kraft Foods Co. Pepper. 2,778,738, 1-22-57, Cl. 99—140.

Fahrenbach, Marvin J., and K. A. Burke, to American Cyanamid Co. Heparin-aminobenzoate compositions. 2,778,769, 1-22-57, Cl. 167—74.

Fairbank, Murry N., to Polaroid Corp. Photographic apparatus and photographic product usable therewith. 2,778,734, 1-22-57, Cl. 96—29.

Fairbanks Co., The: *See*—
Hanson, Alfred H. 2,778,515.

Fairchild Engine and Airplane Corp.: *See*—
Troffimov, Lev A. 2,778,280.

Farbenfabriken Bayer Aktiengesellschaft: *See*—
Baumann, Fritz, Bienert, and Rosch. 2,778,819.
Muller, Erwin, and Petersen. 2,778,810.

Fate, Jessee E., Jr. Traveling block. 2,778,602, 1-22-57, Cl. 254—192.

Faucette, Charles D.: *See*—
Hackney, Edward J., Faucette, and Darkis. 2,778,403.

Faustini, Albert J., and R. T. McKenzie, to General Electric Co. Support strap for electron gun assemblies. 2,778,966, 1-22-57, Cl. 313—82.

Federn, Klaus, to Carl Schenck Maschinenfabrik G. m. b. H. Dynamic material testing machine. 2,778,222, 1-22-57, Cl. 73—92.

Feiertag, Karl M., and L. W. Wightman, to General Electric Co. Dynamoelectric machine housing assembly. 2,778,965, 1-22-57, Cl. 310—254.

Fellmeth, Robert E. Rearview mirror. 2,778,273, 1-22-57, Cl. 88—87.

Felt & Tarrant Mfg. Co.: *See*—
Brugman, Lawrence W., and Koch. 2,778,569.

Fennema, Richard: *See*—
Bredtschneider, Kurt B., and Fennema. 2,778,600.

Fenske, Merrell R., to Esso Research and Engineering Co. Process for separating pure para xylene by complexing with antimony trichloride. 2,778,864, 1-22-57, Cl. 260—674.

Fiddelman, J., & Son, Inc.: *See*—
Thaler, Leo. 2,778,207.

Fielden, John E., to Robertshaw-Fulton Controls Co. Pen mechanisms. 2,778,711, 1-22-57, Cl. 346—139.

Filstrup, Edward C., to Armstrong Coalbreak Co. Gas pressure blasting device. 2,778,309, 1-22-57, Cl. 102—25.

Findlay, Robert T.: *See*—
Shields, Ronald E., Findlay, and Fitzgerald. 2,778,678.

Finken, Walter S.: *See*—
Frieder, Leonard P., and Finken. 2,778,761.

Finlayson, Frank E., to General Electric Co. Temperature control and signal circuit. 2,778,913, 1-22-57, Cl. 219—20.

Firestine, John C., to E. I. du Pont de Nemours and Co. Photographic sensitizing dyes. 2,778,822, 1-22-57, Cl. 260—240.4.

Firm Maschinenfabrik Augsburg-Nurnberg A. G.: *See*—
Scheuerpflug, Hans. 2,778,507.

Firth Sterling, Inc.: *See*—
Wellborn, William W. 2,778,757.

Fischer, Harry C., and L. P. Benua, to The Ebco Mfg. Co. Dispenser for semifrozen beverages and agitator means therefor. 2,778,202, 1-22-57, Cl. 62—114.

Fisher, Albert L. Wet line marker. 2,778,046, 1-22-57, Cl. 15—131.05.

Fisher, Thomas W. C.: *See*—
Dunsmuir, Robert, Fisher, and Nicholls. 2,778,975.

Fitzgerald, Francis: *See*—
Shields, Ronald E., Findlay, and Fitzgerald. 2,778,678.

Fixman, Isadore M.: *See*—
Fuchs, Theodore. 2,778,957.

Flanders, Ernest V., to Jones and Lamson Machine Co. Method of grinding, including grinding wheel forming. 2,778,170, 1-22-57, Cl. 51—283.

Flegel, Curt, to Hartford National Bank and Trust Co., as trustee. Device for water-cooled oil coolers. 2,778,608, 1-22-57, Cl. 257—198.

Fleischer, Paul, to F. Ornstein. Frictional fastening method and device. 2,778,701, 1-22-57, Cl. 311—109.

Fleisher, Harry. Cloth marking drill. 2,778,297, 1-22-57, Cl. 101—26.

Flint, Maurice B. Transparency in the form of an article of jewelry for personal wear as a pendant. 2,778,208, 1-22-57, Cl. 63—23.

Flower, Gulles, Jr.: *See*—
Rowe, Richard G., and Flower. 2,778,748.

Flygare, Carl G., to Norton Co. Valve grinding machine. 2,778,163, 1-22-57, Cl. 51—3.

Fogal, Gordon L., and G. B. Brown. Parachute release mechanism. 2,778,308, 1-22-57, Cl. 102—4.

Fonken, Gunther S., R. H. Levin, and A. V. McIntosh, Jr., to The Upjohn Co. 4,21-dihalo-17-hydroxypregnane-3,11,20-trione. 2,778,842, 1-22-57, Cl. 260—397.45.

Ford, Francis P.: *See*—
Boggs, Jesse K., Ford, and McAteer. 2,778,807.
Dunkel, Walter L., Ford, and Dowling. 2,778,808.

Forde, Milton N.: *See*—
Meyer, Alfonse H. 2,778,049.

Forgrove Machinery Co. Ltd.: *See*—
Brook, Leonard. 2,778,478.

Forrer, Homer W., to Atlanta Paper Co. Partition structure for compartmented cartons. 2,778,526, 1-22-57, Cl. 220—113.

Forrester, William A., to International Staple and Machine Co. Cammed shoulder staple. 2,778,266 1-22-57, Cl. 85—49.

Forsberg, Harold S. Hand saw with blade having a T-slot. 2,778,395, 1-22-57, Cl. 145—31.

Forst, Rudolph K. Diversified spray device. 2,778,684, 1-22-57, Cl. 299—117.

Foster, Harry R., and E. E. Crump, to Ohmega Laboratories. Co-axial transmission line termination. 2,779,002, 1-22-57, Cl. 333—22.

Foster, Joseph H. Conveyors. 2,778,484, 1-22-57, Cl. 198—218.

Four Wheel Drive Auto Co., The: *See*—
Shannon, Jean R. 2,778,126.

Foxboro Co., The: *See*—
Howe, Wilfred H., and Wood. 2,778,990.

France, Daniel R. Copper plating brightener. 2,778,788, 1-22-57, Cl. 204—52.

France Packing Co.: *See*—
Nuttall, Elmer R. 2,778,697.

Francis, John P. Windshield visor and supporting means therefor. 2,778,676 1-22-57, Cl. 296—95.

Frank, George E. Conditioning apparatus and compressor therefor. 2,778,204, 1-22-57, Cl. 62—136.

Frank, Howard G.: *See*—
Leibinger, Ludwig, and Frank. 2,778,357.

Franklin Foods, Inc.: *See*—
Graves, Walter, and Wagner. 2,778,536.

Franks, Alton L. Container holder. 2,778,702, 1-22-57, Cl. 312—242.

Frejacques, Jean L. M., to Pechiney, Compagnie de Produits Chimiques et Electrometallurgiques. Apparatus for the manufacture of urea, formed of aluminum bronze. 2,778,733, 1-22-57, Cl. 75—161.

Frey, Hugh B., Jr., and J. Tittman, to Schlumberger Well Surveying Corp. Methods and apparatus for localized neutron logging. 2,778,950, 1-22-57, Cl. 250—83.6.

Frey, Wolfgang: *See*—
Peter, Albin, and Frey. 2,778,839.

Frieder, Leonard P., and W. S. Finken: said Finken assor. to said Frieder. Laminated plastic assembly. 2,778,761, 1-22-57, Cl. 154—52.5.

Friedman, Aaron, to Joe Lowe Corp. Stick holder. 2,778,670, 1-22-57, Cl. 294—87.26.

Friedman, Benjamin. Hypodermic syringe device. 2,778,359, 1-22-57, Cl. 128—218.

Friedman, Robert G., to The National Machinery Co. Disc brake. 2,778,451, 1-22-57, Cl. 188—72.

Fryer, Edward R., to General Motors Corp. Offset cutting edge for scrapers. 2,778,129, 1–22–57, Cl. 37—141.

Fryklund, Donald H., to Gulton Industries, Inc. Microphone. 2,778,881, 1–22–57, Cl. 179—110.

Fuchs, Francis J., Jr., to Western Electric Co., Inc. Flexible mandrels for bending wave guides. 2,778,402, 1–22–57, Cl. 153—63.

Fuchs, Theodore, to I. M. Fixman and T. W. Butler, d. b. a. Hub Electric Co. Switchboard. 2,778,957, 1–22–57, Cl. 307—112.

Fujisaki, Yoshisato, and T. Takemoto, to Asahi Kasei Koyo Kabushiki Kaisha. Process for producing acrylonitrile. 2,778,847, 1–22–57, Cl. 260—465.3.

Fuller Mfg. Co.: *See*—
Perkins, Charles M. 2,778,247.

Fuller, Norman C., to The Standard Oil Co. Oil skimming device. 2,778,500, 1–22–57, Cl. 210—51.

Furnari, Paul. Attachment for underwater harpoon guns. 2,778,139, 1–22–57, Cl. 43—6.

Gabbrielli, Ernesto. Vacuum tube getter body material. 2,771,485, 1–22–57, Cl. 206—0.4.

Gabler, Rudolf, to Inventa A-G. fuer Forschung und Patentverwertung Luzern. Filament stretching apparatus. 2,778,058, 1–22–57, Cl. 18—8.

Gaddis, Gene R., to Minneapolis-Honeywell Regulator Co. Temperature control with night set-back. 2,778,571, 1–22–57, Cl. 236—46.

Gallai-Hatchard, Marcel. Production of foamed slag and like material of light weight. 2,778,160, 1–22–57, Cl. 49—77.5.

Gams, Theodore C., and P. J. Kiefer, Jr., to Underwood Corp. Two way suction tape feeding means. 2,778,634, 1–22–57, Cl. 271—2.3.

Garbe, Howard W., to Western Electric Co., Inc. Work holding fixture for a lathe. 2,778,261, 1–22–57, Cl. 82—38.

Gardner Machines, Inc.: *See*—
Stockett, Wiley T., Jr. 2,778,193.

Gardner Mfg. Co.: *See*—
Pohlman, William A. 2,778,150.

Garretson, Owen L.: *See*—
St. Clair, Theodore A., and Garretson. 2,778,720.

Garret Corp., The: *See*—
Young, James E. 2,778,472.

Garrett, Gilbert J. Centrifuge heating device. 2,778,566, 1–22–57, Cl. 233—11.

Gartner, Stanley J., to Sylvania Electric Products Inc. Grid stop. 2,778,969, 1–22–57, Cl. 313—292.

Gaspar, Bela, and G. B. Linden; said Linden assor. to said Gaspar. Color photographic material from resinous sulfonyl chlorides. 2,778,813, 1–22–56, Cl. 260—79.3.

Gates, Marshall D., Jr., to Merck & Co., Inc. Reduction of codeinone to codeine. 2,778,832, 1–22–57, Cl. 260—285.

Gaubatz, Arthur W., to General Motors Corp. Discriminator device. 2,778,241, 1–22–57, Cl. 74—479.

Gaugler, Richard S., to General Motors Corp. Ice making apparatus. 2,778,200, 1–22–57, Cl. 62—107.

Gaylord, John A., ½ to Rocket Jet Engineering Corp. Retractable platform. 2,778,698, 1–22–57, Cl. 311—16.5.

Gaylord Products, Inc.: *See*—
Thatcher, Lewis E. 2,778,899.

Geigy, J. R., A. G.: *See*—
Ackermann, Hans, and Schetty. 2,778,815.

Gency, William E.: *See*—
Starck, Arthur M., and Gency. 2,778,069.

General Aniline & Film Corp.: *See*—
Komas, John. 2,778,710.

General Dynamics Corp.: *See*—
Holstrom, Allan. 2,778,976.
Trousdale, Robert B. 2,778,936.

General Electric Co.: *See*—
Balke, Roy L. 2,778,964.
Dayton, Carl S., and Clark. 2,778,212.
Faustini, Albert J., and McKenzie. 2,778,966.
Feiertag, Karl M., and Wightman. 2,778,965.
Finlayson, Frank E. 2,778,913.
Habermann, Rudolph, Jr. 2,778,963.
Hall, Robert N. 2,778,980.
Hamm, Clarence L., and Baumann. 2,778,958.
Hebbel, Emil E., and Eichelberger. 2,778,895.
Loeffler, John R. 2,778,982.
Records, John K. 2,779,001.
Taylor, Hamilton D. 2,778,962.
Vallorani, Ben J. 2,778,914.

General Electric Co. Ltd., The: *See*—
Simpson, Arthur I. F., and Warrington. 2,778,229.

General Motors Corp.: *See*—
Atkinson, Robert P. 2,778,365.
Dolza, John, and Pierce. 2,778,345.
Fryer, Edward R. 2,778,129.
Gaubatz, Arthur W. 2,778,241.
Gaugler, Richard S. 2,778,200.
Heike, Robert C. 2,778,462.
Johnston, Rodney M. 2,778,576.
Jorgensen, Clarence H. 2,778,915.
Jumisco, Roy A. 2,778,119.
Lenning, Carroll K. 2,778,898.
Lewis, Donald B. 2,778,444.
Lloyd, William H., Disinger, and Hayden. 2,778,606.
Long, George B. 2,778,613.
McKinley, Charles W. 2,778,446.
Percival, Worth H. 2,778,348.
Schneider, Paul L., and Taylor. 2,778,228.
Schweller, Edmund F. 2,778,201.
Shipe, Paul J. 2,778,742.

General Precision Laboratory Inc.: *See*—
Warriner, Ben, IV. 2,778,999.

General Time Corp.: *See*—
Juhas, Michael. 2,778,304.

Gestetner Ltd.: *See*—
Howe, Thomas G. 2,778,299.

Gibbon, Samuel Y., to Air-Shields, Inc. Compartment humidifier. 2,778,617, 1–22–57, Cl. 261—19.

Gier, John R., Jr. Apparatus and method for forming sinuous wire structural and heat exchange elements. 2,778,385, 1–22–57, Cl. 140—71.

Giffen, James W., to Corning Glass Works. Centrifugal casting of glass articles. 2,778,162, 1–22–57, Cl. 49—85.

Gill, Henry: *See*—
Gross, John G., and Gill. 2,778,925.

Gillis, Esther M.: *See*—
Gillis, Joseph R. 2,778,683.

Gillis, Joseph R.; E. M. Gillis, administratrix. Steam distributor tube. 2,778,683, 1–22–57, Cl. 299—106.

Gilmore, Dean C.: *See*—
Macy, John M., Rodgers, and Gilmore. 2,778,404.

Ginte, Philip G., to Liftronic, Inc. Garage door actuating mechanism. 2,778,631, 1–22–57, Cl. 268—59.

Girschowitch, Charles I. Awning-type windows. 2,778,460, 1–22–57, Cl. 189—62.

Girschowitch, Charles I. Awning type windows. 2,778,461, 1–22–57, Cl. 189—75.

Gleason Works, The: *See*—
Carlsen, Leonard O., and Critchley. 2,778,353.
Klem, Theodore F., and Satterlee. 2,778,649.

Globe Oil Tools Co.: *See*—
Goodwin, John S. 2,778,669.

Goché, Jean. Shower stall. 2,778,030, 1–22–57, Cl. 4—149.

Goddard & Goddard Co.: *See*—
Hill, John P. 2,778,924.

Goering, Harvey L.: *See*—
Willardson, Robert K., Goering, and Harman. 2,778,802.

Golasowski, Jan. Adjustably interlockable C-clamps. 2,778,393, 1–22–57, Cl. 144—304.

Goldberg, David N. Flexible brake or clutch band. 2,778,470, 1–22–57, Cl. 192—107.

Goodenough, Richard, to J. A. Cahill, d. b. a. Cahill Mfg. Co. Can opener supporting mechanism. 2,778,596, 1–22–57, Cl. 248—293.

Goodrie, Joseph J. Water aerating devices. 2,778,620, 1–22–57, Cl. 261—76.

Goodwin, John S., to Globe Oil Tools Co. Magnetic fishing tool. 2,778,669, 1–22–57, Cl. 294—65.5.

Goodyear Aircraft Corp.: *See*—
Tschudy, Donald B. 2,778,585.

Goodyer, Harold J., to Air Conversion Research Corp. Device for atomizing liquid. 2,778,619, 1–22–57, Cl. 261—63.

Gooris, Raymond. Complete set of teeth and method of making. 2,778,110, 1–22–57, Cl. 32—2.

Gordon, Charles R. Remote control for recording equipment. 2,778,876 1–22–57, Cl. 179—6.

Gorfine, Harry B.: *See*—
Katzner, Jacob B. 2,778,413.

Gorham, William F., and J. A. Stenstrom, to Union Carbide and Carbon Corp. Process for ethylating toluene. 2,778,862, 1–22–57, Cl. 260—671.

Gottlieb, Frederick E. Garden tool cart. 2,778,654, 1–22–57, Cl. 280—47.24.

Gottscho, Adolph, Inc.: *See*—
Gottscho, Ira S., Hirschey, and Alessi. 2,778,305.

Gottscho, Ira S., M. Hirschey, and A. J. Alessi, Jr., to Adolph Gottscho, Inc. Device for marking tubular articles. 2,778,305, 1–22–57, Cl. 101—329.

Gould, Alma M., and H. A. Gould. Adjustable lawn sprinkler head. 2,778,677, 1–22–57, Cl. 299—18.

Gould, Harvey A.: *See*—
Gould, Alma M. and H. A. 2,778,677.

Grandjean, Philippe, to Saul & Co. Polyazo dyestuffs. 2,778,817, 1–22–57, Cl. 260—173.

Grant, Irving: *See*—
Thornton, Ray F. 2,778,245.
Thornton, Ray F. 2,778,246.

Gratzer, Richard. Toy bells. 2,778,157, 1–22–57, Cl. 46—174.

Graves, Lolnel R., to Northrop Aircraft, Inc. Resin trap. 2,778,448, 1–22–57, Cl. 183—43.

Graves, Walter, and W. P. Wagner, to Franklin Foods, Inc. Dispenser. 2,778,536, 1–22–57, Cl. 222—184.

Gray, Elzie R. Roller attachment for tractors. 2,778,181, 1–22–57, Cl. 55—6.

Greeley, Leo O., to F. J. McCarthy, Inc. Hydraulic torque vane-type motors. 2,778,340, 1–22–57, Cl. 121—38.

Greenspan, Joseph: *See*—
Amatniek, Ernest. 2,778,884.

Greeson, Clarett B., and R. W. Bushmeyer, to J. I. Case Co. Disk plow. 2,778,290, 1–22–57, Cl. 97—46.27.

Gregoire, Jacques A., and M. J. Cambornac, to Office National d'Etudes et de Recherches Aeronautiques. Electro-magnetic distance measuring device. 2,779,018, 1–22–57, Cl. 343—12.

Gresham, Claude D., and E. Hoffmann, to Tip-Top Products Co. Barrette. 2,778,367, 1–22–57, Cl. 132—48.

Grevengoed, Paul H.: *See*—
Young, Herbert W., and Grevengoed. 2,778,665.

Griffin, William C.: *See*—
Behrens, Robert W., and Griffin. 2,778,814.

Griffith, William F. R. Air conditioning system having a cooling tower or the like. 2,778,203, 1–22–57, Cl. 62—127.

Grill, Hans: *See*—
Stahlecker, Wilhelm, and Grill. 2,778,165.

Griscom-Russell Co., The: *See*—
Bruegger, Ernest. 2,778,610.

Gross, Bernard, and J. C. Yager, to Rohr Aircraft Corp. Electrical testing instrument. 2,778,995, 1–22–57, Cl. 324—64.

Gross, John G., and H. Gill, to The Cincinnati Milling Machine Co. Electrical discharge cutting machine. 2,778,925, 1–22–57, Cl. 219—69.

Guerrant, Edmonds L., to Ready Hung Door Corp. Automatically adjustable expansible routing template. 2,778,121, 1–22–57, Cl. 33—197.

Guise, Arthur B.: *See*—
Hastert, Harlan G., and Guise. 2,778,434.

Gulf Research & Development Co.: *See*—
Humphrey, Earl L., and Morse. 2,778,801.

Gulf States Asphalt Co., Inc.: *See*—
Bramble, Lloyd F. 2,778,406.

Gulton Industries, Inc.: *See*—
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Gunas, Peter J. Miter drill jig. 2,778,251, 1–22–57, Cl. 77—62.

Gurries Mfg. Co.: *See*—
Gurries, Raymond A., and Curlett. 2,778,130.

Gurries, Raymond A., and J. Curlett, to Gurries Mfg. Co. Level control system for bulldozer blades. 2,778,130, 1–22–57, Cl. 37—144.

Gustin-Bacon Mfg. Co.: *See*—
Stephens, Joseph F., and Kerr. 2,778,405.
Stephens, Joseph F., and Kerr. 2,778,759.

Gutsche, Herman. Resonance device for stringed musical instrument. 2,778,262, 1–22–57, Cl. 84—296.

Guzik, Casimir. Panic latch for refrigerator doors and the like. 2,778,326, 1–22–57, Cl. 109—63.5.

Haas, Alfred E. Fishing line guide. 2,778,141, 1–22–57, Cl. 43—24.

Haase, Elmer A.: *See*—
Suttle, Ward C., and Haase. 2,778,312.

Haase, Heinrich E., to Continental Can Co., Inc. Wrapper cutting, gluing and feeding apparatus. 2,778,176, 1–22–57, Cl. 53—64.

Habermann, Rudolph, Jr., to General Electric Co. Polyphase generators. 2,778,963, 1–22–57, Cl. 310—202.

Hackman, William M.: *See*—
Ackelsberg, Oscar. 2,778,849.

Hackney, Edward J., C. D. Faucette, and F. R. Darkis, to Liggett & Myers Tobacco Co. Aerosol filter making machine. 2,778,403, 1–22–57, Cl. 154—1.

Haco Gesellschaft A. G.: *See*—
Matter, Max. 2,778,829.

Haddad, Jerrier A., to International Business Machines Corp. Self-latching oscillator. 2,778,939, 1–22–57, Cl. 250—36.

Hageman, Louis F., and C. R. Mabon, to Moore Business Forms, Inc. Strip severing machines. 2,778,424, 1–22–57, Cl. 164—84.5.

Hahn, Georg: *See*—
Kuhlmann, Wilhelm, and Hahn. 2,778,220.

Hahn, Paul T., to John Oster Mfg. Co. Beater with resiliently yieldable blades. 2,778,615, 1–22–57, Cl. 259—134.

Haight, Hiram H. and W. Z. Reversible pump with automatic valving. 2,778,316, 1–22–57, Cl. 103—117.

Haight, Wayland Z.: *See*—
Haight, Hiram H. and W. Z. 2,778,316.

Halford, Frank B., and G. F. Clarke, to The De Havilland Engine Co. Ltd. Stator blade ring assemblies for axial flow compressors and the like. 2,778,564, 1–22–57, Cl. 230—114.

Hall, Robert N., to General Electric Co. High power junction semiconductor device. 2,778,980, 1–22–57, Cl. 317—235.

Hall Telephone Accessories Ltd.: *See*—
Whillock, Arthur F., and Williams. 2,778,638.

Halold Co., The: *See*—
Mayo, Clyde R. 2,778,946.

Hamm, Clarence L., and F. W. Baumann, to General Electric Co. Dynamoelectric machine. 2,778,958, 1–22–57, Cl. 310—57.

Hamren, Victor E., to Topp Industries Inc. Mach number sensor. 2,778,907, 1–22–57, Cl. 201—48.

Hanks, William E.: *See*—
McCune, John S., and Hanks. 2,778,603.

Hansen, Fritz B.: *See*—
Moore, James F., and Hansen. 2,778,642.

Hansen, John R. Sweep rake tooth point. 2,778,185, 1–22–57, Cl. 56—400.

Hanson, Alfred H., to The Fairbanks Co. Hand truck for transporting and servicing television sets. 2,778,515, 1–22–57, Cl. 214—374.

Hanson Equipment Co.: *See*—
Corl, Cady S. 2,778,688.
Hegstad, Lester O. 2,778,687.

Hantman, Irvin. Teaching device simulating the human ear. 2,778,125, 1–22–57, Cl. 35—17.

Harder, John R.: *See*—
Mahaffy, Reid A., Young, and Harder. 2,778,177.

Harman, Theodore C.: *See*—
Willardson, Robert K., Goering, and Harman. 2,778,802.

Harrington, Daniel B., to Bendix Aviation Corp. Electron multiplier. 2,778,944, 1–22–57, Cl. 250—41.9.

Harrington, Frank A., and W. W. Bowles, to Marco Industries Co. Indicator light with snap-in mounting. 2,778,930, 1–22–57, Cl. 240—52.

Harris, Carl C. Sealed stamp pad. 2,778,306, 1–22–57, Cl. 101—333.

Harris Transducer Corp., The: *See*—
Harris, Wilbur T. 2,778,998.

Harris, Wilbur T., to The Harris Transducer Corp. Low-frequency responsive means. 2,778,998, 1–22–57, Cl. 324—143.

Harrison, Homer S., to Allied Steel and Conveyors, Inc. Tire inflation machine. 2,778,388, 1–22–57, Cl. 141—101.

Harry, Robert J., to The Alliance Machine Co. Hoist mechanisms. 2,778,506, 1–22–57, Cl. 212—21.

Hartford National Bank and Trust Co.: *See*—
Buchner, Robert B., and Scheffer. 2,778,879.
Flegel, Curt. 2,778,608.
Janssen, Peter J. H. 2,778,867.
Ploegsma, Antonie W. 2,778,250.
Schenkel, Gerrit, and de Haan. 2,778,440.

Hartmann, Waldemar. Comminuted coal fines and method of comminuting agglomerated coal fines. 2,778,718, 1–22–57, Cl. 44—16.

Harukawa, Tadataugu: *See*—
Abe, Yasue, Harukawa, Ishikawa, Miki, Sumi, and Toga. 2,778,838.

Haskelite Mfg. Corp.: *See*—
Kloote, George E., and Potchen. 2,778,766.

Hasler, Albert A., to The Duplan Corp. Method of treating synthetic yarn. 2,778,090, 1–22–57, Cl. 28—72.

Hastert, Harlan G., and A. B. Guise, to Ansul Chemical Co. Fire-extinguishing apparatus. 2,778,434, 1–22–57, Cl. 169—31.

Hatfield, John C., to Chrysler Corp. Brake. 2,778,453, 1–22–57, Cl. 188—73.

Haumerson, Fred C., to Walker Mfg. Co. of Wisconsin. Base structure. 2,778,597, 1–22–57, Cl. 248—346.

Hausdorf, Erich. Telephone ear piece. 2,778,889, 1–22–57, Cl. 179—182.

Hautzenroeder, Richard W., to Massey-Harris-Ferguson Inc. Steering mechanism for tractors. 2,778,655, 1–22–57, Cl. 280—93.

Hayden, John R.: *See*—
Lloyd, William H., Disinger, and Hayden. 2,778,606.

Haynes, James L. Citrus fruit spoon. 2,778,109, 1–22–57, Cl. 30—324.

Hazel, Herbert K., to Melpar, Inc. Stapling machines. 2,778,691, 1–22–57, Cl. 302—2.

Hazelquist, Fred L. Hair clipping implement. 2,778,106, 1–22–57, Cl. 30—201.

Hazelquist, Fred L. Barbering tool. 2,778,107, 1–22–57, Cl. 30—201.

Heath, Dudley E., to Servel, Inc. Ice making machine. 2,778,198, 1–22–57, Cl. 62—7.

Hebbel, Emil E., and C. D. Eichelberger, to General Electric Co. Clutch interlocked circuit breaker carrier mechanism. 2,778,895, 1–22–57, Cl. 200—50.

Hecker, Kurt, P. Jordan, W. Kaiser, and H. Vögeli. Steel girders. 2,778,459, 1–22–57, Cl. 189—37.

Hegstad, Lester O., to Hanson Equipment Co. Spray nozzle. 2,778,687, 1–22–57, Cl. 299—153.

Heinemann, Kurt W., to Schlumberger Well Surveying Corp. Measuring device. 2,778,117, 1–22–57, Cl. 33—134.

Heike, Robert C., to General Motors Corp. Fluid motor and transmission. 2,778,462, 1–22–57, Cl. 192—03.

Heller, Franz, to American Type Founders Co., Inc. Plate clamping means. 2,778,307, 1–22–57, Cl. 101—415.1.

Hennecke, Hermann: *See*—
Sifrin, Andreas, Eberhardt, and Hennecke. 2,778,327.

Henning, George E., and A. S. Windeler, to Western Electric Co., Inc., and Bell Telephone Laboratories, Inc. Methods of and apparatus for making insulated multiconductor wire. 2,778,059, 1–22–57, Cl. 18—13.

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Howe, Elra F. Securing means for a vise. 2,778,258, 1–22–57, Cl. 81—41.
Howe, Thomas G., to Gestetner Ltd. Stencil duplicating machines. 2,778,299, 1–22–57, Cl. 101—118.
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Hubbard, Arthur R., to United Shoe Machinery Corp. Lasting machines. 2,778,039, 1–22–57, Cl. 12—12.
Hudson, Archie C. Can opening device. 2,778,103, 1–22–57, Cl. 30—16.
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Huefflc, Karl. Wagon box to elevator power transfer unit. 2,778,511, 1–22–57, Cl. 214—86.
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Huppert, Karl H. Centrifugal casting apparatus. 2,778,075, 1–22–57, Cl. 22—65.1.
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Hurst, Reginald H., to Kalamazoo Vegetable Parchment Co. Moisture proof heat sealable wrapping material. 2,778,760, 1–22–57, Cl. 154—50.
Huston, Carl N. Suppository injector. 2,778,361, 1–22–57, Cl. 128—271.
Hutchinson, William B., to Phillips Petroleum Co. Printing ink. 2,778,806, 1–22–57, Cl. 260—19.
Hyde, Robert C., Jr. Bottle cap. 2,778,520, 1–22–57, Cl. 215—46.
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Hyson, Archibald M., and R. C. Schreyer, to E. I. du Pont de Nemours and Co. Azo nitriles containing beta-hydroxyalkyl substituents. 2,778,818, 1–22–57, Cl. 260—192.
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Jacobi, Edward N., to Briggs & Stratton Corp. Electric switch. 2,778,891, 1–22–57, Cl. 200—11.
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Jaquith, Howard R., to Taylor Instrument Companies. Pneumatic pressure responsive devices. 2,778,372, 1–22–57, Cl. 137—111.
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Jaskowiak, Peter S. Auxiliary coin changing machine. 2,778,368, 1–22–57, Cl. 133—2.
Jeannero, Herman F. Metal handling and storage bolster. 2,778,590, 1–22–57, Cl. 248—120.
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Jenkins, William O., and H. B. Menardi, to Whiting Corp. Method and apparatus for removing suspended solids from hot gas. 2,778,442, 1–22–57, Cl. 183—6.
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Jepson, Ivar, and L. J. Craft, Jr., to Sunbeam Corp. Flywheel type magneto. 2,778,961, 1–22–57, Cl. 310—153.
Joachim, William H. Open top cabinet with card holder. 2,778,704, 1–22–57, Cl. 312—309.
Job, François, and P. J. Clavier. Remote power supply system for amplifier stations in telecommunication cables. 2,778,954, 1–22–57, Cl. 307—64.
Johannes, Felix L. Power transmitting attachment for vehicles. 2,778,438, 1–22–57, Cl. 180—53.
Johnson, Frank B., W. M. Smith, and J. E. Moise, to Esso Research and Engineering Co. Sulfur-free oxo alcohols. 2,778,859, 1–22–57, Cl. 260—638.
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Johnson, Kenneth W. Vibration dampener. 2,778,629, 1–22–57, Cl. 267—1.
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Johnson, Willard P. Ladder attachment for clamping a ladder to a pole or limb. 2,778,556, 1–22–57, Cl. 228—60.
Johnston, Rodney M., to General Motors Corp. Temperature responsive actuating devices. 2,778,576, 1–22–57, Cl. 236—99.
Johnstone, John H., Jr., to Bendix Aviation Corp. Spark gap. 2,778,967, 1–22–57, Cl. 313—148.
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Jones, R Clyde, and C. W. Bradshaw. Fishing lure. 2,778,144, 1–22–57, Cl. 43—42.11.
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Kanno, Kurt. Liquid dispenser. 2,778,537, 1–22–57, Cl. 222—205.
Kasper, Andrew A., and W. E. Katz, to Ionics Inc. Method for recovering base ions from waste sulfite liquor and producing sulfite cooking liquor. 2,778,714, 1–22–57, Cl. 23—129.
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Kauffman, Walter L., II, to Lovell Mfg. Co. Dryers. 2,778,124, 1–22–57, Cl. 34—133.
Kaufman, Albert and L. Window construction. 2,778,068, 1–22–57, Cl. 20—49.
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Kavan, Charles. Sod roll forming machine. 2,778,292, 1–22–57, Cl. 97—226.
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Keith, John V., to Universal Winding Co. Winding machine. 2,778,578, 1–22–57, Cl. 242—18.
Keles, Sol. Orthopedic spinal and hip joint attachment. 2,778,358, 1–22–57, Cl. 128—78.
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Kernicki, Walter. Handkerchief holder. 2,778,080, 1–22–57, Cl. 24—3.
Kerns, James F. Rotary renovator. 2,778,291, 1–22–57, Cl. 97—52.
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Kimberly, Arthur C. Method, system and device for rebuilding internal combustion engines. 2,778,352, 1–22–57, Cl. 123—188.
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Kirby, Forrest L. Vibration testing attachment for aircraft engines. 2,778,221, 1–22–57, Cl. 73—70.
Klausmann, Milton H., to Seal-Spout Corp. Combined flexible walled bag and pouring. 2,778,546, 1–22–57, Cl. 222—531.
Klem, Theodore F., and C. H. Satterlee, to The Gleason Works. Diaphragm chuck. 2,778,649, 1–22–57, Cl. 279—46.
Klepp, Otto. Torsion spring assembly. 2,778,626, 1–22–57, Cl. 267—1.
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Klumb, George H., M. B. Sallsbury, and R. E. Schulze, to Culligan, Inc. Color indication means and method for ion exchange material. 2,778,798, 1–22–57, Cl. 210—24.
Klumpp, Jason W., ½ to J. C. Cosgrove. Rotary hone. 2,778,167, 1–22–57, Cl. 51—184.1.
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Knapp, William E., and R. R. Roth, to Minneapolis-Moline Co. Planter valve. 2,778,548, 1–22–57, Cl. 222—556.
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Knight, Robert G. Easy lift produce truck. 2,778,516, 1–22–57, Cl. 214—384.
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Krause, Gerhard P., to Baldwin-Lima-Hamilton Corp. Extrusion press. 2,778,495, 1–22–57, Cl. 207—9.
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Kreidler, Alfred. Extrusion apparatus for thin-walled hollow tubing. 2,778,494, 1–22–57, Cl. 207—9.
Krikorian, Albert P. Reclining chair. 2,778,408, 1–22–57, Cl. 155—106.
Kroon, Pieter J., to Westinghouse Electric Corp. Combustor basket structure. 2,778,192, 1–22–57, Cl. 60—39.32.
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Kucera, Henry T. Heat control apparatus controlled by outside temperature. 2,778,575, 1–22–57, Cl. 236—91.
Kuhlmann, Wilhelm, and G. Hahn, to Brabender o. H. Device for measuring the viscosity of liquid. 2,778,220, 1–22–57, Cl. 73—57.
Kuhn, George, to The Wayne Pump Co. Automatic resetting mechanism for computers. 2,778,471, 1–22–57, Cl. 192—138.
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Kundiger, Donald G., and H. Pledger, Jr., to The Dow Chemical Co. Aluminum chloride-catalyzed reaction of tetrachloromethylpropane. 2,778,861, 1–22–57, Cl. 260—651.
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La Berge, Robert W., and C. G. Murphy, to E. I. du Pont de Nemours & Co. Process of applying adherent amid containing coatings to a wood base and article produced thereby. 2,778,745, 1–22–57, Cl. 117—72.
La Butte, Elizabeth. Folding table for automobiles. 2,778,699, 1–22–57, Cl. 311—21.
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Lamort De Gail, Marc, to E & M Lamort Fils. Device with an unbalance element. 2,778,231, 1–22–57, Cl. 74—87.
Land, Edwin H., and W. A. Shurcliff, to Polaroid Corp. Apparatus and method for indicating the position and motion of phenomena in space. 2,778,017, 1–22–57, Cl. 343—7.7.
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Langston, Gladstone H. Pipe handling device. 2,778,671, 1–22–57, Cl. 294—95.
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Lardin, Arthur R., to McLean Development Laboratories, Inc. Electromagnetic trip. 2,778,226, 1–22–57, Cl. 74—2.
Lasater, John A., and T. A. Deaklns, to Combustion Engineering, Inc. Pipe cleaning apparatus with novel up-ending wheel. 2,778,164, 1–22–57, Cl. 51—9.
Lasch, Albert, and A. Stroebel, to Werner & Pfleiderer Maschinenfabriken und Ofenbau. Screw conveyor. 2,778,482, 1–22–57, Cl. 198—213.
Lauer, David L. Conduit flow control system. 2,778,531, 1–22–57, Cl. 222—75.
Laviana, Lawrence J., to M. H. Rhodes, Inc. Preset timer. 2,778,418, 1–22–57, Cl. 161—1.
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Lawrence, John D. Electrical wiring device. 2,779,012, 1–22–57, Cl. 339—269.
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Lear, Joseph D., to Silver Creek Precision Corp. Aerosol generator. 2,778,679, 1–22–57, Cl. 299—63.
Lease, Ralph D. Thrust bearing structure. 2,778,696, 1–22–57, Cl. 308—160.
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Leiblnger, Ludwig, and H. G. Frank. Biopsy punch. 2,778,357, 1–22–57, Cl. 128—2.
Leighton, Francis, to Aeroquip Corp. Flexible fluid line coupling. 2,778,661, 1–22–57, Cl. 285—110.
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Lermer, Herman B., to Lermer Plastics Mfg. Co. Container. 2,778,525, 1–22–57, Cl. 220—60.
Lermer Plastics Mfg. Co.: *See*—
Lermer, Herman B. 2,778,525.
Les Usines de Melle (Societe Anonyme): *See*—
Boinot, Firmin. 2,778,775.
Lester, Gerd: *See*—
Vicario, Pierino. 2,778,919.
Levin, Robert H. Fonken, Gunther S., Levin, and McIntosh. 2,778,842.
Levitt, Bennie: *See*—
Levitt, Irving and B. 2,778,505.
Levitt, Irving and B. Shelf bracket. 2,778,505, 1–22–57, Cl. 211—136.

Lewis, Arthur J., to The Baird Machine Co. Ratchet drive mechanism. 2,778,467, 1–22–57, Cl. 192—50.

Lewis, Donald B., to General Motors Corp. Air cleaner assembly. 2,778,444, 1–22–57, Cl. 183—13.

Lewis, Roger E., to Weston Electrical Instrument Corp. Recorder. 2,778,709, 1–22–57, Cl. 346—121.

Lewyt Corp.: *See*—
Meyerhoefer, Carl E. 2,778,447.

Licentia Patentverwaltungs G. m. b. H.: *See*—
Schneider, Wilhelm. 2,778,926.

Liftronic, Inc.: *See*—
Glnte, Philip G. 2,778,631.

Liggett & Myers Tobacco Co.: *See*—
Hackney, Edward J., Faucette, and Darkis. 2,778,403.

Light, David M., to American Steel Foundries. Fabricated brake beam. 2,778,457, 1–22–57, Cl. 188—223.1.

Liguori, Alfred T., to Delva Plastics, Inc. Ball point pen cartridge adapter. 2,778,336, 1–22–57, Cl. 120—8.

Lilly, Ell, and Co.: *See*—
Pohland, Albert. 2,778,835.

Lincoln Electric Co., The: *See*—
Landis, George G., and Payne. 2,778,910.

Linden, Gustave B.: *See*—
Gaspar, Bela, and Linden. 2,778,813.

Lindsay Co., The: *See*—
Lindsay, Lynn G. 2,778,799.

Lindsay, James B., to Kahle Engineering Co. Grid winding machine. 2,778,386, 1–22–57, Cl. 140—71.5.

Lindsay, Lynn G., to The Lindsay Co. Water softening apparatus. 2,778,799, 1–22–57, Cl. 2 0—24.

Linke, Gerhard, to N. V. Tema. Oscillatory mill with air separation. 2,778,577, 1–22–57, Cl. 241—47.

Links, Heinrich K., to Daimler-Benz Aktiengesellschaft. Injection unit for combustion engines. 2,778,351, 1–22–57, Cl. 123—139.

Linskey, John J., and E. H. Call. Resilient cover for vise jaw. 2,778,257, 1–22–57, Cl. 81—38.

Lionel Corp., The: *See*—
Beger, Richard E. 2,778,508.
Stellpflug, August W., and Tait. 2,778,289.

Lipman, Leonard M., to Warner Mfg. Corp. Screens, parts therefor and methods for producing said screens. 2,778,100, 1–22–57, Cl. 29—509.

Lloyd, William H., F. A. Disinger, and J. R. Hayden, to General Motors Corp. Heat exchangers. 2,778,606, 1–22–57, Cl. 257—2.

Lodge, Frank, and J. Wardleworth, to Imperial Chemical Industries Ltd. Dyestuffs of the anthrapyrimidine series. 2,778,831, 1–22–57, Cl. 260—261.

Loeffler, John R., to General Electric Co. Thyratron motor control limit circuit. 2,778,982, 1–22–57, Cl. 318—257.

Loehr, Robert W., to Westinghouse Electric Corp. Luminaire. 2,778,929, 1–22–57, Cl. 240—25.

Logan, Hugh H. Emergency shower. 2,778,031, 1–22–57, Cl. 4—152.

Long, George B., to General Motors Corp. Cooking vessel with stirrer. 2,778,613, 1–22–57, Cl. 259—122.

Lorenz, Howard H., to V-M Corp. Reel for tape recorder and player. 2,778,581, 1–22–57, Cl. 242—70.

Lovejoy, Charles K., to Scripto, Inc. Retractable ball pen. 2,778,337, 1–22–57, Cl. 120—42.03.

Lovell Mfg. Co.: *See*—
Kauffman, Walter L., II. 2,778,124.

Lowe, Joe, Corp.: *See*—
Friedman, Aaron. 2,778,670.

Lubkin, Samuel, to Underwood Corp. Component mounting assemblage. 2,778,977, 1–22–57, Cl. 317—101.

Lucas, Matt L. Combination expansion hinge for transportation vehicle door. 2,778,052, 1–22–57, Cl. 16—130.

Luce, Richard W. Can opener and anti-splash shield combination. 2,778,102, 1–22–57, Cl. 30—16.

Luek, Otto W., and J. P. Tarbox, to Sperry Rand Corp. Bale metering mechanism. 2,778,295, 1–22–57, Cl. 100—4.

Luhn, Hans P., and S. Hnat, to International Business Machines Corp. Relay calculator. 2,778,567, 1–22–57, Cl. 235—61

Lundahl, Ezra C. Apparatus for stacking. 2,778,477, 1–22–57, Cl. 198—91.

Lustraphone Ltd.: *See*—
Pontzen, George R., and Clark. 2,778,882.

Luttgen Kommanditgesellschaft: *See*—
Lüttgen, Wilhelm, and Nachtmann. 2,778,186.

Lüttgen, Wilhelm, and W. Nachtmann, to Luttgen Kommanditgesellschaft. Textile processing apparatus. 2,778,186, 1–22–57, Cl. 57—50.

Lyeth J. M. R., Jr.: *See*—
Thornton, Ray F. 2,778,245.
Thornton, Ray F. 2,778,246.

Lynch, Charles S.: *See*—
Corner, Eugene S., and Lynch. 2,778,804.

Lynes, Inc.: *See*—
Allen, George H. 2,778,432.
Lynes, John. 2,778,431.

Lynes, John, to Lynes, Inc. Well packer reinforcing. 2,778,431 1–22–57, Cl. 166—187.

Mabon, Carl R.: *See*—
Hageman, Louis F., and Mabon. 2,778,424.

MacDonald, Chester R., to The Patent and Licensing Corp. Method of and apparatus for applying aqueous dispersions in manufacture of paperboard and the like. 2,778,284, 1–22–57, Cl. 92—41.

MacGregor, Charles L., to American Optical Co. Ophthalmic mountings. 2,778,271, 1–22–57, Cl. 88—47.

Machine Tool Works Oerlikon, Administration Co.: *See*—
Henperle, Erwin. 2,778,276.
Herlach, Heinrich. 2,778,277.
Herlach, Heinrich, and Schwager. 2,778,278.

Mack, Norman A. Lithographic plate dampening roller. 2,778,093, 1–22–57, Cl. 29—119.

MacLaren, Frederick B., to Acton Laboratories, Inc. Multiturn potentiometer. 2,778,909, 1–22–57, Cl. 201—56.

Macwhirter, William B. Adjustable desk top. 2,778,706, 1–22–57, Cl. 312—316.

Macy, John M., C. M. Rodgers, and D. C. Gilmore, to South Bend Bait Co. Method and apparatus for making bonded fiber glass shafts. 2,778,404, 1–22–57, Cl. 154—1.7.

Mahaffy, Reid A., W. E. Young, and J. R. Harder, to Standard Packaging Corp. Container evacuating and sealing machine. 2,778,177, 1–22–57, Cl. 53—86.

Maisel, Daniel S., B. I. Smith, and H. W. Scheeline, to Esso Research and Engineering Co. Treatment of aromatic and unsaturated distillates. 2,778,863, 1–22–57, Cl. 260—674.

Majauskas, Charles J. Ventilator for water closets. 2,778,033, 1–22–57, Cl. 4—213.

Makinson, Clifford, to Terry Machinery Co. Ltd. Log conveying. 2,778,692, 1–22–57, Cl. 302—14.

Malley, Joseph W., to S. D. Arrowood & Co., Inc. Method of packaging hosiery. 2,778,172, 1–22–57, Cl. 53—21.

Mallory, P. R., & Co., Inc.: *See*—
Booe, James M. 2,778,979.

Malmgren, Harvey R., to Malmgren Implement Mfg. Co. Foldable drag harrow draw bar. 2,778,182, 1–22–57, Cl. 55—89.

Malmgren Implement Mfg. Co.: *See*—
Malmgren, Harvey R. 2,778,182.

Malmstrom, Carl R.: *See*—
Sanz, Manuel C., Malmstrom, Nuding, and Yockey. 2,778,866.

Malone, Erwin L., to Wall Wire Products Co. Method of and apparatus for assembling rod-like structural members. 2,778,174, 1–22–57, Cl. 53—35.

Malthaner, William A., and H. E. Vaughan, to Bell Telephone Laboratories, Inc. Repetition telephone dialing by pulse code modulated carrier. 2,778,878, 1–22–57, Cl. 179—18.

Manchester, Clyde C. Float controlled valve. 2,778,377, 1–22–57, Cl. 137—448.

Mancusi, Joseph J., Jr., to Hydra-Power Corp. By-pass valve means for hydraulic servo system. 2,778,339, 1–22–57, Cl. 121—38.

Manville, George D. Builders layout tape. 2,778,118, 1–22–57, Cl. 33—137.

Maquinas Agricolas "Romi" Limitada: *See*—
Romi, Glordano. 2,778,237.

Marco Industries Co.: *See*—
Harrington, Frank A., and Bowles. 2,778,930.

Marconi's Wireless Telegraph Co. Ltd.: *See*—
Sosin, Boleslaw M. 2,779,000.

Marsden, Kenneth R.: *See*—
Von Haken, Kurd. 2,778,318.

Martin, J. Edward: *See*—
Ahlquist, Zeth F. 2,778,549.

Maschinenfabrik Augsburg-Nurnberg A. G.: *See*—
Reinartz, Robert W. 2,778,302.
Schörner, Christian. 2,778,095.

Massey-Harris-Ferguson Inc.: *See*—
Hautzenroeder, Richard W. 2,778,655.

Mastandrea, Frank: *See*—
Stenchever, Charles, and Mastandrea. 2,778,465.

Masters Romney W. Well apparatus. 2,778,429, 1–22–57, Cl. 166—139.

Mastin, James W. Step ladder scaffold bracket. 2,778,595, 1–22–57, Cl. 248—238.

Matter, Max, to Haco Gesellschaft A. G. New 5:6-dihydrobenzo (C) cinnoline derivatives and a process for their preparation. 2,778,829, 1–22–57, Cl. 260—250.

Mattson, Edith M. Collapsible pastry board. 2,778,324, 1–22–57, Cl. 107—46.

May, Claude H., to The Murray Corp. of America. Inertia controlled fluid pressure suspension for vehicles. 2,778,656, 1–22–57, Cl. 280—124.

Maybach-Motorenbau G. m. b. H.: *See*—
Von Mallinckrodt, Werner. 2,778,347.

Mayer, Nathan. Collapsible leg assemblies for table top. 2,778,700, 1–22–57, Cl. 311—77.

Mayhill, Noble, and C. S. Brandt, to The Cobey Corp. Swivel discharge stack for agricultural harvester. 2,778,510, 1–22–57, Cl. 214—42.

Mayo, Clyde R., to The Haloid Co. Corona discharge device and method of xerographic charging. 2,778,946, 1–22–57, Cl. 250—49.5.

McAteer, James H.: *See*—
Boggs, Jesse K., Ford, and McAteer. 2,778,807.

McBride, Morris M., to Eldon Co. Combination display table and case. 2,778,703, 1–22–57, Cl. 312—265.

McCall, Clarence I.: *See*—
Meyer, Alfonse H. 2,778,049.

McCarthy, F. J., Inc.: *See*—
Greeley, Leo O. 2,778,340.

McCoy, George, and C. E. Inman, to The Pennsylvania Salt Mfg. Co. Preparation of hexachlorobenzene. 2,778,860, 1–22–57, Cl. 260—650.

McCune, John S., and W. E. Hanks, to Ollwell Drain Hole Drilling Co. Preparation of well drain holes for production. 2,778,603 1–22–57 Cl. 255—1.6.

McFarland, William O. Electrical circuit device. 2,778,992, 1–22–57, Cl. 324—51.

McFarlane, James W., to Ball Brothers Co., Inc. Cap and advertising insert. 2,778,519, 1–22–57, Cl. 215—38.

McGillivray, Howard R. Multiple receptacle filling apparatus. 2,778,389, 1–22–57, Cl. 141—172.

McGrath, Henry G., to The M. W. Kellogg Co. Iron synthesis catalyst. 2,778,805, 1–22–57, Cl. 252—474.

McIntosh, A. Vern, Jr.: *See*—
Fonken, Gunther S., Levin, and McIntosh. 2,778,842.

McIntosh, Frank H.: *See*—
Sulzer, Peter G. 2,778,940.

McIntyre, Elmer L., to Morse Chain Co. Centrifugal clutch. 2,778,469, 1–22–57, Cl. 192—105.

McKain, Paul B.: *See*—
Hess, Theophil A., and McKain. 2,778,053.

McKenzie, Robert T.: *See*—
Faustini, Albert J., and McKenzie. 2,778,966.

McKinley, Charles W., to General Motors Corp. Air cleaner assembly. 2,778,446, 1–22–57, Cl. 183—14.

McLagan, Russell G., to The American Laundry Machinery Co. Sleeve holder for pressing machine. 2,778,550, 1–22–57, Cl. 223—57.

McLean Development Laboratories, Inc.: *See*—
Lardin, Arthur R. 2,778,226.

McLean, Leland O. Log loader apparatus. 2,778,514, 1–22–57, Cl. 214—147.

McNeill, William, to the United States of America as represented by the Secretary of the Army. Electrolytic protective coating for magnesium. 2,778,789, 1–22–57, Cl. 204—56.

McVety, Clyde E., to The Orr Felt and Blanket Co. Loom attachment for auxiliary pattern chain. 2,778,380, 1–22–57, Cl. 139—77.

McGrath, Henry G., and L. C. Rubin, to The M. W. Kellogg Co. Synthesis of organic compounds and catalyst therefor. 2,778,845, 1–22–57, Cl. 260—449.6.

Meehan, William J. Self-locking sink frame. 2,778,032, 1–22–57, Cl. 4—187.

Meiller, F. X., Fahrzeug- und Maschinenfabrik: *See*—
Braun, Franz. 2,778,513.

Meinhardt, Jacob A. Paint applicator. 2,778,050, 1–22–57, Cl. 15—248.

Meinhofer, Francis L., to Trojan Powder Co. Making 2,2-dimethylolpropane. 2,778,858, 1–22–57, Cl. 260—635.

Melamed, Sidney, to Rohm & Haas Co. Substituted N-carbamyl derivatives of 2-methyl-oxazolidines and 2-methyltetrahydro-1,3-oxazines and their preparation. 2,778,825, 1–22–57, Cl. 260—244.

Melin, Arthur K. Cap gun construction. 2,778,138, 1–22–57, Cl. 42—54.

Melpar, Inc.: *See*—
Bradley, Emmett H. 2,778,886.
Bradley, Emmett H. 2,778,887.
Bradley, Emmett H. 2,778,888.
Hazel, Herbert K. 2,778,691.

Menardi, Harold B.: *See*—
Jenkins, William O., and Menardi. 2,778,442.

Menz, Darwin D. Pivoted track mechanism for flush sliding doors. 2,778,051, 1–22–57, Cl. 16—96.

Mercier, Jean. Door actuating mechanism. 2,778,632, 1–22–57, Cl. 268—66.

Merck & Co., Inc.: *See*—
Gates, Marshall D., Jr. 2,778,832.
Schultz, Everett M. 2,778,853.

Methra A.-G.: *See*—
Balde, Ulysse. 2,778,952.

Metivier, Jean, to Societe des Usines Chimiques Rhone-Poulenc. Phosphorus derivatives of kojic acid and process of preparation. 2,778,767, 1–22–57, Cl. 167—33.

Metropolitan-Vickers Electrical Co. Ltd.: *See*—
Kilner, William N. 2,778,959.

Meyer, Alfonse H., ½ to M. N. Forde and ½ to C. I. McCall. Scouring pad holder. 2,778,049, 1–22–57, Cl. 15—209.

Meyer, Geo. J., Mfg. Co.: *See*—
Meyer, George L. N. 2,778,479.

Meyer, George L. N., to Geo. J. Meyer Mfg. Co. Conveyor for spray type pasteurizer. 2,778,479, 1–22–57, Cl. 198—195.

Meyerhoefer, Carl E., to Lewyt Corp. Vacuum cleaner assembly. 2,778,447, 1–22–57, Cl. 183—37.

Meystre, Charles: *See*—
Weftstein, Albert, Vischer, and Meystre. 2,778,776.

Michel, George H., and K. W. Knight, to American Cyanamid Co. Stabilizing of vitamin B_{12} solutions. 2,778,771, 1–22–57, Cl. 167—81.

Michigan Tool Co.: *See*—
Moncrieff, Alexander D. F. 2,778,279.

Miki, Takuichi: *See*—
Abe, Yasuo, Harukawa, Ishikawa, Miki, Sumi, and Toga. 2,778,838.

Mikulski, Chester B. Culinary washing pad. 2,778,044, 1–22–57, Cl. 15—118.

Miliez, Janina. Container cap-seal and sealing apparatus. 2,778,179, 1–22–57, Cl. 53—291.

Miller, John H., to Weston Electrical Instrument Corp. Dynamometer instrument. 2,778,989, 1–22–57, Cl. 324—30.

Miller, Kenneth T. Cutting tool for coaxial cables. 2,778,255, 1–22–57, Cl. 81—9.5.

Miller, Kenneth T., Jr. Borescope. 2,778,242, 1–22–57, Cl. 74—502.

Miller, Kenneth T., Jr. Borescope. 2,778,267, 1–22–57, Cl. 88—14.

Milligan, Wilbur E. Conveyor apparatus. 2,778,475, 1–22–57, Cl. 198—33.

Minneapolis-Honeywell Regulator Co.: *See*—
Ehret, Robert J., and Moore. 2,778,942.
Gaddis, Gene R. 2,778,571.
Moore, Warren, Jr., and Ehret. 2,778,574.

Minneapolis-Moline Co.: *See*—
Knapp, William E., and Roth. 2,778,548.

Miskel, John J., to Chas. Pfizer & Co., Inc. Hypodermic syringe. 2,778,360, 1–22–57, Cl. 128—218.

Mitchell Maintenance Co., Inc.: *See*—
Mitchell, Maurice E. 2,778,694.

Mitchell, Maurice E., to Mitchell Maintenance Co., Inc. Mobile swinging lift platform equipment. 2,778,694, 1–22–57, Cl. 304—29.

Moberg, Sigurd M., to E. J. Brooks Co. Locking seal. 2,778,666, 1–22–57, Cl. 292—325.

Modes, Edward E.: *See*—
Legeza, Thomas B., and Modes. 2,778,197.

Moir, John. Movable jaw wrench and hydraulically controlled stop device therefor. 2,778,259, 1–22–57, Cl. 81—84.

Moise, James E.: *See*—
Johnson, Frank B., Smith, and Moise. 2,778,859.

Moklebust, Olav, to National Lead Co. Process for production of metallic iron concentrates and titanium dioxide concentrates from ores containing ilmenite. 2,778,724, 1–22–57, Cl. 75—30.

Molnar, Albert S. Multiple pick hammer. 2,778,256, 1–22–57, Cl. 81—15.

Momb, Alvin K. Fishing lure. 2,778,145, 1–22–57, Cl. 43—42.51.

Moncrieff, Alexander D. F., to Michigan Tool Co. Loading mechanism. 2,778,279, 1–22–57, Cl. 90—1.6.

Money, John W., to The Quaker Oats Co. Crumbles adaptor for pellet machine. 2,778,323, 1–22–57, Cl. 107—14.

Monsanto Chemical Co.: *See*—
Bainbridge, John P., Jr., and Blake. 2,778,749.

Moon, Carl. Wringer. 2,778,214, 1–22–57, Cl. 68—263.

Moore Business Forms, Inc.: *See*—
Hageman, Louis F., and Mabon. 2,778,424.

Moore, George A. Apparatus for curling containers. 2,778,287, 1–22–57, Cl. 93—36.5.

Moore, George A. Unitary container. 2,778,557, 1–22–57, Cl. 229—16.

Moore, James F., and F. B. Hansen. Bingo boards. 2,778,642, 1–22–57, Cl. 273—135.

Moore, John R. Clothes drying device. 2,778,551, 1–22–57, Cl. 223—68.

Moore, Richard S. Cattle holding gate. 2,778,334, 1–22–57, Cl. 119—98.

Moore, Warren, Jr.: *See*—
Ehret, Robert J., and Moore. 2,778,942.

More, Warren, Jr., and R. J. Ehret, to Minneapolis-Honeywell Regulator Co. Oscillating control apparatus. 2,778,574, 1–22–57, Cl. 236—78.

Moran, Harold J., to Switlik Parachute Co., Inc. Delayed opening parachute case. 2,778,587, 1–22–57, Cl. 244—150.

Morenus, George H.: *See*—
Armstrong, Raymond L., and Gerald H. and George H. Morenus. 2,778,923.

Morenus, Gerald H.: *See*—
Armstrong, Raymond L., and Gerald H. and George H. Morenus. 2,778,923.

Morgan Crucible Co., The: *See*—
Walmsley, John. 2,778,066.

Morgan, David L., to Robertshaw-Fulton Controls Co. Thermostatic steam trap. 2,778,573, 1–22–57, Cl. 236—56.

Mork, Raymond P., to Time, Inc. Precision carriage displacement device. 2,778,232, 1–22–57, Cl. 74—125.5.

Morrell, Edward S., to G. Toebe. Welder's helmet and arc current controlling apparatus. 2,778,928, 1–22–57, Cl. 219—147.

Morren, Henri, to Union Chimique Belge, S. A. Substituted 2-methyl-Δ^2 imidazolines. 2,778,836, 1–22–57, Cl. 260—309.6.

Morrison, Albert R., to Owens-Corning Fiberglas Corp. Method of sizing glass fibers to form strands. 2,778,764, 1–22–57, Cl. 154—91.

Morse Chain Co.: *See*—
McIntyre, Elmer L. 2,778,469.

Morse, Willard R.: *See*—
Humphrey, Earl L., and Morse. 2,778,801.

Moser, Frank T. Extrusion nozzle. 2,778,322, 1–22–57, Cl. 107—14.

Moslo, Ernest P., and A. H. Radde: said Radde assor. to said Moslo. Plastic molding machine. 2,778,062, 1–22–57, Cl. 18—30.

Mounce, Whitman D. Stepping switch. 2,779,014, 1–22–57, Cl. 340—147.

Mroz, Edward L. Washer having biting teeth on inner and outer periphery thereof. 2,778,399, 1–22–57, Cl. 151—35.

Muccilli, Raphael P. Hot water heater and storage tank. 2,778,918, 1–22–57, Cl. 219—38.

Mueller, William A., to Warner Bros. Pictures, Inc. Stereophonic sound system. 2,778,874, 1–22–57, Cl. 179—1.

Muir, Parke D.: *See*—
Cardwell, Paul H., and Muir. 2,778,427.

Muller, Egon N., deceased; N. Muller, legal representative. Electronic systems for large-screen color television. 2,778,871, 1–22–57, Cl. 178—5.4.

Müller, Erwin, and S. Petersen, to Farbenfabriken Bayer Aktiengesellschaft. Elastomers derived from polyisocyanate modified polyesters. 2,778,810, 1–22–57, Cl. 260—45.4.

Muller, Jacques. Coupling with cut-off device for coupling pipeways with pipes or outlets of tanks and other receivers. 2,778,391, 1–22–57, Cl. 141—349.

Muller, Nicolas: *See*—
Muller, Egon N. 2,778,871.

Mulloy, John F.: *See*—
Dreisbach, Robert R., and Mulloy. 2,778,812.

Munschauer, Frederick E., to Niagara Machine & Tool Works. Shear. 2,778,421, 1–22–57, Cl. 164—47.

Murdoch, Alexander, Jr. Temperature regulator. 2,778,572, 1–22–57, Cl. 236—46.

Murphy, Clyde G.: *See*—
La Berge, Robert W., and Murphy. 2,778,745.

Murray Corp. of America, The: *See*—
May, Claude H. 2,778,656.

Murray, James J. Bead seating tourniquet for tubeless tires. 2,778,415, 1–22–57, Cl. 157—1.21.

Mussell, Dorsey R., and H. H. Roth, to The Dow Chemical Co. Method and composition for the improvement of soil structure. 2,778,809, 1–22–57, Cl. 260—41.

Muzzy, Maurice F.: *See*—
Kyerges, Gilbert A., and Muzzy. 2,778,586.

Mykleby, Olaf S.: *See*—
Tomek, Bernard R., and Mykleby. 2,778,668.

N. V. Tema: *See*—
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Nachtmann, Walter: *See*—
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Nagle, Henrietta M. Filter cigarette holder. 2,778,364, 1–22–57, Cl. 131—182.
Nanco, Inc.: *See*—
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National Brass Co.: *See*—
Young, Herbert. 2,778,667.
Young, Herbert W., and Grevengoed. 2,778,665.
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Isborn, Carl L. 2,778,955.
National Coal Board, The: *See*—
Hirst, Arthur A. 2,778,496.
National Lead Co.: *See*—
Moklebust, Olav. 2,778,724.
National Machinery Co., The: *See*—
Friedman, Robert G. 2,778,451.
National Rubber Machinery Co.: *See*—
Brundage, James W. 2,778,060.
National Twist Drill & Tool Co.: *See*—
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Navy, United States of America as represented by the Secretary of the: *See*—
Wainshilbaum, Edward R. 2,778,973.
Young, Louis B. 2,778,993.
Naxon, Irving. Manual controls for motor-operated wringers. 2,778,213, 1–22–57, Cl. 68—253.
Neher, Harry T.: *See*—
Neuman, Andrew, Neher, and Specht. 2,778,848.
Nelson, Clarence R.: *See*—
Howell, John D., and Nelson. 2,778,329.
Nelson, John H.: *See*—
Brown, Victor, and Nelson. 2,778,755.
Neuman, Andrew, H. T. Neher, and E. H. Specht, to Rohm & Haas Co. Preparation of acrylates. 2,778,848, 1–22–57, Cl. 260—486.
Newark Brush Co.: *See*—
Nielsen, Niels E. 2,778,047.
Nielsen, Niels E. 2,778,048.
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Crosetto, John B., and Newell. 2,778,343.
New York Air Brake Co., The: *See*—
Siver, Dougal H. 2,778,314.
Niagara Blower Co.: *See*—
Stutz, Robert C. 2,778,782.
Niagara Machine & Tool Works: *See*—
Munschauer, Frederick E. 2,778,421.
Nicholls, Nigel S.: *See*—
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Nielsen, Niels E., to Newark Brush Co. Staple plate rotary brush and method of making. 2,778,048, 1–22–57, Cl. 15—198.
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Nilson, Edna: *See*—
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Nilson, Olof G.: *See*—
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Brown, George L., and Nolan. 2,778,768.
Nolan, Vincent B., to Bethea Co., Inc. Composite cable for conducting electricity. 2,778,870, 1–22–57, Cl. 174—128.
Norman, Edith F. Dressmaker's tape. 2,778,113, 1–22–57, Cl. 33—13.
Norman, Edith F. Waistline tape. 2,778,114, 1–22–57, Cl. 33—13.
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Sanz, Manuel C., Malmstrom, Nuding, and Yockey. 2,778,866.
Northern Electric Co, Ltd.: *See*—
Tanner, Robert H., and Rywak. 2,779,005.
Northrop Aircraft, Inc.: *See*—
Graves, Lionel R. 2,778,448.
Singleton, Clair E. 2,778,981.
Norton Co.: *See*—
Comstock, George E., 3d. 2,778,794.
Flygare, Carl G. 2,778,163.
Norton, Lowell E., to Radio Corp. of America. Controlled frequency microwave generation. 2,778,938, 1–22–57, Cl. 250—36.
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Novak, Leo J., to The Commonwealth Engineering Co. of Ohio. Tobacco products and method of making. 2,778,753, 1–22–57, Cl. 131—17.
Novitz, Gleason. Animal exit. 2,778,417, 1–22–57, Cl. 160—181.
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Nuttall, Elmer R., to France Packing Co. Self-locking connector. 2,778,697, 1–22–57, Cl. 309—43.
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Nygard, Erik A., deceased; H. Nygard, administratrix, to H. Nygard. Pin stem joint and catch. 2,778,081, 1–22–57, Cl. 24—156.
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Nygard, Erik A. 2,778,081.
Nyman, Alexander, to Alden Products Co. Optical scanner. 2,778,872, 1–22–57, Cl. 178—7.1.
Nyman, Alexander, to Alden Products Co. Optical scanning apparatus. 2,778,873, 1–22–57, Cl. 178—7.1.
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Howell, Hugh A., and Offutt. 2,778,580.
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Wynne, Ira H. 2,778,056.
Oglesby, Charles T. Tire puller assembly with circumferentially distributed thrust members. 2,778,414, 1–22–57, Cl. 157—1.2.
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Foster, Harry R., and Crump. 2,779,002.
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Stoltz, Emil M. 2,778,854.
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Brinnick, Frederic E., Doggett, and Oransky. 2,778,735.
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Erickson, Virginius R., and Bullwinkle. 2,778,020.
Ornstein, Fred: *See*—
Fleischer, Paul. 2,778,701.
Orr Felt and Blanket Co., The: *See*—
McVetty, Clyde E. 2,778,380.
Oster, John, Mfg. Co.: *See*—
Hahn, Paul T. 2,778,615.
Ostrander, Robert K. Doll with mechanism for movable lips. 2,778,155, 1–22–57, Cl. 46—141.
Otto, Carl. Means protecting buckstays against overheating. 2,778,783, 1–22–57, Cl. 202—239.
Otto, Carl. Self-sealing coke oven doors. 2,778,784, 1–22–57, Cl. 202—248.
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Morrison, Albert R. 2,778,764.
Oxford, Carl J., Jr., to National Twist Drill & Tool Co. Self-thinned heavy-duty twist drill structure. 2,778,252, 1–22–57, Cl. 77—70.
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Paetz, Robert A.: *See*—
Compton, William A., Johnson, and Paetz. 2,778,344.
Palisca, Matthew. Compartment door and seal therefor. 2,778,072, 1–22–57, Cl. 20—69.
Palmer, Reed A., H. H. Barker, and J. R. Chivers, to Westinghouse Electric Corp. Toasting apparatus. 2,778,912, 1–22–57, Cl. 219—19.
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Pape, Hans-Martin, and J. Schulze. Combined sludge-removing and desalting device for steam boilers. 2,778,375, 1–22–57, Cl. 137—244.
Parke, Davis & Co.: *See*—
Chen, Graham. 2,778,772.
Pasedach, Heinrich, and M. Seefelder, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of compounds of the pyrimidine series. 2,778,821, 1–22–57, Cl. 260—239.75.
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Pasquale, Camillo, to R. C. M. Revisione Costruzione Macchine Societa in nome collettivo. Machine for manufacturing weldless asbestos-cement pipes. 2,778,285, 1–22–57, Cl. 92—66.
Pass, Sam: *See*—
Trubitt, Philip S. 2,778,412.
Patent and Licensing Corp., The: *See*—
MacDonald, Chester R. 2,778,284.
Patentex, Inc.: *See*—
Leath, William J., and Bobo. 2,778,187.
Paul, Herman J., Jr. Parachute inflating means. 2,778,599, 1–22–57, Cl. 251—66.
Paul, Walter, to Windmöller & Hölscher. Apparatus for perforating sheet material. 2,778,425, 1–22–57, Cl. 164—99.
Pavelka, Joseph, Jr. Deep pan cooker. 2,778,920, 1–22–57, Cl. 219—43.
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Landis, George G., and Payne. 2,778,910.
Pearlman, Harry L. Silverman, and C. A. Smith, to the United States of America as represented by the United States Atomic Energy Commission. Coating a carbonaceous surface with rhenium. 2,778,786, 1–22–57, Cl. 204—37.
Pearson, Howard A., to Leonard Window Corp. Awning-type window and operating means therefor. 2,778,630, 1–22–57, Cl. 268—23.
Pechiney, Compagnie de Produits Chimiques et Electrometallurgiques: *See*—
Frejacques, Jean L. M. 2,778,733.
Peck, Guy C. Fishing bobber. 2,778,146, Cl. 43—43.11.
Peck, Patrick H., Jr. Quick change fishing line floats. 2,778,147, 1–22–57, Cl. 43—44.91.

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Lapeyre, Fernand S., J. M., and E. M. 2,778,055.
Peeps, Donald J., to The De Vilbiss Co. Composite hose with temperature control. 2,778,609, 1–22–57, Cl. 257—241.
Pennsylvania Salt Mfg. Co., The: *See*—
Barr, John T., and Lawlor. 2,778,850.
McCoy, George, and Inman. 2,778,860.
Percival, Worth H., to General Motors Corp. Engine scavenging means. 2,778,348, 1–22–57, Cl. 123—65.
Perfect Circle Corp.: *See*—
Hill, Robert H. 2,778,313.
Périllard, René, to Aktiengesellschaft Brown, Boveri & Cie. Lightning arrester. 2,778,974, 1–22–57, Cl. 315—36.
Perkins, Charles M., to Fuller Mfg. Co. Transmission control system. 2,778,247, 1–22–57, Cl. 74—745.
Perry, Edward G., Jr., to Texas Instruments Inc. Magnetic bridge circuit to cancel hysteresis effects in magnetic clutches. 2,778,466, 1–22–57, Cl. 192—21.5.
Perry, Frank R., to Turco Products, Inc. Power unit for supporting interchangeable power operated tools. 2,778,233, 1–22–57, Cl. 74—219.
Peter, Albin, and W. Frey, to Saul & Co. Green substantive dyestuffs of the anthraquinone series. 2,778,839, 1–22–57, Cl. 260—368.
Petersen, Siegfried: *See*—
Müller, Erwin, and Petersen. 2,778,810.
Peterson, Edwin F. Positive drive vibratory mechanism. 2,778,230, 1–22–57, Cl. 74—61.
Peterson, Edwin F. Supporting pad for hot flat irons. 2,778,589, 1–22–57, Cl. 248—117.3.
Peterson, Edwin F. Vibratory mechanism. 2,778,612, 1–22–57, Cl. 259—1.
Peterson, Emil. Roller gage means for portable lumber saw mill. 2,778,392, 1–22–57, Cl. 143—173.
Peterson, Joe G.: *See*—
Kundiger, Donald G., Peterson, and Ikenberry. 2,778,851.
Pfaff, Elmer F. Fastener device. 2,778,021, 1–22–57, Cl. 1—44.5.
Pfeiffer, Edward J. Collapsible box. 2,778,560, 1–22–57, Cl. 229—41.
Pfingsten, August F. Combination radiator screen and insect deflector for windshields. 2,778,439, 1–22–57, Cl. 180—68.
Pfizer, Chas., & Co., Inc.: *See*—
Miskel, John J. 2,778,360.
Philco Corp.: *See*—
Sunstein, David E. 2,778,971.
Phillips Petroleum Co.: *See*—
Austin, Oliver K. 2,778,715.
Burk, Marvin C. 2,778,945.
Hutchinson, William M. 2,778,806.
Pierce, Earl R.: *See*—
Dolza, John, and Pierce. 2,778,345.
Pifer, Marion J., to Sylvania Electric Products Inc. Terminal board for antenna lead. 2,779,010, 1–22–57, Cl. 339—198.
Pihl, George, to Acton Laboratories, Inc. Electrical phase shifting device. 2,778,988, 1–22–57, Cl. 323—123.
Pilas, Frank J., R. K. Wolke, and J. A. Chase, to Radio Corp. of America. Electrode cage for electron discharge devices. 2,778,968, 1–22–57, Cl. 313—261.
Pitney-Bowes, Inc.: *See*—
Russell, Alva G. 2,778,568.
Pittsburgh Plate Glass Co.: *See*—
Evans, William R. 2,778,689.
Pledger, Huey, Jr.: *See*—
Kundiger, Donald G., and Pledger. 2,778,861.
Ploegsma, Antonie W., to Hartford National Bank and Trust Co., as trustee. Enveloped diamond die and method of making same. 2,778,250, 1–22–57, Cl. 76—107.
Pohland, Albert, to Eli Lilly and Co. Synthesis of 1-benzamido-1-phenyl-3-piperidinopropane. 2,778,835, 1–22–57, Cl. 260—294.
Pohlman, William A., to Gardner Mfg. Co. Insect exterminator. 2,778,150, 1–22–57, Cl. 43—139.
Polaroid Corp.: *See*—
Bartlett, Philip D. 2,778,269.
Fairbank, Murry N. 2,778,734.
Land, Edwin H., and Shurcliff. 2,779,017.
Pollock, Edith N. S., and M. L. Baker. Surgical garment. 2,778,362, 1–22–57, Cl. 128—283.
Polygram Casting Co. Ltd.: *See*—
Cheyne, Robert D. 2,778,073.
Polytechnic Research & Development Co., Inc.: *See*—
Lebowitz, Robert A. 2,778,941.
Pomerance, Hy. Ophthalmic mounting. 2,778,270, 1–22–57, Cl. 88—41.
Pontzen, George R., and R. R. Clark, to Lustraphone Ltd. Microphones. 2,778,882, 1–22–57, Cl. 179—115.5.
Porkola, Onni A. Apparatus for disposing of trash. 2,778,554, 1–22–57, Cl. 224—42.46.
Porter, Frank M.: *See*—
Borkowski, Casimer J., and Porter. 2,778,949.
Porter, H. K., Co., Inc., of Pittsburgh: *See*—
Killian, Stanley C., and Stene. 2,778,894.
Poryle, Joseph J. Bag carrier. 2,778,555, 1–22–57, Cl. 224—45.
Posey, Elbert H. Garment ironing machine having a bottom pad and a heated metal cover. 2,778,132, 1–22–57, Cl. 38—21.
Potchen, Joseph A.: *See*—
Kloote, George E., and Potchen. 2,778,766.
Poulsen, Charles I.: *See*—
Eash, George H. 2,778,635.
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Eash, George H. 2,778,880.
Poulsen, George H.: *See*—
Eash, George H. 2,778,635.
Eash, George H. 2,778,636.
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Powell, Ray, to The Texas Co. Removal of metal components from petroleum oils. 2,778,777, 1–22–57, Cl. 196—40.
Presnell, Frank G., to Bendix Aviation Corp. Combination sequence and locking valve. 2,778,378, 1–22–57, Cl. 137—469.
Prester, Arthur, to Ocean City Mfg. Co. Gear construction. 2,778,240, 1–22–57, Cl. 74—459.5.
Prevost, Bruno E., to John W. Bolton & Sons, Inc. Coupling for split hub and shaft. 2,778,663, 1–22–57, Cl. 287—52.03.
Primetti, Brenno: *See*—
Torre, Pier L., and Primetti. 2,778,953.
Process and Instruments: *See*—
Amatniek, Ernest. 2,778,884.
Proctor, Sidney E., to Austin Hoy & Co. Ltd. Tool carrying chains for use on coal cutters and the like. 2,778,236, 1–22–57, Cl. 74—246.
Pugach, Paul I. Guard for a domestic range. 2,778,356, 1–22–57, Cl. 126—42.
Pullman-Standard Car Mfg. Co.: *See*—
Augstgen, Kenneth J., and Candlin. 2,778,320.
Puritan Compressed Gas Corp.: *See*—
Kimbrell, Jack T. 2,778,223.
Quackenbush, Edward C., to Whitney Blake Co. Electrical connector having resilient insert. 2,779,008, 1–22–57, Cl. 339—59.
Quaker Oats Co., The: *See*—
Money, John W. 2,778,323.
Queneau, Bernard R.: *See*—
Carney, Dennis J., and Queneau. 2,778,079.
Quintilli Leoni. Recovery of heat contained in cooling fluid of transformers and alternators. 2,778,607, 1–22–57, Cl. 257—24.
R. C. M. Revisione Construzione Macchine Societa in nome collettivo: *See*—
Pasquale, Camillo. 2,778,285.
Raby, Frederick R. Book support. 2,778,153, 1–22–57, Cl. 45—57.
Radde, Arthur H.: *See*—
Moslo, Ernest P., and Radde. 2,778,062.
Radio Corp. of America: *See*—
Norton, Lowell E. 2,778,938.
Pilas, Frank J., Wolke, and Chase. 2,778,968.
Widell, Emil G. 2,778,970.
Raeburn, Abner A. Display container. 2,778,487, 1–22–57, Cl. 206—45.19.
Raeburn, Abner A. Display and dispensing device. 2,778,492, 1–22–57, Cl. 206—79.
Ralls, Jack W., to G. D. Searle & Co. 11-hydroxytestosterone, 11-hydroxy-19-nortestosterone and their production. 2,778,841, 1–22–57, Cl. 260—397.45.
Ramsey, Arthur C. Liquid dispensing machine. 2,778,534, 1–22–57, Cl. 222—129.4.
Randolph, Henry G. Neck protector. 2,778,024, 1–22–57, Cl. 2—50.
Raverty, Donald E. and R. J. Soap measuring dispenser. 2,778,532, 1–22–57, Cl. 222—89.
Raverty, Richard J.: *See*—
Raverty, Donald E. and R. J. 2,778,532.
Raybestos-Manhattan, Inc.: *See*—
Novak, Izador J. 2,778,763.
Read, Leonard H. Refrigerating unit. 2,778,199, 1–22–57, Cl. 62—92.
Ready Hung Door Corp.: *See*—
Guerrant, Edmonds L. 2,778,121.
Records, John K., to General Electric Co. Directional coupler. 2,779,001, 1–22–57, Cl. 333—10.
Redington, F. B., Co.: *See*—
Engleson, Harry E., and Sramek. 2,778,476.
Redmond, Vincent J. Lock device for automobile wheel plates. 2,778,215, 1–22–57, Cl. 70—231.
Reflectone Corp., The: *See*—
Simjian, Luther G. 2,778,645.
Reggio, Ferdinando C. Engine fuel controller, including induction air pressure and temperature sensors. 2,778,350, 1–22–57, Cl. 123—119.
Regie, Marius, and L. Lemaire, to Welding Research, Inc. Lattice forming machine. 2,778,384, 1–22–57, Cl. 140—3.
Reilly, Arthur: *See*—
Brinnick, Frederic E., Reilly, and Doggett. 2,778,301.
Reinartz, Robert W., to Maschinenfabrik Augsburg-Nürnberg A. G. Roll drive for printing presses. 2,778,302, 1–22–57, Cl. 101—216.
Reis, Carl A. Mining method providing for continuous progression of mining machinery. 2,778,622, 1–22–57, Cl. 262—1.
Reistle, Carl E., Jr., to Esso Research and Engineering Co. Method for preventing lost returns. 2,778,604, 1–22–57, Cl. 255—1.8.
Reizman Bina F., and J. B. Berman. Crocheting frame. 2,778,210, 1–22–57, Cl. 66—1.
Renoux, Pierre E., to Societe Anonyme dite: Cri-Dan. Screw cutting machine for progressively cutting single or multiple pitch thread. 2,778,037, 1–22–57, Cl. 10—101.
Republic Aviation Corp.: *See*—
Bush, Walter R. 2,778,190.
Reuss, Eduard, to Hertel & Reuss. Adjustment means for sighting telescopes. 2,778,116, 1–22–57, Cl. 33—50.
Reymond, Lucien, to Societe d'Optique et de Mecanique de Haute Precision. Optical objective system device of variable focal length. 2,778,272, 1–22–57, Cl. 88—57.
Rhoads, Donald W., to Nanco, Inc. Knitting machine needle of the sliding tongue type. 2,778,211, 1–22–57, Cl. 66—120.
Rhodes, M. H., Inc.: *See*—
Laviana, Lawrence J. 2,778,418.
Richalet, Paul. Ventilating devices. 2,778,293, 1–22–57, Cl. 98—42.

Richardson, Kenneth W., Jr.: *See*—
Theis, Francis W., and Richardson. 2,778,846.
Richmond, Marvel L. Crew and flat top hair cutting comb. 2,778,366, 1–22–57, Cl. 132—45.
Ridge Tool Co., The: *See*—
Ingwer, Carl H., and Janik. 2,778,652.
Riehm, Theodor, to Deutsche Bergin-Aktiengesellschaft. Hydrolysis of wood with concentrated hydrochloric acid. 2,778,751, 1–22–57, Cl. 127—37.
Ries, Rudy F., and T. G. Palsulich. Measuring and dispensing device for coffee, sugar, and the like. 2,778,542, 1–22–57, Cl. 222—362.
Ringman, Henry W., to Sumner Iron Works, Inc. Poppet type valve distributing system for a servo-motor. 2,778,342, 1–22–57, Cl. 121—38.
Risewick, John F. Tire vulcanizing mold. 2,778,061, 1–22–57, Cl. 18—18.
Ritzerfeld, Gerhard: *See*—
Ritzerfeld, Wilhelm and G. 2,778,300.
Ritzerfeld, Wilhelm and G. Duplicating machine housing structure. 2,778,300, 1–22–57, Cl. 101—132.5.
Roach, Stanley G. Auxiliary actuating attachment for vehicle brake system. 2,778,455, 1–22–57, Cl. 188—106.
Roberts, George L., and J. E. Bevins, to Bendix Aviation Corp. Bomb fuze. 2,778,311, 1–22–57, Cl. 102—81.2.
Roberts, Herbert L. Sharpening device. 2,778,249, 1–22–57, Cl. 76—89.
Robertshaw-Fulton Controls Co.: *See*—
Davidson, Thomas J. 2,778,416.
Fielden, John E. 2,778,711.
Morgan, David L. 2,778,573.
Robertson, William S.: *See*—
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Robin, Jean: *See*—
Clevy, Roland, and Robin. 2,778,820.
Robins Industries: *See*—
Simon, Edward. 2,778,420.
Robinson, William H., and M. L. Sensenig, to Sperry Rand Corp. Vehicle wheel drive belts selectively controlled in response to steering. 2,778,437, 1–22–57, Cl. 180—6.34.
Rocket Jet Engineering Corp.: *See*—
Gaylord, John A. 2,778,698.
Rodgers, Claude M.: *See*—
Macy, John M., Rodgers, and Gilmore. 2,778,404.
Rodth, Joseph J., to Sealpak Corp. Package for beverage infusion material. 2,778,739, 1–22–57, Cl. 99—171.
Roesbery, Joseph E.: *See*—
Reck, Carl P., and Roesbery. 2,778,184.
Roesch, Adolf. Gyroscopes. 2,778,227, 1–22–57, Cl. 74—5.7.
Rohm & Haas Co.: *See*—
Brown, George L., and Nolan. 2,778,768.
Melamed, Sidney. 2,778,825.
Neuman, Andrew, Neher, and Specht. 2,778,848.
Schmidle, Claude J. 2,778,826.
Rohr Aircraft Corp.: *See*—
Gross, Bernard, and Yager. 2,778,995.
Romberg, Joseph W., to The Texas Co. Wire rope lubricant comprising a blown petroleum extract and a paraffinic residuum. 2,778,780, 1–22–57, Cl. 196—149.
Romi, Giordano, to Maquinas Agricolas "Romi" Limitada. Gear case, suitable for lathes or machine tools or machines in general. 2,778,237, 1–22–57, Cl. 74—333.
Rook, Joseph V. Combination fuel and brake control for motor vehicles. 2,778,463, 1–22–57, Cl. 192—3.
Ropiequet Richard L., to Tektronix, Inc. Cascode multivibrator. 2,778,935, 1–22–57, Cl. 250—27.
Rösch, Georg: *See*—
Baumann, Fritz, Bienert, and Rösch. 2,778,819.
Rosenfeld, Moses W.: *See*—
Katzner, Jacob B. 2,778,413.
Rosenthal, Samuel. Pocket structure for washable work clothes. 2,778,026 1–22–57, Cl. 2—247.
Ross, Frank A., to L. Hershaft. Machine for cutting, folding and pressing labels. 2,778,633, 1–22–57, Cl. 270—61.
Ross, Ian M.: *See*—
Dacey, George C., and Ross. 2,778,956.
Ross, John L. F., to The Ajax Mfg. Co. Disk type brake. 2,778,456, 1–22–57, Cl. 188—170.
Rossi, Guido B., to the United States of America as represented by the United States Atomic Energy Commission. Cyclotron square wave RF system. 2,778,937, 1–22–57, Cl. 250—27.
Roth, Harold H.: *See*—
Mussell, Dorsey R., and Roth. 2,778,809.
Roth, Robert R.: *See*—
Knapp, William E., and Roth. 2,778,548.
Rowe, Richard G., and G. Flower, Jr., to Dictaphone Corp. Destaticization of plastic articles. 2,778,748, 1–22–57, Cl. 117—138.8.
Roy, Tuhin K., and H. G. Boecklno, to Chemical Construction Corp. Hydrometallurgical separation of nickel and cobalt. 2,778,728, 1–22–57, Cl. 75—119.
Royer, Marcel. Window pane unit. 2,778,070, 1–22–57, Cl. 20—56.5.
Royet, Paul F. Kinematographic multi-objective camera. 2,778,268, 1–22–57, Cl. 88—16.
Ruben, Charlotte: *See*—
Ruben, Louis A. 2,778,263.
Ruben, Louis A., deceased: C. Ruben, executrix. Slide type musical instrument. 2,778,263, 1–22–57, Cl. 84—330.
Rubin, Louis C.: *See*—
McGrath, Henry G., and Rubin. 2,778,845.
Russell, Alva G., to Pitney-Bowes, Inc. Numbered wheel registering mechanism. 2,778,568, 1–22–57, Cl. 235—136.
Russell, Charles, to Bendix Aviation Corp. Indicating and control system for fluid sustaining craft. 2,778,984, 1–22–57, Cl. 318—489.
Russell, Theodore. Wire newspaper and book holder. 2,778,152, 1–22–57, Cl. 45—57.
Russey, D. Park. Printing press for frozen edible sticks and sticks holding molded candy. 2,778,298, 1–22–57, Cl. 101—44.
Ryerson, Clifford M., and J. T. Bull. Transient peak voltmeter. 2,778,996, 1–22–57, Cl. 324—102.
Rywak, John: *See*—
Tanner, Robert H., and Rywak. 2,779,005.
Sailsbury, Murl B.: *See*—
Klumb, George H., Sailsbury, and Schulze. 2,778,798.
St. Clair, Theodore A., and O. L. Garretson, to The Weatherhead Co. Gas carburetor system. 2,778,720, 1–22–57, Cl. 48—184.
St. Pailey. Hole saw. 2,778,091, 1–22–57, Cl. 29—103.
Salt, Frederick W., to the British Iron & Steel Research Association. Electrodeposition of iron zinc alloys. 2,778,787, 1–22–57, Cl. 204—43.
Sandoz A. G.: *See*—
Grandjean, Philippe. 2,778,817.
Sands, Miles D. Hydraulically adjustable supporting device. 2,778,627, 1–22–57, Cl. 267—1.
Sanz, Manuel C., C. R. Malmstrom, J. M. Nuding, and H. P. Yockey, to North American Aviation, Inc. Electric furnace. 2,778,886, 1–22–57, Cl. 13—20.
Sapia, Angelo, to Sapient Sales Co., Inc. Expandable stopper with spout. 2,778,545, 1–22–57, Cl. 222—482.
Sapient Sales Co., Inc.: *See*—
Sapia, Angelo. 2,778,545.
Sato, Natsuo: *See*—
Ujike, Osamu, and Sato. 2,778,723.
Satrom Co., Inc.: *See*—
Satrom, Marlyn and J. M. 2,778,553.
Satrom, Jean M.: *See*—
Satrom, Marlyn and J. M. 2,778,553.
Satrom, Marlyn and J. M., to Satrom Co., Inc. Refuse bag for automobiles. 2,778,553, 1–22–57, Cl. 224—42.42.
Satterlee, Charles H.: *See*—
Klem, Theodore F., and Satterlee. 2,778,649.
Saucerman, Clarence W. Combined automobile hood ornament and bug deflector. 2,778,675, 1–22–57, Cl. 296—91.
Saul & Co.: *See*—
Grandjean, Philippe. 2,778,817.
Peter, Albin, and Frey. 2,778,839.
Saulsbury, Laforest S.: *See*—
Burrows, Edith S. 2,778,025.
Sault, Charls L. Meter and tank calibrating equipment. 2,778,218, 1–22–57, Cl. 73—3.
Savary, Andre. Dispensing closure. 2,778,533, 1–22–57, Cl. 222—92.
Schafroth, Werner, to International Staple and Machine Co. Staple magazine and feed means for stapling machines. 2,778,022, 1–22–57, Cl. 1—49.
Schaltegger, Hermann, to Dr. A. Wander A. G. Method of preparing 7-dehydrocholesterol. 2,778,840, 1–22–57, Cl. 260—397.2.
Schatz, Karl E., to C. K. Etzel. Mouthpiece for musical wind instruments. 2,778,264, 1–22–57, Cl. 84—398.
Schaufelberger, Felix A., to Chemical Construction Corp. Method of concentrating metal values from sulfur solutions. 2,778,727, 1–22–57, Cl. 75—108.
Schaufelberger, Felix A., to Chemical Construction Corp. Recovery of nickel and cobalt values from garnierite ores. 2,778,729, 1–22–57, Cl. 75—119.
Scheeline, Harold W.: *See*—
Maisel, Daniel S., Smith, and Scheeline. 2,778,863.
Scheffer, Nicolaas: *See*—
Buchner, Robert B., and Scheffer. 2,778,879.
Schenck, Carl, Maschinenfabrik G. m. b. H.: *See*—
Federn, Klaus. 2,778,222.
Schenkel, Gerrit, and J. I. de Haan, to Hartford National Bank and Trust Co., as trustee. Acoustic resistor. 2,778,440, 1–22–57, Cl. 181—32.
Schenley Industries, Inc.: *See*—
Conason, Emil G. 2,778,770.
Scherbatskoy, Serge A. Automatic proportional counter. 2,778,947, 1–22–57, Cl. 250—71.
Schetty, Guido: *See*—
Ackermann, Hans, and Schetty. 2,778,815.
Scheuerpflug, Hans, to the Firm Maschinenfabrik Augsburg-Nurnberg A. G. Vehicle-mounted revolving crane. 2,778,507, 1–22–57, Cl. 212—38.
Schiesswohl, Gottlob, A. Allgaier, and W. Voit, to Robert Bosch G. m. b. H. Fluid distributing apparatus. 2,778,449, 1–22–57, Cl. 184—7.
Schlumberger Well Surveying Corp.: *See*—
Frey, Hugh B., Jr., and Tittman. 2,778,950.
Heinemann, Kurt W. 2,778,117.
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Tittman, Jay. 2,778,951.
Schmidle, Claude J., to Rohm & Haas Co. Preparation of basic nitrogen compounds. 2,778,826, 1–22–57, Cl. 260—247.
Schmidt, Charles F. Mole trap. 2,778,148, 1–22–57, Cl. 43—80.
Schmidt, William F., Jr., to Vickers, Inc. Multi branch magnetic amplifier with beneficially interrelated magnetic path. 2,778,987, 1–22–57, Cl. 323—89.
Schmitz, Norbert L., to Cutler-Hammer, Inc. System for the generation of polyphase alternating currents. 2,778,985, 1–22–57, Cl. 322—28.
Schneider, Paul L., and W. H. Taylor, to General Motors Corp. Engine starter drive. 2,778,228, 1–22–57, Cl. 74—7.
Schneider, Wilhelm, to Licentia Patentverwaltungs G. m. b. H. Method for welding and soldering by electron bombardment. 2,778,926, 1–22–57, Cl. 219—117.
Schneto A. G.: *See*—
Thommen, Kurt. 2,778,349.
Scholfield, Richard P., to Wheeldex Mfg. Co., Inc. Portable rotary file. 2,778,454, 1–22–57, Cl. 188—82.4.

Scholfield, Richard P., to Wheeldex Mfg. Co., Inc. Support for rotary files. 2,778,592, 1–22–57, Cl. 248—158.
Schörner, Christian, to Maschinenfabrik Augsburg-Nurnberg A. G. Method of welding turbine blades. 2,778,095, 1–22–57, Cl. 29—156.8.
Schreyer, Ralph C.: *See*—
Hyson, Archibald M., and Schreyer. 2,778,818.
Schubert, Dale L. Burnishing devices and methods. 2,778,394, 1–22–57, Cl. 144—309.
Schultz, Everett M., to Merck & Co., Inc. Deamination process. 2,778,853, 1–22–57, Cl. 260—590.
Schultz, Henry J.: *See*—
Walker, Brooks, and Schultz. 2,779,015.
Schulze, Johann: *See*—
Pape, Hans-Martin, and Schulze. 2,778,375.
Schulze, Robert E.: *See*—
Klumb, George H., Sailsbury, and Schulze. 2,778,798.
Schur, Frederick P. Combination tire pressure gauge and regulator. 2,778,225, 1–22–57, Cl. 73—389.
Schurcliff, William A.: *See*—
Land, Edwin H., and Schurcliff. 2,779,017.
Schwager, Oskar: *See*—
Herlach, Heinrich, and Schwager. 2,778,278.
Schweizer, Walter. Foldable deck chair. 2,778,407, 1–22–57, Cl. 155—105.
Schweller, Edmund F., to General Motors Corp. Freezing device. 2,778,201, 1–22–57, Cl. 62—108.5.
Scovill Mfg. Co.: *See*—
Stoughton, Hooker. 2,778,082.
Scripto, Inc.: *See*—
Lovejoy, Charles K. 2,778,337.
Scully Signal Co.: *See*—
Young, Robert G., Jr. 2,778,390.
Sealpak Corp.: *See*—
Rodth, Joseph J. 2,778,739.
Seal-Spout Corp.: *See*—
Klausmann, Milton H. 2,778,546.
Searle, G. D., & Co.: *See*—
Ralls, Jack W. 2,778,841.
Seefelder, Matthias: *See*—
Pasedach, Heinrich, and Seefelder. 2,778,821.
Pasedach, Heinrich, and Seefelder. 2,778,830.
Seifter, Joseph: *See*—
Bruce, William F., and Seifter. 2,778,834.
Seltzer, Robert E., to Spred-All, Inc. Agricultural material distributor. 2,778,535, 1–22–57, Cl. 222—139.
Seltzer, Robert E., to Spred-All, Inc. Agricultural material distributor. 2,778,540, 1–22–57, Cl. 222—274.
Sensenig, Miles L.: *See*—
Robinson, William H., and Sensenig. 2,778,437.
Servel, Inc.: *See*—
Heath, Dudley E. 2,778,198.
Set Screw & Mfg. Co.: *See*—
Brown, Calvin O. 2,778,265.
Brown, Calvin O. 2,778,639.
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Shafer, Homer J., to Shafer Valve Co. Internal fluid shut off for hydraulic motor. 2,778,338, 1–22–57, Cl. 121—38.
Shafer Valve Co.: *See*—
Shafer, Homer J. 2,778,338.
Shannon, Gladys L.: *See*—
Shannon, Jean R. 2,778,126.
Shannon, Jean R., deceased, by G. L. Shannon, executrix, to The Four Wheel Drive Auto Co. Plow apparatus for high speed snow removal without windrowing. 2,778,126, 1–22–57, Cl. 37—42.
Shannon, John B.: *See*—
Bredall, Charles H., and Shannon. 2,779,004.
Sheahan, John F. Ozone faucet. 2,778,800, 1–22–57, Cl. 210—27.
Shell Development Co.: *See*—
Shokal, Edward C., and Devlin. 2,778,855.
Shell-O-Matic, Inc.: *See*—
Zimmermann, William F. 2,778,074.
Sherbondy, William A. Caulking gun. 2,778,541, 1–22–57, Cl. 222—327.
Sherwin-Williams Co., The: *See*—
Armstrong, Ralph S. 2,778,740.
Shields, Ronald E., R. T. Findlay, and F. Fitzgerald. Deodorant dispenser. 2,778,678, 1–22–57, Cl. 299—24.
Shipe, Paul J., to General Motors Corp. Method of impregnating a porous ferrous part with copper. 2,778,742, 1–22–57, Cl. 117—37.
Shockley, William, to Bell Telephone Laboratories, Inc. Semiconductor signal translating devices. 2,778,885, 1–22–57, Cl. 179—171.
Shoemaker, George W., to Arketex Ceramic Corp. Building tile package. 2,778,489, 1–22–57, Cl. 206—65.
Shokal, Edward C., and P. A. Devlin, to Shell Development Co. Production of hydroxy ethers. 2,778,855, 1–22–57, Cl. 260—613.
Shorr, William, to the United States of America as represented by the Secretary of the Army. Electrode films for miniature or high rate batteries. 2,778,754, 1–22–57, Cl. 136—137.
Sifrin, Andreas, H. Eberhardt, and H. Hennecke, to The Babcock & Wilcox Co. Cyclone furnace. 2,778,327, 1–22–57, Cl. 110—28.
Sillars, Frederick S., to United Shoe Machinery Corp. Impact extruder for jet of adhesive. 2,778,530, 1–22–57, Cl. 222—70.
Silver Creek Precision Corp.: *See*—
Lear, Joseph D. 2,778,679.
Silverman, Daniel, and A. H. Ungerman. Disposable ash receiver. 2,778,365, 1–22–57, Cl. 131—235.
Silverman, Louis: *See*—
Pearlman, Harry, Silverman, and Smith. 2,778,786.
Simjian, Luther G., to The Reflectone Corp. Golf practice device. 2,778,645, 1–22–57, Cl. 273—185.
Simon, Edward, to Robins Industries Corp. Tape splicing device. 2,778,420, 1–22–57, Cl. 164—45.
Simpson, Arthur L. F., and A. Warrington, to The General Electric Co. Ltd. Devices for transmitting rotary motion. 2,778,229, 1–22–57, Cl. 74—10.41.
Sinclair Refining Co.: *See*—
Apgar, Frank A. 2,778,778.
Singleton, Clair E., to Northrop Aircraft, Inc. Indexing mechanism. 2,778,981, 1–22–57, Cl. 318—120.
Siver, Dougal H., to The New York Air Brake Co. Sharp response spring loaded pressure motor for controlling regulated devices. 2,778,314, 1–22–57, Cl. 103—37.
Skinner Irrigation Co., The: *See*—
Dudley, Wray E. 2,778,681.
Smith, Arthur D., to Jenkins Petroleum Process Co. Process for the continuous coking of hydrocarbons. 2,778,781, 1–22–57, Cl. 202—3.
Smith, Bernard R.: *See*—
Applegate, Vernon C., Stahl, and Smith. 2,778,140.
Smith, Brook I.: *See*—
Maisel, Daniel S., Smith, and Scheeline. 2,778,863.
Smith, Curtiss A.: *See*—
Pearlman, Harry, Silverman, and Smith. 2,778,786.
Smith-Douglass Co., Inc.: *See*—
Hollingsworth, Clinton A. 2,778,722.
Smith & French Laboratories: *See*—
Bartlett, Richard J. 2,778,178.
Smith, Margaret W. Combination furniture. 2,778,034, 1–22–57, Cl. 5—2.
Smith, Telford L. Axially and radially sealed divided sleeve type pipe clamp. 2,778,662, 1–22–57, Cl. 285—343.
Smith, Warren M.: *See*—
Johnson, Frank B., Smith, and Moise. 2,778,859.
Snell, Maurice S., to Dowty Equipment Ltd. Electrically operated indicating instruments. 2,779,016, 1–22–57, Cl. 340—378.
Sobol, Charles J., to Croname, Inc. Decorating anodized aluminum. 2,778,790, 1–22–57, Cl. 204—58.
Societe Anonyme Adolphe Saurer: *See*—
Brunner, Niklaus. 2,778,383.
Societe Anonyme Belge de Mecanique et d'Armement: *See*—
Brandt, Edgar W. 2,778,137.
Societe Anonyme dite: Cri-Dan: *See*—
Renoux, Pierre E. 2,778,037.
Societe des Produits Azotes: *See*—
Vialaron, André C. 2,778,828.
Societe des Usines Chimiques Rhone-Poulenc: *See*—
Metivier, Jean. 2,778,767.
Societe d'Optique et de Mecanique de Haute Precision: *See*—
Reymond, Lucien. 2,778,272.
Societe "Rhodiaceta": *See*—
Clevy, Roland, and Robin. 2,778,820.
Soderberg, Gustaf A., 33⅓% to H. M. Ahlberg, and 33⅓% to S. J. Ullmann. Control for posture chairs. 2,778,409, 1–22–57, Cl. 155—152.
Solis Bonilla, Samuel R. Bookmark. 2,778,331, 1–22–57, Cl. 116—119.
Sosin, Boleslaw M., to Marconi's Wireless Telegraph Co. Ltd. High frequency filter, combiner and like arrangements. 2,779,000, 1–22–57, Cl. 333—6.
Soussloff, Dimitri G., and B. Andrews, to Universal Winding Co. Vertical redraw. 2,778,579, 1–22–57, Cl. 242—45.
South Bend Bait Co.: *See*—
Macy, John M., Rodgers, and Gilmore. 2,778,404.
Southern Air Conditioning Corp.: *See*—
Wilson, Broadus, and Hinez. 2,778,206.
Southern Zonolite Co.: *See*—
Sterrett, Robert W. 2,778,088.
Specht, Edward H.: *See*—
Neuman, Andrew, Neher, and Specht. 2,778,848.
Spedding, Frank H., and T. A. Butler, to the United States of America as represented by the United States Atomic Energy Commission. Plutonium alloy and method of separating it from uranium. 2,778,730, 1–22–57, Cl. 75—122.7.
Sperry Rand Corp.: *See*—
Carissimi, Louis C. 2,778,486.
Crist, Philip W. 2,778,933.
Luek, Otto W., and Tarbox. 2,778,295.
Robinson, William H., and Sensenig. 2,778,437.
Spo, Inc.: *See*—
Young, Lester C. 2,778,078.
Spred-All, Inc.: *See*—
Seltzer, Robert E. 2,778,535.
Seltzer, Robert E. 2,778,540.
Sramek, Elmer D.: *See*—
Engleson, Harry E., and Sramek. 2,778,476.
Stadler, Hurter & Co.: *See*—
Attendu, Andre C. 2,778,674.
Stahl, William L.: *See*—
Applegate, Vernon C., Stahl, and Smith. 2,778,140.
Stahlecker, Wilhelm, and H. Grill. Centerless grinding machine. 2,778,165, 1–22–57, Cl. 51—103.
Stamicarbon N. V.: *See*—
Vegter, Herman J. 2,778,752.
Standard Oil Co. (Illinois): *See*—
Carmody, Don R., and Zletz. 2,778,188.
Carmody, Don R., and Zletz. 2,778,189.
Standard Oil Co. (Ohio), The: *See*—
Fuller, Norman C. 2,778,500.
Zimmerman, Marlin U., Jr. 2,778,621.
Standard Packaging Corp.: *See*—
Mahaffy, Reid A., Young, and Harder. 2,778,177.
Starck, Arthur M., and W. E. Gency, to A. M. S. Corp. Removable window with sash balance. 2,778,069, 1–22–57, Cl. 20—52.2.
Statham Laboratories, Inc.: *See*—
Statham, Louis D. 2,778,623.
Statham, Louis D. 2,778,624.
Statham, Louis D. 2,778,905.

Statham, Louis D., to Statham Laboratories, Inc. Angular accelerometer. 2,778,623, 1-22-57, Cl. 264—1.

Statham, Louis D., to Statham Laboratories, Inc. Angular accelerometer. 2,778,624, 1-22-57, Cl. 264—1.

Statham, Louis D., to Statham Laboratories, Inc. Motion sensing device. 2,778,905, 1-22-57, Cl. 201—48.

Sta-Warm Electric Co.: *See*—
Birkner, Hugo E., Jr. 2,778,922.

Steel Co. of Wales Ltd., The: *See*—
Turpin, Geoffrey E. 2,778,616.

Steele, Edson B., deceased, by J. M. Steele, administratrix, to Joy Mfg. Co. Fluid operated shovel. 2,778,127, 1-22-57, Cl. 37—103.

Steele, Julia M.: *See*—
Steele, Edson B. 2,778,127.

Steffen, Arnold M. Stereoscopic camera. 2,778,288, 1-22-57, Cl. 95—18.

Steinman, Robert, and W. F. Eberz, to Alexander H. Kerr and Co., Inc. Process of coloring of glass fabrics. 2,778,746, 1-22-57, Cl. 117—76.

Stelipflug, August W., and W. E. Tait, to The Lionel Corp. Stereo-photographic methods and apparatus. 2,778,289, 1-22-57, Cl. 95—18.

Stempel, Laszlo M., to John Waldron Corp. Rotary offset printing press roll support. 2,778,303, 1-22-57, Cl. 101—218.

Stenchever, Charles, and F. Mastandrea. Manually actuated non-yielding clutch. 2,778,465, 1-22-57, Cl. 192—18.

Stene, Manfred: *See*—
Killian, Stanley C., and Stene. 2,778,894.

Stenstrom, John A.: *See*—
Gorham, William F., and Stenstrom. 2,778,862.

Stephens, Joseph F., and G. W. Kerr, to Gustin-Bacon Mfg. Co. Pipe joint covering and method of making the same. 2,778,405, 1-22-57, Cl. 154—28.

Stephens, Joseph F. and G. W. Kerr, to Gustin-Bacon Mfg. Co. Thermal pipe insulation. 2,778,759, 1-22-57, Cl. 154—44.

Stephenson, James R. Card shuffler and dealer. 2,778,644, 1-22-57, Cl. 273—149.

Sterling Drug Inc.: *See*—
Surrey, Alexander R. 2,778,833.

Sterrett, Robert W., to Southern Zonolite Co. Manufacture of roofing slabs and the like. 2,778,088, 1-22-57, Cl. 25—154.

Stinger, Walter E. Integral radio frequency attenuation seal. 2,778,868, 1-22-57, Cl. 174—35.

Stockett, Wiley T., Jr., to Gardner Machines, Inc. Hydraulic saw mill feed works. 2,778,193, 1-22-57, Cl. 60—97.

Stokes and Smith Co.: *See*—
Diehl, William R. 2,778,387.

Stoltz, Emil M., to Olin Mathieson Chemical Corp. Purified polyethenoxy alkylphenyl ethers. 2,778,854, 1-22-57, Cl. 260—613.

Storsand, Bjarne, to Ateliers de Construction Oerlikon. Arrangement for the safety grounding of vehicles with inertia mass impulsion. 2,778,890, 1-22-57, Cl. 191—1.

Story, Malcolm C. Livestock guard and gate. 2,778,133, 1-22-57, Cl. 39—5.

Stoughton, Hooker, to Scovill Mfg. Co. Trouser waistband hook. 2,778,082, 1-22-57, Cl. 24—227.

Stover, Roy L. Collapsible stands. 2,778,593, 1-22-57, Cl. 248—170.

Strader, George A., and L. M. Eymann. Animated sign. 2,778,135, 1-22-57, Cl. 40—132.

Stroebel, Alfred: *See*—
Lasch, Albert, and Stroebel. 2,778,482.

Strona, Secondo B. Portable truck crane. 2,778,512, 1-22-57, Cl. 214—75.

Structural Clay Products Research Foundation: *See*—
Taylor, Robert B., and Johnson. 2,778,491.

Sturtevant, Mark J., to Chrysler Corp. Sealing structure. 2,778,695, 1-22-57, Cl. 308—3.5.

Stutz, Robert C., to Niagara Blower Co. Method and apparatus for concentrating aqueous solutions of hygroscopic organic substances. 2,778,782, 1-22-57, Cl. 202—46.

Sullivan, Timothy J., to Sullivan Valve and Engineering Co. Electrical safety control apparatus. 2,778,917, 1-22-57, Cl. 219—38.

Sullivan Valve and Engineering Co.: *See*—
Sullivan, Timothy J. 2,778,917.

Sulzer, Peter G., to F. H. McIntosh. Multi-phase oscillator. 2,778,940, 1-22-57, Cl. 250—36.

Sumi, Masao: *See*—
Abe, Yasuo, Harukawa, Ishikawa, Miki, Sumi, and Toga. 2,778,838.

Sumner Iron Works, Inc.: *See*—
Ringman, Henry W. 2,778,342.

Sunbeam Corp.: *See*—
Jepson, Ivar. 2,778,921.
Jepson, Ivar, and Craft. 2,778,961.

Sunstein, David E., to Philco Corp. Indexing system for color television. 2,778,971, 1-22-57, Cl. 315—12.

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Duerksen, Arnold. 2,778,063.

Surrey, Alexander R., to Sterling Drug Inc. 4-amino-10-hydroxy-1,7-phenanthrolines. 2,778,833, 1-22-57, Cl. 260—286.

Sutherland, Lionel M., to Sutherland Refiner Corp. Pulp refining apparatus. 2,778,282, 1-22-57, Cl. 92—26.

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Sutherland, Lionel M. 2,778,282.

Suttle, Ward C., and E. A. Haase, to Bendix Aviation Corp. Fluid pump and controls therefor. 2,778,312, 1-22-57, Cl. 103—12.

Svenska Aktiebolaget Gasaccumulator: *See*—
Öberg, Sven. 2,779,019.

Swain, Cecil B. Ratchet handle with straight crank arm. 2,778,396, 1-22-57, Cl. 145—71.

Switlik Parachute Co., Inc.: *See*—
Moran, Harold J. 2,778,587.

Sylvania Electric Products Inc.: *See*—
Barre, Wade E. 2,779,009.
Gartner, Stanley J. 2,778,969.
Pifer, Marion J. 2,779,010.

Szilard, Leo, to the United States of America as represented by the United States Atomic Energy Commission. Method for unloading reactors. 2,778,792, 1-22-57, Cl. 204—154.

T. M. M. (Research) Ltd.: *See*—
Doleman, Jack. 2,778,065.

Taca Cable Stripper Mfg. Corp.: *See*—
Carta, Anthony. 2,778,105.

Tait, Wilfred E.: *See*—
Stelipflug, August W., and Tait. 2,778,289.

Takeda Pharmaceutical Industries, Ltd.: *See*—
Abe, Yasuo, Harukawa, Ishikawa, Miki, Sumi, and Toga. 2,778,838.

Takemoto, Tsuyoshi: *See*—
Fujisaki, Yoshisato, and Takemoto. 2,778,847.

Talbot, Thomas W., ½ to R. Tollefsen. Means for locating crashed airplanes. 2,778,332, 1-22-57, Cl. 116—124.

Tang, Murville E. Foldable and portable aircraft shelter. 2,778,369, 1-22-57, Cl. 135—1.

Tanner, Robert H., and J. Rywak, to Northern Electric Co. Ltd. Coaxial jack. 2,779,005, 1-22-57, Cl. 333—97.

Tarbox, John P.: *See*—
Luek, Otto W., and Tarbox. 2,778,295.

Taunton, Gerald, to The Wilts United Dairies Ltd. Production of air-tight packages. 2,778,171, 1-22-57, Cl. 53—9.

Taunton, Gerald, to Wilts United Dairies Ltd. Method of producing airtight packages. 2,778,173, 1-22-57, Cl. 53—22.

Taylor, Hamilton D., to General Electric Co. Armature winding with four parallels per phase. 2,778,962, 1-22-57, Cl. 310—202.

Taylor Instrument Companies: *See*—
Jaquith, Howard R. 2,778,372.
Jaquith, Howard R. 2,778,373.

Taylor, Paul H., to Wales-Strippit Corp. Perforating apparatus. 2,778,426, 1-22-57, Cl. 164—110.

Taylor, Robert B., and P. V. Johnson, to Structural Clay Products Research Foundation. Building materials package. 2,778,491, 1-22-57, Cl. 206—65.

Taylor, William H.: *See*—
Schneider, Paul L., and Taylor. 2,778,228.

Technograph Printed Circuits Ltd.: *See*—
Eisler, Paul. 2,778,762.

Tektronix, Inc.: *See*—
Roplequet, Richard L. 2,778,935.

Terry Machinery Co. Ltd.: *See*—
Makinson, Clifford. 2,778,692.

Texas Co., The: *See*—
Powell, Ray. 2,778,777.
Romberg, Joseph W. 2,778,780.

Texas Instruments Inc.: *See*—
Perry, Edward G., Jr. 2,778,466.

Thaler, Leo, to J. Fiddelman & Son, Inc. Self-adjusting finger ring having spring biased pivoted members. 2,778,207, 1-22-57, Cl. 63—15.6.

Thatcher, Lewis E., to Gaylord Products, Inc. Switch actuating device. 2,778,899, 1-22-57, Cl. 200—80.

Thels, Francis W., and K. W. Richardson, Jr., to Columbia Southern Chemical Corp. Chloroformate production. 2,778,846, 1-22-57, Cl. 260—463.

Thomas, Frederick L., and F. F. Koblitz, to Bjorksten Research Laboratories, Inc. Ma... ...ure of silicone elastomers with the aid of a silent ...scharge. 2,778,793, 1-22-57, Cl. 204—165.

Thommen, Kurt, to Schneto A. G. Vacuum brake for two-stroke engines for motor vehicles. 2,778,349, 1-22-57, Cl. 123—97.

Thompson, Carl A. Gun rest. 2,778,552, 1-22-57, Cl. 224—1.

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Tollefsen, Reed. Automatic controllable "G" impact switch. 2,778,896, 1-22-57, Cl. 200—61.5.

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Tompkins, Walter T. Baseball glove. 2,778,023, 1-22-57, Cl. 2—19.

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Ulrich, Georges. Automatic locking means for vehicle doors. 2,778,216, 1-22-57, Cl. 70—264.

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ISSUED JANUARY 22, 1957

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88.5: 2,778,956
112: 2,778,957
308— 3.5: 2,778,695
160: 2,778,696
309— 43: 2,778,697
310— 57: 2,778,958

310— 64: 2,778,959
113: 2,778,960
153: 2,778,961
202: 2,778,962
2,778,963
214: 2,778,964
254: 2,778,965
311— 16.5: 2,778,698
21: 2,778,699
77: 2,778,700
109: 2,778,701
312— 242: 2,778,702
265: 2,778,703
309: 2,778,704
313: 2,778,705
316: 2,778,706
313— 82: 2,778,966
148: 2,778,967
261: 2,778,968
292: 2,778,969
337: 2,778,970
315— 12: 2,778,971
24: 2,778,972
27: 2,778,973
36: 2,778,974
39.69: 2,778,975
96: 2,778,976
317— 101: 2,778,977
137: 2,778,978
230: 2,778,979
235: 2,778,980
318— 120: 2,778,981
257: 2,778,982
331: 2,778,983
489: 2,778,984
322— 28: 2,778,985
323— 47: 2,778,986
89: 2,778,987
123: 2,778,988
324— 30: 2,778,989
2,778,990
34: 2,778,991
51: 2,778,992
58: 2,778,993
63: 2,778,994
64: 2,778,995
102: 2,778,996
107: 2,778,997
143: 2,778,998
332— 19: 2,778,999
333— 6: 2,779,000
10: 2,779,001
22: 2,779,002
31: 2,779,003
82: 2,779,004
97: 2,779,005
98: 2,779,006
339— 18: 2,779,007
59: 2,779,008
143: 2,779,009
198: 2,779,010
258: 2,779,011
269: 2,779,012
340— 52: 2,779,013
147: 2,779,014
187: Re.24,267
249: 2,779,015
378: 2,779,016
343— 7.7: 2,779,017
12: 2,779,018
18: 2,779,019
200: 2,779,020
346— 8: 2,778,707
24: 2,778,708
129: 2,778,709
139: 2,778,710
2,778,711

CLASSIFICATION OF DESIGNS

D 3—17: Des. 179,552
Des. 179,553
Des. 179,583
D 4— 3: Des. 179,581
D 8— 1: Des. 179,580
D10— 7: Des. 179,556

D14— 3: Des. 179,559
D22— 3: Des. 179,563
Des. 179,584
D26—14: Des. 179,569
Des. 179,570
D29—23: Des. 179,567

D31— 4: Des. 179,586
D33— 2: Des. 179,576
D34— 5: Des. 179,575
Des. 179,582
D40— 1: Des. 179,577
D45—19: Des. 179,568

D52— 7: Des. 179,557
Des. 179,561
Des. 179,562
D54—16: Des. 179,555
D59— 2: Des. 179,587
D61— 1: Des. 179,554

D61— 1: Des. 179,566
D70— 1: Des. 179,579
D74— 1: Des. 179,560
D80— 9: Des. 179,585
D82— 2: Des. 179,574
D85— 2: Des. 179,558

D89— 1: Des. 179,578
D92— 1: Des. 179,564
Des. 179,565
Des. 179,571
Des. 179,572
Des. 179,573

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
January 22, 1957 Volume 714 Number 4

TRADEMARKS

NOTICES

Trademark Suits

Notices under 15 U. S. C. 1111; Trademark Act of July 5, 1946

TM 115,901 (DECCA), Decca Records, Inc., Gramophones, phonographs, and records for the same; **TM 398,404**, same, Phonographs, mechanical and electrical sound reproducing devices of the record type, etc.; **TM 510,900**, same, Mechanically grooved phonograph records; **TM 400,537** ("DECCA RECORDS" within oval design), same, Mechanical and electrical sound reproducing devices of the record type, etc., **filed** Dec. 3, 1956, D. C., N. D. Calif. (San Francisco), Doc. 36023, *Decca Records, Inc.* v. *Mecca Records.*

TM 388,750 (LEVOLOR), Lorentzen Hardware Mf'g. Corp., Venetian blind hardware—namely, tilters; **TM 619,321**, same, Levolor Lorentzen, Inc., Venetian blind hardware and fittings, **filed** Dec. 6, 1956, D. C., E. D. Mich. (Detroit), Doc. 16244, *Levolor Lorentzen, Inc.* v. *Venetian Blind Industries, Inc.*

TM 398,404. (See TM 115,901.)

TM 400,537. (See TM 115,901.)

TM 510,900. (See TM 115,901.)

TM 598,913 (TYNEX), E. I. du Pont de Nemours & Co., Resinous plastic material in the form of filaments for general use in the industrial art, **filed** Dec. 7, 1956, D. C., S. D. N. Y., Doc. 115/262, *E. I. du Pont de Nemours and Co.* v. *Kingston Brush Mfg. Co. Inc. et al.*

TM 619,321. (See TM 388,750.)

CONDITION OF TRADEMARK APPLICATIONS AS OF NOVEMBER 30, 1956

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)] 7,523
Date of oldest new application ..... May 17, 1956
Date of oldest amended application ..... June 7, 1956

MERCHANT, JOHN, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application: New	Oldest Application: Amended
I. STERBA, J. R., Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 44 and Certification Marks (Goods) Class A	5-21-56	8-17-56
II. SHRYOCK, R. F., Classes 6, 18, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200; and Certification Marks (Services) Class B	5-17-56	7-23-56
III. WENDT, C. M., Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 36, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 50, 52	6-15-56	6-7-56
Renewals (All Classes)	11-7-56	11-20-56
Sec. 12 (c) Publications (All Classes)	10-5-56	11-19-56

Applications Filed During the Month of November 1956—1,678

Registrations Issued ..... 317—No. 640,185 to No. 640,501
Renewals Issued 30

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.
As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

SN 13,089. Hugh S. Stoller, d. b. a. Stoller Chemical Company, Akron, Ohio. Filed July 30, 1956.

"MAPLE LEAF"

For Pulverized Cellulose as a Sand Additive for Foundry Cores.
First use July 30, 1954.

CLASS 2

RECEPTACLES

SN 691,769. Lucien Paul Simon Djian and Charles Maurice Jean Marie Le Jamtel, Paris, France. Filed July 22, 1955.

"SUPPO-STERIL"

Owner of French Reg. No. 406,031, dated Oct. 2, 1950 (Paris); Natl. Inst. No. 480,381.
For Alveolus Shaped Containers Made of Plastic Material for Containing Suppositories and the Like; Containers, Boxes, and Cases for Containing Such Alveolus Containers.

SN 3,436. Michigan Carton Company, Battle Creek, Mich. Filed Feb. 27, 1956.

STRAPAC MICHIGAN CARTON CO. BATTLE CREEK, MICH

For Paperboard Carriers for Handling Duplicate Size Multiple Units of Various Items.
First use Feb. 20, 1956.

SN 6,188. Plastic Artisans, Inc., Port Chester, N. Y. Filed Apr. 11, 1956.

SLIDON

For Boxes and Containers Made of Synthetic Resinous Materials Sold Empty in the Trade.
First use Mar. 27, 1956.

SN 8,785. Erich Marx, d. b. a. Art-Line of California, El Segundo, Calif. Filed May 22, 1956.

CAL

For Planter Bowls, Salad Bowls, Fruit Bowls, Trays, and Tid-Bit Dishes Molded From Fiber Glass Reinforced Plastics.
First use Jan. 10, 1956.

SN 10,119. Zylon Products Company, Inc., Providence, R. I. Filed June 12, 1956.

ZYLON

For Molded Plastic Hospital Utensils—Namely, Basins, Bowls, Cups, Jars, Tumblers, Bed Pans, Toast Covers, Urinals, and Soap Dishes.
First use Mar. 22, 1955.

CLASS 3

BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

SN 656,666. I. Smallman & Sons Co., New York, N. Y. Filed Nov. 19, 1953.

For Leather Billfolds and Wallets.
First use January 1946.

SN 6,985. Columbia Products Corporation, Brooklyn, N. Y. Filed Apr. 24, 1956.

Tally-Ho

For General Purpose Handled Carrying Bags, Insulated and Uninsulated.
First use Mar. 2, 1956, on carry-all bags.
Subj. to Intf. with SN 17,465.

SN 17,465. Hartmann Luggage Company, Racine, Wis. Filed Oct. 15, 1956.

TALLY-HO

For Garment and Car Bags for Clothing and Traveling Paraphernalia.
First use Dec. 14, 1955.
Subj. to Intf. with SN 6,985.

CLASS 4

ABRASIVES AND POLISHING MATERIALS

SN 689,928. A. P. de Sanno & Son, Inc., Phoenixville, Pa. Filed June 21, 1955.

HUSKY

For Grinding Wheels.
First use Aug. 5, 1954.

CLASS 5

ADHESIVES

SN 699,451. Yardney Chemix Corp., New York, N. Y., to Ions Exchange & Chemical Corp., New York, N. Y. Filed Dec. 5, 1955.

NYLOSIL

For Adhesive for Cementing Nylon.
First use Nov. 22, 1955.

SN 11,336. Albert B. Clemonds, d. b. a. South Texas Drywall Co., Cincinnati, Ohio. Filed July 2, 1956.

STOP-POP

For Adhesive for Bonding Wall Board, Gypsum Board, or the Like, to Structural Elements of a Building.
First use June 9, 1956.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

SN 698,175. Kali Manufacturing Company, Philadelphia, Pa. Filed Nov. 14, 1955.

UNIFINISH

For Finish Preparation Used in Bath Treatment of Nylon Hosiery.
First use Apr. 25, 1955.

SN 3,828. The Davies-Young Soap Company, Dayton, Ohio. Filed Mar. 5, 1956.

"DYP"

For Water-Soluble Anti-Static Rinse for Garments, Especially Those Made of Superpolymeric Amide of Protein-Like Structure and Acrylonitrile Polymer.
First use Feb. 29, 1956.

SN 4,499. Witco Chemical Company, New York, N. Y. Filed Mar. 13, 1956.

MONTY WAX

Without waiving any common law rights the applicant disclaims the word "Wax" apart from the mark as shown.
For Synthetic Wax-Like Substance Composed of Several Chemicals.
First use on or about March 1942.

SN 7,967. Chemicals, Inc., San Francisco, Calif. Filed May 9, 1956.

ANOTHER Vano QUALITY PRODUCT

The drawing is lined for red and blue. Owner of Reg. No. 634,513.
For Liquid Laundry Starch.
First use Mar. 1, 1956.

SN 11,924. General Electric Company, Schenectady, N. Y. Filed July 11, 1956.

VULKENE

For Filled, Cross-Linked Polyolefin Compositions Useful in Molding Applications and in Other Industrial Arts.
First use May 24, 1956.

SN 13,463. McIntire Company, Livingston, N. J. Filed Aug. 6, 1956.

PERMASORB

For Solid Desiccants.
First use July 30, 1956.

CLASS 10

FERTILIZERS

SN 1,078. W. R. Grace & Co., New York, N. Y. Filed Jan. 19, 1956.

NACO FIVE STAR SPECIAL

Owner of Reg. Nos. 127,199, 367,130, and others.
For Fertilizer.
First use 1930.

SN 1,080. W. R. Grace & Co., New York, N. Y. Filed Jan. 19, 1956.

Owner of Reg. Nos. 333,382, 436,241, and 438,043.
For Fertilizer and Fertilizer Materials.
First use Jan. 2, 1934.

SN 1,395. Sohio Chemical Company, Lima, Ohio. Filed Jan. 24, 1956.

The drawing is lined for green, red, and black, and color is claimed as a part of the mark. The words "Urea Fertilizer Compound" are disclaimed apart from the mark as shown. Owner of Reg. No. 627,211.
For Urea Fertilizer.
First use about Dec. 19, 1955.

SN 2,886. N. S. Koos & Son Company, Kenosha, Wis. Filed Feb. 17, 1956.

BADGER

Owner of Reg. No. 503,078.
For Fertilizer.
First use Apr. 28, 1925.

CLASS 12

CONSTRUCTION MATERIALS

SN 5,834. Globe Roofing Products Co., Inc., Whiting, Ind. Filed Apr. 5, 1956.

KOLOR-WOOD

Owner of Reg. Nos. 336,079, 625,705, and others.
For Insulating Siding.
First use Mar. 27, 1956.

SN 11,386. Mid-South Industries, Inc., Columbia, S. C. Filed July 2, 1956.

For Skylights.
First use May 25, 1956.

SN 11,546. Compania Cubana Primadera, S. A., New York, N. Y. Filed July 5, 1956.

PRIMADERA

For Treated and Untreated Hardboard, Tileboard, and Decorative Paneling.
First use June 12, 1956.

SN 11,630. Standard Lime and Cement Company, Baltimore, Md. Filed July 5, 1956.

For Building Lime.
First use on or about Apr. 10, 1956.

SN 11,893. Abitibi Power & Paper Company, Limited, Toronto, Ontario, Canada. Filed July 11, 1956.

PLATEWOOD

For Platelet Boards.
First use May 17, 1956; in commerce May 17, 1956.

SN 11,918. Rocco DeBonis, d. b. a. DeBonis Marble and Construction Company, Mercer, Pa. Filed July 11, 1956.

MARBITAL

For Marble Slabs and Tiles Made From Marble Aggregates and Cement.
First use Mar. 17, 1956.

SN 12,067. Childers Manufacturing Co., Houston, Tex. Filed July 13, 1956. Sec. 2(f).

CROSS-CRIMP

Owner of Reg. No. 540,607.
For Aluminum Roofing Panels.
First use in November 1948.

SN 12,197. Johns-Manville Corporation, New York, N. Y. Filed July 16, 1956.

FIL-INSUL

For Thermal Insulating Fill.
First use at least as early as 1928.

SN 12,296. Richmond Cedar Works Mfg. Corp., Richmond, Va. Filed July 17, 1956.

fenscreen

For Garden and Terrace Screening Made of Wooden Pickets.
First use Mar. 14, 1956.

SN 12,381. Ray Leather Waste Co., Inc., Lynn, Mass. Filed July 18, 1956.

SOFTIDE

For Fiberboard.
First use in March 1955.

CLASS 14

METALS AND METAL CASTINGS AND FORGINGS

SN 13,372. The International Nickel Company, Inc., New York, N. Y. Filed Aug. 3, 1956.

TRICENT

For Ultra High Strength Steels and Particularly High Strength Nickel-Containing Steels.
First use May 11, 1956.

CLASS 15

OILS AND GREASES

SN 6,177. Liquids Inc., Greensboro, N. C. Filed Apr. 11, 1956.

Pivot

For Motor Oils, Greases, and Hydraulic Oil.
First use Mar. 1, 1956.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

SN 2,270. James G. Yahnke, d. b. a. J. G. Yahnke Company, Libertyville, Ill. Filed Feb. 7, 1956.

SILK-IN-FEEL

For Wax Preparation for Coating Boxboard and the Like.
First use Jan. 10, 1956.

SN 8,257. Wooster Finishes Corporation, Wooster, Ohio, to The Wooster Sealkote Company, Wooster, Ohio. Filed Feb. 23, 1956. Sec. 2(f).

The words "The One Coat Plastic" are disclaimed apart from the mark as shown. Owner of Reg. No. 411,926.
For Ready-Mixed Paints Having Water-Repellent Properties for Interior and Exterior Surfaces.
First use May 15, 1924.

SN 7,566. The Burns and Russell Company, Baltimore, Md. Filed May 3, 1956.

Owner of Reg. Nos. 584,145 and 615,720.
For Coating Compositions—Namely, Synthetic Organic Resins, Coloring Matter and Filler for Application to One or More Faces of Molded Masonry Building Products To Produce Thereon a Decorative, Hard, Durable Surface Finish.
First use Apr. 27, 1956.

SN 9,663. PSC Inc., New York, N. Y. Filed June 5, 1956.

For Metal Coating Composition.
First use Apr. 30, 1956.

SN 9,801. Linmar, Inc., Cambridge, Mass. Filed June 7, 1956.

STOMP

For Wood Finish.
First use May 21, 1956.

SN 9,934. Barker Chemical Company, Chicago, Ill. Filed June 11, 1956.

MOTTLELOID

For Multi-Color Lacquer.
First use Dec. 1, 1955.

SN 9,986. S. C. Johnson & Son, Inc., Racine, Wis. Filed June 11, 1956. Sec. 2(f).

JOHNSON'S

For Preparations for Wax Coating Agricultural Produce.
First use Nov. 28, 1945.

SN 11,129. American-Marietta Company, Chicago, Ill. Filed June 28, 1956.

AMERPLAZ

For Enamels.
First use on or about Aug. 2, 1955.

SN 11,175. Mac's Super Gloss Co., Inc., Los Angeles, Calif. Filed June 28, 1956.

Owner of Reg. Nos. 425,262 and 503,054.
For Concentrated Tire Paint; Rubber Dressing.
First use 1935.

SN 11,252. A. Gusmer, Inc., Hoboken, N. J. Filed June 29, 1956.

For Plastic Cladding, Resin, and Hardener.
First use June 19, 1956.

SN 11,295. Carlton L. Rydstrom, d. b. a. The Norcote Company, St. Petersburg, Fla. Filed June 29, 1956.

NORCOTE

For Paints, Lacquers, Enamels, and Solvents.
First use about Jan. 15, 1946.

SN 11,467. Briggs-Maroney Co., Incorporated, d. b. a. Cord Paint Company, Everett, Mass. Filed July 3, 1956.

JEBA

For Wood Finish.
First use June 29, 1956.

SN 11,472. Devoe & Raynolds Company, Inc., Louisville, Ky. Filed July 3, 1956.

WONDER CRAFT

For Ready-Mixed Paints.
First use June 1956.

SN 11,495. The O'Brien Corporation, South Bend, Ind. Filed July 3, 1956.

COLOR-FLEK

For Wall Paint.
First use May 21, 1954.

SN 11,725. Vitro Corporation of America, New York, N. Y. Filed July 6, 1956.

VITRO

Owner of Reg. Nos. 169,820, 172,975, and 184,300.
For Metallic and Metallic Oxide Pigment Materials, Enameling and Ceramic Colors, Ceramic Color Frits, Refractory Coating Compounds, Ceramic Fluxes and Ready-Prepared Ceramic Glazes and Enamels.
First use August 1910.

SN 11,902. Badger Paint & Hardware Stores, Inc., d. b. a. Badger Paint & Varnish Works, Milwaukee, Wis. Filed July 11, 1956.

Owner of Reg. No. 601,540.
For Ready-Mixed Paints, Varnishes, Paint Enamels, Wall Primers, Resinous Base Wood Preserving and Sealing Coatings, Paste Wood Fillers, Shellacs, Oil Stains, and Water Resistant Coatings.
First use Feb. 17, 1955.

SN 11,990. The Wilbur & Williams Company, Boston, Mass. Filed July 11, 1956. Sec. 2(f).

FRIGID-COAT

For Ready-Mixed Interior Paints for Wood, Metal, and Masonry.
First use June 1, 1948.

SN 12,048. Rogers Paint Products, Inc., Detroit, Mich. Filed July 12, 1956.

DETROLAC 35

For Varnish (Interior and Exterior).
First use Dec. 30, 1935.

SN 13,027. Devoe & Raynolds Company, Inc., New York, N. Y. Filed July 30, 1956.

Bico

For Paints, Varnishes, Lacquers, Enamels, Driers, Stains, Removers, Waterproofing, and Bonding Liquid.
First use in 1935.

SN 13,028. Devoe & Raynolds Company, Inc., New York, N. Y. Filed July 30, 1956.

BICO BOND

For Cement and Concrete Paint, Thinners, Reducers, Plastics, and Primers.
First use in 1935.

SN 13,029. Devoe & Raynolds Company, Inc., New York, N. Y. Filed July 30, 1956.

Bico Lite

For Paints, Enamels, Varnishes, and Primers.
First use in 1950.

SN 13,078. Seidlitz Paint & Varnish Co., Kansas City, Mo. Filed July 30, 1956. Sec. 2(f) as to "Seidlitz."

SEIDLITZ
COLOR
CENTER

For Paint in Paste or Semi-Paste Form, Varnish, Lacquer, and Coloring Material for Paint in Powdered Form.
First use July 10, 1956; May 1, 1931, as to "Seidlitz."

SN 13,192. Bil-Dry, Grip-On Corporation, Norfolk, Va. Filed Aug. 1, 1956.

Bil-Dry

For Heavy Duty Waterproofing Compound for Use on Cinder Block, Brick, and Concrete.
First use in 1941.

SN 13,193. Bil-Dry, Grip-On Corporation, Norfolk, Va. Filed Aug. 1, 1956.

Grip-on

For Cement Paint and Water Repellent Coating.
First use in 1941.

SN 13,209. The Glidden Company, Cleveland, Ohio. Filed Aug. 1, 1956.

GLID-SEAL

For Paint Sealers.
First use Feb. 24, 1955.

SN 13,212. The Glidden Company, Cleveland, Ohio. Filed Aug. 1, 1956.

GLID-PLATE

For Paint, Enamels, Enamel Primers, and Polymerization Catalysts for Paint, Enamels, and Primers.
First use May 20, 1955.

SN 13,267. American Machine & Foundry Company, New York, N. Y. Filed Aug. 2, 1956.

AMFLOW

For Paints, Base Coats, Finishers, Conditioners, Thinners, Retarders, Undercoats, Lacquers, Shellacs, Varnishes, Cleaners, and Oils.
First use Mar. 22, 1955.

SN 13,333. American Coating Supply Company, Tulsa, Okla. Filed Aug. 3, 1956.

Fieldjointer

For Pipe Line Coatings.
First use Oct. 15, 1951.

SN 13,353. Cook & Dunn Paint Corporation, Newark, N. J. Filed Aug. 3, 1956.

HARMONY HUES

For Dry, Paste, and Ready-Mixed Paints, Varnishes, Lacquers, Paint Enamel, Thinners.
First use Apr. 1, 1950.

SN 13,355. The H. B. Davis Company, Baltimore, Md. Filed Aug. 3, 1956. Sec. 2(f).

DAVIS OF BALTIMORE

Owner of Reg. Nos. 362,017, 429,104, and 431,088.
For Paints (Ready Mixed and Liquid, Paste Form and Dry), Paint Enamels, Japans, Varnishes, Stains, and Wood Fillers.
First use June 1952.

SN 13,442. The General Tire & Rubber Company, Akron, Ohio. Filed Aug. 6, 1956.

BOLTA-TOP

The word "Top" is disclaimed except as a part of the mark as depicted. Owner of Reg. Nos. 301,800, 692,388, and others.
For Flexible Plastic Laminate for Use in Table and Counter Covering Materials.
First use May 18, 1956.

SN 13,892. W. F. Webster Cement Co., Cambridge, Mass. Filed Aug. 13, 1956.

WEBTEX

For Coating Fluids for Application to Building Surfaces Including Water-Proofing Liquids for Roofs, Foundations and Other Structural Components Composed of Canvas, Concrete, Felt, Metal or Initially Rolled Composition Sheet; Coating Fluids for Undercoating Automotive Vehicles; Asphalt Paints for Concrete, Metal, Brick, Wood and the Like; and Primers for Asphalt Paints.
First use March 1930.

SN 13,959. Binney & Smith Inc., New York, N. Y. Filed Aug. 15, 1956.

BINNEY & SMITH
The CRAYOLA Makers

No claim is made to the exclusive use of the representation of a stick of crayon apart from the mark as shown. Owner of Reg. Nos. 121,394, 560,159, and others.
For Finger Paint.
First use May 2, 1956.

SN 13,960. Binney & Smith, Inc., New York, N. Y. Filed Aug. 15, 1956.

DRIAD

Owner of Reg. No. 375,944.
For Tempera Colors.
First use May 8, 1956.

SN 14,001. Rockford Paint Manufacturing Co., Rockford, Ill. Filed Aug. 15, 1956.

"TIDY-UP"

For Paints, Enamels, Lacquers, and Similar Coatings.
First use July 23, 1956.

SN 14,050. Bettis Corporation, Houston, Tex. Filed Aug. 16, 1956.

CRYSTALINED

For Linings for Water Cooler Cans and Lined Water Cooler Cans.
First use Mar. 1, 1956.

SN 14,055. Cadar Paint Corporation, Baltimore, Md. Filed Aug. 16, 1956.

CADAR

For Paint.
First use July 18, 1956.

SN 14,472. Prismo Safety Corporation, Huntingdon, Pa. Filed Aug. 23, 1956.

'200'

Owner of Reg. Nos. 542,231, 566,232, and 581,756.
For Coating Materials Comprising Paint Binder, Binder Solvent, and Small Light Refracting Materials Such as Minute Glass Spheres, for Use in Connection With the Fabrication of Highway Markers, Other Markers and the Like.
First use Jan. 5, 1956.

SN 14,731. Conversion Chemical Corporation, Rockville, Conn. Filed Aug. 28, 1956.

KENVERT

For Composition for Brightening, Sealing, and Protecting Non-Ferrous Metals.
First use Jan. 30, 1956.

SN 14,872. W. P. Fuller & Co., San Francisco, Calif. Filed Aug. 30, 1956.

MULTI-MIL

For Protective Finishes.
First use Aug. 24, 1953.

SN 15,310. The Reardon Company, St. Louis County, Mo. Filed Sept. 7, 1956.

CHEX

For Wall Size and Sealer.
First use Feb. 1, 1933.

SN 15,493. Seymour of Sycamore, Inc., Sycamore, Ill. Filed Sept. 11, 1956. Sec. 2(f).

THE LINE THAT SHINES

Owner of Reg. No. 550,593.
For Liquid Paints Including Enamels.
First use in June 1949.

SN 15,563. Stoner-Mudge, Inc., Pittsburgh, Pa. Filed Sept. 12, 1956.

T-V-M

For Enamels.
First use on or about July 6, 1956.

SN 15,571. Wall-Firma, Inc., Elizabeth, Pa. Filed Sept 12, 1956

For Composition for Waterproofing Masonry.
First use June 28, 1950.

SN 15,572. Wall-Firma, Inc., Elizabeth, Pa. Filed Sept. 12, 1956.

FIRMA-PLUG

For Composition for Waterproofing Masonry.
First use June 1951.

SN 15,709. Midland Industrial Finishes Co., Waukegan, Ill. Filed Sept. 14, 1956.

MICOTEX

For Paints, Lacquers, Enamels, and Organic or Semi-Organic (Silicone) Surface Coatings.
First use on or about Mar. 9, 1949.

SN 15,710. Midland Industrial Finishes Co., Waukegan, Ill. Filed Sept. 14, 1956.

MICOFLEX

For Paints, Lacquers, Enamels, and Organic or Semi-Organic (Silicone) Surface Coatings.
First use on or about June 30, 1954.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

SN 690,627. Kelemata, S. R. L., Turin, Italy. Filed July 1, 1955.

TISANA KELÉMATA

The word "Tisana" would be translated as "ptisan," meaning "a nourishing decoction, often having a slight medicinal quality." Applicant disclaims the word "Tisana" apart from the mark as shown. Owner of Italian Reg. No. 94,964, dated Mar. 2, 1949.
For Pharmaceutical Specialty Consisting of a Mixture of Medicinal Herbs and Drugs for the Preparation of a Disintoxicant and Decongestive Ptisan, a Vegetable Laxative in Pill Form.

SN 698,861. John A. Greaves, Kansas City, Mo. Filed Nov. 25, 1955.

QUEEN JELLY

For Vitamin and Hormone Preparation in Capsule Form
First use Oct. 31, 1955.

SN 700,085. Ciba Pharmaceutical Products Inc., Summit, N. J. Filed Dec. 16, 1955.

RTC

For Compressed, Pharmaceutical, Dry-Coated Tablets for Oral Use.
First use Nov. 30, 1955.

SN 542. C. H. Boehringer Sohn, Ingelheim am Rhein, Germany. Filed Jan. 12, 1956.

ADUAL

Owner of German Reg. No. 486,199, dated June 22, 1936.
For Sedative and Hypnotic Preparations.

SN 546. C. H. Boehringer Sohn, Ingelheim am Rhein, Germany. Filed Jan. 12, 1956.

CODYL

Owner of German Reg. No. 360,029, dated Nov. 25, 1926.
For Cough Preparation.

SN 556. C. H. Boehringer Sohn, Ingelheim am Rhein, Germany. Filed Jan. 12, 1956.

SYNCALTON

Owner of German Reg. No. 484,654, dated Apr. 23, 1936.
For Cardiovascular Analeptic.

SN 559. C. H. Boehringer Sohn, Ingelheim am Rhein, Germany. Filed Jan. 12, 1956.

BILINOL

Owner of German Reg. No. 212,533, dated Sept. 16, 1916.
For Preparation for the Treatment of Hepatic and Biliary Disorders.

SN 624. Milton Reife, d. b. a. The Laxcafé Company, Yonkers, N. Y. Filed Jan. 12, 1956.

Laxcafé

Owner of Reg. No. 550,002.
For Instant Coffee Laxative.
First use Aug. 1, 1955.

SN 4,002. Norman Dartell, d. b. a. Dartell Laboratories, Los Angeles, Calif. Filed Mar. 7, 1956.

SATIN-GEL

For Medicinal Preparation Aid in Natural Elimination and Appetite Appeasement.
First use Sept. 1, 1955.

SN 6,868. Norman F. Tate, d. b. a. Tate-Lax Medicine Co., Waco, Tex. Filed Apr. 20, 1956.

TATE-LAX

For Laxative and Blood Tonic.
First use May 1, 1924.

SN 8,470. The Chattanooga Medicine Co., Chattanooga, Tenn. Filed May 17, 1956.

DYRID

Owner of Reg. No. 571,118.
For Kaolin-Pectin-Blackberry Compound for the Relief of Simple Diarrhea.
First use Apr. 27, 1956.

SN 8,753. Dome Chemicals, Inc., New York, N. Y. Filed May 22, 1956.

QUINADOME

Owner of Reg. No. 383,764.
For Medicinal Preparations for External Use in the Treatment of Skin Infections and Other Skin Irritations.
First use in April 1955.

SN 8,754. Dome Chemicals, Inc., New York, N. Y. Filed May 22, 1956.

CORT-DOME

Owner of Reg. No. 383,764.
For Medicinal Preparations for External Use in the Treatment of Skin Infections and Other Skin Irritations.
First use in November 1954.

SN 9,007. Whitehall Pharmacal Company, New York, N .Y. Filed May 24, 1956.

QUILLTRAN

For Sedative.
First use May 18, 1956.

SN 9,012. Carl L. Apgar, Jr., d. b. a. Apgar's Pharmacy, Stamford, Conn. Filed May 25, 1956.

FLAVOCAPS

For Water Soluble Vitamin C and Bioflavanoid Capsule for Prophylactic and Therapeutic Effect.
First use Jan. 4, 1956.

SN 9,033. Drugmaster, Inc., St. Louis, Mo. Filed May 25, 1956.

BETAPRO

For Vitamin and Mineral Supplement to the Diet.
First use Nov. 15, 1951.

SN 10,417. Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed June 18, 1956.

PRESUPRAN

Owner of German Reg. No. 646,314, dated Oct. 19, 1953.
For Chemotherapeutic Agents, Chemical Products for Healing Purposes and Culture of Health, and Pharmaceutical Drugs.

SN 10,419. Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed June 18, 1956.

SINPRO

Owner of German Reg. No. 679,199, dated July 18, 1955.
For Chemotherapeutic Agents, Chemical Products for Healing Purposes and Culture of Health, and Pharmaceutical Drugs.

SN 12,588. Carter Products, Inc., New York, N. Y. Filed July 23, 1956.

EASY

For Tranquillizers and Sedatives for Use in Relieving Tension, Nervousness, Headaches, Fatigue, Depression, and Sleeplessness.
First use May 15, 1956.

SN 13,867. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed Aug. 13, 1956.

DOMARAX

For Therapeutic Preparation Affecting the Central Nervous System.
First use June 7, 1956.

SN 13,901. Anchor Serum Co. of Indiana, Inc., Indianapolis, Ind. Filed Aug. 14, 1956.

V-S-P

For Drinking Water Medication Containing Antibiotics and Vitamins for Veterinary Use.
First use July 7, 1956.

SN 14,091. Philadelphia Ampoule Laboratories, Philadelphia, Pa. Filed Aug. 16, 1956.

APPETUM

For Chewing Gum Containing Vitamins.
First use June 20, 1956.

SN 14,092. Philadelphia Ampoule Laboratories, Philadelphia, Pa. Filed Aug. 16, 1956.

FLAMOTIDE

For Riboflavin-5'-Phosphate Solution.
First use July 13, 1956.

CLASS 19

VEHICLES

SN 693,163. Manorette, Inc., Chilton, Wis. Filed Aug. 16, 1955.

MANORette

For House Trailers.
First use May 15, 1954.

SN 695,812. Ford Motor Company, Dearborn, Mich. Filed Oct. 4, 1955.

LIFEGUARD

For Steering Wheels, Rear View Mirrors, Sun Visors, and Instrument Panel Padding.
First use Sept. 23, 1955.

SN 1,201. Borg-Warner Corporation, Chicago, Ill. Filed Jan. 23, 1956.

LOAD LUGGER B-W BORG-WARNER

Owner of Reg. Nos. 376,327, 513,546, and 607,848.
For Specially Equipped Trucks Adapted To Hoist and Transport Detachable Cargo Carrying Structures and the Structures per se and Parts Thereof for Replacement and Repair.
First use Nov. 21, 1955.

SN 3,018. Parker Sweeper Company, Springfield, Ohio. Filed Feb. 20, 1956.

Parker PELICAN

Owner of Reg. Nos. 518,158 and 538,421.
For Lawn Cart.
First use Oct. 10, 1955.

SN 4,525. Dunlop Rubber Company Limited, Birmingham, England. Filed Mar. 14, 1956.

MAXARET

Priority claimed under Sec. 44(d) on British Reg. No. 746,660, dated Oct. 8, 1955.
For Brake Mechanism for Aircraft and Land Vehicles.

SN 8,076. Joseph Kurmann, d. b. a. Kurmann Trailer Mfg. Co., San Fernando, Calif. Filed May 10, 1956.

FIRE-BALL

The drawing is lined for red.
For House Trailers.
First use Feb. 1, 1956.

SN 8,325. The Fairbanks Company, New York, N. Y. Filed May 15, 1956.

LAMILON

For Wheels for Industrial Trucks.
First use June 1955.

SN 13,740. Delta Tank Manufacturing Company, Inc., Baton Rouge, La. Filed Aug. 10, 1956.

DELTA

For Tank Trucks and Tank Trailers.
First use July 1, 1945.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

SN 700,360. Advance Machine Company, Minneapolis, Minn. Filed Dec. 21, 1955.

"PACEMAKER"

For Electric Floor Polishing Machines.
First use June 17, 1955.

SN 9,705. Emerson & Cuming, Inc., Canton, Mass. Filed June 6, 1956.

ECCOSORB

For Microwave Absorbers.
First use June 1955.

SN 12,927. American Machine & Foundry Company, New York, N. Y. Filed July 27, 1956.

MICRO-PAK

For Electric Storage Batteries.
First use on or about June 10, 1955.

SN 12,945. Electra Motors Inc., Anaheim, Calif. Filed July 27, 1956.

GLAMICONE

For Electrical Insulation Applied to the Windings of Electrical Machinery Such as Motors.
First use on or about Apr. 13, 1956.

SN 13,003. Allied Battery Corporation of America, Dallas, Tex. Filed July 30, 1956.

ALLIED

Owner of Reg. No. 319,550.
For Storage Batteries.
First use in or about November 1932.

SN 13,240. Plastic Wire & Cable Corporation, Jewett City, Conn. Filed Aug. 1, 1956.

SILV-A-FLEX

For Nonmetallic Sheathed Cable.
First use March 1953.

SN 13,586. Hewlett-Packard Company, Palo Alto, Calif. Filed Aug. 8, 1956.

HEWLETT hp PACKARD

Owner of Reg. Nos. 399,314, 626,870, and others.
For Amplifiers, Coaxial Probe Connectors, Power Supplies, and Waveguide to Coaxial Adapters.
First use in February 1946.

SN 13,662. Furnas Electric Company, Batavia, Ill. Filed Aug. 9, 1956.

Gard-it

For Electric Switches.
First use on or about June 28, 1956.

SN 13,673. Infra Electronic Corporation, Roseland, N. J. Filed Aug. 9, 1956.

PRESYN

For Synchrotype Devices, Such as Transmitters, Receivers, Control Transformers, Differentials, and Resolvers.
First use Dec. 6, 1954.

SN 13,674. Infra Electronic Corporation, Roseland, N. J Filed Aug. 9, 1956.

SATEMP

For Servo Motors.
First use Nov. 29, 1954.

SN 13,787. The Thomas & Betts Co., Inc., Elizabeth, N. J. Filed Aug. 10, 1956.

SOCKS

For Metallic Connectors and Couplings Adapted To Be Frictionally Fitted on Electric Metallic Tubing Utilized in Raceway Wiring Systems.
First use May 1, 1949.

SN 13,806. Angelus Aircraft Inc., d. b. a. Pioneer Signalite Company, Los Angeles, Calif. Filed Aug. 13, 1956.

FYR-FLY

The drawing is lined for red but no claim is made to color.
For Flashing Warning Lights and Continuous Warning Lights.
First use Apr. 17, 1956.

SN 13,915. Hanson-Van Winkle-Munning Company, Matawan, N. J. Filed Aug. 14, 1956.

SEMITROPE

For Electric Current Rectifiers of Semiconductor Type.
First use about Feb. 10, 1956.

SN 14,042. Airborne Instruments Laboratory, Inc., Mineola, N.Y. Filed Aug. 16, 1956.

STRIPLINE

For Micro-Wave Circuit Components.
First use Sept. 20, 1954.

SN 14,224. Dalic Metachemical Limited, Toronto, Ontario, Canada. Filed Aug. 20, 1956.

DALIC

For Electrolysis Outfits.
First use Nov. 23, 1954; in commerce Aug. 9, 1955.

SN 14,300. Vari-Pac Corp., New York, N. Y. Filed Aug. 20, 1956.

VARI-PAC

For Electric Lamps for Household, Factories, Piers and Airports, Color and Decorator Lamps, Spot and Flood Light Lamps, Insect Repellant Lamps, Infrared Heat Lamps, Reflector and Fluorescent Lamps and Lamp Fixtures, and Sockets.
First use October 1955.

SN 14,419. Trio Manufacturing Co., Griggsville, Ill. Filed Aug. 22, 1956.

GROUND-MASTER

For Television Antenna Kit.
First use May 29, 1956.

SN 15,120. The Garlock Packing Company, Palmyra, N. Y. Filed Sept. 5, 1956. Sec. 2(f).

GARLOCK

For Materials and Components for Electric and Electronic Circuits—Namely, Insulators, Insulation Material, Insulation Tape, Connectors, Bushings, Sockets, and Trimmers.
First use on or about June 15, 1951, on insulation tape.

SN 18,681. General Insulated Wire Works, Inc., Providence, R. I. Filed Oct. 30, 1956.

GENERAL INSULATED WIRE WORKS, INC.

For Flexible Electric Cord, Flexible Electric Cord Sets With Plugs, Rubber and Plastic Electric Attachment Plugs, Telephone and Electric Communication Wires.
First use Jan. 2, 1941.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

SN 633,197. The Dot Line Company, New Bedford, Mass., to The Continental Elastic Corporation, New Bedford, Mass. Filed July 29, 1952.

It's Cosmanized!

For Fishlines.
First use Feb. 1, 1952.

SN 661,750. Wiffle Manufacturing Company, Stratford, Conn. Filed Feb. 26, 1954.

WIFFLE

For Simulated or Auxiliary Pliable Plastic Baseball and a Game Played Therewith.
First use Feb. 5, 1954.

SN 693,276. Herbert Rubin, d. b. a. New York Toy & Game Mfg. Co., New York, N. Y. Filed Aug. 17, 1955.

ADJUSTO PRO

Owner of Reg. Nos. 530,686 and 606,672.
For Punching Bag Set.
First use Mar. 28, 1955.

SN 693,408. Von Lengerke & Antoine, Chicago, Ill. Filed Aug. 19, 1955.

VL&A

Owner of Reg. No. 525,657.
For Fishing, Hunting, Baseball, and Skiing Equipment and Other Sporting Goods and Equipment and Accessories Therefor.
First use 1896.

SN 700,608. Hinson Manufacturing Co., Waterloo, Iowa. Filed Dec. 27, 1955. Sec. 2(f).

HINSON

For Shag Bags and Golf Bags and Parts Therefor.
First use 1923.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

SN 685,209. Rival Manufacturing Company, Kansas City, Mo. Filed Apr. 8, 1955.

'KITCHENEER'

For Hand-Operated Devices for Grinding, Chopping, Shredding, Slicing, and Grating Foods.
First use Nov. 1, 1954.

SN 688,372. Tupper Corporation, North Smithfield, R. I. Filed May 26, 1955.

TUPPERWARE

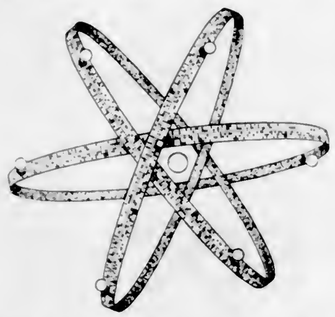
Owner of Reg. No. 500,442.
For Molded Plastic Cocktail Spoons, Forks, Spears, Muddlers, Sandwich Picks, Stirrers, Slicers, and Saws.
First use Mar. 3, 1950.

SN 604. Erwin Krusius, d. b. a. Gebr. Krulsus, Solingen, Germany. Filed Jan. 12, 1956.

PIONEER

Owner of German Reg. Nos. 547,070, dated Aug. 16, 1940, and 679,053, dated Sept. 8, 1954.
For Handweapons, House, Table and Kitchen Utensils Including Stainless Steel Flatware and Electric Appliances, Cutting, Washing, Sewing and Automatic Vending Machines, Agricultural and Stable Implements, and Lathe Machines.

SN 1,769. Commercial Controls Corporation, Rochester, N. Y. Filed Jan. 31, 1956.



For Power Operated Typewriters, Punch Units for Producing Code-Punched Record Media and Reader Units for Reading Such Media, Printing Machines for Printing Copy While Concurrently Producing Code-Punched Record Media, Printing Machines Automatically Controlled by Information Read From Code-Punched Record Media, Punched-Code Converters and Reconverters, Punched-Code Distributor and Collector Units, Verifying Typewriters, Auxiliary Equipment and Supply Materials for Use With Any of the Foregoing.
First use Apr. 5, 1955.

SN 3,025. Probst & Class, Rastatt/Baden, Germany. Filed Feb. 20, 1956.

PUC

Owner of German Reg. No. 642,076, dated Sept. 1, 1952.
For Crushing and Comminuting Machines, Emulsifying Machines, Colloid Mills, Mills and Grinding Devices for Fine Grinding and Coarse Crushing.

SN 5,553. Société à R. L. Gambin & Co., Billancourt, Seine, France. Filed Mar. 30, 1956.

gambin

Priority under Sec. 44(d) on French Reg. No. 454,731, dated Dec. 23, 1955 (Seine); Natl. Inst. No. 56,251.
For Machine-Tools and Their Accessories; the Mark Being Applied to Milling Machines, Attachments Used on Machine Tools Such as Auxiliary Milling Heads, Copy-Milling Devices, Dividing Heads, and Couplings.

SN 5,554. Société à R. L. Gambin & Co., Billancourt, Seine, France. Filed Mar. 30, 1956.

Priority under Sec. 44(d) on French Reg. No. 454,731, dated Dec. 23, 1955 (Seine); Natl. Inst. No. 56,251.
For Machine-Tools and Their Accessories; the Mark Being Applied to Milling Machines, Attachments Used on Machine Tools Such as Auxiliary Milling Heads, Copy-Milling Devices, Dividing Heads, and Couplings.

SN 6,651. Herman A. Smith, d. b. a. Wellmaster Oil Tool Co., Harvey, La. Filed Apr. 18, 1956.

WELLMASTER

For Centralizers, Being Devices for Centering Pipe in the Hole of an Oil Well.
First use Dec. 15, 1955.

SN 9,349. Roy M. Eldal, Albuquerque, N. Mex. Filed May 31, 1956.

ZIG-ZAG

For Bar Joist Web Bending Machine.
First use Jan. 15, 1950.

SN 10,524. Crescent Tool Company, Jamestown, N. Y. Filed June 19, 1956.

CRESTOLOCK

Owner of Reg. Nos. 283,646 and 284,271.
For Wrenches.
First use May 28, 1956.

SN 10,525. Crescent Tool Company, Jamestown, N. Y. Filed June 19, 1956.

CRESTOGRIP

Owner of Reg. Nos. 283,646 and 284,271.
For Pliers.
First use May 28, 1956.

SN 17,335. Borg-Warner Corporation, Chicago, Ill. Filed Oct. 12, 1956.

HYDRATORC

For Well Tools—Namely, Tubing or Pipe Tongs and Parts Thereof.
First use June 3, 1955.
Subj. to Intf. with SN 15,743.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

SN 691,220. E. Lagomarsino S. p. A., Milan, Italy. Filed July 13, 1955.

LAGOMARSINO

Owner of Italian Reg. No. 102,636, dated June 20, 1951.
For Adding Machines, Calculating Machines, Bookkeeping Machines, Automatic Addressing Machines.

SN 6,471. Andrew F. Schott, Milwaukee, Wis. Filed Apr. 16, 1956.

FRACTIONAID

For Device for Calculating With and for Teaching Fractions.
First use Jan. 23, 1956.

SN 7,085. William B. Fell, d. b. a. William B. Fell Company, Rockford, Ill. Filed Apr. 25, 1956. Sec. 2(f).

FELL

For Precision Levels.
First use June 1939.

SN 7,263. McGraw Electric Company, Elgin, Ill. Filed Apr. 27, 1956.

SUPERFLEX

Owner of Reg. Nos. 379,120 and 534,773.
For Thermal Timers for Automatic Toasters.
First use Aug. 8, 1949.

SN 9,703. Detectolab, Inc., Chicago, Ill. Filed June 6, 1956.

DETECTOLAB

For Electronic Instruments for Measuring Nuclear Radiations and Accessories and Parts Thereof for Replacement and Repair.
First use October 1952.

SN 10,498. Ullman Products Corp., Norwalk, Conn. Filed June 18, 1956.

MIRRO · MAG

For Magnetically Supported Mirrors for Inspecting the Interior of Rifle Barrels or the Like.
First use on or about Jan. 20, 1956.

CLASS 35

BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

SN 690,605. The Dayton Rubber Company, Dayton, Ohio. Filed July 1, 1955. Sec. 2(f).

McClaren

Owner of Reg. No. 325,617.
For Pneumatic Tires and Tubes Made Wholly or Partly of Rubber.
First use on or about Jan. 1, 1935.

SN 12,863. American Biltrite Rubber Co., Inc., Chelsea, Mass. Filed July 26, 1956.

BILTRITE

For Garden Hose and Sprinklers (Perforated Hose).
First use Mar. 16, 1955.

SN 12,943. Dunlop Tire and Rubber Corporation, Buffalo, N. Y. Filed July 27, 1956.

MONOFORT

For Tires.
First use June 21, 1956.

SN 13,631. Aircraft Tools, Inc., Los Angeles, Calif. Filed Aug. 9, 1956.

ATITE

For Sealing Grommets.
First use May 17, 1956.

SN 13,685. Raybestos-Manhattan, Inc., Manheim, Pa. Filed Aug. 9, 1956.

PYROTORQ

For Clutch Facings.
First use June 27, 1956.

CLASS 37

PAPER AND STATIONERY

SN 651,149. The American Envelope Company, West Carrollton, Ohio. Filed July 31, 1953.

Aristokraft

For Envelopes—Namely, Commercial, Window, Open Side, Open End, and Catalog Envelopes.
First use Aug. 23, 1938.

SN 7,216. Riegel Paper Corporation, New York, N. Y. Filed Apr. 26, 1956.

THERMOMAT

For Thermosetting Mats for the Graphic Arts Industries Made of Resin Impregnated Paper.
First use Mar. 6, 1956.

SN 8,235. Librascope, Incorporated, Glendale, Calif. Filed May 14, 1956.

LIBRASCOPE

Owner of Reg. Nos. 372,767, 620,318, and others.
For Graph Paper.
First use Aug. 13, 1954.

CLASS 38

PRINTS AND PUBLICATIONS

SN 680,477. The Little Studio, Inc., New York, N. Y. Filed Jan. 25, 1955.

the little studio

For Pictures, Paintings, Portraits, Photographs, and Copies or Reproductions Thereof Including Prints, Engravings, and the Like.
First use Mar. 10, 1952.

SN 686,448. HMH Publishing Co., Inc., Chicago, Ill. Filed Apr. 28, 1955.

Owner of Reg. No. 600,018.
For Monthly Magazine.
First use June 15, 1954.

SN 695,476. Gilbert Publishing Company, Inc., Cleveland, Ohio. Filed Sept. 28, 1955.

Gleanings

For Magazines.
First use Sept. 1, 1955.

SN 698,734. Revlon Products Corporation, New York, N. Y., to Revlon, Inc., New York, N. Y. Filed Nov. 22, 1955.

HIDDEN BEAUTY CLINIC

For Periodical Column Title for Use in Successive Issues of a Periodical.
First use Sept. 20, 1955.

SN 524. Fredda F. S. Sieve, New York, N. Y. Filed Jan. 11, 1956.

DO-DEK

For Calendars.
First use Dec. 9, 1955.

SN 848. "21" Publishing Corporation, New York, N. Y. Filed Jan. 16, 1956.

CALLING ALL GIRLS

For Magazine Published Monthly.
First use Aug. 16, 1955.

SN 1,595. Famous Features Syndicate, New York, N. Y. Filed Jan. 27, 1956.

PATT-O-RAMA

For Dress Pattern Instructions Charts.
First use Nov. 28, 1955.

SN 3,833. Marjorie H. Duncan, Twin Lake, Mich. Filed Mar. 5, 1956.

SLIDE-A-RULE

For Movable Printed Insert Card Contained Within an Outer Slide Chart, Which, When Set Upon a Particular Mark, Reveals Relative Information in a Proper Corresponding Cut-Out Window, on the Subject of Parliamentary Procedure.
First use Oct. 15, 1955.

SN 6,294. Shaw and Slavsky, Inc., Detroit, Mich. Filed Apr. 12, 1956.

S and S

The drawing is lined for red but no claim is made to color.
For Printed Price Tags, Display Cards, Serially Numbered Tags, Directory Boards, Merchandise Identification Signs for Use in Super Markets and Display Signs for Use in Super Markets.
First use Mar. 12, 1956.

SN 9,221. Colonial Coverlet Guild of America, Chicago, Ill. Filed May 18, 1956.

COLONIAL COVERLET GUILD OF AMERICA

For Books, Yearbooks, and Booklets Issued From Time to Time.
First use Jan. 1, 1928.

SN 9,313. Weekly Publications, Inc., New York, N. Y. Filed May 29, 1956.

SPOTLIGHT ON BUSINESS

For Department or Section of a Magazine.
First use May 21, 1956.

SN 9,343. The Chicago Daily News, Inc., Chicago, Ill. Filed May 31, 1956. Sec. 2(f).

TRIPLE STREAK

Owner of Reg. Nos. 248,551, 251,988, and 593,265.
For Newspapers.
First use Mar. 3, 1951.

SN 9,941. Business News Publishing Company, Detroit, Mich. Filed June 11, 1956. Sec. 2(f).

AIR CONDITIONING & REFRIGERATION NEWS

Owner of Reg. No. 345,267.
For Publication, Being a Weekly Newspaper Devoted to Information Pertinent to the Air Conditioning and Refrigeration Industry and Those Interested Therein.
First use Sept. 16, 1936.

SN 10,329. James A. McCarthy, New York, N. Y. Filed June 15, 1956.

'HELLO FOLKS!'

For Feature Articles in a Periodical.
First use December 1955.

SN 13,087. Standard Milling Company, Kansas City, Mo. Filed July 30, 1956.

THROUGH THE OVEN DOOR

For Column Published From Time to Time.
First use on or about June 6, 1956.

CLASS 39

CLOTHING

SN 648,557. National Broadcasting Company, Inc., New York, N. Y. Filed June 10, 1953.

For Children's Outer T Shirts of Various Sizes.
First use Mar. 26, 1953.

SN 655,683. National Tailoring Co., Chicago, Ill. Filed Nov. 2, 1953.

Owner of Reg. No. 101,129.
For Men's Clothing—Namely, Men's Made-to-Measure Suits, Coats, Vests, Trousers, and Overcoats and Ladies' Made-to-Measure Suits and Topcoats.
First use Feb. 4, 1926.

SN 674,850. J. Schoeneman, Incorporated, Baltimore, Md., now by change of name Slade, Inc., to J. Schoeneman, Incorporated. Filed Oct. 14, 1954. Sec. 2(f).

Custom Fabric

For Coats, Vests, Trousers, Knickerbockers, Topcoats, and Overcoats for Men, Youths, and Boys.
First use September 1932.

SN 680,059. Kinnel Shoe Company, Inc., Boston, Mass. Filed Apr. 22, 1955. Sec. 2(f).

Fashioned by Capasella

For Women's Shoes of Leather, Fabric, or Combinations Thereof.
First use January 1952.

SN 686,595. The Alligator Company, St. Louis, Mo. Filed May 2, 1955.

Galecoat

Owner of Reg. No. 623,576.
For Raincoats and Topcoats.
First use Dec. 5, 1932.

SN 700,025. Gilmore Shirts, Inc., New York, N. Y. Filed Dec. 15, 1955.

Davy Jones

For Outer Shirts for Boys and Girls.
First use Nov. 10, 1955.

SN 3,827. Coran Creations, Inc., New York, N. Y. Filed Mar. 5, 1956.

D'ZIO

For Ties.
First use Oct. 15, 1955.

SN 7,576. Danfra, Ltd., New Haven, Conn. Filed May 3, 1956.

DANFRA

For Men's Wearing Apparel—Namely, Shirts, Blouses, Underwear, Shorts, Bermuda Shorts, Ties, Running Pants, Overshirts, and Trousers.
First use July 11, 1955.

SN 9,027. Craddock-Terry Shoe Corporation, Lynchburg, Va. Filed May 25, 1956.

FEATHERLITE

For Shoes.
First use Apr. 2, 1926.

SN 14,003. Chester H. Roth Co., Inc., New York, N. Y. Filed Aug. 15, 1956.

U. S. AMBASSADOR OF FASHION

For Hosiery.
First use July 13, 1956.

SN 14,046. Aurora Undergarment Co., Inc., New York, N. Y. Filed Aug. 16, 1956.

BON BONS

For Brief Cut Panties.
First use Jan. 17, 1955.

SN 14,067. The Hinckley Knitting Company Limited, Hinckley, Leicestershire, England. Filed Aug. 16, 1956.

DENMOR

Owner of British Reg. No. 736,755, dated Dec. 1, 1954.
For Men's, Women's, and Children's Sweaters, Pullovers, Cardigans, and Jackets, All Being Knitted Articles of Clothing.

SN 14,231. Curtis Eddy-Form Co., New York, N. Y. Filed Aug. 20, 1956.

MISS TEE
(T for TALL)

Owner of Reg. No. 599,117.
For Slips, Nightgowns, Petticoats, Playsuits, Bathing Suits, Cardigans, and Pullovers.
First use Jan. 25, 1954.

SN 18,931. Philadelphia Hosiery Mills, Philadelphia, Tenn. Filed Nov. 1, 1956.

Pit-a-Pat

For Hosiery for Children.
First use Dec. 18, 1924.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

SN 689,442. United Elastic Corporation, Easthampton, Mass. Filed June 13, 1955.

IUY

For Knitted, Netted, and Textile Fabrics Made Up of a Mixture of Rayon and Cotton Fibers Applied in the Manufacture of Foundation Garments and Girdles Including Hose Supporters.
First use Jan. 1, 1921.

SN 878. Erwin Mills, Inc., Durham, N. C. Filed Jan. 17, 1956. Sec. 2(f).

SPORTDENIM

Owner of Reg. Nos. 385,730, 399,761, and 539,734.
For Denim in the Piece of Use Principally in Making Clothes.
First use Aug. 20, 1937.

SN 7,714. Millerton Manufacturing Company, Inc., Millerton, N. Y. Filed Apr. 30, 1956. Sec. 2(f).

(M) BOYNTON (M)
ACCESSORIES

The word "Accessories" is disclaimed apart from the mark as shown.
For Bedroom Ensembles—Namely, Bedspreads, Drapes, Vanity Skirts, and Pillow Shams.
First use Dec. 1, 1947.

SN 9,460. D. B. Fuller & Co., Inc., New York, N. Y. Filed June 1, 1956.

GOLD DUST

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use Feb. 1, 1955.

CLASS 43

THREAD AND YARN

SN 676,558. Templon Spinning Mills, Inc., Mooresville, N. C. Filed Nov. 12, 1954.

Templon

The lines on the drawing represent lines on the mark.
For Spun Yarns for Making Into Apparel.
First use Aug. 27, 1954.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

SN 10,069. Clifford R. Arnold, d. b. a. Arnold Health Equipment Company, New York, N. Y. Filed June 12, 1956.

TRAVELIER

For Health Equipment—Namely, Portable Folding Massage Tables.
First use in or about January 1949.

SN 11,507. Teca Corporation, White Plains, N. Y. Filed July 3, 1956.

TECA

Owner of Reg. Nos. 392,770, 396,159, and 530,554.
For Electro Medical Equipment for Biological and Physiological Measurements: for Medical Diagnosis: and for Treatment and Rehabilitation of the Human Body.
First use July 2, 1941.

SN 11,516. Air-Shields, Inc., Hatboro, Pa. Filed July 5, 1956.

HYDROJETTE

For Therapeutic Devices for Delivering an Atmosphere of Controlled Characteristics in the Treatment of Respiratory Conditions.
First use Nov. 2, 1955.

CLASS 45

SOFT DRINKS AND CARBONATED WATERS

SN 700,655. Kurt Reiss, Toronto, Ontario, Canada. Filed Dec. 27, 1955.

ALCOLA

Priority claimed under Sec. 44(d) on Canadian application filed Dec. 23, 1955; Reg. No. 104,932, dated Nov. 9, 1956.
For Soft Drinks.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

SN 692,311. Norman M. Coffin, Hollywood, Fla. Filed Aug. 2, 1955.

SPLIT SILK

For Fresh Vegetables.
First use on or about July 26, 1955.

SN 3,406. King Steak Company, Philadelphia, Pa. Filed Feb. 27, 1956.

KING

Owner of Reg. No. 623,632.
For Frozen Foods—Namely, Breaded Veal Steaks, Cheeseburgers, and Chopped Beef Patties.
First use Jan. 3, 1955.

SN 7,555. C. E. Zuercher & Co., Inc., Chicago, Ill. Filed May 2, 1956.

BABUSHKA

The term "Babushka" means "grandmother" when translated into English.
For Cheese.
First use Jan. 15, 1956.

SN 8,251. Modern Food Products Company, San Francisco, Calif. Filed May 14, 1956. Sec. 2(f).

SEA RICH

Owner of Reg. No. 521,375.
For Canned Crabmeat, Canned Tuna, and Canned Clams.
First use June 26, 1948, on canned crabmeat.

SN 8,296. Victory Spud Service, Inc., Chicago, Ill. Filed May 14, 1956.

JIFFY

For Fresh Pre-Cut Chemically Treated Potatoes.
First use Feb. 22, 1956.

SN 9,394. The Procter & Gamble Company, Cincinnati, Ohio. Filed May 31, 1956.

CHIPO

For Edible Vegetable Oil.
First use May 2, 1956.

SN 9,455. Farmers Rice Milling Company, Inc., Lake Charles, La. Filed June 1, 1956.

DIXIE QUEEN

For Short Grain Rice.
First use Apr. 12, 1956.

SN 9,616. Roy Weir, d. b. a. Valley Fruit and Vegetable Co., Pharr, Tex. Filed June 4, 1956. Sec. 2(f).

BETTER'N EVER

Owner of Reg. Nos. 562,450 and 375,340.
For Fresh Grapefruit and Fresh Vegetables.
First use Oct. 27, 1938, on fresh grapefruit.

SN 9,883. Minnesota Consolidated Canneries, Inc., Minneapolis, Minn. Filed June 8, 1956. Sec. 2(f).

JACKETTES

Owner of Reg. No. 555,508.
For Canned Potatoes.
First use October 1949.

SN 10,674. General Mills, Inc., Minneapolis, Minn. Filed June 21, 1956.

VITALITY

For High Protein Blend of Wheat Mill Streams Intended for Use in Baking and Related Operations.
First use June 6, 1956.

SN 11,220. L. Bianchi & Son, Merced, Calif. Filed June 29, 1956.

The picture is that of Angelina Mary Bianchi, minor daughter of L. Bianchi, consent of record.
For Fresh Vegetables and Fresh Fruits.
First use 1949.

CLASS 47

WINES

SN 2,169. Mogen David Wine Corporation, Chicago, Ill. Filed Feb. 6, 1956.

KEY

For Wine.
First use Jan. 24, 1956.

SN 4,041. Mogen David Wine Corporation, Chicago, Ill. Filed Mar. 7, 1956.

MD

For Wine.
First use October 1939.

CLASS 48

MALT BEVERAGES AND LIQUORS

SN 2,304. O'Keefe's Brewing Company Limited, Toronto, Ontario, Canada. Filed Feb. 8, 1956.

Owner of Canadian Reg. No. 208/45473, dated Jan. 10, 1929; and U. S. Reg. Nos. 346,914 and 364,343.
For Ale, Beer, Porter, and Stout.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

SN 692,365. Maxine A. Vestal, Englewood, Colo. Filed Aug. 2, 1955.

Trejewels

For Ornaments for Christmas Trees or the Like.
First use May 2, 1955.

SN 697,822. National Sponge Cushion Company, Inc., Los Angeles, Calif. Filed Nov. 7, 1955.

CONTOUR

For Sponge Rubber Lining or Padding for Rugs and Carpeting and Other Lining or Padding Uses.
First use on or about June 1, 1954.

SN 3,334. Allergan Corporation, Los Angeles, Calif. Filed Feb. 27, 1956.

DROP-TOP

For Bottle Caps.
First use Feb. 17, 1956.

SN 15,002. Anri Woodcarvings, Inc., Boston, Mass. Filed Sept. 4, 1956.

For Wood Carvings.
First use August 1954.

SN 15,036. Hockaday Associates, Inc., New York, N. Y. Filed Sept. 4, 1956.

DANCE STANCE

For Shoe Lasts.
First use July 9, 1956.

SN 15,407. Scovill Manufacturing Company, Brooklyn, N. Y. Filed Sept. 10, 1956.

SPRADOME

For Caps for Pressurized Foam Dispensers.
First use Aug. 24, 1956.

SN 15,774. Custom Products Company, Toledo, Ohio. Filed Sept. 17, 1956.

LUMI-LITES

For Glass Fiber Christmas Tree Ornaments.
First use Aug. 25, 1956.

SN 15,893. Albert R. Miller, Elkhart, Ind. Filed Sept. 18, 1956.

PIC-PLAQ

For Photographically Produced Statuettes.
First use Aug. 14, 1956.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

SN 2,276. Samuel Bonat & Bro., Inc., Paterson, N. J. Filed Feb. 8, 1956.

BONAT PERFECT NET

Owner of Reg. Nos. 505,768, 622,817, and others.
For Liquid Hair Spray.
First use Aug. 15, 1955.

SN 6,099. Clerfast Corporation, Providence, R. I. Filed Apr. 10, 1956.

The drawing is lined for gold.
For Cosmetics and Toilet Preparations—Namely, Skin Cream and Skin Lotion.
First use Nov. 20, 1953.

SN 6,551. Prince Matchabelli, Inc., New York, N. Y. Filed Apr. 17, 1956.

GAY SUGGESTION

For Perfume.
First use Apr. 5, 1956.

CLASS 52

DETERGENTS AND SOAPS

SN 674,393. J. W. Kelso, Jr., d. b. a. The Peerless Manufacturing Company, Des Moines, Iowa. Filed Oct. 6, 1954. Sec. 2(f).

Peerless

For Floor Sweeping Compound.
First use June 15, 1934.

SN 11,754. Fast Chemical Products Corp., Jackson Heights, N. Y. Filed July 9, 1956.

For Steam Iron Cleaner Concentrate.
First use April 1954.

SERVICE MARKS

CLASS 100

MISCELLANEOUS

SN 690,941. Dairy Cheer Stores, Ashland, Ky. Filed July 8, 1955.

DAIRY CHEER

For Restaurant Services.
First use Mar. 1, 1953.

SN 12,802. Doane Agricultural Service, Inc., St. Louis, Mo. Filed July 25, 1956. Sec. 2(f).

DOANE

Owner of Reg. Nos. 539,511, 614,120, and others.
For Planning and Designing Farm Buildings and Market Research and Applied Research in Agriculture.
First use Jan. 1, 1950.

CLASS 101

ADVERTISING AND BUSINESS

SN 693,409. Waples Platter Company, Fort Worth, Tex. Filed Aug. 19, 1955.

$UPER $AVE

For Preparing and Supplying Various Types of Advertising to Retail Grocers.
First use January 1954.

SN 699,914. Marvin Leiter, d. b. a. The Mechanical Secretary, New York, N. Y. Filed Dec. 13, 1955.

The Mechanical Secretary

For Stenographic Services, Consisting of the Transcription of Tapes Sent in by Clients, Said Tapes Having Been Recorded on a Tape Recorder Which Client Rents From Applicant.
First use Mar. 3, 1955.

CLASS 102

INSURANCE AND FINANCIAL

SN 691,187. Argonaut Underwriters, Inc., San Francisco, Calif. Filed July 13, 1955.

ARGONAUT

For Writing of Insurance in the Fields of Casualty and Workmen's Compensation and the Exchange of Reciprocal Contracts of Insurance in the Field of Workmen's Compensation.
First use on or about Oct. 10, 1947.

SN 691,192. Black & Skaggs Associates, Inc., Battle Creek, Mich. Filed July 13, 1955.

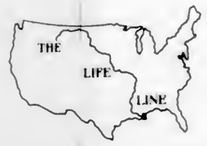
PM

For Financial Planning Services Rendered to Individuals and Organizations Participating in or Associated With the Practice of Medicine and Dentistry.
First use 1937.

SN 2,280. Brink's, Incorporated, Chicago, Ill. Filed Feb. 8, 1956.

For Receiving Checks, Cashing the Same, Making Up Payrolls, Carrying Same or Other Moneys or Securities, Guarding and Protecting Same and Paying Payrolls, Handling Clearings, Selling Tickets, Handling Proceeds From Conventions, Exhibitions and Performances.
First use on about Sept. 10, 1859.

SN 3,700. Missouri Insurance Company, d. b. a. Life Insurance Company of Missouri, St. Louis, Mo. Filed Mar. 1, 1956.



The outline of the United States is disclaimed apart from the mark as shown.
For Underwriting Life Insurance.
First use Feb. 22, 1956.

CLASS 103

CONSTRUCTION AND REPAIR

SN 689,556. Doane Agricultural Service, Inc., St. Louis, Mo. Filed June 15, 1955. Sec. 2(f).

DOANE

Owner of Reg. Nos. 539,511 and 565,035.
For Constructing Farm Buildings.
First use about Jan. 1, 1950.

SN 8,014. National Water Equipment Co., Rockford, Ill. Filed May 9, 1956.

National SOFT WATER SERVICE

No claim is made to the words "Soft Water Service" apart from the mark as shown.
For Regenerating, Reconditioning, and Repair of Base Exchange Water Treatment Units Owned by Others.
First use on or about Feb. 1, 1953.

CLASS 105

TRANSPORTATION AND STORAGE

SN 2,490. American Airlines, Inc., New York, N. Y. Filed Feb. 13, 1956.

KANGAROO SERVICE

No claim is made with respect to the use of the word "Service" other than as a part of the mark for which registration is sought.
For Air Transportation of Freight Being Performed by It for Others.
First use Dec. 14, 1955.

CLASS 107

EDUCATION AND ENTERTAINMENT

SN 5,739. National Symphony Orchestra Association of Washington, D. C., Washington, D. C. Filed Apr. 3, 1956.

NATIONAL SYMPHONY ORCHESTRA

No claim is made to the word "Symphony" or to the word "Orchestra." Owner of Reg. No. 517,271.
For Furnishing Education and Entertainment by Means of Orchestral Performances With or Without Accompanying Individual Performers.
First use November 1931.

SN 8,310. Bavarian Brewing Company Inc., Covington, Ky. Filed May 15, 1956.

OUTDOOR GUIDE

For Title of a Television Program Consisting of an Entertainment Service—Namely, Sports.
First use May 1, 1956.

COLLECTIVE MEMBERSHIP MARKS

CLASS 200

SN 700,649. The Pi Kappa Alpha Fraternity, Memphis, Tenn. Filed Dec. 27, 1955.

Owner of Reg. No. 222,002.
For Indicating Membership in a National Collegiate Fraternity.
First use during the month of May 1868.

TRADEMARK REGISTRATIONS ISSUED
PRINCIPAL REGISTER

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

640,185. POLYCEL. H. P. Smith Paper Company. SN 640,814. Pub. 3–23–54. Filed 1–15–53.

640,186. FAB-U-LAWN. Lawn & Grass Seeds, Inc. SN 688,738. Pub. 5–1–56. Filed 6–2–55.

640,187. HYSOL ETC. AND DESIGN. Houghton Laboratories, Inc. SN 690,554. Pub. 6–12–56. Filed 6–30–55.

640,188. MASTER BLEND. Vaughan's Seed Company. SN 274. Pub. 11–6–56. Filed 1–6–56.

640,189. CONTROLBAR. Mud Control Laboratories, Inc. SN 896. Pub. 11–6–56. Filed 1–17–56.

640,190. CONTROLFIBER. Mud Control Laboratories, Inc. SN 898. Pub. 11–6–56. Filed 1–17–56.

640,191. ARNAR PLASTIC AND DESIGN. Pollak Industrial Corporation. SN 1,391. Pub. 11–6–56. Filed 1–24–56.

640,192. F. H. WOODRUFF SEEDS AND DESIGN. F. H. Woodruff & Sons, Inc. SN 6,389. Pub. 11–6–56. Filed 4–13–56.

640,193. CHERRY SUNDAE. Northrup, King & Co. SN 7,105. Pub. 11–6–56. Filed 4–25–56.

640,194. N AND DESIGN. Nichols Poultry Farm, Inc. SN 7,271. Pub. 11–6–56. Filed 4–27–56.

640,195. MIDLON. Midwest Plastic Products Company. SN 7,616. Pub. 11–6–56. Filed 5–3–56.

640,196. ALMANAC. Superior Tanning Company. SN 7,868. Pub. 11–6–56. Filed 5–7–56.

640,197. KODIAK. Superior Tanning Company. SN 7,870. Pub. 11–6–56. Filed 5–7–56.

640,198. SUN GIRL. Fine Foods, Inc. SN 7,920. Pub. 11–6–56. Filed 5–8–56.

640,199. GRO-WELL. J. & L. Adikes, Inc. SN 7,996. Pub. 11–6–56. Filed 5–9–56.

CLASS 2

RECEPTACLES

640,200. DALMINE. Dalmine S. p. A. SN 8,896. Pub. 11–6–56. Filed 4–30–56.

640,201. TD AND DESIGN. Dalmine S. p. A. SN 8,904. Pub. 11–6–56. Filed 4–30–56.

640,202. TD AND DESIGN. Dalmine S. p. A. SN 8,908. Pub. 11–6–56. Filed 4–30–56.

CLASS 3

BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

640,203. ENDURA. Ronay, Inc. SN 12,384. Pub. 11–6–56. Filed 7–18–56.

640,204. EVEREDGE AND DESIGN. Abraham Boretz. SN 12,407. Pub. 11–6–56. Filed 7–19–56.

640,205. "DINGLE-DANGLE." Nash Inc. SN 12,652. Pub. 11–6–56. Filed 7–23–56.

640,206. JR AND DESIGN. Julius Resnick, Inc. SN 13,242. Pub. 11–6–56. Filed 8–1–56.

CLASS 4

ABRASIVES AND POLISHING MATERIALS

640,207. FORMULA X–10. Bev-Rich Products, Inc. SN 699,287. Pub. 11–6–56. Filed 12–2–55.

640,208. LUSTRE-DUSTER. Cadie Chemical Products, Inc. SN 7,066. Pub. 11–6–56. Filed 4–25–56.

640,209. RE-LAC. Cadie Chemical Products, Inc. SN 7,067. Pub. 11–6–56. Filed 4–25–56.

640,210. BETCO BRITE. The Betco Corporation. SN 7,152. Pub. 11–6–56. Filed 4–26–56.

640,211. SINTOX. Lodge Plugs Limited. SN 7,257. Pub. 11–6–56. Filed 4–27–56.

CLASS 5

ADHESIVES

640,212. LOXITE. The Firestone Tire & Rubber Company. SN 7,182. Pub. 11–6–56. Filed 4–26–56.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

640,213. BROM 55. Bromine Producers Company. SN 694,301. Pub. 11–6–56. Filed 9–7–55.

640,214. PANO-DRENCH. Panogen, Inc. SN 695,015. Pub. 11–6–56. Filed 9–20–55.

640,215. SHIRLAN. E. I. du Pont de Nemours and Company. SN 695,899. Pub. 11–6–56. Filed 10–5–55.

640,216. ZONIUM. E. I. du Pont de Nemours and Company. SN 695,900. Pub. 11–6–56. Filed 10–5–55.

640,217. METALLOID. Metalloid Industrial Service, Inc. SN 699,733. Pub. 11–6–56. Filed 12–9–55.

640,218. TYRENE. Diamond Alkali Company. SN 700,585. Pub. 11–6–56. Filed 12–27–55.

640,219. NIRONEX. Hydroponic Chemical Company, Inc. SN 678. Pub. 11–6–56. Filed 1–13–56.

640,220. BIOSTAN AND DESIGN. International Biochemical Corporation. SN 1,244. Pub. 11–6–56. Filed 1–23–56.

640,221. MAXICRON. Geigy Chemical Corporation. SN 3,746. Pub. 11–6–56. Filed 3–2–56.

640,222. MAXILON. Geigy Chemical Corporation. SN 3,747. Pub. 11–6–56. Filed 3–2–56.

640,223. PINEGARD. Rigo Manufacturing Co., Inc. SN 6,558. Pub. 11–6–56. Filed 4–17–56.

CLASS 8

SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS

640,224. UNIMATIC. Elgin American, Inc. SN 10,670. Pub. 11–6–56. Filed 6–21–56.

640,225. PARK AVENUE. Park Sherman Company. SN 11,397. Pub. 11–6–56. Filed 7–2–56.

CLASS 10

FERTILIZERS

640,226. TURFSAVER. Garfield Williamson, Inc. SN 684,509. Pub. 5–22–56. Filed 3–29–55.

640,227. TRI ORG AND DESIGN. Clinton Patten. SN 695,838. Pub. 3–20–56. Filed 10–4–55.

640,228. AQUALIZER. N'Land Industries, Inc. SN 698,900. Pub. 11–6–56. Filed 11–25–55.

640,229. BAY-SOL. Escambia Bay Chemical Corp. SN 9,967. Pub. 11–6–56. Filed 6–11–56.

CLASS 11

INKS AND INKING MATERIALS

640,230. MULTILITH. Addressograph-Multigraph Corporation. SN 9,420. Pub. 11–6–56. Filed 6–1–56.

CLASS 12

CONSTRUCTION MATERIALS

640,231. ZONE. Southwestern Petroleum Co., Inc., d. b. a. The Zone Co. SN 681,469. Pub. 11–6–56. Filed 1–25–55.

CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

640,232. GARDNER-DENVER ETC. AND DESIGN. Gardner-Denver Company. CONSOLIDATED CERTIFICATE. SN 699,494, pub. 6–5–56, filed 12–6–55, Cl. 13; SN 688,406, pub. 3–27–56, filed 5–21–55, Cl. 23; SN 699,492, pub. 6–5–56, filed 12–6–55, Cl. 26; SN 699,493, pub. 3–13–56, filed 12–6–55, Cl. 31; SN 699,495, pub. 6–5–56, filed 12–6–55, Cl. 34.

640,233. ROLL-A-GLIDE. American Tack Co., Inc. SN 9,623. Pub. 11–6–56. Filed 6–5–56.

640,234. CRASH BAR. Thomas S. Becker, d. b. a. Win-Door Co. SN 9,698. Pub. 11–6–56. Filed 6–6–56.

CLASS 14

METALS AND METAL CASTINGS AND FORGINGS

640,235. WIDIA. Alfried Krupp von Bohlen und Halbach, d. b. a. Fried. Krupp. SN 682,797. Pub. 9–6–55. Filed 3–4–55.

640,236. BEST ON EARTH. F. H. Noble and Company. SN 9,380. Pub. 10–9–56. Filed 5–31–56.

CLASS 15

OILS AND GREASES

640,237. DEPENDABLE ETC. AND DESIGN. Mid-West Oil Company. SN 692,340. Pub. 11–6–56. Filed 8–2–55.

640,238. PARAGON OIL AND DESIGN. Paragon Oil Company, Inc. SN 700,935. Pub. 11–6–56. Filed 12–27–55.

640,239. S. A. R. O. M. S. A. R. O. M. Società Azionaria Raffinazione Olii Minerali. SN 9,899. Pub. 11–6–56. Filed 6–8–56.

640,240. DIALA. Shell Oil Company. SN 10,808. Pub. 11–6–56. Filed 6–22–56.

640,241. FUSUS. Shell Oil Company. SN 10,809. Pub. 11–6–56. Filed 6–22–56.

640,242. MACOMA. Shell Oil Company. SN 10,810. Pub. 11–6–56. Filed 6–22–56.

640,243. CARNEA. Shell Oil Company. SN 10,811. Pub. 11–6–56. Filed 6–22–56.

640,244. LIMEA. Shell Oil Company. SN 10,812. Pub. 11–6–56. Filed 6–22–56.

640,245. GARIA. Shell Oil Company. SN 10,813. Pub. 11–6–56. Filed 6–22–56.

640,246. CERJADE. Manuel Muntanola Tey. SN 11,042. Pub. 11–6–56. Filed 6–26–56.

640,247. ETERNALITE. Gaspard & Sons Limited. SN 11,071. Pub. 11–6–56. Filed 6–27–56.

640,248. QUICKSILVER. Kiekhaefer Corporation. SN 11,267. Pub. 11–6–56. Filed 6–29–56.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

640,249. NEOFLOOR. The Pennsylvania Salt Manufacturing Company. SN 7,107. Pub. 11–6–56. Filed 4–25–56.

CLASS 17

TOBACCO PRODUCTS

640,250. LORD KENYON. Kraemer Stores, Inc. SN 5,533. Pub. 11–6–56. Filed 3–30–56.

640,251. CASA CUBA. Casa Cuba Cigar Factory, d. b. a. Casa Cuba Cigar Co. SN 10,656. Pub. 11–6–56. Filed 6–21–56.

640,252. KEG. Larus & Brother Company. SN 11,488. Pub. 11–6–56. Filed 7–3–56.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

640,253. PIKUP. General Health Corporation. SN 675,141. Pub. 11–6–56. Filed 10–20–54.

640,254. PARVEX. The Upjohn Company. SN 693,217. Pub. 11–6–56. Filed 8–16–55.

640,255. VITA TISSUE. Mildred Benyo, d. b. a. Physio Appliance Co. SN 694,468. Pub. 11–6–56. Filed 9–12–55.

640,256. ALMETHINE. Meyer Chemical Company, now by change of name Meyer and Company. SN 694,585. Pub. 11–6–56. Filed 9–13–55.

640,257. HISTALME. Meyer Chemical Company, now by change of name Meyer and Company. SN 694,587. Pub. 11–6–56. Filed 9–13–55.

640,258. CALMITOL. Gane and Ingram, Incorporated. SN 697,786. Pub. 11–6–56. Filed 11–7–55.

640,259. ENTEFUR. The Norwich Pharmacal Company, d. b. a. Eaton Laboratories. SN 697,925. Pub. 11–6–56. Filed 11–8–55.

640,260. FILIN. The Upjohn Company. SN 700,404. Pub. 11–6–56. Filed 12–21–55.

640,261. FORAGE-FEEN. Anchor Serum Co. of Indiana, Inc. SN 1,316. Pub. 11–6–56. Filed 1–24–56.

640,262. SOLVILITH. E. S. Miller Laboratories, Inc. SN 6,115. Pub. 11–6–56. Filed 4–10–56.

640,263. STERISIL. Warner-Lambert Pharmaceutical Company. SN 6,140. Pub. 11–6–56. Filed 4–10–56.

640,264. PIX-EASE. Pix-Ease Pharmaceutical Distributing Co. SN 6,282. Pub. 11–6–56. Filed 4–12–56.

CLASS 19

VEHICLES

640,265. FLIGHT DESK. Clowd, Inc. SN 683,181. Pub 11–6–56. Filed 3–10–55.

640,266. SPECTRUCKULAR. Norman Bennett. SN 686,349. Pub. 11–6–56. Filed 4–27–55.

640,267. KWIKSET. Kwikset Locks, Inc. SN 696,893. Pub. 11–6–56. Filed 10–21–55.

640,268. COUNTRY SQUIRE. Ford Motor Company. SN 6,417. Pub. 11–6–56. Filed 4–16–56.

CLASS 20

LINOLEUM AND OILED CLOTH

640,269. BUDGET. Armstrong Cork Company. SN 697,524. Pub. 11–6–56. Filed 11–2–55.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

640,270. GRAY PERFECTION. United States Rubber Company. SN 699,866. Pub. 11–6–56. Filed 12–12–55.

640,271. USKORONA. United States Rubber Company. SN 699,867. Pub. 11–6–56. Filed 12–12–55.

640,272. TELE-FI. Telex, Inc. SN 6,566. Pub. 11–6–56. Filed 4–17–56.

640,273 IWI AND GROTESQUE HUMAN FIGURE. Insulation & Wires Incorporated (Missouri corporation), to Insulation and Wires, Incorporated (Delaware corporation). SN 6,616. Pub. 10–16–56. Filed 4–18–56.

640,274. TE AND DESIGN. Tansitor Electronics, Inc. SN 8,589. Pub. 11–6–56. Filed 5–18–56.

640,275. FORMLON. General Cable Corporation. SN 8,954. Pub. 11–6–56. Filed 5–24–56.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

640,276. VOIT SAIL-FINS AND DESIGN. W. J. Voit Rubber Corp. SN 663,851. Pub. 11–6–56. Filed 4–2–54.

640,277. BERKELEY'S. Berkeley Models Inc. SN 667,079. Pub. 11–6–56. Filed 5–26–54.

640,278. HASHARADE. Dorothy F. Rodgers. SN 680,416. Pub. 11–6–56. Filed 1–24–55.

640,279. DOWNBEAT AND DESIGN. M. F. Greenwood. SN 692,391. Pub. 11–6–56. Filed 8–3–55.

640,280. PIG-A-BAK AND DESIGN. John C. Rumsey. SN 692,643. Pub. 11–6–56. Filed 8–8–55.

640,281. CROSMAN AND DESIGN. Crosman Arms Company, Inc. SN 693,974. Pub. 11–6–56. Filed 8–31–55.

640,282. BUCKAROO. Jennings & Company. SN 697,300. Pub. 11–6–56. Filed 10–28–55.

640,283. USC AND DESIGN. United Specialties of Birmingham, Inc. SN 698,939. Pub. 11–6–56. Filed 11–25–55.

640,284. LITTLE MOTHER. Alexander Miner Manufacturing Corp., d. b. a. Alexander Miner Mfg. Corp. or Alex. Miner Mfg. Corp. SN 4,975. Pub. 11–6–56. Filed 3–21–56.

640,285. DOLLY'S OWN. Alexander Miner Manufacturing Corp., d. b. a. Alexander Miner Mfg. Corp. or Alex. Miner Mfg. Corp. SN 4,976. Pub. 11–6–56. Filed 3–21–56.

640,286. JOTTO. The Jotto Corporation. SN 5,102. Pub. 11–6–56. Filed 3–23–56.

640,287. PAYTON AND REPRESENTATION OF TOY SOLDIER. Payton Products, Inc. SN 5,128. Pub. 11–6–56. Filed 3–23–56.

640,288. CATEGORY. Ton-E-Toy Corporation. SN 5,254. Pub. 11–6–56. Filed 3–26–56.

640,289. ZIPEES. Manning Manufacturing Corporation. SN 5,313. Pub. 11–6–56. Filed 3–27–56.

640,290. AQUA SPRING. James W. Carl, d. b. a. Gull Products Co. SN 5,393. Pub. 11–6–56. Filed 3–29–56.

640,291. PUTTING PAL. Raymond J. Mulkern. SN 5,660. Pub. 11–6–56. Filed 4–2–56.

640,292. WHO ARE WE. Hockaday Associates, Inc. SN 5,838. Pub. 11–6–56. Filed 4–5–56.

640,293. TRAIL-A-BAIT. Kringfisher Company, Inc. SN 6,120. Pub. 11–6–56. Filed 4–10–56.

640,294. KONTOUR KING AND DESIGN. Monroe H. Rosenow, d. b. a. Gem Leather Goods Company. SN 6,192. Pub. 11–6–56. Filed 4–11–56.

640,295. WIDDER. Widder Sales Corporation. SN 6,386. Pub. 11–6–56. Filed 4–13–56.

640,296. CLINK CLANKS. Earl & Arlington, Inc. SN 6,411. Pub. 11–6–56. Filed 4–16–56.

640,297. CLINKY. Earl & Arlington, Inc. SN 6,412. Pub. 11–6–56. Filed 4–16–56.

640,298. DIHEDRAL. Kimball Manufacturing Corporation. SN 6,528. Pub. 11–6–56. Filed 4–17–56.

640,299. CLUB SPECIAL. Acushnet Process Company. SN 6,777. Pub. 11–6–56. Filed 4–20–56.

640,300. WIDDER AND DESIGN. Widder Sales Corporation. SN 7,136. Pub. 11–6–56. Filed 4–25–56.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

640,232. CONSOLIDATED CERTIFICATE. See Class 13.

640,301. ERUSTA. Emanuel Neugroschel. SN 681,620. Pub. 11–6–56. Filed 2–14–55.

640,302. BEMIS VEE-SLAT. Bemis Bro. Bag Co. SN 699,544. Pub. 11–6–56. Filed 12–7–55.

640,303. COMMODORE. Erwin Krusius, d. b. a. Gebr. Krusius. SN 611. Pub. 9–11–56. Filed 1–12–56.

640,304. OIL-DYNE. Norman Engineering Company, to Oil-Dyne, Inc. SN 1,976. Pub. 11–6–56. Filed 2–2–56.

640,305. GYROMAT. The Gyromat Corporation. SN 8,331 Pub. 11–6–56. Filed 5–15–56.

640,306. FOLEY. Foley Manufacturing Company. SN 8,656. Pub. 11–6–56. Filed 5–21–56.

640,307. POMPADOUR. Richards Bros. & Sons, Limited. SN 8,985. Pub. 11–6–56. Filed 5–24–56.

640,308. ARMALOY. Armstrong Bros. Tool Co. SN 9,073. Pub. 11–6–56. Filed 5–28–56.

640,309. ARMIDE. Armstrong Bros. Tool Co. SN 9,074. Pub. 11–6–56. Filed 5–28–56.

640,310. SPEED KLECT. Didde-Glaser, Inc. SN 9,119. Pub. 11–6–56. Filed 5–28–56.

640,311. DESIGN OF CHEVRON. Standard Oil Company of California. SN 12,858. Pub. 11–6–56. Filed 8–14–56.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

640,232. CONSOLIDATED CERTIFICATE. See Class 13.

640,312. TORQUE WATCH GAUGE AND DESIGN. Waters Manufacturing, Inc. SN 684,989. Pub. 11–6–56. Filed 4–5–55.

CLASS 28

JEWELRY AND PRECIOUS-METAL WARE

640,313. STYLED BY MAXANN ETC. AND DESIGN. Maxann Mfg. Co., Inc. SN 675,708. Pub. 11–6–56. Filed 10–29–54.

640,314. RODOX. Rodox, Inc. SN 10,193. Pub. 11–6–56. Filed 6–13–56.

640,315. MARCEL BOUCHER. Marcel Boucher et Cie. SN 12,580. Pub. 11–6–56. Filed 7–23–56.

CLASS 29

BROOMS, BRUSHES, AND DUSTERS

640,316. RED DEVIL. Tip-Top Brush Co., Inc. SN 663,846. Pub. 4–19–55. Filed 4–2–54.

640,317. CADO. Cushman and Denison Mfg. Co., Inc. SN 698,505. Pub. 11–6–56. Filed 11–18–55.

640,318. SUDSY SUE. Anro Products Company, Inc. SN 10,278. Pub. 11–6–56. Filed 6–15–56.

CLASS 31

FILTERS AND REFRIGERATORS

640,232. CONSOLIDATED CERTIFICATE. See Class 13.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

640,232. CONSOLIDATED CERTIFICATE. See Class 13.

640,319. WELDIT. Weldit, Inc. SN 9,418. Pub. 11–6–56. Filed 5–31–56.

640,320. AJAX. Economy Flue Cleaner Company. SN 9,532. Pub. 11–6–56. Filed 6–4–56.

640,321. ERJO. Edwin R. Joseph, d. b. a. E. R. Joseph Co. SN 9,642. Pub. 11–6–56. Filed 6–5–56.

CLASS 35

BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

640,322. OILOK. Balkamp, Inc. SN 638,790. Pub. 10–27–53. Filed 12–1–52.

CLASS 36

MUSICAL INSTRUMENTS AND SUPPLIES

640,323. POLYTONETTE. Accordion Manufacturers and Wholesalers Outlet. SN 673,217. Pub. 1–3–56. Filed 9–15–54.

640,324. SHAD AND REPRESENTATION OF A FISH. Estelle "Shad" Fry, d. b. a. Shad Records. SN 690,154. Pub. 11–6–56. Filed 6–24–55.

640,325. DELYSE. Isabella Maria Wallich, d. b. a. Delysé Recording Company. SN 699,536. Pub. 11–6–56. Filed 12–6–55.

640,326. DYNAMIQUE. G. Leblanc Corporation. SN 700,737. Pub. 11–6–56. Filed 12–28–55.

640,327. CORSO. M. Hohner, Inc. SN 9,469. Pub. 11–6–56. Filed 6–1–56.

640,328. ERICA. M. Hohner, Inc. SN 9,470. Pub. 11–6–56. Filed 6–1–56.

640,329. DOWN HOME. Down Home Records, Inc. SN 10,587. Pub. 11–6–56. Filed 6–20–56.

CLASS 37

PAPER AND STATIONERY

640,330. PUR-PAK. Rushmore Paper Mills, Inc., to Ex-Cell-O Corporation. SN 654,696. Pub. 4–27–54. Filed 10–13–53.

640,331. PUR-PAK. Rushmore Paper Mills, Inc., to Ex-Cell-O Corporation. SN 666,600. Pub. 10–26–54. Filed 5–18–54.

640,332. MODE X WHITE AND DESIGN. House Products Corporation, to Personal Products Corporation. SN 674,249. Pub. 5–1–56. Filed 10–4–54.

640,333. PUSHMATIC. Scripto, Inc. SN 676,012. Pub. 10–4–55. Filed 11–3–54.

640,334. HUDSON RAINBOW NAPKINS. Hudson Pulp & Paper Corp. SN 680,954. Pub. 10–25–55. Filed 2–2–55.

640,335. STORY BOOK. Mid-West Wall Paper Mills. SN 683,697. Pub. 11–6–56. Filed 3–17–55.

640,336. SPARCO. S. P. Richards Paper Company. SN 690,195. Pub. 11–6–56. Filed 6–24–55.

640,337. MANDARIN AND DESIGN. Goldsmith Bros. SN 690,878. Pub. 11–6–56. Filed 7–7–55.

640,338. K-LENS-M. Ralph R. Wilkins, d. b. a. The Wilkins Company. SN 692,288. Pub. 11–6–56. Filed 8–1–55.

640,339. MICRO GLOSS. Pacific Waxed Paper Company. SN 693,181. Pub. 11–6–56. Filed 5–21–56.

640,340. RW AND DESIGN. Rodi & Wienenberger Aktiengesellschaft. SN 696,463. Pub. 11–6–56. Filed 10–14–55.

640,341. SEALSKIN AND DESIGN. Capital Paper Company. SN 1,666. Pub. 9–18–56. Filed 1–30–56.

640,342. MARK-O-MATIC. The Mutual Paper Co., Inc. SN 1,890. Pub. 11–6–56. Filed 2–1–56.

640,343. COMPACT. Marathon Corporation. SN 3,417. Pub. 11–6–56. Filed 2–27–56.

640,344. RAPSOL. H. P. Smith Paper Company. SN 6,057. Pub. 11–6–56. Filed 4–9–56.

640,345. FLEETWAY. Millers Falls Paper Company. SN 6,125. Pub. 11–6–56. Filed 4–10–56.

CLASS 38

PRINTS AND PUBLICATIONS

640,346. NEWSWEEK AND DESIGN. Weekly Publications, Inc. SN 668,492. Pub. 11–6–56. Filed 6–18–54.

640,347. READERS REVIEW. Sears, Roebuck and Co. SN 686,485. Pub. 6–19–56. Filed 4–28–55.

640,348. TAM. Television Audience Measurement Ltd. SN 696,747. Pub. 11–6–56. Filed 10–19–55.

640,349. SHOW-HOUSE. Show-House. SN 697,125. Pub. 11–6–56. Filed 10–25–55.

640,350. DINO-BRITE. Di-Noc Chemical Arts, Inc. SN 5,177. Pub. 11–6–56. Filed 3–26–56.

640,351. CAR LIFE. Motor Publications, Inc. SN 5,443. Pub. 11–6–56. Filed 3–29–56.

640,352. YOUR FRIEND, LEON MORSE. Leon Morse. SN 7,269. Pub. 11–6–56. Filed 4–27–56.

640,353. CHROM-O-LAC AND DESIGN. Continental Decalcomania Co. SN 7,667. Pub. 11–6–56. Filed 5–4–56.

640,354. BOY AND GIRL. General Features Corporation. SN 7,672. Pub. 11–6–56. Filed 5–4–56.

640,355. PACIFIC MARINE REVIEW. Simmons-Boardman Publishing Corporation. SN 7,860. Pub. 11–6–56. Filed 5–7–56.

640,356. DESIGN OF FLYING HORSE. Socony Mobil Oil Company, Inc. SN 8,029. Pub. 11–6–56. Filed 5–9–56.

640,357. THE FLYING RED HORSE. Socony Mobil Oil Company, Inc. SN 8,030. Pub. 11–6–56. Filed 5–9–56.

640,358. SPOT. United Feature Syndicate, Inc. SN 8,040. Pub. 11–6–56. Filed 5–9–56.

640,359. PEN PALS. Ziff-Davis Publishing Company. SN 8,109. Pub. 11–6–56. Filed 5–10–56.

640,360. POLY-CAL. The Meyercord Co. SN 8,248. Pub. 11–6–56. Filed 5–14–56.

640,361. AEROSOL AGE. Aerosol Publications, Inc. SN 8,306. Pub. 11–6–56. Filed 5–15–56.

640,362. CALIFORNIA ARTISTS. H. S. Crocker Co., Inc. SN 8,321. Pub. 11–6–56. Filed 5–15–56.

CLASS 39

CLOTHING

640,363. OLYMPIC. Francis H. Montmarquet, d. b. a. The O-C Manufacturing Co. SN 637,494. Pub. 1–31–56. Filed 11–1–52.

640,364. MITZI. The Fylde Press (1935) Limited, d. b. a. Sarec Footwear Company. SN 666,580. Pub. 11–6–56. Filed 5–18–54.

640,365. SUPER ROCK. Milsan Mills, Inc. SN 679,922. Pub. 11–6–56. Filed 1–14–55.

640,366. ANDRE LEDOUX AND DESIGN. Claude André Deburaux. SN 681,680. Pub. 11–6–56. Filed 2–15–55.

640,367. SPAND-O-SOX. Perfect Plus Hosiery Mills, Inc. SN 682,589. Pub. 11–6–56. Filed 3–1–55.

640,368. RACQUET CLUB. Wallach's, Inc. SN 683,824. Pub. 1–3–56. Filed 3–18–55.

640,369. LOAFETTE. Rich's, Inc. SN 683,992. Pub. 1–17–56. Filed 3–22–55.

640,370. "THE SIGN OF THE GOLDEN FLEECE" ETC. AND DESIGN. Brooks Brothers, Inc. SN 687,048. Pub. 11–6–56. Filed 5–9–55.

640,371. CELEBRITY. Palm Beach Company. SN 687,805. Pub. 11–6–56. Filed 5–18–55.

640,372. G. ELIZABETH TAYLOR'S HUMIDIFIED NYLONS. William S. Sheppley, d. b. a. W. S. Sheppley & Co. SN 689,169. Pub. 9–11–56. Filed 6–8–55.

640,373. DIXIE-BILT. Reliance Manufacturing Company. SN 690,749. Pub. 3–13–56. Filed 7–5–55.

640,374. MARBLE. Shoichi Takata. SN 692,553. Pub. 11–6–56. Filed 8–5–55.

640,375. ACK-TI-VATED. Myron H. Ackerman Associates, Incorporated. SN 693,420. Pub. 11–6–56. Filed 8–22–55.

640,376. HOUSE OF JULES. Leitman Furs, Inc. SN 695,922. Pub. 11–6–56. Filed 10–5–55.

640,377. SUBURBAN MISS. Stern-Slegman-Prins Company. SN 696,845. Pub. 11–6–56. Filed 10–20–55.

640,378. VISCOUNT MELBOURNE. "International Textiles" Uitgevers Maatschappij N. V. SN 698,359. Pub. 11–6–56. Filed 11–16–55.

640,379. CAROL AND DESIGN. Carol Sullivan. SN 699,601. Pub. 11–6–56. Filed 12–7–55.

640,380. LACIES. The Simone Company, Inc. SN 699,931. Pub. 11–6–56. Filed 12–13–55.

640,381. RUFF AND TUMBLE. Cary & Company, Inc. SN 700,571. Pub. 11–6–56. Filed 12–27–55.

640,382. TEXTUFF. Adams-Millis Corporation. SN 1,310. Pub. 11–6–56. Filed 1–24–56.

640,383. DEVILIQUE. Chipman Knitting Mills. SN 2,021. Pub. 11–6–56. Filed 2–3–56.

640,384. DUBBELIFE. Burlington Industries, Inc. SN 3,143. Pub. 10–23–56. Filed 2–23–56.

640,385. FORSTMANN SUPERDOWN AND DESIGN. Forstmann Woolen Co. SN 5,188. Pub. 8–7–56. Filed 3–26–56.

640,386. CONCHITA. Maiden Form Brassiere Company, Inc. SN 8,421. Pub. 11–6–56. Filed 5–16–56.

640,387. JOHNNY BULL. Hines, Incorporated. SN 8,551. Pub. 11–6–56. Filed 5–18–56.

640,388. LADY CARLTON. B & S Coat Co. SN 8,613. Pub. 11–6–56. Filed 5–21–56.

640,389. CONCERTINA. Maiden Form Brassiere Company, Inc. SN 8,853. Pub. 11–6–56. Filed 5–23–56.

640,390. PAGE BOY. The Page Boy Company, Inc. SN 9,289. Pub. 11–6–56. Filed 5–29–56.

640,391. LONDON CHARACTER "PURR-TEE-SOFT" AND DESIGN. London Character Shoes Corporation. SN 9,875. Pub. 11–6–56. Filed 6–8–56.

640,392. REVEL. The Formfit Company. SN 10,086. Pub. 11–6–56. Filed 6–12–56.

640,393. LADY ELLEN. Glen Raven Knitting Mills, Inc., to Warehouse Merchandising, Inc. SN 10,161. Pub. 11–6–56. Filed 6–13–56.

640,394. ADVOCATE. Craddock-Terry Shoe Corporation. SN 10,301. Pub. 11–6–56. Filed 6–15–56.

640,395. CITY LINERS. Joyce, Inc. SN 10,323. Pub. 11–6–56. Filed 6–15–56.

640,396. SIR PHILLIPS. Singer Hosiery Mills, Inc. SN 10,563. Pub. 11–6–56. Filed 6–19–56.

640,397. LADY PHILLIPS. Singer Hosiery Mills, Inc. SN 10,564. Pub. 11–6–56. Filed 6–19–56.

640,398. INNER CIRCLE. Joyce, Inc. SN 10,604. Pub. 11–6–56. Filed 6–20–56.

640,399. FIRST EDITIONS. Admiral Shoe Corporation. SN 10,738. Pub. 11–6–56. Filed 6–22–56.

640,400. RARE EDITIONS. Admiral Shoe Corporation. SN 10,739. Pub. 11–6–56. Filed 6–22–56.

640,401. ROGERS RUN-PROOF. Kingsboro Mills, Inc. SN 14,032. Pub. 11–6–56. Filed 8–21–56.

CLASS 40

FANCY GOODS, FURNISHINGS, AND NOTIONS

640,402. STAYLACE. The Continental Elastic Corporation. SN 10,212. Pub. 11–6–56. Filed 6–14–56.

640,403. "CRYSTALLINE." Armand Schwab & Co., Inc. SN 10,554. Pub. 11–6–56. Filed 6–19–56.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

640,404. GENTEX. General Textile Mills, Inc. SN 654,316. Pub. 8–30–55. Filed 10–7–53.

640,405. ESKIMO INTERLINING AND DESIGN. The Eskimo Interlining Company Limited. SN 669,419. Pub. 7–5–55. Filed 7–6–54.

640,406. NYLEX. Toyo Rayon Co., Ltd. SN 674,714. Pub. 11–1–55. Filed 10–12–54.

640,407. ESKIMO. C. M. De Land. SN 682,133. Pub. 10–25–55. Filed 2–23–55.

640,408. HEALIUM. Joseph M. Stertz. SN 685,053. Pub. 11–6–56. Filed 4–6–55.

640,409. CREATED BY MASTERTUFT ETC. AND DESIGN. Forrest Mills, Incorporated. SN 691,681. Pub. 9–18–56. Filed 7–21–55.

640,410. WAMA. Warren Fabrics Company, Inc. SN 8,299. Pub. 11–6–56. Filed 5–14–56.

640,411. ROANOKE. The W. A. Handley Manufacturing Company. SN 8,958. Pub. 11–6–56. Filed 5–24–56.

640,412. VELCOREX. Societe Anonyme d'Industrie Cotonniere. SN 9,406. Pub. 11–6–56. Filed 5–31–56.

640,413. MAGNESHOWER. Ames Shower Curtain Co., Inc. SN 9,837. Pub. 11–6–56. Filed 6–8–56.

640,414. DORETTE. D. B. Fuller & Co., Inc. SN 10,158. Pub. 11–6–56. Filed 6–13–56.

640,415. SHANTUSSA. D. B. Fuller & Co., Inc. SN 10,160. Pub. 11–6–56. Filed 6–13–56.

640,416. LINELAN. Toyo Rayon Co., Ltd. SN 10,267. Pub. 11–6–56. Filed 6–14–56.

640,417. PENNSHEEN. M. Lowenstein & Sons, Inc. SN 10,325. Pub. 11–6–56. Filed 6–15–56.

CLASS 43

THREAD AND YARN

640,418. DIXIE MERCERIZING COMPANY DIXIE YARNS ETC. AND DESIGN. Dixie Mercerizing Company. SN 633,450. Pub. 11–6–56. Filed 8–4–52.

640,419. COLVADUR. Glanzstoff-Courtaulds G. m. b. H. SN 1,522. Pub. 11–6–56. Filed 1–26–56.

640,420. CUPRACOLOR ETC. Beaunit Mills, Inc. SN 7,903. Pub. 11–6–56. Filed 5–8–56.

640,421. NORTH AMERICAN. North American Rayon Corporation. SN 7,934. Pub. 11–6–56. Filed 5–8–56.

640,422. MARCA ROYAL. Canadian Lastex, Ltd. SN 8,053. Pub. 11–6–56. Filed 5–10–56.

640,423. TRICEL. British Celanese Limited. SN 8,621. Pub. 11–6–56. Filed 5–21–56.

640,424. VIYELLON. William Hollins & Company Limited. SN 8,962. Pub. 11–6–56. Filed 5–24–56.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

640,425. FORFEX. Eisemann Gesellschaft mit beschrankter Haftung. SN 694,308. Pub. 11–6–56. Filed 9–7–55.

640,426. SELECTA. Vet-Way Products Corporation. SN 5,066. Pub. 11–6–56. Filed 3–22–56.

640,427. HELICON. Tibbetts Laboratories, Inc. SN 6,480. Pub. 11–6–56. Filed 4–16–56.

640,428. MEDI-TAPE. Productexa Co., Inc. SN 7,111. Pub. 11–6–56. Filed 4–25–56.

CLASS 45

SOFT DRINKS AND CARBONATED WATERS

640,429. MONA LISA AND DESIGN. Mona Lisa, Inc. SN 693,468. Pub. 11–6–56. Filed 8–22–55.

640,430. APOLLINARIS. The Apollinaris Company Limited. SN 10,386. Pub. 11–6–56. Filed 6–18–56.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

640,431. YE OLDE TAVERN. Cheese Products Co., Inc. SN 687,184. Pub. 11–6–56. Filed 5–10–55.

640,432. TOWN & COUNTRY. Pluss Poultry, Incorporated, of North West Arkansas. SN 688,259. Pub. 11–6–56. Filed 5–25–55.

640 433. VAL-LAY. D. L. Waggoner & Son. SN 688,979. Pub. 11–6–56. Filed 6–6–55.

640 434. GALEN HALL. Robert F. Hunsicker. SN 691,133. Pub. 11–6–56. Filed 7–12–55.

640,435. DOROTHY DAWSON'S. Dorothy Dawson's Food Products, Inc. SN 691,986. Pub. 11–6–56. Filed 7–27–55.

640,436. MEAT MASTER AND DESIGN. Rayco Products. SN 92,162. Pub. 11–6–56. Filed 7–29–55.

640,437. MASTER MIX CALORIZED. Central Soya Company, Inc. SN 693,661. Pub. 11–6–56. Filed 8–25–55.

640,438. FIFTY GRAND. Nutrena Mills, Inc. SN 698,544. Pub. 11–6–56. Filed 11–18–55.

640,439. TWEETY AND DESIGN. School House Candy Company. SN 698,650. Pub. 11–6–56. Filed 11–21–55.

640,440. BUDDY BOY AND DESIGN. Buddy Boy Popcorn Co. SN 699,547. Pub. 11–6–56. Filed 12–7–55.

640,441. PETUNA. Franco-Italian Packing Company. SN 699,792. Pub. 11–6–56. Filed 12–12–55.

640,442. M-G. Mask & Gay Food Products Co. SN 699,919. Pub. 11–6–56. Filed 12–13–55.

640,443. TAST-D-LITE. Larry J. LaMarre, d. b. a. Larry J. LaMarre & Co. SN 700,627. Pub. 11–6–56. Filed 12–27–55.

640,444. GRIL. The Nestlé Company, Inc. SN 700,744. Pub. 11–6–56. Filed 12–28–55.

640,445. MOLASKA. O. W. Meyer, d. b. a. O. W. Meyer Laboratories. SN 208. Pub. 11–6–56. Filed 1–5–56.

640,446. FAVORITA. Eastern Specialty Packing Co., Inc. SN 491. Pub. 11–6–56. Filed 1–11–56.

640,447. BEAVER MEADOW. Beaver Meadow Creamery, Inc., d. b. a. Beaver Meadow Creamery. SN 539. Pub. 11–6–56. Filed 1–12–56.

640,448. FORT RINGGOLD. Fort Ringgold Canning Company. SN 1,153. Pub. 11–6–56. Filed 1–20–56.

640,449. STONERIDGE FARM. Safeway Stores, Incorporated, d. b. a. Fairfax Baking Company. SN 1,475. Pub. 11–6–56. Filed 1–25–56.

640,450. BLUE PIRATE AND DESIGN. Northwest Nut Growers. SN 1,539. Pub. 11–6–56. Filed 1–26–56.

640,451. EARLY AMERICAN. Hershey Creamery Company. SN 1,869. Pub. 11–6–56. Filed 2–1–56.

640,452. PAYGEL. General Mills, Inc. SN 2,118. Pub. 11–6–56. Filed 2–6–56.

640,453. EDI-GEL. General Mills, Inc. SN 2,119. Pub. 11–6–56. Filed 2–6–56.

640,454. ROKEACH AND DESIGN. I. Rokeach & Sons, Inc. SN 2,312. Pub. 11–6–56. Filed 2–8–56.

640,455. PIRATE TREASURES. E. J. Brach & Sons. SN 4,767. Pub. 11–6–56. Filed 3–19–56.

640,456. KING O' HEARTS. K. R. Nutting, d. b. a. K. R. Nutting Co. SN 4,828. Pub. 11–6–56. Filed 3–19–56.

640,457. JENSEN PRIDE. Wm. Jensen & Sons. SN 5,039. Pub. 11–6–56. Filed 3–22–56.

640,458. ORO BLANCO. Batley Farms. SN 5,154. Pub. 11–6–56. Filed 3–26–56.

640,459. "APPLE BETTY." Geo. A. Fox Products Co., Inc. SN 5,189. Pub. 11–6–56. Filed 3–26–56.

640,460. GOLDEN ERA. Howard H. Straughn, d. b. a. Sierra Slope Vineyards. SN 5,250. Pub. 11–6–56. Filed 3–26–56.

640,461. SIERRA SLOPE. Howard H. Straughn, d. b. a. Sierra Slope Vineyards. SN 5,251. Pub. 11–6–56. Filed 3–26–56.

640,462. DO-MULS. American Breddo Corporation. SN 5,814. Pub. 11–6–56. Filed 4–5–56.

CLASS 48

MALT BEVERAGES AND LIQUORS

640,463. ONE OF AMERICA'S 2 GREAT BEERS. Regal Pale Brewing Company. SN 678,475. Pub. 11–6–56. Filed 12–16–54.

640,464. CITY. Falls City Brewing Company, d. b. a. Falls City Brewing Co., Inc. SN 698,277. Pub. 11–6–56. Filed 11–15–55.

640,465. TOONER SCHOONER. The William Gretz Brewing Company. SN 10,426. Pub. 11–6–56. Filed 6–18–56.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

640,466. HIGHLAND HEATHER. Boyd and Company Distillers Limited. SN 672,136. Pub. 11–6–56. Filed 8–24–54.

640,467. INNISBAWN. Boyd and Company Distillers Limited. SN 672,137. Pub. 11–6–56. Filed 8–24–54.

640,468. DAVID ROSS'S. Campbell & Clark Limited. SN 691,548. Pub. 5–1–56. Filed 7–19–55.

640,469. NINETY-NINE. Hiram Walker & Sons Inc. SN 10,362. Pub. 11–6–56. Filed 6–15–56.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

640,470. MEREDITH GALLERIES. Meredith Galleries, Inc. SN 676,126. Pub. 11–6–56. Filed 11–5–54.

640,471. "DEK-O-DOR." Louis C. Spoer, to Morris A. Frankel. SN 687,642. Pub. 5–1–56. Filed 5–16–55.

640,472. SENTRI. Sophia C. Stader. SN 691,900. Pub. 11–6–56. Filed 7–25–55.

640,473. AVALON HOBBY-KRAFT AND DESIGN. Avalon Manufacturing Corporation. SN 692,828. Pub. 11–6–56. Filed 8–11–55.

640,474. SUPERLYTE. Auburn Rubber Company, Inc. SN 695,263. Pub. 11–6–56. Filed 9–26–55.

640,475. SYSTEMASTER. Addressograph-Multigraph Corporation. SN 695,964. Pub. 5–8–56. Filed 10–6–55.

640,476. SAFLAGS. Vogue Textiles, Inc. SN 697,738. Pub. 11–6–56. Filed 11–3–55.

640,477. PARTY POOPS. Atlantic Playing Card Co., Inc. SN 9,431. Pub. 11–6–56. Filed 6–1–56.

640,478. M-D ETC. AND DESIGN. Macklanburg-Duncan Company. SN 9,879. Pub. 11–6–56. Filed 6–8–56.

640,479. MASON'S PAL. Thomas Adams, d. b. a. Adams Associates. SN 10,827. Pub. 11–6–56. Filed 6–25–56.

640,480. RAINBOW PANES. Rainbow Panes, Inc. SN 11,035. Pub. 11–6–56. Filed 6–26–56.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

640,481. LIVING. International Latex Corporation. SN 686,912. Pub. 11–6–56. Filed 5–5–55.

640,482. ELIZABETH ARDEN PINK PINK. Elizabeth Arden Sales Corporation. SN 694,844. Pub. 11–6–56. Filed 9–19–55.

640,483. SWISTAN. Biokosma AG. SN 5,160. Pub. 11–6–56. Filed 3–26–56.

640,484. SILKY DRESS. J. Strickland & Co. SN 5,561. Pub. 11–6–56. Filed 3–30–56.

640,485. DEBUTETTE. Daggett & Ramsdell, Inc. SN 6,233. Pub. 11–6–56. Filed 4–12–56.

CLASS 52

DETERGENTS AND SOAPS

640,486. PEARL. The Procter & Gamble Company. SN 527,666. Pub. 4–15–52. Filed 7–5–47.

Service Marks

CLASS 100

MISCELLANEOUS

640,487. DESIGN OF GLOBE ETC. Mud Control Laboratories, Inc. SN 684,329. Pub. 11–6–56. Filed 3–28–55.

CLASS 101

ADVERTISING AND BUSINESS

640,488. SECRETARY SUE. Secretary Sue, Incorporated. SN 698,224. Pub. 11–6–56. Filed 11–14–55.

640,489. TRUSPECTIVE. The Purnell Company. SN 7,112. Pub. 11–6–56. Filed 4–25–56.

CLASS 103

CONSTRUCTION AND REPAIR

640,490. P. M. Montgomery Elevator Company. SN 688,345. Pub. 11–6–56. Filed 5–26–55.

640,491. MONTGOMERY. Montgomery Elevator Company. SN 688,348. Pub. 11–6–56. Filed 5–26–55.

640,492. DESIGN OF MAN AND OIL RIG ETC. Rotary Engineering Company. SN 692,804. Pub. 11–6–56. Filed 8–10–55.

CLASS 105

TRANSPORTATION AND STORAGE

640,493. L & N AND DESIGN. Louisville and Nashville Railroad Company. SN 4,551. Pub. 11–6–56. Filed 3–14–56.

CLASS 106

MATERIAL TREATMENT

640,494. LPM ETC. AND DESIGN. Leonard's Precision Manufacturing Co. SN 687,475. Pub. 11–6–56. Filed 5–13–55.

Certification Mark

CLASS A

GOODS

640,495. INTERNATIONAL ASSOCIATION OF MACHINISTS ETC. AND DESIGN. International Association of Machinists. SN 700,452. Pub. 11–6–56. Filed 12–9–55.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

640,496. Safeway Stores, Incorporated, Oakland, Calif. SN 8,268. Filed 5–14–56.

WAXCRAFT

For Liquid Waxes and Liquid Cleaning Compounds Used as Protective and Decorative Coatings.
First use July 16, 1948.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

640,497. Sperry Rand Corporation, New York, N. Y. SN 3,240. Filed P. R. 2–23–56. Am. S. R. 11–16–56.

QUIET-RITER

For Typewriters.
First use Jan. 2, 1951.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

640,498. Cucamonga Mesa Growers, Upland, Calif. SN 11,346. Filed 7–2–56.

CUCAMONGA

For Fresh Citrus Fruits.
First use May 12, 1955

CLASS 51

COSMETICS AND TOILET PREPARATIONS

640,499. Lady Farrah, Incorporated, Tuscaloosa, Ala., from Lawrence Gordon Nunnally, Jr., d. b. a. Lady Farrah Company SN 681,019. Filed P. R. 2–3–55. Am. S. R. 10–24–56.

Lady Farrah

For Such Cosmetics as Hair Tonic, After Shave Lotion, Hand Lotion, Hand Cream, Face Cream, Astringent, Rouge, Lipstick, Face Powder, Bath Powder, Bath Salts, Talcum Powder, Baby Oil, Baby Cream, Nail Polish, Sachet, Cream, Liquid and Stick Deodorant, Toilet Waters and Perfumes, Scalp Conditioner for Removing Dandruff and Conditioning the Scalp, and Pressing Oil.
First use Jan. 18, 1955.

640,500. Revlon Products Corporation, New York, N. Y., to Revlon, Inc., New York, N. Y. SN 697,846. Filed P. R. 11–7–55. Am. S. R. 11–8–56.

TRINIDAD

For Toilet Water.
First use Oct. 14, 1955.

640,501. Revlon Products Corporation, New York, N. Y., to Revlon, Inc., New York, N. Y. SN 697,847. Filed P. R. 11–7–55. Am. S. R. 11–6–56.

ANTIBES

For Toilet Water.
First use Oct. 14, 1955.

TRADEMARK REGISTRATIONS RENEWED

112,669. DECOLITE. Cl. 34. 9–19–16.
114,270. DUNDEE A. Cl. 21. 12–5–16.
114,271. DUNDEE B. Cl. 21. 12–5–16.
114,876. PATRICIAN. Cl. 39. 1–9–17.
115,130. WESTOLINA AND DESIGN. Cl. 6. 1–23–17.
115,214. MERLIN AND DESIGN. Cl. 46. 1–30–17.
116,050. DREAM KISS. Cl. 51. 4–3–17.
116,328. DON-Q. Cl. 46. 4–24–17.
116,398. BROWN. Cl. 26. 5–1–17.
339,584. HUMBLE AND DESIGN. Cl. 4. 10–13–36.
340,609. PROTECTOID. Cl. 43. 11–17–36.
340,649. CONCERT STAR. Cl. 36. 11–17–36.
340,650. SONG MASTER. Cl. 36. 11–17–36.
340,975. SAFAC. Cl. 46. 11–24–36.
341,178. JEFALOY. Cl. 14. 12–1–36.
341,412. CRAFT-SPUN. Cl. 39. 12–8–36.
341,747. SUPERFLOOD PHOTOLAMP AND DESIGN. Cl. 21. 12–22–36.
341,790. DUROIL. Cl. 35. 12–22–36.
341,906. SUPER-THREAD. Cl. 39. 12–29–36.
341,924. MOTLOID. Cl. 44. 12–29–36.
342,027. DESIGN OF EAGLE. Cl. 21. 12–29–36.
342,052. AUTO-RAILER. Cl. 19. 12–29–36.
343,162. S & S. Cl. 17. 2–9–37.
343,615. VIBROGEL. Cl. 9. 2–23–37.
344,551. CHAMBERLAIN ETC. AND DESIGN. Cl. 12. 3–30–37.
345,285. IROSUL. Cl. 18. 4–20–37.
345,440. APPLEBROOK. Cl. 49. 4–27–37.
345,441. BRANDYBROOK. Cl. 49. 4–27–37.
345,530. NONOTUCK. Cl. 46. 4–27–37.
345,763. SYNCHRO. Cl. 23. 5–4–37.

TRADEMARK REGISTRATIONS CANCELED

Section 8

184,925. TWILLBLOOM. Cl. 42. 6–3–24.
262,922. NEW SOUTH AND DESIGN. Cl. 46. 10–29–29.
263,144. NEW SOUTH. Cl. 46. 10–29–29.
267,781. NEW SOUTH AND DESIGN. Cl. 46. 3–4–30.
272,581. FIDELITY AND DESIGN. Cl. 1. 7–8–30.
273,585. PREMIER. Cl. 50. 8–5–30.
277,787. ROSEBAY WILLOW. Cl. 1. 11–25–30.

The following registrations issued November 21, 1950

533,537. ALL WUN. Cl. 46.
533,544. MAIL-O-GRAM. Cl. 37.
533,546. SURE PLEASE. Cl. 46.
533,547. INCA'S AND DESIGN. Cl. 32.
533,548. MIRROGLOSS. Cl. 37.
533,557. SILVER STREAK. Cl. 4.
533,558. DELTAPLEX. Cl. 46.
533,561. POSTUREST AND DESIGN. Cl. 32.
533,578. YANKEE. Cl. 37.
533,580. TRIHOS. Cl. 39.
533,591. PASH. Cl. 46.
533,594. PARSONS. Cl. 32.
533,597. STA-TRAY. Cl. 32.
533,598. "THE DISKET CO." AND DESIGN. Cl. 8.
533,602. MARVELLA PEARL NUGGETS. Cl. 28.
533,606. CROSS COUNTRY. Cl. 8.
533,607. SNO-WHITE. Cl. 24.
533,610. "RADIANT" AND DESIGN. Cl. 24.
533,611. SKORKADDY. Cl. 37.
533,612. PARAGON. Cl. 32.
533,614. SPORTSAW. Cl. 23.
533,621. UNITED NATIONS WORLD. Cl. 38.
533,622. VESTKAM. Cl. 26.
533,623. LAH AND DESIGN. Cl. 37.
533,629. ERICKSON CHEMICAL AND DESIGN OF SHIP. Cl. 6.
533,633. TARGET. Cl. 37.
533,634. MAGIC. Cl. 1.
533,643. LAPLANT CHOATE AND DESIGN. Cl. 23.
533,645. PLAS-TEL. Cl. 4.
533,646. KALORIZED. Cl. 23.
533,649. STR-ONE. Cl. 4.
533,650. DAVE'S. Cl. 46.
533,659. CRYSTAL. Cl. 46.
533,661. EXTRAVAGANCE. Cl. 39.
533,662. CARBACRYL. Cl. 6.
533,674. MODEL MAID AND FIGURE OF A WOMAN. Cl. 39.
533,690. MOVIE MERCHANT. Cl. 26.
533,695. CEN-PAK. Cl. 46.
533,697. THE DUANE BY SILVER CRAFT AND DESIGN. Cl. 32.
533,700. RAYCHRONIX AND DESIGN. Cl. 26.
533,702. KITCH-N-TAINER. Cl. 32.
533,707. HONEY BEE. Cl. 26.
533,717. BARULIN. Cl. 18.
533,718. SCRIBE. Cl. 26.
533,720. LOSITONE. Cl. 18.
533,723. U P Q IN DESIGN. Cl. 26.
533,733. MUSAFILM AND DESIGN. Cl. 26.
533,734. RAELON. Cl. 27.
533,739. FERRIVENIN. Cl. 18.
533,743. RELCOTEN. Cl. 15.
533,744. SARAUSANA. Cl. 18.
533,745. NEO-WELD AND DESIGN. Cl. 5.
533,748. TUBOCON. Cl. 18.
533,749. WEAVREX. Cl. 6.
533,754. BALLERINA. Cl. 26.
533,756. GARDIT. Cl. 5.
533,758. TEG AND DESIGN. Cl. 18.
533,762. DYNATUNE. Cl. 15.
533,764. TRANSMOLINE. Cl. 15.
533,771. BLUE AND GRAY AND DESIGN. Cl. 15.
533,779. MIRADON. Cl. 18.
533,781. EVERBRITE BAND. Cl. 37.
533,783. DU-RAN. Cl. 18.
533,784. TIPPERS. Cl. 8.
533,786. PENDEX. Cl. 18.
533,787. MARSEN SAFE-GRIP. Cl. 23.
533,788. EL-DORADO. Cl. 27.
533,789. 5 IN 1. Cl. 23.
533,800. EVER FRESH. Cl. 37.
533,803. ARGIRO. Cl. 23.
533,804. LITER-MATCH. Cl. 34.
533,807. EATONIAN. Cl. 37.
533,808. FOLD-A FRAME. Cl. 50.
533,811. "SAFTY PRO" AND DESIGN. Cl. 44.
533,812. DUAL-RAY. Cl. 21.
533,814. POLK-A-DOT. Cl. 37.
533,815. METAL-LITE. Cl. 12.
533,817. TURNTOP. Cl. 50.
533,820. TRU-BLOOM. Cl. 1.
533,824. WELDLOK AND DESIGN. Cl. 12.
533,829. BUISMAN'S. Cl. 46.
533,830. CROMOTAN. Cl. 6.
533,831. TOM TOM AND LABEL DESIGN. Cl. 36.
533,832. MARK ARC. Cl. 12.
533,833. NEEDLE-FLOAT. Cl. 22.

REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

CLASS 12

CONSTRUCTION MATERIALS

444,611. Dec. 4, 1951. Anderson-Prichard Oil Corporation, Oklahoma City, Okla. Pub. by registrant.

MICRO-SEAL

For Asphaltic Material Used for Waterproofing, Sealing, Dampproofing, and Priming, in Repairing Cracked Concrete Roofs, Silos, Floors, and Similar Structures.

CLASS 15

OILS AND GREASES

290,239. Dec. 22, 1931. Richfield Oil Company, Los Angeles, Calif. Pub. by Richfield Oil Corporation, Los Angeles, Calif.

COMBAT

For Petroleum and Petroleum Products—Namely, Gasoline, Kerosene, Motor Fuel Oil, Furnace Fuel Oil, and Road Dressing Oil; Lubricating Oils and Lubricating Greases.

328,075. Sept. 17, 1935. Wm. C. McDuffie, Los Angeles, Calif., receiver of Richfield Oil Company of California. Pub. by Richfield Oil Corporation, Los Angeles, Calif.

SKY-FUEL

For Gasoline.

337,055. July 28, 1936. William C. McDuffie, d. b. a. Richfield Oil Company of California, Los Angeles, Calif. Pub. by Richfield Oil Corporation, Los Angeles, Calif.

For Petroleum and Petroleum Products—Namely, Gasoline, Lubricating Oils, and Greases, Kerosene, and Distillate for Engine Fuel.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

343,195. Feb. 9, 1937. Red-Bar Battery Company, Dayton, Ohio. Pub. by Price Battery Corporation, Hamburg, Pa.

For Storage Batteries.

416,073. Aug. 28, 1945. Glenn E. Printz, d. b. a. Printz Electric Company, Detroit, Mich. Pub. by registrant.

RED HEAD

For Magnetic Chucks, Magnetic Parallels, Electrical Demagnetizers, and Electric Etchers.

CLASS 38

PRINTS AND PUBLICATIONS

116,960. June 5, 1917. McKesson & Robbins, Incorporated, New York, N. Y. Pub. by Topics Publishing Company, Inc., New York, N. Y.

DRUG TOPICS

For Monthly Periodicals.

301,863. Mar. 21, 1933. Topics Publishing Company, Inc., New York, N. Y. Pub. by registrant.

FOOD FIELD REPORTER

For Periodical Publication.

339,206. Sept. 29, 1936. Topics Publishing Co. Inc., New York, N. Y. Pub. by Topics Publishing Company, Inc., New York, N. Y.

IT'S A FACT

For Magazine Section.

368,300. June 13, 1939. The Topics Publishing Company, Inc., New York, N. Y. Pub. by Topics Publishing Company, Inc., New York, N. Y.

DRUG TRADE NEWS

For Fortnightly Publication Devoted to the Pharmaceutical, Drug, Merchandising, and Allied Fields.

432,662. Sept. 9, 1947. Topics Publishing Co., Inc., New York, N. Y. Pub. by Topics Publishing Company, Inc., New York, N. Y.

Can You Beat That!

For Cartoon Magazine Section.

CLASS 39

CLOTHING

214,098. June 15, 1926. Cluett, Peabody & Co., Inc., Troy, N. Y. Pub. by registrant.

KIRK

For Dress Shirts.

299,864. Dec. 27, 1932. Cluett, Peabody & Co., Inc., Troy, N. Y. Pub. by registrant.

MITOGA

For Negligee and Dress Shirts.

436,490. Feb. 10, 1948. Cluett, Peabody & Co., Inc., Troy, N. Y. Pub. by registrant.

AROSNAP

For Men's Shorts.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

311,990. Apr. 10, 1934. I. B. Kleinert Rubber Company, New York, N. Y. Pub. by registrant.

"STURDI-FLEX"

For Rubber Waterproofed Sheeting.

CLASS 45

SOFT DRINKS AND CARBONATED WATERS

189,041. Sept. 9, 1924. Grape-Dew Company of America, Atlanta, Ga. Pub. by Thomas L. Slappey, Atlanta, Ga.

GRAPE DEW

For Grape Soda Water and Grape Juice.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

421,725. June 18, 1946. Boulevard Candy Company, Chicago, Ill. Pub. by registrant.

BOULEVARD

For Candies.

LIST OF REGISTRANTS OF TRADEMARKS

REGISTERED JANUARY 22, 1957

Abrasive Products, Inc., South Braintree, Mass. 533,557, canc. Cl. 4.

Accordion Manufacturers and Wholesalers Outlet, Chicago, Ill. 640,323, pub. 1–3–56. Cl. 36.

Ackerman, Myron H., Associates, Inc., New York, N. Y. 640,375, pub. 11–6–56. Cl. 39.

Acushnet Process Co., Acushnet, Mass. 640,299, pub. 11–6–56. Cl. 22.

Adams Associates: *See*—
Adams, Thomas.

Adams-Millis Corp., High Point, N. C. 640,382, pub. 11–6–56. Cl. 39.

Adams, Thomas, d. b. a. Adams Associates, Kenosha, Wis. 640,479, pub. 11–6–56. Cl. 50.

Addressograph-Multigraph Corp., Cleveland, Ohio. 640,230, pub. 11–6–56. Cl. 11.

Addressograph-Multigraph Corp., Cleveland, Ohio. 640,475, pub. 5–8–56. Cl. 50.

Adikes, J. & L., Inc., Jamaica, N. Y. 640,199, pub. 11–6–56. Cl. 1.

Admiral Shoe Corp., Maynard, Mass. 640,399, pub. 11–6–56. Cl. 39.

Admiral Shoe Corp., Maynard, Mass. 640,400, pub. 11–6–56. Cl. 39.

Aerosol Publications, Inc., Caldwell Township, N. J. 640,361, pub. 11–6–56. Cl. 38.

Allied Precision Industries, Inc., Chicago, Ill. 533,788, canc. Cl. 27.

American Breddo Corp., New York, N. Y. 640,462, pub. 11–6–56. Cl. 46.

American Cyanamid Co., New York, N. Y. 533,662, canc. Cl. 6.

American Heating & Appliance Co., Philadelphia, Pa. 533,815, canc. Cl. 12.

American Hide and Leather Co., Boston, Mass. 277,787, canc. Cl. 1.

American Tack Co., Inc., New York, N. Y. 640,233, pub. 11–6–56. Cl. 13.

American Tissue Mills, Holyoke, Mass. 538,814, canc. Cl. 37.

Ames Shower Curtain Co., Inc., New York, N. Y. 640,413, pub. 11–6–56. Cl. 42.

Anchor Serum Co. of Indiana, Inc., Indianapolis, Ind. 640,261, pub. 11–6–56. Cl. 18.

Anderson-Prichard Oil Corp., Oklahoma City, Okla. 444,611, 12(c) pub. 1–22–57. Cl. 12.

Auro Products Co., Inc., Aurora, Ill. 640,318, pub. 11–6–56. Cl. 29.

Apollinaris Co. Ltd., The, London, England. 640,430, pub. 11–6–56. Cl. 45.

Archer-Daniels-Midland Co.: *See*—
Larabee Flour Mills Corp.

Archuleta, Manuel, Albuquerque, N. Mex. 533,831, canc. Cl. 36.

Arden, Elizabeth, Sales Corp., New York, N. Y. 640,482, pub. 11–6–56. Cl. 51.

Argiro Hermanos, Buenos Aires, Argentina. 533,803, canc. Cl. 23.

Armstrong Bros. Tool Co., Chicago, Ill. 640,308–9, pub. 11–6–56. Cl. 23.

Armstrong Cork Co., Lancaster, Pa. 640,269, pub. 11–6–56. Cl. 20.

Armstrong Mfg. Co., The, Bridgeport, Conn. 533,646, canc. Cl. 23.

Atlantic Playing Card Co., Inc., New York, N. Y. 640,477, pub. 11–6–56. Cl. 50.

Auburn Rubber Co., Inc., Auburn, Ind. 640,474, pub. 11–6–56. Cl. 50.

Avalon Mfg. Corp., Brooklyn, N. Y. 640,473, pub. 11–6–56. Cl. 50.

B & E Products Co.: *See*—
Botley, William H.

B & M Mattress Co.: *See*—
Patterson, Raleigh E.

B & S Coat Co., Stamford, Conn. 640,388, pub. 11–6–56. Cl. 39.

Badger Paper Mills, Inc., Peshtigo, Wis. 533,781, canc. Cl. 37.

Balkamp, Inc., Indianapolis, Ind. 640,322, pub. 10–27–53. Cl. 35.

Ballard & Ballard Co., Louisville, Ky. 262,922, canc. Cl. 46.

Ballard & Ballard Co., Louisville, Ky. 263,144, canc. Cl. 46.

Ballard & Ballard Co., Louisville, Ky. 267,781, canc. Cl. 46.

Balsano, Louis F., d. b. a. The Disket Co., Chicago, Ill. 533,598, canc. Cl. 8.

Batley Farms, Brawley, Calif. 640,458, pub. 11–6–56. Cl. 46.

Beatrice Foods Co.: *See*—
Clark, D. L., Co.

Beaunit Mills, Inc., New York, N. Y. 640,420, pub. 11–6–56. Cl. 43.

Beaver Meadow Creamery, Inc., d. b. a. Beaver Meadow Creamery, Du Bois, Pa. 640,447, pub. 11–6–56. Cl. 46.

Becker, Thomas S., d. b. a. Win-Door Co., Laconia, N. H. 640,234, pub. 11–6–56. Cl. 13.

Bemis Bro. Bag Co., Minneapolis, Minn. 640,302, pub. 11–6–56. Cl. 23.

Benger's Ltd., Ipswich and Cheshire, England. 533,739, canc. Cl. 18.

Bennett, Norman, Kensington, Md. 640,266, pub. 11–6–56. Cl. 19.

Benyo, Mildred, d. b. a. Physio Appliance Co., Cudahy, Wis. 640,255, pub. 11–6–56. Cl. 18.

Berkeley Models Inc., West Hempstead, N. Y. 640,277, pub. 11–6–56. Cl. 22.

Betco Corp., The, Toledo, Ohio. 640,210, pub. 11–6–56. Cl. 4.

Bev-Rich Products, Inc., Philadelphia, Pa. 640,207, pub. 11–6–56. Cl. 4.

BIOkosma AG., Kappel, Saint Gall, Switzerland. 640,483, pub. 11–6–56. Cl. 51.

Bonacio, Jacob P., Cold Spring, N. Y. 533,744, canc. Cl. 18.

Boretz, Abraham, New York, N. Y. 640,204, pub. 11–6–56. Cl. 3.

Botley, William H., d. b. a. B & E Products Co., Columbus, Ohio. 533,784, canc. Cl. 8.

Boucher, Marcel, et Cie, New York, N. Y. 640,315, pub. 11–6–56. Cl. 28.

Boulevard Candy Co., Chicago, Ill. 421,725, 12(c) pub. 1–22–57. Cl. 46.

Boyd and Co., Distillers Ltd., Belfast, Northern Ireland. 640,466–7, pub. 11–6–56. Cl. 19.

Brach, E. J., & Sons, Chicago, Ill. 640,455, pub. 11–6–56. Cl. 46.

Brightwater Paper Co., Dover, Del., and Adams, Mass. 533,807, canc. Cl. 37.

British Celanese Ltd., London, England. 640,423, pub. 11–6–56. Cl. 43.

Bromine Producers Co., Adrian, Mich. 640,213, pub. 11–6–56. Cl. 6.

Brooks Brothers, Inc., New York, N. Y. 640,370, pub. 11–6–56. Cl. 39.

Brooks, Val M., d. b. a. Val M. Brooks Golf Co., Okoboji, Iowa. 533,611, canc. Cl. 37.

Brooks, Val M., Golf Co.: *See*—
Brooks, Val M.

Brown Instrument Co., The, Philadelphia, Pa., to Minneapolis-Honeywell Regulator Co., Minneapolis, Minn. 116,398, ren. 5–1–57. Cl. 26.

Bryan Full Fashioned Mills, Chattanooga, Tenn. 533,661, canc. Cl. 39.

Buddy Boy Popcorn Co., Watseka, Ill. 640,440, pub. 11–6–56. Cl. 46.

Bulsman's, N. V. R., Gebrande Suikerpoederfabriek, Zwartsluis, Netherlands. 533,829, canc. Cl. 46.

Burlington Industries, Inc., Greensboro, N. C. 640,384, pub. 10–23–56. Cl. 39.

Burlington Mills Inc., Burlington, Wis. 533,607, canc. Cl. 24.

Cadle Chemical Products, Inc., New York, N. Y. 640,208–9, pub. 11–6–56. Cl. 4.

Campbell & Clark Ltd., Glasgow, Scotland. 640,468, pub. 5–1–56. Cl. 49.

Canadian Lastex, Ltd., Montreal, Quebec, Canada. 640,422, pub. 11–6–56. Cl. 43.

Capital Paper Co., Indianapolis, Ind. 640,341, pub. 9–18–56. Cl. 37.

Carl, James W., d. b. a. Gull Products Co., Kalamazoo, Mich. 640,290, pub. 11–6–56. Cl. 22.

Cary & Co., Inc., Binghamton, N. Y. 640,381, pub. 11–6–56. Cl. 39.

Casa Cuba Cigar Co.: *See*—
Casa Cuba Cigar Factory.

Casa Cuba Cigar Factory, d. b. a. Casa Cuba Cigar Co., Tampa, Fla. 640,251, pub. 11–6–56. Cl. 17.

Celanese Corp. of America: *See*—
Celluloid Corp.

Celluloid Corp., Newark, N. J., to Celanese Corp. of America, New York, N. Y. 340,609, ren. 11–17–56. Cl. 43.

Central Packing Co., Monterey, Calif. 533,695, canc. Cl. 46.

Central Soya Co., Inc., Fort Wayne, Ind. 640,437, pub. 11–6–56. Cl. 46.

Chamberlin Co. of America: *See*—
Chamberlin Metal Weather Strip Co.

Chamberlin Metal Weather Strip Co., to Chamberlin Co. of America, Detroit, Mich. 344,551, ren. 3–30–57. Cl. 12.

Cheese Products Co., Inc., Chicago, Ill. 640,431, pub. 11–6–56. Cl. 46.

Chipman Knitting Mills, Easton, Pa. 640,383, pub. 11–6–56. Cl. 39.

Clark, D. L., Co., The, to Beatrice Foods Co., Chicago, Ill. 207,376, new cert. Cl. 46.

Clark, D. L., Co., The, to Beatrice Foods Co., Chicago, Ill. 279,861, new cert. Cl. 46.

Clark, D. L., Co., The, to Beatrice Foods Co., Chicago, Ill. 294,868, new cert. Cl. 46.

Clark, D. L., Co., The, to Beatrice Foods Co., Chicago, Ill. 316,323 new cert. Cl. 46.

Clark, D. L., Co., The, to Beatrice Foods Co., Chicago, Ill. 430,806, new cert. Cl. 46.

Clark, D. L., Co., The, to Beatrice Foods Co., Chicago, Ill. 431,442, new cert. Cl. 46.

Clark, D. L., Co., The, to Beatrice Foods Co., Chicago, Ill. 560,064, new cert. Cl. 46.

Clark, D. L., Co., The, to Beatrice Foods Co., Chicago, Ill. 585,381, new cert. Cl. 46.

Clark, D. L., Co., The, to Beatrice Foods Co., Chicago, Ill. 593,658, new cert. Cl. 46.

Clark, D. L., Co., The, to Beatrice Foods Co., Chicago, Ill. 607,397, new cert. Cl. 46

Clowd, Inc., Arcadia, Calif. 640,265, pub. 11–6–56. Cl. 19.
Cluett, Peabody & Co., Inc., Troy, N. Y. 214,098, 12(c) pub. 1–22–57. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 299,864, 12(c) pub. 1–22–57. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 436,490, 12(c) pub. 1–22–57. Cl. 57.
Continental Decalcomania Co., Sparta, Mich. 640,355, pub. 11–6–56. Cl. 38.
Continental Elastic Corp., The, New Bedford, Mass. 640,402, pub. 11–6–56. Cl. 40.
Cowan, Fay V., Albuquerque, N. Mex. 533,650, canc. Cl. 46.
Craddock-Terry Shoe Corp., Lynchburg, Va. 640,394, pub. 11–6–56. Cl. 39.
Crocker, H. S., Co., Inc., San Bruno, Calif. 640,362, pub. 11–6–56. Cl. 38.
Crosman Arms Co., Inc., Fairport, N. Y. 640,281, pub. 11–6–56. Cl. 22.
Cucamonga Mesa Growers, Upland, Calif. 640,498, Cl. 46.
Cushman and Denison Mfg. Co., Inc., New York, N. Y. 640,317, pub. 11–6–56. Cl. 29.
Daggett & Ramsdell, Inc., New York, N. Y. 640,485, pub. 11–6–56. Cl. 51.
Daitch, L., & Co., Inc., New York, N. Y 533,659, canc Cl. 46.
Dalmine S. P. A., Milan, Italy. 640,200–2, pub. 11–6–56. Cl. 2.
Dawson's, Dorothy, Food Products, Inc., Jackson, Mich. 640,435, pub. 11–6–56. Cl. 46.
Debuireux, Claude A., Paris, France. 640,366, pub. 11–6–56. Cl. 39.
De Land, C. M., New York, N. Y. 640,407, pub. 10–25–55. Cl. 42.
Deltafor Aktiebolag, Orebro, Sweden. 533,558, canc Cl. 46.
Delyse Recording Co.: *See*—
Wallich Isabella M.
Diamond Alkali Co., Cleveland, Ohio. 640,218, pub. 11–6–56. Cl. 6.
Didde-Glaser, Inc., Emporia, Kans. 640,310, pub. 11–6–56. Cl. 23.
Di-Noc Chemical Arts, Inc., Cleveland, Ohio. 640,350, pub. 11–6–56. Cl. 38.
Disket Co., The: *See*—
Balsamo, Louis F.
District of Columbia Paper Mfg. Co., to Rochester Paper Co., Rochester, Mich. 56,161, new cert. Cl. 37.
District of Columbia Paper Mills, Inc., to Rochester Paper Co., Rochester, Mich. 434,326, new cert. Cl. 37.
Dixie Mercerizing Co., Chattanooga, Tenn. 640,418, pub. 11–6–56. Cl. 43.
Down Home Records, Inc., Beverly Hills, Calif. 640,329, pub. 11–6–56. Cl. 36.
Down River Casting Co., to Down River Casting Co., Rockwood, Mich. 612,909, new cert. Cl. 14.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 640,215–16, pub. 11–6–56. Cl. 6.
Du-Ran Products Co., Durant, Okla. 533,783, canc. Cl. 18.
Duro Wood Products Mfg., Cincinnati, Ohio. 533,833, canc. Cl. 22.
Eagle Electric Mfg. Co., Inc., Long Island City, N. Y. 342,027, ren. 12–29–56. Cl. 21.
Earl & Arlington, Inc., San Francisco, Calif. 640,296–7, pub. 11–6–56. Cl. 22.
Eastern Specialty Packing Co., Inc., New Haven, Conn. 640,446, pub. 11–6–56. Cl. 46.
Eaton Laboratories: *See*—
Norwich Pharmacal Co., The.
Economy Fine Cleaner Co., St. Cloud, Minn. 640,320, pub. 11–6–56. Cl. 34.
Elsemann Gesellschaft mit beschrankter Haftung, Stuttgart, Germany. 640,425, pub. 11–6–56. Cl. 44.
Elgin American, Inc., Elgin, Ill. 640,224, pub. 11–6–56. Cl. 8.
Erickson Chemical Co.: *See*—
Erickson, Emery T.
Erickson, Emery T., d. b. a. Erickson Chemical Co., Chicago, Ill. 533,629, canc. Cl. 6.
Escambia Bay Chemical Corp., Pensacola, Fla. 640,229, pub. 11–6–56. Cl. 10.
Eskimo Interlining Co., Ltd., The, London, England. 640,405, pub. 7–5–55. Cl. 42.
Evans Products Co., Plymouth, Mich. 342,052, ren. 12–29–56. Cl. 19.
Eversharp, Inc.: *See*—
Russo, Salvatore.
Ex-Cell-O Corp.: *See*—
Rushmore Paper Mills, Inc.
Fairfax Baking Co.: *See*—
Safeway Stores, Inc.
Falls City Brewing Co., d. b. a. Falls City Brewing Co., Inc., Louisville, Ky. 640,464, pub. 11–6–56. Cl. 48.
Falls City Brewing Co., Inc.: *See*—
Falls City Brewing Co.
Faunce and Spinney Inc., Lynn, Mass., to The Selby Shoe Co., Portsmouth, Ohio. 114,876, ren. 1–9–57. Cl. 39.
Faxon & Gallagher Drug Co., Kansas City, Mo., to The Andrew Jergens Co., Cincinnati, Ohio. 116,050, ren. 4–3–57. Cl. 51.
Fine Foods, Inc., Seattle, Wash. 640,198, pub. 11–6–56. Cl. 1.
Firestone Tire & Rubber Co., The, Akron, Ohio. 640,212, pub. 11–6–56. Cl. 5.
Fitzgerald Products, Inc., Hartford, Conn. 533,720, canc. Cl. 18.
Foley Mfg. Co., Minneapolis, Minn. 640,306, pub. 11–6–56. Cl. 23.
Ford Motor Co., Dearborn, Mich. 640,268, pub. 11–6–56. Cl. 19.
Formflt Co., The, Chicago, Ill. 640,392, pub. 11–6–56. Cl. 39.
Forrest Mills, Inc., Calhoun, Ga. 640,409, pub. 9–18–56. Cl. 42.
Forstmann Woolen Co., Passaic, N. J. 640,385, pub. 8–7–56. Cl. 39.
Fort Ringgold Cannnig Co., Rio Grande City, Tex. 640,448, pub. 11–6–56. Cl. 46.
Fox, Geo. A., Products Co., Inc., Kansas City, Mo. 640,459, pub. 11–6–56. Cl. 46.
Franco-Italian Packing Co., Terminal Island, Calif. 640,441, pub. 11–6–56. Cl. 46.
Frankel, Morris A.: *See*—
Speer, Louis C.
Fry, Estelle "Shad," d. b. a. Shad Records, Tarzana, Calif. 640,324, pub. 11–6–56. Cl. 36.
Frye, Norman, Davenport, Iowa. 533,832, canc. Cl. 12.
Fuller, D. B., & Co., Inc., New York, N. Y. 640,414–15, pub. 11–6–56. Cl. 42.
Fylde Press (1935) Ltd., The, d. b. a. Sarec Footwear Co., St. Annes-On-Sea, England. 640,364, pub. 11–6–56. Cl. 39.
Gane and Ingram, Inc., New York, N. Y. 640,258, pub. 11–6–56. Cl. 18.
Garfield Worsted Mills, Garfield, N. J. 184,925, canc. Cl. 42.
Gaspard & Sons Ltd., Winnipeg, Manitoba, Canada. 640,247, pub. 11–6–56. Cl. 15.
Geigy Chemical Corp., Ardsley, N. Y. 640,221–2, pub. 11–6–56. Cl. 6.
Gem Leather Goods Co.: *See*
Rosenow, Monroe H.
General Cable Corp., New York, N. Y. 640,275, pub. 11–6–56. Cl. 21.
General Features Corp., New York, N. Y. 640,354, pub. 11–6–56. Cl. 38.
General Health Corp., Camden, N. J. 640,253, pub. 11–6–56. Cl. 18.
General Mills, Inc., Minneapolis, Minn. 640,452–3, pub. 11–6–56. Cl. 46.
General Textile Mills, Inc., New York, N. Y. 640,404, pub. 8–30–55. Cl. 42.
Glanzstoff-Courtaulds G. m. b. H., Koln-Weidenpesch, Germany. 640,419, pub. 11–6–56. Cl. 43.
Glassboro Full Fashioned Hosiery Mill: *See*—
McEvoy, Peter P.
Glen Raven Knitting Mills, Inc., Glen Raven, N. C., to Warehouse Merchandising, Inc., Cleveland, Ohio. 640,393, pub. 11–6–56. Cl. 39.
Goldsmith Bros., New York, N. Y. 640,337, pub. 11–6–56. Cl. 37.
Grape Dew Co. of America, by T. L. Slappey, Atlanta, Ga. 189,041, 12(c) pub. 1–22–57. Cl. 45.
Greenwood, M. F., Carmel, Calif. 640,279, pub. 11–6–56. Cl. 22.
Gretsch, Fred., Mfg. Co., The, Brooklyn, N. Y. 340,649–50, ren. 11–17–56. Cl. 36.
Gretz, William, Brewing Co., The, Philadelphia, Pa. 640,465, pub. 11–6–56. Cl. 48.
Gull Products Co.: *See*
Carl, James W.
Gummed Products Co., The, Troy, Ohio. 533,548, canc. Cl. 37.
Gummed Products Co., The, Troy, Ohio. 533,756, canc. Cl. 5.
Gyromat Corp., The, Fairfield, Conn. 640,305, pub. 11–6–56. Cl. 23.
Handley, W. A., Mfg. Co., The, Roanoke, Ala. 640,411, pub. 11–6–56. Cl. 42.
Haskell, Charles C., & Co., Inc.: *See*—
Wilber Co. Inc.
Haudenshield Co., Inc., Pittsburgh, Pa. 533,546, canc Cl. 46.
Hercules Powder Co., Wilmington, Del. 343,615, ren. 2–23–57. Cl. 9.
Hershey Creamery Co., Harrisburg, Pa. 640,451, pub. 11–6–56. Cl. 46.
Hewitt Robins Inc.: *See*
Hewitt Rubber Corp.
Hewitt Rubber Corp., Buffalo, N. Y., to Hewitt Robins Inc., Stamford, Conn. 341,790, ren. 12–22–56. Cl. 35.
Hines, Inc., Winston-Salem, N. C. 640,387, pub. 11–6–56. Cl. 39.
Hockaday Associates, Inc., New York, N. Y. 640,292, pub. 11–6–56. Cl. 22.
Hohner, M., Inc., New York, N. Y 640,327–8, pub. 11–6–56. Cl. 36.
Hollins, William, & Co., Ltd., Nottingham, England. 640,424, pub. 11–6–56. Cl. 43.
Holophane Glass Co., Inc., to Holophane Co., Inc., New York, N. Y. 112,669, ren. 9–19–56. Cl. 34.
Holyoke Wholesale Grocery Co., Inc., Holyoke, Mass. 345,530, ren. 4–27–57. Cl. 46.
Horlacher Mushroom Farms, Ashtabula, Ohio. 533,634, canc Cl. 1.
Houghton Laboratories, Inc., Olean, N. Y. 640,187, pub. 6–12–56. Cl. 1.
House Products Corp., New York, N. Y., to Personal Products Corp., New Brunswick, N. J. 640,332, pub. 5–1–56. Cl. 37.
Hudson Pulp & Paper Corp., New York, N. Y. 640,334, pub. 10–25–55. Cl. 37.
Humble Oil & Refining Co., Houston, Tex. 339,584, ren. 10–13–56. Cl. 4.
Hunsicker, Robert F., Allentown, Pa. 640,434, pub. 11–6–56. Cl. 46.
Hydroponic Chemical Co., Inc., Copley, Ohio. 640,219, pub. 11–6–56. Cl. 6.
Inca Metal Products Co., Inc., Birmingham, Ala. 533,547, canc. Cl. 32.
Insulation and Wires, Inc.: *See*—
Insulation & Wires Inc.

Insulation & Wires Inc., Fort Wayne, Ind., to Insulation and Wires, Inc., St. Paul, Minn. 640,273, pub. 11–6–56. Cl. 21.
Intermedico Corp., New York, N. Y. 533,717, canc. Cl. 18.
International Association of Machinists, Washington, D. C. 640,495, pub. 11–6–56. Cl. A.
International Biochemical Corp., Brooklyn, N. Y. 640,220, pub. 11–6–56. Cl. 6.
International Milling Co.: *See*—
New Prague Flouring Mill Co.
"International Textiles" Uitgevers Maatschappij N. V., Amsterdam, Netherlands. 640,378, pub. 11–6–56. Cl. 39.
James Mfg. Co., Fort Atkinson, Wis. 533,812, canc. Cl. 21.
Jeffrey Mfg. Co., The, Columbus, Ohio. 341,178, ren. 12–1–56. Cl. 14.
Jennings & Co., Chicago, Ill. 640,282, pub. 11–6–56. Cl. 22.
Jensen, Wm., & Sons, Watsonville, Calif. 640,457, pub. 11–6–56. Cl. 46.
Jergens, Andrew, Co., The: *See*
Faxon & Gallagher Drug Co.
Joseph, E. R., Co.: *See*—
Joseph, Edwin R.
Joseph, Edwin R., d. b. a. E. R. Joseph Co., Norristown, Pa. 640,321, pub. 11–6–56. Cl. 34.
Jotto Corp., The, New York, N. Y. 640,286, pub. 11–6–56. Cl. 22.
Joyce, Inc., Cincinnati, Ohio. 640 395, pub. 11–6–56. Cl. 39.
Joyce, Inc., Cincinnati, Ohio. 640,398, pub. 11–6–56. Cl. 39.
Kerrigan Iron Works, Inc., Nashville, Tenn. 533,824, canc. Cl. 12.
Kiekhaefer Corp., Cedarburg, Wis. 640,248, pub. 11–6–56. Cl. 15.
Kimball Mfg. Corp., San Francisco, Calif. 640,298, pub. 11–6–56. Cl. 22.
Kingsboro Mills, Inc., Daisy, Tenn. 640,401, pub. 11–6–56. Cl. 39.
Kingsley, Leon G., New York, N. Y. 533,830, canc. Cl. 6.
Kleinert, I. B., Rubber Co., New York, N. Y. 311,990, 12(c) pub. 1–22–57. Cl. 42.
Kono Mfg. Co., The, Woodside, N. Y. 533,723, canc. Cl. 26.
Koster, Curtis M., d. b. a. Turntop Co., San Francisco, Calif. 533,817, canc. Cl. 50.
Kraemer Stores, Inc., Toledo, Ohio. 640,250, pub. 11–6–56. Cl. 17.
Kringfisher Co., Inc., Mountain View, Calif. 640,293, pub. 11–6–56. Cl. 22.
Krupp, Alfried, von Bohlen und Halbach, d. b. a. Fried. Krupp, Essen, Germany. 640,235, pub. 9–6–55. Cl. 14.
Krupp, Fried.: *See*—
Krupp, Alfried, von Bohlen und Halbach.
Krusius, Erwin, d. b. a. Gebr. Krusius, Solingen, Germany. 640,303 pub. 9–11–56. Cl. 23.
Kruslus, Gebr.: *See*—
Krusius, Erwin.
Kwikset Locks, Inc., Anaheim, Calif. 640,267, pub. 11–6–56. Cl. 19.
Lady Farrah Co.: *See*—
Lady Farrah, Inc.
Lady Farrah, Inc., from L. G. Nunnally, Jr., d. b. a. Lady Farrah Co., Tuscaloosa, Ala. 640,499. Cl. 51.
Lah Stencil: *See*—
Sorenson Joseph D.
Laird and Co., Eatontown, N. J. 345,440–1, ren. 4–27–57. Cl. 49.
Lamac Process Co., Erie, Pa. 533 745, canc. Cl. 5.
La Marre, Larry J., d. b. a. Larry J. La Marre & Co., Milwaukee, Wis. 640,443, pub. 11–6–56. Cl. 46.
La Marre, Larry J. & Co.: *See*—
La Marre, Larry J.
Landenberger, J. W., & Co., Philadelphia, Pa. 341,412, ren. 12–8–56. Cl. 39.
Landenberger, J. W., & Co., Philadelphia, Pa. 341,906, ren. 12–29–56. Cl. 39.
La Plant-Choate Mfg. Co., Inc., Cedar Rapids, Iowa. 533,643, canc. Cl. 23.
Larabee Flour Mills Corp., The, Hutchinson, Kans., to Archer Daniels-Midland Co., Minneapolis, Minn. 116,328, ren. 4–24–57. Cl. 46.
Larus & Brother Co., Richmond, Va. 640,252, pub. 11–6–56. Cl. 17.
Lawn & Grass Seeds, Inc., Buffalo, N. Y. 640,186, pub. 5–1–56. Cl. 1.
Leblanc, G., Corp., Kenosha, Wis. 640,326, pub. 11–6–56. Cl. 36.
Leiman Furs, Inc., New York, N. Y. 640,376, pub. 11–6–56. Cl. 39.
Leonard's Precision Mfg. Co., Dunellen, N. J. 640,494, pub. 11–6–56. Cl. 106.
Lodge Plugs Ltd., Rugby, England. 640,211, pub. 11–6–56. Cl. 4.
London Character Shoes Corp., New York, N. Y. 640,391, pub. 11–6–56. Cl. 39.
Louisville and Nashville Railroad Co., Louisville, Ky. 640,493, pub. 11–6–56. Cl. 105.
Lowenstein, M., & Sons, Inc., New York, N. Y. 640,417, pub. 11–6–56. Cl. 42.
Macklanburg-Duncan Co., Oklahoma City, Okla. 640,478, pub. 11–6–56. Cl. 50.
Malden Form Brassiere Co., Inc., New York, N. Y. 640,386, pub. 11–6–56. Cl. 39.
Malden Form Brassiere Co., Inc., New York, N. Y. 640,389, pub. 11–6–56. Cl. 39.
Manning Mfg. Corp., Chicago, Ill. 640,289, pub. 11–6–56. Cl. 22.
Marathon Corp., Menasha, Wis. 640,343, pub. 11–6–56. Cl. 37.
Mark Cross Co., New York, N. Y. 533,606, canc. Cl. 8.
Markwell Mfg. Co., Inc., New York, N. Y. 533,789, canc. Cl. 23.
Marré, Robert B., d. b. a. Tru-Bloom Seeds, Avila, Calif. 533 820, canc. Cl. 1.
Marthinsen, Mads, Michigan City, Ind. 533 787, canc. Cl. 23.
Mask & Gay Food Products Co., Brooks, Ga. 640,442, pub. 11–6–56. Cl. 46.
Maxann Mfg. Co., Inc., Providence, R. I. 640,313, pub. 11–6–56. Cl. 28.
Mayfield, Henry, d. b. a. Modernistic Match Co., Orange, Tex. 533,804, canc. Cl. 34.
McDuffie, William C., d. b. a. Richfield Oil Co. of California, by Richfield Oil Corp., Los Angeles, Calif. 337,055 12(c) pub. 1–22–57. Cl. 15.
McDuffie, Wm. C., receiver of Richfield Oil Co. of California, by Richfield Oil Corp., Los Angeles, Calif. 328,075, 12(c) pub. 1–22–57. Cl. 15.
McEvoy, Peter P., d. b. a. Glassboro Full Fashioned Hosiery Mill, Glassboro, N. J. 533,674, canc. Cl. 39.
McKesson & Robbins, Inc., by Topics Publishing Co., Inc., New York, N. Y. 116,960, 12(c) pub. 1–22–57. Cl. 38.
Mead Corp., The, to Rochester Paper Co., Rochester, Mich. 591,194, new cert. Cl. 37.
Meredith Galleries, Inc., New York, N. Y. 640,470, pub. 11–6–56. Cl. 50.
Metalloid Industrial Service, Inc., New York, N. Y. 640,217, pub. 11–6–56. Cl. 6.
Meyer Chemical Co., Detroit, Mich., now by change of name Meyer and Co. 640,256–7, pub. 11–6–56. Cl. 18.
Meyer and Co.: *See*—
Meyer Chemical Co.
Meyer, O. W., d. b. a. O. W. Meyer Laboratories, Napoleon, Ohio. 640,445, pub. 11–6–56. Cl. 46.
Meyer O. W., Laboratories: *See*—
Meyer, O. W.
Meyercord Co., The, Chicago, Ill. 640,360, pub. 11–6–56. Cl. 38.
Mid-West Oil Co., Kansas City, Kans. 640,237, pub. 11–6–56. Cl. 15.
Midwest Plastic Products Co., Chicago Heights, Ill. 640,195, pub. 11–6–56. Cl. 1.
Mid-West Wall Paper Mills, Joliet, Ill. 640,335, pub. 11–6–56. Cl. 37.
Millbrook Paper Co., Brooklyn, N. Y. 533,633, canc. Cl. 37.
Miller, E. S., Laboratories, Inc., Los Angeles, Calif. 640,262, pub. 11–6–56. Cl. 18.
Millers Falls Paper Co., Millers Falls Mass. 640,345, pub. 11–6–56. Cl. 37.
Milprint, Inc., Milwaukee, Wis. 533,800, canc. Cl. 37.
Milsan Mills, Inc., Lebanon, Pa. 640,365, pub. 11–6–56. Cl. 39.
Miner, Alex., Mfg. Corp.: *See*—
Miner, Alexander, Mfg. Corp.
Miner, Alexander, Mfg. Corp., d. b. a. Alexander Miner Mfg. Corp. or Alex. Miner Mfg. Corp., New York, N. Y. 640,284, pub. 11–6–56. Cl. 22.
Miner, Alexander, Mfg. Corp., d. b. a. Alexander Miner Mfg. Corp., or Alex. Miner Mfg. Corp., New York, N. Y. 640,284, pub. 11–6–56. Cl. 22.
Minneapolis-Honeywell Regulator Co.: *See*—
Brown Instrument Co.
Modernistic Match Co.: *See*—
Mayfield, Henry.
Molz, Charles O., Detroit, Mich. 533,544, canc. Cl. 37.
Mona Lisa, Inc., Dallas, Tex. 640,429, pub. 11–6–56. Cl. 45.
Montgomery Elevator Co., Moline, Ill. 640,490–1, pub. 11–6–56. Cl. 103.
Montmarquet, Francis H., d. b. a. The O-C Mfg. Co., Little Falls, N. J. 640,363, pub. 1–31–56. Cl. 39.
Moorex Industries, Inc., Richmond, Va. 533,702, canc. Cl. 32.
Morse, Leon, Burlington, Vt. 640,352, pub. 11–6–56. Cl. 38.
Motloid Co., The: *See*—
Pickands, Al.
Motor Publications, Inc., Washington, D. C. 640,351, pub. 11–6–56. Cl. 38.
Mud Control Laboratories, Inc., Oklahoma City, Okla. 640,189 90, pub. 11–6–56. Cl. 1.
Mud Control Laboratories, Inc., Oklahoma City, Okla. 640,487, pub. 11–6–56. Cl. 100.
Mulkern, Raymond J., Minneapolis, Minn. 640,291, pub. 11–6–56. Cl. 22.
Musafilms, Ltd., Dallas, Tex. 533,733, canc. Cl. 26.
Mutual Paper Co., Inc., The, Brooklyn, N. Y. 640,342, pub. 11–6–56. Cl. 37.
Nash Inc., Jersey City, N. J. 640,205, pub. 11–6–56. Cl. 3.
National Tool & Die Co., Inc., Louisville, Ky. 533,808, canc. Cl. 50.
Nestlé Co., Inc., The, White Plains, N. Y. 640,444, pub. 11–6–56. Cl. 46.
Neugroschel, Emanuel, New York, N. Y. 640,301, pub. 11–6–56. Cl. 23.
New Prague Flouring Mill Co., New Prague, to International Milling Co., Minneapolis, Minn. 115,214, ren. 1–30–57. Cl. 46.
Nichols Poultry Farm, Inc., Kingston, N. H. 640,194, pub. 11–6–56. Cl. 1.
N'Land Industries, Inc., Lewiston, Idaho. 640,228, pub. 11–6–56. Cl. 10.
Noble, F. H., and Co., Chicago, Ill. 640,236, pub. 10–9–56. Cl. 14.
Norman Engineering Co., to Oil-Dyne, Inc., Chicago, Ill. 640,304, pub. 11–6–56. Cl. 23.
North American Rayon Corp., New York, N. Y. 640,421, pub. 11–6–56. Cl. 43.
Northrup, King & Co., Minneapolis, Minn. 640,193, pub. 11–6–56. Cl. 1.

Northwest Nut Growers, Portland, Oreg. 640,450, pub. 11–6–56. Cl. 46.
Norwich Pharmacal Co., The, d. b. a. Eaton Laboratories, Norwich, N. Y. 640,259, pub. 11–6–56. Cl. 18.
Nunnally, Lawrence G., Jr.: *See*—
Lady Farrah, Inc.
Nutrena Mills, Inc., Minneapolis, Minn. 640,438, pub. 11–6–56. Cl. 46.
Nutting, K. R., d. b. a. K. R. Nutting Co., Salinas, Calif. 640,456, pub. 11–6–56. Cl. 46.
Nutting, K. R., Co.: *See*
Nutting, K. R.
O-C Mfg Co., The: *See*—
Montmarquet, Francis H.
Ogush, William B., Inc., New York, N. Y. 533,734, canc. Cl. 27.
Oil-Dyne, Inc.: *See*—
Norman Engineering Co.
Okonite Co., The, Passaic, N. J. 114,270–1, ren. 12–5–56. Cl. 21.
Pacific Waxed Paper Co., Seattle, Wash. 640,339, pub. 11–6–56. Cl. 37.
Page Boy Co., Inc., The, Dallas, Tex. 640,390, pub. 11–6–56. Cl. 39.
Palm Beach Co., Sanford, Maine. 640,371, pub. 11–6–56. Cl. 39.
Panation Trade Co., New York, N. Y. 533,622, canc. Cl. 26.
Panogen, Inc., Ringwood, Ill. 640,214, pub. 11–6–56. Cl. 6.
Paragon Oil Co., Inc., Long Island City, N. Y. 640,238, pub. 11–6–56. Cl. 15.
Paragon Utilities Corp., Brooklyn and New York, N. Y. 533,612, canc. Cl. 32.
Parsons Co., The, Detroit, Mich., to Parsons Corp. 533,594, canc. Cl. 32.
Parsons Corp.: *See*—
Parsons Co., The.
Pashon Products Ltd., Slough, Buckinghamshire, England 533,591, canc. Cl. 46.
Patten, Clinton, Chicago, Ill. 640,227, pub. 3–20–56. Cl. 10.
Patterson, Raleigh E., d. b. a. R & M Mattress Co., Houston, Tex. 533,561, canc. Cl. 32.
Payton Products, Inc., New York, N. Y. 640,287, pub. 11–6–56. Cl. 22.
Pennsylvania Salt Mfg. Co., The, Philadelphia, Pa. 640,249, pub. 11–6–56. Cl. 16.
Perfect Plus Hosiery Mills, Inc., Chicago, Ill. 640,367, pub. 11–6–56. Cl. 39.
Personal Products Corp.: *See*—
House Products Corp.
Peter's Products: *See*—
Russo, Salvatore.
Physio Appliance Co.: *See*—
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Pickands, Al, to The Motloid Co., Chicago, Ill. 341,924, ren. 12–29–56. Cl. 44.
Pix-Ease Pharmaceutical Distributing Co., Anaheim, Calif. 640,264, pub. 11–6–56. Cl. 18.
Plaze, Inc., St. Louis, Mo. 533,645, canc. Cl. 4.
Pluss Poultry, Inc., of North West Arkansas, Siloam Springs, Ark. 640,432, pub. 11–6–56. Cl. 46.
Polis & Hagan, Edinburg, Tex. 533,537, canc. Cl. 46
Pollak Industrial Corp., Stratford, Conn. 640,191, pub. 11–6–56. Cl. 1.
Price Battery Corp.: *See*
Red-Bar Battery Co.
Printz Electric Co.: *See*
Printz, Glenn E.
Printz, Glenn E., d. b. a. Printz Electric Co., Detroit, Mich. 416,073, 12(c) pub. 1–22–57. Cl. 21.
Procter & Gamble Co., The, Cincinnati, Ohio. 640,486, pub. 4–15–52. Cl. 52.
Productexa Co., Inc., New York, N. Y. 640,428, pub. 11–6–56. Cl. 44.
Purnell Co., The, Boston, Mass. 640,489, pub. 11–6–56. Cl. 101.
Radioactive Products, Inc., Detroit, Mich. 533,700, canc. Cl. 26.
Rainbow Panes, Inc., Los Angeles, Calif. 640,480, pub. 11–6–56. Cl. 50.
Rayco Products, Clarinda, Iowa. 640,436, pub. 11–6–56. Cl. 46.
Red-Bar Battery Co., Dayton, Ohio, by Price Battery Corp., Hamburg, Pa. 343,195, 12(c) pub. 1–22–57. Cl. 21.
Redi & Wienenberger Aktiengesellschaft, Pforzheim, Germany 640,340, pub. 11–6–56. Cl. 37.
Reese Chemical Co., The, Cleveland, Ohio. 533,811, canc. Cl. 44.
Regal Pale Brewing Co., San Francisco, Calif. 640,463, pub. 11–6–56. Cl. 48.
Reliance Contracting Co., Pittsburgh, Pa. 533,743, canc. Cl. 15.
Reliance Mfg. Co., New York, N. Y. 640,373, pub. 3–13–56. Cl. 39.
Resneck, Julius, Inc., New York, N. Y. 640,206, pub. 11–6–56. Cl. 3.
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Revlon Products Corp., New York, N. Y. 640,501. Cl. 51.
Richards Bros. & Sons Ltd., Sheffield, England. 640,307, pub. 11–6–56. Cl. 23.
Richards, S. P., Paper Co., Atlanta, Ga. 640,336, pub. 11–6–56. Cl. 37.
Richfield Oil Co., by Richfield Oil Corp., Los Angeles, Calif. 290,239, 12(c) pub. 1–22–57. Cl. 15.
Richfield Oil Co. of California: *See*—
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Richfield Oil Corp.: *See* –
McDuffie, William C.
McDuffie, Wm. C.
McDuffie, Wm. C., receiver of Richfield Oil Co. of California.
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Rich's, Inc., Atlanta, Ga. 640,369, pub. 1–17–56. Cl. 39.
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Rochester Paper Co.: *See*—
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Mead Corp., The.
Rodgers, Dorothy F., New York, N. Y. 640,278, pub. 11–6–56. Cl. 22.
Rodox, Inc., New York, N. Y. 640,314, pub. 11–6–56. Cl. 28.
Rokeach, I., & Sons, Inc., Flushing, N. Y. 640,454, pub. 11–6–56. Cl. 46.
Ronay, Inc., New York, N. Y. 640,203, pub. 11–6–56. Cl. 3.
Rosenow, Monroe H., d. b. a. Gem Leather Goods Co., Milwaukee, Wis. 640,294, pub. 11–6–56. Cl. 22.
Rotary Engineering Co., Midland, Tex. 640,492, pub. 11–6–56. Cl. 103.
Rumsey, John C., Lawrence, Kans. 640,280, pub. 11–6–56. Cl. 22.
Rushmore Paper Mills, Inc., Gouverneur, N. Y., to Ex-Cell-O Corp., Detroit, Mich. 640,330–1, pub. 4–27–54. Cl. 37.
Russo, Salvatore, d. b. a. Peter's Products, Somerville, Mass., to Eversharp, Inc., Chicago, Ill. 533,649, canc. Cl. 4.
S. A. R. O. M. Societa Azionaria Raffinazione Olii Minerali, Milano, Italy. 640,239, pub. 11–6–56. Cl. 15.
S. E. Appliances, Ltd., Ridgefield, N. J. 533,610, canc. Cl. 24.
Safeway Stores, Inc., d. b. a. Fairfax Baking Co., Oakland, Calif. 640,449, pub. 11–6–56. Cl. 46.
Safeway Stores, Inc., Oakland, Calif. 640,496. Cl. 16.
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Fylde Press (1935) Ltd., The.
Schering Corp., Bloomfield, N. J. 533,779, canc. Cl. 18.
School House Candy Co., Providence, R. I. 640,439, pub. 11–6–56. Cl. 46.
Schwab, Armand & Co., Inc., New York, N. Y. 640,403, pub. 11–6–56. Cl. 40.
Scripto, Inc., Atlanta, Ga. 640,333, pub. 10–4–55. Cl. 37.
Sears, Roebuck and Co., Chicago, Ill. 273,585, canc. Cl. 50.
Sears, Roebuck and Co., Chicago, Ill. 640,347, pub. 6–19–56. Cl 38.
Secretary Sue, Inc., Louisville, Ky. 640,488, pub. 11–6–56. Cl. 101.
Selby Shoe Co., The: *See*—
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Shad Records: *See*—
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Sharp & Dohme, Inc., Philadelphia, Pa. 533,748, canc. Cl. 18.
Shell Oil Co., New York, N. Y. 640,240–5, pub. 11–6–56. Cl. 15.
Sheppley, William S., Chicago, Ill. 640,372, pub. 9–11–56. Cl. 39.
Sherman, Park, Co., Chicago, Ill. 640,225, pub. 11–6–56. Cl. 8.
Show-House, New York, N. Y. 640,349, pub. 11–6–56. Cl. 38.
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Silver Craft Furniture Co., High Point, N. C. 533,697, canc. Cl. 32.
Simmons-Boardman Publishing Corp., New York, N. Y. 640,355 pub. 11–6–56. Cl. 38.
Simone Co., Inc., The, New York, N. Y. 640,380, pub. 11–6–56. Cl. 39.
Singer-Hosiery Mills, Inc., High Point, N. C. 640,396–7, pub. 11–6–56. Cl. 39.
Singer Mfg. Co., The, Elizabeth, N. J. 345,763, ren. 5–4–57. Cl. 23.
Slappey, Thomas L.: *See*—
Grape-Dew Co. of America.
Smith, H. P., Paper Co., Chicago, Ill. 640,185, pub. 3–23–54. Cl. 1.
Smith, H. P., Paper Co., Chicago, Ill. 640,344, pub. 11–6–56. Cl. 37.
Smith, Kline & French Laboratories, Philadelphia, Pa. 533,786, canc. Cl. 18.
Sociedad Anonima Auxiliar Fabril, Agricola & Comercial, to Sociedad Auxiliar Fabril Agricola y Comercial E. N., Buenos Aires, Argentina. 340,975, ren. 11–24–56. Cl. 46.
Sociedad Auxiliar Fabril Agricola y Comercial E. N.: *See*—
Sociedad Anonima Auxiliar Fabril, Agricola & Comercial.
Societe Anonyme d'Industrie Cotonniere, Haut Rhin, France. 640,412, pub. 11–6–56. Cl. 42.
Socony Mobil Oil Co., Inc., New York, N. Y. 640,356–7, pub. 11–6–56. Cl. 38.
Socony-Vacuum Oil Co., Inc., New York, N. Y. 533,749, canc. Cl. 6.
Sorenson, Joseph D., d. b. a. Lab Stencil, Kiester, Minn. 533,623, canc. Cl. 37.
Southwestern Petroleum Co., Inc., d. b. a. The Zone Co., Fort Worth, Tex. 640,231, pub. 11–6–56. Cl. 12.
Sperry Rand Corp., New York, N. Y. 640,497. Cl. 23.
Spoer, Louis C., East Paterson, N. J., to M. A. Frankel, Teaneck Township, N. J. 640,471, pub. 5–1–56. Cl. 50.
Stader, Sophia C., Perkasie, Pa. 640,472, pub. 11–6–56. Cl. 50.
Standard Oil Co. of California, San Francisco, Calif. 640,311, pub. 11–6–56. Cl. 23.
Sta-Tray Co., Paterson, N. J. 533,597, canc. Cl. 32.
Stern-Stegman-Prins Co., Kansas City, Mo. 640,377, pub. 11–6–56. Cl. 39.

Stertz, Joseph M., Manhasset, N. Y. 640,408, pub. 11–6–56. Cl. 42.
Stevens, Chas. A., & Co., Chicago, Ill. 533,580, canc. Cl. 39.
Straughn, Howard H., d. b. a. Sierra Slope Vineyards, Visalia, Calif. 640,460–1, pub. 11–6–56. Cl. 46.
Strickland, J., & Co., Memphis, Tenn. 640,484, pub. 11–6–56. Cl. 51.
Sullivan, Carol, New York, N. Y. 640,379, pub. 11–6–56. Cl. 39.
Sun Oil Co., Philadelphia, Pa. 533,762, canc. Cl. 15.
Sun Oil Co., Philadelphia, Pa. 533,764, canc. Cl. 15.
Superior Tanning Co., Chicago, Ill. 640,196–7, pub. 11–6–56. Cl. 1.
Swisher, Jno. H., & Son, Inc., Jacksonville, Fla. 343,162, ren. 2–9–57. Cl. 17.
Sylvania Electric Products Inc.: *See*—
Wabash Appliance Corp.
Takata, Shoichi, Honolulu, Hawaii. 640,374, pub. 11–6–56. Cl. 39.
Tan-Kar Oil Co., Montgomery, Ala. 533,771, canc. Cl. 15.
Tansitor Electronics, Inc., Bennington, Vt. 640,274, pub. 11–6–56. Cl. 21.
Television Audience Measurement Ltd., London, England. 640,348, pub. 11–6–56. Cl. 38.
Telex, Inc., St. Paul, Minn. 640,272, pub. 11–6–56. Cl. 21.
Tex Corp. of Dallas Texas, Dallas, Tex. 533,758, canc. Cl. 18.
Tey, Manuel M., Barcelona, Spain. 640,246, pub. 11–6–56. Cl. 15.
Thomas, Irvin C., Burbank, Calif. 533,614, canc. Cl. 23.
Tibbetts Laboratories, Inc., Camden, Maine. 640,427, pub. 11–6–56. Cl. 44.
Tip-Top Brush Co., Inc., New York, N. Y. 640,316, pub. 4–19–55. Cl. 29.
Tony-E-Toy Corp., Austin, Minn. 640,288, pub. 11–6–56. Cl. 22.
Topics Publishing Co., Inc.: *See*—
McKesson & Robbins, Inc.
Topics Publishing Co., Inc., New York, N. Y. 301,863, 12(c) pub. 1–22–57. Cl. 38.
Topics Publishing Co., Inc., New York, N. Y. 339,206, 12(c) pub. 1–22–57. Cl. 38.
Topics Publishing Co., Inc., New York, N. Y. 368,300, 12(c) pub. 1–22–57. Cl. 38.
Topics Publishing Co., Inc., New York, N. Y. 432,662, 12(c) pub. 1–22–57. Cl. 38.
Toyo Rayon Co., Ltd., Chuo-Ku, Tokyo, Japan. 640,406, pub. 11–1–55. Cl. 42.
Toyo Rayon Co., Ltd., Chuo-Ku, Tokyo, Japan. 640,416, pub. 11–6–56. Cl. 42.
Traveltips, Inc., Beverly Hills, Calif. 533,690, canc. Cl. 26.
Tru-Bloom Seeds: *See*—
Marre, Robert B.
Turntop Co.: *See*—
Koster, Curtis M.
U. N. World, Inc., Wilmington, Del., and New York, N. Y. 533,621, canc. Cl. 38.
United Electric Coal Companies, The, Chicago, Ill. 272,581, canc. Cl. 1.
United Feature Syndicate, Inc., New York, N. Y. 640,358, pub. 11–6–56. Cl. 38.
United Specialties of Birmingham, Inc., Birmingham, Ala. 640,283, pub. 11–6–56. Cl. 22.
United States Rubber Co., New York, N. Y. 640,270–1, pub. 11–6–56. Cl. 21.
Upjohn Co., The, Kalamazoo, Mich. 640,254, pub. 11–6–56. Cl. 18.
Upjohn Co., The, Kalamazoo, Mich. 640,260, pub. 11–6–56. Cl. 18.
Vaughan's Seed Co., Chicago, Ill. 640,188, pub. 11–6–56. Cl. 1.
Vet-Way Products Corp., Cypress, Calif. 640,426, pub. 11–6–56. Cl. 44.
Victory Optical Mfg. Co., Newark, N. J. 533,707, canc. Cl. 26.
Vision Products Co., Inc., Newark, N. J. 533,754, canc. Cl. 26.
Visualizer Corp., The, Beverly Hills, Calif. 533,718, canc. Cl. 26.
Vogue Textiles, Inc., Pawtucket, R. I. 640,476, pub. 11–6–56. Cl. 50.
Voit, W. J., Rubber Corp., Los Angeles, Calif. 640,276, pub. 11–6–56. Cl. 22.
Wabash Appliance Corp., Brooklyn, N. Y., to Sylvania Electric Products Inc., Salem, Mass. 341,747, ren. 12–22–56. Cl. 21.
Waggoner, D. L., & Son, El Paso, Tex. 640,433, pub. 11–6–56. Cl. 46.
Walker, Hiram, & Sons Inc., Peoria, Ill. 640,469, pub. 11–6–56. Cl. 49.
Wallach's, Inc., New York, N. Y. 640,368, pub. 1–3–56. Cl. 39.
Wallich, Isabella M., d. b. a. Delyse Recording Co., London, England. 640,325, pub. 11–6–56. Cl. 36.
Warner-Lambert Pharmaceutical Co., New York, N. Y. 640,263, pub. 11–6–56. Cl. 18.
Warren Fabrics Co., Inc., New York, N. Y. 640,410, pub. 11–6–56. Cl. 42.
Waters Mfg., Inc., Waltham, Mass. 640,312, pub. 11–6–56. Cl. 26.
Weekly Publications, Inc., New York, N. Y. 640,346, pub. 11–6–56. Cl. 38.
Weinreich Brothers Co., New York, N. Y. 533,602, canc. Cl. 28.
Weldit, Inc., Detroit, Mich. 640,319, pub. 11–6–56. Cl. 34.
West Disinfecting Co., New York, N. Y. 115,130, ren. 1–23–57. Cl. 6.
Widder Sales Corp., New York, N. Y. 640,295, pub. 11–6–56. Cl. 22.
Widder Sales Corp., New York, N. Y. 640,300, pub. 11–6–56. Cl. 22.
Wilbur Co. Inc., to Charles C. Haskell & Co., Inc., Richmond, Va. 345,285, ren. 4–20–57. Cl. 18.
Wilkins Co., The: *See*—
Wilkins, Ralph R.
Wilkins, Ralph R., d. b. a. The Wilkins Co., Cortland, N. Y. 640,338, pub. 11–6–56. Cl. 37.
Williamson, Garfield, Inc., Jersey City, N. J. 640,226, pub. 5–22–56. Cl. 10.
Woodruff, F. H., & Sons, Inc., Milford, Conn. 640,192, pub. 11–6–56. Cl. 1.
Yankee Pencil Co., Inc., The, Chicago, Ill. 533,578, canc. Cl. 37.
Ziff-Davis Publishing Co., New York, N. Y. 640,359, pub. 11–6–56. Cl. 38.

U. S. GOVERNMENT PRINTING OFFICE: 0—1957

PATENTS

NOTICES

Foreign Patents Received in the Scientific Library as of December 31, 1956

Country	Date received	Highest number
Australia	Dec. 27, 1956	203,413
Austria	Dec. 27, 1956	187,850
Belgium	Nov. 15, 1956	527,100
Canada	Dec. 26, 1956	531,305
Czechoslovakia	June 26, 1952	81,300
Denmark	Sept. 20, 1956	81,175
Egypt	Sept. 18, 1956	768
Finland	Sept. 24, 1956	28,188
France (*Patents*)	Dec. 27, 1956	1,126,600
(*Additions*)	July 24, 1956	66,250
Germany	Oct. 12, 1956	946,790
Great Britain	Dec. 31, 1956	763,150
Hungary	Sept. 20, 1951	140,582
India	Nov. 11, 1956	54,667
Ireland	Nov. 21, 1956	20,900
Italy	Oct. 2, 1956	494,900
Japan	Dec. 31, 1956	10,250
Netherlands	Dec. 18, 1956	83,409
Norway	Nov. 29, 1956	88,268
Philippines	June 29, 1956	217
Poland	Mar. 27, 1956	38,241
Russia	Apr. 10, 1928	2,496
Sweden	Dec. 10, 1956	156,093
Switzerland	Dec. 21, 1956	316,631
Yugoslavia	Feb. 17, 1955	16,461

Australia : First 2,000 incomplete
Belgium : First printed 493,079
Canada : First printed 453,746
Finland : First printed 19,428
First 500 incomplete
Hungary : First received 5,792
Ireland : Missing 1–10,000
Italy : First 243,000 incomplete
Russia : File incomplete
Yugoslavia : First received 10,001

Adjudicated Patents

(D. C. Ohio) Huston Patent No. 2,231,270 (43—44,87), for snap-on cork. Claim 9 *Held* invalid. *Huston* v. *Buckeye Bait Corp.*, 145 F. Supp. 600 ; 107 USPQ 138.

(D. C. Ohio) Huston Patent No. 2,415,692 (43—44,95), for fishing float. Claims 1 to 6 *Held* invalid. ID.

Disclaimer

2,736,893.—*Gert Sidney Zoege von Manteuffel*, Wraysbury, and *Colin Arthur Richardson*, Ham Common, England. CRAFT GUIDANCE APPARATUS. Patent dated Feb. 28, 1956. Disclaimer filed Dec. 24, 1956, by the assignee, *The Sperry Gyroscope Company Limited*.

Hereby enters this disclaimer to claims 12 and 13 of said patent.

Patents Available for Licensing or Sale

2,729,024. Animated Toy Figure (Punching Boxers Leaving Marks on Each Other). Frederick Guttmann, 111—45 76th Drive, Forest Hills 75, New York, N. Y.

2,756,790. Device for the Protection of the Cutting Edge of Handsaws. A. Syndbad, Route 2, 598A, Mesa, Ariz.

2,773,197. Auxiliary Generator Charging Rate Control. Bryant Y. Gray, 6412 Wakeforest, Houston 5, Tex.

John Strother offers the following two patents. Inquiries concerning the patents should be directed to : John Strother, 287 Degecombe Ave., Apt. 1B, New York 30, N. Y.

2,694,369. Mail Box Door.

2,769,032. Telephone Alarm.

General Electric Company is prepared to grant non-exclusive licenses under the following 14 patents upon reasonable terms to domestic manufacturers.

Applications for license under the following patent may be addressed to : General Electric Company, Aircraft Gas Turbine Division, Cincinnati 15, Ohio, Attention Counsel.

2,767,562. Cabin Pressurizing and Refrigerating Systems for Aircraft.

Applications for license under the following 4 patents may be addressed to : General Electric Company, Transformer Division, 100 Woodlawn Ave., Pittsfield, Mass., Attention Patent Counsel.

2,574,400. Electric Switch.

2,574,401. Electric Switch.

2,761,101. Thermal Protection for Natural and Forced Draft Dry-Type Transformers.

2,761,107. Three-Phase Transformer Core.

Applications for licenses under the following 9 patents may be addressed to : General Electric Company, Housewares and Radio Receiver Division, 1285 Boston Ave., Bridgeport 2, Conn.

2,582,024. Heat Setting and Temperature Indication in Flatirons.

2,602,248. Adjustable Thermostat Mechanism for Electric Flatirons.

2,602,352. Thermostat Control Cam for Automatic Flatirons.

2,737,737. Combination Dry and Steam Flatiron.

2,750,692. Steam Flatiron.

2,750,693. Combination Dry and Steam Flatiron.

2,750,694. Steam Flatiron.

2,750,695. Steam Flatiron.

2,755,575. Electric Flatiron Assembly.

New Applications Received During November 1956

Patents	5,887
Designs	398
Plants	12
Reissues	20
Total	6,317

Issue

Patents	921—No.	2,779,021 to No.	2,779,941, incl.
Designs	31—No.	179,588 to No.	179,618, incl.
Plants	2—No.	1,557 to No.	1,558, incl.
Reissues	2—No.	24,268 to No.	24,269, incl.
Total	956		

CONDITION OF PATENT APPLICATIONS AS OF NOVEMBER 30, 1956

Total number of pending applications (excluding Designs)	216, 863
Total number of pending Design applications	6, 276
Total number of applications awaiting action (excluding Designs)	114, 284
Total number of Design applications awaiting action	2, 832
Date of oldest new application	Aug. 1, 1955
Date of oldest amended application	Sept. 1, 1954

ROSA, M. C., Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
I. STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.
II. STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 23, 26, 37, 42, 44, 48, 51, 54, 69, 70.
III. YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
IV. FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
V. HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	8, 20, 29, 33, 36, 40, 41, 52, 66.
VI. MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS	1, 4, 5, 9, 10, 18, 22, 28, 45, 47.
VII. KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
CL. GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	12–22–55	1–27–55
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers	3–1–56	9–12–55
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys	4–13–56	3–31–55
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Feeding of Indefinite Lengths	3–7–56	3–13–55
5. (VI) ROBINSON, C. W., Harvesters; Potato Diggers; Stalk Pullers and Choppers; Stone Gatherers; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates	2–23–56	7–18–55
6. (I) SURLE, H., Carbon Chemistry (part), e. g. Natural Resins, Proteins, Heterocyclic Amides, Amines, General Organic Processes	11–10–55	9–2–55
7. (IV) GONSALVES, J. E., Optics, Photographic Apparatus	12–28–55	8–16–55
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture	11–17–55	3–9–55
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	3–2–56	3–16–55
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	12–23–55	4–15–55
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	2–13–56	5–3–55
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13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	2–13–56	1–3–55
14. (III) MANIAN, J. C., Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes	12–12–55	12–16–54
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	3–1–56	1–24–55
16. (II) LOVEWELL, N. N., Television; Telephony; Recorders	10–26–55	9–20–54
17. (IV) LEIGHEY, R. A., Paper Manufactures; Packaging; Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	12–28–55	1–18–55
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	1–16–56	2–3–55
19. (VII) PATRICK, P. L., Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners	2–17–56	6–1–55
20. (V) BROWN, L. M., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking	3–14–56	4–8–55
21. (III) MADER, R. C., Textiles	2–13–56	2–24–55
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows; Boring and Drilling	12–27–55	12–17–54
23. (II) ANDRUS, L. M., Cash and Fare Registers; Calculators and Counters; Education	10–17–55	10–11–54
24. (III) DRACOPOULOS, P. T. (HICKEY, T. J., acting), Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	3–5–56	3–17–55
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus	4–9–56	9–6–55
26. (II) YOUNG, R. R., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanism	4–2–56	11–3–55
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom an.. Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	3–7–56	5–27–55
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Chute, Skid, Guide and Way Conveyers; Fluid Current Conveyers; Pressure Modulating Relays; Pneumatic Dispatch; Store Service; Wheel Substitutes	12–2–55	4–4–55
29. (V) HABECKER, L. B., Tools; Woodworking; Button, Barrel and Wheel Making; Rubber Tire Removing Tools; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers	2–14–56	11–25–55
30. (VII) O'LEARY, R. A., Refrigeration; Heating Systems; Automatic Temperature and Humidity Regulation, Thermostats, Humidistats; Illuminating Burners; Miscellaneous Heating	6–4–56	9–20–55

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Amended
31. (I) HUTCHISON, E. W., Carbon Chemistry (part), e. g. Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Synthetic Resins (part)	12–23–55	4–11–55
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	3–5–56	9–16–55
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Building Structures; Roads and Pavements	3–19–56	2–1–55
34. (IV) SHANK, J. S. (acting), Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	1–12–56	1–3–55
35. (IV) BROMLEY, E. D., Dispensing; Filling and Closing Receptacles; Toilet, Kitchen and Table Articles; Sheet or Web Feeding	1–20–56	5–23–55
36. (V) McFADYEN, A. D., Measuring and Testing	11–29–55	11–25–55
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating	11–30–55	7–13–55
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g. Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	4–27–56	2–3–56
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	3–1–56	1–3–55
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	5–1–56	12–1–55
41. (V) GURLEY, R. B., Coin Controlled Apparatus; Dispensing Cabinets; Coin Handling; Mail, Fare or Other Collection Boxes or Chutes; Buckles, Buttons and Clasps; Racks; Fire Escapes; Ladders; Scaffolds	11–21–55	12–1–54
42. (II) MARANS, H., Electric Signaling; Signals and Indicators; Telegraphy; Electrical Connectors	8–10–55	1–4–55
43. (I) ARNOLD, D., Medicines, Poisons, Cosmetics; Sugar and Starch; Skins, and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus)	12–8–55	7–13–55
44. (II) EVANS, N. H., Antennas; Automatic Pilots; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	8–1–55	9–1–54
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances	12–23–55	3–25–55
46. (I) WILES, W. G., Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Surgery (part); Radioactive Medicines; Irradiation Chemistry; Carbon Chemistry (part)	1–9–56	2–1–55
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles	3–15–56	11–4–55
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Spark Plugs and Ignition Systems, Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers	11–8–55 12–30–55	11–12–54 6–27–55
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring	1–26–56	1–28–55
50. (I) BENGEL, W. G., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber	2–20–56	11–29–54
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Music	1–12–56	1–6–55
52. (V) NEFF, P. R., Supports; Joint Packing; Valved Pipe Joints or Couplings; Rod Joints or Couplings; Tool Handle Fastenings; Shaft Packing	2–14–56	6–22–55
53. (IV) REYNOLDS, E. R., (NINAS, G. A., acting), Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings and Shutters; Harness; Whip Apparatus	3–1–56	2–9–55
54. (II) NILSON, R. O., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g. X-Ray, Ultraviolet, Radioactive) Applications	8–30–55	12–6–54
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Sorting Solids; Centrifugal Bowl Separators; Comminutors	3–1–56	12–14–55
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	6–4–56	1–9–56
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings	2–14–56	6–15–55
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Food Apparatus; Closure Operators; Baths, Closets, Sinks and Spittoons	2–29–56	5–4–55
59. (I) HENKIN, B., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	1–24–56	1–27–55
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	3–5–56	4–25–55
61. (III) MORSE (Miss), E. L., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery	3–5–56	10–11–55
62. (IV) SHAPIRO, A., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination	3–5–56	4–4–55
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds	3–9–56	2–3–55
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	3–2–56	10–11–54
66. (V) LISANN, I., Geometric Instruments; Automatic Weighing Scales; Acoustics	11–25–55	4–18–55
67. (VII) KRAFFT, C. F., Laminated Fabrics; Ornamentation; Bleaching, Dyeing, Fluid Treatment of Textiles	3–1–56	9–29–54
69. (II) GALVIN, D. J., Wave Guides; Electric Meters; Sound Recording; Conductors; Insulators	3–19–56	2–17–56
70. (II) BREWRINK, J. L., Security laws administration.	2–13–56	9–19–55
CLASS. DIVS. I BAILEY, J. S., Paper Making; Mineral Oils	2–23–56	10–5–55
CLASS. DIVS. II LADY, J. E., Oscillators; Amplifiers; Resistances and Rheostats	2–17–56	8–29–55
CLASS. DIVS. III WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres	3–1–56	3–1–56
CLASS. DIVS. IV BERLOWITZ, W. (acting), Harrows and Diggers; Plows; Fluid Sprinkling, Spraying and Diffusing	4–4–56	5–8–56
CLASS. DIVS. V ANGEL, C. D., Liquid Separation or Purification; Sewerage	4–11–56	5–2–56
DESIGNS (III) A—MONCURE, J. A. Industrial Arts		
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts		

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during January 1957, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953.*

Patents	Numbers 2,185,170 to 2,188,894, inclusive
Plant Patent	Numbers 352 to 360, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

U. S. Court of Customs and Patent Appeals

IN RE HENLEY

No. 6221. Decided November 30, 1956

[— CCPA —; — F.2d —; — USPQ —]

1. PATENTABILITY—DIFFERENCES OVER PRIOR ART MUST BE INVENTIVE.

"It is well established that mere differences between that which is alleged to be patentable and the prior art do not of themselves support patentability; the ultimate question is whether the features of the subject matter in question display inventive concept over the prior art."

2. SAME—COMBINATION OF REFERENCES.

Held that the proposition that the disclosures of two or more prior art references may not be combined to negative invention unless they are bodily incorporated into the disclosures of the primary reference could not be accepted as being declaratory of the law, and *Held* that "it is adequate to negative patentability if one skilled in the art, having the teachings of the references before him, is able, without the use of the inventive faculty to produce the subject matter recited in the claim."

3. SAME—PARTICULAR SUBJECT MATTER—CLOTHES CLOSET POLE.

A claim to a clothes closet pole *Held* properly rejected as unpatentable over the prior art.

APPEAL from the Patent Office. Serial No. 194,913.

AFFIRMED).

Harvey B. Jacobson (*Donald M. Sell* of counsel) for Henley.

Clarence W. Moore (*H. S. Miller* of counsel) for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, RICH, and JACKSON (retired), *Associate Judges*

JOHNSON, *Chief Judge*, delivered the opinion of the court.

This is an appeal from the decision of the Board of Appeals of the United States Patent Office affirming the holding of the Primary Examiner rejecting as unpatentable over the prior art claim 4, the only remaining claim in appellant's application for a patent on a "Clothes Closet Pole."

The features of the alleged invention are readily apparent from a consideration of claim 4, which reads as follows:

> A clothes closet pole assembly comprising an extensible rod, and means disposed at each end of said rod for supporting said rod, said means comprising a hanger including a bracket having a cup secured to one end thereof, one end of said rod seating in said cup, said cup having an air vent in the bottom thereof for dissipating air imprisoned within said rod.

The references relied upon are:

Pederson, 744,701, November 17, 1903.

Carlson, 1,764,931, June 17, 1930.

The Carlson reference discloses a closet pole assembly comprising a hollow, extensible closet pole and two hangers to each of which is secured a supporting cup which is adapted to receive an end of the extensible pole.

The Pederson reference discloses a clothing hanger comprising a hollow rod slidably mounted in telescopic fashion on a horizontal rod supported at one end. The outer end of the hollow rod is closed by a cap, the opposite end of the horizontal rod being also closed. The upper side of the hollow rod is provided with an air vent adjacent the outer end thereof to prevent entrapped air from hampering the movement of said hollow rod either inwardly or outwardly.

The Board sustained the Examiner's rejection of claim 4 as being unpatentable over Carlson taken alone or in view of Pederson. It was the Examiner's contention that the novelty, if any, which resides in appellant's closet pole is in the use of the air vent in the supporting cup, the other elements of appellant's apparatus being clearly shown by Carlson. Noting that, as described in appellant's specification, the closet pole is assembled by first mounting the supporting means and subsequently extending the ends of the rods into their respective cups, the Examiner stated:

> • • • When employing such manner of assembly the air vent is unnecessary and of no utility for the following reasons: Rod 28 is open at its opposite ends during extension of the rod towards the cups 26 of brackets 20 attached to cleats 14 and 16. Thus no rarefaction of the air in the tubular rod will occur during such extension. The ends of the rod 28 will be closed to entrance or escape of air when the rod just begins to seat in both cups 26, assuming that the fit between the cups and rod is air-tight. However even during the further extension of the rod to complete the seating in the cups substantially no compression will occur within the rod because the decrease in the volume which the air occupied in the cup before extension of the rod will be substantially off-set by the increase in the volume which the air must occupy in the rod after extension. • • •

The Examiner concluded:

> • • • Moreover, even if an air vent were necessary in the Carlson device, no invention is seen in providing such means as taught by Pederson. The advantages which applicant argues will be attained by providing such air vent in the bottom of the cup of Carlson rather than in the extensible rod, in accordance with the teachings of Pederson, are obvious and expected, and if it were found that the rod location of the air vent resulted in clogging of the vent by dust, or the blowing of dust on the clothes during extension or retraction of the rod, it would readily occur to one having ordinary skill in the art that such defect could be remedied by relocating the air vent in a more concealed position such as in the bottom of the cup. Moreover, from a practical standpoint, it does not appear that the location of the air vent is critical. • • •

Appellant concedes that broadly to provide an air vent in the closet pole of Carlson would not amount to invention, but argues that it is the particular location of the air vent which renders his closet pole structure patentable over the prior art. Since the Pederson reference discloses an air vent which is disposed directly *on* the clothing rod, it can do no more than to teach the provision of a vent opening on one of the extensible rods of Carlson. This, appellant continues, is not the equivalent of his structure.

Appellant further states:

> • • • Pederson discloses [the air vent] adjacent the end of the rod, so that if the air vent is positioned in the structure of Carlson as shown in the structure of Pederson, it would be blocked off by the cup within which the end of the Carlson rod seats. If, however, the air vent were placed at some other position along the rod, then the air vent would be exposed to dust, grease, hanger paint and other clogging impurities as well as the possibility of clogging from clothes hangers themselves resting on the rod.
>
> By placing the air vent in the bottom of the cup within which the end of the extensible rod section seats, appellant avoids any possibility of clotting [sic] this vent and not only utilizes the extensible rod as well as the cup as a means for protecting the vent from clogging but, in addition, serves as a means to position the vent in a concealed, unobtrusive position which is unaffected by handling of the rod no matter how the rod is handled, and which is unaffected by any bending, pinching, or twisting stresses occasioned on the rod by hanger weights.

In regard to the Examiner's rejection on Carlson alone, appellant appears to have abandoned his original contention that there is appreciable expansion or rarefaction of the entrapped air within the extensible rods and now asserts that the pressure within said rods will vary proportionally with the increase and decrease of the ambient temperature, necessitating the air vent which he had provided.

We have carefully considered the arguments advanced and are of the opinion that the decision of the Board is sound and should not be disturbed.

Except for the provision of an air vent, appellant's clothes closet pole does not substantially differ from that of Carlson. The Examiner has adequately shown that the use of an air vent in the Carlson structure is unnecessary and produces no new or unexpected results. We are satisfied both with his reasoning and conclusions.

[1] It is well established that mere differences between that which is alleged to be patentable and the prior art do not of themselves support patentability; the ultimate question is whether the features of the subject matter in question display inventive concept over the prior art. *In re Voit et al.*, 33 CCPA (Patents) 737, 152 F.2d 987, 68 USPQ 206.

Appellant's contention that the air vent is desirable and necessary due to a pressure variant resulting from changes in the ambient temperature is tenuous. Any change in temperature in a closet in which appellant's closet pole is placed would be minute and not of such consequence as would cause any appreciable change of pressure of the air entrapped within said pole.

Were we to assume, arguendo, that an air vent were desirable in the Carlson structure, we would nevertheless be constrained to conclude that appellant's contribution to the art was of no patentable moment. It would be an idle task for this court to add to what has been sufficiently discussed in the aforequoted rejection of the Examiner as to this contention. [2] Appellant's argument that the incorporation of the Pederson air vent in the closet pole of Carlson would not produce the results obtained by his particularly located vent is apparently based upon the assumption that the disclosures of two or more prior art references may not be combined to negative invention unless they are *bodily* incorporated into the disclosures of the primary reference. Upon both precedent and reason, such a proposition could not be accepted by this court as being declaratory of the law. Suffice it to say that it is adequate to negative patentability if one skilled in the art, having the teachings of the references before him, is able, without the use of the inventive faculty, to produce the subject matter recited in the claim. *In re Twomey et al.*, 42 CCPA (Patents) 742, 218 F.2d 593, 104 USPQ 273.

[3] For the foregoing reasons, the decision of the Board of Appeals is affirmed.

AFFIRMED.

JACKSON, *J.*, retired, recalled to participate in place of COLE, *J.*

WORLEY, *J.*, was not present at the argument of this case, but, by agreement of counsel, did participate in the decision.

U. S. Court of Customs and Patent Appeals

CROME *v.* MORROGH

No. 6214. Decided November 30, 1956

[— CCPA —; — F.2d —; — USPQ —]

1. INTERFERENCE—RIGHT TO MAKE COUNTS—BURDEN WHERE CLAIMS COPIED FROM PATENT.

Held that applicant, having copied the claims in issue from a patent, has the burden of showing a clear basis for them in the disclosure of his application.

2. SAME—SAME.

"• • •, it is elementary that every express limitation appearing in a claim copied for the purpose of interference must be regarded as material in determining the right to make the count."

3. SAME—SAME—INHERENT DISCLOSURE.

"However, • • •, it is not sufficient that a person practicing the invention disclosed in the application might obtain the result set forth in the counts. Accordingly, in order to support a holding that Crome is entitled to make the counts in issue, it would be necessary to find that, if the procedure disclosed in his application is followed the resultant product will necessarily satisfy the requirements of the copied claims as to cerium and sulphur content. It would not be sufficient to show that it is possible to obtain such a product by working within the ranges given in his application."

4. SAME—SAME—SAME.

"Obviously it is not apparent from an examination of the Crome application alone that the product will inherently contain cerium uncombined with sulphur or that the sulphur content of the iron will not exceed 0.02 percent. Such inherency cannot be determined on the basis of theoretical considerations, but must be established by actual evidence; and the burden of establishing it rests upon Crome."

5. SAME—BAR UNDER 35 U. S. C. 135 FROM DELAY IN COPYING CLAIMS.

Held that applicant had not presented any claim to substantially the invention covered by the interference counts until more than a year after his opponent's patent was issued, and that he was therefore, barred by 35 U. S. C. 135; and *Held* that, applicant's testimony and the record of his application seemed clearly to show that applicant had no intention, prior to the time he copied the patent claims, of claiming the subject matter thereof.

6. SAME—PRIORITY OF INVENTION—GRAY CAST IRON.

The decision of the Board of Patent Interferences awarding priority of invention of counts relating to a gray cast iron to appellee is affirmed.

APPEAL from the Patent Office. Interference No. 85,061.

AFFIRMED.

Marechal, Biebel, French & Bugg, and *Greer Marechal* (*Lee B. Kemon* of counsel) for Crome.

Roy F. Steward (*Merrill F. Steward* of counsel) for Morrogh.

Before JOHNSON, *Chief Judge*, and O'CONNELL, RICH, and JACKSON (retired), *Associate Judges*

O'CONNELL, *J.*, delivered the opinion of the court.

This is an appeal from the decision of the Board of Patent Interferences of the United States Patent Office awarding priority of invention of the subject matter in issue in Interference No. 85,061 to Henton Morrogh, the appellee in the instant proceeding. The invention involved is a gray cast iron which is defined in the following counts:

> Count 1. Gray cast iron which contains a small proportion of cerium uncombined with sulphur and in which, in its as-cast state, at least the greater part of its graphite content has a nodular microstructure, said iron containing no sulphur in excess of about 0.02 percent.
>
> Count 2. Gray cast iron which contains a small proportion of cerium uncombined with sulphur and in which, in its as-cast state, at least the greater part of its graphite content has a nodular microstructure, said iron containing no sulphur in excess of about 0.02 percent, said iron exhibiting by standard strength tests mechanical properties superior to those of comparable gray cast iron not containing cerium.

The counts originated in Morrogh's Patent No. 2,488,511, granted November 15, 1949 on an application filed January 25, 1949, and on January 17, 1951 they were copied by Crome in his patent application No. 41,907, filed July 31, 1948. The Morrogh patent and the Crome application are involved in the interference here under consideration. On a motion to shift the burden of proof Morrogh was accorded the benefit of the filing date of his prior application No. 760,188 filed July 10, 1947, and was made senior party in the interference.

It appears from the record that cast iron may be either gray or white, the former type containing free carbon in the form of graphite flakes which impart the gray color to it, while in the latter the carbon present is in the form of carbides. It is possible to subject white cast iron to a process of heat treating which causes the carbides to break down with the result that nodules of carbon are formed throughout the iron. The iron so treated is malleable, while both gray and white iron, as cast, are brittle.

The Morrogh patent discloses a process which is said to result in the formation of a gray cast iron, which in the as-cast condition, contains carbon in nodular form, and which has improved mechanical properties, including greater strength. In order to obtain that result an iron is selected which has a relatively low sulphur content "preferably not more than 0.03 percent or thereabouts," and a small amount of cerium is added to the molten iron before casting.

It is stated in the patent that the first major effect of the cerium is to combine with the sulphur to form a cerium-sulphur compound which floats to the surface, and that so long as more than about 0.02 percent of sulphur is present the cerium is not free to dissolve in the iron. However, when the sulphur is reduced below the amount specified, the remaining cerium is dissolved, thus producing the nodular structure and improved characteristics of the cast iron.

The Crome application, like the Morrogh patent, is directed toward the production of a gray cast iron which, in the as-cast form, contains nodules of carbon, rather than the conventional graphite flakes and, like Morrogh, Crome obtains that result by adding a substance containing cerium to the iron before casting. However, the cerium is only one ingredient, forming 45 percent of a substance known as misch metal, and there is nothing in the application to suggest that the improved casting results from the cerium rather than the other elements of the misch metal. Crome does not stress the importance of any particular sulphur content. He states that an iron mix which "has been found to satisfactorily produce this new iron" includes "less than 0.04 percent of sulphur."

The Board of Patent Interferences held that the Crome application does not contain a disclosure supporting the interference counts, and that holding will be considered first here, since, if it is correct, the decision appealed from must be affirmed, regardless of the other questions raised by the present appeal. *Giambalvo* v. *Detrick*, 35 CCPA (Patents) 1112, 168 F.2d 116, 77 USPQ 582.

[1] In accordance with the settled practice, Crome, having copied the claims in issue from Morrogh's patent, has the burden of showing a clear basis for them in the disclosure of his application, *Lindley* v. *Shepherd*, 58 App. D. C. 31, 24 F.2d 606; *Hansgirg* v. *Kemmer*, 26 CCPA (Patents) 937, 102 F.2d 212, 40 USPQ 665; *Keeling* v. *Heid*, 28 CCPA (Patents) 1008, 118 F.2d 571, 49 USPQ 102. [2] Furthermore, it is elementary that every express limitation appearing in a claim copied for the purpose of interference must be regarded as material in determining the right to make the count. *In re Draeger et al.*, 32 CCPA (Patents) 1217, 150 F.2d 572, 66 USPQ 247, and authorities there cited.

Each of the counts here on appeal contains the express limitations that the cast iron contains "a small proportion of cerium uncombined with sulphur," and that it contains "no sulphur in excess of about 0.02 percent." It was the opinion of the Board that the Crome application does not contain a disclosure clearly satisfying either of those limitations.

The Crome application clearly does not contain an express disclosure of either of the limitations in question. No analysis of the cast iron produced by Crome's process is given and there is no specific statement as to what its sulphur content is, nor whether it contains cerium uncombined with sulphur. In fact, as pointed out by Morrogh, the application specification does not mention cerium by name except in one place where it is listed as one of the ingredients of the misch metal, which is added to the iron before it is poured into the casting mold.

[3] The lack of express disclosure is not necessarily fatal to Crome's right to make the counts, since such right may be based upon inherent disclosure. However, as was pointed out in *Brand* v. *Thomas*, 25 CCPA (Patents) 1053, 96 F.2d 301, 37 USPQ 505, it is not sufficient that a person practicing the invention disclosed in the application might obtain the result set forth in the counts. Accordingly, in order to support a holding that Crome is entitled to make the counts in issue, it would be necessary to find that, if the procedure disclosed in his application is followed the resultant product will necessarily satisfy the requirements of the copied claims as to cerium and sulphur content. It would not be sufficient to show that it is possible to obtain such a product by working within the ranges given in his application.

As above indicated, Crome's application contains no recognition that it is the cerium, rather than the other ingredients of the misch metal, which results in the improved casting, nor that the casting should contain cerium uncombined with sulphur. It does not state that any of the cerium combines with the sulphur, nor that there should be any particular relationship between the sulphur content of the iron mix and the amount of cerium used.

Crome relies upon statements in his application to the effect that sufficient misch metal remains in the molten material to control carbon precipitation during the cooling of the metal in the mold. That language, however, does not, in our opinion, necessarily indicate that uncombined misch metal will remain after the cooling of the metal and the carbon precipitation are completed.

[4] Obviously it is not apparent from an examination of the Crome application alone that the product will inherently contain cerium uncombined with sulphur or that the sulphur content of the iron will not exceed 0.02 percent. Such inherency cannot be determined on the basis of theoretical considerations, but must be established by actual evidence; and the burden of establishing it rests upon Crome.

It is urged by Crome that the fact that he and Morrogh start with similar materials, add cerium or a material containing it, and obtain castings having a nodular microstructure affords evidence that the castings are of the same composition so far as cerium and sulphur are concerned. There is nothing in the record, however, to prove that such cerium and sulphur are essential to the production of a nodular microstructure. On the contrary, Crome testified that it was possible to get the same type of nodular microstructure by the use of magnesium, without cerium. It is entirely possible that under the particular conditions described by Crome it may have been possible to obtain the nodular microstructure without the presence of cerium uncombined with sulphur and/or with a sulphur content of the iron in excess of 0.02 percent. As above indicated, the fact that one or more castings actually made by Crome within the operating limits set forth in his application may have contained less than 0.02 percent of sulphur does not establish that such a content is inherent in the process disclosed.

It seems evident both from Crome's testimony and from the file wrapper history of his application that he was not particularly concerned with obtaining a product of low sulphur content and, specifically, that he did not regard a sulphur content of 0.02% as being in any way critical. Thus, Crome testified as follows:

XQ111. Did you ever determine the sulphur content of any of the as-cast products you obtained in these experiments about which you testified? A. Some of them.

XQ112. And you told the attorneys about those results, did you? A. I don't recall whether I did or not.

XQ113. You really didn't think that was of any importance, did you? A. I didn't attach too much importance to it, at that time.

• • • • • • •

RDQ34. You have testified as to the sulphur content of your nodular iron castings. Why do you feel that they contained less than .02 sulphur—not more than .02 sulphur? A. Well, I don't know as I would want to state specifically not more than .02. I would say, maybe about .02 because I don't know specifically whether that sulphur has to be .02, .015 or .03, or what, but we do know it has to be of a low order.

From the last-quoted answer it will be seen that Crome himself, even in answer to a leading question, declined to state that the particular sulphur content which is an essential limitation of each of the counts formed any part of his invention.

Similarly, in an amendment filed in response to a rejection of some of the claims of Crome's application on the basis of an article by Morrogh and Williams, the following statements were made:

Applicant on the other hand has found that the percentage of sulphur found in ordinary gray iron mixes in no way prevents the additive material such as the misch metal alloy, from causing the free graphite to appear in the final casting in the form which he has described as nodular or spherical • • •. Applicant in practice has made no efforts to produce the sulphur content to the low limits of below .015 as specified by Morrogh and Williams but as stated in the specification very satisfactory results are attained with sulphur contents as high as substantially .04%, almost three times the percentage specified by Morrogh and Williams. • • •

Upon careful consideration of the record we conclude that the subject matter of the counts is not expressly disclosed in Crome's application and has not been shown in the disclosure to be inherent with the degree of certainty required where an applicant copies the claims of a patent for interference purposes.

[5] The Board of Patent Interferences further held that Crome had not presented any claim to substantially the invention covered by the interference counts until more than a year after Morrogh's patent was issued, and that he was therefore barred by Title 35, Section 135 of the United States Code. We are in agreement with that holding.

Moreover, regardless of what Crome's application might be held to disclose, the above-quoted portions of his testimony and of the record of his application, seem clearly to show that he had no intention, prior to the time when he copied the claims here in issue, more than a year after Morrogh's patent was granted, of claiming a casting which in its as-cast state contains not more than 0.02 percent of sulphur.

For the foregoing reasons, Morrogh must prevail in the interference and it is unnecessary to consider the remaining questions raised by the appeal.

[6] The decision of the Board of Patent Interferences is affirmed.

AFFIRMED.

JACKSON, *J.*, retired, was recalled to participate here in place of COLE, *J.*

WORLEY, *J.*, was not present at the argument of this case, but, by agreement of counsel, did participate in the decision.

U. S. Court of Customs and Patent Appeals

IN RE DONNA JONES KRATZ, EXECUTRIX OF THE ESTATE OF JAMES J. JONES, DECEASED

No. 6216. Decided November 30, 1956

[— CCPA —; — F.2d —; — USPQ —]

1. PATENTABILITY—COMBINATION OF REFERENCES—ANALOGOUS ARTS.

"It is to be noted that the Manzanera patent, which relates to an apparatus for recording seismic signals, is taken from an art which is rather remote from that to which the other references relate, namely, the photographing of the finish of a race. It is true that in each case there is a problem involved of coordinating some point intermediate the edges of a film with markings on the edges and that when the Manzanera disclosure is placed side by side with the other references, certain similarities may be found, but it does not seem likely that anyone confronted with a problem relating to the finish of a race would turn to a seismographic art for a solution."

2. SAME—SAME.

"While the subject matter claimed is comparatively simple it provides a convenient and accurate means for obtaining a result which the references show to have been recognized as desirable. The references relied on in the rejection of the appealed claim are taken from diverse arts and they do not, singly or combined, suggest the structure claimed. The appealed claim is accurately limited to the particular advance made by the applicant and under the circumstances, we are of the opinion that it should have been allowed."

3. SAME—PARTICULAR SUBJECT MATTER.

A claim to a photographic record for recording the finish of a race *Held* patentable over the cited prior art.

APPEAL from the Patent Office. Serial No. 110,393.

REVERSED.

J. Mattheics Neale (*Strauch, Nolan and Neale* of counsel) for Donna Jones Kratz, Executrix of the Estate of James J. Jones, Deceased.

Clarence W. Moore (*Arthur H. Behrens* of counsel) for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, RICH, and JACKSON (retired), *Associate Judges*

O'CONNELL, *J.*, delivered the opinion of the court.

This is an appeal from the decision of the Board of Appeals of the United States Patent Office which reversed a rejection by the Primary Examiner of

claim 17 of appellant's application Serial No. 110,393 for a patent on a photographic record for recording the finish of a race, but made a new rejection of that claim under Patent Office Rule 196 (b).

The appealed claim is as follows:

In a strip type photographic record of the finish of a racing contest comprising a film strip only having a background area longitudinally extending thereon formed by a continuous image of a narrow transverse portion of the race course containing and axially paralleling the actual finish line on the race course and photographic images of the contestants in their respective order of passing into and through said portion of the race course and their respective positions transversely of the race course; means for assuring proper application of a transverse determinative finish line to said film strip to provably establish the true order or passage of contestants past said actual finish line comprising transversely spaced light transmitting areas formed on said film strip and extending longitudinally from end to end and adjacent said background area, each of said light transmitting areas containing line-like transversely extending, oppositely aligned, adjacent regions of differing light modifying characteristics disposed in transverse parallelism to the axis of said image of said narrow transverse portion of the race course and alternating longitudinally at closely spaced intervals and identifying means individual to spaced regions of similar light modifying characteristics in each of said longitudinally extending areas distinctively identifying corresponding and directly opposed regions of similar light modifying characteristics and adapting said directly opposed regions of similar light modifying characteristics for ready pairing as guide markings for locating a determinative finish line therebetween relative to any selected one of said images of said contestants and in parallelism to said actual finish line whereby said determinative finish line will be accurately applied to provably determine the order in which said contestants reach the portion of the race course containing the actual finish line of the race course.

The references relied on by the Board are:

Belock, 2,257,100, September 30, 1941.
Del Riccio, 2,320,350, June 1, 1943.
Manzanera, 2,348,401, May 9, 1944.
Crowley, 2,430,975, November 18, 1947.
Allen, 2,443,572, June 15, 1948.

Appellant's application relates to a photographic film showing the finish of a race. By means of an apparatus which is not involved here, the film, during the taking of the picture of the finish moves across a narrow slot corresponding to the position of the finish line in such a manner that the horses are in focus, while the stationary background appears merely as a formless gray tone. The contestants appear in the picture in the exact order in which they crossed the finish line, but the line itself, being stationary, does not appear in the picture taken of the moving film. However, in order to show that the camera was in proper position with respect to the finish line, a still picture of that line is taken on the film before it is set in motion for photographing the horses, and a similar still picture is taken after the last contestant has passed.

With the arrangement described it may be necessary, in the case of a close finish, to locate the position of the finish line on the film, where the first contestant reached it. If the apparatus was properly adjusted, as can be checked by the two still pictures of the finish line, that line extends exactly transversely of the film and the problem is therefore one of erecting a transverse line across the film at the point corresponding to the position of the leading contestant. In order to facilitate this, appellant's application discloses the provision of a series of closely spaced short lines along each edge of the film, each line on one edge being in exact alignment with a corresponding line on the other edge. Every other line on each edge is numbered, the numbers running from one to nine and then repeating, and the lines which are in alignment with each other are given corresponding numbers. It is thus a simple matter to locate a transverse line at any desired point by placing a straight edge against any given line on one edge of the film and the correspondingly identified line on the other. By selecting such a pair of lines opposite the position of the leading contestant the finish line may be erected and the position of the contestants with respect to it will be clear.

The patent to Allen No. 2,443,572, relates to a "photo-finish" device in which a series of pictures of the finish line are taken, in the manner of motion pictures, and the picture is selected which shows the leading contestant reaching the line. The patentee states that the picture is provided at one or both edges with a line showing the end of the finish line. It is not clear whether that result is obtained by photographing the ends of the line or in some other manner, but that question is not material here since the appealed claim is directed to the photographic record itself and not to the apparatus or method by which it was produced.

Allen shows a scale extending along one edge of the film only and "graduated in units corresponding to those of the track, e. g., feet, inches, etc." In order to determine the position of the finish line he places the picture in an exact predetermined position on a special table and adjusts a straight edge, which is mounted for movement in such a way that it is always exactly transverse of the picture, until it contacts the nose of the leading contestant.

The patents to Belock 2,257,100, Del Riccio 2,320,350 and Crowley 2,430,975 all show devices for photographing the finish of a race on a moving film, in a manner similar to that employed by appellant, but none of them suggests the use of markings along opposite edges of the film as a means for locating the finish line.

The patent to Manzanera No. 2,348,401 relates to an apparatus for recording wave form signals on a light-sensitive film. It is stated in the patent specification that the customary practice was to employ a series of spaced timing lines extending entirely across the film so that the time of arrival of any particular point on a wave could be noted. It was found, however, that so many cross lines tended to confuse the record and accordingly Manzanera extends only certain of the timing lines across the film, as, for example, every fifth one. The remainder of the timing lines are interrupted, so that only a short portion of each of them appears at each edge of the film. The patentee states that this arrangement is usually sufficient but that if the arrival time of an intermediate portion of a wave is significant "the necessary extension of the timing lines may be effected manually." The lines which extend entirely across the film are numbered at one end only and the intermediate lines are unnumbered.

The Board of Appeals found the appealed claim to be unpatentable over a combination of the Manzanera patent with any one of the patents to Allen, Belock, Del Riccio and Crowley, on the ground that it would not require invention to apply markings such as are shown by Manzanera to the picture of any of the other patents.

[1] It is to be noted that the Manzanera patent, which relates to an apparatus for recording seismic signals, is taken from an art which is rather remote from that to which the other references relate, namely, the photographing of the finish of a race. It is true that in each case there is a problem involved of coordinating some point intermediate the edges of a film with markings on the edges and that when the Manzanera disclosure is placed side by side with the other references, certain similarities may be found, but it does not seem likely that anyone confronted with a problem relating to the finish of a race would turn to a seismographic art for a solution.

Moreover, the proposed combination of references would not result in a film which would fully satisfy the requirements of the appealed claim, since the Manzanera patent does not disclose the idea of correspondingly identifying directly opposed marks at opposite sides of the film. Moreover, Manzanera shows lines running entirely across the film at frequent intervals. Such lines would objectionably obstruct a picture of the finish of a race, and most of them would serve no useful purpose, since there would rarely be more than one or two points at which it would be necessary to locate a transverse line.

[2] While the subject matter claimed is comparatively simple it provides a convenient and accurate means for obtaining a result which the references show to have been recognized as desirable. The references relied on in the rejection of the appealed claim are taken from diverse arts and they do not, singly or combined, suggest the structure claimed. The appealed claim is accurately limited to the particular advance made by the applicant and under the circumstances, we are of the opinion that it should have been allowed.

[3] The decision of the Board of Appeals is reversed.

REVERSED.

JACKSON, *J.*, retired, sat for COLE, *J.*

WORLEY, *J.*, was not present at the argument and did not participate in this decision.

U. S. Court of Customs and Patent Appeals

IN RE BERGER

No. 6218. Decided November 30, 1956

[— CCPA —; — F.2d —; — USPQ —]

1. DESIGNS—PATENTABILITY.
"• • • mere differences in appearance are not sufficient to justify the issuance of a design patent unless the design is unobvious in view of the disclosures of the references."
2. PATENTABILITY—PARTICULAR SUBJECT MATTER—DESIGN FOR A RECESS BRACKET FOR NIGHT LIGHT.
Claim to a design for a recess bracket for a night light *Held* patentable over a combination of prior art references where the design included features not disclosed by the prior art, presented a distinct and ornamental appearance, and as a whole would not have been obvious.

APPEAL from the Patent Office. Serial No. D. 20,054.

REVERSED.

Maurice S. Cayne (*Cushman, Darby & Cushman* of counsel) for Berger.

Clarence W. Moore (*Arthur H. Behrens* of counsel) for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, RICH, and JACKSON (retired), *Associate Judges*

O'CONNELL, *J.*, delivered the opinion of the court.

This is an appeal from the decision of the Board of Appeals of the United States Patent Office, one member dissenting, affirming the rejection by the Primary Examiner of the claim of appellant's application Serial No. D. 20,054 for a design patent on a recess bracket for a night light. The appealed claim is as follows:

The ornamental design for a recess bracket for night light substantially as shown and described.

The references relied on are:

Lillibridge, D. 58,785, August 30, 1921.
Balmer, 2,067,591, January 12, 1937.
Laystrom et al., D. 164,431, September 4, 1951.
Sears, Roebuck & Co., Catalog No. 194, Spring and Summer, 1947, Page 909, Item E.

Appellant's design is for a device for mounting a night light in a wall and comprises a rectangular face plate having aligned openings at the top and bottom to receive screws for holding the plate in place, and a rectangular opening whose area is about one-fourth that of the plate, disposed in the upper portion of the plate and nearer to one side thereof than to the other. A semi-cylindrical back wall is disposed rearwardly of the last-mentioned opening, defining a recess in which the light may be located, the ends of the recess being covered by semi-circular top and bottom walls.

The Lillibridge patent shows a wall receptacle of generally rectangular shape but with an arched upper portion. The front of the receptacle is surrounded by a relatively narrow rectangular plate which is evidently designed to abut the wall in which the receptacle is disposed, but which is not provided with screw-receiving openings. The opening in the front plate occupies most of the area of the plate which therefore has the appearance of a narrow arched frame.

The Laystrom et al. patent discloses a recessed bathroom fixture in the form of a vertical semi-cylindrical cabinet, having flat top and bottom ends and with its open side surrounded by a narrow flange for mounting flush on a wall. A hinged flat door is provided for closing the opening.

The Balmer patent shows a recessed wall fixture generally similar in shape to that of Laystrom, but without the hinged door. Balmer's fixture, which is designed to be mounted adjacent a bathtub and to receive soap, is provided with a grab handle in the form of a horizontal rod supported on a pair of brackets extending outwardly from the upper edge of the fixture.

The Sears, Roebuck & Co. catalog reference shows a conventional cover plate for a wall switch, comprising a rectangular plate with upper and lower screw-receiving openings and a central rectangular slot through which the operating lever of the switch projects when the plate is installed in its intended position.

The Lillibridge patent, which is the basic reference relied on in support of the rejection, seems to be pertinent only as showing the broad idea of a wall receptacle supported by and opening into a rectangular plate. The over-all appearance of the patented design differs very materially from appellant's and there are numerous specific differences. Thus the area of the front opening of Lillibridge's receptacle is more than three-fourths the total area of the front plate while the opening of appellant's receptacle is about one-fourth the area of the plate; the opening is arched at the top in the patent but has a flat top in the appealed application; appellant provides screw-receiving openings in the plate while the reference does not; the side walls of the receptacle are at right angles to the plate in the patent, but are curved in the application; and the receptacle opening in the patent is located centrally of the plate, whereas in the application it is above and at one side of a central location.

The deficiencies of the basic reference as an anticipation above noted are not, in our opinion, supplied by the auxiliary references. Laystrom et al. and Balmer show receptacles having rectangular openings, and curved walls similar to those of appellant, but the openings are located centrally of the front plates and occupy almost the full front area, so that the plates are merely surrounding flanges. Moreover, by reason of the hinged door of Laystrom et al. and the grab handle of Balmer, the devices of those patents differ greatly in appearance from appellant's.

The Sears, Roebuck & Co. catalog reference merely shows a plate with a rectangular opening. The opening is much smaller than that in appellant's plate and is centrally located. Moreover, there is no receptacle corresponding in size to that of the opening, as in appellant's article.

From the foregoing discussion it will be seen that none of the references shows a structure having even approximately the relationship between size of opening and size of plate which is shown by appellant, and none of them shows a receptacle or opening located off center with respect to the plate either vertically or horizontally.

[1] It is true, of course, that mere differences in appearance are not sufficient to justify the issuance of a design patent unless the design is unobvious in view of the disclosures of the references. In the instant case, however, appellant has produced a design combining some features shown by several prior art disclosures but including other features not disclosed by the prior art, and presenting a distinct and ornamental appearance. We find that the design as a whole would not be obvious and we agree with the dissenting member of the Board of Appeals that appellant's claim should have been allowed.

[2] The decision of the Board of Appeals is reversed.

REVERSED.

JACKSON, *J.*, retired, was recalled to participate here in place of COLE, *J.*

JOHNSON and JACKSON, *Judges*, dissent.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,236,053. S. U. Caron, Golf bag cart; **2,335,579.** Chamberlin and Loye, Collapsible cart for golf clubs; **2,626,814.** J. F. Chamberlin, Foldable golf cart; **2,626,815.** same, Collapsible golf cart; **2,740,638.** Chamberlin and Westphal, Collapsible cart for golf bags; **2,741,490.** same, Cart for golf bags, suit for Declaratory Judgment filed Nov. 30, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c2024. *Kunkel Industries* v. *Joseph F. Chamberlin.*

2,266,849. H. Cole, Dry spray for preventing offset, **filed** July 23, 1954, D. C., S. D. N. Y., Doc. 94/325, *Craig Process, Inc.* v. *Sullivan Dry Spray Co., Inc., Fink Baking Corp., Field's Baking Corp., and Alfred A. White, doing business as Alfred A. White Co.* Consent judgment; injunction issued against defendants Sullivan Dry Spray, Fink Baking Corp., and Field's Baking Corp.; complaint dismissed as to defendant White & Co. Dec. 3, 1956.

2,335,579. See 2,236,053.)

2,374,881. Murphy and Reisinger, Display card and fastener holder; **TM 538,449** ("TWIN RACK"), The Autoyre Co., Inc., Towel bars and towel racks; **TM 538,447** (CLIP-ON), same, Kitchen and bathroom accessories—namely, towel bars and towel racks, **filed** Dec. 5, 1956, D. C., E. D. N. Y. (Brooklyn), Doc. 17717. *The Autoyre Co.* v. *Abraham Yagoda et al.*

2,467,988. H. O. Petraske, Barn gutter cleaner, **filed** Dec. 3, 1956, D. C., W. D. Wis. (Madison), Doc. 2896, *James Mfg. Co.* v. *Acorn Equipment Co., Inc.*

2,483,564. P. N. Sitton, Septic tank, **filed** Aug. 27, 1956, D. C., S. D. Ind. (Evansville), Doc. EV 56/c/50, *The Philip Sitton Septic Tank Co.* v. *Odon Vault Co. et al.* Order dismissing cause Oct. 4, 1956.

2,515,817. K. C. Augenstein, Expansion bracelet, **filed** Nov. 28, 1956, D. C., S. D. N. Y., Doc. 115/112, *Everbest Jewelry Corp.* v. *Speidel Corp.*

2,626,814. (See 2,236,053.)

2,626,815. (See 2,236,053.)

2,642,570. H. S. Hellbronner, Garment, **filed** Sept. 17, 1956, D. C., W. D. N. Y. (Buffalo), Doc. 7185, *Harry S. Hellbronner* v. *W. T. Grant Co.* Notice of dismissal Dec. 3, 1956.

2,740,638. (See 2,236,053.)

2,741,490. (See 2,236,053.)

2,763,047. G. C. Laster, Pipe joint coater, **filed** Dec. 4, 1956, D. C., S. D. Tex. (Houston), Doc. 10383, *American Coating Supply Co. et al.* v. *Greenhead Sling and Supply Co. et al.*

Des. 161,242. D. Bourne, Dinner plate or similar article, **filed** Dec. 5, 1956, D. C., W. D. Pa. (Pittsburgh), Doc. 15244, *Onandaga Pottery Co.* v. *Jackson Vitrified China Co.*

REISSUES

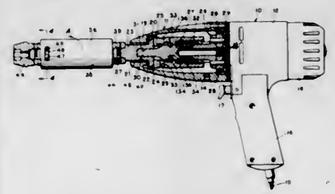
JANUARY 29, 1957

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,268
DELAY SWITCH
Milton Zuckerman, Brooklyn, N. Y.
Original No. 2,658,975, dated November 10, 1953, Serial No. 258,883, November 29, 1951. Application for reissue July 25, 1955, Serial No. 524,313
9 Claims. (Cl. 200—122)

1. A delay switch including an envelope, a plurality of conductive lead wires sealed through a wall of said envelope, an insulation base member secured within said envelope, a first bi-metallic element and a second bi-metallic element each having one of their respective extremities secured to said base member, said other extremities extending away therefrom in the same direction and in substantially parallel planes, a heater element adjacent said first bi-metallic element and adapted to warp said first bi-metallic element toward said second bi-metallic element upon passage of a current through said heater element, conductive means between said heater element and a pair of conductive lead wires sealed through said envelope, a switch comprising a first contact point secured to said base member, a second contact resiliently secured to said second bi-metallic element, and a third contact point secured to said base member, said first, second and third contact points each having electrical conductive means therebetween and a conductive lead respectively sealed through said envelope, said second contact being disposed between said first and third contact points, and means secured to said first bi-metallic element in contact with said second bi-metallic element and adapted to move said second contact point out of engagement with said first contact point and into engagement with said third contact point upon passage of a predetermined current through said heater element.

24,269
POWER-OPERATED IMPACT TOOL
Milton E. Disser, Lexington, Mich., assignor to Ingersoll-Rand Company, New York, N. Y.
Original No. 2,608,118, dated August 26, 1952, Serial No. 174,997, July 20, 1950. Application for reissue February 17, 1956, Serial No. 566,325
25 Claims. (Cl. 81—52.3)



25. A device of the character described having a resilient connecting element adapted to transmit rotative impact impulses from a driving member to a driven member and constituting the sole driving connection therebetween, and means to maintain stressed the connecting element in a direction opposite to said impact impulses.

PLANT PATENTS

GRANTED JANUARY 29, 1957

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,557
ROSE PLANT
Walter E. Lammerts, Livermore, Calif., assignor, by mesne assignments, to Germain's, Inc., Van Nuys, Calif., a corporation of California
Application March 30, 1956, Serial No. 575,297
1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the everblooming pillar rose type and the hybrid Wichuraiana class, substantially as herein shown and described, characterized particularly as to novelty by its general resemblance to the variety "High Noon" (Plant Patent No. 704), but being distinguished therefrom by its greater winter-hardiness, its larger, more glossy and more abundant foliage which better clothes the plant particularly near the base thereof, its larger and longer buds which are urn-shaped at first but become long-pointed and high-centered as the flowers open, its lighter colored buds which are Empire Yellow in general color tonality and have only a slight tinge of Maize Yellow color, and its lighter Yellow open flowers which are Empire Yellow in general color tonality.

1,558

ROSE PLANT

Walter E. Lammerts, Livermore, Calif., assignor by mesne assignments, to Roseway Nurseries, Portland, Oreg., a partnership

Application April 16, 1956, Serial No. 578,554

1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the hybrid tea class, substantially as herein shown and described, characterized particularly as to novelty by the general similarity of its foliage to that of "Grand Duchess Charlotte" (Plant Patent No. 774), combined with a relatively vigorous, upright and taller habit of growth, longer cutting stems, much longer urn-shaped to long-pointed buds resembling those of the variety "Eclipse" (Plant Patent No. 172), and the velvety, glowing, vivid and unusually uniform Cherry to Orient Red general color tonality of its open flowers.

PATENTS

GRANTED JANUARY 29, 1957

GENERAL AND MECHANICAL

2,779,021
FIXTURE FOR ASSEMBLING PALLETS
Ruben S. Swarzman, Chicago, Ill.
Application December 13, 1955, Serial No. 552,791
8 Claims. (Cl. 1—47)

1. A fixture for assembling pallets comprising a pair of arms spaced to receive a flat platform therebetween, a clamp secured to one of said arms, said clamp being adapted to hold a cylindrical tube in upright position beneath said platform, and a gage secured to said other arm, said gage being positioned above said clamp to overlie said platform in registration with said cylindrical tube, and indicating means on said gage in registration with the center of the cylindrical wall of said tube.

2,779,022
UNDERGARMENT
Hazel B. Tucker, Lincoln, Nebr.
Application August 31, 1954, Serial No. 453,333
3 Claims. (Cl. 2—36)

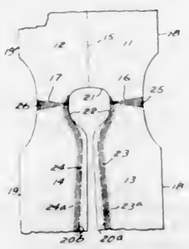
1. An undergarment comprising front, side, and back panels, intermediate elastic sections connecting said panels, at least said front panel having a reduced central waistline portion, an upper portion extending above said waistline portion, and a lower portion extending below said waistline portion, and at least the two elastic sections adjacent said front panel having an enlarged waistline portion and reduced portions above and below said waistline portion, and substantially U-shaped spring means secured over substantially their entire length in said panels, said spring means having the bight portions secured in said lower portion and the legs secured in and extending upwardly to the upper limit of said upper portion.

2,779,023
PANTIE GIRDLE
Leona Lax, New Haven, Conn., assignor to Sarong, Inc., a corporation of Connecticut
Application October 7, 1953, Serial No. 384,651
7 Claims. (Cl. 2—43)

1. In a pantie girdle having a body portion, a crotch portion and a pair of individual closed band leg portions the combination therewith of a front panel comprising overlapping pieces adapted to extend over the abdominal region of the wearer, one having a section extending down the front of one leg portion and the other a corresponding section extending down the front of the other leg portion, each of said sections being connected to the crotch portion and to an adjacent part of the body portion to form jointly the respective leg portions and each piece having a bottom edge part extending transversely of the girdle from the side to a common middle point of crossing and attachment at the lower area of the front of the body portion above the crotch area with the

edge continuing down into the opposite leg portion, each said bottom edge part being free of the other piece between the side from which it extends and said middle point of attachment, each of said bottom edges and said sections extending down the leg portions defining lines of pull radiating from substantially said point of crossing to apply uplifting tension at the lower part of the abdomen of the wearer.

2,779,024
GARMENT
Alfred Storfer, Brooklyn, N. Y.
Application August 5, 1954, Serial No. 447,962
2 Claims. (Cl. 2—93)



1. A shoulder draped garment proportioned and designed for a conventional figure and having two rear panels meeting at a rear vertical center line and two front panels joining the rear panels at shoulder axial lines and vertical side lines and adapted normally to meet at a front vertical center line and having neck and arm openings, the neck opening being intersected by the shoulder axial lines slightly back of its transverse diametral line and the sides of the neck opening being substantially straight and parallel for a short distance each side of said intersections and having its greatest width at said intersections and converging sharply at a point immediately in front of said parallel side portions and each of said front and back panels having its center of gravity in a vertical line intersecting said point.

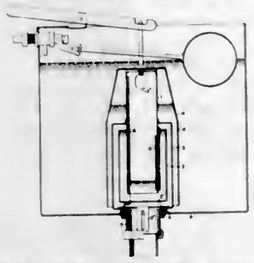
2,779,025
NEW POLYMERIC MATERIAL CONTAINING COPOLYMERIZED MONOCHLOROTRIFLUOROETHYLENE AND AN ALKYL VINYL ETHER
Russell W. Perry, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
No Drawing. Application August 27, 1953, Serial No. 376,963
8 Claims. (Cl. 2—167)

4. Clothing composed of fabric coated with graft copolymer of 10 to 25 percent by weight of vinyl chloride polymerized on 90 to 75 percent by weight of copolymer of chlorotrifluoroethylene and an alkyl vinyl ether, the alkyl group of which contains 3 to 9 carbon atoms.

2,779,026
STOCKING CLAMPING GARTER
Ernest E. Rosecrans, Sr., Los Angeles, Calif.
Application January 3, 1955, Serial No. 479,356
1 Claim. (Cl. 2—312)

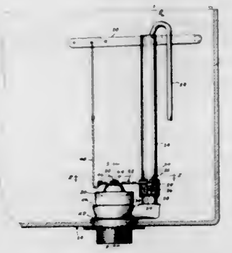
In a stocking clamping garter, the combination of a foam rubber band, a stiff rubber band superimposed on the exterior face of said foam rubber band, overstitching on the upper and lower edges of said bands securing the same together, an elastic stiff strap on the outside of said stiff rubber band, some of the overstitching at the top edges of said bands having the upper edge of the elastic strap thereunder and securing the elastic strap in place on the bands adjacent the upper edge thereof, said elastic stiff strap being provided with a knob, a split strip secured at its end to the inner side of said foam rubber band below the attached end of said first-mentioned elastic stiff strap, a loop-engaging head on said split strip for engagement with said knob, and said split strip normally extending over the top edges of said foam and stiff rubber bands.

2,779,027
QUICK EMPTYING MEANS FOR TANKS
Julio T. Jensen, Santiago, Chile
Application August 1, 1955, Serial No. 525,679
10 Claims. (Cl. 4—50)



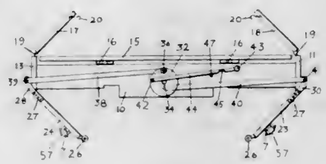
1. A quick emptying means for tanks comprising a bell, a syphon tube within and connected to said bell open at the top to said bell, said syphon tube extending downwardly into a countersyphon container, and a drainage chamber opening into a drainage connection surrounding said countersyphon container.

2,779,028
FLUSH CONTROL UNIT
Frank F. Branch, Charlotte, N. C., assignor to Radiator Specialty Company, a corporation of North Carolina
Application February 2, 1955, Serial No. 485,706
3 Claims. (Cl. 4—57)



1. A flush control unit comprising a collar strap arranged for clamping around a flush tank overflow pipe, said collar strap having a pair of ears offset outwardly therein at diametrically opposite positions with diametrically aligned pivot apertures in said ears, a yoke member formed with a pair of symmetrical leg portions joined at one end and extending adjacent the joined ends thereof in relatively closely spaced parallel relation for a substantial length and then spreading to terminate at inwardly angled pivot arm portions fitting said pivot apertures with the inwardly extending ends thereof abutting said overflow pipe and thereby preventing any lateral shifting of said yoke member, and a valve ball secured at the closely spaced length of said leg portions by fastening means extended between said leg portions and seated on a clamping washer having opposite downwardly rounded edges reaching over said leg portions and thereby preventing said leg portions from spreading.

2,779,029
CHILD'S BED
Dale G. Hilden, Abilene, Tex., assignor of thirty percent to Kenneth L. Musgrave and J. W. Perry
Application January 18, 1954, Serial No. 404,661
2 Claims. (Cl. 5—11)

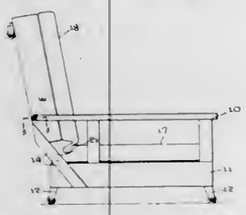


2. A bed frame having at each end a panel provided with two legs, each panel being hinged to the bed frame with hinges provided with springs tending to swing said panel from horizontal position under the bed frame to vertical position, a bar attached to each leg panel extending upwardly beyond the axis of said hinges, an axle normal to the side of the bed frame and fastened thereto, a member revoluble about said axle, linkage connecting the upper end of each bar to said revoluble member, an abutment extending outwardly from the surface of said member, a second abutment fastened on the surface of the side of said bed frame, and a latch bar pivotally mounted on said revoluble member adapted to engage said second abutment to hold said member against the tension of said springs, and further adapted to be swung to engage said first abutment so that leverage may be exerted tending to move said leg panels back towards horizontal position.

2,779,030
BED DAVENPORT
Joseph R. Thomas, Chicago, Ill.
Application May 29, 1953, Serial No. 358,420
5 Claims. (Cl. 5—13)

1. In a davenport bed having a seat section, an intermediate section and an outer section hingedly connected together and movable from a folded position with respect to the seat section to an extended position in alignment with the seat section, a mattress supporting fabric resiliently supported in the sections, opposite legs connected to the intermediate section and to the outer section, means for folding the legs against their respective sections when the sections are folded upon the seat section and for extending them into supporting positions below their sections when the sections are unfolded in front of the seat in bed position, a cross piece extending below the intermediate section and connected at its ends to the legs at the opposite sides of the section, the cross piece being located below the bed fabric in its extended position, a resilient reinforcing member comprising a no-sag wire strip secured at its ends near the ends of the cross piece and having an intermediate portion extending upwardly and continuously in contact with the under side of the fabric to support it in the extended position and having opposite flat loops which engage the under side of the bed fabric, means comprising loosely fitting metal rings for hinging one edge of the strip to the fabric so that the strip may be swung parallel with the fabric when the davenport sections are in a folded position, and a metal wire frame greater in width than the resilient no-sag wire strip extending centrally of the fabric and having a portion connected to the strip and to the fabric for transferring the resilient support of the strip to the said frame and thus covering a supported reinforced area of the fabric wider than the strip and extending both longitudinally and transversely of the fabric when the bed sections are in extended position.

2,779,031
CONVERTIBLE BED-SOFA COMBINATIONS
Frank D. Arpin, Orange, N. J.
Application April 2, 1954, Serial No. 420,633
3 Claims. (Cl. 5—38)



1. A bed-sofa combination comprising a pair of mattress support sections which are normally horizontally aligned in the bed position, means to adjust and maintain the relative positions of said sections in a joint position of angularity in the sofa position, and a foam rubber mattress permanently secured to both of said sections, said mattress overlying each of said sections and having an angular cut form therein, one angle leg thereof extending from the bottom surface of the mattress and substantially upwardly to a point short of the top surface thereof and the other angle leg extending horizontally from said point and parallel to said top surface, so as to be likewise wholly short of said top surface and terminating within the material of the mattress at the same level as said point, said angular cut extending continuously down the length of the mattress, the peripheral edges of said mattress being free of said sections for a distance of approximately four inches inwardly on said sections.

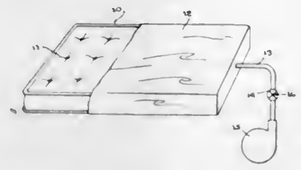
2,779,032
FOLDING BED COUNTERBALANCE MECHANISM
William Van Der Sluys, Homewood, Ill., assignor to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application February 16, 1953, Serial No. 336,971
10 Claims. (Cl. 5—164)

1. Counterbalance mechanism for a bed pivoted adjacent one end to swing vertically between a horizontal use position and a vertical stowed position mainly above the pivotal axis thereof, comprising a plurality of helical torsion springs each mounted below the bed parallel to said pivotal axis, means for holding an end of each spring against rotation, lever members rigid with the other ends of the springs, and link means pivoted to the lever members and also pivoted to the bed on a line parallel to and spaced from the pivotal axis in the direction of said one end of the bed for rotating the lever members to stress the springs upon downward swinging of the bed and to apply the force of the stressed springs to the bed upon upward swinging thereof, the several pivots being relatively located to result in a moment about the pivotal axis due to the spring force opposed to and greater than the moment due to the weight of the bed when the bed is disposed adjacent either of its said positions and substantially equal to the weight-caused moment when the bed is disposed at any other point between its said positions.

2,779,033
PILLOW SLIPS
Alfred W. Fountain, Bexar, Ark.
Application September 12, 1952, Serial No. 309,236
1 Claim. (Cl. 5—339)

A pillow slip for removably covering a pillow comprising an elongated seamless tubular member fully open at both ends, said tubular member being constructed of continuous fabric material of a single thickness, and inturned hems at each open end of the pillow slip whereby a pillow may be inserted at either end of the slip and the absence of a longitudinal seam permits rotation of the seamless tubular slip at each insertion of the pillow which distributes the wear around the tubular slip.

2,779,034
FIRMNESS ADJUSTMENT FOR MATTRESSES
Frank D. Arpin, Orange, N. J.
Application January 26, 1954, Serial No. 406,297
4 Claims. (Cl. 5—348)



1. A device for adjusting the firmness of a mattress comprising a flexible, air impermeable cover of substantially the same dimensions as the mattress to be treated, an outlet tube on said cover, valve means in said outlet tube, and a source of vacum connected to said valve means.

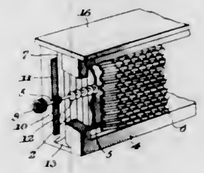
2,779,035
DRAWSHEET
Arthur A. McMurry, Butler, Pa., assignor to Special Textiles, Inc., Butler, Pa., a corporation of Pennsylvania
Application March 22, 1950, Serial No. 151,233
1 Claim. (Cl. 5—354)

A washable drawsheet for covering a mattress comprising a laminated central section consisting of upper and lower textile panels and an intermediate panel of flexible waterproofing material impregnating the under side of the upper textile panel and the upper side of the lower textile panel so as to bond the central section firmly together, said section being of a width at least equal to that of the mattress, textile side panels adapted to tuck under a mattress, and marginal panels of flexible, frictional material bonded to the textile side panels so as to engage the underside of a mattress and hold the drawsheet in place.

2,779,036
PADDING ASSEMBLY FOR SPRING STRUCTURES
John G. Platt, Carthage, Mo., assignor to Flex-O-Lators, Inc., Carthage, Mo., a corporation of Missouri
Application January 2, 1953, Serial No. 329,264
2 Claims. (Cl. 5—354)

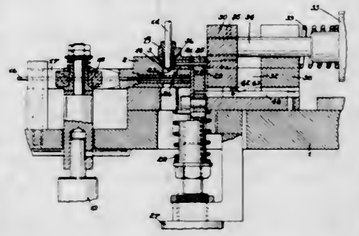
1. A padding assembly comprising a pad of substantial thickness formed of moldable cushioning material, and a fabricated reinforcing and stiffening sheet molded into one face of said pad, said fabricated sheet having a plurality of longitudinal pliable strands joined together by a series of spaced apart transverse strands of resilient wire, each of said wires having longitudinally spaced portions thereof offset inwardly to project within said pad.

2,779,037
CONSTRUCTION OF HONEYCOMBS
José Rovira Mari, Benifayo, Spain
Application December 11, 1952, Serial No. 325,470
Claims priority, application Spain April 12, 1952
4 Claims. (Cl. 6—11)



1. In a comb for the production of honey, a rectangular frame suitable for holding hexagonal cells of the comb at an angle such that honey deposited therein will flow towards the closed end of said cells, a series of parallel threads spaced at regular intervals on the length of said frame and stretched across the opening thereof, a sheet of wax affixed to said frame covering said parallel threads and having traced thereon hexagonal figures in a continuous pattern to form the closed end of said cells, a shaft adjacent said sheet of wax having a pinion attached thereto, means consisting of a rack attached to said frame for guiding said shaft along said frame by cooperating with said pinion adjacent to said sheet of wax and in a direction parallel to said threads, circular cutting edges positioned on said shaft in cutting engagement with said wax sheet at intervals such that said wax sheet is cut between said parallel threads, means adjacent to said wax sheet to collect honey, whereby when the cells of the comb are formed by bees and honey deposited therein, said shaft may be moved along said frame and said cutting edges will cut through said wax sheet and the honey will flow through the wax sheet into said collecting means.

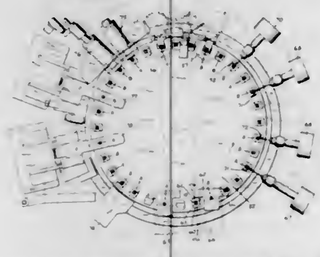
2,779,038
APPARATUS FOR CUTTING AND INSERTING RESILIENT PLUGS IN THREADED FASTENING MEMBERS
James MacBlane and Robert N. Paterson, Horseheads, N. Y., assignors, by mesne assignments, to The Nylok Corporation, New York, N. Y., a corporation of Delaware
Original application October 14, 1949, Serial No. 121,282, now Patent No. 2,643,403, dated June 30, 1953. Divided and this application April 6, 1953, Serial No. 346,966
1 Claim. (Cl. 10—72)



A device for forming resilient plugs and inserting them in threaded fastening elements comprising a fixture to receive a series of fastening elements, each element comprising a nut having a hole extending through a side wall thereof into its threaded central opening, dowel means to position a fastening element in the fixture to receive a resilient plug, means adjacent to said fixture to advance a rod of resilient material endwise, fixed guide means to receive the leading end of said rod, a movable

plate member in shearing engagement with said guide member and having an opening to receive the leading end of said rod, means to move said movable member to sever a section from the end of said rod and position it in alignment with the hole in said fastening element, a reciprocable punch member movable thruogh said opening to eject said section from the opening and insert it in the hole, means to actuate said rod advancing means, move said movable member and reciprocate said punch in timed relation, and means also actuated in timed relation to move the dowel means into the central opening of the nut to position the nut precisely in the fixture and to present a dowel surface to the inner end of the hole through the wall of the nut against which the sheared off end of the resilient rod is forced, thereby to position it in a precisely predetermined axial position with respect to the nut.

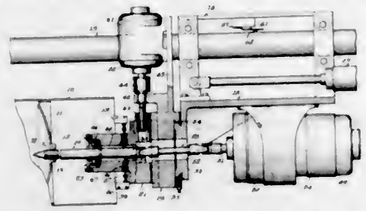
2,779,039
APPARATUS FOR MANUFACTURING LOCKING DEVICES
Carl H. Borner, Dumont, N. J., assignor to The Nylok Corporation, New York, N. Y., a corporation of Delaware
Original application December 18, 1950, Serial No. 201,468. Divided and this application February 19, 1954, Serial No. 411,438
7 Claims. (Cl. 10—72)



1. A device for peening lock nuts and the like comprising a movable work-supporting table, a plurality of fixtures on said table to receive nuts with the threaded apertures therein substantially perpendicular to said table, a supporting bracket adjacent to said table, a generally inverted U-shaped member pivotally supported between its ends on said bracket and having one free end overlying said table inwardly of said fixtures and the other free end disposed outwardly of said fixtures, an anvil member mounted in said one end for adjustment substantially parallel with said table to engage the innerside of a nut blank carried by a fixture, a hold down member adjustably and resiliently mounted in said inverted U-shaped member for movement substantially perpendicular to said table for engagement with the top of a nut blank in said fixture, a hydraulic jack mounted in said other end of said inverted U-shaped member for movement therewith, a punch actuated by said jack and in alignment with and opposing said anvil to engage and peen the opposite side of said nut blank from said anvil, and means for moving said inverted U-shaped member to engage said hold down member with a nut blank and disengage said hold down member from said nut blank.

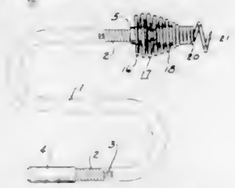
2,779,040
TOOL-CENTERING MACHINE
Harold M. Scarff, Sherman Oaks, Calif.
Application June 3, 1954, Serial No. 434,160
12 Claims. (Cl. 10—147)

1. In a tool-centering machine, the combination comprising a pair of transverse slides, motor means to move each slide, a tool tiltably carried by one slide and having a conical pilot adapted to enter a hole in a piece of work, a plurality of pins around said tool and responsive to



tilt thereof, and a plurality of switches engageable by said pins to operate the slide-moving means and bring the tool into alignment with said hole.

2,779,041
DROPHEAD SEWER AUGER AND SHIELD
Abraham Silverman, Pittsburgh, Pa.
Application May 11, 1955, Serial No. 507,611
8 Claims. (Cl. 15—104.3)



1. A downhead closet auger comprising a flexible snake, a body member secured to the end of the snake, a head member, pivot means attaching the head member to the body member to permit said head member to freely pivot on said body member, an outwardly projecting bit on said head member, and a flexible annular shield secured to one of said members and extending over said pivot means and a portion of the other of said members.

2,779,042
PLUMBER'S TOOL
Henry C. Benny, Hartford, Conn.
Application August 11, 1954, Serial No. 449,172
2 Claims. (Cl. 15—104.09)

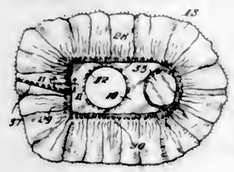
1. A plumber's tool for cleaning the interior surfaces of a pipe coupling or the like and comprising in combination, a sleeve having a radially outwardly projecting flange on one end and having two oppositely located longitudinal slots adjacent the said one end, a cap closing the other end of the said sleeve, a rod slidable within the sleeve and projecting from the said one end thereof which projecting end of the rod is provided with a radially outwardly projecting flange, an abrasive pack supported on the said rod between its flange and the said flange on the one end of the sleeve whereby the abrasive pack can be inserted within a pipe coupling in spaced relationship to the interior surfaces thereof, a handle secured to the said rod and projecting through the slots in the said sleeve for retracting the said rod relative to the sleeve to thereby compress the abrasive pack between the said flanges and to expand the said pack radially outwardly into engagement with the interior surfaces of the pipe

coupling, and a spring seated within said cap and engaging the said handle and normally biasing the projecting end of the rod outwardly with respect to the sleeve.

2,779,043
FERRULE ASSEMBLY FOR PAINT BRUSHES
Hugh P. McMillan, Baltimore, Md., assignor to Samuel M. Dell and Company, Incorporated, a corporation of Maryland
Application December 10, 1951, Serial No. 260,789
5 Claims. (Cl. 15—193)

1. In a brush, a ferrule having inner walls thereof channeled to form a socket, said socket being disposed intermediate the open ends of said ferrule, a separate perforated plate locked in the socket within and disposed transversely of said ferrule, the opposite end edges of said plate being spaced from the adjacent walls of said ferrule, plastic material comprising layers on the under and upper sides of said plate and extending through the perforations of the plate binding the layers together, and bristles having their butt ends embedded in the layer of plastic material on the underside of said plate.

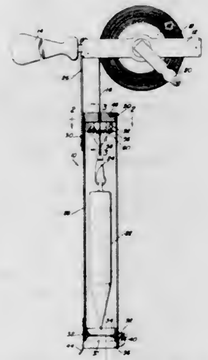
2,779,044
RUFFLE MOP
Ruby Lee Brockmeier and Fred C. Brockmeier, Richmond Heights, Mo.
Application February 21, 1952, Serial No. 272,834
4 Claims. (Cl. 15—228)



2. In a ruffle mop, the combination which comprises an elongated layer of material providing a backing member, said layer of material having arcuate ends, said layer of material being folded at the center providing upper and lower backing members, the upper backing member having an opening therethrough, a continuous ruffle formed with material cut on a true bias stitched to the upper backing member on a line spaced from the edge thereof and a continuous ruffle formed in layers and with the layers stitched to the lower backing member, on spaced parallel longitudinally disposed lines and on lines extended adjacent the fold at the center of the backing member and around the outer arcuate ends thereof.

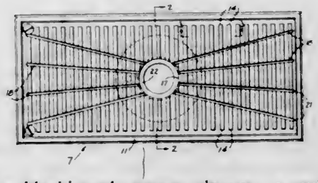
2,779,045
GAUGE LINE WIPER AND PLUMB BOB CASE
Hughie B. Harvey, County Line, Okla.
Application June 24, 1954, Serial No. 438,958
2 Claims. (Cl. 15—256.5)

1. A combined gauge line wiper and plumb bob case attachment for mounting on a reel frame with the reel frame having a carrying handle, a reel, a gauge line attached to the reel and a plumb bob on the free end of the gauge line, said attachment comprising a supporting bracket adapted to be mounted on the frame in depending relation and adjacent the carrying handle, a vertically disposed tubular member mounted on the lower end of the bracket in substantially tangential relation to the reel with the gauge line wound thereon, a top closure member mounted in the upper end of the tubular member, said top closure member being rigid with the tubular member and provided with a slot for slidably receiving the gauge line, a pivotal closure member at the lower end of said tubular member, an inwardly extending peripheral rib mounted in the lower end of said tubular member, said rib having inclined upper and lower surfaces for guiding movement of the plumb bob into and out of the tubular member, and means mounted on the undersurface of the



top closure member for wiping the gauge line as it is wound upon the reel, said means including a pair of wiping members pivotally attached to the top closure member, said wiping members extending downwardly in converging relation with the end surface being in oblique angular relation to the longitudinal axis thereof thus providing flat surfaces for engagement with opposite surfaces of the gauge line, spring means for urging the free ends of the wiping members into contact with the gauge line, said rib at the bottom of the tubular member acting as a guide for the gauge line as it is pulled between the wiping members and as a seat for said pivotal closure thus preventing leakage from the bottom of the tubular member.

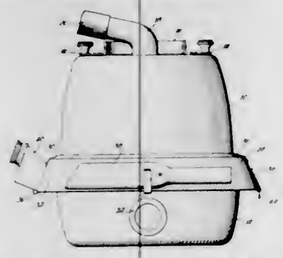
2,779,046
ERASER CLEANER
Francis J. Queirolo, Stockton, Calif.
Application August 10, 1954, Serial No. 448,938
2 Claims. (Cl. 15—310)



1. In a blackboard eraser cleaner, a substantially rectangular elongated plate wider and longer than an eraser to be cleaned, said plate having a top surface and side edges and end edges, a plurality of parallel spaced continuous ridges extending across said top surface parallel to said end edges, said ridges terminating at their ends in spaced relation to the side edges of the plate, adjacent ones of said ridges defining suction channels therebetween, a plurality of relatively narrow continuous suction grooves extending lengthwise of said top surface and through the ridges at points spaced along the ridges,

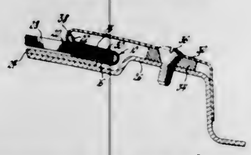
said suction grooves having outer ends terminating beyond ridges at the end edges of the plate and inner ends, and a central suction hole through said plate into which the inner ends of the suction grooves open.

2,779,047
VACUUM CLEANER WITH ACCESSORY SUPPORT
Ralph C. Osborn, Bloomington, Ill.
Application August 26, 1953, Serial No. 376,561
1 Claim. (Cl. 15—323)



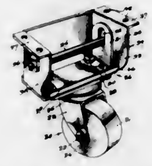
A vacuum cleaner of the canister type comprising a lower generally cylindrical shell and an upper shell, the latter shell also being generally cylindrical and being tapered inwardly from bottom to top with its bottom diameter smaller than the upper diameter of the lower shell, an annular ledge at the juncture of the two shells, and an accessory ring having an inside diameter slightly greater than the bottom diameter of the upper shell, but less than the upper diameter of the lower shell, removably supported on said annular ledge and masking said juncture, said ring comprising an inwardly extending flange portion adapted to rest upon said annular ledge and an outer downwardly extending rim portion of substantially uniform depth, and a plurality of accessory receiving hooks mounted on said rim portion, said ring being capable of supporting accessories while the cleaner is in use and also being removable from the cleaner for hanging in vertical position on a wall.

2,779,048
FASTENER FOR FLOOR COVERINGS
Wilfred J. Larabell, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 27, 1954, Serial No. 432,782
3 Claims. (Cl. 16—4)



1. The combination of a floor having a sill, a floor covering on said floor having a free edge thereof adjacent said sill, a separate sill plate spaced from and overlying said sill and the adjacent edge of said floor covering, said sill plate being secured to said sill and having an inwardly disposed flange at the edge thereof overlying said floor covering, said flange being sufficiently removed from the point of attachment of said sill plate to said sill to permit the flexure thereof away from said floor and a clip preventing the removal of said floor covering from underneath said sill plate, said clip being formed to provide a bend having a pair of arms extending therefrom in the same direction, said arms having interlocking teeth at the free end thereof opposite said bend engaging said edge of said floor covering when said floor covering is inserted between said arms and said arms are pressed together against said floor covering, one of said arms being provided with outwardly extending tabs interlocking with the inwardly disposed flange of said sill plate when said floor covering is pushed under said sill plate or when said sill plate is applied over said floor covering edge.

2,779,049
RETRACTABLE CASTER
Jonas K. Hoddevik, Seattle, Wash.
Application April 14, 1953, Serial No. 348,624
5 Claims. (Cl. 16—34)

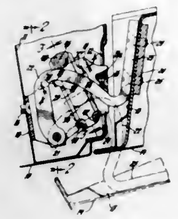


1. A retractable caster unit comprising, in combination: a box-like frame having means for securing the same to the bottom of a davenport or other like piece and formed to provide a pocket open at the bottom and walled along two sides and the back, a U-shaped caster mounting having its two legs received in said pocket so as to each closely overlie a related one of the two side walls and each provided with a vertical slot, a rod fixed to and extending horizontally between said side walls and passing through the slots of said legs for connecting the caster mounting to the frame in a manner permitting the mounting to move vertically within limits imposed by the two ends of the slots and to also swing forwardly about the center of the rod as a pivot, and a caster swivel-mounted from the underside of the cross-arm of said U-shaped caster mounting, means being provided acting automatically to lock the caster mounting against said forward swinging movement when the mounting lies at the upper limit of its permitted vertical motion.

2,779,050
DOOR CHECK AND HOLDOPEN
Claud S. Semar, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 30, 1953, Serial No. 345,308
3 Claims. (Cl. 16—82)

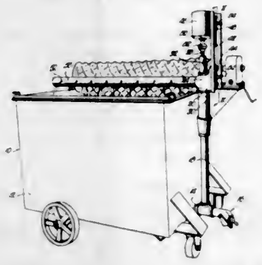
1. A check and hold-open for body and door members, comprising: a check link having a curved hook at one end forming a positive stop member; means for mounting said check link on one of said members; a support bracket mounted on the other of said members; stop means on said support bracket adapted to engage in the bight of said hook positively to stop relative movement between said body and door members; and a spring fixedly mounted on said support bracket and having a portion slidably engaging said link to yieldably urge said link into engagement with said stop means.

2,779,051
HINGE HOLDOPEN
La Verne B. Ragsdale, Dearborn, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 23, 1953, Serial No. 350,704
4 Claims. (Cl. 16—140)



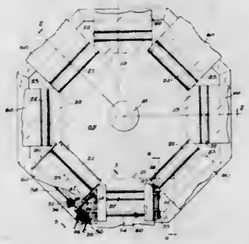
1. A hinge hold-open of the character described, including: a hinge box having opposite walls; a hinge arm pivotally mounted on said hinge box for swinging movement between said walls; a pair of rigid hold-open levers having means loosely supporting them intermediate their ends opposite each other, one on each wall, for rocking movement toward and away from each other about respective spaced axes, with a portion of each lever adjacent one end thereof lying in the path of swinging movement of said hinge arm, the means loosely supporting said levers comprising complementary lug and slot connections between each lever and the adjacent hinge box wall, the lugs fitting loosely in the slots to allow limited shifting of the axis about which each lever rocks; and a spring which is under compression extending between said levers adjacent the other end thereof, said hinge arm engaging said lever portions and forcing said portions apart against the force of the spring upon swinging movement of the arm.

2,779,052
RECIRCULATING PUMP FOR POULTRY CHILLING TANKS
Ralph S. Zebarth, Hickman Mills, Mo., assignor to Gordon Johnson Equipment Company, Kansas City, Mo., a corporation of Missouri
Application June 21, 1954, Serial No. 437,910
2 Claims. (Cl. 17—11)



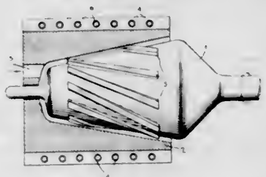
1. For an open top poultry chilling tank, a recirculating system including a pipe adapted to be coupled with the tank and having an open uppermost end; a pump housing provided with a pump; a prime mover for the pump carried by the housing; a tubular outlet; an inlet spout for the housing in telescoped relationship to said pipe; and means limiting the extent of downward movement of the housing relative to the pipe, said outlet extending from the housing over the tank when the spout is in the pipe.

2,779,053
METHOD AND APPARATUS FOR PRODUCING ORIENTED PLASTIC FILMS
Murrey O. Longstreth and Turner Alfrey, Jr., Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application March 9, 1955, Serial No. 493,178
9 Claims. (Cl. 18—1)



3. Apparatus for producing continuously and simultaneously a plurality of flat sheets of organic thermoplastic film, comprising means for distributing heat-softened plastic material continuously as a unitary thin sheet radially outward from a center, a plurality of pairs of draw rolls disposed symmetrically about said center to form a closed polygon, each such pair of rolls having a sheet-engaging nip therebetween, means disposed about the perimeter of the polygon between contiguous pairs of draw rolls for slitting said unitary sheet into strips of the same widths as the draw rolls, and means for driving the draw rolls simultaneously and at the same peripheral speed.

2,779,054
APPARATUS FOR HOMOGENIZING AND KNEADING PLASTIC MASSES
Martin Doriat, Burghausen, Upper Bavaria, and Adolf Vogt, Munich, Germany, assignors to Wacker-Chemie G. m. b. H., Munich, Germany, a corporation of Germany
Application November 23, 1953, Serial No. 393,846
Claims priority, application Germany November 25, 1952
2 Claims. (Cl. 18—2)

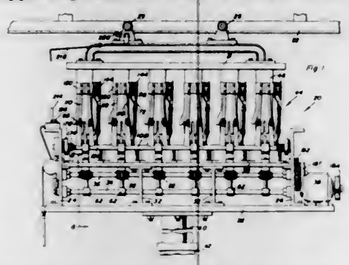


1. Apparatus for mechanically homogenizing and kneading plastic masses comprising a rotatable conical body and a closely adjacent surrounding conical sleeve forming a conical space which is of substantially uniform width throughout its length and is entirely open and unobstructed at its greatest diameter, means for introducing a plastic mass into the space between said body and said sleeve in the vicinity of the smaller diameter of said body, and spaced ribs on said rotatable conical body approximately filling the space between said body and said sleeve and extending in the general direction of the axis of said body.

2,779,055
EDGE ROLLING DEVICE
Paul Burger, New Washington, Ohio
Application April 29, 1954, Serial No. 426,361
7 Claims. (Cl. 18—2)

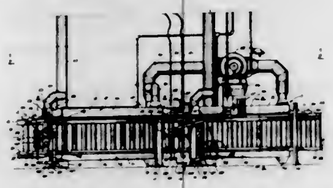
1. An edge rolling apparatus comprising at least one form, a table beneath said form, a base mounted for

rotation in said table, means for rotating said base, an arm carried by said base, a roller mounted on said arm for engagement with material on said form, a pair of hand supporting arms pivotally mounted on said table,



and means for rocking said pair of hand supporting arms toward and away from each other, said hand supporting arms carrying hands engageable with material on said form.

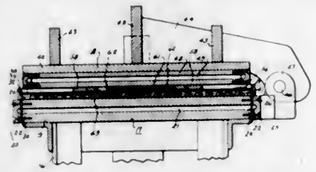
2,779,056
METHOD AND APPARATUS FOR FORMING PLASTIC JOINTS ON CLAY PIPE
Elmer R. Ligon, Pittsburg, Kans., assignor to W. S. Dickey Clay Manufacturing Company, Kansas City, Mo., a corporation of Delaware
Application February 16, 1956, Serial No. 565,893
16 Claims. (Cl. 18—4)



1. The method of applying and fusing joint material to ends of clay and like pipe which comprises, placing molds on the ends of the pipe to define cavities therewith for receiving joint material, subjecting only the ends of the pipe and molds to heating and drying medium to dry and preheat the ends of the pipe while the portion of the pipe between the heated ends remains substantially unheated, inserting flowable joint material into the cavities between the heated molds and pipe ends to suitably fill said mold cavities, subjecting only the ends of the pipe and molds with joint material therein to heating medium to heat said ends to fuse the joint material to the pipe while the portion of the pipe between the heated ends remains substantially unheated, and removing the molds from the pipe.

2,779,057
APPARATUS FOR MAKING VEHICLE DESTINATION SIGNS
Herbert J. Graham, Abington, and John E. Orban, Philadelphia, Pa., and William F. Reisiger, Flushing, N. Y., and Andrew J. Shaback, Philadelphia, Pa., assignors to Electric Service Manufacturing Company, Philadelphia, Pa., a corporation of Pennsylvania
Application February 26, 1952, Serial No. 273,522
3 Claims. (Cl. 18—17)

1. In an apparatus for molding plaques relieved for use in the art of printing comprising a horizontally extending table top, a plurality of elements arranged upon said table top and coacting with the latter to conjointly provide an upwardly presenting mold of predetermined shape and character, a lid for said table top, and means for closing said lid, whereby said mold forming elements are sandwiched between the latter and said table top and pressure is brought to bear on the material with which the mold is charged, said table top including a bed plate, a plurality of permanent magnets distributed over the top of said bed plate and fixed thereon, a cover plate extending over said bed plate and permanent magnets and magnetized by the latter whereby to magnetically attract said mold forming elements and shiftably removably secure the same in place, said bed plate and lid being each provided with a valved passage connected with sources of fluid media, the passage controlling



valves being operable for admitting to said passages a heating medium, whereby the surfaces between which said elements are sandwiched are heated, or optionally a cooling medium whereby the surfaces aforesaid are cooled, pressure and heat thus applied to the mold charge being effective to expel all air bubbles from the mold charge and to promote rapid flow of the mold charge into every part of the mold cavity, and the cooling medium being effective to promote hardening of the mold charge without undue delay.

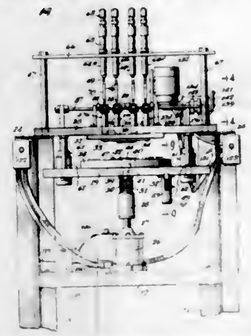
2,779,058
MOLD FOR MAKING IMITATION ARTICLE
Laurin E. Hyde, New York, N. Y.
Application August 26, 1952, Serial No. 306,461
1 Claim. (Cl. 18—27)

A mold for making an imitation orange comprising a hollow orange shaped member and a cone-shaped base integral with the latter, straps secured to the bottom and top of said mold, said mold being provided with an outlet at its top, a rubber neck portion having a small orifice posed in said orifice, and a pin for guiding said wick in the insertion thereof in a mold, said base being formed with slits, whereby to facilitate the extraction of the imitation orange from the mold.

2,779,059
APPARATUS FOR CONTROLLED DEPOSITION OF MATERIAL
John B. Kruft, Skokie, Ill., assignor to Kruft Corporation, a corporation of Delaware
Application August 15, 1952, Serial No. 304,598
6 Claims. (Cl. 18—30)

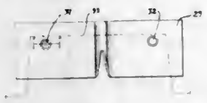
1. Apparatus of the character described for depositing material on a work piece element, comprising: a matrix element having a surface with a cavity therein; a locating table carrying the work piece element; means for causing relative movement of said matrix and said locating table toward and away from each other, said means being adapted to bring a surface of the work piece element and said matrix surface into intimate sealed

contact; means for feeding material to the matrix cavity; means for venting the matrix cavity; and means for operating said feed and vent means to deliver automatically a predetermined quantity of material to the cavity when a work piece and the matrix element are in intimate sealed contact, said feed and vent means being adapted to retain any of the material therein upon separation of the matrix and the work piece.



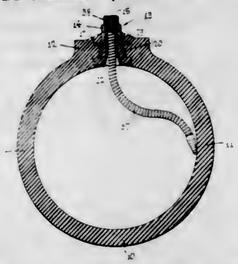
6. In an apparatus of the character described for depositing material on a work piece element: a matrix element having a surface with a cavity therein, adapted for intimate sealed contact with a surface of the work piece element; material feed means for introducing material to the cavity while said surfaces are sealed, said means including a feed valve; an inflow duct operatively associated with said material feed means and leading into said cavity, said inflow duct being so shaped, at least where it enters said cavity, that it in cooperation with said feed means acts as a pipette to retain any of the material therein on separation of the surfaces; vent means for venting said cavity to permit complete filling thereof, said means including a vent valve; a vent duct operatively associated with said vent means and leading from said cavity, said vent duct being so shaped, at least where it enters said cavity, that it in cooperation with said vent means acts as a pipette to retain any of the material therein on separation of the surfaces..

2,779,060
TIRE MOLD
Harold W. Knox, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application May 13, 1953, Serial No. 354,835
2 Claims. (Cl. 18—38)



1. A mold for a pneumatic tire including in combination separable body members having registering recesses therein which together constitute a mold opening conforming in shape to the exterior contour of a tire to be molded, said mold having circumferentially extending grooves for forming functionally continuous tire tread ribs, thin plates disposed at short intervals in at least one of said grooves, said plates extending from the bottom of said grooves upwardly a substantial distance and completely across the groove in which they are located, said plates having perforations therethrough whereby the air in said grooves during the molding of a tire may pass through the plates and whereby the tire is provided with ribs having numerous narrow grooves extending completely across said ribs and opening at the road contact surface thereof, the sides of said perforations being beveled to a sharp edge for cutting through rubber that flows into said perforations during the molding of a tire in said mold.

2,779,061
TIRE-CURING BAG AND METHOD OF MAKING THE SAME
Oakley W. Hosking, Monroe, N. Y., assignor to Monroe Bag Valve Corporation, Monroe, N. Y., a corporation of New York
Application October 30, 1952, Serial No. 317,731
11 Claims. (Cl. 18—45)



1. The method of making a finished tire-curing bag which includes the steps of cutting a hole in an uncured rubber tire-curing bag, inserting into the hole in alignment therewith and in intimate contact with the walls of the hole a rubber annulus having a rigid tube secured in it and extending at least partially through it, and curing the bag and annulus under heat and pressure to unite these into a unitary rubber structure in a wall of which the said rigid tube is secured and through which it passes at least partially.

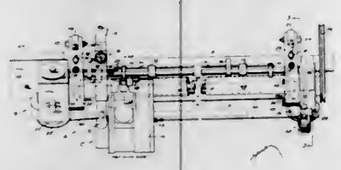
9. An air-fitting assembly for a tire-curing bag comprising a rubber annulus having an outside surface engageable with the walls of a hole of said tire-curing bag; and a rigid tube imbedded in the annulus and extending at least partially through the annulus, said annulus being formed with a bore which is aligned with the tube and forming therewith an opening through the annulus, said tube having an inwardly extending annular rib completely imbedded in the annulus and encircling the bore in the annulus whereby the fluid in the bag forces a portion of the annulus adjacent the rib into fluid tight seal with the rib, and in which there is an annular skirt of substantially channel cross section, secured to the tube and extending along the inside and outside of the rib in spaced relation thereto, said skirt containing a portion of said rubber annulus for effecting an interlock between the annulus and the rib.

2,779,062
PRODUCTION OF POROUS SHAPED ARTICLES TRUE TO SHAPE AND SIZE FROM SYNTHETIC THERMOPLASTIC MATERIALS
Fritz Stastny, Weinheim an der Bergstrasse, Germany, assignor to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany
Application April 16, 1952, Serial No. 282,682
Claims priority, application Germany April 26, 1951
7 Claims. (Cl. 18—48)

1. A process for the production of porous shaped articles which are true to shape and size from synthetic thermoplastic substances which comprises heating small particles of a synthetic thermoplastic substance containing gases under pressure within the confines of the particles in a closed mold which permits the escape of

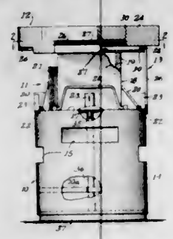
gases but retains said thermoplastic substance to a temperature above the softening point of the thermoplastic substance, to expand said particles, the proportion of said particles in said mold and said heating being sufficient to fill the mold with expanded cohered particles of said thermoplastic substance, and cooling the expanded thermoplastic substance, thereby obtaining a porous article of said thermoplastic substance having the desired shape and size.

2,779,063
CARD CLOTHING TREATMENT MECHANISM
Guy W. Vaughan, Jr., New York, N. Y., and Columbus R. Sacchini, Willoughby, Ohio, assignors, by mesne assignments, to Curtiss-Wright Corporation, Marquette Metal Products Division, Cleveland, Ohio, a corporation of Delaware
Application May 6, 1953, Serial No. 353,366
11 Claims. (Cl. 19—109)



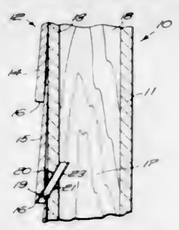
1. A carding cylinder cleaning mechanism comprising a pair of supporting members for rigid attachment to respective main frame stands of a carding machine, generally between the lickerin mechanism and rearmost flats thereof, a suction operated, carding cylinder cleaner unit the framework of which comprises a pair of swing arms pivotally carried by respective supporting members together with guide means extending approximately parallel to the carding cylinder axis and serving to connect the swing arms together, the unit including a suction nozzle movable along the guide means for traversing the carding cylinder, transmission mechanism carried by one swing arm arranged to cause such traversing movement cyclically, carding machine power takeoff mechanism carried by the other swing arm, a torque transmitting shaft, torque-connected at its opposite ends to the power takeoff mechanism and the transmission mechanism through respective universal joints, and spheroidal, hence universally movable, bearing supports for the two ends of the shaft on respective swing arms and with the centers of the spheroids located in planes transverse to the axis of the shaft and which are approximately coincident with the intersection points of respective universal joints.

2,779,064
NEWSPAPER STAND
Elmer H. Carson, Pacoima, Calif.
Application September 12, 1955, Serial No. 533,727
2 Claims. (Cl. 20—1.7)



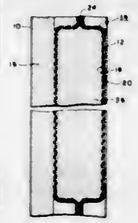
1. A self service newspaper vending stand, comprising a base, a smaller open sided polygonal column extending upwardly from the middle of the top of the base, and a roof mounted on the top of the polygonal column larger in area than the top of the base and column, the top of said base and the sides of the column constituting a support and a prop for sheaves of newspapers disposed on the top of the base, with means mounted on the top of the base for holding the newspapers compressed against the sides of the column.

2,779,065
VENTILATING MEANS FOR A BUILDING WALL
William L. Rehme, Barrington, R. I.
Application July 20, 1953, Serial No. 369,142
1 Claim. (Cl. 20—4)



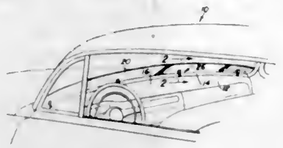
A building construction having an inner wall and an outer wall spaced therefrom, the latter of which has lapped sections providing an edge projecting horizontally beyond the section beneath it, said outer wall having a tube extending from said edge inwardly and upwardly and opening in the space between said walls, the outer end of the tube extending at the same angle as said edge and substantially flush therewith, said tube being crimped circumferentially thereof at a location thereon substantially inwardly of the ends thereof providing an annular abutment at a position substantially inwardly of the ends of the tube and a cup having a perforated bottom located in said tube and engaging said abutment to block the passage of insects through said tube.

2,779,066
INSULATED REFRIGERATOR WALL
Richard S. Gaugler and Edmund F. Schweller, Oakwood, Ohio, assignors to General Motors Corporation, Dayton, Ohio, a corporation of Delaware
Application May 23, 1952, Serial No. 289,482
8 Claims. (Cl. 20—4)



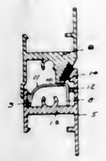
1. In a refrigerator, an outer wall, an inner wall spaced from said outer wall, insulation between said walls, said insulation comprising outer bag means, filler material within said bag means having voids therein, and a gas filling said voids, said gas having a coefficient of thermal conductivity less than that of air, said bag means having a thickness less than the distance between said walls, and compressible insulation in the space between said bag means and said walls whereby expansion and contraction of said bag means is permitted without distortion of said walls.

2,779,067
DEFROSTING ATTACHMENT FOR WINDSHIELDS
Gordon W. Stanley, Brandon, Manitoba, Canada
Application September 17, 1954, Serial No. 456,829
1 Claim. (Cl. 20—40.5)



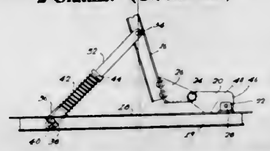
An attachment for aiding in the defrosting of windshields comprising an elongated, flexible, flat transparent strip, the length of the strip being substantially equal to the width of a windshield, the height of the strip being considerably less than the height of a windshield with which the attachment is to be used whereby to leave the major portion of the windshield uncovered by the strip, the lower edge of the strip being contoured to the shape of the lower edge of a windshield with which the attachment is to be used, and fastening means adapted to be attached to the windshield molding, cooperating means on said strip and said fastening means detachably securing said strip to said fastening means, said fastening means includes a plurality of clips, each of said clips comprising a member formed into a U-shaped seat at one end thereof straddling the strip, an inwardly projecting detent on one leg of the seat, said strip having a depression within which said detent releasably seats.

2,779,068
SPACER FOR AWNING TYPE WINDOW VENTS
Donn C. Blanchard, Miami, Fla., assignor to Stanley Building Specialties Company, North Miami, Fla., a corporation of Florida
Application November 12, 1954, Serial No. 468,291
2 Claims. (Cl. 20—42)



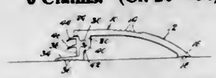
1. In combination with a window construction wherein a plurality of sashes are horizontally pivoted to swing to and from a position overlapping sealing engagement and wherein each of the sashes include channeled frame members having a header and a sill member, a spacer device that is detachably engaged within the channel of each header member for overriding contacting engagement of the sill member of a next adjacent sash whereby the sill member will be accurately aligned in parallel relation to the adjacent header member to permit a fully closed overlapping and sealing engagement of the sashes with respect to each other, the said spacer being of U-shape and provided with a bearing head portion and supporting leg members and with the leg members being compressible for permitting insertion of the spacer within the channel of the header whereby the leg members frictionally bind against the inner sides of the channel and with the leg members determining the depth of movement of the spacer into the channel whereby the head portion is disposed at an elevation that supports the sill member of the adjacent sash in a position parallel with the header and that permits a fully closed and overlapping engagement of the sashes throughout their length.

2,779,069
CASEMENT WINDOW STRUCTURE
Richard Ziesmer, Pittsburgh, Pa.
Application May 14, 1953, Serial No. 354,966
2 Claims. (Cl. 20—53)



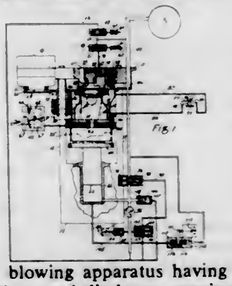
1. The combination with a window frame and sash fitted into the frame, of a hinge supporting the frame in the sash in such manner as to move the sash laterally as the window opens, the hinge comprising an arm-like hinge member pivoted at one end on the window frame and having surfaces thereon which engage the frame to limit the swinging movement of said member to an arc of 90° from a position parallel with the plane of the window frame to a position perpendicular to such plane, a second hinge member fixed on the exterior of the sash and projecting normally from the plane of the sash, the projecting end being pivotally secured to the free end of the first member, and a resiliently-extensible link pivoted to the frame at one of its ends at a point on the frame intermediate the side of the frame opposite the one on which the hinge is mounted and the middle of the frame, said link having its other end pivotally secured to the sash intermediate the two vertical edges of the sash.

2,779,070
THRESHOLD
Henry A. Keller, Hialeah, Fla.
Application August 15, 1955, Serial No. 528,403
6 Claims. (Cl. 20—64)



1. A threshold unit comprising an elongated bar having two spaced apart elongated edges, means for connecting said bar to a floor surface with one elongated edge in contact therewith, a depending flange adjacent but spaced from the other elongated edge of said bar, a floor surface contacting foot extending laterally from the lower edge of said flange, and a sealing strip positioned on the outer face of said flange between said other edge of said bar and said foot, said sealing strip having a plurality of laterally projecting sealing flanges extending out from the outer face thereof.

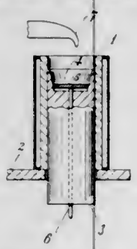
2,779,071
CONTROL SYSTEM FOR SAND BLOWING APPARATUS
Heinrich J. B. Herbruggen, Cleveland, Ohio, assignor to Federal Foundry Supply Company, Cleveland, Ohio, a corporation of Ohio
Application May 8, 1952, Serial No. 286,774
19 Claims. (Cl. 22—36)



1. In a sand blowing apparatus having a sand transfer chamber with a sand discharge opening communicat-

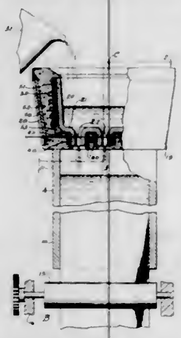
ing with a sand receptacle, said chamber having a fluid pressure inlet and exhaust, and means coupled to the receptacle and operative in response to variations of receptacle pressure to alternately open and close the inlet and exhaust for regulating the flow of fluid pressure to the receptacle to limit the pressure in the receptacle to a predetermined safe value.

2,779,072
CONTINUOUS METAL-CASTING APPARATUS
Norman P. Goss, Mayfield Heights, Ohio
Application August 3, 1953, Serial No. 371,931
1 Claim. (Cl. 22—57.2)



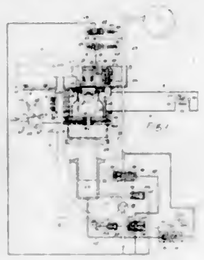
In continuous casting apparatus, a starting bar having a recess in the upper end defined by a generally flat bottom spaced from the end, and sidewalls surrounding said bottom and extending upwardly to said end, said flat bottom being comprised of a movable member and being exposed to the direct fall of molten metal as it is initially poured into said apparatus and a detachable stem fastened to the lower side of said member and passing downwardly through an aperture in the starting bar to retain said member in position when metal is first poured.

2,779,073
RECEPTACLE FOR MOLTEN METAL
Harry B. Osborn, Jr., Cleveland, Ohio
Application October 27, 1952, Serial No. 317,100
1 Claim. (Cl. 22—79)



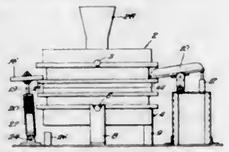
A tundish for holding molten metal and continuously feeding the same to a continuous casting machine of the type which casts rectangular bars of metal by means of a rectangularly-shaped mold open at the upper end and having narrow ends and relatively wide sides, said tundish comprising, receptacle having a wall extending therearound and a bottom, a plurality of pouring spouts in said bottom and aligned in a row with the spouts at the end of the row adapted to be positioned near the ends of the mold and with at least a spout therebetween positioned towards the center of the mold, said tundish wall having a lining of a refractory material having substantial electrical and heat conductivity, a high frequency induction heating coil around said refractory, means for flowing cooling water through said coil to conduct heat from the molten metal away from said wall and means for energizing said coil with electrical energy to either equal, exceed or be less than the amount of energy conducted away by said cooling water, each of said spouts being comprised of an electrical and heat conductive refractory, a high frequency induction heating coil around each spout, means for energizing each coil at each spout, and means for controlling the energization of the coil around each spout independently of the coils around the other spouts whereby the spouts at the end of the row may be heater to a higher temperature than the intermediate spout so that the metal flowing through the spouts at the end of the row and next adjacent the narrow ends of the mold will be heated to an elevated temperature relative to the metal flowing through the intermediate spout near the center of the mold.

2,779,074
METHOD OF BLOWING SAND INTO SAND MOLDS
Heinrich J. B. Herbruggen, Cleveland, Ohio, assignor to The Federal Foundry Supply Co., Cleveland, Ohio, a corporation of Ohio
Original application May 8, 1952, Serial No. 286,774. Divided and this application March 22, 1954, Serial No. 417,805
5 Claims. (Cl. 22—193)



1. A method of making sand molds comprising, blowing sand into a mold-forming receptacle until the unit pressure therein reaches a predetermined amount which is less than the unit pressure of the source of pressure utilized for blowing the sand, then stopping the blowing of sand until the unit pressure in the receptacle is lowered, and then repeating the operation until the receptacle is filled with sand.

2,779,075
CAST ARTICLE AND METHOD OF MAKING
Edmund Q. Sylvester, Chicago, Ill., assignor to Griffin Wheel Company, Chicago, Ill., a corporation of Delaware
Original application October 13, 1950, Serial No. 189,961. Divided and this application March 9, 1953, Serial No. 341,021
6 Claims. (Cl. 22—213)

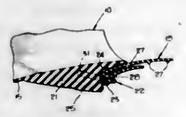


1. A method of making a steel casting comprising pouring molten steel having a carbon content of from about .6% to about 1.0% into a graphite mold having a weight at least about three times that of the steel poured into said mold.

2,779,076
LAUNDRY AID
Walter J. Schenck, Sr., St. Louis, Mo.
Application January 5, 1954, Serial No. 402,319
2 Claims. (Cl. 24—137)

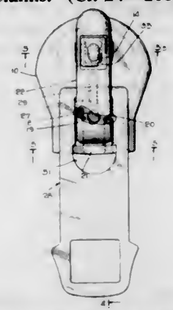
2. A laundry aid for securing similar ones of a pair of clothing articles together, comprising a body; means projecting from one end of the body for suspending the same from a clothesline, comprising a head having a length substantially equal to that of the body, said head including a pair of arcuately, oppositely bowed arms integral at one end with said end of the body, said arms being of spring material and being under tension effective to normally bias the arms into engagement with each other at their other ends, said other ends of the arms being formed with inwardly projecting ribs extending transversely of the arms from side to side thereof substantially perpendicularly to the length of the arms and abutting against one another when said other ends of the arms are in engagement, the arms being formed, on the confronting faces thereof, with longitudinally extending, transversely spaced ribs extending between said one end of the arms and said transverse ribs and terminating at their opposite ends in closely spaced relation both to said one end of the arms and the first named ribs respectively, the first and second named ribs having their crest portions spaced outwardly from the confronting faces of the respective arms, the second named ribs comprising the sole ribs in the area between said one end of the arms and said first named ribs, the first named ribs comprising the sole ribs in the area between the adjacent ends of the second named ribs and the outer extremities of the respective arms, the second named ribs being adapted to engage opposite sides of a clothesline gripped between the arms to hold the arms against movement in a direction transversely of their lengths along the clothesline, the first named ribs in the clothesline engaging positions of the second named ribs abutting against one another outwardly from said clothesline to hold the arms against movement in the direction of their lengths off the clotheslines; and a pair of longitudinally contacting spring legs integral at one end with and extending from the other end of the body, said spring legs being tensioned to normally engage one another and being free of connections to one another at their other ends, for spreading of the legs for insertion of clothing articles therebetween.

2,779,077
FOOT ATTACHMENT FOR FACILITATING SWIMMING
Richard M. Kline, Beverly Hills, Calif.
Application February 23, 1952, Serial No. 273,010
2 Claims. (Cl. 24—191)



2. In combination, a body having a wall and a projection extending from the wall, a bar, a strap having an end adapted to be looped about the bar, means pivotally mounting the bar on the body for angular movement over a limited arc about an axis with a fixed limit of radial distance of said bar from said axis, said axis being fixed relative to said body, at least a portion of said projection being embraced within said arc, said projection having a first surface area within said limited arc radially spaced from said axis a distance such that the strap is frictionally gripped between said surface and said bar when said bar is angularly moved to adjacent said surface with said strap interposed therebetween, said projection having a second surface area within said limited arc radially spaced from said axis a distance such that the strap is slidably movable between said second surface and said bar when said bar is angularly moved to adjacent said second surface with said strap interposed therebetween, said projection having a portion intermediate said first and second surfaces radially projecting from said axis a distance greater than that of the first area and into the path of said arc, said intermediate portion being yieldable in the line of said arc, thereby forming a yieldable releasable restraint against movement of said bar from adjacent said first surface to adjacent said second surface.

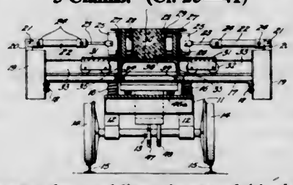
2,779,078
AUTOMATIC LOCK SLIDERS
Louis H. Morin, Bronx, N. Y.
Application June 2, 1951, Serial No. 229,638
13 Claims. (Cl. 24—205.14)



1. A lock slider comprising a channelled slider body having an upwardly projecting post on one wall thereof, a lock element mounted on the post and spaced from said wall for swinging movement relatively to the wall, a plate fixed to the post for retaining the lock element against displacement from the slider body, said lock element having curved bearing portions engaging said plate to form a pivot mounting of the lock element on said post, a spring disposed between the slider body and said lock element for maintaining said bearings in engagement with said plate, a pull for moving the lock element, and interengaging means on the pull and lock element for maintaining the pull in longitudinal alinement with respect to the slider body.

2,779,079
WITHDRAWN

2,779,080
MOLDING MACHINE FOR FORMING CONCRETE CRIBBING BLOCKS
Earl W. Chidester, Fairmont, W. Va., assignor, by mesne assignments, to American-Marietta Company, Chicago, Ill., a corporation of Illinois
Application November 8, 1951, Serial No. 255,379
3 Claims. (Cl. 25—41)



2. Apparatus for molding elongated blocks of cementitious composition, comprising: a vehicular base; an imperforate horizontal bed plate disposed above said base; spring means resiliently mounting said bed plate on said base for limited vertical movement with respect thereto; an elongated pallet member removably positioned for up-

ward withdrawal only on said bed plate in a central and longitudinally disposed position; a pair of transversely spaced longitudinally extending parallel side members; supports for said side members projecting rigidly and laterally therefrom; spaced stationary guides carried by said bed plate for the slidable reception of said supports and between the ends of which guides said pallet member is retained against undue shifting movement on said plate; expansible and contractible means arranged between said side members and said bed plate for imparting horizontal sliding movement to said side members whereby to adjust the same in the horizontal plane of the upper surface of the pallet member laterally toward and away from the sides of said pallet member between active positions of mold-cavity-producing relationship with said pallet member and inactive positions of withdrawal from said pallet member, whereby to admit of the lifting of the pallet member and a cavity-molded uncured cementitious block arranged thereon bodily from said bed plate; end members complemental to and adapted to be disposed between the opposite ends of said side members in registry with the opposite longitudinal end portions of said pallet member to complete said block-molding cavity; and means for supporting said end members on said plate for movement between active positions of mold cavity formation and inactive positions of pallet member release.

2,779,081

WITHDRAWN

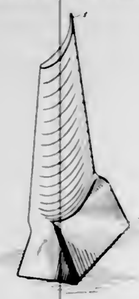
2,779,082

HEAT TREATMENT OF CERAMIC MATERIALS

Herbert Scharf, Augsburg, Germany, assignor to Maschinenfabrik Augsburg-Nurnberg A. G., Augsburg, Germany, a corporation of the German Republic

Application May 12, 1951, Serial No. 226,061

3 Claims. (Cl. 25—157)



1. In a process for heat treating and tempering a fired ceramic part having a plurality of kinds of crystals which undergo crystallographic transformations upon heating to different predetermined transformation temperatures for increasing the tensile strength and decreasing the brittleness of said part, the steps which comprise heating said fired ceramic part to a treating temperature below the softening point thereof but higher than the highest of the transformation temperatures for said crystals, maintaining said part at said treating temperature for a predetermined time effecting crystallographic transformation of one of said kinds of crystals from said initial crystal structure thereof to a tempered crystal structure, rapidly cooling said part to a temperature below said treating temperature before said tempered crystal structure reverts to said initial crystal structure, and repeating said maintaining and cooling steps with respect to a lower treating temperature for another of said kinds of crystals subject to crystallographic transformation at said lower treating temperature.

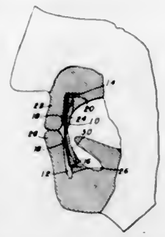
2,779,083

LIP AND MOUTH ADJUSTER

Edward N. Eaton, St. Petersburg, Fla.

Application February 9, 1955, Serial No. 487,157

6 Claims. (Cl. 27—21)



1. A unitary device for clamping the jaws and lips of a corpse comprising a continuous length of corrosion resistant wire having a longitudinally extending body portion and similarly directed parallel turned end portions, a barb for engaging the flesh of the upper and lower jaw members at the outer end of each of said end portions, and a pair of oppositely directed prongs extending from said body portion on the side thereof opposite said end portions.

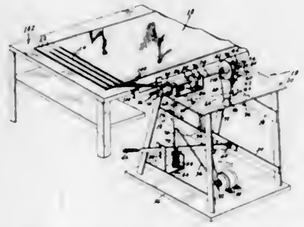
2,779,084

THREAD PULLING DEVICE

Harry Kastrinsky, Brooklyn, N. Y., assignor to Kastrinsky Machine Co., Inc., Brooklyn, N. Y., a corporation of New York

Application November 23, 1955, Serial No. 548,714

1 Claim. (Cl. 28—17)



A device for pulling threads from a material blank or the like, comprising an elongated cylindrical member provided with a part which is accessible at the circumference of said cylindrical member for engagement by a thread extending from the blank, whereby, upon rotation of said cylindrical member about its axis, the thread will wind circumferentially about said cylinder to be pulled from said blank, and an axially extending recess defined in the surface of said cylinder for receiving a thread cutting implement to sever the wound thread, said thread engaging part constituting a hook extending transversely of said recess.

2,779,085

SCALER

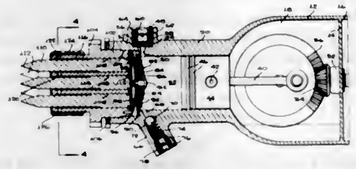
Walter L. Schoengarth, Redding, Calif.

Application December 31, 1954, Serial No. 479,051

3 Claims. (Cl. 29—81)

3. In a tool for cleaning residues, foreign deposits and the like from a work surface of the type comprising; a casing having a piston chamber, a piston reciprocating in the chamber to create alternating pressure and vacuum conditions therein and means for reciprocating the piston; a pick housing carried by the casing and having a plurality of pick bores communicating with said chamber; picks mounted in said bores for slidable reciproca-

tion responsive to the creation of said alternating conditions in the piston chamber; and a valve assembly interposed between the piston and the pick bores, said valve assembly including a pressure valve disc unseating during the pressure receiving stroke of the piston to permit pressure to be transmitted from the chamber to the pick



bores, and a vacuum valve disc unseating during the vacuum creating stroke of the piston to cause the creation of a vacuum in the pick bores responsive to the creation of a vacuum in said chamber, the respective valve discs being spring loaded to resiliently and yieldably resist movement to their unseated positions.

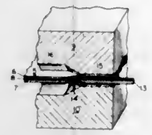
2,779,086

METHOD OF MAKING A HOLLOW METAL STRUCTURE

Perry J. Rieppel, Worthington, and Melvin C. Clapp and Robert M. Evans, Columbus, Ohio, assignors, by mesne assignments, to The Metal Specialty Company, Cincinnati, Ohio, a corporation of Ohio

Application December 9, 1954, Serial No. 474,228

4 Claims. (Cl. 29—157.3)



4. A method of manufacturing a hollow metal structure which comprises the steps of: inserting in tight relationship between dies a metal composite containing an intermediate portion having a substantially lower melting point than the melting point of the outer portions of said composite and having a capability to bond under heat with said outer portions; heating said composite to at least approximately the melting point of said intermediate portion, but below the melting point of said outer portions; shortly thereafter, introducing into said intermediate portion in a region of said composite in which the configuration of said dies permits expansion of said outer portions sufficient fluid pressure to expand said outer portions, by internal fluid pressure, where the configuration of said dies permits such expansion; and immediately allowing the resulting structure to cool, whereby said outer portions are bonded to said inner portion in regions of said composite in which the configuration of said dies does not permit expansion of said outer portions.

2,779,087

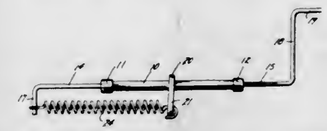
DEVICE FOR INSTALLING TENSION SPRINGS ON AUTOMOBILE HOOD HINGES

Alva V. Shahan, Goodland, Kans.

Application October 1, 1953, Serial No. 383,591

1 Claim. (Cl. 29—227)

A spring stretching device comprising: a tubular barrel having threaded extremities; a guide cap provided with a concentric rod guide opening threaded on one extremity of said barrel; a threaded cap having a concentric, threaded shaft opening threaded on the other extremity of said barrel; a rod extending through the rod opening in said guide cap into said barrel; a threaded shaft threaded through the shaft opening in said threaded cap and extending into said barrel; a freely movable ball positioned in said barrel between the inner extremities of said rod and said shaft; a hand crank formed on the outer extremity of said shaft; a hook formed on the outer extremity of said rod and extending at right angles thereto; a spring receiving notch formed in and adjacent the extremity of said hook and adapted to receive one hooked



extremity of a spring; a bracket plate slidably mounted on said barrel, said bracket plate having sufficient thickness so that when urged at an angle to said barrel it will clamp against the latter; and an elongated opening in said plate said opening being adapted to receive the other hooked extremity of a spring to allow the latter to be hooked over the extremity of the plate in alignment with said notch so that rotation of said threaded shaft will force said ball against said rod to urge the latter outwardly to stretch said spring.

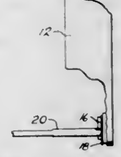
2,779,088

TOOL FOR REMOVING BRAKE SHOE RETAINER LOCKS

Lee Petersen, Salt Lake City, Utah

Application December 30, 1950, Serial No. 203,580

1 Claim. (Cl. 29—229)

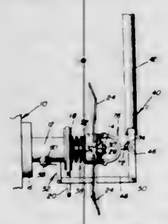


A hand tool for driving spring clip retainer locks from retaining position, comprising a driving head formed with a slot which defines a U shape for such head and being of material and having thickness capable of resisting a sharp driving blow exerted against one of its slotted faces, said head being adapted to straddle a spring clip retainer lock, with its slot-defining members engaging opposite sides of said lock; mutually opposing, longitudinally parallel, slot-defining faces extending longitudinally inwardly of said head from the open end of the slot and from intersection with the free terminal ends of said slot-defining members, so that the work-engaging corners are sharp, said slot-defining faces being beveled transversely thereof, from one of the slotted faces of said head to the other, thereby making the slot narrower at one of said slotted faces of the head than at the other for enabling the slot to accommodate spreading legs of the retainer lock during the driving operation, the faces of the said free terminal ends of the slot-defining members being beveled inwardly of the head, from the said narrower slotted face thereof to the opposite slotted face thereof; and retainer lock engaging edges formed at the respective intersections of the narrower slotted face of said head with the said slot-defining faces, the said narrower face of the driving head being beveled from the respective intersections thereof with the said slot-defining faces and toward the said opposite slotted face of the head, for accentuating the sharpness of the said retainer lock engaging edges.

2,779,089
PULLER TOOL HAVING A MANUALLY OPERATED SLIDING HAMMER
Leo G. Allen, San Diego, Calif.
Application October 20, 1952, Serial No. 315,653
1 Claim. (Cl. 29—254)

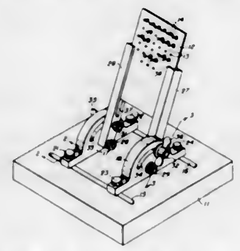
A puller tool comprising a bearing block, a handle fixed to said block, a cross bar having its central portion fixed to said block, opposing jaws pivoted to the ends of said cross bar, and a clamp screw having its center portion rotatably mounted in said block and having oppositely threaded end portions, of different diameters whereby a shoulder is defined between said portions said central portion having said shoulder on one side of said block and a washer element secured to the smaller of said portions on the other side of said block in frictional abutment with said block whereby axial movement of the screw relative to the block is prevented, said jaws having opposed slots in portions thereof adjacent said cross bar, correspondingly threaded nuts being laterally grooved for a sliding fit in said slots, whereby said nuts are non-rotatively mounted in said slots, said nuts threadedly engaging said end portions and being somewhat loosely engaged in said slots to permit slight pivotal movement and thus to avoid binding, said slots being open at the ends of the jaws adjacent to said cross bar whereby the nuts are easily assembled onto the jaws during construction and repair means to rotate said screw to open and close said jaws, said handle including an elongated shank, a stop on the handle, said shank extending transversely of said screw from the side of said cross bar remote from said jaws, and a manually operable hammer mounted on said shank for sliding movement axially thereof and engageable with said stop.

2,779,090
TOOL FOR REMOVING AND INSTALLING VEHICLE FANS
Walter L. Johnson, Kimball, S. Dak.
Application September 18, 1953, Serial No. 380,966
1 Claim. (Cl. 29—267)



A tool for removing and installing tractor fans comprising, an elongated lever member, said member including a handle portion and a pair of spaced arms forming an extension at one end of said handle portion, a link pivotally received at one end between the free ends of said arms, an attaching bracket pivotally secured at the other end of said link adapted for attachment to the bearing support of a tractor fan shaft, a sleeve member disposed between said arms adjacent the point of juncture of said arms and said handle portion of the lever member, a pin threadedly engaged with each of said arms, said pins including inner end portions projecting within said sleeve member and providing a trunnion support therefor, said sleeve having a threaded bore, and a pressure foot including a threaded shank portion received in said bore and a semi-circular yoke portion presenting a pair of spaced legs, each terminating in a notched portion defining a foot for straddling the rim of a tractor fan hub.

2,779,091
ASSEMBLY JIG FOR PACKAGE UNIT PARTS BOARDS
Robert H. Harwood, San Diego, Calif.
Application December 15, 1953, Serial No. 398,452
1 Claim. (Cl. 29—288)
(Granted under Title 35, U. S. Code (1952), sec. 266)

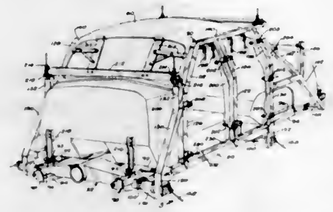


An assembly jig for a parts board comprising a heavy base member having a pair of spaced, parallel, longitudinal T-slots therein, a pair of elongated, spaced, parallel, transverse brackets bearing on said base member and spanning said slots with the end portions of the brackets located over the respective slots, guiding and fastening elements extending through each said end portion and slidably received in said slots for adjustably securing said end portions to said base, each of said brackets having an elongated supporting arm pivoted thereto intermediate said end portions and an arcuate slot extending therethrough, said arcuate slot being located intermediate said secured end portions and formed on a radius about said pivot, and fastening elements extending through each arm and its corresponding slot for clamping the arms in adjusted position, each of said arms being provided with opposed longitudinal grooves formed in the inner sides thereof for slidably receiving a parts board upon which work is to be performed, said grooves each having sides of equal depths whereby access to both sides of the parts board is equally facilitated.

2,779,092
METHOD AND APPARATUS FOR MAKING VEHICLE BODIES
John D. Gordon, Detroit, Mich., assignor to Progressive Welder Sales Company, Detroit, Mich., a corporation of Michigan
Application December 26, 1951, Serial No. 263,411
10 Claims. (Cl. 29—430)

1. A method of assembling vehicle bodies at minimum production costs, which comprises, providing a rigid base truck member to receive a floor and seat support panels of a vehicle, providing on said truck member a plurality of reference surfaces, moving a plurality of said truck members in one direction on a main conveyor at a predetermined rate while assembling said panels, providing side gate frames for the progressive assembly and welding of parts of the side of the vehicle, and providing on said frames a plurality of reference surfaces to interengage

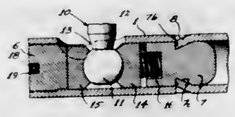
with reference surfaces on said truck members, moving a plurality of side gate frames in one direction past assembly stations, transferring the completed side gate assembly and frame to said truck members while joining said interengaging reference surfaces in locked relation, lowering a top panel and a rear panel on said assembly, applying locating devices to said top and rear panels, providing reference surfaces on said locating devices cooperable with reference surfaces on said side gate frames whereby all parts are positioned in predetermined relation relative to said truck member, and joining said vehicle body parts in assembled relation as said truck, side gates and locating devices move toward a discharge station.



3. A vehicle body assembly apparatus comprising a movable, rigid, truck member to serve as a basing fixture for all body parts in assembly and having great resistance to horizontal and torsional movement, said truck member comprising a large, longitudinally extending, central tube, outrigger members extending from each end of said tube on opposite sides thereof, side rails rigidly connecting said outrigger members at each side of the tube and rigidly connected together at their ends, reference surfaces on said truck member to position the vehicle body assembly with respect thereto comprising solid clamp blocks rigidly mounted on the outrigger member ends to extend in a plane at right angles to the plane of the truck member, side gate members rigidly attachable to the opposite sides of the truck member to locate all body side assemblies including front cowl, front, center and rear pillars and the rear quarter assembly, clamping means at the bottom of each of said gate members to cooperate with the clamp blocks on the outrigger ends to rigidly attach the gate members to the truck member, said clamping means each having a first block to abut said outrigger mounted clamp blocks and means to draw said blocks together in tight relation, and front and rear cross tie members for connecting rising pillars on said gate members, each tie member having a flat reference surface at each end to cooperate with flat reference surfaces on said gate member pillars to establish rigidity to the truck and gate members in their assembled positions in addition to that furnished by the outrigger block clamps.

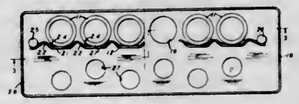
2,779,093
METHOD OF MAKING JOINT SOCKET AND TUBE ASSEMBLIES
Robert E. Fidler, Royal Oak, Mich., assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application May 27, 1953, Serial No. 357,663
3 Claims. (Cl. 29—441)

1. The method of constructing a ball joint housing which comprises machining a lateral opening in a tube having a rough internal surface, forcing an abutment member into the tube in a position beyond said lateral opening, said abutment member having a reduced neck portion, a cylindrical portion of a diameter slightly larger than the rough internal surface of the tube and a smooth surface to smooth the inner surface of the tube as said member is forced into position, and deflecting the metal of said tube inwardly at points around the periphery



thereof into engagement with said reduced neck portion of said member whereby said member is permanently retained in said tube as an abutment.

2,779,094
METHOD OF ASSEMBLING BUSHINGS IN A SHELL
Frank A. Christoffel, Baltimore, Md., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application August 16, 1951, Serial No. 242,131
3 Claims. (Cl. 29—445)

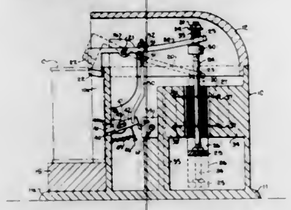


1. The method of assembling bushings in a shell having a plurality of holes therein substantially uniformly spaced in a substantially straight line, which comprises arranging a plurality of bushings in parallel alignment and spaced apart the normal distance between said holes in the shell, hermetically securing all the bushings to a flexible, corrugated metal strap at intervals along said strap corresponding substantially to the spacing between the holes in the shell to form a flexible assembly with the bushings, and inserting the assembly as a unit into the shell and simultaneously adjusting the relative positions of the bushings as needed to seat them in the holes in the shell.

2,779,095
METHOD OF MAKING A BELLOWS ASSEMBLY
Frederick W. Hottenroth, Jr., Newton, Mass., assignor to Standard-Thomson Corporation, Boston, Mass., a corporation of Delaware
Application December 23, 1953, Serial No. 399,883
1 Claim. (Cl. 29—454)

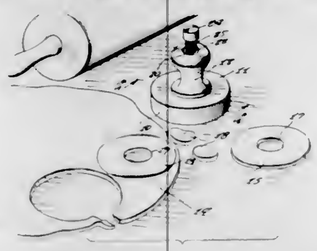
The method of fabricating an assembly including as one element thereof a metallic bellows having a terminating inner fold and an open generally cylindrical end section adjacent to said terminating fold, which comprises the steps of supporting the bellows by means of a plurality of plate members fittingly inserted between said terminating inner fold and the adjacent outer fold, fitting an inner flanged member within said end section so that it rests upon said terminating inner fold, fitting an outer flanged member over said end section so that it rests upon said plate members, whereby the flanges of said flanged members are aligned with and fitted to said end section, and welding said flanges and the end section by a continuous annular weld.

2,779,096
AUTOMATIC CAN OPENER
Harry O. Moore, Charlotte, N. C., assignor to Silabert Corporation, Charlotte, N. C., a corporation of North Carolina
Application August 3, 1955, Serial No. 526,279
13 Claims. (Cl. 30—4)



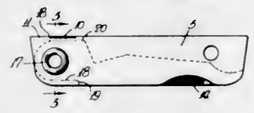
1. An automatic can opener comprising a housing, a support for said housing, at least one solenoid positioned in said housing, can opening means pivotally mounted in said housing for punching a hole in a can, means operatively connecting said can opening means to said solenoid, a can operated switch for energizing said solenoid to actuate the can opening means, means for adjusting the lowermost point of the stroke of the can opening means to vary the size of the hole punched in the can, and at least one auxiliary can support pivotally mounted on a vertical axis on one side of said housing for supporting the end wall of an intermediate size can thereon and for maintaining the top wall of the can in position to have a hole punched therein by said can opening means.

2,779,097
DOUGHNUT HOLE DOUGH REMOVER
George W. Frazier, Warren, Ohio
Application April 12, 1954, Serial No. 422,422
1 Claim. (Cl. 30—130)



A doughnut hole dough remover comprising a hollow, substantially cylindrical member open at the bottom and having a flat top wall, an upstanding handle positioned on the center of said top wall, a pair of oppositely disposed fastening means having enlarged heads and passing upwardly through said top wall and into said handle, said enlarged heads being freely spaced from the undersurface of said top wall, a hollow, substantially cylindrical center piece open at the bottom and having a top wall, said center piece top wall having oppositely disposed arcuate slots with enlarged ends adapted to receive said enlarged heads freely therethrough, said fastening means passing through said arcuate slots whereby to removably secure said center piece top wall to the undersurface of said first top wall, the lower edges of said hollow member and center piece lying in the same plane, said handle having a central narrow bore extending upwardly from said top walls, said handle above said narrow bore having a first enlarged bore, said handle above said first enlarged bore having a second enlarged bore extending through the upper end of said handle and of greater diameter than said first enlarged bore whereby to provide a shoulder, a plunger rod slidable within said bores, said hollow member and center piece top walls having aligned openings receiving said plunger rod therethrough, an external manually operable knob secured to the upper end of said plunger rod, said knob being adapted to move vertically within said second enlarged bore and to abut said shoulder, a spiral spring sleeving said plunger rod within said first enlarged bore with the upper end thereof abutting said knob, the other end thereof abutting the lower end of said first enlarged bore, a plunger plate slidable within said center piece, and removable fastening means securing said plunger plate to the lower end of said plunger whereby to permit removal of said center piece upon removal of said plunger plate and rotation of said center piece top wall.

2,779,098
COMBINED TOOL
Edward J. Pocoski, Naugatuck, and William G. Hennessy, Ansonia, Conn.
Application March 14, 1956, Serial No. 571,549
4 Claims. (Cl. 30—155)



1. In a tool of the character indicated, a handle member of sheet material in the form of a channel having a base and opposed upstanding side walls, said base adjacent one end of said channel having an integral spring thereon terminating short of the extreme end of the channel so as to leave a rigid, abrupt end or shoulder at the end, a blade between the side walls of said channel and pivoted thereto adjacent said spring, said blade having a surface to cooperate with said spring to hold said blade in open position, said blade having an abrupt transverse shoulder to engage the said extreme end of said channel to limit the opening of said blade.

2,779,099
SKIRT CUTTING DEVICE
Salvatore J. Barone, Tuckahoe, N. Y.
Application October 25, 1954, Serial No. 464,503
1 Claim. (Cl. 30—231)

In a cutting device for skirts and dresses having a base and a support thereon with a pair of scissors upon the support, the features which include an upright channel member integral upon the central portion of the base having opposed channel flanges thereon, a flat and straight scale of rectangular cross section fitted between the channel flanges and secured to the channel member, and a support including a right angle bracket having one leg projecting horizontally with a pivot screw for the scissors extending down through the one leg which forms a shelf for supporting the scissors, the bracket having a depending leg with a pair of opposed vertical flanges clasping the side edges of the scale and a bracket portion with a clamping screw for clamping the depending leg and the bracket portion upon the opposite flat sides of said scale or support, said opposed vertical flanges together with said depending leg and said bracket portion permitting selective vertical adjustment of said support and preventing angular adjustment in any direction of said support relative to said scale.

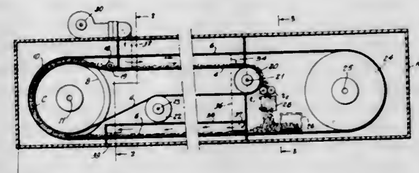
2,779,100
DENTAL MIRROR
Carolus P. D. Claessens, Boskoop, Netherlands
Application September 16, 1954, Serial No. 456,450
Claims priority, application Netherlands September 21, 1953
3 Claims. (Cl. 32—69)

1. A dental mirror comprising a hollow stem forming a supply line for a fluid and having an end, a mirror rigidly connected to said end at an angle of about 45° thereto, said stem adjacent said end being provided with a jet opening facing the reflecting surface of the mirror and spaced inwardly on the stem from the mirror, said opening being so arranged that the jet direction of the opening is at an angle of about 90° with the stem.

2,779,101
PANEL INSTRUMENT FOR INDICATING THE DIRECTION OF FLIGHT AND THE ATTITUDE OF AN AIRCRAFT
Pierre André Chombard, Paris, France, assignor to Etat Francais, represented by Monsieur l'Ingenieur General Rouanet, acting on behalf of the Secretary of State for Air, Paris, France
Application January 9, 1953, Serial No. 330,395
5 Claims. (Cl. 33—204)

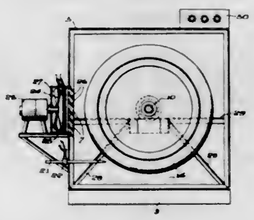
1. A panel instrument for indicating the direction and the attitude of an aircraft comprising a casing having an opening, a half Cardan ring rotatably mounted in the casing, a platform mounted for rotation about one of its diameters in said ring, a vertical gyroscope mounted within said casing and having a hollow vertical spindle rotatably supported by said platform, said platform having a generally circular rim portion in a plane substantially perpendicular to said spindle, a vertical frame having a pin portion extending through said hollow vertical spindle, a directional gyroscope having its inner ring rotatably mounted on said frame with its center on the axis of the pin portion, a hemisphere secured to each end of said frame, said hemispheres having the outer faces of their free edge portions flush with the outer edge of the platform rim portion and having their free edges closely adjacent to said rim portion to impart the impression of a continuous sphere, and a reference system in the casing and visible through the casing opening, said hemispheres having a network of numbered meridians and parallels cooperating with said reference system various parts of which are brought selectively into view through said casing opening depending upon the direction of travel and the attitude of the aircraft.

2,779,102
APPARATUS FOR ATTEMPERING MATERIAL
David S. Baker, New York, N. Y.
Application June 17, 1953, Serial No. 362,185
11 Claims. (Cl. 34—60)



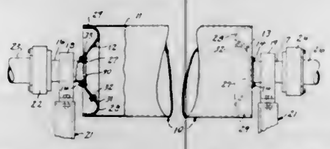
10. Apparatus for attempering material which comprises a first endless belt, a second endless belt, means for mounting said first and second belts with said second belt surrounding said first belt and each belt having laterally extending upper and lower reaches, said belts being in proximate relation at one extremity of said reaches for carrying material between them from the lower reach of said second belt to the upper reach of said first belt and said belts being substantially spaced from each other at the other extremity of said reaches to provide a material cascading zone for cascading material from the upper reach of said first belt and its reception on the lower reach of said second belt, means for moving said belts in the same direction for carrying material from the lower reach of said second belt to the upper reach of said first belt and cascading it from the upper reach of the first belt, and means for attempering material while disposed on the upper reach of said first belt and while disposed on the lower reach of said second belt.

2,779,103
TIRE DEFROSTER, CLEANER, AND DRYER
Joseph A. Tomchak, McKees Rocks, Pa.
Application October 11, 1954, Serial No. 461,548
2 Claims. (Cl. 34—87)



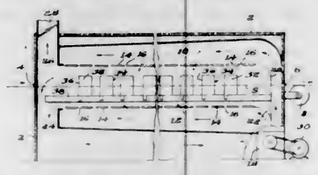
1. Tire defrosting and cleaning apparatus comprising a cabinet having means therein for rotatably supporting a tire, a nozzle for discharging a fluid-pressure jet into the cabinet and against the tread and sides of a tire, means for directing a current of heated drying air through an opening into the cabinet against the tread of the tire, means for rotating the tire, and means for automatically closing the said opening when flow of heated air is stopped.

2,779,104
DRYING CYLINDER
Curtis Sims, Lanett, Ala.
Application August 26, 1955, Serial No. 530,858
1 Claim. (Cl. 34—110)



A drying cylinder comprising a cylindrical shell, disc-shaped heads for said cylinder having annular, inturned curved portions adjacent the peripheries thereof terminating in outwardly extending annular flanges which fit snugly within opposite ends of said shell and define outwardly opening dished sections which are generally J-shaped as viewed in cross section, means securing said flanges to said shell, reinforcing plates secured to the outer central portions of said heads, there being centrally disposed openings through said heads and reinforcing plates, and journals secured to said heads, there being axially extending openings through said journals in communication with said openings through the heads and reinforcing plates for passing a heating medium through the shell, there being other openings in said heads along said inturned curved portions for receiving back pressure valves.

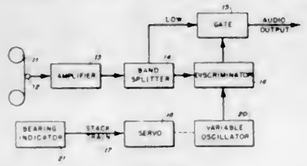
2,779,105
HOT AIR DRYER
Arthur L. Park, Old Orchard Beach, Maine, assignor to Saco-Lowell Shops, Boston, Mass., a corporation of Maine
Application August 10, 1953, Serial No. 373,242
5 Claims. (Cl. 34—155)



1. A hot air dryer for continuously drying an extended sheet of yarns passing therethrough comprising air distributing means in opposed spaced relation forming a passage for an extended sheet of yarns moving therebetween, blower means for providing a flow of air along said sheet of yarns, and a plurality of spaced air deflecting baffle plates at the side of said passage and spaced from said yarn sheet to deflect outwardly said flow of air near the sides of said passage and displace laterally outwardly the outer edge portions of said yarn sheet, the surface of said baffle plates being generally perpendicular to the surface of said yarn sheet and with their inner edges displaced from their outer edges in a direction toward said flow of air.

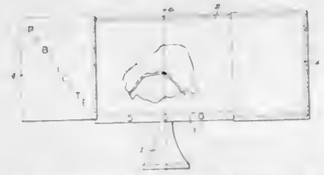
2,779,106
SONAR SIMULATOR
Robert H. Harwood, San Diego County, Calif., assignor to the United States of America as represented by the Secretary of the Navy
Application August 20, 1953, Serial No. 375,579
7 Claims. (Cl. 35—10.4)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A sonar trainer comprising a recording medium having first and second signals recorded thereon, said first signal being a carrier frequency modulated in proportion to a variable bearing angle corresponding to the instantaneous bearing angle at which said second signal is originally recorded, gate means for passing or blocking said second signal, means for reproducing from said recording medium said signals, means for separating said signals and for applying said second signal to the input of said gate means, means for generating a controllable variable frequency signal, a bearing indicating means, the



frequency of output of said signal generating means varying directly in response to the bearing angle indicated by said bearing indicating means, discriminator means having a pair of input means, said first signal and the output signal of said signal generating means being applied to the inputs of said discriminator means, the output of said discriminator being connected in biasing relation to said gate.

2,779,107
INFORMATIONAL AND DISPLAY DEVICE
Jeanne Bredeville Brace, Paris, France
Application December 27, 1951, Serial No. 263,663
Claims priority, application France December 30, 1950
3 Claims. (Cl. 35—53)

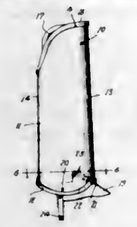


1. An informational and display device, comprising a supporting structure, a pictorial illustration panel mounted on said supporting structure and carrying a pictorial illustration thereon, a housing structure mounted on said supporting structure, said housing structure having aligned part panel storage compartments spaced away from one another on opposite sides of said illustration panel, and a transparent composite panel made up of a pair of part panels of transparent material disposed in substantially the same plane and carrying complemental matter arranged to register with said illustration, said part panels being slidably mounted in said housing structure and slidable into and out of said part panel storage compartments in opposite directions into and out of edge-to-edge engagement with one another and thereby slidable into and out of registry with said illustration.

2,779,108
METAL LEGGING
Alvie Twiss, Arcadia, Fla.
Application January 26, 1954, Serial No. 406,107
1 Claim. (Cl. 36—2)

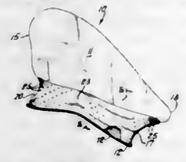
A legging comprising a longitudinally split tubular body adapted to encompass the leg of a person from the ankle to the kneecap, the rear upper portion of said body having a cutout extending downwardly from the upper edge thereof whereby said body will not effect the normal bending of the leg, means detachably securing the split portions of said body together, a vamp member projecting at the rear thereof into the lower end of said body, opposed rivets pivotally securing said vamp to said body,

said vamp member having a slit extending forwardly from the rear end thereof, and said vamp also having spaced holes on opposite sides of said slit to receive lac-



ing for tightening said vamp, and a shank strap carried by said vamp and engageable below the instep of the foot of the user.

2,779,109
PROTECTIVE DEVICE
Vita Pizzo and Harold E. Hasselbusch, Jr., Flushing, N. Y.
Application March 13, 1956, Serial No. 571,240
2 Claims. (Cl. 36—70)

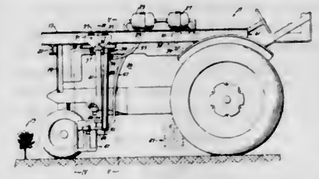


1. A protective shield for protecting stockings while worn with shoes against soiling consisting of a substantially flat vertical shield wall adapted to be disposed interiorly between the feet and adjacent the angle area but exteriorly of the stocking integral with a horizontal plate adapted to be disposed adjacent the instep of the foot and exteriorly of the stocking, said vertical shield having a sloping front edge rising from the toe portion to the heel portion and said plate having semi-circular cavities at both the front and heel portions to permit the toes and the heel of the wearer's foot to contact the shoe, and a hook at the top of the vertical wall adjacent the rear edge of said vertical wall, said hook being adapted to secure the shield to a wearer's foot.

2,779,110
ARCH SUPPORT FOR THE HUMAN FOOT
Joseph C. Howell, Fort Lee, N. J.
Application November 23, 1955, Serial No. 548,643
5 Claims. (Cl. 36—71)

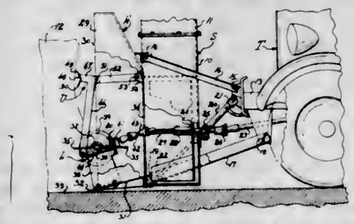
1. In an arch support for supporting an arch of a human foot, normally arched upper and lower plates, tensioning members underlying said arched plates, one of said tensioning members and said arched plates having a plurality of corresponding resilient fingers at the forward ends thereof, corresponding fingers of said tensioning member and of said arched plates being secured together at the ends thereof, said arched plates and the other of said tensioning members being secured together at their rear ends, and interengageable means carried by said tensioning members for varying the effective length thereof for adjusting the heights of said arched plates.

2,779,111
MEANS FOR TRANSPLANTING SHRUBBERY AND THE LIKE
Albert D. Cartwright, Jr., Collierville, Tenn.
Application May 3, 1954, Serial No. 427,324
13 Claims. (Cl. 37—2)



1. A self-propelled machine for excavating shrubs or plants for transplanting, comprising a tractor, longitudinal track means mounted on said tractor, carriage means shiftably supported by said track means, said carriage means including inner and outer wheel means rollingly engaging opposite sides of said track means, a web connected with said wheel means, said web closely underlying said track means and being spaced therebelow, a longitudinally disposed pivot rod connected to said web means, a guide member dependingly connected to said carriage means, said guide member being laterally swingably mounted on said pivot rod, a slide member telescopically and non-rotatably engaged with said guide member, said slide member extending below and being slidable relative to said guide member for extension therefrom and retraction thereinto, a digging element adapted for ground penetration connected to said slide member below said guide member, said digging element being forwardly offset from said slide and guide members, hydraulic cylinder-and-piston means dependingly connected to said carriage means, said cylinder-and-piston means being laterally swingably supported on said pivot rod and including an extensible and retractible piston rod, with said piston rod extending downwardly, said piston rod converging downwardly toward and at its lower end being connected to the lower end of said slide member, the connection between said piston rod and said slide member being offset from said slide member oppositely to said digging element offset, hydraulic means for actuating said piston rod to selectively effect extension and retraction movements thereof and of said slide member and digging element, said carriage means being normally freely shiftable along said track means, hydraulic actuation to effect piston rod extension moving said digging element into ground penetrating contact and engaging said web against said track means to fix said carriage means in relative longitudinal position during ground penetration.

2,779,112
CUTTER AND FEEDER MECHANISM FOR BLOWER TYPE SNOWPLOWS
Theodore F. Garland, Fargo, N. Dak.
Application September 26, 1952, Serial No. 311,745
4 Claims. (Cl. 37—43)



1. In a snowplow of the type having snow-engaging and pentrating structure, a rotary blower and a forwardly

facing inlet for the introduction of snow to the blower, a cutter and feeder mechanism therefor comprising a rotatable shaft journalled transversely of said snowplow, a single-bladed cutter element disposed forwardly of said blower inlet in guided relation and oscillable in a direction lateral to the forward direction of travel of the snowplow, and a driving connection operably secured to said shaft at a position eccentric to the axis of the shaft for operating the oscillable cutter element and for vibrating the snow-engaging and penetrating structure whereby to cut, beat and feed in metered fashion to the blower element of the snowplow, compacted snow and ice.

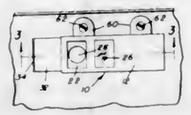
2,779,113
GRADING AND LEVELING SCRAPERS
William R. McKay, Compton, Calif.
Application February 25, 1952, Serial No. 273,247
10 Claims. (Cl. 37—180)

1. In a grading and leveling scraper: a scraper bowl having a back wall with a cutting lower edge, spaced supporting members secured to the rear of said wall, carrier wheels rearwardly of and adjacent said bowl, at its opposite ends, two downwardly inclined arms extending from said wheel axles to said bowl, a horizontal rectangular frame above said bowl and said wheels, two connecting links extending from said frame to the spaced supporting members on the back of said bowl, a lifting link pivotally connected at its lower end with the top of said bowl, a pivotally supported bell-crank in said rectangular frame the lower arm of which is connected to the upper end of said lifting link, a manually operable screw connected between said frame and the other arm of said bell-crank for moving said bell-crank for raising said bowl, a pair of arms connected to said connecting links and converging rearwardly therefrom, a caster wheel at the rearward ends of said rearwardly converging arms, and hitching arms from said horizontal frame forwardly for pulling said scraper.

2,779,114
PRICE CARD HOLDER
Rudolf Orthwine, New York, N. Y.
Application December 22, 1953, Serial No. 399,718
1 Claim. (Cl. 40—11)

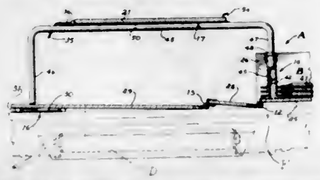
A card holder attachable to articles of widely variable thickness comprising a body of resilient sheet metal, a rearwardly directed prong struck from the upper portion of said body and having flexible attachment thereto, an integral extension flexibly connected to the bottom edge of the body and adapted to cooperate with said prong as the primary attaching means, a spring tongue struck from said extension having its attachment to the extension at an angle thereto and substantially in line with the bottom edge of the body and being bent at an angle upon a transverse axis relatively near the attached end with its attached end extending forwardly from the plane of the extension and its free end extending toward the plane of the extension, and a finger struck from the tongue with its line of attachment substantially coincident with the bottom edge of the body and reversely bent into substantial parallelism with the body.

2,779,115
TICKET HOLDER
James Darrel Durham, Dearborn, Henry Otte, Detroit, and Donald B. Neal, Inkster, Mich.
Application October 21, 1953, Serial No. 387,472
6 Claims. (Cl. 40—17)



6. A ticket holder comprising a casing including spaced upper and lower plates, said upper plate having a first aperture and a second aperture therethrough, an intermediate plate slidably received between said upper and lower plates, a ticket receiving aperture in said intermediate plate adapted to be positioned successively in alignment with said apertures in said upper plate, a spring secured to said intermediate plate, a pair of spaced recesses in said lower plate, said spring being adapted to seat in a first of said recesses to prevent said aperture in said intermediate plate from being positioned in alignment with said second aperture, a key receivable between said intermediate plate and said lower plate for lifting said spring out of engagement with said first recess, said spring being engageable with said second recess to prevent complete withdrawal of said intermediate plate when said key is inserted between said intermediate plate and said lower plate, said intermediate plate having at least one notch therein immediately adjacent said ticket receiving aperture, at least one resilient element attached to said lower plate adapted to seat in said notch to selectively prevent said ticket receiving aperture from being positioned in alignment with said second aperture, said resilient element being depressed out of engagement within said notch by a ticket being inserted in said ticket receiving aperture, a transparent covering for said second aperture and a finger hole through said lower plate in alignment with said first aperture.

2,779,116
LOOSE-LEAF ALBUM FOR VIEWING PHOTOGRAPHIC SLIDES
Arthur W. Smith, Washington, D. C., assignor, by decree of distribution, to Guileme Mitchell Smith, Washington, D. C.
Application January 12, 1954, Serial No. 403,582
3 Claims. (Cl. 40—102)



1. A loose-leaf album for mounting transparencies for display and examination, said album including back and front, rear covers; means hingedly connecting said back to said front cover for manually pivoting said front cover to an open position; a plurality of sheets normally contained between said covers and each sheet provided with a projection-received portion, said front cover and sheets being of rigid substantially transparent material; loose-leaf means for mounting said sheets between said covers including a projection extending from the inner face of said rear cover and disposed closely adjacent said back and constructed and arranged to slidably receive said portions; guiding and positioning means, including an elongated substantially straight horizontally-disposed major support portion, removably connected with said projection, for guiding said sheets, one after another, from said projection to substantially flat horizontal positions upon said major support portion, over and spaced from said front cover, with only one of said sheets disposed flat and horizontally upon said major support portion at any one time and said projection-received portion thereof in sliding contact with said major support portion, and for guiding said sheets, one after another, from said major support portion, and positioning said sheets in substantially the same vertical plane in a stack in a location outwardly of the vertical plane of said front cover and remote from said back and rear cover, whereby said front cover is between said stack and said back; and means for retaining transparencies upon said sheets whereby a source of illumination may be disposed below said front cover when in an open position for illuminating the transparencies retained upon a sheet disposed upon said major support portion.

2,779,117
DUAL DISPLAY LETTERED CHAIN SCREEN
Anthony Russo, Brooklyn, N. Y.
Application May 20, 1954, Serial No. 431,162
6 Claims. (Cl. 40—128)

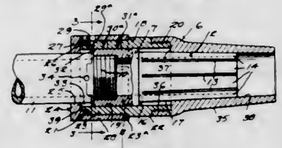
1. An article of the class described comprising a transverse member, means for removably mounting said transverse member at the top of a door frame or the like, a plurality of depending chains, means for securing the upper ends of said chains to said transverse member, certain of the links of said chains being colored differently from the remainder of said chains whereby to spell out any desired word or pattern, each of said chains comprising a plurality of links, each of said links consisting of a flat ring portion, a narrow neck and a loop surrounding the adjacent ring.

2,779,118
ATTACHMENT FOR ILLUMINATED ADVERTISING SIGN
George P. Gundlach and Louis B. Lampe, Cincinnati, Ohio, assignors to G. P. Gundlach & Co. Inc., Cincinnati, Ohio, a corporation of Ohio
Application July 6, 1954, Serial No. 441,274
3 Claims. (Cl. 40—130)

1. An illuminated advertising sign comprising, an elongated sign casing having a top wall, a vertical front wall, a rear wall, and an open bottom facing downwardly, said front wall including a vertical translucent display panel, a light source residing within the upper portion of the casing between the front and rear walls thereof, the said light source illuminating said translucent panel and projecting light rays downwardly through the open bottom of the casing, an upwardly facing hook mounted at the lower edge portion of the said rear wall, said hook having an upper edge spaced above the lower edge of the rear wall, a fulcrum element on the rear wall having a bearing surface spaced inwardly from the rear wall and below the upper edge of the hook, said bearing surface and upper edge residing in a common plane which is disposed at an acute angle downwardly and forwardly to the plane of the vertical translucent display panel, and an opaque display panel depending downwardly through the open bottom of the casing, the upper edge portion of said opaque panel having a downwardly facing hook engaged over the upper edge of the upwardly facing hook

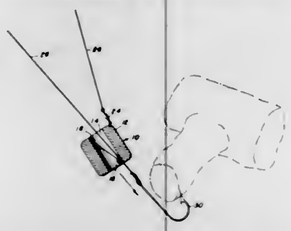
within the casing and suspending the opaque panel by gravity, the portion of the opaque panel below the downwardly facing hook resting against the bearing surface of the fulcrum element and thereby sustained at an acute angle downwardly and forwardly to the plane of the vertical translucent panel, the plane of the opaque panel being angular to the path of light rays projected from the light source to intercept the same, whereby the light source illuminates the translucent panel by rays passing therethrough and the opaque panel by rays passing through said open bottom and reflected from the panel surface.

2,779,119
AUTOMATICALLY OPERATED VARIABLE SHOTGUN CHOKE
George R. Fawcett, New England, W. Va.
Application January 18, 1956, Serial No. 559,851
8 Claims. (Cl. 42—79)



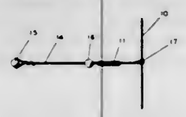
1. A shotgun choke of the character described comprising a collet having a rear end detachably connected to the muzzle end of a gun barrel and extending forwardly therefrom, said collet having an externally tapered constrictable forward portion and having a bore extending longitudinally therethrough and registering with the barrel bore, a slidable assembly slidably engaging said collet and including a portion having a tapered bore conformably fitting slidably on said constrictable forward portion of the collet, said slidable assembly including a rear portion having a close fitting sliding engagement on the barrel rearwardly of the collet, said slidable assembly including a rear bore portion of larger diameter than the exterior of said barrel and combining therewith and with said rear portion of the slidable assembly and the rear end of said collet to define an annular chamber surrounding a part of the barrel, means forming a passage connecting said chamber and the barrel bore adjacent the rear end of said collet, and valve means forming a part of said slidable assembly including longitudinally spaced ports and a manually adjustable part for adjustably positioning selected ones of said ports in communication with the atmosphere and with said chamber for varying the extent that said slidable assembly will be displaced rearwardly of the collet and barrel when the piece is fired.

2,779,120
ARTIFICIAL LURE AND HOOK RETRIEVER
James T. Moore, Dallas, Tex.
Application July 6, 1954, Serial No. 441,260
2 Claims. (Cl. 43—17.2)



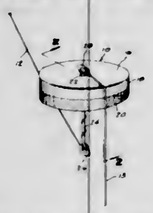
1. A fishhook retriever comprising a cylindrical lead weight, said weight being provided with an axial bore extending therethrough, said weight also being provided with a slot extending around a portion of the periphery of said weight and intersecting said bore, said slot being inclined from a plane corresponding to a position at one end of said bore to a plane corresponding to a diagonally opposite position at the opposite end of said bore, said inclined slot being readily closable after said weight has been applied about a fishing line to hold said weight against accidental separation from the fishing line, a stop being provided at each side of said slot at each of the said opposite ends of said bore.

2,779,121
FISHLINE BOB OR FLOAT
David S. Campbell, Columbus, Ohio
Application January 6, 1956, Serial No. 557,704
2 Claims. (Cl. 43—43.15)



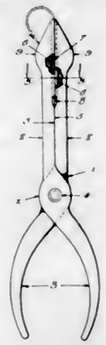
1. In combination with a monofilament fish line, a threading device for positioning a stop sleeve thereon in gripping relationship thereto, said threading device comprising a wire of slightly greater diameter than the line, said stop sleeve being formed of strand material wound under tension on the wire so that it will contract on the line when slipped from the wire onto the line, a loop in one end of the wire through which the end of the line may be passed, said sleeve being mounted on the wire adjacent the loop.

2,779,122
TURNOVER FLOAT
Arthur De Groff, Beacon, N. Y.
Application May 27, 1955, Serial No. 511,707
2 Claims. (Cl. 43—44.9)



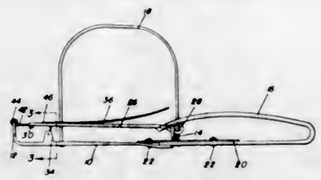
1. In a turn over float, a buoyant flat disc having a central opening therethrough, said disc having top and bottom faces of contrasting appearances, a weighted plunger comprising a straight shank substantially smaller in diameter than said opening, said shank being freely and loosely slidable through said opening and being substantially longer than the thickness of said disc, said shank having eyes on its opposite ends each wider than said opening, said eyes including an upper eye above the top face of the disc and a bottom eye below the bottom face of the disc.

2,779,123
FISHHOOK EXTRACTOR
Fred E. White, Ixonia, Wis., assignor to Arthur A. Tellier and Florence T. Tellier, Watertown, Wis.
Application September 30, 1954, Serial No. 459,235
1 Claim. (Cl. 43—53.5)



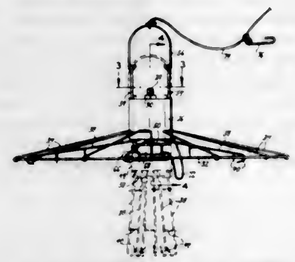
A fish hook extractor comprising a pair of elongated pivotally connected jaws, said jaws having flat inner surfaces abutting throughout the lengths thereof, said jaws having complementary semi-circular grooves formed longitudinally thereof in the flat surfaces of said jaws, said grooves extending from the tips of said jaws and terminating in portions gradually curved laterally in the arc of a circle to one side of said jaws, providing a passageway in which a fishing line passing through said passageway is loosely held and guided, and said jaws having spreading enlargements extending laterally from the outer surfaces of said jaws at the free ends of said jaws, said enlargements tapering to a sharply pointed end.

2,779,124
ANIMAL TRAP
Clarence V. Transtrom, Wannaska, Minn.
Application August 3, 1953, Serial No. 371,937
1 Claim. (Cl. 43—85)



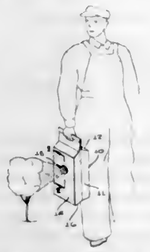
An animal trap comprising an elongated narrow base member having upturned end portions, a U-shaped leaf spring having one leg thereof secured to said base and forming a longitudinal extension thereof, a wire-like U-shaped stationary jaw having the ends of the legs thereof attached to said base, a U-shaped lever having a short bight portion and having the ends of the legs pivoted to the upturned end portion of said base adjacent the leaf spring and straddling said stationary jaw, a trigger pivotally attached to said base member remote from the leaf spring and extending transversely in relation to the stationary jaw in vertically spaced overlying relation to said base when in set position, said spring having a loop on the free end of the other leg in surrounding relation to said lever and one leg of said U-shaped jaw for urging said lever to an upstanding position substantially parallel to said one leg of the stationary jaw, and a catch pivotally attached to the other of said upturned end portions of the base for extending across the bight portion of the lever and engaging the trigger for maintaining the trigger in position to hold the lever parallel to the base against the action of said spring, said catch engaging a projection on said trigger, said lever pivoting under the action of said spring from a horizontal set position to a vertical sprung position for trapping an animal between the U-shaped stationary jaw and said lever.

2,779,125
TRAPS
George A. Reitzel, St. Louis, Mo.
Application June 18, 1954, Serial No. 437,735
16 Claims. (Cl. 43—100)



1. A trap that comprises a support, a plurality of pivots carried by said support, a plurality of jaws that are secured to said support by said pivots and that are oscillatable about said pivots, an actuator that is movable relative to said support and said jaws, said actuator being movable to setting position to permit said jaws to be moved away from each other and being movable to trapping position to move said jaws toward each other, a trigger engaging and holding said actuator in setting position, a spring engaging said actuator that biases said actuator for movement to trapping position, and a second spring engaging said support that biases said jaws toward setting position, the first said spring overcoming said second spring and moving said actuator to trapping position whenever said trigger is tripped.

2,779,126
CONTAINER OPERABLE AS BELLOWS TO DISPENSE DUST
Raymond M. Cook, Basin, W. Va.
Application June 11, 1954, Serial No. 436,172
3 Claims. (Cl. 43—146)



1. A bellows container comprising a flexible and collapsible bag having side walls, creased end walls connecting and extending between the side walls, a bottom wall, and a top comprising upper portions of the side walls deflected inwardly toward each other and having upper extremities folded upon each other to close the bag, one of said side walls having a single opening located between the bottom wall and the top and spaced below said upper portions of the side walls, and a perforated disc assembly secured to said one side wall and covering said opening.

2,779,127
TUMBLING TOYS
Alexander H. Holman, New Orleans, La., assignor of thirty-five percent to Burris D. Wood, New Orleans, La.
Application December 1, 1952, Serial No. 323,444
1 Claim. (Cl. 46—1)

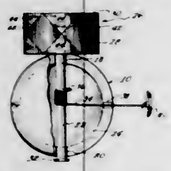
In a tumbling toy, the combination of an elongated body member, a member horizontally pivoted to each end of said body member, an inset abutment at each end of said body member, opposite projections on each of said pivoted members for striking said abutment to limit rotation to approximately 180°, a flexible tensioning device stretched between and resiliently connecting a projection on one pivoted member to a projection on the other and tending to normally face the pivoted members in opposite directions, a perforated suction cup secured to the face of each of said pivoted members, and valve means carried by the connected projections for closing the perforations when the cups are fastened to a single surface but adapted to open such as for bleeding the upper suction cup upon distortion of said upper suction cup by the pulling force of said tensioning device.

2,779,128
COIN BANK
Maurice C. West, Chicago, Ill.
Application May 13, 1954, Serial No. 429,474
1 Claim. (Cl. 46—2)

An animated deformable money bank expressly designed to represent a gluttonous four legged animal, a pig for example, comprising a hollow flexibly resilient plastic body molded to represent the stated animal, said body having a coin insertion slot in its top and embodying a deformable belly portion which has a normal given shape by reason of its inherent resilient properties but

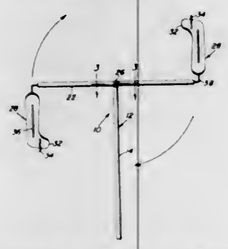
assumes a state of prolapsus when said body is loaded with coins aggregating a predetermined amount of weight, short legs joined with and depending from said belly portion, the inherent strength and erectile properties of said legs being such that when the bank is empty or substantially so the legs are stable and erect and thus render the bank self-standing in the usual standing attitude of the represented animal with the belly portion spaced above a flat support surface but being susceptible of buckling from pressure and stress imposed thereon as the weight of the progressively inserted coins becomes effective, said belly portion being provided centrally with a marginally screw-threaded coin emptying opening, a screw-threaded plug screwed into and normally closing said opening, the bottom surface being flat and thus adapted to contact and rest upon the said flat support surface to stably support the animal in buckled condition.

2,779,129
WHIRLING TOYS
Charles R. Reyher, Chicago, Ill.
Application June 16, 1953, Serial No. 361,903
1 Claim. (Cl. 46—49)



In a whirling toy of the character described comprising an enclosed body member adapted to be held in the hand, a spindle rotatably secured in said body, a drum head horizontally mounted on said spindle exteriorly of said body, said drum head having a horizontal portion and an annular vertical portion, a flexible cord having one end secured to said spindle interiorly of said enclosed body with the opposite end thereof extending exteriorly of said body, a strip adapted to be detachably secured to said annular vertical portion, said strip having a plurality of various colors so constructed and arranged that when said drum is rotating said colors will blend to form a single color the combination of the various colors, said annular vertical portion having spaced vertical slots to detachably receive said strip.

2,779,130
LOOPING TOY PLANE
Edward F. Gerard, Bellingham, Wash.
Application December 7, 1954, Serial No. 473,596
3 Claims. (Cl. 46—58)

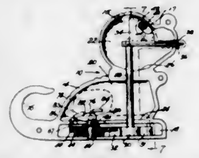


1. A toy comprising a support, an arm rotatably mounted on said support, and a toy plane positioned at each end of said arm in angular relation for rotating said arm when air moves against said planes, each of said toy planes including an elongated fuselage member having relatively large flat sides, and a right angular member joining the forward end of said fuselage member to the end of said arm, each of said fuselage members forming an acute angle with the plane of rotation of the arm and extending from opposite sides of said arm wherein the flat sides of said fuselage members form oppositely disposed surfaces on opposite ends of said arm for rotating said arm when air impinges on said surfaces.

2,779,131
ANIMATED SUBMERSIBLE TOY
Walter E. Scheithauer, San Francisco, Calif.
Application June 14, 1954, Serial No. 436,412
6 Claims. (Cl. 46—92)

1. A toy adapted for submersion in a liquid having a hollow, hermetically sealed body containing a gas, an opening therein, and an external abutment; a flexible membrane covering said opening and adapted for inward deflection upon the application of liquid pressure; an external gripping member movably mounted on said body and having a part thereof disposed to close on said abutment; and means including an actuating element on the gripping member engaging the diaphragm for actuating the gripping member upon deflection of the diaphragm.

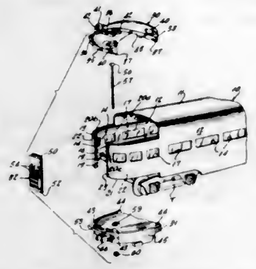
2,779,132
TOY
Marvin I. Glass, Chicago, Ill.
Application April 19, 1955, Serial No. 502,425
5 Claims. (Cl. 46—135)



1. In a toy dog of the size to be carried and supported in one hand, said toy dog having a body and a head with the head having a pair of eye openings, a leg pivotally secured to said body, a spindle supported in said body supporting a member in said head which has a pair of eyes, said spindle having a finger at the lower end thereof, a cam plate supported in said body and having means extending exteriorly of said body to be engaged and operated by the finger of the hand, said cam plate engaging the finger on the spindle and operatively connected to said leg, said means when operated adapted to move said cam plate to operate said head member and said leg.

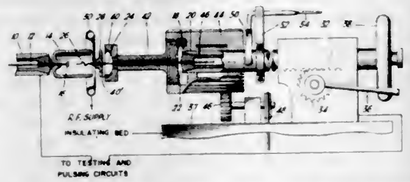
2,779,133
TOY OBSERVATION CARS
Moses Zion, Brooklyn, N. Y., assignor to The Lionel Corporation, New York, N. Y., a corporation of New York
Application October 26, 1953, Serial No. 388,324
8 Claims. (Cl. 46—226)

1. A streamlined toy observation car having a body portion shaped to simulate a streamlined railroad observation car except for the rear roof portion, the rear platform portion and the rear door, three inserts, one simulating the rear roof portion, one simulating the rear platform portion and one simulating the rear door, the top and bottom of the door simulating portion having elements which interlock with elements on the roof simulating portion and the rear platform simulating portion



to maintain alignment therebetween, and means to secure the inserts to the body.

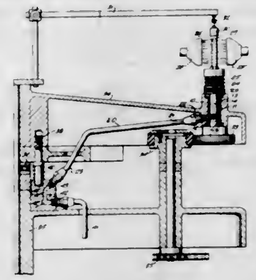
2,779,134
SEMICONDUCTOR ASSEMBLING APPARATUS
Paul E. Gates, Danvers, Mass., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application January 3, 1952, Serial No. 264,794
3 Claims. (Cl. 49—1)



1. Apparatus for assembling a semiconductor element and a contact element in proper mutual engagement and for sealing envelope portions together and thus completing an enclosing envelope and for maintaining the elements in proper engagement, said apparatus including a pair of chucks one of which has an electrically insulated carrier, said chucks being supported for relative axial motion and for carrying supporting leads of said elements and bringing said elements into proper mutual contact, said insulation enabling application of a potential difference between said chucks for testing and processing purposes, and a pressing and shaping ring interposed between the chucks a rotatable tubular electrically insulating support having a central passage penetrated by the lead of one of said elements during the formation of a seal between glass envelope portions carried by the respective leads of said elements.

2,779,135
TUBE SHRINKING MACHINE
Charles Eisler, South Orange, N. J.
Application June 13, 1952, Serial No. 293,355
3 Claims. (Cl. 49—7)

1. A machine for shrinking lengths of glass tubing to a desired internal diameter, comprising a housing portion provided with a recess generally cylindrical about a vertical axis, said housing portion having a generally radial aperture connected to evacuating means, means for supporting a length of glass tubing open at both ends, said supporting means having an upwardly opening pocket and a lower portion passing through said housing portion and journaled therein, the upper portion of said supporting means being enlarged, providing an upper generally horizontal surface engageable by the lower end of the length of tubing and, heat-dissipating fins on the supporting means beneath the said upper surface thereof, anti-friction means protected from heat by said finned portion and disposed between it and the upper surface of said housing portion to facilitate turning of said supporting means, a mandrel with a bore extending from end to end and with its lower portion fitting the pocket in said supporting means, so that its upper end lies below the upper end of the length of glass tubing to be shrunk, said supporting means having a transverse aper-

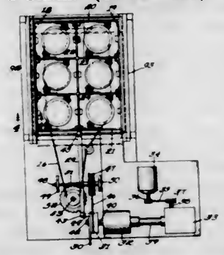


ture from its pocket registering with the housing portion aperture for the introduction of vacuum to the bore of said mandrel, means for closing the upper end of a length of glass tubing when placed around said mandrel and while resting on said supporting means, means for heating such length of tubing, and means secured to the lower end of said supporting means for rotating it.

2,779,136
METHOD OF MAKING A GLASS ARTICLE OF HIGH MECHANICAL STRENGTH AND ARTICLE MADE THEREBY
Harrison P. Hood and Stanley D. Stookey, Corning, N. Y., assignors to Corning Glass Works, Corning, N. Y., a corporation of New York
No Drawing. Application July 6, 1955, Serial No. 520,374
15 Claims. (Cl. 49—79)

1. The method of making a glass article of high mechanical strength which comprises providing an article of glass containing 45% to 80% SiO_2 and 7% to 25% of at least one alkali metal oxide selected from the group consisting of Na_2O and K_2O, contacting the article while at a temperature above its strain point but below its softening point with a lithium salt, which will be molten but which will not decompose objectionably at such temperature, and maintaining the article in contact with the salt at said temperature for a time sufficient to permit lithium ions to diffuse into the surface of the glass in exchange for alkali metal ions of the glass.

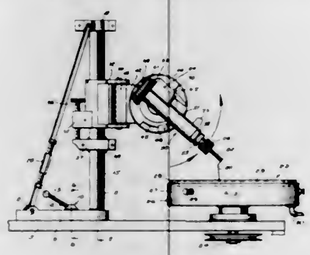
2,779,137
MIRROR GRINDING MACHINE
Frank Thomas Griscavage, Wilkes-Barre, Pa.
Application September 21, 1954, Serial No. 457,429
1 Claim. (Cl. 51—123)



A mirror grinding and polishing machine comprising a turntable, means for rotating the turntable, a tool

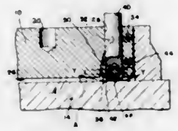
mounted on the turntable, a disc positioned on the tool, a frame having a pocket therein positioned around the disc, side walls of the pocket being spaced from the periphery of the disc, diametrically opposed rollers mounted on the frame positioned in the pocket and adapted to contact the peripheral surface of the disc, diametrically opposed bumpers also mounted on the frame, positioned in the pocket and adapted to contact the peripheral surface of the disc, and means for actuating the frame with an oscillating movement.

2,779,138
MACHINE FOR GRINDING AND POLISHING GEM FACETS
Lynn H. Collar, Miami, Fla.
Application April 28, 1955, Serial No. 504,399
5 Claims. (Cl. 51—124)



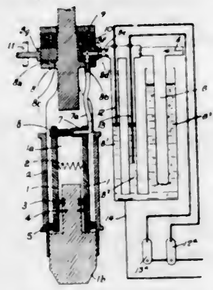
1. A machine for grinding facets upon precious stones that includes in combination, a base having a lap wheel rotatably supported thereon, a standard adjustably supported on the base, a yoke adjustably supported on the standard, a support device that is pivotally supported by the yoke to swing in a horizontal plane and a carriage that is pivotally supported upon the support to swing in a vertical plane, the support device embodying a disc having a circumferentially fixed protractor and an adjustable stop, a tubular hub formed upon the disc, a shaft carried by the carriage that is rotatable in the hub and with the shaft extending beyond the end of the hub, a brake arm fixed to the extended end of the shaft and a cam collar fixed to the hub, a spring loaded brake block carried by the arm that has frictional engagement with the collar when the carriage is swung upwardly in a vertical plane, the brake block being free of frictional engagement with the collar when the carriage is in a downward position, the carriage including an elongated barrel wherein is rotatably supported a shaft, means formed upon the shaft adjacent one end to prevent sliding movement of the shaft with respect to the barrel in one direction and a collar engaged with the shaft adjacent its opposite end to prevent sliding movement of the shaft in the opposite direction with respect to the barrel, the shaft at one end being slotted and threaded for the reception of a threaded chuck sleeve, the shaft at its opposite end provided with an adjustable divider head co-axial therewith whereby the shaft may be adjustably rotated, friction clamping means whereby the divider head is frictionally held in adjusted position with respect to the shaft, the divider head being circumferentially calibrated and notched, a latch device carried by the barrel and which has a constant spring bias toward the notches whereby to hold the head and the shaft in predetermined degrees of rotation, a stone holding dop having a shank that is engageable with the shaft and held in clamped co-axial relation thereto by the chuck sleeve, the carriage and a supported dop being swingable downwardly to engage a supported stone with the lap wheel, supplemental dops of tubular form that are engageable over the first named dop and having a fixed co-axial relation thereto, a gauge device that is interchangeable with the first named dop whereby to accurately dispose the shaft with respect to the lap and a detachable and adjustable weight device engageable with the barrel whereby to impart a predetermined pressure upon a dop supported stone with respect to the lap.

2,779,139
LAPPING MACHINE
Stephen A. Boettcher and Harold W. Gould, Evanston, Ill., assignors to Crane Packing Company, Chicago, Ill., a corporation of Illinois
Application November 24, 1952, Serial No. 322,182
12 Claims. (Cl. 51—131)



1. In a machine for lapping a face on an article, means providing a lap surface, an article holder, means establishing relative movement between said article holder and lap surface, said article holder comprising a solid block of metal provided with a surface to which an article to be lapped is adapted to be affixed and by means of which the article is applied to the lap surface with the weight of the holder supported upon the article, three limit stop members mounted on the holder and designed for ultimate contact with the lap surface to thus determine the extent of lapping operations performed upon the article by providing a three-point support for the holder and article affixed thereto, adjusting means for one of said limit stop members to vary the position thereof, said means comprising a supporting leg capable of swinging movement relative to the body of the holder about a horizontal axis, said adjustable limit stop member being carried at the free end of said leg, and means for adjusting the angular position of said leg relative to the body of the fixture.

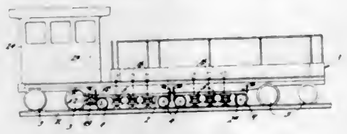
2,779,140
AUTOMATIC CONTROL DEVICE FOR MACHINE TOOLS
Leon Saives, Billancourt, France, assignor to Regie Nationale des Usines Renault, Billancourt, France
Application July 17, 1953, Serial No. 368,753
Claims priority, application France January 19, 1953
6 Claims. (Cl. 51—165)



1. A grinding machine comprising: an expanding honing tool for bores; a rotating mandrel integral with said tool and providing connection means to a driving source for said tool; a pair of lever arms yieldingly mounted on said mandrel as to be carried along with said tool; spherical-faced feelers mounted on one end of each lever arm and being disposed closely adjacent to said tool; means to keep the yieldingly mounted lever arms spread

apart at the ends carrying said feelers so as to keep said feelers in constant and continuous contact with the work being ground while opposite ends of said lever arms move closer together; means for causing a stopping of expansion of said tool so as to stop honing but continue polishing and subsequently stopping rotation of said tool when proper work dimensions obtain; said means including a fluid line under pressure, a nozzle mounted on one of said lever arms on the end opposite to the feelers; said nozzle having connection means to said fluid line to discharge fluid therefrom, an adjusting element mounted on the other lever arm directly confronting said nozzle and cooperating therewith to vary the flow from said nozzle so as to vary the pressure in said fluid line, a rotating joint on said mandrel, a flexible conduit rotatably mounted on said joint and providing connection means from said nozzle to said joint, said rotating joint including a stationary member providing connection means from said flexible conduit to said fluid line, said stationary member also providing means for guiding said tool in the work being ground.

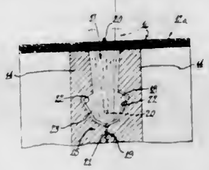
2,779,141
RAILGRINDER
Frank Speno, Jr., Summit, and George Clinton Shay, New Providence, N. J., assignors to Frank Speno Railroad Ballast Cleaning Co. Incorporated, Ithaca, N. Y., a corporation of New York
Application November 15, 1955, Serial No. 546,885
19 Claims. (Cl. 51—178)



1. A rail grinder comprising a truck movable along a rail, a plurality of grinder heads supported by said truck for operative engagement with the rail, a similar plurality of hydraulically actuated means separately associated with the respective grinder heads for vertically supporting and adjusting each such grinder head, an enclosed oil reservoir communicating with each such hydraulically actuated means, a series of shuttle valves, each having a medial port communicating with one of said oil reservoirs, a shuttle freely movable in each said valve between operative positions on opposite sides of said medial port, responsive to differing air pressures on opposite sides of said shuttle, an air supply manifold communicating with the respective valves on corresponding sides of their said shuttles, an adjustable pressure regulator interposed between the supply manifold and each said valve to regulate the pressure of the air delivered to the respective valves, a control valve communicating with each of the several shuttle valves on opposite sides of their respective shuttles from said manifold, said control valve also normally communicating with said high pressure air source and with the atmosphere and being operable to place said shuttle valves in communication with either the said source of high pressure or with the atmosphere.

2,779,142
BUFFING WHEEL AND METHOD OF MAKING SAME
John C. Wisnieski, Detroit, Mich., assignor to Lyon Incorporated, Detroit, Mich., a corporation of Delaware
Application January 22, 1954, Serial No. 405,560
8 Claims. (Cl. 51—193)

1. In a method of forming a unitary buff including a multi-ply fabric outer annular section and a central circular supporting fabric gripping section, the steps of bias cutting a strip of loosely woven burlap-like fabric into a series of bias cut pieces, connecting each end of each bias cut piece to the end of another bias cut piece to form a continuous strip of bias cut material, winding said strip of loosely woven burlap-like fabric flatwise upon itself and into generally tubular form around and in generally radially spaced relation to a supporting section, collapsing radially inward the generally medial area of

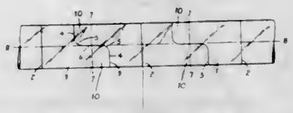


said wound fabric toward and adjacent the periphery of said supporting section while folding the side portions of the tube toward and adjacent each other, establishing a preliminary gripping contact between said supporting section and the folded portions at said medial area to hold temporarily the folded portions together, and thereafter contemporaneously securing the folded portions together and to said supporting section in unitary relationship therewith.

2,779,143
METHOD OF CLOSING A HEAT EXCHANGER
Herbert B. Brooks, Prescott, Ariz.
Application March 28, 1952, Serial No. 279,197
1 Claim. (Cl. 53—25)

The method of closing an open end of a tube containing a highly volatile liquid, and having one end closed, comprising the steps of (1) maintaining said liquid in the closed end of said tube at a temperature near or above the boiling temperature of said liquid, for a period of time prior to sealing, (2) applying sealing material to said open end while said liquid is boiling, and (3) thereafter reducing the temperature of said liquid to form a partial vacuum, and by reason of said vacuum to force a portion of said sealing material internally of said tube and reducing the temperature of said sealing material to a temperature at which it hardens.

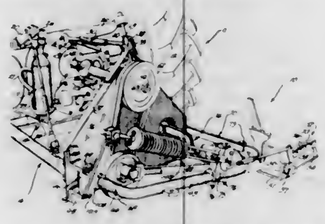
2,779,144
METHOD OF MAKING POUCHES
Walter P. Nail, Toronto, Ontario, Canada
Application December 10, 1952, Serial No. 325,075
4 Claims. (Cl. 53—29)



1. A method of forming pouches which comprises transversely cutting a tube of heat-sealable material while in a flat state with linear cuts extending perpendicular to the tube axis and between each pair of linear cuts, compoundly cutting said tube along a compound line having opposite symmetry on opposite sides of both the axis of the tube and a line transverse the tube axis and forming

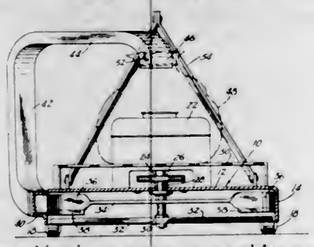
a median line between said pair of linear cuts, opening out each tube length defined between a linear and a compound cut and refolding same to bring the original fold edges centrally of the width of the refolded tube length, heat-sealing each refolded tube length along the end defined by the linear cut to form such tube length into an open pouch, the end defined by the compound cut defining a flap for closing said open pouch.

2,779,145
TRACTOR MOUNTED MOWER
Carlisle F. Smith, Knoxville, Ill., assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Application September 12, 1952, Serial No. 309,274
6 Claims. (Cl. 56—25)



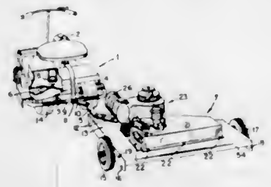
1. In a tractor-mounted mower for use with a tractor having three triangularly spaced rearwardly extending draft arms, said mower comprising a rigid frame carried by said draft arm, said rigid frame being formed of a plate of heavy-gauge sheet-metal, a mower assembly mounted on and swingably carried by said plate adjacent one end thereof, said mower assembly including a cutter bar mechanism adjacent the other end of said plate and having a reciprocating sickle, draft responsive extensible means for holding said mower assembly in operative position with respect to the plate and the direction of travel of the tractor, spaced driving and driven pulleys rotatably carried by said plate, belt means on said pulleys drivingly connecting said driven pulley to said driving pulley, a crank rotatably carried by said plate and drivingly connected to said driven pulley, a pitman carried by and connecting said crank to said sickle for imparting a reciprocatory motion thereto upon rotation of said crank, said crank being so shaped as to lie in close proximity to said plate and said plate lying in a plane substantially parallel to the vertical plane of said pitman, said mower assembly extending rearwardly of said plate and pitman and laterally in close proximity to said pitman.

2,779,146
COMBINATION ROTARY MOWER AND LAWN SWEEPER
Robert E. Mitchell and Kent C. Mitchell, Picayune, Miss.
Application November 1, 1955, Serial No. 544,278
3 Claims. (Cl. 56—25.4)



1. In a combination rotary mower and lawn sweeper of the type including a horizontally disposed, downwardly opening, rollably supported blade housing having a cover plate lying in a horizontal plane and rigid at its periphery with a depending guard flange, said guard flange having an outlet formed therein, the improvement comprising: a vertical shaft journalled in the housing; a cutting blade secured to the shaft within the housing for rotation in a horizontal plane falling substantially at the lower edge of the guard flange, said outlet extending substantially the full distance between the planes of the cover plate and blade; and a fan blade secured to the shaft above the cutting blade and formed at its ends with oppositely curving wings, each of said wings being curved solely on a horizontal radius, the tips of the wings being trailing in the sense of direction of rotation of the fan blade and being spaced closely from the flange, said wings being substantially coextensive in height with the outlet whereby cuttings resulting from rotation of the cutting blade will immediately be disposed directly in the path of rotation of the wings, so as to be directed radially outwardly of the housing through the outlet in a horizontal path disposed between the planes of the cover plate and cutting blade.

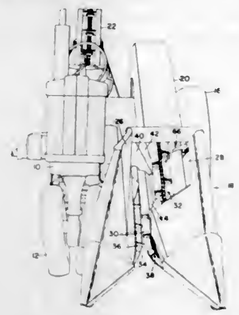
2,779,147
POWER DRIVEN ROTARY CUTTER TRAILER ASSEMBLY
Orly Musgrave, Springfield, Ohio
Application April 15, 1954, Serial No. 423,316
7 Claims. (Cl. 56—25.4)



1. A mowing trailer for combination with a lawn tractor comprising: a horizontally extending platform having a longer forward side and parallel lateral sides of unequal length; two opposed ground wheels, one on either side of the platform secured to the platform intermediate the length of and supporting the platform; a housing on the platform extending laterally thereof between the wheels; a power source mounted on the housing and extending thereabove, the power source being positioned laterally of the longitudinal center line of the trailer adjacent the longer of the parallel sides; horizontally rotatable cutting elements beneath the platform and disposed laterally in adjacent staggered relation, one cutting element being disposed forwardly of an adjacent cutting element to provide in its rotation a cut swath which overlaps the cut swath of an adjacent element; support means secured to the platform for retaining the rotatable cutting elements; means in the housing drivingly connecting the power source with the cutting elements, the wheels and power source being positioned on the platform rearwardly and in substantial alignment laterally.

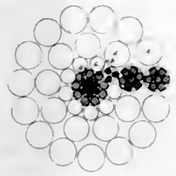
2,779,148
ANTI-CLOGGING MEANS FOR CORN HARVESTERS
Wayne E. Slavens, Des Moines, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application April 21, 1954, Serial No. 424,635
11 Claims. (Cl. 56—104)

1. In a harvester having a frame adapted to advance over a field of stalk-borne crops and including a gathering unit having first and second laterally spaced apart, upright, fore-and-aft extending side sheets, a pair of crop-detaching elements lying closely along the first side sheet, a fore-and-aft extending crop-receiving trough lying between said elements and the second side sheet, and drive mechanism including an endless chain conveyor having a rearwardly moving upper run operating in the trough and a forwardly moving lower run operating below the trough, said elements defining between them a stalk-receiving passageway and being operative to detach crops from received stalks and to cause such detached stalks to move laterally to the trough, the improvement comprising: a



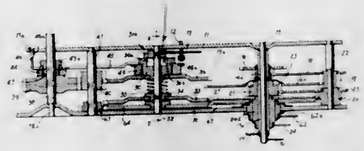
bearing carried by a rear part of the second side sheet at a level above the upper run of the conveyor; a crop agitator movably carried by the bearing between the side sheets and in close proximity to the second side sheet so as to be operative only above the upper run of the conveyor to the exclusion of the crop-detaching elements; an agitator shaft journaled in the bearing and connected to the agitator, the second side sheet being apertured and said shaft extending laterally therethrough to have an outer end portion outside the second side sheet; and drive means external to the second side sheet and including a drive member engaging the lower run of the conveyor.

2,779,149
NON-ROTATING WIRE ROPES
Heri Schuller, Limbach, near Homburg, Saar Territory, Germany, assignor, by mesne assignments, to George H. Rother, South Plainfield, N. J.
Application October 7, 1952, Serial No. 313,553
5 Claims. (Cl. 57—148)



1. A multi-layer spiral rope comprising a core, a plurality of intermediate layers each comprising a number of strands, the strands of all intermediate layers being laid with the same direction of rotation and having an equal pitch and the direction of the twist of the wires of the strands of one intermediate layer being opposite to the direction of the twist of the wires of the strands of an adjacent intermediate layer, and a covering layer comprising a number of strands upon said intermediate layers and having a relative sense of rotation opposite to said intermediate layers.

2,779,150
ALARM CLOCK
Edmund G. Chartier, West Hartford, and Clayton O. Hayden, Wallingford, Conn., assignors to The United States Time Corporation, Waterbury, Conn., a corporation of Connecticut
Application June 16, 1955, Serial No. 515,905
7 Claims. (Cl. 58—16)

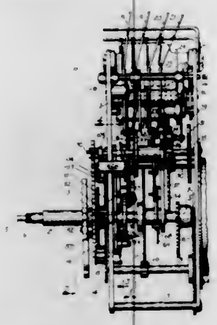


1. In a clock having a timing mechanism including a drive shaft, an alarm mechanism comprising two interengaging rotatable coaxial members the first of which is movable axially in one direction only when in a certain angular relation to the second member, biasing means urging the axially movable member in said one direction, a manual control shaft mounted for both rotary and axial movement, a driving connection from the control shaft to one of said members for setting the angular position thereof by rotation of the control shaft, a driving connection from the timing mechanism to the other member for continuously varying its angular position, an alarm clapper, a normally inoperative alarm connection from said drive shaft to the clapper including an element shiftable between a non-driving position in which the clapper is idle and a driving position in which the clapper is operated by the drive shaft, a shift connection from the axially movable member to said element through which said element is shifted to its driving position by the biasing means when said angular relation of said members is attained, an alarm stop connected to the control shaft and operable by axial movement thereof in one direction to shift said element from its driving to its non-driving position against the action of the biasing means, the stop being operable by axial movement of the control shaft in the opposite direction to release said element and thereby place it under control of said coaxial members, a plate through which the control shaft projects from the interior of the clock, whereby the control shaft is adjustable manually, the plate having an opening near the control shaft, and a holding member connected to the control shaft within the alarm clock and extending into the opening, said holding member having releasable means coacting with the plate for retaining the control shaft against axial movement in said opposite direction by the biasing means.

2,779,151
ELECTRIC CHIME CLOCK
Arno W. Fowler, Highland, Ill.
Application August 18, 1955, Serial No. 529,263
8 Claims. (Cl. 58—38)

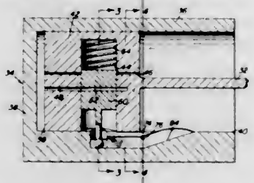
6. In an electric chime clock having a minutes spindle, chiming and striking mechanism, means operated by said spindle to condition said mechanism for operation, said means including a selecting member having a plurality of locating elements thereon, a counting ratchet mounted for setting and return movements to control said mechanism, a movable control arm having a stop thereon engageable with said ratchet, a cam yieldingly positioned on said arm for engagement with said locating elements to position said stop relatively to said ratchet, means operated by said spindle for starting the operation of said mechanism, a movable member engageable with said starting means and having an abutment, and an abutment on said

ratchet engageable at the end of its return movement with said abutment on said movable member whereby said member is moved to engage and move said starting means to stop said mechanism.



7. In a chime clock having chiming mechanism including striking hammers operated separately by said mechanism, striking mechanism for operating said hammers in unison, a movable stop member against which said hammers normally rest, and a retractable operating member for said striking mechanism; means for rendering said chiming and striking mechanism inoperative comprising, a rotatable shaft, manipulating means for rotating said shaft, and an arm on said shaft movable by rotation thereof to move said stop member to locking position to prevent movement of said hammers, and a link operable by rotation of said shaft to retract said retractable member to prevent operation of said striking mechanism.

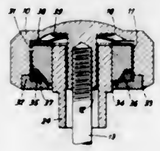
2,779,152
AIR OPERATED CLOCK
Vincent A. Flagiello, New Haven, Conn.
Application December 8, 1954, Serial No. 473,785
5 Claims. (Cl. 58—46)



1. A clock comprising a spring device for driving a clock mechanism, and means for automatically tensioning said spring device at intervals, said means including a fluid pressure driven actuating piston and cylinder arrangement, and control means within said arrangement for controlling the movement of the actuating piston, said control means including a longitudinal bore extending through said actuating piston, a partial longitudinal bore communicating with a pressurized fluid supply line, a control member selectively registering with said bore for selective entry of pressurized fluid and exhaust of fluid, and means for controlling the movement of said control member.

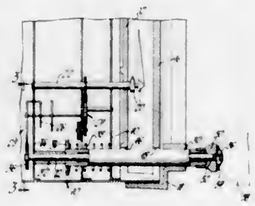
2,779,153
CROWN FOR WATERPROOF WATCHES
René Soguel, Les Hauts-Geneveys, Switzerland
Application July 10, 1952, Serial No. 298,131
Claims priority, application Switzerland July 13, 1951
26 Claims. (Cl. 58—90)

1. In a winding and setting crown for watertight watches which is formed with a cavity and with a pipe projecting from the bottom of said cavity to secure the crown to a winding stem forming part of the watch and around a tube forming part of the watch case, the combination of a tightening ring at the opening of said cavity, said ring forming a tight joint with said crown and arranged to be moved by and with said crown on any rotary displacement thereof, a sealing ring between said tightening ring and the bottom of said cavity, said sealing ring being tapered at the end pointing toward the opening of said cavity and encompassing said watch case tube with snug fit to remain stationary with said tube during any rotary displacement of said crown, a spring means arranged to act axially on said crown and on said sealing ring and to normally keep said sealing ring and said tightening ring in contact with each other, said



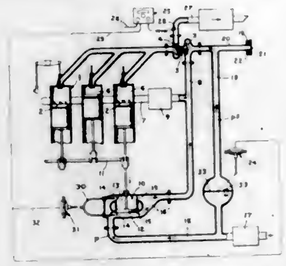
tightening ring being formed with a surface portion which corresponds to the tapered portion of said sealing ring, whereby both rings come in contact at least at one point of any section of said surface portions, whatever may be the position of the crown relative to said watch case tube, said tightening ring preventing the entrance of water into said cavity, said surface portions being so shaped that they remain in contact even if the direction of the axis of one of said rings should change slightly owing to rotary displacements of the crown relative to said tube, and abutting means formed by part of the interior wall of said crown surrounding said cavity and adapted to prevent said sealing ring from being moved against the action of said spring member a sufficient distance from said tightening ring that said spring is compressed beyond its limit of elasticity.

2,779,154
CONTROL MEANS FOR CLOCKS AND THE LIKE
Philip W. Maurer, Dearborn, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 13, 1955, Serial No. 534,026
12 Claims. (Cl. 58—109)



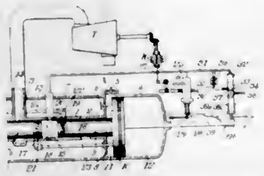
7. A clock including a casing, a dial face provided with an aperture therethrough, hands movable over said dial, means within said casing for regulating the speed of said clock, means within said casing for setting said hands, a tubular shaft operatively disposed for engagement with said setting means and extended through said aperture, and a second shaft concentrically disposed within said tubular shaft and engaged with said regulating means, said shafts both being operable from the front of said dial face for adjusting said regulating and setting means respectively.

2,779,155
TURBOCHARGING SYSTEM FOR INTERNAL COMBUSTION ENGINES
William M. Kauffmann, Hamburg, and Harold W. Whiting, Buffalo, N. Y., assignors to Worthington Corporation, Harrison, N. J., a corporation of Delaware
Application November 19, 1953, Serial No. 393,128
3 Claims. (Cl. 60—13)



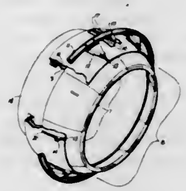
1. In a turbo-charging system for internal combustion engines, in combination, an internal combustion engine, means for supplying scavening and combustion air to the engine including a turbo-compressor operated by the engine exhaust, an air pump operated by the engine, conduit means for delivering suction air to said turbo-compressor and said air pump, a valve in said conduit means for controlling delivery of suction air to said turbo-compressor, means for unloading the air pump when full suction air is delivered to the turbo-compressor, actuating means operatively associated with said valve and unloading means, and control means acting on said actuating means and responsive to the temperature of the engine exhaust.

2,779,156
ADJUSTING DEVICES FOR FREE PISTON MACHINES
Robert Huber, Bellevue, France, assignor to Societe d'Etudes et de Participations, Eau, Gaz, Electricite, Energie, S. A., Geneva, Switzerland, a society of Switzerland
Application August 14, 1953, Serial No. 374,291
Claims priority, application France April 30, 1953
2 Claims. (Cl. 60—13)



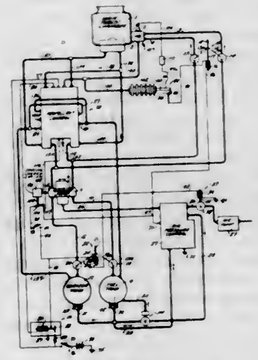
1. In a machine including a power cylinder, a power piston slidable in said cylinder, a compressor cylinder, a compressor piston slidable in said last mentioned cylinder, these two pistons being rigid with each other and being freely slidable in their respective cylinders under the effect of the forces acting thereon, the combination of a fuel feed pump, a discharge circuit for said pump leading to said power cylinder, means responsive to the load of said machine for adjusting the rate of feed of said pump in accordance with variations of said load, an adjustable auxiliary pump connected with said pump discharge circuit for withdrawing therefrom an amount of fuel proportional to the length of stroke of said auxiliary pump, and means operatively connected with said compressor piston for operating said auxiliary pump with a length of stroke the greater as the outer dead center position of said compressor piston is farther beyond a given dead center position.

2,779,157
NOZZLE WITH VARIABLE DISCHARGE ORIFICE
Jack M. Palmer, Chula Vista, Calif., assignor to Rohr Aircraft Corporation, Chula Vista, Calif., a corporation of California
Application February 14, 1951, Serial No. 210,832
5 Claims. (Cl. 60—35.6)



1. A variable nozzle comprising, in combination; a cylindrical tube; an annular inner shell having its upstream end secured to the outside of said tube at a region spaced from the downstream end thereof; an annular outer shell having its upstream end connected to the upstream end of said inner shell, said shells having concentric spaced apart spherical guide portions which slope in toward the downstream end of said tube; a plurality of spherically shaped rigid sub-segments disposed between and in engagement with said guide portions, each sub-segment having a curved edge portion which overlaps and has slidable engagement with the edge portion of the adjacent sub-segment; an actuating member pivotally connected to said sub-segments and arranged to simultaneously move said sub-segments along said shells and cause the downstream ends of said sub-segments to move past the downstream end of said tube and reduce the orifice area of the nozzle.

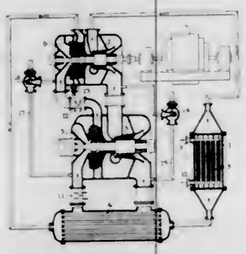
2,779,158
CONTROL FOR NON-HYPERGOLIC LIQUID PROPELLANT ROCKET ENGINES
Richard Thomas Dungan, Clayton, Ohio
Application June 26, 1951, Serial No. 233,673
10 Claims. (Cl. 60—35.6)
(Granted under Title 35, U. S. Code (1952), sec. 266)



10. In a non-hypergolic liquid propellant rocket engine; a thrust chamber; pressurized fuel and oxidizer propellant supply means connected to the thrust chamber to supply fuel and oxidizer thereto; balanced fuel and oxidizer control valve means in each of the pressurized fuel and oxidizer supply means to individually control the delivery of fuel and oxidizer to the thrust chamber; thrust chamber pressured operated control means for said valve means

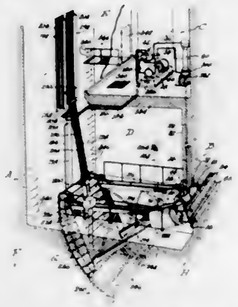
connected to the thrust chamber for actuation thereof by thrust chamber pressures for simultaneously actuating each of the fuel and oxidizer control valve means to simultaneously admit fuel and oxidizer into the thrust chamber at a rate proportional to thrust chamber pressure; said fuel and oxidizer propellant supply means including turbine power means and fuel and oxidizer propellant pump means connected to said turbine power means to be driven thereby for simultaneously supplying fuel and oxidizer respectively to each of said balanced fuel and oxidizer control valve means under pump pressure; separate fuel and oxidizer pressure responsive control means connected to receive respectively oxidizer and fuel delivery pressures for separately controlling the opening said fuel and oxidizer control valve means proportionally to predetermined oxidizer and fuel delivery pressures.

2,779,159
THERMAL POWER INSTALLATION FOR UTILISING WASTE HEAT
David Schmidt, Zurich, Switzerland, assignor to Aktiengesellschaft fuer Technische Studien, Zurich, Switzerland, a corporation of Switzerland
Application March 26, 1953, Serial No. 344,769
Claims priority, application Switzerland May 1, 1952
7 Claims. (Cl. 60—59)



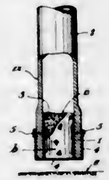
1. A thermal power installation in which a gaseous working medium describes a closed circuit, for utilizing waste heat delivered by a heat carrier, comprising a consumer of useful output; a compressor in which said working medium is brought from an initial pressure to a higher pressure which at the most exceeds slightly four times the initial pressure; a heater including means for heating the so-compressed working medium by waste heat given up by said heat carrier; a first turbine in which the compressed and heated working medium expands to a pressure below said initial pressure; an additional turbine in which the working medium leaving said first turbine expands additionally from the last named pressure to a still lower pressure; a flow connection by which the working medium leaving said first turbine is led to said additional turbine without significant changes of pressure or temperature; cooling means in which said working medium expanded to said still lower pressure is cooled; an additional compressor in which said additionally expanded and cooled working medium is recompressed to said initial pressure, said compressor being connected to be driven by said additional turbine and serving completely to absorb the output of said additional turbine and forming therewith a machine group which is mechanically independent of said first turbine; flow connections whereby said compressor driven by said first turbine, said heater, said first and said additional turbine, said cooling means and said additional compressor in the order stated are traversed in series by the working medium; and a flow connection conveying the working medium leaving said additional compressor to the inlet of said compressor driven by said first turbine.

2,779,160
APPARATUS FOR OPERATING VALVE GATES FOR CONTROLLING DISCHARGE CONDUITS IN DAM CONSTRUCTIONS
Harold N. Walker, Portland, Oreg.
Application February 20, 1953, Serial No. 338,178
9 Claims. (Cl. 61- -25)
(Granted under Title 35, U. S. Code (1952), sec. 266)



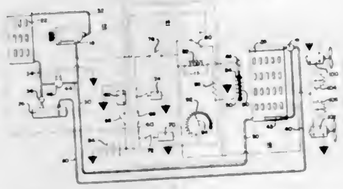
1. Mechanism for controlling flow of water through a sluiceway conduit having an orifice through which the water is discharged as a free-flowing high-velocity jet, which comprises a valve gate for seating upon the orifice for preventing flow of water through the orifice, vertically operating hydraulically actuated mechanism including a hydraulic cylinder containing a hydraulically operated piston including a depending piston rod and a rack connected to the piston rod and reciprocably movable therewith, instrumentalities actuated by the movements of the rack for selectively moving the valve gate away from and into closing relation relative to the orifice, the said instrumentalities including a pinion engaging the rack, oscillatably mounted spaced eccentric members turnable responsively to vertical reciprocatory movements of the rack, motion-transmitting gear systems interconnecting the pinion and the eccentric members, and lever means interconnecting the eccentric members to the valve gate, horizontally-acting turning movement of the eccentric members in one direction responsively to vertical movement of the rack in a selected direction pulling the valve gate away from seating position on the orifice, thereby opening the conduit for flow of water therethrough, further horizontally-acting turning movement of the eccentric members in an opposite direction corresponding to opposite vertical movement of the rack oppositely moving the valve gate into its seating position on the orifice of the conduit.

2,779,161
METHOD AND DEVICE FOR CONSTRUCTING FOUNDATION PILES IN THE GROUND
Edgard Pickman, Brussels, Belgium, assignor to Compagnie Internationale des Pieux Armes Frankignoul, Societe Anonyme, Liege, Belgium
Application September 10, 1951, Serial No. 245,861
Claims priority, application Belgium September 15, 1950
6 Claims. (Cl. 61—57)



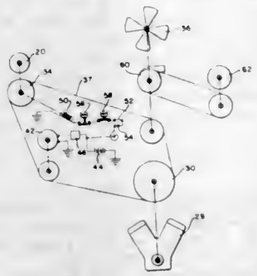
1. In a method for constructing a foundation pile in the ground by means of a driving tube, introducing into the lower portion of the tube through the lower end thereof a deformable wrapper filled with a predetermined quantity of compressible loose material, releasably attaching the filled wrapper to the lower end of the tube, and subjecting the filled wrapper to ramming from inside the tube for forming a plug adhering to the tube and capable of sinking the tube under the action of continued ramming on the plug.

2,779,162
AUTOMOBILE REFRIGERATING APPARATUS
Marshall W. Baker, Charles F. Henney, and Hal C. Johnston, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 4, 1952, Serial No. 324,082
5 Claims. (Cl. 62—4)



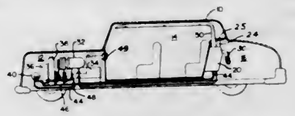
5. In combination with an automobile having a variable speed engine for propelling the same and having a passenger compartment, a compressor, means drivingly connecting said compressor to said engine, an evaporator, a condenser, means connecting said evaporator, condenser and compressor into a closed refrigeration system, pressure reducing means between the outlet of said condenser and the inlet of said evaporator, means controlling the cooling of air by said system including a solenoid, a source of electrical power, means including a thermostatically operated switch for connecting said solenoid to said power source so as to render said system operative to cool air for said passenger compartment when cooling is required, means including a heater for varying the temperature at which said thermostatically operated switch connects said solenoid to said power source, and adjustable means for varying the heat output of said heater.

2,779,163
VEHICLE REFRIGERATING APPARATUS
James W. Jacobs, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 21, 1953, Serial No. 375,649
2 Claims. (Cl. 62—4)



2. In combination with a passenger automobile having an engine compartment and a passenger compartment, an engine within said engine compartment for propelling said automobile, said engine including a heat dissipating radiator, an evaporator, means for circulating air to be conditioned in thermal exchange relationship with said evaporator and for discharging said air into said passenger compartment, a compressor, a condenser adjacent said radiator, refrigerant flow connections between said compressor, condenser and evaporator, fan means for circulating air in thermal exchange relationship with said condenser and said radiator, power transmitting means between said engine and said compressor and said fan means, said power transmitting means including variable speed drive means for varying the speed ratio between said compressor and fan means and said engine whereby the speed of said fan means relative to the speed of said engine is greater at low engine speeds than at high engine speeds, said fan means being driven by said means for varying said speed ratio, a clutch connected between said variable speed drive means and said compressor, and means for operating said clutch so as to disengage said compressor from said variable speed drive means.

2,779,164
REFRIGERATING APPARATUS FOR AN AUTOMOBILE
Harry C. Doane, Lake Fenton, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 15, 1953, Serial No. 386,300
8 Claims. (Cl. 62—6)

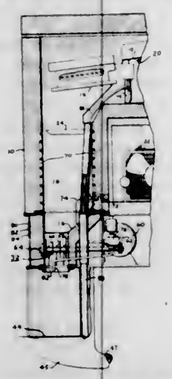


1. In an air conditioning system for installation in an automobile having a passenger compartment and a luggage compartment, the combination, a conditioning chamber adapted to be mounted in said luggage compartment for supplying conditioned air to the passenger compartment of the automobile, means for passing a stream of fresh air to said chamber, means for passing a stream of return air from said passenger compartment to said chamber, means for mixing the streams of fresh and return air passing to said chamber, air conditioning means in said chamber for varying the temperature of said mixture, damper means for controlling the supply of fresh air, and damper motor means responsive to the temperature of the air in said luggage compartment for causing said damper means to move toward closed position in response to a predetermined change in the air temperature within said luggage compartment.

2,779,165
ICE AND WATER DISPENSER
Joseph R. Pichler, Richard M. Brubaker, Thomas C. Shuler, Jr., and Emerson L. Wark, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 19, 1954, Serial No. 404,842
9 Claims. (Cl. 62—105)

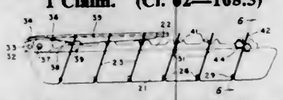
1. In a self-contained water cooler and automatic ice maker and dispenser, a cabinet, means within said cabinet forming an insulated ice cube storage bin, a water cooling coil arranged in thermal exchange relationship with said ice cubes while in said bin, a delivery chute adjacent the bottom of said bin, ice cube dispensing means for delivering a predetermined quantity of whole ice cubes from said bin into said delivery chute; means for crushing ice cubes, said last named means being arranged to receive ice cubes from said bin and to dispense crushed ice through said same delivery chute, means for dispensing water from said coil into said same delivery chute, and drain means beneath said delivery chute for draining away excess water

and melted ice, said bin being relatively long and narrow and having a V-shaped bottom with the vertex of the V



arranged to deliver ice cubes to said ice cube dispensing means and to said ice crushing means.

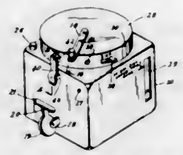
2,779,166
ICE TRAY GRID
Frederick W. Sampson, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 15, 1954, Serial No. 436,875
1 Claim. (Cl. 62—108.5)



A unitary grid structure adapted to be removably disposed in an ice tray for dividing the interior thereof into rows of ice block forming compartments comprising, a longitudinal partition including a long wall member and an actuating wall member substantially coextensive therewith disposed thereabove, said grid also comprising a plurality of spaced apart walls extending transversely across and being movably interlocked with said partition wall members, means at one end of said grid structure for shifting said actuating wall member lengthwise along said long wall member of said partition, said actuating wall member having portions thereof adapted to progressively engage and move said transverse walls one after the other in succession relative to said long wall member, each of said transverse walls having an elongated closed wall aperture therein, the aperture in each of said plurality of transverse walls being identical in contour and of varying width from end to end thereof, said actuating wall members and said long wall member being extended one after the other respectively through the closed wall identical aperture in each transverse wall during assembly of said grid, a spring clip inserted into the widest part of the aperture in a transverse wall at the end of the grid opposite said one end thereof in overlapping relationship with both of said partition wall members, and said spring clip substantially filling and reducing the width of said widest part of the aperture to that of the width of the narrowest part thereof for limiting lateral movement of said partition wall members with respect to one another at said opposite end of said grid upon shifting said actuating wall member.

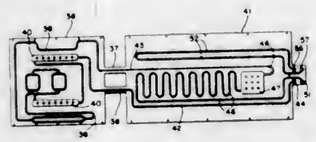
2,779,167
DEVICE FOR FREEZING ICE CREAM AND ICES
Thomas Lo Faro, Brooklyn, N. Y.
Application December 20, 1954, Serial No. 476,518
1 Claim. (Cl. 62—114)

A portable freezer for ice cream and ices for use with an electrical refrigeration apparatus comprising an outer container adapted to be inserted into said apparatus, an inner container removably seated in said outer container, a scraper blade and agitator assembly removably and rotatably mounted in the inner container, a removable cover for the containers, a motor on the cover having a driving connection to said assembly, and means releasably clamping the cover to the outer container, the outer container including a top wall having a center opening and an upstanding neck bounding said center opening, the cover



including a depending peripheral flange engaging snugly against and surrounding said neck, said motor being mounted upon the underside of said container, and being hermetically sealed, the motor including a crank for winding the same, said crank being rotatably mounted upon the cover and including at its outer end a knob adjustable to selected positions relative to the length of the crank in one of which positions the knob extends upwardly, said knob in a second position extending downwardly and in a third position extending laterally of the crank.

2,779,168
REFRIGERATING APPARATUS
James W. Jacobs and Richard E. Gould, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 8, 1955, Serial No. 533,083
8 Claims. (Cl. 62—116)

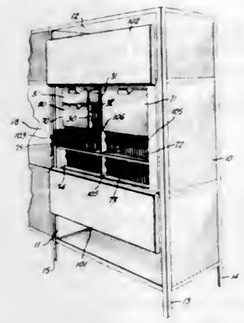


8. In a refrigerating system, a compressor, a one piece roll-forged plate member having a condenser duct in one portion thereof, an expansion duct in another portion of said member remote from said condenser duct and a restrictor duct, said condenser duct, said restrictor duct and said expansion duct being connected in series flow relationship in the order named with said compressor, said restrictor duct being relatively small in cross sectional area as compared to the other ducts and forming a single series flow passage in said plate member of continuous capillary size intermediate said condenser duct and said expansion duct, and said capillary passage constituting the sole means for controlling flow of refrigerant from the condenser duct in said one portion of said plate member to the expansion duct in said another portion thereof.

2,779,169
REFRIGERATOR WITH CAN DISPENSER
Verlos G. Sharpe and Edward C. Simmons, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 19, 1954, Serial No. 404,922
7 Claims. (Cl. 62—117.3)

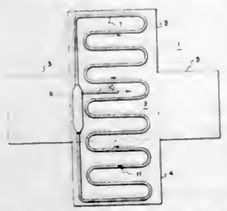
1. In a refrigerating apparatus including a cabinet having a food storage compartment therein provided with a front opening and a refrigerating system including means for cooling said compartment, opposed door supporting members associated with said compartment having walls forming two spaced apart grooves facing one

another and extending horizontally from said compartment front opening rearwardly into said cabinet, a vertically swingable door for said compartment opening having horizontally extending edges, spaced flanges projecting from the inner face of said door adjacent one of said horizontal edges thereof, hinge pins near said one edge of said door projecting laterally from said flanges and extending into said grooves, stop means on the inner face of said door intermediate said flanges and adjacent said one horizontally extending door edge, said stop means being engageable with said door supporting mem-



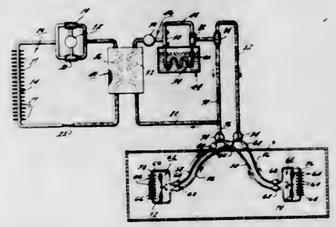
bers and so spaced from said hinge pins as to cooperate therewith and support said door in a horizontal position at the front of said compartment when the door is swung from a vertical closed position to an open position, said stop means and said hinge pins being arranged to permit said door, while in said horizontal open position, to be slid inwardly of said cabinet along said grooves of the door supporting members, and said hinge pins and said stop means being releasable from said grooves while the door is in its said horizontal open position to remove said door from the cabinet.

2,779,170
EVAPORATOR CIRCUIT
Douglas A. Solley, Jr. and Frank A. Schumacher, Erie, Pa., assignors to General Electric Company, a corporation of New York
Application June 16, 1954, Serial No. 437,252
1 Claim. (Cl. 62—126)



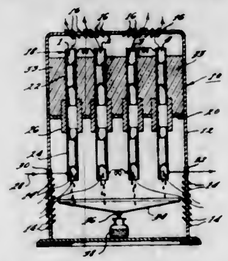
An evaporator construction including at least top, back and bottom walls, a refrigerant circuit including a vertically arranged chamber on the back wall and a continuous tube disposed about said top, back and bottom walls in cooling relation therewith, the ends of said tube being connected to the upper and lower ends of said chamber to provide a continuous refrigerant circuit, an opening in the portion of the tube disposed about the bottom wall through which liquid refrigerant is supplied to the circuit, a suction conduit connected to the upper part of said chamber for withdrawing vaporous refrigerant from said chamber, said chamber being of a greater diameter than said tube, the lower end of said tube being connected to said chamber below the level of liquid refrigerant therein, the upper end of said tube being connected to the upper end of said chamber and extending downwardly into the upper portion of said chamber below the suction conduit connection to discharge liquid and vaporous refrigerant into said chamber in a downward direction away from said suction conduit connection so that liquid entrained in the vaporous refrigerant is separated therefrom in said chamber prior to the withdrawal of the vaporous refrigerant through said suction conduit.

2,779,171
ROOM TEMPERATURE CONDITIONER
Nils E. Lindenblad, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application January 4, 1954, Serial No. 401,798
3 Claims. (Cl. 62—129)



1. A thermal conditioning system for an enclosed compartment comprising a heat pump system including a compressor and heat exchange elements, one of said heat pump system heat exchange elements being located outside of said compartment, a secondary fluid circulating system including a circulator and heat exchange elements, one of said secondary fluid system heat exchange elements being disposed in heat exchange relationship with one of said heat pump system heat exchange elements, a heat storage element, one of said secondary fluid circulating system heat exchange elements being disposed in heat exchange relationship with said heat storage element, another of said secondary fluid system heat exchange elements being portable and being enclosed within said compartment, and supple tubing, said portable heat exchange element being connected as a part of the secondary fluid system by means of said supple tubing.

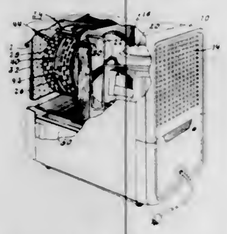
2,779,172
THERMO-ELECTRIC DEHUMIDIFIER
Nils E. Lindenblad, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application September 28, 1954, Serial No. 458,836
10 Claims. (Cl. 62—140)



1. A dehumidifier comprising means providing a substantially vertical column of air, means disposed in heat exchange relationship with the lower portion of said column for cooling said air below its dew point to liberate moisture therefrom, means spaced from said lower por-

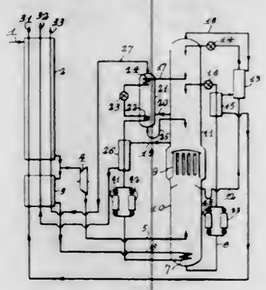
tion of said column and disposed in heat exchange relationship with the upper portion of said column for heating said upper portion of said column to provide in cooperation with the surrounding atmosphere a rising column of air, and said heat providing means providing an excess of heat over the heat absorbed by the cooling means to expand the air in said column.

2,779,173
DEHUMIDIFIER HAVING UNITARY EVAPORATOR-CONDENSER PLATE
Clifford H. Wurtz, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 25, 1955, Serial No. 503,481
7 Claims. (Cl. 62—140)



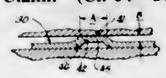
1. In a unitary portable dehumidifying apparatus having a common supporting means, a refrigerant evaporating means, a refrigerant condensing means, a refrigerant compressing means connected in series refrigerant flow relationship with said condensing means and said evaporating means and mounted on said supporting means, and means for circulating air to be dehumidified first in heat exchange relation with the evaporator means and then in heat exchange relation with the condensing means, said refrigerant evaporating means and condensing means comprising a one-piece roll bonded heat exchange element having one set of refrigerant passages formed therein for condensing and another set of refrigerant passages for evaporating refrigerant.

2,779,174
LOW TEMPERATURE SEPARATION OF GASEOUS MIXTURES
Henri Vesque, Paris, France, assignor to L'Air Liquide, Societe Anonyme pour l'Etude et l'Exploitation des Procedes Georges Claude, Paris, France
Application October 29, 1954, Serial No. 465,712
Claims priority, application France June 29, 1954
11 Claims. (Cl. 62—175.5)



1. A process for the separation by liquefaction and rectification, of a gaseous mixture having three principal constituents, utilizing a main column made up of two rectification zones in mutual heat exchange relationship and under different pressures, and an auxiliary column receiving a fraction having its origin in the lower pressure rectification zone and in which a part of the mixture to be separated previously compressed to a pressure higher than that of the higher pressure rectification zone is expanded to the higher pressure and introduced into the higher pressure zone, comprising liquefying another part of the compressed gaseous mixture by indirect heat exchange with a liquid from the higher pressure rectification zone, then utilizing said other part for cooling by indirect contact with the auxiliary column and introducing said other part into the lower pressure zone.

2,779,175
FRICTION DISC FOR A SLIPPING TYPE CLUTCH
George A. Le Hew, Grand Rapids, Mich., assignor to Lear, Incorporated, Grand Rapids, Mich., a corporation of Illinois
Application January 3, 1955, Serial No. 479,411
1 Claim. (Cl. 64—30)



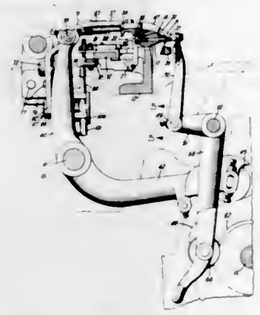
In combination with a friction clutch of the disc type which includes a rotatable driving member and a rotatable driven member, each of the members being provided with substantially radially disposed confronting faces and means for applying axial coupling pressure to force the members together the improvement which comprises a torque-transmitting, thin, disc-like element positioned between said faces for coupling the members, said element being of resilient material and provided on at least one face with a plurality of struck-out protuberances, each protuberance having a flattened apex, the entire lateral wall portion thereof between said apex and the adjacent principal surface of said element being continuously curved concavely inwardly toward and merging into said surface whereby deformation of the element, when subjected to coupling pressure, will occur principally in the region of the several lateral wall portions.

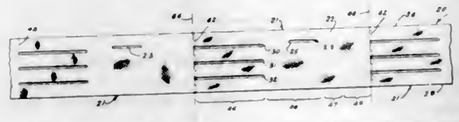
2,779,176
PILE FABRIC KNITTING MACHINE
David Pelton Moore, Marlow, N. H.
Application January 4, 1956, Serial No. 557,297
4 Claims. (Cl. 66—9)

1. A pile fabric knitting machine including a bed plate, a rotatable needle cylinder mounted therein, a fiber feeder mounted upon the bed plate, and an intermediate gear mechanism between the needle cylinder and the fiber feeder, and an adjustable sprocket and chain drive interposed between the gear mechanism and the fiber feeder, whereby the fiber feeder is driven from the needle cylinder.

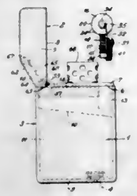
2,779,177
CATCHBAR MECHANISM FOR KNITTING MACHINES
Herbert Erich Haehnel, West Reading, Pa., assignor to Textile Machine Works, Wyomissing, Pa., a corporation of Pennsylvania
Application April 27, 1955, Serial No. 504,188
8 Claims. (Cl. 66—110)

1. In a knitting machine having a sinker-head, sinkers and dividers having sliding movement in said sinker-head, a catchbar, a slot in said catchbar in which said dividers are engaged, means for horizontally moving said catchbar to move said dividers in said sinker-head, means for vertically moving said catchbar to engage said sinkers in said slot for movement with said catchbar, and means for moving said catchbar in opposite directions transversely to its said horizontal movement to change the point of engagement of said sinkers and dividers in said slot, said last named means including a lever connected to said catchbar and eccentric means for oscillating said lever in opposite directions.



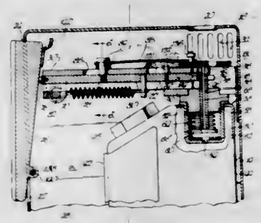
2,779,178
KNITTED GLOVE
Max Bialostok, New York, N. Y.
Application September 14, 1955, Serial No. 534,233
9 Claims. (Cl. 66—174)

1. A blank for a glove comprising a knitted tube having one end open, said tube being formed in one side with a thumb hole spaced between opposite tube ends, there being a plurality of generally parallel spaced slots extending longitudinally inwards from the other tube end terminating short of said thumb hole and opening through opposite sides of said tube, and a plurality of knitted walls each extending along the boundary of a respective one of said slots and between opposite sides of said tube, said walls thus combining with the tube portions in the region of said slots to define a plurality of longitudinally projecting finger receiving sheaths, the outer end of each of said sheaths being closed.

2,779,179
LIGHTER
Blanchard Drake Smith, Atlanta, Ga., assignor to Scripto, Inc., Atlanta, Ga., a corporation of Georgia
Application December 2, 1952, Serial No. 323,541
12 Claims. (Cl. 67—7.1)



3. A lighter comprising a disc shaped spark producing wheel having a central axis, means supporting said spark producing wheel for rotation about its central axis, a scraper wheel having a central axis, and means supporting said scraper wheel for rotation about its central axis, said scraper wheel having a plurality of parallel spiral ridges extending about its circumference, a portion of said spiral ridges engaging a portion of the circumferential surface of the spark producing wheel, said ridges extending across the spark producing wheel circumference at an angle thereto such that rotation of said scraper wheel engages said ridges with the circumference of said spark producing wheel to turn said spark producing wheel about its axis.

2,779,180
LIGHTERS
Fred Perlin, Oconomowoc, Wis., assignor to The Parker Pen Company, Janesville, Wis., a corporation of Wisconsin
Application April 30, 1954, Serial No. 426,783
7 Claims. (Cl. 67—7.1)

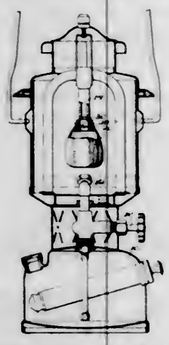


1. In a lighter, a fuel tank, means for conducting fuel from the tank, a flint, a friction element in contact with said flint and movable in an advancing direction to produce sparks and direct them toward fuel issuing from said tank, means yieldingly urging said flint into engagement with said friction element and establishing a static friction therebetwen constituting the principal restraint against movement of said friction element, a resilient element drivingly connected to said friction element, and manually movable actuating means operatively connected to said resilient element and resiliently acting therethrough during the fore portion of advancing movement of said actuating means to urge advancing movement of said friction element against the restraining force of the static friction between said friction element and said flint, said actuating means having a portion drivingly engaging said friction element upon completion of the fore portion of advancing movement of said actuating means to positively move said friction element in advancing direction.

2,779,181
PROTECTIVE BAFFLE FOR MANTLE TYPE HYDROCARBON BURNERS
Herman I. Shaller, Washington, D. C., assignor to the United States of America as represented by the Secretary of the Army
Application March 19, 1954, Serial No. 417,527
4 Claims. (Cl. 67—50)
(Granted under Title 35, U. S. Code (1952), sec. 266)

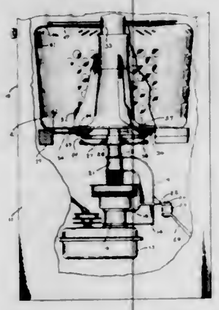
3. In an inverted mantle hydrocarbon burner the combination comprising a manifold tube defining a fuel passageway, said tube having a free end, a mantle holder having a recess for receiving the free end of the tube to adapt the mantle holder for mounting on the tube and an internal shoulder opposed to the end of the tube when the holder is mounted thereon and defining the perimeter of a fuel discharge outlet passageway therethrough aligned with the fuel passageway in the tube, and a baffle having a central portion of much smaller area in plan than the transverse cross-sectional area of the fuel passageway and a plurality of duplicate supporting arms projecting out-

wardly therefrom in uniform spaced relation to a length sufficient to make the dimensions of the outer perimeter of the baffle conform substantially to the dimensions of the recess in said mantle holder so that the arms will cen-



ter the central portion relative to the fuel passageway in said mantle holder when the baffle is placed therein and the tips of the arms will be clamped against the lower end of the manifold tube by the shoulder when the mantle holder is placed on the manifold tube.

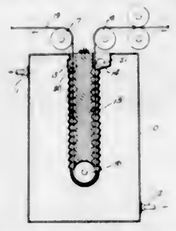
2,779,182
CLOTHES RECEPTACLE FOR A WASHING MACHINE
Gunnard A. Oberg, Celoron, N. Y., assignor to Blackstone Corporation, Jamestown, N. Y., a corporation of New York
Application August 17, 1953, Serial No. 374,639
5 Claims. (Cl. 68—23)



1. In a washing machine, a receptacle mounted for rotation about a vertical axis, said receptacle comprising a base, the rim of said base being of added thickness to effect balance of said receptacle during rotation, an annular side wall extending upwardly from said base adjacent said rim, an inwardly curved flange on the top edge of said wall defining the access opening to said receptacle, multiple inwardly directed projections on said wall, said projections being so arranged as to provide staggered flat paths from adjacent the bottom to the top of said wall, that portion of said wall directly adjacent said flange having a series of outlet ports.

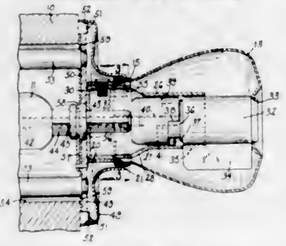
2,779,183
APPARATUS FOR LIQUID TREATMENT OF A WEB OF FABRIC
Domenico Fornelli, Turin, Italy
Application February 18, 1955, Serial No. 489,150
1 Claim. (Cl. 68—175)

In an apparatus for the liquid treatment of a continuous web of fabric, including a tank, and at least one vertically disposed well positioned transversely of and within said tank, a horizontally disposed rotatable feed roller positioned in the lower end of said well, a horizontally disposed rotatable feed roller positioned on each side of said well adjacent the upper end thereof, and a baffle extending through said well and having its lower end adjacent said first mentioned roller and having its upper end adjacent the upper end of the well, the improvement consisting in providing serrations on the adjacent wall of said well and face of said baffle, said serrations forming together a tortuous passage for treating liquid, the high



points of the serrations on the wall of said well being in registry with the high points on the face of said baffle, the low points on said wall and on said baffle also being in registry, said registering high points being followed in the direction of the liquid flow through the well by the intermediate wall and face portions diverging outwardly at an angle less than 45° with respect to the normal plane of said wall and said face, said portions terminating at the following complemental low points, the latter being followed by portions converging inwardly at an angle greater than 45° and terminating at the successive complemental high points.

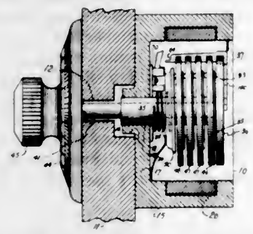
2,779,184
DOORKNOB AND SPINDLE STRUCTURE
Charles A. Ellis, Hamden, Conn., assignor to Sargent & Company, New Haven, Conn., a corporation of Connecticut
Application April 28, 1954, Serial No. 426,231
11 Claims. (Cl. 70—216)



1. A knob structure comprising a knob body having an open substantially cylindrical portion at one end, a cylindrical member telescopically received within said portion, a spindle fixed to said member to rotate therewith, said knob portion and said member having interengaging inwardly displaced areas in their overlapping portions to prevent relative rotation therebetween, said member being secured to the knob against longitudinal displacement and a plate member extending across the open end of the knob and having a bearing for said spindle.

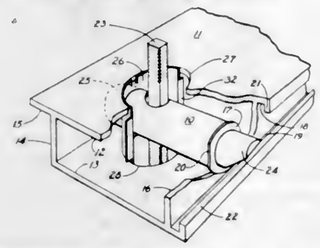
2,779,185
COMBINATION LOCK
Anthony Papini, Ridgefield, N. J.
Application February 17, 1950, Serial No. 144,620
20 Claims. (Cl. 70—333)

15. In combination, movably mounted tumblers having alinable gates; a fence movable into said gates when alined; means including parts on adjacent tumblers for causing the tumblers to effect relative movement in one direction when the gates are being alined and in the



opposite direction when the gates are being disalined; and means influenced by said movement when the gates become alined to bring about movement of the fence into the gates.

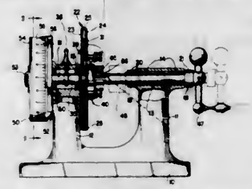
2,779,186
LATCH-SUPPORTING CLIP
Paul H. Grevengoed and Herbert W. Young, Grand Rapids, Mich., assignors to National Brass Company, Grand Rapids, Mich., a corporation of Michigan
Application March 6, 1953, Serial No. 340,684
8 Claims. (Cl. 70—451)



1. A supporting clip for a member mounted in a hollow structure having opposite holes in the walls thereof, said clip comprising: an arcuate panel portion having axial flanges forming axially spaced abutment portions at the ends of said flanges, said clip being formed of resilient material and having an unrestrained form such that the chordal distance between the outer extremities of said flanges exceeds the diameter of said holes, the axial distance between the ends of said flanges being less than the inside distance between the opposite walls of said hollow structure at said holes; projections extending axially beyond the ends of said flanges for disposition within said holes in bearing engagement with said walls at a plurality of substantially spaced points around each of said holes, said clip having a chordal length between the said projections at one end of said clip which is less than the chordal distance between the outer extremities of said flanges; and means defining an aperture associated with said panel and adapted to receive said member with said projections engaging said holes, said clip having at least one tab adjacent said aperture and disposed to resiliently engage said member on an angle.

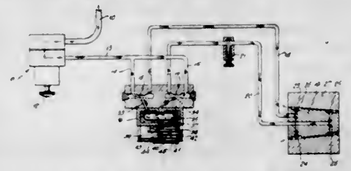
2,779,187
TORQUOMETER
John E. Stewart, Redwood City, Calif., assignor, by mesne assignments, to Federal-Mogul-Bower Bearings, Inc., Detroit, Mich., a corporation of Michigan
Application April 5, 1955, Serial No. 499,336
7 Claims. (Cl. 73—9)

1. An oil seal torquometer comprising anti-friction means supporting a rotary spindle, calibrated spring means for resisting rotation of said spindle, clamping means carried by said spindle for receiving and clamping any of a variety of sizes of oil seals therein, said clamping means including an outer case formed from a large diameter cupped disk, a closure disk across the open rim end of said outer case but disconnected therefrom, three pairs of interconnected links housed between said disks with an end of the links in each pair pivoted to



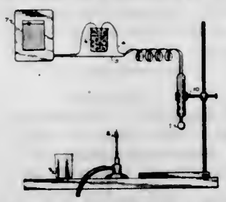
a different one of said disks at equi-distantly spaced points thereon, clamping means carried on the opposite non-pivoted end of one link of each pair and projecting through arcuate slots in one of said disks, said clamping means being arranged to clamp any of a variety of sizes of test specimens against the outer face of said slotted disk with the axis of the specimen and of said rotary spindle in accurate axial alignment.

2,779,188
FLUID GAGE APPARATUS
Franklin Meyer, Jr., Forestdale, R. I., assignor to The Taft-Peirce Manufacturing Company, Woonsocket, R. I., a corporation of Rhode Island
Application June 7, 1952, Serial No. 292,344
6 Claims. (Cl. 73—37.8)



1. In a fluid gage apparatus, in combination, a source of fluid under predetermined pressure, a pair of conduits connected thereto, a gaging means including a gaging nozzle mounted in a gaging body connected to each of said conduits, a Venturi means in each of said conduits, and an indicator provided with a fluid connection into each of said Venturi means and arranged to respond to the differential pressures thereof in accordance with the respective fluid velocities.

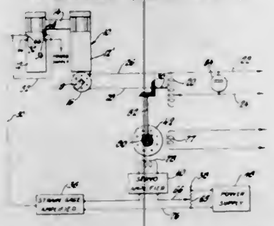
2,779,189
DETERMINATION OF SOLIDS IN LIQUIDS
Ernest R. Corneil, Stamford Centre, Ontario, Canada, assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application April 22, 1953, Serial No. 350,503
5 Claims. (Cl. 73—61)



1. A method for determining the solids content of a polyvinyl acetate emulsion which comprises immersing therein a heated metal mass having a volume not more than 0.1 of the volume of said emulsion, heated to a tem-

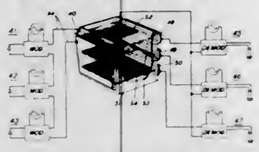
perature of at least 500° F. and recording the time required for the immersed metal mass to cool to a temperature not higher than 211° F.

2,779,190
AUTOMATIC LOAD CONTROLLER
Edward K. Benda, Berkley, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 2, 1953, Serial No. 395,789
6 Claims. (Cl. 73—67.3)



5. In a resonant type fatigue testing apparatus comprising the combination of a pair of arms adapted to be connected together by a test specimen, an exciting motor and an unbalance weight driven thereby mounted on a free end of one of said arms, a source of electric power for said motor and means for adjusting the voltage supplied therefrom to said motor, strain gage means mounted on said tuning fork and developing a signal representative of the actual stress intensity in the tuning fork, means developing a fixed reference signal, means combining said stress responsive signal and said fixed reference signal and deriving a resultant control signal therefrom, and a servomotor energized from said control signal and operatively connected to said voltage adjusting means for said exciting motor.

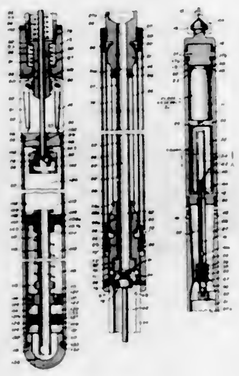
2,779,191
FREQUENCY DISCRIMINATOR EMPLOYING MULTIPLY RESONANT PIEZOELECTRIC VIBRATOR
Gerald W. Willard, Fanwood, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application October 28, 1950, Serial No. 192,765
9 Claims. (Cl. 73—67.8)



1. A piezoelectric vibrator having a variation of resonant frequency from point to point over an extended area of its surface, electrical exciting means coupled to and common to an extended portion of said vibrator including regions of unequal resonant frequency, and individual receiving channel means coupled respectively to a plurality of said portions of vibrator of unequal resonant frequency.

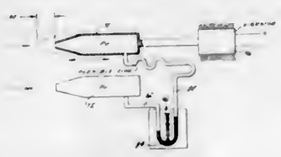
2,779,192
SUBSURFACE FLOWMETER
Robert C. Rumble and Beldon A. Peters, Houston, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application December 17, 1953, Serial No. 398,722
6 Claims. (Cl. 73—155)

1. A subsurface well flowmeter comprising an elongated body including upper and lower sections adapted to be moved relative to each other, fluid flow recording means arranged in said upper section, fluid flow responsive means positioned in said upper section and operatively connected to said fluid flow recording means, said upper section being formed as a hollow member to provide longitudinally spaced inlet and outlet ports and a passageway therebetween, movable closure means arranged on said lower section initially closing said inlet port, expansible packing means connected to said upper and lower sections between said inlet and outlet ports adapted to direct fluid flow through said fluid flow responsive means, means arranged in said lower section adapted to actuate said movable closure means thereby permitting fluid to flow



through said inlet port and said outlet port, anchoring means connected to said lower section and engagedly connecting with said movable means adapted to anchor said lower section in the well, said upper section being formed with a side port fluidly communicating said packing means and said passageway, sealing means arranged on said lower section adapted to close off said side port from fluid flow therethrough upon movement of said upper section relative to said lower section whereby after said lower section is anchored and said closure means is opened, fluid in said upper section is drawn into said packing means as the upper section is moved relative to said lower section and fluid drawn into said packing means is trapped therein to seal off said well.

2,779,193
FLUID FLOW MEASURING DEVICE
John G. Lee, Farmington, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application April 5, 1954, Serial No. 420,861
12 Claims. (Cl. 73—194)



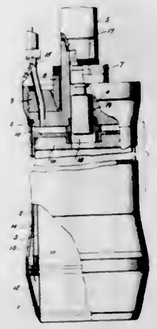
1. In a fluid flow measuring device, at least two probes positioned in a fluid stream whose characteristics are to be measured, means for reciprocating one of said probes at a predetermined amplitude along the axis of fluid flow, and differential measuring means for comparing the forces acting on said probes.

2,779,194
WIND-GAUGE WORKING ON THE PRESSURE PRINCIPLE
Karl Ivar Gustav Slettenmark, Stockholm, Sweden
Application March 11, 1953, Serial No. 341,720
Claims priority, application Sweden April 30, 1952
5 Claims. (Cl. 73—209)

1. A portable wind gauge of the pressure responsive type, comprising a measuring tube of increasing cross-section, the end of the tube having the narrow cross-section constituting the operational lower end thereof and being closed by an end wall, a flat cover having a depending flange fitted upon the upper end of the tube for closing the same, a shaft disposed within said tube coaxially therewith, said end wall and said cover being each formed with a boss respectively upwardly and downwardly extending within the tube and having an axial bore to form a lower and an upper bearing for the shaft, a float disposed freely slidable on said shaft, the cross-section of said float being less than the minimum cross-sectional area of said tube so as to provide a peripheral slot of increasing width along the entire operational length of the tube, the said tube being formed with an air inlet near the lower operational end of the tube and an air outlet near the operational upper end of the tube, the said air inlet and the said air outlet being disposed in a spatial relationship such that an air current flowing past the tube when in vertical position and facing said air current with its inlet produces a pressure drop between the air inlet and the air outlet causing the float to assume a position of equilibrium indicative of the velocity of the air current, the boss on said end wall forming a stop for the float in the lowermost position thereof, and a closed hollow handle extending from the narrow end of the tube.

2,779,195
DEVICE FOR SUBSOIL TESTING AND TAKING OF SPECIMENS
Karl Simon, Weinheim, Bergstrasse, Germany
Application April 7, 1953, Serial No. 347,257
Claims priority, application Germany April 10, 1952
2 Claims. (Cl. 73—421)

1. A device for taking core samples of fluid subterranean earth structures which comprises a generally cylindrical body having a tapering lower portion terminating in a cutting edge, a tubular core forming member within said body and spaced radially from the inner surface of the latter to define an annular space around said core forming member, the lower edge of said core forming member terminating above said cutting edge of said lower portion of the body, a hollow freezing ring disposed within said lower portion of the body between said core forming member and said cutting edge and having a downwardly tapering cross-section with the inner surface of the hollow ring being cylindrical and registering axially with said cutting edge and the inner surface of said core forming member, said hollow ring opening upwardly into said annular space, conduit means extending through said annular space to the interior of said hollow ring for supplying compressed refrigerant to the latter, and means communicating said annular space with

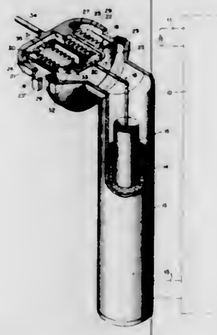


atmospheric pressure so that the compressed refrigerant undergoes a pressure drop in escaping from said hollow ring into said annular space to effect freezing of the fluid constituents of a core sample of earth structure taken into said core forming member at the bottom of the latter.

2,779,196
WHEEL BALANCER
George T. Hemmeter, Los Altos, Calif.
Application August 28, 1952, Serial No. 306,911
14 Claims. (Cl. 73—458)

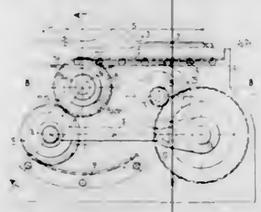
14. A wheel balancer comprising a base plate having a first axis, a hub coaxially mounted on said base plate for rotation about said first axis, a threaded sleeve mounted in said hub and rotatable about a second axis disposed diametrically of said hub, means in said hub constraining said sleeve against displacement along said second axis, a screw shaft threaded through said sleeve and extending along said second axis, a diametrical weight symmetrical about said second axis and extending across said first axis, means interconnecting and engaging said diametrical weight and said screw shaft for moving said diametrical weight along said second axis upon rotation of said sleeve about said second axis, a driving shaft mounted in said hub coaxially with said first axis, driving means connecting said driving shaft and said rotatable sleeve, a friction member on said drive shaft, and clutching means on said hub engageable with said friction member.

2,779,197
PRESSURE COMPENSATED SEAL
John M. Embree, Farmington, Conn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application January 25, 1954, Serial No. 405,974
10 Claims. (Cl. 74—18.1)



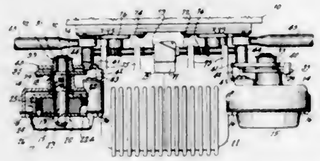
1. A pressure compensated seal for transmitting angular motion through a pressure vessel wall comprising, a pair of matched sealing bellows, one of which has a variable vessel pressure on the inside thereof, the other of which has the said variable vessel pressure on the outside thereof, and a pivoted mechanical connection extending through said vessel wall and sealed by one of said bellows and having the other bellows connected for movement therewith so that, when said bellows are both angularly displaced by said connection from their longitudinal axes and said vessel pressure is changed, the resultant vessel pressure forces acting in said bellows on said connection nullify one another.

2,779,198
DRIVING MECHANISM FOR THE TYPE BED OF CYLINDER PRINTING MACHINES
Artur Büttner, Heidelberg, Germany, assignor to Schnellpressenfabrik Aktiengesellschaft Heidelberg, Heidelberg, Germany, a corporation of Germany
Application October 17, 1955, Serial No. 540,978
Claims priority, application Germany October 26, 1954
5 Claims. (Cl. 74—27)



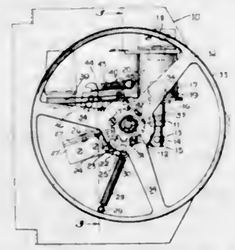
1. Type bed driving mechanim for a cylinder printing press having a frame and a reciprocating type bed, comprising at least one rack fixed to the type bed and extending longitudinally thereof, a first gear wheel rotatably supported by said frame with its axis disposed transversely of said bed, driving connections between said gear wheel and rack, an arcuate internal gear segment concentric with said axis and radially spaced from said first gear wheel, a second gear wheel meshing with said first gear wheel and with said gear segment, means supporting said second gear wheel for rotation about its own axis and for oscillation bodily about the axis of said first gear and means for producing bodily oscillation of said second gear wheel about the axis of said first gear wheel, the resulting rotation of said second gear wheel as it rolls along said gear segment being transmitted through said first gear wheel to produce reciprocation of said bed.

2,779,199
WINDSHIELD WIPER
Clovis W. Lincoln, Philip B. Zeigler, and Joseph J. Verbrugge, Saginaw, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 15, 1951, Serial No. 226,404
6 Claims. (Cl. 74—70)



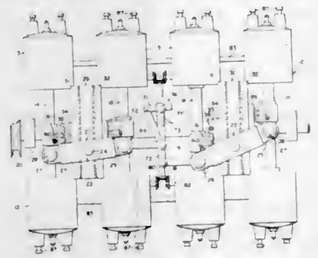
1. In a windshield wiper operating mechanism, the combination comprising a reversible electric motor, a crank operating shaft having an eccentric driven by the motor in either direction, a driving plate connected with the shaft, said plate having arms extending oppositely from the axis of the shaft, a crank arm rotatably mounted upon a portion of the shaft eccentric to the axis of the shaft and providing a member for engagement by one or the other of the driving plate arms depending on the direction of rotation of the shaft, reversal of shaft rotation causing the crank arm to move radially of the shaft prior to engagement of a driving plate arm with the crank arm member, a crank pin attached to the arm in a position such that, during forward direction of rotation of the shaft, the crank throw is less than during the reverse direction of rotation, a stop engaged by the crank arm at the end of reverse movement thereof, and means for controlling the direction of motor operation.

2,779,200
STEP-UP MECHANISMS
Lyndon A. Durant, Chicago, Ill., assignor to General Patent Corporation, Chicago, Ill., a corporation of Illinois
Application June 13, 1952, Serial No. 293,395
1 Claim. (Cl. 74—128)



A step-up mechanism comprising a mounting plate, an elongated shaft fixedly connected to the mounting plate and extending laterally therefrom, a magnetic coil including a solenoid mounted on said mounting plate with the solenoid extending substantially at right angles to said shaft and closely adjacent thereto, an elongated sleeve mounted on said shaft and providing oppositely disposed integral extensions extending in parallel confronting relation with respect to said mounting plate, an indicia bearing drum having a hub rotatably mounted on said sleeve to one side of the extensions, said hub being of a diameter less than the distance between the oppositely disposed extensions of said sleeve so as to be positioned between the ends thereof, a pin connection between the end of one of the extensions and the outer end of the solenoid, a step-up dog carried adjacent the end of the other of said extensions between said extension and said plate and having an integral formed stud shaft thereon extending in parallel relation to said shaft and said hub, a sleeve integral with the outer end of the other of said extensions and providing a bearing for said step-up dog shaft, a stop member mounted on said plate and including a relatively flat portion extending laterally from the mounting plate and parallel to said hub and in the path of movement of said dog, said dog having a relatively flat portion engagable with the other flat portion, a holding dog pivotally mounted on said plate closely adjacent said shaft, a ratchet on said hub engagable with the relatively flat portion of said step-up dog and said holding dog, said drum having a ribbonlike peripheral of a width greater than the length of said hub so as to cooperate with said mounting plate to form a housing for said coil, said dogs and said stop member.

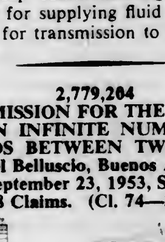
2,779,201
MECHANISM FOR CONVERTING LINEAR TO ROTARY MOTION
Wilson P. Hurley, Albuquerque, N. Mex.
Application October 19, 1954, Serial No. 463,109
7 Claims. (Cl. 74—129)



1. Mechanism for converting linear to rotary motion comprising apparatus for producing linear motion and a second apparatus operatively connected to the first apparatus for converting the linear into rotary motion, the second apparatus embodying parallel discs, opposed faces of said discs being toothed, means connecting the first apparatus to said discs for rotating the latter in opposite directions and reversing the direction of rotation thereof at specified intervals, a drive wheel interposed between said discs having a plurality of dogs pivotally mounted therein and adapted for engagement with the gears of the discs, and feelers affixed to said dogs and engaged with said discs for pivoting the dogs at predetermined intervals into engagement with alternate discs.

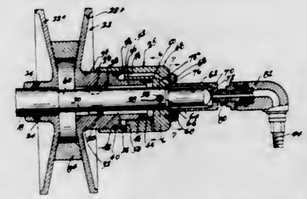
2,779,202
MULTIPLE UNIT V-BELT SHEAVE
William R. Jackson, Akron, Ohio
Application June 8, 1954, Serial No. 435,277
7 Claims. (Cl. 74—230.3)

1. A multiple sheave for V-belts and the like, which sheave includes a plurality of members each comprising a disc shaped body portion having a center bore and having a peripheral section of frusto-triangular shape in cross-section, a hub portion being provided on one lateral face of said body portion, said body portion having a set of bores therein parallel to said center bore at equally spaced circumferential portions thereof and having a set of tapped holes therein at equally spaced circumferential portions thereof intermediate and of the same size as said set of bores, said set of tapped holes being equal in number to said set of bores, and a pair of diametrically opposed keyways provided in said center bore with one keyway being spaced circumferentially from an adjacent



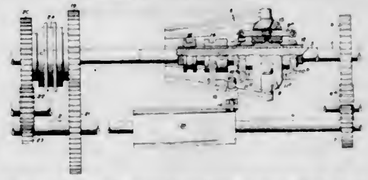
one of said set of bores the same distance as the other keyway is spaced from the adjacent one of said set of tapped holes.

2,779,203
VARIABLE SPEED CONTROL
Glenn M. Eubanks, Walla Walla, Wash., assignor to Morrison Supply Company, Walla Walla, Wash.
Application December 6, 1954, Serial No. 473,198
6 Claims. (Cl. 74—230.17)



1. A pulley for a variable speed transmission and for cooperation with a V-belt comprising a shaft; a pair of belt engaging members mounted on said shaft and one of which is movable axially of said shaft toward and from the other belt engaging member; said movable belt engaging member having a piston on the face opposed to the other belt engaging member; a cylinder on said shaft and fixed against axial movement away from said belt engaging members and into which said piston reciprocally extends; said cylinder having an axially parallel bore extending from the end opposed to said belt engaging members and communicating with the interior thereof; a cap having an axial bore receiving in close tolerance an end portion of said shaft and constituting a journal thereof and sealingly fixed on the end of said cylinder; a fluid conduit in said cap communicating with said cylinder bore; and means for supplying fluid under pressure into said cap conduit for transmission to said cylinder.

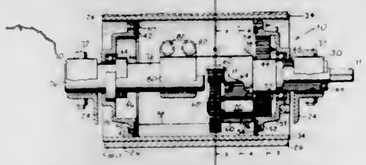
2,779,204
GEAR TRANSMISSION FOR THE PURPOSE OF OBTAINING AN INFINITE NUMBER OF REDUCTION RATIOS BETWEEN TWO FIXED LIMITS
Miguel Angel Belluscio, Buenos Aires, Argentina
Application September 23, 1953, Serial No. 381,835
8 Claims. (Cl. 74—325)



1. A variable speed transmission comprising a driving gear of truncated conical shape having teeth extending

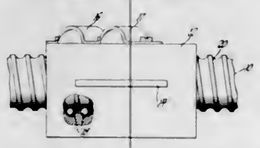
the length thereof, said teeth being of normal shape at the smaller end of the conical gear and wider than normal at the larger end of the conical gear so that the distance between the teeth is uniform throughout the length of the conical gear, a composite driven gear comprising two rotatably adjustable gear wheels providing alternate teeth of the composite gear, each of said gear wheels having teeth spaced to mesh between every second tooth at the larger end of said conical gear, means to selectively move said driven gear along said conical gear while holding said composite gear in mesh therewith, and cam operated means to adjust the spacing of the teeth of the composite gear to accommodate the width of the teeth on the conical gear at any point along its length.

2,779,205
SELF-CONTAINED MECHANICAL POWER TRANSMISSION UNIT
Theodore R. Black, Tripp City, Ohio, assignor to The Concentro-Drive Company, Inc., Piqua, Ohio, a corporation of Ohio
Application September 30, 1953, Serial No. 383,273
2 Claims. (Cl. 74—421)



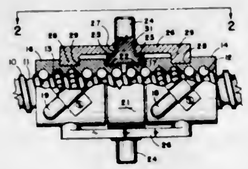
1. In a self-contained mechanical power transmitting assembly comprising a cylindrical housing, a solid support stem extending into the housing at one end thereof, a wheel member attached to the cylindrical housing, a bearing rotatably supporting the wheel member upon the solid support stem, a flanged wheel attached to the cylindrical housing adjacent the other end of the cylindrical housing, the flanged wheel having radially disposed teeth, a hollow support stem extending into the cylindrical housing through the flanged wheel, an inner housing within the cylindrical housing, the inner housing being supported by the solid support stem and the hollow support stem, a drive shaft mounted within the hollow support stem and extending through the hollow support stem and having an end in the inner housing, a bearing retained by the inner housing engaging the drive shaft, a pinion gear attached to the end of the drive shaft within the inner housing, a bearing within the inner housing, an intermediate shaft supported by the bearing within the inner housing, an intermediate gear attached to one end of the intermediate shaft and in meshed relationship with the pinion gear, and an intermediate pinion attached to the other end of the intermediate shaft and in meshed relationship with the teeth of the flanged wheel.

2,779,206
BALL NUT SCREW ASSEMBLY
William H. Doerfner, Saginaw, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 18, 1955, Serial No. 529,150
5 Claims. (Cl. 74—459)



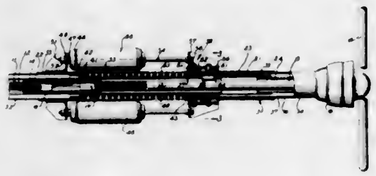
1. In a worm and nut device wherein the connection between the worm and nut comprises a ball train confined in a passageway formed by the worm groove and a complementary internal helical groove in the nut, the improvement which resides in gradually varying the pitch diameter of the thread of one or both of said worm and said nut outward of center so as to obtain a condition of no-lash on center and progressively increasing lash off-center.

2,779,207
MULTIPLE NUT ASSEMBLY WITH LOAD EQUALIZER
Wallace Hamilton, Chagrin Falls, Ohio, assignor to The Cleveland Pneumatic Tool Company, Cleveland, Ohio, a corporation of Ohio
Application January 23, 1956, Serial No. 560,551
10 Claims. (Cl. 74—459)



1. In a device of the character described a screw element, a plurality of nut members threaded on said screw element whereby relative rotation between said members and element produces relative axial motion therebetween, a load carrier adapted to be connected to a load, and means connected between said carrier and said members dividing the load applied to said carrier between said member in a predetermined manner regardless of the magnitude of the load.

2,779,208
VEHICLE STEERING MECHANISM
Raymond A. Pittman, Ann Arbor, and Cecil E. Rawden, Detroit, Mich., assignors to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application July 23, 1953, Serial No. 369,906
5 Claims. (Cl. 74—493)

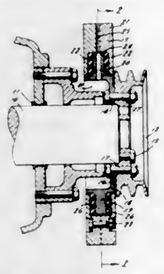


1. Steering mechanism for a motor vehicle comprising a hollow steering column having upper and lower sections telescopically connected to each other, a hub at the upper end of said upper steering section, a steering shaft within said steering column having upper and lower sections telescopically but non-rotatably connected together, a steering wheel adjacent said hub connected to said upper steering shaft section, a coil spring between the upper and lower sections of said steering column arranged to be compressed during telescopic movement of the upper and lower sections of said steering column toward each other, a tubular telescopic shock absorber adjacent said steering column and parallel thereto, a bracket supporting one end of said shock absorber and mounted upon one of said steering column sections, and a bracket supporting the other end of said shock absorber and connected to the other of said steering column sections to dampen the rebound of said coil spring.

2,779,209
BRAKE CONTROL
Elliott M. Estes, East Lansing, and Carroll K. Lenning, Lansing, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 1, 1952, Serial No. 318,296
3 Claims. (Cl. 74—512)

1. In a brake control system including power assisting mechanism, a thrust member for actuating said power assisting mechanism, a lever for actuating said thrust member, spaced apart hub portions on one end of said lever, one of said hubs being substantially laterally offset with reference to the longitudinal midplane of said lever, a laterally elongated bracket secured on said vehicle, parallel journal portions on said bracket, said hubs being pivotally secured in said bracket in substantially abutting relation with said journal portions, and a pedal portion on the other end of said lever extending laterally in the same direction as said laterally offset hub.

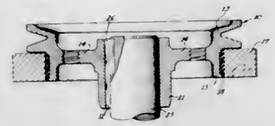
2,779,210
VIBRATION DAMPENER
John H. Holloway, Green Bay, Wis., assignor to Murphy Diesel Company, Milwaukee, Wis., a corporation of Delaware
Application May 20, 1955, Serial No. 509,809
4 Claims. (Cl. 74—574)



1. In a vibration dampener, the combination of a rotary drive member having a web provided with a plurality of circumferentially spaced, radially extending passages, an inertia member having a plurality of circumferentially spaced, radially extending passages alined with the passages in said web, and a yieldable plastic means forming a drive connection between said members disposed adjacent said passages and adapted to be cooled by the cooling effect of the air passing through said passages.

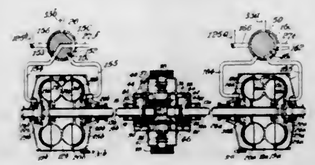
2,779,211
TUNED RUBBER CRANKSHAFT VIBRATION DAMPER
Richard E. Henrich, Snyder, N. Y., assignor to Houdaille Industries, Inc., a corporation of Michigan
Application August 21, 1952, Serial No. 305,561
7 Claims. (Cl. 74—574)

1. In combination in a crankshaft and vibration damper assembly, a crankshaft subject to torsional vibrations of known natural frequency, a hub member constructed for co-rational attachment to the crankshaft and having thereon a concentric radially facing ledge of larger diameter than the crankshaft, an inertia ring of larger internal diameter than said ledge to an extent to leave a small radial concentric gap in assembly about the ledge, and a rubber coupling ring stretched from an internal diameter substantially smaller that said ledge to the diameter of



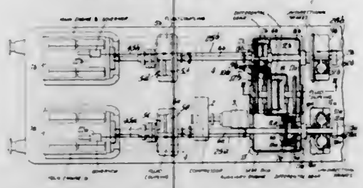
said ledge and compressed from a radial thickness greater than said gap and in frictional coupling relation with the opposing surfaces of the ledge and the inertia ring and supporting the ledge and inertia ring in elastic concentric relation, said rubber coupling ring being of a predetermined dynamic modulus stiffness which tunes the damper to substantially the natural frequency of vibration of the crankshaft.

2,779,212
POWER UNITS
Louis Frederick Rudston Fell, Littleover, England, assignor to Fell Developments Limited, London, England, a British company
Application December 11, 1953, Serial No. 397,615
Claims priority, application Great Britain December 19, 1952
12 Claims. (Cl. 74—675)



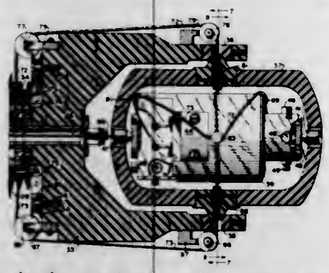
3. A power unit comprising in combination first and second prime movers each having a torque/speed characteristic such that the torque falls steadily over the operating speed range, a primary epicyclic gear having first and second input gears, planet gears engaging said first and second input gears and a planet carrier, first transmission means including an auxiliary epicyclic gear having first and second input gears, planet gears engaging said first and second input gears, a unidirectional device associated with this second input gear to prevent rotation thereof in one direction and a planet carrier, means for transmitting power from the planet carrier of the auxiliary epicyclic gear to drive the first input gear of said primary epicyclic gear, and a variable-filling fluid type coupling device for selectively transmitting power from the first prime mover in one operative condition to drive the first input gear alone of said auxiliary epicyclic gear and in a second operative condition to drive both the first and the second input gears simultaneously of said auxiliary epicyclic gear, and second transmission means including a variable filling fluid type coupling device for selectively driving a selected one of the first and the second input gears of said primary epicyclic gear by the second prime mover, a unidirectional device associated with the second input gear of said primary epicyclic gear to prevent rotation thereof in one direction and means for transmitting power from the planet carrier of said primary epicyclic gear.

2,779,213
MULTI-ENGINE POWER PLANT
Louis Frederick Rucston Fell, Littleover, and John Ambrose Bennett-Powell, Colchester, England, assignors to Fell Developments Limited, London, England, a British company
Application January 26, 1951, Serial No. 207,899
Claims priority, application Great Britain February 3, 1950
8 Claims. (Cl. 74—675)



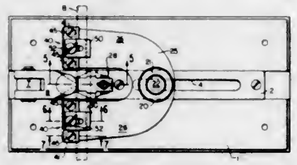
1. A power plant for driving a mechanism of the kind requiring a driving torque which is at a maximum when starting the mechanism from rest and falls steadily as the speed of the mechanism increases, which power plant comprises at least two prime movers having power output shafts, two primary differential gear trains each associated respectively with one of the prime movers and each including two input gears and an output gear, a fluid coupling respectively connecting each prime mover output shaft to one input gear of the respective differential gear train, a variable filling fluid coupling respectively connecting each prime mover output shaft to the other input gear of the respective differential gear train, unidirectional brake means operatively connected with each of said input gears in each of said differential gear trains to allow rotation thereof in one direction only, and means interconnecting said output gears and the mechanism to be driven for transmitting power from the output gears of said primary differential gear trains to the mechanism to be driven.

2,779,214
ORIENTING MECHANISM
Paul M. Murphy, Richland, Wash.
Original application June 11, 1946, Serial No. 676,053, now Patent No. 2,632,884, dated March 24, 1953. Divided and this application March 18, 1953, Serial No. 343,271
3 Claims. (Cl. 74—797)
(Granted under Title 35, U. S. Code (1952), sec. 266)



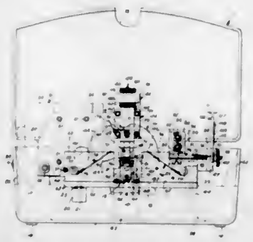
1. An orienting mechanism of the character disclosed comprising, in combination, a support, a pair of gimbal members supported one within the other and rotatable about mutually perpendicular axes, means securing the outermost gimbal member to said support for rotation with respect thereto, an element carried by the innermost member and rotatable about an axis perpendicular to the axis of rotation of the innermost member, and means for coupling the outermost member to said element in such manner that the element is caused to rotate through an angle twice that traversed by the outermost member as rotation thereof is produced, said coupling means including a pair of flexible cable members having one of their respective ends attached to said element and the other of their respective ends connected to said support, means for guiding said cables from said support to said element, said cable being looped about said element for rotating said element selectively in opposite directions, and means for maintaining said cables taut.

2,779,215
SAW SET
Elwood R. Davis, Keene, N. H., assignor to Harrington & Richardson, Inc., Worcester, Mass., a corporation of Massachusetts
Application August 25, 1955, Serial No. 530,549
4 Claims. (Cl. 76—65)



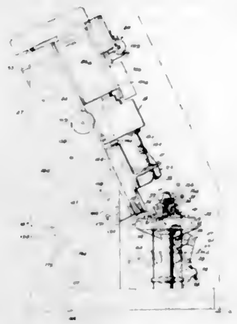
1. A saw set comprising a base, an anvil mounted on said base, a strike pivotally mounted to swing toward and away from said anvil so as to offset a saw tooth positioned on said anvil, and saw supporting and guiding means comprising a U-shaped member adjustably mounted on said base so as to move toward said anvil with its legs positioned on each side of said anvil, guiding blocks carried by the free end portion of said legs, said blocks having horizontally extending slots aligned with each other and disposed at the same elevel as the active surface of said anvil, said slots receiving a longitudinal edge of a saw blade so that the teeth to be set extend across the active surface of said anvil, and clamping means engageable with the opposite edge of said saw blade so as to hold it in position.

2,779,216
POWER DRIVEN SAW SETTER
Dean B. Chenoweth, Minneapolis, Minn., assignor to Foley Manufacturing Company, Minneapolis, Minn., a corporation of Minnesota
Application December 8, 1951, Serial No. 260,643
17 Claims. (Cl. 76—66)



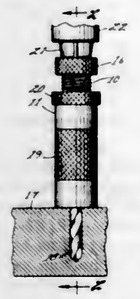
1. In a saw setter comprising in combination a vice for gripping a saw therein for the setting thereof, a pair of reciprocating hammers affixed together in spaced relation for setting successive teeth of a saw in opposite directions, and means for reciprocating said hammers, the improvement comprising means for feeding said teeth comprising a saw tooth engaging lever adapted for feeding said saw through said vice, a reciprocating shaft actuating said saw tooth engaging lever, and a spacer bar for determining the amount of reciprocation of said shaft, said spacer bar comprising a plurality of steps, each one of said steps being adapted for limiting the reciprocation of said shaft to a predetermined distance.

2,779,217
AUTOMATIC MACHINE TO TEST AND CORRECT FOR DYNAMIC UNBALANCE
John R. Stovall, Jr., Philadelphia, Pa., George C. Lawrie, Collingswood, N. J., and Albert F. Craig, Levittown, N. Y., assignors to Tinius Olsen Testing Machine Company, Willow Grove, Pa., a corporation of Pennsylvania
Application December 11, 1951, Serial No. 260,957
24 Claims. (Cl. 77—5)



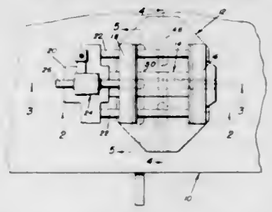
1. Equipment for dynamically balancing a work piece comprising: testing mechanism for automatically developing an electrical signal proportional to the angular position of unbalance with respect to a known rotational position of the work piece; correction mechanism for performing a correction operation on said piece including a drill mounted for traverse toward and away from the piece and oriented in a known manner with respect to said rotational position; a mount to rotatably support the work piece in a testing position and a mount to support the work piece in a correction position, last said mount providing for said work piece to be differently angularly oriented in said correction position, and mechanism for angularly orienting the workpiece with respect to said known rotational position comprising cooperating indicating elements one of which is connected to the work piece and the other of which is operative in accordance with said signal and mechanism for alternatively conditioning said two mounts to arrange the work piece in one position or the other.

2,779,218
DRILL DEPTH STOP
Roy G. Edgerton, Miami, Fla.
Application August 9, 1955, Serial No. 527,289
1 Claim. (Cl. 77—55)



In a depth stop for a drill, a cylinder provided at one end with a knurled portion, the remaining portion of said cylinder being provided with a threaded outer surface throughout its length, said threaded portion being of the same outside diameter throughout its entire length, an internally threaded sleeve arranged in threaded engagement with the threaded outer surface of said cylinder, said sleeve being threaded throughout its entire length, said sleeve being hollow so as to define therein a cylindrical bore, said bore being of the same diameter throughout its entire length, a lock nut threaded on the outer surface of the cylinder and adapted to engage the end of the sleeve for locking the sleeve in position on the cylinder, said cylinder being provided with a bore for receiving a drill bit in non-contacting relationship, the cross sectional area of said lock nut being greater than the cross sectional area of said sleeve, said knurled portion adapted to coact with the jaws of a drill chuck to limit downward movement of the drill, the cross sectional area of said knurled portion being less than the cross sectional area of said lock nut, said sleeve being provided with a knurled section on the outer surface thereof, said lock nut being also provided with a knurled outer surface so that by turning the sleeve on the threaded outer surface of the cylinder, the end of the drill bit can be set to a predetermined position.

2,779,219
SLIDE FIXTURE
Carl O. Lassy, Plainville, Conn.
Application January 19, 1954, Serial No. 404,913
4 Claims. (Cl. 77—63)

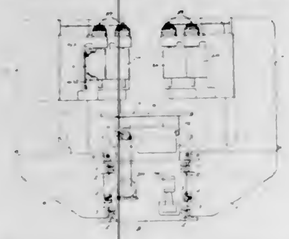


1. In a machine tool, a base, a pair of spaced pin members fixed to said base and having head portions projecting above the same, a first carriage, said carriage having an elongated groove therein receiving the head portions of said pin members whereby the carriage is slidably mounted on the base for movement linearly thereof, said carriage also having one elongated slot disposed in parallelism with said groove, a combined guide and locking pin received in said base and projecting through said slot to terminate in a head portion projecting above said carriage, a guide pin fixed to said carriage and having a head portion projecting above the same, said combined guide and locking pin and said guide pin being aligned transversely of said pin members, a second carriage having an elongated groove therein receiving the head portions of said guide pins and said combined guide and locking pin whereby the second carriage is slidably mounted on the first for movement laterally of the direction of movement of the first carriage, and means for selectively urging said combined guide and locking pin downwardly to clamp said second carriage to said first carriage and said first carriage to said base to prevent sliding movement of either.

2,779,220
UNIVERSAL DRILLING MACHINE
Raymond J. Dunn, Jr., West Hartford, and Oscar L. Wright, Jr., West Granby, Conn., assignors to The Hartford Special Machinery Co., Hartford, Conn., a corporation of Connecticut
Application May 11, 1953, Serial No. 354,166
22 Claims. (Cl. 77—64)

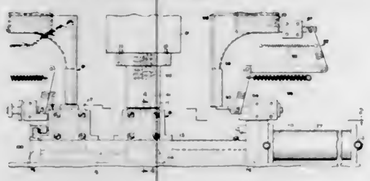
1. In a drilling machine, the combination comprising a rotatable dial assembly including a work supporting fixture and an index plate having a plurality of ratchet teeth

distributed about its periphery at preferred locations, a pawl engageable with said ratchet teeth, drive means for rotating said dial assembly in either a forward or reverse direction, first control means for causing said drive means to rotate said dial assembly in its forward direction, a first index cam driven in 1:1 correspondence with the dial assembly for interrupting said first control means to stop said dial assembly at selected points in the forward travel of said dial assembly, second control means associated with said first control means for causing said drive means to rotate said dial assembly in its reverse direction



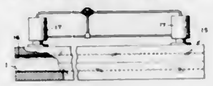
when said first control means is interrupted to cause the particular ratchet tooth which has just passed the pawl to be moved against said pawl whereby the work supporting fixture is accurately positioned at various angles for different work performing operations, respective head means angularly spaced for performing said different operations, and a second index cam driven in a 2:1 correspondence with the dial assembly for effecting two revolutions of said dial assembly for one revolution of said second index cam whereby sufficient rotation of the dial assembly is assured to permit the completion of said different operations by the respective head means.

2,779,221
APPARATUS FOR FORMING ARTICLES
John T. Kane, Albuquerque, N. Mex., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application August 16, 1951, Serial No. 242,137
7 Claims. (Cl. 78—17)



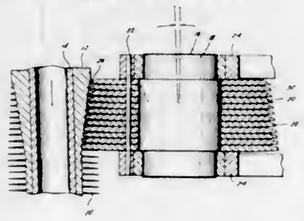
1. In an article-working apparatus including an anvil, a ram reciprocated toward and away from the anvil and an article-presser mounted on the ram in alignment with the anvil, the improvement comprising a slide mounted slidably across the anvil and provided with an opening extending parallel to the line of movement of the ram at one end thereof and also having a second opening parallel to the line of movement of the ram positioned at the other end thereof, a pair of relatively movable jaws mounted in one of the openings in the slide, a second pair of relatively movable jaws mounted in the other opening in the slide, means for reciprocating the slide between a position in which the one of the pairs of jaws is positioned between the anvil and the article-presser and a position in which the other pair of jaws is positioned between the anvil and the presser, a plate carried by the slide at one end thereof and movable between a position covering the opening at that end of the slide as that end of the slide approaches the anvil and a position uncovering that opening as that opening is moved over the anvil, and a second plate carried by the slide at the other end thereof and movable between a position covering the opening at that end of the slide as that end of the slide approaches the anvil and a position uncovering that opening as that opening is moved over the anvil.

2,779,222
APPARATUS FOR MAKING HEAT EXCHANGE TUBES
Ray C. Edwards, Pompton Plains, N. J.
Application January 5, 1954, Serial No. 402,264
6 Claims. (Cl. 80—12)



1. Means for forming radiating fins on the inner surface of a heat exchange tube comprising an arbor, a plurality of metal extruding rollers carried by said arbor and having their perimeters grooved to extrude metal from the inner surface of the tube and form extruded metal into fin shape, said rollers arranged in sets having corresponding grooved perimeters with the adjacent rollers of each set arranged to engage diametrically opposed portions of the interior of the tube.

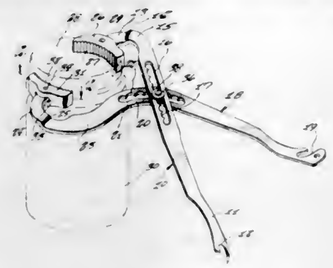
2,779,223
APPARATUS FOR FORMING FINS
Herman A. Schuster, Houston, Tex.
Application August 24, 1955, Serial No. 530,248
3 Claims. (Cl. 80—13)



1. An improved roller for forming a helical fin from a length of stock of circular cross section comprising, an arbor, a plurality of annular fin forming discs mounted proximate each other on said arbor with an axis for rotation of each disc the same as that of the arbor, each said disc having leading and trailing sides, and an annular flat trailing surface on the trailing side of each disc at the periphery of each disc directed outwardly toward the leading side of said disc, each said trailing surface forming an angle with a plane perpenicular to the axes of rotation of the discs and starting at the same radial point, said angle being from about 0.5 to about 1.0 degree and being the same on each disc.

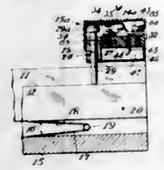
2,779,224
ADJUSTABLE JAW PLIER TYPE JAR OPENER
Harley Lee Coggburn, Big Bear Lake, Calif.
Application May 18, 1955, Serial No. 509,261
1 Claim. (Cl. 81—3.44)

A jar opener comprising a first handle, a second handle, means pivotally interconnecting said handles adapted to permit longitudinal and curvilinear adjustment of said handles relative to each other about their pivot point, a pair of arcuate jaws pivotally connected to the free ends of said handles adapted to engage opposite sides of a screw-type cap, and arcuately offset portions at the free ends of said handles pivotally mounting said arcuate jaws, one of said handles having a relatively straight central portion having an elongated slot having teeth along one side thereof, the other of said handles including an arcuate portion having an arcuate slot having teeth along



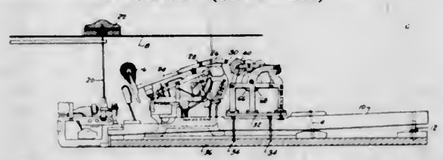
the other side thereof, said means comprising a pin passing through said slots, washers on opposite ends of said pin adjacent the outer faces of said handles, and means at the end of said pin for retaining said washers thereon.

2,779,225
KEYBOARD ATTACHMENT FOR ELECTRICALLY OPERATED MUSICAL INSTRUMENTS
Emil Carlson, Maspeth, N. Y.
Application June 1, 1953, Serial No. 358,878
1 Claim. (Cl. 84—171)



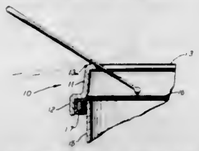
The combination of a keyboard having a row of depressible parallel keys with an elongated switch compartment and a pair of brackets for connecting the longitudinal ends of said compartment with said keyboard, said compartment including a tubular housing extending the full length of said row of keys and having a removable wall, a reinforcing metallic bar in said housing having a plurality of bores, one for each of said keys, perpendicular to said keys, a plunger member in each of said bores having a first end extending from said housing and in contact with a respective one of said keys, and an enlarged second end in said housing adjacent said removable wall, an insulating member in said housing parallel with said removable wall, connected with and extending the full length of said metallic bar and defining a first and a second chamber in said housing, said first chamber being between said removable wall and said insulating member, a plurality of resilient conductive elements in said first chamber each having a first and a second end, said first ends of said resilient elements being attached to said insulating member and said second ends of said resilient elements being in contact with said second end of a respective one of said plunger members for urging said first ends of said plunger members into contact with said keys, a conduit connected to said first end of each of said resilient elements, said conduits extending into said second chamber and from said housing at one longitudinal end thereof, a bus bar attached to said insulating member in said first chamber and a plurality of contacts on said bus bar each adjacent a respective one of said resilient elements and conductively engaged by said resilient elements when the respective ones of said keys are depressed and said plunger members are moved in said bores by said second ends of said resilient elements.

2,779,226
MOTOR DRIVEN REPEAT MECHANISMS FOR PIANO
Edward A. Rasky, Chicago, Ill.
Application January 27, 1953, Serial No. 333,440
10 Claims. (Cl. 84—239)



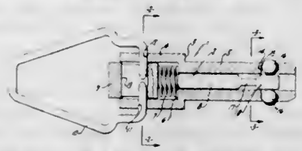
1. The combination with a piano of a pedal mechanism for actuation of individual hammers associated with individual keys to effect a continuous tone when desired, said mechanism including a rotatable whippen wheel for each key, means associated with each key for moving a whippen wheel into operative engagement with its individual hammer, and means for rotating said whippen wheels, all of said means controlled by depressing said fourth pedal.

2,779,227
COUNTERHOOP
Henry H. Slingerland, Jr., Wilmette, Ill.
Application February 28, 1955, Serial No. 490,797
1 Claim. (Cl. 84—411)



In a drum having a shell and a head, a counterhoop of the character described, comprising: an annular ring having a portion positioned outwardly of said shell for holding said head under tension on the shell, a portion extending upwardly beyond the surface of said head, forming a rim therearound, and an inwardly directed flange portion around the top of said upwardly extending portion and overlying the head inwardly of said shell, said flange portion having a smooth outer edge, an intermediate planar surface and a blunt inner edge adapted to allow the striking of the flange portion by a drumstick disposed substantially in the normal head striking position without undesired nicking of the drumstick.

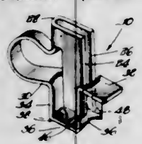
2,779,228
PLUNGER OPERATED, BALL DETENT CLEVIS PIN
Daniel Meepos, Beverly Hills, and Frank E. Rowe, Los Angeles, Calif.; said Meepos assignor to said Rowe
Application July 6, 1953, Serial No. 366,144
1 Claim. (Cl. 85—5)



A clevis pin of the character described comprising a tubular member having a bore of one diameter extending axially thereof from one end and a communicating bore of larger diameter extending axially thereof from the other end whereby an internal abutment is presented at the meeting of said bores, an external shoulder on said tubular member intermediate its ends, a stem having a portion of one diameter slidably fitting within the smaller bore of said tubular member and a portion of larger diameter slidably fitting within the larger bore of said tubu-

lar member and presenting a shoulder between the two portions thereof; said portion of larger diameter extending outwardly beyond the larger diameter end of the tubular member and thereby forming a plunger type operating means for moving said stem longitudinally within said tubular member, a coil spring compressed between said internal abutment and the shoulder of said stem, an elongated slot extending transversely through the larger diameter portion of said stem, a pair of aligned openings extending through the walls of the portion of said tubular member adjacent the end thereof having the bore of larger diameter, a bail constituting a handle for manipulation of said pin and a key for holding said tubular member and stem in assembled relationship with said spring in compressed condition; said bail extending through the openings in the wall of said tubular member and into the slot in said stem and forming a loop externally of said tubular member, at least one radial opening through the wall of said tubular member in the portion thereof having the bore of smaller diameter, a ball movably disposed in said radial opening, and cam means formed on the portion of said stem which is of smaller diameter; said cam means being effective upon depression of said plunger type operating means to allow said ball to move from a position in which a portion thereof extends beyond the periphery of said tubular member to a position in which said ball is wholly within the periphery of said tubular member, and thereafter upon release of pressure on said plunger type operating means to return said ball to a position in which a portion thereof extends beyond the periphery of said tubular member.

2,779,229
BLIND SHEET METAL DRIVE FASTENER HAVING LATERALLY DEFORMABLE PRONG MEANS
William K. Jahn, Elgin, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application February 2, 1955, Serial No. 485,704
7 Claims. (Cl. 85—11)



1. A blind fastener for application to apertured work means having a predetermined thickness comprising a sheet material body including a portion for insertion into an aperture of a work means, a second portion for overlying one side of the work means when said first portion is positioned within said aperture, said first portion being generally U-shaped and including opposed legs extending axially from and joining to said second portion and an anvil section spaced axially from said second portion a distance less than said predetermined thickness and providing the bottom of the U for traversing said aperture when positioned therein, and deformable prong means integrally interconnected with said second portion and extending for entry into said aperture from said one side of the work means and for engagement with said anvil section and adapted on driving thereof against said anvil section to be deformed laterally for impinging a wall of said aperture to secure the fastener to said work means.

2,779,230
OPTICAL SYSTEM PROVIDING A LONG OPTICAL PATH
John U. White, Darien, Conn.
Application July 20, 1951, Serial No. 237,773
17 Claims. (Cl. 88—1)

1. An optical system having a long optical path in a relatively limited space by multiple traversals of the optical path through the space with substantially no loss of aperture comprising a converging lens, means for reflecting and focusing radiation from said lens back into it, said reflecting and focusing means being spaced from and aligned on a common axis with said lens, and two

reflecting surfaces inclined at a 90° angle to each other and positioned slightly offset from said common axis on the opposite side of said lens from said reflecting and focusing means and oriented to reflect light from said lens back into it.

2,779,231
DEVICE FOR DETERMINING SMALL INCLINATIONS FROM THE VERTICAL OR HORIZONTAL
Martin Drodofsky, Heidenheim (Brenz), Germany, assignor to Carl Zeiss, Heidenheim (Brenz), Germany
Application November 9, 1950, Serial No. 194,747
Claims priority, application Germany November 9, 1949
4 Claims. (Cl. 88—2.4)

1. A telescope for sighting objects along a level optical line of sight comprising an objective, a reticle and an optical element for bending the optical line of sight, a housing for said objective, reticle and optical element for bending the optical line of sight, a pendulum body also within said housing and carrying said optical element for bending the optical line of sight, means supporting said pendulum body for rotation inside said housing including two links articulatably attached at spaced points fixed with respect to said housing and articulatably attached at spaced points to said pendulum body forming an articulated quadrilateral in a plane perpendicular to the axes about which the housing and pendulum body rotate and parallel to the vertical plane containing the optical line of sight, the planes containing said links and which are parallel to the axes about which the housing and pendulum body rotate intersecting at a line containing the momentary pole of rotation of the pendulum body, whereby slight variations in the inclination of said housing are compensated to keep the optical line of sight level, and an eyepiece for viewing said reticle and objects imaged thereon.

2,779,232
BLOOD COUNTING METHOD
Frank R. Small, Bartlesville, Okla.
Application April 9, 1953, Serial No. 347,745
2 Claims. (Cl. 88—14)

1. The method of measuring the microscopic bodies in a sample of blood comprising the steps of diluting the blood in a suspending liquid medium whose density is greater than the density of the microscopic bodies, introducing the dilution into a tube, arranging the tube in a

vertical position to enable the microscopic bodies to move in a vertical direction with the liquid in static condition, and counting the number of microscopic bodies passing a point on the tube.

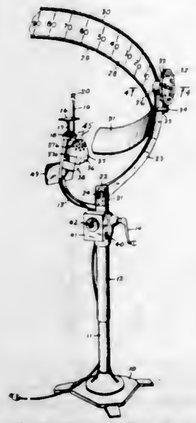
2,779,233
PHOTOGRAPHIC ANALYSIS OF SPRAYS
Russell A. Dodge and Jesse L. York, Ann Arbor, Mich., assignors to the United States of America as represented by the Secretary of the Air Force
Application August 7, 1953, Serial No. 373,078
2 Claims. (Cl. 88—14)

1. A spray analyzing device, comprising a nozzle apertured to provide a spray of finely divided particles moving through air and which nozzle is movable about the nozzle aperture as center of rotation, a first light source illuminating some of the particles sprayed from the nozzle aperture whereby the particles may be illuminated for being recorded on a photo sensitive means, photo sensitive means making of record the illuminated particle distribution in the air with the nozzle in a first position, a second light source illuminating some of the same particles made of record on said photo sensitive means whereby the same previously recorded particles may be illuminated for being recorded on the same photo sensitive means whereby the particle displacement during the time delay between the two illuminations is apparent on the same photo sensitive means, and a time delay circuit means establishing the time interval between the making of record of the particle distribution in the air and which time delay means comprises amplifying tubes at opposite ends of and separated by a plurality of inductors separately capacitively passed to ground for delaying the energization of the second light source.

2,779,234

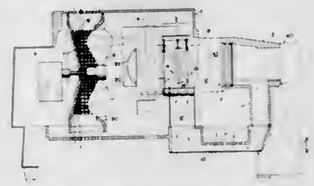
WITHDRAWN

2,779,235
PERIMETERS
Max Chamlin, New Rochelle, N. Y.
Application July 21, 1953, Serial No. 369,403
6 Claims. (Cl. 88—20)



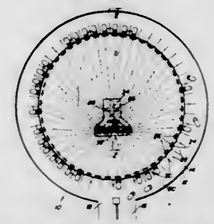
1. A perimeter for measuring the peripheral field of vision comprising a pedestal, a first arm fixed to and extending laterally and upwardly from said pedestal, a chin rest plate mounted on the outer end of said arm and adjustable vertically to position an eye of a patient at a predetermined place, a second arm mounted on and extending outwardly and upwardly from said pedestal and movable around the axis of said pedestal to positions in front of and to one side of said chin rest plate, a perimeter arc connected at about its mid-point to the upper end of said second arm for rotation about an axis passing through the center of said arc perpendicular to the axis of said pedestal, and means on said first arm below said chin rest for illuminating said arc uniformly from end to end and edge to edge.

2,779,236
FILM PROJECTOR COOLING MEANS
David Polian, Jackson Heights, N. Y., assignor to Viewlex, Inc., Long Island City, N. Y., a corporation of New York
Application March 8, 1955, Serial No. 492,870
6 Claims. (Cl. 88—24)



1. Cooling means for film projectors of the type having means for mounting the condenser and projection lenses, a projector lamp, a fan and motor, comprising a first chimney means located in the lower front portion of said casing underneath said lenses, a pair of longitudinal air directors having generally V-shaped cross-sections located on either side of said projector lamp to give a longitudinal restricted air-channel means, said lamp being located behind said lenses and between the apexes of said V-shaped directors, a motor-driven fan located behind said lamp and a deflecting member located behind said fan, whereby air is drawn up through said chimney around said lenses around said projector lamp at a greatly increased velocity through said fan against said cone and out the rear side and bottom of said projector casing.

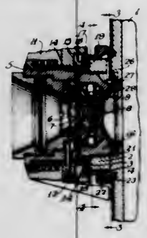
2,779,237
OUTDOOR DRIVE-IN THEATRE AND PROJECTION MEANS WITH A PLURALITY OF VIEWING SCREENS
Tom F. Smith, Urbana, Mo., assignor to Autoscope, Inc., Urbana, Mo., a corporation of Missouri
Application September 17, 1954, Serial No. 456,757
2 Claims. (Cl. 88—24)



1. A theatre comprising a substantially circular plot of ground, a projector recess in said plot of ground, a projector mounted underground in said recess, a pair of arc lamps forming light sources arranged in said recess on the opposite sides of said projector, a plurality of viewing screens arranged circularly about said projector,

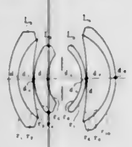
adjustable means for selectively directing the light rays emitted by one of said arc lamps into and through said projector with said projector directing light rays upwardly and outwardly of said recess, and means for simultaneously producing visible images upon said screens including a lens assembly interposed between said projector and said screens.

2,779,238
PHOTOGRAPHIC LENS MOUNT
Paul Richartz, Lincolnwood, Ill., assignor to Bell & Howell Company, Chicago, Ill., a corporation of Illinois
Application May 23, 1955, Serial No. 510,370
7 Claims. (Cl. 88—57)



1. In a lens mount, the combination of an axially bored externally screwthreaded cylindrical support provided with an axially facing annular seating surface, a lens sleeve provided with an end portion engageable within the bore of said support and provided with an external circumferential flange inwardly of said end portion and providing oppositely axially facing shoulders of which the shoulder facing in the direction of said end portion provides a seating surface engageable against said first mentioned seating surface when said sleeve end portion is engaged in said support bore, and an internally screwthreaded ring rotatable on said lens sleeve and overlying said flange and provided with an internal annular axially facing shoulder engageable against the other of said flange shoulders, said ring being adapted to be screwthreaded on said support to mount said lens sleeve thereon with said sleeve end portion engaged in said support bore and said seating surfaces engaged against each other.

2,779,239
FOUR COMPONENT HIGH APERTURE WIDE ANGLE OBJECTIVE LENS
Hiroshi Ito, Setagaya-ku, Tokyo, Japan, assignor to Canon Camera Company, Inc., Tokyo, Japan, a corporation of Japan
Application August 24, 1955, Serial No. 530,242
Claims priority, application Japan October 1, 1954
2 Claims. (Cl. 88—57)



1. A high aperture wide angle lens comprising a stop, a plurality of cemented positive lenses of meniscus style and a plurality of single negative lenses of meniscus style are arranged approximately symmetrically on the both sides of the stop, all of the curved surfaces including the cemented surface are faced concave toward the stop and in which the values of the refractive indices, $n_{\text{subscript}}$, in the helium D-line and the Abbe numbers, $\nu_{\text{subscript}}$, of the lenses in succession from the object to the image side of the lens array are as follows:

$0.12>n_2-n_1>0.03$	$32>\nu_2-\nu_1>10$
$1.30>n_3>1.64$	$34>\nu_3>26$
$1.80>n_4>1.55$	$45>\nu_4>26$
$0.15>n_5-n_6>0.03$	$32>\nu_5-\nu_6>10$

and the radii of curvature r_2 and r_9 of the cemented surfaces of the cemented positive lenses and the radii of curvature r_5 and r_6 of the concave surfaces of the single negative lenses adjacent to the stop have the following absolute values:

$0.30f>r_2>0.20f$	$0.50f>\lvert r_9\rvert>0.20f$
$0.26f>r_5>0.18f$	$0.45f>\lvert r_6\rvert>0.16f$

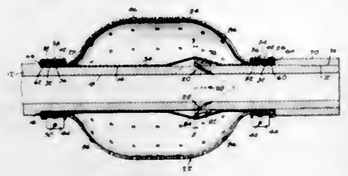
where f is the focal length of the whole objective.

2,779,240
REFLECTIVE MARKER
James W. Gaydos, Cleveland, Ohio
Application May 6, 1953, Serial No. 353,343
1 Claim. (Cl. 88—79)

A light-reflecting marker comprising an externally furrowed hollow cylinder of transparent material having a closed upper end and an open lower end; a standard therefor the upper part of which seats in a socket formed in the closed upper end of the cylinder and the lower part of which projects downwardly out of the cylinder through its open lower end; a sleeve of reflective sheeting located radially outwardly of the upper part of the standard, said sleeve conforming to the shape of the hollow in the cylinder; a lock washer at the lower end of the cylinder for holding the cylinder fixedly in place on the standard; and, below the lock washer, an annular cup for sealing the lower end of the cylinder against the entrance of rain, snow or the like, said cup having its outer periphery crimped over the lower end of the cylinder and its inner periphery in snug engagement with the projecting part of the standard.

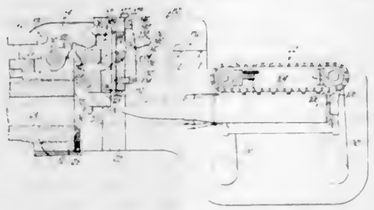
2,779,241
ELASTIC ACTION CANNON BORE SCAVENGER
Wellington R. Howard, Falls Church, Va., and Waldo Margulis, Albany, N. Y., assignors to the United States of America as represented by the Secretary of the Army
Application June 18, 1954, Serial No. 437,894
11 Claims. (Cl. 89—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A device for aspirating noxious gases from the muzzle end of a gun barrel comprising, elastic means forming a pressuretight chamber secured to the exterior surface of said barrel adjacent the muzzle end thereof, there being a plurality of gas ports formed in the wall of said barrel providing communication between said bore and said chamber, said elastic means expanding to entrap a



portion of the gases of propulsion of a projectile fired in said barrel, said gas ports releasing said entrapped air to induce fluid flow in a forward axial direction upon a drop in pressure in said bore.

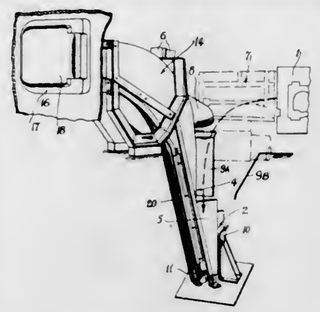
2,779,242
BREECH MECHANISMS
Augustus D. Willhauck, Melrose, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application April 4, 1952, Serial No. 280,468
10 Claims. (Cl. 89—24)



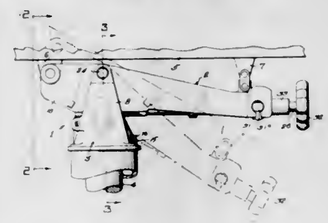
1. In a breech mechanism for a gun having a breechblock mounted to slide between open and closed positions, operating mechanism for said breechblock comprising a crank shaft movable with the gun in recoil and counter-recoil, said shaft having a pair of angularly related crank arms, and a pair of fixed cams, one of said cams being constructed and arranged to cooperate with one of said crank arms during recoil movement of the gun to impart an opening movement to said breechblock, the other of said cams being constructed and arranged to cooperate with the other of said crank arms during the terminal portion of the recoil movement of the gun and during its initial counter-recoil movement positively to impart a movement of overtravel to said breechblock beyond and back to its open position.

2,779,243
APPARATUS TO REMOVE EJECTED SHELLS FROM TURRET
Desmond W. Molins, Frederick Pocock, and Sidney R. Hopkins, Deptford, London, England
Application October 1, 1951, Serial No. 249,048
Claims priority, application Great Britain October 5, 1950
15 Claims. (Cl. 89—33)

1. In combination with a gun mounted in a turret which traverses with the gun but in which the gun is elevated relative to the turret, said gun having a breech and ejector means to throw a spent cartridge case lengthwise base first clear of the breech-block into the turret, a receptacle having an open mouth at its upper end, support means for a cartridge case at its lower end, and side walls extending upwardly from said lower end, said receptacle being fixedly mounted in said turret for traversing movement with the latter and positioned rearwardly of and below the level of the breech, means to intercept the trajectories of spent cartridge cases at all angles of elevation of the gun and to cause the said cases to fall base first into the receptacle, and means to engage each case in the receptacle and to convey said case, open end first, upwardly out of the receptacle in a desired direction.



2,779,244
LIGHTWEIGHT CRADLE ROCKET LAUNCHER MOUNT
Stephen A. Stam, Glendale, Calif., assignor to the United States of America as represented by the Secretary of the Army
Application July 29, 1954, Serial No. 446,690
11 Claims. (Cl. 89—37)

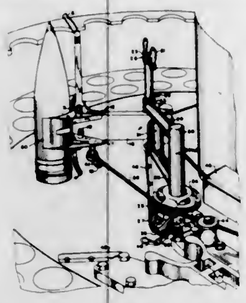


1. In a mount for a rocket launcher, a yoke having laterally spaced arms, a cradle journaled by and between said arms for pivotal movement about a first normally horizontal axis, a first nut swiveled in said yoke on a second axis vertically offset from and parallel with said first axis, a second nut trunnioned in said cradle, a continuous shaft mounted on a third axis spaced from said first and second axes, said shaft having threaded portions of opposite hands, one of said threaded portions engaging one of said nuts, means for manually turning said shaft, and means for affixing a rocket launcher to said cradle for movement as a unit therewith.

2,779,245
PROJECTILE PARBUCKLING MECHANISM
George L. Smith, Washington, D. C.
Application August 4, 1950, Serial No. 177,748
13 Claims. (Cl. 89—45)
(Granted under Title 35, U. S. Code (1952), sec. 266)

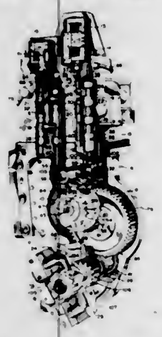
1. A projectile parbuckling assembly of the type for use with major calibre ammunition increments, for shipboard turret hoist loading, which comprises in combination, a forearm unit having a tong grabbing element at the forward extremity thereof, an upper arm assembly pivotally connected to the forearm unit at the end opposite said tong element, a vertical column at the opposite end of the upper arm assembly, a base adapted to receive the vertical column of the upper arm assembly and having said upper arm assembly pivotally mounted thereon, a handle bar assembly mounted on a vertical extension of the pivotal connection between the forearm

unit and upper arm assembly and having this extension secured to the forearm unit and rotatable within the upper arm assembly of the pivot, a steadying lever, and



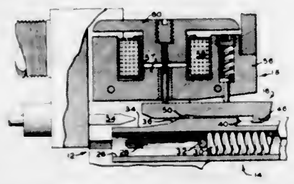
an ejecting lever attached to the tong grabbing element for steadying the projectile during transfer movement and ejection, the ejecting lever serving to eject the projectile into a hoist at discharge.

2,779,246
HYDRAULIC RAMMER CONTROL AND DRIVE SYSTEM
David Wertman, Kensington, Md., and Frank Warlick, Washington, D. C.
Application June 28, 1954, Serial No. 439,939
5 Claims. (Cl. 89—47)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In combination with a sprocket driven chain rammer and drive assembly for a rapid fire large bore gun, a reversible rammer motor adapted for the application of ramming and retraction drive energy to said rammer, a closed circuit hydraulic system including an external hydraulic cylinder for initiation of breech block closing, a hydraulic valve block comprising a plurality of hydraulic valve elements including directional control valve elements, and function control means including a plurality of valve elements and pilot valves for initiating programming the cycle of operation for said chain rammer motor, a plurality of cams and cam follower means operatively connected to the output of said hydraulic motor for control of the hydraulic valve elements of the block in response to positional changes of the chain rammer in the path of travel thereof, an electrical control means on said valve block for actuation of a first one of the pilot valves for initial positioning of the directional control valve elements of the valve block, means in said valve block for initiating action of said external hydraulic cylinder in predetermined timed relationship with the starting of retraction movement of said chain rammer and a means in said valve block to prevent actuation flow of hydraulic fluid to said external hydraulic cylinder until completion of a predetermined retraction travel of said chain rammer, whereby a breechblock actuation may be initially controlled by said external hydraulic cylinder and wherein the breechblock is thereby prevented from rising until after the provision of sufficient clearance of the chain rammer with respect to the breechblock.

2,779,247
SEAR MECHANISM FOR A FIREARM
Harry E. Pinkerton, Jr., Oyster Bay, N. Y., assignor to the United States of America as represented by the Secretary of the Army
Application September 28, 1954, Serial No. 459,001
6 Claims. (Cl. 89—135)

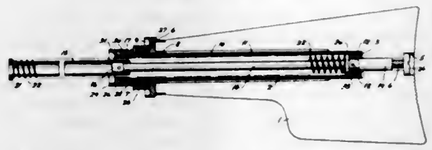


6. In a firearm, a firing pin extension reciprocable between a firing and a retracted position, a movable sear for releasably latching said firing pin in a cocked position during movement thereof from the retracted position, an electric solenoid for moving said sear to an unlatched position, a cam portion on said sear having engagement with a ramp portion on said firing pin extension during movement thereof between the cocked and the retracted positions for actuating said sear into position for latching said firing pin extension and being disengaged from said ramp portion prior to the return of said firing pin extension to the cocked position to permit actuation of said sear to the unlatched position by said electric solenoid before said firing pin extension reaches the cocked position, a planar surface on said firing pin extension to slidingly engage said sear for holding thereof in the latched position during travel of said firing pin extension between the engagement of said cam portion with said ramp portion and the disengagement thereof, and a spring-biased plunger for resiliently biasing said sear to said latched position during movement of said firing pin extension between the disengagement of said cam portion from said ramp portion and said cocked position.

2,779,248
CAM BLOCK ACTUATOR
Charles H. Stevens, Springfield, Mass., assignor to the United States of America as represented by the Secretary of the Army
Application August 28, 1953, Serial No. 377,268
6 Claims. (Cl. 89—155)
(Granted under Title 35, U. S. Code (1952), sec. 266)

6. In a revolver-type automatic weapon having a receiver, a recoil unit slidable thereon provided with a rotatable drum having cartridge chambers and corresponding radially axised index rollers, and an actuator for rotating the drum slidably disposed for axial reciprocation on the receiver, a device for engaging the drum comprising outlet and inlet blocks respectively mounted in slidable relation with the actuator and provided with cam followers and roller bearing surfaces, and a cam disposed on the receiver between said blocks and provided with oppositely disposed cam tracks for simultaneously receiving said followers, said tracks each including upper and lower branches for alternately guiding said bearing surfaces for roller engagement and disengagement during relative movement of the recoil unit and the actuator, intermediate sections to join said branches in loops and end sections for respectively engaging the follower in battery position and in overtravel of the actuator, said followers and said tracks being respectively provided with cooperating spring tips and steps to permit progress of each of the followers in but a single sense in the loop corresponding thereto.

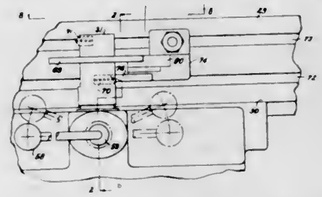
2,779,249
RETURN AND BUFFER MECHANISM FOR AUTOMATIC SHOOTING WEAPONS
Erik Saetter-Lassen, Hellerup, near Copenhagen, Denmark
Application October 16, 1953, Serial No. 386,639
7 Claims. (Cl. 89—198)



6. Recoil spring mechanism for use with an automatic firearm, said firearm including automatic firing mechanism a movable portion of which is displaced rearwardly accompanying the firing of each round, said firearm comprising a butt having a forwardly and rearwardly extending through bore formed therein, the forward portion of said bore being of larger diameter than the rearward portion thereof, said recoil spring mechanism comprising: a tubular recoil spring housing removably inserted in said bore from the front of said butt, the diameter of said housing being greater than the diameter of said rearward portion of said bore, a telescopic recoil spring guide coaxially disposed in said housing, said guide being engageable by said rearward displacement of said movable portion of said firing mechanism to shorten said guide, said guide comprising stop means for limiting the extension thereof; an extension member removably connected to the rear end of said spring guide, said extension member extending slidably through and in engagement with the rear end of said housing into said rearward portion of said bore, rearward movement of said extension member with respect to said housing being limited by said engagement, said extension member comprising a threaded portion accessible through the rear end of said bore; a helical compression recoil spring surrounding said telescopic guide and urging said guide into its fully extended condition, the rear end of said recoil spring pressing against said extension member; threaded fastening means extending forwardly into said rear end of said bore and in engagement with said threaded portion of said extension member, said fastening means pulling said guide and said housing both rearwardly for securing the same in said butt; and seating means carried by said butt for limiting the rearward movement of said housing, whereby said recoil spring may be pre-stressed on said guide prior to the positioning of said guide in said housing and the insertion of said housing in said bore.

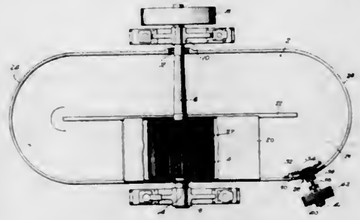
2,779,250
AUTOMATIC CONTROL MECHANISM
Fred A. Hassman, Cincinnati, Ohio, assignor to The Cincinnati Milling Machine Co., Cincinnati, Ohio, a corporation of Ohio
Application July 11, 1952, Serial No. 298,303
6 Claims. (Cl. 90—21)

6. In a trip control mechanism for the transmission of a machine slide including a reversing clutch and a feed rapid traverse control clutch, said mechanism including a trip plunger, subject to axial and rotary movements, means operatively connecting the plunger to the feed rapid traverse clutch to effect shifting thereof in response to axial movement of the plunger, means operatively connecting the plunger to the reversing clutch to effect shifting thereof in response to rotary movement of the plunger, the combination of a trip dog having normally arranged trip surfaces thereon mounted on the slide for movement therewith into engagement with co-acting surfaces on the plunger to effect axial and rotative movements thereof to axial and rotative trip positions, independent automatical-



ly operable tripping means effective on the plunger to automatically complete the axial and rotative movements of the plunger and effect final shifting of said clutches, and means on the dog for synchronizing the respective tripping operations to effect simultaneous shifting of said clutches including a stop surface on the dog engageable by an abutment on the plunger as it moves axially to its tripping position, said abutment surface being responsive to rotative movement of the plunger and rotatable out of engagement with said stop surface when the plunger reaches its rotative tripping position.

2,779,251
PULPER
Lloyd T. Murphy, Chattanooga, Tenn.
Application August 5, 1953, Serial No. 372,521
1 Claim. (Cl. 92—24)



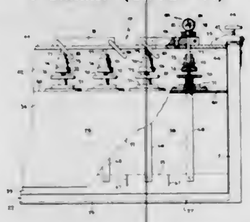
A paper defibering apparatus comprising, in combination, a tub adapted to contain a mass of paper stock, said tub having a vertical side wall of substantially oval configuration with straight central portions and curved end portions and a bottom wall, a partition disposed centrally of the tub and having ends terminating inwardly of the curved end portions of the side wall of the tub whereby to define a circuitous path within the tub, a beater roll disposed in said path between one side of said partition and a straight portion of said side wall, said beater roll normally rotating in one direction so as to propel the paper stock in a stream about said circuitous path and to break the stock down into easily separable fibers as the stock passes beneath the beater roll, means for rotating said beater roll, a pulper mounted on the side wall of said tub and on the downstream side of the beater roll and substantially at the juncture of the last named straight portion and a contiguous curved end portion of the side wall, said pulper including a bearing, a shaft rotatably mounted in said bearing and having inner and outer ends respectively disposed within and on the outside of said tub, a disc affixed on the inner

end of said shaft, and means on the outer end of the shaft for rotating the same, said disc lying closely adjacent the side wall of the tub, the path from one side of said beater roll to the other being otherwise substantially clear whereby small bundles of said stock compacted from time-to-time by said beater roll as an undesirable coincident to the breaking down of the stock are dispersed by said pulper promptly upon emission from beneath the beater roll, and thereby prevented from balling-up in the further course of said stock around said path.

2,779,252
APPARATUS FOR MAKING BOARDLIKE PRODUCTS FROM A FIBROUS CEMENT MIXTURE
Alfred Welz, Zurich, Switzerland, assignor to Filtrox-Werk A. G., Sittertobel, St. Gallen, Switzerland
Application May 11, 1953, Serial No. 354,092
Claims priority, application Switzerland May 15, 1952
1 Claim. (Cl. 92—39)

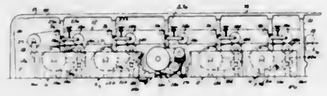
An apparatus for the continuous production of plate-like elements from fibrous-cement mixture comprising a tank to receive a fluid mixture of fibrous-cement content and provided with an agitator and having an outlet at the top of the tank so that the fluid mixture can flow from the tank, a flat horizontal plate provided at the outlet and connected to the tank, an endless sieve band adjacent said plate and of which the top run is on the same level as said plate and extends from said plate so that the fluid mixture flows from the tank over the outlet and said plate onto the sieve band on the same level as the fluid mixture in the tank, said plate and band having the same approximate width, a plurality of vibrators provided above and dipping into the flow of fibrous mixture on the sieve band, and crank means connected to the vibrators to agitate the vibrators within the thickness of the flow of fibrous mixture.

2,779,253
ADJUSTABLE SLICE FOR PAPERMAKING MACHINERY
Thomas M. Owens, Wanakena, N. Y.
Application December 24, 1953, Serial No. 400,199
3 Claims. (Cl. 92—44)



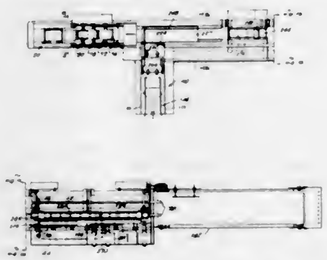
1. In a paper making machine having a vertically adjustable slice frame and a slice lip mounted for vertical adjustment within said frame, said lip being distortable in the vertical direction: adjustment controls for said lip comprising a plurality of link elements supported in said frame and secured to said lip at spaced intervals along its length, means to raise and lower each link element to effect initial vertical adjustment of said lip in said frame, means forming an upwardly projecting extension on each link element and adjustable independently of said element to a zero reference point on said said frame after said element has been initially adjusted, and means to lock said extension means on said link elements after adjusting the former to said zero reference, whereby further adjustment of pre-selected link elements by said raising and lowering means can be accurately measured at said zero reference by means of a dial indicator.

2,779,254
PAPER FORMING MACHINE
Lloyd Hornbostel and Alonzo A. Neese, Beloit, Wis., assignors to Beloit Iron Works, Beloit, Wis., a corporation of Wisconsin
Application November 16, 1953, Serial No. 392,376
15 Claims. (Cl. 92—43)



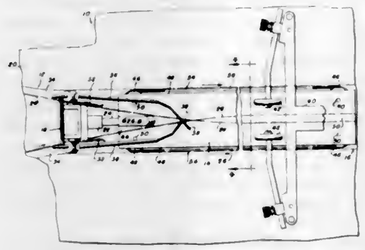
14. In a cylinder type paper machine, in combination, upper and lower couch rolls in nip defining relation, a looped pickup felt passing through the nip of said couch rolls and enclosing within its loop the upper couch roll, a cylinder mold positioned beneath the lower couch roll, a separate looped forming wire enclosing within its loop the lower couch roll and the cylinder mold and running upwardly from the cylinder mold and over the lower couch roll and through said nip, and adjustable means mounting the lower couch roll movable in both vertical and horizontal directions to selectively move the lower couch roll away from and toward the cylinder mold and in and out of nip defining relation with the upper couch roll.

2,779,255
METHOD OF AND APPARATUS FOR MANUFACTURING VACUUM CLEANER DUST CONTAINERS
Murray P. Clark, Upper Darby, Pa., and Emil Anderson, Briarcliff Manor, N. Y., assignors to Electrolux Corporation, Old Greenwich, Conn., a corporation of Delaware
Application September 18, 1953, Serial No. 381,073
14 Claims. (Cl. 93—8)



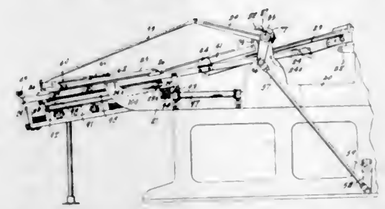
1. In an apparatus for manufacturing vacuum cleaner dust containers, a first conveyer for moving cardboard discs in succession, an adhesive printing roller rotatably mounted adjacent to said conveyer, means for driving said conveyer and roller in timed relation so that the latter applies adhesive to each successive disc, a second conveyer disposed parallel to said first conveyer for moving partially formed bags in succession, means for driving said conveyers in timed relation so that a bag is moved along in registry with a disc, pressure rollers disposed at the end of said conveyers for receiving therebetween a registered disc and bag to press them together to cause said adhesive to secure the bag to the disc, means for driving said rollers at a peripheral speed at least as great as the linear speed of said conveyers, means disposed beyond said rollers for continuing the movement of said bags and discs, and means adjacent to the last mentioned means for applying adhesive to and folding over an end of each bag to effect a closure thereof.

2,779,256
ANTI-FRICTION FORMER SHOES
Theodore W. Keller, Council Bluffs, Iowa, and Charles W. Garvin, Omaha, Nebr.; said Garvin assignor to said Keller
Application June 4, 1953, Serial No. 359,582
4 Claims. (Cl. 93—20)



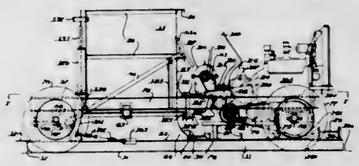
1. In a former shoe for placing a longitudinal fold in traveling, stretchable sheet material, e. g., polyethylene, and having an edge extending generally in the direction of travel of the material and over which edge the sheet material is folded, the combination of rollers spaced along the direction of travel of the material, an endless belt mounted on said rollers and having a relatively narrow portion engageable with the material, said belt having a flight defining said edge and over which flight the material is adapted to be folded at substantially an acute included angle, said flight being movable with the material to thereby reduce drag between the material and the former shoe at said edge.

2,779,257
MACHINE FOR REMOVING WASTE SLUGS FROM CARTON BLANKS
Roland T. Jedlick, Chicago, Ill.
Application June 10, 1955, Serial No. 514,658
22 Claims. (Cl. 93—36)



1. A slug punching machine in combination with a press adapted to deliver single blanks with slug areas partially cut therefrom, said machine comprising side rails extending outwardly from the delivery end of said press, a carriage supported on said rails and movable outwardly thereon from said press and inwardly below the delivery end of the press to receive blanks therefrom, a platform on said carriage having apertures formed therein to pass slugs punched from said slug areas, an off-feeding roll at the outer end of said carriage, rack teeth on one of said rails, a gear engaged with said teeth and having one way driving connection to said roll to feed blanks off the outer end of said platform on inward movement of said carriage, feed belts trained over said roll and said platform to feed blanks to said roll, a pressure roll on said carriage coacting with said off-feed roll, a drive lever oscillated with each cycle of said press and connected by a rod to said carriage to reciprocate the carriage, a flexible collecting apron secured to the outer end of said carriage below said platform, an idler roll positioned below the inner end of said carriage at the outer limit of movement of the carriage and over which said apron is trained, a take up roll connected to be rotated by movement of the carriage and having the other end of the apron wound thereon, other rails extending parallel to the outer portions of said first rails and inclined upwardly at their inner ends over the delivery end of said press, a frame slidable on said other rails and drivingly connected to said carriage for reciprocation therewith, a transparent punch panel carried by said frame over said carriage, slug punching pins on said panel and projecting therebelow, said panel having rollers at its inner and outer ends engaged with said other rails, said other rails having downwardly then upwardly curved depressions in their upper surfaces to lower said rollers and said panel toward said platform on said carriage, bridge bars mounted alongside of said other rails and movable transversely with respect thereto into bridging relation with said depressions to support said rollers across said depressions, pivoted levers connected to said bridge bars, shift rods reciprocable longitudinally of said other rails and connected to the other ends of said pivoted levers to advance and retract said bridge bars, wheels oscillatable with said drive lever, cams slidably mounted on said wheels and yieldably biased tangentially thereof to projecting position, cam followers engaged with said wheels and cams and connected to said shift rods to move said bridge bars to retracted non-bridging relation to the recesses in said other rails on part of the forward motion of said carriage, spring means biasing said bridge bars to extended bridging position, said cams being retractable to inoperative position under the influence of said followers on the retracting stroke of said carriage, rock shafts rotatably mounted under said panel and extending longitudinally of said carriage to one side of the slug holes in the platform, backing plates carried by said rock shafts and swingable thereby between horizontal positions closely spaced below the lower limit of travel of said punch pins and downwardly inclined positions over said apron, a rack bar slidably mounted on said carriage and coacting pinions on said rock shafts to rock said shafts and coacting levers and tappets on said carriage and rails to reciprocate said rack bar in response to movement of said carriage.

2,779,258
ROAD CONSTRUCTION MACHINE
James W. Johnson, Ames, Iowa, assignor, by mesne assignments, to Blaw-Knox Company, Pittsburgh, Pa., a corporation of Delaware
Application September 25, 1950, Serial No. 186,609
8 Claims. (Cl. 94—46)



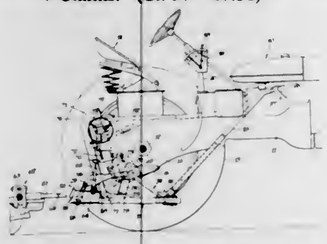
1. In a road construction machine structure to lay a pavement of plastic construction material, in combination, parallel runners to slidably support said structure, said runners being spaced apart approximately the width of said pavement, a material receiving open-top enclosure connected to said runners intermediate the ends thereof, said enclosure being open along the rear lower edge and at least a portion of the bottom thereof, a guide sloping downwardly and rearwardly from a position adjacent the back of said enclosure, and a form connected to the rear of said guide, said form extending substantially the width of said pavement and having downwardly extending sides substantially the height of said pavement, said sides generally sloping inwardly from

bottom to top, at least along the rearward portions of said sides, said sides further extending rearwardly of the sides of said enclosure in generally continuous fashion whereby moving said structure along on said runners will lay a pavement of plastic construction material supplied from said enclosure.

2,779,259
SOIL STIRRING DEVICE
Cadwallader W. Kelsey, Troy, N. Y.
Application February 12, 1954, Serial No. 409,836
7 Claims. (Cl. 97—43)

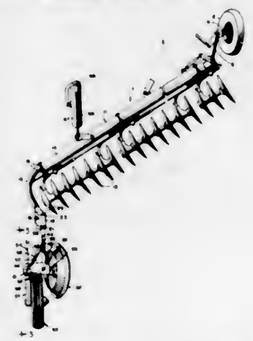
1. In a rotatable garden cultivating device for stirring soil between closely growing plants by a manual stabbing and piercing action, comprising in combination an elongated rigid rotatable connecting member adapted removably to be mounted at one end to an electric hand drill to rotate the same; and a rotatable ground stirring tool removably secured to the other end of said member; said tool having a body portion, soil stirring wings curved symmetrically and laterally rearwardly from the longitudinal axis of said body portion, away from their direction of rotation, and being rotatable in a direction against the curvature of said wings to stir the soil away from said body portion as the same penetrates the ground, which wings are tapered upwardly from an outermost intermediate point throughout their curved portions to terminate adjacent the top of said body, and tapered downwardly from the same point to blend into a single flat wing terminating said tool in a pivot and centering point, whereby selectively to penetrate said ground at spaced intervals and to steady said tool during operation of said soil stirring wings.

2,779,260
UNIVERSAL 2-POINT HITCH
John R. Orelind, Wilmette, Ill., and Marvin D. Jennings, Memphis, Tenn., assignors to International Harvester Company, a corporation of New Jersey
Application November 22, 1952, Serial No. 322,056
7 Claims. (Cl. 97—47.51)



1. A universal hitch mechanism for the attachment of implements to a tractor, comprising rock arms mounted on the tractor, power transmission means on the tractor connected to said rock arms for rocking the latter, implement hitch means below said rock arms pivotally connected to the tractor in draft-receiving relation to accommodate vertical movement thereof between operating and transport positions, a lifting link depending from each said rock arm and pivotally connected thereto for lateral swinging, vertically extending attaching parts on said hitch means, means pivotally connecting the lower end of each said lift link to one of said attaching parts to accommodate lateral swinging of the link and hitch means, each said attaching part having an opening formed therein above the pivotal connection of the associated lift link thereto, and said link having an opening formed therein registrable with the opening in said attaching part, and a locking pin optionally receivable in said openings to render the lift link substantially rigid against lateral swinging.

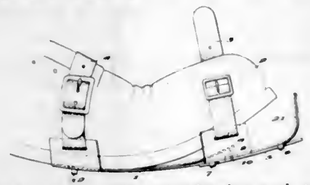
2,779,261
DISK TILLER
John A. Northcote, Welland, Ontario, and Douglas H. Lymburner, Fonthill, Ontario, Canada, assignors to John Deere Plow Company (Limited), Welland, Ontario, Canada, a corporation of Canada
Application June 11, 1953, Serial No. 360,951
7 Claims. (Cl. 97—53)



1. In an agricultural implement, a main frame, a rear axle support connected at its forward end to said main frame, a transverse wheel frame pivoted at an intermediate point to the rear portion of said axle support for movement about a generally vertical axis, a furrow wheel connected to one side portion of said wheel frame and swingable laterally about said vertical axis with said wheel frame into a position in which the plane of said furrow wheel extends generally parallel to the longitudinal axis of said main frame, a vertically swingable part mounted on the other side portion of said wheel frame and generally opposite said furrow wheel, a transport wheel journaled on the outer end of said part, and means for raising and lowering said swingable part so as to shift said transport wheel above and below said furrow wheel.

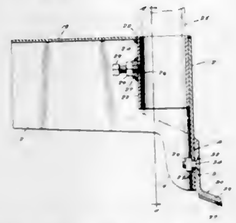
2,779,262
FOOT TOOL
Beecher Zeblin Furr, Robert C. Furr, and Marion O. Harrill, Jr., Charlotte, N. C.
Application October 29, 1953, Serial No. 388,948
5 Claims. (Cl. 97—61)

1. In a foot tool, a tool holder, means for removably attaching such tool holder snugly against the bottom of a sole of a shoe, means on said tool holder for removably attaching individual tools to said holder, said last-named means including a resilient member carried by the tool holder, a detent carried by such resilient member, said resilient member and detent cooperating with the bottom of the shoe sole for locking the individual tool in position when said tool holder is attached snugly against



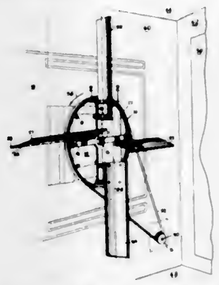
the bottom of the shoe sole and releasing such tool when at least a portion of said tool holder is moved out of snug engagement with the bottom of the shoe sole.

2,779,263
DEEP FURROW DRILL SHOVEL
Harold Arthur Franz, Herbert William Franz, and Earl Melvin Franz, Marlin, Wash.
Application October 15, 1953, Serial No. 386,198
1 Claim. (Cl. 97—225)



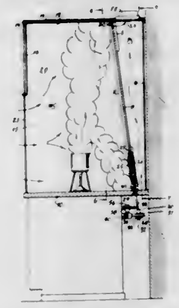
In a drill shovel, an elongate body comprising a horizontal top plate tapering toward its forward end and having an opening adjacent to that end, wings depending from the side edges of said plate and extending forwardly in converging relation, the forward ends of the wings terminating short of the forward end of the plate, a rounded nose portion joined to the vertical edges of the converging end portions of said wings and having its lower end portion extending a distance below the bottom edges of said wings, a vertical sleeve within the nose portion with its upper end secured in the said opening in said plate, a downwardly and forwardly angled point secured against the outer side of the lower end portion of said nose portion, said sleeve being adapted for engagement on the discharge end of a grain drill tube, and means carried by said sleeve for securing said body to the drill tube.

2,779,264
PULSATORS
Ira M. Petersime, Gettysburg, Ohio
Application January 6, 1953, Serial No. 329,849
12 Claims. (Cl. 98—40)



1. A pulsator for incubators, comprising a wheel having a central hub, a rim, spaced arms interconnecting said rim and hub, angle brackets mounted on each of said arms, some of said arms being diagonally opposite other of said arms, each of said brackets having a base leg and an angularly disposed leg connected thereto, the angularly disposed legs of the brackets on diagonally opposite arms being disposed at an angle with respect to each other, and a blade connected to the last named legs of the brackets mounted on each of said arms, said blades comprising flat substantially straight elements, the blades connected to diagonally opposite arms of said wheel extending at an angle to each other with some of said blades facing in a first direction axially of said wheel and with respect to said rim, with some of said blades facing in a direction opposite said first direction.

2,779,265
FUME HOOD
John M. Liptay, Manhasset, N. Y.
Application May 8, 1956, Serial No. 583,542
19 Claims. (Cl. 98—115)

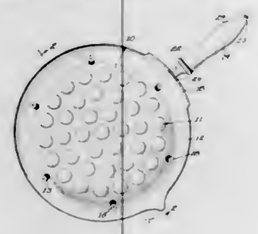


6. In a fume hood, an enclosure adapted to be seated on a counter and defining therewith a compartment and having spaced sides and a rear wall and having a front wall including a relatively large intake opening to permit access to apparatus on said counter and to permit air to enter said enclosure and having a top wall including a fume exhaust opening, a slidable imperforate baffle spaced from said front and rear walls and extending substantially fully across said compartment between said sides to define an aperture with a part of said enclosure and at least in part dividing said compartment into a work chamber in communication with said intake opening and aperture and an exhaust duct in communication with said aperture and said exhaust opening, displaceable supporting means carrying said baffle, spaced means carried by said sides and within said enclosure for bodily and rectilinearly guiding said baffle, operative means cooperating with said supporting means for bodily and linearly displacing said baffle relative to said counter for adjusting said aperture, manipulatable control means for actuating said operative means, and means to guide said supporting means.

2,779,266
STEAK BROILER
Frank Di Trapani, Boston, Mass.
Application June 10, 1954, Serial No. 435,702
1 Claim. (Cl. 99—425)

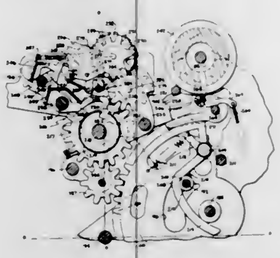
In a broiler, a circular base, a plurality of shoulders extending upwardly from said base and arranged in spaced apart relation with respect to each other, each of said shoulders having a curved shape, the intermediate portion of the base being bowed upwardly, the outer periphery of said base terminating in a continuous trough, a plurality of spaced, parallel posts extending upwardly from said base and arranged contiguous to the inner edge of the trough, each of said posts being provided on its

upper end with an enlarged cylindrical head, there being an aperture in each of said heads, a spout arranged on



the outer periphery of said base, and a handle detachably connected to said base.

2,779,267
PRINTING MECHANISM FOR A CALCULATING MACHINE
Harold J. Chall, San Leandro, Calif., assignor to Friden Calculating Machine Co., Inc., a corporation of California
Original application January 29, 1954, Serial No. 407,016. Divided and this application March 15, 1954, Serial No. 416,123
5 Claims. (Cl. 101—96)



1. In a calculating machine having an actuator mechanism including actuator sectors ordinally arranged and individually rockable to differentially set positions, printing mechanism comprising a platen, ordinally arranged print wheel carriers rockably mounted for movement about a common axis, print wheels rotatably mounted one on each of said print wheel carriers and movable by the corresponding carriers toward and away from said platen, means drivingly connecting said actuator sectors to said print wheels in corresponding orders for rotating said print wheels to angular positions at which they present to said platen print characters corresponding to the differential setting of the coordinate actuator sectors, means resiliently urging said print wheel carriers to move said print wheels toward said platen, blocking means restraining said print wheel carriers from moving said print wheels toward said platen, means acting in timed relationship to the movement of said actuator sectors moving said blocking means out of carrier blocking position at a predetermined time in the movement of said actuator sectors, said print wheels having a full-cycle rotational position from which they are moved by the corresponding actuator sectors in accordance with the differential setting of the latter, and means operating in timed relationship to the movement of said actuator sectors latching those print wheel carriers to the left of the print wheels rotated from their full-cycle position against movement toward said platen when said blocking means is moved out of blocking position relative to said print wheel carriers.

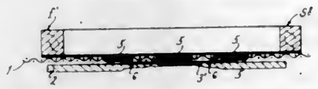
2,779,268
STENCIL ASSEMBLY WITH PROTECTIVE FILM
Robert G. Brown, White Plains, N. Y., assignor to Polychrome Corporation, New York, N. Y., a corporation of New York
Application October 16, 1952, Serial No. 315,156
1 Claim. (Cl. 101—128.2)

A stencil assembly for mimeograph reproduction comprising a base board, a series of transverse perforations in said base board, a transverse strip of adhesive above said perforations, a stencil attached to said base board through said adhesive strip; said base board having above said transverse adhesive strip a plurality of tabs located across the transverse dimensions of the base board and consisting of areas of base board outlined by perforations, spots of adhesive on said tabs, and a transparent protective film removably attached to said base board through said tabs; a plurality of holes for gripping the assembly being produced as said tabs are removed from the base board.

2,779,269
METHOD OF MAKING ADVERTISING SIGNS
Eldon J. Hill, Dallas, Tex., assignor to The Burdick Company, Dallas, Tex., a corporation of Texas
Continuation of abandoned application Serial No. 280,264, April 3, 1952. This application April 8, 1954, Serial No. 421,857
3 Claims. (Cl. 101—129)

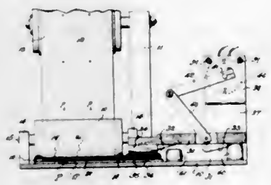
1. The method of making a screen mounted advertising sign comprising laying a section of paper upon a flat surface, laying a section of screen wire on the paper, filling the interstices of the screen wire in defined areas with an initially fluid, heavily pigmented paste capable of solidifying upon drying, allowing said material to harden to form an initial body, the outer periphery of which conforms to the desired shape of the entire advertising in such defined area while leaving certain portions wholly within such area conforming in shape to the message-forming indicia unfilled so that the interstices are open in such portions, peeling off the paper, allowing the initial body material in the defined area to dry, placing the screen wire on the flat surface again, applying a complementary stencil having openings peripherally larger than the periphery of said unfilled portions in overlying but elevated relation thereto, and then filling the open interstices within the aforementioned unfilled portions of the screen wire with heavily pigmented pasted which is viscous but flowable and is capable of solidifying upon drying and causing the second filling material to flow through the spaces resulting from the elevation of the stencil and around the peripheral margins of the previously introduced material to form a marginally bonded and interlocked engagement therebetween.

2,779,270
METHOD OF MAKING ADVERTISING SIGNS
Eldon J. Hill, Dallas, Tex., assignor to The Burdick Company, Dallas, Tex., a corporation of Texas
Continuation of application Serial No. 280,265, April 3, 1952, now Patent No. 2,659,171, dated November 17, 1953. This application April 8, 1954, Serial No. 421,858
2 Claims. (Cl. 101—129)



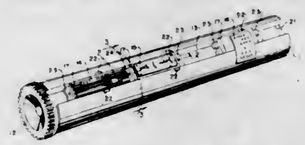
1. The method of making a screen mounted advertising sign comprising laying a section of paper upon a flat surface, laying a section of screen wire on the paper, filling the interstices of the screen wire in defined areas with a heavily pigmented paste which is viscous but flowable and is capable of hardening upon drying to form an initial body, the outer periphery of which conforms to the desired shape of the entire advertising in such defined area while leaving certain portions wholly within such area conforming in shape to the message-forming indicia unfilled so that the interstices are open in such portions, peeling off the paper before said paste is dry and thereby removing a substantial portion of said paste from the interstices to leave the interstices substantially open and the wires in such defined areas enclosed in a coating of said paste, allowing said coating to harden, applying a complementary stencil having openings peripherally larger than the periphery of said unfilled portions in overlying but elevated relation thereto, and then filling the interstices of the screen wire in areas directly adjacent to the areas previously coated with a heavily pigmented fluid paste capable of hardening upon drying, said last-named paste being forced into and through the interstices and causing such last-named paste to flow through the spaces resulting from the elevation of the stencil and around the peripheral margins of the previously introduced paste to form a marginally bonded and interlocked engagement therebetween.

2,779,271
PHOTOGRAPHIC PRINT STAMPING APPARATUS
Henry G. Goetz, Short Hills, N. J.
Application January 24, 1956, Serial No. 560,951
8 Claims. (Cl. 101—291)



1. Apparatus for stamping indicia upon subject material comprising means to position the material to receive stamping action, a stamp carrier body pivotally supported by parallel linkage for movement to and from stamping contact with the subject material, a solenoid, a lever member adapted to be actuated by said solenoid, a connecting link to operatively couple the stamp carrier body with said lever member, a switch to make and break the power supply circuit serving said solenoid, and means to effect a first and second closing and opening operation of said switch, the first closing and opening of the switch being adapted to momentarily energize the solenoid for actuation of said lever member to initiate up swinging forward motion of the stamp carrier body about its supporting parallel linkage, the inertia of which completes the forward movement of the stamp carrier body to stamping position upon deenergization of the solenoid, and the second closing and opening of the switch being adapted to again momentarily energize the solenoid and again actuate said lever member to initiate up swinging rearward motion of the stamp carrier body about its supporting parallel linkage, the inertia of which completes the rearward movement of the stamp carrier body back to normal initial retracted position upon deenergization of the solenoid.

2,779,272
IMPRINTER
John T. Davidson, Dayton, Ohio, assignor to The Standard Register Company, Dayton, Ohio, a corporation of Ohio
Application December 6, 1952, Serial No. 324,507
5 Claims. (Cl. 101—378)



1. A roll imprinter, including a cylinder, a longitudinal slot in said cylinder, said slot being undercut at the bottom thereof to define a slideway, longitudinally spaced apart vertical recesses in the side walls of said slot communicating with said slideway, adapter elements mounting selected types of imprinting means received in and seated on the bottom of said slot, key portions on said elements received in said slideway, said key portions being of a size to pass through said vertical recesses for individual installation and removal of said adapter elements, and clamp means similarly individually installed in and removed from said slot interlockingly engaged with the ends of said adapter elements for clamping said adapter elements against the bottom of said slot in selected positions of adjustment longitudinally of said slot.

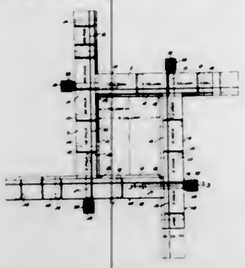
2,779,273
SPLIT CHASE LOCK-UP BAR
Ludwig A. Hollwitz, Brooklyn, N. Y.
Application November 15, 1955, Serial No. 546,883
5 Claims. (Cl. 101—391)

1. A chase lock-up bar for a pair of chases comprising an elongated structure positioned between the meeting edges of the chases, a fixed head connected to one end of the elongated structure, a slidable head carried at the other end of the elongated structure, means carried by said heads lockably connecting the same to the pair of chases, and manually actuated means carried by the elongated structure for locking the slidable head with the chases.

2,779,274
ADJUSTABLE STEREOTYPE CHASE
Edward C. Gadden, Los Angeles, Calif.
Application October 10, 1955, Serial No. 539,380
3 Claims. (Cl. 101—392)

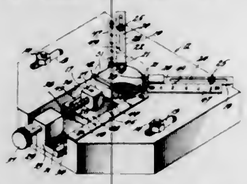
1. An adjustable chase comprising transverse and longitudinal side bars each of said bars being provided with a plurality of equally spaced slots, said slots terminating in tapered portions along the outside surfaces of

the bars, each bar having at one of its ends a threaded recess and a locking pin mounted within one of the slots



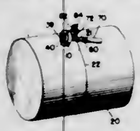
and engaging the threaded recess and having a tapered portion engaging the tapered portion of the slot.

2,779,275
ADJUSTABLE FIXTURE FOR POSITIONING AND SUPPORTING A WORK PIECE IN AN IMPACT DELIVERING MACHINE
Carroll D. Spainhour, Greensboro, N. C., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application August 4, 1953, Serial No. 372,248
10 Claims. (Cl. 101—407)



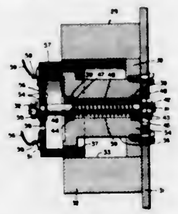
3. A fixture for supporting a disc-like work piece in an impact delivering machine, comprising a base, a plurality of radially adjustable work piece engaging arms mounted on the base for movement into engagement with the periphery of the work piece, and an anvil mounted on the base for radial adjustment independently of the work piece engaging arms into a position for supporting the work piece below an impact receiving area located between the center and the periphery of the work piece.

2,779,276
DEMOLITION FIRING DEVICE
Frank A. Clary, Jr., Bristol, Conn.
Application March 13, 1946, Serial No. 654,120
8 Claims. (Cl. 102—16)
(Granted under Title 35, U. S. Code (1952), sec. 266)



8. In an underwater demolition firing device for firing a container of explosive material, a substantially cylindrical casing, a firing pin mounted for sliding motion in said casing and having an enlarged tapered shoulder intermediate the ends thereof, a detent normally engaging said shoulder whereby the firing pin is retained in a cocked position, ball locking means including a flexible element in engagement with said detent for holding said detent in engagement with said shoulder, an electrolytic cell in said casing, releasing means carried by said cell and yieldably supported on said casing for normally retaining said ball locking means in locking position and for releasing the locking means when the electrolytic cell is decomposed and said releasing means is moved a predetermined amount, and resilient means in engagement with said ball locking means for moving the ball locking means said predetermined amount.

2,779,277
TORPEDO EXPLODER
Robert E. Smith, Washington, D. C.
Application December 3, 1946, Serial No. 713,729
7 Claims. (Cl. 102—16)
(Granted under Title 35, U. S. Code (1952), sec. 266)



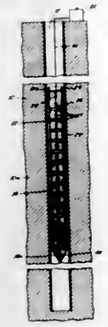
2. A torpedo exploder of the character disclosed comprising, in combination, a firing circuit, an electroresponsive squib included in said circuit, and electromagnetic means connected in said firing circuit and adapted to generate a current for firing said squib, said electromagnetic means comprising a substantially cylindrical permanent magnet provided with a longitudinal bore, an inertia responsive coil, a plunger slidably mounted within said bore and rigidly connected to said coil for moving the coil within the field of said magnet as the torpedo strikes its target, a coil spring under compression disposed within said bore and sleeved to the plunger for normally biasing and supporting the plunger and inertia coil to an initial position within the field of the magnet, and adjustable means mounted on said plunger for varying the tension of said spring.

7. An inertia generator of the character disclosed comprising, in combination, means for setting up a highly concentrated magnetic field of annular cross section, said means having a longitudinal bore, a plunger having a shoulder and slideably mounted in said bore, an induction coil mechanically connected to said plunger and positioned for transverse movement through said field in response to a sudden force appplied to said means to thereby effect relative movement between the means and the coil and generate a voltage proportional to the rate of said movement, a coil spring sleeved on the plunger and interposed under compression between said means and said shoulder on the plunger whereby the coil is urged yieldably into an initial position of rest within said field, and adjustable means carried at the other end of the plunger for varying the initial compression of said spring.

2,779,278
APPARATUS FOR PERFORATING WELL CASINGS
Robert L. Klotz, Jr., Hazelton, Pa., assignor, by mesne assignments, to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application February 19, 1947, Serial No. 729,655
8 Claims. (Cl. 102—20)

1. Well perforating apparatus comprising, in combination: an imperforate-walled housing adapted to be lowered into a well; a plurality of shaped explosive units, means mounting said units in said housing, each unit including an explosive charge having an outwardly facing cavity in at least one end thereof; means including detonating means interconnecting said units in assembled relation and positioning said units in positions spaced apart axially of said housing with their cavities facing

the wall of said housing, said interconnecting and positioning means determining, independently of the said wall of said housing, the axial an angular spacing between adjacent units; said housing being of such material

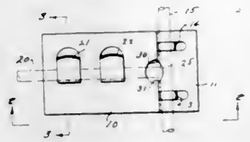


and wall thickness as to be perforated, upon detonation of said charges, without materially diminishing the well perforating effectiveness of said charges; and means for detonating said charges.

2,779,279
APPARATUS FOR SECURING A TUBE OR TUBES IN A BODY MEMBER
Paul S. Maiwurm, Finland, Pa.
Application March 8, 1952, Serial No. 275,642
2 Claims. (Cl. 102—26)

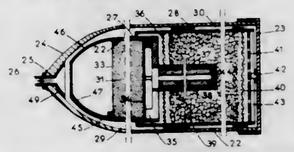
2. An explosive unit for insertion into a tube, comprising a cable, confiners in the form of balls fixed to the cable in longitudinally spaced relationship and having a slip fit in the tube to form with the inner wall of the tube an explosion chamber, an explosive charge between said confiners in the form of a cord wound around the cable, and an ignition wire extending through one of the confiners to the explosive charge.

2,779,280
FUZE CLIPS
John Strange, Cardiff, Wales, assignor to Tinnerman Products Inc., Cleveland, Ohio, a corporation of Ohio
Application January 15, 1954, Serial No. 404,353
4 Claims. (Cl. 102—27)



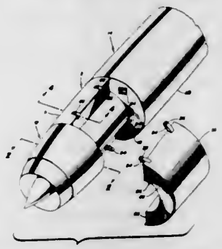
1. A clip fastener for cord-like fuses comprising, a base having a first pair of spring arms extending generally in a longitudinal direction of the base and adjacent one end thereof and adapted for holding a first fuse, said base having a second pair of spring arms extending generally in a transverse direction of the base and disposed intermediate the first set of arms and the opposite end of the base, the second pair of arms being located in alignment along a longitudinally extending median line of the base and being adapted to hold a second fuse, said one end of the base being offset towards the first set of spring arms to provide a transverse shoulder in alignment with said first set of arms, said base having a cut-out portion intersecting the transverse shoulder intermediate said first arms and in alignment with the other pair of arms, said transverse shoulder and cut-out portion co-operating to provide a generally curved shoulder portion adapted to act as an abutment for locating the end of the second fuse in engagement with the first fuse.

2,779,281
GAS GENERATOR
Pierre Maurice, Sevran, and Paul Tavernier, Vaujours, France, assignors to French State represented by the Ministry of National Defense
Application August 1, 1950, Serial No. 176,976
Claims priority, application France August 3, 1949
10 Claims. (Cl. 102—39)



8. An arrangement for producing a propulsive stream of compressed gases at a high predetermined temperature, comprising a casing, a mass of purely explosive material filling one end of said casing, a porous support resisting the action of the hot gases produced by the explosive of said charge and filling the other end of the casing and leaving a narrow transverse gap between it and the explosive charge, a substance adapted to evolve large amounts of gases at a raised temperature and incorporated in said support, an igniter associated with a point of the explosive charge facing the porous mass, and an outlet pipe opening into the casing beyond the location of porous support with reference to the explosive charge and adapted to collect the mixture of gases produced.

2,779,282
WARHEAD STRUCTURAL AND LOCATING ATTACHMENT
Zanville M. Raffel, Rockville, Md., assignor to the United States of America as represented by the Secretary of the Navy
Application October 29, 1954, Serial No. 465,766
3 Claims. (Cl. 102—49)

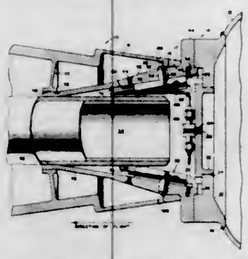


1. In combination with a missile having a plurality of sections including a warhead divided into a number of longitudinal portions and at least one other section having a portion protruding therefrom about which the longitudinal portions of said warhead are positioned, means for attaching the warhead portions to the other missile section including cleat members carried by said warhead portions, other cleat members carried by the other missile section, the cleat members on said warhead portions being adapted to be moved into mating relationship with the cleat members on the other missile section, and fastening means for holding said warhead portions together so that said cleat members remain in mating relationship.

2,779,283
CONNECTOR FOR SECURING INITIATOR ROCKET TO AN AERIAL VEHICLE

John E. Baughman, West Hyattsville, Md., assignor to the United States of America as represented by the Secretary of the Navy

Application July 15, 1953, Serial No. 368,083
15 Claims. (Cl. 102—49)

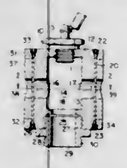


1. In combination with an aerial vehicle having a tail section and a first fitting adjacent thereto, and a booster rocket having a second fitting, said fittings being engagable in mating relationship, means including a latching device for releasably connecting said fittings together and means operable by gases generated upon the ignition of said booster rocket for releasing said latching device.

2,779,284
EXPLOSION INITIATING DEVICE

Ernest M. Kane, Oxnard, Calif.

Application April 10, 1953, Serial No. 348,143
10 Claims. (Cl. 102—70)
(Granted under Title 35, U. S. Code (1952), sec. 266)



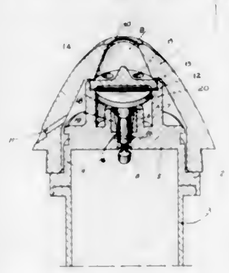
1. An explosion initiating device which comprises a hollow body member having a closed chamber formed therein, an explosive substance disposed within said chamber, means for selectively exploding said substance, a plurality of openings formed in said body member and communicating with said chamber, each of said openings being sealed by a diaphragm adapted to rupture when subjected to pressure, at least one of said diaphragms being adapted to rupture at a lower pressure than another of said diaphragms, and selectively operable safety means movably mounted on the exterior of said body member and being adapted to be positioned such that it overlies one of said openings and thereby prevents rupture of said one diaphragm.

2,779,285
FUSE FOR PROJECTILES TRAVERSING GASEOUS AND LIQUID MEDIUMS

Nils Erik Gustaf Küller, Karlskoga, Sweden

Application February 10, 1953, Serial No. 336,177
Claims priority, application Sweden March 17, 1952
8 Claims. (Cl. 102—73)

1. A fuse for an explosive projectile designed for a trajectory successively traversing a gaseous medium and a liquid medium, the said fuse comprising a closed casing, an open ended hollow cap joined to said casing so as to form a chamber bounded by the inner wall of said cap and a wall of said casing, said wall including apertures leading into the casing fuse actuating means including an actuating member slidably extending through an opening in said casing wall, a fragile closure means within said casing interposed between said apertured casing wall and said actuating means for preventing the ingress of either medium into the casing through said apertures, retaining means retaining said member in a fixed position relative to said wall, the trajectory part of the projectile through the liquid medium causing a pressure built-up in said chamber effecting a fracture of said closure means whereby the resulting ingress of liquid medium causes a displacement of the actuating member against the action

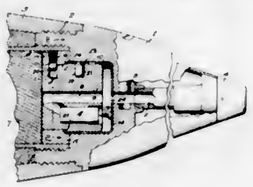


of said retaining means, and sealing means interposed between said actuating member and the surrounding casing wall portion for effecting a tight seal between the said casing wall portion and the actuating member in said displaced position of the latter thereby preventing the ingress of liquid medium into the casing, said sealing means comprising coacting surfaces on the actuating member and the casing wall portion surrounding said member, the said coacting surfaces being spaced apart in said retained position of the actuating member and in sealing engagement in the displaced position thereof.

2,779,286
DELAY PLUNGER ASSEMBLY FOR ARTILLERY TYPE FUSES

Robert P. Marshall, Falls Church, Va.

Application July 15, 1953, Serial No. 368,240
5 Claims. (Cl. 102—76)
(Granted under Title 35, U. S. Code (1952), sec. 266)

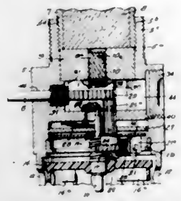


1. In a detonating fuse the combination comprising a body member, a chamber formed in said body member, a delay plunger longitudinally slidable in said chamber, a detonator carried by said plunger, a firing pin fixed in said body and in normally spaced relation with said detonator, and detent means to maintain said plunger against appreciable forward creep during projectile flight, said means comprising a plurality of circumferentially spaced radial cavities formed in said plunger, a plurality of circumferentially spaced radial bores formed in said body in radially axial registry with said cavities, a ball movable in each passage formed by the registry of respective bores and cavities, and a spring pressed detent in each bore normally urging said ball into its respective cavity, said spring pressed detent yielding to centrifugal force to permit radial ball motion to a position in part within said respective bore whereby said plunger will creep to a limited degree until motion is arrested by engagement between said ball and said bore.

2,779,287
CONTACT FUZE

Laurence M. Andrews and Jacob Rabinow, Takoma Park, Md., assignors to the United States of America as represented by the Secretary of the Army

Application November 1, 1951, Serial No. 254,429
11 Claims. (Cl. 102—81.2)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A fuse including an arming block transversely slidable from safe to armed position in a bore located rearwardly in said fuse, a detonator eccentrically disposed in said block when in safe position, a vaned impeller journaled in the nose of said fuse for transverse rotation and axially rearward translation in response to a blast of air, means in said fuse resiliently biasing said vaned impeller in a direction opposed to said rearward translation, means in said fuse rearwardly axially movable integrally a predetermined distance with said impeller against the bias of said resilient means and in response to a blast of air to engage said arming block, and a gear train in said fuse actuated by the rotation of said impeller and operatively connected to said block engaging means for moving said block and detonator to armed position in response only to a sustained air blast.

2,779,288
PROPELLANT POWDER AND PROCESS FOR MAKING SAME

Joseph Cohen and Eli D. Besser, China Lake, Calif.

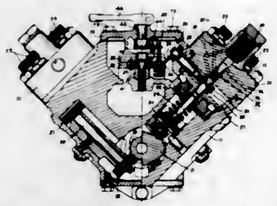
No Drawing. Application January 23, 1952, Serial No. 267,906
3 Claims. (Cl. 102—98)
(Granted under Title 35, U. S. Code (1952), sec. 266)

3. The process comprising immersing a nitrocellulose containing powder grain in a 2:1 water-ethanol solution containing 10% by weight of ammonium sulfide for a time sufficient to form a denitrated film on said grain, rinsing said grain, and immersing said grain in glycerin for one to two hours.

2,779,289
FUEL INJECTION APPARATUS FOR V TYPE ENGINES

Hans Hogeman, Longmeadow, Mass., assignor to American Bosch Arma Corporation, a corporation of New York

Application May 6, 1952, Serial No. 286,345
4 Claims. (Cl. 103—2)

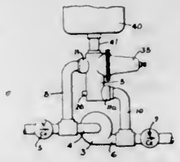


1. In a fuel injection apparatus for V type engines, a pair of distributor type fuel injection pumps, each of said pumps including a bore, a pumping and distributing member in said bore, and a plurality of outlets communicating with said bore and adapted to successively receive fuel from said pumping and distributing member and control means including a rotatable shaft for varying the pump output, cam means operating said distributor pumps and common means connected to both of said control means providing control for both of said pumps, said control means on each of said pumps including a gear sector mounted on said rotatable shaft and said common means comprising angularly adjustable gear portions engaging said gear sectors on said control means for actuating said control means to adjust the output of the two pumps relative to each other.

2,779,290
DOUBLE STAGE VALVE FOR PUMPS OR THE LIKE

Irvin E. Wiegers, Hamilton, Ohio, assignor to Hamilton-Thomas Corporation, Hamilton, Ohio, a corporation of Ohio

Application April 20, 1953, Serial No. 349,773
14 Claims. (Cl. 103—39)

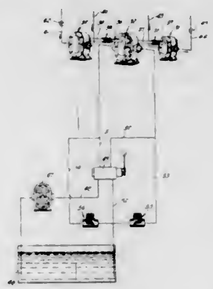


1. In an apparatus of the class described, a pump having an inlet and an outlet, a valve housing having pipe connections with said inlet and outlet, valves in said housing for controlling said pipe connections, an air dome above the water line of said pump connected to said valve housing, pressure responsive means connected to said valves for normally maintaining one valve closed and the other valve open and in communication with said air dome whereby excessive pressure in said pump will open the closed valve and connect the normally closed connection with said air dome and cause the other valve to close.

2,779,291
PUMP CONTROL

John R. Albright, Rockford, Ill., assignor to Geo. D. Roper Corporation, Rockford, Ill., a corporation of Illinois

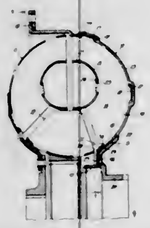
Application March 23, 1953, Serial No. 343,957
3 Claims. (Cl. 103—45)



1. In combination, a pair of product pumps communicating with separate sources of product fluids for pumping the same, a reversible hydraulic motor coupled to said product pumps for driving them alternately depending upon the direction of the motor drive, a source of hydraulic liquid, an hydraulic pump communicating with said source of hydraulic liquid to pump liquid therefrom, conduits communicating with opposite sides of said hydraulic motor, means for selectively passing hydraulic liquid from said pump through either of said conduits to

the motor to drive the motor selectively in either direction and for returning liquid through the other of said conduits back to said source of hydraulic liquid, a first bypass conduit communicating between one of said conduits and said source of hydraulic liquid, a first relief valve in said first bypass conduit operative to open in response to excess liquid pressure in said one conduit to relieve said excess liquid pressure back to said source of hydraulic liquid, a second bypass conduit communicating between the other of said conduits and said source of hydraulic liquid, and a second relief valve in said second bypass conduit operative to open in response to excess liquid pressure in said other conduit to relieve said excess liquid pressure back to said source of hydraulic liquid.

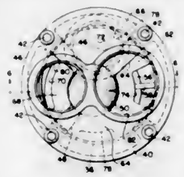
2,779,292
HYDRODYNAMIC COUPLING
Reinhold C. Zeidler, Detroit, Mich., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Original application December 31, 1948, Serial No. 68,691. Divided and this application February 27, 1952, Serial No. 273,725
4 Claims. (Cl. 103—115)



1. In a vaned element of a hydrodynamic coupling of the torque-multiplying type, the combination of a hollow, substantially semi-toroidal casing; a plurality of radially spaced semi-circular curved vanes fitting within said casing, each vane being curved in the direction of its thickness; means securing said vanes to said casing; a hollow, substantially semi-toroidal sheet metal core ring engaging the inner edges of said vanes and having a plurality of circumferentially spaced slots intermediate its opposite edges and also circumferentially spaced seats on its outer surface adjacent one edge thereof engaging edges of said vanes; tabs on said vanes extending into said slots and engaging the inner surface of said core ring, the arcuate inner edge of each vane being of less diameter than that of the outer surface of the core ring between its engagement with the seat on said core ring and the tab thereof and the linear distance between the end of the slot of the core ring, engaged by the tab, and the slot of the core ring engaged by said edge of said vane, being greater than the linear distance between the vane tab and said vane edge to provide forces placing said core ring under compression and slightly distorting the core ring to reduce its outer diameter to prevent vibrating movement of said vanes relative to said core ring.

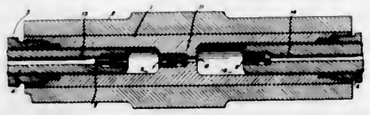
2,779,293
METHOD AND APPARATUS FOR PUMPING
Kenneth R. Lung, Dayton, Ohio, assignor to The Tait Manufacturing Company, Dayton, Ohio, a corporation of Ohio
Application December 9, 1953, Serial No. 397,220
10 Claims. (Cl. 103—118)

1. In a combination pump-motor unit, a cylinder, a rotor eccentrically mounted in said cylinder; vanes in said rotor dividing the space between it and said cylinder into a plurality of pumping chambers which expand during 180° of rotation of said rotor and contract during the other 180° of rotation of said rotor; a casing surrounding said cylinder; end covers on said casing and closing the end of said cylinder; partition means in said end covers dividing th space between each end cover into a first compartment communicating with said chambers during the initial expansion thereof, a second compartment communi-



cating with said chambers during the remainder of the expansion thereof, and a third compartment communicating with said chambers during the contraction thereof; passage means in said unit connecting the first, second, and third compartments in one cover with the first, second, and third compartments, respectively, in the other cover; and port means in said covers communicating with said compartments.

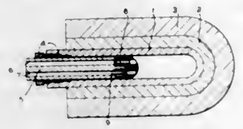
2,779,294
HIGH PRESSURE PUMP
William Reginald Dermot Manning, St. Alban, England
Original application January 15, 1952, Serial No. 266,534. Divided and this application July 12, 1954, Serial No. 442,851
1 Claim. (Cl. 103—158)



A two-stage reciprocating pump capable of generating pressures greater than 1,000 atmospheres comprising: a reciprocating cylinder of uniform exterior diameter having axially aligned bores of different diameters extending inwardly from the opposite ends of said cylinder and separated by a central wall continuous with the side walls of said bores, the interior junctions of said side and central walls being curved to eliminate stress-concentrating abrupt angles; a one-piece reinforcing jacket coextensive with the length of said cylinder and shrunk thereonto; a duct in said central wall connecting said bores; a non-return valve controlling said duct; a pair of relatively-fixed plunger-type, stationary pistons mounted in said bores; a pump inlet duct in the larger of said pistons and a pump outlet duct in the smaller of said pistons; and one-way valves controlling said inlet and outlet ducts at the inner ends of said pistons.

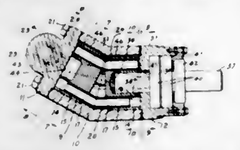
2,779,295
HIGH PRESSURE PUMP
William Reginald Dermot Manning, St. Albans, England, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain
Application January 15, 1952, Serial No. 266,534
Claims priority, application Great Britain January 31, 1951
2 Claims. (Cl. 103—158)

1. A reciprocating pump capable of generating pressures greater than 1,000 atmospheres comprising: a reciprocating cylinder having side walls and a hemispherical end wall continuous with said side walls, said side and end walls being of uniform thickness and having smooth, uninterrupted exterior surfaces free of projections, the other end of said cylinder being open; a stationary piston mounted in said cylinder and defining therewith a pump chamber; pump inlet and outlet ducts



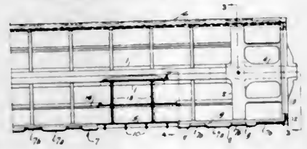
extending through said piston; and pump inlet and outlet valves for said ducts at the inner end of said piston.

2,779,296
HYDRAULIC PUMP OR MOTOR
Edward C. Dudley, Burbank, Calif., assignor, by mesne assignments, to Eastman Pacific Company, Los Angeles, Calif., a corporation of California
Application July 19, 1950, Serial No. 174,611
8 Claims. (Cl. 103—162)



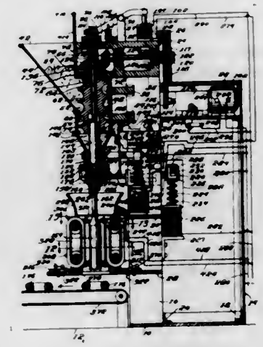
1. A pump comprising a housing having a fluid inlet and a fluid outlet, rotary fluid displacement means of the angularly related piston and variable volume cylinder type including, a rotatable cylinder block having a sealing surface on one end intersected by a plurality of cylinder bores, means within the housing supporting the block for limited axial shifting in response to forces on the block, porting means providing a porting surface adjoining said sealing surface controlling the flow of fluid from said inlet to said bores and from said bores to said outlet, a pressure receiving surface on the other end of said cylinder block forming together with means including a portion of said housing a pressure space, means to fill said space with fluid at increased pressure generated by the pump thereby loading the cylinder block axially against said porting surface with thrust forces proportionate to pressures generated by the pump, recess means formed between said sealing surface and said porting surface, and a passage extending from said recess means to a zone in said pump at low pressure for venting said recess means to a lower pressure than the operative pressures in said pressure space to maintain the forces acting on said cylinder block in the direction of said porting means proportionately greater than the forces acting on said cylinder block tending to separate said sealing and porting surfaces, whereby said sealing and porting surfaces are maintained in sealing relation.

2,779,297
RAILWAY CAR BODY STRUCTURE
James C. Travilla, University City, Mo., assignor to General Steel Castings Corporation, Granite City, Ill., a corporation of Delaware
Application June 21, 1952, Serial No. 294,836
3 Claims. (Cl. 105—409)



1. A railway car side metal casting comprising a top chord with a horizontal flange, a side sill and a generally upright web between the top chord and the sill with its upper portion inclined to the general plane of the car side substantially throughout its length and merging with the top chord, said web having corrugations offset transversely of the web and elongated vertically with the upper ends merging with said inclined portion of the web and providing increased rigidity of the same transversely of the care side substantially throughout its length.

2,779,298
MACHINE FOR MOLDING DOUGH RINGS
Frank Chwirut, Miami, and Morris Greenblatt, Miami Beach, Fla.
Application June 24, 1955, Serial No. 517,722
2 Claims. (Cl. 107—14)

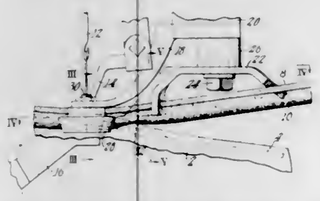


1. A machine for producing dough rings comprising a hopper containing dough, a hollow cylinder open at both ends defining a dough discharge passage in communication with said hopper at one end, an auger mounted to rotate about its longitudinal axis and arranged to extend longitudinally of said passage to force the dough from said hopper through said discharge passage, means to rotate said auger, molding and extruding means receiving the dough from said discharge passage to form the dough into a tube and extrude the dough as a ring at its discharge end, and cutting means for severing the extruded dough ring from the tube, said molding and extruding means comprising a tubular housing in communication at one end with said discharge passage, and a core disposed within said housing in concentrc spaced relation thereto to define a tube molding chamber in the space between said core and said housing, said auger having a central bore longitudinally therethrough, a connecting rod freely disposed in said bore for reciprocating movement longitudinally therethrough independently of the rotation of said auger, said core carried by said connecting rod at one end thereof for movement therewith and extending longitudinally therefrom through said discharge passage and through said molding and extruding means.

2,779,299
SHOE SEWING MACHINES
Philip H. Randall, Belmont, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application November 22, 1954, Serial No. 470,490
2 Claims. (Cl. 112—52)

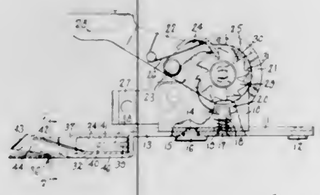
1. A machine for attaching to the bottom of a flat lasted shoe, a welt formed with an attaching flange and a resilient weather excluding lip extending at an acute angle to each other to cause the lip to press yieldingly against the bulging surface of the upper, said machine having attaching and work feeding devices, a rotary shoe entering horn, a presser foot acting to clamp the work

against the horn and an edge gage mounted on the presser foot along the line of attachment opposite the point of operation of the attaching devices, in combination with a slotted guide mounted along the line of attachment in advance of the presser foot, shaped to fit the flange of the welt and provided with an integral finger extending from one side of the slot in the guide beneath the attaching



flange on the welt and at an acute angle to the direction of the welt running between the guide and the presser foot to bulge the lip on the welt immediately in advance of the point of attachment from an acute angular relationship with the attaching flange at one side of the lip into an obtuse angular relationship with the flange, thus clearing the shoe for free movement in advance of the presser foot.

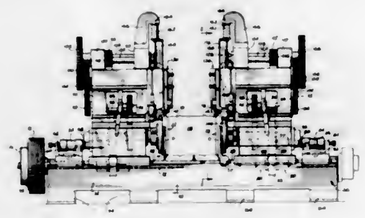
2,779,300
OVERCASTING ATTACHMENT FOR SEWING MACHINES
Carl G. Baehr, West Haven, Conn., assignor to The Greist Manufacturing Company, New Haven, Conn., a corporation of Connecticut
Application November 6, 1953, Serial No. 390,437
4 Claims. (Cl. 112—160)



1. An overcasting attachment for a sewing machine comprising a frame, a lever pivotally secured thereto for movement in a horizontal plane, a presser foot carried by said lever, a scroll member carried by the presser foot and disposed forwardly thereof, means on said scroll member to turn the edge of a piece of material passing therethrough into a substantially vertical plane, a guide member extending rearwardly from the scroll member, said guide member having a surface in a substantially vertical plane extending along and in laterally spaced relation to an adjacent edge of the presser foot to support the upturned edge of material and provide a passage therefor between said surface and the adjacent edge of the presser foot, and means for oscillating said lever to move said guide member from one side of the path of the needle to the other.

2,779,301
APPARATUS FOR FORMING BARREL SEAMS
Carl C. Grotnes, Park Ridge, Ill., assignor, by mesne assignments, to Grotnes Machine Works, Inc., a corporation of Illinois
Application March 10, 1951, Serial No. 214,937
2 Claims. (Cl. 113—23)

1. A seaming machine for seaming a flanged sheet metal head to the circumferentially flanged end of a sheet metal drum which comprises in combination, means for rotating the assembled drum and head about the axis of the drum with the flanges contiguous to one another, first and second grooved rollers lying in the plane of the flanges and spaced from one another about the flange periphery, each of said rollers having a flange-receiving annular groove for receiving and curling the flanges, first and second supports for mounting said rollers respectively and radially movable with respect to the drum, first means drivingly coupled to the drum rotating means for positively advancing the first roller support toward the flanges into a flange-curling position for imparting an initial curl

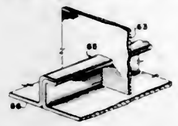


to the flanges, and second means drivingly coupled to said drum-rotating means for positively advancing the second roller support into a flange-curling position which is advanced incrementally beyond the position of the first roller and timed with respect to the arrival at the second roller of the section of the flange curled by the first roller, said advancing means including means for thereafter advancing the roller supports alternately by incremental amounts, each roller achieving substantial lead with respect to the other roller and timed with respect to the arrival at each roller of the section of the flange operated on by the other roller.

2,779,302
SPEED WING FOR MOTOR-DRIVEN BOAT
Herbert J. Atkinson, Sudbury, Mass.
Application August 16, 1955, Serial No. 528,720
1 Claim. (Cl. 114—66.5)

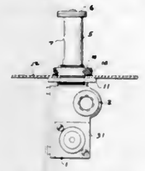
A boat comprising a body having a rigid upright rear end portion, a speed wing constituting a separate rigid unit and comprising a bottom portion to react against upward water thrust and a rigid upright front portion located adjacent and substantially parallel to the rear end portion of the boat but spaced therefrom, means to yieldably secure the lower part of the upright front portion of said wing to the lower part of the rear end portion of the boat, and manually-operated cam means to vary the spacing of the upper part of said upright front portion of said wing from the upper part of said rear end portion of said boat, and to thereby vary the angular position of the wing unit relative to the rear end portion of said boat, and said securing means comprising a bolt-and-nut construction and yieldable collars mounted on said bolt at each side of said upright portion of said wing and permitting small changes in the angular spacing of the upper portion of the wing unit from the rear end of the boat by said manually-operated cam means while substantially retaining the initial relationship of the lower part of said speed wing unit to said boat end portion.

2,779,303
SHIP HULL BOTTOM PLATING HAVING INTEGRAL BENT BACK REINFORCEMENT
Joseph Cupples, Brooklyn, N. Y.
Application September 14, 1950, Serial No. 184,796
3 Claims. (Cl. 114—79)



1. In a ship hull construction, a bottom shell plating having an integral longitudinal-extending structural stiffening portion formed of the plating bent back upon itself interior of the hull and providing vertical abutting surfaces lying in the outer side of the plating, said structural portion being further bent to provide a web and flange running coextensively of the plating, said structural portion having a slot through the flange and extending partially down through the web transversely thereof, and a bulkhead extending transversely through the structural portion and having a slot in its lower edge fitted in said slot in the structural portion and receiving the remainder of the web.

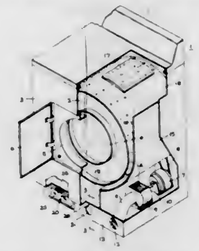
2,779,304
LOW PRESSURE INDICATOR
Herbert M. Robinson, Detroit, Mich., assignor to Robinson Products, Inc., Detroit, Mich., a corporation of Michigan
Application December 2, 1954, Serial No. 472,645
2 Claims. (Cl. 116—70)



1. A low pressure indicator comprising a housing having two opposed walls and an intermediate wall, a connection on one of said opposed walls for a pressure line, a push rod slidable in said housing and into said connection, a compressed spring having one end fixed relatively to said rod at the end thereof nearer said connection and its other end bearing against the remaining opposed wall whereby to push said rod against pressure in said line, a signal rod slidable on its axis through said intermediate wall of said housing, from a concealed position to an exposed position, and leverage connecting said push rod to said signal rod and adapted to project said signal rod from said housing on expansion of said spring against pressure in said line.

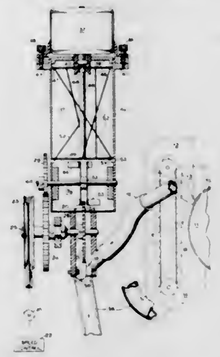
2,779,305
AUDIBLE SIGNALLING MEANS FOR CLOTHES DRYER LINT TRAPS
Robert L. Dunkelman, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application October 5, 1955, Serial No. 538,590
2 Claims. (Cl. 116—112)

1. In a clothes dryer, a clothes container, air heating means, air moving means for circulating air over said heating means and through said container for drying the clothes therein, a lint trap for removing lint from the air leaving said container, whistle means having its intake connected on the upstream side of said lint trap, and a pressure responsive, resilient diaphragm arranged to respond to the pressure on the upstream side of said lint trap, said diaphragm normally assuming a first position and flexing to a second position in response to the pressure on the upstream side of said lint trap rising above a predetermined level, said diaphragm shutting said intake of said whistle means in said first po-



sition and opening said intake when in said second position, whereby said whistle means is operated to produce a signal when said lint trap clogs sufficiently to cause the upstream pressure to reach said predetermined level.

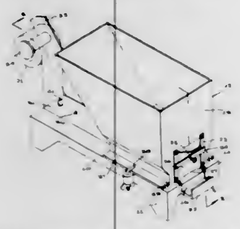
2,779,306
ELECTROSCOPIC TONER METERING DEVICE
Harry L. Dunn, Endicott, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application March 25, 1955, Serial No. 496,833
4 Claims. (Cl. 118—303)



1. A xerographic image developing station having a developer hopper, a developer reservoir, and means for conveying xerographic developer from said reservoir at the bottom of said station to said hopper at the top thereof, in combination with, an electroscopic toner adding apparatus for dispensing said toner in metered quantities comprising a toner compartment having a toner inlet port and a toner outlet port; a rotatable toner metering wheel positioned within said compartment for rotation between said inlet and said outlet ports, said wheel having toner-holding notches arranged along the periphery thereof; a resiliently flexible element, one end of which is supported by said compartment and the other end of which lies against the periphery of said toner metering wheel over said toner-holding notches, said wheel acting to flex said element in an arc corresponding to the circumference of said wheel; drive means for rotating said wheel whereby said toner-holding notches carry said toner from said inlet port to said other end of said flexible element lying against the periphery of said wheel so as to cause said toner to be removed from said toner-holding notches to said outlet port; a first tube connected at one end to said hopper and at the other end to said compartment for effecting a flow of said developer from said hopper to said outlet port; and a second tube connected at one end

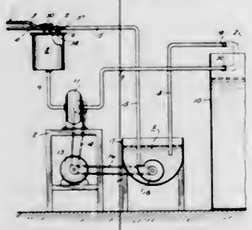
to said compartment and at the other end to said reservoir so that the mixture of said developer and the metered quantities of said toner are flushed away from said outlet port to said reservoir by the action of said developer.

2,779,307
ADHESIVE APPLICATOR FOR WALL JOINT TAPES
Dominick G. Foresta and William Levin, Herkimer, N. Y.
Application April 1, 1955, Serial No. 498,623
3 Claims. (Cl. 118—413)



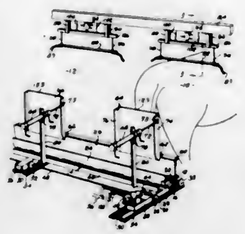
1. An adhesive applicator for wall joint tapes comprising a horizontally disposed base having a longitudinally arranged opening extending inwardly from one end thereof, a hopper having an open bottom rising from said base with said bottom in registry with said opening adapted to contain adhesive, said hopper having a dispensing aperture in one wall thereof, a first closure member normally closing the opening in said base and connected to said base for movement from the position closing said opening to a position out of closing relation, a second closure member normally supported on the portion of said base exteriorly of said hopper in end to end spaced relation with respect to said first closure member and connected by a bridge element carried by said base and having upstanding ribs slidably engaging the under face of said second closure member to said base for sliding movement toward and away from said hopper, said second closure member upon execution of its movement toward said hopper causing the confronting end to abut the adjacent end of said first closure member and effect the movement of said first closure member to its non-closing position, and means for feeding a web of wall joint tape to be coated over said first closure member and out of said dispensing aperture, said web while being supported on said first closure member receiving on the face facing said hopper bottom a coating of adhesive from said hopper.

2,779,308
PIPE LINE MILKING SYSTEM AND VALVE THEREFOR
Albert F. Gallistel, Minneapolis, Minn., assignor to Perfection Manufacturing Corporation, Minneapolis, Minn., a corporation of Minnesota
Application May 8, 1953, Serial No. 353,780
1 Claim. (Cl. 119—14.18)



In a pipe line milking system for a dairy building having plurality of stalls therein, a milk collecting conduit adapted to pass in close proximity to said stalls and encompass a given area in said building, said conduit sloping downwardly in opposite directions from a high point at its intermediate portion to its opposite ends, valve means in said conduit on one side of said high point for collecting milk from said stalls, a valve structure including a valve body having fluid passages therein and a cooperating ported valve element mounted in said body for movements causing communication between given ports in said element and given passages in said body, opposite ends of said milk collecting conduit being connected to different passages in said valve body, a discharge conduit connected to one of said valve body passages for delivery of milk therefrom to a cooling tank, a pump interposed in said discharge conduit, a reservoir for flushing liquid, a second pump, conduit means connecting said second pump to said reservoir and to a passage in said valve body, and a return conduit to said reservoir adapted to be coupled to the delivery end of said discharge conduit, said valve element being movable between a milk delivery position, wherein both ends of said milk collecting conduits are operatively coupled to said cooling tank through said first mentioned pump and said discharge conduit, and a fluishing position wherein, when said return conduit is coupled to the delivery end of said discharge conduit, flushing liquid from said reservoir is caused to flow through all of said conduits and said valve structure responsive to operation of said second pump.

2,779,309
DAIRY STABLE SANITATION EQUIPMENT
Howard I. Myer, Fulton, N. Y., and Fred C. Myer, Punta Gorda, Fla.
Application October 12, 1954, Serial No. 461,765
7 Claims. (Cl. 119—27)

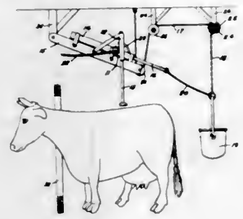


1. A dairy stable sanitary apparatus comprising an animal waste receiver adapted to be located at the rear of a stall, a chute hinged on said receiver adapted to discharge thereinto, and to be moved from a vertical non-operative position to an inclined position extending into a stall, means mounted on said receiver and having a connection to said chute for moving said chute from the vertical to the inclined position and vice versa, sensing means located forward of said receiver and adapted for location above said stall comprising a member adapted to be engaged by an animal's back when rising in response to an arching reflex, and means associated with said moving means and actuated by movement of said bar in response to said reflex for causing movement of said chute to the inclined position.

2,779,310
DAIRY STABLE SANITATION EQUIPMENT
Howard I. Myer, Fulton, N. Y., and Fred C. Myer, Punta Gorda, Fla.
Application August 12, 1953, Serial No. 373,754
4 Claims. (Cl. 119—27)

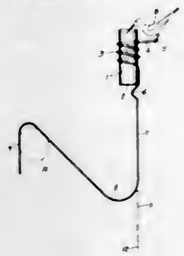
1. A dairy stable sanitary apparatus comprising in combination, with an animal stall having an overhead

support extending lengthwise of the stall, an animal waste receiver suspended at the rear of said stall from said support, said receiver being located at a height above the floor of the stall and being adapted to be swung from a freely suspended position, to a position forward thereof and in engagement with the posterior of an animal confined within the stall, power actuated means extending lengthwise of the stall and mounted on said support, and having operative connection with said suspended receiver for swinging said suspended receiver to said position



forward in said stall, sensory means carried by said support and located centrally of said stall and positioned to be engaged by and adapted to be moved upward by an animal's back when rising in response to an arching reflex, and means associated with said sensory means and actuated by the upward movement of said sensory means in response to an arching reflex for controlling the application of power to said power-actuated means, whereby to swing said receiver forward to a posterior engagement position of an animal confined within said stall.

2,779,311
BIRD FEEDER WITH PERCH SUPPORT THEREFOR
Kenneth D. Hamilton, Cedar Grove, N. J.
Application December 12, 1955, Serial No. 552,425
4 Claims. (Cl. 119—51)



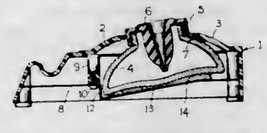
1. A bird feeder comprising a tube of suitable material to carry bird feed, the tube having a closed bottom, a single one piece support for the tube comprising a coil of at least one turn of suitable material fitting tightly around the tube, the coil having its end adjacent the open end of the tube extending away from said open end to form a seat for a bird while the opposite end of the coil extends inwardly of the coil to form a bottom support for the tube and the coil then terminating in an elongated support.

2,779,312
ANIMAL STALL HAVING SWIVEL TYPE ADJUSTABLE V YOKE
Paul K. Girton, Millville, Pa.
Application May 27, 1954, Serial No. 432,873
18 Claims. (Cl. 119—147)

1. In a stall device of the type described, a pair of laterally spaced partition rails each having a front end and each extending rearwardly and downwardly and anchored to a floor portion of a stall, a separate upright standard for the front end of each rail of said pair of rails, said rails being fixed at their respective front ends to the associated standard and said standards being fixed to said floor, a pair of spaced vertical yoke supporting uprights positioned in a single plane intermediate the pair of said upright standards, each of said spaced vertical yoke supporting uprights being secured to the adjacent one of said pair of upright standards and fixed to said floor, sectional clamping and supporting means adjustably clamped in alignment to said yoke supporting uprights, V-shaped

yoke means having opposed ends and having outwardly extending and aligned pintle elements at each of its opposed ends adjustably clamped and releasably fixed in rigid position in said clamping and supporting means, said pintle elements pivotably extending into clamp type sectional bearing ports formed intermediate the adjacent sections of said clamping and supporting means, and clamp securing means clamping said supporting means to said supporting uprights and simultaneously clamping said pintle elements in said sectional bearing ports in rigid releasable fixed position.

2,779,313
INKSTAND
Paul R. Touney, Toledo, Ohio
Application January 14, 1955, Serial No. 481,918
3 Claims. (Cl. 120—73)

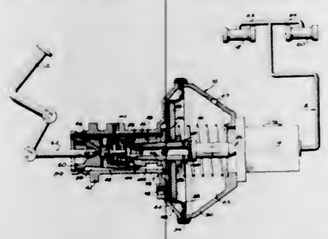


1. An inkstand comprising a box-like stand with an open bottom and a restricted opening in its top, a bottom plate of pliant sheet material mounted in said open bottom of the stand for supporting an ink bottle and yieldingly hold it against the top of said stand with its neck projected through said top opening, the bottle supporting portion of said plate being inclined upwardly and rearwardly to impart a forward incline to the ink bottle.

2,779,314
COMBINED FLUID PRESSURE MOTOR AND VALVE MECHANISM
Stephen Vorech, Elyria, Ohio, assignor to Bendix-Westinghouse Automotive Air Brake Company, Elyria, Ohio, a corporation of Delaware
Application September 21, 1953, Serial No. 381,389
4 Claims. (Cl. 121—41)

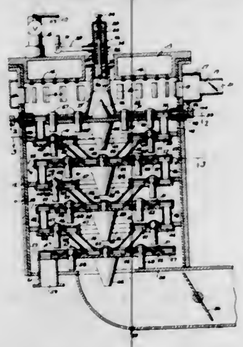
1. A fluid pressure actuator comprising a housing having a pressure responsive member therein, said member defining with said housing, a pressure chamber at one side of said chamber and an atmospheric chamber at the opposite side of said member, a stationary sleeve connected with the housing, and means for controlling the flow of compressed air to and from the pressure chamber and for manually moving said pressure responsive member, comprising a follow-up valve device including a movable sleeve connected with said member and provided with a passage therethrough, an inlet valve for connecting said pressure chamber with a source of compressed air, an exhaust valve rigidly connected with the inlet

valve, a manually movable valve operating member slidably mounted in the stationary sleeve and provided with an inlet valve seat for the inlet valve, resilient means interposed between said valve operating member and the exhaust valve for normally maintaining said inlet valve closed on its seat, one end of said movable sleeve being formed with an exhaust valve seat for the exhaust valve and the passage of said movable sleeve communicating at all times with said atmospheric chamber, resilient means interposed between said valve operating member and said movable sleeve for normally maintaining the exhaust



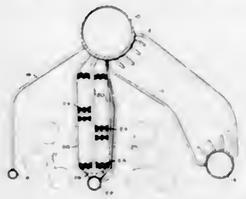
valve spaced from the exhaust valve seat, means for preloading the last named resilient means comprising a pair of interconnected relatively movable collars, one of said collars being connected with the movable sleeve and the other collar being connected with the valve operating member, and means for mechanically connecting the valve operating member with the movable sleeve to manually move said sleeve and the pressure responsive member after a predetermined amount of sliding movement of said valve operating member relative to said movable sleeve has occurred.

2,779,315
STEAM GENERATOR
Jesse Dee Tucker, Patterson, Calif.
Application October 22, 1953, Serial No. 387,727
5 Claims. (Cl. 122—208)



1. A steam generator comprising a cylindrical casing, a burner in the first end of said casing, means for regulating the heat emitted from said burner, a flue for spent gases at the second end of said casing, a plurality of superposed pairs of plates mounted in said casing between said burner and said flue, each pair of plates being grooved out to provide an enclosed passageway for water-vapor and steam, a plurality of pipes providing communication from the passageway in one pair of plates to the passageway in the next pair of plates, said plates and pipes providing a circuitous pathway for water vapor and steam, one pair of plates being annular and its outer edge engaging said casing and the adjacent pair of plates being disk-shaped and its outer edge being spaced inwardly from said casing, conical diffusers projecting down from the bottom of a pair of disk-shaped plates into the hole in the underlying pair of annular plates thereby providing a circuitous pathway for hot gases produced by said burner, means for injecting water vapor in the passageway in the plates at the first end of said casing, said means including a high-pressure pump and a nozzle and a pipe connecting said pump and nozzle, and a steam discharge line communicating with the passageway in the pair of plates at the second end of said casing.

2,779,316
SUPERHEATER TUBE SUPPORT
Charles H. Meigs, Bremerton, Wash., and Herbert Teitelman, Newton Highlands, Mass., assignors to the United States of America as represented by the Secretary of the Navy
Application April 10, 1953, Serial No. 348,139
3 Claims. (Cl. 122—510)
(Granted under Title 35, U. S. Code (1952), sec. 266)

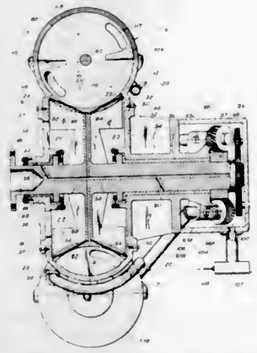


1. In a steam generator or the like having upper and lower steam and water drums interconnected by transversely spaced generating tubes which have a bank of superheater tubes positioned therebetween and generally parallel with said drums, the improvement which comprises sleeves fixed about each of said superheater tubes, bracket members secured between said transversely spaced generating tubes for receiving the sleeves of the lowermost row of superheater tubes and for supporting said bank of superheater tubes, said sleeves on the superheater tubes being positioned in general vertical alignment with the bracket members and the surfaces of the sleeves being in contact at spaced areas whereby the superheater tubes are maintained generally aligned in superposed rows and said sleeves permit the independent removal of said tubes.

2,779,317
LOW SULFUR, MINERAL BASE LUBRICATING OILS AND METHODS FOR USING SAME
Clinton H. Holder, Westfield, N. J., Robert L. Weeks, Hythe, England, and William T. Knox, Jr., Cranford, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application September 8, 1953, Serial No. 379,053
6 Claims. (Cl. 123—1)

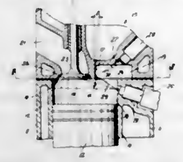
1. In the operation of an internal combustion engine of the reciprocating type having a compression ratio above about 7:1 in which an essentially hydrocarbon tetraethyl lead-containing fuel composition is introduced into the combustion chamber thereof under combustion conditions, the improvement for reducing the formation in said combustion chamber of sulphur-containing deposits of the type that increase the fuel octane requirement of the engine, which comprises lubricating the parts of said combustion chamber subject to friction with a lubricating oil having a decreased tendency to contribute towards octane requirement increase in said engine, said lubricating oil consisting essentially of a major portion of a mineral oil base stock which is a solvent extracted and dewaxed catalytic cycle oil distillate boiling within the range of about 300° to 600° F. at an absolute pressure of about 10 mm. Hg and a minor portion of at least one non-sulfur addition agent sufficient in amount to improve at least one characteristic of said composition, said lubricating oil having a total sulfur content not substantially above about 0.1 weight percent.

2,779,318
INTERNAL COMBUSTION ENGINE
Walter F. Strader, Los Angeles, Calif.
Application March 15, 1954, Serial No. 416,041
1 Claim. (Cl. 123—13)



In an internal combustion engine, the combination comprising a rotatable shaft, a rotor mounted on the shaft, a stator disposed around the shaft to form with the rotor an annular cylinder, at least one piston mounted on the rotor to work in the cylinder, at least two discs housings adjacent the cylinder and communicating therewith, a separate rotatable disc mounted in each housing to traverse the cylinder and divide it into compartments, each disc having an opening arranged to permit the passage of a piston therethrough when the said opening is within the cylinder, a detachable tube mounted on the exterior of a first disc housing for providing a by-pass conduit around the disc within the first housing, the disc in the first housing having a recess to provide, in conjunction with the associated housing wall, a passage for intermittently connecting the cylinder to the by-pass conduit, a fuel inlet to the cylinder on one side of the disc in a second housing, an exhaust outlet from the cylinder on the other side of the disc in the second housing, means for igniting the fuel in the by-pass conduit, and means for synchronizing the rotation of the discs with the pistons whereby fuel is drawn into the cylinder by one piston, compressed against a recessed disc and into the by-pass conduit by a following piston, burned, released behind the following piston, and finally exhausted from the cylinder by the next following piston.

2,779,319
INTERNAL COMBUSTION ENGINE
Karl-Heinz R. Göschel, Stuttgart-Unterturkheim, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application April 18, 1955, Serial No. 502,135
Claims priority, application Germany April 21, 1954
5 Claims. (Cl. 123—32)



1. An internal combustion engine comprising a cylinder, a piston reciprocably guided therein, a cylinder head having a face extending transversely to the axis of and confining the compression space of said cylinder, a recess being provided in said face extending laterally beyond the periphery of said cylinder and constituting an extension of said compression space, said lateral recess having a side wall adjoining said face and extending across the end face of said piston, a fuel injection nozzle mounted in the wall of said cylinder adjacent to said recess in opposed relationship to said side wall to spray a jet of fuel into said cylinder and against said side wall, and a spark plug mounted in said recess at a position where it will be met by fuel reflected from said side wall.

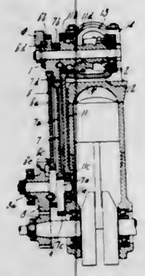
2,779,320
INTERNAL COMBUSTION ENGINE
Karl-Heinz R. Göschel, Stuttgart-Unterturkheim, and Hans R. Grözinger, Plochingen (Neckar), Germany, assignors to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkeim, Germany
Application April 18, 1955, Serial No. 502,136
Claims priority, application Germany April 17, 1954
6 Claims. (Cl. 123—32)

1. Internal combustion engine comprising a cylinder having a cylinder head, an inlet valve and an outlet valve mounted in said head in positions inclined to the axis of said cylinder, a piston reciprocably guided in the later having inclined end faces, said cylinder head and said end faces being so shaped and said valves being so disposed in opposed relationship to said end faces that said cylinder head, said valves, and said piston confine a compression space of inverted V-shaped cross section, such section being taken along a substantially diametrical axial plane containing the axes of said valves, and a fuel injection nozzle disposed in the wall of said cylinder opposite to said outlet valve and adjacent to said inlet valve and spaced from said cylinder head a distance causing it to be uncovered by said piston in the course of the first half of the suction stroke thereof, said nozzle being so shaped and disposed as to be operative, right after it has been uncovered by said piston, to spray at least the major portion of the fuel upon that one of said inclined end faces which is in opposed relationship to said fuel injection nozzle and said inlet valve.

2,779,321
CAMSHAFT DRIVE FOR HIGH SPEED INTERNAL COMBUSTION ENGINES
Albert Roder, Neckarsulm, Germany, assignor to NSU Werke Aktiengesellschaft, Neckarsulm, Wurttemberg, Germany
Application November 20, 1952, Serial No. 321,670
Claims priority, application Germany November 29, 1951
3 Claims. (Cl. 123—90)

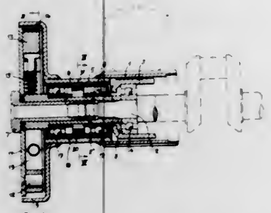
1. A camshaft drive with crank drive means for use in a high speed valved combustion engine having a drive shaft; comprising gear drive means operatively connecting said drive shaft with said crank drive means, respective mass-balancing means on said cam-shaft and on said gear drive means to ensure smooth running of the drive, cam actuated means for opening and closing the valves

of said engine, and camshaft supporting means pivotally disposed on top of said engine and provided with openings, said cam actuated means being provided with extension means passing through said openings of said



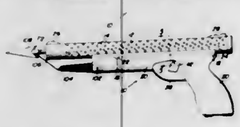
supporting means, whereby said cam-shaft and said cam actuated means will follow changes due to manufacturing inaccuracies and also caused by heat expansion and contraction when said engine is in operation.

2,779,322
TORQUE TRANSMITTING DEVICE FOR BICYCLES PROVIDED WITH AN AUXILIARY ENGINE
Carlo Gilardi, Milan, Italy
Application November 13, 1953, Serial No. 392,017
Claims priority, application Italy November 19, 1952
11 Claims. (Cl. 123—179)



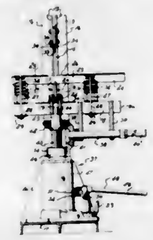
1. In combination with a cycle having an auxiliary engine and a driving member actuated by said engine and engaging a wheel of the cycle, a torque transmitting device between said engine and member comprising an engine shaft, a speed-responsive clutch between the shaft and member, and a one-way connection between the shaft and member for starting the engine from the member.

2,779,323
SPEAR PISTOL
John G. Thomsen, Fulton, Ill.
Application March 24, 1955, Serial No. 496,384
5 Claims. (Cl. 124—27)



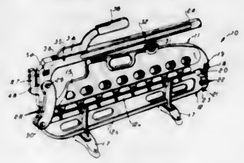
1. A pistol comprising a barrel having an apertured breech plug and an apertured muzzle guide plug, a pistol grip secured to said barrel, a receptacle having a rear portion extendable through said breech plug, a trigger extending through said barrel and into said pistol grip, said trigger having an opening therethrough, said rear portion of said receptacle extending through said opening and having a shoulder engageable with said trigger, and a spring biasing said breech plug and said receptacle, said trigger being pivotally attached to said breech plug.

2,779,324
MASON'S SPLITTING MACHINE
Leon H. Schlough, White Park, and Wesley E. Schlough, Saint Cloud, Minn.
Application April 19, 1954, Serial No. 423,879
6 Claims. (Cl. 125—23)



1. A splitting machine for stone and masonry products comprising a base, a pair of spaced uprights secured to the base and each having an inwardly facing longitudinal guideway therein, a fixed knife blade secured across the uprights in spaced relation to the base and having a knife edge directed toward the base, a vertically movable knife blade extending across the uprights with opposed side edge portions thereof engaging said guideways, said movable knife blade having a leading knife edge directed toward the knife edge of the first mentioned knife blade to cooperate therewith, a hydraulic ram secured in upstanding relation with the base intermediate said uprights, the movable member of said ram having a main rear section and a forward section extensible and contractible relative thereto, said forward section being disposed with its outer end in vertical alignment with said movable knife blade at the underside thereof in supporting operative relation therewith to exert upward pressure thereon, the movable ram member with its forward extensible section being movable outwardly slowly under high hydraulic pressure of the ram to split a product placed between the edges of said knife blades, and separate manually operable mechanism interposed between the rear end portion of said extensible forward section of the ram and the forward part of the rear ram section and providing for moving said extensible section outwardly relative to the rear ram section at a relatively greater rate of lineal movement and a relatively lesser degree of power for quick positioning of said movable knife blade in light work contacting position before final splitting pressure is applied through the hydraulic ram.

2,779,325
SHINGLE CUTTER
Joe W. Beckham, Lufkin, Tex., assignor to Texas Foundries, Inc., Lufkin, Tex., a corporation of Texas
Application December 20, 1954, Serial No. 476,194
3 Claims. (Cl. 125—23)



1. In a device for punching and shearing shingles or the like, the combination comprising a member having a punch anvil and a shearing abutment fixed thereon, a punch movable on said member to and away from said anvil along a predetermined path between retracted and advanced positions, a spring biasing said punch to said retracted position, an enlarged head fixed on the rear end of said punch, a lever pivoted on said member and

having a handle portion and a shearing blade fixed thereon, said lever being swingable about an axis spaced from said path and in a plane including said path and between a retracted position with said blade open and away from said abutment and an advanced position with said blade closed and in full shearing relation with said abutment, a generally radial striker arm on said lever, and a generally radial tooth spaced forwardly on said lever from said striker arm and defining a generally radial notch therebetween movable into and out of meshing relation with said head on said punch, said striker arm being swingable forwardly from a retracted position away from said punch with said lever in said retracted position to a position of engagement with the rear end of said head and thence forwardly to an advanced position with said punch and said lever in their advanced positions, said tooth being shorter than said striker arm and being swingable past said head with said punch in its retracted position, said notch being swingable into meshing relation with said head with said punch in its advanced position, said tooth being engageable with the front of said head with said punch in its advanced position and being swingable rearwardly for positively retracting said punch.

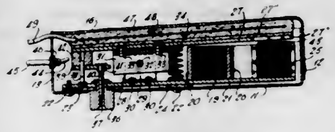
2,779,326
RANGE FLUE STRUCTURE
George W. Kamin, Lombard, Ill., assignor to Cribben and Sexton Company, Chicago, Ill., a corporation of Illinois
Application May 4, 1954, Serial No. 427,500
10 Claims. (Cl. 126—21)

1. In a structure of the character described, a range equipped with a top wall and having a back splasher extending upwardly therefrom, said back splasher having an elongated depressed portion in the face thereof provided with a rear wall and with a bottom wall having an opening therethrough, and a flue adapted to communicate with an oven space and at its upper end extending through said opening and in spaced relation with the edges thereof, the upper end of said flue being spaced from the rear wall of said depressed portion whereby air is aspirated upwardly through said opening by the discharge of gases from said flue.

2,779,327
ENDOSCOPE
Elvin E. Baker, Havertown, Pa., assignor to George P. Pilling & Son Company, Philadelphia, Pa., a corporation of Pennsylvania
Application July 2, 1953, Serial No. 365,581
3 Claims. (Cl. 128—6)

2. In an endoscope a pair of conductors in the form of a pair of tubes one within the other extending substantially the length of the instrument, means connected to the distal end of the inner of said conductor tubes internally of the outer of said conductor tubes for mounting optical apparatus and electrically operated means, means connected to the outer of said tubes for positioning said mounting means and said optical and electrically operated means, said mounting means being removable from the distal end of the apparatus upon removal of said positioning and mounting means without disassembly of the remainder of the apparatus, means providing electrical connections between said pair of tubes and said electrically operated means, and means providing for the connection of a source of electricity to the proximal ends of the conductors.

2,779,328
THERAPEUTIC DEVICE
Louis Grossi, Paris, France
Application April 7, 1953, Serial No. 347,289
7 Claims. (Cl. 128—24.1)



1. A therapeutic device comprising a housing, an electromagnetic vibrator in said housing, vibration transmitting means coupled with said vibrator, a heat generating resistance element in said transmitting means and a cover enclosing said transmitting means and at least part of the housing, said cover being of a heat-conductive resilient material effective to transmit said vibrations.

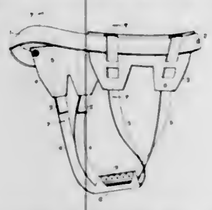
2,779,329
ARTIFICIAL RESPIRATION APPARATUS
Thomas C. Huxley III, Manhasset, and Nelson G. Kling, Roslyn, N. Y., assignors to Conitech, Ltd., New York, N. Y., a corporation of New York
Application June 17, 1953, Serial No. 362,316
16 Claims. (Cl. 128—30)

2. In respirator apparatus having pumping means adapted to periodically supply air to and withdraw air from a cuirass and a pressure indicating gage positioned remote from said cuirass, a conduit connecting said pumping means to said cuirass in fluid flow relation therewith, and a tube extending longitudinally in said conduit, one end of said tube being adapted for interconnection with said gage and the opposite end thereof terminating in a free end portion in the region of said cuirass whereby said gage indicates the pressure in said region, and means providing for the automatic releasable interconnection of either of said tube ends with said gage on the interconnection of a companion end of said conduit with said pumping means.

2,779,330
TRUSS
Harold V. Reid, Hialeah, Fla.
Application March 29, 1956, Serial No. 574,902
5 Claims. (Cl. 128—98)

1. In a truss, the combination with a waist encircling belt, of a suspensory carried by said belt and an anal support arranged in said suspensory for pressure seating contact with the rectal area of the wearer, said support

defining a normally cylindrical tubular body orificed in the seating surface thereof and open in at least one end



thereof and said body being disposed longitudinally of said suspensory.

2,779,331
PROTECTIVE GARMENT
Philip C. Trexler, Niles, Mich., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application September 12, 1952, Serial No. 309,172
10 Claims. (Cl. 128—140)

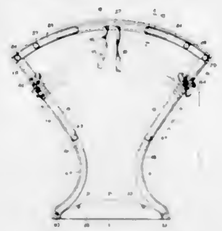
1. In a hermetic protective garment for completely sealing the wearer from the surrounding medium, an enveloping jacket portion including a helmet and gloves, an enveloping pants portion, said portions being impervious to said medium and having open ends lapped together at a zone adapted to surround the waist section of the wearer, and a rigid band fixedly connected to and extending within and circumferentially coextensive with the inner one of said ends, said ends being formed of fusible material and being hermetically fused together at said zone in an endless seal circumscribing said band.

2,779,332
PROCEDURE FOR INTRACORPORAL INTRA- AND SUBCUTANEOUS TEST, THERAPY, IMMUNIZATION, VACCINATION, AND DRUG ADMINSTRATION
Harry J. Corper and Catherine Clark, Denver, Colo.
No Drawing. Application November 25, 1953, Serial No. 394,496
5 Claims. (Cl. 128—253)

1. The method for preparing medicinal materials in suitable form for introduction in a dry, solid state into the animal economy which includes: admixing a quantitative amount of the desired medicinal material with an aqueous methyl cellulose solution; dipping the pointed end of a sterile needle-like instrument into said admixture; removing said instrument from said admixture; and allowing the portion of the admixture which has adhered to said instrument to dry into a hard film.

2,779,333
WATERPROOF GARMENTS
Valerie M. F. Gordon, Kirkhill, Scotland, assignor to V. G. (Inverness) Limited, Kirkhill, Scotland
Application April 21, 1955, Serial No. 502,782
Claims priority, application Great Britain April 27, 1954
5 Claims. (Cl. 128—287)

1. A waterproof knicker-like garment the back edge of which is provided with a seam containing a pair of spaced flexible strips of at least one-third inch depth, fixed to the garment and stiff enough to prevent buckling



of the strips, and draw tapes connected to the strips for adjusting the distance apart of the strips.

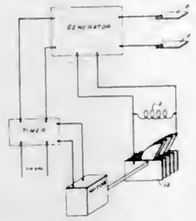
2,779,334
VEIN STRIPPER
Edmond Sandborn, Hamilton, Ontario, Canada
Application August 23, 1954, Serial No. 451,386
2 Claims. (Cl. 128—303)

2. A vein stripper comprising a flexible shaft, an introducing tip at at least one end thereof, said tip having a shoulder at the end thereof adjacent the flexible shaft, a removable stripping head comprising a substantially dome shaped member having an internal cavity conforming in shape and size to the introducing tip, door means in said stripping head to admit said introducing tip to said cavity, the closing of said door means engaging shoulders in said cavity with the said shoulder on said introducing tip to securely retain said introducing tip in said cavity in said stripping head.

2,779,335
SELF-RETAINING CATTLE TROCAR
Will N. Hausser, Sidney, Ill.
Application May 13, 1955, Serial No. 508,168
3 Claims. (Cl. 128—347)

1. A cattle trocar comprising a pair of pivotally connected handles, said handles being relatively swingable between first positions in contact with one another and second positions in which they are spread apart from one another, one of said handles having a tapered portion at one end and the other handle having an angular extension at the corresponding end spaced from said tapered portion when the handles are in contacting relation, to define between the handles a space through which gas may flow out of an animal's stomach; and elongated perforator blades rigidly secured to said tapered portion and angular extension respectively, said blades in the spread position of the handles being extended in longitudinal contact for insertion or removal from a cow's stomach and, in the second position of the handles, being spaced apart to open into communication with the stomach cavity the space between the tapered portion and angular extension of the handles, one of said blades being of channeled cross section, the other blade being of cylindrical cross section and interfitting with the first named blade in the longitudinally contacting positions of the blades.

2,779,336
ELECTRO-THERAPEUTIC APPARATUS
Horace E. Abbe, Elyria, Ohio
Application July 13, 1954, Serial No. 443,113
1 Claim. (Cl. 128—422)

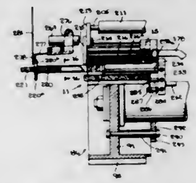


An electro-therapeutic apparatus comprising, a generator type oscillator adapted to feed a patient circuit ultra high frequency energy at frequencies between and including a first frequency of a wave length of approximately three meters and a second frequency of a wave length of approximately five meters, a variable condenser controlling the frequency of said energy, a motor coupled to said condenser to uniformly, gradually, and continuously vary said condenser at a set rate of change and within a predetermined time interval to uniformly, gradually, and continuously vary the frequency of the energy from one of the frequencies to the other of said frequency in a twenty to thirty minute time interval, and means adapted to electrically connect said oscillator and said motor simultaneously to a source of electrical energy and to limit the electrical connection of the oscillator and motor to the source of electrical energy to said predetermined time interval to permit feeding energy of a particular frequency to a patient only once each time the oscillator and motor are connected to a source of energy.

2,779,337
VACUUM HUSKING ROLL FOR MECHANICAL CORN PICKERS
Harold Tener, Cory, Ind.
Application June 21, 1954, Serial No. 438,118
6 Claims. (Cl. 130—5)

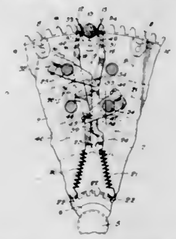
1. A husking roll of the character described comprising an elongated core having openings in opposite sides thereof extending to adjacent the ends of said core, a divider constituting a part of said core and interposed between the openings of the core sides, a cylinder mounted on said core and having perforations, said cylinder being journaled directly on the core substantially from end-to-end of the cylinder, means connected to the cylinder for revolving the cylinder on the core for intermittently moving different ones of the perforations into registration with each of the two open sides of said core, means connected to the husking roll beyond one end of the cylinder and opening into one side of the core for supplying air under pressure to said side of the core for discharge through the opening of said side and through the perforations of the cylinder in registration with said opening, and suction means connected to the husking roll beyond an end of the cylinder and communicating with the opposite side of said core for drawing air into the core through the core opening of said last mentioned side and through the cylinder perforations in registration therewith, said core including a disk constituting a rear end thereof and an elongated tapered portion constituting the forward end of the core, said core including elongated cylinder segments extending between and merging at their ends with said core ends and disposed in circumferentially spaced relationship to one another to form said core openings, and said divider comprising a plate extending longitudinally between and connected to said core ends and having longitudinal edges connected to inner sides of said cylinder segments.

2,779,338
MACHINE FOR AND METHOD OF MAKING CIGARETTES
Jack Himoff, New York, N. Y., assignor to Himoff Machine Co. Inc., Long Island City, N. Y., a corporation of New York
Application June 28, 1954, Serial No. 439,557
25 Claims. (Cl. 131—72)



14. The method of making a cigarette having a mouthpiece at one end and a tissue paper tube at the other end, comprising blowing a filter piece directly into the mouthpiece through the mouthpiece end of the cigarette tube, and depositing tobacco directly into the tissue paper end of the tube.

2,779,339
DEVICE FOR WRAPPING AN ADHESIVE CONNECTING BAND AROUND THE ABUTTING ENDS OF A DOUBLE CIGARETTE AND MOUTHPIECE ASSEMBLAGE
Max Pollmann, Hamburg-Bergedorf, Germany, assignor to Kurt Korber & Co. K.-G., Hamburg-Bergedorf, Germany
Application March 23, 1955, Serial No. 496,294
Claims priority, application Germany April 28, 1954
2 Claims. (Cl. 131—94)



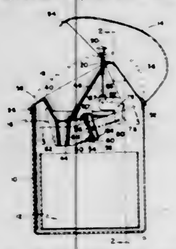
1. In a mechanism for folding and applying a wrapper band having adhesive on one end, a drum having a plurality of circumferentially spaced notches to receive a wrapper strip, double length filter mouthpiece and a pair of cigarettes arranged on opposite sides of the mouthpiece with the inner ends overlying the edges of the wrapper strip, a pair of reciprocating members adapted to be alternately operated, yielding spring means for holding said members retracted, cam means for moving said members radially outward, plates provided with notches and being pivoted to the outer ends of said reciprocating members, means yieldingly urging said plates toward one another, and a roller positioned within each

notch and carried by the outer end of each plate adapted to engage the ends of the wrapper strip and adhesively secure the same together in overlapping relation.

2,779,340
CIGARETTE HOLDER
Lee Mansfield, Sanford, Fla.
Application August 16, 1954, Serial No. 449,847
3 Claims. (Cl. 131—175)

1. A safety cigarette holder adapted to permit smoking adjacent inflammable material comprising a tubular mouthpiece having a mouth-engaging portion at an inner end thereof, a tubular cigarette support having a shoulder on its inner periphery intermediate its ends and telescopically mounted with one end on the outer end of the mouthpiece, a tubular ejector having a flange at an outer end thereof and means on the inner end to connect the inner end thereof to the said outer end of the mouthpiece, said ejector being mounted in the tubular cigarette support with its flange on the side of the shoulder adjacent the said outer end of the support, a compression spring mounted in said support and reacting against the side of said shoulder adjacent the inner end, said spring having longitudinally extending lugs at each end, said mouthpiece and said support being provided with longitudinal recesses adapted to receive the adjacent lugs on said spring for maintaining said support and said mouthpiece in proper registry whereby angular alignment will be maintained during use, and an ash guard mounted on said support.

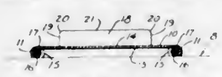
2,779,341
ASH RECEIVER AND SNUFFER
John F. Smillie, San Diego, Calif.
Application January 30, 1953, Serial No. 334,282
1 Claim. (Cl. 131—235)



An ash receiver and cigarette snuffer comprising a case having a closed lower end, the upper end of said case having a receiving mouth therein, said snuffer being supported by said upper end and comprising a split tube disposed below and in alignment with said mouth, said split tube including complementary hinged sections biased toward a closed position, a plunger operatively connected to said hinged sections, said plunger extending upwardly from said case, a hinged lid attached to said case and enclosing the upper end thereof, said lid being shaped to strike and depress said plunger when the lid is moved toward a closed position.

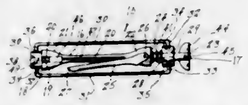
2,779,342
MAGNETIC CIGARETTE EXTINGUISHING CONTAINER
Willard H. Myers, Toledo, Ohio
Application September 1, 1954, Serial No. 453,493
2 Claims. (Cl. 131—256)

2. A cigarette extinguishing container comprising an elongated flat plate, a tubular formation extending transversely of and depending from the under face of said plate adjacent each end thereof, there being a slot in each of said tubular formations remote from the plate and extending from one end to the other, a bar magnet in each of said tubular formations, the slot in each tubular formation exposing the adjacent part of its contained



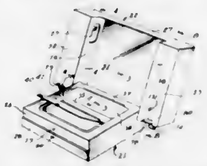
magnet bar for direct contact with a magnetized surface upon which the container is to be mounted, and a pair of spaced upstanding straight walls rising from and extending longitudinally of said plate intermediate its ends, each of the complemental ends of said walls being spaced inwardly from the adjacent end of said plate.

2,779,343
HAIR WAVING AND CURLING DEVICE
John Evangelou, Brooklyn, N. Y.
Application November 17, 1954, Serial No. 469,428
5 Claims. (Cl. 132—41)



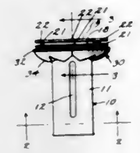
1. A cold wave winder comprising a rod on which hair can be wound, said rod having a handle end and another end with an axial plug recess therein, a hair clamp having one end pivotally secured to the rod between said ends thereof, a shank on the rod adjacent the handle end, a sleeve member slidably mounted on the shank, a pair of spaced arm members each having two ends one of which being pivotally secured to the sleeve member, a cap member pivotally secured to the other ends of the spaced arm members, a plug on the cap member adapted removably to seat in the axial plug recess of the rod, spring means to hold the cap member plug in the axial plug recess of the rod, said hair clamp having a radially and peripherally disposed hair clamp tooth opening in the free end thereof and said rod having a tooth thereon removably to seat in said hair clamp tooth opening, and a handle mounted on the handle end of the rod.

2,779,344
COMPACT CONSTRUCTION
Emilie A. Hemmings, New York, and Gilbert Adamec, Bronx, N. Y.; said Adamec assignor to said Hemmings
Application March 6, 1953, Serial No. 340,771
5 Claims. (Cl. 132—83)



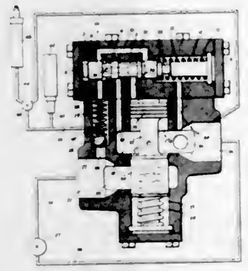
1. A compact construction comprising a tray bottom with a top opening therein to provide access to powder material, a cover being hinged to the rear edge of the tray bottom, a mirror on the inside of said cover, said cover having a side enlargement adapted to lie along side of the tray bottom upon the cover being closed thereupon, and a releasable flashlight unit extending into said enlargement, said enlargement having a wall facing in a direction parallel to said mirror with an opening therein through which light rays of the flashlight may be projected and directed toward the mirror.

2,779,345
UMBRELLA RUNNER CAP
Charles Keller, New York, N. Y.
Application November 28, 1955, Serial No. 549,327
2 Claims. (Cl. 135—28)



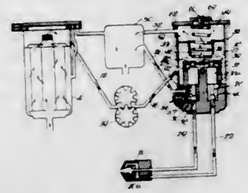
1. A cap for umbrella runners comprising a domed circular body member having an axial bore extending therethrough, said bore being of a size to permit said cap to be engaged over an umbrella runner, and a plurality of triangular teeth formed in said body adjacent said bore, said teeth being delineated by a plurality of triangular notches extending into said body between said teeth.

2,779,346
UNLOADING VALVE
John Curlett, Los Gatos, Calif., assignor, by mesne assignments, to Gurries Manufacturing Co., San Jose, Calif., a corporation of California
Application November 26, 1954, Serial No. 471,358
5 Claims. (Cl. 137—108)



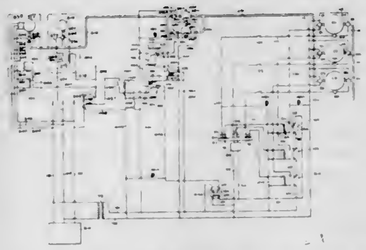
1. An unloading valve comprising a body having separated main pressure intake and outlet passages and a bore intersecting and connecting the passages, a bypass spool having a land initially closing said bore to prevent a flow from the intake to the outlet passage, another closed-end bore in the body, a pilot spool slidable in said other bore, a spring acting on the pilot spool tending to hold the same at one end of the other bore, a secondary pressure passage connecting the main pressure passage and the other bore adjacent said one end thereof, the pilot spool being arranged so that pressure admitted to said other bore from the secondary pressure passage tends to advance the pilot spool away from said one end of the bore in opposition to the spring, a normally closed check valve in said secondary passage opening toward the other bore, a relatively high pressure intake port in said secondary passage between the check valve and the second bore, pressure actuated means to shift the land of the bypass spool to a bore opening position and including a passage communicating with said other bore, and means formed with the pilot spool and body to admit pressure from the secondary pressure passage to the last named passage only upon such pressure being sufficient to overcome the spring and advance the pilot spool a predetermined distance from said one end of the second bore.

2,779,347
OIL BURNER CONTROL SYSTEM
David J. Munroe, Racine, Wis., assignor to Webster Electric Company, Racine, Wis., a corporation of Delaware
Application June 30, 1952, Serial No. 296,410
18 Claims. (Cl. 137—116)



1. Apparatus for use with an oil burner system utilizing a fuel supply line to and a by-pass line from a nozzle, comprising, a unitary valve assembly for controlling the flow of fuel oil through both of said lines, said valve assembly comprising control valve means for controlling the passage of fuel through each of said lines, pivotally supported means interconnecting said control valve means, and means responsive to the pressure of the oil to be supplied to the nozzle for tipping the pivotally supported means to operate the control valve means in a predetermined sequence in accordance with the pressure of the oil.

2,779,348
FLUID PRODUCTION AND STORAGE CONTROL APPARATUS
Melborne L. Robertson, Laird Hill, Tex., assignor to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application November 13, 1952, Serial No. 320,262
30 Claims. (Cl. 137—119)

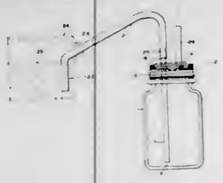


1. In the combination of means for supplying fluid to a multiple-tank battery and automatic electric control apparatus for sequentially filling selected tanks of such battery with supplied fluid to a predetermined extent that includes tank selecting means operable upon the filling of one tank to select automatically the tank next to be filled with such tank-selecting means having an electric circuit that is closed solely during the interval between the filling of one tank until the tank next to be filled is selected, the improvement comprising electrical means responsive to substantially continuous closure of said electric circuit for a predetermined period of time to curtail the functioning of the first mentioned means.

13. A control system for controlling the production of a plurality of oil wells and for controlling the storage of oil produced thereby in a multiple-tank battery, said system comprising a fluid conduit provided with a plurality of oil well branches and a plurality of tank branches, an oil-treating vessel interposed in said conduit intermediate said oil well branches and said tank branches, an electrically-actuated oil well control valve normally energized to open position in each of the oil well branches, an electrically actuated flow control valve normally deenergized and in open position in the conduit interme-

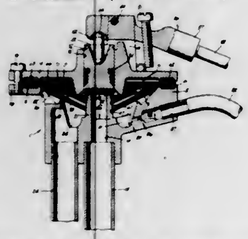
diate the oil well branches and said vessel, each of said tank branches being provided with an electrically-actuated tank-inlet valve that is normally de-energized and in closed position, automatic electrical means for selecting and sequentially energizing tank-inlet valves of tanks in readiness to be filled, such automatic electrical means including an electric circuit that is energized substantially solely during the intervals that all tank-inlet valves are de-energized, and electrical control means responsive to said vessel being filled above a predetermined level to de-energize all of said oil control valves and to energize said flow control valve, said control means being also responsive to said electric circuit remaining substantially continuously energized a predetermined time to de-energize all of said oil well control valves.

2,779,349
EASY START TWO-WAY SIPHON
William Dean Ten Eyck, Detroit, Mich.
Application January 27, 1956, Serial No. 561,788
2 Claims. (Cl. 137—145)



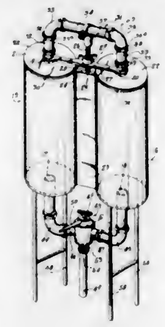
1. A two-way siphon comprising an upright flexible resilient liquid container having an annular outlet, a closure disc having an annular sealing flange positioned tightly over said outlet and secured thereto, a standpipe extending through said disc with one end spaced above the container bottom and with its other end projecting above the disc, there being an air inlet in said disc, and a conduit joined at one end to the projecting portion of said standpipe, manual compression of the walls of said container with successive temporary closure of said air inlet and with the free end of said conduit immersed in a body of liquid above the level of any liquid in said container and subsequent release of said walls permitting their return to shape initiating said siphon to fill the container, such compression with the air inlet temporarily closed and with the outlet of said conduit below the liquid in said container initiating said siphon to empty said container.

2,779,350
QUIET ANTI-SIPHONIC FLOAT ACTUATED VALVE
Jesse C. Owens, Los Angeles, Calif.
Application April 3, 1953, Serial No. 346,598
3 Claims. (Cl. 137—218)



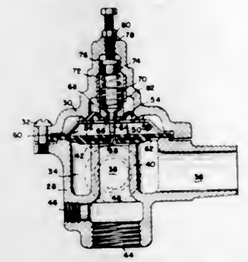
1. A storage tank supply valve comprising a housing defining a substantially closed chamber and having an inlet port opening upwards through the bottom of said housing, a tubular nipple encircling said port and extending upwards within said chamber to a position above the bottom of said chamber, a valve seat on the upper end of said nipple, a plunger mounted in said housing for reciprocatory movement toward and away from said valve seat, means for moving said plunger, said housing having an outlet leading from said chamber below said valve seat, and a foraminous screen extending across said chamber and having an aperture therein through which said nipple extends, whereby any liquid passing through said chamber from said inlet port must pass through said screen before reaching said outlet, said screen having a plurality of radial cuts therein and the portion of said screen immediately adjacent each of said cuts and on one side thereof being deflected from the plane of said screen to define a hood opening in a direction perpendicular to the associated cut, all of said hood openings facing in a common direction about the central axis of said nipple whereby a whirling motion is imparted to said water after it flows through said screen.

2,779,351
DEVICE FOR FILLING MEASURED QUANTITY OF MILK OR OTHER LIQUID
Louis Michael Levine, Brooklyn, N. Y., assignor to Mejur Corporation, New York, N. Y., a corporation of New York
Application October 16, 1952, Serial No. 314,990
4 Claims. (Cl. 137—256)



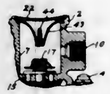
1. A machine for filling containers with a fluid comprising two closed measuring tanks each having a single inlet and outlet opening and a fill adjusting opening, a conduit connecting said fill adjusting openings, a check and air relief valve for each tank in the conduit, and an operating valve connected with the inlet and outlet opening in each tank, said operating valve also having a fluid receiving port and a filling outlet tube for both tanks with means selectively to connect the fluid receiving port with one measuring tank and simultaneously to connect the filling outlet tube with the other tank and to shut off all flow through the valve, a cross brace between the two tanks, said tanks each having a removable lid, liquid seals between the lids and the tanks, a hold-down cross bar across the lids, said bar having an opening therein and said cross brace having a threaded opening, a threaded stud engageable with the threaded opening and adapted to pass through the cross bar opening, a nut on the stud bearing against the cross bar removably to hold the lids on the tanks, and a conduit clamp having a threaded opening engageable with the threaded stud to hold the conduit in place, said conduit having two upstanding portions and one cross piece with elbows connecting the cross piece and the two upstanding portions, means to adjust the height of the upstanding portions said check and air relief valves being disposed in the upstanding portions, legs extending from the tanks, said filling outlet tube being dependent from the operating valve, said legs supporting the tanks with the filling outlet tube positioned to extend substantially into a container to be filled.

2,779,352
VALVE STRUCTURE AND METHOD OF OPERATION
Kenneth R. Lung, Dayton, Ohio, assignor to The Tait Manufacturing Company, a corporation of Ohio
Original application January 29, 1952, Serial No. 268,750. Divided and this application November 1, 1952, Serial No. 318,938
3 Claims. (Cl. 137—490)



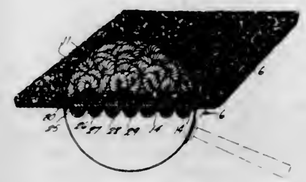
1. In a pressure regulating valve; a valve body open at the top and having a central outlet chamber and an annular inlet chamber surrounding the outlet chamber, a diaphragm extending over the open side of the valve body closing the upper sides of said chambers and interrupting communication between the chambers, a bonnet mounted on said valve body and clamping the periphery of said diaphragm thereto, said bonnet defining a chamber above the diaphragm, a restricted port through the diaphragm connecting its upper surface with the said inlet chamber, a channel connecting the upper surface of the diaphragm with the outlet chamber and offering less restriction to fluid flow than said restricted port, a member having a conical point mounted in the bonnet and closing said channel, said member being resiliently urged downwardly, additional diaphragm means connected between said member and bonnet whereby a predetermined pressure in the space between the diaphragms will cause said member to move upwardly and open said channel, and a rigid clamping member in said bonnet engaging the peripheries of said diaphragms and serving to clamp said additional diaphragm to said bonnet when the bonnet is connected to the said valve body.

2,779,353
FUEL PUMP DOME STRUCTURE
Irven E. Coffey, Clayton, Mo., assignor, by mesne assignments, to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey
Application October 29, 1952, Serial No. 317,498
4 Claims. (Cl. 138—26)



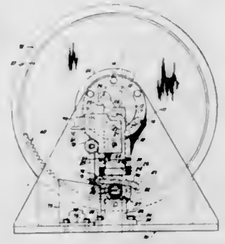
1. A pulsator device for attachment to a duct for pulsating fluid pressure comprising means forming a gas-filled closed chamber and including a diaphragm sealing said chamber from said duct, said diaphragm having a crease formed therein defining a fold line to permit collapse of the walls of the diaphragm at the crease without stretching or compressing the walls of the diaphragm during folding and unfolding, whereby slight pulsations from the duct may be transmitted to the gas charge in said chamber without substantial resistance due to stretching or compression of the diaphragm.

2,779,354
CHENILLE FABRICS AND METHOD OF PRODUCING SAME
Garfield J. Underwood, Broadalbin, and David H. Shuttleworth, Amsterdam, N. Y., assignors, by mesne assignments, to Mohasco Industries, Inc., Amsterdam, N. Y., a corporation of New York
Application November 30, 1954, Serial No. 472,133
10 Claims. (Cl. 139—394)



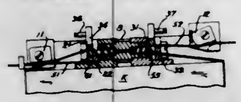
1. Chenille fabric, which comprises a backing formed of stuffer warp yarns lying substantially in a plane, filling yarns lying in levels above and below the stuffer warp yarns, and binder warp yarns in two sets holding the filling yarns against the stuffer warp yarns, strips of chenille fur extending transversely of the stuffer warp yarns between adjacent filling yarns in the upper level, and catcher warp yarns extending under filling yarns on opposite sides of each chenille fur strip and over the strip to bind the strip in place, each fur strip being formed of loops of relatively heavy yarn extending to at least one side of a succession of chain stitches of relatively light yarn, each stitch encircling a single strand of the heavy yarn.

2,779,355
BUCKLE ATTACHING MACHINE
Jack N. Garrett, McGregor, Tex.
Application July 21, 1955, Serial No. 523,574
10 Claims. (Cl. 140—93)



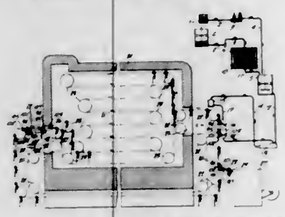
1. In a machine for attaching a buckle to an end of a bagging tie, a base having a vertical support thereon, a horizontally reciprocable and rotatable tie winding spindle in said support having a slotted end to receive an end of said tie having a buckle thereon, a drag bar engageable with one end of said buckle and movable across said spindle to effect interengagement between the opposite end of said buckle and the first convolution of said tie during winding thereof on said spindle, a driving shaft, a driving wheel on said shaft, having a gear sector, a pinion on the opposite end of said spindle with which said gear sector is periodically engaged to rotate said spindle, means pivoted to said support and cooperating with said means on said driving wheel for periodically retracting said spindle for the removal of a wound tie and buckle, means for collapsing the convolutions of said tie subsequent to its removal from said spindle, means carried by said driving shaft for actuating said collapsing means and means carried by said collapsing means for actuating said buckle drag bar.

2,779,356
METHOD OF TYING WIRE
Kurt Eric Schulze, San Francisco, Calif., assignor to Ernest Roe, doing business as Coast Wire Company, San Francisco, Calif.
Original application November 29, 1948, Serial No. 62,554, now Patent No. 2,624,375, dated January 6, 1953. Divided and this application October 28, 1952, Serial No. 317,175
3 Claims. (Cl. 140—93)



1. The method of tying a package with flat wire comprising providing a suitable length of flat wire, gripping said wire at a first point remote from a first end thereof, passing said first end around said package, placing said first end on top of and overlapping the length of said wire adjacent said first point, gripping said wire at a second point adjacent its first end, twisting said overlapped portions of said wire in a plurality of turns to form a tie while maintaining said first end on top, cutting the excess from said first end, continuing rotation of said tie 180° until the remaining end from which said excess was severed is tucked under said tie, and severing said wire between said first point and said tie.

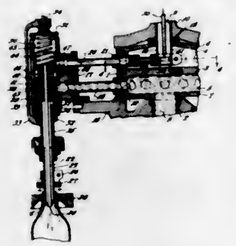
2,779,357
APPARATUS FOR FILLING LIQUID OR PLASTIC SUBSTANCES INTO CONTAINERS
George Alec Stonestreet, Penn, and George Hazell Searle, Kew Gardens, Richmond, England, assignors to T. Wall & Sons Limited, London, England, a British company
Application August 31, 1953, Serial No. 377,588
Claims priority, application Great Britain September 5, 1952
16 Claims. (Cl. 141—82)



9. Apparatus for filling a flowable substance into a container which includes a reservoir for the substance, means for moving vertically past and alongside the reservoir a succession of rows of containers each with the axis passing through its open and closed ends substantially vertical, and means for filling a row of predetermined and substantially equal quantities of the substance from the reservoir into each row of containers in the succession.

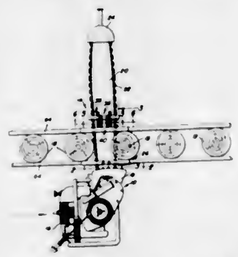
2,779,358
FILLING MACHINE INCORPORATING MEANS FOR PURGING AIR FROM CONTAINERS PRIOR TO FILLING
Paul R. Fechheimer and Edward F. Rowekamp, Cincinnati, Ohio, assignors to The Karl Kiefer Machine Company, Cincinnati, Ohio, a corporation of Ohio
Application November 16, 1953, Serial No. 392,214
11 Claims. (Cl. 141—92)

1. In container filling apparatus, a head element formed to provide two chambers, one for filling material and the other for suction, a filling spout structure associated with said head, said filling spout structure including filling and exhaust tubes, a first connection between said filling chamber and said filling tube and a second connection between said suction chamber and said exhaust tube, a conduit for supplying gas under pressure, and valve means for breaking the connection between said suction chamber and said exhaust tube, and connecting said exhaust tube to said conduit, said valve means comprising



a segmental valve in said suction chamber including a pressure block contacting the inner wall surfaces of said suction chamber and having a port adapted to communicate with the connection between said exhaust tube and said suction chamber, and means for urging said pressure block into contact with the walls of said second mentioned chamber.

2,779,359
PILE CUTTING GUIDE FOR CHAIN SAWS
George L. Koski, Fort Bragg, Calif.
Application June 25, 1954, Serial No. 439,320
5 Claims. (Cl. 143—32)

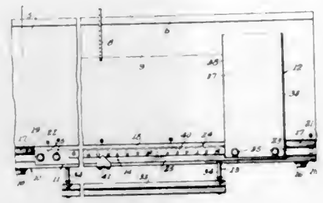


1. A chain saw guide comprising a first guide member adapted to be fixedly secured to a saw guide bar, a second guide member adapted to be secured to a saw guide bar in spaced relation relative to said first guide member, said second guide member including a fixed guide element and a movable guide element, said movable guide element being movable relative to said first guide member and a saw guide bar, said movable guide element being resiliently mounted, said first guide member and said fixed and movable guide elements having central elongated slots of a size to guidingly receive a saw guide bar, and outer pockets at opposite ends of and communicating with said slots, said outer pockets being relatively large and adapted to have a chain blade passed therethrough.

2,779,360
GAUGE FOR CUT-OFF SAW TABLES AND THE LIKE
Eugene A. Snow, Lynwood, Calif.
Application October 3, 1955, Serial No. 537,976
4 Claims. (Cl. 143—174)

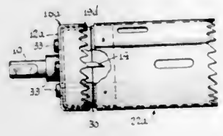
1. A gauge for a cut-off saw table and the like comprising a rail disposed along the front of the table and having a horizontal flange and a vertical flange at the rear of the horizontal flange, a graduated elongated gauge-mounting member over the rail and provided with means

resting on the horizontal flange of the rail to support the member in spaced relation above the rail, said member being provided with a vertical flange alongside of and rearward of the vertical flange of the rail, and weighted



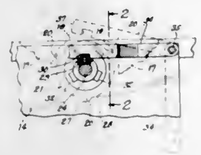
eccentric cam means carried by the elongated member in spaced relation to the vertical flange thereof and in engagement with the vertical flange of the rail to frictionally engage said vertical flanges.

2,779,361
SAWING TOOL FOR CUTTING CIRCULAR HOLES
Thomas J. McKiff, Stratford, Conn., assignor to Miller Manufacturing Corp., Stratford, Conn., a corporation of Connecticut
Application March 17, 1954, Serial No. 416,797
10 Claims. (Cl. 143—85)



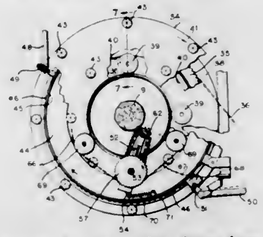
9. A saw adapted to be connected to a driver plate comprising a tubular body having a base plate connected to one end and having cutting teeth at the other end, said base plate having bayonet lock means thereon for interconnection with said driver plate upon relative rotation of said plates.

2,779,362
SAFETY LOCK FOR CUTTER HEAD OF JOINTER
Theophil A. Hess, Island Lake, Ill., assignor to Duro Metal Products Co., Chicago, Ill., a corporation of Illinois
Application February 15, 1955, Serial No. 488,201
5 Claims. (Cl. 144—114)



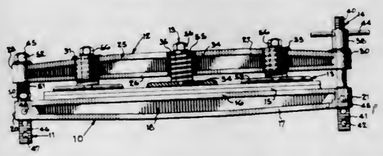
1. In combination, a rotatable cutting tool comprising a head, a blade secured thereto, a shaft on which the head is mounted for rotation therewith, a rotatable driving member mounted on and adapted to drive said shaft, said rotatable driving member having a radially extending boss, means cooperating with the boss for securing the member to the shaft, a frame for supporting the tool, and means adapted to connect the boss to the frame and hold the boss and its associated shaft and blade in a fixed angular relationship to the frame.

2,779,363
BARK-PEELING DEVICE HAVING REVOLVING ENDLESS-CARRIER-MOUNTED CUTTERS DRIVEN BY PLANETARY GEARS
George William Laughton, Duluth, Minn.
Application November 9, 1954, Serial No. 467,720
4 Claims. (Cl. 144—208)



1. In a machine for removing from logs and the like; a frame, a barking head mounted on said frame and having an opening through which logs are axially fed, means for rotating said head, a plurality of barkers mounted on said head to rotate therewith, each of said barkers including an endless chain, a pair of sprockets carrying said chain, cutters on said chain, and means for driving said chain on said sprockets including a connection to a portion of said machine other than said head, and means for pivoting said barkers toward and away from an axis of rotation of said head as the latter rotates to engage a log fed into said head to remove bark from such a log, said last-mentioned means including a brake member carried by said barking head to rotate therewith, said brake member being movable relative to said head, a brake band carried on said frame adjacent said brake member and engagable with the latter to move same relative to said head, and means connecting said barkers to said brake member to cause said barkers to be pivoted as said brake member moves relative to said head.

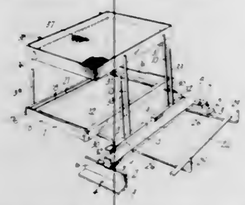
2,779,364
VENEER CLAMP
Delbert L. Farmer, Norwood, Ohio, assignor to The Cincinnati Tool Company, Cincinnati, Ohio, a corporation of Ohio
Application May 6, 1953, Serial No. 353,286
2 Claims. (Cl. 144—281)



1. A veneer clamp comprising a cross bar adapted to span a workpiece, a hinge arm pivotally secured to one end of said crossbar, a pivot arm mounted on said hinge arm in spaced relationship with said cross bar, a plurality of clamping heads carried by said hinge arm, each of said clamping heads including a shaft reciprocally mounted relative to the pivot arm, a pressure plate carried by said shaft, a spring compressed between said pressure plate and said pivot arm, said spring being effective to urge said pressure plate away from said pivot arm and indicating the displacement of said plate from said pivot arm, and a member carried by said shaft for limiting the travel of said pressure plate by engagement with the pivot arm, said member also being effective to provide a visual indication of the displacement of said pressure plate, a locking bar pivotally mounted upon the end of said cross bar remote from said hinge arm, said locking bar being adapted for releasable engagement with the free end of

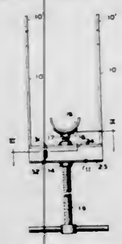
said pivot arm remote from the hinge arm, and means carried by said locking bar for adjusting the position of the free end of said pivot arm relative to the adjacent end of the cross bar.

2,779,365
DEVICE FOR USE IN MAKING COMB FRAMES AND MOUNTING FOUNDATION THEREIN
Jay E. Despins, Battle Creek, Mich.
Application October 19, 1954, Serial No. 463,141
3 Claims. (Cl. 144—288)



1. In a device of the class described, the combination of a bar-like anvil member, supports to which the ends of said anvil member are fixedly secured in spaced relation above the bottoms of the supports and with its face rearwardly inclined, abutment members fixedly secured to said anvil member at the rear of the face thereof and having front faces disposed at right angles to the face of said anvil member, a work supporting portion projecting forwardly at one end of said anvil member and having a hole formed vertically therethrough to pass nail heads, laterally spaced rod-like work rests removably mounted on said abutment members to project upwardly therefrom in right angular relation to the face of said anvil member, a pair of laterally spaced front rack bars projecting forwardly from the front edge of said anvil member and removably secured thereto, and pairs of vertically spaced rear rack bars removably mounted on said abutment members, said rear pairs of rack bars having supporting arms at their front ends disposed in alignment with said work rests, said front and rear rack bars having upturned outer ends, said work rests projecting above the plane of the top pair of rear rack bars and constituting stops at the front ends thereof.

2,779,366
QUICK ACTING C-CLAMP
Clarence M. McKenzie, Canfield, Ohio
Application July 21, 1954, Serial No. 444,765
1 Claim. (Cl. 144—305)

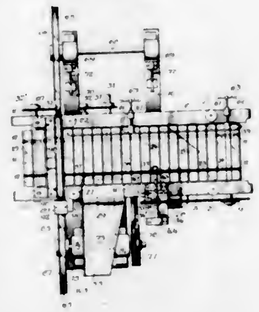


In a screw clamp having a threaded clamp rod and opposing work engaging means, a guide member to slidably receive said rod for axial movement therein, said guide member being open in a lateral direction to slidably receive a half-nut for movement into and out of engagement with said threaded rod, a housing rigidly connected with said guide member and extending outwardly therefrom in said lateral direction, an over-center toggle having one link thereof pivotally connected to said half-nut and the other link pivotally connected to the outer portion of said housing, means comprising an elongated pin to pivotally interconnect said links, said housing having side walls with apertures elongated in a direction parallel to said clamp rod to receive the end portions of said pin whereby said toggle may be manually controlled, and a spring in said housing to bias said toggle from one of its over-centered positions to the other, the arrangement being such that the outward thrust exerted by said half-nut maintains said spring flexed and said toggle in the said one of its over-centered positions upon tightening of said clamp rod while upon said clamp rod being loosened said spring acts to automatically move said toggle to the other of its over-centered positions whereby said half-nut is withdrawn from engagement with said rod.

2,779,367
CHISEL GUARD
Clarence H. Forbes, Salt Lake City, Utah
Application March 14, 1955, Serial No. 494,153
8 Claims. (Cl. 145—24)

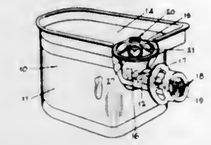
1. A chisel guard comprising an elongated channel-shaped member adapted to receive a chisel, means in said member for receiving and protecting the sharpened end of the chisel, and locking means securing the chisel in said member, said channel-shaped member having inturned flanges at one end thereof forming a restricted opening for engagement with the shank of the chisel for retaining the chisel in said member.

2,779,368
BELLY SIZING MACHINE
James P. Lorimer and Lee C. Steffenhagen, Cedar Rapids, Iowa, assignors to Wilson & Co., Inc., a corporation of Delaware
Application March 27, 1952, Serial No. 278,804
3 Claims. (Cl. 146—78)



2. In a machine for trimming slabs of meat along one side and the top of said slabs of meat in two successive steps in a single handling of said meat, a frame, a vertically disposed rotary knife mounted on said frame adjacent one longitudinal edge thereof, a horizontally disposed cutting blade mounted on said frame in longitudinally spaced relationship to said rotary knife, conveyor means mounted on said frame, said conveyor means being adapted to carry slabs of meat into engagement with and past said rotary knife and said horizontally disposed cutting blade, interconnected means for driving said conveyor, rotary knife, and horizontally disposed cutting blade, longitudinally extending guide means mounted on said frame above said conveyor adjacent the edge opposite said rotary knife, and means for adjusting said guide means laterally relative to said frame to thereby control the width to which the meat slabs are trimmed.

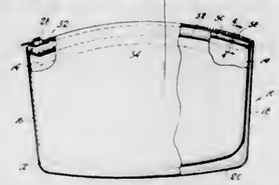
2,779,369
FOOD GRINDER GUARD
Vincent G. Biro, Marblehead, Ohio, assignor to The Biro Manufacturing Company, Marblehead, Ohio, a corporation of Ohio
Application July 14, 1955, Serial No. 522,025
1 Claim. (Cl. 146—182)



In combination with a food grinder having a food grinding chamber, a food feeding hopper in communication at its lower end with said food grinding chamber and having a guard at its upper end and integral therewith to prevent the accidental insertion of the food grinder user's hand through said hopper into said food grinding chamber, said guard comprising an integrated plurality of five metal ring-like bodies of equal size and circular section, one of said bodies extending in coaxial relation with the throat of said hopper and through a plane in spaced relation to and above said hopper upper end, each of the remaining four of said bodies disposed tangentially to and in generally declining and radially extending relation from four equally spaced points on the perimeter of the first mentioned body and towards circumferentially spaced points within said hopper and inwardly spaced from the upper end edge of said hopper, said four bodies being in a cluster about said first mentioned body to form a reticulated dome in which said first mentioned body extending horizontally across the opening of said hopper constitutes the crown of the dome and the remainder of said bodies extending inclinedly downwardly therefrom toward said spaced points within the hopper and inwardly spaced from the upper end edge thereof form the sides of the dome; each of the last named bodies having a boss extending substantially radially of and outwardly therefrom at a point diametrically opposite to the point of engagement of said body with the first mentioned body, each said boss being integral with the hopper at one of said spaced points within the hopper and inwardly spaced from the upper end edge thereof to thus support the guard so that the inner surface of said hopper proximate the upper end edge thereof resists the tendency of material being fed through the hopper to said food grinding chamber to spill outside and over the upper edges of said hopper as the material may be urged to do when crowded downward on the guard.

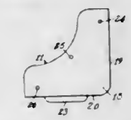
2,779,370
POUCH
Benjamin Wittenberg, New York, N. Y., assignor to Rogers Imports, Inc., New York, N. Y., a corporation of New York
Application August 17, 1954, Serial No. 450,344
3 Claims. (Cl. 150—1)

1. In a tobacco pouch, an outer cover having a mouth formed along the upper portion thereof, an inner flexible liner secured in said outer cover and being of approximately the same size and shape as said outer cover, said inner liner having a mouth formed at the upper portion thereof communicating with the mouth in said outer cover, said outer cover and inner liner having a space formed therebetween at one end thereof, said inner liner having coacting beaded edges defining the edges of the mouth thereof, a closure device secured along the length of the mouth of said outer cover and adapted to close said outer cover mouth, thereby moving said beaded



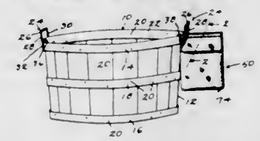
edges into intimate contact for effecting an air-tight seal in said inner liner, and a tongue joined to said inner liner adjacent the mouth and at one end thereof, said tongue being folded over the mouth of said inner liner at the end thereof to form a seal between the liner interior and said space, particles of tobacco thereby being prevented from filtering between said inner liner and outer cover.

2,779,371
BRIEF BAG
Samuel Klehr, Newark, N. J.
Application June 10, 1953, Serial No. 360,650
1 Claim. (Cl. 150—1.6)



A reinforcement and protective shoe for narrow brief bag corners, comprising a substantially flat L-shaped plate, a side edge and a bottom edge on said plate forming a right angle, a narrow L-shaped flange along the said edges projecting outwardly therefrom at right angles, the bottom surface of the flange having a centrally located raised member on its outer surface, and a plurality of apertures formed through said flat plate only.

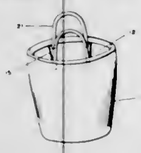
2,779,372
CLOTHESPIN CADDIE
Addeline B. Lewis, Endicott, N. Y.
Application July 26, 1955, Serial No. 524,424
2 Claims. (Cl. 150—1.8)



1. In combination with a receptacle having a wall and handle connected therewith through first and second pairs of bights and a clothespin caddie detachably connected to said receptacle on said first pair of bights, said caddie comprising a continuous open substantially rectangular wire frame having a pair of spaced inverted substantially V-shaped elements formed in a side thereof and including a pair of adjacent confronting arms, an elongated handle member having a pair of opposed ends, said ends of said handle member being integrally connected, respectively, with the ends of said arms, a substantially rectangular receptacle having a pair of opposed open and closed ends, and means securing said open end to said frame, said caddie being detachably supported on said receptacle by engaging said V-

shaped elements over said first pair of bights and said handle against said wall to obtain leverage whereby said frame is supported in a substantially horizontal position.

2,779,373
LADY'S HANDBAG OR TOTEBAG
Luetta L. Koepke, Worthington, Ohio
Application February 7, 1956, Serial No. 564,062
3 Claims. (Cl. 150—28)



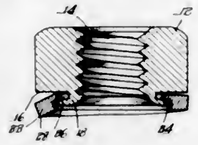
1. A ladies' handbag comprising a hollow body having an inner bead on its upper edge with a downwardly opening retaining groove formed therein, a complemental cover on said body and of greater vertical extent with its upper edge extending inwardly around the bead of the body and to a position below the bead, and a complemental liner resting on the bottom of said body and extending upwardly into said groove to retain the extending portion of the cover therein.

2,779,374
GOLF CLUB COVER
Clarence E. Clark, Chicago, Ill.
Application September 28, 1954, Serial No. 458,781
2 Claims. (Cl. 150—52)

1. A leather golf club cover formed from two leather pieces each having a keyhole like shape when lying flat, and a third leather piece having a sinuous M-shape when lying flat so as to provide leg portions tapering in width from the center of the piece toward the end edges of said legs, each of said keyhole shaped pieces having all but one end edge stitched by a single seam to one of the longer edge portions of said third piece, said one edge of each keyhole shaped piece and said end edges of said legs being aligned and delineating an entrance opening of said cover, a closed end portion of said cover extending angularly with respect to that portion adjacent the opening thereof.

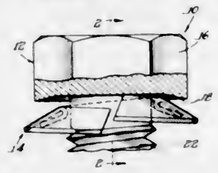
2,779,375
SPLIT WASHER HAVING ONE HELICAL MARGIN AND ONE PLANAR MARGIN ADAPTED TO BE SECURED TO THREADED FASTENER
John B. O'Connor, Glenview, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application May 4, 1955, Serial No. 506,012
7 Claims. (Cl. 151—37)

1. A preassembled fastener unit comprising a threaded rotary fastener member having a washer clamping face and integral radially projecting retaining means spaced axially from said clamping face, and a lock washer including an axially resilient split ring body member of uniform cross section and substantially uninterrupted radially throughout its length, one circumferential margin of the washer body overlying said retaining means for preventing axial separation of the threaded fastener and washer, said



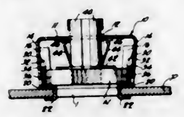
margin being positioned in a plane substantially normal to the washer axis, and the other margin of the washer being helically disposed and projecting axially beyond said retaining means in position for resiliently and clampingly engaging a complementary work surface.

2,779,376
FASTENER HAVING FOLDED, SPLIT-RING HELICAL LOCK WASHER RETAINED THEREON
Ouglesa Jules Poupitch, Itasca, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application May 4, 1955, Serial No. 505,898
7 Claims. (Cl. 151—37)



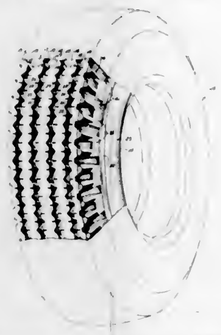
1. A preassembled rotary fastener unit comprising a threaded rotary fastener member having a generally radially extending clamping face and integral retaining means spaced axially outwardly from said clamping face and projecting generally radially, and a sheet material lock washer including a generally frusto-conical split-ring section having a smaller end disposed adjacent said clamping face, a second frusto-conical split-ring section disposed within said first section and having a smaller end overlying said retaining means, and a split-ring folded section integrally joining the smaller ends of said first and second mentioned frusto-conical sections, said first mentioned section having a free peripheral edge disposed radially and axially outwardly from a free peripheral edge of said second mentioned section.

2,779,377
HOLDER FOR FASTENING DEVICE
Laurence H. Flora, Cleveland, Ohio, assignor to Tinnerman Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application November 30, 1953, Serial No. 395,080
8 Claims. (Cl. 151—41.76)



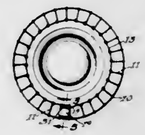
1. A fastening device comprising a nut or bolt head, and a holder for attaching said nut or bolt head in a work opening comprising a piece of sheet metal bent to provide a base extending across the top of the nut or bolt head and provided with a passage, arms extending from said base over the ends of the transverse dimension of the nut or bolt head and terminating in outwardly directed attaching elements adapted to be attached to marginal portions of a work opening, the length of said arms between said base and said attaching elements being materially greater than the thickness of the nut or bolt head, said arms being inclined inwardly toward each other from adjacent said base so that said arms have a spacing accommodating the transverse dimension of the nut or bolt head adjacent said base and a spacing less than the transverse dimension of the nut or bolt head adjacent said attaching elements, resilient fingers included in the holder engaging the nut or bolt head and retaining the same adjacent said base in the initially attached position of the fastening device in the work opening, a movable member extending from the top of the nut or bolt head through said passage in said base and projecting outwardly from said base, said movable member being adapted to be actuated to move said nut or bolt head axially toward the work from said initially attached position to fully attached position in which the ends of the nut or bolt head expand said outwardly directed attaching elements into positive engagement with the marginal portions of the work opening, said resilient fingers comprising shoulders adapted to engage and lock the nut or bolt head in such fully attached position.

2,779,378
TIRE TREAD CONSTRUCTION
Thomas A. Robertson, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application November 30, 1953, Serial No. 395,106
1 Claim. (Cl. 152—209)



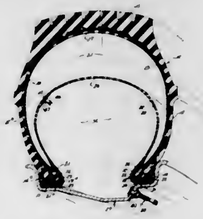
A tire comprising a tread portion having circumferentially extending laterally spaced continuous road contacting ribs defining circumferentially extending grooves therebetween, one said ribs being disposed at each shoulder of the tire with intermediate ribs between the shoulder ribs, said intermediate ribs having a radially extending edge portion of short extent relative to the height of the rib of which it is a part; said intermediate ribs having notches extending laterally into the sides thereof, said notches occurring at short intervals longitudinally of said ribs alternately on one side and the other side thereof; said ribs radially inwardly from the initial road contact surface thereof having laterally and radially inwardly sloped projections disposed opposite to and extending into said notches, the bottom portion of said projections being triangular in lateral cross-section, the spacing of said projections longitudinally of said intermediate ribs being substantially the same as the extent of a said projection longitudinally of said intermediate ribs, said ribs having narrow grooves opening radially outwardly of the tread and being disposed at the edge of said ribs adjacent to and laterally inwardly from said projections, said narrow grooves extending radially inwardly of the ribs approximately one-third the depth thereof and transversely of the ribs approximately one-half of the initial width of the rib road contact surface at the point said narrow grooves occur; the bottom of the circumferentially extending grooves defined by said ribs being uniform in width and extending in a zigzag course circumferentially of the tire.

2,779,379
SELF-FASTENING TIRE CHAINS
Frank M. Willis, Cottage Grove, Oreg.
Application December 3, 1954, Serial No. 472,830
3 Claims. (Cl. 152—225)



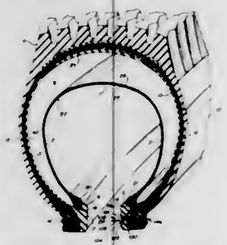
1. A non-skid device for motor vehicle tires comprising a chain including a plurality of U-shaped loops having wavy tread portions with arms extended from the ends and with eyes on extended ends of the arms, bars having eyes on extended ends thereof extended from eyes at the ends of the arms of some of the loops, the eyes on the extended ends of the bars being extended through the eyes on the extended ends of the arms of an adjoining loop, hooks extended from a loop at one end of the chain, and side plates having openings therein carried by loops at the end of the chain opposite to the end on which the hooks are positioned, said side plates being positioned whereby upon applying a chain to a tire the hooks extended from the first end of the chain are adapted to slide over the side plates and snap into the openings therein.

2,779,380
TUBELESS TIRE
Frank S. King and William S. Coben, Akron, Ohio, assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application May 28, 1954, Serial No. 433,015
8 Claims. (Cl. 152—341)



1. In combination a tire casing of the tubeless tire type having beads therein, a diaphragm disposed within said casing, and a tire rim receiving said casing and diaphragm, said diaphragm being of the general shape of an open-beaded type tire and having continuous circumferentially extending inextensible radially inward edge portions and having a crown portion, said crown portion being retained out of contact with the crown area of said casing, said casing having circumferentially extending diaphragm-edge-receiving seats in the form of radially inwardly opening grooves formed in ledges that extend laterally inwardly from the bead portions of said tires, said ledges being fixedly attached to said casing, the bottom of said grooves having a diameter at least as small as the outside diameter of the edges of said diaphragm, said edges of the diaphragm being seated on the bottom of said grooves.

2,779,381
PNEUMATIC TIRE
Jesse R. Crossan, Wadsworth, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application July 19, 1952, Serial No. 299,852
9 Claims. (Cl. 152—342)



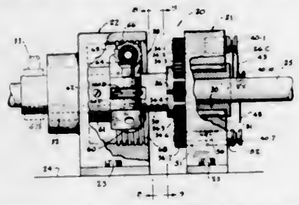
1. In the combination of a tubeless tire having diaphragm seating ledges formed inside the tire at the bead portions thereof, a diaphragm of the general shape of an open-beaded tire mounted within said tire on said ledges in substantially air-tight relation therewith, said diaphragm being substantially impervious to air and normally being spaced from said tire except at the immediate area of said ledges thus dividing the tire into an inner and an outer chamber, the improvement which comprises an air passage extending through at least one of said ledges by-passing said diaphragm.

2,779,382
PIPE BENDING MACHINE
Anthony Peter Anello, Tampa, Fla.
Application September 17, 1953, Serial No. 380,721
4 Claims. (Cl. 153—48)

1. In a tube bending machine, a base, two transversely spaced holding dies pivotally mounted on said base; a pivot shaft mounted transversely on the base in spaced relation to said dies, an elongate rock member mounted in upright position on said shaft to rock in a vertical plane passing between said dies, a pressure die supported for reciprocatory movement on said base in said plane for coaction with the holding dies, a socket to receive a rearwardly extending handle bar, a pivot between said member and the top end of said rock member, a link coupling pivoted to and between said rock member and the pressure die in rearwardly offset relation with respect to the last named pivot, a second link having one end pivotally coupled to said rock member below the pivot shaft, an eccentric rotatably supported on the base, an eccentric strap carried by said second link at its other end and encircling the eccentric, an arm operatively coupled with the eccentric for turning the latter, and means for locking said arm in any one of a number of set positions.

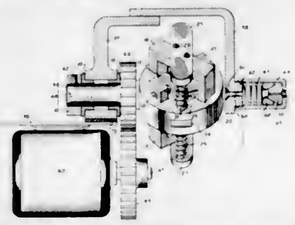
2,779,383
APPARATUS FOR MAKING FINNED TUBING
Edwin H. Johnson, Dayton, Ohio, assignor to Jandor Incorporated, Dayton, Ohio, a corporation of Ohio
Application May 11, 1954, Serial No. 428,897
3 Claims. (Cl. 153—64.5)

3. In a machine for making finned heat transfer tubing, driving means for imparting coordinated rotating and longitudinal advancing movements to a tube that is to be finned, means for feeding a transversely corrugated thin metal strip into a tangential relation to such a tube and in a plane substantially perpendicular to such tube, a plurality of rotative circumferentially grooved forming and guiding rolls disposed about the axis of rotation of the tube and offset axially in a progressive relation conforming with the lead relation established by said driving means, said rolls having the circumferential grooves thereof formed of substantially the same depth



and progressively narrower widths to progressively reduce the amplitude of the corrugations always substantially in the same outer border portion of the corrugated metal strip, and means driving said rolls at a common advancing speed to engage the strip at a speed greater than the speed of the tube to produce a slipping and ironing action on the strip to cold work the engaged border of the strip while at the same time imparting advancing forces thereto.

2,779,384
WIRE FEEDING AND STRAIGHTENING APPARATUS
John Peter Knauth, Skaneateles, and Kenneth R. Lang, Liverpool, N. Y., assignors to Syracuse Special Machine Company, Inc., Syracuse, N. Y., a corporation of New York
Application December 4, 1953, Serial No. 396,289
7 Claims. (Cl. 153—100)

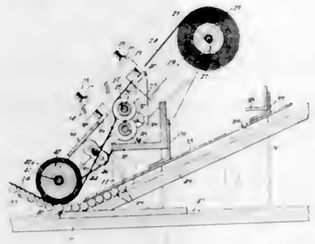


1. In an apparatus for feeding and straightening wire, a pair of support brackets, a roller having a smooth concave roller surface journalled in each bracket, said bracket and roller assemblies being linked together with said brackets extending in opposite directions and said rollers abutting one another in skewed relation, said rollers being adapted to receive the wire therebetween; a rotatable member, said brackets being slidably mounted in said rotatable member whereby rotation of the latter causes said brackets to tend to move apart bringing said rollers into close engagement with the wire, rotation of said rotatable member also causing said rollers to travel about the surface of the wire to move it in the axial direction.

2,779,385
ARTICLE HANDLING APPARATUS
Carl F. Carlzen, Buffalo, and William L. Lehner, Snyder, N. Y., assignors to Sylvania Electric Products Inc., a corporation of Massachusetts
Application March 25, 1954, Serial No. 418,670
12 Claims. (Cl. 154—1.6)

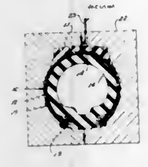
1. In an apparatus of the class described, the combination of means for feeding a plurality of similarly

shaped articles to a securing zone in aligned relation to each other, means for feeding a pressure sensitive adhesive tape to said zone, means at said zone including a pressure roll for sequentially applying said tape to cor-



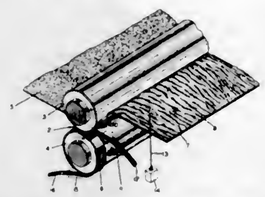
responding surfaces of said articles to form a flexible belt of said articles, a storage reel, and constant tension means for driving said reel to withdraw said belt from said zone under constant tension and to wind said belt on said reel.

2,779,386
METHOD OF VULCANIZING TUBELESS TIRES
Herbert H. Waters, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application December 4, 1953, Serial No. 396,135
2 Claims. (Cl. 154—14)



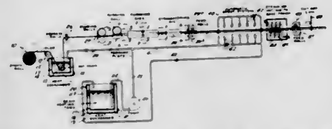
1. The method of building a tubeless tire which comprises assembling ply portions, beads, sidewall portions, a tread portion and an air impervious inner liner upon a tire building drum, piercing only said portions at a plurality of points to provide communication between the interior of said portions and the atmosphere while leaving said inner liner intact, and vulcanizing said tire under internal pressure in a heated, confining mold in the presence of an external vacuum whereby the entrapped air and gases are effectively withdrawn from within the body of said tire.

2,779,387
METHOD OF MANUFACTURING HARD SURFACE COVERING WITH PARTIAL REMOVAL OF THE SELVAGE BANDS
Edward G. Schairer, Manheim Township, Lancaster County, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania
Application June 22, 1953, Serial No. 363,288
3 Claims. (Cl. 154—25)



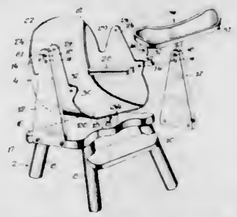
1. In a method of making continuous sheets of plastic composition, the steps which comprise feeding a continuous web of backing material into the nip of a calender in engagement with one of the calender rolls, calendering plastic composition onto said backing to form a continuous sheet with the plastic composition extending beyond the edges of the backing, severing the plastic sheet lengthwise even with the edges of the backing, removing the sheet with the backing from the calender roll in engagement with the backing while permitting side portions of the sheet to encircle the roll forming selvage bands, and removing minor portions of the selvage bands so that the exposed portion of the roll between the selvage bands will be greater than the width of the backing.

2,779,388
APPARATUS AND METHOD OF FORMING ELONGATE ARTICLES FROM FIBERGLAS
Henry N. Quoss, Dallas, Tex.
Application August 2, 1954, Serial No. 447,228
5 Claims. (Cl. 154—30)



3. Apparatus for producing elongate articles from a fibrous web impregnated with a polyester resin, comprising a means for supporting a roll of fibrous web material, a first tank containing a predetermined quantity of thermo-setting resin, means for maintaining said resin at a predetermined temperature, a second tank containing resin, means for maintaining the resin in said second tank at a temperature equal to that in said first tank, means for submerging said web in the resin of said first tank to coat the same, a pair of squeeze rollers between which said web is passed to uniformly distribute the adhering resin thereon and to remove excess resin therefrom, a series of relatively spaced sets of dies through which said web is drawn in a heat induced plastic state to gradually and progressively shape said web, a straightening die through said web is drawn during its final hardening stage, a plurality of spray heads for spraying said web after hardening thereof, means for curing said web by the application of uniform heat, and means for recirculating said resin through said first and second tanks and to said spray heads.

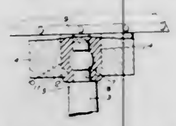
2,779,389
CONVERTIBLE HIGH CHAIR SWING
Benjimen H. Pearl, Chicago, Ill.
Application September 17, 1953, Serial No. 380,757
11 Claims. (Cl. 155—38)



1. A baby chair comprising a horizontal base member, means for rigidly supporting said base member above floor level, a pair of pivot supports, means supporting said pivot supports on opposite sides of, and above, said horizontal base member, a seating unit having respective means engageable with said pivot supports and swingable thereon, means enabling the selective lowering of said seating unit onto, and the raising of said seating unit

out of contact with, said horizontal base member, said seating means being immobilized when lowered to rest on said base member and free to swing on said pivot supports when raised above said base member.

2,779,390
STOOLS OR LIKE ARTICLES
Edwin George Freeman, Portswood, Southampton, England, assignor to Nu-Parq Products Limited, Southampton, England, a British company
Application February 23, 1954, Serial No. 412,012
4 Claims. (Cl. 155—50)

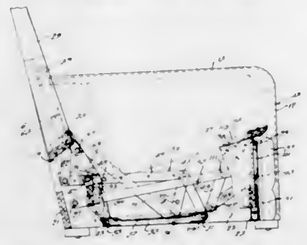


1. An article of furniture comprising a seat portion, a plurality of legs of substantial length for supporting said seat portion, a frame attached to the underside of the seat portion, said frame having a plurality of spaced recesses therein, said recesses each being provided with a neck portion of reduced diameter, resilient bushings located in said recesses and fitting against the sides thereof, said bushings each being provided with an external groove engaging with said neck portions to restrain the bushings against movement longitudinally of said recesses and being apertured centrally and receiving the top ends of the legs, each leg engaging firmly against the side of the aperture in the corresponding bushing and being provided with means for preventing movement of said leg upwardly through said corresponding bushing to permit transference of load from the seat portion to the legs through the bushings.

2,779,391
RECLINING CHAIR
Edward M. Knabusch and Edwin J. Shoemaker, Monroe, Mich., assignors to La-Z-Boy Chair Company, Monroe, Mich., a corporation of Michigan
Application November 10, 1953, Serial No. 391,182
9 Claims. (Cl. 155—106)

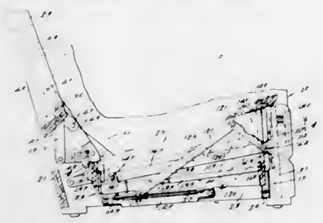
1. In a seat construction, a body, a seat member, a back member, a leg rest member, mechanism between said body and each side of said members interconnecting said members and for supporting the same on said body and permitting said members to move between a reclining and upright position, said mechanism including structure for moving said leg rest member between a generally inoperative vertical position and a raised generally horizontal position as said back and seat members move between an upright position and a reclined position, said structure including link means connected with said leg rest member and link means connected with said seat and back members, a lost motion connection between said seat and back member link means and said leg rest member link means to permit said seat and back members to move from a reclining position to an upright sitting position without returning said leg rest member to its inoperative position, means connected with said leg rest member and said seat member for releasably supporting said leg rest member in a raised position after said seat and back members have moved to an upright position, and means operatively connected with said leg rest supporting means actuatable upon the application of pressure by a portion of a user's body against one of said members to release said leg rest supporting means so that said leg rest member will return to its said inoperative position.

2,779,392
RECLINING CHAIR WITH EXTENSIBLE FOOTREST
Edward M. Knabusch and Edwin J. Shoemaker, Monroe, Mich., assignors to La-Z-Boy Chair Company, Monroe, Mich., a corporation of Michigan
Application March 16, 1953, Serial No. 342,336
19 Claims. (Cl. 155—106)



5. In a chair construction a frame, a seat cushion, a back cushion, a leg rest, mechanism between said frame and each side of said seat cushion and said back cushion and leg rest for supporting said back cushion, seat cushion and leg rest in an upright or sitting position, said mechanism embodying a plurality of pivoted links which advance the seat cushion forwardly and upwardly as the back cushion swings downwardly and forwardly, which movement swings the leg rest upwardly above the lowered back cushion so that the uppermost portion of the leg rest is disposed above said seat cushion and above the entire back cushion to provide a contoured seat arrangement when the chair is fully reclined.

2,779,393
RECLINING CHAIR
Edward M. Knabusch and Edwin J. Shoemaker, Monroe, Mich., assignors to La-Z-Boy Chair Company, Monroe, Mich., a corporation of Michigan
Application March 1, 1955, Serial No. 491,408
6 Claims. (Cl. 155—106)



1. In a chair construction, a body, a seat member, a back member, a leg rest member, mechanism between said body and each side of said members for supporting the same on said body and permitting said members to move between a sitting and a reclining position, said mechanism including means for moving said leg rest member between a generally inoperative vertical sitting position and a raised generally horizontal reclining position when said back and seat members are moved between a sitting position and a reclined position, said means including a lost motion connection permitting said seat and back members to move from a reclining to a sitting position without affecting a raised position of said leg rest member, means connected with said leg rest member and with said seat member for supporting said leg rest member in a raised position after said seat and back members have been returned to a sitting position, said means including a release mechanism having an element supported on said leg rest member and actuatable by a user of the chair construction to permit said leg rest member to return to its generally inoperative position upon movement of said seat and back members to a sitting position.

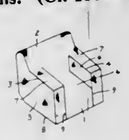
2,779,394
FOLDING CAMP CHAIR
Alexander Csorgo, Romulus, Mich.
Application October 5, 1955, Serial No. 538,614
1 Claim. (Cl. 155—147)

A folding chair comprising a seat, hinges on the rear portion of said seat, said hinges including angle members mounted beneath the marginal side portions of the seat and including depending flanges, plates mounted vertically on the outer sides of said flanges and rising therefrom above the seat, a back for the seat pivotally mounted on the upper portions of said plates, a pair of spaced front legs including on one end a tubular crosshead in end abutting engagement with the inner sides of the flanges and journaled thereon, a back leg pivotally mounted at an intermediate point between said front legs, and coacting means on said back leg and the seat for releasably securing all of the legs in unfolded position beneath said seat.

2,779,395
SEAT STRUCTURE
Harvey D. Geyer and Stanley R. Carson, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 24, 1952, Serial No. 316,698
6 Claims. (Cl. 155—179)

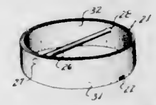
1. A laminated seat support structure comprising a plurality of flexible elastomeric sheets with each sheet having a substantially smooth surface and a surface with embedded reinforcing wires projecting therefrom, said sheets being laminated to have the wires of adjoining sheets substantially at right angles to each other and laminated to have at least an intermediate smooth surface portion of one sheet in intimate contact with an intermediate smooth surface portion of another sheet, and having end portions thereof bent to lie in more than one plane and providing a flexible support for said laminated portions, and a binding carried by the peripheral edges of said seat structure.

2,779,396
PROTECTIVE COVERS FOR CHESTERFIELDS, CHAIRS, AND THE LIKE
Walter P. Nail, Toronto, Ontario, Canada
Application May 4, 1953, Serial No. 352,851
Claims priority, application Canada May 10, 1952
2 Claims. (Cl. 155—182)



1. A cover for a chair or the like, including a central panel and a pair of side panels, said central panel being rectangular and having a configuration of slits therein allowing the material of said central panel to separate, with portions thereof adapted to conform over the arms and down the front of a chair and a portion thereof to fit between the arms and down the front of a chair, said arm conforming portions being reunited to said front conforming portion across the front, a fill-in panel formation fitting between the separated portions of said central panel and united to said central panel, said side panels being united with said central panel and defining therewith arm-receiving pockets.

2,779,397
PNEUMATIC POWER ACTUATED TUBELESS TIRE BEAD BREAKER
Donald J. Kohsiek, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application December 22, 1955, Serial No. 554,839
2 Claims. (Cl. 157—1.1)

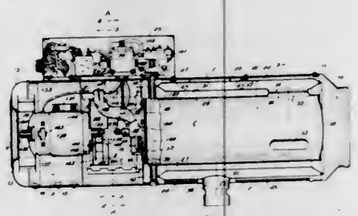


1. A device to break the beads of a tire from their seats on a rim, said device comprising a sleeve with an inside diameter having a sliding fit over the side flange of said rim, said sleeve having a length sufficient to span the distance between the adjacent sidewall of said tire and said side flange when said sleeve is telescoped over said rim flange and is positioned with one edge in contact with the sidewall of said tire, whereby said rim flange, tire sidewall, and sleeve comprise a closed chamber adapted to hold air under pressure, and a conduit for introducing air under pressure into said closed chamber.

2,779,398
FORCED DRAFT LIQUID FUEL BURNER OF THE RETORT TYPE, AND HEATING APPARATUS INCORPORATING THE SAME
Richard J. Brown, Mentor, Ohio, assignor, by mesne assignments, to Hupp Corporation, Detroit, Mich., a corporation of Virginia
Application June 5, 1953, Serial No. 359,868
11 Claims. (Cl. 158—28)

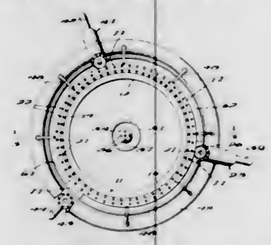
1. In heating apparatus, a combustion chamber casing, a cupped burner head opening into said casing, an electrical resistance igniter projecting substantially axially into the burner head, an annular hollow vapor generator located within the burner head in spaced relation to the closed end and peripheral portion thereof and surrounding the igniter in radially spaced relation thereto, a tubular wick encircling the igniter and fitting within the annulus constituted of the generator, means for delivering liquid fuel to the generator, the generator having fuel passage means through which liquid fuel escapes there-

from to the wick and being provided with vapor outlet means so disposed as to deliver vapor to the burner head



on the side of the generator remote from the combustion chamber casing, and means including an air impeller for supplying combustion air to the burner head.

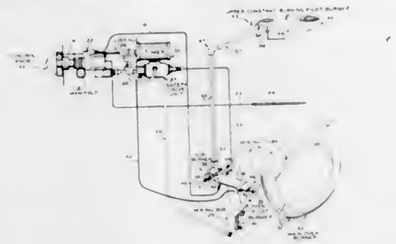
2,779,399
FLARE STACK GAS BURNER
John S. Zink and Robert D. Reed, Tulsa, Okla., assignors, by direct and mesne assignments, to John Zink Company, Tulsa, Okla., a corporation of Delaware
Application February 29, 1952, Serial No. 274,142
10 Claims. (Cl. 158—115)



1. In apparatus for burning dump-gases, an elongated vertically disposed tube, a burner tip at the upper end of said tube, a plurality of pilots including supply pipes circumferentially spaced around said burner for igniting the dump-gases at the burner tip, a sleeve inside said supply pipes surrounding an upper portion of said tube in spaced relationship to provide an annular passage between the sleeve and the periphery of the tube, said sleeve being in open communication with the atmosphere at its lower end, means creating a forced upward flow of cooling air in said passage, means varying the flow of cooling air in accordance with changes in the volume of the dump-gases being burned, and a plurality of circumferentially spaced baffles closing portions of said annular space with one baffle adjacent each pilot deflecting the cooling air away from the associated pilot.

2,779,400
AUTOMATIC LIGHTING AND CONTROL MEANS
Peter I. Hollman, Rockford, Ill., assignor to Geo. D. Roper Corporation, Rockford, Ill., a corporation of Illinois
Application January 23, 1946, Serial No. 642,941
20 Claims. (Cl. 158—133)

1. In an oven lighting system for a gas stove or range, the combination of an oven burner, fuel supply means connected to said oven burner, a heat control unit connected in series with said fuel supply means and said oven burner for regulating the flow of gas to the oven burner, an oven pilot burner, means for supplying gas to said oven pilot burner when the heat control unit is adjusted to effect flow of gas to the oven burner, a constantly burning pilot burner, flashtube means operatively associated with the constantly burning pilot burner and the oven pilot burner, conduit means for conducting gas from said heat control unit to said oven burner and said flashtube means, safety valve means connected in said conduit means for controlling the flow of gas to said oven burner and to said flashtube means, a spring biased linkage mechanism operatively connected to said safety valve means for controlling movement thereof between a first position in which gas flows to said flashtube means and is prevented from flowing to said oven burner and a second position in which gas is prevented from flowing



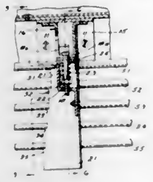
to the flashtube means and flows to the oven burner, manual control means for adjusting the heat control unit to admit the required amount of gas to flow therethrough for a given temperature setting and for moving said linkage mechanism to move said safety valve means to said first position, and pressure fluid operated time means operatively connected to said linkage mechanism for maintaining said safety valve means in its first position for a preselected period of time after which said linkage moves the safety valve means to its second position.

2,779,401
DOOR
Hugh W. Bascom, Panora, Iowa
Application August 8, 1949, Serial No. 109,130
4 Claims. (Cl. 160—37)

2. In a door provided with an open portion greater than one half of its dimension in any one direction, an enclosed storage compartment provided in the lower portion of said door, three spaced apart inwardly extending vertical flanges on each side of said open portion; said flanges forming two adjacent vertical channels, two glass panels positioned in said storage compartment adjacent each other, two screen members positioned in said storage compartment adjacent each other; one of said screen members being adjacent one of said glass panels, a frame on each of said panels and screens and selectively capable of vertically sliding in one of said channels at times, a hand grip member on one panel frame and one screen frame respectively; said frames being adjacent each other and each positioned below and in line with one of said channels, a hook member on the bottom of each frame having said grip member, a hook member on the top of each of the other frames; the hook on

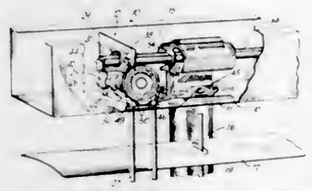
either handle bearing frame, when said handle bearing frame is raised a distance in excess of its height engaging the hook at the top of its adjacent similar frame and thereby pulling said adjacent member up into said open portion below said respective frames having said grip member.

2,779,402
WINDOW VENTILATOR
Frederick N. Canning, Birmingham, Mich.
Application July 20, 1954, Serial No. 444,430
7 Claims. (Cl. 160—102)



3. A window ventilator comprising support brackets for securing the device to a window sash, extending portions on said brackets, depending portions on said extending portions, arms pivotally mounted on said depending portions adapted to pivot between vertical and horizontal positions, step portions on said arms, and louver strips disposed on said depending portions and said arms via apertures in said louvers; said louver apertures being of progressively increased size to co-operate with said arm strip step portion to properly locate said louver strips when said arms are disposed vertically; said louver strips being secured in the area of said depending portions by pivoting said arms to their horizontal position.

2,779,403
TILTING MECHANISM FOR VENETIAN BLINDS
Hans K. Lorentzen, Montclair, N. J., assignor to Lorentzen Hardware Mfg. Corp., New York, N. Y., a corporation of New York
Original application October 17, 1951, Serial No. 251,707, now Patent No. 2,670,038, dated February 23, 1954. Divided and this application November 19, 1953, Serial No. 393,136
3 Claims. (Cl. 160—177)

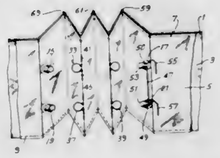


1. In a Venetian blind tilter for assembly into the head of a Venetian blind, the tilter having a horizontal sheet-metal base from which a vertical sheet-metal flange extends upwardly, a worm and gear being carried by the vertical flange for oscillating the tilt rod of the blind, the gear being located above the worm, the gear and the vertical flange being pierced for telescopic reception of the end portion of the tilt rod with the rod passing through and projecting beyond the vertical flange, and the worm being mounted in an opening formed in a lower portion of the vertical flange; the improvement which comprises: a strip of metal from substantially the entire height of the worm opening in the vertical flange being bent to extend from the top of the worm opening and lie generally parallel to the tilt rod axis, the strip having its tip projecting upwardly and extending into the path of the tilt rod as the rod-end is telescoped beyond the vertical flange, whereby said tip limits the telescoping movement of the tilt rod but is located remotely from the vertical flange and thereby affords a large degree of tolerance in the distance which the tilt rod may project beyond the vertical flange.

2,779,404
DRAPERY PLEATING DEVICE
Alexander McDonald Hess, Jamaica, N. Y.
Application June 17, 1955, Serial No. 516,230
9 Claims. (Cl. 160—348)

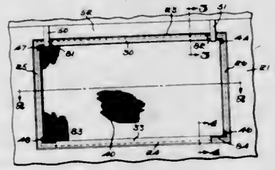
3. A pleating device, formed with two relatively long parallel prongs, and two relatively short parallel prongs, said short prongs being positioned forwardly of the plane of the long prongs, said short prongs being flared at their free ends and close together at their opposite ends and a suspending hook projecting rearwardly of the long prongs and attached thereto.

2,779,405
PLEATING STRIP
Alexander McDonald Hess, New York, N. Y.
Application September 14, 1953, Serial No. 379,862
6 Claims. (Cl. 160—348)



1. A pleating strip comprising, in combination, a strip of relatively stiff material, a male and a female snap fastener located on said strip in spaced relation one to the other and at least one eyelet located on a line between said fasteners, said eyelet further being located on an inner fold line of a pleat, said eyelet being constituted of wire and having a loop located on the inner face of said strip and a pair of legs integral with said loop and extending away therefrom in opposite directions along a single straight line on the outer face of said strip, said legs further lying along and assisting in defining said inner fold line when said male fastener is passed through said loop and into said female fastener.

2,779,406
SCREEN FOR AUTOMOBILE WINDOWS
Walter J. Merewether, Winchester, Mass.
Application July 3, 1953, Serial No. 365,893
6 Claims. (Cl. 160—373)



1. A screen adapted for mounting in an automobile window of the sliding pane type having a retaining groove for the pane all around the window opening, comprising:

a top frame member having a projection adapted to enter said groove at the top of the opening; a generally rectangular sheet of screening material somewhat narrower than the opening, having its top margin secured to said top member; a bottom frame member adapted to lie along the bottom of the opening, the bottom margin of said sheet being secured to said bottom member; a pair of side frame members slidably engaging the side margins of said sheet and the ends of said top and bottom members, said side members being freely slidable toward each other to a position limited by said side margins and away from each other; edge projections on said side members adapted to clear said opening when the members are in said position and to enter said groove at the side of the opening when the members are spread apart; and flanges on said side members projecting perpendicularly to said sheet and constituting finger grips for moving said side members toward and away from each other.

2,779,407

METHOD AND APPARATUS FOR FORMING A SPRING OF PREDETERMINED LENGTH FROM COIL SPRING STOCK

Theodore R. Thomsen, Farmington, Mich., assignor to Robotron Corporation, Detroit, Mich., a corporation of Michigan

Application December 23, 1954, Serial No. 477,374
3 Claims. (Cl. 164—17)

1. In a device for forming a spring of predetermined length from coil spring stock, which is being simultaneously rotated and advanced along its axis, the combination comprising: a permanent magnet; soft iron means providing a flux path from each end of said permanent magnet to a zone substantially adjacent to the path of movement of the spring stock at the point on said path corresponding to said predetermined length, said zone being defined by mutually opposed and spaced ends of said soft iron means, said ends being spaced apart a distance materially less than the diameter of the coil of spring stock and being positioned closely adjacent, but radially outwardly of, the cylindrical path defined by the radially outermost edge of said coil; a winding adjacent a portion of said soft iron means, whereby advancement of the leading end of said spring stock in a circumferential direction will shunt the flow of flux across said zone and thereby create an impulse in said winding; a trigger circuit; circuitry actuating said trigger circuit upon the appearance of an impulse in said winding; and means actuated by said trigger circuit for cutting said coil stock at a point spaced a predetermined distance from said zone.

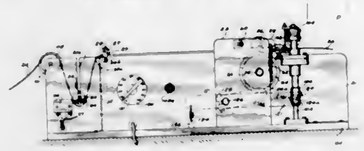
3. In a method for forming a coil spring of predetermined length from magnetic coil spring stock, comprising the steps: moving said coil spring stock simultaneously axially and circumferentially; establishing a flux path, including an air gap, adjacent the path of movement of said coil spring stock, said air gap being of width materially less than the diameter of said coil and extending circumferentially of said coil, said air gap being spaced a predetermined distance from a reference point in a direction axially along the path of movement of said coil spring stock; utilizing the change in the flux flow, created when the leading end of the coil spring stock passes said air gap in a direction circumferentially of said coil, for energizing cut-off means at said reference point.

2,779,408

METHOD AND APPARATUS FOR HANDLING PRINT STRIP

Claire K. Miller and Robert Sardeson, Minneapolis, Minn., assignors to Pako Corporation, Minneapolis, Minn., a corporation of Delaware

Application June 22, 1953, Serial No. 363,284
18 Claims. (Cl. 164—17)



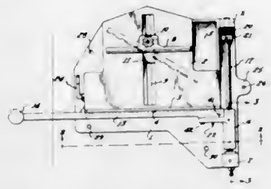
1. A machine for handling a photographic strip having spaced images thereon and having transverse slits formed therein between said images and intermediate the sides of said strip having in combination, a member on which said strip is supported, means for progressing said strip longitudinally in one direction, means for pressing down on said strip adjacent said slit to move a portion of said strip out of the plane of said strip to form a curved edge disposed in a vertical plane, a member disposed to be engaged by said portion as said strip is moved in said direction for stopping said strip and the operation of said first mentioned means, and means for severing said strip between a pair of said images while so stopped.

2,779,409

CUTTING DEVICE FOR SHINGLES

Otto J. Becker, Cincinnati, Ohio

Application September 16, 1955, Serial No. 534,735
10 Claims. (Cl. 164—44)



7. In a cutting device comprising a base including a work supporting surface and a fixed knife secured to said base and extending from front to rear thereof, a shaft extending across the rear of said base, mounting means on opposite sides of said base supporting the ends of said shaft at points spaced outwardly from the plane of said fixed knife, said shaft being spaced upwardly from the plane of said work supporting surface to provide an open space between the plane of said work supporting surface and the lowermost surface of said shaft, a collar fixed to said shaft, an extension projecting outwardly from said collar, a lever arm pivotally connected to said extension for limited pivoting movement relative thereto, and adjustment means for effecting relative adjustment between said lever arm and said extension.

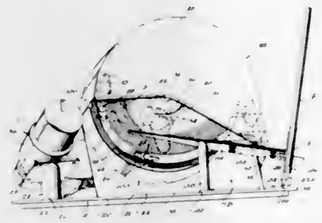
2,779,410

POWER OPERATED STRAP DISPENSER

John H. Leslie II, Evanston, Ill., assignor to Signode Steel Strapping Company, Chicago, Ill., a corporation of Delaware

Application September 1, 1951, Serial No. 244,831
4 Claims. (Cl. 164—48)

1. A dispenser for feeding metallic strap from a coil of strap comprising in combination a rotatable strap coil holding open face drum mounted to support a coil of strap for rotation and having the inner surface of its cylindrical wall frictionally engageable with the strap coil to rotate the coil to feed strap from the center thereof, a motor connected to drive said drum in strap feeding direction, a strap guide for guiding the strap laterally and vertically, said strap guide having an inlet adjacent the open face of said drum to receive strap from the center of the strap coil and having an outlet, a cutter at the outlet from said



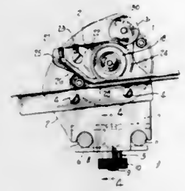
strap guide having a movable cutter blade and a stationary cutter blade between which the strap is fed, a motor control means, and a single manually movable handle for operating said motor control means and for operating said cutter to cut the strap into lengths, said handle being movable in a first direction from a neutral position to operate said motor control means and being movable in a second and opposite direction from said neutral position to operate said cutter.

2,779,411

FEED STRIP SEVERING DEVICE

Augustus J. Richards, Lakewood, Ohio, assignor to Bonnar-Vawter, Incorporated, Cleveland, Ohio, a corporation

Application September 23, 1952, Serial No. 311,123
7 Claims. (Cl. 164—60)



1. In a device of the class described, in combination, a substantially vertical main supporting bracket, a table fixed thereto and extending outwardly therefrom at one side, a motor on the opposite side of the bracket having a drive shaft, means connecting said motor with said bracket for pivotal movement thereon about an axis parallel with said shaft, means for maintaining said motor in various adjusted positions, the said drive shaft extending from said motor, a cutter driven by said shaft for rotation above said table, and a cutter guard mounted on said connecting means and movable with said motor.

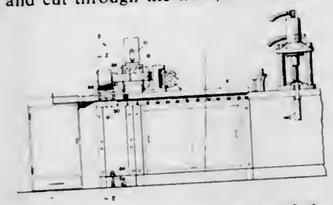
2,779,412

APPARATUS FOR CUTTING HOSE

David E. Albrecht, Philadelphia, and Stephan A. Grubich, Lafayette Hills, Pa., assignors to Hose Accessories Co., Philadelphia, Pa., a corporation of Pennsylvania

Application April 13, 1953, Serial No. 348,241
5 Claims. (Cl. 164—60)

1. Apparatus for cutting rubber hose which comprises an arcuate hose support, finger means to clamp the hose to said support and a rotary knife in a plane perpendicular to the axis of the hose and adapted to be lowered against the hose and cut through the hose, said finger means en-



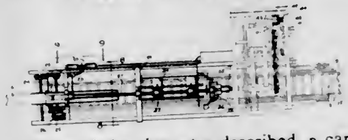
gaging the hose at points on both sides of the plane in which the rotary knife lies.

2,779,413

AUTOMATIC LOADER

Edwin G. Gage, Gilbertville, Mass., assignor to Gilbertville Woven Label Corporation, Gilbertville, Mass., a corporation of Massachusetts

Application June 23, 1954, Serial No. 438,812
5 Claims. (Cl. 164—61)



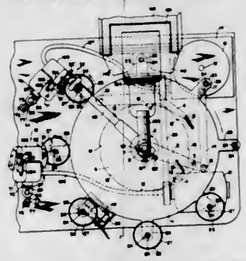
1. In a device of the character described, a carrier for feeding logs to a cutter or the like, said carrier having a pair of spaced log carrying portions and means for automatically directing logs into either of said log carrying portions, said means comprising an endless member for positioning logs above the center of said carrier and deflector means for directing logs into each of said log carrying portions of said carrier, said deflecting means comprising a pivotable member having a pair of log engaging portions and means for pivoting said deflecting member, a stop plate aligned with said deflecting member and adapted to be engaged by a log and switch means adapted to be actuated by said stop plate to effect actuation of said deflecting member.

2,779,414

CUTTER FOR TRIMMING RINDS FROM MOLDED ARTICLES

Edwin N. Broden, Assonet, Mass., assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Original application September 15, 1951, Serial No. 246,747. Divided and this application December 12, 1952, Serial No. 334,033
10 Claims. (Cl. 164—63)



1. In a machine for trimming a rotating work piece, a housing, a pair of peripheral overlapping circular knives journaled in said housing, and mounting means for said housing comprising a first upright, a block slidable and adjustably mounted on said first upright, a support slidably mounted in said block in a direction transverse to said first upright, a second upright carried by said sup-

port, a shaft connected to said housing and journaled in said second upright, means to adjust the tilt of said housing with respect to said work piece and an arm projecting from said shaft and adapted to twist said shaft with respect to said second upright, whereby said knives are positioned against said work piece for the trimming operation and withdrawn from the work piece when the trimming operation is complete.

2,779,415
PLUGGING FORMATIONS WITH HOT SOLUTIONS
George C. Howard, Tulsa, Okla., assignor to Stanolind Oil and Gas Company, Tulsa, Okla., a corporation of Delaware
No Drawing. Application February 26, 1953, Serial No. 339,160
3 Claims. (Cl. 166—30)

1. The method of selectively plugging a non-oil-producing zone of a formation penetrated by an oil well comprising injecting into said formation at a temperature above that of said formation a solution of an oil-soluble, water-insoluble plugging agent in an oil-soluble solvent, said plugging agent being a solid at formation temperature and pressure and being non-reactive with said formation, sufficient plugging agent being in said solution when injected into said formation to form a precipitate when said solution is cooled to formation temperature, whereby the formation is partially plugged, the amount of plugging agent in said solution when injected being only sufficient to form a volume of precipitate less than 35 percent of the volume of the injected solution whereby some formation permeability is retained so that when the well is produced, oil flowing through any oil-producing zone dissolves the precipitated plugging agent injected into said zone to restore the permeability of such zone while said non-oil-producing zone remains partially plugged.

2,779,416
TREATING FORMATIONS WITH SOLID FORMING LIQUIDS
Roscoe C. Clark, Jr., Ponca City, Okla., assignor to Stanolind Oil and Gas Company, Tulsa, Okla., a corporation of Delaware
No Drawing. Application December 5, 1952, Serial No. 324,405
4 Claims. (Cl. 166—30)

1. The method of selectively plugging a non-oil-producing zone of an oil-producing formation penetrated by a well, comprising injecting into said formation an emulsion consisting essentially of water and an oil-soluble, water-insoluble plugging agent non-reactive with said formation, said emulsion being at a temperature above the freezing point of said plugging agent at formation pressure and said freezing point of said plugging agent being above formation temperature, whereby said plugging agent enters said formation as a liquid but freezes to a solid state upon cooling to formation temperature, at least 65 percent of the volume of said emulsion being water, whereby the formation retains some of its permeability so that oil flowing through any oil-producing zone, when the well is produced, dissolves the resulting solidified plugging agent in said oil-producing zone, thus restoring the original permeability of the latter while leaving the non-oil-producing zone partially plugged.

2,779,417
PLUGGING WELL CASING PERFORATIONS
Roscoe C. Clark, Jr., Midland, Tex., and George C. Howard, Tulsa, Okla., assignors to Stanolind Oil and Gas Company, Tulsa, Okla., a corporation of Delaware
No Drawing. Application February 15, 1954, Serial No. 410,416
6 Claims. (Cl. 166—31)

1. A method of plugging a multiplicity of spaced perforations in a well casing containing mud and traversing a permeable zone comprising the steps of introducing into said casing a slurry of hydraulic cement having by weight, based on the weight of cement in said slurry, about 1 percent of a cement water-loss reducing additive and between about 0.5 to 10 percent of a pumpable bridging material which has a maximum dimension of about 0.1–1.5 inches, applying pressure to said slurry thereby causing it to displace the mud from said casing into said perforations, and to flow into at least some of said perforations depositing a sheath of said bridging material on the exposed face of any crevices in said permeable zone and plugging same, successively flowing said slurry into additional perforations at progressively higher pressures until said mud has been displaced from all of said perforations and has been replaced with said slurry of cement, and allowing said cement to hydrate in said perforations.

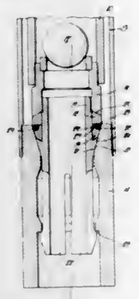
2,779,418
METHOD OF INCREASING PRODUCTION FROM WELLS
Arthur W. Garst, Tulsa, Okla., assignor to Stanolind Oil and Gas Company, Tulsa, Okla., a corporation of Delaware
No Drawing. Application May 10, 1954, Serial No. 428,823
9 Claims. (Cl. 166—42)

1. A method for treating an oil-bearing formation penetrated by a well comprising injecting into the well and then into said formation a solution containing a mixture of esters formed by reaction of oxyethylated sorbitol and fatty acids, said esters containing from about 2 to 4 fatty acid molecules per molecule of oxyethylated sorbitol, said fatty acids containing at least about 12 carbon atoms per molecule, and said oxyethylated sorbitol containing from about 1 to 10 moles of ethylene oxide per mole of sorbitol.

2,779,419
REINFORCED INFLATABLE PACKER
Whitman D. Mounce, Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application March 22, 1954, Serial No. 417,559
4 Claims. (Cl. 166—187)

3. A well packer comprising a shaft, fluid-movable spaced apart first and second packer supporting means slidably and sealingly arranged on said shaft, a tubular inflatable packer member surrounding said shaft and secured at its ends to said first and second supporting means, reinforcing means in said packer member extending substantially the entire length thereof, a first passageway in said shaft communicating with the interior of said packer member adapted to supply fluid for inflating said packer, first stationary means on said shaft cooperating with said first supporting means to provide a first fluid-tight chamber above said first stationary means, a second stationary means on said shaft cooperating with said second supporting means to provide a second fluid-tight chamber below said second supporting means, and a second passageway in said shaft fluidly intercommunicating said first and second chambers, whereby after said packer member has been inflated a load on said inflated packer member resulting from external well pressures will be divided between said supporting means.

2,779,420
BOTTOM SEAL FOR DEEP-WELL PUMPS
Edward E. Stevenson, Whittier, Calif., assignor to United States Steel Corporation, a corporation of New Jersey
Application August 16, 1954, Serial No. 449,959
2 Claims. (Cl. 166—195)

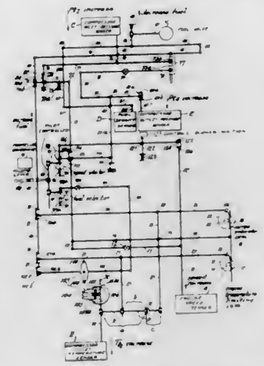


2. A seating mandrel for a subsurface pump comprising a nut adapted to be attached to the pump, a tubular body attached to the lower end of said nut and having a downwardly tapered seating face, a lip integral with said body at the upper extremity of said seating face, said lip being spaced from said nut, upper and lower annular insert sections mounted on the exterior of said body in the space between said lip and said nut, said lower section having an annular recess in its upper outer portion adjacent said upper section, an integral lip on said upper section overhanging a portion of said recess leaving a gap between the lower edge of said second named lip and said lower section, said lower section and the exterior of said second named lip having seating faces separated by said gap and forming an extension of the seating face on said body, a resilient ring housed in said recess and being of greater cross-sectional diameter than the width of said gap and positively retained in said recess by said second named lip, and means on said lower section forcing a portion of said ring through said gap.

2,779,421
AERIAL FIRE EXTINGUISHER
James H. Rust, La Habra, Calif.
Application June 4, 1954, Serial No. 434,461
3 Claims. (Cl. 169—1)

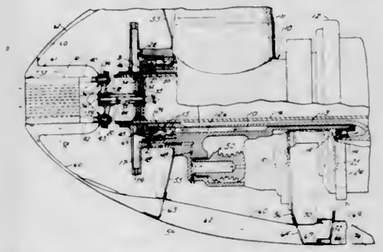
1. Apparatus for aerial fire fighting comprising: a container; means for introducing fire fighting chemicals into said container under pressure; means for suspending and moving said container over different portions of a fire area; and triggering means carried by said container for releasing said chemicals whereby a sustained discharge of the chemicals over the fire area is effected, said triggering means including a probe element projecting from the bottom of said container in a given direction and valve means communicating with the interior of said container and operatively connected to said probe element whereby said valve means will be opened responsive to tilting of said probe member from said given direction.

2,779,422
ENGINE FUEL CONTROLLER
John Dolza, Davisburg, and Harry F. Pease, Ann Arbor, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 5, 1951, Serial No. 249,999
14 Claims. (Cl. 170—135.74)



1. Apparatus for controlling flow of fuel to the burners of an internal combustion turbine engine comprising a fuel flow metering valve having a member providing an orifice and an orifice controlling member one of which is movable, a manually operable control lever for setting the blade angle controller of a propeller driven by the engine to maintain a selected speed in the positive thrust range, means under control by the lever for positioning the movable valve member to maintain fuel flow required for the selected speed, an engine compressor inlet temperature senser, an engine speed senser, a compressor inlet pressure senser, and means under control by said sensers for limiting movement of the movable valve member to increase fuel flow in order to obtain fuel flow no greater than that which will cause engine operation at a certain maximum turbine temperature.

2,779,423
PROPELLER WITH OIL COOLER
Maurice E. Cushman, Verona, N. J., assignor to Curtiss-Wright Corporation, a corporation of Delaware
Application August 25, 1953, Serial No. 376,307
4 Claims. (Cl. 170—160.23)



1. In a tractor aircraft propeller installation, a propeller having a pitch changing mechanism including a circulating lubricant pump and a sump feeding said pump, means operated by propeller rotation to drive said pump, conduits in the propeller connected with bearings thereof

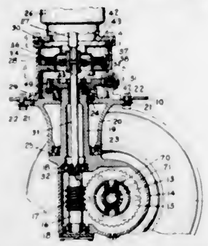
fed by said pump, an oil cooler mounted on the outboard end of said propeller and rotatable therewith connected to and receiving oil from said conduits, additional conduits connected to and receiving oil from said cooler passing through said propeller and connected to parts of the mechanism thereof, means discharging oil from said additional conduits to said sump, a spinner embracing said propeller to which said cooler is secured, the front end of said cooler passing through said spinner for exposure to the airstream, and for passage of air through said cooler, and means within said spinner to conduct air leaving the cooler, through said spinner and for discharge therefrom.

2,779,424
IMPELLER
George Albert Lyon, Detroit, Mich.
Application March 27, 1953, Serial No. 345,193
2 Claims. (Cl. 170—168)

1. In an impeller construction, a one-piece sheet metal body including a central circular attachment flange portion and a radially outer generally frusto-conical marginal flange portion, with a uniform series of laterally separated air impelling vanes integrally connected in one piece at radially inner ends thereof to said central flange portion and at radially outer ends thereof to said marginal flange, said vanes being of both longitudinal and transverse sinuous formation and with the radially outer portions thereof of substantially greater width and bowed in the axial direction toward which said marginal flange projects and obliquely tilted relative to the plane of said inner circular attachment flange whereby to enable scooping of air axially outwardly from the substantially funnel structure provided by said outer marginal flange to funnel air toward said vanes, the ends of said vanes adjacent to said outer marginal flange being connected thereto by juncture neck connections which are substantially narrower than the adjacent width of the vanes and are short and angular whereby to effect connection with the marginal flange in minimum space to have the adjacent scoop ends of the vanes close to the adjacent edge of the marginal flange, said connection necks being substantially rigid and parallel to the adjacent edge of the marginal flange.

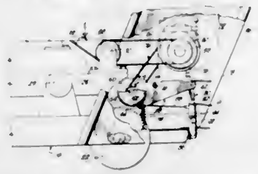
2,779,425
DRIVING AND BRAKING MECHANISM FOR VEHICLE STEERABLE WHEEL MEANS
Kay Miller, Kalamazoo, Mich., assignor to Kalamazoo Manufacturing Company, Kalamazoo, Mich.
Application October 25, 1954, Serial No. 464,348
6 Claims. (Cl. 180—26)

1. The combination with a chassis provided with rear wheels and having an operator's platform at its front end, front driving and steering wheels, a gear housing, axles for said front wheels mounted on said gear housing, an axle drive gear disposed within said housing, a vertically disposed driving worm mounted in said housing to coact with said gear, a tubular steering column integral with said housing projecting upwardly therefrom in alignment with said worm, a support member secured to said platform and receiving said steering column and provided with combined radial and axial thrust bearings therefor, a chambered motor base member mounted on said support member, a motor mounted on said motor base member with its shaft vertically disposed and depending into said motor base member, a transmission shaft disposed within said steering column and connected to said driving worm and projecting into said motor base member, a coupling member for said motor and transmission shafts provided with a brake element, said motor base member being provided with an inwardly projecting relatively fixed coacting brake element, a spring retracted thrust member mounted within said motor base member to coact with said brake element on said coupling a brake lever pivotally mounted at one side of said motor base member to coact with said thrust member and projecting from the opposite



side of the base member, a brake pedal mounted on said motor base member to coact with the projecting end of said brake lever, a steering gear mounted on the upper end of said steering column within said motor base member, a steering gear driving worm rotatably mounted on said motor base member to coact with said steering gear, a stop on said motor base member limiting the rotative movement of said steering gear, an upright hood fixedly mounted on said chassis at the front of said motor and its said base member, and a steering wheel provided with a shaft rotatively mounted on said hood and having driving connection to said steering gear driving worm.

2,779,426
DRIVE UNIT MOUNTING AND CONTROLS FOR WHEELS OF CUTTING MACHINES
Robert R. Harris, Kansas City, and Clinton W. Klinge, Hickman Mills, Mo., assignors to Clipper Manufacturing Company, Kansas City, Mo., a corporation of Missouri
Application March 16, 1954, Serial No. 416,677
7 Claims. (Cl. 180—74)

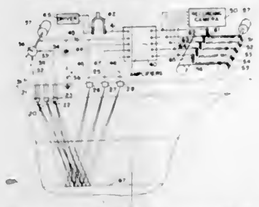


1. In a cutting machine having a platform provided with means of support including a wheel and axle assembly, there being a cutter and a prime mover for the cutter mounted on the platform, the improvement of which comprises an attachment adapting the prime mover additionally as a drive for said assembly, said attachment including a bracket having transmission means mounted thereon; pivot means mounting said bracket on the machine above the platform for swinging movement on an axis substantially parallel with the axle of said assembly; a shaft mounted on the bracket to one side of said pivot means for rotation on an axis substantially parallel with said axle; means operably connecting the shaft with said transmission means; a roller on the shaft in alignment with a wheel of said assembly; means operably coupling the prime mover with the transmission means; resilient means connected with the bracket for yieldably holding the same swung in one direction about said pivot means to maintain said roller in frictional engagement with the wheel; and a swingable latch adapted to interconnect the platform and the bracket at the opposite side of said pivot means and thereby hold the bracket swung in the opposite direction about said pivot means with the roller spaced from the wheel.

2,779,427
FLUID POWER STEERING APPARATUS
Clovis W. Lincoln and Philip B. Zeigler, Saginaw, Mich., and Robert M. Gold, Minneapolis, Minn., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 8, 1954, Serial No. 421,884
4 Claims. (Cl. 180—79.2)

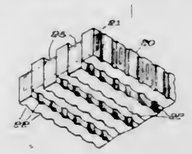
1. In association with a steering system for vehicles having a fixed front axle mounting a dirigible wheel at each end thereof, said system including a rockshaft substantially centered between said wheels, a pitman arm fixed on said shaft, a parallelogram linkage including a pair of tie rods and a pair of steering knuckle arms, apparatus comprising an idler arm rotatable on said rockshaft and inter-connecting the inner ends of said tie rods, said idler arm carrying stop means adapted to engage a fixed portion of the vehicle to limit the movement of said linkage, a source of fluid pressure, fluid motor means supported from said axle and by one of said tie rods for power operation of the latter, and valve means for controlling the fluid flow to said motor, said valve means being actuated through said pitman arm.

2,779,428
SEISMIC SURVEYING
Daniel Silverman, Tulsa, Okla., assignor to Stanolind Oil and Gas Company, Tulsa, Okla., a corporation of Delaware
Application July 14, 1951, Serial No. 236,730
15 Claims. (Cl. 181—.5)



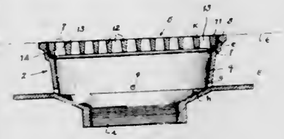
14. The method of seismic surveying which comprises detonating in succession at least three explosive charges in different but adjacent shot locations with unequal time intervals of between 50 and 200 milliseconds between successive charge detonations to apply seismic wave-creating impulses to the earth, receiving at a plurality of reception points spaced from said location the resultant seismic waves after travel through the earth, recording the received seismic waves as a plurality of parallel traces on a record, and analyzing said record for events having both the usual characteristics of desired seismic waves and also the imposed spacing in time of said impulses at said unequal intervals.

2,779,429
SOUND ABSORBING STRUCTURE
Jacob Mazer, Germantown, Pa.; Fannie Mazer, Ruth Mazer Simon, and Edna Mazer Rosenberg, executrices of said Jacob Mazer, deceased, assignors of twenty per cent to Ruth Mazer Simon, twenty percent to Edna Mazer Rosenberg, and sixty percent to Ruth Mazer Simon and Edna Mazer Rosenberg, as trustees
Application July 17, 1953, Serial No. 368,598
3 Claims. (Cl. 181—33)



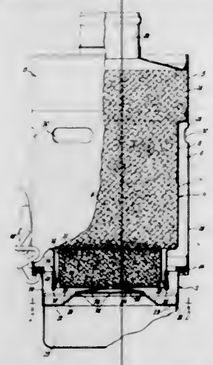
1. A sound-absorbing panel-like unit that comprises strips of low density sound-absorbing material held loosely engaged with one another in side-by-side relation, alternate strips having their rear edges in approximately a common plane for connection to a wall surface, and the intermediate strips being set outwardly relative to said plane and unitarily connected with the said alternate strips, whereby sound waves which pass rearwardly through the areas between the strips will be entrapped in the spaces behind the rear edges of the said intermediate strips.

2,779,430
SURFACE DRAINS
Martin A. Sisk, Pittsburgh, Pa.
Application May 22, 1953, Serial No. 356,750
2 Claims. (Cl. 182—31)



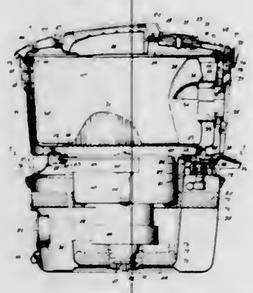
2. In a surface drain comprising a drain body provided with an inlet having a peripheral rim, a peripheral side wall extending downwardly from said rim to an outlet, and a grate supported in position across the inlet; the invention herein described wherein said side wall is formed with an internal surface that extends downwardly from the inner edge of said rim to said outlet, providing a substantially continuous downsweep that is smooth and substantially unrestricted throughout the peripheral and vertical extents of said side wall, said side wall including an annular seat formed integrally on the inside of the drain body within and below said rim, said grate comprising a perforate body within an inner peripheral portion and an outer peripheral portion spaced outwardly from and united to said inner portion, the outer peripheral portion of the grate engaging said seat to support the grate across said inlet, the inner vertical surface of said outer peripheral portion of the grate forming in effect an upward continuation of that portion of the internal surface of the drain-body side wall which is located immediately below said outer peripheral portion of the grate, the space between said inner and outer peripheral portions of the grate forming a relatively wide drainage slot that extends in substantial continuity around the periphery of the drain structure, whereby in service the entire internal surface of the drain structure is flushed by an unrestricted downsweeping flow of drainage fluid.

2,779,431
FILTERING DEVICE
Wesley W. McMullen and Joseph N. Heller, Flint, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 8, 1953, Serial No. 347,554
6 Claims. (Cl. 183—15)



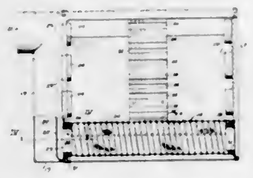
1. An air cleaner comprising a casing formed of two complementary members adapted to be secured together, a sleeve secured to one of said casing members and spaced inwardly therefrom to form an air inlet passage between said members, a filter element removably secured within said sleeve member, a plurality of fasteners adapted to be secured to said sleeve member, said fasteners engaging said filter element for removably securing said filter element to said sleeve member and adjacent the other of said casing members, a baffle disc secured to said filter element, an annular baffle palte secured to said other casing member and adapted to engage said baffle disc, said other casing member being adapted to contain a liquid at a level partially covering said baffle plate, said baffles being extended transversely across said air inlet passage and in spaced relation to said sleeve member for directing said air into said filter element, and air outlet means formed in said sleeve and through said casing for the exhaust of said air from said filter elements.

2,779,432
VACUUM CLEANER ASSEMBLY
Carl E. Meyerhoefer, Brooklyn, N. Y., assignor, by mesne assignments, to Lewyt Corporation, Brooklyn, N. Y., a corporation of New York
Application May 7, 1953, Serial No. 353,472
7 Claims. (Cl. 183—37)



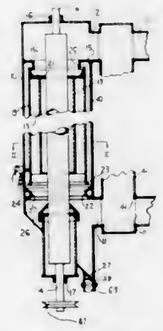
1. In a vacuum cleaner in combination, a casing comprising upper and lower sections, means providing a rotatable connection between said sections whereby the upper is movably supported upon the lower, a base portion closing the lower section, a cover movably mounted upon the upper section for sealing the latter, said upper section being formed with an inlet opening in its side wall, an air-guiding and bag-mounting fitting secured to said upper casing section and extending inwardly of the same in line with said opening, a bag including a single body of air porous material providing a complete enclosure and having an opening encircling said fitting, said bag extending transversely across said upper casing section with its axis horizontally disposed, an inwardly extending supporting portion at the lower end of said upper section and below said bag, a motor-blower unit suspended against rotation from and below said supporting portion, the thus supported unit having its axis extending in a vertical plane intersecting such bag with the blower of the unit disposed above the motor thereof and said casing being formed with an outlet opening for the discharge of air moved by said unit.

2,779,433
AIR FILTER
Charles A. Winslow, Oakland, Calif., assignor to Winslow Aerofilter Corporation, Oakland, Calif., a corporation of California
Application January 14, 1955, Serial No. 481,879
9 Claims. (Cl. 183—58)



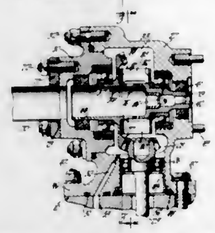
1. In an air filter adapted for installation on a member which vibrates in use, the combination of a hollow, flexible filter element; a casing therefor, having end walls, one of said end walls including a manifold to be connected to the air intake on an internal combustion engine; opening means in said manifold adapted to support one end of said hollow filter element; means on the other end wall for supporting the other end of said hollow filter element; and resilient means placed between the aforesaid two supports and between said element and said casing for resiliently supporting the mid section of said hollow filter element, whereby said mid section is caused to vibrate at a different period than its ends.

2,779,434
CENTRIFUGAL DUST COLLECTOR
Lloyd B. Smith, Birmingham, Ala.
Application August 8, 1955, Serial No. 526,957
9 Claims. (Cl. 183—76)



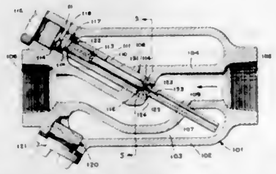
1. In apparatus for separating solids from gases, an elongated imperforate cylinder closed at the ends, a smooth imperforate wall open at the ends surrounding the cylinder in spaced relation thereto, a plurality of axially extending vanes joined to the cylinder and to the wall and forming therewith axially extending passages, means to introduce solids laden gases into the passages at one end of the cylinder, means within the outer wall at the other end of the passages to impede the outward flow of gases therefrom and create relatively quiet zones in the passages along the outer wall, and means to rotate the cylinder at a velocity sufficient to cause the solids to settle out and be retained in said passages to be discharged only upon stopping rotation of the cylinder.

2,779,435
CENTRIFUGAL BREATHER
Frederick W. Hoeltje, Indianapolis, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 25, 1955, Serial No. 503,396
2 Claims. (Cl. 183—77)



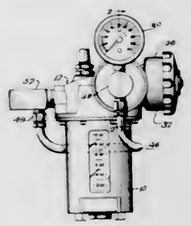
1. A device adapted for separation of oil from air vented from an engine case comprising, in combination, a body defining a chamber; a centrifugal impeller rotatably mounted in the body and having a peripheral inlet, a central outlet, and blades extending radially between the inlet and outlet, the impeller dividing the chamber into an inlet chamber radially outward of the impeller and an outlet chamber radially inward of the impeller; means for rotating the impeller; conduit means entering the inlet chamber adapted to connect the inlet chamber to an engine case to receive oil-laden air therefrom; a vent conduit communicating with the said radially inward outlet chamber for discharging air therefrom; and means defining an oil drain passage from the lower part of the inlet chamber.

2,779,436
OILER FOR PERCUSSIVE TOOLS
Otto J. Schorer, Northampton, Mass., assignor to Worthington Corporation, Harrison, N. J., a corporation of Delaware
Application May 3, 1954, Serial No. 427,262
3 Claims. (Cl. 184—55)



1. In a line oiler for percussive tools, a casing forming a lubricant reservoir, a pressure air conduit extending through said lubricant reservoir, a valve housing connected in said conduit transversely thereof and provided with a longitudinal bore having a valve seat at one end, an inlet passage and an outlet passage in said housing in the line of pressure air flow in said conduit communicating between said valve seat and said pressure air conduit, a plurality of passages in said housing transversely of said inlet and outlet passages and opening on one end into said valve seat, said transverse passages so disposed that at least one passage will communicate with the lubricant in said reservoir at all times, an adjustable valve to coact with said valve seat to meter the flow of lubricant from said reservoir to the pressure air conduit during operation of said percussive tool, an opening in said casing to adapt said valve to be adjusted during operation, and means in said opening forming a seal to prevent escape of pressure air from said lubricant reservoir when said valve is to be adjusted.

2,779,437
VARIABLE CAPACITY OIL MIST GENERATOR
Frederick G. Schweisthal, Skokie, Ill., assignor to Stewart-Warner Corporation, Chicago, Ill., a corporation of Virginia
Application October 13, 1953, Serial No. 385,744
2 Claims. (Cl. 184—55)



1. An adjustable oil mist generator having a stepped-up capacity to supply an aerosol of lubricating oil under various desired predetermined pressures and bearing oil particles entrained therein at various desired predetermined oil flow rates, comprising, in combination, an aerosol generating venturi, means defining an air inlet to said venturi, means defining an outlet for aerosol generated in said venturi, air supply means including an adjustable air pressure regulator connected to supply air to said venturi inlet at a pressure determined by adjustment of the regulator, means defining an air bypass passage having an inlet end connected to receive air from said regulator at the regulated pressure at which air is supplied to said venturi inlet, said bypass passage means including flow restricting structure fixed against displacement by fluid pressure and defining for the passage the minimum effective flow area thereof as a predetermined value which is fixed against change by fluid pressure, said bypass passage having an air discharge end communicating with said outlet to merge the air output of the passage with the aerosol output from said venturi, an oil reservoir communicating with said outlet, and means connecting said reservoir to said venturi between said air inlet thereto and said outlet and including adjustable flow control means for adjusting for any given rate of air flow through the venturi the flow of oil from the reservoir into the venturi, said adjustable flow control means being independent of said air supply means for said venturi inlet.

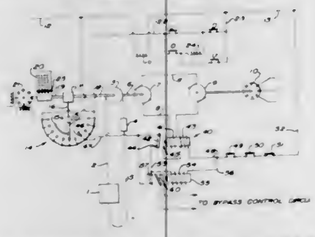
2,779,438
CAR CALL CANCELLATION MEANS
Ernest B. Thurston, Toledo, Ohio, assignor to Haughton Elevator Company, Toledo, Ohio, a corporation of Ohio
Application November 1, 1955, Serial No. 544,161
9 Claims. (Cl. 187—29)

9. In a control circuit for an elevator, in combination, a car button assembly in the elevator for registering destination calls, electromagnetic means for holding actuated buttons in depressed position, means for momentarily de-energizing the electromagnetic means when the elevator reverses, control means actuated when the elevator is con-

ditioned to by-pass hall calls, and means responsive to an operation of the by-pass controlled means prior to ar-

rival of the elevator at the lower terminal for delaying the re-energization of the electromagnet for a predetermined period of time.

2,779,439
AUTOMATIC ELEVATOR CURRENT OPERATED BY-PASS CONTROL
Joseph H. Borden, Toledo, Ohio, assignor to Haughton Elevator Company, Toledo, Ohio, a corporation of Ohio
Application March 25, 1955, Serial No. 496,670
9 Claims. (Cl. 187—29)

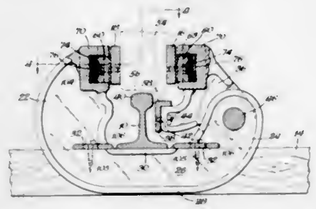


9. In an automatic elevator system in which a counterbalanced elevator car is driven by a direct current motor connected in loop circuit with a variable voltage generator, in combination, a contact making control for varying the voltage of the generator according to a predetermined acceleration pattern, a first relay having a current coil connected in said loop circuit, a voltage coil on said first relay, contacts on said first relay for preparing a circuit to said voltage coil when the relay is energized, a second relay having a voltage coil, contact on the first relay for preparing a circuit to the second relay voltage coil when the first relay is deenergized, means for energizing said circuits when said contact making control reaches a preselected point in the acceleration pattern, contacts on the second relay in parallel with the contacts of the first relay for maintaining the circuit to the second relay, and means on the second relay for conditioning the elevator car to by-pass hall calls.

2,779,440
BRAKE RIGGING
Ernest G. Goodwin, Toledo, Ohio, assignor to Unitcast Corporation, Toledo, Ohio, a corporation of Ohio
Application March 10, 1950, Serial No. 148,862
9 Claims. (Cl. 188—33)

1. The combination in a brake rigging for railway cars having live and dead levers pivotally mounted on respectively opposite sides of the bolster of a car truck of the railway car, of a plate member extending longitudinally of and pivotally mounted on the car, said plate member being above and detached from the bolster of the truck, a pivoted lever acting in a substantially horizontal plane, and chains connected with the upper ends of the live and dead levers, said horizontally movable lever being connected to and acting on said live and dead levers through said plate member and chain for applying the brakes of the car truck, said live and dead levers lying in substantially the same plane and acting in opposite directions.

2,779,441
RETARDER
George C. Beltman, Chicago, and Donald H. Sweet, Evanston, Ill.; said Sweet assignor to said Beltman
Application February 21, 1951, Serial No. 212,157
5 Claims. (Cl. 188—62)



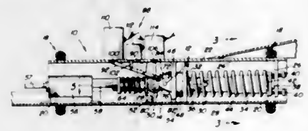
1. A retarder comprising, in combination with a conventional railroad rail: opposed shoes for pinching a wheel rolling along said rail between said shoes; and means rendered operative by the wheel for pressing said shoes against the wheel; said pressing means including a transmission from said wheel to said shoes comprising a movable shelf beside said rail substantially co-extensive longitudinally with the adjacent shoes and a plurality of pressure units spaced along the length of said shelf and shoes; each unit comprising a rigid stationary frame extending under the rail; said frame having a low fixed arm on the same side of said shelf; said frame having a high fixed arm extending above the rail level on the side opposite said shelf; a first one of said shoes being mounted on all said high fixed arms; the other, second, shoe being connected to all said low fixed arms; each connection comprising guide means for guiding said shelf in a substantially vertical path throughout its range of movement and a linkage from said shelf to the adjacent shoe for moving said shoe horizontally toward the opposite shoe as said shelf moves down; whereby the friction pressure is proportionate to the downward force on said shelf.

2,779,442
VIBRATION DAMPER FOR GAGES
Elbridge F. Bacon, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 22, 1947, Serial No. 743,218
3 Claims. (Cl. 188—90)

1. In a damping unit of the character described, a pair of relatively rotatable elements having bearing support one on the other, said elements having a pair of complemental surface portions arranged so as to rotate one with respect to the other when said members partake of relative rotary movement, said surface portions being shaped and arranged close together in face to face relation to form a space between said surface portions having a width

undiminished at the perimeter, said elements being so arranged as to normally permit free egress of liquid from said space under the influence of gravity, a body of substantially constant high viscosity silicone liquid having free flowing characteristics under the influence of gravity under all operating conditions of said damping unit, and having high surface tension and high wetting action, said body being positioned in said space, said silicone liquid having a contacted surface part contacting and wetting said surface portions facing said space and adhering to said surface portions and a peripheral free surface part extending between said elements providing a surrounding peripheral meniscus formed by the high surface tension characteristic of said silicone liquid adhering to said surface portions around the perimeter of said surface portions and extending over the free surface part of said body of silicone liquid, said space between said complemental surface portions being sufficiently small that said body of silicone liquid is entirely supported by the coaction of said wetting action adhering the silicone liquid and meniscus to said complemental surface portions and said meniscus entirely supporting said body of silicone liquid in said space between said complemental surface portions to prevent egress of said liquid from said space, and said silicone liquid cooperating with said complemental surface portions to offer viscous liquid shear resistance and damp relative rotary vibrational movement between said relatively rotatable elements.

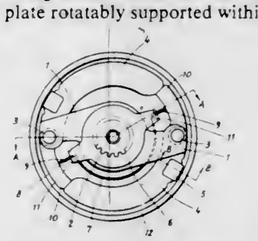
2,779,443
AUTOMATIC BRAKING TRAILER HITCH
Maurice L. Tucker, Troy, Ohio, assignor of fifty percent to Douglas S. Wade, Detroit, Mich.
Application February 11, 1955, Serial No. 487,511
9 Claims. (Cl. 188—112)



9. A trailer hitch comprising a first member adapted to be connected to a source of draft power, a second member adapted to be connected to an object to be drawn, means connecting said members together so that they are capable of relative longitudinal movement, an abutment carried by one of said members, a master cylinder, an actuating rod extending from said master cylinder, yielding means at the end of said master cylinder actuating rod with which to actuate said rod, said abutment including a pivotal element which is adapted to come into contact with the yielding means at the end of said master cylinder actuating rod in order to actuate the master cylinder in response to relative longitudinal motion between said first and second members, a shock absorber arranged between said first and second members for actuation in response to said relative movement, and means operatively connected with said pivoted element for imparting movement thereto.

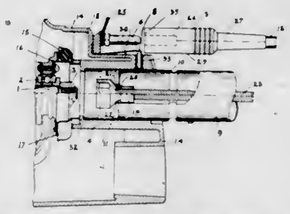
2,779,444
SPEED GOVERNOR, PARTICULARLY FOR DIALS
Carl Oscar Sohlberg, Stockholm, Sweden, assignor to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden
Application December 28, 1954, Serial No. 478,104
Claims priority, application Sweden September 27, 1954
3 Claims. (Cl. 188—184)

1. A speed governor comprising, in combination, a substantially circular brake sleeve, a body portion rotatably supported within said sleeve, a pair of brake weights each comprising a lever having a brake sleeve engaging portion and an extension, pivot means disposed between said sleeve engaging portion and said extension pivotally supporting said lever on said body portion, a spring support plate rotatably supported within said sleeve,



spring means slidably received within said support plate and disposed in adjustable engagement between each extension of each said levers, said support plate being adapted to be rotated to effect simultaneous adjustment of the engagement of said spring means with each said extension relative to the respective pivot means.

2,779,445
MECHANICAL COUPLING MEANS FOR THE DRIVING OF A SECONDARY APPLIANCE
André Conord, Paris, France, assignor to Societe Moderne d'Appareils Menagers Conord, Paris, France, a French company
Application March 23, 1955, Serial No. 496,258
4 Claims. (Cl. 192—.02)



1. A coupling for driving a secondary appliance by the electric motor of a main appliance comprising in combination: a fixed coupling part located on the main appliance and rotationally driven by the electric motor; a second coupling part axially movable in relation to the first and connected, for the purpose of transmission of movement, to the accessory appliance; a mounting for the second coupling part adapted for connecting or disconnecting said two coupling parts; make and break means for the circuit of the electric motor; a locking device between said mounting and said make and break means, the latter being adapted for pushing said locking device into its operative position when the motor circuit is made in which position the locking device either blocks the entry of said mounting for making the coupling, or locks such mounting in the coupling position if said mounting has already been inserted.

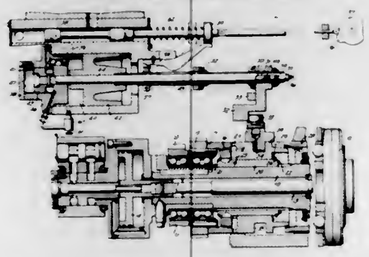
2,779,446
DOG CLUTCH DRIVE FOR WINDSHIELD WIPERS AND THE LIKE
William R. Bell, Skokie, Ill., assignor to Stewart-Warner Corporation, Chicago, Ill., a corporation of Virginia
Application April 19, 1954, Serial No. 423,906
8 Claims. (Cl. 192—33)

1. A dog clutch drive adapted for energizing a windshield wiper from a vehicle engine and comprising, in combination, a driving member adapted for rotation by a vehicle engine, a driven member adjacent the driving member, a flexible shaft extending from the driven member, declutching means operated by the flexible shaft for apply-

ing axial movement to the shaft by power supplied therethrough, dog clutch means on the driving and driven members, and the dog clutch means defining coacting clutch faces progressively undercut to induce an axial thrust be-

tween the clutch means of the driving and driven members resistant to disengagement thereof as an incident to the transmission of torque therethrough to the driven member.

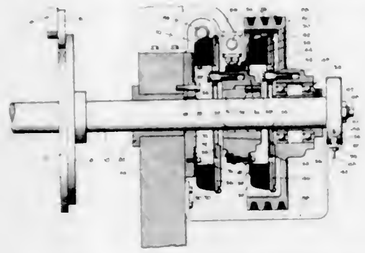
2,779,447
SPINDLE-STOP MECHANISM
William B. Retz, Plainville, and Paul B. Kuzmak, Wethersfield, Conn., assignors to The New Britain Machine Company, New Britain, Conn., a corporation of Connecticut
Application July 24, 1953, Serial No. 370,100
14 Claims. (Cl. 192—138)



1. In an automatic chucking machine, a spindle, continuously running means for driving said spindle, a clutch for engaging said drive means to said spindle, a brake for arresting rotation of said spindle, means for selectively and alternately engaging said clutch and brake, timing means including a camshaft for automatically governing a cycle of operations of said machine, means driven by said camshaft for actuating said selective means at one part of said cycle of operations, whereby at such time the drive to said spindle may be disengaged and said spindle may be braked, and thus said actuation of said selective means may be viewed as an actuation of said brake, delay-operated means responsive to such actuation of said brake and including brake-disengaging means, whereby said brake may be disengaged automatically after a predetermined time delay, and releasable means positioned to prevent clutch reengagement upon disengagement of said brake.

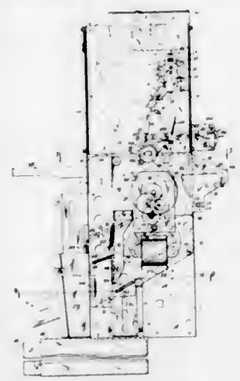
2,779,448
CLUTCH AND BRAKE CONTROL FOR KNITTING MACHINE
Fritz Lambach, Tenafly, and Walter Siegel, North Bergen, N. J., assignors to Robert Reiner, Inc., Weehawken, N. J.
Application March 1, 1951, Serial No. 213,442
9 Claims. (Cl. 192—144)

1. In a knitting machine, the combination with a power drive, a rotatable main shaft, a clutch electrically actuable for releasably interconnecting said power drive and said main shaft, and an electrically actuable releasable brake on said shaft, of electrical control means comprising: a controlling circuit and an actuating circuit interconnected to an electric source, said actuating circuit comprising a first branch having in series connection actuating means for said clutch and a clutch control switch normally closed during operation of said machine, and a second branch arranged in parallel with said first branch and having in series brake actuating means and a brake control switch normally open during operation of said machine, said controlling circuit comprising a first circuit portion having in series a start switch for closing said first circuit portion and a stop switch for opening the same and being biased



towards closure position, and relay means for said brake control switch and for said clutch control switch of said actuating circuit, and a second circuit portion in parallel with that part of said first circuit portion which includes said stop switch, said second circuit portion including a timing switch being operable for periodically interrupting said second circuit portion and being in driven connection from said main shaft.

2,779,449
COIN MECHANISM
Benjamin W. Fry, Ladue, Mo., assignor, by mesne assignments, to National Vendors, Inc., a corporation of Missouri
Application June 1, 1954, Serial No. 433,400
14 Claims. (Cl. 194—9)



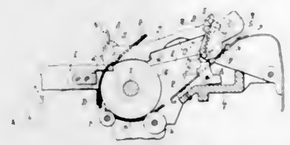
1. Coin mechanism comprising a plurality of coin chutes for respectively receiving coins of different denominations, one chute being for coins of a unit denomination, a wheel for engaging and positively driving any coin along a portion of its respective chute, an electric motor for driving the wheel, means for effecting operation of the motor in response to entry of a coin in any one of the chutes, a rotary selector switch having a series of fixed spaced price contacts and a blade rotatable from a retracted position spaced from the first price contact successively into engagement with the price contacts, a disconnectable drive for rotating the blade from the motor, and means for controlling operation of the motor and effecting connection of said drive comprising members engaged and actuated by coins being driven by said coin driving means, said members being of different length along the length of the respective chutes for effecting

operation of the motor and connection of the drive for different periods of time corresponding to the different coin values, a coin of unit denomination effecting operation of the motor and connection of the drive for such length of time as to effect rotation of the blade one price contact interval, coins of another denomination effecting operation of the motor and connection of the drive for such a length of time as to effect rotation of the blade a number of price contacts corresponding to the ratio of coin values, said blade being biased to its retracted position, and releasable means for holding the blade in any advanced position.

2,779,450
DEVICE FOR CONTROLLING CONTINUOUS PREFOLDED FORMS FOR ACCOUNTING AND TYPEWRITING MACHINES
Robert C. Mecum and Charles F. Evans, Madison, Wis.
Application December 5, 1955, Serial No. 551,123
3 Claims. (Cl. 197—133)

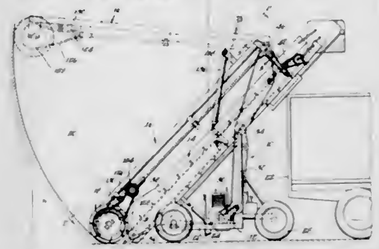
1. An attachment for guiding continuous prefolded forms used in connection with form stands for accounting and typewriting machines, comprising in combination rod members located longitudinally to and sufficiently above the form stand to permit the passage of forms over the top of the stand; means for holding said rod members in said position; string members for suspending weights in front of the forms as they descend from the form stand; weights suspended by said string members; and means for holding said string members and the weights attached thereto substantially adjacent to and in front of said forms as they descend from the form stand, whereby the weights and string means will swing in harmony with said forms.

2,779,451
PAPER FEED MEANS FOR TYPEWRITERS
Fred Becker, Queens Village, N. Y., assignor to Underwood Corporation, New York, N. Y., a corporation of Delaware
Application March 30, 1955, Serial No. 497,936
4 Claims. (Cl. 197—138)



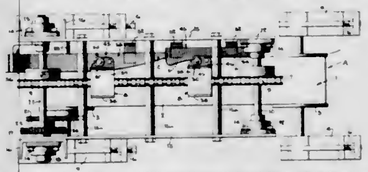
1. In a typewriting machine having a carriage and a platen rotatably mounted therein, links pivoted at their lower ends to the carriage, a feed-roll carrying bail pivoted to the free ends of said links and having a fore-and-aft movement, feed-rolls rotatable on said bail, relatively weak spring means extending between said links and said bail and normally tending to move the feed-rolls to platen engaging position, members loosely pivoted on said links, and cooperating means on said members and said bail, said cooperating means interengaging when said bail is in position to engage the feed-rolls with the platen to thereby hold the feed-rolls firmly in engagement with said platen, and said cooperating means moving out of interengaging relation when said bail is moved to free the feed-rolls from the platen.

2,779,452
ENSILAGE LOADER
Harry L. Oswalt, Garden City, Kans.
Application July 27, 1953, Serial No. 370,253
16 Claims. (Cl. 198—9)



7. In an apparatus for loading material, such as ensilage and the like, rotatably mounted means for removing said material from a storage pile thereof, said means including a plurality of annularly spaced blades for loosening material from said storage pile and directing the loosened material from said storage pile, and a spring finger mounted on at least some of said blades and projecting radially beyond said blades for loosening additional quantities of material from said storage pile for removal from the storage pile.

2,779,453
ARTICLE-MANIPULATING APPARATUS FOR PACKAGING MACHINES
Ralph E. Lippert, Cincinnati, Ohio, and Earle J. Raut, Covington, Ky., assignors to The Andrew Jergens Company, Cincinnati, Ohio, a corporation of Ohio
Application April 22, 1954, Serial No. 425,018
9 Claims. (Cl. 198—33)



1. Apparatus for manipulating articles during wrapping of the same, an article conveyor having a surface for supporting and advancing the articles, a second conveyor having a run generally in longitudinal alignment with said article conveyor, a plurality of channel-shaped article-engaging members respectively rotatably mounted on said second conveyor, the open faces of the said channel-shaped article-engaging members facing said article conveyor and being disposed adjacent thereto throughout the length of said run, a pair of generally lineal cams mounted stationarily and together being substantially coextensive with said run, said cams residing generally in parallelism and in planes spaced from one another, and a pair of cam followers carried by said article-engaging members, the said cam followers being positioned respectively in planes related to the planes of said cams for engagement with said cams to gradually and progressively rotate the said individual article-engaging members through an arc of substantially 90° during movement thereof throughout the length of said run.

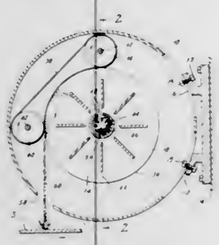
2,779,454
FLIGHT CONVEYOR WITH RENEWABLE FLIGHTS
Chris Sigardson, Kalamazoo, Mich., assignor to Hapman Conveyors, Inc., Kalamazoo, Mich., a corporation of Michigan
Application February 1, 1952, Serial No. 269,377
1 Claim. (Cl. 198—176)

A flight conveyor comprising an endless flexible conveyor chain composed of pivotally interconnected [illegible]

disposed in an endless path, conveyor flight members mounted transversely upon certain of said links intermediate the opposite ends thereof at intervals along said chain, open-centered wear members of larger diameter than said flight members disposed in face-to-face engagement with said flight members with their peripheral edges projecting transversely beyond the peripheral edges of said flight members, open-centered clamping members of smaller diameter than said wear members disposed in face-to-face engagement with said wear members on the opposite sides thereof from their respective flight members, each flight member and its respective wear member and clamping member being provided with a plurality of sets of aligned fastener holes disposed at substantially

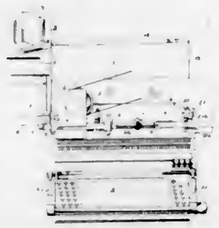
equal radial distances from the centers thereof and spaced at substantially equiangular intervals around the circumferences thereof, and fasteners passing through said holes and securing said members to one another, the flight-bearing links passing through the apertures in said wear members and clamping members to one side of the centers thereof so that the weight of the chain holds the flight members and wear members upright and concentrates the wear on the wear members at the portions thereof beneath the chain, whereby to enable the fasteners and wear members to be removed and the wear members to be rotated a partial revolution and replaced in new positions presenting new and unworn wear portions of the wear members beneath the chain.

2,779,455
THROWER APPARATUS FOR FORMING A MOVING COLUMN OF PARTICLES
James A. Sinclair, Houston, Tex.
Application August 25, 1952, Serial No. 306,185
9 Claims. (Cl. 198—128)



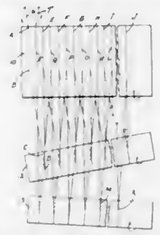
1. Apparatus for throwing a column of solid particles comprising, a rotor open about its outer periphery, means to feed the solid particles into the central part of the rotor including a generally cylindrical cup member of a relatively small diameter with respect to that of said rotor disposed centrally of the rotor and having an axially extending discharge opening at its upper portion for discharge of the solid particles therefrom, inlet means proximate such cup member adapted to feed the solid particles into such cup member, radially extending vanes on the rotor disposed interiorly and exteriorly of the cup member, such vanes having a depth substantially the same as the extent of said discharge opening, and an endless belt covering that portion of the periphery of the rotor to which the solid particles move.

2,779,456
TYPOGRAPHICAL COMPOSING MACHINE
Paul Hilpman, Garden City, N. Y., assignor to Mergenthaler Linotype Company, a corporation of New York
Application May 11, 1953, Serial No. 353,958
4 Claims. (Cl. 199—30)



1. In a typographical composing machine, the combination of an assembler in which matrices and spacebands are composed in line, a rotary starwheel for stacking said elements in the assembler, a yielding member movable under the influence of the incoming elements for supporting the line endwise, means for releasing the spacebands from their storage magazine, and means controlled by the spaceband releasing means to effect a yielding movement of the line supporting member before the spaceband reaches the assembler to facilitate the entry of a spaceband into the assembler.

2,779,457
METHOD AND APPARATUS FOR TREATING YARN STRANDS
Wayne A. Sisson, Media, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application December 1, 1954, Serial No. 472,404
9 Claims. (Cl. 203—200)



1. A yarn storage assembly comprising a relatively large diameter drum, a first relatively small diameter idler roll having its axis biased with respect to the axis of said drum, and a second relatively small diameter idler roll having its axis biased with respect to the drum and in a direction opposite to that of the first idler roll whereby a yarn strand wound around the drum and each of the idler rolls forms yarn sheds in which the yarn strand moves in opposite directions so that the yarn is fed onto and is taken off of the drum at the same end thereof.

2,779,458
SELECTIVE SOLVENT FOR ACETYLENE
William T. Nelson, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Application December 22, 1952, Serial No. 327,411
10 Claims. (Cl. 206—.7)

1. The process of separating an unsaturated hydrocarbon from a less unsaturated hydrocarbon which comprises contacting said hydrocarbons with a solvent consisting essentially of ethylene diamine at a temperature below about 116° C. and at substantially atmospheric

pressure and separating ethylene diamine containing dissolved unsaturated hydrocarbons from the remaining less unsaturated hydrocarbons.

4. A package which comprises a pressure resistant container, an absorbent material saturated with ethylene diamine and acetylene.

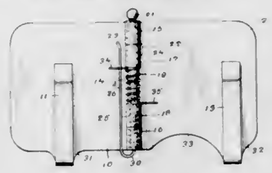
2,779,459
PLASTIC HOLDER AND THE LIKE
Neil S. Waterman, Stamford, Conn.
Application May 1, 1953, Serial No. 352,444
3 Claims. (Cl. 206—1)

1. A typewriter ribbon holder comprising a bottom wall, side walls connected along opposite longitudinal edges of said bottom wall, said side walls at the top thereof being substantially arcuate in shape, end walls connected to the lateral ends of said bottom wall and terminating at the ends of the arcuate top edges of said side walls, said bottom, side and end walls forming a liquid-tight compartment for receiving the typewriter ribbons, a flat arcuately bent and resilient cover fitting between and following the contour of the upper edges of said side walls, releasable means for retaining said cover in said position, said cover having a plurality of openings adapted to receive the stems of fresh flowers whereby the holder may be used as a liquid-containing receptacle for flowers after the typewriter ribbons have been removed, said means comprising reinforcing strips secured to the outside of said side walls along the upper edges thereof, said strips extending upwardly beyond the arcuate top edges of said side walls and providing with said arcuate top edges a pair of arcuate shoulders adapted to receive the said cover, the ends of said side walls adjacent the top edges of said end walls having cut out portions in each corner, said strips extending beyond said cut out portions and having inwardly extending lugs spaced from said cut out portions, and transverse flanges carried by and extending outwardly from the ends of said cover member, said flanges being adapted to slide downwardly between said lugs and said cut out portions and to move outwardly under the natural resilience of said cover whereby to engage the bottoms of said lugs and to retain said cover in the closed position.

2,779,460
CARTONS FOR GARMENTS
Bernard Fish, Brooklyn, N. Y., assignor to Interstate Container Corporation, Glendale, N. Y., a corporation of New York
Application March 17, 1954, Serial No. 416,878
8 Claims. (Cl. 206—7)

1. An integral blank for folding to provide a carton for garments comprising a front carton portion having a generally rectangular main front panel section, a back carton portion having a generally rectangular main back panel section, an elongated bottom wall portion connected along hinge lines to said front and back panel sections, an elongated outer top-wall forming section secured along a hinge line to the side of the back panel section opposite that connected to the bottom wall portion, an elongated inner top-wall forming section hingedly secured to the outer longitudinal side of the outer top-wall forming portion and adapted to be folded inwardly against the outer top-wall forming portion to provide a top wall of double thickness, said inner and outer top-wall forming portions and the bottom being of substantially the same width, the inner top-wall forming portion having spaced slots extending inwardly from the longitudinal free edge thereof at its longitudinal midsection, a garment hanger having a restricted neck portion extending from one side thereof, the side of the neck portion remote from the hanger being connected to the inner top-wall forming portion along a hinge line extending between the inner termini of the spaced slots in the inner top-wall forming portion, side-wall forming portions connected along hinge lines to the other edges of the main back panel and extending the full width of said edges, a locking tab extending from the end of each side-wall forming portion closest the top-wall forming portions, said locking tabs being connected to their respective side-wall forming portions along hinge lines aligned with the hinge line between said outer top-wall forming portion and the back panel section, the back panel section having a plurality of longitudinally-aligned slots adjacent the hinge line between the back panel section and the outer top-wall forming portion connected thereto, a plurality of prongs extending from the free side edge of said inner top-wall forming portion at positions opposite the respective slots, side-wall forming portions secured by hinge lines to the side edges of the front panel section and aligned with the side-wall forming portions secured to the back panel section, tabs connected by hinge lines to the side-wall forming portions connected to one of the panel sections and located opposite the ends of the bottom-wall forming portion, and a top-wall forming portion connected to the edge of the main front panel section along a hinge line at the side of said panel opposite the hinge line connecting said front panel section to the bottom-wall forming section.

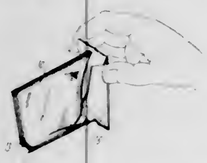
2,779,461
CURRENCY HOLDER
Nicholas C. Schweitzer, Huntington, W. Va.
Application December 20, 1955, Serial No. 554,279
1 Claim. (Cl. 206—37)



In a currency holder, the combination which comprises a substantially rectangular-shaped panel having a spring clip carried by and extended upwardly from the lower edge, a substantially complementary panel also having a spring clip carried by and extended upwardly from the lower edge, meeting edges of the panels being rolled to form hubs and the hubs of one panel being adapted to mesh with hubs of the other panel, a tubular pintle extended through the hubs of the panels for retaining the panels in hinged relation, a spring extended around the pintle and positioned with one end bearing against one panel and the opposite end bearing against the other panel whereby the panels are urged to open positions

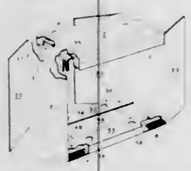
by the spring, a plug slidably mounted in the pintle and having a knob extended from the upper end and a key extended from one side, a spring positioned between the plug and lower end of the pintle for urging the plug upwardly from the pintle and also for urging the key of the plug across ends of slots of hubs of the panels whereby the panels are locked in positions in which the holder is closed, and a hook extended from the lower end of the plug through the lower end of the pintle and upwardly on the outside of the pivotal mounting of the hubs of the panels providing a guide for retaining currency in the holder.

2,779,462
SINGLE USE FLEXIBLE CONTAINER DEVICE
Roderick W. Hoag, Melrose, Mass.
Application February 16, 1956, Serial No. 566,041
4 Claims. (Cl. 206—46)



4. A package comprising an expandable flexible sealed container containing fluent material, said container being formed of adjacent layers of flexible material sealed together at the edges, the central portion of the bottom of said container being bent upwardly and inwardly, and a stand to which the bottom of said container is attached, said stand being formed of a strip of paperboard into a substantially trapezoidal formation comprising a bottom portion, upwardly converging side portions and a top portion substantially parallel to said bottom portion, said bottom portion of said container being attached to said top and converging sides of said stand, whereby the center of gravity of the contents of the container is lowered to provide increased stability to the package when resting upright on a support.

2,779,463
SHIPPING CONTAINER AND PACKAGE
Harry Frank Zimmerman, Baltimore, Md., assignor to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware
Application December 7, 1953, Serial No. 396,425
8 Claims. (Cl. 206—46)



6. A rectangular shipping container comprising a first member constituting the top and sides of said container, said member comprising a central rectangular panel forming said top, a pair of rectangular panels hinged to opposite sides of said central panel and forming opposite sides of said container, a pair of tab portions each hinged to a respective one of the remaining sides of said central panel, said tab portions each being folded about parallel fold lines into abutments of substantially rectangular cross-sectional shape depending from said central panel between said opposite sides, and a pair of rectangular flaps each integrally hinged to a respective one of said rectangular panels along its bottom end and folded to a position parallel with said central panel, each of said pair of rectangular panels having a rectangular flap hinged to it along each of its lateral edges and folded with the corresponding flap of the other of said pair of rectangular panels to form one of the remaining sides of said container; a second member comprising a rectangular blank terminating on two opposing sides in multiply folded portions depending from said blank, said blank being located inside said container and closely beneath and parallel to said central panel and being so dimensioned as to form said multiply folded tab portions into abutments engaging said opposite sides, said second member being held in place by the friction between said multiply folded portions in which it terminates and said opposite sides; and a third member forming the bottom of said container, said third member comprising a central rectangular panel the same size as said central panel of said first member, the last named central panel terminating at each of two opposite sides in a first rectangular panel of substantially the same size as one of said rectangular flaps hinged to the bottom ends of the sides of said container, and being folded to overlie the last named central panel, said first rectangular panel terminating in a second rectangular panel of a size substantially identical with the first and folded outwardly to overlie said first panel, a pair of rectangular flaps each hinged to the last named central panel along one of the remaining sides thereof and folded to overlie said first and second rectangular panels, each of the said rectangular flaps hinged to the bottoms of the sides of said container being interleaved between a respective pair of said first and second panels, and means securing said interleaved panels and flaps together.

2,779,464
SHOCK MOUNT FOR CONTAINERS
Charles W. Cairnes and Odin R. S. Elnan, Baltimore, Md., assignors to Aircraft Armaments, Inc., Baltimore, Md., a corporation of Maryland
Application December 8, 1953, Serial No. 396,939
6 Claims. (Cl. 206—46)

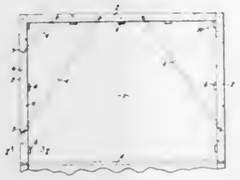
1. A container, comprising a frame forming an enclosure for receiving an object to be stored, a plurality of pairs of spring suspension means carried by said frame and connecting with the object for suspending the latter within said container, each said pair of suspension means having a pair of opposed levers pivotally attached at one end thereof to said frame at separate points thereon for independent movement inwardly with respect to said frame, from an extreme position to a position spaced from said extreme position, link means connected to said levers at a point spaced from the pivoted end thereof and extending between said opposed levers to pivotally connect with said object, and spring means interposed between said levers for urging the latter into said extreme

position, so that swinging motion of said levers against the action of said spring will be effected by a force applied by the object through said link means, said spring means being pre-loaded to allow movement of said levers only in response to a shock load exceeding a certain predetermined value whereby movement of the object relative to the container occurs only when necessary to avoid excessive acceleration loads on said object.

2,779,465
COMPOSITE DISPOSABLE PAD
Orval William Anderson, Shelton, Wash.
Application April 13, 1954, Serial No. 422,779
3 Claims. (Cl. 206—47)

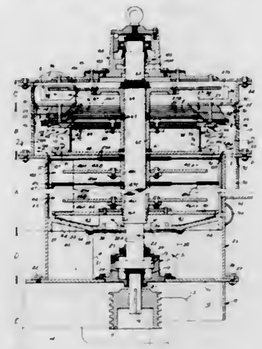
1. A composite disposable article for use in treating a surface comprising a fluid-impervious barrier sheet, an applicator pad securely attached to one side of said barrier sheet and adapted to apply a treating compound to said surface, a buffing or drying pad positioned adjacent the other side of said barrier sheet, said barrier sheet separating the said two pads and extending beyond the edges thereof, a flexible fluid-impervious covering sheet on the outer side of each pad and having its marginal portions sealed to the marginal portions of the barrier sheet and forming an envelope for each pad, whereby the covering sheet may be removed from the applicator pad, and the buffing or drying pad and overlying covering sheet may be gripped to move the applicator pad over the surface to be treated.

2,779,466
SHEET MATERIAL PACKAGE
Zachris Enzio Mikael Nuorivaara, Overboelare-Grammont, Belgium, assignor to Svenska Tandsticks Aktiebolaget, Jonkoping, Sweden, a Swedish joint-stock company
Application June 3, 1954, Serial No. 434,192
Claims priority, application Sweden June 6, 1953
7 Claims. (Cl. 206—60)



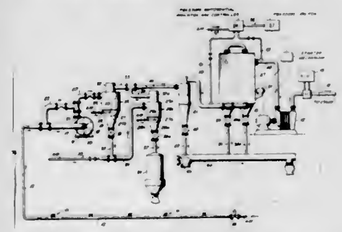
1. In a wallboard package, a plurality of rectangular boards of similar size placed in face-to-face relation one upon another so as to form a single stack, a rectangular frame composed of four frame members each covering the edges of said boards along one side of said stack, a plurality of flat sheet metal reinforcement members extending between two adjacent ones of said boards and fastened to different ones of said frame members for keeping the four members of said frame together, and a plurality of stiff metal clamping members each fastened to one of said frame members and embracing the corresponding edge portion of the whole of said stack for keeping the boards in fixed relation to said frame.

2,779,467
CENTRIFUGAL CLASSIFICATION APPARATUS
Henry G. Lykken, Minneapolis, Minn., assignor to The Microcyclomat Co., Minneapolis, Minn., a corporation of Delaware
Application September 10, 1951, Serial No. 245,816
12 Claims. (Cl. 209—139)



1. A classifier for separating different sizes of solid particles comprising imperforate outer and inner walls which are substantially cylindrical and coaxial forming an open annular classifying chamber, said inner wall being journalled in respect to the outer wall so as to be rotatable relative thereto, an inlet end wall for the inlet end of the chamber having an annular portion attached to one of the walls and extending toward but spaced from the other so as to form therewith an annular axial inlet into said chamber, an outlet end wall at the opposite end of said chamber positioned relative to the outer and inner wall so as to form an annular outlet opening near the inner wall, flat disk means having spaced radial apertures therein so as to leave spaced radial spokes of rectangular section, said disk being fastened to the inner wall, said rectangular cross-section spokes extending across said annular outlet opening in close proximity therewith, fan blading mounted within the chamber and spaced axially from said disk and outlet opening for rotation with the inner wall, said blading being oriented so as to circulate gaseous fluid in said chamber across said annular axial outlet, fan means spaced apart axially from said chamber for moving a flow of gaseous fluid into said inlet and thence through said chamber and out of said outlet and an axial annular discharge wier of substantial depth between said outlet and fan means.

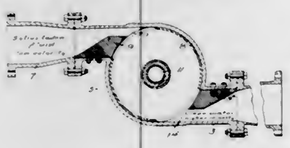
2,779,468
RECOVERY AND CLASSIFICATION OF SOLIDS
William R. King, Bartlesville, Okla., and Wilson H. Rushford, Borger, Tex., assignors to Phillips Petroleum Company, a corporation of Delaware
Application February 16, 1953, Serial No. 337,198
18 Claims. (Cl. 209—144)



1. In apparatus for separating grit from carbon black, an elongated upright vessel having a cylindrical upper

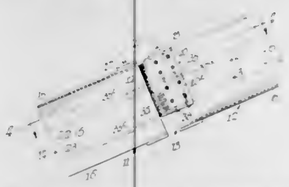
section and a frusto-conical lower section, a perforated plate disposed generally horizontally across said vessel at the top of said frusto-conical section, means for introducing a gaseous stream containing suspended carbon black and grit radially into said cylindrical section, means for introducing air into said frusto-conical section below said perforated plate, the dimensions of the vessel and the flow rate of gaseous suspending medium and air being regulated so that said grit particles preferentially settle to the bottom of said frusto-conical section, means for withdrawing said grit particles from the bottom of said frusto-conical section, and means for withdrawing gas containing suspended carbon black from a region of said cylindrical section at or just below the region of introduction of said gaseous stream.

2,779,469
APPARATUS FOR RECOVERING AND CLEANING THE RESIDUAL SAND CONTENT FROM THE TAILINGS OF GRAVEL WASHING PLANTS
Bruce G. Harris, Arlington, Va.
Application April 9, 1954, Serial No. 422,135
5 Claims. (Cl. 209—211)



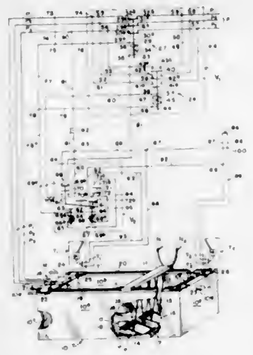
1. A machine comprising in combination a circular centrifuge chamber, a solids feed pipe for mud consisting of clay and sand, said pipe discharging tangentially into said chamber and a clean water supply pipe also discharging tangentially into said chamber substantially in the lateral plane of the solids feed pipe and in a direction to step up the swirling action induced by the tangential entry of the clay and sand, the said clean water supply being at a pressure and velocity greater than the pressure and velocity existent in the solids feed pipe.

2,779,470
SHAKER SCREEN CONSTRUCTIONS
William R. Walters, Cos Cob, Conn.
Application May 1, 1953, Serial No. 352,505
14 Claims. (Cl. 209—313)



1. A vibratile shaker conveyor screening structure embodying therein at least first and second conveyor sections arranged in longitudinal alignment with a space between one end of the first section and the adjacent end of the second section, each section including longitudinally extending rigid side frame members, foraminous screening means extending between and supported by said side frame members of both sections, means closing the space between said ends of adjacent sections and embodying therein flexible material bridging said space and including side portions positioned at least in part on the outer sides of one end of the frame members of the first section and at least in part on and in engagement with the inner sides of the adjacent end of the frame members of the second section and further positioned at least in part on the lower side of the screening means of the first section and at least in part upon the upper side of the screening means of the second section.

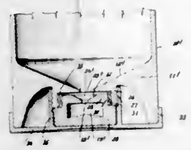
2,779,471
METHOD OF HANDLING SLUDGE IN LONGITUDINAL SETTLING TANKS
Charles A. Knapp, Glenbrook, Conn., assignor to Dorr-Oliver Incorporated, a corporation of Delaware
Application October 13, 1954, Serial No. 462,081
1 Claim. (Cl. 210—55)



The method of operating longitudinal settling tanks having influent means at one end, effluent means at the opposite end, a relatively flat bottom provided with relatively restricted sludge outlet means disposed intermediate the ends of the tank, and reciprocatory sludge raking means of the double-acting type adapted to travel back and forth full stroke between the ends of the tank, said double-acting raking means comprising opposed sets of inclined raking blade means, which sets of blade means are alternatively effective to convey sludge from respective ends of the tank in a substantially longitudinal direction towards said outlet means while also imparting a limited lateral component movement to the sludge; which method comprises alternating at least one full-stroke reciprocation of said raking means with at least one short-stroke reciprocation, the latter reciprocation being such as to cover a relatively limited short-stroke bottom area surrounding said outlet means proper to constitute a transverse sludge collecting zone, whereby said full stroke reciprocation conveys and delivers sludge from the ends of the tank to said short-stroke area, whereas the subsequent short-stroke reciprocation in effect provides transportation of the sludge within said short-stroke area in substantially transverse direction towards and into said restricted outlet means, so that potential sludge accumulation upon said short-stroke area is removable through said outlet means prior to the arrival at said short-stroke area of additional sludge conveyed by subsequent full stroke reciprocation of said raking means.

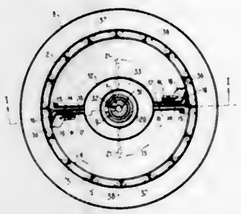
2,779,472
CONTAINER HAVING SEDIMENT TRAPS
Mario Febbraro, Union City, N. J.
Application April 6, 1953, Serial No. 347,015
7 Claims. (Cl. 210—57)

1. A container for a liquid having sediment particles which settle therein; said container having a discharge opening adjacent the top thereof and a bottom wall formed with a substantially conical surface inclined downwardly toward the center thereof, and means at the bottom of said container defining a sediment trap chamber having a small opening at the top thereof placing said trap chamber in communication with the interior of the container at the center of said conical bottom surface so that sediment particles settling in a liquid in the container sift along said conical surface and enter said trap chamber through said small opening in the top of the latter and the sediment particles are retained in said trap chamber when the container is inverted by atmospheric pressure acting at said small opening, said means at the



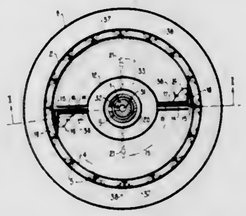
bottom of the container further defines a supplementary trap chamber above the first mentioned trap chamber and communicating with the latter through said small opening, said bottom wall of the container having a relatively large opening at the center of said substantially conical surface opening into said supplementary trap chamber so that a clarifying gelatin in a liquid in said container is collected in said supplementary trap chamber along with relatively large sediment particles and seals-off said first trap chamber containing fine sediment particles.

2,779,473
CONTINUOUSLY OPERATING CENTRIFUGAL MACHINE
Herman J. van Wezel, Hengelo, Netherlands, assignor to Koninklijke Machinefabriek Gebr. Stork & Co. N. V., Hengelo, Netherlands, a company of The Netherlands
Application May 6, 1955, Serial No. 506,570
Claims priority, application Netherlands March 15, 1955
3 Claims. (Cl. 210—69)



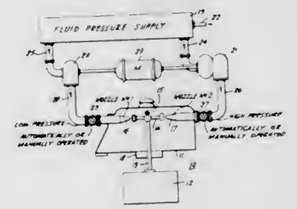
1. A continuously operating centrifugal machine, comprising a drum having a circumferential wall formed as a screen wall, an outlet at one end of the drum, feed members extending substantially along the whole height of the screen wall of the drum and a scraper device connected to said feed members and rotatable in the drum with an angular velocity slightly differing from that of the drum, said scraper device extending substantially along the whole height of the screen wall of the drum and being provided with at least one scraper and at least one nozzle for discharging a medium under pressure for blowing the solid particles detached from the screen wall towards the outlet end of the drum, characterized in that the scraper device is provided with a substantially radial wall, a partition arranged substantially parallel to and spaced from said radial wall to define a space therebetween, said space being located opposite to the nozzles discharging the compressed medium, there being a space between said partition and said screen wall of the drum through which the active part of the scraper device extends, and a closing element between said partition and said parallel wall of the scraper device for closing the space therebetween at the side of the drum axis.

2,779,474
CONTINUOUSLY OPERATING CENTRIFUGAL MACHINE
Herman J. van Wezel, Hengelo, Netherlands, assignor to Koninklijke Machinefabriek Gebr. Stork & Co. N. V., Hengelo, Netherlands
Application June 8, 1954, Serial No. 435,319
Claims priority, application Netherlands June 19, 1953
3 Claims. (Cl. 210—69)



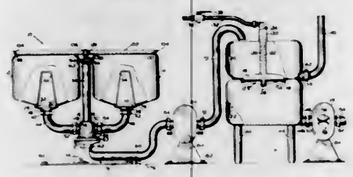
1. A continuously operating centrifugal machine, comprising a screen drum having a screen wall and a discharge end, feed members in said drum extending substantially along the whole height of the screen wall of the drum, and a scraper device connected to said feed members and rotatable in the drum with an angular velocity slightly differing from that of the drum, said scraping device extending substantially along the whole height of the screen wall of the drum and being provided with at least one scraper and at least one nozzle opening in the side of the scraper facing the drum axis for discharging a medium under pressure for blowing the solid particles detached from the screen wall by the scraper towards the discharge end of the drum.

2,779,475
FLUID DRIVEN CENTRIFUGAL MACHINE
Charles A. Olcott, West Milford, N. J.
Application January 14, 1950, Serial No. 138,657
4 Claims. (Cl. 210—71)



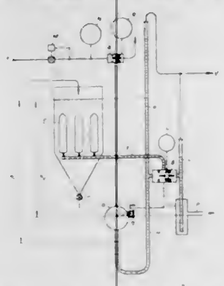
3. The method of driving a sugar centrifugal machine of the water wheel type provided with two driving nozzles which comprises applying water at relatively low pressure to one of said nozzles during the acceleration period, and applying water at relatively high pressure to the other of said nozzles during the normal running period while maintaining the low pressure nozzle closed, said low pressure nozzle being of such size and said low pressure being sufficiently below said high pressure that the jet produced by said low pressure nozzle has its maximum driving efficiency at a speed which is far below the speed of said machine during its normal running period and has substantially reduced efficiency at said normal running speed, and said high pressure nozzle being of such size and said high pressure being sufficiently large that the jet produced by said high pressure nozzle has its maximum driving efficiency at the speed of said machine during its normal running period.

2,779,476
TESTING MECHANISM FOR CREAM
Stacey Barker, Aurora, Nebr.
Application December 10, 1954, Serial No. 474,447
4 Claims. (Cl. 210—150)



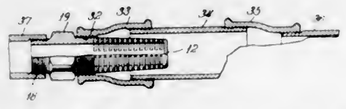
1. A cream testing device comprising a bracket, a valve core having a passage therethrough, said valve core being mounted on the bracket, a valve body having a plurality of nipples extended therefrom rotatably mounted on said valve core, a plurality of tubs suspended from said valve core and having outlet openings in lower ends thereof, tubes connecting the outlet openings of the tubs to the nipples of the valve body, removable sediment collecting screens positioned in said outlet openings of the tubs, a receptacle for temporarily retaining cream, means for pumping cream from the tubs to the receptacle, a container positioned to receive cream from the receptacle, means for passing cream from the receptacle to the container for use, and means for passing cream from the receptacle to reprocessing means.

2,779,477
FILTER PLANT
Gunder G. U. W. Swensen, Heroya, near Porsgrunn, Norway, assignor to Norsk Hydro-Elektrisk Kvaelstofaktieselskab, Oslo, Norway
Application May 13, 1954, Serial No. 429,579
Claims priority, application Norway May 19, 1953
3 Claims. (Cl. 210—150)



1. A filter thickening plant for filtering relatively small quantities of solids from large quantities of liquid comprising a filter thickener having at least one filter therein, a pipe connected to the outlet side of the filter within said filter thickener, a valve casing provided with three openings one of which is connected with said pipe, a closed container, a pipe connecting said container with a second of said openings in the valve casing, a conduit communicating at its lower end with the connecting pipe between said valve casing and said container and extending to a height such that the liquid will be able to oscillate therein, a discharge conduit being connected with the third of openings in the said valve casing, a second conduit communicating at its lower end with said discharge conduit and extending to a height such that the liquid will be able to oscillate therein, a valve member adjustably mounted in said valve casing in such a manner that it can be moved alternatively into two different positions in one of which the outlet side of said filter and said container communicate through the first and second of said openings in the valve casing, the third of said openings being closed, whereas in the other position of said valve member the outlet side of said filter and said discharge conduit communicate through first and third of said openings in the valve casing, the second of said openings being closed, a device adapted to change the position of said valve member from its first mentioned to its last mentioned position when the liquid level in said container increases beyond a predetermined level, a time controlled device for moving said valve member from its last mentioned to its first mentioned position after a filtering period of a predetermined length of time, a second valve casing provided with three openings being connected with a gas compressor, the upper part of said container and the atmosphere, respectively, a valve member moveably mounted in said valve casing, and a time controlled device for moving said valve member immediately after the end of said filtering period from a position in which the upper part of said container is connected with the atmosphere, the opening in said valve casing communicating with said gas compressor being closed, to a position in which said gas compressor is connected with the upper part of said container, the opening in said valve casing communicating with the atmosphere being closed, maintaining the valve in this position during a cleaning period which is a fraction of said filtering period, and moving said valve member back to its first mentioned position.

2,779,478
TAPERED STRAINER AND ASSEMBLIES
Fred W. Wahlin, Kane County, Ill., assignor to Spraying Systems Co., Bellwood, Ill., a corporation
Application May 4, 1954, Serial No. 427,539
2 Claims. (Cl. 210—170)

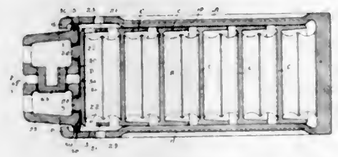


1. A strainer comprising an elongated rigid tubular body which is open at one end and closed at the other end and has at least a portion of the length thereof tapered to and smaller at said closed end, the surrounding wall of said tapered portion having openings therethrough distributed substantially throughout the area thereof and arranged in series from end to end thereof, the said tapered portion having a cylindrical opening therein and the wall thereof of progressively increased thickness from the small end thereof to the large end thereof.

2,779,479
GARMENT BAG FRAME
William Cohen, New York, N. Y.
Application July 28, 1953, Serial No. 370,765
1 Claim. (Cl. 211—119)

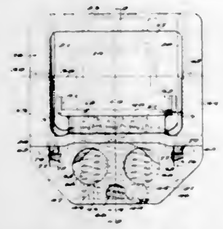
In a garment bag frame having a pair of parallel spaced bag-spreading members, a garment hanger support extending between and secured to said spreading members, said garment hanger support comprising a single strand of wire having a central portion disposed below said bag-spreading members for supporting garment hangers, the end portions of said wire each extending upwardly and snugly over its adjacent bag-spreading member and thence laterally toward the distal bag-spreading member, said laterally extending wire portions being in side-by-side relation except for an intermediate portion which is spaced apart to form a circular opening for rotatively receiving a swivel, each of said wire portions terminating in an upstanding reentrantly bent loop for receiving the ends of a handle.

2,779,480
DRAFT GEAR FOR RAILWAY DRAFT RIGGING
Eric G. Forssell, Kenmore, N. Y., assignor to W. H. Miner, Inc., Chicago, Ill., a corporation of Delaware
Application July 18, 1955, Serial No. 522,687
6 Claims. (Cl. 213—45)



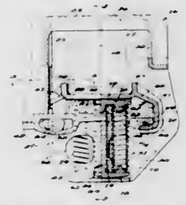
1. The combination with a draft gear in which a resilient column is encased in a metallic casing of rectangular cross section closed at its rear end and open at its front end, which casing includes grooves opening inwardly adjacent its open end, which grooves are closed by flanges at the open end of the casing; of a pressure applying plunger for said resilient column comprising two identical members fitted one above the other in the open end of the casing, each of said members comprising: a rectangular base; a side wall upstanding out of said base at right angles thereto; a boss extending out of said wall and extending from one end to approximately the center of the wall, there being a socket in said wall extending from said boss to the other end of said wall; side and ends on said plunger integral with said base and side wall, and extending forwardly from the base; a front wall on said plunger integral with said wall, side and ends, and parallel to said base; lugs projecting from said base at the junction of said side therewith and extending into said grooves in the casing; a front follower for said resilient column; and interengaging means on said follower and the bases of said members for holding the members in position with respect to each other and to the follower.

2,779,481
STRIKER AND CARRIER FOR RAILWAY COUPLERS
Loree Elwyn Furniss, Groveport, Ohio, assignor to The Buckeye Steel Castings Company, Columbus, Ohio
Application August 3, 1953, Serial No. 371,837
13 Claims. (Cl. 213—61)



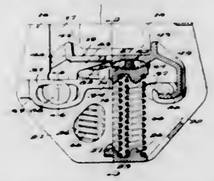
1. In a coupler support, a striker having an opening in the front thereof through which a stem of a coupler is adapted to extend, a trough structure carried by a lower portion of the striker below said opening, a carrier iron having portions depending into said trough structure, a top plate on the carrier iron, resilient means within the trough structure supporting said carrier iron, side walls on the striker spaced from each other at a distance greater than the transverse dimensions of the carrier iron whereby the carrier iron may move laterally with respect to the striker, a shelf extending from each end of the carrier iron below the top plate, keys carried by the trough structure with one key extending transversely over each shelf to limit upward movement of the carrier iron relative to the striker, and each key having limited facial engagement with the associated shelf to limit frictional resistance during lateral movements of the carrier iron.

2,779,482
CARRIER FOR RAILWAY COUPLERS
Loree Elwyn Furniss, Groveport, Ohio, assignor to The Buckeye Steel Castings Company, Columbus, Ohio
Application November 2, 1953, Serial No. 389,655
9 Claims. (Cl. 213—61)



1. A draw bar support assembly for draft riggings comprising, a striker, a trough structure carried by a lower fowad portion of the striker having generally vertical front and rear walls and a bottom wall, a spring abutment member having a convex lower surface resting on said bottom wall, springs within the trough structure engaging said abutment member, an upper spring abutment member engaging upper ends of said springs and having a convex upper surface, a carrier member having a flat under surface engaging the convex surface of said upper spring abutment member, upstanding lugs carried by the carrier member adapted to be engaged by the opposite sides of the draw bar, said carrier member being adapted to be moved laterally with respect to the striker whereby the convex surfaces of said spring abutment members roll on said bottom and the under surface of the carrier member, and said front and rear walls having horizontally elongated openings therein, upwardly facing surfaces on said carrier member adjacent said openings, and rollers extending through said openings and over said upwardly facing surfaces limiting upward movement of the carrier member with respect to said trough structure.

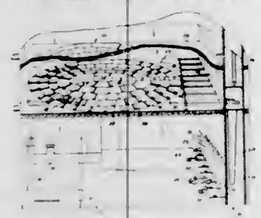
2,779,483
CARRIER ASSEMBLY FOR RAILWAY COUPLERS
Loree Elwyn Furniss, Groveport, Ohio, assignor to The Buckeye Steel Castings Company, Columbus, Ohio
Application February 24, 1955, Serial No. 490,236
7 Claims. (Cl. 213—61)



1. In a carrier assembly for the draw bar of a railway coupler, a striker having an opening in the front thereof for accommodating the draw bar, a trough structure at a forward portion of the striker below said opening, an

abutment member adjacent an upper portion of said trough structure, springs within the trough structure resiliently supporting said abutment member, a vertically extending rib carried by and within said trough structure, said abutment member having a slot therein receiving said rib preventing lateral motion of the abutting member, a carrier member under said draw bar and overlying said abutment member, a downward facing concave surface on the carrier member, an upward facing concave surface of the abutment member, a roller in rolling engagement with the concave surface of the abutment member and in rolling engagement with the concave surface of the carrier member, and means limiting upward movement of the carrier member with respect to the striker.

2,779,484
PARKING GARAGE
Ella Schramm and Daniel R. Berness, Brooklyn, N. Y.
Application December 14, 1953, Serial No. 398,071
6 Claims. (Cl. 214—16.1)

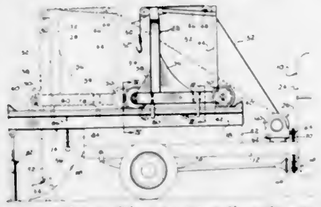


1. In a parking garage having a main floor and another floor, a tier of elevators to convey cars from one floor to the other, a turntable rotatably mounted on said other floor adjacent said tier of elevators, said turntable being adapted to hold cars thereon and having separate parking space segments radially provided thereon, a conveyor belt rotatably mounted on said other floor adjacent and in front of said tier of elevators between the elevators and the turntable, said turntable being tangent to said conveyor belt at one of the segmental spaces on the turntable, means to rotate the turntable to dispose parking space segments selectively tangent to the conveyor belt, and means to move the conveyor belt to convey cars from said elevators to the turntable.

2,779,485
MATERIAL HANDLING APPARATUS
Norman H. Eckler, Cheswick, Eugene W. Jacobson, Oakmont, and Benjamin M. Wedner, Pittsburgh, Pa., assignors to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware
Application November 6, 1953, Serial No. 390,638
17 Claims. (Cl. 214—17)

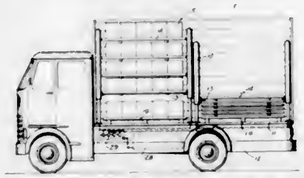
1. In material handling apparatus, an elongated hollow housing including a pair of longitudinally spaced portions of reduced internal transverse cross-sectional areas, an elongated valving member positioned within the housing for longitudinal reciprocation therein, said valving member including a pair of longitudinally spaced sections of enlarged transverse cross-sectional areas, each of said sections being complementary to and longitudinally slidable in one of said housing portions, at least one of said sections having a longitudinal length substantially less than the longitudinal spacing of said portions, said sections of the valving member being spaced apart a distance differing from the spacing of the housing portions.

2,779,486
VEHICLE MOUNTED TREE AND STUMP MOVING EQUIPMENT
Norman E. Klein, Kansas City, Mo.
Application September 10, 1953, Serial No. 379,409
2 Claims. (Cl. 214—75)



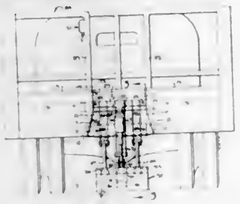
1. In apparatus for pulling and loading the stumps, the combination of a vehicle having a frame, an elongated, transversely concave bed provided with a pair of spaced, longitudinal beams, and a horizontal track including a longitudinal rail mounted on each beam respectively and extending rearwardly of the vehicle beyond said bed, said beams and said frame; a carriage shiftable along said track and including a vertical and a horizontal U-shaped framepiece, each provided with a pair of legs, the horizontal framepiece extending forwardly from and having its legs joined to the lowermost ends of the legs of the vertical framepiece; flanged wheels attached to the horizontal framepiece and resting on said rails; upstanding frame means secured to the bight of the horizontal framepiece and provided with means at the upper end thereof connecting the same with the bight of the vertical framepiece; a pulley secured to said upper end of the frame means and to said bight of the vertical framepiece respectively; a windlass mounted on the frame forwardly of the bed, the beams and the track and including a rotatable drum; and a cable coiled about and having one end thereof secured to the drum, said cable extending upwardly from the drum, over said pulleys and thence downwardly between the legs of the horizontal framepiece and between the rails to a point of attachment to a tree stump when the carriage is at the rearmost end of the track.

2,779,487
VEHICLE MOUNTED HANDLING DEVICE FOR PALLET STACKS
Francis D. Harris, Lyndhurst, N. J.
Application January 14, 1955, Serial No. 481,762
1 Claim. (Cl. 214—75)



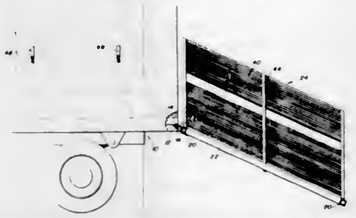
For use with a vehicle having a platform, a device for loading and unloading stacked shelves operatively connected to said platform, said device comprising opposed upstanding jacks fixed to said platform, each of said jacks being movable upward and downward with respect to said platform, a plurality of shelves arranged in stacked relation superimposed on said platform between said jacks, means on said shelves for separating said shelves from each other when in one stacked position and for nesting said shelves together when in a second stacked position, means carried by each of said jacks and engageable with an adjacent edge portion of each shelf for raising the latter to a shelf position in response to the upward movement of said jacks and for lowering said shelf to said one stacked position in response to the downward movement of said jacks, and means connecting the opposed jacks for effecting the upward and downward movements of said jacks together.

2,779,488
SELF-CONTAINED ELEVATOR UNIT FOR TRUCK BODIES
Marvin L. Trotter and Cecil Wayne Jarvis, Columbia, S. C., assignors to Marvin L. Trotter, Columbia, S. C.
Application March 7, 1955, Serial No. 492,720
10 Claims. (Cl. 214—77)



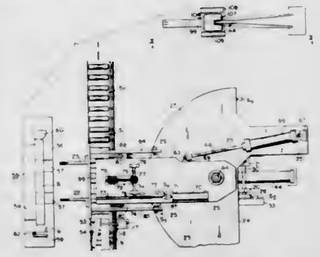
1. A self-contained elevator unit comprising a substantially upright frame, stabilizer links pivotally connected at corresponding ends to said frame, an elevator platform, means pivotally connecting the other ends of said stabilizer links to said platform, a power link pivotally connected at one end to said frame, means pivotally connecting the other end of said power link to said platform, an electrically operable ram pivotally connected at one end to said frame, and means pivotally connecting the other end of said ram to said power link at a point adjacent the end of the power link which is pivotally connected to said frame.

2,779,489
LOADING CHUTE FOR TRUCKS
Aaron Boom, Valley City, N. Dak.
Application November 18, 1954, Serial No. 469,819
1 Claim. (Cl. 214—85)



A collapsible livestock chute comprising a ramp floor, side walls detachably secured to said ramp floor, hook members secured to the front end of said ramp floor, an angle shaped mounting bar adapted to be attached to a vehicle, said mounting bar including a vertical flange, said vertical flange having apertures therethrough receiving said hook members, said mounting bar having a horizontal flange, and means extending through said horizontal flange for rotatably mounting said mounting bar, said ramp floor including spaced tubular members interconnected by a corrugated sheet panel, said tubular members having slots therethrough, said side walls including corrugated sheet panels rigidified by vertically extending stakes, said stakes being receivable in said slots.

2,779,490
FEEDING APPARATUS
William B. Clarke, Sewickley, Howard L. Hunter, McKees Rocks, and Frank Santucci, Coraopolis, Pa., assignors to Rockwell Spring and Axle Company, Coraopolis, Pa., a corporation of Pennsylvania
Application January 31, 1955, Serial No. 485,112
17 Claims. (Cl. 214—91)

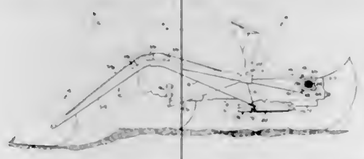


14. Apparatus for automatically transferring a workpiece through three stations including a carriage adapted for reciprocable movement past the first station to the second station, a rod fixed to the carriage, arms pivoted on the rod and extending in the direction of travel of the carriage, means adjacent the forward end of each arm to receive the workpiece, stop means to limit pivoting of the arms, lugs projecting downwardly from each arm, and means to reciprocate the carriage engageable only with the lugs whereby the arms and pivoted about the rod against the stop means and lift the workpiece from the first station during forward movement of the carriage past said station to the second station, a support plate stationed above said arms and pivoted adjacent one end, means to rotate the support plate between the second and third stations, guide ways supported by the plate, a second arm pivotally mounted in each guide way, each mounting being adapted for reciprocable movement in the guide way, jaws at the forward end of each of the second arms for gripping the workpiece, each of said arms having a slot, a crank journaled on the support plate having a pin at each end to engage the slots in the second arms, and means to reversibly pivot the crank whereby the second arms are simultaneously pivoted and reciprocated in the guide ways to traverse the jaws thereof through substantially an elliptical path and whereby pivoting the crank adjacent the second station in a direction to raise the jaws of the second arms toward that station engages the jaws with the workpiece to remove it, and pivoting the crank adjacent the third station in the reverse direction deposits the workpiece at said station.

2,779,491
FRONT END LOADER ATTACHMENT
James Curtis McNeice, Lillington, Leamington Spa, England, assignor to Massey-Harris-Ferguson (Sales) Limited, a British company
Application October 12, 1953, Serial No. 385,557
Claims priority, application Great Britain October 17, 1952
9 Claims. (Cl. 214—131)

4. For use with a tractor having a hydraulic system, a front end loader comprising, in combination, a pair of support members adapted to be fixed in longitudinally extending relation on either side of the tractor by fasten-

ing to the tractor's rear axle housings and a flange forward on the tractor's engine assembly, said support members having pivot seats located substantially midway along the length of the tractor, a pair of booms pivoted respectively in said seats, said booms having parallel forward portions extending to the front of the tractor, a material handling device carried between the forward ends of said booms, said forward portions being curved downwardly to clear the tractor's front wheels when said device rests on the ground, said booms further having arms depending from said pivot seats and reinforcing struts con-



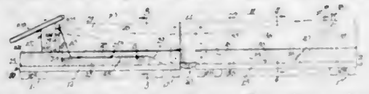
nected between said forward portions and said arms to form a braced triangular configuration, a cross beam extending transversely beneath the tractor and horizontally pivoted between the ends of said arms, a hydraulic ram adapted to be horizontally pivoted at one end to the underside of the tractor's center housing, vertical pivot means connecting the other end of said ram to the center portion of said beam, said ram being adapted to be supplied with pressured fluid from the tractor's hydraulic system to thereby push said beam forwardly and rock said booms in said pivot seats to elevate said material handling device.

2,779,492
HAND TRUCK
Sidney D. Lapham, Martinez, Calif.
Application September 1, 1950, Serial No. 182,813
8 Claims. (Cl. 214—383)

1. A hand truck comprising: a downwardly bowed beam provided at its upper end with diverging handle bars and at its lower end with a fork including a shank having an arcuate forward edge and transversely spaced, forwardly extending tines; forwardly extending elevator levers formed integral with said shank, the outer ends of said levers lying on a plane substantially above the plane determined by the tines of said fork; and ground engaging wheels mounted on said beam substantially rearwardly of said fork.

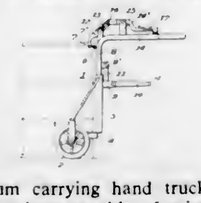
2,779,493
RAILWAY CAR CONSTRUCTION WITH MATERIAL HANDLING MEANS
William R. Walters, Cos Cob, Conn.
Application May 1, 1953, Serial No. 352,503
21 Claims. (Cl. 214—522)

1. A bulk material conveying and distributing railroad car construction embodying therein an underframe and wheeled means for running engagement upon the rails of a railway track, a car body mounted upon said underframe, said car body having a floor and sides the floor being located above the underframe, at least in part, to provide a space between the top of the underframe and the underside of the floor, elongated conveyor means mounted under the car floor in said space, means providing a substantially vertical axis adjacent one end of the conveyor means and about which axis the conveyor means can be swung from an inoperative position dis-



posed longitudinally under the car floor into selected operative positions in which the other end of the conveyor means extends outwardly beyond either side of the car body, and means for imparting swinging movement to the conveyor means between said positions, said floor of the car body having an opening therein for the passage of the bulk material from the car body on to that end of the conveyor means adjacent the said vertical axis.

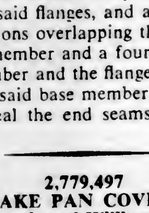
2,779,494
HAND TRUCK FOR DRUMS
Takefusa Kikuchi, Tokyo-to, Japan, assignor to Taiyu Shoji Kabushiki-Kaisha, Tokyo-to, Japan, a liability limited company of Japan
Application May 17, 1954, Serial No. 430,318
Claims priority, application Japan June 23, 1953
4 Claims. (Cl. 214—650)



1. In a drum carrying hand truck for transporting drums including jaws capable of gripping the chime of the drum, a mechanism capable of operating said jaws to the positions to permit engagement of said jaws with inner and exterior parts of said chime and a lifting device capable of lifting the drum when gripped by said jaws at the chime of the drum, a mechanism which comprises a wheel-mounted frame, a substantially vertical supporting pipe secured rigidly on said frame, a supporting rod provided with a handle at the upper part thereof slidably supported in said supporting pipe, a link mechanism capable of sliding said rod in said pipe, said jaws comprising a lower jaw fixed to said supporting rod capable of engaging under the exterior of the chime of the drum, an arm on said supporting rod, a lever pivoted at its center to said arm and having a longitudinal slot in the rear end thereof, an upper jaw fixed to the front end of said lever and capable of engaging the inside of said chime, an operating lever pivoted at its center to said handle of said supporting rod and provided with a pin at one end thereof which is engaged in said longitudinal slot, said operating lever being provided with a handle at the other end whereby the jaw may be operated to open and close said upper jaw, and a locking means capable of locking said operating lever to hold the jaws in chime gripping position.

2,779,495
COASTER FOR DRINKING GLASSES AND THE LIKE
Donald M. Davis, Fort Payne, Ala., assignor to Hi-Jac Corporation, Fort Payne, Ala., a corporation of Alabama
Application January 24, 1956, Serial No. 560,958
9 Claims. (Cl. 215—100.5)

1. A coaster for drinking vessels, comprising a ring-like member of inverted frusto-conical shape open at its upper and lower ends and arranged to receive the bottom of a drinking vessel within the larger upper end thereof, and a generally tubular fabric sleeve member of moisture absorbent textile material, an intermediate portion of the length of said sleeve member surrounding and covering the outer surface of said body member, the lower end portion of said sleeve member being constricted to a



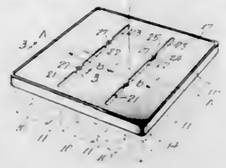
reduced diameter and at least partially closing the lower end of said body member, the upper end portion of said sleeve member being resiliently constricted to a reduced diameter and extending downwardly into the interior of said body member to form a fabric liner for the upper portion of the interior surface of said body member.

2,779,496
WEATHERTIGHT BALLAST
Wayne Lee Roy Henderson, Danville, Ill., assignor to General Electric Company, a corporation of New York
Application March 7, 1956, Serial No. 570,174
6 Claims. (Cl. 220—3.92)

1. A weathertight casing for a ballast unit comprising a channel-shaped body member having outwardly flared flanges along opposite longitudinal edges, a base member covering the channel of said body member with its side edges overlapping said flanges, and a cover member having three side portions overlapping the three sides of one end of said body member and a fourth side portion overlying the base member and the flanges of said body member overlapped by said base member to cover one end of said casing and seal the end seams of said overlapped flanges.

2,779,497
BAKE PAN COVERS
Jack Kollman, Chicago, and William A. Beck, Itasca, Ill., assignors to Ekco Products Company, Chicago, Ill., a corporation of Illinois
Application July 1, 1953, Serial No. 365,396
2 Claims. (Cl. 220—23.2)

1. A cover for a baking pan set consisting of a plurality of baking pans in fixed, assembled relation and spaced apart by a dividing zone, said cover comprising a marginal frame member and a separate top member consisting of a single sheet of metal having its marginal portions secured to said frame member, vent openings in said top member arranged in spaced apart relationship lengthwise of and in alinement with each dividing zone of the bake pan assembly, and means connecting said vent openings to thereby define a continuous fracture of the top member wherein the length of the fracture is such as to be intersected by a line bisecting each pair of adjacent pans at right angles to the dividing zone between pans, and said length is at least equal to the center to center distance



between said pair of adjacent pans measured along said intersecting line, said means including a relatively narrow slit forming an extension of one of said vent openings and a second slit forming an extension of a second of said vent openings and connected to said first narrow slit.

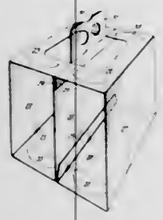
2,779,498
FUEL TANK AND FITTING
Edward N. Cole, Detroit, and Edward J. Naudzius, Birmingham, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 3, 1954, Serial No. 454,110
1 Claim. (Cl. 220—86)

A fuel tank for use on an automotive vehicle, said tank being provided with an inlet tubular member having an annular flared edge at one free end and another end joined integrally and permanently to an upper side portion of said tank, a curved filling spout member with one end portion arranged remote from said tank and being fitted with a bracket arrangement for support on said vehicle and the other end portion of said spout member being arranged in telescopic relation with said tubular member, said bracket arrangement being adapted to prevent longitudinal movement of said spout member, a groove formed in said other end portion of said spout member, an annular sealing ring of tough flexible plastic material retained in said groove and resiliently pressing outwardly against said tubular member, a stop shoulder formed on said spout member as an annular ridge facing the said flared edge, and a clearance being provided between said members to permit universal movement adequate to compensate for variations in the relative positions of said tank and bracket arrangement.

2,779,499
CAN CARRIER AND BLANK THEREOF
Francis A. Childsey, Jr., Wayne, Pa., assignor to Container Corporation of America, Chicago, Ill., a corporation of Delaware
Application December 7, 1955, Serial No. 551,552
9 Claims. (Cl. 220—108)

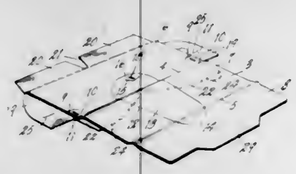
1. In a paperboard can carrier for two rows of chime end cans comprising an open end tubular structure including a top wall, a bottom wall, side walls, a central partition panel and tab means integral with the top and bottom walls for securing said cans within said holder, the improvement wherein the top wall consists of two top wall panels integrally and foldably joined to one longi-

tudinal edge of a double thickness flange member, one longitudinal edge of said partition panel is secured to said flange member, and a handle member struck from



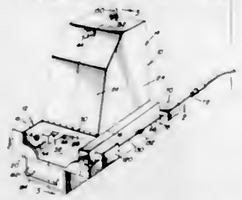
the material of one of said top wall panels and is integrally joined to one of the plies of said double thickness flange member.

2,779,500
TOILET SEAT COVER DISPENSING PACKAGE
John C. Thomasma, Kalamazoo, Mich.
Application September 14, 1953, Serial No. 379,760
3 Claims. (Cl. 221—26)



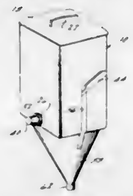
2. A dispensing package comprising a cover, and a stack of precut sheets, the stack being reversely folded upon itself to provide a bottom fold, an intermediate fold and a top fold in each sheet, the bottom fold of the sheets having opposed pairs of slits extending from their side edges providing edge tear tabs, the sheets having elongated generally oval centrally disposed slits extending lengthwise thereof and defining central openings and providing flaps attached at their front ends to the sheets, the sheet flaps having tear facilitating slits adjacent their free ends, the cover being formed of an integral blank cut and scored to provide a back panel on which the bottom, intermediate and top folds of each sheet are superimposed, the stack of sheets with the bottom, intermediate and top folds of each sheet superimposed upon the back panel being secured to the back panel for individual detachment by fasteners disposed through said edge tear tabs and through said flaps at the rear of and adjacent to said tear slits therein, said back panel having end flaps folded inwardly upon the ends of the folded stack of sheets disposed on the back panel, said back panel having a pair of longitudinally spaced rear flaps folded upon the stack of sheets, and upon the end flaps and said back panel having a pair of longitudinally spaced front flaps folded upon the front edges of the stack of sheets and upon the end flaps, the folded edges of the sheets of the stack being approximately parallel to the folded edges of the rear and front flaps to the back panel, the longitudinal spacing of the rear and front flaps being approximately midway the length of the back panel to facilitate folding the back panel and the stack thereon upon themselves transversely of said folded edges of the sheets of the stack and approximately midway the length of the rear panel, said front flaps having projecting tongues adjacent their ends, said end flaps having slits with which said tongues may be engaged.

2,779,501
CIGARETTE LIGHTER
James A. Alfrey, Morehead, Ky., assignor of fifteen percent to Allen Alfrey, Morehead, Ky.
Application July 13, 1953, Serial No. 367,409
2 Claims. (Cl. 221—144)



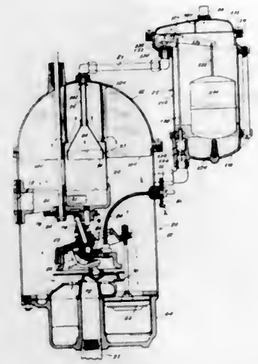
1. A dispenser for lighted cigarettes comprising a support, a cigarette receptacle carried by said support, cigarette lighting means including an electric heating element disposed adjacent said cigarette receptacle, a carriage for moving a cigarette from said cigarette receptacle into operative position relative to said cigarette lighting means, electromagnetic means for moving said carriage, switch means controlling the movement of said carriage and actuation of said cigarette lighting means, said switch means including a fixed contact carried by said support, an operating rod having a movable contact mounted thereon engageable with said fixed contact, said cigarette lighting means including a vacuum line for drawing air through a cigarette, a valve including a movable valve controlling said vacuum line, said valve body being carried by said support, said movable valve member being mounted on said operating rod whereby actuation of said operating rod will excite said electric heating element and said electromagnetic means while opening said valve.

2,779,502
MIXING DISPENSER
Arthur H. Ackerman, Jr., Jackson, Mich.
Application August 16, 1954, Serial No. 450,160
4 Claims. (Cl. 222—48)



1. Apparatus of the character described comprising, a hopper, a pair of compartments in said hopper, each of said compartments having an opening for loading a substance therein and a discharge opening on the lower end thereof for discharging the substance therefrom, a cylindrical discharge valve rotatably mounted in said hopper, said valve having a hollow portion on each end thereof, an opening in each of said hollow end portions extending outwardly and upwardly and being disposed adjacent the discharge opening of one of said compartments, a graduated cylinder adjustably mounted in each of the hollow valve end portions, a mixing funnel fixedly attached to the lower end of the hopper, a handle on said valve, a spring means operative to bias said handle to an upwardly disposed loading position, whereby when said handle is rotated downwardly said valve will be rotated to move the openings in the discharge valve to a substantially downwardly disposed position to discharge the substance from each hollow valve end portion into the mixing funnel and, when the handle is released, the spring means will return the handle and discharge valve to the loading position.

2,779,503
AIR SEPARATOR
George W. Wright, Robert J. Jauch, and Joseph D. Clymer, Fort Wayne, Ind., assignors to Tokheim Corporation, a corporation of Indiana
Application June 3, 1950, Serial No. 166,038
23 Claims. (Cl. 222—72)

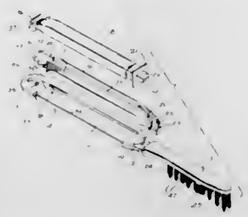


22. A gas and liquid separation system comprising a liquid pump having suction and discharge conduits, a gas separator connected to the discharge conduit, said separator including a gas collecting section, a gas eliminating chamber, an effluent conduit connecting the gas collecting section and the eliminating chamber, an atmospheric vent connected to the top of the eliminating chamber, a drain conduit connecting the bottom of the eliminating chamber with the suction conduit, a first valve in the effluent conduit, a second valve in the drain conduit and liquid-level responsive means in the eliminating chamber for moving said first and second valves toward closed and open positions respectively as the liquid level rises in said eliminating chamber and toward open and closed positions respectively as the liquid level falls.

2,779,504
CAN OPENER AND SPOUT
Jerry R. Hayes, Lombard, Ill.
Application November 8, 1951, Serial No. 255,463
10 Claims. (Cl. 222—83.5)

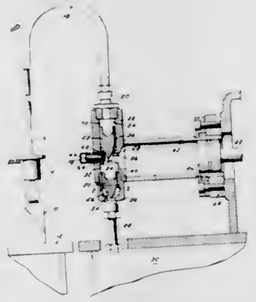
1. A device of the class described, comprising a body having a resilient depending skirt for yieldably embracing the upper part of a cylindrical liquid-containing can of a size adapted to be embraced by a person's hand, said body having an abutment to engage the top of the can, said body having a pair of spring-pressed sharp can-puncturing plungers urged by their springs into engagement with the top of the can, said plungers having heads disposed above said body and manually forcible to puncture the top of the can, and means limiting the degree of penetration of said plungers into the can, said device including retracting means operative by the hand holding the assembled can and body for withdrawing said plungers from the can top, said body having a spout adjacent one of said plungers to discharge liquid from the can when the can is tipped in the direction to lower said spout while said plungers are held in withdrawn positions.

2,779,505
TOOTH PASTE CONTAINER HAVING MEANS TO POSITION IT IN A CAVITY IN THE HANDLE OF A DISPENSING TOOTHBRUSH
Francis J. Sipmann, Muskegon Heights, Mich.
Application December 3, 1954, Serial No. 472,914
2 Claims. (Cl. 222—100)



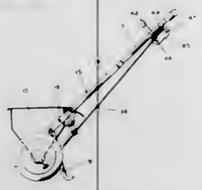
1. A disposable container for paste material comprising a tube of material of plastic quality, a forwardly tapering rigid discharge conduit element of rectangular transverse cross section secured to the forward end of said tube, and a rectangular positioning flange rigidly secured to and projecting outwardly from opposite sides of said conduit element.

2,779,506
AMPOULE FILLING APPARATUS
Leo P. Gajda, Detroit, Mich., assignor to Arthur Colton Company, Detroit, Mich., a corporation of Michigan
Application October 11, 1955, Serial No. 539,739
3 Claims. (Cl. 222—108)



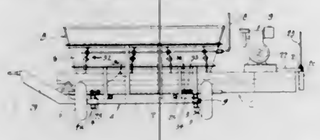
1. In a device of the type used for filling ampoules and bottles in measured quantity having a valve for alternately receiving and discharging material, a housing body having an ingress chamber adapted to be connected at one end to a source of material, a discharge chamber adapted to be connected at one end to a discharge conduit, a unidirectional valve in each of said chambers to permit flow into one and out of the other selectively and respectively, means forming a connecting passage between said chambers of smaller area than said chambers, said means forming a seat for the valve in said discharge chamber, a pressure developing and reducing device hydraulically associated with said passage between said chambers, a port opening formed in said housing connecting said passageway and said discharge chamber, means in said housing movable to control the effective flow area of said port opening, whereby a reduction in pressure in said passage and said ingress chamber will be accompanied by a simultaneous and controlled reduction in pressure in said discharge chamber.

2,779,507
SPREADING DEVICE
Merill E. Rader, Columbus, Ohio, assignor to Steel Company of Ohio, Columbus, Ohio, a corporation of Ohio
Application March 28, 1956, Serial No. 574,432
6 Claims. (Cl. 222—177)



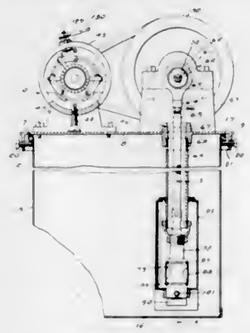
1. A spreader comprising a hopper, a handle extending rearwardly and upwardly from the hopper, a shaft carried by the hopper and extending from the sides thereof, wheels keyed on the outer ends of said shaft, an agitator fixed on the shaft in the hopper and comprising radially extending blades, said hopper having a curved bottom adjacent which the outer ends of the agitator blades swing, a shut-off plate curved complementally to said bottom and mounted for swinging movement about the axis of said shaft which is substantially the axis of curvature of said plate and bottom, a set of openings in said bottom and a set of cooperating openings in said plate which are brought completely out of coincidence when the plate is swung into one position and are brought at least into partial coincidence in another position of said plate to provide a set of feed-openings which are a combination of the two sets and are of selected size to provide the desired feed, the openings of the sets being correspondingly spaced transversely and each opening being of elongated form in the forward and rearward direction and its forward and rearward ends being of triangular form, adjustable means for stopping the shut-off plate in a predetermined position to determine the size of the feed-openings, a push-pull rod connected to said shut-off plate for swinging it to its different positions and extending rearwardly along said handle, means for holding the rod in its forward or rearward position and comprising a plate carried by the handle and having a guide slot therein, said rod carrying a guide portion which extends into said slot, said adjustable means comprising a bracket carried by the hopper, an actuating arm pivoted to the bracket and connected to said shut-off plate and said rod, and adjustable stops carried by the bracket and adapted to engage said arm.

2,779,508
HOPPER CONVEYOR
Earl H. Ensinger, Cleveland, Ohio
Application December 2, 1953, Serial No. 395,712
6 Claims. (Cl. 222—178)



2. A combination hopper and conveyor machine of the class described, comprising, in combination, a wheel supported chassis unit, a hopper unit mounted on said chassis unit and comprising a hopper elongate in a direction transverse to its travel when distributing material and having a bottom opening elongate in the same direction adapted to distribute material transversely over a road subgrade while moving therealong, means on the chassis unit to support a conveyor unit, and a conveyor unit detachably and removably mounted on said chassis unit, said conveyor unit having a receiving inlet opening registering with the hopper opening and coextensive therewith, the conveyor extending beyond one end of said hopper and discharge means located at the outer end providing for discharge of material received thereby at said outer end, toward the side of the subgrade while the unit is traveling therealong.

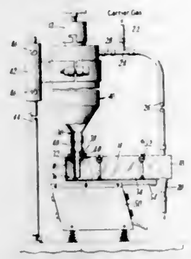
2,779,509
LUBRICATING DEVICE
Walter J. Allen, Salina, Kans.
Application May 24, 1954, Serial No. 431,908
5 Claims. (Cl. 222—189)



3. A pump comprising an elongated cylindrical block having an axial bore having a radially extending inlet port communicating therewith and positioned intermediate the ends thereof and a radially extending discharge port connected therewith positioned intermediate said inlet port and one end of said block, a closure plug for said bore at said one end thereof, filter means supported by said plug intermediate said inlet and outlet ports, a piston rod mounted for reciprocation in said bore and having a pumping stroke traversing said inlet port, a disk supported by said plug adjacent the discharge side of said filter means, said disk having a plurality of grooves formed in the side thereof adjacent said filter means and a central opening therein communicating with the said grooves, said plug having a central bore extending axially thereof and communicating with the said central opening, a check valve disposed in said bore, a plurality of passages radiating from and communicating with said last named bore, and at least one of said passages communicating with the discharge port of said pump.

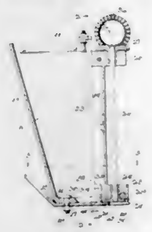
2,779,510
VIBRATIONAL DISPENSER FOR FORMING SOLID GAS MIXTURES
Jack L. Wilson and Albert M. Gonas, Niagara Falls, N. Y., assignors to Union Carbide and Carbon Corporation, a corporation of New York
Application September 27, 1954, Serial No. 458,325
12 Claims. (Cl. 222—193)

1. A vibrational gas-tight powder dispenser for forming solid-gas mixtures comprising, in combination, a closed material hopper; a closed transfer chamber having first and second ends; delivery conduit means communicating gas-tightly between said hopper and said first end of said transfer chamber for supplying powdered material from said hopper to said transfer chamber, said delivery conduit means containing powder flow control pipe means extending into said transfer chamber to a regulated height above the floor of said transfer chamber, whereby the rate of flow of said powdered material to said transfer chamber is controlled; first gas inlet means associated with said second end of said transfer chamber for supplying gas to there form said solid-gas mixture; second gas inlet means associated with said hopper for supplying gas to maintain a pressure therein sufficient to equalize the pressure within said transfer chamber for preventing back up and clogging of said powdered material within said hopper; means for vibrating said transfer chamber



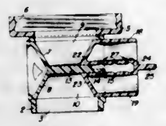
so as to pass powdered material along said floor of said transfer chamber from said first end to said second end; and outlet conduit means associated with said second end of said transfer chamber for conveying said solid-gas mixture from said dispenser.

2,779,511
SEED PLANTING MACHINE
John Powell, Kokomo, Ind.
Application January 21, 1955, Serial No. 483,224
5 Claims. (Cl. 222—216)



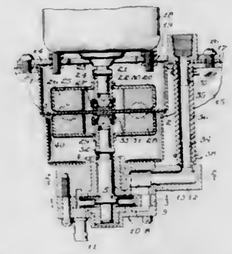
1. In a seed planting machine having a seed hopper, an outlet at the bottom of the hopper, a metering disc in said outlet, said metering disc having pockets at the periphery thereof, a movable member in said hopper radially disposed relative to the disc adjacent the periphery thereof, and means for oscillating said member within the hopper to and from the said disc.

2,779,512
POWDER DISPENSER
Bruce B. Steele, Rochester, and Leonard G. Schantz, Irondequoit, N. Y.; said Schantz assignor to said Steele
Application July 8, 1954, Serial No. 441,992
6 Claims. (Cl. 222—307)



1. A powder dispenser comprising a housing including a central portion having an inlet opening at the top, a threaded container engaging collar surrounding said inlet opening and permanently attached to said central portion of the housing, the housing having an outlet opening at the bottom and a transverse opening defined by cylindrical walls, a one-piece valve body removably positioned in said transverse opening by an endwise movement and manually rotatable in opposite directions through half a revolution, said valve body including end walls and a central portion integral therewith, the valve body being provided with two oppositely arranged hollow portions having spaced cylindrical outer surfaces fitting closely against the cylindrical walls of said transverse opening and the valve body having two oppositely arranged curved walls forming pockets and disposed between the aforesaid cylindrical outer surfaces, an adjustable one-piece valve member which is removably engaged with said central portion of the valve body and includes an outer end portion with two opposite bifurcated portions projecting laterally therefrom and having two opposite spaced inner curved surfaces which fit closely in the aforesaid pockets of the valve body and two spaced oppositely arranged outer cylindrically curved surfaces which fit closely against said cylindrical walls of the transverse opening in the housing, said bifurcated portions including inner end walls which are spaced from the end walls of said body and the adjustable valve member being slidable endwise of the valve body to different positions thereby varying the capacity of the pockets, cooperating stop means on the housing and valve body limiting turning movement of the valve body to half a revolution, said pockets being alined with said inlet and outlet openings when in their limit positions, and releasable means acting to retain the valve body in the housing.

2,779,513
SUBMERGED ROTARY TYPE FUEL PUMP
John W. Dickey, Newfield, N. Y., assignor to Bendix Aviation Corporation, a corporation of Delaware
Application May 7, 1956, Serial No. 583,185
4 Claims. (Cl. 222—333)

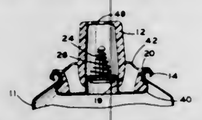


1. In a tank-mounted rotary fuel pump, a cup-shaped casing, an impervious non-magnetic diaphragm dividing the casing into upper and lower chambers, a pump mounted on the bottom of the casing having a shaft extending into the lower chamber toward said diaphragm normal thereto, a stub shaft mounted on the pump shaft and slidably but non-rotatably connected thereto, a face-polarized disc magnet rigidly mounted on the stub shaft in parallel relation and in proximity to the diaphragm, and a thrust bearing for the stub shaft resting on said diaphragm and controlling the spacing of the disc magnet from the diaphragm; a mounting plate fixed to and closing the upper chamber of the casing, a motor mounted thereon having a shaft extending into said upper chamber in alinement with the pump shaft, and a face-polarized disc magnet mounted on the motor shaft to rotate therewith parallel to and in close proximity to the diaphragm.

2,779,514
DISPENSING APPARATUS
Arthur P. Kebel, New York, N. Y.
Application June 30, 1955, Serial No. 519,025
6 Claims. (Cl. 222—394)

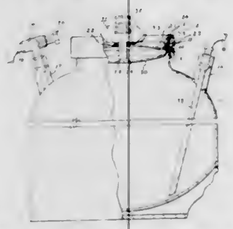
1. Apparatus for dispensing a foam-forming liquid from a pressurized container including, in combination: a container; a cup-shaped sealing member projecting into the container having a valve port in its wall; a valve body

in the container seating around the valve port to close the valve port and maintained normally in its seated position by a spring encircling a valve stem secured to the valve body and extending outwardly through the valve port and confined compressively between the outer end of the valve stem and the surface of the cup-shaped sealing member around the valve port; a seal joining the rim of the cup-shaped sealing member and the main body of the container wall forming a shoulder projecting



over a recess in the sealing member wall below the shoulder; a flexible resinous spout encircling and enclosing the extending valve stem and spring in normally non-contacting relationship; an engaging ring of flexible resious material encircling the lower end of the spout extending into the recess below the seal and engaging the seal to resist displacement from the recess; and a flexible resinous diaphragm extending between and integral with the spout and the engaging ring.

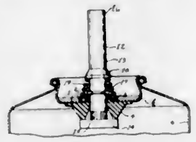
2,779,515
PRESSURE CAP WITH INTEGRAL PRESSURE RELEASE MECHANISM FOR SYRUP TANKS AND THE LIKE
Frank Welty, Youngstown, Ohio, assignor to Carbonic Dispenser, Inc., Canfield, Ohio, a corporation of Ohio
Application December 28, 1955, Serial No. 555,903
5 Claims. (Cl. 222—394)



3. Apparatus for delivering syrup under pressure to a beverage dispensing station comprising a tank, a fitting in an upper wall portion of said tank for receiving a dip tube extending into said tank whereby syrup may be propelled outwardly from the bottom portion of said tank by gas pressure applied to the upper portion of said tank, a second fitting in an upper wall portion of said tank to supply gas pressure to said tank, said tank having an upper enlarged filling mouth, an expandable plug-type closure for said mouth, means on said closure to expand the same into pressure engagement with the inner periphery of said mouth whereby said mouth is effectively sealed against leakage of gas pressure, and means on said closure to purge the pressure existant in said tank upon retraction of said expanding means.

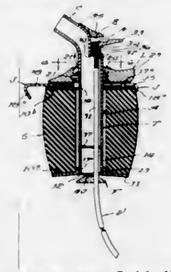
2,779,516
DISPENSING VALVES
Jack W. Soffer, St. Louis, Mo., assignor to Development Research, Inc., St. Louis, Mo., a corporation of Missouri
Application June 14, 1954, Serial No. 436,621
5 Claims. (Cl. 222—394)

1. A dispensing valve for gas-pressure containers, comprising a container wall portion having a circular aperture, a sealing member formed of resilient material having a tubular sleeve portion extending through said aperture, the outer surface of said sleeve portion being in close sealing contact against the inner wall of said aperture, the sealing member further having a radially-enlarged body portion at the inner end of the sleeve portion, said body portion having at its inner side a valve seat portion, the said body portion further having a central passage extending from the valve seat portion outward to enter into the sleeve portion, the said body portion further having a girdle extending inward into said central passage at the juncture with said sleeve portion and forming a constriction at a level inward of the container wall, together with a tiltable tubular rigid valve



member having a stem protruding through said central passage, girdle and sleeve portions, a stem port and an imperforate head adapted to close against said valve seat portion, the stem wall being smoothly cylindrical in the region encompassed by the girdle and having a diameter greater than that of the opening in the girdle prior to insertion of the stem therethrough whereby tensile force set up in the body portion on the insertion of said stem seals it at a level inward of such aperture.

2,779,517
FLUID DISPENSING DEVICES
Richard W. Beall, Jr., Hermosa Beach, Calif.
Application October 6, 1953, Serial No. 384,376
11 Claims. (Cl. 222—484)



1. A combined stopper and fluid dispenser capable of being removably mounted in the mouth portion of a bottle that is formed with an outwardly extending bead which includes: a deformable stopper that may be inserted in the mouth portion of a bottle; a plurality of radially movable claws mounted on said stopper; means to concurrently deform said stopper for it to engage the interior surface of said mouth portion with a fluid tight seal and to move said claws inwardly for them to grip said bead to prevent inadvertent displacement of said stopper from said mouth portion; a tubular member extending longitudinally through said stopper; a pouring spout extending outwardly from the upper end of said tubular member; a vertically movable air vent extending downwardly through said tubular member; a sealing member mounted on said air vent, with said sealing member capable of sealing the lower entrance to said tubular member when in contact therewith; a stop extending outwardly from said spout above said air vent, said stop formed with a seat that seals the upper entrance to said air vent when said entrance is in contact therewith; spring means that at all times urge said air vent upwardly until further movement is restricted by said stop, with said air vent in its uppermost position having said upper entrance thereto sealed by said seat, and said sealing member blocking said lower entrance to said tubular member; and means to move said air vent downwardly whereby said

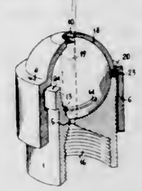
entrances to said air vent and tubular member are unobstructed and fluid may be dispensed from said bottle through said tubular member and spout and air may enter said air vent through the upwardly disposed entrance thereof to equalize the air pressure on the interior of said bottle with the outside atmosphere.

2,779,518
CONDIMENT SHAKER
William Morris, New Haven, Conn.
Application June 14, 1955, Serial No. 515,329
2 Claims. (Cl. 222—501)

1. In a condiment shaker, an upwardly extending hollow body, an upwardly extending cap on the upper part of the body having means defining a dispensing orifice, an upwardly extending plug member for cooperation with the dispensing orifice, the plug member extending inwardly through the orifice and having a threaded stem portion received within the cap, and a coil spring within the cap having one end secured to the cap and providing at the other end thereof a socket threadedly receiving the stem portion of the plug member, the plug member being resiliently supported by the spring and being vertically adjustable in said socket to control the flow of condiment through said orifice, the plug member also being vertically adjustable by finger pressure on the portion thereof extending outwardly through the cap, the plug member having oppositely beveled portions forming an enlargement above said stem portion, the uppermost of said beveled portions being engaged with the orifice-defining means of said cap to seal said orifice when the plug member is in one vertically adjusted position, the cap having a plurality of spaced projecting members above the spring, arranged radially of and adjacent said orifice and suspended from the cap, said members projecting downwardly within the cap in fixed relation thereto and having free lower extremities a distance below said orifice-defining means, said projecting members normally engaging the plug member at the junction of the beveled portions of the latter to thereby maintain the spring-supported plug member in concentric relation to said orifice-defining means, when the plug member is in a vertically adjusted position below the first-mentioned position and free of contact with said orifice-defining means, the plug member being tiltable laterally, when the latter is depressed by finger pressure to a position in which said enlargement is below said free extremities of the projecting members, to quickly increase the flow of condiment.

2,779,519
CLOSING DEVICE FOR TUBULAR DUCT
René Rossetti, Geneva, Switzerland
Application January 12, 1954, Serial No. 403,513
Claims priority, application Switzerland March 2, 1953
1 Claim. (Cl. 222—507)

A closure device comprising a carrier, a cap rotatably mounted on the carrier, a spherical ball, said cap and said carrier cooperating to form a spherical housing extending partly into the carrier and partly into the cap for receiving said ball, said ball having a duct extending diametrically therethrough, said carrier and said cap having aligned openings, adapted to be connected by the duct in said ball, a trunnion extending axially of the ball in a direction perpendicular to the duct, said trunnion engaging a recess located in the cap and adapted to move in a diametrical plane of the housing perpendicular to the axis of the aligned openings in the carrier and the cap, said ball having a slot therein extending along an equatorial circle lying in a plane containing said trunnion and the recess in the cap, the plane of said circle forming an angle of 45° with the duct, said slot extending through an arc of one-fourth of the circumference of the sphere, a finger carried by the carrier and extending inwardly of the housing and engaging the slot, said finger being located in a diametrical plane passing through the axis of the



two openings and spaced an equal distance from the opening in the carrier and the diametrical plane passing through the trunnion and the recess in the cap, whereby the finger lies at a first end of the slot when the duct is aligned with an axis passing through the openings in the cap and carrier, lies at a second end of the slot when the duct lies at an angle of about 45° with respect to the axis passing through the openings and lies again at the first end of the slot when the duct lies at an angle of 90° with respect to said axis, while the cap revolves through a total angle of 180°

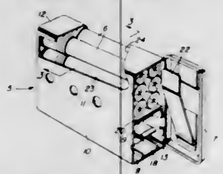
2,779,520
COLLAPSIBLE, PORTABLE, TORSO-SIMULATING DRESS FORM
Hope W. Sykes, Santa Monica, Calif.
Application July 21, 1955, Serial No. 523,405
12 Claims. (Cl. 223—68)

1. A collapsible portable torso-simulating garment form, comprising: a hollow torso-simulating body of thin-sheet material shaped to conform to a predetermined garment size, said body being provided with normally closely adjacent edges defining a selectively engageable and disengageable junction line extending helically around the body between the top and bottom thereof thereby defining a helical strip forming said body and extending from the top to the bottom thereof and thereby making it possible to selectively relatively engage said closely adjacent edges to provide said hollow torso-simulating body and also thereby making it possible to selectively relatively disengage said closely adjacent edges to make it possible to roll up said helical strip to provide easy storage and portability of the collapsed garment form; and fastener means carried by said edges of said body for selectively engaging and disengaging said edges along said junction line.

2,779,521
CARRYING AND SUPPORTING SLING FOR RIFLES
Viktor Holger Granberg, Stockholm, Sweden
Application November 18, 1953, Serial No. 392,857
Claims priority, application Sweden December 29, 1952
2 Claims. (Cl. 224—1)

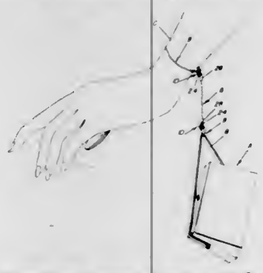
1. A carrying and supporting sling for rifles in which the sling comprises a fixed loop through which the arm of the marksman is passed in aiming, said sling having means for adjusting the size of said loop, the end portion of the part of the sling forming the loop having a downwardly curved configuration and when flattened in the unstressed state extend obliquely relatively to the longitudinal direction of the remainder of the sling, and the plane of the loop in the aiming position extends substantially at right angles to the longitudinal direction of the portion of the arm enclosed therein.

2,779,522
AMMUNITION CASE
Oliver K. Puckett, Klamath Falls, Oreg.
Application May 17, 1955, Serial No. 508,861
1 Claim. (Cl. 224—15)



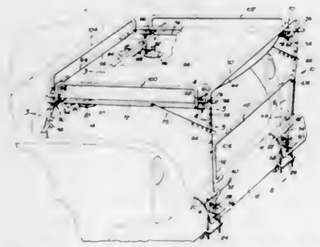
An ammunition case comprising: an elongated container open at one end for the reception of shells and closed at its other end, a hinged closure on the open end of said container, said container including a bottom, a front, a back and a top, a channel member mounted longitudinally on said bottom, a zigzag leaf spring slidably mounted in said channel member, an inverted channel-shaped follower mounted on said spring for elevating the shells in the container, said container having an opening in its upper portion for the removal of the shells, and means for mounting the container on a support.

2,779,523
MULTIPURPOSE COSTUME ACCESSORY
Richard J. Klimkiewicz, Cleveland, Ohio, assignor of fifty percent to George Barwidi, Cleveland, Ohio
Application December 21, 1953, Serial No. 399,470
3 Claims. (Cl. 224—28)



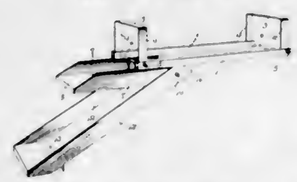
1. A multipurpose costume accessory for personal wear and adornment comprising a flexible element adapted to encircle the wearer's wrist in whole or in part, an ornamental fastener fixedly secured to at least one end of said flexible element, a clasp releasably connectable with said fastener, a sleeve slidingly mounted on said flexible element, said clasp being pivotally connected with said sleeve, and means at the other end of said flexible element whereby the latter end may be detachably connected with a purse, handbag or the like, said means serving to permit said other end to be formed into a fettering loop and comprising a terminal fastener fixedly secured to the adjacent end of the flexible element and a complemental clasp releasably connectable with said terminal fastener.

2,779,524
TRUNK LUGGAGE RACK
Donald R. Carlson, Sioux City, Iowa, assignor to Cardis Manufacturing Company, Incorporated, Sioux City, Iowa, a corporation of Iowa
Application June 22, 1954, Serial No. 438,376
2 Claims. (Cl. 224—42.08)



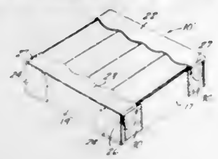
1. An automobile trunk luggage rack comprising a rear U-shaped member having side legs and a top bight portion, clamps attachable to an automobile rear bumper and having said legs terminally pivoted thereon for swinging of said support into vertical position behind an automobile trunk, a U-shaped frame adapted to extend forwardly from said rear member over a trunk and having a front bight portion and side legs extending rearwardly from said front bight portion and terminally secured to the side legs of said rear member, a platform extending between the side legs of said frame, a pair of support bars for said frame underlying and secured to the legs of said frame in spaced parallel relation thereto and to said platform, and a bar cross connecting said support bars and slidable along the same and having means thereon attachable to a trunk lid.

2,779,525
TRUCK EXTENSION LADDER
William G. Vogel, Grand Rapids, Mich.
Application April 14, 1955, Serial No. 501,359
1 Claim. (Cl. 228—45)



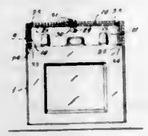
Structure as described comprising, two horizontal, tubular bars, each having a continuous slot lengthwise thereof in its lower side, an inverted U-shaped stirrup adjacent each end of said bars, the legs of which at lower end portions thereof pass through the upper sides of said bars generally to the slots therein, rods passing through said bars and lower end portions of said legs connecting the stirrups and bars, with the bars in parallel spaced relation, a step unit comprising two spaced parallel plates and a step fixed to and extending between said plates at the outer end portions thereof, each of said plates being in a vertical plane in the plane of a slot in a tubular bar, and each of said plates having an inwardly positioned extension passing through its associated slot upwardly into its associated tubular bar, and rollers on said extensions within said tubular bars carrying said plates simultaneously lengthwise of the bars, the lower end portions of said plates providing stops limiting the movements of said plates outwardly and inwardly.

2,779,526
MULTI-UNIT CONTAINER
Clarence W. Vogt, Norwalk, Conn.
Application February 6, 1953, Serial No. 335,536
5 Claims. (Cl. 229—34)



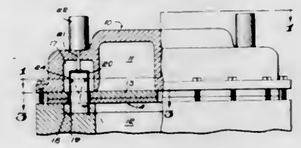
1. A container for a plurality of articles comprising a bottom, side members hinged to the opposed sides of the bottom, end members hinged to the opposed sides of the bottom between the side members, flanges on the sides of the end members spaced from the bottom and having a width less than half the width of said bottom, said flanges being foldable substantially parallel with said bottom to overlie the ends of the articles received within the container, end flaps on the ends of the flanges and when in assembled position, overlying the ends of the side members, and means to seal the flaps against the outside faces of the side members, said side members also having end flanges foldable to positions within and adjacent to the ends of said end members and movable relative thereto to enable one of the side members to be pivoted to open position after the unsealing of the end flaps on said flanges for the removal of an article from the container.

2,779,527
BATTERY SHIPPING CONTAINER
Clifford D. Fallert, St. Louis, Mo., assignor, by mesne assignments, to Crown Zellerbach Corporation, San Francisco, Calif., a corporation of Nevada
Application December 6, 1952, Serial No. 324,495
1 Claim. (Cl. 229—39)



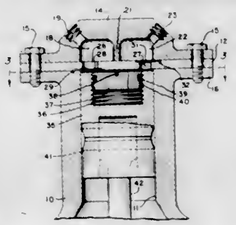
A one-piece open bottom corrugated paperboard container adapted to enclose an electric storage battery having fragile upstanding projections extending above the battery case, said container comprising pairs of opposed side and end wall panels adapted to frictionally enclose a battery case and to extend above the level of the battery projections, the corrugations of the paperboard extending parallel to corner defining score lines between said side and end wall panels so as to extend vertically in relation to a battery which is to be positioned in the container, each wall panel having an upper integral ledge-forming panel folded about a double transverse score inwardly flatwise against the inner face of the wall to which it is attached and thence reversely upwardly about a cut and foldably connected score flatwise against the first mentioned fold to substantially the plane of the top of the container walls, an inwardly foldable closure flap constituting an extension of each ledge-forming panel for closing the upper end of the container, means for releasably interlocking opposite side edges of one pair of opposed flaps at right angles to a pair of opposed panels, means to releasably interlock another pair of opposed superposed flaps to each other and to said one pair of opposed flaps and forming a two-ply closure, one of the extreme side edges of each of the ledge panels positioned in respective inner corners of the container, the other extreme side edges of each of the ledge panels abutting a marginal end portion of adjacent ledge panels positioned in the said respective corners of the container thus forming a rigid conterminous compact two-ply stacking ledge the height of which is slightly greater than the upstanding projections on the battery which is to be enclosed by said container, said ledge having vertically extending corrugations throughout and a relatively wide flat bottom bearing surface which is provided by the cut scores, and said bearing surface adapted to engage the upper edges of a battery case.

2,779,528
COMPRESSOR UNLOADERS
Erik H. Jensen, Staunton, Va., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application September 29, 1955, Serial No. 537,432
5 Claims. (Cl. 230—21)



1. A compressor having a cylinder in which gas is compressed, a cylinder head for said cylinder, said compressor having a cavity off-set with respect to said cylinder, said compressor having a slot opposite one end of said cavity for connecting said cylinder to said one end of said cavity, a hollow piston in said cavity, said piston normally extending across said slot and having an open end with an edge in contact with the side of said slot opposite said cavity, and having an opening connecting with said cavity, and means for moving said piston from across said slot for permitting gas to flow between said cavity and said cylinder.

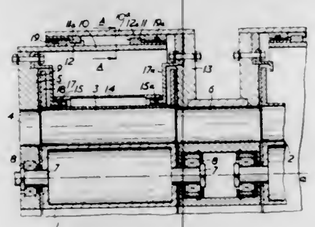
2,779,529
REFRIGERATING APPARATUS
Elmer O. Stout, Dayton, Ohio, assignor to General Motors Corporation, Dayton, Ohio, a corporation of Delaware
Application September 3, 1952, Serial No. 307,605
5 Claims. (Cl. 230—21)



1. In combination, a compressor having a piston and cylinder, an element carried by said piston and having a substantial surface area exposed to the interior of said cylinder, said element being adjustable longitudinally relative to the length of said piston to increase or decrease the

cylinder clearance within said compressor, said element having a circumferentially extending groove in its outer periphery, and an O-ring disposed within said groove for frictionally engaging a portion of the piston so as to restrain movement of said element relative to said piston.

2,779,530
END PLATE STRUCTURES AND MACHINES EQUIPPED THEREWITH
George Jendrassik, London, England; Andre G. T. Boszormenyi and Clara Jendrassik, executors of said George Jendrassik, deceased, assignors, by mesne assignments, to Jendrassik Developments Limited, London, England
Application December 1, 1952, Serial No. 323,490
Claims priority, application Great Britain December 13, 1951
8 Claims. (Cl. 230—69)



1. In a fluid energy-conversion machine having a ported end plate and an axially-adjacent structure which are relatively rotatable and which are required in operation to be maintained in close axial engagement, a locating arrangement comprising bearing means mounted in one and a shaft carried by the other of said end plate and said structure, said shaft received in said bearing means and being located therein to maintain substantially constant the axial clearance between said end plate and said structure, and a guiding system comprising axially extending means attached to said end plate positioned radially beyond said structure, support means fixed stationary relative to said axially extending means, said axially extending means and said support means defining mutually coacting means functioning to maintain said axially extending means and said support means in sliding engagement at at least three circumferentially spaced points and in at least two axially spaced planes to permit axial movement of said end plate and said axially extending means but preventing tilting thereof

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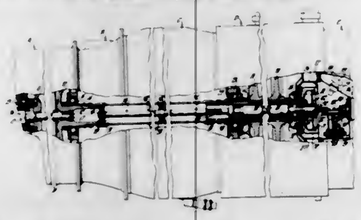
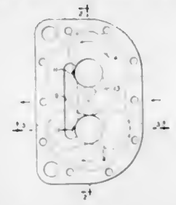
2,779,531
GAS TURBINE ENGINE WITH HYDRAULIC THRUST BALANCING
John B. Wheatley, Indianapolis, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 29, 1950, Serial No. 203,321
19 Claims. (Cl. 230—116)



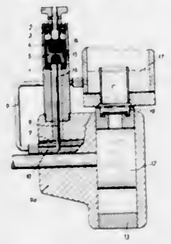
14. A turbomachine comprising, in combination, a stator, a rotor therein developing end thrust in operation, thrust bearing means for the rotor at one end thereof fixed relative to the stator, and means at the other end of the rotor for developing a thrust opposed to the rotor end thrust to reduce the load on the thrust bearing, the last named means being adapted to accommodate relative longitudinal expansion of the stator and rotor in operation and comprising an expansible chamber device with relatively movable parts coupled to the rotor and stator respectively for transmission of thrust axially of the rotor, and means actuated by rotation of the rotor to develop an end thrust in the expansible chamber device.

2,779,532
ROOT'S BLOWERS, IN PARTICULAR FOR SUCTION PURPOSES
Otto Herschmann, Hannover, Germany
Application September 30, 1955, Serial No. 537,857
1 Claim. (Cl. 230—141)



A Root's blower comprising a pumping chamber, cooperating blower rotors rotatably mounted in said pumping chamber, each of said rotors having a shaft extending from each side thereof, a bearing including lubricating means mounted on opposite sides of said pumping chamber and supporting said respective shafts, a seal surrounding said shaft and disposed between said bearing and the end faces of the corresponding of said blower rotors, and a groove formed in the inner walls of said pumping chamber adjacent the end faces of said blower rotors and disposed outside the line of action of said blower rotors, and a recess communicating with said pumping chamber adjacent said groove, said groove being in communication with the pressure side of said blower and said recess being in communication with said groove, and means providing a lower pressure on the bearing side of said seal than the pressure on the pumping chamber side of said seal, thereby, preventing a flow of said lubricating means from said bearing through said seal in the direction toward said pumping chamber and the suction side of said blower.

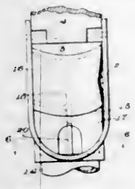
2,779,533
HIGH-VACUUM ROTARY OIL PUMPS
Klaus Ziock, Bad Godesberg, Germany, assignor to E. Leybold's Nachfolger, Koln-Bayental, Germany
Application December 17, 1954, Serial No. 476,016
Claims priority, application Germany December 22, 1953
3 Claims. (Cl. 230—202)



1. A rotary vacuum pump comprising a housing with a cylindrical pump chamber having suction and exhaust ports, a rotor mounted free to rotate within said cylindrical chamber, said rotor being eccentrically disposed

with respect to the axis of said cylindrical chamber and having radial slots with vanes slidably guided within said slots, an exhaust valve within the exhaust port surrounded by oil, an oil conduit connecting the oil surrounding said exhaust valve with said pump chamber to permit access of lubricating oil thereto, an air port opening into said pump chamber a short distance ahead of said exhaust port, an air conduit connecting said air port with surrounding air, a manually controlled valve connected to said conduit and controlling access of air to said air port, an additional oil conduit connecting said oil surrounding said exhaust valve with said cylindrical chamber for the admission of an additional quantity of oil into said cylindrical chamber and an additional oil valve controlling said additional oil conduit and connected and responsive to said manual air valve for substantially simultaneous introduction of additional oil and air into said pump chamber.

2,779,534
COIN BOX FITTINGS
Whitney W. Jones, Philadelphia, Pa.
Original application October 8, 1951, Serial No. 250,257. Divided and this application December 16, 1952, Serial No. 326,261
1 Claim. (Cl. 232—15)



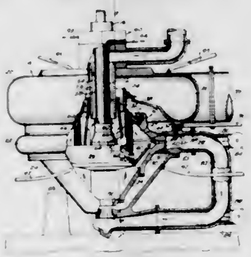
The combination of a coin-receiving mechanism having a coin chamber provided with an opening in one of its walls, a closure for said opening, a removable coin-deflecting chute within and narrower than the width of said chamber and provided with a continuously sloping, transversely concavely curved surface adapted to receive coins entering any part of said chamber from above, and operative to direct such coins towards the bottom of said opening and against said closure, and a separate transversely resilient metal plate having a lower portion positioned in the space between a side of said element and the adjacent wall of said chamber, and having an upper inwardly convex portion overhanging the concavely curved surface of said chute and terminating in an edge portion in resiliently binding frictional engagement with said chamber wall, to yieldingly position said element against the opposite chamber wall, while said convex portion operates to deflect falling coins towards said sloping surface.

2,779,535
COIN-COLLECTING DEVICES
Whitney W. Jones, Philadelphia, Pa.
Application October 8, 1951, Serial No. 250,257
3 Claims. (Cl. 232—16)

1. A coin-extracting head for coin-controlled apparatus, comprising a pair of side walls generally unconnected at their upper and rear edges, a substantially arcuate wall connecting the forward portions of said side walls and provided with a generally vertically arranged slot having a narrow upper portion and a transversely enlarged lower portion; a depending chamber having a downwardly directed discharge opening and defined by said side walls and by forward and rear walls, the forward wall of said chamber being a continuation of said arcuate wall, said side walls being provided with parallel arcuate tracks, a crosshead movable along said tracks, and a manually actuatable bar extending rotatably through said crosshead and provided upon its rearmost end with a key and door-engageable means, said bar being revolvable in the lower portion only of said slot and having a narrowed portion which when positioned in the upper portion of said slot is prevented from turning, whereby when said head is operatively positioned with respect to a coin-controlled apparatus the key of said bar when revolved

in its lower position is engageable with and operative to unfasten, and said engageable means operative to raise, a pivotally mounted door of said apparatus to an upper open position substantially spanning the space between said side walls, and thereby permitting coins within said chamber to fall therefrom and through said discharge opening.

2,779,536
ANTI-FOAMING CENTRIFUGAL METHODS AND APPARATUS
Harold H. Pomeroy, San Francisco County, Calif., assignor, by mesne assignments, to Dorr-Oliver Incorporated, Stamford, Conn., a corporation of Delaware
Application February 15, 1952, Serial No. 271,790
19 Claims. (Cl. 233—13)

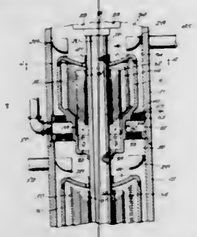


1. In a method of centrifugally separating a fluid feed material containing a froth or foam producing constituent characterized by the use of a multiple discharge type centrifuge embodying a separatory rotor; the step of enveloping the rotor of said centrifuge during operation with a vapor to prevent the formation of froth.

2,779,537
FLUID CONTACTING APPARATUS
George H. Madany, Iowa City, Iowa, assignor of one-eighth to Samuel D. Jarvis and one-eighth to Vernon D. Jarvis, Decatur, Ill.
Application August 1, 1950, Serial No. 177,092
16 Claims. (Cl. 233—15)

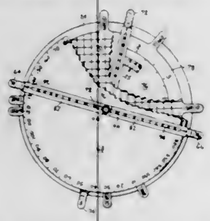
16. Apparatus for extracting one constituent from a feed liquid by the use of a solvent which is selective for said one constituent, said apparatus including a housing having therein at least one stage comprising means for thoroughly mixing said feed liquid and said solvent and means for separating said solvent and said feed liquid, a rotary shaft and means to rotate the same, said mixing means including rapidly rotating portions on said shaft for imparting rotary motion to said mixture and portions

on said housing for deflecting the mixture toward said separating means, said separating means including means for receiving said mixture and close spaced nested frusto-conical discs connected to rotate with said shaft so that



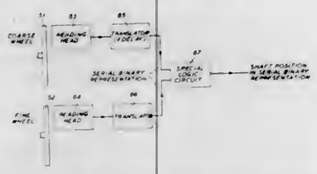
said liquid mixture and said solvent each flow therebetween in opposite directions respectively and substantial rubbing contact is provided for transferring said one constituent to said solvent.

2,779,538
NAVIGATIONAL RELATIVE MOTION COMPUTER
William M. Shanhouse, Roslyn Heights, N. Y.
Application June 13, 1952, Serial No. 293,492
7 Claims. (Cl. 235—61)
(Granted under Title 35, U. S. Code (1952), sec. 266)



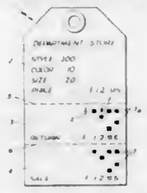
1. In a relative motion device, a 360° graduated rose, a grid member mounted below said rose and axially aligned therewith, and speed and distance indicating means mounted radially with respect to said rose, said last named means comprising elongated channel shaped guide members and arms slidable within said guide members, said arms including scale means thereon to indicate the selected speed and distance.

2,779,539
MULTIPLE CODE WHEEL ANALOGUE-DIGITAL TRANSLATOR
Sidney Darlington, Passaic Township, Morris County, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application April 19, 1954, Serial No. 423,950
8 Claims. (Cl. 235—61)



1. In an analogue-digital translating system, a coarse code wheel and a fine code wheel coupled to said coarse wheel, means including a plurality of digit rings having indications in reflected binary code relationship with each other on each of said wheels and a single reading element for each of said digit rings for establishing a binary representation of the position of said wheels, the least significant digit established by the coarse wheel reading elements corresponding to one-half revolution of said fine wheel, said reading elements for said fine wheel having a predetermined zero position, and the zero position for said coarse wheel reading elements being offset from the true zero position as determined by said zero position of said fine wheel by an angle corresponding to approximately one quarter revolution of said fine wheel.

2,779,540
MACHINE CONTROL RECORD
Conrad H. Hoeppner, Plandome, N. Y., assignor, by mesne assignments, to Datamatic Corporation, a corporation of Delaware
Application August 31, 1953, Serial No. 377,546
1 Claim. (Cl. 235—61.12)



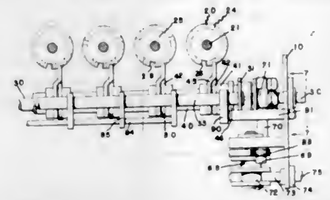
A dual information storage record comprising a single layer non-magnetic planar support, a plurality of discrete and spaced visible marks deposited on an exposed surface of said support at the time of the transfer of information to said record and formed of a magnetic material wherein the relative physical position of said marks is indicative of information stored on said record, at least one of said marks comprising a magnetic material having a predetermined frequency signal recorded thereon along a selected dimension thereof to store additional information other than that stored by the relative position of said marks on said support.

2,779,541
ADDING MACHINE
Robert L. Rich, Long Beach, Calif.
Application November 25, 1955, Serial No. 548,912
10 Claims. (Cl. 235—78)

1. An adding machine of the character described including, a frame with a recess therein, a sum indicating plate rotatably carried in the recess, a cover enclosing the recess and retaining the plate in operating position, drive means rotating the plate and including a drive gear driven by a control knob and a driven gear on the plate, drag means engageable with the plate, and a reversible ratchet control for the drive means determining the direction of rotation of the plate.

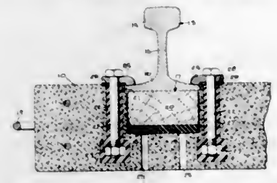
2,779,542
CALCULATING MACHINE
Grant C. Ellerbeck, San Leandro, Calif., assignor to Friden Calculating Machine Co., Inc., a corporation of California
Application October 5, 1953, Serial No. 384,055
7 Claims. (Cl. 235—138)

1. A counter mechanism for a counter register comprising a plurality of ordinally arranged counting members, resiliently urged transfer means for operating said counting members, means connected to said counting members for determining a tens-transfer or non-transfer condition of the adjacent lower order, means controlled by said determining means for moving said transfer means



toward either an operating or a non-operating position, means including a cam on each of said transfer means and an operating member cooperating therewith for positively positioning said transfer means in either extreme position, and means for operating said operating member.

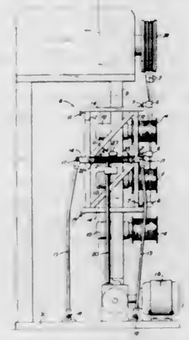
2,779,543
RAILROAD TIE CONSTRUCTION
Jonas E. Grönlund, Eskilstuna, Sweden
Application August 3, 1953, Serial No. 371,895
1 Claim. (Cl. 238—86)



A cross tie for use in supporting a rail having a flanged foot, said tie comprising, in combination, an elongated beam of cast concrete or the like, metal reinforcing members embedded in said beam and projecting from the ends of the latter to provide handles for manipulation, said beam having a transverse slot in its upper surface dimensioned to be only slightly wider than the rail foot so that sidewise shifting of the latter is resisted, a recess opening downwardly from the floor of said slot, a generally block-shaped resiliently yieldable insert including at least one layer of wood and one layer of hard rubber disposed in said recess and dimensioned to normally protrude slightly above the floor of said slot so that the rail foot resting thereon is cushioned but the degree of compression of said insert is limited by engagement of the rail foot with the floor of said slot, said beam also having a pair of downwardly extending openings on either side of said slot, a pair of sleeves of insulating material each held in one of said openings, and fastening means engageable within said sleeves and abutting the top of the rail foot for drawing the latter securely down against said insert while keeping the rail insulated from said beam.

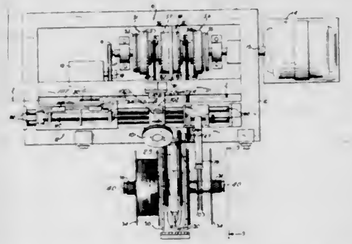
2,779,544
STRAND TAKEUP DISTRIBUTOR
Giles P. Hafer, Kenmore, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application September 9, 1953, Serial No. 379,211
7 Claims. (Cl. 242—25)

1. In a strand take-up device, apparatus for distributing strands uniformly comprising a base member for the apparatus, a rigid frame having strand guiding means provided thereon, support members pivotally connected to the base and the frames for moving the frame in translation motion with respect to the base, and means for oscillating the frame between fixed limits to distribute the strands comprising a rack mounted to the frame, a pinion for the rack mounted on the base and reversible, driving



means for the pinion, the face of the rack being of sufficient width to permit engagement with the pinion over the arcuate path of the frame.

2,779,545
CONTINUOUS STRAND REELING APPARATUS
Leon P. Hauck, Tonawanda, and Gerald A. Scheidt, Buffalo, N. Y., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application March 30, 1955, Serial No. 497,836
11 Claims. (Cl. 242—25)

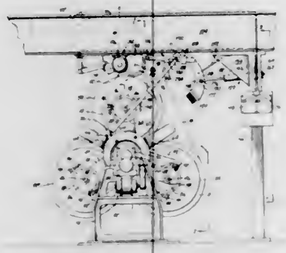


7. The combination with a continuous strand reeling apparatus having aligned first and second spindles for removably supporting takeup reels for a strand and an element for each spindle with peripheral strand gripping members to jointly hold a portion of the strand when transferred from one reel to the other, of a power means, drive means for each spindle, clutches therefor operable to connect their respective drive means and spindles to the power means, a counter unit driven by the strand to register the length of strand fed to the reel of the first spindle, and means under the control of the counter unit to cause alternate operations of the clutches with overlapping operating intervals to cause driving of an empty reel on one spindle prior to a reel on the other spindle receiving its maximum amount of strand.

2,779,546
WEB ROLL SPLICING MECHANISM
David J. Scott, Plainfield, N. J., assignor to Walter Scott & Co., Inc., Plainfield, N. J., a corporation of New Jersey
Application October 27, 1954, Serial No. 465,090
1 Claim. (Cl. 242—58)

A splicing mechanism for attaching a leading end of a web of a replenishing web-roll to a web moving from an expiring web-roll, comprising a rotatable reel having plural pairs of radial roll-supporting arms by which said rolls are carried for movement in a common circular path

which includes a first position occupied by a replenishing roll and a second position occupied by an expiring roll, similar roll-revolving means carried by each of said pairs of arms for rotatably supporting a roll, said means including a driven wheel and having a brake mechanism associated therewith for braking said roll-revolving means and a roll supported thereby, an electrically conductive patch, associated with each of said pairs of arms, mounted, apart from said supported roll, for rotation in a circular path in unison with the supported roll, a driving wheel fixedly located at one point adjacent to said circular path and drivingly coacting with any one of said driven wheels to rotate a roll rotatively related to said one wheel when the latter roll is in said first position, a floating web-tensioning roll coacting with such a moving web to reciprocate in response to increases and decreases of the tension in said moving web, means operative between said floating web-tensioning roll and said brake mechanism associated with a web-roll in said second posi-

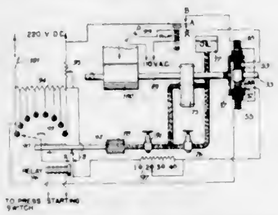


tion for operating the latter brake mechanism to compensate instantaneously for conditions tending to vary the tension of the moving web, web-pressing means for pressing said moving web against an adhesive-coated leading end of a replenishing web-roll, web-severing means for severing the trailing web from an expiring web-roll, reel-turning means for moving a web-roll from said first to said second position, and electrical operating means the operation of which is initiated by the closing of a circuit through said conductive patch at a point in the rotation of the replenishing web-roll which is in predetermined angular relation to the latter's adhesive-coated leading web end, said electrical means being adapted to operate said web-pressing, web-severing and reel-turning means to cause the moving web to be thus pressed and severed and the replenishing web-roll to be thus moved to said second position, the latter movement bringing the brake mechanism for said moved web-roll under the tension control of said web-tensioning roll.

2,779,547
WINDING MANDREL WITH SUCTION MEANS
George Richard Roberts, New Barn, Longfield, and Ernest James Lister, Orpington, England, assignors to Bowaters Development and Research Limited, London, England, a company of Great Britain
Application July 6, 1954, Serial No. 441,452
Claims priority, application Great Britain July 14, 1953
5 Claims. (Cl. 242—74)

1. A rotatable sheet winding mandrel comprising a substantially cylindrical drum having an outer convex surface interrupted by a slot extending substantially the length of said drum and parallel to the axis of rotation of the mandrel; a suction box positioned in said slot; an apertured pad of deformable material substantially coextensive in length with said slot fitted into said suction box and having an outer surface formed on a radius of curvature less than that of said drum and standing proud of the outer surface of the latter; and means for applying suction to said suction box, the apertures of said pad forming passages therethrough for enabling the application of suction to the leading end of sheet material on the outer surface of said mandrel.

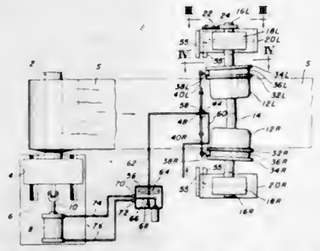
2,779,548
MAGNETIC TORQUE TRANSMISSION
Robert Helmer, Great Neck, N. Y., assignor to Helmer Transmission Corporation, a corporation of Delaware
Original application October 1, 1946, Serial No. 700,569, now Patent No. 2,603,678, dated July 15, 1952. Divided and this application July 10, 1952, Serial No. 298,099
5 Claims. (Cl. 242—75)



1. In combination with a torque transmitting electrical device having a driving and driven member, one of said members made of high hysteresis loss material and the other of said members having a winding thereof, a shaft connected to said driven member, means for winding a web about said shaft, a web, a switch having an arm adapted to engage said web to hold said switch in open circuit position when the web is in tension and to move to closed circuit position when said tension is released, a circuit including a source of current, a resistance and said winding wherein varying said resistance will vary the amount of current flowing through said winding and thereby vary the hysteresis loss of said device to provide a constant tension on said web, means serially included in said circuit and controlled by said switch for opening said circuit when said switch is opened, a control relay, a circuit controlled by said relay and including said source of current, resistance and winding and having a variable resistance in circuit therewith, and means controlled by the rotation of said driven shaft for altering the value of said variable resistance and thereby changing the magnetism of said device to alter the torque therein to maintain said constant tension on said web independent of the load applied to said shaft as the web increases in size as wound.

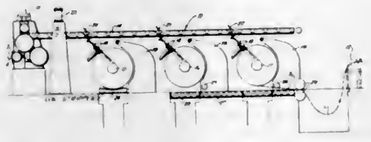
2,779,549
APPARATUS FOR FOLLOWING AN EDGE OF A MOVING ELONGATED OBJECT
Alfred Teplitz, Pittsburgh, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application February 5, 1954, Serial No. 408,486
8 Claims. (Cl. 242—76)

1. Apparatus for following an edge of a moving object having side edges, said apparatus comprising a shaft, a roll having a relatively flat surface in rolling contact with said object, said roll being mounted on said shaft for free rotary and free axial movement with respect thereto, the axis of said roll being in a plane extending transversely from one edge of said object toward the longitudinal center thereof away from the direction of approach of said object, means preventing movement of said roll axis out of said plane, and a peripheral flange on said roll at right angles to the roll axis located outwardly



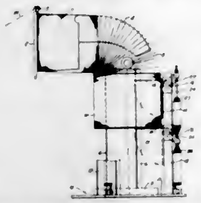
from the flat surface of said roll, the rolling action of said roll on said object causing said roll to move inwardly on said shaft to bring said flange into contact with said edge of the object.

2,779,550
APPARATUS FOR HANDLING STRIP
Earll R. Muddiman, Levittown, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application May 6, 1955, Serial No. 506,537
5 Claims. (Cl. 242—80)



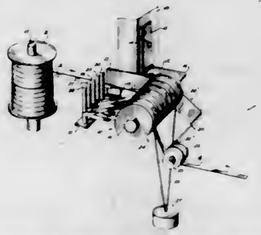
1. The combination, with a high speed strip processing line and a succeeding low speed strip processing line aligned therewith, of a handling apparatus situated between said lines and comprising a conveyor and at least three spaced parallel power driven mandrels journaled beneath said conveyor, any selected one of said mandrels being adapted to have strip from said high speed line coiled thereon, either of at least two of said mandrels being selectively adapted to serve simultaneously as an uncoiler for feeding strip to said low speed line.

2,779,551
CRIB FOR WIRE COIL FORMED ON STATIONARY COILING BLOCK
Ferdinand J. Penitz, Cleveland, Ohio, assignor to United States Steel Corporation, a corporation of New Jersey
Application December 30, 1953, Serial No. 401,207
17 Claims. (Cl. 242—84)



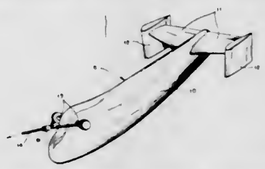
7. A crib for receiving coils of wire from a coiling machine comprising a support toward which the coil convolutions gravitate vertically from the coiling machine, at least four vertical standards at circumferentially spaced intervals about said support and respectively positioned out of the path of wire gravitational movement, each of said standards having a retarding flap connected thereto for movement from a horizontal position in the path of wire gravitational movement to a vertical position out of the path of wire gravitational movement and having resilient means biasing its movement to said horizontal position, and means mounting at least two of said standards for movement out of their circumferentially spaced arrangement with respect to said support to permit removal and replacement of a coil handling stem on said support by a horizontal movement on the stem with respect to the support.

2,779,552
APPARATUS FOR EQUALIZING TENSION IN ELASTIC RIBBON
Philip L. Jarvis, Pawtucket, R. I., assignor to Jarvis Mfg. Corp., Pawtucket, R. I., a corporation of Rhode Island
Application July 19, 1955, Serial No. 523,033
7 Claims. (Cl. 242—153)



1. Apparatus for applying a uniform tension to a relatively narrow band of elastic ribbon material which comprises a support frame, a plurality of parallel adjacent interconnected pulleys for rotation at the same speed mounted on said frame on a common axis and over which said ribbon is led from a supply to a take off point and means associated with said frame and positioned in spaced relation to said pulleys and over which said ribbon is led from off one pulley onto the one next adjacent to reverse the general direction of travel of the ribbon, the first two of said pulleys to which the ribbon is applied to condition it with a uniform tension therein being equal and having the smallest diameter of the pulleys, the pulley next adjacent to the second pulley having the greatest diameter, and the last two pulleys having equal diameters intermediate the smallest and greatest diameters of the pulleys and provided with friction surfaces over which said ribbon is led to thereby provide a minimum of relative movement between ribbon and pulley surface and means for applying a braking drag to said plurality of interconnected pulleys.

2,779,553
NOSE TOWED AIRBORNE CAPSULE
Harold M. Troxell, Burlington, N. J.
Application January 13, 1954, Serial No. 403,946
6 Claims. (Cl. 244—3)
(Granted under Title 35, U. S. Code (1952), sec. 266)



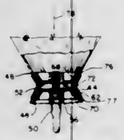
1. A nose towed airborne capsule assembly for dynamically stabilized support of airborne equipment at a substantial distance from the towing aircraft, comprising a hollow elongated generally cylindrical aeroform body enclosed at its forward and rearward ends by suitable

faired surfaces and arranged to support a substantial mass therein with its weight so distributed that the center of gravity of the loaded body is substantially midway between its opposite ends, an elongated horizontal airfoil-shaped lifting surface attached intermediate its ends to the upper surface of said body relatively rearwardly of the center of gravity thereof and symmetrically arranged to extend transversely of said body, a pair of vertical airfoil-shaped stabilizing surfaces mounted upon the opposite ends of said horizontal surface and arranged to depend therefrom, a faired supporting structure projecting upwardly from the forward end of said body, attachment means mounted upon opposite sides of said supporting structure and a towing bridle comprising an elongated flexible member connected at its opposite ends to the respective attachment means and having coupling means disposed midway between its opposite ends for attachment to the end of a towing cable, whereby the forward and upward force applied by a towing cable to the body forward of and above the center of gravity and the rearward and upward resultant force applied by the lifting surface to the body rearwardly of and above the center of gravity together oppose the downward force due to gravity effectively applied at the center of gravity, thereby rendering said capsule assembly extremely stable in a substantially horizontal flight position.

2,779,554
BALLOON AND FITTING FOR SECURING BALLOON ENDS

Roger A. Kizzek, Minneapolis, Minn., assignor to General Mills, Inc., a corporation of Delaware

Application November 3, 1954, Serial No. 466,627
15 Claims. (Cl. 244—31)



2. In a balloon which may be inflated with a lifting gas for carrying a load aloft and which has an upper end and a lower end at least one of which ends having an opening, a clamp for closing the end comprising a ring with the inner surfaces tapering toward the center, and a pair of conical clamping members shaped to conform to the inner surfaces of the ring, and a tightening member extending axially through the conical clamping members drawing the clamping members together to clamp the balloon material against the inner wall of the ring.

2,779,555
WING FLAP ACTUATING MECHANISM

Henry C. Danielson, Van Nuys, Calif., assignor to Lockheed Aircraft Corporation, Burbank, Calif.

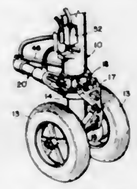
Application July 5, 1952, Serial No. 297,205
7 Claims. (Cl. 244—42)

1. Extendable trailing edge flaps for swept wings having changes in the swept angle along the trailing edges of the wing comprising a separate flap for each variation in swept angle of the trailing edge of the wing, each flap being disposed parallel to the swept angle at its location along the trailing edge of the wing, flap tracks carried by said wing and disposed parallel to the direction of airflow over said wing flap, a pair of actuating carriages movable in each of said tracks, and means connecting adjacent flaps to common carriages between the adjacent flaps and operable in a single track, said last mentioned means having universal connections to each flap to accommodate angular movements between the flaps.

2,779,556
HYDRAULIC STEERING MECHANISM FOR AIRCRAFT LANDING GEAR

Walter H. Hogan, Olmsted Falls, Ohio, assignor to The Cleveland Pneumatic Tool Company, Cleveland, Ohio, a corporation of Ohio

Application January 13, 1955, Serial No. 481,609
9 Claims. (Cl. 244—50)

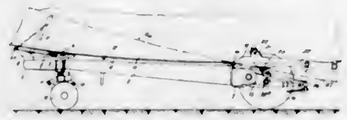


9. In a steering mechanism of the character described, first and second relatively rotatable concentric tubular members, a steering collar mounted on said first member for rotation about the central axis thereof in either direction away from a first position, a fluid cylinder element and a cooperating piston element adapted to produce forces therebetween along the axis thereof in response to fluid under pressure, one of said elements being pivoted on said first member and the other of said elements being pivoted on said steering collar, both of said element pivots being on the axis of said cylinder and piston perpendicular relative thereto and parallel to and spaced from said central axis, both of said element pivots being at the same end of said cylinder, a stabilizing bar having one end pivotally connected to said one element and the other end to said steering collar, the pivotal connection of one end of said bar comprising a pin within a slot having walls perpendicular to the line of action of said bar when said steering collar is in said first position.

2,779,557
AIRCRAFT LAUNCHING CARRIAGE

Wsiewolod John Jakimiuk and Georges Jules Bernard Victor Hereil, Paris, France, assignors to Societe Nationale de Constructions Aeronautiques du Sud-Est, Paris, France

Application July 23, 1954, Serial No. 445,404
Claims priority, application France October 23, 1953
13 Claims. (Cl. 244—63)

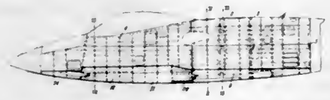


1. In an assembly, for conveying over and launching from rough ground an aircraft having a fuselage and a retractable landing gear, of the type comprising a launching carriage to support the aircraft by the belly of its fuselage and having a rectangular structure with two cross-members and two sills, provided with propulsion means for conveying the carriage with the aircraft hoisted thereon to launch the aircraft and with braking means to apply a braking force to the carriage, and adapted to be associated with a cross-country tractor vehicle for hoisting the aircraft onto and conveying the carriage and having a winch thereon, said carriage being further provided with front and rear centering rollers for causing the longitudinal planes of symmetry of the hoisted aircraft and the carriage to coincide and with means releasable by the pilot of the aircraft for retaining the aircraft on the carriage: the improvement comprising means on the carriage for supporting the aircraft thereon in attitude of flight with the retaining means released, reciprocal drive means on the carriage for moving the carriage and aircraft to launch the latter selectively either with the belly of its fuselage resting on the carriage or in attitude of flight, and means on the carriage for supporting the aircraft transversely with respect to the carriage.

2,779,558
FUSELAGE OF AERODYNES

Georges Jules Bernard Victor Hereil and Wsiewolod John Jakimiuk, Paris, France, assignors to Societe Nationale de Constructions Aeronautiques du Sud-Est, Paris, France

Application April 3, 1953, Serial No. 346,582
Claims priority, application France April 9, 1952
4 Claims. (Cl. 244—119)



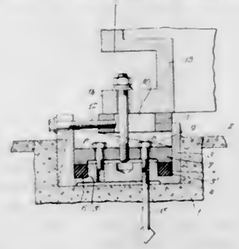
1. In a fuselage for aerodynes of the type comprising an upper compartment, a lower compartment extending under said upper compartment, the volume of which is substantially less than that of said upper compartment and which is formed with at least one room, a floor separating said compartments, and a conventional monocoque structure constituted by strong transverse frames forming structure elements for said two compartments, series of transverse frames of medium strength interrupted beneath the floor for accommodating the lower compartment and forming structure elements only for the upper compartment, and transverse frames of medium strength forming structure elements for said two compartments and disposed between said series of interrupted transverse frames; the improvement which comprises a reinforcing central girder housed in the lower compartment, disposed in the longitudinal plane of symmetry of the fuselage, extending at least under said compartments, bearing on the floor and on the fuselage along its bottom line contained in said plane while projecting from the latter, said girder being constituted by a number of sectional pieces rigidly secured to the parts of the strong transverse frames which form the structure of said lower compartment and rigidly connected with said floor, a thick reinforcing longitudinal element rigidly secured under the projecting part of said girder, and means for transversely maintaining said reinforcing central girder in places where the frames of medium strength are interrupted beneath the floor.

2,779,559
MACHINE MOUNTING DEVICE

Hans Bertuch, Dusseldorf, Germany

Application October 27, 1953, Serial No. 388,548
6 Claims. (Cl. 248—24)

1. A mounting device for a machine having a base, comprising a housing adapted to be anchored in a floor structure and having a bottom and side and end walls to provide a rectangular receptacle, the bottom of said housing having an elongated recess therein extending along each end wall thereof, resilient cushions arranged in said recesses, a foot plate resting upon and supported solely by said cushions and abutting one said end wall, the top of said foot plate along the sides thereof having inclined surfaces lying in a single inclined plane, a wedge slidably resting upon said inclined surfaces and having a level top surface adapted to receive the base of a machine, threaded means for longitudinally adjusting the position of said wedge upon said inclined surfaces to adjust the level of the top of said wedge, and a holddown bolt extending through an opening in said wedge between said inclined surfaces and threaded into said foot plate to secure the machine base to said foot plate with said wedge sandwiched therebetween.



2,779,560
TOOTHBRUSH HOLDER

John Springer, Los Angeles, Calif.

Application January 3, 1955, Serial No. 479,400
2 Claims. (Cl. 248—111)

1. A holder for a tooth brush having a bristled head and an elongated handle, comprising: a casing including spaced parallel side walls and spaced parallel front and rear walls interconnecting said side walls; a floor interconnecting the lower ends of the rear and side walls and inclined upwardly and forwardly from the rear wall to provide a pocket to receive the said tooth brush handle and to collect moisture, said pocket having its lowermost extremity adjacent the rear wall so as to cause the end of the handle to assume a position against the rear wall while the shaft thereof rests against the upper edge of the forward wall and the head projects forwardly from the holder; said forward wall having its lower edge spaced entirely above said floor to provide a ventilation and cleaning opening; said side walls projecting rearwardly from said rear wall; and a cross member joining the rear edges of said side walls at the upper end of the holder and spaced rearwardly from the rear wall to provide a space to receive a strip of adhesive tape for attachment to the forward face of said cross member, a mouth being provided at the upper extremity of said space through which said adhesive tape may extend upwardly and be attached to the supporting wall, the rear face of said cross member and the rear edges of said side wall members lying in a common plane for contact with said supporting wall.

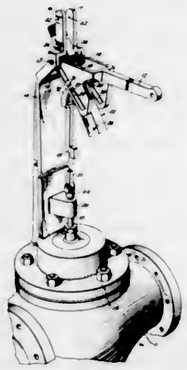
2,779,561
EXTENSION LADDER JACK
James H. Blundean, Port Angeles, Wash.
Application February 18, 1954, Serial No. 411,108
1 Claim. (Cl. 248—238)

A ladder jack for supporting a horizontally disposed scaffold board comprising a pair of telescopic tubular members, a transversely elongated U-shaped bracket on the outer end of the outer tubular member, said U-shaped bracket having one leg secured to and forming a closure for the outer tubular member, said U-shaped bracket opening downwardly for receiving a ladder rung thereby supporting one end of the jack, the outer end of the inner member having a flexible chain terminally attached thereto, a hook on the free end of the chain whereby the free end of the chain may be looped around a ladder rung above the U-shaped bracket and the hook engaged with a link of the chain thereby supporting the other end of the jack, said tubular members having spaced pairs of alignable apertures, a U-shaped spring disposed in said inner tubular member, said spring having legs extending longitudinally in said inner member and each terminating in an outwardly extending U-shaped projection having a rounded bight portion for extending through aligned apertures for retaining the tubular members in longitudinally adjusted position, said hook permitting adjustment in the length of the chain for disposing the tubular members in horizontal position for supporting a scaffold board thereon with the adjustment of the tubular members permitting the board to be adjusted inwardly or outwardly in relation to a ladder.

2,779,562
WEIGHING TANK SWITCH CONTROL SYSTEM
Frank G. Weis, Kansas City, Mo., assignor to Smith and Loveless, Inc., Merriam, Kans., a corporation of Kansas
Application August 29, 1955, Serial No. 531,168
6 Claims. (Cl. 249—1)

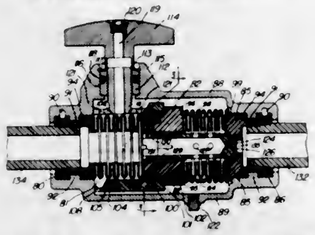
1. In a weighing tank system, a liquid receiving tank having an inlet; means coupled with said inlet for introducing liquid into the tank; three tank-supporting legs secured to the tank and depending therefrom, a pair of said legs being pivotally supported on the ground to render the tank swingable about a horizontal axis therebelow; resilient means between and oppositely engaging the third leg and the ground for yieldably biasing said third leg upwardly; a control device having a shiftable member, said device being adapted for operation when said member is shifted a predetermined distance; and means on said third leg engageable with said member for shifting the latter as the tank swings against the yieldable bias of said resilient means under the influence of liquid introduced into the tank.

2,779,563
ADJUSTABLE LEVER VALVE
Paulsen Spence, Baton Rouge, La.
Application October 20, 1951, Serial No. 252,298
20 Claims. (Cl. 251—234)



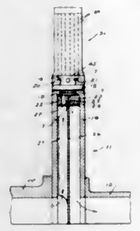
1. In a valve-actuating mechanism of the character indicated, a frame including valve-stem guide means having a guide axis, an actuating arm pivotally supported by said frame on an axis transverse to and in general alignment with the axis of said valve-stem guide means, elongated guide means on said arm and in general radial alignment with the pivotal axis thereof, pivot means on said frame and spaced from the pivotal support for said arm and transverse to and in general alignment with the axis of said valve-stem guide means, a connecting rod having one point pivoted on said pivot means and a spaced point pivotally guided by said elongated guide means, and valve-stem connecting means freely pivotally connected at said spaced point of said connecting rod, whereby, for different angular relationships of said arm with respect to the axis of said guide means, the effective eccentricity for a cranked actuation of said valve-stem connecting means may be automatically varied, the length of said elongated guide means being sufficient to permit said mechanism to attain a relation in which said elongated guide means is substantially aligned with said valve-stem guide means, whereby a self-limiting seating position may be determined for a valve member connected to said valve-stem connecting means.

2,779,564
CAM ACTUATED VALVE
Irving D. Press, Union, N. J., assignor to Resistoflex Corporation, Belleville, N. J., a corporation of New York
Application September 26, 1952, Serial No. 311,683
6 Claims. (Cl. 251—257)



1. In a valve of the type having a housing within which is a valve body serving as a fluid conduit and comprising a movable head portion connected to two end portions by flexible bellows, said end portions being secured to said housing, and valve means within said body comprising a valve seat and a valve plunger movable relative to each other upon movement of said head portion; means for moving said head portion to actuate said valve means comprising a control gate member and an actuating member having complementary inclined faces, said members being tubular and interposed between a wall of said housing and said head portion and surrounding a portion of said body, means for sliding said actuating member relative to said control gate, and a spring urging said members together.

2,779,565
AIR COOLING OF TURBINE BLADES
Bruno W. Bruckmann, Cincinnati, Ohio
Application January 5, 1948, Serial No. 479
6 Claims. (Cl. 253—39.15)
(Granted under Title 35, U. S. Code (1952), sec. 266)



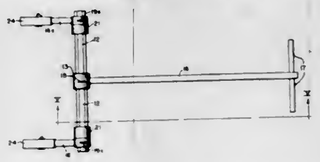
1. An air cooled turbine rotor assembly for axial flow turbines comprising, a pair of complementary centrally apertured concentric disks, a ring separating said complementary disks and contacting the adjacent sides of the disks near their periphery, means securing said disks to the separating ring and to each other, an imperforate disk having its periphery fixed in said ring and spaced about equally from each of said pair of disks to divide the space between the pair of disks into inlet and exhaust chambers, said imperforate disk having integral radial ventilating fins on the side facing said inlet chamber, a plurality of hollow rotor blades fixed in radial relation to the composite turbine rotor periphery, means providing communicating passages from said inlet chamber to the interior of each rotor blade, means providing communicating passages from the interior of each rotor blade to said exhaust chamber, and separate coaxial hollow shaft elements fixed to the centrally apertured disks to rotatably support the turbine rotor and for conducting cooling air into said inlet chamber through one shaft element and heated air from said exhaust chamber through the other shaft element.

2,779,566
APPARATUS FOR TENSIONING BINDING STRAPPING, WIRE OR THE LIKE ABOUT A BODY
William John Keeble, New Malden, England, assignor to Packers Supply Company Limited, New Malden, England
Application December 1, 1953, Serial No. 395,552
Claims priority, application Great Britain
December 9, 1952
6 Claims. (Cl. 254—79)

1. Apparatus for use in tensioning binding strapping, wire or the like, comprising a support, tensioning means including a hand-operable first pivoted gripping member and a second pivoted gripping member mounted on the said support and adapted to grip the strapping or wire between them and to move said strapping or wire in a substantially straight line lengthwise of the apparatus to tension it on movement of said first and second pivoted gripping members in one direction, a pivot for the said first gripping member carried by the second gripping member and located at one side of the co-operating gripping surfaces of said first and second gripping members and making oscillatory movement of limited extent on one side of said substantially straight line of movement of the wire or strapping during tensioning, a pivot for the second gripping member carried by the said support and located on the other side of said substantially straight line of movement of the wire or strapping during tensioning, the first and second gripping members being movable independently of one another and so that when the said hand-operable first gripping member is moved in one direction about its pivot on the said second

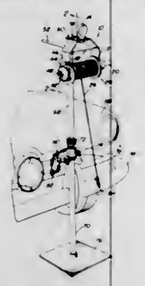
gripping member the gripping surfaces are brought into contact and the said second gripping member moved by and with the said first gripping member, spring means biasing the said second pivoted gripping member about its fixed pivot on the support in opposiiton to the direction of movement of said second pivoted member for tensioning and a one-way gripping device also mounted on the said support and arranged to allow the strapping or wire to pass freely through it in the direction in which it is moved by the said tensioning means to tension it but to hold the strapping or wire against movement in the reverse direction.

2,779,567
SALVAGE WRECKING TOOL
Harry L. Kohler, Beloit, Kans.
Application June 12, 1953, Serial No. 361,365
2 Claims. (Cl. 254—131)



1. A salvage wrecking tool of the kind described; said tool comprising a multi-sided twist shaft, a pry lever and a plurality of lifting elements, said pry lever having a twist sleeve being rigidly attached to one end of the pry lever, the opening through said twist sleeve being of such size and shape as to non-revolvably receive and fit said twist shaft, and means carried by the twist sleeve for locking the twist sleeve in selected positions along the twist shaft, each of said lifting elements having a twist sleeve rigidly carried on one end thereof, the opening in each of the last said twist sleeves being of such size and shape as to non-revolvably receive the said twist shaft, and means carried by each of the last said twist sleeves for stationing and holding the last said twist sleeves in selected longitudinally adjusted positions on the twist shaft, the other end of each lifting element having a lifter foot thereon for engaging and lifting a board that is to be removed from other elements to which the board may be fixed, each of the last said twist sleeves having an externally annular sleeve extension thereon, roller sleeves, one for and revolvably carried on each extension sleeve, and means for retaining each roller sleeve on its respective twist sleeve extension.

2,779,568
WINCH
August P. Deppa, Robbinsdale, Minn.
Application July 19, 1954, Serial No. 444,201
2 Claims. (Cl. 254—146)



1. A load lifting device comprising a support base having an upstanding standard terminating in an upwardly opening socket, an inverted U-shaped frame, a pair of vertically spaced laterally extending lugs mounted on said frame, said lugs being in vertical alignment with the lower lug having an opening for receiving the standard and the upper lug having a depending pin for engagement in the socket thereby detachably mounting the frame on the standard, a winch drum rotatably mounted between the legs of the frame, a flexible line having one end attached to the drum, means on the free end of the flexible line for engagement with a load, said winch drum being secured to a shaft extending outwardly of the legs of the frame, said shaft adapted to be rotated for raising and lowering a load, releasable ratchet means interconnecting the frame and shaft for preventing rotation of the shaft in one direction, and manual brake means interconnecting the frame and shaft for controlling unwinding movement of the line from the winch drum after the ratchet means is released for lowering a load.

2,779,569
SECTIONALIZED MAST HOIST APPARATUS
Golden W. Gills, Bluefield, W. Va.
Application March 16, 1954, Serial No. 416,608
2 Claims. (Cl. 254—148)

1. Hoist apparatus for elevating tubular mast sections of the type having threaded ends adapted to permit interconnection of successive sections to secure the sections in an aligned series comprising a hollow tubular post having an elongated slot in the wall thereof extending substantially the length of said post, means for supporting said post in vertical position, a block slidably mounted in the hollow of said post, cable winding means mounted on said post, a cable extending between said cable winding means and said block for elevating and lowering said block within said post, clamping means projecting laterally from said post and secured to said block through said slot, said clamping means having a pair of clamping jaws pivoted for upward swinging movement for engaging tubular mast sections therebetween and elevating the same upon elevation of said block, means for urging said jaws toward each other into clamping engagement with said sections in response to the weight of said sections upon upward movement of said clamping means and for shifting said jaws into freely sliding relation with said sections on downward movement of said clamping means, and guide means projecting laterally from the upper end of said post for maintaining mast sections engaged by said clamping jaws in vertical alignment with said post, said slot being of a length at least as great as the length of the mast sections to be hoisted to enable said clamping means to engage a lower end portion of the mast section at its lower limit of travel and elevate the lower end portion to a sufficient height at the upper limit of travel of said clamping means to enable another mast section to be disposed below and in alignment with the elevated section and their threaded ends intercoupled while the elevated section is held by said clamping means.

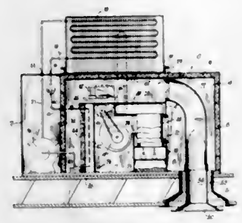
2,779,570
JOINT
Winston R. Roper, Houston, Tex., assignor to Houston Oil Field Material Company, Inc., Houston, Tex., a corporation of Delaware
Application June 12, 1953, Serial No. 361,289
10 Claims. (Cl. 255—1.6)

7. A joint for connecting parts of a drill stem and adapted to be moved through confined spaces comprising; a tubular body adapted to be secured to the drill stem; a socket in the body, said socket including a thrust plate having an upwardly-facing curved concave seat, a downwardly-facing curved concave seat in the body spaced upwardly from said thrust plate, said concave seat provided with a passage through its central portion; a ball stem adapted to be secured to the drill stem and extending downwardly into the body and through the passage, said stem including a ball element comprising a convex spherical sector at its lower end engaging and cooperating with the first-mentioned seat, said stem being upwardly and outwardly flared from its lower end and terminating in an upwardly-facing convex bearing means cooperating with and seating in the second-mentioned seat; said socket and ball element forming a tiltable connection; and interfitting keys and keyways on the body and ball element, the interfitting portions of the keys having downwardly-tapering sides and the keyways being substantially greater in length than that of said keys; the upper inner portion of the body being upwardly and outwardly inclined at substantially the same angle to its axis as that of the downwardly tapering sides whereby on maximum tilting of the body relative to the stem the outer surface of the stem engages the outwardly flared portion of the body and at least one of the sides of the keys engages the side of its companion keyway substantially along the length of its downwardly tapered portion.

2,779,571
PELLET IMPACT DRILL BIT WITH CONTROLLED PELLET RETURN
John E. Ortloff, Tulsa, Okla., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application April 9, 1954, Serial No. 422,127
4 Claims. (Cl. 255—61)

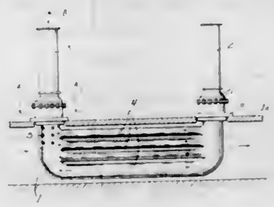
1. A drill bit assembly for drilling bore holes in the earth by entraining pellets in a high velocity stream of fluid comprising a first tubular member terminating at its lower end in a jet nozzle adapted to provide a downwardly directed high velocity jet of fluid, an open ended second tubular member positioned below said first tubular member in a manner aligning the inner bore of said second tubular member with said jet nozzle, the arrangement of said tubular members being such that an upwardly directed pellet entry opening therebetween is provided for entrance of pellets into said second tubular member, said opening communicating exterior of said second tubular member in the vicinity of said jet nozzle a pair of elongated plates fastened to said first tubular member and to said second tubular member and arranged in essentially parallel relation in a manner receiving between their faces a portion of said first tubular member and essentially all of said second tubular member, and a baffle arrangement fastened to the exterior of said jet nozzle between said plates and extending above said pellet entry opening in a manner blocking off a portion of the pellet entry opening while permitting pellets to enter said opening only on one side of said second tubular member.

2,779,572
HOUSING FOR AIR CONDITIONING UNITS
Clarence J. Holman, Cleveland, Ohio, assignor to Alco Refrigeration Sales & Service, Inc., Cleveland, Ohio
Application October 12, 1953, Serial No. 385,506
1 Claim. (Cl. 257—9)



In apparatus for heating and cooling air, a housing, comprising a hollow case member including top, bottom, front, rear and side walls; a first partition positioned within the case abutting the top, bottom and side walls thereof and spaced from said rear wall to define a compressor compartment; a second partition, positioned within the case abutting the top, bottom and side walls thereof, spaced from said front wall, to define a manifold compartment; a third, L-shaped, partition positioned within the case between the side walls thereof and including a horizontal portion abutting the second partition and a vertical portion, dependent therefrom, abutting the bottom wall; said horizontal portion being intermediate and parallel to the top and bottom walls, and spaced from said first partition, said vertical portion being spaced from and parallel to the first partition and defining with said horizontal portion, second partition, bottom and side walls, a lower chamber; said vertical portion having an opening therethrough; a filter unit mounted in said opening; said second partition having a first opening positioned between the top wall and the third partition and a second opening communicating with said lower chamber, positioned between the bottom wall and the third partition; a fourth partition positioned within said lower chamber, abutting the horizontal portion of the third partition and the bottom and side walls of the case, said partition having an opening therethrough aligned with the second opening of the second partition and defining with said elements a first and second compartment; a cooling unit positioned in the first compartment, a heating unit positioned in the second compartment, a blower mounted in the fourth partition opening; said cooling and heating units being joined through said blower mounted in the fourth partition opening; said bottom wall having an air outlet opening therethrough within the confines of said manifold compartment, an air inlet duct mounted within the manifold compartment having one end connected to the first opening of the second partition and the other end centered within the air outlet of the manifold, the diameter of the inlet duct being less than the diameter of said outlet opening; said third partition defining within the case walls an L-shaped upper chamber for untreated air, communicating at one end with the air inlet duct and at the other end with the lower chamber, containing the aforesaid filtering, cooling, blowing and heating units for conditioning and delivering said conditioned air to the manifold outlet.

2,779,573
AIR PREHEATER
Shigeyoshi Kuroda, Yoyogi, Shiyuya-ku, Tokyo, Japan, assignor to Nippon Kokan K. K. (Nippon Steel Tube Co. Ltd.), Tokyo, Japan, a corporation of Japan
Application October 30, 1952, Serial No. 317,642
5 Claims. (Cl. 257—241)



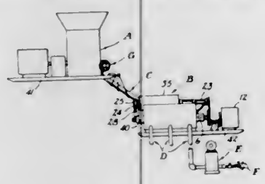
1. A heat exchanger of the class described, comprising a horizontally extending flue provided with a pair of horizontally spaced apertures; a pair of supporting members seating in said apertures, respectively, in sliding contact with said flue and communicating with the interior of said flue, said supporting members being provided with a plurality of perforations each bounded by a first contact surface; a pair of air chambers operatively connected to said supporting members and communicating with the interior of said flue; and a plurality of heat exchanging flat tubular ducts of relatively thin thermally conductive material, each of said ducts including a horizontal portion disposed within said flue out of contact with the in-

terior thereof and a pair of end portions extending at an angle relative to said horizontal portion, each of said end portions extending through a perforation of a respective supporting member to terminate within the respective air chamber, each of said end portions being provided with a second contact surface in gastight sliding contact with a corresponding first surface of one of said supporting members, whereby relative expansion between said flue and said horizontal portions of said ducts is compensated for by the sliding gastight contact between said first and second contact surfaces, while relative expansion of said end portions of said ducts causes the horizontal portions of said ducts to be displaced within the interior of said flue while still remaining out of contact with the latter.

2,779,574
MIXING OR STIRRING DEVICES
Joachim Schneider, Wiesbaden-Schierstein, Germany
Application January 7, 1955, Serial No. 480,524
8 Claims. (Cl. 259—134)

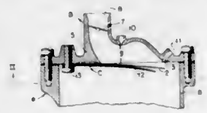
1. A rotary mixer comprising in combination a support member, a shaft mounted for rotation on said support member and bearings for the shaft, a mixer blade secured to the shaft and having a non-circular cross section, said mixer blade comprising a unitary hollow body with an upper and lower wall and having a partition element interposed between the walls to define upper and lower separate passages in the body transverse to the axis of rotation of said mixer blade, said passages having opposite inlet openings formed in the mixer blade near the axis of rotation and outlet openings formed in the mixer blade adjacent the periphery thereof, the two passages within the mixer blade having a different cross section.

2,779,575
CONTINUOUS GROUT STRAINER
Lee Turzillo, Bay Village, Ohio, and Kline McKinzie, Chicago, Ill., assignors, by mesne assignments, to Intrusion-Prepakt, Incorporated, Cleveland, Ohio, a corporation of Delaware
Application September 18, 1952, Serial No. 310,274
7 Claims. (Cl. 259—152)



1. In apparatus for supplying a fluent concrete mix, the combination with a primary concrete mixer and a secondary concrete mixer that comprises an elongated open top receptacle having a rotary agitator therein that extends substantially the full length thereof, of means for delivering the concrete mix from the primary mixer to the secondary mixer and for removing oversize aggregate therefrom comprising an elongated tubular rotary screen directly over said receptacle adjacent its top and extending throughout the major portion of the length thereof, said screen being disposed with its bottom approximately horizontal to cause oversize aggregate to collect and be tumbled therein and having an open end through which the oversize aggregate is discharged, means for rotating said agitator and said screen, and means including a conduit extending into one end of said tubular screen for delivering the concrete mix from said primary mixer directly into the central portion of the tubular screen intermediate its ends whereby the concrete mix is agitated and delivered into said secondary mixer along the length thereof free from oversize aggregate.

2,779,576
CHARGE FORMING DEVICE
Henri Morgenroth, Santa Barbara, Calif.
Application June 9, 1953, Serial No. 360,527
7 Claims. (Cl. 261—64)

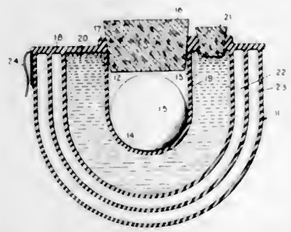


1. A carburetor comprising: a housing having a passage formed therein with an intake end and a discharge end, at least the discharge end of which is an open groove; a venturi constriction formed in the open groove creating part of a venturi whereat the groove cross sectional area is less than the groove portions immediately posterior and anterior; a reed valve positioned over the discharge end of said groove and opposite said groove constriction to form part of and to complete the venturi and to form part of the passage walls at, and to normally close off, the groove portion of said passage; a fuel discharge aperture in said housing at a low pressure area in said passage created by said venturi; and an air valve in said passage anterior to said fuel discharge aperture.

2,779,577
SPRAY GRID TRAY GAS-LIQUID CONTACTING
Richard B. Olney, Oakland, and Carl P. Strand, El Cerrito, Calif., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware
Application December 12, 1950, Serial No. 200,431
5 Claims. (Cl. 261—113)

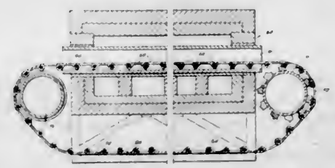
1. A spray grid tray contacting column for effecting intimate contact between an ascending gas and a descending liquid by forming a dense, upwardly directed spray of liquid by the action of said gas at a succession of levels in the column, the combination of: an upright tower; within said tower, a plurality of transverse spray grid trays each comprising a plurality of closely spaced grid members, said trays being spaced apart vertically by distances at least three times the widths of said grid members to provide a plurality of intervening spray spaces of appreciable heights for the retention of a body of liquid on each tray and the passage of a dense spray of said body of liquid upwardly within the spray spaces and the passage of gas through the spray space above said body of liquid and beneath the supervening tray, the said grid members having such cross-sectional shapes and being so spaced as to form between them narrow slots that have constant widths throughout the major parts of the depths of the grid members including substantially the upper parts thereof, said slots having widths of about 0.25 inch and depths of about 0.25 inch, said grid members being spaced so that said narrow slots constitute the only connection for the passage of gas between spray spaces below and above each respective tray; and means for supplying liquid to an upper part of the tower and gas to a lower part of the tower at rates sufficient to effect the said retention of a body of liquid distributed on each tray and the said formation of a dense spray.

2,779,578
GOLF BALL WARMER
Edward A. Corey, Jr., St. Louis, Mo.
Application June 16, 1953, Serial No. 361,987
1 Claim. (Cl. 263—5)



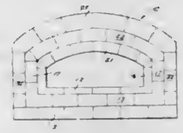
A golf ball warmer comprising a receptacle including a circular, flat top wall, a series of cylindrical side walls at least three in number and bearing a concentric relationship to the top wall and to one another, said side walls being integral at one end with and depending from said top wall, each side wall merging at its other end into a hemispherical bottom wall portion having a radius equal to that of the side wall on which it is formed, the several bottom wall portions having a common center, the innermost side wall defining an inner chamber at the center of the receptacle for receiving a golf ball, the top wall having a circular opening at the upper end of said chamber formed to a diameter equal to that of said innermost side wall, the side wall adjacent the innermost wall cooperating with the innermost wall in defining therebetween a chamber for receiving a hot liquid, the top wall having a filler opening formed therein, said filler opening being located adjacent the center opening and being spaced inwardly a substantial distance from the periphery of the top wall, the outermost wall cooperating with the wall adjacent thereto in defining therebetween a hermetically sealed air chamber surrounding the liquid chamber, and plugs removably engaged in the respective openings, the plug engaged in the first named opening extending into the inner chamber a distance such that said plug at its inner end will be spaced from the center point of the bottom wall of the inner chamber a distance approximately equal to the diameter of the innermost side wall, thus to be disposed as an abutment effective to hold the ball snugly seated against said bottom wall of the inner chamber.

2,779,579
CONVEYOR FOR HIGH TEMPERATURE FURNACES
Robert Steinitz, New York, N. Y., assignor to Schwarzkopf Development Corporation, a corporation of Maryland
Application July 26, 1954, Serial No. 445,788
2 Claims. (Cl. 263—8)



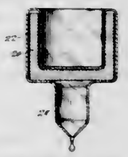
1. In a high temperature furnace having an interior furnace space, a belt-like endless conveyor structure having a plurality of link members with each link member movably joined to a preceding and succeeding link member and consisting essentially of a solid solution of molybdenum disilicide and chromium disilicide, said link members being arranged to be moved along a predetermined path facing the interior of said furnace space for carrying objects to be heated in said furnace space.

2,779,580
HIGH TEMPERATURE FURNACES AND THEIR PRODUCTION
Robert Steinitz, New York, N. Y., assignor to Schwarzkopf Development Corporation, a corporation of Maryland
Application July 26, 1954, Serial No. 445,787
2 Claims. (Cl. 263—41)



1. In a high temperature furnace having furnace walls enclosing an interior furnace space which is maintained for long periods of time at elevated temperatures of at least about 1600° C., at least one major furnace wall section facing said furnace space being formed of bricks consisting essentially of a solid solution of molybdenum disilicide and chromium disilicide.

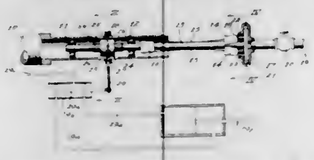
2,779,581
COMBUSTION ANALYSIS CRUCIBLE
Eugene L. Bennet, St. Joseph, Mich., assignor to Laboratory Equipment Corporation, St. Joseph, Mich., a corporation of Michigan
Application July 23, 1953, Serial No. 369,809
5 Claims. (Cl. 263—48)



2. A crucible for combustion analysis comprising a thick walled container having a cavity open at the top therein and formed of a material which is strongly heated by an induction field, a sealed thin walled envelope completely enclosing said container, said envelope having a depression therein extending into said cavity, said

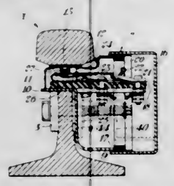
container and said envelope being so sized and shaped with respect to each other that said container is loosely embraced in said envelope, the space within said envelope being sufficiently evacuated to prevent said envelope from being subjected to substantial variations in internal gas pressure as the temperature of said container fluctuates widely, said envelope being formed of a material which is substantially inert chemically at high temperature and which has high resistance to thermal shock.

2,779,582
CONICAL PENDULUM SPEED CONTROL
Malcolm M. Hopper, Willoughby, and Allen E. Lepley, Wickliffe, Ohio, assignors to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application September 16, 1953, Serial No. 380,405
4 Claims. (Cl. 264—9)



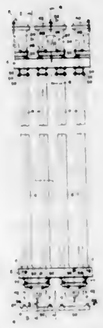
1. In a constant speed control system, a first rotating shaft connected to an element to be controlled, a second rotating shaft supported thereby and rotatable relative thereto, means for maintaining said second shaft at a constant speed and operable to retard said second shaft relative to said first shaft when said first shaft tends to rotate above a predetermined speed of said second shaft, said last named means comprising a mass supported eccentrically of said second shaft by a cantilever beam rigidly secured to said second shaft and extending substantially parallel thereto, and means for modifying the power applied to said element upon relative movement between said first and second shafts to thereby modify the torque applied to said first shaft to cause said first shaft to rotate at the same speed as said second shaft.

2,779,583
VEHICLE WEIGHT RESPONSIVE MEANS
Herbert L. Bone, Forest Hills, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application January 22, 1954, Serial No. 405,647
13 Claims. (Cl. 265—27)



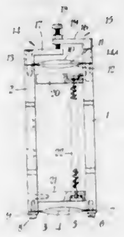
1. In a device of the class described, in combination, a beam member comprising an upper portion, a web and a lower portion, a slot formed in said web between said upper portion and said lower portion, said slot being in the form of an elongated opening located with its long dimension disposed longitudinally of the beam member and substantially adjacent said upper portion, and means located within said slot responsive to said upper portion displacement into said slot, said slot being provided with stop means for preventing said upper portion from deflecting beyond its fatigue limit, said slot located means comprising a circuit controller with a plurality of fixed and movable contacts, said circuit controller being totally enclosed within a weather tight case, said case being provided with a resilient slot receiving portion such that all movements of the upper portion into said slot will be transmitted through said case to said circuit controller contacts.

2,779,584
STRIP COOLING TOWER
Torsten F. A. Edvar, Philadelphia, Pa., assignor to Selas Corporation of America, Philadelphia, Pa., a corporation of Pennsylvania
Application September 28, 1950, Serial No. 187,169
5 Claims. (Cl. 266—3)



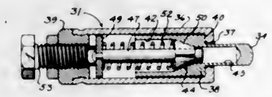
2. In a cooling tower, a frame, a pair of elongated ducts, means to suspend each of said ducts in vertical side by side relation from its upper end on said frame, means forming a trough around the top of each duct, a rectangular housing having a bottom provided with two openings, each substantially the size of one of said ducts, a skirt extending downwardly around each opening, means to mount said housing independently of said duct on said frame with the skirts received respectively in the troughs, sealing means in said troughs around said skirts, a removable top for said housing, means forming a seal between said top and housing, and a roll in said housing over which a strip of material can pass as it moves from one duct to the other.

2,779,585
MECHANICAL GUIDING DEVICES
John Loxham, Letchworth, England, assignor to The Sigma Instrument Company Limited, Letchworth, England, a British company
Application January 17, 1956, Serial No. 559,705
Claims priority, application Great Britain January 18, 1955
3 Claims. (Cl. 267—1)



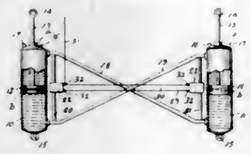
1. A mechanical guiding device comprising a movable member, a fixed member and two spring strip arrangements supporting the movable member from the fixed member, each spring strip arrangement including three spring strips one end of each of which is secured to the fixed member and the other end of each of which is secured to the movable member, one of the spring strips of each arrangement being shorter than and between the other two spring strips of the same arrangement, which latter strips consequently assume an arcuate form and maintain the shorter strip in tension.

2,779,586
CARBURETOR THROTTLE CONTROL
Joseph Schweiss, St. Louis, Mo., assignor, by mesne assignments, to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey
Application August 15, 1952, Serial No. 304,458
1 Claim. (Cl. 267—1)



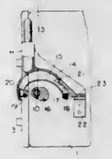
In a carburetor valve structure having a movable throttle valve, a device for retarding the final closing movement of said valve, comprising a spring snubber movable relative to a cooperating boss, said snubber including a cylinder having an abutment shoulder, a hollow plunger slidable within said cylinder and normally engaging said shoulder and projecting from one end thereof, the inner surface of said plunger having a conical seat, a rod extending axially within said cylinder and provided with a spring seat, a split frusto-conical sleeve slidably engaging said rod and engaged against said conical seat, a coil spring on said rod compressed between said spring seat and said sleeve normally urging said sleeve into engagement with said conical seat, whereby upon engagement of said plunger against said boss said sleeve is urged into tighter frictional engagement with said rod, and an adjustment screw on said cylinder to move said rod axially of the cylinder to vary the force exerted by said spring against said sleeve.

2,779,587
AUTOMATIC AUTO STABILIZER AND SHOCK ABSORBER
Philip Thomas, Flint, Mich.
Application May 7, 1954, Serial No. 428,291
1 Claim. (Cl. 267—11)



In a vehicle stabilizer and shock absorber, a pair of companion cylinders, a double acting plunger in each cylinder, means connecting the lower part of one cylinder to the upper part of the second cylinder, means connecting the lower part of the second cylinder to the upper part of the first cylinder, a by-pass conduit adjacent and parallel to each cylinder, each by-pass conduit connected to the means connected to the upper and lower parts of the cylinder, fluid in said cylinders, a valve mounted in each by-pass conduit, a valve housing affixed to each conduit and enclosing said valve, an electromagnet mounted in each housing for closing its associated valve, a spring mounted in each housing for normally urging its associated valve to open position, and a mercury switch pivotally mounted in each housing and adapted to close an electrical circuit to its associated electromagnet when said switch is tilted, said magnets and said switches all being in series.

2,779,588
CASING CLOSURE AND LATCHING MEANS
Ralph W. Hewes, Rochester, N. Y., assignor to General Railway Signal Company, Rochester, N. Y.
Application June 5, 1953, Serial No. 359,830
5 Claims. (Cl. 268—72)

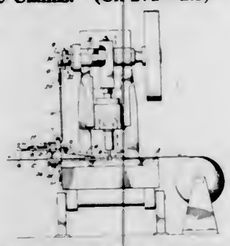


3. A casing door fastening and opening means comprising, a handle pivoted on the casing and mounted on a plane at right angles to the door, said handle having a recessed portion in which is located a latch spring having one end fastened to said handle and the other end engaging a lug on said door when said door and said handle are in a closed latched position, and a cam member formed around the pivot section of said handle to cause said door to be forced open as said cam member bears against said door lug when said handle is moved to an open unlatched position.

2,779,589
VERTICALLY SWINGING CLOSURE OPERATOR
Dingeman van Dongen, Haariem, Netherlands, assignor to N. V. Bronswerk, Amersfoot, Netherlands, a corporation of the Netherlands
Application January 9, 1956, Serial No. 558,125
Claims priority, application Netherlands January 11, 1955
8 Claims. (Cl. 268—75)

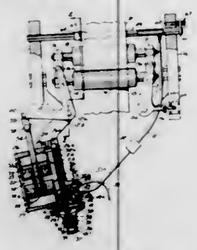
1. A device for closing an opening in the wall of a passage by means of a driven closing device rotatable over 180° of which the axis of rotation is located in a recess-like protrusion of this passage in such a manner that in its open position the closing device is situated with its side remote from the inner wall of said protrusion flush with the inner wall of the passage in which this protrusion is provided, characterized in that the driving mechanism for the closing device comprises at least one non-rotatable gear wheel arranged co-axially with the axis of rotation of the said closing device, a gear rack slidably arranged in the closing device being in engagement with the said gear wheel, and that at the vertical side of the said closing device situated near the side of the axis of rotation of this closing device a closing wall is provided extending vertically to the main plane of the closing device and of such length that in the open position of the closing device this closing wall entirely closes the side of the recess and, when the closing device is being closed, the said closing wall may freely move around the axis of rotation through the said protrusion.

2,779,590
PUNCH PRESS FEEDING MECHANISM
Wensil H. Seastrom, Glendale, Calif., assignor to Seastrom Manufacturing Co., a copartnership
Application April 2, 1954, Serial No. 420,603
5 Claims. (Cl. 271—2.5)



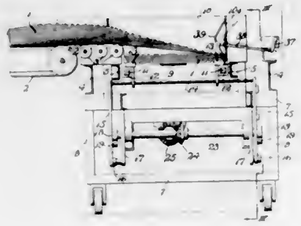
1. A punch press stock feeding attachment comprising a bracket fastened to the end surface of the press bed, a rectangular housing rising from the upper surface of said bracket, a grooved framing mounted on said housing, a slide movable in the groove of the framing, a stock feeding pawl on the slide, resilient means urging movement of the slide and pawl in stock feeding direction, means for limiting stock feeding movement of the slide, a crank on the power shaft of the press directly above the slide, and adjustable connections from the slide to the crank to draw the slide in the opposite direction against the tension of said resilient means.

2,779,591
DEVICE FOR AUTOMATICALLY MAINTAINING SIDE REGISTRY IN TRAVELING WEBS
William F. Huck, Forest Hills, N. Y., assignor to Huck Company, New York, N. Y., a partnership
Application November 15, 1954, Serial No. 468,902
3 Claims. (Cl. 271—2.6)



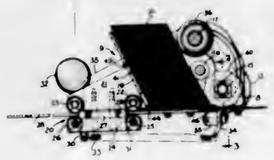
1. In a device for maintaining side registry of a running web, a frame, a pair of web-guiding rollers arranged in opposed parallelism and engaging opposite sides of a running web, a pair of bearing boxes pivotally connected to opposite ends of said web-guiding rollers, a pair of levers hingedly connected to said pair of bearing boxes, a pair of brackets fastened to the frame and rockably supporting said pair of levers, an assembly fastened to one of said brackets and having a piston slidable therein, a connecting rod secured to said piston and hingedly connected to one of the levers. said assembly including a cylinder and valve means, said valve means controlling the flow of liquid into and out of said cylinder, a tubular member slidably mounted on the frame and having a fluid-admittance orifice, said orifice being slidably engaged by the running web, manually-operable means connected to the tubular member and to the frame, said manually-operable means being constructed and adapted to vary the position of the tubular member with respect to the frame and consequently to vary the position of the orifice relatively to the running web; and other means connecting the valve means to the tubular member and to a source of fluid pressure.

2,779,592
FEED HOPPER
Joseph A. Hartman, Grand Rapids, Mich., assignor to American Box Board Company, Grand Rapids, Mich., a corporation of Michigan
Application September 9, 1954, Serial No. 454,898
3 Claims. (Cl. 271—4)



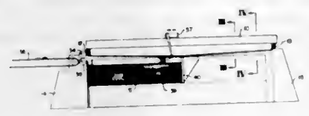
1. Apparatus as described comprising, a hopper having a bottom, spaced vertical walls and an open entrance side, means for continuously supplying said hopper through its open side with flat horizontally moving articles and stacking said articles one over another in the hopper, means for ejecting the lowermost articles in said hopper, one after another, said means being located at the lower end of the hopper, generally vertical bars pivotally mounted at their lower ends, at the upper ends of which said ejecting means is connected, continuously operating means for swinging said bars back and forth about their pivotal mounting, and means for holding said bars out of operative engagement with said operating means upon diminishing of said articles in the hopper to a preselected minimum, and for releasing said bars into operative engagement with said operating means on filling the hopper to a predetermined maximum of articles therein.

2,779,593
FEEDER FOR CHECKS AND LIKE PAPER
Ernest H. Doerner, Chicago, Ill., assignor to Cummins-Chicago Corp., Chicago, Ill., a corporation of Illinois
Application July 8, 1953, Serial No. 366,847
6 Claims. (Cl. 271—39)



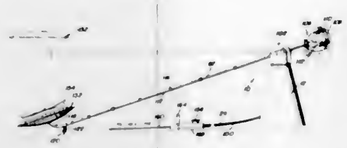
1. A check feeder comprising, in combination, a base, a feed roller mounted for rotation on a horizontal axis above the base, and means yieldably urging a pack of checks toward the feed roller including a follower plate inclined upwardly and rearwardly from the base, said base having a smooth bearing surface for engagement by the lower edges of the checks presented to the feed roller, said bearing surface being relieved to provide a recess having a pair of relatively sharp lateral edges extending parallel to one another and disposed on opposite sides of the feed roller, said edges being formed of hard smooth material so as to offer minimum surface friction to the passage of a check said roller being nestingly positioned in said recess and dimensioned to have limited lateral clearance with said edges so that the checks are drawn down singly from said pack into said recess for discharge one by one.

2,779,594
APPARATUS FOR CONVEYING AND STOPPING RAPIDLY MOVING METAL SHEETS
Dario Buccicone, Gary, Ind.
Application October 7, 1953, Serial No. 384,655
7 Claims. (Cl. 271—68)



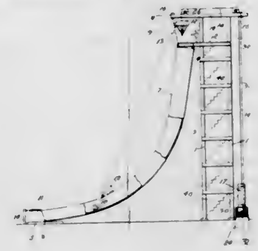
1. An apparatus for conveying and stopping rapidly moving sheets of magnetic material comprising a magnetic rail which has a plurality of downwardly facing normally energized electromagnets and a pair of smooth-faced, rigid continuous nonmagnetic downwardly facing skids supported on opposite sides of said magnets, the undersurfaces of said skids being spaced below said magnets to leave an air gap between said magnets and sheets carried by said skids, positive means for feeding sheets singly to the underside of said skids adjacent one end of said rail, said magnets and said skids being adapted to oppose movement of sheets fed thereto through combined magnetic and frictional forces and to stop the sheets completely on their exit from said feeding means, an electric switch controlling the circuit to said magnets and having operating means in the path of sheets advancing along said skids, said operating means being spaced substantially a sheet length from said feeding means to deenergize the magnets as the sheet stops, and means under said rail for receiving sheets dropped therefrom.

2,779,595
AERIAL ROUNDABOUT TOY
Horton H. Ensley, Hagerstown, Md.
Application November 8, 1954, Serial No. 467,375
3 Claims. (Cl. 272—31)



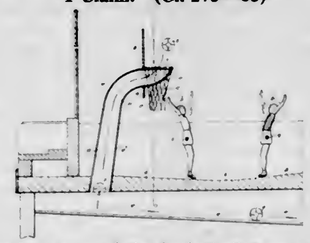
2. In a toy of the type which includes an arm, a motivating means at one end of said arm, a motor to drive said means, and means drivingly connecting said motor and said motivating means, the improvement comprising a base having a base plate in which there is a bore, a supporting plate having a hollow central lug, said lug being mounted for rotation in said bore, a bearing mounting said supporting plate slightly above said base plate, a pair of spaced brackets rising from the upper surface of said supporting plate and having aligned apertures, a spider plate, a pair of legs depending therefrom and having apertures, pivots in said apertures pivotally mounting said spider plate on said brackets, a pair of arm supporting legs extending from said spider plate and having aligned apertures whose axis of alignment is at right angles to said pivots, said arm being mounted for rotation in said aligned apertures, a clamp secured to the part of said arm between said arm supporting legs, a laterally projecting portion extending from said clamp generally radially of said arm, and a control cable to oscillate said arm extending through said hollow lug and secured to said laterally projecting portion.

2,779,596
AMUSEMENT SLIDE
Herbert N. Ridgway, Winthrop, Mass.
Application February 6, 1956, Serial No. 563,573
5 Claims. (Cl. 272—56.5)



1. An amusement device comprising a tower, an elevated platform thereon, a landing element in the form of an elongated flexible sheet, means connecting one end of the landing element to said tower at an elevated position directly below the platform, anchoring means supporting the other end of the landing element at a lower level whereby said landing element assumes a catenary curve with its upper end having a position slightly inclined to the vertical and its lower end having a position slightly inclined to the horizontal, a captive parachute having a hand-hold designed to be grasped by a person on the platform, a counterbalance member connected to the parachute and having a weight sufficient to slightly overbalance the weight of the parachute and by which said parachute is normally held in its elevated position within reach of a person on the platform, whereby when such person grasps the hand-hold of the parachute and moves off from the platform his weight, added to that of the parachute, will overbalance the counterweight member and he, while still grasping the parachute, will descend onto the landing element and slide down the same toward the lower end thereof, and when he releases the parachute it will be returned by the counterweight member to its normal elevated position.

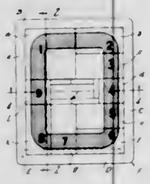
2,779,597
SIMULATED BASKETBALL GAME
Luis Barbolla, Mendoza, Argentina
Application June 11, 1954, Serial No. 436,144
1 Claim. (Cl. 273—85)



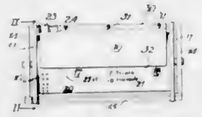
In a parlor game of the basketball type a floor simulating a basketball area in shape, side and end walls surrounding the floor, small baskets respectively located at the opposite ends of the floor, a backboard associated with each basket, bracket means for supporting the backboard and basket above the floor extending upwardly from each end wall, parallel operating bars slidable through and rotatably connected to the opposite side walls, said parallel bars being arranged in pairs, the bars of one pair lying in confronting relationship to one another and in front of one basket at one end of the floor and the bars of the other pair lying in confronting relationship to one another and in front of the other basket at the other end of the floor, each end of the floor having inclined

surfaces converging toward one another and providing an intermediate depression extending across the floor into which a playing ball may gravitate, articulate playing men elements mounted in spaced relationship on said bars, two said playing men elements being mounted on the bar of each pair located immediately in front of each basket and representing the guards or backs of a team, three said playing men elements mounted on the bar of each pair more removed from the basket and representing the center and forwards of a team, handles from the guard bar and the forward bar of each pair extending outwardly from the opposite side walls to manipulate the articulate playing elements forming the different teams, said bracket means being in the form of a hollow post extending through the backboard and providing a receptacle immediately under the basket opening, an inclined ball return chamber means lying under said floor, said post having a conduit leading to said chamber, a ball delivery tray extending from one side of the floor for receiving the playing balls from the return chamber and coin operated gate means in the return chamber controlling the passage of the balls from the return chamber to the tray.

2,779,598
GAME BOARDS
Irving Hartley Steinhardt, New York, N. Y.
Application December 31, 1954, Serial No. 478,960
5 Claims. (Cl. 273—132)



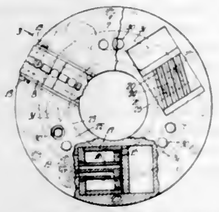
1. A game board comprising a plurality of substantially rectangular blocks of different sizes, said blocks having front and rear surfaces and further having outer guide means engageable with one another, said outer guide means for each block comprising at least two lateral ledges and at least two lateral grooves located in at least two spaced, parallel planes between said front and rear surfaces, one of said ledges being arranged in one of said planes and projecting from first and second adjacent sides of said block, the other of said ledges being arranged in the other of said planes and projecting from a third side of said block opposite said first side and from said second side, one of said grooves being arranged in said one plane and extending along said third side and along a fourth side of said block, the other of said grooves being arranged in said other plane and extending along said first and fourth sides of said block, frame means provided with a central opening extending from the front to the rear of said frame means and including inner guide means engageable with said outer guide means for retaining said blocks in substantially coplanar relationship with one another and within said frame means, said inner guide means comprising a plurality of grooves and ledges located on the inner periphery of said frame means facing said opening and in said spaced, parallel planes for engagement with said ledges and grooves constituting said outer guide means of said blocks, respectively, there being provided a number of said blocks sufficient to fill said frame means except for a space of predetermined size equivalent to at least twice the size of the smallest one of said blocks, whereby said blocks may be selectively shifted from one position to another within said frame means without the intermediary of a back wall for the latter, said blocks bearing identifying indicia on said surfaces, whereby a plurality of different designs may be attained on said block surfaces upon shifting of said blocks within said frame means.

2,779,599
ARTICLE FOR PLAYING GAMES WITH THE BLIND
Herbert S. Lansing, San Pablo, Calif.
Application May 23, 1956, Serial No. 586,863
2 Claims. (Cl. 273—143)

1. An article for competitive playing of games between blind and sighted players comprising in combination a free spinning spool having a uniform cylindrical shape between the ends thereof, said spool being mounted for rotation on its horizontal axis, end members and a base member for mounting said spool, pairs of raised buttons arranged equidistant around the circumference of the cylindrical portion of said spool, each of said pairs of buttons representing a potential stop position, identical instructions and results in Braille and in printing at each potential stop position, resiliently mounted wheel means bearing against said buttons causing friction during the spinning to bring the rotation to a stop in the same relative position with respect to said buttons at each stopping, and a shield covering most of the available cylindrical area designating the precise information and result to be followed at any random stop.

2,779,600
WIRE PUZZLE
Peter A. Hagen, Opheim, Mont.
Application December 22, 1954, Serial No. 476,916
4 Claims. (Cl. 273—158)

1. A puzzle comprising a continuous piece of wire formed as a spiral, an inverted U-shaped member disposed in the center of said spiral and projecting upwardly therefrom, one leg of said U-shaped member integrally formed as a continuation of the inner convolution of the spiral, the other leg of said U-shaped member extending below the spiral and extending radially outwardly under the spiral, said radially extending portion terminating in an enlarged inverted U-shaped member generally lying in the same plane as the U-shaped member within the spiral, said enlarged U-shaped member and the spiral terminating in adjacent ends, an elongated handle having an eye at one end thereof and having a length substantially greater than the height of the enlarged inverted U-shaped member, and a loop attached to said eye for movement along the piece of wire upon proper manipulation of the handle whereby the radially extending portion of the other leg of the U-shaped member prevents movement of the handle along the wire.

2,779,601
HYDRAULIC CHUCK
Walter F. Skillin, New Britain, Conn., assignor to Union Manufacturing Company, New Britain, Conn., a corporation of Connecticut
Application August 16, 1954, Serial No. 449,910
8 Claims. (Cl. 279—4)

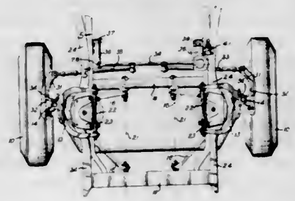


1. In a chuck, a chuck body, a chuck jaw, movable radially of the body, removable guide ribs to guide said jaw in its radial movement, said body having radial facing slots defined by axially outer and inner radial abutment surfaces, said guide ribs being in said slots and held by said axially outer abutment surfaces against axial withdrawal, means for removably holding said guide ribs in place against radial withdrawal, whereby said guide ribs may be released from said body and withdrawn radially to release said jaw and permit withdrawal of said jaw.

2,779,602
WHEEL MOUNTINGS FOR TRAILERS AND THE LIKE
Albert M. Kimbro and Lee J. Tunkis, Houston, Tex., assignors to South Texas Truck Equipment Co., Inc., Houston, Tex., a corporation of Texas
Application September 27, 1954, Serial No. 458,580
1 Claim. (Cl. 280—43)

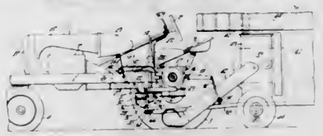
A mounting for a wheel on the frame of a trailer, comprising a tubular wheel supporting frame member, a torque bar disposed in said tubular frame member, means connecting the inner end of said bar to said frame member to prevent turning of said inner end of said bar relative to said frame member, a sleeve surrounding the outer end of said frame member and being adapted to turn relative thereto, means connecting the sleeve to the outer end of said bar, means connecting said wheel to said sleeve for transmitting vertical movements of said wheel to the outer end of said bar, said bar being formed of a material capable of resisting the upward vertical movements of said wheel and for returning said wheel to its normal running position, said sleeve having an arcuate notch in its inner end, a stop lug on the external surface of said tubular frame member positioned in the notch for contacting the end surfaces of the notch to limit the movement of the sleeve relative to the tubular frame member so that the twisting of the torque bar is also limited to prevent the twisting of such torque bar to such an extent that it is permanently deformed, said means which connects the inner end of said bar to said tubular frame member including, a cylindrical head on the end of said torque bar and rotatable relative to said tubular frame member, said head and said tubular frame member each having openings which are adapted to be aligned when the wheel is in a normal running position relative to the frame, a retaining member extending through the openings in the frame member and the head to hold the inner end of the torque bar fixed relative to the frame member, and means connected to said retaining member and operable from the front of said trailer for retracting said retaining member from said openings to permit the frame to drop relative to the wheel.

2,779,603
VEHICLE STEERING ASSEMBLY WITH BALL JOINT SUSPENSION
Edwin C. McRae, Dearborn, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application September 14, 1953, Serial No. 380,063
2 Claims. (Cl. 280—95)



2. In a motor vehicle steering assembly including upper and lower wheel carrying suspension arms, a spindle support, steering gear mechanism and interconnected steering lingage, the combination of a semispherical socket at the outer end of the upper suspension arm, a sheet metal bearing shell mounted in said socket and having a semispherical inner surface formed therein, a spherical bearing member seated within said shell and engageable with the semispherical surface thereof, a circular opening in the side of said shell, an elongated vertically extending groove having a generally semicircular cross section formed on the periphery of said spherical bearing member in alignment with the circular opening in said shell, a small ball seated in said circular opening and said elongated peripheral groove to prevent rotation of said spherical bearing member in said shell about a generally vertical axis but permitting oscillation of said spherical bearing member relative to said shell about a generally horizontal axis to accommodate rising and falling movements of said wheel spindle, said spherical bearing member having a threaded bore extending generally vertically therethrough, the upper end of said spindle support having a threaded portion engageable with the threaded bore in said spherical bearing member to accommodate turning movement of said spindle support to steer the vehicle, an antifriction ball joint assembly connecting the outer end of said lower suspension arm with the lower end of said spindle support, and a spring loaded friction producing pivotal connection between relatively rotatable parts of said steering linkage to dampen vibrations and stabilize the steering system.

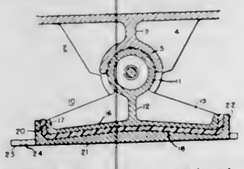
2,779,604
TRACTION BOOSTING SYSTEM FOR TRACTORS
Wendelin L. Voegeli, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application July 11, 1955, Serial No. 521,027
6 Claims. (Cl. 280—406)



1. In combination with a tractor and an attached draft load imposing structure having a ground engaging support, a traction boosting system comprising a servomotor mounted on the tractor and connected in lift force trans-

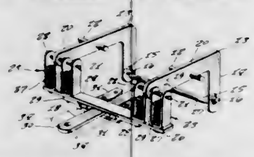
mitting relation to said attached structure so that transmission of lifting force from said tractor to said structure by operation of said servomotor will cause transfer of weight from said structure and from a steerable front support of said tractor to drive wheels of the latter mounted rearwardly of said front support, actuating means for said servomotor including a control mechanism responsive to variations of draft force transmitted from said tractor to said attached structure so as to progressively increase said lift force upon progressive increase of said draft force and so as to progressively decrease said lift force upon progressive decrease of said draft force, the weight component of said tractor carried by said front support and the weight component of said draft load imposing structure carried by said ground engaging support being relatively proportioned so that transfer of the entire last mentioned weight component to said tractor by operation of said servomotor would cause upward and rearward swinging of said tractor on said rear wheels, and means operatively associated with said servomotor for limiting said progressively increasing lift force so as to prevent said upward and rearward swinging of said tractor.

2,779,605
FIFTH WHEEL PLATE MOUNTING DEVICE
Ray A. Braunberger, Chicago, Ill.
Application February 19, 1954, Serial No. 411,361
17 Claims. (Cl. 280—440)



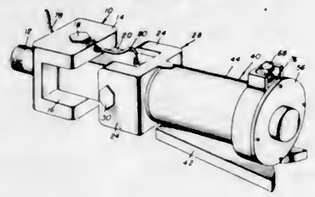
1. A fifth wheel having, in combination, two bases adapted to be supported on a tractor, a recess on the upper surface of each base, two shackles each of which has a foot supported in one of said recesses and two side walls rising from said foot and a hollow cylindrical head extending beyond said two side walls, a fifth wheel plate having laterally spaced lugs on its under side each having a concave cylindrical surface matching the convex surface of said shackle heads and transmitting the load and traction from the fifth wheel plate to the base, a vertical wall alongside of each lug extending down from the fifth wheel plate having a flange engaging one of the projecting ends of the cylindrical head, a flanged cap engaging the projecting other end of said cylindrical head and a flange on the lug, a bolt extending through the hollow head drawing the cap, the head and the flanged plate together to prevent the lug lifting from the shackle.

2,779,606
WEIGHT SHIFTER AND BALANCING DEVICE OR HITCH
Fred M. Weitzel, Hillpoint, Wis.
Application June 13, 1955, Serial No. 515,002
7 Claims. (Cl. 280—489)



1. A weight shifter, balancing device, and hitch of the character described, including a rocking bracket member pivotally mounted upon a portion of the frame of a tractor adapted to pull a load, at least one spring yoke connected to a portion of the rocking bracket spaced a distance rearwardly from the pivot mounting of the latter, a spring in the spring yoke having a bolt extending through the spring and slidably through the lower portion of the yoke with the bolt resiliently supported upon the upper end of the spring, a stationary member connected to a relatively lower portion of said tractor frame, the lower end of the bolt extending slidably through the same with a stop on the bottom of the bolt to retain said bolt in place, a hitch bar disposed longitudinally of the tractor in close association with said stationary member and projecting beyond the same into accessible position for attachment to the load, means for retaining the hitch bar slidably in contact with said stationary member, and a transverse member connected to a portion of said rocking bracket remote from the end connected to the spring yoke, said transverse member also being connected to the opposite end of said hitch bar.

2,779,607
TRAILER COUPLING WITH UNIVERSAL JOINT
Edward W. Milhizer, Detroit, Mich.
Application April 19, 1954, Serial No. 424,159
5 Claims. (Cl. 280—510)

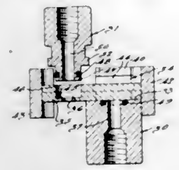


1. A trailer hitch comprising a universal joint assembly including an elongated coupling shaft, said shaft having a circumferential groove adjacent its free end presenting an enlarged head thereat, a female coupling element having a longitudinal bore therethrough receiving said shaft, said coupling element having a radial recess communicating with its bore, a pair of transverse parallel guide pins disposed within said recess on opposite sides of said bore, a pair of latching blocks including oppositely disposed semi-circular notches slidably disposed in said recess and projectible within the groove in said shaft, said blocks having laterally projecting apertured ears receiving said guide pins, compression springs concentrically disposed on said guide pins and engageable between said ears and recess for urging the blocks together and a pair of oppositely disposed locking bolts carried by said coupling element and engaging said blocks to maintain the same within the groove in said shaft, said bolts including means for urging the blocks away from each other for permitting the release of the shaft therebetween.

2,779,608
COMBINED GATE VALVE AND COUPLING
John C. Abbey, Parma, Mich., assignor to Aeroquip Corporation, Jackson, Mich., a corporation of Michigan
Application May 24, 1952, Serial No. 289,861
1 Claim. (Cl. 284—18)

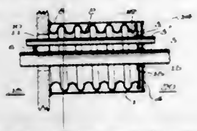
A separable coupling for conducting high pressure fluid comprising in combination, body structure having a fluid flow passage and a rectilinear guideway extending transversely with respect to the longitudinal axis of said passage, said body structure having diametrically opposed portions adjacent said guideway defining locating stop portions, said passage being open at one end to said guideway, a gate valve slidably mounted on said guideway for movement to open or close said passage end, said gate valve having an orifice registrable with said passage end

in one extreme position of the gate valve and having an imperforate portion for closing said passage end in another extreme position of said gate valve, said gate valve having end wall portions in off-set relation to said guideway and disposed on the outside of said locating stop portions and contactable with said stop portions in the extreme position of movement of said gate valve, a sealing ring on said body structure, said sealing ring encircling said passage end to maintain a fluid-tight seal between said passage end and said gate valve, a separate conductor for said fluid, said conductor having a passage alignable with said first mentioned passage and having an end boss portion slidably insertable within the said gate valve orifice when the gate valve is slid to its one extren position in



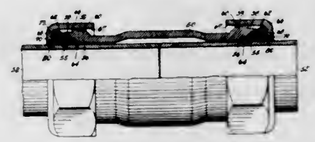
which the imperforate portion of the gate valve closes the said end of said first passage, said gate valve orifice having an annular seat for abutment by said boss, said boss portion including one end of the passage of said separate conductor, a second sealing ring engageable between said boss portion and said orifice to effect a fluid-tight seal therebetween when said boss portion is abutted against said seat in said orifice so that the said separate conductor is applied to the gate valve for translational movement therewith, and means on said separate conductor cooperable with said guideway to hold the conductor captive upon the said body structure when said gate valve, with the said conductor applied thereto, is slid to place its orifice in register with said passage end of the said body structure.

2,779,609
FLEXIBLE SEAL FOR PIPES PASSING THROUGH A WALL
Phillip Portney, Chicago, and Carl E. Vancura, La Grange Park, Ill., assignors to Koppers Company, Inc., a corporation of Delaware
Application March 4, 1953, Serial No. 340,326
2 Claims. (Cl. 285—45)



1. A partition for separating two chambers one of which houses toxic and inflammable gases comprising a metallic wall having an opening therein, a plurality of gas conduits floatingly extending through said opening, said conduits being smaller than said opening so as to be floatingly mounted relative said opening, metallic bellows surrounding at least a portion of said plurality of gas conduits in said toxic chamber, said bellows having its longitudinal axis positioned substantially at a right angle to said metallic wall and having one end welded to said wall around said opening to be in direct communication with said opening, a seal plate welded in fluid-tight engagement with the other end of said bellows and removed from said wall, said seal plate having a plurality of apertures therein corresponding in number to the number of gas conduits, said conduits passing through said apertures in welded fluid-tight engagement with said seal plate, spacers positioned between said conduits to maintain said conduits in substantially parallel relation with respect to each other, and a cylindrical guard sleeve disposed within said toxic and inflammable gas chamber and surrounding said metallic bellows, one end of said guard sleeve being welded to said wall, and means on said sleeve for allowing limited lateral movement of said bellows.

2,779,610
SEALED PIPE COUPLING WITH CONSTRICTIBLE WEDGE BUSHING
Roger E. Risley, Bradford, Pa., assignor to Dresser Industries, Inc., a corporation of Delaware
Application May 23, 1950, Serial No. 163,684
8 Claims. (Cl. 285—323)

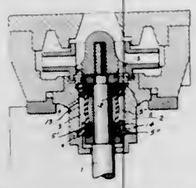


1. In a pipe line, a section of pipe and a pipe coupling mounted thereon, said coupling comprising a tubular sleeve having an externally-threaded end providing an internal gasket recess receiving a gasket member, a cup-shaped follower nut threadedly engageable with said sleeve to apply pressure directly to said gasket to compress said gasket member in said gasket recess into fluid sealing relationship with said pipe, said nut having an end wall defining a pipe-receiving aperture for reception of the pipe to be coupled, at least a portion of the wall of said aperture being of substantially greater diameter than the external diameter of said pipe and having an axially sloped surface extending the entire width of said follower wall and sloping inwardly from the inner face to the outer face of said wall, and self-acting locking means disposed in said aperture adjacent said sloped surface, said locking means having an outer peripheral surface of substantially the same slope as that of the sloped surface of the aperture wall for frictional engagement therewith and having a serrated inner peripheral surface, and said locking means extending at least between said inner and outer faces of said follower nut wall, substantially all of the inner radial surface of said gasket member engaging the surface of said pipe and substantially filling the annular cavity of said follower nut whereby said gasket member receives compression forces from said follower nut other than those directed to said locking means, said gasket member and said locking means being urged against the surface of said pipe upon tightening of said follower nut, and deformable anti-friction means for wholly confining the axially outer face of said gasket and preventing direct contact between said gasket and said locking means.

2,779,611
SEALING ARRANGEMENT FOR SHAFTS
Karl Wernert, Muhlheim an der Ruhr, Germany
Application February 26, 1953, Serial No. 339,013
Claims priority, application Germany March 3, 1952
9 Claims. (Cl. 286—9)

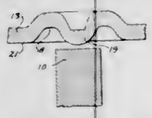
2. A sealing arrangement comprising, in combination, a rotary shaft means having two spaced transverse sealing faces facing each other; two spaced annular sealing members loosely mounted on said shaft means and being movable in an axial direction, each sealing member having an annular sealing face engaging one of said sealing faces of said shaft means; an at least partly outwardly bulging sleeve consisting of a resilient material and surrounding said shaft means spaced from the same, said sleeve engaging at the ends thereof said sealing members

and resiliently urging the same against said sealing faces of said shaft means; and a stationary tubular supporting member fluid-tightly engaging and supporting at least one end of said sleeve, said tubular supporting member de-



fining with the outer surface of said sleeve an annular space and being formed with a conduit passing therethrough and opening at one end thereof into said annular space and adapted to communicate at the other end thereof with a fluid under varying pressure.

2,779,612
SHAFT AND PLATE ASSEMBLY AND METHOD OF ASSEMBLING THE SAME
James L. Edelen, Kirkwood, Mo., assignor, by mesne assignments, to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey
Application December 18, 1950, Serial No. 201,325
1 Claim. (Cl. 287—20.2)

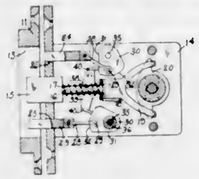


In combination, a body having an opening therein forming a bearing, a shaft journaled in said bearing, a member fixed on one end of said shaft to prevent its axial movement in one direction, and a member for welded attachment to the other end of said shaft outwardly of said body, said second member including a plate portion formed with an annular bead outwardly offset to provide a socket for receiving the end of the shaft, said socket being of greater diameter than the diameter of the adjacent shaft end received therein and having a smaller centrally positioned boss extending inwardly to approximately the plane of the inner surface of said plate for engaging the shaft end prior to welding, the outer surface of said boss and the inner face of said socket forming an open annular recess extending laterally beyond the periphery of the shaft, said boss being adapted to be dissipated and flattened during welding to said shaft, whereby the inner end of said shaft moves into the socket until the inner face of the plate about the socket engages said body to limit the axial movement of said shaft in the other direction, said socket about the end of said shaft forming a depository for exuding flash metal.

2,779,613
THREADED CABLE FITTING
Paul S. Maiwurm, Pennsburg, Pa.
Application March 30, 1954, Serial No. 419,774
4 Claims. (Cl. 287—75)

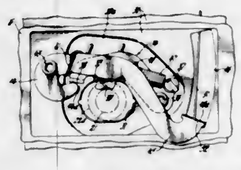
1. A stress fitting for a cable, comprising in combination with a cable, a ferrule compressed on the cable, and a thread forming wire, having a top thread angle and a threaded bottom with the threaded bottom engaging the ferrule, tensioned around the cable.

2,779,614
DOOR LOCKS
Herbert G. Shaw, West Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a corporation of Connecticut
Application March 10, 1955, Serial No. 493,379
5 Claims. (Cl. 292—36)



1. A door lock comprising a casing, a pair of dead bolts reciprocably mounted in the casing, a rollback in the casing connected to each bolt to actuate the same, one of said rollbacks being actuated from one side of the door and the other from the other side of the door, a lever pivotally mounted between said rollbacks and having a part in the path of each of the rollbacks whereby when one rollback is actuated to protract the associated bolt, one of the parts on said lever is moved in position to prevent rotation of the other rollback.

2,779,615
LATCH MECHANISM
Herman S. Kaiser, Pontiac, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 31, 1950, Serial No. 193,260
4 Claims. (Cl. 292—221)



1. A latch mechanism of the character described, comprising: a plate member having an aperture for receiving a latch keeper; a latch lever having a latch portion and a cam follower portion; means pivotally mounting said latch lever on said plate adjacent one side of said aperture for movement between latching and unlatching positions in a plane generally parallel to the plane in which said aperture lies, said latch portion projecting partially across said aperture adjacent said plate when in latching position and said cam follower portion being located adjacent the opposite side of said aperture; an actuating lever pivotally mounted on said plate adjacent said other side of said aperture, said actuating lever having a cam portion freely engaging the follower portion of said latch lever and forming a one-way connection therewith to move said latch lever to unlatching position upon pivotal movement of said actuating lever in one direction, the free engagement between said cam portion and latch lever permitting movement of said latch lever independently of said actuating lever, and said actuating lever having an operating portion extending from the pivotal mounting of the actuating lever in a direction toward the pivotal mounting of said latch lever and being swingable to one side of a line interconnecting the lever pivots upon operation from latched to unlatched position; and a spring biasing both levers toward latching position while permitting independent pivotal movement of said latch lever, said spring being arranged generally parallel to said latch lever and the operating portion of said actuating lever and being connected between said latch lever and said

actuating lever on said one side of said line interconnecting the lever pivots so that the biasing force on both levers is increased when the levers move from latched toward unlatched position.

2,779,616
CAM CLOSURE
Daniel E. Houghton, Arlington, Va., assignor to the United States of America as represented by the Secretary of the Army
Application December 10, 1954, Serial No. 474,627
5 Claims. (Cl. 292—241)

1. A cam closure for a container including a container opening and at least two fixed cams on opposite sides of said opening, comprising a plug adapted to fit in said container opening, an annular flange extending radially outwardly of said plug, diametrically opposite portions of said flange being formed with radially outwardly directed extensions, said extensions terminating in downwardly directed bail ears disposed in radially outwardly spaced relation to said plug, a wire bail including a pair of radially inwardly directed and aligned studs pivotally connected to said bail ears, and said bail including a second pair of radially inwardly directed studs in offset parallel relation to said first pair of studs, said second pair of studs being disposed radially outwardly of said bail ears and having free ends disposed adjacent said plug, and said free ends providing cam lugs adapted to engage said fixed cams on said container.

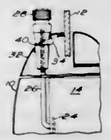
2,779,617
GATE LOCK
Grant P. Hammond, Los Angeles, Calif.
Application April 11, 1955, Serial No. 500,405
3 Claims. (Cl. 292—288)

1. A gate lock, adapted for use with a hasp-and-staple fastener, comprising: a longitudinal engagement member insertible through the staple of a hook-and-staple fastener, said member having a first end and a second, free, end; a generally U-shaped base member, having a first arm continuous with the first end of said engagement member and forming a shoulder retainable against said staple, and having a second arm spaced from said first arm in an outward direction, said second arm having a terminal connection portion; a longitudinal locking strip member having a first end attached to said terminal connection portion of the second arm of said base member, having a second, free, end, and lying outside said staple; said second end of said locking strip member being engageably cooperable with said engagement member at the second end thereof, in a locked position; of said base member and said locking strip member, one of said members being flexible to form a spring; said engagement member having an aperture therein spaced from said first end, through which said locking strip member passes when in said locked position; and flange means attached to said engagement member, projecting in said outward direction, adjacent said aperture, and cooperable with said locking strip member, when said member is in its locked position, to retain said engagement member in said staple against an upward or outward force on the gate lock as a whole; through the flexibility of said spring, said locking strip's second end being separable from said engagement member to allow the removal of said engagement member from said staple.

2,779,618
REFRIGERATOR DOOR LATCH
William R. Jewell, Lyndon, Ky., assignor to General Electric Company, a corporation of New York
Application December 6, 1954, Serial No. 473,206
3 Claims. (Cl. 292—332)

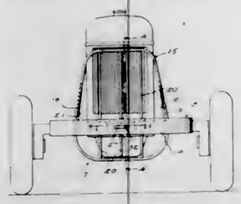
1. A door latch for latching a refrigerator door in a closed position, said latch comprising a supporting structure, a latch bolt pivoted on said structure and movable between a latching position and a retracted position, said bolt having a strike-engaging latching arm and a control arm for moving said bolt between said positions, an overcenter mechanism effective yieldably to hold said bolt in said latching and retracted positions, said mechanism including a spring and a single link connected between said bolt and said structure, actuating means for moving said bolt from said latching position to said retracted position to permit opening of said door, said actuating means including slot means defined in said supporting structure, a roller mounted for rolling movement in said slot means and engaging said control arm, a push rod engaging said roller, and a pivoted handle for operating said push rod whereby said push rod forces said roller to move in said slot means against said control arm and operate said bolt from said latching position to said retracted position, said control arm upon the closing of said door engaging a strike to snap said bolt from said retracted position back to said latching position.

2,779,619
AUTOMOBILE LOCK KNOB
Franklin P. Taylor, Buffalo, N. Y., assignor to J. M. Cranz Company, Inc., Buffalo, N. Y.
Application October 4, 1952, Serial No. 313,125
9 Claims. (Cl. 292—347)



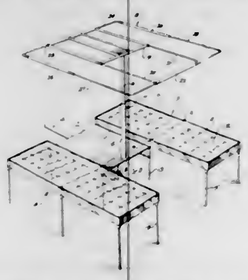
1. A manual control knob for an automobile door lock comprising, a body part having a grip portion and a generally cylindrical shank, and lug means of generally spiral form projecting radially from said shank, said shank and lug means being of resilient material, said lug being merged gradually into the shank surface at the ends of the spiral, said knob being internally threaded from the shank end for attachment to a lock control rod.

2,779,620
BUMPER, GRILL AND PAN GUARD
Kenneth D. Reed, Shelbyville, Ill.
Application May 8, 1953, Serial No. 353,755
4 Claims. (Cl. 293—64)



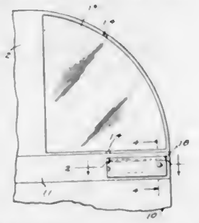
1. A combination bumper, grill and pan guard of the character described comprising a front bumper bar, supporting arms fixed to and extending rearwardly from said front bumper bar and having outturned rear ends adapted to be secured to a front axle of a vehicle for supporting the front bumper bar in advance thereof transversely of the vehicle and in substantially a horizontal plane, a radiator and crankcase pan protector including an outer frame having side portions secured to said arms behind and adjacent the front bumper bar and an inner grill-work portion disposed within said protector frame and secured thereto, said protector being disposed in a vertical plane and including an upper portion located above said front bumper bar forming a radiator guard and a lower portion depending beneath said front bumper bar and forming a crankcase pan guard, a guide unit supported in the grill-work of said protector having a guideway extending therethrough, said front bumper bar having a slot disposed in alignment with said guideway, a hitch plate slidably disposed in said guideway, and latch means for latching said hitch plate in a retracted position behind the front bumper bar and in a projected, operative position projecting forwardly from the bumper bar through the slot thereof.

2,779,621
COLLAPSIBLE AUTOMOBILE CAMP TRAILER
Verner D. Vale, Anaheim, Calif., assignor to Smithvale Engineering and Manufacturing Corporation, a corporation of California
Application September 4, 1953, Serial No. 378,583
1 Claim. (Cl. 296—23)



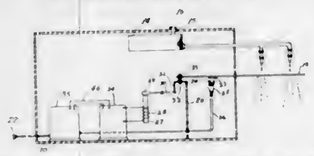
In an automobile trailer including a rectangular platform having a supporting wheel mounted on the platform, of a pair of bed frames, each of said frames including two rectangular sections, means hingedly securing said sections together at two abutting edges thereof whereby a full length bed frame is provided, means hingedly securing one of the sections of each bed frame to an edge of the platform, the last named section being movable on the platform from a vertical to a horizontal position, and supporting legs on each of said sections to support the sections in their unfolded position, a horizontal roof frame including a tubular center portion, extension rods slidably mounted in the center portion, a tubular post rising vertically from said platform, and a vertical rod depending from said roof frame and telescoping into said post, said post being substantially the same height as the bed frames when in vertical position, said roof frame in lowered position being substantially level with the top of the bed frames when in vertical position.

2,779,622
CAR WINDOW DRAIN
John R. MacDonell, St. Marys, Ga.
Application January 10, 1955, Serial No. 480,716
4 Claims. (Cl. 296—44)



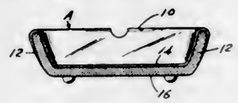
1. In a vehicle having interior and exterior spaced walls a window drain for use with pivotally mounted ventilator sections of vehicle windows secured to said spaced walls, a tray pivotally mounted interiorly of said vehicle on said interior wall beneath said section for receiving water dripping therefrom, and means communicating said tray with the space between said interior and exterior walls, said space communicating with the exterior of the vehicle.

2,779,623
ELECTROMECHANICAL ATOMIZER
Bernard J. Eisenkraft, Brooklyn, N. Y.
Continuation of abandoned application Serial No. 216,499, March 20, 1951. This application September 10, 1954, Serial No. 455,127
10 Claims. (Cl. 299—1)



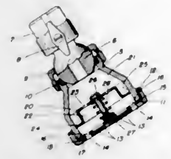
1. An atomizer for dispersing a liquid into fine droplets comprising a bar-nozzle, vibrating means to vibrate said bar-nozzle at its natural frequency, means to introduce liquid to said bar-nozzle, means to receive impulses from said vibrating bar-nozzle, and means to feed said impulses to said vibrating means.

2,779,624
SELF-DEODORIZING ASH TRAY
Samuel Friedman, Elkins Park, Pa., assignor to Plymouth Products Co., a corporation of Pennsylvania
Application June 21, 1955, Serial No. 516,995
4 Claims. (Cl. 299—24)



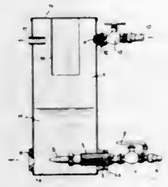
3. An odor neutralizing ash tray comprising a porous ceramic material impregnated with a deodorant composition consisting of lauryl methacrylate, light mineral oil and essential perfume oils.

2,779,625
AUTOMATICALLY SELF-CLEANING SHOWER HEADS
Jacques J. Filliung, Chicago, Ill., assignor to Sloan Valve Company, Chicago, Ill., a corporation of Illinois
Application February 7, 1956, Serial No. 563,996
6 Claims. (Cl. 299—59)



1. In an automatically self-cleaning shower head, a casing having a fixed spray disc provided with a plurality of spray discharge orifices dispersed throughout its surface and also having a plurality of separate drain openings arranged around the edge portion of said disc and surrounding said spray discharge orifices, and automatic means responsive to water flow into said casing for completely closing off only said drain openings from water flow and for opening them when water flow ceases, said spray discharge orifices remaining open during the closing and opening of said drain openings by said automatic means.

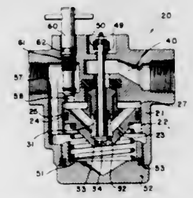
2,779,626
APPARATUS FOR SPRAYING MORTAR, CEMENTITIOUS MATERIAL AND THE LIKE
Paolo Dassetto, Brandizzo, Italy
Application September 23, 1952, Serial No. 311,006
Claims priority, application Italy October 2, 1951
7 Claims. (Cl. 299—86)



1. An apparatus for spraying mortar, cementitious material and the like comprising, in combination, a container in the form of a portable receptacle open at the top, at least one compressed air delivery nozzle located in said container near its bottom and fitted in an opening provided in the side wall of the container, said nozzle being spaced from said bottom and facing a circular discharge opening coaxial with the nozzle and provided in a zone in the side wall of the container substantially at right angles to the nozzle axis, at least the part of the container in which the nozzle is located being built up in the form of a hopper, whereby the material to be sprayed is directed to the zone at which the air jet leaves the nozzle outlet, a thin annular metallic reinforcing disc being provided on the outer surface of the portion of the side wall in which the discharge opening is formed, said disc being coaxial with said discharge opening and having its inner diameter equal to the diameter of said discharge opening.

2,779,627
PNEUMATIC CONTROL
Russell J. Gray, Meadeville, Minn.
Application October 1, 1952, Serial No. 312,613
7 Claims. (Cl. 299—86)

3. A pneumatic control for operative connection with and use intermediate (*a*) a source of compressed air, (*b*) a liquid sprayer which disperses liquid with the aid and under the influence of compressed air applied to the liquid leaving the sprayer and including an air-control valve for controlling flow of compressed air therethrough, and (*c*) the air motor of an air powered liquid pump for delivering liquid to said sprayer, said pneumatic control including a housing having a pneumatic chamber therein, an air-pressure-responsive movable chamber divider within said chamber and reciprocable therein, an air inlet through said housing, entering said chamber on one side of said divider, a spring operatively juxtaposed to said divider and constantly urging said divider towards said air inlet in all positions of said divider, an air outlet from said chamber for connection with the air inlet of said sprayer, said sprayer-air outlet being in free communication with said chamber on the side of said divider opposite to the air-inlet side thereof and its zone of entrance into said chamber being so disposed in relation to the limit of travel of said divider that the position of said divider can never have any substantial effect in slowing down passage of air through said sprayer-air outlet by overlapping said outlet, an air outlet for connection with the air motor of said air powered liquid pump adapted to supply liquid to said sprayer, a motor-supply valve port intermediate said motor-air outlet and said air inlet, a movable valve

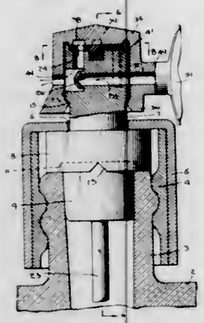


in operative juxtaposition to said motor-supply valve port and operatively connected with and operable by said divider for controlling the passage of compressed air from said inlet to said motor-air outlet, a sprayer supply valve port intermediate the portion of said chamber which is on the air-inlet side of the divider and the portion of said chamber on the other side of said divider, and a valve in operative juxtaposition to said sprayer-supply valve port and operatively connected with and operable by said divider for controlling the passage of air from said air inlet to said sprayer outlet, past said divider, a restricted bleeder passage intermediate the air-inlet portion of said chamber and said sprayer outlet, a motor-venting valve port between said motor-air outlet and the atmosphere, and a valve in operative juxtaposition to said motor-venting valve port and operatively connected with and operable by said divider to control the flow of air therethrough, said motor-supply valve and said sprayer-supply valve being closed and said motor-vent valve being opened by said divider when the air-control valve of said sprayer is closed, and said motor-supply valve and sprayer-supply valve being opened and said motor-vent valve being closed by said divider when the air-control valve of said sprayer is open.

2,779,628
ATOMIZER CONSTRUCTION
Santy M. Croce, Hauppauge, N. Y., assignor to Coty, Inc., New York, N. Y., a corporation of Delaware
Application October 19, 1954, Serial No. 463,299
6 Claims. (Cl. 299—88)

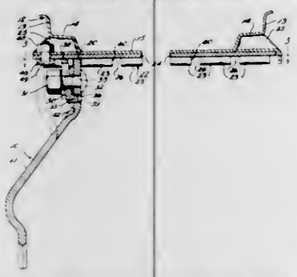
1. An atomizer for dispensing liquid from a bottle having a neck, said atomizer comprising a deformable air actuating element, an air duct connected to said deformable element so as to produce an air flow therethrough when said element is actuated, a head to which said duct is connected, said duct having an opening ex-

tending through a wall of said head, an elongated stopper member having a plurality of passages formed therein, said stopper member comprising a lowermost hollow plug adapted to enter the bottle neck, said stopper member further comprising an integral neck formed above said plug, a discharge nozzle formed integrally within said neck, said head engaging said neck and being rotatable



thereon, said head being formed with passageways adapted to register with passages of said neck when said head is rotated to an open atomizer position relative to said stopper neck, said stopper neck being formed with a discharge chamber which communicates with said discharge nozzle and said head being formed with a discharge passageway adapted to register with said discharge chamber in said open atomizer position.

2,779,629
WHEEL
Winfield S. Brink, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application September 12, 1955, Serial No. 533,846
10 Claims. (Cl. 301—9)

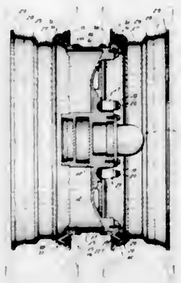


1. In a wheel construction adapted to provide a variable wheel spacing for an agricultural tractor and the like, a disc and a rim mounted thereon, said disc comprising a hub adapted to mount said wheel on the axle of said tractor and a disc body secured to said hub and terminating in an outer helical edge, a plurality of notched bars arranged in pairs about the periphery of said rim and extending axially across and secured to the inner surface of said rim, said bars having corresponding notches lying in a helical path having a pitch equal to said pitch of said helical edge to receive said edge for sliding movement therein, whereby relative rotation of said disc and rim results in axial movement of said rim on said disc, and a plurality of clamps each having its radially outer end fitting snugly between the bars making up a said pair and means to draw said outer ends of said clamping members in arcuate paths into contact with the radially inner surface of said brackets to bring said outer ends in position to exert a radial chucking force thereon.

2,779,630
WHEEL MOUNTING DEVICE
Henry D. Klinker, Bradenton, Fla.
Application March 16, 1956, Serial No. 572,127
3 Claims. (Cl. 301—9)

1. The combination with a vehicle wheel hub having a plurality of studs arranged in spaced relation about and projecting perpendicularly from one face thereof, of a mounting means secured to said studs for attachment thereto of a wheel having a different number of stud receiving apertures, said means comprising a first disc provided with apertures arranged in spaced relation thereabout and having the apertures in numbers corresponding to that of said studs, said disc being positioned in face to face abutting relation with respect to said one face of said wheel hub with said apertures receiving said studs, a second disc arranged so as to cover the ends of said studs, means detachably securing said second disc in spaced relation with respect to said first disc, said second disc having apertures arranged in spaced relation thereabout and having the apertures in number differing to that of said studs, and a stud detachably supported in each of the apertures of said second disc, said second disc studs together providing a means for attachment to said second disc of a wheel having a different number of stud receiving apertures than said first disc.

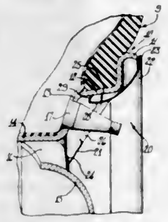
2,779,631
WHEEL STRUCTURE
Robert P. Powers, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application September 29, 1953, Serial No. 382,893
1 Claim. (Cl. 301—13)



A wheel structure comprising in combination, a wheel having an integral outer cylindrical portion terminating in an outwardly flared circumferential surface at one edge and having a plurality of bosses and a corresponding number of clamp members supported by said bosses at the other edge, said clamp members being secured to said bosses by bolts extending into said bosses whereby the clamps are drawn axially toward said wheel when said bolts are tightened, said clamps having outwardly flaring wedge surfaces, a pair of drop center rims with bead seat portions having radially inward surfaces extending axially outwardly at an angle of about 15° to the axis of the wheel, said rim surfaces terminating in an inwardly projecting flange portion, a pair of V-shaped, axially open

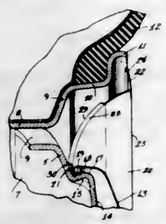
connecting rings having angularly outwardly extending surfaces contacting said radially angularly inward rim surfaces and having inwardly directed surfaces contacting said flared surface and said clamp wedge surfaces respectively, and a spacer band positioned on said wheel adapted to maintain said rings in spaced relation and adapted to transmit the axial thrust exerted directly on the one ring by said clamp wedge surfaces from said one ring to said other ring, said rings being split radially whereby to expand outwardly against said rims to support said rims securely to said wheel when said clamps are drawn inwardly to exert axial thrust on said rings.

2,779,632
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Application October 12, 1953, Serial No. 385,472
3 Claims. (Cl. 301—37)



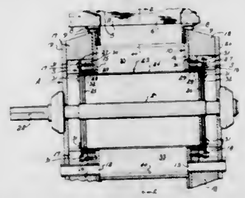
1. In a wheel structure including a wheel having a multi-flanged tire rim, one of which flanges extends generally axially, a wheel cover comprising a circular member having a radially outer portion of generally convexly curved cross-section and having spaced cover retaining fingers deflected axially rearwardly from an intermediate portion of the member leaving spaced openings in said member, each of said fingers being generally of an angular cross-section with a radially inner axial leg connected to said member and a radially outer relatively shorter leg inclined radially and axially outward and terminating in a gripping edge adapted to engage said rim axial flange, each of said fingers extending from a radially outer edge of one of said openings and with its gripping edge radially outwardly beyond the opening, said axial legs of said fingers comprising axially rearward curved extensions of said outer curved cover portion with the curve of each symmetrically merging into and comprising a continuation of the curve of said radially outer cover portion.

2,779,633
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Application September 3, 1954, Serial No. 454,002
8 Claims. (Cl. 301—37)



1. In a wheel structure including a wheel body and a tire rim, a hub cap for disposition at the outer side of the wheel body and engageable with retaining means on the wheel body, and a trim ring having an inner marginal portion retainingly underlying the hub cap, said trim ring having adjacent the portion thereof engaged by the hub cap generally axially inwardly directed turn-preventing means spaced radially outwardly from the inner edge of the trim ring and arranged to thrust against the wheel body under retaining pressure against the inner marginal portion of the trim ring by the hub cap.

2,779,634
ACTUATOR FOR FLUIDIZED CONVEYING SYSTEMS
Fred M. Atkinson and David F. Mattson, Minneapolis, Minn., assignors to Atkinson Bulk Transport Company, Minneapolis, Minn., a corporation of Minnesota
Application March 2, 1953, Serial No. 339,801
4 Claims. (Cl. 302—49)

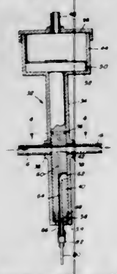


1. Apparatus for use in the transportation of pulverulent material, comprising a rotatable drum, a cylindrical housing surrounding said drum, a plurality of circumferentially spaced blades fixed to said drum for rotation therewith within the housing, the outer end portions of said blades being closely spaced from the inner surface of said housing to prevent any appreciable passage of air between the blades and housing, sealing means preventing the escape of air outwardly between the side portions of said blades, said housing having a material-receiving opening formed therein for connection to a source of pulverulent material to admit such material within the housing and between the blades to be carried thereby as the blades pass by said opening during the rotation of the drum, said housing having an air inlet at one of its ends for admitting air under pressure into the interior of the housing and between the blades, means for introducing a substantially uniform quantity of air under pressure through said air inlet, said housing also having a discharge outlet at the other of its ends opposite the inlet to permit the pulverulent material to pass outwardly therethrough, the portions of said discharge outlet which are at any one time between any two adjacent blades being substantially less in area than the area between said blades taken cross-sectionally, and means for rotating said drum at a speed related to the admission of air through said inlet so that the volume of pulverulent material carried through said discharge outlet is sufficient to produce a fluidized stream of pulverulent material flowing through said discharge outlet in which the ratio by weight of air to pulverulent material in such stream is approximately one lb. of air to 80–200 lbs. of pulverulent material.

2,779,635
BLEEDING VALVES FOR AIR BRAKE CYLINDERS
Ewell F. Wideman, Wetumpka, Ala.
Application April 30, 1954, Serial No. 426,839
1 Claim. (Cl. 303—68)

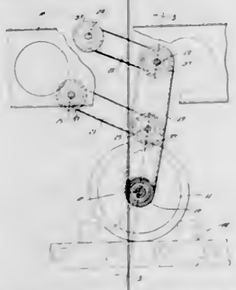
A bleeding valve for air brake cylinders, said valve comprising a substantially tubular housing provided at one end thereof with an opening communicating with the atmosphere, an enlarged air cylinder provided at the other end of said housing, said cylinder having an inner end wall adjacent the housing and an outer end wall provided with a conduit adapted to be connected to a brake pipe for delivering air under pressure to said air cylinder, a piston slidable in said cylinder and engageable with the

inner and outer end walls thereof, a rod-shaped valve member secured to said piston and slidable in said housing, a brake cylinder control valve connecting port and a brake cylinder connecting port provided in diametrically opposed relation on an intermediate portion of said housing, an intermediate portion of said valve member being provided with a transverse passage which is in register with said brake cylinder control valve connecting port and said brake cylinder connecting port and establishes communication therebetween when said piston engages the inner end wall of said air cylinder when fluid under pressure is delivered thereto, said valve member also being provided with an axial bore disconnected from said passage, said bore communicating at one end thereof with said opening of said housing and having a lateral extension at its other



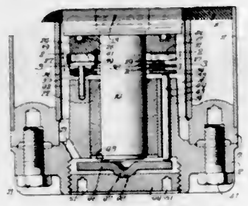
end registrable with said brake cylinder connecting port when said piston engages the outer end wall of said air cylinder whereby said brake cylinder connecting port is vented to the atmosphere, the outer surface of said valve member being provided at a point between said passage and said piston with a circumferential groove and with an open-ended channel extending longitudinally from said groove to the end of the valve member adjacent said opening of said housing whereby to prevent leakage of air from said air cylinder to said passage, and an externally manipulable actuating rod extending freely through said opening and operatively connected to said valve member for sliding the same to a brake cylinder bleeding position wherein said piston engages the outer end wall of said air cylinder.

2,779,636
VEHICLE WHEEL SUSPENSION
Raymond W. Allen, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application January 2, 1952, Serial No. 264,374
6 Claims. (Cl. 305—9)



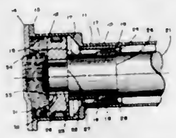
1. In a track laying vehicle in which the body of the vehicle is supported by a plurality of bogie wheels rolling on two endless tracks, a bogie wheel suspension comprising a pair of substantially parallel arms pivotally supported at respective corresponding ends from the body of said vehicle, a main support member pivotally secured to the other end of said parallel arms, said arms each having a housing member on the swinging end thereof, the main support member provided with angularly shaped sleeves adapted to respectively fit into each of said housings, and cylindrical resilient members separating said sleeves from the walls of said housing members, said cylindrical members under load at all positions of said support.

2,779,637
THRUST BEARING
Edward J. Schaefer, Fort Wayne, Ind.
Application April 5, 1952, Serial No. 280,705
19 Claims. (Cl. 308—160)



1. In combination, a vertical shaft, housing structure in fixed relation around the lower end of said shaft, a thrust bearing member secured around said shaft and rotatable therewith, a plurality of coacting non-rotatable rockable bearing segments, pressure-equalizing means including a tiltable disk having said segments operatively supported thereon whereby to permit equalization of thrust pressure among said segments, and directly accessible adjusting means at the lower end of said housing structure, said adjusting means coacting with said disk and being movable relative to the housing structure for moving said disk and thereby adjusting the axial position of said shaft relative to the housing structure.

2,779,638
THRUST BEARING AND SEAL
Herman W. Steiniger, Springfield, Ohio, assignor to The Bauer Bros. Company, Springfield, Ohio, a corporation of Ohio
Application August 22, 1952, Serial No. 305,729
15 Claims. (Cl. 308—187)

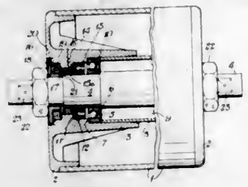


1. In a device of the class described, a shaft arranged for rotary and endwise movements, a relatively fixed generally cylindrical housing receiving through one end thereof one end of said shaft and presenting at the opposite end a piston chamber into which said shaft projects, a piston in said chamber attached to said shaft, rolling means in said housing providing a radial bearing for said shaft, a body of hydraulic fluid confined in said piston chamber by said piston providing a thrust bearing for said shaft, and sealing means providing for limited escape of hydraulic fluid from said body for lubrication purposes.

2,779,639
COMPOSITE ROLLERS, PULLEYS AND THE LIKE
Featherstone Bainbridge, Newcastle upon Tyne, England, assignor to Huwood Mining Machinery Limited, Gateshead upon Tyne, England
Application March 23, 1953, Serial No. 344,102
4 Claims. (Cl. 308—187.1)

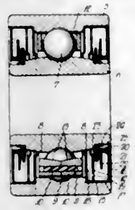
1. A composite roller, pulley or the like, comprising: a hollow roller body embodying an outer tube, end caps

fitted into each end of said outer tube, a central circular spigot on each of said end caps, an inner tube fitted at each end into said spigots, a charge of lubricating oil contained within said inner tube, and an internal shoulder on each of said spigots; an anti-friction bearing fitted in each spigot between the adjacent end of the inner tube and said shoulder; a spindle on which said hollow roller body is revolubly mounted by the anti-friction bearings; a fluid-tight packing of oil, grease and water



resisting material disposed in each spigot on the side of the anti-friction bearing remote from the inner tube and bearing against the spindle and the interior of the spigot; sealing means fitted in each end cap, said sealing means being spaced from said fluid-tight packing in the axial direction of the spindle so as to define, in conjunction with the exterior of said spindle and the interior of said end cap, an annular cavity; and a charge of lubricating grease contained within said cavity.

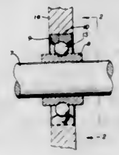
2,779,640
BEARING
Arthur B. Jones, Jr., Newington, Conn., assignor to The Fafnir Bearing Company, New Britain, Conn., a corporation of Connecticut
Application December 17, 1953, Serial No. 398,666
8 Claims. (Cl. 308—187.2)



3. In an antifriction bearing, an outer bearing ring, an inner bearing ring and interposed antifriction bearing members, a seal for the space between said rings comprising a pair of generally radially inwardly directed annular flanges carried by said outer ring and spaced apart and terminating short of said inner ring, the outer of said annular flanges having axially inwardly and radially outwardly directed flanges to form an annular cup for holding lubricant when the axis of said bearing is vertical.

2,779,641
BEARING CONSTRUCTION
Walter S. Sutowski, Garfield Heights, Ohio
Application October 20, 1954, Serial No. 463,478
2 Claims. (Cl. 308—196)

1. In a bearing unit having a plurality of bearings and inner and outer races engaging said bearings arranged in a circular path, the improvement of a split resiliently compressible outer race having an outer peripheral surface, said outer peripheral surface having a minimum circumference upon the compression of the outer race closing said split, said outer race being resiliently biased to expand outwardly to widen said split, said outer peripheral surface having a larger circumference than said minimum circumference in the expanded condition of said outer race, said outer race having a plurality of axially spaced and circumferentially extending ridges disposed on said outer peripheral surface and forming a plurality of peaked portions extending radially outward of said outer race, the opposite axially disposed sides of each of the peaked portions being angularly disposed to each other, the sides toward one axial end being on a gradual incline and the sides toward the other axial end being abrupt, relative to each other, said bearing unit being insertable in the round aperture of an apertured supporting member, said aperture having a circumference less than the said larger circumference of the outer race in expanded condition whereby the outer race is com-



pressed upon insertion in the aperture to close said split by the confinement of the walls of said aperture and the outer peripheral surface of the outer race assumes said minimum circumference, said gradually inclined sides of the peaked portions providing a sliding engagement with the walls of said aperture upon insertion of the said unit in one direction into the aperture and the abrupt sides of the peaked portions meeting said aperture walls to resist axial withdrawal of the unit in an opposite direction from the aperture, said resilient bias of the outer race retaining the engagement of said peaked portions with said walls to lock the unit within said aperture.

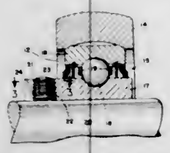
2,779,642
SWIVEL
John T. Matthews, Charlotte, N. C., assignor to Wil-Mat Corporation, Charlotte, N. C., a corporation of North Carolina
Application June 14, 1954, Serial No. 436,314
5 Claims. (Cl. 308—227)

1. A swivel comprising two plates each having a central opening therethrough and juxtaposed with said openings aligned, an annular bearing cup having an annular raceway concentric with the aligned openings, said cup being positioned with the raceway directed toward a face of one plate, bearing balls in said raceway and in rolling engagement with said face of said one plate, said raceway being of a depth only slightly less than the diameter of the bearing balls whereby the outer edge of the raceway lies in close proximity to said face whereby said face covers the cup and forms therewith a substantially closed ball housing, a pivot member extending through said openings, the openings both being of a diameter to snugly encircle the pivot member, and means carried by the pivot member and having said plates therebetween and securing the plates in a predetermined axially spaced relation.

2,779,643
SHAFT MOUNTING
David Firth, South Bend, Ind., assignor to Dodge Manufacturing Corporation, Mishawaka, Ind., a corporation of Indiana
Application May 20, 1953, Serial No. 356,266
5 Claims. (Cl. 308—236)

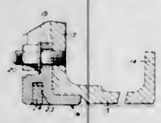
1. A shaft mounting comprising a roller bearing embodying a sleeve of resilient material forming an inner

roller bearing race, said sleeve being sized to slidingly receive a shaft to be mounted, said sleeve having circumferentially spaced cylindrical openings, formed inwardly



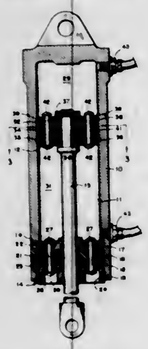
of an end of said sleeve and threaded to receive set screws in said openings in position to engage a shaft extending in the sleeve, and an end slit connecting each of said openings with the adjacent end of said sleeve.

2,779,644
COMPRESSOR PISTON
Bernard Charles Lovatt, Sunbury-on-Thames, England, assignor to Alan Muntz & Company Limited, Hounslow, England
Application February 8, 1954, Serial No. 408,921
11 Claims. (Cl. 309—4)



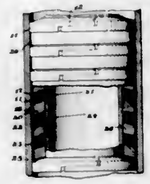
1. A free piston compressor piston comprising a body portion and a skirt portion of a metal selected for strength properties and a ring member of another metal selected for bearing properties and detachably mounted on said body portion and having an annular bearing part of greater diameter than said skirt portion, the skirt portion having an axial length substantially greater than the axial length of the ring member.

2,779,645
DOUBLE ACTING HIGH PRESSURE SEAL
Walter H. Hogan, Olmsted Falls, Ohio, assignor to The Cleveland Pneumatic Tool Company, Cleveland, Ohio, a corporation of Ohio
Application October 14, 1954, Serial No. 462,214
4 Claims. (Cl. 309—23)



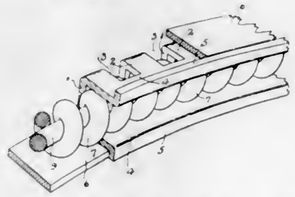
1. A double acting packing assembly for providing a fluid seal between two elements comprising resiliently deformed packing radially confined by said elements and axially confined by first and second radial members, both of said radial members being mounted on one of said elements for axial motion relative thereto, means on said one element limiting axial motion of each of said radial members relative thereto in only the direction away from said packing, a plunger extending through said packing and members formed with a head at each end engageable with the adjacent member limiting axial motion of the plunger relative to the adjacent member in only the direction toward the remote member.

2,779,646
PUMP PLUNGER RING AND SPACER
Murrel L. Creed, Kilgore, Tex.
Application July 16, 1953, Serial No. 368,269
7 Claims. (Cl. 309—32)



1. A pump plunger ring and spacer unit comprising an annular ring, said ring having a step joint including overlapping sealing tongues, and an annular metal spacer adapted for interfitting relationship with the lower surface of said ring, the upper and lower surfaces of both said ring and spacer being correspondingly beveled to coincide substantially with the surfaces of cones coaxial with said body.

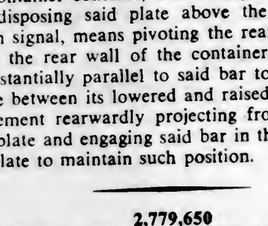
2,779,647
PISTON RING
Douglas W. Hamm, Muskegon, Mich., assignor to Muskegon Piston Ring Company, Muskegon, Mich., a corporation of Michigan
Application December 10, 1953, Serial No. 397,403
1 Claim. (Cl. 309—44)



In a piston ring having two parted, circular, spaced, thin metallic rails, a vented, circular, parted spacer between the rails of channel cross section having an outer web and flanges extending inwardly from opposite edges of said web, and engaging means on said flanges at the inner edges of said rails, the improvement comprising, a circular, parted coiled circumferentially compressible spring seated in said spacer back of the web and between the flanges thereof having end coils of said spring at the parting thereof in abutting engagement, and a rod bridging the parting in said spring, said rod having opposite end portions inside the end portions of said spring at opposite sides of said parting, said spring grippingly securing the rod against movement relative to the spring.

2,779,648
COLLAPSIBLE LEG STRUCTURE FOR ATTACHMENT TO A TABLE TOP AND THE LIKE
William J. Kranz, Cuba, N. Y., assignor to Viko Furniture Corporation, Eldred, Pa., a corporation of Pennsylvania
Application April 2, 1954, Serial No. 420,708
3 Claims. (Cl. 311—35)

1. Collapsible leg structure attachable to a table top and the like comprising a plate, a set of four tubular legs, the upper parts of said legs extending substantially horizontally and adapted to provide a considerable area of contact support for said top, flattened ends on said parts, the plane of said ends being adjacent the top surfaces of said horizontal parts, said ends overlapping said plate,



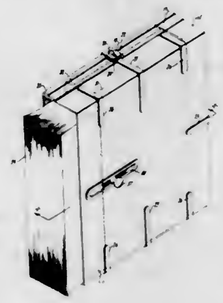
diagonally opposite leg ends being rigidly joined to said plate, the other of said ends being pivotally joined to said plate, means securing said plate in abutment with the under face of said top, and further means remote from said plate for drawing said parts into abutment with said top.

2,779,649
MERCHANDISE CLASSIFYING AND STORAGE UNIT
Allan K. Neilson, Rockford, Ill.; Elsa Lynne Neilson, executrix of said Allan K. Neilson, deceased
Application July 12, 1954, Serial No. 442,559
7 Claims. (Cl. 312—245)

1. In a merchandise classifying and storage unit, the combination with a substantially horizontal bar and an open-topped container having a bottom and front and rear walls, and means pivotally mounting the container on said bar in a forwardly projecting relation to the bar to swing about an axis substantially parallel to the bar, of a plate having a rear wall and having a lowered position within the container and spaced above said bottom, to cover in such position a predetermined lower portion of the container contents, and having an upper position largely disposing said plate above the container as a depletion signal, means pivoting the rear portion of said plate on the rear wall of the container about a second axis substantially parallel to said bar to afford travel of the plate between its lowered and raised positions, and a latch element rearwardly projecting from the rear wall of said plate and engaging said bar in the raised position of the plate to maintain such position.

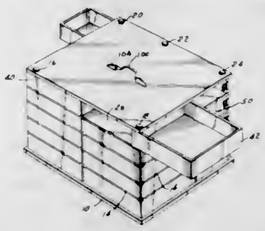
2,779,650
HOLDER FOR TELEPHONE DIRECTORY
Armand V. Lamothe, San Francisco, Calif.
Application February 13, 1953, Serial No. 336,758
1 Claim. (Cl. 312—246)

In a holder for a telephone directory which may be interchangeably secured to the bottom and the top of a horizontal shelf and the right and left side of a desk and adapted for receiving said directory and presenting it for ready access forwardly from said shelf and from said desk when said holder is secured in any of said four positions, the improvement comprising in combination therewith an open-ended inner case uniformly rectangular in transverse cross section and dimensioned so as to readily receive thereinto and to readily permit withdrawal therefrom a telephone directory when said directory is inserted edgewise thereinto, the depth of said inner case measured from its open end being less than the width of said directory, an open ended outer case positioned about said inner case and so dimensioned that when said holder is in any one of said four positions with respect to said desk and said shelf the lowermost horizontal side wall of said inner case is in slidable relationship with the adjacent lowermost horizontal side wall of said outer case, a first side wall of said outer case being



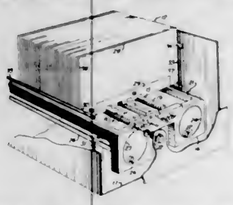
provided with a slot positioned parallel to the longitudinal axis of said outer case and adapted to receive in slidable engagement a knob secured to the adjacent side of said inner case whereby to move said inner case forwardly and rearwardly from its rearmost position within said outer case, and a second side wall of said outer case opposite said first side wall being provided with fastening means to secure said second side wall to the right hand side of a desk and alternatively to secure said second side wall to the left hand side of said desk and thereby present the open end of said case forwardly with respect to said desk when said case is secured to either of said sides of said desk.

2,779,651
TACKLE BOX
Henry E. Gettel, Norman, Okla.
Application September 2, 1953, Serial No. 378,109
9 Claims. (Cl. 312—289)



9. A tackle box comprising a first tray and a second tray, means movably supporting said trays in said box in contact with each other with said trays being each movable in determined paths outwardly of said box and with one of said trays lying in the path of movement of the other of said trays, said one of said trays preventing movement of said other of said trays outwardly of said box when in said contact therewith, said one of said trays being movable outwardly of said box out of said path of movement of said other of said trays, said one of said trays being movable partly outwardly of said box while still in said contact with said other of said trays.

2,779,652
FILING APPARATUS
Lyman W. Orr, Ann Arbor, Mich., assignor to Burroughs Corporation, a corporation of Michigan
Application July 8, 1952, Serial No. 297,714
20 Claims. (Cl. 312—319)



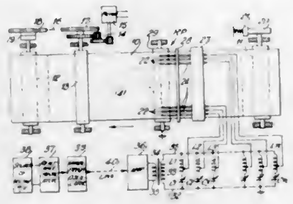
1. A filing unit for use with random access filing systems storing a series of files in a vertically inclined individually selectable pack, said unit comprising in combination, an upper record portion adapted for carrying intelligible data, a lower indicia portion including a coded identifying section adapted for individual selection by engagement of external coding elements, a pair of freely moving parallel links coupling said upper portion to said lower portion so that the lower portion is held at a lower limiting position by force of gravity, the parallel links connecting the two portions in such a manner that horizontal movement of the lower portion of the filing unit will transmit vertical, upward movement to the upper portion of the filing unit upon engagement of said external coding elements with the coded section of said filing unit.

2,779,653
CABINETS
Herbert E. Elsden-King and Stanley Richard Gittins, London, England, assignors to Tipdex (Holdings) Limited, London, England, a British company
Application December 21, 1954, Serial No. 476,782
Claims priority, application Great Britain January 14, 1954
15 Claims. (Cl. 312—326)

1. A cabinet comprising a casing and a container, the container being mounted tiltably within the casing at a support position below its tilting position, means being provided for causing the support position of the container to move rearwardly into the casing as the upper front end of the container is moved forwardly and downwardly.

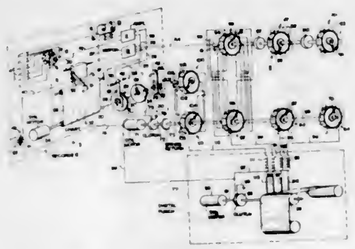
2,779,654
GRAPHICAL RECORDING SYSTEMS
David Theodore Nelson Williamson, Hollinwood, England, assignor to Ferranti Limited, Hollinwood, England, a company of Great Britain
Application November 2, 1950, Serial No. 193,618
Claims priority, application Great Britain November 8, 1949
3 Claims. (Cl. 346—33)

1. A system for the high-speed graphical recording of intelligence represented by a waveform of the amplitude versus time type comprising, a sheet of electro-responsive material capable of being rendered conductive to give a visible response upon the application of a predetermined alternating voltage thereto, a row of stylus members each arranged in proximity to a different unit area of the sheet, means for moving the electro-responsive material transversely relative to row of stylus members at a speed suitable for providing a time axis of the desired scale, means for deriving from the amplitude variations of the applied waveform frequency-modulated signals having a range of frequencies suitable to provide recording of the waveform to the required amplitude scale, a plurality of frequency selective energizing circuits



each comprising an oscillatory circuit tuned to a different frequency and one of said stylus members connected in direct energy transfer relation thereto, the said tuning frequencies each being related to a particular one of said derived signals such that each stylus member represents by virtue of its position a particular value of a variable component of the intelligence, and a receiving circuit for said derived signals connected in common to all of said oscillatory circuits and responsive to the receipt of said derived signals to apply to all of said oscillatory circuits signals whose frequencies lie within the range covered by said tuned circuits and which are representative of the different values of the said variable component of the intelligence.

2,779,655
GRAPHICAL TO DIGITAL INDICATION CONVERTER
Waldo H. Kliever, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application December 1, 1952, Serial No. 323,440
12 Claims. (Cl. 346—44)



1. Apparatus for digitally recording the value of a condition, comprising in combination: a balanceable network; first switch means having a plurality of fixed contacts and a movable contact; means rotating said movable contact to make successive contact with said fixed contacts upon unbalance of said balanceable network until the network is balanced; second switch means having the same number of fixed contacts as said first switch means and a movable contact; means rotating said movable contact of said second switch means to make successive contact with said fixed contacts upon balance of the balanceable network; means connecting the fixed contacts of said first switch means with the corresponding fixed contacts of said second switch means; energizing means; and means connecting said movable contacts of said first and second switch means and said energizing means with digital recording means such that the digital recording means is energized upon the network being balanced and said movable contacts of said first and second switch means making contact with corresponding fixed contacts of said first and second switch means.

CHEMICAL

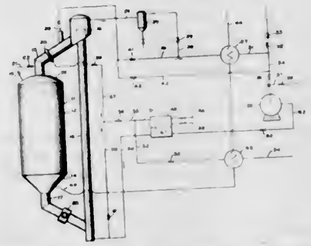
2,779,656
BLEACHING OF KRAFT PULP
Francis L. Fennell, Niagara Falls, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application June 16, 1953, Serial No. 362,075
4 Claims. (Cl. 8—106)

1. In a multi-stage process for bleaching kraft pulp in which active chlorine agents are employed in a series of treatments including a final hypochlorite bleaching stage and which includes an intermediate caustic extraction treatment using an alkaline extracting liquor containing a peroxygen compound prior to said final hypochlorite bleaching stage, the improvement comprising employing in said extraction treatment a liquor having a total alkali content of 1.0 to 2.2% calculated as NaOH and based upon the dry weight of the pulp, at least 60% of said total alkalinity being derived from a material of the group consisting of the alkali metal hydroxides and alkali metal peroxides.

2,779,657
RECOVERY OF URANIUM FROM WASH LIQUIDS
Albert E. Ballard, Oak Ridge, Tenn., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
Application November 19, 1945, Serial No. 629,667
6 Claims. (Cl. 23—14.5)

6. In a process for decontamination and recovery of uranium from an aqueous solution containing the same, as a nitrate, in concentration of at least the order of 3 to 4 percent by weight with respect to uranium, together with dissolved iron contamination in concentration of at most 20 percent by weight of the uranium concentration, along with dissolved chromium, nickel and copper contamination, the improvement operation which comprises, incorporating sulfuric acid to render the solution substantially 0.1 M in sulfate ion, then while maintaining the pH below 1 and the temperature within the range 50° to 80° C. adding hydrogen peroxide to render said uranium values to be in the uranyl oxidation state and said iron contamination to be in the ferric state, thereupon by means of adding ammonium hydroxide in the presence of surface active agent incorporated in said solution raising the pH of the solution to the range pH 3.1 to 3.5, while maintaining the temperature within the range 10° to 40° C., to thereby throw down from solution said iron contamination as a precipitate of enhanced separability, removing the resulting precipitate from its supernatant solution, thereupon adding ammonium hydroxide to the remaining supernatant solution to raise the pH to the range pH 6.5 to 8, and digesting at temperature within the range of 50 to 85° C., to precipitate said uranium values as uranium diuranate, separating the obtained diuranate precipitate from its supernatant solution, dissolving the separated diuranate precipitate in dilute aqueous nitric acid, and while maintaining the pH of the obtained solution at substantially pH 2, adding hydrogen peroxide thereto to precipitate said uranium values as uranium peroxide.

2,779,658
PEBBLE HEATER
Robert A. Findlay, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application January 2, 1952, Serial No. 264,590
19 Claims. (Cl. 263—19)

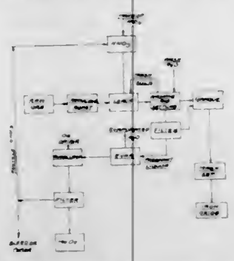


1. An improved pyrolysis system which comprises a closed, upright, elongated shell inclosing a single chamber; pebble inlet means in the upper end of said shell; gaseous effluent means in the upper end of said shell; pebble outlet means in the lower end of said shell; gaseous material inlet means in the lower end portion of said shell; pebble feeder means intermediate the ends of said pebble outlet means; an upright gas-pebble conduit connected at its lower end portion to the lower end of said pebble outlet means and extending to a level above the top of said shell; a gas-pebble separator chamber connected to the upper end of said gas-pebble conduit; a pebble conduit connecting said pebble inlet means and the lower end portion of said separator chamber; a source of hot lift gas outside of said gas-pebble conduit and outside of said shell; lift-gas inlet means connected to the lower end of said gas-pebble conduit and to said source of hot lift gas; and gaseous material effluent means in the upper end portion of said separator chamber.

2,779,659
DECOMPOSITION OF MANGANESE NITRATE SOLUTIONS
Joseph Koslov, Great Neck, N. Y., assignor to Vitro Corporation of America, New York, N. Y., a corporation of Delaware
Application October 23, 1953, Serial No. 388,015
6 Claims. (Cl. 23—145)

1. The method of recovering metal oxides of metals capable of forming an aqueous nitric acid insoluble oxide from an aqueous nitrate solution thereof, comprising subjecting the solution to reaction conditions of a temperature above about 200° C. in a closed reaction zone and also adding to the reaction zone sufficient oxygen to raise the partial pressure of oxygen to at least about 50 pounds

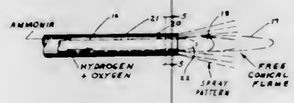
per square inch gauge, maintaining the temperature and pressure conditions for a period of at least about 15 minutes and subsequently separating precipitated oxide from the aqueous nitric acid medium.



2,779,660
METHOD OF PRODUCING HYDRAZINE

John Robell, West Hempstead, N. Y., assignor to Guggenheim Brothers (1949), a copartnership

Application February 9, 1952, Serial No. 270,821
5 Claims. (Cl. 23—190)



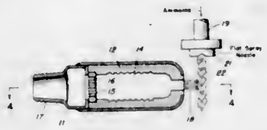
1. The method of producing hydrazine that comprises forming an open combustion flame by igniting and burning a mixture of oxidizing material and combustible material capable of producing flame temperatures substantially in excess of the decomposition temperature of hydrazine, directing a separate stream of ammonia at a high velocity into contact with said combustion flame while said flame is maintained at a temperature substantially higher than the decomposition temperature of hydrazine and forming a high-temperature gaseous reaction product containing (1) hydrazine resulting from transformation of a portion of the ammonia, (2) unaltered ammonia, and (3) products of combustion resulting from ignition and burning of the mixture of oxidizing material and combustible material, removing the high-temperature gaseous reaction product from the flame zone to a cooling zone and cooling the product to a temperature at which hydrazine contained therein is stable, and separating a hydrazine-containing product from other substances associated therewith in the cooled product, ammonia being introduced into contact with the combustion flame, (1) at a rate such as to provide a time of contact of the ammonia with the flame substantially shorter than one one-hundredth ($\frac{1}{100}$) of a second, (2) at a temperature substantially below the temperature of said combustion flame, and (3) in an amount in excess of that required for reaction, such as to aid materially in cooling the gaseous reaction product to a temperature at which hydrazine contained therein is relatively stable.

2,779,661
PROCESS FOR PRODUCING HYDRAZINE

John Robell, West Hempstead, N. Y., assignor to Guggenheim Brothers (1949), a copartnership

Application October 29, 1952, Serial No. 317,533
4 Claims. (Cl. 23—190)

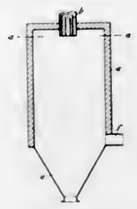
1. The method of producing hydrazine which comprises directing a heated blast of gases into a reaction zone and forming in the reaction zone a stream of hot gases having a temperature substantially higher than the decomposition temperature of hydrazine, said heated blast of gases being formed by pre-ignition and burning of a combustible mixture of gases at a point adjacent said reaction zone, directing a separate stream of ammonia at a high velocity into contact with the stream of hot gases of combustion within the reaction zone and forming therein a high-temperature gaseous reaction product comprising: (1) hydrazine resulting from transformation of a portion of the ammonia; (2) unaltered ammonia, and (3) products of combustion resulting from pre-ignition and burning of the combustible mixture of gases, removing the high-temperature gaseous reaction product from the hot reaction zone to a cooling zone and cooling said product to a temperature at which hydrazine contained therein is stable, and separating hydrazine from other substances associated therewith in the cooled product, ammonia being introduced into the hot reaction zone; (1) at a rate such as to provide a time of contact of the ammonia with the stream of hot gases of combustion substantially shorter than one one-hundredth (1/100) of a second; (2) at a temperature substantially below the temperature of said heated blast of gases; and (3) in an amount in excess of that required for reaction, such as to aid materially in cooling the gaseous reaction product to a temperature at which hydrazine contained therein is relatively stable.



2,779,662
PROCESS AND APPARATUS FOR OBTAINING TITANIUM DIOXIDE WITH A HIGH RUTILE CONTENT

Walter Frey, Basel, Switzerland, assignor, by mesne assignments, to Fabriques de Produits Chimiques de Thann et de Mulhouse, Thann (Haut-Rhin), France, a corporation of France

Application October 2, 1950, Serial No. 187,924
Claims priority, application Switzerland February 20, 1948
8 Claims. (Cl. 23—202)

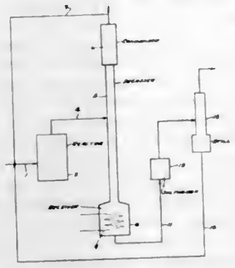


1. A process for producing titanium dioxide, which comprises continuously flowing into a reaction chamber an annular stream of a gaseous mixture containing vaporized anhydrous titanium tetrachloride and at least enough oxygen to support complete decomposition and combustion of the titanium tetrachloride, in the form of a thin gaseous layer having a thickness of at most 1 cm. and at least 1 mm., and igniting the gases in said layer and maintaining a flame thereof in said chamber by contacting said layer near the point of its entrance into said chamber with auxiliary flames sustained by separate inflows of a combustible gas and an oxygen containing gas inside and outside said annular layer, thereby intensively decomposing and oxidizing the titanium tetrachloride to form finely divided titanium dioxide.

2,779,663
RECOVERY OF THIONYL CHLORIDE

Fred C. Trager, Akron, Ohio, assignor to Columbia-Southern Chemical Corporation, Allegheny County, Pa., a corporation of Delaware

Application November 3, 1951, Serial No. 254,750
5 Claims. (Cl. 23—203)

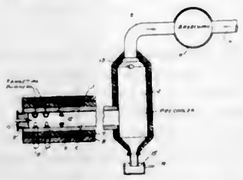


1. A method of recovering thionyl chloride from a gaseous mixture containing thionyl chloride, sulfur dioxide, and chlorine, the temperature of said mixture being in excess of 100° C., which comprises bringing the gaseous mixture into contact with an upwardly flowing stream of gaseous thionyl chloride, which stream is in contact with a countercurrently flowing stream of liquid thionyl chloride, condensing thionyl chloride from the gaseous mixture above the point of contact of said gaseous mixture with the countercurrently flowing streams of thionyl chloride, collecting a pool of liquid thionyl chloride below said point of contact, vaporizing a portion of the pool of thionyl chloride and supplying the resulting gaseous thionyl chloride to the upwardly flowing stream, and removing liquid thionyl chloride from said pool while maintaining the thionyl chloride at a temperature above 70° C. until it is withdrawn from the pool.

2,779,664
CARBON BLACK PRODUCTION

Carl W. Sweitzer, Garden City, N. Y., assignor to Columbian Carbon Company, New York, N. Y., a corporation of Delaware

Application May 18, 1953, Serial No. 355,534
4 Claims. (Cl. 23—209.4)



1. In the process for making furnace black whereby a hydrocarbon is rapidly mixed with a stream of hot gases passing through an elongated furnace chamber and is decomposed by heat absorbed from the hot gases to form furnace black in suspension therein and the suspension is thereafter passed from the chmber, cooled and the black separated from the gaseous suspension, the steps of separately generating oxidizing combustion gases containing from about 1 percent to about 6 percent, by volume, of free oxygen at a reaction temperature of the black within the range of 1200° to 2200° F. and rapidly uniformly mixing the hot separately generated oxidizing gases with the gaseous suspension of the furnace black while the suspension is still at a reactive temperature of the black within the said range, and so proportioning the amount of oxidizing combustion gases mixed with the suspension, with respect to the free oxygen content of said gases, as to result in an initial free oxygen concentration of the mixture of about 0.5 percent to about 3 percent by volume.

2,779,665
MANUFACTURE OF CARBON BLACK

George L. Heller, Monroe, La., assignor to Columbian Carbon Company, New York, N. Y., a corporation of Delaware

Application October 27, 1954, Serial No. 464,981
8 Claims. (Cl. 23—209.8)

1. A process for making furnace carbons by thermally decomposing carbon-containing compounds which comprises spraying a liquid aromatic, carbon-containing compound, having a vapor volume not exceeding 5 cubic feet (calculated at standard temperature and pressure conditions) per gallon of liquid, upwardly into a vertically elongated furnace chamber, passing a gently flowing current of air upwardly into the lower end of the chamber in contact with said spray, the proportion of oxygen so supplied by the air being substantially less than that required to burn all of the carbon-containing material so introduced, burning a portion of the carbon-containing material in the lower end of said chamber and thereby generating heat and combustion gases and consuming substantially all of the free oxygen of the air, so regulating the quantity of air and of the carbon-containing material supplied to the lower end of said chamber as to maintain in the chamber above the burning zone a non-turbulent, slowly rising atmosphere of reducing gases, at a temperature at which the carbon-containing material is at least partially vaporized as it passes upwardly as a liquid spray through the reducing atmosphere to form dense vapors, and at which the resultant vapors are decomposed to carbon, and at an upward velocity substantially below that at which the downward pull of gravity on the dense vapors is counteracted by the upwardly rising gases, and thereby causing said dense vapors to drift downwardly in the chamber, decomposing the downwardly drifting vapors by heat absorbed from the hot gases to form flakes of carbon in gaseous suspension and floating the carbon flakes upwardly, through, and out of, the furnace chamber in the upwardly rising furnace gases.

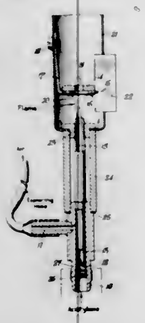
2,779,666
HALIDE DETECTOR

Clifford C. Anthes, Union, N. J., assignor to Union Carbide and Carbon Corporation, a corporation of New York

Application May 22, 1953, Serial No. 356,761
8 Claims. (Cl. 23—254)

1. In a halide detector having a flame nozzle, a metal reaction member adjacent said nozzle for being heated thereby, a fuel gas connection to said nozzle, and a connection for introducing air to said nozzle, said nozzle being of the type for heating said reaction member to a dull red heat with a substantially colorless flame, the combination therewith of the improvement for enhancing the sensitivity of said detector, said improvement including said reaction member having a small amount of sodium in non-volatile form at a dull red heat in quantity to give

no yellow color to a flame from said nozzle in the absence of a gas selected from the group consisting of halogens and halides in air supplied to said flame after any volatile sodium has been burned off at said dull red heat, but in quantity large enough to give a yellow color to said flame at said dull red heat when a gas selected from the group



consisting of halogens and halides is present in about at least 15 parts per million parts of air by volume, said reaction member forming at said dull red heat an untenacious metal oxide coating, and said metal reaction member having a melting temperature well above about 1600° F.

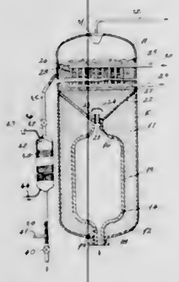
2,779,667

GAS GENERATION

Percival C. Keith, Peapack, N. J.

Continuation of application Serial No. 692,875, August 24, 1946. This application August 5, 1952, Serial No. 302,771

3 Claims. (Cl. 48—196)



2. In a process for the production of carbon monoxide and hydrogen by reacting a hydrocarbon with oxygen-containing gas at a temperature autogenously maintained in the range of about 2100 to 3000° F. effecting conversion of said hydrocarbon predominantly to carbon monoxide and hydrogen with the incidental production of free carbon, the improvement which comprises conducting the resulting products of reaction at substantially reaction temperature into a fluidized dense phase mass of solid particles of refractory maintained at a temperature in the range of 500 to 1000° F. effecting rapid cooling of said reaction products with simultaneous deposition of free carbon in said fluidized mass, discharging cooled gaseous products of reaction substantially free of carbon from said fluidized mass, withdrawing solid particles of refractory containing entrapped carbon from said fluidized mass, and introducing refractory particles substantially free from carbon to said fluidized mass to replace said particles withdrawn therefrom.

2,779,668

EPOXY RESIN MODIFIED PHENOL RESIN ABRASIVE

Rupert S. Daniels, Union, and Anthony J. Mostello, Newark, N. J., assignors to Union Carbide and Carbon Corporation, a corporation of New York

No Drawing. Application April 2, 1953, Serial No. 346,538

14 Claims. (Cl. 51—298)

1. A composition for abrasive grinding wheels comprising abrasive particles and as a binder therefor an amount of a liquid wetting agent sufficient to wet thoroughly the particles, said wetting agent being at least one selected from the group consisting of furfural, cresol, a liquid heat-hardenable phenol-formaldehyde resin, and a fusible glycidyl ether of a polyphenylol methane, combined with a mixture of a heat-hardenable phenol-formaldehyde resin and a fusible glycidyl ether of a polyphenylol methane, the percentage of said phenol-formaldehyde resin in said mixture varying from 54 to 99 percent by weight, and the ratio of free phenolic hydroxyl groups to epoxy groups in the resin mixture being greater than 7 to 1.

2,779,669

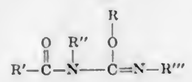
ACYL PSEUDOUREA HERBICIDAL COMPOSITION AND A METHOD FOR KILLING WEEDS THEREWITH

Jack A. Snyder, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

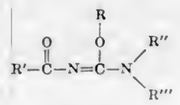
No Drawing. Application February 18, 1954, Serial No. 411,279

2 Claims. (Cl. 71—2.6)

1. A method for the control of weeds which comprises applying to a locus to be protected, in amount sufficient to exert a herbicidal action, an acyl pseudourea selected from the group consisting of compounds represented by the formulas



and



where R is from the group consisting of substituted and unsubstituted alkyl and alkenyl organic radicals of 1 to 4 carbons, R′ is from the group consisting of phenyl and substituted phenyl radicals, and R″ and R‴ are from the group consisting of hydrogen and substituted and unsubstituted alkyl and alkenyl organic radicals of 1 to 6 carbons.

2,779,670

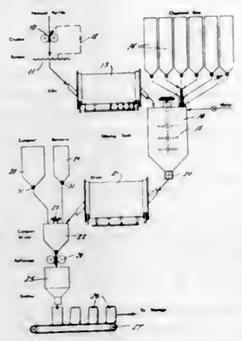
SOIL CONDITIONING AND FERTILIZING COMPOUNDS AND METHODS OF MANUFACTURE

Albert Le Roy Burkett, Pueblo, Colo., assignor to Combined Minerals, Inc., Denver, Colo., a corporation of Colorado

Application October 27, 1952, Serial No. 317,115

3 Claims. (Cl. 71—64)

1. A method of manufacturing a soil conditioning compound comprising: expanding perlite under the influence of heat; discharging the expanded perlite into an aqueous solution; adding inorganic salts containing nitrogen, potash, and phosphate to said solution; agitating the solution; discharging the solids from said solution to a dryer; drying the solids sufficiently to cause the salts of the solution to precipitate upon and to adhere to the surfaces and in the interstices of the perlite particles; discharging the perlite with the adhering dried salts to a mixer; adding organic soil conditioning ingredients to said mixer; mixing the perlite with the adhering dried salts with the organic



ingredients; thence discharging the perlite with the intermixed organic material and adhering dried salts as a soil conditioning compound.

2,779,671

PROCESS FOR GRANULATING SULFIDE ORES OR THE LIKE

Adolphe Denis Henri Léon Fassotte, Neerpelt, Belgium, assignor to Compagnie des Metaux d'Overpelt-Lommel et de Corphalie S. A., Overpelt-lez-Neerpelt, Belgium

No Drawing. Application April 16, 1956, Serial No. 578,204

1 Claim. (Cl. 75—3)

In a process for granulating sulfide ores comprising from about 2% to about 4% of sulfur in the form of zinc sulfate as a binder, or to which sulfur in the form of zinc sulfate may be added so as to reach a percentage of S as zinc sulfate of from about 2 to about 4%, adding an amount of water such that the ratio in weight of water to sulfur as zinc sulfate shall be comprised between about 2 and 4, heating the mixture at a working temperature comprised between 70° C. and 100° C., kneading of the mixture at the working temperature to obtain a paste, extruding the kneaded mixture at a temperature comprised beween 70° and 100° C. through perforated supports to obtain in a manner known per se small rods, and cooling the rods at a temperature comprised approximately between 0° C. and 70° C., thus obtaining a hardening of the rods.

2,779,672

METHOD OF TREATING MOLTEN MAGNESIUM

Douglas S. Chisholm and William P. Saunders, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application October 30, 1953, Serial No. 389,498

3 Claims. (Cl. 75—67)

1. The method of treating a molten body of magnesium containing at least one of the metals iron, aluminum, and manganese as an impurity which comprises maintaining under and in contact with the body of molten magnesium to be purified a quantity of a saline flux therefor having a greater density than the said molten magnesium and being inert to titanium tetrachloride, passing titanium tetrachloride vapor into the molten magnesium through the flux under the molten magnesium in amount sufficient to purify the molten magnesium whereby metallic titanium is precipitated in the molten magnesium sequestering impurities therein, and separating the so-treated molten magnesium from the precipitated titanium.

2,779,673

SMELTING OF TIN

Stephen Esslemont Woods, Bristol, England, assignor, by mesne assignments, to Metallurgical Processes Limited and The National Smelting Company Limited doing business as Metallurgical Development Company, Nassau, Bahamas

No Drawing. Application February 3, 1954, Serial No. 408,043

Claims priority, application Great Britain February 6, 1953

1 Claim. (Cl. 75—85)

In the method of operating a blast furnace in which a preheated charge containing an oxidic zinc material and carbonaceous fuel is introduced into the top of the furnace, preheated air is blown into the bottom of the furnace, molten slag is tapped from the bottom of the furnace, and a gaseous mixture containing zinc vapor, carbon monoxide and carbon dioxide is withdrawn from a higher part of the furnace and passed into a condenser to recover molten zinc, the improvement which comprises incorporating in said charge a substantial amount of oxidic tin material and about one percent of sulphur based on the metalliferous content of the charge whereby under the conditions prevailing in the blast furnace sulphur reacts with oxidic tin material to form stannous sulphide vapor which enters the aforementioned gaseous mixture, reducing the stannous sulphide entering said gaseous mixture by contact with zinc to metallic tin, incorporating said metallic tin in the molten zinc recovered in said condenser, and separating tin from the tin-containing zinc.

2,779,674

METHOD OF REMOVING COPPER FROM BRAZED JOINTS

Arthur T. Cape, Los Angeles, Calif., assignor to Superweld Corporation, North Hollywood, Calif., a corporation of California

No Drawing. Application June 18, 1954, Serial No. 437,871

5 Claims. (Cl. 75—101)

1. In a method of treating copper-brazed steel parts to dissolve the copper without attacking the steel, the step which consists in treating the parts with nitric acid and a solution containing gold ions in an amount effective to inhibit the attack of the steel.

2,779,675

FOUNDRY PRACTICE

Gosta Vennerholm, Dearborn, and Harold N. Bogart, Detroit, Mich., assignors to Ford Motor Company, Dearborn, Mich., a corporation of Delaware

No Drawing. Application June 2, 1953, Serial No. 359,202

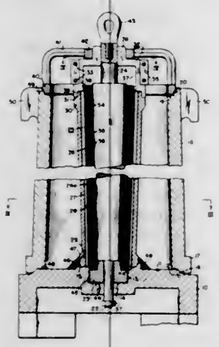
9 Claims. (Cl. 75—130)

2. The process of producing nodular iron castings comprising charging into a basicly operated cupola a ferrous charge, limestone to the extent of 9 to 12%, fluor spar to the extent of 2 to 5% and coke to the extent of 575 to 650 pounds to each 2920 pounds of metallics, injecting air into the cupola at a plurality of points which are substantially removed from the wall of the cupola, regulating the blowing rate to produce an iron substantially saturated with carbon and to produce a slag having a manganese oxide content of from 0.1% to 0.4%, tapping the cupola into ladles to which has been added a fluoride containing flux, adding a magnesium bearing alloy in an amount to leave a magnesium residual of from 0.005% to 0.030%, inoculating and casting the metal.

2,779,676
FLEXIBLE BUSHING AND MOLD STOOL FOR CAST TUBULAR INGOTS

Benjamin Brownstein, Ellwood City, Pa.

Application November 8, 1954, Serial No. 467,548
1 Claim. (Cl. 75—140)

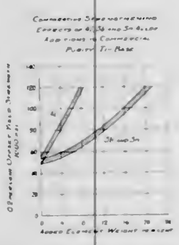


In a mold for casting a tubular ingot, the combination of a solid core, a tapered protective linear enclosing the solid core throughout the area exposed to metal during solidfication of an ingot cast in the mold, and a mold stool for supporting the core and protective liner having a bushing engaging portion which is upwardly offset above the level of the bottom of the mold cavity, said protective liner comprising an inner jacket adjacent the core and an outer flexible bushing thereabout having an end supported upon said stool portion so as to be held in an upwardly offset position above the level of the bottom of the described ingot whereby, upon shrinkage and solidfication thereof, said ingot grips the outer flexible bushing whereupon the solid core and jacket may be withdrawn with the bushing left remaining in its upwardly offset position protecting the bore of the resulting ingot.

2,779,677
Ti-Sn-Al ALLOYS WITH ALPHA, BETA AND COMPOUND FORMERS

Robert I. Jaffee, Worthington, and Horace R. Ogden and Daniel J. Maykuth, Columbus, Ohio, assignors, by mesne assignments, to Rem-Cru Titanium, Inc., Midland, Pa., a corporation of Pennsylvania

Application December 28, 1953, Serial No. 400,744
14 Claims. (Cl. 75—175.5)



1. An alloy consisting essentially of about: 1 to 23% tin, 0.25 to 8% aluminum, up to 1% carbon, up to 0.5% oxygen, up to 0.4% nitrogen, 0.5 to 20% of at least one other alpha promoter, balance titanium, characterized in having an ultimate strength substantially in excess of that of the corresponding base alloy without such other alpha promoter addition, said alloy also having a minimum bend ductility of not over 20 T.

2,779,678
METHOD OF TREATING COOKED FOOD PRODUCTS

Elmer W. Hamilton, Madison, Wis., assignor to The Froedtert Corporation, a corporation of Wisconsin

No Drawing. Application December 29, 1953, Serial No. 401,033
7 Claims. (Cl. 99—100)

1. A process of preparing storage-stable oil-cooked potato products which comprises treating such potato products with a malt flour in an amount from about 0.33 to about 0.5 pint of malt flour per pound of starchy food product, the malt flour having been admixed with the salt intended for application to the surface of the potato product.

2,779,679
METHOD OF MAKING A BAKERY SHORTENING

Lucas Kiers, Webster Groves, Mo., assignor to Hunter Packing Company, East St. Louis, Ill., a corporation of Illinois

No Drawing. Original application July 10, 1956, Serial No. 173,011, now Patent No. 2,733,149, dated January 31, 1956. Divided and this application March 25, 1953, Serial No. 344,687
2 Claims. (Cl. 99—123)

1. The method of making a bakery shortening which comprises forming a liquid-mixture of water and powdered animal lipins extracted from animal tissue of the class consisting of brains, pancreas and spinal tissue, forming a fat-mixture by melting together glyceryl mono and distearate and a glyceryl ester of hydrogenated vegetable oils and adding thereto glycerine and lecithin, adding the water-lipin mixture to the melted fat-mixture, stirring to form a smooth creamy paste, and thoroughly mixing said paste with lard in the proportion of approximately 5%–10% paste and 90%–95% lard.

2,779,680
FUMIGATION WITH FLUOROCYCLOBUTENES

Mark A. Wolf, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

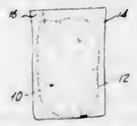
No Drawing. Application June 30, 1953, Serial No. 365,240
5 Claims. (Cl. 99—153)

1. A method for controlling insects, bacteria, nematodes and fungi which includes the step of exposing matter infested with these organisms to a lethal concentration of the vapors of a member of the group consisting of hexafluorocyclobutene, 1-chloro-2,3,3,4,4-pentafluorocyclobutene, and 1,2-dichloro-3,3,4,4-tetrafluorocyclobutene.

2,779,681
METHOD OF PREPARING AND PACKAGING MEAT

Henry B. Sell, New York, N. Y., and Janet Leckie, Fairfield, Conn., assignors to Sell's Specialties, Inc., New York, N. Y., a corporation of New York

Application October 31, 1952, Serial No. 317,986
6 Claims. (Cl. 99—174)



1. The process of preparing and packaging meat in ready-to-eat condition which comprises, taking a number of substantially equal units of meat, preheating said units, seasoning said units, wrapping each unit in parchment paper, enclosing each unit and its wrapper in a moisture proof, flexible, and shrinkable envelop, evacuating and shrinking each envelop to cause it to fit tightly around said unit of meat and its wrapper, inserting the packages, each comprising a unit of meat, its wrapper and its enclosing envelop, into individual containers, stacking the containers within a cooking vessel and simultaneously cooking the meat comprising said packages while in said containers respectively.

2,779,682
PLASTER COMPOSITION FOR USE IN COLLAPSIBLE TUBES

Steven Langer, Jersey City, N. J.

No Drawing. Application April 12, 1954, Serial No. 422,660
3 Claims. (Cl. 106—109)

1. A composition comprising by weight about 100 parts of calcium sulfate dihydrate, between 3.0 and 5.0 parts of a cellulosic acid taken from the group consisting of carboxymethylcellulose and celluronic acid and sufficient water to form an extrudable plastic mass.

2,779,683
METHODS OF MAKING LIGNOCELLULOSE PRODUCTS, AND THE PRODUCTS RESULTING THEREFROM

Harvey J. Gill, Jr., Dubuque, Iowa, assignor to Carr, Adams & Collier Company, a corporation of Iowa

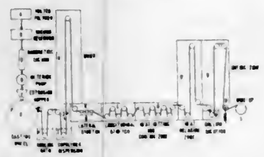
No Drawing. Application October 9, 1953, Serial No. 385,279
13 Claims. (Cl. 106—163)

1. The method of making a lignocellulose product, comprising: intimately mixing a finely divided lignocellulose material with dibasic ammonium phosphate; and heating said mixture at a temperature of at least 400° F. for at least 20 minutes.

2,779,684
POLYESTER FILMS AND THEIR PREPARATION

Francis Peter Alles, Westfield, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application February 17, 1955, Serial No. 488,999
20 Claims. (Cl. 117—7)



8. In a process of making a dimensionally-stable, coated polymer film which comprises forming a sheet of film from a molten highly polymeric ester substantially composed of the polyesterification product of dicarboxylic acid and a dihydric alcohol, said ester having a melting point from 150° C. to 300° C. and being capable of being formed into filaments which when cold-drawn show by characteristic X-ray patterns molecular orientation along the fiber axis, coating at least one surface of the film with an aqueous dispersion of a vinylidene chloride copolymer containing at least 35% by weight of vinylidene chloride, drying the coated polymeric ester film, biaxially orienting the coated film by stretching it at an elevated temperature, heat-setting the copolymer-coated film at a temperature between 150° C. and 210° C. under conditions such that no shrinkage occurs, coating the layer of copolymer with an aqueous solution containing a water-permeable colloid and drying the resulting layer; the step which comprises modifying the heat-set film after the stretching operation by heating it to a temperature of 110° C. to 150° C. for a period of 60 to 300 seconds while maintaining said film under a tension of about 10 to 295 pounds per square inch.

2,779,685
METHOD OF MANUFACTURING A PHOTOCATHODE SCREEN ASSEMBLY FOR AN IMAGE AMPLIFIER

Marten Cornelis Teves, Taeke Tol and Petrus Cornelis Van der Linden, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee

No Drawing. Original application December 26, 1951, Serial No. 263,228, now Patent No. 2,698,912, dated January 4, 1955. Divided and this application March 13, 1953, Serial No. 342,298
Claims priority, application Netherlands January 17, 1951
8 Claims. (Cl. 117—33.5)

1. A method of manufacturing a photocathode screen assembly for an image amplifier comprising the steps of applying a suspension of a fluorescent material in a silicone to one surface of a support of a metal of low atomic number which is relatively pervious to image producing radiation, heating the suspension to a temperature of about 200° C. for about eight hours to polymerize the silicone to form a smooth surface thereon, applying to the smooth surface of the silicone suspension a conductive metal layer which is highly pervious to fluorescent luminescence, and applying a photoelectric layer over said conductive metal layer.

2,779,686
PRINTING PASTE AND METHOD OF PRINTING TEXTILES THEREWITH

Helmut Kleiner, Opladen, and Wolfgang Lehmann, Leverkusen-Bayerwerk, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application July 22, 1952, Serial No. 300,339
8 Claims. (Cl. 117—38)

6. The process for printing textiles which comprises applying to said textiles an aqueous printing paste comprising a salt of (A) an acid and (B) a linear high molecular weight compound containing recurring groups of the general formulae selected from the group consisting of (1)

$$\left[CO-X-(CH_2)_q-N(R)-(CH_2)_r-N(R)-(CH_2)_s-N(R)-(CH_2)_t-X-CO-(CH_2)_p\right]$$

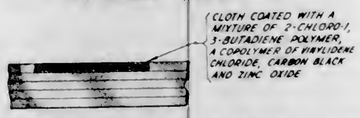
wherein X stands for a radical selected from the group consisting of —NH— and —O—, R stands for a radical selected from the group consisting of hydrogen and a lower alkyl radical, *q*, *r*, *s* and *t* stand for an integer from 2 to 3, and *p* stands for an integer from 0 to 4, and (2)

$$\left[Y-CO-X-(CH_2)_q-N(R)-(CH_2)_r-N(R)-(CH_2)_s-N(R)-(CH_2)_t-X-CO-Y-(CH_2)_u\right]$$

wherein X stands for a radical selected from the group consisting of —NH— and —O—, R stands for a radical stands for a radical selected from the group consisting of —NH— and —O—, only one of the radicals X and Y being —O—, R stands for a radical selected from the group consisting of hydrogen and a lower alkyl radical, *q*, *r*, *s* and *t* stand for an integer from 2 to 3, and *u* stands

for an integer from 2 to 4, a thickening agent and a pigment, and then developing at temperatures from about 80° C. to about 200° C.

2,779,687
FUEL PUMP DIAPHRAGM AND PROCESS FOR MAKING SAME
Ross W. Buchanan and John Gold, Flint, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 20, 1951, Serial No. 242,784
10 Claims. (Cl. 117—47)

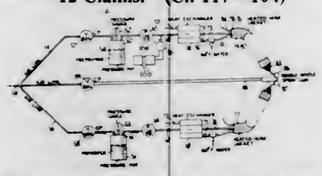


9. A process for manufacturing coated cloth diaphragms comprising steps of treating said cloth with an aqueous solution of a wetting agent, applying to the cloth an aqueous latex containing a mixture of polymeric material, zinc oxide and carbon black to thereby coat the cloth with said mixture, said mixture consisting essentially of (on a dry weight basis) about 60 to 85 parts 2-chloro-1,3-butadiene polymer, and about 15 to 40 parts of a composition consisting of at least about 80% of a copolymer of vinylidene chloride and acrylonitrile and up to about 20% dibutyl phthalate plasticizer, zinc oxide in an amount sufficient to act as a vulcanizing agent and acid neutralizer and carbon black as a coloring and reinforcing agent, and thereafter vulcanizing said mixture.

2,779,688
METHOD OF GLASS COLORATION AND ARTICLE PRODUCED THEREBY
Martin E. Nordberg, Corning, N. Y., assignor to Corning Glass Works, Corning, N. Y., a corporation of New York
No Drawing. Application December 28, 1953, Serial No. 400,799
6 Claims. (Cl. 117—63)

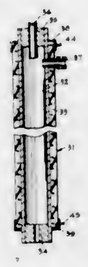
1. In the method of coloring an article composed of a glass containing over 93% SiO_2 and having throughout its mass a multiplicity of substantially empty, submicroscopic intercommunicating pores by impregnating the pores with a solution of an inorganic glass-coloring agent and thereafter drying and heating the article without fusion to close the pores and incorporate the glass-coloring agent into the glass, the steps of impregnating the pores only at and near the surface of the glass while leaving the pores farther in from the surface unimpregnated and thereafter immediately continuing the impregnation with only the solvent until the solution in the impregnated pores has been moved by capillary action farther into the glass.

2,779,689
FORMING FOAMED POLYURETHANE RESINS
Joseph J. Reis, Jr., Pittsburgh, Pa., assignor to Pittsburgh Plate Glass Company, a corporation of Pennsylvania
Application July 19, 1955, Serial No. 522,928
12 Claims. (Cl. 117—104)



1. In a method of forming a polyurethane resin foam upon a solid surface, the steps of spraying from separate orifices (A) a liquid, anhydrous, sprayable, relatively stable prepolymer of a diisocyanate and a polyester of an alcohol containing at least 2 hydroxyls and a dicarboxylic acid and (B) an aqueous dispersion of a polyester which is also an alcohol containing at least 2 hydroxyls and a dicarboxylic acid, impinging the two sprays upon said surface and effecting foaming and curing of the resultant mixture.

2,779,690
METHOD AND APPARATUS FOR FORMING SURFACE FILMS
Romey A. Gaiser, Toledo, Ohio, assignor to Libbey-Owens-Ford Glass Company, Toledo, Ohio, a corporation of Ohio
Application June 30, 1950, Serial No. 171,269
5 Claims. (Cl. 117—104)



3. The method of spraying a selected surface, comprising delivering a hydrolyzable volatile halide and moist air into one end of a hollow elongated chamber from separate sources and at an angle to one another, mixing said materials whereby a chemical reaction takes place, applying heat to the chamber substantially simultaneously throughout the entire length thereof, and emitting the resulting product as a spray from the opposite end of the chamber and against the selected surface.

2,779,691
METHOD OF IMPARTING FLAME-RESISTANCE TO CELLULOSIC MATERIALS
Anne MacMillan Loukomsky, North Plainfield, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application April 11, 1950, Serial No. 155,353
3 Claims. (Cl. 117—136)

1. A method of imparting flame resistance to fibrous cellulosic material which comprises impregnating said material with an aqueous solution of a water-soluble guanylmelamine salt and then applying thereto a member of the group consisting of pyrophosphoric acid and water-soluble salts thereof and thereby precipitating a guanylmelamine pyrophosphate in said material in finely divided form, the quantity of guanylmelamine so precipitated being within the range of about 10% to 40% based on the weight of the fibrous cellulosic material.

2,779,692
ALKALINE EARTH HYDROXIDE FRACTIONATION OF STARCH
Sidney M. Cantor, Overbrook Hills, Lower Merion Township, and Ernest L. Wimmer, Springfield, Pa., assignors to The American Sugar Refining Company, New York, N. Y., a corporation of New Jersey
No Drawing. Application May 10, 1952, Serial No. 287,262
11 Claims. (Cl. 127—71)

1. The method of effecting the fractional separation of amylose and amylopectin from starch containing them which comprises forming a dilute starch dispersion containing about 2% to 5% dispersed starch, reacting such solution with an alkaline earth hydroxide in amount sufficient to precipitate at least the amylose fraction as an insoluble alkaline earth hydroxide complex, suspending the precipitate in water and treating with an amount of an acid which forms an insoluble alkaline earth salt sufficient to react with the alkaline earth hydroxide of such complex and to give a solution of the amylose, and separating the amylose from such solution.

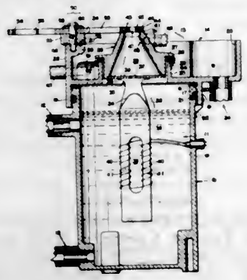
2,779,693
FRACTIONATION OF STARCH
Eugene Pacsu, Princeton, N. J., and Albert W. Bauer, Baltimore, Md., assignors to Textile Research Institute, Princeton Township, N. J., a corporation of New Jersey
No Drawing. Application March 7, 1952, Serial No. 275,469
6 Claims. (Cl. 127—71)

1. The method of obtaining the A-fraction of starch which comprises the steps of dissolving starch in an alkali hydroxide solution having a pH value of from 13 to 14, buffering the solution to a pH value below 11, heating the solution to a temperature of from 60° to 95° C., thereafter cooling the solution and precipitating the A-fraction therefrom with an organic polar agent which will form an insoluble complex with the A-fraction, and removing the precipitate from the solution.

2,779,694
DISAGGREGATION OF STARCH A AND B FRACTIONS
Eugene Pacsu, Princeton, N. J., and Albert W. Bauer, Baltimore, Md., assignors to Textile Research Institute, Princeton Township, N. J., a corporation of New Jersey
No Drawing. Application March 19, 1952, Serial No. 277,552
9 Claims. (Cl. 127—71)

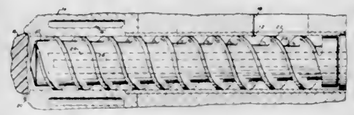
1. The method of separating constituents of starch which comprises mixing the starch with an aqueous solution having a pH value below 5 and containing an organic polar agent which will form an insoluble complex with the A-fraction of the starch, heating the mixture to a temperature above the gelatinization temperature of the starch but below 100° C. for a period of at least 7 minutes, thereafter cooling the solution and separating the disaggregated A-fraction of the starch therefrom.

2,779,695
BALL BEARING ASSEMBLY CLEANER
Gilbert G. Brown, Davenport, Iowa, assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application November 15, 1954, Serial No. 468,781
16 Claims. (Cl. 134—1)



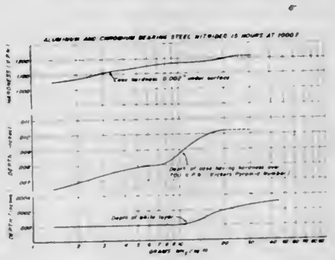
12. An article cleaning method for articles containing ultrasonic wave transmitting material which comprises removing dirt from such an article by the kinetic action of a flowing fluid and the simultaneous action of ultrasonic waves transmitted through said material in the article from a source other than said liquid to a surface of the article.

2,779,696
METHOD OF CLEANING EXTRUDERS
Albert D. Rutherford, Jr., Idlewylde, Md., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application March 4, 1954, Serial No. 414,201
8 Claims. (Cl. 134—7)



1. The method of cleaning the interior of plastics extruders, which comprises introducing into such an extruder water and a granular plastic compound selected from the group consisting of polyvinyl chloride and polyethylene, forcing through the extruder a sufficient quantity of the plastic compound and the water to clean the interior thereof, and maintaining the extruder at such a temperature that the plastic forced therethrough is in extrudable condition and the water is converted into steam.

2,779,697
METHOD OF NITRIDING METALLIC SURFACES
Roy L. Chenault, Seneca, and Gerald E. Mohnkern, Oil City, Pa., assignors to United States Steel Corporation, a corporation of New Jersey
Application September 26, 1955, Serial No. 536,724
4 Claims. (Cl. 148—16.6)



1. A method of nitriding surfaces of metallic articles and controlling the formation of white layer thereon comprising placing the surfaces to be nitrided within a chamber, connecting said chamber to a source of ammonia located externally thereof, heating the chamber to a temperature above that of the ammonia source, charging a regulated mass of ammonia per unit area of surface reactive to nitrogen from said source into said chamber and into direct contact with said surfaces, said mass being equivalent to at least one gram of ammonia per square foot of reactive surface but below the mass which produces appreciable white layer, sealing said chamber with said surfaces and said ammonia in contact and confined therein, and heating said chamber to a temperature approximately between 800 and 1200 F. for a prolonged period.

2,779,698
METHOD OF IMPROVING MACHINABILITY OF STEEL

Robert W. Baughman, Youngstown, Ohio, and Raymond A. Grange, Livingston, N. J., assignors to United States Steel Corporation, a corporation of New Jersey

No Drawing. Application November 4, 1955, Serial No. 545,112

2 Claims. (Cl. 148—21.5)

1. A method of improving the machinability of ferritic steels containing less than .3% carbon with the balance iron and other elements in amounts which do not adversely affect the properties, comprising heating said steel at a temperature determined by the formula

$$T_A = Ae_1 + \tfrac{2}{3}(Ae_3 - Ae_1)$$

wherein

T_A is the furnace temperature
Ae_1 is the lower equilibrium temperature
Ae_3 is the upper equilibrium temperature

to partially austenitize it, cooling said steel to the bainite transformation range, cooling through such range at a sufficiently slow rate to insure essentially complete transformation of the austenite to bainite and thereafter cooling to room temperature.

2,779,699
ANNEALING PROCESS FOR MAGNETIC MATERIAL

William P. Langworthy, Philadelphia, Pa.

Application October 7, 1953, Serial No. 384,616

18 Claims. (Cl. 148—122)

1. The process of producing a part of an electrical machine, said part having magnetic properties, which includes, heating the part, passing it through a mist of a volatile substance containing an ammonium metal carbonate salt that upon striking the heated part breaks down and leaves a thin discontinuous refractory metal oxide coating on the surface of the part, and then annealing the coated part at a temperature above that used during the coating step, the annealing being carried out in the presence of an annealing medium.

2,779,700
FLAME RETARDANT POLYESTER RESINOUS COMPOSITIONS CONTAINING HALOGEN

Paul Robitschek, Buffalo, and Claude Thomas Bean, Jr., Niagara Falls, N. Y., assignors to Hooker Electrochemical Company, Niagara Falls, N. Y., a corporation of New York

No Drawing. Original application September 10, 1952, Serial No. 308,921. Divided and this application January 3, 1956, Serial No. 561,698

18 Claims. (Cl. 154—43)

1. A polymerizable mixture comprising (A) a polymerizable linear polyester of ingredients comprising (1) an adduct of hexahalocyclopentadiene and a polyhydric alcohol containing aliphatic carbon to carbon unsaturation, wherein the halogen is selected from the group consisting of chlorine, bromine, fluorine and mixtures thereof, and (2) a polycarboxylic acid containing aliphatic carbon to carbon unsaturation, and (B) a polymerizable compound containing aliphatic carbon to carbon unsaturation.

2,779,701
FLAME RETARDANT POLYESTER RESINOUS COMPOSITIONS CONTAINING HALOGEN

Paul Robitschek, Buffalo, and Claude Thomas Bean, Jr., Niagara Falls, N. Y., assignors to Hooker Electrochemical Company, Niagara Falls, N. Y., a corporation of New York

No Drawing. Application September 10, 1952, Serial No. 308,921

20 Claims. (Cl. 154—43)

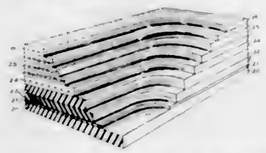
1. A polymerizable mixture comprising (A) a polymerizable linear polyester of ingredients comprising (1) a polyhydric alcohol, (2) an adduct of hexahalocyclopentadiene and a polycarboxylic compound containing aliphatic carbon to carbon unsaturation, wherein the halogen is selected from the group consisting of chlorine, bromine, fluorine and mixtures thereof, and (3) a polycarboxylic compound containing aliphatic carbon to carbon unsaturation, and (B) a polymerizable compound containing aliphatic carbon to carbon unsaturation.

2,779,702
FUEL CELL SUPPORTING PANEL

Robert Foster Wilson, San Gabriel, and Virgil James Mattson, Hawthorne, Calif., assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application July 1, 1953, Serial No. 365,415

9 Claims. (Cl. 154—43.5)



5. A self-supporting, self-sealing non-metallic type aircraft fuel cell comprising a plurality of laminae built up into a fuel-containing enclosure; said laminae including an elastomeric fuel resistant lamina on the interior of the enclosure and, disposed externally of the fuel resistant lamina, an elastomeric fuel-swellable sealant lamina and a stiffening ply comprising a glass filament fabric impregnated with a hard resin, said glass filament fabric being woven with a thread count of 1 to 10 threads per inch in each direction, from flattened, twist-free bundles of glass filaments, said filaments having a filament diameter of .0002–.0010 inch, and said bundles having a yardage of 100–500 yards per pound.

2,779,703
FUNGICIDAL MERCURY TERTIARY BUTYL MERCAPTIDE COMPOSITIONS AND METHOD OF APPLYING THE SAME

Willie W. Crouch and Lyle D. Goodhue, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application June 19, 1950, Serial No. 169,066

3 Claims. (Cl. 167—22)

2. A fungicidal composition which is substantially nontoxic to the fungi situs comprising from 0.1 to 10,000 parts per million of mercury tertiary butyl mercaptide dispersed in a fluid fungicidal adjuvant as a carrier therefor.

2,779,704
N-PHENYL MALEAMIC ESTERS

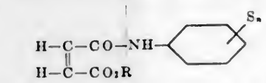
Waldo B. Ligett, Pontiac, Calvin N. Wolf, Ferndale, and Rex D. Closson, Detroit, Mich., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application November 8, 1951, Serial No. 255,536

10 Claims. (Cl. 167—30)

1. Lower alkyl esters of N-nitrophenyl maleamic acid.

3. Fungicidal compositions having as the principal active ingredient material having the general formula



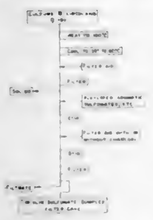
wherein R is a lower alkyl radical, *n* is a small whole number from 1 to 5 inclusive, and S is selected from the group consisting of aryl, halogen, acyl and nitro groups, and a relatively inert fungicidal adjuvant as a carrier therefor.

2,779,705
CIRCULIN DERIVATIVES AND CIRCULIN RECOVERY

Durey H. Peterson and Byron E. Leach, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

Application May 6, 1949, Serial No. 91,858

9 Claims. (Cl. 167—65)



1. A process for the recovery of circulin from a fermentation borth containing the same which comprises: precipitating the circulin from the broth with an anionic sulfonyl-radical containing surface-active agent, separating the precipitate from the remaining broth and recovering the circulin from the precipitate.

2,779,706
INSULIN EXTRACTION

Jan Daniël Herman Homan, Oss, Netherlands, assignor to Organon, Inc., Orange, N. J., a corporation of New Jersey

No Drawing. Application August 1, 1951, Serial No. 239,850

Claims priority, application Netherlands August 12, 1950

6 Claims. (Cl. 167—75)

1. In a process of preparing insulin from insulin containing organs, the step comprising repeatedly extracting said organs by means of an acidic aqueous alcoholic solution of a concentration to yield an alcoholic extract of an alcohol content of about 45–55% by volume, said alcoholic solution containing dissolved therein about 0.3% of ammonium chloride.

2,779,707
SOLUBLE CORTISONE AND HYDROXYCORTISONE COMPOSITIONS

Max Jacobson, New York, N. Y., and Frederick R. Greenbaum, Glenside, Pa.

No Drawing. Application July 25, 1952, Serial No. 300,966

2 Claims. (Cl. 167—77)

1. A pharmaceutical product adapted for intravenous injection, comprising a clear solution of steriod hormones of the adrenal gland selected from the group which consists in cortisone, cortisone acetate, hydroxycortisone and hydroxycortison acetate, dissolved in hexenylglycol.

2,779,708
DEXTRAN DENTIFRICE PREPARATIONS

Kenneth Lyman Russell, Nutley, and Manno Fredrick Nelson, Jr., Madison, N. J., assignors to Colgate-Palmolive Company, a corporation of Delaware

No Drawing. Application February 18, 1953, Serial No. 337,685

4 Claims. (Cl. 167—93)

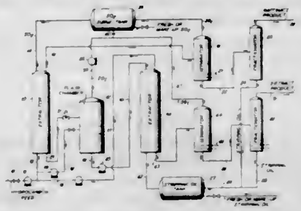
1. A dentifrice composition comprising at least about 20% by weight of water-insoluble polishing material, an organic detergent, and dextran in an amount from about 0.1 to 10% by weight as an added cleansing agent.

2,779,709
EXTRACTION PROCESS

Glenn H. Dale and Russell O. Shelton, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

Application December 31, 1952, Serial No. 329,020

15 Claims. (Cl. 196—14.19)



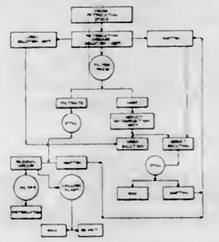
1. In a sulfur dioxide solvent extraction process in which a primary extract phase formed is contacted with a paraffinic stripping oil which is substantially free of sulfur dioxide to produce a final extract product, the improvement which comprises removing sulfur dioxide from said primary extract phase in an amount to form a residual primary extract phase which is less than completely miscible with said stripping oil, and then contacting with said stripping oil said residual primary extract phase, in the condition in which it is obtained and while maintaining it in its said less than complete miscibility condition with said stripping oil, stripping said primary extract phase with said stripping oil while it is maintained in its said condition, and separating a phase containing said stripping oil and a stripped extract phase each from the other.

2,779,710
PROCESS OF UPGRADING PETROLATUM

Joseph Phillips and Anthony Kinsel, Petrolia, Pa., assignors to L. Sonneborn Sons, Inc., a corporation of Delaware

Application July 1, 1953, Serial No. 365,348

3 Claims. (Cl. 196—17)



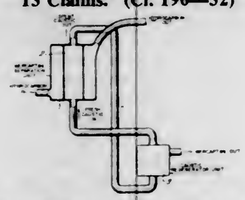
1. Process of upgrading a petrolatum to produce a petrolatum of improved ductility, which comprises treating a crude petrolatum with a decolorizing adsorbent to a color value for said petrolatum of not darker than 35Y5R (½" cell Lovibond color) and thereafter treat-

ing the petrolatum so produced with urea under conditions of adduct formation, separating the adduct so formed and recovering the residual petrolatum of improved ductility.

2,779,711
REFINING OF LUBRICATING OILS
Louis A. Goretta, Hammond, Ind., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana
No Drawing. Application February 28, 1955, Serial No. 491,199
4 Claims. (Cl. 196—24)

1. A process for producing color stable lubricating oil by hydrogenating an unrefined distillate lubricating oil stock derived from a mixed-base crude oil which is characterized by color instability which process comprises contacting the stock with cobalt oxide-molybdenum oxide-alumina hydrogenation catalyst which has been alkalized by incorporation of about 0.5 to 10 mol percent of an alkali selected from the group consisting of compounds of alkali metals and alkaline earth metals, in the presence of hydrogen at a temperature in the range of about 650° to 850° F., a pressure in the range of about 500 to 2500 p. s. i. g. and a space velocity in the range of about 0.5 to 10 W. H. S. V.

2,779,712
CONTINUOUS PROCESS FOR THE REMOVAL OF MERCAPTANS FROM HYDROCARBONS AND APPARATUS THEREFOR
Harrison M. Stine, Lyndhurst, Ohio, assignor to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
Application October 23, 1953, Serial No. 387,977
13 Claims. (Cl. 196—32)

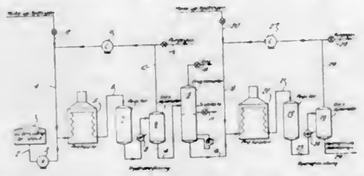


1. An apparatus adapted for continuous operation for the separation of mercaptans from hydrocarbon stock comprising, in combination, a microporous permeable carbon barrier layer disposed between and separating conduit means for flowing hydrocarbon stock in contact with one surface of the layer and conduit means for flowing an aqueous alkali metal hydroxide solution in contact with the opposite surface of the layer.

7. An apparatus adapted for continuous operation for the separation of mercaptans from hydrocarbon stocks comprising, in combination, a multiplicity of layers of microporous permeable carbon barrier disposed between and separating conduit means to pass hydrocarbon stock in contact with one surface of the layer and conduit means to pass an aqueous alkali metal hydroxide solution in contact with the opposite surface of the layer, a regenerating unit for spent alkali metal hydroxide, conduit means for passing spent alkali to a regenerating unit and conduit means for recycling regenerated alkali to the said layer.

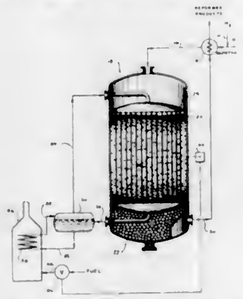
2,779,713
PROCESS FOR IMPROVING LUBRICATING OILS BY HYDRO-REFINING IN A FIRST STAGE AND THEN HYDROFINISHING UNDER MILDER CONDITIONS
Edward L. Cole, Glenham, and William E. Skelton, Beacon, N. Y., assignors to The Texas Company, New York, N. Y., a corporation of Delaware
Application October 10, 1955, Serial No. 539,382
7 Claims. (Cl. 196—35)

1. A method of processing a hydrocarbon lubricating oil stock to enhance the quality thereof which comprises subjecting said lubricating oil stock in admixture with hydrogen and in the presence of a hydrogenation catalyst to conditions of mild hydrogenation such that said lubricating oil stock is converted to an intermediate product of improved viscosity index, and subjecting said inter-



mediate product in admixture with hydrogen and in the presence of a hydrogenation catalyst to a temperature of about 400 to 650° F., a pressure of about 750 to 5000 p. s. i. g. and for a time such that said intermediate product is converted to a lubricating oil of improved oxidation stability.

2,779,714
HYDROCARBON REFORMING PROCESS
Percival C. Keith, Peapack, N. J., assignor to Hydrocarbon Research, Inc., New York, N. Y., a corporation of New Jersey
Application June 30, 1953, Serial No. 365,191
4 Claims. (Cl. 196—50)

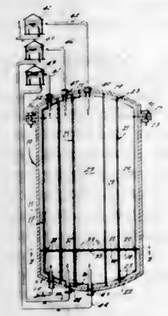


1. A process for reforming a hydrocarbon stock which comprises introducing into a reformation zone a mixture of said stock and hydrogen at a temperature of at least about 50° F. below the temperature of the products of reformation leaving said reformation zone, said reformation zone containing a reforming catalyst and being maintained at a pressure in the range of about 100 to 500 p. s. i. ga., heating said mixture during passage through said reformation zone by indirect heat exchange under isothermal conditions with condensing mercury vapors, the temperature differential between the condensing mercury vapors and the mixture passing through the reformation zone being not more than about 75° F., and thereby maintaining reformation temperatures of the mixture undergoing reforming within a spread of not more than about 25° F., and removing said products of reformation in admixture with hydrogen from said reformation zone.

2,779,715
PROCESS FOR REMOVING ARSENIC FROM A HYDROCARBON FEED OIL USED IN A REFORMING PROCESS EMPLOYING A NOBLE METAL AS A CATALYST
Maurice J. Murray, Naperville, and Howard A. Plagge, North Riverside, Ill., assignors to Universal Oil Products Company, Chicago, Ill., a corporation of Delaware
No Drawing. Application June 14, 1952, Serial No. 293,653
15 Claims. (Cl. 196—50)

2. The process of producing reformed gasoline from an arsenic-containing hydrocarbon charge which comprises treating the charge with at least one alkaline material selected from the group consisting of the hydroxides, oxides and salts which, when dissolved in water, have a pH of above about 7, of an alkali metal and an alkaline earth metal, separating therefrom a gasoline fraction having an arsenic content of less than about 0.015 parts per million and less than that of said charge, and reforming said gasoline fraction in the presence of a catalyst comprising alumina and platinum.

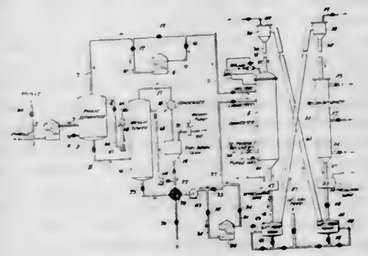
2,779,716
METHOD AND APPARATUS FOR CONTACTING FLUIDS WITH SOLIDS
Julian Newman, Lansdowne, Pa., assignor to Houdry Process Corporation, Wilmington, Del., a corporation of Delaware
Application November 28, 1952, Serial No. 322,996
11 Claims. (Cl. 196—52)



8. In a hydrocarbon conversion process wherein gaseous hydrocarbons are converted stagewise in the presence of granular catalyst under conditions of relatively-high temperature and pressure, the improvement which comprises the steps of: passing said hydrocarbons serially and in a single longitudinal direction through a plurality of separate reaction zones comprising confined compact beds of said catalyst arranged as a series of adjacent concentric layers, adjacent reaction zones being separated and arranged in indirect heat exchange relationship through a common heat-conductive medium; and separately reheating said hydrocarbons between said stages and exteriorly of said reaction zones, the thermal connection between said zones through said heat-conductive medium and the relative quantities of catalyst within said zones being such as to approach a substantially isothermal operation across said plurality of reaction zones, whereby the interstage reheating requirements are reduced to a minimum.

2,779,717
METHOD OF DISTILLING A HIGH BOILING HYDROCARBON OIL FOR USE AS A FEED IN CATALYTIC CRACKING
Swanton D. Dalton, Summit, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York
Application December 15, 1950, Serial No. 201,023
3 Claims. (Cl. 196—52)

1. A conversion process which comprises heating a high-boiling liquid hydrocarbon charge stock to temperatures of between about 700° F. and about 900° F.; separating therefrom a portion of said charge stock which is in the gaseous phase at temperatures of between about 700° F. and about 900° F.; passing said gaseous phase portion, without intervening cooling and at temperatures of between about 700° F. and about 900° F., into a catalytic conversion zone; subjecting said liquid portion without intervening cooling to vacuum distillation, at temperatures of between about 700° F. and about 900° F., under a vacuum of between about one and about six pounds per square inch absolute; condensing the distillate from said vacuum distillation; passing the condensed vacuum distil-

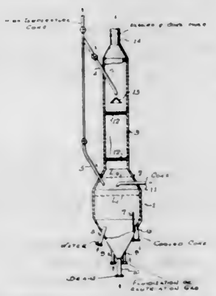


late as a liquid, at temperatures of between about 500° F. and about 850° F., into said conversion zone; and removing a heavy residual material having an ASTM soft point of between about 60° F. and about 90° F. from said vacuum distillation.

2,779,718
FRACTIONATION OF SHALE OIL BY ELUTION CHROMATOGRAPHY
Robert G. Capell, Clarence Karr, Jr., and William D. Weatherford, Jr., Pittsburgh, Pa., assignors to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware
No Drawing. Application January 28, 1953, Serial No. 333,834
6 Claims. (Cl. 196—147)

1. A process for separating from a shale oil containing substantial amounts of sulfur and nitrogen compounds a fraction of reduced nitrogen and sulfur content, which comprises introducing a liquid comprising at least about 25 volume percent of said shale oil into contact with a bed of adsorbent material selected from the group consisting of activated alumina and activated bauxite in an amount which penetrates no more than about 90 percent of the length of the adsorbent bed, thereafter eluting said adsorbent bed with a non-polar eluant, and recovering eluate of low sulfur and low nitrogen content from the absorbent bed.

2,779,719
QUENCH-ELUTRIATOR VESSEL
Peter H. Spitz, New Rochelle, N. Y., and Thomas A. Reiter, Roselle, and Richard E. Whall, Rahway, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application April 21, 1954, Serial No. 424,668
12 Claims. (Cl. 202—37)



1. In a hydrocarbon oil fluid coking system wherein oils are pyrolytically upgraded by contact with high temperature particulate coke in a coking vessel, wherein

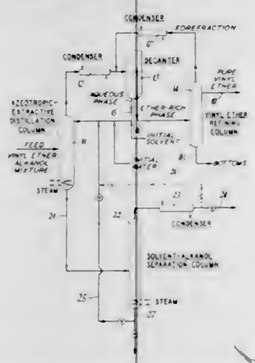
particulate coke is circulated from said coking vessel to a combustion vessel adapted to contain a fluidized bed of particulate coke and back to supply heat for the pyrolysis, and wherein hydrocarbon vapors and coke are withdrawn from said system as product, the improvement for the elutriating of coke fines from and the quenching of said coke removed as product comprising a vertically disposed circular conduit having an enlarged lower portion adapted to contain a bed of fluidized particulate solids, an upper portion of lesser cross-sectional area than said lower portion and a frustoconical portion intermediate between said upper and lower portion, conduit means for withdrawing coke from said system and introducing said coke into said upper and lower portions, conduit means for introducing water into said lower portion, conduit means for withdrawing vapors and coke fines from said upper portion and conduit means for removing particulate solids from said lower portion.

2,779,720

SEPARATION OF VINYL ETHERS BY DISTILLATION

Charles C. Tanona, Charleston, W. Va., assignor to Union Carbide and Carbon Corporation, a corporation of New York

Application December 9, 1955, Serial No. 552,069
9 Claims. (Cl. 202—39.5)



1. A process for separating an aliphatic vinyl ether from a mixture with an aliphatic alkanol which comprises heating said mixture in the presence of water sufficient to form a constant boiling mixture with substantially all the vinyl ether in the mixture, and an organic solvent having the general formula $HO(CH_2CH_2O-)_xR^1$, where R^1 is selected from the group consisting of hydrogen, lower alkyl, and lower alkoxyalkyl groups, and x is an integer no higher than 4, and having a boiling point higher than the constant-boiling mixture of water and the vinyl ether, distilling overhead said constant boiling mixture, and condensing said mixture to recover the vinyl ether.

2,779,721

METHOD OF DRYING BUTYLENE OXIDES

Thomas Houtman, Jr., Theodore E. Zurawic, and John S. Spriggs, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application February 17, 1954, Serial No. 411,030
2 Claims. (Cl. 202—42)

1. The method of preparing dry straight chain butylene oxide substantially free from isobutylene oxide which comprises subjecting to dispersion conditions to create an intimate two-phase dispersion, a strong aqueous solution of an alkali metal hydroxide of from about 30 to about 50 weight percent strength and a mixture of liquid butylene oxides containing less than 3.5 weight percent water and consisting of isobutylene oxide and at least one straight chain butylene oxide having an oxygen atom bonded to each of two contiguous carbon atoms, thereafter subjecting the liquid-phase dispersion to quiescent conditions to effect two-phase separation, recovering the butylene oxide phase so separated and subjecting it to fractional distillation to remove isobutylene oxide and water, said water being removed as an isobutylene oxide-water azeotrope, and recovering the straight chain butylene oxide residue substantially free from water and isobutylene oxide.

2,779,722

PROCESS FOR RECOVERY OF NAPHTHALENE FROM CRUDE NAPHTHALENE

James V. Murray, Jr., South Charleston, and John R. Anderson, St. Albans, W. Va., assignors to Union Carbide and Carbon Corporation, a corporation of New York

No Drawing. Application July 26, 1954, Serial No. 445,924
22 Claims. (Cl. 202—59)

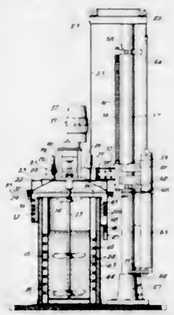
1. A process for recovering naphthalene from crude naphthalene containing thianaphthene and other impurities which comprises mixing said crude naphthalene in a liquid media with an oxidizing agent consisting of a lower aliphatic monocarboxylic peracid consisting of carbon, oxygen and hydrogen, at a temperature of from 25 to 85° C., and then separating naphthalene from the thus formed mixture by distillation, the quantity of peracid employed being sufficient to oxidize the thianaphthene and other impurities in the crude naphthalene, but insufficient to react with an appreciable amount of the naphthalene.

2,779,723

STILL EXTRACTOR

Milton C. Prymek, Berwyn, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application January 12, 1953, Serial No. 330,849
1 Claim. (Cl. 202—170)



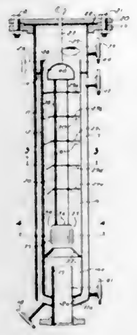
An apparatus for separating materials, which comprises an imperforate container open at the top and containing a chemical material, a shell spaced from and surrounding the exterior of the container, means for heating the space between the shell and the container for vaporizing a portion of the material, an outer second shell spaced from and surrounding the exterior of said first shell to form a collecting chamber, means for cooling the space in said chamber, means for guiding vapor from the container to said collection chamber to condense the vapor, a fan positioned in the upper portion of said first shell, and nozzle means positioned adjacent said fan and offset therefrom for injecting air into contact with the vapor.

2,779,724

HIGH VELOCITY FILM HEAT EXCHANGER

John W. Dunning, Lakewood, Alexander K. Moses, Jr., Elyria, and Michael J. Toth, Cleveland, Ohio, assignors, by mesne assignments, to International Basic Economy, New York, N. Y., a corporation of New York

Application April 5, 1955, Serial No. 499,322
18 Claims. (Cl. 202—236)



16. A heat exchanger for use in conjunction with a liquid, comprising an elongated generally cylindrical evaporator chamber having opposed inlet and discharge ends, a gas inlet port for admitting a carrier gas under pressure near said inlet end, a liquid inlet port for admitting said liquid near said inlet end, a gas outlet port near said discharge end, a liquid outlet port near said discharge end, heating means surrounding and extending along an intermediate portion of the chamber wall so as to make said intermediate portion a heat transfer surface, and a series of fixed deflector elements spaced progressively along said chamber having deflector portions angularly inclined to the cylindrical axis, and also inclined to a transverse plane normal to said axis, whereby to centrifugally impel said gas and liquid outwardly towards said heat transfer surface, whereby the more volatile component is vaporized and discharged through said gas outlet port.

2,779,725

ANTIMONY PLATING BATH

Clarence F. Smart, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

No Drawing. Application September 22, 1952, Serial No. 310,928
7 Claims. (Cl. 204—45)

1. An antimony plating bath consisting essentially of an aqueous solution of dibasic ammonium citrate, antimony potassium tartrate and a compound selected from the group consisting of boric acid, fluoboric acid and soluble salts of fluoboric acid, the concentrations of the several ingredients per liter of water consisting essentially as follows: 60 to 100 grams of dibasic ammonium citrate, 8 to 12 grams of antimony potassium tartrate, and 8 to 15 grams of the compound selected from said group.

2,779,726

DYEING OF TEXTILE FIBERS

Roy M. Rochester, Abbeville, and John S. Beattie, Greenwood, S. C., assignors to Deering Milliken Research Corporation, a corporation of Delaware

No Drawing. Application July 29, 1953, Serial No. 371,175
9 Claims. (Cl. 204—134)

1. A method for dyeing acrylic fiber which comprises subjecting to the passage of an alternating electric current an aqueous dye bath containing an acidic dye and an amount of a water-soluble cupric salt equal to about from 40 to 70% by weight of the dye, and thereafter dyeing acrylic fiber in the dye bath.

2,779,727

METHOD FOR TREATING TITANIUM METAL

George R. Couch, North Plainfield, N. J., and William E. Mooz, Huntsville, Ala., assignors to National Lead Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application July 27, 1954, Serial No. 446,172
3 Claims. (Cl. 204—146)

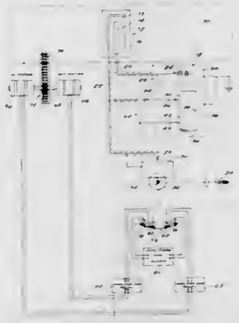
1. Method for removing magnesium metal from impure titanium metal product to render said product amenable to arc melting, which comprises adding said impure product to an electrolytic cell having an anode and a cathode, placing said product in contact with said anode, adding an electrolyte consisting essentially of hydrochloric acid into said cell, the concentration of said acid in said electrolyte being maintained from about 0.1% to about 10%, and passing current through said cell thereby transferring said magnesium metal from said impure product at said anode toward said cathode.

2,779,728

CONTROL DEVICE FOR A NEUTRONIC REACTOR

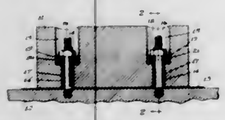
Walter H. Zinn and Thomas Brill, Chicago, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application December 3, 1946, Serial No. 713,646
4 Claims. (Cl. 204—193)



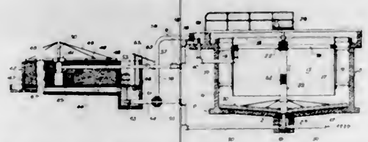
1. A control system for a neutronic reactor comprising, in combination, electrical means to produce an electrical signal proportional to neutron flux density in a reactor and adapted to be placed in a reactor, a pair of spaced phototubes, a light source, electro-mechanical means coupled and responsive to the electrical means to position a beam of light from the light source on a path including the phototubes in accordance with the magnitude of the electrical signal, a control member adapted to be selectively positioned in a reactor to vary the neutron reproduction ratio thereof, a positioning mechanism coupled to the control member, an electro-mechanical means coupled to the phototubes to actuate the positioning mechanism in directions to increase and decrease the neutron reproduction ratio when the beam falls on respective phototubes.

2,779,729
CATHODIC PROTECTION ASSEMBLY
Roy C. Jorgensen, Lake Jackson, Tex., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application July 1, 1950, Serial No. 171,710
5 Claims. (Cl. 204—197)



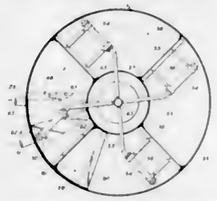
1. A combined compression and electrical resistance member comprising a body of electrically insulating material consisting of a tubular central portion having an annular collar central thereon and at least one boss protruding from each plane surface of the collar, a pair of metal washers fitting over the tube, and seating on opposite sides of the collar with their outer faces flush with the ends of the tube, each washer being provided with a hole encircling each boss and electrical resistor means embedded in the collar and electrically interconnecting the washers.

2,779,730
SEWAGE TREATMENT
Earl M. Kelly, Hillsborough, and Arthur M. Kivari, Los Angeles, Calif., assignors to Process Engineers Incorporated, San Francisco, Calif., a corporation of California
Application April 27, 1953, Serial No. 351,114
3 Claims. (Cl. 210—2)



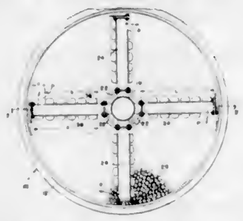
1. In apparatus for sewage treatment, the combination which comprises a settling tank for holding a pool of sewage liquid up to a level, a baffle in the tank dividing it into primary and secondary zones and extending above and below the level in the tank, the primary and secondary zones being in communication with each other underneath the baffle, a large overflow weir on the secondary settling zone for discharging liquid effluent from the secondary zone in such large volume that the level in both settling zones rises but slightly with increased flow, means for introducing a stream of sewage into the primary settling zone, a control sump having its top above the level of the pool in the settling tank and its bottom below said level, a conduit connected from an upper portion of the primary settling zone to the control sump and disposed below the level of the pool in the settling tank for flowing liquid by gravity from the primary settling zone into the control sump, a biological filter having an inlet at its top and an outlet at its bottom, the top being located below the control sump, a conduit connecting the control sump to the inlet of the biological filter and permitting gravity flow of liquid from the control sump to the filter, a pump sump having a bottom located below the filter outlet, a conduit connecting the filter outlet to the pump sump to permit gravity flow of liquid from the filter outlet to the pump sump, a pump having its inlet connected to the pump sump and having an outlet conduit with two branches, one branch being connected to the primary settling zone and the other branch being connected to the filter inlet, valving means for controlling the flow in the two branches, and means for regulating the flow of liquid from the primary settling zone to the control sump.

2,779,731
PRESSURE FLOTATION
Earl M. Kelly, Hillsborough, Arthur M. Kivari, Los Angeles, and Lawrence S. Farrell, Azusa, Calif., assignors to Process Engineers Incorporated, San Francisco, Calif., a corporation of California
Application June 11, 1953, Serial No. 360,886
2 Claims. (Cl. 210—3)



1. In pressure flotation apparatus in which solids suspended in a liquid pool are buoyed up out of the pool by gas coming out of solution therein to concentrate in the upper portion of the pool adjacent its upper surface, the combination which comprises an upright tank, a baffle disposed in the tank and having bottom and sides, the sides being spaced from the sides of the tank and the bottom being spaced from the bottom of the tank so that the upper portion of the pool is confined in an annulus while the lower portion of the pool underlies the bottom of the baffle, a trough disposed approximately radially from the tank sides to the baffle in the upper portion of the annulus, skimming means disposed across the annulus at approximately the level of the trough for moving floated solids into the trough, means for rotating the skimming means around a vertical axis passing through the baffle, and a distributor disposed approximately radially in the tank at about the level of the bottom of the baffle for admitting a gas-charged liquid stream containing the suspended solids into the pool in the direction of rotation of the skimming means.

2.779.732
ROTARY LIQUID DISTRIBUTOR OF A REACTION DRIVEN TYPE FOR THE TREATMENT OF WASTE LIQUIDS
John H. Knowles, Cos Cob, Conn., assignor to Dorr-Oliver Incorporated, a corporation of Delaware
Application July 22, 1953, Serial No. 371,123
1 Claim. (Cl. 210—7)



A filter unit for the aeration treatment of organically polluted liquids, having a filter bed of discrete material and a rotary type reaction driven liquid distributor for applying liquid to a filter bed, and in which the rotary structure has a hollow hub portion, a plurality of hollow distributing arms extending radially and horizontally from said hub portion, to rotate about a vertical axis, and means for supplying liquid through said hub portion to said distributor arms, each arm being reaction driven by the liquid discharging laterally of said arms under the influence of a pressure head; said rotary structure being characterized thereby that there is provided along the trailing side of each arm a row of elongated basic discharge openings constituting a basic complement of discharge areas for applying a basic maximum of the liquid to the area of the filter bed, and an opposing row of horizontally elongated supplementary discharge openings disposed along the leading side of each respective arm representing a supplementary complement of discharge areas, said basic openings and said supplementary discharge openings being provided with correspondingly shaped spreader devices attached thereto, with the addition of adjustable flow throttling insert means associated with said spreader devices and their respective arms for so adjusting the throughflow area of individual basic discharge openings as well as of the individual supplementary discharge openings, and for so adjusting said auxiliary complement relative to said basic complement, that the combined adjustments will impart to the rotary structure a rotational speed at which there is attainable efficient application of the liquid to the filter area in terms of a maximum of liquid-air contact as well as of substantially uniform liquid distribution throughout the bed, at a relative maximum rate of application of liquid to the filter area.

2,779,733
SUPPORT MEANS
Anton A. Kalinske, Tucson, Ariz., assignor to Infilco Incorporated, Tucson, Ariz., a corporation of Delaware
Application January 18, 1954, Serial No. 404,572
11 Claims. (Cl. 210—16)

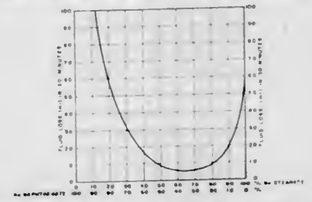
1. In combination with a tank having a side wall and a bottom wall and an inclined hoodlike partition mounted in said tank, improved means for supporting said partition in fixed spaced relationship to the side and bottom walls of said tank, comprising a plurality of stationary columns symmetrically arranged within the space covered by said partition and permanently supported by, and extending upwardly from, the tank bottom through said partition, said partition being secured to said columns at the points where the columns pass through said partition.

2,779,734
COMPOSITION FOR USE IN WELLS
Donnell M. Buchanan and Paul L. Menaul, Tulsa, Okla., assignors to Stanolind Oil and Gas Company, Tulsa, Okla., a corporation of Delaware
No Drawing. Application November 12, 1954, Serial No. 468,572
8 Claims. (Cl. 252—8.55)

1. A temporarily viscous gel composition comprising a major proportion of hydrocarbon liquid, a minor proportion of water, a stabilizing amount of an emulsifying agent comprising the reaction product of a water-soluble amine and a carboxylic acid selected from the group consisting of fatty acids containing at least 12 carbon atoms per molecule and naphthenic acids, and from 0.15 to 0.45 volume percent of benzotrichloride.

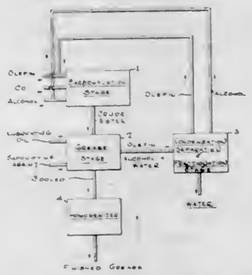
2,779,735
LOW FLUID LOSS COMPOSITION
Jack L. Brown, Ponca City, Okla., and Mary M. Landers, Dallas, Tex., assignors to Continental Oil Company, Ponca City, Okla., a corporation of Delaware
Application April 18, 1956, Serial No. 579,049
25 Claims. (Cl. 252—8.55)

1. A low liquid loss composition comprising: a major portion of petroleum oil having dispersed therein; a minor amount of oil-insoluble finely divided solids of such fineness as to provide at least about .0025 pound per gallon of oil of particles varying in size from about 0.005 to



2 microns; and a minor amount, at least .01 pound per gallon of oil, of an "agglutinant."

2,779,736
PRODUCTION OF LUBRICATING GREASES FROM OXO ESTERS
Arnold J. Morway, Rahway, Frederick Knoth, Jr., Sayreville, and Jeffrey H. Bartlett, Westfield, N. J. assignors to Esso Research and Engineering Company, a corporation of Delaware
Application October 25, 1952, Serial No. 316,922
7 Claims. (Cl. 252—35)



1. A process for making grease which comprises contacting in a carbonylation stage a non-aromatic olefin having about 10 to 20 carbon atoms with an aliphatic alcohol having about 1 to 3 carbon atoms and carbon monoxide in the presence of a carbonylation catalyst at conditions conducive to the formation of an ester of said alcohol with an acid having 1 carbon atom more than said olefin, recovering a mixture of said ester with unconverted olefin, introducing said mixture into a mineral lubricating oil, subjecting the resulting mixture to saponification with a metal base at a grease-making temperature of about 280° to 325° F. to form a grease while driving off unconverted olefin and alcohol freed by said saponification reaction, cooling the grease and returning said unconverted olefin so driven off to said carbonylation stage, said lubricating oil being non-saponifiable at the conditions of said saponification.

2,779,737
COMPLEX CALCIUM SALTS OF OXIDIZED PETROLEUM OILS AND PROCESS FOR PREPARING THE SAME
Emil Koft, Jr., Woodbury Heights, and John W. Schick, Camden, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York
No Drawing. Application December 29, 1954, Serial No. 478,495
9 Claims. (Cl. 252—39)

9. A complex calcium salt of an oxidized petroleum oil produced by the process which comprises (1) forming a mixture comprising (*a*) a petroleum oil having an average molecular weight of from about 300 to about 1000 and (*b*) from about 2% to about 25%, based on the weight of said oil, of calcium hydroxide, (2) contacting said mixture with an oxidizing gas at a temperature of from about 250° F. to about 600° F., to effect oxidation of said oil and reaction of the calcium hydroxide with the oxidized oil, (3) continuing said oxidation

for a time sufficient to effect the reaction of from about 5% to about 85% of the calcium hydroxide with the oxidized oil, (4) providing a mixture comprising (*a*) the oxidized oil-calcium hydroxide reaction product from step 3, (*b*) from about 2.0% to about 25%, based on the weight of the oxidized oil-calcium hydroxide reaction product from step 3, of a calcium salt reagent, selected from the group consisting of calcium chloride, calcium hypochlorite and a mixture of calcium chloride and calcium hydroxide containing at least about 25% of calcium chloride and (*c*) water, at a temperature below the boiling point of water, (5) substantially completely dehydrating the mixture provided in step 4, and (6) subjecting the dehydrated mixture to filtration to separate the complex calcium salt product.

2,779,738
OXIDATION-INHIBITED MINERAL OIL COMPOSITIONS
Joseph J. McBride, Jr., Cranford, N. J., assignor to Tidewater Oil Company, a corporation of Delaware
No Drawing. Application May 6, 1953, Serial No. 353,450
6 Claims. (Cl. 252—49.6)

1. A composition comprising a mineral oil of lubricating grade in major amount based on the weight of the composition and a small amount, sufficient to impart improved anti-oxidant characteristics to said oil, of dimethyl-bis-(p-dimethylaminophenyl)-silane.

2,779,739
TURBINE LUBRICATING OIL COMPOSITIONS
John D. Spivack, Bayonne, N. J., assignor to Tidewater Oil Company, a corporation of Delaware
No Drawing. Application June 26, 1951, Serial No. 233,707
4 Claims. (Cl. 252—49.8)

1. A lubricating composition comprising a mineral oil of turbine lubricating grade in major amount based on the weight of the composition having dissolved therein from about 0.01 to about 1.0 percent by weight of a combination additive consisting essentially of a mixture of mono- and di-lauryl acid phosphate and a fatty acid from the group consisting of caprylic acid and lauric acid in a weight ratio of one part of said mixture of phosphates to from about one to about five parts of the fatty acid.

2,779,740
MINERAL OIL LUBRICATING COMPOSITIONS
Nicholas V. Messina, Carteret, N. J., assignor to Tidewater Oil Company, a corporation of Delaware
No Drawing. Application November 25, 1953, Serial No. 394,507
3 Claims. (Cl. 252—51.5)

1. A mineral oil lubricating composition comprising a mineral oil of lubricating grade in major amount based on the weight of the composition, a small amount, sufficient to impart rust-preventive properties to said composition, of an oil-soluble rust-inhibiting alkenylated succinic acid having a molecular weight of about 400, a small amount, sufficient to impart anti-oxidant properties to said composition, of an oil-soluble anti-oxidant phenyl naphthylamine, and a small amount, sufficient to inhibit said composition against formation of relatively stable emulsions with water, of an oil-soluble alkyl amine having from 4 to 18 carbon atoms.

2,779,741
WATER-SOLUBLE COMPOSITIONS CONTAINING WATER-INSOLUBLE ORGANIC AMINES
James M. Cross, Belvidere, N. J., assignor to General Aniline & Film Corporation, a corporation of Delaware
No Drawing. Application December 26, 1950, Serial No. 202,800
7 Claims. (Cl. 252—357)

1. A composition of matter yielding a clear solution in water at a concentration of 50%, which can be diluted indefinitely with hard water without separation or precipitation of its components, said composition comprising a member of the group consisting of water-insoluble hydrocarbon-monoamines in which the hydrocarbon radical includes a non-aromatic radical of at least 10 carbon atoms, and difficulty water-soluble salts of said amines, together with a water-soluble quaternary ammonium salt having the general formula:

$$R-N\equiv A \cdot X$$

wherein R is a member of the class consisting of alkyl groups having 8 to 20 carbon atoms and alkyl phenoxyethoxyethyl radicals in which the alkyl group contains 8 to 20 carbon atoms, X is a salt-forming anion, and N≡A represents a member of the group consisting of tertiary amine- and tertiary N-heterocyclic base radicals containing, at most, 12 carbon atoms, the proportion of said quaternary ammonium salt to said amine component being at least 1:1.

2,779,742
COMPOSITE MATERIALS AND PROCESSES FOR MAKING THE SAME
Paul H. Emmett, Pittsburgh, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware
No Drawing. Application September 18, 1952, Serial No. 310,351
4 Claims. (Cl. 252—455)

1. A process for the preparation of a composite comprising preparing an activated synthetic silica-alumina support, contacting the support with a solution containing hydrogen ions and barium ions to introduce 0.25 to 2.0 milliequivalents of barium per gram of support onto the support in base exchange positions, the sum of the pH of the solution after the contact has been completed and the Briggs logarithm of the molar barium ion concentration of the solution at the initial time of contact being in the range of 4 to 8, and washing the unexchanged barium ions from the support.

2,779,743
PLASTICIZING VINYL RESINS
Edmund H. Schwencke, New York, N. Y., assignor to Elastomer Chemical Corporation, Newark, N. J., a corporation of New Jersey
No Drawing. Application December 4, 1951, Serial No. 259,890
3 Claims. (Cl. 260—23)

1. The methd of plasticizing vinyl ester resins selected from the group consisting of polyvinyl chloride and a copolymer of vinyl chloride and vinyl acetate which comprises melting aluminum stearate into dioctyl phthalate in proportions of one part aluminum stearate to between five and ten parts plasticizer, adding tricresyl phosphate to bring the mixture to the proportions of one part aluminum stearate to between seventy-five and one hundred and twenty-five parts total plasticizer, and mixing said mixture with resin in proportions of one part resin to between one and one and three-quarter parts plasticizer.

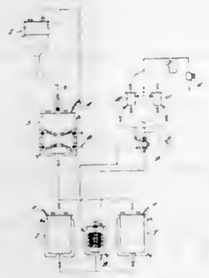
2,779,744
POLYSTYRENE PHONOGRAPH RECORD COMPOSITION AND METHOD OF MAKING SAME
Frazier Groff, Plainfield, and Peter Bredgman Potter, South Plainfield, N. J., assignors to Union Carbide and Carbon Corporation, a corporation of New York
No Drawing. Application October 21, 1952, Serial No. 316,072
10 Claims. (Cl. 260—28.5)

1. In a method of preparing a resinous polystyrene composition suitable for molding into sound records the steps which comprise milling sharp-edged particles of a member of the group of materials consisting of silicon carbide and boron carbide with a small amount of polystyrene resin sufficient to hold the particles together and enable grinding of particles against one another until the sharp edges of the particles are dulled and thereafter milling in an additional amount of polystyrene sufficient to form a homogeneous composition containing up to about 3.5 parts by weight of said dulled particles per 100 parts by weight polystyrene.

2,779,745
WAX-COATED SYNTHETIC RUBBER CRUMB COAGULA FOR INCORPORATION IN ASPHALT
Louis H. Howland, Watertown, Conn., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
No Drawing. Application December 21, 1953, Serial No. 399,635
6 Claims. (Cl. 260—28.5)

1. The method of preparing an asphalt-synthetic rubber mix which comprises heating at a temperature above the softening point of the asphalt, a mixture of the asphalt and a butadiene polymer synthetic rubber in crumb form coated with material selected from the group consisting of mineral, vegetable and animal waxes.

2,779,746
METHOD OF SPINNING SOLUTIONS OF POLYACRYLONITRILE OR MIXED POLYMERS THEREOF
Erwin Heisenberg and Ernst Pirot, Erlenbach (Main), Germany, assignors to Vereinigte Glanzstoff-Fabriken Aktiengesellschaft, Wuppertal-Elberfeld, Germany, a joint-stock company of Germany
Application November 14, 1952, Serial No. 320,370
Claims priority, application Germany November 17, 1951
7 Claims. (Cl. 260—32.6)



1. The method of spinning solutions of polymers selected from the group consisting of polyacrylonitrile and copolymers thereof containing at least 85 percent by weight of combined acrylonitrile and another component selected from the group consisting of combined acrylic acid amide, maleic acid amide, fumaric acid amide, acrylic acid diamide, maleic acid diamide, fumaric acid diamide, methacrylic acid methyl ester, styrene, vinyl chloride, vinylidene chloride, vinyl acetate, vinyl carbazole, vinyl imidazole, vinyl pyridine, which comprises gradually dispersing the nitrile comminuted to a particle size ranging between about 10 and 100μ at a temperature ranging between about 0° and 30° C. at the rate of about one gram per second in a cold solvent kept under vacuum, stirring the mixture 3 to 10 hours under continuous cooling, freeing the solution from air by gradually heating it to a temperature ranging from 60° to 150° C. and then spinning by the continuous method.

2,779,747
RUBBER SOFTENER COMPRISING REACTION PRODUCTS OF LIQUID COPOLYMERS OF CONJUGATED DIENES WITH COPOLYMERIZABLE HETEROCYCLIC NITROGEN BASES
James E. Pritchard, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Application August 5, 1952, Serial No. 302,833
8 Claims. (Cl. 260—45.5)

1. As a new composition of matter, a rubber prepared by polymerizing butadiene and acrylonitrile and, per 100 parts by weight of said rubber, 3 to 50 parts of the addition product of (1) a quaternizing agent and (2) a liquid copolymer of a conjugated diene containing 4 to 8 carbon atoms and a copolymerizable heterocyclic nitrogen base selected from the group consisting of vinyl- and isopropenyl-substituted pyridines and vinyl- and isopropenyl-substituted quinolines, no more than two of said vinyl- and isopropenyl- groups being present on said pyridines and quinolines.

2,779,748
THERMOPLASTIC COMPOSITION COMPRISING VINYL CHLORIDE POLYMER AND DIOLEFIN-DIALKYL FUMARATE COPOLYMER
Robert H. Snyder, Newark, N. J., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
No Drawing. Application May 4, 1953, Serial No. 352,990
7 Claims. (Cl. 260—45.5)

1. A rigid thermoplastic composition characterized by high impact strength, comprising an unplasticized, intimate fusion-blended mixture of (A) from 3 to 24 parts of a rubbery copolymer of from 15 to 85% of a conjugated diolefin with from 85 to 15% of a dialkyl fumarate, and (B) from 97 to 76 parts of a vinyl chloride polymer.

2,779,749
STABILIZED UNSATURATE-SO_2 RESINS CONTAINING ACRYLATES
John E. Wicklatz, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Application September 29, 1952, Serial No. 312,166
13 Claims. (Cl. 260—79.3)

1. A heat stable resin comprising a terpolymer of 1-butene with sulfur dioxide and 2 to 10 mol percent of said butene of an alkyl acrylate based on the total 1-butene and alkyl acrylate in which the alkyl group of the acrylate has from 1 to 10 carbon atoms.

2,779,750
$AlCl_3$ CATALYZED POLYMERIZATION OF CLAY-PRETREATED NAPHTHAS
Mack C. Fuqua and Glen P. Hamner, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application April 1, 1953, Serial No. 346,268
3 Claims. (Cl. 260—82)

1. A process for treating unsaturated steam cracked feed streams and making improved yields of resinous polymers therefrom which comprises subjecting a cracked petroleum fraction boiling from 80 to 300° F. and containing olefins, diolefins, and aromatics to treatment with predried clay at about 250 to 300° F. at 0.5 to 2.0 v./v./hr., separating the unreacted naphtha from the resultant polymer and subsequently polymerizing solely the separated unreacted naphtha with a Friedel-Crafts catalyst and separating the resinous polymer formed thereby.

2,779,751
POLYMERIZATION PROCESS USING SULFONE-CONTAINING ACCELERATORS

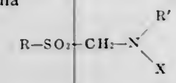
Hellmut Bredereck, Erich Bäder, Adolf Wohnhaas, and Wolfgang Nübling, Stuttgart, Germany, assignors to W. C. Heraeus G. m. b. H., Hanau (Main), Germany, a body corporate of Germany, and Deutsche Gold- und Silber-Scheideanstalt, vormals Roessler, Frankfurt am Main, Germany, a body corporate of Germany

No Drawing. Application July 8, 1952, Serial No. 297,758

Claims priority, application Germany July 10, 1951

10 Claims. (Cl. 260—89.5)

1. Process for the production of polymerization products which comprises polymerizing a polymerizable organic compound containing a methylene group double-linked to a carbon atom in the presence of a polymerization accelerator comprising a metal component selected from the group consisting of multi-valent heavy metals and salts thereof, and a sulfone methyl-amine having the general formula



in which R is a member selected from the group consisting of alkyl, alkyl aryl, and aryl radicals, R′ is a member selected from the group consisting of H, R, and alkanol radicals, and X is a member selected from the group consisting of H, alkyl radicals, and the group $—CH_2—SO_2—R$, and recovering a polymerization product.

2,779,752
APPARATUS FOR CHEMICAL REACTIONS PASSING THROUGH VISCOUS PHASE

William H. Vining, Niagara Falls, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application November 18, 1953, Serial No. 392,855

10 Claims. (Cl. 260—91.3)

3. In apparatus for continuously mixing a viscous reaction mixture a cylinder, an axially disposed rotatable agitator shaft within said cylinder, free flowing spheres or balls all of the same size and in numbers substantially to fill said cylinder, fixed baffles attached to the inner wall of said cylinder and extending radially to a distance exceeding by a small fraction one ball diameter from said shaft, agitator blades attached to said shaft in staggered relation to said baffles and extending radially to a distance exceeding by a small fraction one ball diameter from the inner wall of said cylinder, the clearance between the baffles and the next adjoining agitator blades being slightly in excess of two ball diameters, and inlet and outlet means for feeding reaction mixture to the reactor and withdrawing reaction products at a predetermined rate, said inlet and outlet means being at opposite ends of said cylinder.

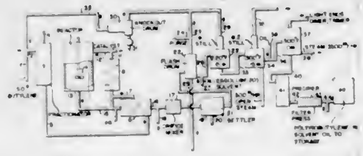
9. In a process for the alcoholysis of polyvinyl acetate dissolved in methanol the step consisting of passing the alcoholysis mixture after alcoholysis of about 30 to 40% of the polyvinyl acetate has occurred into a vertical elongated cylindrical vessel filled with balls all of the same size and subjecting the balls to radial agitation in a manner to prevent substantial intermixing parallel to the direction of flow through said cylindrical vessel of the mixture undergoing alcoholysis and adjusting the rate of flow of said mixture through said vessel so that said mixture will leave said vessel after about 70 to 80% alcoholysis of said vinyl acetate has been effected.

2,779,753
PROCESS FOR PREPARING HIGH MOLECULAR POLYMERS FROM ISOBUTYLENE

Arthur R. Garabrant and Helmuth G. Schneider, Westfield, Hans G. Goering, Elizabeth, and Henry O. Mottern, Bloomfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application December 29, 1952, Serial No. 328,358

12 Claims. (Cl. 260—94.8)



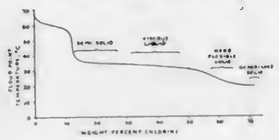
1. A process for producing improved polyisobutylene which comprises polymerizing isobutylene into polyisobutylene at a temperature between about —58° F. to +104° F. with a non-complexed aluminum chloride catalyst having a particle size of less than about 0.2 mm. in the presence of about 25–95% based on total feed of an inert normally liquid C_5–C_8 alkane hydrocarbon polymer solvent until a polymer of improved shear stability and elevated molecular weight is obtained with substantially no fouling of the dissolved product by polymer precipitation.

2,779,754
CHLORINATED ETHYLENE ALKANOL TELOMERS

Michael Erchak, Jr., Morris Township, Morris County, N. J., assignor to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York

Application December 22, 1953, Serial No. 399,708

8 Claims. (Cl. 260—94.9)



1. A resin resulting from chlorination of the hard, high-melting wax reaction product of polymerizing ethylene in presence of a saturated C_2–C_4 alkanol, the bulk of said wax having molecular weight between 1000 and 3000, said wax having average molecular weight about 2000; said resin having 12 to 72 percent by weight chlorine and being capable of forming with toluene an achromatic solution exhibiting cloud point below 40° C. at concentration of 20 weight percent of said resin.

2,779,755
CUPRIFEROUS TRISAZO DYESTUFFS

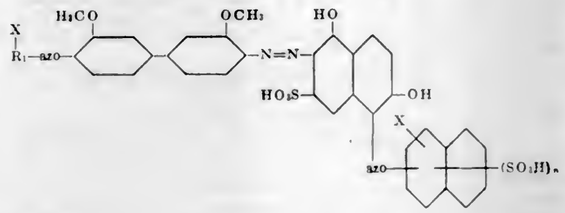
Hans Ruckstuhl and Walter Wehrli, Basel, Switzerland, assignors, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company

No Drawing. Application March 3, 1952, Serial No. 274,652

Claims priority, application Switzerland April 25, 1951

6 Claims. (Cl. 260—145)

1. A copper complex compound of a trisazo dyestuff corresponding to the formula



wherein

stands for the radical of a coupling component selected from the group consisting of radicals of the pyrazolone and hydroxynaphthalene series, each X stands for OH in ortho-position to —azo—, and *n* stands for one of the integers 1, 2 and 3.

2,779,756
METALLIFEROUS TRISAZO DYESTUFFS

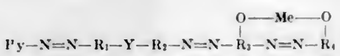
Henri Riat, Ariesheim, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application February 15, 1954, Serial No. 410,440

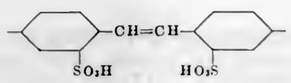
Claims priority, application Switzerland February 26, 1953

10 Claims. (Cl. 260—147)

1. A metalliferous trisazo dyestuff containing at least three sulfonic acid groups and corresponding to the formula



in which Me represents a metal having an atomic number ranging from 28 to 29 and being bound in complex union, $—R_1—Y—R_2—$ represents a member selected from the group consisting of radicals of the formulae



and

wherein one Z represents a hydrogen atom and the other Z represents a sulfonic acid group, Py represents a pyrazolone radical, R_3 represents an aromatic radical containing at the most 10 aryl carbon atoms and carrying both azo groups attached thereto in para-position to one another, and R_4 represents the radical of an end component of the naphthalene series, and in which formula the azo linkages bound to R_1 and R_2 are in para-position relatively to Y and the —O—Me—O— group is connected to each of the radicals R_3 and R_4 in a position vicinal to the azo linkage.

2,779,757
METAL-CONTAINING AZO DYESTUFFS

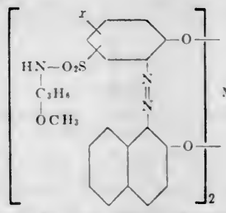
Hans Ruckstuhl, Basel, and Walter Wehrli, Riehen, Switzerland, assignors, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company

No Drawing. Application June 28, 1954, Serial No. 439,918

Claims priority, application Switzerland July 7, 1953

4 Claims. (Cl. 260—151)

1. A metal-containing azo dyestuff which corresponds to the formula



wherein *x* stands for a member selected from the group consisting of hydrogen, chlorine and methyl, and Me stands for a metal atom selected from the group consisting of chromium and cobalt.

2,779,758
CHROMABLE DISAZO DYESTUFFS

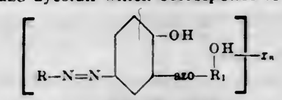
Reinhard Neier, Basel, and Charles Petitjean and Walter Wehrli, Riehen, Switzerland, assignors, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company

No Drawing. Application August 12, 1952, Serial No. 304,012

Claims priority, application Switzerland September 4, 1951

9 Claims. (Cl. 260—190)

1. A disazo dyestuff which corresponds to the formula



wherein R stands for a diazo component selected from the group consisting of radicals of the benzene and naphthalene series

stands for a coupling component selected from the group

consisting of radicals of the hydroxynaphthalene and pyrazolone series and of barbituric acid, the OH group of

being in ortho-position to -azo-, *x* stands for a water-solubilizing group selected from the group consisting of the carboxyl and sulfonic acid groups, and wherein *n* is one of the integers 1 and 2.

2,779,759

PROCESS OF OBTAINING HIGHLY PURIFIED STREPTOMYCIN SALTS

Teijiro Yabuta and Hiroshi Ikeda, Tokyo-to, Japan

No Drawing. Application August 27, 1952, Serial No. 306,738

Claims priority, application Japan September 8, 1951

8 Claims. (Cl. 260—210)

1. A process of obtaining highly-purified streptomycin salt which comprises treating impure streptomycin with an alkali salt of a polyhalophenol containing at least 4 halogen substituents in water to form a salt-type combination product of streptomycin and the polyhalophenol which separates as a precipitate, recovering the precipitate thus formed and dissolving said precipitate in an organic solvent therefor selected from the group consisting of aliphatic alcohols, aliphatic ketones, hydrocarbons, and halogenated hydrocarbons to form a solution of the streptomycin polyhalophenolate, treating the solution with a water-soluble acid to precipitate the streptomycin from said solution as an acid salt, said acid being added stepwise to form a plurality of precipitates of the streptomycin salt, and dissolving each of the plurality of precipitates in water, and reprecipitating said precipitates.

2,779,760

LITHIUM MALTOBIONATE AND PROCESS FOR MAKING SAME

Horace S. Isbell, Washington, D. C., and Robert Schaffer, Silver Spring, Md., assignors to the United States of America as represented by the Secretary of Commerce

No Drawing. Application April 21, 1955, Serial No. 503,037

4 Claims. (Cl. 260—210)

3. The process of making crystalline lithium maltobionate having the formula $LiC_{12}H_{21}O_{12}.3H_2O$ comprising the steps of electrolyzing a carbon dioxide saturated aqueous solution of maltose hydrate, lithium bromide, and lithium carbonate for a period sufficient to convert the maltose to lithium maltobionate, mixing the resulting solution with a miscible solvent selected from the group consisting of ethanol, methanol, 2-propanol, dioxane, and acetone, and crystallizing out the lithium maltobionate.

2,779,761

PROCESS FOR PREPARING AMINE POLYSULFIDES

Richard W. Kibler, Cuyahoga Falls, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application April 28, 1952, Serial No. 284,812

5 Claims. (Cl. 260—247.1)

1. Method of producing polythio-bis-secondary amines containing more than four sulfur atoms per molecule by a one-step reaction, comprising simultaneously adding a caustic solution and a solution of at least one gram-atom of free sulfur in one mole of sulfur monochloride to an alkaline aqueous reaction medium containing one mole at a secondary amine from the group consisting of water soluble, saturated aliphatic and heterocyclic secondary amines, the secondary amine containing from two to five inclusive carbon atoms per molecule, maintaining the pH of the reaction medium in the range of 8.0 to 11.5 by controlling the rate of adding the caustic solution.

2,779,762

3-SUBSTITUTED-AMINOMETHYL-4-HYDROXY-6-SUBSTITUTED-COUMARINS

Alice Ota Robertson and Dale N. Robertson, Madison, and Karl Paul Link, Middleton, Wis., assignors to Wisconsin Alumni Research Foundation, Madison, Wis., a corporation of Wisconsin

No Drawing. Application October 9, 1953, Serial No. 385,299

6 Claims. (Cl. 260—247.7)

6. The product 3-morpholino-methyl-4-hydroxy-6-ethoxycoumarin.

2,779,763

PROCESS FOR THE PRODUCTION OF REACTION PRODUCTS OF CYANURIC CHLORIDE WITH AMMONIA IN THE GAS PHASE

Hans Huemer, Frankfurt am Main, Germany, assignor to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler, Frankfurt am Main, Germany

No Drawing. Application September 21, 1953, Serial No. 381,490

7 Claims. (Cl. 260—249.7)

1. A process of producing reaction products of ammonia and cyanuric chloride which comprises reacting anhydrous ammonia and cyanuric chloride in the vapor phase at atmospheric pressure and temperatures over 250° C. in a reaction zone in the presence of a catalyst promoting splitting off of hydrogen chloride selected from the group consisting of cuprous chloride, barium chloride and active carbon, and continuously withdrawing the reaction products from the reaction zone.

2,779,764

HALOGENATED HYDANTOINS

Laurene O. Paterson, Adrian, Mich., assignor to Drug Research, Inc., Adrian, Mich., a corporation of Michigan

No Drawing. Application June 22, 1954, Serial No. 438,633

6 Claims. (Cl. 260—309.5)

1. An N-bromo-N-chloro-5,5-disubstituted hydantoin in which one substituent in the 5 position is selected from the group consisting of hydrogen, a lower alkyl radical and a phenyl radical and in which the other substituent in the 5 position is selected from the group consisting of a lower alkyl radical and a phenyl radical.

2,779,765

STABILIZATION OF PYRROLE

Harry B. Copelin and Antoinette Sledd, Niagara Falls, N. Y., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 29, 1955, Serial No. 531,285

5 Claims. (Cl. 260—313)

1. The method of stabilizing a member of the group consisting of pyrrole and its N-alkylated derivatives which comprises supplying thereto an effective stabilizing amount of an alkanolamine in which the carbon chains contain between 1 and 6 carbon atoms.

2,779,766

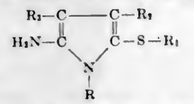
PYRROLES HAVING AMINO, CYANO, AND MERCAPTO OR SUBSTITUTED MERCAPTO GROUPS AND THEIR PREPARATION

William J. Middleton, Claymont, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 20, 1955, Serial No. 502,714

20 Claims. (Cl. 260—313)

18. A substituted pyrrole having the formula



wherein at least one of the radicals R_2 and R_3 is the cyano group, the other of said radicals R_2 and R_3 is a radical of not more than five carbon atoms selected from the class consisting of the cyano, the carbamyl, alkoxycarbimido and alkoxycarbimido hydrochloride salt radicals, R_1 is selected from the class consisting of hydrogen, hydrocarbon radicals of not more than seven carbon atoms, carboxyalkyl of not more than seven carbon atoms, and hydroxyhydrocarbon radicals of not more than seven carbon atoms, and R is selected from the class consisting of hydrogen, lower alkyl groups and lower alkylene groups which together with R_1 form a lower alkylene chain.

2,779,767

PROCESS FOR PRODUCTION OF PARALDEHYDE

John E. Mahan and Stanley D. Turk, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application January 19, 1953, Serial No. 332,092

4 Claims. (Cl. 260—340)

1. A process for the production of paraldehyde which comprises contacting a mixture comprising acetaldehyde and paraldehyde with an amine type anion exchange resin and subsequently distilling said mixture thereby separating acetaldehyde and paraldehyde, treating with said anion exchange resin preventing reversion of paraldehyde to acetaldehyde during said distillation.

2,779,768

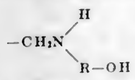
3-(HYDROXY LOWER ALKYL)-AMINOMETHYL-4-HYDROXYCOUMARIN COMPOUNDS

Alice Ota Robertson and Dale N. Robertson, Madison, and Karl Paul Link, Middleton, Wis., assignors to Wisconsin Alumni Research Foundation, Madison, Wis., a corporation of Wisconsin

No Drawing. Application October 21, 1953, Serial No. 387,546

5 Claims. (Cl. 260—343.2)

1. A 4-hydroxycoumarin having a substituent at the 3-position represented by the following formula



where R represents a lower alkyl group.

2,779,769

POLY-HALOGEN-CONTAINING DICARBOXYLIC ACIDS AND ANHYDRIDES

Paul Robitschek, Buffalo, Claude Thomas Bean, Jr., Niagara Falls, and Jack Samuel Newcomer, Wilson, N. Y., assignors to Hooker Electrochemical Company, Niagara Falls, N. Y., a corporation of New York

No Drawing. Application September 10, 1952, Serial No. 308,924

8 Claims. (Cl. 260—346.6)

4. A hexachlorocyclopentadiene adduct of the group consisting of chloromaleic acid, bromo-maleic acid, chloro-maleic anhydride, bromo-maleic anhydride, their acid salts and mixtures thereof.

2,779,770

RECOVERY OF FURFURAL BY PREFERENTIAL ABSORPTION OF THE VAPOR ON SOLIDS

Oliver W. Cass, Lewiston, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application February 23, 1954, Serial No. 412,115

10 Claims. (Cl. 260—347.9)

1. In the manufacture of furfural by the hydrolysis of a reaction mixture of acidified vegetable matter containing pentosans and recovery of the furfural therefrom by steam distillation, the steps comprising passing the resultant vapor mixture of steam and furfural through a suitable solid absorbent for furfural at a temperature of about 100°–130° C. and thereby absorbing the furfural from the steam and subsequently recovering the furfural from the solid absorbent.

2,779,771

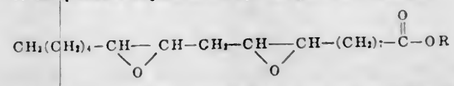
HIGHER FATTY ESTER DIEPOXIDES AND PROCESS OF PRODUCING THE SAME

Benjamin Phillips and Frederick C. Frostick, Jr., Charleston, W. Va., assignors to Union Carbide and Carbon Corporation, a corporation of New York

No Drawing. Application March 25, 1954, Serial No. 418,763

6 Claims. (Cl. 260—348)

1. Diepoxides represented by the general formula:



wherein R represents an alkenyl radical containing from 2–3 carbon atoms.

2,779,772

GREEN SUBSTANTIVE DYES OF THE ANTHRAQUINONE SERIES

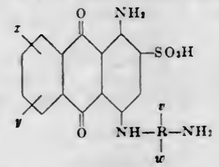
Wolfgang Frey, Neue Welt, near Basel, Switzerland, assignor, by mesne assignments, to Saul & Co., as nominee of Fidelity Union Trust Company

No Drawing. Application October 6, 1952, Serial No. 313,350

Claims priority, application Switzerland October 18, 1951

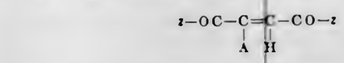
6 Claims. (Cl. 260—368)

1. A green substantive dye obtained by condensing, in molecular proportions which differ from each other by at least 10%, a 1-aminoanthraquinone-2-sulfonic acid corresponding to the formula



wherein R stands for a member selected from the group consisting of mono- and binuclear radicals of the benzene series, *v* stands for a member selected from the group consisting of hydrogen, lower alkyl, lower alkoxy and SO_3H, *w* stands for a member selected from the group consisting of hydrogen, lower alkyl and lower alkoxy, *x* stands for a member selected from the group consisting of hydrogen, chlorine, bromine and SO_3H, and *y* stands for a member selected from the group consisting of hydrogen and chlorine, with at least one 1-aminoanthraquinone-2-sulfonic acid different from the first one but corresponding to the aforesaid formula, by treating them with

such a quantity of a dicarboxylic acid halide corresponding to the formula



wherein z stands for a member selected from the group consisting of chlorine and bromine, and A stands for a member selected from the group consisting of hydrogen, methyl, chlorine and bromine, that there are for each molecule of the dicarboxylic acid halide two molecules of 1-aminoanthraquinone-2-sulfonic acid.

2,779,773

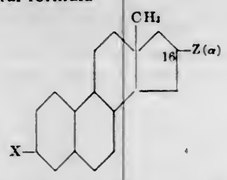
STEROID 3,16α-DIOLS AND PROCESS

Max N. Huffman, Oklahoma City, Okla., assignor to Nepera Chemical Co., Inc., Yonkers, N. Y., a corporation of New York

No Drawing. Application May 23, 1956, Serial No. 586,637

13 Claims. (Cl. 260—397.5)

1. A compound of the group consisting of androstan, etiocholan, estratrien and estrapentaen compounds having the structural formula



wherein X and Z are groups selected from the group consisting of —OH, —OCH_2R^1 and —$OOCR^1$ and wherein R^1 is of the group consisting of hydrogen and hydrocarbon radicals having from one to seventeen carbon atoms.

2,779,774

3β-OXY-Δ[16]-ALLOPREGNENEDIONE-11,20 AND PROCESS

Ralph F. Hirschmann, Westfield, Norman L. Wendler, Summit, and William V. Ruyle, Westfield, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application July 1, 1954, Serial No. 440,845

11 Claims. (Cl. 260—397.45)

1. The process for preparing 3(β) - acyloxy - Δ[16] - allopregnenedione-11,20 which comprises reacting 3(β)-acyloxy - 16 - (δ - acyloxyisocaprooxy) - allopregnanedione-11,20 with an aqueous solution of an alkali metal hydroxide in the presence of a non-reactive inert organic solvent substantially free from lower aliphatic alcohols.

2,779,775

PHOSPHATE DERIVATIVES OF 9α-FLUOROSTEROIDS

Lewis H. Sarett, Princeton, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application September 30, 1954, Serial No. 459,531

8 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of 9α - fluoro - 4 - pregnene - 11β,17α,21 - triol - 3,20-dione - 21 - phosphate, 9α - fluoro - 4 - pregnene - 17α, 21 - diol - 3,11,20 - trione - 21 phosphate, and alkali and alkaline earth metal salts thereof.

2,779,776

METHOD OF PREPARING SILOXANE FLUIDS

James Franklin Hyde and Gust J. Kookootsedes, Midland, Mich., assignors to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application April 29, 1954, Serial No. 426,560

8 Claims. (Cl. 260—448.2)

1. A method of preparing siloxanes of controlled viscosity which comprises maintaining in contact with each other an organopolysiloxane having the unit formula

$$R_nSiO_{\frac{4-n}{2}}$$

where R is selected from the group consisting of monovalent hydrocarbon radicals and halogenated monovalent radicals and *n* has an average value from 1.98 to 2 and a separate aqueous phase comprising an aqueous solution of a monobasic acid having a dissociation constant of at least .01 at 25° C., said aqueous phase being present in amount of at least 10% by volume of the siloxane, in a closed system at a temperature below that at which the organic groups are cleaved from the silicon until the viscosity of the siloxane has become essentially constant.

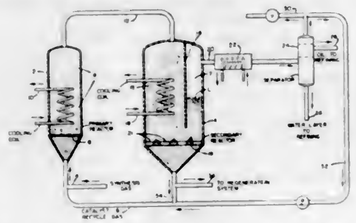
2,779,777

METHOD FOR IMPROVING CONTACT OF GASEOUS REACTANTS WITH CATALYST

Richard Mungen, Tulsa, Okla., assignor to Stanolind Oil and Gas Company, Tulsa, Okla., a corporation of Delaware

Application December 29, 1952, Serial No. 328,274

6 Claims. (Cl. 260—449.6)



1. In a process for improving the contact of gaseous reactants with finely divided catalyst particles in gas or vapor phase reactions, the improvement which comprises introducing said reactants into the lower portion of a first reaction zone containing a highly turbulent fluidized catalyst bed under conditions such that only from about 50 to 75 percent of said reactants are converted, said gaseous reactants being introduced into said first reaction zone at a linear velocity of from about 2 to about 10 feet per second; transferring overhead product gases, unconverted reactants and entrained catalyst through a passageway of substantially less cross-sectional area than said first reaction zone, introducing said unconverted reactants and entrained catalyst near the upper portion of a first confined zone within a second reaction zone, said first confined zone having a substantially larger cross-sectional area than said passageway whereby downward flow of product gases, gaseous unconverted reactants and catalyst is effected in said first confined zone to further convert said reactants into valuable products; withdrawing said products and remaining unconverted reactants from said downwardly flowing catalyst at the base of said confined zone; allowing said product gases and unconverted reactants to rise upwardly through still another separate confined zone partially filled with a substantially turbulent mass or catalyst, said last mentioned confined zone also being within said second reaction zone, withdrawing the resulting gaseous mixture from the latter; allowing catalyst in said first confined zone to move continuously downwardly at a rate corresponding to from about 1/30 to about 1/60 the rate of gas flow in said second reaction zone; and returning said catalyst to said first reaction zone.

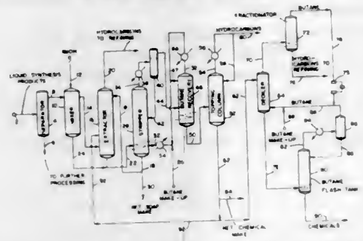
2,779,778

PROCESS FOR SEPARATING VOLATILE COMPONENTS FROM LIQUID MIXTURES

Richard Mungen, Tulsa, Okla., assignor to Stanolind Oil and Gas Company, Tulsa, Okla., a corporation of Delaware

Application August 29, 1952, Serial No. 307,079

7 Claims. (Cl. 260—450)



1. In a process for the recovery of nonacid oil-soluble oxygenated organic chemicals present in the liquid hydrocarbon fraction produced by the hydrogenation of carbon monoxide in the presence of an alkali promoted fluidized iron catalyst under known synthesis conditions whereby said fraction is subjected to extraction in an extraction tower with an aqueous solution of an alkali metal salt of an aliphatic carboxylic acid having from five to twelve carbon atoms to obtain an aqueous extract rich in said chemicals and containing as contaminants solubilized hydrocarbons from said liquid hydrocarbon fraction and recovering said chemicals from said extract by subjecting the latter to a stripping operation in a fractionating column, the steps which comprise injecting a hydrocarbon having from 3 to 5 carbon atoms into said solution while conducting said operation at a temperature ranging from the boiling point thereof down to about 50° F. below the boiling point of said mixture, recovering overhead said oil-soluble nonacid oxygenated organic chemicals and said hydrocarbon, and condensing the resulting overhead consisting essentially of said chemicals, azeotropic water, and said hydrocarbon.

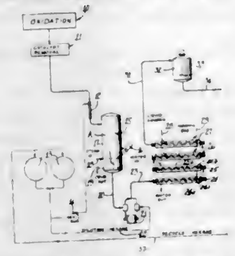
2,779,779

OXIDIZED WAX AND METHOD OF MAKING SAME

George L. Meyers, Gerald W. De Walt, and Leonard M. Keene, Barnsdall, Okla., assignors, by mesne assignments, to Petrolite Corporation, St. Louis, Mo., a corporation of Delaware

Application February 17, 1955, Serial No. 488,863

12 Claims. (Cl. 260—452)



1. The method of fractionating an oxidized wax product capable of being dissolved completely in a hot, predominantly paraffinic hydrocarbon solvent containing from 5 to 9 carbon atoms per molecule into fractions of varying physical characteristics which comprises dissolving said wax product completely in a relatively hot predominantly paraffinic acyclic hydrocarbon solvent containing from 5 to 9 carbon atoms per molecule, cooling the resulting solution to a temperature and at a cooling rate sufficient to crystallize out a coarsely crystalline first wax fraction and leaving a second wax fraction in solution, and thereafter separating said first fraction from said second fraction.

2,779,780

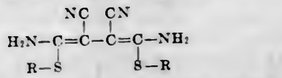
1,4-DIAMINO-2,3-DICYANO - 1,4-BIS(SUBSTITUTED MERCAPTO) BUTADIENES AND THEIR PREPARATION

William J. Middleton, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 1, 1955, Serial No. 491,512

25 Claims. (Cl. 260—465)

1. A substituted butadiene having the general formula



wherein R is a radical of not more than ten carbon atoms selected from the class consisting of hydrocarbon, monohydroxyhydrocarbon, monoaminohydrocarbon, mononitrohydrocarbon and monohalohydrocarbon radicals.

2,779,781

CYANIDATION CATALYSTS

Harry B. Copelin, Niagara Falls, N. Y., and George B. Crane, Wilmington, Del., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 29, 1954, Serial No. 478,542

20 Claims. (Cl. 260—465.8)

1. In the process for making organic cyanides by the cyanidation of the corresponding organic halides, the improvement which comprises accomplishing said cyanidation in the presence of an effective catalytic amount of a quaternary ammonium compound stable at the temperature employed for the cyanidation.

2,779,782

METHOD OF MANUFACTURING DIMETHYL TEREPHTHALATE FROM XYLENE DICHLORIDE

Rudolf Lotz, Klingenberg (Main), Germany, assignor to Vereinigte Glanzstoff-Fabriken A. G., Wuppertal, Elberfeld, Germany, a corporation of Germany

No Drawing. Application August 2, 1954, Serial No. 447,387

Claims priority, application Germany August 3, 1953

5 Claims. (Cl. 260—475)

1. Method of manufacturing the dimethyl ester of terephthalic acid, which comprises reacting p-xylylene dichloride with nitric acid having a concentration in the range of about from 40 percent to 65 percent, at a temperature in the range of about 105° to 110° C., in the presence of methanol.

2,779,783

PRODUCTION OF LINEAR POLYESTERS OF ALKYLENE DICARBOXYLIC ACIDS

Robert A. Hayes, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application September 29, 1954, Serial No. 459,210

12 Claims. (Cl. 260—485)

1. Process which comprises reacting together, at temperatures in the range 30°–150° C., (A) a substance

selected from the class consisting of anhydrides of alkylene dicarboxylic acids containing from 4 to 16 carbon atoms and mixtures thereof with anhydrides of other dicarboxylic acids, said mixtures containing at least 80% by weight of said anhydrides of said alkylene dicarboxylic acids with (B) an alkylene oxide containing from 2 to 4 carbon atoms, in the presence of (C) from 0.5 to 5.0%, based on the weight of the reaction mixture, of a catalyst selected from the group consisting of alkali metal, alkaline earth metal and organic ammonium salts and hydroxides together with at least 10% of water based on the weight of said selected catalyst.

2,779,784

BASIC ALKALINE EARTH METAL SULFONATES AND METHOD OF MAKING SAME

Marion L. Sharrah, Ponca City, Okla., assignor to Continental Oil Company, Ponca City, Okla., a corporation of Delaware

No Drawing. Application May 13, 1954, Serial No. 429,685

9 Claims. (Cl. 260—505)

1. A process for the preparation of a highly basic alkaline earth metal alkylaryl sulfonate which comprises heating a mixture comprising an oil-soluble sulfonic acid, an alkaline earth metal compound, and water in the temperature range of from about 220 to about 390° F., and at superatmospheric pressures wherein the amount of said alkaline earth metal compound is in excess of that required for neutralization of said sulfonic acid and the water being present in the proportion of 5 to 100 parts per 10 parts of said alkaline earth metal compound and subsequently removing the water therefrom.

2,779,785

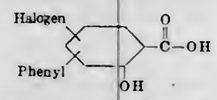
HALOGENATED PHENYL-SALICYLIC ACIDS

Luther F. Berhenke, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application December 22, 1952, Serial No. 327,455

6 Claims. (Cl. 260—520)

1. A halogenated phenyl-salicylic acid of the following formula



wherein the halogen substituent occupies one of the positions meta- to the carboxyl group, the position of said halogen substituent being also para- to the hydroxyl group when phenyl substituent is meta- thereto.

2,779,786

PROCESS OF PREPARING 2-SEMICARBAZIDO-ACETIC ACID

John H. Coleman, Norwich, William Hayden, Jr., McDonough, and Charles J. O'Keefe, Norwich, N. Y., assignors, by mesne assignments, to The Norwich Pharmacal Company, Norwich, N. Y., a corporation of New York

No Drawing. Application April 17, 1953, Serial No. 349,542

5 Claims. (Cl. 260—534)

1. The process of preparing 2-semicarbazidoacetic acid, which comprises gradually adding an aqueous solution of chloroacetic acid to a solution of sodium hydroxide in at least 50% hydrazine hydrate whose temperature is maintained in the range of about 90° to about 100° C. until the reaction is complete, introducing a heat exchange medium into the reaction mixture to distill excess hydrazine hydrate therefrom and to secure a suspension of crystalline material, adding a cyanating agent to an aqueous solution of said crystalline material, adding acid to the cyanating mixture to bring the pH thereof within the range of about 3 to 9, thereafter adjusting the reaction mixture to its isoelectric point, and then separating 2-semicarbazidoacetic acid from the reaction mixture.

2,779,787

PREPARATION OF AROMATIC PHOSPHINOUS CHLORIDES

William A. Higgins, Cleveland Heights, George R. Norman, Cleveland, and Willis G. Craig, Willoughby, Ohio, assignors to The Lubrizol Corporation, Wickliffe, Ohio, a corporation of Ohio

No Drawing. Application August 13, 1954, Serial No. 449,796

10 Claims. (Cl. 260—543)

1. The process of preparing aromatic phosphinous chlorides which comprises heating a mixture of an aromatic phosphoranetrioic trichloride having the structure

where Ar and Ar' are nonfunctional aromatic radicals each bound to the phosphorus atom through a benzenoid carbon atom, and an element selected from the class consisting of phosphorus, magnesium, potassium, carbon, and sodium.

2,779,788

TRICHLOROMETHANE SULPHENIC ACID DERIVATIVES

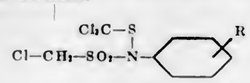
Hans Gysin and Alfred Margot, Basel, Switzerland, assignors to J. R. Geigy A. G., Basel, Switzerland, a Swiss firm

No Drawing. Application October 27, 1953, Serial No. 388,674

Claims priority, application Switzerland October 31, 1952

2 Claims. (Cl. 260—556)

1. A trichloromethane sulphenic acid derivative corresponding to the formula:



wherein R represents one member selected from the group consisting of hydrogen, chlorine, methyl and nitro.

2,779,789

REDUCTIVE ALKYLATION PROCESS

Robert H. Rosenwald, Western Springs, and James R. Hoatson, Clarendon Hills, Ill., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application October 28, 1953, Serial No. 388,917

16 Claims. (Cl. 260—577)

1. In the reductive alkylation of a reductively alkylatable compound having a substituent selected from the group consisting of amino and nitro groups with a carbonyl compound selected from the group consisting of ketones and aldehydes, the improvement which comprises effecting said reductive alkylation with hydrogen in the presence of a platinum-containing catalyst containing not more than about 2% by weight of platinum, said catalyst having been pretreated with a reducing agent selected from the group consisting of hydrogen, hydrocarbon and mixtures thereof at a temperature of above about 200° F.

2,779,790

(p-ACETOCYCLOHEXANYL) (p-CYCLOHEXENONYL) DIETHYL ETHANE COMPOUNDS

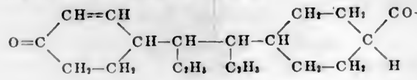
Erich M. H. Radde, New York, N. Y.

No Drawing. Application November 20, 1953, Serial No. 393,501

Claims priority, application Germany December 2, 1949

1 Claim. (Cl. 260—586)

(p - Cyclohexenonyl)(p - aceto cyclohexanyl)diethyl ethane of the following formula



2,779,791

ALKINYL AND ALKENYL SUBSTITUTED DICYCLOHEXYL ETHANE COMPOUNDS

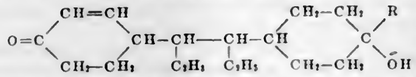
Erich M. H. Radde, New York, N. Y.

No Drawing. Application November 20, 1953, Serial No. 393,502

Claims priority, application Germany December 2, 1949

4 Claims. (Cl. 260—586)

4. A (p-cyclohexenonyl)(p-cyclohexanolyl) diethyl ethane compound of the following formula



wherein R is an unsaturated aliphatic hydrocarbon residue with not more than three carbon atoms.

2,779,792

PROCESS FOR THE MANUFACTURE OF A POLYENE ALDEHYDE

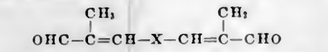
Otto Isler, Marc Montavon, and Rudolf Ruegg, Basel, and Paul Zeller, Neuallschwil, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application July 6, 1954, Serial No. 441,654

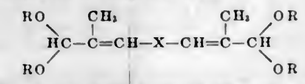
Claims priority, application Switzerland July 10, 1953

9 Claims. (Cl. 260—601)

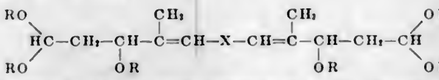
1. A process which comprises reacting a compound having the formula



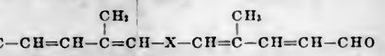
wherein X represents a bivalent radical selected from the group consisting of —C≡C— and —CH=CH— with a tri(lower alkyl) ester of a lower ortho-alkanoic acid in the presence of an acidic condensation agent to produce a compound having the formula



wherein X has the same meaning as above, and each R represents a lower alkyl radical; reacting the latter compound with vinyl lower alkyl ether in the presence of an acidic condensation agent to produce a compound having the formula



wherein X has the same meaning as above, and each R represents a lower alkyl radical; and hydrolysing the latter compound in aqueous acidic medium to produce a compound having the formula



wherein X has the same meaning as above.

2,779,793

PROCESS FOR THE MANUFACTURE OF A POLYENE ALDEHYDE

Otto Isler, Marc Montavon, and Rudolf Rüegg, Basel, and Paul Zeller, Neuallschwil, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application July 19, 1954, Serial No. 444,372

Claims priority, application Switzerland August 14, 1953

7 Claims. (Cl. 260—601)

1. A process for preparing a new polyene dialdehyde, which comprises acetalizing 4:9-dimethyl-dodecatetraen-(2:4:8:10) - yn - (6) - dial - (1:12) with a lower alkyl ortho-formate, condensing the obtained diacetal with a propenyl ether in the presence of an acidic condensing agent at a temperature between 25° and 60° C., and treating the obtained 2:6:11:15 - tetramethyl - hexadecatetraen - (4:6:10:12) - yn - (8) - diether - (3:14) - diacetal - (1:16) with acid to cause hydrolysis and elimination of alcohol from positions 2:3 and 14:15 in order to form the 2:6:11:15 - tetramethyl - hexadecahexaen - (2:4:6:10:12:14) - yn - (8) - dial - (1:16).

2,779,794

CARBONYLATION OF OLEFINS; WATER DECOBALTING

William E. Catterall, Roselle, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application July 31, 1952, Serial No. 301,895

2 Claims. (Cl. 260—604)

1. In a carbonylation process wherein a carbon compound containing olefinic linkages is contacted in a carbonylation zone with carbon monoxide and hydrogen in the presence of a cobalt carbonylation catalyst under conditions resulting in the production of an aldehyde product comprising an oxygenated organic compound containing at least one more carbon atom than the initial carbon compound and contaminated by cobalt-containing impurities dissolved therein, and wherein the aldehyde product containing the dissolved cobalt carbonylation catalyst is passed to a decobalting zone where it is heated by indirect means while in admixture with liquid water under pressure at a temperature of about 250° to 500° F. in order to decompose the dissolved cobalt impurities, the improvement which comprises passing a mixture of heated aldehyde product, water and decomposed cobalt-impurities from the decobalting zone to a settling zone, adding water to the decobalting zone in an amount sufficient to keep the latter substantially completely filled with liquid, withdrawing an aldehyde product substantially completely free of dissolved cobalt from an upper portion of the settling zone, withdrawing a slurry of cobalt-containing solids from a bottom portion of the settling zone, separately withdrawing an aqueous stream from an intermediate portion of the settling zone, and recycling at least a portion of said aqueous stream from the settling zone to the decobalting zone.

2,779,795

HYDROFORMYLATION OF OLEFINS; TEMPERATURE STABILIZATION

Bernard H. Gwynn, Fawn Township, Allegheny County, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

Application March 10, 1954, Serial No. 415,235

5 Claims. (Cl. 260—604)

1. In a process for the hydroformylation of olefins wherein a reaction mixture comprising hydrogen, carbon monoxide, and a composition consisting essentially of olefins having dissolved therein a catalytic metal salt is passed through an elongated reaction zone of restricted cross-sectional area and having a high ratio of wall surface to reactor volume and in indirect heat ex-

change relationship with a heat transfer medium at selected hydroformylation temperatures and a selected hydroformylation reaction pressure, the improvement which comprises recycling to said elongated reaction zone about one to about 10 percent by weight, based upon the fresh olefin feed, of the hydroformylation reaction product produced therein.

2,779,796
DECOBALTING OF OXO PRODUCTS WITH LIVE STEAM
Stanley H. Munger, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application November 2, 1950, Serial No. 193,752
6 Claims. (Cl. 260—604)

1. A process which comprises reacting a hydrocarbon compound containing an olefinic linkage, at elevated temperatures and pressures and in the presence of a cobalt catalyst, with carbon monoxide and hydrogen to form a crude oxygenated product containing soluble cobalt compounds, and thereafter treating said crude product with live steam to remove soluble cobalt compounds from solution therein, while avoiding any contact of said crude product during this steam treatment with any fixed heating surface the temperature of which exceeds the boiling point of the water/product mixture.

2,779,797
SEPARATION OF PRIMARY AND TERTIARY CYMENE HYDROPEROXIDES
Norman A. Barthelson, Wilmington, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application September 4, 1953, Serial No. 378,691
11 Claims. (Cl. 260—610)

1. The process of separating primary and tertiary cymene hydroperoxides from a mixture thereof which comprises contacting the mixture with an aqueous alkali metal hydroxide solution of concentration in the range of 0.1% to 20% to form a caustic solution containing primary cymene hydroperoxide and tertiary cymene hydroperoxide in which solution the ratio of primary to tertiary is greater than in the mixture subjected to the process, contacting the caustic solution of hydroperoxides with a water insoluble volatile organic solvent having a dielectric constant greater than three selected from the group consisting of methylene chloride, chloroform, ethylene chloride, diethyl ether, diisopropyl ether, ethyl isopropyl ether, methyl propyl ketone, methyl isobutyl ketone, methyl isopropyl ketone, cyclohexanone, butanols and pentanols to form a solution of tertiary cymene hydroperoxide in said organic solvent and volatilizing said organic solvent to recover said tertiary cymene hydroperoxide.

2,779,798
PROCESS OF PREPARING POUR POINT DEPRESSANTS BY CATALYTIC CONDENSATION OF HALOALKYL ALKYLATED PHENOL ETHER
Joseph J. McBride, Jr., Cranford, N. J., assignor to Tidewater Oil Company, a corporation of Delaware
No Drawing. Application June 24, 1953, Serial No. 363,915
2 Claims. (Cl. 260—612)

1. The process which comprises reacting one mol of a phenol with at least two mols of a dihalowax, subjecting the resulting haloalkyl (wax)-alkylated phenyl ether to condensation reaction in presence of a Friedel-Crafts catalyst at a temperature of about 50° C. to about 200° C. and for about one-half hour to about 12 hours to produce a reaction mixture containing a high molecular weight oil-soluble condensation product having the property of depressing the pour point of mineral oils when dissolved therein in small amounts, and recovering said condensation product from said reaction mixture.

2,779,799
1-CYCLOBUTYL-1-ETHYNYL-ETHANOL-1
Kenneth E. Hamlin, Jr., Lake Bluff, Ill., assignor to Abbott Laboratories, North Chicago, Ill., a corporation of Illinois
No Drawing. Application May 12, 1953, Serial No. 354,627
1 Claim. (Cl. 260—617)

1-cyclobutyl-1-ethynyl-ethanol-1.

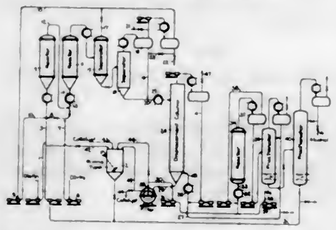
2,779,800
PROCESS FOR THE PRODUCTION OF POLY-(HYDROXYARYL)ALKANE COMPOUNDS AND NEW PRODUCTS THEREOF
Roy T. Holm, Orinda, and Curtis W. Smith, Berkeley, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application November 30, 1954, Serial No. 472,227
16 Claims. (Cl. 260—619)

13. A tetra-(hydroxyaryl)-hydroxy-aliphatic saturated hydrocarbon having the hydroxyl group linked to a carbon atom of the alkane chain which is in an intermediate position between two gem-di(hydroxyaryl)-substituted carbon atoms of the chain which are separated by at least four carbon atoms.

2,779,801
ALUMINUM ALKOXIDE REDUCTION OF ALPHA METHYLIDENE ALKANALS
Harry De V. Finch and Aldo De Benedictis, Berkeley, Calif., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware
No Drawing. Application December 4, 1953, Serial No. 396,311
13 Claims. (Cl. 260—638)

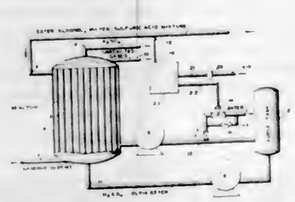
1. A process for the production of ethylenic alcohol which comprises contacting a lower alpha-methylidene alkanal of 3 to 10 carbon atoms per molecule and secondary alcohol with a catalytic amount, between about 0.02 and 0.14 mole per mole of aldehyde present, of aluminum alcoholate derived from secondary alcohol of 3 to 18 carbon atoms per molecule, at a temperature of from about 30° C. to about 80° C. at which the reaction products are in the liquid phase.

2,779,802
SYNTHESIS OF OXYGENATED COMPOUNDS
James T. Harlan, Jr., Houston, Tex., assignor to Shell Development Company, Emeryville, Calif., a corporation of Delaware
Continuation of abandoned application Serial No. 709,312, November 12, 1946. This application May 18, 1953, Serial No. 355,589
9 Claims. (Cl. 260—638)



8. In the process of removing dissolved cobalt carbonyl from the liquid oxygenated product of the conversion of organic compounds having an olefinic double bond with CO and H_2 in the presence of carbonyl-forming cobalt catalysts, said liquid oxygenated product comprising substantial amounts of aldehydes, by heating said liquid product in a catalyst decomposition zone under catalyst decomposition conditions including elevated temperatures, the improvement which comprises maintaining decomposition temperature by mixing said product in said catalyst decomposition zone with a fluid sufficient in amount and preheated in the absence of dissolved cobalt carbonyl to a temperature sufficient to keep the mixture formed at said decomposition temperature.

2,779,803
PRODUCTION OF ALCOHOLS AND RELATED PRODUCTS WITH ENDOTHERMIC - EXOTHERMIC CONTROLLED HEAT EXCHANGE
Kenneth C. Bottenberg, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application February 18, 1952, Serial No. 272,141
6 Claims. (Cl. 260—639)



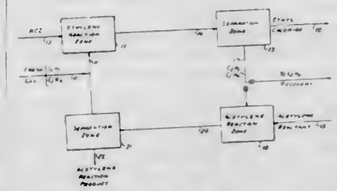
1. The production of a final endothermically produced liquid chemical product, which is produced by way of an exothermically produced intermediate liquid product, which comprises forming said exothermically produced intermediate liquid product by passing the reactants from which it is formed along and in direct contact with one side of a heat exchanger surface in a heat exchanger, removing intermediate product thus produced from contact with said one side of said heat exchanger, then passing the thus produced intermediate liquid product along and in direct contact with the other side of said heat exchanger surface in indirect heat exchange relationship with additional quantities of said intermediate product which is being exothermically produced, thus conducting through the said surface only heat from said exothermically produced intermediate product to the production of the final endothermically produced liquid chemical product, said heat at least in part furnishing the heat requirement of the production of said final liquid chemical product, detecting the temperature of the reaction producing said exothermically produced intermediate liquid product and varying the rate of flow of said intermediately produced product along said other side of said heat exchanger surface inversely responsive to changes of a desired temperature of said exothermically produced intermediate product on said one side of said heat exchanger surface, thereby controlling the temperature of the reaction producing said exothermically produced intermediate product as well as at least in part controlling the temperature of the reaction producing said endothermically produced final product.

2. In the production of an alcohol involving esterification of an olefin and hydrolysis of the ester produced the steps in combination of contacting in one side of a heat exchanger an olefin containing gas and an acid and controlling the temperature of the reaction which takes place between the olefin and the acid by passing already formed olefin-acid reaction product under hydrolysis conditions including the controlled addition of water through the other side of the said heat exchanger.

2,779,804
PROCESS FOR THE MANUFACTURE OF VINYL CHLORIDE FROM 1,2-DICHLOROETHANE AND ACETYLENE
Frederic Francois Albert Braconier, Plainevaux, and Jean Andre Robert Ovide Leon Godart, Tilff, Belgium, assignors to Societe Belge de l'Azote et des Produits Chimiques du Marly, Liege, Belgium, a company of Belgium
No Drawing. Application October 26, 1954, Serial No. 464,913
Claims priority, application Belgium November 3, 1953
4 Claims. (Cl. 260—656)

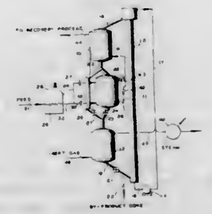
1. A process for the manufacture of vinyl chloride which comprises passing 1,2-dichloroethane, over a pyrolysis catalyst comprising activated carbon impregnated with from 20 to 40% by weight of barium chloride and from 0.3 to 0.7% mercuric chloride at a temperature from 350° C. to 450° C. to produce a gaseous product comprising vinyl chloride and hydrogen chloride, adding acetylene to said product and passing the gaseous mixture thus formed over a catalyst comprising activated carbon impregnated with about 10% of mercuric chloride.

2,779,805
SEPARATION OF ACETYLENE FROM ETHYLENE BY HYDROCHLORINATION OF THE ETHYLENE
Ernest H. Millard, Jr., Niagara Falls, N. Y., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
Application June 11, 1952, Serial No. 292,847
1 Claim. (Cl. 260—663)



In the chemical utilization of acetylene and ethylene mixtures without pre-separation thereof, the steps of passing a mixture of acetylene and ethylene through a reaction zone with hydrogen chloride in contact with a zinc chloride-impregnated activated carbon catalyst at a temperature of about 140° to 200° C., recovering ethyl chloride from the reaction products and separating a residual gas stream enriched in acetylene.

2,779,806
PRODUCTION OF AROMATICS
Parkin T. Sowden, Jr., Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application February 18, 1952, Serial No. 272,145
10 Claims. (Cl. 260—673)



1. Apparatus for hydrocarbon cracking and reforming comprising a first chamber; a second chamber below said first chamber; a first conduit connecting the lower end

portion of said first and the upper end portion of said second chambers; a third chamber below said second chamber; a second conduit connecting the lower end portion of said second and the upper end portion of said third chambers; a third conduit connecting the lower end portion of said first chamber and the upper end portion of said third chamber; an elevator extending from a level below the lower end portion of the third chamber to a level above the upper end portion of the first chamber; a fourth conduit connecting the lower end portion of said third chamber and the lower end portion of said elevator; a product removal conduit communicating with said fourth conduit; a fifth conduit connecting the upper end portion of said elevator and the upper end portion of said first chamber; means for passing fluid heat exchange material through said third chamber; a sixth conduit communicating with one end portion of said second chamber; a heater in said sixth conduit; a seventh conduit connecting the second end portion of said second chamber with the lower end portion of said first chamber; and an eighth conduit extending from the upper end portion of said first chamber.

7. A method of hydrocarbon cracking and reforming comprising introducing relatively cool coke pellets into a quenching zone; gravitating said pellets from the lower portion of said zone; dividing said pellets into first and second portions; passing the first portion into the upper portion of a soaking zone; passing a hydrocarbon stream in gaseous form which has been preheated to reaction temperature into said soaking zone; thereafter passing a resulting product stream from said soaking zone to said quenching zone; removing the quenched gaseous product from the upper end of said quenching zone; gravitating said coke pellets from the lower end of said soaking zone; combining said first and second portions of said pellets; passing said combined stream of pellets into a pellet temperature control zone; cooling said pellets in said zone with a heat exchange fluid; gravitating said pellets from the lower portion of said pellet temperature control zone; elevating said pellets from the lower end portion of said pellet temperature control zone to an upper end portion of said quenching zone; and removing a portion of said pellets as a product of the process.

2,779,807
PURIFICATION OF METHYLNAPHTHALENES WITH PERACIDS
Wilbie S. Hinegardner and Jerome W. Sprauer, Niagara Falls, N. Y., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application October 23, 1953, Serial No. 388,046
16 Claims. (Cl. 260—674)

1. The method of purifying a methylnaphthalene comprising treating said methylnaphthalene with an aliphatic peracid and separating from said methylnaphthalene the products of the reaction of said peracid with impurities.

2,779,808
OXIDATION OF ALDEHYDES
Arthur C. Whitaker, Fox Chapel, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware
No Drawing. Application March 31, 1954, Serial No. 420,181
7 Claims. (Cl. 260—676)

1. A process of converting an aldehyde to a product comprising a saturated aliphatic hydrocarbon having one less carbon atom than the aldehyde which comprises subjecting a saturated aliphatic aldehyde to the action of a gas containing molecular oxygen in the presence of an oxidation catalyst and a mercaptan at a temperature of about 20° to about 200° C.

2,779,809
ACCELERATION OF VULCANIZATION BY MEANS OF N-MONO-TERTIARY-ALKYL-THIAZOLINE-2-SULFENAMIDES
Edward L. Carr, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
No Drawing. Application December 7, 1953, Serial No. 396,761
6 Claims. (Cl. 260—788)

1. A vulcanizable composition including rubber, sulfur and a small amount of N-tert-butyl-thiazoline-2-sulfenamide.

ELECTRICAL

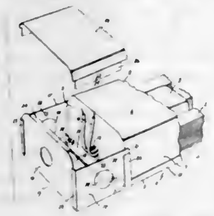
2,779,810
THERMOCOUPLE ASSEMBLY
Richard D. Horbinski, Milwaukee, Wis.
Application May 16, 1955, Serial No. 508,515
5 Claims. (Cl. 136—4)

4. In a temperature measuring device, a permanent magnet having a circular transverse cross section, an enlarged transverse slot formed in one end of said magnet, a central aperture opening out on the other end of said magnet and opening out into said slot, an elongated hollow tube slidably received in said aperture and extending through said slot, a thermocouple element on one end of said tube adjacent said slot, a spring in said slot exerting pressure between said magnet and said thermocouple element, said hollow tube being provided with circumferential grooves above said magnet, and a snap ring retained in and moved to any one of said grooves, whereby said thermocouple element may be adjustably positioned and held by the attractive force of said magnet adjacent the surface the temperature of which is to be measured.

2,779,811
PHOTO-CELL CONSTRUCTION
Michael A. Picciano, Maywood, N. J., and Charles Ekstein, Brooklyn, N. Y., assignors to Vitro Corporation of America, New York, N. Y., a corporation of Delaware
Application April 21, 1952, Serial No. 283,320
16 Claims. (Cl. 136—89)

2. In a cell construction of the character indicated, a plurality of elongated sensitive members electrically responsive to radiation, each of said members having electric-contact portions at longitudinally spaced points, a plurality of relatively rigid electric-terminal members, a solid body of electrically insulating plastic material transparent to radiation and in which said members are cast in physically separated relation, and flexible conducting means embedded in said solid body of plastic material and electrically connecting said terminal members to said contact portions, said flexible conducting means being of excessive physical length and looped between connections to said terminal members and to said electric-contact portions.

2,779,812
JUNCTION BOX FOR BALLAST TRANSFORMER
Robert F. Rowe, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York
Application October 25, 1952, Serial No. 316,832
2 Claims. (Cl. 174—50)

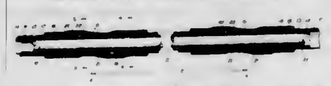


1. In combination, a case including a base member, a cover member having integrally formed side and top portions and a pair of end wall members; said base member having end portions respectively extending beyond said end wall members forming flanges at both ends of said case, said base member having tabs formed along its longitudinal edges respectively engaging said cover side wall portions, each of said end wall members having tabs formed along its vertical edges respectively engaging said cover side portions, the end wall of at least one end of said case having an opening formed therein for admitting electrical leads to the interior thereof and a junction box arranged at said one end of said case and including integrally formed end wall, base and side portions; said junction box base portion having an indentation formed in its outer edge engaging the upper surface of said flange at said one end of said case and having the balance of its bottom surface flush with the bottom surface of said case base member, means for removably securing said junction box base portion indentation to said flange thereby securing said junction box to said case, said junction box side portions respectively having indentations formed in their outer vertical edges respectively engaging said tabs of said end wall member at said one end of said case and said tabs of said case base member, said junction box side portions respectively having tabs formed on their inner vertical edges respectively engaging the outer surface of said junction box end wall portion, said junction box end wall portion having an inwardly projecting tab formed on its upper edge, a cover member for said junction box having its ends respectively engaging the upper surfaces of said junction box end wall portion tab and said case cover member, said cover member having indentations respectively formed in its side edges respectively engaging the inner surfaces of said junction box side portions, and means for removably securing said junction box cover member to said junction box side portions, said junction box having knock-out portions formed therein for communicating with the interior thereof whereby external connections may be made to said leads.

2,779,813
ELECTRICAL CAPACITOR
Joseph L. Collins, Mattapoisett, Mass., assignor to Aerovox Corporation, a corporation of Massachusetts
Application November 16, 1951, Serial No. 256,792
9 Claims. (Cl. 174—52)

1. In an electrical device of the type comprising an electrical unit with a plurality of leads extending therefrom, a substantially cylindrical casing encompassing said electrical unit, a terminal lug mount comprising an insulating disc having a terminal lug rigidly affixed thereto to which one of said leads is affixed and a mounting ring in juxtaposition with said disc; the combination therewith of means on said ring to key the latter to said disc, inwardly projecting means on said ring extending at substantially right angles thereto, and sealing material in said casing coacting with said inwardly projecting means, said electrical unit, and the lead therefrom to said terminal lug, to prevent relative movement between said electrical unit and said terminal lug mount.

2,779,814
ELECTRICAL CONDUCTORS HAVING TRANSPOSED CONDUCTING ELEMENTS
William H. Doherty, Summit, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application June 30, 1955, Serial No. 519,022
10 Claims. (Cl. 174—102)

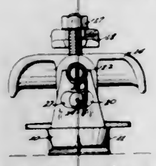


1. A low loss electrical conductor comprising a first elongated member of conducting material, said member being periodically interrupted along its length, and a second elongated member of conducting material surrounding said first member and insulated therefrom, said second member being periodically interrupted along its length at points corresponding to the interruptions in said first member, and means for effecting electrical connections between said second member on one side of an interruption and said first member on the other side of the interruption, and between said first member on the said one side of the interruption and said second member on the said other side, said means comprising a member of insulating material having a plurality of conducting elements thereon, said insulating member surrounding said conductor and so positioned relative to the first and second members that at least one conducting element contacts said second member on one side of the interruption and said first member on the other side thereof, and at least one conducting element contacts said first member on the said one side of the interruption and said second member on the said other side.

2,779,815
POWER LINE INSULATOR CLAMP
Leo Sokol, Columbus, Nebr.
Application July 31, 1953, Serial No. 371,528
4 Claims. (Cl. 174—169)

1. A power line insulator clamp, comprising a base, a hollow sleeve depending from said base, a body member mounted on said base, means pivotally connecting said body member to said base, said body member being provided with an arcuate saddle for receiving a power line, a pair of spaced parallel securing elements extending upwardly from said body member and secured thereto, a clamp adjustably mounted on said securing elements and having an arcuate surface for engagement with the pow-

er line, said means comprising a pair of spaced parallel lugs extending from said base, the outer end of each of said lugs being provided with a recess, a pair of diametrically opposed studs extending from said body member and seated in said recesses, a pair of spaced parallel ears



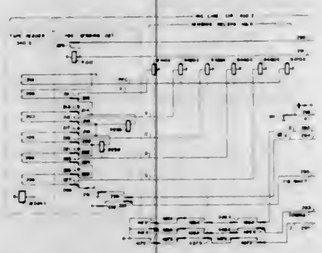
depending from said body member and interposed between said lugs, a pin extending through said lugs and ears, a finger engaging ring arranged on an end of said pin, said pin being provided with an annular groove adjacent its other end, and a spring member arranged in engagement with said groove.

2,779,816

SENSING AND DETECTING CIRCUITS IN A TELEGRAPH SWITCHING SYSTEM

Robert A. Kolpek, Waukegan, Ill., assignor to Automatic Electric Laboratories, Inc., Chicago, Ill., a corporation of Delaware

Application March 1, 1955, Serial No. 491,465
7 Claims. (Cl. 178—2)



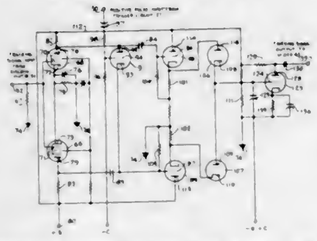
5. For use in a telegraph system having a tape with a message and a predetermined multiple character control code recorded thereon, a means for sensing the recorded information and a detector circuit comprising an incoming hold conductor normally having a certain electric potential connected thereto; a pair of incoming marking conductors; a group of register relays arranged in order; a decoding means; means for connecting the decoding means to the sensing means; said decoding means effective for momentarily removing said potential from said hold conductor responsive to each character sensed by the sensing means; said decoding means also effective in response to the sensing means sensing succeeding characters of said predetermined code for momentarily connecting an electric potential alternately to one then the other of said marking conductors so that each momentary connection is substantially simultaneous with the removal of said first-mentioned potential from the hold conductor; means for operating two of said register relays in series with each other over a first circuit including said hold conductor with its potential connected thereto; a second circuit, including a certain one of said marking conductors, for maintaining a certain one of said two register relays operated while said first-mentioned potential is subsequently removed from the hold conductor; said second circuit partially completed in response to the operation of said certain one register relay; said decoding means effective in response to the sensing of a certain character of said code in its proper sequence for restoring the other of said two register relays and for momentarily completing said second circuit to maintain said certain one register relay operated; said decoding means thereafter effective before the sensing of the next character for operating a third one of said register relays in series with said certain one register relay over a branch of said first circuit including said hold conductor with its potential connected thereto; a third circuit, including the other marking conductor, for maintaining said third register relay operated while said first-mentioned potential is subsequently removed from the hold conductor; said third circuit partially completed in response to the operation of said third register relay; said decoding means effective in response to the sensing of the next character of said code for restoring said certain one register relay and for momentarily completing said third circuit to maintain said third register relay operated; said decoding means thereafter effective before the sensing of the next character for operating a fourth one of said register relays in series with said third register relay over another branch of said first circuit including said hold conductor with its potential connected thereto; and said decoding means effective in response to the sensing of a character other than the correct character of said code in its proper sequence for restoring all operated register relays.

2,779,817

COLOR TELEVISION CAMERA STABILIZING CIRCUIT

Robert J. Stahl, Redwood City, Calif., assignor to Color Television Incorporated, San Carlos, Calif., a corporation of California

Application November 25, 1952, Serial No. 322,383
15 Claims. (Cl. 178—5.4)



1. A switching circuit comprising a pair of unilateral conductors of which the cathode of one is connected to the anode of the other, a terminal point connected to the junction of the anode and cathode connection of the unilateral conductors for obtaining a signal output therefrom, high impedance signal input source means connected to each unilateral conductor to supply a common input signal thereto and for one polarity of input signal supply a control voltage to permit current flow through one of the unilateral conductors and for the opposite polarity of input signal supply a control voltage to permit current flow through the other of the unilateral conductors and a gating tube having a low internal impedance relative to the signal input source connected in parallel to the high impedance signal input sources, said gating tube being responsive to a control signal and adapted in one state of conduction simultaneously to bias the unilateral conductors to arrest current flow therethrough.

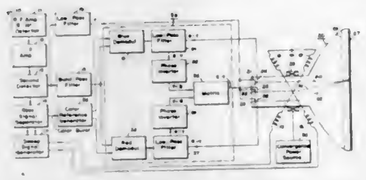
2,779,818

DEMODULATING SYSTEMS FOR COLOR TELEVISION

Robert Adler, Northfield, and John L. Rennick, Elmwood Park, Ill., assignors to Zenith Radio Corporation, a corporation of Illinois

Continuation of application Serial No. 355,476, May 18, 1953. This application May 2, 1955, Serial No. 505,476
10 Claims. (Cl. 178—5.4)

1. A demodulating system for a color television receiver including means responsive to a received color television signal for developing a carrier color signal and a color reference signal, said demodulating system comprising: a first electron-discharge device including means comprising a cathode for projecting an electron stream, a pair of output electrodes, a first control electrode system intermediate said cathode and said output electrodes, and a second control electrode system having a transconductance of one polarity with respect to one of said output electrodes and a transconductance of opposite polarity with respect to the other of said output electrodes; a second electron-discharge device including means comprising a cathode for projecting an electron stream, an output electrode, and first and second control electrode systems intermediate said cathode and said output electrode; means for concurrently impressing said carrier color



signal on one of said control electrode systems of said first device and on one of said control electrode systems of said second device; means for concurrently impressing said color reference signal in predetermined phase on the other of said control electrode systems of said first device and in predetermined different phase on the other of said control electrode systems of said second device: a first output circuit coupled to said one output electrode of said first device for developing a first color difference signal of predetermined polarity; a second output circuit coupled to said output electrode of said second device for developing a second color difference signal of said predetermined polarity; and a third output circuit coupled to said other output electrode of said first device for developing an opposite-polarity first color difference signal.

2,779,819

LIGHT SERVO SYSTEM FOR NON-INTERMITTENT PROJECTOR

Robert E. Graham, Chatham, and Charles F. Mattke, Fanwood, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application March 17, 1951, Serial No. 216,234
6 Claims. (Cl. 178—7.2)

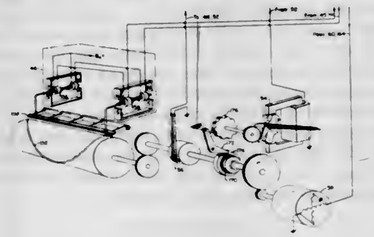
1. In combination, a film gate for supporting moving motion picture film, a cathode ray source for providing a scanning beam of light, means for applying said scanning beam to said film gate, said means including moving reflecting elements which produce variations in the transmission efficiency of said beam, and means responsive to the intensity of the beam at the film gate for varying the intensity of the cathode ray source in a direction to maintain constant the intensity of said beam at the film gate.

2,779,820

FACSIMILE SYNCHRONIZING APPARATUS

Foster E. Weld, Newton Highlands, Mass., assignor to The Gamewell Company, Newton Upper Falls, Mass., a corporation of Massachusetts

Application July 9, 1951, Serial No. 235,793
5 Claims. (Cl. 178—69.5)



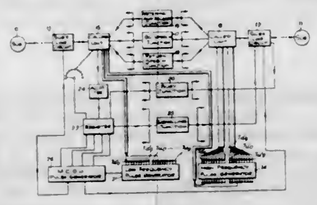
1. A receiver for facsimile transmissions of the type including intermittent framing impulses occurring in fixed phase to the lines of the image, including, in combination, a circuit to receive said impulses, a rotatable member, continuously rotating power means, a clutch connecting the power means with said member, arresting means operable to engage and arrest said member in a first position, a stepping device connected with said circuit and operable by an impulse to cause said arresting means to engage said member and by a succeeding impulse to cause said arresting means to disengage said member, a timer rotating with said member, and means operated by the timer to prevent operation of the stepping device by a framing impulse occurring when said member is in a second position.

2,779,821

AUTOMATIC TELEPHONE SYSTEMS

Alexander Albert Chubb, Coventry, England, and Maurice Moise Levy, Ottawa, Ontario, Canada, assignors to The General Electric Company Limited, London, England

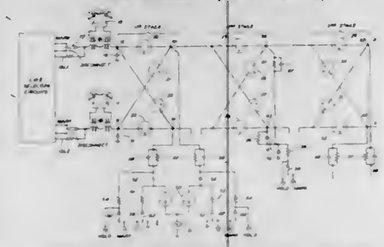
Application February 14, 1952, Serial No. 271,534
Claims priority, application Great Britain February 16, 1951
9 Claims. (Cl. 179—18)



1. In an automatic exchange having a plurality of stations, a plurality of pairs of lines, each said pair of lines including an incoming line and an outgoing line, each said pair of lines having a different time displaced pulse characteristic and a register for locating a called station: a channel terminating unit for a pair of lines, said unit comprising a first input terminal for connection to a calling station, a second input terminal for connection to a source of time displaced gating pulses characteristic of the line to which the unit is connected, a third input terminal for connection to the incoming line of said pair of lines, said incoming line having modulated time displaced pulse signals, a first output terminal for connection to the register, a second output terminal for connection to the outgoing line of said pair of lines, means for applying impulses to the first output terminal upon the

application to the first input terminal of pulses from a calling station, a first gate device, a second gate device, circuit means connecting the second input terminal to both said gate devices so as to open said gate devices only when predetermined time displaced gating pulses characteristic of said pair of lines are applied to the second input terminal, circuit means for applying speech and the like signals received from a calling station at the first input terminal to the first gate device and through said device to the second output terminal, circuit means for applying modulated time displaced incoming speech pulses appearing at the third input terminal to the second gate device to be gated by the said gating pulses, a pulse demodulator, circuit means connecting the output of the second gate device to the input of the pulse demodulator, and circuit means connecting the output of the pulse demodulator to the first input terminal.

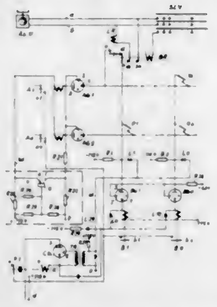
2,779,822
COMMUNICATION SWITCHING SYSTEM EMPLOYING GAS TUBES
Raymond W. Ketchledge, Whippany, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application March 25, 1955, Serial No. 496,749
20 Claims. (Cl. 179—18)



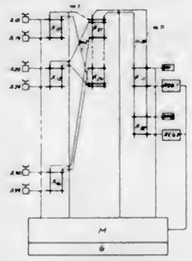
1. In a communication switching circuit, a plurality of input lines, a plurality of output lines, and means defining paths between said input and output lines, said means including a gas discharge device crosspoint switch having a plurality of nodes and a plurality of gas discharge devices therein, direct current means for applying a marking potential to said nodes and alternating current means coupled to said nodes for maintaining selected gas discharge devices in a marked condition.

2,779,823
CONNECTING DEVICE IN AUTOMATIC TELEPHONE SYSTEMS
Carl Gunnar Svala, Alvsjo, and Arthur Berge, Stockholm, Sweden, assignors to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden
Application August 26, 1955, Serial No. 530,760
Claims priority, application Sweden September 17, 1954
4 Claims. (Cl. 179—18)

1. An identifying device for calling circuits in an automatic telephone system comprising a first and a second group of gaseous discharge tubes each having a first and a second main electrode and an ignition electrode, voltage supply means for said tubes, a plurality of make contacts connected between the first main electrode in one of the tubes within said first group and the second main electrode in one of the tubes within the second group, said contacts being operated in response to a call originating from the associated circuit, each of said second electrodes of the tubes in the second group being connected to an individual point in a voltage supply network, each of said points having normally a potential sufficient to ionize the discharge gap between the ignition electrode and the first main electrode of the tube in the first group which is connected to the point by means of one of said contacts, said voltage supply network comprising means for keeping the voltage of each of said points being connected to the first main electrode of one of the tubes in the first group substantially constant until the current flowing to the last mentioned electrode has reached a value exceeding the normal current to the auxiliary electrode and thereafter for successively changing the potential of said point with the current through the tube in the first group until the ionizing potential between the second main elecrode and the ignition electrode in the associated tube in the second group is reached, the ignition electrodes of each group being via a resistance common to the group connected to voltage supply means separate for each group, the voltage supply means of the ignition electrodes of the first group comprising means controlled by the current through the tubes of this group for decreasing the ignition electrode potential to a low value before the potential of said point is beginning to change, whereby further tubes of the first group are prevented from firing.

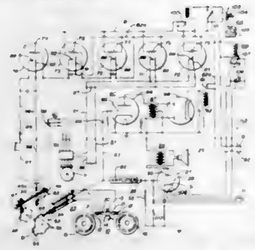


2,779,824
IDENTIFIER
Nils Emil Nilsson, Lilla Essingen, and Gustav Oskar Rodnert and Per Gustaf Jonsson, Hagersten, Sweden, assignors to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden
Application August 27, 1953, Serial No. 376,916
Claims priority, application Sweden August 29, 1952
5 Claims. (Cl. 179—18)



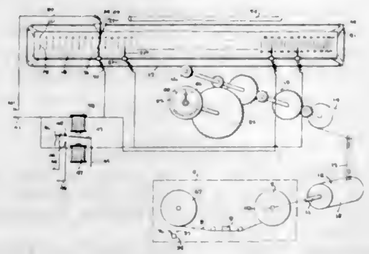
1. In an automatic telephone system in combination, lines, selectors, registers and a marker connected in circuit for setting up a connection over said selectors and lines, a signalling lead for signals between lines and selectors occurring in said connection, a marking conductor for each of said lines and selectors, means for at least each selector connecting said marking conductor to said signalling lead when the selector is taking part in a connection within the telephone system, change-over contacts and test-relays for testing and selecting arranged in the marker, multi-contact relays closing circuits over said marking conductors and said change-over contacts for said test relays, identifying relays, marking means connecting a particular marking to said signalling lead for a known line or selector taking part in said connection, and means actuating said multi-contact relays and said change-over contacts to connect said marking conductors to said identifying relays, said particular marking actuating said signalling relays and means operated by said signalling relays designating a line or selector connected to said known line or selector.

2,779,825
AUTOMATIC CONTROL FOR SOUND REPRODUCING EQUIPMENT
Ronald L. Cunningham, Englewood, Colo.
Application June 3, 1955, Serial No. 512,926
18 Claims. (Cl. 179—100.1)



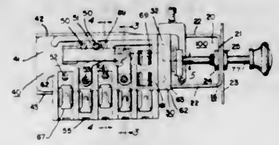
1. A control for an audio signal reproducing equipment including a normally closed control switch, means responsive to the audio signal of the reproducer equipment for moving said switch to its open position and for maintaining it open while the signal remains above a predetermined level of intensity, a control circuit for effecting a change in an operating condition of the signal reproducing equipment, an energizing circuit for the equipment, means dependent upon the closing of said switch for initiating operation of said control circuit, said means including a second normally closed switch in said energizing circuit for opening said energizing circuit and a first normally open relay connected in parallel with said second switch for reclosing said energizing circuit at the end of a predetermined interval after closing of said first mentioned switch, and means including a second normally open relay in said control circuit for actuating said control circuit upon closing to change the operating condition of the equipment a predetermined time after the closing of said first normally open relay.

2,779,826
INDEXING AND SELECTOR DEVICE FOR MAGNETIC TAPE RECORDERS
Raymond Scott, Babylon, N. Y.
Application August 31, 1953, Serial No. 377,606
3 Claims. (Cl. 179—100.2)



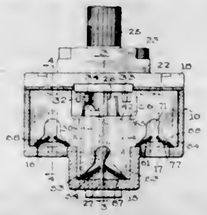
1. For use with a magnetic tape recorder having electrical mechanism for driving reels of tape at a high, shuttle speed, and at a low, playing speed, an indexing selector device, said device comprising a rectilinear scale having constantly exposed and visible indicia lines from one end of the scale to the other, an indicator pointer mounted for travel across the scale, means to actuate said indicator pointer from one end of the scale to the other, said actuating means being driven by the tape driving mechanism of said recorder, first and second sets of selector pins slidably mounted on said scale and positioned to be contacted by said indicator pointer as it travels across the scale, and electrical circuit means which is closed by the contact of said indicator pointer and said selector pins for operating said tape driving mechanism, said first set of selector pins controlling the low speed mechanism of said tape recorder through said electrical circuit means and said second set of selector pins controlling the high speed or shuttle mechanism thereof through said electrical circuit means.

2,779,827
CONTROL DEVICE
William E. Brown and Harold V. Elliott, Anderson, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 22, 1954, Serial No. 457,740
3 Claims. (Cl. 200—4)



1. A switch for controlling a plurality of circuits, comprising: a rotatable rod longitudinally movable for moving a first switch means for controlling at least one circuit, a second switch means controlled when said rod is rotated within predetermined limits independently of the longitudinal position thereof, a reciprocating third switch means transversely spaced from said rod and controlled when said rod is rotated to a predetermined position independent of its longitudinal position, a stop means associated with said second switch for preventing rotation in one direction of said rod beyond said predetermined position, and yieldable means associated with said third switch means for yieldably preventing relation in the other direction when said rod is rotated to said predetermined position.

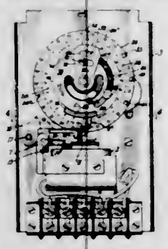
2,779,828
TURN KNOB SWITCH WITH PUSH-IN TERMINALS
Victor R. Despard, Syracuse, N. Y., assignor to Pass & Seymour, Inc., Syracuse, N. Y., a corporation of New York
Application September 27, 1954, Serial No. 458,563
11 Claims. (Cl. 200—6)



1. In a switch of the type described, in combination, a housing substantially rectangular in plan having an open top, a cover, a turn knob journalled in said cover and having an extension, said housing having a bottom depressed at the center to provide a deep chamber, a wire gripping terminal and contact unit in said chamber

having a base secured against said bottom at one side thereof, a pair of spaced wire gripping wings upwardly inclined from their outer edges which extend transversely of said chamber and engage the said bottom, a narrow connecting portion coextensive with and between one end of each wing and the base, said portions being spaced for passage of said extension between them, the opposite ends of the wings being free, a spring arm extending upwardly from said base toward said cover and having a contact thereon facing the nearest end wall of the housing, a wire gripping unit bottomed in one depressed end of said bottom, having wings similar to those of the center unit, and an extension lying against a side wall of said housing, cooperating means on said extension and cover whereby the latter holds the last mentioned unit in position, an arm projecting from said extension carrying a contact confronting that on the spring arm, said housing bottom having a wire entrance aperture in alignment with the space between the wire gripping wings of each said unit, and means on said knob for flexing said spring arm to engage or disengage said contacts.

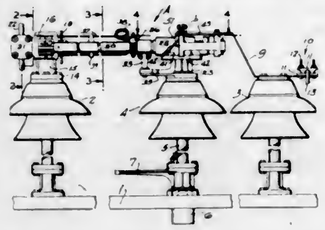
2,779,829
TIME SWITCH MECHANISM
Joseph J. Everard, Manitowoc, Wis., assignor to Paragon Electric Company, Two Rivers, Wis., a corporation of Wisconsin
Application March 19, 1954, Serial No. 417,453
13 Claims. (Cl. 200—35)



1. In combination, a double throw switch device tending constantly to assume the first of the two positions between which it alternates, a movable restraining element mounted beside and contantly tending to engage said switch device and hold it in its second position, a slowly rotatable dial adjacent to said element, means on that dial to engage said element and render it inoperative to restrain the switch device during at least one predetermined period in each revolution of the dial; a second movable restraining member for said device; a rapidly moving dial coaxial with the slow dial and having thereon means to operate said second member; for alternately holding the switch device in its second position and allowing it to assume its first position when not otherwise restrained; and means to drive the dials in such time relation to each other that the said switch device engaging means on the rapidly moving dial recedes from the switch device to allow the latter to assume its first position after the beginning of each of the aforesaid periods, and then forces the switch device into the second position before the end of the same period.

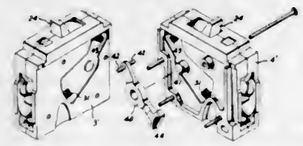
2,779,830
HIGH VOLTAGE SWITCH
John L. Turner and Frederick J. Krummel, East St. Louis, Ill., assignors to Turner Electric Corporation, East St. Louis, Ill., a corporation of Illinois
Application December 21, 1953, Serial No. 399,316
11 Claims. (Cl. 200—48)

2. A high voltage switch comprising vertically spaced contacts, a switch blade mounted for axial rotative movement within a horizontal plane, a contact element on one end of said blade for reception between said contacts, means for rotating said blade axially for circuit-closing pressure-developing engagement of said contact element with said contacts and for breaking such engagement for switch opening, vertically spaced stationary arcing ter-



minals adjacent said contacts, and a pair of resilient arcing horns carried by said blade for current sustaining engagement with said arcing terminals, said resilient arcing horns being adapted to retain engagement with said arcing terminals after breaking of engagement between said contacts and contact elements.

2,779,831
MULTIPOLE ELECTRIC CIRCUIT BREAKERS
William Andrew Thomas, Plainville, Conn., assignor to General Electric Company, a corporation of New York
Application June 14, 1954, Serial No. 436,291
11 Claims. (Cl. 200—50)



1. A pair of electric circuit breakers each including an enclosing casing of insulating material secured together in side-by-side relation with a space between adjacent side walls of said casings, each of said breakers including a contact operating mechanism within the casing, said mechanism comprising a member normally biased to contact opening position, latch means normally restraining said member and operable in response to a condition of the circuit controlled by the breaker to release said member, an interlocking member interposed in the space between adjacent side walls of said casings and supported for rotation, said interlocking member having a portion extending into each of said casings and engageable by said first-mentioned member when released by said latch means to effect rotation of said interlocking member, said interlocking member having a second portion engageable with the latch means of each of said breakers whereby movement of said first-mentioned member of one of said breakers to contact opening position effects operation of the latch means of the other of said breakers.

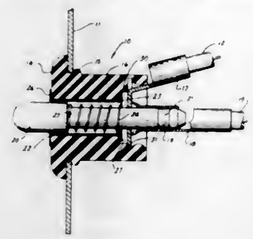
2,779,832
FLASHLIGHT SWITCH
Robert W. Winters, Indian Neck, Robert M. Gray, Mount Carmel, and Thaddeus T. Furtak, New Haven, Conn., assignors to Olin Mathieson Chemical Corporation, a corporation of Virginia
Application October 22, 1953, Serial No. 387,584
6 Claims. (Cl. 200—60)

4. A flashlight switch comprising, in combination with a flashlight case having an opening in the wall thereof, a switch box secured to the outside of the wall and extending over said opening, an outwardly directed electrical

contact point within the switch box adjacent the opening, a spring strip slidably mounted in the switch box and having a flexible end portion overlying the contact point at all times, said strip being normally spaced from but movable into contact with said contact point, a push button extending through the switch box over the flexible end portion of the spring strip for moving the strip into contact with the contact point, means extending inwardly

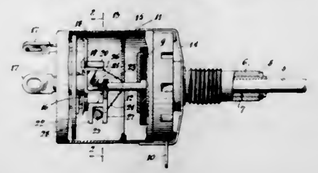
from the flexible end portion of the spring strip and engaging the case when the strip is in one position to prevent movement of the spring strip inwardly into contact with the contact point, and means extending outside the switch box and connected to said spring strip for slidably moving the spring strip from the position in which the inwardly extending means engages the case and prevents contact to a second position in which the inwardly extending means is aligned with the opening in the wall of the case.

2,779,833
AUTOMOBILE DOOR SWITCH
Glenn S. Farison, Logansport, Ind., assignor to Essex Wire Corporation
Application September 24, 1953, Serial No. 382,121
3 Claims. (Cl. 200—61.82)



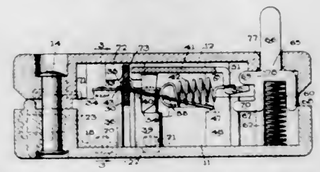
1. In a door switch of the class wherein the closing of the door against the door jamb pushes a yieldable rod inwardly through a suitable aperture in the door jamb, in combination with said rod, a resilient grommet adapted for mounting in said door jamb, a coil spring yieldably engaged with and axially disposed upon said rod, a ferrule centrally positioned in said grommet and disposed about said coil spring and adapted to permit reciprocal movement of said rod, a wire terminal attached to said rod near the end remote from the door engaging end, a second wire terminal held by said resilient grommet, said coil spring yieldably urging said rod so that the first mentioned wire terminal attached to the rod is normally in electrical contact with said second mentioned wire terminal.

2,779,834
PUSH-PULL CONTROL
Henry Gintovt and Walter I. Eshelman, Dover, N. H., and George L. Chapman, York Village, Maine, assignors to Clarostat Mfg. Co., Inc., Dover, N. H., a corporation of New York
Application October 20, 1953, Serial No. 387,174
8 Claims. (Cl. 200—68)



1. In a push-pull control in combination a shaft, means for supporting said shaft for reciprocation, a rotary switch actuator mounted for swinging movements, an operating unit for said actuator and including a rotary shaft supported for swinging movements in a plane substantially perpendicular to the axis of said first-named shaft, means forming a part of said latter shaft and actuator for swinging the latter as said rotary shaft is rocked, a crank portion forming a part of said latter shaft and means carried by said first-named shaft and engaging said crank portion to rock the latter in response to a reciprocation of said first-named shaft.

2,779,835
SNAP SWITCH FOR TOOLS
Mark N. Russell, Syracuse, N. Y., assignor to Pass & Seymour, Inc., Syracuse, N. Y., a corporation of New York
Application April 22, 1953, Serial No. 350,362
14 Claims. (Cl. 200—76)

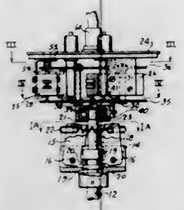


1. In a double snap switch, in combination, a narrow, elongated, shallow housing having a bottom and side walls, two pairs of contacts laterally spaced on said bottom, the contacts of each pair being longitudinally spaced, a single barrier plate of sheet insulation extending transversely of said housing, means including said side walls to guide said plate for movement in its own plane toward and from said bottom in a position intermediate the contacts of said pairs, a bridging strap for each pair of contacts and having an offset intermediate portion, a slot in each end of the plate to laterally and loosely receive one of said intermediate portions to support the straps positioned therein by said side walls, snap levers and a connecting spring fulcrumed in said housing to move in a plane normal to said bottom and said plate, and means to positively actuate said plate in each direction from one of said levers.

2,779,836
MULTIPLE SWITCH SPEED CONTROLLED MECHANISM
William J. Williams, Wilmette, Ill.
Application February 16, 1954, Serial No. 410,555
10 Claims. (Cl. 200—80)

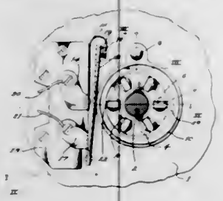
9. In combination, an extendable and retractable shaft adapted to be raised and lowered according to various controlling condition responsive means; a housing carry-

ing a plurality of switches and switch pins spaced transversely around said shaft above said condition responsive means; a retractable spring loaded pivot pin adjacent each switch pin; a fixed tube around each pin, each of said springs being loaded to release at successively different pressures; and a tiltable plate movably carried by said shaft and adapted to move and retract the least loaded



spring held pivot, said plate arranged upon further movement of said shaft to tilt along a line joining two pivots whereby said plates actuates the switch adjacent said first pivot; further movement of said shaft causing the second of said spring loaded pivots to retract and said plate tilts in another plane along a line joining a pivot and the end of the tube surrounding the first pivot to actuate another switch.

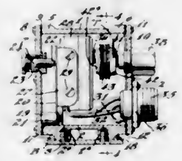
2,779,837
AUTOMATIC SWITCH CONTROL
Alfred W. Gardes, Detroit, Mich., assignor to Houdaille Industries, Inc., a corporation of Michigan
Application February 24, 1954, Serial No. 412,325
9 Claims. (Cl. 200—80)



1. In an automatic switch control, supporting means, a rotary shaft extending therethrough, a spider on said shaft having ball sockets therein, a ball loosely trapped in each said socket free to move a limited distance radially by centrifugal force, an insulating ring pivoted to said supporting means and surrounding said spider and balls, said ring being eccentric with respect to said spider whereby when the shaft rotates to a predetermined speed the balls will force the ring into concentric relationship with the spider, and switch means actuated by said ring upon reaching concentric position.

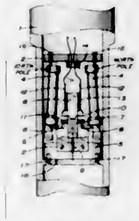
2,779,838
ABSOLUTE PRESSURE SWITCH
Arthur W. Reis, Hingham, Mass., assignor to United Electric Controls Company, Watertown, Mass., a corporation of Massachusetts
Application November 27, 1951, Serial No. 258,469
7 Claims. (Cl. 200—83)

1. A pressure control device for aeronautical use, said control device being of the absolute pressure type and useful in controlling a pressure motor designed to maintain a substantially constant predetermined pressure in a closed chamber, said control device, when in use, being located outside of said chamber and being externally exposed to varying atmospheric pressure, the control device being so constructed and arranged that it functions in the same manner regardless of its position and that its operation is unaffected by vibrations of the type to which it might be subjected if installed in an airplane, the control device comprising a rigid case of a size such that it may be installed in a space not substantially exceeding twenty-three cubic inches in volume and whose largest linear dimension does not exceed three inches, the case having attaching elements for mounting it on a support and comprising a hollow body portion open at each end and removable closures normally so attached to the opposite ends, respectively, of the body portion as, in combination with the body portion, to define an air-tight interior chamber, a snap action switch within said chamber, the switch



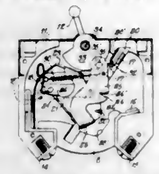
having a movable actuating pin, a metallic bellows within the chamber, the bellows not substantially exceeding one inch in external diameter having one head which is rigidly attached to one of the end closures, the bellows being coaxial with the switch-actuating pin and having a movable head which is opposed to the pin, a holder for the switch comprising a stiffly resilient arm fixed at one end to the other end closure of the casing and which has a bias tending to move the switch bodily toward said last-named end closure and away from the bellows, and an adjustable stop carried by said last-named end closure operative to determine the distance of the switch holder from said end closure, said stop being accessible from the exterior of the casing.

2,779,839
MAGNETIC STARTER SWITCH
Carl C. Palmer and Adelbert Barry, Houston, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application October 22, 1953, Serial No. 387,756
4 Claims. (Cl. 200—87)



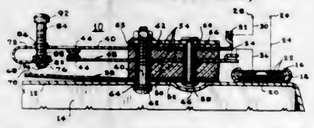
3. A magnetic switch comprising a base, a plurality of means each independently movable in response to a magnetic field attached to said base, a plurality of first contact means fixedly connected to said base, second contact means movably mounted on said base adapted to contact said first contact means upon movement thereof, said first and second contact means being adapted to complete an electrical circuit when said second contact means is in contact with all of said plurality of first contact means, said second contact means being connected to and movable in response to movement of said magnetic field responsive means, said second contact means contacting said plurality of said first contact means to complete said electrical circuit upon substantially simultaneous movement of said plurality of magnetic field responsive means.

2,779,840
ELECTRIC CIRCUIT BREAKERS
Benjamin E. Getchell, deceased, late of Plainville, Conn., by Trafton P. Getchell, administrator, Plainville, Conn., assignor to General Electric Company, a corporation of New York
Original application August 7, 1951, Serial No. 240,688, now Patent No. 2,692,931, dated October 26, 1954. Divided and this application April 26, 1954, Serial No. 425,449
11 Claims. (Cl. 200—116)



1. A circuit breaker comprising a housing having recesses therein, a supporting bridge member having its ends mounted in the recesses of the housing, a bimetal strip member anchored at one end in the housing and adapted to bend when heated, a trip member hinged to said bridge member and normally latched to said bimetal strip member, a switch member hinged to said trip member, a rocker member hinged to said bridge member, means for tilting the rocker member, and a spring connecting said rocker member and said switch member and applying torque to said trip member to turn the trip member on said bridge member when said bimetal member releases said trip member upon an overload in the circuit of said switch member.

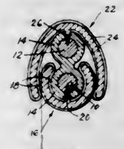
2,779,841
ADJUSTABLE THERMAL SWITCH
Thomas S. Zastrow, St. Paul, Minn., assignor to General Mills, Inc., a corporation of Delaware
Application April 30, 1954, Serial No. 426,726
9 Claims. (Cl. 200—138)



1. In a thermal switch comprising a resiliently movable contact arm having a first contact thereon, a second contact adapted to be engaged and disengaged by said first contact, and thermally responsive means for establishing relative movement of said arm and first contact toward and away from the second contact in response to predetermined temperature conditions, the improvement comprising a projecting flange integrally connected to the contact arm and doubled back generally parallel to the contact arm in a plane displaced from the plane of the arm, an insulating member carried by said projecting flange at a location adapted for engagement by the thermally responsive member to control the position of said arm and cause said relative movement, and an adjusting screw threaded into the contact arm opposite said insulating member, the end of said screw engaging the insulating member, thereby changing the relative spacing between the insulating member and contact arm and varying the temperature of operation of the switch in response to adjustment of the screw.

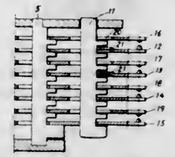
2,779,842
DEVICE TO ESTABLISH AN ELECTRICAL CIRCUIT
Norman A. Walker, Freetown, Mass.
Application April 12, 1955, Serial No. 500,972
6 Claims. (Cl. 200—142)

6. A device for attachment to wires to establish an electrical circuit comprising an open-mouthed, inner conductor embodying an electricity conducting body and an electricity conducting prong extending laterally outward therefrom, and an open-mouthed, outer conductor embodying an electricity conducting body and an electricity



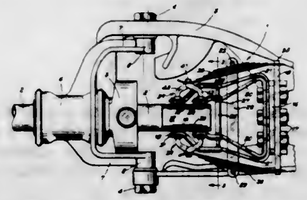
conducting prong extending laterally outward therefrom, said outer conductor being of greater girth than, and adapted to extend outside of and contact and overlie, part only of said inner conductor, and insulation on said bodies adapted to melt at a predetermined temperature.

2,779,843
CONTACT SPRING GROUPS FOR ELECTROMAGNETIC CONNECTING DEVICES FOR OBTAINING A VARIATION OF THE CHRONOLOGICAL ORDER FOR THE CONTACT FUNCTIONS OF THE GROUP
Eric Axel Wiberg, Stockholm, Sweden, assignor to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden
Application December 11, 1953, Serial No. 397,745
Claims priority, application Sweden December 31, 1952
5 Claims. (Cl. 200—166)



1. In a switching device of the kind wherein a plurality of movable and stationary contact springs are held spaced apart by the teeth of a toothed support bar and movable into and out of engagement by the teeth of a toothed lifting bar upon displacement of said latter bar, the teeth of the support bar and the lifting bar respectively being equally spaced, in combination with means staggering the engagement of the stationary contact springs by the movable contact springs upon displacement of the lifting bar, said means comprising a deformation of at least one of the contact springs varying the spacing of said spring from the coacting tooth of one of said bars in relation to the spacings of the other springs from the respective teeth of said bars.

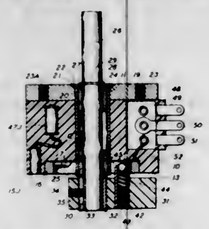
2,779,844
EQUALIZED MULTIPLE HIGH PRESSURE CONTACT
Walter Kowalski, South Milwaukee, Wis., assignor to McGraw Electric Company, Milwaukee, Wis., a corporation of Delaware
Application June 2, 1955, Serial No. 512,671
7 Claims. (Cl. 200—170)



1. In combination with a switch blade swingable on a transverse axis and rotatable on a longitudinal axis, an

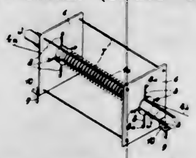
electric contact comprising at least two resilient fingers each having a contact surface longitudinally spaced from that of the other and lying in substantially the same plane for simultaneously engaging one side of the blade at longitudinally spaced points, said fingers extending substantially parallel with and axially of the blade when said blade is engaged, an equalizer constantly bearing on each finger on a side thereof opposed to said contact surface, and a spring in compressive relation to said equalizer on a portion thereof remote from said contact surfaces, the force of said spring being proportionately applied to said fingers through the medium of said equalizer.

2,779,845
VARIABLE RESISTOR
Arthur J. Moser, San Juan, Puerto Rico, assignor, by mesne assignments, to International Resistance Company, Philadelphia, Pa., a corporation of Delaware
Application November 16, 1953, Serial No. 392,377
3 Claims. (Cl. 201—53)



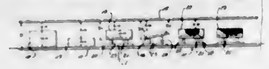
1. A variable resistor comprising the combination of a resistance element, a body of an insulating thermosetting plastic completely surrounding the resistance element and comprising the sole support therefore, said body having a flat surface, a plurality of spaced conductive contactors embedded in said flat surface of said body with a surface of each of said contactors being flush with said body surface, said contactors being arranged in an arc and connected to the resistance element at spaced points therealong, a plurality of spaced indentations in said flat surface of the body arranged in an arc co-axial with the arc of said contactors, a shaft rotatably supported by said body, an arm of insulating material fastened to said shaft adjacent said body surface, a conductor attached to said arm and adapted to successively contact the contactors upon rotation of said arm, and a spring loaded detent fastened to said arm and adapted to successively rest in each of the indentations as the arm rotates.

2,779,846
TEMPERATURE SENSITIVE ELEMENT
John Howard Richards, Reigate, England, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application June 9, 1954, Serial No. 435,583
Claims priority, application Great Britain June 11, 1953
4 Claims. (Cl. 201—63)



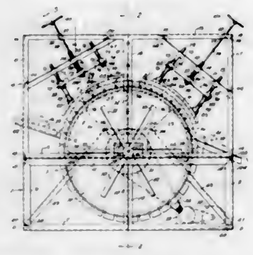
1. An electrical resistor comprising a pair of spaced end plates each having a central aperture and a plurality of substantially radially extending slots communicating with said aperture, a plurality of substantially parallel support rods each mounted in one slot of each end plate and secured therein, and a fine resistance wire wound about and supported on said rods.

2,779,847
ELECTRONIC VULCANIZATION OF RUBBER
George P. Bosomworth, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application September 29, 1951, Serial No. 248,919
1 Claim. (Cl. 219—10.41)



The method of continuously heating a plurality of articles of dielectric material of varying thickness in a high frequency electrical field produced by a pair of parallel electrodes, which comprises moving said articles through said field with the top surfaces of said articles substantially parallel to and equally spaced from the top electrode and with the bottom surfaces of said articles having electrical connection with said bottom electrode whereby there is substantially no voltage drop between said bottom surfaces and electrodes.

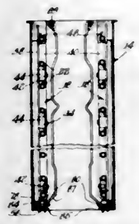
2,779,848
MACHINE FOR ELECTRONIC PROCESSING OF DIELECTRIC ARTICLES
George P. Bosomworth, Akron, and Robert I. Bishop, Cuyahoga Falls, Ohio, assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Original application October 28, 1950, Serial No. 192,803, now Patent No. 2,700,182, dated January 25, 1955. Divided and this application May 24, 1954, Serial No. 433,083
5 Claims. (Cl. 219—10.69)



1. An apparatus for heat treating rubbery wringer rolls having a cross section of curved periphery with a spindle mounted axially thereof and protruding at each end, comprising a circular conveyor wheel journaled for rotation about its axis, circular adjustable electrodes radially outward of and in parallel spaced relation to the outer periphery of the conveyor, at least one inner curved electrode positioned radially inwardly of and parallel to the periphery of said wheel as well as parallel to said adjustable electrodes, means to rotate the conveyor about its axis, said conveyor having slots on each outer peripheral edge adapted to receive said spindles in journaled relation, said spindles being normally seated in the bottoms of said slots.

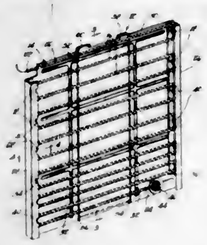
2,779,849
GLASS TUBE HEATING ELEMENTS FOR TOASTERS
John R. Gomersall, Elgin, Ill., assignor to McGraw Electric Company, Elgin, Ill., a corporation of Delaware
Application September 14, 1953, Serial No. 379,757
9 Claims. (Cl. 219—19)

1. An electric heating unit of the type described, comprising a convolute glass tube having a plurality of spaced sections joined by curved portions disposed substantially in a common plane, an electric resistance element extending through said tube, a support member, said support member having a part thereof disposed along one side of a plurality of said curved tube portions, means extending from said support member and overlying opposite sides of said plurality of curved tube portions for retaining said curved tube portions substantially in said common plane, and means extending from said support member and between a pair of tube sections for loosely



retaining said tube for limited movement within said common plane, said support member being electrically connected with one end of said resistance element and providing one terminal for the heating unit, said support member including finger-like projection means adapted to be inserted into an insulating mounting bushing for mounting heating unit, and said support member including means adapted to be connected with a source of electricity.

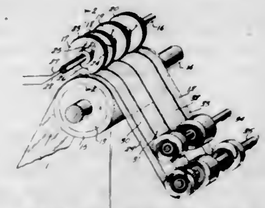
2,779,850
GLASS ENCLOSED HEATING ELEMENT
John R. Gomersall, Elgin, Ill., assignor to McGraw Electric Company, Elgin, Ill., a corporation of Delaware
Application September 14, 1953, Serial No. 379,759
16 Claims. (Cl. 219—19)



1. In combination in an electric heating unit, a convolute glass tube having a plurality of separated curved portions which lie substantially in a common plane, a relatively thin sheet material channel-shaped supporting member having opposed side portions embracing said curved portions and supporting them and a bottom portion traversing outermost parts of a plurality of said curved portions, and an electric resistance conductor extending through said tube for carrying the heating current.

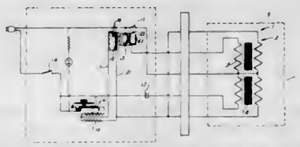
2,779,851
APPARATUS FOR SEVERING OR PERFORATING ADHESIVE TAPE
Clarence W. Vogt, Norwalk, Conn.
Application January 24, 1952, Serial No. 268,099
1 Claim. (Cl. 219—19)

Apparatus for forming tapes having an adhesive material on at least one side thereof, comprising a rotatable member having a circular periphery, a heating coil carried by the periphery of the last named member with the outer portions of the convolutions thereof in spaced circumferential relationship, means to supply an electrical current to the coil, and means to move a tape into engagement with the outer portions of the convolution of the coil, said means to move the tape into engagement



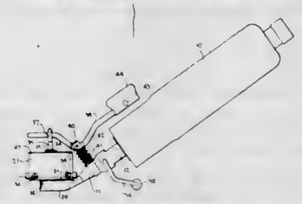
with the tape engaging member including means to vary the extent of such engagement.

2,779,852
TEMPERATURE RESPONSIVE CONTROL CIRCUIT
Leo L. Weber, Logansport, Ind., assignor to Essex Wire Corporation
Application August 23, 1955, Serial No. 530,154
1 Claim. (Cl. 219—20)



In a temperature control device for an electrically heated blanket including an adjustable bimetallic thermostatic switch to energize and deenergize the heating circuit of said blanket depending upon the temperature of said thermostatic switch, said thermostatic switch being exposed to heat from a heater connected in the heating circuit of said blanket and to heat from a second component of said temperature control device connected in a safety control circuit in addition to heat from the air of the room in which said blanket is located; means to supply additional heat to said thermostatic switch until the heat emitted by said second component attains a desired level whereby said thermostatic switch is influenced to maintain said blanket at a substantially constant temperature regardless of the variation in the heat emitted by said second component, said means comprising: an auxiliary heater also connected in said heating circuit of said blanket and arranged to apply heat when energized to said thermostatic switch, and a second bimetallic thermostatic switch responding to the heat emitted by said second component to energize said auxiliary heater when said heater circuit of said blanket is energized until the heat emitted by said second component attains said desired level.

2,779,853
ELECTRICALLY HEATED TOOL
Elmore W. Hagadorn, Solvay, N. Y., assignor to Finishine Laboratories, Inc., Syracuse, N. Y., a corporation of New York
Application June 29, 1954, Serial No. 440,040
10 Claims. (Cl. 219—27)



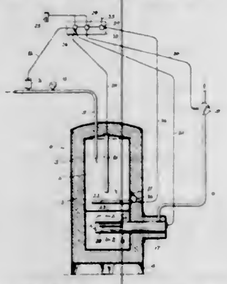
1. In an electrically heated tool having an insulated handle, a work head comprising a knife blade, a hollow

post extending through said blade and projecting from the upper side thereof, a turret member rotatably mounted on said post having a plurality of radially disposed compartments adapted to contain heated fluid material to be worked by said blade, each of said compartments having an outlet passage terminating adjacent said post, said post having a radial passage in the wall thereof adjacent said outlet passages, indexing means to selectively bring any one of said outlet passages into registration with said radial passage to permit fluid material to flow through said post to the underside of said blade, a valve element slidable longitudinally in said post and adapted to normally block off said radial passage, and actuating means for said valve element operable from a point adjacent said tool handle.

2,779,854
ELECTRIC BRANDING AND DEHORNING IRON
Anton E. Helbling, Mandan, N. Dak.
Application February 11, 1955, Serial No. 487,510
2 Claims. (Cl. 219—30)

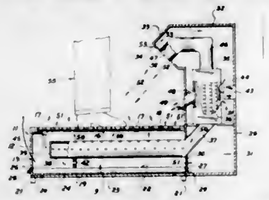
1. A branding and dehorning device comprising an elongated body member, a handle on one end of said body member, a continuous electrode member attached to the other end of said body member, said electrode forming a brander and dehorner, said electrode including a pair of spaced parallel portions, one of said portions being longer than the other of said portions, said one portion terminating in a laterally extending reversely bent loop, said other portion including a generally outwardly bowed portion lying in a common plane with the spaced parallel portions and integrally formed therewith.

2,779,855
AUTOMATIC ELECTRICALLY OPERATED WATER HEATER
Boyd F. Sawyer, Bucyrus, Ohio
Application June 14, 1955, Serial No. 515,415
2 Claims. (Cl. 219—39)



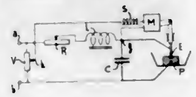
1. In an electric water heating system, the combination of a vertically elongated boiler, a hot water outlet pipe extending from the upper portion of said boiler, a tubular duct extending laterally into the lower end portion of the boiler and open at its inner end, a cold water inlet pipe connected to the outer end of said duct, an electric heating element provided in said duct and connected to a source of electric power, a transverse baffle plate provided in the boiler above said duct, said baffle plate having a restricted water passage therein, whereby to retard the flow of water from said duct to said outlet, and an additional electric heating element provided in said boiler above said baffle plate.

2,779,856
HOT AIR DRY MAT
Kenneth C. Fahner, Roseville, Mich., assignor of one-third to Irene R. Fahner and one-third to Gottlieb C. Fahner, Roseville, Mich.
Application February 16, 1956, Serial No. 565,960
8 Claims. (Cl. 219—39)



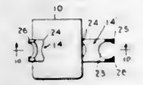
1. A drying mat comprising a first housing open at its top and having a bottom wall with drain openings, a grill mounted upon the top of said housing, an upright second housing positioned at one end of said first housing communicating with its interior and extending thereabove, a casing within said second housing above the first housing, a series of electric resistance heating elements mounted in the casing in spaced relation, a fan mounted within said casing, a hot air outlet manifold depending from said casing and extending to said first housing, a plurality of horizontally disposed parallel spaced hot air tubes of appreciable diameter supported within said first housing, closed at their outer ends and at their inner ends joined to said manifold and in communication therewith, said tubes having a series of hot air outlet perforations formed therein substantially throughout their length, and an electric circuit connecting said heating elements and fan to a power source.

2,779,857
ARRANGEMENT FOR MACHINING CONDUCTIVE MATERIAL THROUGH ELECTRIC DISCHARGES
Nicolas Mironoff, Geneva, Switzerland, assignor to Ateliers des Charmilles S. A., Geneva, Switzerland, a corporation of Switzerland
Application December 21, 1954, Serial No. 476,739
Claims priority, application Switzerland August 7, 1954
4 Claims. (Cl. 219—69)

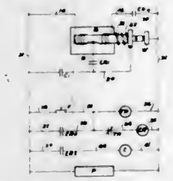


1. An apparatus for machining an electrically conductive workpiece by successive spark discharges, comprising, in combination, a storage condenser adapted to discharge when an electrode and a workpiece connected thereacross are separated by an insulating medium; a circuit for charging said condenser including a direct current source, an induction coil in series with said condenser, and a potentiometer in parallel with said condenser, said potentiometer having a slider operatively associated therewith, said condenser having a first terminal member connected to said induction coil and a second terminal member connected to said direct current source, the inductance of said induction coil being of such value that the natural half-period of said charging circuit of said condenser equals at least twice the interval between two successive condenser discharges; a movably mounted electrode electrically connected to said first terminal member, said second terminal member being electrically connected to said workpiece; and servo means for controlling the spacing between said electrode and workpiece, said servo means being operatively connected to said electrode and electrically connected to said first terminal member on one hand and to said slider on the other hand, whereby the voltage drop across said servo means is dependent upon the actual discharge voltage of said condenser thereby causing said servo means to respond immediately to any variation in the voltage drop across the electrode and the workpiece immersed in the insulating medium brought about by the increase or decrease in the spacing therebetween.

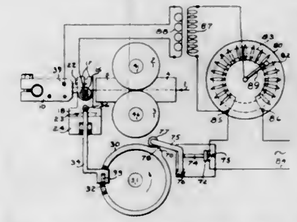
2,779,858
METHOD OF PRODUCING METALLIC RIBBON ATTACHING ELEMENT AND WELDING THE SAME
Albert F. Pityo, Cedar Grove, N. J.
Application May 10, 1955, Serial No. 507,318
13 Claims. (Cl. 219—78)



1. A method of securing and forming metallic ribbon-shaped attaching elements to a metal part, comprising holding the metal part in a selected position to bring a part thereof in a welding position, transversely severing a metal ribbon and forming a recess therein at the line of severing and thereby providing transversely spaced welding portions at the leading end of the metallic ribbon, moving the ribbon toward the metallic part to bring the spaced welding portions into contact with that portion of the metallic part which is in the welding position, welding said welding portions to said portion of the metallic part, transversely severing the metallic ribbon at a point spaced from the metallic part to define the length of the metallic ribbon-shaped metallic element and forming a recess in the trailing end of the metallic ribbon-shaped attaching element and a recess in the leading end of the metallic ribbon, each of the last-named recesses providing transversely spaced portions, shifting the metallic part to bring a different portion thereof into a welding position, and then repeating the cycle of steps for welding position, and then repeating the cycle of steps for welding each succeeding metallic ribbon-shaped attaching element to the metal part and forming such attaching element.

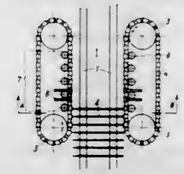
2,779,859
STUD WELDING DEVICE
Thomas E. Shoup, Amherst, and Roger W. Sholle, Lorain, Ohio, assignors to Gregory Industries, Inc., Detroit, Mich., a corporation of Michigan
Application November 12, 1954, Serial No. 468,376
14 Claims. (Cl. 219—98)

1. An electrical circuit for a stud welder adapted to lift a stud from a work piece to draw an arc therebetween, said circuit comprising, a first circuit including a lifting coil to lift the stud from the plate and strike an arc therebetween, a second circuit to maintain a welding arc between the stud and plate and including a holding coil to maintain the stud in lifted position, and a control circuit operatively connected with said first and second circuits to maintain energization of at least one of said coils to keep the stud lifted while effecting de-energization of the welding arc, said control circuit having timer means therein.

2,779,860
APPARATUS FOR MAKING, SIZING, AND ELECTRICALLY TREATING A WIRE COIL
Wilbur Conrad, Unionville, Conn.
Application November 10, 1955, Serial No. 546,189
7 Claims. (Cl. 219—153)



1. Apparatus for coiling wire comprising mechanism for feeding a wire progressively, tools including a coiling arbor for making a coil on the wire, cutter mechanism for severing the coil from the wire, mechanism operating prior to the coil severance for subjecting the coil to a force which holds it at a predetermined length and means for introducing an electric current of controlled voltage into the non-severed coil while subjected to said force to reduce a stressed condition resulting from the coiling operation.

2,779,861
FEEDING-DEVICE FOR CONDUCTING-WIRES, ESPECIALLY DESIGNED FOR HEATING AND DRYING COATING-MATERIALS APPLIED TO WELDING-RODS
Harald Strohmeier, Kapfenberg, Steiermark, Austria
Application October 29, 1954, Serial No. 465,702
Claims priority, application Austria November 6, 1953
7 Claims. (Cl. 219—156)

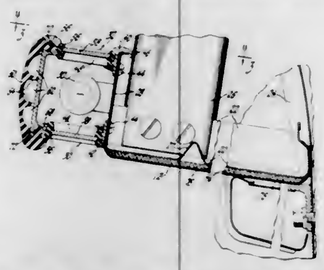


1. A device for temporarily applying electric current to each of a succession of conducting members, comprising an endless belt conveyor adapted to carry said succession of conducting members, two endless contacting belts disposed on opposite sides of said belt conveyor, each of said contacting belts comprising a series of mutually insulated electrically conducting contact parts, said belt conveyor and contacting belts extending parallel to each other and being movable in the same direction and at the same speed, said conducting members on said belt conveyor being adapted to be each contacted by and gripped between a pair of mutually opposite contact parts of said contacting belts when said belt conveyor and contacting belts are moved in the same direction, and means arranged to apply current to mutually opposite contact parts contacting each of said conducting members.

2,779,862
PACKAGE RACK WITH VEHICLE ILLUMINATING MEANS
Ferdinand R. Eichner, Pontiac, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 13, 1953, Serial No. 385,770
2 Claims. (Cl. 240—7.1)

1. In combination with a package carrying rack having a plurality of lighting fixtures secured to the extended

edge thereof, a housing for vehicle illuminating means which includes an elongated channel member extending the length of said package rack, means securing the open side of said channel member to the extended edge of said rack and over said lighting fixtures, openings formed through opposite side walls of said channel member adja-

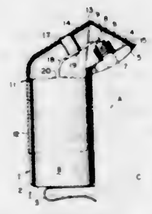


cent said lighting fixtures and having translucent members resiliently supported therein, and resilient guard means secured to the other wall of said channel member and extending around one corner thereof for receiving and dissipating impact forces otherwise transmitted to said translucent members and required to be totally absorbed by the resilient supports thereof.

2,779,863
MOTOR VEHICLE GUIDE
Harry Ferman, Newark, N. J.
Application April 21, 1952, Serial No. 283,384
3 Claims. (Cl. 240—7.1)

In combination with a package carrying rack having an edge thereof extended outwardly, an elongated light rail adapted to be secured to said edge of said rack and including a channel member having a groove formed within and through one side of the base thereof for receiving said edge of said rack and supporting said channel member with the open side thereof disposed upwardly, a plurality of lighting fixtures received within said channel member, means securing said fixtures within said channel member in spaced relation to the side walls thereof, said fixtures having flanges formed from the upper edges thereof and received upon the side walls of said channel member, lens means received over said fixtures and within said flanges, and cover members engaging the side walls of said channel member and disposed to close the open side thereof and to engage said lens means upon said fixtures, those of said cover members adjacent said fixtures having openings therein to permit the light of said fixtures to shine therethrough.

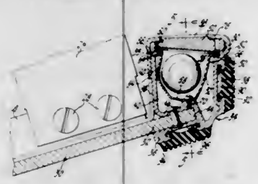
2,779,865
CLIPBOARD ILLUMINATOR
Edward J. Hermeyer, Ferguson, and Walter E. Strippgen, Webster Groves, Mo.
Application December 7, 1955, Serial No. 551,663
4 Claims. (Cl. 240—10.67)



1. A clipboard light comprising a battery case adapted for receiving an electrical battery, said case being open at the top and being provided along a lateral portion of its upper margin with an outwardly projecting reflector, means rigidly secured to the case for engaging clipboards and similar portable writing devices, a shell shiftably mounted upon the case and being provided with a laterally opening hood shaped to fit loosely around said reflector, locking means for optionally holding the case and shell in either of two relatively shifted positions, an electric lamp operatively mounted in the space within the hood, electric current carrying means forming part of the case and being adapted for electrically connecting one terminal of the lamp with one terminal of the battery, and electric current carrying means mounted in the shell for electrically connecting the other terminal of the lamp with the other terminal of the battery, the circuit through at least one of said electric current carrying means being broken by relative shifting movement of the shell and case with respect to each other into one of said shifted positions and being restored upon relative shifting movement of the shell and case into the other of said shifted positions.

1. A lens for motor vehicle headlamps comprising a lens of light-transmitting material, a first rod of light-transmitting material carried by said lens, said rod having a first end portion extending outwardly from one face of said lens and a second end portion extending outwardly from the other face of said lens, and a socket of light-transmitting material carried by said second end portion of said rod, said socket adapted to receive an indicator rod of light-transmitting material in a vertical position.

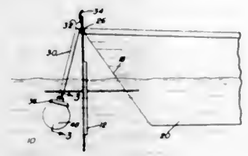
2,779,864
LIGHT RAIL
Ferdinand R. Eichner, Pontiac, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 13, 1953, Serial No. 385,817
1 Claim. (Cl. 240—7.1)



2,779,866
UNDERWATER FISHING LIGHT
Jesse J. Burlingham, Fort Myers, Fla.
Application June 17, 1954, Serial No. 437,377
2 Claims. (Cl. 240—26)

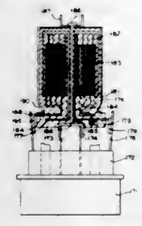
1. An underwater fishing light comprising a vertically elongated frame, a substantially horizontally extending shield attached intermediate its ends to an intermediate portion of said frame, a substantially vertically extending bar secured to said frame and extending upwardly through said shield, means for detachably and adjustably attaching said bar to a boat, a tube extending through an aperture provided therefor in said shield and engaging said

bar, and illuminating means on the end of said tube and situated beneath said shield, said illuminating means in-



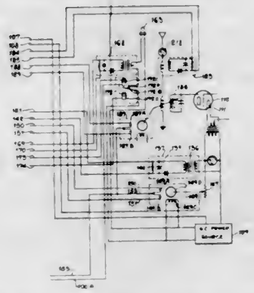
cluding a lamp socket, a lamp in said socket, and a watertight globe enveloping said lamp socket and said lamp and secured to said tube.

2,779,867
APPARATUS FOR CONNECTING CIRCUIT ELEMENTS TO ELECTRONIC TUBE SOCKET
Glen Peterson, Tulsa, Okla.
Original application September 21, 1949, Serial No. 117,056, now Patent No. 2,647,990, dated August 4, 1953. Divided and this application January 12, 1953, Serial No. 330,717
4 Claims. (Cl. 250—16)



1. A mechanism for interconnecting the electrodes of an electronic tube, comprised of an electronic tube socket having an insulating body, a central conducting stem and a multiplicity of conducting lugs fixed to said insulating body and radially disposed about said central conductive stem and electrically insulated therefrom, portions of said lugs disposed to engage the terminal pins of the electrodes of said electronic tube, other portions of said lugs projecting beyond said insulating body and having openings for engaging the terminal wires of electronic circuit elements, at least two conductors rotatably mounted to said central stem of said tube socket within the ring defined by said tube socket lugs, said conductors being insulated from each other and from said tube socket stem, said conductors being interconnected by means of at least one condenser, said condenser having at least two metallic foils with at least one layer of insulation therebetween, said foils and insulation being rolled in a tight spiral about a conducting post which is the axial extension of said tube socket stem, said post being insulated from said foils, said condenser being encased in a metallic housing of generally tubular shape including an end portion remote from said tube socket and having a block of insulating material on the end adjacent said tube socket and retained by said metallic housing, said conductors being retained by said block of insulating material, at least one of said metallic foils being conductively fastened to at least one of said conductors, at least a second of said metallic foils being conductively fastened to at least a second of said conductors, said mechanism having collars on both ends, one of said collars being retained by said block of insulating material, the other of said collars being conductively fastened to the end portion of said metallic housing, said collars being electrically joined by means of said conducting post, said collar adjacent said tube socket making a sliding fit with said tube socket stem.

2,779,868
RADIO TRANSMITTER REMOTE CONTROL SYSTEM
William F. Rust, Jr., Goffstown, N. H.
Application November 18, 1953, Serial No. 392,911
20 Claims. (Cl. 250—17)

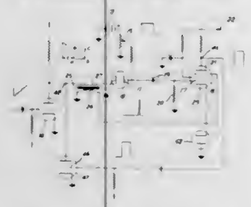


1. Apparatus for controlling a radio transmitter having a plurality of sections to be checked, comprising a first control unit located at a point remote from the transmitter, a second control unit at the transmitter, a control line extending between said units, an automatic seeking switch at the second control unit and having associated therewith a dial pulse relay responsive to dialed impulses transmitted over said line from the first unit to selectively set said seeking switch, each setting of said switch corresponding to a different section of the transmitter, a power supply for the transmitter, another relay at the second unit, circuit connections between said other relay and said power supply to control the application of power to said transmitter, and means to control said other relay over said line to disconnect the power supply from the transmitter whenever said line is abnormal to such an extent as to render the first unit ineffective to control the second unit.

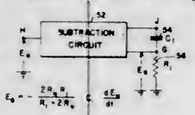
2,779,869
AMPLITUDE DISTRIBUTION ANALYZER
Irvin H. Gerks, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application July 20, 1953, Serial No. 368,923
12 Claims. (Cl. 250—20)

1. An amplitude distribution analyzer for analyzing a varying function wherein the analyzer indicates the amplitude which is exceeded by the function a designated percentage of time, comprising means for translating the varying function into an electrical signal that varies with the variations of the function, a first voltage source providing an output that is the voltage level to be exceeded by the signal, a threshold means cooperating with said first voltage source to provide a threshold output when the signal exceeds the voltage level, a trigger circuit connected to receive the threshold output and to provide a constant current output during the instances that a threshold output is received, an integrator circuit with a long time-constant receiving the output of said trigger circuit, the steady-state output of the integrator circuit having a value proportional to the percentage of time that the voltage level is exceeded, a second voltage source calibrated with the integrator circuit to provide a voltage that corresponds to a particular percentage of time,

the outputs of said integrator circuit and second voltage source opposing each other to provide an error output, a servo system with its input connected to receive the error output, the output of the servo system connected to the first voltage source, and the signal level output of the first voltage source controlled by the servo so that a zero error output is always approached, whereby the servo output varies in a manner that provides an analysis of the varying function in terms proportional to amplitude exceeded by the function a given percentage of time.

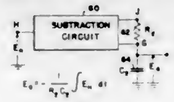
2,779,870
AMPLITUDE COMPARISON CIRCUIT
Elliott A. Henry, Bethel, and Alfred N. Paul, Norwalk, Conn., assignors to Sperry Products, Inc., Danbury, Conn., a corporation of New York
Application September 11, 1952, Serial No. 308,984
2 Claims. (Cl. 250—27)

1. In an amplitude comparison circuit comprising a diode having an anode and a cathode, an adjustable source of reference voltage connected to the anode, the cathode being connected to a source of energizing voltage pulse, a normally conducting tube having a control grid coupled to the diode anode and having an anode and a cathode, a regenerative circuit including a transformer having its primary winding connected to the tube cathode and having its secondary winding connected to the diode cathode, said regenerative circuit being ineffective as long as the diode is non-conducting but becoming effective to render said tube non-conducting when the diode becomes conducting, the improvement which comprises means for maintaining said tube non-conducting throughout the duration of said energizing voltage pulse, said last-named means comprising a path of low impedance relative to the impedance of the energizing voltage circuit, the low impedance path including an auxiliary tube having anode, grid and cathode and normally maintained non-conducting to render the low impedance path ineffective, the output of said first tube being connected to the input of said auxiliary tube whereby the positive pulse generated when said first tube is rendered non-conducting is applied to the input of said auxiliary tube to render the auxiliary tube conducting and the low impedance path effective.

2,779,871
DIFFERENTIATION CIRCUIT
Omar L. Patterson, Media, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Original application July 30, 1951, Serial No. 239,279. Divided and this application October 24, 1952, Serial No. 316,664
4 Claims. (Cl. 250—27)



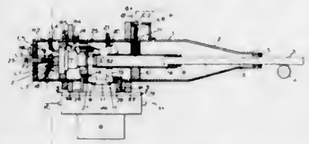
1. A differentiating circuit comprising a reference terminal, an input terminal, a second terminal, a series arrangement of a capacitance and a resistance connected between said second terminal and said reference terminal with the capacitance connected to said second terminal and the resistance connected to said reference terminal, and means providing at said second terminal a potential relative to said reference terminal which is substantially the difference between the potential of the junction of said resistance and capacitance relative to said reference terminal and the potential of said input terminal relative to said reference terminal, whereby there is provided at said junction a potential relative to said reference terminal which is substantially proportional to the first time derivative of the potential of said input terminal relative to said reference terminal.

2,779,872
INTEGRATION CIRCUIT
Omar L. Patterson, Media, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Application October 24, 1952, Serial No. 316,663
8 Claims. (Cl. 250—27)



1. An integrating circuit comprising a subtraction circuit having first and second input terminals and a third output terminal and operative to produce between said third terminal and a terminal common to said inputs and said output a potential approximately equal to the difference of potential between the first terminal and the second terminal, a resistance between the first and third terminals, and a condenser connected between the first terminal and said common terminal.

2,779,873
ULTRA-SWEEP OSCILLATOR
Alexander Tykulsky, Budd Lake, N. J., assignor to Ohmega Laboratories, Pine Brook, N. J.
Application September 28, 1954, Serial No. 458,840
16 Claims. (Cl. 250—36)

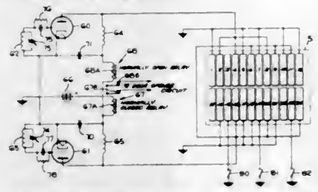


1. An ultra-sweep oscillator operative within the range from 300 to 1000 megacycles and comprising, a unitary structure having a circular casing with a tapering end, a metallic member extending from the tapered end with means for adjusting the longitudinal length of said member, an extension of said member running through and on the diameter of said circular member, a radio type tube operatively connected to the inner end of said extension and means such as condensers, resistors and inductances connected to said tube for causing it to send electrical waves out of the extension end of the structure.

2,779,874
ELECTRONIC LOCK
Gilbert R. Sonbergh, Hollywood, Calif., assignor, by mesne assignments, to Electro-Card, Inc., Los Angeles, Calif., a corporation of California
Application October 18, 1950, Serial No. 190,810
4 Claims. (Cl. 250—36)

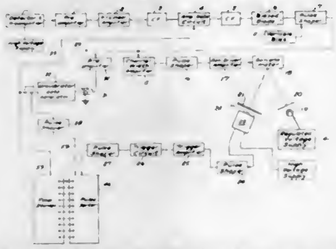
1. In a locking arrangement of the character described, a lock element having a plurality of conducting segments

insulated from each other, a key having a plurality of conducting segments insulated from each other and from the first mentioned segments, certain of the key and lock conducting segments forming electrical condensers, an electrical circuit connected with said condensers, means coupled to said circuit and operated upon establishment of said condensers, means rendering the last mentioned means inoperative upon capacitively coupling certain additional ones of said lock conducting segments together, and switches connected to interconnect said certain additional conducting segments.



2. The arrangement set forth in claim 1 in which said electrical circuit includes an oscillatory circuit which is connected to said condenser elements and is tuned to substantially resonant frequency of said oscillatory circuit by said condenser elements upon cooperation of said lock conducting segments with said key conducting segments to operate said first means.

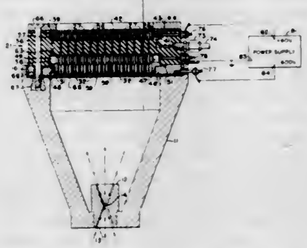
2,779,875
GALVANOMETER PULSE ANALYZER SYSTEM
Casimer J. Borkowski and Frank M. Porter, Oak Ridge, Tenn., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application April 6, 1954, Serial No. 421,465
12 Claims. (Cl. 250—83.3)



11. A pulse height distribution analyzer comprising a radiation detector for converting radiations into voltage pulses, a galvanometer analyzer coupled to the detector for producing a series of electrical impulses corresponding in number to the magnitudes of the pulses as represented by the areas under them, a gate interposed between the detector and analyzer for limiting the passage of pulses during the time while a pulse is being analyzed, a sorter and counter fed by the analyzer for sorting and counting all of the pulses, a storage circuit fed by the sorter and counter, and a control circuit coupled to the detector for applying a delayed signal to the sorter and counter for transferring the count to the storage circuit after each pulse is analyzed.

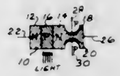
2,779,876
RADIOACTIVITY-DISTRIBUTION DETECTOR
Cornelius A. Tobias, Walnut Creek, and Hal O. Anger, Berkeley, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application March 3, 1953, Serial No. 340,069
5 Claims. (Cl. 250—83.3)

1. In a radiation instrument, the combination comprising a housing having a pinhole opening, means for supporting a layer of scintillation material along a plane transverse to the center-line of said opening, a plurality of photoelectric cells disposed adjacent said material, a similar plurality of indicating lamps mounted in an array



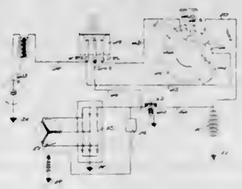
similar to the array of said photocells, means connected between individual photocells and corresponding lamps for providing a plurality of series circuits, and power supply means connected to said series circuits for impressing operating potentials.

2,779,877
MULTIPLE JUNCTION TRANSISTOR UNIT
Kurt Lehovec, Williamstown, Mass., assignor to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts
Application June 17, 1955, Serial No. 516,180
4 Claims. (Cl. 250—211)



1. A semiconductor crystal of a grown symmetrical multiple junction structure having two fused junctions disposed inwardly from opposed surfaces of said crystal, said fused junctions present in an end region of conductivity of said multiple junction structure.

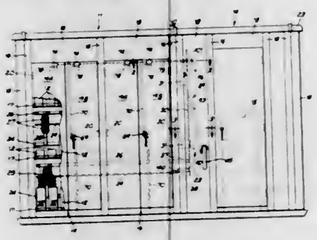
2,779,878
IGNITION SYSTEMS FOR INTERNAL COMBUSTION ENGINES
William J. Daunoras, Cedar Brook, N. J.
Application January 23, 1956, Serial No. 560,911
1 Claim. (Cl. 307—10)
(Granted under Title 35, U. S. Code (1952), sec. 266)



In combination, a storage battery; an ignition-timer switch having an operator-moved switch arm with a contact fixed thereto and having three fixed contacts spaced and insulated from each other, the contact on the switch arm closing circuits as it passes over the fixed contacts and being large enough to simultaneously touch momentarily all three fixed contacts; said switch having timing means built into it effecting automatic movement of the switch arm from the position of contact with the third fixed contact to the position of contact with the second fixed contact, after a predetermined time interval; an oil pressure switch having three contacts; said oil pressure

switch closing when the oil pressure in the lubricating system of the internal combustion engine reaches a certain value; a conductor connecting the first contact of the ignition-timer switch with the third contact of the oil pressure switch; another conductor connecting the second contact of the ignition-timer switch with the battery; a third conductor connecting the third contact of the ignition-timer switch with the first contact of the oil pressure switch; an electro-magnetic line switch; a conductor connecting the line switch with the battery; another conductor connecting the coil of the line switch with the second contact of the oil pressure switch; an ignition coil; an additional conductor connecting the first contact of the oil pressure switch with the ignition coil; an alternator for charging the battery; a voltage regulator between the alternator and the battery; a rectifier connected with the alternator and the battery; the line switch being between the voltage regulator and the battery; the parts being constructed, arranged and connected so that the battery cannot be discharged if the ignition-timer switch is left closed, and so that no current flows to the generator field when the engine is being started, all the current from the battery being available for starting the engine.

2,779,879
CAPACITOR HOUSING
Stanley J. Spiece, Milwaukee, Wis., assignor to McGraw Electric Company, Milwaukee, Wis., a corporation of Delaware
Application November 4, 1955, Serial No. 545,090
4 Claims. (Cl. 307—94)

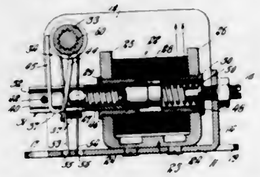


4. In a housing having a plurality of doors permitting access to the interior of the housing, an interlock for the doors of said housing comprising, in combination, a horizontal rod slidably supported within said housing adjacent said doors, a plurality of pairs of cooperable locking elements, the elements of each pair being engageable to lock one of said doors, the first element of each pair being carried by said one of said doors and the second element being carried by said rod, a rotatable shaft within said housing and extending to the exterior of said housing, a linkage connecting the shaft to said rod and adapted upon rotation of said shaft to actuate said rod in an axial direction, said shaft having a handle to permit rotation of said shaft and reciprocation of said rod through said linkage between a first position wherein the locking elements of each pair are engaged and said doors are locked and a second position wherein the locking elements of each pair are disengaged and said doors are unlocked, a plurality of stop members pivotally mounted on said housing, each stop member being resiliently urged to a position wherein it obstructs and prevents movement of said rod, said first locking element of each pair holding the associated stop member away from its interfering position with said rod when the door carrying said first locking element is closed and being moved out of engagement with the associated stop member when said door is opened, whereby said handle cannot be rotated to reciprocate said rod to said first position until all said doors are closed.

2,779,880
ULTRA-SONIC WAVE TRANSDUCERS
Georges Malherbe, Montigny-le-Tilleul, Belgium, assignor to Ateliers de Constructions Electriques de Charleroi, Brussels, Belgium, a company of Belgium
Application March 18, 1952, Serial No. 277,330
4 Claims. (Cl. 310—8.3)

1. In an ultra-sonic wave transducer, a hollow housing comprising two frusto-conical portions disposed coaxially with their small ends communicating with one another said housing being filled with a wave conducting medium, wave-emitting means closing the larger end of one of said frusto-conical portions and a flexible wall closing the opposite end of the housing whereby waves from said emitting means are transmitted by said wave conducting medium and are in part reflected by said annular wall with a twofold reflection, once before and once after said section of reduced cross-sectional area so as to be focused into a beam of higher concentration and better directivity at the smaller end of said housing.

2,779,881
ELECTRIC MOTOR
Ingemar Lundquist, East Orange, N. J., assignor to The Viking Tool & Machine Corporation, Belleville, N. J., a corporation of New Jersey
Application October 21, 1952, Serial No. 315,933
4 Claims. (Cl. 310—23)

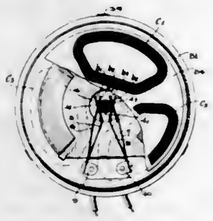


1. A vibratory motor comprising a housing, a rotatable shaft mounted on said housing, a spring clutch having coils tightly wound on said shaft normally under a gripping stress, said clutch having an arm attached to one of said coils, a solenoid mounted on said housing and having an armature reciprocally mounted in said solenoid, said armature having a pin engaging said arm to tighten the grip of said coil on said shaft on application of an actuating force and to turn said shaft, a helical spring within said armature holding said arm continuously against said pin, said armature having a seat at the opposite end from said pin and resilient means positioned between said seat and said housing to impart a returning force to said armature to loosen the grip of said coil and return said clutch to the initial position while said shaft remains stationary.

2,779,882
LOW POWER CONSTANT TORQUE MOTOR
Kazuo Ishikawa, Setagaya-ku, Tokyo, Japan
Application March 29, 1955, Serial No. 497,641
13 Claims. (Cl. 310—40)

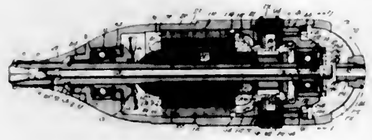
1. A constant torque direct current motor comprising an armature including three fan-shaped coils, a stator including two fan-shaped pole pieces producing a magnetic field, and a commutator, the angle subtended at the axis

of rotation of the armature by adjacent pole pieces being equal to the angle subtended by the coils at said axis, said commutator being adapted to short circuit each coil



while the effective portions thereof overlie any one of said pole pieces whereby the number of magnetic flux linkages between the field and the coils are maintained constant.

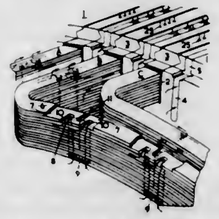
2,779,883
MOTOR TOOL
Helmut W. Schumann, Racine, Wis.
Application February 1, 1954, Serial No. 407,330
13 Claims. (Cl. 310—50)



1. In a motor tool, housing means, shaft means rotatable in said housing means, a pair of bearings rotatably supporting said shaft means adjacent the opposite ends of said housing means, each of said bearings including inner and outer races, the inner and outer races of one of said bearings being locked respectively to said shaft means and said housing means, one of the races of the other of said bearings being locked to one of said means, the other one of said means and the other one of the races of said other bearing being slidable with respect to one another to accommodate axial expansion and contraction of said shaft means with respect to said housing means, spring means confined between said other race of said other bearing and said other means to prestress both of said bearings to eliminate shaft end play, and retaining means associated with said other race of said other bearing and said other means, said retaining means being held against rotation with respect to said other means and including at least one portion engaging in an end face only of said other race of said other bearing to retain said other race of said other bearing against rotation with respect to said other means and to accommodate relative sliding movement of the two axially of said shaft means.

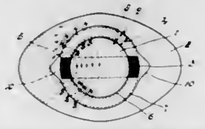
2,779,884
DYNAMO-ELECTRIC MACHINES
William Norman Kilner, Hale, England, assignor to Metropolitan-Vickers Electrical Company Limited
Application October 25, 1955, Serial No. 542,602
Claims priority, application Great Britain November 2, 1954
5 Claims. (Cl. 310—64)

1. A turboalternator rotor, a winding to said rotor comprising a plurality of coils, said coils each comprising a plurality of conductors each conductor comprising a pair of straps and the straps being stacked to form the coil, internal edges to said straps defining apertures elongated longitudinally of the conductors said apertures being aligned radially to define a radial passage, and edges to at least one strap of a conductor defining discharge ports



between a radial passage and the side face of the coil in question.

2,779,885
ELECTRICAL APPARATUS IN WHICH A PERMANENT MAGNET IS INCLUDED IN THE MAGNETIC CIRCUIT
Maximilien Felix Reynst and Johannes Meyer Cluwen, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application October 29, 1952, Serial No. 317,528
Claims priority, application Netherlands November 28, 1951
3 Claims. (Cl. 310—152)



1. Electrical apparatus adapted for operation in the higher frequency portions of the electromagnetic spectrum, comprising a closed magnetic circuit including, in combination, a substantially cylindrical permanent magnet defining by its outer periphery one side of an air-gap, a hollow permanent magnet surrounding said cylindrical permanent magnet and defining by its inner periphery the opposite side of said air-gap, and a winding mounted between the two permanent magnets and in a position communicating with said air-gap, each of said two magnets being magnetized in a radial direction and thus having at least two poles of opposite polarity on the periphery thereof defining the air-gap, each of said two magnets having a ratio of remanent inductance and coercive field strength of less than 4 whereby said magnets are capable of withstanding severe demagnetizing influences, said hollow permanent magnet having an elliptical shape establishing a predetermined relationship between the mean magnetic lengths of each of said two permanent magnets, and means to produce relative movement between the winding and at least one of the permanent magnets thereby to induce an electromotive force in said winding.

2,779,886
ARMATURE WINDING METHOD
William P. Hunsdorf, Cleveland, Ohio, assignor to Cleveland Electrical Equipment Co., Inc., Cleveland, Ohio, a corporation of Ohio
Original application January 4, 1950, Serial No. 136,767, now Patent No. 2,718,359, dated September 20, 1955. Divided and this application July 26, 1955, Serial No. 524,566
7 Claims. (Cl. 310—265)

1. The method of winding an armature of the character wherein the body thereof is formed with wire receiving slots extending from one end to the other which comprises the steps of gripping the ends of a plurality

of radially inwardly extending wires, winding the wires into coils on such armature by laying the wires in one direction into the wire receiving slots, across one end of the armature body, in the other direction into the slots, and across the other end of the armature body, repeat-

ing the aforesaid winding operation until the coils have a desired number of turns and until the finishing ends of the wire coils are at the same end of the armature body as the gripped wires, releasing the gripped ends of the wires, and cutting the finishing ends of the wire coils thus wound whereby to release the wound armature.

2,779,887

MOUNTING OF MESHES IN DISCHARGE DEVICES

Albert Edward Jennings, Hayes, England, assignor to Electric & Musical Industries Limited, Hayes, England, a company of Great Britain

Application May 18, 1953, Serial No. 355,643
Claims priority, application Great Britain May 28, 1952
3 Claims. (Cl. 313—66)

1. A mesh structure such as can be used in the envelope of a discharge device, comprising a mesh screen, a mounting in which said screen is mounted for movement in a direction normal to the screen between two limiting positions, and means for holding the screen resiliently in one of said positions so that the mesh can be dislodged and moved to the other limiting position by shock, and means for locking the screen in the other limiting position when the screen is moved thereto.

2,779,888

PHOTOSENSITIVE ELECTRODE AND METHOD FOR PRODUCING SAME

Richard G. Stoudenheimer, Lancaster, Pa., assignor to Radio Corporation of America, a corporation of Delaware

Application December 16, 1952, Serial No. 326,271
7 Claims. (Cl. 313—102)

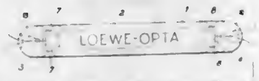
3. A photosensitive electrode comprising a transparent support, a semi-transparent film on a surface of said support, said film including a mixture of antimony and a metal selected from the group consisting of chromium, manganese, iron, cobalt and nickel, the weight percent of said metal being in the range of 10 to 40, said film also including oxygen and cesium.

2,779,889

LUMINOUS GAS DISCHARGE TUBE, MORE PARTICULARLY FOR ADVERTISING PURPOSES

Otto Faust, Berlin-Neukolln, Germany

Application April 4, 1952, Serial No. 280,547
1 Claim. (Cl. 313—109.5)



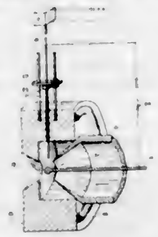
Electric gas discharge tube for displaying luminous signs, comprising a sealed transparent elongated bulb, containing a gas charge of known manner and electrodes located at opposite ends of said bulb between which a gas discharge is produced, a longitudinal support therein having fluorescent coatings provided thereon which are caused to become luminous by the emission of the positive gas discharge column within said bulb, said support consisting of an opaque metal plate being covered on both sides with fluorescent coating forming signs and being arranged inside the gas discharge space in longitudinal direction of the tube but insulated from said electrodes which are arranged at both sides of said support so that separate positive gas discharge columns are generated in front of both sides of said support, each gas discharge column being energized from separate electrodes.

2,779,890

ARC LIGHT

Lothar Frenkel, San Diego, Calif., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware

Application March 26, 1956, Serial No. 573,692
8 Claims. (Cl. 313—149)



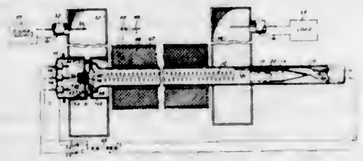
1. An open air arc light comprising in combination: a plate having an opening therethrough; a first electrode coaxially aligned with said opening; a second movable electrode positioned relative to said first electrode so that its end will contact the end of said first electrode adjacent said plate; positioning means for said second electrode; means producing a constant flow of inert gas to provide a blanketing non-oxidizing atmosphere around said arc.

2,779,891

HIGH FREQUENCY AMPLIFIER

Jack A. Morton, Neshanic Station, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application January 27, 1951, Serial No. 208,203
12 Claims. (Cl. 315—3.5)



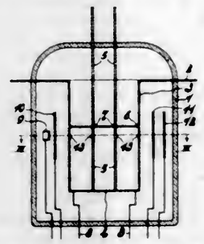
12. A high frequency space discharge device comprising a cathode having a plane face, a planar grid member, means for spacing the plane face of said cathode and said planar grid in aligned parallel manner, means defining an input cavity which includes the gap between said cathode face and said grid member, said cavity being the sole means for impressing signal wave energy from an external signal source on an electron beam from said cathode, an elongated helix coaxially aligned with said cathode and grid member and having one end adjacent the grid member for defining a beam interaction space which is substantially contiguous with said grid member, and an electron collector at the end of the helix remote from said cathode.

2,779,892

SELF-CONTAINED VELOCITY MODULATOR OSCILLATOR

Frederik Coeterier, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee

Application June 21, 1951, Serial No. 232,747
Claims priority, application Netherlands July 6, 1950
2 Claims. (Cl. 315—5.39)



1. A velocity-modulated electron discharge tube comprising an insulating envelope, means disposed in said envelope for producing at least one electron beam, and an oscillatory system disposed in said envelope and adapted to be excited into oscillation by said electron beam, said oscillatory system comprising a rectangular metal body and a metal Lecher wire system sealed into a portion of the envelope remote from the electron beam and defining the frequency of the excited oscillations to produce voltage wave patterns within said oscillatory system, said rectangular body and said Lecher system each comprising two separate portions separated by an air gap located in the vicinity of a voltage anti-node point of the wave patterns of the oscillations.

2,779,893

DEVICE COMPRISING AN ELECTRIC DISCHARGE TUBE HAVING A CONCENTRATED ELECTRON BEAM

Johan Lodewijk Hendrik Jonker, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee

Application June 30, 1951, Serial No. 234.486
Claims priority, application Netherlands July 13, 1950
2 Claims. (Cl. 315—12)

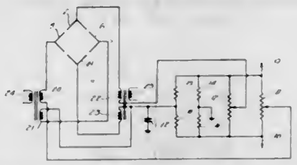
1. A circuit arrangement comprising an electric discharge tube having a cathode, a control grid and a screen grid for producing a concentrated beam of electrons in a given path, a cylindrical reflecting electrode surrounding said screen grid with the axis of said reflecting electrode displaced from the axis of said screen grid so that said beam of electrons is directed substantially perpendicularly to a radius of said reflecting electrode which radius passes through the axis of said screen grid; an output anode located substantially coaxially within said reflecting electrode, a source of potential connected to said output anode to make it positive with respect to said reflecting electrode, whereby said beam of electrons is deflected in a curved path around said anode; a first collecting electrode located within said reflecting electrode on the opposite sides of said anode from said screen grid; a source of potential connected to said output electrode, said source having a value intermediate the value of potential connected to said anode and the potential of said reflecting electrode, said collecting electrode being located to intercept the electrons of said beam when the intensity of said beam is relatively low; a second collecting electrode located within said reflecting electrode and on the opposite side of said anode from said screen grid, said second collecting electrode being closer to said anode than said first collecting electrode whereby said beam of electrons impinges on said second collecting electrode when the intensity of said beam is relatively high, said second collecting electrode being electrically connected to said first collecting electrode to operate at the same potential; a secondary emissive coating on the side of said second collecting electrode facing said beam of electrons to emit a larger number of secondary electrons than the number of primary electrons in said beam striking said second collecting electrode, said second collecting electrode being located to direct said secondary electrons to said anode; an input circuit connected to said control grid to control the intensity of said beam; and an output circuit connected to said anode to derive therefrom an output signal.

2,779,894

AUTOMATIC BEAM-CENTERING CIRCUIT FOR CATHODE-RAY DEVICES

Cornelius A. Gallagher, Hicksville, N. Y., assignor to Servo Corporation of America, New Hyde Park, N. Y., a corporation of New York

Application March 15, 1954, Serial No. 416,079
8 Claims. (Cl. 315—24)



1. In combination, cathode-ray deflection means, comprising two deflection systems each having a pair of input terminals, and centering control means for said systems, comprising a direct-current supply, a four-element bridge connected at a first pair of diagonal corners to said source, means connecting a third corner of said bridge to one terminal of each of said deflection systems, a capacitative connection between the third and fourth corners of said bridge, and potentiometer means across said source and connected to the other terminal of each of said deflection systems.

2,779,895

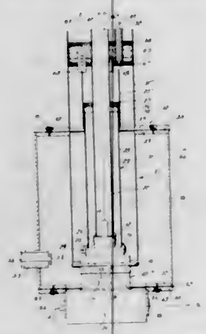
CAVITY RESONATOR DEVICE

Howard D. Doolittle, Stamford, Conn., assignor to Machlett Laboratories, Incorporated, Springdale, Conn., a corporation of Connecticut

Application April 3, 1951, Serial No. 219,080
13 Claims. (Cl. 315—43)

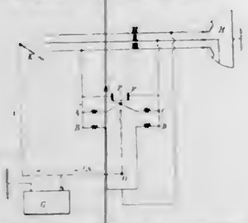
1. In combination with a high frequency tube having at least cathode, control grid, screen grid and anode elec-

trodes, a pair of spaced telescoped tubular cathode and screen grid cavity resonator walls connected to corresponding tube electrodes, an annular plunger slidably arranged between said walls remote from said electrodes to establish a radio frequency connection therebetween, a tubular control grid cavity resonator wall telescoped between said cathode and screen grid walls and connected at one end thereof to said control grid electrode, insulating means mounting the other end of said control grid wall on said plunger and spaced therefrom, said control



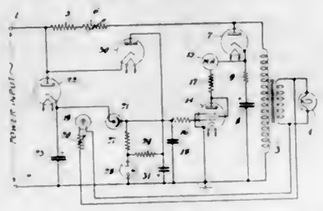
grid wall comprising a pair of electrically connected wall sections joined to permit variation in the wall length with movement of the plunger, said cathode and screen grid walls cooperating with respective opposite sides of said control grid wall to form a folded cavity resonator between cathode and screen grid electrodes, the electrical length of said folded cavity resonator being substantially an integral number of wavelengths long, and an input coupling positioned to introduce energy into said folded cavity resonator.

2,779,896
ELECTRICAL LIGHTING EQUIPMENT FOR AUTOMOBILES
Adolphe Lautenbacher, Lure, France
Application March 8, 1954, Serial No. 414,834
Claims priority, application France March 11, 1953
2 Claims. (Cl. 315—83)



1. In an electrical circuit for actuating the bright, dim or parking lights of an automobile, the combination comprising: an energizing line connected to each of said bright, dim and parking light filaments, a relay, said relay having an armature and a first and second pair of relay coils, said first pair of coils acting on said armature in a direction opposite to said second pair of coils, a pair of armature contacts, one of said contacts being connected to said bright light energizing line, the other of said contacts being connected to said dim light energizing line, a selector switch alternatively connectable to one of said energizing lines, a source of constant potential, one of the terminals of said source being connected to the common pole of said selector switch, said terminal also being connected to said armature; circuitry responsive to connection of said selector switch to the bright light energizing line energizing said coils for causing said armature to contact the armature contact which is in circuit with said bright light energizing line, circuitry responsive to connection of said selector switch to the dim light energizing line energizing said coils for causing said armature to contact the armature contact which is in circuit with said dim light energizing line and circuitry responsive to connection of said selector switch to parking light energizing line energizing said coils for causing said armature to be out of contact with said armature contacts.

2,779,897
VOLTAGE REGULATING CIRCUIT
Samuel B. Ellis, Jamalca, N. Y.
Application January 17, 1952, Serial No. 266,954
3 Claims. (Cl. 315—151)

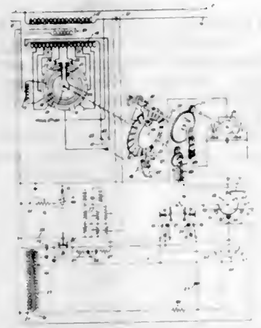


1. A voltage regulating circuit for stabilizing the energy supplied to a load from an alternating current source characterized by limited voltage variations, comprising a voltage dropping resistor in series with the load, a rectifying system shunted across the load, a grid controlled electron control tube the plate current of which is supplied by said rectifying system thereby producing the equivalent of plate current flowing in parallel with the load and in series with said voltage dropping resistor, an electric lamp supplied by the voltage across the load, a phototube responsive to changes of light emitted by said lamp, and means for coupling said phototube with said grid controlled electron tube in such relationship that increased phototube current causes the grid to become more positive.

2,779,898
STARTING DEVICE FOR INTERNAL COMBUSTION ENGINES
Wytze Beye Smits, Voorburg, Netherlands, assignor to Smitsvonk N. V. Research Laboratory, Comp., Rijswijk, Netherlands
Application March 31, 1952, Serial 279,675
2 Claims. (Cl. 315—212)

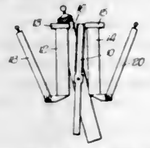
1. An ignition circuit for a combustion engine comprising an ignition condenser, a discharge path for said ignition condenser including a plurality of low voltage surface discharge spark plugs and a distributor for periodically connecting said ignition condenser with each of said spark plugs, a magneto having primary and secondary windings, the secondary winding being connected in a charging circuit for said ignition condenser, a source of pulsating current, switch means adapted to connect said source of pulsating current with the primary winding to start the engine, said switch means adapted to short circuit the primary winding to stop the engine and adapted to interrupt the circuit of the primary winding.

2,779,899
TIME DELAY CONTROL SYSTEM
Thomas C. Lennox, Pittsfield, Mass., assignor to General Electric Company, a corporation of New York
Application July 1, 1954, Serial No. 440,751
9 Claims. (Cl. 317—141)



1. In a time delay control system; a transformer having a tap connection on the secondary winding; a time delay relay having a motor provided with a forward operating winding and a reverse operating winding, each winding having a main operating circuit through a normally closed contact and an auxiliary operating circuit through a normally open contact, the auxiliary circuits being connected to said transformer secondary winding tap connections; a series capacitor common to said main operating circuits; a resistor common to all operating circuits; a voltage regulating relay with two contacts selectively operable to complete one of said main operating circuits; said circuit elements being correlated whereby said operating circuits are tuned in series to operate said motor through said main operating circuits and in parallel to operate said motor through said auxiliary operating circuits; and a set of main control contacts on said time delay relay, said contacts being actuated by said time delay relay motor after a predetermined time of rotation in either direction.

2,779,900
SWITCH MEMBER
Woodrow W. Crissinger, Galion, Ohio, assignor to North Electric Company, Galion, Ohio, a corporation of Ohio
Application April 7, 1953, Serial No. 347,193
17 Claims. (Cl. 317—177)



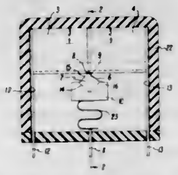
1. A switch comprising an armature member having at least two stable positions, magnetic field producing means, primary actuator means operative to complete alternative paths for the flux of said field producing means to control said armature to move to positions corresponding to the particular path established, and secondary actuator means for rendering said armature nonresponsive to said operations of said primary actuator.

2,779,901
TRANSISTOR UNIT
George R. Huard, Jr., Phoenix, Ariz., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application May 15, 1953, Serial No. 355,310
9 Claims. (Cl. 317—235)

1. A circuit element including in combination, a supporting member having a convex surface, and a pair of electrically conductive sheets disposed on the convex surface of said member adjacent one another and having a pair of contiguous edges spaced from each other by an

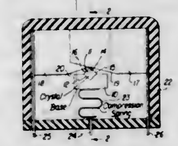
amount so related to the curvature of said surface that said edges abut one another when said surface is flat, whereby said sheets are spaced one from the other.

2,779,902
SEMI-CONDUCTOR UNIT
Donovan V. Geppert, Phoenix, Ariz., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application May 15, 1953, Serial No. 355,336
9 Claims. (Cl. 317—235)



1. A circuit element including in combination, a block of semi-conductive material having a pair of mutually inclined faces forming a line of juncture therebetween, an insulating panel disposed in a plane traversing such line of juncture, and at least one metallic surface disposed on said insulating panel and having a corner in contact with said block adjacent such line of juncture, said metallic surface thereby constituting an electrode for said block.

2,779,903
SEMI-CONDUCTOR UNIT
Donovan V. Geppert, Phoenix, Ariz., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application April 30, 1953, Serial No. 352,105
5 Claims. (Cl. 317—235)



1. A circuit element including in combination, a block of semi-conductive material having a pair of faces forming a line of juncture therebetween, and a pair of spaced mutually parallel metallic plates each having substantial heat dissipating characteristics and disposed in respective parallel planes perpendicular to and traversing such line of juncture, said plates having respective edges inclined one to the other to form an apex therebetween, and said edges being in respective point contact with the aforesaid line of juncture at said apex, whereby said plates constitute electrodes for said block of semi-conductive material.

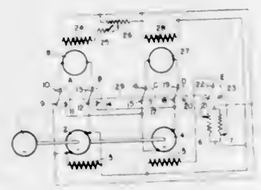
2,779,904
ELECTRONIC CONTROL SYSTEM
Ralph L. Barron, Erie, Pa.
Application May 17, 1951, Serial No. 226,900
4 Claims. (Cl. 318—28)

2. An electronic control system adapted to regulate a control member of the type movable in reverse direc-

tions by electric power means in response to the integrated demand of a plurality of variables, each variable and the control member having means associated therewith for translating departure from a given condition into mechanical movement, and said system being free of mechanical friction other than friction generated by said mechanical movements, said electronic system comprising a balanceable electric circuit, each variable having a channel including an oscillator whose frequency is altered in accordance with the mechanical movement resulting from the departure of said variable from a given condition, each channel having a discriminator for deriving control voltages, a plurality of modulators for proportioning and mixing the voltages of the channels whereby a single modulator will have a voltage corresponding to the integrated value of the voltages of the channels, a channel for the control member including an oscillator whose frequency is altered in accordance with the mechanical movement resulting from the departure of said control member from a given condition, a discriminator and a modulator; the oscillators of the variable and control member channels each comprising an inductance coil connected in series-parallel with a capacitor and resistance and thence to the grid of a vacuum tube, an iron core encircled by the inductance coil in spaced relation and freely movable axially therein, the core of each variable channel being mechanically connected to and movable by a pickup for its associated variable and the core of the control member channel being mechanically connected to and responsive to movement of the control

member, each tube being connected to a source of D. C. current, the discriminator of each channel comprising a center tapped inductance coil connected through a capacitor to the tube of its associated oscillator whereby A. C. current will be transmitted to said coil at a frequency variable in accordance with movement of the core of said channel, and rectifying means whereby a change of oscillator frequency will be translated to a polarized D. C. voltage dependent upon the direction and magnitude of the frequency deviation from a desired center frequency of operation, the said plurality of modulators each comprising a vacuum tube having its grid connected to the discriminator of one channel to receive polarized D. C. voltage and its plate connected to a source of D. C. current through an impedance coil, the impedance coil being closely coupled to the inductance coil associated with the iron core of a second channel whereby the frequency of the oscillator of the second channel is dependent upon the voltage impressed on the modulator tube grid by the discriminator of said one channel and the position of the iron core of the second channel; a master oscillator, the said single modulator and control member modulator being connected to the master oscillator whereby the frequency of said master oscillator will be determined by the integrated voltage of said single and control member modulators, a voltage and frequency stabilizing means connected to the master oscillator, means for amplifying the voltage of the stabilizing means, and a discriminator connected to the amplifying means adapted to apply voltage to the electric power means for the control member whereby the control member will be moved in a direction causing its associated modulator to increasingly oppose the voltage until the said circuit is balanced.

2,779,905
SPEED CONTROL MEANS FOR GRINDING MACHINES OR THE LIKE
Georg Koppenwallner, Stuttgart-Bad Cannstatt, and Anton Gantert, Eislingen (Fils), Germany, assignors to Fortuna-Werke Spezialmaschinenfabrik A.-G., Stuttgart-Bad Cannstatt, Germany
Application October 30, 1953, Serial No. 389,341
Claims priority, application Germany November 8, 1952
8 Claims. (Cl. 318—149)

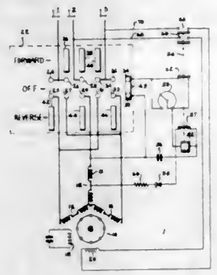


6. A system for effecting grinding operations including components which can be adapted for effecting dressing and truing of the grinding wheel, said system including a grinding wheel motor, a work rotating motor, a first source of direct current potential connected to the armature of the grinding wheel motor, a second source of direct current potential normally connected to the armature of the work rotating motor and provided with selective high and low potential adjusting means, and a general source of direct current potential derived from said first source and applied to the fields of said grinding wheel motor, of said work rotating motor and to said potential adjusting means of said second source of direct current potential; said system including switching means connected to said first and second sources of potential and to said potential adjusting means and adapted simultaneously to shift said second source of direct current potential from said work rotating motor to said grinding wheel motor, to set said potential adjusting means of said second source to provide for a lower potential output, and to disconnect said grinding wheel motor from said first source of direct current potential, and said potential adjusting means including a pair of potentiometers connected in parallel across the supply line of said general source of direct current potential and having each a movable contact, each connected to a terminal of a different position on said switching means.

2,779,906
BRAKING SYSTEMS
John R. Adriansen, Cincinnati, Ohio, assignor to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware
Application March 26, 1954, Serial No. 418,986
5 Claims. (Cl. 318—211)

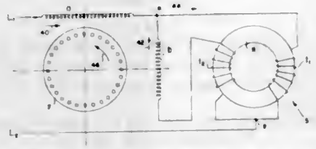
1. In combination, an electric motor having a main energizing winding adapted to be reconnected for operation of the motor at different supply voltages, a capacitor and a rectifier unit series connected across at least a portion of said main energizing winding for energization by the latter when said winding is energized to charge said capacitor, brake means for said motor having an auxiliary winding for said motor and an energizing circuit therefor, a relay having a contact in the energizing circuit of said auxiliary winding and having a relay operating winding, and means acting when said motor is de-

energized to simultaneously connect said relay operating winding in shunt circuit with said capacitor to operate



said contacts during discharge of said capacitor to effect operation of said auxiliary winding.

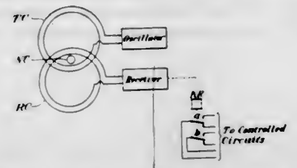
2,779,907
ELECTRIC MOTOR
Charles C. Hutchins and Blair C. Seaman, Ridgway, Pa., assignors to Hutchins Electric Company, Inc., Ridgway, Pa., a corporation of Pennsylvania
Application September 9, 1953, Serial No. 379,124
10 Claims. (Cl. 318—220)



1. A self-starting alternating current electric motor comprising a rotor member and a stator member, one of said members including means adjacent to the other of said members for the reception of windings, a first pair of windings connected in series relation and distributed in displaced relation with respect to each other in said winding receiving means, a second pair of windings positioned in mutually inductive relation with each other and connected in series relation with each other and in parallel relation with one winding of said first pair of windings, and means for connecting a source of power across the open end of the other of said first windings and the connection between the windings of said second pair, the relative numbers of turns of said windings and the mutual inductance between the windings of said second pair governing the magnitude of the current circulating in the parallel arrangement of said pair of second windings and said one of said first windings, minimizing said circulating current during normal running operation of the motor and governing the phase displacement of said circulating current with respect to the current flowing in said other winding of said first pair for providing motor starting.

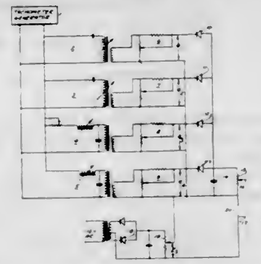
2,779,908
MEANS FOR REDUCING ELECTRO-MAGNETIC COUPLING
Paul N. Martin, Penn Township, Allegheny County, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application April 12, 1952, Serial No. 282,044
9 Claims. (Cl. 323—50)

9. In combination, first and second air-core coils having substantially equal diameters and disposed in a closely spaced parallel plane relationship, with the area of said first coil projected on said second coil overlapping the area of said second coil by an amount approximately equal to 20% of the diameter of said second coil, and means for reducing the electro-magnetic coupling between said first and said second coil, comprising a low resistance coil disposed between said first and said second coils in



the area defined by the overlapping of said first and said second coils.

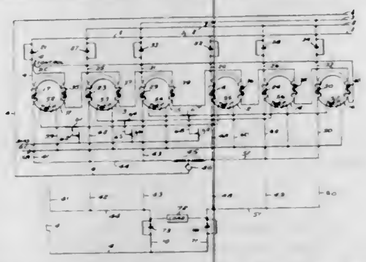
2,779,909
SPEED RESPONSIVE CIRCUIT
Thomas T. Short, Emporia, Va., assignor to the United States of America as represented by the Secretary of the Air Force
Application August 20, 1953, Serial No. 379,484
4 Claims. (Cl. 323—71)



1. A speed responsive circuit for producing an output signal the amplitude of which is a nonlinear function of speed comprising, a tachometer generator for producing an input signal having a frequency which is a function of speed, a plurality of filter circuits connected in parallel to the output of said generator, each filter having a frequency response characteristic different from that of any other of said filters, each of said filter circuits having a two terminal output, one output terminal of each filter being connected to one end of a common load impedance, a plurality of rectifiers, the other output terminal of each filter being connected through one of said rectifiers to the other end of said common load impedance, each of said rectifiers having the same polarity with respect to said load impedance whereby said rectifiers are equally biased by the voltage across said common load impedance so that at any given frequency of input signal all filter circuits except that having the greatest output at that frequency are decoupled from said common load impedance.

2,779,910
THREE-PHASE MAGNETIC AMPLIFIER
William R. Rauth, Jr., New Hyde Park, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application September 18, 1952, Serial No. 310,271
2 Claims. (Cl. 323—89)

1. Differential electrical amplifying means for use in polyphase circuits comprising a source of polyphase current, a separate conductor for each phase, a neutral conductor, a pair of closed magnetic circuits for each phase, an output winding on each magnetic circuit, the output windings of each pair having one end connected to the same phase conductor and the windings of the several pairs being thus connected to different phase conductors, a control circuit including control windings inductively disposed on the several magnetic circuits and wound to induce magnetic flux in opposite directions in the magnetic circuits of each pair relative to the flux induced

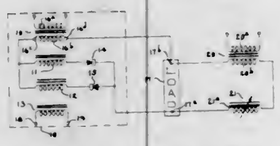
by the output windings thereon, means conductively coupling the other ends of the output windings which are controlled in one sense, separate means conductively coupling the other ends of the output windings which are controlled in the opposite sense, a connection including

an impedance between each of said coupling means and said neutral conductor, a reversible load connected to be responsive to the difference in voltage drop across the two impedances, and a unidirectional conducting device in each phase connection in series with the respective output winding, the said devices being similarly poled.

2,779,911

MEANS FOR REDUCING OR NULLIFYING THE MINIMUM OUTPUT CURRENT OF MAGNETIC AMPLIFIERS

Paul M. Fischer, Milwaukee, Wis., assignor to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware

Application February 12, 1954, Serial No. 409,853
7 Claims. (Cl. 323—89)



1. In combination, a source of alternating current supply, a load device, a magnetic amplifier deriving power from said source and supplying said load device with amplified current in accordance with the level of a D. C. input signal, and a circuit for minimizing the current normally supplied to said load device by said amplifier at zero input signal thereto comprising an inductive reactor and a transformer having an input winding, and an output winding connected in series with the winding of said reactor across said load device.

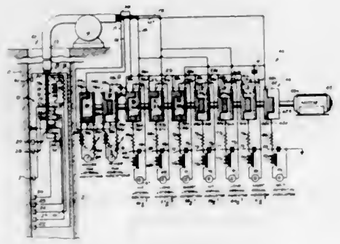
2,779,912

ELECTRICAL WELL LOGGING SYSTEM

Henry C. Waters, Houston, Tex., assignor to Perforating Guns Atlas Corporation, Houston, Tex., a corporation of Delaware

Application January 24, 1955, Serial No. 483,514
31 Claims. (Cl. 324—1)

1. In an apparatus for electrically logging oil wells or the like to determine the electrical characteristics of earth formations adjacent the borehole, the combination of; a cable having a plurality of conductors; equipment mounted on said cable to be lowered into the borehole thereby, said equipment including at least two spaced current electrodes respectively connected to a first and a second of said conductors and at least one pair of spaced apart potential electrodes associated with a third signal conductor in said cable; a commutator having a plurality of commutating sections; means including a source of current and two of said commutating sections for alternately applying current to said two current electrodes in order to create two alternating fields in said formations; switching means for alternately connecting said third signal conductor to the potential electrodes of its associated pair; means for actuating said switching means in synchronism with the alternate application of



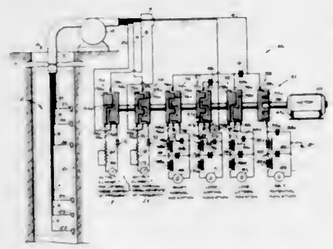
current to said two current electrodes; and a pair of indicating means respectively including a second and a third of said commutating sections and each connected to said signal conductor for separating and separately measuring the signals supplied to said signal conductor by said potential electrodes.

2,779,913

DUAL FREQUENCY WELL LOGGING SYSTEM

Henry C. Waters, Houston, Tex., assignor to Perforating Guns Atlas Corporation, Houston, Tex., a corporation of Delaware

Application January 24, 1955, Serial No. 483,751
20 Claims. (Cl. 324—1)



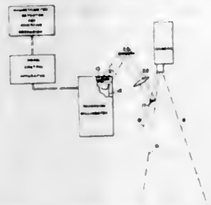
1. Apparatus for electrically logging oil wells or the like to determine the electrical characteristics of earth formations adjacent a borehole comprising, in combination; a cable having a plurality of conductors; equipment mounted on said cable to be lowered into the borehole thereby, said equipment including at least two longitudinally spaced apart probe electrodes and a plurality of current electrodes longitudinally spaced from each other and spaced different distances from the probe electrodes; means including a source of current for energizing at least one of said current electrodes in order to create a first alternating current field in said earth formations; means for energizing another of said current electrodes in order to create in said formations a second alternating current field having a frequency different from that of said first field; and a pair of measuring systems at the earth's surface individually connected by other conductors in said cable to said probe electrodes for separating the signals present at said probe electrodes and providing separate indications of the effect of each of said alternating current fields upon the probe electrodes thereby to measure different electrical characteristics of said formations.

2,779,914

MAGNETIC EXPLORATION APPARATUS

Lynn H. Rumbaugh and Homer Jensen, Philadelphia, Pa.

Application June 11, 1946, Serial No. 676,050
2 Claims. (Cl. 324—4)
(Granted under Title 35, U. S. Code (1952), sec. 266)



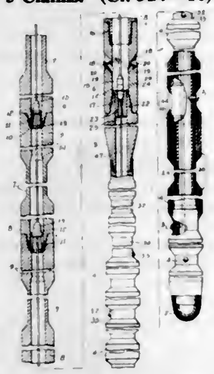
1. In apparatus of the character disclosed for conducting magnetic explorations, the combination of means for producing a record trace indicative of variations in the total value of the ambient magnetic field as the aircraft moves along a predetermined traverse, means disposed in proximity to said trace and indicative of the altitude of the traverse, a camera having a film adapted to receive a plurality of images of the terrain beneath the plumb point of the aircraft and disposed along the traverse thereof, a first optical element adapted to reflect images of said altitude indicating means and a portion of said trace respectively, a second optical element interposed within the field of view of the camera and adapted to superimpose on said film adjacent each of said terrain images thereon said reflected images of the altitude indicating means and trace, and a third optical element interposed between said first and second optical elements for causing the images of the altitude indicating means and trace to be formed on the film in the same focal plane as the images of the terrain.

2,779,915

BOREHOLE ELECTRODES

James Moon, Corona Del Mar, Calif., assignor to Signal Oil and Gas Company, Los Angeles, Calif., a corporation of Delaware

Application January 8, 1952, Serial No. 265,459
5 Claims. (Cl. 324—10)



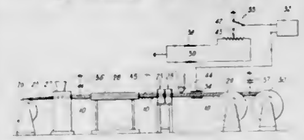
1. A bore hole electrode comprising a first metallic pipe, a closure sealing one end of said pipe, means for connecting said pipe to a second pipe for lowering of said first mentioned pipe into a bore hole, means forming a fluidtight seal between said first and second pipes, an insulating coating covering the entire outer surface of said first mentioned metallic pipe, a plurality of metallic electrodes in the form of bands positioned on the exterior of said insulating coating for said pipe, said coating being positioned between said electrodes and said first pipe, a second wear resistant insulating coating distributed over said first mentioned insulating coating between said bands and overlapping the edges thereof, said second insulating coating forming a fluidtight joint with the edges of said band, and an electrical conductor passing through said first mentioned pipe and insulating coating and electrically connected to said metallic electrodes.

2,779,916

MEANS FOR DETECTING ECCENTRICITY IN INSULATED ELECTRIC CONDUCTORS

John Huyton Poole, St. Helens, England, assignor to British Insulated Callender's Cables Limited, London, England, a British company

Application February 24, 1955, Serial No. 490,313
Claims priority, application Great Britain March 2, 1954
16 Claims. (Cl. 324—34)



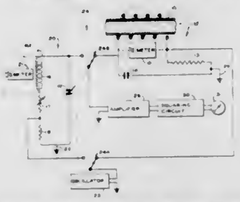
1. Apparatus for electro-magnetically detecting eccentricity in any radial direction of an insulated electric conductor within its insulating covering, comprising a pair of electro-magnets each having a core comprising a central and two outer limbs and a pair of yokes, said core being in two parts separated by a variable minor magnetic gap in each outer limb and a major air gap in the central limb, means for positioning said magnets with a pole face of the major gap of one magnet core at 90° to the corresponding pole face of the major gap of the other magnet core, conductor guiding means for locating a longitudinally advancing insulated conductor to be tested for eccentricity in a balance position in each major gap as it passes successively through the two major gaps carrying alternating current, and means including a pick-up coil on the central limb of each magnet for detecting any resultant flux in the limb carrying it due to eccentricity in a direction having at least a component parallel to a pole face of that limb.

2,779,917

APPARATUS FOR DETERMINING THE CONDITION OF IONIZED FLUIDS

Deslonde R. de Boisblanc, Idaho Falls, Idaho, assignor to Phillips Petroleum Company, a corporation of Delaware

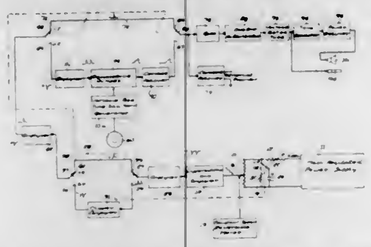
Application April 14, 1952, Serial No. 282,094
12 Claims. (Cl. 324—40)



6. In apparatus of the character described, an inductance coil, a container encircled by said coil, a fixed resistance connected in series with said coil, and a condenser connected in parallel with the coil-resistance unit, means for measuring the "Q" of said tuned circuit, a second tuned circuit including a coil, an adjustable resistance and a fixed resistance connected in series therewith, and a condenser connected in parallel with the condenser-resistance combination, means for measuring the "Q" of said tuned circuit, a unit including an oscillator, a unit including a circuit for producing an

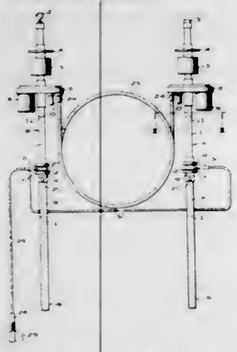
output voltage which varies as the square of the input voltage, and means indicating said output voltage, and means for selectively coupling both of said units to said tuned circuits.

2,779,918
RESOLUTION TESTER
Joseph R. Altieri, Los Angeles, Calif., and Robert F. Guba, Acton, Mass., assignors to Acton Laboratories, Inc., Acton, Mass.
Application February 9, 1955, Serial No. 487,029
12 Claims. (Cl. 324—63)



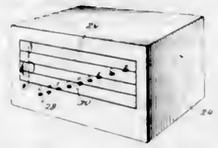
7. A displacement resolution tester for wound resistance elements comprising a source of voltage applied across said wound resistance element, pickup means for picking up the voltage appearing on the several turns of said resistance element, circuit means including a gating circuit providing an output pulse when the displacement resolution of any two adjacent turns of said resistance element exceeds a permissible value, adjustment means including a variable rise time saw tooth generator for varying the permissible displacement resolution at which said circuit means provide an output pulse, said output actuating an indicator whenever the displacement resolution of any two adjacent turns of said resistance element exceeds the value set into said adjustment means.

2,779,919
SAFETY VOLTAGE DETECTOR
Albert E. West, San Francisco, Calif.
Application March 16, 1953, Serial No. 342,635
1 Claim. (Cl. 324—72.5)



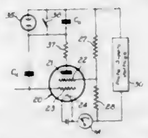
A safety voltage detector for high voltage lines and the like comprising a main staff, an electrical terminal arranged at the top of the staff and adapted to contact a "ground" or a high tension wire having electricity of a certain phase flowing therethrough; a resistor mounted in the staff and being electrically connected to the terminal; a kv. voltmeter carried by the staff and connected in series with the resistor, a second resistor shunted across the voltmeter and designed to carry the electric current should the voltmeter fail to function; an auxiliary staff, a second electrical terminal arranged at the top of the auxiliary staff and adapted to contact a high tension wire having a phase of electricity flowing therethrough which is different from the other high tension wire to be contacted; a third resistor mounted in the auxiliary staff and being electrically connected to the second terminal; a neon tube carried by the auxiliary staff and being connected in series with the third resistor; a fourth resistor shunted across the neon tube and designed to carry the electric current should the tube fail to function; and an elongated flexible wire electrically connected to the voltmeter of the main staff and to the neon tube of the auxiliary staff so that the neon lamp will indicate that there is high tension current flowing through the line when the terminal of the auxiliary staff contacts the line and the voltmeter will indicate the voltage when the terminal of the main staff contacts the "ground" or the other high tension wire that is of a different electrical phase from the wire contacted by the terminal of the auxiliary staff.

2,779,920
AUDIO FREQUENCY METER
Merlin Petroff, Round Lake Park, Ill.
Application February 24, 1953, Serial No. 338,406
2 Claims. (Cl. 324—80)



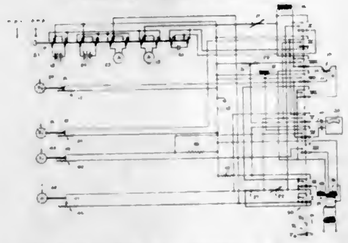
1. In an apparatus of the class described, the combination of an electromagnetically energized reed type audio frequency meter having a plurality of vibratory reeds, each of the reeds having a light shutter at the end thereof, a source of light, and a casing surrounding the frequency meter and light source, said casing having a musical staff marked on one wall thereof and having light transmitting openings positioned to represent notes of a musical scale on the staff, said openings being normally closed respectively by the shutters of reeds having natural frequencies of vibration corresponding with the pitches of the notes represented by the openings and being effective whenever their associated reeds are vibrated to a substantial extent to uncover the openings to allow light from the source to pass through their associated openings and thereby provide an indication of the frequency supplied to the frequency meter.

2,779,921
DYNAMIC AMPLIFIER
Roland C. Hawes, Los Angeles, Calif., assignor to Beckman Instruments, Inc., South Pasadena, Calif., a corporation of California
Application December 5, 1951, Serial No. 259,973
7 Claims. (Cl. 324—102)



6. In a device for measuring a small input current signal, the combination of: an input signal circuit including a vacuum tube having a control grid and an anode; a plate voltage supply; connecting means including switch means for connecting the positive terminal of said supply to said anode; a signal input capacitor connected in series between said grid and said anode; an output circuit including an output capacitor and a current measuring device in series; and circuit means connecting said anode to said output circuit to control the current in said output circuit, said circuit means comprising means electrically coupling one of the terminals of said output capacitor directly to a point between said switch means and said anode.

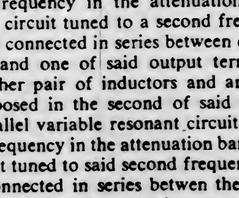
2,779,922
TRANSISTOR TEST SET
Gareth M. Davidson, Bronx, N. Y., assignor to American Bosch Arma Corporation
Application July 20, 1953, Serial No. 369,088
9 Claims. (Cl. 324—158)



9. In a transistor test set, means for determining the base resistance, emitter resistance, collector resistance and amplification factor of a test transistor, said means for determining the base resistance comprising means for connecting the test transistor in a grounded base circuit, a variable resistor interposed between the ground and the base, means for supplying bias currents in the emitter and collector circuits, means for introducing an alternating voltage signal into the collector circuit, means for comparing the voltage across said variable resistor with a portion of the emitter voltage and indicator means connected to said circuit, said means for determining the emitter resistance comprising means for connecting the test transistor in a grounded emitter circuit, a variable resistor interposed between the ground and the emitter, means for supplying bias currents in the emitter and collector circuits, means for introducing an alternating voltage signal into the collector circuit, means for comparing the voltage across said variable resistor with a portion of the base voltage and indicator means connected to said circuit, said means for determining the collector resistance of a transistor comprising means for connecting the test transistor into a grounded base circuit, bias supplied for the emitter and collector circuits, a transformer having a primary winding and two secondary windings, one of said secondary windings and a fixed resistor interposed in the connections between the collector and ground, a circuit containing a second fixed resistor and a variable resistor connected across the other secondary winding, series connections between said fixed resistors, said means for determining the current amplification factor comprising means for connecting the transistor in a grounded emitter circuit, means for supplying bias currents in the emitter and collector circuits, means for introducing an alternating signal between base and ground, a fixed resistor included in the connections between the base and ground, a variable resistance between the collector and ground, means for comparing the voltages across the fixed and variable resistors and indicating means connected to said circuit.

2,779,923
MODE TRANSFORMER FOR WAVE GUIDES
Edward M. Purcell, Cambridge, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application May 6, 1946, Serial No. 667,502
5 Claims. (Cl. 333—21)

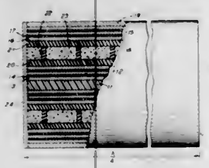
1. Apparatus for interchanging electric waves between a rectangular wave guide and a cylindrical wave guide comprising, means defining an elongated wave guide passage having at a first end a substantially rectangular cross section and at a second end a circular cross section, said means including at said first end first and second parallel wide walls and first and second narrow walls, said wide walls gradually diverging pivotally substantially 180 degrees each about the contiguous ends of said first narrow wall in the direction along said passage toward said second end, said second narrow wall simultaneously becoming an increasing portion of arcuately shaped wall defined by the contiguous ends of said wide walls, said first narrow wall tapering substantially to a point toward said second end, said wide walls converging toward said second end to form a knife-edged septum, and said second narrow wall becoming the sole wall of a cylindrical wave guide at said second end.



2,779,924
HIGH PASS FILTER
Raoul Du Chatellier, Chicago, Ill.
Application April 4, 1951, Serial No. 219,168
4 Claims. (Cl. 333—76)

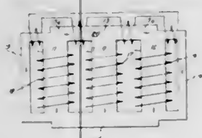
1. An input filter for eliminating interference by attenuating all frequencies below the television band from the input signals supplied to a television receiver comprising a conductive housing, shielding means dividing said housing into two compartments, pairs of input and output terminals carried by said housing and insulated therefrom, means including a pair of inductors and a pair of capacitors disposed in a first of said compartments forming a parallel variable resonant circuit tuned to a variable first frequency in the attenuation band and a series resonant circuit tuned to a second frequency in the television band connected in series between one of said input terminals and one of said output terminals, means including another pair of inductors and another pair of capacitors disposed in the second of said compartments forming a parallel variable resonant circuit tuned to said variable first frequency in the attenuation band and a series resonant circuit tuned to said second frequency in the television band connected in series betwen the other of said input terminals and the other of said output terminals, the inductors in said first compartment being positioned perpendicular to the inductors in said second compartment to minimize coupling therebetween, and means including a section of transmission line interposed between said output terminals and the input terminals of the receiver to transform the output impedance of said circuits to a substantially constant resistance thereby to match the impedances of the receiver and said resonant circuits at all frequencies.

2,779,925
COMPOSITE COAXIAL RESONATOR
Harold S. Black, New Providence, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application September 29, 1951, Serial No. 248,951
1 Claim. (Cl. 333—82)



A resonator comprising in combination first and second coaxially arranged composite members, each of said composite members comprising a stack of insulated concentric thin walled conducting cylinders, each of said cylinders having at least one dimension in a direction substantially transverse to the direction of wave propagation down the length thereof which is small compared with its skin depth at the highest frequency of electromagnetic waves to be transmitted, means for reducing dielectric losses comprising a composite dielectric member filling the space between said composite members, said dielectric member comprising first and second solid cylindrical members of titanium dioxide separated by spaced discs of titanium dioxide, and dielectric foam material filling the spaces between said cylindrical members and said discs, the dielectric constants of the foam material and the titanium dioxide being such that the overall dielectric constant of the composite members is substantially equal to the transverse dielectric constant of said composite members, and means for short circuiting together all of the conducting cylinders in said first and second composite members at at least one end of said resonator.

2,779,926
TRANSFORMER WITH FIVE-LEG CORE
Wallace M. Johnson and Stanley B. Williams, Pittsfield, Mass., assignors to General Electric Company, a corporation of New York
Application January 25, 1954, Serial No. 405,912
6 Claims. (Cl. 336—5)

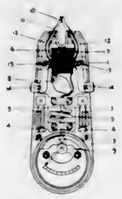


1. A five-leg magnetic core assembly comprising three main core legs and two yoke members, said legs being positioned at spaced intervals between said pair of yoke members, said three legs and two yoke members defining a pair of main core windows of similar profile, and a side core extending outward from each of the outer main core legs, the side cores having the same window height as the two main core windows and having a cross-sectional area of between one-tenth and one-half the cross-sectional area of each of the main core legs, the ratio A of the cross-sectional area of each of said yoke members to the cross-sectional area of each of said core legs being substantially

$$A=\sqrt{(0.5)^2+(0.866-B)^2}$$

where B is a ratio of the cross-sectional area of each of said side core members to the cross-sectional area of each of said yoke members.

2,779,927
A. C. ELECTRICAL MEASURING INSTRUMENTS
Thomas Richard Rudge, Timperley, Altrincham, England, assignor to The General Electric Company Limited, London, England
Application May 20, 1952, Serial No. 288,793
Claims priority, application Great Britain May 24, 1951
3 Claims. (Cl. 336—175)



1. A transformer unit for an alternating current electrical measuring instrument, comprising a core of magnetic material in the form of a flexible loop divided at one point only so as to form two free ends which can be moved toward and away from one another, a spring encircling a major portion of the loop exclusive of the two free ends, the spring being expanded from its natural configuration whereby said free ends are biassed together but can be urged apart against the force of the spring, and a secondary coil wound on the core, the surfaces of said free ends which abut on each other being covered with thin coatings of a wear-resistant non-magnetic material.

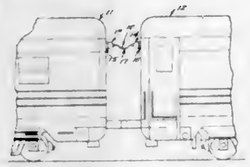
2,779,928
MEANS FOR ANCHORING STARTS AND/OR FINISHES IN COIL WINDINGS
Richard B. Jeffrey, Zanesville, Ohio, assignor to McGraw Electric Company, Milwaukee, Wis., a corporation of Delaware
Application August 25, 1951, Serial No. 243,668
2 Claims. (Cl. 336—192)

1. An insulated wire coil having a plurality of layers of turns wound about a central core, at least one end of said coil comprising a lead wire adapted to extend axially of said coil, an anchoring strip for said lead wire comprising an axially disposed strip of semi-rigid insulating material having a plurality of axially adjacent wire receiving cleats forming two independent rows thereof, each row being substantially coextensive with the coil and anchoring strip, said cleats in each row being alternately spaced and oppositely directed with respect to the circumferentially adjacent row, said rows being separated from each other by an imperforate portion of said strip, each cleat being defined by a perforated outline margin and an imperforate margin integral with said strip, said imperforate margins being arranged in substantial parallelism with each other and adapted for bending said cleats away from the plane of said strip circumferentially of said coil, said lead wire extending axially of said strip into said coil and passing consecutively under at least some alternate cleats in opposite rows, said lead wire extending along the longitudinal axis of said coil and terminating at any selected one of said cleats and thereafter continuing around the coil to form said wire turns overlaying at least a part of said strip in one of said plurality of layers, whereupon axial stress on said lead causes tighter engagement thereof by said cleats.

2,779,929
SELF-LOCKING PLUG CONNECTOR
Stephen A. Sesny and Francis B. E. Peters, Endicott, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application November 2, 1953, Serial No. 389,511
2 Claims. (Cl. 339—217)

1. In combination with a plugboard having an opening of predetermined cross-sectional dimension, a plug connector for insertion within the opening of said plugboard comprising a hollow cylindrical sleeve with a radial opening therein; means for preventing said connector from being pushed out of said plugboard by pressure applied directly to said plug connector from the back side of said plugboard, said means comprising a member having an inclined surface, and a spring biased spherical latch so arranged within said sleeve on the surface of said member as to normally extend through the radial opening of said sleeve beyond the limits of cross-sectional dimension thereof and in engagement with the back side of said plugboard, whereby pressure directly applied to said plug connector from the back side of said plugboard maintains said latch beyond the limits of cross-sectional dimension of said sleeve and in engagement with the back side of said plugboard; and means for operating upon said sleeve in response to a withdrawal force exerted upon said connector from the front side of said plugboard, to move said latch along the inclined surface of said member to within the limits of cross-sectional dimension of said sleeve and out of engagement with the back side of said plugboard.

2,779,930
ELECTRICAL CONNECTION MEANS AND METHODS
Lee A. Archer, Wheaton, Ill., assignor to The Pyle-National Company, Chicago, Ill., a corporation of New Jersey
Application December 15, 1953, Serial No. 398,272
8 Claims. (Cl. 339—270)

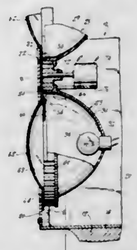


1. In an electrical plug and socket connector, the improvement of a contact assembly comprising a contact member providing a contact surface of appreciable longitudinal extent and further providing an externally threaded neck axially adjacent said contact surface, a bushing member having an open ended bore extending therethrough, said bushing being internally tapered to form the walls of said bore, a lug member having a sleeve portion providing an externally tapered peripheral surface and an internally threaded recess, said lug member further including conductor fastening means adjacent said sleeve portion, said threaded neck being inserted in said bore and threadedly engaging said sleeve portion of said lug member, said tapered peripheral surface of said sleeve portion of said lug member engaging said tapered walls of said bore of said bushing member to lock said contact member, said bushing member and said lug member in firm assembly and in electrically conductive relation with one another, and a body member of insulating material embedding said bushing member in firm assembly therewith and providing an insulating enclosure for said lug member and the conductor fastening means thereof.

2,779,931
METHOD AND APPARATUS FOR MEASURING SPEED
Millar Paul Hersey, Jr., Seattle, Wash., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application February 8, 1954, Serial No. 408,661
10 Claims. (Cl. 340—3)

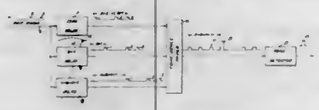
1. Apparatus for measuring the relative speed of a material fluid and an adjacent member comprising, in combination: sound projecting and receiving means on said member; a reflecting surface on said member separated from said projecting and receiving means by a body of said fluid and positioned for impingement by sound from said projecting means so as to reflect said sound to said receiving means; and means connected to said receiving means for measuring a quantity which varies with the length of the path travelled by said sound as a parameter of the desired relative speed.

2,779,932
TRAFFIC SIGNAL WITH TIME LAPSE INDICATION
Tobias Wagner, New York, N. Y.
Application April 7, 1955, Serial No. 499,777
3 Claims. (Cl. 340—42)



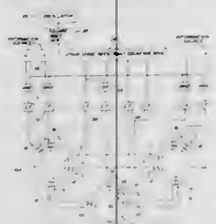
1. A traffic light signal comprising a frame, a cover plate thereon, a pair of alternately energizable lamp assemblies mounted on the frame in back of the cover plate, and means traveling circumferentially of each assembly while the same is energized affording a visual indication of the length of time said assembly will remain energized, including ring gears mounted upon the respective assemblies, said signal including a pinion in mesh with both ring gears to rotate the same in a common direction about their associated lamp assemblies, said signal further including a motor having a driving connection to the pinion, said motor being in circuit with both of said lamp assemblies, said means further including indicator members secured fixedly to the ring gears to rotate therewith, said indicator members being in the path of beams emanating from the lamp assemblies, each of said lamp assemblies including a disc-shaped lens having a colored center portion and an arcuate flat, marginal portion translucent for at least part of its circumference, said indicator members traveling in back of said translucent portions, each lens further including an arcuate opaque marginal portion, said indicator members traveling from end to end of the opaque marginal portions of the lenses during the period the associated lamp assemblies are deenergized.

2,779,933
COMPLEX PULSE COMMUNICATION SYSTEM
Ervin M. Bradburd, Fairlawn, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application March 29, 1950, Serial No. 152,530
15 Claims. (Cl. 340—147)



4. A signalling system comprising means to provide a combination of at least three pulses the spacings, A and B, between adjacent pulses having a given ratio, K, signalling means, and means responsive to said signalling means to vary the spacing between said pulses by given amount X and Y under control of said signalling means while always maintaining said ratio constant.

2,779,934
SWITCHING CIRCUITS
Robert C. Minnick, Cambridge, Mass., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application June 24, 1953, Serial No. 363,832
12 Claims. (Cl. 340—174)



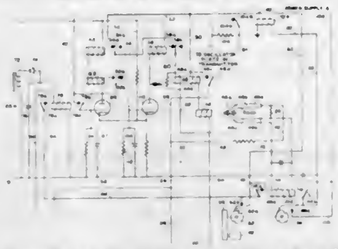
1. In a switching circuit, at least two first level magnetic cores each having a plurality of windings thereon, means for applying reset pulses to one winding of each of said first level cores to cause the remanent magnetization in said cores to be of one polarity, means for applying information pulses individually to certain of said windings of said first level cores to reverse the remanent magnetization in any of said cores to which at least one information pulse is applied, a second level magnetic core having a plurality of windings thereon, means for applying a reset pulse to one of said windings of said second level core to determine the remanent magnetization in said second level core to be of one polarity, means for applying an advance pulse to another of said windings on each of said first level cores to reverse the magnetization in those of said first level cores to which no information pulses were applied, means for applying pulses to windings on said second level core to reverse the magnetization in said second level core on reversal of the magnetization in a first level core by said advance pulses, and means for applying a read out pulse to said second level core.

2,779,935
NOISE ACTUATED DISABLING UNIT
Clifford Lee Loudon, La Jolla, Calif., and William E. Riker, Cold Spring Harbor, N. Y., assignors to Holmes Electric Protective Company, New York, N. Y., a corporation of New York
Application March 21, 1955, Serial No. 495,485
15 Claims. (Cl. 340—258)

1. Electrical apparatus responsive to the presence of electrical fluctuations having a frequency within a certain frequency range to alter the normal condition of an alarm circuit for a predetermined length of time, said apparatus comprising amplifier means for amplifying signals at frequencies within the certain frequency range, a first means responsive to the output of said amplifier means for rendering the alarm circuit inoperative, a sec-

ond means responsive to the output of said amplifier means for producing a second signal, and means responsive to said second signal to overcome said first means after a predetermined time to render the alarm circuit operative.

2,779,936
SUPERVISORY UNIT FOR BURGLAR ALARM SYSTEM
Clifford Lee Loudon, La Jolla, Calif., and William E. Riker, Cold Spring Harbor, N. Y., assignors to Holmes Electric Protective Company, New York, N. Y., a corporation of New York
Application March 21, 1955, Serial No. 495,486
14 Claims. (Cl. 340—258)

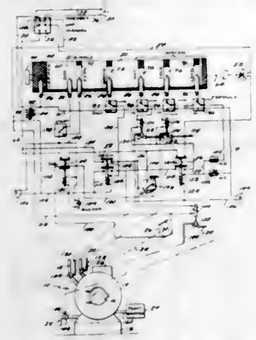


1. A supervisory circuit for use with a burglar alarm system which detects the presence of an intruder by responding to the disturbance of a standing wave pattern of ultrasonic waves which comprises a first circuit connected to a remote location, said first circuit carrying a predetermined current, a second circuit connected across a portion of said first circuit, a normally open switch in said second circuit, means actuated during a disturbance of the standing wave pattern to close said switch, means for disturbing the standing wave pattern during predetermined periods, means for opening said second circuit during said periods to prevent alarm operation, and means, including said first mentioned means, responsive to a malfunctioning of the alarm system to decrease the current in said first circuit to cause alarm operation.

2,779,937
WASHING MACHINE CONTROLLER
Norvin L. Pellerin, Albert J. Phillips, and Francis X. Levy, New Orleans, La., assignors to Pellerin Milnor Corporation, New Orleans, La., a corporation of Louisiana
Application September 7, 1954, Serial No. 454,532
15 Claims. (Cl. 340—265)

1. In a controller for a washing machine having a water inlet valve, a drain valve, and means responsive to the water level in said machine; a plurality of switch elements, a source of electrical potential, timer means for connecting said switch elements to one terminal of said source at predetermined times and for predetermined intervals in accordance with a laundering formula, electric

means for controlling the operation of said water inlet valve, means for connecting said electric means to one of said switch elements, electric means for controlling the operation of said drain valve, means for connecting



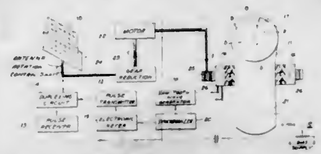
said last-mentioned means to another of said switch elements, and means including said drain valve controlling means and said water level responsive means for connecting said inlet valve controlling means to another terminal of said source.

2,779,938
SURROUND LIGHTING STRUCTURE FOR IMAGE SCREEN OF CATHODE RAY TUBE
Marion J. Pifer, Williamsville, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application June 2, 1952, Serial No. 291,123
8 Claims. (Cl. 340—369)

1. An integral surround-lighting structure for the image screen of a television receiver comprising a decorative frame adapted to surround said image screen but spaced by substantial margins from the image-reproducing area thereof, a light-diffusing translucent mask carried by said frame and positioned to provide a continuous margin around said image screen from the edges of said reproducing area to said frame, and a distributed light source arranged rearwardly of said mask and supported by said structure for relatively uniform illumination of said mask.

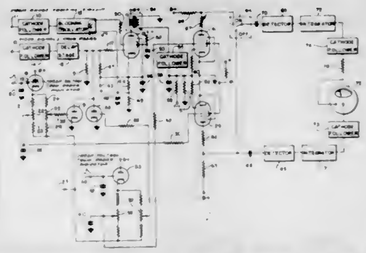
2,779,939
INDICATING SYSTEMS
Robert M. Page, Washington, D. C.
Application May 7, 1942, Serial No. 442,097
18 Claims. (Cl. 343—11)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. An apparatus for indicating positions of remote objects comprising means producing a directional energy emission, means rotating said directional energy emission for continually scanning an area about the apparatus, means receiving energy reflections whenever said directional energy emission impinges upon and reflects from a remote object included within said scanned area, means producing a visual plan representation of said scanned area, means responsive to reception of said reflected energy for producing visual indication on said plan representation of each remote object included in said area at a linear position and at an angular position with respect to a reference direction of said representation respectively in accordance with range and direction of each remote object with respect to the apparatus, and



means producing radial calibrating marks on said representation for facilitating determination of directions of remote objects from said indications.

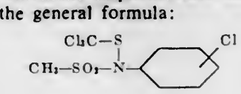
2,779,940
AZIMUTH ERROR INDICATOR
Kenneth E. Schreiner, Cambridge, Mass., and Byron L. Havens, New York, N. Y., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application May 6, 1946, Serial No. 667,704
10 Claims. (Cl. 343—16)



1. In combination with a radar system having an antenna the directivity axis of which scans an azimuthal sector and in which is generated a voltage which varies linearly in response to the movement of said directivity axis between the azimuthal limits of said sector, apparatus for measuring the deviation of a craft on which said radar system is mounted from a collision course with a selected target, said apparatus comprising, a first amplifier, means for coupling video pulses from said radar system to said first amplifier, means for biasing said amplifier to amplify only video pulses representative of targets at substantially the same range as said desired target, means biasing said amplifier for response within an azimuthal sector narrower than the sector scanned by said antenna, second and third amplifiers, means for coupling the output of said first amplifier to said second and third amplifiers, means for controlling the gain of said second and third amplifiers in direct and inverse proportion respectively to said linearly varying voltage, and means for indicating the comparative output of said second and third amplifiers.

2,779,941
TRICHLOROMETHANE SULPHENIC ACID DERIVATIVES AND THEIR USE IN THE COMBATTING OF FUNGI
Hans Gysin and Alfred Margot, Basel, Switzerland, assignors to J. R. Geigy A. G., Basel, Switzerland
No Drawing. Original application October 27, 1953, Serial No. 388,674. Divided and this application March 16, 1956, Serial No. 571,900
2 Claims. (Cl. 260—556)

1. Trichloromethane sulphenic acid derivatives corresponding to the general formula:



DESIGNS

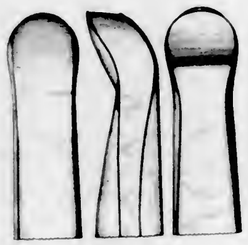
JANUARY 29, 1957

179,588
CHILD'S SOCK
Janice M. Beaver, Cedar Grove, N. J.
Application November 4, 1955, Serial No. 38,724
Term of patent 14 years
(Cl. D47—7)

179,589
PRESSURE REDUCING REGULATOR
Evans R. Billington, Chicago, Ill., assignor to The Bastian-Blessing Company, Chicago, Ill., a corporation of Illinois
Application September 14, 1954, Serial No. 32,272
Term of patent 14 years
(Cl. D78—1)

179,590
GOLF PUTTER HEAD
Arthur B. Carper, Denver, Colo.
Application December 22, 1955, Serial No. 39,432
Term of patent 14 years
(Cl. D34—5)

179,591
GOLF CLUB COVER
Clarence E. Clark, Chicago, Ill.
Application March 10, 1955, Serial No. 34,976
Term of patent 14 years
(Cl. D34—5)

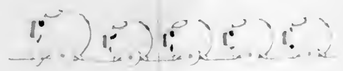


179,592
STOOL
Roy A. Cramer, Kansas City, Mo., assignor to Cramer Posture Chair Company, Inc., Kansas City, Mo., a corporation of Missouri
Application February 16, 1956, Serial No. 40,192
Term of patent 14 years
(Cl. D15—8)

179,593
STOOL
Roy A. Cramer, Kansas City, Mo., assignor to Cramer Posture Chair Company, Inc., Kansas City, Mo., a corporation of Missouri
Application February 16, 1956, Serial No. 40,193
Term of patent 14 years
(Cl. D15—8)

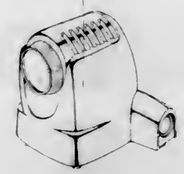
179,594
SPOON OR SIMILAR ARTICLE
Chester Barber Crookes, Danbury, Conn., assignor to The Hobson & Botts Co., Danbury, Conn., a corporation of Connecticut
Application July 17, 1956, Serial No. 42,273
Term of patent 14 years
(Cl. D54—12)

179,595
FIGURE TRUNDLE TOY
Walter P. Doe and Ralph W. Crawford, East Aurora, N. Y., and Ruth V. Bendel, Hinsdale, Ill., assignors to Fisher-Price Toys, Inc., East Aurora, N. Y.
Application August 23, 1956, Serial No. 42,715
Term of patent 14 years
(Cl. D34—15)



179,596
PAIR OF SPECTACLES
Sidney Eisler, New York, N. Y.
Application December 8, 1955, Serial No. 39,214
Term of patent 14 years
(Cl. D57—1)

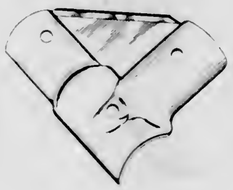
179,597
HAIR DRYER
Robert O. Ernest, Oak Park, Ill., assignor to Sunbeam Corporation, Chicago, Ill., a corporation of Illinois
Application May 29, 1956, Serial No. 41,693
Term of patent 14 years
(Cl. D86—10)



179,598
TROPHY BASE
Alfred John Flauder, Trumbull, Conn., assignor to Alexander M. Pistey, Bridgeport, Conn.
Application December 22, 1955, Serial No. 39,445
Term of patent 7 years
(Cl. D29—23)

179,599
CIGARETTE LIGHTER OR SIMILAR ARTICLE
Charles-Aimé Fortin, Montreal, Quebec, Canada, assignor to Presto Lighters Limited, Lambert, Quebec, Canada
Application April 12, 1956, Serial No. 41,046
Term of patent 7 years
(Cl. D48—27)

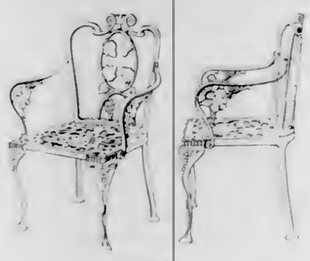
179,600
CORNER FITTING FOR TUBULAR STRUCTURES
Isadore Horowitz, Shreveport, La.
Application March 9, 1956, Serial No. 40,530
Term of patent 14 years
(Cl. D54—2)



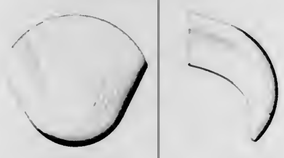
179,601
SLIDE CONTAINER
Rex B. Husted, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application February 6, 1956, Serial No. 40,039
Term of patent 14 years
(Cl. D61—1)

179,602
ORNAMENT FOR JEWELRY OR THE LIKE
Harold W. Jackson, Pleasant Ridge, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application December 22, 1954, Serial No. 33,651
Term of patent 14 years
(Cl. D45—1)

179,603
ARM CHAIR
Bolling Jones, Jr., and Joseph N. White, Atlanta, Ga., assignors to Atlanta Stove Works, Inc., Atlanta, Ga.
Application October 27, 1955, Serial No. 38,593
Term of patent 14 years
(Cl. D15—1)



179,604
PULL FOR DRAWERS, DOORS, OR THE LIKE
Robert A. Jorgensen, Edmonds, Wash.
Application December 16, 1955, Serial No. 39,353
Term of patent 14 years
(Cl. D10—8)

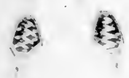


179,605
EYEGLASS FRAME
Alexander Kono, Woodside, N. Y., assignor to Kono Manufacturing Co. Inc., Woodside, N. Y., a corporation of New York
Application June 15, 1956, Serial No. 41,909
Term of patent 14 years
(Cl. D57—1)

179,606
BRACKET
Albert W. Lindberg, Jr., Bayonne, N. J.
Application September 12, 1955, Serial No. 37,885
Term of patent 14 years
(Cl. D33—3)

179,607
PORTABLE ELECTRIC HOUSEHOLD POWER UNIT
Alfred W. Madl, Milwaukee, Wis., assignor to John Oster Manufacturing Co., Milwaukee, Wis., a corporation of Wisconsin
Application April 19, 1956, Serial No. 41,135
Term of patent 14 years
(Cl. D89—1)

179,608
BRASSIERE
Nathan Miller, Englewood, N. J.
Application May 8, 1956, Serial No. 41,396
Term of patent 14 years
(Cl. D20—4)

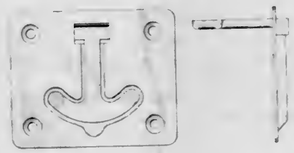


179,609
BAR MITZVAH TABLE ORNAMENT
Sara Rae Naimon, Milwaukee, Wis.
Application July 25, 1956, Serial No. 42,375
Term of patent 14 years
(Cl. D29—23)

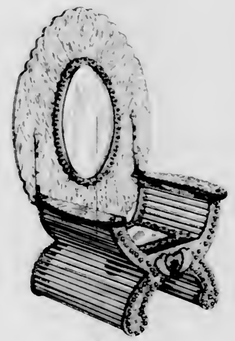
179,610
COMBINED KNIFE AND SCISSORS SHARPENER
Joseph Palma, Jr., Wheaton, Ill., assignor to Cory Corporation, Chicago, Ill., a corporation of Delaware
Application March 23, 1956, Serial No. 40,745
Term of patent 14 years
(Cl. D37—1)

179,611
MUFFLER
Walter H. Powers and Benton D. Jacokes, Jackson, Mich., assignors to Walker Manufacturing Company of Wisconsin, Racine, Wis., a corporation of Wisconsin
Application December 5, 1955, Serial No. 39,169
Term of patent 14 years
(Cl. D14—6)

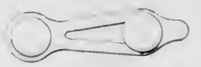
179,612
HATCH PULL
Elmer F. Rinke, Utica, Mich.
Application June 11, 1956, Serial No. 41,836
Term of patent 7 years
(Cl. D10—8)



179,613
COMBINED TABLE AND CHAIR
Rex Roy, Washington, D. C.
Application March 6, 1956, Serial No. 40,472
Term of patent 7 years
(Cl. D15—1)



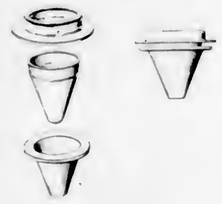
179,614
FASTENER
Daniel Francis Shafer, Mishawaka, Ind., assignor to Mishawaka Rubber and Woolen Manufacturing Company, Mishawaka, Ind., a corporation of Indiana
Application June 27, 1956, Serial No. 42,061
Term of patent 14 years
(Cl. D17—2)



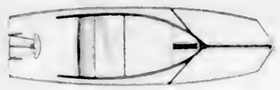
179,615
COSMETIC PENCIL
Walter B. Spatz, Los Angeles, Calif.
Application January 9, 1956, Serial No. 39,647
Term of patent 14 years
(Cl. D86—10)

179,616
COMBINATION BOOKRACK AND NOVELTY DISPLAY STAND
Mansfield Royce Steidel, Arlington, Va.
Application July 17, 1956, Serial No. 42,283
Term of patent 14 years
(Cl. D33—2)

179,617
COMBINED BOX AND COVER THEREFOR
Earl S. Tupper, Smithfield, R. I.
Application May 23, 1955, Serial No. 36,147
Term of patent 14 years
(Cl. D58—11)



179,618
COMBINED SAIL, MOTOR, AND ROW BOAT
Johannes H. Wendt, Williams Bay, Wis.
Application May 19, 1955, Serial No. 36,126
Term of patent 14 years
(Cl. D71—1)



LIST OF REISSUE PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 29TH DAY OF JANUARY, 1957

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Disser, Milton E., to Ingersoll-Rand Co. Power-operated impact tool. Re. 24,269, 1–29–57, Cl. 81—52.3.
Ingersoll-Rand Co.: *See*—
Disser, Milton E. Re. 24,269.
Zuckerman, Milton. Delay switch. Re. 24,268, 1–29–57, Cl. 200—122.

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Germain's, Inc.: *See*—
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Lammerts, Walter E., to Germain's, Inc. Rose plant. 1,557, 1–29–57, Cl. 47—61.
Lammerts, Walter E., to Roseway Nurseries. Rose plant. 1,558, 1–29–57, Cl. 47—61.
Roseway Nurseries: *See*—
Lammerts, Walter E. 1,558.

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Atlanta Stove Works, Inc.: *See*—
Jones, Bolling, Jr., and White. 179,603.
Bastian-Blessing Co., The: *See*—
Billington, Evans R. 179,589.
Beaver, Janice M. Child's sock. 179,588, 1–29–57, Cl. D47—7.
Bendel, Ruth V.: *See*—
Doe, Walter P., Crawford, and Bendel. 179,595.
Billington, Evans R., to The Bastian-Blessing Co. Pressure reducing regulator. 179,589, 1–29–57, Cl. D78—1.
Carper, Arthur B. Golf putter head. 179,590, 1–29–57, Cl. D34—5.
Chrysler Corp.: *See*—
Jackson, Harold W. 179,602.
Clark, Clarence E. Golf club cover. 179,591, 1–29–57, Cl. D34—5.
Cory Corp.: *See*—
Palma, Joseph, Jr. 179,610.
Cramer Posture Chair Co., Inc.: *See*—
Cramer, Roy A. 179,592.
Cramer, Roy A. 179,593.
Cramer, Roy A., to Cramer Posture Chair Co., Inc. Stool. 179,592, 1–29–57, Cl. D15—8.
Cramer, Roy A., to Cramer Posture Chair Co., Inc. Stool. 179,593, 1–29–57, Cl. D15—8.
Crawford, Ralph W.: *See*—
Doe, Walter P., Crawford, and Bendel. 179,595.
Crookes, Chester B., to The Hobson & Botts Co. Spoon or similar article. 179,594, 1–29–57, Cl. D54—12.
Doe, Walter P., R. W. Crawford, and R. V. Bendel, to Fisher-Price Toys, Inc. Figure trundle toy. 179,595, 1–29–57, Cl. D34—15.
Eastman Kodak Co.: *See*—
Husted, Rex B. 179,601.
Eisler, Sidney. Pair of spectacles. 179,596, 1–29–57, Cl. D57—1.
Ernest, Robert O., to Sunbeam Corp. Hair dryer. 179,597, 1–29–57, Cl. D86—10.
Fisher-Price Toys, Inc.: *See*—
Doe, Walter P., Crawford, and Bendel. 179,595.
Flauder, Alfred J., to A. M. Pistey. Trophy base. 179,598, 1–29–57, Cl. D29—23.
Fortin, Charles-Aimé, to Presto Lighters Ltd. Cigarette lighter or similar article. 179,599, 1–29–57, Cl. D48—27.
Hobson & Botts Co., The: *See*—
Crookes, Chester B. 179,594.
Horowitz, Isadore. Corner fitting for tubular structures. 179,600, 1–29–57, Cl. D54—2.
Husted, Rex B., to Eastman Kodak Co. Slide container. 179,601, 1–29–57, Cl. D61—1.
Jackson, Harold W., to Chrysler Corp. Ornament for jewelry or the like. 179,602, 1–29–57, Cl. D45—1.
Jacokes, Benton D.: *See*—
Powers, Walter H., and Jacokes. 179,611.
Jones, Bolling, Jr., and J. N. White, to Atlanta Stove Works, Inc. Arm chair. 179,603, 1–29–57, Cl. D15—1.
Jorgensen, Robert A. Pull for drawers, doors, or the like. 179,604, 1–29–57, Cl. D10—8.
Kono, Alexander, to Kono Mfg. Co. Inc. Eyeglass frame. 179,605, 1–29–57, Cl. D57—1.
Kono Mfg. Co. Inc.: *See*—
Kono, Alexander. 179,605.
Lindberg, Albert W., Jr. Bracket. 179,606, 1–29–57, Cl. D33—3.
Madl, Alfred W., to John Oster Mfg. Co. Portable electric household power unit. 179,607, 1–29–57, Cl. D89—1.
Miller, Nathan. Brassiere. 179,608, 1–29–57, Cl. D20—4.
Mishawaka Rubber and Woolen Mfg. Co.: *See*—
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Naimon, Sara R. Bar mitzvah table ornament. 179,609, 1–29–57, Cl. D29—23.
Oster, John, Mfg. Co.: *See*—
Madl, Alfred W. 179,607.
Palma, Joseph, Jr., to Cory Corp. Combined knife and scissors sharpener. 179,610, 1–29–57, Cl. D37—1.
Pistey, Alexander M.: *See*—
Flauder, Alfred J. 179,598.
Powers, Walter H., and B. D. Jacokes, to Walker Mfg. Co. of Wisconsin. Muffler. 179,611, 1–29–57, Cl. D14—6.
Presto Lighters Ltd.: *See*—
Fortin, Charles-Aimé. 179,599.
Rinke, Elmer F. Hatch pull. 179,612, 1–29–57, Cl. D10—8.
Roy, Rex. Combined table and chair. 179,613, 1–29–57, Cl. D15—1.
Shafer, Daniel F., to Mishawaka Rubber and Woolen Mfg. Co. Fastener. 179,614, 1–29–57, Cl. D17—2.
Spatz, Walter B. Cosmetic pencil. 179,615, 1–29–57, Cl. D86—10.
Stedel, Mansfield R. Combination bookrack and novelty display stand. 179,616, 1–29–57, Cl. D33—2.
Sunbeam Corp.: *See*—
Ernest, Robert O. 179,597.
Tupper, Earl S. Combined box and cover therefor. 179,617, 1–29–57, Cl. D58—11.
Walker Mfg. Co. of Wisconsin: *See*—
Powers, Walter H., and Jacokes. 179,611.
Wendt, Johannes H. Combined sail, motor, and row boat. 179,618, 1–29–57, Cl. D71—1.
White, Joseph N.: *See*—
Jones, Bolling, Jr., and White. 179,603.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 29TH DAY OF JANUARY, 1957

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

ACF Industries, Inc.: *See*—
Coffey, Irven E. 2,779,353.
Edelen, James L. 2,779,612.
Schweiss, Joseph. 2,779,586.

Abbe, Horace E. Electro-therapeutic apparatus. 2,779,336, 1-29-57, Cl. 128—422.

Abbey, John C., to Aeroquip Corp. Combined gate valve and coupling. 2,779,608, 1-29-57, Cl. 284—18.

Abbott Laboratories: *See*—
Hamlin, Kenneth E., Jr. 2,779,799.

Ackerman, Arthur H., Jr. Mixing dispenser. 2,779,502, 1-29-57, Cl. 222—48.

Acton Laboratories, Inc.: *See*—
Altieri, Joseph R., and Guba. 2,779,918.

Adamec, Gilbert: *See*—
Hemmings, Emilie A., and Adamec. 2,779,344.

Adler, Robert, and J. L. Rennick, to Zenith Radio Corp. Demodulating systems for color television. 2,779,818, 1-29-57, Cl. 178—5.4.

Adriansen, John R., to Cutler-Hammer, Inc. Braking systems. 2,779,906, 1-29-57, Cl. 318—211.

Aeroquip Corp.: *See*—
Abbey, John C. 2,779,608.

Aerovox Corp.: *See*—
Collins, Joseph L. 2,779,813.

Aircraft Armaments, Inc.: *See*—
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Air Force, United States of America as represented by the Secretary of the: *See*—
Dodge, Russell A., and York. 2,779,233.
Short, Thomas T. 2,779,909.

Aktiengesellschaft fuer Technische Studien: *See*—
Schmidt, David. 2,779,159.

Albrecht, David E., and S. A. Grubich, to Hose Accessories Co. Apparatus for cutting hose. 2,779,412, 1-29-57, Cl. 164—60.

Albright, John R., to Geo. D. Roper Corp. Pump control. 2,779,291, 1-29-57, Cl. 103—45.

Alco Refrigeration Sales & Service, Inc.: *See*—
Holman, Clarence J. 2,779,592.

Alfrey, Allen: *See*—
Alfrey, James A. 2,779,501.

Alfrey, James A., 15% to A. Alfrey. Cigarette lighter. 2,779,501, 1-29-57, Cl. 221—144.

Alfrey, Turner, Jr.: *See*—
Longstreth, Murrey O., and Alfrey. 2,779,053.

Allen, Leo G. Puller tool having a manually operated sliding hammer. 2,779,089, 1-29-57, Cl. 29—254.

Allen, Raymond W., to The Firestone Tire & Rubber Co. Vehicle wheel suspension. 2,779,636, 1-29-57, Cl. 305—9.

Allen, Walter J. Lubricating device. 2,779,509, 1-29-57, Cl. 222—189.

Alles, Francis P., to E. I. du Pont de Nemours and Co. Polyester films and their preparation. 2,779,684, 1-29-57, Cl. 117—7.

Allied Chemical & Dye Corp.: *See*—
Erchak, Michael, Jr. 2,779,754.

Allis-Chalmers Mfg. Co.: *See*—
Voegeli, Wendelin L. 2,779,604.

Altieri, Joseph R., and R. F. Guba, to Acton Laboratories, Inc. Resolution tester. 2,779,918, 1-29-57, Cl. 324—63.

American Bosch Arma Corp.: *See*—
Davidson, Gareth M. 2,779,922.
Hogeman, Hans. 2,779,289.

American Box Board Co.: *See*—
Hartman, Joseph A. 2,779,592.

American Cyanamid Co.: *See*—
Loukomsky, Anne M. 2,779,691.

American-Marietta Co.: *See*—
Childester, Earl W. 2,779,080.

American Sugar Refining Co., The: *See*—
Cantor, Sidney M., and Wimmer. 2,779,692.

American Viscose Corp.: *See*—
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Anderson, Emil: *See*—
Clark, Murray P., and Anderson. 2,779,255.

Anderson, John R.: *See*—
Murray, James V., Jr., and Anderson. 2,779,722.

Anderson, Orval W. Composite disposable pad. 2,779,465, 1-29-57, Cl. 206—47.

Andrews, Laurence M., and J. Rabinow, to the United States of America as represented by the Secretary of the Army. Contact fuze. 2,779,287, 1-29-57, Cl. 102—81.2.

Anello, Anthony P. Pipe bending machine. 2,779,382, 1-29-57, Cl. 153—48.

Anger, Hal O.: *See*—
Tobias, Cornelius A., and Anger. 2,779,876.

Anthes, Clifford C., to Union Carbide and Carbon Corp. Halide detector. 2,779,666, 1-29-57, Cl. 23—254.

Archer, Lee A., to The Pyle-National Co. Electrical connection means and methods. 2,779,930, 1-29-57, Cl. 339—270.

Armstrong Cork Co.: *See*—
Schairer, Edward G. 2,779,387.

Army, United States of America as represented by the Secretary of the: *See*—
Andrew, Laurence M., and Rabinow. 2,779,287.
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Shaller, Herman I. 2,779,181.
Stam, Stephen A. 2,779,244.
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Arpin, Frank D. Convertible bed-sofa combinations. 2,779,031, 1-29-57, Cl. 5—38.

Arpin, Frank D. Firmness adjustment for mattresses. 2,779,034, 1-29-57, Cl. 5—348.

Ateliers de Constructions Electriques de Charlerol: *See*—
Mulherbe, Georges. 2,779,880.

Ateliers des Charmilles S. A.: *See*—
Mironoff, Nicolas. 2,779,857.

Atkinson Bulk Transport Co.: *See*—
Atkinson, Fred M., and Mattson. 2,779,634.

Atkinson, Fred M., and D. F. Mattson, to Atkinson Bulk Transport Co. Actuator for fluidized conveying systems. 2,779,634, 1-29-57, Cl. 302—49.

Atkinson, Herbert J. Speed wing for motor-driven boat. 2,779,302, 1-29-57, Cl. 114—66.5.

Automatic Electric Laboratories, Inc.: *See*—
Kolpek, Robert A. 2,779,816.

Autoscope, Inc.: *See*—
Smith, Tom F. 2,779,237.

Bacon, Elbridge F., to General Motors Corp. Vibration damper for gages. 2,779,442, 1-29-57, Cl. 188—90.

Bäder, Erich: *See*—
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Baehr, Carl G., to The Greist Mfg. Co. Overcasting attachment for sewing machines. 2,779,300, 1-29-57, Cl. 112—160.

Bainbridge, Fetherstone, to Huwood Mining Machinery Ltd. Composite rollers, pulleys and the like. 2,779,639, 1-29-57, Cl. 308—187.1.

Baker, David S. Apparatus for attempering material. 2,779,102, 1-29-57, Cl. 34—60.

Baker, Elvin E., to George P. Pilling & Son Co. Endoscope. 2,779,327, 1-29-57, Cl. 128—6.

Baker, Marshall W., C. F. Henney, and H. C. Johnston, to General Motors Corp. Automobile refrigerating apparatus. 2,779,162, 1-29-57, Cl. 62—4.

Ballard, Albert E., to the United States of America as represented by the United States Atomic Energy Commission. Recovery of uranium from wash liquids. 2,779,657, 1-29-57, Cl. 23—14.5.

Barbolla, Luis. Simulated basketball game. 2,779,597, 1-29-57, Cl. 273—85.

Barker, Stacey. Testing mechanism for cream. 2,779,476, 1-29-57, Cl. 210—150.

Barone, Salvatore J. Skirt cutting device. 2,779,099, 1-29-57, Cl. 30—231.

Barron, Ralph L. Electronic control system. 2,779,904, 1-29-57, Cl. 318—28.

Barry, Adelbert: *See*—
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Barthelson, Norman A., to Hercules Powder Co. Separation of primary and tertiary cymene hydroperoxides. 2,779,797, 1-29-57, Cl. 260—610.

Bartlett, Jeffrey H.: *See*—
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Pacsu, Eugene, and Bauer. 2,779,694.

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Baughman, John E., to the United States of America as represented by the Secretary of the Navy. Connector for securing initiator rocket to an aerial vehicle. 2,779,283, 1-29-57, Cl. 102—49.

Baughman, Robert W., and R. A. Grange, to United States Steel Corp. Method of improving machinability of steel. 2,779,698, 1-29-57, Cl. 148—21.5.

Beall, Richard W., Jr. Fluid dispensing devices. 2,779,517, 1-29-57, Cl. 222—484.

Bean, Claude T., Jr.: *See*—
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Becker, Fred, to Underwood Corp. Paper feed means for typewriters. 2,779,451, 1-29-57, Cl. 197—138.

Becker, Otto J. Cutting device for shingles. 2,779,409, 1-29-57, Cl. 164—44.

Beckham, Joe W., to Texas Foundries, Inc. Shingle cutter. 2,779,325, 1-29-57, Cl. 125—23.

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Bell, William R., to Stewart-Warner Corp. Dog clutch drive for windshield wipers and the like. 2,779,446, 1-29-57, Cl. 192—33.

Bellusclo, Miguel A. Gear transmission for the purpose of obtaining an infinite number of reduction ratios between two fixed limits. 2,779,204, 1-29-57, Cl. 74—325.

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Benda, Edward K., to General Motors Corp. Automatic load controller. 2,779,190, 1-29-57, Cl. 73—67.3.

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Bennet, Eugene L., to Laboratory Equipment Corp. Combustion analysis crucible. 2,779,581, 1-29-57, Cl. 263—48.

Benny, Henry C. Plumber's tool. 2,779,042, 1-29-57, Cl. 15—104.09.

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Berhenke, Luther F., to The Dow Chemical Co. Halogenated phenyl-salicylic acids. 2,779,785, 1-29-57, Cl. 260—520.

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Bertuch, Hans. Machine mounting device. 2,779,559, 1-29-57, Cl. 248—24.

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Black, Harold S., to Bell Telephone Laboratories, Inc. Composite coaxial resonator. 2,779,925, 1-29-57, Cl. 333—82.

Black, Theodore R., to The Concentro-Drive Co., Inc. Self-contained mechanical power transmission unit. 2,779,205, 1-29-57, Cl. 74—421.

Blackstone Corp.: *See*—
Oberg, Gunnard A. 2,779,182.

Blanchard, Donn C., to Stanley Building Specialties Co. Spacer for awning type window vents. 2,779,068, 1-29-57, Cl. 20—42.

Blaw-Knox Co.: *See*—
Johnson, James W. 2,779,258.

Blundeau, James H. Extension ladder jack. 2,779,561, 1-29-57, Cl. 248—238.

Boettcher, Stephen A., and H. W. Gould, to Crane Packing Co. Lapping machine. 2,779,139, 1-29-57, Cl. 51—131.

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Bone, Herbert L., to Westinghouse Air Brake Co. Vehicle weight responsive means. 2,779,583, 1-29-57, Cl. 265—27.

Bonnar-Vawter, Inc.: *See*—
Richards, Augustus J. 2,779,411.

Boom, Aaron. Loading chute for trucks. 2,779,489, 1-29-57, Cl. 214—85.

Borden, Joseph H., to Haughton Elevator Co. Automatic elevator current operated bypass control. 2,779,439, 1-29-57, Cl. 187—29.

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Borkowski, Casimer J., and F. M. Porter, to the United States of America as represented by the United States Atomic Energy Commission. Galvanometer pulse analyzer system. 2,779,875, 1-29-57, Cl. 250—83.3.

Borner, Carl H., to The Nylok Corp. Apparatus for manufacturing locking devices. 2,779,039, 1-29-57, Cl. 10—72.

Bosomworth, George P., to The Firestone Tire & Rubber Co. Electronic vulcanization of rubber. 2,779,847, 1-29-57, Cl. 219—10.41.

Bosomworth, George P., and R. I. Bishop, to The Firestone Tire & Rubber Co. Machine for electronic process of dielectric articles. 2,779,848, 1-29-57, Cl. 219—10.69.

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Roberts, George R., and Lister. 2,779,547.

Brace, Jeanne B. Informational and display device. 2,779,107, 1-29-57, Cl. 35—53.

Braconier, Frederic F. A., and J. A. R. O. L. Godart, to Societe Belge de l'Azote et des Produits Chimiques du Marly. Process for the manufacture of vinyl chloride from 1,2-dichloroethane and acetylene. 2,779,804, 1-29-57, Cl. 260—656.

Bradburd, Ervin M., to International Telephone and Telegraph Corp. Complex pulse communication system. 2,779,933, 1-29-57, Cl. 340—147.

Branch, Frank F., to Radiator Specialty Co. Flush control unit. 2,779,028, 1-29-57, Cl. 4—57.

Braunberger, Ray A. Fifth wheel plate mounting device. 2,779,605, 1-29-57, Cl. 280—440.

Bredereck, Hellmut, E. Bäder, A. Wohnhaas, and W. Nübling, to W. C. Heraeus G. m. b. H. Hanau (Main) and Deutsche Gold- und Silber-Scheideanstalt, vormals Roessler. Polymerization process using sulfone-containing accelerators. 2,779,751, 1-29-57, Cl. 260—89.5.

Brill, Thomas: *See*—
Zinn, Walter H., and Brill. 2,779,728.

Brink, Winfield S., to The Firestone Tire & Rubber Co. Wheel. 2,779,629, 1-29-57, Cl. 301—9.

British Insulated Callender's Cables Ltd.: *See*—
Poole, John H. 2,779,916.

Brockmeier, Fred C.: *See*—
Brockmeier, Ruby L. and F. C. 2,779,044.

Brockmeier, Ruby L. and F. C. Ruffle mop. 2,779,044, 1-29-57, Cl. 15—228.

Broden, Edwin N., to The Firestone Tire & Rubber Co. Cutter for trimming rinds from molded articles. 2,779,414, 1-29-57, Cl. 164—63.

Brooks, Herbert B. Method of closing a heat exchanger. 2,779,143, 1-29-57, Cl. 53—25.

Brown, Gilbert G., to Bendix Aviation Corp. Ball bearing assembly cleaner. 2,779,695, 1-29-57, Cl. 134—1.

Brown, Jack L., and M. M. Landers, to Continental Oil Co. Low fluid loss composition. 2,779,735, 1-29-57, Cl. 252—8.55.

Brown, Richard J., to Hupp Corp. Forced draft liquid fuel burner of the retort type, and heating apparatus incorporating the same. 2,779,398, 1-29-57, Cl. 158—28.

Brown, Robert G., to Polychrome Corp. Stencil assembly with protective film. 2,779,268, 1-29-57, Cl. 101—128.2.

Brown, William E., and H. E. Elliott, to General Motors Corp. Control device. 2,779,827, 1-29-57, Cl. 200—4.

Brownstein, Benjamin. Flexible bushing and mold stool for cast tubular ingots. 2,779,676, 1-29-57, Cl. 75—140.

Brubaker, Richard M.: *See*—
Pichler, Joseph R., Brubaker, Shuler, and Wark. 2,779,165.

Bruckmann, Bruno W. Air cooling of turbine blades. 2,779,565, 1-29-57, Cl. 253—39.15.

Buccicone, Dario. Apparatus for conveying and stopping rapidly moving metal sheets. 2,779,594, 1-29-57, Cl. 271—68.

Buchanan, Donnell M., and P. L. Menaul, to Stanolind Oil and Gas Co. Composition for use in wells. 2,779,734, 1-29-57, Cl. 252—8.55.

Buchanan, Ross W., and J. Gold, to General Motors Corp. Fuel pump diaphragm and process for making same. 2,779,687, 1-29-57, Cl. 117—47.

Buckeye Steel Castings Co., The: *See*—
Furniss, Loree E. 2,779,481.
Furniss, Loree E. 2,779,482.
Furniss, Loree E. 2,779,483.

Burdick Co., The: *See*—
Hill, Eldon J. 2,779,269.
Hill, Eldon J. 2,779,270.

Burger, Paul. Edge rolling device. 2,779,055, 1-29-57, Cl. 18—2.

Burkett, Albert L., to Combined Minerals, Inc. Soil conditioning and fertilizing compounds and methods of manufacture. 2,779,670, 1-29-57, Cl. 71—64.

Burlingham, Jesse J. Underwater fishing light. 2,779,866, 1-29-57, Cl. 240—26.

Burroughs Corp.: *See*—
Orr, Lyman W. 2,779,652.

Bilttner, Artur, to Schnellpressenfabrik Aktiengesellschaft Heidelberg. Driving mechanism for the type bed of cylinder printing machines. 2,779,198, 1-29-57, Cl. 74—27.

Cairnes, Charles W., and O. R. S. Elnan, to Aircraft Armaments, Inc. Shock mount for containers. 2,779,464, 1-29-57, Cl. 206—46.

Campbell, David S. Fishline bob or float. 2,779,121, 1-29-57, Cl. 43—43.15.

Canning, Frederick N. Window ventilator. 2,779,402, 1-29-57, Cl. 160—102.

Canon Camera Co., Inc.: *See*—
Ito, Hiroshi. 2,779,239.

Cantor, Sidney M., and E. L. Wimmer, to The American Sugar Refining Co. Alkaline earth hydroxide fractionation of starch. 2,779,692, 1-29-57, Cl. 127—71.

Cape, Arthur T., to Superweld Corp. Method of removing copper from brazed joints. 2,779,674, 1-29-57, Cl. 75—101.

Capell, Robert G., C. Karr, Jr., and W. D. Weatherford, Jr., to Gulf Research & Development Co. Fractionation of shale oil by elution chromatography. 2,779,718, 1-29-57, Cl. 196—147.

Carbonic Dispenser, Inc.: *See*—
Welty, Frank. 2,779,515.

Cardis-Mfg. Co., Inc.: *See*—
Carlson, Donald R. 2,779,524.

Carlson, Donald R., to Cardis Mfg. Co., Inc. Trunk luggage rack. 2,779,524, 1-29-57, Cl. 224—42.08.

Carlson, Emil. Keyboard attachment for electrically operated musical instruments. 2,779,225, 1-29-57, Cl. 84—171.

Carlzen, Carl F., and W. L. Lehner, to Sylvania Electric Products Inc. Article handling apparatus. 2,779,385, 1–29–57, Cl. 154—1.6.

Carr, Adams & Collier Co.: *See*—
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Carr, Edward L., to The Firestone Tire & Rubber Co. Acceleration of vulcanization by means of N-mono-tertiary-alkyl-thiazoline-2-sulfenamides. 2,779,809, 1–29–57, Cl. 260—788.

Carson, Elmer H. Newspaper stand. 2,779,064, 1–29–57, Cl. 20—1.7.

Carson, Stanley R.: *See*—
Geyer, Harvey D., and Carson. 2,779,395.

Cartwright, Albert D., Jr. Means for transplanting shrubbery and the like. 2,779,111, 1–29–57, Cl. 37—2.

Case, J. I., Co.: *See*—
Smith, Carlisle F. 2,779,145.

Cass, Oliver W., to E. I. du Pont de Nemours and Co. Recovery of furfural by preferential absorption of the vapor on solids. 2,779,770, 1–29–57, Cl. 260—347.9.

Catterall, William E., to Esso Research and Engineering Co. Carbonylation of olefins; water decobalting. 2,779,794, 1–29–57, Cl. 260—604.

Chall, Harold J., to Friden Calculating Machine Co., Inc. Printing mechanism for a calculating machine. 2,779,267, 1–29–57, Cl. 101—96.

Chamlin, Max. Perimeters. 2,779,235, 1–29–57, Cl. 88—20.

Chapman, George L.: *See*—
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Chartier, Edmund G., and C. O. Hayden, to The United States Time Corp. Alarm clock. 2,779,150, 1–29–57, Cl. 58—16.

Chenault, Roy L., and G. E. Mohnkern, to United States Steel Corp. Method of nitriding metallic surfaces. 2,779,697, 1–29–57, Cl. 148—16.6.

Chenoweth, Dean B., to Foley Mfg. Co. Power driven saw setter. 2,779,216, 1–29–57, Cl. 76—66.

Chidester, Earl W., to American-Marietta Co. Molding machine for forming concrete cribbing blocks. 2,779,080, 1–29–57, Cl. 25—41.

Chidsey, Francis A., Jr., to Container Corp. of America. Can carrier and blank thereof. 2,779,499, 1–29–57, Cl. 220—108.

Chisholm, Douglas S., and W. P. Saunders, to The Dow Chemical Co. Method of treating molten magnesium. 2,779,672, 1–29–57, Cl. 75—67.

Chombard, Pierre A., to Etat Francais, represented by Monsieur l'Ingenieur General Rouanet, acting on behalf of the Secretary of State for Air. Panel instrument for indicating the direction of flight and the attitude of an aircraft. 2,779,101, 1–29–57, Cl. 33—204.

Christoffel, Frank A., to Western Electric Co., Inc. Method of assembling bushings in a shell. 2,779,094, 1–29–57, Cl. 29—445.

Chubb, Alexander A., and M. M. Levy, to The General Electric Co. Ltd. Automatic telephone systems. 2,779,821, 1–29–57, Cl. 179—18.

Chwirut, Frank, and M. Greenblatt. Machine for molding dough rings. 2,779,298, 1–29–57, Cl. 107—14.

Ciba Ltd.: *See*—
Riat, Henri. 2,779,756.

Cincinnati Milling Machine Co., The: *See*—
Hassman, Fred A. 2,779,250.

Cincinnati Tool Co., The: *See*—
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Claessens, Carolus P. D. Dental mirror. 2,779,100, 1–29–57, Cl. 32—69.

Clapp, Melvin C.: *See*—
Rieppel, Perry J., Clapp, and Evans. 2,779,086.

Clark, Catherine: *See*—
Corper, Harry J., and Clark. 2,779,332.

Clark, Clarence E. Golf club cover. 2,779,374, 1–29–57, Cl. 150—52.

Clark, Murray P., and E. Anderson, to Electrolux Corp. Method of and apparatus for manufacturing vacuum cleaner dust containers. 2,779,255, 1–29–57, Cl. 93—8.

Clark, Roscoe C., Jr., to Stanolind Oil and Gas Co. Treating formations with solid forming liquids. 2,779,416, 1–29–57, Cl. 166—30.

Clark, Roscoe C., Jr., and G. C. Howard, to Stanolind Oil and Gas Co. Plugging well casing perforations. 2,779,417, 1–29–57, Cl. 166—31.

Clarke, William B., H. L. Hunter, and F. Santucci, to Rockwell Spring and Axle Co. Feeding apparatus. 2,779,490, 1–29–57, Cl. 214—91.

Clarostat Mfg. Co., Inc.: *See*—
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Clary, Frank A., Jr. Demolition firing device. 2,779,276, 1–29–57, Cl. 102—16.

Cleveland Electrical Equipment Co., Inc.: *See*—
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Cleveland Pneumatic Tool Co., The: *See*—
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Hogan, Walter H. 2,779,536.
Hogan, Walter H. 2,779,645.

Clipper Mfg. Co.: *See*—
Harris, Robert R., and Klinge. 2,779,426.

Closson, Rex D.: *See*—
Ligett, Waldo B., Wolf, and Closson. 2,779,704.

Cluwen, Johannes M.: *See*—
Reynst, Maximillien F., and Cluwen. 2,779,885.

Clymer, Joseph D.: *See*—
Wright, George W., Jauch, and Clymer. 2,779,503.

Coast Wire Co.: *See*—
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Cohen, William S.: *See*—
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Costerier, Frederik, to Hartford National Bank and Trust Co., as trustee. Self-contained velocity modulator oscillator. 2,779,892, 1–29–57, Cl. 315—5.

Coffey, Irven E., to ACF Industries, Inc. Fuel pump dome structure. 2,779,353, 1–29–57, Cl. 138—26.

Coggburn, Harley L. Adjustable jaw plier type jar opener. 2,779,224, 1–29–57, Cl. 81—3.44.

Cohen, Joseph, and E. D. Besser. Propellant powder and process for making same. 2,779,288, 1–29–57, Cl. 102—98.

Cohen, William. Garment bag frame. 2,779,479, 1–29–57, Cl. 211—119.

Cole, Edward L., and W. E. Skeiton, to The Texas Co. Process for improving lubricating oils by hydrorefining in a first stage and then hydrofinishing under milder conditions. 2,779,713, 1–29–57, Cl. 196—35.

Cole, Edward N., and E. J. Naudzius, to General Motors Corp. Fuel tank and fitting. 2,779,498, 1–29–57, Cl. 220—86.

Coleman, John H., W. Hayden, Jr., and C. J. O'Keefe, to The Norwich Pharmacal Co. Process of preparing 2-semicarbazidoacetic acid. 2,779,786, 1–29–57, Cl. 260—534.

Colgate-Palmolive Co.: *See*—
Russell, Kenneth L., and Nelson. 2,779,708.

Collar, Lynn H. Machine for grinding and polishing gem facets. 2,779,138, 1–29–57, Cl. 51—124.

Collins, Joseph L., to Aerovox Corp. Electrical capacitor. 2,779,813, 1–29–57, Cl. 174—52.

Collins Radio Co.: *See*—
Gerks, Irvin H. 2,779,869.

Color Television Inc.: *See*—
Stahl, Robert J. 2,779,817.

Colton, Arthur, Co.: *See*—
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Columbia-Southern Chemical Corp.: *See*—
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Columbian Carbon Co.: *See*—
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Fassotte, Adolphe D. H. L. 2,779,671.

Compagnie Internationale des Pieux Armes Frankignoul, Societe Anonyme: *See*—
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Concentro-Drive Co., Inc., The: *See*—
Black, Theodore R. 2,779,205.

Conitech, Ltd.: *See*—
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Conord, André, to Societe Moderne d'Appareils Menagers Conord. Mechanical coupling means for the driving of a secondary appliance. 2,779,445, 1–29–57, Cl. 192—.02.

Conrad, Wilbur. Apparatus for making, sizing and electrically treating a wire coil. 2,779,860, 1–29–57, Cl. 219—153.

Container Corp. of America: *See*—
Chidsey, Francis A., Jr. 2,779,499.

Continental Oil Co.: *See*—
Brown, Jack L., and Landers. 2,779,735.
Sharrah, Marion L. 2,779,784.

Cook, Raymond M. Container operable as bellows to dispense dust. 2,779,126, 1–29–57, Cl. 43—146.

Copelin, Harry B., and A. Sledd, to E. I. du Pont de Nemours and Co. Stabilization of pyrrole. 2,779,765, 1–29–57, Cl. 260—313.

Copelin, Harry B., and G. B. Crane, to E. I. du Pont de Nemours & Co. Cyanidation catalysts. 2,779,781, 1–29–57, Cl. 260—465.8.

Corey, Edward A., Jr. Golf ball warmer. 2,779,578, 1–29–57, Cl. 263—5.

Cornell, Ernest R., to E. I. du Pont de Nemours and Co. Determination of solids in liquids. 2,779,189, 1–29–57, Cl. 73—61.

Corning Glass Works: *See*—
Hood, Harrison P., and Stookey. 2,779,136.
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Coty, Inc.: *See*—
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Couch, George R., and W. E. Mooz, to National Lead Co. Method for treating titanium metal. 2,779,727, 1–29–57, Cl. 204—146.

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Stovall, John R., Jr., Lawrie, and Craig. 2,779,217.

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Higging, William A., Norman, and Craig. 2,779,787.

Crane, George B.: *See*—
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Cranz, J. M., Co., Inc.: *See*—
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Creed, Murrel L. Pump plunger ring and spacer. 2,779,646, 1–29–57, Cl. 309—32.

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Kamin, George W. 2,779,326.

Crisinger, Woodrow W., to North Electric Co. Switch member. 2,779,900, 1–29–57, Cl. 317—177.

Croce, Santy M., to Coty, Inc. Atomizer construction. 2,779,628, 1–29–57, Cl. 299—88.

Cross, James M., to General Aniline & Film Corp. Water-soluble compositions containing water-insoluble organic amines. 2,779,741, 1–29–57, Cl. 252—357.

Crossan, Jesse R., to The Firestone Tire & Rubber Co. Pneumatic tire. 2,779,381, 1–29–57, Cl. 152—342.

Crouch, Willie W., and L. D. Goodhue, to Phillips Petroleum Co. Fungicidal mercury tertiary butyl mercaptide compositions and method of applying the same. 2,779,703, 1–29–57, Cl. 167—22.

Crown Zellerbach Corp.: *See*—
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Csorgo, Alexander. Folding camp chair. 2,779,394, 1–29–57, Cl. 155—147.

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Cunningham, Ronald L. Automatic control for sound reproducing equipment. 2,779,825, 1–29–57, Cl. 179—100.1.

Cupples, Joseph. Ship hull bottom plating having integral bent back reinforcement. 2,779,303, 1–29–57, Cl. 114—79.

Curlett, John, to Gurries Mfg. Co. Unloading valve. 2,779,346, 1–29–57, Cl. 137—108.

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Curtiss-Wright Corp., Marquette Metal Products Division: *See*—
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Cushman, Maurice E., to Curtiss-Wright Corp. Propeller with oil cooler. 2,779,423, 1–29–57, Cl. 170—160.23.

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Göschel, Karl-Heinz R. 2,779,319.
Göschel, Karl-Heinz R., and Grözinger. 2,779,320.

Dale, Glenn H., and R. O. Shelton, to Phillips Petroleum Co. Extraction process. 2,779,709, 1–29–57, Cl. 196—14.19.

Dalton, Swanton D., to Socony Mobil Oil Co., Inc. Method of distilling a high boiling hydrocarbon oil for use as a feed in catalytic cracking. 2,779,717, 1–29–57, Cl. 196—52.

Daniels, Rupert S., and A. J. Mostello, to Union Carbide and Carbon Corp. Epoxy resin modified phenol resin abrasive. 2,779,668, 1–29–57, Cl. 51—298.

Danielson, Henry C., to Lockheed Aircraft Corp. Wing flap actuating mechanism. 2,779,555, 1–29–57, Cl. 244—42.

Darlington, Sidney, to Bell Telephone Laboratories, Inc. Multiple code wheel analogue-digital translator. 2,779,539, 1–29–57, Cl. 235—61.

Dassetto, Paolo. Apparatus for spraying mortar, cementitious material and the like. 2,779,626, 1–29–57, Cl. 299—86.

Datamatic Corp.: *See*—
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Daunoras, William J. Ignition systems for internal combustion engines. 2,779,878, 1–29–57, Cl. 307—10.

Davidson, Gareth M., to American Bosch Arma Corp. Transistor test set. 2,779,922, 1–29–57, Cl. 324—158.

Davidson, John T., to The Standard Register Co. Imprinter. 2,779,272, 1–29–57, Cl. 101—378.

Davis, Donald M., to Hi-Jac Corp. Coaster for drinking glasses and the like. 2,779,495, 1–29–57, Cl. 215—100.5.

Davis, Elwood R., to Harrington & Richardson, Inc. Saw set. 2,779,215, 1–29–57, Cl. 76—65.

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Despard, Victor R., to Paas & Seymour, Inc. Turn knob switch with push-in terminals. 2,779,828, 1–29–57, Cl. 200—6.

Despins, Jay E. Device for use in making comb frames and mounting foundation therein. 2,779,365, 1–29–57, Cl. 144—288.

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Di Trapani, Frank. Steak broiler. 2,779,266, 1–29–57, Cl. 99—425.

Doane, Harry C., to General Motors Corp. Refrigerating apparatus for an automobile. 2,779,164, 1–29–57, Cl. 62—6.

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Dodge, Russell A., and J. L. York, to the United States of America as represented by the Secretary of the Air Force. Photographic analysis of sprays. 2,779,233, 1–29–57, Cl. 88—14.

Doerfner, William H., to General Motors Corp. Ball nut screw assembly. 2,779,206, 1–29–57, Cl. 74—459.

Doerner, Ernest H., to Cummins-Chicago Corp. Feeder for checks and like paper. 2,779,593, 1–29–57, Cl. 271—89.

Doherty, William H., to Bell Telephone Laboratories, Inc. Electrical conductors having transposed conducting elements. 2,779,814, 1–29–57, Cl. 174—102.

Dolza, John, and H. F. Pease, to General Motors Corp. Engine fuel controller. 2,779,422, 1–29–57, Cl. 170—135.74.

Doolittle, Howard D., to Machlett Laboratories, Inc. Cavity resonator device. 2,779,895, 1–29–57, Cl. 315—43.

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Drodofsky, Martin, to C. Zeiss. Device for determining small inclinations from the vertical or horizontal. 2,779,231, 1–29–57, Cl. 88—2.4.

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Dungan, Richard T. Control for non-hypergolic liquid propellant rocket engines. 2,779,158, 1–29–57, Cl. 60—35.6.

Dunkelman, Robert L., to General Electric Co. Audible signalling means for clothes dryer lint traps. 2,779,305, 1–29–57, Cl. 116—112.

Dunn, Harry L., to International Business Machines Corp. Electroscopic toner metering device. 2,779,306, 1–29–57, Cl. 118—303.

Dunn, Raymond J., Jr., and O. L. Wright, Jr., to The Hartford Special Machinery Co. Universal drilling machine. 2,779,220, 1–29–57, Cl. 77—64.

Dunning, John W., A. K. Moses, Jr., and M. J. Toth, to International Basic Economy Corp. High velocity film heat exchanger. 2,779,724, 1–29–57, Cl. 202—236.

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Durant, Lyndon A., to General Patent Corp. Step-up mechanisms. 2,779,200, 1–29–57, Cl. 74—128.

Durham, James D., H. Otte, and D. B. Neal. Ticket holder. 2,779,115, 1–29–57, Cl. 40—17.

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Eaton, Edward N. Lip and mouth adjuster. 2,779,083, 1–29–57, Cl. 27—21.

Eckler, Norman H., E. W. Jacobson, and B. M. Wedner, to Gulf Research & Development Co. Material handling apparatus. 2,779,485, 1–29–57, Cl. 214—17.

Edelen, James L., to ACF Industries, Inc. Shaft and plate assembly and method of assembling the same. 2,779,612, 1–29–57, Cl. 287—20.2.

Edgerton, Roy G. Drill depth stop. 2,779,218, 1–29–57, Cl. 77—55.

Edvar, Torsten F. A., to Selas Corp. of America. Strip cooling tower. 2,779,584, 1–29–57, Cl. 266—3.

Edwards, Ray C. Apparatus for making heat exchange tubes. 2,779,222, 1–29–57, Cl. 80—12.

Eichner, Ferdinand R., to General Motors Corp. Package rack with vehicle illuminating means. 2,779,862, 1–29–57, Cl. 240—7.1.

Eichner, Ferdinand R., to General Motors Corp. Light rail. 2,779,864, 1–29–57, Cl. 240—7.1.

Eisenkraft, Bernard J. Electromechanical atomizer. 2,779,623, 1–29–57, Cl. 299—1.

Eisler, Charles. Tube shrinking machine. 2,779,135, 1–29–57, Cl. 49—7.

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Ellis, Samuel B. Voltage regulating circuit. 2,779,897, 1–29–57, Cl. 315—151.
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Embree, John M., to Minneapolis-Honeywell Regulator Co. Pressure compensated seal. 2,779,197, 1–29–57, Cl. 74—18.1.
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Ensinger, Earl H. Hopper conveyor. 2,779,508, 1–29–57, Cl. 222—178.
Ensley, Horton H. Aerial roundabout toy. 2,779,595, 1–29–57, Cl. 272—31.
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Evangelou, John. Hair waving and curling device. 2,779,343, 1–29–57, Cl. 132—41.
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Faust, Otto. Luminous gas discharge tube more particularly for advertising purposes. 2,779,889, 1–29–57, Cl. 313—109.5.
Fawcett, George R. Automatically operated variable shotgun choke. 2,779,119, 1–29–57, Cl. 42—79.
Febbraro, Mario. Container having sediment traps. 2,779,472, 1–29–57, Cl. 210—57.
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Herbruggen, Heinrich J. B. 2,779,074.
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Fennell, Francis L., to E. I. du Pont de Nemours and Co. Bleaching of kraft pulp. 2,779,656, 1–29–57, Cl. 8—106.
Ferman, Harry. Motor vehicle guide. 2,779,863, 1–29–57, Cl. 240—7.1.
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Fish, Bernard, to Interstate Container Corp. Cartons for garments. 2,779,460, 1–29–57, Cl. 206—7.
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Forssell, Eric G., to W. H. Miner, Inc. Draft gear for railway draft rigging. 2,779,480, 1–29–57, Cl. 213—45.
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Frey, Wolfgang, to Saul & Co., as nominee of Fidelity Union Trust Co. Green substantive dyes of the anthraquinone series. 2,779,772, 1–29–57, Cl. 260—368.
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Furniss, Loree E., to The Buckeye Steel Castings Co. Carrier for railway couplers. 2,779,482, 1–29–57, Cl. 213—61.
Furniss, Loree E., to The Buckeye Steel Castings Co. Carrier assembly for railway couplers. 2,779,483, 1–29–57, Cl. 213—61.
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Gajda, Leo P., to Arthur Colton Co. Ampoule filling apparatus. 2,779,506, 1–29–57, Cl. 222—108.
Gallagher, Cornelius A., to Servo Corp. of America. Automatic beam-centering circuit for cathode-ray devices. 2,779,894, 1–29–57, Cl. 315—24.
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Gardes, Alfred W., to Houdaille Industries, Inc. Automatic switch control. 2,779,837, 1–29–57, Cl. 200—80.
Garland, Theodore F. Cutter and feeder mechanism for blower type snowplows. 2,779,112, 1–29–57, Cl. 37—43.
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Geppert, Donovan V., to Motorola, Inc. Semi-conductor unit. 2,779,903, 1–29–57, Cl. 317—235.
Gerard, Edward F. Looping toy plane. 2,779,130, 1–29–57, Cl. 46—58.
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Goschel, Karl-Heinz R., to Daimler-Benz Aktiengesellschaft. Internal combustion engine. 2,779,319, 1–29–57, Cl. 123—32.
Göschel, Karl-Heinz R., and H. R. Grözinger, to Daimler-Benz Aktiengesellschaft. Internal combustion engine. 2,779,320, 1–29–57, Cl. 123—32.
Goss, Norman P. Continuous metal-casting apparatus. 2,779,072, 1–29–57, Cl. 22—57.2.
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Göschel, Karl-Heinz R., and Grözinger. 2,779,320.
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Albrecht, David E., and Grubich. 2,779,412.
Guba, Robert F.: *See*—
Altieri, Joseph, and Guba. 2,779,918.
Guggenheim Brothers (1949): *See*—
Robell, John. 2,779,660.
Robell, John. 2,779,661.
Gulf Oil Corp.: *See*—
Robertson, Melborne L. 2,779,348.
Gulf Research & Development Co.: *See*—
Capell, Robert G., Karr, and Weatherford. 2,779,718.
Eckler, Norman H., Jacobson, and Wedner. 2,779,485.
Emmett, Paul H. 2,779,742.
Gwynn, Bernard H. 2,779,795.
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Gundlach, G. P., & Co., Inc.: *See*—
Gundlach, George P., and Lampe. 2,779,118.
Gundlach, George P., and L. B. Lampe, to G. P. Gundlach & Co., Inc. Attachment for illuminated advertising sign. 2,779,118, 1-29-57, Cl. 40—130.
Gurries Mfg. Co.: *See*—
Curlett, John. 2,779,346.
Gwynn, Bernard H., to Gulf Research & Development Co. Hydroformylation of olefins; temperature stabilization. 2,779,795, 1-29-57, Cl. 260—604.
Gysin, Hans, and A. Margot, to J. R. Geigy, A. G. Trichloromethane sulphenic acid derivatives. 2,779,788, 1-29-57, Cl. 260—556.
Gysin, Hans, and A. Margot, to J. R. Geigy, A. G. Trichloromethane sulphenic acid derivatives and their use in the combatting of fungi. 2,779,941, 1-29-57, Cl. 260—556.
Haehnel, Herbert E., to Textile Machine Works. Catchbar mechanism for knitting machines. 2,779,177, 1-29-57, Cl. 66—110.
Hafer, Giles P., to Western Electric Co., Inc. Strand takeup distributor. 2,779,544, 1-29-57, Cl. 242—25.
Hagadorn, Elmore W., to Finishine Laboratories, Inc. Electrically heated tool. 2,779,853, 1-29-57, Cl. 219—27.
Hagen, Peter A. Wire puzzle. 2,779,600, 1-29-57, Cl. 273—158.
Hamilton, Elmer W., to The Froedtert Corp. Method of treating cooked food products. 2,779,678, 1-29-57, Cl. 99—100.
Hamilton, Kenneth D. Bird feeder with perch support therefor. 2,779,311, 1-29-57, Cl. 119—51.
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Hamilton, Wallace, to The Cleveland Pneumatic Tool Co. Multiple nut assembly with load equalizer. 2,779,207, 1-29-57, Cl. 74—459.
Hamlin, Kenneth E., Jr., to Abbott Laboratories. 1-cyclobutyl-1-ethynyl-ethanol-1. 2,779,799, 1-29-57, Cl. 260—617.
Hamm, Douglas W., to Muskegon Piston Ring Co. Piston ring. 2,779,647, 1-29-57, Cl. 309—44.
Hammond, Grant P. Gate lock. 2,779,617, 1-29-57, Cl. 292—288.
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Sigardson, Chris. 2,779,454.
Harlan, James T., Jr., to Shell Development Co. Synthesis of oxygenated compounds. 2,779,802, 1-29-57, Cl. 260—638.
Harrill, Marion O., Jr.: *See*—
Furr, Beecher Z. and R. C., and Harrill. 2,779,262.
Harrington & Richardson, Inc.: *See*—
Davis, Elwood R. 2,779,215.
Harris, Bruce G. Apparatus for recovering and cleaning the residual sand content from the tailings of gravel washing plants. 2,779,469, 1-29-57, Cl. 209—211.
Harris, Francis D. Vehicle mounted handling device for pallet stacks. 2,779,487, 1-29-57, Cl. 214—75.
Harris, Robert R., and C. W. Klinge, to Clipper Mfg. Co. Drive unit mounting and controls for wheels of cutting machines. 2,779,426, 1-29-57, Cl. 180—74.
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Coeterier, Frederik. 2,779,892.
Jonker, John L. H. 2,779,893.
Reynst, Maximilien F., and Cluwen. 2,779,885.
Richards, John H. 2,779,846.
Teves, Marten C., Tol, and Van der Linden. 2,779,685.
Hartford Special Machinery Co., The: *See*—
Dunn, Raymond J., Jr., and Wright. 2,779,220.
Hartman, Joseph A., to American Box Board Co. Feed hopper. 2,779,592, 1-29-57, Cl. 271—4.
Harvey, Hughie B. Gauge line wiper and plumb bob case. 2,779,045, 1-29-57, Cl. 15—256.5.
Harwood, Robert H. Assembly jig for package unit parts boards. 2,779,091, 1-29-57, Cl. 29—288.
Harwood, Robert H., to the United States of America as represented by the Secretary of the Navy. Sonar simulator. 2,779,106, 1-29-57, Cl. 35—10.4.
Hasselbusch, Harold E., Jr.: *See*—
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Hassman, Fred A., to The Cincinnati Milling Machine Co. Automatic control mechanism. 2,779,250, 1-29-57, Cl. 90—21.
Hauck, Leon P., and G. A. Scheidt, to Western Electric Co., Inc. Continuous strand reeling apparatus. 2,779,545, 1-29-57, Cl. 242—25.
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Thurston, Ernest B. 2,779,438.
Hausser, Will N. Self-retaining cattle trocar. 2,779,335, 1-29-57, Cl. 128—347.
Havens, Byron L.: *See*—
Schreiner, Kenneth E., and Havens. 2,779,940.
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Chartier, Edmund G., and Hayden. 2,779,150.
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Coleman, John H., Hayden, and O'Keefe. 2,779,786.
Hayes, Jerry R. Can opener and spout. 2,779,504, 1-29-57, Cl. 222—83.5.
Hayes, Robert A., to The Firestone Tire & Rubber Co. Production of linear polyesters of alkylene dicarboxylic acids. 2,779,783, 1-29-57, Cl. 260—485.
Helsenberg, Erwin, and E. Pirot, to Vereinigte Glanzstoff Fabriken Aktiengesellschaft. Method of spinning solutions of polyacrylonitrile or mixed polymers thereof. 2,779,746, 1-29-57, Cl. 260—32.6.
Helbling, Anton E. Electric branding and dehorning iron. 2,779,854, 1-29-57, Cl. 219—30.
Heller, George L., to Columbian Carbon Co. Manufacture of carbon black. 2,779,665, 1-29-57, Cl. 23—209.8.
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Hemmings, Emile A., and G. Adamec; said Adamec assor. to said Hemmings. Compact construction. 2,779,344, 1-29-57, Cl. 132—83.
Henderson, Wayne L. R., to General Electric Co. Weathertight ballast. 2,779,496, 1-29-57, Cl. 220—3.92.
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Pocoski, Edward J., and Hennessy. 2,779,098.
Henney, Charles F.: *See*—
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Henrich, Richard E., to Houdaille Industries, Inc. Tuned rubber crankshaft vibration damper. 2,779,211, 1-29-57, Cl. 74—574.
Henry, Elliott A., and A. N. Paul, to Sperry Products, Inc. Amplitude comparison circuit. 2,779,870, 1-29-57, Cl. 250—22.
Heraeus, W. C., G. m. b. H.: *See*—
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Herbruggen, Heinrich J. B., to Federal Foundry Supply Co. Control system for sand blowing apparatus. 2,779,071, 1-29-57, Cl. 22—36.
Herbruggen, Heinrich J. B., to The Federal Foundry Supply Co. Method of blowing sand into sand molds. 2,779,074, 1-29-57, Cl. 22—193.
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Jakimiuk, Wslewolod J., and Herell. 2,779,557.
Herell, Georges J. B. V., and W. J. Jakimiuk, to Societe Nationale de Constructions Aeronautiques du Sud-Est. Fuselage of aerodynes. 2,779,558, 1-29-57, Cl. 244—119.
Hermeyer, Edward J., and W. E. Strippgen. Clipboard illuminator. 2,779,865, 1-29-57, Cl. 240—10.67.
Herschmann, Otto. Root's blowers, in particular for suction purposes. 2,779,532, 1-29-57, Cl. 230—141.
Hersey, Millar P., Jr., to Minneapolis-Honeywell Regulator Co. Method and apparatus for measuring speed. 2,779,931, 1-29-57, Cl. 340—3.
Hess, Alexander M. Drapery pleating device. 2,779,404, 1-29-57, Cl. 160—348.
Hess, Alexander M. Pleating strip. 2,779,405, 1-29-57, Cl. 160—348.
Hess, Theophil A., to Duro Metal Products Co. Safety lock for cutter head of jointer. 2,779,362, 1-29-57, Cl. 144—114.
Hewes, Ralph W., to General Railway Signal Co. Casing closure and latching means. 2,779,588, 1-29-57, Cl. 268—72.
Higgins, William A., G. R. Norman, and W. G. Craig, to The Lubrizol Corp. Preparation of aromatic phosphinous chlorides. 2,779,787, 1-29-57, Cl. 260—543.
Hi-Jac Corp.: *See*—
Davis, Donald M. 2,779,495.
Hilden, Dale G., 30% to K. L. Musgrave and J. W. Perry. Child's bed. 2,779,029, 1-29-57, Cl. 5—11.
Hill, Eldon J., to The Burdick Co. Method of making advertising signs. 2,779,269, 1-29-57, Cl. 101—129.
Hill, Eldon J., to The Burdick Co. Method of making advertising signs. 2,779,270, 1-29-57, Cl. 101—129.
Hilpman, Paul, to Mergenthaler Linotype Co. Typographical composing machine. 2,779,456, 1-29-57, Cl. 199—30.
Himoff, Jack, to Himoff Machine Co. Inc. Machine for and method of making cigarettes. 2,779,338, 1-29-57, Cl. 131—72.
Himoff Machine Co. Inc.: *See*—
Himoff, Jack. 2,779,338.

Hinegardner, Wilbie S., and J. W. Sprauer, to E. I. du Pont de Nemours & Co. Purification of methylnaphthalenes with peracids. 2,779,807, 1-29-57, Cl. 260—674.
Hirschmann, Ralph F., N. L. Wendler, and W. V. Ruyle, to Merck & Co., Inc. 3β-oxy-Δ⁵-allopregnenedione-11,20 and process. 2,779,774, 1-29-57, Cl. 260—397.45.
Hoag, Roderick W. Single use flexible container device. 2,779,462, 1-29-57, Cl. 206—46.
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Rosenwald, Robert H., and Hoatson. 2,779,789.
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Hoeltje, Fred W., to General Motors Corp. Centrifugal breather. 2,779,435, 1-29-57, Cl. 183—77.
Hoeppner, Conrad H., to Datamatic Corp. Machine control record. 2,779,540, 1-29-57, Cl. 235—61.12.
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Isler, Otto, Montavon, Rüegg, and Zeller. 2,779,793.
Hogan, Walter H., to The Cleveland Pneumatic Tool Co. Hydraulic steering mechanism for aircraft landing gear. 2,779,556, 1-29-57, Cl. 244—50.
Hogan, Walter H., to The Cleveland Pneumatic Tool Co. Double acting high pressure seal. 2,779,645, 1-29-57, Cl. 309—23.
Hogeman, Hans, to American Bosch Arma Corp. Fuel injection apparatus for V type engines. 2,779,289, 1-29-57, Cl. 103—2.
Holder, Clinton H., R. L. Weeks, and W. T. Knox, Jr., to Esso Research and Engineering Co. Low sulfur, mineral base lubricating oils and methods for using same. 2,779,317, 1-29-57, Cl. 123—1.
Hollman, Peter I., to Geo. D. Roper Corp. Automatic lighting and control means. 2,779,400, 1-29-57, Cl. 158—133.
Holloway, John H., to Murphy Diesel Co. Vibration dampener. 2,779,210, 1-29-57, Cl. 74—574.
Hollwitz, Ludwig A. Split chase lock-up bar. 2,779,273, 1-29-57, Cl. 101—391.
Holm, Roy T., and C. W. Smith, to Shell Development Co. Process for the production of poly(hydroxyaryl) alkane compounds and new products thereof. 2,779,800, 1-29-57, Cl. 260—619.
Holman, Alexander H., 35% to B. D. Wood. Tumbling toys. 2,779,127, 1-29-57, Cl. 46—1.
Holman, Clarence J., to Alco Refrigeration Sales & Service, Inc. Housing for air conditioning units. 2,779,572, 1-29-57, Cl. 257—9.
Holmes Electric Protective Co.: *See*—
Loudon, Clifford L., and Riker. 2,779,935.
Loudon, Clifford L., and Riker. 2,779,936.
Homan, Jan D. H., to Organon, Inc. Insulin extraction. 2,779,700, 1-29-57, Cl. 167—75.
Hood, Harrison P., and S. D. Stookey, to Corning Glass Works. Method of making a glass article of high mechanical strength and article made thereby. 2,779,136, 1-29-57, Cl. 49—79.
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Robitschek, Paul, and Bean. 2,779,701.
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Hopper, Malcolm M., and A. E. Lepley, to Thompson Products, Inc. Conical pendulum speed control. 2,779,582, 1-29-57, Cl. 264—9.
Horbinski, Richard D. Thermocouple assembly. 2,779,810, 1-29-57, Cl. 136—4.
Hornbostel, Lloyd, and A. A. Neese, to Beloit Iron Works. Paper forming machine. 2,779,254, 11-29-57, Cl. 92—43.
Hose Accessories Co.: *See*—
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Hosking, Oakley W., to Monroe Bag Valve Corp. Tire-curing bag and method of making the same. 2,779,061, 1-29-57, Cl. 18—45.
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Houdaille Industries, Inc.: *See*—
Gardes, Alfred W. 2,779,837.
Henrich, Richard E. 2,779,211.
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Houghton, Daniel E., to the United States of America as represented by the Secretary of the Army. Cam closure. 2,779,616, 1-29-57, Cl. 292—241.
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Roper, Winston R. 2,779,570.
Houtman, Thomas, Jr., T. E. Zurawic, and J. S. Spriggs, to The Dow Chemical Co. Method of drying butylene oxides. 2,779,721, 1-29-57, Cl. 202—42.
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Howard, George C., to Stanolind Oil and Gas Co. Plugging formations with hot solutions. 2,779,415, 1-29-57, Cl. 166—30.
Howard, Wellington R., and W. Margulis, to the United States of America as represented by the Secretary of the Army. Elastic action cannon bore scavenger. 2,779,241, 1-29-57, Cl. 89—1.
Howell, Joseph C. Arch support for the human foot. 2,779,110, 1-29-57, Cl. 36—71.
Howland, Louis H., to United States Rubber Co. Wax-coated synthetic rubber crumb coagula for incorporation in asphalt. 2,779,745, 1-29-57, Cl. 260—28.5.
Huard, George R., Jr., to Motorola, Inc. Translator unit. 2,779,901, 1-29-57, Cl. 317—235.
Huber, Robert, to Societe d'Etudes et de Participations, Eau, Gaz, Electricite, Energie, S. A. Adjusting devices for free piston machines. 2,779,156, 1-29-57, Cl. 60—13.
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Huck, William F. 2,779,591.
Huck, William F., to Huck Co. Device for automatically maintaining side registry in traveling webs. 2,779,591, 1-29-57, Cl. 271—2.6.
Huenier, Hans, to Deutsche Gold-und Silber-Scheideanstalt vormals Roessler. Process for the production of reaction products of cyanuric chloride with ammonia in the gas phase. 2,779,763, 1-29-57, Cl. 260—249.7.
Huffman, Max N., to Nepera Chemical Co., Inc. Steroid 3, 16α-diols and process. 2,779,773, 1-29-57, Cl. 260—397.5.
Hunsdorf, William P., to Cleveland Electric Equipment Co., Inc. Armature winding method. 2,779,886, 1-29-57, Cl. 310—265.
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Hurley, Wilson P. Mechanism for converting linear to rotary motion. 2,779,201, 1-29-57, Cl. 74—129.
Husley, Thomas C., III, and N. G. Kling, to Conitech, Ltd. Artificial respiration apparatus. 2,779,329, 1-29-57, Cl. 128—30.
Hutchins, Charles C., and B. C. Seaman, to Hutchins Electric Co., Inc. Electric motor. 2,779,907, 1-29-57, Cl. 318—220.
Hutchins Electric Co., Inc.: *See*—
Hutchins, Charles C., and Seaman. 2,779,907.
Huwood Mining Machinery Ltd.: *See*—
Bainbridge, Fetherstone. 2,779,639.
Hyde, James F., and G. J. Kookootsedes, to Dow Corning Corp. Method of preparing siloxane fluids. 2,779,776, 1-29-57, Cl. 260—448.2.
Hyde, Laurin E. Mold for making imitation article. 2,779,058, 1-29-57, Cl. 18—27.
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Keith, Percival C. 2,779,714.
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Yabuta, Teijiro, and Ikeda. 2,779,759.
Illinois Tool Works: *See*—
Jahn, William K. 2,779,229.
Poupitch, Ougljesa J. 2,779,376.
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Imperial Chemical Industries Ltd.: *See*—
Manning, William R. D. 2,779,295.
Inflico Inc.: *See*—
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International Basic Economy Corp.: *See*—
Dunning, John W., Moses, and Toth. 2,779,724.
International Business Machines Corp.: *See*—
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Seamy, Stephen A., and Peters. 2,779,929.
International Harvester Co.: *See*—
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International Resistance Co.: *See*—
Moser, Arthur J 2,779,845.
International Telephone and Telegraph Corp.: *See*—
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Interstate Container Corp.: *See*—
Fish, Bernard. 2,779,460.
Intrusion-Prepakt, Inc.: *See*—
Turzillo, Lee, and McKinzie. 2,779,575.
Isbell, Horace S., and R. Schaffer, to the United States of America as represented by the Secretary of Commerce. Lithium maltobinate and process for making same. 2,779,760, 1-29-57, Cl. 260—210.
Ishikawa, Kazou. Low power constant torque motor. 2,779,882, 1-29-57, Cl. 310—40.
Isler, Otto, M. Montavon, R. Rüegg, and P. Zeller, to Hoffmann-La Roche Inc. Process for the manufacture of a polyene aldehyde. 2,779,792, 1-29-57, Cl. 260—601.
Isler, Otto, M. Montavon, R. Rüegg, and P. Zeller, to Hoffmann-La Roche Inc. Process for the manufacture of a polyene aldehyde. 2,779,793, 1-29-57, Cl. 260—601.
Ito, Hiroshi, to Canon Camera Co., Inc. Four component high aperture wide angle objective lens. 2,779,239, 1-29-57, Cl. 88—57.
Jackson, William R. Multiple unit V-belt sheave. 2,779,202. 1-29-57, Cl. 74—230.3.
Jacobs, James W., to General Motors Corp. Vehicle refrigerating apparatus. 2,779,163, 1-29-57, Cl. 62—4.
Jacobs, James W., and R. E. Gould, to General Motors Corp. Refrigerating apparatus. 2,779,168, 1-29-57, Cl. 62—116.
Jacobson, Eugene W.: *See*—
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Jacobson, Max, and F. R. Greenbaum. Soluble cortisone and hydroxycortisone compositions. 2,779,707, 1-29-57, Cl. 167—77.
Jaffee, Robert I., H. R. Ogden, and D. J. Maykuth, to Rem-Cru Titanium, Inc. Ti-Sn-Al alloys with alpha, beta, and compound formers. 2,779,677, 1-29-57, Cl. 75—175.5.
Jahn, William K., to Illinois Tool Works. Blind sheet metal drive fastener having laterally deformable prong means. 2,779,229, 1-29-57, Cl. 85—11.
Jakimiuk, Wslewolod J.: *See*—
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Jakimiuk, Wslewolod J., and G. J. B. V. Herell, to Societe Nationale de Constructions Aeronautiques du Sud-Est. Aircraft launching carriage. 2,779,557, 1-29-57, Cl. 244—63.
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Jarvis, Cecil W.: *See*—
Trotter, Marvin, and Jarvis. 2,779,488.
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Jarvis, Philip L. 2,779,552.
Jarvis, Philip L., to Jarvis Mfg. Corp. Apparatus for equalizing tension in elastic ribbon. 2,779,552, 1-29-57, Cl. 242—153.
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Jarvis, Vernon D.: *See*—
Madany, George H. 2,779,537.

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Jedlick, Roland T. Machine for removing waste slugs from carton blanks. 2,779,257, 1-29-57, Cl. 93—36.

Jeffrey, Richard B., to McGraw Electric Co. Means for anchoring starts and/or finishes in coil windings. 2,779,928, 1-29-57, Cl. 336—192.

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Jendrassik, George. 2,779,530.

Jendrassik Developments Ltd.: *See*—
Jendrassik, George. 2,779,530.

Jendrassik, George, deceased: A. G. T. Boszormenyi and C. Jendrassik, executors, to Jendrassik Developments Ltd. End plate structures and machines equipped therewith. 2,779,530, 1-29-57, Cl. 230—69.

Jennings, Albert E., to Electric & Musical Industries, Ltd. Mounting of meshes in discharge devices. 2,779,887, 1-29-57, Cl. 313—66.

Jennings, Marvin D.: *See*—
Orelind, John R., and Jennings. 2,779,260.

Jensen, Erik H., to Westinghouse Electric Corp. Compressor unloaders. 2,779,528 1-29-57, Cl. 230—21.

Jensen, Homer: *See*—
Rumbaugh, Lynn H., and Jensen. 2,779,914.

Jensen, Julio T. Quick emptying means for tanks. 2,779,027, 1-29-57, Cl. 4—50.

Jergens, Andrew, Co., The: *See*—
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Johnson, Edwin H., to Jandor Inc. Apparatus for making finned tubing. 2,779,383, 1-29-57, Cl. 153—64.5.

Johnson, Gordon, Equipment Co.: *See*—
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Johnson, James W., to Blaw-Knox Co. Road construction machine. 2,779,258, 1-29-57, Cl. 94—46.

Johnson, Wallace M., and S. B. Williams, to General Electric Co. Transformer with five-leg core. 2,779,926, 1-29-57, Cl. 336—5.

Johnson, Walter L. Tool for removing and installing vehicle fans. 2,779,090, 1-29-57, Cl. 29—267.

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Jones, Arthur B., Jr., to The Hafnir Bearing Co. Bearing. 2,779,640, 1-29-57, Cl. 308—187.2.

Jones, Whitney W. Coin box fittings. 2,779,534, 1-29-57, Cl. 232—15.

Jones, Whitney W. Coin-collecting devices. 2,779,535, 1-29-57, Cl. 232—16.

Jonker, Johan L. H., to Hartford National Bank and Trust Co., as trustee. Device comprising an electric discharge tube having a concentrated electron beam. 2,779,893, 1-29-57, Cl. 315—12.

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Nilsson, Nils E., Rodnert, and Jonsson. 2,779,824.

Jorgensen, Roy C., to The Dow Chemical Co. Cathodic protection assembly. 2,779,729, 1-29-57, Cl. 204—197.

Kaiser, Herman S., to General Motors Corp. Latch mechanism. 2,779,615, 1-29-57, Cl. 292—221.

Kalamazoo Mfg. Co.: *See*—
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Kalinske, Anton A., to Infilco Inc. Support means. 2,779,733, 1-29-57, Cl. 210—16.

Kamin, George W., to Cribben and Sexton Co. Range flue structure. 2,779,326, 1-29-57, Cl. 126—21.

Kane, Ernest M. Explosion initiating device. 2,779,284, 1-29-57, Cl. 102—70.

Kane, John T., to Western Electric Co., Inc. Apparatus for forming articles. 2,779,221, 1-29-57, Cl. 78—17.

Karr, Clarence, Jr.: *See*—
Capell, Robert G., Karr, and Weatherford. 2,779,718.

Kastrinsky, Harry, to Kastrinsky Machine Co., Inc. Thread pulling device. 2,779,084, 1-29-57, Cl. 28—17.

Kastrinsky Machine Co., Inc.: *See*—
Kastrinsky, Harry. 2,779,084.

Kauffmann, William M., and H. W. Whiting, to Worthington Corp. Turbocharging system for internal combustion engines. 2,779,155, 1-29-57, Cl. 60—13.

Kebel, Arthur P. Dispensing apparatus. 2,779,514, 1-29-57, Cl. 222—394.

Keeble, William J., to Packers Supply Co. Ltd. Apparatus for tensioning binding strapping, wire or the like about a body. 2,779,566, 1-29-57, Cl. 254—79.

Keene, Leonard M.: *See*—
Myers, George L., De Walt, and Keene. 2,779,779.

Keith, Percival C. Gas generation. 2,779,667, 1-29-57, Cl. 48—196.

Keith, Percival C., to Hydrocarbon Research, Inc. Hydrocarbon reforming process. 2,779,714, 1-29-57, Cl. 196—50.

Keller, Charles. Umbrella runner cap. 2,779,345, 1-29-57, Cl. 135—28.

Keller, Henry A. Threshold. 2,779,070, 1-29-57, Cl. 20—64.

Keller, Theodore W., and C. W. Garvin, said Garvin assignor to said Keller. Anti-friction former shoes. 2,779,256, 1-29-57, Cl. 93—20.

Kelly, Earl M., and A. M. Kivari, to Process Engineers Inc. Sewage treatment. 2,779,730, 1-29-57, Cl. 210—2.

Kelly, Earl M., A. M. Kivari, and L. S. Farrell, to Process Engineers Inc. Pressure flotation. 2,779,731, 1-29-57, Cl. 210—3.

Kelsey, Cadwallader W. Soil stirring device. 2,779,259, 1-29-57, Cl. 97—43.

Ketchledge, Raymond W., to Bell Telephone Laboratories, Inc. Communication switching system employing gas tubes. 2,779,822, 1-29-57, Cl. 179—18.

Kibler, Richard W., to The Firestone Tire & Rubber Co. Process for preparing amine polysulfides. 2,779,761, 1-29-57, Cl. 260—247.1.

Kiefer, Karl, Machine Co., The: *See*—
Fechheimer, Paul R., and Rowekamp. 2,779,358.

Kiers, Lucas, to Hunter Packing Co. Method of making a bakery shortening. 2,779,679, 1-29-57, Cl. 99—123.

Kikuchi, Takefusa, to Taiyu Shoji Kubushiki-Kaisha. Hand truck for drums. 2,779,494, 1-29-57, Cl. 214—650.

Kilner, William N., to Metropolitan-Vickers Electrical Co. Ltd. Dynamo-electric machines. 2,779,884, 1-29-57, Cl. 310—64.

Kimbro, Albert M., and L. J. Tunkis, to South Texas Truck Equipment Co., Inc. Wheel mountings for trailers and the like. 2,779,602, 1-29-57, Cl. 280—43.

King, Frank S., and W. S. Coben, to The Firestone Tire & Rubber Co. Tubeless tire. 2,779,380, 1-29-57, Cl. 152—341.

King, William R., and W. H. Rushford, to Phillips Petroleum Co. Recovery and classification of solids. 2,779,468, 1-29-57, Cl. 209—144.

Kinsel, Anthony: *See*—
Phillips, Joseph, and Kinsel. 2,779,710.

Kizzek, Roger A., to General Mills, Inc. Balloon and fitting for securing balloon ends. 2,779,554, 1-29-57, Cl. 244—31.

Kivari, Arthur M.: *See*—
Kelly, Earl M., and Kivari. 2,779,730.
Kelly, Earl M., Kivari, and Farrell. 2,779,731.

Klehr, Samuel. Brief bag. 2,779,371, 1-29-57, Cl. 150—1.6.

Klein, Norman E. Vehicle mounted tree and stump moving equipment. 2,779,486, 1-29-57, Cl. 214—75.

Kleiner, Helmut, and W. Lehmann, to Farbenfabriken Bayer Aktiengesellschaft. Printing paste and method of printing textiles therewith. 2,779,686, 1-29-57, Cl. 117—38.

Kllever, Waldo H., to Minneapolis-Honeywell Regulator Co. Graphical to digital indication converter. 2,779,655, 1-29-57, Cl. 346—44.

Klimkiewicz, Richard J., 50% to G. Barwidi. Multipurpose costume accessory. 2,779,523, 1-29-57, Cl. 224—28.

Kline, Richard M. Foot attachment for facilitating swimming. 2,779,077, 1-29-57, Cl. 24—191.

Kling, Nelson G.: *See*—
Husley, Thomas C., III, and Kling. 2,779,329.

Klinge, Clinton W.: *See*—
Harris, Robert R., and Klinge. 2,779,426.

Klinker, Henry D. Wheel mounting device. 2,779,630, 1-29-57, Cl. 301—9.

Klotz, Robert L., Jr., to Borg-Warner Corp. Apparatus for perforating well casings. 2,779,278, 1-29-57, Cl. 102—20.

Knabusch, Edward M., and E. J. Shoemaker, to La-Z-Boy Chair Co. Reclining chair. 2,779,391, 1-29-57, Cl. 155—106.

Knabusch, Edward M., and E. J. Shoemaker, to La-Z-Boy Chair Co. Reclining chair with extensible footrest. 2,779,392, 1-29-57, Cl. 155—106.

Knabusch, Edward M., and E. J. Shoemaker, to La-Z-Boy Chair Co. Reclining chair. 2,779,393, 1-29-57, Cl. 155—106.

Knapp, Charles A., to Dorr-Oliver Inc. Method of handling sludge in longitudinal settling tanks. 2,779,471, 1-29-57, Cl. 210—55.

Knauth, John P., and K. R. Lang, to Syracuse Machine Co., Inc. Wire feeding and straightening apparatus. 2,779,384, 1-29-57, Cl. 153—100.

Knoth, Frederick, Jr.: *See*—
Morway, Arnold J., Knoth, and Bartlett. 2,779,736.

Knowles, John H., to Dorr-Oliver Inc. Rotary liquid distributor of a reaction driven type for the treatment of waste liquids. 2,779,732, 1-29-57, Cl. 210—7.

Knox, Harold W., to The Firestone Tire & Rubber Co. Tire mold. 2,779,060, 1-29-57, Cl. 18—38.

Knox, William T., Jr.: *See*—
Holder, Clinton H., Weeks, and Knox. 2,779,317.

Koepke, Luetta L. Ladies' handbag or totebag. 2,779,373, 1-29-57, Cl. 150—28.

Koft, Emil, Jr., and J. W. Schick, to Socony Mobil Oil Co., Inc. Complex calcium salts of oxidized petroleum oils and process for preparing the same. 2,779,737, 1-29-57, Cl. 252—39.

Kohler, Harry L. Salvage wrecking tool. 2,779,567, 1-29-57, Cl. 254—131.

Kohslek, Donald J., to The Firestone Tire & Rubber Co. Pneumatic power actuated tubeless tire bead breaker. 2,779,397, 1-29-57, Cl. 157—1.1.

Koliman, Jack, and W. A. Beck, to Ekco Products Co. Bake pan covers. 2,779,497, 1-29-57, Cl. 220—23.2.

Kolpek, Robert A., to Automatic Electric Laboratories, Inc. Sensing and detecting circuits in a telegraph switching system. 2,779,816, 1-29-56, Cl. 178—2.

Koninklijke Machinefabriek Geba, Stork & Co. N. V.: *See*—
Van Wezel, Herman J. 2,779,473.
Van Wezel, Herman J. 2,779,474.

Kookootsedes, Gust J.: *See*—
Hyde, James F., and Kookootsedes. 2,779,776.

Koppenwallner, Georg, and A. Gantert, to Fortuna-Werke Spezialmaschinenfabrik A.-G. Speed control means for grinding machines or the like. 2,779,905, 1-29-57, Cl. 318—149.

Koppers Co., Inc.: *See*—
Portney, Phillip, and Vancura. 2,779,609.

Korber, Kurt, & Co. K. G.: *See*—
Pollmann, Max. 2,779,339.

Koski, George L. Pile cutting guide for chain saws. 2,779,359, 1-29-57, Cl. 143—32.

Koslov, Joseph, to Vitro Corp. of America. Decomposition of manganese nitrate solutions. 2,779,659, 1-29-57, Cl. 23—145.

Kowalski, Walter, to McGraw Electric Co. Equalized multiple high pressure contact. 2,779,844, 1-29-57, Cl. 200—170.

Kranz, William J., to Viko Furniture Corp. Collapsible leg structure for attachment to a table top and the like. 2,779,648, 1-29-57, Cl. 311—35.

Kruft Corp.: *See*—
Kruft, John B. 2,779,059.

Kruft, John B., to Kruft Corp. Apparatus for controlled deposition of material. 2,779,059, 1-29-57, Cl. 18—30.

Krummel, Frederick J.: *See*—
Turner, John L., and Krummel. 2,779,830.

Kullel, Nils E. G. Fuse for projectiles traversing gaseous and liquid mediums. 2,779,285, 1-29-57, Cl. 102—73.

Kuroda, Shigeyoshi, to Nippon Kokan K. K. (Nippon Steel Tube Co. Ltd.) Air preheater. 2,779,573, 1-29-57, Cl. 257—241.

Kuzmak, Paul B.: *See*—
Retz, William B., and Kuzmak. 2,779,447.

Laboratory Equipmnt Corp.: *See*—
Bennet, Eugene L. 2,779,581.

L'Air Liquide, Societe Anonyme pour l'Etude et l'Exploitation des Procedes Georges Claude: *See*—
Vesque, Henri. 2,779,174.

Lambach, Fritz, and W. Siegel, to Robert Reiner, Inc. Clutch and brake control for knitting machine. 2,779,448, 1-29-57, Cl. 192—144.

Lamothe, Armand V. Holder for telephone directory. 2,779,650, 1-29-57, Cl. 312—246.

Lampe, Louis B.: *See*—
Gundlach, George P., and Lampe. 2,779,118.

Landers, Mary M.: *See*—
Brown, Jack L., and Landers. 2,779,735.

Lang, Kenneth R.: *See*—
Knauth, John P., and Lang. 2,779,384.

Langer, Steven. Plaster composition for use in collapsible tubes. 2,779,682, 1-29-57, Cl. 106—109.

Langworthy, William P. Annealing process for magnetic material. 2,779,699, 1-29-57, Cl. 148—122.

Lansing, Herbert S. Article for playing games with the blind. 2,779,599, 1-29-57, Cl. 273—143.

Lapham, Sidney D. Hand truck. 2,779,492, 1-29-57, Cl. 214—383.

Larabell, Wilfred J., to General Motors Corp. Fastener for floor coverings. 2,779,048, 1-29-57, Cl. 16—4.

Lassy, Carl O. Slide fixture. 2,779,219, 1-29-57, Cl. 77—63.

Laughton, George W. Bark-peeling device having revolving endless-carrier-mounted cutters driven by planetary gears. 2,779,363, 1-29-57, Cl. 144—208.

Lautenbacher, Adolphe. Electrical lighting equipment for automobiles. 2,779,896, 1-29-57, Cl. 315—83.

Lawrie, George C.: *See*—
Stovall, John R., Jr., Lawrie, and Craig. 2,779,217.

Lax, Leona, to Sarong, Inc. Pantie girdle. 2,779,023, 1-29-57, Cl. 2—43.

La-Z-Boy Chair Co.: *See*—
Knabusch, Edward M., and Shoemaker. 2,779,391.
Knabusch, Edward M., and Shoemaker. 2,779,392.
Knabusch, Edward M., and Shoemaker. 2,779,393.

Leach, Byron E.: *See*—
Peterson, Durey H., and Leach. 2,779,705.

Lear, Inc.: *See*—
Le Hew, George A. 2,779,175.

Leckie, Janet: *See*—
Sell, Henry B., and Leckie. 2,779,681.

Lee, John G., to United Aircraft Corp. Fluid flow measuring device. 2,779,193, 1-29-57, Cl. 73—194.

Le Hew, George A., to Lear, Inc. Friction disc for a slipping type clutch. 2,779,175, 1-29-57, Cl. 64—30.

Lehmann, Wolfgang: *See*—
Kleiner, Helmut, and Lehmann. 2,779,686.

Lehner, William L.: *See*—
Carlzen, Carl F., and Lehner. 2,779,385.

Lehovec, Kurt, to Sprague Electric Co. Multiple junction transistor unit. 2,779,877, 1-29-57, Cl. 250—211.

Lenning, Carroll K.: *See*—
Estes, Elliott M., and Lenning. 2,779,209.

Lennox, Thomas C., to General Electric Co. Time delay control system. 2,779,899, 1-29-57, Cl. 317—141.

Lepley, Allen E.: *See*—
Hopper, Malcolm M., and Lepley. 2,779,582.

Leslie, John H., II, to Signode Steel Strapping Co. Power operated strap dispenser. 2,779,410, 1-29-57, Cl. 164—48.

Levin, William: *See*—
Foresta, Dominick G., and Levin. 2,779,307.

Levine, Louis M., to Mejur Corp. Device for filling measured quantity of milk or other liquid. 2,779,351, 1-29-57, Cl. 137—256.

Levy, Francis X.: *See*—
Pellerin, Norvin L., Phillips, and Levy. 2,779,937.

Levy, Maurice M.: *See*—
Chubb, Alexander A., and Levy. 2,779,821.

Lewis, Addeline B. Clothespin caddie. 2,779,372, 1-29-57, Cl. 150—1.8.

Lewyt Corp.: *See*—
Meyerhoefer, Carl E. 2,779,432.

Leybold's, E. Nachfolger: *See*—
Ziock, Klaus. 2,779,533.

Libbey-Owens-Ford Glass Co.: *See*—
Gaiser, Romey A. 2,779,690.

Ligett, Waldo B., C. N. Wolf, and R. D. Closson, to Ethyl Corp. N-phenyl maleamic esters. 2,779,704, 1-29-57, Cl. 167—30.

Ligon, Elmer R., to W. S. Dickey Clay Mfg. Co. Method and apparatus for forming plastic joints on clay pipe. 2,779,056, 1-29-57, Cl. 18—4.

Lincoln, Clovis W., P. B. Zeigler, and J. J. Verbrugge, to General Motors Corp. Windshield wiper. 2,779,199, 1-29-57, Cl. 74—70.

Lincoln, Clovis W., P. B. Zeigler, and R. M. Gold, to General Motors Corp. Fluid power steering apparatus. 2,779,427, 1-29-57, Cl. 180—79.2.

Lindenblad, Nils E., to Radio Corp. of America. Room temperature conditioner. 2,779,171, 1-29-57, Cl. 62—129.

Lindenblad, Nils E., to Radio Corp. of America. Thermoelectric dehumidifier. 2,779,172, 1-29-57, Cl. 62—140.

Link, Karl P.: *See*—
Robertson, Alice O. and D. N., and Link. 2,779,762.
Robertson, Alice O. and D. N., and Link. 2,779,768.

Lionel Corp., The: *See*—
Zion, Moses. 2,779,133.

Lippert, Ralph E., and E. J. Raut, to The Andrew Jergens Co. Article-manipulating apparatus for packaging machines. 2,779,453, 1-29-57, Cl. 198—33.

Liptay, John M. Fume hood. 2,779,265, 1-29-57, Cl. 98—115.

Lister, Ernest J.: *See*—
Roberts, George R., and Lister. 2,779,547.

Lockheed Aircraft Corp.: *See*—
Danielson, Henry C. 2,779,555.

Lo Faro, Thomas. Device for freezing ice cream and ices. 2,779,167, 1-29-57, Cl. 62—114.

Longstreth, Murrey O., and T. Alfrey, Jr., to The Dow Chemical Co. Method and apparatus for producing oriented plastic films. 2,779,053, 1-29-57, Cl. 18—1.

Lorentzen, Hans K., to Lorentzen Hardware Mfg. Corp. Tilting mechanism for Venetian blinds. 2,779,403, 1-29-57, Cl. 160—177.

Lorentzen Hardware Mfg. Corp.: *See*—
Lorentzen, Hans K. 2,779,403.

Lorimer, James P., and L. C. Steffenhagen, to Wilson & Co., Inc. Belly sizing machine. 2,779,368, 1-29-57, Cl. 146—78.

Lotz, Rudolf, to Vereinigte Glanzstoff-Fabriken A. G. Method of manufacturing dimethyl terephthalate from xylene dichloride. 2,779,782, 1-29-57, Cl. 260—475.

Loudon, Clifford L., and W. E. Riker, to Holmes Electric Protective Co. Noise actuated disabling unit. 2,779,935, 1-29-57, Cl. 340—258.

Loudon, Clifford L., and W. E. Riker, to Holmes Electric Protective Co. Supervisory unit for burglar alarm system. 2,779,936, 1-29-57, Cl. 340—258.

Loukomsky, Anne M., to American Cyanamid Co. Method of imparting flame-resistance to cellulosic materials. 2,779,691, 1-29-57, Cl. 117—136.

Lovatt, Bernard C., to Alan Muntz & Co. Ltd. Compressor piston. 2,779,644, 1-29-57, Cl. 309—4.

Loxham, John, to The Sigma Instrument Co. Ltd. Mechanical guiding devices. 2,779,585, 1-29-57, Cl. 267—1.

Lubrizol Corp., The: *See*—
Higgins, Williams A., Norman, and Craig. 2,779,787.

Lundquist, Ingemar, to The Viking Tool & Machine Corp. Electric motor. 2,779,881, 1-29-57, Cl. 310—23.

Lung, Kenneth R., to The Tait Mfg. Co. Method and apparatus for pumping 2,779,293, 1-29-57, Cl. 103—118.

Lung, Kenneth R., to The Tait Mfg. Co. Valve structure and method of operation. 2,779,352, 1-29-57, Cl. 137—490.

Lykken, Henry G., to The Microcyclomat Co. Centrifugal classification apparatus. 2,779,467, 1-29-57, Cl. 209—139.

Lymburner, Douglas H.: *See*—
Northcote, John, and Lymburner. 2,779,261.

Lyon, George A. Impeller. 2,779,424, 1-29-57, Cl. 170—168.

Lyon, George A. Wheel cover. 2,779,632, 1-29-57, Cl. 301—37.

Lyon, George A. Wheel cover. 2,779,633, 1-29-57, Cl. 301—37.

Lyon Inc.: *See*—
Wisnieski, John C. 2,779,142.

MacBlane, James, and R. N. Paterson, to The Nylok Corp. Apparatus for cutting and inserting resilient plugs in threaded fastening members. 2,779,038, 1-29-57, Cl. 10—72.

MacDonell, John R. Car window drain. 2,779,622, 1-29-57, Cl. 296—44.

Machlett Laboratories, Inc.: *See*—
Doolittle, Howard D. 2,779,895.

Madany, George H., ⅛ to S. D. Jarvis, and ⅛ to V. D. Jarvis. Fluid contacting apparatus. 2,779,537, 1-29-57, Cl. 233—15.

Mahan, John E., and S. D. Turk, to Phillips Petroleum Co. Process for production of paraldehyde. 2,779,767, 1-29-57, Cl. 260—340.

Malwurm, Paul S. Apparatus for securing a tube or tubes in a body member. 2,779,279, 1-29-57, Cl. 102—26.

Malwurm, Paul S. Threaded cable fitting. 2,779,613, 1-29-57, Cl. 287—75.

Malherbe, Georges, to Ateliers de Constructions Electriques de Charleroi. Ultra-sonic wave transducers. 2,779,880, 1-29-57, Cl. 310—8.3.

Manning, William R. D. High pressure pump. 2,779,294, 1-29-57, Cl. 103—158

Manning, William R. D., to Imperial Chemical Industries Ltd. High pressure pump. 2,779,295, 1-29-57, Cl. 103—158.

Mansfield, Lee. Cigarette holder. 2,779,340, 1-29-57, Cl. 131—175.

Margot, Alfred: *See*—
Gysin, Hans, and Margot. 2,779,788.
Gysin, Hans, and Margot. 2,779,941.

Margulis, Waldo: *See*—
Howard, Wellington R., and Margulis. 2,779,241.

Marshall, Robert P. Delay plunger assembly for artillery type fuses. 2,779,286, 1-29-57, Cl. 102—76.

Martin, Paul N., to Westinghouse Air Brake Co. Means for reducing electro-magnetic coupling. 2,779,908, 1-29-57, Cl. 323—50.

Maschinenfabrik Augsburg-Nurnberg A. G.: *See*—
Scharf, Herbert. 2,779,082.

Massey-Harris-Ferguson (Sales) Ltd.: *See*—
McNeice, James C. 2,779,491.

Matthews, John T., to Wil-Mat Corp. Swivel. 2,779,642, 1-29-57, Cl. 308—227.

Mattke, Charles F.: *See*—
Graham, Robert E., and Mattke. 2,779,819.

Mattson, David F: *See*—
Atkinson, Fred M., and Mattson. 2,779,634.

Mattson, Virgil J.: *See*—
Wilson, Robert F., and Mattson. 2,779,702.

Maurer, Philip W., to General Motors Corp. Control means for clocks and the like. 2,779,154, 1–29–57, Cl. 58—109.

Maurice, Pierre, and P. Tavernier, to French State represented by the Ministry of National Defense. Gas generator. 2,779,281, 1–29–57 Cl. 102—39.

Maykuth, Daniel J.: *See*—
Jaffee, Robert I., and Ogden, and Maykuth. 2,779,677.

Mazer, Fannie: *See*—
Mazer, Jacob. 2,779,429.

Mazer, Jacob, deceased; F. Mazer, R. M. Simon, and E. M. Rosenberg, executrices; assors. of 20% to R. M. Simon, 20% to E. M. Rosenberg, and 60% to R. M. Simon and E. M. Rosenberg, as trustees. Sound absorbing structure. 2,779,429, 1–29–57, Cl. 181—33.

McBride, Joseph J., Jr., to Tidewater Oil Co. Oxidation-inhibited mineral oil compositions. 2,779,738, 1–29–57, Cl. 252—49.6.

McBride, Joseph J., Jr., to Tidewater Oil Co. Process of preparing pour point depressants by catalytic condensation of haloalkyl alkylated phenol ether. 2,779,798, 1–29–57, Cl. 260—612.

McGraw Electric Co.: *See*—
Gomersall, John R. 2,779,849.
Gomersall, John R. 2,779,850.
Jeffrey, Richard B. 2,779,928.
Kowalski, Walter. 2,779,844.
Spiece, Stanley J. 2,779,879.

McKay, William R. Grading and leveling scrapers. 2,779,113, 1–29–57, Cl. 37—180.

McKenzie, Clarence M. Quick acting C-clamp. 2,779,366, 1–29–57, Cl. 144—305.

McKiff, Thomas J., to Miller Mfg. Corp. Sawing tool for cutting circular holes. 2,779,361, 1–29–57, Cl. 143—85.

McKinzie, Kline: *See*—
Turzillo, Lee, and McKinzie. 2,779,575.

McMillan, Hugh P., to Samuel M. Dell and Co., Inc. Ferrule assembly for paint brushes. 2,779,043, 1–29–57, Cl. 15—193.

McMullen, Wesley W., and J. N. Heller, to General Motors Corp. Filtering device. 2,779,431, 1–29–57, Cl. 183—15.

McMurry, Arthur A., to Special Textiles, Inc. Drawsheet. 2,779,035, 1–29–57, Cl. 5—354.

McNeice, James C., to Massey-Harris-Ferguson (Sales) Ltd. Front end loader attachment. 2,779,491, 1–29–57, Cl. 214—131.

McRae, Edwin C., to Ford Motor Co. Vehicle steering assembly with ball joint suspension. 2,779,603, 1–29–57, Cl. 280—95.

Mecum, Robert C., and C. F. Evans. Device for controlling continuous prefolded forms for accounting and typewriting machines. 2,779,450, 1–29–57, Cl. 197—133.

Meepos, Daniel, and F. E. Rowe; said Meepos assor. to said Rowe. Plunger operated, ball detent clevis pin. 2,779,228, 1–29–57, Cl. 85—5.

Melgs, Charles H., and H. Teltelman, to the United States of America as represented by the Secretary of the Navy. Superheater tube support. 2,779,316, 1–29–57, Cl. 122—510.

Mejur Corp.: *See*—
Levine, Louis M. 2,779,351.

Menaul, Paul L.: *See*—
Buchanan, Donnell M., and Menaul. 2,779,734.

Merck & Co., Inc.: *See*—
Hirschmann, Ralph F., Wendler, and Ruyle. 2,779,774.
Sarett, Lewis H. 2,779,775.

Merewether, Walter J. Screen for automobile windows. 2,779,406, 1–29–57, Cl. 160—373.

Mergenthaler Linotype Co.: *See*—
Hilpman, Paul. 2,779,456.

Messina, Nicholas V., to Tidewater Oil Co. Mineral oil lubricating compositions. 2,779,740, 1–29–57, Cl. 252—51.5.

Metal Specialty Co., The: *See*—
Rieppel, Perry J., Clapp, and Evans. 2,779,086.

Metallurgical Development Co.: *See*—
Woods, Stephen E. 2,779,673.

Metallurgical Processes Ltd.: *See*—
Woods, Stephen E. 2,779,673.

Metropolitan-Vickers Electrical Co. Ltd.: *See*—
Kilner, William N. 2,779,884.

Meyer, Franklin, Jr., to The Taft-Peirce Mfg. Co. Fluid gage apparatus. 2,779,188, 1–29–57, Cl. 73—37.8.

Meyerhoefer, Carl E., to Lewyt Corp. Vacuum cleaner assembly. 2,779,432, 1–29–57, Cl. 183—37.

Meyers, George L., G. W. De Walt, and L. M. Keene, to Petrolite Corp. Oxidized wax and method of making same. 2,779,779, 1–29–57, Cl. 260—452.

Microcyclomat Co., The: *See*—
Lykken, Henry G. 2,779,467.

Middleton, William J., to E. I. du Pont de Nemours and Co. Pyrroles having amino, cyano and mercapto or substituted mercapto groups and their preparation. 2,779,766, 1–29–57, Cl. 260—313.5.

Middleton, William J., to E. I. du Pont de Nemours and Co. 1,4-diamino-2,3-dicyano-1,4-bis (substituted mercanto) butadienes and their preparation. 2,779,780, 1–29–57, Cl. 260—465.

Milhizer, Edward W. Trailer coupling with universal joint. 2,779,607, 1–29–57, Cl. 280—510.

Millard, Ernest H., Jr., to Olin Mathieson Chemical Corp. Separation of acetylene from ethylene by hydrochlorination of the ethylene. 2,779,805, 1–29–57, Cl. 260—663.

Miller, Claire K., and R. Sardeson, to Pako Corp. Method and apparatus for handling print strip. 2,779,408, 1–29–57, Cl. 164—17.

Miller, Kay, to Kalamazoo Mfg. Co. Driving and braking mechanism for vehicle steerable wheel means. 2,779,425, 1–29–57, Cl. 180—26.

Miller Mfg. Corp.: *See*—
McKiff, Thomas J. 2,779,361.

Miner, W. H., Inc.: *See*—
Forssell, Eric G. 2,779,480.

Minneapolis-Honeywell Regulator Co.: *See*—
Embree, John M. 2,779,197.
Hersey, Millar P., Jr. 2,779,931.
Kliever, Waldo H. 2,779,655.

Minnick, Robert C., to Bell Telephone Laboratories, Inc. Switching circuits. 2,779,934, 1–29–57, Cl. 340—174.

Mironoff, Nicolas, to Ateliers des Charmilles S. A. Arrangement for machining conductive material through electric discharges. 2,779,857, 1–29–57, Cl. 219—69.

Mitchell, Kent C.: *See*—
Mitchell, Robert E. and K. C. 2,779,146.

Mitchell, Robert E. and K. C. Combination rotary mower and lawn sweeper. 2,779,146, 1–29–57, Cl. 56—25.4.

Mohasco Industries, Inc.: *See*—
Underwood, Garfield J. 2,779,354.

Mohnkern, Gerald E.: *See*—
Chenault, Roy L., and Mohnkern. 2,779,697.

Molins, Desmond W., F. Pocock, and S. R. Hopkins. Apparatus to remove ejected shells from turret. 2,779,243, 1–29–57, Cl. 89—33.

Monroe Bag Valve Corp.: *See*—
Hosking, Oakley W. 2,779,061.

Montavon, Marc: *See*—
Isler, Otto, Montavon, Rüegg, and Zeller. 2,779,792.
Isler, Otto, Montavon, Rüegg, and Zeller. 2,779,793.

Moon, James, to Signal Oil and Gas Co. Borehole electrodes. 2,779,915, 1–29–57, Cl. 324—10.

Moore, David P. Pile fabric knitting machine. 2,779,176, 1–29–57, Cl. 66—9.

Moore, Harry O., to Silabert Corp. Automatic can opener. 2,779,096, 1–29–57, Cl. 30—4.

Moore, James T. Artificial lure and hook retriever. 2,779,120, 1–29–57, Cl. 43—17.2.

Mooz, William E.: *See*—
Couch, George R., and Mooz. 2,779,727.

Morgenroth, Henri. Charge forming device. 2,779,576, 1–29–57, Cl. 261—64.

Morin, Louis H. Automatic lock sliders. 2,779,078, 1–29–57, Cl. 24—205.14.

Morris, William. Condiment shaker. 2,779,518, 1–29–57, Cl. 222—501.

Morrison Supply Co.: *See*—
Eubanks, Glenn M. 2,779,203.

Morton, Jack A., to Bell Telephone Laboratories, Inc. High frequency amplifier. 2,779,891, 1–29–57, Cl. 315—3.5.

Morway, Arnold J., F. Knoth, Jr., and J. H. Bartlett, to Esso Research and Engineering Co. Production of lubricating greases from oxo esters. 2,779,736, 1–29–57, Cl. 252—35.

Moser, Arthur J., to International Resistance Co. Variable resistor. 2,779,845, 1–29–57, Cl. 201—53.

Moses, Alexander K., Jr.: *See*—
Dunning, John W., Moses, and Toth. 2,779,724.

Mostello, Anthony J.: *See*—
Daniels, Rupert S., and Mostello. 2,779,668.

Motorola, Inc.: *See*—
Geppert, Donovan V. 2,779,902.
Geppert, Donovan V. 2,779,903.
Huard, George R., Jr. 2,779,901.

Mottern, Henry O.: *See*—
Garabrant, Arthur R., Schneider, Goering, and Mottern. 2,779,753.

Mounce, Whitman D., to Esso Research and Engineering Co. Reinforced inflatable packer. 2,779,419, 1–29–57, Cl. 166—187.

Muddiman, Earll R., to United States Steel Corp. Apparatus for handling strip. 2,779,550, 1–29–57, Cl. 242—80.

Mungen, Richard, to Stanolind Oil and Gas Co. Method for improving contact of gaseous reactants with catalyst. 2,779,777, 1–29–57, Cl. 260—449.6.

Mungen, Richard, to Stanolind Oil and Gas Co. Process for separating volatile components from liquid mixtures. 2,779,778, 1–29–57, Cl. 260—450.

Munger, Stanley H., to E. I. du Pont de Nemours and Co. Decobalting of oxo products with live steam. 2,779,796, 1–29–57, Cl. 260—60.

Munroe, David J., to Webster Electric Co. Oil burner control system. 2,779,347, 1–29–57, Cl. 137—116.

Muntz, Alan, & Co. Ltd.: *See*—
Lovatt, Bernard C. 2,779,644.

Murphy Diesel Co.: *See*—
Holloway, John H. 2,779,210.

Murphy, Lloyd T. Pulper. 2,779,251, 1–29–57, Cl. 92—24.

Murphy, Paul M. Orienting mechanism. 2,779,214, 1–29–57, Cl. 74—797.

Murray, James V., Jr., and J. R. Anderson, to Union Carbide and Carbon Corp. Process for recovery of naphthalene from crude naphthalene. 2,779,722, 1–29–57, Cl. 202—39.

Murray, Maurice J., and H. A. Plagge, to Universal Oil Products Co. Process for removing arsenic from a hydrocarbon feed oil used in a reforming process employing a noble metal as a catalyst. 2,779,715, 1–29–57, Cl. 196—50.

Musgrave, Kenneth L.: *See*—
Hilden, Dale G. 2,779,029.

Musgrave, Orly. Power driven rotary cutter trailer assembly. 2,779,147, 1–29–57, Cl. 56—25.4.

Muskegon Piston Ring Co.: *See*—
Hamm, Douglas W. 2,779,647.

Myer, Fred C.: *See*—
Myer, Howard I. and F. C. 2,779,309.
Myer, Howard I. and F. C. 2,779,310.

Myer, Howard I. and F. C. Dairy stable sanitation equipment. 2,779,309, 1–29–57, Cl. 119—27.

Myer, Howard I. and F. C. Dairy stable sanitation equipment. 2,779,310, 1–29–57, Cl. 119—27.

Myers, Willard H. Magnetic cigarette extinguishing container. 2,779,342, 1–29–57, Cl. 131—256.

N. V. Bronswerk: *See*—
Van Dongen, Dingeman. 2,779,589.

Nall, Walter P. Method of making pouches. 2,779,144, 1–29–57, Cl. 53—29.

Nall, Walter P. Protective covers for chesterfields, chairs, and the like. 2,779,396, 1–29–57, Cl. 155—182.

National Brass Co.: *See*—
Grevengoed, Paul H., and Young. 2,779,186.

National Lead Co.: *See*—
Couch, George R., and Mooz. 2,779,727.

National Smelting Co. Ltd.: *See*—
Woods, Stephen E. 2,779,673.

National Vendors, Inc.: *See*—
Fry, Benjamin W. 2,779,449.

Naudzius, Edward J.: *See*—
Cole, Edward N., and Naudzius. 2,779,498.

Navy, United States of America as represented by the Secretary of the: *See*—
Baughman, John E. 2,779,283.
Harwood, Robert H. 2,779,106.
Melgs, Charles H., and Teltelman. 2,779,316.
Purcell, Edward M. 2,779,923.
Raffel, Zanville M. 2,779,282.
Schreiner, Kenneth E., and Havens. 2,779,940.
Trexler, Philip C. 2,779,331.

Neal, Donald B.: *See*—
Durham, James D., Otte, and Neal. 2,779,115.

Neese, Alonzo A.: *See*—
Hornbostel, Lloyd, and Neese. 2,779,254.

Neier, Reinhard, C. Petitjean, and W. Wehrli, to Saul & Co., as nominee of Fidelity Union Trust Co. Chromable disazo dyestuffs. 2,779,758, 1–29–57, Cl. 260—190.

Neilson, Allan K., deceased; E. L. Neilson, executrix. Merchandise classifying and storage unit. 2,779,649, 1–29–57, Cl. 312—245.

Neilson, Elsa L.: *See*—
Neilson, Allan K. 2,779,649.

Nelson, Manno F., Jr.: *See*—
Russell, Kenneth L., and Nelson. 2,779,708.

Nelson, William T., to Phillips Petroleum Co. Selective solvent for acetylene. 2,779,458, 1–29–57, Cl. 206—0.7.

Nepera Chemical Co., Inc.: *See*—
Huffman, Max N. 2,779,773.

New Britain Machine Co., The: *See*—
Retz, William B., and Kuzmak. 2,779,447.

Newcomer, Jack S.: *See*—
Robitschek, Paul, Bean, and Newcomer. 2,779,769.

Newman, Julian, to Houdry Process Corp. Method and apparatus for contacting fluids with solids. 2,779,716, 1–29–57, Cl. 196—52.

Nilsson, Nils E., L. Essingen, G. O. Rodnert, and P. G. Jonsson, to Telefonaktiebolaget L M Ericsson. Identifier. 2,779,824, 1–29–57, Cl. 179—18.

Nippon Kokan K. K. (Nippon Steel Tube Co. Ltd.): *See*—
Kuroda, Shigeyoshi. 2,779,573.

Nordberg, Martin E., to Corning Glass Works. Method of glass coloration and article produced thereby. 2,779,688, 1–29–57, Cl. 117—63.

Norman, George R.: *See*—
Higgings, William A., Norman, and Craig. 2,779,787.

Norsk Hydro-Elektrisk Kvaelstofaktieselskab: *See*—
Swensen, Gunder G. U. W. 2,779,477.

North Electric Co.: *See*—
Crissinger, Woodrow W. 2,779,900.

Northcote, John A., and D. H. Lymburner, to John Deere Plow Co. (Ltd). Disk tiller. 2,779,261, 1–29–57, Cl. 97—53.

Norwich Pharmacal Co., The: *See*—
Coleman, John H., Hayden, and O'Keefe. 2,779,786.

Nsu Werke Aktiengesellschaft: *See*—
Roder, Albert. 2,779,321.

Nübling, Wolfgang: *See*—
Bredereck, Hellmut, Bäder, Wohnhaas, and Nübling. 2,779,751.

Nu-Parq Products Ltd.: *See*—
Freeman, Edwin G. 2,779,390.

Nylok Corp., The: *See*—
Borner, Carl H. 2,779,039.
MacBlane, James, and Paterson. 2,779,038.

Oberg, Gunnard A., to Blackstone Corp. Clothes receptacle for a washing machine. 2,779,182, 1–29–57, Cl. 68—23.

O'Connor, John B., to Illinois Tool Works. Split washer having one helical margin and one planar margin adapted to be secured to threaded fastener. 2,779,375, 1–29–57, Cl. 151—37.

Ogden, Horace R.: *See*—
Jaffee, Robert I., Ogden, and Maykuth. 2,779,677.

Ohmega Laboratories: *See*—
Tykulsky, Alexander. 2,779,873.

O'Keefe, Charles J.: *See*—
Coleman, John H., Hayden, and O'Keefe. 2,779,786.

Olcott, Charles A. Fluid driven centrifugal machine. 2,779,475, 1–29–57, Cl. 210—71.

Olin Mathieson Chemical Corp.: *See*—
Millard, Ernest H., Jr. 2,779,805.

Olney, Richard B., and C. P. Strand, to Shell Development Co. Spray grid tray gas-liquid contacting. 2,779,577, 1–29–57, Cl. 261—113.

Orban, John E.: *See*—
Graham, Herbert J., Orban, Reisiger, and Shaback. 2,779,057.

Orelind, John R., and M. D. Jennings, to International Harvester Co. Universal 2-point hitch. 2,779,260, 1–29–57, Cl. 97—47.51.

Organon, Inc.: *See*—
Homan, Jan D. H. 2,779,706.

Orr, Lyman W., to Burroughs Corp. Filing apparatus. 2,779,652, 1–29–57, Cl. 312—319.

Orthwine, Rudolf. Price card holder. 2,779,114, 1–29–57, Cl. 40—11.

Ortloff, John E., to Esso Research and Engineering Co. Pellet impact drill bit with controlled pellet return. 2,779,571, 1–29–57, Cl. 255—61.

Osborn, Harry B., Jr. Receptacle for molten metal. 2,779,073, 1–29–57, Cl. 22—79.

Osborn, Ralph C. Vacuum cleaner with accessory support. 2,779,047, 1–29–57, Cl. 15—323.

Oswalt, Harry L. Ensilage loader. 2,779,452, 1–29–57, Cl. 198—9.

Otte, Henry: *See*—
Durham, James D., Otte, and Neal. 2,779,115.

Owens, Jesse C. Quiet anti-siphonic float actuated valve. 2,779,350, 1–29–57, Cl. 137—218.

Owens, Thomas M. Adjustable slice for papermaking machinery. 2,779,253, 1–29–57, Cl. 92—44.

Packers Supply Co. Ltd.: *See*—
Keeble, William J. 2,779,566.

Pacsu, Eugene, and A. W. Bauer, to Textile Research Institute. Fractionation of starch. 2,779,693, 1–29–57, Cl. 127—71.

Pacsu, Eugene, and A. W. Bauer, to Textile Research Institute. Disaggregation of starch A and B fractions. 2,779,694, 1–29–57, Cl. 127—71.

Page, Robert M. Indicating systems. 2,779,939, 1–29–57, Cl. 343—11.

Pako Corp.: *See*—
Miller, Claire K., and Sardeson. 2,779,408.

Palmer, Carl C., and A. Barry, to Esso Research and Engineering Co. Magnetic starter switch. 2,779,839, 1–29–57, Cl. 200—87.

Palmer, Jack M., to Rohr Aircraft Corp. Nozzle with variable discharge orifice. 2,779,157, 1–29–57, Cl. 60—35.6.

Papini, Anthony. Combination lock. 2,779,185, 1–29–57, Cl. 70—333.

Paragon Electric Co.: *See*—
Everard, Joseph J. 2,779,829.

Park, Arthur L., to Saco-Lowell Shops. Hot air dryer. 2,779,105, 1–29–57, Cl. 34—155.

Parker Pen Co., The: *See*—
Perlin, Fred. 2,779,180.

Pass & Seymour, Inc.: *See*—
Despard, Victor R. 2,779,828.
Russell, Mark N. 2,779,835.

Paterson, Laurene O., to Drug Research, Inc. Halogenated hydantoins. 2,779,764, 1–29–57, Cl. 260—309.5.

Paterson, Robert N.: *See*—
MacBlane, James, and Paterson. 2,779,038.

Patterson, Omar L., to Sun Oil Co. Differentiation circuit. 2,779,871, 1–29–57, Cl. 250—27.

Patterson, Omar L., to Sun Oil Co. Integration circuit. 2,779,872, 1–29–57, Cl. 250—27.

Paul, Alfred N.: *See*—
Henry, Elliott A., and Paul. 2,779,870.

Pearl, Benjimen H. Convertible high chair swing. 2,779,389, 1–29–57, Cl. 155—38.

Pease, Harry F.: *See*—
Dolza, John, and Pease. 2,779,422.

Pellerin Milnor Corp.: *See*—
Pellerin, Norvin L., Phillips, and Levy. 2,779,937.

Pellerin, Norvin L., A. J. Phillips, and F. X. Levy, to Pellerin Milnor Corp. Washing machine controller. 2,779,937, 1–29–57, Cl. 340—265.

Penitz, Ferdinand J., to United States Steel Corp. Crib for wire coil formed on stationary coiling block. 2,779,551, 1–29–57, Cl. 242—84.

Perfection Mfg. Corp.: *See*—
Gallatel, Albert F. 2,779,308.

Perforating Guns Atlas Corp.: *See*—
Waters, Henry C. 2,779,912.
Waters, Henry. 2,779,913.

Perlin, Fred, to The Parker Pen Co. Lighters. 2,779,180, 1–29–57, Cl. 67—7.1.

Perry, J. W.: *See*—
Hilden, Dale G. 2,779,029.

Perry, Russell W., to The Firestone Tire & Rubber Co. New polymeric material containing copolymerized monochlorotrifluoroethylene and an alkyl vinyl ether. 2,779,025, 1–29–57, Cl. 2—167.

Peters, Beldon A.: *See*—
Rumble, Robert C., and Peters. 2,779,192.

Peters, Francis B. E.: *See*—
Sesny, Stephen A., and Peters. 2,779,929.

Petersen, Lee. Tool for removing brake shoe retainer locks. 2,779,088, 1–29–57, Cl. 29—229.

Petersime, Ira M. Pulsators. 2,779,264, 1–29–57, Cl. 98—40.

Peterson, Durey H., and B. E. Leach, to The Upjohn Co. Circulin derivatives and circulin recovery. 2,779,705, 1–29–57, Cl. 167—65.

Peterson, Glen. Apparatus for connecting circuit elements to electronic tube socket. 2,779,867, 1–29–57, Cl. 250—16.

Petitjean, Charles: *See*—
Neier Reinhard, and Petitjean. 2,779,758.

Petroff, Merlin. Audio frequency meter. 2,779,920, 1–29–57, Cl. 324—80.

Petrolite Corp.: *See*—
Meyers, George L., De Walt, and Keene. 2,779,779.

Phillips, Albert J.: *See*—
Pellerin, Norvin L., Phillips, and Levy. 2,779,937.

Phillips, Benjamin, and F. C. Frostick, Jr., to Union Carbide and Carbon Corp. Higher fatty ester diepoxides and process of producing the same. 2,779,771, 1–29–57, Cl. 260—348.

Phillips, Joseph, and A. Kinsel, to L. Sonneborn Sons, Inc. Process of upgrading petrolatum. 2,779,710, 1–29–57, Cl. 196—17.

Phillips Petroleum Co.: *See*—
Bottenberg, Kenneth C. 2,779,803.
Crouch, Willie W., and Goodhue. 2,779,703.
Dale, Glenn H., and Shelton. 2,779,709.
De Boisblanc, Deslonde R. 2,779,917.
Findlay, Robert A. 2,779,658.
King, William R., and Rushford. 2,779,468.
Mahan, John E., and Turk. 2,779,767.
Nelson, William T. 2,779,458.
Pritchard, James E. 2,779,747.
Sowden, Parkin T., Jr. 2,779,806.
Wickiatz, John E. 2,779,659.

Picciano, Michael A., and C. Ekstein, to Vitro Corp. of America. Photo-cell construction. 2,779,811, 1–29–57, Cl. 136—89.

Pichler, Joseph R., R. M. Brubaker, T. C. Shuler, Jr., and E. L. Wark, to General Motors Corp. Ice and water dispenser. 2,779,165, 1–29–57, Cl. 62—105.

Pickman, Edgard, to Compagnie Internationale des Pieux Armes Frankignoul, Societe Anonyme. Method and device for constructing foundation piles in the ground. 2,779,161, 1–29–57, Cl. 61—57.

Pifer, Marion J., to Sylvania Electric Products Inc. Surround lighting structure for image screen of cathode ray tubes. 2,779,938, 1–29–57, Cl. 340—369.

Pilling, George P., & Son Co.: *See*—
Baker, Elvin E. 2,779,327.

Pinkerton, Harry E., Jr., to the United States of America as represented by the Secretary of the Army. Sear mechanism for a firearm. 2,779,247, 1–29–57, Cl. 89—135.

Pirot, Ernst: *See*—
Heisenberg, Erwin, and Pirot. 2,779,746.

Pittman, Raymond A., and C. E. Rawden, to Ford Motor Co. Vehicle steering mechanism. 2,779,208, 1–29–57, Cl. 74—493.

Pittsburgh Plate Glass Co.: *See*—
Reis, Joseph J., Jr. 2,779,689.

Pityo, Albert F. Method of producing metallic ribbon attaching element and welding the same. 2,779,858, 1–29–57, Cl. 219—78.

Pizzo, Vita, and H. E. Hasselbusch, Jr. Protective device. 2,779,109, 1–29–57, Cl. 36—70.

Plagge, Howard A.: *See*—
Murray, Maurice J., and Plagge. 2,779,715.

Platt, John G., to Flex-O-Lators, Inc. Padding assembly for spring structures. 2,779,036, 1–29–57, Cl. 5—354.

Plymouth Products Co.: *See*—
Friedman, Samuel. 2,779,624.

Pocock, Frederick: *See*—
Molins, Desmond W., Pocock, and Hopkins. 2,779,243.

Pocoski, Edward J., and W. G. Hennessy. Combined tool. 2,779,098, 1–29–57, Cl. 30—155.

Pollan, David, to Viewlex, Inc. Film projector cooling means. 2,779,236, 1–29–57, Cl. 88—24.

Pollmann, Max, to Kurt Korber & Co. K.-G. Device for wrapping an adhesive connecting band around the abutting ends of a double cigarette and mouthpiece assemblage. 2,779,339, 1–29–57, Cl. 131—94.

Polychrome Corp.: *See*—
Brown, Robert G. 2,779,268.

Pomeroy, Harold H., to Dorr-Oliver Inc. Anti-foaming centrifugal methods and apparatus. 2,779,536, 1–29–57, Cl. 233—13.

Poole, John H., to British Insulated Callender's Cables Ltd. Means for detecting eccentricity in insulated electric conductors. 2,779,916, 1–29–57, Cl. 324—34.

Porter, Frank M.: *See*—
Borkowski, Casimer J., and Porter. 2,779,875.

Portney, Phillip, and C. E. Vancura, to Koppers Co., Inc. Flexible seal for pipes passing through a wall. 2,779,609, 1–29–57, Cl. 285—45.

Potter, Peter B.: *See*—
Groff, Frazier, and Potter. 2,779,744.

Poupitch, Ouglјesa J., to Illinois Tool Works. Fastener having folded, split-ring helical lock washer retained thereon. 2,779,376, 1–29–57, Cl. 151—37.

Powell, John. Seed planting machine. 2,779,511, 1–29–57, Cl. 222—216.

Powers, Robert P., to The Firestone Tire & Rubber Co. Wheel structure. 2,779,631, 1–29–57, Cl. 301—13.

Press, Irving D., to Resistoflex Corp. Cam actuated valve. 2,779,564, 1–29–57, Cl. 251—257.

Pritchard, James E., to Phillips Petroleum Co. Rubber softener comprising reaction products of liquid copolymers of conjugated dienes with copolymerizable heterocyclic nitrogen bases. 2,779,747, 1–29–57, Cl. 260—45.5.

Process Engineers Inc.: *See*—
Kelly, Earl M., and Kivari. 2,779,730.
Kelly, Earl M., Kivari, and Farrell. 2,779,731.

Progressive Welder Sales Co.: *See*—
Gordon, John D. 2,779,092.

Prymek, Milton C., to Western Electric Co., Inc. Still extractor. 2,779,723, 1–29–57, Cl. 202—170.

Puckett, Oliver K. Ammunition case. 2,779,522, 1–29–57, Cl. 224—15.

Pullman-Standard Car Mfg. Co.: *See*—
Van Der Sluys, William. 2,779,032.

Purcell, Edward M., to the United States of America as represented by the Secretary of the Navy. Mode transformer for wave guides. 2,779,923, 1–29–57, Cl. 333—21.

Pyle-National Co., The: *See*—
Archer, Lee A. 2,779,930.

Queirolo, Francis J. Eraser cleaner. 2,779,046, 1–29–57, Cl. 15—310.

Quoss, Henry N. Apparatus and method of forming elongate articles from fiberglas. 2,779,388, 1–29–57, Cl. 154—30.

Rabinow, Jacob: *See*—
Andrews, Laurence M., and Rabinow. 2,779,287.

Radde, Erich M. H. (*p*-acetocyclohexanyl) (*p*-cyclohexenonyl) diethyl ethane compounds. 2,779,790, 1–29–57, Cl. 260—586.

Radde, Erich M. H. Alkinyl and alkenyl substituted dicyclohexyl ethane compounds. 2,779,791, 1–29–57, Cl. 260—586.

Rader, Merill E., to Steel Co. of Ohio. Spreading device. 2,779,507, 1–29–57, Cl. 222—177.

Radiator Specialty Co.: *See*—
Branch, Frank F. 2,779,028.

Radio Corp. of America: *See*—
Lindenblad, Nils E. 2,779,171.
Lindenblad, Nils E. 2,779,172.
Stoudenheimer, Richard G. 2,779,888.

Raffel, Zanville M., to the United States of America as represented by the Secretary of the Navy. Warhead structural and locating attachment. 2,779,282, 1–29–57, Cl. 102—49.

Ragsdale, La Verne B., to General Motors Corp. Hinge holdopen. 2,779,051, 1–29–57, Cl. 16—140.

Randall, Philip H., to United Shoe Machinery Corp. Shoe sewing machines. 2,779,299, 1–29–57, Cl. 112—52.

Rasky, Edward A. Motor driven repeat mechanism for piano. 2,779,226, 1–29–57, Cl. 84—239.

Raut, Earle J.: *See*—
Lippert, Ralph E., and Raut. 2,779,453.

Rauth, William R., Jr., to Sperry Rand Corp. Three-phase magnetic amplifier. 2,779,910, 1–29–57, Cl. 323—89.

Rawden, Cecil E.: *See*—
Pittman, Raymond A., and Rawden. 2,779,208.

Reed, Kenneth D. Bumper, grill and pan guard. 2,779,620. 1–29–57, Cl. 293—64.

Reed, Robert D.: *See*—
Zink, John S., and Reed. 2,779,399.

Regie Nationale des Usines Renault: *See*—
Saives, Leon. 2,779,140.

Rehme, William L. Ventilating means for a building wall. 2,779,065, 1–29–57, Cl. 20—4.

Reid, Harold V. Truss. 2,779,330, 1–29–57, Cl. 128—98.

Reiner, Robert, Inc.: *See*—
Lambach, Fritz, and Siegel. 2,779,448.

Reis, Arthur W., to United Electric Controls Co. Absolute pressure switch. 2,779,838, 1–29–57, Cl. 200—83.

Reis, Joseph J., Jr., to Pittsburgh Plate Glass Co. Forming foamed polyurethane resins. 2,779,689, 1–29–57, Cl. 117—104.

Reisiger, William F.: *See*—
Graham, Herbert J., Orban, Reisiger, and Shaback. 2,779,057.

Reiter, Thomas A.: *See*—
Spitz, Peter H., Reiter, and Whall. 2,779,719.

Reitzel, George A. Traps. 2,779,125, 1–29–57, Cl. 45—100.

Rem-Cru Titanium, Inc.: *See*—
Jaffee, Robert I., and Ogden, and Maykuth. 2,779,677.

Rennick, John L.: *See*—
Adler, Robert, and Rennick. 2,779,818.

Resistoflex Corp.: *See*—
Press, Irving D. 2,779,564.

Retz, William B., and P. B. Kuzmak, to The New Britain Machine Co. Spindle-stop mechanism. 2,779,447, 1–29–57, Cl. 192—138.

Reyher, Charles R. Whirling toys. 2,779,129, 1–29–57, Cl. 46—49.

Reynst, Maxillen F., and J. M. Cluwen, to Hartford National Bank and Trust Co., as trustee. Electrical apparatus in which a permanent magnet is included in the magnetic circuit. 2,779,885, 1–29–57, Cl. 310—152.

Riat, Henri, to Ciba Ltd. Metalliferous trisazo dyestuffs. 2,779,756, 1–29–57, Cl. 260—147.

Rich, Robert L. Adding machine. 2,779,541, 1–29–57, Cl. 235—78.

Richards, Augustus J., to Bonnar-Vawter, Inc. Feed strip severing device. 2,779,411, 1–29–57, Cl. 164—60.

Richards, John H., to Hartford National Bank and Trust Co., as trustee. Temperature sensitive element. 2,779,846, 1–29–57, Cl. 201—63.

Richarts, Paul, to Bell & Howell Co. Photographic lens mount. 2,779,238, 1–29–57, Cl. 88—57.

Ridgway, Herbert N. Amusement slide. 2,779,596, 1–29–57, Cl. 272—56.5.

Rieppel, Perry J., and M. C. Clapp, and R. M. Evans, to The Metal Specialty Co. Method of making a hollow metal structure. 2,779,086, 1–29–57, Cl. 29—157.3.

Riker, William E.: *See*—
Loudon, Clifford L., and Riker. 2,779,935.
Loudon, Clifford L., and Riker. 2,779,936.

Risley, Roger E., to Dresser Industries, Inc. Sealed pipe coupling with constrictible wedge bushing. 2,779,610, 1–29–57, Cl. 285—323.

Robell, John, to Guggenheim Brothers (1949). Method of producing hydrazine. 2,779,660, 1–29–57, Cl. 23—190.

Robell, John, to Guggenheim Brothers (1949). Process for producing hydrazine. 2,779,661, 1–29–57, Cl. 23—190.

Roberts, George R., and E. J. Lister, to Bowaters Development and Research Ltd. Winding mandrel with suction means. 2,779,547, 1–29–57, Cl. 242—74.

Robertson, Alice O., and D. N., and K. P. Link, to Wisconsin Alumni Research Foundation. 3-substituted-aminomethyl-4-hydroxy-6-substituted-coumarins. 2,779,762, 1–29–57, Cl. 260—247.7.

Robertson, Alice O., and D. N., and K. P. Link, to Wisconsin Alumni Research Foundation. 3-(hydroxy lower alkyl)-aminomethyl-4-hydroxycoumarin compounds. 2,779,768, 1–29–57, Cl. 260—343.2.

Robertson, Dale N.: *See*—
Robertson, Alice O. and D. N., and Link. 2,779,762.
Robertson, Alice O. and D. N., and Link. 2,779,768.

Robertson, Melbourne L., to Gulf Oil Corp. Fluid production and storage control apparatus. 2,779,348, 1–29–57, Cl. 137—119.

Robertson, Thomas A., to The Firestone Tire & Rubber Co. Tire tread construction. 2,779,378, 1–29–57, Cl. 152—209.

Robinson, Herbert M., to Robinson Products, Inc. Low pressure indicator. 2,779,304, 1–29–57, Cl. 116—70.

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Robinson, Herbert M. 2,779,304.

Robitschek, Paul, and C. T. Bean, Jr., to Hooker Electrochemical Co. Flame retardant polyester resinous compositions containing halogen. 2,779,700, 1–29–57, Cl. 154—43.

Robitschek, Paul, and C. T. Bean, Jr., to Hooker Electrochemical Co. Flame retardant polyester resinous compositions containing halogen. 2,779,701, 1–29–57, Cl. 154—43.

Robitschek, Paul, C. T. Bean, Jr., and J. S. Newcomer, to Hooker Electrochemical Co. Poly-halogen-containing dicarboxylic acids and anhydrides. 2,779,769, 1–29–57, Cl. 260—346.6.

Robotron Corp.: *See*—
Thomsen, Theodore R. 2,779,407.

Rochester, Roy M., and J. S. Beattie, to Deering Milliken Research Corp. Dyeing of textile fibers. 2,779,726, 1–29–57, Cl. 204—134.

Rockwell Spring and Axle Co.: *See*—
Clarke, William B., Hunter, and Santucci. 2,779,490.

Roder, Albert, to Nsu Werke Aktiengesellschaft. Camshaft drive for high speed internal combustion engines. 2,779,321, 1–29–57, Cl. 123—90.

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Nilsson, Nils E., Rodnert, and Jonsson. 2,779,824.

Roe, Ernest: *See*—
Schulze, Kurt E. 2,779,356.

Rogers Imports, Inc.: *See*—
Wittenberg, Benjamin. 2,779,370.

Rohr Aircraft Corp.: *See*—
Palmer, Jack M. 2,779,157.

Roper, Geo. D., Corp.: *See*—
Albright, John R. 2,779,291.
Hollman, Peter I. 2,779,400.

Roper, Winston R., to Houston Oil Field Material Co., Inc. Joint. 2,779,570, 1–29–57, Cl. 255—1.6.

Rosecrans, Ernest E., Sr. Stocking clamping garter. 2,779,026, 1–29–57, Cl. 2—312.

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Mazer, Jacob. 2,779,429.

Rosenwald, Robert H., and J. R. Hoatson, to Universal Oil Products Co. Reductive alkylation process. 2,779,789, 1–29–57, Cl. 260—577.

Rossetti, Rene. Closing device for tubular duct. 2,779,519 1–29–57, Cl. 222—507.

Rother, George H.: *See*—
Schuller, Heri. 2,779,149.

Rovira Mari, Jose. Construction of honeycombs. 2,779,037, 1–29–57, Cl. 6—11.

Rowe, Frank E.: *See*—
Meepos, Daniel, and Rowe. 2,779,228.

Rowe, Robert F., to General Electrical Co. Junction box for ballast transformer. 2,779,812, 1–29–57, Cl. 174—50.

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Ruckstuhl, Hans, and W. Wehrli, to Saul & Co. Cupriferous trisazo dyestuffs. 2,779,755, 1–29–57, Cl. 260—145.

Ruckstuhl, Hans, and W. Wehrli, to Saul & Co., as nominee of Fidelity Union Trust Co. Metal-containing azo dyestuffs. 2,779,757, 1–29–57, Cl. 160—151.

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Isler, Otto, Montavon, Rüegg, and Zeller. 2,779,792.
Isler, Otto, Montavon, Rüegg, and Zeller. 2,779,793.

Rumbaugh, Lynn H., and H. Jensen. Magnetic exploration apparatus. 2,779,914, 1–29–57, Cl. 324—4.

Rumble, Robert C., and B. A. Peters, to Esso Research and Engineering Co. Subsurface flowmeter. 2,779,192, 1–29–57, Cl. 73—155.

Rushford, Wilson H.: *See*—
King, William R., and Rushford. 2,779,468.

Russell, Kenneth L., and M. F. Nelson, Jr., to Colgate-Palmolive Co. Dextran dentifrice preparations. 2,779,708, 1–29–57, Cl. 167—93.

Russell, Mark N., to Pass & Seymour, Inc. Snap switch for tools. 2,779,835, 1–29–57, Cl. 200—76.

Russo, Anthony. Dual display lettered chain screen. 2,779,117, 1–29–57, Cl. 40—128.

Rust, James H. Aerial fire extinguisher. 2,779,421, 1–29–57, Cl. 169—1.

Rust, William F., Jr. Radio transmitter remote control system. 2,779,868, 1–29–57, Cl. 250—17.

Rutherford, Albert D., Jr., to Western Electric Co., Inc. Method of cleaning extruders. 2,779,696, 1–29–57, Cl. 134—7.

Ruyle, William V.: *See*—
Hirschmann, Ralph F., Wendler, and Ruyle. 2,779,774.

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Vaughn, Guy W., Jr., and Sacchini. 2,779,063.

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Park, Arthur L. 2,779,105.

Saetter-Lassen, Erik. Return and buffer mechanism for automatic shooting weapons. 2,779,249, 1–29–57, Cl. 89—198.

Saives, Leon, to Regie Nationale des Usines Renault. Automatic control device for machine tools. 2,779,140, 1–29–57, Cl. 51—165.

Sampson, Frederick W., to General Motors Corp. Ice tray grid. 2,779,166, 1–29–57, Cl. 62—108.5.

Sandborn, Edmond. Vein stripper. 2,779,334, 1–29–57, Cl. 128—303.

Sandoz, A. G.: *See*—
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Ruckstuhl, Hans, and Wehrli. 2,779,757.

Santucci, Frank: *See*—
Clarke, William B., Hunter, and Santucci. 2,779,490.

Sardeson, Robert: *See*—
Miller, Claire K., and Sardeson. 2,779,408.

Sarett, Lewis H., to Merck & Co., Inc. Phosphate derivatives of 9α-fluoro-steroids. 2,779,775, 1–29–57, Cl. 260—397.45.

Sargent & Co.: *See*—
Ellis, Charles A. 2,779,184.
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Sarong, Inc.: *See*—
Lax, Leona. 2,779,023.

Saul & Co.: *See*—
Frey, Wolfgang. 2,779,772.
Neier, Reinhard, Petitjean, and Wehrli. 2,779,758.
Ruckstuhl, Hans, and Wehrli. 2,779,755.
Ruckstuhl, Hans, and Wehrli. 2,779,757.

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Chisholm, Douglas S., and Saunders. 2,779,672.

Sawyer, Boyd F. Automatic electrically operated water heater. 2,779,855, 1–29–57, Cl. 219—39.

Scarff, Harold M. Tool-centering machine. 2,779,040, 1–29–57, Cl. 10—147.

Schaefer, Edward J. Thrust bearing. 2,779,637, 1–29–57, Cl. 308—160.

Schaffer, Robert: *See*—
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Schairer, Edward G., to Armstrong Cork Co. Method of manufacturing hard surface covering with partial removal of the selvage bands. 2,779,387, 1–29–57, Cl. 154—25.

Schantz, Leonard G.: *See*—
Steele, Bruce B., and Schantz. 2,779,512.

Scharf, Herbert, to Maschinenfabrik Augsburg-Nurnberg A. G. Heat treatment of ceramic materials. 2,779,082, 1–29–57, Cl. 25—157.

Scheidt, Gerald A.: *See*—
Hauck, Leon P., and Scheidt. 2,779,545.

Scheithauer, Walter E. Animated submersible toy. 2,779,131, 1–29–57, Cl. 46—92.

Schenck, Walter J., Sr. Laundry aid. 2,779,076, 1–29–57, Cl. 24—137.

Schick, John W.: *See*—
Koft, Emil, Jr., and Schick. 2,779,737.

Schlough, Leon H. and W. E. Mason's splitting machine. 2,779,324, 1–29–57, Cl. 125—23.

Schlough, Wesley E.: *See*—
Schlough, Leon H. and W. E. 2,779,324.

Schmidt, David, to Aktiengesellschaft fuer Technische Studien. Thermal power installation for utilizing waste heat. 2,779,159, 1–29–57, Cl. 60—59.

Schneider, Helmuth G.: *See*—
Garabrant, Arthur R., Schneider, Goering, and Mottern. 2,779,753.

Schneider, Joachim. Mixing or stirring devices. 2,779,574, 1–29–57, Cl. 259—134.

Schnellpressenfabrik Aktiengesellschaft Heidelberg: *See*—
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Schoengarth, Walter L. Scaler. 2,779,085, 1–29–57, Cl. 29—81.

Schorer, Otto J., to Worthington Corp. Oiler for percussive tools. 2,779,436, 1–29–57, Cl. 184—55.

Schramm, Ella, and D. R. Berness. Parking garage. 2,779,484, 1–29–57, Cl. 214—16.1.

Schreiner, Kenneth E., and B. L. Havens, to the United States of America as represented by the Secretary of the Navy. Azimuth error indicator. 2,779,940, 1–29–57, Cl. 343—16.

Schuller, Heri, to G. H. Rother. Non-rotating wire ropes. 2,779,149, 1–29–57, Cl. 57—148.

Schulze, Kurt E., to E. Roe, d. b. a. Coast Wire Co. Method of tying wire. 2,779,356, 1–29–57, Cl. 140—93.

Schumacher, Frank A.: *See*—
Solley, Douglas A., Jr., and Schumacher. 2,779,170.

Schumann, Helmut W. Motor tool. 2,779,883, 1–29–57, Cl. 310—50.

Schuster, Herman A. Apparatus for forming fins. 2,779,223, 1–29–57, Cl. 80—13.

Schwarzkopf Development Corp.: *See*—
Steinitz, Robert. 2,779,579.
Steinitz, Robert. 2,779,580.

Schweiss, Joseph, to ACF Industries, Inc. Carburetor throttle control. 2,779,586, 1–29–57, Cl. 267—1.

Schweisthal, Frederick G., to Stewart-Warner Corp. Variable capacity oil mist generator. 2,779,437, 1–29–57, Cl. 184—55.

Schweitzer, Nicholas C. Currency holder. 2,779,461, 1–29–57, Cl. 206—37.

Schweller, Edmund F.: *See*—
Gaugler, Richard S., and Schweller. 2,779,066.

Schwencke, Edmund H., to Elastomer Chemical Corp. Plasticizing vinyl resins. 2,779,743, 1–29–57, Cl. 260—23.

Scott, David J., to Walter Scott & Co., Inc. Web roll splicing mechanism. 2,779,546, 1–29–57, Cl. 242—58.

Scott, Raymond. Indexing and selector device for magnetic tape recorders. 2,779,826, 1–29–57, Cl. 179—100.2.

Scott, Walter, & Co., Inc.: *See*—
Scott, David J. 2,779,546.

Scripto, Inc.: *See*—
Smith, Blanchard D. 2,779,179.

Seaman, Blair C.: *See*—
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Searle, George H.: *See*—
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Seastrom, Wensil H., to Seastrom Mfg. Co. Punch press feeding mechanism. 2,779,590, 1–29–57, Cl. 271—2.5.

Selas Corp. of America: *See*—
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Sell, Henry B., and J. Leckie, to Sell's Specialties, Inc. Method of preparing and packaging meat. 2,779,681, 1–29–57, Cl. 99—174.

Sell's Specialties, Inc.: *See*—
Sell, Henry B., and Leckie. 2,779,681.

Semar, Claud S., to General Motors Corp. Door check and holdopen. 2,779,050, 1–29–57, Cl. 16—82.

Servo Corp. of America: *See*—
Gallagher, Cornelius A. 2,779,894.

Sesny, Stephen A., and F. B. E. Peters, to International Business Machines Corp. Self-locking plug connector. 2,779,929, 1–29–57, Cl. 339—217.

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Shahan, Alva V. Device for installing tension springs on automobile hood hinges. 2,779,087, 1–29–57, Cl. 29—227.

Shaller, Herman I., to the United States of America as represented by the Secretary of the Army. Protective baffle for mantle type hydrocarbon burners. 2,779,181, 1–29–57, Cl. 67—50.

Shanhouse, William M. Navigational relative motion computer. 2,779,538, 1–29–57, Cl. 235—61.

Sharpe, Verlos G., and E. C. Simmons, to General Motors Corp. Refrigerator with can dispenser. 2,779,169, 1–29–57, Cl. 62—117.3.

Sharrah, Marion L., to Continental Oil Co. Basic alkaline earth metal sulfonates and method of making same. 2,779,784, 1–29–57, Cl. 260—505.

Shaw, Herbert G., to Sargent & Co. Door locks. 2,779,614, 1–29–57, Cl. 292—36.

Shay, George C.: *See*—
Speno, Frank, Jr., and Shay. 2,779,141.

Shell Development Co.: *See*—
Finch, Harry D., and De Benedictis. 2,779,801.
Harlan, James T., Jr. 2,779,802.
Holm, Roy T., and Smith. 2,779,800.
Olney, Richard B., and Strand. 2,779,577.

Shelton, Russell O.: *See*—
Dale, Glenn H., and Shelton. 2,779,709.

Shoemaker, Edwin J.: *See*—
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Knabusch, Edward M., and Shoemaker. 2,779,392.
Knabusch, Edward M., and Shoemaker. 2,779,393.

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Short, Thomas, to the United States of America as represented by the Secretary of the Air Force. Speed responsive circuit. 2,779,909, 1–29–57, Cl. 323—71.

Shoup, Thomas E., and R. W. Sholle, to Gregory Industries, Inc. Stud welding device. 2,779,859, 1–29–57, Cl. 219—98.

Shuler, Thomas C., Jr.: *See*—
Pichler, Joseph R., Brubaker, Shuler, and Wark. 2,779,165.

Shuttleworth, David H.: *See*—
Underwood, Garfield J. 2,779,354.

Siegel, Walter: *See*—
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Sigardson, Chris, to Hapman Conveyors, Inc. Flight conveyor with renewable flights. 2,779,454, 1–29–57, Cl. 198—176.

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Loxham, John. 2,779,585.

Signal Oil and Gas Co.: *See*—
Moon, James. 2,779,915.

Signode Steel Strapping Co.: *See*—
Leslie, John H., II. 2,779,410.

Silabert Corp.: *See*—
Moore, Harry O. 2,779,096.

Silverman, Abraham. Drophead sewer auger and shield. 2,779,041, 1–29–57, Cl. 15—104.3.

Silverman, Daniel, to Stanolind Oil and Gas Co. Seismic surveying. 2,779,428, 1–29–57, Cl. 181—0.5.

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Sharpe, Verlos G., and Simmons. 2,779,169.

Simon, Karl. Device for subsoil testing and taking of specimens. 2,779,195, 1–29–57, Cl. 73—421.

Simon, Ruth M.: *See*—
Mazer, Jacob. 2,779,429.

Sims, Curtis. Drying cylinder. 2,779,104, 1–29–57, Cl. 34—110.

Sinclair, James A. Thrower apparatus for forming a moving column of particles. 2,779,455, 1–29–57, Cl. 198—128.

Sipmann, Francis J. Tooth paste container having means to position it in a cavity in the handle of a dispensing toothbrush. 2,779,505, 1–29–57, Cl. 222—100.

Sisk, Martin A. Surface drains. 2,779,430, 1–29–57, Cl. 182—31.

Sisson, Wayne A., to American Viscose Corp. Method and apparatus for treating yarn strands. 2,779,457, 1–29–57, Cl. 203—200.

Skelton, William E.: *See*—
Cole, Edward L., and Skelton. 2,778,713.

Skillin, Walter F., to Union Mfg. Co. Hydraulic chuck. 2,779,601, 1–29–57, Cl. 279—4.

Slavens, Wayne E., to Deere Mfg. Co. Anti-clogging means for corn harvesters. 2,779,148, 1–29–57, Cl. 56—104.

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Copelin, Harry B., and Sledd. 2,779,765.

Slettenmark, Karl I. G. Wind-gauge working on the pressure principle. 2,779,194, 1–29–57, Cl. 73—209.

Slingerland, Henry H., Jr. Counterhoop. 2,779,227, 1–29–57, Cl. 84—411.

Sloan Valve Co.: *See*—
Pilliung, Jacques J. 2,779,625.

Small, Frank R. Blood counting method. 2,779,232, 1–29–57, Cl. 88—14.

Smart, Clarence F., to General Motors Corp. Antimony plating bath. 2,779,725, 1–29–57, Cl. 204—45.

Smillie, John F. Ash receiver and snuffer. 2,779,341, 1–29–57, Cl. 131—235.

Smith, Arthur W., by decree of distribution, to G. M. Smith. Loose-leaf album for viewing photographic slides. 2,779,116, 1–29–57, Cl. 40—102.

Smith, Blanchard D., to Scripto, Inc. Lighter. 2,779,179, 1–29–57, Cl. 67—7.1.

Smith, Carliste F., to J. I. Case Co. Tractor mounted mower. 2,779,145 1–29–57, Cl. 56—25.

Smith, Curtis W.: *See*—
Holm, Roy T., and Smith. 2,779,800.

Smith, George L. Projectile parbuckling mechanism. 2,779,245, 1–29–57, Cl. 89—45.

Smith, Guileme M.: *See*—
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Smith, Lloyd B. Centrifugal dust collector. 2,779,434, 1–29–57, Cl. 183—76.

Smith and Loveless, Inc.: *See*—
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Smith, Robert E. Torpedo exploder. 2,779,277, 1–29–57, Cl. 102—16.

Smith, Tom F., to Autoscope, Inc. Outdoor drive-in threatre and projection means with a plurality of viewing screens. 2,779,237, 1–29–57, Cl. 88—24.

Smithvale Engineering and Mfg. Corp.: *See*—
Vale, Verner D. 2,779,621.

Smits, Wytze B., to Smitsvonk N. V. Research Laboratory, Comp. Starting device for internal combustion engines. 2–779,898, 1–29–57, Cl. 315—212.

Smitsvonk N. V. Research Laboratory, Comp.: *See*—
Smits, Wytze B. 2,779,898.

Snow, Eugene A. Gauge for cut-off saw tables and the like. 2,779,360, 1–29–57, Cl. 143—174.

Snyder, Robert H., to United States Rubber Co. Thermoplastic composition comprising vinyl chloride polymer and diolefin-dialkyl fumarate copolymer. 2,779,748, 1–29–57, Cl. 260—45.5.

Societe Belge de l'Azote et des Produits Chimiques du Marly: *See*—
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Societe d'Etudes et de Participations, Eau, Gaz, Electricite, Energie, S. A.: *See*—
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Societe Moderne d'Appareils Menagers Conord: *See*—
Conord, André. 2,779,445.

Societe Nationale de Constructions Aeronautiques du Sud-Est: *See*—
Herell, Georges J. B. V., and Jakimiuk. 2,779,558.
Jakimiuk, Wslewolod J., and Herell. 2,779,557.

Socony Mobil Oil Co., Inc.: *See*—
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Koft, Emil, Jr., and Schick. 2,779,737.

Soffer, Jack W., to Development Research, Inc. Dispensing valves. 2,779,516, 1–29–57, Cl. 222—394.

Soguel, René. Crown for waterproof watches. 2,779,153, 1–29–57, Cl. 58—90.

Sohlberg, Carl O., to Telefonaktiebolaget L M Ericsson. Speed governor particularly for dials. 2,779,444, 1–29–57, Cl. 188—184.

Sokol, Leo. Power line insulator clamp. 2,779,815, 1–29–57, Cl. 174—169.

Solley, Douglas A., Jr., and F. A. Schumacher, to General Electric Co. Evaporator circuit. 2,779,170, 1–29–57, Cl. 62—126.

Sonbergh, Gilbert R., to Electro-Card, Inc. Electronic lock. 2,779,874, 1–29–57, Cl. 250—36.

Sonneborn, L., Sons, Inc.: *See*—
Phillips, Joseph, and Kinsel. 2,779,710.

South Texas Truck Equipment Co., Inc.: *See*—
Kimbro, Albert M., and Tunkis. 2,779,602.

Sowden, Parkin T., Jr., to Phillips Petroleum Co. Production of aromatics. 2,779,806, 1–29–57, Cl. 260—673.

Spainhour, Carroll D., to Western Electric Co., Inc. Adjustable fixture for positioning and supporting a work piece in an impact delivering machine. 2,779,275, 1–29–57, Cl. 101—407.

Special Textiles, Inc.: *See*—
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Spence, Paulsen. Adjustable lever valve. 2,779,563, 1–29–57, Cl. 251—234.

Speno, Frank, Jr., and G. C. Shay, to Frank Speno Railroad Ballast Cleaning Co. Inc. Railgrinder. 2,779,141, 1–29–57, Cl. 51—178.

Speno, Frank, Railroad Ballast Cleaning Co. Inc.: *See*—
Speno, Frank, Jr., and Shay. 2,779,141.

Sperry Products, Inc.: *See*—
Henry, Elliott A., and Paul. 2,779,870.

Sperry Rand Corp.: *See*—
Rauth, William R., Jr. 2,779,910.

Spiece, Stanley J., to McGraw Electric Co. Capacitor housing. 2,779,879, 1–29–57, Cl. 307—94.

Spitz, Peter H., T. A. Reiter, and R. E. Whall, to Esso Research and Engineering Co. Quench-elutriator vessel. 2,779,719, 1–29–57, Cl. 202—37.

Spivack, John D., to Tidewater Oil Co. Turbine lubricating oil compositions. 2,779,739, 1–29–57, Cl. 252—49.8.

Sprague Electric Co.: *See*—
Lehovec, Kurt. 2,779,877.

Sprauer, Jerome W.: *See*—
Heitmann, Wilbie S., and Sprauer. 2,779,807.

Spraying Systems Co.: *See*—
Wahlin, Fred W. 2,779,478.

Spriggs, John S.: *See*—
Houtman, Thomas, Jr., Zurawic, and Spriggs. 2,779,721.

Springer, John. Toothbrush holder. 2,779,560, 1–29–57, Cl. 248—111.

Stahl, Robert J., to Color Television Inc. Color television camera stabilizing circuit. 2,779,817, 1–29–57, Cl. 178—5.4.

Stam, Stephen A., to the United States of America as represented by the Secretary of the Army. Lightweight cradle rocket launcher mount. 2,779,244, 1–29–57, Cl. 89—37.

Standard Oil Co. (Illinois): *See*—
Goretta, Louis A. 2,779,711.

Standard Oil Co. (Ohio), The: *See*—
Stine, Harrison M. 2,779,712.

Standard Register Co., The: *See*—
Davidson, John T. 2,779,272.

Standard-Thomson Corp.: *See*—
Hottenroth, Frederick W., Jr. 2,779,095.

Stanley Building Specialties Co.: *See*—
Blanchard, Donn C. 2,779,008.

Stanley, Gordon W. Defrosting attachment for windshields. 2,779,067, 1–29–57, Cl. 20—40.5.

Stanolind Oil and Gas Co.: *See*—
Buchanan, Donnell M., and Menaul. 2,779,734.
Clark, Roscoe C., Jr. 2,779,416.
Clark, Roscoe C., Jr., and Howard. 2,779,417.
Garst, Arthur W. 2,779,418.
Howard, George C. 2,779,415.
Mungen, Richard. 2,779,777.
Mungen, Richard. 2,779,778.
Silverman, Daniel. 2,779,428.

Stastny, Fritz, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of porous shaped articles true to shape and size from synthetic thermoplastic materials. 2,779,062, 1–29–57, Cl. 18—48.

Steel Co. of Ohio: *See*—
Rader, Merill E. 2,779,507.

Steele, Bruce B., and L. G. Schantz; said Schantz assor. to said Steele. Powder dispenser. 2,779,512, 1–29–57, Cl. 222—307.

Steffenhagen, Lee C.: *See*—
Lorimer, James P., and Steffenhagen. 2,779,368.

Steinhardt, Irving H. Game boards. 2,779,598, 1–29–57, Cl. 273—132.

Stelniger, Herman W., to The Bauer Bros. Co. Thrust bearing and seal. 2,779,638, 1–29–57, Cl. 308—187.

Stelnitz, Robert, to Schwarzkopf Development Corp. Conveyor for high temperature furnaces. 2,779,579, 1–29–57, Cl. 263—8.

Stelnitz, Robert, to Schwarzkopf Development Corp. High temperature furnaces and their production. 2,779,580, 1–29–57, Cl. 263—41.

Stevens, Charles H., to the United States of America as represented by the Secretary of the Army. Cam block actuator. 2,779,248, 1–29–57, Cl. 89—155.

Stevenson, Edward E., to United States Steel Corp. Bottom seal for deep-well pumps. 2,779,420, 1–29–57, Cl. 166—195.

Stewart, John E., to Federal-Mogul-Bower Bearings, Inc. Torquometer. 2,779,187, 1–29–57, Cl. 73—9.

Stewart-Warner Corp.: *See*—
Bell, William R. 2,779,446.
Schwelsthal, Frederick G. 2,779,437.

Stine, Harrison M., to The Standard Oil Co. Continuous process for the removal of mercaptans from hydrocarbons and apparatus therefor. 2,779,712, 1–29–57, Cl. 196—32.

Stonestreet, George A., and G. H. Searle, to T. Wall & Sons Ltd. Apparatus for filling liquid or plastic substances into containers. 2,779,357, 1–29–57, Cl. 141—82.

Stookey, Stanley D.: *See*—
Hood, Harrison P., and Stookey. 2,779,136.

Storfer, Alfred. Garment. 2,779,024, 1–29–57, Cl. 2—93.

Stoudenheimer, Richard G., to Radio Corp. of America. Photosensitive electrode and method for producing same. 2,779,888, 1–29–57, Cl. 313—102.

Stout, Elmer O., to General Motors Corp. Refrigerating apparatus. 2,779,529, 1–29–57, Cl. 230—21.

Stovall, John R., Jr., G. C. Lawrie, and A. F. Craig, to Tinius Olsen Testing Machine Co. Automatic machine to test and correct for dynamic unbalance. 2,779,217, 1–29–57, Cl. 77—5.

Strader, Walter F. Internal combustion engine. 2,779,318, 1–29–57, Cl. 123—13.

Strand, Carl P.: *See*—
Olney, Richard B., and Strand. 2,779,577.

Strange, John, to Tinnerman Products Inc. Fuze clips. 2,779,280, 1–29–57, Cl. 102—27.

Strippgen, Walter E.: *See*—
Hermeyer, Edward J., and Strippgen. 2,779,865.

Strohmeier, Harald. Feeding-device for conducting-wires, especially designed for heating and drying coating-materials applied to welding-rods. 2,779,801, 1–29–57, Cl. 219—156.

Sun Oil Co.: *See*—
Patterson, Omar L. 2,779,871
Patterson, Omar L. 2,779,872.

Superweld Corp.: *See*—
Cape, Arthur T. 2,779,674.

Sutowski, Walter S. Bearing construction. 2,779,641, 1–29–57, Cl. 308—196.

Svala, Carl G., and A. Berge, to Telefonaktiebolaget L M Ericsson. Connecting device in automatic telephone systems. 2,779,823, 1–29–57, Cl. 179—18.

Svenska Tandsticks Aktiebolaget: *See*—
Nuorivaara, Zachris E. M. 2,779,466.

Swarzman, Ruben S. Fixture for assembling pallets. 2,779,021 1–29–57, Cl. 1—47.

Sweet, Donald H.: *See*—
Heitman, George C., and Sweet. 2,779,441.

Sweitzer, Carl W., to Columbian Carbon Co. Carbon black production. 2,779,664, 1–29–57, Cl. 23—209.4.

Swensen, Gunder G. U. W., to Norsk Hydro-Elektrisk Kvaelstotaktieselskab. Filter plant. 2,779,477, 1–29–57, Cl. 210—150.

Sykes, Hope W. Collapsible, portable, torso-simulating dress form. 2,779,520, 1–29–57, Cl. 223—68.

Sylvania Electric Products Inc.: *See*—
Carlzen, Carl F., and Lehner. 2,779,385.
Gates, Paul E. 2,779,134.
Pifer, Marion J. 2,779,938.

Sylvester, Edmund Q., to Griffin Wheel Co. Cast article and method of making. 2,779,075, 1–29–57, Cl. 22—213.

Synder, Jack A., to E. I. du Pont de Nemours and Co. Acyl pseudourea herbicidal composition and a method for killing weeds therewith. 2,779,669, 1–29–57, Cl. 71—2.6.

Syracuse Special Machine Co., Inc.: *See*—
Knauth, John P., and Lang. 2,779,384.

Taft-Peirce Mfg. Co., The: *See*—
Meyer, Franklin, Jr. 2,779,188.

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Lung, Kenneth R. 2,779,293.
Lung, Kenneth R. 2,779,352.

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Kikuchi, Takefusa. 2,779,494.

Tanona, Charles C., to Union Carbide and Carbon Corp. Separation of vinyl ethers by distillation. 2,779,720, 1–29–57, Cl. 202—39.5.

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Taylor, Franklin P., to J. M. Cranz Co., Inc. Automobile lock knob. 2,779,619, 1–29–57, Cl. 292—347.

Teitelman, Herbert: *See*—
Meigs, Charles H., and Teitelman. 2,779,316.

Telefonaktieboiaget L M Ericsson: *See*—
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Sohlberg, Carl O. 2,779,444.
Svala, Carl G., and Berge. 2,779,823.
Wiberg, Eric A. 2,779,843.

Tellier, Arthur A.: *See*—
White, Fred E. 2,779,123.

Tellier, Florence T.: *See*—
White, Fred E. 2,779,123.

Ten Eyck, William D. Easy start two-way siphon. 2,779,349, 1–29–57, Cl. 137—145.

Tener, Harold. Vacuum husking roll for mechanical corn pickers. 2,779,337, 1–29–57, Cl. 130—5.

Tepliz, Alfred, to United States Steel Corp. Apparatus for following an edge of a moving elongated object. 2,779,549, 1–29–57, Cl. 242—76.

Teves, Marten C., and P. C. Van der Linden, to Hartford National Bank and Trust Co. Method of manufacturing a photocathode screen assembly for an image amplifier. 2,779,685, 1–29–57, Cl. 117—33.5.

Texas Co., The: *See*—
Cole, Edward L., and Skelton. 2,779,713.

Texas Foundries, Inc.: *See*—
Beckham, Joe W. 2,779,325.

Textile Machine Works: *See*—
Haehnel, Herbert E. 2,779,177.

Textile Research Institute: *See*—
Pacsu, Eugene, and Bauer. 2,779,693.
Pacsu, Eugene, and Bauer. 2,779,694.

Thomas, Joseph R. Bed davenport. 2,779,030, 1–29–57, Cl. 5—13.

Thomas, Phillip. Automatic auto stabilizer and shock absorber. 2,779,587, 1–29–57, Cl. 267—11.

Thomas, William A., to General Electric Co. Multipole electric circuit breakers. 2,779,831, 1–29–57, Cl. 200—50.

Thomasma, John C. Toilet seat cover dispensing package. 2,779,500, 1–29–57, Cl. 221—26.

Thompson Products, Inc.: *See*—
Fidler, Robert E. 2,779,093.
Hopper, Malcolm M., and Lepley. 2,779,582.

Thomsen, John G. Spear pistol. 2,779,323, 1–29–57, Cl. 124—27.

Thomsen, Theodore R., to Robotron Corp. Method and apparatus for forming a spring of predetermined length from coil spring stock. 2,779,407, 1–29–57, Cl. 164—17.

Thurston, Ernest B., to Haughton Elevator Co. Car call cancellation means. 2,779,438, 1–29–57, Cl. 187—29.

Tidewater Oil Co.: *See*—
McBride, Joseph J., Jr. 2,779,738.
McBride, Joseph J., Jr. 2,779,798.
Messina, Nicholas V. 2,779,740.
Spivack, John D. 2,779,739.

Tinius Olsen Testing Machine Co.: *See*—
Stovall, John R., Jr., Lawrie, and Craig. 2,779,217.

Tinnerman Products, Inc.: *See*—
Flora, Laurence H. 2,779,377.
Strange, John. 2,779,280.

Tipdex (Holdings) Ltd.: *See*—
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Tobias, Cornelius A., and H. O. Anger, to the United States of America as represented by the United States Atomic Energy Commission. Radioactivity-distribution detector. 2,779,876, 1–29–57, Cl. 250—83.3.

Tokheim Corp.: *See*—
Wright, George W. Jauch, and Clymer. 2,779,503.

Tol, Taeke: *See*—
Teves, Maten C., Tol, and Van der Linden. 2,779,685.

Tomchak, Joseph A. Tire defroster, cleaner and dryer. 2,779,103, 1–29–57, Cl. 34—87.

Toth, Michael J.: *See*—
Dunning, John W., Moses, and Toth. 2,779,724.

Tonney, Paul R. Inkstand. 2,779,313, 1–29–57, Cl. 120—73.

Trager, Fred C., to Columbia-Southern Chemical Corp. Recovery of thionyl chloride. 2,779,663, 1–29–57, Cl. 23—203.

Traustrom, Clarence V. Animal trap. 2,779,124, 1–29–57, Cl. 43—85.

Travilla, James C., to General Steel Castings Corp. Railway car body structure. 2,779,297, 1-29-57, Cl. 105—409.

Trexler, Philip C., to the United States of America as represented by the Secretary of the Navy. Protective garment. 2,779,331, 1-29-57, Cl. 128—140.

Trotter, Marvin L.: *See*—
Trotter, Marvin, and Jarvis.

Trotter, Marvin, and Jarvis. 2,779,488.

Trotter, Marvin, and C. W. Jarvis, to M. L. Trotter. Self contained elevator unit for truck bodies. 2,779,488, 1-29-57, Cl. 214—77.

Troxell, Harold M. Nose towed airborne capsule. 2,779,553, 1-29-57, Cl. 244—3.

Tucker, Hazel R. Undergarment. 2,779,022, 1-29-57, Cl. 2—36.

Tucker, Jesse D. Steam generator. 2,779,315, 1-29-57, Cl. 122—208.

Tucker, Maurice L., 50% to D. S. Wade. Automatic braking trailer hitch. 2,779,443, 1-29-57, Cl. 188—112.

Tunkis, Lee J.: *See*—
Kimbro, Albert M., and Tunkis.

Tunkis, Lee J. 2,779,602.

Turk, Stanley D.: *See*—
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Turner Electric Corp.: *See*—
Turner, John L., and Krummel.

Turner, John L., and Krummel. 2,779,830.

Turner, John L., and F. J. Krummel, to Turner Electric Corp. High voltage switch. 2,779,830, 1-29-57, Cl. 200—48.

Turzillo, Lee, and K. McKinzie, to Intuslon-Prepakt, Inc. Continuous grout strainer. 2,779,575, 1-29-57, Cl. 259—152.

Twiss, Alvie. Metal legging. 2,779,108, 1-29-57, Cl. 36—2.

Tykulsky, Alexander, to Ohmega Laboratories. Ultra-sweep oscillator. 2,779,873, 1-29-57, Cl. 250—36.

Underwood Corp.: *See*—
Becker, Fred.

Becker, Fred. 2,779,451.

Underwood, Garfield J., and D. H. Shuttleworth, to Mohasco Industries, Inc. Chenille fabrics and method of producing same. 2,779,354, 1-29-57, Cl. 139—394.

Union Carbide and Carbon Corp.: *See*
Anthes, Clifford C. 2,779,666.
Daniels, Rupert S., and Mostello. 2,779,668.
Groff, Frazier, and Potter. 2,779,744.
Murray, James V., Jr., and Anderson. 2,779,722.
Phillips, Benjamin, and Frostick. 2,779,771.
Tarona, Charles C. 2,779,720.
Wilson, Jack L., and Gonas. 2,779,510.

Union Mfg. Co.: *See*—
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United Corp.: *See*—
Goodwin, Ernest G. 2,779,440

United Aircraft Corp.: *See*—
Lee, John G. 2,779,193.

United Electric Controls Co.: *See*—
Reis, Arthur W. 2,779,838.

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United States Atomic Energy Commission, United States of America as represented by the: *See*
Ballard, Albert E. 2,779,657.
Borkowski, Casimer J., and Porter. 2,779,875.
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Snyder, Robert H. 2,779,748.

United States Steel Corp.: *See*—
Baughman, Robert W., and Grange. 2,779,698
Chenault, Roy L., and Mohnkern. 2,779,697
Muddiman, Earll R. 2,779,550.
Penitz, Ferdinand J. 2,779,551.
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Peterson, Durey H., and Leach. 2,779,705.

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Vale, Verner D., to Smithvale Engineering and Mfg. Corp. Collapsible automobile camp trailer. 2,779,621, 1-29-57. Cl. 296—23

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Van Der Sluys, William, to Pullman-Standard Car Mfg. Co. Folding bed counterbalance mechanism. 2,779,032, 1-29-57, Cl. 5—164.

Van Dongen, Dingeman, to N. V. Bronswerk. Vertically swinging closure operator. 2,779,589, 1-29-57, Cl. 268—75.

Van Wezel, Herman J., to Koninklijke Machinefabriek Gebr. Stork & Co. N. V. Continuously operating centrifugal machine. 2,779,473, 1-29-57, Cl. 210—69

Van Wezel, Herman J., to Koninklijke Machinefabriek Gebr. Stork & Co. N. V. Continuously operating centrifugal machine. 2,779,474, 1-29-57, Cl. 210—69

Vaughn, Guy W., Jr., and C. R. Sacchini to Curtiss-Wright Corp., Marquette Metal Products Division. Card clothing treatment mechanism. 2,779,963, 1-29-57, Cl. 19—109.

Vennerholm, Gosta, and H. N. Bogart, to Ford Motor Co. Foundry practice. 2,779,675, 1-29-57, Cl. 75—130.

Verbrugge Joseph J: *See*—
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Vesque, Henri, to L'Air Liquide, Societe Anonyme pour l'Etude et l'Exploitation des Procedes Georges Claude. Low temperature separation of gaseous mixtures. 2,779,174, 1-29-57, Cl. 62—175.5

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Vining, William H., to E. I. du Pont de Nemours and Co. Apparatus for chemical reactions passing through viscous phase. 2,779,752, 1-29-57, Cl. 260—91.3.

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Kosiov, Joseph. 2,779,659.
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Vogel, William G. Truck extension ladder. 2,779,525, 1-29-57, Cl. 228—45.

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Vogt, Clarence W. Multi-unit container. 2,779,526, 1-29-57, Cl. 229—34

Vogt, Clarence W. Apparatus for severing or perforating adhesive tape. 2,779,851, 1-29-56, Cl. 219—19.

Vorech, Stephen, to Rendix-Westinghouse Air Brake Co. Combined fluid pressure motor and valve mechanism. 2,779,314, 1-29-56, Cl. 121—41.

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Wade, Douglas S.: *See*
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Wagner, Tobias. Traffic signal with time lapse indication. 2,779,932, 1-29-57, Cl. 340—42.

Wahlin, Fred W., to Spraying Systems Co. Tapered strainer and assemblies. 2,779,478, 1-29-57, Cl. 210—170.

Walker, Harold N. Apparatus for operating valve gates for controlling discharge conduits in dam constructions. 2,779,160, 1-29-57, Cl. 61—25.

Walker, Norman A. Device to establish an electrical circuit. 2,779,842, 1-29-57, Cl. 200—142.

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Walters, William R. Shaker screen constructions. 2,779,470, 1-29-57, Cl. 209—313.

Walters, William R. Railway car construction with material handling means. 2,779,493, 1-29-57, Cl. 214—522.

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Waters, Henry C., to Perforating Guns Atlas Corp. Electrical well logging system. 2,779,912, 1-29-57, Cl. 324—1.

Waters, Henry C., to Perforating Guns Atlas Corp. Dual frequency well logging system. 2,779,913, 1-29-57, Cl. 324—1.

Waters, Herbert H., to The Firestone Tire & Rubber Co. Method of vulcanizing tubeless tires. 2,779,386, 1-29-57, Cl. 154—14

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Ruckstuhl, Hans, and Wehrll. 2,779,757.

Wels, Frank G., to Smith and Loveless, Inc. Weighing tank switch control system. 2,779,562, 1-29-57, Cl. 249—1.

Weltzel, Fred M. Weight shifter and balancing device or hitch. 2,779,606, 1-29-57, Cl. 280—489.

Weld, Foster E., to The Gamewell Co. Facsimile synchronizing apparatus. 2,779,820, 1-29-57, Cl. 178—69.5.

Welty, Frank, to Carbonic Dispenser, Inc. Pressure cap with integral pressure release mechanism for syrup tanks and the like. 2,779,515, 1-29-57, Cl. 222—394.

Welz, Alfred, to Filtrox-Werk A. G. Apparatus for making boardlike products from a fibrous cement mixture. 2,779,252, 1-29-57, Cl. 92—39.

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Hirschmann, Ralph F., Wendler, and Ruyle.

Wernert, Karl. Sealing arrangement for shafts. 2,779,611, 1-29-57, Cl. 286—9.

Wertman, David, and F. Warlick. Hydraulic rammer control and drive system. 2,779,246, 1-29-57, Cl. 89—47.

West, Albert E. Safety voltage detector. 2,779,919, 1-29-57, Cl. 324—72.5

West, Maurice C. Coin bank. 2,779,128, 1-29-57, Cl. 46—2.

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Whitaker, Arthur C., to Gulf Research & Development Co. Oxidation of aldehydes. 2,779,808, 1-29-57, Cl. 260—676.

White, Fred E., to A. A. and F. T. Tellier. Fishhook extractor. 2,779,123, 1-29-57, Cl. 43—54.5

White, John U. Optical system providing a long optical path. 2,779,230, 1-29-57, Cl. 88—1.

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Kauffmann, William M., and Whiting. 2,779,155.

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Wicklatz, John E., to Phillips Petroleum Co. Stabilized unsaturate SO_2 resins containing acrylates. 2,779,749 1-29-57, Cl. 260—79.3

Wideman, Ewell F. Bleeding valve for air brake cylinders 2,779,635, 1-29-57, Cl. 303—68.

Wiegers, Irvin E., to Hamilton-Thomas Corp. Double stage valve for pumps or the like. 2,779,290, 1-29-57, Cl. 103—39.

Willard, Gerald W., to Bell Telephone Laboratories, Inc. Frequency discriminator employing multiply resonant piezoelectric vibrator. 2,779,191, 1-29-57, Cl. 73—67.8.

Willhauck, Augustus D., to United Shoe Machinery Corp. Breech mechanisms. 2,779,242, 1-29-57, Cl. 89—24

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Williams, William J. Multiple switch-speed controlled mechanism. 2,779,886, 1-29-57, Cl. 200—80.

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Willis, Frank M. Self-fastening tire chains. 2,779,379, 1-29-57, Cl. 152—225.

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Wilson, Jack L., and A. M. Gonas, to Union Carbide and Carbon Corp. Vibrational dispenser for forming solid gas mixtures. 2,779,510, 1-29-57, Cl. 222—193.

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Winslow, Charles A., to Winslow Aerofilter Corp. Air filter. 2,779,433, 1-29-57, Cl. 183—58.

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Robertson, Alice O. and D. N., and Link. 2,779,768.

Wisnieski, John C., to Lyon Inc. Buffing wheel and method of making same. 2,779,142, 1-29-57, Cl. 51—193.

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CLASSIFICATION OF PATENTS

ISSUED JANUARY 29, 1957

NOTE.—First number=class, second number=subclass, third number=patent number

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Classification of Designs

D10— 8. Des. 179,604
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D14— 6. Des. 179,611
D15— 1. Des. 179,603
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D89— 1. Des. 179,607

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
January 29, 1957 Volume 714 Number 5

TRADEMARKS

NOTICES

Erratum

The following registrations published under Sec. 12(c) were not included in the index of the OFFICIAL GAZETTE for Jan. 1, 1957.

Atlantic Insulated Wire & Cable Co., Jersey City, N. J., and Stamford, Conn., by General Cable Corp., New York, N. Y., and Perth Amboy, N. J. 114,858, 12(c) pub. 1–1–57. Cl. 46.
De Coursey Creamery Co., Kansas City, Kans., by Foremost Food & Chemical Co., San Francisco, Calif. 271,264, 12(c) pub. 1–1–57. Cl. 46.
Foremost Dairies, Inc.: *See*—
Golden State Co., Ltd.
Foremost Food & Chemical Co.: *See*—
De Coursey Creamery Co.
General Cable Corp.: *See*—
Atlantic Insulated Wire & Cable Co.
Golden State Co., Ltd., by Foremost Dairies, Inc., San Francisco, Calif. 364,579, 12(c) pub. 1–1–57. Cl. 46.
Revere Rubber Co., Providence, R. I., and Chelsea, Mass., by United States Rubber Co., Passaic, N. J. 114,280, 12(c) pub. 1–1–57. Cl. 35.
Stetson, John B., Co., Philadelphia, Pa. 340,981, 12(c) pub. 1–1–57. Cl. 39.
Studebaker Corp., The, by Studebaker-Packard Corp., South Bend, Ind. 340,733, 12(c) pub. 1–1–57. Cl. 19.
Studebaker-Packard Corp.: *See*—
Studebaker Corp., The.
Toch Brothers, New York, by Toch Brothers, Inc., Staten Island, N. Y. 114,581, 12(c) pub. 1–1–57. Cl. 12.
Toch Brothers, Inc.: *See*—
Toch Brothers.
United States Rubber Co.: *See*—
Revere Rubber Co.
Waterfilm Boilers, Inc., Jersey City, N. J. 341,293, 12(c) pub. 1–1–57. Cl. 34.

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

TM 501,318 (MILLER), E. S. Miller Laboratories, Inc., Alpha tocopherol acetate, aminophylline, etc., **filed** Dec. 3, 1956, D. C., S. D. N. Y., Doc. 115/189, *E. S. Miller Laboratories, Inc.* v. *Miller Laboratories, Inc.*

TM 538,447. (See TM 538,449.)

TM 538,449 ("TWIN RACK"), The Autoyre Co., Inc., Towel bars and towel racks; **TM 538,447** (CLIP-ON), same, Kitchen and bathroom accessories—namely, towel bars and towel racks; **2,374,881**, Murphy and Reisinger, Display card and fastener holder, **filed** Dec. 5, 1956, D. C., E. D. N. Y. (Brooklyn), Doc. 17717, *The Autoyre Co.* v. *Abraham Yagoda et al.*

TM 592,753 (MILEMASTER), Cities Service Oil Co., Pneumatic tires for automotive vehicles, **filed** Nov. 30, 1956, D. C., S. D. Fla. (Tampa), Doc. 2991–T, *Cities Service Oil Co et al.* v. *J. C Weidner Co., Inc. et al.*

CONDITION OF TRADEMARK APPLICATIONS AS OF NOVEMBER 30, 1956

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)] 7,523
Date of oldest new application ..... May 17, 1956
Date of oldest amended application ..... June 7, 1956

MERCHANT, JOHN, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application	
	New	Amended
I. STERBA, J. R., Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 44 and Certification Marks (Goods) Class A	5–21–56	8–17–56
II. SHRYOCK, R. F., Classes 6, 18, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200; and Certification Marks (Services) Class B	5–17–56	7–23–56
III. WENDT, C. M., Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 36, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 50, 52	6–15–56	6–7–56
Renewals (All Classes)	11–7–56	11–20–56
Sec. 12 (c) Publications (All Classes)	10–5–56	11–19–56

Applications Filed During the Month of November 1956—1,678

Registrations Issued ..... 314—No. 640,502 to No. 640,815
Renewals Issued 74

For the quarter—October 1, 1956 through December 31, 1956

Applications filed	5337
Registrations issued	4160
Renewals issued	906
Cancelled under Sec. 8	1850

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

Service by Publication

A petition to cancel the registration identified below having been filed, and the notice of such proceeding sent by registered mail to the assignee of record at the last known address having been returned by the post office as undeliverable, notice is hereby given that unless an appearance is entered herein by the assignee, or legal representatives, within thirty days from the date of this publication, the cancellation will be proceeded with as in the case of default.

Spector Bros., Inc., assignor to Churchill Tobacco Company, Chicago, Ill., Reg. No. 381,376, Canc. No. 6854.

DAPHNE LEEDS,
Assistant Commissioner of Patents.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

CLASS 2

RECEPTACLES

SN 688,107. Harold Warp, Minden, Nebr. Filed May 23, 1955.

For Planters, Vases, Pouring Vessels for Beverages, Containers for Food, Dispensing Containers for Condiments, Serving Vessels for Beverages—Namely, Mugs, Cups, and Tumblers, Coin Receptacles, Unfilled Compacts, Match Boxes, Pill Boxes, Tooth Pick Holders, and Trays Shaped To Serve as Containers.

First use May 15, 1953; Sept. 1, 1950, as to "Pioneer Village."

SN 939. Atlas Plywood Corporation, Boston, Mass. Filed Jan. 18, 1956.

ATLAS
PACKING CASE

The use of the term "Packing Case" is disclaimed apart from the use of the mark as shown. Owner of Reg. No. 209,886.

For Packing Cases.

First use January 1931.

CLASS 3

BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

SN 4,171. Baldwin-Rice Corporation, Boston, Mass. Filed Mar. 9, 1956.

PETECTOR

For Safety Garments for Animals.

First use Feb. 7, 1956.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

SN 687,618. The Parrott Chemical Company, Stamford, Conn. Filed May 16, 1955.

MALCAP

For Insecticide and Fungicide.

First use Feb. 25, 1955.

SN 698,176. Kali Manufacturing Company, Philadelphia, Pa. Filed Nov. 14, 1955.

UNISHADE

For Scouring and Dyeing Agent Used in One Bath Treatment of Nylon Hosiery.

First use Apr. 25, 1955.

CLASS 8

SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS

SN 688,370. Tupper Corporation, North Smithfield, R. I. Filed May 26, 1955.

TUPPERWARE

Owner of Reg. No. 421,264.

For Plastic Cigarette and Match Cases, Sold Empty.

First use Mar. 3, 1950.

CLASS 10

FERTILIZERS

SN 1,073. W. R. Grace & Co., New York, N. Y. Filed Jan. 19, 1956.

NACO

Owner of Reg. Nos. 127,199, 367,130, and others.

For Fertilizers and Fertilizer Materials.

First use Oct. 3, 1950.

SN 1,473. Reliance Chemicals Corporation, Houston, Tex. Filed Jan. 25, 1956.

BIOLOAM

For Organic Fertilizer.

First use Jan. 12, 1956.

CLASS 12

CONSTRUCTION MATERIALS

SN 12,009. The Celotex Corporation, Chicago, Ill. Filed July 12, 1956.

SHADOW-CREST

For Asphalt Shingles.
First use June 25, 1956.

SN 12,081. The Firestone Tire & Rubber Company, Akron, Ohio. Filed July 13, 1956.

GAZ

For Plastic Window Panes.
First use June 27, 1956.

SN 12,126. X-Pando Corporation, Long Island City, N. Y. Filed July 13, 1956.

X-PANDO

For Pipe Joint Compound, Caulking Compound, and Pointing Mortar.
First use June 1, 1930.

SN 12,167. The Flintkote Company, New York, N. Y. Filed July 16, 1956.

CED-A-ROC

For Insulation Siding.
First use on or about Oct. 20, 1928.

SN 12,183. Gladding, McBean & Co., Los Angeles, Calif. Filed July 16, 1956.

TENAX

For Refractory Compositions—Namely, Refractory Mortar.
First use 1939.

SN 12,184. Gladding, McBean & Co., Los Angeles, Calif. Filed July 16, 1956.

PYRAMID

For Refractory Compositions—Namely, Plastic Fire Clay Brick.
First use 1928.

SN 12,221. Reynolds Metals Company, Richmond, Va. Filed July 16, 1956.

TRIPLE PLUS

For Aluminum Foil Insulation.
First use Apr. 20, 1956.

CLASS 15

OILS AND GREASES

SN 5,796. Sail Oil Corporation, La Follette, Tenn. Filed Apr. 4, 1956.

Sail

For Petroleum Products—Namely, Gasoline, Motor Oils, Greases, Kerosene, Fuel Oil, and Lubricants.
First use Mar. 16, 1956.

SN 10,151. Esso Standard Oil Company, New York, N. Y. Filed June 13, 1956.

KUTWELL

Owner of Reg. No. 235,449.
For Cutting Oils, Soluble Cutting Oils.
First use Mar. 20, 1916.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

SN 694,044. The A. L. Boehmer Paint Company, d. b. a. The A. L. Boehmer Paint Co., Inc., Covington, Ky. Filed Sept. 1, 1955.

Custom-Tones

For Paint.
First use on or about Oct. 29, 1954.

SN 695,186. Schnectady Varnish Company, Inc., Schenectady, N. Y. Filed Sept. 22, 1955. Sec. 2(f).

SCHENECTADY

Owner of Reg. No. 120,466.
For Varnishes, Enamels, and Ingredients for Varnishes and Paints, Including Synthetic Resins, and Stains and Colors in Oil.
First use Oct. 1, 1917.

SN 10,064. Sun Chemical Corporation, Long Island City, N. Y. Filed May 25, 1956. Sec. 2(f).

SPEEDSPRAY

Owner of Reg. No. 336,365.
For Paint Enamels, Dry, Paste, and/or Ready Mixed Paints, Paint Colors, Varnishes, and Paint Undercoatings.
First use May 1934.

SN 10,760. Devoe & Raynolds Company, Inc., New York, N. Y. Filed June 22, 1956.

BAY STATE

For Ready Mixed and Semi-Paste Paints, Varnishes, Stains, Lacquers, Paint Enamels, Tinting Colors, Fillers, Sealers, Mastics, Primers, Painters' Driers, Drying Oils, and Thinners.
First use Jan. 1, 1884.

SN 10,806. Sarco Putty Co., Chicago, Ill. Filed June 22, 1956.

DUAL GLAZE

For Glazing Compound for Wood and Metal Sash.
First use June 27, 1945.

SN 10,935. Sta-Dri, Inc., Odenton, Md. Filed June 25, 1956.
Owner of Reg. Nos. 536,034, 543,169, and 586,057.

Sta-Dri

For Paint.
First use Feb. 14, 1947.

SN 11,494. The O'Brien Corporation, South Bend, Ind. Filed July 3, 1956.

"75"

For House Paint.
First use Nov. 18, 1949.

SN 12,049. The Sherwin-Williams Company, Cleveland, Ohio. Filed July 12, 1956.

KEM-MIX

Owner of Reg. Nos. 275,775, 606,039, and others.
For Additive for Synthetic Enamel Automotive Finishes.
First use Nov. 30, 1938.

SN 12,052. Super Concrete Emulsions, Ltd., Los Angeles, Calif. Filed July 12, 1956. Sec. 2(f).

WATER-BAR

Owner of Reg. No. 567,603.
For Water Repellent Coating Material Applied to Masonry Surfaces.
First use June 28, 1950.

SN 12,120. Tobias Paint Mfg. Co., Cleveland, Ohio. Filed July 13, 1956.

Rubber-Tuff

For Paints, Paint Primers, Paint Enamels, Raw Linseed Oil, Asphalt Products, Stains, Varnishes, Paint Thinners, and Paint Colors.
First use December 1952.

SN 12,366. Hercules Powder Company, Wilmington, Del. Filed July 18, 1956.

PARLON

Owner of Reg. No. 522,556.
For Ingredient (Chlorinated Rubber Base) of Paints, Varnishes, Lacquers, and Other Protective and Decorative Coatings.
First use Mar. 8, 1940.

SN 12,455. Pittsburgh Plate Glass Company, Pittsburgh, Pa. Filed July 19, 1956.

SATIN PRIME

Owner of Reg. No. 593,775.
For Paint Primers and Sealers.
First use Apr. 11, 1956.

SN 12,456. Pittsburgh Plate Glass Company, Pittsburgh, Pa. Filed July 19, 1956.

Maestro

Owner of Reg. No. 603,227.
For Paints and Enamels and Colors for Paints and Enamels.
First use Apr. 15, 1954.

SN 12,618. Simon R. Gordon, d. b. a. The Mighty-Mix Company, Minneapolis, Minn. Filed July 23, 1956.

MIGHTY-MIX

For Permanent Coating for Water Proofing Masonry.
First use July 2, 1956.

SN 13,213. The Glidden Company, Cleveland, Ohio. Filed Aug. 1, 1956.

DICHROFIL

For Combination Wood Stain and Filler.
First use Aug. 1, 1955.

SN 14,473. Prismo Safety Corporation, Huntingdon, Pa. Filed Aug. 23, 1956.

PRISMO "200"

Owner of Reg. Nos. 542,231, 566,232, and 581,756.
For Coating Materials Comprising Paint Binder, Binder Solvent, and Small Light Refracting Materials Such as Minute Glass Spheres for Use in Connection With the Fabrication of Highway Markers, Other Markers, and the Like.
First use Jan. 5, 1956.

SN 14,653. The Gerson Stewart Corporation, Cleveland, Ohio. Filed Aug. 27, 1956.

"FROSTINE"

For Compound for Frosting the Surface of Glass.
First use in January 1927.

SN 14,656. The Glidden Company, Cleveland, Ohio. Filed Aug. 27, 1956.

SPRED

For Paints, Semi-Paste Paint Bases, Mixing Liquids for Paints, Liquids for Conditioning Paint Surfaces, Granular Additives for Paints and Patching Compounds.
First use Apr. 6, 1939, on paint.

SN 16,011. American-Marietta Company, Chicago, Ill. Filed Sept. 20, 1956.

PEEL-KILL

Owner of Reg. No. 278,991.

For Varnish or Size for Coating Porous Surfaces, Primers and Specially Prepared Oil To Be Used in Place of the Usual Mixture of Linseed and Turpentine Which Is Added to the First Coat of Paint for Priming Wood Surfaces.

First use on or about July 1, 1930, on specially prepared oil.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

SN 692,439. V-M Nutri-Food, Inc., Evanston, Ill. Filed Aug. 3, 1955.

V-M NUTRI-FOOD

Without waving its common law rights and for purposes of this registration only, applicant makes no claim herein to the word "Food" apart from the mark as shown.

For Dietary Supplement Including Vitamins and Minerals.

First use Jan. 1, 1933.

SN 692,441. V-M Nutri-Food, Inc., Evanston, Ill. Filed Aug. 3, 1955.

V-M NUTRI-FOOD

Without waiving any common law rights and for the purpose of this registration only, applicant makes no claim herein to the words "Vitamins," "Minerals," and "Food" apart from the mark as shown.

For Dietary Supplement Including Vitamins and Minerals.

First use July 15, 1955; Jan. 1, 1933, as to "V-M Nutri-Food."

SN 2,598. Voigt's Pepticine Company, East Rutherford, N. J., to Hicks Pharmacal Company, Newark, N. J. Filed Feb. 13, 1956.

SOMNESIUM

For Preparation for Relief of Inability To Sleep Due to Digestive Disturbances and/or Food Allergies.

First use May 4, 1953.

SN 8,702. Herbert J. Roth, d. b. a. Roth Drug Company, Philadelphia, Pa. Filed May 21, 1956.

PETROCEL

For Medicine or Pharmaceutical Preparation Consisting of an Emulsion of Mineral Oil in Methol Cellulose Solution, Sweetened With Sodium Saccharin, Which Acts as an Intestinal Lubricant for Human Beings.

First use on or about June 22, 1953.

SN 8,703. Herbert J. Roth, d. b. a. Roth Drug Company, Philadelphia, Pa. Filed May 21, 1956.

SEDALOTION

For Medicine or Pharmaceutical Preparation Consisting of a Stearate Emulsion of Benzocaine, Menthol, and Camphor, To Act as a Transparent and Washable Local Anesthetic and Anti-Pruritic Agent, in Relief of Dermatitis, or Particular Types of Skin Irritations.

First use on or about June 22, 1953.

SN 8,750. Dome Chemicals, Inc., New York, N. Y. Filed May 22, 1956.

METHOXA-DOME

Owner of Reg. No. 385,764.

For Preparation Taken Internally or Applied Externally for the Treatment of Skin Conditions or To Induce Tanning.

First use in April 1956.

SN 8,752. Dome Chemicals, Inc., New York, N. Y. Filed May 22, 1956.

DOME-PASTE

Owner of Reg. No. 383,764.

For Medicinally Impregnated Bandage for Application to the Skin in the Treatment of Skin Irritations and Diseases.

First use in April 1949.

SN 9,001. The Upjohn Company, Kalamazoo, Mich. Filed May 24, 1956.

ORINASE

Owner of Reg. No. 369,336.

For Preparation for the Treatment of Metabolic Disease.

First use Dec. 9, 1955.

SN 9,160. Marion Laboratories, Inc., Kansas City, Mo. Filed May 28, 1956.

OS-FEO-CAL

For Medicinal Preparation in Tablet Form for Human Consumption and for Supplying Vitamin and Mineral Deficiency.

First use Apr. 23, 1956.

SN 9,161. Marion Laboratories, Inc., Kansas City, Mo. Filed May 28, 1956.

OS-FEO-VIM

Owner of Reg. No. 591,577.

For Medicinal Preparation in Tablet Form for Human Consumption and for Supplying Vitamin and Mineral Deficiency.

First use Apr. 23, 1956.

SN 9,590. Robinson-Bracey, Inc., Detroit, Mich. Filed June 4, 1956.

SHASKO

Owner of Reg. No. 546,298.

For Medicinal Skin Cream for the Relief of Muscular Aches and Pains, Douche Powder, Hair and Scalp Preparation To Relieve Dandruff and Promote the Growth of Hair, and Medicinal Herb Rub.

First use Dec. 15, 1949, on medicinal herb rub.

SN 10,415. Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed June 18, 1956.

GLUMORIN

Owner of German Reg. No. 601,476, dated Oct. 3, 1950.

For Chemotherapeutic Agents, Chemical Products for Healing Purposes and Culture of Health, and Pharmaceutical Drugs.

SN 10,416. Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed June 18, 1956.

BAYCARON

Owner of German Reg. No. 517,241, dated Nov. 6, 1939.

For Chemotherapeutic Agents for Humans and Animals, Chemical Products for Medicinal Purposes, and Pharmaceutical Drugs and Preparations.

SN 10,418. Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed June 18, 1956.

SARVINAL

Owner of German Reg. No. 488,296, dated Oct. 6, 1936.

For Chemotherapeutic Agents for Humans and Animals, Chemical Products for Medicinal Purposes, and Pharmaceutical Drugs and Preparations.

SN 10,420. Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed June 18, 1956.

TRASYLOL

Owner of German Reg. No. 312,476, dated Mar. 22, 1924.

For Chemotherapeutic Agents, Chemical Products for Medicinal Purposes and Pharmaceutical Drugs and Preparations.

SN 12,204. Dr. Bernhard A. Maklola, d. b. a. Bernhard A. Maklola, Institut für Arzneimittelforschung, Vaduz, Liechtenstein. Filed July 16, 1956.

POLYRUBIN

Priority claimed under Sec. 44(d) on Liechtenstein Reg. No. 584, dated Feb. 20, 1956.

For Pharmaceutical Preparation Against Paralysis in All Its Forms, and Against Rheumatic and Arthritic Diseases of All Kinds.

SN 12,585. Carter Products, Inc., New York, N. Y. Filed July 23, 1956.

BAMATE

For Tranquilizers and Sedatives for Use in Relieving Tension, Nervousness, Headaches, Fatigue, Depression, and Sleeplessness.

First use May 15, 1956.

SN 12,586. Carter Products, Inc., New York, N. Y. Filed July 23, 1956.

MALAMADE

For Tranquilizers and Sedatives for Use in Relieving Tension, Nervousness, Headaches, Fatigue, Depression, and Sleeplessness.

First use May 15, 1956.

SN 12,587. Carter Products, Inc., New York, N. Y. Filed July 23, 1956.

EASE

For Tranquilizers and Sedatives for Use in Relieving Tension, Nervousness, Headaches, Fatigue, Depression, and Sleeplessness.

First use May 15, 1956.

SN 13,073. Schenley Laboratories, Inc., New York, N. Y. Filed July 30, 1956.

DORBANTYL

Owner of Reg. No. 566,264.

For Peristaltic Stimulant.

First use July 12, 1956.

SN 13,769. Andrew G. Marin, d. b. a. A. G. Marin Pharmaceuticals, Miami, Fla. Filed Aug. 10, 1956.

MARACID

For Antispasmodic-Antiacid.

First use July 30, 1956.

SN 13,826. A. A. Firks, d. b. a. Firks Pharmaceuticals, Los Angeles, Calif. Filed Aug. 13, 1956.

THYROFLEX

For Pharmaceutical Preparation for the Control of Obesity.

First use May 11, 1956.

SN 13,833. Floyd F. Hampson, d. b. a. Glacial Mineral Products Co., Duvall, Wash. Filed Aug. 13, 1956.

HUNZA

For Vitamin-Mineral Food Supplement, Including Herbs and Grasses, in Powdered, Tablet, and Tea Forms.

First use July 16, 1956.

SN 13,838. Charles C. Haskell & Co., Inc., Richmond, Va. Filed Aug. 13, 1956.

BELPHEN

Owner of Reg. Nos. 347,618, 347,562, and others.

For Preparation for the Treatment of Gastro Intestinal Disorders.

First use Jan. 15, 1936.

SN 13,868. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed Aug. 13, 1956.

ENARAX

For Therapeutic Preparation Affecting the Central Nervous System.

First use June 7, 1956.

CLASS 19

VEHICLES

SN 692,572. The Budd Company, Philadelphia, Pa. Filed Aug. 8, 1955. Sec. 2(f).

Owner of Reg. Nos. 216,022 and 528,554.

For Vehicle Parts—Namely, Bodies, Chassis Frames; Body and Chassis Units, Unit Assemblies, and Individual Parts Particularly Stampings for Automotive Road Vehicles.

First use 1914.

SN 13,179. Societe Industrielle de Mecanique et Carrosserie Automobile, Paris, France. Filed July 31, 1956.

For Automobiles.

First use Oct. 16, 1951.

SN 13,817. Chris-Craft Corporation, Algonac, Mich. Filed Aug. 13, 1956.

For Inboard Motor Boat.

First use Jan. 13, 1955.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

SN 686,635. General Bronze Corporation, Garden City, N. Y. Filed May 2, 1955.

Sky Chief

For Antenna Rotators.
First use May 7, 1954.

SN 692,201. Otis T. Carr, Baltimore, Md. Filed Aug. 1, 1955.

CARROTTO

For Electrical Generating Equipment, Machinery and Instruments for Converting to Electrical Energy—Namely, Electric Batteries, Magnets, Electric Generators, and Thermonic Valves.
First use Mar. 15, 1955.

SN 694,104. Transition Electronic Corporation, Melrose, Mass. Filed Sept. 1, 1955.

For Diodes, Transistors, and Rectifiers.
First use Aug. 15, 1954.

SN 695,459. Western Auto Supply Company, Kansas City, Mo. Filed Sept. 27, 1955.

TWIN FIRE

For Spark Plugs.
First use May 2, 1953.

SN 695,769. Sonotape Corporation, New York, N. Y. Filed Oct. 3, 1955.

For Magnetic Type Pre-Recorded Tape.
First use Sept. 1, 1955.

SN 697,534. Collins Radio Company, Cedar Rapids, Iowa. Filed Nov. 2, 1955. Sec. 2(f) as to "Collins."

Owner of Reg. No. 356,554.
For Radio Transmitters, Electric, Both Power and Communications Type; Transformers; Speech Equipment Comprising Audio Frequency Amplifier Circuits; Mixing and Control Circuits; Electrical Connections for Microphones and Other Signal Sources Adapted To Be Used Therewith; Electronic Equipment—Namely, Transmitters and Receivers; Radio Transmitters, Electric Signal Amplifiers and Monitors, Studio Consoles for Radio Transmitters, Antenna Tuners, Combination Transmitters, and Receivers.
First use May 13, 1937.

SN 700,082. Century Lighting, Inc., New York, N. Y. Filed Dec. 16, 1955.

MOBILRAIL

For Electrical Overhead Grid Illumination System.
First use July 27, 1954.

SN 3,023. Prescolite Manufacturing Corporation, Berkeley, Calif. Filed Feb. 20, 1956.

"DieLux"

For Electric Light Fixtures.
First use on or about Jan. 21, 1955.

SN 4,026. William Kelly, d. b. a. Products K Blackpool, Blackpool, England. Filed Mar. 7, 1956.

TELE-AQUARIUM

Owner of British Reg. No. 735,402, dated Oct. 26, 1954.
For Lampshades Used With Electrical Lamps.

SN 6,486. U. S. Electrical Motors, Inc., Los Angeles, Calif. Filed Apr. 16, 1956. Sec. 2(f).

SYNCROGEAR

For Electrical Power Units, Consisting of an Electric Motor and a Reduction Transmission.
First use Dec. 6, 1932.

SN 6,972. Webster-Chicago Corporation, Chicago, Ill. Filed Apr. 23, 1956.

"MAGIC-MIND"

For Automatic Speed Selector for Disk Changers and Parts Thereof.
First use Mar. 10, 1956.

SN 7,224. Swivelier Company Incorporated, Brooklyn, N. Y. Filed Apr. 26, 1956.

SWIVELIER-COOLITE

For Incandescent Bulb Lamp Shade Comprising a Plurality of Concentric Shells So Arranged as To Allow the Outer Surface of the Lamp Shade To Be Maintained Near Ambient Temperature.
First use Oct. 30, 1953.

SN 8,829. Defensor Aktiengesellschaft (Defensor Limited or Defensor Societe Anonyme), Zurich, Switzerland. Filed May 23, 1956.

DEFENSOR

For Electrically Operated Atomizing Appliances for Humidification, Air Treatment Deodorizing, Disinfection, Insect, Pest, and Mildew Control, Dust and Smoke Reduction.
First use Nov. 25, 1948.

SN 10,434. Hy-G Products Company, Los Angeles, Calif. Filed June 18, 1956.

HY-GLOW

For Electric Lamps, Sockets, and Conductors Used for Christmas Lighting and Christmas Decorations.
First use Feb. 1, 1956.

SN 10,462. Northeast Tool and Die Works, Inc., Kansas City, Mo. Filed June 18, 1956.

SAFETY-NTD-LITE

For Battery Operated Electric Lanterns.
First use May 1, 1956.

SN 10,463. Northeast Tool and Die Works, Inc., Kansas City, Mo. Filed June 18, 1956.

NTD

For Battery Operated Electric Bicycle Lamps and Combined Battery Operated Lamps and Reflectors for Bicycles.
First use Jan. 1, 1941, on bicycle lamps.

SN 10,465. Northeast Tool and Die Works, Inc., Kansas City, Mo. Filed June 18, 1956.

LIFE-TIME

For Battery Operated Electric Lanterns.
First use Feb. 1, 1955.

SN 11,060. Channel Master Corporation, Ellenville, N. Y. Filed June 27, 1956.

SHOWMAN

For Television Antennas.
First use May 16, 1956.

SN 11,107. Polarad Electronics Corporation, Long Island City, N. Y. Filed June 27, 1956.

VELOCITRON

For Electron Tubes.
First use Mar. 15, 1956.

SN 11,138. Burgess Battery Company, Freeport, Ill. Filed June 28, 1956.

RADAR-FLASH

Owner of Reg. No. 624,872.
For Electric Lanterns and Electric Dry Batteries.
First use Mar. 7, 1956.

SN 11,139. Burgess Battery Company, Freeport, Ill. Filed June 28, 1956.

RADAR-LAMP

Owner of Reg. No. 624,872.
For Electric Lanterns and Electric Dry Batteries.
First use May 7, 1956.

SN 14,265. Nic-L-Silver Battery Co., Santa Ana, Calif. Filed Aug. 20, 1956. Sec. 2(f).

NIC L SILVER

Owner of Reg. No. 546,311.
For Storage Batteries.
First use Sept. 1, 1949.

SN 14,297. Telerad Manufacturing Corporation, New York, N. Y. Filed Aug. 20, 1956.

TELE-GUIDE

For Waveguides and Parts Therefor.
First use on or about Mar. 15, 1956.

SN 14,418. Triad Transformer Corporation, Venice, Calif. Filed Aug. 22, 1956.

Owner of Reg. No. 541,559.
For Choke Coils and Transformer.
First use during the month of August 1949.

SN 14,433. Channel Master Corporation, Ellenville, N. Y. Filed Aug. 23, 1956.

T-W

For Television Antennas.
First use July 23, 1956.

SN 14,623. Curtis Lighting, Inc., Chicago, Ill. Filed Aug. 27, 1956.

Edge-Glo

Owner of Reg. No. 330,140.
For Lighting Fixtures.
First use July 1955.

SN 14,743. The Hoover Company, North Canton, Ohio. Filed Aug. 28, 1956. Sec. 2(f).

HOOVER

Owner of Reg. Nos. 130,756, 604,676, and others.
For Electrical Appliances Including: Food Mixers and Parts Therefor and Coffee Pots and Parts Therefor.
First use Sept. 16, 1955, on coffee pots.

SN 14,756. Natvar Corporation, Woodbridge, N. J. Filed Aug. 28, 1956.

ISOLASTIC

For Electrical Insulating Material in Sheet, Web, Tube, and Tape Form.
First use June 12, 1956.

SN 14,771. Shure Brothers, Incorporated, Evanston, Ill. Filed Aug. 28, 1956. Sec. 2(f).

SHURE

For Magnetic Medium Recorder Heads, Phonograph Pickup Cartridges, Phonograph Tone Arms, Phonograph Needles, Switches, Transformers, Coiled Electric Cord, Microphone Cartridges, Microphone Stands, Microphones and Vibration Pickup Devices, and Parts and Accessories Therefor.
First use in or about 1932.

SN 14,805. E. Z. Plastics Co., Lenni Mills, Pa. Filed Aug. 29, 1956.

C & R

For Insulating Bushings.
First use July 2, 1956.

SN 14,806. Electro Engineering Products Co., Inc., Chicago, Ill. Filed Aug. 29, 1956.

DUWEL

For Electric Tools—Namely, Jig Saws, Planers, Hedge Trimmers, Sanders, Lawn Trimmers.
First use in or about February 1955.

SN 14,885. Janszen Laboratory, Inc., Cambridge, Mass. Filed Aug. 30, 1956.

Jans Zen

For Loudspeakers.
First use July 20, 1955.

SN 14,887. James R. Kearney Corporation, St. Louis, Mo. Filed Aug. 30, 1956.

TRIP-SAVER

Owner of Reg. No. 340,361.
For Fuse Switches.
First use Sept. 18, 1935.

SN 14,894. Main Line Distributors, Inc., Toledo, Ohio. Filed Aug. 30, 1956.

For Radio Receivers, Television Receivers, Electric Food Mixers, Electric Dryers, Electric Massagers, Electric Hair Clippers, Vacuum Cleaners, Electric Irons, Toasters, Electric Percolators, Electric Fryers, Electric Shavers, Electric Ranges, Electric Sweepers, Tape Recorders.
First use Oct. 30, 1954.

SN 14,966. JFD Manufacturing Co., Inc., Brooklyn, N. Y. Filed Aug. 31, 1956.

TUK-A-TENNA

For Television Antennas.
First use Aug. 24, 1956.

SN 14,982. The Rauland Corporation, Chicago, Ill. Filed Aug. 31, 1956. Sec. 2(f).

RAULAND

For Cathode Ray Tubes, Particularly Television Picture Tubes.
First use at least as early as Apr. 24, 1946.

SN 15,223. Premier Metal Products Company, New York, N. Y. Filed Sept. 6, 1956.

MODU-RAK

For Fabricated Metal Chassis, Cabinets, Racks, and Panels for the Electronic Industry.
First use Aug. 14, 1956.

SN 15,338. Akrad Associates, d. b. a. Shield Electronics Company, Cleveland, Ohio. Filed Sept. 10, 1956.

For Magnetic Recording Tape.
First use on or about July 1, 1955.

SN 15,442. Belden Manufacturing Company, Chicago, Ill. Filed Sept. 11, 1956.

BELDGRIP

For Electrical Wire.
First use Aug. 31, 1956.

SN 15,589. Dixie Raydiant Electric Heat Corporation, Atlanta, Ga. Filed Sept. 13, 1956.

For Electric Panel Heaters and Electric Radiant Heating Cables.
First use March 1955.

SN 15,656. Union Carbide and Carbon Corporation, New York, N. Y. Filed Sept. 13, 1956.

Owner of Reg. Nos. 151,559, 630,807, and others.
For Graphite Electrodes and Nipples.
First use on or about Apr. 23, 1956.

SN 15,726. Philco Corporation, Philadelphia, Pa. Filed Sept. 14, 1956.

PHILCO

For Electric Blankets.
First use July 1, 1955.

CLASS 22

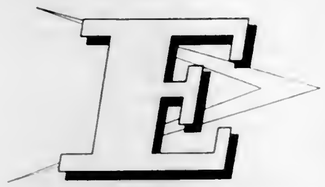
GAMES, TOYS, AND SPORTING GOODS

SN 682,615. Bantam-U. S. Toys, Inc., New York, N. Y. Filed Mar. 2, 1955. Sec. 2(f).

MORGAN

For Stuffed Toy Animals—Namely, Toy Dogs.
First use July 23, 1954.

SN 699,708. Eska Company, Dubuque, Iowa. Filed Dec. 9, 1955.



The mark consists of the letter "E" superimposed upon a horizontal "V."
For Scale Model Miniature Tractors, Tractor Trailers, Sun Umbrellas for Tractors, Tractor Plows, Tractor Spreaders, Disc Harrows Combines, Wagons, Corn Pickers, Balers, Fork Lifts, Hay Loaders, Blades, Crawlers and Hitches for Trailers, and Component Parts Thereof.
First use Aug. 21, 1951.

SN 13,060. Parker Brothers, Inc., Salem, Mass. Filed July 30, 1956.

RIO

For Combination Card and Board Games.
First use Mar. 6, 1956.

SN 13,061. Parker Brothers, Inc., Salem, Mass. Filed July 30, 1956.

SCOOP

For Newspaper Card Games.
First use Mar. 14, 1956.

SN 13,256. Trimline Tackle Co., Inc., New York, N. Y. Filed Aug. 1, 1956.

CORSAIR

For Fishing Reels.
First use Dec. 12, 1955.

SN 13,413. Titus L. Bissell, Charleston, S. C. Filed Aug. 6, 1956.

TILTING TOMMY

For Mechanical Toy Figures.
First use June 10, 1956.

SN 13,417. C. & M. Industries, Romeo, Mich. Filed Aug. 6, 1956.

BUMPIT

For Game Boards.
First use Mar. 20, 1956.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

SN 663,826. Power-Pack Conveyor Company, Cleveland, Ohio. Filed Apr. 2, 1954.

POWER-PACK

Owner of Reg. No. 419,591.
For Wheeled Hopper Conveyor for Transporting and Distributing or Depositing Sand, Stone, Gravel, Cinders, and Similar Materials.
First use Oct. 2, 1953.

SN 673,058. Joseph R. Salerno, Chicago, Ill. Filed Sept. 10, 1954.

MAGICSODA

For Vending Machines for Dispensing Ice Cream Sodas.
First use Aug. 23, 1953.

SN 673,059. Joseph R. Salerno, Chicago, Ill. Filed Sept. 10, 1954.

MAGICSUNDAE

For Vending Machines for Dispensing Ice Cream Sundaes.
First use Aug. 23, 1953.

SN 676,869. Club Razor & Blade Manufacturing Corp., Newark, N. J. Filed Nov. 18, 1954.

For Razor Blades.
First use June 16, 1954.

SN 687,357. De Long Corporation, New York, N. Y. Filed May 12, 1955. Sec. 2(f).

DE LONG

For Fluid Pressure Operated Power Jacking Devices and Mechanical Grippers.
First use Apr. 30, 1953.

SN 689,304. Reynolds Industries, Incorporated, Santa Monica, Calif. Filed June 10, 1955.

Rencrest

For Devices Used in the Home for Printing and Dispensing Name Tapes of the Type Attached to Garments for Identifying the Owner Thereof, Bobbin Boxes for Home Sewing Holding Sewing Bobbins, and Bound Buttonhole Makers Used in Home Sewing.
First use Apr. 25, 1955, on name tape printers and dispensers.

SN 698,167. Heidenreich & Harbeck, Hamburg, Germany. Filed Nov. 14, 1955.

POLYCOP

Priority claimed under Sec. 44(d) on German application filed June 30, 1955; Reg. No. 683,852, dated Aug. 11, 1955. Owner of U. S. Reg. Nos. 599,299 and 601,840.
For Machine Tools, Especially Tracer- and Programme-Controlled Copying Machine Tools and Automatons for Working Metal—Namely, Lathes, Milling Machines, Planing Machines, Slotting and Shaping Machines, Gear-Cutting Machines, Screw-Cutting Machines; Accessories and Spare Parts for Machine Tools—Namely, Template and Template Follower Devices, and Hydraulic Attachments for Machine Tools, Tightening Apparatus, Tool Holders, Supports, and Cradles.

SN 700,249. Offenhauser Equipment Corporation, Los Angeles, Calif. Filed Dec. 19, 1955. Sec. 2(f).

Offenhauser

For Equipment for Motor Vehicles—Namely, Cylinder Heads, Manifolds, Carburetors, Cam Shafts, Valves and Valve Covers, Fly Wheels, Full Blocks, and Generator Brackets.
First use Jan. 7, 1947.

SN 608. Erwin Krusius, d. b. a. Gebr. Krusius, Solingen, Germany. Filed Jan. 12, 1956.

GOVERNOR

Owner of German Reg. No. 149,531, dated Mar. 31, 1911.
For Cutlery, Scythes, Sickles, and Edge Hand Tools.

SN 676. The Hartford Special Machinery Company, Hartford, Conn. Filed Jan. 13, 1956. Sec. 2(f).

HARTFORD Special

Owner of Reg. No. 596,682.
For Machine Tools Including Machines for Drilling, Tapping, Spot Facing, Milling, Thread Rolling, Including Air, Hydraulic, and Air Hydraulic Controls and Work Locating and Supporting Holders.
First use May 1950 on drilling machines.

SN 706. Sunbeam Corporation, Chicago, Ill. Filed Jan. 13, 1956.

DRILLMASTER

Owner of Reg. No. 367,025.
For Drill Bits.
First use Oct. 26, 1954.

SN 723. American Iron & Machine Works, Inc., Oklahoma City, Okla. Filed Jan. 16, 1956. Sec. 2(f).

OH

For Tool Joints and Drill Pipe.
First use Oct. 28, 1949.

SN 1,754. John Wood Company, Muskegon Heights, Mich. Filed Jan. 30, 1956.

JOHN WOOD ISLANDER

Owner of Reg. No. 552,745.
For Automatic Hose Winding Machines and Housing Therefor for Dispensing Air and Water; and Automatic Hose Winding Machines and Housing Therefor, Equipped With a Utility Service Desk, Sold as a Unit, for Dispensing Air and Water.
First use Jan. 13, 1956.

SN 4,260. America House, Ltd., New York, N. Y. Filed Mar. 12, 1956.

AMERICA HOUSE

Owner of Reg. No. 405,036.
For Pewter, Copper, and Other Base Metal and Wooden and Plastic Knives, Forks, Spoons, Serving Spoons, Ladles; Wooden Cutting Blocks.
First use 1943.

SN 5,564. U. S. Electrical Motors, Inc., Los Angeles, Calif. Filed Mar. 30, 1956.

BALLOMATIC

For Ball-Type Pump Shaft Backstop for Mounting on Turbine Pumps To Prevent Back-Spin or Reverse Rotation.
First use June 1954.

SN 5,568. Wallram Hartmetallwerk und Hartmetallwerkzeugfabrik Meutsch, Volgtländer & Co., Essen, Germany. Filed Mar. 30, 1956.

WALLRAMIT

Owner of German Reg. No. 638,746, dated May 27, 1953; and U. S. Reg. No. 367,382.
For Draw Plates, Draw Nozzles, and Pressure Nozzles, All Used in Drawing Out Metals, Such as in Wire Making, Etc.; Turning Tools, Milling Cutters, Drills, Stone-Planing Tools, Coal and Stone Holing Pikes, Cutter Heads for Coal and Stone Boring Hammers, Coal and Stone Cutting Machines, Coal and Stone Drilling Machines.

SN 6,087. Alweg Aktiebolag, Stockholm, Sweden. Filed Apr. 10, 1956.

ALWEG

Owner of Swedish Reg. No. 74,911, dated Oct. 23, 1953.
For Machines for Fabricating Concrete Structures and Power Plants—Namely, Steam Engines, Steam Turbines, Gas Turbines, Internal Combustion Engines, and Locomotives.

SN 7,000. Harrington Manufacturing Company, Inc., Lewiston, N. C. Filed Apr. 24, 1956.

The Roanoke-Holliday

Owner of Reg. Nos. 599,301, 615,691, and others.
For Farm Machinery—Namely, Tobacco Harvesters.
First use in June 1954.

SN 8,666. Harnischfeger Corporation, Milwaukee, Wis. Filed May 21, 1956.

TRAV-LIFT

For Cranes.
First use Nov. 24, 1944.

SN 8,915. American Saw & Tool Company, Louisville, Ky. Filed May 24, 1956.

For Saw Blades.
First use Oct. 31, 1955.

SN 9,635. Loren Hale, d. b. a. Refract-All Manufacturing Company, North Tulsa, Okla. Filed June 5, 1956.

REFRACT-ALL

For Mixer and Compressor Type Sprayer Units for Gun Application of Wet-Mix Refractories, Insulations, and Mortars.
First use August 1951.

SN 10,209. Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Filed June 14, 1956. Sec. 2(f).

ALLIS-CHALMERS

Owner of Reg. Nos. 158,327, 624,405, and others.
For Excavating, Transporting, Dumping, Lifting, and Leveling Machinery, Towing and Pushing Tractors, Agglomerating and Pelletizing Machinery, Blending and Mixing Machinery, Casting Machines, Oil Extraction Equipment and Hydraulic Separating Machinery.
First use on or about Aug. 8, 1919.

SN 10,486. Sherman Products, Inc., Royal Oak, Mich. Filed June 18, 1956.

SHERMAN MAJOR

Owner of Reg. Nos. 531,611 and 582,459.
For Power Operated Diggers for Attachment to Tractors and Trucks and Parts Therefor.
First use Mar. 8, 1956.

SN 10,835. Battenfeld Grease & Oil Corp., Kansas City, Mo. Filed June 25, 1956.

ECONO CARTRI LOADER

For Grease Guns.
First use Feb. 17, 1956.

SN 11,208. The Whitaker Manufacturing Co., Chicago, Ill. Filed June 28, 1956.

W

Owner of Reg. No. 558,540.
For Cutting Parts for Mowers and Binders—Namely, Mower Knives, Knife Heads, Mower, Binder and Combine Sections, Guard Plates, Mower Binder and Combine Guards, Lifter Guards, Knife Clips, Knife Caps, Shoe Soles, Wearing Plates, Pitman Straps, Pitman Boxes, Wrist Pins, Mower and Binder Gears, Pinions and Bushings, Grain Lifters, Mower Knife Grinders, Sickles, and Files.
First use July 21, 1916.

SN 11,236. Dorr-Oliver Incorporated, Stamford, Conn. Filed June 29, 1956.

D-O

For Apparatus for Dispersing Gases Into Liquids.
First use May 23, 1956.

SN 14,018. Strunk Equipment Company, Coatesville, Pa. Filed Aug. 15, 1956.

RANCH-MOBILE

For Power Driven Tractors.
First use July 23, 1956.

SN 14,214. Borg-Warner Corporation, Chicago, Ill. Filed Aug. 20, 1956.

MECHANICS B-W BORG WARNER

Owner of Reg. Nos. 251,466, 607,848, and others.
For All Types of Universal Joints and Parts Thereof for Replacement and Repair.
First use May 15, 1956.

SN 14,215. Borg-Warner Corporation, Chicago, Ill. Filed Aug. 20, 1956.

DETROIT GEAR B-W BORG WARNER

Owner of Reg. Nos. 388,479, 629,972, and others.
For Gears, Transmission Assemblies for Vehicles, and Parts of Said Transmission.
First use Apr. 16, 1956.

SN 14,218. Borg-Warner Corporation, Chicago, Ill. Filed Aug. 20, 1956.

INGERSOLL STEEL B-W BORG WARNER

Owner of Reg. Nos. 513,546, 607,848, and others.
For Shovels, Spades, and Hand Operated Scoops, Clutch Discs, Discs for Agricultural Implements and Machines and Parts Thereof for Replacement and Repair.
First use Jan. 5, 1956.

SN 14,269. Orenda Engines Limited, Malton, Ontario, Canada. Filed Aug. 20, 1956.

ORENDA

Owner of Canadian Reg. No. 102,417, dated Jan. 20, 1956.
For Gas Turbine Engines and Parts Thereof.

SN 14,361. Twin Coach Company, Kent, Ohio. Filed Aug. 21, 1956.

V-I-P

For Internal Combustion Engines.
First use June 27, 1956.

SN 14,645. General Register Corporation, Long Island City, N. Y. Filed Aug. 27, 1956.

2-X-1

For Ticket Issuing Machines and Ticket Printing and Issuing Machines.
First use Jan. 1, 1951.

SN 14,658. H & C Engineering Corporation, Sunnyvale, Calif. Filed Aug. 27, 1956.

EQUALOK

For Paper Box Making Machines.
First use July 31, 1956.

SN 14,698. Speedring Manufacturing Company, East Detroit, Mich. Filed Aug. 27, 1956.

Speedring

For Power Driven Screws Feeding and Driving Machines; Hand Tools Such as Screw Drivers, Screw Driver Bits, and Parts Thereof.
First use July 9, 1956.

SN 14,780. The Superior Plating Company, Bridgeport, Conn. Filed Aug. 28, 1956.

TIBON

For Plated Machine Parts—Namely, Ways for Machine Tools.
First use on about Aug. 15, 1956.

SN 14,807. Fastening Devices, Inc., Brooklyn, N. Y. Filed Aug. 29, 1956.

Rap-it

For Hand Hammer Powered Drive Pin and Stud Setter.
First use Jan. 2, 1956.

SN 14,978. The Pie-O-Matic Corporation, North Haven, Conn. Filed Aug. 31, 1956.

PIE-O-MATIC

For Pie-Vending Machines.
First use June 10, 1955.

SN 15,016. Buffalo-Eclipse Corporation, North Tonawanda, N. Y. Filed Sept. 4, 1956.

PEN-PRIDE

For Sump Pump.
First use Nov. 1, 1954.

SN 15,037. Carl Huhn & Cie. G. m. b. H., Aachen, Germany. Filed Sept. 4, 1956.

For Sewing Machine Needles.
First use Jan. 13, 1925.

SN 15,054. Outboard Marine Corporation, Waukegan, Ill. Filed Sept. 4, 1956.

AUTOMOWER

For Power Lawn Mowers.
First use July 23, 1956.

SN 15,743. Web Wilson Oil Tools, Incorporated, Gardena, Calif. Filed Sept. 14, 1956.

HYDRA TONG

The word "Tong" is disclaimed apart from the mark shown.
For Oil Well Tools—Namely, Power Actuated Tongs for Casing, Drill Pipe, and Tubing.
First use July 31, 1956.
Subj. to Intf. with SN 17,335.

CLASS 24

LAUNDRY APPLIANCES AND MACHINES

SN 14,892. Main Line Distributors, Inc., Toledo, Ohio. Filed Aug. 30, 1956.

For Electric Washing Machines, Clothes Dryers, and Ironers.
First use Oct. 30, 1954.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

SN 679,524. Hagan Corporation, Pittsburgh, Pa. Filed Jan. 6, 1955.

PowrAmp

For Electronic Controllers Comprising Analog Computers, Electronic Signal Shapers, Electronic Amplifiers, Electronic Program Controllers, Electronic Pressure Transducers, Electro-Hydraulic Pressure Controllers, Single Phase Current Controllers, Electro-Pneumatic Controllers, Electronic Manual Control and Set Point Stations, Electronic Power Supply Equipment, and Systems Containing One or More of the Foregoing Devices.
First use July 30, 1954.

SN 687,144. Unitronics, Inc., Ferguson, Mo. Filed May 9, 1955.

COLDTRONIC

For Lighting Apparatus for Use in Making Photo-Engravings for Printing Purposes.
First use Apr. 13, 1955.

SN 687,145. Unitronics, Inc., Ferguson, Mo. Filed May 9, 1955.

TRANSLIGHT

For Lighting Apparatus for Use in Making Photo-Engraving for Printing Purposes.
First use Apr. 13, 1955.

SN 688,837. Merit Manufacturing Company, Central Falls, R. I. Filed June 3, 1955.

The words "They Soften the Sun" are disclaimed apart from the mark as shown.
For Sunglasses.
First use June 1954.

SN 698,538. Christopher L. Mudd, d. b. a. Wheel Balancer Manufacturers Associated, St. Louis, Mo. Filed Nov. 18, 1955.

FOTO-TEL

For Wheel Balancing Apparatus and Parts Thereof.
First use Mar. 10, 1953.

SN 3,928. Dieterich-Post Company, San Francisco, Calif. Filed Mar. 6, 1956.

DIEPOPRINT

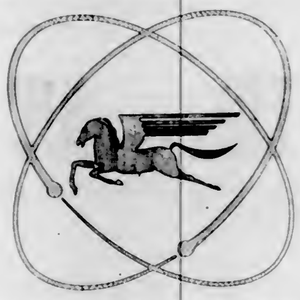
Owner of Reg. No. 510,916.
For Ammonia Developed Direct Print Paper.
First use May 1954.

SN 5,964. Allen Electric and Equipment Company, Kalamazoo, Mich. Filed Apr. 9, 1956.

THRIFTI-METER

For Gauge for Indicating Operating Characteristics of the Vacuum System of a Vehicle Engine.
First use Mar. 20, 1956.

SN 8,327. Fairchild Engine and Airplane Corporation, Costa Mesa, Calif. Filed May 15, 1956.



The drawing is lined for red and gray. Owner of Reg. Nos. 565,981 and 583,291.
For Resistance Bridge Indicators, Resistance Bridge Balancing Apparatus, Voltage Ratio Indicators, and Parts Therefor.
First use on or about Jan. 24, 1956.

SN 9,340. George M. Chin, d. b. a. Chin Sun Ming, Irvington, N. J. Filed May 31, 1956.

CHEN-CULATOR

For Calculating Sliding Scale and Chart.
First use June 23, 1947.

SN 9,629. Dexter Folder Company, Pearl River, N. Y. Filed June 5, 1956.

MICRO-MIDGET

For Viewer for Photographic Film.
First use May 10, 1956.

SN 10,526. Cecil Crow, d. b. a. Cecil Crow Scale Works, Waco, Tex. Filed June 19, 1956.

SEED-O-METER

For Scales for Weighing Cotton Seed in a Gin.
First use Mar. 24, 1956.

SN 10,574. Auto Test, Inc., Chicago, Ill. Filed June 20, 1956.

AUTO-TONG

For Combination Voltmeter and Ammeter.
First use Dec. 9, 1955.

SN 10,702. Ocean Photo Supply Co., Inc., New York, N. Y. Filed June 21, 1956.

OCEAN

For Binoculars, Cameras, Exposure Meters, Tripods, Panheads, Lenses, and Self-Timers.
First use May 1948.

SN 10,774. Goyo Co., Ltd., Minato-ku, Tokyo, Japan. Filed June 22, 1956.

OPLEN

Owner of Japanese Reg. No. 474,148, dated Dec. 13, 1955.
For Cameras and Accessories.

SN 10,856. The Dey Company, Kansas City, Mo. Filed June 25, 1956.

Roycden

For Sunglasses.
First use Feb. 6, 1956.

SN 11,192. Sawyer's Inc., Portland, Oreg. Filed June 28, 1956.

NOMAD

For Cameras and Accessories, Such as Flash Attachments.
First use June 8, 1956.

SN 12,891. The M. W. Kellogg Company, New York, N. Y. Filed July 26, 1956.

KEL-RAY

For Projector for Radiography.
First use Apr. 9, 1956.

SN 13,014. The Budd Company, Philadelphia, Pa. Filed July 30, 1956.

IRIDITRON

For Remote Exposure and Handling Equipment for Radioactive Isotopes.
First use May 2, 1956.

SN 13,015. The Budd Company, Philadelphia, Pa. Filed July 30, 1956.

MULTITRON

For Remote Exposure and Handling Equipment for Radioactive Isotopes.
First use June 20, 1956.

SN 13,117. Morris Garfinkel, d. b. a. Den-Va Company, Roosevelt, N. Y. Filed Apr. 3, 1956.

DEN

For Spectacles, Made in Accordance With Prescriptions and Otherwise, and Spectacle Frames.
First use Mar. 7, 1955.

CLASS 27

HOROLOGICAL INSTRUMENTS

SN 687,779. The Gruen Watch Company, Cincinnati, Ohio, now by change of name Gruen Industries, Inc., d. b. a. Gruen Watch Company. Filed May 18, 1955. Sec. 2(f) as to "Gruen."

GRUEN
THE NEWEST
LOOK IN TIME

Owner of Reg. No. 547,962.
For Watches, Watch Cases, and Watch Movements.
First use May 9, 1955; 1893 as to "Gruen."

SN 3,822. Bulova Watch Company, Inc., Flushing, N. Y. Filed Mar. 5, 1956.

JUNIOR LEAGUE

For Watches.
First use Feb. 6, 1956.

SN 5,676. Franz Schnurr, Pforzheim, Germany. Filed Apr. 2, 1956.

PROVITA

Owner of German Reg. No. 676,572, dated May 25, 1955.
For Wall Clocks, Table Clocks, Alarm Clocks, Small Clocks, Pocket and Wrist Watches, Watch Movements, Clock Movements, Parts for Watches, Parts for Clocks, Watch Cases, and Clock Cases.

CLASS 28

JEWELRY AND PRECIOUS-METAL WARE

SN 674,740. Gemex Company, Union, N. J. Filed Oct. 13, 1954.

WELLINGTON

For Bracelets and Watch Bracelets and Watch Straps.
First use Sept. 9, 1954.

SN 13,387. William Schneider, Inc., New York, N. Y. Filed Aug. 3, 1956.

TRULITE

For Gold Jewelry Set With Imitation Jewels.
First use Jan. 9, 1956.

SN 14,562. The International Silver Company, Meriden, Conn. Filed Aug. 24, 1956.

SILVER FASHION

For Silverplated Flatware—Knives, Forks, and Spoons.
First use Mar. 14, 1956.

SN 14,945. Coro, Inc., New York, N. Y. Filed Aug. 31, 1956.

ROUND THE CLOCK

For Earrings.
First use June 1, 1956.

CLASS 29

BROOMS, BRUSHES, AND DUSTERS

SN 690,552. Hanlon & Goodman Co., Belleville, N. J. Filed June 30, 1955. Sec. 2(f) as to gold ferrule.

The drawing is lined for red and gold. The outline representation of the brush forms no part of the mark per se.
The mark consists of a gold colored band encircling the brush in the zone of the brush ferrule between the bristles and the handle, and a gold colored tip and red band on the handle. Owner of Reg. No. 554,217.
For Paint Brushes.
First use Jan. 14, 1955.

SN 7,592. Gibson-Thomsen Co., Inc., New York, N. Y. Filed May 3, 1956.

Firma-Grip

For Hair Brushes.
First use Feb. 28, 1956.

SN 10,249. Nassau Sponge Company, Chicago, Ill. Filed June 14, 1956.

WYPAD

For Cleansing Sponges of Cellulose Material.
First use Apr. 16, 1956.

CLASS 32

FURNITURE AND UPHOLSTERY

SN 2,100. Douglas Furniture Corporation, Chicago, Ill. Filed Feb. 6, 1956.

Da Vinci

For Kitchen and Dinette Tables and Chairs.
First use Nov. 7, 1955.

SN 2,104. Douglas Furniture Corporation, Chicago, Ill. Filed Feb. 6, 1956.

Verdi

For Kitchen and Dinette Tables and Chairs.
First use Nov. 7, 1955.

SN 3,411. La-Z-Boy Chair Company, Monroe, Mich. Filed Feb. 27, 1956.

HI-LO-MATIC

For Reclining Type Chairs.
First use Feb. 15, 1956.

SN 4,046. Lydia O'Leary, Inc., New York, N. Y. Filed Mar. 7, 1956.

restUP

For Foot Rest and Leg Support.
First use Jan. 26, 1956.

SN 16,064. Precision Manufacturing Co., Evanston, Ill. Filed Sept. 20, 1956.

BEVCO

For Chairs, Settees, Ottomans, Tables, and Hat and Coat Racks.
First use Mar. 20, 1956.

16,195. The Englander Company, Inc., Chicago, Ill. Filed Sept. 24, 1956.

Contourfoam

For Mattresses and Box Springs.
First use Sept. 5, 1956.

SN 16,271. Bruce Scott Co., Inc., Philadelphia, Pa. Filed Sept. 24, 1956.

SPACE MIZER

For Rotary Shelf for Kitchen Cabinets.
First use May 3, 1956.

CLASS 35

BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

SN 2,565. The Presstite Engineering Company, St. Louis, Mo., to American-Marietta Company, Chicago, Ill. Filed Feb. 13, 1956.

PRESSTITE

Owner of Reg. Nos. 213,153 and 512,363.
For Washers and Gaskets Made at Least in Part of Sealing Compounds.
First use May 20, 1925.

SN 4,928. Ashworth Bros. Inc., Fall River, Mass. Filed Mar. 21, 1956.

OMNI-FLEX

For Metal Conveyor Belts.
First use Mar. 6, 1956.

CLASS 36

MUSICAL INSTRUMENTS AND SUPPLIES

SN 698,622. Maas-Rowe Electromusic Corporation, Los Angeles, Calif. Filed Nov. 21, 1955. Sec. 2(f).

SYMPHONIC CARILLON

Owner of Reg. No. 569,817.
For Electronic Carillons Utilizing Elastic Solid Tone Sources and Electromagnetically Operated Strikers.
First use June 30, 1950.

CLASS 37

PAPER AND STATIONERY

SN 648,710. Valley Paper Company, Holyoke, Mass. Filed June 12, 1953. Sec. 2(f).

OLD STRATFORD

Owner of Reg. No. 311,461.
For Writing, Typewriting, and Printing Paper.
First use at least as early as January 1896.

SN 653 939. J. S. Staedtler, Nurnberg, Germany. Filed Sept. 29, 1953. Sec. 2(f).

STAEDTLER

Owner of German Reg. No. 166,489, dated Nov. 9, 1912; and U. S. Reg. No. 391,147.
For Pencils, Fountain Pens, Erasers, and Penholders.

SN 638. Vereinigte Papierwerke Schickedanz & Co., Nurnberg, Germany. Filed Jan. 12, 1956.

TEMPO

For Cellulose Wiping Sheets and Tissues, Cellulose Handkerchiefs, Cellulose Nankins, and Cellulose Mats.
First use Oct. 27, 1949.

SN 6,067. Strathmore Paper Company, West Springfield, Mass. Filed Apr. 9, 1956.

GABARDINE

For All Kinds of Writing, Drawing, and Printing Papers, Typewriter Papers, Book Papers, Manuscript Cover Papers, Bristols, Text Papers, Cover Papers, Box Cover Papers, Detail Papers, Drawing Papers or Boards, Illustration Boards, Jewelers' Bristols, Lampshade Papers, Papeterie Papers, Special Finish Papers, Steel Plate Papers, Gravure Papers, Tag Parchment Papers, Reproduction Papers, Vellum Papers, Envelope Papers, and Announcement Papers.
First use Nov. 15, 1938.

SN 6,992. Daniels Manufacturing Company, Rhinelander, Wisconsin. Filed Apr. 24, 1956.

DAN-D-FOIL

Owner of Reg. Nos. 327,081, 612,404, and others.
For Wrapping Papers Comprising Laminated Paper and Foil for Food Products.
First use June 1, 1954.

SN 12,127. Advance Crayon & Color Corporation, New York, N. Y. Filed July 16, 1956.

MYSTO-MARKER

For Crayons—Namely, Marker Wipe-Off Crayons.
First use June 11, 1956.

SN 12,148. Burroughs Corporation, Detroit, Mich. Filed July 16, 1956.

CLT

For Coated Paper for Use as Carbonless Transfer Paper.
First use Aug. 29, 1955.

SN 12,319. S. E. & M. Vernon, Inc., New York, N. Y. Filed July 17, 1956.

Easy-Dex

For Loose Leaf Indexes for Coil Wire Bound Books.
First use June 22, 1956.

CLASS 38

PRINTS AND PUBLICATIONS

SN 4,256. Samuel Worth, d. b. a. Worthmore and Worthmore Sales Promotion Service, Chicago, Ill. Filed Mar. 9, 1956.

WORTHMORE

For Trading Cards, Trading Stamps, and Stamp Saver Books.
First use 1938 on trading cards.
Subj. to Intf. with SN 3,936.

SN 8,481. Guaranty Trust Company of New York, New York, N. Y. Filed May 17, 1956.

THE GUARANTY SURVEY

Without prejudice to any common law rights, no claim is made to the word "Survey" apart from the mark as shown.
For Periodical Publication.
First use in the year 1921.

SN 8,482. Guaranty Trust Company of New York, New York, N. Y. Filed May 17, 1956.

THE GUARANTY NEWS

Without prejudice to any common law rights, no claim is made to the word "News" apart from the mark as shown.
For Periodical Publication.
First use in the year 1912.

SN 13,367. Healing Waters, Inc., Tulsa, Okla. Filed Aug. 3, 1956.

ABUNDANT LIFE

For Periodical in the Nature of a Religious Magazine.
First use June 12, 1956.

SN 13,552. Tomorrow's Markets, Inc., New York, N. Y. Filed Aug. 7, 1956.

TOMORROW'S MARKETS

For Weekly Financial Survey.
First use July 1955.

SN 13,754. General Features Corporation, New York, N. Y. Filed Aug. 10, 1956.

SENIOR FORUM

For Newspaper Feature Column.
First use Mar. 26, 1956.

CLASS 39

CLOTHING

SN 690,097. Regal Shirt Corporation, New York, N. Y. Filed June 23, 1955.

the Cassino

For Men's and Boys' Sport Shirts.
First use July 30, 1954.

SN 699,178. Wethern's Inc., Boston, Mass. Filed Nov. 30, 1955.

PENNY BONNETS Wethern's

The term "Bonnets" is disclaimed apart from the mark as shown in the drawing, but without waiving rights now existing or hereafter arising thereto.
For Ladies' Hats.
First use Aug. 20, 1954.

SN 700,427. Belk Stores Services, Inc., Charlotte, N. C. Filed Dec. 22, 1955. Sec. 2(f).

Belk's

Owner of Reg. Nos. 530,033 and 578,814.
For Men's and Boys' Furnishings and Clothing—Namely, Suits, Coats, Shirts, Trousers, Jackets, Robes, Pajamas, Underwear, Swimming Suits, Sweaters, Scarfs, Mufflers, Gloves, Hosiery, Overcoats, Raincoats, Blouses, Belts, Neckties, Garters, Suspenders, Hats and Caps; and for Women's, Girls', and Misses' Furnishings and Clothing—Namely, Suits, Dresses, Gowns, Lingerie, Robes, Bathing Suits, Gloves, Sweaters, Mufflers, Hosiery, Raincoats, Hats, Caps, Capes,

Blouses, Coats, Pajamas, Belts, Corsets, Slacks, Shorts, Skirts, and Pedal Pushers; and for Infants' Furnishings and Clothing—Namely, Caps, Shirts, Wrappers, Booties, Socks, Coats, Underwear, Dresses, Robes, and Sweaters; and for Men's, Women's, Boys', Girls', and Infants' Shoes and Boots.
First use Sept. 1, 1895.

SN 1,430. E. S. Deans & Company, New York, N. Y. Filed Jan. 25, 1956.

Glen Craigie

For Men's Sport Jackets and Sport Suits.
First use Jan. 15, 1952.

SN 9,666 Rainfashions Fifth Avenue Inc., New York, N. Y., to Climatic, Inc., New York, N. Y. Filed June 5, 1956.
Owner of Reg. No. 612,599.

LADY CLIMATIC

For Women's, Misses' and Girls' Raincoats, Rain Jackets, Rain Capes, Rain Hoods, and Booties.
First use May 21, 1956; in 1942 as to "Climatic."

SN 11,427. Stein's Stores Inc., New York, N. Y. Filed July 2, 1956.

NAUTILUS

For Men's Suits.
First use June 1, 1956.

SN 11,466. The Bernhard Altmann Corporation, New York, N. Y. Filed July 3, 1956.

COLERAINE

For Ladies', Girls', and Men's Sweaters, Ladies' Skirts and Blouses, and Men's Socks.
First use June 15, 1956.

SN 11,594. Lillivette Knitters, Inc., Yauco, Puerto Rico. Filed July 5, 1956.

LILLIVETTE

For Sweaters.
First use Mar. 13, 1956.

SN 11,629. Standard Garments, Inc., Baltimore, Md. Filed July 5, 1956. Sec. 2(f).

MODEL

For Shirts, Trousers, and Dungarees.
First use Mar. 17, 1947.

SN 11,967. Sorem Shirt Company, Inc., New York, N. Y. Filed July 11, 1956. Sec. 2(f).

Riggs

Owner of Reg. No. 413,488.
For Men's and Boys' Dress Shirts and Men's and Boys' Sport Shirts.
First use July 1943.

SN 14,660. Robert Hall Clothes, Inc., New York, N. Y. Filed Aug. 27, 1956.

JANE HUNTER

For Women's and Misses' Slacks, Shorts, Pedal Pushers, Sweaters, Blouses, T Sirts, Blazers, Jackets, Skirts and Shrugs.
First use on or about July 20, 1956.

SN 14,714. Youthcraft Creations, Inc., New York, N. Y. Filed Aug. 27, 1956.

JUNIORCRAFT

Owner of Reg. No. 570,108.
For Girdles and Panty Girdles.
First use Aug. 8, 1956.

SN 14,741. Herald Knitwear Co., Inc., New York, N. Y. Filed Aug. 28, 1956.

HUDDLE-MAID

Owner of Reg. Nos. 331,387 and 592,220.
For Women's and Misses' Sportswear—Namely, Skirts, Slacks, and Sweaters.
First use in June 1955.

CLASS 40

FANCY GOODS, FURNISHINGS, AND NOTIONS

SN 690,343. Stone Manufacturing Company, Greenville, S. C. Filed June 27, 1955.

Adjuston

For Cut-Out Elastic Inserts Used for Women's and Children's Slips.
First use June 22, 1955.

SN 12,405. Birkbeck Brothers, Inc., Willow Grove, Pa. Filed July 19, 1956.

TACH-ON

For Devices for Fastening Objects Together—Namely, Fasteners for Attaching Button to Fabrics, Including Articles of Clothing.
First use May 15, 1956.

CLASS 41

CANES, PARASOLS, AND UMBRELLAS

SN 9,994. Harry Levy, New York, N. Y. Filed June 11, 1956.

HARVY

Owner of Reg. No. 635,661.
For Canes, Cane Handles, Umbrella Handles, and Umbrellas.
First use 1925.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

SN 697,504. The Shirtcraft Company, Inc., Hazelton, Pa. Filed Nov. 1, 1955.

NI^3

For Cotton Fabric Constituting the Principal Component or Ingredient of Men's, Women's, and Boys' Dress Shirts, Sport Shirts, and Jackets, and Sold to the Trade in Such Form.
First use Oct. 23, 1955.

SN 12,189. Goodall-Sanford, Inc., Sanford, Maine. Filed July 16, 1956.

PALM CREST

Owner of Reg. No. 614,524.
For Piece Goods of Rayon and Synthetic Fabrics.
First use Mar. 12, 1956.

SN 13,368. The Hettrick Manufacturing Company, Toledo, Ohio. Filed Aug. 3, 1956.

ECONOMY

For Cotton Piece Goods—Namely, Canvas Duck.
First use December 1928.

SN 13,566. Joseph Bancroft & Sons Co., Wilmington, Del. Filed Aug. 8, 1956.

NOCHLOR

For Cotton Piece Goods.
First use on or about July 25, 1956.

SN 13,567. Bernside Mills, Inc., New York, N. Y. Filed Aug. 8, 1956.

BERN-SHEEN

For Textile Fabrics of Wool, Cotton, Corduroy, Silk, Rayon, Linen, and Mixtures Thereof and Synthetic Fabrics.
First use July 31, 1956.

SN 13,752. D. B. Fuller & Co., Inc., New York, N. Y. Filed Aug. 10, 1956.

GAYWEAR

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use June 6, 1955.

SN 13,955. Berkshire Hathaway, Inc., Providence, R. I. Filed Aug. 15, 1956.

BERKBLEND

For Cotton and Synthetic Piece Goods, Such as Batiste, Broadcloth, and the Like.
First use July 25, 1956.

SN 13,956. Berkshire Hathaway, Inc., Providence, R. I. Filed Aug. 15, 1956.

BERKRON

For Cotton and Synthetic Piece Goods, Such as Batiste, Broadcloth, and the Like.
First use July 25, 1956.

CLASS 43

THREAD AND YARN

SN 695,184. Royal Crest Yarns, Inc., New York, N. Y. Filed Sept. 22, 1955.

TWISTER-PAK

For Metallic Yarns Sold in a Receptacle, With Means for Entwining the Yarn Strands.
First use Sept. 1, 1955.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

SN 7,855. James J. Afriat, Madisonville, Ky. Filed May 7, 1956.

SITZER
THERMO-VAPOR
BATH

The words "Thermo-Vapor Bath" are disclaimed apart from the mark as shown.
For Medical Therapeutic Appliance, Same Being a Thermo-Vapor Sitz Bath.
First use Feb. 11, 1955.

SN 7,865. Alfred Steen, d. b. a. Alfred Steen, Candulor Dentalwerk, Zurich, Switzerland. Filed May 7, 1956.

Candulor CR

Owner of Swiss Reg. No. 159,931, dated Feb. 10, 1956; and U. S. Reg. No. 531,523.
For Artificial Teeth.

SN 11,394. Niagara Manufacturing and Distributing Corporation, Adamsville, Pa. Filed July 2, 1956. Sec. 2(f).
Owner of Reg. No. 572,174.

NIAGARA

For Motor Operated Massage Devices in the Form of Units Adapted To Be Held in the Hand and Applied to the Body; Cushions and Pads Adapted To Be Applied to the Body; Mattresses, Tables, Chairs, and Seats Adapted To Support the Body; and Playthings Used To Support or Be Handled by Children.
First use Sept. 12, 1949.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

SN 695,379. Atalanta Trading Corporation, New York, N. Y. Filed Sept. 27, 1955.

HEIMAT

"Heimat" is a German word meaning "home, native place, or country homeland."
For Canned Ham.
First use Mar. 30, 1955.

SN 697,493. The H. Piper Company, Chicago, Ill. Filed Nov. 1, 1955.

BAKE-A-PAK

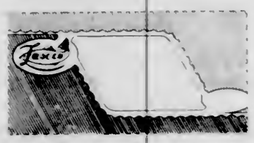
For Rolls Sold in Containers Specially Treated for Use in Baking.
First use Oct. 24, 1955.

SN 699,594. Joseph Z. Price, d. b. a. Price & Company, New Britain, Conn. Filed Dec. 7, 1955.

PUP CORN

The word "Corn" is disclaimed apart from the mark.
For Granular Food Preparation Containing Corn, Brewer's Yeast, Sodium Glutomate, Dried Eggs, Whey, Beef Meal, Lung Meal, Liver Meal, Glandular Meal, Powdered Milk, and Cod Liver Oil, for Use as a Bulk Supplement to a Dog's Diet.
First use Nov. 29, 1955.

SN 700,635. Los Angeles Smoking & Curing Co., Los Angeles, Calif. Filed Dec. 27, 1955.



The drawing is lined for the colors light green and dark green.
Owner of Reg. Nos. 315,277 and 581,677.
For Smoked Salmon.
First use Nov. 10, 1955.

SN 3,389. Harry Gottlieb, Inc., Baltimore, Md. Filed Feb. 27, 1956. Sec. 2(f).

Gottlieb's

For Dairy Products—Namely, Butter, Cheese, Fluid Buttermilk, and Sour Cream.
First use July 1, 1911.

SN 4,910. The Ohio Provision Company, Cleveland, Ohio. Filed Mar. 20, 1956.

Owner of Reg. No. 283,774.
For Smoked Ham, Bacon, Sausage, and Lard.
First use 1876.

SN 7,678. Holly Sea Food Company, Los Angeles, Calif. Filed May 4, 1956.

For Frozen Shell Fish, Frozen Fresh Fish Fillets, and Fresh Fish and Fillets.
First use Mar. 26, 1956.

SN 8,009. Mead Johnson & Company, Evansville, Ind. Filed May 9, 1956.

NATALAC

Owner of Reg. Nos. 571,421 and 605,389.
For Modified Milk Formula for Infants.
First use Mar. 21, 1956.

SN 8,056. L. H. Chessher, d. b. a. L. H. Chessher Co., Nixon, Tex. Filed May 10, 1956. Sec. 2(f).

Mrs. CHESSHER'S CHICKEN

The word "Chicken" is disclaimed separately from the mark.
For Prepared Ready To Fry Frozen Poultry.
First use September 1947.

SN 10,021. Reid & Joyce Packing Co., Salinas, Calif. Filed June 11, 1956.

RE-JOYCE

For Fresh Lettuce.
First use Apr. 10, 1955.

SN 10,047. Welsh's Bakery, Inc., Reno, Nev. Filed June 11, 1956.

Yukon Charlie's

For Bread.
First use Apr. 19, 1956.

SN 11,260. Chester L. Hugo, d. b. a. Smith Hugo Co., Gothenburg, Nebr. Filed June 29, 1956.

GOLD-N-RANCHO

For Salad Dressing.
First use Mar. 28, 1956.

SN 11,683. Jondre Food Products Company, St. Petersburg, Fla. Filed July 6, 1956.

JONDRE'S

For Mushroom Cooking Condiment.
First use Feb. 8, 1956.

SN 11,835. Anderson, Clayton & Co., Dallas, Tex. Filed July 10, 1956.

MEVA

For Shortening Made From Meat Fats and Vegetable Fats.
First use May 30, 1956.

SN 12,728. Jondre Food Products Company, St. Petersburg, Fla. Filed July 24, 1956.

For Mushroom Cooking Condiment.
First use Feb. 8, 1956.

CLASS 47

WINES

SN 596,525. St. Julian Wine Company, Incorporated, Paw Paw, Mich. Filed Apr. 28, 1950.

SHOLOM

For Wine.
First use on or about Mar. 31, 1950.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

SN 3,259. Young's Market Company, Los Angeles, Calif. Filed Feb. 23, 1956.

MATADOR

For Tequila.
First use Jan. 16, 1956.

SN 4,865. Hiram Walker & Sons, Inc., Peoria, Ill. Filed Mar. 19, 1956.

LITTLE BROWN JUG

For Whiskey.
First use Feb. 28, 1956.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

SN 696,401. American Mat Corporation, Toledo, Ohio. Filed Oct. 14, 1955. Sec. 2(f).

AMERICAN MAT CORPORATION

For Mats for Floors, Ramps, and Counters Fabricated From Rubber, Wood, Steel, Plastics, and Composition Materials.
First use May 1932.

SN 2,051. Winthrop Neilson, New York, N. Y. Filed Feb. 3, 1956.

TANGIBILE

For Sculptured Miniatures.
First use Dec. 12, 1955.

SN 2,052. Winthrop Neilson, New York, N. Y. Filed Feb. 3, 1956.

INTANGIBILE

For Sculptured Miniatures.
First use Dec. 12, 1955.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

SN 686,784. Herman Deighton Steiner, d. b. a. Steiner, London, England. Filed May 3, 1955. Sec. 2(f).

Steiner

For Cosmetic and Toilet Preparations—Namely, Eau de Cologne, Perfumes, Cosmetic Skin Creams and Skin Tonics;

Protective Skin Creams for Preventing the Penetration of the Skin by Foreign Substances; Toilet Waters, Dentifrices and Preparations for the Hair—Namely, Conditioners, Lacquers, Tints, Tonics, Setting Lotions, Rinses, and Brilliantines.
First use 1934.

SN 691,585. Smith Victory Corporation, Buffalo, N. Y. Filed July 19, 1955.

BRIGHT CHRISTMAS

For Perfume and Cologne.
First use since about 1948.

SN 696,070. Walter Scherk, Neuilly-sur-Seine, France. Filed Oct. 7, 1955.

DANSES

The word "Danses" is a French word meaning "dances." Owner of French Reg. No. 424,824, dated Jan. 5, 1953 (Seine); Natl. Inst. No. 3,864.
For Perfumes, Eau de Cologne, Hair Lotions, and Cosmetic Skin Creams.

SN 696,516. Clairol Incorporated, Stamford, Conn. Filed Oct. 17, 1955.

COME ALIVE GRAY

The drawing is lined for color; the word "Come" is white within a gold background, the word "Alive" is white within a gray background, and the word "Gray" is gray within a white background.
For Hair Tinting and Coloring Preparations.
First use Oct. 11, 1955.

SN 698,607. Heine & Co., New York, N. Y. Filed Nov. 21, 1955.

CONVALLOL

For Natural and Synthetic Essential Oils; Aromatic Chemicals; Perfumes; Natural and Synthetic Aromatic, Flavoring and Coloring Components, Essences, and Extracts Used in the Manufacture of Perfumes, Cosmetics, and Toilet Goods.
First use in the year 1926.

SN 698,609. Heine & Co., New York, N. Y. Filed Nov. 21, 1955.

JASMINDOL

For Natural and Synthetic Essential Oils; Aromatic Chemicals; Perfumes; Natural and Synthetic Aromatic, Flavoring and Coloring Components, Essences, and Extracts Used in the Manufacture of Perfumes, Cosmetics, and Toilet Goods.
First use in the year 1902.

SN 699,582. Alois Merke, Inc., Philadelphia, Pa. Filed Dec. 7, 1955.

LONAY

For Nail Conditioner for Hands and Feet To Prevent Cracking, Hardness, and Brittleness.
First use Sept. 15, 1955.

SN 560. C. H. Boehringer Sohn, Ingelheim am Rhein, Germany. Filed Jan. 12, 1956.

SABUNIT

Owner of German Reg. No. 226,173, dated Sept. 13, 1918.
For Perfumery Products; Cosmetic Products.

SN 7,032. Mine Safety Appliances Company, Pittsburgh, Pa. Filed Apr. 24, 1956.

FEND-S*ilicone*

Owner of Reg. Nos. 633,304 and 633,313.
For Protective Hand Cream for Use in Industry, in the Household, and for Other Purposes Where Such Protection Is Required.
First use at least as early as Dec. 29, 1955.

SN 9,472. Houbigant, Inc., New York, N. Y. Filed June 1, 1956.

EDEN ROC

For Perfume and Eau de Cologne.
First use May 24, 1956.

SN 10,654. Carrie & Slezinger Company, Flint, Mich. Filed June 21, 1956.

"TAM"

by Carrie

For Cosmetics—Namely, Hand Lotion, Cleansing Cream, Texture Cream, Mask, Face Powder, Skin Freshener, Deodorant Cream, and After-Shave Lotion for Men.
First use Feb. 24, 1956.

SN 10,892. Lehn & Fink Products Corporation, Bloomfield, N. J. Filed June 25, 1956.

PLAYHOUSE

For Cologne.
First use Apr. 18, 1956.

CLASS 52

DETERGENTS AND SOAPS

SN 700,109. M & M Specialties, Inc., New York, N. Y. Filed Dec. 16, 1955

Foam-O-Cel

For Cellulosic Sponges Impregnated With Shampoo Composition for Cleaning Rugs, Carpets, and Upholstery Fabrics.
First use July 15, 1955.

SN 106. Texize Chemicals, Inc., Greenville, S. C. Filed Jan. 3, 1956. Sec. 2(f).

THE MAID IN A BOTTLE

For Detergent for Dishes, Floor Cleaner, Household Cleaner, Rug Cleaner.
First use January 1947 on household cleaner.

SN 2,460. Topco Associates, Inc., Chicago, Ill. Filed Feb. 10, 1956.

TOPCO

For Household Detergents.
First use Jan. 26, 1956.

SN 9,166. National Milling and Chemical Company, Philadelphia, Pa. Filed May 28, 1956.

NAMI-LO

Owner of Reg. No. 302,130.
For Detergent and Cleaning Compound for Laundry and General Cleaning for Household, Institution, and Industrial Uses.
First use Oct. 6, 1955.

SN 10,907. Phillips Petroleum Company, Bartlesville, Okla. Filed June 25, 1956.

66

Owner of Reg. No. 529,105.
For Glass and Metal Cleaner, Pre-Wax Cleaner, Soluble Powder Type Radiator Cleaner, and Liquid Acid Type Radiator Flush.
First use July 28, 1933.

SN 12,086. Richard Hudnut, New York, N. Y. Filed July 13, 1956.

STEP AHEAD

For Shampoo.
First use June 29, 1956.

SERVICE MARKS

CLASS 100

MISCELLANEOUS

SN 680,028. Progressive Machine Company, Hackensack, N. J. Filed Jan. 17, 1955.

For Engineering and Technical Services—Namely, Planning and the Design of Factory Arrangements Such as Production Lines and Plant Layouts.
First use Oct. 1, 1954.

SN 692,841. GeoSurveys, Washington, D. C. Filed Aug. 11, 1955.

For Conducting Research and Making Special Reports for the Mineral Industry.
First use Jan. 31, 1955.

SN 3,545. Operation Home Improvement, Inc., New York, N. Y. Filed Feb. 28, 1956.

No claim is made to the words "Home Improvement" apart from the mark as shown.
For Services Rendered to Manufacturers, Dealers and Retailers of Building Materials, Lenders, Builders and Contractors—Namely, Distribution of Sales Promotional Materials, Display of Film Presentations, Circularization of News Letters, Consumer and Trade Publicity, and the Presentation of Speeches in the Encouragement of Home Construction and Repair.
First use Sept. 16, 1955.

CLASS 101

ADVERTISING AND BUSINESS

SN 689,626. James R. Guy, d. b. a. Chieftain Investment and Realty Company, Phoenix, Ariz. Filed June 16, 1955.

CHIEFTAIN

For Real Estate Brokerage Services.
First use May 1, 1950.

SN 691,191. Black & Skaggs Associates, Inc., Battle Creek, Mich. Filed July 13, 1955.

PM

For Assisting Individuals and Organizations in the Medical and Dental Professions To Handle the Business Details of Their Profession and Also Advising Them on Public Relations Matters.
First use 1937.

SN 5,257. Val-U Stamp Company, St. Louis, Mo. Filed Mar. 26, 1956.

VAL-U

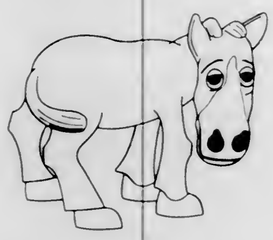
For Promoting the Sale of Goods of Others Through the Medium of Trading Stamps Redeemable in Merchandise or Cash Premiums.
First use July 25, 1941.

SN 6,931. Local Trademarks, Inc., New York, N. Y. Filed Apr. 23, 1956.

CY COLOGY

For Advertising Services for Others—Namely, the Formulation and Preparation of Advertising Copy and Literature.
First use April 1925.

SN 8,664. Frederick E. Gymer, Cleveland, Ohio. Filed May 21, 1956.



For Preparation of Advertising and Sales Promotion Material for Use in Direct Mail Sales Promotion Activity.
First use about Apr. 1, 1948.

SN 13,420. The Cleveland Trust Company, Cleveland, Ohio. Filed Aug. 6, 1956.

CleveChecks

For Special Banking Services—Namely, Checking Services.
First use on or about June 1, 1956.

CLASS 102

INSURANCE AND FINANCIAL

SN 6,281. Philadelphia Fire and Marine Insurance Company, Philadelphia, Pa. Filed Apr. 12, 1956.

PHILADELPHIA FIRE & MARINE INSURANCE COMPANY

Applicant disclaims the words "Philadelphia Fire and Marine Insurance Company" and "Incorporated 1923."
For Fire and Marine Insurance.
First use on or about May 11, 1923.

CLASS 103

CONSTRUCTION AND REPAIR

SN 675,848. The Tex-Tone Corporation, Torrington, Conn. Filed Nov. 1, 1954.

TEX-TONE

For Dry Cleaning Garments, Wearing Apparel, and Household Articles.
First use Jan. 1, 1948.

CLASS 104

COMMUNICATION

SN 14,715. Air Trails, Inc., Columbus, Ohio. Filed Aug. 28, 1956.

WCOL
The Capital Station

The radio call letters "WCOL" are disclaimed by applicant apart from the mark as shown.
For Radio Broadcasting Services.
First use Jan. 1, 1952.

CLASS 105

TRANSPORTATION AND STORAGE

SN 696,773. Chicago, Burlington & Quincy Railroad Company, Chicago, Ill. Filed Oct. 20, 1955. Sec. 2(f).

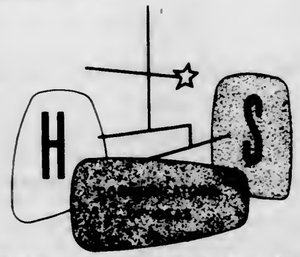
Way of THE Zephyrs

For Railroad Freight and Passenger Transportation Services.
First use March 1941.

CLASS 107

EDUCATION AND ENTERTAINMENT

SN 695,657. Henry Strauss & Company, Inc., New York, N. Y. Filed Sept. 30, 1955.



Without waiver of common law rights the wording "Communicators of Ideas" are disclaimed apart from the mark as shown.
For Planning, Development, and Production of Programs for Others in the Fields of Personnel Management, Employee and Executive Training, and Industrial and Public Relations by Means of Training Courses.
First use on or about Dec. 11, 1952.

COLLECTIVE MEMBERSHIP MARKS

CLASS 200

SN 696,037. I. T. O. P. S., Inc., Indianapolis, Ind. Filed Oct. 7, 1955.

For Indicating Membership in a National Organization of Women Who Work as Private Exchange Operators.
First use March 1951.

TRADEMARK REGISTRATIONS ISSUED
PRINCIPAL REGISTER

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

640,502. LAMISOY. Honeymead Products Company. SN 691,474. Pub. 11–13–56. Filed 7–18–55.

640,503. HARRA. Carl Freudenberg Kommanditgesellschaft auf Aktien. SN 693,131. Pub. 11–13–56. Filed 8–16–55.

640,504. KEL-MIN. E. H. Pratt, d. b. a. Kel-Min Distributing Co., to Kelp Minerals, Inc. SN 697,831. Pub. 11–13–56. Filed 11–7–55.

640,505. TRANSILFOAM. Elkins–Ewall Rubber Co., Inc. SN 698,274. Pub. 11–13–56. Filed 11–15–55.

640,506. BAYTOWN SYNTHETIC RUBBER AND DESIGN. United Rubber & Chemical Company. SN 699,020. Pub. 11–13–56. Filed 11–28–55.

640,507. TONGACELL. Ketchikan Pulp Company. SN 699,504. Pub. 11–13–56. Filed 12–6–55.

640,508. ALKLU BRAND AND DESIGN. Alfred Klugmann, Inc. SN 699,506. Pub. 11–13–56. Filed 12–6–55.

640,509. LAMIPLEX. Scranton Lace Company. SN 1,477. Pub. 11–13–56. Filed 1–25–56.

640,510. CRCC AND DESIGN. Copolymer Rubber & Chemical Corporation. SN 3,519. Pub. 11–13–56. Filed 2–28–56.

640,511. CRCC. Copolymer Rubber & Chemical Corporation. SN 3,520. Pub. 11–13–56. Filed 2–28–56.

640,512. GEORGIANIER. Rayonier Incorporated. SN 4,841. Pub. 11–13–56. Filed 3–19–56.

640,513. FACTEX. The Stamford Rubber Supply Company. SN 6,063. Pub. 11–13–56. Filed 4–9–56.

640,514. GREEN HILL. Grocery Store Products Co. SN 6,168. Pub. 11–13–56. Filed 4–11–56.

640,515. KAYBEE. Superior Tanning Company. SN 7,876. Pub. 11–13–56. Filed 5–7–56.

640,516. MAJESTIC. Superior Tanning Company. SN 8,280. Pub. 11–13–56. Filed 5–14–56.

640,517. COMFORT THROUGH CHEMISTRY, ETC. AND DESIGN. Wm. T. Burnett & Co., Incorporated. SN 8,382. Pub. 11–13–56. Filed 5–16–56.

640,518. PIKES PEAK. General Reduction Company. SN 8,546. Pub. 11–13–56. Filed 5–18–56.

CLASS 2

RECEPTACLES

640,519. DESIGN OF CHEVRON. Standard Oil Company of California. SN 11,449. Pub. 11–13–56. Filed 7–13–56.

CLASS 3

BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

640,520. PIC-A-PURSE. Charles Doppelt & Co. Inc. SN 12,412. Pub. 11–13–56. Filed 7–19–56.

CLASS 4

ABRASIVES AND POLISHING MATERIALS

640,521. HOME TONEE YOUR FURNITURE WITH WASH-GLO. Roscoe J. Byrum, d. b. a. R. J. Byrum Products. SN 691,929. Pub. 11–13–56. Filed 7–26–55.

640,522. DESIGN OF CHEVRON. Standard Oil Company of California. SN 11,448. Pub. 11–13–56. Filed 7–13–56.

CLASS 5

ADHESIVES

640,523. KWIKSTIK. Columbia Cement Co. Inc. SN 682,128. Pub. 11–13–56. Filed 2–23–55.

640,524. NORTON AND DESIGN. Norton Company. SN 698,299. Pub. 11–13–56. Filed 11–15–55.

640,525. RAY-BOND. Raybestos-Manhattan, Inc. SN 2,815. Pub. 11–13–56. Filed 2–16–56.

640,526. DESIGN OF CHEVRON. Standard Oil Company of California. SN 12,852. Pub. 11–13–56. Filed 8–14–56.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

640,527. SK SUREKILL BRAND AND DESIGN. Mutual Products Co. SN 683,418. Pub. 11–13–56. Filed 3–14–55.

640,528. CLARITE. National Lead Company. SN 687,799. Pub. 11–13–56. Filed 5–18–55.

640,529. HI-SOL. Hidalgo Chemical Company. SN 692,139. Pub. 11–13–56. Filed 7–29–55.

640,530. GERMATIZE. Guy Rampel, d. b. a. R. K. Laboratories. SN 693,845. Pub. 11–13–56. Filed 8–29–55.

640,531. SUPER KILL. Taylor Chemical Company. SN 694,529. Pub. 11–13–56. Filed 9–12–55.

640,532. FUMI-SOIL. Chemical Research, Inc. SN 694,856. Pub. 11–13–56. Filed 9–19–55.

640,533. SQUIRE JUNIOR. Curtis-Squire, Incorporated. SN 694,973. Pub. 11–13–56. Filed 9–20–55.

640,534. PANORAM. Panogen, Inc. SN 695,013. Pub. 11–13–56. Filed 9–20–55.

640,535. PANODRIN. Panogen, Inc. SN 695,014. Pub. 11–13–56. Filed 9–20–55.

640,536. CATO. National Starch Products Inc. SN 699,336. Pub. 11–13–56. Filed 12–2–55.

640,537. KANIGEN. General American Transportation Corporation. SN 699,900. Pub. 11–13–56. Filed 12–13–55.

640,538. HMS AND DESIGN. N. V. Hollandsche Melksuikerfabriek. SN 700,926. Pub. 11–13–56. Filed 11–16–55.

640,539. KATAPOL. General Aniline & Film Corporation. SN 1,678. Pub. 11–13–56. Filed 1–30–56.

640,540. KATAPONE. General Aniline & Film Corporation. SN 1,679. Pub. 11–13–56. Filed 1–30–56.

640,541. RINSITE. Oakite Products, Inc. SN 5,937. Pub. 11–13–56. Filed 4–6–56.

640,542. AGUASAL. Fred E. Hummel, d. b. a. Drilling Fluid Service and Materials. SN 6,007. Pub. 11–13–56. Filed 4–9–56.

640,543. SPRADUSTO. Miller Products Company. SN 6,265. Pub. 11–13–56. Filed 4–12–56.

640,544. BONNIE. Proxite Products, Inc. SN 6,749. Pub. 11–13–56. Filed 4–19–56.

CLASS 9

EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES

640,545. WASP. Horning-Cooper, Incorporated. SN 10,432. Pub. 11–13–56. Filed 6–18–56.

CLASS 10

FERTILIZERS

640,546. BIG N AND DESIGN. Mid-South Chemical Corporation. SN 695,831. Pub. 11–13–56. Filed 10–4–55.

640,547. EVER-DRILL. Federal Chemical Company. SN 10,865. Pub. 11–13–56. Filed 6–25–56.

640,548. MAXICROP. Maxicrop Limited. SN 10,897. Pub. 11–13–56. Filed 6–25–56.

640,549. DAPUR. The Colorado Fuel and Iron Corporation. SN 11,063. Pub. 11–13–56. Filed 6–27–56.

640,550. DAPAL. The Colorado Fuel and Iron Corporation. SN 11,064. Pub. 11–13–56. Filed 6–27–56.

CLASS 12

CONSTRUCTION MATERIALS

640,551. JAMAICA-DOR. Yetter Homes, Inc. SN 693,642. Pub. 11–13–56. Filed 8–24–55.

640,552. THE CRIB THAT CORN DESIGNED. Pennington Manufacturing Company. SN 697,316. Pub. 11–13–56. Filed 10–28–55.

640,553. PLEATWOOD. Pleatwood Doors, Inc. SN 697,409. Pub. 11–13–56. Filed 10–31–55.

640,554. PORCELPANELS. Ingram-Richardson Manufacturing Company. SN 699,235. Pub. 11–13–56. Filed 12–1–55.

640,555. ROCK-SHAKES. Johns-Manville Corporation. SN 699,568. Pub. 11–13–56. Filed 12–7–55.

640,556. HANNAPEL ETC. AND DESIGN. Hannapel Door & Plywood Company. SN 699,723. Pub. 11–13–56. Filed 12–9–55.

640,557. SASH-KING. Michigan Moulding Company. SN 700,245. Pub. 11–13–56. Filed 12–19–55.

640,558. LILCO. Lilco Manufacturing Company. SN 430. Pub. 11–13–56. Filed 1–10–56.

640,559. CRYSTAL-VUE AND DESIGN. Crystal-Vue Sliding Door Manufacturing Company. SN 1,571. Pub. 11–13–56. Filed 1–27–56.

640,560. WARFLEX. Wm. A. Reynolds & Co., Inc. SN 2,381. Pub. 11–13–56. Filed 2–9–56.

640,561. WINDOW-SCOPE. Samuel H. Keane. SN 3,195. Pub. 11–13–56. Filed 2–23–56.

640,562. A AMERICAN TOP-BRITE AND DESIGN. American 3 Way-Luxfer Prism Co. SN 4,753. Pub. 11–13–56. Filed 3–19–56.

640,563. WASCOSEAL. Wasco Products, Inc. SN 4,867. Pub. 11–13–56. Filed 3–19–56.

640,564. FLAIR ETC. AND DESIGN. Birmingham Industries, Inc. SN 4,935. Pub. 11–13–56. Filed 3–21–56.

640,565. TRIM-N-ALL. Fordyce Wood Products, Inc. SN 5,092. Pub. 11–13–56. Filed 3–23–56.

640,566. ROSEMARY. Fordyce Wood Products, Inc. SN 5,093. Pub. 11–13–56. Filed 3–23–56.

640,567. MOLTOPREN. Farbenfabriken Bayer Aktiengesellschaft. SN 5,288. Pub. 11–13–56. Filed 3–27–56.

640,568. TRIPLE SEALED. The Celotex Corporation. SN 5,395. Pub. 11–13–56. Filed 3–29–56.

640,569. USH AND DESIGN. U. S. Industries, Inc. SN 6,571. Pub. 11–13–56. Filed 4–17–56.

640,570. USI AND DESIGN. U. S. Industries, Inc. SN 6,572. Pub. 11–13–56. Filed 4–17–56.

640,571. FLINTWOOD. The Flintkote Company. SN 6,707. Pub. 11–13–56. Filed 4–19–56.

640,572. STICK-TAB. The Flintkote Company. SN 6,709. Pub. 11–13–56. Filed 4–19–56.

640,573. PERF-A-PATCH. United States Gypsum Company. SN 6,771. Pub. 11–13–56. Filed 4–19–56.

640,574. TRIGGER-MATIC. Inventors Sales Corporation. SN 6,807. Pub. 11–13–56. Filed 4–20–56.

640,575. DESIGN OF CHEVRON. Standard Oil Company of California. SN 11,446. Pub. 11–13–56. Filed 7–13–56.

CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

640,576. COPPER-LINE. Manufacturers Corporation of Mansfield, Ohio. SN 696,154. Pub. 11–13–56. Filed 10–10–55.

640,577. MOORE O MATIC AND DESIGN. A. E. Moore Company, Inc. SN 697,178. Pub. 11–13–56. Filed 10–26–55.

640,578. DESIGN OF CROSS AND RECTANGLE. Ekco-Alcoa Containers Inc. SN 766. Pub. 11–13–56. Filed 1–16–56.

640,579. MILTON. Milton Manufacturing Co., Inc. SN 1,972. Pub. 10–9–56. Filed 2–2–56.

640,580. GRIPTAC. The B & T Metals Company. SN 5,020. Pub. 11–13–56. Filed 3–22–56.

640,581. TD AND DESIGN. D 'mine S. p. A. SN 8,910. Pub. 11–13–56. Filed 4–30–56.

640,582. VIBRA-SHOWER. Weldon C. Erwin, d. b. a. W. C. Erwin Company. SN 8,943. Pub. 11–13–56. Filed 5–24–56.

640,583. BI-LINE. Skyline Plastic Pipe, Inc. SN 10,063. Pub. 11–13–56. Filed 5–31–56.

CLASS 14

METALS AND METAL CASTINGS AND FORGINGS

640,584. TICO. Frankel Co. Inc. SN 696,227. Pub. 11–13–56. Filed 10–11–55.

CLASS 15

OILS AND GREASES

640,585. STIX. Paul K. Horstman, d. b. a. Paul K. Horstman. SN 12,194. Pub. 11–13–56. Filed 7–16–56.

640,586. VISREX. Socony Mobil Oil Company, Inc. SN 12,751. Pub. 11–13–56. Filed 7–24–56.

640,587. VISAR. Aries Laboratories, Inc. SN 13,006. Pub. 11–13–56. Filed 7–30–56.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

640,588. INSULFAS. Benjamin Foster Company. SN 7,974. Pub. 11–13–56. Filed 5–9–56.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

640,589. M & M 511. Mattox and Moore, Inc. SN 674,983. Pub. 11–13–56. Filed 10–18–54.

640,590. NDD AND DESIGN. National Drug Distributors. SN 682,172. Pub. 11–13–56. Filed 2–23–55.

640,591. VALMORIN. C. H. Boehringer Sohn. SN 554. Pub. 11–13–56. Filed 1–12–56.

640,592. VEGETOPAN. C. H. Boehringer Sohn. SN 555. Pub. 11–13–56. Filed 1–12–56.

640,593. SANAR. Alex B. Del Bueno, d. b. a. Dell & Holtz. SN 2,482. Pub. 11–13–56. Filed 2–2–56.

640,594. TERRA-STREP. Chas. Pfizer & Co., Inc. SN 5,863. Pub. 11–13–56. Filed 4–5–56.

640,595. LINIMENTO VOLATICO. Louis A. Paparelli, d. b. a. San Antonio Drug Store. SN 6,369. Pub. 11–13–56. Filed 4–13–56.

640,596. RUTAMINAL-RQ. Schenley Laboratories, Inc. SN 7,042. Pub. 11–13–56. Filed 4–24–56.

640,597. TRYZOL. Arthur E. Meyerhoff, d. b. a. Tryzol Products Company. SN 7,521. Pub. 11–13–56. Filed 5–2–56.

CLASS 19

VEHICLES

640,598. SAF-T-RAC. Phil's Way, Inc. SN 4,564. Pub. 11–13–56. Filed 3–14–56.

640,599. PHILS-WAY. Phil's Way, Inc. SN 4,565. Pub. 11–13–56. Filed 3–14–56.

640,600. NAVAHO AND ARROW DESIGN. North American Aviation, Inc. SN 6,457. Pub. 11–13–56. Filed 4–16–56.

640,601. COACHCRAFT. Coachcraft, Ltd. SN 8,193. Pub. 11–13–56. Filed 5–14–56.

640,602. COACHCRAFT AND DESIGN. Coachcraft, Ltd. SN 8,194. Pub. 11–13–56. Filed 5–14–56.

640,603. CRACKER BOX DERBY. The Neilson Wheel Company. SN 8,257. Pub. 11–13–56. Filed 5–14–56.

CLASS 20

LINOLEUM AND OILED CLOTH

640,604. SKYLARK. Congoleum-Nairn Inc. SN 8,536. Pub. 10–9–56. Filed 5–18–56.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

640,605. SPARTON COLORMATIC. Sparks-Withington Company. SN 692,959. Pub. 11–13–56. Filed 8–12–55.

640,606. IBM. International Business Machines Corporation. SN 4,328. Pub. 11–13–56. Filed 3–12–56.

640,607. PERFECTION AND DESIGN. Hupp Corporation. SN 5,300. Pub. 11–13–56. Filed 3–27–56.

640,608. VIS-A-RAY. Duro-Test Corporation. SN 6,701. Pub. 11–13–56. Filed 4–19–56.

640,609. FATHOMLITE. Waikiki Equipment Company. SN 6,880. Pub. 11–13–56. Filed 4–20–56.

640,610. ACRAWATT. Acra Electric Corporation. SN 6,976. Pub. 11–13–56. Filed 4–24–56.

640,611. CARVEL HALL. Chas. D. Briddell, Inc. SN 6,982. Pub. 11–13–56. Filed 4–24–56.

640,612. DYKANOL. Cornell-Dubilier Electric Corporation. SN 6,986. Pub. 11–13–56. Filed 4–24–56.

640,613. BEAVER. Cornell-Dubilier Electric Corporation. SN 6,987. Pub. 11–13–56. Filed 4–24–56.

640,614. SERVICE-MIKE. Cornell-Dubilier Electric Corporation. SN 6,988. Pub. 11–13–56. Filed 4–24–56.

640,615. ARK-LES. Ark-Les Switch Corporation. SN 7,149. Pub. 11–13–56. Filed 4–26–56.

640,616. ARC-ESCENT. Duro-Test Corporation. SN 7,180. Pub. 11–13–56. Filed 4–26–56.

640,617. GARB-AWAY. In-Sink-Erator Manufacturing Company. SN 7,188. Pub. 11–13–56. Filed 4–26–56.

640,618. SELECTRO COM B AND DESIGN. Brumberger Co. Inc. SN 7,482. Pub. 11–13–56. Filed 5–2–56.

640,619. CYCLOSTAT. Signal-Stat Corporation. SN 7,636. Pub. 11–13–56. Filed 5–3–56.

640,620. AUDIPAGE. Philco Corporation. SN 7,838. Pub. 11–13–56. Filed 5–7–56.

640,621. J-D-D. Christ P. Hoefer, d. b. a. J. D. D. Lubricants Company. SN 8,074. Pub. 11–13–56. Filed 5–10–56.

640,622. POLYCUBE. Electro Silv-A-King Corporation. SN 8,393. Pub. 11–13–56. Filed 5–16–56.

640,623. "TAN-O-MITE." Ohmite Manufacturing Company. SN 8,433. Pub. 11–13–56. Filed 5–16–56.

640,624. SYNDUCTION. Allis-Chalmers Manufacturing Company. SN 8,912. Pub. 11–13–56. Filed 5–24–56.

640,625. MULTNOMAH ETC. AND DESIGN. Multnomah Battery Manufacturing Co. SN 9,047. Pub. 11–13–56. Filed 5–25–56.

640,626. ROTO-CHEF. Roto-Chef, Inc. SN 9,055. Pub. 11–13–56. Filed 5–25–56.

640,627. ROTOSOL. Royal Electric, Inc. SN 9,056. Pub. 11–13–56. Filed 5–25–56.

640,628. CHROMALOX ETC. AND DESIGN. Edwin L. Wiegand Company. SN 9,317. Pub. 11–13–56. Filed 5–29–56.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

640,629. SONIZED ACTION. John C. Backe. SN 7,469. Pub. 11–13–56. Filed 5–2–56.

640,630. SKIM. Johnson-Machulda. SN 7,683. Pub. 11–13–56. Filed 5–4–56.

640,631. SEA DRAGON. Globe Rubber Products Corp SN 7,793. Pub. 11–13–56. Filed 5–7–56.

640,632. CHARMED CIRCLE. Universal Bowling & Golf Corporation. SN 7,883. Pub. 11–13–56. Filed 5–7–56.

640,633. WORTHMORE. Universal Bowling & Golf Corpotion. SN 7,884. Pub. 11–13–56. Filed 5–7–56.

640,634. SPIN-HED. Sears, Roebuck and Co. SN 7,949. Pub. 11–13–56. Filed 5–8–56.

640,635. FLITE-N-FLOAT. Viking Sports Products, Inc. SN 8,101. Pub. 11–13–56. Filed 5–10–56.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

640,636. "KIDDYKUT." John Ahlbin and Sons, Incorporated. SN 681,898. Pub. 11–13–56. Filed 2–18–55.

640,637. ZIP. Zip Products Co. SN 682,577. Pub. 11–13–56. Filed 3–1–55.

640,638. FOLEY SILVER ETC. AND DESIGN. The Foley-Irish Corporation. SN 690,694. Pub. 11–13–56. Filed 7–5–55.

640,639. DUREX. Durex Hardware Manufacturing Corp. SN 691,843. Pub. 11–13–56. Filed 7–25–55.

640,640. METALMASTER. J. Wiss & Sons Co. SN 695,461. Pub. 11–13–56. Filed 9–27–55.

640,641. LEEDER. Leeder Manufacturing Co. Inc. SN 695,823. Pub. 11–13–56. Filed 10–4–55.

640,642. COMPASS. Bristol Repetition Limited. SN 699,471. Pub. 11–13–56. Filed 12–6–55.

640,643. DYNAMATIC Gelis Bentolila. SN 1,142 Pub. 11–13–56. Filed 1–20–56.

640,644. IRONMASTER. Midland Products Co. SN 1,380. Pub. 11–13–56. Filed 1–24–56.

640,645. R AND DESIGN. Reed Roller Bit Company. SN 1,722. Pub. 11–13–56. Filed 1–30–56.

640,646. 3M BRAND AND DESIGN. Minnesota Mining and Manufacturing Company. SN 3,109. Pub. 11–13–56. Filed 2–21–56.

640,647. EAGLE CLAW AND DESIGN. Archie W. Beeman, d. b. a. Eagle Claw Tool Company. SN 3,918. Pub. 11–13–56. Filed 3–6–56.

640,648. ADJUST-A-KIT. Allen Electric and Equipment Company. SN 5,146. Pub. 11–13–56. Filed 3–26–56.

640,649. ARMTRU. Allen Electric and Equipment Company. SN 5,374. Pub. 11–13–56. Filed 3–29–56.

640,650. E-Z EDGE 45 AND DESIGN. Vogel Brothers Corporation. SN 5,474. Pub. 11–13–56. Filed 3–29–56.

640,651. NU-CLEAR. Bingham Brothers Company. SN 5,584. Pub. 11–13–56. Filed 4–2–56.

640,652. WHIZ. International Standard Trading Corporation. SN 7,600. Pub. 11–13–56. Filed 5–3–56.

640,653. FORM KING. J. Curry Mendes Corp. SN 7,819. Pub. 11–13–56. Filed 5–7–56.

640,654. AUTO-FLO. Hussmann Refrigerator Co. SN 8,133. Pub. 11–13–56. Filed 5–11–56.

640,655. POISE. R. Wallace & Sons Manufacturing Company. SN 8,177. Pub. 10–9–56. Filed 5–11–56.

640,656. CHOKER. Choker Machinery Corporation. SN 8,630. Pub. 11–13–56. Filed 5–21–56.

640,657. MANEX. Manex Machinery Corporation. SN 8,676. Pub. 11–13–56. Filed 5–21–56.

640,658. RANCHMASTER. Gertrude Lee, d. b. a. Lee Products Company. SN 8,782. Pub. 11–13–56. Filed 5–22–56.

640,659. HILLBILLY BITS. Coal Bit Company. SN 8,823. Pub. 11–13–56. Filed 5–23–56.

640,660. TIDAX JUPITER. Hill Novelties Mfg. Corp. SN 9,146. Pub. 11–13–56. Filed 5–28–56.

640,661. DESIGN OF CHEVRON. Standard Oil Company of California. SN 11,452. Pub. 11–13–56. Filed 7–13–56.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

640,662. ARITHMOMETER. Jarrell-Ash Company. SN 686,314. Pub. 11–13–56. Filed 4–26–55.

640,663. K-VOLT STANDARD AND DESIGN. Avien, Inc. SN 688,889. Pub. 11–13–56. Filed 6–6–55.

640,664. DRAFT-A-MATIC. The General Fireproofing Company. SN 691,127. Pub. 11–13–56. Filed 7–12–55.

640,665. STA FAST AND DESIGN. George H. Gardiner. SN 692,919. Pub. 11–13–56. Filed 8–12–55.

640,666. D AND DESIGN. Davenport Manufacturing Co. SN 694,842. Pub. 11–13–56. Filed 9–14–55.

640,667. UNIVERSUM. Universum-Film A. G. SN 700,395. Pub. 11–13–56. Filed 12–21–55.

640,668. UFA AND DESIGN. Universum-Film Akt.-Ges. SN 700,396. Pub. 11–13–56. Filed 12–21–55.

640,669. T. M. I. AND DESIGN. Testing Machines, Inc. SN 925. Pub. 11–13–56. Filed 1–17–56.

640,670. MOTEST. Motometer, K. G. SN 1,889. Pub. 11–13–56. Filed 2–1–56.

640,671. POSTALIA. Telefonbau und Normalzeit G. m. b. H. SN 2,832. Pub. 11–13–56. Filed 2–16–56.

640,672. SHARPOMETER. American Safety Razor Corporation. SN 4,413. Pub. 11–13–56. Filed 3–13–56.

640,673. DATATRON. Electrodata Corporation. SN 4,789. Pub. 11–13–56. Filed 3–19–56.

640,674 GRAND PRIX. Societe Industrielle de Lunetterie. SN 6,058. Pub. 11–13–56. Filed 4–9–56.

640,675. SORBONNE. Societe Industrielle de Lunetterie. SN 6,059. Pub. 11–13–56. Filed 4–9–56.

640,676. YO-YO. Helipot Corporation. SN 6,426. Pub. 11–13–56. Filed 4–16–56.

640,677. EVA-LITE AND DESIGN. Peerless Camera Stores, Inc. SN 6,549. Pub. 11–13–56. Filed 4–17–56.

640,678. DESIGN OF CHEVRON. Standard Oil Company of California. SN 12,859. Pub. 11–13–56. Filed 8–14–56.

640,679. FASTAIR. Wollensak Optical Company. SN 13,503. Pub. 11–13–56. Filed 8–28–56.

CLASS 28

JEWELRY AND PRECIOUS-METAL WARE

640,680. "QUIK-TRIK." Coro, Inc. SN 9,445. Pub. 11–13–56. Filed 6–1–56.

CLASS 31

FILTERS AND REFRIGERATORS

640,681. FARAVAC. Faraday Engineering Company. SN 671. Pub. 11–13–56. Filed 1–13–56.

640,682. FOOD-STOR. Borg-Warner Corporation. SN 1,148. Pub. 11–13–56. Filed 1–20–56.

640,683. TRI-LEVEL. Borg-Warner Corporation. SN 1,149. Pub. 11–13–56. Filed 1–20–56.

640,684. MARQUETTE. Marquette Appliances, Inc. SN 8,680. Pub. 11–13–56. Filed 5–21–56.

640,685. FREZE-CEL. Dole Refrigerating Company. SN 8,893. Pub. 11–13–56. Filed 5–22–56.

CLASS 32

FURNITURE AND UPHOLSTERY

640,686. E-Z-DO AND DESIGN. Decorative Cabinet Corp. SN 646,369. Pub. 11–13–56. Filed 5–4–53.

640,687. MEREDITH GALLERIES. Meredith Galleries, Inc. SN 676,125. Pub. 11–13–56. Filed 11–5–54.

640,688. H AND DESIGN. Hamilton Manufacturing Company. SN 692,228. Pub. 11–13–56. Filed 8–1–55.

640,689. MITEY-LITE. P. B. R. Manufacturing Co. SN 696,824. Pub. 11–13–56. Filed 10–20–55.

640,690. AMERICAN SEATING AND DESIGN. American Seating Company. SN 8,181. Pub. 11–13–56. Filed 5–14–56.

640,691. FLEX-O-RAK. Sel-O-Rak Corporation. SN 8,446. Pub. 11–13–56. Filed 5–16–56.

640,692. NYLO-GLIDE RFI AND DESIGN. Record Files, Inc. SN 8,695. Pub. 11–13–56. Filed 5–21–56.

640,693. EMCOR. Elgin Metalformers Corporation. SN 11,159. Pub. 11–13–56. Filed 6–28–56.

640,694. "ENERGIZER" AND DESIGN. The Englander Company, Inc. SN 11,239. Pub. 11–13–56. Filed 6–29–56.

640,695. DEAN FOAMERS. Dean Industries, Inc. SN 11,670. Pub. 11–13–56. Filed 7–6–56.

640,696. DREAM STRIPE. The Dayton Rubber Company. SN 11,917. Pub. 11–13–56. Filed 7–11–56.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

640,697. COND-AIR. Elliott Engineering Company, Inc. SN 696,131. Pub. 11–13–56. Filed 10–10–55.

640,698. BRAZCUE AND DESIGN. Keystone Lamp Manufacturing Corporation. SN 700,236. Pub. 11–13–56. Filed 12–19–55.

640,699. NONE BETTER PARAGON ETC. AND DESIGN. Paragon Oil Burner Corp. SN 700,934. Pub. 11–13–56. Filed 12–27–55.

640,700. COOL-FLO. American Refrigeration Export Corp. SN 3,802. Pub. 11–13–56. Filed 3–5–56.

640,701. E. F. M. FIRE-JET. Electric Furnace-Man, Inc. SN 5,180. Pub. 11–13–56. Filed 3–26–56.

640,702. MOONGLOW GAS LIGHT. Norman F. Martin. SN 6,442. Pub. 11–13–56. Filed 4–16–56.

640,703. EX-ODE. L. & S. SN 8,136. Pub. 11–13–56. Filed 5–11–56.

CLASS 35

BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

640,704. METROPOLITAN. Sears, Roebuck & Co. SN 7,945. Pub. 11–13–56. Filed 5–8–56.

CLASS 37

PAPER AND STATIONERY

640,705. FROST-TONE. Columbia Envelope Company. SN 699,201. Pub. 11–13–56. Filed 12–1–55.

640,706. EVE. Sitrue Inc. SN 6,563. Pub. 11–13–56. Filed 4–17–56.

640,707. BLACK SABLE. A. W. Faber-Castell Pencil Co., Inc. SN 6,704. Pub. 11–13–56. Filed 4–19–56.

640,708. LUSTERGRIP. St. Regis Paper Company. SN 6,958. Pub 11–13–56. Filed 4–23–56.

640,709. PAQUATUF. Daniels Manufacturing Company. SN 6,993. Pub. 11–13–56. Filed 4–24–56.

CLASS 38

PRINTS AND PUBLICATIONS

640,710. TELESLIDE AND DESIGN. Teleslide, Inc. SN 8,173. Pub. 11–13–56. Filed 5–11–56.

640,711. RACE-O-MATIC AND DESIGN. Edward A. Gastine, d. b. a. Handy-Capper. SN 8,658. Pub. 11–13–56. Filed 5–21–56.

640,712. CSI ETC. AND DESIGN. The Construction Specifications Institute, Incorporated. SN 8,825. Pub. 11–13–56. Filed 5–23–56.

640,713. WEATHERSCOPE. Robert B. Cutler, d. b. a. Cutler Designs. SN 8,932. Pub. 11–13–56. Filed 5–24–56.

640,714. INSPIRATION. Rice Leaders of the World Association. SN 9,397. Pub. 11–13–56. Filed 5–31–56.

640,715. LINDA MARSHALL. The Maytag Company. SN 9,477. Pub. 11–13–56. Filed 6–1–56.

CLASS 39

CLOTHING

640,716. BIKINI ETC. AND DESIGN. James Allan Clark. SN 681,411. Pub. 11–13–56. Filed 2–10–55.

640,717. CELEBRITY. Palm Beach Company. SN 688,070. Pub. 11–13–56. Filed 5–23–55.

640,718. AIRWEAR AND DESIGN. The Lyon Tailoring Company. SN 691,377. Pub. 11–13–56. Filed 7–15–55.

640,719. PROBAN. Proban Limited. SN 697,834. Pub. 11–13–56. Filed 11–7–55.

640,720. "SURPRISE!" ETC. AND DESIGN. Surprise Brassiere Co., Inc. SN 698,810. Pub. 11–6–56. Filed 11–23–55.

640,721. DESIGN OF MAN'S HEAD. Atlas Underwear Corporation. SN 5. Pub. 11–13–56. Filed 1–3–56.

640,722. MAYFAIR. Cluett, Peabody & Co., Inc. SN 1,338. Pub. 11–13–56. Filed 1–24–56.

640,723. DIMINUETTE. Richard J. Cole, Inc. SN 3,356. Pub. 11–13–56. Filed 2–27–56.

640,724. DESIGN OF GIRL HOLDING GIANT LOLLIPOP ON STICK. Adrian Tabin Corporation, d. b. a. Candy Jrs. SN 7,048. Pub. 11–13–56. Filed 4–24–56.

640,725. NORMANDY. L. Greif & Bro., Inc., to John Norman. SN 7,501. Pub. 11–13–56. Filed 5–2–56.

640,726. SUNWEIGHT. Pendleton Woolen Mills. SN 7,622. Pub. 11–13–56. Filed 5–3–56.

640,727. TROPIC-HALL. Robert Hall Clothes, Inc. SN 7,677. Pub. 11–13–56. Filed 5–4–56.

640,728. ANCHOR JAC. Cluett, Peabody & Co., Inc. SN 7,763. Pub. 11–13–56. Filed 5–7–56.

640,729. BRIEF ZIP. Cluett, Peabody & Co., Inc. SN 7,764. Pub. 11–13–56. Filed 5–7–56.

640,730. JOCKEY JR. Cooper's, Incorporated. SN 7,769. Pub. 11–13–56. Filed 5–7–56.

640,731. DESIGN OF KANGAROO. Lisle Mills, Inc. SN 7,816. Pub. 11–13–56. Filed 5–7–56.

640,732. HELIO. Tellshire, Inc. SN 8,174. Pub. 11–13–56. Filed 5–11–56.

640,733. TOUCH OF GENIUS. S. Augstein & Co., Inc. SN 10,123. Pub. 11–13–56. Filed 6–13–56.

640,734. FELLINA. Robert Hall Clothes, Inc. SN 10,164. Pub. 11–13–56. Filed 6–13–56.

640,735. NALLO. H. & J. Nalibotsky Co., Inc. SN 10,533. Pub. 11–13–56. Filed 6–19–56.

640,736. REIGNING BEAUTY. Belk Stores Services, Inc. SN 11,134. Pub. 11–13–56. Filed 6–28–56.

640,737. STRATO-MULES. Vogue Shoe, Inc. SN 11,438. Pub. 11–13–56. Filed 7–2–56.

640,738. GOLDEN ROSE. T G & Y Stores Co. SN 11,633. Pub. 11–13–56. Filed 7–5–56.

640,739. BERNARDO. Bernardo Sandals, Inc. SN 11,906. Pub. 11–13–56. Filed 7–11–56.

640,740. TRICNIT. Tricnit Hosiery Mills, Inc. SN 12,054. Pub. 11–13–56. Filed 7–12–56.

640,741. PEDI-STARS AND DESIGN. Goldblatt Bros., Inc. SN 12,188. Pub. 11–13–56. Filed 7–16–56.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

640,742. ANTIGUA. D. B. Fuller & Co., Inc. SN 10,529. Pub. 11–13–56. Filed 6–19–56.

640,743. TIE-ME HANDY. Aldean Mills Co. SN 10,571. Pub. 11–13–56. Filed 6–20–56.

640,744. HILGAR. Rugby Rug Mills Inc. SN 10,623. Pub. 11–13–56. Filed 6–20–56.

640,745. REVERSATILE. Wamsutta Mills. SN 10,734. Pub. 11–13–56. Filed 6–21–56.

640,746. SKERRY. D. B. Fuller & Co., Inc. SN 10,993. Pub. 11–13–56. Filed 6–26–56.

640,747. BAMBETTE. D. B. Fuller & Co., Inc. SN 11,241. Pub. 11–13–56. Filed 6–29–56.

640,748. SOJOURN. D. B. Fuller & Co., Inc. SN 11,243. Pub. 11–13–56. Filed 6–29–56.

CLASS 43

THREAD AND YARN

640,749. MADAME BUTTERFLY AND DESIGN. Toyo Rayon Co., Ltd. SN 11,721. Pub. 11–13–56. Filed 7–6–56.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

640,750. JOY-OF PARIS. Rex Cutlery Corporation. SN 692,865. Pub. 11–13–56. Filed 8–11–55.

640,751. DENTA-GARD. Carroll W. Johnson and John T. Clark. SN 699,569. Pub. 11–13–56. Filed 12–7–55.

640,752. ALCO STOP AND DESIGN. Albert-Louis Milnzhuber. SN 84. Pub. 11–13–56. Filed 1–3–56.

640,753. TROJAN AND DESIGN. Youngs Rubber Corporation. SN 6,668. Pub. 11–13–56. Filed 4–10–56.

640,754. PERMA SOFT. The William Getz Corporation. SN 7,432. Pub. 11–13–56. Filed 5–1–56.

640,755. HELMETED HEAD PROFILE DESIGN. Youngs Rubber Corporation. SN 7,553. Pub. 11–13–56. Filed 5–2–56.

640,756. HEARTPACER. The Birtcher Corporation. SN 7,747. Pub. 11–13–56. Filed 5–7–56.

640,757. OPTIC-EAR. The Dahlberg Company. SN 7,772. Pub. 11–13–56. Filed 5–7–56.

CLASS 45

SOFT DRINKS AND CARBONATED WATERS

640,758. FUN TIME POP AND DESIGN. Julius M. Mulder, d. b. a. Vita-Fluor Company. SN 8,252. Pub. 11–13–56. Filed 5–14–56.

640,759. COACH'N FOUR. Sheffield Bottling Co., d. b. a. Coach'n Four Products Co. SN 12,905. Pub. 11–13–56. Filed 7–26–56.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

640,760. NO-DK AND DESIGN. Dr. Edward H. Bohlman, d. b. a. NO-DK Distributors. SN 676,460. Pub. 11–13–56. Filed 11–12–54.

640,761. MIKE MASTER. Central Soya Company, Inc. SN 677,938. Pub. 11–13–56. Filed 12–8–54.

640,762. SOUTHCOAST. William Capland, d. b. a. Southcoast Quick Freezing and Packing Co. SN 684,398. Pub. 6–19–56. Filed 3–29–55.

640,763. HOWE. John E. Howe. SN 690,622. Pub. 11–13–56. Filed 7–1–55.

640,764. CRESCENT AND DESIGN. Crescent Health Food Company. SN 694,127. Pub. 11–13–56. Filed 9–2–55.

640,765. NUTRO. Langendorf United Bakeries, Inc. SN 1,602. Pub. 11–13–56. Filed 1–27–56.

640,766. NUTRO-LAX. Langendorf United Bakeries, Inc. SN 1,603. Pub. 11–13–56. Filed 1–27–56.

640,767. MERRY MAID. Morton Barron, d. b. a. Rex Sales Co. SN 2,075. Pub. 11–13–56. Filed 2–6–56.

640,768. CELEBRITY. Atalanta Trading Corp. SN 2,850. Pub. 11–13–56. Filed 2–17–56.

640,769. NIEMEYERS MILL-HOUSE. Theodorus Niemeijer Ltd., d. b. a. Theodorus Niemeyer Ltd. SN 3,007. Pub. 11–13–56. Filed 2–20–56.

640,770. KAKOLATE. Henry & Henry, Inc. SN 3,186. Pub. 11–13–56. Filed 2–23–56.

640,771. INSTUM. Mead Johnson & Company. SN 3,211. Pub. 11–13–56. Filed 2–23–56.

640,772. BLUE HOLE GARDEN. Ralph Brennecke, d. b. a. Blue Hole Garden. SN 3,923. Pub. 11–13–56. Filed 3–6–56.

640,773. MAURICE LENELL. Maurice Lenell Cooky Company. SN 4,461. Pub. 11–13–56. Filed 3–13–56.

640,774. HASCO H. The Haserot Company. SN 4,541. Pub. 11–13–56. Filed 3–14–56.

640,775. OLD MUNICH. American Stores Company. SN 5,018. Pub. 11–13–56. Filed 3–22–56.

640,776. VINE QUEEN. Fischer-Spiegel Inc. SN 5,830. Pub. 11–13–56. Filed 4–5–56.

640,777. REPRESENTATION OF A WOMAN IN OVAL MEDALLION. Grandma Penny's Old Fashioned Candies, Inc., d. b. a. Grandma Penny's Old Fashioned Candy Company. SN 6,519. Pub. 11–13–56. Filed 4–17–56.

640,778. SUPERCOL. General Mills, Inc. SN 6,611. Pub. 11–13–56. Filed 4–18–56.

640,779. SEA PILOT. Santa Barbara Coastal Lemon Co. SN 6,837. Pub. 11–13–56. Filed 4–20–56.

640,780. DEWCO. D. E. Winebrenner Company, Inc. SN 7,138. Pub. 11–13–56. Filed 4–25–56.

640,781. SODEX. Davis Bakery, Inc. SN 9,227. Pub. 11–13–56. Filed 5–16–56.

CLASS 47

WINES

640,782. GALLO AND DESIGN. E. & J. Gallo Winery. SN 1,677. Pub. 11–13–56. Filed 1–30–56.

640,783. EXCELLO. John Cascio, d. b. a. Big Tree Wines Distributors. SN 12,589. Pub. 11–13–56. Filed 7–23–56.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

640,784. PRIDE OF PEORIA. Hiram Walker & Sons Inc. SN 11,726. Pub. 11–13–56. Filed 7–6–56.

640,785. NIAGARA. Jas. Barclay & Co. Limited. SN 12,489. Pub. 11–13–56. Filed 7–20–56.

640,786. OLD DOUGLAS. Hiram Walker & Sons Inc. SN 12,548. Pub. 11–13–56. Filed 7–20–56.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

640,787. AIR BLOCK. Rubber Corporation of California. SN 699,927. Pub. 11–13–56. Filed 12–13–55.

640,788. TWIN FELT. The Felters Company. SN 7,913. Pub. 11–13–56. Filed 5–8–56.

640,789. TIP TOP FELT. The Felters Company. SN 7,916. Pub. 11–13–56. Filed 5–8–56.

640,790. DOR-TITE. Durkee-Atwood Company. SN 10,410. Pub. 11–13–56. Filed 6–18–56.

640,791. STEELAN. Walter Valentine Kassel, d. b. a. Kassel Export Company. SN 10,390. Pub. 11–13–56. Filed 6–21–56.

640,792. ARCTIC. U. S. Packaging Corporation. SN 10,731. Pub. 11–13–56. Filed 6–21–56.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

640,793. LINGERLENE. Kongo Chemical Company, Inc. SN 691,049. Pub. 11–13–56. Filed 7–11–55.

640,794. DESIGN OF GIRL'S HEAD. Robert H. Miller. SN 695,101. Pub. 11–13–56. Filed 9–21–55.

640,795. SPRAY-PERM. Revlon Products Corporation, to Revlon, Inc. SN 698,080. Pub. 11–13–56. Filed 11–10–55.

640,796. SKIN DEW. Helena Rubinstein, Inc. SN 5,944. Pub. 11–13–56. Filed 4–6–56.

CLASS 52

DETERGENTS AND SOAPS

640,797. WONCE-OBA. Wonce-Oba Co. SN 690,519. Pub. 11–13–56. Filed 6–29–55.

640,798. CHEMCO. Earl Boiko, d. b. a. Chemco Distributing Co. SN 691,746. Pub. 9–4–56. Filed 7–22–55.

640,799. SEPTI KIT AND DESIGN. Westfield Industries, Inc. SN 697,248. Pub. 11–13–56. Filed 10–27–55.

640,800. LANITOL. Arkansas Company, Inc. SN 699,050. Pub. 11–13–56. Filed 11–29–55.

640,801. ARKO. Arkansas Company, Inc. SN 699,051. Pub. 11–13–56. Filed 11–29–55.

Service Marks

CLASS 101

ADVERTISING AND BUSINESS

640,802. NANCY DIXON. Cluett, Peabody & Co., Inc. SN 675,765. Pub. 11–13–56. Filed 11–1–54.

CLASS 103

CONSTRUCTION AND REPAIR

640,803. MONTGOMERY P. M. Montgomery Elevator Company. SN 688,346. Pub. 11–13–56. Filed 5–26–55.

CLASS 104

COMMUNICATION

640,804. THE PERSONALITY STATIONS. Joe L. Smith, Jr., Inc. SN 696,385. Pub. 11–13–56. Filed 10–13–55.

CLASS 106

MATERIAL TREATMENT

640,805. MAGNI-SHARP AND DESIGN. North American Products Corp. SN 688,957. Pub. 11–13–56. Filed 6–6–55.

CLASS 107

EDUCATION AND ENTERTAINMENT

640,806. NA LEI O HAWAII. Edward Michelman. SN 679,002. Pub. 11–13–56. Filed 12–27–54.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

640,807. Bruner Corporation, Milwaukee, Wis. SN 564. Filed 1–12–56.

BRUNER

For Chemical Compound for Cleaning and Restoring Capacity of Iron-Fouled Water Softeners.
First use Jan. 29, 1952.

640,808. Bruner Corporation, Milwaukee, Wis. SN 566. Filed 1–12–56.

BRUNER

For Chemical Compound for Cleaning and Restoring Capacity of Iron-Fouled Water Softeners.
First use Jan. 29, 1952.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

640,809. Maybach-Motorenbau G. m. b. H., Friedrichshafen (Lake Constance), Germany. SN 695,482. Filed 9–28–55.

Maybach

For Internal Combustion Engines, Gas Turbines, Power Transmissions, and Drive Mechanisms and Control Devices and Parts and Accessories Thereof—Namely, Gears, Clutches, Wheels, Shafts, Joints, Articulated Shafts; Oil Well Drilling Machinery and Control Devices Therefor.
First use on or about Oct. 1, 1924; in commerce on or about Oct. 1, 1924.

CLASS 38

PRINTS AND PUBLICATIONS

640,810. Weekly Publications, Inc., New York, N. Y. SN 668,491. Filed P. R. 6–18–54. Am. S. R. 10–10–55.

THE MAGAZINE OF NEWS SIGNIFICANCE

For Weekly Magazine.
First use on or about June 8, 1939.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

640,811. Quality Chekd Dairy Products Association, Chicago, Ill. SN 679,938. COLLECTIVE MARK. Filed P. R. 1–14–55. Am. S. R. 10–1–56.

For Ice Cream.
First use Dec. 1, 1954.

640,812. Sugar Shell Corporation, New York, N. Y. SN 695,044. Filed P. R. 9–20–55. Am. S. R. 9–17–56.

SUGAR SHELL

For Empty Ice Cream Cones.
First use Aug. 25, 1939.

640,813. The Borden Company, d. b. a. Hendler Creamery Company, New York, N. Y. SN 9,841. Filed 6–8–56.

REAL-RICH

For Ice Cream.
First use Apr. 14, 1955.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

640,814. Revlon Products Corporation, d. b. a. Revlon, to Revlon, Inc., New York, N. Y. SN 680,415. Filed P. R. 1–24–55. Am. S. R. 1–20–56.

'HOT CORAL'

For Lipstick and Nail Enamel.
First use Jan. 10, 1955.

640,815. The J. R. Watkins Company, Winona, Minn. SN 693,950. Filed P. R. 8–30–55. Am. S. R. 9–11–56.

The mark is the configuration of the bottle container for the goods, on which there is superimposed the letter "W" in a fanciful crown design, flanked by scrolls. Said container is a replica of the radiator as found on an early model automobile.
For Men's Toiletries—Namely, Cologne, Hair Groom, After-Shave Lotion, Dandruff Preparation, and Liquid Shave Preparation.
First use Aug. 1, 1955.

TRADEMARK REGISTRATIONS RENEWED

108,846. TEN BRUIN'S AND DESIGN. Cl. 46. 2–29–16.
112,334. BULL FROG. Cl. 48. 8–29–16.
113,495. BLUE BIRD AND DESIGN. Cl. 51. 10–17–16.
114,830. WALTER SCOTT & CO. Cl. 23. 1–2–17.
114,831. SCOTT. Cl. 23. 1–2–17.
114,914. NEW DAY. Cl. 27. 1–9–17.
115,456. UNIVERSAL. Cl. 18. 2–13–17.
115,833. REGO. Cl. 13. 3–13–17.
116,025. STRENES. Cl. 14. 4–3–17.
116,092. VANITY FAIR AND DESIGN. Cl. 39. 4–3–17.
116,537. SOLUPIN. Cl. 18. 5–8–17.
336,370. ZEENE. Cl. 44. 7–7–36.
337,525. KOTOFOM. Cl. 52. 8–11–36.
339,932. FLAGSTAFF. Cl. 49. 10–27–36.
340,201. PERMALAWN. Cl. 10. 11–3–36.
340,280. MOTTLED VENETIAN GRANITE AND DESIGN. Cl. 50. 11–3–36.
340,560. SEA-WAL-TAN. Cl. 1. 11–17–36.
340,703. CALICO. Cl. 52. 11–17–36.
340,776. ROTO-CUT. Cl. 23. 11–24–36.
340,786. BATES WOVEN TUFTED CANDLEWICK. Cl. 42. 11–24–36.

340,844. GENERAL ETC. AND DESIGN. Cl. 46. 11–24–36.
340,845. SACHEM. Cl. 34. 11–24–36.
340,863. HICKS. Cl. 46. 11–24–36.
340,877. LACUNA. Cl. 39. 11–24–36.
341,185. BARRISTER AND DESIGN. Cl. 39. 12–1–36.
341,186. LA SALLE AND DESIGN. Cl. 39. 12–1–36.
341,187. TROOPER AND DESIGN. Cl. 39. 12–1–36.
341,198. McKESSON AND DESIGN. Cl. 18. 12–1–36.
341,255. MIRAMAR. Cl. 46. 12–1–36.
341,430. HYDRO-TEL AND DESIGN. Cl. 23. 12–8–36.
341,517. GLEEM-O. Cl. 51. 12–8–36.
341,644. KIRMA. Cl. 52. 12–15–36.
341,716. SIGARI PALUMBO AND DESIGN. Cl. 17. 12–22–36.
341,740. THERMO-SEAL. Cl. 13. 12–22–36.
341,763. RAINLEIGH. Cl. 42. 12–22–36.
341,774. BLUE HELIX. Cl. 23. 12–22–36.
341,796. OFFICIAL. Cl. 23. 12–22–36.
341,810. P AND G AND DESIGN. Cl. 46. 12–22–36.
342,029. STEP UP YOUR CHARM WITH MANNING'S. Cl. 39. 12–29–36.
342,084. LIN-O-VNEER. Cl. 16. 1–5–37.
342,356. INTER LOX ETC. AND DESIGN. Cl. 12. 1–12–37.
342,734. AMBASSADOR. Cl. 3. 1–26–37.
342,769. GOLTEX. Cl. 37. 1–26–37.
342,779. ADHEROL. Cl. 15. 1–26–37.
342,780. TOOLIFE. Cl. 15. 1–26–37.
342,895. REDROW AND DESIGN. Cl. 46. 2–2–37.
342,902. PARANAY AND DESIGN. Cl. 15. 2–2–37.
343,024. LA TOURAINE. Cl. 46. 2–9–37.
343,310. GAUZTEX. Cl. 44. 2–16–37.
343,428. V. Cl. 46. 2–23–37.
343,429. V. Cl. 46. 2–23–37.
343,530. CROWN. Cl. 2. 2–23–37.
343,695. GLO-BRITE AND DESIGN. Cl. 19. 3–2–37.
343,871. IMPERIAL CAMEL'S HAIR. Cl. 39. 3–9–37.
344,159. HOTEL LA TOURAINE. Cl. 46. 3–16–37.
344,204. QM. Cl. 34. 3–16–37.
344,470. GABARSILK. Cl. 42. 3–23–37.
344,588. BRAKE-DOKTER. Cl. 23. 3–30–37.
344,833. GLENMORE AND DESIGN. Cl. 49. 4–6–37.
344,863. CUTLER-HAMMER THERMETER AND DESIGN. Cl. 26. 4–6–37.
344,873. AUNT JEMIMA & DESIGN. Cl. 46. 4–6–37.
345,048. PHENOLOR. Cl. 18. 4–13–37.
345,241. MOPICO. Cl. 46. 4–20–37.
345,242. PICK OF CAROLINA. Cl. 46. 4–20–37.
345,261. ARISTOCRAT. Cl. 43. 4–20–37.
345,375. PREMIER. Cl. 50. 4–27–37.
345,384. DESIGN OF BOX WITH RED STRIPE. Cl. 22. 4–27–37.
345,692. CONCEMIN B. Cl. 18. 5–4–37.
345,760. GREEN HILL. Cl. 46. 5–4–37.
345,773. PRIMACORD. Cl. 9. 5–4–37.
345,776. PARK MANOR. Cl. 39. 5–4–37.
345,786. RED FLASH. Cl. 37. 5–4–37.
345,824. FLEXWEAR SOLE AND DESIGN. Cl. 39. 5–11–37.
346,163. CAM-O-LAP. Cl. 23. 5–18–37.

TRADEMARK REGISTRATIONS CANCELED

Section 8

78,946. STORK. Cl. 46. 7–26–10.
78,947. JAVELIN. Cl. 46. 7–26–10.
78,988. 7–11. Cl. 46. 7–26–10.
78,990. UWANTA. Cl. 46. 7–26–10.
78,999. CLOVE. Cl. 46. 7–26–10.
80,153. REPRESENTATION OF CAPSTAN. Cl. 16. 11–8–10.
274,234. BLOSSOM AND DRAWING. Cl. 43. 8–26–30.
276,629. HOME RUN. Cl. 27. 10–21–30.
533,489. CAREER. Cl. 42. 11–14–50.

The following registrations issued Nov. 28, 1950

533,840. MAGOR. Cl. 23.
533,843. BREWSTER. Cl. 42.
533,854. GIT-PAINT AND VARNISH REMOVER BARES THE SURFACE AND DESIGN. Cl. 16.
533,857. EXCELLO. Cl. 37.
533,865. SADDLE-PACA. Cl. 42.
533,868. HAIROMETER. Cl. 26.
533,877. BLACK MARKET CASE 2746. Cl. 22.
533,878. U PETER PUTTER'S WHITE TILE CEMENT. Cl. 12.
533,879. 122. Cl. 12.
533,883. STRATOLAC. Cl. 16.
533,885. MEDCO AND DESIGN. Cl. 26.
533,886. GOLD MEDAL BIRD AND FISH DESIGN. Cl. 22.
533,887. BRYN MAWR. Cl. 46.
533,893. RIFLE. Cl. 22.
533,894. MEDALLION. Cl. 22.
533,898. A CRIB N' CRADLE. Cl. 39.
533,899. VERLITE. Cl. 21.
533,900. SLICKER KIT AND DESIGN. Cl. 22.
533,906. TWIN COLOR. Cl. 16.
533,908. COWARD B G'S. Cl. 39.
533,909. K-R. Cl. 21.
533,916. DECOR. Cl. 26.
533,918. BUR-TEX. Cl. 22.
533,920. B-M-C. Cl. 26.
533,926. I-NOX. Cl. 52.
533,933. JANE REGNY. Cl. 39.
533,937. CONSOL AND DESIGN. Cl. 1.
533,938. BILCRASIN. Cl. 18.
533,941. PANAMA. Cl. 22.
533,947. PACKAGED METERING. Cl. 26.
533,948. SNIPPEES. Cl. 22.
533,962. JACOB BECHER & SONS INC. Cl. 1.
533,963. JEWEL MODELS. Cl. 22.
533,964. SHARET. Cl. 18.
533,969. SOUTHERN ATHLETIC SUPPLY COMPANY AND DESIGN. Cl. 22.
533,977. MUSICAL AND FANCIFUL DESIGN. Cl. 22.
533,981. PRIVAT-EAR POCKET RADIO. Cl. 21.
533,983. INOLAN. Cl. 6.
533,988. FREEPLATE AND DESIGN. Cl. 13.
533,993. VULCANIZED IN RUBBER AND DESIGN. Cl. 29.
533,994. KUKEN. Cl. 29.
533,996. BELNORD. Cl. 28.
533,999. DUKANESE. Cl. 42.
534,004. BI-PEN AND DESIGN. Cl. 18.
534,007. P T CO. AND DESIGN. Cl. 21.
534,020. GEO. E. FAILING SUPPLY CO. Cl. 23.
534,028. SMALLSTER. Cl. 50.
534,029. MED-AMMIN. Cl. 51.
534,030. BLUE GEM. Cl. 51.
534,035. URC AND DESIGN. Cl. 4.
534,041. SINISTER. Cl. 51.
534,042. THE HOUSE OF YEARS AND DESIGN. Cl. 50.
534,044. FRIG-EZE. Cl. 13.
534,045. CONTEST HEEL. Cl. 39.
534,046. DOGGERS HEEL. Cl. 39.
534,047. MAGIC LOOP AND DESIGN. Cl. 39.
534,050. UNIMAC. Cl. 21.
534,051. COZY. Cl. 22.
534,052. TELE MAGNET. Cl. 21.
534,057. HUGS AND KISSES. Cl. 22.
534,070. UNIT OF VITAL CONTROL. Cl. 39.
534,071. CARDOVER. Cl. 39.
534,091. VICTOR. Cl. 21.
534,093. TRIVEX G–9. Cl. 6.
534,099. PRONTO. Cl. 13.
534,105. ACTIFLEX. Cl. 39.
534,111. ZOO SHOO. Cl. 39.
534,115. ROULETTE. Cl. 42.
534,116. GAR-BOY. Cl. 21.
534,121. THE CENTER OF THE NATION AND DESIGN. Cl. 103.
534,122. INCOME TAX SERVICES CO. ETC. AND DESIGN. Cl. 101.
534,123. PROFESSOR POLAR. Cl. 105.
534,124. JANE DURELLE. Cl. 107.
534,127. TRACTOR JUNIOR. Cl. 22.

534,130. TILLMAN ETC. AND DESIGN. Cl. 32.
534,134. FOR EYES THAT CARE, THE FINEST IN SUN-GLASSES BY RAYNARD. Cl. 26.
534,135. GENUINE AUSTINSTONE AND DESIGN. Cl. 12.
534,138. GLO-LITER. Cl. 21.
534,142. GUILD. Cl. 13.
534,146. SUPERLATIVE BRONZE POWDER. Cl. 16.
534,149. PERSONAL PATTERN. Cl. 39.
534,150. EZSTRIP. Cl. 21.
534,152. HY AND DRY. Cl. 2.
534,155. ALWIN. Cl. 31.
534,156. NOVEL GLAZE. Cl. 16.
534,157. NOVELTEMPRA. Cl. 16.
534,166. ANTI-STALL. Cl. 6.

TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

108,013. CORROPROOF. Cl. 16. 1–11–16. General Fire Extinguisher Company. Grinnell Corporation, Providence, R. I. Corrected: In line 2, "General Fire Extinguisher Company" should be *Grinnell Corporation.*

335,304. KLEEN-EZY ETC. AND DESIGN. Cl. 16. 6–2–36. Peninsular Paint & Varnish Co. The Martin-Senour Company, Chicago, Ill. Amended: In paragraph 1 of the statement the identification of goods with the exception of "paint removers" is deleted; paragraph 3 is deleted; and the drawing is amended to appear:

KLEEN-EZY

343,584. ZIRIL. Cl. 18. 2–23–37. F. Ad. Richter & Co. Inc., Staten Island, N. Y. Corrected: In line 6, "Brooklyn" should be *Staten Island.*

535,611. SOHIO AND DESIGN. Cl. 15. 1–2–51. The Standard Oil Company, Cleveland, Ohio. Amended: In the statement, column 1, line 7, "containing an additive" is deleted; column 2, lines 6 and 7 are deleted and *The words "Motor Oil" are disclaimed.* is inserted in lieu thereof; line 10, *and* is inserted before "441,449"; line 11, "; and 442,548, dated April 26, 1949" is deleted; and the drawing is amended to appear:

SOHIO

MOTOR OIL

632,013. ANCESTOR ETC. AND DESIGN. Cl. 49. 7–31–56. John Dewar & Sons, Limited, Perth, Scotland. Corrected: In column 2, line 3, "1945" should be *1954.*

636,929. ST. PAULI GIRL AND DESIGN. Cl. 48. 11–6–56. St. Pauli Brauerei C. L. Wilh. Brandt, Bremen, Germany. Corrected: In column 2, line 2, "434,445" should be *435,445.*

637,249. COCK WALK FARMS. Cl. 46. 11–13–56. F. P. Houghton, Jr., doing business as Cock Walk Farms, La Grange, Tex. Corrected: In line 1, "E. P. Houghton, Jr." should be *F. P. Houghton, Jr.*

637,654. GETZEM. Cl. 22. 11–27–56. Piper Brace Co., doing business as Norkin Laboratories, assignor to Dr. Reeves' Products, Inc., doing business as Norkin Laboratories, Kansas City, Mo. Corrected: At the end of column 1 the following should be inserted: *assignor to Dr. Reeves' Products, Inc. (Missouri corporation), doing business as Norkin Laboratories, 809 Wyandotte St., Kansas City 5, Mo.*

REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

128,997. Jan. 20, 1920. Frederick William Heine, New York, N. Y. Pub. by S. B. Penick & Company, New York, N. Y.

For Essential Oils Used as Ingredients of Pharmaceutical Preparations.

CLASS 39

CLOTHING

182,438. Apr. 8, 1924. Cluett, Peabody & Co., Inc., Troy, N. Y. Pub. by registrant.

FENWAY

For Negligee and Dress Shirts.

183,171. Apr. 22, 1924. Cluett, Peabody & Co., Inc., Troy, N. Y. Pub. by registrant.

MAYFAIR

For Negligee and Dress Shirts.

184,139. May 20, 1924. Cluett, Peabody & Co., Inc., Troy, N. Y. Pub. by registrant.

BARONET

For Negligee and Dress Shirts.

195,447. Feb. 24, 1925. Cluett, Peabody & Co., Inc., Troy, N. Y. Pub. by registrant.

LIDO

For Dress and Negligee Shirts.

201,026. July 14, 1925. Cluett, Peabody & Co., Inc., Troy, N. Y. Pub. by registrant.

PAR

For Collars.

204,273. Oct. 13, 1925. Cluett, Peabody & Co., Inc., Troy, N. Y. Pub. by registrant.

POST

For Dress and Negligee Shirts.

213,939. June 8, 1926. Cluett, Peabody & Co., Inc., Troy, N. Y. Pub. by registrant.

DART

For Collars, Dress and Negligee Shirts.

225,684. Mar. 22, 1927. Cluett, Peabody & Co., Inc., Troy, N. Y. Pub. by registrant.

PADDOCK

For Dress and Negligee Shirts.

235,312. Nov. 15, 1927. Cluett, Peabody & Co., Inc., Troy, N. Y. Pub. by registrant.

TRUMP

For Dress and Negligee Shirts.

320,691. Jan. 1, 1935. Cluett, Peabody & Co., Inc., Troy, N. Y. Pub. by registrant.

PAR

For Negligee and Dress Shirts.

333,928. Apr. 14, 1936. Pohatcong Hosiery Mills, Inc., Washington, N. J. Pub. by registrant.

Kitten-tred

For Hosiery.

359,944. Sept. 6, 1938. Cluett, Peabody & Co., Inc., Troy, N. Y. Pub. by registrant.

STRIDE

For Men's and Boys' Underwear of Knitted and Textile Fabrics.

382,767. Nov. 12, 1940. Globe Knitting Works, Grand Rapids, Mich. Pub. by Modern Globe, Inc., Pawtucket, R. I.

SLIX
Body-Line

For Men's and Boys' Underwear.

386,227. Apr. 1, 1941. Cluett, Peabody & Co., Inc., Troy, N. Y. Pub. by registrant.

PROM

For Collars.

390,700. Sept. 30, 1941. Cluett, Peabody & Co., Inc., Troy, N. Y. Pub. by registrant.

HOST

For Collars.

393,220. Jan. 27, 1942. Cluett, Peabody & Co., Inc., Troy, N. Y. Pub. by registrant.

GUARDS

For Men's Underwear and Collars.

394,288. Mar. 31, 1942. Sosnik and Sosnik, Inc., Winston-Salem, N. C. Pub. by Modern Globe, Inc., Pawtucket, R. I.

Lollipop Shop

For Girls' and Women's Articles of Clothing—Namely, Coats, Suits, Dresses, Sweaters, Jackets, and Hats.

405,940. Feb. 29, 1944. Cluett, Peabody & Co., Inc., Troy, N. Y. Pub. by registrant.

ARDEN

For Outer Shirts.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

372,855. Nov. 14, 1939. Mayer Neumaier Corp., New York, N. Y. Pub. by Adolph Neumaier, d. b. a. The Neumaier Company, New York, N. Y.

PERMISETTE

For Finished Curtains and Curtain Materials in the Piece.

Erratum

In the notice of republication under section 12(c) of the Trademark Act of 1946, of Registration No. 110,295, appearing in the OFFICIAL GAZETTE of November 6, 1956, page TM 40, the drawing should have appeared as follows:

KNICKERBOCKER BRAND

LIST OF REGISTRANTS OF TRADEMARKS

REGISTERED JANUARY 29, 1957

Acra Electric Corp., Franklin Park, Ill. 640,610, pub. 11–13–56. Cl. 21.
Adrian Tabin Corp., d. b. a. Candy Jrs., Chicago, Ill. 640,724, pub. 11–13–56. Cl. 39.
Advance Foundry Co., Dayton, Ohio. 116,025, ren. 4–3–57. Cl. 14.
Ahlbin, John, and Sons, Inc., Bridgeport, Conn. 640,636, pub. 11–13–56. Cl. 23.
Aldean Mills Co., Bellevue, Wash. 640,743, pub. 11–13–56. Cl. 42.
Allen Electric and Equipment Co., Kalamazoo, Mich. 640,648–9, pub. 11–13–56. Cl. 23.
Allis-Chalmers Mfg. Co., Milwaukee, Wis. 640,624, pub. 11–13–56. Cl. 21.
Allison-Erwin Co., Charlotte, N. C. 534,155, canc. Cl. 31.
Altheimer & Baer, Inc., Chicago, Ill. 534,142, canc. Cl. 13.
American Bemberg Corp., to Beaunit Mills, Inc., New York, N. Y. 345,261, ren. 4–20–57. Cl. 43.
American Co., The: *See*—
May Oil Burner Corp.
American Laundry Machinery Co., The, Cincinnati, Ohio, to The Globe Co., Chicago, Ill. 340,776, ren. 11–24–56. Cl. 23.
American Optical Co., Southbridge, Mass. 533,916, canc. Cl. 26.
American Refrigeration Export Corp., New York, N. Y. 640,700, pub. 11–13–56. Cl. 34.
American Safety Razor Corp., New York, N. Y. 640,672, pub. 11–13–56. Cl. 26.
American Seating Co., Grand Rapids, Mich. 640,690, pub. 11–13–56. Cl. 32.
American Stores Co., Philadelphia, Pa. 640,775, pub. 11–13–56. Cl. 46.
American 3 Way-Luxfer Prism Co., Chicago, Ill. 640,562, pub. 11–13–56. Cl. 12.
Arles Laboratories, Inc., New York, N. Y. 640,587, pub. 11–13–56. Cl. 15.
Arkansas Co., Inc., Newark, N. J. 640,800–1, pub. 11–13–56. Cl. 52.
Ark-Les Switch Corp., Watertown, Mass. 640,615, pub. 11–13–56. Cl. 21.
Arrow Aluminum Products Co., New York, N. Y. 534,099, canc. Cl. 13.
Arrow Products Corp., Baltimore, Md. 533,854, canc. Cl. 16.
Associated Brands, Inc.: *See*—
Dackermann, Willie.
Atalanta Trading Corp., New York, N. Y. 640,768, pub. 11–13–56. Cl. 46.
Atlas Underwear Corp., Piqua, Ohio. 640,721, pub. 11–13–56. Cl. 39.
Augstein, S., & Co., Inc., College Point, N. Y. 640,733, pub. 11–13–56. Cl. 39.
Avien, Inc., Woodside, N. Y. 640,663, pub. 11–13–56. Cl. 26.
B. M. C. Mfg. Corp., from Car-Mac Mfg. Co., Inc., Binghamton, N. Y. 534,127, canc. Cl. 22.
B & T Metals Co., The, Columbus, Ohio. 640,580, pub. 11–13–56. Cl. 13.
Backe, John C., Gaylord, Mich. 640,629, pub. 11–13–56. Cl. 22.
Barclay, Jas., & Co. Ltd., Peoria, Ill. 640,785, pub. 11–13–56. Cl. 49.
Barrett Equipment Co.: *See*—
Stiles-Barrett Corp.
Barron, Morton, d. b. a. Rex Sales Co., San Francisco, Calif. 640,767, pub. 11–13–56. Cl. 46.
Bastian-Blessing Co., The, Chicago, Ill. 115,833, ren. 3–13–57. Cl. 13.
Bates, C. J., & Son: *See*—
Bates, Hamilton C.
Bates, Hamilton C., d. b. a. C. J. Bates & Son, to C. J. Bates & Son, Chester, Conn. 336,370, ren. 7–7–56. Cl. 44.
Bates Mfg. Co., Lewiston, Maine. 340,786, ren. 11–24–56. Cl. 42.
Beaunit Mills, Inc.: *See*—
American Bemberg Corp.
Becher, Jacob, & Son, Inc., New York, N. Y. 533,962, canc. Cl. 1.
Becker Products Corp., by change of name Kotoform Corp. of America, to Universal Chemical Laboratories, Inc., South Bend, Ind, to My-Ko Chemical Corp., Milwaukee, Wis. 337,525, ren. 8–11–56. Cl. 52.
Beeman, Archie W., d. b. a. Eagle Claw Tool Co., Odessa, Tex. 640,647, pub. 11–13–56. Cl. 23.
Belk Stores Services, Inc., Charlotte, N. C. 640,736, pub. 11–13–56. Cl. 39.
Bentolila, Gelis, Paris, France. 640,643, pub. 11–13–56. Cl. 23.
Bernardo Sandals, Inc., New York, N. Y. 640,739, pub. 11–13–56. Cl. 39.
Big Tree Wines Distributors: *See*—
Cascio, John.
Bingham Brothers Co., New York, N. Y. 640,651, pub. 11–13–56. Cl. 23.
Birmingham Industries, Inc., Miami, Fla. 640,564, pub. 11–13–56. Cl. 12.
Birtcher Corp., The, Los Angeles, Calif. 640,756, pub. 11–13–56. Cl. 44.
Blaugrund, Marvin J., Cleveland, Ohio. 534,050, canc. Cl. 21.
Blue Hole Garden: *See*—
Brennecke, Ralph.
Boehringer, C. H., Sohn, Ingelheim am Rhein, Germany. 640,791–2, pub. 11–13–56. Cl. 18.
Bohlman, Dr. Edward H., d. b. a. No.Dk Distributors, Encino, Calif. 640,760, pub. 11–13–56. Cl. 46.
Boiko, Earl, d. b. a. Chemco Distributing Co., Chicago, Ill. 640,798, pub. 9–4–56. Cl. 52.
Borden Co., The, d. b. a. Hendler Creamery, New York, N. Y. 640,813. Cl. 46.
Borg-Warner Corp., Chicago, Ill. 640,682–3, pub. 11–13–56. Cl. 31.
Boston Mfg. Co., Boston, Mass. 533,920, canc. Cl. 26.
Bowling Products Co.: *See*—
Wilhelm, Warner F.
Branch Industries, Inc., New York, N. Y. 533,899, canc. Cl. 21.
Brennecke, Ralph, d. b. a. Blue Hole Garden, Cape Girardeau, Mo. 640,772, pub. 11–13–56. Cl. 46.
Briddell, Chas. D., Inc., Crisfield, Md. 640,611, pub. 11–13–56. Cl. 21.
Bristol Repetition Ltd., Bristol, England. 640,642, pub. 11–13–56. Cl. 23.
Brooks Paper Co., St. Louis, Mo. 345,786, ren. 5–4–57. Cl. 37.
Brumberger Co., Inc., Brooklyn, N. Y. 640,618, pub. 11–13–56. Cl. 21.
Bruner Corp., Milwaukee, Wis. 640,807–8. Cl. 6.
Burlington Mills Inc., Burlington, Wis. 533,918, canc. Cl. 22.
Burnett, Wm. T., & Co., Inc., Baltimore, Md. 640,517, pub. 11–13–56. Cl. 1.
Butler Paper Corp., Chicago, Ill. 533,857, canc. Cl. 37.
Byrum, R. J., Products: *See*—
Byrum, Roscoe J.
Byrum, Roscoe J., d. b. a. R. J. Byrum Products, Grand Forks, N. Dak. 640,521, pub. 11–13–56. Cl. 4.
Caldwell Seed Co., to Permalawn Products Co., Evanston, Ill. 340,201, ren. 11–3–56. Cl. 10.
Camdel, Inc., Camden, N. J. 534,051, canc. Cl. 22.
Candy Jrs.: *See*—
Adrian Tabin Corp.
Cantor-Greenspan Co., Inc., New York, N. Y. 533,489, canc. Cl. 42.
Capland, William, d. b. a. Southcoast Quick Freezing and Packing Co., Miami, Fla. 640,762, pub. 6–19–56. Cl. 46.
Car-Mac Mfg. Co., Inc.: *See*—
B. M. C. Mfg. Corp.
Cascio, John, d. b. a. Big Tree Wines Distributors, Los Angeles, Calif. 640,783, pub. 11–13–56. Cl. 47.
Celanese Corp. of America, New York, N. Y. 533,999, canc. Cl. 42.
Celotex Corp., The, Chicago, Ill. 640,568, pub. 11–13–56. Cl. 12.
Central Soya Co., Inc., Fort Wayne, Ind. 640,761, pub. 11–13–56. Cl. 46.
Champ Hats, Inc.: *See*—
La Salle Hat Co., The.
Cheerio Toys & Games Ltd., Toronto, Ontario, Canada 534,044, canc. Cl. 13.
Chemco Distributing Co.: *See*—
Boiko, Earl.
Chemical Research, Inc., Detroit, Mich. 640,532, pub. 11–13–56. Cl. 6.
Choker Machinery Corp., Philadelphia, Pa. 640,656, pub. 11–13–56. Cl. 23.
Cincinnati Milling Machine Co., The, Cincinnati, Ohio. 341,430, ren. 12–8–56. Cl. 23.
Clark, James A., Coral Gables, Fla. 640,716, pub. 11–13–56. Cl. 39.
Clark, John T.: *See*—
Johnson, Carroll W., and John T. Clark.
Clark Thread Co., The, Newark, N. J. 274,234, canc. Cl. 43.
Cloverdale Knitwear Corp., Brooklyn, N. Y. 534,071, canc. Cl. 39.
Club Aluminum Products Co., to Club Aluminum Products Co., Chicago, Ill. 341,740, ren. 12–22–56. Cl. 13.
Club Razor Blade Mfg. Co.: *See*—
Club Razor & Blade Mfg. Corp.
Club Razor & Blade Mfg. Corp., to Club Razor Blade Mfg. Co., Newark, N. J. 341,796, ren. 12–22–56. Cl. 23.
Cluett, Peabody & Co., Inc., Troy, N. Y. 182,438, 12(c) pub. 1–29–57. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 183,171, 12(c) pub. 1–29–57. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 184,139, 12(c) pub. 1–29–57. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 195,447, 12(c) pub. 1–29–57. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 201,026, 12(c) pub. 1–29–57. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 204,273, 12(c) pub. 1–29–57. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 213,939, 12(c) pub. 1–29–57. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 225,684, 12(c) pub. 1–29–57. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 235,312, 12(c) pub. 1–29–57. Cl. 39.

Cluett, Peabody & Co., Inc., Troy, N. Y. 320,691, 12(c) pub. 1-29-57. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 359,944, 12(c) pub. 1-29-57. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 386,227, 12(c) pub. 1-29-57. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 390,700, 12(c) pub. 1-29-57. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 393,220, 12(c) pub. 1-29-57. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 405,940, 12(c) pub. 1-29-57. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 640,722, pub. 11-13-56. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 640,728–9, pub. 11-13-56. Cl. 39.
Cluett, Peabody & Co., Inc., New York, N. Y. 640,802, pub. 11-13-56. Cl. 101.
Coachcraft, Ltd., Hollywood, Calif. 640,601–2, pub. 11-13-56. Cl. 19.
Coaching Four Products Co.: *See*—
Sheffield Bottling Co.
Coal Bit Co., Prestonburg, Ky. 640,659, pub. 11-13-56. Cl. 23.
Cock Walk Farms: *See*—
Houghton, F. P., Jr.
Coffey Distilling Co., Inc., Fisherville and Louisville, Ky., to Flagstaff Liquor Co., Perth Amboy, N. J. 339,932, ren. 10-27-56. Cl. 49.
Cohen, Saul, d. b. a. Raynard Optical Co., Brooklyn, N. Y., from Raynard Optical Co. 534,134, canc. Cl. 26.
Cole, Richard J., Inc., New York City, N. Y. 640,723, pub. 11-13-56. Cl. 39.
Colgate-Palmolive Co.: *See*—
Kirkman & Son, Inc.
Colorado Fuel and Iron Corp., The, Denver, Colo. 640,549–50, pub. 11-13-56. Cl. 10.
Columbia Cement Co. Inc., Brooklyn, N. Y. 640,523, pub. 11-13-56. Cl. 5.
Columbia Envelope Co., Melrose Park, Ill. 640,705, pub. 11-13-56. Cl. 37.
Commercial Solvents Corp., New York, N. Y. 534,004, canc. Cl. 18.
Congoleum-Nairn Inc., Kearny, N. J. 640,604, pub. 10-9-56. Cl. 20.
Consolidated Cosmetics, Chicago, Ill. 534,041, canc. Cl. 51.
Construction Specifications Institute, Inc., The, Washington, D. C. 640,712, pub. 11-13-56. Cl. 38.
Cooper's, Inc., Kenosha, Wis. 640,730, pub. 11-13-56. Cl. 39.
Copolymer Rubber & Chemical Corp., Baton Rouge, La. 640,510–11, pub. 11-13-56. Cl. 1.
Cornell-Dubilier Electric Corp., South Plainfield, N. J. 640,612–14, pub. 11-13-56. Cl. 21.
Coro, Inc., New York, N. Y. 640,680, pub. 11-13-56. Cl. 28.
Coward Shoe, Inc., The, New York, N. Y. 345,824, ren. 5-11-57. Cl. 39.
Coward Shoe, Inc., The, New York, N. Y. 533,908, canc. Cl. 39.
Crescent Health Food Co., Pontiac, Mich. 640,764, pub. 11-13-56. Cl. 46.
Crown Can Co., Philadelphia, Pa., to Crown Cork & Seal Co., Inc., Baltimore, Md. 343,530, ren. 2-23-57. Cl. 2.
Crown Cork & Seal Co., Inc.: *See*—
Crown Can Co.
Crystal-Vue Sliding Door Mfg. Co., Miami, Fla. 640,559, pub. 11-13-56. Cl. 12.
Curtis-Squire, Inc., Minneapolis, Minn. 640,533, pub. 11-13-56. Cl. 6.
Cutler Designs: *See*—
Cutler, Robert B.
Cutler, Hammer, Inc., Milwaukee, Wis. 344,863, ren. 4-6-57. Cl. 26.
Cutler, Robert B., d. b. a. Cutler Designs, Boston, Mass. 640,713, pub. 11-13-56. Cl. 38.
Dackermann, Willie, New York, to Associated Brands, Inc., Brooklyn, N. Y. 113,495, ren. 10-17-56. Cl. 51.
Dahlberg Co., The, Minneapolis, Minn. 640,757, pub. 11-13-56. Cl. 44.
Dalmine S. p. A., Milan, Italy. 640,581, pub. 11-13-56. Cl. 13.
Daniels Mfg. Co., Rhinelander, Wis. 640,709, pub. 11-13-56. Cl. 37.
Davenport Mfg. Co., Chicago, Ill. 640,666, pub. 11-13-56. Cl. 26.
Davis, A., & Sons, Inc., New York, N. Y. 343,871, ren. 3-9-57. Cl. 39.
Davis Bakery, Inc., Cleveland, Ohio. 640,781, pub. 11-13-56. Cl. 46.
Dayton Rubber Co., The, Dayton, Ohio. 640,696, pub. 11-13-56. Cl. 32.
Dean Industries, Inc., Pontotoc, Miss. 640,695, pub. 11-13-56. Cl. 32.
Decorative Cabinet Corp., New York, N. Y. 640,686, pub. 11-13-56. Cl. 32.
Del Bueno, Alex B., d. b. a. Dell & Holtz, Plainfield, N. J. 640,593, pub. 11-13-56. Cl. 18.
Dell & Holtz: *See*—
Del Bueno, Alex B.
Deming & Gould Co., Chicago, Ill. 78,946–7, canc. Cl. 46.
Dewar, John, & Sons, Ltd., Perth, Scotland. 632,013, cor. Cl. 49.
Distinctive Products Development Corp., Cincinnati, Ohio. 533,868, canc. Cl. 26.
Dole Refrigerating Co., Chicago, Ill. 640,685, pub. 11-13-56. Cl. 31.
Doppelt, Charles, & Co. Inc., Chicago, Ill. 640,520, pub. 11-13-56. Cl. 3.
Drilling Fluid Service and Materials: *See*—
Hummel, Fred E.
Dripps, Emma J., Detroit, Mich. 534,124, canc. Cl. 107.
Durex Hardware Mfg. Corp., New York, N. Y. 640,639, pub. 11-13-56. Cl. 23.
Durkee-Atwood Co., Minneapolis, Minn. 640,790, pub. 11-12-56. Cl. 50.
Duro-Test Corp., North Bergen, N. J. 640,608, pub. 11-13-56. Cl. 21.
Duro-Test Corp., North Bergen, N. J. 640,616, pub. 11-13-56. Cl. 21.
Eagle Claw Tool Co.: *See*—
Beeman, Archie W.
Ekco-Alcoa Containers Inc., River Grove, Ill. 640,578, pub. 11-13-56. Cl. 13.
Electric Furnace-Man, Inc., Emmaus, Pa. 640,701, pub. 11-13-56. Cl. 34.
Electro Sliv-A-King Corp., Chicago, Ill. 640,622, pub. 11-13-56, canc. Cl. 21.
Electrodata Corp., Pasadena, Calif., to Burroughs Corp., Detroit, Mich. 640,673, pub. 11-13-56. Cl. 26.
Electronics Systems Corp., Kansas City, Mo. 533,981, canc. Cl. 21.
Elgin Metalformers Corp., Elgin, Ill. 640,693, pub. 11-13-56. Cl. 32.
Elgin National Watch Co., Elgin, Ill. 276,629, canc. Cl. 27.
Elkins-Ewall Rubber Co., Inc., Philadelphia, Pa. 640,505, pub. 11-13-56. Cl. 1.
Elliott Engineering Co., Inc., Lynwood, Calif. 640,697, pub. 11-13-56. Cl. 34.
Englander Co., Inc., The, Chicago, Ill. 640,694, pub. 11-13-56. Cl. 32.
Ensign-Bickford Co., The, Simsbury, Conn. 345,773, ren. 5-4-57. Cl. 9.
Erwin, W. C., Co.: *See*—
Erwin, Weldon C.
Erwin, Weldon C., d. b. a. W. C. Erwin Co., Southgate, Calif. 640,582, pub. 11-13-56. Cl. 13.
Estate of Walter Scott, deceased, The, to Walter Scott & Co., Inc., Plainfield, N. J. 114,830–1, ren. 1-2-57. Cl. 23.
Even-Pul Foundations, Inc., New York, N. Y. 534,070, canc. Cl. 39.
Faber-Castell, A. W., Pencil Co., Inc., Newark, N. J. 640,707, pub. 11-13-56. Cl. 37.
Fador Mfg. Corp., Elmira, N. Y. 534,028, canc. Cl. 50.
Falling, George E., Supply Co., Enid, Okla. 534,020, canc. Cl. 23.
Fales, Harold A., d. b. a. Fales Laboratories, Haverstraw, N. Y. 533,948, canc. Cl. 22.
Fales Laboratories: *See*—
Fales, Harold A.
Faraday Engineering Co., York, Pa. 640,681, pub. 11-13-56. Cl. 31.
Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. 640,567, pub. 11-13-56. Cl. 12.
Federal Chemical Co., Louisville, Ky. 640,547, pub. 11-13-56. Cl. 10.
Fellabaum, J. Phil: *See*—
Phil's Way, Inc.
Felters Co., The, Boston, Mass. 640,788–9, pub. 11-13-56. Cl. 50.
Fidalgo Island Packing Co., Seattle, Wash. 343,428–9, ren. 2-23-57. Cl. 46.
Fischer-Spiegel Inc., Geneva, Ohio. 640,776, pub. 11-13-56. Cl. 46.
Fish & Co., Los Angeles, Calif. 533,865, canc. Cl. 42.
Flagstaff Liquor Co.: *See*—
Coffey Distilling Co., Inc.
Flintkote Co., The, New York, N. Y. 640,571–2, pub. 11-13-56. Cl. 12.
Foley-Irish Corp., The, Brooklyn, N. Y. 640,638, pub. 11-13-56. Cl. 23.
Food Machinery and Chemical Corp., New York, N. Y. 534,093, canc. Cl. 6.
Fordyce Wood Products, Inc., Fordyce, Ark. 640,565–6, pub. 11-13-56. Cl. 12.
Foster, Benjamin, Co., Philadelphia, Pa. 640,588, pub. 11-13-56. Cl. 16.
Frankel Co., Inc., Detroit, Mich. 640,584, pub. 11-13-56. Cl. 14.
Freeport Sulphur Co., d. b. a. Train Products Co., Baltimore, Md. 533,988, canc. Cl. 13.
Freudenberg, Carl, Kommanditgesellschaft auf Aktien, Weinheim an der Bergstrasse, Germany. 640,503, pub. 11-13-56. Cl. 1.
Fuller, D. B., & Co., Inc., New York, N. Y. 640,742, pub. 11-13-56. Cl. 42.
Fuller, D. B., & Co., Inc., New York, N. Y. 640,746–8, pub. 11-13-56. Cl. 42.
Gallo, E. & J., Winery, Modesto, Calif. 640,782, pub. 11-13-56. Cl. 47.
Gardiner, George H., Brooklyn, N. Y. 640,665, pub. 11-13-56. Cl. 26.
Gastine, Edward A., d. b. a. Handy-Capper, Los Angeles, Calif. 640,711, pub. 11-13-56. Cl. 38.
Gau, Elmond F., d. b. a. United States Stone Co., Fort Worth, Tex. 534,135, canc. Cl. 12.
General American Transportation Corp., Chicago, Ill. 640,537, pub. 11-13-56. Cl. 6.
General Aniline & Film Corp., New York, N. Y. 640,539–40, pub. 11-13-56. Cl. 6.
General Bandages, Inc., Chicago, Ill. 343,310, ren. 2-16-57. Cl. 44.
General Fire Extinguisher Co. Grinnell Corp., Providence, R. I. 108,013, cor. Cl. 16.
General Fireproofing Co., Youngstown, Ohio. 640,664, pub. 11-13-56. Cl. 26.
General Mills, Inc., Minneapolis, Minn. 640,778, pub. 11-13-56. Cl. 46.

General Reduction Co., Chicago, Ill. 640,518, pub. 11-13-56. Cl. 1.
General Sugar Estates, Inc., Havana, Cuba, and New York, N. Y. 340,844, ren. 11-24-56. Cl. 46.
General Time Corp.: *See*—
Western Clock Co.
Getz, William, Corp., The, Chicago, Ill. 640,754, pub. 11-13-56. Cl. 44.
Gilbert & Barker Mfg. Co., West Springfield, Mass. 340,845, ren. 11-24-56. Cl. 34.
Glenmore Distilleries Co., to Glenmore Distilleries Co., Louisville, Ky. 344,833, ren. 4-6-57. Cl. 49.
Globe Co., The: *See*—
American Laundry Machinery Co.
Globe Knitting Works, Grand Rapids, Mich., by Modern Globe, Inc., Pawtucket, R. I. 382,767, 12(c) pub. 1-29-57. Cl. 39.
Globe Rubber Products Corp., Philadelphia, Pa. 640,631, pub. 11-13-56. Cl. 22.
Globe Specialty Co., to Johnson Glass Co., to Johnson Glass & Plastic Corp., Chicago, Ill. 343,695, ren. 3-2-57. Cl. 19.
Golco Sanitary System, Inc., Philadelphia, Pa. 342,769, ren. 1-26-57. Cl. 37.
Goldblatt Bros., Inc., Chicago, Ill. 640,741, pub. 11-13-56. Cl. 39.
Graham Co., Inc., The, New York, N. Y. 342,895, ren. 2-2-57. Cl. 46.
Grandma Penny's Old Fashioned Candies, Inc., d. b. a. Grandma Penny's Old Fashioned Candy Co., West Orange, N. J. 640,777, pub. 11-13-56. Cl. 46.
Grandma Penny's Old Fashioned Candy Co.: *See*—
Grandma Penny's Old Fashioned Candies, Inc.
Green Hill Mushroom Farms: *See*—
Grocery Products Mfg. Corp.
Greif, L., & Bro., Inc., Baltimore, Md., to J. Norman, Roanoke, Va. 640,725, pub. 11-13-56. Cl. 39.
Grinnell Corp.: *See*—
General Fire Extinguisher Co.
Grocery Products Mfg. Corp., d. b. a. Green Hill Mushroom Farms, New York, N. Y., and West Chester, Pa., to Grocery Store Products Co., West Chester, Pa. 345,766, ren. 5-4-57. Cl. 46.
Grocery Store Products Co.: *See*—
Grocery Products Mfg. Corp.
Grocery Store Products Co., West Chester, Pa. 640,514, pub. 11-13-56. Cl. 1.
Haddock, Urban R., Springdale, Ark. 534,035, canc. Cl. 4.
Hall, Robert, Clothes, Inc., New York, N. Y. 640,727, pub. 11-13-56. Cl. 39.
Hall, Robert, Clothes, Inc., New York, N. Y. 640,734, pub. 11-13-56. Cl. 39.
Hamilton Mfg. Co., Two Rivers, Wis. 640,688, pub. 11-13-56. Cl. 32.
Handy-Capper: *See*—
Gastine, Edward A.
Hannapel Door & Plywood Co., Chicago, Ill. 640,556, pub. 11-13-56. Cl. 12.
Harold F. Lange: *See*—
Ten Bruin, H., & Sons.
Haserot Co., The, Cleveland, Ohio. 640,774, pub. 11-13-56. Cl. 46.
Hatleigh, Inc., New York, N. Y. 341,763, ren. 12-22-56. Cl. 42.
Hayman, Oscar, Fabrics, Inc., New York, N. Y. 534,115, canc. Cl. 42.
Hecht Co., The, also d. b. a. The Hub, Washington, D. C., and Baltimore, Md. 345,776, ren. 5-4-57. Cl. 39.
Heddon's, James, Sons, Dowagiac, Mich. 345,384, ren. 4-27-57. Cl. 22.
Heine, Frederick W., by S. B. Penick & Co., New York, N. Y. 128,997, 12(c) pub. 1-29-57. Cl. 18.
Helipot Corp., South Pasadena, Calif. 640,676, pub. 11-13-56. Cl. 26.
Hendler Creamery: *See*—
Borden Co., The.
Henry & Henry, Inc., Buffalo, N. Y. 640,770, pub. 11-13-56. Cl. 46.
Hicks, H., & Son, Inc., New York, N. Y. 340,863, ren. 11-24-56. Cl. 46.
Hidalgo Chemical Co., Tulsa, Okla. 640,529, pub. 11-13-56. Cl. 6.
Hill Novelties Mfg. Corp., New York, N. Y. 640,660, pub. 11-13-56. Cl. 23.
Hoefer, Chris P., d. b. a. J. D. D. Lubricants Co., Sioux City, Iowa. 640,621, pub. 11-13-56. Cl. 21.
Home Pride Products: *See*—
Stone, Buford R.
Honeymead Products Co., Mankato, Minn. 640,502, pub. 11-13-56. Cl. 1.
Horning-Cooper, Inc., Monrovia, Calif., now by change of name to Cooper Development Corp. 640,545, pub. 11-13-56. Cl. 9.
Horstman, Paul K., d. b. a. Paul K. Horstman, Fort Wayne, Ind. 640,585, pub. 11-13-56. Cl. 15.
Houghton, F. P., Jr., d. b. a. Cock Walk Farms, La Grange, Tex. 637,654, cor. Cl. 46.
House of Lowell, Inc., Piqua, Ohio. 534,030, canc. Cl. 51.
Howe, John E., Yuma, Ariz. 640,763, pub. 11-13-56. Cl. 46.
Howse, Mead & Sons, Inc., New York, N. Y. 344,470, ren. 3-23-57. Cl. 42.
Hub, The: *See*—
Hecht Co., The.
Hummel, Fred E., d. b. a. Drilling Fluid Service Materials, Ventura, Calif. 640,542, pub. 11-13-56. Cl. 6.
Hupp Corp., Detroit, Mich. 640,607, pub. 11-13-56. Cl. 21.
Hussmann Refrigerator Co., St. Louis, Mo. 640,654, pub. 11-13-56. Cl. 23.
Hyer, C. H., & Sons, Olathe, Kans. 534,045–6, canc. Cl. 39.
Ingram-Richardson Mfg. Co., Beaver Falls, Pa. 640,554, pub. 11-13-56. Cl. 12.
In-Sink-Erator Mfg. Co., Racine, Wis. 640,617, pub. 11-13-56. Cl. 21.
Inter-Lox Steel Co.: *See*—
Schlight, Carl R.
International Business Machines Corp., New York, N. Y. 640,606, pub. 11-13-56. Cl. 21.
International Standard Trading Corp., New York, N. Y. 640,652, pub. 11-13-56. Cl. 23.
Inventors Sales Corp., Salt Lake City, Utah. 640,574, pub. 11-13-56. Cl. 12.
J. D. D. Lubricants Co.: *See*—
Hoefer, Chris P.
Jarrell-Ash Co., Newtonville, Mass. 640,662, pub. 11-13-56. Cl. 26.
Jesberg, Edward G., Los Angeles, Calif. 533,941, canc. Cl. 22.
Jet Products Co., New York, N. Y. 534,166, canc. Cl. 6
Johns-Manville Corp., New York, N. Y. 640,555, pub. 11-13-56. Cl. 12.
Johnson, Carroll W., and John T. Clark, Batavia, Ill. 640,751, pub. 11-13-56. Cl. 44.
Johnson Glass Co.: *See*—
Globe Specialty Co.
Johnson Glass & Plastic Corp.: *See*—
Globe Specialty Co.
Johnson-Machulda, Fergus Falls, Minn. 640,630, pub. 11-13-56. Cl. 22.
Johnson, Mead, & Co., Evansville, Ind. 640,771, pub. 11-13-56. Cl. 46.
Kassel Export Co.: *See*—
Kassel, Walter V.
Kassel, Walter V., d. b. a. Kassel Export Co., New York, N. Y. 640,791, pub. 11-13-56. Cl. 50.
Keane, Samuel H., Philadelphia, Pa. 640,561, pub. 11-13-56. Cl. 12.
Kellogg Switchboard and Supply Co., Chicago, Ill. 534,150, canc. Cl. 21.
Kel-Min Distributing Co.: *See*—
Pratt, E. H.
Kelp Minerals, Inc.: *See*—
Pratt, E. H.
Ketchikan Pulp Co., Ketchikan, Alaska. 640,507, pub. 11-13-56. Cl. 1.
Keystone Lamp Mfg. Corp., New York, N. Y. 640,698, pub. 11-13-56. Cl. 34.
Kirkman & Son, Inc., Brooklyn, N. Y., to Colgate-Palmolive Co., New York, N. Y. 341,644, ren. 12-15-56. Cl. 52.
Klugmann, Alfred, Inc., New York, N. Y. 640,508, pub. 11-13-56. Cl. 1.
Kongo Chemical Co., Inc., New York, N. Y. 640,793, pub. 11-13-56. Cl. 51.
Kotoform Corp. of America: *See*—
Becker Products Corp.
L. & S., Bainbridge, Ohio. 640,703, pub. 11-13-56. Cl. 34.
Langendorf United Bakeries, Inc., Wilmington, Del. 640,765–6, pub. 11-13-56. Cl. 46.
La Renz Co., The, Cleveland, Ohio. 533,977, canc. Cl. 22.
La Salle Hat Co., The, to Champ Hats, Inc., Philadelphia, Pa. 340,877, ren. 11-24-56. Cl. 39.
La Salle Hat Co., The, to Champ Hats, Inc., Philadelphia, Pa. 341,185–7, ren. 12-1-56. Cl. 39.
La Touraine Coffee Co., Boston, Mass. 343,024, ren. 2-9-57. Cl. 46.
La Touraine Coffee Co., Boston, Mass. 344,159, ren. 3-16-57. Cl. 46.
Lee, Gertrude, d. b. a. Lee Products Co., Carl Junction, Mo. 640,658, pub. 11-13-56. Cl. 23.
Lee Products Co.: *See*—
Lee, Gertrude.
Leeder Mfg. Co., Inc., Keyport, N. H. 640,641, pub. 11-13-56. Cl. 23.
Lenell, Maurice, Cooky Co., Chicago, Ill. 640,773, pub. 11-13-56. Cl. 46.
Levay, Joseph, Inc., New York, N. Y. 534,105, canc. Cl. 39.
Liberty Granite Co. Inc., St. Cloud, Minn. 340,280, ren. 11-3-56. Cl. 50.
Lilco Mfg. Co., New Cassel, N. Y. 640,558, pub. 11-13-56. Cl. 12.
Lisle Mills, Inc., Allentown, Pa. 640,731, pub. 11-13-56. Cl. 39.
Lorraine Food Products, Inc., New York and Yonkers, N. Y. 533,887, canc. Cl. 46.
Lov-E Brassiere Co., d. b. a. Lov-E Studios of Hollywood, Los Angeles, Calif. 534,149, canc. Cl. 39.
Lov-E Studios of Hollywood: *See*—
Lov-E Brassiere Co.
Lyon Tailoring Co., The, Cleveland, Ohio. 640,718, pub. 11-13-56. Cl. 39.
Magor Car Corp., New York, N. Y., and Passaic, N. J. 538,840, canc. Cl. 23.
Manex Machinery Corp., New York, N. Y. 640,657, pub. 11-13-56. Cl. 23.
Mantell, H., Inc.: *See*—
Mantell, Herman.
Mantell, Herman, to H. Mantell, Inc., New York, N. Y. 342,029, ren. 12-29-56. Cl. 39.
Manufacture de Produits Speciaux Robert Levaux, Ingenieur & Cie, Breteuil-Sur-Noye, France. 533,983, canc. Cl. 6.
Manufacturers Corp. of Mansfield, Ohio, Mansfield, Ohio. 640,576, pub. 11-13-56. Cl. 13.
Marquette Appliances, Inc., Minneapolis, Minn. 640,684, pub. 11-13-56. Cl. 31.
Martin, Norman F., San Antonio, Tex. 640,702, pub. 11-13-56. Cl. 34.
Martin Senour Co., The: *See*—
Peninsular Paint & Varnish Co.

Mattox and Moore, Inc., Indianapolis, Ind. 640,589, pub. 11–13–56. Cl. 18.
Maxicrop Ltd., Holdenby, Northampton, England. 640,548, pub. 11–13–56. Cl. 10.
May Oil Burner Corp., Baltimore, Md., to The American Co., New York, N. Y. 344,204, ren. 3–16–57. Cl. 34.
Maybach-Motorenbau G. m. b. H., Friedrichshafen (Lake Constance), Germany. 640,809. Cl. 23.
Mayer Neumaier Corp., by A. Neumaier, d. b. a. The Neumaier Co., New York, N. Y. 372,855, 12(c) pub. 1–29–57. Cl. 42.
Maytag Co., The, Newton, Iowa. 640,715, pub. 11–13–56. Cl. 38.
McAlester Fuel Co., The, McAlester, Okla. 342,902, ren. 2–2–57. Cl. 15.
McKesson & Robbins, Inc., New York, N. Y. 341,198, ren. 12–1–56. Cl. 18.
McLean, Dr. J. H., Medicine Co., The, St. Louis, Mo. 115,456, ren. 2–13–57. Cl. 18.
McNeil, G. A., d. b. a. Income Tax Service Co., Alameda, Calif. 534,122, canc. Cl. 101.
Mechanical and Electrical Development Co., Kansas City, Mo. 533,885, canc. Cl. 26.
Medammin Corp., The, New York and Monroe, N. Y. 534,029, canc. Cl. 51.
Mendes, J. Curry, Corp., Canton, Mass. 640,653, pub. 11–13–56. Cl. 23.
Meredith Galleries, Inc., New York, N. Y. 640,687, pub. 11–13–56. Cl. 32.
Merrell, William S., Chemical Co., The, to The Wm. S. Merrell Co., Cincinnati, Ohio. 116,537, ren. 5–8–57. Cl. 18.
Merrell, Wm. S., Co., The: *See*—
Merrell, William S., Chemical Co., The.
Merrell, Wm. S., Co., The, Cincinnati, Ohio. 345,692, ren. 5–4–57. Cl. 18.
Meyerhoff, Arthur E., d. b. a. Tryzol Products Co., Chicago, Ill. 640,597, pub. 11–13–56. Cl. 18.
Michelman, Edward, Honolulu, Territory of Hawaii. 640,806, pub. 11–13–56. Cl. 107.
Michigan Moulding Co., Oak Park, Mich. 640,557, pub. 11–13–56. Cl. 12.
Midland Products Co., Midland Park, N. J. 640,644, pub. 11–13–56. Cl. 23.
Mid-South Chemical Corp., Memphis, Tenn. 640,546, pub. 11–13–56. Cl. 10.
Miller Products Co., Portland, Oreg. 640,543, pub. 11–13–56. Cl. 6.
Miller, Robert H., Dayton, Ohio. 640,794, pub. 11–13–56. Cl. 51.
Milton Mfg. Co., Inc., Chicago, Ill. 640,579, pub. 10–9–56. Cl. 13.
Minnesota Mining and Mfg. Co., St. Paul, Minn. 640,646, pub. 11–13–56. Cl. 23.
Modern Globe, Inc.: *See*—
Globe Knitting Works.
Sosnik and Sosnik, Inc.
Mohawk Business Machines Corp., New York, N. Y. 534,052, canc. Cl. 21.
Monarch Brewing Co.: *See*—
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Monsanto Chemical Co., St. Louis, Mo. 533,883, canc. Cl. 16.
Montgomery Elevator Co., Moline, Ill. 640,803, pub. 11–13–56. Cl. 103.
Moore, A. E., Co., Inc., Waupaca, Wis. 640,577, pub. 11–13–56. Cl. 13.
Moore, W. D., Co.: *See*—
Moore, Werton D.
Moore, Werton D., d. b. a. W. D. Moore Co., Tulsa, Okla. 533,879, canc. Cl. 12.
Moosbrugger, Rudolph, Glenside, Pa., to The Procter & Gamble Co., Cincinnati, Ohio. 341,517, ren. 12–8–56. Cl. 51.
Motometer, K. G., Stuttgart, Germany. 640,670, pub. 11–13–56. Cl. 26.
Mount Olive Pickle Co., Inc., Mount Olive, N. C. 345,241–2, ren. 4–20–57. Cl. 46.
Mulder, Julius M., d. b. a. Vita-Fluor Co., Redlands, Calif. 640,758, pub. 11–13–56. Cl. 45.
Multnomah Battery Mfg. Co., Portland, Oreg. 640,625, pub. 11–13–56. Cl. 21.
Munzhuber, Albert-Louis, Neuchatel, Switzerland. 640,752, pub. 11–13–56. Cl. 44.
Mutual Products Co., Minneapolis, Minn. 640,527, pub. 11–13–56. Cl. 6.
My-Ko Chemical Corp.: *See*—
Becker Products Corp.
N. V. Hollandsche Melksnikerfabriek, Uitgeest, Netherlands. 640,538, pub. 11–13–56. Cl. 6.
Nalibotsky, H. & J., Co., Inc., Philadelphia, Pa. 640,735, pub. 11–13–56. Cl. 39.
National Drug Distributors, Mineola, N. Y. 640,590, pub. 11–13–56. Cl. 18.
National Ideal Co., The, Toledo, Ohio. 345,375, ren. 4–27–57. Cl. 50.
National Lead Co., New York, N. Y. 640,528, pub. 11–13–56. Cl. 6.
National Starch Products Inc., New York, N. Y. 640,536, pub. 11–13–56. Cl. 6.
Neilson Wheel Co., The, Milwaukee, Wis. 640,603, pub. 11–13–56. Cl. 19.
Neumaier, Adolph: *See*—
Mayer Neumaier Corp.
Neumaier Co., The: *See*—
Mayer Neumaier Corp.
Neuwald, Eugene H., New York, N. Y. 534,111, canc. Cl. 39.
Niemeijer, Theodorus, Ltd., d. b. a. Theodorus Niemeyer Ltd., Groningen, Netherlands. 640,749, pub. 11–13–56. Cl. 46.
Niles-Bement-Pond Co., Hartford, Conn., to Pratt & Whitney Co., Inc., West Hartford, Conn. 341,774, ren. 12–22–56. Cl. 23.
No-Dk Distributors: *See*—
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Norkin Laboratories: *See*—
Piper Brace Co.
Norman, John: *See*—
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North American Aviation, Inc., Los Angeles, Calif. 640,600, pub. 11–13–56. Cl. 19.
North American Products Corp., Edwardsville, Ill. 640,805, pub. 11–13–56. Cl. 106.
Norton Co., Worcester, Mass. 346,163, ren. 5–18–57. Cl. 23.
Norton Co., Worcester, Mass. 640,524, pub. 11–13–56. Cl. 5.
Novel, Inc., Sparta, Wis. 534,156–7, canc. Cl. 16.
Oaklite Products, Inc., New York, N. Y. 640,541, pub. 11–13–56. Cl. 6.
Ohio Bronze Powder Co., The, Cleveland, Ohio. 534,146, canc. Cl. 16.
Ohmite Mfg. Co., Skokie, Ill. 640,623, pub. 11–13–56. Cl. 21.
Olin Mathieson Chemical Corp.: *See*—
Squibb, E. R., & Sons.
P. B. R. Mfg. Co., Philadelphia, Pa. 640,689, pub. 11–13–56. Cl. 32.
Pacific American Fisheries, Chicago, Ill. 78,988, canc. Cl. 46.
Pacific American Fisheries, Chicago, Ill. 78,990, canc. Cl. 46.
Pacific American Fisheries, Chicago, Ill. 78,999, canc. Cl. 46.
Palm Beach Co., Sanford, Maine. 640,717, pub. 11–13–56. Cl. 39.
Palumbo Cigar Co., Inc., New York, N. Y. 341,716, ren. 12–22–56. Cl. 17.
Panogen, Inc., Ringwood, Ill. 640,534–5, pub. 11–13–56. Cl. 6.
Paparelli, Louis A., d. b. a. San Antonio Drug Store, Albuquerque, N. Mex. 640,595, pub. 11–13–56. Cl. 18.
Paragon Oil Burner Corp., Mineola, N. Y. 640,699, pub. 11–13–56. Cl. 34.
Patterson-Sargent Co., The, Cleveland, Ohio. 533,906, canc. Cl. 16.
Peerless Camera Stores, Inc., New York, N. Y. 640,677, pub. 11–13–56. Cl. 26.
Pendleton Woolen Mills, Portland, Oreg. 640,726, pub. 11–13–56. Cl. 39.
Peninsular Paint & Varnish Co., The Martin-Senour Co., Chicago, Ill. 335,304, Am. 7(d). Cl. 16.
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Permalawn Products Co.: *See*—
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Pfizer, Chas., & Co., Inc., Brooklyn, N. Y. 640,594, pub. 11–13–56. Cl. 18.
Philco Corp., Philadelphia, Pa. 640,620, pub. 11–13–56. Cl. 21.
Phil's Way, Inc., Youngstown, to J. P. Fellabaum, Dayton, Ohio. 640,598–9, canc. Cl. 19.
Pioneer Television Co., Philadelphia, Pa. 534,007, canc. Cl. 21.
Piper Brace Co., d. b. a. Norkin Laboratories, to Dr. Reeves' Products, Inc., d. b. a. Norkin Laboratories, Kansas City, Mo. 637,654, cor. Cl. 22.
Pittsburgh Consolidation Coal Co., Pittsburgh, Pa. 533,937, canc. Cl. 1.
Plentwood Doors, Inc., Snohomish, Wash. 640,553, pub. 11–13–56. Cl. 12.
Pohatcong Hosiery Mills, Inc., Washington, N. J. 333,928, 12(c) pub. 1–29–57. Cl. 39.
Pratt, E. H., d. b. a. Kel-Min Distributing Co., to Kelp Minerals, Inc., Kansas City, Mo. 640,504, pub. 11–13–56. Cl. 1.
Pratt & Whitney Co., Inc.: *See*—
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Proban Ltd., London, England. 640,719, pub. 11–13–56. Cl. 39.
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Procter & Gamble Co., The, Cincinnati, Ohio. 341,810, ren. 12–22–56. Cl. 46.
Proxite Products, Inc., Brooklyn, N. Y. 640,544, pub. 11–13–56. Cl. 6.
Quaker Oats Co., The, Chicago, Ill. 344,873, ren. 4–6–57. Cl. 46.
Quality Chekd Dairy Products Association, Chicago, Ill. 640,811. Cl. 46.
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Rampel, Guy.
Rampel, Guy, d. b. a. R. K. Laboratories, Harrison, N. Y. 640,530, pub. 11–13–56. Cl. 6.
Raser, George B., Ashtabula, Ohio. 533,877, canc. Cl. 22.
Raybestos-Manhattan, Inc., Passaic, N. J. 640,525, pub. 11–13–56. Cl. 5.
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Ravonier Inc., New York, N. Y. 640,512, pub. 11–13–56. Cl. 1.
Raytheon Mfg. Co., Newton, Mass. 533,909, canc. Cl. 21.
Raytron Corp., Hoboken, N. J. 534,138, canc. Cl. 21.
Record Files, Inc., Wooster, Ohio. 640,692, pub. 11–13–56. Cl. 32.
Reed Roller Bit Co., Houston, Tex. 640,645, pub. 11–13–56. Cl. 23.
Reeder, Oliver, & Son, Baltimore, Md. 80,153, canc. Cl. 16.
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Rex Cutlery Corp., New York, N. Y. 640,750, pub. 11–13–56. Cl. 44.
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Reynolds, Wm. A., & Co., Inc., Cleveland, Ohio. 640,560, pub. 11–13–56. Cl. 12.
Rice Leaders of the World Association, New York, N. Y. 640,714, pub. 11–13–56. Cl. 38.
Richter, F. Ad., & Co. Inc., Staten Island, N. Y. 343,584, cor. Cl. 18.
Roto-Chef, Inc., Dallas, Tex. 640,626, pub. 11–13–56. Cl. 21.
Royal Electric, Inc., Xenia, Ohio. 640,627, pub. 11–13–56. Cl. 21.
Rubber Corp. of California, Garden Grove, Calif. 640,787, pub. 11–13–56. Cl. 50.
Rubinstein, Helena, Inc., New York, N. Y. 640,796, pub. 11–13–56. Cl. 51.
Rugby Rug Mills Inc., New York, N. Y. 640,744, pub. 11–13–56. Cl. 42.
S. R. Penick & Co.: *See*—
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St. Pauli Brauerei C. L. Wilh. Brandt, Bremen, Germany. 636,929, cor. Cl. 48.
St. Regis Paper Co., New York, N. Y. 640,708, pub. 11–13–56. Cl. 37.
San Antonio Drug Store: *See*—
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Santa Barbara Coastal Lemon Co., Santa Barbara, Calif. 640,779, pub. 11–13–56. Cl. 46.
Schalk Chemical Co., Los Angeles, Calif. 533,878, canc. Cl. 12.
Schenley Laboratories, Inc., New York, N. Y. 640,596, pub. 11–13–56. Cl. 18.
Schlight, Carl R., d. b. a. Inter-Lox Steel Co., to Inter-Lox Steel Co., La Crosse, Wis. 342,356, ren. 1–12–57. Cl. 12.
Schuylkill Silk Mills, to Vanity Fair Mills, Inc., Reading, Pa. 116,092, ren. 4–3–57. Cl. 39.
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Scott, Walter, & Co., Inc.: *See*—
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Scranton Lace Co., Scranton, Pa. 640,509, pub. 11–13–56. Cl. 1.
Sears, Roebuck and Co., Chicago, Ill. 640,634, pub. 11–13–56. Cl. 22.
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Sel-O-Rak Corp., Miami, Fla. 640,691, pub. 11–13–56. Cl. 32.
Shapiro, S. D., Inc., Brooklyn, N. Y. 533,898, canc. Cl. 39.
Sharp & Dohme, Inc., Philadelphia, Pa. 533,964, canc. Cl. 18.
Sheffield Bottling Co., d. b. a. Coaching Four Products Co., Philadelphia, Pa. 640,759, pub. 11–13–56. Cl. 45.
Signal-Stat Corp., Brooklyn, N. Y. 640,619, pub. 11–13–56. Cl. 21.
Simpkins, Joe., Inc., Wellston, Mo. 534,121, canc. Cl. 103.
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Skyline Plastic Pipe, Inc., Titusville, Pa. 640,583, pub. 11–13–56. Cl. 13.
Sloane, W. & J., New York, N. Y. 534,042, canc. Cl. 50.
Smith, Joe L., Jr., Inc., Beckley, W. Va. 640,804, pub. 11–13–56. Cl. 104.
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"Societe Anonyme J. R.," Société Anonyme, Paris, France. 533,933, canc. Cl. 39.
Societe Industrielle de Lunetterie, Paris, France. 640,674–5, pub. 11–13–56. Cl. 26.
Socony Mobil Oil Co., Inc., New York, N. Y. 640,586, pub. 11–13–56. Cl. 15.
Sosnik and Sosnik, Inc., Winston-Salem, N. C., by Modern Globe, Inc., Pawtucket, R. I. 394,288, 12(c) pub. 1–29–57. Cl. 39.
Southcoast Quick Freezing and Packing Co.: *See*—
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Southern Athletic Supply Co., Inc., Richmond, Va. 533,969, canc. Cl. 22.
Southern Meter & Transformer Co., Atlanta, Ga. 533,947, canc. Cl. 20.
Sparks-Withington Co., Jackson, Mich. 640,605, pub. 11–13–56. Cl. 21.
Specialty Products Co., to Specialty Products Co., Jersey City, N. J. 342,779–80, ren. 1–26–57. Cl. 15.
Springfield Co., The, Springfield, Mass. 533,893–4, canc. Cl. 22.
Squibb, E. R., & Sons, New York, N. Y., to Olin Mathieson Chemical Corp., Saltville, Va. 345,048, ren. 4–13–57. Cl. 18.
Stamford Rubber Supply Co., The, Stamford, Conn. 640,513, pub. 11–13–56. Cl. 1.
Standard Oil Co. of California, San Francisco, Calif. 640,519, pub. 11–13–56. Cl. 2.
Standard Oil Co. of California, San Francisco, Calif. 640,522, pub. 11–13–56. Cl. 4.
Standard Oil Co. of California, San Francisco, Calif. 640,526, pub. 11–13–56. Cl. 5.
Standard Oil Co. of California, San Francisco, Calif. 640,575, pub. 11–13–56. Cl. 12.
Standard Oil Co. of California, San Francisco, Calif. 640,661, pub. 11–13–56. Cl. 23.
Standard Oil Co. of California, San Francisco, Calif. 640,678, pub. 11–13–56. Cl. 26.
Standard Oil Co., The, Cleveland, Ohio. 535,611. Am. 7(d). Cl. 15.
Stanley Works, The, New Britain, Conn. 534,091, can. Cl. 21.
Star Brush Mfg. Co., Inc., Boston, Mass. 533,993, canc. Cl. 29.
Sternbach, Paul, Stamford, Conn. 533,963, canc. Cl. 22.
Stiles-Barrett Corp., to Barrett Equipment Co., St. Louis, Mo. 344,588, ren. 3–30–57. Cl. 23.
Stone, Buford R., d. b. a. Home Pride Products, Leaksville, N. C. 533,926, canc. Cl. 52.
Strong Cobb & Co., Inc., Cleveland, Ohio. 533,938, canc. Cl. 18.
Sugar Shell Corp., New York, N. Y. 640,812. Cl. 46.
Superior Tanning Co., Chicago, Ill. 640,515–16, pub. 11–13–56. Cl. 1.
Suprise Brassiere Co., Inc., New York, N. Y. 640,720, pub. 11–13–56. Cl. 39.
Swiss Radium & Dial Painting Co., Inc., New York, N. Y. 533,996, canc. Cl. 28.
T. G. & Y. Stores Co., Oklahoma City, Okla. 640,738, pub. 11–13–56. Cl. 39.
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Freeport Sulphur Co.
Taylor Chemical Co., Aberdeen, N. C. 640,531, pub. 11–13–56. Cl. 6.
Telefonbau und Normalzeit G. m. b. H., Frankfurt am Main, Germany. 640,671, pub. 11–13–56. Cl. 26.
Teleslide, Inc., New York, N. Y. 640,710, pub. 11–13–56. Cl. 38.
Tellshire, Inc., New York, N. Y. 640,732, pub. 11–13–56. Cl. 39.
Ten Bruin, H., & Sons, to H. F. Lange, Chicago, Ill. 108,846, ren. 2–29–56. Cl. 46.
Testing Machines, Inc., New York, N. Y. 640,669, pub. 11–13–56. Cl. 26.
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United Rubber & Chemical Co., Charleston, W. Va. 640,506, pub. 11–13–56. Cl. 1.
United States Gypsum Co., Chicago, Ill. 640,573, pub. 11–13–56. Cl. 12.
U. S. Industries, Inc., New York, N. Y. 640,569–70, pub. 11–13–56. Cl. 12.
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Universal Bowling & Golf Corp., Chicago, Ill. 640,632–3, pub. 11–13–56. Cl. 22.
Universal Chemical Laboratories, Inc.: *See*—
Becker Products Corp.
Universum-Film A. G., Berlin-Tempelhof, Germany. 640,667, pub. 11–13–56. Cl. 26.
Universum-Film Akt.-Ges., Berlin-Tempelhof, Germany. 640,668, 11–13–56. Cl. 26.
Vanity Fair Mills, Inc.: *See*—
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Viking Sports Products, Inc., Westwood, N. J. 640,635, pub. 11–13–56. Cl. 22.
Vita-Fluor Co.: *See*—
Mulder, Julius M.
Vita Var Corp., New York, N. Y., to Vita-Var Corp., Newark, N. J. 342,084, ren. 1–5–57. Cl. 16.
Vogel Brothers Corp., Chicago, Ill. 640,650, pub. 11–13–56. Cl. 23.
Vogue Shoe, Inc., Los Angeles, Calif. 640,737, pub. 11–13–56. Cl. 39.
Waikiki Equipment Co., Honolulu, Hawaii. 640,609, pub. 11–13–56. Cl. 21.
Walker, Hiram, & Sons Inc., Peoria, Ill. 640,784, pub. 11–13–56. Cl. 49.
Walker, Hiram, & Sons Inc., Peoria, Ill. 640,786, pub. 11–13–56. Cl. 49.
Wallace, R., & Sons Mfg. Co., Wallingford, Conn. 640,655, pub. 10–9–56. Cl. 23.
Walton, Charles S., & Co., Inc., Philadelphia, Pa. 340,560, ren. 11–17–56. Cl. 1.
Wamsutta Mills, New York, N. Y. 640,745, pub. 11–13–56. Cl. 42.
Washers, H., York City Laundry Co., York, Pa. 534,123, canc. Cl. 105.
Wasco Products, Inc., Cambridge, Mass. 640,563, pub. 11–13–56. Cl. 12.
Watkins, J. R., Co., The, Winona, Minn. 640,815. Cl. 51.
Wawak Co., Inc., Chicago, Ill. 533,843, canc. Cl. 42.
Weekly Publications, Inc., New York, N. Y. 640,810. Cl. 38.
Western Clock Co., Peru, Ill., to General Time Corp., New York, N. Y., and La Salle, Ill. 114,914, ren. 1–9–57. Cl. 27.
Westfield Industries, Inc., Westfield, N. J. 640,799, pub. 11–13–56. Cl. 52.
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White, Edward T., Union, W. Va. 534,057, canc. Cl. 22.
Whiting-Adams Co., Inc., Boston, Mass. 533,994, canc. Cl. 29.

Wiegand, Edwin L., Co., Pittsburgh, Pa. 640,628, pub. 11–13–56. Cl. 21.
Wilhelm, Warner F., d. b. a. Bowling Products Co., Chicago, Ill. 533,900, canc. Cl. 22.
Winebrenner, D. E., Co., Inc., Hanover, Pa. 640,780, pub. 11–13–56. Cl. 46.
Wiss, J., & Sons Co., Newark, N. J. 640,640, pub. 11–13–56. Cl. 23.
Wollensak Optical Co., Rochester, N. Y. 640,679, pub. 11–13–56. Cl. 26.
Wonce-Oba Co., New York, N. Y. 640,797, pub. 11–13–56. Cl. 52.
Yetter Homes, Inc., Savannah, Ga. 640,551, pub. 11–13–56. Cl. 12.
Youngs Rubber Corp., New York, N. Y. 640,753, pub. 11–13–56. Cl. 44.
Youngs Rubber Corp., New York, N. Y. 640,755, pub. 11–13–56. Cl. 44.
Zip Products Co., Los Altos, Calif. 640,637, pub. 11–13–56. Cl. 23.

U. S. GOVERNMENT PRINTING OFFICE: 0—1957

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
February 5, 1957 Volume 715 Number 1

PATENTS

NOTICES

Adjudicated Patent

(C. A. Calif.) Farr Patent No. 2,286,479 (183—69), for air filter panel, *Held* invalid. *Gratiot* v. *Farr Co.*, 237 F.2d 940; 111 USPQ 170.

Disclaimer

2,732,684.—*Karl C. Augenstein*, Cranston, R. I. TUBULAR EXPANSIBLE BAND WITH IMPROVED STOP MEANS. Patent dated Jan. 31, 1956. Disclaimer filed Dec. 31, 1956, by the assignee, *Speidel Corporation*.

Hereby enters this disclaimer to claims 5, 6, and 7 of said patent.

Patents Available for Licensing or Sale

2,771,355. Agglomerating Ores in the Blast Furnace. Harry Cohen, 7515 Cornell Ave., Chicago 49, Ill.

2,774,842. Auto Electric Fire Stopper Switch. Frank A. Shrader, 18454 Vanowen St., Reseda, Calif.

2,775,428. Tree and Shrub Field Balling Machine. Carl Monthan, Carl Monthan Nursery, 1435 Fresno St., Tucson, Ariz.

2,776,773. Shipping Container. Mrs. Marie Ambrose, 12504 Gallagher St., Detroit 12, Mich. Offered for licensing only.

Ferro Corporation is prepared to grant nonexclusive licenses on reasonable terms under the following patent to domestic manufacturers.

Applications for license may be addressed to: Patent Department, Ferro Corporation, 4150 East 56th St., Cleveland 5, Ohio.

2,711,401. Stabilized Chlorine Containing Vinyl Resins.

Illinois Water Treatment Co. of Rockford, Illinois, offers the following two patents for nonexclusive licensing on reasonable terms to domestic manufacturers and users:

2,605,084. Method of Mixing Granular Materials.

2,771,424. Process for Regenerating Ion Exchange Material.

Classification Order No. 208

The following transfers are hereby ordered to take effect on Tuesday, January 15, 1957:

From Division 22 to Division 58
Class 77, Boring and Drilling
From Division 14 to Division 57
Class 153, Metal Bending

M. C. ROSA,
Jan. 10, 1957. *Director, Patent Examining Division.*

New Applications Received During December 1956

Patents	6,384
Designs	354
Plants	9
Reissues	18
Total	6,765

Issue

Patents	867	No.	2,779,942 to No.	2,780,808, incl.
Designs	52	No.	179,619 to No.	179,670, incl.
Plants	3	No.	1,559 to No.	1,561, incl.
Total	922			

CONDITION OF PATENT APPLICATIONS AS OF DECEMBER 31, 1956

Total number of pending applications (excluding Designs)	217,395
Total number of pending Design applications	6,358
Total number of applications awaiting action (excluding Designs)	112,980
Total number of Design applications awaiting action	3,010
Date of oldest new application	Aug. 17, 1955
Date of oldest amended application	Oct. 7, 1954

ROSA, M. C., Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
I. STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.
II. STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 23, 26, 37, 42, 44, 48, 51, 54, 69, 70.
III. YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
IV. FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
V. HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	8, 20, 29, 33, 36, 40, 41, 52, 66.
VI. MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS	1, 4, 5, 9, 10, 18, 22, 28, 45, 47.
VII. KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
CL. GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	1-31-56	2-7-55
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers	3-23-56	9-15-55
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys	5-1-56	4-1-55
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Feeding of Indefinite Lengths	4-10-56	5-26-55
5. (VI) ROBINSON, C. W., Harvesters; Potato Diggers; Stalk Pullers and Choppers; Stone Gatherers; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates	5-4-56	10-6 55
6. (I) SURLE, H., Carbon Chemistry (part), e. g. Natural Resins, Proteins, Heterocyclic Amides, Amines, General Organic Processes	1-4-56	10-26-55
7. (IV) GONSALVES, J. E., Optics, Photographic Apparatus	1-12-56	9-29-55
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture	12-22-55	8-22-55
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	3-21-56	4-19-55
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	1-20-56	8-1-55
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	4-3-56	8-1-55
12. (III) SPINTMAN, S., Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	2-2-56	11-15-54
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	2-17-56	1-13-55
14. (III) MANIAN, J. C., Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes	2-15-56	1-11-55
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	3-16-56	3-7-55
16. (II) LOVEWELL, N. N., Television; Telephony; Recorders	11-28-55	10-14-54
17. (IV) LEIGHEY, R. A., Paper Manufactures; Packaging; Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	1-6-56	2-28-55
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	2-1-56	2-23-55
19. (VII) PATRICK, P. L., Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners	4-2-56	7-19-55
20. (V) BROWN, L. M., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking	4-9-56	4-19-55
21. (III) MADER, R. C., Textiles	3-13-56	3-20-55
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows; Boring and Drilling	12-27-55	1-24-55
23. (II) ANDRUS, L. M., Cash and Fare Registers; Calculators and Counters; Education	1-4-56	10-11-54
24. (III) DRACOPOULOS, P. T. (HICKEY, T. J., acting), Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	3-13-56	5-6-55
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus	3-1-56	1-3-56
26. (II) YOUNG, R. R., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanism	5-1-56	1-3-56
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	3-27-56	11-4-55
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Chute, Skid, Guide and Way Conveyers; Fluid Current Conveyers; Pressure Modulating Relays; Pneumatic Dispatch; Store Service; Wheel Substitutes	1-4-56	6-9-55
29. (V) HABECKER, L. B., Tools; Woodworking; Button, Barrel and Wheel Making; Rubber Tire Removing Tools; Baggage: Cloth, Leather and Rubber Receptacles; Package and Article Carriers	4-26-56	4-25-56
30. (VII) O'LEARY, R. A., Refrigeration; Heating Systems; Automatic Temperature and Humidity Regulation, Thermostats, Humidistats; Illuminating Burners; Miscellaneous Heating	7-9-56	11-10-55

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Amended
31. (I) HUTCHISON, E. W., Carbon Chemistry (part), e. g. Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Synthetic Resins (part)	3-6-56	8-1-55
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	4-10-56	11-28-55
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Building Structures; Roads and Pavements	4-10-56	4-1-55
34. (IV) SHANK, J. S. (acting), Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	4-2-56	4-1-55
35. (IV) BROMLEY, E. D., Dispensing; Filling and Closing Receptacles; Toilet, Kitchen and Table Articles; Sheet or Web Feeding	2-16-56	8-10-55
36. (V) McFADYEN, A. D., Measuring and Testing	12-30-55	12-12-55
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating	11-30-55	9-14-55
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g. Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	3-26-56	2-20-56
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	4-3-56	3-1-55
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	6-1-56	1-4-56
41. (V) GURLEY, R. B., Coin Controlled Apparatus; Dispensing Cabinets; Coin Handling; Mail, Fare or Other Collection Boxes or Chutes; Buckles, Buttons and Clasps; Racks; Fire Escapes; Ladders; Scaffolds	1-3-56	1-3-55
42. (II) MARANS, H., Electric Signaling; Signals and Indicators; Telegraphy; Electrical Connectors	8-17-55	1-10-55
43. (I) ARNOLD, D., Medicines, Poisons, Cosmetics; Sugar and Starch; Skins, and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus)	1-30-56	8-10-55
44. (II) EVANS, N. H., Antennas; Automatic Pilots; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	9-12-55	10-7-54
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances	2-3-56	3-25-55
46. (I) WILES, W. G., Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Surgery (part); Radioactive Medicines; Irradiation Chemistry; Carbon Chemistry (part)	1-30-56	3-2-55
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles	5-1-56	1-19-56
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Spark Plugs and Ignition Systems, Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers	12-23-55	11-22-54
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring	12-30-55	6-27-55
50. (I) BENGEL, W. G., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber	2-28-56	2-23-55
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Music	4-9-56	2-1-55
52. (V) NEFF, P. R., Supports; Joint Packing; Valved Pipe Joints or Couplings; Rod Joints or Couplings; Tool Handle Fastenings; Shaft Packing	3-2-56	3-1-55
53. (IV) REYNOLDS, E. R., (NINAS, G. A., acting), Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings and Shutters; Harness; Whip Apparatus	4-2-56	11-4-55
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g. X-Ray, Ultraviolet, Radioactive) Applications	3-22-56	3-11-55
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Sorting Solids; Centrifugal Bowl Separators; Comminutors	9-15-55	12-8-54
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	4-4-56	1-11-56
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings	6-21-56	2-24-56
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Food Apparatus; Closure Operators; Baths, Closets, Sinks and Spittoons	2-27-56	8-4-55
59. (I) HENKIN, B., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	3-19-56	7-18-55
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	3-1-56	2-1-55
61. (III) MORSE (Miss), E. L., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery	4-5-56	8-4-55
62. (IV) SHAPIRO, A., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination	4-6-56	12-1-55
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds	4-3-56	8-1-55
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	4-2-56	4-13-55
66. (V) LISANN, I., Geometric Instruments; Automatic Weighing Scales; Acoustics	3-6-56	12-3-54
67. (VII) KRAFFT, C. F., Laminated Fabrics; Ornamentation; Bleaching, Dyeing, Fluid Treatment of Textiles	1-12-56	6-13-55
69. (II) GALVIN, D. J., Wave Guides; Electric Meters; Sound Recording; Conductors; Insulators	3-8-56	1-3-55
70. (II) BREWRINK, J. L., Security laws administration.	4-6-56	2-20-56
CLASS. DIVS. I BAILEY, J. S., Paper Making; Mineral Oils	4-3-56	9-30-55
CLASS. DIVS. II LADY, J. E., Oscillators; Amplifiers; Resistances and Rheostats	4-6-56	1-16-56
CLASS. DIVS. III WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres	4-3-56	8-29-55
CLASS. DIVS. IV BERLOWITZ, W. (acting), Harrows and Diggers; Plows; Fluid Sprinkling, Spraying and Diffusing	4-9-56	3-1-56
CLASS. DIVS. V ANGEL, C. D., Liquid Separation or Purification; Sewerage	6-4-56	7-2-56
DESIGNS (III) A—MONCURE, J. A. Industrial Arts	6-1-56	7-13-56
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts		

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during February 1957, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953.*

Patents	Numbers 2,188,895 to 2,192,165, inclusive
Plant Patent	Numbers 361 to 364, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

U. S. Court of Customs and Patent Appeals

GLASS v. DE ROO ET AL.

No. 6298. Decided November 30, 1956

[— CCPA —; — F.2d —; — USPQ —]

1. APPEAL TO U. S. COURT OF CUSTOMS AND PATENT APPEALS—JURISDICTION IN REVIEW OF DECISION OF BOARD OF PATENT INTERFERENCES—PATENTABILITY.

"Our jurisdiction in a patent interference is limited to a review of the decision of the Board of Patent Interferences, 35 U. S. C. 141. The jurisdiction of that Board is limited to a determination of the question of priority of invention, 35 U. S. C. 135. As to both the Board and this court, certain questions which are 'ancillary' to priority may also be considered. Patentability is not one of those questions."

2. SAME—SAME—SAME.

"In reviewing a decision of the Board of Patent Interferences, we are obviously without jurisdiction to consider an issue which the Board is not authorized to decide. • • • The statutes do not provide for any review by this court of rulings in the Patent Office that a claim is patentable. We consider patentability only in ex parte appeals from decisions holding claims unpatentable."

3. SAME—SAME—SAME—PROVISIONS OF 35 U. S. C. 141—ACCEPTS LAW OF PRIOR DECISIONS.

Held that the Patent Act of July 19, 1952 (Title 35, U. S. C.), by including in Section 141 an express provision that the decisions of the Board of Patent Interferences from which appeals may be taken to the Court of Customs and Patent Appeals are those "on the question of priority," clearly accepts the law that patentability of the claims or counts in an interference proceeding cannot be considered on appeal from an award of priority.

4. SAME—EFFECT OF DECISION OF COURT.

Held that the decisions of the Court of Customs and Patent Appeals "do not approve or authorize the actual issuance of patents, even in ex parte cases, and are not mandates for their issuance", and that they "are confined to the issues properly raised on appeal, • • •, and their effect is to remand the cases involved to the Patent Office for further proceedings consistent with the court's opinions."

5. SAME—SAME—DISMISSAL OF APPEAL BASED ON UNPATENTABILITY OF INTERFERENCE COUNT.

Held, with respect to an appeal from the Board of Patent Interferences based on the alleged unpatentability of an interference count, that "the dismissal of this appeal would in no sense be an approval of the holding of the Patent Office that the count • • • is patentable."

APPEAL from the Patent Office. Interference No. 87,051.

DISMISSED.

Otis A. Earl and *Munson H. Lane* for Glass.

Lloyd C. Root, John A. Marzall, and *Marzall, Johnston, Cook & Root*, for De Roo et al.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, and RICH, *Associate Judges*

PER CURIAM:

This appeal is from a decision of the Board of Patent Interferences awarding priority of invention to appellees. Appellees move to dismiss this appeal on the ground that appellant's reasons of appeal fail to raise any question on which this court has jurisdiction to pass.

Appellant bases his appeal on twelve reasons of appeal which it is unnecessary for us to set forth. Appellees, in moving to dismiss, have analyzed these reasons, pointing out that they all relate, directly or indirectly, to the question of patentability and to no other question. Appellant does not deny this and his lengthy brief opposing the motion is merely an extended argument as to why this court should, for various reasons, undertake to review the question of patentability. The contention, in appellant's own words, is:

> • • • that this court is qualified to hear and determine the instant appeal and to render a decision indicating the presence or absence of invention in the structure defined by the count of the interference.

However qualified we may be, we are, unfortunately for the appellant, without jurisdiction to do so on an appeal in an interference case.

[1] Our jurisdiction in a patent interference is limited to a review of the decision of the Board of Patent Interferences, 35 U. S. C. 141. The jurisdiction of that Board is limited to a determination of the question of priority of invention, 35 U. S. C. 135. As to both the Board and this court, certain questions which are "ancillary" to priority may also be considered. Patentability is not one of those questions. *Hess* v. *Dreyfuss*, 26 CCPA (Patents) 1407, 1410, 104 F.2d 801, 42 USPQ 142; *Kleinman* v. *Steinbach*, 38 CCPA (Patents) 924, 932, 187 F.2d 743, 89 USPQ 151. See also Patent Office Rule 258. [2] In reviewing a decision of the Board of Patent Interferences, we are obviously without jurisdiction to consider an issue which the Board is not authorized to decide. Appellant availed himself of the procedures under the Patent Office Rules for attacking the patentability of the count without success. The statutes do not provide for any review by this court of rulings in the Patent Office that a claim is patentable. We consider patentability only in ex parte appeals from decisions holding claims unpatentable.

Our power of review in patent interferences is set forth in 35 U. S. C. 141 in the following words:

> • • • A party to an interference dissatisfied with the decision of the Board of Patent Interferences *on the question of priority* may appeal to the United States Court of Customs and Patent Appeals, • • • [Italics ours.]

Appellant puts a peculiar twist on these words. He does not argue that he is entitled to an award of priority, which issue has been decided against him, but urges that the quoted portion of section 141 provides for an appeal to this court by a party to an interference who is "*dissatisfied* with the decision of the Board of Patent Interferences on the question of priority" and that he *is* dissatisfied with such a decision because "there can be no question of priority and therefore no decision of priority in an unpatentable count or claim." [Emphasis ours.] This reasoning we deem to be specious. In support of his contention appellant cites *Hill* v. *Wooster*, 132 U. S. 693, and *Hoover Co.* v. *Coe*, 325 U. S. 79. Those cases, however, are not pertinent here since they do not relate to appeals but to suits in equity under R. S. 4915 (now superseded by civil actions under 35 U. S. C. 145 and 146) in which the relief sought was not an award of priority but a judgment holding that the plaintiff "is entitled, according to law, to receive a patent." Moreover, in *Sanford* v. *Kepner*, 344 U. S. 13, 73 S. Ct. 75, 95 USPQ 169, it was held that even in an action under R. S. 4915, arising out of an interference proceeding, it was not the duty of the court to adjudicate

patentability of the issue at the instance of the party against whom the award of priority was rendered, as we are asked to do in the instant case.

Both this court, and its predecessor in jurisdiction over appeals from the Patent Office, the Court of Appeals of the District of Columbia, have consistently held that patentability of the claims or counts in an interference proceeding cannot be considered on appeal from an award of priority. *Sobey* v. *Holsclaw*, 28 App. D. C. 65; *Mell* v. *Midgley*, 31 App. D. C. 534; *Lecroix* v. *Tyberg*, 33 App. D. C. 586; *Slingluff* v. *Sweet*, 45 App. D. C. 302; *Lynch* v. *Headley*, 52 App. D. C. 269; *Melling* v. *Gordon et al.*, 55 App. D. C. 278; *Gowen* v. *Hendry et al.*, 17 CCPA (Patents) 789, 37 F.2d 426, 4 USPQ 161; *Bloom* v. *Locke et al.*, 21 CCPA (Patents) 888, 69 F.2d 113, 21 USPQ 7; *Phelan* v. *Green*, 21 CCPA (Patents) 1228, 71 F.2d 298, 21 USPQ 634; *Hess* v. *Dreyfuss*, 26 CCPA (Patents) 1407, 104 F.2d 801, 42 USPQ 142; *Long* v. *Young*, 34 CCPA (Patents) 871, 159 F.2d 766, 72 USPQ 491; *Kleinman* v. *Steinbach*, 38 CCPA (Patents) 924, 187 F.2d 743, 89 USPQ 151, and many other cases referred to in the foregoing.

[3] The above decisions were rendered prior to the enactment of the Patent Act of July 19, 1952. That act, by including in section 141 an express provision that the decisions of the Board of Patent Interferences from which appeals may be taken to this court are those "*on the question of priority*," clearly accepts the law as contained in those decisions.

The arguments of appellant, including those predicated on the *Hill* v. *Wooster* case, supra, are decidedly lacking in novelty, bearing close resemblance to those which were rejected fifty years ago in *Sobey* v. *Holsclaw*, supra, by the Court of Appeals of the District of Columbia. It was because of the frequent misunderstanding of the scope of the appeal to this court in patent interferences that the words "on the question of priority" were inserted in 35 U. S. C. (1952) 141, with a view to clarifying the situation.

Appellant further contends that the dismissal of the instant appeal would "by implication authorize the Commissioner of Patents to issue a patent to the appellees containing the count of the interferences [sic] herein appealed" and "would by inference approve a patent that is not supported by a valid finding of patentability." [4] The decisions of this court, however, do not approve or authorize the actual issuance of patents, even in ex parte cases, and are not mandates for their issuance. They are confined to the issues properly raised on appeal, *In re Curley et al.*, 34 CCPA (Patents) 749, 158 F.2d 300, 72 USPQ 116, and their effect is to remand the cases involved to the Patent Office for further proceedings consistent with the court's opinions. *Jeffrey Mfg. Co.* v. *Kingsland*, 179 F.2d 35, 83 USPQ 494. [5] Accordingly, the dismissal of this appeal would in no sense be an approval of the holding of the Patent Office that the count here involved is patentable. (Compare 35 U. S. C. 135, which provides that after a decision on priority by the Board of Patent Interferences, "the Commissioner *may* issue a patent to the applicant who is adjudged the prior inventor.") [Italics ours.]

Appellant has presented an extensive discussion of past and present statutes, from which he argues that patentability of the issue should be considered in cases such as the present one. We have carefully considered the arguments presented, but find therein no sufficient reason for departing from the settled practice established by the above cited decisions.

Appellees' motion is granted and the appeal is dismissed.

DISMISSED.

U. S. Court of Customs and Patent Appeals

IN RE RUSSELL

No. 6227. Decided November 30, 1956

[— CCPA —; — F.2d —; — USPQ —]

1. DOUBLE PATENTING—DESIGNS.

"It is well settled that, regardless of filing dates, two patents cannot properly be granted to the same inventor on the basis of a single inventive concept. • • • That principle is equally applicable in design cases."

2. SAME—PRIOR ART CONSIDERED.

On the question whether two patents can properly be granted to the same inventor *Held* that "in determining whether more than one inventive concept is present, it is proper to consider prior art."

3. SAME—CROSS-READING NOT NECESSARY.

"It is not necessary that the claims of an application and patent of the same inventor should cross-read in order to justify the use of the patent as a reference against the application."

4. SAME—INTERPRETATION OF 35 U. S. C. 121—INDEPENDENT AND DISTINCT INVENTIONS REQUIRED.

Held that 35 U. S. C. 121 is clearly limited to cases in which there has been an actual requirement for restriction, that there is no basis for extending it to a case where such a requirement was not made, and that "since the section in question, by its terms, is limited to situations involving two or more independent and distinct inventions, it is not applicable to a situation where only one invention is present."

5. SAME—SAME.

"Appellant also relies upon the case of *In re Coleman et al.*, 38 CCPA (Patents) 1156, 189 F.2d 976, 90 USPQ 100, where it is stated that 'If division would have been necessarily required in the first instance, then double patenting cannot be urged if the copending claims issue in separate patents.' The quoted language expresses the same idea which was subsequently embodied in 35 U. S. C. 121, and clearly refers to cases in which the requirement for division is based on the presence of two or more independent inventions, since the decision concludes with the statement that 'two inventive concepts clearly are involved and the appealed claims were improperly rejected on the ground of double patenting.'"

6. DESIGNS—PATENTABILITY.

"It is well settled that in determining the patentability of a design, it is the appearance of the design as a whole which is largely controlling."

7. SAME—SAME—STANDARD OF INVENTION.

"The presence of invention is essential to the granting of a design patent, and the standard of invention is not lower in design cases than in other cases."

8. PATENTABILITY—PARTICULAR SUBJECT MATTER—DESIGN FOR A PUMP.

Claim for a design for a pump *Held* properly rejected on the ground of lack of invention over applicant's prior design patent.

APPEAL from the Patent Office. Serial No. 21,665.

AFFIRMED.

Tom Walker and *Vernon A. Dorsey* for Russell.

Clarence W. Moore (*H. S. Miller* of counsel) for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, RICH, and JACKSON (retired), *Associate Judges*

WORLEY, *J.*, delivered the opinion of the court.

This is an appeal from the decision of the Board

of Appeals of the United States Patent Office affirming the rejection by the Primary Examiner of the single claim of appellant's application for a patent on a design for a pump, on the ground of lack of invention over appellant's prior patent, D. 170,387. The appealed claim is as follows:

The ornamental design for a pump substantially as shown and described.

The references relied on are:

North, 385,319, June 26, 1888.
Tucker, D. 107,465, December 14, 1937.
Peters et al., 2,557,139, June 19, 1951.
Russell, D. 170,387, September 8, 1953.

Appellant's application discloses a pump comprising a cylindrical body having generally circular end closure plates, each of which is provided, at spaced points around its circumference, with four projecting lugs. The corresponding lugs in the two end plates are joined by axial tie rods which lie parallel to the cylinder. The lower end plate is provided with two projections on which the feet of the individual using the pump may be placed to hold it in position. The upper end plate has two couplings to which hoses may be connected, and the lower plate has an upwardly extending Y-shaped coupling member to which hoses may also be connected. The pump is provided with the conventional central operating rod.

The North patent shows a pump provided with four axial tie rods, while the Tucker patent shows a cylindrical gear case flusher provided with three such rods.

The Peters patent shows a pump of the same general type as both appellant's application and patent, the pump being provided at its lower end with foot-receiving projections.

The Russell patent, No. D. 170,387, granted to appellant September 8, 1953, on an application filed on the same day as the instant application, shows a pump structure generally similar to that of the appealed application, but having three axial tie rods instead of four, and a single hose coupling, rather than two, at each end. Additionally, the hose connection at the lower end of the pump extends downwardly, whereas the corresponding coupling in the appealed application extends upwardly; nor does the patent show projections for receiving the feet of the operator.

The appeal raises two distinct issues; namely, whether appellant's patent can properly be used as a reference against the appealed application; and, if it can be so used, whether the application discloses an invention patentably distinct from that disclosed by the patent.

[1] It is well settled that, regardless of filing dates, two patents cannot properly be granted to the same inventor on the basis of a single inventive concept. *In re Jennings*, 35 CCPA (Patents) 1163, 167 F.2d 1014, 77 USPQ 613, and cases there cited. That principle is equally applicable in design cases. *In re Ferguson*, 41 CCPA (Patents) 751, 208 F.2d 366, 100 USPQ 42. [2] In determining whether more than one inventive concept is present, it is proper to consider prior art. *In re Barge*, 25 CCPA (Patents) 1058, 96 F.2d 314, 37 USPQ 546. [3] It is not necessary that the claims of an application and patent of the same inventor should cross-read in order to justify the use of the patent as a reference against the application. *In re Ward et al.*, 43 CCPA (Patents) 1007, 236 F.2d 428, 111 USPQ 101, and cases there cited.

Appellant alludes to Title 35, Section 121 of the United States Code, which provides that where the Commissioner of Patents has required an application to be restricted to one of two or more independent and distinct inventions, and a divisional application is filed as a result of such requirement, a patent issuing on either application shall not be used as a reference against the other. He argues that if the designs of his instant application and his patent had been included in a single application, restriction would have been required under the cited section of the code, and that the case should therefore be treated as if such a requirement had been made.

[4] We cannot agree with that contention. The section in question is clearly limited to cases in which there has been an actual requirement for restriction, and we find no basis for extending it to this case where such a requirement was not made. Moreover, since the section in question, by its terms, is limited to situations involving two or more independent and distinct inventions, it is not applicable to a situation in which only one invention is present.

[5] Appellant also relies upon the case of *In re Coleman et al.*, 38 CCPA (Patents) 1156, 189 F.2d 976, 90 USPQ 100, where it is stated that "If division would have been necessarily required in the first instance, then double patenting cannot be urged if the copending claims issue in separate patents." The quoted language expresses the same idea which was subsequently embodied in 35 U. S. C. 121, and clearly refers to cases in which the requirement for division is based on the presence of two or more independent inventions, since the decision concludes with the statement that "two inventive concepts clearly are involved and the appealed claims were improperly rejected on the ground of double patenting."

We have carefully considered the arguments and authorities relied on by appellant but are convinced the decision appealed from must be affirmed unless the appealed application discloses an inventive concept which is patentably distinct from that for which appellant's patent was granted.

[6] It is well settled that in determining the patentability of a design, it is the appearance of the design as a whole which is largely controlling. *Gorham Company* v. *White*, 81 U. S. 511; *In re Bonnell*, 29 CCPA (Patents) 1104, 129 F.2d 520, 54 USPQ 202; *In re Campbell*, 41 CCPA (Patents) 896, 212 F.2d 606, 101 USPQ 406.

We are in complete accord with the tribunals below that a comparison of the pumps shown in appellant's application and his patent shows that they are strikingly similar in overall appearance. The pump cylinders, end caps, and tie rods, which form the principal features of the designs involved, are so nearly identical that it is only upon relatively close scrutiny that the specific differences above noted in the rods and hose connections, are noticeable. At a glance one of the designs might easily be mistaken for the other.

Moreover, the specific differences between the designs involve merely obvious expedients. The North patent shows the use of four tie rods on a cylindrical pump and there would be no invention in applying such an arrangement to the pump of appellant's patent instead of the equivalent three rods shown there. Foot rests at the bottom of the pump are a conventional expedient, shown by the Peters patent, and their use where desired is not inventive. The number and arrangement of the hose connections are matters of choice and, in the instant case, contribute nothing of consequence to the design of the appealed application.

[7] The presence of invention is essential to the granting of a design patent, and the standard of invention is not lower in design cases than in other cases. *In re Rousso*, 42 CCPA (Patents) 910, 222 F.2d 729, 106 USPQ 99, and cases cited.

[8] Since we concur with the views expressed below that the differences between the design of the application and that of appellant's prior patent are not inventive, the decision of the Board of Appeals is affirmed.

AFFIRMED.

JACKSON, *J.*, retired, recalled to participate in place of COLE, *J.*

U. S. Court of Customs and Patent Appeals

LAURITZEN & CO., INC. *v.* THE BORDEN CO.

No. 6234. Decided November 30, 1956

[— CCPA —; — F.2d —; — USPQ —]

1. TRADEMARKS—OPPOSITION—OPPOSER'S INTEREST IN SUFFIX "LAC".
Opposer's contention that its registered marks constitute a family of marks ending in "lac" and that the public would assume that any new mark ending in that suffix emanated from opposer *Held* not established inasmuch as "lac" is the Latin word for milk, all the marks involved are applied to milk products, there was no evidence of record to show recognition of the marks as a family and applicant made of record five other registrations showing the common use of "lac" as a trademark suffix.

2. SAME—CONFUSING SIMILARITY—DIFFERENCES IN GOODS.
"• • • the fact that appellant's product is normally sold to and used by commercial bakers, while appellee's product is sold by stores in small packages to individuals, is one which may properly be considered in determining whether confusion in trade would be likely to result from concurrent use of the marks under consideration. Specific differences in goods as well as in marks are factors to be considered in deciding whether or not confusion is likely."

3. SAME—SAME—COMMON DESCRIPTIVE WORD OR SYLLABLE.
"It is well settled that in deciding the question of similarity between trademarks the marks are not to be dissected, but considered in their entireties. • • • It has been repeatedly held, however, that trademarks will not ordinarily be found to be confusingly similar on the basis of a word or syllable included in each of them which is of a descriptive nature."

4. SAME—SAME—SAME—SYLLABLE "LAC" IN MARKS APPLIED TO MILK PRODUCTS.
"In the instant case, the syllable 'lac,' which is common to the two trademarks under consideration, has a somewhat descriptive connotation as applied to milk products, and has been commonly used as a portion of trademarks for such products. Accordingly, it should be given little weight in determining whether those marks are confusingly similar."

5. SAME—SAME—"FORTILAC" AND "PROTOLAC".
Concurrent use of applicant's trademark, "FORTILAC", as applied to a food product in powder form containing milk serums and vegetable extracts and used in commercial baking, and opposer's trademark "PROTOLAC", for a casein food product *Held* not likely to result in confusion to the general public.

APPEAL from the Patent Office. T-M Opposition No. 30,305.

REVERSED.

Edwin S. Booth (*Geo. B. Newitt* of counsel) for Lauritzen & Co., Inc.

J. Spencer Daly for The Borden Co.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, RICH, and JACKSON (retired), *Associate Judges*

WORLEY, *J.*, delivered the opinion of the court.

This is an appeal from the decision of the Assistant Commissioner, acting for the Commissioner of Patents, 99 USPQ 216, reversing the decision of the Examiner of Interferences and sustaining a notice of opposition filed by appellee, The Borden Company, against an application by appellant, Lauritzen & Company, Inc., for registration of the trademark "Fortilac" as applied to "a food product in powder form containing milk serums and vegetable extracts and used in commercial baking, said food product being packaged and sold in drums."

The notice of opposition was based upon prior registrations of the trademarks "Protolac," No. 145,077, for a casein food product; "Breadlac," No. 157,714, for powdered milk; "Starlac," No. 181,001, for powdered skimmed milk; "Parlac," No. 171,105, for whole-milk powder; "Akrelac," No. 205,191, for a powdered milk product made from a combination of skimmed milk and cream soured with a pure lactic culture; and "Biolac," Nos. 348,312 and 348,662, for milk food for infants.

No testimony was taken by either party and it is conceded that appellee's use of the registered marks above referred to predates appellant's use of the mark sought to be registered. The only issue, therefore, is that of confusing similarity of the marks.

[1] It is contended by appellee that its registered marks constitute a family of marks ending in "lac," and that the public would assume that any new mark ending in that suffix emanated from appellee. That contention was rejected by the Examiner of Interferences on the ground that "lac" is the Latin word for milk, and that all the marks involved are applied to milk products; and by the Assistant Commissioner on the ground there was no evidence of record to show recognition of those marks as a family. Also, in that connection, appellant made of record five other registrations showing the common use of "lac" as a trademark suffix. Under such circumstances, the holdings that appellee had not established ownership of a family of marks were clearly correct. *Burroughs Wellcome & Co. (U. S. A.) Inc.* v. *Mezger Pharmacal Co., Inc.*, 43 CCPA (Patents) 703, 228 F.2d 243, 108 USPQ 130.

In view of the foregoing, appellee's prior registrations must be considered individually. The Examiner of Interferences held that, as so considered, none of them was confusingly similar to appellant's mark. Upon review, however, the Assistant Commissioner held appellee's mark "Protolac" to be confusingly similar to "Fortilac" and, accordingly, reversed the decision of the Examiner of Interferences in that particular respect. While we have given full consideration to all the marks introduced, it is evident that "Protolac" is the most pertinent and it is, therefore, unnecessary to discuss the others.

Appellant contends that the product to which its mark "Fortilac" is applied is used in commercial baking and packaged in drums and differs substantially from the product to which "Protolac" is applied which, as shown by the specimen submitted with the notice

of opposition, is a dietary supplement sold in relatively small packages. The Assistant Commissioner held that the statement that appellant's product was packaged in drums is mere surplusage, "since if a trademark indicates origin of a product, it indicates origin no matter how packaged." The quoted statement is, of course, correct, but [2] the fact that appellant's product is normally sold to and used by commercial bakers, while appellee's product is sold by stores in small packages to individuals, is one which may properly be considered in determining whether confusion in trade would be likely to result from concurrent use of the marks under consideration. Specific differences in goods as well as in marks are factors to be considered in deciding whether or not confusion is likely. *In re Malvina D. Myers, Etc.*, 40 CCPA (Patents) 747, 201 F.2d 379, 96 USPQ 238; *Princess Pat Ltd.* v. *Tursi*, 43 CCPA (Patents) 795, 230 F.2d 440, 109 USPQ 45.

[3] It is well settled that in deciding the question of similarity between trademarks the marks are not to be dissected, but considered in their entireties. *Chatham Pharmaceuticals, Inc.* v. *Reserve Research Co.*, 34 CCPA (Patents) 886, 159 F.2d 869, 72 USPQ 507; *Apollo Shirt Co.* v. *The Euro Shirt Company, Inc.*, 35 CCPA (Patents) 849, 165 F.2d 469, 76 USPQ 329. It has been repeatedly held, however, that trademarks will not ordinarily be found to be confusingly similar on the basis of a word or syllable included in each of them which is of a descriptive nature. *West Disinfecting Company* v. *Lan-O-Sheen Company*, 35 CCPA (Patents) 706, 163 F.2d 566, 75 USPQ 77; *Nestle's Milk Products, Inc.* v. *Baker Importing Company, Inc.*, 37 CCPA (Patents) 1066, 182 F.2d 193, 86 USPQ 80; *Aluminone Corporation* v. *Vita-Var Corporation*, 37 CCPA (Patents) 1151, 183 F.2d 612, 86 USPQ 359, and cases there cited.

[4] In the instant case, the syllable "inc," which is common to the two trademarks under consideration, has a somewhat descriptive connotation as applied to milk products, and has been commonly used as a portion of trademarks for such products. Accordingly, it should be given little weight in determining whether these marks are confusingly similar.

While the instant marks, when viewed as a whole, have some resemblance in minor respects, their dissimilarities far outweigh their similarities. In our opinion, they do not look alike or sound alike, nor do they have any similarity in meaning. Moreover, the goods of appellant are purchased in relatively large quantities by bakers who, we think, could well be classed as discriminating purchasers: likewise, the same could well be said of those who buy appellee's products.

[5] It is our conclusion, therefore, that concurrent use of the marks on the respective goods of the parties would not be likely to result in confusion to the general public.

Accordingly, it becomes necessary to reverse the decision of the Assistant Commissioner.

REVERSED.

JACKSON, J., retired, recalled to participate in place of COLE, J.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,133,442, W. L. Gerrans, Jr., Tray loading device, **filed** Apr. 23, 1953, D. C., N. D. Calif. (Sacramento), Doc. 6883, *William L. Gerrans, Jr.* v. *Knipschild Dehydrater & Mfg. Co.* Patent held invalid Dec. 11, 1956.

2,237,567, E. H. Land, Light polarizer and process of manufacturing the same; **2,328,219**, same, Light polarizer and process of manufacture; **2,454,515**, same, Light-polarizing sheet of molecularly oriented transparent linear high polymer dyed with dichroic substance and process of manufacture, **filed** Dec. 11, 1956, D. C., S. D. N. Y., Doc. 115/294, *Polaroid Corp.* v. *Commerce International Co., Inc. et al.*

2,328,219. (See 2,237,567.)

2,454,515. (See 2,237,567.)

2,461,464, R. Aronstein, Filter for fluorescent screens, **filed** July 12, 1956, D. C., S. D. N. Y., Doc. 111/157, *Transmirra Products Corp. et al.* v. *Raytheon Mfg. Co.* Stipulation and order of discontinuance Dec. 13, 1956.

2,513,094, G. O. Hall, Curing of meat to inhibit undesirable color change, **appeal** filed Nov. 8, 1956, C. C. A., 4th Cir., Doc. 7350, *Kingan, Inc.* v. *Hall Laboratories, Inc.* Dismissed under Rule 23 Dec. 18, 1956.

2,515,093, E. E. Mills, Machine for making hollow articles; **2,579,390**, same, Method of making hollow articles, **filed** Dec. 11, 1956, D. C. Ariz. (Phoenix), Doc. 502, *Continental Can Co., Inc.* v. *Royal Mfg. Co., Inc.*

2,515,817, K. C. Augenstein, Expansion bracelet; **Des. 165,356**, same, Expansible chain for a bracelet or similar article, **filed** Dec. 18, 1956, D. C., R. I. (Providence), Doc. 2092, *Speidel Corp.* v. *Brite Industries, Inc. et al.*

2,527,900, P. J. Warmath, Tag holder and protector, **filed** Dec. 17, 1956, D. C., S. D. Tex. (Houston), Doc. 10421, *Fit-All Pricing Corp.* v. *J. J. Newberry Co., Inc. et al.*

2,558,803, C. Wittgren, Transfer sheet and method, **filed** Dec. 14, 1956, D. C., S. D. Calif. (Los Angeles), Doc. 20830-WM, *The Meyercord Co.* v. *Durochrome Decalcomania Co., Inc.*

2,569,952, I. M. Ridley, Cement gun apparatus, **filed** Dec. 11, 1956, D. C., S. D. Calif. (Los Angeles), Doc. 20821-TC, *Blastcrete Eqpt. Co-Inc.* v. *Ridley & Co-Inc. et al.*

2,572,490. (See 2,588,536.)

2,579,390. (See 2,515,093.)

2,588,536, J. Kaplan, Sleeping bag; **2,572,490**, same, Combination sleeping bag and blanket, **filed** Dec. 17, 1956, Ct. Cls., Doc. 526/56, *Julius Kaplan* v. *The United States.*

2,664,812, G. Molina, Mold for frying tacos wrappers, **filed** Dec. 14, 1956, D. C., W. D. Tex. (El Paso), Doc. 1794, *Gilberto Molina* v. *Ashley's, Inc. et al.*

2,699,738, R. F. Brittain, Method and device for rolling pastry dough, **filed** Dec. 17, 1956, D. C., S. D. N. Y., Doc. 115/374, *Rachel F. Brittain* v. *Mason's Plastics, Inc.* Same, **filed** Dec. 18, 1956, D. C., E. D. N. Y. (Brooklyn), Doc. 17151, *Rachel F. Brittain* v. *Milton Brenner et al.*

2,701,156, C. S. Palmer, Jr., Latch; **2,701,157**, C. B. Le Bon III, Latch mechanism; **Des. 166,862**, R. D. Mason, Combined door pull and latch for sliding doors, **filed** Aug. 29, 1955, D. C., S. D. Calif. (Los Angeles), Doc. 18697-BH, *Arcadia Metal Products* v. *Saurenman Co., Inc. et al.* Patent 2,701,156 held valid and not infringed; Patent 2,701,157 held valid and infringed; Des. 166,862 held invalid; injunction issued restraining defendants from further infringement of Patent 2,701,157 (notice Dec. 11, 1956).

2,701,157. (See 2,701,156.)

2,706,389, Garron and Pons, Full-fashioned panty and method, **filed** Dec. 14, 1956, D. C., S. D. N. Y., Doc. 115/347, *Alba Hosiery Mills, Inc.* v. *Keystone Trading Co.*

2,719,708, C. E. Compton, Pan guideway for rotary mining head; **2,764,397**, same, Auger mining apparatus having rigidly attached transverse conveyor, **filed** Dec. 3, 1956, D. C., S. D. W. Va. (Huntington), Doc. 862, *Charles E. Compton* v. *Sammons Coal Co.*

2,728,454, E. H. Heckett, Portable apparatus for reclaiming metal scrap, **filed** Dec. 14, 1956, D. C., N. D. Ohio (Cleveland), Doc. 33303, *W. E. Plechaty Co.* v. *Heckett Engineering Inc.*

2,764,397. (See 2,719,708.)

2,771,691, M. G. Luchs, Cushioned foot protector, **filed** Dec. 18, 1956, D. C., S. D. N. Y., Doc. 115/387, *Sondra Undergarments Co., Inc.* v. *J. W. Landenberger & Co.*

Des. 157,621, R. M. Palmer, Chocolate rabbit; **Des. 161,521**, same, Chocolate duck; **Des. 161,865**, same, Chocolate squirrel, **filed** Oct. 24, 1951, D. C., E. D. N. Y. (Brooklyn), Doc. 12216, *R. M. Palmer Co.* v. *Creston Confectionery Co. Inc.* Dismissed under Rule 21 Dec. 10, 1956.

Des. 161,521. (See Des. 157,621.)

Des. 161,865. (See Des. 157,621.)

Des. 165,356. (See 2,515,817.)

Des. 166,793. (See Des. 166,846.)

Des. 166,794. (See Des. 166,846.)

Des. 166,846, **Des. 166,793**, **Des. 166,794**, D. Borowitz, Electric lamp base, **filed** July 12, 1952, D. C., E. D. N. Y. (Brooklyn), Doc. 12753, *Bradley Mfg. Co.* v. *Everlite Novelty Mfg. Co.* Case discontinued Dec. 14, 1956.

Des. 166,862. (See 2,701,156.)

Des. 175,023, J. H. Koch, Ash receiver or similar article, **filed** Oct. 24, 1956, D. C., S. D. Calif. (Los Angeles), Doc. 20634-T, *Benjamin R. Blythe* v. *Builders Emporium et al.* Case dismissed (notice Dec. 17, 1956).

Des. 176,601, R. L. Doerfler, Spoon or other similar article of flatware, **filed** Dec. 14, 1956, D. C., S. D. N. Y., Doc. 115/351, *The International Silver Co.* v. *Julie Pomerantz, Inc.*

PLANT PATENTS

GRANTED FEBRUARY 5, 1957

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,559
DOUBLE GLADIOLUS PLANT
Ervin H. Doerr, New Ulm, Minn.
Application February 2, 1956, Serial No. 563,157
1 Claim. (Cl. 47—60)

A new and distinct variety of double gladiolus plant substantially as shown and described, characterized as to novelty by the brilliant red coloring of the bloom, the unusually large number of petals comprising each floret, the compactness of its flower formation on a medium length stem, and its good growth to a medium heighth.

1,560
RED GLADIOLUS PLANT
Ervin H. Doerr, New Ulm, Minn.
Application February 2, 1956, Serial No. 563,158
1 Claim. (Cl. 47—60)

A new and distinct variety of gladiolus plant, substantially as herein shown and described, characterized particularly by the pure all-over red coloring of the blooms, its white stamens and white tipped pistils, the narrow red petaloids which give a double appearance to the blooms, the late blooming habit of the plant, and its vigorous growth.

1,561
WHITE GLADIOLUS PLANT
Ervin H. Doerr, New Ulm, Minn.
Application February 2, 1956, Serial No. 563,159
1 Claim. (Cl. 47—60)

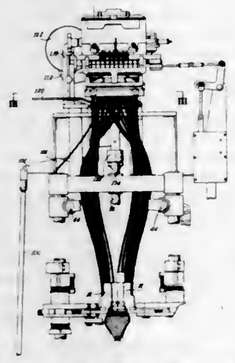
A new and distinct variety of gladiolus plant, substantially as shown and described, characterized by its flower having long, serrated and lacy, creamy white petals, the delicate shade of green at the base of the petals and in the throat of the florets, the pale green color of the buds when the sepals first begin to divide, and the light yellow color of the new petals as the sepals begin to unfurl which turns to creamy white in the opened floret.

PATENTS

GRANTED FEBRUARY 5, 1957

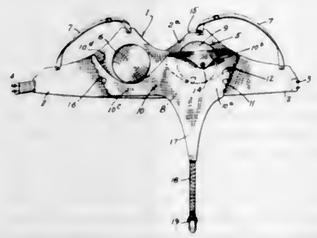
GENERAL AND MECHANICAL

2,779,942
TACK DRIVING MECHANISMS
Edward Quinn, Saugus, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Original application November 9, 1951, Serial No. 255,673, now Patent No. 2,740,138, dated April 3, 1956. Divided and this application January 17, 1955, Serial No. 482,291
4 Claims. (Cl. 1—18.1)



1. In a shoe machine, the combination of a tack driver, means for actuating the tack driver, an arrester for preventing the actuation of the driver, a tack drum for supplying the driver, an actuator for rotating the tack drum, operating connections from the actuator to the drum including an element which is retractable in order to break said operating connections, a hand lever, and connections from the hand lever which operate first to retract said element thereby to render the drum inoperative and second to advance the arrester into operative position thereby to prevent the actuation of the tack driver.

2,779,943
POST-MASTECTOMY BRASSIERE
Ruth V. Kelleher, Monrovia, Calif.
Application November 22, 1954, Serial No. 470,314
4 Claims. (Cl. 2—42)

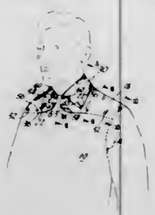


3. A brassiere for a post-mastectomy patient comprising: a body-encircling band; shoulder straps on said band; a pair of breast-receiving cups on said band; an elongated, soft fabric body having each end fastened to the inner side of said band between one of the cups and an end of the band; said body having a lower edge extending along and adjacent the lower edge of said band and free from connection with the lower edge of the band; said body having adjacent one end thereof a first portion spanning one of said cups for retaining an artificial breast form therein; said first portion being secured to the band beneath said one cup; fasteners on the upper part of said band above said cup and on the upper part of said first portion, respectively, cooperable for holding said first portion in position retaining said form in said one cup; said body having a second portion extending laterally from said first portion beneath the other cup to the other end of said body; said body having a third portion joined to and extending downwardly from the lower part of said first portion and free from connection with said band; an elastic strap extending downwardly from the lower end of said third portion; and a fastener on the lower end of said elastic strap for securing said strap to a garment of the wearer.

2,779,944
COMBINATION CLOTHING
Patricia Kane Flach, New York, N. Y.
Application April 12, 1954, Serial No. 422,597
1 Claim. (Cl. 2—85)

In a combination coat suitable for maternity and normal wear, a body portion, a full length longitudinal front opening defined by edges of the body portion, an upwardly tapering panel having a length equal to that of the coat, a flap coextensive with each of the tapered edges of the panel and extending therefrom, the angle of divergence between the tapering edges of said panel being less than 35 degrees, first fastening means on the outer side of the body portion and spaced inwardly from the edges defining the front opening, second fastening means on the panel extending beyond the tapering edges of the panel and overlying the flaps, said first and second fastening means cooperating to removably secure said tapered panel in said front opening for maternity wear of the coat, the flaps engaging and extending beyond the inner side of the body portion edges to provide a substantially weather tight closure, said panel when secured in position functioning as a part of the body portion and extending the entire length of the coat with its lower edge hanging evenly with and as a continuation of the lower edge of the body portion, and third fastening means cooperating with said first fastening means for removably securing the edges defining the front opening together for normal wear of the coat.

2,779,945
MULTIPURPOSE ARTICLE OF WEARING APPAREL
Max Dombrowsky, Los Angeles, Calif.
Application September 21, 1954, Serial No. 457,404
3 Claims. (Cl. 2—116)



1. An improved article of apparel comprising a front panel, a rear panel, a yoke member secured to said rear panel and having a forwardly directed U-shaped, wide neck opening formed therein dividing said yoke member into a pair of forwardly directed flaps substantially overlying said front panel, a collar integral with said yoke member having an open front neck band secured to the edge of said neck opening, a plurality of pairs of laterally spaced apart symmetrically arranged buttons affixed along the upper portion of said front panel, said forwardly directed flaps having laterally spaced apart button holes formed therein at points along its edge corresponding to the spacing of said respective buttons and adapted to engage said respective buttons whereby to close said neck opening except at the center thereof, and said collar being provided with depending wings having a button hole formed in each of the corners thereof adapted to selectively engage said laterally spaced apart buttons.

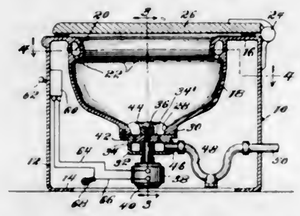
2,779,946
COLLAR-ATTACHED SHIRT
Max Freed, Winnipeg, Manitoba, Canada
Application January 4, 1954, Serial No. 402,031
2 Claims. (Cl. 2—116)

1. A collar-attached shirt having a usual body consisting of left and right front sections separable on the front median, a back section, a yoke across the top of said front sections and said yoke defining a neck-accommodating opening, and an elongated, arcuate, shawl-like collar structure consisting of inner and outer plys each comprising a fold down collar portion providing both the outer downturned fold and the inner neck-encircling fold, and the outer ply having tapered bibs formed integral on opposite ends thereof and elongated tapes continuing from the free ends of said tapered bibs; an under ply being attached to the bibbed outer ply around the outer margin and free therefrom across its inner edge where it lies across above said bibs, said under ply being secured to the neck-accommodating opening of the shirt for the entire perimeter thereof by the free edge of said under ply, said outer ply with integral bib portions being secured to said shirt by only the outer edges of said bibs and tapes for the full length thereof and by its inner edge for only the length thereof along said yoke, whereby said bibs underlie the upper front portion of said shirt body to provide a smooth bosom base for the front of the collar and together with said tapes, that anchor to the shirt body, exert a downward pull on the front of the collar assuring its proper centering and closing.

2,779,947
FORM MAINTAINER FOR HATS
Victor H. Severy, Santa Rosa, Calif.
Application June 15, 1953, Serial No. 361,740
1 Claim. (Cl. 2—185)

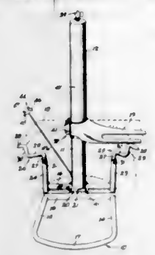
As a new article of manufacture, an unattached, removable, self-sustaining form maintainer adapted to be worn in the interior of a felt hat having a sweat band attached to the lower edge of the hat's crown, said maintainer being formed of sheet material presenting an upper wall for supporting the top of the hat crown and a side wall extending completely around the upper wall for supporting the side walls of the hat crown, said maintainer having two tapered extensions with convex edges at their tips extending downwardly from the lower edge of the said side wall at the sides of the hat maintainer and similar extensions at the front and back of the maintainer, for positioning between the sweat band and hat crown, said maintainer being composed of thermo-plastic material capable of maintaining its shape at usual atmospheric temperatures and capable of being softened at higher temperatures to enable the same to be changed in shape.

2,779,948
DISPOSAL UNIT
Leon E. Houle, Willimantic, Conn.
Application June 1, 1954, Serial No. 433,347
1 Claim. (Cl. 4—10)



In a toilet bowl structure, a bowl having a relatively large upper end and a relatively small lower end terminating in a depending neck, said neck having a lower end, a hollow vertical axis housing secured to and depending from the lower end of the neck, said housing having a closed lower end and an open upper end and a lateral outlet, an annular grinding plate secured in the upper end of the housing at the lower end of the neck, said grinding plate having a toothed inner periphery, a vertical shaft journaled axially through said housing and having upper and lower ends, a toothed rotor fixed on the upper end of the shaft in the plane of the grinding plate with the teeth of the rotor and the teeth of the grinding plate in grinding relation, said rotor having a top, a rotary pump impeller in said bowl neck above the housing and fixed on and projecting upwardly from the top of the rotor and working in the bowl neck for forcing matter in the bowl downwardly against and between the grinding plate and the rotor into said housing, and a motor connected to the lower end of said shaft.

2,779,949
HYDRAULIC LIFT FOR BATH TUBS
Clarence C. Crispen, Harrisburg, Pa.
Application June 27, 1952, Serial No. 295,857
12 Claims. (Cl. 4—185)



1. A hydraulic lift for a bath tub comprising a platform adapted to rest in the bottom of said tub, upstanding arms mounted on said platform for abutment with the sides of the tub, an upstanding sleeve mounted on the platform, a second sleeve having a seat thereon telescopically and rotatably connected to the first mentioned sleeve, and means for introducing water into one of said sleeves for causing one sleeve to move relative to the other.

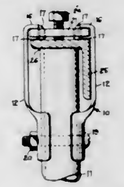
2,779,950
HINGES-ATTACHED ANTI-PUCKERING DEVICE FOR THE UPHOLSTERY OF SOFA BEDS AND THE LIKE
Paige W. Ake and John T. Lester, Tampa, Fla.
Application January 23, 1953, Serial No. 332,902
7 Claims. (Cl. 5—57)

1. In a sofa bed, reverting back chair or the like, including a main frame structure having side frame members, a back and a seat and upholstery extending over the seat and back and over the space between the seat and back; frames for the seat and back, each frame including a pair of side frame members, two operating hinges for said seat and back, each including a back hinge bracket and a seat hinge bracket pivotally connected together, with the back hinge brackets rigidly secured to the side frame members of the back and the seat hinge brackets rigidly secured to the side frame members of the seat; means pivotally supporting the back hinge brackets to the side frame members of the main frame structure; a section of flexible material secured to and depending from the underside of said upholstery at said space; an elongated rigid member secured to the lower end portion of said flexible material; two anti-puckering attachments for said hinges and elongated member, each including an elongated link member having a slot at one end portion thereof, means pivotally connecting the other end portion of said link member to said back hinge bracket, a bracket member for each operating hinge, first pivot means pivotally connecting a bracket member to a seat hinge bracket, second pivot means pivotally and slidably connecting said link member at said slot to said bracket member at a location remote from the first pivot means, and means rigidly connecting the bracket members to the ends of said elongated rigid member at locations remote from the first and second pivot means; said flexible material being taut when said back is in a raised position and slack when said back is in a lowered position.

2,779,951
ADJUSTABLE BED
Don Carlos Travis, Kenosha, Wis., assignor to Simmons Company, New York, N. Y., a corporation of Delaware
Application July 1, 1950, Serial No. 171,654
8 Claims. (Cl. 5—69)

3. In a adjustable bed having a normally stationary supporting frame, a bed bottom frame pivotally mounted on said supporting frame for swinging movement about a horizontal axis, actuating means for shifting said section, an electric motor for driving said actuating means, and an electrical circuit for connecting said motor to a source of power including a disconnect switch on one of said frames and engageable by the other of said frames for interrupting said circuit when said bed bottom frame is inclined downwardly from the horizontal; a switch operator movably mounted on one of said frames and normally interposed between said switch and other of said frames and engageable by the latter to operate said switch when said bed bottom frame is in a horizontal position thereby to interrupt said circuit, said operator being manually shiftable to an inoperative position to permit said bed bottom frame to be depressed below said horizontal position, and resilient means actuated by movement of said bed bottom frame downwardly from said horizontal position to restore said operator to said normal position when said bed bottom frame is subsequently raised.

2,779,952
LEG ATTACHMENT FOR BED SPRINGS
Leonard L. Sten, Kingston, Pa.
Application June 14, 1955, Serial No. 515,299
1 Claim. (Cl. 5—310)



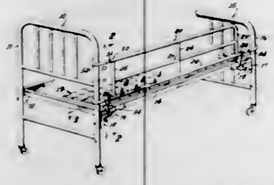
In a bed spring of the type having a pair of side rails, a tubular leg at each corner of said spring, and a rail clamp at the upper end of each leg, said rail clamps each comprising a flat plate of generally rectangular configuration having a pair of spaced apart parallel slots extending vertically therethrough, a pair of identical opposed jaw members having an arcuate lower portion and an integral generally flat medial portion, an inwardly directed right angle flange integrally formed on the top edge of said medial portion, a tang depending perpendicularly from the inner edge of said flange and projecting through one of the slots in said flat plate, a head formed on the lower end of said tang for retaining said tang in said slot, clamping screws threadedly carried by said flat plate and adapted to engage said rail, and means detachably connecting the arcuate portions of said clamp member to said tubular leg.

2,779,953

SIDE RAIL FOR ADJUSTABLE HEIGHT BEDS

Lee W. Thompson and James L. Diehl, Long Beach, Calif.; said Diehl assignor to said Thompson

Application March 29, 1954, Serial No. 419,387
5 Claims. (Cl. 5—331)



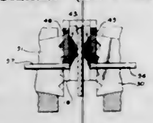
5. A side rail assembly for beds of varying heights which includes: a frame adapted to substantially close one side of said bed when mounted thereon, said frame having a generally horizontal axis member provided with securing means at its ends to engage the ends of said bed and hold said frame against longitudinal movement; a support member interposed between said axis member and said bed, the length of said support member being coordinated with the height of said frame to support said axis member a sufficient distance above said side rail so that said frame in upper vertical position will be of sufficient height to accomplish its function of closing the side of said bed, and when rotated about said axis member to a lower vertical position will hang free of the surface upon which said bed is supported: and means for releasably securing said frame in its said upper vertical position.

2,779,954

DOUBLE ACTION TRIMMER AND SURFACE PREPARATION TOOL FOR SOLID PHASE BONDING

William A. Barnes, Utica, N. Y., assignor to Utica Drop Forge & Tool Corporation, a corporation of New York

Application June 25, 1953, Serial No. 364,153
6 Claims. (Cl. 7—5.6)



1. A tool for preparing workpieces to be joined by a solid phase bond at a temperature less than normal thermo welding temperature, said tool comprising, a shear blade and a shear anvil, said blade having a stepped shear face with cutting edges staggered laterally to cut in adjacent planes, said cutting edges including a leading cutting edge and means to drive said blade past said anvil in a shearing path, said cutting edges being longitudinally spaced with respect to the said shearing path and said leading cutting edge spaced in said shearing path a distance from said anvil.

2,779,955

METHOD OF EXTENDING A RIVET BLANK AROUND A HEADED MANDRIL STEM

James William Curtis, Birmingham, England, assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application October 15, 1952, Serial No. 314,906
Claims priority, application Great Britain November 7, 1951
1 Claim. (Cl. 10—27)

The method of making a blind rivet assembly of the type described, which includes the steps of: positioning a blank provided with a cup-like recess open end up within the bore of a confining die having a diameter equal to that of the finished rivet flange and provided with an annular bottoming shoulder defining a constricted central opening forming an extrusion orifice for the flow of blank material from said die and having a diameter equal to that of the finished rivet barrel; assembling a rivet setting mandril, having an enlarged head with a stem of lesser diameter extending therefrom, with said head located wholly within the recess of the blank and below the uppermost side portions thereof, said stem being telescopically fitted within a coaxial bore of an extrusion plunger; subjecting the blank to pressure applied parallel to said stem by said plunger; depressing and displacing those portions of the blank which extend above the head of said mandril inwardly of the circumference of said head and against said stem to fill the recess and to interlock snugly the head within the material of the blank, whereby portions of said displaced material of the blank

extend in direct alinement between said extrusion plunger and said head in the direction of applied pressure; further depressing said material and mandril concomitantly by continued pressure applied by the plunger to the material above said head, to cause said head and the material there surrounding to pass through said opening; then extruding material of the blank through the then-annular orifice between the mandril stem and said shoulder of the die, progressively withdrawing successive portions of the mandril stem from the bore of said plunger while causing flow of the material in tubular form around said successive portions of the mandril stem as the stem is advanced through said opening.

2,779,956

BLANK REVERSING MEANS FOR MULTIPLE SPINDLE MACHINE

Bertell C. Butler and Elmer Busch, Cleveland, Ohio, assignors to The National Acme Company

Application May 2, 1950, Serial No. 159,506
7 Claims. (Cl. 10—166)

1. In an attachment for gripping a workpiece before it is cut from the bar stock in a spindle at a first position of a multiple spindle machine and reloading the workpiece after the workpiece is cut from the bar stock in a spindle at a second position thereof after turning the workpiece end for end, the provision of, a holder slidably mountable on said machine for movement in a plane substantially perpendicular to the axes of said spindles and in a path other than parallel to a plane containing the axes of said spindles, said holder having a shank receiving opening therein, a support member having a shank extending in said opening, roller blocks pivoted on said support member on pivot axes parallel to said spindle axes and supporting a plurality of rollers in spaced relation to grip a workpiece before it is cut from the bar stock, springs urging said rollers toward each other, a reciprocable inverting member drivingly connectable with said shank to invertingly pivot said support member in a plane substantially parallel to the plane containing the axes of said spindles from said first spindle position to said second spindle position after a workpiece is cut from

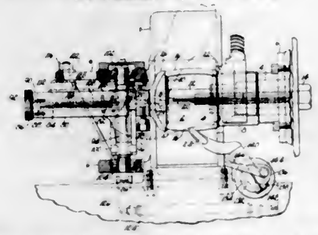
the bar stock and also turn said workpiece carried thereby end for end, a cam on said machine adjacent said first spindle position, and a cam follower on one of said roller blocks engageable by said cam upon sliding movement of said holder toward said first spindle position to first separate the rollers on said roller blocks and subsequently permit said springs to urge said rollers toward each other to grip a workpiece in said first spindle position.

2,779,957

HEEL TRIMMING MACHINES

Brian Julian Maurice Murphy and John Rose Pope, Leicester, England, assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application May 23, 1955, Serial No. 510,426
Claims priority, application Great Britain June 29, 1954
10 Claims. (Cl. 12—88)



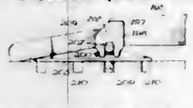
1. In a heel trimming machine, a rotatable cutter head mounting a plurality of cutting blades adjustable radially of its axis of rotation, and positioning means carried at all times by said cutter head and engageable with the blades to locate all of said cutting edges at points equidistant from said axis of rotation irrespective of the length of the blades or the angles of their cutting faces.

2,779,958

BRIDGING ELEMENTS

William C. Hodges and Alexander L. Robb, Redwood City, Calif., assignors to Hodges Research and Development Company, Redwood City, Calif., a corporation of California

Original application October 31, 1949, Serial No. 124,592. Divided and this application August 29, 1951, Serial No. 244,190
1 Claim. (Cl. 14—72)



In a bridging element, a main channel-shaped section, a pivot pin rotatably mounted transversely across the full width of the bottom of said section at each end thereof forming extensions of the bottom, and a shoe welded to each of said pins, said pins forming extensions for said shoes, each of said shoes including a base, a plurality of upstanding triangular shaped webs extending longitudinally of and secured to said base and a ramp engaging an upper edge of each of said webs and secured to said base, the other edges of said webs acting as a stop against said main channel-shaped section to limit rotation of the shoe, the pivot pin being secured at the apexes of said webs.

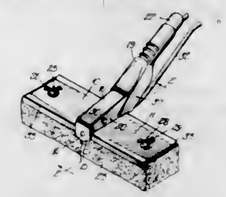
2,779,959

MOP WITH FOLDING SQUEEZER HEAD

James L. Hvale, Chicago, Ill., assignor to Ekco Products Company, Chicago, Ill., a corporation of Illinois

Application June 30, 1952, Serial No. 296,293
2 Claims. (Cl. 15—119)

1. In a mop, the combination of a pair of panels, a hinge connecting said panels for swinging movement of said panels between an outspread and a juxtaposed folded position including a pintle having projecting ends, a bracket having a pair of opposed ears in which the projecting ends of said pintle have bearing support, a pair of opposed parallel side walls extending between said ears and presenting longitudinal edges at equal distances in opposite directions radially of the pintle with which the panels are engageable to limit swinging movement of the panels in a selected direction, a lever pivotally mounted on said opposed side walls of the bracket having spaced apart camming arms between which said



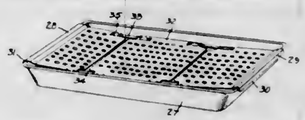
panels are engaged for movement in a direction away from said selected direction into a juxtaposed folded position, a tubular member forming a rearward extension of said bracket having its longitudinal axis arranged lengthwise of the hinge connecting said panels, said tubular member being joined to said bracket by connecting means presenting opposed surfaces between which portions of the lever are yieldably trapped when the panels are in outspread position, and a mopping element secured to said panels so as to be squeezed therebetween when said panels are so moved into juxtaposed folded position.

2,779,960

MODIFIED PAINT TRAY

Axel E. Ogren, Chicago, Ill., assignor to The Sherwin-Williams Company, Cleveland, Ohio, a corporation of Ohio

Application March 31, 1953, Serial No. 345,845
1 Claim. (Cl. 15—121.2)



In a modified paint tray, the combination of a pan and a false bottom within said pan, said false bottom comprising three flat perforated portions held together in adjacent relationship by a plurality of leaf spring means secured to each flat perforated portion, one end portion of said false bottom being in the form of a hook to engage one edge of said pan while the other end portion of said false bottom being in the form of a wide radius curve adapted to laterally slideably engage the other end of said pan whereby said false bottom is maintained in yieldably spaced relationship with the bottom of said pan.

2,779,961

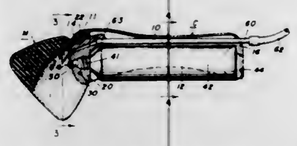
FOUNTAIN CLEANING DEVICE WITH DETERGENT SUPPLY

Myron P. Laughlin, St. Petersburg, Fla.

Application September 29, 1952, Serial No. 312,009
3 Claims. (Cl. 15—130)

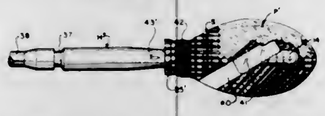
3. A fountain cleaning device comprising an elongated handle forming casing, a clamp portion formed at one end of said casing integrally therewith, a water tube in said casing, a collapsible reservoir in said casing, an outlet formed on said reservoir, a mop, and an integral means simultaneously supporting one end of said water tube and

the outlet end of said reservoir in said casing and clamping said mop against said clamping member in hooded



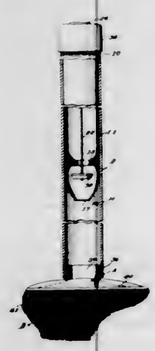
arrangement to intercept fluid flow from said water tube and said collapsible reservoir outlet.

2,779,962
FOUNTAIN SPONGE
Gladys W. Cooper, Colorado Springs, Colo.
Application April 10, 1952, Serial No. 281,495
3 Claims. (Cl. 15—130)



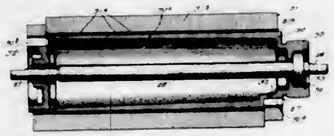
3. A washing device comprising a handle formed as an elongated hollow tube adapted to receive water at its inlet end and closed at the opposite end, said tube having a series of spaced discharge outlets in one side only extending from a point adjacent the closed end of said tube to a point spaced therefrom; an elongated pad of resilient cellular material having a hole extending longitudinally into the interior of said pad and a soap slot extending into said pad in spaced relation to said hole, so that a piece of soap inserted therein may lie directly in the path of water discharged from said tube outlets, said pad hole receiving said tube with all of said tube outlets within said pad and said tube having an indicating mark in longitudinal alignment with said outlets and disposed between said inlet and said pad so as to indicate the position of said outlets when said outlets are covered by said pad; and means for attaching said pad to said handle.

2,779,963
CLEANING AND POLISHING DEVICE
Bernard C. Wohl, Martha Wohl, and Gerald Wohl, Chevy Chase, Md.
Application December 8, 1953, Serial No. 396,938
2 Claims. (Cl. 15—138)



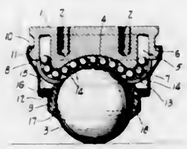
1. A cleaning or polishing device comprising a tubular handle open at opposite ends, a cleaning member, means for securing said cleaning member to the lower end of the handle, the upper end of the handle being externally threaded, a replaceable cartridge insertable into the upper end of the handle, said cartridge having a valve mechanism and a button for operating said mechanism, an external sleeve secured to said cartridge holding said mechanism with said cartridge, said sleeve resting on the upper edge of said handle, and a centrally apertured second internally threaded sleeve adapted to hold said cartridge within said handle by engagement with the external threads of the upper end of said handle.

2,779,964
ROTATABLE POLISHER MEMBER
Philip J. More, Evanston, Ill., assignor to Birtman Electric Company, a corporation of Illinois
Original application June 22, 1948, Serial No. 34,516, now Patent No. 2,665,439, dated January 12, 1954. Divided and this application March 19, 1953, Serial No. 343,298
1 Claim. (Cl. 15—230)



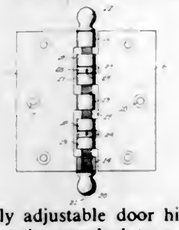
A polisher member rotatable about an axis, comprising: a body having a substantially cylindrical buffer receiving outer surface and a drive engaging member on said body at one end of said surface adapted to receive a drive means, the mass of said body progressively decreasing from a relatively heavy mass at said drive engaging member and at said one end toward a relatively light mass at the opposite end of said body; a frictionless bearing support for said polisher member substantially coplanar with a transverse plane passing through said drive engaging member at substantially a right angle to said axis; a bearing support at said opposite end of said body; and a buffer member on said outer surface.

2,779,965
BALL CASTER
Arnold G. Schilberg, Milwaukee, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application April 5, 1954, Serial No. 421,065
5 Claims. (Cl. 16—26)



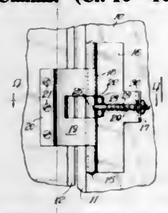
1. In a ball caster, a socket member having an annular shoulder, a supporting ball spaced beneath the socket member, a layer of recirculating ball bearings disposed between the supporting ball and socket member to provide a bearing surface for said supporting ball, means to retain said supporting ball beneath the socket member including an annular scraper ring disposed around the ball and supported from the shoulder on said socket member, and resilient means disposed between the shoulder on said socket member and the scraper ring to urge said ring upwardly into contact with the ball in a plane beneath the horizontal plane through the center of the ball to remove particles of foreign matter therefrom during operation of the caster.

2,779,966
ADJUSTABLE HINGE
Robert E. Torchia, Gardena, Calif.
Application April 20, 1953, Serial No. 349,649
3 Claims. (Cl. 16—133)



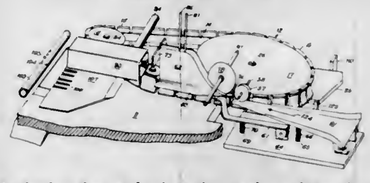
1. Longitudinally adjustable door hinge apparatus effectively adapted to be attached to a door and a door jamb whereby said door may be selectively adjustably longitudinally positioned with respect to said door jamb comprising: first hinge plate means and second hinge plate means provided with first and second lateral projection means respectively, in longitudinally alignable and longitudinally movable relationship with respect to each other, said lateral projection means being provided with longitudinally common axial hole means; longitudinal axial bolt means provided with bolt thread means and insertable through said longitudinal axial hole means; second thread means cooperably related with respect to said first hinge plate means and threadably engaged with said bolt thread means whereby said bolt means may be selectively lockable in rotatably immovable relationship with respect to said first hinge plate means; and third thread means internally related with respect to said second lateral projection means and threadably engaged with said bolt thread means whereby prior to being selectively rotatably immovably locked, selective relative rotation of said bolt means with respect to said first hinge plate means and with respect to said third thread means causes longitudinal movement of said second hinge plate means with respect to said first hinge plate means.

2,779,967
HINGE ASSEMBLY
August John Braun, Chicago, Ill.
Application March 10, 1951, Serial No. 214,981
2 Claims. (Cl. 16—163)



1. A hinge assembly comprising in combination a base plate having pivoting means along one edge thereof and an extension projecting angularly from its opposite edge, an arm in spaced opposed relation and joined to said base plate via said extension, a lever having swinging movement about said pivoting means as an axis, said lever having an inner section of such length as to clear said arm on the base plate and having an outer section connected to said inner section by an intermediate section whereby said outer section is positioned substantially 90 degrees apart from said inner section, said outer section and all portions of said intermediate section being spaced from said pivotal means a distance at least equal to the distance between said pivotal means and the remote end of the inner section of the lever, a link having one end connected to a portion of the lever away from said pivotal means for relative pivotal movement about an axis parallel to the axis of swinging movement of the lever, said arm on the base plate having an opening through which the other end of said link projects for relative lengthwise sliding movement of said link therein whereby swinging movement of the lever toward and away from a position between said base plate and the arm on the base plate operates to shift the axis of pivotal movement of the link relative to the lever through a dead center position defined by a plane extending radially of the lever pivoting means and coincident with the position of the longitudinal axis of the link within said opening in the arm on the base plate, means operable to limit movement of the lever in one direction away from a position wherein the axis of pivotal movement of the link relative to the lever is in said dead center position including a nut having threaded connection with the portion of the link projecting through said opening in the arm on the base plate and engaging the surface of the latter about said opening opposite the surface of the arm facing the base plate when the lever is in one of its limits of swinging movement, and means operative to yieldably urge the lever toward its limits of swinging movement in the direction in which the axis of pivotal movement of the link is displaced away from said dead center position.

2,779,968
FRANKFURTER SKINNING MACHINE
Bernard T. Hensgen, Chicago, Ill., assignor to Swift & Company, Chicago, Ill., a corporation of Illinois
Application July 27, 1953, Serial No. 370,380
7 Claims. (Cl. 17—1)



1. A device for stripping the casings from lengths of linked sausages from which the linking strings have been removed, said device including a first slitting and stripping means and a second positioning and feeding means operatively associated with said first means, said second means comprising power driven gripping means positioned in a first plane to engage the lengths of linked sausages and feed them to the first means in a given direction, a pressure means positioned in a second plane angularly disposed with respect to said first plane, said pressure means including a pair of supporting members positioned sequentially along said length of linked sausages, one of said members being opposite said first means, said supporting members being resiliently urged against said lengths of sausages engaged by said gripping means, and a rotary member in said second plane at the opposite side of said lengths of sausages from a second of said supporting members and rearwardly of said first means to align the opposite side of said sausages, said first means being positioned generally in said second plane and at said opposite side of said lengths of sausages.

2,779,969
APPARATUS FOR THE CONTINUOUS MANUFACTURE OF COMPRESSED BOARDS AND SHEETS
Edward Ralph Bose, Jersey City, N. J., assignor to United Cork Companies, Kearny, N. J., a corporation of New Jersey
Application January 15, 1953, Serial No. 331,427
16 Claims. (Cl. 18—5)

1. Apparatus for the continuous manufacture of boards or sheets from cork particles, comprising a frame, a heat-conducting lower bed supported on the frame and presenting a smooth, flat surface, a flat endless metallic con-

veyor belt arranged to move over said surface, pulleys for driving and guiding the belt, the active upper run of said belt passing over said bed, feeding mechanism for continuously charging a mass of said particles onto the belt, a second flat, endless metallic conveyor belt disposed above the first belt with its lower active run overlying and moving in the same direction as the upper active run of the first belt, a heat-conducting upper bed presenting a

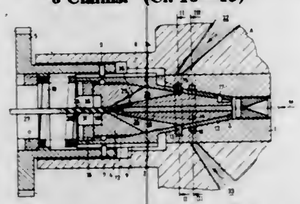
smooth surface against which the lower run of the upper belt bears, driving and guiding pulleys for the second belt, said beds being parallel to each other for the greater portion of their lengths, electrical heating means disposed in the beds at their charging end, the beds at their discharging ends being provided with passageways for receiving a cooling fluid, and means for laterally confining the particles between the active runs of the belts.

2,779,970

EXTRUSION MOLDING APPARATUS

Rudolf Stöcker, Coburg, Germany, assignor to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt and Erlangen, Germany, a German corporation

Application October 11, 1954, Serial No. 461,593
Claims priority, application Germany October 13, 1953
8 Claims. (Cl. 18—13)



1. Apparatus for the extrusion molding of helically sub-divided strand-shaped structures of plastic material, comprising a stationary extrusion head member having a conical central opening, an extrusion nozzle rotatably disposed within said opening of said extrusion head member, said extrusion nozzle being co-axial with said head-member opening and having a conical surface complementary to, and sealingly engageable with said conical opening of said head member, drive means for rotating said nozzle, said nozzle being axially and radially displaceable relative to said head member, spring means for urging said extrusion nozzle against said conical opening of said head member so that a sealing is effected between said head member and said extrusion nozzle during rotation of said nozzle, said extrusion nozzle having an axial extrusion orifice, and a plurality of separate channel means interconnecting said head member and said nozzle orifice for supplying plastic material to be extruded.

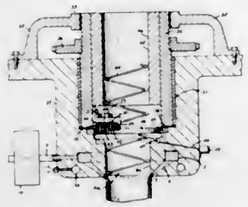
2,779,971

APPARATUS FOR PRODUCING REINFORCED TUBING

Carl A. Castellan, Delaware County, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Original application April 14, 1953, Serial No. 348,673, now Patent No. 2,730,761, dated January 17, 1956. Divided and this application July 12, 1955, Serial No. 523,909
2 Claims. (Cl. 18—13)

1. Apparatus for producing reinforced tubing comprising an extrusion device, an internal wall in the device defining a channel for receiving and guiding a coiled reinforcement element through the device, a discharge orifice extending circumferentially of the wall, rotary means adjacent the wall for positively gripping the element, a rotatable support for the rotary means, means for rotating the support about the axis of the



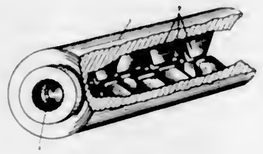
channel, and means for driving the rotary means to feed the element therethrough at a rate substantially equal to the rate of rotation of the point of engagement between the element and the rotary means about the axis of the channel divided by the sine of the helix angle.

2,779,972

PRESSURE VESSEL

Georg Heinrich Kins, Hainstadt (Main), Kreis Offenbach, Germany

Application September 9, 1953, Serial No. 379,272
Claims priority, application Germany September 10, 1952
9 Claims. (Cl. 18—30)



1. In an apparatus for heating a poor heat-conducting material, such as natural and synthetic plastics, in a flowing condition under pressure, and comprising an elongated heating chamber with inlet and outlet means for the material at opposite ends of the chamber: a plurality of parallel chordal ribs projecting substantially to the center of the chamber from opposite walls thereof, the ribs extending in a longitudinal direction and the ribs projecting from one wall being laterally off-set in relation to the ribs projecting from the opposite wall, all of the ribs having longitudinally spaced recesses, the recesses in adjacent ribs being longitudinally off-set from each other, whereby the interior of the chamber is divided into a plurality of channels formed by laterally and longitudinally staggered protuberances projecting from the opposite walls of the heating chamber.

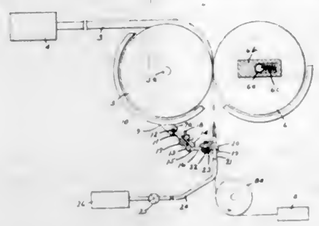
2,779,973

METHOD AND APPARATUS FOR FORMING CONTINUOUS STRIPS OF SHEET MATERIAL FROM TUBING

James L. Holdaway and Seddon C. Nelson, Fredericksburg, Va., assignors to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Application December 24, 1952, Serial No. 327,808
4 Claims. (Cl. 18—47.5)

1. A method of manufacturing a continuous strip of sheet material comprising continuously forming a tubular product of a film-forming material, flattening the tubular product, slitting the flattened tubular product along an edge thereof by passing the flattened faces over opposite sides of a blunt instrument projecting through said edge



between said faces, and maintaining the area of the tubular product which is being slit moist.

2,779,974

PREPARATION OF HIGHLY POLYMERIC MATERIAL IN A FORM SUITABLE FOR TRANSPORT

Joseph Billing and Cyril Bostock, Spondon, near Derby, England, assignor to British Celanese Limited, a corporation of Great Britain

No Drawing. Application August 20, 1952, Serial No. 305,496
Claims priority, application Great Britain September 5, 1951
7 Claims. (Cl. 18—47.5)

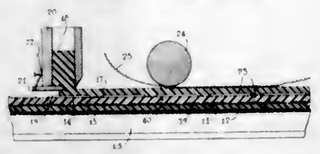
1. Process for converting particulate cellulose acetate of bulk density below 30 lb. per cubic foot into a form more suitable for transport, which comprises compressing the cellulose acetate, while it is free from solvents and softening agents and at a temperature below its thermal softening temperature, into a block having a density between 50% and 75% of the true density of the cellulose acetate, applying a volatile solvent for the cellulose acetate to the surfaces of the block, allowing the solvent to penetrate the block to a depth of 0.005–0.1 inch, and then removing the solvent by evaporation, thereby forming on the block a continuous skin of thickness between 0.005 and 0.1 inch to thus produce a block which is resistant to the ordinary disruptive forces attending transport but which can be readily broken down by impact attrition in a hammer mill or like device.

2,779,975

METHODS FOR MAKING COMPOSITE ELECTRIC CIRCUIT COMPONENTS

Pyungtoo W. Lee, York, Pa., and Barton L. Weller, Easton, Conn., assignors to Vitramon Incorporated, Stepney, Conn.

Application January 19, 1955, Serial No. 482,852
18 Claims. (Cl. 18—47.5)



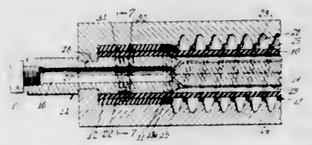
13. The method of building an electrical capacitor of the type comprising a plurality of fired vitreous enamel dielectric layers separating fired silver electrode layers which comprises, building up on a support a plurality of superimposed layers of particles of vitreous enamel dielectric material and powdered silver, each suspended in liquid vehicles, each layer of said vitreous enamel being sufficient in extent to serve for a number of capacitor units, removing a portion of the liquid vehicle from each vitreous enamel layer after it is laid down to form a hard immobile layer of particles of vitreous enamel having the interstices between said particles filled with said liquid vehicle and free of occluded gases, each layer of said metallic silver being applied in the form of a pattern providing electrode areas for a number of capacitors and interconnections between electrodes within individual units and terminals at the edges of the capacitor units, allowing the liquid vehicle content of said layer of metallic silver suspension to migrate into and come to equilibrium with the liquid vehicle content of the preceding vitreous enamel layer, continuing this process to build up alternate layers of vitreous enamel and layers of metallic silver until the required number of silver layers separated by vitreous enamel layers has been built-up, cutting the structure apart directly through the layers thereof to provide a number of capacitor units and then firing the resulting individual capacitor units cut-off from the main body to provide unitary monolithic electrical capacitors.

2,779,976

METHOD OF MAKING HOSE

Fred Thomas Roberts and Robert E. Roberts, Wilton, Conn.

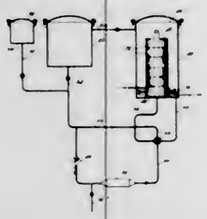
Application April 4, 1956, Serial No. 576,055
6 Claims. (Cl. 18—56)



1. The method of making a reenforced corrugated hose comprising the steps of positioning a tubular hose body of elastomeric material on a mandrel having cylindrical portions at the ends thereof equal to the internal diameter of the body and adapted to form the attaching portion of the hose, inserting the mandrel and elastomeric body into a helical reenforcing member with the reenforcement extending between the cylindrical portions of the mandrel and having the end coils thereof secured to the body overlying the end of the cylindrical portion, the coils of the reenforcing member having an internal diameter equal to the outer diameter of the body, placing the mandrel having the body and reenforcing member thereon in a grooved molding cavity with the intermediate coils of the reenforcing member disposed between the grooves, applying fluid pressure to the interior of the hose to cause the hose to expand and engage the reenforcing member and the surface of the mold, and applying heat to the mold and causing the body to be secured to the reenforcing member and the body to retain the grooved shape imparted thereto by the grooves of the mold cavity.

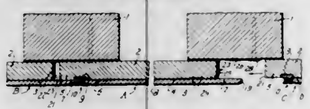
3. The method of making a hose comprising the steps of positioning a tubular hose body of elastomeric material on a mandrel having cylindrical portions at the ends thereof and adapted to form the attaching portion of the hose, expanding coiled spring clamps terminating in projecting arms and placing the expanded clamps around each end of the body overlying the cylindrical portions of the mandrel, applying a layer of elastomeric material around the body having the clamp thereon overlying the cylindrical portions of the mandrel with the projecting arms extending therefrom, the clamp being maintained in expanded condition, placing the mandrel having the hose and clamps thereon into a mold and molding the hose, removing the hose from the mold and returning the clamp to unexpanded relation wherein the attaching portion of the body within the coils of the clamp is compressed.

2,779,977
FLUID TREATMENT OF TEXTILES FIBERS
Robert C. Wilkie, Andover, Mass., assignor to Pacific Mills, Lawrence, Mass., a corporation of Massachusetts
Application June 4, 1953, Serial No. 359,602
6 Claims. (Cl. 19—66)



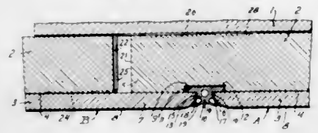
1. The method of liquid treating textile fibers which comprises providing a plurality of compressed packages consisting of textile fibers modified by treatment by heating and cooling under compression, each package being cylindrical in shape with flat ends at right angles to the axis of the cylinder and having an open-ended axial passageway therethrough, the volume-to-weight ratio of the package being less than two-fifths that of an uncompressed package of the same fibers, said fibers being, as a result of the heating and cooling treatment, set, in a dead and dormant condition characterized by a lack of their normal springiness, whereby the package has the property of remaining, under normal atmospheric conditions and when wet, in its compressed state, and the fibers are well adapted, without ageing, for yarn forming operations, stacking a plurality of the packages with their axial passageways aligned and with the flat end surfaces of adjacent packages in contact, and passing a liquid treating materi under pressure through said passageways and radially .hrough the packages.

2,779,978
WALL UNIT FASTENING
Ronald R. Sundelin, Roslyn Harbor, and Harry Feder, New York, N. Y., assignors to Barclay Manufacturing Co., Inc., Bronx, N. Y., a corporation of New York
Application March 16, 1953, Serial No. 342,385
2 Claims. (Cl. 20—15)



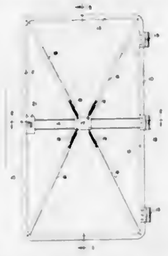
1. A wall construction comprising a wall supporting means, a series of wall units each having a rigid body member and a facing sheet member adhesively secured to one another, said members having substantially the same width and said body member having a projection beyond the facing sheet along one edge of the unit and the facing sheet having a projection beyond the body member along the opposite edge of the unit, the inner surface of said facing sheet extension being parallel to the rear surface of said body member, the body member projection of a succeeding unit being disposed beneath the facing sheet projection of a previous unit, and means for attaching the body member of said previous unit to said wall supporting means comprising a series of metal clip members each having a mid-section with toothed and shank portions projecting in opposite directions from the respective ends of said mid-section and at right angles thereto, said clip members being disposed in spaced relation with their mid-sections between the edges of the body members of said units, the toothed portions of said clip members penetrating the edge of said previous unit and their shank portions extending beneath the body member of said succeeding unit in contact therewith and with the surface of said wall supporting means, said shank portions being attached to said wall supporting means, and said shank portions being of flexible resilient material biased to curved form so as to produce a continuing pressure of the body member of said succeeding unit against the facing sheet projection of said previous unit.

2,779,979
WALL AND WALL UNIT CONSTRUCTION
Ronald R. Sundelin, Roslyn Harbor, and Harry Feder, New York, N. Y., assignors to Barclay Manufacturing Co., Inc., Bronx, N. Y., a corporation of New York
Application March 16, 1953, Serial No. 342,384
6 Claims. (Cl. 20—15)



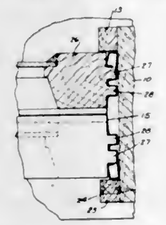
1. As an article of manufacture, a wall unit comprising a rectangular panel member and a superposed facing sheet member substantially coextensive in area with said panel member, the contacting surfaces of said members being adhesively secured together, said panel member projecting beyond said facing sheet member along one edge of the unit and the facing sheet extending beyond the panel member along the opposite edge of the unit, said panel member having a recess in the outer surface thereof on the same side as the facing sheet member and extending along the edge of the facing sheet, and a molding secured within said recess, said molding having an outwardly projecting continuous rib section of yielding resilient material, one side of said rib section engaging the edge of said facing sheet member.

2,779,980
DOOR BRACE
Herbert C. Rhodes, Portland, Oreg.
Application December 21, 1954, Serial No. 476,682
2 Claims. (Cl. 20—38)



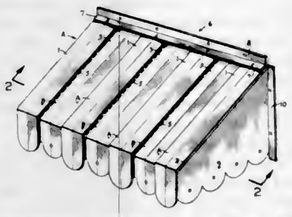
1. In a refrigerator door assembly of the character described, having an outer rectangular flexible shell of pan-like shape terminating along all four sides in an inwardly extending flange adapted normally to lie in a vertical plane coinciding with the plane of the front wall of the refrigerator when said door is closed, a rigid bridge extending horizontally substantially centrally across the inside of said flexible shell, the ends of said bridge rigidly secured to the opposite side edges of said shell respectively, the major portion of said bridge spaced in an outward direction from said flange plane, and a tensioning tie assembly extending from each corner of said shell to the central portion of said bridge, said assemblies secured at one end to said flange at the corners of said shell respectively and separately connected at their other ends with the central portion of said bridge, each of said assemblies including a tie member and an expansion spring under tension, whereby said assemblies will exert a tendency to pull the respective corners of said shell independently slightly inwardly and thereby cause the corners of said refrigerator door automatically to bear firmly against the front wall of the refrigerator when said door is brought into closed position against the vertical front wall of the refrigerator.

2,779,981
WINDOW CONSTRUCTION AND GUIDE THEREFOR
Frank Di Vito, Detroit, Mich.
Application July 12, 1952, Serial No. 298,550
3 Claims. (Cl. 20—52.4)



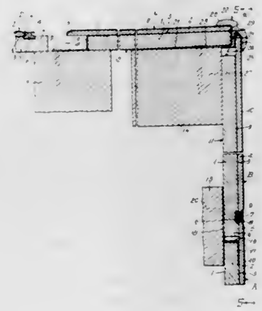
1. A one-piece resilient window guide having two tracks formed thereon, each track being adapted to contact sealingly and frictionally for support only one of the two end edges of each of two window sections for sliding therein, each of said sections having wooden end edges including two spaced beads, said guide having uniform cross section throughout its entire length, said cross section comprising an arcuate base having width smaller than the window recess for which it is intended, an arcuate bead formed intermediate the extremities of said base and adapted to be disposed between the beads of the window sections, two resilient angular ends adapted to include said beads between them and to be partially deflected towards said base by the window sections.

2,779,982
AWNING
Gus O. Hollis, Oklahoma City, Okla.
Application April 13, 1953, Serial No. 348,282
2 Claims. (Cl. 20—57.5)



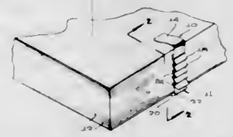
1. A canopy-type metal awning, including: an inclined roof, said roof comprising a pair of elongate lower channel members having their co-extensive flanged edges disposed upwardly in substantially equal spaced-apart relation, each said lower channel member having a central longitudinally extending corrugation rib forming, in co-operation with the flanged edges, a valley on each side of each said lower channel member, the flanged edges of each said channel member having a plurality of elongate through-slots longitudinally disposed between the upper and lower limit of the flanged edge; and a correspondingly elongate upper channel member inverted with respect to said lower channel members for bridging the space therebetween, the downwardly disposed flanged edges of said upper channel member overlapping the adjacent upwardly flanged edges of said lower channel members in co-extensive side by side relation, the lower edge of said downwardly flanged edges extending only to the longitudinal upper limit of said elongate slots permitting circulation of air therethrough, and whereby said valleys handle drainage material off the lower channel members.

2,779,983
WALL CORNER MOLDING
Ronald R. Sundelin, Roslyn Harbor, and Harry Feder, New York, N. Y., assignors to Barclay Manufacturing Co., Inc., Bronx, N. Y., a corporation of New York
Application March 16, 1953, Serial No. 342,386
4 Claims. (Cl. 20—74)



3. A corner wall construction comprising wall supporting means, two wall units of the same thickness mounted on said supporting means at right angles to each other and having their edges in proximity to one another and forming a corner, one of said units having a projecting outer face portion overhanging the body portion thereof, a corner molding disposed between the proximate edges of said wall units, said molding having a base member attached to said wall supporting means, a shank portion extending along one edge of the base member at right angles thereto, and two wing portions projecting oppositely from said shank portion, one of said wing portions being generally parallel with said shank and forming therewith a recess, said projecting face portion of one of said units being received therein, and the second of said wing portions projecting generally parallel with said base member and forming therewith a second recess for receiving the entire thickness of the second of said wall units.

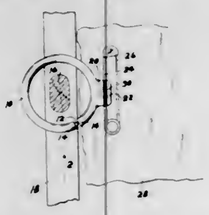
2,779,984
CLIP
Moses C. Bourgeois, Sidney, N. Y.
Application September 2, 1955, Serial No. 532,232
4 Claims. (Cl. 24—66)



1. In a clip, a pair of sections each comprising a longitudinally bowed jaw having a free end and another end, an elongated spring leg secured at one end to said other end of each jaw at an angle to the jaw, the legs of the

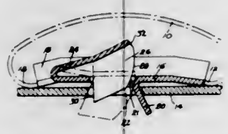
sections having a free end, said legs being in overlapping relation to each other and having facing sides, longitudinally spaced teeth on each of said facing sides, the teeth on one leg being oppositely angulated relative to the teeth on the other leg, selected teeth on the two legs being interengaged.

2,779,985
FLOATING HOLDER FOR BLANKETS
Ilse F. Turner and Robert E. Turner, Leominster, Mass.
Application April 23, 1954, Serial No. 425,265
1 Claim. (Cl. 24—72.5)



A baby blanket holder for crib use comprising in combination with a blanket securing safety pin a plastic ring having faces lying in substantially parallel planes and having a discontinuity in the ring permitting opening said ring to clasp about a fixed crib frame member such as a crib post, an integral extension having faces substantially parallel with the faces of the ring and having a slot in one face thereof receiving the back bar of the safety pin, said back bar extending substantially in the plane of the ring, said slot being partially closed by a lip projecting into the slot and providing an entrance to the pin receiving portion of the slot of less width than the diameter of the back bar of said pin, whereby accidental removal of the pin from the ring is prevented.

2,779,986
FASTENER
Norbert Bylski, Redford, Mich., assignor to Robert L. Brown, Ferndale, Mich.
Application January 4, 1955, Serial No. 479,700
2 Claims. (Cl. 24—73)

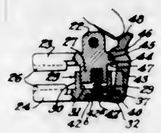


1. A fastener comprising a sheet metal body for application to one side of an apertured panel, a tongue stamped from the central portion of said body and integral at one therewith forming an opening therethrough and having its free end bent out of the plane at an acute angle to the plane of said body providing a hook for engaging an edge of the aperture in said panel, a tab integral at one end with said body portion bent back upon said body with its free end extending over the opening formed by the stamped tongue and initially in a plane inclined to the plane of said body, and a flange carried by the free end of said tab which is perpendicular to the plane of said tab projecting toward the opening formed by the stamped tongue, said flange being of progressively increasing width toward said tab for pressure engagement with said tongue and the opposite edge of the aperture in said panel when said tab is bent from its initial inclined plane to a position approaching a parallel position with the plane of said body.

2,779,987
CLASP
Thomas E. Jordan, Pawtucket, R. I., assignor to Fulford Manufacturing Company, a corporation of Rhode Island
Application September 15, 1953, Serial No. 380,283
1 Claim. (Cl. 24—153)

A clasp for securing sheaves of material together comprising a one-piece generally U-shaped member of sheet strip material having a base in one plane and upstanding arms twisted through 90° from the base and extending at right angles to the base, the upstanding arms of said member having serrations along the facing edges thereof and being movable away from each other due to the inherent resiliency of the one-piece stock, a rigid keeper of U-shape cross section having apertures in the bridging part of the U section for registry with said arms, a portion of said apertures having edges for engagement with said serrations, whereby said arms may flex to engage and disengage said keeper.

2,779,988
RELEASABLE SLIDERS FOR SLIDE FASTENERS
Henry A. Simpson, Oviedo, Fla., assignor, by mesne assignments, to Talon, Inc., a corporation of Pennsylvania
Application August 27, 1952, Serial No. 306,549
19 Claims. (Cl. 24—205.15)

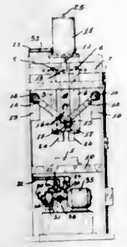


17. A slider for slide fasteners of the class described, comprising overlying spaced wings, means connecting said wings together at one end thereof so as to be movable relative to one another, said connecting means including an inwardly extending portion carried by one of said wings which cooperates with and engages a corresponding inwardly extending portion carried by the other of said wings so as to provide substantially a Y-shaped channel between said wings, an arm-like member having one end thereof pivotally attached to one of said wing members adjacent said interengaging portions, and disposed in a plane perpendicular to said wings, a shoulder arranged on the other of said wing members adjacent the opposite end of said arm-like member, said arm-like member having a shoulder carried thereby which co-operates with said last mentioned shoulder carried by said other wing member so as to maintain said wings in their proper spaced operating relation.

2,779,989
POTTERY PRESS
Chester P. Rumberger, Canonsburg, Pa., assignor to Elmer W. Thompson, Canonsburg, Pa.
Application February 11, 1952, Serial No. 271,004
2 Claims. (Cl. 25—27)

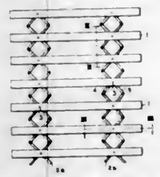
1. A hydraulic press for pressing pottery ware in the shape of cups and the like, comprising a stationary die having an upstanding central core portion surrounded by a key hole shaped cavity, a movable split die comprising

two semi-circular die halves having radial extensions, which halves when closed together fit into said cavity, said split dies having extensions with registering holes



extending laterally therethrough for forming the handle of the cup and hydraulic means for moving said split die halves into the cavity of said stationary die.

2,779,990
SUPPORTING STRUCTURE FOR A MOULD FOR A CONCRETE STRUCTURE
Cornelis van den Bos, Rotterdam-Schiebroek, Netherlands
Application April 1, 1952, Serial No. 279,745
Claims priority, application Netherlands April 7, 1951
4 Claims. (Cl. 25—131.5)



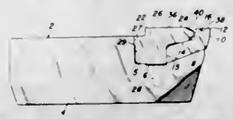
1. A supporting structure for poured concrete moulds; said structure comprising a series of spaced apart elongated bars extending laterally in the structure, and at least two laterally spaced independent lazy-tong elements extending longitudinally in the structure, each of said lazy-tong elements including sets of crossing members, and pivots connecting together said crossing members of each lazy-tong element at their opposite ends and at their intersections, the pivots of said crossing members at said intersections being also pivotally connected to said bars so that said bars are supported solely by said lazy-tong elements and can be moved toward and away from each other to vary the longitudinal dimension of the structure while maintaining a constant lateral dimension and so that the bars can be angularly displaced relative to each other to give said structure a fan-like configuration.

2,779,991
FOLDING REED HOOK
Henry W. Bolick, Sr., Burlington, N. C.
Application April 12, 1954, Serial No. 422,386
3 Claims. (Cl. 28—45)

1. A folding reed hook comprising a hollow handle, a blade, means mounting said blade for longitudinal movement into and out of said handle into retracted and extended positions respectively, means on said blade adjacent one end for retaining the blade in extended position, said blade being provided with a hook portion adjacent its other end, and a cover member adapted to be positioned on said handle in overlying position to said hook portion when the blade is in retracted position in said handle, said handle being closed at one end and open at its other end, said handle having a portion thereof tapering toward said open end, said blade being formed of a flat elongated member having said hook portion integrally formed at one end thereof, the other end of said blade being enlarged and coacting with said tapering

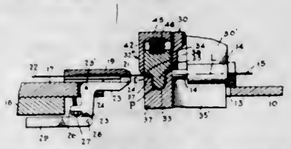
portion so as to be prevented from movement through said open end.

2,779,992
CUTTING TOOL WITH REMOVABLE BIT
Loren A. Hayes, Elyria, Ohio, assignor to United States Steel Corporation, a corporation of New Jersey
Application April 14, 1954, Serial No. 423,017
4 Claims. (Cl. 29—96)



1. A cutting tool comprising a shank, a bit supporting surface at one end of the shank extending upwardly at an acute angle to the longitudinal axis of the shank toward the end of the shank, a cutting bit disposed on said supporting surface, matching serrations on the contacting surfaces of said cutting bit and shank having their grooves extending longitudinally of the shank, a clamping member removably mounted on said shank with a projecting portion thereof engaging the top of said cutting bit to lock the same in position, the contacting surfaces of said clamping member and cutting bit being arranged at an angle of inclination less than that of the bit supporting surface, a raised portion on the bottom of the projecting portion of said clamping member adjacent each side of its bit bearing surface, a raised central portion on the bottom of said clamping member adjacent the edge thereof remote from said cutting bit, and means for mounting said clamping member on said shank.

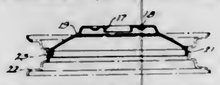
2,779,993
METHOD OF PRODUCING A DIODE ELEMENT
Albert F. Pityo, Paterson, N. J.
Application August 17, 1953, Serial No. 374,502
13 Claims. (Cl. 29—155.5)



1. The method of forming a diode element, comprising holding an anode element in a selected position, moving the wire longitudinally in a fixed line of feed toward the anode element and bringing the wire into contact with the anode element and pressing the wire against the anode element and welding the wire to the anode ele-

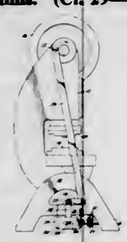
ment to form a welded joint, forming a laterally extending portion in said wire and paying out the wire from its end remote from the welded joint, then severing the wire at a point remote from welded joint and holding the severed end of the laterally extending portion in substantial alignment with the center of the anode element.

2,779,994
WHEEL DISK AND METHOD OF MANUFACTURE
James A. McIntosh, Detroit, Mich., assignor to McIntosh Stamping Corporation, Detroit, Mich., a corporation of Michigan
Application July 6, 1954, Serial No. 441,348
6 Claims. (Cl. 29—159.01)



1. A method of manufacturing a wheel disk comprising the steps of forming a square blank having a diagonal length slightly larger than the required final diameter of the disk, drawing out four separate sections of the blank which extend inwardly from the sides thereof, whereby the areas of the drawn sections are increased in a direction away from the blank center, the undrawn portions of the blank forming a cross-shaped section between the drawn sections, bending back said drawn sections into alignment with said undrawn section and forming a continuous annular rim of said required diameter on the blank.

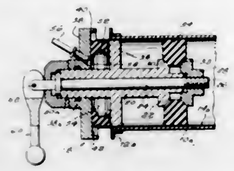
2,779,995
APPARATUS FOR FORMING FINNED TUBING
Charles L. Moorman, Millington, Ill., assignor to Union Asbestos & Rubber Company, Chicago, Ill., a corporation of Illinois
Application May 17, 1954, Serial No. 430,091
5 Claims. (Cl. 29—202)



1. In apparatus for forming finned tubing, means for guiding fin plates having central flanged openings therein downward edgewise to a feeding station, means to support an elongated mandrel in horizontal alignment with the flanged opening in a fin plate at the feeding station, a reciprocable feeding head movable horizontally toward the mandrel to engage a fin plate at the feeding station and force it onto the mandrel, the head lying beneath the guiding means when it is moved toward the mandrel whereby a fin plate delivered by the guiding means will strike the head and be prevented thereby from moving to the feeding station, and means to reciprocate the head in timed relation to supply of fin plates by the guiding means to the feeding station.

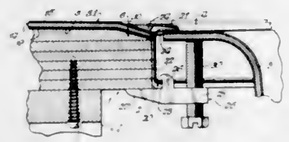
2,779,996
TOOL FOR INSTALLING TUBE LINERS
Henry Tanis, Hatfield, Pa., assignor to Greene, Tweed & Co., North Wales, Pa., a corporation of New York
Application January 6, 1954, Serial No. 402,548
12 Claims. (Cl. 29—235)

1. A tool of the described character for turning back the end portion of a tubular liner onto the flanged end of a pipe section receiving the liner; said tool comprising first and second resilient rings mounted in axially spaced apart and aligned relationship, means for radially expanding said first ring within the pipe section into firm contact with the liner at a position locating said second ring within an end portion of the liner projecting from



the pipe section, means for radially expanding said second ring so that the latter flares-out the projecting end portion of the liner against the adjacent flanged end of the pipe section, and means directing a flow of compressed air past said second ring and against the flared-out end portion of the liner to assist in turning back said flared-out end portion onto the flanged end of the pipe section.

2,779,997
METHOD OF MANUFACTURING COMPOSITE SINK TOPS
Philip K. Borman, Chicago, Ill., assignor to General Electric Company, a corporation of New York
Application October 29, 1953, Serial No. 389,113
2 Claims. (Cl. 29—458)

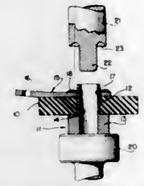


1. The method of manufacturing composite sink tops, which includes the steps of forming a non-metallic, rigid base panel with an opening to receive a sink bowl and chamfering the portion of said panel bounding said opening to provide a wall portion sloping toward said opening at an angle of from 15° to 20° from the horizontal, forming a relatively thin metallic sheet having a shape and area equal to that of the base panel with a substantially imperforate depressed portion characterized by a continuous, downwardly sloping, strip equal in area and identical in shape to said chamfered portion of said base panel, vitreous enamelling said metallic sheet throughout its entire area, adhesively securing the vitreous enamelled metallic sheet in intimate relation to the upper surface of said base panel with the downwardly sloping strip portion of said metallic sheet in contact with and adhesively secured to the chamfered portion of said base panel, and, finally, removing the area of said metallic sheet defined by the edge of the sink-bowl receiving opening of said base panel.

2,779,998
METHOD OF FORMING A MECHANICAL AND ELECTRICAL CONNECTION
Donald S. Bailey, Highway Highlands, Calif., assignor to Lockheed Aircraft Corporation, Burbank, Calif.
Application January 30, 1952, Serial No. 269,093
2 Claims. (Cl. 29—470.3)

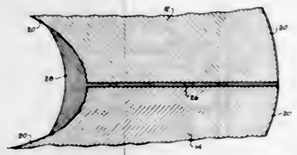
1. The method of forming a mechanical and electrical connection between a first part having a solder-coated surface and having an opening therethrough and a second part having a tubular portion protruding through said opening which comprises spinning said tubular portion into the from of a flange which has its peripheral edge

cutting into the solder coating on said surface and which edge faces in a general direction reverse to that direction the peripheral edge faced prior to spinning; and simultaneously heating the flange to melt the solder on said surface to fuse the same with the flange by advancing a spinning tool against said tubular portion



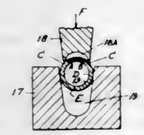
while holding the parts against relative movement and while rotating said tool at a sufficiently high speed to generate frictional heat in the flange to melt the solder as the flange is spun against said solder-coated surface, and upon melting of said solder, ceasing the spinning operation, whereupon the solder cools and sets up to bond said first part to said second part.

2,779,999
METHOD OF COPPER BRAZING
Willard M. Boam, Fairlawn, and Herman H. Hanink, Ridgewood, N. J., assignors to Curtiss-Wright Corporation, a corporation of Delaware
Application January 4, 1952, Serial No. 264,862
3 Claims. (Cl. 29—498)



1. The method of fabricating a structure from a plurality of steel parts containing 0.5 to 5.0 percent chromium, said method comprising the steps of first plating the entire surface of each of said parts with nickel to a thickness of 0.0002 inch to 0.0005 inch; disposing portions of the nickel plated surfaces of said parts in substantially abutting relation with a clearance therebetween of approximately 0.001 inch; and then copper brazing said surface portions together at a temperature of at least 2000° F.

2,780,000
METHOD OF THICKENING TUBE WALL
André Huet, Paris, France, assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware
Application July 16, 1951, Serial No. 237,014
1 Claim. (Cl. 29—534)



The method of fabrication of a cylindrical tube with inside circular sections showing on a certain length and on a certain sector of its periphery an extra-thickness, obtained by heating the tube and conformation of this latter in suitable matrices, characterized by; providing a tube of uniform thickness and of the same internal diameter as the tube finally to be obtained; submitting the length of the tube to be treated to a compression in the axial sense so as to create a hollow circumferential bulge and increase the inside diameter of the tube without increasing its thickness; heating longitudinally the length of the tube treated at the sector where an extra-thickness is to be obtained; and, without employing a mandrel or internal support, compressing that portion of the empty tube treated between two matrices acting from outside to oblige the tube sector that remained cold, to exert on the heated sector a compression decreasing the diameter of the empty tube bringing it back to its original internal diameter, and creating at the same time an extra wall thickness in the sector which is heated.

2,780,001
COMBINATION CUTTER AND ATTACHMENT
Andrew J. Altmann, Washington, D. C.
Application November 26, 1954, Serial No. 471,404
8 Claims. (Cl. 30—132)

1. In combination with a hedge cutter having reciprocating cutting blades, a sweep comprising a light-weight single sheet of material having a mounting portion provided with an aperture adjacent one end thereof and a clip portion at the other end thereof, said mounting portion being secured at one end to the cutter by a fastener extending through the aperture and by the clip portion clamping the cutter at the other end.

2,780,002
DENTAL TEACHING AID
Charles R. Shea, Johnstown, Pa., and John V. Niiranen, Bethesda, Md.
Application February 7, 1956, Serial No. 564,086
7 Claims. (Cl. 32—71)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. An article of manufacture comprising a unit including an artificial mouth, an artificial mandibular mucous membrane secured to said mouth, a box of such size as to fit in an extended portion of said mouth and under said membrane, and a tooth encased in plaster in said box so as to make a unified component which is locked in said extended portion of said mouth.

2,780,003
MAKING INDIVIDUAL DRESS PATTERNS AND FORMS
Esther Cloward, White Plains, N. Y.
Application December 18, 1952, Serial No. 326,631
15 Claims. (Cl. 33—16)

1. A universal framework for an individually shaped dress form comprising a two-piece waist-encircling strip, a pair of vertical strips depending from adjacent ends of said pieces, and a two-piece hip-encircling strip, each of

said hip-strip pieces extending from one of said vertical strips in the same general direction as and vertically spaced from said waist-strip pieces, adjustable length securing means at the free ends of said waist-strip and hip-strip pieces for adjustably securing together the free ends of said respective strips so as to cause them to snugly

encircle the waist and hips respectively of a body, and separable securing devices along said vertical strips, whereby said framework, in two sections each defined by a vertical strip with attached waist- and hip-strip pieces, may be releasably secured in place around the body and removed therefrom without altering the setting of said adjustable length securing means.

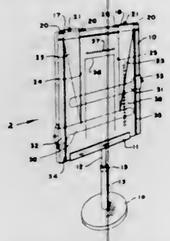
2,780,004

MEANS FOR MEASURING FACIAL PROPORTIONS

Meyer Rosenbaum, Detroit, Mich., assignor to Facial Graph Corporation, Detroit, Mich., a corporation of Michigan

Application March 25, 1954, Serial No. 418,645

5 Claims. (Cl. 33—174)



1. A device for measuring facial proportions comprising a transparent sight panel slidably mounted in a vertical plane upon a movable stand, a pair of vertical straight edges slidably mounted upon said panel and each adapted to be aligned with a side of the face to be measured, a pair of horizontal straight edges sildably mounted upon said panel and each adapted to be so positioned as to set off a horizontal portion of said face, guide means upon said panel whereby said panel may be vertically aligned with said face, and indicia upon said panel to indicate the spacing between each of said straight edges.

2,780,005

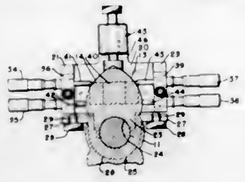
GAUGE FOR ROTOR THREAD PROFILE

William E. Finney and Norris H. Whisler, York, Pa., assignors, by mesne assignments, to Capitol Products Corporation, Mechanicsburg, Pa., a corporation of Pennsylvania

Application February 23, 1955, Serial No. 489,869

6 Claims. (Cl. 33—174)

1. Means for measuring the deviation of the flank profiles of the thread of a helical rotor from a known desired profile, a shaft on which the rotor is adapted to be mounted, a gauge having a body, the base of said body having means for mounting said gauge on said shaft in axially spaced relation with respect to said rotor for rotary movement about the axis of said shaft, spaced wings extending from the respective sides of said body straddling the flanks of a rotor thread, micrometers supported by said wings and extending toward each other to engage the respective flanks of said rotor thread, a support member carried by the top of said gauge body overhanging the end of said rotor thread, a stem slidably and rotatably mounted in a bore in said support member,



and an inverted V-block carried by the lower end of said stem for engagement with said rotor thread at its crest for rotatively positioning the gauge in predetermined relation with respect to said rotor thread.

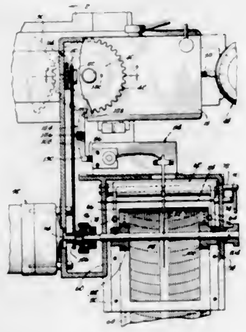
2,780,006

FLEXIBLE MECHANICAL RECORDER

Henry J. Flair, Chicago, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois

Application February 23, 1954, Serial No. 411,743

3 Claims. (Cl. 33—179.5)



1. A detachable recording attachment for a handrolling gear testing machine having a base, slide member operatively supported on said base, a second member supported on said base, and means on said members for rotatably supporting a master gear and a work piece gear for meshing engagement, said slide member and the gear thereon being movable relative to the other gear in accordance with any inaccuracies in the workpiece gear, said recording attachment comprising support means, said support means including a portion adapted to be positioned between said members of a handrolling gear testing machine, said support means portion having means for removable attachment to the base of a handrolling gear testing machine, means for mounting a supply of paper on said support means, a marking instrument carried by said support means, means carried by said support means for engaging said slide member and for actuating said marking instrument to record results of a gear testing operation on said paper, a drive gear carried by said slide member and rigidly connected with said gear rotatably carried by said slide member, and means mounted on said support means for driving said master and work piece gears and for feeding said paper in timed relationship, said last named means including a gear meshing with said drive gear in all positions of the slide member while a work piece is being checked.

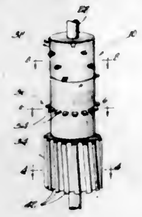
2,780,007

MASTER GEAR

Henry Pomernacki, Chicago, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois

Application October 12, 1954, Serial No. 461,761

4 Claims. (Cl. 33—179.5)



1. A master gear comprising elongated body means, a plurality of circumferentially spaced helical tooth elements on said body means for meshing with a workpiece gear, each of said helical tooth elements having its addendum substantially removed, its dedendum recessed and a band-like workpiece engaging surface which is narrow generally radially of the master gear and which extends generally longitudinally of the master gear for checking the lead condition of the workpiece gear, a plurality of additional tooth elements circumferentially spaced on said body means and axially spaced from said first mentioned tooth elements, each of said second mentioned tooth elements having a narrow band-like workpiece engaging face with an axial length substantially less than the axial length of workpiece teeth for checking the profile of said workpiece teeth, and additional tooth elements circumferentially spaced on said body means and axially spaced from said first and second mentioned tooth elements, each of said third mentioned tooth elements having a narrow band-like workpiece engaging face with an axial length substantially less than the axial length of workpiece teeth, said third mentioned tooth elements being helically arranged for checking possible tapering and off-parallel condition of the workpiece teeth.

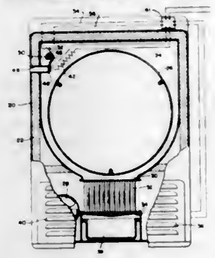
2,780,008

DOMESTIC APPLIANCE

Carl A. Stickel, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application September 25, 1953, Serial No. 382,235

4 Claims. (Cl. 34—54)



1. A laundry dryer including a cabinet having a drum casing, a rotatable clothes drum within said casing, heating means for said casing, a condenser having a first set of passages communicating at one end with said casing and a second set of passages separated from but in heat transfer relationship with said first set, an air circulating arrangement comprising fluid inlet means for said casing and fluid outlet means for the second end of said first set of passages, said cabinet having second inlet means communicating with one end of said second set of passages and second outlet means communicating with the other ends of both the first and second sets of passages of said condenser, fan means for drawing air from said other ends of both the first and second sets of passages of said condenser, said air circulating arrangement being provided with normally closed valve means for stopping the flow of fluid, driving means for said drum and fan means, and control means provided with power operating means for opening said valve means after the driving means and heater have operated for a period and the clothes in the drum are partially dried.

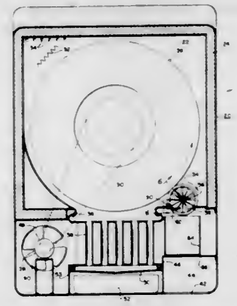
2,780,009

DOMESTIC APPLIANCE

Carl A. Stickel, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application September 25, 1953, Serial No. 382,291

3 Claims. (Cl. 34—76)



1. A laundry dryer including a cabinet provided with a drum casing, said casing having an inlet and an outlet, a rotatable drum in said casing, a lint collector within said cabinet outside of said drum casing, connected to said outlet, means for rotating said drum and for circulating air through said inlet and said drum casing and drum and said outlet and said lint collector, means for heating said air, an electrostatic generating means located in said drum casing outside of but adjacent to said rotatable drum for attracting lint, storage means for lint connected to said drum casing and located in said cabinet, and means for operating said electrostatic means and removing the attracted lint and depositing the attracted lint in said storage means.

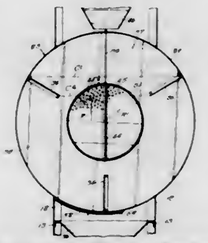
2,780,010

ROTARY DRIER

Bryce M. Hess, Chicago, Ill.

Application October 8, 1953, Serial No. 384,871

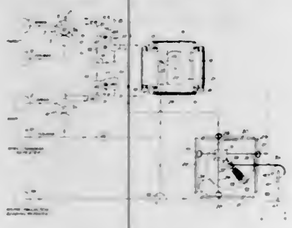
13 Claims. (Cl. 34—109)



1. A rotary drier comprising: a horizontally disposed cylindrical drum having a foraminous side wall, one solid circular end plate and one solid annular end plate; a foraminous air tube extending through said drum with one end supported on said annular end plate and the other on said circular end plate so that the air tube has

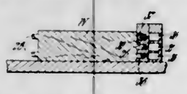
an open end and a closed end, the space between the side wall and the air tube forming a drying chamber; a plurality of longitudinal, radially extending baffles secured to the drum with their inner ends spaced from the air tube; a solid transverse partition dividing the drying chamber into two parts; movable baffle means in the air tube including a perforate baffle and a solid baffle, said baffles being movable to position either one transversely of the air tube in line with said transverse partition; means for blowing hot gases into the open end of said air tube; and means for rotating said drum.

2,780,011
SHIPBOARD TRAINING DEVICE
Firth Pierce and George A. Brettell, Jr., La Jolla, Calif., assignors to the United States of America as represented by the Secretary of the Navy
Application June 28, 1944, Serial No. 542,504
5 Claims. (Cl. 35—10.4)



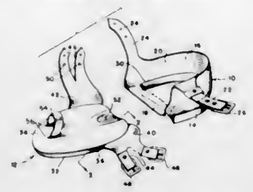
1. In a device for training students in the use of shipboard mounted underwater sound echo-ranging gear, said gear including a transmitter, a receiver and an underwater sound projector, the combination comprising; a rotatable plotting table having a mark thereon constituting a reference point representing the position of said ship, a contact member, means mounting said contact member for independent motions along at least two orthogonal coordinates, means for separately applying the components of motion between said ship and a simulated moving target to drive said contact member, a plurality of conductive inserts arranged in a pattern corresponding to the lobe pattern of the underwater pulse emitted from said projector, means mounting said insert pattern for rotation about said point as a center, and means for maintaining said insert pattern in a direction corresponding to the direction in which the sound projector is trained whereby contact will be made between said contact member and one of said conductive inserts when said sound projector is trained in a direction corresponding to the position which said contact member occupies relative to said reference point.

2,780,012
MACHINE TRAINING DEVICE
Arthur W. Jackson, Lake Placid, N. Y.
Application November 22, 1954, Serial No. 470,223
8 Claims. (Cl. 35—13)



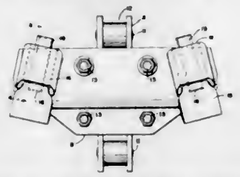
7. Training aid apparatus of the class described for indicating correct and incorrect operation and correct and incorrect sequence of operations of a machine comprising, a model machine having related components engageable by a work piece, a manually engageable work piece, an electrically operated unit separate from said model machine and work piece being adapted and arranged to visually indicate correct and incorrect engagement of said work piece and components of said model machine and correct and incorrect sequence of said work piece and components, switch means, said components and work piece arranged for operating said switch means in correct and incorrect engaged relative positions of said work piece and components, and circuit means including said electrically operated unit and switch means for connection to a source of energy.

2,780,013
FOOTWEAR
Charles S. Voss, New York, N. Y.
Application March 17, 1955, Serial No. 494,894
3 Claims. (Cl. 36—2.5)



1. An article of footwear comprising, in combination, a heel protecting member, including a heel element and an upper comprising a bottom portion secured to the upper surface of said element and upright side and rear portions connected to said bottom portion, said bottom and side portions extending forwardly of said heel element and said side portions each having a strap member extending upwardly from its forward end, said straps having means for interengaging one another over the foot, and a forefoot protecting member comprising an outer sole extending from approximately the tip of the toes of the foot to a point slightly to the rear of the metatarsal phalangeal joints of the foot, an inner sole overlying said outer sole and extending rearwardly thereof to a point approximately midway between the metatarsal phalangeal joints and the base of the metatarsus of the foot, and an attaching element of a soft, pliable material, comprising a central portion partly interposed intermediate said inner and outer soles and substantially co-extensive rearwardly with said inner sole, and lateral extensions of said central portion, each terminating in strap means at their inner ends arranged to meet high on the instep, said straps having cooperating interengaging means, and a toe-engaging loop formed on the upper surface at the forward end of said forefoot covering member.

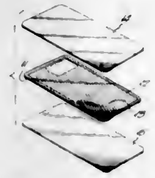
2,780,014
DETACHABLE BRACKET AND SPADE CUTTER FOR TRENCH DIGGER CHAIN
Bruno F. Arps, New Holstein, Wis., assignor to Arps Corporation, New Holstein, Wis.
Application May 7, 1954, Serial No. 428,180
2 Claims. (Cl. 37—191)



2. In a detachable bracket and spade cutter assemblage for trench digger chains, a plurality of cutter head brackets attached in spaced relation to an endless trench digger chain, a tapered socket member secured to each cutter head bracket, cutters formed from flat stock and having a portion of their inner ends formed with side flanges

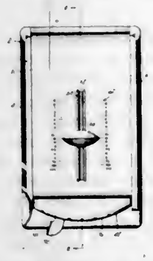
for free reception within said socket members, wedges formed with projections on their inner ends for engagement with the inner ends of the cutters, curved runners on the front end portions of said wedges and extending forwardly outwardly away from said cutters in a position to limit the depth of cut of the cutters, said cutters and wedges being adapted to be inserted into the front ends of the tapered sockets and made taut by a blow on the front ends of the wedges and loosened by a blow on the inner ends of the wedges.

2,780,015
TAMPER REVEALING IDENTIFICATION CARD
Ned Whitehead, San Juan, Puerto Rico
Application June 15, 1954, Serial No. 436,855
2 Claims. (Cl. 40—2.2)



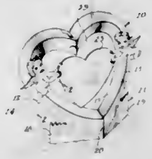
1. In an identification card, a paper backing member of substantially rectangular shape, a pair of cover members of transparent thermoplastic sheet material coextensive with said backing member and thermoplastically sealed in surrounding relation with the same, said cover members being soluble in certain solvents, and matter on at least one face of the backing member printed with a colored ink having combined therein a first pigment of a distinctive color which is insoluble in said solvents and at least a second pigment which is dissolvable in said solvents and which is of a distinctive color from said first pigments, the printed matter having throughout a color which is the product of concurrence of said first and second pigments and which product color is changed to a readily discernible different color by dissolving of the second pigment upon application to the card of any of the solvents for dissolving said cover members.

2,780,016
TELEPHONE INDEX AND CALL TIMER
Lawrence J. Laviana, Kensington, Conn., assignor to M. H. Rhodes, Inc., Hartford, Conn., a corporation of Delaware
Application March 8, 1955, Serial No. 492,902
3 Claims. (Cl. 40—104)



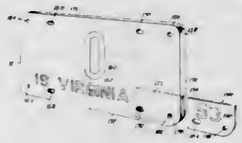
1. In an accessory for use with a telephone of the type having a housing for holding pages of a telephone number index, a hinged cover for the housing spring-biased to an open position, and a manually windable and settable call duration timer concealed in the housing having a movable manual winding and setting lever projecting from the housing, a fingerpiece on the end of the lever forming a pointer, and an indicia bearing dial member for the timer extending in the direction of movement of said finger piece having latching means for engagement with said cover when the cover is closed and mounted for movement relative to the housing to move said latching means out of cover engagement.

2,780,017
DISPLAY DEVICE
Richard E. Paige, New York, N. Y.
Application February 7, 1952, Serial No. 270,383
3 Claims. (Cl. 40—124.1)



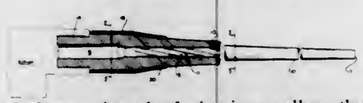
1. A display device comprising a base, a pair of upwardly extending arms, means for interconnecting the free ends of said arms whereby to form an opening therebetween, said arms being longitudinally-scored whereby when said arms are joined they assume a V-shape in cross-sectional area and are presented at an angle to a supporting surface, said arms and base being vertically-scored whereby when said arms are joined, said base will form a pair of angularly divergent wing formations, and a pair of auxiliary easels each adapted to be attached to the rear face of one of said wing portions whereby to present said arms at a greater angle to the normal line of the supporting surface.

2,780,018
VEHICLE LICENSE TAG AND TAB CONSTRUCTION
James R. Bauserman, Richmond, Va.
Application March 11, 1953, Serial No. 341,724
1 Claim. (Cl. 40—125)



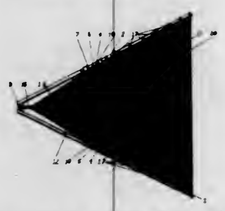
A vehicle identification tag comprising a one-piece plastic plate of polygonal contour and carrying identifying indicia, said plate having an elongate slot formed in a lower corner thereof and opening along the bottom and adjacent side edges of the plate to provide water drainage means outwardly of the slot, a removable indicia carrying tab disposed within said slot, said tab being of a size to substantially completely fill said slot with the bottom and adjacent side edges thereof flush with corresponding edges of the plate, said plate having a pair of spaced apertures therethrough in the region of said slot, said removable tab having a pair of spaced apertures therein aligned with the first mentioned pair of apertures and means projecting through all of the apertures for securing the tab to the plate, and said plate having at least one other aperture therethrough which together with one of the apertures of the first mentioned pair is registrable with apertures in a mounting bracket on an associated motor vehicle for securing the plate to such bracket, whereby one of the means for securing the tab to the plate also serves to partially secure the plate to an associated bracket.

2,780,019
GUN BARREL OF ALUMINUM ALLOY WITH METALLIC COATINGS
George C. Sullivan, Hollywood, Calif.
Application February 19, 1952, Serial No. 272,428
4 Claims. (Cl. 42—76)



1. A firearm barrel of aluminum alloy, the bore of said barrel having an aluminum oxide coating, a metallic coating of copper on said aluminum oxide coating, and a chromium coating on said metallic coating, whereby wear and abrasion are substantially reduced during firing operation.

2,780,020
SURF NETS
Henry Butler, Bodega Bay, Calif.
Application August 11, 1954, Serial No. 449,066
1 Claim. (Cl. 43—12)



A surf net comprising a pair of equally curved rods pivoted to each other at one end so as to be movable relative to each other on a plane which is disposed at a right angle to the plane of the curvature of the rods, a pair of blocks each of which is provided with a bore and secured to one of said rods intermediate its ends at a portion thereof located at the inner side of the curve formed by the rod, a cross-bar having its ends removably inserted into the bores of said blocks so as to keep said rods spread apart and to form therewith an A-shaped member, a first string connecting to each other those ends of said rods which are opposite to the ends that are pivotally connected to each other, a second string having its ends connected to the ends of one of said rods, a third string having its ends connected to the ends of the other one of said rods, and a net having its edge portions secured to said strings, said second and said third string being tied to those portions of said rods which are between said blocks and those ends of said rods which are opposite to the ends that are pivotally connected to each other.

2,780,021
BAIT BAG
Robert M. Fagg, Dallas, Tex.
Application October 5, 1954, Serial No. 460,326
1 Claim. (Cl. 43—41)

In combination, a fishhook including a shank having a barb, bait mounted on the shank of said fishhook, a bag of transparent flexible material embracing said bait and provided with a large open mouth graduated down to a rounded closed lower end, there being a plurality of spaced apart apertures in and lengthwise of the side of said bag, said fishhook extending through the lowermost one of said apertures and through the mouth of said bag, and means clamping said bag on said fishhook, said means comprising a flexible strap secured to said bag and adapted to be tied around the mouth of said bag, said strap being transparent, said bag being made of a plastic which is colorless, said bag and strap being invisible under water, and the bight of said fishhook extending below the closed lower end of said bag.

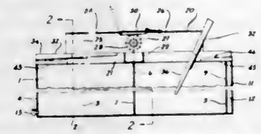
2,780,022
FISH LURES
Arnt Arntzen, North Burnaby, British Columbia, Canada
Application May 9, 1955, Serial No. 506,723
2 Claims. (Cl. 43—42.36)

1. A fish lure comprising a holder formed of a strip of thin resilient material folded intermediate its length to provide coacting sides, said sides defining a space adapted to receive one end of a length of bait, the free ends of said sides forming a resilient grip, said holder being adapted for attachment to a line and having an aperture adjacent each end thereof through which said line is adapted to extend substantially along its longitudinal axis, one side of said holder having a third aperture intermediate its length through which end one aperture adjacent the resilient grip the line may extend whereby to cause a planing effect of the holder when being drawn through the water by the line.

2,780,023
FISHING SINKER
Dewey P. Mercier, Charlotte, Vt.
Application August 9, 1955, Serial No. 527,192
3 Claims. (Cl. 43—42.74)

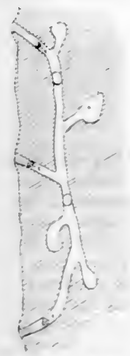
1. A fishing sinker comprising a female element having means on one end thereof for attachment of a fishing line, said female element having a bore extending inwardly of the other end and terminating at a point spaced from said other end, a male element having a bore extending axially therethrough for insertion of an end portion of a fish hook snell therein, said male element having a portion adjacent one end extending into the part of the bore of said female element adjacent the other end of the latter element and detachably secured to the adjacent portion of said bore, and an extension projecting from said one end of said male element and received within the part of the bore of said female element adjacent to its terminating point, said extension being dimensioned to fit within the bore within said female element and having a groove extending diametrically across its free end on each side thereof connecting in communication with said bore in said male element, said groove being adapted to receive the portion adjacent one end of the fish hook snell against disengagement from said extension.

2,780,024
RODENT TRAPS
Walter E. McKim, Vancouver, British Columbia, Canada
Application August 31, 1954, Serial No. 453,365
1 Claim. (Cl. 43—70)



A rodent trap comprising a horizontal frame having a transverse pivot rod intermediate its length, a normally horizontal runway having a free end adapted to be depressed in response to the weight of a rodent, said runway loosely engaging said pivot rod to rock about, a plate member pivotally mounted upon the pivot rod and having one end pivotally engaging the runway between the pivot rod and the free end of said runway, said frame having a platform for supporting an end of the runway when said runway is in horizontal position, a latch carried by the platform, a latch plate hingedly connected to an end of the plate member and adapted to engage the latch to hold the plate member and said runway in substantially horizontal position, said latch plate being subject to swinging movement to disengage said latch when the free end of the runway is depressed by a rodent thereon whereby said runway is freed to rock about said pivot rod to effect trapping of the rodent.

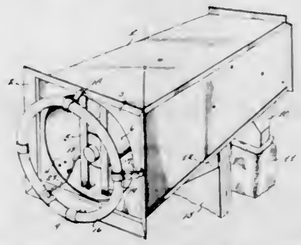
2,780,025
METHOD AND COMPOSITION OF MATTER FOR DESTROYING RODENTS
Frank Finnigan, East Wenatchee, Wash.
Application August 20, 1953, Serial No. 375,330
4 Claims. (Cl. 43—124)



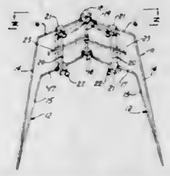
1. A method of asphyxiating burrowing rodents, such as pocket gophers, in their burrows, which method comprises introducing into the burrows a carbon tetrachloride vapor and a masking agent for the vapor comprising chlorophyll.

2,780,026
INSECT CATCHERS
John P. Dail and Roscoe F. Hill, La Grange, N. C., assignors to D. and H. Corporation, La Grange, N. C., a corporation of North Carolina
Application January 23, 1956, Serial No. 560,541
7 Claims. (Cl. 43—139)

1. Apparatus for catching winged insects comprising an elongated casing, a relatively short cylindrical conduit housed in one end of said casing, a circular tubular lamp mounted adjacent one end of said conduit, said conduit having a diameter at least as large as the inside diameter of said circular lamp, a suction fan mounted in said conduit adjacent the other end thereof, whereby air and insects attracted by the light of said lamp are drawn in through said lamp and conduit and are discharged from the fan into said casing, a receptacle communicating with said casing for containing the insects thus discharged, and means for directing the insects into said receptacle while permitting the air to freely escape from said casing.



2,780,027
READING MATERIAL SUPPORT
Bertha V. Laing, Highland Park, Mich.
Application October 6, 1955, Serial No. 538,909
7 Claims. (Cl. 45—82)

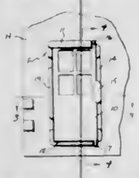


1. A reading stand comprising a framework consisting of two half sections, each half section comprising a base portion and two leg portion formed of a unitary piece of wire stock, said leg portions being angularly inclined toward each other, each leg portion having an extension portion extending at an upward angle relative to its respective leg portion, said extension portions being substantially parallel to each other, the free ends of the extension portions of one half section being connected to the free ends of the corresponding extension portions of the other half sections, a first member forming a ridge pole between the points of connection of said extension portion ends, said first member being adapted to provide support for reading material at the center thereof, and second members positioned on each side of said first member to provide support for the side edges of the pages of said reading material.

2,780,028
DOOR FOR TOY HOUSE
Albert George McNeill, Maple Glen, Pa., assignor to Bachmann Bros., Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application December 15, 1954, Serial No. 475,358
2 Claims. (Cl. 46—19)

1. In a toy house, a two-piece door construction comprising; a wall having a door opening defined by top, bottom, and side flanges perpendicular to said wall and integral therewith; one end of each of said top and bottom flanges being spaced from the corresponding end of one of said side flanges to provide a pair of aligned gaps; an integral extension on said top flange and an integral extension on the side flange between said gaps; the said

extensions lying in said opening and spaced from said wall; and a door having pivots received in said gaps to

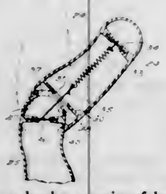


pivotally mount the door between said flange extensions and wall.

2,780,029
TOY HEMISPHERE WITH MUSIC BOX THEREIN
Alfred A. Anthony, Westport, Conn.
Application April 4, 1955, Serial No. 499,002
2 Claims. (Cl. 46—111)

1. A musical toy comprising a ball, two different elements having outside surfaces which co-operate with one another to form the surface of the ball, at least one of the elements being a hollow shell, a music box within the hollow shell and connected to that element of the ball, a shaft extending from the music box into the other element of the ball and connected to said other element for rotation as a unit therewith, the elements of the ball being held in assembled relation by said shaft but with running clearance between them so that they are rotatable with respect to one another about the longitudinal axis of said shaft, and a spring motor for the music box with mechanism connecting the motor to the shaft, said mechanism operating to wind the spring when the elements of the ball are turned in opposite directions with respect to one another, and said mechanism operating to rotate the elements of the ball in the other direction with respect to one another when the spring motor operates the music box.

2,780,030
TOY FIGURE WITH ARTICULATED LEG MEMBERS
Herbert R. Beebe, Brooklyn, N. Y., assignor to American Character Doll Company, New York, N. Y., a firm composed of Jacob Brock and Max Brock
Application April 2, 1954, Serial No. 420,632
2 Claims. (Cl. 46—161)

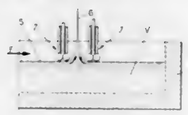


1. In a toy figure, a body, a pair of legs connected with the body for independent swinging movement, said legs each having upper and lower leg portions, said upper leg portion of each of the legs having an open lower end providing a socket, said lower leg portion of each of the legs having a rounded upper end interfitting the opening in the upper leg portion to form a joint therewith, said upper leg portion of each of the legs having a transversely extending partition spaced from the lower end and provided with an opening therethrough, said lower leg portion of each of the legs having an upwardly extending projection adapted to fit into the opening in said partition, said lower leg portion of each of the legs having an opening extending through said projection and communicating with a slot in the rounded upper end thereof, and resilient means secured to the upper and lower leg portions and extending through said opening in said projection for connecting the upper and lower leg portions of each of the legs together for conjoint swinging movement when said projection is disposed in the opening in said partition and permitting of relative swinging movement of the lower leg portion of each of the legs to cam said projection out of said opening when the toy figure is in seated relation.

2,780,031
METHOD FOR IMPROVING ARABLE SOIL
Louis D. Bryant, Indianapolis, Ind., assignor of one-third each to Robert B. Ellsworth and William H. Borland, Indianapolis, Ind.
No Drawing. Application March 15, 1955, Serial No. 494,560
5 Claims. (Cl. 47—58)

1. The method of improving arable soil which comprises incorporating into soil in intimate admixture therewith from about 5 to 15% by weight of precipitated hydrated tricalcium silicate, the average particle size of which lies in the range of from 0.01 to 1 micron.

2,780,032
IMPROVEMENTS IN APPARATUS FOR THE CONTINUOUS DRAWING OF GLASS SHEETS
Bernard Long, Paris, France, assignor to Compagnies Reunies des Glaces & Verres Speciaux du Nord de la France, Paris, France, a corporation of France
Application February 5, 1953, Serial No. 335,286
Claims priority, application France February 16, 1952
2 Claims. (Cl. 49—17)

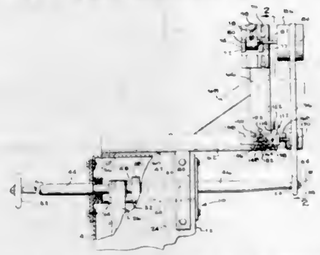


1. Apparatus for the manufacture of sheet glass comprising means for holding a bath of molten glass, means for continuously drawing a glass sheet upwards from the surface of said bath, convection cooling means for blowing a gaseous cooling fluid against said surface immediately before the glass enters the foot of the sheet and means for cooling said sheet by radiation at the point at which it first attains its final thickness, in which said convection cooling means comprises a blower tube, a suction tube, and a cooling tube, said blower tube being provided with a slot for the outlet of the fluid, and said suction tube being provided with a wider slot for the suction of the fluid after it has acted on the glass and has to be evacuated.

2,780,033
OFFHAND SPOOL SANDING MACHINE
Cletus W. Albright, Drexel, N. C.
Application August 17, 1956, Serial No. 604,634
5 Claims. (Cl. 51—3)

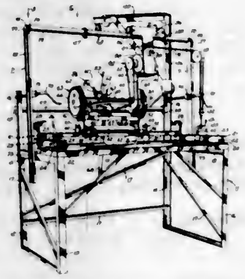
1. An off hand spool sanding machine for forming contours in a work piece comprising a vertical support pedestal, plural support shafts secured at one end in spaced laterally extending relationship from the support pedestal, power means connected to one of said shafts for positively driving the same, a pair of said plural shafts being vertically spaced, a resilient shaping spool removably

secured on the end portion of the lowermost of said pair of shafts, an uninterrupted work area disposed beneath the shaping spool permitting manipulation of a work piece being sanded, the uppermost of said pair of shafts including an idler pulley thereon in substantial parallel alignment with the shaping spool, an endless flexible sanding belt conformable to the outer periphery of the shaping spool for rotation thereon, another of the plural shafts being disposed intermediate the pair of shafts and



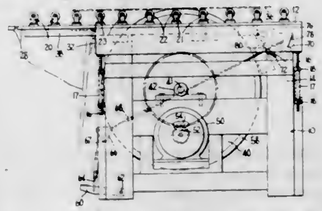
including an idler pulley on the end thereof engageable with the inner periphery of the flexible sanding belt, and adjustable support means for the last mentioned support shaft disposing the longitudinal axis thereof in angular relationship relative to the longitudinal axis of the pair of shafts, the outer periphery of the idler pulley on the last mentioned shafts being angularly engageable with the inner periphery of the flexible sanding belt for controlling the proper tracking of said belt over the pulley and shaping spool.

2,780,034
LAWNMOWER SHARPENER
Charles L. Turner, Pocatello, Idaho, assignor of one-half to Marjory C. Turner, Pocatello, Idaho
Application June 14, 1954, Serial No. 436,576
4 Claims. (Cl. 51—48)



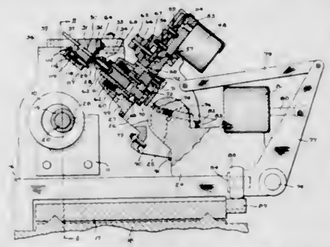
1. A new and improved lawnmower sharpener, which comprises: a machine frame serving as a base for said sharpener; a roller support frame attached to said machine frame, said roller support frame being adapted to support a roller of a lawnmower; a balancing assembly attached to said machine frame for engaging part of a lawnmower and holding said lawnmower in a fixed position with respect to said roller support frame and said machine frame; a grinder support frame secured to said machine frame, said grinder support frame projecting above said roller support frame and said balancing assembly, said grinder support frame including an upper portion positionable substantially vertically above a lawnmower placed upon said roller support frame, the upper portion of said grinder support frame being movable, in an approximately horizontal path, relative to said roller support frame and said balancing assembly; a grinder assembly including a grinder wheel and a motor and guide means for engaging a lawnmower and guiding said grinder wheel with respect to said lawnmower and said grinder support frame, said grinder assembly being movably attached to said grinder support frame, said guide means restraining said grinder assembly from swinging away from a lawnmower engaged by said guide means; and means for moving said grinder assembly with respect to a lawnmower positioned upon said roller support frame.

2,780,035
APPARATUS FOR SURFACING ARTICLES
Carl Wintgens, Tarentum, Pa., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania
Application April 9, 1954, Serial No. 422,136
5 Claims. (Cl. 51—72)



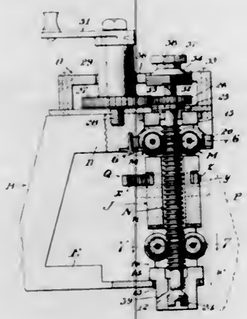
1. An apparatus comprising in combination a working surface having inverted castors for supporting a sheet of material on its bottom surface, each castor comprising a bracket freely rotatable about a vertical axis, a horizontally extending axle carried by said bracket and a castor wheel freely rotatable about said axle, and a surfacing element intersecting said working surface and having a portion thereof extending slightly above said working surface to contact said sheet in a location other than a surface opposite the supported surface, said castors permitting free movement of the sheet of material in more than one direction relative to the surfacing element.

2,780,036
GRINDING MACHINE
Almon F. Townsend, Worcester, Mass., assignor, by mesne assignments, to Heald Machine Company, a corporation of Delaware
Application January 4, 1954, Serial No. 401,848
27 Claims. (Cl. 51—103)



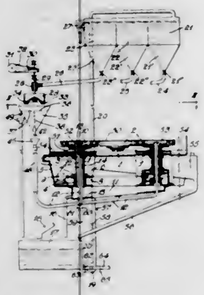
1. A machine tool comprising means for holding and rotating a work piece, a table on which the said means is supported, a tool supported by the table movable between an operating position and an inoperative position, a gaging member supported by the table for engaging the cutting surface of the tool in its inoperative position, said gaging member including an anvil, means actuated by movement of said anvil with respect to a fixed reference position for moving the said cutting surface of the tool to a predetermined position relative to the work holding means, and means operating in timed relation with the movement of the tool between the said operative and inoperative position to render the tool-adjusting means inoperative.

2,780,037
MACHINE FOR PRODUCING SPEED REDUCTION WORM GEAR
Benjamin F. Schmidt, Los Angeles, Calif.
Application July 19, 1954, Serial No. 444,071
9 Claims. (Cl. 51—108)



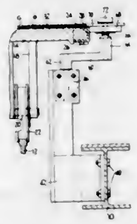
1. In a mechanism for producing a spiral thread on a frusto-conical member of a gear blank, a thread cutting tool adapted to cut a spiral thread, a revoluble carrier, gear blank holding means on said carrier adapted to present a peripheral portion of said frusto-conical member to the action of said thread cutting tool on rotation of said carrier, and means for co-incidently rotating said gear blank and said carrier continuously around their respective axes while being acted on by said cutting tool; said cutting tool having a cutting edge presented toward the periphery of said frusto-conical member opposite the direction of rotation of said gear blank so as to cut a continuous spiral thread circumferentially of said frusto-conical member as the latter revolves.

2,780,038
GLASS GRINDING AND POLISHING METHOD AND APPARATUS
Edmond Laverdisse, Auvelais, Belgium, assignor to Les Glaceries de la Sambre, Societe Anonyme, Auvelais, Belgium, a Belgian company
Application September 7, 1955, Serial No. 532,931
Claims priority, application Belgium September 8, 1954
10 Claims. (Cl. 51—110)



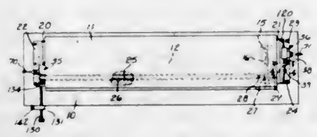
1. The method of feeding abrasive mixture to the rotary tools of apparatus for working the lower face of a continuous glass sheet; said method comprising the steps of withdrawing the abrasive mixture from a reservoir therefor, supplying the withdrawn mixture to the interior said rotary tools axially of the latter, centrifugally distributing a portion of the mixture supplied to said tools between the working faces of the latter and the lower face of the glass sheet, and returning the remainder of the mixture axially from the interior of the tools to the reservoir in a continuous cycle, the relative proportions of the mixture supplied to said tools which are distributed between the working faces of the latter and the lower face of the glass sheet and returned to said reservoir, respectively, being determined by the rotational speed of said tools so that the rate of circulation of the mixture in said continuous cycle may be relatively great to prevent clogging of the latter even when the tools are rotating slowly and require a relatively small feed of mixture between their working faces and the lower face of the glass sheet.

2,780,039
GLASS LAYING APPARATUS
Charles S. Cusick, Ford City, Pa., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania
Application May 11, 1954, Serial No. 428,985
6 Claims. (Cl. 51—240)



1. In apparatus for mounting glass sheets upon a table for subsequent grinding and polishing, said table being provided with an upper surface for supporting glass in sheet form embedded in plaster and a marginal edge strip extending slightly above the top surface of said table to provide a marginal retainer for the plaster, support means located along one side of the table, cushioning means carried by said support means and spaced inwardly from the one side of the table a distance in excess of the thickness of the marginal edge strip, and means urging said cushioning means into a glass edge contacting position for locating the contacted glass edge in spaced relation inwardly of the one side of the table.

2,780,040
SWIVEL TABLE ALIGNMENT
Bernhard H. Goehring, Worcester, Mass., assignor to Norton Company, Worcester, Mass., a corporation of Massachusetts
Application August 17, 1955, Serial No. 528,927
6 Claims. (Cl. 51—240)

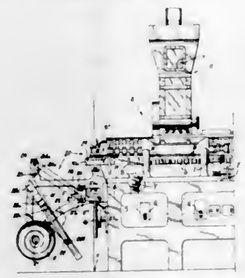


1. In a machine tool having a longitudinally movable table, a swivel table pivotally supported thereon, means including a nut and screw mechanism operatively connected between one end of the swivel table and the longitudinally movable table to facilitate a swivelling adjustment of the swivel table, and a deflection indicating mechanism therefor comprising a deflection bar, means to fixedly support one end of said bar at one end of said swivel table, a deflection indicating mechanism interposed between the other end of the swivel table and the deflection bar, and a meter operatively connected to said mechanism visibly to indicate the extent of deflection of the swivel table.

2,780,041
BUFFING PROCESS
Harvey E. Larsen, Steger, Ill., assignor to Steger Products Manufacturing Corporation, Steger, Ill., a corporation of Illinois
No Drawing. Original application January 28, 1952, Serial No. 268,692, now Patent No. 2,699,990, dated January 18, 1955. Divided and this application December 3, 1952, Serial No. 323,925
7 Claims. (Cl. 51—281)

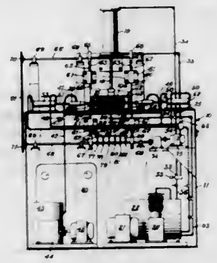
1. A method of imparting a lustre in the finishing of lacquered woodwork that comprises subjecting the surface thereof to the action of a buffing composition urged thereagainst by a cloth covered machine-operated buffing wheel, said composition consisting essentially of (*a*) 3–5 parts of a rubbing compound of 16.5 weight percent soft green soap of 60 weight percent solids content, 45.5 weight percent tripoli, 21.5 weight percent kerosene and 16.5 weight percent water; (*b*) 3 parts of a soap composition of 36 weight percent soft soap of 40 weight percent solids content, 1 weight percent pine oil and 63 weight percent water; and (*c*), as a diluent, 1–5 parts of water.

2,780,042
INFUSION PACKAGE MANUFACTURE
Hans O. Irmscher, Uniondale, N. Y., assignor to National Tea Packing Company, Inc., a corporation of New York
Application October 11, 1952, Serial No. 314,257
2 Claims. (Cl. 53—57)



2. In a fully automatically operating high speed packaging machine of the character described equipped to expedite restoration of operations after stoppages and cut down out-of-service time, damage and spoilage, a source supply means for providing web-strip filter sheet material having on one surface thereof a thermosetting coating from a roll in flat stretched condition, means for constantly advancing said sheet material along a path in manufacturing bag forming sections in consecutive series, slack take-up means positioned in said path for providing tension to the flat stretched sheet material unreeled from said roll, means for folding said flat stretched sheet material in position spaced to receive the flat stretched sheet material from said slack take-up means longitudinal portions of said surface coating being positioned in face to face relation, a seam-joint splicer interposed to extend across said path between said slack take-up means and said folding means, said advancing means including a power-drive means, said slack take-up means having a portion interconnected to stop said advancing means on exhaustion or damage of said sheet material passing the slack take-up means, said splicer including a thermostatically controlled heated die movably mounted for positioning along said path to provide a lap seam-joint connection across the length of said sheet material on stoppage of said advancing means, a measuring filler device mounted along said path for delivery of charges to said manufacturing bag sections being manufactured, and an inspection control for making said power-drive means ineffective, said inspection control having a common member associated with said slack take-up interconnecting portion for stopping the advancing means when a defectively filled bag section advancing along said path passes said inspection control.

2,780,043
PACKAGING UNDER AIR PRESSURE
Bernard T. Hensgen, Chicago, Ill., assignor to Swift & Company, Chicago, Ill., a corporation of Illinois
Application June 25, 1953, Serial No. 364,160
4 Claims. (Cl. 53—112)

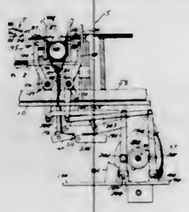


1. A device for use in vacuum packaging of product in a flexible wrapping material, said device including a pressure chamber member, a first part of said chamber member being movable away from a second part of said chamber whereby said chamber member may be opened for the insertion of a wrapped and unsealed package of product, with the unsealed portion of the package extending outwardly from said chamber in a predetermined portion of said chamber member, resilient pads about the adjacent edges of said chamber member at said portion thereof whereby when said first part of said chamber member is moved against said second part after the insertion of the unsealed package said pads will apply pressure against the outer surfaces of the unsealed portion of said package to prevent the passage of fluid therethrough, a fluid line communicating with the interior of said chamber member whereby the fluid pressure in said chamber may be adjusted after said chamber is closed, a hollow member having an opening extending to the exterior thereof from the hollow interior thereof adjacent one end thereof, said hollow member being aligned with the line of juncture of said resilient pads with said one end directed toward said chamber member, a fluid line communicating with the hollow interior of said hollow member, and means to move one of said members with respect to the other of said members whereby said hollow member may be inserted into the unsealed portion of said package with the pads pressing the film about said hollow member to restrict the passage of fluid about the periphery of the hollow member with the fluid in the package being adjusted through the interior of the hollow member and the pads pressing the unsealed portions of the package together to hold the fluid conditions within the package upon the withdrawal of the hollow member.

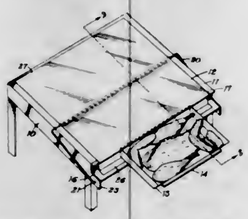
2,780,044
MACHINE FOR SERVING SHORT LENGTHS OF TAPE AND WRAPPING SAME AROUND VARIOUS ARTICLES
Peter J. Dewyer, Libertyville, Ill.
Application July 21, 1951, Serial No. 237,995
8 Claims. (Cl. 53—198)

1. Apparatus for applying and wrapping a length of tape to and around an object, comprising, V-shaped flexible strap means, a pair of opposed reciprocable folding

members to each of which one of the free ends of said strap means is attached, and a pair of flexible flap members projecting toward each other over the top opening into said V-shaped strap means.



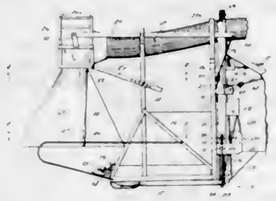
2,780,045
POULTRY (TRAY PACK) WRAPPING DEVICE
Roland C. Kabrick, Jasper, Ind., assignor to Swift & Company, Chicago, Ill., a corporation of Illinois
Application July 16, 1953, Serial No. 368,353
1 Claim. (Cl. 53—219)



A device for use in wrapping open topped trays of a predetermined height containing a food product with a wrapping material of a given thickness, said device including a table having a horizontal tray supporting surface, an upright projecting above said surface, a fixed holding member attached to said upright and projecting generally horizontal in a direction over a small portion of said surface, said member being spaced from said surface an amount such that the distance between the underside of said member and the adjacent portion of said surface is about twice said given thickness of said wrapping material plus the height of said tray whereby a tray with a piece of wrapping material about one side and above and below said tray may be wedged between said member and said surface to hold the wrapping material in place while the wrapping material is drawn about the tray, means beyond said member in the reverse of said direction to support a sheet of said wrapping material prior to and at the start of the wrapping process, and means to draw said sheet from said last mentioned means and about said tray after one edge of said sheet has been wedged about said tray between said surface and said member.

2,780,046
ADJUSTABLE HEADER FOR SEED HARVESTER WITH PNEUMATIC CONVEYING MEANS
Delbert Edwards, Condon, Oreg.
Application October 16, 1953, Serial No. 386,487
12 Claims. (Cl. 56—158)

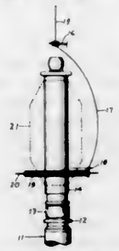
1. A header comprising a frame, a cutter bar and a sickle thereon, conveying means on the frame behind the cutter bar to carry away the cut crop, a multiplicity of spaced substantially parallel upright blade-like crop dividers supported on the frame above the sickle, the forward edges of said dividers being in front of the sickle and the dividers extending rearwardly over the sickle and cutter bar, a tubular supporting member on the header frame above the cutter bar, the dividers being suspended from said member, the dividers having tubular portions for receiving air and the supporting member having outlets to said portions for supplying air to the tubular portions, the tubular portions having air discharge means near the lower ends of said dividers for discharging air rearwardly between the blades.



2,780,047
APPARATUS FOR PRODUCING CURLED YARN
Louis Vandamme and Louis Rouyer, Saulce, France, assignors to Moulinage et Retorderie de Chavanoz, Chavanoz, France, a corporation of France
Application September 19, 1955, Serial No. 534,945
Claims priority, application France September 22, 1954
3 Claims. (Cl. 57—34)

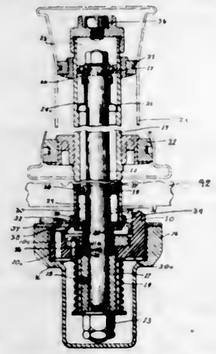
1. Apparatus for setting a false twist in thermoplastic filaments comprising a heater composed of a metal strip having electrical resistance characteristics, said strip being of U-shaped section providing a longitudinal groove to receive the filaments, said strip being arcuate in form to provide a convex surface on which the filaments rest as they advance along said groove, means passing an electric current through said strip for heating said strip due to its resistance, means feeding the filaments through said groove for heating therein, and a false twisting device disposed to impart a false twist to the filaments emerging from said heater whereby the twist feeds along said filaments into the heater and is set therein, and is later removed as the filaments pass the false twisting device.

2,780,048
TEXTILE APPARATUS
Thomas M. Hurst, Fort Mill, S. C., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
Application March 4, 1953, Serial No. 340,351
6 Claims. (Cl. 57—119)



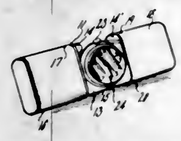
1. A ring frame comprising a rotatable spindle for a yarn package support, means for driving said spindle, a ring encircling said spindle, and a traveler through which a yarn passes to said yarn package support mounted on said ring, said traveler being shaped to form a slot extending upwardly from said ring and inclined from said spindle at an angle substantially equal to the angle of the yarn balloon through which the yarn passes on its way to the yarn package support, the width of said slot being substantially equal to the diameter of the yarn for preventing the passage of slubs in the yarn, and the position of said slot being fixed in relation to the body of said traveler.

2,780,049
SPINDLES FOR USE IN TEXTILE MACHINERY
Eric Findlow, Macclesfield, England, assignor to Ernest Scragg & Sons Limited, Macclesfield, England
Application August 14, 1953, Serial No. 374,329
Claims priority, application Great Britain December 31, 1952
4 Claims. (Cl. 57—133)



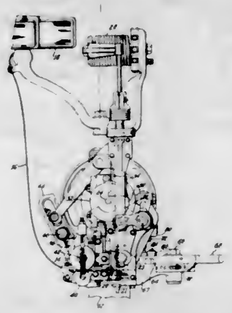
1. A textile spindle assembly comprising a stationary vertical spindle, an upper and a lower bearing located on said spindle, a tube concentric with said spindle and rotatable on said bearings on which tube a package of yarn is adapted to be detachably mounted, a plug having a reduced diameter boss located in the lower end of said tube and having a tapered axial bore which provides a funnel-like passage-way around said spindle, a bolster for supporting said spindle, and an oil container surrounding said bolster, there being a hole in said bolster whereby oil may pass from said oil container to said funnel-like passage-way, said funnel-like passage-way serving, when said tube and plug are rotated, to feed oil upwards from said oil container to the interior of said tube to lubricate said bearings.

2,780,050
CONVERTIBLE TIMEPIECE
Irving Florman, New York, N. Y.
Application June 24, 1954, Serial No. 439,057
8 Claims. (Cl. 58—88)



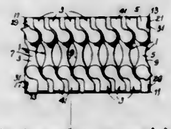
1. A timepiece comprising a housing provided with a recess, a timepiece mechanism seated in said housing in front of said recess, displaceable cover means for said housing and normally enclosing said mechanism and said recess, and spring means normally compressed in said recess and operatively engaging said housing and said cover means, said spring means being biased to extend rearwardly of said recess in uncompressed state, whereby displacement of said cover means serves to expose said mechanism and to release said spring means so the latter may serve as an easel for said timepiece.

2,780,051
FASTENER FORMING MACHINES WITH MEANS FOR PREVENTING ACTUATION OF THE FEED LENGTH CHANGING DEVICE DURING OPERATION OF THE FORMER
Charles Martin Bagshaw, Leicester, England, assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application March 26, 1954, Serial No. 418,962
Claims priority, application Great Britain May 16, 1953
7 Claims. (Cl. 59—75)



1. In a fastener forming machine having means for forming fasteners, the combination with means for intermittently feeding and severing from continuous material lengths to be formed by said forming means into fasteners, and means connected to the feed means for changing the lengths thus fed and severed to provide different length fasteners, of mechanism for operating said length-changing means and connected thereto comprising parts movable by the operator at will and other parts automatically controlled to cause said length-changing means to be operated only when said feeding means is inoperative.

2,780,052
EXPANSION BRACELET WITH TWO ROWS OF BOTTOM LINKS
John F. Sand, Newark, N. J., assignor, by mesne assignments, to The Gemex Corporation, Union, N. J., a corporation of New Jersey
Application May 10, 1952, Serial No. 287,151
2 Claims. (Cl. 59—79)



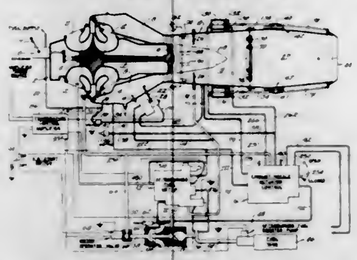
1. An expansible bracelet comprising a series of top links each comprising a sheet metal skeleton link member having a length corresponding to the width of the bracelet and having projecting from its bottom a first inner pivot and a first outer pivot on one side of the longitudinal center line of the bracelet and a second inner pivot and a second outer pivot on the other side of the longitudinal center line of the bracelet, the inner pivots being integral tubular bosses and the outer pivots being integral tongues, each top link further comprising a top shell secured upon the skeleton link member, any given top link being connected to the next successive top link, in one direction along the length of the bracelet, by a first bottom link extending between the first outer pivot of the given top link and the first inner pivot of the next top link and by a second bottom link extending between the second inner pivot of the given top link and the second outer pivot of the next top link, each bottom link comprising a sheet metal skeleton link member having openings at its ends receiving the respective pivots, the

latter being headed to hold the links in assembly, each bottom link further comprising a bottom shell secured to the bottom skeleton link member, and helical coil springs lodged in the tubular bosses, the upper end of each spring extending into the respective top shell and the lower end of each spring extending into the respective bottom shell.

2,780,053
POWER UNITS, INCLUDING RECIPROCATING INTERNAL COMBUSTION ENGINES AND TURBO COMPRESSORS UTILIZING EXHAUST GASES FROM SUCH ENGINES
William Geoffrey Cowland, London, England, assignor to D. Napier & Son Limited, London, England, a company of Great Britain
Application December 15, 1952, Serial No. 326,101
Claims priority, application Great Britain December 17, 1951
1 Claim. (Cl. 60—13)

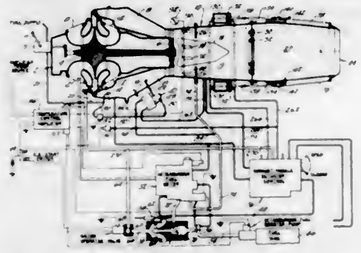
A power unit comprising a reciprocating internal combustion engine having two rows of cylinders, a turbo-compressor assembly situated adjacent to each end of each row of cylinders, the turbine of each assembly being arranged to receive exhaust gases only from those cylinders of the row which lie near the adjacent end of the engine, while the other turbine of the row is arranged to receive exhaust gases only from the remaining cylinders in the row, one of the two compressors associated with each row constituting a first stage compressor with its delivery passage connected to the inlet of a second stage compressor situated adjacent to the other end of the same cylinder row, while the delivery passages of the two second stage compressors are both connected to the inlet ports of all the cylinders in the two cylinder rows.

2,780,054
CONTROL SYSTEM FOR AFTERBURNING GAS TURBINE ENGINE
Richard J. Coar, Hartford, and William H. Brown, Manchester, Conn., assignors to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application November 18, 1950, Serial No. 196,425
7 Claims. (Cl. 60—35.6)



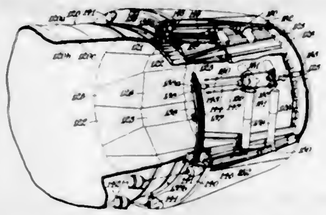
3. In combination a turbojet including a compressor, a turbine, a combustion chamber located between said compressor and turbine, said turbine being connected to the downstream end of the combustion chamber for the flow of gas from said chamber, an afterburner through which gas from the turbine is discharged, a variable area nozzle on said afterburner, means for supplying fuel to said afterburner, means for igniting said afterburner, means for moving said nozzle in an opening or closing direction, said igniting means being responsive to the pressure of fuel being supplied to said afterburner for performing its igniting operation, and means responsive to said means for controlling said nozzle for preventing said igniting means from performing its igniting operation.

2,780,055
IGNITER CONTROL FOR ENGINES
Carlton W. Bristol, Jr., Glastonbury, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application November 18, 1950, Serial No. 196,402
6 Claims. (Cl. 60—35.6)



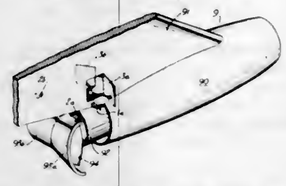
1. In combination, an engine, means for supplying air to said engine, means for supplying fuel to said engine, means for igniting the fuel-air mixture in the engine formed by said first and second named means, an afterburner, means for supplying combustion supporting gas to said afterburner, means for supplying fuel to said afterburner, and means for igniting the fuel-gas mixture in the afterburner formed by said fourth and fifth named means, said last named means including a valve for controlling a flow of additional fuel into said engine thereby enriching the fuel-air ratio in the engine and piston means responsive to the fuel supplied to said afterburner for regulating said valve, said piston means including two pistons, one piston being movable in a direction to open said valve and the second piston being movable in a direction to close said valve, said first piston being actuated directly by the fuel supplied to said afterburner, and means for delayed actuation of said second piston by the fuel supplied to said afterburner.

2,780,056
JET-NOZZLE ARRANGEMENT WITH OUTLET-AREA VARYING MEANS
Rowan Herbert Colley, Derby, England, assignor to Rolls-Royce Limited, Derby, England, a British company
Application June 16, 1954, Serial No. 437,217
Claims priority, application Great Britain March 26, 1954
7 Claims. (Cl. 60—35.6)



1. A variable-area jet nozzle for a jet pipe comprising an even-numbered set of nozzle elements arranged in circumferential assembly, extending axially of the jet pipe, and pivoted to the jet pipe at their upstream edges, a bracket pivotally connected to each alternate nozzle element, a pair of oppositely- and circumferentially-extending screw elements secured to said bracket, a gear box pivotally connected to each intermediate nozzle element, said gear box comprising thrust bearing means, a pair of oppositely- and circumferentially-extending nut elements supported in said thrust bearing means to co-operate with the screw elements of adjacent nozzle elements, the thrust bearing means preventing movement of said nut elements axially of themselves relative to the gear box but permitting rotation of said nut elements, and said gear box also comprising a pair of bevel gears, one being connected to each nut element, and a bevel pinion to mesh with the pair of bevel gears, and means to drive said bevel pinion, whereby on operation of said drive means the nut elements are caused to travel along the screw elements, thereby to cause pivoting of the nozzle elements.

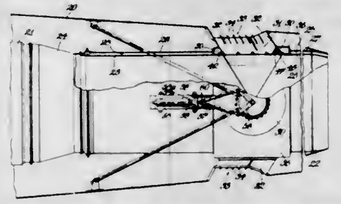
2,780,057
LOCKS FOR JET THRUST REVERSERS
Harry Stavert, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application February 23, 1954, Serial No. 411,872
8 Claims. (Cl. 60—35.54)



1. In combination with supporting aircraft structure, a jet engine supported therefrom, a jet deflector flap hingedly mounted adjacent its rear end on such structure and swingable outwardly and rearwardly into a projected position transverse to the jet stream and to the relative airstream from a retracted position, a retainer carried by said flap adjacent its forward swinging end, a hook member pivotally mounted on said structure and formed with a cam slot for engagement with said retainer, a vane pivotally mounted, adjacent a vertical edge, on said structure to swing into a position projected into the relative airstream from a retracted position, means operatively connecting said vane and said hook member for conjoint movement such that the exit of the cam slot reaches releasing position, to disengage the flap's retainer, as the vane reaches the limit of its projective movement, the means connecting the vane and hook member including means which are self-locking in such limit position of the vane, and the cam slot of the hook member having an inclined section adjacent its pivot axis whereon the retainer is active upon projective swinging of the flap, to effect projective swinging of the vane and to limit projective swinging of the flap until the vane is substantially fully outswung, and having an inclined section adjacent its exit opening engageable by the retainer near the end of the retractive swinging of the flap to unlock the flap-locking means and to initiate retractive movement of the flap, and power means to urge the flap projectively and to control its projective swinging.

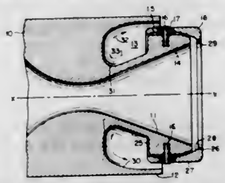
2,780,058
AIRCRAFT REACTION PROPULSION UNITS AND INSTALLATIONS WITH MEANS TO PRODUCE REVERSE THRUST
Richard Derby Beale, Quarndon, Derek Howard Jubb Manningham, Bradford, and Basil Charles James Stevenson, Allestree, England, assignors to Rolls-Royce Limited, Derby, England, a British company
Application January 19, 1954, Serial No. 404,926
Claims priority, application Great Britain November 20, 1953
9 Claims. (Cl. 60—35.54)

1. An aircraft reaction propulsion unit or installation comprising a jet pipe, a propulsion nozzle at the outlet end of said jet pipe, said jet pipe having first porting therein upstream of the propulsion nozzle, fairing structure surrounding said jet pipe in spaced relation thereto, wall means between said jet pipe and the fairing structure, said wall means being in gas sealing engagement with said jet pipe around the porting therein and forming a chamber externally of the jet pipe in communication with the jet pipe through said first porting, auxiliary ducting extending from said wall means to said fairing structure and adapted to communicate with said chamber through second porting in said wall means and with atmosphere through third porting in said fairing, and said auxiliary ducting being inclined in a forward direction where it opens to atmosphere whereby gas flowing therethrough produces a braking effect on an aircraft fitted with the unit, a valve member disposed within said chamber, pivot means to support said valve member to swing



on an axis at right angles to and passing through the jet pipe axis between a first angular position in which it closes-off the first porting and a second angular position in which it blocks the flow through the jet pipe to the propulsion nozzle, first sealing means secured externally of the jet pipe upstream of said first porting, second sealing means mounted on the upstream edge of said valve member and adapted in said first angular position of the valve member to co-operate in gas sealing contact with said first sealing means, third sealing means carried by said wall means downstream of said first porting and adapted in said second angular position of the valve member to co-operate in gas sealing contact with the second sealing means, and fourth sealing means mounted on the downstream edge of said valve member and adapted to co-operate in gas sealing contact with the third sealing means when said valve member is in said first angular position.

2,780,059
JET DIRECTION CONTROL DEVICE
Willy A. Fiedler, Oxnard, Calif.
Application November 29, 1955, Serial No. 549,890
6 Claims. (Cl. 60—35.55)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A jet direction control device which comprises an elongated body means including a discharge end portion having a nozzle opening formed therein symmetrically about a longitudinal axis and adapted to exhaust a gaseous jet therefrom, a control means movably supported by said body means, said control means substantially surrounding said end portion and being symmetrical about said axis when in neutral position, said control means having a leading edge and a trailing edge, means for moving a portion of said trailing edge to-

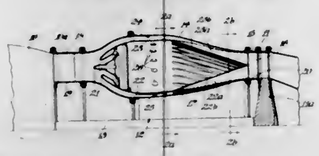
ward said axis, said body means having a rear end portion adjacent said discharge end portion and extending diametrically outward of said discharge end portion, said rear end portion having an annular cavity formed therein which opens toward the rear of said body means, the forward portion of said control means being disposed within said cavity when the control means is in neutral position, said cavity having an arcuate surface for reversing the gaseous flow induced between the outer surface of said discharge end portion and the inner surface of said control means during operation of the device.

2,780,060

COMBUSTION EQUIPMENT AND NOZZLE GUIDE VANE ASSEMBLY WITH COOLING OF THE NOZZLE GUIDE VANES

Alan Arnold Griffith, Derby, England, assignor to Rolls-Royce Limited, Derby, England, a British company

Application February 7, 1952, Serial No. 270,470
Claims priority, application Great Britain February 14, 1951
3 Claims. (Cl. 60—39.36)



1. A gas-turbine engine comprising annular combustion equipment which includes inner and outer annular casings and inner and outer annular flame tube walls, said flame tube walls being spaced radially to afford an annular combustion space and being radially spaced from the annular casings to afford annular air passages inside and outside said annular combustion space, and a turbine which is connected to receive hot gas from the combustion equipment and which has at its inlet a nozzle-guide-vane assembly comprising a plurality of nozzle-guide vanes, each of said flame tube walls terminating at its downstream end close to the upstream edges of the nozzle-guide vanes and being provided with a plurality of flutes which extend from the wall into said combustion space and increase in depth towards the downstream end of the flame tube wall and terminate at said downstream end, there being one such flute aligned with each nozzle-guide vane, the flutes on one of the flame tube walls being aligned with alternate nozzle-guide vanes and the flutes on the other flame tube wall being aligned with the remainder of the nozzle-guide vanes, the radial extent of each flute at its downstream end being substantially equal to the radial extent of the associated nozzle-guide vane, whereby a stream of cooling air flows through each flute and is delivered over the surface of an associated one of the nozzle-guide vanes.

2,780,061

LIQUID FUEL BURNER FOR A COMBUSTION CHAMBER PROVIDED WITH A SURROUNDING AIR JACKET

John Stanley Clarke, Blacko, and Squire Ronald Jackson, Burnley, England, assignors to Joseph Lucas (Industries) Limited, Birmingham, England

Application May 8, 1953, Serial No. 353,762
1 Claim. (Cl. 60—39.66)

A liquid fuel burner for a combustion chamber provided with a surrounding air jacket, comprising in combination a hollow fuel-supply stem adapted to extend through the air jacket into the combustion chamber, a fuel-discharge nozzle on the inner end of the stem, and an air duct surrounding the stem for conveying an air stream from the air jacket to the region occupied by the nozzle, the air duct being composed of overlapping tubular components spaced apart to provide between them narrow passages through which a limited outflow of air

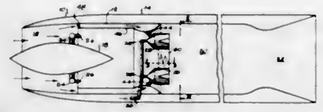
can take place, and the nozzle being surrounded by the adjacent end of the air duct which is apertured to allow air to be discharged from the said end after flowing around the nozzle.

2,780,062

JET ENGINE BURNER CONSTRUCTION

Hillard E. Barrett, East Orange, and William F. Payne, Cedar Grove, N. J., assignors to Curtiss-Wright Corporation, a corporation of Delaware

Application April 3, 1951, Serial No. 219,047
12 Claims. (Cl. 60—39.72)



1. In combustion apparatus having a combustion chamber and means for supplying fuel and air to said chamber to form a combustible mixture therein: the combination therewith of means for igniting said combustible mixture; said means comprising a pilot burner tube disposed within said chamber and having means for supplying fuel to said tube separate from the fuel supplied to said chamber by said first mentioned means, for providing a pilot flame; and an open-sided channel member disposed within said chamber outside of said tube and extending across the flow path of said combustible mixture with its open side facing in a generally downstream direction relative to said flow path such that said mixture flows over both sidewalls of said channel member from its closed side, said channel member extending from and opening into said pilot burner tube through the side of said tube.

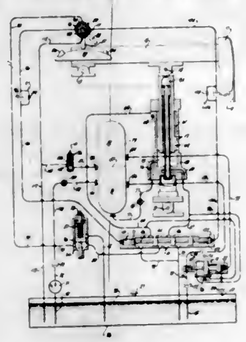
2,780,063

COUNTERBALANCED PUMPING JACK

Ray Bacchi, Daly City, Calif., assignor, by mesne assignments, to Baldwin-Lima-Hamilton Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application October 27, 1955, Serial No. 543,088
1 Claim. (Cl. 60—51)

A counterbalanced pumping jack comprising a base, a pumping beam, a pin connection between said pumping beam and said base, a jack mechanism including an upright cylinder, a rocker connection between the bottom of said cylinder and said base, a central tube secured to said rocker connection and extending upwardly through said cylinder, a tube head on the upper end of said central tube, a piston tube reciprocably engaging said tube head and extending around said central tube into said cylinder, a piston on the bottom of said piston tube and reciprocably engaging said cylinder, a pivot connection between the top of said piston tube and said pumping beam, a balance tank, means interconnecting said balance tank and said cylinder below said piston, a pump, a sump tank, a main valve, means including said main valve for interconnecting said pump and said sump tank to said central tube, means including said main valve for



interconnecting said pump and said sump tank to said cylinder above said piston, and a pilot valve actuated by said pumping beam for controlling said main valve.

2,780,064

ACCUMULATOR FOR HYDRAULIC SYSTEMS

Robert G. Sharp, San Diego, and Howard E. Wright, La Mesa, Calif., assignors, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware

Application November 10, 1953, Serial No. 391,226
11 Claims. (Cl. 60—51)

1. An accumulator device comprising a casing having an outer annular high pressure chamber and an inner low pressure chamber co-axially disposed internally of said outer annular chamber, a primary piston having opposed first and second faces reciprocable within said outer chamber, a secondary piston of lesser diameter than said primary piston reciprocable within said inner chamber, said primary piston having a major portion of a first face exposed to the atmosphere and the remaining portion of said first face exposed to the interior of said outer chamber, and port means extending through said casing for admitting charging fluid at a pressure intermediate the pressures within said outer and inner chambers to an interior space disposed between the second face of said primary piston and said secondary piston whereby a higher pressure is applied by said charging fluid acting against the entire second face of said primary piston to the fluid in said outer annular chamber and a lower pressure is applied to the fluid within said inner chamber.

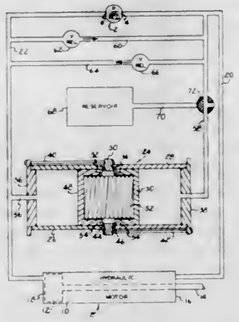
2,780,065

CLOSED HYDRAULIC SYSTEM

Ernst W. Spannhake, Peoria, Ill., assignor to LeTourneau-Westinghouse Company, Peoria, Ill., a corporation of Illinois

Application July 20, 1955, Serial No. 523,307
10 Claims. (Cl. 60—52)

1. A hydraulic system comprising: a motor movable through a given cycle in one direction while receiving a given volume of fluid and discharging a different volume of fluid, the different volume being smaller than said given volume by a predetermined amount, and movable through said cycle in the opposite direction while receiving said smaller volume of fluid and discharging said given volume of fluid; a reversible pump having a pair of ports and operable in either direction, the rate of fluid flow through one port being equal to the rate of



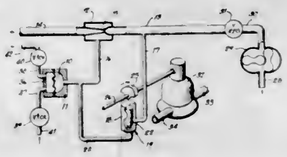
fluid flow through the other port at any given instant; conduit means connecting the pump ports with the motor; and a double-acting expansible chamber device, open at all times to both pump ports through the conduit means, to maintain under a supply pressure whichever pump port is passing fluid into the pump and to supply or receive said predetermined amount of fluid volume to or from the conduit means according to need.

2,780,066

FLUID-ACTUATED PULSATING DEVICE

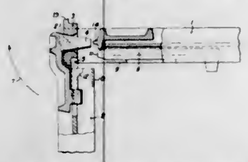
Eldred G. Tarry, Westfield, N. J., assignor to Wallace & Tiernan Incorporated, Belleville, N. J., a corporation of Delaware

Application February 9, 1955, Serial No. 487,198
4 Claims. (Cl. 60—60)



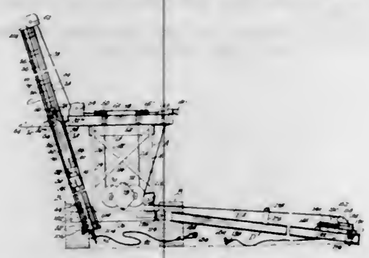
1. A fluid-actuated reciprocating device comprising movable means, means defining a drive chamber opening on said movable means, fluid-conducting means comprising an ejector having an inlet passage and an outlet passage, the inlet passage being connected to receive fluid under pressure, said ejector having a throat and passage means opening to said throat for communicating a fluid withdrawing lower pressure to the aforesaid drive chamber, supplemental passage means for directing fluid under pressure from the fluid-conducting means to the drive chamber, and means including valve means controlling flow through said supplemental passage means independently of flow through the ejector, for alternately and repeatedly interrupting and initiating fluid flow through said supplemental passage means, respectively to effect withdrawal of fluid from the drive chamber under the aforesaid lower pressure and introduction of fluid into the drive chamber under pressure, for reciprocating said movable means.

2,780,067
ROOF SUPPORTING MEANS OR CAP AND A METHOD OF POSITIONING THE SAME
Oskar Jacobi, Oberhausen-Sterkrade, and Otmar Muller, Dusseldorf, Germany, assignors to Gutehoffnungshütte Oberhausen Aktiengesellschaft, Oberhausen, Germany
Application May 12, 1952, Serial No. 287,441
Claims priority, application Germany May 15, 1951
10 Claims. (Cl. 61—45)



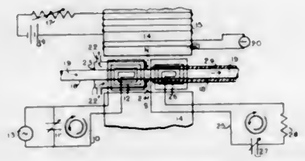
1. A method of successively positioning roof supporting elements in mine seams comprising the steps of coupling a supporting element to be positioned to an element set in position so that the axis of the first mentioned element is transverse to the axis of the second mentioned element, swinging the first mentioned element while in the transverse position and in a plane at substantial right angles to the plane of the set element upwardly to a substantial horizontal position, preliminarily locking the elements together to maintain them in substantially the same horizontal plane while permitting movement of said first element in that plane and swinging the first mentioned element from the transverse horizontal position to a position forwardly of and in continuation of the second mentioned element so that the first mentioned element attains a supporting position.

2,780,068
DRIVING APPARATUS FOR EARTH ANCHORS
Claude E. Grimes, Vicksburg, Miss.
Application May 20, 1952, Serial No. 288,988
5 Claims. (Cl. 61—74)
(Granted under Title 35, U. S. Code (1952), sec. 266)



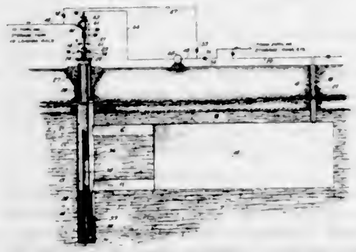
1. In equipment for driving flat disc earth anchors into the earth for anchoring a load attached to the said anchors, the improvements which comprise a rig frame mounted on a power-propelled tractor vehicle provided with a source of power, an upstanding boom mounted at one end on the rig frame, anchor-driving mechanism operating in the boom including a driving hammer, a driving plunger positioned in the boom below the hammer and receiving impacts from the hammer, a driving head secured to the plunger, a cushion block mounted on the driving head and directly receiving impacts of the hammer, and lifting cable means connecting the driving hammer to the source of power on the vehicle by way of guide- and tensioning-sheaves for the cable mounted on the rig frame; a disc-type earth anchor having substantially flat opposite sides mounted edgeways in the driving plunger, a flexible lead cable extending perpendicluarly and axially through the anchor, and means on the cable securing the cable against displacement from the anchor under application of a predetermined load on the cable; and means enabling predetermined angular adjustments of the boom and anchor-driving mechanism relative to the rig frame for enabling driving the anchor into the ground at a preselected angle at which tensioning forces applied to the flexible end cable by a tensioning load thereon are transmitted perpendicularly to the anchor when the anchor and cable are driven into the ground.

2,780,069
ELECTROMAGNETIC ENERGY CONVERTER FOR A HEAT PUMP
Bernard Olcott, Fort Worth, Tex.
Application March 18, 1954, Serial No. 417,086
12 Claims. (Cl. 62—1)



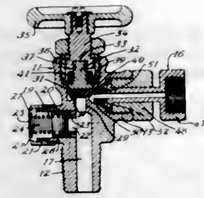
1. An energy converter comprising a medium, a magnet having a polarizing field in proximity to the said medium, means for selectively providing an alternating electromagnetic field through the said medium in a direction which is perpendicular to the polarizing field produced by the said magnet, means for removing generated heat from said medium, a resonant circuit having an energy dissipating element, means for selectively coupling the said resonant circuit to said medium, whereby the medium is cooled when the influence of the said alternating electromagnetic field is removed from the said medium and the influence of the said resonant circuit is established upon the medium.

2,780,070
UNDERGROUND STORAGE SYSTEM
Leonard P. Meade, Bartlesville, Okla, assignor to Phillips Petroleum Company, a corporation of Delaware
Application April 27, 1953, Serial No. 351,297
11 Claims. (Cl. 62—1)



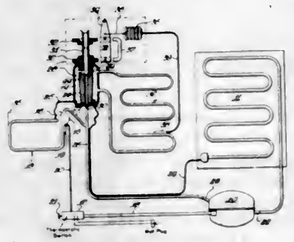
5. In an underground storage system, in combination, an underground storage cavern; a shaft extending from the surface of the earth and communicating with said cavern; means for sealing said shaft; a string of casing extending through said sealing means, a first string of tubing mounted concentrically within said casing; a second string of tubing positioned parallel to said first string of tubing; means for introducing fluid to be stored into said cavern; means for withdrawing fluid from the bottom of said shaft comprising a rotary hydraulic motor-pump unit, said unit being carried by said first string of tubing and connected to said second string for supply of power fluid; and a normally closed valve means attached to the lower end of said casing and adapted to open upon contact with said motor-pump unit.

2,780,071
VALVE STRUCTURE FOR USE IN CONJUNCTION WITH GAS ODORANT SYSTEMS
Jose B. Calva, Minneapolis, Minn., assignor of one-half to George W. Benz, St. Paul, Minn.
Application October 29, 1952, Serial No. 317,427
7 Claims. (Cl. 62—1)



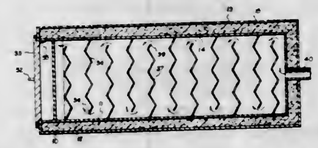
1. A valve connection designed for use in a gas odorizing system, the connection including a shut-off valve having an inlet, an outlet, and a valve element between said inlet and outlet, a tapered shoulder within said outlet, a connector including a tapered end designed to seat against said tapered shoulder, an adapter between said shoulder and said tapered end, said adapter including a ring shaped body having oppositely disposed tapered walls designed to fit against said shoulder and said tapered connector end respectively, and an odorant cartridge encircled by said adapter.

2,780,072
TWO-TEMPERATURE REFRIGERATION SYSTEM
Milton Y. Warner, Evansville, Ind., assignor, by mesne assignments, to Whirlpool-Seeger Corporation, a corporation of Delaware
Application October 27, 1955, Serial No. 543,225
4 Claims. (Cl. 62—4)



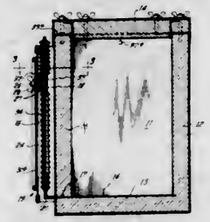
1. In a household refrigerator having an above-freezing food storage chamber and a below-freezing frozen food chamber, a refrigeration system including a plate evaporator provided with sinuous coils and located in said above-freezing food storage chamber, an accumulator, the said evaporator having its tube ends connected to said accumulator, a freezing evaporator, said freezing evaporator having a receiver at its suction outlet and being located in said below-freezing chamber, a motor compressor having its outlet connected to a condenser, a capillary tube leading from said condenser to said accumulator and forming a restrictor, said capillary tube being in heat conducting relation with said suction tube leading from said receiver to said motor compressor inlet, and a second capillary tube extending from the outlet of said freezing evaporator to the lower end of said receiver, a cold control comprising a thermostatic switch controlling the circuit of said motor compressor and having a bulb in heat conducting relation with the outlet of said below-freezing evaporator, a suction pipe connection from said suction pipe to a valved conduit in said receiver, said valved conduit having a valve seat and a paramagnetic valve plunger, said plunger engaging said valve seat at a port communicating with the interior of said accumulator, and said plunger being reciprocably mounted in a closed tube extending from said receiver, a magnetic core having a pair of annular poles surrounding said tube and adapted to act on said plunger, and a thermostatic member responsive to temperature of said above-freezing evaporator for moving a magnet and causing polarization of said poles to act on said plunger and open said valve, the said evaporators being connected in parallel by said suction tube, receiver, and capillaries so that heat removed from either evaporator may be carried back directly to the compressor inlet to increase its efficiency.

2,780,073
AUTOMOBILE COOLER
William R. Curry, Babbitt, Nev.
Application August 30, 1955, Serial No. 531,554
5 Claims. (Cl. 62—91.5)



1. A motor vehicle cooler comprising a housing having insulated side walls, an insulated base, an insulated cover, and an insulated end wall, the opposite end being open, a closure for the open end of the housing, a center compartment in said housing spaced from the side walls, a longitudinally disposed partition in the center compartment extended from the insulated end wall of the housing to a point spaced from the opposite end of the center compartment providing air circulating chambers in the center compartment on opposite sides of the longitudinally disposed partition, inlet and outlet connections extended from the center compartment through the insulated end wall of the housing, spaced transversely disposed baffles in the center compartment and extended upwardly from the base of the housing to points spaced downwardly from the cover, similar baffles also mounted in the center compartment positioned between the baffles extended upwardly from the base and extended from the cover to points spaced upwardly from the base, and means for cooling said baffles.

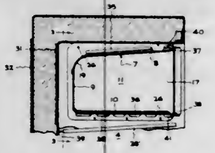
2,780,074
REFRIGERATING UNIT
Everett H. Haanan, Irving, Tex.
Application January 25, 1954, Serial No. 405,671
3 Claims. (Cl. 62—91.5)



1. A portable refrigerating apparatus for disposition in a space to be cooled, comprising a container having insulated walls and an insulated, removable cover, a sheet of heat conducting material in said container on which is adapted to rest solidified carbon dioxide, a primary absorption plate exteriorly of said container having direct communication with said primary plate into which heat is transferred by said sheet from said solidified carbon dioxide, a secondary plate enclosing the

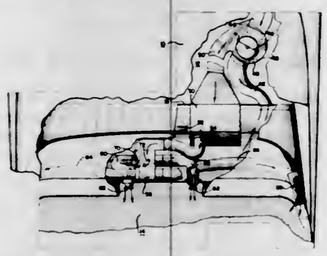
front and side edges of said primary plate, air tight flexible and collapsible means enclosing the effective absorptive area of said primary plate, and means movable vertically in relation to said primary and secondary plates for effecting direct transfer of heat from said primary to said secondary plate through said collapsible means to control the amount of heat transferred by said secondary plate into said space.

2,780,075
FREEZER COMPARTMENT FOR HOUSEHOLD REFRIGERATOR
Donald E. Hilliker, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application July 18, 1955, Serial No. 522,519
6 Claims. (Cl. 62—99)



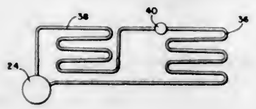
3. A refrigerator cabinet comprising a liner defining a food storage compartment and a freezer compartment in said food storage compartment including side, bottom, rear and top walls, said freezer compartment comprising a C-shaped refrigerant evaporator of high heat conductivity material forming the top, rear and bottom walls of said freezer compartment and support members of low heat conductivity material secured to the side walls of said liner, each member including a shoulder defining a vertical section in spaced relation with the adjacent liner side wall, said vertical sections forming the end walls of said freezer compartment, and projecting means spaced from said shoulders and defining with said shoulders recesses for receiving the top and bottom side edges of said evaporator.

2,780,076
AUTOMOBILE REFRIGERATING APPARATUS
Robert F. McLean, Oak Park, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 14, 1953, Serial No. 331,275
4 Claims. (Cl. 62—117.1)



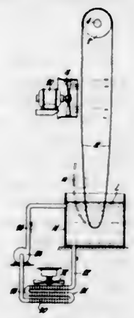
4. In combination, a vehicle having a passenger compartment provided with front and rear seats, panel means adjacent the front of said vehicle, refrigerating apparatus including an air cooling coil for cooling said passenger compartment, means for circulating air to be conditioned in thermal exchange relationship with said coil, duct means in communication with said air circulating means having a plurality of air outlets for distributing said air within said passenger compartment, air deflector means for a first pair of said outlets mounted on said panel means and having adjustable deflectors for directing air at various angles relative to occupants of said front seat, a second pair of said outlets having fixed grill means supported on said panel means for directing air along opposite sides of occupants of said front seat for cooling the passengers in the back seat, and another of said outlets directing a stream of air downwardly towards the floor of said passenger compartment.

2,780,077
VEHICLE REFRIGERATING APPARATUS
James W. Jacobs, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 21, 1954, Serial No. 444,838
4 Claims. (Cl. 62—117.1)



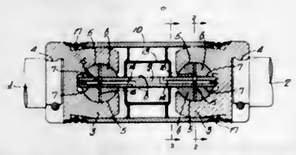
1. In a self-contained air conditioning unit for use in passenger automobiles or the like, the combination, a casing, an evaporator in said casing, a condenser in said casing, means dividing said casing into the evaporator compartment and a condenser compartment, a compressor secured to said casing, means for transmitting power from the engine of said automobile to said compressor, refrigerant flow connections between said evaporator, compressor and condenser, means for introducing fresh air into the said condenser compartment, means for selectively directing the air leaving said condenser compartment either into said passenger compartment or into the outside atmosphere, means for selectively introducing either fresh air, recirculated air or a mixture of both into said evaporator compartment, blower means for facilitating the flow of air through said evaporator and condenser compartments, and means for directing the air flowing over said evaporator into said passenger compartment, said blower means comprising a pair of blowers operated by a common motor disposed between said evaporator and said condenser.

2,780,078
PERFORATED BELT EVAPORATIVE COOLER
Alfred Teplitz, Pittsburgh, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application February 5, 1954, Serial No. 408,530
2 Claims. (Cl. 62—139)



1. Cooling apparatus comprising a roll arranged with its axis substantially horizontal, means for rotating said roll, a liquid container, an endless belt passing around said roll and suspended therefrom with its lower end extending into the liquid in said container, said belt having a plurality of openings therethrough, said roll rotating at a sufficiently low speed to permit liquid to remain on said belt until it returns to said container, said roll having a substantially cylindrical belt supporting surface of less width than the width of said belt whereby the belt extends over both ends of the roll, the unsupported edges of said belt deflecting radially of the roll with the deflection being greater at either edge that is displaced off center of the roll thereby causing the belt to move back on center, means for directing a flow of air against said moving belt, a heat exchanger, means for circulating liquid from said container through said heat exchanger, and means for delivering a fluid to be cooled to said heat exchanger.

2,780,079
COUPLINGS
Åke Wahlberg, Degerfors, Sweden, assignor, by mesne assignments, to SKF Industries, Inc., Philadelphia, Pa., a corporation of Delaware
Application April 8, 1952, Serial No. 281,097
Claims priority, application Sweden June 18, 1946
6 Claims. (Cl. 64—7)

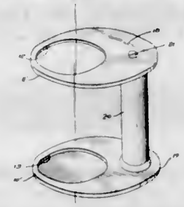


1. In a rotary coupling a pair of universal joints disposed in spaced, substantially axial alinement and each comprising a rotary head member, pintle means mounted on the said head member for movement with respect to the latter about an axis normal to the rotary axis of the head member, and a flat, plate-like member slidably fitted to the pintle means for angular movement relative to the latter in a plane containing the rotary axes of the pintle means and of the head member; and an integral sleeve-like member extending between and embracing said spaced, substantially alined head members and having on its inner surface an axially-extending groove into which an edge of said plate-like member is seated, engagement of said edge within said groove constituting a driving connection between said head member and said pintle means and said sleeve-like member, whereby transmittal of torque from one head member to the other is effected primarily through said sleeve-like member.

2,780,080
UNIVERSAL JOINT
Gordon H. Cork, Birmingham, Mich., assignor to Process Gear and Machine Company, Detroit, Mich., a corporation of Michigan
Application August 19, 1953, Serial No. 375,261
3 Claims. (Cl. 64—21)

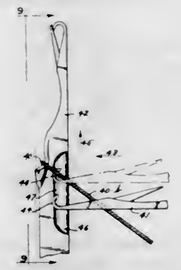
1. A constant velocity universal joint having a driving member, and a driven member rotatable by said driving member, said driving and driven members having conjugate contact faces forming the driving connection therebetween, the faces of one of said members each being defined by curved surfaces which intersect in a plane perpendicular to the shaft axis and which intersection is curved about an axis parallel to the shaft axis and each of said surfaces being curved about an axis parallel to the shaft axis and said parallel axis and located between those axes.

2,780,081
HOLDER FOR COFFEE MAKER TOP
James L. Alexander, Joliet, Ill.
Application January 21, 1953, Serial No. 332,201
1 Claim. (Cl. 65—65)



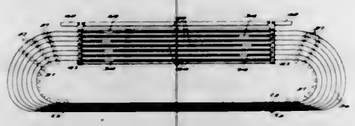
In a holder for a coffee maker top, a round flat bottom plate having an upper surface having a depression defining a drip basin therein, a round flat top plate overlying said bottom plate and having an underside, said top plate having a coffee maker top receiving opening, said opening and said basin being eccentrically positioned toward one side of the plates and vertically aligned with each other, a single vertical strut having upper and lower ends engaged respectively with the underside of the top plate and the upper surface of the bottom plate, said strut being located inwardly of the edges of the plates, and in the space between the plates at the other side from the basin and opening, and means securing the strut to the top and bottom plates.

2,780,082
LOOP TRANSFER METHOD
Rudolph E. Zerneith, Philadelphia, Pa.
Application August 23, 1950, Serial No. 181,035
5 Claims. (Cl. 66—95)



1. The method of transferring a yarn-loop on a knitting machine having two banks of knitting needles, from a stitch-transferring needle in one bank to a stitch-receiving needle in the other bank, which comprises advancing the stitch-transferring needle with a loop thereon and spreading one leg of the yarn-loop away from the corresponding side of the stitch-transferring needle while the other leg of the yarn-loop is closely adjacent the corresponding side of said needle, with the strands constituting the two legs of the loop slanting toward the rear and base of the needle at an acute angle to the travelline of the needle, advancing the juxtaposed stitch-receiving needle on the outside of the spread-away leg of said loop to a position where the hook thereof has passed said leg of the loop but the point of the hook has not yet reached the end of the loop, thereafter withdrawing the stitch-transferring needle to its retracted position so that the spread-away leg of said loop will be moved against the stitch-receiving needle in intersecting relation thereto at the mouth of the hook thereof, whereby the loop will thus be transferred to the stitch-receiving needle twisted 180° from its former position on the stitch-transferring needle.

2,780,083
YARN TRAVERSING MECHANISM FOR KNITTING MACHINES
Kenneth Howie, Norristown, Pa., assignor to Wildman Mfg. Co., Norristown, Pa., a corporation of Pennsylvania
Application December 18, 1953, Serial No. 398,938
12 Claims. (Cl. 66—126)



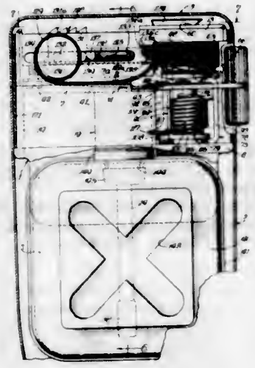
1. In a yarn traversing mechanism for a knitting machine of the type in which the yarn carriers are in the form of flexible bands forming elongated closed loops having curved ends, parallel forward runs by which yarn feeding tubes are carried and parallel rear runs in which driving dog carriers are located for moving the bands; the combination with the rear runs of said bands of guiding and supporting means extending throughout the normal range of travel of said dog carriers, said guiding and supporting means comprising guide rails, said guide rails and dog carriers having interengaging guide channels, said rails being separable to disengage said interengaging guide channels.

2,780,084
CONSTRUCTION OF LADIES' HOSIERY
Leonard Solomon, Long Island, N. Y., and Melvin J. Gordon, Wellesley, Mass., assignors to Melvin J. Gordon, S. Z. Gordon, and N. G. Stone
Application February 18, 1954, Serial No. 411,050
3 Claims. (Cl. 66—187)

1. A full fashioned ladies synthetic silk knit hose formed with a center seam extending down the middle of the back of the hose around the heel and under the center of the sole of the foot with a knit-in loosely twisted preset highly stretchable yarn forming a section on both sides of the seam commencing at the back at the line of intersection of the surface of the foot with an imaginary plane passing through the apex of the heel and bisecting the angle between the back of the heel and the bottom of the heel at a position corresponding substantially to the beginning of the sole of the foot, said section extending part way across the sole and forwardly about two inches toward the instep, and extends transversely from one side to the other of the bottom of the heel and is bisected by the seam.

2,780,085
LIGHTERS
Fred Perlin, Edgerton, Wis., assignor to The Parker Pen Company, Janesville, Wis., a corporation of Wisconsin
Application January 27, 1953, Serial No. 333,415
10 Claims. (Cl. 67—7.1)

1. In a lighter, a fuel tank for liquefied gaseous fuel, a burner, conduit means connecting said tank to said burner for the passage of gaseous fuel from said tank to said burner, a valve seat member formed of a resilient material having a relatively high coefficient of thermal expansion disposed in said conduit, means confining said valve seat member for controlling its direction of expansion and contraction, a valve member slidable in said conduit in the direction of expansion and contraction of the valve seat



member between a closed position in firm abutment with said valve seat member and closing communication through said conduit and an open position spaced from said valve seat member and permitting the passage of gaseous fuel past said valve seat member, means normally urging said valve member into closed position, and manually actuated means for opening said valve.

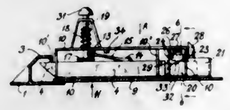
2,780,086
TIME DELAY SWITCH
Charles M. Dunlap, Mansfield, Ohio
Application December 10, 1954, Serial No. 474,493
18 Claims. (Cl. 68—24)

1. In a device of the class described; a frame, a rotary member, means supporting said rotary member for rotation thereon, said supporting means being mounted on said frame for movement relative thereto in response to rotational unbalance of said rotary member, drive means for rotating said rotary member, control means for said drive means for effecting either high speed or low speed rotation of said rotary member, a switch for actuating said control means, a switch-operating member movably mounted on said supporting means for movement to a first position wherein said switch is operated to establish high speed drive and to a second position wherein said switch is operated to establish low speed drive, means responsive to movement of predetermined magnitude of said supporting means relative to said frame during high speed drive for moving said switch-operating member to said second position, and movable means arranged to be moved by rotary motion of said rotary member a predetermined amount at low speed for moving said switch-operating member to said first position.

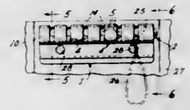
2,780,087
COMBINATION RESETTING GUARD FOR COMBINATION PADLOCKS
Harry C. Miller, Rochester, N. Y.
Application April 16, 1954, Serial No. 423,719
5 Claims. (Cl. 70—51)

2. In a combination lock, the combination with a lock housing including a wall having a combination resetting key opening therein, rotatable tumblers, a driving cam therefor, and a fence operatively associated with said tumblers and driving cam, of a guard mechanism comprising a pair of cover plates held together against relative movement and rotatably mounted on said wall, said plates being disposed over the inner and outer surfaces of said wall in covering relation with the wall opening for normally blocking both the entrance and exit of said wall opening, said plates having aligned resetting key openings therein normally spaced out of alignment with said wall opening, means projecting from one of said plates for engaging said fence upon attempted rotation of said cover plates from said blocking position when said fence is in locking position to prevent rotation of said plates, said fence having a relieved portion for receiving said projecting means when said fence is in unlocking position to permit rotation of said plates to align the openings therein with said wall opening, and said pair of cover plates having means releasing said fence for return to locking position when said cover plates are positioned with their openings in alignment with said wall opening.

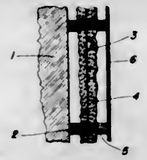
2,780,088
DOOR LOCK FOR AUTOMATON FOR DELIVERING BENZINE, OIL, OR OTHER GOODS
Ivar Nabelt, Vallemyrene, near Porsgrunn, Norway
Application February 27, 1953, Serial No. 339,388
Claims priority, application Norway March 4, 1952
6 Claims. (Cl. 70—389)



1. A lock for a door of a cabinet adapted to be opened by a key and particularly to be used in connection with an automaton for delivering benzine, oil and the like, comprising a lock bolt which is openable by the key which can be inserted into and removed from the lock only with the bolt in its fully closed condition, first means which, with the bolt moved to a predetermined position by the key in lock opening direction, is made operative to block return motion of the bolt from said predetermined position before said bolt is moved to its fully open condition and second means which, with the bolt moved by the key to its fully open condition and returned by the key in lock closing direction, is operative to block the bolt from being moved back in lock opening direction before the bolt has reached the position in which said first blocking means becomes operative.

2,780,089
KEY HANGER SUPPORT FOR KEY CASES
Morgan V. Duell, Oakville, Conn., assignor to Buxton, Incorporated, Springfield, Mass., a corporation of Massachusetts
Application October 11, 1951, Serial No. 250,888
9 Claims. (Cl. 70—456)

9. A key hanger support for key cases which comprises a body member adapted to be fixed to a key case, said member including a tubular portion having a plurality of transverse hanger retaining slots each terminating in an enlarged opening for insertion and removal of a hanger into and from the slot, a locking member slidably carried by the body member for limited movement axially of the tubular portion, said locking member having projections equal in number to said slots, all parts of said locking member including all of said projections being positioned to clear all of said openings in all positions of permitted movement of said locking member sufficiently to permit the introduction of a hanger through said openings in all positions of the slide, said projections each having an edge positioned to extend transversely across the entrance to said opening in one position of movement of the locking member and to clear the entrance in a second position of the locking member, a spring means normally maintaining the locking member in said first position and means for moving the locking member from said first position to said second position against the action of said spring.

2,780,090
INSULATING STRUCTURE
Peter D. Rasmussen, Madison, Wis., assignor to Invention Development Corporation, a corporation of Illinois
Application September 18, 1952, Serial No. 310,254
2 Claims. (Cl. 72—17)

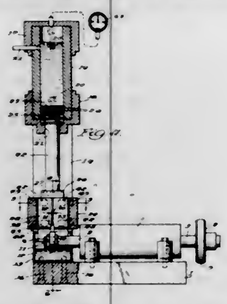


1. An insulating wall structure comprising a wall, spacing members parallel and attached thereto, a reticular screen attached to said spacing members and substantially parallel to said wall, a cellular substantially rigid insulating material supported on said reticular screen and extending both inwardly and outwardly therefrom having an outer surface characterized by being retiform, and a synthetic resin membrane supported by members extending at least into contact with said reticular screen, said membrane being spaced outwardly from said insulating material and substantially parallel to said reticular screen.

2,780,091
BEARING AND LUBRICANT FRICTION EVALUATING APPARATUS
Nicholas C. Amen, Glendale, Calif.
Application November 20, 1953, Serial No. 393,255
4 Claims. (Cl. 73—9)

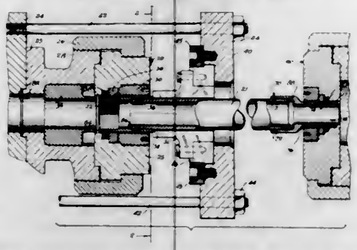
1. In a device for testing bearing materials and lubricants, a base, a rotatable shaft mounted on said base, power means for driving said shaft, a test ring having an

outer peripheral surface comprising a bearing material surface to be tested detachably fixed in coaxial relation on said shaft, a test bar having an end surface comprising a material to be tested in conjunction with said ring surface disposed with said end surface in engagement with said ring surface and movable toward and away from said ring surface in a line extending radially of the axis of rotation of said shaft, clamp means gripping said test bar, guide means engaging said clamp means constructed and arranged to confine movement of said clamp means to a



path parallel to said radial line, and means for imposing a predetermined load on said test bar comprising a hydraulic cylinder disposed above said clamp means, a piston in said cylinder, a piston rod extending from said piston downwardly through the lower end of said cylinder to said clamp means, an air dome portion in the upper end of said cylinder, a source of fluid supply, a pump interposed between said supply and said cylinder operative to deliver fluid under pressure to said cylinder, and a relief valve interposed between said pump and said cylinder and having a bypass lead to said supply.

2,780,092
TUBE TESTING DEVICE
William L. Govan, Port Washington, N. Y., assignor, by mesne assignments, to Baldwin-Lima-Hamilton Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application November 12, 1953, Serial No. 391,476
8 Claims. (Cl. 73—49.5)

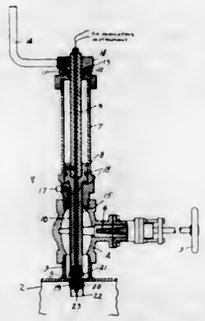


1. In a hydraulic tube testing machine in which fluid under pressure is supplied to the interior of a tube to be tested and which includes head means cooperating with the ends of said tube, said ends being threaded, a device comprising adaptor means on at least one end of said tube and movable into and out of the testing machine together with said tube as a unit, said adaptor means including a threaded tubular mounting portion tightly screwed onto said one end of the tube and a tubular sealing portion having a cylindrical sealing surface of a diameter smaller than the outer diameter of said tubular mounting portion, and sealing means carried by said head means and spaced from said tube so as to engage the cylindrical sealing surface of said adaptor means and seal the adaptor means and said one end of the tube connected thereto.

2,780,093
HYDRAULIC PIPE TESTING APPARATUS
John C. Ewart, Milwaukee, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application June 1, 1954, Serial No. 433,429
9 Claims. (Cl. 73—49.6)

1. An apparatus for testing tubular members, comprising a frame, a cylindrical core extending outwardly from the frame and adapted to circumferentially receive a tubular member to be tested, said member being spaced outwardly from the core to provide an annular chamber between the core and the member, an annular resilient sealing member disposed at each end of the core and adapted to bear against the pipe for sealing the ends of the chamber against internal fluid pressure, an annular seal protector disposed at the rearward end of the core adjacent the frame to depress the sealing member at said rearward end until the tubular member is circumferentially disposed with respect to the rearward sealing member, said seal protector being disposed radially outward of the sealing member in position to be engaged by the end of the tubular member and moved rearwardly out of engagement with the sealing member, means for moving the tubular member onto the forward end of said core prior to testing and for withdrawing the member from said core after the testing has been completed, and means for introducing a high pressure into said chamber to test the portion of the tubular member disposed between the sealing members for structural defects.

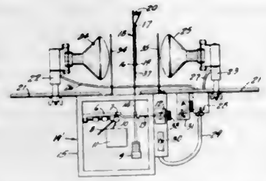
2,780,094
PIPELINE MOUNT FOR THERMISTOR INSTALLATION
Melvin M. Fink, Cleveland, Ohio, assignor to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
Application April 22, 1954, Serial No. 424,865
6 Claims. (Cl. 73—53)



4. In a device of the character described, the combination with a pipeline of a nipple thereon communicating with the interior, a gate valve housing on said nipple, a piston-containing cylinder connecting on the gate valve housing, a piston in said cylinder movable through the gate valve and into the pipeline when the valve is open, said piston having a stem extending back through the cylinder and there-out and having a smooth stem extending toward the pipeline, operating means for moving the piston toward and away from the pipeline, a screw-threaded insert in the end of the stem toward the pipeline, a thermistor carried by said insert, electric conductor means extending in a bore through the piston

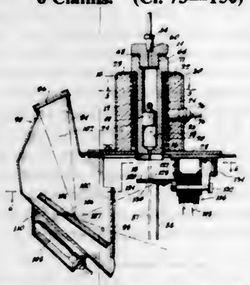
to the thermistor, a locking cap on the free end of said insert, and yieldable compression means between said cap and the electric conductor means.

2,780,095
METHOD AND APPARATUS FOR DETERMINING THE SOLID CONTENT OF MATERIALS
Carl W. Brabender, Minneapolis, Minn., assignor to Pillsbury Mills, Inc., Minneapolis, Minn., a corporation of Delaware
Application August 19, 1953, Serial No. 375,203
6 Claims. (Cl. 73—76)



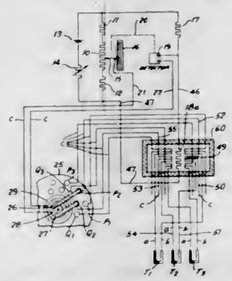
5. In apparatus for determining the moisture content of a sample of known weight of malleable material, the combination of a weighing mechanism having means connected therewith for holding such a sample in weighable relation, a variable and controllable source of dry radiant heat mounted adjacent the weighing mechanism and directing heat toward the sample from opposite sides thereof simultaneously, electric control mechanism operably connected with said source of heat for varying the intensity of heat output therefrom, and timing mechanism connected with said electric control mechanism and controlling the same to cause more intense heat to be directed toward the sample during the initial stage of the drying operation than during the latter stages thereof.

2,780,096
FLOW TESTER FOR PLASTIC MATERIALS
Aubrey E. Noble, Plainfield, Charles F. Anness, Woodbridge, Joseph B. Hyman, Plainfield, and Robert W. Raetz, Westfield, N. J., assignors to Catalin Corporation of America, a corporation of Delaware
Application July 1, 1954, Serial No. 440,702
6 Claims. (Cl. 73—150)



1. A testing device for measuring the flow characteristics of plastic materials comprising a rheometer tube with an orifice therein for holding a sample of plastic material to be tested, an electric heating unit for heating the rheometer tube and sample to a predetermined temperature, means for applying gas under pressure to the softened plastic material to force the material to extrude as a strand through the orifice at the bottom of the tube, and means for cutting off the strand of extruded plastic material, said cutting means being operative at predetermined intervals of time to cut off the length of plastic material extruded during such predetermined time interval whereby the rate of flow of the material may be measured.

2,780,097
COLD-END COMPENSATOR FOR MULTIPLE-POINT PYROMETERS
Donald McKinlay, Jr., Bethany, Conn., assignor to The Bristol Company, Waterbury, Conn., a corporation of Connecticut
Application May 29, 1953, Serial No. 358,459
5 Claims. (Cl. 73—361)

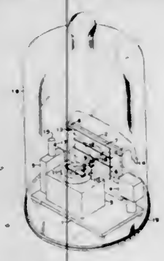


1. In a cold-junction compensator for a temperature determining system having thermojunctions exposed to temperatures to be determined, an electric circuit for the same, and a measuring network for determining the electric potentials in said circuit, the combination of a thermally conducting structure having therein cavities in mutual heat-exchange relation, a temperature-variable impedance element for inclusion in said network and selectively adapted for insertion in one of said cavities, and reference thermo-junctions adapted to be embedded in other of said cavities in close thermally coupled relation with said impedance element, each of said last named junctions comprising a plurality of thermoelectrically different materials with at least three terminal conductors whereby selected combinations of said materials may be included in said electric circuit.

2,780,098
INDICATING GAUGE RESPONSIVE TO CIRCULAR OR ANGULAR VELOCITY
Arthur M. Maroth, Wilton, Conn., assignor to Marathon Products, Inc., South Norwalk, Conn., a corporation of Connecticut
Application July 20, 1955, Serial No. 523,231
8 Claims. (Cl. 73—380)

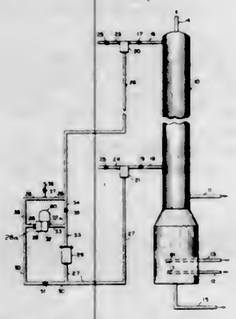
1. An indicating gauge responsive to velocity along an arcuate path and comprising elongated guide means adapted to be radially disposed with respect to the arcuate path, a mass movable along said guide means, resilient balance means yieldably opposing the movement of said mass by centrifugal force in the radially outward direction, an indicating member separate from said mass and also movable along said guide means at the radially outer side of said mass, resilient return means yieldably urging said indicating member radially inward along said guide means, means defining a calibrated scale along said guide means, an index on said indicating member cooperating with said scale so that, when said mass is displaced radially outward by centrifugal force and correspondingly displaces said indicating member, said index and scale show a function of the velocity along an arcuate path causing such centrifugal force, and releasable means for holding said indicating member in its position of maximum radially outward displacement along the guide means.

2,780,099
VACUUM GAUGE
George A. Kuipers, Oak Ridge, Tenn., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application October 31, 1955, Serial No. 544,097
10 Claims. (Cl. 73—388)



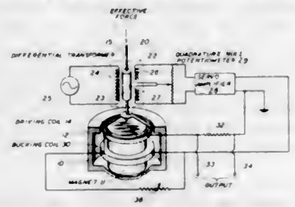
3. An arrangement for measuring pressure comprising a device for communication with a source of pressure to be measured including an envelope, a stationary wall disposed therein, a swinging wall positioned in close proximity to the stationary wall for providing damping corresponding to pressure in the envelope, electromagnetically operated means for actuating the swinging wall, and means for measuring pressure as a function of power supplied to said actuating means.

2,780,100
DIFFERENTIAL PRESSURE APPARATUS WITH COMPENSATING DEVICE
William H. Mageari, Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application September 2, 1953, Serial No. 378,134
4 Claims. (Cl. 73—389)



1. The combination with pressure responsive means adapted to produce an output representative of the difference between a pair of unlike pressures applied thereto, said means having a pair of pressure taps adapted to apply said pressures to said pressure responsive means of a device for transmitting said pressure to said taps, said device comprising a conduit system adapted to contain sealing and pressure transmission liquids confined in said system, wherein said system includes two substantially vertical leg portions of unequal vertical length, each having upper and lower ends of which the upper end of the longer leg portion is adapted to be connected to one of said pressures, and the upper end of the shorter leg portion is adapted to be connected to the other of said pressures, means to maintain unequal heads of liquid in said leg portions and to balance the hydrostatic differential pressure therebetween, including an enclosed liquid receiver in said conduit system and a flexible partition in said receiver separating the receiver into a pair of chambers, a first direct conduit connection between the lower end of one of said leg portions and one of said taps of said pressure responsive means, said tap being adapted to receive a pressure corresponding in value to the pressure with which said leg portion is connected at its upper end, a second direct conduit connection between the lower end of the other leg portion and one of said liquid receiver chambers, a third direct conduit connection between the other of said liquid receiver chambers and the other of said taps of said pressure responsive means, a fourth conduit connection between said first conduit connection and said third conduit connection, said fourth conduit connection including a valved closure for said fourth conduit connection, and a spring means engaged between said reservoir partition and a wall of said reservoir, which spring means is adapted and disposed to exert a force against said partition which is substantially equal and opposed to the force exerted on the partition by the difference between hydrostatic heads of sealing and pressure transmission liquid in the said leg portions.

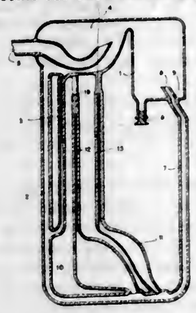
2,780,101
FORCE BALANCE MEASURING DEVICE
John F. Kinkel, Altadena, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application July 24, 1953, Serial No. 369,997
11 Claims. (Cl. 73—398)



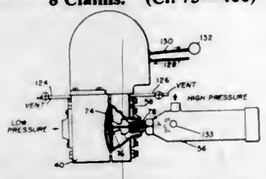
1. A self-balancing magnetic force balance comprising a housing, a magnet mounted within the housing, means for applying a force to be measured comprising, a balance shaft mounted in the housing and supporting a driving coil in circumscribing relation with the magnet, a differential transformer coupled to the shaft for providing an electric signal proportional to displacement of the shaft, a bucking coil located on the magnet adjacent the driving coil and electrically connected in series with the driving coil, means coupling the differential transformer to the serially-connected coils for conducting an electric current proportional to the electric signal through the serially-connected coils to produce a rebalance force, the number of turns on the bucking coil being selected to cause said balance force produced by the driving coil to vary substantially linearly with respect to the electric current, and means for determining the electric current.

2,780,102
VACUUM GAGE
Earl W. Flosdorf, Forest Grove, Pa., assignor to F. J. Stokes Corporation, a corporation of Pennsylvania
Application August 10, 1953, Serial No. 373,269
1 Claim. (Cl. 73—400)

In a pivotally mounted McLeod type vacuum gage adapted to contain mercury as a compressing agent and having a leveling bulb and one comparison capillary, at least two compression chambers each with an attached measuring capillary, said measuring capillaries having different inside diameters, with the closed end of a measuring capillary of given inside diameter (when the gage is in reading position) higher than that of a measuring capillary of smaller inside diameter and lower than that of a measuring capillary of larger inside diameter, and a reading scale for each measuring capillary, the zero points of the reading scales being at different levels corresponding to the levels of the closed ends of the respective measuring capillaries.



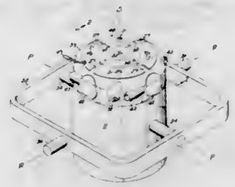
2,780,103
DIFFERENTIAL PRESSURE DEVICE WITH COMPENSATING DEVICE
William H. Mageari, Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application April 1, 1953, Serial No. 346,247
8 Claims. (Cl. 73—406)



4. In combination with a diaphragm type pressure differential transmitter having a main diaphragm, a vertical seal leg adapted to be connected with the upper portion of a tower, a vertical shorter seal leg adapted to be attached to the lower portion of the same tower, said seal legs terminating at their lower ends at about the same level, said seal legs being adapted to contain liquid and therefore produce different pressures at the lower end of the seal legs, said longer vertical seal leg at its lower end connected to one side of said pressure differential transmitter, a compensating device removably connected to the other end of said pressure differential transmitter, the lower end of said shorter vertical seal leg being connected to said compensating device, said compensating device including a housing, a plunger within said housing and having an end extending from said housing into said pressure differential transmitter and held in contact with said main diaphragm of said pressure differential transmitter, said plunger having an enlarged head at its inner end within said housing, a spring within said housing and contacting said enlarged head, and means associated with said housing for adjusting the compression on said spring and for maintaining the end of the plunger in engagement with said main diaphragm of said pressure differential transmitter.

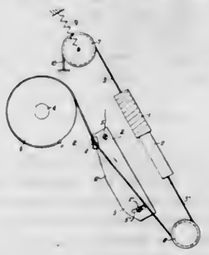
2,780,104
GYROSCOPE CONTROL SYSTEM
Bert G. Carlson, Van Nuys, Calif., and Albert L. Judson, Portland, Oreg., assignors to Iron Fireman Manufacturing Company, a corporation of Oregon
Application March 3, 1953, Serial No. 340,102
10 Claims. (Cl. 74—5.43)

1. A gyroscope including a rotor spinning about a vertical spin axis in a support, a gimbal ring in which said support is mounted freely to rotate in either direction about a support axis perpendicular to said spin axis, and a frame in which said gimbal ring is mounted freely to rotate in either direction about a ring axis perpendicular to said support axis; said gyroscope being continuously subjected to both inherent and external forces tending to cause said gyroscope to precess said spin axis away from its vertical position in any of its directions of freedom of rotation about said support axis and said ring axis; together with means forming four gas valve chambers in said support; said valve chambers being equally spaced about said spin axis with the axes of said chambers positioned radially of said spin axis in a plane perpendicular thereto; the axes of two of said valve chambers being in a plane including said spin axis and said support axis; each of said valve chambers being formed at its end away from said spin axis with a valve port therein; a gas outlet jet means communicating with each of said valve



ports; gas conduit means from the exterior of said support to each of said valve chambers; each of said gas outlet jet means being axially positioned perpendicular to the axis of its valve chamber in a plane perpendicular to said spin axis; a gravity responsive valve means in each of said valve chambers; and means adapted when one of said valve means in one of said valve chambers is away from the valve port in that valve chamber to force ambient gas from outside said support through said gas conduit means to said valve chamber and from said valve chamber through said valve port to its communicating gas outlet jet means to jet said gas to the exterior of said support; whereby the reaction of said jetted gas on said support will produce a couple about one of said support or said ring axes to cause said gyroscope to process said spin axis about the other of said axes towards the gravity vertical position of said spin axis and to cause said gravity responsive valve to move towards its associated valve port.

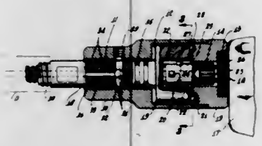
2,780,105
OPERATING MECHANISM
Fritz Steiner and Eduard Dinstl, Vienna, Austria, assignors to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application July 15, 1953, Serial No. 368,079
3 Claims. (Cl. 74—10.7)



1. An operating mechanism for converting a uniform linear motion into a non-uniform linear motion to be imparted to a travelling member, comprising spring means,

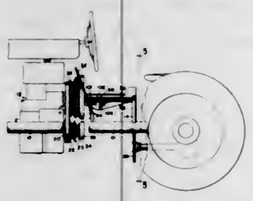
a first flexible cable coupled at one end to said travelling member and at its other end to said spring means, a second cable coupled at one end to the opposite end of said travelling member, a roller, a driving drum, said second cable being passed around said roller in one direction and around said drum in an opposite direction, means attaching the other end of said second cable to the periphery of said drum, a fixed cam member mounted between said drum and roller and having a predetermined contour and extending in a plane parallel to the plane in which said second cable moves and a cam follower fastened to a predetermined point on said second cable so as to ride on the contour of said cam member upon rotation of said drum.

2,780,106
ROTARY IMPACT DRILL
Martin Lovequist, Hollywood, Calif.
Application January 24, 1955, Serial No. 483,603
8 Claims. (Cl. 74—22)



1. A rotary hammer device comprising: a housing; a shaft mounted in the housing for rotary and limited axial movement; means on said shaft and within said housing for connection to a rotary driving element; and cooperating cam means on said shaft and housing for imparting impacts to the shaft along its axis of rotation when the shaft is rotated in the housing, said cooperating cam means comprising a plurality of circumferentially arranged camming portions on an end face of said shaft and rotating therewith, and a plurality of cooperating circumferentially arranged camming portions on the housing and held stationary thereby.

2,780,107
REVERSING DRIVE
Richard A. Sorrell, Prince Georges County, Md., assignor, by mesne assignments, to Copar, Incorporated, Laurel, Md., a corporation of Maryland
Applicaion April 9, 1954, Serial No. 422,029
2 Claims. (Cl. 74—203)

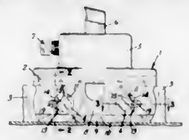


1. A drive comprising a driving shaft, a driven shaft, pulleys respectively carried by adjacent ends of said shafts, a belt adapted to operatively connect said pulleys, bracket means for mounting the other end of said driven shaft to pivot about an axis transverse to the axis of rotation of said driven shaft and a driving wheel carried by said driven shaft and concentric therewith, and having its driving surface lying in a plane passing through said pivotal axis of said bracket.

2,780,108
CHAIN SHORTENING DEVICE
Leo R. Bell, Snyder, N. Y., assignor to American Machine & Foundry Co., a corporation of New Jersey
Application July 10, 1953, Serial No. 367,177
3 Claims. (Cl. 74—242.8)

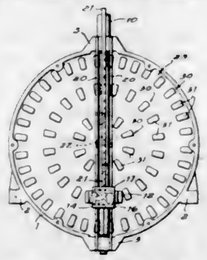
1. In combination with a sprocket chain having elongated links making up a conventional sprocket chain, a chain shortening device comprising a spring having a hook formed at the center of the spring hooked on to a sprocket chain link, resilient arms extending outwardly from said hook and urging said hook in one direction while urging adjoining links in an opposite direction so as to urge said adjoining links out of a straight line, said hook and arms being arranged not to extend beyond the width of the chain and to closely hug the same.

2,780,109
HINGE PIN LOCK
Raymond D. McPhee, Claremont, N. H., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application July 22, 1954, Serial No. 445,102
10 Claims. (Cl. 74—254)



1. In a pivoted link chain, cooperating chain links, a hinge pin for pivotally connecting said links together, said pin having a relatively shallow peripheral recess including right-angled portions respectively extending longitudinally and transversely of said pin, said longitudinal portion opening out through an end of said pin, and means for locking said pin against axial displacement from its associated link comprising a deformable locking element having right-angled portions received in said longitudinal and transverse portions of said recess in said pin for longitudinally interlocking said locking element with said pin, said longitudinal portion of said locking element having a deformable outer end bendable inwardly against an outwardly facing surface at the side of the associated link.

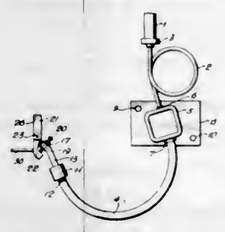
2,780,110
GEAR TRANSMISSIONS
Walter Kopa, New York, N. Y.
Application February 16, 1955, Serial No. 488,603
1 Claim. (Cl. 74—351)



A gear transmission comprising a housing, a disk rotatably mounted in said housing having a plurality of

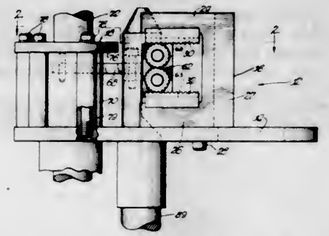
circular rows of perforations as well as on one side a protruding circular portion within the orbit described by each of said circular rows of perforations, interdigitating members having shaft portions extended through said perforations and having tooth portions protruding beyond that side of said disk which is opposite the protruding circular portions thereof, an arm member firmly secured to each shaft portion of each interdigitating member having a widened end portion directed toward that protruding circular disk portion which is encompassed by the row of perforations through one of which the last-mentioned shaft portion is extended and being constructed and arranged for engaging the last-mentioned protruding circular disk portion when the interdigitating member has carried out a predetermined angular movement relative to said disk, a shaft parallel and in spaced relation to that side of said disk beyond which said tooth portions protrude, a pinion provided with circumferential teeth adapted for meshing with the tooth portions of said interdigitating members being shiftable on said shaft and non-rotatably mounted relative to the shaft, and means for shifting said pinion so that its teeth alternatingly engage interdigitating members whose shaft portions are extended through different rows of perforations in said disk.

2,780,111
PRESSURE OPERATED CONTROL MECHANISM
George W. Soete, Princeton, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application May 13, 1955, Serial No. 508,333
1 Claim. (Cl. 74—522)



An improved pressure operated control mechanism comprising a pivot pin defining an axis, a rigid lever link mounted on said pivot pin for pivotal movement about said axis, a control element engaging said lever link a first distance from said axis, the side of said lever link opposite that engaged by said control element being formed with first and second planar surfaces extending inwardly thereof at an angle to each other and intersecting at a line that is perpendicular to said control element, a Bourdon tube whose open end is secured in fixed position relative to said axis and which loops around toward said lever link, a rigid tip arm rigidly secured to the closed end of said Bourdon tube and forming an extension thereof, said tip arm terminating at its free end in a straight edge transverse thereto which edge is adapted to abut said first surface of said lever link at a second distance from said axis, a screw threadedly engaging said tip arm between the ends thereof and extending laterally of said tip arm, a locknut on said screw, one end of said screw being adapted to abut said second surface of said lever link at a third distance from said axis, said third distance being longer than said second distance, whereby said screw may be adjusted so that it abuts said second surface of said lever link and the transverse edge of said lever link is spaced from said first surface or said screw may be adjusted so that the transverse edge of said tip arm engages said first surface of said lever link and the end of said screw is spaced from said second surface of said lever link.

2,780,112
TWO ROLLER ANTI-FRICTION LATCH
Joseph N. Young, Chicago, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application May 22, 1953, Serial No. 356,775
7 Claims. (Cl. 74—527)



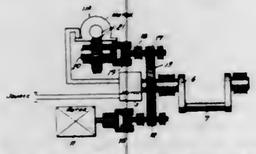
4. In combination, a member movable in a certain direction having a surface normal to said certain direction of movement, and a latch comprising a cage, a pair of racks mounted in opposed relation in the cage, two rollers rolling on one another and having pinions at their ends meshing with one another and with the racks, one roller making rolling contact with said surface, the other roller making rolling contact with the cage, and means for moving the rollers simultaneously to bring said one roller into and out of contact with said surface, said means including an element embracing both rollers so as to transmit force conjointly to both rollers.

2,780,113
ACTUATING MECHANISM FOR COAXIAL SWITCH
Richard L. Gates, Eastlake, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application July 30, 1952, Serial No. 301,653
2 Claims. (Cl. 74—527)

2. A detent mechanism comprising a detent wheel having recesses in its periphery, means rotatably mounting said wheel, a support adjacent said mounting means, a pin carried by said support, a pair of arms mounted on said pin, one of said arms extending on one side of said mounting means and having a free end beyond said mounting means, the other of said arms in sliding engagement with the opposite side of said mounting means and having a free end beyond said mounting means, detent-engaging means carried by said one arm for engaging a recess in said detent wheel, said one arm being pivotal on said pin to accommodate movement of said detent-engaging means relative to said wheel, spring means extending between the free ends of said arms to urge the detent-engaging means into the engagement with said wheel, said pin being the sole connection to said support for said arms and spring, said other arm extending on the opposite side of said mounting means having an arcuate edge bearing on said mounting means to effect said sliding engagement, and said mounting means comprising a hub contacting said arcuate edge over less than a semi-periphery thereof, the spring-receiving free end of said other arm being disposed in a direction from the spring-receiving free end of said one arm generally at right angles to a radial line from said pin to the spring-receiving end of said one arm, said mounting pin having a circular periphery, and a bushing having a circular bore receiving said mounting pin and having an axially extend-

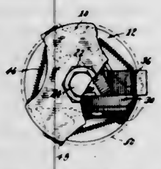
ing circular shoulder eccentric with respect to said bore, said one arm having a circular opening for receiving said eccentric shoulder for adjustment of said one arm by rotation of said bushing on said pin.

2,780,114
OVERHUNG ROTARY SHEARS FOR CONTINUOUSLY TRAVELLING ROLLED MATERIAL
Alfred Breuer, Dusseldorf, and Friedrich Wirth, Wittlaer, Germany, assignors to Schloemann Aktiengesellschaft, Dusseldorf, Germany
Application September 8, 1952, Serial No. 308,452
Claims priority, application Germany September 24, 1951
1 Claim. (Cl. 74—665)



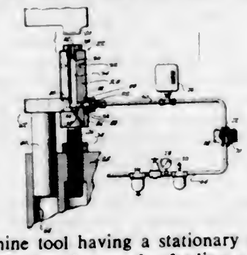
In a rotary driving means for flying shears or the like, a crank shaft, an externally toothed gear wheel drivingly connected to said shaft, a pair of shafts each carrying a pinion gear meshing with said gear wheel, a first friction coupling on one of said pair of shafts, a continuously running motor drivingly connected to said first friction coupling in such a manner that upon actuation of said coupling said crank shaft is driven by said motor, a second friction coupling on the other of said pair of shafts, worm and gear driving means drivingly connected to said second friction coupling means whereby upon actuation of said second friction coupling positive braking is applied to said gear wheel, and whereby upon rotation of said worm while said second friction coupling is locked said gear wheel may be rotated independently of said motor.

2,780,115
ADJUSTABLE CARRIER DEVICE
Thomas E. Brooks, Clarinda, Iowa, assignor to Lisle Corporation, Clarinda, Iowa, a corporation of Iowa
Application September 20, 1952, Serial No. 310,680
2 Claims. (Cl. 77—2)



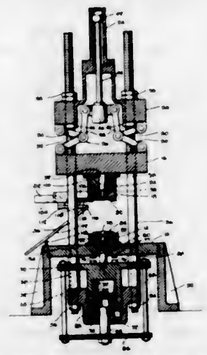
1. An improvement in adjustable carrier members used in adjustable tools having several carrier members comprising a body member, a carrier member having work contacting means, said body member being provided with guide means spaced to one side of the diametrical center of said body member, means for adjusting said carrier member relative to said body member, said carrier member having a reduced inner end and a recess therein between the side edges thereof to allow the reduced inner end of an adjacent carrier member to enter said first carrier member between said side edges for the purpose of increasing the effective size range of said adjustable tool by permitting minimum size when said reduced inner ends of said carrier members are entered to a maximum possible depth in said recesses and by permitting maximum size by having said reduced inner end of said carrier member substantially engaged in and supported by said guide means of said body member when said carrier members are adjusted outwardly.

2,780,116
ADJUSTABLE CONTROL ASSEMBLY FOR MACHINE TOOLS
Robert A. Schafer, Richmond, Ind., assignor to National Automatic Tool Company, Inc., Richmond, Ind., a corporation of Indiana
Application May 4, 1953, Serial No. 352,900
10 Claims. (Cl. 77—32.5)



1. In a machine tool having a stationary support and a translatable member thereon for feeding a cutting tool into a workpiece, control means comprising, in combination, first abutment means mounted on said stationary support, second abutment means mounted on said translatable member to terminate feeding movement of the latter by engagement with said first abutment means, means for adjusting one of said abutment means on its supporting structure toward and away from the other of said abutment means to vary the position on said stationary support in which feeding movement of said translatable member is terminated, means defining an orifice associated with one of said abutment means and closable upon mutual engagement of said abutment means, means defining an air passageway communicating with said orifice, means continuously tending to cause a flow of air through said orifice and passageway thereby to cause a change in pressure within said passageway upon closure of said orifice, and a pressure responsive control for the machine tool communicating with said passageway to be actuated as an incident to the establishment of a predetermined pressure therein.

2,780,117
PRESS FOR FORGING METAL
Alfred Ferdinand Bauer and Charles Pack, Toledo, Ohio, assignors, by mesne assignments, to National Lead Company, New York, N. Y., a corporation of New Jersey
Application November 25, 1952, Serial No. 322,456
3 Claims. (Cl. 78—41)



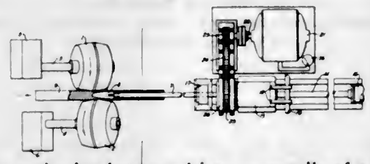
1. A press for use with a separable metal forging die having a die cavity and a small diameter forging ram movable into the die cavity, said press comprising a stationary platen, tie rods extending from said platen to a crab, the portions of said tie rods at the crab being threaded to receive locating nuts to facilitate adjustment

of the distance between the platen and the crab, a movable platen slidable on said tie rods, a small diameter closing cylinder carried by said crab, toggle linkage disposed between said crab and said movable platen and actuated by said closing cylinder for moving the platen, a large diameter forging cylinder disposed on the opposite side of said stationary platen, said cylinder being open at the end nearer the platen and carrying a large diameter piston for actuating the small diameter forging ram, a small diameter return cylinder open in opposite direction, a return piston in said return cylinder, and means connecting the outside end of the return piston to the outside end of the forging piston.

2,780,118
APPARATUS FOR ROLLING TUBES
Andrew F. Kritscher, Pittsburgh, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application February 5, 1953, Serial No. 335,284
6 Claims. (Cl. 80—14)

1. Apparatus for manipulating a mandrel, comprising an elongated cage of spaced parallel bars disposed horizontally, spaced coaxial bearings connecting and supporting said bars for rotation about the common axis of said bearings, a cross-head, means slidably and non-rotatably mounting said cross-head in said cage for movement longitudinally of said bars, a mandrel mounted on said cross-head, means for reciprocating said cross-head and means for effecting limited rotation of the cage.

2,780,119
METHOD OF AVOIDING LAPPED-OVER SEAMS IN TUBES FORMED IN CROSS-ROLL PIERCING MILLS
John L. Holmquist, Aliquippa, Pa., assignor to The National Supply Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application August 19, 1954, Serial No. 450,855
5 Claims. (Cl. 80—62)



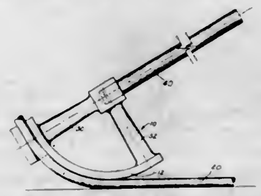
1. In a piercing between driven cross-rolls of a rotating heated metal billet provided with an axial cavity between the rolls, the method of avoiding objectionable lapped-over seams at the periphery of the resulting tubular pierced blank, comprising continuously applying torque to the wall of said cavity in the direction of rotation of the billet in a controlled amount sufficient to maintain any outer radial seams in the billet substantially radial in said blank.

2,780,120
WIRE EXTRACTOR
Henry L. McCarley, Compton, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application October 23, 1953, Serial No. 387,849
4 Claims. (Cl. 81—9.5)

1. A device for use in withdrawing a portion of the inner wire from a shielded electric cable comprising: a shielding penetrating member having a flat rounded point at one end thereof, said member having parallel sides along a major portion of its length and extending perpendicularly on each side thereof, said sides being sufficiently spaced apart to extend around a major portion of the periphery of said inner wire in said shielded cable as said member is manipulated therebetween after penetration of said shielding, said sides being gradually reduced in height adjacent to said penetrating end to define a tapered point thereon, a handle for said member.

said handle having a central cavity adapted to receive and retain the opposite end of said member, a clamping lever pivotally attached to said handle and adapted for movement toward said shielding penetrating member to firmly clamp said cable shielding therebetween while said member is manipulated inside said shielding to prevent relative movement thereof while said inner wire is withdrawn from within said shielding, and an elastic element connected between said clamping lever and said handle tending to urge said clamping lever toward said handle.

2,780,121
PIPE BENDER
Frank H. White, Rome, N. Y.
Application July 28, 1954, Serial No. 446,283
2 Claims. (Cl. 81—15)

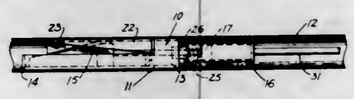


1. Apparatus for forming conduit, pipe and the like which comprises a smoothly curved plate portion extending through an angle of at least 90 degrees; a barrel member positioned within the arc of said plate portion and integrally joined thereto adjacent each end of said plate; coupling means in one end of said barrel for receiving the end of a handle; a work engaging member at one end of said curved plate portion; said work engaging member having spaced walls providing a channel open on one side, one wall of said channel being a curved extension of said plate portion and the other wall of said channel being a straight work engaging portion having a length of four to eight times the narrowest width of said channel whereby the work may be bent and straightened without removing the forming apparatus and without kinking or other damage thereto.

2,780,122
TOOL FOR REMOVING DENTS FROM THIN WALL PIPE
Joe F. McCown, Waitsburg, Wash.
Application September 20, 1955, Serial No. 535,363
3 Claims. (Cl. 81—15)

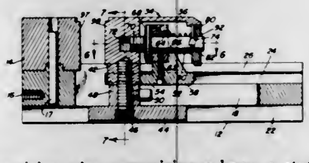
1. A dent-removing tool comprising a support member adapted to be inserted into an end of a pipe, said support member including a cylindrical portion to fit within said pipe and a semicylindrical portion projecting

from one end of the cylindrical portion to engage the portion of the pipe opposite to a dent in said pipe when inserted therein, an upstanding actuating member positioned medially of said semicylindrical portion with one end adjacent said cylindrical portion and mounted on said semicylindrical portion for longitudinal forward and backward movements, means connected to the end of said actuating member adjacent said cylindrical portion for effecting the movements of the latter, said actuating member having its upper side sloping upwardly from its free end to a point spaced from the end adjacent said



cylindrical portion, an anvil member disposed longitudinally of and above said actuating member and connected adjacent one end to the semicylindrical portion for up and down movement about a horizontal axis transverse of said semicylindrical portion, and a rib on the under face of said anvil member, said rib having a surface which slopes downwardly from a point adjacent the central point of said anvil member to the free end thereof, the sloping surface of said rib normally resting upon and movable upwardly along the upwardly-sloping surface of said actuating member in response to the execution of the forward movement of said actuating member.

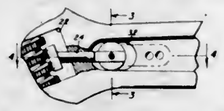
2,780,123
PRECISION VISE HAVING A COACTING LOCKING PLATE AND JAW-ADVANCING SCREW
Lars N. M. Johanson, West Orange, N. J.
Application October 12, 1955, Serial No. 539,990
4 Claims. (Cl. 81—17)



3. A precision vise comprising a base, a stationary jaw secured to said base, said base including a pair of rails, a movable jaw slidably mounted on said pair of rails, said base having a pair of longitudinal slots parallel to said rails, a locking element connected to said movable jaw, said locking element having locking surfaces which coact with surfaces of said slots to releasably hold said element fixed on said base, a screw threaded into said movable jaw, means on said screw for tilting said locking element in order to bind said locking surfaces against the surfaces of said slots when said screw is rotated in one direction; said screw, upon being rotated further in said one direction, reacting on the now locked element and sliding said movable jaw toward said stationary jaw, and means reacting on said locking element and said movable jaw and opposing the tilting of said locking element in its locking direction and returning said element to its nonlocking position when said screw is rotated in an opposite direction.

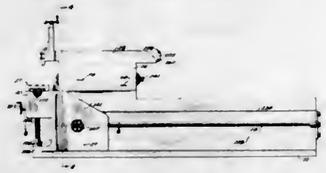
2,780,124
LOCK FOR ADJUSTING WORM OF A MOVABLE JAW WRENCH
Fred G. Lyons, Oroville, Calif.
Application June 14, 1955, Serial No. 515,337
1 Claim. (Cl. 81—165)

A lock for a movable jaw wrench having a rotatable worm for adjusting the movable jaw and a body having a stationary jaw in opposed relation to the movable jaw and an elongated handle integrally formed therewith, said lock comprising an abutment member for engaging the periphery of the worm, a shank extending from said abutment member, the body of said wrench having a longitudinal bore therein terminating at one end in an enlarged opening adjacent the worm for slidably receiving said shank, said abutment member being movable in said enlarged opening for selectively engaging said worm, the other end of said bore terminating in an elongated longitudinal opening in the handle, stop means attached to said shank and movably positioned in said elongated opening for limiting the movement of said shank and abutment member, and spring means frictionally interconnecting the end of the shank positioned in the elongated opening and the handle for retaining the abutment member in selective positions, said handle being provided with a pair of longitudinally spaced indentations, said spring means including a flat spring attached to the



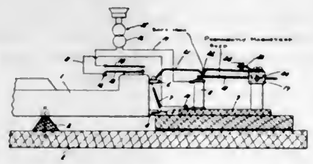
shank and extending longitudinally alongside said handle in intimate contact therewith, a projection on the inner surface of the spring for frictional engagement in one of said indentations for releasably retaining the abutment member in engagement with the worm for releasably locking the movable jaw in adjusted position, including a pair of cylindrical members with one of said cylindrical members having a threaded member extending through the flat spring and the shank and received in the other cylindrical member for retaining the shank and spring in assembled relation, said cylindrical members projecting from opposite side of the opening in the handle for forming a handle member on each side of the wrench handle for manipulation of the abutment, one of said cylindrical members having a portion slidable in the longitudinal opening in the wrench handle whereby the opening forms a guide and limit means for the movement of the spring and shank.

2,780,125
COMBINATION METAL WORKING MACHINE
Emmert Milyard, Brookville, Ohio
Application February 17, 1953, Serial No. 337,266
2 Claims. (Cl. 82—21)



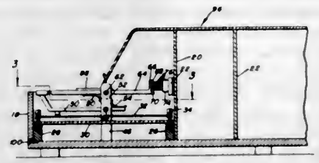
1. A machine tool comprising a main frame embodying a base, a vertically disposed bed extending upwardly from said base and including an upper and lower rail, an intermediate section connecting said upper and lower rails together, a head extending upwardly from said upper rail and including an upper plate having a rail thereon, a carriage slidably mounted on said frame, a feed screw for actuating said carriage, a ram slidably mounted on said head, a knee slidably mounted on an end of said carriage, a plurality of webs for supporting said bed, said ram including a base provided with a dovetail slot for sl dably engaging the rail on said upper plate, a friction take-up grip positioned at one end of said slot, a vertically slidable carrier connected to said ram, a hinge plate on said carrier, a tool holder carried by said hinge plate, a feed screw for actuating said carrier, a transversely sliding table supported above said knee, an arm having its upper end pivotally connected to said ram for reciprocat ng said ram, a gear arranged contiguous to said arm, an eccentric pin projecting from said gear and connected to said arm, a drive shaft arranged at right angles with respect to said gear, a pinion slidably mounted on said shaft and mounted for movement into and out of engagement with said gear, said shaft being journaled in one of said webs, a countershaft arranged in spaced parallel relation with respect to said drive shaft, gear means connecting said countershaft to said drive shaft, a hand lever for controlling said gear means, a cone pulley mounted on an end of said countershaft and adapted to be connected to a power source, manually operable gear means connecting said feed screw to said carriage, and manually operable screw means for adjusting said knee vertically.

2,780,126
MUSICAL INSTRUMENT
Helle Lennart Modéer, Norrkoping, Sweden
Application July 8, 1952, Serial No. 297,653
Claims priority, application Sweden May 13, 1952
8 Claims. (Cl. 84—1.15)



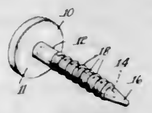
1. In a musical instrument including a number of vibratory elements of ferro-magnetic metal tuned to different notes in a musical scale and adapted to vibrate at low intensity and to induce a low-frequency alternating electric current in the coil of a corresponding electro-magnet, a transformer connected to said electromagnet and an amplifier connected to said transformer, said current from said electro-magnet passing through said transformer and the input of said amplifier for reproduction as an amplified low-frequency signal in a loudspeaker connected to the output of said amplifier, that improvement comprising a permanent magnet element connected to each of said vibratory elements, a movable armature formed of soft iron operatively connected to said vibrating element in its vibrating portion so that it vibrates in the same manner as said vibrating portion, a key means actuating said movable armature and said vibratory element, said armature when actuated by said key having an attractive force which is overcome by the counteracting resilient force in said vibratory element to produce a release of said vibratory element which vibrates in the field of said electro magnet.

2,780,127
MUSICAL INSTRUMENT
Frank Hennick, Berkeley Heights, N. J.
Application October 15, 1953, Serial No. 386,272
2 Claims. (Cl. 84—170)



1. A musical instrument comprising a cabinet in the form of a miniature piano, said cabinet including a transverse partition wall, a plurality of keys, support means for pivotally mounting said keys, at least some of said keys having free inner end portions providing end faces opposing said wall, a group of vertically spaced reeds associated with each of said end faces, said reeds being secured at one end to said wall and extending therefrom into engagement with the end faces of associated keys, each key also having a rake extension underlying its associated reeds such that depression of a key will set the associated reeds into motion.

2,780,128
DRIVEN PLASTIC SEALING FASTENER HAVING SHOULDER MEANS THEREON
George M. Rapata, Chicago, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application October 29, 1956, Serial No. 618,878
7 Claims. (Cl. 85—5)



1. A one-piece plastic drive fastener adapted for use in securing together spaced apertured panels of a work structure; and comprising a head having a clamping surface for engaging one surface of the work structure and providing a driving head, an elongated substantially axially rigid shank extending axially from said head clamping surface and adapted to be driven through the work structure, said shank including a plurality of axially spaced shoulder means integral with and projecting outwardly therefrom, each of said shoulder means being substantially solid with little tendency to yield relative to the shank section and having a substantially radial surface extending from the periphery of the shank and facing the head clamping surface, said shank having an imperforate elongated tapering free end portion having a length greater than its diameter for facilitating driving of the shank through the work structure, said shank enclosing a recess at least axially traversing the region of said shoulder means to lend radical resiliency to the shank section in that region, said shank section presenting a transverse cross section through the recess and in the region of the shoulder means with inner and outer surfaces, one of said surfaces being substantially elliptical to present major and minor axes and the other of said surfaces being substantially circular to afford wall portions of reduced thickness extending longitudinally of the shank section facilitating resilient collapse of the shank section under influence of the shoulder means along the reduced wall portions of the shank section during insertion thereof through the apertured work panels and with the shank section thereafter expanding beyond the work structure to position a radial surface of an adjacent shoulder means for engaging another surface of the work structure in opposition to the clamping surface of the head.

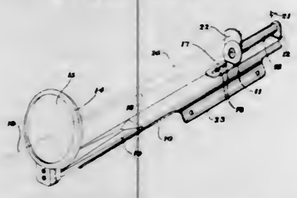
2,780,129
REFLEX SIGHT OR VIEW FINDER HAVING FLUORESCENT RETICLE MARKS
Donald L. Wood, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application January 29, 1954, Serial No. 406,950
3 Claims. (Cl. 88—1.5)

1. A reflex sight comprising a body of fluorescent and at least partially transparent material in sheet form adapted to receive light from the surroundings through a substantial area of the surface of said sheet, to generate fluorescent light within itself and to conduct a large portion of said fluorescent light by internal reflections to

an edge of said body and to emit said large portion of light from said edge, and a transparent member having a partially reflecting and partially transmitting coating on one surface for combining rays of light from said edge of said fluorescent body with rays of light from an object scene and curved for giving the two sets of rays equal

vergency, whereby an image of said edge of said fluorescent body appears superimposed upon said object scene at substantially the same distance, in which the said partially reflecting coating is a dichroic interference coating having a reflection maximum in the wavelength range emitted by the fluorescent material.

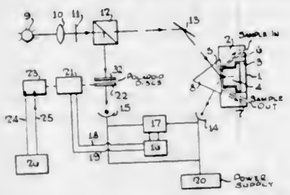
2,780,130
REFLEX SIGHT HAVING A DICHROIC BEAM-COMBINING MIRROR
Paul B. Mauer, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application January 29, 1954, Serial No. 406,967
2 Claims. (Cl. 88—2.3)



1. A reflex sight comprising a dichroic beam combining mirror having a generally spherically curved surface adapted to be viewed from its concave side and having its axis tilted with respect to the line of sighting, and reticle means on the concave side of said surface offset from the line of sighting in the direction of the inclination of the axis of the mirror, said reticle comprising a rod of transparent material containing a fluorescent dye adapted to receive light through the lateral surfaces of the rod and to emit fluorescent light in a wavelength band for which the dichroic mirror is highly reflective, both ends of the rod being coated with a highly reflective coating, the rod being roughly parallel to the sighting axis and the reticle pattern being cut through the coating of the end of the rod nearest the dichroic mirror, whereby the retile pattern is illuminated from behind by the fluorescent light.

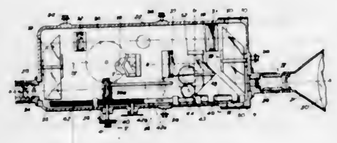
2,780,131
CONTINUOUS RECORDING REFRACTOMETER
Keith P. Lanneau and Bartow Hodge, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application November 19, 1952, Serial No. 321,393
5 Claims. (Cl. 88—14)

1. A refractometer comprising in combination: a source of radiation, radiation splitting means positioned in the range of radiation from the source adapted to provide a first and second beam of radiation, a prism having a sample in contact with one face of the prism to provide a prism-sample interface, said prism being positioned in the said first beam of radiation so that radiation is directed toward the said interface, a first radiation detector positioned in the path of reflected radiation from said interface, and a second radiation detector positioned in the second beam of radiation from the source, means to attenuate one of said beams of radiation, including a



servo-motor actuation means therefor, and means to determine the differential output of said detectors, including means to energize said servo-motor in response to such differential output thereby to actuate said attenuation means and balance the output of said detectors.

2,780,132
OPTICAL COMPARATOR
John Home Dickson, Teddington, England, assignor of one-third to Barr & Stroud Limited, Glasgow, Scotland, and one-third to John Buckingham, London, England
Application March 10, 1953, Serial No. 341,570
Claims priority, application Great Britain March 14, 1952
5 Claims. (Cl. 88—14)



1. Optical comparator apparatus for presenting individual images of two spaced objects arranged in superposed relationship for viewing and comparison, said apparatus comprising: a light-proof housing adapted to be mounted in spaced relationship with respect to one of said objects, both of said objects being viewable from within said housing; beam-splitting means comprising an elongated partially reflective surface of progressively varying light transmitting and reflecting properties intermediate its ends, said surface being disposed in said housing for presenting individual images of both of said objects arranged in superposed relationship; an eyepiece mounted on said housing and communicating with the interior thereof, said eyepiece being directed toward said beam-splitting means for viewing said superposed images; a first optical system at least partially disposed in said housing and directing an image of one of said objects to said beam-splitting means; a second optical system at least partially disposed in said housing and directing an image of the other of said objects to said beam-splitting means, said beam-splitting means being movable in the longitudinal direction of said surface for equalizing the relative intensities of illumination of said images and continuously adjustable focusing means of variable magnification included in one of said optical systems, said focusing means comprising optical path length adjusting means for maintaining the image directed by the optical system in which it is included disposed at a fixed plane throughout the range of adjustability of said focusing

means with the object of which an image is produced by said last-named optical system maintained fixedly positioned.

2,780,133
CONTINUOUS FEED MOTION PICTURE PROJECTOR
Otto Wittel, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application August 8, 1952, Serial No. 303,230
2 Claims. (Cl. 88—16.8)

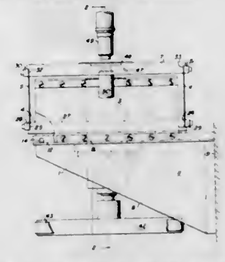
2. In a continuous film feed motion picture projector of the type having an axially symmetrical projection lens in which the axial plane in the direction of travel of the film is hereinafter designated as the base plane, an optical compensator of the tilting mirror type comprising a pair of semi-circular plane mirrors perpendicular to the base plane and at an angle to the lens axis and adapted to intercept the projected light beam in front of the projection lens and to reflect it to one side of the axis of the projection lens, two rotatable shafts arranged end to end in a plane parallel to and displaced from the base plane by more than half the diameter of the projected light beam and hereinafter designated as the plane of tilt, the mirrors being individually mounted on the adjacent ends thereof, bearing means substantially at the said adjacent ends of the shafts for maintaining a point in each shaft in a fixed position while permitting free rotation and tilting of the shaft, a bearing at the outer end of each shaft and a guide on which the bearing is adapted to roll and against which it is spring-urged for maintaining the shaft in the plane of tilt, a third bearing on each shaft near the outer end, a yoke attached to each said third bearing, two levers lying generally parallel to and on one side of the shafts substantially in the plane of tilt and individually associated with the shafts, a cam between the levers and located substantially at the median plane of the mirrors, one lever being closer to and one farther from the shafts than is the cam, a roller attached to one end of each lever adapted to roll against the cam face, a rod or strap connecting the opposite end of each lever to the yoke on the associated shaft, a fixed fulcrum between the two ends of each lever, spring means urging each roller against the cam, one on the side toward the shafts and one on the opposite side, and means for rotating the cam and the two shafts each one complete revolution during the advance of two frames of film past the gate, wherein the cam is shaped to have a uniform rise throughout somewhat more than 180° and a smooth fall during the remainder of 360°, the rate of rise of the cam and the lengths of several lever arms being determined with reference to the focal length of the objective and the magnification of the image so that the angular rate of tilt of each mirror during the rise is one-half the angular rate of advance of the film as apparent from the mirror position.

2,780,134
COMPACT COLOR TELEVISION PROJECTING APPARATUS
Henry S. Blanks, Chelmsford, England, assignor to Radio Corporation of America, a corporation of Delaware
Application December 29, 1953, Serial No. 400,949
10 Claims. (Cl. 88—24)

1. Projection apparatus comprising in combination, a concave mirror having a plurality of light transmitting areas, a plurality of plane mirrors facing said concave mirror, and means for projecting each of a plurality of images from the convex side of said concave mirror through a different one of said light transmitting areas, each one of said plurality of plane mirrors being ar-

ranged to intersect each of the other of said plurality of plane mirrors along a line passing through a point common to all lines of intersection, each of said plane mirrors being adapted to reflect one of said images onto said concave mirror, said concave mirror thereupon being adapted to reflect said reflected image in a manner such as to produce an image in a given plane.

2,780,135
OBJECT SUPPORTING GYRATORY TABLE
Jasper S. Chandler, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application April 16, 1954, Serial No. 423,588
11 Claims. (Cl. 88—24)



1. In combination, a support, a table, and means for supporting said table from said support for circular gyratory movement relative thereto in a predetermined plane, comprising a member interposed between and spaced from said support and said table, a first pair of spaced, parallel, resilient plates rigidly secured to said support and to said member and mounting said member for limited oscillatory swinging movement in a plane perpendicular to said plates and to said plane of gyration while constraining said member against any other movement, and a second pair of similar, spaced, parallel resilient plates rigidly secured to said member and to said table and mounting said table for limited oscillatory swinging movement relative to said member in a plane oriented at right angles to the plane of movement of said member and perpendicular to said plane of gyration while restraining said table against any other movement relative to said member, and means engaging said table for causing it to move with a bodily circular movement in said plane of gyration.

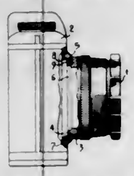
2,780,136
KINOPTIC DEVICES
Richard T. Erban, New York, N. Y.
Application March 10, 1952, Serial No. 275,760
3 Claims. (Cl. 88—28.93)

1. In an optical device of the class described, a field lens having at least one of its surfaces composed of closely spaced light deflecting elements, means for imparting to said lens orbital motion with a width of the orbital path substantially greater than the spacing of the said elements, the frequency of said orbital motion be-

ing greater than the limit of frequency of visual perception, and balancing means for said field lens, said last

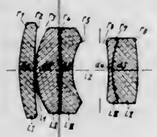
named means comprising a pair of inertia masses positioned near the edge of said lens at opposite points thereof.

2,780,137
BAYONET SECURING MEANS FOR OBJECTIVES OF CAMERAS
Benjamin Bourgeois, Ballaigues, Vaud, Switzerland, assignor to Pignons S. A., Ballaigues, Switzerland, a corporation of Switzerland
Application June 30, 1955, Serial No. 519,086
Claims priority, application Switzerland July 2, 1954
2 Claims. (Cl. 88—57)



1. An arrangement for securing an objective lens mount inside a camera opening provided with a radially slotted inturned flange, comprising, arcuate plates detachably secured at equidistantly spaced intervals to the periphery of said mount and for entering a corresponding radial slot in the flange to be angularly shifted with said mount about its axis into registery with the rear surface of said flange, an elastic blade formed from the outer edge portion of each plate, said blade extending slightly forwardly of the corresponding plate and adapted to yieldingly engage the rear surface of said inturned flange.

2,780,138
PHOTOGRAPHIC OBJECTIVE HAVING THREE MENISCUS SHAPED ELEMENTS AIR SPACED APART
Helmut Eismann, Heidenheim (Brenz), Walter Jahn, Konigsbronn, and Günther Lange, Heidenheim (Brenz), Germany, assignors to Carl Zeiss, Heidenheim (Brenz), Wurttemberg, Germany
Application March 15, 1955, Serial No. 494,354
Claims priority, application Germany April 5, 1954
2 Claims. (Cl. 88—57)



1. Photographic objective consisting of three meniscus-shaped elements, separated from one another by air spaces, the first being a simple collective front element turning its convex side towards the object to be photographed, the second being a dispersive middle element, and the third being a collective rear element, the two last mentioned elements turning their concave sides toward one another and each said last mentioned elements consisting of two cemented together lenses of opposite refractive power the two cemented surfaces turning their convex sides towards one another, the cemented surface in the said middle element having dispersive and the cemented surface in the said rear element having collective action, the central thickness of each of the said cemented elements amounting to less than the 0.2-fold of the focal length f of the objective, and the refractive index of the lens of the said cemented middle element turned towards the rear element being greater than 1.640, and finally the following further conditions being fulfilled:

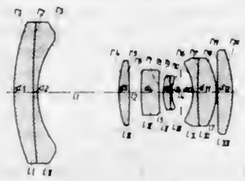
$$0.35 \cdot f < L < 0.45 \cdot f$$
$$0.20 \cdot f < r_3 < 0.28 \cdot f$$
$$0.17 \cdot f < r_5 < 0.21 \cdot f$$
$$0.60 \cdot f < r_6 < 1.20 \cdot f$$
$$0.25 \cdot f < r_7 < 0.35 \cdot f$$
$$0.45 \cdot f < r_8 < 0.90 \cdot f$$

and in which the surface refractive powers ($\Delta n/r$) each deviate at most by $\pm 0.5/f$, and the thicknesses and air distances each at most by $\pm 0.05 \cdot f$ from the values to be taken from the following numerical example:

Lenses	Radii	Thicknesses and Distances	n_d	V	$(\Delta n/r)$
LI	$r_1 = +0.496335 \cdot f$	$d_1 = 0.05236 \cdot f$	1.66672	48.4	$+1.343286/f$
	$r_2 = +1.30177 \cdot f$	$l_1 = 0.00201 \cdot f$			$-0.512164/f$
LII	$r_3 = +0.245204 \cdot f$	$d_2 = 0.10434 \cdot f$	1.60562	43.9	$+2.469861/f$
	$r_4 = -1.22898 \cdot f$	$d_3 = 0.02154 \cdot f$	1.69895	30.1	$-0.075945/f$
LIII	$r_5 = +0.181248 \cdot f$	$l_2 = 0.07605 \cdot f$			$-3.856318/f$
	$r_6 = -0.870001 \cdot f$	$d_4 = 0.08221 \cdot f$	1.57309	42.7	$-0.658723/f$
LIV	$r_7 = +0.279113 \cdot f$	$d_5 = 0.06684 \cdot f$	1.70154	41.1	$+0.460207/f$
LV	$r_8 = -0.661877 \cdot f$				$+1.059925/f$

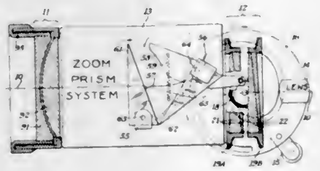
where LI to LV are the single elements, and the Roman numerals refer to these elements starting with the front side, r_1 to r_8 are the radii of curvature of the refractive surfaces from front to rear as indicated in the drawing, the + and — signs refer respectively to surfaces convex and concave to the front, d_1 to d_5 are the axial thicknesses of the elements, L is the axial overall length of the objective, l_1 is the air spacing between elements LI and LII and l_2 is the air spacing between elements LIII and LIV, n_d is the index of refraction with reference to the d-line of the spectrum, V is the dispersive index, and $\Delta n/r$ is the refractive power of the respective surface.

2,780,139
LENS SYSTEM FOR A PHOTOGRAPHIC OBJECTIVE
Günther Lange, Konigsbronn, Wurttemberg, Germany, assignor to Carl Zeiss, Heidenheim (Brenz), Wurttemberg, Germany
Application September 28, 1955, Serial No. 537,115
Claims priority, application Germany September 30, 1954
4 Claims. (Cl. 88—57)



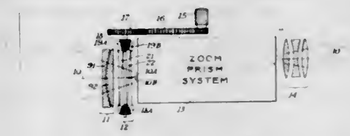
1. A four-member lens system which in conjunction with the part-system behind the diaphragm of a photographic objective of the Gauss type (modified in certain cases), called the basic objective, which part-system comprises a meniscus-shaped dispersive component turning its convex surface bordering on air towards the image side, and a collective outer component, produces a photographic objective which with equal focal intercept shows a shorter focal length than the basic objective, said lens system consisting of a meniscus-shaped dispersive front component, of a biconvex collective second component, of a meniscus-shaped collective third component, and of a meniscus-shaped dispersive fourth component, the three said meniscus-shaped members each turning their convex sides towards the front, and the said front component consisting of two lenses of opposing refractive powers cemented to each other, the dispersion of the glass of the collective lens of said front component being greater than the dispersion of the glass of said dispersive lens cemented to it, the said fourth component being composed of two lenses of opposing refractive powers cemented to each other, the dispersion of the glass of the dispersive member of said fourth component being greater than the dispersion of the glass of the collective member cemented to it, the two radii of the external surfaces bordering on air of said fourth member differing from each other by not more than 15% of the focal length of the entire objective, and the vertex distance of the collective surface bordering on air of the said fourth member from the collective surface bordering on air of the said meniscus-shaped dispersive component of the remaining part-system of the basic objective lying between the limits of 35 and 55%, and the arithmetic mean of the absolute values of the said collective surfaces lying between 35 and 55% of the focal length of the whole objective, while the vertex distance of the two concave surfaces bordering on the diaphragm space lies between the limits of 35% and 70% of the harmonic mean of the absolute values of the radii of these two latter surfaces.

2,780,140
PRISM ZOOM SYSTEM HAVING DEVIATION CORRECTING MEANS
Benjamin E. Luboshez, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application March 31, 1955, Serial No. 498,167
9 Claims. (Cl. 88—57)



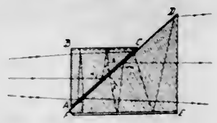
1. An optical system of variable power comprising an objective, at least one pair of opposed unachromatized refracting prisms axially aligned in front of the objective with the active planes of the prisms of said pair coincident and lying on the optic axis of the objective, the first prism being positioned to receive white light, to deviate and disperse it and to transmit it to the second prism whose deviation and dispersion are in a direction opposite to that of the first, means for rotatng each prism in its active plane, means coupling the two rotating means to rotate the prisms by different amounts, the prisms being maintained in relative positions in which the dispersion of the second prism at least approximately equals the dispersion of the first prism times the magnification of the second prism, variable light deviating means also aligned in front of the objective and means operated by said coupling means for adjusting the variable light deviating means to approximately compensate for the residual deviation of the opposed prisms.

2,780,141
PRISM MAGNIFICATION SYSTEM HAVING CORRECTION MEANS FOR UNILATERAL COLOR
Benjamin E. Luboshez, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application March 31, 1955, Serial No. 498,168
3 Claims. (Cl. 88—57)



1. A prismatic zoom optical system comprising an objective, a plurality of individually unachromatized refracting prisms in front of the objective with their active planes optically aligned with the objective and oriented at substantially equal angles around the axis of the objective, means for rotating each of said prisms in its active plane for zooming and all of them simultaneously at relative angular rates of rotation such that the total angular deviation of the optical axis is maintained less than a predetermined tolerance, two color dispersion wedges also optically aligned in front of the objective and substantially perpendicular to the optic axis and means for rotating said wedges in opposite directions in planes transverse to the optic axis, and means coupling all said rotating means to maintain the resultant direction and amount of color dispersion of the two wedges opposite and approximately equal to the direction and amount of the residual color dispersion of the zooming prisms, the residual color dispersion of the zooming prisms being greater than a predetermined tolerance at each end of the zooming range and each color dispersion wedge being made up of two elemental glass wedges cemented together and having equal and opposite deviation for a median wavelength of visible light and unequal dispersive powers such that the numerical sum of the dispersions of the two color dispersion wedges is approximately equal to the maximum color dispersion of the zooming prisms.

2,780,142
CYLINDRICALLY REFLECTING MIRROR-PRISM ANAMORPHOTIC OPTICAL SYSTEM
Albert Bouwers, The Hague, Netherlands, assignor to N. V. Optische Industrie "de Oude Delft," Delft, Netherlands
Application April 26, 1955, Serial No. 504,036
Claims priority, application Netherlands May 6, 1954
5 Claims. (Cl. 88—57)



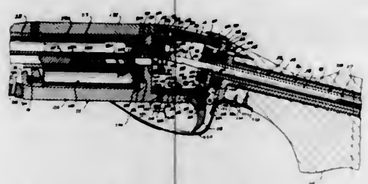
1. An optical reflecting substantially direct vision anamorphosing device comprising a housing, a first and a second curved reflecting surface supported by said housing in operative alignment, having substantially parallel axes of generation, a pair of plane and substantially parallel reflecting surfaces interposed between and in angular relation to said first and second curved reflecting surfaces so that one of said plane reflecting surfaces totally reflects the rays before incidence on said first curved reflecting surface, then, after emergence from said first curved reflecting surface, the lightrays are transmitted subsequently by said pair of plane reflecting surfaces, are reflected at said second curved reflecting surface and finally are totally reflected at the other of said plane reflect-

ing surfaces, one of said curved reflecting surfaces being convex and the other one concave and with their axes substantially parallel.

2,780,143
TANDEM ROCKET LAUNCHER
Connelly L. Graham, Covina, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application August 18, 1952. Serial No. 304,899
2 Claims. (Cl. 89—1.7)

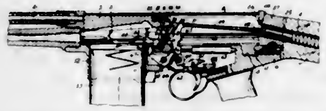
1. A device of the class described including: a tube in which a plurality of rockets may be loaded in tandem for subsequent firing therefrom, means attached to said tube at the rear of each rocket defining a laterally extending exhaust gas channel venting said tube to the atmosphere, a plurality of movable gas baffles, one of said baffles being attached to said tube at the rear of each rocket and between said rear and the nose of the next rocket, said baffles normally blocking the exit of the rockets positioned rearwardly thereof, said baffles being positioned to direct gases from the adjacent rear of first fired rocket into the adjacent exhaust gas channel, a plurality of cams mounted on said tube, one of said cams being positioned to be moved by movement of each of said rockets following the first of said rockets to be fired, and a linkage connecting said cams with the baffle at the nose of each respective rocket, said linkages being proportioned to move said baffles out of the path of each rocket in accordance with cam movement when the rocket is moved by the firing thereof.

2,780,144
REVOLVING SHOTGUN
Albert D. Parrish, Tescott, Kans., assignor of forty-five percent to Clarence Gilger, Lamar, Kans., ten percent to Bessie Horn, Glasco, Kans., ten percent to Eugene H. Linville and ten percent to Sanford Manker, both of Salina, Kans.
Application December 3, 1954, Serial No. 472,811
7 Claims. (Cl. 89—158)



1. In a revolver shotgun of the break-down type having a frame and stock section and a barrel and cylinder section hingably connected together, and a rotatable cylinder for holding a plurality of shells to be fired therein carried by said barrel and cylinder section; recoil operated means carried entirely by said frame and stock section and operatively connected to said cylinder for rotating the cylinder to successive positions whereby shells therein may be successively fired, said means comprising a recoil assembly including a spring urged firing pin striker carried by said frame and stock section for movement longitudinally thereof when the shotgun is fired with the butt end of the stock against a resisting surface, a barrel lock and firing pin assembly carried by the frame and stock section releasably securing said shotgun sections together and includes a firing pin for striking a shell in said cylinder, a trigger group carried by said stock and operatively connected to said recoil assembly for releasably securing said striker of the recoil assembly in a retracted position as it is moved by recoil of the shotgun to maintain said striker in a position away from said firing pin and said trigger group having striker release means for permitting said striker to advance toward said firing pin to impinge thereon and move the firing pin to strike a shell.

2,780,145
BREECH BLOCK RETURN MEANS
Dieudonné Joseph Salve, Wandre, Belgium, assignor to Fabrique Nationale d'Armes de Guerre, Herstal, Belgium, a Belgian society
Application March 30, 1953, Serial No. 345,277
Claims priority, application Belgium April 7, 1952
2 Claims. (Cl. 89—199)

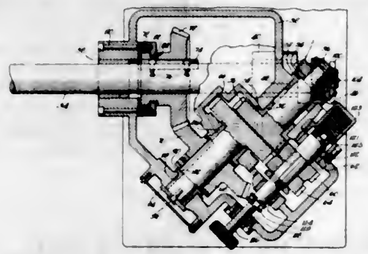


1. In an automatic firearm in combination, a breech frame open at its rear end, a slide mounted for longitudinal reciprocating movement in said frame and removable therefrom through the open rear end thereof, a breech bolt in said slide and operated by the movements thereof and removable therewith, an underguard having a forwardly extending portion underlying the rear portion of said frame and an upright abutment having a front face engageable with the rear end of said frame for closing the same, means for pivoting said underguard at its forward end to said frame for swinging movement between a closed position in which said abutment closes the rear end of said frame and an open position in which said abutment is below the open end of said frame, means for releasably locking said underguard in closed position, returning spring means in the underguard for normally urging said slide to its forward position and comprising a plunger and a spring behind the plunger, said plunger having a recess at its forward end adjacent said face when the plunger is in forward position, a connecting link pivoted to the rear end of said slide and extending rearwardly thereof, and a spring carried by said slide for urging said link to a downwardly inclined position to cause the rear end of said link to move into said recess during the closing movement of said underguard, said slide, breech block and connecting link being removable from said frame by withdrawing the same longitudinally and rearwardly from the open end of the frame when the underguard is in open position.

2,780,146
GEAR SHAVING
Oliver E. Saari, Schiller Park, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application January 18, 1954, Serial No. 404,657
8 Claims. (Cl. 90—1.6)

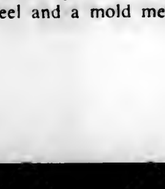
1. A gear-shaving tool comprising a helical gear having one end of its teeth cut off by a toroidal surface coaxial with the gear to provide a cutting edge at the intersection of said surface with one side of each tooth, the cutting edge of each tooth of the tool approximating a line which is the locus of the successive points of contact of the flank of said tooth with the flanks of complementary teeth of a gear to be acted upon.

4. A gear-shaving machine comprising a shaving tool in the form of a helical gear having one end of its teeth cut off by a surface of revolution, skew shafts on which the tool and the gear to be scraped are fixed, gearing connecting the two shafts to control their relative rate of



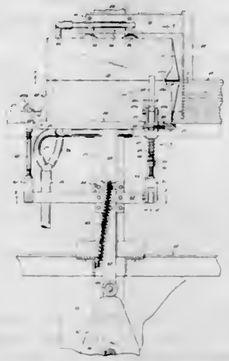
rotation, and means for applying driving power directly to the shaft on which the gear is fixed so that the tool shaft is driven through the connecting gearing.

2,780,147
METHOD FOR MAKING A WEDGE HEEL
Herman W. Richter, Bridgewater, and Harold R. Gillette, Wellesley Hills, Mass.
Application July 28, 1951, Serial No. 239,092
2 Claims. (Cl. 92—54)



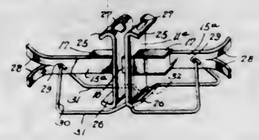
1. A method of making a wedge heel having portions of different thickness comprising an uncompressed, integral, coherent, self sustaining, shape-retaining, wet, wedge-shaped preform unit comprising fibers and having a transverse section not substantially exceeding that of the wedge heel to be made and a vertical section exceeding that of the wedge heel but varying substantially in height with corresponding variations in the thickness of the wedge heel so that when the preform is compressed it will have the requisite thickness and density in its various parts, by initially concomitantly dewatering and collecting such preform unit in a single chamber while the walls of the chamber are stationary from a charge comprising fibers in aqueous dispersion without applying external positive pressure to the charge by applying negative pressure to the outer surface of the stationary perforate chamber bottom wall and to the outer surface of at least that part of the stationary perforate chamber side wall which is adjacent to that part of the charge which will form the side wall of the finished wedge heel while maintaining at least one of the surfaces of said charge which will form the bottom surface of the finished wedge heel and the surface of said charge which will form the top surface of the finished wedge heel with an incline substantially greater than the incline of the corresponding surface of the finished wedge heel by contacting the major portion at least of said one surface of said charge during said dewatering and collecting step with a stationary and substantially rigid chamber wall surface having a substantially greater incline than the corresponding surface of the finished wedge heel so that the constituent fibers are substantially homogeneously distributed throughout the body of said preform unit and then compressing the wet preform unit heightwise in a mold by applying positive pressure to at least one of a mold member having a surface contour corresponding to substantially to entire top surface of the finished wedge heel and a mold member having a surface contour corresponding to substantially the entire bottom surface of the finished wedge heel, while constraining the preform unit against lateral deformation thereby to reduce the preform unit to the requisite thickness and surface contour in its various parts without causing substantial lateral movement of the fibers of the preform unit.

2,780,148
MACHINE FOR SETTING UP COLLAPSED CARDBOARD CARTONS
Reinhold A. Pearson and Benny Weremiczyk, Spokane, Wash.
Application November 26, 1954, Serial No. 471,460
5 Claims. (Cl. 93—53)



1. In a machine for setting up partitioned cartons of the type wherein an outwardly folding bottom wall of the carton is notched to interlock with a notch in the bottom edge of a partition wall of the carton and an outwardly folding end wall of the carton is connected to the partition wall and operable by movement into the carton outline to bring the notches into position to interlock, a carton supporting framework adapted to support a carton, a bottom wall engaging finger, an end wall engaging finger, said fingers being pivotally mounted on said framework for movement upward and toward the bottom and an end of a carton supported in open position thereon, power means connected to both fingers for advancing them upwardly and toward said bottom and end respectively, and stop means limiting the movement of the bottom wall engaging finger into the carton bottom, the connection between said power means and the bottom wall engaging finger being yieldable whereby to hold said bottom wall engaging finger against the stop means during part of the advancing movement of the other finger.

2,780,149
CONCRETE EXPANSION JOINTS
John Nicholas Heltzel, Warren, Ohio; The Union Savings & Trust Company, Warren, Ohio, and Carl J. Heltzel, executors of John N. Heltzel, deceased
Application July 23, 1948, Serial No. 40,328
4 Claims. (Cl. 94—18)



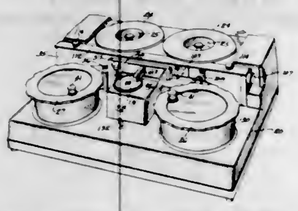
1. Load transfer means for concrete expansion joints comprising a pair of relatively movable shear plates for operative disposition on opposed sides of an apertured expansion strip in the joint, a dowel member projecting

through and secured to and functionally integral with each shear plate and extending from opposite sides thereof, an aperture in each plate for receiving the end of the dowel extending from the opposed plate, a shear plate bracing support depending from the other end of each dowel for holding the opposed shear plates in engagement with the opposite sides of the expansion strip, a dowel-receiving socket rigid with the slab side of each shear plate about said plate aperture and said shear plate bracing support comprising a pair of opposed and oppositely spreadable props in the form of subgrade-supported U-shaped rods, and adjacent ends of the respective rods pivotally secured to said other end of the adjacent dowel.

2,780,150
METHOD OF LAYING PREFABRICATED CONCRETE SLABS
Ray Cyrus Yeoman, Lufkin, Tex., assignor to Texas Foundries, Inc., Lufkin, Tex., a corporation of Texas
Application August 26, 1950, Serial No. 181,605
3 Claims. (Cl. 94—22)

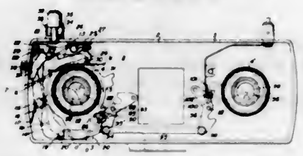
1. In the method of laying concrete roads, the steps of providing precast slabs of concrete having reinforcing steel bars extending longitudinally through an intermediate portion of the slab in unbonded relation with the concrete and having end portions projecting beyond the end walls of the slab, said slabs having a curvilinear portion extending outwardly from the end wall at a level below the reinforcing rods connecting transverse members to said steel bar end portions across end walls of the slabs for anchoring purposes, leaning the end wall of one slab upon the adjacent end wall of the other slab already in position of use with one of said walls having the projection thereon, joining the end portions of adjacent steel bars, and then allowing the leaning slab to drop toward position of use on the road bed whereby the spaced relation between the upper end portions of the slab increases responsive to engagement between the projection on one and the end wall of the other during movement of the leaning slab into position of rest whereby the reinforcing bars are gravitationally poststressed throughout their lengths.

2,780,151
METHOD AND APPARATUS FOR PHOTOGRAPHIC COMPOSING
Bernard Borisof, Chicago, Ill., assignor of one-half to Allen Friedman, Chicago, Ill.
Application February 7, 1952, Serial No. 270,463
8 Claims. (Cl. 95—4.5)



1. A photographic composing machine comprising a light source, means for feeding a film strip and a print strip in a forward direction past said light source in superposed relationship, means for urging said strips into pressure engagement with each other so as to maintain the relative superposed positions of said strips during said feeding operation, means for releasing said pressure engagement so that said film strip may be moved independently of said print strip, and means responsive to a reversal of the feeding movement of said strips for extinguishing said light source, said feeding means including a film reel, and said light extinguishing means including a toggle lever having a portion engaging said film reel and cooperating therewith to provide a toggle action when said reel is rotated.

2,780,152
DOUBLE SHUTTER TRIGGER LOCK
Douglass C. Harvey and Loren J. Craig, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application September 3, 1953, Serial No. 378,244
2 Claims. (Cl. 95—31)

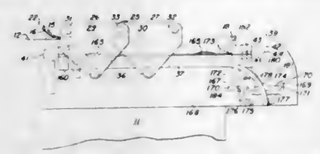


1. A trigger lock for shutters including a drive ring, a spring for operating the drive ring, a latch for holding the ring in a set position and a trigger for releasing the latch in combination with a roll-holding camera including a film wind, a film measuring roll engaging a film as an area is positioned for an exposure, and shutter setting mechanism including a shutter setting member operably connected to the film measuring roll to be moved backward and forward thereby as a film area is advanced for exposure, two trigger locking devices, the first one carried by the drive ring of the shutter and the second coacting with the shutter setting mechanism, the former holding the trigger against movement when the shutter has been released by the trigger after making an exposure and the latter normally holding the trigger against operation and being released only when the film wind has substantially completed a film winding operation, the first trigger locking device for holding the drive ring in a set position including two parts, a first part including a hook for engaging a latch element on the drive ring and a second part including a flange engaging the first part to turn it in one direction, a relatively heavy spring tending to turn the second part in one direction, a relatively light spring tending to turn the first part in the same direction to latch the drive ring, only the first part with the relatively light spring opposing the engagement of the drive ring trigger latch as the shutter is set, the second part latching the trigger during the first part of the movement of the shutter setting backward movement and the second part latching the trigger until the forward movement of the shutter setting lever is substantially completed whereby the shutter cannot be operated during the film winding operation.

2,780,153
AUTOMATIC CONTACT PRINTER
William M. White and Robert A. Fox, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application July 16, 1953, Serial No. 368,364
6 Claims. (Cl. 95—73)

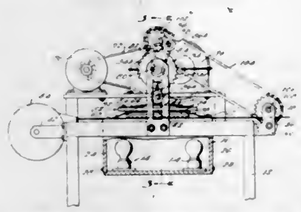
1. In a photographic printing machine having a top provided with a printing aperture, the combination with a hinged platen movable from a normally raised position and a lowered position to hold a sensitized sheet over said aperture; a reciprocal carriage movable between an

inoperative position, wherein it disengages said platen and allows it to raise, and an operative position, wherein it engages and holds said platen in its lowered position; printing lamps in said printer for illuminating said aperture; means for reciprocating said carriage between its two positions and including a reversible motor, a pair of single pole-double throw reversing switches connected in criss-cross relation in the starting circuit of said motor for reversing the drive thereof; a motor switch in the motor circuit, a platen switch in series with said motor switch and adapted to be closed by said platen as it moves from its raised position, a manual switch in shunt relation with said platen switch; a reset timer connected in a timer circuit in parallel relation with said motor circuit and including a synchronous motor for providing the timed interval, a normally closed switch in the timer motor circuit, and a single pole-double throw switch in



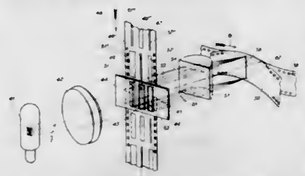
one position controlling energization of said printing lamps and in its other position energizing said drive motor circuit, a timer switch in said timer circuit, of control means for operating said two reversing switches, said timer switch and said motor switch in the proper sequence to carry out a printing cycle automatically in response to actuation of said manual switch, and including a first switch operating bar reciprocal over a given path and adapted to reverse the positions of said reversing switches at each end of said path, a second switch operating bar reciprocal over a given path to operate said motor switch and timer switch in its travel; and means operated by said carriage reciprocating means for reciprocating said switch bars over their respective paths in timed relation to effect a closing of said switches controlled thereby in proper sequence to effect a single printing cycle.

2,780,154
PHOTOGRAPHIC PRINTING MACHINE
Peter Musho, Wyandotte, Mich.
Application April 16, 1952, Serial No. 282,650
5 Claims. (Cl. 95—75)



1. In a photographic printing machine, a printing box having a transparent window forming a support for a negative to be printed; means for guiding a strip of sensitized paper over a negative on said window; means for drawing said paper over said negative; a platen mounted above the window for movement relative thereto adapted to press said paper against said negative during printing; and means for actuating said paper-drawing means and said platen alternately comprising a rotatably driven shaft, a segmental gear fixed to and rotatable with said shaft, a gear driven intermittently by said segmental gear, means operable by said driven gear for actuating said paper-drawing means intermittently, a normally arched leaf spring surmounting and fastened at one end to said platen, a radial arm on and rotatable with said drive shaft, and roller means on the end of said arm engageable with said leaf spring during rotation of said arm to depress the spring on the platen and to move the platen into pressed engagement with said paper, said arm positioned on the shaft to bring the roll into engagement with the spring during the time interval when said paper-drawing means is inoperative.

2,780,155
MEANS FOR THE CONTINUOUS PRINTING OF COLORED FILMS
André Victor Léon Clément Debrie, Paris, France
Application January 3, 1952, Serial No. 264,749
Claims priority, application France January 10, 1951
2 Claims. (Cl. 95—75)

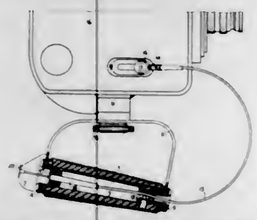


1. A device for illuminating a positive film through a colored negative in a continuous contact printer comprising, in combination, a source of white light, an opaque screen interposed in the path of said light between said source and said colored negative, said opaque screen being formed with three adjacent rectangular windows, each of said windows being covered by a different monochromatic filter, a continuous perforated strip displaceable across said windows, said perforated strip being formed with a plurality of vertically-spaced sets of three transversely spaced apertures of varying sizes in fixed relationship to limit the open area of each of said windows, said strip being effective for selectively varying the open area of said windows and thereby varying the composition of the monochromatic light beams issuing from each of said windows by passage of said white light through said filters in the open area of said windows, and means for optically concentrating the beams of monochromatic light issuing from said windows in a single strip of light on said colored negative, said means for concentrating the beams of monochromatic light comprising a semi-cylindrical lens, the lines describing said lens being perpendicular to the direction of displacement of said colored negative but parallel to the surface thereof at the point of impingement of said light.

2,780,156
ACCESSORY ADAPTED TO BE SECURED TO A CAMERA IN REMOVABLE MANNER
Jean Thevenaz, Grandson, Switzerland, assignor to Paillard S. A., Sainte-Croix, Switzerland, a corporation of Switzerland
Application August 3, 1954, Serial No. 447,535
Claims priority, application Switzerland August 11, 1953
2 Claims. (Cl. 95—86)

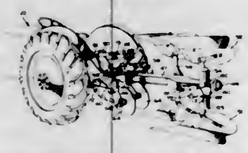
1. A camera support and shutter release accessory adapted to be attached to the underside of a camera, comprising, in combination, an inverted U-shaped support member, means for securing said support to a camera at the underside portion thereof, said means being attached to the base portion of said U-shaped support member, said means including a dowel having two vertically threaded extensions, one at each end thereof, said vertically threaded extensions being separated by a central portion member thereof, an operating knob, said knob being operatively connected to and being pivoted in said base portion of said support, said central portion member of said dowel being operatively connected to said operating

knob, a conically, substantially tubular shaped elongated handle secured to said U-shaped support, each of the ends of said handle being secured to the respective leg portion of said U-shaped support member at an end thereof, said handle having longitudinal grooves on the outer surface thereof, said handle being on a plane forming an acute angle with the plane of the axis of the camera lens, said handle having a longitudinal bore therethrough and a shutter release cable seating means at one end thereof for receiving one end of a shutter release cable, a shutter release cable operatively connected to the shutter of the camera lens and fixedly positioned in said handle bore, said cable having a sleeve member and a seating means attached to said sleeve member for positioning said cable at said shutter release cable seating means of said handle,



a push button member operatively connected to said cable, and means fixedly attached to said U-shaped support member at the end of the leg thereof adjacent said push button for guiding the thumb of the photographer in pressing upon said push button to operate the camera lens shutter, whereby the wrist and the photographer's hand may both occupy their natural positions when the photographer's forearm is held substantially vertical while the photographer's elbow is pressed against his body, thereby insuring maximum stability for a minimum of fatigue, and whereby the stability of the camera during film exposure may be increased due to the ease with which the photographer may grip the handle while his arm is so held substantially vertical and his elbow is pressed against his body.

2,780,157
COULTER MOUNTING FOR TRACTOR SUPPORTED TWO-WAY PLOW
Harry A. Pursche, Gardena, Calif.
Application August 14, 1948, Serial No. 44,338, which is a division of application Serial No. 238,524, July 25, 1951, now Patent No. 2,666,576, dated January 19, 1954. Divided and this application September 8, 1953, Serial No. 378,733
3 Claims. (Cl. 97—26)

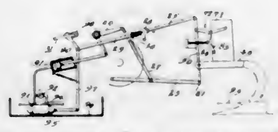


1. In a two-way plow assembly, the combination of a frame having a rearwardly extending longitudinal beam, a carrier turnably mounted on the beam and provided with a plurality of right-hand plows and a plurality of left-hand plows, power means on the frame adapted to turn the carrier to bring either the right-hand or left-hand plows into operative position, a plurality of coulter wheels positioned in advance of the plows and each being adapted to cooperate with a left-hand plow and a right-hand plow, a rocker beam floatingly mounted on said frame, said rocker beam turning on the axis of the longitudinal beam, and means supporting the coulter wheels on the rocker beam.

2,780,158
TWO WAY DISC PLOUGH
Harry A. Pursche, Gardena, Calif.
Application December 12, 1952, Serial No. 325,544
13 Claims. (Cl. 97—31)

11. In a two-way disc plough, the combination of: a rear carriage having laterally spaced wheels mounted for vertical movement thereon, a first beam pivotally connected to the carriage for horizontal swinging movement with respect to the direction of travel and extending forwardly therefrom, a second beam pivotally connected to the first beam between the ends thereof for horizontal swinging movement with respect to the direction of travel, the second beam extending forwardly of the forward end of the first beam, vertically movable means on said second beam near the forward end thereof for connection to a tractor, a plurality of ground engaging plough discs each turnably mounted upon said first beam, power means for raising the rear carriage relative to its wheels and for raising the second beam relative to the tractor, whereby the plough discs may be lifted clear of the ground.

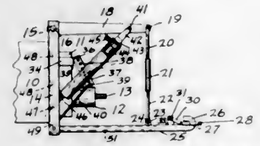
2,780,159
OVERLOAD RELEASE ARRANGEMENT FOR LONG IMPLEMENTS
Alexander Senkowski, Earlsdon, Coventry, Leonard R. Payne, Yardley, Birmingham, and Henry George Ferguson, Abbotswood, Stow-on-the-Wold, England, assignors to Massey-Harris-Ferguson (Sales) Limited, Coventry, England, a British company
Application April 19, 1954, Serial No. 424,136
Claims priority, application Great Britain April 21, 1953
6 Claims. (Cl. 97—46.07)



5. A hitch for connecting an implement frame with a tractor comprising a pair of trailing draft links, and a power lift mechanism for the draft links, which power lift mechanism includes a spring-biased top link and means controlled thereby for raising and lowering the draft links in accordance with movements of the top link within a given range and for releasing the draft links when the top link is moved inwardly beyond said range, a vertical member having means adjacent its upper end for connection to the top link and means adjacent its lower end for pivotal connection to the draft links, means pivotally connecting said vertical member to the implement frame for pivotal movement in a fore-and-aft direction, bracing means interposed between the implement frame and said vertical member preventing relative pivoting movement between them under normal operating conditions, said bracing means including a collapsible element arranged to collapse when subjected to predetermined pressure, said implement frame connection to said vertical member being located at a point vertically spaced from the connection of the member to the draft links so that the draft force applied by the draft links exerts a torque on the member, said element being operative to resist said torque until the draft force exceeds a predetermined value and effects the collapse of the element

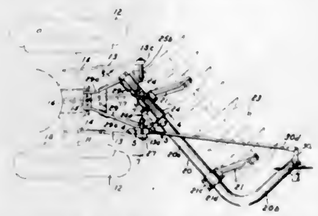
and movement of the top link for conditioning the power lift mechanism for lowering the draft links thereby releasing the load on the tractor rear wheels.

2,780,160
THREE-POINT TOOL ADAPTER FOR TRACTORS
Howard G. Harris, Dakota City, Nebr.
Application November 19, 1954, Serial No. 470,078
2 Claims. (Cl. 97—46.59)



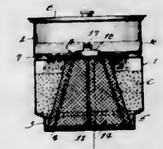
1. A tool adapter for tractors comprising a framework including a pair of vertically positioned spaced channels, a transverse rod journaled at the upper portion of said channels, upper arms secured to said rod, a hydraulic unit pivoted to one of said arms and to one of said channels for raising said arms, a pair of lower arms pivoted at the lower ends of said channels, means attached between said upper arms and said lower arms for raising said lower arms when said upper arms are raised, said means including adjustable threaded rods, turnbuckle members engaging said threaded rods, said lower arms having backwardly curled end portions for attaching implement portions thereto, a transverse draw bar plate having a plurality of openings therein, said plate having a pair of slots for receiving said curled portions, means for locking said plate including a pair of locking bars, lugs attached to said lower arms at which said locking bars are pivotally secured.

2,780,161
FRAME CONSTRUCTION AND HITCH FOR FARM IMPLEMENT
Ralph C. Frevik, Detroit, and Raymond W. Wilson, Ferndale, Mich., assignors, by mesne assignments, to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Original application May 6, 1950, Serial No. 160,424, now Patent No. 2,690,109, dated September 28, 1954. Divided and this application December 15, 1952, Serial No. 326,042
3 Claims. (Cl. 97—47.62)



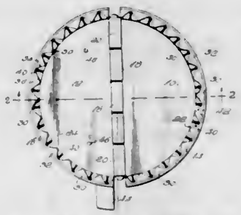
3. For use with a tractor having transversely spaced, power-lifting, trailing hitch links, a ground working farm implement comprising a transversely extending main horizontal frame formed of two telescopical lengths of tubing, a plurality of standards, means for clamping said standards to said main frame at selected positions therealong, ground working tools supported by said standards, a pair of identical hitch brackets clamped to said main frame at two selected, spaced positions therealong with portions of the hitch brackets adapted for connection with the hitch links extending generally horizontally from opposite sides of the main frame, and means connecting the hitch brackets with the rear ends of said hitch links.

2,780,162
COFFEE EXTRACTORS
Rubin Chaplik, Chicago, Ill.
Application January 19, 1956, Serial No. 560,085
2 Claims. (Cl. 99—306)



1. A coffee extractor consisting of a shell having at the bottom a large central opening separated from the surrounding wall by a narrow flange projecting inwardly from such wall, a filter in the form of an inverted cup of frusto-conical shape with its small end at the top and of considerable diameter, a bead projecting inwardly from the shell near the top of the filter, a distributor plate resting on said bead and positioned close to the filter top, said plate having in the center a hole no larger in area than the top of the filter, a low ledge surrounding said hole, there being perforations in the area of the plate surrounding the ledge and surrounded by the shell, and a cover for the top of the shell.

2,780,163
PIE MOLD
Wesley B. Lee, Asheville, N. C., assignor of fifty percent to Billy C. Spivey and fifty percent to Lawrence Spivey, Jr., Fairview, N. C.
Application May 7, 1954, Serial No. 428,213
1 Claim. (Cl. 99—375)



A mold for molding a pie for frying comprising a pair of identical semi-circular flat imperforate sections having adjoining straight side edges formed with upstanding interfitting hinge knuckles connected by a hinge pin to form straight walls, said sections having arcuate free side walls, said side walls upstanding from the flat sections and having coplanar, upper, free edges, said flat sections having inner flat surfaces on which a circular sheet of dough is laid, the sheet of dough overlying the straight walls and being folded over onto itself about a filling when the sections are moved into superposed closed relation with the free edges of their side walls in contact, said free edges having outermost portions formed with complementary, contacting knife edges to automatically trim the edges of the pie, said free edges inwardly of the knife edges being formed with a continuous series of circumferentially spaced crimping teeth, each of said teeth having a flat outer face disposed parallel to the flat inner surfaces of the sections and arranged in a plane along a circle slightly below and concentric to the knife edges, each of said teeth having inwardly convergent side faces disposed perpendicular to the flat outer faces and separated by valleys which are disposed oblique to the side walls, a handle on the outer surface of one section adjacent the center of the outer curved edge thereof and a handle on the side wall of the other section and extending from one end thereof parallel to the straight side edge of said section and a plurality of upstanding studs secured to one

of said flat sections whereby the sheet of dough is perforated and retained in contact with said last-mentioned flat section upon the dough being folded over onto itself.

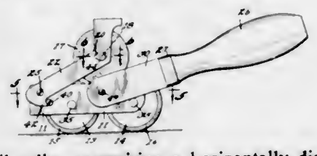
2,780,164
BALER NEEDLE SAFETY CONNECTION
Henry W. Schaaf, Lake Orion, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application October 30, 1953, Serial No. 389,207
3 Claims. (Cl. 100—19)

1. In a baling machine comprising a baling chamber, having an opening in a wall thereof, a needle movable through said opening and across said chamber, and drive means for reciprocating said needle, the improvement of a safety driving connection for said needle, said connection comprising a separable link having a pair of halves respectively connected to said needle drive means and to said needle, a shear connection normally holding said link halves in an assembled relation, and means normally biasing said needle away from said bale chamber, whereby an obstruction in the path of said needle causes said shear connection to be severed and said biasing means to forceably move said halves apart and thus move said needle to a safe position outside of said bale chamber.

2,780,165
TYPING APPARATUS FOR BUSINESS MACHINES AND THE LIKE
Eugen Kuhn, Altoberndorf (Neckar), Germany, assignor to Olympia Werke Aktiengesellschaft, a joint-stock company
Application October 6, 1953, Serial No. 384,369
Claims priority, application Germany October 10, 1952
5 Claims. (Cl. 101—96)

1. In a business machine, in combination, stationary support means; type members carried by said stationary support means; movable support means connected to said stationary support means for movement between an operative position located adjacent to said type members and an inoperative position distant from said type members; a platen turnably mounted on said movable support means and being located opposite said type members when said movable support means is in said operative position thereof; ink ribbon carrying and guiding means mounted on said movable support means for locating a ribbon between said type members and platen; paper carrying means for carrying paper to be guided to said platen, said paper carrying means being mounted on said movable support means for movement along a predetermined path with respect to said movable support means; paper guiding means mounted on said movable support means for guiding a strip of paper to an outer surface portion of said platen facing said type members when said movable support means is in said operative position thereof; and releasable lock means mounted on said stationary and movable support means for releasably locking the same to each other when said movable support means is in said operative position thereof, said releasable lock means having an actuating portion adapted to be actuated for releasing said lock means and located in said predetermined path so that when said paper carrying means is moved along said path said lock means will be actuated to release said movable support means from said stationary support means, whereby said movable support means may then be moved to said inoperative position thereof to locate said platen, ink ribbon carrying and guiding means, paper carrying means, and paper guiding means together with said movable support means distant from said type members to give free access to said type members as well as to the structure carried by said movable support means.

2,780,166
STENCIL ROLLER
Donald C. Wright, St. Petersburg, Fla.
Application May 24, 1955, Serial No. 510,633
5 Claims. (Cl. 101—123)



1. A stencil roller comprising a horizontally disposed mounting frame, spaced rollers having soft resilient surfaces rotatably mounted in said frame, arms pivotally mounted on the frame and extended upwardly therefrom an inking roller rotatably mounted in said arms and positioned to contact surfaces of the spaced rollers, and a handle pivotally mounted on and extended from said frame.

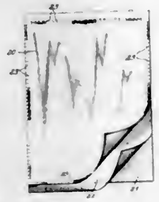
2,780,167
METHOD OF PREPARING AN ORGANIC ADHERED WATER-SOLUBLE KNIFE-CUT SCREEN PROCESS PRINTING STENCIL
Earl G. Conley, Tulsa, Okla.
Application February 21, 1955, Serial No. 489,611
1 Claim. (Cl. 101—128.2)

The method of forming a screen process printing stencil comprising a foraminous screen and a stencil film carried thereby, said film being a substantially transparent water-soluble film of methyl-cellulose with a transparent backing sheet adhesively joined to but removable from one surface thereof, which method consists of cutting and removing portions corresponding to a design to be reproduced from the film, placing the surface of the film opposite the backing sheet in engagement with the foraminous screen, applying a volatile organic solvent for methyl-cellulose to said film through the screen to cause the film surface to become tacky and adhere to said screen when dried, stripping the backing sheet from the adhered film, and removing said stencil film from the foraminous screen by water as a solvent after use of the film as a printing stencil.

2,780,168
COMPOSITION FOR USE IN ELIMINATING OIL AND GREASE SMUDGES FROM OFFSET PRINTING MATS AND PLATES
Oliver S. Nichols, Granite City, Ill., assignor of one-half to John H. Schneider, Lake Bluff, Ill.
No Drawing. Application November 16, 1951, Serial No. 256,829
2 Claims. (Cl. 101—149.2)

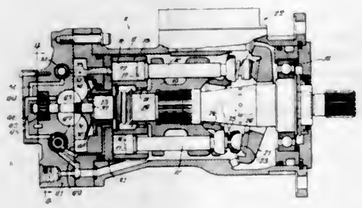
2. A method for rendering oil and grease smudges present on planographic mats and plates incapable of attracting ink during the planographic process comprising intimately contacting said smudges with a composition comprising as an aqueous phase 10–80 parts by volume of a water-miscible aliphatic alcohol selected from the group consisting of glycerol and glycols, water and 10–60 parts by volume of a colloidal solution containing 1–15% by weight of silicic acid in water, said aqueous phase having a pH in the range of 3–5, and as a non-aqueous phase 10 ml. per 100 ml. of solution of a petroleum ether fraction having a boiling point within the range of 300–420° F., said non-aqueous phase being dispersed throughout said aqueous phase in the form of droplets as a result of agitation of the two phases together at the time of application of said composition to said mats and plates.

2,780,169
MARGIN MARKED DUPLICATOR MASTER SET
Turner Marvin Fortner, Gulfport, Miss.
Application October 13, 1952, Serial No. 314,451
4 Claims. (Cl. 101—149.4)



1. A duplicator set for use in preparing business forms, comprising a numbered margin marked master sheet, and a carbon sheet secured thereto, the numbered marks being spaced to correspond with the line spacing of an ordinary typewriter, the numbering being progressive from the top and the bottom respectively of the sheet to the center thereof and being continued throughout the entire length of the margin.

2,780,170
SUPERCHARGING SYSTEM FOR FLUID PUMPS
Ludwig T. Stoyke and Melvin M. Hann, Rockford, Ill., assignors to Sundstrand Machine Tool Co., a corporation of Illinois
Application November 17, 1953, Serial No. 392,613
13 Claims. (Cl. 103—2)

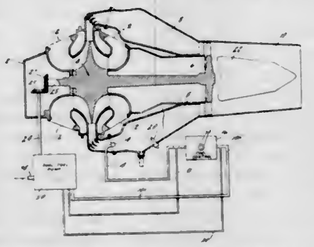


1. In a multiple piston rotatable barrel wobbler type pump having a port plate provided with a face portion having an intake port and a discharge port formed in said face portion positioned to register with the cylinders upon rotation of the barrel, means for supplying fluid to be pumped to said intake port, and superchanging means comprising a passage opening through said face portion adjacent the cut-off end of the intake port, and means connecting the passage to a source of fluid under pressure whereby to direct a jet of said fluid at the cylinders as said cylinders pass said passage.

2,780,171
PNEUMATICALLY ACTIVATED WELL PUMP
Edward H. Heddy, Los Angeles, Calif.
Application May 20, 1954, Serial No. 431,064
20 Claims. (Cl. 103—5)

1. Apparatus of the character described comprising a pump adapted to be lowered in a well in connection with a pressurized gas supply conduit and a production discharge conduit both inside a well casing, said pump comprising a vertically elongated body, means for connecting the body with said conduits for delivery of the pressurized gas to the pump through one of the conduits and discharge of production fluid through the other conduit, piston means in the body operable by the pressurized gas to draw production liquid from the well into said body and displace production liquid upwardly from the body into the discharge conduit, a valve in communication with oppositely facing piston surfaces to control alternate application of supplied gas pressure thereto and at the same time to receive the force of said alternate pressure, means guiding the valve to reciprocate independently of actuation by the piston means and in response to said alternate pressure reception for controlling said alternate pressure application to the piston surfaces, separate movable valve blocking means engageable by opposite end portions of the valve to arrest the valve travel against the force of the actuating gas pressure, and means operated by said piston means to release said blocking means from blocking relation to the valve.

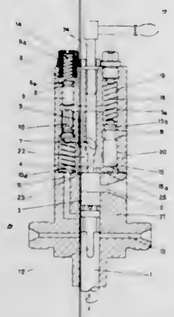
2,780,172
DUAL FUEL PUMP
Richard J. Coar, Hartford, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application April 26, 1952, Serial No. 284,517
22 Claims. (Cl. 103—10)



1. A fuel pumping device including a first and a second fuel pump, an inlet passageway to said pumps with a check valve in the inlet to the second pump, outlet passageways from said pumps, a check valve in the outlet

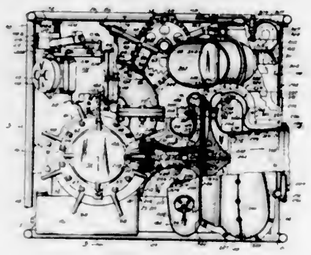
passageway from said first pump, and a common delivery passageway for said inlets, a pressure balanced control valve in each of said outlet passageways, each pressure balanced control valve being balanced as to the pressure in its respective outlet passageway, and a bypass from each of said control valves to the inlet to said second pump downstream of the check valve, means responsive to a pressure differential for shifting said control valves, each of said control valves having a spring biasing the valve in one direction, one of said springs being slightly stronger than the other.

2,780,173
DEVICES FOR REGULATING THE DELIVERY OF PISTON PUMPS
Wilhelm Herbrich, Milan, Italy, assignor to Spica S. p. A., Milan, Italy, an Italian company
Application June 26, 1953, Serial No. 364,440
Claims priority, application Italy June 27, 1952
5 Claims. (Cl. 103—41)



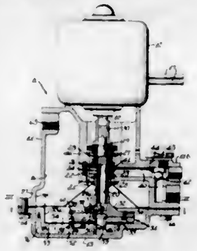
1. A regulating system for the delivery of injection piston pumps for internal combustion engines, comprising in combination: a chassis; a piston reciprocable axially in said chassis; an operating chamber in said chassis at the forefront of said piston; an inlet and outlet orifice opening through said chassis into said operating chamber and adapted to be opened and closed alternately by the displacement of said piston; a passageway opening into said operating chamber and adapted to receive the total flow of liquid moved by the piston; a throttle valve in said passageway; means connected to said throttle valve to adjust the opening of said throttle valve during operation; a discharge conduit from said throttle valve; said throttle valve being adapted to control the relative pressures in said operating chamber and passageway and in said discharge conduit; a regulator plunger valve in a regulator chamber; a high pressure duct between said passageway and said regulator chamber, and opening into said regulator chamber below a first end face of said regulator plunger valve; a low pressure duct between said discharge conduit and said regulator chamber, and opening into said regulator chamber above the second end face of said regulator plunger valve; in said regulator chamber, a constant load spring cooperating with said second end face of said regulator plunger valve; whereby the degree of opening of said throttle valve and the resultant difference of pressures between said passageway and said discharge conduit control the displacement of said regulator plunger valve; a low pressure secondary outlet, separate from said inlet and outlet orifice, communicating with said regulator chamber and adapted to be opened and closed alternately by the displacement of said regulator plunger valve, and further adapted to discharge from said regulating system a portion of the flow of liquid moved by said piston, when said throttle valve is partly closed; an accumulator chamber communicating with said discharge conduit, the inner walls of said accumulator chamber forming two spaced abutments; an accumulating plunger axially movable in said accumulator chamber between said spaced abutments; flange means on said accumulating plunger adapted to register with said spaced abutments, whereby the maximum axial displacement of said accumulating plunger corresponds to the axial distance between said abutments.

2,780,174
PUMP AND POWER PLANT ASSEMBLY
Leon R. Wosika, San Diego, and Arsham D. Zakarian, Del Mar, Calif., assignors to Solar Aircraft Company, San Diego, Calif., a corporation of California
Application March 19, 1951, Serial No. 216,282
35 Claims. (Cl. 103—87)



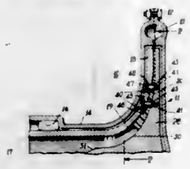
1. A power pump unit comprising a skeleton support frame; a pump unit mounted on said frame within the confines of the frame and at one end corner thereof and having inlet and outlet connections adjacent said corner and a pump shaft; and a compact light weight, high horsepower, single stage turbo-compressor power unit mounted within the confines of said frame and at the other end thereof and having a compressor rotor and a turbine rotor disposed in longitudinal back-to-back alignment along the side intersecting said corner, a combustion chamber having inlet and outlet connections occupying the corner diagonally opposite said one corner at the side of said turbo-compressor power unit and a power take-off shaft drivingly connected to said pump shaft whereby said pump may be closely coupled to and driven by said power unit and said pump unit and said power unit together form a compact self-contained power pump unit of minimum width and length capable of manual portage from place to place for use at any desired point of operation.

2,780,175
PUMP
Theodore R. Thoren, Russell Township, Geauga County, and Richard L. Gates, Eastlake, Ohio, assignors to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application March 17, 1951, Serial No. 216,154
14 Claims. (Cl. 103—97)



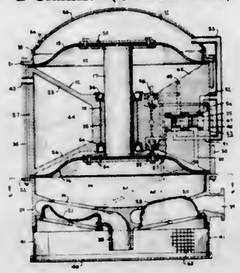
1. In a pump assembly, a casing structure having a volute pumping chamber therein and a standpipe cavity adjacent thereto, an outlet for said casing structure being provided in said standpipe chamber above the level of said volute chamber, and upper deflector plate substantially separating the standpipe chamber from the volute chamber and having an opening therethrough to establish flow communication therebetween, a motor on said casing structure having a shaft extending into said volute chamber, a rotor impeller on the end of said shaft rotatable in said volute chamber, said rotor impeller having an enlarged center opening therein and a passageway extending radially outwardly therefrom, said passageway having a restricted throat formed therein, inlet means forming an inlet through said casing structure, said shaft and said rotor to the restricted throat, and a lower deflector plate forming together with said casing structure a passageway from said standpipe chamber to the enlarged center opening, whereby the fluid flowing through said center opening will be impelled centrifugally through said throat to draw a suction through said inlet means, the discharge of said rotor impeller being flowable through said upper deflector opening and into said standpipe cavity for delivery to said outlet.

2,780,176
CENTRIFUGAL IMPELLERS
Hans T. Holzwarth, Westfield, N. J., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware
Application February 28, 1951, Serial No. 213,144
5 Claims. (Cl. 103—115)



1. A centrifugal impeller comprising a rotatable shaft, a disc member extending from said shaft and rotatable therewith, a shroud member spaced from said disc member and centered to rotate therewith, said members presenting opposed flow path defining surfaces, said defining surfaces each being a surface of revolution generated by the rotation of a line about the axis of said shaft as a center, a plurality of vanes dividing the space between said defining surfaces into a plurality of like flow passageways, said vanes each having a plurality of spaced holes therethrough, said members each having a plurality of holes therein, each of the disc holes and each of the shroud holes being aligned with a respective one of said vane holes, one hole of each aligned pair of disc holes and shroud holes being tapped with one end thereof opening at its respective one of said defining surfaces, material around said one end being removed to provide a bearing surface predeterminately positioned relative to its surrounding defining surface, the other hole of each aligned pair of disc holes and shroud holes being stepped, the bore of said stepped hole of smaller diameter opening at its respective one of said defining surfaces and extending into its one of said members a predetermined distance, the bore of larger diameter meeting said bore of smaller diameter and opening at the outer surface of its one of said members, a plurality of connecting members adapted to enter the aligned holes of said shroud member, said disc member and said vanes, said members each including a tool engaging head portion of a diameter to fit into said bore of larger diameter, a shank portion of predetermined length adapted to fit in said smaller bore and the hole in the respective vane and terminating in a shoulder adapted to bear on said bearing surface, and a threaded portion of reduced diameter extending from said shoulder and adapted to be screwed into said tapped hole whereby when said connecting members are screwed into said tapped holes as required to seat said shoulders on said bearing surfaces and said head portions on the ends of said large diameter bores, said defining surfaces are predeterminately spaced throughout.

2,780,177
PNEUMATICALLY OPERATED DIAPHRAGM PUMP
Walter J. Hoenecke, Waukesha, Wis.
Application September 29, 1952, Serial No. 312,062
2 Claims. (Cl. 103—150)

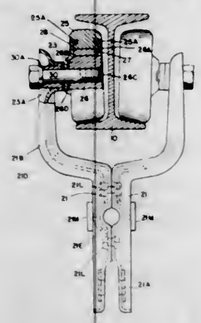


1. A pump comprising, a casing having therein a partition dividing its interior into two separate chambers, a flexible diaphragm spanning and dividing each chamber into segregated inner and outer spaces the former of which adjoin while the latter are located remote from said partition, means interconnecting said diaphragms to cause simultaneous flexing thereof in like directions, liquid inlet and discharge ports communicating with one of said outer spaces and each being provided with a liquid flow control valve, a valve chamber formed in said partition, a compressed air supply conduit communicating with said valve chamber and having branches extending from said chamber and communicable with each of said inner spaces, a spent air exhaust conduit also communicable with each inner space through said valve chamber and said supply conduit branches, a control valve having actuating faces and being reciprocable within said valve chamber for admitting compressed air through one of said branches to one of said inner spaces while simultaneously connecting the exhaust conduit of the other inner space with the ambient atmosphere, and pilot valves alternately directly operable by the flexing of said diaphragms in opposite directions to vent said valve chamber on alternately opposite sides of the valve actuating faces to atmosphere and thereby effect operation of said control valve.

2,780,178
REPLACEABLE TROLLEY WHEEL FOR CONVEYORS
Donald D. Zebley, Detroit, Mich.
Application August 24, 1953, Serial No. 376,079
1 Claim. (Cl. 105—148)

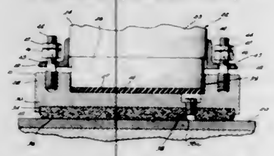
In a trolley wheel-bracket combination for travelling conveyors, a wheel comprising a tread element consisting of a rim having an inwardly extending intermediate flange or rib the inner edge of which is provided with a cylindrical bearing surface, an inner stationary member having an outer cylindrical bearing surface spaced from the first mentioned bearing surface, a flange on one end of said member extending radially to adjacent the rim portion of the tread element, a bushing of lubricant impregnated bearing material floating between and coacting with said bearing surfaces, a washer located at the other end of said inner member and extending radially to adjacent the rim portion of the tread element, said

washer and inner member being provided with interlocking portions, and a screw passing through said bracket



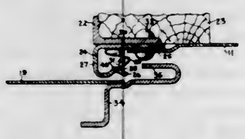
and washer and threaded into the inner member, said bracket and washer being provided with interlocking portions.

2,780,179
AUXILIARY LOAD SUPPORT
James Long, Beloit, Wis., assignor to Fairbanks, Morse & Co., Chicago, Ill., a corporation of Illinois
Application June 4, 1954, Serial No. 434,567
4 Claims. (Cl. 105—199)



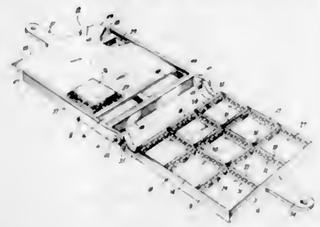
1. In a rail vehicle providing a vehicle frame and including a wheeled truck and center-pin means supporting the frame on the truck, auxiliary means spaced from said center-pin means for effecting lateral support of the frame relative to the truck, said auxiliary means including means providing a planar load bearing surface on the truck, a support member carried by the vehicle frame and providing a terminal end having a planar face in relatively spaced overlying relation to said planar load bearing surface, a cap member enclosing said terminal end, compressible means between the cap member and said planar face of the terminal end, said cap member being formed to have lateral clearance relative to said terminal end for permitting rocking displacement thereof relative to the terminal end, and a bearing shoe secured to said cap member for slidable engagement upon said planar load bearing surface.

2,780,180
BOXCAR DOOR WEATHERSEAL
Oscar E. Rothfuchs, Michigan City, Ind., assignor to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application January 12, 1953, Serial No. 330,665
3 Claims. (Cl. 105—409)



1. In a railway freight car having a side wall including a door opening, a door mounted on the side wall for slidable movement longitudinally of the car and over the door opening, a spark strip having a cross section in the shape of a channel having one flange secured to the rear edge of the door opening, a generally S-shaped resilient metal element having a web disposed in a single plane and a first arm secured to the web and disposed in a single plane and a second arm having a portion arranged diagonally of the web and secured thereto and disposed in a single plane and a portion arranged generally parallel with the first arm secured to the first named portion and disposed in a single plane and the width of the web being at least as great as the width of the second arm and the width of the first arm being at least as great as the width of the web, the resilient element being positioned in the channel and the first arm being secured to the side wall, and a member on the rear edge of the door having a flange in spaced parallel relation with the plane of the inner face of the door, the flange on the member slidably contacting said first named portion and projecting between the other flange of the channel and the second named portion of the resilient element compressing the element in a direction transversely of the car and toward the side wall to form a weatherseal when the door is closed.

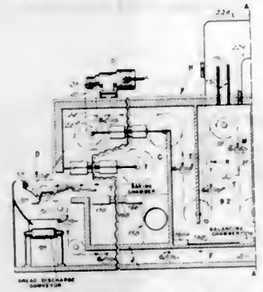
2,780,181
DEVICE FOR PREPARING RAVIOLI
John Roman, Elizabeth, N. J., and Charles A. Levy, Brooklyn, N. Y.
Application August 26, 1954, Serial No. 452,281
1 Claim. (Cl. 107—1)



A kitchen utensil comprising a tray provided with a plurality of open top food receptacles, a frame having one side hingedly connected to one side of said tray and swingable into and out of overlying relation with respect to said receptacles, a cover plate, said frame including rectangularly arranged sides, certain of said sides being formed with longitudinally extending inwardly facing grooves which open into each other at the junctures of their respective sides, at least one of said sides being cut away to permit said grooves to open outwards of said frame to slidably receive said cover plate therein, said cover plate being movable with said frame into and out of engagement with the upper edges of said receptacles for closing and opening the latter, said closing movement of said cover plate serving to pack food into said receptacles and to sever the food exteriorly of said receptacles from the packed food, said tray and frame being invertible to transfer the packed food from said receptacles to said cover plate whereby withdrawal of said cover plate from said frame permits cooking of the food transferred thereon.

2,780,182
AUTOMATIC BREAD PLANT
Kenneth R. Rand, Branford, Conn., assignor to American Machine & Foundry Company, a corporation of New Jersey
Application October 16, 1952, Serial No. 314,992
23 Claims. (Cl. 107—4)

1. An automatic bread plant comprising, a baking chamber, a proofing chamber, an endless conveyor running through said two chambers, an intermediate chamber positioned about said continuous conveyor and between said first two mentioned chambers, a combustion chamber located adjacent said baking chamber, an intake header positioned in said first-named chamber and communicating with said combustion chamber, radiating flues



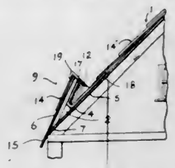
communicating with said intake header and positioned in said intermediate chamber, a pipe connecting said intake header of said baking chamber with said radiating flues of said intermediate chamber, and damper means in said pipe to selectively close or open said pipe whereby said intermediate chamber may be used as a baking chamber.

2,780,183
ICE CREAM DISHER
Louis Myers, Rockford, Ill.
Application November 12, 1953, Serial No. 391,541
1 Claim. (Cl. 107—48)

A disher comprising: a handle, a bowl, a stem between and fixed to the bowl and the handle, a rotatable shaft extending longitudinally of the stem, having one of its ends journalled in the handle and its opposite end journalled in the bowl, a scraper rotatable in the bowl and fixed to the end of the shaft journalled in the bowl, the shaft and scraper being removable from the bowl and the stem, a lever disposed for pivotal movement between and transversely of the stem and the shaft, separable gearing between the shaft and the lever for rotating the shaft, a cylindrical stud having one of its ends rigidly secured to the lever, journalled in and longitudinally slidable into and out of the stem, and having its opposite end projecting from the stem and provided with a cross-groove, a torsion-spring for retracting the lever, including a coil around the projecting end of the stud, a terminal on one end of the coil insertible into and removable from said cross-groove and a resilient arm on the opposite end of the coil having an offset terminal engaging the stem for holding the spring under torsion and the terminal on the coil in the cross-groove, said arm and offset being outside of the stem for access thereto and movable away from the stem for releasing the arm for releasing the torsion in the spring, the spring being removable from the stud when the torsion is released, the stud being slidable out of the stem when the shaft is removed from the handle and the bowl.

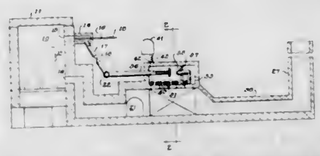
2,780,184
HIDDEN ROOF GUTTER
Frederick Olsson, Floral Park, N. Y.
Application November 25, 1953, Serial No. 394,247
3 Claims. (Cl. 108—28)

1. In a sloping shingled roof, a rain water gutter, disguised to conceal its presence and to allow a deceptive appearance of a continuous unbroken surface of the roof proper, comprising an elongated wedge form body element having a relatively short forward wall at right angles to the surface of the roof and declining from one end to the other, a bottom wall secured to the lower border surface of the roof and having its elongated edge at the eave's edge of the roof, and an outer top wall sloping down



from the top of the forward wall of the elongated edge of the bottom wall and having an edge overhanging the forward wall whereby a gutter is formed between the overhanging edge and the roof surface, and shingles matching those of the roof covering the outer top wall, tail ends of the shingles extending beyond the eave's edge of the roof and forming extended eaves for the roof.

2,780,185
COMBUSTION APPARATUS
William H. Dailey, Jr., Toledo, Ohio, assignor to Surface Combustion Corporation, Toledo, Ohio, a corporation of Ohio
Application February 13, 1953, Serial No. 336,710
2 Claims. (Cl. 110—56)

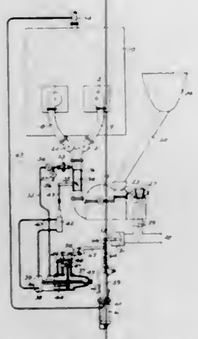


1. In combustion apparatus for a furnace having a work heating chamber, the combination which comprises a burner for firing into the chamber, a refractory tile air heating recuperator having a cold air inlet and a hot air outlet, duct means for venting flue gas from the chamber through said recuperator, said recuperator being heated by said flue gas, means forming an air passage connecting the hot air outlet of the recuperator with the burner, a jet pump in said passage for drawing air through the recuperator to said pump and for forcing the heated air therefrom to the burner, the jet pump comprising an entraining tube and a nozzle for discharging motive fluid therethrough, a blower constituting a source of air under pressure to serve as motive fluid for operating the jet pump, a metallic air heating recuperator disposed in said air passage between the tile recuperator and the jet pump and adapted to be heated by the air in said passage, and duct means for delivering air from the blower to the metallic recuperator and thence to the nozzle of the jet pump, said air being heated by said metallic recuperator.

2,780,186
FEEDING PULVERIZED FUEL FOR COMBUSTION
L V Andrews, Worcester, Mass., assignor to Riley Stoker Corporation, Worcester, Mass., a corporation of Massachusetts
Application April 14, 1950, Serial No. 155,959
1 Claim. (Cl. 110—106)

A control system for a furnace of a steam generating unit having a plurality of burners of pulverized fuel, a conduit feeding each of said burners, a main conduit supplying the feed conduits, and a pulverizer supplied with coarse fuel by an adjustable feeding means, said control

system comprising: a hydraulic motor whose piston is connected to and responsive to the output of the steam generating unit, the piston being connected to the said adjustable feeding means for control thereof, a diaphragm-type regulator connected to said piston in order that the normal diaphragm position is determined thereby, means for obtaining the static pressure in the main conduit, said

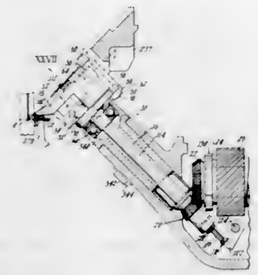


means being connected to said regulator for impressing said pressure on one side of the diaphragm, a valve for controlling the flow through the main conduit, a second hydraulic motor connected to said valve for actuation thereof, a pilot valve connected for controlling the hydraulic pressure in said second hydraulic motor, said pilot valve being controlled by connection to the diaphragm of said regulator.

2,780,187
ASH REMOVAL APPARATUS
Charles K. Birch, Montclair, N. J., assignor to Lehigh Valley Coal Sales Company, New York, N. Y., a corporation of Delaware
Application March 8, 1950, Serial No. 148,419
2 Claims. (Cl. 110—165)

2. Apparatus for removing ashes from a coal-fired furnace comprising an ash hopper for receiving ashes from the furnace, a suction box, a conduit extending along the length of the bottom of the hopper and leading from the hopper to and opening into the upper portion of the suction box, a combination screw conveyor and ash crusher within the conduit for conveying ashes from the hopper to the suction box, the upper portion of said conduit within the hopper having at least one opening to permit admission of ashes from the hopper into the conduit, the suction box having an opening in the lower portion thereof, an ash removal suction pipe leading from said opening, and means forming an opening of substantial size in an upper portion of the suction box to the outer atmosphere independent of the opening for the admission of ashes thereto, so that when suction is applied to said suction pipe air will be sucked into the suction system from a source other than the ash hopper and the suction in the suction pipe will not appreciably affect the draft of the furnace.

2,780,188
LOCKSTITCH SEWING MACHINES
Hans F. Schaefer, Jr., Rockport, and Frank Pulsifer, Hamilton, Mass., assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application July 5, 1952, Serial No. 297,216
19 Claims. (Cl. 112—38)



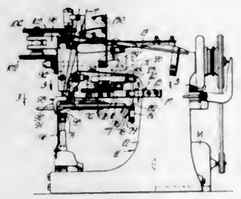
1. A shoe sewing machine having stitch forming and work feeding devices including a curved, eye-pointed needle, a stud about which the needle oscillates, and a main sewing shaft for actuating the stitch forming and work feeding devices arranged generally in parallel relation to the needle stud, in combination with a rotary loop taker having a needle loop entering beak mounted for rotation in a plane at an acute angle to that defined by the needle and a shaft on which the loop taker is mounted intersected across its axis by the plane of the needle.

2,780,189
MACHINES FOR SEWING SHOES
Fred Ashworth, Wenham, and Joseph R. Ioannilli, Beverly, Mass., assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application April 2, 1954, Serial No. 420,612
2 Claims. (Cl. 112—46)

1. In a machine for sewing a welt to the outflanged marginal portion of an upper and a sole in a stitchdown shoe supported on a last, said machine having stitch forming devices comprising a curved hook needle and a needle looper, a work support, a stitchdown welt guide and a welt gage mounted on the work support, a presser foot acting to clamp the marginal portions of the shoe and welt against the work support, a shiftable carrier for the work support, on which the work support, the welt guide and the welt gage are mounted and with which they are movable as a unit during sewing operations against the bulging last supported surface of the shoe, the combination with a manually operated member for shifting the carrier during sewing operations to

press a welt moving along the welt gage into the crevice between the bulging and projecting marginal portions of the shoe with a variable seam margin along the projecting shoe portions and connections between the manually operated member and the shiftable carrier comprising a cam engaging the carrier and means for rotating the cam when the carrier is shifted.

2,780,190
HAIR ROOTING EQUIPMENT
Daniel Lenoble, New York, N. Y., assignor to Sayco Doll Corp., a corporation of New York
Application June 16, 1954, Serial No. 437,059
19 Claims. (Cl. 112—79.5)

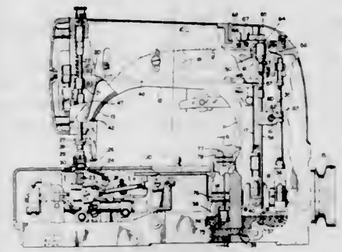


1. In a chain stitch type sewing machine having a reciprocating needle with a hooked end, a supporting member to carry an article, a presser foot to retain such article on said supporting member, said presser foot and said supporting member having aligned openings for passageway of said needle, and means to guide a thread around the hooked end of said needle; the combination therewith of means movable between said presser foot and said guide means to engage the thread between the presser foot and the guide means to form an elongated loop with a reversely bent end and two legs, means to elongate at least one of the legs of such loop and means thereupon to disengage such loop from said means to engage the thread.

2,780,191
SEWING MACHINE BOBBINS OF EITHER SILK, COTTON, NYLON OR OTHER FIBRES OR SYNTHETIC MATERIAL, AND METHODS OF MAKING THE SAME
Joel M. Philips, Hillsdale, N. J.
Application May 4, 1953, Serial No. 352,606
3 Claims. (Cl. 112—251)

1. A sewing machine bobbin comprising a mass of coiled uncoated thread composed of a continuous thread helically and tightly wound about an axial center, said mass of helically and tightly wound coiled thread comprising a series of successive superposed coils of normal thread material having contacting external surface portions of adjacently positioned threads of the coils disposed in close engagement with each other and cohesively connected together, said threads being heat and pressure deformed into a rigid and stiff bobbin body of truly cylindrical shape with flat upper and lower surfaces, said bobbin body having an inherent rigidity and compactness that gives to the coils of thread in unwound condition an inherent set of curvilinear shape and such contacting external surface portions of adjacently-positioned coils providing a uniform tension and resistance to unwinding from the bobbin of such normal threads.

2,780,192
LUBRICATION SYSTEM FOR SEWING MACHINES
John G. Attwood, Oak Park, Ill., assignor to Union Special Machine Company, Chicago, Ill., a corporation of Illinois
Application December 1, 1954, Serial No. 472,488
11 Claims. (Cl. 112—256)



1. In a sewing machine a hollow frame having a lubricant retaining reservoir, operating means within said frame for distributing lubricant to parts requiring lubrication therein, a sump at a level higher than said reservoir for collecting excess lubricant, and means for returning lubricant from said sump to said reservoir comprising a syphon tube having a short leg extending downwardly into said sump, a substantially horizontal portion and a long leg extending downwardly to a point adjacent said reservoir, lubricant receiving means communicating with said long leg adjacent its upper end and extending upwardly therefrom, and means for directing lubricant distributed by said operating means into said lubricant receiving means.

2,780,193
METHODS OF PRODUCING PIPED GARMENT OPENINGS
Darwin G. Smith and Stanley J. Ketterer, Bridgeport, Conn., assignors to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application December 3, 1953, Serial No. 395,966
1 Claim. (Cl. 112—264)

The method of producing a piped opening in a body material including the steps of cutting a mitered opening slit in said body material, severing a single piping patch of substantially the same length as the opening slit substantially along its medial line and along its entire length to provide a pair of individual piping strips and simultaneously folding each of said pair of piping strips along a line parallel with the line of severance to provide a longitudinal fold edge along one side of each of said piping strips, placing said folded piping strips upon said body material along the opposite sides of said slit with the fold edges of said piping strips constituting the outside edges of said piping strips and with the severed edge of each strip disposed adjacent the opening slit, and applying a line of stitches through each piping strip and said body material adjacent said opening slit.

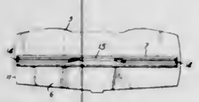
2,780,194
INTERNAL BACK-UP CLAMP FOR GIRTH WELDING
Althos M. Croswell, Shreveport, La., assignor, by mesne assignments, to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application July 11, 1952, Serial No. 298,391
11 Claims. (Cl. 113—103)

1. In an internal aligning clamp for use in welding the joint between adjacent ends of two tubular sections dis-

posed in an end-to-end relation, a frame adapted to be disposed within said tubular sections and having a longitudinal axis substantially coincident with the longitudinal axis of the tubular sections, a plurality of circumferentially spaced supporting shoes disposed within the tubular sections about said frame axis, a radially extending arm connected to each of said shoes and extending inwardly toward the frame axis, means disposed at the frame axis and connected to the inner ends of said arms to simultaneously actuate the arms outwardly and inwardly relative to the frame axis and thereby move the shoes radially into and out of contact with the joint between the pipe sections, an arcuate chill segment mounted on the outer surface of each shoe and adapted to be aligned with

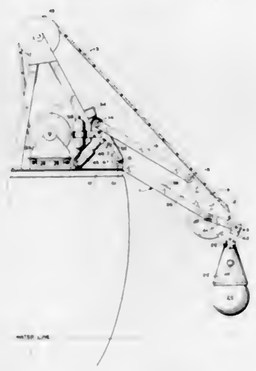
the joint between the tubular sections, each alternate chill segment having inwardly diverging transverse edges in lapping contacting relation with inwardly converging transverse edges provided on adjacent intermediate segments to form a substantially circular chill ring and effect radial movement of the chill, means associated with said shoes for effecting expansion of the chill ring to greater diameter as the shoes move outwardly and contraction of the chill ring to lesser diameter as the shoes move inwardly, and spring means associated with each shoe corresponding to the chill segment having converging edges and biasing the overlapping edges of the chill segments together for yielding engagement between the edges as the edges are contracted to effect slippage between the segments at the overlapping edges thereof.

2,780,195
TRANSOM SPRAY DEFLECTOR
Elmer C. Kiekhaefer, Cedarburg, Wis.
Application September 2, 1954, Serial No. 453,856
4 Claims. (Cl. 114—.5)



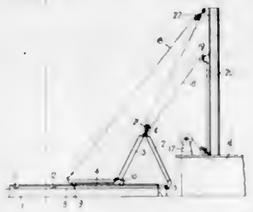
1. In a boat to be disposed within the water and having a transom of predetermined width, the combination of: deflector means comprising a longitudinal channel member transversely mounted on said transom intermediate its top and bottom and in generally parallel relationship with the top of said transom, said channel member having depending flange end portions and defining a substantially C-shaped cross section between said end portions thereof with the concave portion of said member facing away from said transom top to provide a smooth hydrodynamic surface positioned above and facing the water for deflecting water and spray arising above the surface of the water to prevent said water and spray from flowing along the transom and over the top thereof, and said channel member extending along the width of said transom for a distance substantially as great as said predetermined width.

2,780,196
HOIST BOOM TOWING CONNECTION
Eugene A. Jareckie, Madison, N. J., assignor to McKiernan-Terry Corporation, Harrison, N. J., a corporation of New Jersey
Application April 23, 1954, Serial No. 425,113
21 Claims. (Cl. 114—.5)



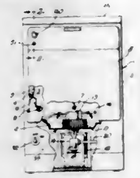
1. A ship having a hoist for towing vehicles comprising a boom structure incorporating a parallelogram of levers including upper and lower booms pivoted in superposed relation at their inboard ends and pivotally connected at their outer ends by a paralleling boom head, a towed vehicle, a centering guide for said vehicle on said boom head, said guide being in the nature of a hollow cone, an articulated link hoist line connected with said vehicle and extending up through said guide, a guide sheave for said hoist line carried by the lower boom above said guide and a hoist drum for said hoist line.

2,780,197
CARGO-HATCHES
Edward Elias von Tell, Goteborg, Sweden
Application November 9, 1953, Serial No. 391,011
Claims priority, application Sweden November 28, 1952
2 Claims. (Cl. 114—202)



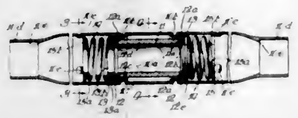
1. In a hatch the combination of a frame, a cover comprising three sections, hinge members interconnecting said sections, one of said sections being hinged to the frame, cover-supporting members provided on the second and third sections for lifting said third section from the frame and in parallel to the same during the movement of the third section along the frame, said supporting members being constituted by an arm projecting from the second section past the hinge between the second and third sections and a projection at the free end of the third section, and guide rails extending along the frame and having recesses to receive said supporting members in the closed position of the cover, said supporting members having sliding surfaces to cooperate with said guide rails, the sliding surface of the arm on the second section being curved, and the sliding surface of the projection on the third section being straight.

2,780,198
SIGNALLING DEVICE FOR DISHWASHERS AND THE LIKE
Frank D. Low, La Grange Park, Ill., assignor to General Electric Company, a corporation of New York
Application December 24, 1954, Serial No. 477,550
6 Claims. (Cl. 116—114)



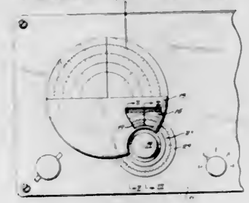
1. Washing apparatus having a washing vat and a door for said vat operable between a vertical and a horizontal position incidental to the normal usage of said apparatus, a signalling device carried by said door, including an indicator pivotally mounted on said door and arranged to have, when said door is vertical, a first position disclosinng a first message and a second position disclosing a second message, the center of gravity of said indicator being such relative to its pivot point that when said door is vertical said indicator is gravity biased to swing to its second position and when the door is horizontal said indicator will resume its first position, means for releasably holding said indicator in its first position when said door is vertical, means disposed externally of said door for operation of said holding means to release said indicator, and means for restoring said holding means to indicator-holding position, whereby said indicator may be released to move from its first to its second position when the door is vertical and may be retained in its said first position when said indicator resumes said position upon movement of the door to horizontal position, thus permitting return of the door to its vertical position with the indicator maintaining its said first position.

2,780,199
FLUID INDICATOR
Albert Wittlin, Chicago, Ill.
Application November 12, 1954, Serial No. 468,513
9 Claims. (Cl. 116—117)



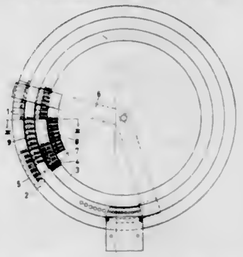
1. A fluid indicator, comprising: a transparent tube having end surfaces; a surrounding elongated protective member within which the tube is located spaced from but closely adjacent to the tube and containing a port through which the tube is viewable, the protective member and tube forming a fluid conduit and the protective member having a first inwardly directed projection on one side of the port adjacent to one end of said tube and a second inwardly directed projection on the other side of the port adjacent to the other end of said tube, each of said projections including an inwardly directed deformation in said protective member; a first deformable sealing gasket in sealing engagement with one end surface of the tube and with the corresponding projection; a second deformable sealing gasket in sealing engagement with the other end surface of the tube and with its corresponding projection; a resilient compression member within said protective member operatively pressing said gaskets into said sealing engagement; and a seat member within said protective member on the side of the compression member opposite to the gasket against which said compression member operatively bears.

2,780,200
SHAFT POSITIONING AND POSITION INDICATING APPARATUS
Arthur Winters, Brooklyn, N. Y.
Application March 4, 1954, Serial No. 414,052
4 Claims. (Cl. 116—124)



1. A coarse and fine rotational positioning and indicating device comprising a rotatable input member shiftable axially between two positions, a rotatable output shaft having a first gear and a clutch member connected thereto for rotation therewith, means for directly connecting said input member to said clutch member when the input member is in one position, indirect means including a planet gear meshing with the first gear, means for translating said planet gear in a circular path around said first gear including a connection with said input member when in its other position, means for controlling the rotation of said planet gear during its translation in order to cause a predetermined fine rotational adjustment of said output shaft, and indicating means driven in correspondence with said said output shaft for indicating its position.

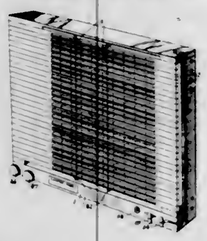
2,780,201
DEVICE FOR SIMULTANEOUS REGISTRATION OR INDICATION OF DIFFERENT UNITS OF MEASURE
Heinz Adolf Dzaack, Eskilstuna, Sweden
Application December 28, 1954, Serial No. 478,102
Claims priority, application Sweden December 11, 1954
3 Claims. (Cl. 116—129)



1. A device for use in measuring apparatus provided with an indicating portion for simultaneously indicating different units of measure and the proportional parts thereof, comprising a support member including a first scale portion indicating a first unit of measure, a second scale portion on said support member indicating proportional parts of the first unit of measure, a third scale portion carried on said support member indicating a second unit of measure, a fourth scale portion on said support member indicating proportional parts of the third unit of measure, indicating means on said support member indicating corresponding values on the first and third scales, said second and fourth scale portions being connected for simultaneous movement relative to the respective first and

third scale portions for presenting a similar proportional part of the respective units of measure at the indicating means.

2,780,202
CHARTS OR INDICATORS
George Percival Sanderson, Hove, England
Application May 4, 1954, Serial No. 427,492
Claims priority, application Great Britain December 4, 1953
10 Claims. (Cl. 116—135)

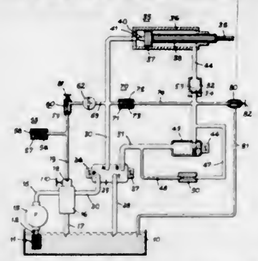


1. A bar chart comprising a housing open at the front, a plurality of bar chart units in superimposed relationship within said housing, said units being individually removable and interchangeable, means for locking said units to said housing against unauthorized removal, each unit comprising a casing provided with a plurality of slots, ribbon-like strips of contrasting colors normally positioned in said slots and normally hidden from an observer's view, hand actuated sliders for projecting individually said strips from their corresponding slots for observation at the front of the casing, fixed strips in the casing for dividing each slot into a series of individual compartments each containing a sliding strip, said fixed strips being interposed between adjacent sliding strips for packing each slot to prevent backlash in each strip and transmission of sliding movement of one strip to an adjacent strip, each ribbon-like strip being fixed at its inner end to a hand actuated slider and all sliders being mounted for longitudinal sliding movement in a common slot formed in the casing and situated at the rear of the casing so that they are accessible only when their associated unit is removed from the housing, and a fixed scale associated with the front of the casing in juxtaposition with the ribbon-like strips.

2,780,203
FOUNTAIN DRAWING PEN
Joseph G. Moran and Richard E. Lucado, Chicago, Ill.
Application October 27, 1952, Serial No. 316,962
7 Claims. (Cl. 120—47)

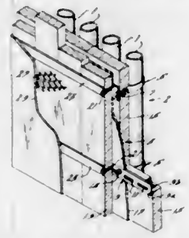
6. In a fountain pen, a hollow barrel providing an ink reservoir and having a discharge outlet at one end, a plunger mounted in said barrel for coaxial reciprocation therein, spring means constantly urging said plunger away from the discharge end toward the opposite end of said barrel, means including interengageable and disengageable threaded members one of which is carried by the plunger and the other of which is carried by the barrel for feeding said plunger toward the discharge end of said barrel against the action of said spring, and manually operable means for selectively engaging and disengaging the threads of said members.

2,780,204
HYDRAULIC MOTIVE POWER SYSTEM
Leo D. Barley, Dayton, Ohio, assignor to Harris-Seybold Company, Cleveland, Ohio, a corporation of Delaware
Application December 29, 1953, Serial No. 400,863
10 Claims. (Cl. 121—45)



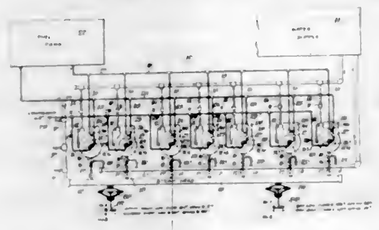
1. A hydraulic motive power system adapted to be operated smoothly and substantially free of shock from a substantially constant volume source of fluid pressure comprising a hydraulic motor, a fast-acting directional valve for connecting and disconnecting said fluid pressure source with said motor for actuation thereof, an adjustable pressure relief valve in the fluid supply line between said source and said directional valve having a vent port the pressure in which controls the pressure delivered by said pressure relief valve, and a vent cushion connected to said vent port adapted to yield in response to pressure surges at said vent port resulting from corresponding surges in said supply line occurring upon opening and closing of said directional valve to reduce pressure shocks on the delivery side of said pressure relief valve with corresponding smooth operation of said motor.

2,780,205
TUBE SUPPORTED WALL
Robert A. Banck, Royal Oak, Mich., assignor to Bigelow-Liptak Corporation, Detroit, Mich., a corporation of Michigan
Application November 17, 1952, Serial No. 320,998
1 Claim. (Cl. 122—6)



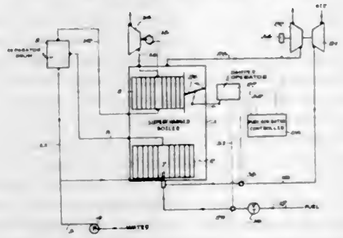
In a wall supporting structure for boilers with vertical tubes, means for securing a headed stud to a vertical tube so that it projects radially of the tube comprising an expansible aperture clamp adapted to encircle the tube, said means including a stud supporting section carried by the clamp and projecting radially therefrom, means holding said section in a rigid radial position, said section having a surface spaced a substantial distance radially of the clamp aperture and engageable with the underside of the stud to hold it in a position normal to the clamp aperture, said means having a surface carried by the clamp and extending parallel to the clamp aperture and spaced radially from the aperture and engageable with the head of the stud to prevent its movement radially away from the aperture, a stud supported by said means, wall forming means supported by said stud, said section being U-shaped when viewed from a plane parallel to the clamp aperture with the legs of the U pointing toward the clamp aperture and the bight of the U spaced radially therefrom and provided with said stud supporting surface, said section being provided by a separate U-shaped member, said head engaging surface comprising the wall of an aperture in the bight of said member, said member having its legs interfitted with a pair of radial flanges formed on the clamp, said legs and flange having aligned apertures therein, said legs fitting inside said flanges and said flanges tapering toward each other in relaxed condition so that in clamped condition with said member between them they tend to expand and exert tension on the bolt means, bolt and nut means clamping the legs and flanges together including a bolt in said aligned apertures extending through said legs and flanges.

2,780,206
MULTIPLE BOILER CONTROL SYSTEM
Joseph E. La Rocque, Chicago, and Charles E. Impey, Lombard, Ill., assignors to Vapor Heating Corporation, Chicago, Ill., a corporation of Delaware
Application June 23, 1953, Serial No. 363,548
9 Claims. (Cl. 122—448)



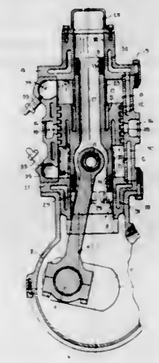
1. In combination with a multiple boiler steam generating plant including a steam header for receiving the steam output from each activated boiler of the system, electrically activated means individually associated with each boiler for delivering fuel, air and water thereto, and electrical control circuits therefor comprising a plurality of cooperative circuit closers including a pair of timer controlled switches operable to energize the control circuits for said electrically activated means, and timer control means responsive to predetermined pressure conditions in said steam header for closing the pairs of timer controlled switches to activate the several boilers in predetermined sequence.

2,780,207
SUPERCHARGED STEAM GENERATING SYSTEM
James R. Shields, Penn Township, Allegheny County, Pa., assignor to Elliott Company, a corporation of Pennsylvania
Application May 5, 1953, Serial No. 353,180
5 Claims. (Cl. 122—479)



1. A steam generating system comprising a supercharged boiler provided with an evaporator and a superheater, a separator drum connecting the evaporator and superheater in series, means for conducting feed water to the evaporator, a burner associated with the boiler, adjustable means for normally supplying fuel to the burner at a predetermined rate, a supercharger for supplying compressed air to the boiler to supercharge it and to burn with said fuel at the burner to produce hot gases for generating steam in the evaporator and superheating it in the superheater, a conduit for returning water from the drum to the evaporator, the boiler being provided with an outlet for said gases, the superheater and all of the evaporator being in the path of said gases as they flow to said outlet, a conduit for conducting hot gases from said outlet to the supercharger to drive it, means for conducting superheated steam from the superheater out of the boiler to operate a load, a normally closed by-pass across the superheater for said hot gases, and means for opening the by-pass when the fuel supply to the burner is increased to accelerate the load, whereby the temperature of the gases leaving the boiler will be higher than normal to increase the speed of the supercharger and overheating of the superheater will be avoided.

2,780,208
RECIPROCATING ENGINE
Arthur E. Brown, Scotia, N. Y.
Application June 23, 1953, Serial No. 363,495
4 Claims. (Cl. 123—61)

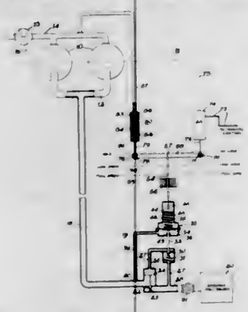


1. The combination in a double acting two stroke cycle internal combustion engine of a crankcase; a crankshaft rotatably mounted in said crankcase; a working cylinder fastened to said crankcase; a double acting working piston reciprocable in said working cylinder; a front valve cylinder and a back valve cylinder fastened to the front and back ends respecively of said working cylinder; a front valve piston and a back valve piston reciprocable in their respective valve cylinders; said three pistons being fastened together so as to form a reciprocating piston assembly; a connecting rod connecting said piston assembly to said crankshaft; an exhaust port located in the wall of said working cylinder; said exhaust port being controlled by said working piston; a ring shaped front working chamber and a ring shaped back working chamber inside said working cylinder; each valve piston being adapted to control the admission of air to its respective working chamber; each working chamber having a uniflow scavenging operation exhausting through said exhaust port; and said working piston, said front valve piston, and said back valve piston being formed with a through passage commuting with the interior of said crankcase.

2,780,209
ENGINE FUEL DELIVERY CONTROL
Harry J. Renken, Dallas, Tex., assignor to Fairbanks, Morse & Co., Chicago, Ill., a corporation of Illinois
Application July 20, 1955, Serial No. 523,300
5 Claims. (Cl. 123—103)

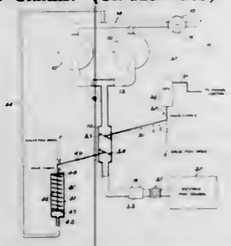
1. In an internal combustion engine operable on gaseous fuel, a fuel supply system for the delivery of

gaseous fuel under pressure to the engine, said system including a control device regulatable for determining the quantity and pressure of gaseous fuel in delivery to the engine, engine operated regulating means having an actuating element positionable in accordance with engine loading, regulating means operatively associated with the engine and having an actuating element positionable in



accordance with engine speed, and an operating lever connected at its ends to said actuating elements and connected intermediate its ends to said control device, positionable conjointly by said regulating means for regulating said control device to determine the quantity and pressure of gaseous fuel delivery to the engine in accordance with engine speed and loading.

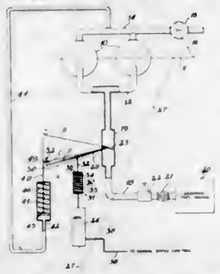
2,780,210
ENGINE FUEL DELIVERY CONTROL
Harry J. Renken, Dallas, Tex., assignor to Fairbanks, Morse & Co., Chicago, Ill., a corporation of Illinois
Application July 20, 1955, Serial No. 523,299
7 Claims. (Cl. 123—103)



1. In an internal combustion engine operable on gaseous fuel, a supply system for the delivery of gaseous fuel under pressure to the engine, said system including a control device regulatable for determining the pressure and quantity of gaseous fuel delivery to the engine, engine cylinder air supply means separate from said gaseous fuel supply system and including an engine driven blower for cylinder delivery of air under pressure, wherein the air pressure varies in direct proportion to engine speed, engine driven means having a control element positionable in accordance with the torque output of the engine, and pressure responsive means including a control element, connected to said air supply means for air pressure response to position its said control element directly in accordance with engine speed, both said control elements being operatively associated with said control device for regulating the latter.

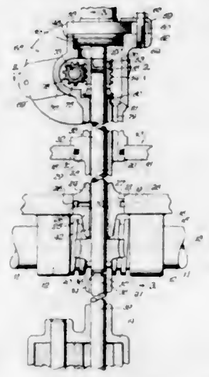
2,780,211
ENGINE FUEL DELIVERY CONTROL
John Hans Davids, Beloit, Wis., assignor to Fairbanks, Morse & Co., Chicago, Ill., a corporation of Illinois
Application July 20, 1955, Serial No. 523,147
8 Claims. (Cl. 123—103)

1. In an internal combustion engine operable on gaseous fuel, means for supplying gaseous fuel under pressure to the engine, said means including a gas throttle valve, engine operated means responsive to engine loading, connected to said valve for actuation thereof in accordance with engine loading, and control means independent of



said engine operative means, operatively associated with the engine and responsive to variations in engine speed, said control means being effective upon said throttle valve for restricting variably in accordance with engine speed, valve actuation by said engine operated means.

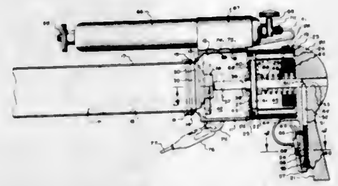
2,780,212
INTERNAL COMBUSTION ENGINE LUBRICATING MEANS AND VISCOUS DAMPENER
Robert H. Malcolm, Fort Wayne, Ind., assignor to International Harvester Company, a corporation of New Jersey
Application August 8, 1955, Serial No. 526,999
17 Claims. (Cl. 123—195)



1. In an internal combustion engine of the spark-ignition type having a force-feed lubrication system and a governor; a cylinder block including an outer wall portion and an inner partition spaced therefrom, said wall portion and partition having aligned bores; an ignition distributor including an adapter, head and a drive shaft, said adapter including an elongated sleeve journaled in said bores and an enlarged hollow section integrally formed with said sleeve exteriorly of said outer wall portion, the juncture of said section and sleeve being defined by an internal annular shoulder, said head being mounted on said hollow section and adapted to close one end of said section, the wall of said section and the surface of said head closing said end of said section defining an oil reservoir, said head including a rotor having one end terminating within said oil reservoir, said drive shaft being journaled in and extending through said sleeve and having one end disposed within said oil reservoir and its opposite end extending beyond the adjacent end of said sleeve and having a gear mounted thereon, said drive shaft being of a diameter less than the internal diameter of said sleeve whereby a passageway in said sleeve is provided which extends substantially the full

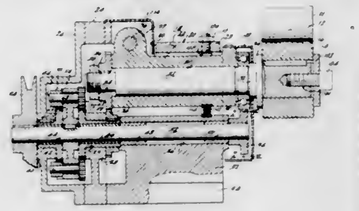
length of said sleeve and has a relatively large surface-to-volume ratio; said governor including a governor drive shaft journaled in said section having a gear fixed thereto; means for drivingly connecting said distributor drive shaft to said rotor and said governor gear, said means being disposed within said oil reservoir and including a sleeve member fixed to said distributor drive shaft, said sleeve member having a gear meshing with said governor drive shaft gear and a radially extending annular bearing flange; a thrust washer encircling said distributor drive shaft and secured to said shoulder, said bearing flange being adapted to bear against said washer, said washer having a plurality of radially extending grooves therein opening into the interior of said section and said passageway; a cam-shaft rotatably supported by said cylinder block having a gear fixed thereto meshing with said gear fixed to said distributor drive shaft and an oil duct therethrough adapted to receive lubricating oil under pressure from said force-feed lubrication system when said engine is operating; means for conducting lubricating oil to said passageway at the end thereof opposite said thrust washer whereby oil fills said passageway and flows to said oil reservoir; and oil return duct means for establishing fluid communication between said reservoir and the suction side of said force-feed lubrication system.

2,780,213
PNEUMATIC GUN MECHANISM
Charles E. Colling, El Cajon, and Wilbur G. Sherman, San Diego, Calif.
Application December 8, 1953, Serial No. 396,878
1 Claim. (Cl. 124—11)



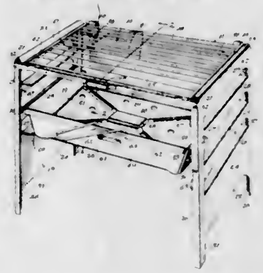
A pneumatic gun comprising, in combination: a breech casing; a barrel attached to said casing and having a missile receiving bore therethrough; a charge pressure chamber formed in said casing adjacent an inner end of said barrel; a breech valve seat having a diameter equal to that of said bore and formed between said charge pressure chamber and said bore; a breech valve adapted for cooperation with said valve seat for controlling flow from said charge pressure chamber into said bore; means normally biasing said breech valve toward a closed position; an actuating pressure chamber formed in said casing axially adjacent to said charge pressure chamber; a partition disposed in said casing and separating said chambers, said partition defining a stationary wall for each of said chambers; an orifice formed through said partition and providing a restricted communication between said charge pressure chamber and said actuating pressure chamber; a piston disposed in said actuating pressure chamber, one side of said piston forming a movable wall for one end of said actuating pressure chamber, said piston having an effective area larger than the effective area of said breech valve; a pneumatic cushion chamber formed in said casing on the other side of said piston, said breech valve biasing means being disposed in said cushion chamber intermediate a stationary end of said cushion chamber and said other side of said piston; a bumper disposed on said stationary end of said cushion chamber, said bumper being adapted for engagement by said piston upon movement thereof and having an axial thickness greater than compressive limits of said biasing means for said breech valve; a shaft slidably disposed through said partition and interconnecting said breech valve and said piston; a source of gas under pressure; orifice means for admitting said gas to said charge pressure chamber to establish a charge therein; an extension formed on said shaft and extending from said piston; a conical end formed on said extension; a sear having a matching conical end adapted for cooperation with said extension conical end for maintaining said breech valve in a closed position; spring means normally biasing said sear into contact with said extension; locking means for securing said sear in said contacting position and a trigger for releasing said locking means, whereby to permit said piston to be moved in response to a pressure differential created by the differences in said effective areas thereby to move said shaft and said extension, depress said sear against the force of said spring means, open said breech valve and transmit said charge from said charge pressure chamber to said bore to propel said missile therefrom.

2,780,214
METHOD AND DEVICE FOR FORMING GRINDING WHEELS
Alfred C. Page, Detroit, Mich.
Application January 15, 1954, Serial No. 404,220
26 Claims. (Cl. 125—11)



26. In combination, a crusher roll having a profile for forming an inverse of said profile on a grinding wheel having a crushable bond, a spindle supporting said crusher roll, means for slowly rotating said spindle, a spindle housing rotatably supporting said spindle, means supporting said housing for reciprocatory movement transverse to the spindle axis, means biasing said housing in one direction of reciprocation, and means for forcing said housing in said one direction in a rapid succession of small-amplitude movements.

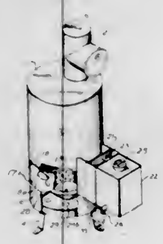
2,780,215
FOLDING COOKING STOVE
Frank F. Vacanti, Jr., Buffalo, N. Y., assignor to Holland Industries, Inc., Buffalo, N. Y., a corporation of New York
Application January 15, 1953, Serial No. 331,392
3 Claims. (Cl. 126—9)



1. A folding cooking stove, comprising spaced horizontal side bars and spaced horizontal end bars joined at

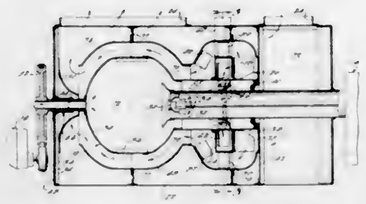
their ends to provide a horizontal rectangular frame with an opening at its center, a pair of generally rectangular sheet metal supporting end panels arranged, when upright, in generally parallel relation to each other, means severally pivotally connecting the upper ends of said supporting panels to the opposite ends of said frame to swing about axes generally parallel with the said end bars of said frame, a rectangular grill resting on said frame and adapted to support the food being cooked, an inverted channel formed as a continuation of the edge of each supporting panel adjacent and generally parallel with the corresponding one of said axes, said inverted channels projecting toward each other and clamping against the top of said grill in the upright position of said supporting panels, a fire pan of slightly shorter length than the space between said supporting panels, and means supporting said fire pan in a horizontal position below said grill with its ends adjacent said supporting panels.

2,780,216
OIL BURNING CAMP STOVE
Jack Beaudoin, Gulliver, Mich.
Application July 26, 1954, Serial No. 445,840
3 Claims. (Cl. 126—93)



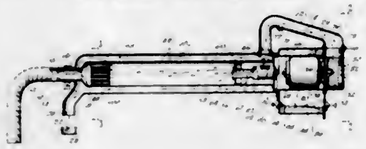
1. A liquid fuel burning stove comprising an upstanding housing, a plurality of spaced apart legs affixed to the lower end of said housing for supporting said housing and for providing free air circulation beneath said housing, an open-centered annular support permanently mounted within the lower portion of said housing, a liquid fuel tank mounted on the side of said housing, a valve mounted on said fuel tank for controlling the flow of liquid fuel from said tank, an integral burner assembly consisting of (1) a lipped burner with a bottom portion and a substantially truncated conical side portion having therein a plurality of air holes and (2) a single-piece fuel line removably connected to said fuel tank valve and running therefrom to the bottom portion of said burner, an air control plate having therein a plurality of air holes and mounted over the lower end of said housing beneath said annular support and said burner, said air control plate also having therein a central opening for said fuel line running from said fuel tank valve to said burner within said housing, said central opening being sufficiently large to permit the unobstructed withdrawal therethrough of that portion of the fuel line lying outside of said housing, and a door in said housing positioned above said burner and said annular support, the opening of said door being sufficiently large to permit the removal therethrough of said integral burner assembly, said burner assembly being connected to said stove only by the lip of said burner resting on said annular support thereby to facilitate the easy removal of said burner assembly from said stove through said door opening, the air holes in said air control plate and in said burner constituting the only means for supplying air for the burning of liquid fuel within said burner.

2,780,217
FLUID HEATING FURNACE WITH ROTARY COMBUSTION AND HEAT EXCHANGE CASING
Robert R. Witherell, Bloomington, Ill., assignor, by mesne assignments, to Eureka Williams Corporation, a corporation of New York
Application June 15, 1953, Serial No. 361,680
5 Claims. (Cl. 126—110)



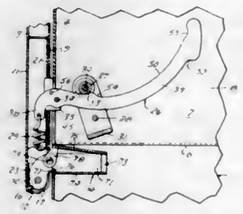
1. Heating apparatus comprising a rotatable hollow heat exchanger casing having a portion forming a combustion chamber and an elongated neck portion communicating therewith, fuel and air supply means projecting into said casing through said neck portion and operable to discharge a combustible mixture of fuel and air into said combustion chamber, means for rotating said casing about the axis of said neck portion at such speed as to bring the products of combustion of said mixture into intimate heat exchange relation with the walls of said heat exchanger, said neck portion having means for the discharge of products of combustion from said combustion chamber, means carried by and rotatable with said casing and operable upon rotation thereof for effecting the flow of said products of combustion from said chamber through said neck portion and said discharge means, and means for effecting the flow of fluid to be heated in heat exchange relation with the outer surface of said casing.

2,780,218
UNITARY HEATING DEVICE FOR SUPPLYING HOT COMBUSTION GASES AND HOT AIR
Arthur C. Allen, Chicago, Ill., assignor to Stewart-Warner Corporation, Chicago, Ill., a corporation of Virginia
Application September 11, 1952, Serial No. 309,073
4 Claims. (Cl. 126—110)



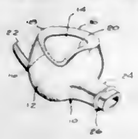
1. A long slender heating device adapted to be held in the hand of an operator and having a handle secured to the upper side adjacent the rear end thereof, said handle being hollow, said device having an electric motor driven blower, a burner, a heat exchanger having gas and ventilating air passages therein, a fuel tank, means including a control valve for supplying fuel to said burner from said tank, ignition means for said burner, means forming separate outlet openings for the gas and ventilating air passages of said heat exchanger, said device having passages formed therein leading from said blower by way of said hollow handle to said burner and thence to said gas passages and also directly from said hollow handle to said ventilating air passage of said heat exchanger, manually operable means for obstructing the flow of air through said ventilating air passages so as to cause substantially all of the air from said blower to pass through said burner and gas passages, and said motor, said blower, said tank and said burner being disposed substantially below said handle, said heat exchanger extending outwardly away from said burner and handle, and said outlet openings being at the end of said heat exchanger remote from said handle.

2,780,219
CLOSURE MECHANISM FOR OVEN DOORS
Earl S. Pollock, Mansfield, Ohio, assignor to The Tappan Stove Company, Mansfield, Ohio, a corporation of Ohio
Application May 18, 1953, Serial No. 355,547
2 Claims. (Cl. 126—194)



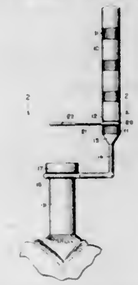
1. In cooking range structure including a cabinet having a front wall, an oven within said cabinet, an opening into said oven through said front wall, and an oven door by which said opening is closed; means for removably securing said door to the cabinet front wall for movement between a vertical closed position and a substantially horizontally open position, said means comprising an elongated socket secured to and extending inwardly from the front wall beneath the oven opening, a hinge bracket pivotally connected to a lower portion of the door and having an elongated shank inserted in said socket, the shank being of such size and shape relative to the surrounding socket as to be laterally movable therewithin to a limited extent, latching means including a latch member and a keeper adapted transversely to interengage the cabinet and the inserted shank, said latch member being carried by one of the cabinet and the shank and the keeper being carried by the other of such parts, such latch member and keeper being moved into and out of latching engagement by lateral shifting of the shank within the socket, and a rockable locking member releasably braced between the socket and the shank in opposition to lateral movement of the latter tending to disengage the latch member and the keeper, whereby the hinge bracket is removable from the socket by rocking the locking member out of braced condition and then shifting the shank to disengage the latching means.

2,780,220
BREATH TESTER
Otto M. Dyer, Jr., Detroit, Mich.
Application November 25, 1955, Serial No. 548,945
2 Claims. (Cl. 128—2)



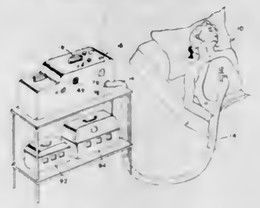
1. A breath tester comprising a hollow bowl of bulbous shape having an opening in its upper end, said bowl having a surface surrounding said opening contoured to fit against the underside of a user's nose with the nostrils in communication with the interior of the bowl through said opening; an intake tube projecting from said bowl communicating with the base of the bowl and adapted for extension into a user's mouth; and an exhaust tube projecting from said bowl and in communication with the base of the bowl at a location diametrically opposite the intake tube, the inner surface of the side wall of the bowl, in a region substantially diametrically opposite the intake tube, being curved inwardly from the base to the upper end of the bowl with the curved surface merging into the bottom of the intake tube, whereby breath entering the bowl through the stem will be partially diverted to travel up the curved surface of the bowl in an eddying current with the part of the breath not so diverted passing outwardly through the exhaust tube.

2,780,221
TONOMETER ADJUNCT FOR OPHTHALMOLOGY
Adolph Posner, New York, N. Y.
Application November 1, 1954, Serial No. 465,871
5 Claims. (Cl. 128—2)



1. A tonometer adjunct for ophthalmology comprising a cylindrical member of known weight having a concave bottom and an axially recessed top terminating in an annular flange, holding and guiding means for said member and in which said member is adapted to slide, guard means disposed above said member and preventing said member from becoming disassociated from said holding and guiding means, and handle means on which the said holding and guiding means and the said guard means are mounted for manipulative operation of said tonometer adjunct, said holding and guiding means being rigidly connected to said handle means by an angular extension thereof and said guard means being swingable on said handle means at a right angle to the major axis of the said member and handle means.

2,780,222
RESPIRATORS
Marvin H. Polzin, Wheatridge, and John A. Geer and Fred E. Fowler, Boulder, Colo., assignors to J. J. Monaghan Company, Inc., Denver, Colo., a corporation of Colorado
Application December 18, 1953, Serial No. 398,986
10 Claims. (Cl. 128—30)



1. Respirator apparatus for the mechanical control of a patient's breathing, having a body-contacting shell for confining mechanically induced sequential positive and negative pressures to be effective on the patient's body; means for producing such sequence of pressures comprising a source of positive and negative pressures; and sequence valve means having a positive pressure-receiving zone with an opening to the atmosphere as well as a nega-

tive pressure-receiving zone with an opening to the atmosphere and an intermediate zone into which the positive and the negative pressures are alternately delivered, a shell-connecting conduit leading from that intermediate zone, a positive pressure conduit leading from the positive pressure producer to the positive zone of the sequence valve, a negative pressure conduit leading from the negative pressure producer to the negative zone of the sequence valve, a reciprocable valve-stem carrying two valve-discs of which one is associated with the positive zone and one is associated with the negative zone whose reciprocation in one direction carries the positive zone disc to pass positive expiration pressure from its conduit to the intermediate zone and thus to the patient's shell while the negative disc bleeds negative pressure from its conduit to the atmosphere, and whose reciprocation in the other direction carries the negative zone disc to pass negative inspiration pressure from its conduit to the intermediate zone and thus to the patient's shell while the positive disc bleeds positive pressure to the atmosphere.

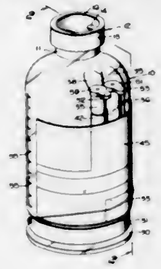
2,780,223
FRACTURE PLATE
Paul B. Haggland, Fairbanks, Territory of Alaska
Application May 17, 1955, Serial No. 508,889
6 Claims. (Cl. 128—92)

5. A fracture plate comprising a diamond shaped, centrally branched metal sheet curved cylindrically about a longitudinal axis parallel to but spaced from said sheet, whereby the sheet is adapted to fit about and partially enclose a bone, and a plurality of longitudinally extended screw slots in said sheet, said slots being longitudinally spaced from each other and arranged in rows paralleling the sides of the sheet.

2,780,224
MASK FOR LEARNING TO SWIM ABOVE AND UNDER WATER
James Wallace, St. Louis, Mo.
Application March 16, 1953, Serial No. 342,491
6 Claims. (Cl. 128—145)

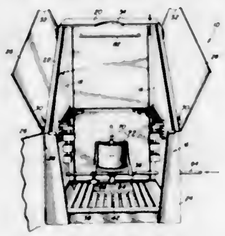
1. A breathing mask comprising a face-receiving portion having a pair of pipe sections opening at one end into the interior of the mask, each pipe section being engaged at its opposite end with a hose section, collar members, a tubing section retained by a collar member in communication with each hose section to present the inner end of the tubing section in spaced relation to the outer end of the associated hose section, a check valve provided in the space between each tubing section and its related hose section and being normally in contact with the end surface of the adjacent hose section, the end of one hose section being marginally recessed whereby the related valve will be in normally open position to permit entry of air into the mask, the end of the other hose section being co-planar whereby the associated valve will be in normally closed position.

2,780,225
BLOOD PACKAGING UNIT
Courtland H. Barr, Los Angeles, Calif., and John T. Tripp, Bethesda, Md.; said John T. Tripp, assignor to Courtland H. Barr, Sr., Courtland H. Barr, Jr., and John W. Barr
Application March 3, 1953, Serial No. 339,998
9 Claims. (Cl. 128—272)



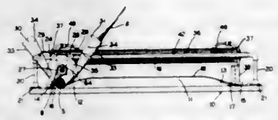
1. In a blood collection unit, the combination of: a container having a generally cylindrical side wall provided with an elongated generally vertical groove, a cylinder member seated in said groove, means securing said cylinder member to said container, and a second container slideably received in said cylinder member.

2,780,226
STEAM CABINET
John F. Taves, Casselton, N. Dak.
Application February 18, 1955, Serial No. 489,172
2 Claims. (Cl. 128—374)



1. A steam cabinet comprising a bottom and front, back, side and top walls, a liquid collection pan on said bottom, a platform disposed above said pan, said side walls having supporting rails thereon, a seat extending between and supported at its side edges on said rails, a leg rest depending from said rails below the forward end of said seat, a hot water line having a spray nozzle opening into said cabinet between said platform and seat, a housing having an open bottom mounted within said cabinet between said back wall and said leg rest forming a condensation chamber around said spray nozzle, and means within said chamber spacedly overlying said spray nozzle for disseminating spray emanating therefrom.

2,780,227
METHOD OF FORMING BUNDLES OF TOBACCO LEAVES
Samuel Benning and Louis E. Bacon, Alliance, Ohio
Original application July 16, 1953, Serial No. 368,430. Divided and this application July 22, 1954, Serial No. 444,986
6 Claims. (Cl. 131—149)

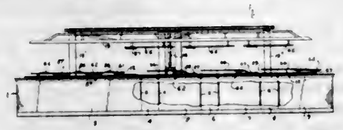


2. The method of binding leaves of tobacco into a bundle, which consists in rotating the collected stems of a bunch of tobacco leaves and continuously rolling them forwardly in the direction of rotation while confining the stems only under pressure, maintaining the stems coextensive with each other during said forward rolling operation, simultaneously folding a binding leaf to form a binding strip and guiding the tip end of said binding leaf forwardly around the stems only, as they are being rolled forwardly, and winding the binding strip around the stems while they are being rolled forwardly.

2,780,228
FILTERS FOR TOBACCO SMOKE COMPRISING CELLULOSE ESTERS AND ETHERS
George P. Touey, Kingsport, Tenn., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application March 3, 1954, Serial No. 413,949
7 Claims. (Cl. 131—208)

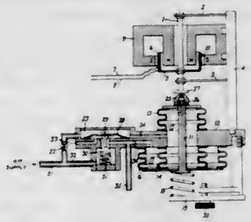
1. A tobacco smoke filter comprising a structurally unitary, elongated, rod-like mass of coextensive, crimped fibers of an ester of cellulose and a polybasic acid, the fibers of the mass being in substantial parallelism with the longitudinal axis thereof, said ester having at least one free, reactive acid group per ten anhydroglucose units of the cellulose.

2,780,229
WORK-HANDLING APPARATUS FOR TREATING HOLLOW ARTICLES
John V. Davis, Detroit, Mich., assignor to The Udylite Corporation, Detroit, Mich., a corporation of Delaware
Application February 16, 1953, Serial No. 337,048
6 Claims. (Cl. 134—76)



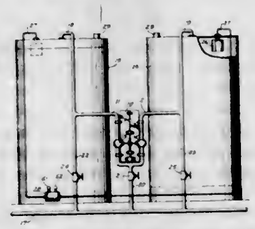
1. In a work-handling apparatus, a tank, a rail over said tank, a work carrier hook suspended from and slidable on said rail for supporting work in said tank, an articulated parallelogram work carrier structure suspended from said hook, said structure including an arm pivoted between its ends to said hook and having two side members depending from said arm at opposite sides of its pivot point, and means for imparting vertical movement to one of said depending members, whereby said structure is rocked on a horizontal axis without substantial horizontal sway.

2,780,230
PNEUMATIC CONTROL APPARATUS WITH FOLLOW-UP
John D. Freeman, New York, N. Y., assignor to General Electric Company, a corporation of New York
Application August 10, 1953, Serial No. 373,424
5 Claims. (Cl. 137—85)



1. Pneumatic control apparatus comprising a supporting member having an opening therein, an axially movable shaft extending through said opening, a pair of bellows having equal diameters and being each coaxial with said shaft, said pair of bellows having respective inner ends attached to said supporting member and respective outer ends attached to and movable with said shaft, thus defining a first air chamber, a larger-diameter bellows coaxial with said shaft and surrounding one of said pair of bellows, said larger diameter bellows having an end attached to said supporting member and another end attached to and movable with said shaft, thus defining a second air chamber, means providing a flow of air into said first chamber, a nozzle at one end of said shaft, said shaft having a passageway connecting said nozzle to said first chamber, whereby air escapes from said first chamber through said nozzle, a baffle adjacent to said nozzle and independently movable along the direction of the shaft axis, whereby a first pneumatic pressure is provided within said first chamber the value of which is controlled by the spacing between said nozzle and said baffle, means providing a second pneumatic pressure within said second chamber, thereby expanding said larger diameter bellows and adjusting the position of said nozzle, and pneumatic relay means controlling the value of said second pressure in accordance with the value of said first pressure, whereby the value of said second pressure is controlled by the position of said baffle.

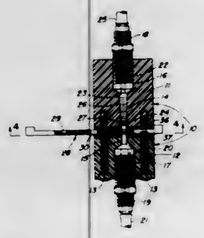
2,780,231
AUTOMATIC TANK SWITCHING DEVICE
Earnest E. Westmoreland, Laird Hill, Tex.
Application November 26, 1954, Serial No. 471,223
2 Claims. (Cl. 137—121)



2. In a pumping system having a pair of tanks to be filled from a source of liquid under pressure, the improvement consisting in providing automatic switching

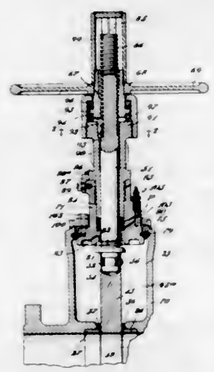
means for alternatingly filling said tanks, said means comprising a pair of conduits each connected to a source of fluid under pressure and connected one each to each of said tanks, a valve disposed in each of said conduits, a rotatable drive shaft interposed between said valves and connecting said valves together so that said valves move from a position in which one of said valves is open and the other closed to a position in which said one valve is closed and the other open, another shaft mounted for reciprocatory movement positioned transversely of said drive shaft and connected to said drive shaft so as to impart its reciprocatory movement as rotational movement to said drive shaft, a pair of solenoids operatively connected to said another shaft for effecting its reciprocatory movement, pressure responsive means operatively connected to said solenoids adapted to be actuated when the liquid reaches a predetermined level therein and operable to energize one of said solenoids and cause movement of said another shaft for effective movement to the closed position of the one of said valves associated with one of said tanks in which the liquid reaches a predetermined level, and pressure generating means connected to each of said tanks and operatively connected to the solenoid controlling the adjacent valve adapted to be actuated by the liquid in either of said tanks when the liquid in said tank reaches a predetermined level, said pressure responsive means including a housing, a pair of diaphragms disposed in said housing, one of said diaphragms being movable in response to the pressure generated in the pressure generating means associated with one tank and the other being movable in response to the pressure generated in the pressure generating means associated with the other tank, a double pole double throw switch operable to energize said motor means for alternate movement of said valves to each position, and means at said housing connected to said diaphragms for actuation of said switch to energize one of said solenoids for movement to the closed position of the one of said valves associated with the one of said tanks in which the liquid has reached a predetermined level.

2,780,232
GATE-TYPE FLOW REGULATORS WITH CLEANING ORIFICES
John P. Ney, Lemay, Mo.
Application December 8, 1951, Serial No. 260,591
1 Claim. (Cl. 137—238)



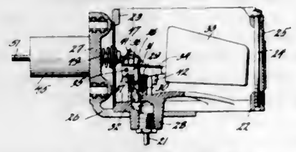
A fluid flow regulating device comprising a body-member including two separable substantially solid blocks, each having a fluid passage extending axially therethrough and an internally threaded counterbore at its outboard end concentric with its fluid passage, and adjusting means arranged to hold said blocks in abutting relationship with the fluid passages of said respective blocks in axial alignment; pipe fittings threadedly engaged in the respective counterbores of said body-member to connect the corresponding ends of said fluid passages into a pipe line; a groove in the abutting face of one of said blocks; a rib in the abutting face of the adjacent block, said rib being arranged to engage in said groove and to form therewith a guide slot extending through said body members substantially transversely of said fluid passages; an orifice plate comprising a blade-like member slidably mounted in the transverse guide slot of said body member for movement relative thereto; sealing means interposed between said rib and said orifice plate for sealing said guide slot, said blade-like member having fluid-flow regulating orifices adjacent opposite ends thereof respectively and an unrestricted purging orifice intermediate said fluid-flow regulating orifices, said fluid-flow regulating orifices being spaced apart a distance substantially equal to the transverse dimension of said body-member such that when one flow-regulating orifice is moved into the fluid passage of said body member by movement of said blade-like member relative to said body-member for regulating the flow of fluid therethrough, the other fluid-flow regulating orifice will be moved simultaneously into a position exteriorly of said body member so as to be accessible for cleaning, said blade-like member being movable also into an intermediate position wherein each of said fluid-flow regulating orifices is displaced from said fluid passage and said purging orifice is positioned in said passage for purging the latter of foreign material; and stop means at opposite ends respectively of said blade-like member to limit the movement of said blade-like member transversely in the guide slot of said body-member, thereby to automatically position the respective fluid-flow regulating orifices in the fluid passage thereof.

2,780,233
THROUGH CONDUIT GATE VALVE
Alexander S. Volpin, Houston, Tex.
Application March 6, 1951, Serial No. 214,053
9 Claims. (Cl. 137—315)



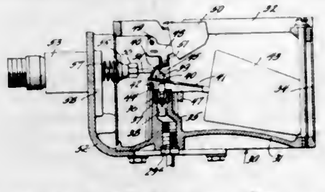
1. In a rising stem gate valve having a body, a gate and a gate stem reciprocable with respect to said valve body, an outward extension on said body about said stem, a packing chamber in said extension, stem sealing packing in said chamber, auxiliary cooperable sealing surfaces positioned on said stem and in said body to be normally held in axially spaced relation when the stem has attained the upper terminus of its normal non-rotative axial movement and engageable by limited additional axial movement of said stem relative to said body beyond said terminus, said additional axial movement being obtained by rotational movement of the stem relative to the body, and normally spaced-apart co-acting locking means positioned on said stem and body below said chamber and axially movable into engagement by said rotational movement of said stem relative to the body to lock said surfaces in sealing engagement.

2,780,234
MANUALLY OPERATED MECHANISM FOR CLOSING FLOAT CONTROLLED PILOT VALVE
John G. Russell, Mayfield Heights, Ohio
Application May 21, 1953, Serial No. 356,367
6 Claims. (Cl. 137—390)



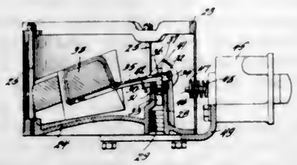
1. An actuating mechanism for a float controlled pilot valve having a pivoted valve controlling lever movable by a float into valve opening and closing positions comprising a rocker mounted on the pivot for the float lever and having arms extending beneath said float lever, said rocker when free being movedf by gravity to an inoperative position free from the float lever so that the float lever may be actuated by the float, and manually controlled power means for moving the rocker into engagement with the float lever for moving the latter into valve closing position.

2,780,235
WEIGHT OPERATED PRE-CHECK MECHANISM
John G. Russell, Cleveland, Ohio, assignor to The Parker Appliance Company, Cleveland, Ohio, a corporation of Ohio
Application July 17, 1953, Serial No. 368,745
4 Claims. (Cl. 137—390)



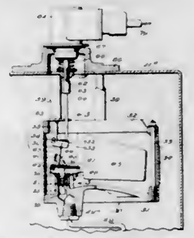
1. A pre-check mechanism for a float controlled pilot valve having a valve closing lever carrying a float comprising a main device having members extending beneath the float lever and movable into engagement therewith for raising the lever, a weight actuated member adapted, when free to act, to move said main device and lift the float lever and close the pilot valve, an actuating device of greater energy than the weight for moving said main device out of lifting contact with the float lever and manually controlled power means for rendering said actuating device inactive so as to permit the weight actuated member to operate and close the pilot valve.

2,780,236
LOCKING AND RELEASING MECHANISM FOR FLOAT CONTROLLED PILOT VALVE
John G. Russell, Cleveland, Ohio
Application April 30, 1953, Serial No. 352,169
6 Claims. (Cl. 137—390)



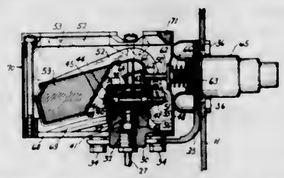
1. A locking and releasing mechanism for a float controlled pilot valve having a valve controlling lever movable by a float into valve opening and closing positions comprising a rocker engageable with said float lever for moving the latter into valve closing position, a spring actuated plunger for moving said rocker to close the valve and for normally holding the same in closed position, and a solenoid for withdrawing the plunger from operative engagement with the rocker to release the pilot valve lever for actuation by said float.

2,780,237
PRE-CHECK MECHANISM FOR A LIQUID LEVEL CONTROL VALVE
John G. Russell, Cleveland, Ohio, assignor to The Parker Appliance Company, Cleveland, Ohio, a corporation of Ohio
Application March 27, 1953, Serial No. 345,079
8 Claims. (Cl. 137—390)



1. A pre-check mechanism for a float controlled pilot valve having a valve closing lever carrying a float comprising a main device movably mounted and having a member extending adjacent the float lever and so disposed with relation to said lever as to be movable into engagement therewith for raising the lever and bringing about a closing of the pilot valve, a second movably mounted device, means for connecting said first-named and second devices so that the movements of one will be imparted to the other, an actuating means connected to said first-named device and constantly tending to move said first-named device to raise said float lever to a position for bringing about a closing of the pilot valve, means normally engaging said second device to hold it against movement in the float lever raising direction thereby to permit normal operation of the float, and manually controlled power means for displacing said holding means so as to permit said actuating means to move said first-named device to bring about a closing of the pilot valve.

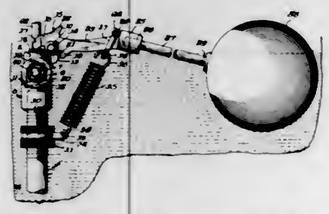
2,780,238
LIQUID LEVEL CONTROL VALVE
Robert H. Davies, Aurora, Ohio, and Everett H. Badger, Jr., Los Angeles, Calif.
Application August 16, 1952, Serial No. 304,815
9 Claims. (Cl. 137—390)



1. In a valve for controlling the level to which a tank may be filled with a given liquid, a body having a port therethrough, a valve member movable in said body for opening and closing the port, a float connected to the valve member and movable by gravity to a position for opening the valve and movable by a buoyant force developed when the float is submerged in the given liquid to a position for closing the valve, actuator means oper-

able upon the float with a force sufficient to overcome the gravity action upon the float for moving the float to a valve closing position, said last mentioned force being less than said buoyant force, and an overriding device operable on said actuator means for normally preventing the same from moving the float whereby the float may freely move said valve between open and closed positions, and means operable on the overriding device for preventing the latter from operating on the actuator means whereby the actuator means will move the float to valve closing position.

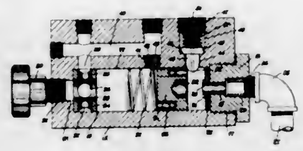
2,780,239
TANK FILLING VALVE
Julius A. Hjulian, Palos Heights, Ill., assignor to Crane Co., Chicago, Ill., a corporation of Illinois
Application March 18, 1952, Serial No. 277,201
6 Claims. (Cl. 137—416)



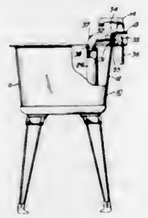
1. In a tank filling valve construction, a valve body, a reciprocally movable valve closure member therefor, the said body having an inlet and an outlet, a pivotal connection on the said body, the said closure member being positioned over said inlet and being movable to permit fluid communication between said inlet and said outlet, a lever mounted on the said valve body at the said pivotal connection to actuate the said closure member, a ball float on the lever for actuating said pivotal lever, slidable means movable on an inclined upper surface portion on the said lever, spring means attached to the inlet portion communicating with the said body at one end and connected to said slidable means at the other end, the slidable means moving to a predetermined end position on the lever upon pivotal movement of the lever downwardly, the said spring means being mounted to extend substantially transversely to the said pivotal lever, the said lever on an upper surface thereof at an end spaced oppositely from the pivotal connection to substantially define the range of movement of said slidable means having a shouldered slightly flattened upper surface portion beyond said inclined surface and forming a continuation thereof for receiving said slidable means upon occurrence of said lever pivotal movement downwardly, said spring means holding the said slidable means in position on said upper flattened surface portion of the said lever until the said ball float has reached a desired raised position in the tank, whereupon a predetermined tension is applied to the spring substantially endwise of the lever thereby to draw the slidable means away from said upper flattened surface portion for movement down said inclined surface to enable the lever to actuate said closure member and inhibit fluid communication between said inlet and outlet.

2,780,240
FLUID SAFETY CHECK AND CUSHIONING DEVICE
Paul D. Madak, Canton, Ohio
Application June 3, 1952, Serial No. 291,378
4 Claims. (Cl. 137—496)

1. A fluid restrictor device for controlling fluid operated equipment, said device comprising a cylinder having a fluid inlet at one end and a fluid outlet at its opposite end for connection to such equipment, a fluid pressure feed line communicating with the fluid inlet, a piston slidably and rotatably mounted in the cylinder, there being a tortuous passage located longitudinally through the piston, said tortuous passage comprising two laterally offset passages extending part way through the piston from opposite ends of the piston and communicating laterally with each other at their inner ends, a turbulence mixer slidably mounted in the cylinder between the piston and the outlet end of the cylinder, said turbulence mixer having a longitudinal passage therethrough, a peripheral groove therearound and radial passages forming communication between the longitudinal passage and the peripheral groove, means providing communication between an intermediate portion of the cylinder and the peripheral groove of the turbulence mixer, means for normally limiting the movement of the piston toward the inlet, a shouldered neck at the inlet and a cooperating recess in the piston in which the neck may seat to close the inlet, fluid pressure from the fluid operated equipment overcoming said limiting means and causing the piston to move into closing contact with the inlet so that the inlet neck is seated in the recess of the piston in the event of leakage in said fluid pressure line.

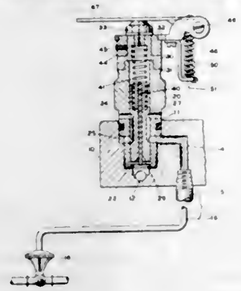


2,780,241
WASTE AND STORAGE WATER CONTROL SYSTEM FOR LAUNDRY TUBS
Bernard E. Mustee, Cleveland, Ohio, assignor to E. L. Mustee and Sons, Inc., a corporation of Ohio
Application October 4, 1954, Serial No. 459,951
5 Claims. (Cl. 137—590)



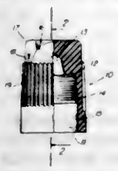
5. A laundry device, comprising, a water holding tub, a bottom water outlet for gravity flow from said tub, a member removably seatable in said outlet and serving as a plug for said outlet, said member including an upstanding conduit portion, said member having open ends and thereby serving as a depth regulator overflow for said tub, a fixture defining a water passageway through a wall of said tub, said fixture having a spout portion within said tub, said fixture having a hose attachment extension on the exterior of the tub, one of said portions being constructed to be swingable from a first position relative to said other portion for directing liquid flow from said spout portion into said conduit portion and to a second position directing fluid from said spout portion into said tub away from said conduit portion, whereby a discharge hose from a washing machine may be attached to said attachment extension and the water directed into the tub or conduit portion as desired.

2,780,242
RELAY VALVE
Ernest F. Dyson, Meriden, Conn., assignor to The Bristol Company, Waterbury, Conn., a corporation of Connecticut
Application December 11, 1952, Serial No. 325,469
15 Claims. (Cl. 137—620)



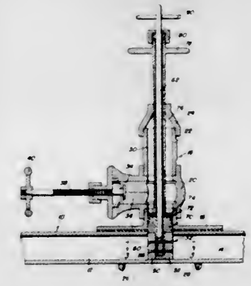
1. A relay valve for use in conjunction with shiftable means to control the flow of a relatively large volume of fluid from a source to a conduit by modifying the escape of a relatively small volume of said fluid from said source to the atmosphere, said valve comprising a body having therein an opening including a portion at one end thereof adapted for free communication with said source and another portion at the other end thereof communicating solely and restrictedly with the atmosphere through a relatively small orifice, said body also having spaced ports large compared to said orifice and adapted to communicate with said conduit and the atmosphere respectively, a piston adapted for limited movement in said opening and having one portion adapted for communication with said source and another portion defining a variable volume space between said piston and said orifice, said piston also having a portion thereof conformed to cooperate with said ports to provide free communication between said source and said conduit when said piston is at one position in its movement and to provide free communication between said conduit and the atmosphere when in another position in its movement, means forming a capillary bore providing restricted communication between said space and said source, said capillary bore being elongated and having an axial length many times its diameter, and spring means adapted to cooperate with the fluid pressure in said space for forcing said piston toward the last-named position when the pressure in said space is substantially equal to that of said pressure fluid.

2,780,243
PLASTIC VALVE CAP
Selden T. Williams, Bellerose, and Frank R. Hormann, Brooklyn, N. Y., assignors to Scovill Manufacturing Company, Waterbury, Conn., a corporation of Connecticut
Application September 22, 1953, Serial No. 381,594
2 Claims. (Cl. 138—89.3)



1. A valve cap formed of polyethylene having a cup-shaped axial socket which is internally screw-threaded and formed at its open mouth with an unthreaded bore having the diameter at least as large as the outer diameter of the screw-thread and an axial depth equal to at least twice the pitch of the screw-thread, the cap at its closed end having an external protuberance and an external shoulder at the inner end of the protuberance, the axial dimension of the protuberance being no greater than the axial dimension of the unthreaded mouth portion of the socket and the maximum dimension of the protuberance measured along a diameter of the cap being slightly greater than the diameter of the unthreaded mouth portion of the socket, whereby, when the protuberance of one cap is inserted into the mouth portion of another cap so that the external shoulder on the inserted cap engages the open end of the mouth portion of said another cap, the two caps will hold nested together in substantially axial alignment.

2,780,244
INSERTABLE STOPPER VALVE
Harold J. Lee, Cody, Wyo., assignor of one-third to Cody Gas Company, Cody, Wyo., a corporation of Wyoming
Application November 12, 1954, Serial No. 468,319
2 Claims. (Cl. 138—94)



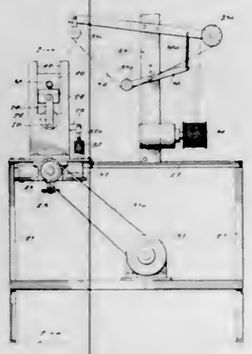
1. In an insertable valve assembly for shutting off flow within a gas main or the like, a body member adapted to be secured to a main, said body having a bore therein adapted to communicate with the interior of a main through a registering aperture therein, a stopper member slidably disposed in said bore, said stopper including a pair of spaced plates having rounded end portions adapted to contact the inner surface of a main, means interconnecting said plates, a quantity of deformable material disposed between and above said plates, and means for exerting a compressive force upon said deformable material to deform it outwardly from between said plates into close contact with the inner surface of the main, said means including a plunger threadedly engaged in said body concentrically of said bore, a plunger disk disposed between said plunger and said deformable material, said disk being of such diameter as to peripherally engage the inner surface of said bore whereby movement of said plunger will effect compression of said deformable material to deform it outwardly from the area between the plates.

2,780,245
PILE FABRIC
Philip Miller and Robert F. Bardsley, Yonkers, N. Y., assignors to Alexander Smith, Incorporated, White Plains, N. Y., a corporation of New York
Application October 5, 1954, Serial No. 460,348
6 Claims. (Cl. 139—403)

1. A pile fabric comprising a woven backing having fillerwise and warpwise yarn and having a fillerwise row

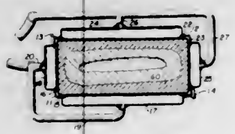
of pile elements bound under a single fillerwise yarn in said backing, certain pile elements of said fillerwise row comprising cut tufts and other pile elements of said fillerwise row comprising loops, said tufts being of three or more heights, the lowest tuft being at least as high as said loops.

2,780,246
COIL WINDING MACHINE
Werner H. Steger, Chicago, Ill.
Application December 14, 1955, Serial No. 553,067
16 Claims. (Cl. 140—92.2)



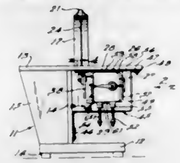
1. A winding machine for beam deflection coils, comprising: a rotatable support adapted to have an elongated coil form mounted thereon; a wire feed including a wire guide adjacent said coil form support and adapted for relative longitudinal movement with respect thereto; a first drive means for effecting intermittent rotational reciprocation of said coil form support; and a second drive means for effecting intermittent longitudinal reciprocation between said wire guide and coil form support.

2,780,247
VACUUM PACKING OF LOOSE CARBON BLACK
Edwin J. Claassen, Jr., Odessa, Tex., assignor to Sid Richardson Carbon Company, Fort Worth, Tex., a corporation of Texas
Application May 14, 1954, Serial No. 429,819
6 Claims. (Cl. 141—7)



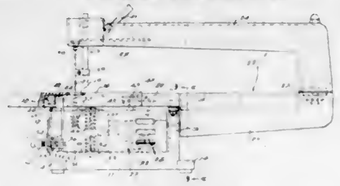
1. A process of increasing the apparent density of loose bulk compressible material having low apparent density, which comprises introducing said material together with a large quantity of gas into a container having a permeable wall, the pores of which permit passage of gas therethrough but not said compressible material, applying a pressure differential to the interior and exterior of the container, which is less at the exterior than at the interior, whereby the gas is removed from the bulk material and the material within the container is compressed against the interior of the container and is densified without substantial agglomeration to form a substantially impervious layer, thereafter discontinuing the introduction of material into the container, establishing a vacuum within the container, and introducing additional material into the container under vacuum.

2,780,248
APPARATUS FOR OPERATING VIBRATORY JIGSAW
Maynard R. Andreae, Bloomfield Hills, Mich., assignor to Syncro Corporation, Oxford, Mich., a corporation of Michigan
Application January 29, 1953, Serial No. 333,972
5 Claims. (Cl. 143—73)



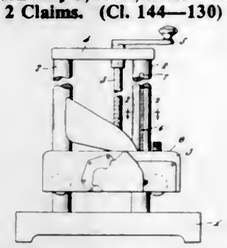
1. In combination, a jigsaw having a stand, said stand including a base and a work table spaced above said base, upright means carried by said base and supporting said work table, said upright means being so constructed as to afford ready access to the space between said base and work table, saw blade supporting means attached to said stand and having gripping means for the upper end of a saw blade, an apertured portion in said table for receiving the saw blade therethrough, a bracket secured to said stand having an L-shaped portion below said work table, one portion of said L-shaped bracket being in spaced parallel relation with and below said work table, and a screw type clamp carried by said last-mentioned portion of the bracket and movable in a direction toward and away from said work table, whereby said bracket is adapted to firmly but detachably secure a self-contained power operated hand tool below said work table in an exposed position readily accessible for removal.

2,780,249
TABLE JIGSAW WITH TILTABLE BLADE
Maynard Rudolph Andreae, Bloomfield Hills, Thomas F. Carmichael, Plymouth, and Edward G. Sturgeon, Berkley, Mich., assignors to Syncro Corporation, Oxford, Mich., a corporation of Michigan
Application October 20, 1954, Serial No. 463,476
1 Claim. (Cl. 143—78)



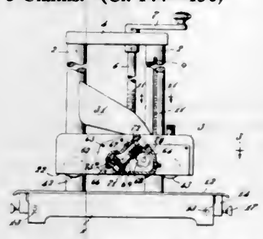
In a table jigsaw, a base having a lower horizontal portion, a forward upright portion and a rear upright portion, the rear upright portion being yoke-shaped to provide an upwardly facing central recess, a pair of pads at the opposite side corners of the tops of each of said uprights, a table secured to said pads, a clearance aperture in said table, a C-shaped frame adapted to support the upper end of a saw blade which extends through said clearance aperture, an extension on the lower end of said C-shaped frame extending through said recess, a motor housing carried by said extension within the space provided between said table and the lower portion of said base, a vibratory motor disposed within said housing, a connection between said motor and the lower end of said blade, a pair of pivot pins at the forward and rear ends of said housing, a pair of bearings on the underside of said table for supporting said pins, whereby said frame and housing may be swung through a relatively large angularity, an arcuate slot in the forward upright portion of said base, a clamping screw mounted in the forward portion of said housing and extending through said slot, and a handle mounted on said screw whereby said frame and housing may be clamped in its adjusted angular position.

2,780,250
MACHINE HAVING A CUTTER HEAD SLIDABLY MOUNTED ON A POST
Percy Leonard, Milford, N. H., assignor to Williams & Hussey Machine Corporation, Milford, N. H., a corporation of New Hampshire
Application May 5, 1955, Serial No. 506,251
2 Claims. (Cl. 144—130)



1. A machine comprising an elongate guide having a longitudinal recess in one side, a part slidably mounted on the guide in sliding engagement with said side, and a scale mounted in said recess wholly within the cross-sectional outline of the guide so as not to interfere with the sliding movement of said part on the guide, whereby the position of the part is indicated by the relationship of an edge of the part in front of the scale.

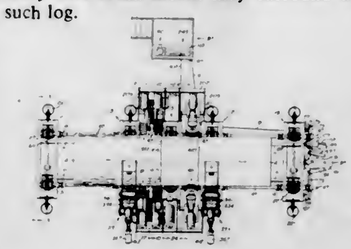
2,780,251
WOOD PLANERS AND OTHER CUTTING MACHINES
Thurston V. Williams, Milford, N. H., assignor to Williams & Hussey Machine Corporation, Milford, N. H., a corporation of New Hampshire
Application May 5, 1955, Serial No. 506,266
5 Claims. (Cl. 144—130)



1. A cutting machine comprising a bed over which stock is fed, a cutter head above the bed, a feed roller bearing on the stock to feed it over the bed, a support arm at each end of the roller for pivotally supporting the roller on said head to swing toward and from the bed about an axis offset from the roller lengthwise of the bed, the roller being journaled in said arms, a driving element mounted on said head, a driven element fast to one end of said roller, and means kinematically interconnecting said elments for driving the roller, said driving element being coaxial with said axis so that the spacing of said elements remains unchanged as the roller swings about said axis.

2,780,252
LOG BARKING MACHINE HAVING BILATERAL CUTTERS, BRUSHES, AND FEED ROLLERS
John L. Gyllenberg, Baker, Oreg., assignor to Anthony Brandenthaler, Baker, Oreg.
Application October 16, 1953, Serial No. 386,491
11 Claims. (Cl. 144—208)

1. In a log-barking machine, log-supporting means for feeding a log longitudinally along a predetermined path, and rotary wire-brush means arranged adjacent said supporting means for engagement with a log supported by said supporting means, said wire-brush means having the bark-engaging portions thereof arranged for rotation in a plane parallel to the path of travel of such log and being formed with a recess to enable the wire-brush means to conform generally to the contour of a knot or stub on a log and remove any bark and cambium layer located thereon and therearound, the axis of rotation of the rotary wire-brush means extending through a log supported by the log-supporting means whereby the recessed portion of the rotary wire-brush means may surround a knot or stub on such log.



2. In a log-barking machine, means for rotating a log, means arranged adjacent said rotating means operable to remove bark from such log, and including a pair of rotary toothed cutters, means mounting the cutters for bodily movement relative to one another and for movement toward and away from such log, and means for imparting the movement of one cutter toward and away from such log oppositely to the other cutter whereby, when one cutter rides upon a knot or stub, the other cutter is thrust inwardly to engage such log in the area surrounding such knot or stub to remove bark-and-cambium-layer material therefrom.

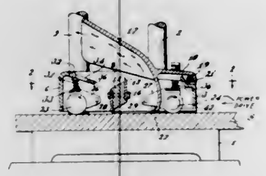
2,780,253
SELF-CENTERING FEED ROLLS FOR A DOWEL MACHINE OR THE LIKE
Curt G. Joa, Sheboygan Falls, Wis.
Application June 2, 1950, Serial No. 165,828
6 Claims. (Cl. 144—246)

2. A grooved feed roll having divergent flanges of frusto-conical form near their outer portions and having inner portions of inwardly convex form, at least part of said convex portions being offset from the frusto-conical portions of the flanges whereby to constitute gripping bulges having line contact with work engaged by the roll.

2,780,254
HOLD-DOWN ROLLERS FOR PLANERS AND THE LIKE
Rudolph E. Carpentiere, Milford, N. H., assignor to Williams & Hussey Machine Corporation, Milford, N. H., a corporation of New Hampshire
Application May 5, 1955, Serial No. 506,166
5 Claims. (Cl. 144—249)

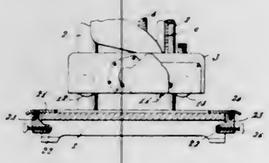
1. In a planing machine the combination of a bed, a cutter head over the bed, a cutter on the head to plane

stock fed over the bed, a roller on the head to hold the stock against the bed, arms pivotally mounted on the sides of the head to swing about an axis offset from the roller axis lengthwise of the bed, opposite ends of the roller being journaled in the arms respectively, a cross-piece interconnecting the arms above the roller, the top of the head having a threaded opening extending there-



through in alignment with said cross-piece, a tube threaded into said opening, a pin extending from the cross-piece into the tube, the lower end of the pin having a head bearing on the cross-piece and the upper end of the tube having a internal shoulder, and a coiled compression spring surrounding the pin inside the tube, the lower end of the spring bearing on said head and the upper end of the spring bearing on said shoulder.

2,780,255
GUIDES FOR MACHINES HAVING A BED OVER WHICH STOCK IS FED
Percy Leonard, Milford, N. H., assignor to Williams & Hussey Machine Corporation, Milford, N. H., a corporation of New Hampshire
Application May 5, 1955, Serial No. 506,252
1 Claim. (Cl. 144—253)



A cutting machine comprising a bed for supporting stock to be fed along a predetermined path past a cutting tool, the bed having parts on opposite sides of said path which extend downwardly from the bed both in advance of the tool and in the rear thereof, two rods extending transversely of said path under the bed with their ends extending into said parts, one in advance of the tool and one in the rear thereof, a guide strap extending over the bed lengthwise of said path with its ends projecting beyond the bed, L-shaped brackets having upper legs extending upwardly into engagement with the lower sides of said ends respectively and lower legs extending under the table in sliding engagement with said rods respectively, a screw extending through each of said strap ends and thence threading into one of said upper legs, and a screw extending lengthwise through each of said lower legs from the outer end thereof for locking the brackets on the rods.

2,780,256
HANDSAW
John H. Dodd, Temple City, Calif.
Application February 19, 1954, Serial No. 411,377
4 Claims. (Cl. 145—31)

2. A saw blade adapted to sawing with one edge thereof, comprising a plurality of toothed portions along said sawing edge, a limit stop edge between two said portions so that one of said portions extends in stepped relation to another of said portions, said portions being related

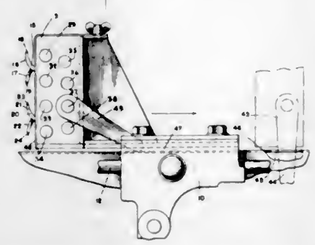
to form an angle outwardly of the free end of the blade, said angle being within a range of zero to ninety degrees.

2,780,257
SCREW HOLDING AND GUIDING MEANS FOR A SCREWDRIVER BIT
Morgan T. Duggan, South Windsor, Conn.
Application December 14, 1953, Serial No. 397,936
1 Claim. (Cl. 145—51)

In combination with a screw driver bit and shank, a screw holder comprising a tubular member concentrically disposed on the bit and shank and having an open end normally disposed outwardly longitudinally of the bit to receive and entirely house a screw, a shoulder on the inside of the member inwardly of the open end, a sleeve disposed on the shank within the member, a slide connection between the sleeve and the member said slide connection including axial slots in the member and radial arms on said sleeve received in the slots, a spring concentrically disposed between the sleeve and the member and bearing on the shoulder and the radial arms and an abutment on the shank bearing on the sleeve.

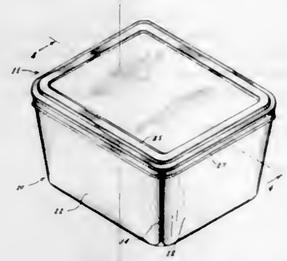
2,780,258
PUSHER ASSEMBLY FOR SLICING MACHINES
Joseph Folk, La Porte, Ind., assignor to U. S. Slicing Machine Company, Inc., La Porte, Ind., a corporation of Indiana
Application March 19, 1953, Serial No. 343,465
4 Claims. (Cl. 146—217)

1. In a slicing machine of the type described, in combination, a stationary support, a substance pusher having a plate normal to said support, means energizing said pusher for moving the same over said support, means for grasping the substance carried by said support including a plurality of shafts rotatably supported to the rear of said plate, impaling prongs on some of said shafts extending through holes in the pusher plate and adapted to be withdrawn therefrom, means interconnecting said prong shafts for simultaneous rotation in prong extending and prong retracting directions, a lever on one of said shafts, and said support having a slot therein



forming abutments to be engaged by said lever to rotate the lever and its shaft to drive all prong shafts for prong extension and prong retraction as the pusher is moved.

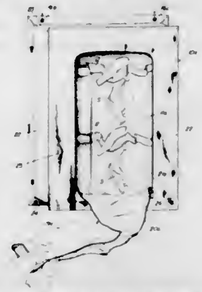
2,780,259
PLASTIC DISH WITH COVER CONNECTION
George S. Nalle, Jr., Austin, Tex.
Application September 13, 1954, Serial No. 455,393
5 Claims. (Cl. 150—.5)



1. A container assembly comprising a dish having bottom and side walls extending upwardly from the bottom and having outwardly flaring top edges, the bottom being polygonal and the side walls substantially straight and merging with the bottom and with each other at corners of the container, and the side walls being made of stiff flexible material that bows outwardly to some extent in response to pressure against the inside surfaces of the straight walls, a cover having a top wall and downwardly extending sides, and having grooves in the inside faces of the downwardly extending sides for engagement by the outwardly flaring top edges of the side walls of the dish, the pressure of the top edges of the side walls into the grooves being increased by outward bowing of the straight portions of the side walls and being increased by a deeper load of material in the dish exerting side pressure against the side walls of the dish.

2,780,260
SHOE BAG
Isabella J. Watson, New York, N. Y.
Application June 10, 1953, Serial No. 360,736
2 Claims. (Cl. 150—1)

1. A shoe support comprising: a flexible panel, means for hanging said panel, a tape intermittently fixed to said panel whereby to provide a plurality of open-ended loops of said tape upon said panel adapted to support shoes hung thereon in loosely adjustable position against said panel, a cover for said panel overlying the shoes and protecting adjacent garments therefrom, and releasable means for holding said cover in closed position with respect to said panel whereby to cover the shoes supported by said panel and permit access thereto, said support



being adapted to be rolled into closed position for transporting or storing shoes retained therein.

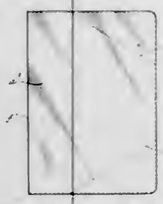
2,780,261
SLIDERLESS FASTENER CLOSURE
Emil F. Svec, New York, N. Y., and Karel J. Staller, Rutherford, N. J., assignors to Flexigrip Inc., New York, N. Y., a corporation of New York
Application October 26, 1954, Serial No. 464,867
7 Claims. (Cl. 150—3)

1. A container comprising front and back sheet-like wall portions having mated edges united together to define a container and having corresponding free upper edges spaced from each other to define an opening into said container, a first closure strip secured to the free upper edge of one of said wall portions extending the length thereof, a second closure strip secured to the free upper edge of the other of said wall portions extending the length thereof, said closure strips having offset integral thickened marginal reinforcements, said reinforcements having on confronting faces at least one longitudinally extending groove and ridge, said groove in one of said reinforcements being aligned within said ridge in the other reinforcement for resilient locking engagement therewith, and means integral with the marginal reinforcement of said first closure strip longitudinally along the entire length thereof whereby said reinforcements can be separated to provide an opening into said container, the ends of said closure strips and of said means and the portions of said mated edges adjacent to said ends being merged and united together to form a complete seal for said opening when said closure strips are mated together.

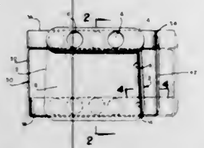
2,780,262
COVERING OF ARTIFICIAL MATERIAL
Walter Lennartz, Dachau, near Munich, Germany
Application June 25, 1953, Serial No. 364,168
Claims priority, application Germany June 30, 1952
2 Claims. (Cl. 150—39)

1. A file cover made of smooth plastic material comprising an upper cover sheet, a lower cover sheet attached to said upper cover sheet along contiguous peripheral edge portions thereof for holding substantially flat articles therebetween, said cover sheets having each

an end edge remote from said attached edge portions, and a polygonal-shaped piece of sheet material made of the same material as that of said cover sheets and joined in substantially flat condition to the inner face of one of said cover sheets at at least one of said end edges, whereby at least one inner edge pocket is obtained in which the other end edge of said other cover sheet may be inserted and retained therein in closed position of said file cover, so that said articles when placed in the latter will be effectively prevented from slipping out of said file cover.

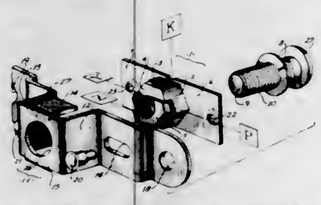


2,780,263
BINOCULAR CARRIER
Armond Blumberg, Cambria Heights, N. Y.
Application December 23, 1955, Serial No. 555,053
5 Claims. (Cl. 150—52)



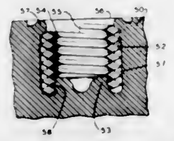
1. In a carrying case for binoculars and the like adapted to be used without removing the binoculars from the case the improvement which comprises providing an endless strap means which extends external of the case the movement of which strap alternately covers and exposes the lenses of said binoculars said strap means having a circumference substantially greater than a circumference of said case, whereby space is provided between said case and externally extending portions of said strap means.

2,780,264
SECTIONALLY INTERLOCKING PLATE NUT
Cecil W. Aspey, Los Angeles, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application December 7, 1953, Serial No. 396,429
8 Claims. (Cl. 151—41.71)



1. A bolt retaining nut member comprising: a generally conventional nut member having a central internally threaded bore and at least one pair of oppositely disposed parallel flat sides engageable by removable means for keeping the nut from rotating or causing it to rotate, said nut member being slit into two generally symmetrical half-nut portions having faces along an axio-diametrically disposed plane of separation following an axial plane of separation bisecting each of one pair of said parallel sides, said plane of separation extending from the face of said nut member to within a few threads of the spaced end of said threaded bore, said plane of separation then being rotated equilaterally of the axis of said central bore and finally continued axially through the top of the nut spaced from said face whereby each of said half-nut portions is provided with an internally threaded arm-like hook member cut from the top of the other half-nut portion and curving outwardly around said central threaded bore on the opposite side thereof from its respective half-nut portion, whereby when the faces along said plane of separation between said hook members and said half-nut portions from which they are cut are rotated equilaterally of the axis of said threaded bore along a single plane parallel to said top of said nut member, said hook members while supported in the same horizontal plane, will move without interference across the portions of said half-nut portion from which they are cut, said hook members being arranged for drawing said half-nut portions into threaded engagement with a bolt member entered therebetween, and to release said bolt from threaded engagement with said half-nut portions when said bolt member is unthreaded from between said hook members; a nut retaining member attached to one of the objects to be fastened; and means associated with said nut retaining member for limiting relative movement of said half-nut portions to a line of movement normal to the axial plane of separation of said nut members.

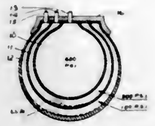
2,780,265
THREAD COIL SECURED IN DUCTILE MATERIAL BY DEFORMATION OF THE MATERIAL
Leo J. Brancato, Danbury, Conn., assignor to Heli-Coil Corporation, Danbury, Conn., a corporation of Delaware
Application February 28, 1955, Serial No. 490,993
2 Claims. (Cl. 151—41.73)



1. An article of manufacture comprising a body of ductile material including a portion having a blind hole with an originally smooth cylindrical inner surface and a central raised bottom portion of a diameter smaller than said hole, and a cylindrical coil of a wire having inner and outer screw thread forming portions, said coil having an outer diameter fitting the diameter of said hole and being inserted in the latter so as to bear with one of its ends on the bottom of said hole between said raised portion and said inner surface, the other end of said coil being inside said hole spaced from the open end thereof, the material in a zone adjacent the open end of said cylindrical surface and the material of said raised bottom portion being compressed, a portion of the raised bottom portion being flown by said compression between the inner thread forming portions of at least the first and second lowermost convolutions of said coil, and a portion of the material adjacent the open end of the hole being flown on the top of and between the outer portions of at least the first and the second topmost convolutions of said coil.

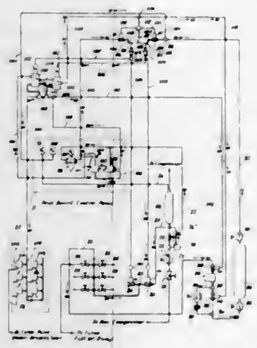
2,780,266
MULTI-CHAMBERED VEHICLE TIRE
Norman W. McLeod, Oakville, Ontario, Canada
Application November 13, 1952, Serial No. 320,199
7 Claims. (Cl. 152—340)

1. A vehicle wheel including a rim and a multi-chambered pneumatic tire mounted thereon, said tire comprising at least two inflated resilient annular compartments supported by the rim one within the other and each compartment having substantially non-expansible walls, the side walls of the outer compartment being spaced from the side walls of the inner compartment and the outer compartment being inflated to a lower pressure than the inner compartment, said compartments being so constructed and arranged and inflated to such pressure that when the tire runs in contact with a substantially



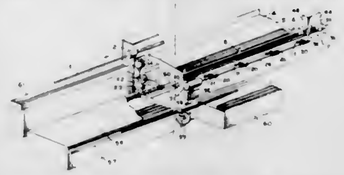
flat unyielding surface under normal load and at normal pressures the wall of the inner compartment will engage the inner surface of the wall of the outer compartment at the central portion of the contact area of the outer compartment with the surface on which the tire is running, whereby the pressure applied by said tire to said surface is greater at the central portion of the contact area than adjacent the perimeter of the contact area.

2,780,267
RUNNING INFLATION SYSTEM
Archer W. Richards, Chagrin Falls, Ohio, and Richard A. Meyers, Wyandotte, Mich., assignors to Scovill Manufacturing Company, Waterbury, Conn., a corporation of Connecticut
Application December 1, 1954, Serial No. 472,308
14 Claims. (Cl. 152—417)



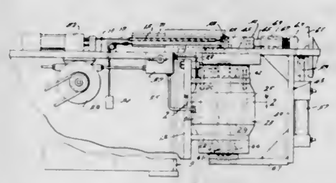
1. A system for inflating a container to a predetermined pressure, comprising a container to be inflated, a source of fluid under pressure; a pressure control tank; a pressure regulator valve; a shuttle valve; conduits connecting the source of fluid pressure (*a*) with the container to be inflated, (*b*) with the inlet of the pressure regulator valve, and (*c*) with the inlet port of the shuttle valve; a normally closed pilot operated valve in the conduit connecting the source of fluid under pressure with the container; a conduit connecting the outlet of the shuttle valve with the pilot of the pilot operated valve; a conduit connecting the pressure control tank to one end of the shuttle of the shuttle valve; a conduit connecting the outlet of the pressure regulator valve to the other end of the shuttle of the shuttle valve; and means for establishing the static pressures from the control tank and from the outlet of the pressure regulator valve on the opposite ends of the shuttle valve to operate the shuttle therein and thereby control the pilot operated valve in the conduit connecting the source of fluid pressure with the container.

2,780,268
APPARATUS FOR MAKING LIPPED FINNED TUBING
Ray C. Edwards, Glen Rock, N. J.
Application April 10, 1951, Serial No. 220,286
12 Claims. (Cl. 153—21)



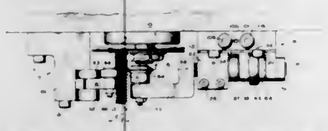
1. In apparatus for forming lipped finned tubes, the combination of a tube receiving member for receiving finned tubes, a tube supporting platform movably mounted on said member, tube gripping elements along said member embodying projections for extending between the fins of a tube, means connecting one of said tube gripping elements and said platform for unitary movement to move a tube into gripped position between the tube gripping elements, means for moving said platform and element, a car movable over said member, means for guiding movement of said car, a lip bending roller carried by said car and engageable in fin bending action with the fins on a tube on said member as the car moves along said member, and means for adjusting said roller to regulate the degree of bending of the fins to form lips.

2,780,269
BENDING DEVICE
Walter P. Hill, Bloomfield Township, Oakland County, Mich.
Application May 11, 1953, Serial No. 354,237
2 Claims. (Cl. 153—40)



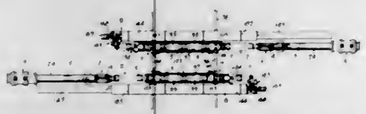
1. A device for bending workpieces, including a supporting structure, a hydraulic motor including a cylinder rigidly connected with said structure, shaft means extending through said cylinder and having a vane attached thereto and projecting therefrom into sealing engagement with the cylinder wall, a stator connected with the cylinder wall and coacting with said shaft means and vane to divide said cylinder into two chambers, conduit means connected with the interior of said cylinder on one side of said stator and conduit means connected with the interior of said cylinder on the opposite side of said stator so that the application of fluid under pressure into either of said conduits will cause said vane and shaft means to rotate in one direction or the other relative to said cylinder, said shaft means projecting beyond the opposite ends of said cylinder, a carrier rigidly connected with the projecting ends of said shaft means and spaced from said cylinder so as to be swingable about said cylinder through an angle of at least 180°, a bending form supported on said carrier and having its axis disposed in alignment with the axis of said shaft means, clamp means on said carrier for clamping a workpiece against said form, and follower means supported on said supporting structure and actuable to engage said workpiece to prevent lateral movement thereof during the bending operation effected by the rotation of said shaft and vane.

2,780,270
DEVICE FOR CONTROLLING THE PITCH OF HELICALLY COILED WIRE
Leo J. Brancato, Danbury, Conn., assignor to Heli-Coil Corporation, Danbury, Conn., a corporation of Delaware
Application February 8, 1955, Serial No. 486,790
6 Claims. (Cl. 153—64)



1. In a coiling machine including elements for forming from a wire stock, a continuous coil progressing from said elements in the direction of the coil axis and rotating during its progression, a device for applying a predetermined pitch to the progressing coil, said device comprising a pair of supporting rollers rotatable in a plane at right angles to said axis and pivoted so as to bear against the progressing coil at spaced peripheral portions thereof, a pitching roller having a substantially roof-shaped periphery and being adapted to engage with said roof-shaped periphery between two adjacent coil convolutions diametrically opposite a point intermediate of said supporting rollers, a pivot pin for said pitching roller, a holder for said pivot pin including a shank, a bearing for said shank in a stationary part of said device, said shank being peripherally adjustable in said bearing, the axis of said shank passing through the center of the outermost periphery of said pitching roller, and means for adjusting the spacing of the pitching roller axis from said coil axis.

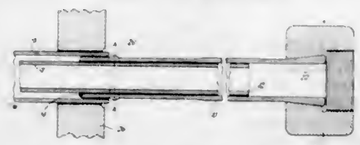
2,780,271
APPARATUS FOR MECHANICALLY EXPANDING LARGE DIAMETER PIPE
John C. Ewart and Sven Malke, Milwaukee, Wis., assignors to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application September 27, 1951, Serial No. 248,512
13 Claims. (Cl. 153—80.5)



1. An expanding device for expanding large diameter pipe in cross section comprising a fixed thrust plate formed with an axial opening therein, a hollow expandable die assembly to be disposed within the pipe and formed of a plurality of circumferentially spaced dies and having one end of said assembly in contact with the thrust plate, a reciprocating rod extending through the opening in said thrust plate and within said hollow die assembly, said rod being formed with an axial opening and a transverse opening communicating with said axial opening, a tubular mandrel mounted on said rod and to be received by said die assembly and expand the same radially outward against the pipe, said mandrel being formed with a generally longitudinal passage communicating with the transverse opening in said rod, and an inlet conduit disposed within the axial opening in said rod and connected to the passage in said mandrel to convey a cooling medium to said passage, said cooling medium being returned from said passage through the transverse opening to the axial opening in said rod surrounding said conduit for discharge from the system.

13. An assembly for expanding relatively large diameter pipe in cross section to improve the mechanical properties thereof comprising, a pair of fixed annular expanding units disposed in parallel relation, with the first unit of said pair of expander units circumjacently receiving one end of the pipe to be expanded and expanding in increments at least one-half of the length of said pipe and with the second expander unit subsequently receiving the unexpanded end of the pipe and expanding the unexpanded portion of said pipe to provide a fully expanded pipe section, conveyor means for each expander unit to carry the pipe longitudinally toward and away from the respective expander units, feeder means for each conveyor means to grasp the pipe and move said pipe over the respective conveyor means onto the respective expander unit and to withdraw the pipe after expansion from said expander unit over said conveyor unit, and means to transfer the partially expanded pipe from the first of the pair of conveyor means cooperating with the first expander unit to the second conveyor means.

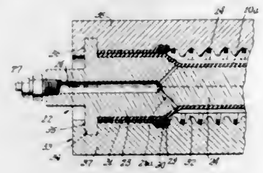
2,780,272
TUBULAR BALL DRIFT TUBE EXPANDER
Johannes H. Ammon, Barberton, Ohio, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application November 12, 1954, Serial No. 468,327
1 Claim. (Cl. 153—80.5)



In a ball drift expander for tube expanding action in the annular space between a fixed outer tube and a concentric and fixed inner tube with one end portion of the inner tube projecting axially a substantial distance beyond the corresponding end portion of the outer tube which latter portion is to be expanded by the ball drift, a hollow tubular metallic body having a single circuit exterior rib adjacent one end of the body, said rib being formed as a spherical segment with an outwardly convex surface, the outside diameter of the rib being greater than the outside diameter of the major part of the length of the tubular body and the segmental spherical surface of the rib being symmetrical about its median plane normal to the long axis of the tubular body, the end of the tubular body opposite the rib end being spaced from said rib a distance greater than the length of the axially projected portion of said inner tube by a length at least equal to the distance travelled by said drift while expanding the end portion of said outer tube, and having an increasing wall thickness to afford a drive end portion capable of absorbing heavy impacts to move the expander in the annular space between said inner tube and the end portion of said outer tube, the latter of which is to be expanded by that movement.

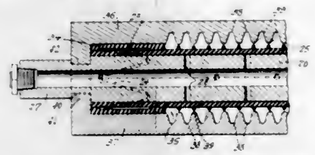
2,780,273
METHOD AND APPARATUS FOR MAKING A MOLDED FLEXIBLE HOSE
Fred T. Roberts, Wilton, Conn.
Application January 30, 1956, Serial No. 562,216
12 Claims. (Cl. 154—5)

1. The method of making a reenforced hose comprising the steps of positioning on a mandrel having a longitudinally fluted portion of reduced diameter, a hose body having a diameter at least equal to the internal diameter of a reenforcing member adapted to surround said body, applying suction to the interior of the body overlying the fluted portion of the mandrel and contracting the body into engagement with the fluted surface thereof, inserting the mandrel and contracted body within the reenforcing member, placing the mandrel and reenforcing member in a grooved molding cavity with the reenforcing member disposed in the bottom of the grooves, removing the suction and applying fluid pressure to the interior of the hose to cause the hose to engage the reenforcing member and the surface of the mold, and applying heat to the mold and causing the body to adhere to the reenforcing member and the body to retain the grooved shape imparted thereto by the grooves of the mold cavity.



9. A mandrel adapted to receive a hose body for use in making molded reenforced hose comprising cylindrical end portions adapted to have portions of the hose body secured thereto to form the attaching portions for the hose and the portion of the mandrel extending between said end portions having longitudinally extending flutes to provide an enlarged surface area, one end portion having a bore therein provided with passages extending to each of the longitudinal flutes whereby suction applied to the bore will be transmitted to said longitudinal flutes and cause said hose body to be drawn into engagement with the surface thereof to facilitate handling and insertion of the body into a mold.

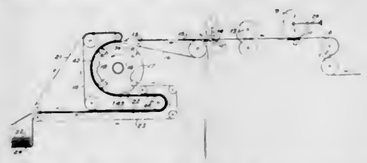
2,780,274
METHOD OF MAKING FLEXIBLE CORRUGATED HOSE
Fred T. Roberts and Robert E. Roberts, Wilton, Conn.
Application December 1, 1955, Serial No. 550,307
11 Claims. (Cl. 154—8)



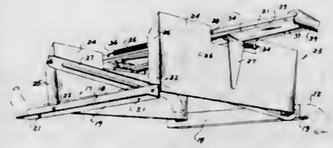
1. The method of making a reenforced flexible hose having an annularly corrugated body in a mold having a cavity provided with annular grooves comprising the steps of positioning a sleeve of elastomeric material having thereon a plurality of spaced, annular, resilient wires covered with elastomeric material in the mold with the wires disposed in predetermined location with said grooves, expanding said sleeve to cause it to be pressed into engagement with said grooves to form an annularly corrugated body and to embed said covered wires in the corrugations, and heating the body to cause the material thereof and the material covering the wires to become integral and set in the corrugated form.

2,780,275
DEVICE FOR SEAMING THERMOPLASTIC BAGS
Kenneth A. Rusch and Erwin Hillman, Milwaukee, Wis., assignors to Milprint, Inc., Milwaukee, Wis., a corporation of Delaware
Application October 5, 1953, Serial No. 384,020
7 Claims. (Cl. 154—42)

1. In a device for seaming thermo-plastic bags, a heating element movable along a definite path, a conveyor movable along the path of said heating element for advancing multi-ply bag forming stock between said conveyor and said heating element with the portions to be heat sealed movable with said element and engageable therewith to form a seam, and means movable along and beyond the path of said conveyor between said conveyor and the bag forming stock for positively separating each sealed bag from the conveyor beyond the heat-sealing zone.



2,780,276
CONVERTIBLE CHAIR FOR INFANTS
Ralph Valente, Detroit, Mich.
Application April 9, 1956, Serial No. 576,843
4 Claims. (Cl. 155—91)



1. A chair including a horizontally-disposed frame including two parallel side members and a transversely-disposed front member, two oblong sheet metal props, each being pivotally connected at its ends to the opposed sides of the frame transversely thereto, said props being in a parallel, spaced relation to each other, a horizontal bar mounted on said props and hinged to each, the bar extending from the front member of the frame rearwardly, a channel member mounted upon the bar for a sliding longitudinal movement thereon, a seat mounted on the channel member, coil spring means at one end attached to one of the props and connected at the other end to the rear end of the channel member to pull the seat forwardly, a tongue at the front end of the channel member adapted to be engaged with the front member of the frame to keep the seat in a normally retracted position against the tension of said spring means, the props being adapted to be swung up from the pivotal connections to bring the seat to a level above that of the frame, and link means associated with the props and the frame, but disconnectable at one end, to hold the props in the upswung position.

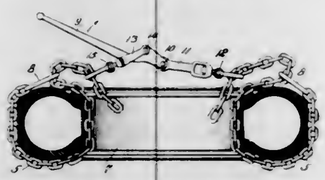
2,780,277
VERTICALLY ADJUSTABLE PEDESTAL STOOL
Edward J. Ries and George E. Christians, Rochester, N. Y., assignors to Ritter Company, Inc., Rochester, N. Y., a corporation of Delaware
Application June 27, 1952, Serial No. 295,916
6 Claims. (Cl. 155—94)

6. A stool comprising, in combination, a base, a tubular support rigidly secured to the base, a center post movable longitudinally with respect to the tubular support, a seat rotatably secured to the upper end of the center post, a member carried by said tubular support, means for releasably locking said member and center post with respect to each other to support said center-post in an adjusted longitudinal position with respect to said tubular support, a release element movably carried by the stool adjacent the base and spaced below said member for operation by the user, means comprising a sleeve connected to said release element and extending upwardly concentric with the tubular support for transmitting a releasing force applied to said release element to said locking means to enable upward or downward adjustment of the center post with respect to the tubular

support, said release element being in the form of an annular ring accessible to a user on the seat regardless

of the position of rotation of the seat with respect to the base.

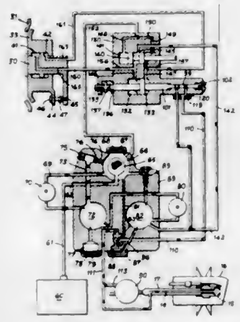
2,780,278
SAFETY GUARD FOR TIRE INFLATION
Otto Olsen, Brooklyn, N. Y., assignor to Regent Wire and Rope Works, New York, N. Y., a partnership
Application December 30, 1954, Serial No. 478,703
1 Claim. (Cl. 157—1)



A safety device for use in inflating tires comprising a pair of link chains, a ring secured to one end of each chain, the free end of each chain passing through the respective ring on that chain, a self-locking hand lever toggle assembly including a lever arm and a pair of toggle links secured thereto, a swivel hook secured to each of said toggle links whereby each hook may be pivoted and rotated relative to the associated toggle link, said hooks being engaged each with a link at the free end of one of said chains whereby the chains may be looped around diametrically opposite points of a tire and rim and be tightened therearound by operation of the hand lever of said toggle assembly.

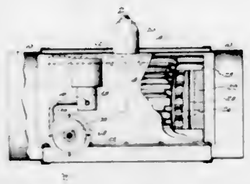
2,780,279
OIL BURNER HAVING VARIABLE OIL AND AIR CONTROL
Delmond L. Getz, Springfield, Ohio, assignor, by mesne assignments, to Kelsey-Hayes Wheel Company, Detroit, Mich., a corporation of Delaware
Application July 9, 1954, Serial No. 442,336
10 Claims. (Cl. 158—28)

1. A control system including an oil burner and means for varying the output capacity of said oil burner comprising means including a pressure chamber for supplying liquid fuel to the burner, blower means including an air inlet for supplying secondary air to the burner, a damper controlling said inlet, means supporting said damper for shifting movement between high and low limit positions to change the effective flow passage through said inlet, double acting hydraulic means for reversibly effecting said shifting movement of said damper, means for metering the rate of supply of liquid fuel from said pressure chamber to the burner including a control member supported for shifting movement between respectively high and low rate limit positions correlated with said high and low limit positions of said damper, additional double acting hydraulic means for reversibly effecting said shifting movement of said control member, and selectively operable means for connecting both said hy-



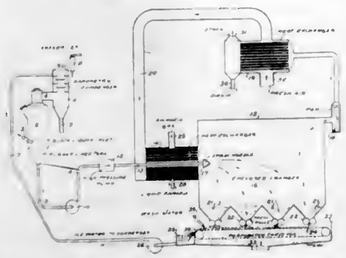
draulic means with said pressure chamber to cause simultaneous shifting movement of said damper and said control member to either their said high limit positions or their said low limit positions respectively with resulting simultaneous change in the rates of supply of liquid fuel and secondary air to the burner.

2,780,280
COMBUSTION HEATER OF THE FUEL VAPOR GENERATOR TYPE
Arthur C. Allen, Chicago, Ill., assignor to Stewart-Warner Corporation, Chicago, Ill., a corporation of Virginia
Application August 14, 1952, Serial No. 304,247
3 Claims. (Cl. 158—53)



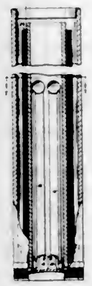
1. In a combustion heater of the generator type, means providing a burner plate having a multiplicity of passages therethrough, said passages forming a pattern covering an extensive area, means for supplying a vapor and air mixture to one side of said plate for passage through said passages, means for igniting said mixture at the other side of said plate, said vapor supplying means including a vapor generator of the heat absorbing type positioned on said other side of said plate and positioned to be heated by combustion of the vapor and air mixture passing through a minor portion of the whole pattern of said passages, a heat exchanger including passage means communicating with and heated by combustion of the vapor and air mixture passing through substantially all of said passages, means sensitive to the temperature of said heat exchanger and operative to reduce the flow of vapor and air mixture through said minor portion of said pattern without substantially affecting flow through the remaining portion of said pattern upon a rise in temperature of said heat exchanger above a predetermined value, the last said means including a bimetal strip on said one side of said plate in coextensive relation with said minor portion of said passages, said strip being adapted to deflect toward said plate when heated to reduce flow through said minor portion of said passages.

2,780,281
TREATMENT OF SULPHITE LIQUOR
Armin E. Reinert, Shawano, Wis., assignor of one-half to Herbert H. Clark, Oshkosh, Wis.
Application January 9, 1952, Serial No. 265,700
1 Claim. (Cl. 159—48)



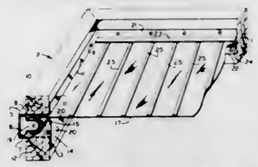
The method of continuously concentrating spent hot sulphite liquor delivered from paper mill digesters and which contains excess water, which method comprises, initially subjecting the hot liquor to a partial vacuum to remove some of the excess water in the form of vapor, thereafter subjecting the partially dehydrated liquor to high pressure and to low temperature and spraying the same through a restricted orifice into a confined space to convert the liquor into snow containing congealed water and concentrated sulphite liquid, mechanically separating the congealed water from the concentrated sulphite liquid, heat treating the congealed water to convert it into cold liquid water, and condensing the vapor initially removed from the hot liquor by subjecting said vapor in heat exchange relationship to cold liquid water obtained from said congealed water separated from the snow.

2,780,282
SCREEN STAND AND CASE
Herbert F. Cox, Jr., Syracuse, N. Y.
Application September 2, 1955, Serial No. 532,343
1 Claim. (Cl. 160—24)



A portable support and casing structure, for a roll screen of the type comprising flexible sheet screen material affixed along a marginal edge to a tubular member upon which such screen material is adapted to be rolled, said support and casing structure comprising a hollow elongated tubular casing closed at one end, and adapted at its open end and being of an internal diameter to receive the screen when in rolled up tubular form on the tubular member, said casing having threads on its open end, a cap for said casing having an annular threaded skirt formed thereon for telescopic threaded engagement with the threaded end of said tubular casing, central projections in said cap spaced from said skirt, and forming an annular cavity to receive the end of said tubular member and rolled screen, a plurality of leg members pivotally mounted at like ends to said projections close to the center of said cap, said leg members being movable from a position central of and extending parallel to the axis of said cap to a position extending substantially radially therefrom, axially deep slots in said skirt for each of said legs to project through when radially extended, said cap being cooperable with said tubular casing upon screw threaded attachment of the cap to said casing with said legs in radial position extending through said slots to rigidly secure said legs between the casing end and the bottom of said slots in the skirt of said cap at points along said legs radially spaced a substantial distance from the pivots of said legs, and said projections of said cap and said legs when said legs are disposed in parallel relation having an outside common diameter less than the inside diameter of the tubular member, whereby when the tubular member with the screen rolled thereon is telescoped over said legs and projections and the screen and legs thereupon inserted within said casing, said roll screen and tubular member act as a concentric guide for said legs and cap in advance of threading said cap upon the casing end.

2,780,283
SKYLIGHT CONSTRUCTION
Max Wasserman, Cambridge, Mass.
Application December 23, 1952, Serial No. 327,637
1 Claim. (Cl. 160—26)

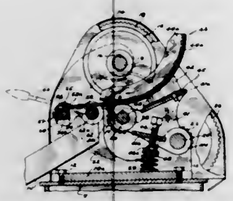


In a skylight construction having walls defining a well extending below a skylight, means for shutting out the light passing through the well comprising an opening formed in one of the walls intermediate its upper and lower terminal portion, a frame having a top, a bottom and a rear wall disposed in the opening, said rear wall closing the rear of the opening, an upwardly extending flange formed on the inner edge of the top wall of the frame and secured to the wall containing the opening immediately above the opening, a second flange formed on the inner edge of the bottom wall of the frame, said second flange having a front portion extending upwardly and terminating short of the top wall of the frame and having a second portion extending downwardly and secured to the wall containing the opening immediately below said opening, a roller mounted in the frame and carrying a curtain adapted to be drawn through the space between the top of the first portion of the second flange and the top wall of the frame and across the well, a number of reinforcing straps secured to and extending translationally across the full width of the curtain, a pair of horizontal flanges mounted on opposite walls of the well adjacent the wall containing the opening and defining tracks for the sides of the curtain and the ends of the reinforcing straps, and an additional pair of horizontal flanges mounted on the wall of the well opposite the frame adapted to support the forward end of the curtain when the curtain is drawn across the well.

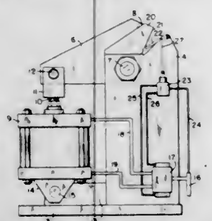
2,780,284
MACHINE FOR DEBONDING BRAKE SHOES
Andrew O. Wisti, Minneapolis, Minn.
Application July 19, 1954, Serial No. 444,031
4 Claims. (Cl. 164—39)

1. A machine for debonding brake shoes having in combination, a lower rotatable wheel, a pair of upper rotatable laterally spaced wheels of considerably larger diameter than said wheel, said upper wheels being disposed to engage the inner side of a bonded brake shoe, said lower

wheel engaging the outer side of the lining of said shoe, a guiding member having laterally spaced walls substantially engaging the sides of said shoe for guiding said shoe to said wheels, and a knife fixed in position and disposed at the side of said rollers opposite said guiding member having an edge parallel to the exterior surface of said shoe, said shoe being moved toward said knife by said rollers for separating the lining from the metal shoe.



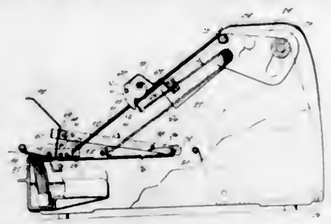
2,780,285
SHEAR CONTROL MECHANISM
Thomas B. Hudson, Jr., Pittsburgh, Pa., assignor to Curry Air Shear Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application August 18, 1954, Serial No. 450,641
1 Claim. (Cl. 164—41)



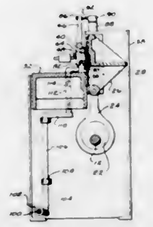
A control mechanism for a shear having a fixed cutting jaw, a movable cutting jaw, said jaws forming a V-shaped opening between them, a holddown forming with the fixed jaw a V-shaped opening spaced laterally of the opening formed by the jaws for receiving an elongated piece of indeterminate length to be cut at any desired length and power means for closing the jaws, said control mechanism comprising a lever pivoted adjacent the open end of the V-shaped opening between said fixed jaw and said holddown and extending across the opening and towards the apex of said opening, said lever also being positioned laterally of said opening whereby the piece to be cut can be placed in said openings at any desired point along its length and engage said lever and means connected to said lever and operated by movement of the lever to actuate said power means to close said jaws, said lever being moved when a piece to be cut is placed between the holddown and the fixed jaw.

2,780,286
TAPE SERVING MACHINE HAVING CUTTING MEANS
Everett E. Sharpe, Shelton, Conn., assignor to Better Packages Incorporated, a corporation of New York
Application January 21, 1954, Serial No. 405,304
2 Claims. (Cl. 164—43)

1. In a tape dispenser, a tape guide, means for feeding tape through the guide and over a ledger blade, a knife coacting with the ledger blade to shear the tape, a movable knife carrying support, a lever member pivoted to said support to which the knife is attached, a presser pad carried by the lever member and projecting forwardly of the pivot axis whereby manual pressure on said lever member will actuate the knife and simultaneously press it into engagement with the ledger blade during the cutting movement of the knife, and spring means for returning the knife carrying support to initial position, said spring means resisting movement of said support in a direction to permit the knife to sever the tape, whereby sufficient pressure must be exerted on the lever means to press the knife firmly against the ledger blade prior to and throughout the cutting stroke.



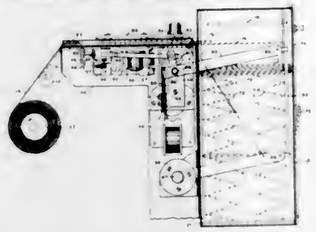
2,780,287
SHEAR
Louis E. Mueller, Detroit, Mich., assignor to The Rapid Electrotype Company, Cincinnati, Ohio, a corporation of Ohio
Application July 1, 1954, Serial No. 440,713
9 Claims. (Cl. 164—47)



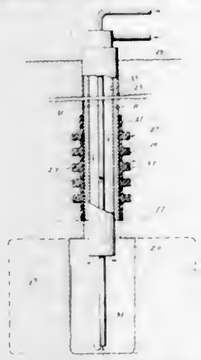
1. Shearing apparatus for shearing away relatively thin edge portions of a printing plate or the like, comprising a work supporting table having a shearing blade spaced rearwardly from the front of the table to provide a work supporting surface in front of said blade, means mounting said blade for shearing movement toward and away from said table, power means operably connected to said blade for reciprocating said blade in shearing strokes and terminating such strokes with said blade elevated above said table to provide for movement of sheet material across the work supporting surface of said table and beneath said blade, a movable control member spaced above said table directly in front of said blade, said control member having a lower edge closer to said table than said blade when said blade is in elevated idle position to provide for passage of thin portions of sheet material from front to rear beneath both said blade and member and actuation of said blade by engagement by a thicker portion of sheet material with said member.

2,780,288
FEEDING, CUTTING, AND STACKING STRIP MATERIAL
Armistead Wharton and Richard R. Dever, Rochester, N. Y., assignors to General Dynamics Corporation, a corporation of Delaware
Application September 1, 1955, Serial No. 532,072
15 Claims. (Cl. 164—49)

1. Material handling mechanism comprising a continuous length of material, means for imparting movement to said length of material, cutting means having a normal position in proximity to said material and effective when operated for severing a portion of said material after said material is advanced and then returning to its normal position, means for receiving said severed portion and including a pair of oppositely disposed elements in a position to receive and support a severed portion, means for advancing a severed portion into supporting relation with said elements, and means coupled to said cutting means for forcing said said portion between and beyond said elements only in response to said cutting means returning to its normal position after a completed operation thereof.



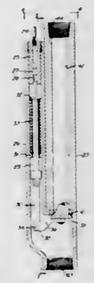
2,780,289
WELLS
Allen D. Garrison, Houston, Tex., assignor to Texaco Development Corporation, New York, N. Y., a corporation of Delaware
Application September 3, 1952, Serial No. 307,664
2 Claims. (Cl. 166—46)



1. A method for forming a fluid-tight seal between a well casing and the earth surrounding a hole drilled therein, which method comprises reaming a relatively long offset annulus in the wall of said hole, and a plurality of relatively short annular grooves extending outwardly from said long annulus at positions spaced from one another lengthwise of said hole; positioning said well casing in said hole and within said long annulus; and placing cement within said long annulus and said grooves between the walls thereof and the external wall of said casing, thereby forming a tubular cement seal having a plurality of longitudinally spaced annular flanges anchored in said earth and connected together with cement along the external wall of said casing.

2,780,290
SURFACE CONTROLLED SUBSURFACE TUBING PRESSURE SHUT-OFF VALVE
Paul J. Natho, Houston, Tex., assignor to Pan American Production Company, Houston, Tex., a corporation of Delaware
Application September 24, 1954, Serial No. 458,230
4 Claims. (Cl. 166—72)

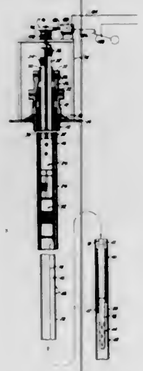
1. A control valve for use on subsurface tubing and controllable from the surface exterior of said tubing which comprises in combination an elongated housing, tubing threads at both ends of said housing for connecting said housing between spaced lengths of tubing, a flow channel extending substantially the entire length of said housing, the cross-sectional flow area of said channel being approximately equivalent to that of said tubing, a tubular pocket disposed laterally of said flow channel and fixed to the exterior of said housing, an enlargement in said housing below said flow channel providing a communication port between said channel and said tubular pocket, a flapper closure means pivotally mounted within said enlargement and movable across the lower end of said flow channel, longitudinally extending rod means movable within said pocket, a linkage connecting the lower end of said rod means with said pivoted closure means, a plunger means at the upper end of said rod means, a sleeve type cylinder threaded into the upper end of said pocket and accommodating said plunger means, spring means below said cylinder and within said pocket, an annular shoulder intermediate the ends of said pocket providing a stop for said spring means, said spring means normally raising said plunger means in said sleeve and urging said closure to an open position through said linkage, remotely controlled hydraulic controller means in fluid connection with said cylinder in said pocket, whereby application of hydraulic pressure to said plunger means compresses said spring and seats said closure in a shut-off position at the lower end of said flow channel, the said remote controller being automatically actuated in response to changes in temperature, pressure and wind velocity at the well head.



2,780,291
STORM CHOKE AND PACKER FOR DUAL-ZONE COMPLETION
Randolph E. Westling, Ridgewood, N. J., assignor to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application February 28, 1955, Serial No. 491,106
11 Claims. (Cl. 166—73)

1. Apparatus adapted for arrangement in the casing of a dual-zone well comprising an elongated body, a packer preventing flow between the outer wall of the body and the casing, a pair of passages extending downwardly through the body, a valve seat in each of the passages, a flapper valve in each of the passages mounted on a rotatable spindle, said flapper valves constructed and arranged for movement on rotation of the spindles to a position engaging the valve seat in the respective passages, a shaft extending downwardly within the casing from the surface of the well, gear means on the shaft, gear means on the spindles in engagement with the gear means on the shaft, means to rotate the shaft to move the flapper valves from a normal position in which the passages are fully opened to a closed position to engage the valve seats, a tubing extending from one of the passages in the

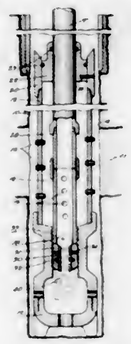
elongated body to the lower zone of the well, packing means engaging the tubing and casing preventing flow between the two zones of the well, and means for separately delivering production from the passages to the well head.



2,780,292
FORMATION TESTER
Otis T. Broyles, Houston, Tex., assignor of one-half to W. B. Taylor and one-fourth to Joseph R. Crump, Houston, Tex.
Original application June 16, 1949, Serial No. 99,500, now Patent No. 2,688,369, dated September 7, 1954. Divided and this application May 14, 1954, Serial No. 429,834
5 Claims. (Cl. 166—100)

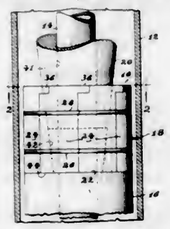
1. An apparatus for testing a formation traversed by a well bore having fluid therein, when attached to a string of pipe, including, a body, formation engaging means pivotally mounted on the lower end of said body, interconnecting fluid passages in said body and in said formation engaging means establishing fluid communication with the interior of the string of pipe, pressure equalizing means in the body including a pair of piston members linked together and adapted to move in opposite directions upon movement of one such piston member, a valve associated and movable with one such piston member normally closing said interconnecting passages, linkage connecting one of said pair of piston members for pivoting said formation engaging means into engagement with a side of said well hole, and means for moving one of said pair of piston members and thereby the valve to open position and the formation engaging means into engagement with the side of the well bore.

2,780,293
APPARATUS FOR SEALING A BOREHOLE LINER
Solis Myron Zandmer, Calgary, Alberta, Canada
Application May 18, 1953, Serial No. 355,769
6 Claims. (Cl. 166—100)



1. In combination with a liner to be sealed in a bore hole, said liner having a plurality of pressure operated duct-forming devices mounted in and movable outwardly through the wall of said liner to engage the wall of the bore hole; tubing removably attached to a lower portion of said liner for lowering said liner into the bore hole and establishing communication between the interior of said tubing and the annular space between said liner and the wall of the bore hole, said tubing including a lower portion within the liner and having ports through its wall, an annular member between an upper portion of said liner and said tubing defining with said liner and tubing an annular pressure chamber in communication with said tubing and said devices, releasable means securing said annular member to said liner and operated by pressure in said chamber against said annular member to release said annular member from said liner, an outer annular valve seat fixed in said liner below said ports, an annular valve seat within said outer valve seat, releasable means securing said inner valve seat within and to said outer valve seat and operated by pressure in said chamber against said inner valve seat to release said inner valve seat, and a valve member engageable with said inner valve seat, said releasable means for said annular member having a release pressure greater than the release pressure of said releasable means for said inner valve seat.

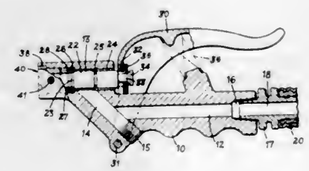
2,780,294
PACKER ASSEMBLY
Glenn L. Loomis, McAllen, Tex., assignor of one-sixteenth to John Stahl, one-sixteenth to Robert T. Elmore, one-twelfth to J. P. King, Sr., one-twelfth to J. P. King, Jr., one-twelfth to W. F. King, and one-eighth to the estate of Florence L. Stahl, deceased.
Application May 2, 1955, Serial No. 505,133
2 Claims. (Cl. 166—203)



1. In a packer assembly for use in a well casing or the like: said packer assembly including a cylindrically-shaped

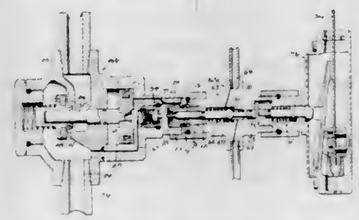
segmental expansible packing member, a packer head positioned at one end of said packing member and a tapered mandrel positioned at the other end of said packing member for expanding said packing member; said packing member having a retracted diameter substantially less than the diameter of the casing and comprising a plurality of outwardly movable arcuate segments having inner surfaces defining a tapered bore, outer sealing surfaces having a radius of curvature when said packing member is expanded substantially equal to the radius of curvature of the inside surface of the casing and endwise sealing surfaces; each of said arcuate segments of said packing member being provided with a circumferentially extending portion of less thickness than the segment and of less longitudinal length than the longitudinal length of the segment, each of said arcuate segments also having a recess oppositely disposed from and of a size complementary to the size of said circumferentially extending portion, said recess in each of said segments receiving said circumferentially extending portion of an adjacent segment so that the segments overlap each other forming longitudinal and radial sealing surfaces; resilient means circumscribing said arcuate segments for retaining them in position as a unit and normally urging them into a retracted abutting relationship with each other; said packer head having a circular cross-section with a maximum diameter substantially smaller than the diameter of the well casing, said packer head also having an end sealing surface, said end sealing surface of said packer head abutting said endwise sealing surfaces of the segments of said packing member; and said tapered mandrel and said packer head being movable relative to each other to cause said mandrel to engage the tapered bore of said packing member and expand the segments of said packing member outwardly into engagement with the inner surface of the well casing to form a fluid seal between the packer head and the inner surface of the well casing.

2,780,295
DIFFUSING TIP FOR DRY CHEMICAL FIRE EXTINGUISHER
Wilbert L. Harris, Dayton, Ohio, assignor to The Fyr-Fyter Company, Dayton, Ohio, a corporation of Ohio
Application March 10, 1955, Serial No. 493,429
7 Claims. (Cl. 169—1)



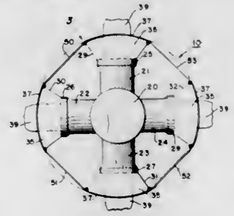
1. A diffuser tip for use in a dry chemical fire extinguisher comprising a body having a face at one end thereof and a bore extending from the other end to adjacent said face, said face having a diffusing slot therein communicating with said bore, the upper and lower walls of said slot being substantially parallel to each other and terminating along parallel lines spaced across the end of said bore by a distance less than the diameter of said bore to provide shoulders at the adjacent end of said bore on either side of said end of said slot and extending substantially transversely of said bore for creating turbulence in the gas-entrained stream of comminuted chemical material issuing from said tip, and the lateral walls of said slot divering from said end of said bore to said face relative to each other for dispersing said material in a continually laterally widening spray pattern.

2,780,296
FLUID DISPENSING SYSTEM
Henry E. Heigis, Nutley, N. J., assignor to Specialties Development Corporation, Belleville, N. J., a corporation of New Jersey
Application January 19, 1953, Serial No. 332,065
4 Claims. (Cl. 169—11)



1. In a fluid distributing system, a main discharge conduit; a normally closed valve in said conduit having an inlet and an outlet directly connected to said conduit, and including a cylinder, a piston in said cylinder for opening the valve, and a normally closed pilot valve, provided with a housing, for controlling the admission of fluid under pressure from said main conduit to said cylinder; an auxiliary conduit; a valve body having a through bore provided with a valve seat and having an inlet and an outlet communicating respectively with said bore at opposite sides of said seat and directly connected to said auxiliary conduit, said valve body having one end detachably connected to said pilot valve housing; a valve member in said bore for said valve seat normally preventing fluid flow communication between said valve body inlet and outlet; a stem at one side of said valve member extending outwardly of said bore and having its free end adjacent said pilot valve for effecting opening thereof; means providing a seal between said stem and said bore; a second stem at the opposite side of said valve member extending outwardly of said bore; and a control head detachably connected to the other end of said valve body having an element structurally independent of said second stem for engaging said second stem to actuate the same, whereby said valve member is unseated to establish communication between said inlet and outlet of said valve body and said first stem effects opening of said pilot valve.

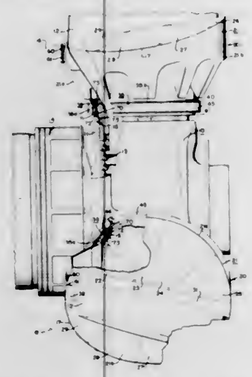
2,780,297
SPINNER CONSTRUCTION
Thomas Barish, Cleveland, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 11, 1954, Serial No. 415,541
12 Claims. (Cl. 170—159)



1. A spinner construction for a rotatable propeller having a hub with a plurality of radially extending sockets and a plurality of blades retained in said sockets, including in combination, a rib structure attached to each hub socket, a cover portion connected to each rib structure having an opening through which the blade projects, said cover portion having an arcuate configuration, and a plurality of thin metal spinner sectors capable of elonga-

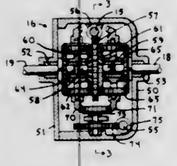
tion under stress within the elastic limit of the metal of which the sectors are composed, said sections having their ends operatively connected to said cover portions and arranged to elongate and bulge outwardly due to stress imposed thereon by the thrust of centrifugal force during rotation of the propeller to form a substantially cylindrical spinner periphery.

2,780,298
BLADE SEAL ASSEMBLY
Thomas Barish, Cleveland, Charles F. Irwin, Tipp City, Russel E. Line, Dayton, and Clifford B. Wright, Tipp City, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 1, 1954, Serial No. 413,102
9 Claims. (Cl. 170—160.23)



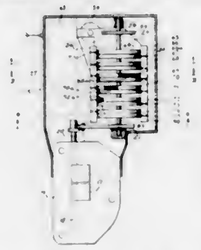
1. In an aircraft propeller having a hub and a plurality of blades journaled in said hub for pitch adjustment, said propeller hub being enclosed by a spinner having cutouts through which said blades project, a blade seal assembly for said cutouts comprising two subassemblies of identical construction, each subassembly comprising a semi-cylindrical shell section, a plurality of segments attached to said shell section, a blade seal member attached to said segments, and a semi-cylindrical ring section interconnected with said shell section, said segments, and said blade seal member; means for joining the shell sections to form an annular shell; means supporting each semi-cylindrical ring section for rotation about said hub; and means for clamping said ring sections together and thereby support said blade seal on said hub.

2,780,299
VEHICLE STEERABLE DRIVE GEAR
Carl G. Matson, Kewanee, Ill.
Application May 21, 1954, Serial No. 437,761
2 Claims. (Cl. 180—6.28)



1. Vehicle differential drive and steering gearing comprising in combination, a source of power, a pair of rotatable axles adapted to be driven by said source, and gearing interposed between said source and said axle; said gearing comprising, a first pair of gears, a pair of planetary gear sets meshing with said first pair of gears, one of said gears of one of said pairs of gearing being connected to one of said axles, and the other of said gears of said one of said pairs of gearing being connected to the other of said axles, a first input gear drivingly connected with said source and said pair of planetary gear sets, a second input gear connected between one of said pairs of gearing to drive one of same relatively with respect to the other; and control means including steering means connected with said second input gear to drive the same in response to steering movement.

2,780,300
REMOTE VARIABLE CONTROL OF VEHICLE SPEED
Millard L. Beyer, Hempstead, N. Y.
Application August 9, 1955, Serial No. 527,267
6 Claims. (Cl. 180—82.1)

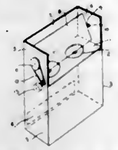


1. A speed control apparatus for a vehicle comprising a radio receiver, a unitary housing adapted to be positioned adjacent the engine of said vehicle and adapted to be sealed in closed condition, a speed governor in said housing and connected to said engine to control the speed thereof, cam means in said housing for adjusting the speed limit of said governor, driving means for said cam means, means for stopping said driving means at predetermined angular positions of said cam means, and means in said housing connected to said radio receiver and responsive to different signals received thereby for operating said stopping means so as to stop said cam means at respective different angular positions thereof.

2,780,301
APPARATUS FOR SEISMICALLY EXPLORING GEOLOGICAL FORMATIONS UNDER WATER
John J. Jakosky, Los Angeles, Calif., assignor, by direct and mesne assignments, of forty percent to International Geophysics, Inc., Los Angeles, Calif., a corporation of California, and sixty percent to Signal Oil and Gas Company, a corporation of Delaware
Application June 19, 1952, Serial No. 294,361
4 Claims. (Cl. 181—.5)

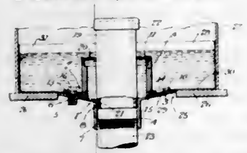
1. Apparatus for exploring under water geological strata comprising a length of cable, a bouyant projectile-propelling mortar secured to said cable intermediate the ends of the latter, float members attached to said cable at longitudinally spaced points therealong, a spread of seismic wave detectors connected to and suspended from said cable at equidistantly spaced points therealong at each side of said mortar, and means for towing said cable along the surface of a body of water.

2,780,302
ACOUSTIC VIBRATO DEVICE FOR ELECTRONIC ORGAN
Thomas J. George, Los Angeles, Calif.
Application August 8, 1955, Serial No. 527,013
15 Claims. (Cl. 181—31)



1. In a tone cabinet for an electronic organ, a baffle enclosure, a speaker, a rotor for influencing sound from said speaker, means for rotating said rotor, said rotor comprising a main deflecting means, and a secondary deflecting means, said main deflecting means operating to produce a vibrato beat of one intensity, said secondary deflecting means operating to produce a secondary vibrato beat of lesser intensity.

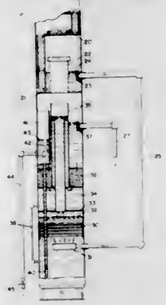
2,780,303
DEVICE FOR TESTING BATH CABINET SHOWER PANS FOR LEAKAGE
Morris Yavitch, Los Angeles, Calif.
Continuation of application Serial No. 626,662, November 5, 1945. This application July 9, 1951, Serial No. 235,690
2 Claims. (Cl. 182—31)



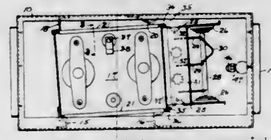
1. The combination of a shower drain including a base member formed with an outlet nipple to which a drain pipe may be connected, a shower pan provided with a central opening, said shower pan being placed upon said base member with the opening therein coinciding centrally with said outlet nipple, a clamp member formed with an integral flange base and a drain inlet receptacle upstanding from said flange base, said receptacle being substantially larger in diameter than said outlet nipple, said clamp member being placed with its flange base resting upon the bottom wall of said shower pan, means for securing said flange base and the bottom wall of said shower pan to said base member, said clamp member being provided with drain outlet means leading from the exterior of the lower end of said drain inlet receptacle into the lower end of said receptacle, an open-ended tubular test pipe, means for removably securing the lower end of said test pipe to said outlet nipple, the other end of said open-ended test pipe extending through and above said drain inlet receptacle, and a collar slidably fitted on the test pipe for covering the upper end of the drain inlet receptacle, whereby the shower pan can be tested for leaks and the plumbing below the shower pan can be simultaneously flushed.

2,780,304
TREATMENT OF CRUDE OIL
James E. Pew, Malvern, Pa., and Charles W. Hayes, Houston, Tex., assignors of one-half to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey, and one-half to Black, Sivalls and Bryson, Inc., Kansas City, Mo., a corporation of Delaware
Application March 2, 1954, Serial No. 413,528
3 Claims. (Cl. 183—2.7)

1. Method for demulsifying crude petroleum and distilling therefrom a specified hydrocarbon constituent while retaining in the demulsified oil a major proportion of the next higher boiling hydrocarbon constituent which comprises feeding the emulsified crude oil into the top of an elongated column having a series of vapor-liquid contacting sections separated by horizontal perforated trays, flowing downwardly through the column liquid consisting essentially of the emulsified crude oil constituents and passing such liquid into a demulsifying zone, heating the liquid constituents to effect separation of aqueous and hydrocarbon phases and to evolve hydrocarbon gas, passing evolved gas upwardly in said column for countercurrent contact with the downflowing liquid in said series of contacting sections, maintaining in said column conditions of temperature and pressure effective to fractionate between said specified hydrocarbon constituent and the next higher boiling hydrocarbon, withdrawing a gaseous stream containing said specified hydrocarbon constituent from the top of said elongated column and separately withdrawing water and demulsified oil containing said next higher boiling hydrocarbon from said demulsifying zone.



2,780,305
ELECTROSTATIC PRECIPITATORS
Richard T. Bonatz, Norwood, Mass., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application December 1, 1953, Serial No. 395,454
5 Claims. (Cl. 183—7)

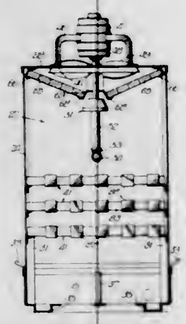


1. An electrostatic precipitator comprising a casing having a gas inlet and a gas outlet, an access panel for attachment to a side wall of said casing extending between said inlet and outlet, said casing having a lower wall with cell supporting rails thereon extending from adjacent said side wall to adjacent the opposite side wall, a collector cell slidably supported on said rails, ionizer supporting members extending from the top and bottom of the upstream end of said cell towards said inlet and between said side walls, and an ionizer assembly slidably supported by said members, said cell and assembly being insertable into and removable from said casing through said one side wall when said access panel is removed.

2,780,306
COOLING TOWER
John R. Boyle and John R. Boyle, Jr., Chicago, Ill.
Application August 31, 1953, Serial No. 377,502
12 Claims. (Cl. 183—14)

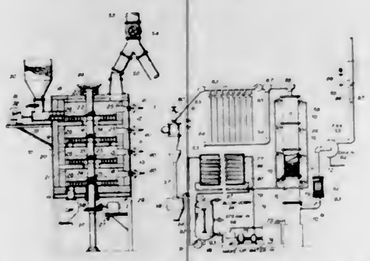
1. In a cooling tower of the class described, the combination of a spray chamber, air impelling means for

circulating air through said chamber, an electric motor for driving said air impelling means, a water supply header for supplying water to said chamber, a rotary conical spinner driven by said motor receiving the water from said header, and a water suspension cell in said chamber



receiving the spray water from said rotary conical spinner and through which the impelled air is adapted to pass, said water suspension cell comprising an open frame, and a tubular band of woven plastic material wrapped spirally around said frame with the edges of adjacent convolutions spaced from each other.

2,780,307
RECOVERY OF ELEMENTAL SULPHUR FROM A GAS SYSTEM
Merrill W. MacAfee, Los Angeles, Calif., assignor to Pacific Foundry Company, Ltd., San Francisco, Calif., a corporation of California
Application May 28, 1953, Serial No. 358,008
9 Claims. (Cl. 183—32)

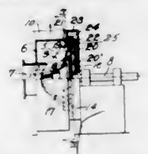


1. In the recovery of sulphur vapor from a hot gas stream having a temperature in the neighborhood of the boiling point of sulphur, the improvement which comprises cooling the gas stream to a temperature not lower than about 540° F. by indirect heat exchange, scrubbing the cooled gas stream with molten sulphur moving concurrently to the gas stream, then swirling the gas stream to throw entrained sulphur out of it by centrifugal action, and thereafter removing additional sulphur from the stream by passing it through a porous solid medium.

2,780,308
COMPOSITION FOR COATING AIR FILTERS
William B. Mullin, Alhambra, and Charles E. Painter, Whittier, Calif., assignors, by mesne assignments, to Socony Mobil Oil Company, Inc., a corporation of New York
No Drawing. Application December 22, 1953, Serial No. 399,830
4 Claims. (Cl. 183—44)

1. A filter for removing suspended materials from a gaseous stream which comprises: a chamber provided internally with a large area of surfaces interposed in the path of a gaseous stream directed through said chamber, and an adhesive coating upon said surfaces consisting of 5 to 25% of microcrystalline petroleum wax having a melting point of at least about 150° F. and an oil having a viscosity of between 40 and 100 seconds Saybolt Universal at 210° F. and having a flash point of at least 350° F.

2,780,309
DEVICES FOR REMOVING DUST AND OTHER IMPURITIES FROM AIR, FUNNEL SMOKE AND OTHER GASES, ESPECIALLY GASES FROM CHEMICAL AND ELECTROCHEMICAL MANUFACTORIES
Tor Björn Loftheim, Oslo, Norway
Application June 30, 1952, Serial No. 296,422
Claims priority, application Denmark December 10, 1948
3 Claims. (Cl. 183—77)

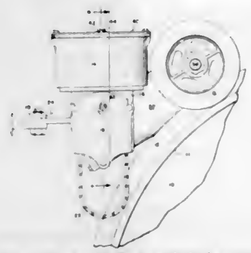


1. A rotary apparatus for separating solid particles from gas comprising a stationary casing, a rotor in said casing having a set of radially extending primary blades angularly spaced apart and forming between them primary passages and primary outlets from said primary passages for purified gas at the periphery of said rotor, a second set of substantially radially arranged blades forming secondary passages rotating with said first-mentioned blades, partition means between said primary and secondary blades and passages provided with narrow slits connecting said primary passages with said corresponding rotating secondary passages and through which part of the gas and a large part of the solid particles to be separated pass into said secondary passages by a force created by said secondary blades and acting against the centrifugal force of said primary blades, means forming a rotating secondary outlet communicating with said secondary passages, said secondary outlet forming means having an exterior edge arranged rotatably on said rotor between each of said secondary blades and its adjacent blades at a diameter at least equal to that of the periphery of said rotating primary outlets.

2,780,310
PURIFICATION OF GASES WITH SHAPED PURIFYING MATERIALS
Franz Schaub, Oberhausen-Holten, Germany, assignor to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany, a corporation of Germany
Application November 1, 1951, Serial No. 254,261
Claims priority, application Germany November 8, 1950
2 Claims. (Cl. 183—114.2)

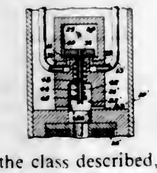
1. In a method in which sulfur is removed from a gas by contact of the gas with a molded desulfurization material, the improvement which comprises establishing a substantially vertical contact zone, substantially continuously passing such a molded, desulfurization material having a grain size of about 5–10 mm. downward through said zone in the form of a substantially steadily downwardly moving non-eddying gravity bed, passing said desulfurization material over at least one downwardly inclined material support surface in said zone, said material support surface allowing the passage of gas therethrough, and substantially continuously passing a sulfur-containing gas to be desulfurized upward through said zone and said material support surface in counter-current flow contact with said material at a flow velocity of about 20–80 cm. per second, said flow velocity being sufficient to substantially reduce the downward pressure and weight of said material without substantially impeding the downward flow thereof and without causing eddying.

2,780,311
RAIL AND FLANGE LUBRICATOR
Charles L. Stidd, Portland, Oreg., assignor to Rail Flange Lubricator Co., Portland, Oreg., a corporation of Oregon
Application January 10, 1955, Serial No. 480,832
5 Claims. (Cl. 184—3)



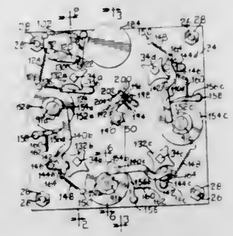
4. In a rail and wheel flange lubricator, a rigid housing, a sprocket wheel located in one end of said housing, a lubricant chamber in said end of said housing, an endless chain applicator riding over said sprocket wheel and extending down below said housing, an operating contact wheel carried at the opposite end of said housing, the axes of said sprocket wheel and said contact wheel being parallel, said contact wheel adapted to ride on a vehicle wheel and said chain applicator adapted to contact the flange of said vehicle wheel when said lubricator is mounted on the vehicle, means in said housing connecting said contact wheel with said sprocket wheel, and means for supporting said housing on the vehicle, said housing mounted in said supporting means for rocking on an axis substantially parallel to the axes of said sprocket wheel and said contact wheel.

2,780,312
ELECTRO-MECHANICAL LUBRICANT DISTRIBUTOR
Bernard Jules Ernest Lebocey, Troyes, France, assignor to Daniel I. Glossbrenner, Indianapolis, Ind.
Application July 23, 1954, Serial No. 445,393
Claims priority, application France November 30, 1953
7 Claims. (Cl. 184—26)



1. In a device of the class described, a liquid reservoir, a pump body received in said reservoir and formed to provide a pump chamber and an auxiliary chamber separated from said pump chamber by a perforated web, said body further being formed with a passage normally providing open communication between the interiors of said reservoir and of said pump chamber, and said pump body further being formed to provide an outlet port opening through the floor of said auxiliary chamber, a piston mounted for reciprocation in said pump chamber and normally occupying a position remote from said web, a valve mounted for reciprocation in said auxiliary chamber and having a tubular stem penetrating the perforation in said web and having its distal end disposed in the path of said piston, spring means cooperating with said valve to hold the same resiliently in closing relation to said outlet port, and an electric motor comprising an electromagnetic coil and a core reciprocable therein, said core being operatively connected to said piston to shift the same, upon energization of said coil, toward said web.

2,780,313
SPRING MOTOR
Brewster P. Middlestetter, Lewisburg, Ohio
Application January 10, 1955, Serial No. 480,872
8 Claims. (Cl. 185—9)

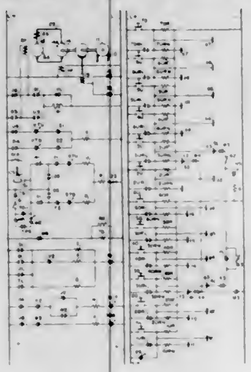


1. A spring motor assembly comprising support structure, a drive shaft rotatably carried by the support structure, a plurality of spring motors carried by the support structure, each of the spring motors being rotatably mounted upon a separate shaft, axes of all the shafts being parallel to the drive shaft, a plurality of ratchet gear members, there being one ratchet gear member operably connecting each spring motor to the drive shaft, latch means disposed between adjacent spring motors for retaining the spring motors from operation and for providing in seriatim operation of the motors, timing means operable by each spring motor for actuation of an adjacent latch means, brake means attached to the drive shaft for controlling operation thereof, and winding means attached to each spring motor.

2,780,314
MULTIPLE-MODE ELEVATOR CAR SYSTEM
John Suozzo, Paramus, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 17, 1954, Serial No. 416,872
18 Claims. (Cl. 187—29)

18. In an elevator system, a structure having a pair of terminal floors and a plurality of intermediate floors located between the terminal floors, an elevator car, means mounting the elevator car for movement relative to the structure to serve the floors, motive means for moving the elevator car, and control means cooperating with the motive means to move the elevator car and to stop the elevator car at desired floors of the structure, said control means comprising first call means operable from each of the intermediate floors for registering calls for elevator service in a first direction, second call means operable from each of the intermediate floors for registering calls for elevator service in a second direction, third call means

operable for registering calls for floors desired by passengers within the elevator car, stopping means effective for stopping the elevator car at each floor approached by the elevator car for which a call is registered by the call means which may be answered by the elevator car without change in the direction of travel of the elevator car, start-initiating means effective when in operated condition for initiating a starting operation of the elevator car from any of the floors at which the elevator car is stopped, direction-determining means for conditioning the elevator car for a first travel in a first direction at least to the



farthest floor in the first direction for which a call for elevator service is registered by the call means, and transfer means responsive to occurrence of a predetermined condition while the elevator car is traveling in the first direction to answer a call registered by the third call means for a floor displaced in the first direction from a predetermined floor for reversing said elevator car at the last-named floor and expressing the elevator car in the second direction to said predetermined floor even though a call is registered by the second call means for a floor intermediate the floor at which said reversal occurs and said predetermined floor.

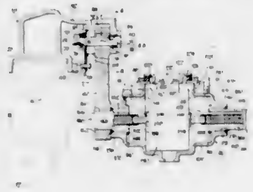
2,780,315
ANTI-SKID APPARATUS FOR VEHICLES
Luther Robinson, Pittsburgh, Pa.
Application November 2, 1955, Serial No. 544,448
8 Claims. (Cl. 188—4)

1. A traction device for wheeled vehicles, comprising a tire that has an area which extends in a generally sloping direction from the road-engaging area of the tread to the side wall of the tire, an anti-skid disc rotatably supported from the vehicle, on an inclined axis, the upper face of the disc having a circular row of radially-extending rib-like elements in position to engage the said sloping area, anti-skid protuberances on the lower face of the disc adjacent to its periphery, in position to engage a roadway when said row of radially-extending rib-like elements engage said sloping area, means mounting the disc for movement toward and from the wheel, means positively limiting the movement toward the wheel to a position where the periphery of the disc is approximately at the line where the road-engaging area of the tire tread and the said sloping area meet and the rib-like elements are pressed against the sloping area, and means for producing said movement.

2,780,316
BRAKE HEAD ASSEMBLY
Fred E. Bachman, Granite City, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application March 20, 1952, Serial No. 277,678
10 Claims. (Cl. 188—59)

1. In a brake head assembly, a brake lever, a brake head having spaced lugs straddling said lever, a guide member having a body portion engaged against the brake head, a flange on said body portion engaging one of said lugs, said lever, lugs and flange having aligned apertures, a pivot pin extending through said apertures and having a head spaced from said flange, a spring sleeved over said pin and compressed between said flange and said pin head, abutment means including a sleeve secured on said pin, means engageable by said sleeve to prevent movement of said pin head away from said flange to maintain said spring under compression, and a stop lug on said body portion engageable by said pin head during movement of the latter away from said flange upon removal of the sleeve from said pin.

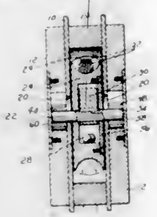
2,780,317
ROTOR BRAKE SUSPENSION
Fred E. Bachman, Granite City, Ill., and Joseph E. Klausner, Overland, Mo., assignors to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application February 28, 1952, Serial No. 273,972
12 Claims. (Cl. 188—59)



1. In a brake arrangement for a railway car truck comprising a wheel and axle assembly, a frame member supported by said assembly; the combination of at least one brake rotor connected to said assembly, a housing pivotally connected to the frame member adjacent said rotor, braking means supported by the housing having brake levers carrying friction means and embracing said rotor, actuating means disposed within the housing slidably engaging said brake levers and operative to move said brake levers, and a flexible suspension supporting said actuating means from said housing.

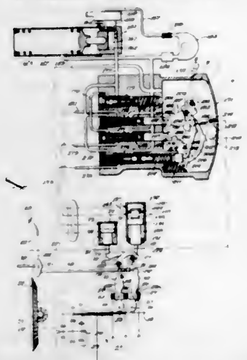
2,780,318
SAFETY BLOCK
Roy A. Owens, Des Moines, Iowa
Application October 11, 1955, Serial No. 539,737
10 Claims. (Cl. 188—65.1)

1. In a safety block; a frame; an axle slideably mounted in said frame; a hollow sheave journalled on said axle; a brake shoe fixed to said frame near said sheave; fixed racks secured to said frame near the ends of said axle; gears engaging said racks and fixed to said axle; a rotor arm fixed to said axle and positioned within



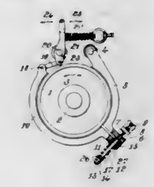
said hollow sheave; and means also in said hollow sheave operative under the influence of centrifugal force to connect said rotor to said sheave at a predetermined speed for said sheave.

2,780,319
BRAKE MECHANISM
William O. Bechman and Harry A. Land, Chicago, and David B. Baker and William W. Henning, Riverside, Ill., assignors to International Harvester Company, a corporation of New Jersey
Original application April 19, 1950, Serial No. 156,764, now Patent No. 2,716,907, dated September 6, 1955. Divided and this application November 9, 1953, Serial No. 390,962
9 Claims. (Cl. 188—72)



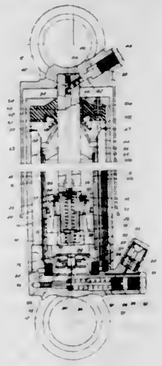
5. In mechanism for selectively braking coaxial axially-spaced brake disks disposed in a casing having opposite side walls on opposite sides of the common axis of said disks and an end wall extending between such side walls, a frame extending between two of the disks and having ends mounted upon said opposite walls of the casing, a yoke disposed between a side of said frame and a face of one of said disks and having its legs pivotally mounted upon end portions of said frame to facilitate rocking of the yoke about an axis extending transversely of the disk axis, a friction shoe embraced by legs of said yoke and pivotally mounted thereon about an axis extending in parallelism with the pivot axis of said yoke while disposed in opposed contiguity with said disk face, the casing end wall having a friction face in opposed contiguity with the opposite face of said disk, said yoke being adapted to compress the one disk between said shoe and the friction face of the casing end wall pursuant to being rocked toward such wall, said frame having a friction face on the opposite side thereof in opposed relation of one side of a second of said brake disks, a second yoke disposed on the opposite side of the second disk and having its legs pivotally mounted in the end portions of said frame to facilitate rocking of this yoke about an axis in parallelism with that of the first yoke, a second friction shoe embraced by the legs of the second yoke and pivotally mounted thereon about an axis in parallelism with the pivot axis of said yoke, and the second shoe being operable complementally with the friction face of the frame to compress a segment of the second brake disk therebetween pursuant to rocking of the second yoke toward the frame.

2,780,320
MECHANICAL BRAKE WITH DIVIDED BRAKE BAND
Herman Walter, Goppingen, Wurttemberg, Germany, assignor to L. Schuler A.-G., Goppingen, Wurttemberg, Germany
Application June 27, 1951, Serial No. 233,725
Claims priority, application Germany June 29, 1950
4 Claims. (Cl. 188—77)



1. A brake comprising a brake drum, a brake band subdivided into at least two sections and extending around the brake drum with one end of the band fixed to a stationary point and the other end of the band fixed to a brake actuator, the ends of the band sections facing each other at the dividing point of the brake band and each provided with a radial lug, a bolt fixed to the lug of one band section and extending through a hole in the adjacent lug of the other band section and projecting beyond said last-mentioned lug, the end of the bolt projecting beyond the last-mentioned lug having an abutment, and a spring arranged around the bolt between the last-mentioned abutment and the last-mentioned lug.

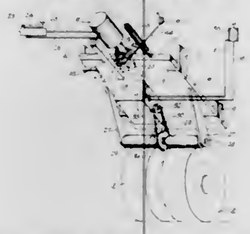
2,780,321
ADJUSTABLE SHOCK ABSORBER
Chermino Sturari, Milan, Italy
Application January 7, 1953, Serial No. 330,010
Claims priority, application Italy January 15, 1952
12 Claims. (Cl. 188—88)



1. A shock absorber comprising, in combination, a cylinder member formed with a cylinder chamber and with a reservoir chamber for receiving operating fluid and with conduit means connecting one end of said cylinder chamber with said reservoir chamber, said cylinder

member being formed with a bore opening on the outer surface thereof; a piston member including a piston head slidably mounted in said cylindrical chamber, and a piston rod projecting out of said cylinder member, said piston head defining in said cylindrical chamber two chamber portions, said piston members being formed with a passage means connecting said chamber portions; adjustable valve means in said conduit means for adjusting the cross section thereof and thereby the amount of operating fluid flowing between said cylindrical chamber and said reservoir chamber; and operating means including a set of balls mounted in said bore of said cylinder member, the innermost ball of said set of balls being connected to said adjustable valve means; and adjusting means mounted on said cylinder member and having a portion located in said bore and engaging the outermost ball of said set of balls so that said adjustable valve means may be adjusted while the shock absorber is mounted on a vehicle.

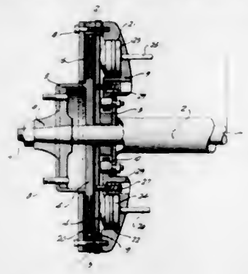
2,780,322
MOTOR VEHICLE HYDRAULIC BRAKE SYSTEM
Joseph C. Hickle, Fairbank, Pa.
Application July 16, 1954, Serial No. 443,791
1 Claim. (Cl. 188—90)



In a motor vehicle, a braking system comprising a carriage having longitudinally extending parallel side edge portions, bracket means on the vehicle supportingly engaging said side edge portions and being arranged to slidably support said carriage for longitudinal movement toward and from a wheel of the vehicle, a roller carried by said carriage, a fluid pump mounted on said carriage, means drivingly coupling said roller to said pump, a control valve mounted on the vehicle, a fluid circuit connected to said pump and including said control valve, said control valve being arranged to provide a controlled amount of restriction in said fluid circuit, fluid pressure means including a foot pedal actuator on the vehicle arranged to move the carriage toward the wheel responsive to operation of said foot pedal actuator, spring means biasing said carriage away from the wheel, ratchet means arranged to secure said carriage in a position wherein said roller is in driving engagement with said wheel, said ratchet means including a longitudinal ratchet bar on the vehicle and a pawl pivoted to the carriage and being lockingly engageable with said ratchet bar, and a release member mounted on the vehicle adjacent said foot pedal actuator and being operatively connected to said pawl.

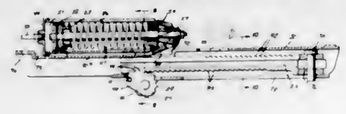
2,780,323
VEHICLE BRAKE CONSTRUCTION
Toby T. Cagle, Long Beach, Calif.
Application October 18, 1952, Serial No. 315,512
3 Claims. (Cl. 188—152)

1. A vehicle brake construction comprising the combination of a vehicle axle and a stationary mounting means on the axle, of a body, means mounting said body on the mounting means, a rotatable disc mounted on said axle, a cup projecting from the rotatable disc and wheel studs projecting from the cup, a nonrotatable disc, means mounting the nonrotatable disc on said body for horizontal movement relative to the body, a second stationary disc, means fixedly attaching the second stationary disc to said body, said stationary disc and nonrotatable disc being positioned one on each side of the rotatable disc,



said body having a cylinder therein, a piston in said cylinder, said piston bearing against the first named nonrotatable disc, and a hydraulic conduit extending into the cylinder.

2,780,324
COMBINED MANUAL AND AUTOMATIC SLACK ADJUSTER FOR THE FOUNDATION BRAKE RIGGING OF RAILWAY FREIGHT CARS
Charles M. O'Boyle, Wilmington, Del.
Application September 14, 1951, Serial No. 246,638
17 Claims. (Cl. 188—196)

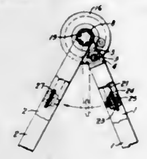


10. A slack adjuster for the foundation brake rigging of railroad cars, comprising a housing having vertical and horizontal slots, a lever projecting through the horizontal slots, a rack bar movable in the housing and attached to the lever, a pawl engaging the rack bar, the housing having elongated trunnion bearings adapted to receive the pawl permitting linear movement of the pawl in relation to the housing when the pawl is rotated toward release position.

2,780,325
OIL WELL MAST GIN POLE
Homer J. Woolslayer, Charles D. Iddings, and Cecil Jenkins, Tulsa, Okla., and Erwin A. Campbell, Wexford, Pa., assignors to Lee C. Moore Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application October 9, 1953, Serial No. 385,252
5 Claims. (Cl. 189—16)

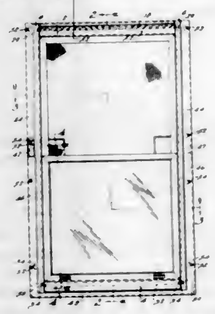
1. The combination with an oil well mast gin pole having a head and a foot, a base, and means on the base pivotally supporting the foot of the gin pole, the head of the gin pole being formed to receive a cable for raising and lowering it; of a jointed brace below the head of the gin pole and normally holding the pole in a predetermined inclined upper position, said brace comprising a pair of substantially aligned links having inner ends hinged together for movement forward away from the gin pole, means pivotally connecting the outer end of one of the links to the head of the gin pole, means on the base in front of said foot-supporting means pivotally supporting the outer end of the other link, a lug member on the front of the inner end of one of the links, a projection member on the front of the inner end of the other link engaging the lug member, a latch pivotally connected to the inner end of one of the links and shaped to hook over the said member on the other link to normally keep the links from swinging forward away from said gin pole, a spring urging the latch toward the links, and means for pulling the latch away from said lug member and projection member to permit the links to swing forward so that the head of the gin pole can swing downward.

2,780,326
OIL WELL MAST GIN POLE
Homer J. Woolslayer, Charles D. Iddings, Paul E. Borg, and Cecil Jenkins, Tulsa, Okla., assignors to Lee C. Moore Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application November 27, 1953, Serial No. 394,698
6 Claims. (Cl. 189—16)



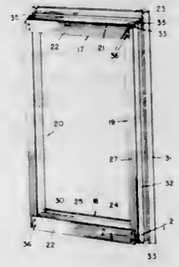
1. An oil well mast gin pole comprising laterally spaced front legs and laterally spaced rear legs, means connecting the upper end of each front leg to the upper end of the leg behind it, each pair of connected legs diverging downward, a truss between the upper portions of said pairs of legs and having a top longitudinal member, means pivotally supporting said member on a horizontal axis to permit the truss to be swung from a position between said front legs to a position between said rear legs, means for detachably connecting the opposite ends of the bottom of the truss to the front legs, and means on the rear legs for connection to the bottom of the truss when it is swung back to them.

2,780,327
WINDOW FRAME CONSTRUCTION
Gunnar V. Carlson, Detroit, Mich., assignor to Wisco Aluminum Corporation, Detroit, Mich., a corporation of Michigan
Application April 29, 1953, Serial No. 351,806
12 Claims. (Cl. 189—75)



1. A window frame comprising a formed metal top member of hollow cross section having a transverse web at substantially the middle thereof and extending longitudinally therethrough, a formed metal bottom member, a pair of formed metal side members having the ends thereof of abutting the ends of said top and bottom members, and means detachably fastening said side members at the ends thereof to the transverse web of said top member and to the bottom member to form a solid and rigid structure.

2,780,328
WINDOW-FRAME ELEMENTS
Ervin Yoder, Hialeah, Fla., assignor to Ware Laboratories, Inc., Miami, Fla., a corporation of Delaware
Application February 14, 1955, Serial No. 487,760
5 Claims. (Cl. 189—75)



1. A window frame comprising horizontal top and bottom members and vertical side members, the top and bottom members each being of general U-section channel form with their open sides facing toward the interior of the frame, the front side wall of each of the top and bottom members having a longitudinal flange extending rearwardly from its inner edge, said flange terminating at each end a short distance inwardly of the corresponding end of the front wall of the member, the vertical side members each being of general L-shaped form in cross section having one of its walls of greater width than the other, and the vertical side members being disposed with their open sides facing inwardly and with the narrower wall thereof positioned at the front side of the frame, said vertical side members each having a longitudinal flange extending rearwardly from the outer edge of said narrower front wall, and each of the side members having a longitudinal flange extending from the outer edge of the broader wall thereof at right angles thereto, the distance between said last mentioned flange and the front narrower wall of each side member being slightly less than the distance between the front and rear walls of the top and bottom members, the opposite end portions of said last mentioned longitudinal flange and narrower front wall of each of said side members fitting between and against end portions of the front and rear walls of the top and bottom members with the ends of the narrower front wall of each of the side members fitting against the inner faces of the intermediate walls of the top and bottom members, and with the rearwardly directed flange of the vertical side members fitting against the ends of the rearwardly extending flanges on the front side walls of the top and bottom members, and means detachably securing the end portions of the side frame members to adjoining end portions of the top and bottom members against movement laterally outwardly therefrom.

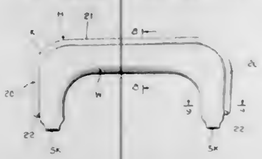
2,780,329
FASTENING DEVICE
William A. Bedford, Jr., North Scituate, Mass., assignor, by mesne assignments, to United-Carr Fastener Corporation, Boston, Mass., a corporation of Delaware
Application December 30, 1952, Serial No. 328,614
2 Claims. (Cl. 189—88)

2. A molding assembly for attachment to a support panel comprising an elongated, transversely flexible, sheet

metal molding having inturned end edges therein, and a molding fastener assembled therewith, said molding fastener comprising an elongated strip of flexible sheet metal spanning the distance in a flexed state between the inturned end edges of said molding and having its ends flexed and retained thereunder, a medial U-shaped bear-

ing portion projecting from the general plane of the strip in a direction toward the molding and bearing thereagainst, and a bolt assembled intermediate each end of the strip and the bearing portion, said bolts projecting in a direction away from the molding to enable the assembly to be attached to a support panel.

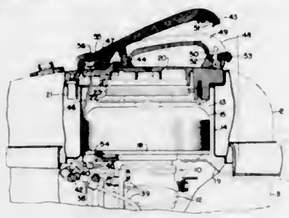
2,780,330
HANDLES FOR BRIEF CASES AND LUGGAGE
Lewis Lifton, New York, N. Y.
Application May 17, 1955, Serial No. 508,965
2 Claims. (Cl. 190—57)



1. A hollow handle, comprising; a one piece substantially ring shaped metal member defining complementary U-shaped handle sections having spaced exteriorly convexed surfaces and spaced internally concaved surfaces, said sections having spaced web means reduced relative to said sections and disposed intermediate of said member and merged with said sections, flange means extending outwardly from the outer margins of said sections and free of said web means, a flexible wrapper having a centrally arranged opening and defining a closed band embodying an intermediate portion secured smoothly and tightly against said convexed surfaces and against the outside faces of said web means and having outer marginal portions secured to the outside faces of said flange means of said sections and having an inner interrupted margin secured against said concaved surfaces and against the inside surfaces of said web means, said web means being bendable for closing said sections to arrange said flange means in juxtaposition and to define spaced sockets, hollow cross sectionally substantially C-shaped keeper means closely and frictionally straddling said marginal portions to hold said flange means in juxtaposition for maintaining said closed relationship of said sections, and means extending from said keeper means and disposed within said sockets to preclude accidental displacement of said keeper means away from said flange means.

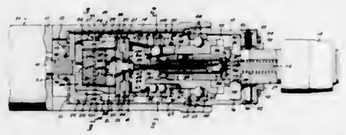
2,780,331
OUTBOARD MOTOR WITH SPRING-RELEASE CLUTCH CONTROL
Daniel A. Armstrong, Thiensville, Wis., assignor to Kiekhaefer Corporation, Cedarburg, Wis., a corporation of Wisconsin
Application September 14, 1953, Serial No. 379,795
7 Claims. (Cl. 192—.07)

1. In an outboard motor having transmission and clutch means including a shiftable clutch control member for selective operation of the motor in neutral and drive, a control lever connected to said control member and mounted at the upper end of the motor for manipulation by the motor operator, a spring biasing said lever to the neutral position, a latch disposed to secure said lever in the drive position with said spring compressed, manual release means engageable with said latch to move the same and release said lever and to effect disengagement of said clutch, the manual movement of said lever



to the latched drive position being effective to re-energize said spring for subsequent operation by said release means, said motor having a recess at the top thereof to receive said lever in said drive position whereby the lever is normally protected against mishandling.

2,780,332
AUTOMATICALLY RELEASABLE TORQUE TRANSMITTING APPARATUS
Robert T. Stevens, Altadena, Calif., assignor to Adele M. Stevens, Los Angeles, Calif.
Application January 3, 1955, Serial No. 479,462
16 Claims. (Cl. 192—56)

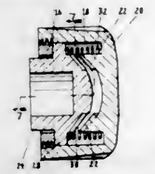


1. In torque transmitting apparatus: driving and driven members; coengaging clutch elements on said members effecting a rotatable driving connection between said members, said elements comprising cam means responsive to the torque transmitted through said members and tending to shift said elements axially from each other to disengaged position; axially movable means engageable and rotatable with one of said members to hold said elements in driving relation to each other, said elements tending to shift said holding means axially to release said elements from such driving relation; permanent magnet means rotatable with and threadedly secured to the other of said members and exerting a constant axially directed magnetic force on said holding means in opposition to the force exerted on said holding means by said elements while torque is being transmitted through said elements; means on said permanent magnet means to receive a tool for rotating and axially moving said permanent magnet means with respect to said other of said members; and releasable lock means for securing said permanent magnet means to said other of said members.

2,780,333
CHILD-PROOF GAS COCK CONTROLS
Hyman Reiser, Bronx, and Abraham Aschkenas, Brooklyn, N. Y.
Application February 3, 1953, Serial No. 334,884
1 Claim. (Cl. 192—67)

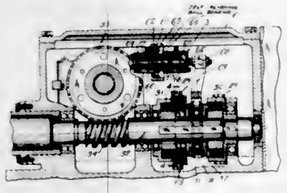
A child-proof gas cock control comprising a cup-shaped coupling member having a cylindrical portion adapted for being secured to the outer end of the shaft of a gas cock and having a closed outwardly toothed bottom portion as well as an annular rib portion outwardly extending from the periphery of said cylindrical portion; a handle member having a first cylindrical portion which is axially slidable and normally also rotatable on the annular rib

portion of said coupling member and having a bottom portion as well as a second cylindrical portion extending from the inner side of said last-mentioned bottom portion into said first cylindrical portion, said second cylindrical portion being shorter than said first cylindrical portion and being toothed at its outer extremity and adapted for interdigitating engagement with the toothed bottom portion of said coupling member; resilient means within the first cylindrical portion of said handle member encompassing the second cylindrical portion thereof and tending



to move the handle member in axial direction away from the toothed bottom portion of said coupling member, and a ring member secured to the inner side of the first cylindrical portion of that end of said handle member which is opposite the toothed bottom portion thereof, the inner diameter of said ring member being slightly smaller than the outer diameter of the annular rib portion of said coupling member so that said ring member will limit the axial movement, and permit a rotation, of said handle member relative to said coupling member.

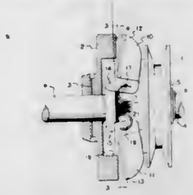
2,780,334
FLUID OPERATED CLUTCH MECHANISM
Leon E. Simmons, Claremont, N. H., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application April 1, 1948, Serial No. 18,465
5 Claims. (Cl. 192—87)



1. In a clutch operating mechanism, a clutch, a pivoted shipper for said clutch operatively connected to the latter, a fluid cylinder, a piston reciprocable in said cylinder and having a piston rod pivotally connected to said shipper, and a universal pivotal mounting for said cylinder comprising a self-aligning ball bearing having inner and outer races, the inner race receiving and supporting said cylinder, and a stationary support for the outer bearing race.

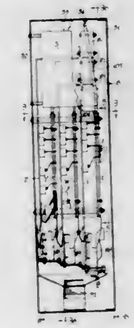
2,780,335
CENTRIFUGAL MOTOR PROTECTION CLUTCH
James R. Hubbard, Allentown, N. J., assignor to General Electric Company, a corporation of New York
Application October 15, 1954, Serial No. 462,498
1 Claim. (Cl. 192—105)

In a centrifugal overload protection clutch, a shaft, a driving member rotatably journaled and axially restrained on said shaft, a driven member fixed on said shaft said driven member having a frictional type clutch face in a plane perpendicular to the shaft axis adjacent said driving member and including a recess behind the plane of said clutch face and radially inward of said face, a hub on said driving member extending toward said driven member and into said recess, a pair of clutch weights each having a face adapted to cooperate with the clutch face on said driven member, an arm fixed to each of said weights and extending in a generally axial direction, means pivotally securing the remote end of each arm to the portion of said hub within said recess, whereby cen-



trifugal force acting on said weights pivots said weights on said hub to engage the clutch faces thereof with the clutch face on said driven member, and resilient means acting to pivot said weights to a clutch disengaged position.

2,780,336
COIN CHANGING APPARATUS
Creel W. Hatcher, Valley Forge, Pa.
Application April 3, 1950, Serial No. 153,693
16 Claims. (Cl. 194—10)

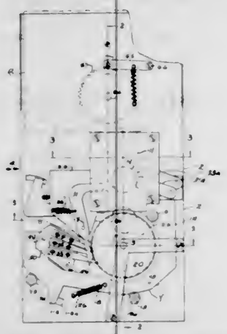


1. In coin handling apparatus, a coin chute assembly comprising spaced front and rear plates, walls between said spaced plates defining a plurality of chutes through which a coin may freely fall by gravity, said plates having edges therein defining lateral apertures providing access to the interior of at least two of said chutes, at least three pivoting fingers positioned to extend into each of said chutes through said apertures and to be successively intercepted by a coin falling through said chutes, a switch associated with each of said fingers, said switches being successively actuated by movement of said fingers, interlocking members on said switch fingers to hold the fingers in a latched position after actuation of said switches, and a normally open gate at the entrance of each chute operable to be engaged and closed by the entrance of a coin into the chute.

2,780,337
COIN DEVICE
Jules A. Fremon, University City, Mo.
Application September 4, 1952, Serial No. 307,838
23 Claims. (Cl. 194—83)

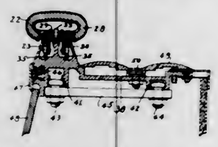
1. In a coin device, a coin chute having a single continuous coin path, an interruptor associated therewith, means positively moving the interruptor inwardly of the chute, a stop at the side of the chute opposite to the interruptor and normally projecting into the path of a coin passing through the chute but insufficiently to bar the passage of a coin through the chute when the in-

terruptor is withdrawn, said stop being movable outwardly of the chute by said means and interruptor and a



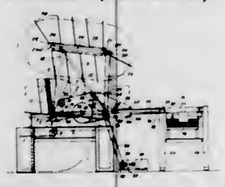
coin caught between the stop and the inwardly moving interruptor.

2,780,338
HAND RAIL CONSTRUCTION FOR MOVING STAIRS
Russell G. Tilton, Mountain Lakes, N. J., assignor to Multiscope, Inc., Brooklyn, N. Y., a corporation of Kansas
Application July 5, 1955, Serial No. 519,979
4 Claims. (Cl. 198—16)



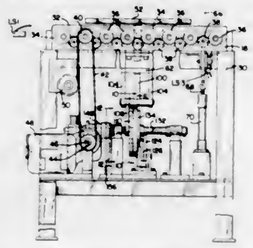
1. In a hand rail construction, a bellows forming a continuous loop, plate members imbedded in the bellows and extending therefrom, a hand rail chain having links with a portion thereof forming depending lugs adapted to register with the plate members of the bellows and secured thereto by means of pins, a wheel secured on the outer end of each of the pins, a roller mounted on and carried by each chain pin, and with the wheels providing bearing and guide means for the bellows.

2,780,339
MEANS FOR DELIVERING METAL OR OTHER SHEETS FROM A CONVEYOR
William Bell, New Malden, England
Application July 10, 1953, Serial No. 367,295
Claims priority, application Great Britain August 5, 1952
4 Claims. (Cl. 198—33)



1. In a sheet feeding mechanism having a substantially horizontal endless main conveyor with spaced trays thereon rearwardly inclined with respect to the direction of conveyor travel for transporting sheets on edge in spaced relationship on the upper run thereof, means for removing the sheets in spaced relationship from said main conveyor at the delivery end of its upper run comprising a lower auxiliary endless conveyor adjacent said delivery end and having the same direction of travel as said main conveyor, means secured in spaced relationship to said lower auxiliary conveyor for engaging the lower edges of the sheets, said lower auxiliary conveyor being arranged with respect to said main conveyor to receive said sheets at the delivery height of said main conveyor and to transport the sheets upwardly and forwardly relative to the main conveyor until clear of said trays, an upper auxiliary endless conveyor above and spaced from said lower auxiliary conveyor and travelling in a direction opposite to the direction of travel of said main and lower auxiliary conveyors, and members secured to said upper conveyor in spaced relationship so that during the lower run of said upper conveyor said members serve to support the sheets to maintain a rearwardly inclined disposition thereof while travelling forwardly upon said lower auxiliary conveyor.

2,780,340
TURNING DEVICE
Frederic R. Hynson, Louisville, Ky., assignor to Miller Engineering Corporation, Louisville, Ky., a corporation of Kentucky
Application November 4, 1954, Serial No. 466,727
4 Claims. (Cl. 198—33)

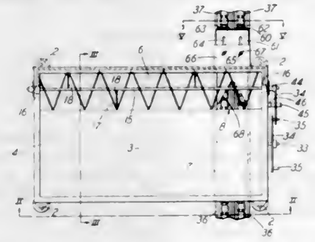


4. In a device of the nature described; a frame, a plurality of coplanar continuously rotating feed rollers in said frame, a lifting and turning grid in said frame normally below the tops of said rollers, cam means in the frame rotatable through a single revolution for lifting said grid and then rotating said grid through 90° and then lowering said grid thereby to pick up articles from said feed rollers and turn them and then set them down on the feed rollers again, single revolution drive means drivingly connected with said cam means, a stop plate on the side of said frame toward which articles are moved thereacross by said feed rollers, said stop plate being normally below the tops of said feed rollers, means for moving said stop plate upwardly to interrupt the travel of an article across the feed rollers, means responsive to engagement of said stop means by an article being moved by said feed rollers for actuating said drive means to commence rotation of the cam means and raising movement of the said grid to pick up the said article, and means for lowering said stop plate before the cam means commence rotation of said grid.

2,780,341
POULTRY FEED HOPPER CONSTRUCTION
Marvin L. Smallegan, Zeeland, Mich., assignor to Automatic Poultry Feeder Company, Zeeland, Mich., a corporation of Michigan
Application June 25, 1951, Serial No. 233,302
3 Claims. (Cl. 198—58)

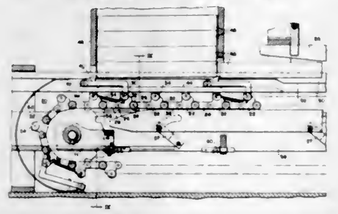
1. In poultry feed hopper construction for dispensing dry material of small particle size, said hopper having a housing and a baffle for dividing said housing into an upper chamber for said material and a lower chamber, said hopper comprising: a trough communicating with said upper chamber; a helically coiled rod having substantially the same length as said trough and mounted therein; means for rotatably mounting said helical rod

to said housing; the bottom wall of said trough defining an opening therethrough through which said material may escape by gravity; means including a shaft and prime mover in said lower chamber; a lever on the end of said



means for mounting said helical rod; an arm on said shaft adapted to periodically raise said lever for intermittently rotating said helical rod; an agitator rod eccentrically mounted on said means for mounting said helical rod.

2,780,342
POSITIVE DRIVE WORK FEEDER
Paul F. Good, Baltimore, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 14, 1951, Serial No. 215,467
3 Claims. (Cl. 198—170)

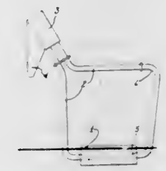


1. In apparatus for feeding workpieces to processing equipment, the combination of a conveyor means including a chain portion extending in a predetermined first direction comprising a plurality of link members and a plurality of section members with each of said section members being connected between a pair of said link members, a track having at least a first and a second support surface with said first support surface having a substantially straight portion and a sloping portion at one end thereof, means for moving said chain portion longitudinally along said first direction between said first and second support surfaces, a plurality of spaced work-piece feeder dogs, each of said feeder dogs being pivotably connected to one of said link members, each of said link members having at least a first and a second pivot point, a first support roller at said first pivot point arranged to ride up said sloped end portion, and a second support roller connected to said link member and arranged to ride against said second support surface, said first support surface having at least a first and a second spaced position of operation, said first position being spaced from said second position in a direction substantially perpendicular to said predetermined first direction, with the spacing between said first and second support surfaces when said first surface is in said second position being substantially less than the distance between the outer extremities of said first and second support rollers such that each of said link member is constrained to pivot about the axis of said second roller as the link member rides up said sloped end portion, thereby orienting said link members and section members in relatively folded position so as to decrease the effective length of said chain portion between successive feeder dogs.

2,780,343
CONVEYOR CONSTRUCTION
Nelson A. Bunnell, South Canaan, Vt.
Application February 24, 1953, Serial No. 338,437
2 Claims. (Cl. 198—170)

1. In a chain conveyor, in combination, a longitudinally extending conveyor chain two adjacent coupler links of which are arranged to receive a transverse pivot pin; a conveyor dog comprising a pair of laterally spaced, parallel, longitudinally extending leg members arranged to slide on the bottom of a conveyor trough and to receive a chain therebetween; a bridge member connecting the forward portions of said leg members well above the lower surfaces of said leg members, the space between said leg members rearwardly of said bridge being open; said dog carrying at least one prong extending upwardly and forwardly from said bridge; said leg members being relatively long with respect to the heights of said prong above the lower surfaces of said leg members; said leg members being apertured in transverse alignment at the forward ends of the leg members, spaced from the lower surfaces thereof only sufficiently to allow the lower surfaces of the chain at the pivot area to be carried slightly above the lower surfaces of the leg members; and a pivot pin pivotally connecting said coupler links to each other and to the said dog through said apertures, whereby said dog may pivot around the axis of said pin.

2,780,344
CONVEYOR FLIGHT CONSTRUCTION
Alfred W. Gardes, Lebanon, Ind., assignor to Indiana Commercial Filters Corporation, a corporation of Indiana
Application March 19, 1953, Serial No. 343,455
1 Claim. (Cl. 198—176)

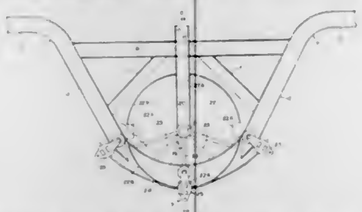


A flight assembly for a conveyor, including a flight of a generally disk shape with a segment removed to provide a straight bottom edge portion, and backing means secured to said flight and covering a part of a flat face of the flight, and means on said backing means extending under said straight flight edge to function as a seat for the same, said flight being notched inwardly from the straight edge for propelling means to extend through the flight.

2,780,345
TROLLEY CONVEYOR DIP CONSTRUCTION
Donald D. Zebley, Detroit, Mich.
Application April 22, 1953, Serial No. 350,349
5 Claims. (Cl. 198—177)

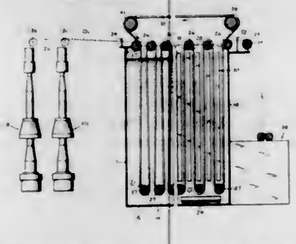
1. A track structure for trolley conveyors of the type having spaced cable-connected trolley brackets which are

provided with rollers that travel on the lower flanges of an I-beam track, said structure comprising an I-beam track element having a downwardly displaced portion which includes an arcuate section whereat the web and lower flanges of said element are cut away whereby the upper beam flanges provide a pair of transversely spaced



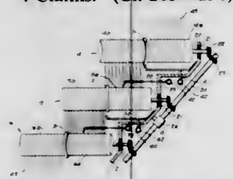
ribbons which are adapted to be engaged by the trolley rollers during their traverse of said arcuate section; and a wheel rotatably mounted adjacent said arcuate track section and having its peripheral portion extending through the slot between said spaced ribbons for engagement with and guidance of the trolley brackets and cable during their traverse of the arcuate track section.

2,780,346
TREATMENT OF FILAMENTS
Robert H. Roughsedge, Ramsey, N. J., and David Taylor, Cumberland, Md., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
Application April 15, 1953, Serial No. 349,040
8 Claims. (Cl. 203—67)



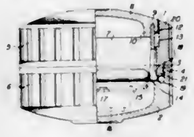
1. An apparatus for the treatment of a plurality of strands of filamentary material, said apparatus comprising means defining a plurality of substantially parallel tortuous paths for the passage of spaced strands of filamentary material through the treatment apparatus, a flexible element mounted for movement in a path substantially parallel to and spaced from said tortuous paths, and means on said element and moving in said spaced path for engaging the ends of said strands.

2,780,347
APPARATUS FOR THE TREATMENT OF THREAD
John Harrison Givens, Meriden, Coventry, England, assignor to Industrial Rayon Corporation, Cleveland, Ohio, a corporation of Delaware
Application January 5, 1955, Serial No. 479,958
4 Claims. (Cl. 203—290)



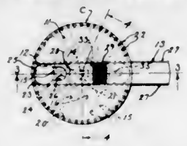
1. An apparatus for the continuous advance of thread and the like comprising a series of rollers for advancing thread in helical form during processing positioned in overlapping endwise stepped relation; the axis of each roller being at an angle to the axis of the next succeeding roller in said series so that each successive pair form a thread-advancing device; and means for driving said rollers.

2,780,348
CONTAINER FOR PHOTOGRAPHIC OBJECTIVES, FILTERS, SUPPLEMENTARY LENSES, AND THE LIKE
Paul Gottlob Harter, Stuttgart-Wangen, and Kurt Alfred Steisslinger, Stuttgart-Hedelfinger, Germany, assignors to Eastman Kodak Company, Rochester, N. Y.
Application January 19, 1955, Serial No. 482,842
Claims priority, application Germany February 18, 1954
2 Claims. (Cl. 206—1)



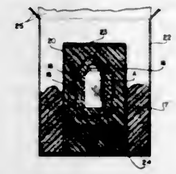
1. A container for lens attachments comprising three sections, a first container section comprising a cap member and a plurality of flexible downwardly extending fingers carried thereby, said fingers having a normal rest position and said fingers having cam surfaces on their lower ends, a second container section having a slideway for the first container section, coacting abutments on the first and second container sections forming limits for the relative movement of the first and second container sections, the arms extending from the bottom of the second container section to engage and release a lens attachment when pressed into engagement therewith, means for securing the spring arms to a lens attachment by moving the first container section on the second including an abutment on the second section to engage cams on the spring arm to move said arms into contact with a lens attachment whereby said first and second container sections may serve as a lens attachment moving means, and a third container section fitting and having interlocking means of attachment to a complementary interlocking means carried by the second container section to enclose a lens attachment held by the spring arms protecting said attachment against dust and finger marks, said relatively movable first and second lens attachments including a cap member and a knurled edge positioned so that by applying pressure to the former pressing down on the cap the arms are released from the abutment and the spring arms may return to their rest position.

2,780,349
MEDICINAL TABLET CONTAINER AND DISPENSER
Gordon C. Tornberg, Cadillac, Mich.
Application September 20, 1954, Serial No. 456,945
1 Claim. (Cl. 206—42)



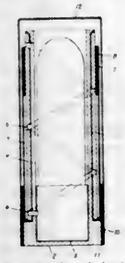
A medicinal tablet container and dispenser comprising, a circular disc-shaped body having a bottom container portion and an upper cover portion, said container portion including a series of spaced tablet recesses in its flat surface adjacent its outer periphery, a series of spaced relatively smaller tablet recesses arranged about its central axis adjacent said first outer series of recesses and offset therefrom, said upper cover portion adapted to be rotated with respect to said bottom portion, said cover including a dispensing opening adapted to be registered with anyone of said first series of recesses and a dispensing opening adapted to be registered with anyone of said second series of recesses, said dispensing openings having their centers in alignment with one another and with said central axis, said container portion having a central aperture therethrough with each end of said aperture being countersunk to provide an inner projecting shoulder, said cover having a central bore therethrough in alignment with said container aperture and having an inner diameter slightly less than the inner diameter of said projecting shoulder, and a center retaining pin received in said central aperture and central bore having a series of reduced portions in friction and press fit with said projecting shoulder and reduced central bore of said cover.

2,780,350
PACKAGE WITH CELLULAR PLASTIC PACKAGING MEANS
Eli Simon, Los Angeles, and Frank W. Thomas, Burbank, Calif., assignors to Lockheed Aircraft Corporation, Burbank, Calif.
Application December 11, 1951, Serial No. 261,054
3 Claims. (Cl. 206—46)



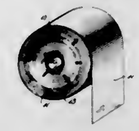
1. Means for packaging an object comprising a first container, a mass of yielding resilient cellular plastic supporting the object in the first container in spaced relation to the walls thereof, a second container, and a mass of substantially rigid cellular plastic supporting the first container in the second container in spaced relation to the walls thereof.

2,780,351
DEVICE FOR LIPSTICK HOLDERS
Yvan Victor Grisel, Geneva, Switzerland, assignor to Louis Tschanz Comptoir de la Parfumerie S. A., Geneva, Switzerland
Application May 4, 1954, Serial No. 427,524
1 Claim. (Cl. 206—56)



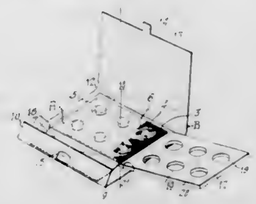
In combination with a lipstick holder, comprising an inner sleeve having a bottom, a lipstick-receiving cup located in said sleeve and longitudinally reciprocable therein, an outer sleeve enclosing said inner sleeve and rotatable relatively thereto, said sleeves having formed therein slots which are inclined relatively to each other and which intersect each other, a bolt carried by said cup and extending into said slots, whereby manipulation of the inner sleeve bottom will cause a turning of the inner sleeve relatively to the outer sleeve and thus move said cup longitudinally within said inner sleeve; an outer container for said lipstick holder, said outer container comprising a container sleeve mounted upon said outer sleeve and having resilient means engaging said outer sleeve, another container sleeve rotatably mounted over the first-mentioned container sleeve and fitting over the bottom of the inner sleeve, said other container sleeve having resilient means engaging said inner sleeve, and a cap sleeve closing the inner sleeve, and adapted to be mounted upon said other container sleeve.

2,780,352
SHEET-RETAINING PACKAGE
Carl F. Schroeder, Evansville, Ind.
Application August 25, 1954, Serial No. 451,998
1 Claim. (Cl. 206—58)



A roll of sheets of paper or the like for use a small amount at a time, such sheets being integrally joined in edge to edge relation, and a series of radially extending relatively narrow segmental strips of adhesive disposed in a spirally staggered relation on the end of the roll, said series of strips forming a continuous frangible bonding connection across the exposed edges of the sheets between the core and the outer circumference of the roll.

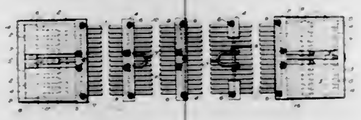
2,780,353
CRUSH-RESISTANT PACKAGE
Lloyd I. Volckening, Glen Ridge, N. J., assignor to Ivers-Lee Company, Newark, N. J., a corporation of New Jersey
Application April 6, 1955, Serial No. 499,690
2 Claims. (Cl. 206—65)



1. A package comprising an approximately flat commodity container having thin flexible walls sealed together in zones forming and bounding a plurality of compartments each of which has a commodity therein and opposite walls of which bulge from the general planes of the corresponding container walls, a relatively stiff but flexible cover having portions each juxtaposed to one of two opposite walls of the container, means fastening said cover portions against separation to close the package but providing for separation of said cover portions to open the package for access to said container, an edge portion of said container being secured to said cover, and a stiff guard sheet held between each of said cover portions and the adjacent wall of the container, said guard sheets having openings in register with and encircling the bulging walls of said compartments and the thickness of said guard sheets being greater than the distance that said compartment walls bulge from the planes of the corre-

sponding container walls and approximately equal to the distance between said cover portions and said planes of the container walls when said cover portions are in package-closing position, said guard sheets being in contact with the corresponding cover portions and said container and gripped therebetween with said bulging walls of said compartments projecting into the corresponding openings in the guard sheets, thereby to hold said guard sheets against slipping out of the package when the package is closed, said guard sheets being otherwise free from and unconnected with said commodity container and said cover.

2,780,354
PROTECTIVE PACKAGE FOR THE SHIPMENT OF RODS
Robert Wilson Groover, Lebanon, Pa., assignor to Bethlehem Steel Company, a corporation of Pennsylvania
Application April 26, 1954, Serial No. 425,516
4 Claims. (Cl. 206—65)



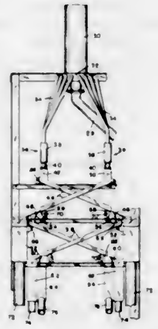
1. A package comprising a bundle of sucker rods having caps at one end and couplings at the other end in which the rods are arranged in symmetrical horizontal rows and columns in spaced relation, with transverse spacer bars between each row and a protective structure for the ends of the rods comprising a pair of wooden block transverse members spaced from each end of the bundle, one of said members being on top of the bundle and the other of said members being on the bottom of the bundle, bolts clamping said members firmly against the outer rows of said rods, said spacer bars being aligned in interlocking relation between said bolts a box-like wooden framework enclosing the ends of the rods at one end of the bundle, and means securing said framework to said transverse members.

2,780,355
GELATIN CAPSULE CONTAINING WATER SOLUBLE SUBSTANCES
Blasey T. Palermo and John P. Stanley, Detroit, Mich., assignors to R. P. Scherer Corporation, Detroit, Mich., a corporation of Michigan
No Drawing. Application November 9, 1953, Serial No. 391,137
1 Claim. (Cl. 206—84)

A plasticized gelatin capsule containing a water soluble substance which normally attacks gelatin, said capsule comprising said water soluble substance in homogeneous admixture with polyoxyethylene (20) sorbitan monooleate, enclosed in a plasticized gelatin shell.

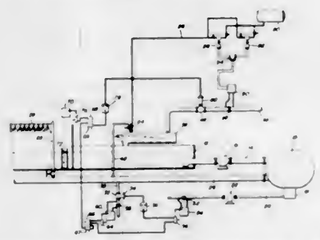
2,780,356
APPARATUS FOR SEPARATING MINERALS FROM SAND
Edward A. Hobart, Troy, Ohio, assignor to The Hobart Brothers Company, Troy, Ohio, a corporation of Ohio
Application July 20, 1953, Serial No. 369,047
6 Claims. (Cl. 209—443)

1. In an apparatus of the nature described; a conduit for supplying a sand-water slurry, a vertical header open at the top and connected at its bottom end to said conduit to receive the slurry therefrom, a plurality of branch conduits leading from spaced points about the base of said header, a plurality of parallel inclined troughs receiving at their upper ends the slurry from said branch conduits and discharging the slurry at their lower ends in streams, a splitter member having a sharp edge presented to said streams to divide the stream into heavy and light fractions, means to adjust said splitter member and troughs relatively vertically, a catch basin to receive said light fraction from the splitter member, a second plurality of parallel inclined troughs to receive the heavy fraction from the splitter member at their upper ends in streams,



said second plurality of troughs being beneath said first plurality of troughs and inclined in the opposite direction therefrom, said splitter member having its underneath surface concave so as to direct the heavy fraction from said first plurality of troughs into the upper ends of said second plurality of troughs, a second splitter member at the discharge end of said second troughs to split the streams therefrom into light and heavy fractions, and individual catch basins to receive the light and heavy fractions separately from said second splitting member.

2,780,357
FLOW CONTROL AND TREATMENT OF CONDENSER COOLING WATER MAKE-UP
Elbert W. Robinson, Amarillo, Tex.
Application September 14, 1953, Serial No. 379,850
14 Claims. (Cl. 210—31)

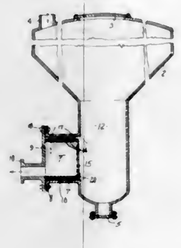


1. A cooling system including, a reservoir of cooling medium, a spraying means for the medium to lower its temperature by evaporation, a heat exchanger supplied by the medium to absorb heat from a fluid flowing through the exchanger, a meter for the cooled fluid out of the exchanger as a measure of the medium evaporated by spraying to dissipate the heat absorbed, a supply of cooling medium conducted to the reservoir, a meter for the cooling medium supplied the reservoir, a valve controlling the cooling medium supplied the reservoir and adjusted by the meter for the cooled fluid, a source of chemical which will neutralize characteristics of solids in the medium not removed by evaporation, and a regulator controlling the chemical added and adjusted by the meter of the cooling medium supplied the reservoir.

2,780,358
METHOD FOR INCREASING CAPACITY OF A POROUS ADSORBENT FOR LIQUID PHASE EXCHANGE ADSORPTION
Max A. Mosesman and Albert T. Watson, Baytown, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
No Drawing. Application December 29, 1953, Serial No. 401,062
4 Claims. (Cl. 210—42.5)

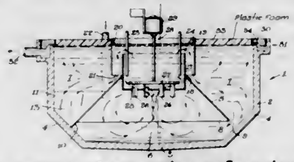
1. In a process for separating a hydrocarbon mixture into fractions by liquid phase exchange adsorption, the improvement which comprises the steps of reducing the atmospheric pressure on a body of dry adsorbent to an amount within the range of 0 to 25 mm. of mercury, introducing vapors of a normally liquid hydrocarbon which is miscible with said hydrocarbon mixture and which has no more than about 12 carbon atoms per molecule into contact with said body of adsorbent in increments of pressure increase within the range of 1 to 10% of the vapor pressure of said hydrocarbon at the temperature of said body of adsorbent, allowing the body of adsorbent and hydrocarbon vapors to reach equilibrium at each increment of pressure increase before proceeding to the next increment of pressure increase and continuing until the pressure of the vapors of the normally liquid first hydrocarbon over the body of porous adsorbent is substantially equal to the normal vapor pressure of said hydrocarbon at the temperature of said body of adsorbent contacting the thus treated adsorbent with said hydrocarbon mixture to effect fractionation of the same and recovering a thus-prepared fraction.

2,780,359
FILTER APPARATUS
Frank R. Hellmann, Jr., Lima, Ohio, assignor to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
Application June 26, 1953, Serial No. 364,233
2 Claims. (Cl. 210—43)



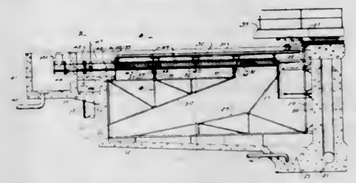
1. In filtering apparatus of the character described, a container having an inlet connection at its top for the supply of liquid thereto and a separate port also at the top for the introduction of solid material, an outlet for the liquid in the form of a hollow cylinder opening in the side wall of said container and extending laterally outwardly therefrom, such opening of the cylinder being spaced appreciably from the bottom of the container, a tubular filter supported in spaced relation within said cylinder, said filter having a perforated side wall and being closed at its inner end by an imperforate wall which is substantially coextensive with the container side wall at the cylinder opening in the same, a closure at the outer end of said cylinder which is removable for withdrawal of the filter from the cylinder through such end, and a normally closed outlet at the bottom of the container for the removal of solids therefrom.

2,780,360
REMOVING SUSPENDED SOLIDS FROM AQUEOUS LIQUIDS
Charles K. Bon, Marshall P. Neipert, and Norman L. Piegols, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application December 17, 1954, Serial No. 476,022
4 Claims. (Cl. 210—51)



1. In a method of separating a flocculent precipitate from an aqueous suspension thereof which is subject to sedimentation in a more or less quiescent body thereof wherein at least a portion of the floc becomes buoyant, instead of settling, due to the adhesion of gas bubbles to pieces of the floc, the improvement which consists in bringing into contact with the gas bubble loaded floc particles, at the upper exposed surface of the suspension, the rough face of pieces of plastic foam having a closed cell structure, the said plastic foam being in discrete floating pieces whereby the plastic foam detaches the gas bubbles from the floc particles allowing them to sink in the aqueous suspension and the gas to escape between the pieces of the plastic foam.

2,780,361
SCUM SKIMMER
Richard R. Evans, Irvin W. Mahacek, and Lawrence A. McKinney, Tucson, Ariz., assignors to Infilco Incorporated, Tucson, Ariz., a corporation of Delaware
Application November 13, 1952, Serial No. 320,234
15 Claims. (Cl. 210—51)

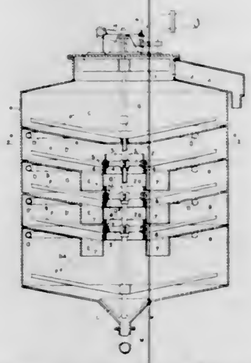


1. A device for removing scum from the liquid surface of a tank having a bottom and a cylindrical upstanding wall, support means within said tank rotatable about the vertical axis of said tank, said device including a skimmer arm supported by said support means and a skimmer blade hinged to, and rotatable with, said arm, and a stationary hollow scum-receiving member being supported in, and extending across, said tank from closely adjacent said support means through said wall, said member having a closed inner and an open outer end, overflow means into said member in the path of travel of said blade, and means for positioning said overflow means with regard to the liquid surface in said tank, characterized in that said blade comprises a plurality of sections, each separately hinged to said arm, said sections being lengthwise aligned in parallel relationship to said arm with their adjacent ends overlapping one another.

2,780,362
MULTI-TRAY CLARIFIER
Nestor Sabi, Flushing, N. Y., assignor to Dorr-Oliver Incorporated, a corporation of Delaware
Application December 21, 1953, Serial No. 399,464
4 Claims. (Cl. 210—55)

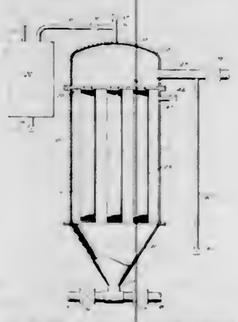
1. A multi-tray clarifier, comprising a tank having a plurality of flat cone shaped partitions in vertical spaced

relation to provide said clarifier with an uppermost flocculation chamber, a lowermost thickening chamber, and a plurality of clarifying chambers therebetween, each of said partitions being provided with a central opening therein, each of said partitions below the uppermost partition having another opening adjacent said central opening, all of said other openings being in substantial registry, a plurality of peripherally continuous passage defining members, one for each of said partitions below said uppermost partition, each of said passage defining members being disposed within the central opening of its associated partition in vertical spaced relation with each other of said passage defining members and being fixed to its asso-



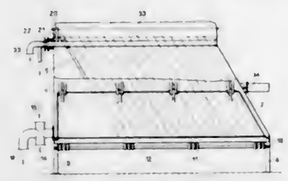
ciated partition, whereby liquid flowing downwardly through said passage defining means flows into each of said clarifying chambers through the space between said passage defining means, and a plurality of mud spouts, one for each of said partitions below said uppermost partition, each of said mud spouts being secured to its associated partition and depending therefrom and being in registry with the other opening in said associated partition, said mud spouts being vertically spaced from each other and collectively forming a mud passage separate and distinct from said liquid passage, whereby mud from said clarifying chambers moves downwardly toward said thickening chamber by a path separate and distinct from the path of said liquid.

2,780,363
APPARATUS AND PROCESS FOR WASHING DIATOMITE TYPE FILTERS
Preston F. Pew, Tucson, Ariz., assignor to Infilco Incorporated, Tucson, Ariz., a corporation of Delaware
Application December 22, 1952, Serial No. 327,341
5 Claims. (Cl. 210—144)



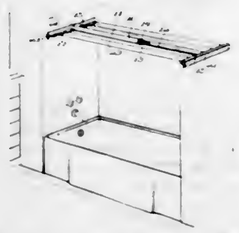
1. A method of washing the elements of a diatomite filter comprising the steps of withdrawing prior to backwashing of the elements the liquid from that portion of the filter upstream of the filter elements through an outlet located upstream of the filter elements, and simultaneously connecting said upstream portion of the filter to aid under atmospheric pressure to replace said withdrawn liquid with a body of air, and then passing a body of wash liquid at high velocity in the reverse direction to the filtering flow through the filter elements and into said body of air.

2,780,364
FILTER
Dario Teatini, Milan, Italy
Application June 16, 1954, Serial No. 437,204
Claims priority, application Italy June 16, 1953
9 Claims. (Cl. 210—182)



1. A filter for turbid liquids comprising a casing having a substantially horizontal longitudinal axis, said casing having a lower part adapted to be opened, a plurality of parallel and spaced filter leaves individually swingably supported within said casing, the periphery of each filter leaf closely following the inside wall surface of said casing and the planes of said filter leaves being inclined relative to the vertical when the casing is closed and the filter leaves are in filtering position, and spacing and actuating means movable in said casing and engaging said filter leaves for swinging said filter leaves from the inclined (filtering) position to a vertical position for cleaning and back into the inclined position, and for maintaining said filter leaves in parallel and spaced relation at all positions effected by said spacing and actuating means, the spacing being wider when the leaves are in vertical (cleaning) position than when in inclined (filtering) position.

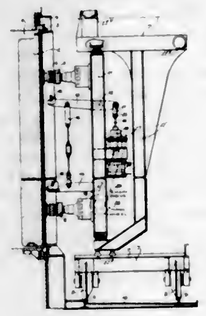
2,780,365
ADJUSTABLE WALL MOUNTED CLOTHES DRIER
Charles R. Trainor, Silver Spring, Md.
Application October 6, 1954, Serial No. 460,790
1 Claim. (Cl. 211—87)
(Granted under Title 35, U. S. Code (1952), sec. 266)



A clothes drier comprising an extensible bar, adjustable means connected with said bar to hold it in selected longitudinally adjusted position, the opposite ends of the extensible bar having transverse slots formed therethrough, cross arms for connection with the ends of the extensible bar and extending beyond opposite sides of the bar substantially at right angles thereto, said cross arms being substantially T-shaped in cross section and including vertical and horizontal webs, said horizontal webs of the cross arms engaging within said slots, the vertical webs

of the cross arms abutting the ends of the extensible bar, bolt means extending through the extensible bar and said horizontal webs for securing the cross arms to the extensible bar, strips of rubber-like material carried by the outer sides of said vertical webs for frictionally engaging the walls of a room or the like, and a plurality of spaced substantially parallel clothes lines extending between said cross arms on opposite sides of the extensible bar and having their ends secured to said horizontal webs of the cross arms, said extensible bar, cross arms and clothes lines lying substantially in the same plane.

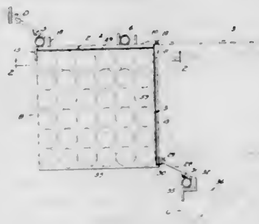
2,780,366
DOOR OPERATING MECHANISM FOR HORIZONTAL COKING CHAMBER OVENS
Georg Henseleit, Essen, Germany, assignor, by mesne assignments, to Koppers Company, Inc., Pittsburgh, Pa., a corporation of Delaware
Application May 26, 1953, Serial No. 357,488
2 Claims. (Cl. 212—4)



1. Door operating mechanism for horizontal coking chamber ovens, comprising: a door carrier having door lifting means by which an oven door, after being unlatched, may be lifted, withdrawn, and moved aside, said door carrier including a fluid pressure operated piston motor, a thrust rod connected to the door lifting means, an outer sleeve around a portion of said thrust rod with a screw threaded connection therebetween, a worm gear around said sleeve with a splined connection therebetween for axial movement of the sleeve relative to the gear and rotary movement of the sleeve on said screw threads upon rotation of said worm gear, a worm pinion for said worm gear, mechanical actuating means for rotation of said pinion, and a piston rod for said piston, said piston rod being connected with said sleeve to move the same on operation of the motor piston, said piston rod being connected with said sleeve for non-axial movement of the piston rod relative to the sleeve.

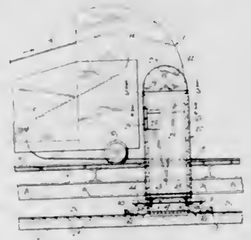
2,780,367
APPARATUS FOR STACKING DISCRETE ARTICLES
John Perrelli, Richmond, Calif.
Application December 8, 1952, Serial No. 324,656
2 Claims. (Cl. 214—10.5)

1. In combination with a horizontal floor adapted to support a vehicle, a pair of stacking structures for use in forming and handling stacks of discrete articles with adjacent lateral sides of each stack being formed by tiers of horizontally extending pairs of perpendicularly intersecting rows of said articles, each of said structures comprising: a pair of vertically disposed sidewalls at right angles to each other and in intersecting relation to define two of the sides of a rectangular area adapted to receive an article support resting on said floor, means securing one of said sidewalls rigid with said floor, means swingably securing the other of said sidewalls to said one sidewall for swinging said other sidewall outwardly from said area to a position substantially coplanar with said one sidewall, means for releasably securing said other sidewall at right angles to said first sidewall, the means for fixedly



securing the fixed sidewall of one of said pair of structures including a stanchion secured at its lower end to said floor and the means for releasably securing the swingable sidewall of the other of said pair of structures including a fastening element releasably secured to said stanchion.

2,780,368
TRIPPER SEALING MEANS
Merrill H. Hickey, Eggertsville, N. Y., and Ole M. Bolme, Newark, N. J., assignors to Hewitt-Robins Incorporated, Stamford, Conn., a corporation of New York
Application December 1, 1955, Serial No. 550,309
2 Claims. (Cl. 214—17)



1. In an apparatus of the kind described including a bin having an elongated charging opening, a tripper structure mounted for travel longitudinally of such opening and incorporating a chute portion disposed to discharge into a limited length of the charging opening, the improvement which comprises: a sealing belt having a flat bead along each edge portion on the underside of the belt adapted to seat on the bin to seal the said opening on each side of the said chute portion; longitudinally spaced, transverse stiffeners secured to the underside of the sealing belt between its said beads; and pulley means associated with the said chute portion located to guide the sealing belt up and over the chute portion, including a pair of top pulleys spaced apart on a common axis and dimensioned to engage the said belt beads.

2,780,369
SELF-UNLOADING TRANSPORT TRUCK
Edward E. Kaney, Freeport, Ill.
Application April 5, 1954, Serial No. 420,862
27 Claims. (Cl. 214—83.28)

1. A vehicle of the character described, comprising an elongated load carrying tank having a plurality of longitudinally spaced, transversely extending substantially vertical baffles mounted therein defining separate compartments therebetween, the baffles having longitudinally aligned bottom openings provided therein of appreciable size establishing communication between neighboring

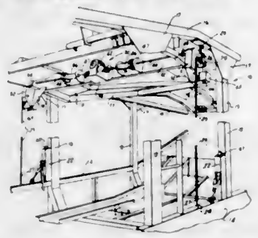
compartments and permitting material to flow freely lengthwise of the bottom of the tank the full length thereof, an outlet on one end of the bottom portion of said tank in longitudinal alignment with the aforesaid openings in the baffles, a pipe extending lengthwise of the tank through said aligned openings in the baffles and

having nozzles thereon in each of said compartments directed toward the outlet end of the tank so as to propel dry material under air pressure toward said end through the aforesaid aligned openings for discharge from the tank, and means for supplying compressed air to said pipe for discharge from said nozzles.

2,780,370
GRAIN UNLOADER FOR VEHICLE BOX
Philip Richard Pudwell, Richmound, Saskatchewan, Canada
Application August 14, 1953, Serial No. 374,402
1 Claim. (Cl. 214—83.32)

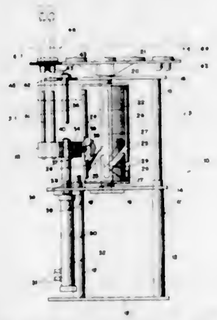
In a grain unloader adapted to be dependingly supported below and in spaced relation to a floor of a vehicle box, said floor having spaced openings formed therein through which grain may gravitate, an elongated tube of cylindrical shape and uniform diameter adapted to be extended below said vehicle box under the several openings, said tube being disposed horizontally and being formed with inlet openings aligned vertically with the openings of the vehicle box, said tube openings extending transversely of the tube through one-hundred and eighty degrees of the circumference of the tube, the openings being confined to the upper half of said circumference; and inlet ducts for the tube extending between the vehicle box openings and the tube openings and communicating at their opposite ends with the interior of the vehicle box and tube, respectively, through the respective aligned floor and tube openings, each inlet duct being of rectangular cross section and having a vertically disposed tubular portion formed at its upper end with an outwardly extending flange extending continuously through the full periphery of said portion and underlying said floor in contact therewith for connection of said flange to the floor, each duct being formed at its lower end with an outwardly directed flange on each of the opposite side walls of the duct and with semi-circular recesses in the front and back walls of the duct receiving the tube, the edges of said recesses being in contact, throughout their lengths, with the opposite edges of the respective tube openings; and semi-circular supporting bands extended transversely of the tube throughout the bottom half of the circumference of the tube, said supporting bands being formed separately from the ducts and tubes and being flanged at their opposite ends with the flanges of the supporting bands being secured to the bottom flanges of the inlet ducts, whereby to constitute said inlet ducts and supporting bands as suspending yokes for the tube, to support the tube horizontally at locations spaced along its length and corresponding to the number of openings in the floor, below the floor of said box.

2,780,371
LIFT MECHANISM FOR SWINGING RAMP OF CARRY-CAR TRAILER
Gerald D. Stough, Detroit, Mich., assignor to Whitehead & Kales Company, River Rouge, Mich., a corporation of Michigan
Application October 24, 1955, Serial No. 542,231
14 Claims. (Cl. 214—85)



1. An operating mechanism for a pivoted ramp of a car transport or the like having a supporting frame on which said ramp is mounted for elevating and lowering movements, said mechanism comprising a rotative sprocket mounted on said ramp, means to rotate said sprocket in opposite directions including an operator and irreversible gearing connecting said operator and sprocket, and an elongated vertically extending chain in driving engagement with said sprocket and anchored at its upper end to said frame, and a spring connecting the lower end of said chain to said frame whereby rotation of the sprocket occasions its movement lengthwise of said chain to correspondingly elevate and lower said ramp and arcuate motion of the free end of said ramp is accommodated by said spring.

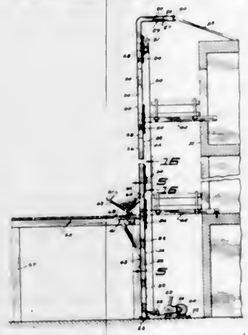
2,780,372
ROTATING TABLE DEVICE AND TURNING MEANS THEREFOR
Jack G. Covitt and Gerald F. Putnam, Fort Wayne, Ind., assignors to International Harvester Company, a corporation of New Jersey
Application September 7, 1954, Serial No. 454,570
9 Claims. (Cl. 214—89)



1. A rotary table device comprising a support, vertically spaced plates mounted on said support, a cylindrical member positioned between said plates, means supporting said cylindrical member for rotation about a vertical axis including a shaft connected to said cylindrical member, said shaft being journalled on said plates, said cylindr cal member having a plurality of vertically extending parallel slots circumferentially spaced in the outer peripheral surface of said member, a plurality of spirally extending cam slots in said cylindrical member, each cam slot having one end portion communicating with one of the vertical slots, and another end portion communicating with an adjacent vertical slot, a table connected to said shaft for rotation

therewith, said table having a plurality of circumferentially spaced openings, a tray seated in each opening, a fluid-extensible member positioned adjacent said rotatable member below said table, a cam follower support connected to said extensible member, a cam follower resiliently supported on said follower support, a plurality of fingers supported on said cam follower support, said follower being movable within one cam slot upon movement of said extensible member in a first direction to rotate said cylindrical member and said table whereupon one of said openings is in vertical alignment with said fingers, said follower being further movable in one of said vertical slots during movement of said extensible member in the first direction whereby said fingers are moved and extend through one of said openings and one of said trays is engaged by said fingers and moved vertically free of said table, said follower being movable in one of said slots below said cam slots during movement of said extensible member in a second direction, and means in said vertical slots directing said cam follower into the next cam slot during the next movement of the extensible member in the first direction.

2,780,373
HOISTS FOR BUILDING MATERIALS
Clarence W. Westmark, Minneapolis, Minn.
Application August 28, 1953, Serial No. 377,041
11 Claims. (Cl. 214—95)



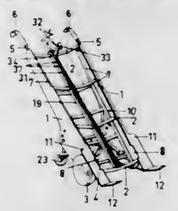
1. In a hoist, spaced apart vertical uprights, spaced apart, inwardly extending flanges upon said vertical uprights providing longitudinal guideways of said hoist in facing relation to each other, spaced apart, horizontal arms constituted as continuations of upper portions of said vertical uprights, respectively, spaced apart, inwardly extending flanges upon said horizontal arms providing horizontal guideways of said hoist in facing relation to each other at the same side of said vertical uprights, said horizontal guideways being constituted as continuations of said longitudinal guideways, respectively, a platform, a frame rigid with said platform, vertically spaced guide elements upon said frame ridable in the longitudinal guideways of said vertical uprights, respectively, a holder for materials, means mounting said holder upon said platform for rotative movement, actuator elements upon portions of said holder spaced from its axis ridable in said longitudinal and horizontal guideways, and means for accomplishing movement of said frame with platform longitudinally of said vertical uprights.

2,780,374
LOADER MACHINE
Eric M. McElhinney, Dysart, and Theodore A. Podhajsky, Traer, Iowa
Application January 27, 1954, Serial No. 406,526
5 Claims. (Cl. 214—140)

1. A loading machine comprising a main frame, a pair of elongated lift arms arranged at opposite sides of said frame and having tubular rear end portions, means for pivotally supporting the rear ends of said lift arms on said main frame, a pair of lift frames corresponding to said lift arms and pivotally mounted on said main frame forwardly of the pivotal supports for said lift arms, said lift frames including rearwardly extended portions pivotally connected to said lift arms intermediate the ends thereof, a pair of pistons mounted in said tubular lift arm portions for movement longitudinally of said

lift arms, piston rods on said pistons projected outwardly from the rear ends of said lift arms, means for supplying fluid under pressure to said tubular portions to move said pistons, flexible connecting members connected to and extended between said lift arms and said lift frames and arranged so as to be movable by said piston rods, with said connecting members being connected to said lift frames such that movement of said pistons operates to raise and lower said lift arms.

2,780,375
HAND TRUCK
Sven Erik Marcusson, Angelholm, Sweden, assignor to S. Marcussons Transportvagnfabrik A. B., Angelholm, Sweden, a corporation of Sweden
Application December 8, 1954, Serial No. 473,946
3 Claims. (Cl. 214—383)



1. A hand truck, comprising an elongated frame, longitudinal members in said frame, one of said longitudinal members being arranged centrally in said frame and offset from the other longitudinal members, said centrally arranged longitudinal member being formed by a tube open at the handle end of the truck and having at least one tunnel-shaped guideway therein, said tube having an upwardly open longitudinal slot therein, flanges in said tube formed by the opposed edges of said slot in said tube, a gripping member in said tube having two arms joined together at an angle to each other, hook means at the outermost end of one of said arms, and abutments at the angular joint between said arms and at the outermost end of the other one of said arms projecting from the opposite sides of the gripping member for engagement with said flanges, which said gripping member may be inserted through the open end of said tube and moved longitudinally of the tube either with one or both of said arms projecting through the slot of said tube.

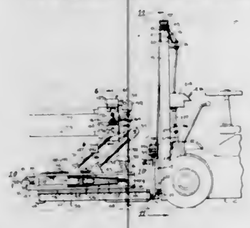
2,780,376
MACHINE FOR CONTINUOUSLY LAYING AND JOINING PIPE SECTIONS
Ralph M. Senders, Pittsburgh, Pa.
Application March 1, 1955, Serial No. 491,496
10 Claims. (Cl. 214—519)

1. A machine for continuously laying and joining pipe sections, comprising a carriage and means for moving it

along the ground, racks on the carriage for supporting a plurality of pipe sections arranged longitudinally of the carriage, a cradle supported on the carriage and extending longitudinally thereof, means for feeding the pipe sections one at a time from the racks onto the cradle, a ramp

connected at its front end to the rear of the carriage and sloping downwardly and rearwardly with its rear end adjacent the ground, and means for pushing the pipe sections one at a time from the cradle onto the ramp as the carriage moves forwardly and joining them while on the ramp.

2,780,377
ARTICLE GRAPPLING AND STACKING ATTACHMENT FOR LIFT TRUCKS
William S. Glenn, Jr., and Warren L. Septon, Spartanburg, S. C.; said Septon assignor to said Glenn, Jr.
Application March 16, 1954, Serial No. 416,578
11 Claims. (Cl. 214—652)

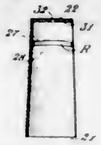


1. In a lift truck having a vertically movable frame thereon; the combination of a support adapted to be mounted on said vertically movable frame, a grappling device movably mounted on said support and having laterally spaced substantially parallel grappling arms thereon, means for rotating the grappling device about a substantially vertical axis relative to said support substantially a quarter revolution either side of the longitudinal axis of the truck, means for tilting said grappling device and means for extending and retracting said grappling device relative to said support in opposite directions substantially parallel with said grappling arms.

2,780,378
COLLAPSIBLE CONTAINER
Mose Romano, Istanbul, Turkey
Application November 13, 1953, Serial No. 391,910
3 Claims. (Cl. 215—11)

3. In a collapsible and expansible container, an accordion pleated side wall having an uppermost pleat terminating in an inwardly and upwardly inclined flange having an inner side, an inverted pan-shaped top having a depending downwardly flared flange, said flared flange being engaged within said inclined flange and secured to the inner side of the inclined flange, said top having a central opening, an annular neck on and rising from said top around said opening, said neck having an upper end and a reduced diameter portion spaced below said upper end, said reduced portion defining internal and external shoulders at its upper end, an internal flange on the upper end of the neck having a lower edge spaced upwardly from said internal shoulder, said internal shoulder and the lower edge of said internal flange defining an annular groove, and a closure disc in said neck having a peripheral edge engaged in said groove, said external shoulder being spaced upwardly from and with said top defining an external annular groove, and a feeding nipple engaged over said neck and having a lower end including a brad engaged in said external groove.

2,780,379
CAPSULES FOR COVERING BOTTLE TOPS
Robert N. Ferguson, Drummondville, Quebec, Canada, assignor to Dennison Manufacturing Company, Framingham, Mass., a corporation of Massachusetts
Application September 30, 1954, Serial No. 459,265
5 Claims. (Cl. 215—38)

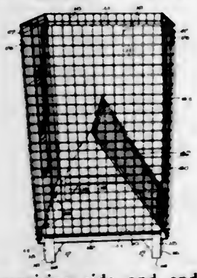


3. For making a capsule to cover the upper end of a bottle, a blank tapered toward the top and having parallel rows of perforations extending from side to side to form a tear-out strip therebetween, the rows being concave toward the top so that they lie in horizontal planes when the blank is bent into a conical capsule, one end of said tear-out strip having an integral extension which projects beyond the edge of the blank, and a reinforcing ribbon secured to said strip throughout its length, the strip being wider than the ribbon and the ribbon being disposed in a straight line between said concave rows, and the upper edge of the blank being serrated to form tapered fingers adapted to bend inwardly over a cap in non-overlapping relationship to each other.

2,780,380
CROWN CAPS FOR CONTAINERS
Ralph M. Berglund, Burlingame, Calif.
Application December 18, 1953, Serial No. 399,078
7 Claims. (Cl. 215—46)

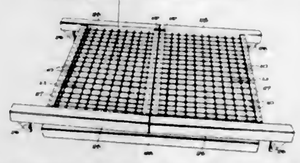
7. A hand rupturable crown cap comprising a metal cap body including a substantially circular top and a crimped annular skirt extending dependingly therearound, said cap body being slitted from the edge of said skirt upwardly and across said skirt and inwardly of said top at least part way across said top, the slit edges being joined together by solder to form a sealed connection between said edges having strength sufficient to withstand the cap-forming operation, the slit edges being flanged outwardly to form a re-entrancy therebetween extending the length of the slit, and the solder comprising a fillet occupying said re-entrancy and presenting a surface inside the cap which is substantially flush with the inside surface of the cap.

2,780,381
SHIPPING AND STORAGE CRATES
Burton C. Colt, Jr., Washington, Pa., assignor to Tri-State Engineering Company, Washington, Pa., a corporation of Maryland
Application August 9, 1954, Serial No. 448,543
3 Claims. (Cl. 220—6)



1. A crate comprising side and end walls pivotally connected at the vertical corners of the crate, a bottom wall for the crate, a footed base for the said walls, one of the side walls having an upper part in the form of relatively spaced vertical panel-like portions each hingedly connected to its adjacent end wall and extending to the upper edge thereof, and panels in relatively superposed relation bridging the spaces between the vertical panel-like portions and hingedly connected together at their adjacent horizontal edges, the lower edge of the lowermost panel being hingedly connected to the side wall, on a horizontal axis at a line below the said panel-like portions, and the panels being provided with latch devices near their upper edges, for detachable connection to the vertical panel-like portions.

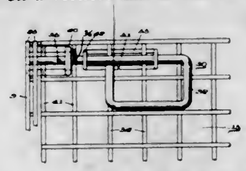
2,780,382
COLLAPSIBLE CONTAINER
Marshall H. Beckner, Washington, Pa., and John M. Leahy, Detroit, Mich.; said Beckner assignor to Tri-State Engineering Company, Washington, Pa., a corporation of Maryland
Application October 15, 1954, Serial No. 462,431
5 Claims. (Cl. 220—6)



1. A crate frame comprising deck members connected together in unitary relation, and provided with side bars at two opposite edges, post members hingedly connected to the side bars and foldable into parallelism with the side bars, the post members having leg portions extending below the deck, and stop membrs on the leg portions, in position to abut lower surfaces of the side bars and prevent tilting of the posts outwardly from their upright positions.

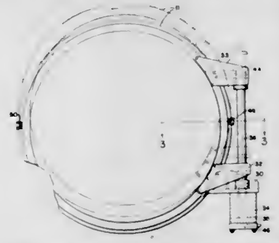
2,780,383
LATCH FOR CRATE LIKE CONTAINERS
Burton C. Colt, Jr., Washington, Pa., assignor to Tri-State Engineering Company, Washington, Pa., a corporation of Maryland
Application January 24, 1956, Serial No. 560,994
7 Claims. (Cl. 220—7)

1. The combination with a crate having a bottom and vertical side and end walls that are movably connected to the bottom, at least one of the side walls being a drop wall hingedly mounted on a horizontal axis at its lower edge, a pair of latches each comprising a latch bolt supported by the drop wall for sliding movement horizontally adjacent to the upper corner of said drop wall, and thereby projectible into openings through the end walls, stop means positively limiting said sliding movement, keepers of generally L shape each having one leg pivotally connected on a vertical axis to one of the end walls



and normally parallel to the wall, its other leg being outturned through a relatively wide opening through the adjacent drop wall, the said outturned end having a loop through which the bolt is slidable when the walls are in their upright positions, and a stop shoulder on the bolt movable into position to be engaged with the outer side of the loop when the bolt is in its projected position.

2,780,384
DOOR MOUNTING FOR AUTOCLAVES AND THE LIKE
Edgar H. Stratton, Cuyahoga Falls, and Howard M. Fisher, Akron, Ohio, assignors to Adamson United Company, Akron, Ohio, a corporation of Ohio
Application December 10, 1954, Serial No. 474,502
7 Claims. (Cl. 220—38)

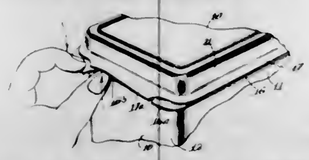


7. A door mounting for an autoclave or the like, said door mounting comprising an annular frame member secured to the autoclave about an opening therein, an annular door member secured to the periphery of the door for seating engagement with the first said member, said members being interlockingly engageable with one another by sliding movement of one across the other by reason of semi-annular mating grooves and flanges on said members, said door member being also hinged to said frame member for swinging movement toward and from said frame member about an axis parallel to the direction of such sliding movement, means on the hinge mechanism for moving said door axially of the hinge axis in said sliding movement, a locking pin for holding the member against such sliding movement, and fluid pressure means for providing sliding movement of said door and locking and unlocking movements of said locking pin, said fluid pressure means having interlocking control valves to prevent withdrawal of said locking pin except in the mating position of said door and frame members and to prevent sliding movement of said door member when said locking pin is in locking position.

2,780,385
BREAD SERVER
Earl S. Tupper, Upton, Mass.
Application March 23, 1954, Serial No. 418,070
4 Claims. (Cl. 220—43)

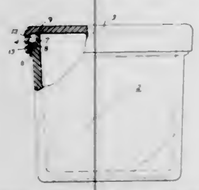
2. In an open mouth container and a removable closure therefor at least one of said members being of a

locally deformable and flexible plastic material, a peripheral side wall rim and an outwardly directed stop flange for said closure disposed above the bottom edge of said rim, hermetical sealing and receiving means on said container for said rim comprising an inner, an outer and a base wall to form a rim receiving peripheral groove on the container upper edge, an outwardly directed receiving flange extending from the upper edge



of said outer wall of the said groove to abuttingly receive said stop flange when the closure and container are in engagement, a finger-engageable stop flange extension projecting beyond the receiving flange and a pair of cooperating, finger-engageable and spaced receiving flange extensions disposed beyond each end portion of said stop flange extension when the closure and container are in engagement to facilitate lifting of the closure from the container and also to guide positioning of the closure over the container for engagement purposes.

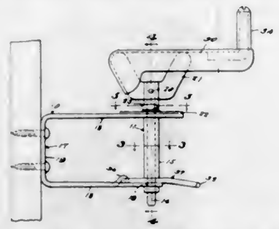
2,780,386
FROZEN SEAL RECEPTACLE
Charles S. Evans, Atherton, Calif.
Application July 10, 1950, Serial No. 172,917
2 Claims. (Cl. 220—45)



1. A frozen seal receptacle comprising a main body portion having an upstanding peripheral wall, an external bead extending around said wall below its rim and forming therewith an upwardly widening water trough having a continuous upwardly converging outer face, a cover portion having a flange entirely enclosing the bead and trough said flange having an inner surface in face contact relation with the outer face of the trough, and a body of ice in the trough completely filling the trough and extending slightly beyond the upper edge of the outer wall of the trough and sealing the joint between said flange and said outer face.

2,780,387
KEY AND CAN SUPPORT FOR REMOVING SEALING BANDS FROM VACUUM CANS
Albert C. Hertzfeldt, Winona, Minn.
Application August 19, 1954, Serial No. 450,837
2 Claims. (Cl. 220—52)

1. In combination an improved key and key and can holder for removing sealing bands from vacuum cans comprising a U-shaped bracket having its bight disposed vertically for attachment to a fixed support, the laterally extending vertically spaced apart arms on the opposite ends of said bight, being formed with aligned journal key openings therethrough adjacent the ends thereof remote from said bight, a can sealing band opening key extending through said openings and rotatable therein, upwardly extending outwardly divergent key rotating fingers on said key removed from said bracket, said key being provided with a longitudinally extending slot therethrough for receiving an end of a sealing band of a can to be wound about said key upon rotation thereof, an outwardly extending bearing disc fixed on said key intermediate the length thereof rotatably bearing on the upper surface of the upper of said arms, a pair of horizontally



spaced apart outwardly extending laterally and outwardly divergent segmentally arcuate can engaging guide hinged on the lower of said brackets arms intermediate the length thereof between said bight and said key opening therein for engaging a can rotatable therein by the winding of said sealing band on said key.

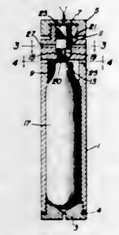
2,780,388
ADJUSTABLE CUP DISPENSER
Paul A. Stephenson, Hamden, Conn., assignor, by mesne assignments, to Continental Can Company, Inc., New York, N. Y., a corporation of New York
Application May 4, 1954, Serial No. 427,534
4 Claims. (Cl. 221—44)

1. In a cup dispenser, a casing including upright front and rear case members adapted to enclose a stack of cups, means for mounting the front case member for adjustment forwardly and rearwardly relative to said rear case member, a pair of forwardly and outwardly inclined stiff first supports on said rear case member arranged to engage the bottom cup of said stack at spaced points on its brim, a pair of rearwardly and outwardly inclined stiff second supports mounted on said front case member for adjustments relative to each other and arranged to engage said bottom cup at points oppositely spaced from said first supports, means for adjusting the spacing of the supports of said pair of second supports in accordance with cup size, and means for securing said case members in an adjusted position to space said pair of first supports from said pair of second supports in accordance with cup size.

2,780,389
SQUIB OPERATED GAS RELEASE DEVICE
Marvin A. Sandgren, Robbinsdale, Minn., assignor, by mesne assignments, to the United States of America
Application May 2, 1955, Serial No. 505,568
1 Claim. (Cl. 222—5)

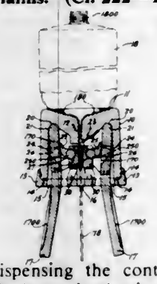
A squib operated discharge device comprising a body member, a cavity in said body member, a container filled with an expansible fluid under pressure positioned in said cavity, a bore in said body member in open alignment with said container, a dart in said bore having an enlarged point adapted to pierce said container and an

enlarged head having a sliding fit in said bore, an explosive squib in said bore adapted to drive said point through the wall of said container, at least one discharge passage communicating with said bore, means normally holding said dart in such a position that said dart head closes an explosive gas outlet, said bore and said dart being so proportioned that when said point has pierced the wall of said container said head uncovers said gas



outlet, said bore comprising a cylindrical portion and a tapered portion, said tapered portion being at the end adjacent said container, said dart being normally positioned with its head in said cylindrical portion and having a sliding fit therein, said tapered portion being so proportioned that said squib may drive said head into said tapered portion sufficiently to uncover said explosive gas outlet and that said dart will then be stopped.

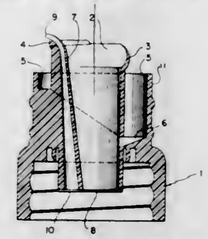
2,780,390
MEANS FOR DISPENSING THE CONTENTS OF COLLAPSIBLE TUBES
Urban C. Holland, Plymouth, Mich.
Application January 26, 1955, Serial No. 484,145
5 Claims. (Cl. 222—103)



1. Means for dispensing the contents of collapsible tubes comprising a body portion having a slot therethrough to accommodate the flattened end of a collapsible tube, a pair of tube grip blocks within said body portion, one tube grip block disposed each side of said tube slot, a pair of operating levers pivoted within said body portion, one operating lever disposed on each side of said tube grip blocks, floating cam means engageable by said operating levers and pivoted in said tube grip blocks adapted to move said tube grip blocks first into engagement with the flattened end of said collapsible tube and then downwardly with respect to said body portion whereby to compress the said collapsible tube against the top of said body portion and force contents therefrom.

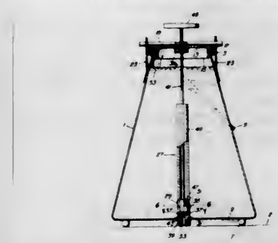
2,780,391
SPOUT COMPRISING A LARGE OUTLET PASSAGE AND A SMALLER OUTLET PASSAGE LOCATED THEREIN
Albert R. Jasuta, Easton, Pa., assignor to J. T. Baker Chemical Co., Phillipsburg, N. J., a corporation of New Jersey
Application September 24, 1952, Serial No. 311,289
2 Claims. (Cl. 222—109)

1. A combination drop and large flow spout for an opening in a vessel containing liquid, which comprises a large outlet passage formed by a passage wall and provided with a pouring lip for pouring liquids, with a slanting channel on the outside of said passage adapted to receive liquid dripping or overflowing from said pouring lip on the said passage, an opening in said passage wall opposite the pouring lip into the low point of the slanting channel, means for covering the bottom of said passage, said means being removable to permit flow of



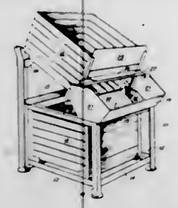
liquid through the passage from the vessel and from the opening into the low point of the slanting channel, a substantially smaller outlet passage for pouring small quantities of liquids formed by a second passage wall situated within and eccentric to the large passage, said smaller passage being larger at the liquid inlet end than at the outlet end, said outlet end being an elongated curved portion extending over the pouring lip of the large passage.

2,780,392
HUMIDIFYING DEVICES FOR COOKING PURPOSES
Melvin B. Nonhof, Bancroft, S. Dak.
Application July 25, 1955, Serial No. 524,046
1 Claim. (Cl. 222—185)



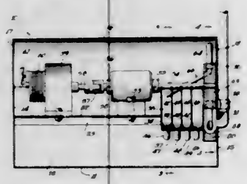
A humidifying device for supplying moisture to food in a cooking utensil comprising a water container open at its top, and having a closed bottom, a ported water discharge nipple in the bottom of the container threaded therethrough and rising therefrom into the container with ports therein above said bottom for discharging water below said bottom, feet on said bottom for supporting the container on the bottom of a utensil with the nipple spaced from the bottom of said utensil, a valve seat in said nipple, a closure for the top of the container, a valve stem threaded through said closure with a terminal needle valve end in said nipple for screw feed through said closure to adjust said valve end toward and from the seat for controlling discharge of water from said nipple, a pilot boss on said stem rotatably fitted in said nipple for centering said valve end relative to said seat and being spaced above said ports to clear the same, said closure being adapted to be removed and applied and said stem and boss being removable from said nipple and insertable therein when the closure is removed and applied, and a tubular guide rising from said nipple and through, which said boss is slidable in removing and inserting said stem and boss, said boss being polygonal to permit water to circulate through said tube when said needle valve end is seated.

2,780,393
MATERIAL HANDLING BOX WITH RETURN CHUTE
Richard C. Johnson, Hubbard, Ohio, assignor to The Powell Pressed Steel Company, Hubbard, Ohio, a corporation of Ohio
Application January 26, 1955, Serial No. 484,245
6 Claims. (Cl. 222—185)



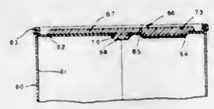
1. In combination a supporting stand having a hopper with bottom, front, back and side walls, a structural member positioned across the top of the hopper and supported on said side walls, and a box having a fixed bottom removably supported on said stand, a front wall of said box having an opening therein and a slidable closure mounted on said box normally registering with said opening, means on said closure engaging said structural member when said box is positioned on said stand acting to open said closure, said hopper having an opening therein and a chute defining wall positioned within said hopper around said last mentioned opening in said hopper forming a passageway through said hopper communicating with a secondary material handling box positioned in said stand beneath said hopper and below said opening therein.

2,780,394
APPARATUS FOR FEEDING AND DISTRIBUTING GRANULAR MATERIAL
George F. Walters, Chicago, Ill., and Berlin M. Steele, North Canton, Ohio, assignors to Oxi Corporation, a corporation of Indiana
Application March 5, 1954, Serial No. 414,369
4 Claims. (Cl. 222—273)



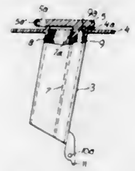
1. In an apparatus for feeding granular material, a supply hopper open at its top and having a substantially semi-circular bottom, a conduit extending through one of the sides of the supply hopper for feeding granular material into the hopper, a discharge hopper adjacent the other side of the supply hopper, a rotary member, means for rotatably mounting the rotary member in the open top of the supply hopper for rotation substantially concentrically with the semi-circular bottom of the supply hopper, a scoop tube carried by the rotary member and extending outwardly from the rotating periphery thereof and moved through the supply hopper adjacent the substantially circular bottom thereof for scooping granular material from the hopper, a discharge tube carried by the rotary member and extending from one side thereof over the discharge hopper, and a passage in the rotary member connecting the scoop tube and the discharge tube for discharging granular material scooped up by the scoop tube through the passage and discharge tube into the discharge hopper as the rotary member is rotated.

2,780,395
CONTAINER CLOSURE CONSTRUCTION
Raymond M. Schlabach, Hills and Dales, Canton, and Louis V. Bockius, Congress Lake, Ohio
Application November 14, 1952, Serial No. 320,547
1 Claim. (Cl. 222—516)



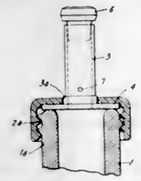
In a closure construction for a can, a tubular body having a flat metal end wall, the end wall having an inner and outer side and having formed therein an opening, the end wall being secured to the tubular body by a peripheral beaded seam, a pretensioned elongated plastic bar member resiliently bowed along a portion of its length providing opposed concave and convex surfaces along said bowed portion, a plastic closure plug shaped to generally conform to the wall opening formed integrally with the concave surface of the closure bar member and extending from said surface, the portion of said closure plug extending from said concave surface having inwardly tapered sides and a generally flat bottom surface generally parallel to said concave surface, means for rotatably securing the bar member to the outer side of the metal end wall with the ends of said bar member bowed portion in resilient engagement with the outer side of the end wall, the closure plug and the wall opening being equally spaced from the point of attachment of the bar member to the wall to bring said plug into and out of closing registry with said opening with rotation of said bar, the closure plug generally flat bottom surface sliding freely along the flat metal wall outer side with rotation of said bar when said plug is out of closing registry with the wall opening, the closure plug tapered sides sealing the wall opening substantially air-tight when said plug is in closing registry with said opening, the bar having a depression formed therein in the convex surface thereof above the closure plug, a raised rib formed transversely of and within said depression providing a finger grip for rotating the bar, and no portion of said raised rib extending above the can circumferentially beaded seam when the bar member is mounted on the can end wall.

2,780,396
LIQUID DISPENSING DEVICE
Edward W. Larrabee, Corona, N. Y.
Application February 6, 1956, Serial No. 563,759
7 Claims. (Cl. 222—539)



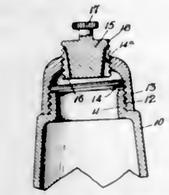
1. A unitary liquid dispensing device comprising, in combination, a substantially tubular dispensing unit with an integral annular flange member, a disc-like closure member, a narrow frangible annulus along the inner circumference of the annular flange member, said annulus forming a connection between the disc-like closure and the dispensing unit, a substantially chordal longitudinal rib intersecting the tubular dispensing unit into a pouring chamber and an air chamber with a restricted orifice, and male and female hinge means arranged in the disc-like closure member and at the other end of the tubular dispensing unit for cooperation with each other, the entire device forming an integral unit and the disc-like closure member being separable from the dispensing unit along said narrow annulus and being pivotally connectable to the other end of the unit by said hinge means.

2,780,397
DISPOSABLE LIQUID DISPENSING DEVICE
Edward W. Larrabee, Corona, N. Y.
Application October 28, 1954, Serial No. 465,293
11 Claims. (Cl. 222—539)



1. A liquid dispensing device comprising, in combination, a substantially tubular dispensing unit with an integral annular flange member at one end thereof and a stopper member having a substantially circular top portion integrally united with the dispensing unit along a narrow frangible annulus along the inner circumference of said flange member, the dispensing unit, its flange and the stopper top forming an integral unit connected solely by said annulus and the stopper top being separable from the dispensing unit along said narrow annulus.

2,780,398
DISPENSER CAP FOR SALT AND PEPPER SHAKERS
Andrew C. Frey, Jackson, Mich.
Application October 16, 1953, Serial No. 386,497
1 Claim. (Cl. 222—545)



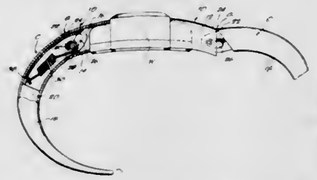
A device of the character described comprising a cap having a centrally disposed interiorly threaded opening therein, and an exteriorly threaded cylindrical plug threadably mounted in said opening and having a plurality of circumferentially spaced inwardly and downwardly directed grooves formed therein, said grooves each extending downwardly from the convolution next to the uppermost convolution of the threads in said plug.

2,780,399
KNITTING BASKET
Clyde W. Long, San Francisco, Calif.
Application January 24, 1955, Serial No. 483,766
2 Claims. (Cl. 223—107)

1. A knitting basket comprising a first tubular member closed at one end serving as a bottom for the basket and a second tubular member closed at one end telescoping over the first member and serving as the top for the basket, a handle comprising a single length of flexible material, the ends of said handle being secured at opposite interior sides near the top of the first member, said handle passing through spaced apart apertures in the closed end of the second member, said first member being provided with an interior annular shoulder spaced from the bottom of the basket, two removable circular discs supported by said shoulder and forming a chamber for yarn at the bottom of the basket, each of said discs having a central opening therein with radial slots leading from the edge of the disc to the central opening and means

connecting the two discs whereby the discs can be turned relative to each other to a first position wherein the slots of each disc are in alignment and to a second position wherein the slots of each disc are not in alignment.

2,780,400
HINGED CLAW WATCH BRACELET
Ralph Lancaster and Norman Slater, Waterbury, Conn., assignors to Benrus Watch Company, Inc., New York, N. Y., a corporation of New York
Application September 2, 1954, Serial No. 453,757
3 Claims. (Cl. 224—4)



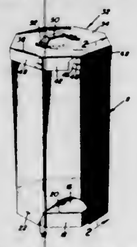
1. A hinged claw watch bracelet comprising a watch casing, opposite end sections extending from the watch casing, claw sections attached to the end sections, each claw section having a movement with reference to its end section about a pivot axis located at the outer surface of the end section, the end sections being formed as housings and the contiguous parts of the claw sections being formed as housings for mating with the end section housings, and means for attaching and mounting each claw section to its end section for said movement comprising an arcuate cam track means in one of said sections having its center of curvature in said pivot axis, a cam follower in the other of said sections constrained for movement in said cam track, and a spring connecting the claw section to its end section active for biasing the claw section to contracted condition on the end section, said cam track means, cam follower and spring being located within and housed by the mating housings of said end section and said claw section.

2,780,401
RECEPTACLE
Samuel S. Stevens, Plattsburgh, N. Y., assignor, by mesne assignments, to The Diamond Match Company, New York, N. Y., a corporation of Delaware
Original application April 25, 1947, Serial No. 743,857. Divided and this application February 1, 1952, Serial No. 269,473
3 Claims. (Cl. 229—2.5)

1. A receptacle comprising: an open top molded fibrous body one face of which is provided with a hot pressure die dried finish, said body having a bottom and an upstanding peripheral side wall, and a relatively thin pre-

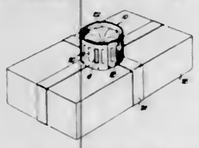
formed sheet of non-fibrous thermoplastic material permanently fusion-bonded directly against the face of said bottom and side wall of the body which has the hot pressure die dried finish by the body contacting surface stratum of the sheet itself, said sheet being free from fusion-caused perforations and forming an impervious seal over the surface of the body.

2,780,402
DIAPER HAMPER WITH DEODORIZING MEANS
Arthur J. Zucker and Bernard Heiblim, Passaic, N. J., assignors, by direct and mesne assignments, to Hamper-Tainer Co. Inc., Passaic, N. J., a corporation of New Jersey
Application September 8, 1953, Serial No. 378,825
3 Claims. (Cl. 229—14)



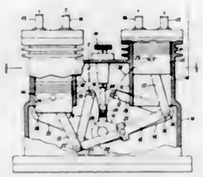
1. A diaper hamper of the class described comprising a container open at its top and closed at its bottom, a readily applicable and removable handle-equipped cover, said cover having a marginal flange and said flange being made up of circumferentially spaced independently bent flange complements, said flange complements being made up of components folded upon themselves and providing a double thickness construction, and certain of said complements having extending tabs and said tabs being interlocked with other complements and stapled to provide a substantial rim for said cover, and a liner for the bottom side of said cover, said liner comprising companion coplanar half-sections having abutting edge portions joined together by a connecting web, and said web being apertured and being fashioned into and serving as a deodorant holding box.

2,780,403
PACKAGE BOW GUARD
Bill Y. James, Miami, Okla.
Application September 10, 1953, Serial No. 379,387
2 Claims. (Cl. 229—87)



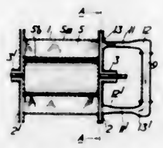
1. Structure of the kind described comprising, in combination, a package; a decorative bow mounted on the package; an open ended, tubular guard having one extremity thereof resting on the package with the bow received within and circumscribed by the guard; a plurality of inturned ears on the guard at said one extremity of the latter extending between the bow and the package and oppositely engaged thereby for releasably holding the guard in place to protect the bow, said guard comprising an elongated, bendable band having portions adjacent its ends overlapped with each other; means for releasably securing said portions in said overlapping relationship, said ears being integrally connected with one side of the band by lines of bend; and bendable, metal, wire staple elements extending across said lines of bend and oppositely secured to said ears and said band.

2,780,404
FLUID COMPRESSOR
Hans P. Kuehni, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application July 21, 1953, Serial No. 369,273
1 Claim. (Cl. 230—20)



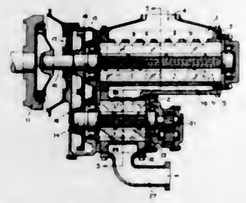
In a fluid compressor comprising a cylinder and a reciprocative piston within said cylinder, a piston rod pivotally connected at one end to said piston, a rotatable crank arm, a drive rod pivotally connected at one end to said crank arm, a control rod having one end pivotally interconnected with the other ends of said piston rod and said drive rod to form a toggle joint therewith, supporting means having a slot extending along a circular locus between said arm and said piston at a constant radius from an axis corresponding to the pivot axis of said toggle joint when said piston is at its minimum clearance volume position in said cylinder, a pivot pin supported within said slot, means for adjusting the position of said pin within said slot, and a pivotal connection of the other end of said control rod on said pivot pin, all of said pivotal connections having pivot axes parallel to said toggle joint pivot axis.

2,780,405
PRESSURE EXCHANGERS
George Jendrassik, London, England; Andre G. T. Boszormenyi and Clara Jendrassik, executors of said George Jendrassik, deceased, assignors, by mesne assignments, to Jendrassik Developments Limited, London, England
Application April 30, 1951, Serial No. 223,677
Claims priority, application Great Britain May 9, 1950
14 Claims. (Cl. 230—69)



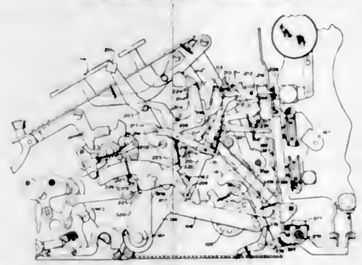
1. A transfer gas passage arrangement for a pressure exchanger having at least one ring of cells, a system of ducting to supply gas to and from the cell-ring, passages to interconnect pairs of cells to permit transfer gas flow from one cell of a pair to the other and means for effecting relative rotation between the cell-ring on the one hand and the said ducting system and the said passages on the other hand, during which relative rotation there is momentary communication between cells containing gas at different pressures, so that the pressure in one cell of an inter-communicating pair falls while that in the other rises with consequent flow of gas by way of the said passages, in which arrangement each of the said passages comprises a kinetic-energy-storing portion along which the cross-sectional area is substantially unvarying and a convergent inlet portion to the said kinetic-energy-storing portion, whereby in the designed conditions of operation the gas flow between interconnected cells persists after the pressure in them has substantially equalized.

2,780,406
ROTARY COMPRESSOR
Harry A. Feldbush, Short Hills, N. J., assignor to Worthington Corporation, Hudson, N. J., a corporation of Delaware
Application April 21, 1953, Serial No. 350,091
5 Claims. (Cl. 230—158)



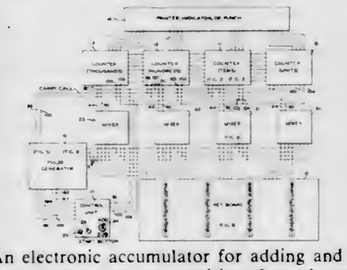
4. In a flooded type rotary compressor utilizing lubricant fluid as the cooling medium for the fluid to be compressed, a low compression stage including a cylinder, a rotor eccentrically mounted therein and slidable vanes carried by said low stage rotor, a high compression stage including a cylinder, a rotor eccentrically mounted therein, and slidable vanes carried by said high stage rotor, and means for rotating said rotors; said cylinders spaced from each other and in superposed parallel axial relation, oppositely spaced walls between said cylinders, an interstage pressure fluid chamber formed by the outer surfaces of said cylinders and said spaced walls, said low compression stage cylinder having a downwardly disposed discharge opening communicating between a lower portion thereof and the interstage pressure fluid chamber and said high compression stage cylinder having a downwardly disposed inlet opening communicating between the lower portion of said interstage pressure fluid chamber and said high compression stage cylinder, said high compression stage cylinder having an outlet means for conveying compressed fluid.

2,780,407
CARRIAGE CONTROL MEANS FOR LISTING CALCULATORS
James W. Dodsworth, Mount Tabor, N. J., assignor to Monroe Calculating Machine Company, Orange, N. J., a corporation of Delaware
Application February 23, 1955, Serial No. 489,960
24 Claims. (Cl. 235—60.46)



1. In a machine of the class described the combination comprising registering and printing means, cyclic operating devices, a traveling record carriage movable to a plurality of columnar positions, a power means for effecting return movement of the record carriage, control means for effecting an operation of said return means, settable means positioned on the record carriage relative to a selective columnar position and normally set for cooperation with said return control means in a return movement of the carriage to automatically disable the power return means and interrupt said return movement of the carriage, a member movable by the cyclic operating devices, operating means cooperable therewith and normally ineffective of said movement, means on the record carriage relative to a second selective tabulated position thereof and adapted upon a movement of said carriage to said second selective columnar position to adjust the said operating means to an effective position for a subsequent movement by said member, and devices on the record carriage cooperable with said interrupting means and rendered effective in a movement of the record carriage to the said later columnar position for an operation in the said movement of said operating means to thereby automatically adjust the said return interrupting means to an ineffective position.

2,780,408
ELECTRONIC ACCUMULATOR
Loring P. Crosman, Wilton, and Francis B. Hannon, Milford, Conn., assignors to Sperry Rand Corporation, a corporation of Delaware
Application June 22, 1951, Serial No. 233,002
3 Claims. (Cl. 235—61)

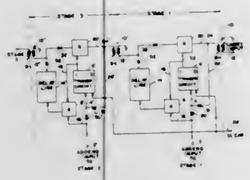


1. An electronic accumulator for adding and subtracting received digit values comprising; four electronic trigger stages having assigned digit values of one, two, two, and four; an additional electronic trigger stage for storing a carry digit which is to be added to the next higher order accumulator; each of said trigger stages having a normal condition and an actuated condition of conductive stability; means in each trigger stage responsive to a negative electrical pulse to change from either condition of stability to the other; an input circuit for receiving electrical pulses and transmitting them to a trigger stage having an assigned value of unity; coupling circuits between the trigger stages and the carry trigger stage for transmitting an actuating electrical pulse to the next higher valued stage when a stage is changed from its actuated condition to its normal condition; said coupling circuits each including an amplifier gate stage which may be converted to a non-conductive condition by the application of a control potential; circuit means for applying an actuating pulse to all trigger stages to change their conditions of conductive stability to record a nines complement of the previously recorded value; and control means for applying the control potential to all of said amplifier gate stages to convert them to a non-conductive condition during the time the trigger stages are being actuated to show a nines complement.

2,780,409
BINARY ACCUMULATOR CIRCUIT
George A. Hardenbergh, St. Paul, Minn., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application March 16, 1954, Serial No. 416,723
5 Claims. (Cl. 235—61)

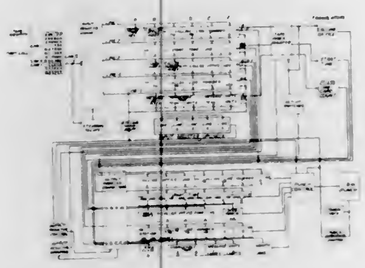
1. A binary accumulator circuit of the parallel type comprising the combination of a plurality of serially arranged elementary accumulator stages each of which includes a trigger circuit operable to a first and a second stable condition, a first and a second pulse input means for said trigger circuit, a first and a second switching means connected to said trigger circuit and with said

first and second input means respectively, said first and second switching means being controlled to a closed and an opened position by said trigger circuit and said first



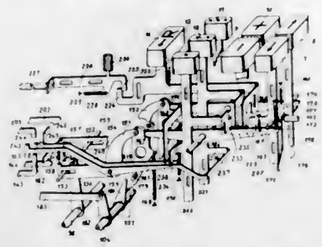
and second input means respectively, a delay line having a predetermined time delay connected to said first switching means, and an output means interposed in the circuit of said second switching means and said delay line.

2,780,410
TAPE-TO-CARD CONVERTER CIRCUIT
Rolland N. Breed, Clifton, N. J., Willard B. Groth, Bronx, N. Y., Gordon C. Irwin, Fair Haven, and Lindley A. Kille, Morristown, N. J., and George Riggs, Port Washington, N. Y., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application January 29, 1952, Serial No. 268,742
4 Claims. (Cl. 235—61)



4. In a system of registers, an input register comprising a first and a second group of line registers, means for operating each of said registers of said first and said second groups to a first condition at a first time, means for operating each of said first group of registers to a first condition and maintaining each of said second group of registers in a normal unoperated condition at a second time, a first and a second group of switches, one of said switches of said first and said second group of switches individual to one of said line registers in said first and said second group of registers, respectively, for checking the condition of said line registers, means responsive to the actuation of each of said registers of said first and said second groups to said first condition for operating its respective switch to a first condition at said first time, a first checking circuit responsive to said operation of each of said switches to said first condition at said first time, means responsive to the operation of each of said registers of said first group to said first condition and the non-operation of any of said second group of registers for operating each of said first group of switches to said first condition and maintaining each of said second group of switches in its normal unoperated condition and a second checking circuit responsive to said operation of said first group of switches and the non-operation of said second group of switches at said second time.

2,780,411
CALCULATING MACHINE
Wilhelm K. B. Kiel, Nurnberg, and Ulrich J. R. Eichler, Nurnberg-Ebensee, Germany; said Kiel assignor to Metall-Guss- und Presswerk Heinrich Diehl G. m. b. H., Nurnberg, Germany
Application November 6, 1952, Serial No. 319,158
Claims priority, application Germany November 15, 1951
16 Claims. (Cl. 235—63)

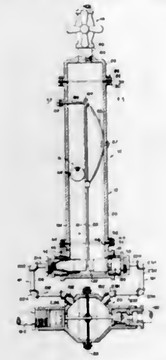


1. A calculating machine having an ordinally shiftable carriage movable by motor means relative to a stationary machine frame, and having a revolutions counter and an accumulator mechanism supported by said carriage, which comprises in combination, a first carriage shift control train operable to cause said motor means to shift said carriage in one direction, a second carriage shift control train operable to cause said motor means to shift said carriage in the opposite direction, a first clearing train for clearing said accumulator mechanism, a second clearing train for clearing said revolutions counter, a first power control train operable to actuate said first carriage shift train, a first power operable control member adapted when released to actuate said first power control train, a first command member operable selectively to release said first power operable control member, a second power control train operable to actuate said second carriage shift train, a second power operable control member adapted when released to actuate said second power control train, a second command member operable selectively to release said second power operable control member, first and second coupling lever means pivotally connected to said first power control train and adapted to be connected to said first and second clearing train respectively to thereby operatively connect the same with said first power control train, said first coupling lever means being normally operatively connected to said first carriage shift control train first manually operable key means for bringing about operation of said first clearing train, and second manually operable key means for bringing about operation of said second clearing train, said first and second key means being arranged to actuate said first command member and to shift the respective lever means into position for coupling said first power control train to the respective clearing train.

2,780,412
AUTOMATIC TEMPERATURE CONTROL FLUID MIXING VALVE
Donald A. Holley, Waverly, Iowa
Application September 9, 1953, Serial No. 379,277
8 Claims. (Cl. 236—12)

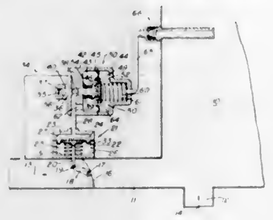
1. A mixing valve comprising a body having an outlet and a pair of inlets for relatively hot and cold fluids to be mixed in the body, valve means in said inlets for varying the flow from at least one of said inlets into the body, temperature actuated means cooperable with said valve means for varying the proportionate flow through said inlets so as to provide mixed fluid at a selected temperature, fluid supply connections, fluid pressure equalizing means communicating with said inlet valve and said supply connections and responsive to pressure differential to control the incoming flow of at least one of the

fluids from its respective supply connection, said pressure equalizing means includes a casing, a diaphragm dividing said casing into a pair of chambers, said supply connections each being connected to said casing for communication with one of said chambers, and outlets communicating each of said chambers with a respective valve means, said supply connections each having a valve seat member therein provided with a substantially conical recessed seat, a partial circumferential portion of said



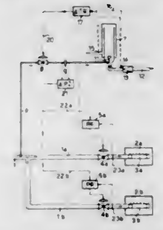
valve seat member having perforations therethrough opening laterally through said seat, a valve head having a substantially conical surface complementary to said seat and reciprocable relative to each valve seat and alternately positively moved toward valve seating relationship by pressure differentials in said chambers to close said perforations, the pressure differentials being occasioned by an increased or decreased demand for either fluid or a drop or increase in pressure of the fluid entering the fluid supply connections.

2,780,413
PNEUMATIC TEMPERATURE CONTROL
Raymond W. Jensen, Encino, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California
Application June 8, 1953, Serial No. 360,066
12 Claims. (Cl. 236—13)



1. Temperature control apparatus for controlling the temperature of air in an enclosure wherein said enclosure has a supply of relatively hot air at relatively high pressure and a supply of relatively cool air, comprising: a valve controlling the supply of hot air to said enclosure; a pressure responsive actuator controlling said valve, said actuator having a diaphragm subjected on one side to ambient pressure; means defining, with said diaphragm, a control pressure chamber, the other side of said diaphragm being subjected to said control chamber pressure, the diaphragm responding to variations in the differential of pressure on the opposite sides thereof; pressure regulating means including a pressure responsive diaphragm responsive to variations in the differential of pressure on the opposite sides thereof; means defining a regulator pressure chamber at one side of the regulator diaphragm; a conduit for connecting the actuator control pressure chamber with the high pressure supply; means connecting said regulator pressure chamber with said conduit; means defining a second regulator pressure chamber at the opposite side of the regulator diaphragm; a restricted connection between said regulator pressure chambers; a valve, including a movable valve member, for controlling said conduit so as to control the pressure to said actuator control pressure chamber and to the first mentioned regulator pressure chamber, the regulator diaphragm being operably connected with said valve member; an outflow passage between the second mentioned regulator pressure chamber and ambient atmosphere; a valve controlling said outflow passage; and temperature responsive means, subjected to the temperature in said enclosure, controlling the last mentioned valve.

2,780,414
HEAT INPUT STABILIZATION
Henri J. De Heer, Geleen, Netherlands, assignor to Stamicarbon N. V., Heerlen, Netherlands
Application November 23, 1953, Serial No. 393,898
Claims priority, application Netherlands November 27, 1952
9 Claims. (Cl. 236—15)

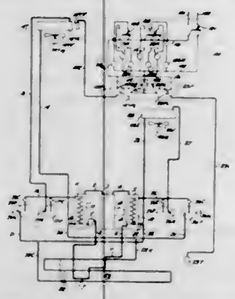


5. Apparatus for maintaining constant heat input to a gas burning installation comprising a main supply line to said installation, a dummy heater, a sample line leading from said main supply line to said dummy heater, first flow control means in said sample line, second flow control means in said main supply line between said sample line and said installation, means for automatically operating said first flow control means to maintain constant heat input to said dummy heater, and means for automatically operating said second flow control means to maintain the flow of gas therethrough proportional to the flow of gas through said first flow control means.

2,780,415
HEAT PUMP OPERATED SYSTEM FOR HOUSE HEATING
Frazer W. Gay, Metuchen, N. J.
Application February 23, 1952, Serial No. 273,124
8 Claims. (Cl. 237—2)

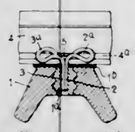
3. In a house heating system, an electrically operated heat pump including an evaporator and a condenser, heat transfer fluid upon which the heat pump operates, a heat storage means provided by the earth beneath the house to be heated and comprising an upper level storage earth area and an underlying lower level storage earth area, heat transfer fluid conducting means comprising an upper section extending through the upper storage earth area and a lower section extending therefrom through the lower storage earth area, means operable during a heat storage period adapted to circulate hot transfer fluid through said conducting means in one direction, a second means operable during a stored heat withdrawal period to circulate cool transfer fluid through said conducting means in the opposite direction, said first men-

tioned circulating means comprising a means operative to move hot transfer fluid from the heat pump condenser first through the upper section of said conducting means which contacts the upper storage earth area, then on through the lower section of said conducting means which contacts the lower storage earth area and thence back to said condenser, and said second mentioned circulating means comprising means operative to circulate cool transfer fluid from the heat pump evaporator first



through the lower section of said conducting means which contacts the lower storage earth area, then on through the upper section of said conducting means which contacts the upper storage earth area and thence back to said evaporator, all whereby said upper storage earth area is maintained at a relatively high temperature and said lower storage earth area is maintained at a relatively low temperature so that heat loss to deep earth is held to a minimum.

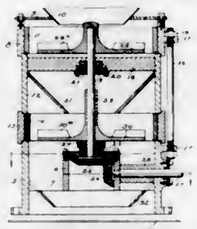
2,780,416
ELASTIC SPIKES FOR SECURING RAILROAD TRACKS
Hans Hodel, Engelberg, Switzerland
Application May 27, 1953, Serial No. 357,773
Claims priority, application Switzerland May 30, 1952
6 Claims. (Cl. 238—349)



2. A resilient rail spike comprising a one-piece rolled bar the ends of which are side by side with each other forming a shank for engaging a tie, and the intermediate portion of which is bent in a three dimensional closed loop forming a resilient spike head for bearing against a rail flange when the rail is in position on the tie, said loop being formed by the intermediate portion extending from the ends of the bar which form the shank upwardly from the rail and then being bent toward the rail and downwardly to form a bent bridge over the flange of the rail to press down thereon, the portions of said loop between the ends of said bar and said bent bridge being symmetrical about a center line between said ends.

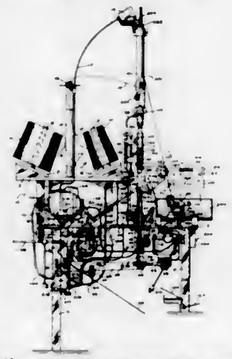
2,780,417
MEANS FOR TREATING BANK GRAVEL
Holbert L. Harris, Arlington County, Va.
Application April 1, 1954, Serial No. 420,253
2 Claims. (Cl. 241—152)

1. A machine of the character described comprising a circular base member, spider arms carried thereby, an open ring supported centrally in the base member by said spider arms, a bearing supported by said ring, a thick metal band carrying an internal hard metal ring, said hard metal ring and band complementally bearing upon the upper edge of the base member, a cylinder the lower edge of which bears complementally upon the said band and hard metal ring, spider arms spanning said cylinder having a centrally arranged bearing supporting portion, a bearing carried thereby, a vertical shaft mounted in said bearings, a pair of meshing bevel gear wheels disposed in the said open ring of the base member, one of which gears is fast on the vertical shaft, and a driven shaft projecting into said ring from the exterior of the



base member and upon which the other gear wheel is fast, a plurality of centrifugal disks fixed upon said shaft, an upper band and hard metal ring complementally bearing upon the upper edge of said cylinder, said hard metal rings lying in position to constitute abutments to receive gravel hurled from the centrifugal disks, means for drawing the last named band and base member forcibly toward each other to bind the several portions together, means for feeding material upon the uppermost disk, and means for conducting material discharged from the uppermost disk to the disk therebelow.

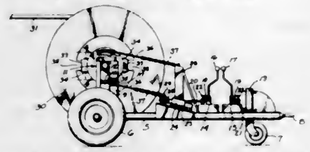
2,780,418
COP WINDER
Allan C. Davis, Baltimore, Md., assignor, by mesne assignments, to Allan C. Davis, Baltimore, Md.
Application December 31, 1954, Serial No. 479,034
12 Claims. (Cl. 242—27)



1. A cop winding machine comprising in combination, a spindle including a supporting bearing for one end thereof adapted to be rotated in a fixed longitudinal position and having a winding portion extending outwardly from one side of the bearing for winding a thread thereon into a tight compact mass, means to feed thread to be wound to a section of the spindle, a winding head having an opening therethrough surrounding said spindle and positioned adjacent the section of the spindle upon which the thread is being wound, the outer portion of the opening in the winding head being tapered outwardly from the spindle bearing to form an inner tapered surface, the winding head having a slot longitudinally of the head for admitting the thread to the spindle, said wound mass being advanced along the spindle toward its outer end as its mass

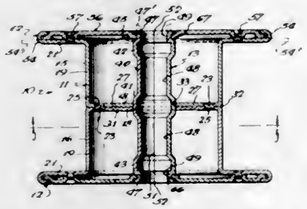
is built up in contact with the tapered surface of the winding head, means for moving the winding head along the spindle between its winding position and a point beyond the outer end of the spindle for doffing the wound mass from over the outer end of the spindle after the wound mass has been built up along the spindle for a predetermined distance, movable receiving means located beyond the outer end of the spindle for frictionally receiving the wound mass from the spindle, means for severing the thread to the wound mass after the winding head has passed beyond the outer end of the spindle and means for operating the receiving means to discharge the wound mass from the machine.

2,780,419
CABLE REEL BRAKE
Thomas R. Hall, Portland, Oreg., assignor to American Truck Equip. Co., Portland, Oreg., a corporation of Oregon
Application February 4, 1955, Serial No. 486,200
10 Claims. (Cl. 242—90)



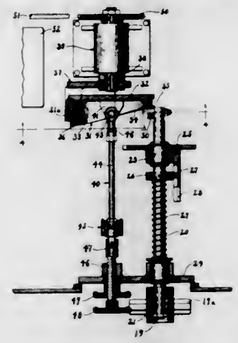
10. In combination, means for raising and holding a reel of cable clear of the ground, and brake means operatively connected with said reel and with said first mentioned means to restrain rotation of the reel during unreeling of the cable, said first mentioned means and said brake means having a common power applying means to apply a braking force which varies directly with the combined weight of the reel and cable.

2,780,420
WIRE SPOOL
Jacob J. Mitnick, Highland Park, Ill., assignor to Magnet Wire, Inc., Chicago, Ill.
Application July 21, 1954, Serial No. 444,756
2 Claims. (Cl. 242—123)



1. A spool for wire comprising, a pair of cups each having cylindrical side walls, a bottom wall with a central opening, and an annular extension on the open ends of the side walls, the bottoms having cooperating seating means for positioning same in juxtaposition with the annular extensions on the opposite ends of the resulting formation, said means comprising a plurality of outwardly protruding button and socket formations and spaced one from the other so as to obtain registry of each button with a socket, means spaced radially inward of the edges of the bottoms rigidly joining said bottoms face to face, an annular capping member having an open center secured to each annular extension, and a hollow core member secured between the open centers and through said central opening, assembled to the spool after joining the cups, but before assembling the capping members, said core having a centrally located annular upstanding bulge and the bottoms are seated on said bulge in the central opening.

2,780,421
LEVEL-WINDING APPARATUS
Richard F. Herr, Warren, Ohio, assignor, by mesne assignments, to The Herr Equipment Corporation, Warren, Ohio, a corporation of Ohio
Application September 25, 1952, Serial No. 311,492
12 Claims. (Cl. 242—158)



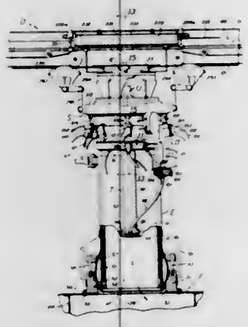
11. The combination comprising a rotatably supported camshaft, an end cam tiltably carried by and rotatable with said camshaft, cam follower means engageable with the surface of said cam and shiftable thereby during rotation of said camshaft, and means for tilting said cam relative to said camshaft to displace said cam surface and thus alter the shifting movement imparted to said cam follower means.

2,780,422
FLYING AIRCRAFT CARRIER
Melvin R. Maglio, Jr., Suisun, Calif.
Application July 5, 1955, Serial No. 519,819
2 Claims. (Cl. 244—2)

1. In an assembly of the character described, a carrier airplane having a hollow wing having upper and lower walls, said lower wall being provided with an opening having front and rear ends and sides, wing braces between said upper and lower walls and extending across the wing on opposite sides of said opening, the wing braces and the upper wing wall defining a chamber, a smaller airplane having a fuselage having front and rear ends and folding wings on opposite sides thereof, normally wider than said opening and narrower than said opening when folded, said smaller airplane fuselage having an upper portion together with the folded wings, positioned within said chamber with the front and rear ends of its fuselage adjacent to the front and rear ends of said opening, said smaller airplane fuselage having a lower portion including a jet propulsion power plant positioned below the lower wing wall of the carrier airplane, and a downwardly extensible launching mechanism mounted on the carrier airplane wing within said chamber and releasably engaged with the smaller airplane fuselage, a fixed rearwardly projecting retaining bar on the lower wing wall of the carrier airplane at the front end of said opening, a forwardly projecting fixed hook on said lower wing wall at the rear end of said opening, the front end of the fuselage of the smaller airplane having therein a socket releasably

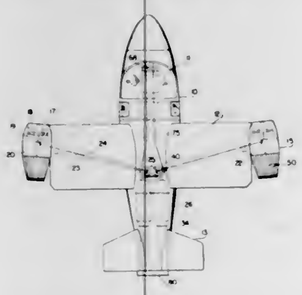
receiving said retaining bar and means on the rear end of the fuselage of the smaller airplane releasably engaging said hook.

2,780,423
CONVERTIBLE AIRCRAFT WITH JET-DRIVEN ROTOR
Herbert A. De Cenzo, Arcadia, Calif.
Application December 17, 1952, Serial No. 326,474
39 Claims. (Cl. 244—7)



34. In combination, a fuselage, a rotor having a blade, a mounting carried by the fuselage and rotatably carrying the blade, the mounting including a lower tubular section carried by the fuselage, an upper tubular section rotatably carrying the rotor and telescopically related to the lower section, and means adapted to shift the upper section relative to the lower section, a propulsion unit on the blade and having a shiftable control part, a flap, a member pivotally carrying the flap and shiftable on the blade, means adapted to synchronously operate the said member and control part, and means responsive to turning of the rotor adapted to oscillate the flap.

2,780,424
AIRPLANE FOR VERTICAL TAKE-OFF IN HORIZONTAL ATTITUDE
Nathan C. Price, Hollywood, Calif., assignor to Lockheed Aircraft Corporation, Burbank, Calif.
Application October 19, 1951, Serial No. 252,147
8 Claims. (Cl. 244—12)

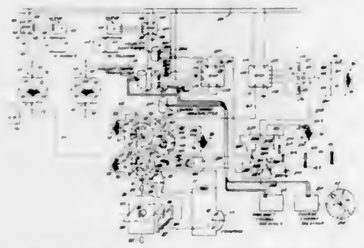


3. An aircraft adapted for generally horizontal flight and generally vertical ascent and descent comprising an airframe having aerodynamic upper and lower surfaces terminating at two outboard extremities, a ducted compressor-ramjet propulsive unit at each of said extremities comprising a tubular casing having a ram inlet at one end and a propulsive nozzle having a variable area exit, means operable to vary the effective area of the nozzle exit, a bladed compressor operable in the inlet region of the casing, and a fuel burner in the casing aft of the compressor, means mounting said units at said extremities for pivotal movement, means supplying fuel to said burners, power plant means in the airframe driving said compressors, said units operating as ram jets to propel the aircraft when said power plant means is idle or inoperative, and means for pivoting the units between positions where their nozzles face generally aft and positions where their nozzles face generally downwardly.

2,780,425
AIRCRAFT WING WITH VARIABLE NOSE SLOT
Luther W. Wilkes, Brisbin, Pa.
Application April 30, 1954, Serial No. 426,685
2 Claims. (Cl. 244—42)

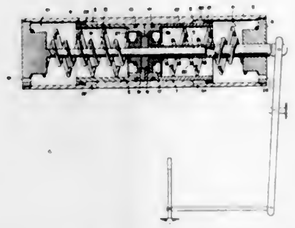
1. A Venturi lift for aircraft comprising a base wing section, the top leading edge of said base wing section being a flat oblique surface, a short chord wing sector mounted for movement into and out of seating relation with said oblique surface and having a flat lower surface, a control shaft journaled in said base wing section in rearwardly spaced relation from the rear edge of the short chord sector, mounting arms fixed on said shaft, strut members mounting said short chord sector in angularly spaced relation to said arms, an actuating lever rigidly mounted on said control shaft for rotating said control shaft, said sector when seated on said surface forming with the base wing section a normal cambered top wing surface, said short chord sector when angularly spaced from said oblique section upon rotation of said shaft forming an elongated flat sided Venturi slot.

2,780,426
AIRCRAFT CONTROL APPARATUS
Robert J. Kutzler, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application April 23, 1948, Serial No. 22,841
22 Claims. (Cl. 244—77)



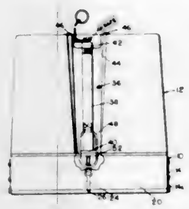
1. Control apparatus for an aircraft having a control surface comprising: operating means adapted to position said control surface; control means for said operating means, said control means including a two-part controller; direction maintaining means for operating one part of said controller; means for changing the direction of said craft at various rates or in selected amounts at a constant rate including a motor; a first means for variably controlling the rate of rotation of said motor; a second means for controlling the extent of rotation of said motor at a fixed rate; a manually operable means for alternatively controlling said first and second means; and means adapted to operate the second part of the controller from said motor.

2,780,427
ARTIFICIAL FEEL DEVICE
George R. Keller, Whittier, Calif., and Robert W. Jenny, Westerly, R. I., assignors to North American Aviation, Inc.
Application July 10, 1952, Serial No. 298,147
7 Claims. (Cl. 244—83)



1. An artificial feel device comprising a housing, a cylindrical chamber within said housing, a shaft extending longitudinally into said chamber, a lobe on said shaft within said cylindrical chamber, artificial feel springs positioned between said lobe and the ends of said chamber, two pistons fitted to move longitudinally in said chamber but in opposite directions, a sealed chamber formed between a surface of each of said pistons and said housing, inlet ports to said sealed chambers, piston return springs between the ends of said cylindrical chamber and each of said pistons opposing movement of said pistons from a neutral position, and means providing a connection overlapping said artificial feel springs whereby actuation of said pistons removes both of said artificial feel springs from acting on said lobe.

2,780,428
PARACHUTE CONTAINER
Harold J. Moran, Trenton, N. J., assignor to Switlik Parachute Company, Inc., Trenton, N. J.
Application November 23, 1954, Serial No. 470,633
3 Claims. (Cl. 244—149)



1. In a parachute container of the type including a base, a hollow, substantially rigid shell open at one end and adapted to enclose a parachute, the edge of said shell around said open end being in closing contact with said base, a link mounted on a first side of said container and normally holding said shell against said base at said side and constituting a fulcrum about which said shell can pivot to uncover said open end, and releasable fastening means operatively associated with another side of said container and normally holding said shell against pivotal movement relative to said base, the combination therewith of an improved opening means comprising leaf spring means mounted at the outer face of said first side of said container, opposite end portions of said leaf spring means respectively engaging said base and said shell and urging said shell to pivot about said fulcrum relative to said base, at least one of said end portions being shaped to slip readily from engagement with the adjacent portion of said container after opening thereof.

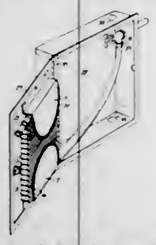
2,780,429
PIPE HANGER
Vincent P. Vanier, Oakland, Calif.
Application March 24, 1953, Serial No. 344,323
1 Claim. (Cl. 248—59)

An improved pipe hanger comprising an anchor block having a curved passage therethrough and being adapted for connection by the top thereof to an overhead member, a pin, a shaft having a longitudinal slot therein and an enlarged head at one end thereof, a strap secured to said pin and through said anchor block passage with a large loop below same and attached to said shaft through the slot in said shaft for winding thereabout with rotation of said shaft for shortening the strap loop, a pair of end pieces depending from opposite ends of said pin and having aligned apertures in the ends thereof through which said shaft extends, said shaft having a smaller diameter adjacent the head thereof in which one of said end pieces is disposed, said shaft further including a round section of reduced diameter with a shoulder at the other end thereof against which said other end piece abuts and a hexagonal end section with threaded edges, first and second ratchet wheels having adjacent radially toothed surfaces with the teeth thereof sloped in one direction with the first of said wheels being attached to said end piece about the round shaft section of reduced diameter whereby said shaft is freely rotatable within said end pieces and said first ratchet wheel, said second ratchet wheel having a hexagonal aperture therein and being disposed with the toothed surface thereof engaging the like surface of said first ratchet wheel and the hexagonal shaft section through the aperture therein whereby said second ratchet wheel is slidable longitudinally of said shaft and is locked to said shaft for rotation therewith, a lock nut threaded upon the hexagonal shaft section, and a tension spring about said shaft intermediate said lock nut and said second ratchet wheel urging said toothed ratchet wheel surfaces into engagement whereby rotation of said shaft within said end pieces in the direction said ratchet teeth are sloped to wind said strap about said shaft slides said second ratchet wheel against said tension spring to rotate the toothed engagement of said ratchet wheels and opposite rotation of said shaft is prevented by said ratchet wheel engagement.

2,780,430
HOSE RACK
John August Pokryfke, Chicago, Ill., assignor to W. D. Allen Manufacturing Co., Chicago, Ill., a corporation of Illinois
Application February 4, 1953, Serial No. 335,141
4 Claims. (Cl. 248—90)

1. A fire protection hose rack comprising a normally vertical supporting panel, a pair of brackets attached to said panel, one of said brackets being positioned in vertically overlying relation to the other, each of said brackets having a substantially horizontally disposed shelf part which extends laterally from said panel, mounting means extending rigidly from one edge of said shelf part and secured to said panel, and a hose retaining member which

extends from the opposite edge of said shelf part in spaced, approximately parallel relation to said panel, said hose retaining members being disposed in approximately coplanar relation to each other and being of a vertical depth substantially in excess of the panel-to-retaining-member dimension of the shelf part so as to be operative to retain a hose stack of substantial depth on the shelf part of the lowermost bracket and in the space between said panel



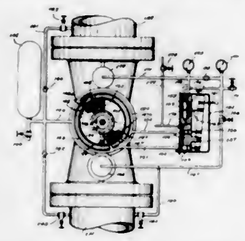
and said retaining members, the mutually adjacent ends of said retaining members being spaced from each other to facilitate insertion of a hose between said ends into said space and being continuously convex from side to side of the retaining members between points adjacent to the respective shelf parts from which said retaining members extend, said convex ends serving to facilitate possible withdrawal of a hose from said space across said convex ends.

2,780,431
FURNITURE PEDESTAL BASE
Arthur W. Carlson, Muskegon, Mich., assignor to E. H. Sheldon & Co., Muskegon, Mich., a corporation of Michigan
Application September 22, 1953, Serial No. 381,570
2 Claims. (Cl. 248—194)

1. A furniture pedestal base comprising an elongated hollow body having a pair of longitudinally extending side wall portions, an upper portion integral with and bridging between said side wall portions at their upper edges, solid and inwardly extending end portions integral with and interconnecting said side wall and upper portions, said side wall and upper portions being curved at their connecting edges artistically to blend into one another, a longitudinal opening in said upper portion substantially narrower than the width of said body and into which the lower end of a pedestal may be seated, at least one transverse pedestal supporting rib below said opening interconnecting said side wall portions and upon which the lower edge of the pedestal is adapted to rest, and inwardly directed ribs within said hollow body integral with said side wall portions and having inner edges spaced apart a distance substantially equal to the width of said longitudinal opening and adapted to bear against the faces of the pedestal, and floor engaging feet secured to said end portions at the underside thereof.

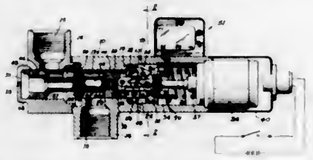
2.780.432
AUTOMATIC RECLOSING DEVICE FOR PLUG TYPE VALVES
Homer J. Shafer, Mansfield, Ohio, assignor to Shafer Valve Company, Mansfield, Ohio, a corporation of Ohio
Application October 12, 1950. Serial No. 189,810
5 Claims. (Cl. 251—59)

1. An operator for a rotary plug valve comprising a fluid motor having a cylindrical housing with end plates, at least one of said end plates being detachably secured to said housing, a rotor connected directly to the valve plug and having two diametrically opposite vanes traversing said housing, two diametrically opposite shoes between the vanes forming chambers on each side of the vanes, pressure sealing means extending continuously around the vanes between the vanes and the housing and extending continuously around the shoes between the



shoes and the housing and the rotor, means securing the shoes and end plates together, conduit means communicating with both sides of said vanes, and means for conducting pressure fluid through said conduit means to diagonally opposite sides of said diametrically opposite vanes for turning the valve and for simultaneously conducting pressure fluid away from the reverse sides of said vanes.

2,780,433
VALVE
William T. Fleming, West Orange, N. J., assignor to Specialties Development Corporation, Belleville, N. J., a corporation of New Jersey
Application April 27, 1953, Serial No. 351,333
13 Claims. (Cl. 251—70)



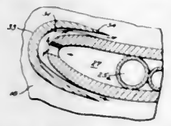
1. A valve comprising a body having a bore, an inlet, an outlet, and a valve seat between said inlet and said outlet; a valve member positioned in said body for engaging said seat; a plunger slidably disposed in said bore and connected to said valve member and having a slot therein; means for moving said plunger to effect movement of said valve member with respect to its seat; stop means in said bore; an element movably mounted on said plunger and constructed and arranged for engaging said stop means to lock said plunger in a predetermined position; actuating means including a member slidably mounted in said slot; and means carried by said last mentioned member for operating said element to engage and disengage said stop means.

2,780,434
RENEWABLE BUSHING FOR A VALVE ACTUATOR
George E. Hansen, Elmwood Park, Ill., assignor to Crane Co., Chicago, Ill., a corporation of Illinois
Application March 31, 1952, Serial No. 279,650
2 Claims. (Cl. 251—222)

1. The combination of a valve body with valve seats, a bonnet mounted on the said body, the said body having a flow passage and a chamber above the flow passage, the said bonnet having a chamber complementary to said body chamber, the upper portion of said bonnet chamber being of polygonal form in transverse section with rounded corner portions, a block-like bushing of polygonal cross-section and rounded corner portions fitted loosely within said polygonal portion of the bonnet chamber, the said bushing having an internally threaded upper annular portion and having depending therefrom oppositely disposed arms, the said body and bonnet chambers having opposite space extensions of the said chambers communicating with and being complementary to the space between the bushing arms, shoulder means provided by the said body for support of the said bushing, the said bonnet chamber having rounded corners for receiving the rounded corners of said bushing, a threaded reciprocably movable stem journalled within the internally threaded upper annular portion of the said bushing, a valve member on the inner end of the stem adapted to be moved from a closed position between said seats to

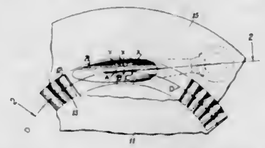
an open position between said depending bushing arms, the inner surfaces of the bushing arms having fragmentary threaded areas for their full length forming a continuation of the threads of the centrally threaded annular portion of said bushing, the latter threaded areas being engageable by the said stem upon predetermined axial movement of the stem in a valve closing direction, whereby upon the occurrence of said latter stem movement the opening provided by said internally threaded annular portion of the said bushing in cooperation with the spaces between the depending arms of the said bushing and the chamber extensions of said body and bonnet drainage is effected of fluids and line materials normally trapped within the bonnet above the said bushing at and immediately preceding valve closed position.

2,780,435
TURBINE BLADE COOLING STRUCTURE
Thomas Woodrow Jackson, Cincinnati, Ohio, assignor to the United States of America as represented by the Secretary of the Navy
Application January 12, 1953, Serial No. 330,931
5 Claims. (Cl. 253—39.15)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A blade cooling device comprising a blade having a root and hollowed adjacent the leading edge thereof to form a forward chamber, a tube extending through the blade root and connecting said chamber to a source of coolant, a plurality of outwardly directed ducts formed through the leading edge of said blade and extending from said chamber to the blade exterior, a plurality of surface grooves on the leading edge of said blade extending transversely from either side of the outer end of each of said ducts to form coolant channels, and an elongated sessile cap attached to said blade edge and overlying said channels to form transverse ducts, said cap having side skirts forming a direction reversing deflector for coolant flowing out of said outwardly extending ducts.

2,780,436
NOZZLE PLATE
Hans T. Holzwarth, Westfield, N. J., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware
Application April 18, 1951, Serial No. 221,611
8 Claims. (Cl. 253—78)



1. A nozzle plate for use in turbines having a pitch circle of relatively small diameter, said nozzle plate having a nozzle passageway formed therein and including a discharge face, said nozzle passageway including a restricted throat, an elongated outlet hole in said discharge face, and a discharge section connecting said throat with said outlet hole and expanding from said throat to said outlet hole, said discharge section defined by a plurality of intersecting surfaces of revolution each generated by rotating a line about an axis, said axes intersecting the longitudinal medial line of said outlet hole at points spaced apart along said medial line and passing through said throat and intersecting therein.

2,780,437
DEVICE ADAPTED FOR LAYING FLOORS
Carlton W. Ham, Elizaville, N. Y.
Application June 14, 1954, Serial No. 436,555
8 Claims. (Cl. 254—15)

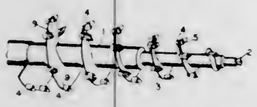
1. In a device adapted for use in laying floors, the combination with a base adapted to rest on top of a floor beam, of means for clamping said base to the beam upon which it is resting; a bar slidably mounted on said base to move substantially parallel to said beam when said device is clamped thereto, and having a free end projecting beyond said base; means including a hand lever for reciprocating said bar; a member adapted to abut the edge of a floor board resting on the same beam as said device; and means connecting said member to the free end of said bar providing both pivotal and lateral sliding movements of said member relative to said bar; whereby said device is adapted for use in laying floor board disposed at various angles to the floor beams.

2,780,438
DEVICE FOR DRILLING WELLS
Walter J. Bielstein, Corpus Christi, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Original application May 21, 1952, Serial No. 289,159, now Patent No. 2,735,653, dated February 21, 1956. Divided and this application June 17, 1955, Serial No. 516,259
3 Claims. (Cl. 255—3)

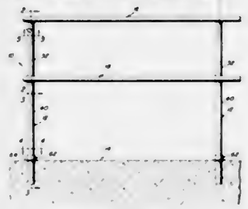
1. A device for drilling a well which comprises, in combination, a hollow drill stem, a drill collar arranged within and forming part of said drill stem and provided with a passageway for drilling fluid, a drill bit connected to the lower end of said drill collar, a stationary valve housing arranged in the passageway in said drill collar having circumferentially spaced apart diametrically

opposed ports for passage of drilling fluid therethrough, a rotatable valve plate arranged in the valve housing, said rotatable valve plate being provided with arcuate segments adapted to cover the ports of said valve housing and said segments being provided with ports sized for passage of a decreased volume of drilling fluid therethrough when the ports in the valve housing are covered by said segments, and a rotatable shaft arranged in said passageway in the drill collar and attached to said rotatable valve plate carrying a helical vane for rotating said rotatable plate element relative to the ports of said

plate housing, flow of drilling fluid through the drill collar passageway impinging against said vane to rotate said plate element relative to the ports of said plate housing to place the segments of the valve plate in correspondence with the ports of the valve housing to interrupt flow of drilling fluid and to cover said ports in the valve housing, and means in said drill stem above said valve housing and said vane for preventing upward travel of vibrations in said drill stem whereby said vibrations are transmitted downwardly on said drill collar and said drill bit on interruption of fluid flow through the passageway in said drill collar.

2,780,439
EARTH BORING DRILLS
Charles William Kandle, Chicago, Ill.
Application September 20, 1954, Serial No. 457,027
5 Claims. (Cl. 255—69)

1. In an earth boring drill, a shaft, a tapered spiral screw flight carried by the shaft and extending from the forward end thereof with the relatively smaller diameter disposed forwardly, a plurality of socket members fixedly secured in spaced relation in the outer periphery of the screw flight, each socket member being provided with a socket opening forwardly, a plurality of cutting members each having a shank portion and a cutting bit offset from the axis of the shank, the shank of each cutting member fitting within a socket opening and being secured against rotation within the socket member, each cutting bit extending beyond the outer adjacent edge of the screw flight and angularly with respect to the shaft with a positive front rake, and means to removably secure the shank of each cutting member within the socket opening to secure the same in operative relation and allow replacement of the cutting member.

2,780,440
HAND RAIL CONSTRUCTION
Fred W. Krieger, Burlington, Ky., assignor to Newman Brothers, Inc., Cincinnati, Ohio, a corporation of Ohio
Application February 4, 1955, Serial No. 486,259
2 Claims. (Cl. 256—21)



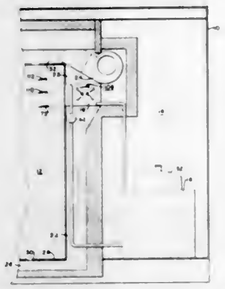
1. In a rail assembly, a tubular support comprising a lower member, an intermediate hollow rail having a bottom aperture fitting around said lower member and also having a top aperture providing a circular edge on the intermediate rail seating on the upper end of said lower member, said support further including a spacing sleeve having a lower end seating on said edge of the intermediate rail, an upper rail seating on the upper end of said spacing sleeve, a tension tube slidably fitting in said lower member and spacing sleeve and in said top aperture and having an upper end juxtaposed to said upper rail, means in said tension tube and on said upper rail securing said upper rail to the upper end of said tension tube, and screw feed means in the lower ends of said lower member and tension tube for sliding said tension tube downwardly to tightly seat the top rail on the upper end of the spacing sleeve and thereby tightly seat the lower end of the spacing sleeve on said edge and said edge on the upper end of the lower member.

2,780,441
AUTOMATIC CONTROL SYSTEM FOR COMBINED FREEZER AND COOLER
Herbert C. Rhodes, Portland, Oreg.
Application December 21, 1954, Serial No. 476,681
1 Claim. (Cl. 257—3)

In a combined freezer and cooler of the character described, having a cooling compartment, a freezing compartment, refrigerant coils in said compartments, and a single refrigerant circulation system with a motor-driven compressor for circulating refrigerant successively through the coils of said cooling and freezing compartments, thermostatic means responsive to the temperature in said freezing compartment directly controlling the operation of said motor-driven compressor, whereby to maintain freezing temperature in said freezing compartment at all times, heating means positioned in said cooling compartment at substantial distance from the refrigerant coils in said cooling compartment for raising the temperature of the air in said cooling compartment whenever the operation of said motor-driven compressor causes the temperature in said

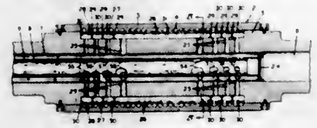
cooling compartment to fall below a desired minimum, separate thermostatic means responsive to the temperature in said cooling compartment controlling the operation of said heating means, a defrosting heating element located adjacent said refrigerant coils in said cooling compartment, an actuating circuit for said defrosting element, said last mentioned thermostatic means also controlling said defrosting element circuit, whereby the defrosting of said coils in said cooling compartment will occur only when said first mentioned heating means is in operation, and means in said defrosting element circuit between said last mentioned thermostatic means and said defrosting element automatically opening said defrosting element circuit whenever said motor-driven compressor is in operation.

2,780,442
REFRIGERATING APPARATUS
David C. Breedlng, Oakwood, Ohio, assignor to General Motors Corporation, Dayton, Ohio, a corporation of Delaware
Application June 24, 1952, Serial No. 295,185
9 Claims. (Cl. 257—3)



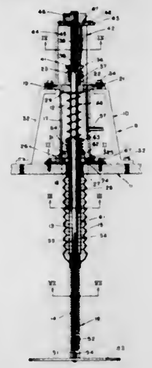
9. In a refrigerating system for refrigerating the contents of a storage space, said system comprising an evaporator, a condenser, a compressor, refrigerant flow connections between said evaporator, condenser and compressor, blower means for circulating air in thermal exchange with said evaporator, a heater arranged in thermal exchange relationship with said evaporator for defrosting the same, control means responsive to a predetermined accumulation of ice on said evaporator for stopping the flow of refrigerant to said evaporator and for energizing said heater while said compressor is still operating, means responsive to the temperature of said evaporator for de-energizing said heater, selector means for selecting the temperature to be maintained in said space, and means responsive to the temperature in said space for controlling said heater in one position of said selector means so as to provide for operation of said heater whenever the temperature in said space decreases beyond a predetermined value.

2,780,443
CALENDER ROLL
James P. Holloway, Manheim Township, Lancaster County, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania
Application December 15, 1953, Serial No. 398,359
7 Claims. (Cl. 257—95)



1. In a heat exchange roll of the shell type, comprising an outer shell and an inner core with a temperature control fluid circulating system disposed therebetween to control the temperature of the roll surface, means for dividing the temperature control fluid circulating system into zones, each zone comprising a plurality of annular channels, and means for controlling the rate of flow of fluid so that the fluid will flow at a different rate in adjacent zones.

2,780,444
AGITATOR APPARATUS FOR STERILE PROCESSING
Herbert A. Hickey, Kalamazoo, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan
Application January 7, 1955, Serial No. 480,356
13 Claims. (Cl. 259—113)

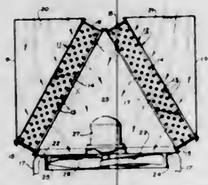


1. Drive mechanism for a reciprocable agitator, said agitator being within a container, the combination comprising: structure defining a chamber; a rod extending through and at each end beyond said chamber and in substantially air-tight relationship therewith at a first end thereof and in air-pervious relationship at a second end thereof; an agitator sleeve slidably sleeved upon the one end of said rod extending beyond said second end of said chamber, said sleeve being spaced from said chamber and closed at its outer end; a bellows encircling said rod and providing a connection and an air-tight communication between said sleeve and said chamber, application of diminished pressure to said chamber effecting axial movement of said sleeve toward said chamber and increase in pressure within said chamber causing said sleeve to move away from said chamber; stop means limiting movement of said sleeve away from said chamber, said rod limiting movement of said sleeve toward said chamber; and means on said sleeve for receiving an agitator thereon; whereby the entire agitator mechanism is free from sliding or rotating contact with any portion of the container; the entire agitator mechanism being entirely free from any support whatever by the interior of the container.

2,780,445
HEAT EXCHANGE APPARATUS
Arthur B. Rimbach, Cleveland, Ohio
Application August 25, 1954, Serial No. 452,040
7 Claims. (Cl. 257—137)

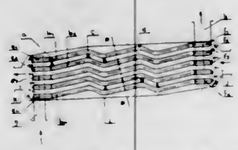
1. Apparatus for heat exchange between atmosphere and fluid bearing heat to be dissipated to the atmosphere, comprising in combination a pair of rectangular banks of coils adapted to contain said fluid, said banks being inclined at an angle to each other, the apex of said angle being disposed uppermost, air-displacement means for moving air downwardly through said banks of coils for heat exchange therewith, the air moved through the respective banks by said air-displacement means being in

a fixed proportion, and spaced walls extending upwardly from substantially adjacent the plane passing through the lower edges of the respective banks to substantially a parallel plane passing through the upper edges of the respective banks, said walls providing baffles to bar horizontally moving winds in said atmosphere from direct access to said banks of coils, the baffling of said winds maintaining the said proportion of air moved through the respective banks, each of said banks comprising tubes passing



recurrently back and forth in horizontally disposed sections from top to bottom and having a fluid inlet connected to the said tubes of each bank adjacent the top of the bank and having a fluid outlet connected to the said tubes of each bank adjacent the bottom of the bank, whereby downwardly moving fluid in said tubes in heat exchange relationship with downwardly moving air becomes progressively cooled as the fluid progressively moves from section to section of said tubes in its travel from said inlet to said outlet.

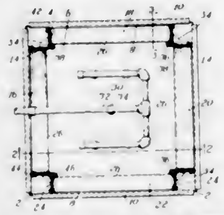
2,780,446
HEAT EXCHANGERS
André Huet, Paris, France
Application April 28, 1954, Serial No. 426,196
Claims priority, application France March 4, 1953
4 Claims. (Cl. 257—245)



1. Apparatus for the exchange of heat between two fluids, comprising a casing, layers of approximately contiguous tubes parallelly disposed inside the casing, the tubes being undulated in a plane perpendicular to the layer, an entrance union and an outlet union for the tubes of each layer, said unions being respectively connected to an entrance header and an outlet header for the fluid circulating inside the tubes, an entrance and an outlet in the casing for the second fluid circulating between the layers of tubes in a direction longitudinal of said tubes and opposite to the circulation inside the tubes.

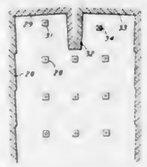
2,780,447
COOLING TOWER
Charles W. Kaltbolf, Jr., Knoxville, Tenn.
Application March 1, 1955, Serial No. 491,246
6 Claims. (Cl. 261—111)

1. A cooling tower comprising a container having side walls and a bottom wall, a plurality of slat panels each of which includes a pair of spaced uprights and a vertical series of inclined slats secured at their ends to said uprights, said slat panels being supported by said container and arranged end-to-end in a closed outline with adjacent ones of said uprights being interlocked, each pair of interlocked uprights including a first upright having outer and inner vertical guideways and a second upright having an outer vertical guideway and an inner flange disposed within the inner vertical guideway of said first upright, and a plurality of corner members each of which includes side portions disposed within the outer guideways of a pair



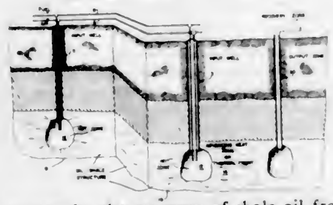
of interlocked uprights to hold said uprights in interlocked relation.

2,780,448
METHOD OF MINING COAL
Jesse F. Core and August R. Werft, South Union Township, Fayette County, Pa., assignors to United States Steel Corporation, a corporation of New Jersey
Application September 23, 1953, Serial No. 381,892
5 Claims. (Cl. 262—1)



1. In a method of advancing the working face of an entry or the like in a coal seam, the steps including removing coal to a predetermined depth from a portion of a starting face less than half its width at one side thereof, installing a roof support adjacent and substantially centrally of the portion of fresh face thus formed, repeating the aforesaid procedure at the other side of said starting face thereby leaving undisturbed a supporting pillar between the spaced portions of fresh face, then removing the pillar thereby reforming a continuous starting face substantially similar to the original starting face, and installing a roof support adjacent the reformed starting face and substantially centrally of the width of the pillar.

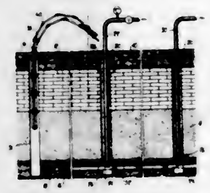
2,780,449
THERMAL PROCESS FOR IN-SITU DECOMPOSITION OF OIL SHALE
Frank R. Fisher, Hastings on Hudson, N. Y., and Harry L. Pelzer, Catoosa, Okla., assignors to Sinclair Oil and Gas Company, Tulsa, Okla., a corporation of Maine
Application December 26, 1952, Serial No. 328,144
5 Claims. (Cl. 262—3)



1. A process for the recovery of shale oil from a subsurface oil shale formation by in-situ decomposition which comprises drilling an input well to provide access to the oil shale formation, introducing a fluid pressuring medium into the formation at an elevated pressure sufficient to cause parting and cracking of the formation, establishing a hot zone within the formation by burning

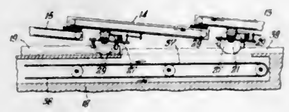
fuel gas at the bottom of the input well for a period of time sufficient to heat the surrounding formation to an elevated temperature promoting spontaneous combustion within the formation; discontinuing burning at the bottom of the well, introducing an unheated substantially non-combustible oxygen-containing gas into said input well and passing said gas through said hot zone to absorb heat and to transfer absorbed heat to cooler regions of the shale formation beyond said hot zone, thereby moving said hot zone gradually outward into the formation; introducing into said hot zone a cool oxygen-containing combustion-supporting gas to promote forward movement of said hot zone as a thermal wave of relatively narrow profile and high peak temperature promoting combustion in a limited region of the formation, whereby oil is distilled in the formation in front of the advancing hot zone, and recovering oil from an output zone.

2,780,450
METHOD OF RECOVERING OIL AND GASES FROM NON-CONSOLIDATED BITUMINOUS GEOLOGICAL FORMATIONS BY A HEATING TREATMENT IN SITU
Fredrik Ljungström, Fiskebackskil, Sweden, assignor to Svenska Skifferolje Aktiebolaget, Orebro, Sweden, a joint-stock company of Sweden
Application May 20, 1952, Serial No. 288,946
Claims priority, application Sweden March 7, 1952
5 Claims. (Cl. 262—3)



1. A method of producing pyrolyzed organic bituminous products in fluid form as free-flowing oils and gases from a non-consolidated tar-sand in situ in the earth which tar-sand is relatively impermeable to such fluids but is vertically contiguous to a layer of different geological character permeable to flow of such fluid products, comprising pyrolyzing in situ the bituminous values in the non-consolidated substantially impermeable, tar-sand to form pyrolyzed free-flowing oils and gaseous products said pyrolysis being effected in said tar-sand formation adjacent to said geological layer, flowing said fluid products of pyrolysis laterally away from the site of said pyrolysis outside of the confines of said tar-sand and through said vertically contiguous geological formation and thereafter flowing said products to the surface.

2,780,451
PROCESS AND APPARATUS FOR BORE HOLE MINING AND CONVEYING
Paul L. Alspaugh and Robert R. Cosner, South Charleston, W. Va., assignors to Union Carbide and Carbon Corporation, a corporation of New York
Application May 26, 1953, Serial No. 357,462
5 Claims. (Cl. 262—7)



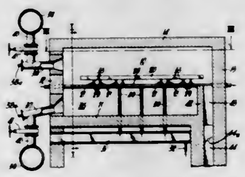
1. In a process for mining earth material in which the material is substantially continuously removed from a bore hole in a seam having an exposed face outside of the mine by a train of conveyor sections, the improvement which comprises automatically guiding the train through a preselected turn on entry and withdrawal from the bore hole, moving the entire train outside of the mine in a direction generally parallel to such exposed face of the seam, and again guiding each section of the train through such preselected turn from outside of the mine into said bore hole during the mining operation while discharging the so-mined material continuously from between selected adjacent sections of such train outside of such bore hole.

4. Apparatus for mining earth material in which the edge of a selected earth stratum is exposed by preparing a ledge running generally parallel thereto, comprising means for boring a hole into such stratum through such exposed edge, a train of continuous conveyor sections for continuously removing through such hole the material being mined as the boring of the hole progresses, the rear end of each section overlapping the front end of the next section to deliver material thereonto, means for reversing the continuous conveyor of each section in succession as it approaches the entrance of such hole to discharge the mined material from the train under the overlapping rear end of the preceding section as the bore-mining operation progresses, and means for continuously receiving and conveying such discharged material.

2,780,452
ROCK CUTTING MACHINE HAVING SLOT CUTTING AND SLOT ENGAGING GUIDE MEANS
Paul Marcerou, Paris, France, assignor to "Sonapar" Societe de Participation, S. A., Luxembourg, Grand Duchy of Luxembourg
Application March 27, 1953, Serial No. 345,216
Claims priority, application Belgium March 27, 1952
10 Claims. (Cl. 262—9)

1. In a rock cutting machine a cutter head, two lateral main cutters on opposite sides of said cutter head, a shaft carrying said lateral main cutters, an auxiliary cutter mounted on the side of the cutter head upon an end of said shaft, a fixed projection mounted on the side of said machine behind and substantially in alignment with said auxiliary cutter, said auxiliary cutter being adapted when said machine is operating to cut a groove in the material acted upon, said projection being adapted to engage in said groove thereby providing a guide and support for said cutter head.

2,780,453
CONTINUOUS FURNACE FOR HEATING SLABS OR THE LIKE
Fred B. Coffman, Crown Point, and Floyd E. Davis, Gary, Ind.
Application March 5, 1954, Serial No. 414,380
6 Claims. (Cl. 263—6)



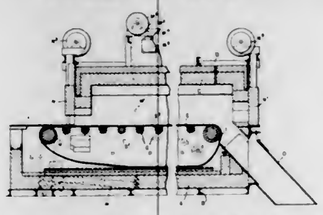
1. A continuous furnace for heating slabs or the like comprising an elongated chamber, spaced parallel skids

disposed therein at a level above the chamber floor and extending longitudinally thereof in a substantially horizontal plane constituting a grid adapted to support slabs during progressive movement through the furnace, a plurality of spaced partition walls extending transversely of the chamber and upwardly substantially to the level of the skids, said partition walls dividing the chamber into a plurality of zones, a longitudinal vertical baffle wall adjacent but spaced from one side wall of the chamber, said baffle wall extending upward only to about the level of said skids, said partition walls and said baffle wall forming pockets adjacent said one side wall open at the top, one for each zone, a plurality of burners spaced along said other side wall of the chamber above and below said grid, firing transversely thereof, there being at least one burner for each zone, a waste-gas flue extending from each pocket and a damper in each flue whereby the flow of gases through said zones may be independently controlled.

2,780,454
WORK CONVEYOR FOR HEAT TREATING FURNACES

Clarence H. Martin, Delray Beach, Fla., assignor to Holcroft & Company, Detroit, Mich., a corporation of Michigan

Application December 14, 1953, Serial No. 397,859
6 Claims. (Cl. 263—8)



1. In a heat treating furnace, a flexible endless belt conveyor for advancing work through the furnace chamber, drums around which said belt passes, a series of spaced rolls intermediate said drums for supporting the upper portion of said belt on which the work is carried, means for simultaneously rotating all of said rolls at equal velocity to frictionally drive said belt when under sufficient load at a multiplicity of spaced points, thereby reducing tension in said belt at any one point, means for rotating the drum at the work discharge end of said belt at a peripheral velocity slightly less than that of said rolls to assist in driving said belt at lower speed, when through lack of work load some slippage on the rolls may occur, and a one way clutch in said means for rotating said drum permitting free overrunning of said drum when said belt is driven by said rolls at higher speed.

2,780,455
COMBINATION OF ACCELERATION SENSING AND INTEGRATING MEANS

Howard F. Devaney, Albuquerque, N. Mex., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

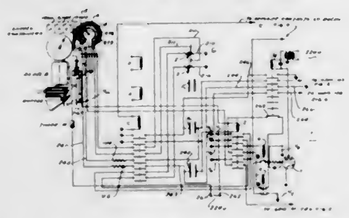
Application July 6, 1954, Serial No. 441,691
14 Claims. (Cl. 264—1)

14. In an accelerometer, a chronometric escapement, a spring connected with the escapement for regulating oscillation thereof, means for varying the vibration rate of the spring, and a movable mass operatively connected with the varying means to actuate the varying means in response to acceleration forces.

2,780,456
METHOD AND APPARATUS FOR AUTOMATICALLY REGULATING QUANTITIES OF MATERIAL ADDED TO A MIXTURE

Victor Berwaerts, Gingelom, Belgium

Application July 1, 1954, Serial No. 440,833
Claims priority, application Belgium July 3, 1953
4 Claims. (Cl. 265—29)



1. A method of making, from a plurality of component materials, a mixture in which said materials are present in a predetermined ratio comprising, in combination, the steps of starting said mixture with the first of said materials at a quantity near the theoretically desired amount; automatically registering the actual quantity of said first material used; adding to the first material an amount of said second material near the theoretically desired amount; automatically registering the actual quantity of said second material added; continuing to add each of said materials at quantities near their theoretical desired values and registering each of the actual quantities used; converting the values of said actual quantities used to electrical voltage values; multiplying each of said voltage values by voltages representing the desired ratios of each of said other materials to obtain a plurality of products; automatically subtracting each of said products from each of said other products to obtain a plurality of product differences, the largest of said product differences being an indication of which of said actual quantities of materials has the largest negative departure from the theoretically desired value; a quantity of said material having the largest negative departure said last mentioned quantity being near the theoretically desired amount of said respective material; and continuing to add quantities near the theoretically desired amounts of said material showing the largest negative departure between actual and theoretical quantities to maintain said predetermined ratio between all of the plurality of component materials in the mixture.

2. An apparatus for controlling the composition of a mixture made up from a plurality of component materials in a predetermined ratio comprising, in combination, means for obtaining a first voltage proportional to the actual quantity of component material added to the mixture; means for obtaining a second voltage proportional to the product of the predetermined ratios of all the other component materials in the mixture; means for multiplying said first and said second voltages to obtain a voltage product; means for similarly obtaining a series of voltage products proportional to the actual quantity of all the component materials loaded multiplied by the desired ratios of the other component materials; means for subtracting each of said voltage products from each of said other products to obtain a series of product differences; and display means responsive to the most negative of said product differences to indicate which of the component materials in said mixture is the farthest from its desired theoretical quantity.

2,780,457
ADJUSTABLE LOAD CARRYING DEVICE

Alvin Larson, Stamford, Conn., assignor to Unique Balance Co., Inc., New York, N. Y., a corporation of Illinois

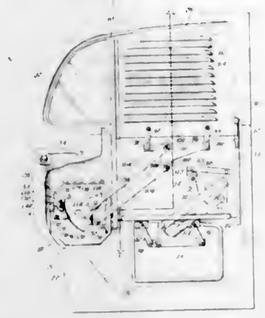
Application August 11, 1953, Serial No. 373,571
6 Claims. (Cl. 267—1)

1. An extensible spring balance for the support of a movable member relative to a fixed member, comprising a straight tube having a slotted opening at one end thereof connected to one of said members, an elongated spiral member having convolutions of varying pitch along the length thereof connected to the other of said members, said spiral member adapted to be engaged by said slotted opening and rotated upon its axis during relative endwise movement of said tube and said spiral member, an extensible torsion spring enclosing at least a portion of said spiral member and said tube and having one end connected to said spiral member so as to rotate with said spiral member, spring mounting means to which the other end of the extensible spring is attached, said spring mounting means being supported by the one of said members to which the straight tube is attached, and means for adjustably displacing the position of said spring mounting means relative to the one of said members to which the straight tube is attached to facilitate varying the longitudinal extension of the extensible spring.

2,780,458
LOUVERED WINDOW AND OPERATING MEANS THEREFOR FOR VEHICLE DOORS

Bernard E. Thaxton, Washington, D. C.

Application March 24, 1953, Serial No. 344,266
7 Claims. (Cl. 268—126)

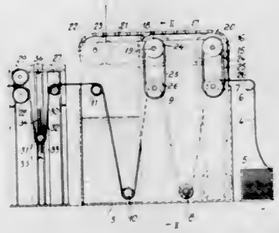


4. In an automobile door construction including spaced inner and outer panels secured together and having an opening therethrough defining a window opening, horizontally spaced mounting brackets carried by at least one of said panels, a pair of unitary double channel members carried vertically by said brackets at opposite sides of the window opening approximately centrally between the panels to provide two pairs of guide channels, a first window unit in one pair of channels, a second window unit slidably engaged in and between the other pair of channels for guided up and down movement, means between the first window unit and the inner panel for raising and lowering the first unit, linkage means connected with a bottom edge portion of said second window unit, and operating means carried between said panels below and offset to one side of the window opening and connected with said linkage means for raising and lowering the second window unit upon operation thereof, said linkage means including a pair of short substantially parallel links pivotally connected at spaced points on the bottom edge portion of and depending from the second window unit, a substantially T-shaped plate having the lower ends of said substantially parallel links pivotally connected to end portions of the cross bar of the T-shaped plate, parallel actuating bars for the second window unit pivotally connected to end portions of the stem of the T-shaped plate and extending laterally toward said operating means, said parallel bars being formed to facilitate locating the said laterally directed ends substantially in the plane of the second window unit and said ends being pivoted to turn about axes fixed relative to the door panels, and a sector gear fixed to the said laterally directed end portion of one of said parallel bars on the side of the fixed pivot axes remote from the pivotal connection with the T-shaped plate, said sector gear being operatively engaged with said operating means for effecting pivoting of the parallel bar to which it is fixed.

2,780,459
DEVICE FOR ADVANCING SHRINKABLE AND STRETCHABLE MATERIALS SUCH AS TEXTILE FABRICS

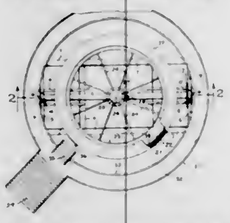
Nils D. Landqvist, Rydboholm, Sweden, assignor to Rydboholms Aktiebolag, Rydboholm, Sweden, a corporation of Sweden

Application December 4, 1951, Serial No. 259,846
Claims priority, application Sweden February 22, 1951
1 Claim. (Cl. 271—2.2)



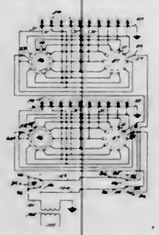
A device for advancing shrinkable and stretchable fabrics subject to a treatment causing a change in length of said fabrics, said device comprising supports, a plurality of upper and lower rollers rotatably mounted in said supports for feeding a fabric during its treatment, driven pulleys firmly connected with at least some of said rollers, driving pulleys, means driving said driving pulleys at a constant speed, and thin endless elastic belts extending under tension between the driving pulleys and the driven pulleys for driving the driven pulleys at a speed depending upon the load of the fabric upon said driven pulleys, said belts being non-slippable and stretchable said load being dependent upon the change of length of said fabric while being fed by said rollers.

2,780,460
ROTARY AMUSEMENT DEVICE
Lee U. Eyerly, Salem, Oreg.
Application January 28, 1953, Serial No. 333,782
1 Claim. (Cl. 272—36)



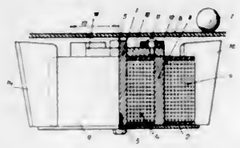
A rotary amusement device comprising a pair of spaced standards, a substantially U-shaped frame extending between the standards and supported at its spaced ends on the standards for rotation about a horizontal axis, a motor drive interconnecting the frame and one of the standards for rotating the frame on said horizontal axis, a single bearing mounted on the frame centrally of the ends of the latter with the axis of the bearing extending substantially normal to the said horizontal axis of the frame, a high speed occupant support frame mounted on the bearing and extending radially thereof for rotation about the bearing axis, a second motor drive interconnecting the occupant support frame and the U-shaped frame for rotating the occupant support frame about said bearing axis, and an occupant back support mounted on the occupant support frame at the radial extremity of the latter, the back support extending substantially parallel with the bearing axis and being of sufficient height to support the entire back of an occupant stationed thereagainst, the high speed occupant support frame being adapted to be driven at a rotational speed sufficient to hold an occupant against the back support by centrifugal force during rotation of the U-shaped frame on its horizontal axis.

2,780,461
AUTOMATIC PLAYER-DIVERSIFIED SCORING GAME
Francis J. Ryan, Hamden, Conn.
Application November 27, 1951, Serial No. 258,411
15 Claims. (Cl. 273—94)



1. In game playing apparatus jointly preconditioned by opposing players for automatically registering a score, the combination of, electrically operable score registering signals disposed in electrically segregated groups, separate play selecting electric trunk lines leading current to respectively different groups of said signals, each of said trunk lines being divided into a favorable scoring circuit branch and an unfavorable scoring circuit branch, common subdivisions of both of said circuit branches leading to said signals respectively, a source of motive power, a source of signal energizing current feeding current to said trunk lines, a power driven favorable current distributor in said favorable circuit branch possessing sufficient mechanical inertia to prolong its own rotary motion automatically for a random length of time and electrically connected to direct current from said favorable circuit branch sequentially to said subdivisions thereof, a power driven unfavorable current distributor in said unfavorable circuit branch possessing mechanical inertia to prolong its own rotary motion automatically for a random period of time and connected to direct current from said unfavorable circuit branch sequentially to said subdivisions thereof, and current switching means including a trunk line selecting switch interposed between said current source and each of said trunk lines and a circuit branch controlling switch widely separated from said trunk line selecting switches interposed between each of said trunk lines and its said circuit branches, said trunk line selecting switches being settable manually by the offensive player secretly to predetermine which of said trunk lines shall be electrically energized, and said circuit branch controlling switches being settable secretly by the defensive player independently of the setting of the trunk line selecting switches in an attempt to choose for defensive setting a circuit branch controlling switch of the trunk line secretly selected by the offensive player, whereby to direct current from said trunk line to the unfavorable circuit branch thereof.

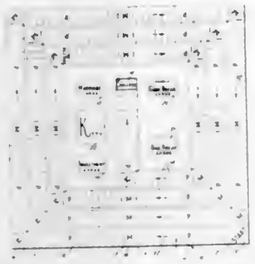
2,780,462
ELECTROMAGNETIC GAME APPARATUS
Felix Ribera Casamada, Alfonso Moral Arnaiz, and Felix Ribera Llorens, Palamos, Spain
Application January 25, 1954, Serial No. 405,686
Claims priority, application Spain April 17, 1953
7 Claims. (Cl. 273—119)



1. Electromagnetic apparatus for producing directed mechanical movement in amusement or like devices, comprising a cover plate having a flat surface thereon, a movable element having a portion thereof of magnetic material and being freely displaceable on said surface, at least two throwing units under said cover plate, each unit comprising a centering electromagnet for centering said movable element with respect to the unit, and a throwing electromagnet surrounding the centering electromagnet for throwing said movable element outwardly on said cover plate from said centering electromagnet, means on said magnets for varying the direction of outward throwing over at least a fraction of the circumference of said throwing electromagnet, means electrically connected with said electromagnets for continually energizing said centering electromagnets with a current sufficient to produce a magnetomotive force just sufficient to draw the movable element over the centering electromagnet when the surrounding throwing electromagnet is not energized and for selectively energizing the throwing electromagnets with sufficient current to produce a magnetomotive force sufficient to draw the movable element passing within its range to said throwing electromagnet thereby intercepting the course of said movable element, and means connected with said energizing means for preventing the simultaneous operation of more than one of said throwing electromagnets.

2,780,463
CHANCE CONTROLLED GAME APPARATUS
Irving Salomon, Escondido, Calif.
Application May 26, 1954, Serial No. 432,516
1 Claim. (Cl. 273—134)

A board game apparatus, including in combination a board having spaces or areas constituting an involuted pathway or course on the board, markers adapted for movement about the pathway, a plurality of separate stacks of cards each positoned in an area inwardly of the involuted pathway, the said stacks of cards being respectively designated as marriage, investment, "good break" and "bad break" cards, certain of the spaces having indicia thereon related to the marriage and investment cards, a pair of dice, or the like, a plurality of differently colored apertured discs such as red, green and white, each of the markers having an upstanding shaft providing means whereby the apertured discs may be impaled on the shafts of the markers in stacked formation, certain other of the spaces in the involuted pathway having indicia thereon

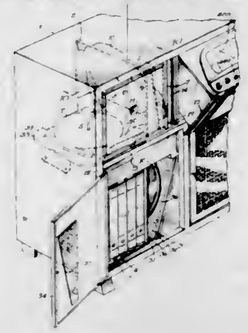


to indicate a "payday," the taking of the "good break" or "bad break" cards by the player being determined by predetermined numbers that come up on the dice which have been thrown by the player and which numbers on the dice also determine the number of spaces the marker is to be moved along the involuted pathway, the taking of the marriage and investment cards being determined by the marker landing on the said spaces having the marriage or investment indicia thereon, and some of the "good break" and "bad break" and marriage cards having indicia thereon which determine the taking of the red, green and white discs by the players to be mounted on the shafts of the markers.

2,780,464
GRIP ATTACHMENTS FOR GOLF CLUBS
Merwin F. Ashley, Arlington, Mass.
Application January 4, 1954, Serial No. 401,879
1 Claim. (Cl. 273—165)

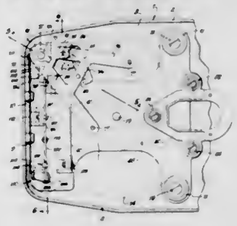
A grip attachment for golf clubs comprising a pair of axially aligned tubular members spaced apart and connected together by a strap, said members being adapted to embrace the handle of a golf club with said strap extending substantially parallel thereto, the strap and said members being formed in one piece of elastic material and at least one of said members having an internal diameter closely corresponding to the largest diameter of the club handle for tight engagement therewith, said strap having length adequate to confine three fingers against the handle.

2,780,465
PHONOGRAPH RECORD PLAYER
Reuben C. Carlson, Chicago, Ill., assignor to Admiral Corporation, Chicago, Ill., a corporation of Delaware
Application July 29, 1948, Serial No. 41,388
28 Claims. (Cl. 274—10)



1. A phonograph record player comprising a frame, and a turntable adapted to be rotated about an axis in fixed relationship to said frame, a magazine for records coupled to the frame, said magazine comprising means including a base member adapted to supportingly engage the peripheral edges of the records, a side member, a prop member in spaced association with said side member, said base member being adjacent to and slanting upwardly from said side member to provide for displacement of records thereover by gravity toward said side member, said side member being adapted to retain records in engagement with said base member, said base member being formed with a zone of increased slant adjacent said side member, said zone extending for a distance away from said side member only great enough to support a single end record thereby urging said end record into operative engagement with said side member, said prop member supporting said records in angularly spaced relationship to the plane occupied by a record when supported by said turntable, and a pair of fingers slidably coupled to said side member and adapted to successively push the end record past said side member to thereby free it from said magazine.

2,780,466
PHONOGRAPH TONE ARM RESTORING MECHANISM
Ralph M. Like, Balboa Island, Calif., assignor to Noma Lites, Inc., New York, N. Y., a corporation of Delaware
Application August 18, 1950, Serial No. 180,150
4 Claims. (Cl. 274—14)



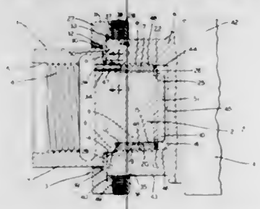
1. In phonograph construction, a frame, a turntable rotatably carried by said frame, the said turntable adapted to have secured thereto a record having a sound groove, a post on said frame, a sleeve post slidably carried on the first post, a coil spring secured between the posts for urging the sleeve post to move in one direction relative to the first post, a resilient frame carried by the sleeve

post, a reproducer supported by said resilient frame, said reproducer having a stylus for reception in the groove of the record; a lug projecting from the sleeve post, a pivoted lever, one end of which lever is adapted to have contact with the lug on the sleeve post to raise the sleeve post against the tension of the spring when the said lever is moved in one direction to thereby raise the reproducer and its stylus above the groove of the record, a bell crank carried by said lever, said sleeve post provided with a radial stud, and a link between the radial stud and one arm of said bell crank, the opposite arm of said bell crank adapted to have contact with the frame when the lever is depressed in one direction to tension said link and thereby rotate said sleeve post and position the stylus of the reproducer at the commencement of the record groove.

2,780,467
ECCENTRIC BORING HEAD
Robert O. Jackson, St. Clair Shores, Mich., assignor to Beaver Tool and Engineering Corporation, Royal Oak, Mich., a corporation of Michigan
Application March 26, 1954, Serial No. 418,812
8 Claims. (Cl. 279—6)

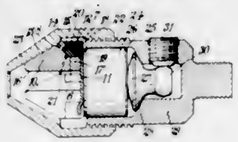
1. A holder for positioning a tool with respect to an axial reference line on a workpiece, comprising a body including a shank. an adapter member rotatably carried by said body on an axis eccentric to the axis of the shank thereof, means for locking said adapter member against such rotation, a tool carrier member connected to said adapter member for lateral movement with respect to the said adapter and to the axis of said shank, means for locking said tool carrying member against said lateral movement, the range of movement of one of said members relative to the axis of the shank of said body being an increment of the range of movement of the other of said members thereto.

2,780,468
ADJUSTABLE CHUCK ADAPTER
Robert R. Dunbar, Massillon, Ohio
Application September 22, 1954, Serial No. 457,592
20 Claims. (Cl. 279—16)



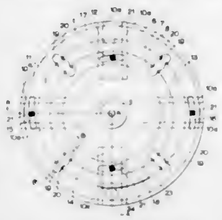
1. Adjustable tool mounting construction including a rotatable mounting member, a floating member rotatable with the mounting member, the floating member being axially movable with respect to the mounting member and being mounted for limited shifting movement of its axis radially in respect to the axis of the mounting member, a tool member, means securing the tool member to the floating member, means for limiting axial movement of the floating member in a direction away from the mounting member and toward the tool member, abutment means associated with the mounting member and the tool member for maintaining the tool member in parallel alignment with the mounting member as the axis of the floating member is shifted in respect to the axis of the mounting member, and adjustable means reacting between at least two of said members movable to establish a predetermined relation between the axis of the mounting member and the axis of the tool member.

2,780,469
COLLETS AND CHUCK JAW ASSEMBLAGES
Harold Samuel Hull, London, England, assignor to Dacre Chucks Limited, Chesterfield, England, a British company
Application January 6, 1955, Serial No. 480,156
Claims priority, application Great Britain June 29, 1954
13 Claims. (Cl. 279—48)



1. A chuck jaw assemblage comprising a back plate and a number of jaws connected to the back plate by rubber bonded to those parts, which rubber extends between the base of each jaw and the front face of the back plate and also extends in an axial direction around the peripheral edge of the back plate to the rear face thereof and is bonded at all these locations.

2,780,470
CHUCKS
Edward David Ridout, Hayes End, England, assignor to Electric & Musical Industries Limited, Hayes, England, a company of Great Britain
Application November 29, 1954, Serial No. 471,865
Claims priority, application Great Britain December 1, 1953
5 Claims. (Cl. 279—66)

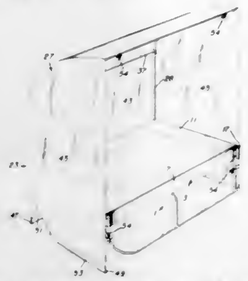


1. A chuck comprising a supporting member carrying more than two jaws, radially positioned guides mounting said jaws for radial movement and jaw operating mechanism therefor, said mechanism comprising first and second rotary members each having at least one jaw coupled thereto and common driving means inter-coupling said first and second members for imparting rotary motion to said members to cause simultaneous radial movement of all of said jaws and radial movement of at least one of said jaws after the other jaws are in engagement with an object.

2,780,471
PORTABLE KNOCKDOWN SHELTER FOR ICE FISHING
Harry R. Lempke, Detroit, Mich.
Application June 3, 1954, Serial No. 434,114
1 Claim. (Cl. 280—12)

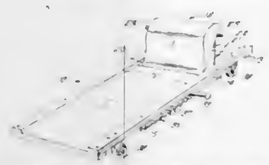
A portable shelter for ice fishermen comprising a sled having a rectangular body forming a seat, runners fixed to and supporting the body, a pair of corner sockets on

said body at each of two opposite sides thereof, a pair of uprights having lower ends adapted to be seated in the pair of sockets at either side of the body and free upper curved ends arching over said body toward the opposite side and terminating above said opposite side, tie members connecting said uprights and having apertured flattened ends slidable on said uprights for sliding of said tie members onto and off of said free ends, a flexible covering supported by said uprights and detachably attached to one of said tie members and forming with said uprights and tie members a canopy open at



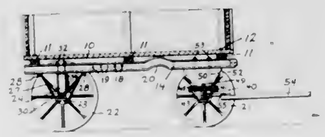
said opposite side of the body, and having a back and an upper portion overlying said body, stop pins in said uprights for engagement by said flattened ends of said tie members to limit sliding of said tie members onto said uprights, the stop pins for said one tie member being removable, said one tie member when said stop pins therefor are removed being slidable on said upper free ends of said uprights to fold said upper portion of said covering toward said back portion and out of overlying relationship to said body and enabling said uprights to be swung to a position wherein the upper free curved ends thereof are approximately coplanar.

2,780,472
MECHANIC'S CREEPER
William C. Weldon, Sr., Dallas, Tex.
Application October 23, 1953, Serial No. 387,864
1 Claim. (Cl. 280—32.6)



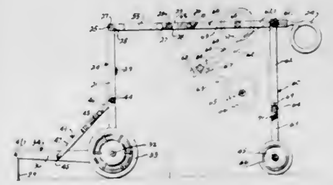
In a mechanic's creeper, a platform mounted on casters and terminating rearwardly of the forward end of said creeper, a headrest disposed on a common plane with said platform and hinged along the rearward edge to the forward edge of said platform in the space between the terminal end of said platform and the forward end of said creeper and arranged for adjustment to a variety of angular positions in relation to said platform, a headrest supporting member having one of its ends rotatably connected to said headrest, stop members carried by said headrest adapted to engage the frame of said creeper between the forward edge thereof and the forward edge of said platform to preclude downward pivotal displacement of said headrest below the plane of said platform, a rod, a bracket supporting said rod from the underside of said platform for longitudinal reciprocation, means pivotally connecting the forward end of said rod to the other end of said headrest supporting member for changing the angular relationship of said headrest supporting member to said headrest to adjust the position of the latter, a lever traversing the underside of said platform and pivoted at one end to one side of said platform and having its opposite end extending from under the opposite side of said platform, a link pivotally connected at one end to the rear end of said rod, and at its opposite end to said lever opposite its pivot whereby movement of said lever will actuate said rod longitudinally, a strap secured at its ends to the underside of said platform and in adjacent parallelism with one side thereof and spaced from the latter to define an elongate space for said lever, said strap having transverse corrugations defining recesses selectively receiving said lever to hold the same in adjusted positions.

2,780,473
FARM WAGON HAVING AN EXTENSIBLE FRAME
Harvey N. Harrison, Washta, Iowa
Application November 5, 1954, Serial No. 467,084
4 Claims. (Cl. 280—34)



1. A farm wagon comprising a pair of forwardly converging outer stringers, inner stringers attached adjacently to said outer stringers, means for adjustably securing said stringers together to form combined greater length to said stringer, said outer stringer including upwardly bent arcuate portions for allowing passage of wagon wheels therethrough when pivoting the same, means attaching a rear axle to said inner stringer and spacing the same therefrom including a pair of block members, said block members being formed of channel iron, a pair of bracing straps secured beneath said axle and to said inner stringer, bolts received through said straps and passing through said block members and said inner stringer members.

2,780,474
COMBINATION PICNIC CART
Alexander J. Farah, Lenni Mills, and Joseph Di Costanza, Milmont Park, Pa.; said Di Costanza assignor to said Farah
Application April 15, 1954, Serial No. 423,366
7 Claims. (Cl. 280—41)



1. A combination picnic cart comprising a frame consisting of three articulated sections each including side rail elements to which cross-bars are secured, handles at the outer ends of the side rail elements of one of the outer frame sections, a pair of primary wheels mounted at the outer end of the other outer frame section, said outer frame sections being of substantially the same length whereby when both of said outer frame sections are swung into substantially parallel positions at right angles to the intermediate frame section said primary wheels and handles may rest upon the same horizontal surface, said frame sections also adapted to be adjusted whereby all

of them are in endwise alignment or the intermediate frame section and the outer frame section with the handles are in endwise alignment but at right angles to the other outer frame section or both outer frame sections project in opposite directions at right angles to the intermediate frame section, locking mechanisms on said intermediate frame section and coacting with both of the outer frame sections to hold the latter in any of the adjusted positions, a foldable platform on the outer frame section provided with the primary wheels, a pair of jointed foldable legs provided with secondary wheels, said legs being articulated on opposite sides of the outer frame member having the handles and adjacent to said handles, said legs when fully extended being substantially the same length as the outer section provided with the primary wheels, and means to selectively fasten the legs in extended positions or to the sides of their respective outer frame sections.

2,780,475
MOBILE FRAME FOR LIFTING AND CARRYING FARM IMPLEMENTS
Philip A. Koerner, Chatsworth, Ill.
Application July 15, 1955, Serial No. 522,192
3 Claims. (Cl. 280—44)

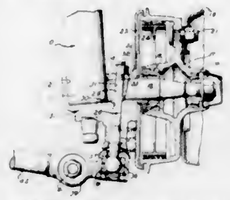
1. An implement carrier comprising a horizontally-disposed frame having a forward end and a rearward end, an upstanding leg dependingly and fixedly secured to the forward end of said frame, a beam arranged longitudinally of said frame so that a part is forwardly of said leg and the remaining part is rearwardly of said leg, said beam being connected intermediate its ends to said leg intermediate the upper and lower ends of the latter for pivotal up and down movements about a horizontal axis, means on the end of the part of said beam forwardly of the said leg for pivotally attaching said beam to a towing vehicle, an arm arranged in an upright direction positioned on each side of said frame adjacent the rearward end of said frame, a rotatable wheel positioned adjacent the lower end of each of said arms, each wheel having a horizontally-disposed axle projecting therefrom supporting the lower end of the adjacent arm for pivotal up and down movement of said arm about said axle as an axis, a crossbar carried on said frame connecting the upper ends of said arms together, and means operatively connecting the upper end of the part of said beam rearwardly of said leg to the intermediate portion of said crossbar for effecting the up and down movements of said beam responsive to the up and down movements of said arms.

2,780,476
CARRIER FOR CONTAINERS
Lewis Marvin Upchurch, Raeford, N. C., assignor to Hoke Oil & Fertilizer Company, Raeford, N. C., a corporation of North Carolina
Application March 3, 1955, Serial No. 491,855
7 Claims. (Cl. 280—47.24)

3. A carrier for containers and the like comprising a carrier arm having a substantially straight inclined portion terminating at the outer end in an upwardly and outwardly inclined handle portion and at the other end having a horizontal portion extending inwardly, a transversely disposed axle supporting member connected at its medial portion to said horizontal arm portion, an axle carried by said axle supporting member, wheels rotatably mounted on said axle, and a U-shaped member having its medial portion secured to the rear portion of said horizontal arm portion with the ends of the U-

shaped member extending forwardly over and past said axle and terminating in spaced upright retaining portions.

2,780,477
KNOCK-DOWN TYPE DIRIGIBLE WHEEL MOUNTING
Eric O. Schjolin, Pontiac, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application October 19, 1953, Serial No. 386,895
2 Claims. (Cl. 280—96.2)

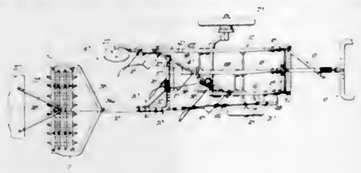


1. A wheel mounting for supporting a vehicle road wheel upon a load carrying telescopic shock absorber and a wheel guiding suspension arm, comprising a mounting bracket having a vertical bore extending partially therethrough and opening in an upward direction and a lateral bore extending partially therethrough and opening in an outboard direction, said vertical and lateral bores intersecting each other and said vertical bore receiving and rigidly supporting the lower end of the load carrying shock absorber, a stub wheel spindle having its cylindrical inner end received within the lateral bore of said mounting bracket and projecting laterally outwardly therefrom for rotatably supporting the vehicle road wheel, said mounting bracket and the inner end of said wheel spindle having vertically aligned cylindrical openings formed therein with the lower portion of the opening in said mounting bracket having a tapered portion with the larger end at the bottom of the bracket, and an elongated rod extending through the aligned openings and having a tapered portion seated in the tapered portion of the opening in said mounting bracket, said rod having a threaded upper end receiving a nut to clamp said wheel spindle to said mounting bracket, and said rod also having an integral ball shaped lower end projecting beneath said mounting bracket for connection to the wheel guiding suspension arm.

2,780,478
HITCH MECHANISM FOR CONNECTING IMPLEMENTS IN TANDEM
Clark H. Forsyth, Hamilton, Ontario, Canada, assignor to International Harvester Company, a corporation of New Jersey
Application December 16, 1953, Serial No. 398,556
9 Claims. (Cl. 280—411)

1. The combination of a tractor, first and second implements in tandem, draft means connecting the first

implement to the tractor, and means connecting the second implement to the first implement, said last mentioned means including a flexible member adapted to transmit draft between the first and second implements and yieldable upon advance of the second implement relative to



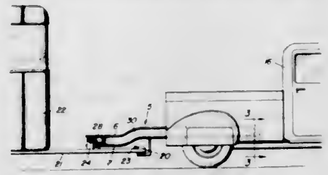
the first implement, and also including a rigid member separate from said flexible member, the connection of said rigid member to the implements including lost motion means limiting the advance of the second implement relative to the first implement.

2,780,479
DRAFT DEVICE ADAPTED FOR ATTACHMENT FORWARDLY OF A LEADING VEHICLE REAR AXLE
Bengt Frieberg, Ringstorp, Sweden, assignor to Lihnell Vagn Aktiebolag, Ringstorp, Sweden
Application February 16, 1953, Serial No. 337,121
1 Claim. (Cl. 280—446)

In a traction coupling between a tractor vehicle, and a trailer, the load of which is partly carried by the tractor vehicle, the combination of a cylindrical drawbar, a socket enclosing one of the ends of said drawbar, means for releasably locking said end of said drawbar in said socket against axial and angular movements, a sleeve rotatably surrounding a portion of said drawbar located intermediate the ends thereof, means on said drawbar preventing axial displacement of said sleeve along said drawbar, a frame-structure embracing said sleeve and the end of said drawbar remote from said socket, vertical pivot means swingably attaching said sleeve to one end of said frame to allow horizontal swinging of said drawbar, curved rail means having its center of curvature at the axis of said vertical pivot means and located near the end of said frame opposite said pivot means, roller means mounted on the end portion of said drawbar remote from said socket, said roller means being arranged to run along said rail means for defining the vertical position of said drawbar relatively to said frame and a plurality of horizontal pivot means for securing one end of the coupling to said tractor vehicle below and in front of the rear axle of said tractor vehicle, the other end of said coupling being rigidly secured to the trailer.

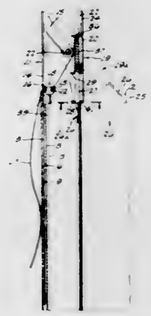
2,780,480
DRAWBAR FOR TRAILERS
Leonard F. Schwab, Hamilton, Ohio
Application May 11, 1955, Serial No. 507,609
2 Claims. (Cl. 280—499)

1. A trailer hitch comprising in combination, a drawbar adapted for attaching to a towing vehicle and having an arcuate channelled rear end portion, a trailer tongue, means swivelly connecting the tongue to the drawbar, and a pair of rollers journalled on the tongue and sup-



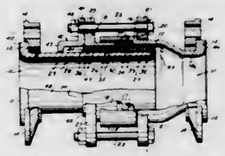
ported by and traveling in the channelled portion of the drawbar, said channelled portion including inclined portions checking travel of the rollers upon a turning movement of the towing vehicle in either direction.

2,780,481
PAGE HOLDER AND BOOKMARKER
Margaret M. Green, Culver City, Calif.
Application August 16, 1954, Serial No. 450,040
6 Claims. (Cl. 281—42)



5. In a place-marker and leaf-holder for holding down the uppermost leaves of an open book, the combination of a tongue-form anchor-member adapted to be slid down into the binding of the book from the upper edge of the same, the upper end of said anchor-member having a laterally extending flange, a head bracket pivotally mounted on the said flange, said head-bracket having opposed wings with a transverse shaft connecting said wings and located forwardly and out of line with the said anchor means, a presser lever pivotally mounted on said transverse shaft, a substantially flat plate-form presser-plate supported at the lower end of said presser-lever to swivel on an axis in its own plane, thereby enabling said presser plate to assume inclined positions with the end portions of the plate resting upon the exposed leaves of the book.

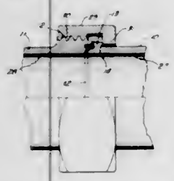
2,780,482
EXPANSION JOINT FOR PIPE LINES AND THE LIKE
Carl S. Brown, Lakewood, Ohio, assignor to Glascote Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application March 5, 1953, Serial No. 340,543
2 Claims. (Cl. 285—41)



1. A corrosion resistant expansion joint for pipe lines or the like, comprising a pair of elongated metallic

tubular members, one end of one member being telescopically disposed inside the other member, an elongated metallic sleeve extending from the inner member in reverse overlapping relationship to said inner member to provide an elongated annular space between the sleeve and the inner member with a smooth rounded wall portion being disposed between the sleeve and inner member as the only physical contact between the inner member and sleeve, the outer tubular member being radially spaced from said sleeve and having a filleted curved inner surface approaching said sleeve and a second curved filleted inner surface overlying said sleeve to provide a shoulder in said outer member radially removed from said sleeve, corrosion resistant packing material disposed against said shoulder between the sleeve and outer member, a packing gland abutting said sealing means to hold the gland against said shoulder, a vitreous enamel coating extending continuously along the inner surface of the inner member and over the rounded wall portion and covering the outer surface of said sleeve, the end of said sleeve remote from the rounded wall portion being radially spaced from the inner member to provide an opening therebetween whereby gas liberated during fusing of the enamel to the inner member and sleeve may pass freely from the inner surface of the sleeve and the outer surface of the inner member to said annular space and escape through the opening between the sleeve and the inner member, and a vitreous enamel coating fused to the inner surface of the outer member including said first and second curved and filleted surfaces.

2,780,483
SEALED JOINT FOR PIPES HAVING CONICAL TAPERED INTERFACES
Joseph S. Kessler, Kenosha, Wis., assignor, by mesne assignments, to Ladish Co., Cudahy, Wis., a corporation of Wisconsin
Application March 30, 1953, Serial No. 345,528
3 Claims. (Cl. 285—332)



1. A joint construction comprising male and female coaxial tubular members of like internal diameter, the female member having an annular end face portion which in cross section extends in a generally oblique direction with respect to the axis of the tubular member and which has an inner portion meeting said obliquely extending portion and extending in a direction normal to the axis of the tubular members, the male member having an annular end face a portion of which in cross section extends in an oblique direction to match the oblique portion of the female member and an inner portion of which extends in a direction normal to the axis of the tubular member to match the corresponding portion of the end face of the female member, the oblique face portion of at least one of said male and female members having an annular groove extending therein in a direction parallel to the axis of the tubular members, an annular resilient sealing gasket interposed coaxially between said end faces, said gasket having a relatively thin web portion which is frusto-conical and which in cross section extends in a generally oblique direction to coincide with the obliquely extending portions of the male and female members, and said gasket having an annular rib which projects in a direction parallel to the axis of the tubular members from the gasket and which is in said annular groove and adapted to be entered therein by movement of the entire gasket in an axial direction, said gasket having a relatively thin inner portion which is in a plane normal to the axis of the tubular members and of substantially less width than the rib in an axial direction, the part of the frusto-conical web portion which connects said last-mentioned inner portion with said rib being wedge-shaped in cross section, the gasket having an inner marginal edge which is normally of greater diameter than the internal diameters of the tubular members, said marginal edge diameter being such with respect to the nature of the material of the gasket that the gasket is deformed inwardly a sufficient amount to cause said inner marginal edge to be flush with the internal walls of the tubular members after the gasket is under compression in an assembled joint.

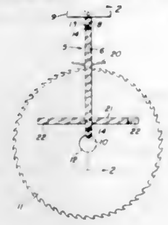
2,780,484
KNOCKDOWN STRUCTURE
Reinhold A. Frye, River Edge, N. J.
Application April 8, 1954, Serial No. 421,825
10 Claims. (Cl. 287—54)

4. In a quick erectable structure, a connector device in combination with a plurality of screw threaded spacer bars, said device consisting of a number of ring shaped members interfitted in three planes at right angles to each other, said members having different number of nut-like elements disposed in parallel rows in the plane relative to their respective ring, a number of said nut-like elements carried by one of said ring members forming the complement number of said nut-like elements in the rings having the least number of said nut-like elements in the other rows when said ring members are positioned in interfitted relation to each other for engaging the screw threaded ends of an equal number of the bars in the plane of each of said ring members.

2,780,485
REVERSABLE DRAWER AND DOOR PULLS AND LATCHES
Arnold A. Dedoes, Berkley, Mich.
Application May 14, 1954, Serial No. 429,763
5 Claims. (Cl. 292—169)

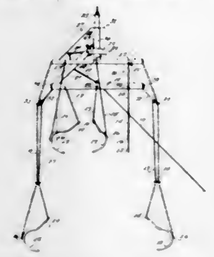
1. A reversible combined pull and latch comprising two parts pivotally connected to one another, a V-shaped force transmitting member carried by one of the parts, a retainer plate detachably secured to the other part, a bolt slidable on the retainer plate, a pin carried by the bolt for cooperation with either one or the other arms of the V-shaped force transmitting member and a spring urging the bolt outwardly.

2,780,486
CIRCULAR SAW BLADE CARRIER
John P. Loughlin, Shenandoah, Pa., assignor of one-half to Joseph A. Zane, Shenandoah, Pa.
Application May 17, 1955, Serial No. 508,946
3 Claims. (Cl. 294—34)



1. A circular saw blade carrier of the character described comprising: an elongated frame, a handle on said frame, a pair of opposed, coacting jaws on the frame engageable with the periphery and in the eye of the blade for clamping said blade therebetween, and a balance bar mounted transversely on the frame and engageable with the saw on opposite sides of said frame.

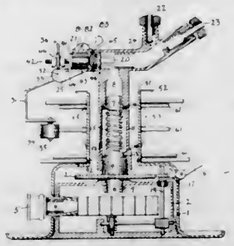
2,780,487
BALED HAY FORK
Lee Bredensteiner and Sterling Simmons, Shenandoah, Iowa
Application June 14, 1954, Serial No. 436,591
4 Claims. (Cl. 294—67)



4. A baled hay fork comprising an upper frame, a lower frame, hooks suspended by chains attached to shanks thereof and extended from the lower frame, chains attached to the backs of the hooks with eyelets and strips of material and extended from the upper frame, a vertically disposed strut having a clevis on the upper end carried by the upper frame and extended through the lower frame, a latch mounted on the lower frame and positioned to engage part of the upper frame for retaining the lower frame nested in the upper frame, and a trigger pivotally mounted on the lower frame and positioned to engage the latch for retaining the latch in the position of holding the lower frame nested in the upper frame, said trigger having an arm with a cable depending from the outer end extended therefrom whereby the trigger is actuated by the cable to release the latch permitting the frames to separate with the upper frame traveling in relation to the lower frame, and withdrawing said hooks from bales of hay positioned thereon.

2,780,488
ADJUSTABLE PATTERN IRRIGATION SPRINKLING DEVICE
William P. Kennedy, Marietta, Ga.
Application August 4, 1955, Serial No. 526,500
13 Claims. (Cl. 299—18)

1. A rotary sprinkler, including a supporting body, a reduction geared water motor, a hollow supporting standard with a piston valved, rotary distribution head thereon, said head rotated by action of said geared water motor, with means for activating said piston valve by means of a pivoted lever with a rotary wheel on one extremity of said

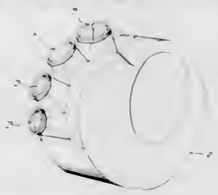


lever, a plurality of pattern controlling plates selectively moveably mounted on said supporting body, said wheel being in contact perimetrically with any one of said pattern controlling plates, so as to form any one of a multiplicity of area spray patterns.

2,780,489
CIGARETTE HUMIDIFIER
Frank J. Bosman, Aberdeen, S. Dak.
Application July 11, 1956, Serial No. 597,134
2 Claims. (Cl. 299—24)

2. A humidifier for insertion in a cigarette package, said humidifier comprising: a tube having a radial vent therein at an intermediate point, said tube further having longitudinal air passages extending therethrough, removable containers threadedly mounted on the end portions of said tube, one of said containers for the reception of water and being transparent, an absorbent filler in the other container, and a wick mounted in the tube and extending therefrom into the containers.

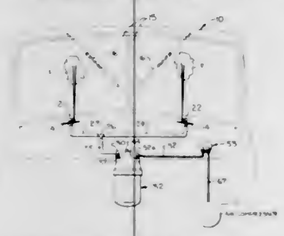
2,780,490
DEVICE FOR SUBDIVIDING AN AIRSTREAM
Knud Sigvardt, Orehoved, Denmark, assignor to A/S R. Sigvardt, Orehoved, Denmark, a Danish limited company
Application August 11, 1953, Serial No. 373,585
Claims priority, application Denmark December 4, 1952
5 Claims. (Cl. 299—29)



1. A blower casing for an insecticide spraying machine, comprising a flat blower housing having a side wall and

a rim, the side wall being provided with an air inlet and the rim being provided with an air outlet, a plurality of short rigid air outlet nozzles for direct ejection into the atmosphere arranged in at least one row over the said air outlet, the axis of each nozzle being rectilinear and coinciding with the axis of air flow from the nozzle, and the rearward extension of the axes of any two adjacent nozzles forming a predetermined acute angle to sub-divide the air outlet into a plurality of ducts through which relatively separated air streams may issue in close proximity to each other.

2,780,491
WINDSHIELD WASHER
William H. Gauthier and James C. Benton, Charlotte, N. C., assignors to Bengau Industries, Inc., Charlotte, N. C., a corporation of North Carolina
Application August 24, 1954, Serial No. 451,878
2 Claims. (Cl. 299—58)

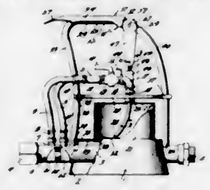


1. A window washer for use with a source of compressed air, said window washer comprising at least one nozzle, a reservoir having an air space in its upper portion and a supply of liquid in its lower portion, first conduit means connecting the lower portion of the reservoir with said nozzle, a second conduit means connecting the upper portion of said reservoir with said source of compressed air, normally closed manually operable valve means interposed in said second conduit means to normally prevent compressed air from entering said reservoir, said valve means being operable to admit compressed air into the reservoir to build up head pressure in its upper portion to cause liquid within the reservoir to pass therefrom through the first conduit means and through the nozzle, a bleeder element frictionally retained in the upper portion of said reservoir and having an aperture therein of relatively smaller size than said conduits to thereby permit build-up of predetermined head pressure when the valve is opened and to relieve the first conduit means and the reservoir from pressure in excess of atmospheric pressure when the valve is closed, and said bleeder element being frictionally retained to the extent that it will be forced out of engagement with said reservoir upon the pressure in said reservoir exceeding a predetermined amount.

2,780,492
SPRAY MANIFOLD END CLOSURE
Wilmer E. Stine, Washington, D. C.
Application August 26, 1952, Serial No. 306,519
3 Claims. (Cl. 299—59)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A manifold comprising an open-ended conduit provided medially with a discharge orifice, and a ball closure member mounted in the conduit, said manifold having one end adapted for connection with a source of fluid pressure and the other constricted to flushly seat said closure member, the member being adapted to close said seat when subjected to said fluid pressure and to be moved away from the seat and beyond said discharge orifice when said pressure is released, said movement providing an opening through said seat end through which said uncovered discharge orifice can be cleaned.

2,780,493
FLUID PROPORTIONING DEVICE
Hugh N. McNair, Navesink, N. J., and Samuel B. Pelot and William F. Eldredge, Miami, Fla.
Application November 25, 1950, Serial No. 197,618
14 Claims. (Cl. 299—84)



1. An apparatus combination for the proportioned dispensing of a liquid substance which comprises a supporting base, a main conduit attached to said base and adapted for the passage of a liquid stream therethrough, a flow restricting means within said main conduit for effecting a pressure differential affording relatively high and low pressure areas within said conduit during the passage of the stream therethrough, a container on said base and free from any permanent association therewith, means for retaining said container in locked position relative to said base and for releasing the container from said locked position, a first conduit connecting said main conduit, at a high pressure area thereof, with said container and adapted for diverting a flow of liquid from said main conduit into said container, a second conduit connecting said container with said main conduit at a relatively low pressure area in said main conduit and adapted for the flow of liquid substance to be dispensed from the container into the liquid stream for admixture therewith in the main conduit, a metering means coordinated with one of the said conduits connecting the container and the main conduit, for regulating the flow of liquid substance from said container in proportioned relationship to the flow of the stream within the main conduit, the said first and second conduits extending through respective openings in the container surface and having their respective terminous openings within the container, said container being otherwise closed and substantially leakproof, and means effecting sealed connections between said first and second conduits and the openings in the container surface through which they extend, said connections being free from any permanent association with said container when the said conduits extend into the same and the container is retained in locked position on the supporting base, whereby the said conduits are expediently removable and replaceable relative to the said container and the said container is expediently removable and replaceable relative to the said supporting base.

2,780,494
DEVICE FOR ATOMIZING FLUIDS
Walter Keser, Stuttgart-Feuerbach, Germany, assignor to Lufttechnische Gesellschaft m. b. H., Stuttgart-Zuffenhausen, Germany, a corporation of the Federal Republic of Germany
Application April 25, 1955, Serial No. 503,552
Claims priority, application Germany October 28, 1949
2 Claims. (Cl. 299—106)

1. A device for atomizing fluids comprising a tube for the supply of said fluids, at least one spray nozzle

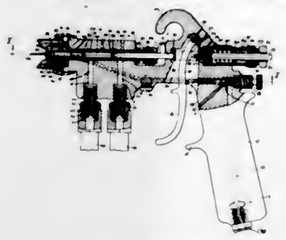
and a nozzle holder connected with and extending from said fluid supply tube, two lateral opposite projections attached to the tube connected bottom portion of said nozzle holder, means carried by said projections to tightly connect said supply tube and said nozzle holder and to loosen said connection, said means comprising two

closed bows downwardly extending towards and along said tube, a clip extending across the bottom portion of the tube and being connected in the operational position of the device with the lower ends of said bows and a lever operatively connected with the lower ends of said bows and the ends of said clip to operate the device.

2,780,495
IRRIGATION ATTACHMENT
Henry N. Brown, Oakland, Calif.
Application April 4, 1955, Serial No. 498,905
4 Claims. (Cl. 299—121)

1. Apparatus of the character described including a cylindrical container having an open top, connecting means for securing the coupling of a hose to said container comprising an annular ring adapted to overlie said open top, means extending radially outwardly from said ring for releasable engagement with said container adjacent the top thereof, and means on the inner peripheral surface of said annular ring adapted for releasable engagement with said hose coupling, said last means including a plurality of tabs extending radially inwardly from said annular ring and comprising portions of a continuous thread.

2,780,496
MULTI-COMPONENT SPRAY GUN
Hans J. Asbeck, Lakewood, Ohio, and Frank E. Ehrett, Grand Rapids, Mich., assignors to The Sherwin-Williams Company, Cleveland, Ohio, a corporation of Ohio
Application November 29, 1952, Serial No. 323,318
8 Claims. (Cl. 299—140.1)

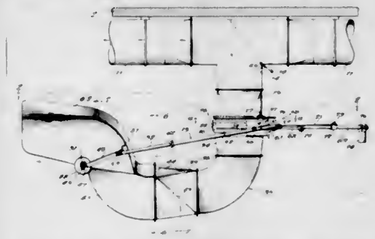


1. In a multi-component spraying device having trigger means for operating said device, a body, an elongated fluid receiving chamber divided into a plurality of non-communicating inner units, fluid supply inlets communicating with said non communicating inner units, a hollow rod retractably moveable with said trigger means and adapted to receive and discharge fluid from one of said inner units, and an exit from another of said inner units annular with respect to said hollow rod, said hollow rod projecting beyond said exit when the gun is fully triggered, said body having a passageway for transmitting gas under pressure close to and externally of said exit and hollow rod end to convert into a spray the fluid discharge therefrom.

2,780,497
WHEEL WEIGHT
Carl T. Cameron, Burr, Nebr.
Application June 30, 1954, Serial No. 440,325
2 Claims. (Cl. 301—41)

1. A readily applicable and removable tractor wheel weight the heaviness of which may be varied, according to varying needs and requirements comprising a hollow drum which, when empty, weighs some fifty or sixty pounds so that it is possible for the average individual to carry it handily, attach it to or detach it from the complemental rear tractor wheel and otherwise handle it, said drum embodying inner and outer spaced circular walls having their outer peripheral edges connected by an annular web providing a rim member, said rim member having an opening therein at a predetermined place, a readily applicable and removable closure plate attached to said rim member normally closing said open ng and serving to facilitate filling and emptying the drum with a material to increase the then existing weight to the desired degree of heaviness, said plate having a hole therein, a readily applicable and removable plug closing said hole, a plurality of circumferentially spaced L-shaped members secured to said rim member and embodying lugs releasably connectable with existing lug bolts on the tractor wheel construction.

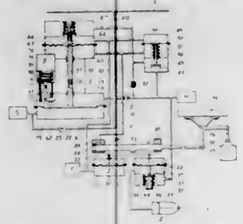
2,780,498
FIBER STOCK SPREADER
Leon S. Zygmuntowski, Chicago, Ill., assignor to Olson Rug Company, Chicago, Ill., a corporation of Illinois
Application July 14, 1955, Serial No. 522,038
12 Claims. (Cl. 302—28)



1. A fiber stock spreader, comprising: a blower conduit adapted to have fiber stock directed therethrough by air pressure, said conduit having an outlet opening therein located within a room-like bin or other enclosure into which the stock is to be delivered; and a hollow spreader body communicably connected with said conduit and mounted for rotation in the upper part of said bin, said body having a downwardly curved section adjacent the

inlet end thereof, a substantially horizontal intermediate section having a twist therein to provide irregular surfaces against which the air is directed to cause rotation of the body and an upwardly curved and outwardly opening discharge section from which the stock is discharged during rotation of said body, thereby spreading said stock about said bin and intermixing the fibers thereof.

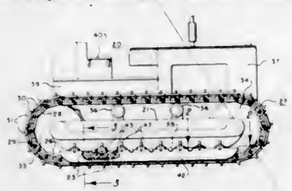
2,780,499
FLUID PRESSURE BRAKE
Siegfried Keller, Effretikon, Switzerland, assignor to Machine Tool Works Oerlikon, Administration Company, Zurich-Oerlikon, Switzerland, a Swiss company
Application May 16, 1952, Serial No. 288,359
5 Claims. (Cl. 303—22)



1. In a fluid pressure brake for vehicles, having a main air pipe, an auxiliary air reservoir and a brake cylinder, a relay valve device comprising a pressure chamber connected with said brake cylinder, another chamber connected with said auxiliary air reservoir, a valve interposed between said chambers, a third chamber, actuating means movable by pressure in said third chamber, other actuating means for said valve, a member interconnecting the two actuating means, a boss engaging said member and movable according to the vehicle load along said member, whereby pressure in said third chamber causes said member to swing about said boss in one direction while pressure in the first-mentioned chamber causes said member to swing about said boss in the opposite direction, the ratio of pressure in the first-mentioned chamber to pressure in the third chamber being varied by movement of said boss along said member, a variable width throttling passage connected with the atmosphere, a member connected with said boss and varying the width of said throttling passage, a relay control valve comprising a control chamber connected with said throttling passage, a constant pressure chamber, a second control chamber connected with said main air pipe, a membrane between the two last-mentioned chambers, a further chamber connected with said third chamber, a chamber connected with said auxiliary air reservoir, and a valve device connected with said membrane for interconnecting the two last-mentioned chambers, whereby the relay control valve is actuated; and a quick service valve device connected with the first-mentioned and second-mentioned control chambers and actuated by said membrane, whereby said quick service valve device is actuated when pressure drops in the main air pipe to supply fluid under pressure to said first chamber to oppose pressure in said further chamber for a period of time depending upon the width to which the throttling passage is open.

2,780,500
PIVOTALLY MOUNTED GUARD FOR TRACTOR CHAIN AND SUPPORTING ROLLERS
Frank L. Lawson, San Diego, Calif., assignor to Caudell & Johnson, San Diego, Calif., a corporation of California
Application September 12, 1955, Serial No. 533,716
4 Claims. (Cl. 305—9)

4. In a tractor having a frame, front and rear sprocket wheels, an endless chain trained about the wheels and forming tread shoes for the tractor, and rollers interposed between the top surface of the lower run of the chain and the frame for supporting the frame, in combination, a one-piece rock guard extending longitudinally of and disposed alongside of the lower run of the



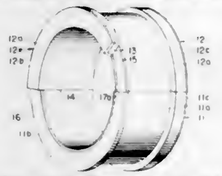
chain; a plurality of brackets secured to the frame above the lower run of said chain and spaced along the length of the guard; pivot pins for pivoting the guard to the brackets, said pins being connected with the upper part of the guard and each having its axis lying substantially parallelly of the longitudinally extending guard.

2,780,501
SEAT SLIDE
Ralph H. Rosenberg, Detroit, Mich., assignor to Ainsworth Manufacturing Corporation, Detroit, Mich., a corporation of Michigan
Application February 9, 1952, Serial No. 270,806
9 Claims. (Cl. 308—6)

1. A slide for automobile seats and the like comprising a pair of superposed, elongated, relatively slidable members, one adapted for attachment to the floor of a vehicle and the other adaptable for attachment to the vehicle seat, each of said members having a pair of race-forming flanges at opposite sides thereof, and corresponding flanges of the members being disposed in overlapping relation, said corresponding flanges having laterally directed, opposed, longitudinally extending corrugations defining raceways therebetween and at least one flange of each raceway being laterally flexible, antifriction balls in said raceways, the corrugation in one of the two flanges defining each raceway having a portion thereof arranged to support said balls and the corrugation in the other of the two flanges having a portion arranged to bear downwardly on the balls, and pressure-applying elements in engagement with said flexible flanges flexing the same in the direction of the other of said flanges to regulate the width of said raceways and to maintain contacting pressure between said balls and said raceways.

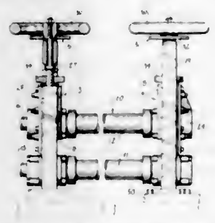
2,780,502
CONNECTING-ROD BEARING
Günther Wilhelm Emele, Munich-Obermenzing, Germany, assignor to Krauss-Maffei Aktiengesellschaft, Munich-Allach, Germany, a corporation of Germany
Application January 25, 1955, Serial No. 484,050
2 Claims. (Cl. 308—23)

1. A connecting-rod bearing assembly for internal combustion engines having adjacent connecting rods for engagement with a common crank pin, comprising a plurality of bearings, each bearing comprising two complementary shell members, said bearings being disposed coaxially adjacent to each other and having respective lateral annular faces, at least the major parts of which slide on each other, said annular faces having respective arcuate shoulder portions which overlap each other in claw-like fashion, only one shell member of each of said bearings having said arcuate shoulder, said shoulders each having bearing metal covering, each of the covered



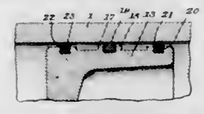
shoulders axially protruding toward the other bearing and extending over a peripheral angle which is less than 180° and is less than the arcuate extent of the annular face of the shell member, to permit angular displacement of the rods with respect to each other, said respective shouldered shell members having the same form, and said other two shell members having the same form, the remaining part of the lateral annular face of each shell member which is provided with said shoulder being recessed a distance required to provide clearance between it and the adjacent shoulder of the other bearing.

2,780,503
SLITTER APPARATUS
Richard F. Herr, Warren, Ohio, assignor, by mesne assignments, to The Herr Equipment Corporation, Warren, Ohio, a corporation of Ohio
Application May 20, 1952, Serial No. 288,975
6 Claims. (Cl. 308—59)



1. A slitter construction comprising a pair of rotatable shafts, one of the shafts being restricted against transverse movement and the other shaft being movable in a direction transverse to its longitudinal axis, each shaft being formed at one end to provide axially spaced seat portions of differing diameters and said seat portions terminating in respective leading ends, with the smallest diameter seat portion adjacent the extremity of such shaft end, a pair of spaced-apart housings having slide surfaces, said housings rotatably carrying said restricted shaft and one of said housings being shiftable toward and away from shaft supporting position, a chock for each of said housings, each chock being slideable along respective slide surfaces and each providing bearings for rotatably supporting said movable shaft, gib means carried by each of said housings, said gib means each comprising two elongated gib members disposed on opposite sides of each chock and extending longitudinally in a direction of movement thereof, cap means removably secured to each chock, each cap means and its respective chock together providing spaced grooves, each for receiving a respective gib member, shim means interposed between each cap means and its respective chock whereby the spacing between the opposed surfaces defining the sides of each of the grooves may be varied by varying the thickness of said shim means, a sleeve for each of said shafts, one sleeve being rotatable within bearings in said shiftable housing and the other sleeve being rotatable within bearings in the chock carried by said shiftable housing, each sleeve being shiftable with said shiftable housing over the ends of respective shafts and each having axially spaced portions interengageable with respective seat portion of a respective shaft and each sleeve portion terminating in respective leading ends, and a key extending transversely of the largest diameter seat portion of each shaft, each key interfitting with a respective keyway formed in a corresponding portion of each sleeve to effect unitary rotation of each shaft with its respective sleeve, each key being so related to its respective shaft and each keyway being so related to its respective sleeve and the spacing between the leading ends of said shaft seat portions and the spacing between said sleeve portions being substantially equal to effect substantially simultaneous engagement between the respective shaft seat portions and respective sleeve portions and between each key and its keyway upon movement of said shiftable housing to shaft-supporting position.

2,780,504
ACCUMULATOR PISTON
John G. Russell, Mayfield Heights, Ohio, assignor to The Parker Appliance Company, Cleveland, Ohio, a corporation of Ohio
Application April 21, 1954, Serial No. 424,628
4 Claims. (Cl. 309—4)



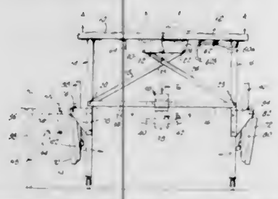
1. A floating piston for the cylinder of an accumulator comprising a generally cylindrical body having two spaced walls forming an annular groove intermediately of the ends thereof, said walls being of a diameter for closely fitting within the cylinder, a sealing gasket confined in said groove and in sealing contact with the cylinder, said body also having an annular groove in its outer surface adjacent each end thereof and defined between two spaced walls extending outwardly toward but spaced inwardly from the cylinder a greater distance than the intermediately positioned walls, and plastic ring means in each of the two last mentioned grooves and contacting in the base of each said groove and with the cylinder to hold the piston centered in the cylinder and being rigid and of low coefficient of friction so as to permit free movement of the piston within the cylinder while preventing cocking thereof about the intermediate contact of the gasket with the cylinder.

2,780,505
TRUNK PISTON AND METHOD OF MAKING SAME
William M. Venner, Clayton, Percy L. Bowser, Jr., Ladue, and William F. Peterson, Creve Coeur, Mo., assignors to Sterling Aluminum Products, Inc., St. Louis, Mo., a corporation of Missouri
Application October 18, 1952, Serial No. 315,519
6 Claims. (Cl. 309—13)

1. A trunk piston of an aluminum alloy, comprising, a head having a packing ring groove, a skirt provided with

wrist pin bosses and directly attached to the outside of the head in both of the boss regions but axially separated from the head along a thrust face region, and a continuous ferrous ring extending completely around the top of the skirt below its separation from the head, the ring being enveloped and cast-anchored by the alloy in both boss regions, which envelopment continues partially but extensively into the separated thrust face region, the inner part of the ring not enveloped by the alloy being exposed radially and circumferentially medially along an extended part of the separated thrust face region.

2,780,506
FOLDING SECTIONAL TABLE WITH LATCH MECHANISM
Harold Howe, Rowayton, Conn., assignor to Howe Folding Furniture, Inc., New York, N. Y., a corporation of New York
Application September 24, 1953, Serial No. 382,060
11 Claims. (Cl. 311—89)

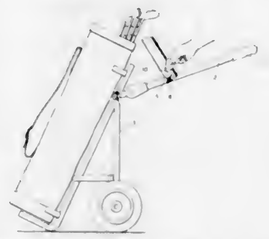


1. In a structure comprising two table top parts, support means for each part and link means interconnecting the support means for each top part to the opposite top part, a three link means interconnecting the support means for said top parts, a first of said links being pivotally connected at one end to one of said support means, a second of said links being pivotally connected at one end to the other of said support means, and the third of said links being interconnected between said first and second links by pivots spaced from the inner ends of said first and second links, and means carried by said third link and movable under the adjacent ends of said first and second links to lock the support means in unfolded position.

2,780,507
TABLE LEG EXTENSION
Robert N. Farley, Sacramento, Calif.
Application August 25, 1955, Serial No. 530,585
1 Claim. (Cl. 311—109)

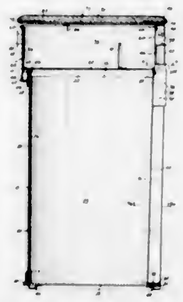
An extension table leg comprising a tubular body having an open end and a closed end, substantially U-shaped spring members fitted within the open end of said body and disposed at right angles with respect to each other with the ends of said spring members secured adjacent to the top of said tubular body, said spring members being secured together at their points of crossing within the body, providing a stop within the body, portions of said spring members adjacent to their points of contact with each other, being curved outwardly in contact with the wall of said tubular body, and said spring members adapted to grip a table leg over which the extension leg is positioned, securing the extension leg over the leg of the table.

2,780,508
GOLF BALL HOLDERS
Charles F. Bonderer, Salem, Oreg.
Application July 27, 1953, Serial No. 370,331
2 Claims. (Cl. 312—49)



2. As a new article of manufacture, a golf ball container for mounting on the handle of a golf bag carrier, said container comprising an elongated tubular member open at each end, said member having a pair of diametrically disposed cutouts in one end thereof within which said handle is adapted to engage, one of said cut outs being deeper than the other cut out whereby said member will be disposed at an oblique angle to the length of the handle, said member also having an opening in the side thereof adjacent said one end whereby a lower ball may be removed from said member, and means for detachably securing said member to said handle.

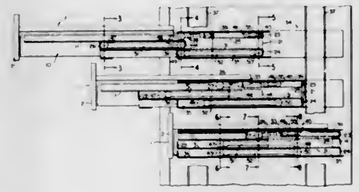
2,780,509
CLOTHES HAMPER
Harold Gleitsman, New Rochelle, N. Y.
Application May 4, 1954, Serial No. 427,571
5 Claims. (Cl. 312—201)



1. A hamper comprising a peripherally extending wall and a rear wall secured thereto to define a lower main receptacle having an opening at its top to form the hamper proper, said peripherally extending wall having opposing marginal edge portions which project outwardly beyond the plane of the rear wall rearwardly of the latter, an upper receptacle defined by a peripherally extending wall and a rear wall secured thereto, said last mentioned peripherally extending wall having opposing marginal edge portions which project outwardly beyond the plane of said last mentioned rear wall rearwardly of the latter, said receptacles being relatively pivotally movable laterally of each other from positions in which they are in vertical alignment to positions in which they are in laterally displaced relation, and means connecting said receptacles for said relative pivotal movement thereof, said means comprising a vertical hinge having parts provided on said upper and lower receptacles at the rear thereof and between the opposing marginal edge portions of the associated receptacles, the two receptacles being laterally offset when they are in said displaced relation so as to provide access to the hamper proper through said top opening thereof, said top opening being closed by said upper receptacle when the two receptacles are in said positions of vertical alignment, and interengaging releasable parts provided on said upper and lower receptacles at the rear thereof and between the opposing marginal edge portions of the associated receptacle to support the lower receptacle at the rear thereof by said upper receptacle in case the hamper is raised by the upper receptacle when the two receptacles are in said positions of vertical alignment.

2,780,510
DRAWER SUSPENSION APPARATUS FOR FILING CABINETS AND THE LIKE
Frank E. Cole, Jr., Manchester by the Sea, Mass., assignor to Craig Machine, Inc., Danvers, Mass., a corporation of Massachusetts
Application November 12, 1953, Serial No. 391,490
12 Claims. (Cl. 312—336)

3. Drawer suspension apparatus comprising a pair of fixed U-shaped channels each providing an upper and lower track, two pairs of coaxially disposed rollers freely movable on the lower track of each channel, spacer arms connected between the pairs of rollers on each of said lower tracks, a rack having a pair of horizontal flanges supported on said pairs of rollers, two additional pairs of coaxially disposed rollers freely movable on the upper



surfaces of each of said horizontal flanges, spacer arms connected between the pairs of additional rollers on each of said flanges, a drawer cradle having a pair of rails supported on said additional pairs of rollers, and a pair of coaxially disposed rollers carried on each side of said rack engaging the upper surface of the rails of said cradle and the upper tracks of said channels.

CHEMICAL

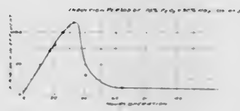
2,780,511
METHOD OF MAKING CELLULOSE ACETATE TEXTILE FIBERS BY ACETYLIZATION OF REGENERATED CELLULOSE FIBERS
Takeo Takagi, Tokyo, Japan, assignor to Toho Rayon Co., Ltd., Tokyo, Japan, a corporation of Japan
No Drawing. Application May 14, 1953, Serial No. 355,150
3 Claims. (Cl. 8—121)

1. The method of making cellulose acetate textile fibers which comprises impregnating regenerated cellulose fibers with 5% to 15% by weight of an acetylation catalyst salt from an aqueous solution thereof, drying said impregnated fibers to remove a portion of the water from said impregnated fibers, replacing completely the residual water in said fibers with acetic acid by maintaining said fibers in contact with acetic acid vapor at 100°–130° C. for a period from 10 to 45 minutes and subsequently acetylating said fibers to an acetic acid content from 40% to 62% by weight while retaining their fibrous form by maintaining said fibers in contact with acetic anhydride vapor at 100°–140° C. for a period of at least three hours.

2,780,512
PROCESSES FOR PRODUCING HOLLOW FILAMENTS OF REGENERATED CELLULOSE
Kagenobu Inoshita, Iwakuni, Japan
No Drawing. Application April 16, 1954, Serial No. 423,854
Claims priority, application Japan April 22, 1953
4 Claims. (Cl. 18—54)

1. A process for the manufacture of hollow filaments of regenerated cellulose which comprises spinning viscose having a Hottenroth number not less than 8, analyzing from 33 to 45% carbon disulfide based on cellulose, from 5 to 9% sodium hydroxide based on viscose and from 6 to 9% cellulose and containing added substance of from 0.1 to 3% based on viscose selected from the group consisting of calcium carbonate, strontium carbonate, barium carbonate and mixtures of said carbonates in the form of fine particles, in a spinning bath having a temperature between 40 to 70° C. and containing 90–180 g./l. of sulphuric acid, 200–350 g./l. of sodium sulfate and 5–80 g./l. of zinc sulfate.

2,780,513
REMOVAL OF HCN
William Frank Marzluff, Stamford, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
Application February 8, 1954, Serial No. 408,634
6 Claims. (Cl. 23—2)



1. In a method for continuously removing hydrogen cyanide from an anhydrous gas mixture consisting essentially of ammonia, carbon dioxide and not more than 0.3% hydrogen cyanide, the steps which include passing said gas over an absorbent consisting of a mixture consisting of 10% to 90% by weight of ferric oxide and 90% to 10% by weight of a metal carbonate, said metal being selected from the group consisting of alkali and alkaline earth metals at a temperature of from about 200–300° C. for not more than about 1500 hours whereby substantially all the hydrogen cyanide is absorbed and recovering a mixture of ammonia and carbon dioxide substantially free from hydrogen cyanide.

2,780,514
METHOD OF RECOVERING URANIUM FROM AQUEOUS SOLUTIONS

Garson A. Lutz, Columbus, Ohio, assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application March 21, 1952, Serial No. 277,899

2 Claims. (Cl. 23—14.5)

1. A process of recovering uranium values from an aqueous alkali carbonate solution, comprising contacting said solution with a strong-base quaternary amine anion exchange resin in its basic form whereby the uranium values are adsorbed on said resin, separating the uranium-containing resin from the uranium-depleted solution, and eluting the uranium values from the resin with an aqueous medium consisting of a mixture of sodium hydroxide and hydrogen peroxide.

2,780,515
METHOD FOR IMPROVED PRECIPITATION OF URANIUM PEROXIDE

Arthur J. Miller, Oak Ridge, Tenn., and Burnett M. Pitt, Evanston, and Philip F. Grieger, Urbana, Ill., assignors, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application September 1, 1950, Serial No. 182,888

9 Claims. (Cl. 23—14.5)

1. An improved method for separating and recovering hexavalent uranium values from an aqueous acidic solution containing the same together with ferric ions, which comprises incorporating malonate ions in said solution, thereupon adding hydrogen peroxide to the malonate-containing solution to precipitate said uranium values therefrom as uranium peroxide, and thereafter separating the resulting uranium-containing precipitate from its supernatant liquid.

2,780,516
CHEMICAL PURIFICATION OF URANIUM COMPOUNDS

Judd C. Nevenzel, Pasadena, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application June 12, 1947, Serial No. 754,263

10 Claims. (Cl. 23—14.5)

1. The purification process which comprises extracting with an organic solvent a water solution containing impure uranyl nitrate and another soluble nitrate, replacing the organic solvent in the solvent phase with water, adding hydrogen peroxide to the resulting aqueous solution to form a uranium peroxide precipitate, separating the uranium peroxide, heating the peroxide to uranium trioxide, dissolving the trioxide in sulfuric acid and adding acetone to the solution to form a pure insoluble acetone-sulfate complex of uranium.

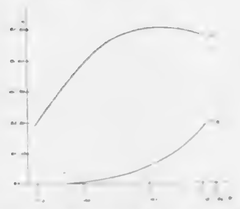
3. The purification process which comprises extracting with an organic solvent a water solution containing impure uranyl nitrate and another soluble nitrate, replacing the organic solvent in the solvent phase with water, adding hydrogen peroxide to the resulting aqueous solution and cooling to a low temperature to form a uranium peroxide precipitate, separating the uranium peroxide, heating the peroxide to uranium trioxide, dissolving the trioxide in sulfuric acid, adding acetone to the solution to form a pure insoluble acetone-sulfate complex of uranium, separating the complex, dissolving the complex, and crystallizing uranium sulfate from the solution.

2,780,517
SEPARATION OF URANIUM FROM FOREIGN SUBSTANCES

Beppino J. Fontana, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application April 27, 1943, Serial No. 484,680

5 Claims. (Cl. 23—14.5)



1. The method of separating uranium from thorium in compositions containing a large proportion of thorium nitrate and minute proportion of uranium nitrate which comprises forming an aqueous solution of said composition, regulating the ratio by weight of the thorium nitrate in said composition to water to between .7 to 1.4, and extracting the uranium nitrate from the composition with ether.

2,780,518
PROCESS FOR RECOVERY OF URANIUM FROM AQUEOUS SOLUTIONS

John W. Gates, Jr., Rochester, N. Y., and Lawrence J. Andrews, Davis, Calif., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application April 5, 1946, Serial No. 659,854

12 Claims. (Cl. 23—14.5)

1. A process for the separation of uranium from an aqueous solution containing a uranium compound and fluoride ions, which comprises providing in said solution sufficient aluminum ions to complex substantially all of said fluoride, contacting the resulting solution with an organic solvent for said uranium compound which is substantially immiscible with said solution, and separating the resulting extract and raffinate phases.

2,780,519
RECOVERY OF URANIUM FROM ORES

David Kaufman, Cambridge, and Sara E. Bailey, Brookline, Mass., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application December 21, 1950, Serial No. 202,134

5 Claims. (Cl. 23—14.5)

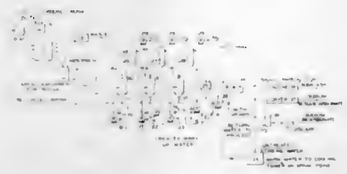
5. A process for selectively recovering uranium values from a low grade uranium containing ore which assays less than 0.2% in U_3O_8 and which contains large amounts of quartz gangue and also some foliated silicate minerals, pyrite and carbonaceous material which comprises leaching said ore with sulfuric acid to obtain a leach liquor which contains a small concentration of dissolved uranium and a much larger concentration of dissolved silicates, iron salts, aluminum salts, and alkaline earth metal salts, adjusting the pH of said leach liquor to between 1 and 1.5, reacting said leach liquor with iron to reduce the dissolved uranium to the uranous state and the dissolved iron to the ferrous state, adding tetrasodium pyrophosphate to said reduced solution to cause the precipitation of a uranous pyrophosphate containing precipitate, and then reacting the wet uranous pyrophosphate containing precipitate with dry sodium hydroxide to remove pyrophosphate values therefrom and to convert the uranous pyrophosphate to uranous hydroxide.

2,780,520
CARBONATION OF RECYCLE LIQUOR IN SODIUM SESQUICARBONATE PRODUCTION

Robert D. Pike, Greenwich, Conn.; Kenneth B. Ray and The Stamford Trust Company, executors of said Robert D. Pike, deceased

Application May 4, 1953, Serial No. 352,955

7 Claims. (Cl. 23—63)



1. A process for the production of sodium sesquicarbonate from crude trona which comprises dissolving the trona in a circulating system open to the atmosphere at the point where the trona is dissolved, in a recirculating solution of a mother liquor of sodium carbonate and sodium bicarbonate in which the ratio of normal carbonate to bicarbonate is maintained so that the normal carbonate and the bicarbonate in the trona are dissolved in the ratio in which they exist in the trona at a temperature not substantially less than the boiling point of the recirculating solution, with consequent loss of CO_2 from the circulating system at the point where the trona is dissolved, crystallizing and separating sodium sesquicarbonate from said solution by cooling, and recovering a portion of the CO_2 lost in the crystallizers by passing it through a stream of cooled recirculating mother liquor and discharging the unabsorbed CO_2 to the atmosphere.

2,780,521
PROCESS FOR PRODUCING COLLOIDAL SILICA-FREE CALCIUM FLUORIDE

Charles A. Butt, Lakeland, Fla., assignor to International Minerals & Chemical Corporation, a corporation of New York

No Drawing. Application March 22, 1954, Serial No. 417,965

5 Claims. (Cl. 23—88)

1. A process for producing calcium fluoride which comprises reacting a solids-free aqueous fluosilicic acid solution containing between about 2.5% and about 6.0% of fluosilicic acid, while at a temperature in the range between 35° F. and 130° F., with ground limestone in sufficient amount to produce a pH of between about 3.5 and about 6.7 in the reaction medium and separating the precipitated calcium fluoride from the aqueous medium containing colloidal silica after the reaction has been substantially completed.

2,780,522
PRODUCTION OF FLUORINE COMPOUNDS

Gunter H. Gloss, Libertyville, and John H. Gross, Mundelein, Ill., assignors to International Minerals & Chemical Corporation, a corporation of New York

No Drawing. Application December 17, 1953, Serial No. 398,866

9 Claims. (Cl. 23—88)

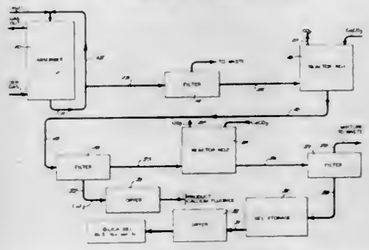
1. A process for the production of fluorine-containing compounds which comprises adding an aqueous fluosilicic acid-containing solution to sufficient aqueous ammonia to maintain a pH above 7.5 in the resulting reaction mixture, while maintaining the temperature of said mixture between about the freezing point and about 40° C., and separating the resulting granular silica which precipitates from the resulting ammonium fluoride solution.

2,780,523
PROCESS FOR RECOVERING SOLID CALCIUM FLUORIDE CONTAINING PRODUCT AND COLLOIDAL SILICA SOLUTION FROM A WEAK AQUEOUS FLUOSILICIC ACID SOLUTION

Gunter H. Gloss, Libertyville, Ill., assignor to International Minerals & Chemical Corporation, a corporation of New York

Application March 22, 1954, Serial No. 417,723

10 Claims. (Cl. 23—88)



1. A process for the production of fluorine-containing compounds which comprises reacting an aqueous fluosilicic acid solution containing less than 4% H_2SiF_6 with an amount of finely divided calcium carbonate which is less than about 85% of the stoichiometric equivalent required for neutralization of the H_2SiF_6 content, recovering a calcium fluoride solid product from a first solution containing colloidal silica, neutralizing said first solution with an added quantity of calcium carbonate, which will produce a second solution having a pH in the range of between about 7 and about 7.3, and separately recovering a second calcium fluoride-containing solid product and a second solution containing colloidal silica.

2,780,524
PROCESS FOR PRODUCTION OF SUBSTANTIALLY PHOSPHATE-FREE AMMONIUM SILICOFLUORIDE FROM DEN GAS

Gunter H. Gloss, Libertyville, and John H. Gross, Mundelein, Ill., assignors to International Minerals & Chemical Corporation, a corporation of New York

No Drawing. Application December 17, 1953, Serial No. 398,867

5 Claims. (Cl. 23—88)

1. A process for the production of a substantially phosphate-free ammonium silicofluoride aqueous solution from a gas containing silicon tetrafluoride and phosphate material which comprises passing said gas through an aqueous absorption medium selected from the group consisting of water and an aqueous ammonium silicofluoride solution at a temperature between about the freezing point of the medium and about 40° F., while adding sufficient ammonia to the said absorption medium to maintain a pH of the reaction mixture of between about 3.5 and about 5.5 to dissolve silicon tetrafluoride from the gas and to leave the phosphate material substantially undissolved, and separating the substantially undissolved phosphate material from the substantially phosphate-free aqueous solution of ammonium silicofluoride.

2,780,525
PROCESS AND APPARATUS FOR THE PRODUCTION OF ALUMINUM OXIDE FROM ALUMINUM CHLORIDE

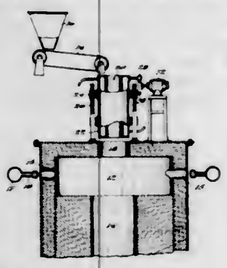
Charles B. Wendell, Jr., Canton, and George E. Engelson, Nantasket, Mass., assignors to Godfrey L. Cabot, Inc., Boston, Mass., a corporation of Massachusetts

Application October 8, 1953, Serial No. 384,854

10 Claims. (Cl. 23—142)

1. A process for the production of aluminum oxide which comprises introducing solid particulate aluminum chloride by gravity at a controlled rate of flow into a hot reaction zone through a vertically disposed cold-walled zone of limited and uniform cross sectional area

while maintaining the cold walls of said zone in reciprocating motion, simultaneously introducing into said hot reaction zone a gas, at least one constituent of which



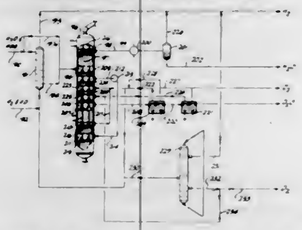
contains oxygen, converting the aluminum chloride while suspended in said gas in the reaction zone to aluminum oxide and separating the said oxide product from the gaseous by-products of the reaction.

2,780,526

ISOTOPE SEPARATION PROCESS

Raymond N. Fleck, Long Beach, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

Application April 12, 1951, Serial No. 220,688
33 Claims. (Cl. 23—151)



5. A process for separating isotopes by selective adsorption on solid adsorbents which comprises flowing a substantially compact bed of granular, inorganic, adsorbent material downwardly in the order named through a cooling zone, an adsorption zone, a rectification zone, a desorption zone, a heating zone, and back to said cooling zone, contacting a chemically homomolecular, isotopically heteromolecular feed gas countercurrently with said adsorbent in said adsorption zone at a temperature not greater than about 100° F. above the atmospheric boiling point of said feed gas, thereby selectively adsorbing isotopically heavier molecules of said gas and forming a rich adsorbent and a lean gas, removing said lean gas from the top of said adsorption zone, heating said rich adsorbent in said heating zone to a temperature sufficiently high to desorb the adsorbed rich gas phase, flowing the major portion of said desorbed rich gas upwardly as reflux through said desorption and rectification zones thereby effecting rectification therein, and withdrawing a minor portion of said desorbed rich gas from said desorption zone, said minor portion of rich gas constituting a product stream substantially enriched in isotopically heavy molecules.

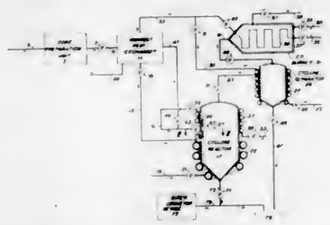
2,780,527

PRODUCTION OF GRAPHITE

Milton M. Marisic, Elgin, and Le Roi E. Hutchings, Crystal Lake, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

Application January 25, 1955, Serial No. 483,876
7 Claims. (Cl. 23—209.1)

1. A process for preparing graphite which comprises the steps of admixing finely divided solid carbonaceous feed with about 1.33 parts of substantially pure oxygen to 1.2 to 2 parts of carbonaceous feed, the amount of oxygen being sufficient but not substantially in excess of the amount required to raise the temperature of the mixture



upon combustion to approximately 5000—7000° F., introducing said admixture to a cyclone-type reaction zone, igniting said admixture, and separating and recovering from the combustion products substantially pure graphite.

2,780,528

PROCESS FOR RECOVERING IODINE FROM IODINE-CONTAINING AQUEOUS GLYCOL SOLUTIONS

Kåre Ragnvald Fossan and Gustav Allan Wetterholm, Gyttorp, Sweden, assignors to Nitroglycerin Aktiebolaget, Gyttorp, Sweden, a corporation of Sweden

No Drawing. Application September 8, 1953, Serial No. 379,064
Claims priority, application Sweden September 15, 1952
4 Claims. (Cl. 23—216)

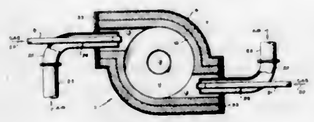
1. In the recovery of iodine from aqueous glycol solutions containing dissolved free iodine, hydrogen iodide and hydrolyzable organic iodine compounds; the process which comprises treating such a glycol solution with a sufficient amount of an oxidizing agent, selected from the class consisting of chlorine, nitrogen oxides, potassium permanganate, hydrogen peroxide, ferric chloride, hypochlorous acid, chromium trioxide and substances capable of generating these oxidizing agents in the solution, to oxidize the iodides present without affecting the glycol and the hydrolyzable iodine compounds, thereby precipitating free iodine, hydrolyzing the said hydrolyzable iodine compounds by making the solution alkaline and heating to water bath temperatures, acidifying the solution and again treating the solution with a sufficient quantity of said oxidizing agent to precipitate iodine from the products resulting from the hydrolysis, and recovering the precipitated iodine.

2,780,529

APPARATUS FOR PRODUCING CARBON BLACK

Frederic K. Wrigley, Idaho Falls, Idaho, assignor to Phillips Petroleum Company, a corporation of Delaware

Application February 8, 1954, Serial No. 408,801
8 Claims. (Cl. 23—259.5)



6. In a carbon black production reactor comprising a generally cylindrical chamber having axially positioned inlet means and outlet means and at least one tangentially positioned inlet means, the improvement which comprises a burner positioned within said tangentially positioned inlet means and comprising, in combination: an inner conduit longitudinally positioned within an outer conduit each of said conduits having an inlet end and an outlet end the outlet ends being adjacent each other; orifice means peripherally attached adjacent the outlet end of said outer conduit and out of contact with said inner conduit; closure means at the corresponding end of said inner conduit; a plurality of peripheral openings in said inner conduit adjacent said closure means; and at least one additional peripheral opening at a position in at least one of said conduits intermediate the inlet and the outlet end thereof and positioned upstream from the orifice means, each said additional opening, when positioned in said inner conduit, being nonaligned with respect to all of said first-mentioned openings.

2,780,530

METHOD OF CONCENTRATING SOLUTIONS WITHOUT EVAPORATION

Felix Alfred Schaufelberger, Stamford, Conn., assignor to Chemical Construction Company, New York, N. Y., a corporation of Delaware

No Drawing. Application February 5, 1954, Serial No. 408,606
6 Claims. (Cl. 23—293)

1. A method of treating a solution to increase the concentration of at least one dissolved salt of an inorganic acid, the total solubility of which salt in said solution decreases as the temperature of said solution is increased from a first temperature above about 150° C. to a second temperature above said first temperature but below the critical temperature of the solvent, said treatment comprising: heating said solution, under a pressure at least that autogeneously developed but below the critical pressure, to a treating temperature which is (*a*) substantially above said first temperature (*b*) below said critical temperature and (*c*) sufficiently high to cause precipitation of at least part of said dissolved salt from said solution; removing a portion of the resultant liquid and then cooling the residual solution and solids to a third temperature which is below the boiling point at atmospheric pressure.

2,780,531

HYDRAZINE RECOVERY

Richard N. Lewis, North Haven, Conn., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application February 23, 1954, Serial No. 412,051
8 Claims. (Cl. 23—312)

1. An extraction process for dehydrating aqueous hydrazine which comprises mixing an organic acid having an ionization constant of not more than 1.3×10^{-10} at 25° C. with the aqueous hydrazine mixture and decanting a hydrazine-acid layer from the aqueous mixture.

2,780,532

URANIUM SEPARATION PROCESS

Raymond M. Hainer, Revere, Mass., and Ernest Charles Evers, Philadelphia, Pa., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application August 13, 1948, Serial No. 44,232
5 Claims. (Cl. 23—312)

1. A process of separating uranyl nitrate from an aqueous solution also containing at least one other metal in solution and in which the predominant anion after the inclusion of the salting out agent is the nitrate ion which comprises including in said solution a salting out agent selected from the group consisting of ammonium nitrate and nitrates of divalent and trivalent metals, extracting said solution with a dialkyl ether of a polyethylene glycol, and then washing said dialkyl ether with a liquid selected from the group consisting of water, water containing a dissolved base, and an aqueous ammonium sulfate solution to recover the uranyl nitrate from said dialkyl ether of a polyethylene glycol.

2,780,533

ABRASIVE ARTICLE AND METHOD OF MAKING

Edward Hurst, West Newton, Mass., assignor, by mesne assignments, to Rexall Drug Company, Los Angeles, Calif., a corporation of Delaware

Application March 7, 1950, Serial No. 148,181
8 Claims. (Cl. 51—297)

5. An abrasive article comprising a flexible abrasive coated material comprising a single layer of abrasive particles substantially one grit size in thickness adhesively secured by means of an adhesive selected from the group consisting of an animal glue, a latex-resin adhesive, and a latex-casein adhesive to a flexible backing comprising a non-abrasive layer of sponge rubber of sufficient thickness to impart yieldability and resilience to the article and a fabric reinforcing layer, said fabric reinforcing layer being adhesively bonded to said layer of sponge rubber.

2,780,534

MANUFACTURE OF ABRASIVE PRODUCTS

Joseph N. Kuzmick, Clifton, and De Witt Bell, Fair Lawn, N. J., assignors to Raybestos-Manhattan, Inc., Passaic, N. J., a corporation of New Jersey

No Drawing. Application November 27, 1953, Serial No. 394,909
3 Claims. (Cl. 51—298)

1. An abrasive product comprising abrasive particles bonded with an organic bond selected from the class consisting of synthetic resins and synthetic rubbers, the said abrasive product having incorporated and distributed therein antimony sulfide particles, the antimony sulfide being in the proportion of from 10% to 200% by weight of the organic bond, the antimony sulfide particles acting within the range of grinding temperatures of the abrasive product as a lubricant and a loading inhibitor.

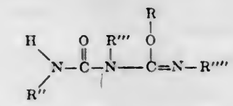
2,780,535

CARBAMYL PSEUDOUREA HERBICIDAL COMPOSITION AND A METHOD FOR KILLING WEEDS THEREWITH

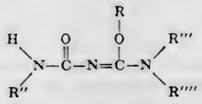
Jack A. Snyder, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application February 18, 1954, Serial No. 411,280
2 Claims. (Cl. 71—2.6)

1. A method for the control of weeds which comprises applying to a locus to be protected, in amount sufficient to exert a herbicidal action, an organo carbamyl pseudourea selected from the group consisting of compounds represented by the formulas

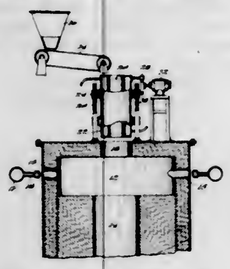


and



where R is from the group consisting of substituted and unsubstituted alkyl and alkenyl organic radicals of 1 to 4 carbons, R″ is from the group consisting of phenyl and substituted phenyl, and R‴ and R⁗ are from the group consisting of hydrogen and substituted and unsubstituted alkyl and alkenyl organic radicals of 1 to 6 carbons.

while maintaining the cold walls of said zone in reciprocating motion, simultaneously introducing into said hot reaction zone a gas, at least one constituent of which



contains oxygen, converting the aluminum chloride while suspended in said gas in the reaction zone to aluminum oxide and separating the said oxide product from the gaseous by-products of the reaction.

2,780,526

ISOTOPE SEPARATION PROCESS

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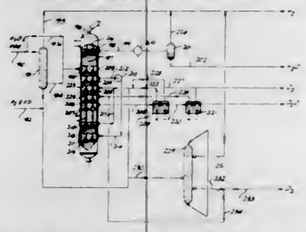
Application April 12, 1951, Serial No. 220,688
33 Claims. (Cl. 23—151)



5. A process for separating isotopes by selective adsorption on solid adsorbents which comprises flowing a substantially compact bed of granular, inorganic, adsorbent material downwardly in the order named through a cooling zone, an adsorption zone, a rectification zone, a desorption zone, a heating zone, and back to said cooling zone, contacting a chemically homomolecular, isotopically heteromolecular feed gas countercurrently with said adsorbent in said adsorption zone at a temperature not greater than about 100° F. above the atmospheric boiling point of said feed gas, thereby selectively adsorbing isotopically heavier molecules of said gas and forming a rich adsorbent and a lean gas, removing said lean gas from the top of said adsorption zone, heating said rich adsorbent in said heating zone to a temperature sufficiently high to desorb the adsorbed rich gas phase, flowing the major portion of said desorbed rich gas upwardly as reflux through said desorption and rectification zones thereby effecting rectification therein, and withdrawing a minor portion of said desorbed rich gas from said desorption zone, said minor portion of rich gas constituting a product stream substantially enriched in isotopically heavy molecules.

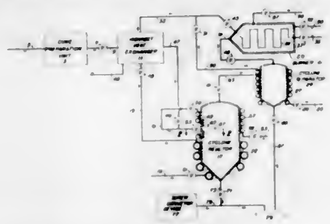
2,780,527

PRODUCTION OF GRAPHITE

Milton M. Marisic, Elgin, and Le Roi E. Hutchings, Crystal Lake, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

Application January 25, 1955, Serial No. 483,876
7 Claims. (Cl. 23—209.1)

1. A process for preparing graphite which comprises the steps of admixing finely divided solid carbonaceous feed with about 1.33 parts of substantially pure oxygen to 1.2 to 2 parts of carbonaceous feed, the amount of oxygen being sufficient but not substantially in excess of the amount required to raise the temperature of the mixture



upon combustion to approximately 5000—7000° F., introducing said admixture to a cyclone-type reaction zone, igniting said admixture, and separating and recovering from the combustion products substantially pure graphite.

2,780,528

PROCESS FOR RECOVERING IODINE FROM IODINE-CONTAINING AQUEOUS GLYCOL SOLUTIONS

Kåre Ragnvald Fossan and Gustav Allan Wetterholm, Gyttorp, Sweden, assignors to Nitroglycerin Aktiebolaget, Gyttorp, Sweden, a corporation of Sweden

No Drawing. Application September 8, 1953, Serial No. 379,064
Claims priority, application Sweden September 15, 1952
4 Claims. (Cl. 23—216)

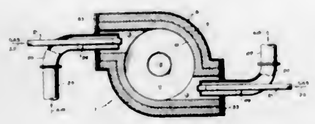
1. In the recovery of iodine from aqueous glycol solutions containing dissolved free iodine, hydrogen iodide and hydrolyzable organic iodine compounds; the process which comprises treating such a glycol solution with a sufficient amount of an oxidizing agent, selected from the class consisting of chlorine, nitrogen oxides, potassium permanganate, hydrogen peroxide, ferric chloride, hypochlorous acid, chromium trioxide and substances capable of generating these oxidizing agents in the solution, to oxidize the iodides present without affecting the glycol and the hydrolyzable iodine compounds, thereby precipitating free iodine, hydrolyzing the said hydrolyzable iodine compounds by making the solution alkaline and heating to water bath temperatures, acidifying the solution and again treating the solution with a sufficient quantity of said oxidizing agent to precipitate iodine from the products resulting from the hydrolysis, and recovering the precipitated iodine.

2,780,529

APPARATUS FOR PRODUCING CARBON BLACK

Frederic K. Wrigley, Idaho Falls, Idaho, assignor to Phillips Petroleum Company, a corporation of Delaware

Application February 8, 1954, Serial No. 408,801
8 Claims. (Cl. 23—259.5)



6. In a carbon black production reactor comprising a generally cylindrical chamber having axially positioned inlet means and outlet means and at least one tangentially positioned inlet means, the improvement which comprises a burner positioned within said tangentially positioned inlet means and comprising, in combination: an inner conduit longitudinally positioned within an outer conduit each of said conduits having an inlet end and an outlet end the outlet ends being adjacent each other; orifice means peripherally attached adjacent the outlet end of said outer conduit and out of contact with said inner conduit; closure means at the corresponding end of said inner conduit; a plurality of peripheral openings in said inner conduit adjacent said closure means; and at least one additional peripheral opening at a position in at least one of said conduits intermediate the inlet and the outlet end thereof and positioned upstream from the orifice means, each said additional opening, when positioned in said inner conduit, being nonaligned with respect to all of said first-mentioned openings.

2,780,530

METHOD OF CONCENTRATING SOLUTIONS WITHOUT EVAPORATION

Felix Alfred Schaufelberger, Stamford, Conn., assignor to Chemical Construction Company, New York, N. Y., a corporation of Delaware

No Drawing. Application February 5, 1954, Serial No. 408,606
6 Claims. (Cl. 23—293)

1. A method of treating a solution to increase the concentration of at least one dissolved salt of an inorganic acid, the total solubility of which salt in said solution decreases as the temperature of said solution is increased from a first temperature above about 150° C. to a second temperature above said first temperature but below the critical temperature of the solvent, said treatment comprising: heating said solution, under a pressure at least that autogeneously developed but below the critical pressure, to a treating temperature which is (*a*) substantially above said first temperature (*b*) below said critical temperature and (*c*) sufficiently high to cause precipitation of at least part of said dissolved salt from said solution; removing a portion of the resultant liquid and then cooling the residual solution and solids to a third temperature which is below the boiling point at atmospheric pressure.

2,780,531

HYDRAZINE RECOVERY

Richard N. Lewis, North Haven, Conn., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application February 23, 1954, Serial No. 412,051
8 Claims. (Cl. 23—312)

1. An extraction process for dehydrating aqueous hydrazine which comprises mixing an organic acid having an ionization constant of not more than 1.3×10^{-10} at 25° C. with the aqueous hydrazine mixture and decanting a hydrazine-acid layer from the aqueous mixture.

2,780,532

URANIUM SEPARATION PROCESS

Raymond M. Hainer, Revere, Mass., and Ernest Charles Evers, Philadelphia, Pa., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application August 13, 1948, Serial No. 44,232
5 Claims. (Cl. 23—312)

1. A process of separating uranyl nitrate from an aqueous solution also containing at least one other metal in solution and in which the predominant anion after the inclusion of the salting out agent is the nitrate ion which comprises including in said solution a salting out agent selected from the group consisting of ammonium nitrate and nitrates of divalent and trivalent metals, extracting said solution with a dialkyl ether of a polyethylene glycol, and then washing said dialkyl ether with a liquid selected from the group consisting of water, water containing a dissolved base, and an aqueous ammonium sulfate solution to recover the uranyl nitrate from said dialkyl ether of a polyethylene glycol.

2,780,533

ABRASIVE ARTICLE AND METHOD OF MAKING

Edward Hurst, West Newton, Mass., assignor, by mesne assignments, to Rexall Drug Company, Los Angeles, Calif., a corporation of Delaware

Application March 7, 1950, Serial No. 148,181
8 Claims. (Cl. 51—297)

5. An abrasive article comprising a flexible abrasive coated material comprising a single layer of abrasive particles substantially one grit size in thickness adhesively secured by means of an adhesive selected from the group consisting of an animal glue, a latex-resin adhesive, and a latex-casein adhesive to a flexible backing comprising a non-abrasive layer of sponge rubber of sufficient thickness to impart yieldability and resilience to the article and a fabric reinforcing layer, said fabric reinforcing layer being adhesively bonded to said layer of sponge rubber.

2,780,534

MANUFACTURE OF ABRASIVE PRODUCTS

Joseph N. Kuzmick, Clifton, and De Witt Bell, Fair Lawn, N. J., assignors to Raybestos-Manhattan, Inc., Passaic, N. J., a corporation of New Jersey

No Drawing. Application November 27, 1953, Serial No. 394,909
3 Claims. (Cl. 51—298)

1. An abrasive product comprising abrasive particles bonded with an organic bond selected from the class consisting of synthetic resins and synthetic rubbers, the said abrasive product having incorporated and distributed therein antimony sulfide particles, the antimony sulfide being in the proportion of from 10% to 200% by weight of the organic bond, the antimony sulfide particles acting within the range of grinding temperatures of the abrasive product as a lubricant and a loading inhibitor.

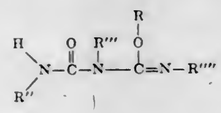
2,780,535

CARBAMYL PSEUDOUREA HERBICIDAL COMPOSITION AND A METHOD FOR KILLING WEEDS THEREWITH

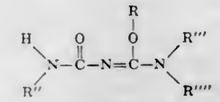
Jack A. Snyder, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application February 18, 1954, Serial No. 411,280
2 Claims. (Cl. 71—2.6)

1. A method for the control of weeds which comprises applying to the locus to be protected, in amount sufficient to exert a herbicidal action, an organo carbamyl pseudourea selected from the group consisting of compounds represented by the formulas

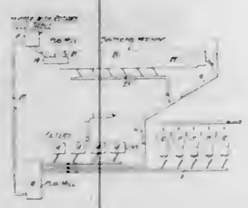


and



in the group consisting of substituted and unsubstituted alkyl and alkenyl organic radicals of 1 to 4 carbons, R is from the group consisting of phenyl and substituted phenyl, and R‴ and R⁗ are from the group consisting of hydrogen and substituted and unsubstituted alkyl and alkenyl organic radicals of 1 to 6 carbons.

2,780,536
FLUE-DUST SINTER AND METHOD OF MANUFACTURE
Dennis J. Carney, Chicago, Ill., assignor to United States Steel Corporation, a corporation of New Jersey
Application October 21, 1953, Serial No. 387,486
2 Claims. (Cl. 75—5)



1. In a method of sintering materials containing iron oxide such as flue dust, iron ore and sinter fines, the steps including mixing about 5% iron ore, about 10% sinter fines, about 77% flue dust and about 8% furnace slag in particulate form, spreading the mix on a continuous traveling grate, and progressively igniting the combustible in the mix and effecting combustion thereof while traveling on the grate.

2,780,537
PROCESS OF TREATING PULVERULENT IRON OXIDES
Per Otto Stelling and Ivan Georg Magnus Pereswetoff-Morath, Stockholm, Sweden; said Pereswetoff-Morath assignor to said Stelling
No Drawing. Application October 30, 1953, Serial No. 389,453
Claims priority, application Sweden November 24, 1952
9 Claims. (Cl. 75—26)

9. The process of treating pulverulent iron oxides, which comprises adding said iron oxides to a pulverulent bed containing a large proportion of Fe_3C and a smaller proportion of FeO, introducing into said bed at the bottom thereof and at a temperature between 570° C. and 625° C. a reducing gas, the main reducing constituent of which is carbon monoxide and which does not contain hydrogen in an amount exceeding 50% by volume of the carbon monoxide content, for keeping the bed in a fluidized state and for converting said iron oxides into a mixture composed substantially of FeO and Fe_3C in a molecular ratio of about 1.1 to 1, discharging such mixture from the bed, and heating the same for producing metallic iron, CO and CO_2.

2,780,538
FUEL UTILIZATION PROCESS
Ernest G. Chilton, Orinda, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application January 29, 1954, Serial No. 407,170
7 Claims. (Cl. 75—43)

1. In the process of operating an open hearth steel furnace, wherein the process of charging the steel ingredients, melting the latter and purifying the molten steel is attended by heating with a fluid fuel flame, the improvement comprising injecting a carbon black fuel oil concentrate having a carbon black content between about 10% and about 65% by weight, the carbon black particles having an average diameter between about 0.02 micron to about 1.0 micron, into a fuel oil immediately prior to combustion thereof in the combustion chamber of said furnace, the injection being continued during the charging and melting stages and omitted during the refining stage of said steel-making process.

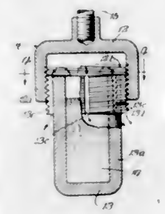
2,780,539
PROCESS OF SMELTING GERMANIUM
Karl O. Seiler, Nurnberg, Germany, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application January 2, 1953, Serial No. 329,425
Claims priority, application Germany January 10, 1952
1 Claim. (Cl. 75—84)

In the process of smelting germanium the steps comprising preparing a crucible of quartz by placing the crucible within an oven and cracking a hydrocarbon within the oven at a temperature below the softening point of quartz to form a thin film of amorphous carbon on the crucible, and melting germanium material within the crucible.

2,780,540
METHOD OF MAKING KILLED RESULPHURIZED STEEL
Earl W. Pierce, Chicago, Ill., assignor to United States Steel Corporation, a corporation of New Jersey
No Drawing. Application April 9, 1954, Serial No. 422,235
3 Claims. (Cl. 75—129)

1. In the manufacture of steel, the method which consists in melting a heat of steel, working the heat to reduce the sulphur content to a practical minimum, tapping the heat, deoxidizing the steel, resulphurizing it, and then adding to the resulphurized steel from 1 to 4 lb. per ton of an alloy composed of about one-tenth magnesium and substantially the remainder iron and silicon in approximately equal amounts, thereby giving the steel improved hot-working properties.

2,780,541
PROCESS FOR TREATING MOLTEN METALS
Lothar Robert Zifferer, York, Pa.
Application April 9, 1954, Serial No. 422,157
10 Claims. (Cl. 75—130)

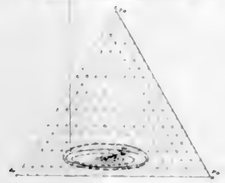


1. The method of inoculating a first metal with a second metal which comprises immersing an alloy of said second metal with a carrier metal into a molten mass of the first metal heated to a temperature above the boiling point of said second metal, the carrier metal having a melting temperature less than said temperature and a boiling temperature greater than said temperature, and maintaining said immersion during the inoculation of the first metal with the resulting vapors of said second metal while preventing substantial mingling of said carrier metal with said molten mass of said first metal, the percentage of said second metal in the alloy being sufficient to produce a vapor pressure in excess of the hydrostatic head of said molten first metal at the point of maximum immersion.

2,780,542
WEAR-RESISTANT ALLOY
Clarence E. Cormack, Buffalo, N. Y., assignor to Union Carbide and Carbon Corporation, a corporation of New York
No Drawing. Application December 8, 1953, Serial No. 397,009
7 Claims. (Cl. 75—134)

1. An alloy containing 10% to 65% in the aggregate of at least one metal selected from the group consisting of chromium, molybdenum and tungsten, the chromium not exceeding 40% and the aggregate of molybdenum and tungsten not exceeding 25%; 2% to 7% carbon; up to 15% iron; at least one graphite nodularizing agent selected from the group consisting of cerium, mischmetal and magnesium in a proportion sufficient to promote the formation of nodular graphite in said alloy; the remainder at least one metal selected from the group consisting of cobalt and nickel, together with incidental impurities; at least a substantial portion of the carbon content of said alloy being present in the form of nodular graphite substantially uniformly distributed throughout said alloy.

2,780,543
HIGH RESISTIVITY ALLOY
Julius F. Schneider, Irvington, and Cecil S. Sivil, East Orange, N. J., assignors to Baker & Company, Incorporated, Newark, N. J., a corporation of New Jersey
Application May 17, 1955, Serial No. 508,942
5 Claims. (Cl. 75—165)



1. A high resistance alloy composed of 20%–62% palladium, 4%–18% iron, and 28%–70% gold.

2,780,544
NICKEL ALLOY
Paul Edward Hegmegee, Jr., Clifton, N. J., assignor to The International Nickel Company, Inc., New York, N. Y., a corporation of Delaware
Application October 12, 1954, Serial No. 461,875
4 Claims. (Cl. 75—170)

1. The method for producing improved graphitic nickel-copper-silicon castings which comprises establishing a bath of a nickel alloy containing about 0.5% to 3.5% silicon, about 0.4% to 0.7% carbon, about 25% to about 35% copper, up to about 5% iron and up to about 2.5% manganese, reacting said bath with about 1% to 2% of calcium carbide, adding about 0.1% to about 0.2% magnesium to the thus-treated bath, and thereafter casting metal from the bath to provide graphitic castings containing about 0.5% to 3.5% silicon, about 0.4% to 0.7% carbon, about 25% to 35% copper, up to about 5% iron, up to about 2.5% manganese, about 0.02% to 0.2% magnesium, calcium up to about 0.01%, and the balance essentially nickel, said castings containing nodular graphite and being characterized by a high combination of mechanical properties and by improved machinability.

2,780,545
HIGH-TEMPERATURE ALLOY
Howard A. Blank, Donald P. Moon, and Albert M. Hall, Columbus, Ohio, assignors, by mesne assignments, to The Battelle Development Corporation, Columbus, Ohio, a corporation of Delaware
No Drawing. Application February 3, 1954, Serial No. 408,014
6 Claims. (Cl. 75—176)

1. A forgeable high-temperature, high-strength alloy consisting of 60% to 80% chromium, 5% to 11% molybdenum, 1.4% to 3% titanium, and the balance essentially iron.

2,780,546
PRODUCTION OF PRESERVED ALKALINE PAPER
Clarence L. Moyle, Clare, and Charles G. Humiston, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application August 26, 1955, Serial No. 530,889
6 Claims. (Cl. 92—21)

1. In the process for the manufacture of an alkaline paper from dilute aqueous paper pulp suspension, the steps which comprise adding to the pulp suspension (1) a pentachlorophenol compound in an amount normally adapted to accomplish preservation and (2) a long chain aliphatic amine compound having at least one hydrogen attached to the amine nitrogen and containing from 10 to 18 carbon atoms, inclusive, in the amount of at least 1.5 moles per mole of the added phenolic compound, intimately mixing the resulting modified pulp suspension, and forming the dilute pulp suspension at a pH of from 7.2 to 9.8 into a waterlaid sheet.

2,780,547
DIAZOTYPE PHOTOPRINTING MATERIALS AND PROCESSES FOR PREPARING SAME
Anthony J. Ferzola, Brooklyn, N. Y., and Carl Botkin, Teaneck, N. J., assignors to Charles Bruning Company Inc., a corporation of Delaware
No Drawing. Application June 30, 1954, Serial No. 440,556
16 Claims. (Cl. 96—75)

14. Diazotype photoprinting material which comprises a starch-sized paper base having applied thereto a dispersion of non-cooked and non-swollen rice starch particles in an aqueous medium to produce a surface coating thereon of said non-cooked and non-swollen rice starch particles uniformly distributed over said starch-sized paper base and adhering thereto, said rice starch particles being covered with a sensitizing composition containing a light-sensitive diazo compound.

2,780,548
GELLED CONDENSED WHEY AND PROCESS
Olof E. Stamberg, Danville, Ill., assignor to Consolidated Products Company, Danville, Ill., a corporation of Nebraska
No Drawing. Application May 25, 1953, Serial No. 357,339
9 Claims. (Cl. 99—4)

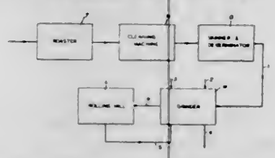
1. A process for gelling a condensed whey containing the natural whey proteins in undenatured form and having a solids content within the range from about 30% to about 60% which comprises holding the whey at a temperature below about 90° F. in the presence of from about 32% to about 8% calcium lactate by weight of the whey solids for a time within the range from a few hours to several days to permit action of the calcium lactate on the whey and effect gelation of the whey.

2,780,549

PROCESS FOR PREPARING A CONFECTIONERY PRODUCT CONTAINING PEANUTS

Jeanne Charlotte Léa Bloch, née Boulanger-Montegu, Paris, France, assignor to Societe Industrielle de Produits Africains, Dakar, French West African Territory, a joint-stock company of the French West African Territory

Application December 20, 1954, Serial No. 476,489
Claims priority, application France June 25, 1954
2 Claims. (Cl. 99—126)



1. A process for preparing a food product from roasted peanuts, sugar and cocoa, comprising subjecting split, degerminated peanuts to grinding and malaxation and then mixing them with cocoa and sugar in order to form a paste; causing this paste to pass through a rolling mill in order to convert it into a powder; and subjecting this powder to grinding and malaxation in order to convert it into an unctuous paste.

2,780,550

STABILIZATION PROCESS

William K. T. Gleim, Orland Park, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application March 18, 1953, Serial No. 343,241
9 Claims. (Cl. 99—163)

1. A method of stabilizing an organic substance against deterioration which comprises incorporating therein an inhibitor comprising a 5,6-diamino-acenaphthene.

2,780,551

PROCEDURE FOR PRESERVING FOODS

Dante G. Guadagni, Lafayette, Calif., assignor to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application June 23, 1954, Serial No. 438,886
7 Claims. (Cl. 99—193)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A method of preserving a solid perishable food, selected from the group consisting of fruits and vegetables, which comprises heating the food at a temperature and for a time sufficient to inactivate the enzymes in the surface layers of the food but not sufficient to completely inactivate the enzymes throughout the food, nor sufficient to sterilize the food, and not sufficient to cook the food, thereafter freezing the food, and maintaining it in frozen storage.

5. A method of preserving fruit which comprises introducing units of raw solid fruit and a hot aqueous liquid containing sugar and ascorbic acid into a container, sealing the container to provide a gas- and liquid-tight enclosure about the fruit and liquid, heating the fruit by contact with the liquid maintained at a temperature from about 150° to about 212° F., said heating being continued for a time, within the range from about 10 seconds to about 10 minutes, sufficient to inactivate the enzymes in the surface layers of the fruit units but not sufficient to completely inactivate the enzymes throughout the fruit, nor sufficient to sterilize the fruit, and not sufficient to cook the fruit, then cooling the container and its contents, thereafter subjecting the container and its contents to freezing and maintaining them in frozen storage.

2,780,552

DEHYDRATION OF COOKED POTATO

Miles J. Willard, Jr., Glenside, and James Cording, Jr., Philadelphia, Pa., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application April 1, 1954, Serial No. 420,475
2 Claims. (Cl. 99—207)
(Granted under Title 35, U. S. Code (1952), sec. 266)

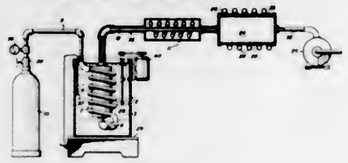
1. A process comprising drying cooked mashed potato to a final moisture content of 4 to 10%, at least the initial drying being accomplished by drying the cooked mashed potatoes on a heated surface in a film substantially of monocellular thickness.

2,780,553

PROCESS OF PROVIDING A CONTROLLED ATMOSPHERE CONTAINING A HEAT DECOMPOSABLE METAL COMPOUND

Peter Pawlyk, Indianapolis, Ind., assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio

Application July 7, 1955, Serial No. 520,577
9 Claims. (Cl. 106—1)



1. A process of providing a controlled atmosphere containing a heat-decomposable gaseous metal-bearing compound and a carrier gas, comprising the step of contacting the heated metal-bearing compound in the non-gaseous state with a moving heated carrier gas to form an atmosphere containing gasified metal-bearing compound which is decomposed for heating to deposit the metal constituent of said compound.

2,780,554

WASHING AND WAXING COMPOSITION

Louis L. Lerner, Chicago, Ill., assignor to Allied Home Products Corporation, Beloit, Wis., a corporation of Wisconsin

No Drawing. Application March 23, 1950, Serial No. 151,527
2 Claims. (Cl. 106—10)

1. A detergent waxing emulsion of the oil-in-water type chilled to a temperature below the fusing point of the dispersed phase and consisting essentially of water, emulsified carnauba wax, and emulsifier consisting of cationic surface-active emulsifier including water-dispersible quaternary ammonium salt cationic emulsifier containing an aliphatic radical having from 8 to 18 carbon atoms and nonionic surfactant which is a detergent and an emulsifier.

2,780,555

COATING COMPOSITION

Eugene Paul Budewitz, Homewood, Ill., assignor to The Sherwin-Williams Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application October 22, 1954, Serial No. 464,183
5 Claims. (Cl. 106—208)

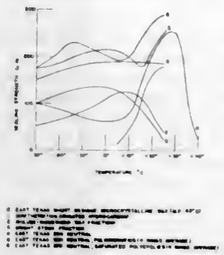
2. A composition of matter comprising an ungelled aqueous solution of zirconyl ammonium carbonate and zinc ammonium alginate.

2,780,556

MICROCRYSTALLINE WAX COMPOSITIONS

August A. Schaerer, Orinda, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

Application November 26, 1954, Serial No. 471,198
12 Claims. (Cl. 106—270)



1. A wax composition having improved seal strength characteristics comprising a major proportion of a microcrystalline hydrocarbon wax having added thereto between about 2% and about 8.5% by weight of polycyclic substantially saturated hydrocarbons containing a maximum of one double bond per molecule and having an average of between about 3 and about 4 fused hydrocarbon rings per molecule.

2,780,557

ASPHALT EMULSIONS CONTAINING AMINE DERIVATIVES OF P_2S_5 OLEFIN PRODUCTS

Harley F. Hardman, Lyndhurst, and Robert F. Jenkins, Cleveland, Ohio, assignors to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application February 9, 1953, Serial No. 335,978
2 Claims. (Cl. 106—277)

1. An asphalt emulsion having satisfactory asphalt content, viscosity, stability and demulsibility, comprising, as separate phases, asphalt which does not adhere satisfactorily to aggregate, and water, the two phases being dispersed and the dispersion stabilized with the aid of a water-soluble alkali metal soap, and, as an additive dispersed in the asphalt phase of the emulsion, an amount within the range from 0.5% to 2% based on the asphalt content of the emulsion, to improve the adhesion characteristic of the asphalt, of the product of reacting a liquid olefin and phosphorus pentasulfide in the proportion of about 0.25 to 0.75 mole of phosphorus pentasulfide per mole of olefin at a temperature within the range of 150° to 425° F., and then reacting the obtained reaction product with a higher aliphatic hydrocarbon amine having from 8 to 24 carbon atoms in the proportion of about 0.1 to about 0.15 equivalent per saponification equivalent of the reaction product.

2,780,558

PRODUCTION OF IMPROVED PIGMENTS

Oswin B. Wilcox, New Castle, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 22, 1953, Serial No. 369,715
4 Claims. (Cl. 106—300)

4. A process for preparing an alumina-coated titanium oxide pigment which comprises hydrolyzing alumina onto the surfaces of said pigment by mixing it with from about .1–10% by weight of an aluminum alkoxide selected from the group consisting of an alcoholate and phenylate, subjecting the resulting mixture to dry grinding in the presence of superheated steam, and recovering the resulting product.

2,780,559

BRUSHING POLYCHROME FINISHES

Vincent L. Sahli, Bay Village, Ohio, assignor to The Sherwin-Williams Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application February 8, 1954, Serial No. 409,000
15 Claims. (Cl. 117—10)

15. The method of decorating a surface which comprises applying thereto a coating composition comprising an organic film-forming binder having dispersed therein from about 0.075% to about 0.3% by weight of the entire composition of a non-drying alkyl silicone polymer having a viscosity of from about 10 to about 120,000 centistokes, and from about 5.5% to about 13.5% by weight of the entire composition of a non-leafing aluminum pigment having a particle size no greater than about 100 mesh, re-rolling the thus coated surface before dry with a paint roller having an irregular roller surface, and allowing the surface to dry.

2,780,560

METHOD FOR THE RAPID SETTING OF BARYTA COATINGS

Thomas G. Hanley, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application March 31, 1954, Serial No. 420,209
10 Claims. (Cl. 117—60)

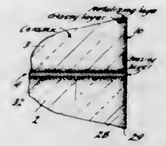
1. A method of preparing a baryta coated paper base having good surface characteristics which comprises supplying to at least one surface of the paper at least 0.2 gm. per sq. meter of a photographically inert buffering material having a pH value within the range of approximately 7–8 and applying to a surface of the paper so supplied a layer of a coating composition comprising a pigment, a protein and ¼–50% (based on the weight of the protein) of formaldehyde.

2,780,561

METHOD OF MAKING METALIZED CERAMIC STRUCTURES FOR VACUUM TUBE ENVELOPES

Louis H. La Forge, Jr., Palo Alto, Calif., assignor to Eitel-McCullough, Inc., San Bruno, Calif., a corporation of California

Original application August 1, 1952, Serial No. 302,193. Divided and this application September 14, 1953, Serial No. 379,845
2 Claims. (Cl. 117—62)



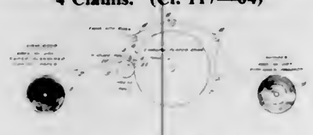
2. The method of metalizing a ceramic body, which comprises coating the ceramic with a compound selected from the group consisting of metal molybdates and metal tungstates, firing the coated ceramic in an oxidizing atmosphere at a temperature of 1125° C. to 1040° C. for 2 to 20 minutes to form on the ceramic and by union therewith a glassy surface, and then firing it in a reducing atmosphere at a temperature of 1300° C. to 1225° C. for 20 to 45 minutes to provide an outer surface of metal integrally united with and overlying said glassy surface.

2,780,562
PROCESS OF DECORATING TEXTILE MATERIALS
Kurt Reinartz, Wilhelm Graulich, and Wolfgang Lehmann, Leverkusen, and Helmut Kleiner, Opladen, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany
No Drawing. Application October 29, 1951, Serial No. 253,762
Claims priority, application Germany October 30, 1950
17 Claims. (Cl. 117—63)

1. A textile printing paste containing as a binder the mixture consisting essentially of an aqueous emulsion of addition polymers of polymerizable monomers, said monomers being selected from the group consisting of vinyl halides, vinylidene halides, acrylic acid esters of lower alkanols, methacrylic acid esters of lower alkanols, acrylonitrile, vinyl ethers, butadiene and mixtures thereof, with a compound selected from the group consisting of resinous polyamines and the salts of said polyamines with acids, said polyamines having recurring basic radicals selected from the group consisting of primary, secondary and tertiary aliphatic amino groups and being soluble in water at least in form of their salts, and an emulsifier.

13. The process of decorating textiles which comprises applying to the textiles an aqueous printing paste as claimed in claim 1 and then rinsing said textiles in an aqueous solution of alkali.

2,780,563
METHOD FOR CAST CALENDERING SUPER-CALENDERED COATED PAPER
Frederick H. Frost, Portland, and Robert E. Lane, Westbrook, Maine, assignors to S. D. Warren Company, Boston, Mass., a corporation of Massachusetts
Application December 8, 1952, Serial No. 324,802
4 Claims. (Cl. 117—64)

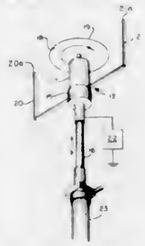


1. A process for treating coated paper comprising applying aqueous liquid to the surface of a layer of a dry, supercalendered, hydrophilic coating carried by a paper web, said layer of coating comprising a mineral pigment and an adhesive a substantial part of which is a hydrophilic swellable adhesive, to moisten at least the surface of said layer of coating, thereafter within not more than about 6 seconds passing said moistened surface through a pool of aqueous liquid in contact with a highly polished finishing surface and immediately thereafter pressing said moistened surface against said highly polished finishing surface, said aqueous liquids being substantially free of suspended solids.

2,780,564
POLYMERIC SANITARY COATING SYSTEM
Daniel M. Gray and George L. Reymann, Sewickley, Pa., assignors, by mesne assignments, to American-Marietta Company, Stover-Mudge Co. Division, Chicago, Ill., a corporation of Illinois
No Drawing. Application April 7, 1954, Serial No. 421,685
25 Claims. (Cl. 117—75)

11. A process of coating a metal surface comprising the steps of filming on the metal surface a composition in which the resin, oil and solvent constituents consist essentially of (I) copolymer selected from copolymers of vinyl chloride and vinylidene chloride in proportions of 30/70 to 75/25, inclusive, and mixtures thereof, and characterized by complete solubility in xylene at 25% solids concentration and by specific viscosity of substantially 0.12 to 0.30 determined at 25° C. in 0.4% solution in nitrobenzene; (II) solvent of which at least 85% consists of liquid aromatic hydrocarbon material having a boiling point at least as high as benzene, the balance of the solvent consisting of material selected from the group consisting of methyl ethyl ketone, methyl isobutyl ketone, cyclohexanone, isophorone, ethyl acetate, butyl propionate, and mixtures thereof; and (III) an oleoresinous varnish base which consists of drying oil heated with oil-soluble, non-heat hardening varnish resin, which has a drying oil/varnish resin ratio in the range of 20/80 to 67/33, inclusive, and which is compatible in solution in said solvent with the said copolymer constituent but is capable of stratifying toward a metal surface when the composition is filmed on said surface; the combined solids concentration of the copolymer and oleoresinous varnish base in the solvent being in the range of 15 to 50%, inclusive, by weight, and the ratio of the copolymer to the oleoresinous varnish base on a solids basis being in the range of 95/5 to 10/90, inclusive; and baking the filmed composition on the metal surface at a temperature of at least 260° F. to form a strong, resistant, adherent coating thereon.

2,780,565
ELECTROSTATIC SPRAY COATING SYSTEM AND METHOD
Robert C. Juvinall, Indianapolis, Ind., assignor to Ransburg Electro-Coating Corp., Indianapolis, Ind., a corporation of Indiana
Application July 17, 1953, Serial No. 368,639
8 Claims. (Cl. 117—93)



8. A method of electrostatically coating articles which comprises supplying liquid coating material at a controlled rate to a central atomizing zone for atomizing and projecting into a quiescent atmosphere a spray of liquid coating material particles radiating from the atomizing zone outwardly across substantially the entire circumference of an annular region surrounding said atomizing zone, moving articles to be coated along a predetermined path having a portion lying in coating relation with only a portion of said spray, creating an electrical potential difference between the coating material particles and the articles electrostatically to attract some of the spray particles toward said articles passing along said article path portion for deposition on the articles, and providing on opposite sides of the central atomizing zone and in the paths of portions of the spray two electrically charged zones of particle-repelling potential, each repelling zone electrostatically directing toward the articles moving along said article path a substantial portion of the spray projected toward said repelling zone to deposit said substantial spray portion on the articles.

2,780,566
PROCESS FOR WATER AND FLAME PROOFING TEXTILES
Alexander M. L. de Luxembourg, Washington, D. C., assignor to John P. Wetherill, Charles M. Trammell, and Alexander M. L. de Luxembourg, trustees
No Drawing. Application November 30, 1955, Serial No. 550,172
5 Claims. (Cl. 117—93)

3. A process for the production of a water repellent and flame retardant fibrous material, which comprises

treating a fibrous material with a heated aqueous solution resulting from mixing solutions of aluminum sulphate, lead acetate and hexamethylene tetramine, and separating the precipitate, and exposing during treating the fibrous material with the black rays of the infra-red radiation.

2,780,567
STABILIZATION OF PROTEIN-CONTAINING TEXTILES
Benjamin B. Kine and Nathaniel A. Matlin, Levittown, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application March 22, 1954, Serial No. 417,979
20 Claims. (Cl. 117—141)

12. A process for treating proteinaceous textile materials to reduce the shrinkage thereof comprising treating such a material with an aqueous dispersion of a water-insoluble polymer of at least 3% by weight, in the polymer molecule, of a monomer having the formula

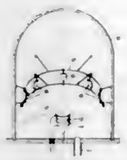
$$CH_2{=}CH{-}A{-}R{-}OH$$

where A is selected from the elements O and S, and R is selected from the class consisting of straight and branched chain alkylene groups having from 2 to 10 carbon atoms, $-C_2H_4AC_2H_4-$, $-C_2H_4N(R')C_2H_4-$ and $-C_2H_4N(R^2)(R^3)(X)C_2H_4-$ where R′ is selected from the group consisting of H, methyl, ethyl, and $-C_2H_4OH$, R^2 and R^3 are selected from the group consisting of methyl, ethyl, and $-C_2H_4OH$, and X is a negative radical, drying and heating the treated textile at a temperature of 212° F. to 700° F. for a period of about 5 seconds to about 30 minutes but insufficient to damage the fabric.

2,780,568
METHOD FOR CLEANING WINDSHIELDS
John M. Clark, Oakland, Calif.
No Drawing. Application November 9, 1953, Serial No. 391,150
5 Claims. (Cl. 134—7)

5. The process of cleaning a windshield, comprising: distributing over a surface of such windshield a cleaner selected from the group consisting of potassium hydrogen tartrate, boric acid and oxalic acid all in powdered form, wetting said surface and said cleaner, and wiping such surface with a squeegee.

2,780,569
METHOD OF MAKING P-N JUNCTION SEMICONDUCTOR UNITS
Clarence W. Hewlett, Marblehead, Mass., assignor to General Electric Company, a corporation of New York
Application August 20, 1952, Serial No. 305,446
2 Claims. (Cl. 148—1.5)



1. The method of making P–N junction units, which method comprises preparing a monocrystalline body comprising germanium alloyed with a trace of a donor impurity element for germanium, locating the body in an evacuated chamber, generating in said evacuated chamber by evaporation a vapor of germanium mixed with a vapor of an acceptor impurity element for germanium, and condensing said mixed vapors to a solid layer upon a surface portion of said body.

2,780,570
AIR-HARDENING TOOL STEEL
John Y. Riedel, Bethlehem, Pa., assignor to Bethlehem Steel Company, a corporation of Pennsylvania
No Drawing. Application December 4, 1953, Serial No. 396,337
1 Claim. (Cl. 148—31)

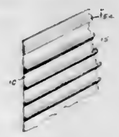
An article of manufacture characterized by high resistance to shock and made from an air-hardened tool steel containing .48% to .53% carbon, .60% to .80% manganese, .15% to .40% silicon, 3.00% to 3.50% chromium and 1.30% to 1.50% molybdenum, with the balance being substantially all iron.

2,780,571
METHOD OF IMPROVING THE FIRE-RESISTANCE OF REGENERATED CELLULOSE FABRICS
John Downing and James Wotherspoon Fisher, Spondon, near Derby, England, and Edward William Wheatley, deceased, late of Spondon, near Derby, England, by Marjorie Florence Wheatley, administratrix, Derby, England, assignors to British Celanese Limited, a corporation of Great Britain
No Drawing. Application January 30, 1953, Serial No. 334,374
Claims priority, application Great Britain February 7, 1952
7 Claims. (Cl. 154—46)

1. The process which comprises improving the fire-resistance of a fabric containing at least 50% by weight of regenerated cellulose of tenacity at least 4 grams per denier by impregnating the fabric with two reagents one after the other, one being an aqueous solution of a normal water-soluble oxalate and the other being an aqueous solution of a normal salt of calcium, allowing the reagents to react in the fabric and drying the fabric.

4. A flexible laminate that comprises at least one layer of a textile fabric bonded on each face to a layer of an elastomer, said fabric being composed substantially of cellulose and being of improved fire-resistance owing to the presence therein of 2 to 3%, based on the weight of fabric, of calcium oxalate.

2,780,572
METHOD OF MAKING REINFORCED SHEET MATERIAL
Arthur E. Carlson, Troy, Ohio
Application March 3, 1953, Serial No. 340,029
5 Claims. (Cl. 154—93)

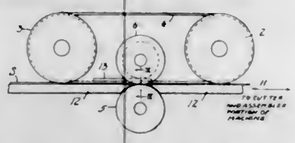


1. The method of adhesively securing a bundle of substantially untwisted filaments to a backing member that consists in relatively wetting the filaments and backing member with a liquid adhesive, applying the bundle to the backing member, applying a spreading force to the bundle while the adhesive is still liquid to thereby spread the filaments of the bundle on the backing member, and conditioning the adhesive to adhere the filaments to the backing member in substantially parallel relation to one another.

2,780,573
CIGARETTE FILTER CONSTRUCTION
Glenn Davidson, Aurora, Ill.
Application February 5, 1954, Serial No. 408,408
4 Claims. (Cl. 154—106)

1. In the manufacture of cigarette mouth-piece material, the steps of superimposing in registry a plurality

of creped paper strips having transversely extending crepe waves, to form a ribbon, gripping such ribbon laterally and movably to advance the same lengthwise, and feeding the ribbon in this manner into the nip of opposed rolls formed cooperably to produce lines of compression-adherence of the strips which are parallel with the length of the ribbon, the gripping action compacting the ribbon laterally sufficiently to force the same between the compression rolls without relative displacement of the composite strips.



3. As an article of manufacture for use in the making of cigarette filter plugs, a ribbon comprising a plurality of strips of creped paper having transversely extending crepe waves, said strips being adhered together by a line of compression-adherence which is parallel to the length of the ribbon, the ribbon being of indefinite length and of width approximately equal to the circumference of a cigarette.

2,780,574

METHOD OF FORMING AN OPTICAL ASSEMBLY

Howard F. Ott and Ezra C. Poling, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application April 22, 1953, Serial No. 350,421
11 Claims. (Cl. 154—128)

8. A method of forming an optical assembly comprising placing the surfaces to be bonded in contact with at least one thickness of a precast film of adhesive made up of outer layers of polymerized chloroprene and phenol-aldehyde resin elastomer and at least one inner layer of an unpolymerized, thermosetting phenol-aldehyde and synthetic linear polyamide resin composition, said resin having the property of softening substantially to a liquid state when heated for polymerization purposes, then placing the assembly under pressure and elevated temperature to set the adhesive, said phenol-aldehyde and polyamide layer passing through a substantially liquid stage when heated, but before setting, during which it forces the polymerized chloroprene and phenol-aldehyde resin layers into continuous and intimate contact with the surfaces being bonded.

2,780,575

POLYCHLORINATED FLUORANTHENE AS A PARASITICIDE

Eugene E. Kenaga, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application January 13, 1954, Serial No. 403,899
5 Claims. (Cl. 167—30)

5. A method which comprises applying to insects and their habitats and food a parasiticidal amount of a chlorine addition derivative of fluoranthene having an average chlorine content of from 6.7 to 7.1 chlorine atoms per mole and prepared by mixing fluoranthene with an excess of liquid chlorine at a temperature below —20° C. and under sufficient pressure to keep the chlorine liquified, while exposing the mixture to diffused daylight at an intensity not to exceed 85 foot-candles.

2,780,576

ANAESTHETIC MIXTURE

Werner Keil, Moers, Germany, assignor to Rheinpreussen Aktiengesellschaft für Bergbau und Chemie, Homberg, (Lower Rhine), Germany, a corporation of Germany

No Drawing. Application July 15, 1952, Serial No. 299,009
Claims priority, application Germany December 24, 1951
8 Claims. (Cl. 167—52)

1. A new anaesthetic comprising a mixture of an alkamine ester of 4-amino-2-hydroxy-benzoic acid, and an alkamine ester of N-substituted 4-amino-2-hydroxy-benzoic acid, the 4-amino group of said N-substituted 4-amino 2-hydroxy benzoic acid having at least one hydrogen atom thereof substituted with an alkyl radical containing up to 10 carbon atoms said last-mentioned component being present in amount of 1–20% by weight.

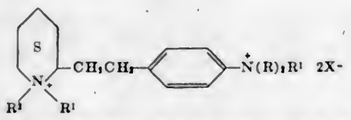
2,780,577

INHIBITING POLYMETHYLENE DIQUATERNARY CURARIFORM ACTIVITY BY α-STILBAZOLINE DERIVATIVES

Arthur P. Phillips, New York, and Julio C. Castillo, White Plains, N. Y., assignors to Burroughs Wellcome & Co. (U. S. A.) Inc., Tuckahoe, N. Y., a corporation of New York

No Drawing. Application May 26, 1951, Serial No. 228,543
4 Claims. (Cl. 167—65)

1. A method of checking the curare-like activity of a polymethylene diquaternary curariform drug which comprises the administration to a human being of a compound of the formula



wherein R and R^2 are radicals selected from the class consisting of the methyl and ethyl radicals and R^1 is a lower alkyl radical having not over four carbon atoms and X^- is the anion of a non-toxic acid.

2,780,578

PRODUCTION OF RESERPIN HYPOTENSIVE PREPARATION

Bernard Rubin, Metuchen, N. J., assignor to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia

No Drawing. Application September 10, 1953, Serial No. 379,460
6 Claims. (Cl. 167—84.5)

1. In the process of producing a reserpin-containing hypotensive preparation of biologically-determined activity from *Rauwolfia serpentina*, assaying the reserpin-containing preparation by systemic dosing of separate groups of mice with the preparation and with a reference standard reserpin preparation, and determining the relative ptotic response of the two groups.

2,780,579

COMPOSITION AND METHOD FOR PERMANENT WAVING OF HAIR ON THE HUMAN HEAD

Milton H. Schwarz, Morristown, N. J., and Gerald Orgel, Bronx County, N. Y., assignors to Turner Hall Corporation, New York, N. Y., a corporation of New York

No Drawing. Application July 23, 1953, Serial No. 369,964
13 Claims. (Cl. 167—87.1)

1. A setting composition adapted to be used subsequently to a previously applied composition for disrupting

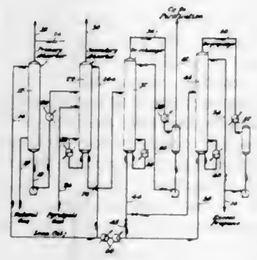
disulfide bonds of cystine in permanently waving hair on the human head and after said disrupting composition has been substantially removed: said setting composition comprising an aqueous carrier and dehydroascorbic acid at a pH range between 2 and 10, and a concentration between 0.03 percent and 0.8 percent by weight, said setting composition being free of a disulfide reducing agent.

2,780,580

PRODUCTION OF ETHYLENE

Ludwig Kniel, Scarsdale, N. Y., assignor to The Lummus Company, New York, N. Y., a corporation of Delaware

Application March 4, 1953, Serial No. 340,283
9 Claims. (Cl. 196—8)



1. The method of producing ethylene of high purity from natural gas containing predominant quantities of methane and minor quantities of ethane and higher boiling components which comprises, passing the natural gas to first stage absorption operated under conditions of temperature, pressure and lean oil absorbent to recover a major part of the ethane in the absorbent and to release a minor amount of ethane and lower boiling components overhead, passing the fat oil absorbent to second stage absorption, introducing a pyrolysis gas effluent from ethane cracking to said second absorption stage at a point below the point of introduction of fat oil to said stage, said effluent including substantial amounts of ethylene, hydrogen and methane, maintaining said second stage absorption under temperature and pressure conditions to substantially recover all of the ethylene and heavier components in the absorption oil, passing the rich oil from said second stage absorption to a fractionating zone, withdrawing substantially all the ethylene and ethane as an overhead from said fractionating zone, withdrawing a bottoms product from said fractionating zone and introducing a portion of said bottoms product as lean oil to the first and second absorption stages.

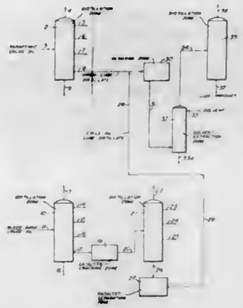
2,780,581

PRODUCTION OF LUBRICATING OILS

Robert A. Macke and Edward F. Wadley, Baytown, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application September 29, 1954, Serial No. 459,059
2 Claims. (Cl. 196—14.42)

1. A combination process for producing lubricating oil comprising the steps of catalytically cracking a gas oil boiling within the range of about 650° to 1100° F., segregating a first oil fraction boiling within the range of about 650° to 1100° F. from the cracked products, segregating a second oil fraction boiling within the range of about 650° to 1100° F. from a paraffinic crude oil, and contacting a mixture of said first and second oil fractions with a selective solvent for aromatic compounds to remove aromatic compounds from the said mixture, said mixture containing about 50% of said first oil fraction,



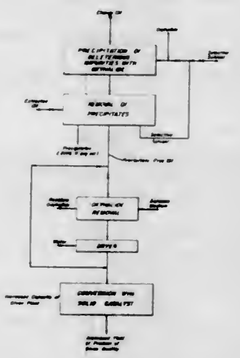
said process including the step of dewaxing said oil fractions.

2,780,582

CHEMICAL REFINING AND CATALYTIC CONVERSION OF HYDROCARBON OILS

William A. Junk, Jr., Chicago, Ill., Walter D. Schmidt, Emerson, N. J., and Herman S. Seelig, Valparaiso, and William L. Fleming, Hammond, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application July 29, 1954, Serial No. 446,611
7 Claims. (Cl. 196—23)



2. A catalytic cracking process employing a gas oil charging stock which contains organic nitrogen compounds deleterious to the catalytic cracking of said gas oil over a solid catalyst which process comprises contacting said gas oil at a temperature not substantially above atmospheric temperatures with at least one oxyhalide of an element selected from the class consisting of sulfur and phosphorous in the presence of a selective solvent under conditions to form an extract phase and a raffinate phase containing a treated oil, the oxyhalide being employed in an amount between 0.005 and 0.2% by weight based on gas oil and the amount of oxyhalide being correlated with the amount of nitrogen in the gas oil so that between about 0.05 and 0.5 gram mol of oxyhalide are used per gram atom of nitrogen in the gas oil, recovering said treated oil from the raffinate phase

and contacting said treated oil with a solid type catalytic cracking catalyst under conditions to effect catalytic cracking of said treated oil.

2,780,583
PREVENTION OF HYDROGEN BLISTERING AND FISSURING
Thurston Skei, Lafayette, Calif., and William A. Bonner, East Alton, Ill., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
Application October 25, 1954, Serial No. 464,246
10 Claims. (Cl. 196—41)

1. In a process wherein a hydrocarbon product in gaseous state containing hydrogen sulfide and an aqueous phase is contacted in a confined system by a ferruginous metal under conditions which normally result in hydrogen blistering of said metal, the improvement comprising maintaining said aqueous phase at a pH between 7.8 and about 8.3 by the introduction of ammonia, and introducing air into the system whereby hydrogen sulfide is oxidized to produce sulfur, and said sulfur dissolves in the aqueous phase to form soluble polysulfides in an amount sufficient to maintain substantial inhibition of hydrogen blistering of said metal the amount of air introduced being insufficient to oxidize all of the hydrogen sulfide.

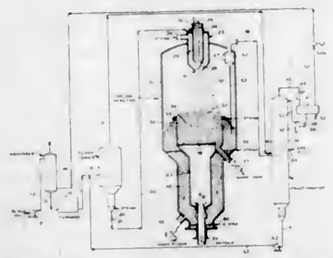
2,780,584
HYDROFORMING OF A NAPHTHA WITH A NICKEL OXIDES-ON-ALUMINA CATALYST CONTAINING SMALL AMOUNTS OF SULPHUR
Thomas F. Doumani, Los Angeles, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California
No Drawing. Application November 20, 1951, Serial No. 257,415
8 Claims. (Cl. 196—50)

4. A process for the catalytic hydroforming of gasoline-boiling-range hydrocarbons to improve the octane rating thereof which comprises contacting said hydrocarbons at a temperature between about 800° and 1200° F. with a catalyst in the presence of hydrogen, said catalyst consisting essentially of (1) a predominantly alumina carrier, and (2) intimately distributed therein a minor proportion of partially sulfided nickel oxide, said catalyst having been prepared by impregnating said carrier with a soluble nickel salt, drying and calcining the impregnated carrier, and thereafter partially sulfiding the calcined catalyst by a process including as the sole sulfur-depositing treatment, contacting the same at below about 650° F. with a gaseous sulfiding agent, to affix thereon not more than about 0.2 mole of sulfide sulfur per mole of nickel, the final catalyst composition containing between about 2% and 50% by weight of nickel oxide plus nickel sulfide, and between about 0.03% and 5% by weight of sulfur.

2,780,585
SEPARATION OF CONTACT SOLIDS ACCORDING TO DEGREE OF CONTAMINATION
Ernest Musslewhite, Jr., Roselle, N. J., and Joseph C. Roediger, Staten Island, N. Y., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application October 19, 1951, Serial No. 252,212
8 Claims. (Cl. 196—52)

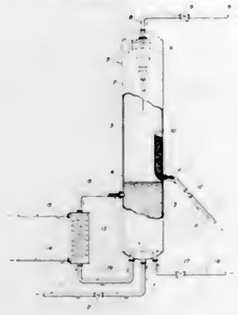
1. In a process wherein a synthetic silica-alumina gel catalyst powder is circulated back and forth between a fluidized gas oil cracking zone and a fluidized catalyst regeneration zone and becomes contaminated with iron, the improvement which comprises the steps of withdrawing from the regeneration zone a stream of iron contaminated catalyst, cooling said catalyst, introducing the withdrawn catalyst into a flotation cell containing water and about 0.001 to 0.1 weight percent based on the water of a collector selected from the group consisting of fatty acids and naphthenic acids containing 8 to 20 carbon atoms per molecule, said flotation cell being maintained at a pH between about 2.0 and 6.5 passing air upwardly through the flotation cell to aerate and froth the acid-containing water and to float a concentrate of relatively highly contaminated catalyst particles to the surface while tailings containing relatively less contaminated particles settle out at the bottom, removing the relatively highly contaminated concentrate from a top portion of the flotation cell, and removing the less contaminated tailings from a bottom portion of the flotation cell.

2,780,586
COKING SYSTEM AND METHOD OF COKING
Charles K. Mader, Suffern, N. Y., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware
Application March 2, 1953, Serial No. 339,776
6 Claims. (Cl. 196—55)



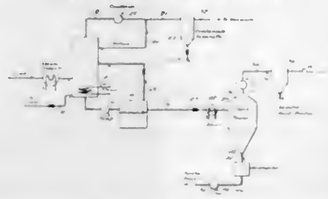
2. A method for coking heavy petroleum oil in the presence of hot coke particles, which includes the steps of: maintaining a mass of hot coke particles in a coking zone in a dense fluidized liquid-like condition by passing gases upwardly through said mass at a velocity adapted to maintain it in a condition of internal turbulent circulation without entraining the entire mass in net flow upward with said gases; spraying heated petroleum oil on the turbulent upper surface of said fluidized mass of hot coke particles to wet said particles at a rate sufficiently low to avoid agglomeration; continuously overflowing wetted coke particles from the turbulent upper surface of said fluidized mass to a second dense mass maintained separate and distinct from said first dense mass; maintaining a vertically extended column of upflowing particles of coke undergoing combustion in dilute suspension in oxygen-containing gas below said first dense fluidized mass and discharging at its upper end into the bottom of said first dense fluidized mass; and continuously flowing at least part of said second dense mass into said upflowing column of coke particles undergoing combustion at the lower end thereof.

2,780,587
HYDROCARBON COKING PROCESS
Charles H. Watkins, Western Springs, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
Application December 4, 1953, Serial No. 396,243
6 Claims. (Cl. 202—18)



1. A coking process which comprises passing an asphaltic charge stock beneath the surface of a molten medium maintained in the lower portion of a coking zone at coking conditions, precipitating asphaltic material as finely divided particles, collecting said precipitated particles at the surface of said molten medium and entraining them in an ascending gas stream to form a fluidized bed in an openly communicating superimposed zone, contacting vapors of unprecipitated material with said fluidized bed of particles at a temperature and for a time sufficient to convert said unprecipitated material to coke and lower boiling material and separately recovering said lower boiling material and said solid coke particles.

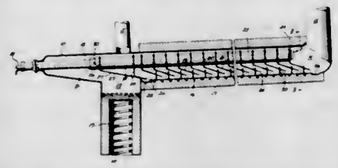
2,780,588
STABILIZATION OF LEVULINIC ACID
Andrew P. Dunlop, Riverside, Ill., assignor to The Quaker Oats Company, Chicago, Ill., a corporation of New Jersey
Application December 8, 1954, Serial No. 473,950
16 Claims. (Cl. 202—52)



2. A continuous process for the recovery of levulinic acid from a solution containing levulinic acid and a non-aqueous solvent which comprises continuously passing said solution into a fractionation zone, concomitantly and continuously passing water into said zone, and rectifying said solution and water mixture whereby a bottoms concentrate containing essentially levulinic acid and water is formed.

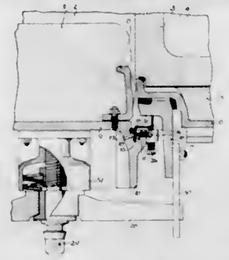
2,780,589
STILL COLUMN WITH CONCENTRIC CONDENSER
Aubrey Keith Brewer, Washington, D. C., and T. Ivan Taylor, New York, N. Y., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application August 10, 1949, Serial No. 109,628
3 Claims. (Cl. 202—153)

1. A still column comprising an inclined shell member, means for heating a lower portion of the wall of the shell member, means for flowing a stream of liquid in a series of pools through said shell in heat exchange relation with said lower portion of the wall, a cooling and condensing member within the shell comprising a cooled support and a plurality of vanes secured to said support in heat con-



ducting relation, said vanes being shaped and arranged to condense vapors from said stream of liquid and to carry condensate formed thereon forward and return it to the lower portion of the shell member to the central portion of the next pool up-stream from the pool wherein were evolved the vapors which formed the condensate.

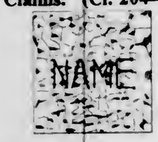
2,780,590
SELF-SEALING DOOR
Franz Doll, Essen, Germany, assignor, by mesne assignments, to Koppers Company, Inc., Pittsburgh, Pa., a corporation of Delaware
Application December 6, 1952, Serial No. 324,571
8 Claims. (Cl. 202—248)



1. A self-sealing coke oven door comprising a door body; a rectangular circumferential sealing frame recess on said door body in surrounding relation therewith comprising in cross-section oppositely disposed inner and outer side walls and an open entrance passage between the side walls facing toward a coke oven doorway in closed position of the door; a rectangular sealing frame of Z-shape in cross-section, having longitudinal recesses in the web between the two limbs of the Z-shape of the frame, arranged in surrounding relation with the door body with one limb extending from the web inwardly of the door and terminating in a free sealing edge in position for sealing engagement against a sealing surface therefor on a door frame for the door in its closed position on a coking chamber, and with the other limb of the Z-shape extending from the web of the frame outwardly of the door and freely slidable into and out of the circumferential recess alongside the inner wall through its open entrance passage from the inner side of the door; pressure stud screws accessible for manipulation from the exterior of the frame recess and extending laterally through the outer side wall of the frame recess and into the recess space between the inner and outer walls thereof in pressure abutting imperforate relation with the limb of the frame alongside the inner wall in the frame recess, for imperforately clamping said limb gas tight against said inner wall; said inner side wall being spaced a distance closer to the axis of the door body in the region between the stud screws and the web of the Z-shaped frame throughout the longitudinal and horizontal parts of the recess, than in the region between the stud screws and the outer free edge of the limb in the

recess, for caulking the space between said inner wall of the recess and the limb of the Z-shape frame therein, from the inner side of the door, with packing that is thicker throughout the longitudinal and horizontal parts of the limb in the recess, in the region between the stud screws and the web of the Z-shape frame, than in the region alongside the inner wall of the recess between the stud screws and the outer free edge of the limb in the recess; and adjustable pressure means mounted alongside, and accessible from the exterior of, the outer side wall of the circumferential rectangular frame recess, for exerting sealing pressure on the inwardly extending limb to its terminal free sealing edge against a sealing surface on a door frame in closed position of the door, said adjustable pressure means each comprising a piston acting on the limb, an adjustable screw, a pressure transmitting spring interposed between the piston and the adjustable screw, a bore in the adjustable screw, and a stem on the piston extending through the bore and terminating in an outwardly visible flush relation with an outwardly visible surface of the adjustable screw, when the door is closed with the spring at normal sealing pressure.

2,780,591
DECORATIVE METAL PLATING
Samuel S. Frey, Elizabeth, N. J., assignor to Oakite Products Incorporated, New York, N. Y.
Application November 6, 1953, Serial No. 390,630
8 Claims. (Cl. 204—23)



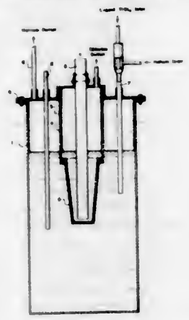
1. A method of producing a decorative finish upon a metal object selected from the group consisting of copper, brass, and steel objects which comprises anodizing such metal object in an alkaline aqueous silicaceous solution having a pH of between 10.25 and 12.2 to produce an invisible anodic film thereon and thereafter electroplating such anodized object still carrying such anodic film in a bright nickel plating bath until a patterned nickel plate is produced.

2,780,592
ELECTROLYTIC TREATMENT OF METAL SURFACES
Richard M. Wick, Allentown, Pa., and Richard Schneidewind, Ypsilanti, Mich., assignors to Bethlehem Steel Company, a corporation of Pennsylvania
No Drawing. Application August 22, 1951, Serial No. 243,187
10 Claims. (Cl. 204—56)

1. A process of forming a non-metallic coating on the surface of a metal article which comprises electrolyzing a metal article having a surface material of corrodible base metal in an aqueous solution consisting essentially of chromic acid (100 to 400 grams per liter) and a compound of the class consisting of boric acid and the alkali metal and alkaline earth metal salts of boric acid, said compound being present in an amount of from 8 grams per liter to saturation with said metal article acting as the cathode.

2,780,593
PRODUCTION OF METALLIC TITANIUM
George E. Snow and Andrew T. McCord, Palmerton, Pa., assignors to The New Jersey Zinc Company, New York, N. Y., a corporation of New Jersey
Application September 1, 1951, Serial No. 244,865
5 Claims. (Cl. 204—64)

1. In the method of producing metallic titanium from titanium tetrachloride by subjecting a titanium chloride to electrolyzing conditions in a fused diluent salt bath consisting essentially of at least one halide of a metal of the group consisting of the alkali and alkaline earth metals the improvement which comprises imparting to the bath a solubility for titanium tetrachloride by establishing in the fused diluent salt bath a concentration of

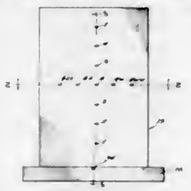


titanous chloride at least sufficient to impart a green color to the translucence of the bath during electrolysis thereof, and electrolyzing the resulting fused salt bath to effect electrodeposition of metallic titanium while maintaining said titanous chloride content of the bath substantially exclusively by introducing substantially oxygen-free titanium tetrachloride thereinto.

2,780,594
ELECTROLYTIC DESCALING
John J. Dalley, Arlington, Tex., assignor to Temco Aircraft Corporation, Dallas, Tex.
No Drawing. Application August 5, 1955, Serial No. 526,763
7 Claims. (Cl. 204—141)

1. A method of removing oxide coatings from an article of titanium and titanium base alloys comprising immersing said article as a cathode in an electrolytic bath and passing an electric current between said article and an anode, said bath consisting essentially of an aqueous solution of hydrofluoric acid, nitric acid, sulfuric acid and a sulfate selected from the group consisting of the ferrous sulfate and aluminum sulfate.

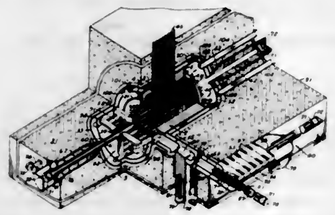
2,780,595
TEST EXPONENTIAL PILE
Enrico Fermi, Chicago, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application May 4, 1944, Serial No. 534,129
1 Claim. (Cl. 204—193)



A test exponential pile comprising a column of graphite of rectangular parallelopiped shape, a plurality of bodies containing natural uranium disposed therein in a geometrical pattern of cell units, each cell unit being composed of uranium embedded in graphite, said pile being of sub-critical mass, a neutron source located adjacent the bottom face of said column of graphite at the center thereof, there being a plurality of spaced vertically aligned measuring slots extending into the column to

points near the vertical axis of the column and a plurality of spaced horizontally aligned measuring slots located approximately at the vertical midplane of the column, and an indium foil within at least one of the slots for use in determining the neutron densities within the aforesaid slots.

2,780,596
NEUTRONIC REACTOR
George A. Anderson, Chicago Heights, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application November 6, 1950, Serial No. 194,331
1 Claim. (Cl. 204—193)



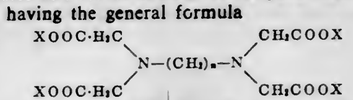
A neutronic reactor comprising a permanent skeleton structure forming a plurality of parallel hexagonally shaped channels extending the entire length thereof, said skeleton structure being formed of a plurality of parallel hollow open-ended hexagonal prisms, a plurality of fuel elements removably disposed within said channels, said fuel elements each comprising a hollow open-ended outer hexagonal frame and a plurality of spaced parallel plates containing fissionable material supported by and within said frame, said frames each being provided with an outwardly projecting runner at each corner to provide coolant passageways between the sides of said frames and the adjacent sides of said prisms, the outer sides of said prisms each being provided with a recess extending their entire length to form coolant passageways between the sides of adjacent prisms.

2,780,597
LUBRICATING COMPOSITIONS
Paul H. Williams, Berkeley, Lawrence B. Scott, Lafayette, and Victor N. Borsoff, Berkeley, Calif.
No Drawing. Application July 18, 1952, Serial No. 299,741
12 Claims. (Cl. 252—18)

1. A lubricating composition adapted for extreme pressure use comprising a major amount of mineral lubricating oil having incorporated therein from 0.1 to 10% of a salt selected from the group consisting of sodium dihydrogen phosphate, potassium dihydrogen phosphate and ammonium dihydrogen phosphate, said salt being in colloidal dimensions of from about 1 to 10 microns.

2,780,598
METAL WORKING AND LIQUID COOLANTS THEREFOR
Thomas H. Cafcas, Chicago, Ill., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana
No Drawing. Application March 30, 1954, Serial No. 419,905
5 Claims. (Cl. 252—33.2)

5. The method of minimizing the quantity of suspended metal particles in a liquid coolant which is recirculated onto the tool and work piece during a metal working operation, which method comprises employing a coolant comprising about 5 to 150 parts of water per part of an emulsifiable oil comprising between about 45 to 95% of hydrocarbon oil, between about 2 to 30% of an oil-in-water emulsifying agent, and between about 0.05 to 20% of at least one alkylene diamine compound having the general formula



wherein n is an integer of from 1 to 4, and X is a monovalent radical selected from the class consisting of hydrogen, alkali metals, and ammonium.

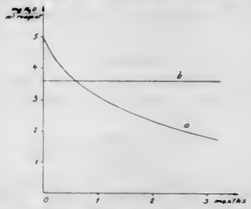
2,780,599
CRANKCASE LUBRICATING OIL AND ADDITIVE THEREFOR
John D. Bartleson, Franklin, Mich., assignor to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application September 30, 1953, Serial No. 383,366
10 Claims. (Cl. 252—37.7)

1. A crankcase lubricating oil containing about 0.2 to about 2% by weight of an additive comprising a mixture of silver naphthenate with a naphthenate selected from the group consisting of copper and nickel naphthenates.

2,780,600
LEAD- AND MANGANESE-ACTIVATED CADMIUM-SODIUM FLUOROPHOSPHATE PHOSPHOR
Robert W. Wollentin, Bloomfield, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application January 24, 1955, Serial No. 483,617
4 Claims. (Cl. 252—301.6)

1. A luminescent material having the general formulation $3Cd_3(PO_4)_2 \cdot xNaFyMn:zPb$, where x is not less than 2.5 moles and not more than 5.5 moles, y is not less than 0.1% by weight and not more than 1% by weight of cadmium orthophosphate, z is not less than 0.5% and not more than 7% by weight of cadmium orthophosphate, and there is chemically combined with said luminescent material from 1 to 50 molar percent of excess P_2O_5 over the total moles of cadmium orthophosphate.

2,780,601
IMPROVED CHEMICAL REAGENT FOR THE QUANTITATIVE DETERMINATION OF WATER
Erik Blomgren and Hans Jenner, Stockholm, Sweden, assignors to Aktiebolaget Pharmacia, Uppsala, Sweden, a Swedish company
Application December 9, 1952, Serial No. 325,006
3 Claims. (Cl. 252—408)



1. A stabilized Karl Fischer reagent for the determination of water comprising, dissolved in a conventional solvent, sulfur dioxide, pyridine and free iodine, and also containing iodide ions in amount sufficient to satisfy the equation:

$$\left(\frac{I^-}{I_2}\right) = \text{const.}$$

wherein (I^-) and (I_2) represent, respectively, the molar concentrations of iodide ion and of free iodine present in said reagent and wherein said constant has the value of about 3.2 when the solvent consists of methanol and when the concentrations of sulfur dioxide and of pyridine

in said reagent are about 1.2 moles per liter and about 3.5 moles per liter, respectively, said reagent having a stable titre due to the presence therein of said iodide ion concentration.

2,780,602

COMPOSITIONS FOR IMPROVING COMBUSTION IN AN INTERNAL COMBUSTION ENGINE

Sophia Berkman, New York, N. Y., assignor to Transonic Corporation, New York, N. Y., a corporation of Delaware

Application November 30, 1951, Serial No. 259,127
4 Claims. (Cl. 252—432)

1. A preparation for improving combustion in an internal combustion engine consisting substantially of a heterogeneous complex of minerals serving as catalysts in hydrocarbon decomposition selected from the group consisting of carnotite, in the proportion of 1.85% to 5.48% by weight; fluorspar, in the proportion of 5.27% to 13.88% by weight; wolframite in proportion of 2.08% to 7.4% by weight; and zircon, in the proportion of 3.7% to 7.31% by weight; minerals serving as catalysts in hydrocarbon dehydrogenation selected from the group consisting of apatite, in the proportion of 5.18% to 9.26% by weight; magnetite ore, in the proportion of 1.8% to 7.4% by weight; and argosite, in the proportion of 9.4% to 18.5% by weight; minerals serving as catalysts in oxidation reactions selected from the group consisting of boric acid, in the proportion of 2.98% to 3.07% by weight; sodium borate, in the proportion of 0.9% to 3.7% by weight; ulexite, in the proportion of 1.9% to 3.13% by weight; colemanite, 0.94% to 1.04% by weight; minerals serving as catalysts in terms of the carbonium ion mechanism selected from the group consisting of routile, in the proportion of 2.24% to 5.18% by weight; zircon, in the proportion of 3.7% to 7.31% by weight; and the mineral graphite, in the proportion of 7.08% to 13.88% by weight; serving as an antiknock agent.

2,780,603

PLATINUM AND/OR PALLADIUM CATALYSTS

William P. Burton, Little Silver, N. J., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application November 21, 1952, Serial No. 321,935
8 Claims. (Cl. 252—466)

1. A heterogeneous catalyst composition comprising in combination a mixture of about 0.1 to about 10 parts by weight of fresh alumina particles and 1 part by weight of a permanently deactivated catalyst particles comprising a catalytic element selected from the group consisting of platinum and palladium supported on alumina.

4. A method of preparing a catalyst which comprises combining a fresh alumina material with a permanently deactivated catalyst comprising a catalytic element selected from the group consisting of platinum and palladium supported on alumina.

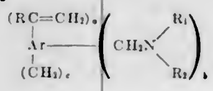
2,780,604

MONO (CHLOROMETHYL) STYRENE, ITS DERIVATIVES, AND ION-EXCHANGE RESINS FROM POLYMERS OF AMINATED COMPOUND

John T. Clarke, Newton Highlands, and Allan H. Hamerschlag, Brookline, Mass., assignors to Ionics, Incorporated, Cambridge, Mass., a corporation of Massachusetts

No Drawing. Application January 22, 1953, Serial No. 332,746
9 Claims. (Cl. 260—2.1)

1. A synthetic organic vinyl aromatic compound having the structure



where Ar is an aromatic hydrocarbon selected from the group consisting of benzene, naphthalene and diphenyl, R is a substituent selected from the group consisting of hydrogen and methyl, R_1 and R_2, are selected from the group consisting of hydrogen and hydrocarbon, *a* is an integer of from 1 to 2, *b* is an integer of 1 to 3, and *c* has a value from 0 to 2.

2,780,605

POLYMERIZATION OF STYRENE IN HEVEA LATEX

Edward M. Bevilacqua, Allendale, N. J., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application July 16, 1953, Serial No. 368,507
5 Claims. (Cl. 260—2.5)

1. The method which comprises contacting with a free-radical polymerization catalyst a mixture consisting essentially of water, Hevea rubber in latex form, 5 to 60 parts by weight of polymerizable material comprising a member of the group consisting of styrene and ring-methylated styrenes per 100 parts of rubber content of the latex, and an alkali-metal hydroxide which is present in amount up to 2 parts per 100 parts of rubber in the latex, the water content being 28% to 45% by weight of the mixture, for a time sufficient to react the said polymerizable material with the rubber.

2,780,606

PROCESS FOR THE PREPARATION OF RUBBER AND PLASTIC MATERIALS OF CELLULAR STRUCTURE

Peter Hoppe, Troisdorf, Hans Pfeffer, Opladen, and Erwin Müller, Leverkusen-Bayerwerk, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application August 22, 1951, Serial No. 243,164

Claims priority, application Germany August 23, 1950

2 Claims. (Cl. 260—2.5)

1. In the process for the preparation of plastic materials of cellular structure, by contacting with a heat-decomposable substance, a mixture of a polyester and a polyisocyanate, the improvement which comprises employing as the heat decomposable substance a material selected from the group consisting of (1) mixtures and (2) salts of oxalic acid with dicyandiamide said oxalic acid and dicyandiamide being present in equimolecular quantities in an amount of about 3–25% based upon said plastic material.

2,780,607

SYNTHETIC BITUMEN COMPOSITIONS

George W. Rappleyea, Southport, N. C.

No Drawing. Application March 14, 1952, Serial No. 276,695
26 Claims. (Cl. 260—9)

1. A composition comprising a heat polymerized product of a mixture of an asphaltic fuel oil containing about 10 to 60% asphalt, a substantially dry, solid carbohydrate material in amount up to about 75% by weight, said polymerization having been accomplished in the presence of a catalytic agent selected from the group consisting of sulfur, sulfuric acid, lime, caustic soda and caustic potash.

2,780,608

PROTEIN-CONTAINING TEXTILES AND STABILIZATION THEREOF

Melvin D. Hurwitz, Huntingdon Valley, and Benjamin B. Kine and Nathaniel A. Matlin, Levittown, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application March 10, 1955, Serial No. 493,546
20 Claims. (Cl. 260—29.6)

1. A composition for the treatment of protein-containing textile materials comprising an aqueous dispersion of a water-insoluble linear polymer exclusively of monoethylenically unsaturated molecules comprising at least 3% by weight of a monomer having the formula

$$CH_2{=}CRCOOCH_2CH(OH)CH_2Cl$$

where R is selected from the group consisting of hydrogen and methyl.

7. As an article of manufacture, a textile material comprising protein fibers carrying from 1% to 20% of a water-insoluble linear addition copolymer exclusively of monoethylenically unsaturated molecules comprising 3% to 30% of (1) a monomer having the formula defined in claim 1 and (2) at least one ester of an acid selected from the group consisting of acrylic, methacrylic, and itaconic acids with an alcohol having an alkyl group of 1 to 18 carbon atoms.

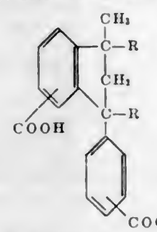
2,780,609

PLASTICIZED VINYL CHLORIDE POLYMER

John C. Petropoulos, South Norwalk, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application February 23, 1955, Serial No. 490,157
20 Claims. (Cl. 260—31.8)

1. A composition of matter comprising a member selected from the group consisting of a copolymer of vinyl chloride and vinyl acetate and polyvinyl chloride and a dihomoalkyl ester of an acid having the formula



where R is an alkyl group containing from 1–4 carbon atoms and is the same in each instance.

2,780,610

COMPOSITIONS COMPRISING A POLYMER OF ACRYLAMIDE AND ETHYLENE GLYCOL

William A. Barber, Stamford, and Henry Z. Friedlander, Greenwich, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 22, 1954, Serial No. 438,605
4 Claims. (Cl. 260—33.4)

1. A composition of matter comprising homopolymeric acrylamide dissolved in ethylene glycol.

2,780,611

PIGMENTED SILICONE ELASTOMERS

Theodore A. Te Grotenhuis, Olmsted Falls, Ohio, assignor of twenty percent to The General Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application March 19, 1952, Serial No. 277,547
8 Claims. (Cl. 260—37)

1. An article comprising a film-forming polymeric binding material and an inorganic pigment having on the surface portions thereof a residue from the treatment of said pigment with a hydrocarbon isocyanate free of olefinic unsaturation and free of functional groups other than isocyanate.

2,780,612

PIGMENTS AND PARTICLES WITH UNSATURATED SURFACE AND METHOD OF MAKING SAME

Theodore A. Te Grotenhuis, Olmsted Falls, Ohio, assignor of twenty percent to The General Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application October 12, 1951, Serial No. 251,152
8 Claims. (Cl. 260—41)

3. A solid synthetic organic polymer of a polymerizable material having olefinic unsaturation, having distributed therein a reinforcing material selected from the group consisting of powders and fibers which are bonded to said high polymer through a linkage formed by the residue from the reaction of said polymerizable material, and unsaturated aliphatic groups bonded to the surface of the reinforcing material through the residue from the reaction of an isocyanate having a carbon-to-carbon double bond with said reinforcing material.

2,780,613

THERMOPLASTIC COPOLYMERS OF MONOVINYLBENZENE COMPOUNDS AND HIGH MOLECULAR WEIGHT POLYESTERS OF ETHYLENE-ALPHA, BETA-DICARBOXYLIC ACIDS

Louis C. Rubens, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application October 2, 1952, Serial No. 312,865
6 Claims. (Cl. 260—45.4)

1. A solid, moldable resin consisting essentially of the product of conjoint polymerization of (A) from 60 to 99 parts by weight of at least one monovinyl aromatic compound of the benzene series having a vinyl group attached to a carbon atom of the benzene ring and (B) from 40 to 1 parts by weight of a high molecular weight, polymerizably reactive polyester reaction product of (1) a minor amount of an organic compound selected from the group consisting of diketenes and organic diisocyanates and (2) a major amount of a polyester comprising the reaction product of (*a*) a mixture of dicarboxylic acids comprising from 1 to 30 mole percent of a polymerizably reactive, ethylene-alpha,beta-dicarboxylic acid and from 99 to 70 mole percent of a polymerizably unreactive, non-ethylenic dicarboxylic acid and (*b*) at least one dihydric alcohol in an amount in excess of the stoichiometric equivalent of the dicarboxylic acids.

2,780,614

MIXTURES OF A DIENE RUBBER AND A PARTIALLY HYDROGENATED FURFURYL-KETONE PRODUCT

Mortimer T. Harvey, South Orange, N. J., assignor to Harvel Research Corporation, a corporation of New Jersey

No Drawing. Application May 1, 1952, Serial No. 285,539
9 Claims. (Cl. 260—45.5)

1. A composition of matter comprising (I) a material selected from the group consisting of natural rubber, rubbery polymers of chloroprene, rubbery homopolymers of butadiene, rubbery copolymers of butadiene and styrene, rubbery copolymers of butadiene and acrylonitrile intimately combined with (II) a partially hydrogenated organic reaction product normally liquid at 100° C. and selected from the group consisting of (*a*) partially hydrogenated monofurfuryl-ketone, (*b*) partially hydrogenated difurfuryl-ketone, (*c*) partially hydrogenated organic reaction masses, said (*c*) being (*x*) organic reaction

masses having a viscosity of at least 50 centipoises at 25° C. and produced by reacting under alkaline conditions furfural and a ketone having at least 2 hydrogen atoms on an alpha carbon and then hydrogenating (*x*) by combining hydrogen therewith to an extent at least approximately 15% and no more than approximately 65% of that necessary to completely saturate with hydrogen the carbon to carbon double bonds thereof, (*d*) partially hydrogenated residual fractions of (*x*), said (*d*) being residual fractions of (*x*) obtained by the heat distillation of (*x*) and measuring at least 60% of the weight of (*x*) and then hydrogenating said residual fractions of (*x*) by combining hydrogen therewith to an extent at least approximately 15% and no more than approximately 65% of that necessary to completely saturate with hydrogen the carbon to carbon double bonds thereof, (*e*) residual fractions of (*c*) obtained by the heat distillation of (*c*) and measuring at least 60% by weight of (*c*), (*f*) polymerized products produced by polymerizing (*a*)–(*e*) respectively under acidic conditions, said (*a*) and (*b*) respectively produced by hydrogenating monofurfuryl-ketone and difurfuryl ketone by combining hydrogen therewith to an extent at least approximately 15% and no more than approximately 65% of that necessary to completely saturate with hydrogen the carbon to carbon double bonds thereof the ratio by weight of (II) to (I) being no greater than 100 to 100.

2,780,615
THERMOPLASTIC COMPOSITION COMPRISING VINYL CHLORIDE POLYMER AND DIOLEFIN-MONO-VINYLPYRIDINE COPOLYMER

Pliny O. Tawney, Passaic, and Roger W. Amidon, Oakland, N. J., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application May 4, 1953, Serial No. 353,010

8 Claims. (Cl. 260—45.5)

1. A rigid thermoplastic composition characterized by high impact strength, comprising an unplasticized, intimate fusion-blended mixture of (A) from 2 to 20 parts of a rubbery copolymer of from 40 to 80% of a conjugated diolefin with from 60 to 20% of a monoethylenically unsaturated monovinylpyridine, and (B) from 98 to 80 parts of a vinyl chloride polymer.

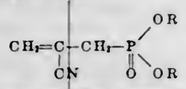
2,780,616
POLYMERS OF DIALKYL 2-CYANOPROPENE-3-PHOSPHONATES

Joseph B. Dickey and Harry W. Coover, Jr., Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Original application October 13, 1950, Serial No. 190,055, now Patent No. 2,721,876, dated October 25, 1955. Divided and this application August 29, 1955, Serial No. 531,289

6 Claims. (Cl. 260—85.5)

1. A polymer of a cyanopropene phosphonate having the following general formula:



wherein R represents an alkyl group containing from 1 to 4 carbon atoms.

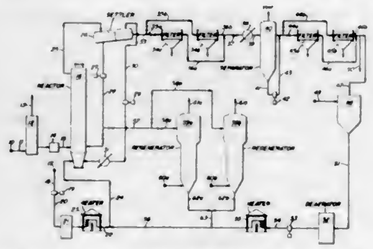
2,780,617
ETHYLENE POLYMERIZATION WITH CONDITIONED MOLYBDENA CATALYST

Alex Zletz, Park Forest, Ill., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application May 17, 1952, Serial No. 288,501

7 Claims. (Cl. 260—88.1)

1. In a process of producing high-molecular-weight hydrocarbons from a gaseous olefin selected from the group consisting of ethylene, propylene and mixtures thereof, which process comprises bringing such gaseous olefin into contact with a liquid hydrocarbon reaction medium, contacting said olefin and said medium with a solid activated catalyst which, before activation, comprises essentially a hexavalent molybdenum oxygen compound combined with a supporting material selected from the group consisting of alumina, titania and zirconia, which catalyst has been activated before use in polymerization by partially reducing said hexavalent molybdenum oxygen compound when present on said supporting material by heating to a temperature between about 400° and 650° C. in the presence of a reducing gas, effecting said contacting in a reaction zone at a temperature between about 75° and 325° C. under a superatmos-



pheric pressure and converting gaseous olefin to polymer, and removing reaction mixture comprising liquid medium, solid catalyst, polymer, and unreacted olefin from the reaction zone, the improved method of operation which comprises separating solid catalyst from at least a portion of the reaction mixture while maintaining the said portion at a temperature between about 75° and 325° C. and under a pressure substantially equivalent to the employed polymerization pressure, flowing separated reaction mixture substantially free of solid catalyst into a zone of reduced pressure, thereafter cooling separated reaction mixture to a temperature between about 0° and 40° C., and separating high molecular weight hydrocarbons deposited by the liquid reaction mixture upon said cooling and pressure reduction.

2,780,618
DISAZO DYESTUFFS AND COMPLEX HEAVY METAL COMPOUNDS THEREOF

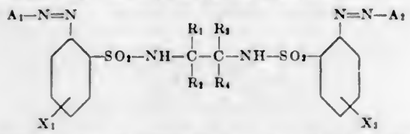
Hans Ackermann, Riehen, near Basel, and Guido Schetty, Basel, Switzerland, assignors to J. R. Geigy A. G., Basel, Switzerland, a Swiss firm

No Drawing. Application September 2, 1954, Serial No. 453,946

Claims priority, application Switzerland September 18, 1953

7 Claims. (Cl. 260—147)

1. A dyestuff selected from the class consisting of the disazo dyestuffs having the general formula:



wherein A_1 and A_2 represent the radical of a member selected from the group consisting of phenolic, naphtholic and enolic coupling components, containing the hydroxyl group in the ortho-position to the azo group, X_1 and X_2 each represents a member selected from the group consisting of H, Cl and NO_2, R_1, R_2, R_3 and R_4 represent a member selected from the group consisting of hydrogen and alkyl radicals which may be joined together to form part of a six-membered isocyclic ring system, and the complex chromium and cobalt compounds of said dyestuffs.

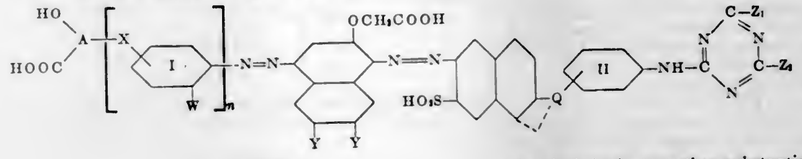
2,780,619
METALLIZABLE DISAZO DYESTUFFS

Rudolf Dürig, Basel, and Ernst Keller, Binningen, Switzerland, assignors to J. R. Geigy A. G., Basel, Switzerland, a Swiss firm

No Drawing. Application September 13, 1954, Serial No. 455,746

6 Claims. (Cl. 260—153)

1. A disazo dyestuff having the general formula:



2,780,620
PARTIAL ACIDIC HYDROLYSIS OF STEROIDAL SAPONINS

Merle M. Krider, Philadelphia, and Monroe E. Wall, Oreland, Pa., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application January 28, 1954, Serial No. 406,906

2 Claims. (Cl. 260—210.5)

(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A process for partially hydrolyzing a water-soluble steroidal saponin extracted from a plant of the group consisting of Agaves, Yuccas and Dioscoreas, whereby said saponins are rendered substantially insoluble in water, comprising acidifying a dilute aqueous solution of the saponin with a strong mineral acid to a pH of about 1 to 2, to partially hydrolyze a substantial portion of the saponin present, thus rendering it insoluble in water as a precipitate, and recovering the thus precipitated partially hydrolyzed saponin.

2,780,621
SIDE CHAIN DEGRADATION OF 11-KETO STEROIDS

Donald Reinhold, New Brunswick, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application June 30, 1953, Serial No. 365,225

30 Claims. (Cl. 260—239.55)

1. The process which comprises ozonizing a Δ^{22}-cyclopentanopolyhydrophenanthrene-11-one compound having a sterol side chain, hydrolyzing the resulting ozonide under reducing conditions thereby producing the corresponding bisnorallocholan-22-al-11-one compound, acylating the C–22 aldehyde group of the latter compound with an acylating agent in the presence of an alkali metal salt having the same acid radical as said acylating agent and acting as a catalyst, thereby forming the corresponding $\Delta^{20(22)}$-bisnorallocholene-11-one-22-ol 22-acylate, ozonizing said acylate, and hydrolyzing the resulting ozonide under reducing conditions, thereby forming the corresponding allopregnane-11,20-dione compound.

2,780,622
PROCESS AND PRODUCT

Hansjuergen A. Schroeder, Columbus, Ohio, assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application November 23, 1955, Serial No. 548,785

4 Claims. (Cl. 260—249.5)

3. 2 - phenyl - 4 - hydroxy - 6 - amino - 1,3,5 - triazine 1,3,5 - trioxide.

2,780,623
METHOD OF PREPARING THIOAMMELINE

Richard Parke Welcher and Donald W. Kaiser, Old Greenwich, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application November 12, 1954, Serial No. 468,568

6 Claims. (Cl. 260—249.8)

1. The method of preparing thioammeline which consists in bringing together substantially equimolecular proportions of dicyandiamide and ammonium thiocyanate in an inert organic solvent at a temperature within the range of from about 50° C. to about 136° C., and recovering thioammeline from the resulting mixture.

2,780,624
PROCESS OF PRODUCING PYRAZINAMIDE

John S. Webb and Herbert G. Arlt, Jr., Warren Township, Somerset County, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application January 29, 1953, Serial No. 334,098

8 Claims. (Cl. 260—250)

1. A process of producing pyrazinamide which comprises heating pyrazine-2-carboxamide-3-carboxylic acid until decarboxylation is substantially complete.

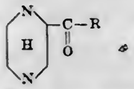
2,780,625
PIPERAZINE DERIVATIVES AND METHOD OF PREPARING THE SAME

Frederick L. Bach, Jr., Pearl River, and Samuel Kushner, Nanuet, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application August 17, 1954, Serial No. 450,522

12 Claims. (Cl. 260—268)

1. Compounds of the group having the general formula:



in which R is a member of the group consisting of hydroxyl, lower alkoxy, amino, hydrazino and acid salts thereof.

8. A method of preparing a member of the group consisting of 2-piperazinecarboxylic acid and therapeutically useful acid salts thereof which comprises reacting an alkyl ester of an alpha,beta-dibromopropionic acid with an alkali metal salt of N,N'-di-para-tosyl ethylenediamine, treating the reaction product thereof with an acid and recovering said compound therefrom.

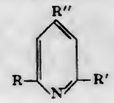
2,780,626
2,6-ALKYLPYRIDINES

Herbert C. Brown, Lafayette, Ind., and Bernard Kanner, Detroit, Mich., assignors to Research Corporation, New York, N. Y., a corporation of New York

No Drawing. Application August 13, 1953, Serial No. 374,121

7 Claims. (Cl. 260—290)

1. A compound having the formula:



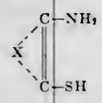
wherein R and R′ are selected from the group consisting of secondary and tertiary alkyl groups containing from three to eleven carbon atoms, and wherein R″ is selected from the group consisting of hydrogen and alkyl groups groups containing up to 18 carbon atoms.

2,780,627
SYNTHESIS OF PYRIDINES
Alexander F. MacLean and Charles C. Hobbs, Jr., Corpus Christi, Tex., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
No Drawing. Application February 2, 1954, Serial No. 407,821
17 Claims. (Cl. 260—290)

1. The process which comprises reacting a 1,1,3,5-tetra (lower alkoxy) pentane with ammonia under dehydrogenating conditions, while splitting off hydrogen and an alcohol, whereby a pyridine is produced, and recovering said pyridine from the resulting reaction products.

2,780,628
2-SUBSTITUTED AROMATIC THIAZOLES
Herschel D. Porter, Indianapolis, Ind., assignor to Eli Lilly and Company, Indianapolis, Ind., a corporation of Indiana
No Drawing. Application December 7, 1955, Serial No. 551,527
8 Claims. (Cl. 260—304)

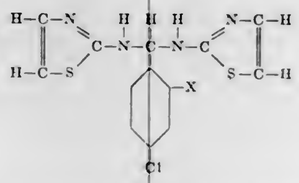
1. A process for the preparation of thiazoles substituted in the 2-position which comprises heating together an ortho aminothiol represented by the formula



wherein X is the residue of an aromatic carbocyclic ring system, and a substantially stable thioamide.

2,780,629
(CHLOROBENZYLIDENEDIIMINO)-BIS-THIAZOLES
Kenneth C. Kauer, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application May 4, 1956, Serial No. 582,641
3 Claims. (Cl. 260—306.8)

1. 2,2′-(chlorobenzylidenediimino)-bis-thiazoles having the formula:



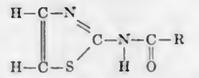
wherein X represents a member of the group consisting of chlorine and hydrogen.

2,780,630
TRICHLOROETHYLIDENEDIIMINO-BIS-THIAZOLE
Kenneth C. Kauer, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application May 4, 1956, Serial No. 582,640
1 Claim. (Cl. 260—306.8)

2,2′-(2,2,2-trichloroethylidenediimino)bis-thiazole.

2,780,631
THIAZOLYL CHLORO-ALIPHATIC AMIDES
Kenneth C. Kauer, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application May 4, 1956, Serial No. 582,642
6 Claims. (Cl. 260—306.8)

1. N-(2-thiazolyl) chloro-aliphatic amides having the formula



wherein R represents a chloro-aliphatic radical containing 1 to 2 carbon atoms, inclusive, and 1 to 3 chlorine atoms, inclusive.

2,780,632
CONTINUOUS LIQUID PHASE PROCESS FOR EFFECTING CONDENSATION OF AN ALDEHYDE AND A CARBOXYLIC COMPOUND CONTAINING AN ACTIVE METHYLENE GROUP
Wilbert J. Humphlett, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
No Drawing. Application June 9, 1954, Serial No. 435,645
6 Claims. (Cl. 260—307)

1. In the process of preparing an olefinic carboxylate by condensing benzaldehyde with a carboxylic compound which is liquid below 100° C., contains an active methylene group adjacent to a carbonylic carbon atom, contains no group reactive with said benzaldehyde other than said active methylene group and is selected from the group of such carboxylic compounds consisting of the free carboxylic acids, their esters and their anhydrides with the elimination of water during the condensation, the improvement which comprises progressively and simultaneously introducing said aldehyde and said carboxylic compound into a packed column maintained at a temperature above the distilling temperature of water eliminated during the condensation but below the distilling temperature of said aldehyde, carboxylic compound and olefinic carboxylate, continuously flowing the resulting mixture of reactants in liquid form downwardly through the packed column whereby said mixture is caused to flow in thin film form, continuously distilling water formed in the condensation upwardly through the column countercurrent to the downflowing liquid reaction mixture, and progressively withdrawing said olefinic carboxylate from the bottom of the column.

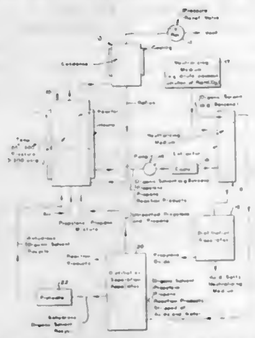
2,780,633
METHOD OF MAKING BENZOXAZOLE COMPOUNDS
Joseph Sam, Syracuse, N. Y., assignor to McNeil Laboratories, Incorporated, Philadelphia, Pa., a corporation of Pennsylvania
No Drawing. Application August 11, 1955, Serial No. 527,883
10 Claims. (Cl. 260—307)

1. The method for the preparation of 2-amino-5-chloro-benzoxazole, which comprises heating 2-hydroxy-5-chlorophenylthiourea to remove hydrogen sulfide therefrom.

2,780,634
LIQUID PHASE OXIDATION OF A MIXTURE OF ALKANES AND ALKENES WITH AIR
Nat C. Robertson, Wellesley, Mass., assignor, by mesne assignments, to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware
Application July 13, 1954, Serial No. 443,037
4 Claims. (Cl. 260—348.5)

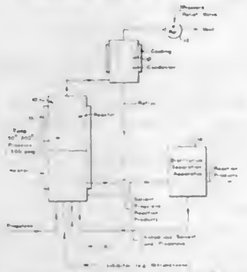
1. In the method of producing an olefin oxide by dissolving a monoolefin containing from three to eight carbon atoms in a water-immiscible liquid hydrocarbon

solvent which is inert to oxygen, passing an elemental-oxygen-containing gas into the solution while the solution is held under pressure and maintained at a temperature above about 130° C., maintaining in the solution a low concentration of at least one compound selected from the



group consisting of water, organic acids and olefin oxide, and recovering olefin oxide, the improvement which comprises dissolving with said monoolefin in the solvent a saturated hydrocarbon containing from three to eight carbon atoms.

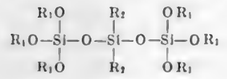
2,780,635
LIQUID PHASE OXIDATION OF OLEFINS USING NITROBENZENE TO INHIBIT POLYMER FORMATION
James H. Gardner, Cambridge, and Nat C. Robertson, Wellesley, Mass., assignors, by mesne assignments, to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware
Application December 28, 1953, Serial No. 400,432
4 Claims. (Cl. 260—348.5)



1. In the method of forming an olefin oxide by dissolving a normally gaseous monoolefin containing from three to five carbon atoms in a water-immiscible liquid hydrocarbon solvent which is inert to the olefin oxide and passing an elemental-oxygen-containing gas into the solution while the solution is held under pressure and maintained at a temperature above about 130° C., the improvement which comprises maintaining nitrobenzene in the solution to inhibit polymer formation.

2,780,636
DI[TRI(ALKOXY)SILOXY]DIHYDROCARBYL SILANES
James R. Wright and Alfred Goldschmidt, El Cerrito, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware
No Drawing. Application June 16, 1954, Serial No. 437,292
8 Claims. (Cl. 260—448.8)

2. Trisiloxanes of the type having the general structural formula



wherein the R_1's represent alkyl radicals of from 2 to 10 carbon atoms each and the R_2's represent hydrocarbyl radicals of 2 to 10 carbon atoms each selected from the group consisting of alkyl and phenyl radicals.

2,780,637
PROCESS FOR PREPARING AROMATIC NITRILES
William G. Toland, Jr., San Rafael, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware
No Drawing. Application January 4, 1954, Serial No. 402,143
4 Claims. (Cl. 260—465)

1. A process for preparing aromatic nitriles which comprises heating an aromatic hydrocarbon and a copper cyanide to a temperature in the range from 175–375° C., the copper cyanide being the sole source of the cyano radical, and recovering the aromatic nitrile.

2,780,638
SYNTHESIS OF SUCCINONITRILES
George W. Ayers, Chicago, and William L. Fierce, Algonquin, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio
No Drawing. Application July 15, 1955, Serial No. 522,392
10 Claims. (Cl. 260—465.3)

1. A process for the preparation of saturated dinitriles which comprises catalytically contacting cyanogen and mono-olefinic hydrocarbon in a reaction zone with a metallic surface heated to at least about 1500 °F.

2,780,639
PRODUCTION OF ACRYLONITRILE
Thomas R. Steadman, Waban, and James F. Gabbett, Jr., Weymouth, Mass., assignors, by mesne assignments, to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware
No Drawing. Application September 19, 1955, Serial No. 535,306
5 Claims. (Cl. 260—465.3)

1. The process of producing acrylonitrile from hydrogen cyanide and acetylene which comprises passing a dilute acetylene stream and hydrogen cyanide in a molar ratio of between about 0.5:1 and less than 1:1 over a support carrying a compound selected from the group consisting of the alkali metal hydroxides, cyanides and carbonates maintained at a temperature within the range of 450° C. and 700° C., and recovering the acrylonitrile produced.

2,780,640
PRODUCTION OF ACRYLONITRILE
James F. Gabbett, Jr., Weymouth, and Nat C. Robertson, Wellesley, Mass., assignors, by mesne assignments, to Escambia Chemical Corporation, Pace, Fla., a Delaware corporation
No Drawing. Application October 1, 1954, Serial No. 459,870
7 Claims. (Cl. 260—465.3)

1. The process of producing acrylonitrile from hydrogen cyanide and acetylene which comprises heating unactivated charcoal to a temperature above 500° C., passing hydrogen over said heated charcoal until substantially all the oxygen has been removed from said charcoal, impregnating said deoxygenated charcoal with a compound from the group consisting of the alkali metal hydroxides, cyanides and carbonates, passing hydrogen cyanide over said deoxygenated impregnated charcoal while said charcoal is heated above about 500° C. until the recovery of hydrogen cyanide in the off-gases is above 80%, passing hydrogen cyanide and acetylene over the prepared catalyst at a temperature within the range of 450° C. to 700° C., and recovering the acrylonitrile produced.

2,780,641

AMINOACID SALTS OF DIETHYLAMINOETHYL 4-AMINO-2-BROMOBENZOATE

Laszlo Reiner, Essex Fells, N. J.

No Drawing. Application May 21, 1954, Serial No. 431,575
4 Claims. (Cl. 260—472)

1. Salts of diethylaminoethyl-4-amino-2-bromobenzoate and aliphatic acids selected from the class of aliphatic aminodicarboxylic and aminosulfocarboxylic acids.

2,780,642

REACTION OF ARYLOXYACETIC ACIDS AND UNSYMMETRICAL EPOXIDES

Roger E. Hatton, St. Louis, and Andrew Lasslo, University City, Mo., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application May 7, 1953, Serial No. 353,682
10 Claims. (Cl. 260—473)

1. The method which comprises reacting an aryloxyacetic acid with an unsymmetrical 1,2-epoxide in the molar ratio of from about one to about five moles of the epoxide per mole of the acid in the presence of from 0.005 to 0.10 mole of a strong base and in the presence of more than 1 but less than 10 moles of water per mole of acid at a temperature above 25° C. but below the polymerization temperature of the epoxide, removing the unreacted epoxide and acid and drying the resulting product thereby producing only a mono(2-hydroxy) alkyl aryloxyacetate.

2,780,643

PRODUCTION OF WATER-CLEAR PHTHALIC ACID ESTERS FROM ALCOHOLS

Karl Büchner, Duisburg-Hamborn, Germany, assignor to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany, a corporation of Germany

No Drawing. Application July 24, 1951, Serial No. 238,389
Claims priority, application Germany August 5, 1950
5 Claims. (Cl. 260—475)

1. Method for the preparation of water-clear phthalate plasticisers from synthetic alcohols obtained from the catalytic hydrogenation of carbon monoxide containing impurities, including olefins, aldehydes and esters, which comprises subjecting such a synthetic alcohol to a hydrogenation in the presence of a hydrogenation catalyst and water at a temperature of about 160–230° C. for the hydrogenation of the impurities, thereafter esterifying the synthetic alcohol with phthalic acid, and recovering a water-clear phthalate.

2,780,644

PROCESS FOR RECOVERY OF COMPLEX ESTER SYNTHETIC LUBRICANTS FROM ALUMINA ADSORBENTS

Harold R. Ready, Roselle Park, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application December 28, 1953, Serial No. 400,786
9 Claims. (Cl. 260—485)

1. In a process for the reduction of the corrosivity of synthetic ester materials useful as synthetic lubricants which comprises the steps of maintaining an intimate contact with said synthetic ester material an activated particulated alumina and filtering said alumina from said treated materials, the improvement which comprises treating said filtered alumina with a paraffinic hydrocarbon solvent containing from 6 to 16 carbon atoms to selectively desorb ester material of lower corrosivity, and distilling said solvent to recover said extracted ester material.

2,780,645

PREPARATION OF CALCIUM DL-PANTOTHENATE

Herbert L. Wehrmeister, Terre Haute, Ind., assignor to Commercial Solvents Corporation, Terre Haute, Ind., a corporation of Maryland

No Drawing. Application January 15, 1954, Serial No. 404,389
11 Claims. (Cl. 260—534)

1. The method of synthesizing calcium DL-pantothenate which comprises reacting 2,4-dihydroxy-3,3-dimethylbutyronitrile with beta-alanine and calcium hydroxide in a lower aliphatic alcohol medium.

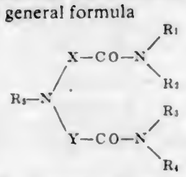
2,780,646

FATTY ACID AMIDES AND DERIVATIVES THEREOF

Joseph Seifter, Roy S. Hanslick, and Meier E. Freed, Philadelphia, Pa., assignors to American Home Products Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application March 17, 1955, Serial No. 495,038
8 Claims. (Cl. 260—562)

2. A compound of the group consisting of di-fatty acid amides and the non-toxic acid-addition salts thereof, said amides having the general formula



wherein R_1 and R_3 represent lower alkyl radicals, R_2 and R_4 stand for aralkyls of the group consisting of phenyl-lower alkyl and beta-phenyl-beta-hydroxy-lower alkyl, R_5 represents a lower alkanol of 2 to 4 carbon atoms, with X and Y each representing divalent lower alkylene radicals of 1 to 4 carbon atoms.

2,780,647

PROCESS FOR PREPARING HYDROXY DIPHENYLAMINES

Louis Spiegler, Woodbury, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 20, 1953, Serial No. 369,249
7 Claims. (Cl. 260—571)

1. The process of preparing hydroxy diphenylamines which comprises reacting a mixture of a phenol, a mononitrobenzene and hydrogen in contact with a catalyst mass under atmospheric pressure at a temperature of about 25° to 35° C., said catalyst mass comprising an aqueous dispersion of a finely-divided hydrogenation catalyst selected from the group consisting of platinum, palladium and their oxides, from 1% to 10% by weight of sulfuric acid, from 0.05% to about 0.1%, based on the weight of said dilute acid solution, of a water-soluble quaternary ammonium compound which is stable in dilute sulfuric acid, said quaternary ammonium compound being taken from the group consisting of tetraalkyl ammonium chlorides and bromides containing at least one and not more than two alkyl groups of at least 10 carbon atoms and not more than 18 carbon atoms, and, C-n-alkyl-betaines containing an alkyl group of from 12 to 16 atoms, the said phenol being selected from the class consisting of mono-, di-, and trihydric phenols, the mono-, lower alkyl ethers of the dihydric phenols and the mono-, and di-alkyl ethers of the tri-hydric phenols, said alkyl groups having from 1 to 4 carbon atoms, and the said mononitrobenzene having the formula:

where X is selected from the class consisting of hydrogen,

lower alkyl and lower alkoxy groups, the said lower alkyl and lower alkoxy groups having from 1 to 4 carbon atoms.

2,780,648

5-METHYL-6-ALKOXY-OCTAHYDRONAPHTHALENE COMPOUNDS AND PROCESS OF PREPARING THEM

Lewis H. Sarett, Princeton, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application November 22, 1954, Serial No. 470,549
8 Claims. (Cl. 260—586)

1. The process which comprises reacting 5-methyl-6-(lower alkoxy)-1,4,4*a*,5,8,8*a*-hexahydronaphthalene-1,4-dione with hydrogen, said reaction being carried out in an inert solvent in the presence of a hydrogenation catalyst, thereby forming 5-methyl-6-(lower alkoxy)-1,2,3,4,4*a*,5,8,8*a*-octahydronaphthalene-1,4-dione.

2,780,649

PREPARATION OF p-ACYLSTYRENES

Jack L. R. Williams, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application November 29, 1952, Serial No. 323,335
1 Claim. (Cl. 260—592)

A process for simultaneously preparing p-vinylacetophenone, p-diacetylbenzene, and p-divinylbenzene comprising heating p-acetylphenylmethyl carbinol at a temperature of from 480°–490° C. in the presence of alumina, and thereafter separating the p-vinylacetophenone, p-diacetylbenzene, and p-divinylbenzene from the reaction mixture.

2,780,650

OXIDATION OF SATURATED ALIPHATIC HYDROCARBONS TO KETONES

Nat C. Robertson and James H. Gardner, Cambridge, and Albert Di Nardo, Jamaica Plain, Mass., assignors, by mesne assignments, to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware

Application September 2, 1952, Serial No. 307,414
4 Claims. (Cl. 260—597)

1. A method of oxidizing a saturated hydrocarbon having from 4 to 8 carbon atoms and containing at least one tertiary hydrogen atom to produce ketones which comprises dissolving said saturated hydrocarbon in a tertiary alcohol having the same number of carbon atoms as said saturated hydrocarbon, passing an elemental-oxygen-containing gas through said solution while said solution is held under pressure, maintaining said solution at a temperature above about 145° C. while said gas passes therethrough, and separating ketones from said solution.

2,780,651

PROCESS FOR THE MANUFACTURE OF A POLYENE ALDEHYDE

Otto Isler, Marc Montavon, and Rudolf Rüegg, Basel, and Paul Zeller, Neuallschwil, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application June 28, 1954, Serial No. 439,861
Claims priority, application Switzerland July 2, 1953
8 Claims. (Cl. 260—598)

1. A process which comprises reacting 2-methyl-4-(2,6,6-trimethyl-1-cyclohexenyl)-2-buten-1-al with a tri(lower alkyl)ester of a lower orthoalkanoic acid in the presence of an acidic condensation agent to produce 1,1-di(lower alkoxy)-2-methyl-4-(2,6,6-trimethyl-1-cyclohexenyl)-2-butene, reacting the latter in the presence of an acidic condensation agent first with a vinyl lower alkyl ether and then with a propenyl lower alkyl ether to produce 1,1,3,5-tetra(lower alkoxy)-2,6-dimethyl-8-(2,6,6-trimethyl-1-cyclohexenyl)-6-octene, and hydrolysing the latter in aqueous acid medium to produce 2,6-dimethyl-8-(2,6,6-trimethyl-1-cyclohexenyl)-2,4,6-octatrien-1-al.

7. 1,1,3,5-tetra(lower alkoxy)-2,6-dimethyl-8-(2,6,6-trimethyl-1-cyclohexenyl)-6-octene.

2,780,652

PREPARATION OF HIGH PURITY FORMALDEHYDE

Frederick William Gander, Williamsville, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 13, 1954, Serial No. 429,681
6 Claims. (Cl. 260—606)

1. A process for preparing highly concentrated formaldehyde which comprises intimately contacting a composition containing at least 95% formaldehyde, the remainlng components comprising at least one from the group consisting of water, formic acid, methanol, methyl formate, and methylal, with a polyethylene glycol dialkyl ether and recovering a fluid composition containing at least 99.9% by weight of formaldehyde and not more than 0.1% water.

2,780,653

STABILIZATION OF MUSTARD

Rudolph Macy, Baltimore, Md.

No Drawing. Application February 21, 1946, Serial No. 649,451
12 Claims. (Cl. 260—609)
(Granted under Title 35, U. S. Code (1952), sec. 266)

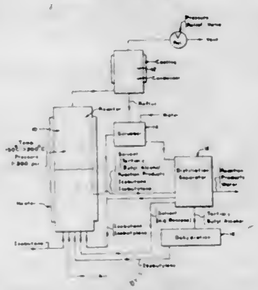
1. Stabilized mustard gas containing tetra-lower-alkyl ammonium halide as the stabilizing agent.

2,780,654

AIR OXIDATION OF ISOBUTYLENE

Nat C. Robertson and James H. Gardner, Cambridge, Mass., assignors, by mesne assignments, to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware

Application October 22, 1952, Serial No. 316,158
1 Claim. (Cl. 260—635)



A method of forming isobutylene glycol and tertiary butyl alcohol which comprises dissolving a mixture of isobutane and isobutylene in an inert organic solvent, passing an elemental-oxygen-containing gas into said solution while said solution is held under superatmospheric pressure and maintained at a temperature above about 150° C. to oxidize said isobutane to tertiary butyl alcohol and said isobutylene to isobutylene glycol, and recovering said tertiary butyl alcohol and isobutylene glycol.

2,780,655
RECOVERY OF PENTAERYTHRITOL BY FORMALIN EXTRACTION
Harold I. Yalowitz, Terre Haute, Ind., assignor to Commercial Solvents Corporation, Terre Haute, Ind., a corporation of Maryland
No Drawing. Application May 5, 1954, Serial No. 427,859
4 Claims. (Cl. 260—637)

1. An improved process for the recovery of pentaerythritol from a mildly alkaline reaction liquor from which the major portion of pentaerythritol has been removed which comprises concentrating the said reaction liquor to a slurry containing solid pentaerythritol and metal salts, adding such a quantity of formalin to the said slurry that substantially all the solid pentaerythritol dissolves, separating the undissolved metal salts from the resulting mixture, and recovering the pentaerythritol from the alkaline solution separated.

2,780,656
PROCESS FOR PREPARING NITRO COMPOUNDS
William G. Toland, Jr., San Rafael, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware
No Drawing. Application January 4, 1954, Serial No. 402,141
4 Claims. (Cl. 260—645)

1. A process for preparing nitrobenzene consisting essentially in reacting benzene and a salt selected from the group consisting of copper nitrate and silver nitrate in the liquid phase at a temperature above 175° C.

2,780,657
PROCESS FOR PREPARING AROMATIC NITRO COMPOUNDS
William G. Toland, Jr., San Rafael, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of California
No Drawing. Application January 4, 1954, Serial No. 402,142
8 Claims. (Cl. 260—645)

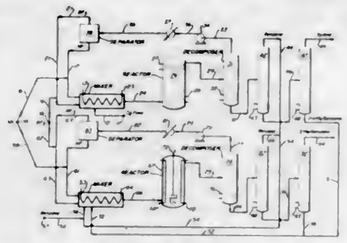
1. A process for preparing a nitrated aromatic compound which comprises heating an aryl carboxylic acid and a metal nitrate to a temperature above about 175° C.

2,780,658
PREPARATION OF UNSATURATED ACYCLIC HALIDES
Joseph Donald Surmatis, Pompton Plains, N. J., assignor to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey
No Drawing. Application January 29, 1954, Serial No. 407,180
1 Claim. (Cl. 260—654)

A process of making cis-1-halo-3,7-dimethyl-2-octene which comprises reacting 1,5-dimethyl-1-vinyl-1-hexanol with a concentrated aqueous solution of a hydrohalic acid selected from the group consisting of hydrochloric acid and hydrobromic acid.

2,780,659
ETHYLBENZENE FROM C_8 AROMATIC HYDROCARBONS
David A. McCaulay, Chicago, Ill., and Arthur P. Lien, Highland, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application March 21, 1955, Serial No. 495,438
4 Claims. (Cl. 260—668)

1. A process for the treatment of a mixed feed consisting essentially of at least one xylene selected from the class consisting of meta-xylene and para-xylene and ethylbenzene for the production of diethylbenzene and a xylene product that is substantially free of ethylbenzene, which process comprises contacting said feed with at least about 1 mole of BF_3 per mole of aromatic hydrocarbons in said feed and with between about 2 and 50 moles of liquid HF per mole of aromatic hydrocarbons in said feed, at a temperature between about 0° and 125° F. for a time between that which is sufficient to substantially attain an equilibrium condition in the disproportionation

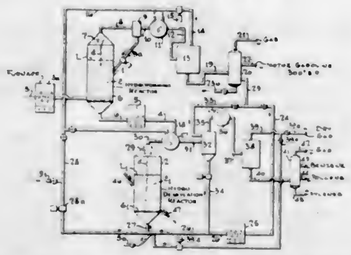


of said ethylbenzene to diethylbenzene and benzene and not more than between about 2 minutes and 50 hours, the longer maximum times corresponding to the lower temperature, removing HF and BF_3 from said liquid HF-phase to recover hydrocarbons therefrom and separating a xylene fraction that is substantially free of ethylbenzene and a diethylbenzene fraction from said hydrocarbons.

2,780,660
CATALYTIC PROCESS
Edmund Field, Chicago, and Morris Feller, Park Forest, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
No Drawing. Application February 8, 1955, Serial No. 486,988
11 Claims. (Cl. 260—671)

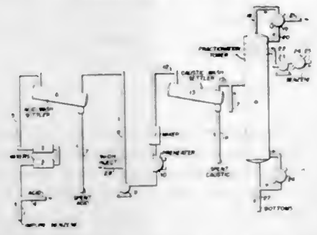
1. A process for the nuclear alkylation of an aromatic hydrocarbon selected from the class consisting of benzene and benzene substituted by at least one tertiary saturated hydrocarbon radical and containing an alkylatable nuclear carbon atom, which process comprises contacting a hydrocarbon feed stock whose reactive components initially consist essentially of said aromatic hydrocarbon and ethylene with a catalyst consisting essentially of the hydride of an alkali metal, effecting said contacting under nuclear alkylation conditions, and recovering an alkylated aromatic hydrocarbon thus produced from the reaction mixture.

2,780,661
REFORMING FOLLOWED BY HYDRODEALKYLATION
Charles E. Hemminger, Westfield, and Charles W. Tyson, Summit, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application August 15, 1951, Serial No. 241,954
4 Claims. (Cl. 260—672)



1. The method of producing high octane gasoline and aromatics of high purity which comprises subjecting a naphtha containing naphthenes which are predominantly C_9–C_{11} hydrocarbons and boiling substantially within the range of 250°–450° F. to a hydroforming operation in the presence of a fluidized bed of hydroforming catalyst, recovering a hydroformed product from the hydroforming step, recovering a gas rich in hydrogen from the said hydroforming step separating a motor gasoline fraction from said hydroformed product, recovering high boiling alkylated aromatics from said hydroformed product, preheating said aromatics to a temperature of from about 800°–900° F. and thereafter subjecting said aromatics to hydrodealkylation in the presence of a fluidized bed of powdered inert non-catalytic material and in the presence of added hydrogen recovered from the said hydroforming step and recovering therefrom benzene, toluene and xylene isomers.

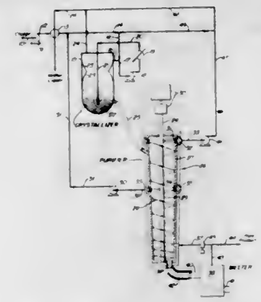
2,780,662
BENZENE PURIFICATION PROCESS BY TREATMENT WITH SULFURIC ACID
Samuel W. Wilson, Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application May 11, 1953, Serial No. 354,192
3 Claims. (Cl. 260—674)



1. A process for purifying a crude benzene containing 94–97 mole percent benzene, 3–6 mole percent alkene and diene impurities and being substantially free of saturated hydrocarbons which comprises acid-treating said crude benzene with 20 to 67 wt. percent aqueous sulfuric acid that contains 80 to 90 weight percent H_2SO_4 to convert said impurities into substances readily separable from the benzene, said impurities and the sulfuric acid being reacted in the absence of other reactive substances at 60° to 200° F., separating the resulting acid-treated benzene in liquid phase as an upper layer from resulting used aqueous sulfuric acid containing the reacted olefinic impurities removed from the benzene, treating the separated acid-treated benzene with admixed aqueous alkali to remove acid impurities therefrom, separating the resulting liquid benzene as an upper layer from the aqueous alkali containing acidic impurities extracted from the benzene, then distilling the alkali-treated benzene to obtain a distillate containing 99+ mole percent benzene.

2,780,663
FRACTIONAL CRYSTALLIZATION AND CRYSTAL WASHING
Robert C. Gunness, Flossmoor, Ill., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application May 29, 1953, Serial No. 358,267
6 Claims. (Cl. 260—674)

1. The method of obtaining high purity paraxylene from a narrow boiling hydrocarbon fraction which contains a substantial amount of paraxylene and at least one other xylene isomer which method comprises selectively crystallizing paraxylene from the hydrocarbon fraction to obtain a slurry of paraxylene crystals in mother liquor, introducing said slurry at the upper part of a purification zone, filtering mother liquor from crystals at the upper part of said zone, conveying crystal mass from the upper part to the lower part of said zone while subjecting said mass to gradually increasing pressure, introducing sufficient melted paraxylene at the lower part of said zone at a level spaced from the base thereof to remove mother liquor from the surface of said crystals and replace mother liquor from the space between crystals in said lower part of the zone and discharging from the base of said zone a compact mass of paraxylene crystals in which the void space between said crystals is filled with substantially pure paraxylene.



2,780,664
HYDROCARBON DRYING OIL
George E. Serniuk, Roselle, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application October 16, 1952, Serial No. 315,190
6 Claims. (Cl. 260—683.15)

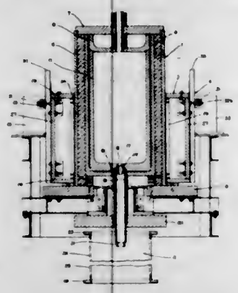
1. The process of preparing a drying oil which comprises contacting a mixture of 75 parts by weight of butadiene and 25 parts by weight of isobutylene in the presence of about 18.6 to 25 wt. percent of a complex of boron fluoride and ethyl ether in the mole ratio of 1.0:1.0 to 1.2:1.0, and in the presence of about 25 to 125 volume percent of a halo-alkane diluent, at a temperature of about −15° C.

2,780,665
METHOD OF PREVENTING CARBONYL SULFIDE DECOMPOSITION
Robert W. Foreman, Cleveland, Ohio, assignor to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application December 23, 1952, Serial No. 327,701
3 Claims. (Cl. 260—683.15)

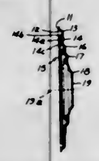
1. In the recovery of liquified petroleum gas by de-ethanization of the unpolymerized hydrocarbons containing water and carbonyl sulfide resulting from the catalytic polymerization of olefins, the improvement which comprises drying the unpolymerized hydrocarbons prior to the de-ethanization of said hydrocarbons.

ELECTRICAL

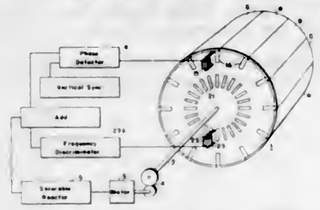
2,780,666
INDUCTION FURNACE CONTROL AND METHOD
Richard M. Scriver, Niles, Ohio, assignor to Mallory-Sharon Titanium Corporation, Niles, Ohio, a corporation of Delaware
Application April 6, 1954, Serial No. 421,338
7 Claims. (Cl. 13—26)



4. The method of heating an induction furnace having a movable induction coil and a graphite crucible surrounded by the coil including the steps of supplying power to said coil to induce a current in the wall portions of the crucible surrounded by the coil, and continuously reciprocably moving the coil axially of the crucible to continuously change the crucible wall portion heated; thereby heating the crucible evenly and efficiently and minimizing the possibility of producing hot spots in the crucible wall.

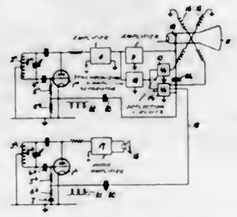
2,780,667
SPRING CONTACTOR
Joseph T. Cataldo, Los Angeles, and Kurt Kadelburg, West Los Angeles, Calif., assignors to International Rectifier Corporation, El Segundo, Calif., a corporation of California
Application March 12, 1954, Serial No. 415,804
6 Claims. (Cl. 174—126)

1. A current collecting spring contact washer for a dry plate rectifier comprising a flexible disc having a central axis, an undulating bellows section surrounding the central axis, said undulating bellows section having at least two convex undulations on each side of the washer, an inner contact ring surrounding and contiguous with the bellows section, a flexible bead surrounding and contiguous with the inner contact ring, and an outer contact ring surrounding and contiguous with the flexible bead, the bellows section, inner and outer contact rings and the flexible bead being concentric around the central axis, the inner ring being axially spaced from the outer ring, whereby increasing compression of the spring contact washer against a flat surface first causes the outer contact ring to make contact with said flat surface, then the inner contact ring to make a surface contact with the flat surface, and then the bellows section to flex, the bead stopping any capillary action tending to cause varnish applied to the rectifier to creep to the inner contact ring, and the bellows flexing to prevent the prying of the inner contact ring from the flat surface.

2,780,668
SYNCHRONIZING SYSTEM FOR COLOR TELEVISION
Kenneth E. Farr, Paxinos, Pa., and Charles W. Baugh, Jr., Princeton, and Charles B. Heffron, Metuchen, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application October 21, 1952, Serial No. 315,961
3 Claims. (Cl. 178—5.4)



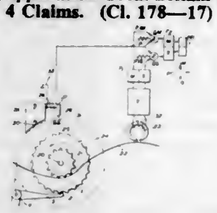
1. In a television receiver, a picture screen on which incoming signals successively portray images of the red, blue and green light fields composing the scene to be reproduced, movable filters respectively transmitting red, blue and green light, a rotor bearing said filters and driving means for said rotor having electrical windings, an impedance having a direct current control winding connected to said electrical windings first means including inductor windings and, a magnetic body moved in inductive relation to said inductor windings by said rotor to generate voltage in said inductor windings, second means to generate a voltage having a frequency proportional to the speed of said rotor, a phase discriminator having its input energized by said inductor windings, and a frequency discriminator having its input energized by said second means, the outputs of said phase discriminator and said frequency discriminator being connected to energize said direct current control winding.

2,780,669
TELEVISION RECEIVER HAVING SUPERREGENERATIVE DETECTION OF THE SOUND SIGNAL
Jacob van Slooten, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application March 1, 1952, Serial No. 274,430
Claims priority, application Netherlands March 10, 1951
2 Claims. (Cl. 178—5.8)



1. In a television receiver for intercepting carrier waves modulated respectively and simultaneously by a sound signal and an image signal, said image signal having an image component and a pulse component, said pulse component including pulses which represent the periodic line suppression intervals of said image signal, a sound channel provided with a first superregenerative detector for detecting said sound signal, and an image channel provided with a second regenerative detector for detecting said image signal, said image channel further including pulse separating means coupled to said second detector and responsive solely to said pulse component in the detected signal, pulse-producing means connected to said last-named means to produce two pulsatory voltages each containing impulses each time the pulses representing said intervals are present and means connected to supply said pulsatory voltages as respective control voltages to said first and second detectors in a polarity to render said first detector operative during at least a portion of each of said intervals and in a polarity to render said second detector inoperative during the time said first detector is operative.

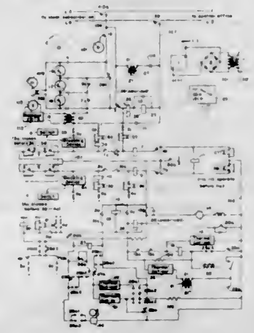
2,780,670
TAPE RECORDING APPARATUS
Arthur Edward Brewster, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application October 7, 1953, Serial No. 384,580
Claims priority, application Great Britain October 9, 1952
4 Claims. (Cl. 178—17)



1. An apparatus for regenerating information stored on a record medium in the form of telegraph signal combinations made up of code elements having different characteristics, means for sensing said record medium for said stored information, means for advancing said record medium past said sensing means in sensing relation therewith, means for locally generating a train of electrical clock pulses, said generating means adapted to be controlled by said advancing means, each generated pulse having a duration equal to that of a code element, arresting means coupled to said advancing means, said arresting means adapted to periodically arrest said advancing means, the period of said arresting means being equal to a signal combination, a pair of two input gate circuits, a first one of the inputs of both said circuits coupled to said generating means, and the second input of each of said gate circuits coupled to said sensing means in such a manner that one of said gate circuits opens when a code element having a first characteristic is sensed and the other of said gate circuits opens when a code element having a second characteristic is sensed, a bi-stable switching device coupled to said gate circuits in a manner whereby opening of said first gate circuit causes said device to assume a first stable position and the opening of said other gate circuit causes said device to assume another stable position, and code re-transmitting means under control of said device, whereby said retransmitting means operates upon the coincidence of a clock pulse and a stored code element at either of said gate circuits.

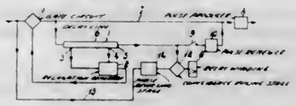
2,780,671
TELEPHONIC ALARM SYSTEM
Georges Thery, Paris, France
Application January 30, 1952, Serial No. 269,031
7 Claims. (Cl. 179—5)

2. An alarm system comprising emergency detector means, a subscriber line leading to an exchange of a telephone network, electrical circuit means controlled by said detector means, call initiating means including first and second impulse generator means, said first impulse generator means being adapted to produce digital impulses corresponding to the call number of a public safety service, said second impulse generator means being adapted to produce digital impulses corresponding to the call number of a predetermined station of said network other than said safety service, message transmitting means adapted to send out an alarm over said line, switch means operable under the control of said circuit means, in response to an emergency condition to which said detector means properly responds, to connect to said



line and render operative, in succession, said first impulse generator means, followed by said transmitting means, in a first operative cycle and said second impulse generator means, followed by said transmitting means, in a second operative cycle, said switch means including line relay means ascertaining a change in the current condition of said line prior to establishing a connection to said transmitter means, said switch means further including timer means determining the length of the time during which said transmitter means is to be connected to said line, and control relay means responsive to faulty operation of said detector means for so modifying the operation of said switch means as to skip said first operative cycle.

2,780,672
DEVICE FOR SEPARATING SYNCHRONIZING PULSES AND SIGNAL PULSES WITH PULSE-CODE MODULATION
Johannes Anton Greefkes and Piet van Tilburg, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application October 1, 1952, Serial No. 312,614
Claims priority, application Netherlands November 28, 1951
1 Claim. (Cl. 179—15)



In a multiplex receiver for intercepting pulse-code modulation signals constituted by synchronizing pulses occurring at a constant frequency and wherein each synchronization cycle comprises a succession of signal pulse intervals within which intervals signal pulses are alternatively present or absent as a function of the signals to be transmitted, the combination comprising a separating device to separate the synchronization pulses from the signal pulses including a pulse-responsive relaxation generator and means to apply the intercepted signals thereto, said generator including a circuit connected to render it

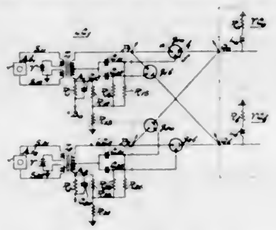
temporarily insensitive after responding to a pulse, said circuit having a time-constant characteristic at which the generator upon responding to a pulse becomes temporarily insensitive for a duration smaller than that of a synchronization cycle but greater than that of a synchronization cycle minus a signal interval, whereby said device automatically hunts for said synchronizing pulses in said cycles to effect the desired selection thereof, apparatus connected to introduce a synchronization pulse into said receiver in the event a synchronizing pulse is suppressed in the incoming signal, said apparatus comprising local generator means responsive when said separating device effectuates the desired selection of an incoming synchronization pulse to produce a local pulse in synchronization therewith and a relay responsive to said selected synchronization pulse and connected to actuate said local generator means, a coincidence mixing stage having two input circuits and an output circuit, means connected to apply said pulse-code modulation signals to one of said input circuits, and a delay circuit for delaying said selected synchronizing pulses for at least one synchronizing cycle period and connected to apply delayed synchronizing pulses to the other of said input circuits, said relay having an energizing winding connected to said output circuit.

2,780,673
PHASING SYSTEM
John B. Singel, Catonsville, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application September 15, 1950, Serial No. 185,043
8 Claims. (Cl. 179—15.5)

1. In a carrier wave transmission system, a master oscillator, a first power amplifier connected to said oscillator, a second power amplifier, the output circuits of said amplifiers being connected to a common load, a transmission circuit extending from said oscillator to said second power amplifier, and means included in said transmission circuit for adjusting the phase and amplitude of the oscillating output of said second amplifier to match the oscillating output of said first amplifier.

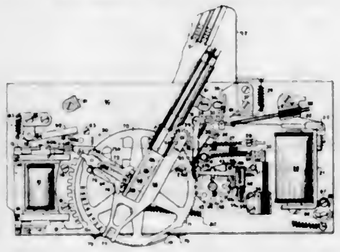
2,780,674
CIRCUIT-ARRANGEMENT FOR ENGAGING AN APPARATUS
Willem Six and Jacobus Domburg, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application July 19, 1951, Serial No. 237,514
Claims priority, application Netherlands August 8, 1950
9 Claims. (Cl. 179—18)

3. Automatic signalling apparatus for electrically engaging a first circuit yielding intelligence signals and having a multiple point with any one of a plurality of second circuits each having a multiple point in response to an engaging action occurring at said first circuit and for establishing an intelligence conducting path between said first circuit and an engaged second circuit; said apparatus comprising a first impedance of finite direct current resistance coupled to the multiple point of said first circuit and responsive to said action to produce an engaging pulse across said first impedance, a rectifier coupled between the multiple point of said first circuit and a point of contact potential, said rectifier being polarized to prevent said engaging pulse from falling below a predetermined value, a like plurality of second impedances each coupled to the multiple point of a corresponding one of said second circuits, a like plurality of gas discharge tubes each having a distinctive ignition and operating voltage characteristic and having at least two electrodes, each of said tubes being coupled between the multiple point of said first circuit and the corresponding multiple point of one of said second circuits, a voltage source having first and second terminals and producing a voltage having a value greater than the operating voltage of any



of said tubes and less than the ignition voltage of any of said tubes, means to couple said first impedance and said plurality of second impedances between the first and second terminals of said source, and means coupling one end of said first impedance to one of the electrodes of each of said plurality of tubes whereby the engaging voltage produced across said first impedance ignites solely one of said tubes and renders the remaining tubes nonconductive due to the voltage drop across said first impedance caused by the current drawn by said ignited tube thereby causing said first circuit to engage that second circuit associated with the ignited tube and establishing an intelligence conducting path through said ignited tube.

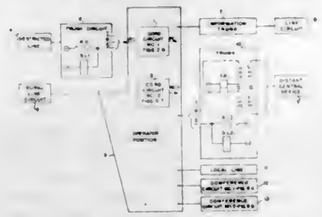
2,780,675
TWO MOTION SELECTIVE SWITCHES
Hans Sengebusch, Chicago, Ill., assignor to Automatic Electric Laboratories, Inc., Chicago, Ill., a corporation of Delaware
Application November 27, 1951, Serial No. 258,404
9 Claims. (Cl. 179—27.52)



1. In a drive mechanism for operating the wipers of a two motion selecting switch, a first member rotatively mounted in said switch, the rotation of said member in one direction moving said wipers in two sequential directions and the rotation of said member in a reverse direction restoring said wipers, means for rotating said first member in said one direction, restoring means for rotating said member in a reverse direction, escapement means mounted in said switch and associated with said member, a first electromagnet, operation of said first electromagnet controlling said escapement means to control the rotation of said member in said one direction, a second electromagnet, a control bar, operation of said second electromagnet operating said control bar to cause

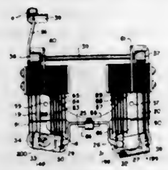
said first electromagnet to also operate said restoring means to thereby rotate said member in a reverse direction to restore said wipers.

2,780,676
CORD CIRCUITS
William H. Berch, Penfield, N. Y., assignor, by mesne assignments to General Dynamics Corporation, a corporation of Delaware
Application August 2, 1954, Serial No. 447,157
6 Claims. (Cl. 179—51)



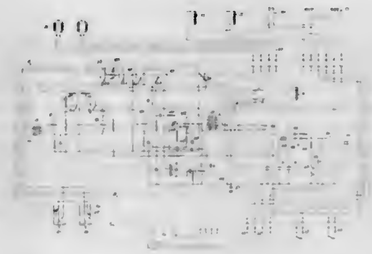
1. A telephone system comprising an operator's position, a cord circuit at said operator's position, a distant office, a trunk circuit, a line terminating at said operator's position, means for enabling an operator at said position to extend a connection between said line and said distant office through said cord circuit and said trunk, said connection comprising a pair of talking conductors, a lock-out relay, said lock-out relay having a pair of normally closed contacts in at least one of said talking conductors, a rear bridge relay, means for operating said rear bridge relay on unrestricted calls, means for preventing operation of said rear bridge relay on restricted calls, and means responsive to the connection of said cord circuit to said trunk circuit for completing an operating circuit for said lockout relay only if said rear bridge relay is not operated, whereby said lockout relay operates on restricted calls to open the talking connection.

2,780,677
MULTI-LINE TELEPHONE SUBSTATION
Leif Schaufuss, Chicago, Ill., assignor to Automatic Electric Laboratories, Inc., Chicago, Ill., a corporation of Delaware
Application March 18, 1955, Serial No. 495,182
6 Claims. (Cl. 179—99)



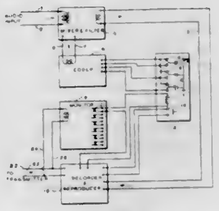
1. In a telephone system, a substation having means for extending connections over a plurality of lines terminating at the substation, including a plurality of answer keys for connecting the substation to different ones of the lines, and hold keys for holding the connection over one line while controlling a connection over another of the lines, and also including switch hook springs and a pair of plungers operated by the removal and replacement of the handset at the substations to control the switch hook springs, the provision of means controlled by one of said plungers, when depressed, for releasing any operated ones of said answer or hold keys, and means controlled by the other of said plungers, when depressed, for controlling said switch hook springs without operating said other plunger controlling the release of said keys.

2,780,678
MAGNETIC RECORDING AND REPRODUCING CIRCUITS
Lloyd J. Bobb, Glenside, Pa., assignor to The International Electronics Company, Philadelphia, Pa., a corporation of Pennsylvania
Original application November 24, 1947, Serial No. 787,645, now Patent No. 2,600,046, dated June 10, 1952. Divided and this application May 8, 1952, Serial No. 291,998
1 Claim. (Cl. 179—100.1)



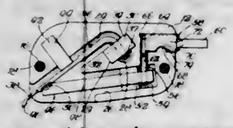
Recording and reproducing apparatus comprising an amplifier having an input terminal and an output terminal, means for connecting the apparatus with a speaker microphone, first and second circuit means connected with said connecting means, a record-reproduce switch comprising first and second switch means for alternatively connecting said first circuit means with said input terminal and said second circuit means with said output terminal, and a jack for receiving the plug of a separate microphone, said jack including contact means for connecting the plug to said first circuit means and further including third switch means responsive to insertion of the plug to break the connection between said first circuit means and said connecting means.

2,780,679
RECORDING AND REPRODUCING SYSTEMS
Edgar F. Vandivere, Jr., Falls Church, Va.
Application March 29, 1955, Serial No. 497,683
28 Claims. (Cl. 179—100.1)



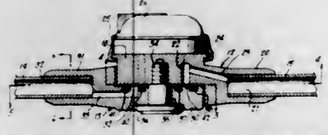
1. In combination, means for generating wide band information signals, coding means for generating a high carrier frequency pulse modulated by a low frequency tone, means for superposing said modulated pulse on said information signals to produce composite signals, monitor means connected to receive said composite signals and comprising a filter for passing a narrow band of frequencies including frequencies of said modulated pulse to provide a filtered signal, means responsive to said filtered signal for detecting said low frequency tone, a filter for selectively passing only said low frequency tone, means for rectifying and integrating the filtered low frequency tone to produce a control signal, and means responsive to the control signal for effecting a control function.

2,780,680
TRANSDUCER
Clarence F. Jensen, Racine, Wis., assignor to Webster Electric Company, Racine, Wis., a corporation of Delaware
Application March 25, 1952, Serial No. 278,442
6 Claims. (Cl. 179—100.41)



1. A transducer comprising stylus structure inclined upwardly from horizontal, resilient mounting means for the upper end of said stylus structure, a transducer element rigidly secured to the stylus structure adjacent its lower end and extending away from said structure to form an acute angle, and stationary damping means engaging the upper side of said stylus structure intermediate its ends and fixedly mounted in said housing whereby said damping means resists upward deflection of said stylus structure.

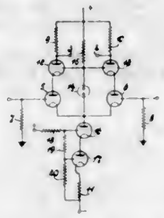
2,780,681
EARPHONES FOR USE WITH DICTATING MACHINES AND THE LIKE
Harry B. Shaper, New Hyde Park, N. Y., assignor to Dyna-Labs, Inc., Garden City, N. Y., a corporation of New York
Application July 1, 1954, Serial No. 440,608
6 Claims. (Cl. 179—156)



1. An earphone device of the type in which sound from a single sound source is conveyed through separate tubes to the ears of a user, comprising, in combination, a pair of sound conveying tubes extending at an angle to each other in a substantially common plane, a body member fixed to each said tube, the axes of said members extending at right angles to the axis of the associated tubes, means pivotally mounting said members for rotational movement relative to each other about their common axis, said ear tubes extending outwardly from opposite sides of said members, an annular sound channel between said members, said channel being formed by concentric washers extending between the adjacent faces of said members, and sound passages extending through said members and joining said tubes with said annular channel said passages at the end adjacent said annular channel extended parallel to the common axis of said members.

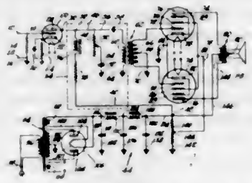
2,780,682
DIFFERENCE AMPLIFIER
Gerrit Klein, Emmasingel, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application January 24, 1955, Serial No. 483,621
Claims priority, application Netherlands January 25, 1954
3 Claims. (Cl. 179—171)

1. A difference amplifier comprising a push-pull connected amplifying system, each branch of said push-pull system including a plurality of series-connected electron discharge tubes having control and anode electrodes, means for applying a potential across said series-connected discharge tubes, means for applying an input voltage to the control electrode of a first tube of said plurality of tubes of each of said branches having the lowest potential applied thereto, and means for deriving an output voltage between the anodes of a second tube of said plurality of tubes of each branch having a higher potential applied thereto than said lowest potential, an impedance element for providing a constant voltage thereacross, and a common resistor connected at one end to the cathode of each of said first



tubes, the control electrode of each of said second tubes being connected to the cathode of each of said first tubes through said impedance element, said means for applying a potential across said tubes including a negative terminal connected to the cathode of each of said first tubes through said common resistor.

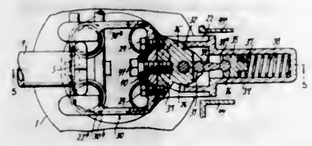
2,780,683
TONE CONTROL
Henning Everett Hanson, Highland Park, Ill.
Application July 2, 1952, Serial No. 296,811
3 Claims. (Cl. 179—171)



1. A tone control circuit comprising an electron tube having a plate, a grid, and a cathode, means connecting said cathode to ground, an input circuit connected to said grid and to ground, a source of B+ potential having a negative ground, a series connected resistor element and choke element, said choke element having a value substantially between 300 henries and 700 henries, one of said elements being connected to said plate and the other of said elements being connected substantially directly to said source of B+ potential, a series connected resistor and capacitor, said resistor having a value of less than substantially 25,000 ohms and said capacitor having a value of at least substantially .25 microfarad, one of said series connected resistor and capacitor being connected to said plate and the other of said series connected resistor and capacitor being connected to ground, a coupling condenser, means connecting one side of said coupling condenser to said plate, a second electron tube having a control grid, and means connecting the other side of said coupling condenser to said grid of said second electron tube.

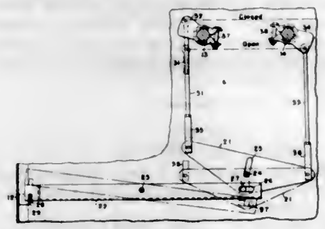
2,780,684
ELECTRICAL SWITCHES
Walter Brown and Joseph Bernatt, Guelph, Ontario, Canada, assignors to James R. Kearney Corporation, St. Louis, Mo., a corporation of Missouri
Application September 2, 1953, Serial No. 378,157
6 Claims. (Cl. 200—48)

1. An electrical switch comprising a base member, a rotatable insulator supported for axial rotation by said base member, a fixed insulator supported by said base member, a switch blade supported by said rotatable insulator for swinging movement therewith, a contact structure supported by said fixed insulator, said contact structure comprising a member, a vertical pin for supporting said member for arcuate movement in a horizontal plane, means for locking said member in different positions to which it is moved, a switch element having spaced legs which is fixed to said member and adapted to receive between said spaced legs thereof a portion of said switch



blade for making electrical connection between said switch blade and said switch element, an incoming electrical conductor leading to said switch blade, and an outgoing electrical conductor leading from said contact structure, said locking means comprising a toggle link connected at one end thereof to said member, and a plunger disposed for reciprocation in a barrel to which the opposite end of said toggle link is connected.

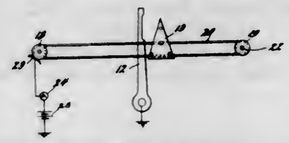
2,780,685
INTERLOCKING MECHANISM
James H. Sprow, East McKeesport, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application August 11, 1953, Serial No. 373,477
12 Claims. (Cl. 200—50)



1. In a switchgear structure, in combination, a housing having an openable door, a pair of switch operating shafts mounted in the housing and rotatable to open and closed positions, an interlocking plate having opposite ends connected to said shafts to prevent both shafts from being in the closed position at the same time, and a single interlocking bar actuated directly by said plate to prevent the door from being opened if either shaft is in the closed position, said bar being pivoted in the housing and having one end connected to the plate substantially midway between the ends which are connected to the shafts, said bar being actuated by the plate to permit the door to be opened when both shafts are in the open position.

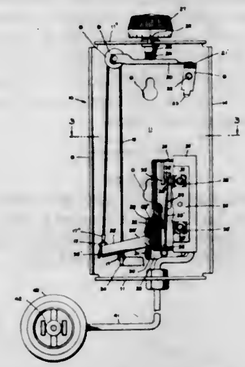
2,780,686
INDICATING DEVICE
Taylor M. Elliott, Richmond, Va.
Application August 4, 1955, Serial No. 526,523
8 Claims. (Cl. 200—56)

6. In an indicator including a pointer movable over a graduated indicator dial, the improvement for actuating an indicator alarm comprising a plurality of spaced pulleys, a cable carried by said pulleys, a selector pointer coupled to said cable and linearly movable therewith, said selector pointer overlying at least in part a portion of said dial, a linear selector scale graduating the path of movement of said selector pointer, a contact carried by said selector pointer and projecting into the path of said first pointer whereby a closed electrical circuit



for actuating said alarm may be established, and a knob coupled to said cable whereby said selector pointer may be manually positioned at a selected value at which the alarm is to be actuated.

2,780,687
HUMIDISTAT
James W. Keenan, Baltimore, Md., assignor to Bendix Aviation Corporation, Baltimore, Md., a corporation of Delaware
Application May 7, 1954, Serial No. 428,319
7 Claims. (Cl. 200—61.06)

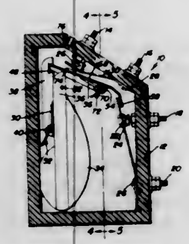


6. A humidistat comprising a casing, an adjusting screw rotatably mounted in a wall of said casing and having a free end projecting into the interior of the casing, a plurality of strands of humidity-responsive material, a spring-biased member having one end projecting free and its opposite end supported from said casing in a manner such as to resiliently urge said member against the free end of said adjusting screw, an electric switch assembly including a contact-actuating element, a switch lever having a rockable foot portion at its one end for actuating said contact-actuating element and its opposite end projecting free, said strands being connected to and extending between the free ends of said member and said lever, and means anchoring said foot portion to said casing comprising a leaf-spring member which biases said foot portion to a predetermined position.

2,780,688
GRAVITATIONAL SWITCH
Anthony Peter Stec, Kenosha, Wis., assignor to Mary Ann Stec, Kenosha, Wis.
Application June 16, 1954, Serial No. 437,133
2 Claims. (Cl. 200—61.52)

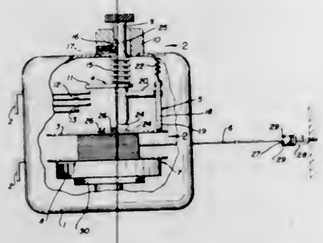
1. A gravity actuated switch comprising a housing, a pendulum pivotally mounted in said housing, a first fixed contact in said housing, a first resilient movable contact normally engaging said first fixed contact, a second fixed contact in said housing, a second resilient movable contact normally spaced from said second fixed contact, an operating lever pivotally attached to said housing, resilient means continuously urging said lever to piv-

ot, a latch pivotally attached to said housing engageable with said lever to hold said lever against pivoting, said pendulum engaging said latch to disengage said latch from said lever to allow said lever to pivot to disengage said first movable contact from said first fixed contact and engage said second movable contact with said second fixed contact, and resilient means continuously urging said latch to engage said lever, said latch being of sub-



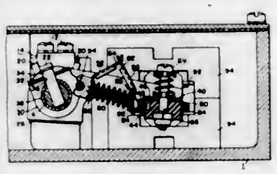
stantially channel shape and having a dovetail shaped slot therein, said lever having end portion engageable in said slot, said housing having an aperture therethrough in alignment with said lever through which a resetting tool can be inserted for engagement with said lever for resetting said lever in said slot in said latch while storing energy in said resilient means urging said lever and said resilient means urging said latch.

2,780,689
ALARM TRIPPING MECHANISM
Frank J. La Cavera, Cleveland, Ohio
Application June 11, 1954, Serial No. 436,057
11 Claims. (Cl. 200—61.93)



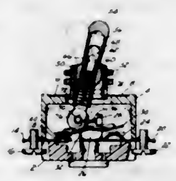
1. An alarm tripping mechanism comprising a platform member, means supporting the platform member for movement along a predetermined path, a switch operating device movable from an inoperative position to an operative position, means urging the device toward operative position, a switch operatively connected to said device operated thereby when the device is moved to its operative position, a dead center member having one end operatively connected to the device and its other end operatively connected to the platform member for movement of the dead center member by the platform member out of dead center position when the platform member is moved a predetermined distance along said path, said dead center member constraining the device from movement toward its operative position while the dead center member is in its dead center position and releasing the device for movement to its operative position when the dead center member is moved out of its dead center position, and a trip cord connected to the platform member and operable when moved endwise under tension to move the platform member along said predetermined path a predetermined distance.

2,780,690
ELECTRIC SWITCH
Martin Wibell and Ralph B. Immel, Williamsville, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application October 14, 1954, Serial No. 462,236
9 Claims. (Cl. 200—67)



1. A toggle switch comprising, a rotatably mounted shaft, means for limiting rotative movement of said shaft between given angular positions, an actuator loosely connected to said shaft to rotate therewith, a switch arm pivotally mounted on said shaft, a stationary contact, a moving contact mounted on said switch arm at a point displaced from the axis of said shaft such that engagement of said moving contact with said stationary contact occurs upon movement of said switch arm in a direction towards said stationary contact, a pair of spring holders, each having a spring seat and a laterally disposed arm, means pivotally mounting one spring holder at a point on said switch arm displaced from said actuator, with said spring seat facing said actuator, means pivotally mounting the other of said spring holders on said actuator for movement with said actuator back and forth across a centerline between the axis of said shaft and the point of pivotal mounting of said one spring holder, a compression spring mounted between said spring seats, and means pivotally connecting said laterally disposed arms adjacent their extremities.

2,780,691
ELECTRIC SWITCH
Carl A. Landin, West Hartford, Conn., assignor to The Hart Manufacturing Company, Hartford, Conn., a corporation of Connecticut
Application February 9, 1955, Serial No. 487,083
7 Claims. (Cl. 200—67)



2. In an electric switch having a housing, a contactor supported in the housing for rocking movement between a plurality of switching positions, and a lever for operating the contactor mounted on the housing for pivoting movement about an axis parallel to the axis of movement of the contactor, said lever having a longitudinal bore opening opposite said contactor, a spring guide slidable in said bore having transversely spaced longitudinal sides provided with opposed longitudinal slots, a transverse pin in said lever extending across said bore through said slots, a longitudinal coil compression spring disposed between the sides of the spring guide and engageable at one end with said transverse pin and at the other end with a portion of said spring guide for urging said spring guide outwardly of said bore, and a bearing member on the outer end of said spring guide engageable with the contactor.

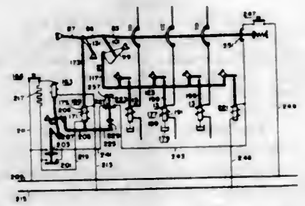
2,780,692
FLUID LEVEL RESPONSIVE SWITCH
Tomas Hinojosa, Laredo, Tex.
Application December 24, 1953, Serial No. 400,281
1 Claim. (Cl. 200—84)

A fluid level signal comprising, in combination, a filler tube open at its upper end, a dip stick insertable in said filler tube and including an elongated cylindrical housing on its lower end, a float actuated switch operable in said housing, and a closure fixed on the dip stick engageable with the open end of the filler tube for removably mounting said dip stick therein.

2,780,693
PRESSURE SWITCH
Frank McClellan, Detroit, Mich., assignor to Huron Specialty Company, Ann Arbor, Mich., a corporation of Michigan
Application August 10, 1953, Serial No. 373,186
20 Claims. (Cl. 200—86)

1. A pressure switch comprising a body of compressible resilient dielectric material, a metallic electrically conducting and compressing element extending completely through said body and having a contact portion on at least one side of said body arranged to compress and to displace the localized adjacent surface portion of said body inwardly so as to thereby position said contact portion beneath the general surface of said body, a conductor engaging the general surface of said body and normally spaced from said contact portion of said element but engageable therewith when pressure is applied to said conductor over said contact portion.

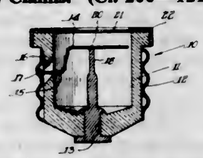
2,780,694
CIRCUIT BREAKER
John H. Taylor, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application October 30, 1953, Serial No. 389,315
8 Claims. (Cl. 200—98)



1. In a circuit breaker having relatively movable contacts and operating means therefor, a movable member

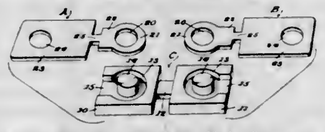
movable to effect automatic opening of said contacts, a first tripping magnet responsive to overload currents for moving said movable member, a time delay device operatively related to said tripping magnet for effecting a time delay in the operation of said movable member, a second tripping magnet operative when energized to instantaneously move said movable member, a closing magnet, a switch operated by said closing magnet for effecting energization of said second tripping magnet, a relay for effecting energization of said closing magnet, contacts operated by said relay only during a closing operation for effecting energization of said second tripping magnet, and time delay means arranged to delay energization of said second tripping magnet for a predetermined time following energization of said closing magnet.

2,780,695
ELECTRIC FUSE
Edward V. Sundt, Wilmette, Ill., assignor to Sundt Engineering Company, Des Plaines, Ill., a corporation of Illinois
Application May 18, 1953, Serial No. 355,542
14 Claims. (Cl. 200—121)



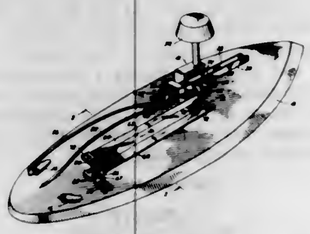
1. An electric fuse comprising a thin sheet conductor of fuse metal, a rod shaped conductor having fuse metal of lower melting point than that of the thin sheet conductor and having its end engaging one side of the thin sheet conductor at a point within the area of the thin sheet conductor, and means for connecting the conductors in series in an electric circuit so that, upon a predetermined high overload in the electric circuit which may be of short duration, or upon a predetermined low overload existing for an extended interval of time, fusion takes place promptly in the area of the thin sheet conductor about the point to provide an ever widening gap between the conductors.

2,780,696
COMPOSITE FUSE LINK
Max M. Lear, Jr., Lakewood, N. Y., assignor, by mesne assignments, to Monarch Electric Corporation, Jamestown, N. Y., a corporation of Delaware
Application October 6, 1953, Serial No. 384,502
6 Claims. (Cl. 200—135)



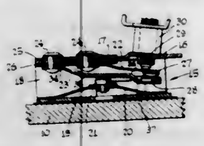
1. A composite electric fuse link for use on a fuse link holder, a first member providing a heat-conductive and heat-absorbent mass and a portion fusible upon excessive current flow, a post integral with the first member and upstanding therefrom and an upstanding part spaced from said post; and a link terminal member bearing against the first member adjacent said post by an end portion thereof having a hole receiving said post, said link terminal member having an end for conductive engagement to said link holder, and also having a portion of reduced cross section between said ends; said post being formed with an enlarged outer end engaged with the terminal member to hold the parts together, said link terminal member engaging said upstanding part and held thereby against rotation about the axis of the post.

2,780,697
THERMOSTAT WITH EXPANSION NEUTRALIZER
Edmond G. Franklin, Minneapolis, Minn., assignor to General Mills, Inc., a corporation of Delaware
Application April 22, 1954, Serial No. 424,803
5 Claims. (Cl. 200—137)



1. In a thermostatic switch for an electrically heated appliance, first, second, and third longitudinally, thermally expansible elements disposed in parallel relation with one end of the first element being fixedly connected to the adjacent end of the second element and with the opposite end of said second element being fixedly connected to the adjacent end of said third element, said opposite end of the second element being free to move relative to the other end of the first element and the other end of the third element being free to move relative to said adjacent end of the second element, and said first and third elements being capable of substantially the same amount of lengthwise expansion for a given temperature increase and said second element being capable of approximately twice the lengthwise expansion of the first or third element.

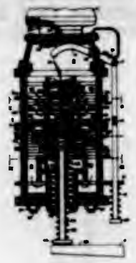
2,780,698
THERMOSTATIC SWITCH
Joseph Youhouse, Fairfield, Conn., assignor to Casco Products Corporation, Bridgeport, Conn., a corporation of Connecticut
Application September 3, 1954, Serial No. 454,140
8 Claims. (Cl. 200—137)



1. A heat-responsive electric switch comprising a base; an arm formed from flexible stock, secured to and movable with respect to the base, said arm having a contact spaced from its securement to the base and being provided with a bend between the contact and said securement, a portion of the arm being formed transversely of its length to provide a stiffened section at said bend, thereby to minimize straightening of the arm at the bend; and heat-responsive means connected with the base, engaging said arm for moving the same to operatively shift the said contact.

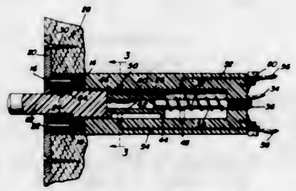
2,780,699
CIRCUIT INTERRUPTER
Winthrop M. Leeds, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 24, 1954, Serial No. 418,302
11 Claims. (Cl. 200—150)

1. A circuit interrupter including means for establishing a pressure-generating arc and a serially related interrupting arc, a multi-orifice high-current interrupting section and a multi-orifice low-current interrupting section through each of which the interrupting arc is successively



drawn, and piston means for forcing fluid into the multi-orifice low-current interrupting section.

2,780,700
SWITCH
Valton Wallace, Mesquite, Tex., assignor of fifty percent to Seymour Hootkins, Dallas, Tex.
Application June 17, 1954, Serial No. 437,314
2 Claims. (Cl. 200—160)

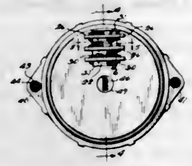


1. A switch comprising an elongated hollow housing, a pair of longitudinally spaced stationary contact members engageable from the interior of the housing, a slidable member disposed within said housing, a pair of longitudinally spaced contact members on said slidable member for movement therewith into engagement with selective stationary contact members, said movable contact members on the slidable member being spaced apart a distance less than the distance between the stationary contact members thereby assuring that the movable contact members will engage only a single stationary contact member at any longitudinal position, a guide member rigid with said housing and engaging the slidable member for guiding the movement thereof, said guide member being electrically connected to said movable contact members, spring means urging said slidable member in one longitudinal direction, a push button for moving the slidable member longitudinally in the housing, and an independent electric conductor connected to each of said stationary contact members and said guide member for selectively establishing a closed circuit between the conductor connected to the guide member and the conductors connected to the stationary contact members.

2,780,701
ELECTRICAL CONTACTS
Louis J. Patla, Elmwood Park, Ill.
Original application October 10, 1950, Serial No. 189,458, now Patent No. 2,721,911, dated October 25, 1955. Divided and this application September 29, 1955, Serial No. 537,333
16 Claims. (Cl. 200—166)

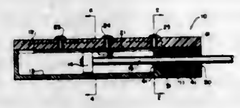
1. In a construction for mounting an electrical conductor on a conducting plate with said conductor extending through said plate and insulated therefrom, said plate having an opening therethrough and a pair of slots extending through said plate and communicating with said opening; a sheet of insulating material having a pair of

edges extending through said slots and fitting snugly therein, said plate being deformed adjacent the edges of said slots to squeeze said sheet therein and thereby to lock said sheet in a fixed position with respect to said plate,



an electrical conductor mounted on said sheet in position to extend through said opening in said plate in spaced relationship to the edge of said plate adjacent said opening.

2,780,702
LINEAR MOTION RESISTOR
Marian E. Bourns, Riverside, Calif.
Application October 22, 1953, Serial No. 387,598
2 Claims. (Cl. 201—62)

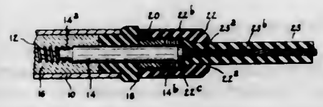


1. A linear motion variable resistor comprising a body having a resistance element mounted thereon, a shaft disposed parallel to said resistance element, a contact member mounted on said shaft and making electrical contact with said resistance element, a raceway extending parallel to said shaft adjacent one end of said resistance element, a cage encircling said shaft in the space between said raceway and said shaft, said cage being formed with an endless channel comprising two courses extending parallel to the longitudinal axis of said shaft and interconnected at their ends, and a plurality of ball bearings disposed within said channel, said balls contacting both said raceway and said shaft along one of said courses, and being returned long the other of said courses from one end to the other.

2,780,703
QUICK RESPONSE RESISTANCE TEMPERATURE DETECTOR
John R. Macintyre, South Peabody, Mass., assignor to General Electric Company, a corporation of New York
Application November 12, 1952, Serial No. 320,086
3 Claims. (Cl. 201—63)

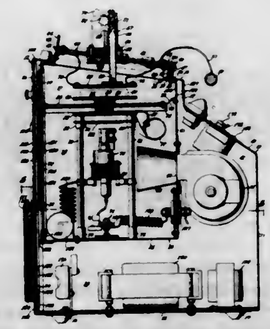
1. A temperature detector unit comprising a sealed tube of stainless steel, a resistance-type temperature detector element supported in said tube out of contact with the inner walls thereof, a powdered insulating material employed as packing about the detector element between it and the inner walls of the tube, and a silicone fluid within the tube soaking the packing material and filling the voids therein, said fluid having a boiling point higher than the temperature for which the detector unit is designed to be used.

2,780,704
WIRING TERMINAL CONNECTORS
Allan P. Charbonneau, Wauwatosa, Wis., assignor to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware
Application April 27, 1953, Serial No. 351,373
11 Claims. (Cl. 201—67)



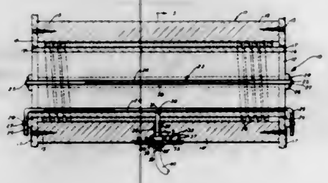
1. A hermetically sealed electrical connector comprising, in combination, an apertured member, an electrically conductive terminal member in spaced relation to said apertured member and having a tapered projection for insertion within the unskinned end of an elastic insulated electric conductor, an elastic plug member within said aperture and surrounding said terminal member intermediate the ends of the latter, and an insulating cap member adjustably mounted on said terminal member and having means integral therewith for rigidly holding the conductive portion of said conductor in electrical contact with said terminal member and for holding the inner end of said cap in hermetically sealed engagement with said elastic plug member.

2,780,705
DIELECTRIC HEATER
Alfred J. Siegmeth, Sierra Madre, Calif., assignor to Resdel Engineering Corporation, Los Angeles, Calif., a corporation of California
Application November 19, 1954, Serial No. 469,951
16 Claims. (Cl. 219—10.67)



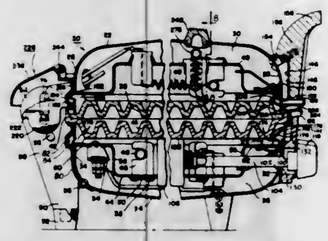
12. In an electron heater a box having side walls and a bottom, a plurality of silicone columns mounted in the box, a tube base mounted on said columns intermediate upper and lower ends, a platform on the upper ends of the columns, a sheet of silicone material on said platform, an electrode support on said platform extending through said sheet, an electrode carried on said support above the sheet and an opposite electrode carried on said box in a position spaced from the first electrode.

2,780,706
INDUCTION-HEATING APPARATUS AND IMPROVED TRACK SUPPORT THEREFOR
Emmett V. Brogan, Louisville, Ky., assignor to International Harvester Company, a corporation of New Jersey
Application November 3, 1954, Serial No. 466,478
7 Claims. (Cl. 219—10.67)



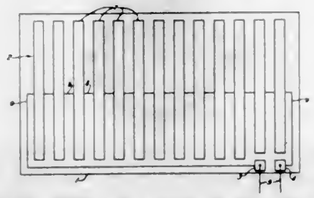
7. An induction-heating device comprising a supporting structure, a tubular electrical insulator extending horizontally and being carried on said supporting structure, an induction coil disposed about said insulator, a track extending horizontally coextensive with the inner wall of said insulator for supporting objects in transit to be heated by the coil, said track including a pair of tubular track sections, first means connecting portions of said track sections to said supporting structure to space said sections relative to the inner wall of said insulator, second means within said insulator for supporting each track section between its opposite ends, said second means including conduits extending laterally through said insulator wall and being in communication with said track sections, and means connecting said conduits to said supporting structure whereby said conduits support said track sections and said conduits are adapted to conduct cooling liquid transported within said track sections.

2,780,707
ELECTRIC COOKING APPLIANCE
Arthur V. Rand, Minneapolis, and William G. Roll, St. Paul, Minn., assignors, by mesne assignments, to Illinois McGraw Electric Co., a corporation of Illinois
Original application July 5, 1952, Serial No. 297,262. Divided and this application April 12, 1954, Serial No. 423,940
6 Claims. (Cl. 219—19)



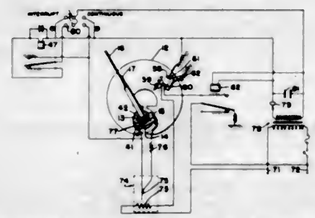
1. An electric cooking applicance having an upper casing with a signal light opening therein, a heating element supporting tray mounted in the casing and having depending insulating members underneath the tray, said tray also having an opening beneath the signal light opening of the casing, a heating element carried beneath the tray by said depending insulating members, and an insulator in said tray opening, an intermediate looped portion of said heating element extending from beneath the tray up over the insulator to a point above the tray in proximity to said signal light opening where said element is visible through said signal light opening and back down through said opening over the insulator.

2,780,708
ELECTRIC RESISTANCE HEATER
Theodore W. Glynn and Jack Samuel Storm, Jr., Kingsport, Tenn., assignors to Blue Ridge Glass Corporation, Kingsport, Tenn., a corporation of New York
Application June 23, 1953, Serial No. 363,482
1 Claim. (Cl. 219—19)



An electric resistance heater comprising an upright glass plate and a sprayed aluminum heating element of uniform width covering most of one side of the plate, the electric resistance of said element increasing greatly as its temperature is increased the heating element being in the form of a single row of laterally spaced closed narrow loops, the loops extending vertically across the plate and being connected to one another in series at points located only about halfway between the top and bottom of each loop to divide each loop into upper and lower sections, whereby the great increase in resistance in the upper section of each loop due to heat rising from the lower section of the loop diverts electric current from the upper section into the lower section and thereby materially reduces the wattage input to said upper sections in order to maintain substantially uniform temperature in the top and bottom halves of the plate.

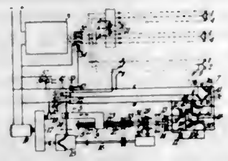
2,780,709
CONTACT METER
Bradley R. Thompson, South Euclid, and John D. Saint-Amour, Solon, Ohio, assignors to Assembly Products, Inc., Chagrin Falls, Ohio, a corporation of Ohio
Application May 13, 1953, Serial No. 354,816
3 Claims. (Cl. 219—20)



1. In an electric control system for indicating and controlling temperature, a thermocouple responsive to the temperatures to be controlled, an ammeter having a moving coil, connections between said coil and said thermocouple whereby said coil is energized and moved in response to changes in temperature in the region of the thermocouple, a source of power, an indicator secured to said moving coil, a case for said ammeter, a resilient element having one end thereof relatively fixed with respect to said case and having an opposite end, cooperating first and second contacts with the first carried by said indicator and the second mounted upon said resilient element's opposite end, a second coil movable with the first named coil, a circuit between said source of power and said second coil and including said first and second contacts whereby the meeting of said contacts will energize said second coil and apply a contact closing torque to said movable indicator, an electrical relay having a solenoid coil and having contacts interposed in the circuit to said second coil, connections between said relay coil and said source of power, said relay

including means to break said last named connections when the relay becomes energized and to establish the circuit to the second named coil, means to return the relay, means to retard the opening and closing movements of said relay, cooperating third and fourth contacts one of which is resiliently mounted on said case and arranged to be mechanically actuated into or out of engagement with the other by movement of the resilient element's opposite end upon which the second contact is mounted, and electrically controlled means for correcting predetermined temperature conditions in the region of the thermocouple with said last means connected in series through said third and fourth contacts with said source of power.

2,780,710
APPARATUS FOR REGULATING THE TEMPERATURE OF ELECTRICALLY HEATED ELEMENTS
Ernest Frederick Powell, Wylde Green, and Sidney Walter Gough, Sutton Coldfield, England, assignors to Dunlop Rubber Company Limited, London, England, a British company
Application May 3, 1952, Serial No. 285,978
19 Claims. (Cl. 219—20)

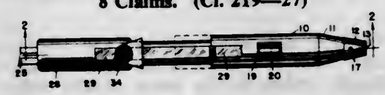


1. Apparatus for regulating the supply of energy to a heating element which comprises a bridge network having a pair of electric circuits in parallel, one circuit comprising a pair of fixed resistances in series and the other comprising a fixed resistance in series with a temperature variable resistance in temperature responsive relation to said heating element and a bridge circuit from the junction of said temperature responsive resistance and said fixed resistance to the junction of said fixed resistances in the other circuit, a timer to supply electric current to said heater at timed intervals, an electric circuit having a pair of branches in parallel, means controlled by one of said branch circuits to lengthen the period of supply of current to said heater and controlled by the other of said branch circuits to shorten the period of supply of current to said heater and a two-way relay controlled by said bridge circuit to open and close said branch circuits alternately as current passes in one direction or the opposite direction through said solenoid.

2,780,711
SWITCH FOR VACUUM TYPE COFFEE MAKER
Charles D. Visos, St. Louis, Mo., assignor to Knapp-Monarch Company, St. Louis, Mo., a corporation of Delaware
Application July 27, 1954, Serial No. 446,134
4 Claims. (Cl. 219—20)

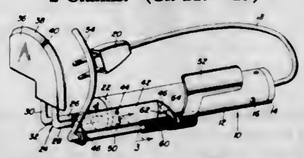
1. In a coffee maker of the vacuum type having a lower bowl and an upper bowl, the improvement comprising: a heater for the lower bowl; energizing means including a pair of relatively movable switch contacts operable when closed to energize the heater; a permanent magnet on one contact; a magnet keeper on the other contact; one of said contacts being mounted on a fixedly mounted spring leaf which is arranged so that the inherent resiliency of the spring leaf tends to bias said one of the contacts away from said other contact, said inherent resiliency of the spring leaf being incapable of overcoming the full magnet attraction; a bimetal arm; a support post affixed to the bottom of the lower bowl and supporting the bimetal in position to engage the spring leaf and to urge the spring leaf contact away from said other contact with increased temperature and to open the contacts when the temperature of the lower bowl exceeds water-boiling temperature, the effective thermal capacity of the support post and bimetal being so related to their heat conducting ability and heat losses as to cause the bimetal to continue flexing after the contacts separate.

2,780,712
SOLDERING DEVICE
John F. Thomas, Baltimore, Md.
Application February 16, 1955, Serial No. 488,591
8 Claims. (Cl. 219—27)



1. A self feeding soldering iron of the class described comprising in combination a soldering bit, a plunger heater slidably positioned in said soldering bit, means on said plunger heater for supporting same, means for heating said soldering bit, a coating of non-wetted material having a negative interfacial tension not wetted at soldering temperatures applied to predetermined portions of said soldering bit to prevent molten solder from adhering thereto, said soldering bit having a passage therethrough, and porous non-wetted material having a negative interfacial tension not wetted at solder temperatures positioned therein.

2,780,713
DOCKING IRON
Anton E. Helbling, Mandan, N. Dak.
Application February 9, 1955, Serial No. 487,148
2 Claims. (Cl. 219—29)

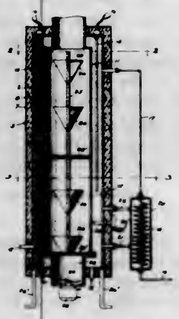


1. A docking iron comprising an elongated handle, an electric heating unit mounted at one end of said handle, said heating unit including a heating plate disposed in perpendicular relation to the handle and provided with a curved peripheral edge, and a rod having a perpendicular portion curved to conform to the contour of the edge of the heating plate, said rod being pivotally mounted alongside the elongated handle in normally spaced relation for moving the curved portion of the rod toward the edge of the heating plate for severing the tail of an animal disposed between the curved edge of the heating plate and the curved portion of the rod by burning through the tail.

2,780,714
COMBINED WATER AND AIR HEATING UNIT
Cas A. Downs, Charleston, W. Va.
Application July 27, 1954, Serial No. 446,029
3 Claims. (Cl. 219—38)

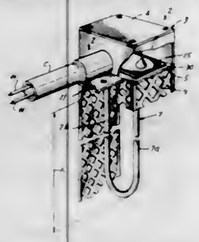
1. A heater of the class described, comprising a tank embodying an outer wall and a pipe extending longitudi-

nally through the center of said tank providing a water chamber between the pipe and said outer wall, submerged electric water heaters disposed within said water chamber heating water therein, a water inlet pipe for delivering water to said water chamber, a water coil connected with said water inlet pipe, a tank in which said water coil is mounted, pipes establishing communi-



cation between said water chamber and said tank in which said water coil is mounted, directing hot water therethrough, preheating the water in said water coil prior to its entrance to said water chamber, and means for directing a volume of air through said pipe, heating the air delivering the air into a room area, through one end of said pipe.

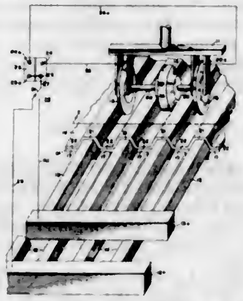
2,780,715
IMMERSION HEATER
George T. Strokes, Willoughby, Ohio, assignor to Glo-Quartz Electric Heater Co., Inc., Willoughby, Ohio
Application August 2, 1955, Serial No. 525,943
10 Claims. (Cl. 219—41)



1. An immersion heater comprising, in combination, a vapor-tight junction box having a bottom wall with an elongated opening therein, a guard depending from the periphery of said bottom wall, a U-shaped quartz tube of cylindrical cross-section extending within and spaced from said guard and having side legs with upper ends extending through and being spaced from the edge of the said bottom wall opening, resilient sealing means tightly engaging the upper ends of said tube legs and sealing said legs within the opening in said bottom wall, and tube centering means operatively connected to said bottom wall and to said tube legs for centering the lower end of said tube within said guard.

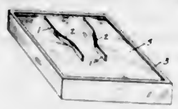
2,780,716
CORE MANUFACTURE
Michael E. Wasilisin and Donald E. Wernz, Baltimore County, Md., assignors to The Glenn L. Martin Company, Middle River, Md., a corporation of Maryland
Application September 21, 1955, Serial No. 535,638
7 Claims. (Cl. 219—83)

1. The method of making seam-welded honeycomb core comprising the steps of placing a section of corrugated metal foil on a set of spaced, substantially horizontally disposed fingers of electrically conductive material, so that the lower portions of the corrugations extend down between the fingers while the upper portions of the corrugations rest upon the fingers, placing a second set of fingers in the lower portions of said section, placing a second section of corrugated metal foil on said second set of fingers so that the lower portions of said second section are in alignment with and contacting the



upper portions of the first-mentioned section, placing an electrode in at least one lower portion of said second section of foil at a location directly above at least one of the fingers of the first-mentioned set, moving said electrode along said lower portion substantially in alignment with the longitudinal axis of the respective finger of said first-mentioned set while passing electric current between said electrode and said finger through both sections of foil whereby to seam-weld abutting portions of said first and second sections together.

2,780,717
METHOD OF WELDING
Howard E. Bernhardt, Milwaukee, and Kenneth W. Davey, Wauwatosa, Wis., assignors to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application February 26, 1954, Serial No. 412,685
6 Claims. (Cl. 219—100)

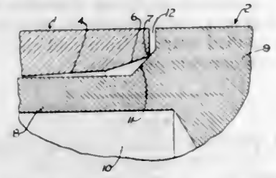


1. A method of fabricating a welded article from two metal parts having complementary edges to be welded comprising, positioning each of the parts within a separate container, introducing a low melting point metal into the container and casting the metal around the parts to form a die with the edges of the parts to be welded projecting outwardly of the surface of the die, positioning said dies to align said edges in opposed relation, applying an electrical potential to said parts while moving the dies relative to each other to bring said opposed edges into contact and weld the parts together, said dies serving to rigidly support the parts during the welding, and thereafter heating the welded article and attached dies to a temperature above the melting point of said dies and beneath the melting point of said article to melt the dies from the article.

2,780,718
SPOT WELDING TIP
Henry A. Mullen, Wauwatosa, assignor to Ampco Metal, Inc., Milwaukee, Wis., a corporation of Wisconsin
Application March 9, 1953, Serial No. 341,165
4 Claims. (Cl. 219—120)

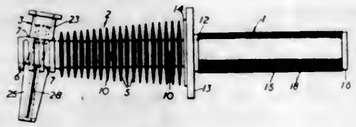
4. A spot welding tip which comprises a shank having a central cylindrical bore with an enlarged outer end providing a circular inner corner edge at the outer end

of the shank and of a larger diameter than the diameter of said bore, and a replaceable head having a stem received in water sealing and guiding wedging engagement within the outer end of said bore and having an axial recess in said stem communicating with said bore, said bore and said recess to contain a water cooling fluid adapted to conduct heat from the head during welding, said head being provided with a slanting shoulder surface completely encircling said stem and disposed to bear



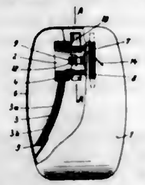
against the annular corner edge portion bordering said end of the bore in a continuous circular biting contact to transmit the welding pressures from said shank to said head and to provide a secondary seal between said shank and said head, said circular biting contact being spaced longitudinally from the wedging engagement between the stem and the bore and being of generally larger diameter than said bore to maintain the alignment of said head and shank under welding pressures exerted thereon.

2,780,719
ELECTRODE HOLDERS FOR HAND-WELDING
Bernard T. Ballington, Sheffield, England, assignor to English Steel Corporation Limited, Sheffield, England
Application November 14, 1955, Serial No. 546,641
5 Claims. (Cl. 219—138)



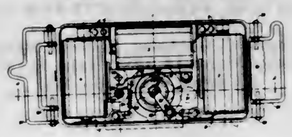
1. An electrode holder for hand-welding comprising an elongated metal carrier, a heat-insulated hand-grip in continuation of the carrier, a conducting gripper on the carrier at the end remote from the hand-grip, the carrier being formed with fins for the dissipation of heat tending to flow by conduction through the carrier between the gripper end and the hand-grip end, and a tube forming the hand grip, the tube being connected to the carrier through an insulating sleeve.

2,780,720
FLASH LAMPS
Kurt Bertrams, Hilden, Rhineland, Germany
Application April 28, 1954, Serial No. 426,190
Claims priority, application Germany January 9, 1954
6 Claims. (Cl. 240—1.3)



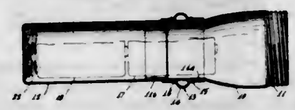
4. A flash lamp comprising a casing, a mount for a lamp bulb rotatable in said casing, a plurality of reflector sectors nested in fanlike fashion in said casing and pivoted on said bulb mount, said reflector sectors being operable into unfolded and folded positions in response to rotation of said bulb mount, locking means adapted to retain a lamp bulb in said mount for the unfolded position of said reflector sectors and an ejector spring disposed adjacent said mount and biased against said lamp bulb, operative upon rotation of said sectors by said bulb mount to folded position and release of said locking means to eject said lamp bulb automatically.

2,780,721
PORTABLE FLASH LIGHT
Alvar Lenning, Stockholm, Sweden, assignor to Svenska Lasmutter Ab, Stockholm, Sweden
Application April 8, 1954, Serial No. 421,821
1 Claim. (Cl. 240—10.65)



A portable battery operated flash light of the type having a built-in lamp and an auxiliary lamp comprising, in combination, a housing of generally rectangular cross-sectional shape, a battery cell at each end of the housing extending parallel to the shorter dimension thereof, a third battery extending in the direction parallel to the longer dimension of the rectangular housing along one wall thereof, said third cell extending between said first mentioned cells thereby arranging said cells in a U-shape, a lamp, a lamp housing, said lamp housing being rotatably mounted in a wall of said housing and comprising a sleeve-like inner extension extending into the space between the end battery cells, said sleeve-like extension housing said lamp, cam means on said sleeve-like extension, a lever mounted to engage said cam means, said lever being electrically connected to one pole of one of said end cells, said cells being connected in series arrangement, a stationary contact located adjacent an end of said lever, a second stationary contact located adjacent said first stationary contact, said two contacts forming a receptacle for a plug connection for the auxiliary lamp, said second contact being permanently connected to the other pole of said series arranged cells, a metallic member mounting said lamp in said sleeve-like extension, a spring contact member holding said lamp and metallic member axially in position in said sleeve-like extension, said spring contact being connected to the second pole of said series arranged battery cells, and an extension on said metallic member, said extension cooperating with said contact lever whereby by rotation of said lamp housing either the built-in lamp or the auxiliary lamp may be energized at will or both may be deenergized.

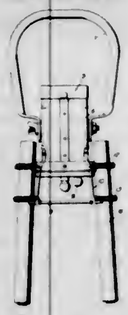
2,780,722
FLASHLIGHT CASING
Reuben B. Lambert, New Haven, Conn.
Application January 7, 1953, Serial No. 329,968
1 Claim. (Cl. 240—10.56)



In a multi-section flashlight, a cylindrical metallic rear cup-shaped casing, an enlarged forward bulb and reflector holding illuminating head having a threaded front end for detachably receiving a crystal holding ring, and an integral intermediate cylindrical section of the same diameter as said casing, and having its outer surface flush with the outer surface of said casing, the rear end of

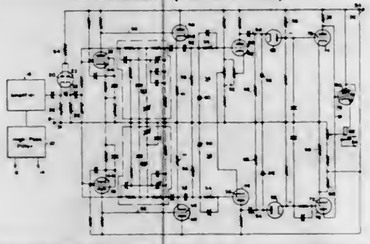
said intermediate section being reduced in diameter and slightly tapered to telescopically fit within and permanently attached to said cup-shaped casing, and a switch ring having a central outwardly extending manipulating annular rib slidably fitted over said casing and the intermediate section of said head, said switch ring serving to cover and conceal the forward end of said casing and the shoulder between the intermediate and reduced sections of said head at all positions of said switch ring, whereby said multi-section flashlight will give the appearance of a more expensive single piece flashlight.

2,780,723
FUSE CARRYING ATTACHMENT FOR TRAINMEN LANTERNS
Gordon J. Goehring, Willmar, Minn.
Application March 14, 1955, Serial No. 494,059
5 Claims. (Cl. 246—488)



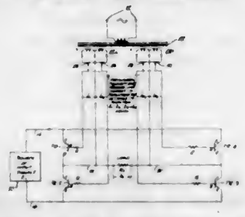
1. In combination, an electric lantern including an upper annular member and a lower annular member, said members having vertically aligned notches in the periphery thereof and in which an elongated object is adapted for carrying in a vertical position, and a resilient elongated member attached to the lantern in a circumferential position outwardly of the object to clamp the same in said notches.

2,780,724
FREQUENCY SELECTIVE APPARATUS
Walter A. Fickett, Severn, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application January 14, 1955, Serial No. 481,817
2 Claims. (Cl. 250—27)



1. Frequency selective apparatus comprising a high-pass filter designed to effectively attenuate signals below a predetermined frequency, a device for converting signals passing through said filter to square-wave form, a pair of channels into which the output of said device is fed, each of said channels including first, second and third electron discharge tubes, a control grid and a cathode for each of said tubes, a parallel-T band rejection network connecting the cathode of said second tube with the control grid of said first tube, said network being adapted to attenuate signals of a particular input frequency, a device for applying the signals appearing at the cathode of said second tube to the control grid of said third tube, said device including means for doubling the positive amplitude of signals from said second tube, means for biasing said third tube to cut off attenuated signals which pass through said first and second discharge tubes and are not of the said particular input frequency, means in each of said channels for rectifying the output of said third tube, an electron valve having a control element therein, a utilization device operable in response to current flow through said electron valve, and means for applying the rectified outputs from said channels to said control grid with opposite polarities.

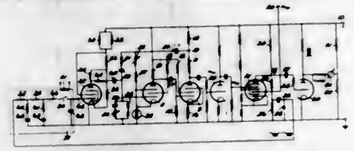
2,780,725
MODULATOR-DEMODULATOR LIMITER TRANSISTOR CIRCUITS
Norman L. Johanson, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application November 21, 1955, Serial No. 547,928
7 Claims. (Cl. 250—31)



1. Translation circuit apparatus comprising, in combination, a pair of input conductors subject to application of input signals thereto, a pair of output conductors for supplying output voltage to a load connected thereto, first, second, third and fourth transistor devices having emitter and collector elements forming a controlled discharge path through each such device, the controlled discharge paths of the first and second transistor devices being serially connected with relatively opposite polarity across said input conductors, and the controlled discharge paths of the third and fourth transistor devices being similarly connected across said input conductors, said output conductors being respectively connected to the junctions between the first and second transistor devices and between the third and fourth transistor devices, each of said transistor devices having a base element forming with one of the other elements thereof a control path through the device, increase or decrease of current through such control path producing an increase or decrease of conductivity of the controlled discharge path thereof, a first pair of control voltage sources providing alternating control voltages of similar form and amplitude, a second pair of control voltage sources providing alternating control voltages of similar form and amplitude, means connecting the first pair of control voltage sources respectively to the control paths of the first and second transistor devices with relatively opposite polarity, and means similarly connecting the second pair of control voltage sources respectively to the control paths of the third and fourth transistor devices.

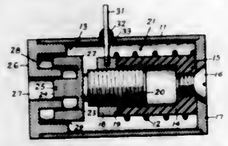
2,780,726
AUTOMATIC-FREQUENCY-CORRECTION DEVICE
Jean Van Bladel, Brussels, Belgium, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application March 10, 1953, Serial No. 341,549
Claims priority, application Belgium March 18, 1952
3 Claims. (Cl. 250—36)

1. A circuit arrangement for automatic correction of the output voltage of an oscillator comprising a discriminator circuit adapted to provide a control voltage for controlling the output voltage of said oscillator, means for supplying said oscillator output voltage to said discriminator circuit, means for supplying a control oscillation to said discriminator circuit, a smoothing filter having an output capacitor, an interrupter interposed between said discriminator circuit and said output capacitor adapted to be opened at given intervals of time in order to maintain a momentary oscillatory frequency at the output of said oscillator irrespective of the variations of the control voltage provided by said discriminator



circuit, means coupled to said oscillator for controlling the frequency thereof, an electron discharge device having an anode, a cathode and a control grid interposed between said smoothing filter and said frequency controlling means, said electron discharge device having a maximum negative grid current of 10^{-10} amperes, said output capacitor being connected to said control grid, and an anode-cathode discharge path for said discharge device comprising a variable resistor varying in accordance with the magnitude of said control voltage, said variable resistor being connected in parallel with said frequency controlling means.

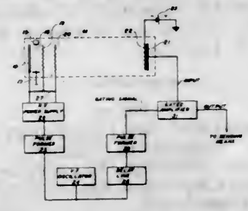
2,780,727
RESONANT CIRCUIT
John F. Dreyer, Jr., Northport, N. Y., assignor to Telephonics Corporation, Huntington, N. Y., a corporation of New York
Application March 26, 1952, Serial [illegible]78,729
2 Claims. (Cl. 250—40)



1. A resonant circuit comprising an electrically shielding housing providing a chamber, a cylindrical member supported from one end of said housing to extend axially into the chamber in cantilever fashion and including an inductive element, a metallic tuning member in the chamber having screw threads engaging with said cylindrical member to be supported thereby in axial alignment therewith, a cylindrical capacitor rotor integral with said tuning member, a tubular capacitor stator forming a portion of said housing at the opposite end from that which supports the cylindrical member, an insulating sleeve lining the inner surface of the tubular capacitor stator, said sleeve having an inner cylindrical surface within which said cylindrical capacitor rotor is slidably and rotatably received, and means for turning said tuning member and capacitor rotor to change the inductance of said inductive element and the capacitance of said capacitor by shifting them axially relative to said cylindrical member.

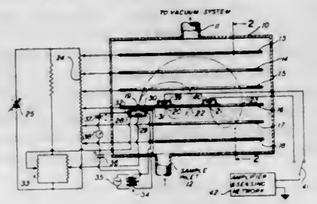
2,780,728
MASS SPECTROMETRY
Robert V. Langmuir, Altadena, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application February 8, 1954, Serial No. 408,879
3 Claims. (Cl. 250—41.9)

1. In a mass spectrometer the combination comprising an evacuable envelope, an ion source, a collector electrode disposed in the envelope and spaced from the ion source, means associated with the ion source for propelling ions from the source toward the collector electrode in mass pulses, means operatively associated with the



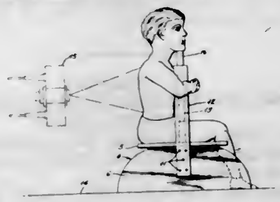
collector electrode to sense ion masses discharged at the collector electrode, and an electrostatic shield disposed adjacent the face of the collector electrode at a distance therefrom not in excess of the approximate spacing of adjacent ion masses in the region of the shield.

2,780,729
MASS SPECTROMETRY
Charles F. Robinson, Pasadena, Robert V. Langmuir, Altadena, Wilson M. Brubaker, Arcadia, and George D. Perkins, Duarte, Calif., assignors, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application May 24, 1954, Serial No. 431,763
14 Claims. (Cl. 250—41.9)



1. In a cycloidal mass spectrometer, the combination comprising an envelope, an ion source, means producing an electrical field across a space in the envelope exclusive of the ion source, means producing a magnetic field across said space normal to the electrical field, means for propelling ions from the source into the space, first collector means disposed in the space at a first given distance from the ion source, second collector means disposed in the space at a second given distance from the ion source, and means operable to selectively sense the output of the two collectors.

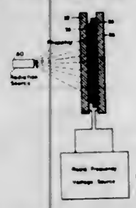
2,780,730
IMMOBILIZER FOR CHILDREN BEING X-RAYED
Isaac P. Frohman, Washington, D. C., and Nicholas V. Festa, Landover Hills, Md., assignors to F and F Kiddie Cassette Chair Company, Washington, D. C., a corporation of the District of Columbia
Application November 25, 1955, Serial No. 548,856
5 Claims. (Cl. 250—50)



1. A device for the positioning and voluntary self-immobilization of children to be X-rayed, comprising a

seat supported in an elevated position and adapted to have a child positioned thereon, and cassette supporting members rigidly mounted on the opposite side portions of said seat and extending upwardly therefrom at locations for supporting a cassette in a substantially vertical position across the legs and in front of the chest of a child seated on said seat.

2,780,731
CONTROLLING THE LUMINOSITY OF A PHOSPHOR SCREEN
Theadore Miller, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application August 24, 1951, Serial No. 243,487
10 Claims. (Cl. 250—71)



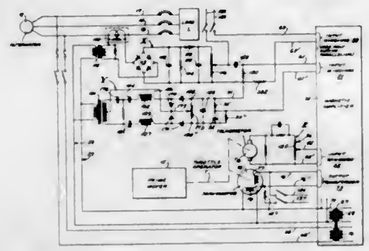
2. In combination with means for producing an electron beam, a screen on which said beam is incident comprising a layer of conductive material transparent to said beam, a layer comprising a plurality of sulphide phosphor materials luminescing in different colors, the respective luminescences of said materials differing from each other when radio frequency electric fields of different frequencies are impressed across said layer, and means for simultaneously subjecting said phosphor layer to a radio frequency potential field between said layer of conductive material and a second conductive layer.

2,780,732
REPRODUCING PROCESS
Harry Ernest Wheeler, Naomi Lavo Wheeler, and Caroline Wogan Durieux, Baton Rouge, La., assignors to Board of Supervisors of Louisiana State University and Agricultural and Mechanical College, Baton Rouge, La.
No Drawing. Application March 2, 1954, Serial No. 413,716
6 Claims. (Cl. 250—106)

1. A reproducing process which comprises preparing an original work on a supporting surface employing as the medium of artistic expression a composition containing at least one pigment imparting a desired visible color tone to said composition and containing at least one radioactive material from the group consisting of polonium and beta emitters which emit beta rays having an energy not exceeding about 0.3 million electron volts to create on said surface a desired visible artistic effect including gradations of tone, exposing said original to a sensitized surface to produce an image of the original on said sensitized surface, and fixing the resultant image to obtain an accurate reproduction of said original including said gradations of tone.

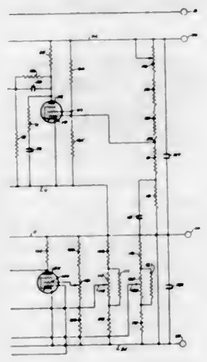
2,780,733
METHOD AND APPARATUS FOR CONTROLLING ALTERNATORS
Herman J. Chyba, Parkville, Md., assignor to Aeronca Manufacturing Corporation, Middletown, Ohio, a corporation of Ohio
Application March 25, 1955, Serial No. 496,856
12 Claims. (Cl. 290—4)

11. The method of maintaining the frequency of an alternator at a substantially constant predetermined frequency which comprises driving said alternator by a prime mover having a movable control throttle, producing a voltage which is proportional to the rate of change of the inphase component of load current supplied by said alternator, producing a voltage which is proportional both to the difference between the operating frequency



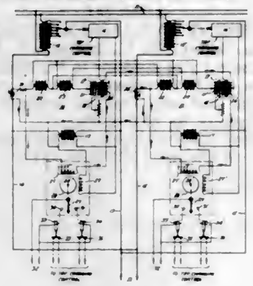
of the alternator and the predetermined alternator frequency and to the rate of change of said difference, combining said voltages to produce a resultant voltage, converting said resultant voltage into a force proportional to said resultant voltage, and applying said force to said prime mover throttle to control said throttle.

2,780,734
VOLTAGE REGULATING SYSTEM
Edward H. Gamble, Lancaster, Ohio, assignor to Curtiss-Wright Corporation, a corporation of Delaware
Application March 6, 1953, Serial No. 340,781
6 Claims. (Cl. 307—34)



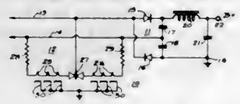
1. In a voltage regulating system, an output line and a ground line, voltage dividing means connected between said output line and ground, a vacuum tube having characteristics such that a constant voltage is maintained across plate and cathode terminals with varying current through the tube, circuit means including a resistor connecting one of said terminals to one line, the other terminal being connected to the other line, said tube having a grid connected to said voltage dividing means, a twin triode connected at a grid thereof to said circuit means with the plates cathode and other grid connected between the output line and ground, a series regulator operatively connected to said twin triode, and a direct voltage source with said series regulator connected between the voltage source and one of said lines to compensate for said variations and thereby maintain a substantially constant voltage in said output line.

2,780,735
AUTOMATIC PARALLEL OPERATION OF TRANSFORMERS
Salvatore Migneci, Pittsfield, Mass., assignor to General Electric Company, a corporation of New York
Application January 21, 1955, Serial No. 483,247
15 Claims. (Cl. 307—83)



3. In a system for parallel operation of voltage regulating transformers, a plurality of said transformers having their load circuits connected in parallel, means for varying the output voltage of said transformers and directional current means controlled by circulating current in said system, said directional current means having contacts operative to prevent said voltage varying means from increasing the load voltage of any of said transformers only when circulating current greater than a predetermined maximum value flows in said transformer and lags said load voltage, and to prevent said voltage varying means from decreasing said load voltage only when circulating current greater than said predetermined maximum value flows in said transformer and leads said load voltage.

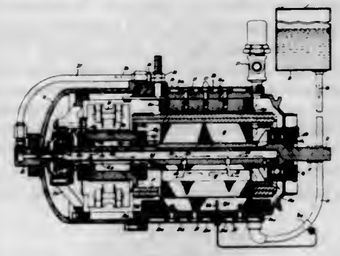
2,780,736
POWER SUPPLY
George C. Chernish, Niagara Falls, Ontario, Canada, assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application May 3, 1955, Serial No. 505,804
7 Claims. (Cl. 307—150)



1. In a power supply of the type adapted to derive from an A. C. voltage both a high direct B+ voltage and current for the heaters of a plurality of discharge devices, the combination of a resistor having first and second points thereon, a rectifier having first and second points thereon separated by a unidirectional impedance element so poled as to conduct current from said first to said second point thereon, a plurality of said heaters connected between said first point on said resistor and said first point on said rectifier, and means adapted to provide an A. C. voltage between said second point on said rectifier and said second point on said resistor.

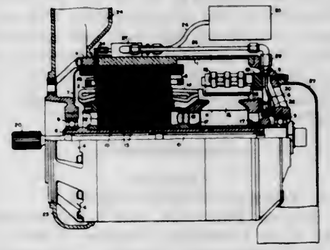
2,780,737
VAPOR COOLED GENERATOR
Albert H. Labastie, Medford, and John W. Poole, East Lynn, Mass., assignors to General Electric Company, a corporation of New York
Application March 21, 1955, Serial No. 495,642
6 Claims. (Cl. 310—54)

1. A dynameelectric machine comprising a stator member providing shaft supporting bearings, a rotor member having a hollow shaft provided with openings through the wall thereof mounted for rotation on said bearings, said stator member providing a cooling chamber, said rotor member providing an enlarged vaporization chamber in communication with said hollow shaft through said openings, tube means connected to said stator cooling chamber for delivering a liquid thereto to cool said stator,



means connecting said stator cooling chamber to said hollow shaft for delivery of the liquid thereto for causing the liquid upon rotation of the shaft to form a film covering the inner wall of said hollow shaft to cool the bearings by conduction and to meter the liquid through said openings into said vaporization chamber to cause the liquid to be vaporized by contacting the walls of said vaporization chamber to cool the rotor.

2,780,738
VAPORIZATION COOLED DYNAMOELECTRIC MACHINE
Harry D. Else, Lima, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application November 25, 1953, Serial No. 394,254
7 Claims. (Cl. 310—54)

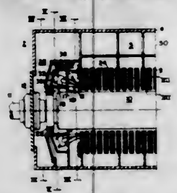


1. A dynamoelectric machine having a stator member and a rotor member, said rotor member including an armature member having ventilating passages therethrough and a commutator, said commutator comprising a plurality of commutator bars disposed in a cylinder and clamping means at the ends of the bars to clamp them in assembled relation, said clamping means having axial openings therethrough, means for directing a stream of vaporizable liquid into the interior of the commutator, and means for causing excess liquid to be discharged through the openings at the end of the commutator adjacent the armature member and through said ventilating passages in the armature member.

2,780,739
CONDUCTOR-VENTILATED TURBINE-GENERATORS
René A. Baudry, Pittsburgh, and Paul R. Heller, Irwin, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application September 28, 1951, Serial No. 248,852
16 Claims. (Cl. 310—55)

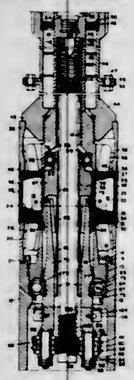
1. A dynamo-electric machine having stator and rotor members, the stator member comprising an annular

stator-core having axially extending conductor-receiving slots therein; a stator-winding having one or more straight coil-side portions lying in each of said conductor-receiving slots, and end-winding portions joining the straight coil-side portions at the respective ends of the machine, said stator-winding having a voltage-rating of at least 5,000 volts; each of a plurality of at least said straight coil-side portions including a plurality of relatively lightly insulated conductor-strands, said stranded winding-portions having duct-means for providing one or more cooling-ducts in good thermal contact with the conductor strands, and a major-insulation sheathing-means disposed around said stranded winding-portions; means for providing an electrically insulating fluid and a recirculating path wherein said fluid flows in generally longitudinal directions within said ducts; and heat-exchanging means included in said recirculating path for cooling said fluid;



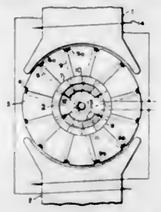
characterized by said recirculating means including fluid-moving means for providing a zone of pressure-differential fluid at each end of the machine; means including approximately radially disposed insulating baffle-ring means, at each end, for providing a zone of intermediate-pressure fluid separated from said pressure-differential fluid at that end, insulating baffle-cap creepage-distance means, at each end, for putting the duct-means of some of the stator-winding coil-side portions into communication with said pressure-differential zone at that end, and for putting the duct-means of the rest of the stator-winding coil-side portions into communication with said intermediate-pressure zone at that end; and heat-exchanger baffling-means for providing a fluid-communication between said intermediate-pressure zone, at each end, at least a portion of the heat-exchanging means, and the other side of said fluid-moving means.

2,780,740
LINEAR MOTION DEVICE
Walter G. Roman, Pittsburgh, and Robert C. Robinson, Upper St. Clair Township, Allegheny County, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 25, 1955, Serial No. 496,688
22 Claims. (Cl. 310—67)



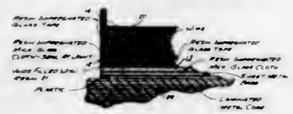
1. A linear motion device comprising an electric motor having a stator and rotor, a lead screw, means driven by said electric motor for driving said lead screw, said drive means being movable into and out of engagement with said lead screw and additional means responsive to the magnetic flux of said stator for engaging said drive means.

2,780,741
DIRECT CURRENT DYNAMOELECTRIC MACHINE
Clarence Lynn, Buffalo, N. Y., and John V. Dobson, Pittsburgh, Pa.; said Lynn assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania, and said Dobson assignor to Stackpole Carbon Company, St. Marys, Pa.
Application April 19, 1954, Serial No. 423,987
6 Claims. (Cl. 310—177)



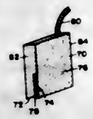
1. A direct current dynamoelectric machine comprising relatively rotatable field and armature members, said field member having pole members thereon providing a magnetic field, said armature member having a plurality of independent coils and a commutator, said commutator having a plurality of parallel, axially extending bars disposed side by side in a cylindrical assembly, each of said coils having its ends individually connected to commutator bars lying substantially 180 electrical degrees apart, and brushes engaging the commutator, each of said brushes being of sufficient angular extent to make simultaneous contact, at any instant, with all the commutator bars which are connected to ends of coils lying under one of said pole members in a substantially uniform portion of the magnetic field.

2,780,742
COIL STRUCTURE
William C. Jenner, Robert S. Wick, and Charles R. Newpher, Cleveland, Ohio, assignors to The Reliance Electric and Engineering Company, a corporation of Ohio
Application October 24, 1952, Serial No. 316,648
6 Claims. (Cl. 310—179)



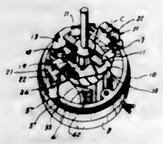
2. A coil structure comprising, a sleeve, an insulating bobbin on said sleeve, said bobbin including a sleeve portion and first and second bobbin ends, said sleeve portion including first and second insulating layers, said first insulating layer covering said sleeve, said first insulating layer being a strip of cloth woven from inorganic fibers and impregnated with a thermosetting plastic, said first insulating layer also including a substantially continuous layer of mica flakes, said strip of cloth having a width approximately equal to the length of said bobbin between the ends thereof, said second insulating layer covering said first insulating layer and being a plurality of laps of tape woven from inorganic fiber and impregnated with a thermosetting plastic, said bobbin ends having the surfaces thereof facing each other comprised of a thermosetting plastic, a coil of a plurality of layers of wire on said bobbin and having between the interstices thereof a thermosetting plastic, a third insulating layer similar to said second insulating layer and covering said coil between said bobbin ends, a second coil of relatively heavy wire on said third insulating layer, and a fibrous inorganic filler mixed with a thermosetting plastic covering said second coil, said insulating layers, bobbin ends, coils and sleeve being cured into a solid mass with a substantially complete lack of dead air spaces in said mass to establish relatively good heat transfer to the exterior surface from the interior of said coils.

2,780,743
ELECTRICAL BRUSH AND DYNAMOELECTRIC APPARATUS EMBODYING THE SAME
Howard M. Elsey, Oakmont, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 9, 1955, Serial No. 514,319
12 Claims. (Cl. 310—228)



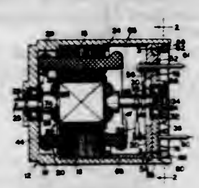
1. An electrical contact brush for operating in sliding contact with a conducting surface, comprising a body of carbon and admixed therein an amount of from 0.5% to 50% of the weight of the body of at least one metal compound serving to prolong the life of the brush under conditions of low water vapor and oxygen pressure, and a thin layer disposed at and across the full width of that face of the brush substantially at right angles to the direction of relative sliding movement of the brush to the conducting surface, the thin layer being substantially uniform from edge to edge of the brush, the thin layer being of a thickness not exceeding 0.08 inch per inch thickness of the brush between the leading side and trailing side of the brush, the thin layer extending a substantial distance upwardly from the contact surface of the brush in contact with the sliding surface, the thin layer comprising a binder and at least 25% of the weight of the layer of at least of molybdenum disulfide.

2,780,744
MOTOR BRUSH MOUNTINGS
Robert C. Carneck, Elyria, Ohio, assignor to The General Industries Company, Elyria, Ohio, a corporation of Ohio
Application April 11, 1955, Serial No. 500,491
7 Claims. (Cl. 310—239)



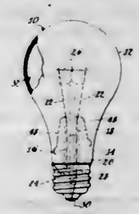
1. In combination, a motor casing formed of two cup-shaped casing parts, said parts extending respectively from opposite ends of the casing, a stator mounted within said casing with a gap between said stator and said casing, an armature rotatably mounted within said stator having a commutator extending outwardly axially beyond said stator, said commutator being at the top end of a vertically disposed motor shaft, a pair of brush carrier supports of generally inverted J-shaped form, each said support having a bar portion with bifurcated opposite ends, said bar portion being disposed at the loop end of the said J-shaped support, a stem portion integrally joined thereto and spaced therefrom by an arcuate neck portion integrally formed therewith, said stem being wedgingly disposed within the said gap between the motor casing and the stator, said stem provided with means adapted to butt against the lowermost casing part, and said support having additional means adapted to buttingly engage the uppermost casing part.

2,780,745
ROTATABLE INDUCTIVE ELECTRO-MECHANICAL APPARATUS
Sidaire Priftis, Ridgefield, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application July 1, 1955, Serial No. 519,400
5 Claims. (Cl. 310—258)



1. A rotatable transformer device comprising a housing, a stator fixed with respect to said housing and including at least one stator winding within said housing, a rotor including at least one rotor winding, a rotatable shaft for rotatably supporting said rotor within said housing with said rotor winding in inductive coupling relation with said stator winding, said housing being open at one end and having at its other end a wall portion with a first bearing unit therein for supporting one end portion of said shaft, an end plate at said open end of the housing with a second bearing unit for supporting the other end portion of said shaft, a retaining ring threaded on said housing at the open end thereof adjacent said end plate so that angular movement of said ring produces axial movement of said ring and said end plate to adjust the end play of said shaft, said housing having a slot extending in an axial direction away from said open end of the housing, said ring having a series of slots spaced along the circumference thereof, and a removable locking member having a relatively rigid portion which is located partially in said slot in the housing and which extends into an adjacent one of said slots in said ring to prevent movement of said ring from its adjusted angular and axial position.

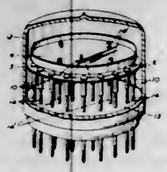
2,780,746
INCANDESCENT-ELECTROLUMINESCENT LAMP
Edward G. F. Arnott, Upper Montclair, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application October 1, 1953, Serial No. 383,662
10 Claims. (Cl. 313—109)



1. An incandescent-electroluminescent lamp comprising, an electroluminescent lamp fabricated on the envelope of an incandescent lamp having a refractory metal filament adapted to be energized to incandescence and to produce infrared radiation, said electroluminescent lamp comprising a first light-transmitting electrically conductive layer coated on and adhering to said incandescent

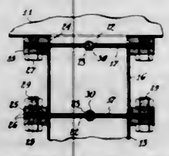
lamp envelope, a field-responsive phosphor and a light-transmitting dielectric capable of withstanding temperatures of about 200° C. coated over and adhering to said first electrically conductive layer, said phosphor characterized by having an electroluminescent brightness which increases as it is heated, a second light-transmitting electrically conductive layer coated over and adhering to said phosphor-dielectric, and said electroluminescent lamp being in receptive proximity to said refractory metal filament to receive infrared radiation from said filament when said filament is energized.

2,780,747
ELECTRICAL DISCHARGE DEVICES
Thomas Melrion Jackson, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application April 7, 1954, Serial No. 421,501
Claims priority, application Great Britain May 19, 1953
10 Claims. (Cl. 313—188)



1. In a cold cathode electric glow discharge tube, a cathode having a head portion, a support wire on which said head portion is mounted and a slender tail portion projecting from and extending in substantially the same plane as the head portion, a plane cathode-supporting member and means for mounting the head portion above said supporting member by a distance substantially equal to the length of the cathode dark space.

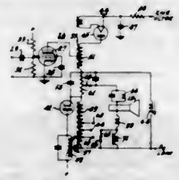
2,780,748
AUTOMATIC RADAR SWITCH
Neal T. Williams, Bloomfield, and Gerhard Lewin, Maplewood, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application February 27, 1951, Serial No. 213,014
3 Claims. (Cl. 313—201)



1. A device for use in an automatic radar switch, comprising an electrodeless sealed tube of dielectric material in its entirety, said tube being hollow and having an interior wall-area, and a pervious immobile filler in said tube extending throughout said hollow tube and in contact with said tube throughout all of said interior wall area, said filler being shreds of dielectric material low in mass and providing a total of surface area in excess of said wall area and having interstices between the shreds providing devious-course passageways through the tube in all diametric directions, said interstices having an ionizable gas therein.

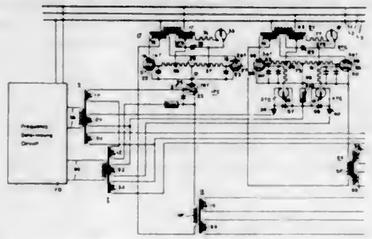
2,780,749
RASTER CENTERING CONTROL
Leonard Dietch, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application February 9, 1955, Serial No. 487,099
10 Claims. (Cl. 315—27)

1. In a television deflection system having a deflection winding connected to a winding of an output transformer, a raster centering control circuit comprising a potential dividing resistor having two terminals and an adjustable contact, an inductive choke connected between one terminal of said resistor and the connection between said output transformer winding and one terminal of said deflection winding, the other terminals of said resistor being



connected to a second winding on said output transformer, the adjustable contact of said resistor being connected to the other terminal of said deflection winding, said potentiometer being operative to vary the direct current flow in said deflection yoke winding without affecting the flow of alternating current in said deflection winding.

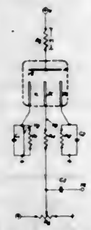
2,780,750
HEAT CONTROL FOR FREQUENCY CONVERTER CONTROL
John R. Parsons, Kenmore, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application January 26, 1951, Serial No. 208,071
16 Claims. (Cl. 315—144)



1. In combination a first winding having an intermediate tap, a second winding having an intermediate tap; a pair of discharge paths each defined by an anode and a cathode and having a first control electrode and a second control electrode; connections between said anodes of said paths and the terminals of said first winding, respectively; a connection between the cathodes of said paths and said intermediate tap of said first winding; a phase-shift network connected across the terminals of said second winding; a connection between the first control electrode of one path and an intermediate electrical point on said network; a connection between said intermediate tap of said second winding and the first control electrode of said other path; and time-constant networks connected between said second control electrode and said cathode of each said path.

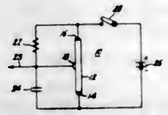
2,780,751
GAS DISCHARGE TUBES AND CIRCUIT ARRANGEMENTS THEREFOR
Desmond Sydney Ridler, London, England
Application January 10, 1956, Serial No. 558,297
Claims priority, application Great Britain June 11, 1948
25 Claims. (Cl. 315—169)

1. A gas tube circuit comprising a gas tube having anode electrode means and cathode electrode means, one of said means being divided into a plurality of elements, each element forming with the other of said electrode means a discharge gap with successive gaps being arranged adjacent each other to provide ionisation coupling therebetween, a first and second of said gaps, serving as working gaps, being separated by a single transfer gap, each of said gaps requiring a given striking voltage to initiate a discharge in the presence of ionisation thereat, and a given maintaining potential to maintain the discharge, a source of potential coupled to said working gaps of a voltage at least equal to said striking voltage, a common resistor in series with all of said gaps, means for applying a striking voltage pulse to said transfer gap of sufficient value to fire it in the presence of ionisation thereat produced by the discharge of said first working gap, said common resistor having a value such that the firing of said transfer gap so increases the potential drop across



said common resistor as to lower the potential across the first working gap below the maintaining potential and to extinguish it, the potential drop across said common resistor falling after the termination of said pulse to raise the potential across the working gaps to the striking voltage, the second working gap firing due to the ionisation coupling between it and the transfer gap, the discharge of said transfer gap extinguishing after the termination of said pulse, and means for maintaining the potential across the first working gap below the striking voltage until sufficient deionisation has occurred at said first working gap to prevent firing thereof upon restoration of the potential at said first working gap to said striking voltage.

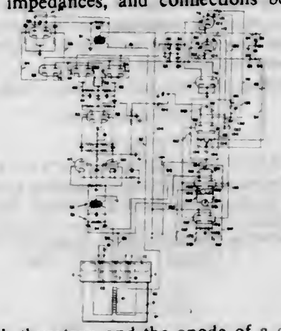
2,780,752
SEMI-CONDUCTOR NETWORK
Richard W. Aidrich, Liverpool, and Johannes S. Schaffner and Jerome J. Suran, Syracuse, N. Y., assignors to General Electric Company, a corporation of New York
Application June 16, 1954, Serial No. 437,034
10 Claims. (Cl. 315—240)



1. In combination, a semi-conducting body provided with spaced predominantly bilaterally conducting electrodes and a junction electrode having unilateral conducting properties associated with said body in a region influenced by potential applied between said bilaterally conducting electrodes, means for applying an electric potential between said bilaterally conducting electrodes, a capacitor connected between said junction electrode and one of said bilaterally conducting electrodes, and an impedance connected between the other of said bilaterally conducting electrodes and said junction electrode.

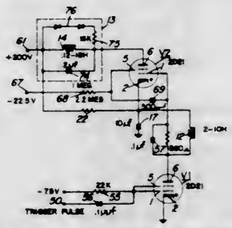
2,780,753
ELEVATION METER
Fred M. Mayes, Newtown Square, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Original application October 18, 1951, Serial No. 251,970. Divided and this application March 16, 1953, Serial No. 342,459
8 Claims. (Cl. 315—252)

1. In combination, a pair of thyratrons each having anode, cathode and control grid elements, a pair of vacuum tubes each having anode, cathode and control grid elements and arranged in a bistable multivibrator circuit, each of said vacuum tubes having both anode and cathode load impedances, and connections between the

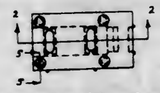


anode of each thyratron and the anode of a corresponding vacuum tube, between the cathode of each thyratron and the cathode of the same vacuum tube, and between the anode of each thyratron and the control grid of the other vacuum tube.

2,780,754
ELECTRONICALLY CONTROLLED ELECTRO-MAGNETIC STEPPING APPARATUS
Ernest Lovell, Pedricktown, N. J., assignor to Burroughs Corporation, a corporation of Michigan
Application February 18, 1953, Serial No. 337,551
11 Claims. (Cl. 317—136)

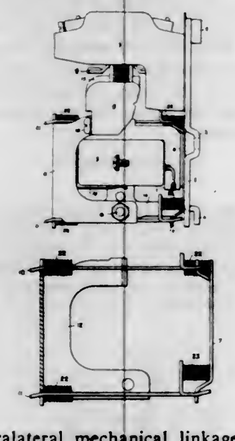


1. A high speed relay actuated stepping system comprising, a shaft adapted to be rotated about its axis successively into a plurality of stable positions, advancing means including an escapement mechanism coupled to drive said shaft, a pair of relay devices, reciprocable linkage operatively engaging the clapper of each relay and being adapted to be successively rocked in alternate directions to drive said escapement mechanism, a first of said relays adapted to cock said escapement mechanism prior to advancing said shaft, the second of said relays coupled to the first relay and being adapted thereby to advance said shaft in response to actuation of the first relay, an electronic means supplying successive electrical pulses first to one and then to the other of said relay devices to thereby initiate alternate operation of the relay devices.

2,780,755
SOLENOID DESIGN
Walter D. Ludwig, Royal Oak, Mich.
Application July 29, 1953, Serial No. 371,135
10 Claims. (Cl. 317—191)

1. In combination a solenoid embodying a frame having recesses formed in its outer sides; a supporting bracket

embracing said sides and having openings formed therein registering with said recesses; a flexible pad positioned in said recesses and having a portion projecting through said openings; spacing sleeves extending from one of said sides to the other for retaining the embracing portions of said bracket spaced apart sufficiently to clear the frame and prevent a compression of said pads; and mounting bolts extending through said bracket and said sleeves.

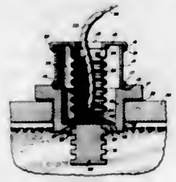
2,780,756
ELECTROMAGNETIC ACTUATOR
Owen L. Taylor, Easton, Conn., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 6, 1953, Serial No. 340,859
7 Claims. (Cl. 317—198)



1. A quadralateral mechanical linkage comprising, a first and a second plate, said first and second plates having lateral slots in each end, a third and a fourth plate, said third plate having end portions which extend into one pair of lateral slots on said first and said second plates, said fourth plate having end portions which extend into the remaining pair of lateral slots in said first and second plates, said plates forming a parallelogram arrangement, resilient biasing means at each corner of said parallelogram arrangement to cause the four plates to forcibly engage each other, the line of action of the force of said biasing means for at least one corner of said parallelogram being displaced from the plane of the laterally slotted plate thereat giving a torque couple.

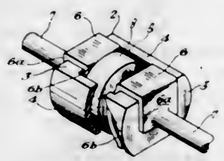
2. An electromagnetic device comprising, a base plate, a bearing bracket fixed to said base plate and having bearing surfaces at opposite ends, two rocker arms, each rocker arm having the bearing edge at one end engaging bearing surfaces at the opposite ends of said bearing bracket, an armature bracket, said armature bracket having bearing surfaces at either end engaged by the remaining bearing edges of said rocker arms in such a manner that said armature bracket, said rocker arms, and said bearing bracket form a parallelogram with the planes of said rocker arms substantially parallel, the first of said rocker arms having first and second helical springs in coaxial alignment with each other and substantially aligned with the longitudinal center line of said first rocker arm, one helical spring at either end biasing the bearing edges of said first rocker arm against the bearing surfaces of said armature bracket and said bearing bracket, said second rocker arm having extensions in a plane perpendicular to the plane of the rocker arm and displaced from the plane of the bearing bracket, a third helical spring having its axis substantially in the plane of the second rocker arm and in substantial coincidence with the longitudinal center line thereof, said third helical spring biasing the bearing edges at the end of said second rocker arm engaged by said third helical spring against the bearing surface of said armature bracket; fourth and fifth helical springs having their axes in a plane substantially parallel to but removed from the plane of said second rocker arm, each of said fourth and fifth helical springs engaging one of said extensions and the bearing bracket to bias the bearing edges of the second rocker arm against the bearing surfaces of the bearing bracket and give a torque couple at the bearing, a magnetic core member fixed to said base plate within the area defined by said parallelogram, coil means on said magnetic core member for producing a magnetic flux in said magnetic core member, and an armature member within the area defined by said parallelogram secured to said armature bracket and positioned to be linked and moved by the flux of said magnetic core member toward said magnetic core member in a direction at substantially right angles to the planes of said rocker arms, to correspondingly move said armature bracket.

2,780,757
RECTIFIER STRUCTURE
Jay W. Thornhill and Edmond D. Jackson, Dallas, Tex., assignors to Texas Instruments Incorporated, Dallas, Tex., a corporation of Delaware
Application August 2, 1955, Serial No. 525,837
10 Claims. (Cl. 317—234)



1. A rectifier structure comprising a rectifier unit, an annular resilient member attached to the top of said unit, a cooling element attached to the bottom of said unit, means surrounding said unit and said annular resilient member and defining therewith a hermetically sealed annular space, and said means defining threads on its outer surface whereby said structure can be readily mounted and removed from a container having a threaded opening.

2,780,758
DRY DISK RECTIFIER ASSEMBLIES
Regis H. Zetwo, Swissvale, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application August 12, 1953, Serial No. 373,742
9 Claims. (Cl. 317—234)

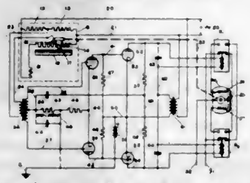


1. A rectifier assembly comprising, a yoke having an opening therein, a rectifier cell within the yoke opening, U-shaped resilient contact members having inner and outer legs, the inner legs being hooked over said yoke and engaging the faces of the cell with some pressure for making electrical connection therewith and for holding said cell within said yoke opening, and circuit connectors for the outer legs of said contact members.

2,780,759
SEMICONDUCTOR RECTIFIER DEVICE
John L. Boyer, Forest Hills, and August P. Colaisco, Penn Township, Allegheny County, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application August 18, 1955, Serial No. 529,304
7 Claims. (Cl. 317—234)

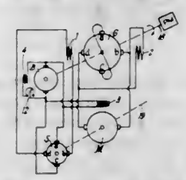
1. A rectifier device comprising a semiconductor rectifier cell, a metal support member, the rectifier cell being mounted on the support member in conductive relation thereto, a flexible conductor connected to the other side of the rectifier cell, and gas-tight enclosing means for the rectifier cell, said enclosing means including a flexible inner member surrounding the flexible conductor and having a gas-tight connection therewith and an insulating, substantially rigid outer member having a gas-tight connection with said support member.

2,780,760
SERVO SYSTEM WITH QUICK-ACTION RESPONSE
Warren E. Dion, Bristol, Conn., assignor to The Bristol Company, Waterbury, Conn., a corporation of Connecticut
Application July 2, 1953, Serial No. 365,736
13 Claims. (Cl. 318—29)



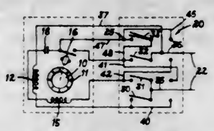
1. In an electronic control system comprising an initial and a final stage of amplification each having an electron discharge device with a cathode, an anode and a control electrode, together with circuit means whereby the potential upon the control electrode in said final stage is made subject to a condition of the anode in said initial stage, a load circuit including resistance and adapted to carry the output current of said final stage, means including an input circuit for impressing a signal potential of predetermined magnitude upon the control electrode of the device in said initial stage, circuit means responsive to a change in the flow of current in said load circuit for abruptly changing the magnitude of the potential applied to the control electrode of the device in said initial stage solely in a sense to accelerate and augment the change in said load circuit and including a capacitor interconnecting the output circuit of said final stage with the input circuit of said initial stage, a source of unidirectional potential included in said last mentioned circuit means whereby to charge said capacitor and to establish a predetermined voltage across the same when said circuits are in a quiescent state, an auxiliary circuit including a parallel-connected resistor and capacitor, forming a part of said last mentioned circuit means and connected in series with said control electrode and cathode of the device in said initial stage and said signal impressing means, connection means included in said circuits to superpose upon said capacitor voltage the potential drop due to current flow in said load circuit, whereby the charge upon said first-named capacitor is varied to affect the charge upon the capacitor in said auxiliary circuit and correspondingly bias the potential upon the control electrode of the device in said initial stage of amplification.

2,780,761
VARIABLE SPEED MOTOR SYSTEM
Joseph M. Pestarini, Staten Island, N. Y.
Application March 18, 1952, Serial No. 277,221
9 Claims. (Cl. 318—146)



2. A power system comprising a variable speed motor including a control winding, a dynamoelectric machine for energizing said motor and including a control winding, a transformer metadyne including a pair of primary brushes and a pair of secondary brushes, a constant voltage direct current source in circuit with said primary brushes, circuit means connecting said secondary brushes to one of said control windings, the current traversing the secondary brushes being operative to create a flux inducing between the primary brushes a counterelectromotive force equal to the voltage of said direct current source whereby the power of said motor remains constant independently of the speed thereof.

2,780,762
REVERSING SWITCH CONTROL
John D. Gayer, Dayton, Ohio, assignor, by mesne assignments, to The Clark Controller Company, Cleveland, Ohio, a corporation of Ohio
Application September 15, 1954, Serial No. 456,227
12 Claims. (Cl. 318—207)



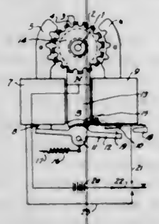
1. In a control circuit for quickly reversing a split-phase starting single-phase motor including a main winding and a starting winding having phase splitting means in series therewith, the combination of a running circuit including said main winding and a main switch for breaking said running circuit, a starting circuit including said starting winding and automatic switch means in circuit therewith for opening said starting circuit when said motor has reached said operating speed, a bypass switch connected in said starting circuit to bypass said automatic switch means, biasing means normally urging said bypass switch open, means for urging said bypass switch closed in opposition to said biasing means, reversing switch means in said starting circuit for reversing the energization of said starting winding, detent means for retaining said reversing switch means in positions for forward and reverse running of said motor, and means linking said bypass switch to said reversing switch to provide for closing of said reversing switch upon movement of said bypass switch to closed position against said biasing means, said detent means acting to hold said reversing

switch in one of said running positions upon release of said bypass switch and opening thereof by said biasing means.

2,780,763
GAS DISCHARGE TUBE SYSTEM FOR MOTOR CONTROL
Harry Hertwig, Hamburg, Germany, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application June 5, 1953, Serial No. 359,936
Claims priority, application Germany June 14, 1952
7 Claims. (Cl. 318—345)

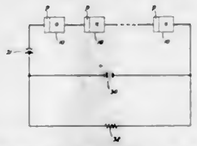
1. A device for controlling the energy supplied to a load, comprising a first discharge device having an ionizable medium connected in series with said load, means for applying a direct voltage across the series-connected discharge device and load, and means for applying a voltage to said discharge device to provide periods of conduction and periods of non-conduction in said discharge device, said applying means including a second discharge device having an ionizable medium coupled to said first discharge device, means for applying a bias voltage to said discharge devices to render same normally inoperative, a relaxation oscillator circuit connected to said first and second devices and adapted to produce a plurality of first pulses having a given polarity and a plurality of second pulses of opposite polarity, said first and second pulses recurring in alternate time sequence, said relaxing oscillator circuit further comprising means for varying the time spacing betwen the consecutive pulses, and means for applying said first pulses to said first discharge device to initiate said period of conduction therein and said second pulses to said second discharge device to initiate said period of non-conduction in said first discharge device.

2,780,764
ELECTRIC IMPULSE MOTOR-DEVICE
Montford Morrison, Rochester, N. Y.
Original application August 16, 1949, Serial No. 110,596, now Patent No. 2,659,853, dated November 17, 1953. Divided and this application October 14, 1953, Serial No. 385,970
5 Claims. (Cl. 318—491)



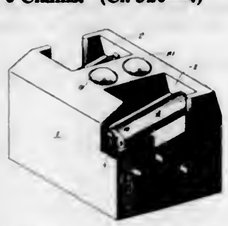
1. In a motor-device driven by electric current impulses, a salient pole rotor having a predetermined circumferential pole-pitch, two stator-members surrounding said rotor, each of said stator-members individually having a plurality of salient poles of an effective angular spacing equal to said pole-pitch, a winding embracing the magnetic circuit of the stator-members, said winding being connectable to a source of electric current impulses, and a rockable armature forming a magnetic yoke between said stator-members completing the magnetic circuit thereof.

2,780,765
SOLAR ENERGY CONVERTING APPARATUS
Daryl M. Chapin, Basking Ridge, Calvin S. Fuller, Chatham, and Gerald L. Pearson, Bernards Township, Somerset County, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application March 5, 1954, Serial No. 414,273
12 Claims. (Cl. 320—2)



1. An arrangement for utilizing solar radiation for keeping charged a storage battery comprising a storage battery to be charged, at least one photosensitive element comprising a silicon body including an n-type zone contiguous with a p-type zone including a concentration of boron impurities, the thickness of the p-type zone being of the order of the diffusion length of electrons therein, and a unilaterally-conductive element serially connected with said storage battery and photosensitive element, and poled to pass charging currents developed by the photosensitive element and to block discharging currents from the battery through the photosensitive element.

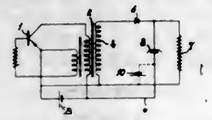
2,780,766
DRY CELL RECONDITIONING DEVICE
Linnie K. Hedding, Wilkinsburg, and Regis H. Zetwo, Swissvale, Pa., assignors to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application June 30, 1954, Serial No. 440,494
6 Claims. (Cl. 320—4)



1. A dry cell battery reconditioning device comprising a housing which houses a means for producing current suitable for reconditioning dry cell batteries, said housing being provided with a plurality of cavities each arranged to accommodate a dry cell battery to be reconditioned, each of said cavities having electrical contacts mounted therein which are arranged to make contact with the terminals of a dry cell battery inserted into each cavity and at least one of said contacts in each of said cavities being arranged to be energized with said current only when a battery is placed in said cavity.

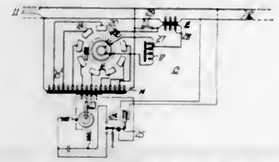
2,780,767
CIRCUIT ARRANGEMENT FOR CONVERTING A LOW VOLTAGE INTO A HIGH DIRECT VOLTAGE
Peter Johannes Hubertus Janssen, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application April 7, 1955, Serial No. 499,944
Claims priority, application Netherlands May 31, 1954
3 Claims. (Cl. 321—2)

1. A circuit arrangement for producing a high voltage from a low voltage source, comprising an oscillator system energized by said voltage source and comprising a transistor having input and output electrodes and transformer means interconnecting said electrodes in feedback relationship, means comprising a winding of said transformer for deriving high voltage pulses from said oscillator system, a rectifier and a capacitor connected in series



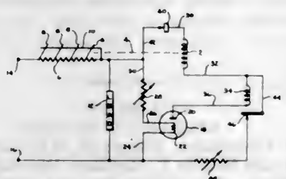
circuit arrangement with said transformer winding, means for applying to said series circuit arrangement a biasing potential having a polarity opposite to the pass direction of said rectifier, and means coupled to said capacitor for deriving a high voltage therefrom.

2,780,768
LOAD TAP CHANGING CIRCUIT
William C. Sealey, Wauwatosa, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application November 7, 1955, Serial No. 545,198
5 Claims. (Cl. 323—43.5)



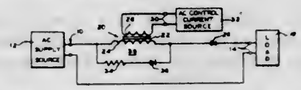
1. A load tap changing transformer comprising a winding having a plurality of electrically spaced taps, a reactor, switch means operable in alternate positions to connect the ends of said reactor to adjacent ones of said spaced taps, means connecting an output terminal of said transformer to a tap on said reactor, said reactor tap being disposed electrically off center sufficiently to compensate for the voltage drop in said transformer resulting from the exciting current of said reactor when said switch is in said alternate positions.

2,780,769
SYSTEM OF REGULATION
Thomas F. McHenry, New Canaan, Conn., assignor to Electric Regulator Corporation, Norwalk, Conn., a corporation of New York
Application January 13, 1954, Serial No. 403,815
17 Claims. (Cl. 323—66)



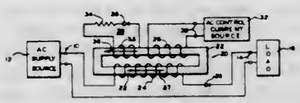
5. An A. C. regulating system utilizing an electromagnetic regulatory unit having an operating component the energization of which controls the regulatory action, said system comprising a first circuit in operative relation to said output and comprising an output sensing element, a second circuit in operative relation to said output comprising said operating component, a relay coil, and an instrumentality operatively connected to said output sensing element so that the current passed thereby is determined by said element, a rectifier in at least one of said first and second circuits, and a circuit in shunt with said relay coil and said instrumentality and in series with said operating component and including a pair of normally closed contacts operatively connected to said relay coil so as to be opened when said relay coil is energized to a predetermined extent, whereby, upon failure of said sensing instrumentality or said relay coil, regulation will continue in normal fashion.

2,780,770
SELF-SATURATING REACTOR CIRCUIT
Bernard Lee, University City, Mo., assignor to Vickers Incorporated, Detroit, Mich., a corporation of Michigan
Application April 21, 1953, Serial No. 350,014
11 Claims. (Cl. 323—89)



1. A magnetic amplifier comprising a power input circuit for receiving alternating supply voltage, an output circuit for connection to a load, a self-saturating reactor circuit for controlling the transmission of power between the input circuit and the output circuit, said reactor circuit comprising a saturable core reactor, a load winding on the core of said reactor, a half-wave rectifier in series with said winding between the input and output circuits for providing self-saturating M. M. F.'s, means for supplying the reactor with A. C. control M. M. F.'s, and means for modifying the control characteristic of the amplifier when A. C. control M. M. F.'s are supplied to the reactor, said means comprising a closed current path including said winding and excluding said rectifier, said path comprising a circuit including a second half-wave rectifier and series resistance connected across said winding, the second rectifier being poled to allow current flow in said winding in the nonconducting direction of the first rectifier.

2,780,771
MAGNETIC AMPLIFIER
Bernard Lee, University City, Mo., assignor to Vickers Incorporated, Detroit, Mich., a corporation of Michigan
Application April 21, 1953, Serial No. 350,147
11 Claims. (Cl. 323—89)

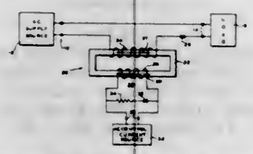


1. In a magnetic amplifier having power input and output circuits and a saturable reactor with a reactance winding connected in series with a half-wave rectifier between the input and output circuits for salf-saturation and having means for controlling the reactor with alternating current M. M. F.'s the combination therewith of a closed current path comprising a second winding on the reactor and a circuit including a second half-wave rectifier connected across the second winding, said windings being conductively isolated and the conducting directions of the respective rectifiers being such that currents passed thereby and allowed to flow in the respective windings will produce oppositely related M. M. F.'s in the reactor.

2,780,772
SELF-SATURATING REACTOR CIRCUITS
Bernard Lee, University City, Mo., assignor to Vickers Incorporated, Detroit, Mich., a corporation of Michigan
Application April 21, 1953, Serial No. 350,148
13 Claims. (Cl. 323—89)

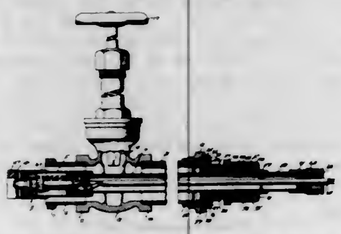
1. In a magnetic amplifier having input and output circuits and a saturable reactor with a reactance winding connected in series with a half-wave rectifier between the input and output circuits for self-saturation and with

a second winding for connection to a source of alternating control current, the combination therewith of a shunt circuit connected across the second winding and including a second half-wave rectifier for allowing induced current



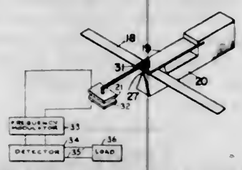
flow in the second winding in a direction to generate magnetic effects in the reactor oppositely related to magnetic effects produced by current flow through the first rectifier.

2,780,773
CONDUCTIVITY CELL
Kenneth F. Channon, Jr., College Park, and Weems E. Estelle, Annapolis, Md., assignors, by mesne assignments, to McNab, Incorporated, New York, N. Y., a corporation of New York
Application January 23, 1953, Serial No. 332,982
8 Claims. (Cl. 324—30)



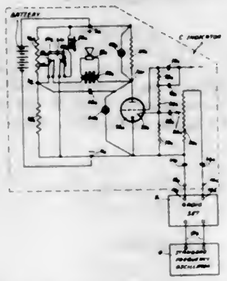
1. A conductivity cell including a housing member, electrode supporting means extending from said housing member and disc electrodes co-axially mounted in spaced relation on said electrode supporting means, the housing member and the disc electrodes adapted to be immersed in a solution to be tested and the opposing faces of said disc electrodes being the sole areas thereof open to contact with the solution, and means extending from the periphery of one of said disc electrodes toward but spaced from the other of said disc electrodes to control the field pattern between the disc electrodes and means for electrically connecting said disc electrodes to electric circuit lead-in conductors.

2,780,774
MAGNETOSTRICTIVE DEVICE
Herman Epstein, Philadelphia, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application March 18, 1953, Serial No. 343,026
7 Claims. (Cl. 324—34)



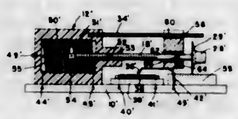
1. A transducer adapted to detect magnetic signals on a magnetic surface comprising a magnetic loop having an air gap therein, said magnetic loop comprising a first portion and a second portion, said first portion being of a magnetic material and being shaped in a wedge-like manner at the air gap so as to present the edge of the wedge to the said second portion, said second portion being comprised of two strips of magnetostrictive material secured together in side-by-side relation, one of said strips having a positive coefficient of magnetostriction and the other of said strips having a negative coefficient of magnetostriction, said second portion adapted to become deflected in accordance with the amount of magnetic flux flowing therethrough when the magnetic signals on a magnetic surface are caused to be passed through the said air gap, and means to detect the deflection of said second portion.

2,780,775
LOCATION OF PERIODIC DEFECTS IN ELECTRONIC CIRCUITS
Franck Martin Nielsen, Aalborg, Denmark
Application August 11, 1953, Serial No. 373,489
Claims priority, application Denmark May 16, 1947
24 Claims. (Cl. 324—57)



1. The method of testing electronic circuits for localizing periodically occurring defects therein comprising; operating the circuits under substantially normal operating conditions to produce an output voltage of a predetermined value during defect-free periods, operating with said voltage an acoustic indicator to react non-inert for any departure of said predetermined value of the output voltage, allowing the electronic circuits to be operated during a period until said indicator at least once has signalled occurrence of the defect, then cutting off one stage of said electronic circuits, operating the remaining stages under substantially normal operating conditions to produce an output voltage, using said latter output voltage to operate the acoustic indicator to react non-inert for any departure of said latter output voltage from said remaining circuit stages for at least a similar period as that during which the first mentioned stages were operated, and, when during said time interval the defect again occurs, cutting off again a further stage of said electronic circuits and again proceeding in the same manner until the defect does not occur during an operating time interval, then examining the suspectable components in the stage last cut off.

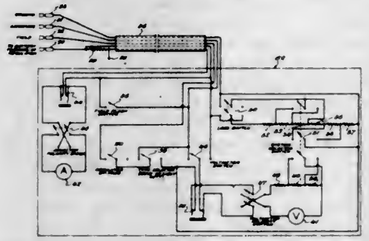
2,780,776
LINEARITY TESTER
Edward J. Goeppinger, Robert M. Whitehorn, Marian E. Bourns, and Marvin E. Harrison, Riverside, Calif.; said Goeppinger, said Whitehorn, and said Harrison assignors to said Bourns
Application March 6, 1953, Serial No. 340,782
11 Claims. (Cl. 324—63)



2. A device for testing the output linearity of a rectilinear resistance element, said device comprising a multiturn rotary variable resistor of known output linearity, said rotary resistor having a rotatable contact slidably

engaging a helical resistance element, a lead screw connected to said contact, a member having threaded engagement with said lead screw and movable axially thereby when said lead screw is rotated, a contact on said member wiping on said rectilinear resistance element, circuit means connected to said rectilinear resistance element and its contact and to said rotary resistor and its contact, and an indicator in said circuit means operative to show any variance between the output of said rectilinear resistance element and the output of said rotary resistor.

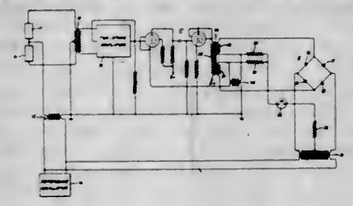
2,780,777
TEST APPARATUS FOR ELECTRICAL SYSTEMS
Edward A. Sammis, Roslyn Heights, and Walter R. Burkhalter, Great Neck, N. Y., assignors to Sperry Rand Corporation, a corporation of Delaware
Application May 11, 1953, Serial No. 353,993
5 Claims. (Cl. 324—73)



1. An apparatus for testing motor vehicle electrical systems of the type including a battery, a generator connected through its field and armature to a regulator having external armature, field, battery, and ground terminals, the regulator being comprised of a cut-out device connected serially between the regulator armature terminal and the regulator battery terminal, and means connected internally to the regulator field terminal so as to govern the voltage and current output of said generator by control of the field current flow in the generator, said test apparatus comprising leads with detachable connections on the ends thereof adapted to electrically connect said test apparatus to each of said regulator terminals and said battery, current measuring means serially connected between said battery lead and said regulator battery terminal lead, a voltmeter, means arranged to selectively connect said voltmeter to said regulator armature terminal lead or said battery lead, a resistance, means adapted to optively connect said resistance across said battery and ground leads, means adapted to optively connect said regulator armature terminal lead to said regulator field terminal lead whereby to bypass said generator governing controls, and means adapted to optively connect said regulator armature lead to said regulator battery terminal lead whereby to bypass said regulator cut-out device.

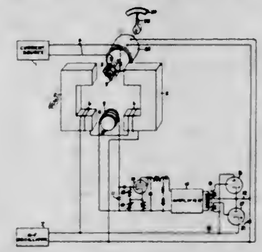
2,780,778
PHASE SENSITIVE STRAIN GAGE AMPLIFIER RECTIFIER CIRCUIT
Augustin A. Root, Schenectady, and Howard L. Clark, Ballston Lake, N. Y., assignors to General Electric Company, a corporation of New York
Application October 23, 1952, Serial No. 316,462
8 Claims. (Cl. 324—87)

1. A rectifying circuit including in combination rectifying means, push-pull input circuit means coupled across the input terminals of said rectifying means for applying input signals thereto and including additional load resistors interconnecting the respective push-pull paths of said push-pull circuit means for deriving electric signals indicative of the phase and amplitude of the input signal applied to said push-pull input circuit means, second input circuit means coupled across the output terminals of said rectifying means for applying a reference signal thereto, conductor means interconnecting said second in-



put circuit means with the additional load resistors in said push-pull input circuit means, and an output signal developing circuit coupled across said additional load resistors.

2,780,779
ELECTRIC CURRENT MEASURING APPARATUS
Albert Hansen, Jr., Lynn, Mass., assignor to General Electric Company, a corporation of New York
Application December 5, 1952, Serial No. 324,234
8 Claims. (Cl. 324—99)

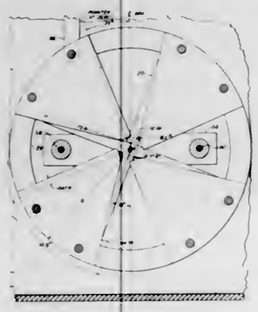


1. Electric current measuring apparatus comprising a magnetic structure having first and second gaps, a coil rotatably positioned within said first gap, connections for passing the current to be measured through said coil whereby a first magnetic field is provided in said second gap having a magnetic intensity which is a function of both the magnitude of the measured current and the angular position of said coil, modulating windings positioned on said magnetic structure for varying the magnetic intensity of said first field, means supplying an alternating current to energize said modulating windings, magnetic resonance apparatus responsive to the magnetic intensity in said second gap including a magnetic resonance sample positioned in said second gap and means for applying to said sample an alternating magnetic field at right angles to said first field, said magnetic resonance apparatus functioning to establish an electrical signal related in value to the magnetic intensity in said second gap, and means responsive to said electrical signal for adjusting the angular position of said coil to maintain the magnetic intensity in said second gap substantially constant whereby the angular position of said coil indicates the magnitude of said current.

2,780,780
ELECTROSTATIC VOLTMETER
Arvo A. Lahti, Pasadena, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application February 23, 1952, Serial No. 272,953
2 Claims. (Cl. 324—109)

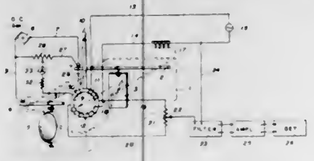
1. An electrostatic voltmeter comprising at least one rotor member having a central portion and a plurality of vanes shaped in the form of identical isosceles triangles

extending from the central portion and angularly spaced equidistant apart with the bases of the triangular-shaped vanes located at the common central portion, a rotatable shaft extending through said central portion for supporting the rotor member, spring biasing means attached to the rotatable shaft, and a plurality of sets of stator plates located around the rotatable shaft with the number of sets of stator plates corresponding to the number of rotor vanes and each set of stator plates providing a pair of aligned plates located on each side of the plane of rotation of the rotor member, the stator plates being shaped substantially in the form of a piece of pie with the outer ends of the respective plates extending along an arc of approximately 50° and with the inner ends of



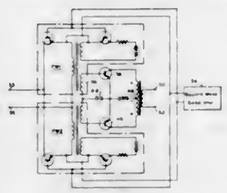
the respective plates being truncated along lines forming approximately a 37½° angle with respect to the leading edges of the respective stator plates, the bases of the isosceles triangles formed by the respective vanes being approximately one-eighth the altitudes of the triangles and the altitudes of the triangles being approximately three-quarters of the distance from the rotatable shaft to the outer periphery of the stator plates, the leading edges of the respective vanes of the rotor being aligned with the leading edges of the respective pairs of stator plates when the voltmeter is de-activated so that the angular deflection of the rotor member varies substantially in accordance with the square root of the voltage applied between the rotor member and the stator plates.

2,780,781
MUTUAL INDUCTION METHOD OF AND MEANS FOR MEASURING CURRENT DENSITY
Lewis A. Medlar, Oreland, Pa., assignor to Fox Products Company, Philadelphia, Pa., a corporation of Pennsylvania
Application June 4, 1952, Serial No. 291,628
5 Claims. (Cl. 324—117)



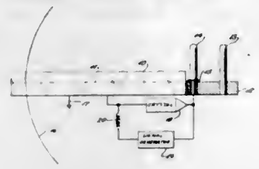
1. The combination with a liquid-conducting medium having a pair of spaced electrodes therein and a direct current source connected to said electrodes to cause a direct current to flow through the medium from one of the electrodes to the other, of an apparatus responsive to the density of said direct current at a location in the medium, including a magnetic core of high permeability immersed in the medium defining a substantially closed path substantially enclosing a cross-sectional area which is small in comparison with the total cross-sectional area of the medium through which said current flows, said core being so locatable that the cross-sectional area it encloses is at an angle with respect to the direction of flow of said current, whereby one portion of said current flows through said cross-sectional area enclosed by the core in one direction and another portion of said current flows only outside of said last-mentioned cross-sectional area and in substantially the same direction, said core forming the core of a transformer having a primary coil and a secondary coil wound thereon, a source of periodic constant amplitude voltage, an impedance, a circuit connecting said impedance and said primary coil in series across said source of periodic voltage, means for comparing the voltage across the impedance with the voltage across the secondary coil to provide an indication of their difference, said difference having a certain magnitude when there is no direct current flowing through said medium, a third coil of at least one turn wound on the core, means for supplying said third coil with direct current to produce a flux in the core opposing that produced by said direct current flowing through said medium, said supplying means including means for adjusting the magnitude of current flowing through the third coil, and a current measuring device connected in said supplying means to measure the magnitude of current flowing through said third coil, whereby the current through said third coil may be adjusted until said comparing means indicates said certain magnitude of difference between the voltage across said impedance and said secondary coil with direct current flowing through said medium, and said current measuring device then indicates the magnitude only of said one portion of the direct current flowing through the medium.

2,780,782
PULSE WIDTH MODULATOR
Richard L. Bright, Hempfield Township, Westmoreland County, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application November 4, 1955, Serial No. 544,867
6 Claims. (Cl. 332—12)



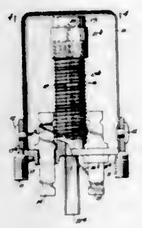
6. A pulse width modulator capable of producing successive output voltage pulses of alternate polarity comprising, in combination, first and second magnetic core members of substantially rectangular hysteresis loop material, primary winding means for each of said core members, means connecting said primary winding means in series, a source of variable voltage, means including a switching device for applying said source of variable voltage across the series combination of said primary winding means, secondary winding means for each of said core members, a source of direct current voltage and a switching device connected in series with each of said secondary winding means, means for deriving an output from said modulator and including a tertiary winding means for each of said core members, said tertiary winding means being connected in series, and means for controlling the operation of said switching devices.

2,780,783
ANTENNA FEED MODULATION UNIT FOR RIDGED WAVEGUIDE
Clyde E. Vogeley, Jr., and Richard H. Webb, Pittsburgh, Pa., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application November 20, 1953, Serial No. 393,531
15 Claims. (Cl. 332—52)



1. An antenna feed modulation system for modulating a transmitted or received signal in a ridged waveguide comprising; a dipole antenna; means mounting said antenna at one end of said waveguide, one of the elements of said antenna being electrically connected to said waveguide, the other element of said antenna being insulated therefrom; a variable impedance device connected across said elements; and a modulating voltage impressed across said variable impedance device; whereby, a variation in the impedance of said variable impedance device is reflected into said antenna, thereby modulating said signal.

2,780,784
RADIO-FREQUENCY ENERGY-TRANSFER DEVICE
Lester E. Hill, Nashville, Tenn., and Harold T. Lyman, Milford, Conn., assignors to Aladdin Industries, Incorporated, Chicago, Ill., a corporation of Illinois
Application January 27, 1953, Serial No. 333,591
5 Claims. (Cl. 333—24)

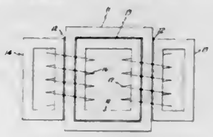


1. In combination, an inductance coil, a condenser plate fixedly mounted relative to one end of said coil and connected electrically thereto, a conducting sleeve movably mounted adjacent said condenser plate coaxially of said coil, said sleeve being insulatedly mounted relative to said coil to provide a limited range of axial relative movement between said sleeve and said coil, said sleeve overlying a portion of said coil in at least a part of said range of movement, means for moving said sleeve to any predetermined position within said range of movement, and connector means coupled to said coil adapted to afford energy interchange between said coil and an external circuit, the combination of said conducting sleeve and said moving means providing also means adapted to effect an external circuit connection to said sleeve for energy exchange with said coil by capacitance transfer via said sleeve and said condenser plate, the axial movement of said sleeve being operative to tune said coil.

2,780,785
CORE STRUCTURES
James G. Ford, Sharon, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application September 23, 1953, Serial No. 381,913
8 Claims. (Cl. 336—210)

1. In a wound core, in combination, a plurality of turns of an oriented silicon iron, a perforated metallic member on which the turns of the core are wound, insulation provided on the perforated metallic member, the insulation being provided on the side of the perforated metallic member which receives the turns of the core, the perforated member being bent outwardly and backwardly to overlap and engage the turns of the core to hold the turns in substantially the as-wound position.

2,780,786
FOUR LEG MAGNETIC CORE
Wallace M. Johnson, Pittsfield, Mass., assignor to General Electric Company, a corporation of New York
Application November 20, 1953, Serial No. 393,422
6 Claims. (Cl. 336—212)



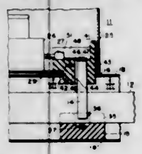
1. A four-leg magnetic core assembly comprising a central core of magnetic material having a pair of oppositely disposed winding legs and a rectangular profile defining a central rectangular window, and a rectangular magnetic side core adjacent each of said winding legs, said side cores having the same window height as said central core window and having a cross-sectional area less than two-thirds the cross-sectional area of the central core.

2,780,787
MAGNETIC CORE CONSTRUCTION
Gareth G. Somerville, Pittsfield, Mass., assignor to General Electric Company, a corporation of New York
Application May 21, 1951, Serial No. 227,386
3 Claims. (Cl. 336—234)

1. A magnetic core for stationary electrical induction apparatus comprising, in combination, a winding leg member having a plurality of flat stacked elongated generally rectangular-shaped laminations, said laminations being divided into groups of laminations of predetermined width having aligned edges between which are interspersed wider laminations, said wider laminations being laterally offset relative to the narrower laminations so that they each have an edge in alignment with an edge of the narrower laminations and an edge extending beyond the other edges of the narrower laminations, said wider

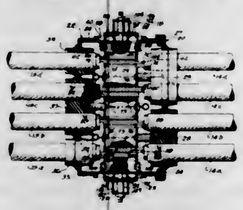
laminations being selectively offset laterally in opposite directions, said laterally extending side edges being longitudinally bent in overlapping relation at approximately a right angle to said narrower laminations for stiffening said leg member.

2,780,788
PLUG-IN BUS DUCT STRUCTURE
Lloyd W. Dyer and William F. Born, Beaver, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application February 19, 1954, Serial No. 411,384
7 Claims. (Cl. 339—22)



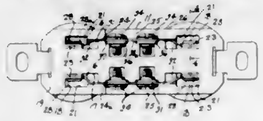
1. In a bus duct structure, in combination, a generally rectangular housing having a plurality of spaced openings in at least one side thereof, a plurality of bus bars disposed inside the housing longitudinally of the housing, an insulator disposed directly opposite each opening between the bus bars and the side of the housing opposite the opening, said insulators having transverse grooves in their sides for bus bars, said grooves each extending to, and being open at, the side of the insulator facing the opening in the side of the housing on the opposite side of the bus bars from said insulator whereby the bus bars and insulators may be assembled together by movement in a direction laterally of the bus bars to position the bus bars in the grooves, and a plug-in unit having stab connectors extending through one of said openings, said stab connectors engaging bus bars directly opposite one of said insulators.

2,780,789
ELECTRICAL LEAD CONNECTOR
Hans Bader, Orland Park, Ill.
Application October 7, 1953, Serial No. 384,751
9 Claims. (Cl. 339—59)



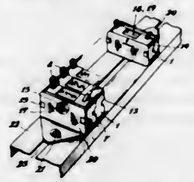
9. In a lead connector for electrical apparatus, the combination comprising two separable parts, each of said parts including terminal elements having contacting surfaces thereon and located entirely within the outer surface limits of the parts, the contacting surfaces on the terminal elements of each of the two parts being in substantially parallel relationship to one another and aligned for engagement with the contacting surfaces of the terminal elements of the other part when the parts are aligned and engaged with one another, insulating spacers engaged with the terminal elements on the sides thereof opposite the contacting surfaces of each part which establishes a series of engaging terminal elements and insulating spacers extending laterally of the contacting surfaces when the parts are engaged, means exterior to opposite sides of the parts for gripping and applying pressure to said series of terminal elements and insulating spacers for holding the contacting surfaces of the engaged parts in firm contact with one another, and clip elements for holding the insulating spacers and terminal elements of each part in aligned relationship when the pressure of the gripping means is relieved.

2,780,790
MEANS OF MOUNTING CONTACTS IN ELECTRICAL RECEPTACLES
Harvey Hubbell, Long Hill, Conn., assignor to Harvey Hubbell, Incorporated, Bridgeport, Conn., a corporation of Connecticut
Application August 9, 1950, Serial No. 178,398
4 Claims. (Cl. 339—164)



1. An outlet receptacle comprising a body member of insulating material having a blade-receiving slot in the front face thereof communicating with a contact-receiving chamber in said body member, said body member having an open recess in one side thereof and a narrow conductor-strip-receiving slot between and connecting said chamber and said recess and opening outwardly through the back face of said body member, said body provided with an entrance opening extending through said back face to said chamber forming an enlarged extension of said strip-receiving slot, an inwardly facing shoulder extending part way only across the entrance to said chamber forming an inwardly facing locking surface in said chamber adjacent said entrance opening, a current-conducting element comprising a substantially flat conductor strip inserted into said strip-receiving slot so as to extend into said recess, a blade-engaging contact in said chamber in alignment with the blade-receiving slot in the front face of the body member connected to said strip and insertable into said chamber through said entrance opening when said strip is inserted in said strip-receiving slot, a shoulder engaging edge on said contact over said shoulder in said chamber to retain said contact in said chamber and said strip in said slot, said strip being flexible and resilient so as to flex to permit said blade-engaging contact to be inserted through said opening and to pass said shoulder when said element is inserted into said slot and to then snap into position behind said shoulder to engage said locking surface and retain said element in place, and lead wire connecting means on said strip in said recess in the side of said body member.

2,780,791
WIRE CONNECTOR WITH DOVETAILED CASING
Franz Morschel, Eupen, Belgium
Application February 18, 1953, Serial No. 337,605
Claims priority, application France March 4, 1952
4 Claims. (Cl. 339—198)



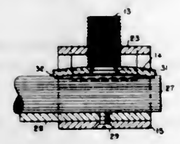
1. In a wire connector, the combination of a casing for the connecting mechanism and having an open side, at least one opening in said casing for inserting a wirelike element into said casing in a direction substantially parallel to said open side, a closure member for the open

side of said casing, notches of dovetail shape in the free end faces of said casing adjacent to said closure member, projections of corresponding shape on said closure member for cooperating with said notches, the elasticity of at least one of the two complementary members of each cooperating set of dovetailed notch and projection being sufficient to provide for a snap engagement thereof in response to the application of pressure on said complementary members in the direction normal to said open side of the casing, a cavity formed in a free end face of the casing adjacent the closure member and a projection provided on the latter for engaging said cavity and preventing removal of the closure member by movement of the latter parallel to the plane of said open side of the casing.

2,780,792
ELECTRICAL CONNECTOR
Harry W. Earl, South Miami, Fla.
Application August 18, 1953, Serial No. 374,917
2 Claims. (Cl. 339—256)

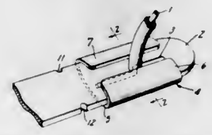
1. A separable electrical connector of the character described comprising a male and a female unit, said male unit having a hollow insulated handle portion, a hollow metal tube within said handle portion and extending outwardly beyond one end thereof, the outermost end portion of said extension having its inside walls tapering outwardly, means on the inner end of said hollow metal tube for electrical connection to a power cable, the outwardly extending portion of the metal tube having slots extending inwardly from the end thereof and in opposite walls of the tube, the female unit having a hollow insulated handle portion, a hollow metal tube within said female handle portion for reception of the slotted end of the tube of the male unit, an expander plug secured within the tube of the female unit intermediate the ends thereof, said expander plug having a rear base portion secured within the female unit and a forwardly extending portion disposed wholly in spaced relation to the surrounding metal tube of the female unit for engaging within the entering tube of the male unit, said forwardly extending plug portion having a transverse slot extending inwardly from its forward end and a peripheral portion which is of largest diameter intermediate the ends of said slot, said peripheral portion tapering longitudinally of said plug in both directions from said portion of largest diameter.

2,780,793
SCREW-OPERATED ELECTRICAL CONNECTOR
John C. Gambale, East Orange, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application December 8, 1954, Serial No. 473,815
3 Claims. (Cl. 339—272)



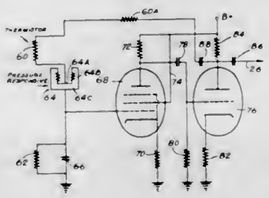
1. In a connector for holding an electrical conductor, in combination, a body member and a clamping member removably joined together to hold the conductor, a screw threaded in the clamping member, an elongated resilient pressure plate rotatably carried by the screw, said plate having relatively sharp end edges extending substantially at right angles to the side edges of the plate, said plate being curved longitudinally of the conductor to cause said end edges of the plate to be pressed into the conductor when the screw is tightened, and said plate being composed of a harder material than said conductor and having a higher resilience than said conductor.

2,780,794
PRESSURE CONNECTOR
George M. Cresson, Lynbrook, N. Y., assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application July 15, 1953, Serial No. 368,160
11 Claims. (Cl. 339—276)



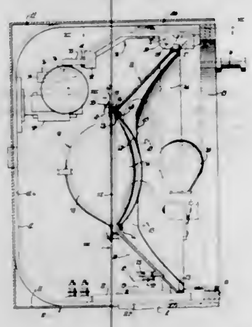
1. An arrangement for connecting an electrical conductor to a terminal, comprising means for joining loosely said conductor to said terminal, a resilient electrical connector member dimensioned for a light press fit on said terminal, and a tool comprising means for gripping said terminal, means for engaging said connector member, and means mechanically coupling said gripping means and said member-engaging means for forcing said connector member over said terminal and conductor, to achieve a wiped contact at a sustained pressure between said conductor and said terminal, and to produce a fit tighter than said light press fit.

2,780,795
DISTANCE MEASUREMENTS BY SONIC MEANS
Biagio F. Ambrosio, Los Angeles, Calif.
Application May 28, 1953, Serial No. 358,220
7 Claims. (Cl. 340—3)
(Granted under Title 35, U. S. Code (1952), sec. 266)



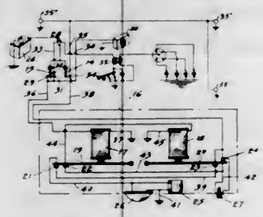
1. A sound ranging system comprising an oscillator, a transducer effective to emit a sound wave when energized by the output of said oscillator, a gating circuit for gating the output of said oscillator to said transducer, a receiving transducer effective to receive echoes of sound waves transmitted by said transmitting transducer, an electronic count register, means for triggering said register to stop counting when a sound wave transmitted upon the opening of said gating circuit has echoed and returned to said receiving transducer, and a condition responsive element connected to said oscillator effective to raise or lower the frequency of said oscillator as changes in said condition increase or decrease respectively the speed of sound in the surrounding fluid.

2,780,796
WARNING LIGHT WITH A RETAINER AND MOUNTING STRUCTURE FOR A SEALED BEAM LAMP
Arthur C. Heehler and Frank X. Keegan, Chicago, Ill., assignors to The Pyle-National Company, Chicago, Ill., a corporation of New Jersey
Application July 20, 1953, Serial No. 369,044
13 Claims. (Cl. 340—49)



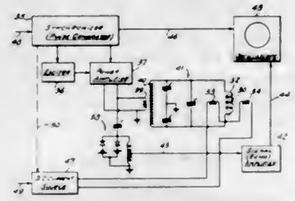
1. A warning light, comprising, a reflector member having a curved reflective surface to collect and focus rays of light into a beam of light and having a centrally disposed aperture formed therein, a first selectively energizable electric light source at the focal point of said reflective surface, and a second selectively energizable light source consisting of a sealed beam lamp comprising a glass envelope having its own filament, reflective surface and lens, in said opening to project a second beam of light in a common direction with said reflector.

2,780,797
WARNING SIGNAL TO DISCONNECT VEHICLE LIGHTS
Gordon Gooding, Transcona, Manitoba, Canada
Application June 14, 1954, Serial No. 436,643
2 Claims. (Cl. 340—52)



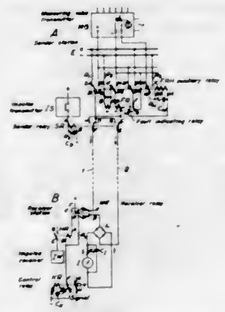
1. In an automobile having an ignition switch and a light controlling switch; a signal for the lights of said automobile, comprising: an electrically operable signal; a finger-pressure switch; a pair of keeper-operable induction coils; a circuit, closed by the turning on of said light switch for operably connecting same with said signal; a circuit, closed by the turning on of said ignition switch, for energizing one of said induction coils to keeper-open the circuit between said signal and said light switch; a circuit, connected by a temporary closing of said finger-pressure switch, when said light switch is on and said ignition switch is off, to connect said light switch, through openable contacts controlled by said one induction coil, with the other of said induction coils, to keeper open the circuit between said signal and said light switch and short said finger-pressure switch to maintain said latter induction coil energized on the subsequent opening of said finger-pressure switch.

2,780,798
SPIN ECHO MEMORY SYSTEMS
Arthur G. Anderson, Riverdale, N. Y., assignor to International Business Machines Corporation, a corporation of New York
Application August 12, 1954, Serial No. 449,309
11 Claims. (Cl. 340—173)



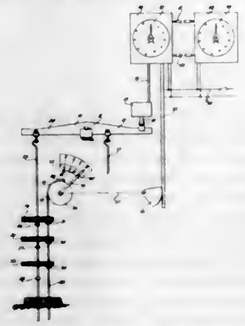
1. That method of information storage and recovery by differential precession of related moments of spinning particles in an inhomogeneous polarizing field, which includes the steps of establishing a carrier train containing a succession of storage conditioning pulses applied to said spinning particles in a first time period and normally adapted to contain a succession of resultant spin echo pulses formed by said moments in a second time period, formation of each of said echo pulses from its originating pulse being substantially dependent on integral symmetry in time and field condition relative to said originating pulse and said resultant echo pulse in said first and said second time periods respectively, entering informational variation of inhomogeneity in said field to selectively affect said integral symmetry respecting said related pairs of storage pulses and resultant echo pulses, whereby the resultant condition of said echo series may be indicative of said entered informational variation, and detecting said echo series.

2,780,799
MEASUREMENT OF INTENSITY AND TRANSMISSION OF IMPULSES THROUGH THE SAME TRANSMISSION LINE
Hugo Hansson, Vasteras, Sweden, assignor to Allmanna Svenska Elektriska Aktiebolaget, Vasteras, Sweden, a corporation of Sweden
Application October 29, 1953, Serial No. 389,123
Claims priority, application Sweden November 6, 1952
6 Claims. (Cl. 340—180)



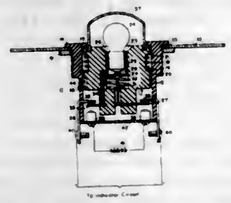
1. In a system for the simultaneous transmission of intensity measuring values and impulses by one single pair of wires from a sender station to a receiver station, an arrangement comprising means for transmitting through the said single pair of wires between said stations a direct current proportional to said measuring values, an intensity measuring value sender, an impulse transmitter having means for reversing the direction of the intensity measuring current, an impulse receiver, an intensity measuring instrument, and means for maintaining the original direction of said current within the intensity measuring instrument.

2,780,800
REMOTE INDICATOR FOR SCALES
Louis J. Lauler and Matthew T. Thorsson, Rock Island, Ill., assignors to Fairbanks, Morse & Co., Chicago, Ill., a corporation of Illinois
Application June 11, 1952, Serial No. 292,892
15 Claims. (Cl. 340—187)



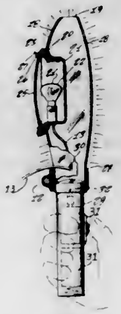
1. In combination with weighing apparatus of variable capacity, providing a weight positioned member and including capacity determining means operable selectively, for changing the capacity of the weighing apparatus from one weight range to another, a weight indicating system therefor, comprising a transmitter including a controlling element movable by said weight positioned member, for developing a signal voltage upon movement of the controlling element, a receiver including a controlled element, adapted to develop an error voltage in response to said signal voltage, servo-motor means operable in response to the error voltage to drive said controlled element into positional agreement with said controlling element, an indicator element operated by said controlled element, weight indicia bearing means operatively associated with said indicator element and adjustable for arranging the weight indicia thereof in correspondence with the selected capacity of the weighing apparatus, and means including balance network means controlled by said capacity determining means, for effecting adjustments of said weight indicia means.

2,780,801
INDICATING LIGHT AND TEST CIRCUIT
Hugh J. Tyler, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application December 7, 1953, Serial No. 396,668
2 Claims. (Cl. 340—214)



1. In an indicating light, in combination, a sleeve, an insulating base slidably disposed in the sleeve, a spring biasing said base outwardly, stop means limiting the outward movement of the base, a lamp bulb removably mounted in the base, a lens disposed over the bulb and extending beyond the end of the sleeve, a pair of spaced movable contact members carried by the base, a pair of spaced contact members fixed in the sleeve and normally engaged by said movable contacts, and an additional pair of spaced fixed contact members disposed to be engaged by the movable contacts when said lens is depressed, said movable contacts being disposed between said pairs of fixed contacts and electrically connected to said lamp bulb.

2,780,802
PORTABLE SELF CONTAINED SIGNAL AND WARNING LIGHT
Harry Propos, Teaneck, N. J.
Application November 12, 1954, Serial No. 468,238
3 Claims. (Cl. 340—321)

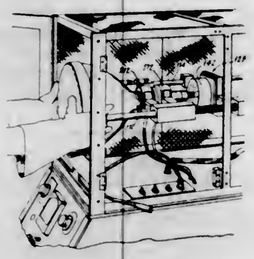


1. A dual effect signal lamp of the character described, including an elongated hollow translucent lamp head having a handle at one end for supporting said lamp head, and an opening at the other end, a lamp bulb disposed in effective position at said one end to radiate its light rays to the interior of the lamp head and through said opening at said other end having a current source self-contained within said handle, a second lamp bulb located within the outline of the lamp head facing in a direction perpendicular to the longitudinal axis of said housing and having a separate current source, and means for isolating the light rays of the second light bulb from the interior of said lamp head and directing them outward therefrom, said means comprising an opaque housing extending through a side wall of said head partially into the interior thereof adjacent to said longitudinal axis and intermediate said opening and said lamp bulb at said one end, said housing being transparent in a direction perpendicular to said longitudinal axis of said housing.

2,780,803
CATHODE RAY TUBE MOUNT
David H. Andrews, Glen Cove, and Paul R. Liegey, Seymour Nozick, and Werner S. Treitel, New York, N. Y.
Application May 12, 1954, Serial No. 429,412
7 Claims. (Cl. 340—367)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A cathode ray tube mount comprising; a support; first rectilinear track means secured to said support; second rectilinear track means secured to said support and oriented normal to said first rectilinear track means and extending in one direction only from adjacent the end of said first rectilinear track means; a cradle; means on said cradle engaging said first rectilinear track means and adapted for securing said cradle in one of a plurality of positions along said first rectilinear track means; a socket defining an axis; means attached to said socket and engaging said second rectilinear track means for securing said socket thereto in one of a plurality of positions along an extension of the axis of said socket which positions are

at various distances from said first rectilinear track means and cradle with the axis of said socket passing over the



center of the cradle, whereby a cathode ray tube of various lengths and face diameters may be disposed in said mount.

2,780,804
TELEVISION APPARATUS WITH SUPPLEMENTARY DISPLAY MEANS
Elliott T. Belmont, Boston, Mass.
Application August 18, 1954, Serial No. 450,602
6 Claims. (Cl. 340—368)

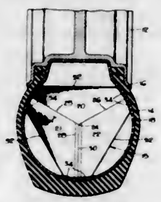
1. Television apparatus comprising a cathode ray tube embodying a filament, and having a transparent portion, electricity transmitting means connected to said tube, a thermostatic switch within said tube embodying two parts in electrical contact with each other, the first said part being connected to said means and being so positioned that a predetermined degree of heat from said filament is adapted to electrically separate said parts, a supporting member, providing a compartment, attached to said tube, a filament in said compartment adapted to be heated before said tube filament reaches said predetermined degree of heat, electricity conducting instrumentalities connected to said means and to said latter filament, and other electricity conducting instrumentalities connected to said latter filament and to the second of said thermostatic switch parts, and image display means in said compartment adapted to be illuminated by said latter filament and being so positioned whereby an image therefrom may be shown through said tube transparent portion.

2,780,805
DISPLAY SYSTEMS FOR RADAR
Henri Gutton, Paris, France, assignor to Compagnie Generale de Telegraphie Sans Fil, a corporation of France
Application April 1, 1953, Serial No. 346,203
Claims priority, application France April 17, 1952
6 Claims. (Cl. 343—13)

1. Radio direction finding and distance measuring equipment of the type comprising a transmitter for generating ultra high frequency energy; a pulse generator for pulse modulating said energy; means for radiating and concentrating said modulated energy in a thin beam; means for scanning with said beam, according to a predetermined recurrent law, a predetermined portion of space; and a receiver adapted to receive the wave reflected by targets located in said portion of space, said receiver comprising: a first and a second output circuits, a first and a second cathode ray oscillographs each having at least a display screen and a control electrode, said display screens being of different color of luminescence and having a suitable persistence, and means for producing an electron beam, and for scanning said respective display screens with the beams in accordance and

in synchronism with said law; gating means for connecting said first and said second output circuits to said control electrodes of said first and second oscillographs respectively; means comprising a first and a second square wave generator for alternately blocking and unblocking said gating means during at least a fraction of the repetition period of said transmitted pulses; means for controlling said first and said second square wave generators by said pulse generator; a translucid screen; and optical means for superimposing respective images of said first and said second display screens on said translucid screen whereby the color of the image obtained on said translucid screen provides an indication of the target range.

2,780,806
RADAR REFLECTOR FOR AIRCRAFT
Alvin Guy Van Alstyne, Los Angeles, Calif., assignor to Gilfillan Bros. Inc., Los Angeles, Calif., a corporation of California
Application November 29, 1954, Serial No. 471,809
14 Claims. (Cl. 343—18)

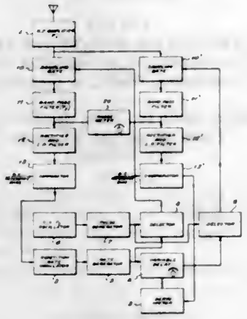


1. In an aircraft, the combination of: a retractable landing gear including a landing wheel with a tire thereon; and at least one radar reflector mounted inside the tire.

2,780,807
RADIO FREQUENCY SAMPLING DETECTOR
Robert L. Frank, Great Neck, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application August 30, 1952, Serial No. 307,347
7 Claims. (Cl. 343—103)

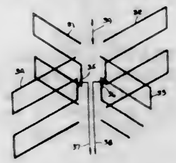
1. In a Loran receiver, means to improve signal-to-noise ratio of master signals comprising a radio frequency amplifier adapted to receive radio frequency signals, a sampling gate connected to said amplifier and adapted to sample small portions of said radio frequency signals, means connected to trigger said sampling gate at a frequency slightly different than said radio frequency, and a band-pass filter connected to said sampling gate and adapted to pass only the components of said difference frequency, a rectifying detector connected to the output of said band-pass filter whereby noise suppression in said rectifier is minimized by said sampling and filter, means to improve signal-to-noise ratio of slave signals comprising sampling gate connected to said amplifier and adapted to sample

small portions of said radio frequency signals, means connected to trigger said sampling gate at a frequency slightly different from said radio frequency, a second band pass filter connected to said sampling gate and a second rectifying detector connected to said second band



pass filter, means connected to said first and second detectors to measure the time difference between said master and slave signals, and means connected to said first and second filters to measure the phase difference between their outputs.

2,780,808
HIGH FREQUENCY ANTENNAS
Marvin P. Middlemark, Woodside, N. Y.
Application December 15, 1953, Serial No. 398,291
3 Claims. (Cl. 343—806)

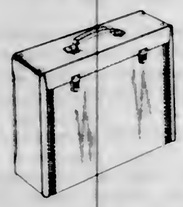


1. A high frequency antenna comprising at least two mutually insulated and complementary elements, each of said elements comprising at least four parallel lengths of metal, three links interconnecting said lengths to adjacent lengths to form a continuous, sinuous structure, said links being substantially perpendicular to said lengths, two of said links being at one side of said element and spaced from each other and the remaining link being at the opposite side of said element and disposed centrally of said opposite side, said remaining links of each element being adjacent each other, and connecting wires extending from each of said two remaining links and adapted to be connected to the input terminals of a television receiver.

DESIGNS

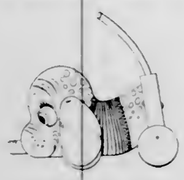
FEBRUARY 5, 1957

179,619
TRAVELLING BAG
Jack Barber, Waban, Mass.
Application June 13, 1956, Serial No. 41,889
Term of patent 14 years
(Cl. D87—5)



179,620
ESCUTCHEON FOR A DOOR HANDLE
Mirko Basaldella, Rome, Italy
Application June 15, 1956, Serial No. 41,918
Term of patent 7 years
(Cl. D50—6)

179,621
FIGURE TRUNDLE TOY
Ruth V. Bendel, Hinsdale, Ill., assignor to Fisher-Price Toys, Inc., East Aurora, N. Y.
Application July 12, 1956, Serial No. 42,225
Term of patent 14 years
(Cl. D34—15)



179,622
FIGURE TRUNDLE TOY
Ruth V. Bendel, Hinsdale, Ill., assignor to Fisher-Price Toys, Inc., East Aurora, N. Y.
Application July 12, 1956, Serial No. 42,229
Term of patent 14 years
(Cl. D34—15)

179,623
SUNGLASS FRAME FRONT OR THE LIKE
Jack Bloch, Leominster, Mass., assignor to Foster Grant Co., Inc., Leominster, Mass., a corporation of Massachusetts
Application April 10, 1956, Serial No. 41,016
Term of patent 14 years
(Cl. D57—1)

179,624
SLIP
Harvey Breitman, White Plains, N. Y., assignor to United Mills Corporation, a corporation of North Carolina
Application November 17, 1955, Serial No. 38,943
Term of patent 14 years
(Cl. D3—26)

179,625
TRUNDLE TOY
Ralph W. Crawford, East Aurora, N. Y., assignor to Fisher-Price Toys, Inc., East Aurora, N. Y.
Application June 25, 1956, Serial No. 42,024
Term of patent 14 years
(Cl. D34—15)

179,626
AMPHIBIAN
Louis Csicsko, Brooklyn, N. Y.
Application March 2, 1956, Serial No. 40,437
Term of patent 3½ years
(Cl. D71—1)

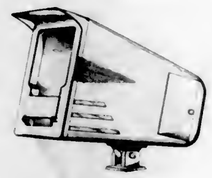
179,627
PULL
Carl J. Dargene, Rockford, Ill., assignor to Amerock Corporation, a corporation of Illinois
Application June 11, 1954, Serial No. 30,945
Term of patent 14 years
(Cl. D10—8)

179,628
SUCTION CLEANER TANK HEAD UNIT
Francis D. Dolan, Toledo, Ohio, assignor to The American Floor Surfacing Machine Company, Toledo, Ohio, a corporation of Ohio
Application June 29, 1956, Serial No. 42,082
Term of patent 14 years
(Cl. D9—2)

179,629
HELICOPTER
Jay Robert Duppstadt, Arlington, and Luell Graham, Fort Worth, Tex., assignors to Bell Aircraft Corporation, Wheatfield, N. Y.
Application December 2, 1955, Serial No. 39,129
Term of patent 14 years
(Cl. D71—1)

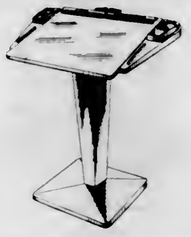
179,630
COMBINED WAFFLE BAKER AND GRILL
Robert O. Ernest, Oak Park, Ill., assignor to Sunbeam Corporation, Chicago, Ill., a corporation of Illinois
Application March 30, 1955, Serial No. 35,274
Term of patent 14 years
(Cl. D81—10)

179,631
PICTURE TAKING HOUSING FOR CHECK IDENTIFICATION
Gustave Fassin, Los Gatos, Calif., assignor to R. H. Peterson, San Jose, Calif., and Harry Buller, Bakersfield, Calif.
Application August 8, 1955, Serial No. 37,352
Term of patent 3½ years
(Cl. D61—1)



179,632
OPEN ESCUTCHEON FOR A DOOR KNOB
Warren W. Fitzgerald, South San Francisco, Calif., assignor to Schlage Lock Company, a corporation
Application July 11, 1955, Serial No. 36,892
Term of patent 14 years
(Cl. D50—6)

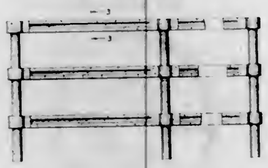
179,633
BOWLING SCORE TABLE
George G. Fox, Chicago, Ill., assignor to American Machine & Foundry Company, a corporation of New Jersey
Application May 4, 1956, Serial No. 41,349
Term of patent 14 years
(Cl. D34—5)



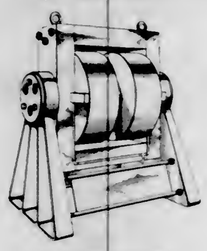
179,634
COMBINED EYEBROW PENCIL HOLDER AND SHARPENER
Charles Gemora, Los Angeles, Calif.
Application June 11, 1956, Serial No. 41,848
Term of patent 14 years
(Cl. D86—10)

179,635
TABLE
Robert A. Gera, Elmhurst, Ill., assignor to International Furniture, Division of Schnadig Corp., Chicago, Ill., a corporation of Delaware
Application May 14, 1956, Serial No. 41,480
Term of patent 3½ years
(Cl. D33—14)

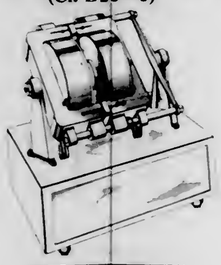
179,636
CONCRETE FENCE
Louis A. Goossens, Centerline, Mich.
Application May 23, 1955, Serial No. 36,164
Term of patent 14 years
(Cl. D28—2)



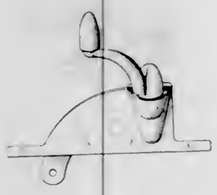
179,637
ELECTROMAGNETIC UNIT
Hugh J. Hall, Los Altos, Ralph W. Kane, Atherton, and Emery H. Rogers, Palo Alto, Calif., assignors to Varian Associates, San Carlos, Calif., a corporation of California
Application January 24, 1955, Serial No. 34,183
Term of patent 14 years
(Cl. D26—5)



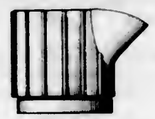
179,638
ELECTROMAGNETIC UNIT
Hugh J. Hall, Los Altos, Ralph W. Kane, Atherton, and Emery H. Rogers, Palo Alto, Calif., assignors to Varian Associates, San Carlos, Calif., a corporation of California
Application January 24, 1955, Serial No. 34,184
Term of patent 14 years
(Cl. D26—5)



179,639
CASEMENT WINDOW OPERATOR
Richmond M. Harby, San Juan, Puerto Rico
Application April 23, 1956, Serial No. 41,155
Term of patent 3½ years
(Cl. D10—10)



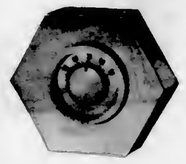
179,640
COMBINED CLOSURE CAP AND POURING SPOUT
Richard E. Hartung, Rumson, and Cleonard F. Harms, East Keansburg, N. J., assignors to Plastics Manufacturing Inc., Orange, N. J., a corporation of New Jersey
Application April 5, 1956, Serial No. 40,923
Term of patent 14 years
(Cl. D58—26)



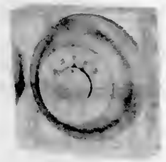
179,641
PAJAMA TROUSERS
Benjamin G. Heilman, Bryn Mawr, Pa., assignor to Gibbs Underwear Company, Philadelphia, Pa., a corporation of Pennsylvania
Application June 19, 1956, Serial No. 41,972
Term of patent 14 years
(Cl. D3—17)

179,642
CONTROL INSTRUMENT
Robert Haven Hose, Mountainside, N. J., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application May 7, 1956, Serial No. 41,382
Term of patent 14 years
(Cl. D52—7)

179,643
CONTROL INSTRUMENT
Robert Haven Hose, Mountainside, N. J., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application May 22, 1956, Serial No. 41,591
Term of patent 14 years
(Cl. D52—7)



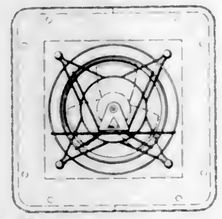
179,644
CONTROL INSTRUMENT
Robert Haven Hose, Mountainside, N. J., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application June 6, 1956, Serial No. 41,776
Term of patent 14 years
(Cl. D52—7)



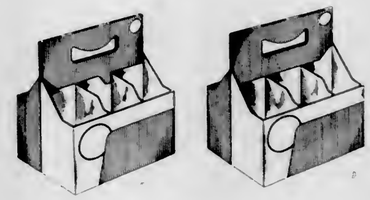
179,645
BOOK END OR SIMILAR ARTICLE
Homer Hungerford, Dallas, Tex.
Application July 29, 1955, Serial No. 37,211
Term of patent 3½ years
(Cl. D33—3)

179,646
CHAIR
James E. Jones and Edward P. Stevens, Toledo, Ohio, assignors to The Hettrick Manufacturing Company, Toledo, Ohio, a corporation of Ohio
Application December 27, 1955, Serial No. 39,487
Term of patent 14 years
(Cl. D15—1)

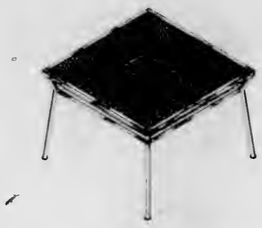
179,647
SPACE HEATER
John B. Koch, Detroit, Mich., assignor to American Blower Corporation, Detroit, Mich., a corporation of Michigan
Application August 26, 1954, Serial No. 32,033
Term of patent 14 years
(Cl. D81—10)



179,648
BOTTLE CARRIER
Leroy E. Larsen, Old Greenwich, Conn., assignor to The Coca-Cola Company, New York, N. Y., a corporation of Delaware
Application February 7, 1956, Serial No. 40,068
Term of patent 14 years
(Cl. D58—5)

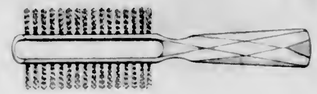


179,649
TABLE
John A. Maddox, Virginia Beach, Va.
Application June 29, 1956, Serial No. 42,087
Term of patent 14 years
(Cl. D33—14)

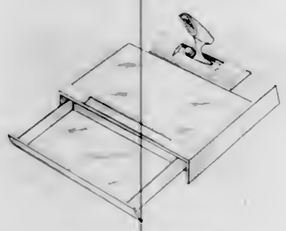


179,650
HAIRBRUSH OR SIMILAR ARTICLE
Joseph W. Mayer, Troy, N. Y., assignor to Johnson & Johnson, a corporation of New Jersey
Application March 12, 1956, Serial No. 40,560
Term of patent 14 years
(Cl. D86—10)

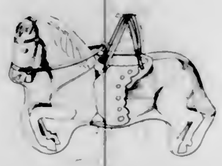
179,651
HAIRBRUSH OR SIMILAR ARTICLE
Joseph W. Mayer, Troy, N. Y., assignor to Johnson & Johnson, a corporation of New Jersey
Application March 12, 1956, Serial No. 40,562
Term of patent 14 years
(Cl. D86—10)



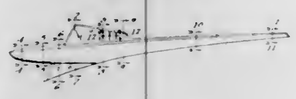
179,652
COMBINED MEMORANDUM SHEET AND PENHOLDER
John J. Olson, St. Paul, Minn., assignor to Brown & Bigelow, St. Paul, Minn.
Application March 19, 1956, Serial No. 40,671
Term of patent 14 years
(Cl. D74—1)



179,653
INFLATABLE TOY HORSE
Sol Passell, Youngstown, Ohio
Application March 14, 1955, Serial No. 35,010
Term of patent 3½ years
(Cl. D34—15)

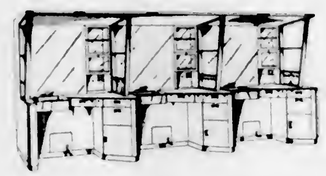


179,654
ORNAMENT FOR AN AUTOMOBILE HOOD
Harold W. Pilkey, Detroit, and Charles F. Gitschlag, Jr., St. Clair Shores, Mich., assignors to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application July 26, 1955, Serial No. 37,126
Term of patent 14 years
(Cl. D14—18)



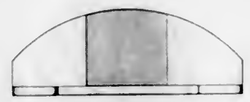
179,655
MULTIPLE CABINET, SINK, AND MIRROR UNIT FOR BARBER SHOPS OR THE LIKE
Fred J. Piotraschke, Clayton, Mo.
Application August 20, 1956, Serial No. 42,654
Term of patent 3½ years
(Cl. D80—2)

179,656
MULTIPLE CABINET, SINK, AND MIRROR UNIT FOR BARBER SHOPS OR THE LIKE
Fred J. Piotraschke, Clayton, Mo.
Application August 20, 1956, Serial No. 42,655
Term of patent 3½ years
(Cl. D80—2)

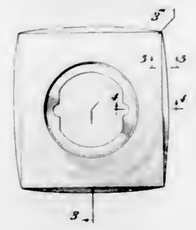


179,657
PISTOL
Harvey T. Pittman, Jr., Tarboro, N. C.
Application March 18, 1955, Serial No. 35,094
Term of patent 14 years
(Cl. D30—1)

179,658
PEN AND PENCIL HOLDER
Frank Scelzo, Jr., Hackensack, N. J.
Application May 9, 1956, Serial No. 41,420
Term of patent 14 years
(Cl. D74—1)



179,659
ESCUTCHEON PLATE
Adolf Schoepe, Fullerton, Calif., assignor to Kwikset Locks, Inc., Anaheim, Calif., a corporation of California
Application July 13, 1955, Serial No. 36,963
Term of patent 14 years
(Cl. D50—6)



179,660
MIRROR OR SIMILAR ARTICLE
John Henry Schroeder, Melrose Park, Ill.
Application June 6, 1956, Serial No. 41,782
Term of patent 14 years
(Cl. D33—9)

179,661
HELICOPTER
Paul M. Schroeder, Jr., Fort Worth, Tex., assignor to Bell Aircraft Corporation, Wheatfield, N. Y.
Application December 2, 1955, Serial No. 39,130
Term of patent 14 years
(Cl. D71—1)

179,662
WIND GAUGE
Karl Ivar Gustav Slettenmark, Stockholm, Sweden
Application June 22, 1955, Serial No. 36,637
Term of patent 14 years
(Cl. D52—1)

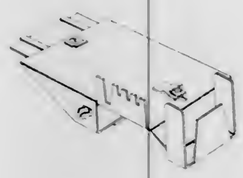
179,663
COMBINED KNOB AND ROSE FOR A DOOR LOCK
Andrea Spadini, Rome, Italy
Application June 15, 1956, Serial No. 41,915
Term of patent 7 years
(Cl. D50—3)

179,664
CARPET CLEANER
Robert G. Statz, Wauwatosa, Wis.
Application June 30, 1954, Serial No. 31,237
Term of patent 7 years
(Cl. D9—2)

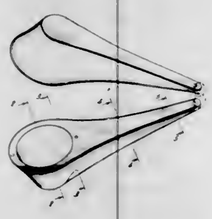
179,665
COMBINED SPRAY GUN AND CONTAINER
Robert E. Sykes, Evanston, Ill., assignor to Bell & Gossett Company, Morton Grove, Ill., a corporation of Illinois
Application December 14, 1954, Serial No. 33,555
Term of patent 14 years
(Cl. D62—2)

179,666
SPRAY GUN
Robert E. Sykes, Evanston, Ill., assignor to Bell & Gossett Company, Morton Grove, Ill., a corporation of Illinois
Application December 14, 1954, Serial No. 33,557
Term of patent 14 years
(Cl. D62—2)

179,667
GOLF CART SERVICE TRAY
Casimir Waitekus, Pittsfield, Mass.
Application April 25, 1955, Serial No. 35,671
Term of patent 14 years
(Cl. D14—6)

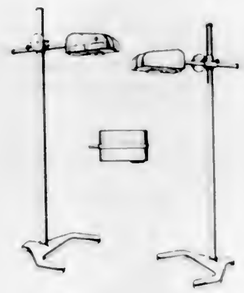


179,668
EGGHOLDER OR SIMILAR ARTICLE
Elwyn Louis Ward, Manhattan Beach, Calif.
Application June 4, 1956, Serial No. 41,751
Term of patent 7 years
(Cl. D44—4)



179,669
SWEATER OR SIMILAR ARTICLE
Moses M. Williams, Miami, Fla., assignor of fifty percent to Radie S. Jackson, Opa Locka, Fla.
Application November 9, 1955, Serial No. 38,818
Term of patent 14 years
(Cl. D3—4)

179,670
COMBINED MOUNTED CAMERA AND PHOTOFLASH UNIT
Manuel Zimberoff, Ralph G. Leavitt, and Henry I. Paul, Chicago, Ill.
Application October 3, 1955, Serial No. 38,213
Term of patent 14 years
(Cl. D61—1)



LIST OF PLANT PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 5TH DAY OF FEBRUARY, 1957

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Doerr, Ervin H. Double gladiolus plant. 1,559, 2–5–57, Cl. 47—60.

Doerr, Ervin H. Red gladiolus plant. 1,560, 2–5–57, Cl. 47—60.

Doerr, Ervin H. White gladiolus plant. 1,561, 2–5–57, Cl. 47—60.

LIST OF DESIGN PATENTEES

American Blower Corp.: *See*—
Koch, John B. 179,647.

American Floor Surfacing Machine Co., The: *See*—
Dolan, Francis D. 179,628.

American Machine & Foundry Co.: *See*—
Fox, George G. 179,633.

Amerock Corp.: *See*—
Dargene, Carl J. 179,627.

Barber, Jack. Travelling bag. 179,619, 2–5–57, Cl. D87—5.

Basaldella, Mirko. Escutcheon for a door handle. 179,629, 2–5–57, Cl. D50—6.

Bell Aircraft Corp.: *See*—
Duppstadt, Jay R., and Graham. 179,629.
Schroeder, Paul M., Jr. 179,661.

Bell & Gossett Co.: *See*—
Sykes, Robert E. 179,665.
Sykes, Robert E. 179,666.

Bendel, Ruth V., to Fisher-Price Toys, Inc. Figure trundle toy. 179,621, 2–5–57, Cl. D34—15.

Bendel, Ruth V., to Fisher-Price Toys, Inc. Figure trundle toy. 179,622, 2–5–57, Cl. D34—15.

Bloch, Jack, to Foster Grant Co., Inc. Sunglass frame front or the like. 179,623, 2–5–57, Cl. D57—1.

Breitman, Harvey, to United Mills Corp. Slip. 179,624, 2–5–57, Cl. D3—26.

Brown & Bigelow: *See*—
Olson, John J. 179,652.

Buller, Harry: *See*—
Fassin, Gustave. 179,631.

Chrysler Corp.: *See*—
Pilkey, Harold W., and Gitschlag. 179,654.

Coca-Cola Co., The: *See*—
Larsen, Leroy E. 179,648.

Crawford, Ralph W., to Fisher-Price Toys, Inc. Trundle toy. 179,625, 2–5–57, Cl. D34—15.

Csicsko, Louis. An amphibian. 179,626, 2–5–57, Cl. D71—1.

Dargene, Carl J., to Amerock Corp. Pull. 179,627, 2–5–57, Cl. D10—8.

Dolan, Francis D., to The American Floor Surfacing Machine Co. Suction cleaner tank head unit. 179,628, 2–5–57, Cl. 19—2.

Duppstadt, Jay R., and L. Graham, to Bell Aircraft Corp. Helicopter. 179,629, 2–5–57, Cl. D71—1.

Ernest, Robert O., to Sunbeam Corp. Combined waffle baker and grill. 179,630, 2–5–57, Cl. D81—10.

Fassin, Gustave, to R. H. Peterson and H. Buller. Picture taking housing for check identification. 179,631, 2–5–57, Cl. D61—1.

Fisher-Price Toys, Inc.: *See*—
Bendel, Ruth V. 179,621.
Bendel, Ruth V. 179,622.
Crawford, Ralph W. 179,625.

Fitzgerald, Warren W., to Schlage Lock Co. Open escutcheon for a door knob. 179,632, 2–5–57, Cl. D50—6.

Foster Grant Co., Inc.: *See*—
Bloch, Jack. 179,623.

Fox, George G., to American Machine & Foundry Co. Bowling score table. 179,633, 2–5–57, Cl. D34—5.

Gemora, Charles. Combined eyebrow pencil holder and sharpener. 179,634, 2–5–57, Cl. D86—10.

Gera, Robert A., to International Furniture, Division of Schnadig Corp. Table. 179,635, 2–5–57, Cl. D33—14.

Gibbs Underwear Co.: *See*—
Heilman, Benjamin G. 179,641.

Gitschlag, Charles F., Jr.: *See*—
Pilkey, Harold W., and Gitschlag. 179,654.

Goossens, Louis A. Concrete fence. 179,636, 2–5–57, Cl. D28—2.

Graham, Lucil: *See*—
Duppstadt, Jay R., and Graham. 179,629.

Hall, Hugh J., R. W. Kane, and E. H. Rogers, to Varian Associates. Electromagnetic unit. 179,637, 2–5–57, Cl. D26—5.

Hall, Hugh J., R. W. Kane, and E. H. Rogers, to Varian Associates. Electromagnetic unit. 179,638, 2–5–57, Cl. D26—5.

Harby, Richmond M. Casement window operator. 179,639, 2–5–57, Cl. D10—10.

Harms, Cleonard F.: *See*—
Hartung, Richard E., and Harms. 179,640.

Hartung, Richard W., and C. F. Harms, to Plastics Mfg. Inc. Combined closure cap and pouring spout. 179,640, 2–5–57, Cl. D58—26.

Heilman, Benjamin G., to Gibbs Underwear Co. Pajama trousers. 179,641. 2–5–57, Cl. D3—17.

Hettrick Mfg. Co., The: *See*—
Jones, James, and Stevens. 179,646.

Hose, Robert H., to Minneapolis-Honeywell Regulator Co. Control instrument. 179,642, 2–5–57, Cl. D52—7.

Hose, Robert H., to Minneapolis-Honeywell Regulator Co. Control instrument. 179,643, 2–5–57, Cl. D52—7.

Hose, Robert H., to Minneapolis-Honeywell Regulator Co. Control instrument. 179,644, 2–5–57, Cl. D52—7.

Hungerford, Homer. Book end or similar article. 179,645, 2–5–57, Cl. D33—3.

International Furniture, Division of Schnadig Corp.: *See*—
Gera, Robert A. 179,635.

Jackson, Radie S.: *See*—
Williams, Moses M. 179,669.

Johnson & Johnson: *See*—
Mayer, Joseph W. 179,650.
Mayer, Joseph W. 179,651.

Jones, James E., and E. P. Stevens, to The Hettrick Mfg. Co. Chair. 179,646, 2–5–57, Cl. D15—1.

Kane, Ralph W.: *See*—
Hall, Hugh J., Kane, and Rogers. 179,637.
Hall, Hugh J., Kane, and Rogers. 179,638.

Koch, John B., to American Blower Corp. Space heater. 179,647, 2–5–57, Cl. D81—10.

Kwikset Locks, Inc.: *See*—
Schoepe, Adolf. 179,659.

Larsen, Leroy E., to The Coca-Cola Co. Bottle carrier. 179,648, 2–5–57, Cl. D58—5.

Leavitt, Ralph G.: *See*—
Zimberoff, Manuel, Leavitt, and Paul. 179,670.

Maddox, John A. Table. 179,649, 2–5–57, Cl. D33—14.

Mayer, Joseph W., to Johnson & Johnson. Hairbrush or similar article. 179,650, 2–5–57, Cl. D86—10.

Mayer, Joseph W., to Johnson & Johnson. Hairbrush or similar article. 179,651, 2–5–57, Cl. D86—10.

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Hose, Robert H. 179,642.
Hose, Robert H. 179,643.
Hose, Robert H. 179,644.

Olson, John J., to Brown & Bigelow. Combined memorandum sheet and pen holder. 179,652, 2–5–57, Cl. D74—1.

Passell, Sol. Inflatable toy horse. 179,653, 2–5–57, Cl. D34—15.

Paul, Henry I.: *See*—
Zimberoff, Manuel, Leavitt, and Paul. 179,670.

Peterson, R. H.: *See*—
Fassin, Gustave. 179,631.

Pilkey, Harold W., and C. F. Gitschlag, Jr., to Chrysler Corp. Ornament for an automobile hood. 179,654, 2–5–57, Cl. D14—18.

Plotraschke, Fred J. Multiple cabinet, sink, and mirror unit for barber shops or the like. 179,655, 2–5–57, Cl. D80—2

Plotraschke, Fred J. Multiple cabinet, sink, and mirror unit for barber shops or the like. 179,656, 2–5–57, Cl. D80—2.

Pittman, Harvey T., Jr. Pistol. 179,657, 2–5–57, Cl. D30—1.

Plastics Mfg. Inc.: *See*—
Hartung, Richard E., and Harms. 179,640.

Rogers, Emery H.: *See*—
Hall, Hugh J., Kane, and Rogers. 179,637.
Hall, Hugh J., Kane, and Rogers. 179,638.

Scelzo, Frank, Jr. Pen and pencil holder. 179,658, 2–5–57 Cl. D74—1.

Schlage Lock Co.: *See*—
Fitzgerald, Warren W. 179,632.

Schoepe, Adolf, to Kwikset Locks, Inc. Escutcheon plate. 179,659, 2–5–57, Cl. D50—6.

Schroeder, John H. Mirror or similar article. 179,660, 2–5–57, Cl. D33—9.

Schroeder, Paul M., Jr., to Bell Aircraft Corp. Helicopter. 179,661, 2–5–57, Cl. D71—1.

Slettenmark, Karl I. G. Wind gauge. 179,662, 2–5–57, Cl. D52—1.

Spadini, Andrea. Combined knob and rose for a door lock. 179,663, 2–5–57, Cl. D50—3.

Statz, Robert G. Carpet cleaner. 179,664, 2–5–57, Cl. D9—2

Stevens, Edward P.: *See*—
Jones, James E., and Stevens. 179,646.

Sunbeam Corp.: *See*—
Ernest, Robert O. 179,630.

Sykes, Robert E., to Bell & Gossett Co. Combined spray gun and container. 179,665, 2–5–57, Cl. D62—2.

Sykes, Robert E., to Bell & Gossett Co. Spray gun. 179,666 2–5–57, Cl. D62—2.

United Mills Corp.: *See*—
Breitman, Harvey. 179,624.
Varian Associates: *See*—
Hall, Hugh J., Kane, and Rogers. 179,637.
Hall, Hugh J., Kane, and Rogers. 179,638.
Waitekus, Casimir. Golf cart service tray. 179,667, 2–5–57, Cl. D14—6.
Ward, Elwyn L. Eggholder or similar article. 179,668, 2–5–57, Cl. D44—4.
Williams, Moses M., 50% to R. S. Jackson. Sweater or similar article. 179,669, 2–5–57, Cl. D3—4.
Zimberoff, Manuel, R. G. Leavitt, and H. I. Paul. Combined mounted camera and photoflash unit. 179,670, 2–5–57, Cl. D61—1.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 5TH DAY OF FEBRUARY, 1957

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

A/S R. Sigvardt: *See*—
Sigvardt, Knud. 2,780,490.
Ackermann, Hans, and G. Schetty, to J. R. Geigy A. G. Disazo dyestuffs and complex heavy metal compounds thereof. 2,780,618, 2–5–57, Cl. 260—147.
Adamson United Co.: *See*—
Stratton, Edgar H., and Fisher. 2,780,384.
Admiral Corp.: *See*—
Carlson, Reuben C. 2,780,465.
Aeronca Mfg. Corp.: *See*—
Chuba, Herman J. 2,780,733.
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Guadagni, Dante G. 2,780,551.
Krider, Merle M., and Wall. 2,780,620.
Willard, Miles J., Jr., and Cording. 2,780,552.
Ainsworth Mfg. Corp.: *See*—
Rosenberg, Ralph H. 2,780,501.
Ake, Paige W., and J. T. Lester. Hinges attached anti-puckering device for the upholstery of sofa beds and the like. 2,779,950, 2–5–57, Cl. 5—57.
Aktiebolaget Pharmacia: *See*—
Blomgren, Erik, and Jenner. 2,780,601.
Aladdin Industries, Inc.: *See*—
Hill, Lester E., and Lyman. 2,780,784.
Albright, Cletus W. Offhand spool sanding machine. 2,780,033, 2–5–57, Cl. 51—3.
Aldrich, Richard W., J. S. Schaffner, and J. J. Suran, to General Electric Co. Semi-conductor network. 2,780,752, 2–5–57, Cl. 315—240.
Alexander, James L. Holder for coffee maker top. 2,780,081, 2–5–57, Cl. 65—65.
Allen, Arthur C., to Stewart-Warner Corp. Unitary heating device for supplying hot combustion gases and hot air. 2,780,218, 2–5–57, Cl. 126—110.
Allen, Arthur C., to Stewart-Warner Corp. Combustion heater of the fuel vapor generator type. 2,780,280, 2–5–57, Cl. 158—53.
Allen, W. D., Mfg. Co.: *See*—
Pokryfke, John A. 2,780,430.
Allied Home Products Corp.: *See*—
Lerner, Louis L. 2,780,554.
Allis-Chalmers Mfg. Co.: *See*—
Sealey, William C. 2,780,768.
Allmanna Svenska Elektriska Aktiebolaget: *See*—
Hansson, Hugo. 2,780,799.
Alspaugh, Paul L., and R. R. Cosner, to Union Carbide and Carbon Corp. Process and apparatus for bore hole mining and conveying. 2,780,451, 2–5–57, Cl. 262—7.
Altmann, Andrew J. Combination cutter and attachment. 2,780,001, 2–5–57, Cl. 30—132.
Ambrosio, Biagio F. Distance measurements by sonic means. 2,780,795, 2–5–57, Cl. 340—3.
Amen, Nicholas C. Bearing and lubricant friction evaluating apparatus. 2,780,091, 2–5–57, Cl. 73—9.
American Character Doll Co.: *See*—
Beebe, Hervert R. 2,780,030.
American Cyanamid Co.: *See*—
Bach, Frederick L., Jr., and Kushner. 2,780,625.
Barber, William A., and Friedlander. 2,780,610.
Marzluff, William F. 2,780,513.
Petropoulos, John C. 2,780,609.
Webb, John S., and Arit. 2,780,624.
Welcher, Richard P., and Kaiser. 2,780,623.
American Home Products Corp.: *See*—
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American Steel Foundries: *See*—
Bachman, Fred E. 2,780,316.
Bachman, Fred E., and Klausner. 2,780,317.
American Truck Equip. Co.: *See*—
Hall, Thomas R. 2,780,419.
American Viscose Corp.: *See*—
Castellan, Carl A. 2,779,971.
Holdaway, James L., and Nelson. 2,779,973.
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Tawney, Pliny O., and Amidon. 2,780,615.
Ammon, Johannes H., to The Babcock & Wilcox Co. Tubular ball drift tube expander. 2,780,272, 2–5–57, Cl. 153—80.5.
Ampco Metal Inc.: *See*—
Mullen, Henry A. 2,780,718.
Anderson, Arthur G., to International Business Machines Corp. Spin echo memory systems. 2,780,798, 2–5–57, Cl. 340—173.
Anderson, George A., to the United States of America as represented by the United States Atomic Energy Commission. Neutronic reactor. 2,780,596, 2–5–57, Cl. 204—193.
Andreae, Maynard R., to Syncro Corp. Apparatus for operating vibratory jigsaw. 2,780,248, 2–5–57, Cl. 143—73.
Andreae, Maynard R., T. F. Carmichael, and E. G. Sturgeon, to Syncro Corp. Table jigsaw with tiltable blade. 2,780,249, 2–5–57, Cl. 143—78.
Andrews, David H., P. R. Liegey, S. Nozick, and W. S. Treitel. Cathode ray tube mount. 2,780,803, 2–5–57, Cl. 340—367.
Andrews, L. V., to Riley Stoker Corp. Feeding pulverized fuel for combustion. 2,780,186, 2–5–57, Cl. 110—106.
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Noble, Aubrey E., Anness, Hyman, and Roetz. 2,780,096.
Anthony, Alfred A. Toy hemisphere with music box therein. 2,780,029, 2–5–57, Cl. 46—111.
Arit, Herbert G., Jr.: *See*—
Webb, John S., and Arit. 2,780,624.
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Holloway, James P. 2,780,443.
Armstrong, Daniel A., to Kiekhaefer Corp. Outboard motor with spring-release clutch control. 2,780,331, 2–5–57, Cl. 192—.07.
Arnott, Edward G. F., to Westinghouse Electric Corp. Incandescent-electroluminescent lamp. 2,780,746, 2–5–57, Cl. 313—109.
Arntzen, Arnt. Fish lures. 2,780,022, 2–5–57, Cl. 43—42.36.
Arps, Bruno F., to Arps Corp. Detachable bracket and spade cutter for trench digger chain. 2,780,014, 2–5–57, Cl. 37—191.
Arps Corp.: *See*—
Arps, Bruno F. 2,780,014.
Asbeck, Hans J., and F. E. Ehrett, to The Sherwin-Williams Co. Multi-component spray gun. 2,780,496, 2–5–57, Cl. 299—140.1.
Aschkenas, Abraham: *See*—
Reiser, Hyman, and Aschkenas. 2,780,333.
Ashley, Mervin F. Grip attachments for golf clubs. 2,780,464, 2–5–57, Cl. 273—165.
Ashworth, Fred, and J. R. Ioannilli, to United Shoe Machinery Corp. Machines for sewing shoes. 2,780,189, 2–5–57, Cl. 112—46.
Aspey, Cecil W., to Northrop Aircraft, Inc. Sectionally interlocking plate nut. 2,780,264, 2–5–57, Cl. 151—41.71.
Assembly Products, Inc.: *See*—
Thompson, Bradley R., and Saint-Amour. 2,780,709.
Attwood, John G., to Union Special Machine Co. Lubrication system for sewing machines. 2,780,192, 2–5–57, Cl. 112—256.
Automatic Electric Laboratories, Inc.: *See*—
Schaufuss, Leif. 2,780,677.
Sengebusch, Hans. 2,780,675.
Automatic Poultry Feeder Co.: *See*—
Smallegan, Marvin L. 2,780,341.
Ayers, George W., and W. L. Fierce, to The Pure Oil Co. Synthesis of succinonitriles. 2,780,638, 2–5–57, Cl. 260—465.3.
Babcock & Wilcox Co., The: *See*—
Ammon, Johannes H. 2,780,272.
Bacchi, Ray, to Baldwin-Lima-Hamilton Corp. Counterbalanced pumping jack. 2,780,063, 2–5–57, Cl. 60—51.
Bach, Frederick L., Jr., and S. Kushner, to American Cyanamid Co. Piperazine derivatives and method of preparing the same. 2,780,625, 2–5–57, Cl. 260—268.
Bachman, Fred E., to American Steel Foundries. Brake head assembly. 2,780,316, 2–5–57, Cl. 188—59.
Bachman, Fred E., and J. E. Klausner, to American Steel Foundries. Rotor brake suspension. 2,780,317, 2–5–57, Cl. 188—59.
Bachman Bros., Inc.: *See*—
McNeill, Albert G. 2,780,028.
Bacon, Louis E.: *See*—
Benning, Samuel, and Bacon. 2,780,227.
Bader, Hans. Electrical lead connector. 2,780,789, 2–5–57, Cl. 339—59.
Badger, Everett H., Jr.: *See*—
Davies, Robert H., and Badger. 2,780,238.
Bagshaw, Charles M., to United Shoe Machinery Corp. Fastener forming machines with means for preventing actuation of the feed length changing device during operation of the former. 2,780,051, 2–5–57, Cl. 59—75.
Bailey, Donald S., to Lockheed Aircraft Corp. Method of forming a mechanical and electrical connection. 2,779,998, 2–5–57, Cl. 29—470.3.
Bailey, Sara E.: *See*—
Kaufman, David, and Bailey. 2,780,519.
Baker & Co., Inc.: *See*—
Schneider, Julius F., and Sivil. 2,780,543.
Baker, David B.: *See*—
Beckman, William O., Land, Baker, and Henning. 2,780,319.
Baker, J. T., Chemical Co.: *See*—
Jasuta, Albert R. 2,780,391.
Baldwin-Lima-Hamilton Corp.: *See*—
Bacchi, Ray. 2,780,063.
Govan, William L. 2,780,092.

Ballington, Bernard T., to English Steel Corp. Ltd. Electrode holders for hand-welding. 2,780,719, 2–5–57, Cl. 219—138.

Banck, Robert A., to Bigelow-Liptak Corp. Tube supported wall. 2,780,205, 2–5–57, Cl. 122—6.

Barber, William A., and H. Z. Friedlander, to American Cyanamid Co. Compositions comprising a polymer of acrylamide and ethylene glycol. 2,780,610, 2–5–57, Cl. 260—33.4.

Barclay Mfg. Co., Inc.: *See*—
Sundelin, Ronald R., and Feder. 2,779,978.
Sundelin, Ronald R., and Feder. 2,779,979.
Sundelin, Ronald R., and Feder. 2,779,983.

Bardsley, Robert F.: *See*—
Miller, Philip, and Bardsley. 2,780,245.

Barish, Thomas, to General Motors Corp. Spinner construction. 2,780,297, 2–5–57, Cl. 170—159.

Barish, Thomas, C. F. Irwin, R. E. Line, and C. B. Wright, to General Motors Corp. Blade seal assembly. 2,780,298, 2–5–57, Cl. 170—160.23.

Barley, Leo D., to Harris-Seybold Co. Hydraulic motive power system. 2,780,204, 2–5–57, Cl. 121—45.

Barnes, William A., to Utica Drop Forge & Tool Corp. Double action trimmer and surface preparation tool for solid phase bonding. 2,779,954, 2–5–57, Cl. 7—5.6.

Barr, Courtland H., and J. T. Tripp; said Tripp assor. to C. H. Barr, Sr., C. H. Barr, Jr., and J. W. Barr. Blood packaging unit. 2,780,225, 2–5–57, Cl. 128—272.

Barr, Courtland H., Jr.: *See*—
Barr, Courtland H., and Tripp. 2,780,225.

Barr, Courtland H., Sr.: *See*—
Barr, Courtland H., and Tripp. 2,780,225.

Barr, John W.: *See*—
Barr, Courtland H., and Tripp. 2,780,225.

Barr and Stroud Ltd.: *See*—
Dickson, John H. 2,780,132.

Barrett, Hillard E., and W. F. Payne, to Curtiss-Wright Corp. Jet engine burner construction. 2,780,062, 2–5–57, Cl. 60—39.72.

Bartleson, John D., to The Standard Oil Co. Crankcase lubricating oil and additive therefor. 2,780,599, 2–5–57, Cl. 252—37.7.

Battelle Development Corp., The: *See*—
Blank, Howard A., Moon, and Hall. 2,780,545.

Baudry, René A., and P. R. Heller, to Westinghouse Electric Corp. Conductor-ventilated turbine-generators. 2,780,739, 2–5–57, Cl. 310—55.

Bauer, Alfred F., and C. Pack, to National Lead Co. Press for forging metal. 2,780,117, 2–5–57, Cl. 78—41.

Baugh, Charles W., Jr.: *See*—
Farr, Kenneth E., Baugh, and Heffron. 2,780,668.

Bauserman, James R. Vehicle license tag and tab construction. 2,780,018, 2–5–57, Cl. 40—125.

Beale, Richard D., D. H. Jubb, and B. C. J. Stevenson, to Rolls-Royce Ltd. Aircraft reaction propulsion units and installations with means to produce reverse thrust. 2,780,058, 2–5–57, Cl. 60—35.54.

Beaudoin, Jack. Oil burning camp stove. 2,780,216, 2–5–57, Cl. 126—93.

Beaver Tool and Engineering Corp.: *See*—
Jackson, Robert O. 2,780,467.

Bechman, William O., H. A. Land, D. B. Baker, and W. W. Henning, to International Harvester Co. Brake mechanism. 2,780,319, 2–5–57, Cl. 188—72.

Beckner, Marshall H., and J. M. Leahy; said Beckner assor. to Tri-State Engineering Co. Collapsible container. 2,780,382, 2–5–57, Cl. 220—6.

Bedford, William A., Jr., to United-Carr Fastener Corp. Fastening device. 2,780,329, 2–5–57, Cl. 189—88.

Beebe, Herbert R., to American Character Doll Co. Toy figure with articulated leg members. 2,780,030, 2–5–57, Cl. 46—161.

Bell, De Witt: *See*—
Kuzmick, Joseph N., and Bell. 2,780,534.

Bell, Leo R., to American Machine & Foundry Co. Chain shortening device. 2,780,108, 2–5–57, Cl. 74—242.8.

Bell Telephone Laboratories, Inc.: *See*—
Breed, Rolland N., Groth, Irwin, Kille, and Riggs. 2,780,410.
Chapin, Daryl M., Fuller, and Pearson. 2,780,765.

Bell, William. Means for delivering metal or other sheets from a conveyor. 2,780,339, 2–5–57, Cl. 198—33.

Belmont, Elliot T. Television apparatus with supplementary display means. 2,780,804, 2–5–57, Cl. 340—368.

Bendix Aviation Corp.: *See*—
Keenan, James W. 2,780,687.
Priftis, Sidiare. 2,780,745.

Bengau Industries, Inc.: *See*—
Gauthier, William H., and Benton. 2,780,491.

Benning, Samuel, and L. E. Bacon. Method of forming bundles of tobacco leaves. 2,780,227, 2–5–57, Cl. 131—149.

Benrus Watch Co., Inc.: *See*—
Lancaster, Ralph, and Slater. 2,780,400.

Benton, James C.: *See*—
Gauthier, William H., and Benton. 2,780,491.

Benz, George W.: *See*—
Calvn, Jose B. 2,780,071.

Berch, William H., to General Dynamics Corp. Cord circuits. 2,780,676, 2–5–57, Cl. 179—51.

Berglund, Ralph M. Crown caps for containers. 2,780,380, 2–5–57, Cl. 215—46.

Berkman, Sophia, to Transonic Corp. Compositions for improving combustion in an internal combustion engine. 2,780,602, 2–5–57, Cl. 252—432.

Bernatt, Joseph: *See*—
Brown, Walter, and Bernatt. 2,780,684.

Bernhardt, Howard E., and K. W. Davey, to A. O. Smith Corp. Method of welding. 2,780,717, 2–5–57, Cl. 219—100.

Bertrams, Kurt. Flash lamps. 2,780,720, 2–5–57, Cl. 240—1.3.

Berwaerts, Victor. Method and apparatus for automatically regulating quantities of material added to a mixture. 2,780,456, 2–5–57, Cl. 265—29.

Bethlehem Steel Co.: *See*—
Groover, Robert W. 2,780,354.
Riedel, John Y. 2,780,570.
Wick, Richard M., and Schneidewind. 2,780,592.

Better Packages Inc.: *See*—
Sharpe, Everett E. 2,780,286.

Bevilacqua, Edward M., to United States Rubber Co. Polymerization of styrene in Hevea latex. 2,780,605, 2–5–57, Cl. 260—2.5.

Beyer, Millard L. Remote variable control of vehicle speed. 2,780,300, 2–5–57, Cl. 180—82.1.

Bielstein, Walter J., to Esso Research and Engineering Co. Device for drilling wells. 2,780,438, 2–5–57, Cl. 255—3.

Bigelow-Liptak Corp.: *See*—
Banck, Robert A. 2,780,205.

Billing, Joseph, and C. Bostock, to British Celanese Ltd. Preparation of highly polymeric material in a form suitable for transport. 2,779,974, 2–5–57, Cl. 18—47.5.

Birch, Charles K., to Lehigh Valley Coal Sales Co. Ash removal apparatus. 2,780,187, 2–5–57, Cl. 110—165.

Birtman Electric Co.: *See*—
More, Philip J. 2,779,964.

Black, Sivalls and Bryson, Inc.: *See*—
Pew, James E., and Hayes. 2,780,304.

Blank, Howard A., D. P. Moon, and A. M. Hall, to The Battelle Development Corp. High-temperature alloy. 2,780,545, 2–5–57, Cl. 75—176.

Blanks, Henry S., to Radio Corp. of America. Compact color television projecting apparatus. 2,780,134, 2–5–57, Cl. 88—24.

Bloch, Jeanne C. L., neé Boulanger-Montegu, to Societe Industrielle de Produits Africains. Process for preparing a confectionary product. 2,780,549, 2–5–57, Cl. 99—126.

Blomgren, Erik, and H. Jenner, to Aktiebolaget Pharmacia. Improved chemical reagent for the quantitative determination of water. 2,780,601, 2–5–57, Cl. 252—408.

Blue Ridge Glass Corp.: *See*—
Glynn, Theodore W., and Storm. 2,780,708.

Blumberg, Armond. Binocular carrier. 2,780,263, 2–5–57, Cl. 150—52.

Boam, Willard M., and H. H. Hanink, to Curtiss-Wright Corp. Method of copper brazing. 2,779,999, 2–5–57, Cl. 29—498.

Bobb, Lloyd J., to The International Electronics Co. Magnetic recording and reproducing circuits. 2,780,678, 2–5–57, Cl. 179—100.1.

Bocklus, Louis V.: *See*—
Schlabach, Raymond M., and Mocklus. 2,780,395.

Boeing Airplane Co.: *See*—
Johanson, Norman L. 2,780,725.
Stavert, Harry. 2,780,057.

Bolick, Henry W., Sr. Folding reed hook. 2,779,991, 2–5–57, Cl. 28—45.

Bolme, Ole M.: *See*—
Hickey, Merrill H., and Bolme. 2,780,368.

Bon, Charles K., M. P. Neipert, and N. L. Piegols, to The Dow Chemical Co. Removing suspended solids from aqueous liquids. 2,780,360, 2–5–57, Cl. 210—51.

Bonatz, Richard T., to Westinghouse Electric Corp. Electrostatic precipitators. 2,780,305, 2–5–57, Cl. 183—7.

Bonderer, Charles F. Golf ball holder. 2,780,508, 2–5–57, Cl. 312—49.

Bonner, Williams A.: *See*—
Skei, Thurston, and Bonner. 2,780,583.

Borg, Paul E.: *See*—
Woolslayer, Homer J., Iddings, Borg, and Jenkins. 2,780,326.

Borisof, Bernard, ½ to A. Friedman. Method and apparatus for photographic composing. 2,780,151, 2–5–57, Cl. 95—4.5.

Borland, William H.: *See*—
Bryant, Louis D. 2,780,031.

Borman, Philip K., to General Electric Co. Method of manufacturing composite sink tops. 2,779,997, 2–5–57, Cl. 29—458.

Born, William F.: *See*—
Dyer, Lloyd W., and Born. 2,780,788.

Borsoff, Victor N.: *See*—
Williams, Paul H., Scott, and Borsoff. 2,780,597.

Bose, Edward R., to United Cork Companies. Apparatus for the continuous manufacture of compressed boards and sheets. 2,779,969, 2–5–57, Cl. 18—5.

Bosman, Frank J. Cigarette humidifier. 2,780,489, 2–5–57, Cl. 299—24.

Bostock, Cyril: *See*—
Billing, Joseph, and Bostock. 2,779,974.

Boszormenyi, Andre G. T.: *See*—
Jendrassik, George. 2,780,405.

Botkin, Carl: *See*—
Ferzola, Anthony J., and Botkin. 2,780,547.

Boulanger-Montegu, Jeanne C. L.: *See*—
Bloch, Jeanne C. L. 2,780,549.

Bourgeois, Benjamin, to Pignons S. A. Bayonet securing means for objectives of cameras. 2,780,137, 2–5–57, Cl. 88—57.

Bourgeois, Moses C. Clip. 2,779,984, 2–5–57, Cl. 24—66.

Bourns, Marlan E.: *See*—
Goeppinger, Edward J., Whitehorn, Bourns, and Harrison. 2,780,776.

Bourns, Marlan E. Linear motion resistor. 2,780,702, 2–5–57, Cl. 201—62.

Bouwers, Albert, to N. V. Optische Industrie "de Oude Delft." Cylindrically reflecting mirror-prism anamorphotic optical system. 2,780,142, 2–5–57, Cl. 88—57.

Bowser, Percy L., Jr.: *See*—
Venner, William M., Bowser, and Peterson. 2,780,505.

Boyer, John L., and A. P. Colalaco, to Westinghouse Electric Corp. Semiconductor rectifier device. 2,780,759, 2–5–57, Cl. 317—234.

Boyle, John R. and J. R., Jr. Cooling tower. 2,780,306, 2–5–57, Cl. 183—14.

Boyle, John R., Jr.: *See*—
Boyle, John R. and J. R., Jr. 2,780,306.

Brabender, Carl W., to Pillsbury Mills, Inc. Method and apparatus for determining the solid content of materials. 2,780,095, 2–5–57, Cl. 73—76.

Brancato, Leo J., to Heli-Coil Corp. Thread coil secured in ductile material by deformation of the material. 2,780,265, 2–5–57, Cl. 151—41.73.

Brancato, Leo J., to Heli-Coil Corp. Device for controlling the pitch of helically coiled wire. 2,780,270, 2–5–57, Cl. 153—64.

Brandenthaler, Anthony: *See*—
Gyllenberg, John L. 2,780,252.

Braun, August J. Hinge assembly. 2,779,967, 2–5–57, Cl. 16—63.

Bredensteiner, Lee, and S. Simmons. Baled hay fork. 2,780,487, 2–5–57, Cl. 294—67.

Breed, Rolland N., W. B. Groth, G. C. Irwin, L. A. Kille, and G. Riggs, to Bell Telephone Laboratories, Inc. Tape-to-card converter circuit. 2,780,410, 2–5–57, Cl. 235—61.

Breeding, David C., to General Motors Corp. Refrigerating apparatus. 2,780,442, 2–5–57, Cl. 257—3.

Brettell, George A., Jr.: *See*—
Pierce, Firth, and Brettell. 2,780,011.

Breuer, Alfred, and F. Wirtb, to Schloemann Aktiengesellschaft. Overhung rotary shears for continuously travelling rolled material. 2,780,114, 2–5–57, Cl. 74—665.

Brewer, Aubrey K., and T. I. Taylor, to the United States of America as represented by the United States Atomic Energy Commission. Still column with concentric condenser. 2,780,589, 2–5–57, Cl. 202—153.

Brewster, Arthur E., to International Standard Electric Corp. Tape recording apparatus. 2,780,670, 2–5–57, Cl. 178—17.

Bright, Richard L., to Westinghouse Electric Corp. Pulse width modulator. 2,780,782, 2–5–57, Cl. 332—12.

Bristol, Carlton W., Jr., to United Aircraft Corp. Igniter control for engines. 2,780,055, 2–5–57, Cl. 60—35.6.

Bristol Co., The: *See*—
Dion, Warren E. 2,780,760.
Dyson, Ernest F. 2,780,242.
McKinlay, Donald, Jr. 2,780,097.

British Celanese Ltd.: *See*—
Billing, Joseph, and Bostock. 2,779,974.
Downing, John, Fisher, and Wheatley. 2,780,571.

Brogan, Emmett V., to International Harvester Co. Induction-heating apparatus and improved track support therefor. 2,780,706, 2–5–57, Cl. 219—10.67.

Brooks, Thomas E., to Lisle Corp. Adjustable carrier device. 2,780,115, 2–5–57, Cl. 77—2.

Brown, Arthur E. Reciprocating engine. 2,780,208, 2–5–57, Cl. 123—61.

Brown, Carl S., to Glascote Products, Inc. Expansion joint for pipe lines and the like. 2,780,482, 2–5–57, Cl. 285—41.

Brown, Henry N. Irrigation tttachment. 2,780,495, 2–5–57, Cl. 299—121.

Brown, Herbert C., and B. Kanner, to Research Corp. 2,6-alkylpyridines. 2,780,626, 2–5–57, Cl. 260—290.

Brown, Robert L. Fastener. 2,779,986, 2–5–57, Cl. 24—73.

Brown, Walter, and J. Bernatt, to James R. Kearney Corp. Electrical switches. 2,780,684, 2–5–57, Cl. 200—48.

Brown, William H.: *See*—
Coar, Richard J., and Brown. 2,780,054.

Broyles, Otis T., ½ to W. B. Taylor and ¼ to J. R. Crump. Formation tester. 2,780,292, 2–5–57, Cl. 166—100.

Brubaker, Wilson M.: *See*—
Robinson, Charles F., Langmuir, Brubaker, and Perkins. 2,780,729.

Bruning, Charles, Co., Inc.: *See*—
Ferzola, Anthony J., and Botkin. 2,780,547.

Bryant, Louis D., ⅓ each to R. B. Ellsworth and W. H. Borland. Method for improving arable soil. 2,780,031, 2–5–57, Cl. 47—58.

Büchner, Karl, to Ruhrchemie Aktiengesellschaft. Production of water-clear phthalic acid esters from alcohols. 2,780,643, 2–5–57, Cl. 260—475.

Buckingham, John: *See*—
Dickson, John H. 2,780,132.

Budewitz, Eugene P., to The Sherwin-Williams Co. Coating composition. 2,780,555, 2–5–57, Cl. 106—208.

Bunnell, Nelson A. Conveyor construction. 2,780,343, 2–5–57, Cl. 198—170.

Burkhalter, Walter R.: *See*—
Sammis, Edward A., and Burkhalter. 2,780,777.

Burroughs Corp.: *See*—
Epstein, Herman. 2,780,774.
Lovell, Ernest. 2,780,754.

Burroughs Wellcome & Co. (U. S. A.) Inc.: *See*—
Phillips, Arthur P., and Castillo. 2,780,577.

Burton, William P., to The M. W. Kellogg Co. Platinum and/or palladium catalysts. 2,780,603, 2–5–57, Cl. 252—466.

Busch, Elmer: *See*—
Butler, Bertell C., and Busch. 2,779,956.

Butler, Bertell C., and E. Busch, to The National Acme Co. Blank reversing means for multiple spindle machine. 2,779,956, 2–5–57, Cl. 10—166.

Butler, Henry. Surf nets. 2,780,020, 2–5–57, Cl. 43—12.

Butt, Charles A., to International Minerals & Chemical Corp. Process for producing colloidal silica-free calcium fluoride. 2,780,521, 2–5–57, Cl. 23—88.

Buxton, Inc.: *See*—
Duell, Morgan V. 2,780,089.

Cabot, Godfrey L., Inc.: *See*—
Wendell, Charles B., Jr., and Engelson. 2,780,525.

Cafcas, Thomas H., to Standard Oil Co. Metal working and liquid coolants therefor. 2,780,598, 2–5–57, Cl. 252—33.2.

Cagle, Toby T. Vehicle brake construction. 2,780,323, 2–5–57, Cl. 188—152.

California Research Corp.: *See*—
Toland, William G., Jr. 2,780,637.
Toland, William G., Jr. 2,780,656.
Toland, William G., Jr. 2,780,657.
Wright, James R., and Goldschmidt. 2,780,636.

Calva, Jose B., ½ to G. W. Benz. Valve structure for use in conjunction with gas odorant systems. 2,780,071, 2–5–57, Cl. 62—1.

Cameron, Carl T. Wheel weight. 2,780,497, 2–5–57, Cl. 301—41.

Campbell, Erwin A.: *See*—
Woolslayer, Homer J., Iddings, Jenkins, and Campbell. 2,780,325.

Candell & Johnson: *See*—
Lawson, Frank L. 2,780,500.

Capitol Products Corp.: *See*—
Finney, William E., and Whisler. 2,780,005.

Carlson, Arthur E. Method of making reinforced sheet material. 2,780,572, 2–5–57, Cl. 154—93.

Carlson, Arthur W., to E. H. Sheldon & Co. Furniture pedestal base. 2,780,431, 2–5–57, Cl. 248—194.

Carlson, Bert G., and A. L. Judson, to Iron Fireman Mfg. Co. Gyroscope control system. 2,780,104, 2–5–57, Cl. 74—5.43.

Carlson, Gunnar V., to Wisco Aluminum Corp. Window frame construction. 2,780,327, 2–5–57, Cl. 189—75.

Carlson, Rueben C., to Admiral Corp. Phonograph record player. 2,780,465, 2–5–57, Cl. 274—10.

Carmichael, Thomas F.: *See*—
Andreae, Maynard R., Carmichael, and Sturgeon. 2,780,249.

Carneck, Robert C., to The General Industries Co. Motor brush mountings. 2,780,744, 2–5–57, Cl. 310—239.

Carney, Dennis J., to United States Steel Corp. Flue-dust sinter and method of manufacture. 2,780,536, 2–5–57, Cl. 75—5.

Carpentiere, Rudolph E., to Williams & Hussey Machine Corp. Hold-down rollers for planers and the like. 2,780,254, 2–5–57, Cl. 44—249.

Casco Products Corp.: *See*—
Youhouse, Joseph. 2,780,698.

Castellan, Carl A., to American Viscose Corp. Apparatus for producing reinforced tubing. 2,779,971, 2–5–57, Cl. 18—13.

Castillo, Julio C.: *See*—
Phillips, Arthur P., and Castillo. 2,780,577.

Cataldo, Joseph T., and K. Kadelburg, to International Rectifier Corp. Spring contactor. 2,780,667, 2–5–57, Cl. 174—126.

Catalin Corp. of America: *See*—
Noble, Aubrey E., Anness, Hyman, and Roetz. 2,780,096.

Celanese Corp. of America: *See*—
Hurst, Thomas M. 2,780,048.
MacLean, Alexander F., and Hobbs. 2,780,627.
Roughsedge, Robert H., and Taylor. 2,780,346.

Chandler, Jasper S., to Eastman Kodak Co. Object supporting gyratory table. 2,780,135, 2–5–57, Cl. 88—24.

Channon, Kenneth F., Jr., and W. E. Estelle, to McNab, Inc. Conductivity cell. 2,780,773, 2–5–57, Cl. 324—30.

Chapin, Daryl M., C. S. Fuller, and G. L. Pearson, to Bell Telephone Laboratories, Inc. Solar energy converting apparatus. 2,780,765, 2–5–57, Cl. 320—2.

Chaplik, Rubin. Coffee extractors. 2,780,162, 2–5–57, Cl. 99—306.

Charbonneau, Allan P., to Cutler-Hammer, Inc. Wiring terminal connectors. 2,780,704, 2–5–57, Cl. 201—67.

Chemical Construction C.: *See*—
Schaufelberger, Felex A. 2,780,530.

Chernish, George C., to Sylvania Electric Products Inc. Power supply. 2,780,736, 2–5–57, Cl. 207—150.

Chilton, Ernest G., to Shell Development Co. Fuel utilization process. 2,780,538, 2–5–57, Cl. 75—43.

Christians, George E.: *See*—
Rice, Edward J., and Christians. 2,780,277.

Chyba, Herman J., to Aeronca Mfg. Corp. Method and apparatus for controlling alternators. 2,780,733, 2–5–57, Cl. 290—4.

Claassen, Edwin J., Jr., to Sid Richardson Carbon Co. Vacuum packing of loose carbon black. 2,780,247, 2–5–57, Cl. 141—7.

Clark Controller Co., The: *See*—
Gayer, John D. 2,780,762.

Clark, Herbert H.: *See*—
Reinert, Armin E. 2,780,281.

Clark, Howard L.: *See*—
Root, Augustin A., and Clark. 2,780,778.

Clark, John M. Method for cleaning windshields. 2,780,568, 2–5–57, Cl. 134—7.

Clarke, John S., and S. R. Jackson, to Joseph Lucas (Industries) Ltd. Liquid fuel burner for a combustion chamber provided with a surrounding air jacket. 2,780,061, 2–5–57, Cl. 60—39.66.

Clarke, John T., and A. H. Hamerschlag, to Ionics, Inc. Mono (chloromethyl) styrene, its derivatives, and ion-exchange resins from polymers of aminated compound. 2,780,604, 2–5–57, Cl. 260—2.1.

Cloward, Esther. Making individual dress patterns and forms. 2,780,003, 2–5–57, Cl. 33—16.

Coar, Richard J., and W. H. Brown, to United Aircraft Corp. Control system for afterburning gas turbine engine. 2,780,054, 2–5–57, Cl. 60—35.6.

Coar, Richard J., to United Aircraft Corp. Dual fuel pump. 2,780,172, 2–5–57, Cl. 103—10.

Cody Gas Co.: *See*—
Lee, Harold J. 2,780,244.

Coffman, Fred B., and F. E. Davis. Continuous furnace for heating slabs or the like. 2,780,453, 2–5–57, Cl. 263—6.

Colt, Burton C., Jr., to Tri-State Engineering Co. Shipping and storage crates. 2,780,381, 2–5–57, Cl. 220—1.
Colt, Burton C., Jr., to Tri-State Engineering Co. Latch for crate like containers. 2,780,383, 2–5–57, Cl. 220—7.
Colalaco, August P.: *See*—
Boyer, John L., and Colalaco. 2,780,759.
Cole, Frank E., Jr., to Craig Machine, Inc. Drawer suspension apparatus for filing cabinets and the like. 2,780,510, 2–5–57, Cl. 312—336.
Colley, Rowan H., to Rolls-Royce Ltd. Jet-nozzle arrangement with outlet-area varying means. 2,780,056, 2–5–57, Cl. 60—35.6.
Colling, Charles E., and W. G. Sherman. Pneumatic gun mechanism. 2,780,213, 2–5–57, Cl. 124—11.
Combustion Engineering, Inc.: *See*—
Huet, André. 2,780,000.
Commercial Solvents Corp.: *See*—
Wehrmeister, Herbert L. 2,780,645.
Yalowitz, Harold I. 2,780,655.
Commonwealth Engineering Co. of Ohio, The: *See*—
Pawlyk, Peter. 2,780,553.
Compagnie Generale de Telegraphie Sans Fil: *See*—
Gutton, Henri. 2,780,805.
Compagnies Reunies des Glaces & Verres Speciaux du Nord de la France: *See*—
Long, Bernard. 2,780,032.
Conley, Earl G. Method of preparing an organic adhered water-soluble knife-cut screen process printing stencil. 2,780,167, 2–5–57, Cl. 101—128.2.
Consolidated Electrodynamics Corp.: *See*—
Kinkel, John F. 2,780,101.
Lahti, Arvo A. 2,780,780.
Langmuir, Robert V. 2,780,728.
Robinson, Charles F., Langmuir, Brubaker, and Perkins. 2,780,729.
Consolidated Products Co.: *See*—
Stamberg, Olof E. 2,780,548.
Continental Can Co., Inc.: *See*—
Stephenson, Paul A. 2,780,388.
Cooper, Gladys W. Fountain sponge. 2,779,962, 2–5–57, Cl. 15—130.
Coover, Harry W., Jr.: *See*—
Dickey, Joseph B., and Coover. 2,780,616.
Copar, Inc.: *See*—
Sorrell, Richard A. 2,780,107.
Cording, James, Jr.: *See*—
Williard, Miles J., Jr., and Cording. 2,780,552.
Core, Jesse F., and A. R. Werft, to United States Steel Corp. Method of mining coal. 2,780,448, 2–5–57, Cl. 262—1.
Cork, Gordon H., to Process Gear and Machine Co. Universal joint. 2,780,080, 2–5–57, Cl. 64—21.
Cormack, Clarence E., to Union Carbide and Carbon Corp. Wear-resistant alloy. 2,780,542, 2–5–57, Cl. 75—134.
Cosner, Robert R.: *See*—
Alspaugh, Paul L., and Cosner. 2,780,451.
Covitt, Jack G., and G. F. Putnam, to International Harvester Co. Rotating table device and turning means therefor. 2,780,372, 2–5–57, Cl. 214—89.
Cowland, William G., to D. Napier & Son Ltd. Power units, including reciprocating internal combustion engines and turbo compressors utilizing exhaust gases from such engines. 2,780,053, 2–5–57, Cl. 60—13.
Cox, Herbert F., Jr. Screen stand and case. 2,780,282, 2–5–57, Cl. 160—24.
Craig, Loren J.: *See*—
Harvey, Douglass C., and Craig. 2,780,152.
Craig Machine, Inc.: *See*—
Cole, Frand E., Jr. 2,780,510.
Crane Co.: *See*—
Hansen, George E. 2,780,434.
Hjulian, Julius A. 2,780,239.
Cresson, George M., to International Standard Electric Corp. Pressure connector. 2,780,794, 2–5–57, Cl. 339—276.
Crispen, Clarence C. Hydraulic lift for bath tubs. 2,779,949, 2–5–57, Cl. 4—185.
Crosman, Loring P., and F. B. Hannon, to Sperry Rand Corp. Electronic accumulator. 2,780,408, 2–5–57, Cl. 235—61.
Croswell, Althos M., to A. O. Smith Corp. Internal back-up clamp for girth welding. 2,780,194, 2–5–57, Cl. 113—103.
Crump, Joseph R.: *See*—
Broyles, Otis T. 2,780,292.
Curry Air Shear Corp.: *See*—
Hudson, Thomas B., Jr. 2,780,285.
Curry, William R. Automobile cooler. 2,780,073, 2–5–57, Cl. 62—91.5.
Curtis, James W., to United Shoe Machinery Corp. Method of extending a rivet blank around a headed mandril stem. 2,779,955, 2–5–57, Cl. 10—27.
Curtiss-Wright Corp.: *See*—
Barrett, Hillard E., and Payne. 2,780,062.
Boam, Willard M., and Hanink. 2,779,999.
Gamble, Edward H. 2,780,734.
Cusick, Charles S., to Pittsburgh Plate Glass Co. Glass laying apparatus. 2,780,039, 2–5–57, Cl. 51—240.
Cutler-Hammer, Inc.: *See*—
Charbonneau, Allan P. 2,780,704.
D. and H. Corp.: *See*—
Dall, John P., and Hill. 2,780,026.
Dacre Chucks Ltd.: *See*—
Hull, Harold S. 2,780,469.
Dall, John P., and R. F. Hill, to D. and H. Corp. Insect catchers. 2,780,026, 2–5–57, Cl. 43—139.
Dailey, John J., to Temco Aircraft Corp. Electrolytic descaling. 2,780,594, 2–5–57, Cl. 204—141.
Dailey, William H., Jr., to Surface Combustion Corp. Combustion apparatus. 2,780,185, 2–5–57, Cl. 110—56.
Davey, Kenneth W.: *See*—
Bernhardt, Howard E., and Davey. 2,780,717.
Davids, John H., to Fairbanks, Morse & Co. Engine fuel delivery control. 2,780,211, 2–5–57, Cl. 123—103.
Davidson, Glenn. Cigarette filter construction. 2,780,573, 2–5–57, Cl. 154—106.
Davies, Robert H., and E. H. Badger, Jr. Liquid level control valve. 2,780,238, 2–5–57, Cl. 137—390.
Davis, Allan C., to A. C. Davis. Cop winder. 2,780,418, 2–5–57, Cl. 242—27.
Davis, Floyd E.: *See*—
Coffman, Fred B., and Davis. 2,780,453.
Davis, John V., to The Udylite Corp. Work-handling apparatus for treating hollow articles. 2,780,229, 2–5–57, Cl. 134—76.
Debrie, André V. L. C. Means for the continuous printing of colored films. 2,780,155, 2–5–57, Cl. 95—75.
De Cenzo, Herbert A. Convertible aircraft with jet-driven rotor. 2,780,423, 2–5–57, Cl. 244—7.
Dedoes, Arnold A. Reversible drawer and door pulls and latches. 2,780,485, 2–5–57, Cl. 292—169.
De Heer, Henri J., to Stamicarbon N. V. Heat input stabilization. 2,780,414, 2–5–57, Cl. 236—15.
De Luxembourg, Alexander M. L., to J. P. Wetherill, C. M. Trammell, and A. M. L. De Luxembourg, trustees. Process for water and flame proofing textiles. 2,780,566, 2–5–57, Cl. 117—93.
Dennison Mfg. Co.: *See*—
Ferguson, Robert N. 2,780,379.
Devaney, Howard F., to the United States of America as represented by the United States Atomic Energy Commission. Combination of acceleration sensing and integrating means. 2,780,455, 2–5–57, Cl. 264—1.
Dever, Richard R.: *See*—
Wharton, Armistead, and Dever. 2,780,288.
Dewyer, Peter J. Machine for serving short lengths of tape and wrapping same around various articles. 2,780,044, 2–5–57, Cl. 53—198.
Diamond Match Co., The: *See*—
Stevens, Samuel S. 2,780,401.
Dickey, Joseph B., and H. W. Coover, Jr., to Eastman Kodak Co. Polymers of dialkyl 2-cyanopropene-3-phosphonates. 2,780,616, 2–5–57, Cl. 260—85.5.
Dickson, John H., ½ to Barr and Stroud Ltd. and ½ to J. Buckingham. Optical comparator. 2,780,132, 2–5–57, Cl. 88—14.
Di Costanza, Joseph: *See*—
Farah, Alexander J., and Di Costanza. 2,780,474.
Diehl, James L.: *See*—
Thompson, Lee W., and Diehl. 2,779,953.
Dietch, Leonard, to Radio Corp. of America. Raster centering control. 2,780,749, 2–5–57, Cl. 315—27.
Di Nardo, Albert: *See*—
Robertson, Nat C., Gardner, and Di Nardo. 2,780,650.
Dinstl, Edmard: *See*—
Steiner, Fritz, and Dinstl. 2,780,105.
Dion, Warren E., to The Bristol Co. Servo system with quick-action response. 2,780,760, 2–5–57, Cl. 318—29.
Di Vito, Frank. Window construction and guide therefor. 2,779,981, 2–5–57, Cl. 20—52.4.
Dobson, John V.: *See*—
Lynn, Clarence, and Dobson. 2,780,741.
Dodd, John H. Handsaw. 2,780,256, 2–5–57, Cl. 145—31.
Dodsworth, James W., to Monroe Calculating Machine Co. Carriage control means for listing calculators. 2,780,407, 2–5–57, Cl. 235—60.46.
Doll, Franz, to Koppers Co., Inc. Self-sealing door. 2,780,590, 2–5–57, Cl. 202—248.
Dombrowsky, Max. Multipurpose article of wearing apparel. 2,779,945, 2–5–57, Cl. 2—116.
Domburg, Jacobus: *See*—
Six, Willem, and Domburg. 2,780,674.
Dorr-Oliver Inc.: *See*—
Sabi, Nestor. 2,780,362.
Doumani, Thomas F., to Union Oil Co. of California. Hydroforming of a naphtha with a nickel oxides-on-alumina catalyst containing small amounts of sulphur. 2,780,584, 2–5–57, Cl. 196—50.
Dow Chemical Co., The: *See*—
Bon, Charles K., Neipert, and Plegols. 2,780,360.
Kauer, Kenneth C. 2,780,629.
Kauer, Kenneth C. 2,780,630.
Kauer, Kenneth C. 2,780,631.
Kenaga, Eugene E. 2,780,575.
Moyle, Clarence L., and Humiston. 2,780,546.
Rubens, Louis C. 2,780,613.
Downing, John, J. W. Fisher, and E. W. Wheatley, deceased, (by M. F. Wheatley, administratrix), to British Celanese Ltd. Method of improving the fire-resistance of regenerated cellulose fabrics. 2,780,571, 2–5–57, Cl. 154—46.
Downs, Cas A. Combined water and air heating unit. 2,780,714, 2–5–57, Cl. 219—38.
Dreyer, John F., Jr., to Telephonics Corp. Resonant circuit. 2,780,727, 2–5–57, Cl. 250—40.
Duell, Morgan V., to Buxton, Inc. Key hanger support for key cases. 2,780,089, 2–5–57, Cl. 70—456.
Duggan, Morgan T. Screw holding and guiding means for a screwdriver bit. 2,780,257, 2–5–57, Cl. 145—51.
Dunbar, Robert R. Adjustable chuck adapter. 2,780,468, 2–5–57, Cl. 279—16.
Dunlap, Charles M. Time delay switch. 2,780,086, 2–5–57, Cl. 68—24.
Dunlop, Andrew P., to The Quaker Oats Co. Stabilization of levulinic acid. 2,780,588, 2–5–57, Cl. 202—52.
Dunlop Rubber Co. Ltd.: *See*—
Powell, Ernest F., and Glugh. 2,780,710.
Du Pont, E. I., de Nemours and Co.: *See*—
Gander, Frederick W. 2,780,652.
Snyder, Jack A. 2,780,535.
Spiegler, Louis. 2,780,647.
Wilcox, Oswin B. 2,780,558.

Durieux, Caroline W.: *See*—
Wheeler, Harry E. and N. L., and Durieux. 2,780,732.
Dürig, Rudolf, and E. Keller, to J. R. Geigy A. G. Metallizable disazo dyestuffs. 2,780,619, 2–5–57, Cl. 260—153.
Dyer, Lloyd W., and W. F. Born, to Westinghouse Electric Corp. Plug-in bus duct structure. 2,780,788, 2–5–57, Cl. 339—22.
Dyer, Otto M., Jr. Breath tester. 2,780,220, 2–5–57, Cl. 128—2.
Dyna-Labs, Inc.: *See*—
Shaper, Harry B. 2,780,681.
Dyson, Ernest F., to The Bristol Co. Relay valve. 2,780,242, 2–5–57, Cl. 137—620.
Dzaak, Heinz A. Device for simultaneous registration of indication of different units of measure. 2,780,201, 2–5–57, Cl. 116—129.
Earl, Harry W. Electrical connector. 2,780,792, 2–5–57, Cl. 339—256.
Eastman Kodak Co.: *See*—
Chandler, Jasper S. 2,780,135.
Dickey, Joseph B., and Coover. 2,780,616.
Hanley, Thomas G. 2,780,560.
Harter, Paul G., and Steisslinger. 2,780,348.
Harvey, Douglass C., and Craig. 2,780,152.
Humphlett, Wilbert J. 2,780,632.
Luboshez, Benjamin E. 2,780,140.
Luboshez, Benjamin E. 2,780,141.
Mauer, Paul B. 2,780,130.
Ott, Howard F., and Poling. 2,780,574.
Touey, George P. 2,780,228.
White, William M., and Fox. 2,780,153.
Williams, Jack L. R. 2,780,649.
Wittel, Otto. 2,780,133.
Wood, Donald L. 2,780,129.
Edwards, Delbert. Adjustable header for seed harvester with pneumatic conveying means. 2,780,046, 2–5–57, Cl. 56—158.
Edwards, Ray C. Apparatus for making lipped finned tubing. 2,780,268, 2–5–57, Cl. 153—21.
Ehrett, Frank E.: *See*—
Asbeck, Hans J., and Ehrett. 2,780,496.
Eichler, Ulrich J. R.: *See*—
Kiel, Wilhelm K. B., and Eichler. 2,780,411.
Elsmann, Helmut, W. Jahn, and G. Lange, to C. Zeiss. Photographic objective having three meniscus shaped elements air spaced apart. 2,780,138, 2–5–57, Cl. 88—57.
Eitel-McCullough, Inc.: *See*—
La Forge, Louis H., Jr. 2,780,561.
Ekco Products Co.: *See*—
Hvale, James L. 2,779,959.
Eldredge, William F.: *See*—
McNair, Hugh N., Pelot, and Eldredge. 2,780,493.
Electric & Musical Industries Ltd.: *See*—
Ridout, Edward D. 2,780,470.
Electrical Regulator Corp.: *See*—
McHenry, Thomas F. 2,780,769.
Elliott Co.: *See*—
Shields, James R. 2,780,207.
Elliott, Taylor M. Indicating device. 2,780,686, 2–5–57, Cl. 200—56.
Ellsworth, Robert B.: *See*—
Bryant, Louis D. 2,780,031.
Elmore, Robert T.: *See*—
Loomis, Glenn L. 2,780,294.
Else, Harry D., to Westinghouse Electric Corp. Vaporization cooled dynamoelectric machine. 2,780,738, 2–5–57, Cl. 310—54.
Elsey, Howard M., to Westinghouse Electric Corp. Electrical brush and dynamoelectric apparatus embodying the same. 2,780,743, 2–5–57, Cl. 310—228.
Emele, Günther W., to Krauss-Moffei Aktiengesellschaft. Connecting-rod bearing. 2,780,502, 2–5–57, Cl. 308—23.
Engelson, George E.: *See*—
Wendell, Charles B., Jr., and Engelson. 2,780,525.
English Steel Corp. Ltd.: *See*—
Hallington, Bernard T. 2,780,719.
Epstein, Herman, to Burroughs Corp. Magnetostrictive device. 2,780,774, 2–5–57, Cl. 324—34.
Erban, Richard T. Kinoptic devices. 2,780,136, 2–5–57, Cl 88—28.93.
Escambia Chemical Corp.: *See*—
Gabbett, James F., Jr., and Robertson. 2,780,640.
Gardner, James H., and Robertson. 2,780,635.
Robertson, Nat C. 2,780,634.
Robertson, Nat C., and Gardner. 2,780,654.
Robertson, Nat C., Gardner, and Di Nardo. 2,780,650.
Steadman, Thomas R., and Gabbett. 2,780,639.
Esso Research and Engineering Co.: *See*—
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Hemminger, Charles E., and Tyson. 2,780,661.
Lannenu, Keith P., and Hodge. 2,780,131.
Macke, Robert A., and Wadley. 2,780,581.
Magearl, William H. 2,780,100.
Magearl, William H. 2,780,103.
Mossman, Max A., and Watson. 2,780,358.
Musslewhite, Ernest, Jr., and Roediger. 2,780,585.
Rendy, Harold R. 2,780,644.
Serniuk, George E. 2,780,664.
Wilson, Samuel W. 2,780,662.
Estelle, Weems E.: *See*—
Channon, Kenneth F., Jr., and Estelle. 2,780,773.
Eureka Williams Corp.: *See*—
Witherell, Robert R. 2,780,217.
Evans, Charles S. Frozen seal receptacle. 2,780,386, 2–5–57, Cl. 220—45.
Evans, Richard R., I. W. Mahacek, and L. A. McKinney, to Infilco Inc. Scum skimmer. 2,780,361, 2–5–57, Cl. 210—51.
Evers, Ernest C.: *See*—
Hainer, Raymond M., and Evers. 2,780,532.
Ewart, John C., and S. Mulke, to A. O. Smith Corp. Apparatus for mechanically expanding large diameter pipe. 2,780,271, 2–5–57, Cl. 153—80.5.
Ewart, John C., to A. O. Smith Corp. Hydraulic pipe testing apparatus. 2,780,093, 2–5–57, Cl. 73—49.6.
Eyerly, Lee U. Rotary amusement device. 2,780,460, 2–5–57, Cl. 272—36.
F and F Kiddie Cassette Chair Co.: *See*—
Frohman, Isaac P., and Festa. 2,780,730.
Fabrique Nationale d'Armes de Guerre: *See*—
Saive, Dieudonné J. 2,780,145.
Facial Graph Corp.: *See*—
Rosenbaum, Meyer. 2,780,004.
Fagg, Robert M. Bait bag. 2,780,021, 2–5–57, Cl. 43—41.
Fairbanks, Morse & Co.: *See*—
Davids, John H. 2,780,211.
Lauler, Louis J., and Thorsson. 2,780,800.
Long, James. 2,780,179.
Renken, Harry J. 2,780,209.
Renken, Harry J. 2,780,210.
Farah, Alexander J., and J. Di Costanza; said Di Costanza assor. to said Farah. Combination picnic cart. 2,780,474, 2–5–57, Cl. 280—41.
Farbenfabriken Bayer Aktiengesellschaft: *See*—
Hoppe, Peter, Pfeffer, and Muller. 2,780,606.
Remartz, Kurt, Grauhich, Lehmann, and Kleiner. 2,780,562.
Farley, Robert N. Table leg extension. 2,780,507, 2–5–57, Cl. 311—109.
Farr, Kenneth E., C. W. Baugh, Jr., and C. B. Heffron, to Westinghouse Electric Corp. Synchronizing system for color television. 2,780,668, 2–5–57, Cl. 178—5.4.
Feder, Harry: *See*—
Sundelin, Ronald R., and Feder. 2,779,978.
Sundelin, Ronald R., and Feder. 2,779,979.
Sundelin, Ronald R., and Feder. 2,779,983.
Feldbush, Harry A., to Worthington Corp. Rotary compressor. 2,780,406, 2–5–57, Cl. 230—158.
Feller, Morris: *See*—
Field, Edmund, and Feller. 2,780,660.
Ferguson, George H.: *See*—
Senkowski, Alexander, Payne, and Ferguson. 2,780,159.
Ferguson, Robert N., to Dennison Mfg. Co. Capsules for covering bottle tops. 2,780,379, 2–5–57, Cl. 215—38.
Fermi, Enrico, to the United States of America as represented by the United States Atomic Energy Commission. Test exponential pile. 2,780,595, 2–5–57, Cl. 204—193.
Ferzoln, Anthony J., and C. Botkin, to Charles Bruning Co., Inc. Diazotype photoprinting materials and processes for preparing same. 2,780,547, 2–5–57, Cl. 96—75.
Festa, Nicholas V.: *See*—
Frohman, Isaac P., and Festa. 2,780,730.
Fickett, Walter A., to Westinghouse Electric Corp. Frequency selective apparatus. 2,780,724, 2–5–57, Cl. 250—27.
Fiedler, Willy A. Jet direction control device. 2,780,059, 2–5–57, Cl. 60—35.55.
Field, Edmund, and M. Feller, to Standard Oil Co. Catalytic process. 2,780,660, 2–5–57, Cl. 260—671.
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Findlow, Eric, to Ernest Scragg & Sons Ltd. Spindles for use in textile machinery. 2,780,049, 2–5–57, Cl. 57—133.
Fink, Melvin M., to The Standard Oil Co. Pipeline mount for thermistor installation. 2,780,094, 2–5–57, Cl. 73—53.
Finney, William E., and N. H. Whisler, to Capitol Products Corp. Gauge for rotor thread profile. 2,780,005, 2–5–57, Cl. 33—174.
Finnigan, Frank. Method and composition of matter for destroying rodents. 2,780,025, 2–5–57, Cl. 43—124.
Fisher, Frank R., and H. L. Pelzer, to Sinclair Oil and Gas Co. Thermal process for in-situ decomposition of oil shale. 2,780,449, 2–5–57, Cl. 262—3.
Fisher, Howard M.: *See*—
Stratton, Edgar H., and Fisher. 2,780,384.
Fisher, James W.: *See*—
Downing, John, Fisher, and Wheatley. 2,780,571.
Flach, Patricia K. Combination clothing. 2,779,944, 2–5–57, Cl. 2—85.
Flair, Henry J., to Illinois Tool Works. Flexible mechanical recorder. 2,780,006, 2–5–57, Cl. 33—179.5.
Fleck, Raymond N., to Union Oil Co. of California. Isotope separation process. 2,780,526, 2–5–57, Cl. 23—151.
Fleming, William L.: *See*—
Junk, William A., Jr., Schmidt, Seelig, and Fleming. 2,780,582.
Fleming, William T., to Specialties Development Corp. Valve. 2,780,433, 2–5–57, Cl. 251—70.
Flexigrip Inc.: *See*—
Svec, Emil F., and Staller. 2,780,261.
Florman, Irving. Convertible timepiece. 2,780,050, 2–5–57, Cl. 58—88.
Flosdorf, Earl W., to F. J. Stokes Corp. Vacuum gage. 2,780,102, 2–5–57, Cl. 73—400.
Folk, Joseph, to U. S. Slicing Machine Co., Inc. Pusher assembly for slicing machines. 2,780,258, 2–5–57, Cl. 146—217.
Fontana, Beppino J., to the United States of America as represented by the United States Atomic Energy Commission. Separation of uranium from foreign substances. 2,780,517, 2–5–57, Cl. 23—14.5.
Ford, James G., to Westinghouse Electric Corp. Core structures. 2,780,785, 2–5–57, Cl. 336—210.
Ford Motor Co.: *See*—
Frevik, Ralph C., and Wilson. 2,780,161.
Schaaf, Henry W. 2,780,164.
Schjolin, Eric O. 2,780,477.
Foreman, Robert W., to The Standard Oil Co. Method of preventing carbonyl sulfide decomposition. 2,780,665, 2–5–57, Cl. 260—683.15.

Forsyth, Clark H., to International Harvester Co. Hitch mechanism for connecting implements in tandem. 2,780,478, 2–5–57, Cl. 280—411.

Fortner, Turner M. Margin marked duplicator master set. 2,780,169, 2–5–57, Cl. 101—149.4.

Fossan, Kare R., and G. A. Wetterholm, to Nitroglycerin Aktiebolaget. Process for recovering iodine from iodine-containing aqueous glycol solutions. 2,780,528, 2–5–57, Cl. 23—216.

Fowler, Fred E.: *See*—
Polzin, Marvin H., Geer, and Fowler. 2,780,222.

Fox Products Co.: *See*—
Medlar, Lewis A. 2,780,781.

Fox, Robert A.: *See*—
White, William M., and Fox. 2,780,153.

Frank, Robert L., to Sperry Rand Corp. Radio frequency sampling detector. 2,780,807, 2–5–57, Cl. 343—103.

Franklin, Edmond G., to General Mills, Inc. Thermostat with expansion neutralizer. 2,780,697, 2–5–57, Cl. 200—137.

Freed, Max. Collar-attached shirt. 2,779,946, 2–5–57, Cl. 2—116.

Freed, Meier E.: *See*—
Seifter, Joseph, Hanslick, and Freed. 2,780,646.

Freeman, John D., to General Electric Co. Pneumatic control apparatus with follow-up. 2,780,230, 2–5–57, Cl. 137—85.

Fremon, Jules A. Coin device. 2,780,337, 2–5–57, Cl. 194—83.

Frevik, Ralph C., and R. W. Wilson, to Ford Motor Co. Frame construction and hitch for farm implement. 2,780,161, 2–5–57, Cl. 97—47.62.

Frey, Andrew C. Dispenser cap for salt and pepper shakers. 2,780,398, 2–5–57, Cl. 222—545.

Frey, Samuel S., to Oakite Products Inc. Decorative metal plating. 2,780,591, 2–5–57, Cl. 204—23.

Frieberg, Bengt, to Lihnell Vagn Aktiebolag. Draft device adapted for attachment forwardly of a leading vehicle rear axle. 2,780,479, 2–5–57, Cl. 280—446.

Friedlander, Henry Z.: *See*—
Barber, William A., and Friedlander. 2,780,610.

Friedman, Allen: *See*—
Borisof, Bernard. 2,780,151.

Frohman, Isaac P., and N. V. Festa, to F and F Kiddie Cassette Chair Co. Immobilizer for children being X-rayed. 2,780,730, 2–5–57, Cl. 250—50.

Frost, Frederick H., and R. E. Lane, to S. D. Warren Co. Method for cast calendering supercalendered coated paper. 2,780,563, 2–5–57, Cl. 117—64.

Frye, Reinhold A. Knockdown structure. 2,780,484, 2–5–57, Cl. 287—54.

Fulford Mfg. Co.: *See*—
Jordan, Thomas E. 2,779,987.

Fuller, Calvin S.: *See*—
Chapin, Daryl M., Fuller, and Pearson. 2,780,765.

Fyr-Fyter Co., The: *See*—
Harris, Wilbert L. 2,780,295.

Gabbett, James F., Jr.: *See*—
Steadman, Thomas R., and Gabbett. 2,780,639.

Gabbett, James F., Jr., and N. C. Robertson, to Escambia Chemical Corp. Production of acrylonitrile. 2,780,640, 2–5–57, Cl. 260—465.3.

Gambale, John C., to Westinghouse Electric Corp. Screw-operated electrical connector. 2,780,793, 2–5–57, Cl. 339—272.

Gamble, Edward H., to Curtiss-Wright Corp. Voltage regulating system. 2,780,734, 2–5–57, Cl. 307—34.

Gander, Frederick W., to E. I. du Pont de Nemours and Co. Preparation of high purity formaldehyde. 2,780,652, 2–5–57, Cl. 260—606.

Gardes, Alfred W., to Indiana Commercial Filters Corp. Conveyor flight construction. 2,780,344, 2–5–57, Cl. 198—176.

Gardner, James H.: *See*—
Robertson, Nat C., and Gardner. 2,780,654
Robertson, Nat C., Gardner, and Di Nardo. 2,780,650.

Gardner, James H., and N. C. Robertson, to Escambia Chemical Corp. Liquid phase oxidation of olefins using nitrobenzene to inhibit polymer formation. 2,780,635, 2–5–57, Cl. 260—348.5.

Garrett Corp., The: *See*—
Jensen, Raymond W. 2,780,413.

Garrison, Allen D., to Texaco Development Corp. Wells. 2,780,289, 2–5–57, Cl. 166—46.

Gates, John W., Jr., and L. J. Andrews, to the United States of America as represented by the United States Atomic Energy Commission. Process for recovery of uranium from aqueous solutions. 2,780,518, 2–5–57, Cl. 23—14.5.

Gates, Richard L.: *See*—
Thoren, Theodore R., and Gates. 2,780,175.

Gates, Richard L., to Thompson Products, Inc. Actuating mechanism for coaxial switch. 2,780,113, 2–5–57, Cl. 74—527.

Gauthier, William H., and J. C. Benton, to Bengau Industries, Inc. Windshield washer. 2,780,491, 2–5–57, Cl. 299—58.

Gay, Frazer W. Heat pump operated system for house heating. 2,780,415, 2–5–57, Cl. 237—2.

Gayer, John D., to The Clark Controller Co. Reversing switch control. 2,780,762, 2–5–57, Cl. 318—207.

Geer, John A.: *See*—
Polzin, Marvin H., Geer, and Fowler. 2,780,222.

Geigy, J. R., A. G.: *See*—
Ackermann, Hans, and Schetty. 2,780,618.
Dürrig, Rudolf, and Keller. 2,780,619.

Gemex Corp., The: *See*—
Sand, John F. 2,780,052.

General Dynamics Corp.: *See*—
Berch, William H. 2,780,676.
Sharp, Robert G., and Wright. 2,780,064.
Wharton, Armistead, and Dever. 2,780,288.

General Electric Co.: *See*—
Aldrich, Richard W., Schaffner, and Suran. 2,780,752.
Borman, Philip K. 2,779,997.
Freeman, John D. 2,780,230.
Hansen, Albert, Jr. 2,780,779.
Hewlett, Clarence W. 2,780,569.
Hilliker, Donald E. 2,780,075.
Hubbard, James R. 2,780,335.
Johnson, Wallace M. 2,780,786.
Kuehni, Hans P. 2,780,404.
Labastie, Albert H., and Poole. 2,780,737.
Low, Frank D. 2,780,198.
Macintyre, John R. 2,780,703.
Minneci, Salvatore. 2,780,735.
Root, Augustin A., and Clark. 2,780,778.
Somerville, Gareth G. 2,780,787.

General Industries Co., The: *See*—
Carneck, Robert C. 2,780,744.

General Mills, Inc.: *See*—
Franklin, Edmond G. 2,780,697.

General Motors Corp.: *See*—
Barish, Thomas. 2,780,297.
Barish, Thomas, Irwin, Line, and Wright. 2,780,298.
Breeding, David C. 2,780,442.
Jacobs, James W. 2,780,077.
McLean, Robert F. 2,780,076.
Stickel, Carl A. 2,780,008.
Stickel, Carl A. 2,780,009.

General Tire & Rubber Co., The: *See*—
Te Grotenhuis, Theodore A. 2,780,611.
Te Grotenhuis, Theodore A. 2,780,612.

George, Thomas J. Acoustic vibrato device for electronic organ. 2,780,302, 2–5–57, Cl. 181—31.

Getz, Delmond L., to Kelsey-Hayes Wheel Co. Oil burner having variable oil and air control. 2,780,279, 2–5–57, Cl. 158—28.

Gilfillan Bros., Inc.: *See*—
Van Alstyne, Alvin G. 2,780,806.

Gilger, Clarence: *See*—
Parrish, Albert D. 2,780,144.

Gillette, Harold R.: *See*—
Richter, Herman W., and Gillette. 2,780,147.

Givens, John H., to Industrial Rayon Corp. Apparatus for the treatment of thread. 2,780,347, 2–5–57, Cl. 203—290.

Glasecote Products, Inc.: *See*—
Brown, Carl S. 2,780,482.

Gleitsman, Harold. Clothes hamper. 2,780,509, 2–5–57, Cl. 312—201.

Glenn, William S., Jr., and W. L. Septon; said Septon assor. to said Glenn. Article grappling and stacking attachment for lift trucks. 2,780,377, 2–5–57, Cl. 214—652.

Gliem, William K. T., to Universal Oil Products Co. Stabilization process. 2,780,550, 2–5–57, Cl. 99—163.

Glo-Quartz Electric Heater Co., Inc.: *See*—
Strokes, George T. 2,780,715.

Gloss, Gunter H., to International Minerals & Chemical Corp. Process for recovering solid calcium fluoride containing product and colloidal silica solution from a weak aqueous fluosilicic acid solution. 2,780,523, 2–5–57, Cl. 23—88.

Gloss, Gunter H., and J. H. Gross, to International Minerals & Chemical Corp. Production of fluorine compounds. 2,780,522, 2–5–57, Cl. 23—88.

Gloss, Gunter H., and J. H. Gross, to International Minerals & Chemical Corp. Process for production of substantially phosphate-free ammonium silicofluoride from den gas. 2,780,524, 2–5–57, Cl. 23—88.

Glossbrenner, Daniel I.: *See*—
Lebocey, Bernard J. E. 2,780,312.

Glynn, Theodore W., and J. S. Storm, Jr., to Blue Ridge Glass Corp. Electric resistance heater. 2,780,708, 2–5–57, Cl. 219—19.

Goehring, Bernhard H., to Norton Co. Swivel table alignment. 2,780,040, 2–5–57, Cl. 51—240.

Goehring, Gordon J. Fuse carrying attachment for trainmen linaterns. 2,780,723, 2–5–57, Cl. 246—488.

Goeppinger, Edward J., R. M. Whitehorn, M. E. Bourns, and M. E. Harrison; said Goeppinger, Whitehorn, and Harrison assors. to said Bourns. Linearity tester. 2,780,776, 2–5–57, Cl. 324—63.

Goldschmidt, Alfred: *See*—
Wright, James R., and Goldschmidt. 2,780,636.

Good, Paul F., to Westinghouse Electric Corp. Positive drive work feeder. 2,780,342, 2–5–57, Cl. 198—170.

Gooding, Gordon. Warning signal to disconnect vehicle lights. 2,780,797, 2–5–57, Cl. 340—52.

Gordon, Melvin J.: *See*—
Solomon, Leonard, and Gordon. 2,780,084.

Gordon, S. Z.: *See*—
Solomon, Leonard, and Gordon. 2,780,084.

Gough, Sidney W.: *See*—
Powell, Ernest F., and Gough. 2,780,710.

Govan, William L., to Baldwin-Lima-Hamilton Corp. Tube testing device. 2,780,092, 2–5–57, Cl. 73—49.5.

Graham, Connelly L., to Northrop Aircraft, Inc. Tandem rocket launcher. 2,780,143, 2–5–57, Cl. 89—1.7.

Graulich, Wilhelm: *See*—
Reinartz, Kurt, Graulich, Lehmann, and Kleiner. 2,780,562.

Gray, Daniel M., and G. L. Reymann, to American-Marietta Co., Stoner-Mudge Co. Division. Polymeric sanitary coating system. 2,780,564, 2–5–57, Cl. 117—75.

Greefkes, Johannes A., and P. van Tilburg, to Hartford National Bank and Trust Co., as trustee. Device for separating synchronizing pulses and signal pulses with pulse-code modulation. 2,780,672, 2–5–57, Cl. 179—15.

Green, Margaret M. Page holder and bookmarker. 2,780,481, 2–5–57, Cl. 281—42.

Greene, Tweed & Co.: *See*—
Tanis, Henry. 2,779,996.

Grieger, Philip F.: *See*—
Miller, Arthur J., Pitt, and Grieger. 2,780,515.

Griffith, Alan A., to Rolls-Royce Ltd. Combustion equipment and nozzle guide vane assembly with cooling of the nozzle guide vanes. 2,780,060, 2–5–57, Cl. 60—39.36.

Grimes, Claude E. Driving apparatus for earth anchors. 2,780,068, 2–5–57, Cl. 61—74.

Grisel, Yvan V., to Louis Tschanz Comptoir de la Parfumerie S. A. Device for lipstick holders. 2,780,351, 2–5–57, Cl. 206—56.

Groover, Robert W., to Bethlehem Steel Co. Protective package for the shipment of rods. 2,780,354, 2–5–57, Cl. 206—65.

Gross, John H.: *See*—
Gloss, Gunter H., and Gross. 2,780,522.
Gloss, Gunter H., and Gross. 2,780,524.

Groth, Willard B.: *See*—
Breed, Roland N., Groth, Irwin, Kille, and Riggs. 2,780,410.

Guadagni, Dante G., to the United States of America as represented by the Secretary of Agriculture. Procedure for preserving foods. 2,780,551, 2–5–57, Cl. 99—193.

Gulf Oil Corp.: *See*—
Westling, Randolph E. 2,780,291.

Gunness, Robert C., to Standard Oil Co. Fractional crystallization and crystal washing. 2,780,663, 2–5–57, Cl. 260—674.

Gutehoffnungshutte Oberhausen Aktiengesellschaft: *See*—
Jacobi, Oskar, and Muller. 2,780,067.

Gutton, Henri, to Compagnie Generale de Telegraphie Sans Fil. Display systems for radar. 2,780,805, 2–5–57, Cl. 343—13.

Gyllenberg, John L., to Anthony Brandenthaler. Log barking machine having bilateral cutters, brushes and feed rollers. 2,780,252, 2–5–57, Cl. 144—208.

Haanan, Everetth H. Refrigerating unit. 2,780,074, 2–5–57, Cl. 62—91.5.

Haggland, Paul B. Fracture plate. 2,780,223, 2–5–57, Cl. 128—92.

Hainer, Raymond M., and E. C. Evers, to the United States of America as represented by the United States Atomic Energy Commission. Uranium separation process. 2,780,532, 2–5–57, Cl. 23—312

Hall, Albert M.: *See*—
Blank, Howard A., Moon, and Hall. 2,780,545.

Hall, Thomas R., to American Truck Equip. Co. Cable reel brake. 2,780,419, 2–5–57, Cl. 242—90.

Ham, Carlton W. Device adapted for laying floors. 2,780,437, 2–5–57, Cl. 254—15.

Hamerschlag, Allan H.: *See*—
Clarke, John T., and Hamerschlag. 2,780,604.

Hamper-Tainer Co. Inc.: *See*—
Zucker, Arthur J., and Heiblim. 2,780,402.

Hanink, Herman H.: *See*—
Boam, Willard M., and Hanink. 2,779,999.

Hanley, Thomas G., to Eastman Kodak Co. Method for the rapid setting of baryta coatings. 2,780,560, 2–5–57, Cl. 117—60.

Hann, Melvin M.: *See*—
Stoyke, Ludwig T., and Hann. 2,780,170.

Hannon, Francis B.: *See*—
Crosman, Loring P., and Hannon. 2,780,408.

Hansen, Albert, Jr., to General Electric Co. Electric current measuring apparatus. 2,780,779, 2–5–57, Cl. 324—99.

Hansen, George E., to Crane Co. Renewable bushing for a valve actuator. 2,780,434, 2–5–57, Cl. 251—222.

Hanslick, Roy S.: *See*—
Seifter, Joseph, Hanslick, and Freed. 2,780,646.

Hanson, Henning E. Tone control. 2,780,683, 2–5–57, Cl. 179—171.

Hansson, Hugo, to Allmanna Svenska Elektriska Aktiebolaget. Measurement of intensity and transmission of impulses through the same transmission line. 2,780,799, 2–5–57, Cl. 340—180.

Hardenbergh, George A., to the United States of America as represented by the Secretary of the Navy. Binary accumulator circuit. 2,780,409, 2–5–57, Cl. 235—61.

Hardman, Harley F., and R. F. Jenkins, to The Standard Oil Co. Asphalt emulsions containing amine derivatives of pss-olefin products. 2,780,557, 2–5–57, Cl. 106—277.

Harris, Holbert L. Means for treating bank gravel. 2,780,417, 2–5–57, Cl. 241—152.

Harris, Howard G. Three-point tool adapter for tractors. 2,780,160, 2–5–57, Cl. 97—46.59.

Harris-Seybold Co.: *See*—
Barley, Leo D. 2,780,204.

Harris, Wilbert L., to The Fyr-Fyter Co. Diffusing flp for dry chemical fire extinguisher. 2,780,295, 2–5–57, Cl. 169—1.

Harrison, Harvey N. Farm wagon having an extensible frame. 2,780,473, 2–5–57, Cl. 280—34.

Harrison, Marvin E.: *See*—
Goeppinger, Edward J., Whitehorn, Bourns, and Harrison. 2,780,776.

Hart Mfg. Co., The: *See*—
Landin, Carl A. 2,780,691.

Harter, Paul G., and K. A. Steisslinger, to Eastman Kodak Co. Container for photographic objectives, filters, supplementary lenses, and the like. 2,780,348, 2–5–57, Cl. 206—1.

Hartford National Bank and Trust Co., trustee: *See*—
Greefkes, Johannes A., and Van Tilburg. 2,780,672.
Hertwig, Harry. 2,780,763.
Janssen, Peter J. H. 2,780,767.
Klein, Gerrit. 2,780,682.
Six, Willem, and Domburg. 2,780,674.
Van Bladel, Jean. 2,780,726.
Van Slooten, Jacob. 2,780,669.

Harvel Research Corp.: *See*—
Harvey, Mortimer T. 2,780,614.

Harvey, Douglass C., and L. J. Craig, to Eastman Kodak Co. Double shutter trigger lock. 2,780,152, 2–5–57, Cl. 95—31.

Harvey, Mortimer T., to Harvel Research Corp. Mixtures of a diene rubber and a partially hydrogenated furfurylketone product. 2,780,614, 2–5–57, Cl. 260—45.5.

Hatcher, Creel W. Coin changing apparatus. 2,780,336, 2–5–57, Cl. 194—10.

Hatton, Roger E., and A. Lassio, to Monsanto Chemical Co. Reaction of aryloxyacetic acids and unsymmetrical epoxides. 2,780,642, 2–5–57, Cl. 260—473

Hayes, Charles W.: *See*—
Pew, James E., and Hayes. 2,780,304.

Hayes, Loren A., to United States Steel Corp. Cutting tool with removable bit. 2,779,992, 2–5–57, Cl. 29—96.

Heald Machine Co.: *See*—
Townsend, Almon F. 2,780,036.

Hedding, Linnie K., and R. H. Zetwo, to Westinghouse Air Brake Co. Dry cell reconditioning device. 2,780,766, 2–5–57, Cl. 320—4.

Heddy, Edward H. Pneumatically activated well pump. 2,780,171, 2–5–57, Cl. 103—5.

Hechler, Arthur C., and F. X. Keegan, to The Pyle-National Co. Warning light with a retainer and mounting structure for a sealed beam lamp. 2,780,796, 2–5–57, Cl. 340—49.

Heffron, Charles B.: *See*—
Farr, Kenneth E., Baugh, and Heffron. 2,780,668.

Hegmegee, Paul E., Jr., to The International Nickel Co., Inc. Nickel alloy. 2,780,544, 2–5–57, Cl. 75—170.

Heiblim, Bernard: *See*—
Zucker, Arthur J., and Heiblim. 2,780,402.

Heigis, Henry E., to Specialties Development Corp. Fluid dispensing system. 2,780,296, 2–5–57, Cl. 169—11.

Helbling, Anton E. Docking iron. 2,780,713, 2–5–57, Cl. 219—29.

Heli-Coil Corp.: *See*—
Brancato, Leo J. 2,780,265.
Brancato, Leo J. 2,780,270.

Heller, Paul R.: *See*—
Baudry, René A., and Heller. 2,780,739.

Hellmann, Frank R. Jr., to The Standard Oil Co. Filter apparatus. 2,780,359, 2–5–57, Cl. 210—43.

Heltzel, Carl J.: *See*—
Heltzel, John N. 2,780,149.

Heltzel, John N., deceased: The Union Savings & Trust Co., and C. J. Heltzel, executors. Concrete expansion joints. 2,780,149, 2–5–57, Cl. 94—18.

Hemminger, Charles E., and C. W. Tyson, to Esso Research and Engineering Co. Reforming followed by hydrodealkylation. 2,780,661, 2–5–57, Cl. 260—672.

Hennick, Frank. Musical instrument. 2,780,127, 2–5–57, Cl. 84—170.

Henning, William W.: *See*—
Beckman, William O., Land, Baker, and Henning. 2,780,319.

Henseleit, Georg, to Koppers Co., Inc. Door operating mechanism for horizontal coking chamber ovens. 2,780,366, 2–5–57, Cl. 212—4.

Hensgen, Bernard T., to Swift & Co. Frankfurter skinning machine. 2,779,968, 2–5–57, Cl. 17—1.

Hensgen, Bernard T., to Swift & Co. Packaging under air pressure. 2,780,043 2–5–57, Cl. 53—112.

Herbrich, Wilhelm, to Spica S. p. A. Devices for regulating the delivery of piston pumps. 2,780,173, 2–5–57, Cl. 103—41.

Herr Equipment Corp., The: *See*—
Herr, Richard F. 2,780,421.
Herr, Richard F. 2,780 503.

Herr, Richard F., to The Herr Equipment Corp. Level-winding apparatus. 2,780,421, 2–5–57, Cl. 242—158.

Herr, Richard F., to The Herr Equipment Corp. Slitter apparatus. 2,780,503, 2–5–57, Cl. 308—59.

Hertwig, Harry, to Hartford National Bank and Trust Co., as trustee. Gas discharge tube system for motor control. 2,780,763, 2–5–57, Cl. 318—345.

Hertzfeldt, Albert C. Key and can support for removing sealing bands from vacuum cans. 2,780,387, 2–5–57, Cl. 220—52.

Hess, Bryce M. Rotary drier. 2,780,010, 2–5–57, Cl. 34—109.

Hewitt-Robins Inc.: *See*—
Hickey Merrill H., and Bolme. 2,780,368.

Hewlett, Clarence W., to General Electric Co. Method of making P–N junction semiconductor units. 2,780,569, 2–5–57, Cl. 148—1.5.

Hickey, Herbert A., to The Upjohn Co. Agitator apparatus for sterile processing. 2,780,444, 2–5–57, Cl. 259—113.

Hickey, Merrill H., and O. M. Bolme, to Hewitt-Robins Inc. Tripper sealing means. 2,780,368, 2–5–57, Cl. 214—17.

Hickle, Joseph C. Motor vehicle hydraulic brake system. 2,780,322, 2–5–57, Cl. 188—90.

Hill, Lester E., and H. T. Lyman, to Aladdin Industries, Inc. Radio-frequency energy-transfer device. 2,780,784, 2–5–57, Cl. 333—24.

Hill, Roscoe F.: *See*—
Dail, John P., and Hill. 2,780,026.

Hill, Walter P. Bending device. 2,780,269, 2–5–57, Cl. 153—40.

Hilliker, Donald E., to General Electric Co. Freezer compartment for household refrigerator. 2,780,075, 2–5–57, Cl. 62—99.

Hillman, Erwin: *See*—
Rusch, Kenneth A., and Hillman. 2,780,275.

Hinojosa, Tomas. Fluid level responsive switch. 2,780,692. 2–5–57, Cl. 200—84.

Hjulian, Julius A., to Crane Co. Tank filling valve. 2,780,239, 2–5–57, Cl. 137—416.

Hobart Brothers Co., The: *See*—
Hobart, Edward A. 2,780,356.

Hobart, Edward A., to The Hobart Brothers Co. Apparatus for separating minerals from sand. 2,780,356, 2–5–57. Cl. 209—443.

Hobbs, Charles C., Jr.: *See*—
MacLean, Alexander F., and Hobbs. 2,780,627.

Hodel, Hans. Elastic spikes for securing railroad tracks. 2,780,416, 2–5–57. Cl. 238—349.

Hodge, Bartow: *See*—
Lanneau, Keith P., and Hodge. 2,780,131.

Hodges Research and Development Co.: *See*—
Hodges, William C., and Robb. 2,779,958.

Hodges, William C., and A. L. Robb, to Hodges Research and Development Co. Bridging elements. 2,779,958, 2–5–57. Cl. 14—72.

Hoenecke, Walter J. Pneumatically operated diaphragm pump. 2,780,177, 2–5–57. Cl. 103—150.

Hoffmann-La Roche Inc.: *See*—
Isler, Otto, Montavon, Rüegg, and Zeller. 2,780,651.
Surmatis, Joseph D. 2,780,658.

Hoke Oil & Fertilizer Co.: *See*—
Upchurch, Lewis M. 2,780,476.

Holcroft & Co.: *See*—
Martin, Clarence H. 2,780,451.

Holdaway, James L., and S. C. Nelson, to American Viscose Corp. Method and apparatus for forming continuous strips of sheet material from tubing. 2,779,973, 2–5–57. Cl. 18—47.5.

Holland Industries, Inc.: *See*—
Vacanti, Frank F., Jr. 2,780,215.

Holland, Urban C. Means for dispensing the contents of collapsible tubes. 2,780,390, 2–5–57. Cl. 222—103.

Holley, Donald A. Automatic temperature control fluid mixing valve. 2,780,412, 2–5–57. Cl. 236—12.

Hollis, Gus O. Awning. 2,779,982, 2–5–57. Cl. 20—57.5.

Holloway, James P., to Armstrong Cork Co. Calender roll. 2,780,443, 2–5–57. Cl. 257—95.

Holmquist, John L., to The National Supply Co. Method of avoiding lapped-over seams in tubes formed in cross-roll piercing mills. 2,780,119, 2–5–57. Cl. 80—62.

Holzwarth, Hans T., to The M. W. Kellogg Co. Centrifugal impellers. 2,780,176, 2–5–57. Cl. 103—115.

Holzwarth, Hans T., to The M. W. Kellogg Co. Nozzle plate. 2,780,436, 2–5–57. Cl. 253—78.

Hootkins, Seymour: *See*—
Wallace, Valton. 2,780,700.

Hoppe, Peter, H. Pfeffer, and E. Muller, to Farbenfabriken Bayer Aktiengesellschaft. Process for the preparation of rubber and plastic materials of cellular structure. 2,780,606, 2–5–57. Cl. 260—2.5.

Hormann, Frank R.: *See*—
Williams, Selden T., and Hormann. 2,780,243.

Horn, Bessie: *See*—
Parrish, Albert D. 2,780,144.

Houle, Leon E. Disposal unit. 2,779,948. 2–5–57. Cl. 4—10.

Howe Folding Furniture, Inc.: *See*—
Howe, Harold. 2,780,506.

Howe, Harold, to Howe Folding Furniture, Inc. Folding sectional table with latch mechanism. 2,780,506, 2–5–57. Cl. 311—89.

Howie, Kenneth, to Wildman Mfg. Co. Yarn traversing mechanism for knitting machines. 2,780,083. 2–5–57. Cl. 66—126.

Hubbard, James R., to General Electric Co. Centrifugal motor protection clutch. 2,780,335, 2–5–57. Cl. 192—105.

Hubbell, Harvey, to Harvey Hubbell, Inc. Means of mounting contacts in electrical receptacles. 2,780,790, 2–5–57. Cl. 339—164.

Hubbell, Harvey, Inc.: *See*—
Hubbell, Harvey. 2,780,790.

Hudson, Thomas B., to Curry Ale Shear Corp. Shear control mechanism. 2,780,285, 2–5–57. Cl. 164—41.

Huet, André, to Combustion Engineering, Inc. Method of thickening tube wall. 2,780,000, 2–5–57. Cl. 29—534.

Huet, André. Heat exchangers. 2,780,446. 2–5–57. Cl. 257—245.

Hull, Harold S., to Dacre Chucks Ltd. Collets and chuck jaw assemblages. 2,780,469, 2–5–57. Cl. 279—48.

Humiston, Charles G.: *See*—
Moyle, Clarence L., and Humiston. 2,780,546.

Humphlett, Wilbert J., to Eastman Kodak Co. Continuous liquid phase process for effecting condensation of an aldehyde and a carboxylic compound containing an active methylene group. 2,780,632, 2–5–57. Cl. 260—307.

Huron Specialty Co.: *See*—
McClellan, Frank. 2,780,693.

Hurst, Edward, to Rexall Drug Co. Abrasive article and method of making. 2,780,533, 2–5–57. Cl. 51—297.

Hurst, Thomas M., to Celanese Corp. of America. Textile apparatus. 2,780,048, 2–5–57. Cl. 57—119.

Hurwitz, Melvin D., B. B. Kine, and N. A. Matlin, to Rohm & Haas Co. Protein-containing textiles and stabilization thereof. 2,780,608, 2–5–57. Cl. 260—29.6.

Hutchings, Le Roi E.: *See*—
Marisic, Milton M., and Hutchings. 2,780,527.

Hvale, James L., to Ekco Products Co. Mop with folding squeezer head. 2,779,959, 2–5–57. Cl. 15—119.

Hyman, Joseph B.: *See*—
Noble, Aubrey E., Anness, Hyman, and Roetz. 2,780,096.

Hynson, Frederic R., to Miller Engineering Corp. Turning device. 2,780,340, 2–5–57. Cl. 198—33.

Iddings, Charles D.: *See*—
Woolslayer, Homer J., Iddings, Borg, and Jenkins. 2,780,326.
Woolslayer, Homer J., Iddings, Jenkins, and Campbell. 2,780,325.

Illinois McGraw Electric Co.: *See*—
Rand, Arthur V., and Roll. 2,780,707.

Illinois Tool Works: *See*—
Flair, Henry J. 2,780,006.
Pomernacki, Henry. 2,780,007.
Rapata, George M. 2,780,128.
Sauri, Oliver E. 2,780,146.

Immel, Ralph B.: *See*—
Wibell, Martin, and Immel. 2,780,690.

Impey, Charles E.: *See*—
LaRocque, Joseph E., and Impey. 2,780,206.

Indiana Commercial Filters Corp.: *See*—
Gardes, Alfred W. 2,780,344.

Industrial Rayon Corp.: *See*—
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Inficо Inc.: *See*—
Evans, Richard R., Mahacek, and McKinney. 2,780,361.
Pew, Preston F. 2,780,363.

Inoshita, Kagenobu. Processes for producing hollow filaments of regenerated cellulose. 2,780,512, 2–5–57. Cl. 18—54.

International Business Machines Corp.: *See*—
Anderson, Arthur A. 2,780,798.

International Electronics Co., The: *See*—
Bobb, Loyd J. 2,780,678.

International Geophysics, Inc.: *See*—
Jakosky, John J. 2,780,301.

International Harvester Co.: *See*—
Bechman, William O., Land, Baker, and Henning. 2,780,319.
Brogan, Emmett V. 2,780,706.
Covitt, Jack G., and Putnam. 2,780,372.
Forsyth, Clark H. 2,780,478.
Malcolm, Robert H. 2,780,212.

International Minerals & Chemical Corp.: *See*—
Butt, Charles A. 2,780,521.
Gloss, Gunter H. 2,780,523.
Gloss, Gunter H., and Gross. 2,780,522.
Gloss, Gunter H., and Gross. 2,780,524.

International Nickel Co., Inc., The: *See*—
Hegmegee, Paul E., Jr. 2,780,544.

International Rectifier Corp.: *See*—
Cataldo, Joseph T., and Kadelburg. 2,780,667.

International Standard Electric Corp.: *See*—
Brewster, Arthur E. 2,780,670.
Cresson, George M. 2,780,794.
Jackson, Thomas M. 2,780,747.
Seiler, Karl O. 2,780,539.
Steiner, Fritz, and Dlustl. 2,780,105.

Invention Development Corp.: *See*—
Rasmussen, Peter D. 2,780,090.

Ioannilli, Joseph R.: *See*—
Ashworth, Fred, and Ioannilli. 2,780,189.

Ionics, Inc.: *See*—
Clarke, John T., and Hamerschlag. 2,780,604.

Irmscher, Hans O., to National Tea Packing Co., Inc. Infusion package manufacture. 2,780,042, 2–5–57. Cl. 53—57.

Iron Fireman Mfg. Co.: *See*—
Carlson, Bert G., and Judson. 2,780,104.

Irwin, Charles F.: *See*—
Barish, Thomas, Irwin, Line, and Wright. 2,780,298.

Irwin, Gordon C.: *See*—
Breed, Rolland N., Groth, Irwin, Kille, and Riggs. 2,780,410.

Isler, Otto, M. Montavon, R. Rüegg, and P. Zeller, to Hoffmann-La Roche Inc. Process for the manufacture of a polyene aldehyde. 2,780,651, 2–5–57. Cl. 260—598.

Ivers-Lee Co.: *See*—
Volckening, Lloyd I. 2,780,353.

Jackson, Arthur W. Machine training device. 2,780,012. 2–5–57. Cl. 35—13.

Jackson, Edmond D.: *See*—
Thornhill, Jay W., and Jackson. 2,780,757.

Jackson, Robert C., to Beaver Tool and Engineering Corp. Eccentric boring head. 2,780,467, 2–5–57. Cl. 279—6.

Jackson, Squire R.: *See*—
Clarke, John S., and Jackson. 2,780,061.

Jackson, Thomas M., to International Standard Electric Corp. Electric discharge devices. 2,780,747, 2–5–57. Cl. 313—188.

Jackson, Thomas W., to the United States of America as represented by the Secretary of the Navy. Turbine blade cooling structure. 2,780,435, 2–5–57. Cl. 253—39.15.

Jacobi, Oskar, and O. Muller, to Gutehoffnungshutte Oberhausen Aktiengesellschaft. Roof supporting means or cap and a method of positioning the same. 2,780,067, 2–5–57. Cl. 61—45.

Jacobs, James W., to General Motors Corp. Vehicle refrigerating apparatus. 2,780,077, 2–5–57. Cl. 62—117.1.

Jahn, Walter: *See*—
Bismann, Helmut, Jahn, and Lange. 2,780,138.

Jakosky, John J., 40% to International Geophysics, Inc., and 60% to Signal Oil and Gas Co. Apparatus for seismically exploring geological formations under water. 2,780,301. 2–5–57. Cl. 181—5.

James, Bill Y. Package bow guard. 2,780,403, 2–5–57. Cl. 229—87.

Janssen, Peter J. H., to Hartford National Bank and Trust Co., as trustee. Circuit arrangement for converting a low voltage into a high direct voltage. 2,780,767, 2–5–57. Cl. 321—2.

Jareckie, Eugene A., to McKiernan-Terry Corp. Hoist boom towing connection. 2,780,196, 2–5–57. Cl. 114—0.5.

Jasuta, Albert R., to J. T. Baker Chemical Co. Spout comprising a large outlet passage and a smaller outlet passage located thereln. 2,780,391, 2–5–57. Cl. 222—109.

Jendrassik, Clara: *See*—
Jendrassik, George. 2,780,405.

Jendrassik Developments Ltd.: *See*—
Jendrassik, George. 2,780,405.

Jendrassik, George, deceased; A. G. T. Roszormenyi and C. Jendrassik, executors, to Jendrassik Developments Ltd. Pressure exchangers. 2,780,405, 2–5–57, Cl. 230—69.

Jenkins, Cecil: *See*—
Woolslayer, Homer J., Iddings, Borg, and Jenkins. 2,780,326.
Woolslayer, Homer J., Iddings, Jenkins, and Campbell. 2,780,325.

Jenkins, Robert F.: *See*—
Hardman, Harley F., and Jenkins. 2,780,557.

Jenner, Hans: *See*—
Blomgren, Erik, and Jenner. 2,780,601.

Jenner, William C., R. S. Wick, and C. R. Newpher, to The Reliance Electric and Engineering Co. Coil structure. 2,780,742, 2–5–57, Cl. 310—179.

Jenny, Robert W.: *See*—
Keller, George R., and Jenny. 2,780,427.

Jensen, Clarence F., to Webster Electric Co. Transducer. 2,780,680, 2–5–57, Cl. 179—100.41.

Jensen, Raymond W., to The Garrett Corp. Pneumatic temperature control. 2,780,413, 2–5–57, Cl. 236—13.

Jon, Curt G. Self-centering feed rolls for a dowel machine or the like. 2,780,253, 2–5–57, Cl. 144—246.

Johanson, Lars N. M. Precision vise having a coacting locking plate and jaw-advancing screw. 2,780,123, 2–5–57, Cl. 81—17.

Johanson, Norman L., to Boeing Airplane Co. Modulator-demodulator limiter transistor circuits. 2,780,725, 2–5–57, Cl. 250—31.

Johnson, Richard C., to The Powell Pressed Steel Co. Material handling box with return chute. 2,780,393, 2–5–57, Cl. 222—185.

Johnson, Wallace M., to General Electric Co. Four leg magnetic core. 2,780,786, 2–5–57, Cl. 336—212.

Jordan, Thomas E., to Fulford Mfg. Co. Clasp. 2,779,987, 2–5–57, Cl. 24—153.

Joy Mfg. Co.: *See*—
McPhee, Raymond D. 2,780,109.
Simmons, Leon E. 2,780,334.

Jubb, Derek H.: *See*—
Beale, Richard D., Jubb, and Stevenson. 2,780,058.

Judson, Albert L.: *See*—
Carlson, Bert G., and Judson. 2,780,104.

Junk, William A., Jr., W. D. Schmidt, H. S. Seelig, and W. L. Fleming, to Standard Oil Co. Chemical refining and catalytic conversion of hydrocarbon oils. 2,780,582, 2–5–57, Cl. 196—23.

Juvinall, Robert C., to Ransburg Electro-Coating Corp. Electrostatic spray coating and method. 2,780,565, 2–5–57, Cl. 117—93.

Kabrick, Roland C., to Swift & Co. Poultry (tray pack) wrapping device. 2,780,045, 2–5–57, Cl. 53—219.

Kadelburg, Kurt: *See*—
Cataldo, Joseph T., and Kadelburg. 2,780,667.

Kaiser, Donald W.: *See*—
Welcher, Richard P., and Kaiser. 2,780,623.

Kalthoff, Charles W., Jr. Cooling tower. 2,780,447, 2–5–57, Cl. 261—111.

Kandle, Charles W. Earth boring drills. 2,780,439, 2–5–57, Cl. 255—69.

Kaney, Edward E. Self-unloading transport truck. 2,780,369, 2–5–57, Cl. 214—83.28.

Kanner, Bernard: *See*—
Brown, Herbert C., and Kanner. 2,780,626.

Kauer, Kenneth C., to The Dow Chemical Co. (Chlorobenzylidenedilimino)-bis-thiazoles. 2,780,629, 2–5–57, Cl. 260—306.8.

Kauer, Kenneth C., to The Dow Chemical Co. Trichloroethylidenedilimino-bis-thiazole. 2,780,630, 2–5–57, Cl. 260—306.8.

Kauer, Kenneth C., to The Dow Chemical Co. Thiazolyl chloro-aliphatic amides. 2,780,631, 2–5–57, Cl. 260—306.8.

Kaufman, David, and S. E. Bailey, to the United States of America as represented by the United States Atomic Energy Commission. Recovery of uranium from ores. 2,780,519, 2–5–57, Cl. 23—14.5.

Kearney, James R., Corp.: *See*—
Brown, Walter, and Bernatt. 2,780,684.

Keegan, Frank X.: *See*—
Hechler, Arthur C., and Keegan. 2,780,796.

Keenan, James W., to Bendix Aviation Corp. Humidistat. 2,780,687, 2–5–57, Cl. 200—61.06.

Keil, Werner, to Rheinpreussen Aktiengesellschaft für Bergbau und Chemie. Anaesthetic mixture. 2,780,576, 2–5–57, Cl. 167—52.

Kelleher, Ruth V. Post-mastectomy brassiere. 2,779,943, 2–5–57, Cl. 2—42.

Keller, Ernst: *See*—
Dürig, Rudolf, and Keller. 2,780,619.

Keller, George R., and R. W. Jenny, to North American Aviation, Inc. Artificial feel device. 2,780,427, 2–5–57, Cl. 244—83.

Keller, Siegfried, to Machine Tool Works Oerlikon, Administration Co. Fluid pressure brake. 2,780,499, 2–5–57, Cl. 303—22.

Kellogg, M. W., Co., The: *See*—
Burton, William P. 2,780,603.
Holzwarth, Hans T. 2,780,176.
Holzwarth, Hans T. 2,780,436.
Mader, Charles K. 2,780,586.

Kelsey-Hayes Wheel Co.: *See*—
Getz, Delmond L. 2,780,279.

Kemaga, Eugene E., to The Dow Chemical Co. Polychlorinated fluoranthene as a parasiticide. 2,780,575, 2–5–57, Cl. 167—30.

Kennedy, William P. Adjustable pattern irrigation sprinkling device. 2,780,488, 2–5–57, Cl. 299—18.

Keser, Walter, to Lufttechnische Gesellschaft m. b. H. Device for atomizing fluids. 2,780,494, 2–5–57, Cl. 299—106.

Kessler, Joseph S., to Ladish Co. Sealed joint for pipes having conical tapered interfaces. 2,780,483, 2–5–57, Cl. 285—332.

Ketterer, Stanley J.: *See*—
Smith, Darwin G., and Ketterer. 2,780,193.

Kiekhaefer Corp.: *See*—
Armstrong, Daniel A. 2,780,331.

Kiekhaefer, Elmer C. Transom spray deflector. 2,780,195, 2–5–57, Cl. 114—.5.

Kiel, Wilhelm K. B., and U. J. R. Eichler; said Kiel assor. to Metall-Guss-und Presswerk Heinrich Diehl G. m. b. H. Calculating machine. 2,780,411, 2–5–57, Cl. 235—63.

Kille, Lindley A.: *See*—
Breed, Rolland N., Groth, Irwin, Kille, and Riggs. 2,780,410.

Kine, Benjamin B.: *See*—
Hurwitz, Melvin D., Kine, and Matlin. 2,780,608.

Kine, Benjamin B., and N. A. Matlin, to Rohm & Haas Co. Stabilization of protein-containing textiles. 2,780,567, 2–5–57, Cl. 117—141.

King, J. P., Jr.: *See*—
Loomis, Glenn L. 2,780,294.

King, J. P., Sr.: *See*—
Loomis, Glenn L. 2,780,294.

King, W. F.: *See*—
Loomis, Glenn L. 2,780,294.

Kinkel, John F., to Consolidated Electrodynamics Corp. Force balance measuring device. 2,780,101, 2–5–57, Cl. 73—398.

Kins, Georg H. Pressure vessel. 2,779,972, 2–5–57, Cl. 18—30.

Klausner, Joseph E.: *See*—
Bachman, Fred E., and Klausner. 2,780,317.

Klein, Gerrit, to Hartford National Bank and Trust Co. as trustee. Difference amplifier. 2,780,682, 2–5–57, Cl. 179—171.

Kleiner, Helmut: *See*—
Reinartz, Kurt, Graulich, Lehmann, and Kleiner. 2,780,562.

Knapp-Monarch Co.: *See*—
Vinos, Charles D. 2,780,711.

Kniel, Ludwig, to The Lummus Co. Production of ethylene. 2,780,580, 2–5–57, Cl. 196—8.

Koerner, Philip A. Mobile frame for lifting and carrying farm implements. 2,780,475, 2–5–57, Cl. 280—44.

Kopa, Walter. Gear transmissions. 2,780,110, 2–5–57, Cl. 74—351.

Koppers Co., Inc.: *See*—
Del, Franz. 2,780,590.
Henseleit, Georg. 2,780,366.

Krauss-Maffei Aktiengesellschaft: *See*—
Emele, Günther W. 2,780,502.

Krider, Merle M., and M. E. Wall, to the United States of America as represented by the Secretary of Agriculture. Partial acidic hydrolysis of steroidal saponins. 2,780,620, 2–5–57, Cl. 260—210.5.

Krieger, Fred W., to Newman Brothers, Inc. Hand rail construction. 2,780,440, 2–5–57, Cl. 256—21.

Kritscher, Andrew F., to United States Steel Corp. Apparatus for rolling tubes. 2,780,118, 2–5–57, Cl. 80—14.

Kuehni, Hans P., to General Electric Co. Fluid compressor. 2,780,404, 2–5–57, Cl. 230—20.

Kuhn, Eugen, to Olympia Werke Aktiengesellschaft. Typing apparatus for business machines and the like. 2,780,165, 2–5–57, Cl. 101—96.

Kuipers, George A., to the United States of America as represented by the United States Atomic Energy Commission. Vacuum gauge. 2,780,099, 2–5–57, Cl. 73—388.

Kushner, Samuel: *See*—
Bach, Frederick L., Jr., and Kushner. 2,780,625.

Kutzler, Robert J., to Minneapolis-Honeywell Regulator Co. Aircraft control apparatus. 2,780,426, 2–5–57, Cl. 244—77.

Kuzmick, Joseph N., and D. W. Bell, to Raybestos-Manhattan, Inc. Manufacture of abrasive products. 2,780,534, 2–5–57, Cl. 51—298.

Labastie, Albert H., and J. W. Poole, to General Electric Co. Vapor cooled generator. 2,780,737, 2–5–57, Cl. 310—54.

La Cavera, Frank J. Alarm tripping mechanism. 2,780,689, 2–5–57, Cl. 200—61.93.

Ladish Co.: *See*—
Kessler, Joseph S. 2,780,483.

La Forge, Louis H., Jr., to Eitel-McCullough, Inc. Method of making metallized ceramic structures for vacuum tube envelopes. 2,780,561, 2–5–57, Cl. 117—62.

Lahti, Arvo A., to Consolidated Electrodynamics Corp. Electrostatic voltmeter. 2,780,780, 2–5–57, Cl. 324—109.

Laing, Bertha V. Reading material support. 2,780,027, 2–5–57, Cl. 45—82.

Lambert, Reuben B. Flashlight casing. 2,780,722, 2–5–57, Cl. 240—10.66.

Lancaster, Ralph, and N. Slater, to Benrus Watch Co. [illegible] Hinged claw watch bracket. 2,780,400, 2–5–57, Cl. [illegible]

Land, Harry A.: *See*—
Bechman, William O., Land, Baker, and Henning. 2,780,319.

Landin, Carl A., to The Hart Mfg. Co. Electric switch. 2,780,691, 2–5–57, Cl. 200—67.

Landqvist, Nils D., to Rydboholms Aktiebolag. Device for advancing shrinkable and stretchable materials such as textile fabrics. 2,780,459, 2–5–57, Cl. 271—2.2.

Lane, Robert E.: *See*—
Frost, Frederick H., and Lane. 2,780,563.

Lange, Günther: *See*—
Lismann, Helmut, Jahn, and Lange. 2,780,138.

Lange, Gunther, to C. Zeiss. Lens system for a photographic objective. 2,780,139, 2–5–57, Cl. 88—57.

Langmuir, Robert V.: *See*—
Robinson, Charles F., Langmuir, Brubaker, and Perkins. 2,780,729.

Langmuir, Robert V., to Consolidated Electrodynamics Corp. Mass spectrometry. 2,780,728, 2–5–57, Cl. 250—41.9.

Lanneau, Keith P., and B. Hodge, to Esso Research and Engineering Co. Continuous recording refractometer. 2,780,131, 2–5–57, Cl. 88—14.

La Rocque, Joseph E., and C. E. Impey, to Vapor Heating Corp. Multiple boiler control system. 2,780,206, 2–5–57, Cl. 122—448.

Larrabee, Edward W. Liquid dispensing device. 2,780,396, 2–5–57, Cl. 222—539.

Larrabee, Edward W. Disposable liquid dispensing device. 2,780,397, 2–5–57, Cl. 222—539.

Larsen, Harvey E., to Steger Products Mfg. Corp. Buffing process. 2,780,041, 2–5–57, Cl. 51—281.

Larson, Alvin, to Unique Balance Co., Inc. Adjustable load carrying device. 2,780,457, 2–5–57, Cl. 267—1.

Lasslo, Andrew: *See*—
Hatton, Roger E., and Lasslo. 2,780,642.

Laughlin, Myron P. Fountain cleaning device with detergent supply. 2,779,961, 2–5–57, Cl. 15—130.

Lauler, Louis J., and M. T. Thorsson, to Fairbanks, Morse & Co. Remote indictaor for scales. 2,780,800, 2–5–57, Cl. 340—187.

Laverdisse, Edmond, to Les Glaceries de la Sambre, Societe Anonyme. Glass grinding and polishing method and apparatus. 2,780,038, 2–5–57, Cl. 51—110.

Laviana, Lawrence J., to M. H. Rhodes, Inc. Telephone index and call timer. 2,780,016, 2–5–57, Cl. 40—104.

Lawson, Frank L., to Candell & Johnson. Pivotally mounted guard for tractor chain and supporting rollers. 2,780,500, 2–5–57, Cl. 305—9.

Leahy, John M.: *See*—
Beckner, Marshall H., and Leahy. 2,780,382.

Lear, Max M., Jr., to Monarch Electric Corp. Composite fuse link. 2,780,696, 2–5–57, Cl. 200—135.

Lebocey, Bernard J. E., to D. I. Glossbrenner. Electromechanical lubricant distributor. 2,780,312, 2–5–57, Cl. 184—26.

Lee, Bernard, to Vickers Inc. Self-saturating reactor circuit. 2,780,770, 2–5–57, Cl. 323—89.

Lee, Bernard, to Vickers Inc. Magnetic amplifier. 2,780,771, 2–5–57, Cl. 323—89.

Lee, Bernard, to Vickers Inc. Self-saturating reactor circuits. 2,780,772, 2–5–57, Cl. 323—89.

Lee, Harold J., ⅓ to Cody Gas Co. Insertable stopper valve. 2,780,244, 2–5–57, Cl. 138—94.

Lee, Pyungtoo W., and B. L. Weller, to Vitramon Inc. Methods for making composite electric circuit components. 2,779,955, 2–5–57, Cl. 18—47.5.

Lee, Wesley B., 50% to B. C. Spivey, and 50% to L. Spivey, Jr. Pie mold. 2,780,163, 2–5–57, Cl. 99—375.

Leeds, Winthrop M., to Westinghouse Electric Corp. Circuit interrupter. 2,780,699, 2–5–57, Cl. 200—150.

Lehigh Valley Coal Sales Co.: *See*—
Birch, Charles K. 2,780,187.

Lehmann, Wolfgang: *See*—
Reinartz, Kurt, Graulich, Lehmann, and Kleiner. 2,780,562.

Lempke, Harry R. Portable knockdown shelter for ice fishing. 2,780,471, 2–5–57, Cl. 280—12.

Lennartz, Walter. Covering of artificial material. 2,780,262, 2–5–57, Cl. 150—39.

Lenning, Alvar, to Svenska Lasmutter Ab. Portable flash light. 2,780,721, 2–5–57, Cl. 240—10.65.

Lenoble, Daniel, to Sayco Doll Corp. Hair rooting equipment. 2,780,190, 2–5–57, Cl. 112—79.5.

Leonard, Percy, to Williams & Hussey Machine Corp. Machine having a cutter head slidably mounted on a post. 2,780,250, 2–5–57, Cl. 144—130.

Leonard, Percy, to Williams & Hussey Machine Corp. Guides for machines having a bed over which stock is fed. 2,780,255, 2–5–57, Cl. 144—253.

Lerner, Louis L., to Allied Home Products Corp. Washing and waxing composition. 2,780,554, 2–5–57, Cl. 106—10.

Les Glaceries de la Sambre, Societe Anonyme: *See*—
Laverdisse, Edmond. 2,780,038.

Lester, John T.: *See*—
Ake, Paige W., and Lester. 2,779,950.

LeTourneau-Westinghouse Co.: *See*—
Spannlake, Ernst W. 2,780,065.

Levy, Charles A.: *See*—
Roman, John, and Levy. 2,780,181.

Lewin, Gerhard: *See*—
Williams, Neal T., and Lewin. 2,780,748.

Lewis, Richard N., to Olin Mathieson Chemical Corp. Hydrazine recovery. 2,780,531, 2–5–57, Cl. 23—312.

Liegey, Paul R.: *See*—
Andrews, David H., Liegey, Nozick, and Treitel. 2,780,803.

Lien, Arthur P.: *See*—
McCaulay, David A., and Lien. 2,780,659.

Lifton, Lewis. Handles for brief cases and luggage. 2,780,330, 2–5–57, Cl. 190—57.

Lilmell Vagn Aktiebolag: *See*—
Frieberg, Bengt. 2,780,479.

Like, Ralph M., to Noma Lites, Inc. Phonograph tone arm restoring mechanism. 2,780,466, 2–5–57, Cl. 274—14.

Lilly, Eli, and Co.: *See*—
Porter, Herschel D. 2,780,628.

Line, Russel E.: *See*—
Barish, Thomas, Irwin, Line, and Wright. 2,780,298.

Linville, Eugene H.: *See*—
Parrish, Albert D. 2,780,144.

Lisle Corp.: *See*—
Brooks, Thomas E. 2,780,115.

Ljungström, Fredrik, to Svenska Skifferolje Aktiebolaget. Method of recovering oil and gases from non-consolidated bituminous geological formations by a heating treatment in situ. 2,780,450, 2–5–57, Cl. 262—3.

Lockheed Aircraft Corp.: *See*—
Bailey, Donald S. 2,779,998.
Price, Nathan C. 2,780,424.
Simon, Eli, and Thomas. 2,780,350.

Loftheim, Tor B. Devices for removing dust and other impurities from air, funnel smoke and other gases, especially gases from chemical and electrochemical manufactories. 2,780,309, 2–5–57, Cl. 183—77.

Long, Bernard, to Compagnies Reunies des Glaces & Verres Speciaux du Nord de la France. Improvements in apparatus for the continuous drawing of glass sheets. 2,780,032, 2–5–57, Cl. 49—17.

Long, Clyde W. Knitting basket. 2,780,399, 2–5–57, Cl. 223—107.

Long, James, to Fairbanks, Morse & Co. Auxiliary load support. 2,780.179, 2–5–57, Cl. 105—199.

Loomis, Glenn L., 1/16 to J. Stahl, 1/16 to R. T. Elmore, 1/12 to J. P. King, Sr., 1/12 to J. P. King, Jr., 1/12 to W. F. King, and 1/4 to the estate of F. L. Stahl, deceased. 2,780,294, 2–5–57, Cl. 166—203.

Loughlin, John P., ½ to J. A. Zane. Circular saw blade carrier. 2,780,486, 2–5–57, Cl. 294—34.

Louisiana State University and Agricultural and Mechanical College, Board of Supervisors of: *See*—
Wheeler, Harry E. and N. L., and Durieux. 2,780,732.

Lovell, Ernest, to Burroughs Corp. Electronically controlled electro magnetic stepping apparatus. 2,780,754, 2–5–57, Cl. 317—136.

Lovequist, Martin. Rotary impact drill. 2,780,106, 2–5–57, Cl. 74—22.

Low, Frank D., to General Electric Co. Signalling device for dishwashers and the like. 2,780,198, 2–5–57, Cl. 116—114.

Luboshez, Benjamin E., to Eastman Kodak Co. Prism zoom system having deviation correcting means. 2,780,140, 2–5–57, Cl. 88—57.

Luboshez, Benjamin E., to Eastman Kodak Co. Prism magnification system having correction means for unilateral color. 2,780,141, 2–5–57, Cl. 88—57.

Lucado, Richard E.: *See*—
Moran, Joseph G., and Lucado. 2,780,203.

Lucas, Joseph, (Industries) Ltd.: *See*—
Clarke, John S., and Jackson. 2,780,061.

Ludwig, Walter D. Solenoid design. 2,780,755, 2–5–57, Cl. 317—191.

Lufttechnische Gesellschaft m. b. H.: *See*—
Keser, Walter. 2,780,494.

Lummus Co., The: *See*—
Kniel, Ludwig. 2,780,580.

Lutz, Garson A., to the United States of America as represented by the United States Atomic Energy Commission. Method of recovering uranium from aqueous solutions. 2,780,514, 2–5–57, Cl. 23—14.5.

Lyman, Harold T.: *See*—
Hill, Lester E., and Lyman. 2,780,784.

Lynn, Clarence, and J. V. Dobson; said Lynn assor. to Westinghouse Electric Corp., and said Dobson assor. to Stackpole Carbon Co. Direct current dynamoelectric machine. 2,780,741, 2–5–57, Cl. 310—177.

Lyons, Fred G. Lock for adjusting worm of a movable jaw wrench. 2,780,124, 2–5–57, Cl. 81—165.

MacAfee, Merrill W., to Pacific Foundry Co., Ltd. Recovery of elemental sulphur from a gas system. 2,780,307, 2–5–57, Cl. 183—32.

Machine Tool Works Oerlikon, Administration Co.: *See*—
Keller, Siegfried. 2,780,499.

Macintyre, John R., to General Electric Co. Quick response resistance temperature detector. 2,780,703, 2–5–57, Cl. 201—63.

Macke, Robert A., and E. F. Wadley, to Esso Research and Engineering Co. Production of lubricating oils. 2,780,581, 2–5–57, Cl. 196—14.42.

MacLean, Alexander F., and C. C. Hobbs, Jr., to Celanese Corp. of America. Synthesis of pyridines. 2,780,627, 2–5–57, Cl. 260—290.

Macy, Rudolph, to the United States of America as represented by the Secretary of War, as trustee. Stabilization of mustard. 2,780,653, 2–5–57, Cl. 260—609.

Madak, Paul D. Fluid safety check and cushioning device. 2,780,240, 2–5–57, Cl. 137—496.

Mader, Charles K., to The M. W. Kellogg Co. Coking system and method of coking. 2,780,586, 2–5–57, Cl. 196—55.

Mageari, William H., to Esso Research and Engineering Co. Differential pressure apparatus with compensating device. 2,780,100, 2–5–57, Cl. 73—389.

Mageari, William H., to Esso Research and Engineering Co. Differential pressure device with compensating device. 2,780,103, 2–5–57, Cl. 73—406.

Maglio, Melvin R., Jr. Flying aircraft carrier. 2,780,422, 2–5–57, Cl. 244—2.

Magnet Wire, Inc.: *See*—
Mitnick, Jacob J. 2,780,420.

Mahacek, Irvin W.: *See*—
Evans, Richard R., Mahacek, and McKinney. 2,780,361.

Malcolm, Robert B., to International Harvester Co. Internal combustion engine lubricating means and viscous dampener. 2,780,212, 2–5–57, Cl. 123—195.

Malke, Sven: *See*—
Ewart, John C., and Malke. 2,780,271.

Mallory-Sharon Titanium Corp.: *See*—
Scriver, Richard M. 2,780,666.

Manker, Sanford: *See*—
Parrish, Albert D. 2,780,144.

Marathon Products, Inc.: *See*—
Maroth, Arthur M. 2,780,098.

Marceron, Paul, to "Sonapar" Societe de Participation, S. A. Rock cutting machine having slot cutting and slot engaging guide means. 2,780,452, 2–5–57, Cl. 262—9.

Marcusson, Sven E., to S. Marcussons Transportvagnfabrik A. B. Hand truck. 2,780,375, 2–5–57, Cl. 214—383.

Marcussons, S., Transportvagnfabrik A. B.: *See*—
Marcusson, Sven E. 2,780,375.

Marisic, Milton M., and L. E. Hutchings, to The Pure Oil Co. Production of graphite. 2,780,527, 2–5–57, Cl. 23—209.1.

Maroth, Arthur M., to Marathon Products, Inc. Indicating gauge responsive to circular or angular velocity. 2,780,098, 2–5–57, Cl. 73—380.

Martin, Clarence H., to Holcroft & Co. Work conveyor for heat treating furnaces. 2,780,454, 2–5–57, Cl. 263—8.

Martin, Glenn L., Co., The: *See*—
Wasilisin, Michael E., and Wernz. 2,780,716.

Marzluff, William F., to American Cyanamid Co. Removal of HCN. 2,780,513, 2–5–57, Cl. 23—2.

Massey-Harris-Ferguson (Sales) Ltd.: *See*—
Senkowski, Alexander, Payne, and Ferguson. 2,780,159.

Matlin, Nathaniel A.: *See*—
Hurwitz, Melvin D., Kine, and Matlin. 2,780,608.
Kine, Benjamin B., and Matlin. 2,780,567.

Matson, Carl G. Vehicle steerable drive gear. 2,780,299, 2–5–57, Cl. 180—6.28.

Maurer, Paul B., to Eastman Kodak Co. Reflex sight having a dichroic beam-combining mirror. 2,780,130, 2–5–57, Cl. 88—2.3.

Mayes, Fred M., to Sun Oil Co. Elevation meter. 2,780,753, 2–5–57, Cl. 315—252.

McCarney, Henry L., to Northrop Aircraft, Inc. Wire extractor. 2,780,120, 2–5–57, Cl. 81—9.5.

McCaulay, David A., and A. P. Lien, to Standard Oil Co. Ethylbenzene from C8 aromatic hydrocarbons. 2,780,659, 2–5–57, Cl. 260—668.

McClellan, Frank, to Huron Specialty Co. Pressure switch. 2,780,693, 2–5–57, Cl. 200—86.

McCord, Andrew T.: *See*—
Snow, George E., and McCord. 2,780,593.

McCown, Joe F. Tool for removing dents from thin wall pipe. 2,780.122, 2–5–57, Cl. 81—15.

McElhinney, Eric M., and T. A. Podhajsky. Loader machine. 2,780,374, 2–5–57, Cl. 214—140.

McHenry, Thomas F., to Electric Regulator Corp. System of regulation. 2,780,769, 2–5–57, Cl. 323—66.

McIntosh, James A., to McIntosh Stamping Corp. Wheel disk and method of manufacture. 2,779,994, 2–5–57, Cl. 29—159.01.

McIntosh Stamping Corp.: *See*—
McIntosh, James A. 2,779,994.

McKiernan-Terry Corp.: *See*—
Jarecke, Eugene A. 2,780,196.

McKim, Walter E. Rodent traps. 2,780,024, 2–5–57, Cl. 43—70.

McKinley, Donald, Jr., to The Bristol Co. Cold-end compensator for multiple-point pyrometers. 2,780,097, 2–5–57, Cl. 73—301.

McKinney, Lawrence A.: *See*—
Evans, Richard R., Mahacek, and McKinney. 2,780,361.

McLean, Robert F., to General Motors Corp. Automobile refrigerating apparatus. 2,780,076, 2–5–57, Cl. 62—117.1.

McLeod, Norman W. Multi-chambered vehicle tire. 2,780,266, 2–5–57, Cl. 152—340.

McNab, Inc.: *See*—
Channon, Kenneth F., Jr., and Estelle. 2,780,773.

McNair, Hugh N., S. B. Pelot, and W. F. Eldredge. Fluid proportioning device. 2,780,493, 2–5–57, Cl. 299—84.

McNeil Laboratories, Inc.: *See*—
Sam, Joseph. 2,780 633.

McNeill, Albert G., to Bachmann Bros., Inc. Door for toy house. 2,780,028, 2–5–57, Cl. 46—19.

McPhee, Raymond D., to Joy Mfg. Co. Hinge pin lock. 2,780 109, 2–5–57, Cl. 74—254.

Meade, Leonard P., to Phillips Petroleum Co. Underground storage system. 2,780,070, 2–5–57, Cl. 62—1.

Medlar, Lewis A., to Fox Products Co. Mutual induction method of and means for mensuring current density. 2,780,781, 2–5–57, Cl. 324—117.

Mercier, Dewey P. Fishing sinker. 2,780,023, 2–5–57, Cl. 43—42.74.

Merck & Co., Inc.: *See*—
Reinhold, Donald. 2,780,621.
Sarett, Lewis H. 2,780,648.

Metall-Guss-und Presswerk Heinrich Diehl G. m. b. H.: *See*—
Kiel, Wilhelm K. B., and Eichler. 2,780,411

Meyers, Richard A.: *See*—
Richards, Archer W., and Meyers. 2,780,267.

Middlemark, Marvin P. High frequency antennas. 2,780,808, 2–5–57, Cl. 343—806.

Middlestetter, Brewster P. Spring motor. 2,780,313, 2–5–57, Cl. 185—9.

Miller, Arthur J., B. M. Pitt, and P. F. Grieger, to the United States of America as represented by the United States Atomic Energy Commission. Method for improved precipitation of uranium peroxide. 2,780,515, 2–5–57, Cl. 23—14.5.

Miller Engineering Corp.: *See*—
Hynson, Frederic R. 2,780,340.

Miller, Harry C. Combination resetting guard for combination padlocks. 2,780,087, 2–5–57, Cl. 70—51.

Miller, Philip, and R. F. Bardsley, to Alexander Smith, Inc. Pile fabric. 2,780,245, 2–5–57, Cl. 139—403.

Miller, Theadore, to Westinghouse Electric Corp. Controlling the luminosity of a phosphor screen. 2,780,731, 2–5–57, Cl. 250—71.

Milprint, Inc.: *See*—
Rusch, Kenneth A., and Hillman. 2,780,275.

Milyard, Emmert. Combination metal working machine. 2,780,125, 2–5–57, Cl. 82—21.

Minneapolis-Honeywell Regulator Co.: *See*—
Kutzler, Robert J. 2,780,426.

Minneci, Salvatore, to General Electric Co. Automatic parallel operation of transformers. 2,780,735, 2–5–57, Cl. 307—83.

Mitnick, Jacob J., to Magnet Wire, Inc. Wire spool. 2,780,420, 2–5–57, Cl. 242—123.

Modeer, Helle L. Musical instrument. 2,780,126, 2–5–57, Cl. 84—1.15.

Monaghan, J. J., Co., Inc.: *See*—
Polzin, Marvin H., Geer, and Fowler. 2,780,222.

Monarch Electric Corp.: *See*—
Lear, Max M., Jr. 2,780,696.

Monroe Calculating Machine Co.: *See*—
Dodsworth, James W. 2,780,407.

Monsanto Chemical Co.: *See*—
Hatton, Roger E., and Lasslo. 2,780,642.

Montavon, Marc: *See*—
Isler, Otto, Montavon, Rüegg, and Zeller. 2,780,651.

Moon, Donald P.: *See*—
Blank, Howard A., Moon, and Hall. 2,780,545.

Moore, Lee C., Corp.: *See*—
Woolslayer, Homer J., Iddings, Borg, and Jenkins. 2,780,326.
Woolslayer, Homer J., Iddings, Jenkins, and Campbell. 2,780,325.

Moorman, Charles L., to Union Asbestos & Rubber Co. Apparatus for forming finned tubing. 2,779,995, 2–5–57, Cl. 29—202.

Moral Arnaiz, Alfonso: *See*—
Ribera Casamada, Felix, Moral Arnaiz, and Ribera Llorens. 2,780,462.

Moran, Harold J., to Switlik Parachute Co., Inc. Parachute container. 2,780,428, 2–5–57, Cl. 244—149.

Moran, Joseph G., and R. E. Lucado. Fountain drawing pen. 2,780,203, 2–5–57, Cl. 120—47.

More, Philip J., to Birtman Electric Co. Rotatable polisher member. 2,779,964, 2–5–57, Cl. 15—230.

Morrison, Montford. Electric impulse motor-device. 2,780,764, 2–5–57, Cl. 318—491.

Morschel, Franz. Wire connector with dovetailed casing. 2,780,791, 2–5–57, Cl. 339—198.

Mosesman, Max A., and A. T. Watson, to Esso Research and Engineering Co. Method for increasing capacity of a porous adsorbent for liquid phase exchange adsorption. 2,780,358, 2–5–57, Cl. 210—42.5.

Moulinage et Retorderie de Chavanoz: *See*—
Vandamme, Louis, and Rouyer. 2,780,047.

Moyle, Clarence L., and C. G. Huniston, to The Dow Chemical Co. Production of preserved alkaline paper. 2,780,546, 2–5–57, Cl. 92—21.

Mueller, Louis E., to The Rapid Electrotype Co. Shear. 2,780,287, 2–5–57, Cl. 164—47.

Mullen, Henry A., to Ampco Metal, Inc. Spot welding tip. 2,780,718, 2–5–57, Cl. 219—120.

Muller, Erwin: *See*—
Hoppe, Peter, Pfeffer, and Muller. 2,780,606.

Muller, Othmar: *See*—
Jacobi, Oskar, and Muller. 2,780,067.

Mullin, William B., and C. E. Palmter, to Socony Mobil Oil Co., Inc. Composition for coating air filters. 2,780,308, 2–5–57, Cl. 183—44.

Multiscope, Inc.: *See*—
Tilton, Russell G. 2,780,338.

Murphy, Brian J. M., and J. R. Pope, to United Shoe Machinery Corp. Heel trimming machines. 2,779,957, 2–5–57, Cl. 12—88.

Musho, Peter. Photographic printing machine. 2,780,154, 2–5–57, Cl. 95—75.

Musslewhite, Ernest, Jr., and J. C. Roediger, to Esso Research and Engineering Co. Separation of contact solids according to degree of contamination. 2,780,585, 2–5–57, Cl. 196—52.

Mustee, Bernard E., to E. L. Mustee and Sons, Inc. Waste and storage water control system for laundry tubs. 2,780,241, 2–5–57, Cl. 137—590.

Mustee, E. L., and Sons, Inc.: *See*—
Mustee, Bernard E. 2,780,241.

Myers, Louis. Ice cream disher. 2,780,183, 2–5–57, Cl. 107—48.

N. V. Optische Industrie "de Oude Delft": *See*—
Bouwers, Albert. 2,780,142.

Nabell, Ivar. Door lock for automaton for delivering benzine, oil or other goods. 2,780,088, 2–5–57, Cl. 70—389.

Nalle, George S., Jr. Plastic dish with cover connection. 2,780,259, 2–5–57, Cl. 150—0.5.

Napier, D., & Son Ltd.: *See*—
Cowland, William G. 2,780,053.

Natho, Paul J., to Pan American Production Co. Surface controlled subsurface tubing pressure shut-off valve. 2,780,290, 2–5–57, Cl. 166—72.

National Acme Co., The: *See*—
Butler, Bertell C., and Busch. 2,779,956.

National Automatic Tool Co., Inc.: *See*—
Schafer, Robert A. 2,780,116.

National Lead Co.: *See*—
Bauer, Alfred F., and Pack. 2,780,117.

National Supply Co.: *See*—
Holmquist, John L. 2,780,119.

National Tea Packing Co., Inc.: *See*—
Irmscher, Hans O. 2,780,042.

Navy, United States of America as represented by the Secretary of the: *See*—
Hardenbergh, George A. 2,780,409.
Jackson, Thomas W. 2,780,435.
Pierce, Firth, and Brettell. 2,780,011.
Soete, George W. 2,780,111.
Vogeley, Clyde E., Jr., and Webb. 2,780,783.

Neipert, Marshall P.: *See*—
Bon, Charles K., Neipert, and Piegols. 2,780,360.

Nelson, Seddon C.: *See*—
Holdaway, James L., and Nelson. 2,779,973.

Nevenzel, Judd C., to the United States of America as represented by the United States Atomic Energy Commission. Chemical purification of uranium compounds. 2,780,516, 2–5–57, Cl. 23—14.5.

New Jersey Zinc Co., The: *See*—
Snow, George E., and McCord. 2,780,593.

Newman Brothers, Inc.: *See*—
Krieger, Fred W. 2,780,440.

Newpher, Charles R.: *See*—
Jenner, William C., Wick, and Newpher. 2,780,742.

Ney, John P. Gate-type flow regulators with cleaning orifices. 2,780,232, 2–5–57, Cl. 137—238.

Nichols, Oliver S., ½ to J. H. Schneider. Composition for use in eliminating oil and grease smudges from offset printing mats and plates. 2,780,168, 2–5–57, Cl. 101—149.2.

Nielsen, Franck M. Location of periodic defects in electronic circuits. 2,780,775, 2–5–57, Cl. 324—57.

Niranen, John V.: *See*—
Shea, Charles R., and Niranen. 2,780,002.

Nitroglycerin Aktiebolaget: *See*—
Fossan, Kåre R., and Wetterholm. 2,780,528.

Noble, Aubrey E., C. F. Anness, J. B. Hyman, and R. W. Roetz, to Catalin Corp. of America. Flow tester for plastic materials. 2,780,096, 2–5–57, Cl. 73—150.

Noma Lites, Inc.: *See*—
Like, Ralph M. 2,789,466.

Nonhof, Melvin B. Humidifying devices for cooking purposes. 2,780,392, 2–5–57, Cl. 222—185.

North American Aviation, Inc.: *See*—
Keller, George R., and Jenny. 2,780,427.

Northrop Aircraft, Inc.: *See*—
Aspey, Cecil W. 2,780,264.
Graham, Connelly L. 2,780,143.
McCarley, Henry L. 2,780,120.

Norton Co.: *See*—
Goehring, Bernhard H. 2,780,040.

Nozick, Seymour: *See*—
Andrews, David H., Liegey, Nozick, and Treitel. 2,780,803.

Oakite Products Inc.: *See*—
Frey, Samuel S. 2,780,591.

O'Boyle, Charles M. Combined manual and automatic slack adjuster for the foundation brake rigging of railway freight cars. 2,780,324, 2–5–57, Cl. 188—196.

Ogren, Axel E., to The Sherwin-Williams Co. Modified paint tray. 2,780,960, 2–5–57, Cl. 15—121.2.

Olcott, Bernard. Electromagnetic energy converter for a heat pump. 2,780,069, 2–5–57, Cl. 62—1.

Olin Mathieson Chemical Corp.: *See*—
Lewis, Richard N. 2,780,531.
Rubin, Bernard. 2,780,578.
Schroeder, Hansjuergen A. 2,780,622.

Olsen, Otto, to Regent Wire and Rope Works. Safety guard for tire inflation. 2,780,278, 2–5–57, Cl. 157—1.

Olson Rug Co.: *See*—
Zygmuntowski, Leon S. 2,780,498.

Olsson, Frederick. Hidden roof gutter. 2,780,184, 2–5–57, Cl. 108—28.

Olympia Werke Aktiengesellschaft: *See*—
Kuhn, Eugen. 2,780,165.

Orgel, Gerald: *See*—
Schwarz, Milton B., and Orgel. 2,780,379.

Ott, Howard F., and E. C. Poling, to Eastman Kodak Co. Method of forming an optical assembly. 2,780,574, 2–5–57, Cl. 154—128.

Owens, Roy A. Safety block. 2,780,318, 2–5–57, Cl. 188—65.1.

Oxi Corp.: *See*—
Walters, George F., and Steele. 2,780,394.

Pacific Foundry Co., Ltd.: *See*—
MacAfee, Merril W. 2,780,307.

Pacific Mills: *See*—
Wilkie, Robert C. 2,779,977.

Pack, Charles: *See*—
Bauer, Alfred F., and Pack. 2,780,117.

Page, Alfred C. Method and device for forming grinding wheels. 2,780,214, 2–5–57, Cl. 125—11.

Paige, Richard E. Display device. 2,780,017, 2–5–57. Cl. 40—124.1.

Paillard S. A.: *See*—
Thevenax, Jean. 2,780,156.

Painter, Charles E.: *See*—
Mullin, William B., and Painter. 2,780,308.

Palermo, Blasey T., and J. P. Stanley, to R. P. Scherer Corp. Gelatin capsule containing water soluble substances. 2,780,355, 2–5–57, Cl. 206—84.

Pan American Production Co.: *See*—
Natho, Paul J. 2,780,290.

Parker Appliance Co., The: *See*—
Russell, John G. 2,780,235.
Russell, John G. 2,780,237.
Russell, John G. 2,780,504.

Parker Pen Co., The: *See*—
Perlin, Fred. 2,780,085.

Parrish, Albert D., 45% to C. Gilger, 10% to B. Horn, 10% to E. H. Linville, and 10% to S. Manker. Revolving shotgun. 2,780,144, 2–5–57, Cl. 89—158.

Parsons, John R., to Westinghouse Electric Corp. Heat control for frequency converter control. 2,780,750, 2–5–57, Cl. 315—144.

Patla, Louis J. Electrical contacts. 2,780,701, 2–5–57, Cl. 200—166.

Pawlyk, Peter, to The Commonwealth Engineering Co. of Ohio. Process of providing a controlled atmosphere containing a heat decomposable metal compound. 2,780,553, 2–5–57, Cl. 106—1.

Payne, Leonard R.: *See*—
Senkowski, Alexander, Payne, and Ferguson. 2,780,159.

Payne, William F.: *See*—
Barrett, Hillard E., and Payne. 2,780,062.

Pearson, Gerald L.: *See*—
Chapin, Daryl M., Fuller, and Pearson. 2,780,765.

Pearson, Reinhold A., and B. Weremiczyk. Machine for setting up collapsed cardboard cartons. 2,780,148, 2–5–57, Cl. 93—53.

Pelot, Samuel B.: *See*—
McNair, Hugh N., Pelot, and Eldredge. 2,780,493.

Pelzer, Harry L.: *See*—
Fisher, Frank R., and Pelzer. 2,780,449.

Pereswetoff-Morath, Ivan G. M.: *See*—
Stelling, Per O., and Pereswetoff-Morath. 2,780,537.

Perkins, George D.: *See*—
Robinson, Charles F., Langmuir, Brubaker, and Perkins. 2,780,729.

Perlin, Fred, to The Parker Pen Co. Lighters. 2,780,085 2–5–57, Cl. 67—7.1.

Perrelli, John. Apparatus for stacking discrete articles 2,780,367, 2–5–57, Cl. 214—10.5.

Pestarini, Joseph M. Variable speed motor system. 2,780,761, 2–5–57, Cl. 318—146.

Peterson, William F.: *See*—
Venner, William M., Bowser, and Peterson. 2,780,505.

Petropoulos, John C., to American Cyanamid Co. Plasticized vinyl chloride polymer. 2,780,609, 2–5–57, Cl. 260—31.8.

Pew, James E., and C. W. Hayes, ½ to Sun Oil Co. and ½ to Black, Sivalls and Bryson, Inc. Treatment of crude oil. 2,780,304, 2–5–57, Cl. 183—2.7.

Pew, Preston F., to Infilco Inc. Apparatus and process for washing diatomite type filters. 2,780,363, 2–5–57, Cl. 210—144.

Pfeffer, Hans: *See*—
Hoppe, Peter, Pfeffer, and Muller. 2,780,606.

Philips, Joel M. Sewing machine bobbins of either silk, cotton, nylon or other fibres or synthetic material, and methods of making the same. 2,780,191, 2–5–57, Cl. 112—251.

Phillips, Arthur P., and J. C. Castillo, to Burroughs Wellcome & Co. (U. S. A.) Inc. Inhibiting polymethylene diquaternary curariform activity by α-stilbazoline derivatives. 2,780,577, 2–5–57, Cl. 167—65.

Phillips Petroleum Co.: *See*—
Meade, Leonard P. 2,780,070.
Wrigley, Frederic K. 2,780,529.

Piegols, Norman L.: *See*—
Bon, Charles K., Niepert, and Piegols. 2,780,360.

Pierce, Earl W., to United States Steel Corp. Method of making killed resulphurized steel. 2,780,540, 2–5–57, Cl. 75—129.

Pierce, Firth, and G. A. Brettell, Jr., to the United States of America as represented by the Secretary of the Navy. Shipboard training device. 2,780,011, 2–5–57, Cl. 35—10.4.

Pignons S. A.: *See*—
Bourgeois, Benjamin. 2,780,137.

Pike, Robert D., deceased; K. B. Ray and The Stamford Trust Co., executors. Carbonation of recycle liquor in sodium sesquicarbonate production. 2,780,520, 2–5–57, Cl. 23—63.

Pillsbury Mills, Inc.: *See*—
Brabender, Carl W. 2,780,095.

Pitt, Burnett M.: *See*—
Miller, Arthur J., Pitt, and Grieger. 2,780,515.

Pittsburgh Plate Glass Co.: *See*—
Cusick, Charles S. 2,780,039.
Wintgens, Carl. 2,780,035.

Pityo, Albert F. Method of producing a diode element. 2,779,993, 2–5–57, Cl. 29—155.5.

Podhajsky, Theodore A.: *See*—
McElhinney, Eric M., and Podhajsky. 2,780,374.

Pokryfke, John A., to W. D. Allen Mfg. Co. Hose rack. 2,780,430, 2–5–57, Cl. 248—90.

Poling, Ezra C.: *See*—
Ott, Howard F., and Poling. 2,780,574.

Pollock, Earl S., to The Tappan Stove Co. Closure mechanism for oven doors. 2,780,219, 2–5–57, Cl. 126—194.

Polzin, Marvin H., J. A. Geer, and F. E. Fowler, to J. J. Monaghan Co., Inc. Respirators. 2,780,222, 2–5–57, Cl. 128—30.

Pomernackl, Henry, to Illinois Tool Works. Master gear. 2,780,007, 2–5–57, Cl. 33—179.5.

Poole, John W.: *See*—
Labastle, Albert H., and Poole. 2,780,737.

Pope, John R.: *See*—
Murphy, Brian J. M., and Pope. 2,779,957.

Porter, Herschel D., to Eli Lilly and Co. 2-substituted aromatic thiazoles. 2,780,628, 2–5–57, Cl. 260—304.

Posner, Adolph. Tonometer adjunct for ophthalmology. 2,780,221, 2–5–57, Cl. 128—2.

Powell, Ernest F., and S. W. Gough, to Dunlop Rubber Co. Ltd. Apparatus for regulating the temperature of electrically heated elements. 2,780,710, 2–5–57, Cl. 219—20.

Powell Pressed Steel Co., The: *See*—
Johnson, Richard C. 2,780,393.

Price, Nathan C., to Lockheed Aircraft Corp. Airplane for vertical take-off in horizontal attitude. 2,780,424, 2–5–57, Cl. 244—12.

Priftis, Sidaire, to Bendix Aviation Corp. Rotatable inductive electro-mechanical apparatus. 2,780,745, 2–5–57, Cl. 310—258.

Process Gear and Machine Co.: *See*—
Cork, Gordon H. 2,780,080.

Propos, Harry. Portable self contained signal and warning light. 2,780,802, 2–5–57, Cl. 340—321.

Pudwell, Philip R. Grain unloader for vehicle box. 2,780,370, 2–5–57, Cl. 214—83.32.

Pullman-Standard Car Mfg. Co.: *See*—
Rothfuchs, Oscar E. 2,780,180.

Pulsifer, Frank: *See*—
Schafer, Hans F., Jr., and Pulsifer. 2,780,188.

Pure Oil Company, The: *See*—
Ayers, George W., and Fierce. 2,780,638.
Marisic, Milton M., and Hutchings. 2,780,527.

Purseke, Harry A. Coulter mounting for tractor supported two-way plow. 2,780,157, 2–5–57, Cl. 97—26.

Purseke, Harry A. Two way disc plough. 2,780,157, 2–5–57, Cl. 97—31.

Putnam, Gerald F.: *See*—
Covitt, Jack G., and Putnam. 2,780,372.

Pyle-National Co.: *See*—
Heebler, Arthur C., and Keegan. 2,780,796.

Quaker Oats Co., The: *See*—
Dunlop, Andrew P. 2,780,588.

Quinn, Edward, to United Shoe Machinery Corp. Tack driving mechanisms. 2,779,942, 2–5–57, Cl. 1—18.1.

Radio Corp. of America: *See*—
Blanks, Henry S. 2,780,134.
Dietch, Leonard. 2,780,749.

Rail Flange Lubricator Co.: *See*—
Stidd, Charles L. 2,780,311.

Rand, Arthur V., and W. G. Roll, to Illinois McGraw Electric Co. Electric cooking appliance. 2,780,707, 2–5–57, Cl. 219—19.

Rand, Kenneth R., to American Machine & Foundry Co. Automatic bread plant. 2,780,182, 2–5–57, Cl. 107—4.

Ransburg Electro-Coating Corp.: *See*—
Juvinall, Robert C. 2,780,565.

Rapata, George M., to Illinois Tool Works. Driven plastic sealing fastener having shoulder means thereon. 2,780,128, 2–5–57, Cl. 85—5.

Rapid Electrotype Co., The: *See*—
Mueller, Louis E. 2,780,287.

Rappleyea, George W. Synthetic bitumen compositions. 2,780,607, 2–5–57, Cl. 260—9.

Rasmussen, Peter D., to Invention Development Corp. Insulating structure. 2,780,090, 2–5–57, Cl. 72—17.

Ray, Kenneth B.: *See*—
Pike, Robert D. 2,780,520.

Raybestos-Manhattan, Inc.: *See*—
Kuzmick, Joseph N., and Bell. 2,780,534.

Ready, Harold R., to Esso Research and Engineering Co. Process for recovery of complex ester synthetic lubricants from alumina adsorbents. 2,780,044, 2–5–57, Cl. 260—485.

Regent Wire and Rope Works: *See*—
Olsen, Otto. 2,780,278.

Reinartz, Kurt, W. Graulich, W. Lehmann, and H. Kleiner, to Farbenfabriken Bayer Aktiengesellschaft. Process of decorating textile materials. 2,780,562, 2–5–57, Cl. 117—63.

Reiner, Laszlo. Aminoacid salts of diethylaminoethyl 4-amino-2-bromobenzoate. 2,780,641, 2–5–57, Cl. 260—472.

Reinert, Armin E., ½ to H. H. Clark. Treatment of sulphite liquor. 2,780,281, 2–5–57, Cl. 159—48.

Reinhold, Donald, to Merck & Co., Inc. Side chain degradation of 11-keto steroids. 2,780,621, 2–5–57, Cl. 260—239.55.

Reiser, Hyman, and A. Aschkenas. Child-proof gas cock control. 2,780,333, 2–5–57, Cl. 192—67.

Reliance Electric and Engineering Co., The: *See*—
Jenner, William C., Wick, and Newpher. 2,780,742.

Renken, Harry J., to Fairbanks, Morse & Co. Engine fuel delivery control. 2,780,209, 2–5–57, Cl. 123—103.

Renken, Harry J., to Fairbanks, Morse & Co. Engine fuel delivery control. 2,780,210, 2–5–57, Cl. 123—103.

Resdel Engineering Corp.: *See*—
Siegmeth, Alfred J. 2,780,705.

Research Corp.: *See*—
Brown, Herbert C., and Kanner. 2,780,626.

Rexall Drug Co.: *See*—
Hurst, Edward. 2,780,533.

Reymann, George L.: *See*—
Gray, Daniel M., and Reymann. 2,780,564.

Rheinpreussen Aktiengesellschaft für Bergbau und Chemie: *See*—
Keil, Werner. 2,780,576.

Rhodes, Herbert C. Door brace. 2,779,980, 2–5–57, Cl. 20—38.

Rhodes, Herbert C. Automatic control system for combined freezer and cooler. 2,780,441, 2–5–57, Cl. 257—3.

Rhodes, M. H., Inc.: *See*—
Laviana, Lawrence J. 2,780,016.

Ribera Casamada, Felix, A. Moral Arnalz, and F. Ribera Llorens. Electromagnetic game apparatus. 2,780,462, 2–5–57, Cl. 273—119.

Ribera Llorens, Felix: *See*—
Ribera Casamada, Felix, Moral Arnalz, and Ribera Llorens. 2,780,462.

Richards, Archer W., and R. A. Meyers, to Scovill Mfg. Co. Running inflation system. 2,780,267, 2–5–57, Cl. 152—417.

Richardson, Sid, Carbon Co.: *See*—
Classen, Edwin J., Jr. 2,780,247.

Richter, Herman W., and H. R. Gillette. Method for making a wedge heel. 2,780,147, 2–5–57, Cl. 92—54.

Ridler, Desmond S. Gas discharge tubes and circuit arrangements therefor. 2,780,751, 2–5–57, Cl. 315—169.

Ridout, Edward D., to Electric & Musical Industries Ltd. Chucks. 2,780,470. 2–5–57, Cl. 279—66.

Riedel, John Y., to Bethlehem Steel Co. Air-hardening tool steel. 2,780,570, 2–5–57, Cl. 148—31.

Ries, Edward J., and G. E. Christians, to Ritter Co., Inc. Vertically adjustable pedestal stool. 2,780,277, 2–5–57, Cl. 155—94.

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Riley Stoker Corp.: *See*—
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Rimbach, Arthur B. Heat exchange apparatus. 2,780,445, 2–5–57, Cl. 257—137.

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Roberts, Fred T. Method and apparatus for making a molded flexible hose. 2,780,273, 2–5–57, Cl. 154—5.

Roberts, Fred T. and R. E. Method of making flexible corrugated hose. 2,780,274, 2–5–57, Cl. 154—8.

Roberts, Fred T. and R. E. Method of making hose. 2,779,976, 2–5–57, Cl. 18—56.

Roberts, Robert E.: *See*—
Roberts, Fred T. and R. E. 2,779,976.
Roberts, Fred T. and R. E. 2,780,274.

Robertson, Nat C.: *See*—
Gabbett, James F., Jr., and Robertson. 2,780,640.
Gardner, James H., and Robertson. 2,780 635.

Robertson, Nat C., to Escambia Chemical Corp. Liquid phase oxidation of a mixture of alkanes and alkenes with air. 2,780,634, 2–5–57, Cl. 260—348.5.

Robertson, Nat C., J. H. Gardner, and A. DiNardo, to Escambia Chemical Corp. Oxidation of saturated aliphatic hydrocarbons to ketones. 2,780,650, 2–5–57, Cl. 260—597.

Robertson, Nat C., and J. H. Gardner, to Escambia Chemical Corp. Air oxidation of isobutylene. 2,780,654, 2–5–57, Cl. 260—635.

Robinson, Charles F., R. V. Langmuir, W. M. Brubaker, and G. D. Perkins, to Consolidated Electrodynamics Corp. Mass spectrometry. 2,780,729, 2–5–57, Cl. 250—41.9.

Robinson, Elbert W. Flow control and treatment of condenser cooling water make-up. 2,780,357, 2–5–57, Cl. 210—31.

Robinson, Luther. Anti-skid apparatus for vehicles. 2,780,315, 2–5–57, Cl. 188—4.

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Roman, Walter G., and Robinson. 2,780,740.

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Musslewhite, Ernest, Jr., and Roediger. 2,780,585.

Roetz, Robert W.: *See*—
Noble, Aubrey E., Anness, Hyman, and Roetz. 2,780,096.

Rohm & Haas Co.: *See*—
Hurwitz, Melvin D., Kline, and Matlin. 2,780,608.
Kline, Benjamin B., and Matlin. 2,780,567.

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Rand, Arthur V., and Roll. 2,780,707.

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Beale, Richard D., Jubb, and Stevenson. 2,780,058.
Colley, Rowan H. 2,780,056.
Griffith, Alan A. 2,780,060.

Roman, John, and C. A. Levey. Device for preparing ravioli. 2,780,181, 2–5–57, Cl. 107—1.

Roman, Walter G., and R. C. Robinson, to Westinghouse Electric Corp. Linear motion device. 2,780,740, 2–5–57, Cl. 310—67.

Romano, Mose. Collapsible container. 2,780,378, 2–5–57, Cl. 215—11.

Root, Augustin A., and H. L. Clark, to General Electric Co. Phase sensitive strain gage amplifier rectifier circuit. 2,780,778, 2–5–57, Cl. 324—87.

Rosenbaum, Meyer, to Facial Graph Corp. Means for measuring facial proportions. 2,780,004, 2–5–57, Cl. 33—174.

Rosenberg, Ralph H., to Ainsworth Mfg. Corp. Seat slide. 2,780,501, 2–5–57, Cl. 308—6.

Rothfuchs, Oscar E., to Pullman-Standard Car Mfg. Co. Boxcar door weatherseal. 2,780,180, 2–5–57, Cl. 105—409.

Roughsedge, Robert H., and D. Taylor, to Celanese Corp. of America. Treatment of filaments. 2,780,346, 2–5–57, Cl. 203—67.

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Rubens, Louis C., to The Dow Chemical Co. Thermoplastic copolymers of monovinylbenzene compounds and high molecular weight polyesters of ethylene-alpha, beta-dicarboxylic acids. 2,780,613, 2–5–57, Cl. 260—45.4.

Rubin, Bernard, to Olin Mathieson Chemical Corp. Production of reserpin hypotensive preparation. 2,780,578, 2–5–57, Cl. 167—84.5.

Rüegg, Rudolf: *See*—
Isler, Otto, Montavon, Rüegg, and Zeller. 2,780,651.

Ruhrchemie Aktiengesellschaft: *See*—
Büchner, Karl. 2,780,643.
Schaub, Franz. 2,780,310.

Rumberger, Chester P., to E. W. Thompson. Pottery press. 2,779,989, 2–5–57, Cl. 25—27.

Rusch, Kenneth A., and E. Hillman, to Milprint, Inc. Device for seaming thermoplastic bags. 2,780,275, 2–5–57, Cl. 154—42.

Russell, John G. Manually operated mechanism for closing float controlled pilot valve. 2,780,234, 2–5–57, Cl. 137—390.

Russell, John G., to The Parker Appliance Co. Weight operated pre-check mechanism. 2,780,235, 2–5–57, Cl. 137—390.

Russell, John G. Locking and releasing mechanism for float controlled pilot valve. 2,780,236, 2–5–57, Cl. 137—390.

Russell, John G., to The Parker Appliance Co. Pre-check mechanism for a liquid level control valve. 2,780,237, 2–5–57, Cl. 137—390.

Russell, John G., to The Parker Appliance Co. Accumulator piston. 2,780,504, 2–5–57, Cl. 309—4.

Ryan, Francis J. Automatic player-diversified scoring game. 2,780,461, 2–5–57, Cl. 273—94.

Rydboholms Aktiebolag: *See*—
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Wahlberg, Åke. 2,780,079.

Saari, Oliver E., to Illinois Tool Works. Gear shaving. 2,780,146, 2–5–57, Cl. 90—1.6.

Sabi, Nestor, to Dorr-Oliver Inc. Multi-tray clarifier. 2,780,362, 2–5–57, Cl. 210—55.

Sahli, Vincent L., to The Sherwin-Williams Co. Brushing polychrome finishes. 2,780,559, 2–5–57, Cl. 117—10.

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Saive, Dieudonné J., to Fabrique Nationale d'Armes de Guerre. Breech block return means. 2,780,145, 2–5–57, Cl. 89—199.

Salomon, Irving. Chance controlled game apparatus. 2,780,463, 2–5–57, Cl. 273—134.

Sam, Joseph, to McNeil Laboratories, Inc. Method of making benzoxazole compounds. 2,780,633, 2–5–57, Cl. 260—307.

Sammis, Edward A., and W. R. Burkhalter, to Sperry Rand Corp. Test apparatus for electrical systems. 2,780,777, 2–5–57, Cl. 324—73.

Sand, John F., to The Gemex Corp. Expansion bracelet with two rows of bottom links. 2,780,052, 2–5–57, Cl. 59—79.

Sanders, Ralph M. Machine for continuously laying and joining pipe sections. 2,780,376, 2–5–57, Cl. 214—519.

Sanderson, George P. Charts or indicators. 2,780,202, 2–5–57, Cl. 116—135.

Sandgren, Marvin A., to the United States of America. Squib operated gas release device. 2,780,389, 2–5–57, Cl. 222—5.

Sarett, Lewis H., to Merck & Co., Inc. 5-methyl-6-alkoxyoctahydronaphthalene compounds and process of preparing them. 2,780,648, 2–5–57, Cl. 260—586.

Sayco Doll Corp.: *See*—
Lenoble, Daniel. 2,780,190.

Schaaf, Henry W., to Ford Motor Co. Baier needle safety connection. 2,780,164, 2–5–57, Cl. 100—19.

Schaefer, Hans F., Jr., and F. Pulsifer, to United Shoe Machinery Corp. Lockstitch sewing machines. 2,780,188, 2–5–57, Cl. 112—38.

Schaerer, August A., to Shell Development Co. Microcrystalline wax compositions. 2,780,556, 2–5–57, Cl. 106—270.

Schafer, Robert A., to National Automatic Tool Co., Inc. Adjustable control assembly for machine tools. 2,780,116, 2–5–57, Cl. 77—32.5.

Schaffner, Johannes S.: *See*—
Aldrich, Richard W., Schaffner, and Suran. 2,780,752.

Schaub, Franz, to Ruhrchemie Aktiengesellschaft. Purification of gases with shaped purifying materials. 2,780,310, 2–5–57, Cl. 183—114.2.

Schaufelberger, Felix A., to Chemical Construction Co. Method of concentrating solutions without evaporation. 2,780,530, 2–5–57, Cl. 23—293.

Schaufuss, Leif, to Automatic Electric Laboratories, Inc. Multi-line telephone substation. 2,780,677, 2–5–57, Cl. 179—99.

Scherer, R. P., Corp.: *See*—
Palermo, Blasey T., and Stanley. 2,780,355.

Schetty, Guido: *See*—
Ackermann, Hans, and Schetty. 2,780,618.

Schilberg, Arnold G., to A. O. Smith Corp. Ball caster. 2,779,965, 2–5–57, Cl. 16—26.

Schjolin, Eric O., to Ford Motor Co. Knock-down type dirigible wheel mounting. 2,780,477, 2–5–57, Cl. 280—96.2.

Schlabach, Raymond M., and L. V. Bocklus. Container closure construction. 2,780,395, 2–5–57, Cl. 222—516.

Schloemann Aktiengesellschaft: *See*—
Breuer, Alfred, and Wirth. 2,780,114.

Schmidt, Benjiman F. Machine for producing speed reduction worm gear. 2,780,037, 2–5–57, Cl. 51—108.

Schmidt, Walter D.: *See*—
Junk, William A., Jr., Schmidt, Seelig, and Fleming. 2,780,582.

Schneider, John H.: *See*—
Nichols, Oliver S. 2,780,168.

Schneider, Julius F., and C. S. Sivil, to Baker & Co., Inc. High resistivity alloy. 2,780,543, 2–5–57, Cl. 75—165.

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Wick, Richard M., and Schneidewind. 2,780,592.

Schroeder, Carl F. Sheet-retaining package. 2,780,352, 2–5–57, Cl. 206—58.

Schroeder, Hansjuergen A., to Olin Mathieson Chemical Corp. Process and product. 2,780,622, 2–5–57, Cl. 260—249.5.

Schuler, L., A.-G.: *See*—
Walter, Herman. 2,780,320.

Schwab, Leonard F. Drawbar for trailers. 2,780,480, 2–5–57, Cl. 280—499.

Schwarz, Milton H., and G. Orgel, to Turner Hall Corp. Composition and method for permanent waving of hair on the human head. 2,780,579, 2–5–57, Cl. 167—87.1.

Scott, Lawrence B.: *See*—
Williams, Paul H., Scott, and Borsoff. 2,780,597.

Scovill Mfg. Co.: *See*—
Richards, Archer W., and Meyers. 2,780,267.
Williams, Selden T., and Hormann. 2,780,243.

Scragg, Ernest, & Sons Ltd.: *See*—
Findlow, Eric. 2,780,049.

Scriver, Richard M., to Mallory-Sharon Titanium Corp. Induction furnace control and method. 2,780,666, 2–5–57, Cl. 13—26.

Sealey, William C., to Allis-Chalmers Mfg. Co. Load tap changing circuit. 2,780,768, 2–5–57, Cl. 323—43.5.

Seelig, Herman S.: *See*—
Junk, William A., Jr., Schmidt, Seelig, and Fleming. 2,780,582.

Seifter, Joseph, R. S. Handlick, and M. E. Freed, to American Home Products Corp. Fatty acid amides and derivatives thereof. 2,780,646, 2–5–57, Cl. 260—562.

Seiler, Karl O., to International Standard Electric Corp. Process of smelting germanium. 2,780,539, 2–5–57, Cl. 75—84.

Sengebusch, Hans, to Automatic Electric Laboratories, Inc. Two motion selective switches. 2,780,675, 2–5–57, Cl. 179—27.52.

Senkowski, Alexander, L. R. Payne, and H. G. Ferguson, to Massey-Harris-Ferguson (Sales) Ltd. Overload release arrangement for long implements. 2,780,159, 2–5–57, Cl. 97—46.07.

Septon, Warren L.: *See*—
Glenn, William S., Jr., and Septon. 2,780,377.

Serniuk, George E., to Esso Research and Engineering Co. Hydrocarbon drying oil. 2,780,664, 2–5–57, Cl. 260—683.15.

Severy, Victor H. Form maintainer for hats. 2,779,947, 2–5–57, Cl. 2—185.

Shafer, Homer J., to Shafer Valve Co. Automatic reclosing device for plug type valves. 2,780,432, 2–5–57, Cl. 251—59.

Shafer Valve Co.: *See*—
Shafer, Homer J. 2,780,432.

Shaper, Harry B., to Dyna-Labs, Inc. Earphones for use with dictating machines and the like. 2,780,681, 2–5–57, Cl. 179—156.

Sharp, Robert G., and H. E. Wright, to General Dynamics Corp. Accumulator for hydraulic systems. 2,780,064, 2–5–57, Cl. 60—51.

Sharpe, Everett E., to Better Packages Inc. Tape serving machine having cutting means. 2,780,286, 2–5–57, Cl. 164—43.

Shea, Charles R., and J. V. Niiranen. Dental teaching aid. 2,780,002, 2–5–57, Cl. 32—71.

Sheldon, E. H., & Co.: *See*—
Carlson, Arthur W. 2,780,431.

Shell Development Co.: *See*—
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Schaerer, August A. 2,780,556.
Skei, Thurston, and Bonner. 2,780,583.
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Colling, Charles E., and Sherman. 2,780,213.

Sherwin-Williams Co., The: *See*—
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Budewitz, Eugene P. 2,780,555.
Ogren, Axel E. 2,780,960.
Sahli, Vincent L. 2,780,559.

Shields, James R., to Elliott Co. Supercharged steam generating system. 2,780,207, 2–5–57, Cl. 122—479.

Siegmeth, Alfred J., to Resdel Engineering Corp. Dielectric heater. 2,780,705, 2–5–57, Cl. 219—10.67.

Siemens-Schuckertwerke Aktiengesellschaft: *See*—
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Signal Oil and Gas Co.: *See*—
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Sigvardt, Knud, to A/S R. Sigvardt. Device for subdividing an airstream. 2,780,490, 2–5–57, Cl. 299—29.

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Simmons, Leon E., to Joy Mfg. Co. Fluid operated clutch mechanism. 2,780,334, 2–5–57, Cl. 192—87.

Simmons, Sterling: *See*—
Bredensteiner, Lee, and Simmons. 2,780,487.

Simon, Eli, and F. W. Thomas, to Lockheed Aircraft Corp. Package with cellular plastic packaging means. 2,780,350, 2–5–57, Cl. 206—46.

Simpson, Henry A., to Talon, Inc. Releasable sliders for slide fasteners. 2,779,988, 2–5–57, Cl. 24—205.15.

Sinclair Oil and Gas Co.: *See*—
Fisher, Frank R., and Pelzer. 2,780,449.

Singel, John B., to Westinghouse Electric Corp. Phasing system. 2,780,073, 2–5–57, Cl. 179—15.5.

Singer Mfg. Co., The: *See*—
Smith, Darwin G., and Ketterer. 2,780,193.

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Six, Willem, and J. Domburg, to Hartford National Bank and Trust Co., as trustee. Circuit-arrangement for engaging an apparatus. 2,780,674, 2–5–57, Cl. 179—18.

Skei, Thurston, and W. A. Bonner, to Shell Development Co. Prevention of hydrogen blistering and fissuring. 2,780,583, 2–5–57, Cl. 196—41.

Slater, Norman: *See*—
Lancaster, Ralph, and Slater. 2,780,400.

Smallegan, Marvin L., to Automatic Poultry Feeder Co. Poultry feed hopper construction. 2,780,341, 2–5–57, Cl. 198—58.

Smith, A. O., Corp.: *See*—
Bernhardt, Howard E., and Davey. 2,780,717.
Croswell, Althos M. 2,780,194.
Ewart, John C. 2,780,093.
Ewart, John C., and Maike. 2,780,271.
Schilberg, Arnold G. 2,779,965.

Smith, Alexander, Inc.: *See*—
Miller, Philip, and Bardsley. 2,780,245.

Smith, Darwin G., and S. J. Ketterer, to The Singer Mfg. Co. Methods of producing piped garment openings. 2,780,193, 2–5–57, Cl. 112—264.

Snow, George E., and A. T. McCord, to The New Jersey Zinc Co. Production of metallic titanium. 2,780,593, 2–5–57, Cl. 204—64.

Snyder, Jack A., to E. I. du Pont de Nemours and Co. Carbamyl pseudourea herbicidal composition and a method for killing weeds therewith. 2,780,535, 2–5–57, Cl. 71—2.6.

Societe Industrielle de Produits Africains: *See*—
Bloch, Jeanne C. L. 2,780,549.

Socony Mobil Oil Co., Inc.: *See*—
Mullin, William B., and Painter. 2,780,308.

Soete, George W., to United States of America as represented by the Secretary of the Navy. Pressure operated control mechanism. 2,780,111, 2–5–57, Cl. 74—522.

Solar Aircraft Co.: *See*—
Wosika, Leon R., and Zakarian. 2,780,174.

Solomon, Leonard, and M. J. Gordon, to M. J. and S. Z. Gordon, and N. G. Stone. Construction of ladies hosiery. 2,780,084, 2–5–57, Cl. 66—187.

Somerville, Gareth G., to General Electric Co. Magnetic core construction. 2,780,787, 2–5–57, Cl. 336—234.

"Sonapar" Societe de Participation, S. A.: *See*—
Marcerou, Paul. 2,780,432.

Sorrell, Richard A., to Copar, Inc. Reversing drive. 2,780,107, 2–5–57, Cl. 74—203.

Spannhake, Ernst W., to LeTourneau-Westinghouse Co. Closed hydraulic system. 2,780,065, 2–5–57, Cl. 60—52.

Specialties Development Corp.: *See*—
Fleming, William T. 2,780,433.
Heigis, Henry E. 2,780,296.

Sperry Rand Corp.: *See*—
Crosman, Loring P., and Hannon. 2,780,408.
Frank, Robert L. 2,780,807.
Sammis, Edward A., and Burkhalter. 2,780,777.

Spica S. p. A.: *See*—
Herbrich, Wilhelm. 2,780,173.

Spiegler, Louis, to E. I. du Pont de Nemours and Co. Process for preparing hydroxy diphenylamines. 2,780,647, 2–5–57, Cl. 260—571.

Spivey, Billy C.: *See*—
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Lee, Wesley B. 2,780,163.

Sprow, James H., to Westinghouse Electric Corp. Interlocking mechanism. 2,780,685, 2–5–57, Cl. 200—50.

Stackpole Carbon Co.: *See*—
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Stahl, Florence L.: *See*—
Loomis, Glenn L. 2,780,294.

Stahl, John: *See*—
Loomis, Glenn L. 2,780,294.

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Stamicarbon N. V.: *See*—
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Standard Oil Co., (Indiana): *See*—
Cafcas, Thomas H. 2,780,598.
Field, Edmund, and Feller. 2,780,660.
Gunness, Robert C. 2,780,663.
Junk, William A., Jr., Schmidt, Seelig, and Fleming. 2,780,582.
McCaulay, David A., and Lien. 2,780,659.
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Standard Oil Co., (Ohio), The: *See*—
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Fink, Melvin M. 2,780,094.
Foreman, Robert W. 2,780,665.
Hardman, Harley F., and Jenkins. 2,780,557.
Hellmann, Frank R., Jr. 2,780,359.

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Stavert, Harry, to Boeing Airplane Co. Locks for jet thrust reversers. 2,780,057, 2–5–57, Cl. 60—35.54.

Steadman, Thomas R., and J. F. Gabbett, Jr., to Escambia Chemical Corp. Production of acrylonitrile. 2,780,639, 2–5–57, Cl. 260—465.3.

Stec, Anthony P., to M. A. Stec. Gravitational switch. 2,780,688, 2–5–57, Cl. 200—61.52.

Stec, Mary A.: *See*—
Stec, Anthony P. 2,780,688.

Steele, Berlin M.: *See*—
Walters, George F., and Steele. 2,780,394.

Steger Products Mfg. Corp.: *See*—
Larsen, Harvey E. 2,780,041.

Steger, Werner H. Coil winding machine. 2,780,246, 2–5–57, Cl. 140—92.2.

Steiner, Fritz, and E. Dinstl, to International Standard Electric Corp. Operating mechanism. 2,780,105, 2–5–57, Cl. 74—10.7.

Steisslinger, Kurt A.: *See*—
Harter, Paul G., and Steisslinger. 2,780,348.

Stelling, Per O., and I. G. M. Pereswetoff-Morath; said Pereswetoff-Morath assor. to said Stelling. Process of treating pulverulent iron oxides. 2,780,537, 2–5–57, Cl. 75—26.

Sten, Leonard L. Leg attachment for bed springs. 2,779,952, 2–5–57, Cl. 5—310.

Stephenson, Paul A., to Continental Can Co., Inc. Adjustable cup dispenser. 2,780,388, 2–5–57, Cl. 221—44.

Sterling Aluminum Products, Inc.: *See*—
Venner, William M., Bowser, and Peterson. 2,780,505.

Stevens, Adele M.: *See*—
Stevens, Robert T. 2,780,332.

Stevens, Robert T., to A. M. Stevens. Automatically releasable torque transmitting apparatus. 2,780,332, 2–5–57, Cl. 192—56.

Stevens, Samuel S., to The Diamond Match Co. Receptacle. 2,780,401, 2–5–57, Cl. 229—2.5.

Stevenson, Basil C. J.: *See*—
Beale, Richard D., Jubb, and Stevenson. 2,780,058.

Stewart-Warner Corp.: *See*—
Allen, Arthur C. 2,780,218.
Allen, Arthur C. 2,780,280.

Stickel, Carl A., to General Motors Corp. Domestic appliance. 2,780,008, 2–5–57, Cl. 34—54.

Stickel, Carl A., to General Motors Corp. Domestic appliance. 2,780,009, 2–5–57, Cl. 34—76.

Stidd, Charles L., to Rail Flange Lubricator Co. Rail and flange lubricator. 2,780,311, 2–5–57, Cl. 184—3.

Stine, Wilmer E. Spray manifold end closure. 2,780,492, 2–5–57, Cl. 299—59.

Stöcker, Rudolf, to Siemens-Schuckertwerke Aktiengesellschaft. Extrusion molding apparatus. 2,779,970, 2–5–57, Cl. 18—13.

Stokes, F. J., Corp.: *See*—
Flosdorf, Earl W. 2,780,102.

Stone, N. G.: *See*—
Solomon, Leonard, and Gordon. 2,780,084.

Stoner-Mudge, Inc.: *See*—
Gray, Daniel M., and Reymann. 2,780,564.

Storm, Jack S., Jr.: *See*—
Glynn, Theodore W., and Storm. 2,780,708.

Stough, Gerald D., to Whitehead & Kales Co. Lift mechanism for swinging ramp of carry-car trailer. 2,780,371, 2–5–57, Cl. 214—85.

Stoyke, Ludwig T., and M. M. Hann, to Sundstrand Machine Tool Co. Supercharging system for fluid pumps. 2,780,170, 2–5–57, Cl. 103—2.

Stratton, Edgar H., and H. M. Fisher, to Adamson United Co. Door mounting for autoclaves and the like. 2,780,384, 2–5–57, Cl. 220—38.

Strokes, George T., to Glo-Quartz Electric Heater Co., Inc. Immersion heater. 2,780,715, 2–5–57, Cl. 219—41.

Sturari, Chemmino. Adjustable shock absorber. 2,780,321, 2–5–57, Cl. 188—88.

Sturgeon, Edward G.: *See*—
Andreae, Maynard R., Carmichael, and Sturgeon. 2,780,249.

Sullivan, George C. Gun barrel of aluminum alloy with metallic coatings. 2,780,019, 2–5–57, Cl. 42—76.

Sun Oil Co.: *See*—
Mayes, Fred M. 2,780,753.
Pew, James E., and Hayes. 2,780,304.

Sundelin, Ronald R., and H. Feder, to Barclay Mfg. Co., Inc. Wall unit fastening. 2,779,978, 2–5–57, Cl. 20—15.

Sundelin, Ronald R., and H. Feder, to Barclay Mfg. Co., Inc. Wall and wall unit construction. 2,779,979, 2–5–57, Cl. 20—15.

Sundelin, Ronald R., and H. Feder, to Barclay Mfg. Co., Inc. Wall corner molding. 2,779,983, 2–5–57, Cl. 20—74.

Sundstrand Machine Tool Co.: *See*—
Stoyke, Ludwig T., and Hann. 2,780,170.

Sundt, Edward V., to Sundt Engineering Co. Electric fuse. 2,780,695, 2–5–57, Cl. 200—121.

Sundt Engineering Co.: *See*—
Sundt, Edward V. 2,780,695.

Suozzo, John, to Westinghouse Electric Corp. Multiple-mode elevator car system. 2,780,314, 2–5–57, Cl. 187—29.

Suran, Jerome J.: *See*—
Aldrich, Richard W., Schaffner, and Suran. 2,780,752.

Surface Combustion Corp.: *See*—
Daily, William H., Jr. 2,780,185.

Surmatis, Joseph D., to Hoffmann-La Roche Inc. Preparation of unsaturated acyclic halides. 2,780,658, 2–5–57, Cl. 260—654.

Svec, Emil F., and K. J. Staller, to Flexigrip Inc. Slideless fastener closure. 2,780,261, 2–5–57, Cl. 150—3.

Svenska Lasmutter Ab: *See*—
Lenning, Alvar. 2,780,721.

Svenska Skifferolje Aktiebolaget: *See*—
Ljungström, Fredrik. 2,780,450.

Swift & Co.: *See*—
Hensgen, Bernard T. 2,779,968.
Hensgen, Bernard T. 2,780,043.
Kahrick, Roland C. 2,780,045.

Switlik Parachute Co., Inc.: *See*—
Moran, Harold J. 2,780,428.

Sylvania Electric Products Inc.: *See*—
Chernish, George C. 2,780,736.

Synero Corp.: *See*—
Andreae, Maynard R. 2,780,248.
Andreae, Maynard R., Carmichael, and Sturgeon. 2,780,249.

Takagi, Takeo, to Tokyo Rayon Co., Ltd. Method of making cellulose acetate textile fibers by acetylization of regenerated cellulose fibers. 2,780,511, 2–5–57, Cl. 8—121.

Talon, Inc.: *See*—
Simpson, Henry A. 2,779,988.

Tanis, Henry, to Greene, Tweed & Co. Tool for installing tube liners. 2,779,996, 2–5–57, Cl. 29—235.

Tappan Stove Co., The: *See*—
Pollock, Earl S. 2,780,219.

Tarry, Eldred G., to Wallace & Tiernan Inc. Fluid-actuated pulsating device. 2,780,066, 2–5–57, Cl. 60—60.

Taves, John F. Steam cabinet. 2,780,226, 2–5–57, Cl. 128—374.

Tawney, Pliny O., and R. W. Amidon, to United States Rubber Co. Thermoplastic composition comprising vinyl chloride polymer and diolefin-mono-vinylpyridine copolymer. 2,780,615, 2–5–57, Cl. 260—45.5.

Taylor, David: *See*—
Roughsedge, Robert H., and Taylor. 2,780,346.

Taylor, John H., to Westinghouse Electric Corp. Circuit breaker. 2,780,694, 2–5–57, Cl. 200—98.

Taylor, Owen L., to Westinghouse Electric Corp. Electromagnetic actuator. 2,780,756, 2–5–57, Cl. 317—198.

Taylor, T. Ivan: *See*—
Brewer, Aubrey K., and Taylor. 2,780,589.

Taylor, W. B.: *See*—
Broyles, Otis T. 2,778,292.

Teatini, Darlo. Filter. 2,780,364, 2–5–57, Cl. 210—182.

Te Grotenhuis, Theodore A., 20% to The General Tire & Rubber Co. Pigmented silicone elastomers. 2,780,611, 2–5–57, Cl. 260—37.

Te Grotenhuis, Theodore A., 20% to The General Tire & Rubber Co. Pigments and particles with unsaturated surface and method of making same. 2,780,612, 2–5–57, Cl. 260—41.

Telephonics Corp.: *See*—
Dreyer, John F., Jr. 2,780,727.

Temco Aircraft Corp.: *See*—
Bailey, John J. 2,780,594.

Teplitz, Alfred, to United States Steel Corp. Perforated belt evaporative cooler. 2,780,078, 2–5–57, Cl. 62—139.

Texas Development Corp.: *See*—
Garrison, Allen D. 2,780,289.

Texas Foundries, Inc.: *See*—
Yeoman, Ray C. 2,780,150.

Texas Instruments Inc.: *See*—
Thornhill, Jay W., and Jackson. 2,780,757.

Thaxton, Bernard E. Louvered window and operating means therefor for vehicle doors. 2,780,458, 2–5–57, Cl. 268—126.

Thery, Georges. Telephonic alarm system. 2,780,671, 2–5–57, Cl. 179—5.

Thevenaz, Jean, to Paillard S. A. Accessory adapted to be secured to a camera in removable manner. 2,780,156, 2–5–57, Cl. 95—86.

Thomas, Frank W.: *See*—
Simon, Eli, and Thomas. 2,780,350.

Thomas, John F. Soldering device. 2,780,712, 2–5–57, Cl. 219—27.

Thompson, Bradley R., and J. D. Saint-Amour, to Assembly Products, Inc. Contact meter. 2,780,709, 2–5–57, Cl. 219—20.

Thompson, Elmer W.: *See*—
Rumberger, Chester P. 2,779,989.

Thompson, Lee W., and J. L. Diehl; said Diehl assor. to said Thompson. Side rail for adjustable height beds. 2,779,953, 2–5–57, Cl. 5—331.

Thompson Products, Inc.: *See*—
Gates, Richard L. 2,780,113.
Thoren, Theodore R., and Gates. 2,780,175.

Thoren, Theodore R., and R. L. Gates, to Thompson Products, Inc. Pump. 2,780,175, 2–5–57, Cl. 103—97.

Thornhill, Jay W., and E. D. Jackson, to Texas Instruments Inc. Rectifier structure. 2,780,757, 2–5–57, Cl. 317—234.

Thorsson, Matthew T.: *See*—
Lauler, Louis J., and Thorsson. 2,780,800.

Tilton, Russell G., to Multiscope, Inc. Hand rail construction for moving stairs. 2,780,338, 2–5–57, Cl. 198—16.

Tokyo Rayon Co., Ltd.: *See*—
Takagi, Takeo. 2,780,511.

Toland, William G., Jr., to California Research Corp. Process for preparing aromatic nitriles. 2,780,637, 2–5–57, Cl. 260—465.

Toland, William G., Jr., to California Research Corp. Process for preparing nitro compounds. 2,780,656, 2–5–57, Cl. 260—645.

Toland, William G., Jr., to California Research Corp. Process for preparing aromatic nitro compounds. 2,780,657, 2–5–57, Cl. 260—645.

Torchia, Robert E. Adjustable hinge. 2,779,966, 2–5–57, Cl. 16—138.

Tornberg, Gordon C. Medicinal tablet container and dispenser. 2,780,349, 2–5–57, Cl. 206—42.

Touey, George, to Eastman Kodak Co. Filters for tobacco smoke comprising cellulose esters and ethers. 2,780,228, 2–5–57, Cl. 131—208.

Townsend, Almon F., to Heald Machine Co. Grinding machine. 2,780,036, 2–5–57, Cl. 51—103.

Trainor, Charles R. Adjustable wall mounted clothes drier. 2,780,365, 2–5–57, Cl. 211—87.

Trammell, Charles M.: *See*—
De Luxembourg, Alexander M. L. 2,780,566.

Transonic Corp.: *See*—
Berkman, Sophia. 2,780,602.

Travis, Don C., to Simmons Co. Adjustable bed. 2,779,951, 2–5–57, Cl. 5—69.

Treitel, Werner S.: *See*—
Andrews, David H., Llegey, Nozick, and Trietel. 2,780,803.

Tripp, John T.: *See*—
Barr, Courtland H., and Tripp. 2,780,225.

Tri-State Engineering Co.: *See*—
Beckner, Marshall H., and Leahy. 2,780,382
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Coit, Burton C., Jr. 2,780,383.

Tschanz, Louis, Comptoir de la Parfumerie S. A. *See*—
Grisel, Yvan V. 2,780,351.

Tupper, Earl S. Bread server. 2,780,385, 2–5–57, Cl. 220—43.

Turner, Charles L., ½ to M. C. Turner. Lawnmower sharpener. 2,780,034, 2–5–57, Cl. 51—48.

Turner Hall Corp.: *See*—
Schwarz, Milton H., and Orgel. 2,780,579.

Turner, Ilse F. and R. E. Floating holder for blankets. 2,779,985, 2–5–57, Cl. 24—72.5.

Turner, Marjory C.: *See*—
Turner, Charles L. 2,780,034.

Turner, Robert E.: *See*—
Turner, Ilse F. and R. E. 2,779,985.

Tyler, Hugh J., to Westinghouse Electric Corp. Indicating light and test circuit. 2,780,801, 2–5–57, Cl. 340—214.

Tyson, Charles W.: *See*—
Heumminger, Charles E., and Tyson. 2,780,861.

Udylite Corp., The: *See*—
Davis, John V. 2,780,229.

Union Asbestos & Rubber Co.: *See*—
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Union Carbide and Carbon Corp.: *See*—
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Cormack, Clarence E. 2,780,542.

Union Oil Co. of California: *See*—
Doumani, Thomas F. 2,780,584.
Fleck, Raymond N. 2,780,526.

Union Savings & Trust Co., The: *See*—
Heltzel, John N. 2,780,149.

Union Special Machine Co.: *See*—
Attwood, John G. 2,780,192.

Unique Balance Co., Inc.: *See*
Larson, Alvin. 2,780,457.

United Aircraft Corp.: *See*—
Bristol, Carlton W., Jr. 2,780,055.
Coar, Richard J. 2,780,172.
Coar, Richard J., and Brown. 2,780,054.

United-Carr Fastener Corp.: *See*—
Bedford, William A., Jr. 2,780,329.

United Cork Companies: *See*—
Bose, Edward R. 2,779,969.

United Shoe Machinery Corp.: *See*—
Ashworth, Fred, and Ioannilli. 2,780,189.
Bagshaw, Charles M. 2,780,051.
Curtis, James W. 2,779,955.
Murphy, Brian J. M., and Pope. 2,779,957.
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United States Atomic Energy Commission, United States of America as represented by the: *See*—
Anderson, George A. 2,780,596.
Brewer, Aubrey K., and Taylor. 2,780,589.
Devaney, Howard F. 2,780,455.
Fermi, Enrico. 2,780,595.
Fontana, Beppino J. 2,780,517.
Gates, John W., Jr., and Andrews. 2,780,518.
Hainer, Raymond M., and Evers. 2,780,532.
Kaufman, David, and Bailey. 2,780,519.
Kuipers, George A. 2,780,699.
Lutz, Garson A. 2,780,514.
Miller, Arthur J., Pitt, and Grieger. 2,780,515.
Nevenzel, Judd C. 2,780,516.
Young, Joseph N. 2,780,112.

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Sandgren, Marvin A. 2,780,389.

United States Rubber Co.: *See*—
Bevilacqua, Edward M. 2,780,605.
Tawney, Pliny O., and Amidon. 2,780,615.

U. S. Slicing Machine Co., Inc.: *See*—
Folk, Joseph. 2,780,258.

United States Steel Corp.: *See*—
Carney, Dennis J. 2,780,536.
Core, Jesse F., and Werft. 2,780,448.
Hayes, Loren A. 2,779,992.
Kritscher, Andrew F. 2,780,118.
Pierce, Earl W. 2,780,540.
Teplitz, Alfred. 2,780,078.

Universal Oil Products Co.: *See*—
Gleim, William K. T. 2,780,550.
Watkins, Charles H. 2,780,587.

Upchurch, Lewis M., to Hoke Oil & Fertilizer Co. Carrier for containers. 2,780,476, 2–5–57, Cl. 280—47.24.

Upjohn Co., The: *See*—
Hickey, Herbert A. 2,780,444.

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Vacanti, Frank F., Jr., to Holland Industries, Inc. Folding cooking stove. 2,780,215, 2–5–57, Cl. 126—9.

Valente, Ralph. Convertible chair for infants. 2,780,276, 2–5–57, Cl. 155—91.

Van Alstyne, Alvin G., to Gilfillan Bros., Inc. Radar reflector for aircraft. 2,780,806, 2–5–57, Cl. 343—18.

Van Bladel, Jean, to Hartford National Bank and Trust Co., as trustee. Automatic-frequency-correction device. 2,780,726, 2–5–57, Cl. 250—36.

Vandamme, Louis, and L. Rouyer, to Moulinage et Retorderie de Chavanoz. Apparatus for producing curled yarn. 2,780,047, 2–5–57, Cl. 57—34.

Van den Bos, Cornelis. Supporting structure for a mould for a concrete structure. 2,779,990, 2–5–57, Cl. 25—131.5.

Vandivere, Edgar F., Jr. Recording and reproducing systems. 2,780,679, 2–5–57, Cl. 179—100.1.

Vanier, Vincent P. Pipe hanger. 2,780,429, 2–5–57, Cl. 248—59.

Van Slooten, Jacob, to Hartford National Bank and Trust Co., as trustee. Television receiver having superregenerative detection of the sound signal. 2,780,669, 2–5–57, Cl. 178—5.8.

Van Tilburg, Piet: *See*—
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Vapor Heating Corp.: *See*—
LaRocque, Joseph E., and Impey. 2,780,206.

Venner, William M., P. L. Bowser, Jr., and W. F. Peterson, to Sterling Aluminum Products, Inc. Trunk piston and method of making same. 2,780,505, 2–5–57, Cl. 309—13.

Vickers Inc.: *See*—
Lee, Bernard. 2,780,770.
Lee, Bernard. 2,780,771.
Lee, Bernard. 2,780,772.

Visos, Charles D., to Knapp-Monarch Co. Switch for vacuum type coffee maker. 2,780,711, 2–5–57, Cl. 219—20.

Vitramon Inc.: *See*—
Lee, Pyungtoo W., and Weller. 2,779,975.

Vogeley, Clyde E., Jr., and R. H. Webb, to the United States of America as represented by the Secretary of the Navy. Antenna feed modulation unit for ridge waveguide. 2,780,783, 2–5–57, Cl. 332—52.

Volckening, Lloyd L., to Ivers-Lee Co. Crush-resistant package. 2,780,353, 2–5–57, Cl. 206—65.

Volpin, Alexander S. Through conduit gate valve. 2,780,233 2–5–57, Cl. 137—315.

Von Tell, Edward E. Cargo-hatches. 2,780,197, 2–5–57, Cl. 114—202.

Voss, Charles S. Footwear. 2,780,013, 2–5–57, Cl. 36—2.5.

Wadley, Edward F.: *See*—
Macke, Robert A., and Wadley. 2,780,581.

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Wall, Monroe E.: *See*—
Krider, Merle M., and Wall. 2,780,620.

Wallace, James. Mask for learning to swim above and under water. 2,780,224, 2–5–57, Cl. 128—145.

Wallace & Tiernan Inc.: *See*—
Tarry, Eldred G. 2,780,066.

Wallace, Valton, 50% to Seymour Hootkins. Switch. 2,780,700, 2–5–57, Cl. 200—160.

Walter, Herman, to L. Schuler A.-G. Mechanical brake with divided brake band. 2,780,320, 2–5–57, Cl. 188—77.

Walters, George F., and B. M. Steele, to Ozi Corp. Apparatus for feeding and distributing granular material. 2,780,394, 2–5–57, Cl. 222—273.

War, United States of America as represented by the Secretary of: *See*—
Macy, Rudolph. 2,780,653.

Ware Laboratories, Inc.: *See*—
Yoder, Ervin. 2,780,328.

Warner, Milton Y., to Whirlpool-Seeger Corp. Two-temperature refrigeration system. 2,780,072, 2–5–57, Cl. 62—4.

Warren, S. D., Co.: *See*—
Frost, Frederick H., and Lane. 2,780,563.

Wasilisin, Michael E., and D. E. Wernz, to The Glenn L. Martin Co. Core manufacture. 2,780,716, 2–5–57, Cl. 219—83.

Wasserman, Max. Skylight construction. 2,780,283, 2–5–57, Cl. 160—26.

Watkins, Charles H., to Universal Oil Products Co. Hydrocarbon coking process. 2,780,587, 2–5–57, Cl. 202—18.

Watson, Albert T.: *See*—
Mosesman, Max A., and Watson. 2,780,358.

Watson, Isabella J. Shoe bag. 2,780,260, 2–5–57, Cl. 150—1.

Webb, John S., and H. G. Arlt, Jr., to American Cyanamid Co. Process of producing pyrazinamide. 2,780,624, 2–5–57, Cl. 260—250.

Webb, Richard H.: *See*—
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Wehrmeister, Herbert L., to Commercial Solvents Corp. Preparation of calcium DL-pantothenate. 2,780,645, 2–5–57, Cl. 260—534.

Welcher, Richard P., and D. W. Kaiser, to American Cyanamid Co. Method of preparing thioammeline. 2,780,623, 2–5–57, Cl. 260—249.8.

Weldon, William C., Sr. Mechanic's creeper. 2,780,472, 2–5–57, Cl. 280—32.6.

Weller, Barton L.: *See*—
Lee, Pyungtoo W., and Weller. 2,779,975.

Wendell, Charles B., Jr., and G. E. Engelson, to Godfrey L. Cabot, Inc. Process and apparatus for the production of aluminum oxide from aluminum chloride. 2,780,525, 2–5–57, Cl. 23—142.

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Pearson, Reinhold A., and Weremiczyk. 2,780,148.

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Core, Jesse F., and Werft. 2,780,448.

Wernz, Donald E.: *See*—
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Hedding, Linnie K., and Zetwo. 2,780,766.
Zetwo, Regis H. 2,780,758.

Westinghouse Electric Corp.: *See*—
Arnott, Edward G. F. 2,780,746.
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Bonatz, Richard T. 2,780,305.
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Dyer, Lloyd W., and Born. 2,780,788.
Else, Harry D. 2,780,738.
Elsey, Howard M. 2,780,743.
Farr, Kenneth E., Baugh, and Heffron. 2,780,668.
Fickett, Walter A. 2,780,724.
Ford, James G. 2,780,785.
Gambale, John C. 2,780,793.
Good, Paul F. 2,780,342.
Leeds, Winthrop M. 2,780,699.
Lynn, Clarence, and Dobson. 2,780,741.
Miller, Theadore. 2,780,731.
Parsons, John R. 2,780,750.
Roman, Walter G., and Robinson. 2,780,740.
Singel, John B. 2,780,673.
Sprow, James H. 2,780,685.
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Williams, Neal T., and Lewin. 2,780,748.
Wollentin, Robert W. 2,780,600.

Westling, Randolph E., to Gulf Oil Corp. Storm choke and packer for dual-zone completion. 2,780,291, 2–5–57, Cl. 166—73.

Westmar, Clarence W. Hoists for building materials. 2,780,373, 2–5–57, Cl. 214—95.

Westmoreland, Earnest E. Automatic tank switching device. 2,780,231, 2–5–57, Cl. 137—121.

Wetherill, John P.: *See*—
De Luxembourg, Alexander M. L. 2,780,566.

Wetterholm, Gustav A.: *See*—
Fossan, Kåre R., and Wetterholm. 2,780,528.

Wharton, Armistead, and R. R. Dever, to General Dynamics Corp. Feeding, cutting, and stacking strip material. 2,780,288, 2–5–57, Cl. 164—49.

Wheatley, Edward W.: *See*—
Downing, John, Fisher, and Wheatley. 2,780,571.

Wheatley, Marjorie F.: *See*—
Downing, John, Fisher, and Wheatley. 2,780,571.

Wheeler, Harry E. and N. L., and C. W. Durieux, to Board of Supervisors of Louisiana State University and Agricultural and Mechanical College. Reproducing process. 2,780,732, 2–5–57, Cl. 250—106.

Wheeler, Naomi L.: *See*—
Wheeler, Harry E. and N. L., and Durieux. 2,780,732.

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Warner, Milton Y. 2,780,072.

Whisler, Norris H.: *See*—
Finney, William E., and Whisler. 2,780,005.

White, Frank H. Pipe bender. 2,780,121, 2–5–57, Cl. 81—15.

White, William M., and R. A. Fox, to Eastman Kodak Co. Automatic contact printer. 2,780,153, 2–5–57, Cl. 95—73.

Whitehead & Kales Co.: *See*—
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Whitehead, Ned. Tamper revealing identification card. 2,780,015, 2–5–57, Cl. 40—2.2.

Whitehorn, Robert M.: *See*—
Goeppinger, Edward J., Whitehorn, Bourns, and Harrison. 2,780,776.

Wibell, Martin, and R. B. Immel, to Westinghouse Electric Corp. Electric switch. 2,780,690, 2–5–57, Cl. 200—67.

Wick, Richard M., and R. Schneidewind, to Bethlehem Steel Co. Electrolytic treatment of metal surfaces. 2,780,592, 2–5–57, Cl. 204—56.

Wick, Robert S.: *See*—
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Wilcox, Oswin B., to E. I. du Pont de Nemours and Co. Production of improved pigments. 2,780,558, 2–5–57, Cl. 106—300.

Wildman Mfg. Co.: *See*—
Howie, Kenneth. 2,780,083.

Wilkes, Luther W. Aircraft wing with variable nose slot. 2,780,425, 2–5–57, Cl. 244—42.

Wilkie, Robert C., to Pacific Mills. Fluid treatment of textile fibers. 2,779,977, 2–5–57, Cl. 19—66.

Willard, Miles J., Jr., and J. Cording, Jr., to the United States of America as represented by the Secretary of Agriculture. Dehydration of cooked potato. 2,780,552, 2–5–57, Cl. 99—207.

Williams & Hussey Machine Corp.: *See*—
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248— 59: 2,780,429
90: 2,780,430
194: 2,780,431
250— 27: 2,780,724
31: 2,780,725
36: 2,780,726
40: 2,780,727
41.9: 2,780,728
2,780,729
50: 2,780,730
71: 2,780,731
106: 2,780,732
251— 59: 2,780,432
70: 2,780,433
222: 2,780,434
252— 18: 2,780,597
33.2: 2,780,598
37.7: 2,780,599
301.6: 2,780,600
408: 2,780,601

252— 432: 2,780,602
466: 2,780,603
253—39.15: 2,780,435
78: 2,780,436
254— 15: 2,780,437
255— 3: 2,780,438
69: 2,780,439
256— 21: 2,780,440
257— 3: 2,780,441
2,780,442
95: 2,780,443
137: 2,780,445
245: 2,780,446
259— 113: 2,780,444
260— 2.1: 2,780,604
2.5: 2,780,605
2,780,606
9: 2,780,607
29.6: 2,780,608
31.8: 2,780,609
33.4: 2,780,610
37: 2,780,611
41: 2,780,612
45.4: 2,780,613
45.5: 2,780,614
2,780,615
85.5: 2,780,616
88.1: 2,780,617
147: 2,780,618
153: 2,780,619
210.5: 2,780,620
239.55: 2,780,621
249.5: 2,780,622
249.8: 2,780,623
250: 2,780,624
268: 2,780,625
290: 2,780,626
2,780,627
304: 2,780,628
306.8: 2,780,629
2,780,630
2,780,631
307: 2,780,632
2,780,633
348.5: 2,780,634
2,780,635
448.8: 2,780,636
465: 2,780,637
465.3: 2,780,638
2,780,639
2,780,640
472: 2,780,641
473: 2,780,642
475: 2,780,643

260— 485: 2,780,644
534: 2,780,645
562: 2,780,646
571: 2,780,647
586: 2,780,648
592: 2,780,649
597: 2,780,650
598: 2,780,651
606: 2,780,652
609: 2,780,653
635: 2,780,654
637: 2,780,655
645: 2,780,656
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654: 2,780,658
668: 2,780,659
671: 2,780,660
672: 2,780,661
674: 2,780,662
2,780,663
683.15: 2,780,664
2,780,665
261— 111: 2,780,447
262— 1: 2,780,448
3: 2,780,449
2,780,450
7: 2,780,451
9: 2,780,452
263— 6: 2,780,453
8: 2,780,454
264— 1: 2,780,455
265— 29: 2,780,456
267— 1: 2,780,457
268— 126: 2,780,458
271— 2.2: 2,780,459
272— 36: 2,780,460
273— 94: 2,780,461
119: 2,780,462
134: 2,780,463
165: 2,780,464
274— 10: 2,780,465
14: 2,780,466
279— 6: 2,780,467
16: 2,780,468
48: 2,780,469
66: 2,780,470
280— 12: 2,780,471
32.6: 2,780,472
34: 2,780,473
41: 2,780,474
44: 2,780,475
47.24: 2,780,476
96.2: 2,780,477
411: 2,780,478

280— 446: 2,780,479
499: 2,780,480
281— 42: 2,780,481
285— 41: 2,780,482
332: 2,780,483
287— 54: 2,780,484
290— 4: 2,780,733
292— 169: 2,780,485
294— 34: 2,780,486
67: 2,780,487
299— 18: 2,780,488
24: 2,780,489
29: 2,780,490
58: 2,780,491
59: 2,780,492
84: 2,780,493
106: 2,780,494
121: 2,780,495
140.1: 2,780,496
301— 41: 2,780,497
302— 28: 2,780,498
303— 22: 2,780,499
305— 9: 2,780,500
307— 34: 2,780,734
83: 2,780,735
150: 2,780,736
308— 6: 2,780,501
23: 2,780,502
59: 2,780,503
309— 4: 2,780,504
13: 2,780,505
310— 54: 2,780,737
2,780,738
55: 2,780,739
67: 2,780,740
177: 2,780,741
179: 2,780,742
228: 2,780,743
239: 2,780,744
258: 2,780,745
311— 89: 2,780,506
109: 2,780,507
312— 49: 2,780,508
201: 2,780,509
336: 2,780,510
313— 109: 2,780,746
188: 2,780,747
201: 2,780,748
315— 27: 2,780,749
144: 2,780,750
169: 2,780,751
240: 2,780,752
252: 2,780,753
317— 136: 2,780,754

317— 191: 2,780,755
198: 2,780,756
234: 2,780,757
2,780,758
2,780,759
318— 29: 2,780,760
146: 2,780,761
207: 2,780,762
345: 2,780,763
491: 2,780,764
320— 2: 2,780,765
4: 2,780,766
321— 2: 2,780,767
323— 43.5: 2,780,768
66: 2,780,769
89: 2,780,770
2,780,771
2,780,772
324— 30: 2,780,773
34: 2,780,774
57: 2,780,775
63: 2,780,776
73: 2,780,777
87: 2,780,778
99: 2,780,779
109: 2,780,780
117: 2,780,781
332— 12: 2,780,782
52: 2,780,783
333— 24: 2,780,784
336— 210: 2,780,785
212: 2,780,786
234: 2,780,787
339— 22: 2,780,788
59: 2,780,789
164: 2,780,790
198: 2,780,791
256: 2,780,792
272: 2,780,793
276: 2,780,794
340— 3: 2,780,795
49: 2,780,796
52: 2,780,797
173: 2,780,798
180: 2,780,799
187: 2,780,800
214: 2,780,801
321: 2,780,802
367: 2,780,803
368: 2,780,804
343— 13: 2,780,805
18: 2,780,806
103: 2,780,807
806: 2,780,808

Classification of Designs

D 3— 4: Des. 179,669
17: Des. 179,641
26: Des. 179,624
D 9— 2: Des. 179,628
Des. 179,664
D10— 8: Des. 179,627
10: Des. 179,639
D14— 6: Des. 179,667
18: Des. 179,654

D15— 1: Des. 179,646
D26— 5: Des. 179,637
Des. 179,638
D28— 1: Des. 179,636
D30— 1: Des. 179,657
D33— 3: Des. 179,645
9: Des. 179,660
14: Des. 179,635
Des. 179,649

D34— 5: Des. 179,633
15: Des. 179,621
Des. 179,622
Des. 179,625
Des. 179,653
D44— 4: Des. 179,668
D50— 3: Des. 179,663
6: Des. 179,620
Des. 179,632

D50— 6: Des. 179,659
D52— 1: Des. 179,662
7: Des. 179,642
Des. 179,643
Des. 179,644
D57— 1: Des. 179,623
D58— 5: Des. 179,648
26: Des. 179,640
D61— 1: Des. 179,631

D61— 1: Des. 179,670
D62— 2: Des. 179,665
Des. 179,666
D71— 1: Des. 179,626
Des. 179,629
Des. 179,661
D74— 1: Des. 179,652
Des. 179,658

D80— 2: Des. 179,655
Des. 179,656
D81—10: Des. 179,630
Des. 179,647
D86—10: Des. 179,634
Des. 179,650
Des. 179,651
D87— 5: Des. 179,619

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
February 5, 1957 Volume 715 Number 1

TRADEMARKS

NOTICES

Service by Publication

An interference, No. 5448, having been declared involving an application No. 697,920 of Micro Bronze Filter Corporation, 11766 West Pico Blvd., Los Angeles 64, California, for registration of a trademark, and it failing to appear that service of notice respecting the proceeding upon such applicant has been effected, notice is hereby given that unless said Micro Bronze Filter Corporation, its assigns or legal representatives, shall enter an appearance therein within thirty days from the date of this publication, the interference will be proceeded with as in the case of default.

DAPHNE LEEDS,
Assistant Commissioner of Patents.

A petition to cancel the registration identified below having been filed, and the notice of such proceeding sent by registered mail to the assignee of record at the last known address having been returned by the post office as undeliverable, notice is hereby given that unless an appearance is entered herein by the assigns, or legal representatives, within thirty days from the date of this publication, the cancellation will be proceeded with as in the case of default.

Rose Robbins, assignor to Baronette Radio and Tube Corp., New York, New York, Reg. No. 411,980, Canc. No. 6804.

DAPHNE LEEDS,
Assistant Commissioner of Patents.

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

TM 310,650. (See TM 310,654.)

TM 310,654 (BACARDI), **TM 310,650** (DESIGN OF MEDALS AND SEAL), **TM 331,460** (CARTA DE ORO, ETC. AND DESIGN), Compania Ron Bacardi, S. A., Rum; **TM 332,722** (DESIGN OF CIRCLE AND TRIANGLE), same, Whiskey, brandy, gin, alcoholic cordials, and rum, **filed** Dec. 3, 1956, D. C. N. J. (Newark), Doc. 939/56, *Compania "Ron Bacardi," S. A. et al.* v. *Duggan's Distillers Products Corp.* Same, **filed** Dec. 4, 1956, D. C., E. D. Mo. (St. Louis), Doc. 10981(2), *Compania "Ron Bacardi," S. A. et al.* v. *Peoples Liquor, Inc.* **Same,** D. C., E. D. N. Y. (Brooklyn), Doc. 17110, *Compania "Ron Bacardi," S. A. et al.* v. *Sovereign Importers, Ltd.* Consent decree Dec. 31, 1956.

TM 331,460. (See TM 310,654.)

TM 332,722. (See TM 310,654.)

TM 337,404 (POLAROID), Polaroid Corp., Composite material comprising suspensions of crystalline particles, etc., **filed** Dec. 11, 1956, D. C., E. D. N. Y. (Brooklyn), Doc. 17132, *Polaroid Corp.* v. *Polarad Electronics Corp.*

TM 395,598 (JB AND DESIGN), **TM 530,048** (JEWELERS' BEST), Jacoby-Bender, Inc., Men's and ladies' bracelets and watch bracelets, sold separately from the watches, **filed** Nov. 7, 1956, D. C., S. D. N. Y., Doc. 114/277, *Jacoby-Bender, Inc.* v. *J. B. Importing Co.* Consent order of dismissal without prejudice Dec. 14, 1956.

TM 420,802 (PETRO), Clayton Mark & Co., Unions for connecting pipes or rods, and union check valves, **filed** Oct. 24, 1956, D. C., E. D. Wash. (Spokane), Doc. 1455, *Clayton Mark & Co.* v. *Industrial Coupler Co. et al.* Injunction granted Dec. 11, 1956.

TM 511,270. (See TM 565,961.)

TM 522,242 (WIZARD AND DESIGN), Western Auto Supply Co., Outboard motors, **filed** Dec. 12, 1956, D. C., W. D.

CONDITION OF TRADEMARK APPLICATIONS AS OF DECEMBER 31, 1956

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]	7,036
Date of oldest new application	June 25, 1956
Date of oldest amended application	Aug. 2, 1956

MERCHANT, JOHN, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application: New	Oldest Application: Amended
I. STERBA, J. R., Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 44 and Certification Marks (Goods) Class A	7-10-56	8-2-56
II. SHRYOCK, R. F., Classes 6, 18, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200; and Certification Marks (Services) Class B	6-25-56	8-10-56
III. WENDT, C. M., Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 36, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 50, 52	8-1-56	8-23-56
Renewals (All Classes)	11-30-56	11-30-56
Sec. 12 (c) Publications (All Classes)	11-30-56	11-30-56

Applications Filed During the Month of December 1956—1,734

Registrations Issued	375—No. 640,816 to No. 641,190
Renewals Issued	36

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

Mich. (Grand Rapids), Doc. 3142, *Western Auto Supply Co. v. Wizard Boats, Inc.*

TM 530,048. (See TM 395,508.)

TM 565,961 (PAPER MATE), Frawley Corp., Ball-point pens; **TM 511,270** (BANKER), Everlast Pen Corp., Fountain pens, ball pens, and mechanical pencils, **filed** Aug. 19, 1955, D. C., S. D. N. Y., Doc. 103/26, *Paper Mate Eastern et al. v. John Surrey Ltd.* Stipulation and order of discontinuance Dec. 14, 1956.

TM 502,903 (WESTINGHOUSE), Westinghouse Electric Corp., Mechanical vacuum pumps, etc.; electrical apparatus, etc.; lubricating oils, etc., **filed** Dec. 18, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c2105, *Westinghouse Elec. Corp. v. Nireak Industries, Inc.*

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

CLASS 2

RECEPTACLES

SN 2,067. Atlas Plywood Corporation, Boston, Mass. Filed Feb. 6, 1956.

Atlas Plywood

FROM AMERICAN FOREST TO FINISHED PRODUCT

The word "Plywood" is disclaimed apart from its use as shown. Owner of Reg. Nos. 208,762 and 209,886.

For Plywood Shipping Cases.

First use in February 1954.

SN 11,310. Union Tank and Supply Company, Houston, Tex. Filed June 29, 1956.

WORLD WIDE SERVICE

UNION

For Metal Tanks.

First use Feb. 1, 1946.

CLASS 3

BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

SN 15,590. Charles Doppelt & Co., Inc., Chicago, Ill. Filed Sept. 13, 1956.

BRIEF-MASTER

For Combination Traveling Bag and Brief Bag.

First use Sept. 30, 1948.

SN 16,012. Arkwright Merchandising Corporation, New York, N. Y. Filed Sept. 20, 1956.

ARLURE

Owner of Reg. No. 550,396.

For Women's and Misses' Hand Bags, Pocketbooks, Billfolds, Purses, Key Cases, Cosmetic Cases, Travel Cases, and Shoe Cases, Traveling Bags, Over Night Bags.

First use Nov. 30, 1948.

CLASS 5

ADHESIVES

SN 614. National Starch Products Inc., New York, N. Y. Filed Jan. 12, 1956.

KWIK KLAMP

For Resin-Base Adhesive Sold for Use in Laminating Plywood and for Adhering Wood to Itself and to Other Surfaces in Various Structural Assemblies as in the Manufacture of Furniture.

First use Feb. 1, 1954.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

SN 699,430. Guy A. Simone, d. b. a. Brush Keeper Co., Los Angeles, Calif. Filed Dec. 5, 1955.

MIRACLE

BRUSH KEEPER

The words "Brush Keeper" are disclaimed apart from the mark.

For Chemical Composition for Preserving Paint Brushes.

First use July 15, 1955.

SN 9,653. Mallinckrodt Chemical Works, St. Louis, Mo. Filed June 5, 1956.

TRANSISTAR

Owner of Reg. No. 594,056.

For Acetone, Acid Acetic, Acid Hydrochloric, Acid Hydrofluoric, Acid Nitric, Acid Sulfuric, Alcohol Isopropyl, Alcohol Methyl, Ammonium Hydroxide, Carbon Tetrachloride, Ether, Hydrogen Peroxide, and Sodium Carbonate.

First use Feb. 2, 1956.

CLASS 7

CORDAGE

SN 12,776. American Manufacturing Company, Brooklyn, N. Y. Filed July 25, 1956.

AIRKORE

For Rope, Cord, Twine, and Wire Rope Centers.

First use June 12, 1956.

SN 12,848. Maynard Tritsch, Plattsmouth, Nebr. Filed July 25, 1956.

MIDSTATES

For Baler Twine.
First use Feb. 10, 1956.

CLASS 11

INKS AND INKING MATERIALS

SN 11,013. Kurtz Bros., Clearfield, Pa. Filed June 26, 1956.

KURBRO

For Duplicating Inks, Duplicating Fluid, Carbon Paper, Master Units Including Carbon Paper for Use in Making Duplicate Copies.
First use in the year 1936 on duplicating ink.

CLASS 12

CONSTRUCTION MATERIALS

SN 700,362. The Babcock & Wilcox Company, New York, N. Y. Filed Dec. 21, 1955.

KAOCRETE

For Refractory Concrete Mix.
First use Aug. 1, 1955.

SN 669. Edge Grain Timber Products, Inc., Columbus, Ohio. Filed Jan. 13, 1956.

DOWELOC

For Edge Grain Wooden Sections Joined With Dowels.
First use Dec. 8, 1954.

SN 1,426. Capuana per l'Industria Della Lignocellulosa S. p. A., Milan, Italy. Filed Jan. 25, 1956.

NEOCAST

Owner of Italian Reg. No. 125,438, dated Nov. 5, 1955.
For Decorative and Usual Wood Fiber Panels.

SN 1,636. Timberweld Mfg. Co., Broadview, Mont. Filed Jan. 27, 1956.

TIMBERWELD

For Laminated Wood Beams, Trusses, and Rafters.
First use Feb. 15, 1955.

SN 2,639. Keystone Alloys Company, Derry, Pa. Filed Feb. 14, 1956.

triple-matic

For Storm Windows.
First use January 1956.

SN 5,249. Steel Door Corporation, Birmingham, Mich. Filed Mar. 26, 1956.

SEE-ALL

For Doors for Closets and the Like.
First use Feb. 27, 1956.

SN 5,392. J. E. Bush, Dallas, Tex. Filed Mar. 29, 1956.

DORWINDO

For Doors, Windows, and Jalousies.
First use Mar. 15, 1956.

SN 6,487. United States Wallboard Machinery Company, Dover, Del. Filed Apr. 16, 1956.

TEKNOCORE

For Building and Furniture Panels Produced From Sugarcane Bagasse and Sawmill and Woodworking Waste.
First use Feb. 15, 1956.

SN 7,242. Lester A. Diamond, Westwood, N. J. Filed Apr. 27, 1956.

CORBRIK

For Wallpaper With Attached Cork Slabs Simulating Brick Work.
First use Feb. 27, 1956.

SN 7,389. Southwest Lumber Mills, Inc., Phoenix, Ariz. Filed Apr. 30, 1956.

Southwest

For Lumber.
First use Feb. 18, 1955.

SN 8,254. Neall Pressed Products Company, San Leandro, Calif. Filed May 14, 1956.

NEALCO

For Decorative Wood Panel Board.
First use Jan. 26, 1956.

SN 8,255. Neall Pressed Products Company, San Leandro, Calif. Filed May 14, 1956.

Ced-o-bord

For Decorative Wood Panel Board.
First use Jan. 26, 1956.

SN 8,449. Standard Fuel Engineering Company, Detroit, Mich. Filed May 16, 1956.

ZERO

Owner of Reg. Nos. 305,050, 307,046, and 307,619.
For High Temperature Cement.
First use Jan. 22, 1927.

SN 8,502. Leo W. Potvin, Springfield, Mass. Filed May 17, 1956.

ELPEE

For Metal Strip for Joining Cove Members.
First use Apr. 19, 1956.

SN 8,523. Vun-Russ Company, Inc., Hialeah, Fla. Filed May 14, 1956.

LOOK

For Windows—Namely, Jalousies, Awning Windows and Picture Windows, Tub Enclosures, Shower Doors and Shower Enclosures.
First use February 1955.

SN 8,582. A. O. Smith Corporation, Milwaukee, Wis. Filed May 18, 1956.

PERMAGLAS

Owner of Reg. No. 394,993.
For Prefabricated Metal Smokestacks Sold as Complete Units and Shipped in Sections.
First use Apr. 13, 1956.

SN 8,631. Cincinnati Development and Manufacturing Company, Cincinnati, Ohio. Filed May 21, 1956.

INSULSTRUC

For Laminated Plastic in Sheets, Blocks, and Other Forms for Insulation Purposes.
First use May 9, 1952.

SN 8,781. E. J. Lavino and Company, Philadelphia, Pa. Filed May 22, 1956.

L O 1

The mark comprises a capital L and the numerals zero and one.
For Basic Brick for Open Hearth Checkers.
First use during December 1951.

SN 9,880. Macklanburg-Duncan Company, Oklahoma City, Okla. Filed June 8, 1956.

Owner of Reg. No. 284,457.
For Asphalt Cement.
First use April 1956.

SN 9,978. Globe Roofing Products Co., Inc., Whiting, Ind. Filed June 11, 1956.

THERMO-ETCHSTONE

For Insulating Siding.
First use May 21, 1956.

SN 10,111. Standard Lime and Cement Company, Baltimore, Md. Filed June 12, 1956.

WHITE HOUSE

For Building Lime.
First use on or about Apr. 10, 1956.

SN 10,843. The Philip Carey Manufacturing Company, Cincinnati, Ohio. Filed June 25, 1956. Sec. 2(f).

FIRE-CHEX

Owner of Reg. No. 581,710.
For Shingles.
First use Apr. 14, 1949.

SN 11,119. Universal Builders Supply Co. Inc., New York, N. Y. Filed June 27, 1956.

SPANALL

For Girders and Beams.
First use Mar. 22, 1956.

SN 12,022. Frederick R. Glassman, d. b. a. Ford Products Company, Attleboro, Mass. Filed July 12, 1956.

The mark comprises the representation of a pair of hands with the fingers interlocked, and design.
For Combination Storm Windows, Jalousie Units, and Doors.
First use Apr. 29, 1956.

CLASS 14

METALS AND METAL CASTINGS AND FORGINGS

SN 13,515. The American Metal Company, Limited, New York, N. Y. Filed Aug. 7, 1956.

AMPHOS

For Phosphorized Oxygen-Free Copper, Billets, Bars, Cakes, and Other Suitable Cast Forms.
First use June 23, 1956.

CLASS 15

OILS AND GREASES

SN 19,402. Wynne Oil Company, Philadelphia, Pa. Filed Nov. 27, 1956. Sec. 2(f).

RONSON

For Motor Oil.
First use Mar. 5, 1930.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

SN 689,727. Kurfees Paint Company, Louisville, Ky. Filed June 17, 1955. Sec. 2(f).

EVER-KLEEN

For Prepared or Ready-Mixed Liquid Exterior Paints.
First use Mar. 1, 1948.

SN 695,432. Mono-Seal, Inc., Salem, Mass. Filed Sept. 27, 1955.

MONO-SEAL

For Catalyst Activated, Synthetic Resinous, Industrial Protective Coatings.
First use Apr. 18, 1955.

SN 2,960. Elliott Paint & Varnish Company, Chicago, Ill. Filed Feb. 20, 1956. Sec. 2(f).

ELLIOTT'S

Owner of Reg. No. 323,375.
For Paints; Varnishes; Enamels; Paint-Type Primers, Sealers and Undercoaters; Colors in Oil; Stains; Lacquers; Thinners for Paints, Enamels, Varnishes, and Lacquers; Liquid Asbestos Roof Coating and Asphalt Primers for Roofs.
First use 1921.

SN 11,496. The O'Brien Corporation, South Bend, Ind. Filed July 3, 1956.

LITE-CHROME

For Wall Paint.
First use June 14, 1955.

SN 12,245. American Artists' Color Works, Inc., Hazleton, Pa. Filed July 17, 1956.

FINGER FANTASY

For Non-Toxic Finger Paint Set.
First use July 10, 1956.

SN 13,363. Flame Control Company, Los Angeles, Calif. Filed Aug. 3, 1956.

FLAME X CONTROL

For Chemical Coating Preparation Having Fire-Proofing and Fire-Retarding Properties, Adapted for Application to Inflammable Materials—Namely, Lumber, Power Poles, Construction Timber, Railroad Ties, Fencing Lumber, Trestles, and Wooden Structures.
First use May 25, 1956.

SN 14,000. Plastinette Products Corporation, Austin, Tex. Filed Aug. 15, 1956.

PLASTINETTE

For Resins and Hardeners Used Therewith Utilized as Protective and Decorative Coatings.
First use Mar. 1, 1954.

SN 15,178. Continental Car-Na-Var Corporation, Brazil, Ind. Filed Sept. 6, 1956. Sec. 2(f).

LUSTER-VAR
FLOOR TREATMENT

For Self-Polishing Floor Finish for All Types of Floors.
First use on or about June 25, 1931.

SN 16,390. The Wooster Sealkote Company, Wooster, Ohio. Filed Sept. 25, 1956. Sec. 2(f).

WOOSTER SEAL-KOTE

Owner of Reg. Nos. 202,050 and 411,926.
For Ready Mixed, All Purpose Paint.
First use on or before May 15, 1924.

SN 16,391. The Wooster Sealkote Company, Wooster, Ohio. Filed Sept. 25, 1956.

SEAL-KOTE

Owner of Reg. Nos. 202,050 and 411,926.
For Ready Mixed, All Purpose Paint.
First use on or before May 15, 1924.

SN 16,770. Turco Products, Inc., Los Angeles, Calif. Filed Oct. 1, 1956.

TURCO

Owner of Reg. Nos. 270,966, 281,541, and 283,313.
For Liquid Polymeric Resin in a Non-Aqueous Solvent To Be Used as a Protective Coating Composition.
First use Apr. 29, 1955.

SN 17,096. Furane Plastics Incorporated, Los Angeles, Calif. Filed Oct. 8, 1956.

EPOFILM

For Coating Material for Plastic Surfaces.
First use on or about Sept. 1, 1955.

SN 17,121. Rexton Finishes, Incorporated, Irvington, N. J. Filed Oct. 8, 1956.

REXCLAD

For Clear, Dyed, and Pigmented, Metallic and Non-Metallic, Air and Heat Drying and Baking Enamels, and Sealers and Primers and Solvents Therefor.
First use Oct. 31, 1952.

SN 17,506. Seidlitz Paint and Varnish Company, Kansas City, Mo. Filed Oct. 15, 1956.

DURMEX

Owner of Reg. Nos. 504,652, 620,245, and others.
For Paints and Enamels.
First use during August 1956.

SN 17,515. Stewart Paint Mfg. Company, Minneapolis, Minn. Filed Oct. 15, 1956.

S. Q.

For Ready Mixed Paints, Including Exterior Paint, Enamel Undercoater, Interior Paint, Floor Enamel, Screen Enamel, Implement Enamel, Aluminum Paint, Enamel, Varnish, Oil Dryer, and Oil Stain.
First use in 1921.

SN 17,519. Tobias Paint Mfg. Co., Cleveland, Ohio. Filed Oct. 15, 1956.

New
Scot Land

For Paints, Paint Primers, Paint Enamels, Raw Linseed Oil, Asphalt Products, Stains, Varnishes, Paint Thinners, and Paint Colors.
First use September 1955.

CLASS 17

TOBACCO PRODUCTS

SN 695,259. John Alexiou, Wilkes-Barre, Pa. Filed Sept. 26, 1955.

LT Long Twins

For Cigarettes.
First use May 6, 1955.

SN 14,035. Joseph P. Manning Company, Boston, Mass. Filed Aug. 9, 1956.

THE MARKSMAN

For Cigars.
First use June 1948.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

SN 681,264. Nazira Alhadate Freijie, d. b. a. E. & N. Alhadate, Socorro, N. Mex. Filed Feb. 8, 1955.

For Medicinal Preparation for the Treatment of Cancer.
First use in 1932.

SN 683,007. Arthur Williams, d. b. a. Rayo Chemical Co., Westminster, Mass. Filed Mar. 7, 1955.

RAYO

Owner of Reg. Nos. 335,111 and 345,034.
For Medicines and Pharmaceutical Preparations—Namely, Salve for the Relief of Coughs and Colds, Rheumatic and Muscular Pains, Headaches, Neuralgia, Insect Bites, Swelling, Local Congestion and Irritation, Sunburn, Burns and Scalds; Nose and Throat Drops for Colds and Nasal Catarrh; Liniment for Rheumatic Pains and Strains; Laxative Mineral Oil; Lotion for Athlete's Foot; Medicated Skin and Scalp Ointment; Boric Acid Ointment; Rectal Ointment; Medicated Skin Cream and Lotion; and Inhaler.
First use Sept. 17, 1934.

SN 8,415. Richard Hudnut, New York, N. Y. Filed May 16, 1956.

ALL CLEAR

For Medicated Lotion for Treatment of Blemishes and Pimples.
First use Apr. 15, 1956.

SN 9,002. The Upjohn Company, Kalamazoo, Mich. Filed May 24, 1956.

CORTALBA

Owner of Reg. No. 575,021.
For Hormonal and Antibiotic Pharmaceutical Preparation.
First use Jan. 18, 1956.

SN 9,013. Carl L. Apgar, Jr., d. b. a. Apgar's Pharmacy, Stamford, Conn. Filed May 25, 1956.

CITRACAPS

For Capsule for Treatment of the Common Cold.
First use Jan. 4, 1956.

SN 9,381. The Norwich Pharmacal Company, d. b. a. Eaton Laboratories, Norwich, N. Y. Filed May 31, 1956. Sec. 2(f) as to "Eaton."

For Antibacterial, Antiseptic, and Antimicrobial Preparations for Medicinal Use.
First use July 15, 1954, on antibacterial preparations.

SN 14,156. Merck & Co., Inc., Rahway, N. J. Filed Aug. 17, 1956.

SUAVITIL

For Medicinal Compound for Use in the Treatment of Anxiety States and Other Emotional and Psychotic States.
First use Aug. 10, 1956.

SN 14,267. Olin Mathieson Chemical Corporation, New York, N. Y. Filed Aug. 20, 1956.

MOLOFAC

For Medicinal Preparation for Use in Treating Constipation, in Capsule and Liquid Form.
First use Aug. 6, 1956.

SN 14,294. Tablerock Laboratories, Inc., Greenville, S. C. Filed Aug. 20, 1956.

VITA-SQUEEZE

For Vitamin Solutions.
First use Aug. 11, 1956.

CLASS 19

VEHICLES

SN 9,499. Harry Schwartz, New York, N. Y. Filed June 1, 1956.

No claim is made to the word "Bag" apart from the mark shown.
For Umbrella Holding Bag for Automobiles.
First use March 1956.

SN 13,178. Societe Industrielle de Mecanique et Carrosserie Automobile, Paris, France. Filed July 31, 1956.

SIMCA

For Automobiles.
First use Nov. 8, 1934.

SN 13,844. Huckins Yacht Corporation, Jacksonville, Fla. Filed Aug. 13, 1956.

FAIRFORM FLYER

For Yachts and/or Vessels or Boats.
First use on or about Aug. 28, 1928.

SN 13,911. Harry A. Esborg, d. b. a. Hollywood Boat and Motor Co., Tacoma, Wash. Filed Aug. 14, 1956.

HOLLYWOOD

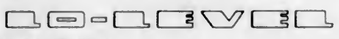
For Boats.
First use April 1946.

SN 14,237. Ford Motor Company, Dearborn, Mich. Filed Aug. 20, 1956.

ROUNDUP

For Automobiles.
First use July 18, 1956.

SN 14,298. Trailmobile Inc., Cincinnati, Ohio. Filed Aug. 20, 1956.



For Highway Trailers.
First use July 19, 1956.

SN 14,718. The Anderson Company, Gary, Ind. Filed Aug. 28, 1956.

ROCK-A-BYE

For Windshield Wiper Arms and/or Blade Assemblies.
First use Sept. 26, 1955.

SN 14,733. Defrosto Mirror and Supply Co. Inc., South Gate, Calif. Filed Aug. 28, 1956.

For Rear View Mirrors.
First use Mar. 25, 1950.

SN 14,922. Trailmobile, Inc., Cincinnati, Ohio. Filed Aug. 30, 1956.

For Highway Trailers.
First use Aug. 15, 1956.

SN 15,150. South Bend Tackle Company, Inc., South Bend, Ind. Filed Sept. 5, 1956.

E-Z TOTE

For Wheeled Carrier Attachment for Outboard Motors.
First use Aug. 20, 1956.

SN 15,363. Gyrodyne Company of America, Inc., St. James, N. Y. Filed Sept. 10, 1956.

ROTORCYCLE

For Rotary Wing Aircraft.
First use May 3, 1956.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

SN 674,173. Micro-Lite Co. Inc., New York, N. Y. Filed Oct. 1, 1954.

LUCKY LITE

For Novelty Flashlight.
First use Feb. 1, 1953.

SN 14,109. United States Rubber Company, New York, N. Y. Filed Aug. 16, 1956.

SENTINEL

For Battery Separators.
First use Feb. 14, 1956.

SN 14,720. Babcock Relays, Inc., Van Nuys, Calif. Filed Aug. 28, 1956.

RELISTOR

For Electrical Relays.
First use Aug. 23, 1956.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

SN 694,011. Sifo Company, St. Paul, Minn. Filed Aug. 31, 1955.

The exclusive use of the word "Duck" apart from the mark is disclaimed.
For Play Toy Duck Roller.
First use Feb. 18, 1955.

SN 699,437. Sunset Line & Twine Co., Petaluma, Calif. Filed Dec. 5, 1955.

AJAX

For Fishing Lines.
First use Dec. 29, 1951.

SN 7,639. Sportsman's Golf Corporation, Chicago, Ill. Filed May 3, 1956.

For Golf Clubs.
First use June 30, 1950.

SN 7,640. Sportsman's Golf Corporation, Chicago, Ill. Filed May 3, 1956.

For Golf Clubs.
First use June 30, 1948.

SN 9,196. J. Swedlin Inc., d. b. a. Gund, New York, N. Y. Filed May 28, 1956.

For Stuffed Toys in Simulation of Animals.
First use Feb. 16, 1956.

SN 9,825. J. Swedlin Inc., d. b. a. Gund, New York, N. Y. Filed June 7, 1956.

For Stuffed Toys in Simulation of Animals.
First use Apr. 10, 1956.

SN 9,826. J. Swedlin Inc., d. b. a. Gund, New York, N. Y. Filed June 7, 1956.

For Stuffed Toys in Simulation of Animals.
First use Apr. 17, 1956.

SN 10,068. Clifford R. Arnold, d. b. a. Arnold Health Equipment Company, New York, N. Y. Filed June 12, 1956.

CHAMPION

For Rowing Machines Used for Exercising, Muscular Rehabilitation, and the Like.
First use in or about October 1951.

SN 10,070. Clifford R. Arnold, d. b. a. Arnold Health Equipment Company, New York, N. Y. Filed June 12, 1956.

STREAMLINER

For Stationary Exercising Machines Ridden Like a Bicycle and Used for Muscular Development and the Like.
First use in or about February 1949.

SN 10,765. Robert Flaska, Melrose Park, Ill. Filed June 22, 1956.

POLKA DOT

For Spinner Type Fishing Lures.
First use Aug. 16, 1955.

SN 12,465. Stowe-Woodward, Inc., d. b. a. Ebonite Company, Newton Upper Falls, Mass. Filed July 19, 1956.

TORNADO

For Bowling Balls.
First use on about Mar. 10, 1956.

SN 12,539. South Bend Tackle Company, Inc., South Bend, Ind. Filed July 20, 1956.

COMMANDO

For Braided Casting-Trolling Line.
First use July 11, 1956.

SN 12,823. Louis Marx & Company, Inc., New York, N. Y. Filed July 25, 1956.

CAPTAIN KIDD

For Figure Toys and Accessories, Including Treasure Chests, Maps, Lamps, and Simulated Trees.
First use May 22, 1956.

SN 13,715. The Akwell Corporation, Dover, Del. Filed Aug. 9, 1956.

CARNIVAL

For Toy Balloons.
First use June 21, 1948.

SN 13,737. Davega Stores Corporation, New York, N. Y. Filed Aug. 10, 1956.

ICE QUEEN

For Ice Skates.
First use Sept. 22, 1950.

SN 13,992. Thomas C. Martin, d. b. a. T. C. Martin Company, Boston, Mass. Filed Aug. 15, 1956.

Lippy

For Plastic Ducks and Other Water Fowl in Caricature Form.
First use July 1, 1947.

SN 14,530. Cameo Doll Products Co. Inc., Port Allegany, Pa. Filed Aug. 24, 1956.

CHAMP

For Dolls.
First use October 1942.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

SN 725. American Iron & Machine Works Company, Inc., Oklahoma City, Okla. Filed Jan. 16, 1956. Sec. 2(f).

OPEN HOLE

For Tool Joints and Drill Pipe.
First use Oct. 28, 1949.

SN 1,500. American-Marietta Company, Chicago, Ill. Filed Jan. 26, 1956.

A-MOLE

For Prefabricated Arcuate Shield Used as an Advance Unit in Tunnel Construction for the Laying of Concrete Pipe.
First use on or about July 12, 1955.

SN 4,060. Polaris Industries, Inc., Roseau, Minn. Filed Mar. 7, 1956.

POLARIS

For Straw Cutters and Spreaders, Grain Blowers, and Grain Elevators.
First use July 15, 1949.

SN 15,605. Krämer & Grebe K. G., Wallau/Lahn, Germany. Filed Sept. 13, 1956.

CUTMIX

For Machines for Working Up Meat, Machines for Bakers and Pastry-Cooks, Breaking-Up Machines for Chemical and Pharmaceutical Industries.
First use Mar. 18, 1955; in commerce Mar. 18, 1955.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

SN 230. Baird Associates, Inc., Cambridge, Mass. Filed Jan. 6, 1956.

SPECTROMET

Owner of Reg. No. 612,506.
For Spectrographic Equipment and Spectrometers.
First use Oct. 7, 1954.

SN 5,215. Ernst Leitz, G. m. b. H., Wetzlar/Lahn, Germany. Filed Mar. 26, 1956.

TRINOVID

Owner of German Reg. No. 670,204, dated Jan. 24, 1955.
For Telescopes.

SN 6,654. Svenska Aktieholaget Gasaccumulator, Stockholm-Lidingo, Sweden. Filed Apr. 18, 1956.

AGA Geodimeter

Owner of Reg. No. 614,798.
For Distance Measuring Instrumenta.
First use in September 1953; Nov. 24, 1948, as to "Geodimeter"; in commerce Feb. 26, 1956.

SN 9,990. Kimble Glass Company, Toledo, Ohio. Filed June 11, 1956.

HEMEX

For Blood Diluting Pipettes.
First use Apr. 27, 1956.

SN 11,253. Harnischfeger Corporation, Milwaukee, Wis. Filed June 29, 1956.

HOOK-A-WEIGH

For Crane Scales.
First use June 21, 1956.

SN 11,632. Wilbur F. Stump, d. b. a. Elkhart Controls Co., Elkhart, Ind. Filed July 5, 1956.

ELTEMP

For Thermostats, and Particularly for Thermostats Adapted To Be Immersed in Liquid.
First use Aug. 13, 1955.

SN 12,248. Artcraft Optical Company, Inc., Rochester, N. Y. Filed July 17, 1956.

HOLIDAY

For Ophthalmic Mountings and Parts Thereof.
First use June 18, 1948.

SN 12,885. General Aniline & Film Corporation, New York, N. Y. Filed July 26, 1956.

POLYLITH

For Light-Sensitive Photographic Materials—Namely, Film and Paper.
First use June 7, 1956.

SN 12,928. American Machine and Metals, Inc., Sellersville, Pa. Filed July 27, 1956.

SUPERTHERM

For Indicating Thermometers.
First use May 31, 1956.

SN 12,939. Daisy Manufacturing Company, Plymouth, Mich. Filed July 27, 1956.

EAGLE EYE

For Telescopic Gun Sights.
First use Jan. 17, 1956.

SN 13,369. Ilford, Limited, Ilford, Essex, England. Filed Aug. 3, 1956.

INVERPOS

Owner of British Reg. No. 706,318, dated Apr. 8, 1952.
For Paper, Plates, and Films, All Being Sensitized Articles for Use in Photography.

SN 13,460. Marchant Calculators, Inc., Oakland, Calif. Filed Aug. 6, 1956.

twin/set

For Calculating Machines.
First use Apr. 11, 1956.

SN 13,461. Marchant Calculators, Inc., Oakland, Calif. Filed Aug. 6, 1956.

DECI•MAGIC

For Calculating Machines.
First use June 29, 1956.

SN 13,526. Comptone Company, Ltd., New York, N. Y. Filed Aug. 7, 1956.

Duo-Matic

For Eye Glasses, Sun Glasses, Spectacles, Frames and Parts Thereof, Including Lenses.
First use July 12, 1956.

SN 13,575. Eugene Dietzgen Co., Chicago, Ill. Filed Aug. 8, 1956.

POLITEK

For Drawing Instruments—Namely, Drawing and Ruling Pens and Pencils, Drawing Compasses and Dividers, Ruling Guides, Measuring Scales, and Calculating Devices—Namely, Slide Rules.
First use on or about Jan. 1, 1955.

SN 13,633. Airguide Instrument Company, Chicago, Ill. Filed Aug. 9, 1956.

AIRGUIDE

Owner of Reg. No. 512,390.
For Compasses, Altimeters, and Speedometers.
First use Oct. 31, 1952.

SN 13,790. Unitronics, Inc., Ferguson, Mo. Filed Aug. 10, 1956.

EIFELITE

For Integrating Flashing Lamp for Making Photographic Exposures.
First use July 18, 1956.

SN 13,823. Eastman Kodak Company, Rochester, N. Y. Filed Aug. 13, 1956.

STARFLASH

For Photographic Cameras.
First use July 23, 1956.

CLASS 27

HOROLOGICAL INSTRUMENTS

SN 12,621. Gruen Industries, Inc., d. b. a. Gruen Watch Company, New York, N. Y. Filed July 23, 1956. Sec. 2(f).

AUTOWIND

Owner of Reg. Nos. 518,881 and 550,903.
For Watches.
First use Oct. 10, 1945.

SN 13,328. Waltham Watch Company, Waltham, Mass. Filed Aug. 2, 1956.

CENTURY

Owner of Reg. No. 18,101.
For Watch Cases and Watches.
First use Aug. 21, 1889.

SN 13,632. Airguide Instrument Company, Chicago, Ill. Filed Aug. 9, 1956.

AIRGUIDE

Owner of Reg. No. 512,390.
For Clocks.
First use Apr. 30, 1956.

SN 14,371. Uhrenfabrik Frey & Co., A. G., Blenne, Canton of Berne, Switzerland. Filed Aug. 21, 1956. Sec. 2(f).

FREY

For Watches and Parts of Watches.
First use January 1914; in commerce January 1914.

SN 14,448. Gruen Industries, Inc., d. b. a. Gruen Watch Company, New York, N. Y. Filed Aug. 23, 1956.

SUPER GRUEN POWER-PAK

Owner of Reg. Nos. 55,327 and 417,938.
For Watch Movements.
First use Aug. 9, 1956.

CLASS 29

BROOMS, BRUSHES, AND DUSTERS

SN 12,496. Colonial Brush Manufacturing Company, Inc., Boston, Mass. Filed July 20, 1956.

POLYSET

For Paint Brushes.
First use May 15, 1956.

SN 13,914. Hancock Corporation, Philadelphia, Pa. Filed Aug. 14, 1956.

SCROP

For Scrub Mops With Absorbent Material and Brush.
First use June 1, 1956.

SN 13,921. S. H. Kress and Company, New York, N. Y. Filed Aug. 14, 1956.

TAR-TER-REX

Owner of Reg. No. 340,673.
For Tooth Brushes.
First use Mar. 21, 1932.

SN 13,964. The Butcher Polish Company, Malden, Mass. Filed Aug. 15, 1956.

For Manually Operated Applicator for Applying Wax to Floors and for Scrubbing and Polishing Floors.
First use Mar. 15, 1956.

CLASS 31

FILTERS AND REFRIGERATORS

SN 12,353. Emporium Industries, Inc., Emporium, Pa. Filed July 18, 1956.

For Compression Refrigeration Machine for Making Ice in Cube and Other Forms.
First use on or about Dec. 1, 1955.

SN 16,989. Atlantic Perlite Company, Washington, D. C. Filed Oct. 5, 1956.

FLO-LITE

For Diaphanous Filtering Material—Namely, Perlite.
First use Sept. 4, 1956.

CLASS 32

FURNITURE AND UPHOLSTERY

SN 682,949. Magnetic Cards, Inc., Skokie, Ill. Filed Mar. 7, 1955.

THE CARD THAT WALKS

For Index Card Files and Component Parts Thereof Including the Index Cards.
First use October 1949.

SN 693,854. Sackner Products, Inc., Grand Rapids, Mich. Filed Aug. 29, 1955.

ANCHOR EDGE

For Edge Roll for Spring Structures.
First use on or about Aug. 1, 1954.

CLASS 35

BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

SN 13,940. United States Rubber Company, New York, N. Y. Filed Aug. 14, 1956.

WINTERIDE

For Rubber Tires for Vehicles.
First use Oct. 27, 1955.

SN 14,560. The B. F. Goodrich Company, Akron, Ohio. Filed Aug. 24, 1956.

HOOD

Owner of Reg. Nos. 125,292, 521,833, and others.
For Pneumatic Tires.
First use in about 1913.

SN 14,637. The Firestone Tire & Rubber Company, Akron, Ohio. Filed Aug. 27, 1956.

KEM-VULC

For Tire Repair Kits Containing Tire Repair Gum, Patches, and/or Patching Cement.
First use July 31, 1956.

SN 15,435. The General Tire & Rubber Company, Akron, Ohio. Filed Aug. 30, 1956.

DUAL 90

Owner of Reg. Nos. 355,697 and 355,698.
For Pneumatic Tires.
First use Aug. 10, 1956.

CLASS 37

PAPER AND STATIONERY

SN 673,505. Charmin Paper Mills, Inc., Green Bay, Wis. Filed Sept. 21, 1954.

babies your skin

For Paper Toilet and Facial Tissues.
First use June 10, 1953.

SN 11,234. Daniels Manufacturing Company, Rhinelander, Wis. Filed June 29, 1956.

DAN-D-SEAL

Owner of Reg. Nos. 247,345, 612,404, and others.
For Wrapping Papers for Food Products.
First use June 20, 1956.

SN 12,602. Joseph Dixon Crucible Company, Jersey City, N. J. Filed July 23, 1956.

"BIG MO"

For Lead Pencils.
First use November 1950.

SN 12,653. Neisner Brothers, Inc., Rochester, N. Y. Filed July 23, 1956.

LORD ROCHESTER

Owner of Reg. No. 259,687.
For Writing Paper and Envelopes.
First use at least as early as 1933.

SN 12,836. Pen-Vend Corporation, Clayton, Mo. Filed July 25, 1956.

PEN-VEND

For Writing Instruments—Namely, Ball-Point Pens.
First use on or before Nov. 30, 1955.

CLASS 38

PRINTS AND PUBLICATIONS

SN 10,776. The Hopp Press, Inc., New York, N. Y. Filed June 22, 1956.

PICTURAMA

For Illustrated Product Markers.
First use on or about Feb. 1, 1956.

SN 10,777. The Hopp Press, Inc., New York, N. Y. Filed June 22, 1956.

LOCATERS

For Product Markers.
First use on or about Apr. 3, 1956.

SN 10,893. Loew's Incorporated, Culver City, Calif. Filed June 25, 1956.

METROCOLOR

For Exposed and Developed Motion Picture Film.
First use June 8, 1956.

SN 13,663. Gardner Publications, Inc., Cincinnati, Ohio. Filed Aug. 9, 1956. Sec. 2(f).

products

finishing

Owner of Reg. No. 343,914.
For Monthly Publication.
First use Sept. 2, 1936.

SN 13,885. United Merchants and Manufacturers, Inc., New York, N. Y. Filed Aug. 13, 1956.

CON-TACT

Owner of Reg. Nos. 424,988, 630,599, and others.
For Vinyl Plastic Decorative Pre-Cut Appliqué Designs or Figures With a Pressure Sensitive Adhesive Backing for Use as Decorations on Walls, Furniture, Closets, and Accessories, Such as Place Mats, Trays, Waste Paper Baskets, Ice Buckets, and Bar and Bathroom Fixtures.
First use on or about May 1, 1956.

SN 14,094. Reeves Instrument Corporation, Mineola, N. Y. Filed Aug. 16, 1956.

Ricompanion

For Monthly Publication.
First use Nov. 20, 1952.

SN 14,158. Multi-Color Process Company, Tulsa, Okla. Filed Aug. 17, 1956.

Rubbercal

For Pressure-Sensitive Labels Having High Strength and Rubber-Like Qualities.
First use Mar. 27, 1956.

SN 14,573. National Publishing Company, Fort Lee, N. J. Filed Aug. 24, 1956.

CONTACT

For Biweekly Publication.
First use Nov. 11, 1934.

CLASS 39

CLOTHING

SN 690,848. Troy Shirt Makers Guild, Inc., Glens Falls, N. Y. Filed July 6, 1955.

TYLO

For Custom Made Outer Shirts With Collars Attached.
First use January 1949.

SN 9,475. Lubin-Weeker Co., Inc., New York, N. Y. Filed June 1, 1956. Sec. 2(f).

"MR. LONG"

Owner of Reg. No. 379,943.
For Men's Pajamas.
First use Jan. 2, 1938.

SN 9,564. Mid City Uniform Cap Company, Chicago, Ill. Filed June 4, 1956.

M C FORTY-FOUR

Owner of Reg. No. 544,871.
For Men's and Boys' Caps.
First use May 18, 1956.

SN 9,565. Mid City Uniform Cap Company, Chicago, Ill. Filed June 4, 1956.

M C ONE-FIFTY

Owner of Reg. No. 544,871.
For Men's and Boys' Caps.
First use May 18, 1956.

SN 11,136. Belk Stores Services, Inc., Charlotte, N. C. Filed June 28, 1956.

Rompinette

Owner of Reg. No. 539,536.
For Infants' and Children's Panties.
First use Apr. 18, 1956.

SN 11,285. Orange Knitting Mills, Inc., Orange, Va. Filed June 29, 1956.

REEL FIT

For Misses', Children's, and Women's Panties.
First use Mar. 22, 1956.

SN 11,739. Argo Knitting Mills, Inc., Schuylkill Haven, Pa. Filed July 9, 1956.

ART GUILD

For Boys' Polo Shirts and Children's Pajamas.
First use June 1954.

SN 12,094. The Joseph & Feiss Company, Cleveland, Ohio. Filed July 13, 1956.

BRANDYN HOUSE

For Men's Clothing—Namely, Suits, Topcoats, Overcoats, Sport Coats, and Slacks.
First use June 29, 1956.

SN 12,160. Daron, Inc., d. b. a. Sam's, Lynn, Mass. Filed July 16, 1956.

Town and Tweed

For Men's Suits, Coats, and Jackets.
First use Oct. 24, 1955.

SN 12,162. Day's Tailor-D Clothing, Inc., Tacoma, Wash. Filed July 16, 1956. Sec. 2(f).

TAILOR-D BY DAY'S

Owner of Reg. No. 249,724.
For Trousers and Jackets More Particularly Suited for Men's Wear.
First use Jan. 1, 1928.

SN 12,298. J. Schoeneman, Incorporated, Baltimore, Md. Filed July 17, 1956.

THOS. STUART

For Suits, Coats, Vests, and Trousers for Men.
First use May 15, 1956.

SN 12,345. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed July 18, 1956.

BAGHDAD

For Outer Shirts.
First use Apr. 12, 1956.

SN 12,579. Botany Brands, Inc., New York, N. Y. Filed July 23, 1956.

SLACK-TOP

For Men's Sport Jackets, Leisure Jackets, Casual Jackets.
First use June 20, 1956.

SN 12,782. Betty Ann Hats, Inc., Long Island City, N. Y. Filed July 25, 1956.

Swankaps

For Girls' and Boys' Caps.
First use July 17, 1956.

SN 12,808. Benjamin Gantman, d. b. a. Ganco, St. Paul, Minn. Filed July 25, 1956.

Nee-eez

For Clothing Such as Trousers With Built-In Knee Protectors.
First use June 1, 1956.

SN 12,870. Cuddle Bunny Co., Inc., New York, N. Y. Filed July 26, 1956.

CUDDLE BUNNY

For Women's Hats.
First use May 25, 1956.

SN 13,366. Gunther & Sharfman Inc., New York, N. Y. Filed Aug. 3, 1956.

LITTLE MISS MUFFET

For Children's, Juniors', and Misses' Knitted and Textile Undergarments—Namely, Bloomers, Union Suits, Nightgowns, Pajamas, Princess Slips.
First use May 10, 1933.

SN 14,257. Merrick Coats, Ltd., New York, N. Y. Filed Aug. 20, 1956.

Soft Cloud

For Ladies' Coats.
First use May 25, 1956.

SN 14,414. Silber Knitwear Corp., New York, N. Y. Filed Aug. 22, 1956.

Brunny

For Ladies' and Children's Sweaters.
First use Feb. 5, 1945.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

SN 10,528. D. B. Fuller & Co., Inc., New York, N. Y. Filed June 19, 1956.

SOIREE

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use Apr. 20, 1955.

SN 12,575. The Barbizon Corporation, New York, N. Y. Filed July 23, 1956.

FEATHAIRE

For Broadwoven Fabric Made of Cotton, Nylon and Other Synthetic Fibers, and Combinations Thereof.
First use May 2, 1956.

SN 14,154. Lofties Knitting Mills, Inc., Brooklyn, N. Y. Filed Aug. 17, 1956.

LOFTYLON

For Knitted Fabrics in the Piece of Wool, Worsted, Rayon, or Synthetic Fibres.
First use June 4, 1956.

SN 14,164. Old Bennington Weavers, Inc., Bennington, Vt. Filed Aug. 17, 1956. Sec. 2(f).

BENNINGTWEED

Owner of Reg. No. 548,865.
For Woolen Cloth Piece Goods.
First use June 3, 1948.

CLASS 45

SOFT DRINKS AND CARBONATED WATERS

SN 12,449. Narco, Inc., Chattanooga, Tenn. Filed July 19, 1956.

NARCO

For Flavoring Bases Used in the Manufacture of Carbonated Soft Drinks.
First use June 27, 1956.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

SN 668,188. Dr. August Oetker, Bielefeld, Germany. Filed June 14, 1954.

Owner of German Reg. No. 490,768, dated Jan. 22, 1937; and U. S. Reg. No. 336,156.
For Saccharine as a Food Additive; Food Flavorings in Solution, or in Extract or Powder, or Blended With Sugar; Sauces and Powders for Making Sauces; That Is, Sweet Milk Sauces and Fruit Sauces; Vanilla in Bars; Powdered and Vanilla Extract, Each for Food Purposes; Sugar With Added Food Color for Fruit Conservation; Gelatine Dessert Powder, Pudding Powder, Baking-Flour, Self-Rising Flours, and Cake Mixes; Herb Tea; Foodstuff Colors; Meat, Fish, Fruit, and Vegetable Preserves; Meat, Fish, and Fruit Jellies; Thickened Whey; Butter, Cheese; Coffee; Tea, Tea Preserves; Honey, Artificial Honey; Flour, Potato Starch; Sugar Caramel, Milk Sugar; Powders for Making Jellies; Yeast, Baking Powder.

SN 683,751. Carr-Consolidated Biscuit Company, by decree of court from trustees in bankruptcy of Carr-Consolidated Biscuit Company, Chicago, Ill. Filed Mar. 18, 1955.

Owner of Reg. Nos. 143,632, 576,560, and others.
For Bakery Products—Namely, Assortments of Cookies, Wafers, Biscuits, and Crackers.
First use Feb. 4, 1955; and Aug. 23, 1919, as to "Crackin' Good."

SN 684,813. The Dan Dee Pretzel and Potato Chip Company, Cleveland, Ohio. Filed Apr. 4, 1955.

DAN-DEE

Owner of Reg. Nos. 261,450, 556,966, and others.
For Bread Dough Products—Namely, Pretzels.
First use on or about August 1927.

SN 687,399. New England Confectionery Company, d. b. a. Lovell and Covel, Cambridge, Mass. Filed May 12, 1955.

V.I.P.

For Candy.
First use May 5, 1954.

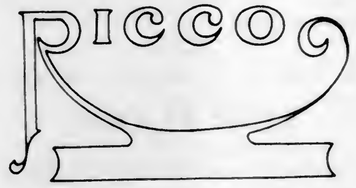
SN 691,555. Dixie Dairy Company, Gary, Ind. Filed July 19, 1955. Sec. 2(f).

Applicant disclaims the word "Milk" apart from the mark.
For Cottage Cheese, Butter, Fresh Eggs, and Fluid Milk.
First use July 1, 1948.

SN 693,532. D. A. K. Meat Packers Limited (Danske Andelsslagteriers Konservefabrik A. M. B. A.), Kobenhavnsvej, Roskilde, Denmark. Filed Aug. 23, 1955.

For Canned Ham.
First use June 1, 1935; in commerce Apr. 1, 1936.

SN 693,627. Antonio Riccobono, d. b. a. New Orleans Macaroni Mfg. Co.; Anna Signorelli Riccobono, executrix of said Antonio Riccobono, deceased, New Orleans, La. Filed Aug. 24, 1955.



For Cheese, Noodles, Macaroni, and Spaghetti Known as Vermicelli.
First use 1909.

SN 695,557. I. C. Moller, Inc., New York, N. Y. Filed Sept. 29, 1955.

DANISH CHAMP

The drawing is lined for red and blue, but no claim is made to any particular color.
For Canned Meats—Namely, Ham, Pork, and Veal.
First use June 30, 1955.

SN 695,988. Nathan's Famous, Inc., Brooklyn, N. Y. Filed Oct. 16, 1955.

Nathan's FAMOUS INC.

Owner of Reg. No. 542,188.
For Frozen Cooked Foods—Namely, Scallops, Shrimp, Haddock, Hamburgers, and Clam Chowder; and Jarred Mustard, Sweet Pickle Relish, Tartar Sauce, and Sea Food Cocktail Sauce.
First use June 15, 1955.

SN 698,692. Wilford L. Cook, d. b. a. W. L. Cook and Holiday House Foods, York, Pa. Filed Nov. 22, 1955.

Holiday House

For Potato Chips.
First use Sept. 12, 1955.

SN 698,797. Safeway Stores, Incorporated, Oakland, Calif. Filed Nov. 23, 1955.

PRIZE PAK

For Frozen Strawberries.
First use Feb. 10, 1955.

SN 700,767. Wallerstein Company, Inc., New York, N. Y. Filed Dec. 28, 1955.

KONDO

For Starch Composition Used as Dough Conditioner for Bakery Products.
First use Oct. 4, 1955.

SN 700,874. Otto Lippi, d. b. a. O. Lippi & Co., San Francisco, Calif. Filed Dec. 30, 1955. Sec. 2(f).

Applicant disclaims the word "Bananas" and the representation of the bananas apart from the mark shown.
For Fresh Bananas.
First use Feb. 4, 1948.

SN 2,056. Sardi's Restaurant Corporation, New York, N. Y. Filed Feb. 3, 1956.

SAUCE MAGIC

The word "Sauce" is disclaimed apart from the mark.
For Sauce Base.
First use on or about Oct. 12, 1955.

SN 3,281. Comstock Foods, Inc., Newark, N. Y. Filed Feb. 24, 1956. Sec. 2(f).

COMSTOCK

Owner of Reg. Nos. 400,708, 543,534, and others.
For Canned Apples, Canned Applesauce, and Fruit, Berry, and Vegetable Pie Mixes and Canned Vegetables.
First use Nov. 6, 1931, on canned apples.

SN 3,445. Mountain Foods, Inc., Seattle, Wash. Filed Feb. 27, 1956.

Gold Mountain

For Canned Fruits, Canned Vegetables, Canned Fruit Juices, Canned Fruit Nectars, Canned Berry Nectars, Canned Berries, Canned Vegetable Juices, Canned Soups, Canned Evaporated Milk, Canned Fish, Canned Spaghetti, Salad Dressings, Sandwich Spread, Salad Oil, Vegetable Shortening, and Margarine.
First use June 1, 1928, on canned vegetables.

SN 4,710. The Frenchette Co., New York, N. Y. Filed Mar. 16, 1956.

FLUORETS

For Chewing Gum and Candy Containing Sodium Fluoride.
First use Mar. 9, 1954.

SN 4,711. The Frenchette Co., New York, N. Y. Filed Mar. 16, 1956.

FLUORINETS

For Chewing Gum and Candy Containing Sodium Fluoride.
First use Mar. 9, 1956.

SN 5,034. Doodie Enterprises, Ltd., d. b. a. Goodie Pet Foods, Dorval Station, Quebec, Canada. Filed Mar. 22, 1956.

DOODIE

For Bird Foods.
First use Aug. 30, 1955; in commerce Feb. 15, 1956.

SN 9,059. F. G. Sharp & Co., Jamaica, British West Indies. Filed May 25, 1956.

The word "Fruit" and the representation of fruit are disclaimed.
For Fresh Citrus Fruits.
First use Jan. 10, 1939; in commerce Feb. 26, 1955.

SN 9,180. Sasson-King, Inc., Lakeland, Fla., to Acerola Processing Corporation, Sabana Seca, Toa Baja, Puerto Rico. Filed May 28, 1956.

CEROLA

For Canned Acerola Juice, Known Also as West Indian Cherry Juice, or Barbados Juice.
First use May 15, 1956.

SN 9,814. Produits Diana Inc., Diana Products Inc., Saint-Malo, Quebec, Canada. Filed June 7, 1956.

TOP-TOAST

Owner of Canadian Reg. No. 101,457, dated Sept. 23, 1955.
For Bread.

SN 11,914. The Crosse & Blackwell Company, Baltimore, Md. Filed July 11, 1956.

HOSPITAL PACK

Owner of Reg. No. 347,028.
For Frozen Citrus Juices, Canned Tomato Juice, Tomato Ketchup, Chili Sauce, Fruit Preserves, Jellies, Marmalade, Tomato Puree, Canned Tomatoes, Mincemeat, India Relish, and Canned Soup.
First use Dec. 31, 1936, on canned citrus juices.

SN 12,099. Leaf Brands, Inc., Chicago, Ill. Filed July 13, 1956.

SIX 6 LETS

Owner of Reg. No. 572,575.
For Candy.
First use Apr. 15, 1956.

SN 12,278. King Milling Company, Lowell, Mich. Filed July 17, 1956.

KING FLAKE

Owner of Reg. No. 515,976.
For Self-Rising Flour and Plain (Cake and Pastry) Flour.
First use July 7, 1953.

SN 12,308. E. M. Todd Company, Inc., Richmond, Va. Filed July 17, 1956. Sec. 2(f).

TODD'S

Owner of Reg. Nos. 134,063, 156,907, 276,019, and others.
For Cooked and Uncooked Ham, and Bacon.
First use 1800.

CLASS 47

WINES

SN 11,297. St. Charles Winery, Grapeview, Wash. Filed June 29, 1956.

ST. CHARLES

Owner of Reg. No. 342,423.
For Wines.
First use Nov. 2, 1933.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

SN 15,462. The Fleischmann Distilling Corporation, New York, N. Y. Filed Sept. 11, 1956.

WHITE TAVERN

Owner of Reg. No. 344,124.
For Vodka.
First use Apr. 10, 1956.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

SN 8,903. Dalmine S. p. A., Milan, Italy. Filed Apr. 30, 1956.

Owner of Italian Reg. No. 100,766, dated Feb. 16, 1951.
For Miscellaneous Goods Not Classified—Namely, Scaffolding.

SN 12,349. Henry B. Cowap, Evanston, Ill. Filed July 18, 1956.

KEPE NETE

For Wild Bird Feeders and Parts Therefor.
First use Nov. 17, 1952.

SN 12,434. L. M. Leathers' Sons, Athens, Ga. Filed July 19, 1956.

GRIPPO

Owner of Reg. No. 540,791.
For Garment Hanger Covers.
First use Nov. 1, 1955.

SN 13,983. Great Lakes Carbon Corporation, New York, N. Y. Filed Aug. 15, 1956.

SLEEV-A-DORE

For Fiberboard Pallets.
First use July 22, 1955.

SN 16,609. Leather Guild, Inc., New York, N. Y. Filed Sept. 28, 1956.

KERAZON

For Coated Fabrics in the Nature of Artificial Leather for Use in the Upholstering and Decorating Trades.
First use June 1, 1954.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

SN 679,821. Bronson Products Company of Chicago, Chicago, Ill. Filed Jan. 13, 1955.

Mam-Selle

For Perfume.
First use Apr. 26, 1954.

SN 694,083. The Nestle-Le Mur Company, New York, N. Y. Filed Sept. 1, 1955.

MAGIC NET

For Hair Dressing
First use Aug. 22, 1955.

SN 697,456. American Hospital Supply Corporation, Evanston, Ill. Filed Nov. 1, 1955. Sec. 2(f).

GRAY'S

For Baby Oil for Soothing Baby's Skin.
First use Nov. 30, 1935.

SN 700,335. Anatole Robbins, Inc., Hollywood, Calif. Filed Dec. 20, 1955.

at Last

For Lipsticks.
First use Nov. 28, 1955.

SN 1,378. Arthur Mendolia, d. b. a. Art Mendolia Associates, Santa Paula, Calif. Filed Jan. 24, 1956.

Riva

The word "Riva" is an Italian word meaning "seasbore" or "beach."
For Perfumes.
First use Apr. 11, 1955.

SN 3,946. Golden Peacock Co., Inc., Paris, Tenn. Filed Mar. 6, 1956.

TENDER TRAP

For Perfume.
First use Feb. 16, 1956.

SN 4,486. Skan Laboratories, Inc., Pasadena, Calif. Filed Mar. 13, 1956.

Beauty Drops

For Bath Oil.
First use Oct. 1, 1955.

SN 6,128. Old 97 Manufacturing Co., d. b. a. Marti Dare, Tampa, Fla. Filed Apr. 10, 1956.

ANTIGUA Royale

For Perfume, Cologne, Lipstick, Cosmetic Skin Lotion, Deodorant, Sachet, and Hand, Face, and Body Creams.
First use Feb. 4, 1956.

SN 6,372. Pilot Products Company, Salt Lake City, Utah. Filed Apr. 13, 1956.

VAPOR-MATIC

For Hair Waving Lotions.
First use Mar. 14, 1956.

CLASS 52

DETERGENTS AND SOAPS

SN 12,599. De Mert & Dougherty, Inc., Chicago, Ill. Filed July 23, 1956.

STERIFOME

For Surgical Soap.
First use on or about Apr. 13, 1956.

SN 12,810. Richard Hudnut, New York, N. Y. Filed July 25, 1956.

SEVEN WINDS

For Soap.
First use July 20, 1956.

SN 13,016. Britex Corporation, Boston, Mass. Filed July 30, 1956.

QUAT-O-BRITE

For Soluble Detergents Containing Quaternary Ammonium Compounds and Used as Cleaners, Sanitizers, Deodorants, and/or Disinfectants.
First use May 15, 1956.

SERVICE MARKS

CLASS 100

MISCELLANEOUS

SN 693,053. Sister Elizabeth Kenny Foundation Incorporated, Minneapolis, Minn. Filed Aug. 15, 1955. Sec. 2(f).

SISTER KENNY

For Financing and Operation of Treatment Centers in Various Locations Within the United States To Make the Full Treatment and Technique for Poliomyelitis Available to All Who Desire It Regardless of Race, Creed, or Ability To Pay; the Operation of Training Centers in Different Places Within the United States at Which Physicians and Properly Qualified Nurses and Physical Therapists Can Be Taught the Kenny Concept of Polio and Its Treatment Technique; the Provision of Facilities for Clinical Research Into the Causes and Cure of the Diseases; the Distribution to the General Public of Information Relative to the Kenny Concept and Treatment of Polio; the Provision of Assistance in Epidemic Areas When Requested by Local Authorities.
First use December 1942.

SN 693,054. Sister Elizabeth Kenny Foundation Incorporated, Minneapolis, Minn. Filed Aug. 15, 1955. Sec. 2(f).

SISTER ELIZABETH KENNY

For Financing and Operation of Treatment Centers in Various Locations Within the United States To Make the Full Treatment and Technique for Poliomyelitis Available to All Who Desire It Regardless of Race, Creed, or Ability To Pay; the Operation of Training Centers in Different Places Within the United States at Which Physicians and Properly Qualified Nurses and Physical Therapists Can Be Taught the Kenny Concept of Polio and Its Treatment Technique; the Provision of Facilities for Clinical Research Into the Causes and Cure of the Diseases; the Distribution to the General Public of Information Relative to the Kenny Concept and Treatment of Polio; the Provision of Assistance in Epidemic Areas When Requested by Local Authorities.
First use December 1942.

SN 697,419. Slenderella Systems, Inc., d. b. a. Slenderella International, Stamford, Conn. Filed Oct. 31, 1955.

slenderella

Owner of Reg. Nos. 386,714 and 598,021.
For Posture Correction and Slenderizing Service.
First use on or before Mar. 22, 1955.

CLASS 101

ADVERTISING AND BUSINESS

SN 691,958. The Postlethwaite Company, Inc., Kansas City, Mo. Filed July 26, 1955.

Get Acquainted

For Formulation and Preparing for Others of Advertising Copy and Placing Such Copy in Various Advertising Media.
First use Sept. 3, 1931.

SN 698,438. Russell Kelly Office Service, Inc., Detroit, Mich. Filed Nov. 17, 1955.

For Secretarial, Clerical, and Business Machine Services, Operators for Bookkeeping Machines and Employment Services Involving the Furnishing of Temporary Office Help.
First use July 1, 1955.

CLASS 103

CONSTRUCTION AND REPAIR

SN 652,862. Keystone File Sharpening Co., Los Angeles, Calif. Filed Sept. 8, 1953. Sec. 2(f).

The expression "No Acid Used We Grind 'Em" is disclaimed apart from the mark.
For Resharpening of Files.
First use prior to Apr. 1, 1948.

CLASS 105

TRANSPORTATION AND STORAGE

SN 7,420. Durell M. Carothers, Houston, Tex. Filed May 1, 1956.

No claim is made to the words "This Is an Auto Park" apart from the mark as shown.
For Vehicle Parking.
First use Dec. 1, 1931.

CLASS 107

EDUCATION AND ENTERTAINMENT

SN 304. Archdiocese of Philadelphia, d. b. a. Catholic Information Center, Philadelphia, Pa. Filed Jan. 9, 1956.

The Latin words "Unitas in Veritate" are translated as "Unity in Truth."
For Educational Services—Namely, Supplying Information and Instruction Concerning the Roman Catholic Religion.
First use Oct. 16, 1954.

COLLECTIVE MEMBERSHIP MARKS

CLASS 200

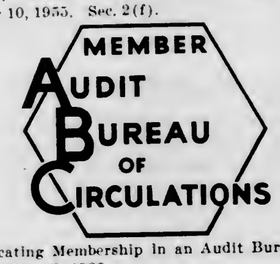
SN 676,311. Fraternal Order of Police, Philadelphia, Pa. Filed Nov. 9, 1954.

An English translation of the Latin words "Jus," "Fidus," and "Libertatum" is, respectively, "law," "faith," and "liberty." Owner of Reg. No. 568,983.
For Indicating Membership in a National Order of Police Officers.
First use 1915.

SN 687,172. Audit Bureau of Circulations, Chicago, Ill. Filed May 10, 1955.

For Indicating Membership in an Audit Bureau.
First use Apr. 16, 1938.

SN 687,173. Audit Bureau of Circulations, Chicago, Ill. Filed May 10, 1955. Sec. 2(f).



For Indicating Membership in an Audit Bureau.
First use Mar. 16, 1928.

TRADEMARK REGISTRATIONS ISSUED

PRINCIPAL REGISTER

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

640,816. FIBERBOND. Fiber Bond Corporation. SN 684,298. Pub. 11–20–56. Filed 3–28–55.

640,817. DYLEX. Koppers Company, Inc. SN 684,436. Pub. 11–20–56. Filed 3–29–55.

640,818. CHICK-RED. Aquafil Company. SN 692,998. Pub. 11–20–56. Filed 8–15–55.

640,819. MARENA. Carl Freudenberg Kommanditgesellschaft Auf Aktien. SN 693,418. Pub. 11–20–56. Filed 8–18–55.

640,820. DARLAN. The B. F. Goodrich Company, d. b. a. B. F. Goodrich Chemical Co., a division of The B. F. Goodrich Company. SN 695,913. Pub. 11–20–56. Filed 10–5–55.

640,821. CRISS CROSS SIXTY ETC. AND DESIGN. Henry J. Hansen. SN 696,439. Pub. 11–20–56. Filed 10–14–55.

640,822. PINEY FORK. Pittsburgh Consolidation Coal Company. SN 697,398. Pub. 11–20–56. Filed 10–31–55.

640,823. CONSOL HANNA BRADFORD AND DESIGN. Pittsburgh Consolidation Coal Company. SN 697,399. Pub. 11–20–56. Filed 10–31–55.

640,824. CONSOL HANNA DUN GLEN AND DESIGN. Pittsburgh Consolidation Coal Company. SN 697,400. Pub. 11–20–56. Filed 10–31–55.

640,825. H CONSOL ETC. AND DESIGN. Pittsburgh Consolidation Coal Company. SN 697,401. Pub. 11–20–56. Filed 10–31–55.

640,826. CONSOL HANNA GLEN CASTLE AND DESIGN. Pittsburgh Consolidation Coal Company. SN 697,402. Pub. 11–20–56. Filed 10–31–55.

640,827. CROW HOLLOW. Pittsburgh Consolidation Coal Company. SN 697,403. Pub. 11–20–56. Filed 10–31–55.

640,828. GLEN CASTLE. Pittsburgh Consolidation Coal Company. SN 697,404. Pub. 11–20–56. Filed 10–31–55.

640,829. DUN GLEN. Pittsburgh Consolidation Coal Company. SN 697,405. Pub. 11–20–56. Filed 10–31–55.

640,830. CONSOL HANNA WILLOW GROVE AND DESIGN. Pittsburgh Consolidation Coal Company. SN 697,407. Pub. 11–20–56. Filed 10–31–55.

640,831. WILLOW GROVE. Pittsburgh Consolidation Coal Company. SN 697,408. Pub. 11–20–56. Filed 10–31–55.

640,832. 20 MULE TEAM. Borax Consolidated, Limited, d. b. a. Pacific Coast Borax Co., Div. of Borax Consolidated, Limited, now by change of name Borax (Holdings) Limited, to United States Borax & Chemical Corporation. SN 700,780. Pub. 11–20–56. Filed 12–29–55.

640,833. DESIGN OF WAGONS AND MULES. Borax Consolidated, Limited, d. b. a. Pacific Coast Borax Co., Div. of Borax Consolidated, Limited, now by change of name Borax (Holdings) Limited, to United States Borax & Chemical Corporation. SN 189. Pub. 11–20–56. Filed 1–5–56.

640,834. CINEMOID. British Celanese Limited. SN 1,844. Pub. 11–20–56. Filed 2–1–56.

640,835. GRACARBON. Industrias Gracarbon, S. A. SN 4,721. Pub. 11–20–56. Filed 3–16–56.

640,836. LADCO BUBBLE BASE. L. A. Dreyfus Company. SN 5,087. Pub. 11–20–56. Filed 3–22–56.

640,837. EVENING DOVE. Good Bros. Leather Company. SN 5,770. Pub. 11–20–56. Filed 4–4–56.

640,838. GROVETAN. Garden State Tanning Inc. SN 8,401. Pub. 11–20–56. Filed 5–16–56.

640,839. PINEGLOVE. Garden State Tanning Inc. SN 8,403. Pub. 11–20–56. Filed 5–16–56.

640,840. TRICEL. British Celanese Limited. SN 8,620. Pub. 11–20–56. Filed 5–21–56.

640,841. STRIP-A-TUBE. Jessall Plastics, Incorporated. SN 9,271. Pub. 11–20–56. Filed 5–29–56.

CLASS 4

ABRASIVES AND POLISHING MATERIALS

640,842. DRAGON. Burnishine Products Co., d. b. a. J. C. Paul & Co. SN 8,115. Pub. 11–20–56. Filed 5–11–56.

640,843. ROUND-O-FACE. Merit Products, Inc. SN 8,247. Pub. 11–20–56. Filed 5–14–56.

CLASS 5

ADHESIVES

640,844. JOYNE. Kay See Dental Manufacturing Company, d. b. a. Kay See Mfg. Co. SN 688,940. Pub. 11–20–56. Filed 6–6–55.

640,845. "TALKING TAPE." Crown Zellerbach Corporation. SN 5,981. Pub. 11–20–56. Filed 4–9–56.

640,846. ROYALBOND GRIP AND DESIGN. L. C. S. Corporation, d. b. a. Royal Sales and Manufacturing Co. SN 7,811. Pub. 11–20–56. Filed 5–7–56.

640,847. STIX-GRIP. Adhesive Products Corporation. SN 8,305. Pub. 11–20–56. Filed 5–15–56.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

640,848. METHO-NOX. Columbia Chemical Company, Inc. SN 648,841. Pub. 10–12–54. Filed 6–16–53.

640,849. S-7 WITHIN SHIELD DESIGN. Dorothy Perkins Company, d. b. a. Miller Products Company, to Merrell Laboratory, Inc. SN 651,560. Pub. 11–2–54. Filed 7–13–53.

640,850. ACETYLENE CC CHEMICALS AND DESIGN. Acetylene Chemicals Company. SN 671,007. Pub. 11–20–56. Filed 8–3–54.

640,851. PHILCURE. Phillips Petroleum Company. SN 672,437. Pub. 11–20–56. Filed 8–30–54.

640,852. TEX-GAS. Tex-Gas, Inc. SN 686,929. Pub. 11–20–56. Filed 5–5–55.

640,853. PREPAKT. Intrusion-Prepakt, Incorporated. SN 689,846. Pub. 11–20–56. Filed 6–20–55.

640,854. VESPRAY. Vestal Laboratories, Inc. SN 695,457. Pub. 11–20–56. Filed 9–27–55.

640,855. TORCH BLACK AND DESIGN. The L. Martin Company, to Columbian Carbon Company. SN 700,474. Pub. 11–20–56. Filed 12–22–55.

640,856. NOTT'S. Nott Manufacturing Co., Inc. SN 700,524. Pub. 11–20–56. Filed 12–23–55.

640,857. NOTT'S. Nott Manufacturing Co., Inc. SN 700,525. Pub. 11–20–56. Filed 12–23–55.

640,858. FLOTE. Wyandotte Chemicals Corporation. SN 395. Pub. 11–20–56. Filed 1–9–56.

640,859. CONTROLOID. Mud Control Laboratories, Inc. SN 902. Pub. 11–20–56. Filed 1–17–56.

640,860. SPORDEX. American Sterilizer Company. SN 2,064. Pub. 11–20–56. Filed 2–6–56.

640,861. WILSON'S O. K. PLANT SPRAY. Andrew Wilson, Inc. SN 2,488. Pub. 11–20–56. Filed 2–27–56.

640,862. RED TOP. Marlowe Chemical Company. SN 2,795. Pub. 11–20–56. Filed 2–16–56.

640,863. DESIGN OF WALRUS. Olin Mathieson Chemical Corporation. SN 2,806. Pub. 11–20–56. Filed 2–16–56.

640,864. AWINC. Andrew Wilson, Inc. SN 3,501. Pub. 11–20–56. Filed 2–27–56.

640,865. SYL-MER. Dow Corning Corporation. SN 3,659. Pub. 11–20–56. Filed 3–1–56.

640,866. EUNAPHTOL. General Aniline & Film Corporation. SN 3,672. Pub. 11–20–56. Filed 3–1–56.

640,867. AKAUSTAN. General Aniline & Film Corporation. SN 3,673. Pub. 11–20–56. Filed 3–1–56.

640,868. CYMAC. American Cyanamid Company. SN 3,723. Pub. 11–20–56. Filed 3–2–56.

640,869. CYMEL. American Cyanamid Company. SN 3,724. Pub. 11–20–56. Filed 3–2–56.

640,870. MICROBACIDE. Gerald Goodman. SN 3,748. Pub. 11–20–56. Filed 3–2–56.

640,871. SKOTCH KOOLER. The Hamilton Metal Products Company. SN 6,001. Pub. 11–20–56. Filed 4–9–56.

640,872. DURAPEL. J. M. Huber Corporation. SN 6,333. Pub. 11–20–56. Filed 4–13–56.

640,873. AUNT SALLY'S. Valmor Products Co. SN 6,656. Pub. 11–20–56. Filed 4–18–56.

640,874. DOWPON. The Dow Chemical Company. SN 6,695. Pub. 11–20–56. Filed 4–19–56.

640,875. RADAPON. The Dow Chemical Company. SN 6,696. Pub. 11–20–56. Filed 4–19–56.

640,876. REDDON. The Dow Chemical Company. SN 6,697. Pub. 11–20–56. Filed 4–19–56.

640,877. SERAFUME. The Dow Chemical Company. SN 6,698. Pub. 11–20–56. Filed 4–19–56.

640,878. DYNE. West Disinfecting Company. SN 6,883. Pub. 11–20–56. Filed 4–20–56.

640,879. LECTRO "60." National Lead Company. SN 7,104. Pub. 11–20–56. Filed 4–25–56.

640,880. DYPOL. The Sherwin-Williams Company. SN 7,119. Pub. 11–20–56. Filed 4–25–56.

640,881. HAPPY. Happy Products Co. SN 7,345. Pub. 11–20–56. Filed 4–30–56.

640,882. VALTEX. Interchemical Corporation. SN 7,599. Pub. 11–20–56. Filed 5–3–56.

640,883. DESIGN OF CHEVRON. Standard Oil Company of California. SN 12,853. Pub. 11–20–56. Filed 8–14–56.

CLASS 9

EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES

640,884. BALL POWDER. Olin Industries, Inc., now by merger and change of name Olin Mathieson Chemical Corporation. SN 659,003. Pub 11–20–56. Filed 1–5–54.

CLASS 10

FERTILIZERS

640,885. GRO-WELL. J. & L. Adikes, Inc. SN 7,993. Pub. 11–20–56. Filed 5–9–56.

CLASS 12

CONSTRUCTION MATERIALS

640,886. SEAPORCEL. Seaporcel Metals, Inc. SN 700,534. Pub. 11–20–56. Filed 12–23–55.

640,887. REYCONOWALL. Reynolds Metals Company. SN 5,134. Pub. 11–20–56. Filed 3–23–56.

640,888. REDLAM. Astoria Marine Construction Company, d. b. a. Astoria Manufacturing Co. SN 5,968. Pub. 11–20–56. Filed 4–9–56.

640,889. BEMISWALL. Bemis Bro. Bag Company. SN 7,233. Pub. 11–20–56. Filed 4–27–56.

640,890. BORD-A-BLOX. Howard Roy Scott and Wallace A. Scott, d. b. a. Bord-A-Blox Company. SN 7,234. Pub. 11–20–56. Filed 4–27–56.

640,891. BRYTANEAL. Solar Aircraft Company. SN 7,284. Pub. 11–20–56. Filed 4–27–56.

640,892. FOAMFLEX. Smith Manufacturing Company Limited. SN 7,388. Pub. 11–20–56. Filed 4–30–56.

CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

640,893. SPENCE AND DESIGN. Spence Engineering Company, Inc. SN 689,312. Pub. 11–20–56. Filed 6–10–55.

640,894. LED-LOK. Safety Socket Screw Company. SN 700,481. Pub. 11–20–56. Filed 12–22–55.

640,895. SEAL-O-MATIC. Radiator Specialty Company. SN 700,834. Pub. 11–20–56. Filed 12–15–55.

640,896. AMERICAN. United States Steel Corporation. SN 7,296. Pub. 11–20–56. Filed 4–27–56.

640,897. EVEREDY SPEEDI-HEAT. The Everedy Company. SN 9,851. Pub. 11–20–56. Filed 6–8–56.

640,898. TUFF-BOY. International Plumbing Manufacturing Co., Inc. SN 9,918. Pub. 11–20–56. Filed 6–11–56.

640,899. SCREWDOLET. Bonney Forge & Tool Works. SN 9,939. Pub. 11–20–56. Filed 6–11–56.

640,900. CORRO-TUBE. Calumet & Hecla, Inc. SN 9,943. Pub. 11–20–56. Filed 6–11–56.

640,901. EVERZIP. Ideal Fastener Corporation. SN 9,985. Pub. 11–20–56. Filed 6–11–56.

640,902. DESIGN OF STAR. Officine Metallurgiche Sgarbi Chiozzi & C. SN 10,012. Pub. 11–20–56. Filed 6–11–56.

640,903. LOK-LINE. The Colorado Fuel and Iron Corporation. SN 10,137. Pub. 11–20–56. Filed 6–13–56.

640,904. FAMOUS CHEF. The Enterprise Aluminum Company. SN 10,150. Pub. 11–20–56. Filed 6–13–56.

640,905. FLEX-C-RING. Novelty Tool Co. SN 10,189. Pub. 11–20–56. Filed 6–13–56.

640,906. J AND DESIGN. Jenkins Bros. SN 10,321. Pub. 11–20–56. Filed 6–15–56.

640,907. EXTROSEAL. Mueller Co. SN 10,335. Pub. 11–20–56. Filed 6–15–56.

CLASS 15

OILS AND GREASES

640,908. GOPHER-PENN. Minnesota Farm Bureau Service Company. SN 698,063. Pub. 11–20–56. Filed 9–21–56.

640,909. GOPHER BOND. Minnesota Farm Bureau Service Company. SN 698,064. Pub. 11–20–56. Filed 9–21–56.

640,910. SAROM 99 AND DESIGN. S. A. R. O. M. Società Azionaria Raffinazione Olii Minerali. SN 699,597. Pub. Pub. 11–20–56. Filed 12–7–55.

640,911. REPRESENTATION OF CANDELABRUM AND VIEW OF JERUSALEM. "Menorah," Rubinstein Bros. SN 1,612. Pub. 11–20–56. Filed 1–27–56.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

640,912. CALIBRATED COLORS. Pratt & Lambert-Inc. SN 699,740. Pub. 11–20–56. Filed 12–9–55.

640,913. FRANKOTE. La France Manufacturing Co. SN 5,851. Pub. 11–20–56. Filed 4–5–56.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

640,914. MULTIBIOTIC. Heyden Chemical Corporation, to Multibiotics Corporation of America. SN 644,670. Pub. 11–20–56. Filed 4–3–53.

640,915. VERI-O-PAKE. General Electric Company. SN 669,110. Pub. 11–20–56. Filed 6–29–54.

640,916. FERMAGENE. Schenley Distillers, Inc. SN 669,919. Pub. 11–20–56. Filed 7–13–54.

640,917. ALGERIL. Farbenfabriken Bayer Aktiengesellschaft. SN 694,558. Pub. 5–29–56. Filed 9–13–55.

640,918. SUPER-GEL. The Norwich Pharmacal Company. SN 698,543. Pub. 11–20–56. Filed 11–18–55.

640,919. ALCAIN. C. H. Boehringer Sohn. SN 543. Pub. 11–20–56. Filed 1–12–56.

640,920. CENTALUN. C. H. Boehringer Sohn. SN 545. Pub. 11–20–56. Filed 1–12–56.

640,921. DETORMENT. C. H. Boehringer Sohn. SN 547. Pub. 11–20–56. Filed 1–12–56.

640,922. LONARID. C. H. Boehringer Sohn. SN 552. Pub. 11–20–56. Filed 1–12–56.

640,923. CARODONE. Carroll Chemical Company. SN 747. Pub. 10–16–56. Filed 1–16–56.

640,924. NUE. Alex B. Del Bueno, d. b. a. Dell & Holtz. SN 2,483. Pub. 11–20–56. Filed 2–2–56.

640,925. MOORMABOOST. Moorman Manufacturing Company. SN 3,444. Pub. 11–20–56. Filed 2–27–56.

640,926. SEBULYTIC. Foster-Milburn Company. SN 4,118. Pub. 11–20–56. Filed 3–8–56.

640,927. NOXID. H. M. S. Dixon, d. b. a. The Noxid Co. SN 4,306. Pub. 9–18–56. Filed 3–12–56.

640,928. CIROTYL. Parke, Davis & Company. SN 5,046. Pub. 11–20–56. Filed 3–22–56.

640,929. STEMETIL. Societe des Usines Chimiques Rhone-Poulenc. SN 6,137. Pub. 11–20–56. Filed 4–10–56.

640,930. POLYNIZED. Bristol Laboratories Inc. SN 7,479. Pub. 11–20–56. Filed 5–2–56.

640,931. CATRON. Lakeside Laboratories, Inc. SN 7,603. Pub. 11–20–56. Filed 5–3–56.

640,932. COMPAZINE. Smith Kline & French Laboratories. SN 8,717. Pub. 11–20–56. Filed 5–21–56.

640,933. DESIGN OF CHEVRON. Standard Oil Company of California. SN 11,450. Pub. 11–20–56. Filed 7–13–56.

CLASS 19

VEHICLES

640,934. GOLIATH. Goliath-Werk G. m. b. H. SN 9,142. Pub. 11–20–56. Filed 5–28–56.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

640,935. BASEBALL. The Antenna Specialists Company. SN 683,954. Pub. 11–20–56. Filed 3–22–55.

640,936. MINIFORMER. Gramer-Halldorson Transformer Corporation. SN 687,281. Pub. 11–20–56. Filed 5–11–55.

640,937. RESISTRON. Bourns Laboratories, Inc. SN 691,002. Pub. 11–20–56. Filed 7–11–55.

640,938. DUAL. Gebrüder Steidinger, Kommanditgesellschaft. SN 691,720. Pub. 10–16–56. Filed 7–21–55.

640,939. PACSOL AND DESIGN. Pacific Solenoids, Inc. SN 697,695. Pub. 11–20–56. Filed 11–4–55.

640,940. BALANCED FOOD. Balanced Foods, Inc. SN 697,751. Pub. 11–20–56. Filed 11–7–55.

640,941. EXTRACT-ALL. Balanced Foods, Inc., d. b. a. Extract-All Co. SN 697,752. Pub. 11–20–56. Filed 11–7–55.

640,942. WONDER BAR. General Motors Corporation. SN 698,349. Pub. 11–20–56. Filed 11–16–55.

640,943. USCOR. United States Rubber Co. SN 698,384. Pub. 11–20–56. Filed 11–16–55.

640,944. DOMINO. Integra AG. Zurich Industrietechnische Gesellschaft. SN 698,433. Pub. 11–20–56. Filed 11–17–55.

640,945. PERMA-TORQ. Cambridge Thermionic Corporation. SN 699,058. Pub. 11–20–56. Filed 11–29–55.

640,946. KRIM-KOLATOR. Krim-Ko Corporation. SN 699,082. Pub. 11–20–56. Filed 11–29–55.

640,947. UNILOK. Burndy Engineering Company, Inc. SN 699,361. Pub. 11–20–56. Filed 12–5–55.

640,948. ELECTRIC DOORMAN AND DESIGN. Electric Power Door Company, Inc. SN 699,962. Pub. 11–20–56. Filed 12–14–55.

640,949. INTEGRA. Integra AG. Zürich Industrietechnische Gesellschaft. SN 700,455. Pub. 11–20–56. Filed 12–22–55.

640,950. GRAMPIAN. Reeves Equipment Corporation. SN 700,653. Pub. 11–20–56. Filed 12–27–55.

640,951. KATON AND DESIGN. Kord Manufacturing Co., Inc. SN 700,795. Pub. 11–20–56. Filed 12–29–55.

640,952. PICKERING. Pickering Associates, Inc. SN 440. Pub. 11–20–56. Filed 1–10–56.

640,953. PC IN CIRCLE. Pickering Associates, Inc. SN 441. Pub. 11–20–56. Filed 1–10–56.

640,954. FLUXVALVE. Pickering Associates, Inc. SN 442. Pub. 11–20–56. Filed 1–10–56.

640,955. TELEDATA. Commercial Controls Corporation. SN 574. Pub. 11–20–56. Filed 1–12–56.

640,956. CAMTRONIC. Fred A. Niles Productions, Inc. SN 1,263. Pub. 11–20–56. Filed 1–23–56.

640,957. KOURTESY KONTROL. Kourtesy Kontrol Co. SN 2,363. Pub. 11–20–56. Filed 2–9–56.

640,958. AUTOMATALITE. Carpenter Manufacturing Company. SN 2,499. Pub. 11–20–56. Filed 2–13–56.

640,959. TEL-O-AID. Gerhard Richard Fisher. SN 2,518. Pub. 11–20–56. Filed 2–13–56.

640,960. MOBILECT. Socony Mobil Oil Company, Inc. SN 2,921. Pub. 11–20–56. Filed 2–17–56.

640,961. PANASONIC. Matsushita Denki Sangyo Kabushiki Kaisha. SN 3,002. Pub. 11–20–56. Filed 2–20–56.

640,962. TWECO-LITE. Tweco Producta Company. SN 6,484. Pub. 11–20–56. Filed 4–16–56.

640,963. ALLEN RO-TANA. Allen Ro-Tana Company. SN 9,591. Pub. 11–20–56. Filed 6–4–56.

640,964. PERMA-DURE. Phelps Dodge Copper Products Corporation. SN 9,738. Pub. 11–20–56. Filed 6–6–56.

640,965. FOAMFLEX. Phelps Dodge Copper Products Corporation. SN 9,740. Pub. 11–20–56. Filed 6–6–56.

640,966. TRU-CHARGE. Allen Electric and Equipment Company. SN 9,923. Pub. 11–20–56. Filed 6–11–56.

640,967. ZEPHYR. Trio Manufacturing Co. SN 10,040. Pub. 11–20–56. Filed 6–11–56.

640,968. ZEPHYR ROYAL. Trio Manufacturing Co. SN 10,041. Pub. 11–20–56. Filed 6–11–56.

640,969. MEMOPLAY. Radio Corporation of America. SN 10,104. Pub. 11–20–56. Filed 6–12–56.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

640,970. HOLLYWOOD GO. Parker Brothers, Inc. SN 673,121. Pub. 11–20–56. Filed 9–13–54.

640,971. "CHICAGO" GOLD MEDALIST. Chicago Roller Skate Company, to The Chicago Roller Skate Company. SN 680,660. Pub. 11–20–56. Filed 1–28–55.

640,972. BIG BRAIN. Louis Marx & Company, Inc. SN 6,735. Pub. 11–20–56. Filed 4–19–56.

640,973. TRICK SQUIRT. Bromo-Mint Co., Inc., d. b. a. Kenner Products Company. SN 6,897. Pub. 11–20–56. Filed 4–23–56.

640,974. MONEY BACK LURES. M. B. Lamar, Sr. SN 7,255. Pub. 11–20–56. Filed 4–27–56.

640,975. BUMPSEY. Chant and Allen Enterprises. SN 7,317. Pub. 11–20–56. Filed 4–30–56.

640,976. SKIRMISH. Bernard J. Koreen. SN 7,810. Pub. 11–20–56. Filed 5–7–56.

640,977. COL-R-TONE. J. Chein & Company. SN 8,055. Pub. 11–20–56. Filed 5–10–56.

640,978. TUDOR. Tudor Metal Products Corporation. SN 8,365. Pub. 11–20–56. Filed 5–15–56.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

640,979. REPRESENTATION OF SMALL MAN. Paul Kobler, d. b. a. Kobler Shaver Co. SN 663,921. Pub. 11–20–56. Filed 4–5–54.

640,980. ARROW AND DESIGN. Arrow Tools, Incorporated. SN 673,157. Pub. 11–20–56. Filed 9–14–54.

640,981. PENGUIN PETE. John Ahlbin and Sons, Incorporated. SN 680,171. Pub. 11–20–56. Filed 1–20–55.

640,982. REDDI CUP. S. & L. Sales Inc. SN 689,966. Pub. 9–18–56. Filed 6–21–55.

640,983. UNION MFG. CO. ETC. AND DESIGN. Union Manufacturing Company. SN 700,138. Pub. 11–20–56. Filed 12–16–55.

640,984. RENEWED. International Harvester Company. SN 700,456. Pub. 11–20–56. Filed 12–22–55.

640,985. SAYBROOK. R. Wallace & Sons Manufacturing Company. SN 700,917. Pub. 11–20–56. Filed 12–30–55.

640,986. CAVIMAT. Sepraton (New Jersey), Inc. SN 3,555. Pub. 11–20–56. Filed 2–28–56.

640,987. EGG QUEEN. Chore-Time Equipment, Inc. SN 5,027. Pub. 11–20–56. Filed 3–22–56.

640,988. GIBSON GIRL. Robins Industries Corp. SN 6,470. Pub. 11–20–56. Filed S. R. 4–16–56; am. P. R. 9–18–56.

640,989. JAKOPA. H. A. Astlett & Co. Inc. SN 7,964. Pub. 11–20–56. Filed 5–9–56.

640,990. CENTRA-POINT AND DESIGN. William H. Field Co., Inc. SN 7,972. Pub. 11–20–56. Filed 5–9–56.

640,991. SPRAYMATE. Airosprayer Company. SN 8,047. Pub. 11–20–56. Filed 5–10–56.

640,992. KM. Kent-Moore Organization, Inc. SN 8,081. Pub. 11–20–56. Filed 5–10–56.

640,993. SHORELINE. Oneida Ltd. SN 8,146. Pub. 11–20–56. Filed 5–11–56.

640,994. FEATHER ROD. Superior Scaffold Company. SN 8,279. Pub. 11–20–56. Filed 5–14–56.

640,995. DI-DRO. Floyd M. Williamson. SN 8,303. Pub. 11–20–56. Filed 5–14–56.

640,996. BUDDY JR. Wilson Jones Company. SN 8,304. Pub. 11–20–56. Filed 5–14–56.

640,997. DELMAR. Auto Electric & Service Corporation. SN 8,380. Pub. 11–20–56. Filed 5–16–56.

640,998. SCOTT-ATWATER. Scott-Atwater Manufacturing Company. SN 8,442. Pub. 11–20–56. Filed 5–16–56.

640,999. CULTI-STUBBLE TREADER. The Dunham Company. SN 8,638. Pub. 11–20–56. Filed 5–21–56.

641,000. THE LETTER R ENCLOSED WITHIN A STELLAR VARIANT DESIGN. Reed Roller Bit Company. SN 8,696. Pub. 11–20–56. Filed 5–21–56.

641,001. JONES. E. D. Jones and Sons Company. SN 8,777. Pub. 11–20–56. Filed 5–22–56.

641,002. KUNGSHOLM. R. Wallace & Sons Manufacturing Company. SN 9,210. Pub. 11–20–56. Filed 5–28–56.

641,003. HANGAR BOY. Roy H. Poorman, d. b. a. Poorman Aircraft Service. SN 9,391. Pub. 11–20–56. Filed 5–31–56.

641,004. GRIND-O-MIX. Raymond Wosmek. SN 9,419. Pub. 11–20–56. Filed 5–31–56.

641,005. K-MATIC AND DESIGN. Gardner-Denver Company. SN 9,915. Pub. 11–20–56. Filed 5–23–56.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

641,006. MASK-O-MATIC. Robertson Photo-Mechanix, Inc. SN 667,983. Pub. 11–20–56. Filed 6–9–54.

641,007. IMPERIAL GREY-REFLEX. Herbert George Company. SN 672,891. Pub. 11–20–56. Filed 9–8–54.

641,008. TAKCAL AND DESIGN. B & H Instrument Company, Incorporated. SN 678,505. Pub. 11–20–56. Filed 12–17–54.

641,009. MOTOR X-RAY. Heyer Industries Incorporated. SN 679,577. Pub. 11–20–56. Filed 1–7–55.

641,010. KIPRONAR. Carl Zeiss. SN 3,910. Pub. 11–13–56. Filed 3–5–56.

641,011. TELE-PANCHRO. Taylor, Taylor & Hobson Limited. SN 6,564. Pub. 11–20–56. Filed 4–17–56.

641,012. SPEED PANCHRO. Taylor, Taylor & Hobson Limited. SN 6,565. Pub. 11–20–56. Filed 4–17–56.

641,013. REGENT. The Brearley Company. SN 6,687. Pub. 11–20–56. Filed 4–19–56.

641,014. ASCORLIGHT. American Speedlight Corporation. SN 6,781. Pub. 11–20–56. Filed 4–20–56.

641,015. CONTOUR-O-SCOPE. Summit-Roberts Products, Inc. SN 7,391. Pub. 11–20–56. Filed 4–30–56.

641,016. KONO K. Kono Manufacturing Co. Inc. SN 7,512. Pub. 11–20–56. Filed 5–2–56.

641,017. KONO. Kono Manufacturing Co. Inc. SN 7,514. Pub. 11–20–56. Filed 5–2–56.

CLASS 28

JEWELRY AND PRECIOUS-METAL WARE

641,018. SNAP-IT. Glamour Jewelry Inc. SN 5,997. Pub. 11–20–56. Filed 4–9–56.

641,019. KCO AND DESIGN. The Kinney Company. SN 10,692. Pub. 11–20–56. Filed 6–21–56.

CLASS 30

CROCKERY, EARTHENWARE, AND PORCELAIN

641,020. ENCORE. Gladding, McBean & Co. SN 10,868. Pub. 11–20–56. Filed 6–25–56.

CLASS 31

FILTERS AND REFRIGERATORS

641,021. CHIP-FREEZE. Cold Corporation of America. SN 2,757. Pub. 11–20–56. Filed 2–16–56.

641,022. SELL-O-VISION ETC. AND DESIGN. Koch Refrigerators, Inc. SN 4,806. Pub. 11–20–56. Filed 3–19–56.

641,023. POLYMAX. The National Filter Media Corporation. SN 6,347. Pub. 11–20–56. Filed 4–13–56.

641,024. FREEZ-ETTE. Freezette Sales Corporation. SN 6,419. Pub. 11–20–56. Filed 4–16–56.

CLASS 32

FURNITURE AND UPHOLSTERY

641,025. HAGERTY MODERN. Hagerty Company. SN 3,938. Pub. 11–20–56. Filed 3–6–56.

641,026. BW AND DESIGN. The Basic-Witz Furniture Industries, Incorporated. SN 7,062. Pub. 11–20–56. Filed 4–25–56.

641,027. BLANKETUCK. Louis Elliott Frey. SN 12,173. Pub. 11–20–56. Filed 7–16–56.

CLASS 33

GLASSWARE

641,028. EKCO. Ekco Products Company. SN 10,305. Pub. 11–20–56. Filed 6–15–56.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

641,029. AGRI-QUIP. Agricultural Equipment Corp. SN 721. Pub. 11–20–56. Filed 1–16–56.

641,030. W AND DESIGN OF GLOBE AND TRIANGLE. Western Engineering and Manufacturing Co. SN 7,406. Pub. 11–20–56. Filed 4–30–56.

641,031. JANITROL. Surface Combustion Corporation. SN 9,824. Pub. 11–20–56. Filed 6–7–56.

641,032. ALDHEET. Ald, Inc. SN 10,276. Pub. 11–20–56. Filed 6–15–56.

CLASS 35

BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

641,033. JR AND DESIGN. Jordan-Rogers Company. SN 8,557. Pub. 11–20–56. Filed 5–18–56.

641,034. W. The McCandless Corporation. SN 9,375. Pub. 11–20–56. Filed 5–31–56.

CLASS 37

PAPER AND STATIONERY

641,035. CPS ROCKET SEAL. C P S Manufacturing Company. SN 680,521. Pub. 11–20–56. Filed 1–26–55.

641,036. TEMPO AND DESIGN. Vereinigte Papierwerke Schickedanz & Co. SN 684,986. Pub. 11–20–56. Filed 4–5–55.

641,037. ANCHOR. Wilson Jones Company. SN 695,479. Pub. 11–20–56. Filed 9–28–55.

641,038. CROSS. A. T. Cross Pencil Company. SN 695,702. Pub. 11–20–56. Filed 10–3–55.

641,039. SHADOW WEB. Wolf Brothers, Inc. SN 697,516. Pub. 11–20–56. Filed 11–1–55.

641,040. RIDGELO POLYEON ETC. AND DESIGN. Lowe Paper Company. SN 699,330. Pub. 11–20–56. Filed 12–2–55.

641,041. STEPONS AND DESIGN. Erick A. Hahn, d. b. a. E. & H. Sales Company. SN 2,632. Pub. 11–20–56. Filed 2–14–56.

641,042. SNAP-RITE. International Formprint Company. SN 3,939. Pub. 11–20–56. Filed 3–6–56.

641,043. KWIK-KLIK IRRESISTIBLE. Island Manufacturing Company. SN 4,456. Pub. 11–20–56. Filed 3–13–56.

641,044. SUPER-MARKER. A. Kimball Company. SN 6,527. Pub. 11–20–56. Filed 4–17–56.

641,045. POP-IN-DEX. Zellerbach Paper Company. SN 7,554. Pub. 11–20–56. Filed 5–2–56.

641,046. PURO-FLEX. Brown Company. SN 7,565. Pub. 11–20–56. Filed 5–3–56.

CLASS 38

PRINTS AND PUBLICATIONS

641,047. THE CONSTRUCTION SPECIFIER. The Construction Specifications Institute, Inc. SN 5,916. Pub. 11–20–56. Filed 4–6–56.

641,048. REVEREND. United Feature Syndicate, Inc. SN 6,304. Pub. 11–20–56. Filed 4–12–56.

CLASS 39

CLOTHING

641,049. SHAH-MERE. Icove & Young, Inc. SN 649,785. Pub. 11–20–56. Filed 7–3–53.

641,050. CELEBRITY. Palm Beach Company. SN 688,069. Pub. 11–20–56. Filed 5–23–55.

641,051. PARGO. E. J. Smith & Sons Company. SN 690,842. Pub. 11–13–56. Filed 7–6–55.

641,052. KARBON KOPY. Laura M. Roberson and Beverly F. Pike. SN 698,214. Pub. 11–20–56. Filed 11–14–55.

641,053. JAY ANDERSON. James Byrd Anderson, Jr. SN 699,760. Pub. 11–20–56. Filed 12–12–55.

641,054. NICKI MANN. Jean Andy Togs Co. SN 130. Pub. 11–20–56. Filed 1–4–56.

641,055. ALICE STUART. Jonathan Logan, Inc. SN 2,239. Pub. 11–20–56. Filed 2–7–56.

641,056. CLUB OXFORD. Piedmont Shirt Company. SN 4,227. Pub. 11–20–56. Filed 3–9–56.

641,057. LORD BERKLEIGH. Michael Berkowitz Co., Inc. SN 4,609. Pub. 11–20–56. Filed 3–15–56.

641,058. PILLOW-PAK. The Manhattan Shirt Company. SN 4,653. Pub. 11–20–56. Filed 3–15–56.

641,059. SANDY GORDON. Beryl Mills Inc. SN 4,934. Pub. 11–20–56. Filed 3–21–56.

641,060. BLUE ANCHOR. Blue Anchor, Inc. SN 4,939. Pub. 11–20–56. Filed 3–21–56.

641,061. WINTER HOUSE AND DESIGN. Top-O-Mart Clothes, Inc. SN 5,138. Pub. 11–20–56. Filed 3–23–56.

641,062. SHADOW LINE AND REPRESENTATION OF PENNANT LINED FOR PINK AND BLACK AND SLOGAN. Shadowline, Inc. SN 5,324. Pub. 11–20–56. Filed 3–27–56.

641,063. "EM BEE." Meyer Brothers. SN 5,934. Pub. 11–20–56. Filed 4–6–56.

641,064. CRANDON. Morris B. Sachs, Inc. SN 6,289. Pub. 11–20–56. Filed 4–12–56.

641,065. WONDERCUNA. Clover Knitting Mills, Inc. SN 6,405. Pub. 11–20–56. Filed 4–16–56.

641,066. PHEASANTWEED ETC. AND DESIGN. Leyton Sportswear Company. SN 6,733. Pub. 11–20–56. Filed 4–19–56.

641,067. KID-SKIN. Lubin-Weeker Co., Inc. SN 7,201. Pub. 11–20–56. Filed 4–26–56.

641,068. KANRY-TEX. Wilson Rubber Company. SN 7,893. Pub. 11–20–56. Filed 5–7–56.

641,069. NU-TOP. Interwoven Stocking Company. SN 7,922. Pub. 11–20–56. Filed 5–8–56.

641,070. SARINA. Sarina D'Amato, d. b. a. Sarina Lingerie Co. SN 8,064. Pub. 11–20–56. Filed 5–10–56.

641,071. SPORTSCOT. Frank H. Kemper, d. b. a. Sportscot. SN 8,337. Pub. 11–20–56. Filed 5–15–56.

641,072. DREAMGLOW. Garland Knitting Mills. SN 8,544. Pub. 11–20–56. Filed 5–18–56.

641,073. JO COE. The Joseph Company. SN 8,855. Pub. 11–20–56. Filed 5–23–56.

641,074. RENEE FASHIONS AND DESIGN. Renee Fashions, Inc. SN 9,490. Pub. 11–20–56. Filed 6–1–56.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

641,075. LOOK FOR THE SILVER LINING. Deering, Milliken & Co., Inc. SN 630,924. Pub. 11–20–56. Filed 6–9–52.

641,076. SIMPSON'S. Wm Simpson, Sons & Co., Inc. SN 690,653. Pub. 11–20–56. Filed 7–1–55.

641,077. SHANTUNG SIRMIONE ETC. AND DESIGN. Bocchese Giuseppe & Figli S. A. S. SN 695,273. Pub. 11–20–56. Filed 9–26–55.

641,078. SHANTUNG GARDA ETC. AND DESIGN. Bocchese Giuseppe & Figli S. A. S. SN 695,274. Pub. 11–20–56. Filed 9–26–55.

641,079. SABRINA. Cotonificio Legler S. P. A. SN 695,614. Pub. 11–20–56. Filed 9–30–55.

641,080. PROBAN. Proban Limited. SN 697,836. Pub. 11–20–56. Filed 11–7–55.

641,081. AIREX. Lonza Electric and Chemical Works Ltd. SN 698,530. Pub. 11–20–56. Filed 11–18–55.

641,082. SPOTLIGHT. D. B. Fuller & Co., Inc. SN 700,861. Pub. 11–6–56. Filed 12–30–55.

641,083. PANAMAIRE. John B. Ellison & Sons Co., Ltd. SN 49. Pub. 11–20–56. Filed 1–3–56.

641,084. FW AND DESIGN. The Forster-Willi Co. SN 61. Pub. 11–20–56. Filed 1–3–56.

641,085. KARALEAU. Fielderest Mills, Inc. SN 2,235. Pub. 11–20–56. Filed 2–7–56.

641,086. ORNA VERUM AND DESIGN. Linton Tweeds Limited. SN 7,446. Pub. 11–20–56. Filed 5–1–56.

641,087. HADSON. Haddad & Sons, Inc. SN 7,797. Pub. 11–20–56. Filed 5–7–56.

641,088. INNERGLOW. Wamsutta Decorative Fabrics, Inc. SN 8,454. Pub. 11–20–56. Filed 5–16–56.

CLASS 43

THREAD AND YARN

641,089. NYLENE. Stephen H. Catron, d. b. a. Stephen H. Catron Co. SN 3,153. Pub. 11–20–56. Filed 2–23–56.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

641,090. PERMADENT. John Weber, d. b. a. Permadent Laboratories. SN 698,002. Pub. 11–20–56. Filed 11–9–55.

641,091. PHONOPHOR. Siemens & Halske Aktiengesellschaft. SN 6,296. Pub. 11–20–56. Filed 4–12–56.

641,092. AERO-MIST. National Medical Pumps & Specialties Corp. SN 6,492. Pub. 11–20–56. Filed 4–9–56.

641,093. AIRJET. John Oster Manufacturing Co. SN 7,833. Pub. 11–20–56. Filed 5–7–56.

641,094. BLOOD-PACK. Fenwal Laboratories, Inc. SN 8,212. Pub. 11–20–56. Filed 5–14–56.

641,095. STERISTAT. Omega Precision Medical Instrument Co., Inc. SN 8,435. Pub. 11–20–56. Filed 5–16–56.

641,096. SEALON. Sealon Products Company. SN 8,443. Pub. 11–20–56. Filed 5–16–56.

641,097. SEALON AND DESIGN. Sealon Products Company. SN 8,444. Pub. 11–20–56. Filed 5–16–56.

CLASS 45

SOFT DRINKS AND CARBONATED WATERS

641,098. FROTHEE. House of Frothee, Inc. SN 697,477. Pub. 11–20–56. Filed 11–1–55.

641,099. REALEMON. Realemon-Puritan Co. SN 698. Pub. 11–20–56. Filed 1–13–56.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

641,100. DESIGN OF TRUNK. Consolidated Tea Company, Inc. SN 672,639. Pub. 11–20–56. Filed 9–2–54.

641,101. PIZZETTA. Anna M. De Carlo Pietropinto, d. b. a. A. D. Pietropinto. SN 679,276. Pub. 11–20–56. Filed 1–3–55.

641,102. CONSUL ETC. AND DESIGN. Exportadora del Agro Espanol S. A. SN 683,081. Pub. 11–20–56. Filed 12–6–54.

641,103. GORDO'S AND DESIGN. Vernal Merrill, d. b. a. Gordo's and/or Gordo's Mexican Food Products Company. SN 695,168. Pub. 11–20–56. Filed 9–22–55.

641,104. FERMA-GRO. Nebraska Consolidated Mills Company, d. b. a. Alabama Flour Mills. SN 696,313. Pub. 11–20–56. Filed 10–12–55.

641,105. DANISH PRINCESS AND DESIGN. [illegible] A/S, d. b. a. Milco. SN 697,629. Pub. 11–20–56. Filed 11–3–55.

641,106. MOTHERS. Bradas & Gheens, Incorporated. SN 697,758. Pub. 11–20–56. Filed 11–7–55.

641,107. WILD BIRD DINER. The J. Chas. McCullough Seed Company, d. b. a. Cincinnati Horticultural Products Co. SN 698,991. Pub. 11–20–56. Filed 11–28–55.

641,108. OLD SOUTH. Pasco Packing Co. SN 699,656. Pub. 11–20–56. Filed 12–8–55.

641,109. CHERRYDALE FARMS. E. Cherry Sons & Co., Inc. SN 661. Pub. 11–20–56. Filed 1–13–56.

641,110. FRENCH BRAND. The Kroger Co. SN 2,708. Pub. 11–20–56. Filed 2–15–56.

641,111. DEL MONTE. California Packing Corporation. SN 2,746. Pub. 11–20–56. Filed 2–16–56.

641,112. VICTOR SEA SWEET. Mavar Shrimp and Oyster Company, Ltd. SN 3,422. Pub. 11–20–56. Filed 2–27–56.

641,113. DRI-FREEZE. E. F. Drew & Co., Inc. SN 3,740. Pub. 11–20–56. Filed 3–2–56.

641,114. M-F-A AND DESIGN. Missouri Farmers Association, Inc. SN 4,207. COLLECTIVE MARK. Pub. 11–20–56. Filed 3–9–56.

641,115. MAURICE LENELL AND DESIGN. Maurice Lenell Cooky Company. SN 4,462. Pub. 11–20–56. Filed 3–13–56.

641,116. HOSTREAT. J. Leo Levy, Jr., d. b. a. Host Treat. SN 4,648. Pub. 11–20–56. Filed 3–15–56.

641,117. TROPY-DINE. Dean L. Hopkins, d. b. a. Hopkins Seed Co. SN 5,723. Pub. 11–20–56. Filed 4–3–56.

641,118. PRIDE OF THE FLOCK. White Bros. Poultry & Egg Co. SN 5,752. Pub. 11–20–56. Filed 4–3–56.

641,119. SANTA CRUZ. Gene England, d. b. a. Santa Cruz Chili Company. SN 5,987. Pub. 11–20–56. Filed 4–9–56.

641,120. PAN ZIP. Bay State Milling Co. SN 6,090. Pub. 11–20–56. Filed 4–10–56.

641,121. STA-SWEET. A. E. Staley Manufacturing Company. SN 6,377. Pub. 11–20–56. Filed 4–13–56.

641,122. GRANDMA PENNY'S. Grandma Penny's Old Fashioned Candies, Inc., d. b. a. Grandma Penny's Old Fashioned Candy Company. SN 6,518. Pub. 11–20–56. Filed 4–17–56.

641,123. KING OF MINNESOTA. Archer-Daniels-Midland Company. SN 7,148. Pub. 11–20–56. Filed 4–26–56.

CLASS 47

WINES

641,124. HENKELL TROCKEN AND DESIGN. Henkell & Co. SN 690,881. Pub. 11–20–56. Filed 7–7–55.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

641,125. ROMERO. Felton & Son, Inc. SN 695,084. Pub. 11–20–56. Filed 9–21–55.

641,126. DIAMOND EIGHT AND 8. Joseph S. Finch and Company. SN 8,479. Pub. 11–20–56. Filed 5–17–56.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

641,127. GENIE. Binney & Smith Inc. SN 698,685. Pub. 11–20–56. Filed 11–22–55.

641,128. BROOKS AND DESIGN. E. J. Brooks Company. SN 1,052. Pub. 11–20–56. Filed 1–19–56.

641,129. LYNMONT AND DESIGN. Lynn Innersole Co. SN 7,925. Pub. 11–20–56. Filed 5–8–56.

641,130. BENCO AND DESIGN. Lynn Innersole Co. SN 7,927. Pub. 11–20–56. Filed 5–8–56.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

641,131. SILVAPIN. Pino-A. G. Chemische Fabrik Freudenstadt, d. b. a. Pino A. G. Im Freudenstadt Schwarzwald. SN 654,753. Pub. 11–20–56. Filed 10–14–53.

641,132. CATHERINE'S CORRECT COSMETICS. Catherine Fishman. SN 668,739. Pub. 11–20–56. Filed 6–23–54.

641,133. DACHE NET. General Beauty Products, Inc. SN 670,923. Pub. 11–20–56. Filed 8–2–54.

641,134. LILLY DACHE COLOR SAFE. General Beauty Products, Inc. SN 670,924. Pub. 11–20–56. Filed 8–2–54.

641,135. RICHARD STEFFANS AND DESIGN. Richard E. Burt, d. b. a. Richard Steffans. SN 686,352. Pub. 11–20–56. Filed 4–27–55.

641,136. VANZAK. R. T. Vanderbilt Company, Inc. SN 689,899. Pub. 11–20–56. Filed 6–20–55.

641,137. EASY WAY-V. Fleetwood Company. SN 692,512. Pub. 11–20–56. Filed 8–5–55.

641,138. COME ALIVE GRAY. Clairol Incorporated. SN 696,515. Pub. 11–20–56. Filed 10–17–55.

641,139. LUCKY. Valmor Products Co., d. b. a. Famous Products Co. SN 6,657. Pub. 11–20–56. Filed 4–18–56.

CLASS 52

DETERGENTS AND SOAPS

641,140. H. D. C. Wyandotte Chemicals Corporation. SN 698,102. Pub. 11–20–56. Filed 11–10–55.

641,141. JEM KLEEN. Ajem Laboratories, Inc. SN 5,959. Pub. 11–20–56. Filed 4–9–56.

641,142. TAC-ALL. G. E. Renner. SN 7,532. Pub. 11–20–56. Filed 5–2–56.

Service Marks

CLASS 100

MISCELLANEOUS

641,143. DESIGN OF TRIDENT AND CIRCLE. Circus Saints and Sinners Club of America, Inc. SN 696,412. Pub. 11–20–56. Filed 10–14–55.

641,144. TELEPRAYER. Stanley Kiehl Gambell. SN 2,873. Pub. 11–20–56. Filed 2–17–56.

CLASS 101

ADVERTISING AND BUSINESS

641,145. UNILOX. Transparent Package Company, now by change of name Tee-Pak, Inc. SN 626,059. Pub. 8–10–54. Filed 3–6–52.

641,146. TNT TELE-SESSIONS. Theatre Network Television, Inc. SN 693,705. Pub. 11–20–56. Filed 8–25–55.

641,147. CONTINENTAL TIME. Commercial Broadcasters. SN 5,590. Pub. 11–20–56. Filed 4–2–56.

CLASS 102

INSURANCE AND FINANCIAL

641,148. BIPP. The County Trust Company. SN 695,535. Pub. 11–20–56. Filed 9–29–55.

CLASS 103

CONSTRUCTION AND REPAIR

641,149. TELEFLAW. Mud Control Laboratories, Inc. SN 680,398. Pub. 11–20–56. Filed 1–24–55.

641,150. THE MUNRO SYSTEM. Munro Dampproofings, Inc. SN 691,877. Pub. 11–20–56. Filed 7–25–55.

641,151. DESIGN OF GROTESQUE FIGURE. Hill-Smith Termite Control Company, Inc., d. b. a. Hill-Smith Systems. SN 2,985. Pub. 11–20–56. Filed 2–20–56.

CLASS 105

TRANSPORTATION AND STORAGE

641,152. RED STAR LINE. N. V. Nederlandsch-Amerikaansche Stoomvaart Maatschappij, d. b. a. Holland-America Line. SN 11,028. Pub. 11–20–56. Filed 6–26–56.

CLASS 106

MATERIAL TREATMENT

641,153. BLAZE X. Manhattan Net Dyers & Finishers, Inc. SN 662,656. Pub. 11–20–56. Filed 3–15–54.

641,154. M AND DESIGN. MacDonald Manufacturing Co SN 687,389. Pub. 11–20–56. Filed 5–12–55.

CLASS 107

EDUCATION AND ENTERTAINMENT

641,155. MUSICUE. Musicue, Inc. SN 3,214. Pub. 11–20–56. Filed 2–23–56.

641,156. SERGEANT PRESTON OF YUKON. Sergeant Preston of Yukon, Inc. SN 4,484. Pub. 11–20–56. Filed 3–13–56.

Certification Mark

CLASS A

GOODS

641,157. NCSWDI MEMBER ETC. AND DESIGN. National Combination Storm Window and Door Institute, Inc. SN 692,487. Pub. 11–20–56. Filed 8–4–55.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

641,158. Donovan Industries Inc., New York, N. Y. SN 44. Filed P. R. 1–3–56. Am. S. R. 11–6–56.

MOIRE CALF

For Leather and Plastic Material in Sheet Form.
First use Oct. 21, 1955.

CLASS 2

RECEPTACLES

641,159. Fibreboard Products Inc., San Francisco, Calif. SN 3,525. Filed P. R. 2–28–56. Am. S. R. 10–12–56.

TATER TOTER

For Corrugated Paperboard Shipping Containers.
First use May 1955.

641,160. United States Steel Corporation, Pittsburgh, Pa. SN 12,236. Filed 7–16–56.

CATCH-ALL

For Wire Baskets.
First use Sept. 29, 1922.

CLASS 3

BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

641,161. Reliable Luggage, Inc., West Pittsburg, Pa. SN 8,154. Filed P. R. 5–11–56. Am. S. R. 11–21–56.

Go Farthest With The Finest

For Suitcases, Valises, Travelling Bags, and Trunks.
First use Feb. 12, 1955.

CLASS 10

FERTILIZERS

641,162. The Borden Company, New York, N. Y. SN 408. Filed P. R. 1–10–56. Am. S. R. 9–11–56.

BORDEN'S 38

For Fertilizer Compound.
First use Aug. 17, 1955.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

641,163. W. L. Rozell Golden Salve Co., Wichita, Kans. SN 688,582. Filed P. R. 5-31-55. Am. S. R. 11-28-56.

W. L. ROZELL'S GOLDEN SALVE CO.

For Salve.
First use Feb. 1, 1936.

641,164. Helena Rubinstein, Inc., New York, N. Y. SN 699,745. Filed P. R. 12-9-55. Am. S. R. 12-5-56.

REDUCE-AID

For Pharmaceutical Preparation Having the Purpose of Controlling or Reducing a Person's Weight.
First use Dec. 1, 1954.

641,165. Murray R. Snodgrass, d. b. a. Snodgrass Pharmacy, Niagara Falls, Canada. SN 699,984. Filed P. R. 12-14-55. Am. S. R. 11-27-56.

SNODGRASS MIXTURE

For Medicinal Preparation for Gas and Acid Indigestion.
First use June 1, 1955; in commerce June 1, 1955.

641,166. C. H. Boehringer Sohn, Ingelheim am Rhein, Germany. SN 475. Filed P. R. 1-11-56. Am. S. R. 9-5-56.

BOEHRINGER-INGELHEIM

Owner of German Reg. No. 158,470, dated May 4, 1912; and U. S. Reg. No. 358,509.

For Medicinal Preparations for the Treatment of Cardiovascular Disorders, Biliary and Hepatic Disorders, Colds of All Types, Asthma, Obesity, Depressive States, Ophthalmic Diseases; and Hypnotics, Sedatives, Spasmolytic Agents, Analgesics, Alkaloids, and Purines for the Manufacture of Drugs, Organic Acids, Particularly Tartaric, Lactic and Citric Acids and Salts Thereof Used as Ingredients of Medicines.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

641,167. Hard Rock Maple Ten Pin Co., Oak Park, Ill. SN 12,952. Filed 7-27-56.

Hard Rock Maple

For Bowling Pins.
First use Jan. 1, 1942.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

641,168. Branur Corp., Pikesville, Md. SN 3,349. Filed P. R. 2-27-56. Am. S. R. 12-6-56.

SPEEDI

For Hand Fire Extinguishers.
First use Nov. 1, 1955.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

641,169. Stephen E. Laszlo, Brooklyn, N. Y. SN 688,943. Filed P. R. 6-6-55. Am. S. R. 10-3-56.

2 IN 1 BARO-THERMOMETER

For Combined Barometers and Thermometers.
First use Sept. 1, 1954.

CLASS 31

FILTERS AND REFRIGERATORS

641,170. Whirlpool-Seeger Corporation, St. Joseph, Mich. SN 695,962. Filed P. R. 10-5-55. Am. S. R. 11-20-56.

Seeger

For Rotary Compressors for Refrigerators.
First use Sept. 20, 1955.

CLASS 32

FURNITURE AND UPHOLSTERY

641,171. Louis R. Mahrt and D. Robert Laughter, trustees for Standard-Dayton Corporation, Dayton, Ohio. SN 4,389. Filed P. R. 6-20-56. Am. S. R. 11-23-56.

RITE-HITE

For Bins for Use in Displaying Produce and Other Types of Merchandise.
First use May 15, 1954.

CLASS 36

MUSICAL INSTRUMENTS AND SUPPLIES

641,172. Buegeleisen & Jacobson, Inc., New York, N. Y. SN 8,925. Filed P. R. 5-24-56. Am. S. R. 10-8-56.

STEWART

For Guitars, Electric Guitars and Electric Amplifiers for Electric Guitars.
First use September 1953.

CLASS 37

PAPER AND STATIONERY

641,173. The Seamless Rubber Company, New Haven, Conn. SN 1,121. Filed P. R. 1-19-56. Am. S. R. 12-4-56.

DRI-SHEET

For Disposable Bed Pads.
First use Nov. 7, 1955.

641,174. The Seamless Rubber Company, New Haven, Conn. SN 1,122. Filed P. R. 1-19-56. Am. S. R. 12-4-56.

SAV-A-SHEET

For Disposable Bed Pads.
First use Nov. 15, 1955.

CLASS 38

PRINTS AND PUBLICATIONS

641,175. Lenett Publications, Inc., New York, N. Y. SN 2,889. Filed 2-17-56.

FLOOR COVERING WEEKLY

For Weekly Publication.
First use May 15, 1952.

641,176. Martin Rywell, Harriman, Tenn. SN 6,753. Filed 4-19-56.

WHERE TO FIND BARGAINS IN THE UNITED STATES

For Directory.
First use Sept. 21, 1953.

CLASS 39

CLOTHING

641,177. Ace Manufacturing Company, San Antonio, Tex. SN 1,308. Filed P. R. 1-24-56. Am. S. R. 11-27-56.

RIDG-IT

For Uniform Caps for Men and Women.
First use June 8, 1954.

641,178. Candy Girl Coats, Inc., New York, N. Y. SN 1,425. Filed P. R. 1-25-56. Am. S. R. 11-19-56.

THE DOUBLE HEM COAT ADDS YEARS

For Children's, Girls', and Teens' Coats and Toppers.
First use Nov. 1, 1955.

641,179. Lampl Fashions, Inc., Cleveland, Ohio. SN 3,793. Filed P. R. 2-13-56. Am. S. R. 11-28-56.

Kingsley

For Women's and Misses' Sweaters.
First use July 6, 1955.

641,180. Piedmont Shirt Company, Greenville, S. C. SN 4,226. Filed P. R. 3-9-56. Am. S. R. 10-17-56.

SPORT 'n DRESS

For Men's and Boys' Shirts, Undershirts, Undershorts, Pajamas and Jackets.
First use Apr. 12, 1955.

641,181. Cluett, Peabody & Co., Inc., Troy, N. Y. SN 7,168. Filed P. R. 4-26-56. Am. S. R. 11-15-56.

MILFORD

For Outer Shirts.
First use June 1954.

641,182. Cluett, Peabody & Co., Inc., Troy, N. Y. SN 7,173. Filed P. R. 4-26-56. Am. S. R. 11-15-56.

SCOTT

For Outer Shirts.
First use January 1955.

641,183. Rand Rubber Company, Inc., Brooklyn, N. Y. SN 10,706. Filed 6-21-56.

"They Last Longer"

For Baby Pants.
First use Jan. 1, 1900.

641,184. J. A. Robertson & Sons (Dumfries) Limited, Dumfries, Scotland. SN 11,611. Filed 7–5–56.

ROBERTSON

For Men's Slipovers and Pullovers.
First use October 1952; in commerce Sept. 17, 1954.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

641,185. Beacon Looms Inc., New York, N. Y. SN 699,282. Filed P. R. 12–2–55. Am. S. R. 11–21–56.

BUCLENET

For Window Curtains.
First use Oct. 20, 1955.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

641,186. The Humko Co., Memphis, Tenn. SN 638,486. Filed P. R. 11–22–52. Am. S. R. 7–8–54.

AMERICAN FARM

For Edible Vegetable Oils.
First use Nov. 4, 1952.

641,187. Panama Packing Corporation, Panama, Panama. SN 695,933. Filed P. R. 10–5–55. Am. S. R. 9–13–56.

Panama Harbor Brand

For Fresh Frozen Shrimp.
First use Aug. 29, 1955; in commerce Aug. 29, 1955.

641,188. Carey & Son, Inc., Rittman, Ohio. SN 698,401. Filed P. R. 11–17–55. Am. S. R. 11–9–56.

TASTY-TRIM
DECORATING
CAKE ICING

For Decorating Cake Icing in Dispensing Bags.
First use Sept. 28, 1955.

641,189. Chicago Almond Products Co., Inc., Chicago, Ill. SN 308. Filed P. R. 1–9–56. Am. S. R. 11–7–56.

RED-E

For Almond Paste, Macaroon Mix and Other Cookie Mixes.
First use Nov. 1, 1955.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

641,190. H. K. Porter Company, Inc. of Pittsburgh, d. b. a. Quaker Rubber Corporation, Philadelphia, Pa. SN 4,662. Filed P. R. 3–15–56. Am. S. R. 10–25–56.

SURE GRIP

For Tension Roll Covering for Use in Connection With Textile Manufacturing, Paper Mills, Dyeing and Finishing Plants, Tanneries, Packing Houses, Laundries, Leather Working Establishments and Like Industries.
First use in 1933.

TRADEMARK REGISTRATIONS RENEWED

113,920. AIRFELT AND DESIGN. Cl. 32. 11–7–16.
114,094. G & B. Cl. 23. 11–28–16.
114,155. CLAROLA. Cl. 46. 12–5–16.
114,255. ABRASIT. Cl. 4. 12–5–16.
114,352. RICH PASTURE. Cl. 46. 12–12–16.
114,495. DANDIE. Cl. 23. 12–19–16.
114,519. CHAMOIS. Cl. 37. 12–19–16.
114,822. SELEX. Cl. 46. 1–2–17.
115,003. MERRILLITE AND DESIGN. Cl. 6. 1–16–17.
115,317. DUO-RIB. Cl. 39. 2–6–17.
115,496. KROMORE. Cl. 14. 2–20–17.
115,891. KABO. Cl. 39. 3–20–17.
116,017. SNOW FLAKE. Cl. 15. 3–27–17.
116,167. MATCHLESS. Cl. 15. 4–10–17.
336,365. SPEEDSPRAY. Cl. 16. 6–30–36.
339,292. GRAIN KING. Cl. 46. 10–6–36.
339,411. TITAN TWIST. Cl. 39. 10–6–36.
339,429. VACUMATIC. Cl. 37. 10–6–36.
339,979. DI-MATIC. Cl. 23. 10–27–36.
341,052. DOGGIE BON-BONS. Cl. 46. 12–1–36.
341,229. YORK P AND DESIGN. Cl. 30. 12–1–36.
341,510. ARLCAPS. Cl. 18. 12–8–36.
341,536. McKESSON AND DESIGN. Cl. 49. 12–8–36.
341,574. LOCOROL. Cl. 18. 12–15–36.
341,594. SWAN-CEL. Cl. 42. 12–15–36.
342,487. ENDURO. Cl. 35. 1–19–37.
343,242. DESIGN OF LYRE. Cl. 22. 2–16–37.
343,740. ASSELIN'S CREAM OF THE NORTH. Cl. 46. 3–2–37.
344,203. MARINITE. Cl. 12. 3–16–37.
345,590. MORRHUALTA. Cl. 18. 5–4–37.
345,648. TRIANGLE A. Cl. 21. 5–4–37.
345,724. ESTROMONE. Cl. 18. 5–4–37.
345,725. VIROSTERONE. Cl. 18. 5–4–37.
345,825. BALKAMP. Cl. 23. 5–11–37.
345,861. METRO. Cl. 19. 5–11–37.
346,232. ARTISTA FRESCOL. Cl. 16. 5–18–37.

TRADEMARK REGISTRATIONS CANCELED

Section 7(d)

282,297. DYVATEEN. Cl. 39. 4–14–31.
286,105. CONTINENTAL BY KNOX ETC. AND DESIGN. Cl. 39. 8–18–31.
302,100. SOIDARA. Cl. 39. 4–4–33.
373,221. SPLIT SILK. Cl. 46. 11–28–39.
378,331. ARA. Cl. 39. 6–4–40.
402,341. SUMARA. Cl. 39. 7–13–43.

418,736. ARONET. Cl. 39. 1–8–46.
426,440. SUMARA. Cl. 39. 12–24–46.
434,188. PAINTMARX. Cl. 37. 12–16–47.
440,598. TIP TOE. Cl. 21. 9–14–48.
552,751. SHELBY RIXSON. Cl. 23. 1–1–52.
557,708. ARASTRIDE. Cl. 39. 4–15–52.
564,984. ARADINE. Cl. 39. 10–7–52.
590,328. SEA SNACK AND DESIGN. Cl. 46. 5–25–54.
590,591. LEATHER FLOC. Cl. 1. 6–1–54.
590,648. SWIFT-LIFT. Cl. 51. 6–1–54.

Section 8

212,201. SHUMAN PROCESS. Cl. 16. 4–27–26.
267,535. LE VINE HAF-SIZ MODEL. Cl. 39. 2–25–30.
275,448. CANDA. Cl. 42. 9–23–30.
276,149. BLACK & DECKER ETC. AND DRAWING. Cl. 23. 10–7–30.
276,503. LEVINE MODEL AND DRAWING. Cl. 39. 10–21–30.
377,309. LECTRO-GLO. Cl. 34. 4–30–40.
399,686. LEEWOOD. Cl. 42. 1–26–43.
409,599. LOOK AT YOUR STOCKINGS ETC. AND DESIGN. Cl. 39. 10–10–44.
438,535. CHARGET. Cl. 2. 4–27–48.
438,920. SPRAYLETS. Cl. 6. 5–18–48.
438,921. CHARGETS. Cl. 6. 5–18–48.
438,922. SPRAYETS. Cl. 6. 5–18–48.
532,815. C/R AND DESIGN. Cl. 39. 10–31–50.

The following registrations issued Dec. 5, 1950

534,187. FIT-ALL. Cl. 39.
534,188. SOF-TUF. Cl. 40.
534,204. KOCKUMS MALMO AND DESIGN. Cl. 23.
534,205. CIRCLES OF SAFETY. Cl. 50.
534,206. CO-ED. Cl. 40.
534,209. WHAT'S NEW. Cl. 38.
534,210. SAXETTO. Cl. 32.
534,213. HOOD IN DESIGN. Cl. 20.
534,214. NORTHALLOY. Cl. 23.
534,215. NORTHITE. Cl. 23.
534,225. PLAYCOMBER. Cl. 39.
534,228. RULL. Cl. 1.
534,229. BOLTONIA BARK STREET. Cl. 1.
534,238. LAXATINE. Cl. 18.
534,241. GAFFER. Cl. 38.
534,245. PERLE. Cl. 40.
534,247. FRIGID-O. Cl. 6.
534,249. BOB FULTON. Cl. 39.
534,252. MAGICURL. Cl. 40.
534,255. CINDERELLA MAGIC WAND. Cl. 51.
534,256. BURLINGTON BEST. Cl. 46.
534,257. RUTH MANNERS. Cl. 51.
534,262. KATZ. Cl. 37.
534,263. FUN FROCKS. Cl. 39.
534,266. DESIGN BY ANTHONY. Cl. 22.
534,268. TECHNICHORD. Cl. 38.
534,274. PETI-LIGNE. Cl. 39.
534,279. ROCHELLE LOUISE. Cl. 39.
534,280. NECROTON. Cl. 18.
534,282. A CIRCUS CARD WITHIN DESIGN. Cl. 38.
534,285. HY-SOO. Cl. 46.
534,290. MIN-O-AIR. Cl. 6.
534,292. "CELCOS." Cl. 42.
534,293. BEAUDRINE. Cl. 18.
534,296. WONDA-BRELLA. Cl. 41.
534,308. EM-KAPS. Cl. 18.
534,311. VALUTA. Cl. 18.
534,312. TESALT. Cl. 6.
534,321. ALLWAY SCARF. Cl. 39.
534,322. TERAMIN. Cl. 18.
534,325. THE HOUSE OF YEARS AND DESIGN. Cl. 20.
534,328. HEMBAR. Cl. 43.
534,331. SEPTIFEED WITHIN DESIGN. Cl. 6.
534,332. SNARZEE. Cl. 40.
534,333. PLEXOLIN. Cl. 20.
534,335. FLEXALUM. Cl. 41.
534,336. SHADOW BOXERS. Cl. 39.
534,340. CARI-COVER. Cl. 3.
534,344. DR. SALSBURY. Cl. 6.
534,347. TRACINON. Cl. 18.
534,348. QUICK BREATH. Cl. 18.
534,352. THE STATION AHEAD. Cl. 38.
534,355. EUTELAS. Cl. 18.
534,358. VYNATEX. Cl. 40.
534,361. PRECISIONOMICS. Cl. 38.
534,368. BOX OFFICE. Cl. 51.
534,379. ANAPTROL. Cl. 18.
534,380. BOX OFFICE. Cl. 3.
534,383. FEOJECTIN. Cl. 18.
534,384. A AMC C IN DESIGN. Cl. 39.
534,385. LOREXANE. Cl. 18.
534,387. PHILMORE. Cl. 39.
534,392. SIGNACHIEF. Cl. 39.
534,399. TESTOCAPTATE. Cl. 18.
534,400. CHROMALINE. Cl. 1.
534,410. CONTINENTAL. Cl. 40.
534,414. NOFAST. Cl. 18.
534,417. ALDEHOL. Cl. 6.
534,420. JEFFREY-STEFFENSEN. Cl. 21.
534,423. ANINA LITE. Cl. 38.
534,424. VIVA. Cl. 40.
534,435. ROYAL HINDNESS. Cl. 39.
534,441. CAVALCADE. Cl. 3.
534,442. ORSEW. Cl. 43.
534,443. DRAWMATIC. Cl. 8.
534,445. SHUTTER. Cl. 39.
534,450. MAGIC LADY. Cl. 3.
534,453. RIGOLO. Cl. 40.
534,457. NYLOCORD. Cl. 42.
534,458. TRAVELLA. Cl. 3.
534,460. GRANT. Cl. 23.
534,464. FLY WITH THE SEASONS DESIGN. Cl. 105.
534,467. BRIDAL-ETTE BRIDE BASKET AND REPRESENTATION OF BRIDE. Cl. 101.
534,468. EXPERT VENETIAN SERVICE AND DESIGN. Cl. 103.
534,474. ELTON WEATHERPROOF ETC. AND DESIGN. Cl. 39.
534,479. FILMETTE. Cl. 42.
534,482. TAYLOR AND DESIGN. Cl. 28.
534,483. CANTILEVER ACTION. Cl. 39.
534,488. WOOLSET. Cl. 39.
534,493. ELECTROWELD. Cl. 39.
534,494. LOK-TOOTH. Cl. 40.
534,497. KRIMP SET. Cl. 39.
534,498. SCURICH KUSHIONIZED CONTAINERS. Cl. 2.
534,500. THERE'S MAGIC IN THE NAME. Cl. 39.
534,502. PATERSON MAID. Cl. 39.
534,503. MULTITONE. Cl. 38.
534,507. THE LITTLE DOCTOR BOOK SERIES. Cl. 38.
534,508. "54 40 AND RIGHT." Cl. 39.
534,509. "DON'T TAKE LESS THAN BEST—DON'T TAKE LESS THAN A LEE." Cl. 39.
534,519. WE WORK TO KEEP YOU SAFE. Cl. 102.

The following registrations issued Dec. 12, 1950

534,522. LEWIS AND DESIGN. Cl. 39.
534,523. LEWIS GOLFER. Cl. 39.
534,527. GAR WOOD. Cl. 19.
534,528. HYDRA-LIFT. Cl. 32.
534,531. SILVER CASTLE. Cl. 46.
534,542. HOMECRAFT. Cl. 32.
534,548. SPERRY'S STRAIGHT 8 AND DESIGN. Cl. 46.
534,549. WEBSTER'S TEN GRAND. Cl. 46.
534,562. BETTY ANN. Cl. 46.
534,563. FIGURE OF GIRL. Cl. 46.
534,572. C. H. S. BRAND. Cl. 46.
534,574. MASTRO BRAND AND DESIGN. Cl. 46.
534,576. CARV KING AND DESIGN. Cl. 23.
534,582. ROMANIMALS. Cl. 22.
534,589. CHANGERETTE. Cl. 32.
534,596. CSSACO. Cl. 23.
534,597. JOKER. Cl. 46.
534,598. MEMO BELT. Cl. 36.
534,604. DOUBLE ACE. Cl. 22.
534,605. GREAT ACE. Cl. 22.
534,606. TWIN ACE. Cl. 22.
534,607. TWO ACE. Cl. 22.
534,608. G P. Cl. 22.
534,610. MINIT-JOINT. Cl. 22.
534,611. MINIT-JOINT ASSEMBLE IN A MINIT AND DESIGN. Cl. 22.
534,612. METRO AND DESIGN. Cl. 19.
534,615. BELL. Cl. 46.

534,618. VELMA "SLIM LINE." Cl. 39.
534,623. A PICTURE OF REMBRANDT. Cl. 21.
534,625. WORLD OVER. Cl. 46.
534,633. PEMCO AND DESIGN. Cl. 16.
534,634. P M FABRICS AND DESIGN. Cl. 42.
534,637. NIBBLES THE RABBIT. Cl. 22.
534,639. KROMVENTS. Cl. 19.
534,640. V SEAM. Cl. 23.
534,641. FIGHTING ACES OF WAR SKIES WINGS. Cl. 38.
534,643. CENTURYHURST. Cl. 46.
534,666. AMERICAN LADY. Cl. 39.
534,669. KITCHEN GEM AND DESIGN. Cl. 42.
534,674. OOH BOP. Cl. 36.
534,675. MEYERS PRIDE. Cl. 46.
534,676. REPRESENTATION OF TWO LITTLE MEN HOLDING BASKET. Cl. 46.
534,682. GARTIERE. Cl. 39.
534,683. CHEROBE. Cl. 42.
534,685. DARAPHANE. Cl. 16.
534,687. TOPSY. Cl. 42.
534,690. MEB AND DESIGN. Cl. 42.
534,691. NIAGARA AND DESIGN. Cl. 19.
534,692. BOGA. Cl. 23.
534,694. MARVELETTE. Cl. 39.
534,696. NYLASTIC. Cl. 42.
534,698. A PLASCO. Cl. 36.
534,700. BUDRELL AND ENTIRE DESIGN. Cl. 46.
534,701. LUSTRALAST. Cl. 32.
534,707. VO-LONA. Cl. 46.
534,708. DESIGN OF WAITER AND LETTER "B." Cl. 46.
534,711. STAR LAKE. Cl. 46.
534,714. TOM'S TREAT AND DESIGN. Cl. 46.
534,715. STERL-A-FONE. Cl. 21.
534,717. TUFFY. Cl. 23.
534,719. LICKETY SPLIT. Cl. 46.
534,722. TOMMIE AUSTIN AND CASUAL STAR DESIGN. Cl. 39.
534,723. PLASTI FOAM. Cl. 32.
534,734. WAVEWASH. Cl. 23.
534,747. ANTORIA RADIO. Cl. 21.
534,748. "CHEVRON." Cl. 40.
534,750. I LOVE YOU. Cl. 39.
534,758. X PANTS. Cl. 39.
534,763. PANTS O'PAINT. Cl. 39.
534,767. SMOKE-A-LOG. Cl. 17.
534,769. DINEOLA. Cl. 19.
534,772. KOLITE. Cl. 21.
534,776. JUPITER. Cl. 19.
534,783. BLAXIDE WITHIN DESIGN. Cl. 21.
534,784. CIRCLATRON. Cl. 21.
534,786. TAILOR BIRD AND ENTIRE DESIGN. Cl. 23.
534,787. DOUBLEMATIC. Cl. 24.
534,788. NYCATATE. Cl. 42.
534,789. V'ZETTE. Cl. 42.
534,790. VEEZETTE. Cl. 42.
534,792. BATTLE AX. Cl. 17.
534,798. CAPITOL. Cl. 23.
534,801. QUANTA COLOR. Cl. 100.
534,803. PRACO. Cl. 105.
534,813. EVERYTHING IT TOUCHES TURNS TO BRIGHTNESS. Cl. 21.
534,814. LANFORD. Cl. 39.
534,815. NEGRO ACHIEVEMENTS. Cl. 38.
534,816. CALK-O-PACK. Cl. 23.
534,819. THE SPORTING GOODS DEALER'S NEWSLETTER. Cl. 38.
534,820. GILBERT OF CALIFORNIA. Cl. 39.
534,822. POWER GENERATION. Cl. 38.
534,823. THERAPEIA. Cl. 38.
534,824. BUK TIE AND DESIGN. Cl. 39.
534,825. STOLL WERCK. Cl. 46.
534,831. HANDBAGS AND FASHION ACCESSORIES. Cl. 38.
534,833. HARDWARE-HOUSEWARES AND SPORTING GOODS. Cl. 38.
534,834. VANCE. Cl. 39.
534,836. TELAVIV. Cl. 39.
534,838. PHYSICIANS PHARMACAL SERVICE. Cl. 38.
534,841. ROSES BY NORCROSS. Cl. 38.
534,843. CLARY. Cl. 21.

REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

343,528. Feb. 23, 1937. Clark-Coleman Coal & Coke Co., Peoria, Ill. Pub. by Key Coal Company, Kansas City, Mo.

KEY

For Coal and Coke.

CLASS 14

METALS AND METAL CASTINGS AND FORGINGS

337,969. Aug. 25, 1936. American Murex Corporation, New York, N. Y. Pub. by Metal & Thermit Corporation, New York, N. Y.

CRESTA

For Welding Electrodes.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

347,878. July 13, 1937. Crescent Cable Co., also d. b. a. Crescent Automotive Cables, Pawtucket, R. I. Pub. by The Crescent Company, Inc., Pawtucket, R. I.

CRESCENT

For Automobile Harness, Automobile Battery Cable Leads, Automobile Hi-Tension Ignition Cable, Automobile Terminals for Use on Wire and Cable, and Automobile Lighting Cable.

CLASS 27

HOROLOGICAL INSTRUMENTS

114,601. Dec. 19, 1916. Western Clock Co., Peru, Ill. Pub. by General Time Corporation, La Salle, Ill.

BANTAM

For Clocks Only.

114,602. Dec. 19, 1916. Western Clock Co., Peru, Ill. Pub. by General Time Corporation, La Salle, Ill.

EARLY BIRD

For Clocks Only.

247,315. Sept. 25, 1928. Savoy Watch Co. Inc., New York, N. Y. Pub. by registrant.

Lady West

For Watches, Watchcases, Watch Movements, and Parts Thereof.

338,302. Sept. 1, 1936. Western Clock Company, Peru, Ill. Pub. by General Time Corporation, New York, N. Y.

Siesta

For Clocks Only.

340,163. Nov. 3, 1936. Western Clock Company, Peru, Ill. Pub. by General Time Corporation, La Salle, Ill.

SILENT KNIGHT

For Clocks Only.

CLASS 33

GLASSWARE

340,244. Nov. 3, 1936. American Window Glass Company, Pittsburgh, Pa. Pub. by registrant.

LUSTRABLU

For Sheet Glass.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

227,374. May 3, 1927. The Fluid Heat Corp., Baltimore, Md. Pub. by John Wood Company, New York, N. Y.

FLUID HEAT

For Oil Burners.

307,852. Nov. 7, 1933. Anchor Post Fence Company, Baltimore, Md. Pub. by John Wood Company, New York, N. Y.

fluid heat

For Oil Burners.

341,161. Dec. 1, 1936. A. Gross Candle Company, Inc., Linden, N. J. Pub. by registrant.

GROCO

For Candelabra, Candle Stands and Holders, Bove Burners for Candles, Candle Lighters and Extinguishers, Votive and Tabernacle Light Wicks, Holders and Glasses.

402,085. June 29, 1943. Anchor Post Fence Company, Baltimore, Md. Pub. by John Wood Company, New York, N. Y.

SKYHEAT

For Aircraft Heaters of the Combustion Type.

CLASS 37

PAPER AND STATIONERY

47,013. Oct. 17, 1905. Samuel Cupples Envelope Co., St. Louis, Mo. Pub. by Samuel Cupples Envelope Company, Inc., Brooklyn, N. Y.

PENNYSAVER

For Paper Envelopes.

CLASS 39

CLOTHING

114,646. Dec. 26, 1916. E. A. Mallory and Sons, Incorporated, Danbury, Conn., and New York, N. Y. Pub. by John B. Stetson Company, Philadelphia, Pa.

MOLESHEEN

For Soft Hats.

263,939. Nov. 12, 1929. Melville Shoe Corporation, New York, N. Y. Pub. by registrant.

ThomMcAn

For Shoes of Combinations of Leather and Rubber and of Rubber and Fabric and With Hosiery of Cotton, Wool, Silk, Artificial Silk, and Combinations Thereof.

344,226. Mar. 16, 1937. I. B. Kleinert Rubber Company, New York, N. Y. Pub. by registrant.

"BREVEEZ"

For Step-In Undergarments.

CLASS 40

FANCY GOODS, FURNISHINGS, AND NOTIONS

98,665. July 28, 1914. I. B. Kleinert Rubber Company, New York, N. Y. Pub. by registrant.

Stayrite

For Dress-Shields.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

312,325. Apr. 24, 1934. I. B. Kleinert Rubber Company, New York, N. Y. Pub. by registrant.

SOFTEX

For Waterproofed Sheetings and Fabrics in the Piece.

CLASS 43

THREAD AND YARN

343,477. Feb. 23, 1937. Patons & Baldwins, Limited, Darlington, England. Pub. by registrant.

FUZZY-WUZZY

For Yarns of Wool, Worsted, or Hair.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

124,232. Jan. 28, 1919. Davol Rubber Company, Providence, R. I. Pub. by registrant.

DAVOL

For Atomizer-Bulb Sets; Body-Bandages for Surgeons' Use, Bed-Pans, Breast-Pumps, Breast-Shields, Bulb-Syringes, Catheters, Cautery Sets, Chin-Bands, Colon-Tubes, Crutch-Tips, Face-Bottles, Finger-Cots, Fountain-Syringes; Ice-Bags, Invalid-Rings, Irrigating-Tubes, Operating Cushions, Nasal Feeding-Tubes, Nipple-Shields, Rubber Nursing-Nipples, Nursing-Bottle Fittings, Pessaries, Politzer Bags; Powder-Blowers for Dental, Medical, and Surgical Purposes; Rectal Tubes, Rubber Tubing for Surgical Apparatus; Rubber Hot-Water Bottles, Stomach-Tubes; Infant, Ladies', Nasal, Syringes; Ear and Vaginal Douche-Syringes, Surgical and Invalid Cushions, Surgeons' Rubber Gloves, Teething-Rings, Tourniquets, Throat Water-Bags, Umbilical Belts, Travelers' and Invalids' Urinals; Veterinary Rubber Goods—Namely, Rubber Tampon, Drenching-Bottles, Drenching-Tubes, Stomach-Tubes, Veterinary Syringes, Breeders' Bags for Holding Seminal Fluid, and Impregnators for Impregnating Purposes.

311,925. Apr. 10, 1934. I. B. Kleinert Rubber Company, New York, N. Y. Pub. by registrant.

SOFTEX

For Sanitary Baby Pants, Sanitary Step-Ins in the Nature of Underdrawers, and Sanitary Aprons.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

114,342. Dec. 13, 1916. Everett Packing Co., Everett, Wash. Pub. by Fishermen's Packing Corporation, Anacortes, Wash.

For Canned Salmon.

438,959. May 25, 1948. Basic Vegetable Products Co., Vacaville and San Francisco, Calif. Pub. by Sunspiced Vegetables, Inc., Vacaville, Calif.

SUN-SPICED

For Dried Onions.

444,108. Aug. 1, 1950. Basic Vegetable Products Company, Vacaville, Calif. Pub. by Basic Vegetable Products, Inc., San Francisco, Calif.

For Dehydrated Onions.

CLASS 52

DETERGENTS AND SOAPS

115,180. Jan. 30, 1917. The Grasselli Chemical Company, Cleveland, Ohio. Pub. by E. I. du Pont de Nemours and Company, Wilmington, Del.

NOGAS

For Metal-Pickling Compounds and Ingredients Thereof.

LIST OF REGISTRANTS OF TRADEMARKS

REGISTERED FEBRUARY 5, 1957

Ace Mfg. Co., San Antonio, Tex. 641,177. Cl. 39.
Acetylene Chemicals Co., New York, N. Y. 640,850, pub. 11–20–56. Cl. 6.
Adhesive Products Corp., New York, N. Y. 640,847, pub. 11–20–56. Cl. 5.
Adikes, J. & L., Inc., Jamaica, N. Y. 640,885, pub. 11–20–56. Cl. 10.
Agricultural Equipment Corp., La Junta, Colo. 641,029, pub. 11–20–56. Cl. 34.
Ahlbin, John, and Sons, Inc., Bridgeport, Conn. 640,981, pub. 11–20–56. Cl. 23.
Airosprayer Co., Neodesha, Kans., to J. L. Fawcett. 640,991, pub. 11–20–56. Cl. 23.
Ajem Laboratories, Inc., Livonia, Mich. 641,141, pub. 11–20–56. Cl. 52.
Aktiebolaget C. G. Nystrom & Co., Hagalund, Sweden. 534,597, canc. Cl. 46.
Ald, Inc., Chicago, Ill. 641,032, pub. 11–20–56. Cl. 34.
Alkire, Eddie, Publications: *See*—
Alkire, Elbern H.
Alkire, Elbern H., d. b. a. Eddie Alkire Publications, Easton, Pa. 534,268, canc. Cl. 38.
Allen Electric and Equipment Co., Kalamazoo, Mich. 640,966, pub. 11–20–56. Cl. 21.
Allen Ro-Tana Co., Biloxi, Miss. 640,963, pub. 11–20–56. Cl. 21.
Allway Scarf Corp., to Leon L. Wilson and Frederic C. Cooley, Jr., d. b. a. Frederic C. Cooley, Jr., Associates, New York, N. Y. 534,321, canc. Cl. 39.
Altman, B., & Co., New York, N. Y. 534,263, canc. Cl. 39.
Alturas Packing Co., Inc., Connersville and Bartow, Fla. 534,711, canc. Cl. 46.
American Crayon Co., The, Sandusky, Ohio. 434,188, canc. Cl. 37.
American Cyanamid Co., New York, N. Y. 640,869, pub. 11–20–56. Cl. 6.
American Lady Corset Co., Detroit, Mich. 534,666, canc. Cl. 39.
American Murex Corp., by Metal & Thermit Corp., New York, N. Y. 337,969, 12(c) pub. 2–5–57. Cl. 14.
American Speedlight Corp., Middle Village, N. Y. 641,014, pub. 11–20–56. Cl. 26.
American Sterilizer Co., Erie, Pa. 640,860, pub. 11–20–56. Cl. 6.
American Tobacco Co., The, New York, N. Y. 534,792, canc. Cl. 17.
American Window Glass Co., Pittsburgh, Pa. 340,244, 12(c) pub. 2–5–57. Cl. 33.
Anchor Post Fence Co., Baltimore, Md., by John Wood Co., New York, N. Y. 307,852, 12(c) pub. 2–5–57. Cl. 34.
Anchor Post Fence Co., Baltimore, Md., by John Wood Co., New York, N. Y. 402,085, 12(c) pub. 2–5–57. Cl. 34.
Anderson, James B., Jr., Miami, Fla. 641,053. pub. 11–20–56. Cl. 39.
Andy, Jean, Togs Co., New York, N. Y. 641,054, pub. 11–20–56. Cl. 39.
Antenna Specialists Co., Cleveland, Ohio. 640,935, pub. 11–20–56. Cl. 21.
Anthony, Alfred A., New York, N. Y. 534,266, canc. Cl. 22.
Aquafil Co., Cedar Rapids, Iowa. 640,818, pub. 11–20–56. Cl. 1.
Archer-Daniels-Midland Co., Minneapolis, Minn. 641,123, pub. 11–20–56. Cl. 46.
Arden, Elizabeth, Sales Corp., New York, N. Y. 534,368, canc. Cl. 51.
Arden, Elizabeth, Sales Corp., New York, N. Y. 534,380, canc. Cl. 3.
Arlington Chemical Co., The, to W. S. Vitamin Corp., New York, N. Y. 341,510, ren. 12–8–56. Cl. 18.
Arnold, Franc, St. Louis, Mo., to Lewis Food Co., Los Angeles, Calif. 341,052, ren. 12–1–56. Cl. 46.
Arrow Tools, Inc., Chicago, Ill. 640,980, pub. 11–20–56. Cl. 23.
Artistic Foundations, Inc., New York, N. Y. 534,445, canc. Cl. 39.
Asselin Creamery Co.: *See*—
Asselin, Urgel F.
Asselin, Urgel F., d. b. a. Asselin Creamery Co., Norway, Mich., to Consolidated Badger Cooperative, Shawano, Wis. 343,740, ren. 3–2–57. Cl. 46.
Associated Merchandising Corp., The, New York, N. Y. 534,384, canc. Cl. 39.
Associated Merchandising Corp., The, New York, N. Y. 534,458, canc. Cl. 3.
Astlett, H. A., & Co., Inc., New York, N. Y. 640,989, pub. 11–20–56. Cl. 23.
Astoria Mfg. Co.: *See*—
Astoria Marine Construction Co.
Astoria Marine Construction Co., d. b. a. Astoria Mfg. Co., Astoria, Oreg. 640,888, pub. 11–20–56. Cl. 12.
Auto Electric & Service Corp., Detroit, Mich. 640,997, pub. 11–20–56. Cl. 23.
B & H Instrument Co., Inc., Fort Worth, Tex. 641,008, pub. 11–20–56. Cl. 26.
Balanced Foods, Inc., New York, N. Y. 640,940, pub. 11–20–56. Cl. 21.
Balanced Foods, Inc., d. b. a. Extract-All Co., New York, N. Y. 640,941, pub. 11–20–56. Cl. 21.
Balkamp, Inc.: *See*—
Balkamp Mfg. Corp.
Balkamp Mfg. Corp., to Balkamp, Inc., Indianapolis, Ind. 345,825, ren. 5–11–57. Cl. 23.
Barbizon Corp., New York, N. Y. 534,682, canc. Cl. 39.
Barkin, Levin & Co., Inc., New York, N. Y. 534,500, canc. Cl. 39.
Basic Vegetable Products Co., Vacaville and San Francisco, by Sunspiced Vegetables, Inc., Vacaville, Calif. 438,959. 12(c) pub. 2–5–57. Cl. 46.
Basic Vegetable Products Co., Vacaville, by Basic Vegetable Products, Inc., San Francisco, Calif. 444,108, 12(c) pub. 2–5–57. Cl. 46.
Basic Vegetable Products, Inc.: *See*—
Basic Vegetable Products Co.
Basic-Witz Furniture Industries, Inc., The, Waynesboro, Va. 641,026, pub. 11–20–56. Cl. 32.
Bay State Milling Co., Winona, Minn. 641,120, pub. 11–20–56. Cl. 46.
Beacon Looms Inc., New York, N. Y. 641,185. Cl. 42.
Beichman & Vogel, Baltimore, Md. 534,387, canc. Cl. 39.
Bell Bakeries, Inc., New York, N. Y. 534,615, canc. Cl. 46.
Bemis Bro. Bag Co., Minneapolis, Minn. 640,889, pub. 11–20–56. Cl. 12.
Berkowitz, Michael, Co., Inc., New York, N. Y. 641,057, pub. 11–20–56. Cl. 39.
Berle Products, Minneapolis, Minn., to Berle Products, Inc. 534,293, canc. Cl. 18.
Berle Products, Inc.: *See*—
Berle Products.
Bernard Sportswear, Inc., Boston, Mass. 534,814, canc. Cl. 39.
Bernstein, Philip, Flushing, N. Y. 534,435, canc. Cl. 39.
Beryl Mills, Inc., New York, N. Y. 641,059, pub. 11–20–56. Cl. 39.
Biegler, John R., Inglewood, Calif. 534,767, canc. Cl. 17.
Billings & Spencer Co., The: *See*—
Windsor Automatic Co., Inc.
Binney & Smith Co., to Binney & Smith Inc., New York, N. Y. 346,232, ren. 5–18–57. Cl. 16.
Binney & Smith Inc.: *See*—
Binney & Smith Co.
Binney & Smith Inc., New York, N. Y. 641,127, pub. 11–20–56. Cl. 50.
Biola Packing Co.: *See*—
Scheidt, Chris H.
Black & Decker Mfg. Co., Towson, Md. 276,149, canc. Cl. 23.
Blackwell, Elizabeth, independent executrix of the estate of H. J. Blackwell, deceased, d. b. a. The World's Messenger Publishing Co., Fort Worth, Tex. 534,815, canc. Cl. 38.
Blackwell, H. J.: *See*—
Blackwell, Elizabeth.
Blue Anchor, Inc., Philadelphia, Pa. 641,060, pub. 11–20–56. Cl. 39.
Boehringer, C. H., Sohn, Ingelheim am Rhine, Germany. 640,919–22, pub. 11–20–56. Cl. 18.
Boehringer, C. H., Sohn, Ingelheim am Rhine, Germany. 641,166. Cl. 18.
Bolton Leathers Ltd., Bolton, England. 534,228–29, canc. Cl. 1.
Bonney Forge & Tool Works, Allentown, Pa. 640,899, pub. 11–20–56. Cl. 13.
Borax Consolidated, Ltd., d. b. a. Pacific Coast Borax Co., Div. of Borax Consolidated Ltd., Los Angeles, Calif., now by change of name, Borax (Holdings) Ltd., to United States Borax & Chemical Corp. 640,832–33, pub. 11–20–56. Cl. 1.
Borax (Holdings) Ltd.: *See*—
Borax Consolidated, Ltd.
Bord-A-Blox Co.: *See*—
Scott, Howard R. and Wallace A Scott.
Borden Co., The, New York, N. Y. 641,162. Cl. 10.
Bourns Laboratories, Inc., Riverside, Calif. 640,937, pub. 11–20–56. Cl. 21.
Bradas & Gheens, Inc., Louisville, Ky. 641,106, pub. 11–20–56. Cl. 46.
Branur Corp., Pikesville, Md. 641,168. Cl. 23.
Brearley Co., The, Rockford, Ill. 641,013, pub. 11–20–56. Cl. 26.
Bridal-Ette Bride Basket, New York, N. Y. 534,467, canc. Cl. 101.
Bridge Hardware Co., Inc., New York, N. Y. 552,751, canc. Cl. 23.
Bristol Laboratories Inc., New York, N. Y. 640,930, pub. 11–20–56. Cl. 18.
British Celanese Ltd., London, England. 640,834, pub. 11–20–56. Cl. 1.
British Celanese Ltd., London, England. 640,840, pub. 11–20–56. Cl. 1.
Bromo-Mint Co., Inc., d. b. a. Kenner Products Co., Cincinnati, Ohio. 640,973, pub. 11–20–56. Cl. 22.
Brooks, E. J., Co., Newark, N. J. 641,128, pub. 11–20–56. Cl. 50.
Brown Co., Berlin, N. H. 641,046, pub. 11–20–56. Cl. 37.
Bryan Full Fashioned Mills, Chattanooga, Tenn. 534,508, canc. Cl. 39.
Budrell Packers, Inc., Everett, Mass. 534,700, canc. Cl. 46.
Budrell Packers, Inc., Everett, Mass. 534,708, canc. Cl. 46.
Buegeleisen & Jacobson, Inc., New York, N. Y. 641,172. Cl. 36.

Burndy Engineering Co., Inc., Norwalk, Conn. 640,947, pub. 11–20–56. Cl. 21.
Burnishine Products Co., d. b. a. J. C. Paul & Co., Skokie, Ill. 640,842, pub. 11–20–56. Cl. 4.
Burt, Richard E., d. b. a. Richard Steffand, Beverly Hills, Calif. 641,133, pub. 11–20–56. Cl. 51.
C P S Mfg. Co., Chicago, Ill. 641,035, pub. 11–20–56. Cl. 37.
California Packing Corp., San Francisco, Calif. 641,111, pub. 11–20–56. Cl. 46.
Calumet & Hecla, Inc., Chicago, Ill. 640,900, pub. 11–20–56. Cl. 13.
Cambridge Thermionic Corp., Cambridge, Mass. 640,945, pub. 11–20–56. Cl. 21.
Candy Girl Coats, Inc., New York, N. Y. 641,178. Cl. 39.
Carey & Son, Inc., Rittman, Ohio. 641,188. Cl. 46.
Carpenter Mfg. Co., Boston, Mass. 640,958, pub. 11–20–56. Cl. 21.
Carr, Lloyd G. K., Staunton, Va. 534,311, canc. Cl. 18.
Carroll Chemical Co., Baltimore, Md. 640,923, pub. 10–16–56. Cl. 18.
Catron, Stephen H., d. b. a. Stephen H. Catron Co., New York, N. Y. 641,089, pub. 11–20–56. Cl. 43.
Catron, Stephen H., Co.: *See*—
Catron, Stephen H.
Celanese Corp. of America, New York, N. Y. 341,594, ren. 12–15–56. Cl. 42.
Celanese Corp. of America, New York, N. Y. 534,292, canc. Cl. 42.
Central Service Sales Co., Kokomo, Ind. 534,596, canc. Cl. 23.
Chant and Allen Enterprises, Minneapolis, Minn. 640,975, pub. 11–20–56. Cl. 22.
Chaput, Sylvio A., administrator of Henry E. Chaput, deceased, d. b. a. The Laxatine Co., Upper Darby, Pa. 534,238, canc. Cl. 18.
Chein, J., & Co., Burlington, N. J. 640,977, pub. 11–20–56. Cl. 22.
Cherry, E., Sons & Co., Inc., Philadelphia, Pa. 641,109, pub. 11–20–56. Cl. 46.
Chicago Almond Products Co., Inc., Chicago, Ill. 641,189. Cl. 46.
Chicago Rawhide Mfg. Co., Chicago, Ill. 532,815, canc. Cl. 39.
Chicago Roller Skate Co., to The Chicago Roller Skate Co., Chicago, Ill. 640,971, pub. 11–20–56. Cl. 22.
Chicago Roller Skate Co., The: *See*—
Chicago Roller Skate Co.
Chore-Time Equipment, Inc., Milford, Ind. 640,987, pub. 11–20–56. Cl. 23.
Cinderella Unusual Cosmetics, Inc., Memphis, Tenn. 534,255, canc. Cl. 51.
Circus Saints and Sinners Club of America, Inc., Washington, D. C. 641,143, pub. 11–20–56. Cl. 100.
City Stores Mercantile Co., Inc., New York, N. Y. 534,441, canc. Cl. 3.
Clairol Inc., Stamford, Conn. 641,138, pub. 11–20–56. Cl. 51.
Clark-Coleman Coal & Coke Co., Peoria, Ill., by Key Coal Co., Kansas City, Mo. 343,528, 12(c) pub. 2–5–57. Cl. 1.
Clary Multiplier Corp., San Gabriel, Calif. 534,843, canc. Cl. 21.
Clover Knitting Mills, Inc., Philadelphia, Pa. 641,065, pub. 11–20–56. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 282,297, canc. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 302,190, canc. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 378,331, canc. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 402,341, canc. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 418,736, canc. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 426,440, canc. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 557,708, canc. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 564,984, canc. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 641,181–2. Cl. 39.
Cold Corp. of America, Chicago, Ill. 641,021, pub. 11–20–56. Cl. 31.
Collins & Aikman Corp., Philadelphia, Pa. 275,448, canc. Cl. 42.
Colorado Fuel and Iron Corp., The, Denver, Colo. 640,903, pub. 11–20–56. Cl. 13.
Colorado Milling & Elevator Co., Denver, Colo., also d. b. a. Omaha Flour Mills Co., Omaha, Nebr., from Omar Inc. 534,256, canc. Cl. 46.
Columbia Auto Seat Cover Co., Inc., Los Angeles, Calif. 534,723, canc. Cl. 32.
Columbia Chemical Co., Inc., Chicago, Ill. 640,848, pub. 10–12–54. Cl. 6.
Columbian Carbon Co.: *See*—
Martin, L., Co., The.
Commercial Broadcasters, Chicago, Ill. 641,147, pub. 11–20–56. Cl. 101.
Commercial Controls Corp., Rochester, N. Y. 640,955, pub. 11–20–56. Cl. 21.
Consolidated Badger Cooperative: *See*—
Asselin, Urgel F.
Consolidated Tea Co., Inc., New York, N. Y. 641,100, pub. 11–20–56. Cl. 46.
Construction Specifications Institute, Inc., The, Washington, D. C. 641,047, pub. 11–20–56. Cl. 38.
Cooley, Frederic C., Jr., Associates: *See*—
Allway Scarf Corp.
Corning Glass Works, Corning, N. Y. 534,241, canc. Cl. 38.
Cotonificio Legler S. P. A., Ponte San Pietro, Italy. 641,079, pub. 11–20–56. Cl. 42.
County Trust Co., The, White Plains, N. Y. 641,148, pub. 11–20–56. Cl. 102.
Crescent Automotive Cables: *See*—
Crescent Cable Co.
Crescent Cable Co., also d. b. a. Crescent Automotive Cables, by The Crescent Co., Inc., Pawtucket, R. I. 347,878, 12(c) pub. 2–5–57. Cl. 21.
Crescent Co., Inc., The: *See*—
Crescent Cable Co.
Cross, A. T., Pencil Co., Providence, R. I. 641,038, pub. 11–20–56. Cl. 37.
Crown Zellerbach Corp., San Francisco, Calif. 640,845, pub. 11–20–56. Cl. 5.
Cupples, Samuel, Envelope Co., St. Louis, Mo., by Samuel Cupples Envelope Co., Inc., Brooklyn, N. Y. 47,013, 12(c) pub. 2–5–57. Cl. 37.
Cupples, Samuel, Envelope Co., Inc.: *See*—
Cupples, Samuel, Envelope Co.
Cushing Co., The, Hastings, Nebr. 534,562–3, canc. Cl. 46.
Dahl Pharmacal Co., Minneapolis, Minn. 534,308, canc. Cl. 18.
Daman, Arthur C., Denver, Colo. 534,604–7, canc. Cl. 22.
D'Amato, Sarina, d. b. a. Sarina Lingerie Co., New York, N. Y. 641,070, pub. 11–20–56. Cl. 39.
Darowish, William J., New York, N. Y. 534,582, canc. Cl. 22.
Davol Rubber Co., Providence, R. I. 124,232, 12(c) pub. 2–5–57. Cl. 44.
Day & Night Water Heater Co., Ltd., Monrovia, Calif. 377,309, canc. Cl. 34.
De Carlo Pietropinto, Anna M., d. b. a. A. D. Pietropinto, New York, N. Y. 641,101, pub. 11–20–56. Cl. 46.
Deering Milliken & Co., Inc., New York, N. Y. 534,789–90, canc. Cl. 42.
Deering, Milliken & Co., Inc., New York, N. Y. 641,075, pub. 11–20–56. Cl. 42.
Del Bueno, Alex B., d. b. a. Dell & Holtz, Plainfield, N. J. 640,924, pub. 11–20–56. Cl. 18.
Dell & Holtz: *See*—
Del Bueno, Alex B.
Dewey and Almy Chemical Co., Cambridge, Mass. 534,685, canc. Cl. 16.
Dictaphone Corp., Bridgeport, Conn. 534,598, canc. Cl. 36.
Dixon, H. M. S., d. b. a. The Noxid Co., Arlington, Tex. 640,927, pub. 9–18–56. Cl. 18.
Donovan Enterprises, Inc., Saugatuck, Conn. 534,763, canc. Cl. 39.
Donovan Industries Inc., New York, N. Y. 641,158. Cl. 1.
Dow Chemical Co., The, Midland, Mich. 640,874–7, pub. 11–20–56. Cl. 6.
Dow Corning Corp., Midland, Mich. 640,865, pub. 11–20–56. Cl. 6.
Dowl Products, Inc., Milwaukee, Wis. 534,443, canc. Cl. 8.
Drew, E. F., & Co., Inc., New York, N. Y. 641,113, pub. 11–20–56. Cl. 46.
Dreyfus, L. A., Co., Oak Tree, N. J. 640,836, pub. 11–20–56. Cl. 1.
Driver-Harris Co.: *See*—
Driver Harris Wire Co.
Driver Harris Wire Co., to Driver-Harris Co., Harrison, N. J. 115,496, ren. 2–20–57. Cl. 14.
Dunham Co., The, Berea, Ohio. 640,999, pub. 11–20–56. Cl. 23.
Duofold Health Underwear Co., to Duofold Inc., Mohawk, N. Y. 115,317, ren. 2–6–57. Cl. 39.
Duofold Inc.: *See*—
Duofold Health Underwear Co.
Du Pont, E. I., de Nemours and Co.: *See*—
Grasselli Chemical Co., The.
Dutcher, Edwin B., Sheffield, Mass. 534,643, canc. Cl. 46.
E. & H. Sales Co.: *See*—
Hahn, Erick A.
Eder-Baille Corp., South Bend, Ind. 534,610–11, canc. Cl. 22.
Ekco Products Co., Chicago, Ill. 641,028, pub. 11–20–56. Cl. 33.
Electric Power Door Co., Inc., Minneapolis, Minn. 640,948, pub. 11–20–56. Cl. 21.
Elektrizitatswerk Lonza, Gampel, to Lonza Elektrizitatswerke und chemische Fabriken Aktiengesellschaft, Gampel and Basel, Switzerland. 114,255, ren. 12–5–56. Cl. 4.
Ellison, John B., & Sons Co., Ltd., Los Angeles, Calif. 641,083, pub. 11–20–56. Cl. 42.
Elton Weatherproof Co., The: *See*—
Goldblatt, Charles R.
Embrusa, Inc., New York, N. Y. 534,245, canc. Cl. 40.
Endo Laboratories Inc.: *See*—
Endo Products, Inc.
Endo Products, Inc., New York, to Endo Laboratories Inc., Richmond Hill, N. Y. 345,724–5, ren. 5–4–57. Cl. 18.
England, Gene, d. b. a. Santa Cruz Chili Co., Amado, Ariz. 641,119, pub. 11–20–56. Cl. 46.
Enterprise Aluminum Co., The, Massillon, Ohio. 640,904, pub. 11–20–56. Cl. 13.
Eutelas Mfg. Co.: *See*—
Gallagher, J. C.
Everedy Co., The, Frederick, Md. 640,897, pub. 11–20–56. Cl. 13.
Everett Packing Co., Everett, Wash., by Fishermen's Packing Corp., Anacortes, Wash. 114,342, 12(c) pub. 2–5–57. Cl. 46.
Exportadora Del Agro Espanol, Reus, Spain. 641,102, pub. 11–20–56. Cl. 46.
Extract-All Co.: *See*—
Balanced Foods, Inc.
Famous Products Co.: *See*—
Valmor Products Co.
Farbenfabriken Bayer Aktiengesellschaft, Leverkusen Bayer, Germany. 640,917, pub. 5–29–56. Cl. 18.
Fawcett, Leon J.: *See*—
Airosprayer Co.
Federal-Mogul Corp., Detroit, Mich. 534,640, canc. Cl. 23.
Felton & Son, Inc., South Boston, Mass. 641,125, pub. 11–20–56. Cl. 49.
Fenwal Laboratories, Inc., Framingham, Mass. 641,094, pub. 11–20–56. Cl. 44.
Fiber Bond Corp., Chicago, Ill. 640,816, pub. 11–20–56. Cl. 1.
Fibreboard Products Inc., San Francisco, Calif. 641,159. Cl. 2.

Fidelity Cotton Oil Co., Houston, Tex., to South Texas Cotton Oil Co., New Orleans, La. 114,155, ren. 12–5–56. Cl. 46.
Field, William II., Co., Inc., Boston, Mass. 640,990, pub. 11–20–56. Cl. 23.
Fieldcrest Mills, Inc., Spray, N. C. 641,085, pub. 11–20–56. Cl. 42.
Finch, Joseph S., and Co., New York, N. Y. 641,126, pub. 11–20–56. Cl. 49.
Fisher, Gerhard R., East Palo Alto, Calif. 640,959, pub. 11–20–56. Cl. 21.
Fishermen's Packing Corp.: *See*—
Everett Packing Co.
Fishman, Catherine, Detroit, Mich. 641,132, pub. 11–20–56. Cl. 51.
Fleetwood Co., Chicago, Ill. 641,137, pub. 11–20–56. Cl. 51.
Fluid Head Corp., The, Baltimore, Md., by John Wood Co., New York, N. Y. 227,374, 12(c) pub. 2–5–57. Cl. 34.
Forster-Willi Co., The, Columbus, Ohio. 641,084, pub. 11–20–56. Cl. 42.
Foster-Milburn Co., Buffalo, N. Y. 640,926, pub. 11–20–56. Cl. 18.
Freezette Sales Corp., Detroit, Mich. 641,024, pub. 11–20–56. Cl. 31.
Freudenberg, Carl, Kommanditgesellschaft auf Aktien, Weinheim an der Bergstrasse, Germany. 640,819, pub. 11–20–56. Cl. 1.
Frey, Louis E., Los Angeles, Calif. 641,027, pub. 11–20–56. Cl. 32.
Fuller, D. B., & Co., Inc., New York, N. Y. 641,082, pub. 11–6–56. Cl. 42.
Gadgets, Inc., Dayton, Ohio. 534,784, canc. Cl. 21.
Gallagher, J. C., d. b. a. Eutelos Mfg. Co., Philadelphia, Pa. 534,355, canc. Cl. 18.
Gambell, Stanley K., Philadelphia, Pa. 641,144, pub. 11–20–56. Cl. 100.
Garden State Tanning Inc., New York, N. Y. 640,838–9, pub. 11–20–56. Cl. 1.
Gardner-Denver Co., Denver, Colo. 641,005, pub. 11–20–56. Cl. 23.
Garland Knitting Mills, Jamaica Plain, Mass. 641,072, pub. 11–20–56. Cl. 39.
General Aniline & Film Corp., New York, N. Y. 640,866–7, pub. 11–20–56. Cl. 6.
General Beauty Products, Inc., New York, N. Y. 641,133–4, pub. 11–20–56. Cl. 51.
General Electric Co., Milwaukee, Wis. 640,915, pub. 11–20–56. Cl. 18.
General Floorcraft, Inc., New York, N. Y. 534,813, canc. Cl. 21.
General Motors Corp., Detroit, Mich. 640,942, pub. 11–20–56. Cl. 21.
General Time Corp.: *See*—
Western Clock Co.
George, Herbert, Co., Chicago, Ill. 641,007, pub. 11–20–56. Cl. 26.
Gilbert & Barker Mfg. Co., West Springfield, Mass. 114,094, ren. 11–28–56. Cl. 23.
Gilbert of California, Los Angeles, Calif. 534,820, canc. Cl. 39.
Girozan, Mary, Cleveland, Ohio. 534,687, canc. Cl. 42.
Giuseppe, Bocchese, & Figli S. A. S., Vicenza, Italy. 641,077–8, pub. 11–20–56. Cl. 42.
Gladding, McBean & Co., Los Angeles, Calif. 641,020, pub. 11–20–56. Cl. 30.
Glamour Jewelry Inc., Providence, R. I. 641,018, pub. 11–20–56. Cl. 28.
Godman, H. C., Co., The, Columbus, Ohio. 534,249, canc. Cl. 39.
Goldberg, Joseph, & Sons, Inc., Paterson, N. J. 534,502, canc. Cl. 39.
Goldblatt, Charles R., d. b. a. The Elton Weatherproof Co., Manchester, England. 534,474, canc. Cl. 39.
Goliath-Werk G. m. b. H., Bremen, Germany. 640,934, pub. 11–20–56. Cl. 19.
Good Bros. Leather Co., Newark, N. J. 640,837, pub. 11–20–56. Cl. 1.
Goodman, Gerald, Massapequa, N. Y. 640,870, pub. 11–20–56. Cl. 6.
Goodrich, B. F., Chemical Co.: *See*—
Goodrich, B. F., Co., The.
Goodrich, B. F., Co., The, Akron, Ohio, and New York, N. Y. 534,187, canc. Cl. 39.
Goodrich, B. F., Co., The, New York, N. Y., and Akron, Ohio. 534,213, canc. Cl. 20.
Goodrich, B. F., Co., The, d. b. a. B. F. Goodrich Chemical Co., a division of The B. F. Goodrich Co., Akron, Ohio. 640,820, pub. 11–20–56. Cl. 1.
Gordo's Mexican Food Products Co.: *See*—
Merrill, Vernal.
Gramer-Halldorson Transformer Corp., Chicago, Ill. 640,936, pub. 11–20–56. Cl. 21.
Grandma Penny's Old Fashioned Candies, Inc., d. b. a. Grandma Penny's Old Fashioned Candy Co., West Orange, N. J. 641,122, pub. 11–20–56. Cl. 46.
Grandma Penny's Old Fashioned Candy Co.: *See*—
Grandma Peny's Old Fashioned Candies, Inc.
Grant Storage Battery Co., Minneapolis, Minn. 534,460, canc. Cl. 23.
Grasselli Chemical Co., The, Cleveland, Ohio, by E. I. du Pont de Nemours and Co., Wilmington, Del. 115,180, 12(c) pub. 2–5–57. Cl. 52.
Gross, A., Candle Co., Inc., Linden, N. J. 341,161, 12(c) pub. 2–5–57. Cl. 34.
Haddad & Sons, Inc., New York, N. Y. 641,087, pub. 11–20–56. Cl. 42.
Hadley, Walter H., d. b. a. The Sof-Tuf Co., Indianapolis, to The Sof-Tuf Co., Inc., Bloomington, Ind. 534,188, canc. Cl. 40.
Hagerty Co., Cohasset, Mass. 641,025, pub. 11–20–56. Cl. 32.
Hahn, Erick A., d. b. a. E. & H. Sales Co., Chicago, Ill. 641,041, pub. 11–20–56. Cl. 37.
Haire Publishing Co., New York, N. Y. 534,831 canc. Cl. 38.
Hall, Claude, Jr., Glenwood Springs, Colo. 534,824, canc. Cl. 39.
Hamilton Glass Co., Inc., Chicago, Ill. 534,701, canc. Cl. 32.
Hamilton Metal Products Co., The, Hamilton, Ohio. 640,871, pub. 11–20–56. Cl. 6.
Hansen, Henry J., Puyallup, Wash. 640,821, pub. 11–20–56. Cl. 1.
Happy Products Co., Kansas City, Mo. 640,881, pub. 11–20–56. Cl. 6.
Hard Rock Maple Ten Pin Co., Oak Park, Ill. 641,167. Cl. 22.
Har-Mac Co.: *See*—
Harmon, Bennie L.
Harmon, Bennie L., d. b. a. Har-Mac Co., New York, N. Y. 534,332, canc. Cl. 40.
Hat Corp. of America: *See*—
Knox Hat Co., Inc.
Hego Fabrica, Inc., New York, N. Y. 534,457, canc. Cl. 42.
Heminway & Bartlett Mfg. Co., The, Watertown, Conn. 534,328, canc. Cl. 43.
Heminway & Bartlett Mfg. Co., The, Watertown, Conn. 534,442, canc. Cl. 43.
Henkell & Co., Wiesbaden-Biebrich, Germany. 641,124, pub. 11–20–56. Cl. 47.
Hess, Charles H., Co., The, to The Tri-State Foods Co., Cincinnati, Ohio. 114,352, ren. 12–12–56. Cl. 46.
Heyden Chemical Corp., New York, N. Y., to Multibiotics Corp. of America, Baltimore, Md. 640,914, pub. 11–20–56. Cl. 18.
Heyer Industries Inc., Belleville, N. J. 641,009, pub. 11–20–56. Cl. 26.
Hi-Line Co., Inc., New York, N. Y. 534,758, canc. Cl. 39.
Hill-Smith Systems: *See*—
Hill-Smith Termite Control Co., Inc.
Hill-Smith Termite Control Co., Inc., d. b. a. Hill-Smith Systems, Memphis, Tenn. 641,151, pub. 11–20–56. Cl. 103.
Hines, Lois D., New York, N. Y. 534,589, canc. Cl. 32.
Hochberg, Albert, d. b. a. Albert Hochberg Co., New York, N. Y. 534,722, canc. Cl. 39.
Hochberg, Albert, Co.: *See*—
Hochberg, Albert.
Hoffmann-La Roche Inc., Nutley, N. J. 534,823, canc. Cl. 38.
Holeproof Hosiery Co., Milwaukee, Wis. 534,497, canc. Cl. 39.
Holland-America Line: *See*—
N. V. Nederlansch-Amerikaansche Stoomvaart Maatschappij.
Home Outfitters, Inc., Chicago, Ill. 534,542, canc. Cl. 32.
Hopkins, Dean L., d. b. a. Hopkins Seed Co., Oklahoma City, Okla. 641,117, pub. 11–20–56. Cl. 46.
Hopkins Seed Co.: *See*—
Hopkins, Dean L.
Host Treat: *See*—
Levy, J. Leo, Jr.
House of Frothee, Inc., New York, N. Y. 641,098, pub. 11–20–56. Cl. 45.
Hub Appliance Stores: *See*—
Morguloff, Alex.
Huber, J. M., Corp., New York, N. Y. 640,872, pub. 11–20–56. Cl. 6.
Humko Co., The, Memphis, Tenn. 641,186. Cl. 46.
Hunter Douglas Corp., New York, N. Y. 534,335, canc. Cl. 41.
Hunter Douglas Corp., New York, N. Y. 534,358, canc. Cl. 40.
Hyde Park Clothes, Inc., Newport, Ky. 534,503, canc. Cl. 38.
Icove & Young, Inc., New York, N. Y. 641,049, pub. 11–20–56. Cl. 39.
Ideal Fastener Corp., Long Beach, N. Y. 640,901, pub. 11–20–56. Cl. 13.
Imperial Chemical (Pharmaceuticals) Ltd., London, England. 534,385, canc. Cl. 18.
Indian Trailer Corp., Chicago, Ill. 534,769, canc. Cl. 19.
Industrias Gracarbon, S. A., Matanzas, Cuba. 640,835, pub. 11–20–56. Cl. 1.
Integra Ag. Zurich Industrietechnische Gesellschaft, Zurich, Switzerland. 640,944, pub. 11–20–56. Cl. 21.
Integra Ag. Zurich Industrietechnische Gesellschaft, Zurich, Switzerland. 640,949, pub. 11–20–56. Cl. 21.
Interchemical Corp., New York, N. Y. 640,882, pub. 11–20–56. Cl. 6.
International Braid Corp., Fall River, Mass. 534,410, canc. Cl. 40.
International Formprint Co., New York, N. Y. 641,042, pub. 11–20–56. Cl. 37.
International Harvester Co., Chicago, Ill. 640,984, pub. 11–20–56. Cl. 23.
International Highway Marker Co., Chicago, Ill. 534,205, canc. Cl. 50.
International Laboratories, Inc.: *See*—
Peck & Sterba, Inc.
International Plumbing Mfg. Co., Inc., New York, N. Y. 640,898, pub. 11–20–56. Cl. 13.
Interwoven Stocking Co., New Brunswick, N. J. 641,069, pub. 11–20–56. Cl. 39.
Intrusion-Prepakt, Inc., Cleveland, Ohio. 640,853, pub. 11–20–56. Cl. 6.
Irving-Cloud Publishing Co., The, Chicago, Ill. 534,833, canc. Cl. 38.
Island Mfg. Co., Brooklyn, N. Y. 641,043, pub. 11–20–56. Cl. 37.
Jantzen Knitting Mills Inc., Portland, Oreg. 534,696, canc. Cl. 42.
Jeffrey Mfg. Co., The, Columbus, Ohio. 534,420, canc. Cl. 21.
Jenkins Bros., New York, N. Y. 640,906, pub. 11–20–56. Cl. 13.
Jensen, Peter, A/S, d. b. a. Milco, Copenhagen, Denmark. 641,105, pub. 11–20–56. Cl. 46.

Jessall Plastics, Inc., Kensington, Conn. 640,841, pub. 11-20-56. Cl. 1.

Johns-Manville Corp., New York, N. Y. 344,203, ren. 3-16-57. Cl. 12.

Jones, E. D., and Sons Co., Pittsfield, Mass. 641,001, pub. 11-20-56. Cl. 23.

Jones, McCoy, & Co., Inc., Chicago, Ill. 534,493, canc. Cl. 39.

Jordan-Rogers Co., Orange, Calif. 641,033, pub. 11-20-56. Cl. 35.

Joseph Co., The, Chicago, Ill. 641,073, pub. 11-20-56. Cl. 39.

Juillard Fancy Foods Co., San Francisco, Calif., by change of name from Martens-Read Corp., d. b. a. Juillard Fancy Foods Co. 534,531, canc. Cl. 46.

K. C. Medical Press: *See*—
Salmon, M. C.

Kabo Corset Co., to Kabo, Inc., Chicago, Ill. 115,891, ren. 3-20-57. Cl. 39.

Kabo, Inc.: *See*—
Kabo Corset Co.

Kahle, George A., d. b. a. Virginia Seafood Exchange, Newport News, Va. 590,328, canc. Cl. 46.

Katz Drug Co., Kansas City, Mo. 534,262, canc. Cl. 37.

Kay-Fries Chemicals, Inc., West Haverstraw, N. Y. 534,417, canc. Cl. 6.

Kay See Dental Mfg. Co., d. b. a. Kay See Mfg. Co., Kansas City, Mo. 640,844, pub. 11-20-56. Cl. 5.

Kay See Mfg. Co.: *See*—
Kay See Dental Mfg. Co.

Kellar, Julie, New York, N. Y. 590,648, canc. Cl. 51.

Kemper, Frank H., d. b. a. Sportscot, Chicago, Ill. 641,071, pub. 11-20-56. Cl. 39.

Kent-Moore Organization, Inc., Detroit, Mich. 640,992, pub. 11-20-56. Cl. 23.

Key Coal Co.: *See*—
Clark-Coleman Coal & Coke Co.

Khosrovshahi Co., Inc., New York, N. Y. 534,747, canc. Cl. 21.

Kimball, A., Co., New York, N. Y. 641,044, pub. 11-20-56. Cl. 37.

Kinney Co., The, Providence, R. I. 641,019, pub. 11-20-56. Cl. 28.

Kisskerchief, Inc., New York, N. Y. 534,392, canc. Cl. 39.

Kleinert, I. B., Rubber Co., New York, N. Y. 98,665, 12(c) pub. 2-5-57. Cl. 40.

Kleinert, I. B., Rubber Co., New York, N. Y. 311,925, 12(c) pub. 2-5-57. Cl. 44.

Kleinert, I. B., Rubber Co., New York, N. Y. 312,325, 12(c) pub. 2-5-57. Cl. 42.

Kleinert, I. B., Rubber Co., New York, N. Y. 344,226, 12(c) pub. 2-5-57. Cl. 39.

Knapp-Monarch Co., St. Louis, Mo. 438,535, canc. Cl. 2.

Knapp-Monarch Co., St. Louis, Mo. 438,920–2, canc. Cl. 6.

Knox Hat Co., Inc., New York, N. Y., to Hat Corp. of America, Norwalk, Conn. 286,105, canc. Cl. 39.

Kobler, Paul, d. b. a. Kobler Shaver Co., Lynbrook, N. Y. 640,979, pub. 11-20-56. Cl. 23.

Kobler Shaver Co.: *See*—
Kobler, Paul.

Koch Refrigerators, Inc., Kansas City, Kans. 641,022, pub. 11-20-56. Cl. 31.

Kochums Mekaniska Verkstads Aktiebolag, Malmo, Sweden. 534,204, canc. Cl. 23.

Koehring Machine Co., Milwaukee, to Kwik-Mix Co., Port Washington, Wis. 114,495, ren. 12-19-56. Cl. 23.

Kolite, Inc., Chicago, Ill. 534,772, canc. Cl. 21.

Kono Mfg. Co. Inc., Woodside, N. Y. 641,016–17, pub. 11-20-56. Cl. 26.

Koppers Co., Inc., Pittsburgh, Pa. 640,817, pub. 11-20-56. Cl. 1.

Kord Mfg. Co., Inc., New York, N. Y. 640,951, pub. 11-20-56. Cl. 21.

Koreen, Bernard J., Port Arthur, Ontario, Canada. 640,976, pub. 11-20-56. Cl. 22.

Kourtesy Kontrol Co., Des Moines, Iowa. 640,957, pub. 11-20-56. Cl. 21.

Kreuter-Faasen Co., Grand Rapids, Mich. 212,201, canc. Cl. 16.

Krim-Ko Corp., Chicago, Ill. 640,946, pub. 11-20-56. Cl. 21.

Krispy Kernels, Inc., Newark, N. J. 534,676, canc. Cl. 46.

Kroger Co., The, Cincinnati, Ohio. 641,110, pub. 11-20-56. Cl. 46.

Kromweel Mfg. Co. Inc., Brooklyn, N. Y. 534,639, canc. Cl. 19.

Kwik-Mix Co.: *See*—
Koehring Machine Co.

L. C. S. Corp., d. b. a. Royal Sales and Mfg. Co., Los Angeles, Calif. 640,846, pub. 11-20-56. Cl. 5.

Laboratorio Torres S. A., Sao Paulo, Brazil. 534,280, canc. Cl. 18.

La France Mfg. Co., St. Louis, Mo. 640,913, pub. 11-20-56. Cl. 16.

Lakeside Laboratories, Inc., Milwaukee, Wis. 640,931, pub. 11-20-56. Cl. 18.

Lamar, M. B., Sr., Falls Church, Va. 640,974, pub. 11-20-56. Cl. 22.

Lampl Fashions, Inc., Cleveland, Ohio. 641,179. Cl. 39.

Langfelder, Homma & Carroll, Inc.: *See*—
Langfelder, Homma & Hayward, Inc.

Langfelder, Homma & Hayward, Inc., to Langfelder, Homma & Carroll, Inc., New York, N. Y. 343,242, ren. 2-16-57. Cl. 22.

Lansing Sales Agency, Lansing, Ill. 534,717, canc. Cl. 23.

Laszlo, Stephen E., Brooklyn, N. Y. 641,169. Cl. 26.

Laughter, D. Robert: *See*—
Mahrt, Louis R., and D. Robert Laughter.

Laxatine Co., The: *See*—
Chaput, Sylvio A.

Lee, D. C., Inc., Thonotosassa, Fla. 373,221, canc. Cl. 46.

Lee, Frank H., Co., The, Danbury, Conn. 534,509, canc. Cl. 39.

Leewood Fabrics, Inc., New York, N. Y. 399,686, canc. Cl. 42.

Lenell, Maurice, Cooky Co., Chicago, Ill. 641,115, pub. 11-20-56. Cl. 46.

Lenett Publications, Inc., New York, N. Y. 641,175. Cl. 38.

Leverton & Co., Houston, Tex. 534,625, canc. Cl. 46.

Levine, Louis, & Sons, Cincinnati, Ohio. 267,535, canc. Cl. 39.

Levine, Louis, & Sons, Cincinnati, Ohio. 276,503, canc. Cl. 39.

Levy, J. Leo, Jr., d. b. a. Host Treat, Baltimore, Md. 641,116, pub. 11-20-56. Cl. 46.

Lewis Food Co.: *See*—
Arnold, Franc.

Lewis Knitting Co., Janesville, Wis. 534,522–23, canc. Cl. 39.

Leyton Sportswear Co., New York, N. Y. 641,066, pub. 11-20-56. Cl. 39.

Liberty Mutual Insurance Co., Boston, Mass. 534,519, canc. Cl. 102.

Linton Tweeds Ltd., Carlisle, Cumberland, England. 641,086, pub. 11-20-56. Cl. 42.

Lit Brothers, Philadelphia, Pa. 534,450, canc. Cl. 3.

Lockheed Aircraft Corp., Burbank, Calif. 534,776, canc. Cl. 19.

Logan, Jonathan, Inc., New York, N. Y. 641,055, pub. 11-20-56. Cl. 39.

Lonza Electric and Chemical Works Ltd., Basel, Switzerland. 641,081, pub. 11-20-56. Cl. 42.

Lonza Elektrizitatswerke und Chemische Fabriken Aktiengesellschaft: *See*—
Elektrizitatswerk Lonza.

Lorum Fibre Co., Inc., New York, N. Y. 590,591, canc. Cl. 1.

Lowe Paper Co., Ridgefield, N. J. 641,040, pub. 11-20-56. Cl. 37.

Lubin-Weeker Co., Inc., New York, N. Y. 641,067, pub. 11-20-56. Cl. 39.

Lynn Innersole Co., Boston, Mass. 641,129–30, pub. 11-20-56. Cl. 50.

MacDonald Mfg. Co., New Baltimore, Mich. 641,154, pub. 11-20-56. Cl. 106.

Macy, R. H., & Co., Inc., New York, N. Y. 534,257, canc. Cl. 51.

Mahrt, Louis R., and D. Robert Laughter, trustees for Standard-Dayton Corp., Dayton, Ohio. 641,171. Cl. 32.

Mallory, E. A., and Sons, Inc., Danbury, Conn., and New York, N. Y., by John B. Stetson, Philadelphia, Pa. 114,646, 12(c) pub. 2-5-57. Cl. 39.

Manhattan Net Dyers & Finishers, Inc., New York, N. Y. 641,153, pub. 11-20-56. Cl. 106.

Manhattan Shirt Co., The, New York, N. Y. 534,834, canc. Cl. 39.

Manhattan Shirt Co., The, New York, N. Y. 641,058, pub. 11-20-56. Cl. 39.

Marlowe Chemical Co., New York, N. Y. 640,862, pub. 11-20-56. Cl. 6.

Martens-Read Corp.: *See*—
Juillard Fancy Foods Co.

Martin, L., Co., The, New York, N. Y., to Columbian Carbon Co. 640,855, pub. 11-20-56. Cl. 6.

Marvin Landplane Co., Woodland, Calif. 534,692, canc. Cl. 23.

Marx, Louis, & Co., Inc., New York, N. Y. 640,972, pub. 11-20-56. Cl. 22.

Mason, John, New York, N. Y. 534,674, canc. Cl. 36.

Mastar Packing Co., Brooklyn, N. Y. 534,574, canc. Cl. 46.

Matsushita Denki Sangyo Kabushiki Kaisha, Kadoma-Cho, Kitakawachi-Gun, Osaka Prefecture, Japan. 640,961, pub. 11-20-56. Cl. 21.

Mavar Shrimp and Oyster Co., Ltd., Biloxi, Miss. 641,112, pub. 11-20-56. Cl. 46.

Maxwell-Phillip Co., Inc., New York, N. Y. 534,576, canc. Cl. 23.

McCandless Corp., The, New York, N. Y. 641,034, pub. 11-20-56. Cl. 35.

McCullough, J. Chas., Seed Co., The, d. b. a. Cincinnati Horticultural Products Co., Cincinnati, Ohio. 641,107, pub. 11-20-56. Cl. 46.

McKesson & Robbins, Inc., Fairfield and Bridgeport, Conn., to McKesson & Robbins, Inc., New York, N. Y. 341,536, ren. 12-8-56. Cl. 49.

Mead Corp., The: *See*—
Mead Pulp and Paper Co., The.

Mead Pulp and Paper Co., The, to The Mead Corp., Dayton, Ohio. 114,519, ren. 12-19-56. Cl. 37.

Meb Export Co. Inc., New York, N. Y. 534,690, canc. Cl. 42.

Melville Shoe Corp., New York, N. Y. 263,939, 12(c) pub. 2-5-57. Cl. 39.

"Menorah," Rubinstein Bros., Tel-Aviv, Israel. 640,911, pub. 11-20-56. Cl. 15.

Merit Products, Inc., Culver City, Calif. 640,843, pub. 11-20-56. Cl. 4.

Merrell Laboratory Inc.: *See*—
Perkins, Dorothy, Co.

Merrill Metallurgical Co., San Francisco, Calif., to Metals Disintegrating Co., Inc., Union, N. J. 115,003, ren. 1-16-57. Cl. 6.

Merrill, Vernal, d. b. a. Gordo's Mexican Food Products Co., Phoenix, Ariz. 641,103, pub. 11-20-56. Cl. 46.

Metal & Thermit Corp.: *See*—
American Murex Corp.

Metals Disintegrating Co., Inc.: *See*—
Merrill Metallurgical Co.

Metropolitan Body Co., The, Bridgeport, Conn. 345,861, ren. 5-11-57. Cl. 19.

Metropolitan Body Co., The, Bridgeport, Conn. 534,612, canc. Cl. 19.

Meyer Brothers, Paterson, N. J. 641,063, pub. 11-20-56. Cl. 39.

Meyers Fruit Co., Minneapolis, Minn. 534,675, canc. Cl. 46.

Milco: *See*—
Jensen, Peter, A/S.

Miller Products Co.: *See*—
Perkins, Dorothy, Co.

Milo Tanning Corp., South Paris, Maine. 534,400, canc. Cl. 1.

Minnesota Farm Bureau Service Co., St. Paul, Minn. 640,908–9, pub. 11-20-56. Cl. 15.

Missouri Farmers Association, Inc., Columbia, Mo. 641,114, pub. 11-20-56. Cl. 46.

Moorman Mfg. Co., Quincy, Ill. 640,925, pub. 11-20-56. Cl. 18.

Morguloff, Alex, d. b. a. Hub Appliance Stores, Detroit, Mich. 534,798, canc. Cl. 23.

Morrision, Bret, New York, N. Y. 534,336, canc. Cl. 39.

Mud Control Laboratories, Inc., Oklahoma City, Okla. 640,859, pub. 11-20-56. Cl. 6.

Mud Control Laboratories, Inc., Oklahoma City, Okla. 641,149, pub. 11-20-56. Cl. 103.

Mueller Co., Decatur, Ill. 640,907, pub. 11-20-56. Cl. 13.

Multibiotics Corp. of America: *See*—
Heyden Chemical Corp.

Munro Dampproofings, Inc., New York, N. Y. 641,150, pub. 11-20-56. Cl. 103.

Musicue, Inc., Akron, Ohio. 641,155, pub. 11-20-56. Cl. 107.

N. V. Nederlansch-Amerikaansche Stoomvaart Maatschappij, d. b. a. Holland-America Line, New York, N. Y. 641,152, pub. 11-20-57. Cl. 105.

National Combination Storm Window and Door Institute, Inc., New York, N. Y. 641,157, pub. 11-20-56. Cl. A.

National Filter Media Corp., The, New Haven, Conn. 641,023, pub. 11-20-56. Cl. 31.

National Lead Co., New York, N. Y. 640,879, pub. 11-20-56. Cl. 6.

National Medical Pumps & Specialties Corp., Boonton, N. J. 641,092, pub. 11-20-56. Cl. 44.

Native Laces & Textiles, New York, N. Y. 534,788, canc. Cl. 42.

Navas, F., y Compania, Habana, Cuba. 534,691, canc. Cl. 19.

Nebraska Consolidated Mills Co., d. b. a. Alabama Flour Mills, Omaha, Nebr. 641,104, pub. 11-20-56. Cl. 46.

Niles, Fred A., Productions, Inc., Chicago, Ill. 640,956, pub. 11-29-56. Cl. 21.

Nofast Mfg. & Distb. Co., The, Denver, Colo. 534,414, canc. Cl. 18.

Norcross, Inc., New York, N. Y. 534,282, canc. Cl. 38.

Norcross, Inc., New York, N. Y. 534,841, canc. Cl. 38.

Nordby, Birger, Oslo, Norway. 534,210, canc. Cl. 32.

Norrad Sportswear, New York, N. Y. 534,279, canc. Cl. 39.

North, H. W., Co., The, Erie, Pa. 534,214–15, canc. Cl. 23.

Norwich Pharmacal Co., The, Norwich, N. Y. 640,918, pub. 11-20-56. Cl. 18.

Nott Mfg. Co., Inc., Mount Vernon, N. Y. 640,856–7, pub. 11-20-56. Cl. 6.

Novelty Tool Co., Spencer, Mass. 640,905, pub. 11-20-56. Cl. 13.

Noxid Co., The: *See*—
Dixon, H. M. S.

Occo Products, Minneapolis, Minn., to Occo Products Co. 534,290, canc. Cl. 6.

Occo Products Co.: *See*—
Occo Products.

Officine Metallurgiche Sgarbi Chioozi & C., Ferrara, Italy. 640,902, pub. 11-20-56. Cl. 13.

Olin Industries, Inc., East Alton, Ill., now by merger and change of name Olin Mathieson Chemical Corp. 640,884, pub. 11-20-56. Cl. 9.

Olin Mathieson Chemical Corp., New York, N. Y. 640,863, pub. 11-20-56. Cl. 6.

Omaha Flour Mills Co.: *See*—
Colorado Milling & Elevator Co.

Omar Inc.: *See*—
Colorado Milling & Elevator Co.

Omega Precision Medical Instrument Co., Inc., Passaic, N. J. 641,095, pub. 11-20-56. Cl. 44.

Oneida Ltd., Oneida, N. Y. 640,993, pub. 11-20-56. Cl. 23.

Oster, John, Mfg. Co., Milwaukee, Wis. 641,093, pub. 11-20-56. Cl. 44.

Pacific Coast Borax Co., Div. of Borax Consolidated Ltd.: *See*—
Borax Consolidated, Ltd.

Pacific Solenoids, Inc., El Segundo, Calif. 640,939, pub. 11-20-56. Cl. 21.

Palm Beach Co., Sanford, Maine. 641,050, pub. 11-20-56. Cl. 39.

Panama Packing Corp., Panama, R. P. 641,187. Cl. 46.

Parke, Davis & Co., Detroit, Mich. 534,322, canc. Cl. 18.

Parke, Davis & Co., Detroit, Mich. 640,928, pub. 11-20-56. Cl. 18.

Parker Brothers, Inc., Salem, Mass. 640,970, pub. 11-20-56. Cl. 22.

Parker Pen Co., The, Janesville, Wis. 339,429, ren. 10-6-56. Cl. 37.

Parrish, Nina E., Kalamazoo, Mich. 534,423, canc. Cl. 38.

Pasco Packing Co., Dade City, Fla. 641,108, pub. 11-20-56. Cl. 46.

Patons & Baldwins, Ltd., Darlington, England. 343,477, 12(c) pub. 2-5-57. Cl. 43.

Paul, J. C., & Co.: *See*—
Burnishine Products Co.

Paulsboro Mfg. Co., Jersey City, N. J., and Philadelphia, Pa. 534,333, canc. Cl. 20.

Peck & Sterba, Inc., New York, to International Laboratories, Inc., Rochester, N. Y. 341,574, ren. 12-15-56. Cl. 18.

Pemco Corp., Baltimore, Md. 534,633, canc. Cl. 16.

Perkins, Dorothy, Co., d. b. a. Miller Products Co., to Merrell Laboratory Inc., St. Louis, Mo. 640,849, pub. 11-2-54. Cl. 6.

Permadent Laboratories: *See*—
Weber, John.

Petersen, Carl A., Chicago, Ill. 534,352, canc. Cl. 38.

Pfaltzgraff Pottery Co., The, to Susquehanna Broadcasting Co., York, Pa. 341,229, ren. 12-1-56. Cl. 30.

Phelps Dodge Copper Products Corp., New York, N. Y. 640,964–5, pub. 11-20-56. Cl. 21.

Pickering Associates, Inc., Oceanside, N. Y. 640,952–4, pub. 11-20-56. Cl. 21.

Piedmont Shirt Co., Greenville, S. C. 641,056, pub. 11-20-56. Cl. 39.

Piedmont Shirt Co., Greenville, S. C. 641,180. Cl. 39.

Phillips Petroleum Co., Bartlesville, Okla. 640,851, pub. 11-20-56. Cl. 6.

Phillips Pump & Tank Co., Cincinnati, Ohio. 534,734, canc. Cl. 23.

Pietropinto, A. D.: *See*—
De Carlo Pietropinto, Anna M.

Pike, Beverly F.: *See*—
Roberson, Laura M., and Beverly F. Pike.

Pillsbury Flour Mills Co., to Pillsbury Mills, Inc., Minneapolis, Minn. 339,292, ren. 10-6-56. Cl. 46.

Pillsbury Mills, Inc.: *See*—
Pillsbury Flour Mills Co.

Pino-A. G. Chemische Fabrik Freudenstadt, d. b. a. Pino A. G. im Freudenstadt Schwarzwald, Freudenstadt, Wurttemberg, Germany. 641,131, pub. 11-20-56. Cl. 51.

Pino A. G. im Freudenstadt Schwarzwald: *See*—
Pina-A. G. Chemische Fabrik Freudenstadt.

Pittsburgh Consolidation Coal Co., Pittsburgh, Pa. 640,822–31, pub. 11-20-56. Cl. 1.

Plastic Art Toy Corp. of America, East Rutherford, N. J. 534,698, canc. Cl. 36.

Plaza Mills, Inc., New York, N. Y. 534,634, canc. Cl. 42.

Pollak, Henry, Inc., New York, N. Y. 534,274, canc. Cl. 39.

Pollak, Henry, Inc., New York, N. Y. 534,424, canc. Cl. 40.

Poorman Aircraft Service: *See*—
Poorman, Roy H.

Poorman, Roy H., d. b. a. Poorman Aircraft Service, Canton, Ohio. 641,003, pub. 11-20-56. Cl. 23.

Porter, H. K., Co., Inc. of Pittsburgh, d. b. a. Quaker Rubber Corp., Philadelphia, Pa. 641,190. Cl. 50.

Portland Woolen Mills, Inc., Portland, Oreg. 534,683, canc. Cl. 42.

Praco Travel Service, Inc., New York, N. Y. 534,803, canc. Cl. 105.

Pratt & Lambert-Inc., Buffalo, N. Y. 640,912, pub. 11-20-56. Cl. 16.

Precision Scientific Co., Chicago, Ill. 534,361, canc. Cl. 38.

Proban Ltd., London, England. 641,080, pub. 11-20-56. Cl. 42.

Procter & Gamble Co., The, Cincinnati, Ohio. 114,822, ren. 1-2-57. Cl. 46.

Quaker Rubber Corp.: *See*—
Porter, H. K., Co., Inc. of Pittsburgh.

Quantacolor Co., The, New York, N. Y. 534,801, canc. Cl. 100.

Radiator Specialty Co., Charlotte, N. C. 640,895, pub. 11-20-56. Cl. 13.

Radio Corp. of America, New York, N. Y. 640,969, pub. 11-20-56. Cl. 21.

Rainwear Supply, Inc., Passaic, N. J. 534,479, canc. Cl. 42.

Rand Rubber Co. Inc., Brooklyn, N. Y. 641,183. Cl. 39.

Realemon-Puritan Co., Chicago, Ill. 641,099, pub. 11-20-56. Cl. 45.

Reed Roller Bit Co., Houston, Tex. 641,000, pub. 11-20-56. Cl. 23.

Reeve-Foster Co., Inc., Teaneck, N. J. 534,468, canc. Cl. 103.

Reeves Equipment Corp., New York, N. Y. 640,950, pub. 11-20-56. Cl. 21.

Reliable Luggage, Inc., West Pittsburg, Pa. 641,161. Cl. 3.

Remington Radio Corp., White Plains, N. Y. 534,623, canc. Cl. 21.

Reneé Fashions, Inc., New York, N. Y. 641,074, pub. 11-20-56. Cl. 39.

Renner, G. E., Fort Wayne, Ind. 641,142, pub. 11-20-56 Cl. 52.

Resort Airlines, Inc., Pinehurst, N. C. 534,464, canc. Cl. 105.

Reynolds Metals Bldg.: *See*—
Reynolds Metals Co.

Reynolds Metals Co., to Reynolds Metals Bldg., Richmond, Va. 640,887, pub. 11-20-56. Cl. 12.

Riddle, Fred E., d. b. a. Sioux City Dehydrating and Processing Co., Sioux City, Iowa. 534,285, canc. Cl. 46.

Roberson, Laura M., and Beverly F. Pike, San Luis Obispo, Calif. 641,052, pub. 11-20-56. Cl. 39.

Robertson, J. A., & Sons (Dumfries) Ltd., Dumfries, Scotland. 641,184. Cl. 39.

Robertson Photo-Mechanix, Inc., Chicago, Ill. 641,006, pub. 11-20-56. Cl. 26.

Robins Industries, Bayside, N. Y. 640,988, pub. 11-20-56. Cl. 23.

Royal Metal Mfg. Co., Chicago, Ill. 534,528, canc. Cl. 32.

Royal Sales and Mfg. Co.: *See*—
L. C. S. Corp.

Royal Worcester Corset Co., Worcester, Mass. 534,694, canc. Cl. 39.

Rozell, W. L., Golden Salve Co., Wichita, Kans. 641,163. Cl. 18.

Rubinstein, Helena, Inc., New York, N. Y. 641,164. Cl. 18.

Rywell, Martin, Harriman, Tenn. 641,176. Cl. 38.

S. A. R. O. M. Società Azionaria Raffinazione Olii Minerali, Milan, Italy. 640,910, pub. 11-20-56. Cl. 15.

S. & L. Sales Inc., Omaha, Nebr. 640,982, pub. 9-18-56. Cl. 23.

Sachs, Morris B., Inc., Chicago, Ill. 641,064, 11-20-56. Cl. 39.

Safety Socket Screw Co., Chicago, Ill. 640,894, pub. 11-20-56. Cl. 13.

Winchester Toy Co., Philadelphia, Pa. 534,637, canc. Cl. 22.

Salmon, M. C., d. b. a. K. C. Medical Press, North Kanas City, Mo. 534,507, canc. Cl. 38.
Salsbury's, Dr., Laboratories, Charles City, Iowa. 534,344, canc. Cl. 6.
Santa Cruz Chile Co.: *See*— England, Gene.
Sarina Lingerie Co.: *See*— D'Amato, Sarina.
Savoy Watch Co., Inc., New York, N. Y. 247,315, 12(c) pub. 2–5–57. Cl. 27.
Scheidt, Chris H., d. b. a. Biola Packing Co., Biola, Calif. 534,572, canc. Cl. 46.
Schenley Distillers, Inc., New York, N. Y. 640,916, pub. 11–20–56. Cl. 18.
Scherer, R. P., Corp., Detroit, Mich. 534,608, canc. Cl. 22.
Scherrer, E. C., Inc., New York, N. Y. 534,453, canc. Cl. 40.
Schoeneman, J., Inc., to J. Schoeneman, Inc., Baltimore, Md. 339,411, ren. 10–6–56. Cl. 39.
Schwab, Armand, & Co., Inc., New York, N. Y. 534,748, canc. Cl. 40.
Scott-Atwater Mfg. Co., Minneapolis, Minn. 640,998, pub. 11–20–56. Cl. 23.
Scott, Howard R., and W. A. Scott, d. b. a. Bord-A-Blox Co., Tampa, Fla. 640,890, pub. 11–20–56. Cl. 12.
Scott, Wallace A.: *See*— Scott, Howard R., and Wallace A. Scott.
Scurich, Stephen, Watsonville, Calif. 534,498, canc. Cl. 2.
Sealon Products Co., Chicago, Ill. 641,096–7, pub. 11–20–56. Cl. 44.
Seamless Rubber Co., The, New Haven, Conn. 641,173–4. Cl. 37.
Seaporcel Metals, Inc., Long Island City, N. Y. 640,886, pub. 11–20–56. Cl. 12.
Seller, Karl, & Sons, Inc., Philadelphia, Pa. 534,707, canc. Cl. 46.
Sepraton (New Jersey), Inc., New York, N. Y. 640,986, pub. 11–20–56. Cl. 23.
Sergeant Preston of Yukon, Inc., Detroit, Mich. 641,156, pub. 11–20–56. Cl. 107.
Service Textile Co., Inc., Newark, N. J. 534,669, canc. Cl. 42.
Shadowline, Inc., Morganton, N. C. 641,062, pub. 11–20–56. Cl. 39.
Sharp & Dohme, Inc., Philadelphia, Pa. 534,347, canc. Cl. 18.
Sherman, Sol, New York, N. Y. 534,836, canc. Cl. 39.
Sherwin-Williams Co., The, Cleveland, Ohio. 534,312, canc. Cl. 6.
Sherwin-Williams Co., The, Cleveland, Ohio. 640,880, pub. 11–20–56. Cl. 6.
Siemens & Halske Aktiengesellschaft, Munich, Germany. 641,091, pub. 11–20–56. Cl. 44.
Simpson, Wm., Sons & Co., Inc., New York, N. Y. 641,076, pub. 11–20–56. Cl. 42.
Sioux City Dehydrating and Processing Co.: *See*— Riddle, Fred E.
Sirac, Inc., Brooklyn, N. Y. 534,340, canc. Cl. 3.
Sloane, W. & J., New York, N. Y. 534,325, canc. Cl. 20.
Smith, E. J., & Sons Co., Charlotte, N. C. 641,051, pub. 11–13–56. Cl. 39.
Smith, Kline & French Laboratories, Philadelphia, Pa. 534,379, canc. Cl. 18.
Smith, Kline & French Laboratories, Philadelphia, Pa. 534,383, canc. Cl. 18.
Smith, Kline & French Laboratories, Philadelphia, Pa. 640,932, pub. 11–20–56. Cl. 18.
Smith Mfg. Co. Ltd., Weston, Ontario, Canada. 640,892, pub. 11–20–56. Cl. 12.
Smith, Oscar P., Lincolnton, N. C. 534,348, canc. Cl. 18.
Snodgrass, Murray R., d. b. a. Snodgrass Pharmacy, Niagara Falls, Canada. 641,165. Cl. 18.
Snodgrass Pharmacy: *See*— Snodgrass, Murray R.
Societe des Usines Chimiques Rhone-Poulenc, Paris, France. 640,929, pub. 11–21–56. Cl. 18.
Socony Mobil Oil Co., Inc., New York, N. Y. 640,960, pub. 11–20–56. Cl. 21.
Sof-Tuf Co., The: *See*— Hadley, Walter H.
Sof-Tuf Co., Inc., The: *See*— Hadley, Walter H.
Solar Aircraft Co., San Diego, Calif. 640,891, pub. 11–20–56. Cl. 12.
Solo Products Corp., New York, N. Y. 534,206, canc. Cl. 40.
Southern Bedding Mfg. Co., to Southern Bedding Mfg. Co., Inc., Austin, Tex. 113,920, ren. 11–7–56. Cl. 32.
Southern Bedding Mfg. Co., Inc.: *See*— Southern Bedding Mfg. Co.
Southern Friction Materials Co., Charlotte, N. C. 342,487, ren. 1–19–57. Cl. 35.
South Texas Cotton Oil Co.: *See*— Fidelty Cotton Oil Co.
Spence Engineering Co., Inc., Walden, N. Y. 640,893, pub. 11–20–56. Cl. 13.
Sperry Candy Co., Milwaukee, Wis. 534,548, canc. Cl. 46.
Sporting Goods Publishing Co., The, St. Louis, Mo. 534,819, canc. Cl. 38.
Sportscot: *See*— Kemper, Frank H.
Spurgeon Hosiery Corp., Philadelphia, Pa. 534,750, canc. Cl. 39.
Stag Clothes, Inc., Philadelphia, Pa. 534,225, canc. Cl. 39.
Staley, A. E., Mfg. Co., Decatur, Ill. 641,121, pub. 11–20–56. Cl. 46.
Standard-Dayton Corp.: *See*— Mahrt, Louis R., and D. Robert Laughter.
Standard Fruit Product Co., The, Cincinnati, Ohio. 534,719, canc. Cl. 46.
Standard Knitting Mills, Inc., Knoxville, Tenn. 534,483, canc. Cl. 39.
Standard Oil Co. of California, San Francisco, Calif. 640,883, pub. 11–20–56. Cl. 6.
Standard Oil Co. of California, San Francisco, Calif. 640,933, pub. 11–20–56. Cl. 18.
Steffand, Richard: *See*— Burt, Richard E.
Steidinger, Gebrüder, Kommanditgesellschaft, St. Georgen/Schwarzwald, Germany. 640,938, pub. 10–16–56. Cl. 21.
Steri-A-Fone Corp. of America, Seattle, Wash. 534,715, canc. Cl. 21.
Sterling Plastics Co., Township of Union and Union, N. J. 534,252, canc. Cl. 40.
Stetson, John B., Co.: *See*— Mallory, E. A., and Sons, Inc.
Stollwerck, A. N., Inc., Camden, N. J. 534,825, canc. Cl. 46.
Summit-Roberts Products, Inc., Toledo, Ohio. 641,015, pub. 11–20–56. Cl. 26.
Sun Chemical Corp.: *See*— Willey, C. A., Co.
Sunspiced Vegetables, Inc.: *See*— Basic Vegetable Products Co.
Superior Scaffold Co., Culver City, Calif. 640,994, pub. 11–20–56. Cl. 23.
Surface Combustion Corp., Toledo, Ohio. 641,031, pub. 11–20–56. Cl. 34.
Susquehanna Broadcasting Co.: *See*— Pfaltzgraff Pottery Co., The.
Tailor-Bird Sewing Machine Co. Ltd., The, London and Sandwich, England. 534,786, canc. Cl. 23.
Tar-Lon of Hollywood, Los Angeles, Calif. 534,494, canc. Cl. 40.
Taylor, David, d. b. a. Taylor Jewelry Co., New York, N. Y. 534,482, canc. Cl. 28.
Taylor Jewelry Co.: *See*— Taylor, David.
Taylor, Taylor & Hobson Ltd., Leicester, England. 641,011–12, pub. 11–20–56. Cl. 26.
Technical Publishing Co., Chicago, Ill. 534,822, canc. Cl. 38.
Tee-Pak, Inc.: *See*— Transparent Package Co.
Tex-Gas, Inc., Stillwater, Okla. 640,852, pub. 11–20–56. Cl. 6.
Theatre Network Television, Inc., New York, N. Y. 641,146, pub. 11–20–56. Cl. 101.
Thomas Publishing Co., New York, N. Y. 534,209, canc. Cl. 38.
Thompson Distributors, Bakersfield, Calif. 534,714, canc. Cl. 46.
Tidewater Oil Co.: *See*— Tide Water Oil Co.
Tide Water Oil Co., to Tidewater Oil Co., New York, N. Y. 116,017, ren. 3–27–57. Cl. 15.
Tide Water Oil Co., to Tidewater Oil Co., New York, N. Y. 116,167, ren. 4–10–57. Cl. 15.
Top-O-Mart Clothes, Inc., Vineland, N. J. 641,061, pub. 11–20–56. Cl. 39.
Transparent Package Co., now by change of name Tee-Pak, Inc., Chicago, Ill. 641,145, pub. 8–10–54. Cl. 101.
Trio Mfg. Co., Griggsville, Ill. 640,967–8, pub. 11–20–56. Cl. 21.
Tri-State Foods Co., The: *See*— Hess, Charles H., Co., The.
Tudor Metal Products Corp., Brooklyn, N. Y. 640,978, pub. 11–20–56. Cl. 22.
Tung-Sol Electric Inc.: *See*— Tung-Sol Lamp Works Inc.
Tung-Sol Lamp Works Inc., to Tung-Sol Electric Inc., Newark, N. J. 345,648, ren. 5–4–57. Cl. 21.
Tweco Products Co., Wichita, Kans., to Tweco Products Inc. 640,962, pub. 11–20–56. Cl. 21.
Tweco Products, Inc.: *See*— Tweco Products Co.
Ulmann, Bernhard, Co., Inc., Long Island City, N. Y. 534,488, canc. Cl. 39.
Ulrici Medicine Co., Inc., The, New York, N. Y. 345,590, ren. 5–4–57. Cl. 18.
Union Mfg. Co., New Britain, Conn. 640,983, pub. 11–20–56. Cl. 23.
United Feature Syndicate, Inc., New York, N. Y. 641,048, pub. 11–20–56. Cl. 38.
United States Borax & Chemical Corp.: *See*— Borax Consolidated, Ltd.
United States Rubber Co., New York, N. Y. 640,943, pub. 11–20–56. Cl. 21.
United States Steel Corp., Pittsburgh, Pa. 640,896, pub. 11–20–56. Cl. 13.
United States Steel Corp., Pittsburgh, Pa. 641,160. Cl. 2.
Valcort Hosiery Corp., New York, N. Y. 409,599, canc. Cl. 39.
Valmor Products Co., Chicago, Ill. 640,873, pub. 11–20–56. Cl. 6.
Valmor Products Co., d. b. a. Famous Products Co., Chicago, Ill. 641,139, pub. 11–20–56. Cl. 51.
Vanderbilt, R. T., Co., Inc., New York, N. Y. 641,136, pub. 11–20–56. Cl. 51.
Velma Lingerie Corp., New York, N. Y. 534,618, canc. Cl. 39.
Vereinigte Papierwerke Schickedanz & Co., Nurnberg, Germany. 641,036, pub. 11–20–56. Cl. 37.
Vestal Laboratories, Inc., St. Louis, Mo. 640,854, pub. 11–20–56. Cl. 6.
Virginia Seafood Exchange: *See*— Kahle, George A.
W. S. Vitamin Corp.: *See*— Arlington Chemical Co., The.
Wallace, R., & Sons Mfg. Co., Wallingford, Conn. 640,985, pub. 11–20–56. Cl. 23.
Wallace R., & Sons Mfg. Co., Wallingford, Conn. 641,002, pub. 11–20–56. Cl. 23.
Wamsutta Decorative Fabrics, Inc., New York, N. Y. 641,088, pub. 11–20–56. Cl. 42.

Weber, John, d. b. a. Permadent Laboratories, New York, N. Y. 641,090, pub. 11–20–56. Cl. 44.
Webster, G. L., Co., Inc., Cheriton, Va. 534,549, canc. Cl. 46.
West Disinfecting Co., Long Island City, N. Y. 640,878, pub. 11–20–56. Cl. 6.
West, Max H., d. b. a. Max H. West Co., Fayetteville, Pa. 534,331, canc. Cl. 6.
West, Max H., Co.: *See*— West, Max H.
Western Clock Co., Peru, by General Time Corp., La Salle, Ill. 114,601–2, 12(c) pub. 2–5–57. Cl. 27.
Western Clock Co., Peru, Ill., by General Time Corp., New York, N. Y. 338,302, 12(c) pub. 2–5–57. Cl. 27.
Western Clock Co., Peru, by General Time Corp., La Salle, Ill. 340,163, 12(c) pub. 2–5–57. Cl. 27.
Western Engineering and Mfg. Co., Venice, Calif. 641,030, pub. 11–20–56. Cl. 34.
Whirlpool-Seeger Corp., Wilmington, Del. 641,170. Cl. 31.
White Bros. Poultry & Egg Co., Knoxville, Tenn. 641,118, pub. 11–20–56. Cl. 46.
Whitlock, C. G., Chemical Co., Springfield, Ill. 534,247, canc. Cl. 6.
Willey, C. A., Co., to Sun Chemical Corp., Long Island City, N. Y. 336,365, ren. 6–30–56. Cl. 16.
Williamson, Floyd M., Detroit, Mich. 640,995, pub. 11–20–56. Cl. 23.
Wilson, Andrew, Inc., Springfield, N. J. 640,861, pub. 11–20–56. Cl. 6.
Wilson, Andrew, Inc., Springfield, N. J. 640,864, pub. 11–20–56. Cl. 6.
Wilson Jones Co., Chicago, Ill. 640,996, pub. 11–20–56. Cl. 23.
Wilson Jones Co., Chicago, Ill. 641,037, pub. 11–20–56. Cl. 37.
Wilson, Leon L., and Frederic C. Cooley, Jr.: *See*— Allway Scarf Corp.
Wilson Rubber Co., Canton, Ohio. 641,068, pub. 11–20–56. Cl. 39.
Winchester Toy Co., Philadelphia, Pa. 534,637, canc. Cl. 22.
Windsor Automatic Co., Inc., Windsor, Vt., to The Billings & Spencer Co., Hartford, Conn. 339,979, ren. 10–27–56. Cl. 23.
Wings Publishing Co., Inc., New York, N. Y. 534,641, canc. Cl. 38.
Winthrop-Stearns Inc., New York, N. Y. 534,399, canc. Cl. 18.
Wolf Brothers, Inc., Philadelphia, Pa. 641,039, pub. 11–20–56. Cl. 37.
Wonda-Brella Inc., Brooklyn, N. Y. 534,296, canc. Cl. 41.
Wood, Gar: *See*— Wood, Garfield A.
Wood, Gar, Industries, Inc.: *See*— Wood, Garfield A.
Wood, Garfield A., d. b. a. Gar Wood Industries, Inc., Miami Beach, Fla. 534,527, canc. Cl. 19.
Wood, John, Co.: *See*— Anchor Post Fence Co.
Worldsbest Industries, Inc., Cudahy, Wis. 534,787, canc. Cl. 24.
World's Messenger Publishing Co., The: *See*— Blackwell, Elizabeth.
Wosmek, Raymond, Glencoe, Minn. 641,004, pub. 11–20–56. Cl. 23.
Wyandotte Chemicals Corp., Wyandotte, Mich. 640,858, pub. 11–20–56. Cl. 6.
Wyandotte Chemicals Corp., Wyandotte, Mich. 641,140, pub. 11–20–56. Cl. 52.
Yale & Towne Mfg. Co., The, Stamford, Conn., and elsewhere. 440,598, canc. Cl. 21.
Young, F. E., & Co., Chicago, Ill. 534,838, canc. Cl. 38.
Zeiss, Carl, Oberkochen Wurttemberg, Germany. 641,010, pub. 11–13–56. Cl. 26.
Zellerbach Paper Co., San Francisco, Calif. 641,045, pub. 11–20–56. Cl. 37.
Zenith Radio Corp., Chicago, Ill. 534,783, canc. Cl. 21.

U S GOVERNMENT PRINTING OFFICE: 0—1957

OFFICIAL GAZETTE · UNITED STATES PATENT OFFICE
February 12, 1957 Volume 715 Number 2

PATENTS

NOTICES

Service by Publication

In accordance with Rule 47(b) of the Rules of Practice of the United States Patent Office in Patent Cases, notice is hereby given of the filing on August 24, 1953, of an application for patent entitled "Flash Arrester," on behalf of William A. Kanenbley, whose last known address is 584 Ridge Street, Newark 4, New Jersey. The application was made in compliance with Rule 47(b) and 35 U. S. C. 118 by Air Reduction Company, Incorporated, 60 East 42nd Street, New York, New York, without execution by the said William A. Kanenbley. Notice of the filing directed to the above noted address has been returned undelivered.

Any action to be taken by the said William A. Kanenbley in connection with the said application must be taken within thirty days of the publication of this notice.

ARTHUR W. CROCKER,
Jan. 22, 1957. *First Assistant Commissioner of Patents.*

Adjudicated Patents

(D. C. Ohio) Heckett Patent No. 2,264,204 (241—14), for method and apparatus for reclaiming metal, *Held* invalid. *W. E. Plechaty Co.* v. *Heckett Engineering, Inc.*, 145 F. Supp. 805; 111 USPQ 234.

(D. C. Ohio) Heckett Patent No. 2,352,712 (75—30), for recovery and use of scrap steel, *Held* invalid. *Id.*

(D. C. Wis.) Alexander Patent No. 2,417,538 (310—265), for varnishing armatures and the like. Claims 2 and 7 *Held* invalid but infringed if valid. *Sterling Varnish Co.* v. *Louis Allis Co.*, 145 F. Supp. 810; 111 USPQ 274.

Disclaimers

2,533,369.—*Edward C. Hartwig*, Tonawanda, N. Y. ELECTRONIC SEQUENCE TIMER. Patent dated Dec. 12, 1950. Disclaimer filed Dec. 31, 1956, by the assignee, *Westinghouse Electric Corporation.*

Hereby enters this disclaimer to claims 6, 13, 15, and 16 of said patent.

2,581,202.—*Donald B. Post*, Collingswood, N. J. MULTISTAGE VARIABLE-SATURATION TUNING SYSTEMS AND APPARATUS. Patent dated Jan. 1, 1952. Disclaimer filed Jan. 7, 1957, by the assignee, *Radio Corporation of America.*

Hereby enters this disclaimer to claims 5, 6, 16, 17, and 18 of said patent.

2,600,337.—*Clarence B. Stadum*, Snyder, N. Y. ELECTRONIC SEQUENCE TIMER. Patent dated June 10, 1952. Disclaimer filed Dec. 31, 1956, by the assignee, *Westinghouse Electric Corporation.*

Hereby enters this disclaimer to claims 1, 2, and 4 of said patent.

2,623,168.—*Clarence B. Stadum*, Snyder, and *Edward C. Hartwig* and *William E. Large*, Lancaster, N. Y. HEAT CONTROL CIRCUIT. Patent dated Dec. 23, 1952. Disclaimer filed Dec. 31, 1956, by the assignee, *Westinghouse Electric Corporation.*

Hereby enters this disclaimer to claims 9, 10, and 11 of said patent.

2,747,112.—*Fred T. Dezicl*, Bloomington, and *Harvey J. Smith*, St. Louis Park, Minn. FLAME DETECTOR. Patent dated May 22, 1956. Disclaimer filed Jan. 7, 1957, by the assignee, *Minneapolis-Honeywell Regulator Company.*

Hereby enters this disclaimer to claims 7 and 8 of said patent.

Des. Pat. 166,322.—*Franz J. Kurth*, Mamaroneck, N. Y. AIR DIFFUSING OUTLET FOR VENTILATING SYSTEMS. Patent dated Apr. 1, 1952. Disclaimer filed Jan. 7, 1957, by the assignee, *Anemostat Corporation of America.*

Hereby disclaims the claim of said patent for the entire term thereof.

Des. Pat. 166,323.—*Franz J. Kurth*, Mamaroneck, N. Y. AIR DIFFUSING OUTLET FOR VENTILATING SYSTEMS. Patent dated Apr. 1, 1952. Disclaimer filed Jan. 7, 1957, by the assignee, *Anemostat Corporation of America.*

Hereby disclaims the claim of said patent for the entire term thereof.

Des. Pat. 166,324.—*Franz J. Kurth*, Mamaroneck, N. Y. AIR DIFFUSING OUTLET FOR VENTILATING SYSTEMS. Patent dated Apr. 1, 1952. Disclaimer filed Jan. 7, 1957, by the assignee, *Anemostat Corporation of America.*

Hereby disclaims the claim of said patent for the entire term thereof.

Classification Order No. 209

The following transfers are hereby ordered to take effect on Tuesday, January 22, 1957:

From Division 33 to Division 66
Class 20, Wooden Buildings, all subs. in Div. 33 except sub. 5

From Division 41 to Division 2
Class 24, Buckles, Buttons, Clasps, Etc.

From Division 51 to Division 5
Class 84, Music

M. C. ROSA,
Jan. 15, 1957. *Director, Patent Examining Division.*

New Applications Received During December 1956

Patents	6,384
Designs	354
Plants	9
Reissues	18
Total	6,765

Issue

Patents	706	No. 2,780,809	to No.	2,781,514, incl.
Designs	45	No. 179,671	to No.	179,715, incl.
Plants	5	No. 1,562	to No.	1,566, incl.
Reissues	7	No. 24,270	to No.	24,276, incl.
Total	763			

CONDITION OF PATENT APPLICATIONS AS OF DECEMBER 31, 1956

Patents Available for Licensing or Sale

2,724,821. Remote Measuring System. E. O. Schweitzer, Jr., 1002 Dundee Road, Northbrook, Ill.

2,729,458. Coupling Structure. Ruth P. Sacrey, % Z. T. Wobensmith, 2nd., 1319 Land Title Building, Philadelphia 10, Pa.

2,758,485. Driving Arrangement. Anton Schroder, Gneisenaustr. 35, Munchen 54, Germany. Correspondence to Michael S. Striker, 511 Fifth Ave., New York 17, N. Y.

2,759,112. Electron Tube Thermoelectric Generator (converts heat directly to electric power, with no moving parts). Winston Caldwell. Correspondence to Robert J. Patch, Munsey Building, Washington 4, D. C.

2,763,165. Automatic Transmission and Speed Changing Mechanism. Francisco Baschet, 38 rue Boileau, Paris 16°, France. Correspondence to Michael S. Striker, 511 Fifth Ave., New York 17, N. Y.

Des. 178,339. Combined Bib and Tray for Babies. Albina L. Cowins, 304 Carteret Road, Port Reading, N. J.

General Electric Company is prepared to grant non-exclusive licenses under the following 28 patents on reasonable terms to domestic manufacturers.

Applications for license under the following 9 patents may be addressed to: General Electric Company, Patent Counsel, Industrial Power Components Division, Plainville, Conn.

2,258,229. Pressure Responsive Device.

2,278,990. Thermal Switch.

2,287,642. Electric Switch.

2,346,520. Electric Circuit Controller.

2,522,964. Hinged Closure and Fastener Therefor.

2,631,690. Two Way Rotary Motion Shock Resisting Device.

2,757,262. Circuit Breaker Casing With Coated Arc Extinguishing Chamber.

2,761,937. Mounted Stop Nuts.

2,771,527. Snap Action Switch.

Applications for license under the following 19 patents may be addressed to: General Electric Company, Appliance & Television Receiver Division, Appliance Park, Louisville 1, Ky.

2,418,366. Dishwashing Machine.

2,654,540. Water Control for Disposal Units.

2,712,747. Liquid Dispenser for Clothes Washers and the Like.

2,712,748. Liquid Dispenser for Clothes Washers and the Like.

2,729,735. Electric Range.

2,745,913. Push Button Switch.

2,751,152. Air Conditioning Control System.

2,758,821. Temperature Control for Auxiliary Compartments for Refrigerators.

2,759,335. Dehumidifying Apparatus.

2,759,485. Dishwasher With Cover Latching Mechanism.

2,763,997. Freezing Tray.

2,764,342. Noise Damping Muffler.

2,767,263. Timer Apparatus.

2,767,288. Electric Heating Unit.

2,767,293. Temperature Control System.

2,767,295. Control System for Surface Heating Units.

2,767,296. Control System for Surface Heating Units.

2,767,557. Semi-Automatic Ice Maker.

2,768,048. Bottle Rack for Refrigerating Apparatus.

Patent Removed From Register

The General Electric Company hereby withdraws the following patent from the Register of Patents Available for Licensing or Sale. This patent was listed in the Notices section of the OFFICIAL GAZETTE of Jan. 3, 1956.

2,511,680. Electronic Relay Arrangement for Protecting Power Systems.

CONDITION OF PATENT APPLICATIONS AS OF DECEMBER 31, 1956

Total number of pending applications (excluding Designs)	217, 395
Total number of pending Design applications	6, 358
Total number of applications awaiting action (excluding Designs)	112, 980
Total number of Design applications awaiting action	3, 010
Date of oldest new application	Aug. 17, 1955
Date of oldest amended application	Oct. 7, 1954

ROSA, M. C., Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
I. STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.
II. STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 23, 26, 37, 42, 44, 48, 51, 54, 69, 70.
III. YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
IV. FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
V. HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	8, 20, 29, 33, 36, 40, 41, 52, 66.
VI. MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS	1, 4, 5, 9, 10, 18, 22, 28, 45, 47.
VII. KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
CL. GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Oldest Application: Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	1-31-56	2-7-55
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers	3-23-56	9-15-55
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys	5-1-56	4-1-55
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Feeding of Indefinite Lengths	4-10-56	5-26-55
5. (VI) ROBINSON, C. W., Harvesters; Potato Diggers; Stalk Pullers and Choppers; Stone Gatherers; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates	5-4-56	10-6 55
6. (I) SURLE, H., Carbon Chemistry (part), e. g. Natural Resins, Proteins, Heterocyclic Amides, Amines, General Organic Processes	1-4-56	10-26-55
7. (IV) GONSALVES, J. E., Optics, Photographic Apparatus	1-12-56	9-29-55
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture	12-22-55	8-22-55
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	3-21-56	4-19-55
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	1-20-56	8-1-55
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	4-3-56	8-1-55
12. (III) SPINTMAN, S., Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	2-2-56	11-15-54
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	2-17-56	1-13-55
14. (III) MANIAN, J. C., Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes	2-15-56	1-11-55
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	3-16-56	3-7-55
16. (II) LOVEWELL, N. N., Television; Telephony; Recorders	11-28-55	10-14-54
17. (IV) LEIGHEY, R. A., Paper Manufactures; Packaging; Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	1-6-56	2-28-55
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	2-1-56	2-23-55
19. (VII) PATRICK, P. L., Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners	4-2-56	7-19-55
20. (V) BROWN, L. M., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking	4-9-56	4-19-55
21. (III) MADER, R. C., Textiles	3-13-56	3-20-55
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows; Boring and Drilling	12-27-55	1-24-55
23. (II) ANDRUS, L. M., Cash and Fare Registers; Calculators and Counters; Education	1-4-56	10-11-54
24. (III) DRACOPOULOS, P. T. (HICKEY, T. J., acting), Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	3-13-56	5-6-55
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus	3-1-56	1-3-56
26. (II) YOUNG, R. R., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanism	5-1-56	1-3-56
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	3-27-56	11-4-55
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Chute, Skid, Guide and Way Conveyers; Fluid Current Conveyers; Pressure Modulating Relays; Pneumatic Dispatch; Store Service; Wheel Substitutes	1-4-56	6-9-55
29. (V) HABECKER, L. B., Tools; Woodworking; Button, Barrel and Wheel Making; Rubber Tire Removing Tools; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers	4-26-56	4-25-56
30. (VII) O'LEARY, R. A., Refrigeration; Heating Systems; Automatic Temperature and Humidity Regulation, Thermostats, Humidistats; Illuminating Burners; Miscellaneous Heating	7-9-56	11-10-55

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) HUTCHISON, E. W., Carbon Chemistry (part), e. g. Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Synthetic Resins (part)	3-6-56	8-1-55
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	4-10-56	11-28-55
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Building Structures; Roads and Pavements	4-10-56	4-1-55
34. (IV) SHANK, J. S. (acting), Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	4-2-56	4-1-55
35. (IV) BROMLEY, E. D., Dispensing; Filling and Closing Receptacles; Toilet, Kitchen and Table Articles; Sheet or Web Feeding	2-16-56	8-10-55
36. (V) McFADYEN, A. D., Measuring and Testing	12-30-55	12-12-55
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating	11-30-55	9-14-55
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g. Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	3-26-56	2-20-56
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	4-3-56	3-1-55
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	6-1-56	1-4-56
41. (V) GURLEY, R. B., Coin Controlled Apparatus; Dispensing Cabinets; Coin Handling; Mail, Fare or Other Collection Boxes or Chutes; Buckles, Buttons and Clasps; Racks; Fire Escapes; Ladders; Scaffolds	1-3-56	1-3-55
42. (II) MARANS, H., Electric Signaling; Signals and Indicators; Telegraphy; Electrical Connectors	8-17-55	1-10-55
43. (I) ARNOLD, D., Medicines, Poisons, Cosmetics; Sugar and Starch; Skins, and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus)	1-30-56	8-10-55
44. (II) EVANS, N. H., Antennas; Automatic Pilots; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	9-12-55	10-7-54
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances	2-3-56	3-25-55
46. (I) WILES, W. G., Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Surgery (part); Radioactive Medicines; Irradiation Chemistry; Carbon Chemistry (part)	1-30-56	3-2-55
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles	5-1-56	1-19-56
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Spark Plugs and Ignition Systems, Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers	12-23-55	11-22-54
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring	12-30-55	6-27-55
50. (I) BENGEL, W. G., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber	2-28-56	2-23-55
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Music	4-9-56	2-1-55
52. (V) NEFF, P. R., Supports; Joint Packing; Valved Pipe Joints or Couplings; Rod Joints or Couplings; Tool Handle Fastenings; Shaft Packing	3-2-56	3-1-55
53. (IV) REYNOLDS, E. R., (NINAS, G. A., acting), Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings and Shutters; Harness; Whip Apparatus	4-2-56	11-4-55
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g. X-Ray, Ultraviolet, Radioactive) Applications	3-22-56	3-11-55
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Sorting Solids; Centrifugal Bowl Separators; Comminutors	9-15-55	12-8-54
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	4-4-56	1-11-56
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings	6-21-56	2-24-56
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Food Apparatus; Closure Operators; Baths, Closets, Sinks and Spittoons	2-27-56	8-4-55
59. (I) HENKIN, B., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	3-19-56	7-18-55
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	3-1-56	2-1-55
61. (III) MORSE (Miss), E. L., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery	4-5-56	8-4-55
62. (IV) SHAPIRO, A., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination	4-6-56	12-1-55
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds	4-3-56	8-1-55
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	4-2-56	4-13-55
66. (V) LISANN, I., Geometric Instruments; Automatic Weighing Scales; Acoustics	3-6-56	12-3-54
67. (VII) KRAFFT, C. F., Laminated Fabrics; Ornamentation; Bleaching, Dyeing, Fluid Treatment of Textiles	1-12-56	6-13-55
69. (II) GALVIN, D. J., Wave Guides; Electric Meters; Sound Recording; Conductors; Insulators	3-8-56	1-3-55
70. (II) BREWRINK, J. L., Security laws administration.		
CLASS. DIVS. I BAILEY, J. S., Paper Making; Mineral Oils	4-6-56	2-20-56
CLASS. DIVS. II LADY, J. E., Oscillators; Amplifiers; Resistances and Rheostats	4-3-56	9-30-55
CLASS. DIVS. III WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres	4-6-56	1-16-56
CLASS. DIVS. IV BERLOWITZ, W. (acting), Harrows and Diggers; Plows; Fluid Sprinkling, Spraying and Diffusing	4-3-56	8-29-55
CLASS. DIVS. V ANGEL, C. D., Liquid Separation or Purification; Sewerage	4-9-56	3-1-56
DESIGNS (III) A—MONCURE, J. A. Industrial Arts	6-4-56	7-2-56
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	6-1-56	7-13-56

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during February 1957, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

Patents ..... Numbers 2,188,895 to 2,192,165, inclusive
Plant Patent ..... Numbers 361 to 364, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

In the United States Patent Office
Decision of the Supervisory Examiner

EX PARTE FRANK U. S. GILBERT ET AL.[1]

Serial No. 357,092. Decided September 13, 1954

1. APPLICATION—BENEFIT OF DATE OF EARLIER APPLICATION—REQUIREMENTS OF 35 U. S. C. 120 AND RULE 78(a).

"Inasmuch as the instant application contains 'a specific reference to the earlier filed application' it is conceded that applicant has complied with the provisions of 35 U. S. C. 120 for the purpose of attaining the benefit of the filing date of the earlier application as to the common subject matter. It is to be noted, however, that Rule 78(a) in addition to requiring a specific reference to the earlier filed application also requires an indication of 'the relationship of the applications.'"

2. SAME—THE TERM "CONTINUING APPLICATION" CONSTRUED.

"The term 'continuing application' includes applications which may be divisions, continuations or continuations-in-part."

3. SAME—SAME.

Held that while the term "continuing application" may express the relationship of copendency it is too broad to denote the particular relationship of the subject matter disclosed in a parent and continuing application.

4. SAME—EFFECT OF ASSIGNMENT OF ORIGINAL APPLICATION ON TITLE TO "DIVISIONAL," "CONTINUATION" AND "CONTINUATION-IN-PART" APPLICATIONS.

"Assignment of an original application carries title to any divisional or continuation application and the patent will issue to the assignee. However in the case of a continuation-in-part, a prior assignment of the original application is not applied as a matter of course to the continuation-in-part, and the patent will not necessarily issue to the assignee."

5. SAME—CONTINUATION-IN-PART.

Held that an application containing substantially all of the subject matter of an earlier application and also matter not disclosed in the original is properly described by the term "continuation-in-part."

6. SAME—CONTINUING APPLICATION—DESIGNATION OF TYPE OF CONTINUING APPLICATION.

Held that the designation in the specification of the particular type of continuing application is more informative and is conducive to orderly processing of an application, and *Held* that such advantages justify the requirement that a continuation-in-part application be so identified in the specification.

ON PETITION.

DENIED.

H. B. FREEHOF, *Supervisory Examiner:*

This is a petition from the action of the Primary Examiner requiring that the instant application be designated in the specification as a continuation-in-part of an earlier copending application.

The specification on page 1 states:

"This application is a *continuing* application relative to the subject matter of our application . . . , Serial No. 254,494, filed Nov. 2, 1951, now abandoned." [Italics added.]

The Examiner stated his position as follows:

"Although the term 'continuing application' is not strictly inaccurate, the more specific term *continuation-in-part* is the appropriate one to use. Note that section 201.12 of the Manual of Patent Examining Procedure states that 'assignment of an original application carries title to any divisional, continuation, substitute, or reissue application . . .' The *continuation-in-part* is not included in this list. Hence there is a distinction made in the M. P. E. P. between various kinds of 'continuing application(s),' and this distinction obviously involves more than a mere matter of terminology. Since this case is an application filed during the lifetime of an earlier application (S. N. 254,494) by the same applicant, repeating all of the earlier application, *and adding matter not disclosed* in the said earlier case (i. e., Figs. 14–18 incl.), this application is obviously a continuation-in-part (see M. P. E. P. 201.08, paragraph 1).

"Since the characterization of the nature of the relation of the derivative application to the parent application goes beyond the question of benefit of the filing date of the later (namely, the question of assignment of title, M. P. E. P. 201.12), it is necessary that the *exact* relation be stated; the general relation being insufficient."

Applicant contends that in order to attain the benefit of the filing date of the earlier application under 35 U. S. C. 120 it is not incumbent upon applicant to characterize the nature of the derivative application to the parent application. It is urged that the broad term "continuing application" is sufficient and that it is not necessary to use the more specific term "continuation-in-part." Applicant cites section 201.11 of the Manual of Patent Examining Procedure which states "As far as the right under the statute is concerned the name used is immaterial . . ."

[1] Inasmuch as the instant application contains "a specific reference to the earlier filed application" it is conceded that applicant has complied with the provisions of 35 U. S. C. 120 for the purpose of attaining the benefit of the filing date of the earlier application as to the common subject matter. It is to be noted, however, that Rule 78 (a) in addition to requiring a specific reference to the earlier filed application also requires an indication of "the relationship of the applications."

[2] The term "continuing application" includes applications which may be divisions, continuations or continuations-in-part. [3] While this term may express the relationship of copendency it is too broad to denote the particular relationship of the subject matter disclosed in the parent and continuing application. The designations "division," "continuation" and "continuation-in-part" have been used for many years and have acquired definite meanings. See 201.06, 201.07 and 201.08 of the Manual of Patent Examining Procedure. The use of these terms are more informative than the use of the generic term "continuing."

Another advantage in the use of more specific designations resides in the procedure relating to assignments and the issuance of patents. [4] Assignment of an original application carries title to any divisional or continuation application and the patent will issue to the assignee. However in the case of a continuation-in-part, a prior assignment of the original application is not applied as a matter of course to the continuation-in-part, and the patent will not necessarily issue to the assignee. See sections 202.12 and 306 of the Manual of Patent Examining Procedure.

[5] This application appears to contain substantially all of the subject matter of the earlier application and also matter not disclosed in the original. The term "continuation-in-part" as defined in section 201.08 of Manual of Patent Examining Procedure properly describes this application.

[6] The designation in the specification of the particular type of continuing application is more informative and is conducive to orderly procedure in the processing of an application. Such advantages justify the requirement made by the Examiner.

The petition is denied.

DENIED.

[1] Application No. 357,092, issued July 26, 1955, as Patent No. 2,713,959.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,143,606, R. Mooney, Tripod; **2,508,122**, same, Instrument supporting stand, **filed** Dec. 27, 1956, D. C., E. D. N. Y. (Brooklyn), Doc. 17162, *Quick-Set, Inc.* v. *Salvatore Longo et al.*

2,247,952, E. Laxo, Conditioning can blank, **filed** Dec. 20, 1956, D. C., S. D. Calif. (Los Angeles), Doc. 20849–WM, *United Can & Glass Co.* v. *E. W. Bliss Co. et al.*

2,252,224, A. D. Welsh, Baby swing, **filed** Dec. 20, 1956, D. C., E. D. Mo. (St. Louis), Doc. 11003(2), *Thayer, Inc.* v. *Welsh Co. et al.*

2,298,543, K. Schmidt, Combination purse and billfold, **filed** Dec. 13, 1956, D. C., S. D. N. Y., Doc. 115/339, *Philip Florin, Inc.* v. *Marioness & Co., Inc.* Same, **filed** Dec. 26, 1956, D. C., S. D. N. Y., Doc. 116/54, *Marioness & Co., Inc.* v. *Aristocrat Leather Products, Inc.*

2,384,806, **2,549,361**, E. Berdach, Undergarment, **filed** Dec. 26, 1956, D. C., S. D. N. Y., Doc. 116/58, *Lily of France, Inc.* v. *Enchantress Foundations, Inc. et al.*

2,415,708, D. Sciaky, Welding method and apparatus therefor; **2,431,083**, same, Electric valve converting system, **filed** Dec. 20, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c2127, *Sciaky Bros., Inc. et al.* v. *McGraw Electric Co.*

2,430,729, J. A. Negri, Garage door operating mechanism, **filed** Dec. 11, 1956, D. C., S. D. Calif. (Los Angeles), Doc. 20817–WM, *Burt A. Smith, Sr. et al.* v. *Door King et al.*

2,431,083. (See 2,415,708.)

2,453,614, **2,512,539**, J. R. Belsinger, Easy packing container, **filed** Aug. 21, 1951, D. C., E. D. Pa. (Philadelphia), Doc. 12628, *Belsinger, Inc.* v. *American Viscose Corp.* Patent 2,453,614 held not infringed; Patent 2,512,539 held invalid; complaint dismissed Dec. 17, 1956.

2,476,960, G. W. Daugherty, Spraying and dusting machine, **filed** Jan. 3, 1956, D. C., W. D. Mich. (Grand Rapids), Doc. 2879, *Food Machinery & Chemical Corp.* v. *Michigan Orchard Supply Co. and Friend Mfg. Co., Inc.* Stipulation and order of dismissal as to defendant Michigan Orchard Supply Co.; decree granting injunction as to defendant Friend Mfg. Co., Inc. Dec. 12, 1956.

2,495,494, T. S. Ziegenfuss, Twin bed and lounge; **2,630,581**, same, Convertible bed lounge; **2,602,937**, L. E. Frey, Sofa bed; **Des. 178,233**, same, Combined twin bed and sofa unit; **TM 634,501** (DUO-BED), Duo-Bed Corp., Headboards for beds, cocktail tables, pivotal sofa beds, etc., **filed** Nov. 19, 1956, D. C., N. D. Calif. (San Francisco), Doc. 35989, *Duo-Bed Corp. et al.* v. *Simon Mattress Mfg. Co. et al.* Consent judgment for plaintiff; decree granting injunction against defendants from further infringement Dec. 18, 1956.

2,498,009, Schrader and Sears, Method of and apparatus for assembling ball-pointed writing instruments, **filed** Apr. 9, 1953, D. C., S. D. Calif. (Los Angeles), Doc. 15367–WM, *Hartley Pen Co.* v. *Lindy Pen Co., Inc. et al.* Patent held valid and infringed (notice Dec. 27, 1956).

2,508,122. (See 2,143,606.)

2,510,622, A. P. Denis, Cable shortening device, **appeal** filed Nov. 6, 1956, C. C. A., 1st Cir., Doc. 5181, *Perfect Parts, Inc.* v. *Denis Mfg. Co., Inc. et al.* Appeal dismissed (notice Dec. 21, 1956).

2,512,539. (See 2,453,614.)

2,549,361. (See 2,384,806.)

2,590,738, W. F. Tufts, Slip resistant pants guard for coat hangers, **filed** Aug. 21, 1953, D. C., E. D. Mich. (Detroit), Doc. 12841, *L. M. Leathers' Sons* v. *Goldman Mfg. Co.* Case reopened Dec. 29, 1955; Case dismissed Dec. 26, 1956.

2,602,937. (See 2,495,494.)

2,630,581. (See 2,495,494.)

2,664,363, M. Meth, Method of depositing copper; **2,720,487**, same, Galvanic plating of hardened copper, **filed** Nov. 9, 1955, D. C., S. D. N. Y., Doc. 104/394, *Max Meth* v. *Metropolitan Mirror & Glass Co., Inc. et al.* Stipulation and order of discontinuance Dec. 26, 1956.

2,717,015. (See Des. 147,477.)

2,720,487. (See 2,664,363.)

2,723,555, L. Hunter, Jr., Dynamic balancer for rotary bodies, **filed** Dec. 10, 1956, D. C., N. D. Calif. (San Francisco), Doc. 36048, *Lee Hunter, Jr. et al.* v. *Hemmeter Corp.*

2,771,026, L. R. Mooney, Stencil assembly, **filed** Dec. 12, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c2082, *Sten-C-Labl, Inc.* v. *Joseph Weber et al.*

2,772,734, D. N. Judelson, Bias cutting machine, **filed** Dec. 12, 1956, D. C., S. D. N. Y., Doc. 115/332, *Lever Bias Machine Corp. et al.* v. *Oscar I. Judelsohn, Inc.*

Des. 147,477, M. Shanzer, Combined bottle and diaper utility bag; **2,717,015**, M. J. Berry, Bag, **filed** Dec. 26, 1956, D. C., E. D. N. Y. (Brooklyn), Doc. 17158, *Morris J. Berry et al.* v. *E. J. Korvette, Inc.*

Des. 178,233. (See 2,495,494.)

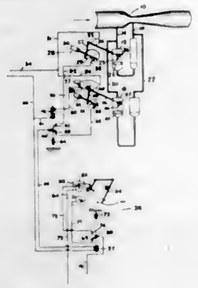
REISSUES

FEBRUARY 12, 1957

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,270
TELEMETRIC APPARATUS FOR LOW AND HIGH RANGE VALUES

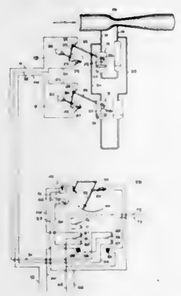
Francis H. Cary, Warwick, R. I., assignor to B-I-F Industries, Inc., a corporation of Rhode Island
Original No. 2,740,951, dated April 3, 1956, Serial No. 345,790, March 31, 1953. Application for reissue November 23, 1956, Serial No. 624,184
5 Claims. (Cl. 340—184)



9. In a telemetering system, a plurality of transmitters, one having means for sending in each of a series of uniform time cycles an impulse of a duration corresponding to a value of a variable within a predetermined low range and the other having means for sending in each of a series of uniform time cycles an impulse of a duration corresponding to a value of said variable within a predetermined higher range, a telemetering channel comprising no more than two wires for conveying impulses from said transmitters to a distant receiver, and means controlled by values of said variable for selectively connecting said transmitters to said receiver.

24,271
TELEMETRIC APPARATUS

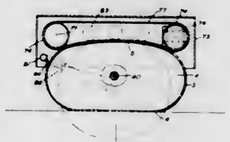
Francis H. Cary, Warwick, R. I., assignor to B-I-F Industries, Inc., a corporation of Rhode Island
Original No. 2,672,600, dated March 16, 1954, Serial No. 261,501, December 13, 1951. Application for reissue November 23, 1956, Serial No. 624,183
7 Claims. (Cl. 340—206)



2. In a telemetering system, a plurality of transmitters, one for sending cyclical impulses of durations corresponding to values of a variable within a predetermined low range and the other for sending cyclical impulses of durations corresponding to values of said variable within a predetermined higher range, a telemetric receiver to which said transmitters are adapted to be connected in parallel, and means controlled by said receiver for connecting one of said transmitters to said receiver when said values are in said low range and for connecting the other of said transmitters to said receiver when said values are in said higher range.

24,272
LAND VEHICLE OR LOAD-MOVING DEVICE COMPRISING A FLEXIBLE-WALLED, FLUID-CONTAINING [, PERIPHERALLY-LOADED] ROLLER

William H. Albee, Carmel, Calif.
Original No. 2,714,011, dated July 26, 1955, Serial No. 265,296, January 7, 1952. Application for reissue July 17, 1956, Serial No. 598,730
20 Claims. (Cl. 180—9)



17. A vehicle comprising an axially-elongated, flexible-walled, fluid-distensible roller, said roller having, when distended and free of load, a ground-contacting middle portion throughout which the part of the wall which in tension primarily sustains the distending force of the fluid is of longer-radius curvature lengthwise of the roller than circumferentially of the roller, so that the roller is shaped for load-sustaining contact with a flat ground surface throughout an area that is more extensive axially than circumferentially of the roller, the said wall, throughout the said ground-contacting middle portion, having such easy flexibility that its resistance to flexing is not a substantial factor in localizing pressure of roadway projections against the roller, said vehicle including a load-supporting structure, and journal means and horizontal-propulsion means interposed operatively between said roller and said structure.

24,273
AUTOMATIC STEERING MECHANISM

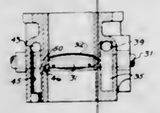
Ross C. Alderson, St. Louis Park, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Original No. 2,626,114, dated January 20, 1953, Serial No. 25,555, May 7, 1948. Application for reissue June 7, 1954, Serial No. 435,103
15 Claims. (Cl. 244—77)

11. A follow-up control for automatic pilots having a servomotor, comprising primary signal means for operating said motor, means for producing a second signal in accordance with a function of the torque output of said motor, means for producing a third signal in accord-

ance with a function of the displacement of said motor from normal, means for combining said second and third

signals, and means for feeding said combination as an input to said motor in opposition to said primary signal.

24,274
CARBURETOR DE-ICING MEANS
Leonard D. Boyce, Kirkwood, Mo., assignor, by mesne assignments, to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey
Original No. 2,715,520, dated August 16, 1955, Serial No. 251,976, October 18, 1951. Application for reissue February 27, 1956, Serial No. 568,147
6 Claims. (Cl. 261—14)



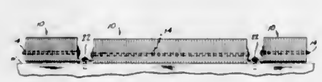
1. In a carburetor, a mixture conduit having a throttle valve therein, a heating jacket adjacent said throttle valve having a passage communicating with a port in said mixture conduit anterior of the throttle valve when in closed position, and posterior of said valve in the part-throttle range of operation, an inlet for said heating jacket adapted for connection to a source of heated air, a valve for controlling said inlet arranged to open in the direction of flow through said jacket to said port, and flexible, heat responsive means for mounting said valve constructed and arranged to close said valve at high temperatures, and to open said valve at low temperatures.

24,275
MULTICELL FILTER APPARATUS
Joseph P. Lawlor, Ames, Iowa, assignor to General Filter Company, Ames, Iowa, a corporation of Iowa
Original No. 2,754,971, dated July 17, 1956, Serial No. 296,008, June 27, 1952. Application for reissue November 15, 1956, Serial No. 623,275
3 Claims. (Cl. 210—144)

3. In a water filtration apparatus, a horizontally-elongated tank, partitions arranged within said tank to provide a plurality of separate, horizontally-spaced, vertically-extending filter cells within said tank, said cells being adapted to receive separate beds of filtering material, a raw water supply pipe, separate pipes connecting the upper portion of each of said cells with said raw water supply pipe, a separate shut-off valve in each of said cell connecting pipes, separate drain pipes communicating with the upper portions of each of said cells, separate shut-off valves

in each of said drain pipes, and a common water collection means extending across the bottom portion of said tank and providing a passage therein in open communication with the lower portion of each of said cells, whereby any one of said cells can be automatically backwashed with filtered water during normal filtration operations by simply closing the shut-off valve in the connecting pipe to said cell and opening the shut-off valve in the drain pipe from the same cell.

24,276
TRUCK DOCK BUMPER
Fred B. Schuyler, Kenmore, Wash.
Original No. 2,649,295, dated August 18, 1953, Serial No. 196,244, November 17, 1950. Application for reissue August 16, 1955, Serial No. 549,223
(Filed under Rule 47(b) and 35 U. S. C. 118)
3 Claims. (Cl. 267—1)



3. A bumper for truck loading docks or the like comprising a strip stack including a plurality of resilient, rubber-like strips arranged face-to-face in stacked relationship and having aligned apertures therethrough extending transversely of said strips, a pair of stack-clamping and bumper-mounting angle abutment members having stack-clamping flanges engaging opposite ends of said strip stack, respectively, and through-rod means extending through said aligned apertures of said strips and interconnecting said stack-clamping flanges of said angle abutment members with said strips clamped tightly therebetween as an integral unit, said angle abutment members being disposed with their other, bumper-mounting flanges supportable on a wall to support the bumper, said bumper-mounting flanges being substantially coplanar with at least a substantial portion of the side of said strip stack adjacent to such wall.

PLANT PATENTS

GRANTED FEBRUARY 12, 1957

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,562
CAMELLIA PLANT
Edward B. Arnesen, San Fernando, Calif.
Application May 21, 1956, Serial No. 586,336
1 Claim. (Cl. 47—60)

A new and distinct variety of Camellia plant of the double, imbricated petal type, substantially as herein shown and described, characterized particularly as to novelty by its general similarity to its parent variety "Bleichroeder" (unpatented), combined with a Rhodamine Pink general color tonality of its flowers which differentiates the flowers from the normally solid white color with pencil stripings of pink of the flowers of the parent variety aforesaid.

1,563
ROSE PLANT
Eugene S. Boerner, Newark, N. Y., assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York
Application April 23, 1956, Serial No. 580,150
1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the large-flowered polyantha class, substantially as herein shown and described, characterized particularly as to novelty by its good growing qualities and prolific flower production, both outdoors and in the greenhouse, the graceful and excellent form of its buds which range from pointed to ovoid in shape, the slow-opening habit of its buds, the long-lasting quality of its open flowers, and the Eosine Pink general color tonality of its flowers and the retention of such color throughout all stages of development of the flowers.

1,564
ROSE PLANT
Eugene S. Boerner, Newark, N. Y., assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York
Application April 23, 1956, Serial No. 580,151
1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the large-flowered polyantha class, substantially as herein shown and described, characterized particularly as to novelty by its free flower production, its long-lasting flowers which are especially suitable for cut flowers, the large size of its flowers, the numerous petals of its flowers, the distinctive La France Pink general color tonality of its half-open buds, lightly overcast with white in the upper part of the petals and with Pinard Yellow overcasting the lower half of the petals, and the distinctive Hermosa Pink general color tonality of its open flowers, with the lower half of the petals lightly overcast with Marguerite Yellow, and the upper half of the petals lightly overcast with white.

1,565
APPLE TREE
Roy A. Bisbee, Hood River, Oreg., assignor to Stark Bro's Nurseries and Orchards Company, Louisiana, Mo., a corporation of Missouri
Application May 3, 1956, Serial No. 582,613
1 Claim. (Cl. 47—62)

A new and distinct variety of apple tree, substantially as herein shown and described, characterized particularly as to novelty by its general similarity to the trademarked variety "Starking Delicious" (unpatented), but being distinguished therefrom by its somewhat smaller tree size but more upright growth, its development of more fruit spurs, its earlier-bearing habit and greater productivity, the earlier coloring of its fruit, and the more uniform over-all red blush of its fruit.

1,566
ROSE PLANT
Roy L. Byrum, Richmond, Ind., assignor to Joseph H. Hill Company, Richmond, Ind., a corporation of Indiana
Application May 4, 1956, Serial No. 582,898
1 Claim. (Cl. 47—61)

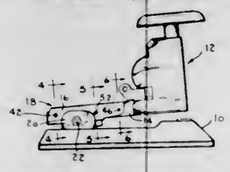
A new and distinct variety of rose plant of the hybrid tea class, substantially as herein shown and described, characterized particularly as to novelty by its very vigorous habit of growth, its leathery dark green foliage, its extra good flower production and keeping qualities, its short peduncle, the very uniform color of its flower petals, and the distinctive red general color tonality of its flowers, varying from signal red in the newly opened flowers to crimson in the 3-day open flowers.

PATENTS

GRANTED FEBRUARY 12, 1957

GENERAL AND MECHANICAL

2,780,809
DETACHABLE BASE STAPLING MACHINE
William G. Pankonin, Chicago, Ill., assignor to Triangle Tool & Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application January 25, 1955, Serial No. 483,867
4 Claims. (Cl. 1—3)



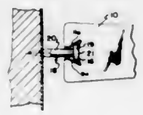
1. A desk type stapling machine having a base, a mounting member pivoted to said base and having limited pivotal movement with respect thereto, resilient means for urging said mounting member to a raised position with respect to such base between said limits, a staple magazine having a portion interfitting with said mounting member, staple driving mechanism carried by said magazine, spaced locking elements on said mounting member swingable therewith about the pivot of said mounting member, and angularly spaced locking elements on said portion cooperable with said spaced locking elements to properly aline said staple driving mechanism with said mounting member and maintain said mechanism in frictional engagement as so alined.

2,780,810
TEMPLATE FOR USE WITH A STUD DRIVER
Robert T. Catlin, Stratford, and Curtis C. Clair, Milford, Conn., assignors to Remington Arms Company, Inc., Bridgeport, Conn., a corporation of Delaware
Application May 25, 1953, Serial No. 356,976
2 Claims. (Cl. 1—44.5)

1. A template for use with a stud driving tool having a barrel for receiving a cartridge and a stud to be driven and having also a safety device operator longitudinally displaceable on said barrel to permit firing of the tool, said template comprising in combination a plate provided with apertures through which studs are to be driven into a workpiece upon which said template is placed, and a guide tube mounted in coaxial alignment with each of said apertures and rigidly secured to said plate, each of said guide tubes being of such diameter as to telescopically receive and guide the barrel of said tool and of such height that the upper end thereof longitudinally displaces said safety device operator on the barrel of the tool when the barrel of the tool is inserted into stud driving position in a guide tube.

2,780,811
TOOL FOR HOLDING AND DRIVING FASTENERS
Emil A. Rodin, Los Angeles, Calif.
Application March 14, 1955, Serial No. 494,168
4 Claims. (Cl. 1—47)

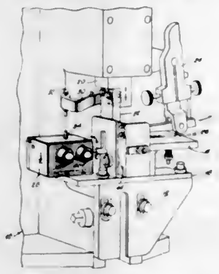
1. A tool comprising an elongated body member formed of a single piece of rigid material, said body member having a passage at one end thereof, said passage having an open entrance at one side of said body member, said passage having a substantially flat base extending transversely to the longitudinal axis of said body member, a pair of substantially equidistant angular side walls converging from said base to an open end disposed at the end of said body member on the opposite side of said passage from said base, said side walls also tapering gradually and equally toward each other from said entrance toward the opposite side of said body member, said base adapted to engage the top of a nail head, said side walls adapted to engage the bottom edge of the nail head at two separate points on a line extending substantially diametrically through the axis of the nail to hold said nail with its stem extending through the open end of said passage and prevent movement of the nail, the end of said body member remote from said passage adapted to be struck by a hammer to drive said nail.



2,780,812
MULTIPLE WORK FEELER SAFETY CONTROL
Arthur J. Landa, Huntington, Conn., and Frank H. McDonald, Independence, Mo., assignors to Remington Arms Company, Inc., Bridgeport, Conn., a corporation of Delaware
Application December 22, 1954, Serial No. 476,992
12 Claims. (Cl. 1—106)

1. In a powder actuated tool having a barrel and breech assembly, means on said assembly for firing a cartridge in said barrel and means normally locking said firing means, the invention consisting of a fire control member surrounding said barrel and having a work engaging end in advance of said barrel muzzle, said barrel and breech assembly being reciprocable in said member from a normal retracted position to a predetermined advanced firing position, means on said member for disabling said locking means when said assembly is in firing position, a plurality of independent latching devices mounted in said member for engagement with said barrel, each of said devices being capable of blocking movement of said assembly to firing position, and a plurality of latch controlling feelers mounted in said member for engagement with a work surface, each of said feelers being independently movable when unsupported by a work surface to release a respective latching device for engagement with said barrel.

2,780,813
TERMINAL APPLICATOR WITH AUTOMATIC CYCLE AND QUALITY CONTROL
Russell L. Tritt, Lemoyne, Pa., assignor to Aircraft-Marine Products, Inc., Harrisburg, Pa.
Application July 17, 1953, Serial No. 368,746
5 Claims. (Cl. 1—177)



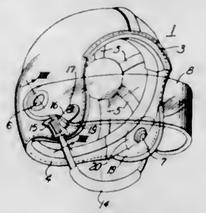
1. In a machine for automatically pressure forming electrical connectors one at a time about conductors and having a ram and crimping die structure movable toward and away from the crimping position of the connectors in each cycle of crimping operation, power means for driving the ram, power control means for energizing said power means and operable to initiate a crimping cycle, holding means automatically operative upon initiation of a crimping cycle to maintain said control means effective to energize said power means, means activated in response to substantial completion of the forward crimping stroke of the ram to disable said holding means thereby to de-energize said power means, and time delay means for maintaining effective said holding means for a predetermined time after actuation of said last-named means.

2,780,814
VISOR AND ACTUATING ASSEMBLY FOR A HELMET
Matthew I. Radnofsky, Newtown Square, Pa.
Application July 29, 1954, Serial No. 446,688
3 Claims. (Cl. 2—8)
(Granted under Title 35, U. S. Code (1952), sec. 266)

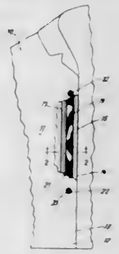
1. In combination with a helmet, a visor to be mounted on said helmet, rigid integral extensions on said visor, said extensions having elongated slotted guide means therein, extended fastener means on said helmet with said guide means riding on the extended fastener means, elastic strap means secured to said visor and to the rear portion of the helmet, and additional strap means depending from the aforesaid elastic strap means, fastener means on one end of said additional strap means, said latter fastener means cooperating with the fastener portion on said extended fastener means.

2,780,815
FOOTBALL HELMETS PROVIDED WITH FACE GUARDS
Roscoe Newland, Constance, Ky., assignor to Hutchinson Brothers Leather Company, Cincinnati, Ohio, a copartnership
Application December 20, 1954, Serial No. 476,339
3 Claims. (Cl. 2—9)

1. A helmet having ear flaps provided with apertures therein, and snap buttons on said flaps to which the snaps of the chin strap may be detachably secured, and a face guard of substantially U-shape provided with trunnions extending into said apertures, and braces on said face guard adjacent said trunnions but spaced therefrom and provided with means for attaching the same to said snap buttons to prevent rotation of the face guard about said trunnions.



2,780,816
GARMENT
Shepard S. Saltzman, New York, N. Y., assignor to Piedmont Shirt Company, New York, N. Y., a corporation of South Carolina
Application September 10, 1954, Serial No. 455,185
1 Claim. (Cl. 2—128)

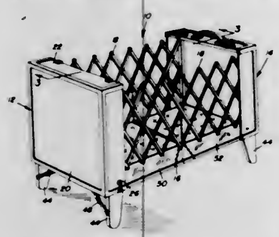


A garment comprising a front panel including a marginal portion inturned along an edge, a fabric backing strip disposed rearwardly of said panel and having marginal portions inturned along each longitudinal edge thereof, the marginal edge of said front panel registering with the outer marginal edge of said backing strip and secured thereto, a continuous fabric strip located between said first mentioned backing strip and the opposed portion of said front panel and secured to said first mentioned backing strip, the longitudinal edges of said continuous fabric strip being disposed inwardly of and adjacent the edges of the inturned marginal portions of said backing strip, said continuous fabric strip having a closer weave and higher tensile strength than that of said front panel and backing strip, and at least one button sewn to said front panel and backing strip through said continuous fabric strip.

2,780,817
COLLAPSIBLE CRIB
Harley T. Jackson, Topeka, Kans.
Application April 22, 1954, Serial No. 424,925
1 Claim. (Cl. 5—99)

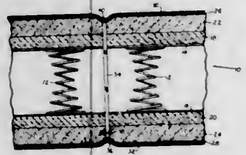
A collapsible crib comprising a pair of box-like end members opening toward one another and being collapsible into abutting relation to form a carrying case, a crib bottom and side walls normally spacing said end members from one another, said bottom and side walls being collapsible within said end members when the end members are moved to abutting relation with one another, said bottom comprising a pair of rigid sections hingedly connected to said end members at their remote ends and hinged to one another at their adjacent ends for folding between said end members as the crib is col-

lapsed, flexible elements attached at their upper ends to said side walls and attached at their lower ends to said bottom sections to prevent sagging of the bottom when the crib is in its extended position, said flexible elements each having a pair of branched lower end portions, one



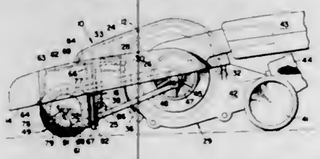
of said flexible elements being attached to each side wall, the branched lower end portions of said elements straddling the adjacent ends of said bottom sections, and one branched lower end portion of each flexible element being attached to each of said bottom sections.

2,780,818
TUFTED MATTRESS AND METHOD OF TUFTING THE SAME
Louis T. Gitlin, Brooklyn, N. Y.
Application June 29, 1954, Serial No. 440,101
4 Claims. (Cl. 5—356)



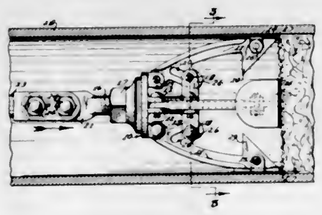
1. A tufted mattress construction, comprising a mattress having top padding and top covering and bottom padding and bottom covering, loops secured to the top covering and projecting downwardly into the mattress through said top and bottom padding in the direction of the bottom covering, additional loops secured to the bottom covering and projecting upwardly into the bottom padding of the mattress in the direction of the top covering, and tie strings tying said first loops and said additional loops into end-to-end abutment with each other.

2,780,819
POLISHING ATTACHMENTS FOR VACUUM CLEANER
Francis A. Gall, Bound Brook, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application March 8, 1954, Serial No. 414,836
3 Claims. (Cl. 15—49)



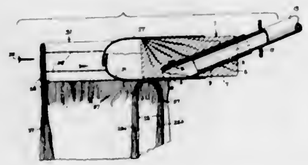
1. In a vacuum cleaner having an upper casing shell provided with a downfacing cavity, an electric motor, a drive shaft for said motor, a pulley on one end of said shaft, and a latch carried by said upper casing shell; a polishing attachment located in said cavity and secured to said upper casing shell, said polishing attachment comprising a shield having a top wall, a front wall, a rear wall and two end walls, each of said end walls being provided with a recess having an open end and a discontinuous indented rib, said ribs extending perpendicular to said recesses and intersecting said recesses between the open and closed ends thereof; a shaft passing through said recesses and held therein by said ribs; a J-shaped hook member held to the outer surface of said rear wall and engaged by said latch; a brush roll rotatably carried on said shaft; and a belt driving said brush roll from said pulley.

2,780,820
SEWER PIPE CLEANING ATTACHMENT
Otto Fred Wendt, Fargo, N. Dak.
Application August 14, 1953, Serial No. 374,268
2 Claims. (Cl. 15—104.3)



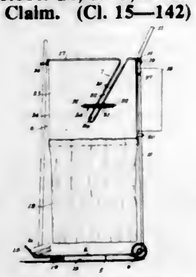
1. A pipe cleaner comprising a head, arcuate jaws having inwardly extended gripping prongs on the inner surfaces of extended ends pivotally mounted on the head, shoes having sharp forward edges pivotally mounted on the jaws, a threaded shank extended loosely through the head and having flanges extended therefrom, said jaws having extensions thereon that are angularly disposed with relation to the longitudinal axis of the shank, said extensions having angularly disposed slots therein, pins extended through the flanges of the threaded shank and through the angularly disposed slots of the jaws, extensions on the jaws for expanding and contracting the jaws through axial movement of said shank in relation to said head, a nut threaded on the shank to limit the axial movement of said shank and means for connecting the shank to an operating device.

2,780,821
FOUNTAIN-TYPE CAR MOP
James M. Carter, Nashville, Tenn.
Application June 20, 1952, Serial No. 294,577
8 Claims. (Cl. 15—128)



1. A fountain type car mop, comprising: a block of light strong material having a tubular bore extending forwardly and slightly downwardly from the central region of its rear face to a point adjacent the center of the lower face of the block and having at least one water-discharge opening into said lower face; a porous water-distributing sheet covering said lower face; a tape means wrapped around and against the sides of said block; closely-spaced block-penetrating fastening elements securing said tape to said block; a multiplicity of mop cords depending from said tape means; and a combined water-conduit and handle rigidly fastened at one end thereof in said bore.

2,780,822
MOP-CLEANING DEVICE
Christmas O. Dickinson, Los Angeles, Calif.
Application October 26, 1953, Serial No. 388,226
1 Claim. (Cl. 15—142)



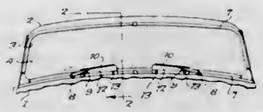
A mop cleaning device and refuse truck comprising a substantially rectangular base, a pair of floor engaging wheels mounted on said base, at least one rubber pad mounted on the underside of said base, said pad and said wheels being adapted to support said base in a horizontal position, an upright frame mounted on said base, the lower end of said frame terminating adjacent the pair of wheels and the upper end terminating in a handle, a rectangular member mounted on the upper part of said frame and directly above said base, said member being open at the top and bottom and having front, rear and two side walls, there being a forwardly inclined slot in each side wall, said slots being open at the top and closed at the bottom and having a resilient padding along the edges, an elastic bumper mounted on each side wall across the bottom portions of the slots, a forwardly inclined grid extending between said side walls, said grid lying in a plane parallel and adjacent to the plane of said slots, and a refuse receptacle detachably suspended from said rectangular member for receiving refuse from a mop moved up and down over said grid.

2,780,823
BATHTUB BRUSH
George Angles Ronish, Kent, Wash.
Application September 21, 1953, Serial No. 381,237
2 Claims. (Cl. 15—160)

1. A brush for positioning on a vertical wall of a support comprising a generally rectangular wire frame having a plurality of spaced parallel longitudinal members, and a pair of spaced parallel transverse members adjacent each end of the longitudinal members, a plurality of cylindrical brushes supported between the inner transverse members with the brushes being disposed between adjacent longitudinal members, means adjacent the opposite ends of the wire frame for supporting the wire frame on the wall of a support, and means resiliently spacing the wire frame from the support, said last named means including a plurality of wire members with a wire loop on the free end thereof, one of said wire members being connected to the outer transverse member between each longitudinal member, said wire members projecting rearwardly and inwardly and terminating in a wire loop extending toward the plane of the longitudinal members whereby the wire members form springs for resiliently holding the brushes away from the side wall of the support thereby providing a spring action during a washing action.

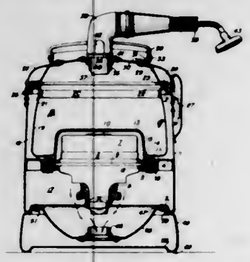
2,780,824
WINDSHIELD CLEANER
Anthony C. Scinta, Buffalo, N. Y., and Anton Rappl, deceased, late of Eggertsville, N. Y., by The Marine Trust Company of Buffalo, executor, Buffalo, N. Y.; said Scinta and Rappl assignors to Trico Products Corporation, Buffalo, N. Y.
Application June 25, 1953, Serial No. 364,046, now Patent No. 2,672,641, dated March 23, 1954, which is a continuation of application Serial No. 736,492, March 22, 1947. Divided and this application February 25, 1954, Serial No. 412,544
5 Claims. (Cl. 15—245)

1. A windshield cleaner comprising a squeegee unit having a flexible blade body and a flexible nonextensible backing strip therefor conformable to the surface being wiped, a pressure distributing holder comprising a primary yoke and plural secondary yokes longitudinally and movably mounted on the opposite ends of the primary yoke, the outer ends of the secondary yokes being operatively connected to the backing strip and the inner end portions of the secondary yokes crossing each other and having their inner extremities slidably bearing in transverse facial contact on the backing strip, and means slidably connecting said inner extremities of the secondary yokes to the backing strip for sliding thereon longitudinally thereof.

2,780,825
ATTACHMENT FOR WINDSHIELDS
John F. Kopczynski, Buffalo, N. Y.
Application February 9, 1955, Serial No. 487,159
8 Claims. (Cl. 15—255)

1. An attachment for windshields of the type having a transparent panel mounted in a frame and having a wiper of the type having a flexible wiper blade movable back and forth by power across and in contact with a portion of the panel, with a flexible, free side edge portion of the wiper blade in contact along a side edge thereof, with the outer face of said panel to wipe water and snow from the panel, said attachment comprising a member formed for attachment to the outside of said frame along a margin of the panel, with an edge thereof projecting slightly over the panel but in spaced relation thereto, at one end of, and in the path of travel of said flexible, free side edge portion of said blade, and at an angle to be struck broadside, along its length, by the said flexible side edge portion of said blade at one end of its back and forth power stroke, beyond the normal wiping stroke, whereby when the blade strikes said edge

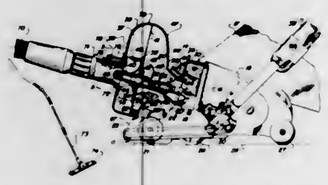
broadside with force, at the end of a stroke, the impact will deform the wiper blade and shatter ice carried by the blade and thus dislodge it from the blade.

2,780,826
AIR SUPPORTED CLEANER
Curtis C. Coons, North Canton, and John C. Montgomery, Cleveland, Ohio, assignors to The Hoover Company, North Canton, Ohio, a corporation of Ohio
Application March 25, 1954, Serial No. 418,512
23 Claims. (Cl. 15—327)



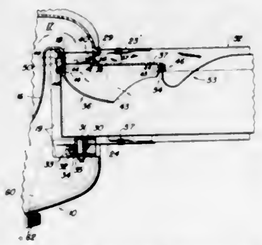
23. In a suction cleaner including a casing having an inlet port, suction creating means within said casing, said casing having a supporting base adapted to encompass a substantial area of the supporting surface upon which the cleaner rests to support the cleaner in a stable position, at least the periphery of said base being normally in contact with the supporting surface when the cleaner is not in use and means for supplying air under pressure beneath said base, said casing being formed to restrict the flow of air from beneath said base, the area of the supporting surface encompassed by said base being so related to the weight of the cleaner and to the quantity of air supplied beneath said base that the air under pressure reacts between said base and the area of the supporting surface encompassed by said base to form a supporting cushion of air which serves to support the major part of the weight of the cleaner, the center of gravity of the cleaner being so related to the area of the supporting surface encompassed by said base and to the horizontal force necessary to propel the cleaner along the supporting surface when the cleaner is supported on said air cushion that the cleaner may be propelled about in a stable condition by the application of the necessary horizontal force to the cleaner.

2,780,827
SUCTION CLEANER FAN STAGE CONVERTER
Dale C. Gerber, North Canton, Ohio, assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio
Application July 6, 1953, Serial No. 366,221
3 Claims. (Cl. 15—337)



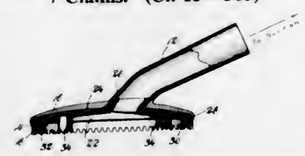
1. A fan stage converter for removable connection to a suction cleaner of the type having a surface cleaning nozzle communicating with the inlet of a fan chamber, and power means rotating a fan in the chamber to create suction in the inlet and nozzle, comprising a body having a fan chamber provided with an inlet and outlet, a fan in said converter fan chamber, shaft means in said body rotatably mounting said converter fan, means adapted to removably connect said shaft means to the power means to rotate said converter fan with the cleaner fan, and means in said body defining a conduit from said converter fan chamber outlet and connectable with the cleaner fan chamber inlet for passage of air thereto, said conduit when attached cutting off the cleaner fan chamber inlet to the cleaner nozzle.

2,780,828
SUCTION CLEANER WITH BAG ADAPTER
George A. Brace, Highland Park, Ill., assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio
Application November 4, 1952, Serial No. 318,716
16 Claims. (Cl. 15—351)



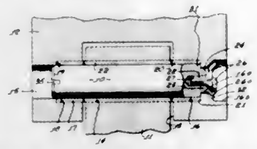
1. In combination, a suction cleaner of the floor type having a body provided with a suction nozzle, a motor-driven suction fan having an inlet in communication with said nozzle and an exhaust conduit leading therefrom, an elbow shaped filter adapter having inlet and outlet ends including means for swivelly connecting its inlet end to said exhaust conduit, said outlet end provided with a large area discharge opening adapter to be located within a filter bag, said adapter having means projecting laterally from one side of said inlet end and cooperating therewith to provide a tubular filter seating and clamping area surrounding said inlet end and disposed to one side of said outlet end and of materially greater peripheral extent than the periphery of said inlet end and discharge opening, said adapter elbow being arranged to project into a filter bag inlet opening disposed in a longitudinal side wall of the filter adjacent but above the bottom end of the bag, and manually operable clamping means opposite the seating area of said adapter for releasibly clamping the inlet of such a filter bag to said adapter.

2,780,829
VACUUM CURRYCOMB DEVICE
Sidney J. Cohen, Billings, Mont.
Application February 21, 1955, Serial No. 489,544
7 Claims. (Cl. 15—365)



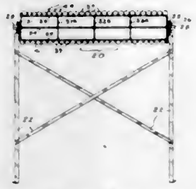
1. A vacuum currycomb device comprising a vacuum head formed with a neck portion capable of attachment to a source of vacuum, said head comprising a top portion and a peripheral rim depending therefrom, said rim being formed with teeth on its bottom marginal edge; and a resilient flexible insert member fitting within said head, said insert member comprising a top portion formed with a portion communicating with the mouth of said neck portion, an integral flexible resilient peripheral rim depending from said top portion provided with teeth on its marginal edge and integral resilient posts extending downwardly from said last mentioned top portion and terminating susbtantially in the same plane as the bottoms of said teeth.

2,780,830
PIN RETAINER
Archer W. Kammerer, Jr., Fullerton, Calif., assignor to Archer W. Kammerer, Fullerton, Calif.
Application June 20, 1955, Serial No. 516,429
8 Claims. (Cl. 16—169)



1. In apparatus of the character described: a first member having a bore; a second member; a pin mounted on said second member and extending into said bore; coengageable shoulders on said first member and pin to prevent axial movement of said pin in said bore in one direction; said first member having another shoulder surrounding said bore; said pin having fingers adapted to be bent outwardly into engagement with said another shoulder to prevent axial movement of said pin in the opposite direction; and means secured to said pin and engaging said fingers to hold them in their outward position and retain them in engagement with said another shoulder.

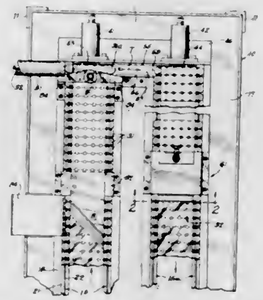
2,780,831
WIENER FORMING RACK AND SMOKE STICK
Albert L. Harman, Port Angeles, Wash.
Application July 20, 1953, Serial No. 369,125
11 Claims. (Cl. 17—34)



1. A revolvable smoke stick machine comprising a supporting frame having a bearing; a portable revolvable smoke rack formed of rectangular frames having end arm members and horizontal bars, the end arms forming equal angles about the horizontal axis of the machine; a hub mounted on said end members engageable with said bearing; and a wire secured on the outside of said horizontal bars in the form of radially directed loops, providing eyelets spaced apart a distance greater than the thickness of a wiener, said eyelet having a wiener casing holding portion and a V shaped entrance outwardly directed.

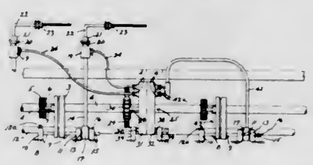
2,780,832
MACHINE FOR MAKING SUPPOSITORIES OR THE LIKE
Roland G. Schmitt, Earl E. Braaten, and Vernon K. Swedberg, Chicago, Ill., assignors to Walgreen Co., Chicago, Ill., a corporation of Illinois
Application August 31, 1953, Serial No. 377,432
3 Claims. (Cl. 18—4)

3. A machine for molding a suppository or the like in which a viscid substance is poured into a mold comprising a pouring station, a mold-stripping station, a plurality of abutable mold sections having a pair of parallel faces each having a part of a mold cavity therein, and said cavity parts of adjacent sections when placed normally in juxtaposition constituting a complete mold cavity, guideways for supporting said sections with the cavity parts juxtaposed, means for moving said mold sections from said pouring station to said stripping station, single means actuatable as a unit toward the mold section located at said stripping station for separating the abutted mold sections and ejecting the molded product therefrom, said stripping means including a member reciprocatable in a



direction transverse to the direction of advance for ejecting the suppository from the mold, said member including a camming element adapted to enter between and to separate a pair of abutted mold sections by a distance at least equal to the maximum diameter of the suppository and a finger extended at its end in the direction of advance so as to move within both parts of a mold cavity to strip the same notwithstanding adhesion of the product to one or the other of the mold parts.

2,780,833
APPARATUS FOR THE PRODUCTION OF ARTIFICIAL SLUBBED FILAMENTS
Richard H. Braunlich, West Chester, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application June 11, 1952, Serial No. 292,929
10 Claims. (Cl. 18—8)

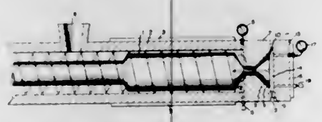


6. Apparatus for producing artificial filaments comprising a spinneret, a conduit connected to the spinneret, means for supplying a filament-forming material to the conduit, and auxiliary means for supplying an additional quantity of a filament-forming material to the conduit comprising a control valve and a conduit connecting the discharge port of the valve to the first-named conduit, said valve comprising a rotatable apertured disc and passages extending from opposite faces of the disc to the inlet and outlet ports respectively of the valve, the apertures in the disc extending through the disc between the opposite faces thereof, and means for rotating the disc to align the apertures with the passages in succession.

2,780,834
EXTRUDER EQUIPPED WITH A MULLING HEAD
Ernest Carl Bernhardt, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application October 6, 1955, Serial No. 538,862
1 Claim. (Cl. 18—12)

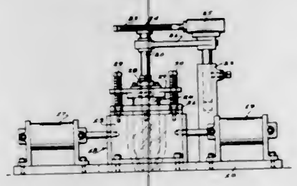
An extruding and mulling device comprising an extruder screw adapted to rotate without any thrust bearing

in an extruder barrel, a means for feeding extrudable material into a channel between the extruder screw and the extruder barrel, said channel communicating with a zone, forward from the extrusion screw, enclosed by a housing and a die member, said housing being stationary and having a truncated conical internal surface concentric with the axis of the extruder screw, said conical surface being parallel with, and adapted to cooperate with, a similarly shaped conical exterior surface of a nosepiece which rotates with, and is detachably associated with,



the extruder screw, the said conical surfaces having their apexes facing rearward, said die member containing a die communicating with said enclosed zone, said die being so adapted that the extruded material can be emitted therefrom after passage from the said channel through a clearance between the said conical surfaces and into the said enclosed zone, said die being equipped with a die valve, the rearward thrust generated by the action of the extrusion screw being entirely absorbed by a mulling effect of the said conical surfaces on the extrudable material as it passes between said surfaces.

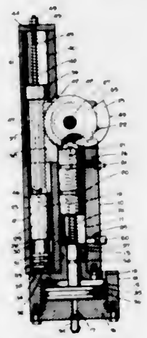
2,780,835
APPARATUS FOR EXTRUDING PLASTIC TUBES
Orville B. Sherman, Toledo, Ohio
Application March 2, 1954, Serial No. 413,623
5 Claims. (Cl. 18—14)



1. An apparatus for forming organic plastic material in tubular form which comprises a multi-sectional body forming an open-ended cavity, an inner mandrel positioned within said cavity, an outer mandrel surrounding the inner mandrel and in sliding relationship thereto, means for supplying plastic material to the tubular cavity formed between the outer mandrel and the body and thereby causing plastic material to flow out of the open end of the cavity in tubular form, means for moving the outer mandrel longitudinally relative to the inner mandrel during the supplying of the plastic material, and means for moving said sections of the body individually toward and away from the outer mandrel during the supplying of the plastic material to change the space between the body and the outer mandrel.

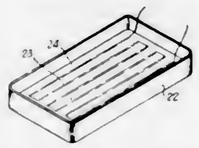
2,780,836
APPARATUS FOR APPLYING LOW PRESSURE ADVANCE AND HIGH PRESSURE SQUEEZE IN THE HYDRAULIC OPERATION OF DIE CASTING DIES
Louis H. Morin, Bronx, N. Y.
Application July 16, 1951, Serial No. 237,008
11 Claims. (Cl. 18—30)

4. An apparatus of the class described, comprising a pair of movable dies, a hydraulic cylinder connected to said dies, said cylinder having piston means therein for actuating a hydraulic medium in movement of said dies into closed position, a supplemental piston movable into said cylinder upon completion of closing movement of the dies to apply high pressure squeeze on said dies when in closed position, means controlling operation of the first named and supplemental pistons in said hydraulic



cylinder, a coil spring disposed between said pistons for normally returning the same to inoperative position, the means for actuating the first named piston comprising a cam, an air cylinder at one side of the hydraulic cylinder, and a piston in said cylinder in operative engagement with the cam to actuate said cam.

2,780,837
METHOD OF EMBEDDING METAL PROFILES IN CERAMIC MASSES
Fritz Math, Selb, Germany
Application November 27, 1951, Serial No. 258,473
5 Claims. (Cl. 18—59)

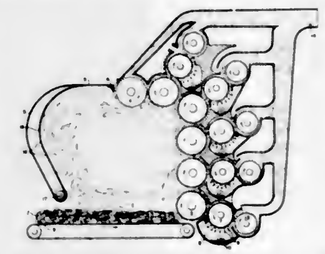


1. The method of making a ceramic body having a metallic element embedded therein, comprising coating the metallic element with a material capable of having its physical characteristics change to substantially reduce the thickness of such coating thereof during the heat treatment of the ceramic, embedding the coated metallic element in ceramic slip from which the ceramic body is to be formed, the coating on said embedded element engaging and forming a layer between such element and the ceramic slip and having a physical thickness substantially greater than in the final product, then drying and firing the composite mass to shrink the ceramic, to expand the metallic element and to reduce the physical thickness of said coating during such drying and firing operation, said coating being reduced in thickness to an extent as to enable the metallic element and the ceramic during such drying and firing operation to expand and to shrink, respectively, into the space created by the reduction in the physical thickness of said coating, without producing any substantial pressure effect between the metal element and the ceramic, and then cooling the composite mass to reduce the volume of the metallic element to a volume less than the volume defined by the ceramic wall enclosing said element and to enable the volume of such metallic element to be subsequently increased under heat without setting up stresses in the ceramic.

2,780,838
TEXTILE FIBER PACKAGE
Robert C. Wilkie, Andover, Mass., assignor to Pacific Mills, Lawrence, Mass., a corporation of Massachusetts
Application April 19, 1954, Serial No. 423,986
5 Claims. (Cl. 19—66)

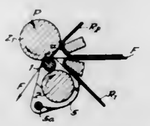
3. A compressed package consisting of treated textile fibers modified by treatment by heating and cooling under compression, said package being cylindrical in shape with flat ends at right angles to the axis of the cylinder, said fibers being in the form of a sliver arranged in evenly compacted symmetrically arranged coils disposed eccentrically of the package, each coil turn lying in part adjacent the outside of the package and in part adjacent to but spaced from the axis of the package on its opposite side, providing a central passageway extending through the package along said axis, the volume-to-weight ratio of the package being less than two-fifths that of an uncompressed package of the same fibers, said fibers being, as a result of the heating and cooling treatment, in a dead and dormant condition characterized by a lack of their normal springiness, the package having the property of remaining, under normal atmospheric conditions, in its compressed state, and the fibers being well adapted for drawing and spinning without ageing.

2,780,839
COTTON OPENER
Ray C. Young and Ralph A. Rusca, New Orleans, La., assignors to the United States of America as represented by the Secretary of Agriculture
Application July 27, 1955, Serial No. 524,831
5 Claims. (Cl. 19—93)
(Granted under Title 35, U. S. Code (1952), sec. 266)



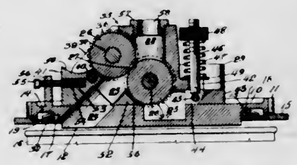
1. A machine for processing staple textile fibers comprising: a horizontal belt-type conveyor leading to a series of adjacent toothed opener cylinders rotatable in the same direction arranged in a wall-like structure rising up from and curving back toward the conveyor and a housing arranged to extend said wall-like structure close to the conveyor so that fibers deposited on the conveyor are moved into a mass of fibers rotating within the confines of the conveyor, the opener cylinders and the housing, and the opener cylinders continuously pick up and carry thin layers of fibers from the mass; lickerin-type beater cylinders arranged in a fiber transfer relationship with the opener cylinders and rotated in the opposite direction at a rate at which the surface speed of the beater cylinders is from about 1.1 to 5.0 times the surface speed of the opener cylinders; grid bars arranged adjacent to the beater cylinders; beyond the grid bars, doffer cylinders arranged in a fiber transfer relationship with the beater cylinders, said doffer cylinders being provided with fiber working teeth having forward faces constructed at such an angle to the cylinder radius that the teeth pick up fibers, carry them through part of a revolution, then discharge them by centrifugal action, and being rotated in a direction opposite to that of the beater cylinders at a rate at which the surface speed of the doffer cylinder is from about 1.1 to 2.0 times that of the beater cylinder; and partially surrounding the doffer cylinders, suction flue ducts arranged to draw the fibers discharged by the doffer cylinders away from the cylinders.

2,780,840
ROLLER ARRANGEMENT FOR DRAFTING SYSTEMS OF SPINNING MACHINES
Hans L. P. Ude, Kaiserslautern, Germany, assignor to Schliess Aktiengesellschaft, Dusseldorf-Oberkassel, Germany, a firm
Application January 19, 1953, Serial No. 331,955
Claims priority, application Germany January 24, 1952
15 Claims. (Cl. 19—131)



1. In a drafting system of spinning machines: an upper delivery roller, a lower delivery roller arranged for cooperation with said upper delivery roller so as to form a nip therewith for drafting fiber material and delivering drafted fiber material to a bobbin, guiding means closely spaced from said delivery rollers and located on the approach side thereof for guiding fiber material being drafted toward and between said delivery rollers, and at least a further roller drivingly engaging one of said delivery rollers and preventing the adjacent delivery roller from bending toward said further roller, said further roller being arranged positively to be driven, that delivery roller which is engaged by said further roller in the form of a pin of a diameter considerably less than the diameter of said further roller.

2,780,841
SLIVER COILER
Ralph C. Berker, Hoxsie, R. I.
Application June 8, 1953, Serial No. 360,067
5 Claims. (Cl. 19—159)

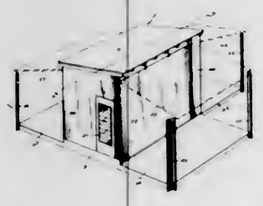


1. A sliver coiler comprising a rotatable plate, a first member carried by said plate for rotation therewith, a second member pivotally mounted on said first member for swinging movement relative thereto, said coiler having a sliver passageway therethrough having a portion thereof extending through the said second member centrally of said plate, a second portion extending through the first said member and through said plate at the peripheral edge thereof, a pair of feed rollers extending across said passageway, one of said feed rollers being mounted on the said first member and the other of said rollers being mounted on the said second member for swinging movement therewith to and from the said one of said feed rollers.

2,780,842
GIRDERS
Hanns Hess, Grafrath-Unteralting, Upper Bavaria, Germany
Application October 3, 1951, Serial No. 249,419
Claims priority, application Germany October 11, 1950
7 Claims. (Cl. 20—.5)

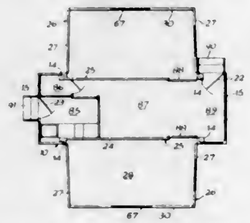
1. A non-metallic lattice girder comprising upper and lower chords, and braces extending from the one chord to the other and tenoned into both, the tenons of neighboring braces following each other lengthwise of a chord being tenoned into each other.

2,780,843
EXPANSIBLE BUILDING ENCLOSURE
William N. de Sherbinin, Fort Lauderdale, Fla.
Application November 18, 1954, Serial No. 469,649
1 Claim. (Cl. 20—1)



A building structure of the character described that comprises a fixed concrete base of rectangular form and with the base being extended upon two longitudinal sides and upon one end to form floor extensions with the base, the floor extensions being at a lower level than the base, a rigid permanent housing fixed upon the base and extending for substantially the entire area thereof, the housing embodying fixed corner posts, a roof cover and with one end of the housing being permanently closed by a wall panel, the said panel being provided with a door and door opening, the said housing being open upon two sides and one end, partition members disposed within the housing inwardly from one open side and the open end whereby to form recesses, panel members for closing the open sides and the open end, the said last named panels being hingedly connected at their upper marginal edges to the fixed housing whereby the panels are shiftable in a vertical plane to project outwardly away from the fixed housing to form roof members that overlie the floor extensions, the several hingedly connected panels when in a position to cover the open sides of the housing adapted to have a weather type engagement with the corner posts and with the said base, columns fixedly positioned at the outer corners of each of the floor extensions whereby to form supports for the shiftable panels when they are moved to roof forming position, a plurality of collapsible wall forming panels that are positioned upon one floor extension and the end extension and whereby to underlie the roof forming panels to form a closure wall for room extensions, the said collapsible panels being collapsible for storage within the recesses formed by the inwardly positioned partitions whereby to house the said collapsible panels when the roof forming panels are shifted to overlying relation to the open sides and end of the fixed housing and means for rigidly connecting the collapsible panels with the roof forming panels and the floor extensions.

2,780,844
COLLAPSIBLE HABITABLE STRUCTURE
Harry C. Bolt, Hampstead, London, England
Application September 8, 1953, Serial No. 379,033
6 Claims. (Cl. 20—2)



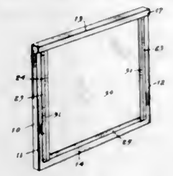
1. A transportable habitable construction comprising a body, having a floor, a roof, and vertical walls, a set of flat rigid flaps on each of the two opposite sides of the body, each set forming a side room area comprising a floor flap, a side wall flap and two end wall flaps, and a rigid roof member, hinge means hinging the floor flap on a first horizontal axis to the lower side edge of the body to form the floor of the side room area, hinge means hinging the side wall flap at the outer edge of the floor flap on a second horizontal axis lying in the plane of the floor flap, said side wall flap constituting a complete integral one-piece rigid side wall of the side room area so that the said side wall flap can be placed flat against the floor flap and then said two flaps together can be folded flat in vertical disposition against the body with the side wall flap innermost, hinge means hinging the two end wall flaps respectively to the body on vertical axes further outwards from said body than said first horizontal axis whereby said end wall flaps are foldable flat against the outer surface of the floor flap when the latter is vertical, said end wall flaps, when opened, completely closing the ends of the side room and forming end walls thereof and making contact with and concealing the end edges of the floor and side wall flaps, support means carried by the lower edges of the end wall flaps supporting the end edges of the floor flap, and diagonal coacting means on the end wall flaps and the body supporting the end wall flaps and carrying the full weight of the side room area with its contents without requiring ground-engaging supports under the floor of the side room area, the rigid roof member covering said side room area; whereby when forming said side room area the end wall flaps are opened first, then the floor flap is lowered onto the support means, and thereafter the side wall flap is raised; the end wall flaps being outwardly shiftable about their vertical axes from their final position whereby upon opening said floor flap and side wall flap scraping of the interior surfaces of the end wall flaps is avoided.

2,780,845
FABRICATED REFRIGERATOR DOOR
Dave Chapman, Chicago, Ill., and Benton Dales, Henry C. Abrahamsen, and Edward M. Gaul, Evansville, Ind., assignors, by mesne assignments, to Whirlpool-Seeger Corporation, a corporation of Delaware
Application September 10, 1953, Serial No. 379,417
22 Claims. (Cl. 20—35)

1. A refrigerator door, comprising: an outer panel; an inner panel; insulation disposed between said panels; a separately formed peripherally extending channel-shaped wall member interconnecting outer marginal edges of said inner and outer panels; a peripherally extending angle member adjacent one corner edge of said channel-shaped wall member; and means including a peripherally extending decorative trim disposed adjacent said angle

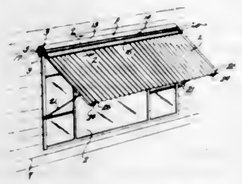
member and removably secured directly between said angle member and said outer panel.

2,780,846
REMOVABLE SECONDARY GLAZING FOR WINDOWS
Charles G. Lyon, Winnipeg, Manitoba, Canada
Application July 2, 1954, Serial No. 440,959
4 Claims. (Cl. 20—56.4)



1. In combination with a window sash having a pane of glass mounted therein; a removable secondary glazing therefor, comprising: a supporting strip of resilient material secured along an outer side of the bottom rail of said sash; a secondary pane of glass having the lower edge thereof resting on said supporting strip and with the side edges thereof positioned against the outer faces of the frame of said sash and in spaced relation from said first mentioned pane of glass; channel forming members positioned along the outer faces of the stiles of said sash, clear of the edges of said secondary pane of glass; and a pair of spring resilient strips each having one edge thereof slidably and frictionally received within one of the channels formed by said channel forming members and with the other edges thereof overlying and resiliently holding said secondary pane of glass in position against said sash.

2,780,847
ADJUSTABLE AWNING-SUPPORTING FRAME STRUCTURE
David A. Eagleson, Columbus, Ohio
Application June 18, 1954, Serial No. 437,716
3 Claims. (Cl. 20—57.5)



1. An adjustable supporting frame for awnings, comprising: a wall-mounted, relatively stationary base section composed of a vertical back wall from which projects spaced upper and lower cap and base flanges, said cap flange having a resilient outer edge portion, said base flange terminating along its outer longitudinally extending edge region in an upwardly directed rib having at the top thereof a rounded bearing surface; a complemental movable awning-carrying section embodying integrally joined upper and lower plates relatively spaced to provide between the same a confining pocket for the reception and retention of the upper longitudinal edge region of an associated awning, the lower plate of said awning-carrying section being formed with a longitudinally extending groove, the wall surfaces of said groove having freely acting pivotally movable seating engagement on the rounded bearing surfaces of said rib and the upper plate of said panel section having an arcuately formed, inner, longitudinally extending region having bearing contact with the outer edge region of the cap flange of said base section; and brace means arranged between an associated building wall and said awning-carrying section for maintaining the latter in various positions of swinging adjustment about the rounded bearing surface of said base section.

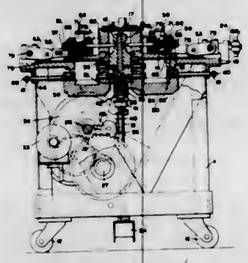
2,780,848
ADJUSTABLE PITCH AWNING
Harry C. Wells, Lake Worth, Fla., assignor to Seaview Industries, Inc., Miami, Fla., a corporation of Florida
Application September 1, 1955, Serial No. 531,996
1 Claim. (Cl. 20—57.5)

An adjustable awning structure comprising a sheet metal body, right angularly disposed side members secured to said body, means hingedly mounting the inner end of said body on a vertical wall, a pair of extensible supporting arms, means pivotally securing the outer end of each arm to a side member, a pair of bracket members for attachment to the wall below said hinged means, each bracket being formed of a vertical base plate, upper and lower apertured ears extending from said plate, and a second pair of apertured ears extending from the vertical edges of said base plate and disposed at right angles to said upper and lower ears, a U-shaped clip fixed to each side member adjacent said pivot means, the parallel legs of said clip being apertured and said legs being engageable in the collapsed position of said body between said upper and lower ears with the apertures on said ears and legs registering, a locking pin engageable through said registering apertures, the inner end of each arm being apertured and engageable between said second named pair of ears with said pin extended horizontally through said latter ears and the inner end of said arm to hold said body in extended position.

2,780,849
CASTING MACHINE
Otto Carter Berry, Cleveland, Ohio
Application October 20, 1953, Serial No. 387,197
5 Claims. (Cl. 22—93)

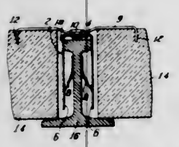
4. A machine for casting hollow metal articles comprising a bed plate, mold halves movably mounted on said bed plate, side core supports movably supported by said bed plate, side cores fixed to said side core supports, a center core movable vertically between and relative to

said mold halves and side cores, a center core support having a lost motion connection to said center core, and means for moving said center core out of contact with a cooling casting, said means including an electric motor, a train of gears much stronger and more inflexible than necessary for transmitting the normal torque of said motor, a strongly positioned main shaft to be rotated by said gears, a toggle consisting of a lever arm fixed to and projecting from said shaft and a link pivoted to said lever arm and to said center core support, and means extending vertically past and adjacent to said main shaft



for guiding said center core support, said toggle serving to move the center core into closed position shortly before the link and lever arm come into longitudinal alignment, said lost motion connection being sufficient to permit the motor to move the lever arm and link into longitudinal alignment and for the motor to attain its speed before applying force to the center core, and, after attaining its speed, to apply sharp impact force to the center core sufficient to break the engagement of the diametrically opposed surfaces of the center core with the inner surface of the casting.

2,780,850
CONSTRUCTION CLIP
Morris Lieff, Newark, N. J., assignor, by mesne assignments, to The Patent and Licensing Corporation, New York, N. Y., a corporation of Massachusetts
Application October 15, 1952, Serial No. 314,788
2 Claims. (Cl. 24—73)

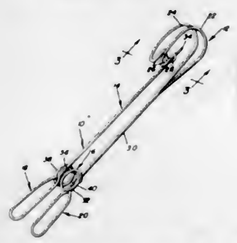


1. A clip of the character described for anchorage to a beam having a relatively thin web terminating in an upper enlarged head substantially wider than said thin web, comprising an inverted substantially U-shaped member, the legs of which are substantially parallel and are spaced apart a distance slightly greater than the width of the enlarged head of said beam and are adapted to engage over and to embrace said enlarged head, the legs of said U-shaped member having inwardly extending resilient lugs adapted to snap over said enlarged head and to engage said thin web under said enlarged head between said legs, and an anchor plate secured to the top of the bight of said inverted U-shaped member and extending for a substantial distance laterally on both sides of said bight portion and having terminal flanges substantially perpendicular to the anchor plate and extending in the same direction as the legs of said U-shaped member and adapted to be driven into board held in place by said clip.

2,780,851
WET BANDAGE FASTENER
Melvin L. Grais, Minneapolis, Minn.
Application May 25, 1953, Serial No. 357,083
1 Claim. (Cl. 24—87)

A blank form of a bandage engaging element of a bandage fastener comprising a substantially flat thin sheet of metal having a central portion, inner and outer end portions, and opposed side portions, a plurality of teeth formed from the central portion of said sheet and extending outwardly therefrom in a plane normal to the plane of said sheet and toward said inner end portion, a plurality of additional teeth carried by said sheet and extending away from said inner end portion, said last mentioned teeth being bent first outwardly from said sheet to the same side thereof as said first mentioned teeth and then toward said outer end portion to adapt the same to engage an end portion of a strip of elastic webbing to secure said sheet thereto, and a pair of locking tabs extending laterally from said inner end portion of said sheet, said tabs being adapted to be bent downwardly and toward each other after said last mentioned teeth have engaged such a strip of elastic webbing to lock said last mentioned teeth and such a piece of webbing in engaged relation, said outer end portion of said sheet being bent outwardly and in the same direction as said first mentioned teeth but at the opposite side of said sheet with respect thereto to provide ready means for engaging said sheet with a thumbnail to facilitate the attachment and release of a bandage engaging element to a bandage.

2,780,852
SAFETY PIN
Darrell R. Shelton, Brownwood, Tex.
Application November 20, 1953, Serial No. 393,376
2 Claims. (Cl. 24—159)

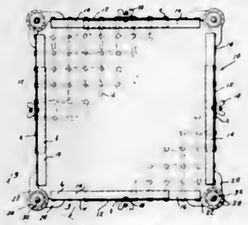


1. An elongated safety pin having a straight back portion terminating at one end of the pin in a keeper portion, a pin portion having an end seating in said keeper portion upon movement of said pin portion toward said back portion, said back portion and pin portion being bent at the other end of the pin into a pair of opposite handle loops, and being twisted and looped intermediate the ends of the pin to form twists around said back and pin portions closing said loops and terminating in a helical spring cross connecting said twists and spacing the same apart to correspondingly space said back and pin portions and normally urging said pin portion toward said back portion, said handle loops being movable toward each other in opposition to said cross connecting spring to move said pin portion away from said back portion and thereby unseat said pin portion.

2,780,853
CLASP
Lawrence Guthman, Lake Worth, Fla.
Application October 4, 1955, Serial No. 538,398
2 Claims. (Cl. 24—243)

1. A clasp comprising a pair of limbs joined at corresponding ends by way of a junctional bend, the other ends remote from said bend being free of connection with each other and such that they may be spread apart or pressed together as desired, one limb being linearly straight and substantially rigid, the other limb being comparatively resilient and having an indentation providing a friction detent adapted to clampingly bind when pressed against a part which is located between the first named ends of said limbs, the free end portion of said resilient limb being flared out and in a direction away from said rigid limb and thus providing a springy tang, a latch hingedly mounted on the free end portion of said rigid limb and saddled over and embracing the free end portion of said resilient limb, the free swingable end of said latch having a catch and said rigid limb having a keeper over which said catch is snapped and retained in the desired retaining position.

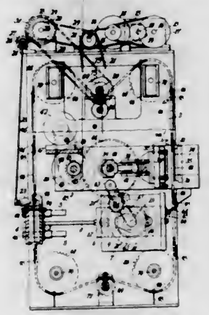
2,780,854
HAND LOOM
Arthur Dritz, Brooklyn, N. Y., assignor to John Dritz & Sons, New York, N. Y., a partnership
Application March 25, 1955, Serial No. 496,699
4 Claims. (Cl. 28—15)



1. A hand loom frame having its frame members angularly adjustable at their ends to form weaving frames of different geometrical shapes comprising, a plurality of frame members, each frame member comprising a side rail having integral longitudinally spaced upstanding teeth adapted for the winding of yarn thereon, the meeting ends of adjacent frame members being provided with mating elements for enabling the angular adjustment of such adjacent frame members to vary the angle therebetween, and means for locking said mating elements and thereby said adjacent frame members in adjusted position, said locking means including an upstanding member longitudinally spaced from said upstanding teeth and forming therewith a frame-corner tooth adapted for the winding of the yarn thereon.

2,780,855
AUTOMATIC METAL CASTING MACHINE
Thomas Westwood, Northfield, Birmingham, England, assignor to Joseph Lucas (Industries) Limited, Birmingham, England
Application March 2, 1953, Serial No. 339,826
Claims priority, application Great Britain March 10, 1952
7 Claims. (Cl. 29—2)

1. An automatic metal casting machine comprising in combination with a supporting body part, a mould having relatively movable parts, trimming means for castings produced in the mould, an ejector for waste material from the trimming means, the ejector and trimming means being spaced from each other and from the mould, a first mechanism for simultaneously effecting relative movement of the mould parts and actuating the ejector, a second mechanism for actuating the trimming means, means operable by the first mechanism for controlling the action



of the second mechanism on the trimming means, an endless conveyor for moving the castings from the mould to the trimming means, and the waste material from the trimming means to the ejector, and means operatively associated with the first mechanism for imparting intermittent motion to the conveyor, the latter having thereon means capable of being embedded in the castings to anchor them to the conveyor.

2,780,856
METAL CUTTING TOOL
Boris J. Traycoff, Kent, Ohio
Application November 1, 1954, Serial No. 466,017
1 Claim. (Cl. 29—96)

A metal cutting tool comprising, an upper shank portion adapted to be held at substantially a right angle to the direction of a cutting thrust, a lower shank portion offset rearwardly of the upper shank, a tool bit insert notch in the underside of said lower shank behind the trailing edge of said upper shank, said insert notch having a front wall at substantially a right angle to the direction of the cutting thrust, and a rear wall inclined rearwardly downward relative to said front wall, a tool bit having front and rear surfaces complementary with said insert notch and a tool bit holding means depending through said lower shank portion into said insert notch at substantially a right angle to the direction of the cutting thrust.

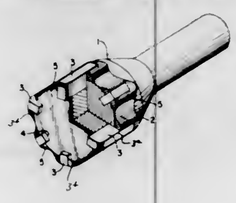
2,780,857
TOOL HOLDER
William E. Twamley, Providence, R. I., assignor to Brown & Sharpe Manufacturing Company, a corporation of Rhode Island
Application March 15, 1954, Serial No. 416,277
5 Claims. (Cl. 29—96)

5. A tool holder for use on a lathe cross slide support comprising a block having a recess providing spaced

clamping surfaces between which and against one of which a cutting-off tool is engaged, a wedge plate adjustably secured to said block and having converging side edges one of which is engaged with the other of said clamping surfaces, said block having a bore extending

therethrough substantially at right angles to said clamping surfaces and midway therebetween, a clamp bolt received in said bore and having an enlarged head positioned between said wedge plate and said tool, said head engaging said tool and said wedge plate to secure said tool against one of said clamping surfaces.

2,780,858
REINFORCED CUTTING TOOL
Lawrence R. Robinson, Dormont, Pa.
Application September 27, 1952, Serial No. 311,840
5 Claims. (Cl. 29—105)



1. A rotary cutter tool comprising a hub having a plurality of longitudinally extending slots in the surface thereof, a cutter insert having exposed cutting edges tightly positioned in each of said slots and protruding from the periphery of said hub, said cutter insert being made from a relatively hard metal, and a relatively soft metal bonded only to the portions of the sides of said cutter insert protruding from said hub and to said hub and lying substantially flush with but exposing the cutting edges of said cutter insert to reinforce the cutting edges of said cutter insert against breakage thereof.

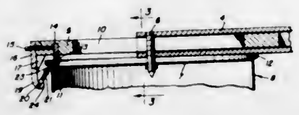
2,780,859
IRONING DEVICE
Joseph Kinzelman, Northbrook, Ill.
Application June 2, 1954, Serial No. 434,003
4 Claims. (Cl. 29—128)

1. A roller adapted to be used in an ironing device comprising a rigid cylinder, a first layer consisting of canvas wound about the cylinder and attached thereto, a second layer consisting of a plurality of turns of screen wire cloth tightly wound about the first layer and connected to said canvas, and an outer layer consisting of a plurality of turns of cloth comprising inorganic materials tightly wound about the adjacent layer.

2,780,860
SPECIAL SHAPED WIRE
Alan E. Brickman, Amherst Township, Erie County, N. Y., assignor to United States Steel Corporation, a corporation of New Jersey
Application January 30, 1953, Serial No. 334,333
2 Claims. (Cl. 29—193.5)

1. In an anti-skid device, a surfacing member comprising a wire having a plurality of spaced apart pinched ears integral therewith and all extending therefrom in substantially the same upward direction, each ear having an arcuate portion extending from the surface of the wire and a portion extending below the surfaces of the bar adjacent thereto, the remaining cross-section of the wire at the ears being of the same shape as the portions of the wire adjacent thereto.

2,780,861
CAN OPENER
Otis E. Sasser, Phoenix, Ariz.
Application May 4, 1956, Serial No. 582,864
4 Claims. (Cl. 30—19)

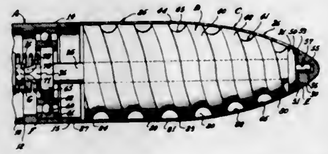


1. A can opener of the character described comprising: a tubular lever, a pivot pin mounted on one end portion of the lever and adapted to penetrate the top of a can for pivotally anchoring said lever thereto, an operating knob rotatably mounted on the other end portion of the lever, an arm mounted for longitudinal sliding adjustment in the lever and projecting from said one end thereof, a knife disc mounted beneath said arm and adapted to penetrate and cut the can top, and a guide wheel mounted for swinging movement on the free end of the arm and operable beneath the bead of the can.

2,780,862
DISPOSABLE RAZOR HAVING EASY CLEANING SLOPING SURFACES
Kenneth Tuthill Grathwohl, Greenport, N. Y.
Application April 14, 1954, Serial No. 423,031
2 Claims. (Cl. 30—32)

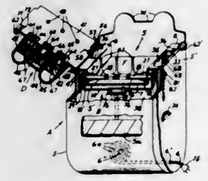
1. A safety razor comprising a body portion, a row of holding fingers integral with the body and extending to positions short of the position of the cutting edge of the razor blade which the razor is designed to receive, a row of guard fingers integral with the body portion and extending beyond the position of the said cutting edge, the fingers of one row being opposite the spaces between the fingers of the other row, and stop means in position to hold the blade in place when inserted, the body portion having gently sloping surfaces in directions rearwardly and outwardly of the fingers and extending rearwardly from the position of the rear edge of the said blade.

2,780,863
ELECTRIC RAZOR
Philip S. Kusznir, Santa Monica, Calif.
Application September 14, 1953, Serial No. 379,993
1 Claim. (Cl. 30—34)



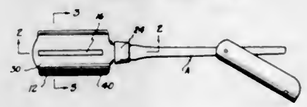
A razor of the character described including, an elongate abrasive helical cutter, a handle rotatably supporting the cutter, a foraminous shell coextensive with and closely surrounding the cutter and fixed to the handle, and drive means supported by the handle and adapted to rotate the cutter within the shell, the helical cutter being formed of silicon carbide and having a plurality of helical grooves therein leaving longitudinal helical honing lands adjacent the interior of the shell and establishing forwardly pitched helical cutting edges.

2,780,864
SHAVING IMPLEMENTS
Jacob L. Kleinman, Arverne, N. Y.
Application February 20, 1953, Serial No. 338,089
19 Claims. (Cl. 30—41)



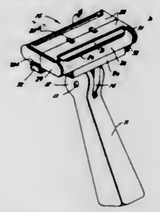
16. A shaving implement comprising a handle having a motor compartment and a removable partition and a removable actuating element and a removable assembled shearing section, said partition comprising an entirely non-punctured floor having upwardly extending side wall portions, certain of said side wall portions having a flange portion, said side wall portions having means for carrying the said actuating element in spaced relation with respect to the said floor, said non-punctured floor covering the said compartment and underlying the said shearing section having the upper portion of said actuating element engaging the said assembled shearing section to operate said shearing section for shaving purposes, said flange portion provided with means for having said partition secured in its position to the said handle, said shearing section being removable as an assembled unit.

2,780,865
SAFETY RAZOR WITH SEPARABLE CAP
Jose C. Ferrer, Santurce, Puerto Rico
Application December 6, 1954, Serial No. 473,382
1 Claim. (Cl. 30—53)



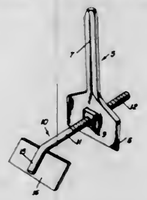
A safety razor comprising a blade support, a handle attached to said support, a rib extending longitudinally of said support for positioning a centrally slotted double edge razor blade, an undercut in the forward end of said rib, a centrally slotted cover fitted over said rib, said cover and support having curved blade engaging surfaces adapted to hold a razor blade under tension, a beveled surface at one end of the slot in said cover complemental and mated to the undercut end of said rib, a tongue on said cover extending over said handle, and a collar on said handle slidably engaging said tongue.

2,780,866
SAFETY RAZOR
Philip H. Borden, Orange, Conn., assignor to Central Industrial Corporation, Memphis, Tenn., a corporation of Tennessee
Original application April 9, 1951, Serial No. 219,950, now Patent No. 2,744,317, dated May 8, 1956. Divided and this application July 3, 1952, Serial No. 297,080
14 Claims. (Cl. 30—60.5)



1. Means for operating a cover member used with a razor blade supporting head, which member normally is positioned to overlie said head and is pivoted thereto for movement to and from said overlying position, comprising a pinion connected to said cover member, said pinion being positioned at one end of said head with the upper extent of the pinion lying substantially in the plane of the upper face of said head, spring means secured to and underlying said head, and a rack attached to said spring means and meshing with said pinion, said spring urging said meshed rack and pinion to position said cover member in said overlying position, said spring having an exposed operating portion adapted to be flexed under pressure against said urging to shift said rack and rotate said pinion to move said cover member from said overlying position.

2,780,867
MASONRY CHISEL
Steve J. Chapla, Elkhart, Ind.
Application November 4, 1954, Serial No. 466,850
1 Claim. (Cl. 30—168)



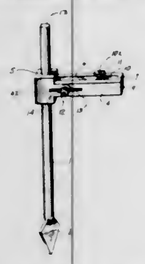
A masonry tool of the character described comprising: an elongated handle provided on one end with a flat surface adapted to receive an impact blow, a transversely elongated blade on the other end of the handle and including a beveled longitudinal cutting edge, said blade having a threaded opening in the central portion thereof, a rod threadedly mounted for adjustment in the opening, a lock nut threaded on the rod for securing the adjustment, said rod comprising an angularly extending end portion, and an elongated, downwardly and outwardly

inclined work-engaging gauge plate mounted on said angularly extending end portion of said rod in spaced relation to the blade and parallel with the cutting edge.

2,780,868
COMB ATTACHMENT FOR HAIR CLIPPERS
Howard A. Brown, Oildale, Calif., assignor to Brown and Crow, Oildale, Calif., a partnership
Application July 30, 1956, Serial No. 600,875
7 Claims. (Cl. 30—200)

1. A comb attachment for hair clippers, comprising: a comb member including a plate portion and integral comb teeth projecting forwardly therefrom, the upper side of said plate portion adapted to conform substantially to the underside of the fixed blade of a hair clipper, said teeth having shoulder portions for engagement with the forward extremity of said hair clipper fixed blade; and an arcuate spring clip secured to said plate portion and curving upwardly and rearwardly thereof for engagement with said hair clipper to releasably secure said comb member on said hair clipper.

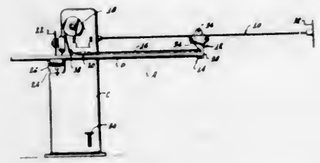
2,780,869
GRADE LINE STAKES
George E. Long, Seattle, Wash.
Application April 7, 1955, Serial No. 499,908
3 Claims. (Cl. 33—74)



1. A grade and line stake of the character described comprising a round straight rod of substantial length, having a pointed and flattened lower end portion adapting the rod to be easily driven into the ground for its functional support and to prevent rotation of the driven stake, an arm amounted at one end on the rod and extended radially thereof; said arm being adapted to be adjusted along the rod and to be rotated thereabout, and having a slot formed longitudinally thereof, and a target member extended upwardly from the arm and having a mounting member contained in the slot and adjustable therealong, and a clamp bolt applied through the arm and adapted to be tightened to clamp the arm at a set position on the rod and to secure the target in a set position of adjustment on the arm.

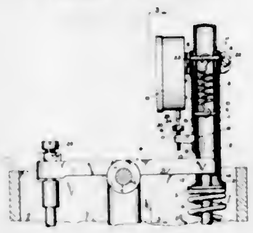
2,780,870
PIPE MEASURING APPARATUS
Carol R. Clor, Los Angeles, Calif.
Application June 3, 1955, Serial No. 513,096
6 Claims. (Cl. 33—125)

1. Pipe measuring apparatus for use with a pipe cutter, comprising: an elongated guide member which extends away from said pipe cutter; a carriage member carried by said guide member for longitudinal movement therealong; pipe-receiving means formed on said carriage member; a measuring tape secured at one of its ends to said carriage member; mounting means for said measuring tape anchorable adjacent said pipe cutter; an indicator anchorable adjacent said pipe cutter having a body through which said measuring tape is pulled during lon-



gitudinal movement of said carriage member; an elongated window formed in said body through which said measuring tape may be viewed; a rule having indicia complementary to that of said tape imprinted on said body parallel to the length of said window; and a pointer element supported by said body whereby it may be adjustably anchored at any point along the length of said window and said rule.

2,780,871
VALVE CLEARANCE GAUGES
Dewey H. Campbell, Newport, Oreg., assignor to P. & G. Manufacturing Co., Portland, Oreg., a corporation of Oregon
Application February 20, 1953, Serial No. 337,952
5 Claims. (Cl. 33—172)



1. A valve clearance gauge device for measuring the free travel between confronting surfaces of a relatively movable rocker arm and rod assembly of a valve engine, comprising a rod engaging member proportioned and arranged to removably engage the confronting surface of said rod, a rocker arm moving member proportioned and arranged to removably engage the confronting surface of the rocker arm, means interconnecting said members for relative displacement in the direction of displacement of said confronting surfaces and including resilient means adapted to move said members in the direction of separation of said confronting surfaces to the limit of said free travel, the resilient means being of sufficient strength further to move the rocker arm to the limit of said free travel, and indicator means operatively interconnecting said members and operative upon relative movement of the rocker arm and rod to indicate the magnitude of said free travel.

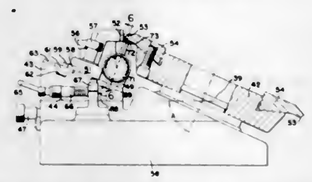
2,780,872
INSTALLATION GAUGE FOR A POWER TAKE-OFF
Walter F. Mills, Sr., Delmar, Md.
Application November 4, 1955, Serial No. 544,983
3 Claims. (Cl. 33—181)

1. An installation gauge for determining the spacing between the transmission and power take-off housings when a transmission drive gear is in intermeshing relation

with a power take-off driven gear comprising a first support, a first flange carried by said support and having a flat face adapted to abuttingly engage and be detachably secured to a flange surrounding a transmission housing opening, a first carriage connected to said support for longitudinal forward and backward movement relative to said flange, an element carried by said carriage for movement about an axis transverse of said carriage, said element having a gear tooth conformably shaped to intermesh with adjacent teeth of said transmission drive gear, means operatively connected to said carriage for effecting the movements of the latter, cooperating indicating means on said means and on said support for designating the spacing between said gear tooth and the adjacent teeth on the said transmission drive gear upon execution of the forward and backward movement of said carriage, a second support, a second flange carried by said second

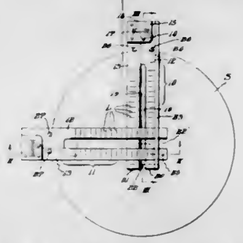
support and having a flat face adapted to abuttingly engage and be detachably secured to a flange surrounding a power take-off housing opening and to abuttingly engage and be detachably secured to said first flange, a second carriage connected to said second support for longitudinal forward and backward movement relative to said second flange, a member carried by said second carriage for movement about an axis transverse of said second carriage, said member having at least two gear teeth conformably shaped to intermeshingly receive therebetween a tooth of said power take-off driven gear, other means operatively connected to said second carriage for effecting the movements of the latter, and cooperating indicating means on said other means and on said second support for designating the spacing between said two gear teeth and said one tooth on said element upon execution of the forward and backward movement of said carriage when said first and second flanges abut and are detachably secured together.

2,780,873
GAGING DEVICE
Harry Pedersen, Rochester, N. Y., assignor to The Gleason Works, Rochester, N. Y., a corporation of New York
Application August 27, 1953, Serial No. 376,869
14 Claims. (Cl. 33—185)



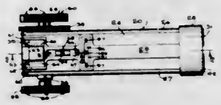
1. A gaging device for use with gear cutting machines having radial bladed cutters, comprising a base, means on the base for rotatably supporting a cutter, a first slide adjustable on the base, a second slide adjustable on the first slide, and the second slide having an anvil for contacting the cutting point of a blade of a cutter supported on the base, the directions of adjustment of both slides being in the same plane containing the axis of the cutter, the direction of adjustment of the first slide being at an acute angle to the direction of adjustment of the second slide which corresponds approximately to the pressure angle of the cutters, and the direction of adjustment of the second slide being approximately at a right angle to said axis.

2,780,874
CENTER LOCATER
Billy E. Puckett, Rosenberg, Tex.
Application October 30, 1956, Serial No. 619,200
8 Claims. (Cl. 33—191)



1. A device for locating the center of a generally cylindrical object comprising a pair of relatively moveable arm members located in adjacent, parallel planes and slidably engageable with one another, each of said arm members comprising a pair of fingers pivoted to one another with an elongated slot therebetween, pins carried by the respective fingers and arranged along a line perpendicular to the axis of said elongated slot, and resilient means connected between said fingers continuously urging the free ends of said fingers, at the end of said slot, toward one another.

2,780,875
WHEEL ALIGNING GAUGE
James P. Carr, Lansing, Mich., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application March 10, 1953, Serial No. 341,568
7 Claims. (Cl. 33—203.18)

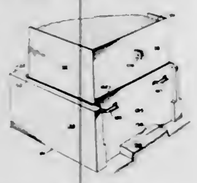


5. A gauge for checking the alignment of vehicle wheels comprising a support member having a reference surface, means for mounting said support member on a vehicle with the reference surface abutting a true surface of the wheel, means for indicating the inclination of said reference surface including a spirit level pivotally mounted on said support member and having a bubble disposed in a centered position when said reference surface is in a vertical plane, a tubular shaft journalled on said support member, a first dial keyed to said tubular shaft, a solid shaft journalled in and extending through said tubular shaft, a second dial keyed to said solid shaft, and means operatively connected between said solid shaft and said level and arranged to convert rotary movement of said solid shaft to pivoting movement of said level.

2,780,876
APPARATUS FOR DRYING BULK GRAIN
William A. Inman, Oroville, Calif.
Application March 31, 1955, Serial No. 498,348
2 Claims. (Cl. 34—90)

1. Apparatus of the class described comprising a truck having a chassis mounted on a rear wheel and axle assembly, a box-like bed having a perforated bottom wall, means for removably connecting said bed to said chassis, an open-topped fixed enclosure having side walls

and a rear wall, said side and rear walls having horizontally extending and co-planar upper surfaces disposed at a level higher than the normal level of the underside of said bed, said side walls being spaced apart a distance greater than the width of said chassis and wheel and axle assembly but less than the width of said bed, means for effecting a removal of said bed from said chassis and for placing said bed over said enclosure in supported engagement with said side and rear walls comprising



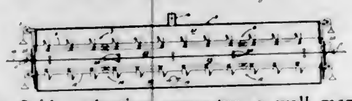
means carried by said chassis for controllably raising said bed above the upper surfaces of said side and rear walls and for lowering said bed onto said wall surfaces, means for introducing heated air into said enclosure, means for constraining said air to pass upwardly through the perforate bottom wall of said bed comprising sealing means in association with said bed and said side and rear walls, and a removable door disposed in closing relation to the forward end of said enclosure and in air sealing contact with said bed.

2,780,877

FLUID CONTROLLING SYSTEM

Sterling W. Warner, Fredericksburg, Va., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Application October 2, 1953, Serial No. 383,819

10 Claims. (Cl. 34—156)

1. In fluid-conducting apparatus, a wall member for separating two compartments having a port extending from one compartment to the other, the periphery of the port having one pair of opposite portions which extend in generally parallel relation within a plane, the wall member having surfaces extending from said opposing peripheral portions transversely to said plane, a closure member for the port extending with its longitudinal direction parallel to the length of said peripheral portions, one of said members having a folded marginal portion of angular cross section adjacent one of said surfaces of the wall member to provide a trough extending parallel to the length of said peripheral portions of the port, the other member having a marginal portion extending into engagement with the bottom surface of the trough in pivotal connection between the members whereby the closure member is supported by the wall member in swingable relationship, said closure member being swingable about said pivotal connection into and out of engagement with the other surface of the wall member.

2,780,878

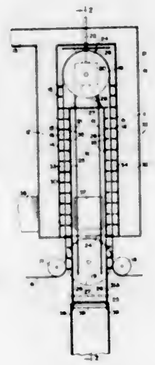
WEB TREATING APPARATUS

Frank W. Sanborn, Westlake, and Alexander V. Alexeff, Cleveland, Ohio, assignors to Industrial Ovens, Incorporated, Cleveland, Ohio, a corporation of Ohio

Application October 3, 1955, Serial No. 538,072

12 Claims. (Cl. 34—159)

1. Heat treating apparatus comprising a dancer roll in supporting relationship with a web to be treated at the apex of a festoon of said web, means to translate said dancer roll laterally with regard to itself back and forth along a given path to correspondingly extend said festoon less or more forwardly along said given path, first heat applying means extending along said path in surrounding relationship therewith to operatively confront lesser or greater web lengths along the outer side of said festoon



as said festoon extends less or more forwardly along said given path, second heat applying means extending within said festoon and in entrained relationship with said roll to be translated therewith along said path to operatively confront greater or lesser web lengths along the inner sides of said festoon as said festoon extends less or more forwardly along said given path.

2,780,879

STIFFENING OF SHOE UPPERS AND STIFFENING ELEMENTS THEREFOR

Raymond B. Harrison, Arlington, and Russell G. Edwards, Quincy, Mass., assignors to Stedfast Rubber Company, Inc., Boston, Mass.

Application November 16, 1953, Serial No. 392,302

2 Claims. (Cl. 36—46.5)

1. A prepared shoe upper for lasting in which a particular portion is provided with a limp, conformable, extensible sheet of saturable base material impregnated with vulcanizable rubber containing a vulcanizing agent and in which all of said rubber is unvulcanized, said vulcanizing agent being present in amount sufficient for subsequent curing of the vulcanizable rubber, and said sheet being adhesively joined to an inner surface of the upper by a rubber-containing cement which includes in its composition a room temperature curing accelerator in amount capable in coaction with the said vulcanizing agent of causing complete curing of the vulcanizable rubber contained in the sheet whereby the shoe in which said upper is incorporated will have a permanent highly resilient stiffening portion.

2,780,880

SIGN HOLDER FOR AUTOMOBILES

Joseph W. Snider, Eggertsville, N. Y.

Application November 25, 1955, Serial No. 549,025

4 Claims. (Cl. 40—129)

1. A sign holder comprising a support member formed with guide apertures, a stick slidably mounted in said apertures, a spring having one end connected to one

end of the stick and the other end connected to the support member to yieldingly bias the stick to an extended position with respect to the support member, the opposite end of the stick and the end of the support member

remote therefrom being beveled to enable said support member and stick to be detachably engaged on a frame to which the holder may be applied, and an indicia retaining member connected to the support member and adapted to be positioned transversely thereof.

2,780,881

FIREARM EJECTOR

Lexie R. Crittendon, Wilmington, Del., and Philip R. Haskell, Fairfield, Conn., assignors to Remington Arms Company, Inc., Bridgeport, Conn., a corporation of Delaware

Original application January 31, 1950, Serial No. 141,532. Divided and this application December 19, 1952, Serial No. 327,008

1 Claim. (Cl. 42—25)

In a firearm having a barrel, a receiver, a breech bolt reciprocable therein, and a shell extractor mounted in said breech bolt and engageable with the rim of a chambered shell to extract the shell from the barrel; the improved ejector comprising an elongated, continuous, light, leaf spring member rigidly secured at its front end only to the wall of the receiver, said leaf spring member being bent to define a leaf spring portion tending to extend from the point of securement to said receiver rearwardly and inwardly toward the center of the receiver in position for resilient engagement with the outer circumference of the rim of a shell being extracted from the barrel, said leaf spring member being located in substantially diametric opposition across the breech bolt from said extractor whereby the resilient engagement of said rearwardly and inwardly extending portion of the leaf spring member with the rim of a shell tends to urge the diametrally opposed portion of the rim of a shell into closer engagement with the shell extractor, said leaf spring member being also sharply bent to define an abruptly inturned yieldable abutment arranged for engagement with the rear face of the head of a shell engaged by the extractor as the breech bolt is moved rearwardly to completely extract a shell from the barrel, thereby to yieldingly deflect an extracted shell from the receiver; and a longitudinal extension of said leaf spring member formed to define a tail extending from the abutment defining portion thereof outwardly toward the wall of the receiver and longitudinally to the rear to a position substantially behind the rearmost position reached by the shell engaging face of the breech bolt whereby the engagement of said tail between the receiver and the side of the breech bolt prevents said ejector from being deflected toward the center of the receiver an amount sufficient to interfere with forward movement of the breech bolt.

2,780,882

ELECTRICALLY POWERED FIRE CONTROL MECHANISM FOR FIREARMS

Lemuel M. Temple, North Haven, Conn., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia

Application November 16, 1953, Serial No. 392,303

12 Claims. (Cl. 42—84)

5. In a fire control mechanism for firearms, the combination with a firing member and retaining means for releasably locking said firing member in cocked position; of electrical means for operating said retaining means to unlock said firing member, and a trigger controlling said electrical means, said electrical means being operable on pulling said trigger through a predetermined distance to release said retaining means and said trigger having a portion engageable with said retaining means when said trigger is pulled beyond said predetermined distance for mechanically releasing said retaining means if said electrical means fails to operate properly.

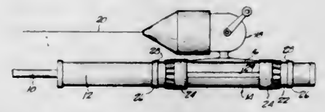
2,780,883

DEVICE FOR ANCHORING A FISHING REEL

John M. Macy, South Bend, Ind., assignor to South Bend Bait Company, South Bend, Ind., a corporation of Indiana

Application June 11, 1954, Serial No. 436,112

5 Claims. (Cl. 43—22)



1. A device for anchoring the base plate of a fishing reel on a compressible fishing rod handle, comprising an elongated flexible sleeve adapted to encircle said handle, said sleeve being freely slidable along the length of the handle and having a pair of opposed elongated longitudinal slots formed intermediate the ends thereof and defining two longitudinal portions, a pair of spaced longitudinal external ribs carried by one longitudinal portion and defining a portion engageable by a reel base portion, said ribs being substantially equally spaced from said slots, and a pair of rings slidable on said sleeve and adapted to overlie the opposite ends of said reel base plate to wedgingly retain said base portion in a predetermined position on said sleeve and to draw into firm frictional engagement with said rod handle the longitudinal portions of said sleeve separated by said slots, and a longitudinal internal rib on said sleeve located adjacent said reel base engaging portion and being adapted to be pressed into said rod handle to resist rotation of said sleeve on said handle.

2,780,884

FISHING LURES

Neal R. Hadfield, Milwaukee, Wis.

Application April 27, 1955, Serial No. 504,220

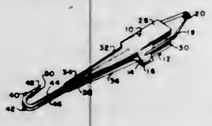
4 Claims. (Cl. 43—42.19)

1. A fishing lure comprising an elongated body of sheet material having a main portion arched upwardly longitudinally thereof and with upwardly curved side edges, an integral lip portion of reduced width and reduced longitudinal curvature merging into the front end

of said main portion at a neck portion, a trailing hook assembly connected to the rear end of said main portion, a shaft having an intermediate portion slideably passing through said body substantially centrally of said neck portion for swivelling engagement therewith, said shaft

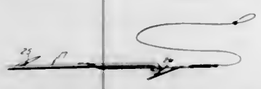
having a line-attaching eye at its front end, and a flexible appendage only connected to its rear end, said flexible appendage normally being disposed in trailing position below said arched main portion, and being shielded by said lip portion when the lure is pulled from the front end of said shaft.

2,780,885
FISH BAIT HOLDERS
Robert Callahan, Thomaston, Ga.
Application April 28, 1954, Serial No. 426,105
3 Claims. (Cl. 43—44.6)



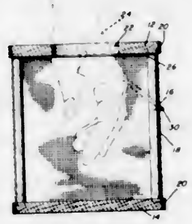
1. In a live bait device of the class described, a pair of elongated clamping members having clamping ends mounted in opposition, pivot means transversely between said clamping members, finger means for pivoting said members about said pivot, a coil spring wound with the ends thereof bearing against the members in such a manner as to maintain them with the clamping ends normally clamped together, each of said clamping ends of said members being formed as a sleeve portion, a pair of fish hooks each having a shaft and a barb with the shaft thereof being inserted in and fixed to the sleeve, said hook shafts extending from said sleeves in substantially coextensive relation and the bottom inside portion of said hooks being in substantial parallel contacting engagement whereby the inside faces of the bottom coextensive portions of said hooks are normally forced into abutting engagement through the action of said coil spring but are readily separable by said finger means, so that bait may be clamped between the hooks adjacent the barbs, and an attaching member for securing a fish line thereto.

2,780,886
SNELL ADAPTER FOR FISHHOOKS
Herbert E. Rach, Wantagh, N. Y.
Application November 28, 1955, Serial No. 549,266
4 Claims. (Cl. 43—44.83)



4. An adapter for connection to a snell and for having a fish hook attachable thereto but removable therefrom only deliberately, said adapter comprising a thin, elongate, slenderized substantially uniplanar member of resilient sheet material, said member having an elongate opening, said member also having only a single tongue struck therefrom extending longitudinally thereof, said member further having a second opening the outline of which is partially established by the free end of said tongue, whereby a fish hook having an eye-like formation at the butt end of its shank may be attached to the adapter by passing said butt end first in one direction through the first-named opening and next in the opposite direction through said second opening and then pulling the fish hook in a direction to advance said eye-like formation as close as possible to the first-named opening, all parts of the adapter being so elastically biased that normally the tongue is uniplanar with the remainder of the adapter but is resiliently yieldably inclinable, in response to pressure against the flat portion of the same, away from the plane of the remainder of the adapter so as automatically to return to uniplanarity with the remainder of the adapter on release of said pressure, said tongue at its free end being flat and in the plane of the member when in locking position, said eye-formation being substantially C-shaped, and said second-named opening being substantially circular.

2,780,887
BAIT HOLDER
James M. Cabaniss, Tuscaloosa, Ala.
Application June 24, 1955, Serial No. 517,723
3 Claims. (Cl. 43—55)

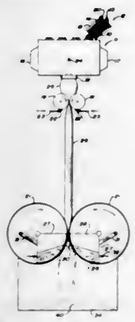


1. A bait holder comprising a receptacle including a bottom wall, side walls and a top wall forming an enclosure for retaining insects, at least one of said side walls being constructed of mesh material to permit circulation of air to the insects for maintaining the insects alive, said top wall having an enlarged opening to permit passage of a person's hand to permit grasping of an insect, said top wall having an unobstructed smooth surface on the inner face thereof in surrounding relation to the aperture to prevent insects from moving along the inner face of the top wall thereby preventing insects from approaching the aperture and retaining the insects in the receptacle, said inner face of the top wall having a covering of smooth plastic material forming the smooth surface.

2,780,888
TREATMENT OF SOIL WITH SOIL CONDITIONING AGENTS CONTAINING CARBOXYMETHYL DEXTRAN
Leo J. Novak and Everett E. Witt, Dayton, Ohio, assignors, by mesne assignments, to Midland Chemical Corporation, Dayton, Ohio, a corporation of Delaware
No Drawing. Application February 18, 1955, Serial No. 489,268
18 Claims. (Cl. 47—58)

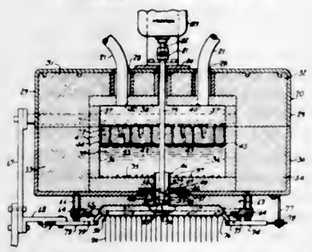
8. The method of conditioning and stabilizing soil which comprises adding to the soil a carboxymethyl dextran and insuring sufficient moisture in the soil to cause swelling and hydration of the carboxymethyl dextran in contact with the soil, form a matrix of the carboxymethyl dextran with the soil particles, and bind the particles into relatively small, readily workable aggregates.

2,780,889
METHOD AND APPARATUS FOR MAKING FOLIATED GLASS
Walter Frank Fulk, Newark, Ohio, assignor to Owens-Corning Fiberglas Corporation, a corporation of Delaware
Application August 29, 1955, Serial No. 531,153
10 Claims. (Cl. 49—1)



3. Method of producing glass comprising melting glass to form a supply thereof, allowing a stream of glass to flow from said supply in the form of a hollow cylinder, reducing the thickness of the walls of said cylinder by inflating the hollow cylinder, advancing said hollow cylinder and patrially collapsing the cylinder to form a double walled ribbon of glass, reinflating the ribbon of glass to separate the walls thereof, and splitting the ribbon of glass at opposed edges to form two discrete films of glass.

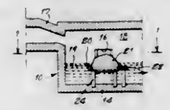
2,780,890
GLASS MELTING FURNACE
Robert G. Russell, Granville, Ohio, assignor to Owens-Corning Fiberglas Corporation, a corporation of Delaware
Application June 12, 1952, Serial No. 293,065
15 Claims. (Cl. 49—17)



1. A glass melting furnace comprising, in combination, a molten glass chamber, means for introducing material into the upper portion of said chamber, a single downwardly extending, tubular, glass discharge conduit leading from said chamber, rotatable means having glass flow control blades in said conduit, a glass stream feeding element at the lower end of said conduit and having stream forming orifices extending over an area substantially larger than said conduit, and a baffle extending across the lower end of said conduit and overlying such orifices.

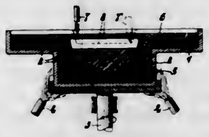
2,780,891
APPARATUS FOR MELTING GLASS
Pierre Arbelt, Paris, France, assignor to Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny & Cirey, Paris, France
Application May 11, 1951, Serial No. 225,710
Claims priority, application France May 17, 1950
6 Claims. (Cl. 49—54)

6. A glass making furnace of continuous flow type having a tank providing for the flow of melted glass along the furnace, means to add solid raw materials to the upstream end of said tank, fusing means comprising flame acting upon said raw materials, and mechanical obstruction means to fix the said raw materials in position in the said end of said tank and to exclude them from the adjacent part of said tank consisting essentially of wholly submerged, inert abutment means extending across the



tank in contact with the raw materials, and having raw materials engaging parts wholly submerged a short distance below the surface of the glass, said obstruction being of vertical and horizontal dimensions providing unobstructed flow to surface glass, and substantially unobstructed flow throughout the width and depth of the tank to low and middle depth glass, lengthwise of the tank.

2,780,892
METHOD OF MANUFACTURING OPTICAL WINDOWS AND OPTICAL WINDOW MANUFACTURED BY THIS METHOD
Wilhelmus Antonius Roovers, Eindhoven, Netherlands, and Otto Louis Van Steenis, deceased, late of Aalst-Waalre, Netherlands, by Joris Daniel Heijligers, executor, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application March 17, 1954, Serial No. 416,914
Claims priority, application Netherlands March 18, 1953
3 Claims. (Cl. 49—81)

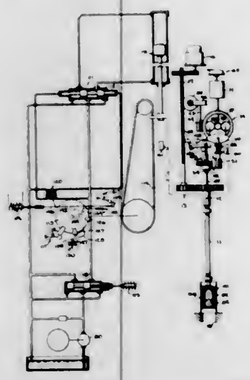


1. A method of manufacturing an optical window mounted on a hollow generally cylindrical body and surrounded by a wide flange, comprising the steps of providing a generally cylindrical body, placing a flat glass plate-like member substantially larger than said cylindrical body over but spaced from one end of the latter so that the plane of the flat glass member extends approximately at right angles to the axis of the cylindrical body, thereafter preheating the assembly, and thereafter heating a thin substantially annular intermediate portion of said flat glass member located approximately opposite to the edge of the cylindrical body at a temperature at which only the part of the glass member inside said annular portion sags downward without being deformed until it abuts the end of the cylindrical body and is sealed thereto, the remaining portions of said flat member then constituting the wide flange of the assembly.

2,780,893
HONING MACHINE
Earnest Y. Seborg and Donald K. Greenberg, Rockford, Ill., assignors to Barnes Drill Co., Rockford, Ill., a corporation of Illinois
Application March 4, 1953, Serial No. 340,232
14 Claims. (Cl. 51—34)

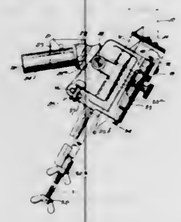
1. In a honing machine, the combination of, an expansible honing tool, having a plurality of work engaging elements, a head supporting said tool and reciproca-

ble to carry the latter into and out of a work bore to be honed, means including a member coupled to said elements and mounted on said head for movement back and forth to expand and contract said hone, an electric motor, a second electric motor having a brake applied and released automatically as an incident to deenergization and energization of the motor, a differential combining the motions of said motors and having an output element rotatable in accordance with the resultant of said motions, a motion transmitting connection between said element and said member including a part yieldably



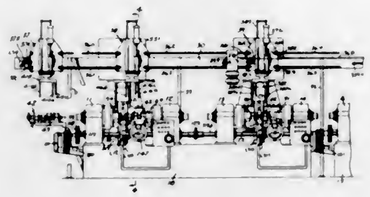
urged into a predetermined position but movable out of said position in response to the building up of a predetermined torque in said connection following engagement of said honing elements with the wall of said work bore during expansion of said tool, means for energizing said motors to initiate expansion of said hone, a switch responsive to yielding of said part and movement thereof out of said position, and mechanism controlled by said switch and operable in response to such actuation thereof to deenergize said second motor while maintaining continued energization of said first motor and thereby continue the expansion of said tool.

2,780,894
TWIST DRILL SHARPENING ATTACHMENT FOR TOOL GRINDER
Clyde K. Jensch, Elm Grove, Wis., assignor to Nordberg Manufacturing Company, Milwaukee, Wis., a corporation of Wisconsin
Application April 28, 1954, Serial No. 426,157
4 Claims. (Cl. 51—96)



1. A twist drill bit sharpening assembly including a grinding wheel and means for rotating it about a predetermined axis, a support positioned adjacent said wheel, a twist drill bit holder including pivotally connected portions, one of said portions including a rod insertable in a sleeve on said support, said sleeve having its axis inclined to the general plane of the grinding wheel and extending toward the peripheral surface of said wheel, the other portion of said holder having a trough adapted to receive a twist drill bit, the axis of said trough lying in the same plane with the axis of said rod, means cooperating with said trough to hold a twist drill bit therein at a predetermined position, means cooperable with said portions for holding the axis of said trough at a predetermined inclination to the axis of said rod and a gauging element pivotally mounted on a bracket and presenting a surface extending perpendicular to the axis of said trough, said surface being adapted for contact with opposed edges of the flute of a drill bit in said trough, said bracket being pivotally mounted on said other portion.

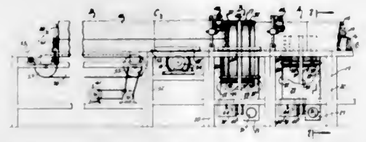
2,780,895
CRANKPIN GRINDING MACHINE
Herbert A. Silven and Stewart S. Mader, Worcester, Mass., assignors to Norton Company, Worcester, Mass., a corporation of Massachusetts
Application June 4, 1954, Serial No. 434,484
19 Claims. (Cl. 51—105)



1. In a crankpin grinding machine having a base, a plurality of work supporting and rotating stations thereon, each of said stations having a pair of spaced axially aligned synchronously rotatable pot chucks for supporting the oppositie ends of a crankshaft to be ground, a transversely movable rotatable grinding wheel on each station, each of said stations being arranged to position a different portion of the crankshaft into operative position for a grinding operation, a plurality of spaced transversely movable wheel slides each having a rotatable grinding wheel, each of said wheels being longitudinally positioned for grinding one of the spaced crankpins on said shaft, means on each station automatically to position a crankshaft to be ground in an axial direction relative to said pot chucks so as to precisely position the portion to be ground relative to the grinding wheel, an automatically actuated transfer mechanism including a plurality of spaced work loader units, operative connections between said units, and a longitudinally extending slideway to support said units to facilitate simultaneously transferring work pieces to be ground from a loading station to one of said grinding stations, between said grinding stations, and from the last of said grinding stations to a discharge station.

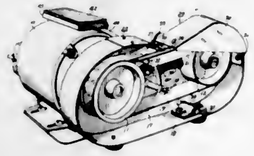
2,780,896
APPARATUS FOR CUTTING PIPE COVER SECTIONS FROM CELLULAR MATERIAL
Richard C. Jaye, Watertown, Wis., assignor to The Jaye Corporation, Watertown, Wis., a corporation of Wisconsin
Application March 14, 1955, Serial No. 493,888
3 Claims. (Cl. 51—110)

1. Apparatus of the character described comprising: horizontal table means; rigid spaced apart walls connected to said table means and extending downwardly therefrom; a thin but rigid cylinder having cutter means on one end thereof and having three axially equispaced annular grooves in its exterior; means supporting said cylinder for rotation about its axis but with said axis coincident with the top of the table means and the cylinder encircling the latter so that the lower half of the cylinder extends lengthwise between said downwardly extending walls, said cylinder mounting means comprising a pair of spaced apart supporting shafts confined lengthwise between and carried by said upright walls in parallel relationship to the cylinder axis, one adjacent to each external side of the lower half of the cylinder, and a pair of ball bearings on each shaft having their outer races engaged in the endmost annular grooves in the



exterior of the cylinder and having their inner races fixed on the shaft, whereby said ball bearings freely rotatably support the cylinder for rotation on its axis and at the same time prevent axial movement of the cylinder relative to the table means; a power driven pulley under and spaced from the cylinder; and a belt trained over said pulley and about the centrally grooved portion of the cylinder so that the belt not only transmits rotation to the cylinder but also holds the cylinder down on the ball bearings on said supporting shafts.

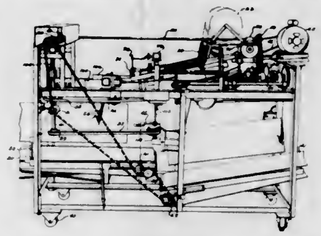
2,780,897
COMBINED SHARPENING, SANDING, AND HONING MACHINE
Albert Radase, Philadelphia, Pa.
Application December 9, 1954, Serial No. 474,061
1 Claim. (Cl. 51—141)



In a machine for performing sanding operations, the combination comprising a pulley-mounted abrasive belt, means mounted in driving relationship to the pulley mounting to actuate said belt to perform a sanding operation, a tool guide plate mounted above said belt and having a free edge with an upstanding lip adapted to engage a tool and guide its cutting edge against said belt, and a cover plate pivotally mounted for swinging movement upwardly from a position directly overlying the sanding run of said abrasive belt into a position exposing a portion of the abrasive belt running over one of the pulleys of the pulley-mounting, said cover plate having a free edge spaced from said upstanding lip to expose the portion of the belt lying therebetween and providing a supporting edge for a tool guided by said lip into engagement with said belt.

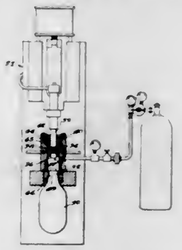
2,780,898
METHOD AND APPARATUS FOR TYING BAGS
Vernon R. Weingart, Mantua, and O Wayne Hannum, Kent, Ohio
Application December 20, 1952, Serial No. 327,074
17 Claims. (Cl. 53—14)

1. In an automatic bag tying machine, crimping means for crimping the neck of a bag, tie positioning means to place a tie in the vicinity of the neck to be crimped, tying arms disposed on either side of the neck to pick up the tie, means for wrapping said tie about the neck and twist-



ing it, and means to release said tying arms and said crimping means.

2,780,899
APPARATUS FOR FILLING A FIRE EXTINGUISHER
Walter L. Benson, Needham, and Oscar L. Larkin, Boston, Mass., assignors to Process Engineering Inc., Somerville, Mass., a corporation of Massachusetts
Application December 19, 1951, Serial No. 262,402
1 Claim. (Cl. 53—268)

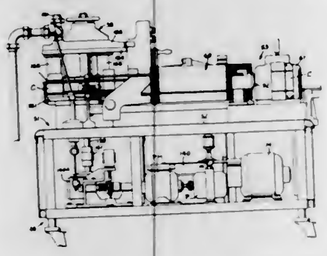


Apparatus for producing a portable pressurized fire extinguisher having a sealed casing provided with a puncturable cap and containing an extinguishing medium of the type which at room temperature and atmospheric pressure is gaseous but which at low temperature under atmospheric pressure is liquid comprising: a head having a chamber therein, a supporting member reciprocable within said chamber and having provision for supporting said puncturable sealing cap; said head having a threaded opening in the lower end thereof for the reception of the threaded mouth of the extinguisher casing in communication with said chamber; said head having an inlet opening and means for introducing a predetermined amount of a refrigerated liquid extinguishing compound through said chamber and into the casing; said head having a second inlet opening and means for introducing a gas under pressure into the chamber and said casing; and means for reciprocating said supporting member and welding said puncturable metal cap onto the mouth of the extinguishing casing while the latter is supported in pressurizing and filling position.

2,780,900
CLOSURE FLAP MANIPULATING MECHANISM FOR CARTON FILLING MACHINE
Charles Z. Monroe, Detroit, Mich., and Dwight German, Los Angeles, Calif., assignors to Ex-Cell-O Corporation, Detroit, Mich., a corporation of Michigan
Application July 15, 1953, Serial No. 368,136
7 Claims. (Cl. 53—284)

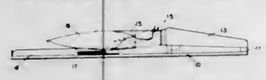
1. In a mechanism for closing cartons having outwardly hinged end flaps, the combination of a first rotatable wheel member, a flexible conveying member mounted in driving engagement with the periphery of said first wheel member, a receptacle carried by said conveying

member and adapted to receive a carton having one of its end flaps trailing with respect to the direction of receptacle movement, a second wheel member of substantially greater diameter than said first wheel member and coaxial with the latter, said wheel members being rotatable as a unit, and a finger fixed to said second wheel member for rotation therewith upon a radius greater than



that of said first wheel member and said flexible conveying member, said finger having a linear velocity greater than that of said receptacle and the carton therewith as said receptacle and the carton depart tangentially from said first wheel member and move at the linear velocity of said flexible tension member, said finger being adapted to overtake the trailing flap of the latter and swing the same forward to a closed position.

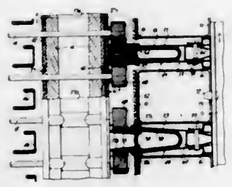
2,780,901
BAG OPENING AND FILLING DEVICE
Knowles Youngblood, Atlanta, Ga.
Application July 20, 1953, Serial No. 368,880
2 Claims. (Cl. 53—384)



1. In a bag opening and filling device, a feeding trough having a substantially flat bottom and upstanding side walls, the rear end portions of said side walls converging toward each other and being rolled inwardly over said bottom to constitute a converging discharge spout at the rear end of said feeding trough, said discharge spout being open at the top and substantially elliptical in cross-section, a top opening member having a contour complementing the contour of said discharge spout and pivotally connected thereto at each side thereof, said top opening member extending rearwardly into substantially coterminal relation with said spout and having a forward portion arranged for engagement with said side walls to limit upward opening movement of said top opening member so that said top opening member and the bottom of the discharge spout diverge slightly toward their rearward ends when the top opening member is in fully open position, and an upturned lip on the forward edge of said top opening member to which pressure may be applied to cause said discharge spout and said top opening member to exert a substantially vertical distending pull on a bag when an end thereof is placed about said discharge spout and said top opening member.

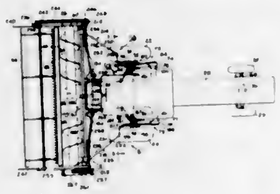
2,780,902
DRIVE MEANS FOR COTTON PICKING SPINDLES
Mack D. Rust, Coalinga, Calif.
Original application March 21, 1950, Serial No. 150,914, now Patent No. 2,699,638, dated January 18, 1955. Divided and this application September 13, 1954, Serial No. 457,004
9 Claims. (Cl. 56—42)

1. In a cotton picking unit having a plurality of picking spindles having drive rollers thereon, driving means for said spindles including; a support, a pair of thin resilient plates, said plates each being loosely connected at one edge to said support, resilient frictional drive rails secured to each of said plates along its other edge for



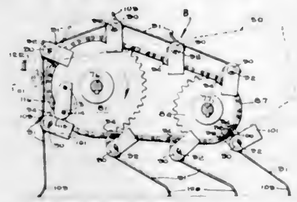
frictionally engaging said drive rollers and rotating said rollers and spindles, expanding means between said plates, said expanding means being positioned between said drive rails and said support for urging said drive rails into frictional driving engagement with said rollers.

2,780,903
PLATFORM ADJUSTING MEANS FOR SIDEHILL HARVESTERS
Everett R. Kroll and Frank Farber, Moscow, Idaho, assignors to Deere & Company, Moline, Ill., a corporation of Illinois
Application December 22, 1952, Serial No. 327,202
7 Claims. (Cl. 56—209)



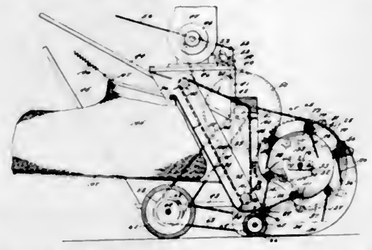
1. A hillside harvester, comprising: a longitudinal body; first and second wheel means respectively at opposite sides of the body to carry the body for advance over a field that slopes transverse to the line of advance; first and second suspension means respectively connecting the first and second wheel means to the body and providing for vertical movement of the wheel means relative to the body and relative to each other in accordance with changes in field contour; equalizing means cross-connecting the suspension means for effecting simultaneous vertical movement of the first and second wheel means in opposite directions for accommodating the wheel means to the slope while the body remains level; first and second platform-control members transversely spaced apart on the order of and connected respectively to the first and second suspension means and movable vertically respectively in accordance with the first and second wheel means; a harvester platform positioned transversely of and ahead of the body and wheel means; journal means interconnecting the body and the platform for relative angular movement generally about a fore-and-aft journaling axis so that the platform parallels the slope while the body remains level; and first and second fore-and-aft stabilizer means spaced apart transversely and having front ends connected to the platform at opposite sides of the journaling axis, both stabilizer means extending rearwardly toward and having rear ends connected respectively to the first and second platform-control members for causing the platform to move angularly relative to the body in accord with vertical movement of the first and second wheel means.

2,780,904
NUT PICKUP DEVICE
Adrian St. J. Bowie and John L. Nelson, San Jose, Calif., assignors to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application March 27, 1953, Serial No. 345,134
7 Claims. (Cl. 56—328)



1. In a nut gathering mechanism, the combination of: a rotatable shaft, and a resilient nut pick-up finger mounted in unstressed condition on said shaft for limited rotative self adjusting gravitational movement relative thereto.

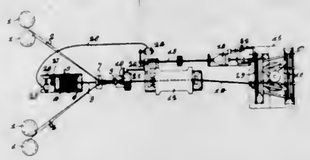
2,780,905
PICKER FOR BERRIES AND THE LIKE
Thomas Brinton Darlington, Whitesbog, N. J.
Application May 25, 1953, Serial No. 357,153
7 Claims. (Cl. 56—330)



1. In a picker for berries and the like, a picker frame, a picking bar running across the front of the frame parallel to the ground, a set of picking combs extending across the picker frame generally in front of and above the picking bar, a picking comb position cam on the frame at one end of the picking combs, followers on the picking combs engaging the picking comb position cam, levers on one end of the picking combs, a picking comb feathering cam on the frame at the end of the picking combs having the levers, followers on the levers engaging the picking comb feathering cam, and means operatively associated with the frame for driving the picking combs in sequence along the cams to progress the picking combs forward at the top, down the front, rearward at the bottom and upward at the rear, the radial outer ends of the picking combs passing within less-than-berry-diameter relation to the picking bar.

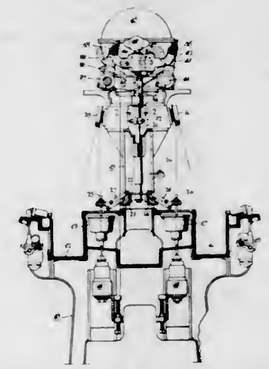
2,780,906
APPARATUS FOR FORMING MULTI-ELEMENT CABLE
George E. Fewtrell and Bruce W. Tyrrell, Montreal, Quebec, Canada, assignors to Northern Electric Company, Limited, Montreal, Quebec, Canada, a corporation of Canada
Application April 2, 1954, Serial No. 420,642
11 Claims. (Cl. 57—13)

1. In a material handling apparatus for forming a multi-element cable which includes a prestranded central core composed of a plurality of elements in twisted interrelation with each other and a plurality of prestranded cable units superimposed thereover, comprising in combination: a rotatable core dispensing means having the central core disposed thereon; a rotatable cable receiving means on which the completed cable is contained; advancing means to advance the central core longitudinally away from the dispensing means and to contemporaneously twist the units on the advancing central core; a plurality of rotatable stationary supply means on which the units are contained; means to position the units on the advancing central core; common means to actuate the



receiving and advancing means; actuating means to rotate the dispensing means about the axis in the direction of advance of the central core; individual adjustable means associated with the common actuating means and the actuating means to adjust and thereby synchronize the speed of rotation of the dispensing means with that of the advancing and receiving means; whereby the central core is advanced so that the interrelation of the twists of the strands thereof is maintained as the units are superimposed thereover.

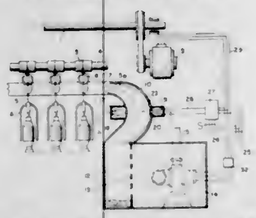
2,780,907
CREEPING TRAVERSE FOR RAYON POT SPINNING MACHINES
John J. Sippel, Drexel Hill, Pa., and William Kernan, Utica, N. Y., assignors to Skenandoa Rayon Corporation, Utica N. Y., a corporation of Delaware
Application August 29, 1951, Serial No. 244,218
10 Claims. (Cl. 57—77)



1. A traverse motion for rayon pot spinning machines comprising a yoke having a slot medially thereof to receive a crank pin, means for rotating said crank pin whereby reciprocating motion is imparted to said yoke, a pair of rocker arms, a pair of pins, one of said pins mounted on one of said rocker arms, and the other of said pins mounted on the other of said rocker arms, said pins each having an eccentric portion, one end of said yoke being mounted on the eccentric portion of one of said pins and the other end of said yoke being mounted on the eccentric portion of the other of said pins, means for imparting stepwise rotation to said pins as said yoke is reciprocated whereby the axes of said pins upon which the ends of said yoke are mounted are displaced in re-

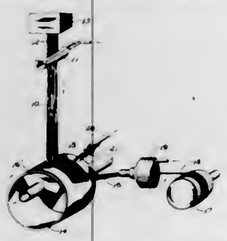
curring cycles, and means for translating the oscillating movement of said rocker arms into vertical reciprocating movement of a series of pot spinning funnels.

2,780,908
CONTROL SYSTEMS FOR SPINNING AND ROVING FRAMES
Hans C. Bechtler, Zurich, Switzerland, assignor to Pneumafil Corporation, Charlotte, N. C., a corporation of Delaware
Application April 10, 1952, Serial No. 281,605
10 Claims. (Cl. 57—80)



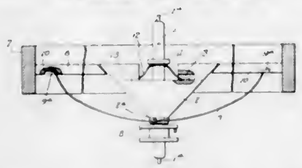
1. A control device for a spinning machine including a duct, means for producing the flow of an air current in said duct, said duct having at least one aperture, said duct having a bend therein of infundibular cross section and having a trough disposed on the outer edge of said bend to form a thread-guide in which the broken thread travels due to the deflection of the air current and the centrifugal motion of the broken thread, a detecting device disposed in the duct adjacent the thread-guide, and means responsive to the action of said detecting device to control the spinning machine upon the passage of a broken thread through the thread-guide.

2,780,909
METHOD OF FORMING YARNS FROM STAPLE GLASS FIBERS
Lawrence P. Biefeld, Granville, and Homer W. Duffee, Newark, Ohio, assignors to Owens-Corning Fiberglas Corporation, a corporation of Delaware
Application March 24, 1953, Serial No. 344,362
9 Claims. (Cl. 57—164)



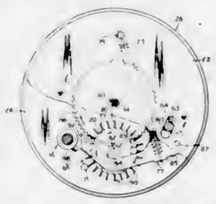
1. The method of forming yarns of staple glass fibers comprising the steps of collecting staple glass fibers in continuous fashion to form an endless web in which the fibers are interfelted in the form of a bundle but extend generally in a longitudinal direction, continuously drafting the web from a distant station whereby relative movement takes place between the fibers to cause the fiber concentration to become thinned in cross section and by which the fibers are brought into more uniform lengthwise alignment to form the web into a yarn, and coating the fibers prior to drafting but after the fibers have been formed into the endless web with a fluid composition containing from 1–15 percent by weight of a polyhydric alcohol polymer selected from the group consisting of polyhydric alcohols, polyalkyl gylcols and esters thereof and fatty acid derivatives thereof dissolved in a solvent medium a portion of which is eliminated in the interim between the application of the coating and drafting whereby the coating composition imparts characteristics at the time of drafting to provide a balance between bonding which causes the fibers to cling together sufficiently to maintain mass integrity, lubricity sufficient to permit relative movement to the fibers while functioning to protect the fibers against destruction by mutual abrasion, and drag to control the movement for thinning of the fibers and alignment of the fibers during drafting.

2,780,910
WHEEL AND SHAFT ASSEMBLY
Leo W. Muffley, Palmyra, Mo., assignor of one-third to Chester L. Davis, Perry, Mo.
Application July 14, 1953, Serial No. 367,945
3 Claims. (Cl. 58—107)



1. An improved wheel and staff assembly comprising in combination a staff, a wheel having an arm, said arm having a central opening through which said staff passes, said arm being free to move axially along said staff, an upper stop on said staff and a lower stop on said staff limiting the axial movement of said arm, a collar on said staff free to move axially along said staff between said stops, a spring between the upper stop and said collar normally forcing said collar toward said lower stop, and a second spring normally forcing said collar and said arm to contact each other.

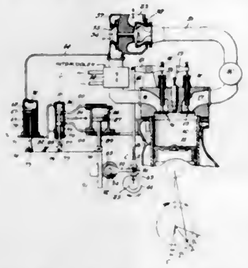
2,780,911
TIMED INTERMITTENT PNEUMATIC DRIVE MECHANISM
John B. McGay and Gilbert B. Clift, Tulsa, Okla., assignors to Rockwell Register Corporation, Bellefontaine, Ohio, a corporation of New York
Application March 30, 1953, Serial No. 351,292
15 Claims. (Cl. 60—7)



4. In combination with a power output shaft and an escapement mechanism, means controlled by said escapement mechanism and directly drivingly coupled to said output shaft for imparting intermittent unidirectional impulses of drive torque to said output shaft.

2,780,912
METHOD AND APPARATUS FOR VARYING THE FINAL COMPRESSION TEMPERATURE IN A FOUR CYCLE INTERNAL COMBUSTION ENGINE
Ralph Miller, Milwaukee, Wis.
Application August 17, 1951, Serial No. 242,371
12 Claims. (Cl. 60—13)

1. In a four-stroke cycle internal combustion engine adapted to operate over a selected load range, including a cylinder, a piston movably mounted in the cylinder, at least one inlet valve and inlet port for the cylinder to provide for the entrance of air to the cylinder, and at least one exhaust valve and exhaust port for the cylinder to provide for the exhaustion of burnt gases from the cylinder: a method of maintaining the temperature of the air in the cylinder at the beginning of compression at least no greater than the minimum load temperature of the selected load range, including the steps of precompressing the inlet air to an elevated temperature, specific weight, and pressure which vary in relation to the load on the engine so that the pressure, specific weight, and temperature will increase as the load increases and decrease as the load decreases, withdrawing the heat of



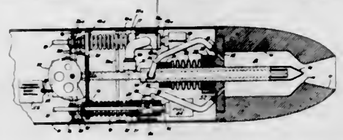
precompression from the air by cooling it to a reduced temperature, supplying the precompressed cooled air to the cylinder, closing each inlet valve during the suction stroke of the piston so that the precompressed cooled air entrapped in the cylinder will be expanded to a reduced temperature and pressure before the beginning of compression by the piston, and varying the time of closing of each inlet valve during the suction stroke of the piston over the selected load range so that the amount of expansion will increase as the load increases and decrease as the load decreases over the load range.

2,780,913
VARIABLE CONFIGURATION JET INLET
Oran W. Nicks, Inglewood, Calif., assignor to North American Aviation, Inc.
Application November 30, 1953, Serial No. 395,056
9 Claims. (Cl. 60—35.5)

2. An air inlet cowl for a jet engine having good operating characteristics at both high and low flight speeds comprising means forming a constant inlet area having a leading lip, and means for continuously varying the shape of said lip from a sharp edge at high flight speeds to a curvate edge at low flight speeds whereby when said lip is sharp-edged it provides low drag and good pressure recovery at high flight speeds and when said lip is round-edged it provides smooth fluid flow with no separation and low losses at low flight speeds.

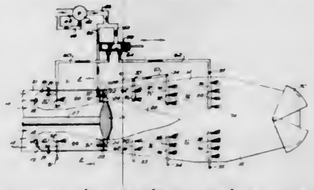
2,780,914
AMBIENT PRESSURE RESPONSIVE CONTROL FOR FUEL OXIDIZER AND NOZZLE EXHAUST AREA OF REACTION MOTORS
Elliot Ring, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application December 20, 1951, Serial No. 262,638
2 Claims. (Cl. 60—35.6)

1. A reaction motor comprising a casing defining a combustion chamber and thrust nozzle and adapted for operation in regions where there are variations in the pressure of the medium into which the combustion gases exit, an elongated hollow core piece positioned on the interior of said combustion chamber in axial alignment with said nozzle, the end of said core piece nearest said nozzle being tapered, means for circulating cooling fluid through the interior of said core piece, means responsive to variations in said pressure for imparting axial movement to said core piece whereby the position of the tapered end with reference to the nozzle determines the



cross-sectional open area of said throat, means for introducing driving fluids to the combustion chamber, means for controlling the feed rate of said driving fluids to limit the pressure build up in the combustion chamber, fixedly positioned linking means interconnecting said means for imparting axial movement to said core piece and said means for controlling the feed rate of said driving fluids whereby a decrease in the cross-sectional area of said nozzle throat area is accompanied by a decrease in the feed rate of said driving fluids.

2,780,915
FUEL DISTRIBUTION SYSTEM FOR JET ENGINE AND AFTERBURNER
H. Peter Karen, San Diego, Calif., assignor to Solar Aircraft Company, San Diego, Calif., a corporation of California
Application December 5, 1951, Serial No. 260,048
6 Claims. (Cl. 60—35.6)

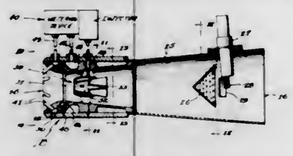


3. In a jet power plant, a duct; a primary combustion zone for combusting fuel; means for supplying fuel to said primary combustion zone; a turbine downstream from said primary combustion zone actuated by gases issuing from said primary combustion zone; a plurality of fuel pipes mounted in said duct at predetermined positions upstream and downstream from said turbine for delivering fuel to said duct and defining a consecutive series of secondary combustion zones; openings in said fuel pipes for permitting fuel to enter said duct; a fuel source; means for conducting fuel to said pipes; ignition means for igniting fuel in said primary combustion zone to establish a flame front to ignite fuel in said consecutive series of secondary combustion zones; and selector means alternately selectively permitting and preventing fuel flow to a first and last of said fuel pipes to control combustion whereby fuel is selectively fed to said first and last of said pipes to assure complete and stable combustion wholly within the duct for maximum efficiency.

2,780,916
PILOT BURNER FOR JET ENGINES
Whitney Collins, Detroit, Mich., assignor to Continental Aviation & Engineering Corporation, Detroit, Mich., a corporation of Virginia
Application August 22, 1952, Serial No. 305,796
10 Claims. (Cl. 60—39.28)

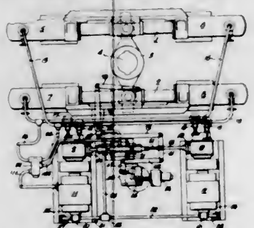
2. A pilot burner for a ram jet engine having a main combustion pipe, said pilot burner supported in said pipe and comprising a venturi type structure having an up-

stream inlet and a downstream outlet, means acting on a portion of the air stream in said pipe flowing into said venturi to slow same down in passing therethrough, a fuel metering and injection device associated with said burner and having fuel metering means operable in response to the velocity and pressures of the air entering



said burner for injecting metered quantities of fuel into the slower moving air in said burner to provide a combustible mixture of an optimum fuel-air ratio regardless of conditions in the main combustion pipe, and a flame holder and associated igniter in said burner venturi adjacent the outlet.

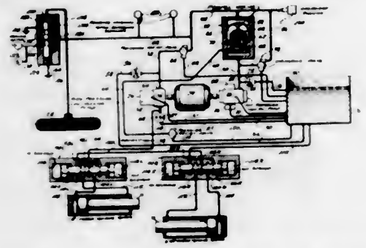
2,780,917
STEERING GEAR CONTROLS
Robert C. Lamond, Philadelphia, Pa., assignor to American Engineering Company, Philadelphia, Pa., a corporation of Pennsylvania
Application March 23, 1953, Serial No. 343,924
7 Claims. (Cl. 60—52)



1. The combination with a ram and cylinder group constituting a fluid motor, of an hydraulic system including a pump for actuating said motor and a valve for controlling operation of the pump, means including follow-up devices for operatively connecting the valve and motor so that each movement of the valve from a normal position will be accompanied by a movement of the motor in predetermined ratio and by a return of the valve to the normal position, manual actuating means for the valve, differential means affording actuations of the valve by the follow-up and manual means each independently of the other, means limiting overall movement of the motor, and means affording free movements of the valve in advance of the motor to the full extent required for actuation of the motor by the pump over the limits of said overall movement.

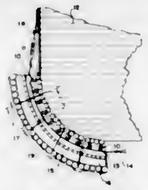
2,780,918
ANTI-SHOCK HYDRAULIC CIRCUIT
George F. Rohrscheib, Pewaukee, Wis., assignor to Verson Allsteel Press Company, Chicago, Ill., a corporation of Delaware
Application October 14, 1953, Serial No. 386,096
13 Claims. (Cl. 60—52)

1. In a hydraulic system, means forming an enclosed work space adapted to receive hydraulic fluid under pressure and to have the fluid evacuated therefrom, a fluid reservoir, a high pressure pump having a pump port connected to said work space, a low pressure high volume pump having a pump port connected to said work space, a normally closed valve through which said low pressure pump supplies fluid to said work space, said low pressure pump having a second port connected to said reservoir, said second port from said high pressure pump being connected to said valve to move it to open position when said high pressure pump is delivering fluid through said second port, an unloading valve connected to said first port from said low pressure pump and connected thereto upstream of said normally closed valve and adapted to divert the output from said low pressure pump to the reservoir when the pressure in the system reaches a predetermined value, a reversible motor connected to



drive both pumps simultaneously, means for stopping said motor when the pressure in the system reaches a second predetermined value higher than said first predetermined pressure value and for reversing said motor after a short time interval whereby the hydraulic fluid under pressure in said work space drives said high pressure pump in the reverse direction before said motor does so and effects decompression of the fluid under pressure in said work space, said pumps coacting to evacuate said work space of fluid, and said low pressure pump thereafter forming a partial vacuum in said work space.

2,780,919
MARINE FENDER
Edward G. Carey, Plainfield, N. J., assignor to George W. Rogers Construction Corp., New York, N. Y., a corporation of New York
Application August 27, 1952, Serial No. 306,629
2 Claims. (Cl. 61—48)



1. A flexible marine fender for a pier structure which comprises a plurality of elongated vertically disposed and horizontally spaced rubber tubes hung against the pier structure, a plurality of elongated horizontally disposed and vertically spaced rubber tubes supported outside of and against said vertically disposed tubes, a plurality of piles driven in a row along side pier structure outside of said horizontally disposed tubes, a row of vertical sheeting interposed between said horizontally disposed tubes and said piles and bearing against said horizontally disposed rubber tubes, a plurality of wales interposed between said sheeting and said piles, said sheeting and said wales being secured to said piles, and means securing said piles to said pier structure.

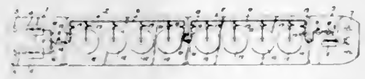
2,780,920
TREMIE PIPE CONSTRUCTION
Mac Silvert, San Francisco, Calif.
Application April 28, 1953, Serial No. 351,712
4 Claims. (Cl. 61—63)

1. Apparatus for the placement of tremie concrete or other discrete material comprising a hopper adapted to

be carried by a fixed support and serving to receive a concrete mix, a working platform disposed below the hopper, a pipe extending downwardly from the hopper and past the working platform, an upper portion of the pipe comprising a plurality of detachable sections, the length of each section being less than the vertical distance

between the upper end of the hopper and the working platform, and a conduit detachably secured to the lower end of the hopper and extending downwardly into telescopic engagement with the uppermost one of said pipe sections, the uppermost pipe section together with said conduit being removable as a unit.

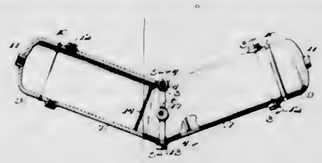
2,780,921
GAS DISTRIBUTION SYSTEMS FOR A MULTIPLICITY OF TANKS CONTAINING LIQUEFIED HYDROCARBONS
Willard L. Morrison, Lake Forest, Ill., assignor, by mesne assignments, to The Union Stock Yard and Transit Company of Chicago, Chicago, Ill., a corporation of Illinois
Application October 27, 1953, Serial No. 388,575
1 Claim. (Cl. 62—1)



The combination of a plurality of containers each at least partially filled with liquefied methane maintained at substantially atmospheric pressure and at about minus 258° F. and thus always subject to a certain degree of vaporization because of heat transfer through the walls of the containers, a delivery manifold, separate connections from each of said containers to said delivery manifold, and a valve in each such connection adapted to shut off such connection during such times but only during such times when the boil-off rate in the container associated therewith is reduced to a value insufficient to maintain a predetermined pressure in such container.

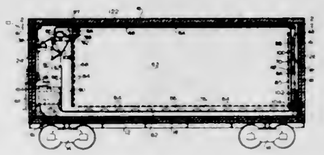
2,780,922
RECEIVER FOR LIQUID REFRIGERANT
Allan N. Johannesen, Framingham Center, Mass., assignor to the United States of America as represented by the Secretary of the Army
Application June 16, 1955, Serial No. 516,055
3 Claims. (Cl. 62—1)

3. A receiver for liquid refrigerant comprising a closed container of substantially V-shape in elevation, an inlet tube connected to the upper wall of the container at its vertex, and an arcuate outlet tube mounted within the container at the vertex thereof, the lower end of said outlet tube being disposed adjacent the bottom wall of the container, and the upper end of the outlet being



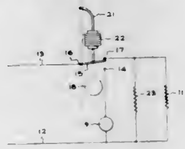
secured in an opening in a side wall of the container about halfway of the height of said side wall.

2,780,923
METHOD AND MEANS FOR PRESERVING PERISHABLE FOODSTUFFS IN TRANSIT
Frederick M. Jones, Minneapolis, Minn., assignor to Thermo King Corporation, a corporation of Minnesota
Application January 14, 1952, Serial No. 266,389
9 Claims. (Cl. 62—2)



8. In a transport vehicle embodying an outer shell, a cargo chamber within the shell supported in spaced relationship to the inner surfaces of the shell to form a channel between the shell and the said chamber, said chamber having an opening forming communication between the channel and the interior of the chamber, a movable damper associated with said opening and normally biased to a closed position, a linkage connected to said damper, manually operable means connected to said linkage for moving said damper only to an open position, latching means cooperable with a portion of the linkage for holding said damper in an open position, and temperature responsive means operably connected to the latching means and being effective to release the latching means on a lowering of temperature in said chamber to a predetermined lower temperature, said last named means being effective to maintain the latching means inoperative when the temperature in said chamber is maintained at said predetermined lower temperature.

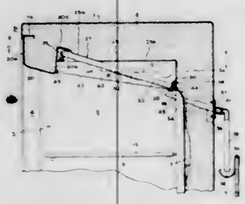
2,780,924
REFRIGERATING APPARATUS HAVING AUTOMATIC DEFROSTING
Bruce B. Latter, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application November 14, 1955, Serial No. 546,311
4 Claims. (Cl. 62—4)



1. In a refrigerator, an insulated cabinet having a food storage compartment, a refrigeration system including a compressor and an evaporator for cooling said compartment, first heating means for defrosting said evaporator, defrost-initiating means to simultaneously activate said first heating means and to de-activate said compressor, pressure actuated means for de-energizing said first heat-

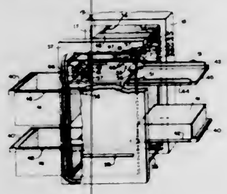
ing means and energizing said compressor, an expansible-gas bulb in thermal contact with said evaporator communicating and forming with said pressure actuated means a closed chamber, second heating means for heating portions of said closed chamber other than said expansible-gas bulb, said defrost-initiating means also activating said second heating means with said first heating means, said second heating means being of such capacity that said bulb is at a lower temperature than the remaining portions of said closed chamber during defrosting of said evaporator, and said pressure actuated means acting upon a predetermined temperature in said evaporator to deactivate said first and second heating means.

2,780,925
REFRIGERATING APPARATUS HAVING AUTOMATIC DEFROST
Thomas A. McGrew, Fern Creek, Ky., and Robert A. Wachter, Glens Falls, N. Y., assignors to General Electric Company, a corporation of New York
Application November 21, 1955, Serial No. 547,904
9 Claims. (Cl. 62—4)



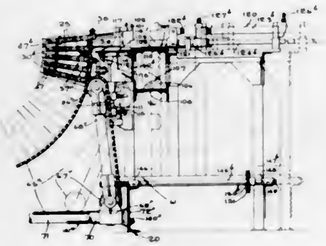
1. In a refrigerating apparatus, a cabinet comprising inner and outer spaced-apart casings with thermal insulation disposed between said casings, said inner casing defining a food storage compartment, an insulating breaker strip connecting together the edges of said casings and defining an opening for said compartment, a door for closing said opening, said breaker strip being of substantially U-shaped configuration along the top of said opening and having a substantially L-shaped rear end extending upwardly and forming with the top wall of said storage compartment a recessed area, a plurality of serially connected, vertically spaced evaporators within said compartment with the upper evaporator extending across said compartment top inner wall and into said recess.

2,780,926
WALL MOUNTED REFRIGERATING APPARATUS
Verlos G. Sharpe, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 13, 1955, Serial No. 481,592
5 Claims. (Cl. 62—89)



1. A refrigerating apparatus comprising, an insulated compartment having a front opening, a closed refrigerating system including an evaporator for cooling the interior of said compartment, a frame within said compartment, a door stationarily secured to an end of said frame for closing the open front of said compartment, means mounting said frame for movement outwardly of the open front of said compartment, a food supporting shelf slidably mounted on said frame, said shelf being movable relative to said frame in a direction transverse to the direction of movement of the frame outwardly of said compartment, a cover pivotally mounted on said frame and extending upwardly from an end of said shelf for shielding food products supported thereon when said frame is moved outwardly of said compartment, and means rendered effective in response to moving said shelf relative to said frame for rotating said cover about its mounting.

2,780,927
CARTON FREEZING APPARATUS
John Boyce, San Jose, Calif., and John C. Olsen, Bigfork, Mont., assignors to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application August 8, 1952, Serial No. 303,234
17 Claims. (Cl. 62—114)

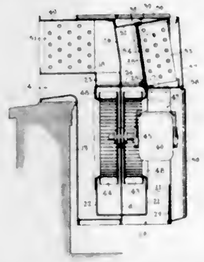


1. In a freezing apparatus, a carton supporting arrangement comprising a pair of shelves disposed radially relative to and rotatable about a common axis and spaced circumferentially to define a freezing compartment corresponding in height to the distance between proximate faces of the shelves, means mounting said shelves for radial movement toward and away from said axis whereby the height of said compartment may be varied, and means for moving said shelves away from said axis in successive steps for increasing successively the height of said compartment to accommodate the expansion of a carton carried therein during the freezing operation.

2,780,928
AUTOMOBILE AIR COOLER
Oakle P. Bullock, Wichita, Kans.
Application November 13, 1953, Serial No. 391,877
8 Claims. (Cl. 62—117)

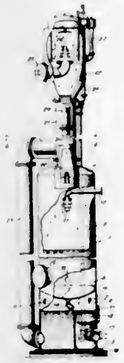
5. In an air conditioning unit, an elongated housing generally open at both ends to provide for the flow of air through it, a refrigerating unit within the housing for the compression and expansion of a refrigerant, including a compressor, a condenser in communication with the compressor, an evaporator in communication with the condenser, expansion means between the condenser and evaporator, the evaporator being in communication with the compressor, the forward open end of the housing having a fan disposed in it so as to substantially fill the opening, the housing behind the fan being divided into two spaces, one above the other, one containing the evaporator, the other containing the condenser so that air entering the forward end of the housing will pass through either the condenser or the evaporator, the compressor being positioned behind the evaporator and condenser and aligned with both of them, means for exhausting the air that passes through the evaporator separately from the air that passes through the condenser, and means for operating the compressor.

2,780,929
AIR COOLED UNIT AIR CONDITIONER
Richard E. Roseman, York, Pa., assignor, by mesne assignments, to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application March 7, 1956, Serial No. 570,111
8 Claims. (Cl. 62—129)



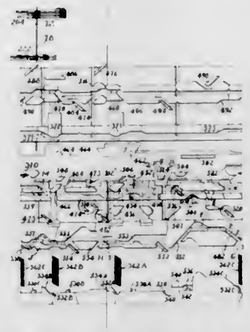
6. In an air conditioner, the combination of a cooling unit; a fan for circulating air into heat-exchanging relation with said unit and then discharging it into a space to be conditioned; a slot nozzle through which said discharge occurs, said nozzle discharging the air in a direction and at a velocity which will induce air circulation in the space to be conditioned, and the nozzle including a part movable to adjust the area of its slot; a variable-speed motor connected to drive said fan; a controller operable to change the speed of the motor; and a connection between the movable part of the nozzle and said controller such that the motor is slowed when the nozzle opening is reduced.

2,780,930
BAROMETRIC TYPE STEAM VACUUM REFRIGERATION
William D. Mains, Lake Success, N. Y., assignor to Graham Manufacturing Co., Inc., New York, N. Y., a corporation of New York
Application July 20, 1954, Serial No. 444,459
4 Claims. (Cl. 62—152)



1. A steam vacuum refrigeration unit for support on a single substantially solid foundation, comprising a seal tank mounted on said foundation, a flash tank mounted in superimposed vertically aligned relation on said seal tank, a supporting member extending vertically from the top central portion of said flash tank, a primary barometric condenser mounted in vertically extending relation on the upper end of said supporting member, a pipe forming a primary condenser barometric leg connected at the upper end for communication with the lower end of said primary condenser and connected at the lower end to the lower portion of said seal tank and providing communication between said seal tank and primary condenser, a primary ejector connected to said flash tank and primary condenser for maintaining a vacuum in said flash tank for cooling liquid therein, a secondary condenser adjacent said primary condenser, a secondary ejector connected with said primary and secondary condensers for normally maintaining a vacuum in said primary condenser, a secondary barometric leg pipe connected at the upper end to the lower portion of said secondary condenser and having the lower end connected to the lower portion of said seal tank for establishing communication therebetween, and means for maintaining a vacuum in said secondary condenser, whereby said flash and seal tanks with said attached supporting member, primary and secondary condensers, primary and secondary ejectors and said primary and secondary barometric leg pipes cooperate in supporting one another in forming an integral assembled refrigeration unit.

2,780,931
KNITTING MACHINE AND METHOD
Robert H. Lawson and Paul W. Bristow, Laconia, N. H., assignors to Scott & Williams, Incorporated, Laconia, N. H., a corporation of Massachusetts
Application February 13, 1947, Serial No. 728,226
70 Claims. (Cl. 66—14)

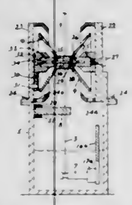


1. A knitting machine comprising a pair of cylinders, double-ended needles slidable in said cylinders, sliders mounted in said cylinders and movable to control movements of said needles, means for feeding at least two yarns to said needles, means for presenting at least one wrap yarn to needles, and means actuating said sliders and said wrap yarn presenting means to produce in one area of a fabric wales in some of which loops are concatenated in one direction and in others of which loops are concatenated in the opposite direction, with wales of the first mentioned type comprising loops of alternate yarns drawn in successive courses, and the wales of the second mentioned type comprising concatenated loops drawn in non-successive courses and crossed by floats in intermediate courses, to produce wrapping in another area thereof, and to produce in a third area of the fabric wales of said yarns in some of which loops of alternate yarns drawn in successive courses are concatenated in one direction and in others of which loops of alternate yarns drawn in successive courses are concatenated in the opposite direction.

2,780,932
KNITTING MACHINE
Roger Kuentz, Saint-Cyr-sur-Morin, France
Application December 24, 1954, Serial No. 477,533
4 Claims. (Cl. 66—115)

1. A knitting machine comprising a needle bed, a plurality of removable needles carried by said needle bed, a longitudinal, elastic guide strip inherently of bow shape disposed on said needle bed above said needles, means disposed at both ends of said guide strip for securing the latter in substantially linear shape to said needle bed in its operative, needle retaining position, the tendency of said guide strip to assume its inoperative, bow shape keeping said means in its securing position.

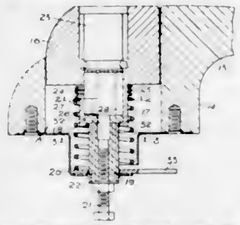
2,780,933
LIQUID TREATING APPARATUS
Ingham S. Roberts, Ridley Park, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application December 18, 1952, Serial No. 326,686
6 Claims. (Cl. 68—244)



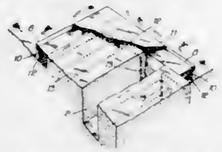
1. In a squeeze roll liquid removal apparatus for continuously traveling threads and the like, a first cantilever mounted squeeze roll having a relatively small diameter thread-contacting hub at the outer end thereof, a relatively large diameter sling adjacent to and forming an extension of said hub, a shaft coaxially secured to said hub by which the squeeze roll is journalled, a stationary bearing for supporting the shaft, an annular liquid collecting trough surrounding said sling, a second cantilever mounted squeeze roll identical and opposed to the first roll and having its hub parallel and offset to the hub of the first roll in such a manner that the thread-contacting hubs lie opposite one another whereby the hubs may contact and squeeze a continuously travelling thread passing between the hubs, said rolls adapted to be driven by the thread passing between the hubs, a support for the second roll which permits the roll to float substantially unopposed in a reciprocal and confined path toward and away from the first roll whereby proper squeezing pressure may be applied to the thread passing in contact with and between the hubs, the floating movement of the second roll during operation being controlled by the thread being processed by the rolls, and a second annular liquid collecting trough surrounding the sling on the second squeeze roll.

2,780,934
ACTUATING MEANS FOR DOOR FASTENINGS
Philip Swingewood Jeavons, South Yardley, Birmingham, England, assignor to Wilmot-Breeden Limited, Birmingham, England
Application September 19, 1955, Serial No. 535,223
7 Claims. (Cl. 70—207)

1. A fastening-actuating means comprising in combination, a handle adapted to be fixedly attached to a door, a spring-loaded push-button occupying a recess in the handle, a plunger mounted coaxially with the push-button and adapted by angular movement thereof to be engaged with or disengaged from the push-button, and means for effecting angular movement of the plunger.



2,780,935
METHOD OF MAKING A FLOOR SLAB
Roy W. Rumble, Germiston, Transvaal, Union of South Africa
Application November 26, 1952, Serial No. 322,688
Claims priority, application Union of South Africa December 11, 1951
5 Claims. (Cl. 72—77)

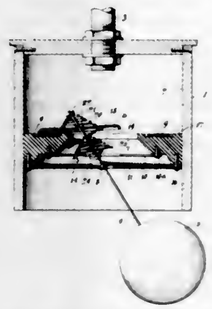


1. A method of erecting the floor of a building which includes the steps of digging a trench across the site of the building, levelling the site to each side of the trench with spoil from the trench, during such levelling embedding flexible scraping elements in the spoil so that they are accessible from within the trench, roofing the trench with deck shuttering to form a tunnel, casting the perimetrical foundation of the building, casting a floor slab on and between the foundations, withdrawing the shuttering through the tunnel, and finally withdrawing earth from under the slab by hauling the elements into the tunnel to leave the underface of the slab substantially fully exposed with the slab supported by the perimetrical foundations.

2,780,936
CHANNEL SHAPED ANCHOR RETAINING STRIP FOR EMBEDMENT IN CONCRETE
Bror Hillberg, Chicago, Ill., assignor to Superior Concrete Accessories, Inc., Chicago, Ill., a corporation of Illinois
Application January 29, 1951, Serial No. 208,281
1 Claim. (Cl. 72—103)

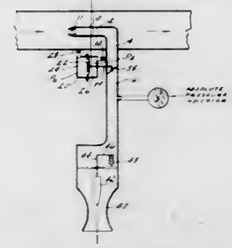
As a new article of manufacture, a one-piece channel shaped strip formed of comparatively thin sheet metal and comprising a crosswall and a pair of forwardly and inwardly extending side walls connected to the side margins of the crosswall by acute angle bends and provided at their front margins with outwardly extending coplanar flanges said strip being adapted in connection with use first to be secured against an upstanding form in such manner that it extends vertically and the outwardly extending flanges thereof abut directly against the inner surface of the form, then to have concrete in plastic form poured around it and then after hardening of the concrete and removal of the form to form in the outer surface of the hardened concrete an exposed dovetail slot for receiving and retaining the dovetail ends of conventional anchors for securing block-like facing elements in place, the side walls and flanges of the strip being truly flat throughout and the crosswall of the strip being substantially flat and having formed in its side margins at comparatively small distances inwards of the bends a pair of parallel continuous longitudinally extending hollow out-struck ribs which extend throughout the length of the crosswall, are of uniform width from end to end and serve to reinforce the strip against bending and twisting, said crosswall having formed in the portion thereof between said longitudinally extending ribs a longitudinal series of equidistantly spaced transversely extending hollow out-struck ribs which are of uniform width from end to end, have the ends thereof joined to the adjacent portions of said longitudinally extending ribs, serve in connection with pouring of the plastic concrete around the strip to reenforce the crosswall against transverse bulging or arching away from the form due to pressure of the plastic concrete against the side wall of the strip, and are adapted upon hardening of the concrete to become so interlocked with the latter as positively to hold the strip against lengthwise displacement relatively thereto.

2,780,937
WIND DIRECTION AND VELOCITY INDICATOR
Artemas J. Haynes, South Yarmouth, and Earle F. Allen, Norwell, Mass., assignors to Valentine E. Macy, Jr., New York, N. Y.
Application July 1, 1954, Serial No. 440,810
8 Claims. (Cl. 73—189)



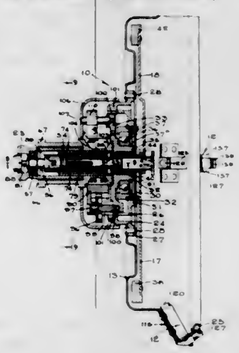
1. In a wind direction and velocity indicator, the combination of a rod mounted on a universal pivot to tilt from a normal vertical position in accordance with the wind direction and velocity, a wind resistance member attached to one end of said rod to provide an area of resistance to the wind to tip said rod, a first conductor disk floatingly and resiliently mounted concentrically to said rod in a position normal to said rod, a plurality of concentric conductive rings in a horizontal plane and surrounding said rod and adjacent to said disk whereby said disk contacts said rings in accordance with its degree of tilt to close electric circuits associated with said rings to give an indication of wind velocity, a second conductor disk floatingly and resiliently mounted concentrically to said rod in a position normal thereto and spaced from said first disk, and a plurality of radially oriented contact segments in a horizontal plane and electrically insulated from one another surrounding said rod adjacent to said second disk whereby said second disk contacts said segments in accordance with the direction in which said rod is tipped to close electric circuits associated with the segments to give an indication of wind direction.

2,780,938
MASS FLOW MEASURING DEVICE
John Chamberlain, Manchester, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application December 9, 1953, Serial No. 397,064
6 Claims. (Cl. 73—202)



1. In a fluid flow measuring device, a probe for sampling a portion of the stream whose flow is to be measured, a conduit, means for conducting the fluid flow from said probe to said conduit, means for controlling the flow of fluid in said conduit comprising a throttle valve in said passageway and a device responsive to the differential of the static pressure in the main stream and the static pressure in said conduit upstream of said valve, said device operating said throttle valve, means for exhausting the flow from said conduit to a low pressure region including an exhaust nozzle, means responsive to the temperature of the fluid in said conduit for varying the area of said nozzle, and means for determining the pressure of the fluid in said conduit at a point upstream of said nozzle but downstream of said valve.

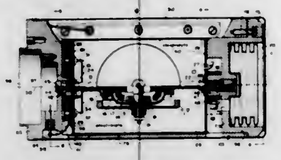
2,780,939
WHEEL BALANCER
Bruce Howard Kellogg, deceased, late of Los Gatos, Calif., by Helen Johnson Kellogg, administratrix, Santa Barbara, Calif., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application November 27, 1953, Serial No. 394,786
10 Claims. (Cl. 73—458)



1. A balancing machine comprising an apertured mounting member adapted to be secured to a rotatable body for rotation therewith about the axis of the body,

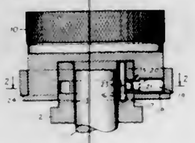
an annular support plate rotatably mounted on said mounting plate for rotation about the axis of said body, weight means adjustably mounted on said support plate, means for shifting said weight means relative to said support plate to change the distribution of weight of said support plate, a releasable clutch operatively connected between said weight shifting means and said support plate, spring means for urging said clutch into clutching engagement with said support plate for positively locking said weight means on said support plate, and means for shifting said support plate and said weight means as a unit relative to said mounting plate to change the distribution of weight of said mounting plate when said clutch is engaged.

2,780,940
FLOATED GYRO
Robert N. Brown, Verona, N. J., assignor to Kearfott Company, Inc., Little Falls, N. J., a corporation of New York
Application November 15, 1954, Serial No. 468,743
5 Claims. (Cl. 74—5.7)



1. A gyroscopic apparatus comprising a gyro wheel; a motor to spin the gyro wheel; a hollow cylindrical shell with a longitudinal axis enclosing the gyro wheel and the spin motor, and having two co-axial trunnions for pivotally supporting the shell about its axis; a hollow housing for accommodating the shell and its contents, said housing including end walls respectively provided with co-axial supporting hub elements; co-axial bearing means in the two hub elements for supporting the two co-axial trunnions; and an electrolyte filling the housing and immersing the shell to provide a displacement supporting force substantially equal to the weight of the shell and its contents, and being of film thickness between the shell and the housing over the major portion of the circumferential area of the shell and over the entire areas of the two end walls of the shell to permit the housing to be of minimum volume to enclose the shell.

2,780,941
MULTIPLE REVOLUTION LIMIT STOP DEVICE
Ernst O. Kollmorgen, Amherst, Mass., assignor to Kollmorgen Optical Corporation, Northampton, Mass., a corporation of New York
Application March 18, 1953, Serial No. 343,193
6 Claims. (Cl. 74—10.2)



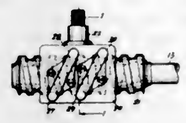
6. A limit stop device comprising a knob having a depending flange thereon and a shaft within and concentric with said flange, said flange having a substantially radial opening therethrough, a sleeve rotatably receiving said shaft and fitting telescopically in said flange, said sleeve having a groove extending around it and covered by said flange, a first stop member on said sleeve extending into and partially blocking said groove, a ball freely movable along said groove from one side of said stop to its other side and having a diameter about as great as the depth of the groove, a second stop member removably mounted in the said flange opening and projecting into said groove to secure the knob to the sleeve and to engage and move said ball in said groove, said second stop member being spaced from said first stop member in all positions of said knob and sleeve, and a member detachably mounted on said knob and overlying the outer end of said opening to retain said stop member in said opening.

2,780,942
SPEED CHANGE ATTACHMENT FOR POWER TOOLS
William J. Babcock, Lafayette, Calif.
Application July 7, 1952, Serial No. 297,507
1 Claim. (Cl. 74—417)

A speed changing attachment for use with a power tool having a motor spindle provided with a male thread and a chuck provided with a female threaded recess into which said male threaded spindle is threadable or alternatively for use with a motor spindle having a female threaded recess and a chuck provided with a male threaded mounting threadable into said recess, comprising a housing, input and output spindles rotatably mounted in said housing each being provided with a female threaded recess corresponding to the female threaded recess of said chuck or the female threaded recess of the motor spindle, speed changing gearing enclosed in said housing and constituting a driving connection between the input and output spindles, the housing being reversible to change the ratio of the gearing, whereby either female threaded spindle of the speed changing attachment may be associated with said male threaded motor spindle or male threaded mounting of the chuck to either reduce speed or to increase speed, and an adapter for mounting in either input or output spindle having male threaded elements at its opposite ends, the threading of each of said elements corresponding to the threading of the aforesaid male threaded motor spindle and male threaded mount for the chuck; whereby said adapter may be employed selectively to interconnect the female threaded form of chuck to either spindle of the speed changing attachment or to connect the female threaded motor spindle to either spindle of the speed changing attachment.

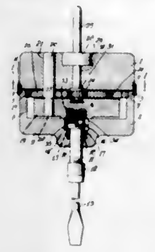
2,780,943
MOTION-TRANSMITTING DEVICE, PARTICULARLY FOR THE STEERING MECHANISM OF MOTOR VEHICLES
Eugen Stump, Stuttgart-Unterturkheim, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application September 21, 1951, Serial No. 247,628
Claims priority, application Germany September 27, 1950
5 Claims. (Cl. 74—459)

1. In a motion-transmitting device, the combination comprising a threaded spindle, a nut thereon, anti-friction balls interposed therebetween, and a return conduit coordinated with said nut and shaped to receive the balls issuing at one point of the nut and returning the same to another point of said nut, said conduit being formed by two complementary sheet metal shells providing a U-shaped channel, the ends of said channel extending tangentially to and forming continuations of the internal threads of said nut, said U-shaped channel effectively forming two arm-like end sections and one intermediate section therebetween with the axes thereof extending in



different directions, the planes of the separating joints of said two sheet metal shells of each such section being parallel to corresponding axes thereof and substantially perpendicular to a plane including the axes of one of said end sections and said intermediate section.

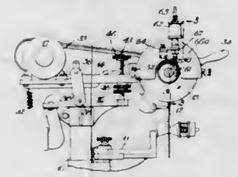
2,780,944
REVERSIBLE DRIVE FOR POWER TOOLS
Elmer J. Ondeck, Brookfield, Ill., assignor, by mesne assignments, to Supreme Products Corporation, Chicago, Ill., a corporation of Illinois
Application February 26, 1954, Serial No. 412,716
13 Claims. (Cl. 74—764)



1. A reversible coupling comprising first and second body sections mounted together end to end for rotation, one relative to the other, about a common axis, the first section having an axial bore from end to end, a drive shaft rotatably journalled in said bore and extending therethrough, and a sun gear fast on the inner end of said shaft, a planetary gear system mounted on one of said body sections and meshed with said sun gear, a ring gear mounted on the other body section in driving relation with said planetary gear system, an axial passage extending through said second body section, a driven member having a shank extending rotatably into said passage, a head on said shank, and clutch means carried by each of said body sections axially spaced and individually engageable with said head to drive the same, said head having coacting means for driving engagement with said clutch means, and said shank being axially slidable in said passage for selective engagement of said head with said clutch means.

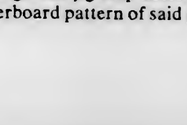
2,780,945
SAW SHARPENER
James McEwan and John Alfred Wilhelm, San Jose, Calif.; said Wilhelm assignor to said McEwan
Application March 22, 1954, Serial No. 417,592
3 Claims. (Cl. 76—40)

1. In a saw sharpener, a support structure, a saw holder on the support structure, a grinding wheel for engaging the teeth of a saw on said saw holder, mounting means for said grinding wheel including means mounted for movement on the support structure to cause engagement of the grinding wheel with the saw, drive means for the grinding wheel including a support shaft having a threaded end, means for securing the grinding wheel on the support shaft including a collar having a clamping portion and a threaded nut carried by the clamping portion for threaded engagement with the support shaft and journalled with respect to the clamping portion so as to be freely rotatable with respect thereto, said collar having an annular recess



about the periphery thereof spaced about said clamping nut and passage means for feeding liquid from the recess to a surface of the grinding wheel, and liquid feed means including a reservoir on said mounting means and a tube leading from said reservoir to said annular recess.

2,780,946
METHOD AND APPAPATUS FOR MAKING A MOLDED HONEYCOMB STRUCTURE
Clarence V. McGuire, Grosse Pointe, Mich.
Application March 27, 1952, Serial No. 278,985
1 Claim. (Cl. 77—62)

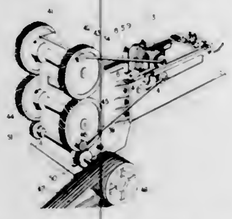


A method of making a mold plate having multiple pins seated in a checkerboard pattern of multiple equidistant holes of the same diameter, comprising forming a first rectilinear vertical row of circular holes of uniform diameter in said plate spaced equidistantly apart from one another, forming a circular starting hole for a second rectilinear vertical row of circular pinholes of the same diameter as the holes of the first vertical row with its center disposed on a horizontal line extending from the center of one of the holes of said first vertical row perpendicularly thereto at a distance therefrom equal to a multiple of the hole spacing thereof, forming a second rectilinear vertical row of equidistantly-spaced circular pinholes of the same diameter as the holes of the first vertical row extending from said starting hole parallel to the first vertical row thereof, preparing a jig strip with a rectilinear horizontal row of circular guide holes of substantially the same diameter as the previously-mentioned pin holes spaced equidistantly apart from one another at the same spacing as the vertical row holes, temporarily securing certain holes of said jig strip in alignment with corresponding holes in said first and second vertical rows whereby to position the row of jig strip holes in a horizontal line perpendicular to said vertical rows of holes, passing a circular machining tool of substantially the same diameter as the holes of the two vertical rows through the jig strip holes other than the aligned jig strip holes into said circular plate to form plate holes in a first horizontal row thereof, shifting said jig strip vertically parallel to its previous position into alignment of its said certain holes with another set of corresponding holes in said first and second vertical rows respectively, passing said circular machining tool of substantially the same diameter as the holes of the two vertical rows through the jig strip holes other than the aligned jig strip holes into said plate to form circular plate holes in a second horizontal row thereof, and repeating the aforesaid shifting and aligning and passing of the said circular machining tool through said jig strip holes into said plate to complete the checkerboard pattern of said plate holes.

2,780,947
TUBULAR DRILL
John R. Willingham, Detroit, Mich., assignor to Star Cutter Co., Farmington, Mich., a corporation of Michigan
Application December 24, 1953, Serial No. 400,270
3 Claims. (Cl. 77—69)

1. A deep hole drill comprising an elongated tubular shank having an offset longitudinally disposed center opening extended therethrough, said shank being formed in separable sections, a drill tip positioned on one end of the shank and at the thick side thereof, the thick side of said shank having longitudinally disposed chip carrying channel extended therethrough, roller bearing stabilizing elements adapted to engage a workpiece core extended into said shank and blocks mounted in said shank in opposed relation to said chip carrying channel for supporting said roller bearing elements.

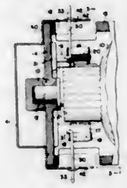
2,780,948
ROLLING MILL
Per Sven Engelbrekt Fredriksson, Vasteras, Sweden, assignor to Aktiebolaget Svenska Metallverken, Vasteras, Sweden, a joint-stock company limited
Application February 9, 1954, Serial No. 409,145
Claims priority, application Sweden February 10, 1953
5 Claims. (Cl. 80—14)



1. A step rolling mill of the pilger type comprising a frame, spaced, parallel, substantially horizontal tracks on said frame, a pair of cooperating, complementary, grooved rollers, bearing blocks rotatably mounting said rolls in operative relationship, said rolls being disposed one above the other, a roll shaft extending from each end of each roll beyond said bearing blocks, a wheel mounted on each end of the upper roll shaft outwardly of said bearing blocks and engaging said tracks to reciprocably support said rolls and said bearing blocks, a gear fixed on each end of said upper roll shaft outwardly of said wheels, spaced, parallel racks carried by said frame and engaging said gears, a second gear fixed on each end of the lower roll shaft outwardly of said bearing blocks, spaced, parallel racks carried by said frame and engaging said second gears, a connecting rod rotatably secured to each end of each roll shaft outwardly of said first and second gears and crank means connected to said connecting rods whereby upon operation of said crank means, said rolls and said bearing blocks will be reciprocated as a unit along said tracks and maintained in upright position by said connecting rods, the engagement of said gears with said racks causing simultaneous rotation of said rolls.

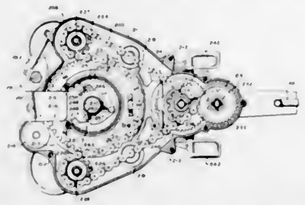
2,780,949
BRUSH RETRACTORS
Thomas H. Hoy, Jenkintown, Pa.
Application August 18, 1953, Serial No. 374,892
4 Claims. (Cl. 81—3)

1. A brush retractor for use in the assembly of electrical generators and the like comprising, for each of the brush units, a separate manually operable retractor member having a hook portion for engaging a portion of the brush tholder, and a supporting device adapted to be mounted on the end plate of the generator housing, said supporting device having a plurality of arms each extending when said supporting device is in its operative position at a fixed radial distance from and substantially



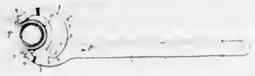
parallel to the axis of the generator armature, each of said arms having a slot therein for the reception of a retractor member, and each of the retractor members having a shoulder adapted to bear against the outer face of the arm of the supporting device, when the retractor member is in its operative position in the slot of said arm, thereby to hold the brushes in retracted positions clear of the commutator of the generator armature.

2,780,950
HYDRAULIC CONTROL SYSTEM
John H. Province, Oklahoma City, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application September 17, 1954, Serial No. 456,694
23 Claims. (Cl. 81—53)



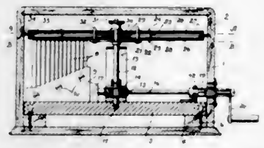
3. A control system to prevent a driven member from being operated at excessive speeds comprising, in combination, a variable speed driving member, a driven member, a first drive shaft connected to said driving member, a second drive shaft connected to said driven member, a pneumatically operated clutch to connect said first and second shafts when energized, conduit means to supply fluid pressure to said clutch, a valve in said conduit means, and means responsive to the speed of operation of said driving means to actuate said valve when the speed of operation of said driving means exceeds a predetermined value, said clutch thereby being deenergized.

2,780,951
WRENCH WITH A FLEXIBLE GRIPPING BAND
Georges Bram, Pont-a-Mousson, France, assignor to Compagnie de Pont-a-Mousson, Nancy, France, a French body corporate
Application December 16, 1953, Serial No. 398,583
Claims priority, application France December 17, 1952
5 Claims. (Cl. 81—64)



1. A self-gripping wrench for gripping and rotating pipes and other objects having a smooth external surface, said wrench comprising in combination: a single lever having two ends, one of said ends forming a single handle for said wrench, and the other of said ends forming a first jaw; a second jaw pivotally mounted at one of its ends on said lever adjacent said first jaw; a gripping band disposed inwardly of and between said two jaws, said band comprising a yieldable reinforcement forming a spring and a lining made of flexible and elastic material having a high coefficient of friction, said gripping band having its two ends attached to the free ends of said two jaws; said gripping band having an inner surface forming an open loop in the space comprised between said two jaws, the angle subtended by the ends of said loop and measured from the center of curvature of said band being about 110°

2,780,952
MUSICAL BOXES FOR WHICH THE TUNES CAN BE COMPOSED
Maurice Haricot, Levallois-Perret, France
Application December 1, 1953, Serial No. 395,562
Claims priority, application France December 13, 1952
4 Claims. (Cl. 84—97)



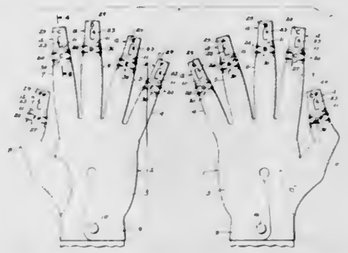
1. A music box comprising a set of musical blades and a rotatable blade striking member, said member being formed of two similar perforated discs coaxially mounted in face to face relation with the perforations in one disc in register with corresponding perforations in the other disc, a plurality of pins each having an intermediate enlarged body portion and aligned coaxial blade striking tips extending one from opposed ends of the body, said pins being positioned between the discs with the tips of each extending through aligned perforations of the discs, and means for axially urging the discs towards each other to grip between the same the enlarged body portions of the pins.

2,780,953
VIOLIN BOW FROG
Albert F. Gardner, Sioux City, Iowa
Application November 17, 1953, Serial No. 392,557
8 Claims. (Cl. 84—282)

1. In a violin bow frog the combination, with the hair and back of a violin bow, of a tube slidably mounted upon the back; a frog body carried by the tube; means connecting the hair to the body; a nut seated against one end of the back; a screw threadedly engaged with the nut; and abutment means on the screw bearing against the tube, said screw being effective to shift the body longitudinally of the back responsive to the threading of the screw within the nut, thereby to tension the hair selectively.

2,780,954
MUSICAL GLOVES
James Bryce, Harrison, N. J.
Application July 1, 1955, Serial No. 519,398
2 Claims. (Cl. 84—375)

1. A musical instrument comprising a pair of gloves constituting a right hand glove and a left hand glove, said gloves each having a hand portion and finger stalls, said finger stalls having musical instruments fastened at the tip ends of said stalls, said instruments each in-



cluding a casing having a passage for air therethrough and a single reed vibrated by air flowing through said passage to produce a distinct tone different from the other tones.

2,780,955
OPTICAL ARRANGEMENT FOR THE REPRODUCTION OF REFRACTIVE INDEX GRADIENTS
Erwin Wiedemann, Riehen, near Basel, Switzerland, assignor, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company
Application January 8, 1953, Serial No. 330,199
Claims priority, application Switzerland January 10, 1952
1 Claim. (Cl. 88—14)

An optical system for measuring and recording refractive indices and gradients thereof in a test object, comprising a light source, a first slit, two collimating lenses, one on either side of the test object, the first for collimating light from the source to illuminate the test object with parallel light rays, and the second for focusing the light coming out of the test object, a second and rotatable slit, a cylinder lens of the triplet type which produces a lateral magnification not less than 3, an objective lens and an image receiving surface the overall optical length of the said optical system being less than 2500 mm. for a height of the object of at least 65 mm., whereby the said measuring and recording may be carried out by the Toepler method and their modern variants such as the direct diagram, the Philpot diagram and the wire diagram as well as by the Rayleigh interferometric method, in the latter case without reducing the lateral distance between the interference fringes to less than 0.24 mm. while maintaining a lateral distance of at least 6 mm. between the interfering bundles, measured in the vertical plane of the object.

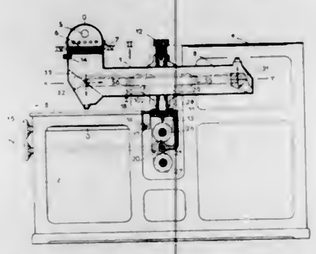
2,780,956
CIRCLE TOLERANCE GAUGE FOR OPTICAL COMPARATORS
Leon B. Fuller, Springfield, and Philip N. Welch, Chester, Vt., assignors to Jones and Lamson Machine Company, a corporation of Vermont
Application January 28, 1955, Serial No. 484,664
5 Claims. (Cl. 88—24)

1. A circle tolerance gauge for an optical comparator having a translucent viewing screen for projected images of parts to be gauged, comprising in combination, a first translucent chart for mounting on said screen having geometric figures on a surface thereof defining center position tolerance for circular openings in an object to be gauged, and an overlay chart for mounting on said first chart having circle tolerance rings for said circular

openings comprising a series of concentric circles and crossed center lines therefor for defining the tolerance of said openings in terms of hole size, said last named

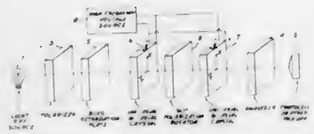
chart being movable with respect to the first chart to align said tolerance rings with projected images of said holes on the first chart and screen.

2,780,957
MEANS FOR PRINTING LEGENDS ON GEOGRAPHICAL MAPS
André Charles Octave Libault, Paris, France
Application February 26, 1954, Serial No. 412,905
9 Claims. (Cl. 88—24)



1. An arrangement for producing a legend-carrying sheet, the legends on which are to be transferred bodily onto a master skeleton map in the accurate relative locations and angular settings desired, said arrangement comprising a stationary carrier for a photo-sensitive surface and a sketch map, a carriage adapted to move transversely over the stationary support, hand-operable means controlling said transverse movement of the carriage, a unit adapted to move longitudinally with reference to said carriage, said unit including a projector adapted to project a beam of light onto a point of the sketch map defined by the position of the carriage and of the unit at the moment considered, a film carrying in uniform spaced relationship the legends to be transferred onto the skeleton map, a gated plate adapted to revolve round the axis of the projector beam inside the unit, film-unwinding means carried by said plate, hand-operable means controlling the angular setting of the plate to modify the angular setting of the image on the sketch map, a motor driving the film stepwise over the gate, a motor-feeding circuit, a switch controlling said circuit and controlled by the motor to switch said motor off after each progression of the film by one interval corresponding to the spacing between two successive legends, hand-operable means controlling said longitudinal movement of the unit, a camera incorporated into and rigid with the unit and adapted to project a beam of light onto a point of the sensitive sheet, the location of which corresponds both transversely and longitudinally with the location of the impact point of the projector beam on the sketch map at the same moment, means whereby at least part of the beam passing through the film legend is deflected into the camera to project on the corresponding point of the sensitive sheet an image of the legend the location of which has been checked on the reference sketch map.

2,780,958
LIGHT MODULATOR
Carl A. Wiley, Akron, Ohio, assignor to Goodyear Aircraft Corporation, Akron, Ohio, a corporation of Delaware
Application December 16, 1950, Serial No. 201,127
1 Claim. (Cl. 88—61)



A light modulator system including a light source, a polarizer and an analyzer in line with the light source, the polarizer passing light and putting it into a state of polarization such that the analyzer will not accept it, a pair of substantially identical electro-optic crystals interposed between the polarizer and the analyzer so that like axes of the crystals are parallel to each other, said crystals having their optical axes positioned parallel to the optical axis of the system and being uni-axial but being capable of being made bi-axial by the application of an electric charge thereto creating an electric field parallel to the electric axis, means for applying a varying electric charge to the crystals to change them to varying degrees of bi-axial condition, and means positioned between the crystals to interchange the identity of the ordinary and extraordinary waves between the crystals so that both the ordinary and extraordinary waves have the same travel characteristics upon completion of their passage through both crystals, the electric charge being applied in parallel but oppositely to said crystals.

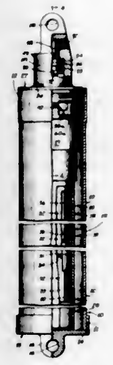
2,780,959
REARVIEW MIRRORS
Lloyd Mannon, Palo Alto, Calif.
Application June 27, 1952, Serial No. 295,979
2 Claims. (Cl. 88—87)

1. A rear view mirror for vehicles comprising: means for mounting the mirror in a vehicle in front of an observer seated in the vehicle; said mirror having a flat reflecting surface and being angularly related with respect to lines of sight from the observer to reflect images of objects to him that are located directly in back of the vehicle; said mirror having a second flat reflecting surface placed to the left of the first-mentioned flat reflecting surface when looking at the mirror and being angularly related with respect to lines of sight from the observer to reflect images of objects to him that are located at the right rear of the vehicle; and said mirror having a third flat reflecting surface placed to the left of the second-mentioned flat reflecting surface and being angularly related with respect to the lines of sight from the observer to reflect images of objects that are located at the left rear of the vehicle.

2,780,960
MAGNIFYING MIRROR FOR MEDICINE CABINET
Jess M. Miller, Lakeland, Fla.
Application September 2, 1954, Serial No. 453,789
2 Claims. (Cl. 88—100)

1. In combination, a cabinet having a vertically elongated front mirror having sides, a horizontally elongated magnifying mirror having ends, a pair of strips at the sides of the front mirror having a first pair of grooves therein in which said sides of the front mirror are fixed, said strips having a second pair of grooves therein in front of said mirror, and leaf springs supporting the ends of the magnifying mirror and having portions bowed outwardly of said ends in the plane of the magnifying mirror frictionally engaging the bottoms of the grooves of the second pair to provide for sliding adjustment of said magnifying mirror.

2,780,961
DEVICES FOR MOVING OBJECTS SUCH AS AIRCRAFT CANOPIES
C Walton Musser and Francis W. Dietsch, Philadelphia, Pa., assignors to the United States of America as represented by the Secretary of the Army
Application May 7, 1953, Serial No. 353,701
11 Claims. (Cl. 89—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)

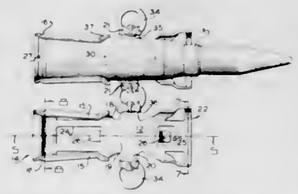


3. The combination, in a device for moving a cover from an opening in an object, of: an external tube closed at one end, but open at the opposite end, and adapted for connection to the object; a stop ring in said external tube's open end and defining in conjunction therewith an annular groove inside that tube's open end; an internal tube slidably fitting open end foremost through said stop ring and into said external tube so as to be movable axially relative thereto through that tube's open end, said internal tube's closed end being adapted for connection to the cover; an explosive cartridge in said internal tube for supplying, upon demand, sufficient energy to move said external and said internal tubes axially apart so as to move the cover from the opening; a latch in said internal tube for selectively engaging with the annular groove formed by said external tube and said stop ring so as releasably to lock said external and said internal tubes against relative axial movement; a firing pin slidably supported in said internal tube and interengaging with said latch for holding said latch in the locking position when that pin is in a retracted position, but for moving said latch to unlock said external and said internal tubes for relative axial movement and for acting subsequently on said explosive cartridge to cause release of the cartridge's energy while that pin is moved to a firing position; and initiator means for supplying energy to move said firing pin from the retracted to the firing position; whereupon said external and said internal tubes are moved axially apart by said explosive cartridge's released energy to move the cover from the opening in so doing.

2,780,962
BLAST SUPPRESSOR
Murray Ressler, Silver Spring, Md., and Howard S. Halpern, Washington, D. C., assignors to the United States of America as represented by the Secretary of the Navy
Application March 23, 1953, Serial No. 344,251
4 Claims. (Cl. 89—14)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A blast suppressor for rapid fire guns comprising; an elongated cylinder, a plurality of spaced notched rings mounted therein and forming a plurality of separate chambers with openings interconnecting adjacent chambers, a plurality of spaced longitudinally extending rods connected to the inner periphery of said rings and forming an open-ended suspended cage, said rods having a substantial portion thereof extending beyond said inner periphery of said rings for engaging and guiding the passage of a projectile therethrough in spaced relation with respect to said inner periphery of the rings, and said notches connecting each chamber for progressively dissipating the shock wave and high pressure projectile gases by expansion and turbulence therein.

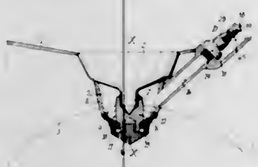
2,780,963
CARTRIDGE BELT LINK AND STRENGTH MEMBER THEREFOR
Paul H. Dixon, Rockford, Ill., assignor to the United States of America as represented by the Secretary of the Army
Application March 17, 1955, Serial No. 495,072
4 Claims. (Cl. 89—35)



2. A cartridge belt link comprising a generally semi-cylindrical body having a forwardly tapering cartridge-gripping portion at the rear end thereof adapted to resiliently engage a cartridge, a pair of opposed detents within the interior of said cartridge-gripping portion adjacent the rear end thereof and arranged to engage in the circumferential extractor groove at the rear end of the cartridge to prevent relative longitudinal movement therebetween, an arm of channeled cross-section extending arcuately from either side of said body forwardly of said cartridge-gripping portion and arranged to project slightly beyond the exterior rear end periphery thereof, a strength member having

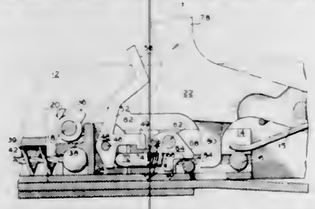
an oval body and a relatively narrow finger projecting arcuately from opposite sides thereof to lie within said channel-shaped arms, said fingers having inwardly turned terminal ends for resiliently engaging the ends of said arms to retain said strength member on said link body, and a connector member loosely engageable with each of said arms for joining the link to the one adjacent thereto.

2,780,964
BASE PLATE FOR MORTARS AND LIKE APPARATUSES
Joseph Raymond Jasse, Paris, France, assignor to Societe Nouvelle des Etablissements Brandt, Paris, France, a French body corporate
Application December 23, 1953, Serial No. 399,849
Claims priority, application France December 24, 1952
4 Claims. (Cl. 89—37)



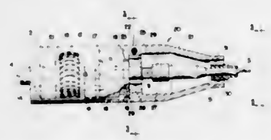
1. Base plate for supporting on the ground the gun of a firing apparatus such as a mortar, said base plate comprising in combination: a body adapted to bear against and anchor in the ground and serve as a support for said gun, said body containing a chamber which communicates with the exterior through at least one aperture provided in the bearing surface of said body and with the upper face of said body through two passageways, a valve movable relative to said body, having a surface of contact with the ground and adapted to close said aperture when said body is embedded in the ground, a powder charge and firing device which is disposed in one of said passageways at the end thereof communicating with the upper face of said body for causing a displacement of said valve relative to said body under the action of the pressure of the gases due to the firing of said powder charge by said firing device, and a venting device disposed in the other passageway for modifying the effect the gases from the powder charge have on the movable member.

2,780,965
FIRE CONTROL MECHANISM
William R. Kunz, Springfield, Mass., assignor to the United States of America as represented by the Secretary of the Army
Application October 14, 1954, Serial No. 462,405
6 Claims. (Cl. 89—154)
(Granted under Title 35, U. S. Code (1952), sec. 266)



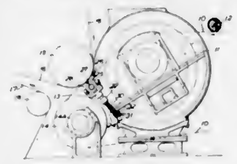
2. In a firearm having a receiver, a trigger mechanism including a hammer pivotally mounted in the receiver for reciprocation between a cock position and a fire position, a channel member fixedly mounted in the receiver rearwardly of said hammer and provided with longitudinal grooves therealong, a sear device mounted for sliding movement along said grooves between a latch position wherein said hammer is releasably held in said cock position and an unlatch position, means for biasing said sear device to said latch position, sear actuator means mounted in said channel member rearwardly of said sear device for sliding movement along said grooves, resilient means for biasing said sear actuator means towards said sear device, connector means for releasably engaging said sear actuator means to said sear device whereby said sear device is movable by said sear acuator means to said unlatch position, and an arm on said hammer cammingly cooperable with said connector means during movement of said hammer from said cock position to said fire position for disconnecting said sear device from said sear actuator means whereby said sear device is returnable to said latch position by said means for unlatching said hammer when actuated to said cock position.

2,780,966
ROUTER LUBRICATION ARRANGEMENT
Louis E. Frost, Torrance, and George J. Matey, Rolling Hills, Calif., assignors to North American Aviation, Inc.
Application April 6, 1953, Serial No. 347,096
3 Claims. (Cl. 90—12)



1. A router comprising a housing, a pneumatically operated motor in said housing, said housing having an inlet for receiving a mixture of pressurized air and oil for driving said motor, said housing including a portion arranged in exhaust-receiving relationship with said motor for receiving air and oil therefrom, a bearing at the end of said portion of said housing engageable by exhaust therein, chuck means in said housing rotatable by said motor, said chuck means being disposed inwardly from said bearing and in substantial alignment with the axis of said bearing, and a bit having a shank and a cutting portion, said shank being rotatably supported by said bearing, extending into said housing therefrom and engaging said chuck means for rotation thereby, said cutting portion being disposed exteriorly of said housing adjacent said bearing, said portion of said housing having exhaust aperture means around said bearing for directing said air and oil to the vicinity of said cutting portion.

2,780,967
PAPER-MAKING MACHINES
Harold Victor Dearden, Sheffield, England, assignor to Beloit Iron Works, Beloit, Wis., a corporation of Wisconsin
Application June 3, 1953, Serial No. 359,360
Claims priority, application Great Britain June 23, 1952
6 Claims. (Cl. 92—44)



1. An automatic vacuum transfer mechanism for paper-making machines comprising a couch roll, a forward drive roll, a forming wire extending in a run from the couch roll to the forward drive roll, a suction pick-up roll adapted to bring a transfer felt into web-contacting position with the upper side of the wire run, a short blow-roll mounted near one edge of the wire run on the opposite side to the pick-up roll in nip defining relationship thereto, said blow-roll including a perforated shell in rotatable contact with the wire and an internal chamber, with a communicating passage directed towards the front of the nip formed by the pick-up roll and the blow-roll.

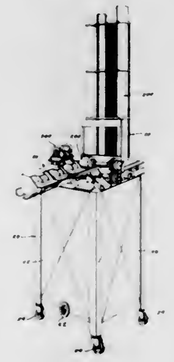
2,780,968
PAPER-MAKING MACHINES
Ralph Chalinor Heys, Sheffield, England, assignor to Beloit Iron Works, Beloit, Wis., a corporation of Wisconsin
Application August 30, 1952, Serial No. 307,271
Claims priority, application Great Britain September 1, 1951
2 Claims. (Cl. 92—49)

1. In a paper machine press section, in combination, a first press roll, a second press roll in nip defining relation thereto, a felt passing through the nip and carrying a web therethrough, a first sealing roll spaced from the press rolls and making sealing engagement with the felt, a second sealing roll making contact with said first sealing roll and one of said press rolls, and wall means outside the press rolls rotatably carrying both said sealing rolls, said wall means extending along and in sealing engagement with opposite edges of the felt from said sealing rolls to said one of said press rolls to define a chamber presenting an open mouth against the felt.

2,780,969
METHOD OF MANUFACTURING TUBULAR BAGS, ENVELOPES, AND LIKE CONTAINERS WITH FOLDED BOTTOMS
John William Randall, Hemel Hempstead, England, assignor to John Dickinson & Co., Limited, Hemel Hempstead, England, a British company
Application June 17, 1952, Serial No. 294,105
Claims priority, application Great Britain June 20, 1951
5 Claims. (Cl. 93—35)

1. A method of producing a tubular gusset folded satchel bag with a folded bottom, comprising the steps of making the said bag tube from a web of bag-making material by folding the longitudinal margins of the said web across the centre part thereof, cutting away a portion of each longitudinal margin so that when the said bag tube is formed the openings left by the said cut away portions combine to form a transversely extending slot-like opening in the bottom end fold area of one of the sides of the said bag tube through which the internal wall of the opposite side of the said bag tube is exposed, forming first and second gusset folds longitudinally of the said bag tube during the formation thereof, applying adhesive to the inner face of the said web in order internally to seal the said first formed gusset folds in the bottom end fold area of the said bag tube, shaping the said transverse opening so as to expose therethrough part of the face of each said second formed gusset fold, applying a stripe of adhesive to the formed bag tube along the entire length of the transverse edge of the said transverse opening formed in the bottom end fold area and in overlapping relation to the said edge so that the adhesive stripe is applied in part to the external wall of one side of the bag tube and in part to the exposed face of each said second formed gusset fold and internal wall of the opposite side of the said bag tube, and transversely folding over the bottom end of the said bag tube along a line within said opening to cover the said transverse opening thereby bringing the inturned face of the said bottom fold into contact with the said stripe of adhesive thus to seal into the bottom end fold of the said bag tube across substantially the entire width thereof.

2,780,970
MACHINE FOR SETTING UP BOTTLE CARTONS
Hermond G. Gentry, Atlanta, Ga., assignor to Atlanta Paper Company, a corporation of Georgia
Application August 11, 1953, Serial No. 373,476
15 Claims. (Cl. 93—53)

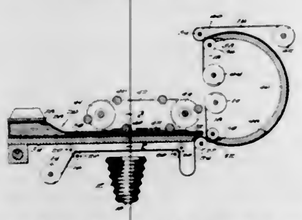


1. A machine for setting up collapsible bottle cartons of the type characterized by a central partition and handle portion, opposed pairs of end wall panels joined at each end of said partition and handle portion for respective folding medially outward and inward in relation to opposed side wall panels foldably joined between the outer edges of the end wall pairs, and having a bottom wall panel foldably joined between the lower edges of said side wall panels that is medially foldable outwardly in relation to said side wall panels and that is engageable by a locking notch formed in said partition and handle portion adjacent the lower edges of said inwardly foldable end wall panel pair for maintaining said collapsible carton erect when set up, said machine comprising means for advancing said bottle cartons successively in collapsed form horizontally to a set-up station with the outwardly foldable end wall panel pair leading, means at said set-up station for gripping said opposed side wall panels and moving them apart to erect position, means for pressing said leading end wall panel pair partially inward of said erect side walls and thereby forcing the opposite end wall pair outwardly thereof upon erection of said side walls, means for pressing said bottom wall inwardly adjacent said locking notch upon pressing of said end walls, and means for operating said gripping means and said first and second mentioned pressing means in the order stated and for then releasing said first mentioned pressing means and then said second mentioned pressing means.

2,780,971
AUTOMATIC SETTING DEVICE FOR PHOTOGRAPHIC CAMERAS
Paul Fahlenberg, Munich, Germany, assignor to Hans Deckel, Munchen-Solln, and Friedrich W. Deckel, Post Tutsing, Germany
Application June 26, 1952, Serial No. 295,737
11 Claims. (Cl. 95—10)

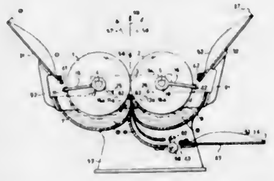
1. An automatic camera setting device, wherein either the setting of the stop or the setting of the speed is effected automatically in dependence upon all other factors governing exposure comprising in combination a camera shutter, shutter speed setting means and stop setting means on said shutter, a shutter release operator, an exposure meter, two resistances with sliding tap contacts, indicating pointers in operational relationship with said contacts, said sliding tap contacts being in operational relationship with said exposure meter and said camera shutter, respectively, said two resistances forming a bridge circuit, shutter speed and stop adjusting means electrically connected to the bridge circuit between said sliding tap contacts, said adjusting means being actuated by an unbalance of said bridge circuit and acting upon said setting means to bring said setting means and said exposure meter into corresponding positions, where the associated sliding tap contact is in operational relationship with said exposure meter as represented by the pointer thereof for establishing electrical connection with the corresponding resistance when said pointer is pressed towards said resistance by operation of said shutter release operator, whereby said exposure meter may move freely without load when said operator is not actuated.

2,780,972
PHOTOGRAPHIC APPARATUS AND PROCESS
Murry N. Fairbank, Belmont, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
Application September 29, 1953, Serial No. 382,944
11 Claims. (Cl. 95—13)



1. A photographic apparatus for exposing and processing a strip of photosentitive material, said apparatus comprising, in combination, means for superposing a first strip of photosensitive material on a second strip with a thin layer of processing composition therebetween, said processing composition being so constituted as to require the superposition of associated portions of said first and second strips for a predetermined processing time in order to effect the predetermined processing of said photosensitive strip, said predetermined processing including the transfer of reagents from said first strip to said second strip, said superposing means being adapted to superpose said first and second strips at a predetermined initial point of superposition, separation means for separating said first and second strips at a predetermined terminal point of superposition, means for feeding said superposed first and second strips between said initial and terminal points of superposition, support means providing a curved guide surface in contact with which said superposed first and second strips are advanced in a curved path between said initial and terminal points of superposition, said feeding means cooperating with said guide surface to advance said superposed strips along a curved path conforming to the curvature of said guide surface without variation in the curvature of said superposed strips and relative movement between associated surfaces of the superposed strips, and means for heating said support means to raise the temperature of the superposed first and second strips and the layer of processing composition therebetween as they are advanced in contact with said guide surface.

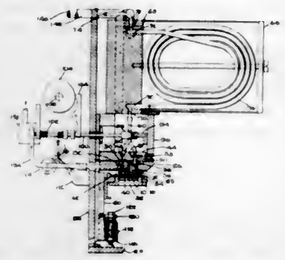
2,780,973
APPARATUS FOR CARRYING OUT A TRANSFER PROCESS
Frederik Nagels, Venlo, Netherlands, assignor to Chemische Fabriek L. van der Grinten N. V., Venlo, Netherlands, a company of the Netherlands
Application May 10, 1954, Serial No. 428,570
Claims priority, application Netherlands May 8, 1953
11 Claims. (Cl. 95—89)



1. An apparatus for carrying out a transfer process, comprising a pair of cooperating press rollers mounted with their surfaces contiguous to form a pressing zone through which sheet materials may be passed under pressure by rotation of said rollers, a reservoir for a transfer liquid, at least one of said rollers having a part of its surface ahead of said pressing zone immersed in the liquid space of said reservoir, a sheet clamping roller, means holding said clamping roller rollable relative to the surface of said immersed roller and swingable about the axis thereof so that it may be rolled over the leading edge of a sheet to press the same against said surface and advanced bodily with said surface toward said zone, and means for stopping the swinging movement of said clamping roller at an advanced position thereof from which continued movement of said surface will move the sheet beyond said clamping roller into said pressing zone.

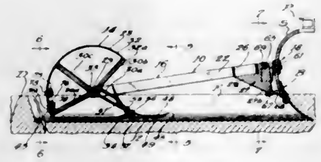
2,780,974
PHOTOGRAPHIC APPARATUS
Murry N. Fairbank, Belmont, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
Application January 9, 1953, Serial No. 330,463
7 Claims. (Cl. 95—89)

1. In an apparatus for processing exposed photographic film, the combination of means for supporting said film with its emulsion face up, cup means providing a recess and a peripheral lip surrounding said recess against which the emulsion face of said film is pressed, means, including a bore centrally located in said cup, for supplying a succession of heated processing liquids to said recess, suction means for removing said liquids successively from said recess as the film processing progresses, and inlet valve means communicating with the surrounding atmosphere for bleeding predetermined amounts of air through



said bore into said recess for agitating the processing liquids in said recess and purging said bore and recess of each of said fluids as the flow of each fluid is stopped.

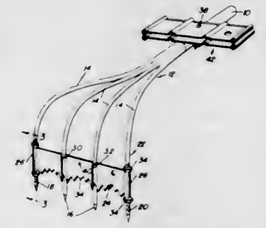
2,780,975
FURROW DAMMING IMPLEMENTS
Leslie E. Gunning, Lansford, N. Dak.
Application July 9, 1953, Serial No. 366,930
13 Claims. (Cl. 97—55)



1. A damming device for attachment to a furrow-forming implement in trailing relation thereto in a furrow formed by said implement and comprising draft means, supporting means freely rotatably mounted on said draft means and including a plurality of means projecting outwardly from the center of rotation, collecting means mounted on and carried by one of said projecting means for rotation therewith between a soil-accumulating position in engagement with the bottom of such a furrow and a soil-dumping position out of engagement with the bottom of said furrow, said collecting means being mounted on said one projecting means in position to project forwardly therefrom when in said soil-accumulating position, and elongated slide means mounted on and extending between said one projecting means and another of said outwardly projecting means in position to project rearwardly from said one means and said collecting means in longitudinally extending engagement with said bottom of said furrow when said collecting means is disposed in said soil-accumulating position.

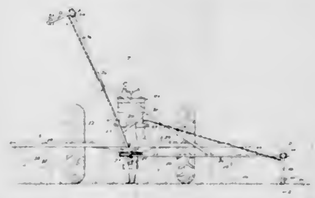
2,780,976
GARDEN TOOL
Herman J. Koering, Chisholm, Minn.
Application June 4, 1954, Serial No. 434,357
2 Claims. (Cl. 97—62)

1. A garden hoe comprising a handle and a head portion attached thereto, said head portion including a plurality of end and intermediate digging tines having straight coplanar digging portions and a cutting blade attached to the digging portions of the end tines, the end tines on said head being threaded throughout a substantial extent of their digging portions, said cutting blade having its opposite ends formed as straight sleeves receiving said digging portions of said end tines and slidably adjustable thereon, and nut members engaged on said digging portions of said end tines for adjustably positioning said blade toward and away from the free ends of said digging



portions, said blade between said digging portions being coplanar therewith.

2,780,977
AUTOMATIC BEDDING MARKER
Otis M. Browning, Paducah, Tex.
Application December 20, 1955, Serial No. 554,364
4 Claims. (Cl. 97—230)



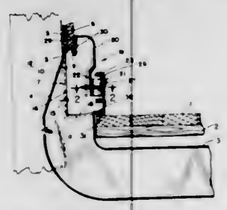
3. In an automatic marking device, a draw-bar, a rod extending rearwardly from said draw-bar and including a rearwardly arranged offset portion, a finger secured to said offset portion, a body member including a pair of arms arranged angularly with respect to each other and secured together, there being an aperture in the central portion of said body member for receiving said finger, a cross piece ejtending between said arms and secured thereto, a pair of braces extending between said cross piece and arms and secured thereto, a horizontally disposed vertically adjustable beam arranged forwardly of said body member, a pin extending rearwardly from said beam for engagement with said braces as said beam is adjusted vertically, plows arranged contiguous to the outer ends of said arms, and means adjustably connecting said plows to said arms, said means comprising standards extending upwardly from said plows, U-bolts engaging said standards and arms, plates connected to said U-bolts, and chains having their rear ends connected to said standards and their front ends adapted to be connected to the front portion of a tractor.

2,780,978
VENTILATOR RAIN BAFFLE FOR ROOF EAVES
Harold T. Peirson, Miami, Fla.
Application September 21, 1953, Serial No. 381,369
4 Claims. (Cl. 98—37)

1. In a rain water baffle for an eave ventilator opening frame, the combination therewith of a pair of horizon-

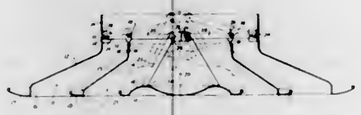
tally-disposed and vertically spaced superposed sheets each having a plurality of orifices formed therein, the orifices in one sheet being staggered in relation to those in the other sheet, a corresponding plurality of air nozzles formed integrally with said sheets and extending downwardly therefrom to define said orifices at the top of the nozzles, the bottom ends of said nozzles in the upper sheet terminating in spaced relation to the sheet therebelow and the downward extension of said nozzles being not less than the greatest diameter therethrough, and means securing said sheets in vertically-spaced relation and in said ventilator opening frame.

2,780,979
BASEBOARD CONSTRUCTION
William C. De Roo, Holland, Mich., assignor to Hart & Cooley Manufacturing Co., Holland, Mich., a corporation of Delaware
Application June 14, 1951, Serial No. 231,585
8 Claims. (Cl. 98—40)



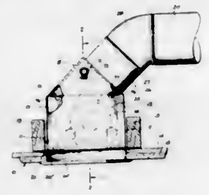
1. A baseboard construction for perimeter heating of an enclosed area having a floor and walls comprising an elongated back plate secured to the studding of the wall, the upper longitudinal edge of said plate terminating adjacent the lower edge of the wall spaced upwardly from the floor and the lower longitudinal edge of said plate terminating adjacent the edge of the floor, an upper face plate disposed forwardly of and spaced from said back plate and extending downwardly from the lower edge of the wall, the upper edge of said upper face plate being in contact with the wall, a lower face plate extending upwardly from the floor and spaced forwardly of said upper face plate, whereby air from behind said face plates will be directed into the room through the space therebetween, and means for varying said last named space to control the amount of air passing therethrough.

2,780,980
ADJUSTABLE AIR DISTRIBUTION UNIT
Walter W. Kennedy, Rockford, Ill., assignor to Barber-Colman Company, Rockford, Ill., a corporation of Illinois
Application May 5, 1953, Serial No. 353,111
4 Claims. (Cl. 98—40)



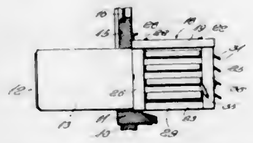
1. An air distribution unit having, in combination, means defining a plurality of generally concentric annular air passages including an outer deflector and successively smaller intermediate and inner deflectors, angularly spaced bars extending generally radially of the outer deflector and having inner ends terminating adjacent the center of the unit and outer ends disposed adjacent said outer deflector, a member movable axially of said unit, pivot joints at the outer and inner ends of each of said bars connecting the same to said outer deflector and said member respectively for relative swinging about parallel axes normal to the axis of the unit, one of said joints including a slot elongated in a direction longitudinally of the bar, means intermediate the ends of said bars pivotally connecting the same to said intermediate deflector and means for resisting flexing of the other of said joints comprising opposed surfaces surrounding the axis of such joint and carried by different parts thereof so as to turn relative to each other upon swinging of said bars, and spring means urging said surfaces toward each other.

2,780,981
VENTILATING APPARATUS
John K. Miller, Seattle, Wash.
Application September 30, 1953, Serial No. 383,265
9 Claims. (Cl. 98—43)



1. A room ventilator of the character described comprising a box-like housing, open at its lower end and adapted to be secured at that end in an opening in the ceiling of a room, and having a ridge shaped top, one side of which top is sloped at an angle of 45° relative to a horizontal plane and is formed with a circular opening, an air discharge spout fixed to said top about said opening, and extended outwardly therefrom at a 45° angle relative to a horizontal plane, a 45° elbow fitted to the discharge end of said spout and adjustable thereon to positions for connection with a vertical or with a horizontal discharge pipe, a blower means in the housing including a blower fan that is operable for the indrawing of air through the open end of the housing, a housing for the blower fan equipped with a tubular discharge spout extended with clearance through said opening in the top of the ventilator housing, a resilient gasket fitted within said opening about the blower spout to seal the joint, and a damper plate hingedly mounted in the air discharge spout to close automatically under its own weight over the blower spout when the blower is not in operation and to open under pressure of air discharged from the blower housing spout.

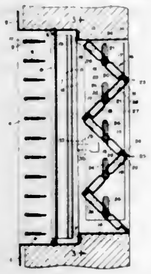
2,780,982
COVER FOR AIR CONDITIONING UNIT
Grover C. Malone and Bert L. Malone, Memphis, Tenn.
Application June 25, 1954, Serial No. 439,442
2 Claims. (Cl. 98—94)



1. A device of the character described comprising a top, a front wall, a pair of side walls, a series of louvers pivotally mounted in each of said walls, and means for selectively latching each series of louvers in open and closed position, said means comprising a flat latch for each wall, said latch pivoted at one end to its associated wall and

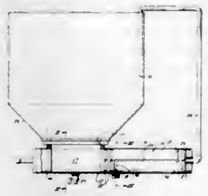
adapted to selectively have its other end bear against the outer side of one of its associated louvers and to support the underside of one of its associated louvers when the latter is in open position.

2,780,983
VOLUME CONTROL FOR REGISTERS
William C. De Roo, Holland, Mich., assignor to Hart & Cooley Manufacturing Co., Holland, Mich., a corporation of Delaware
Application May 12, 1954, Serial No. 429,293
9 Claims. (Cl. 98—110)



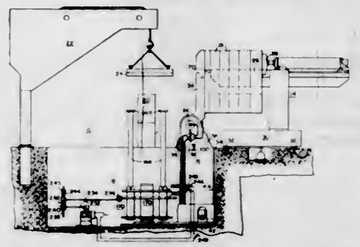
1. A volume control device for regulating air movement through registers and the like comprising, a frame, a plurality of damper blades hollow throughout the length thereof and extending between opposed sides of said frame in parallel and adjacent relationship, pivot means mounting each of said blades for rotation about a longitudinal axis substantially midway between the edges thereof, and operating means extending into each blade between the sides thereof for simultaneously rotating adjacent blades in opposite directions between open and closed positions.

2,780,984
SEDIMENT REMOVER FOR DEEP FRYING
Edward W. Kleeman, Crafton, Pa.
Application January 18, 1954, Serial No. 404,726
3 Claims. (Cl. 99—408)



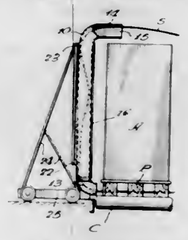
1. A trap valve attachment for frying receptacles comprising a cylinder and a support for holding the cylinder in a horizontal position at the bottom of the receptacle, a plunger rotatable in the cylinder and slidable therein from a retracted to an extended position, the cylinder having a port in the top thereof through which material may enter the cylinder from the receptacle, the plunger having a cavity therein which registers with the port only when the plunger is rotated in retracted position and having an extension which closes said port when the plunger is in extended position, and interfitting means on the plunger and cylinder for restraining said plunger from sliding movement out of retracted position until it is rotated sufficiently to move said cavity out of register with said port and for holding said plunger against rotation at positions between its retracted and extended positions and allowing rotational movement through a limited arc only at the retracted and extended positions.

2,780,985
APPARATUS FOR HANDLING COILS
Edward A. Laine, Leechburg, Pa., assignor to Allegheny Ludlum Steel Corporation, Brackenridge, Pa., a corporation of Pennsylvania
Application August 25, 1955, Serial No. 530,463
12 Claims. (Cl. 100—14)



1. In apparatus for handling strip coils to facilitate the banding thereof, the combination comprising, arm means for carrying a supply of slit strip coils with their faces in susbtantially vertical parallel relation, a rotatable arm disposed for movement between an upwardly extending vertical position and a horizontal position, means for effecting movement of the rotatable arm between the vertical position and the horizontal position, a shoe support pivotally carried by the rotatable arm, means actuated by movement of the rotatable arm to the upwardly extending vertical position to effect pivotal movement of the shoe support to extend outwardly therefrom in alignment with the coil carrying arm means to receive the end slit strip coil therefrom and to maintain said end coil in supported relation on the rotatable arm, said shoe support actuating means also being disposed to be actuated by movement of the rotatable arm to the horizontal position to effect pivotal movement of the shoe support to release the slit strip coil when the rotatable arm is in the horizontal position, and a coil support member disposed to receive the slit strip coil when the rotatable arm is in the horizontal position to thereby free the slit strip coil from the rotatable arm.

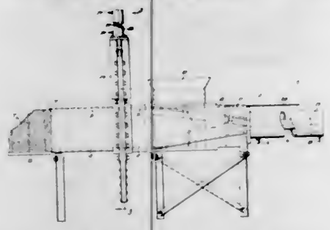
2,780,986
APPARATUS FOR GUIDING PACKAGING STRAPS
Gerald Ritenour, Bensonville, Ill., assignor to The Richardson Company, Melrose Park, Ill., a corporation of Ohio
Application July 30, 1954, Serial No. 446,715
2 Claims. (Cl. 100—25)



1. An apparatus for use in banding a package with a strap comprising a supporting frame movably mounted for movement relative to said package, an L-shaped channel member having a rectangular cross section secured to said frame and having an open side directed toward said package, a longitudinal flange extending inwardly from the outer edge of each of the sides of both legs of said L-shaped channel member and forming a longitudinal opening therebetween, a flexible non-metallic flap secured to one of said flanges of the longer leg of said L-shaped channel member and covering the longi-

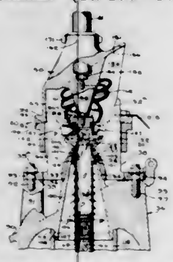
tudinal opening of said longer leg, and an arcuate channel-shaped scoop-like member attached to the end of the longest leg of said L-shaped channel member whose open end is disposed substantially normal to the longest leg of said L-shaped channel member and constitutes a flared continuation thereof to facilitate insertion of said strap in said L-shaped channel member.

2,780,987
WOOD FLOUR PRESS—METHOD, APPARATUS, AND PRODUCT
Howard M. Wall, Portland, Oreg., assignor to Portco Corporation, Portland, Oreg., a corporation of Oregon
Application January 12, 1953, Serial No. 330,861
5 Claims. (Cl. 100—35)



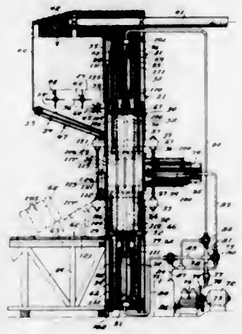
1. The method of making coherent blocks from wood flour in which blocks the fine fibrous particles of said flour are mechanically interlocked without and adhesive binder into a loose dry felted structure which is self-sustaining but which can readily be disintegrated to separate said particles, said method comprising forming each of said blocks by introducing a charge of said flour into a tubular compression chamber, compressing said charge between end walls of said chamber, one of which is movable into said chamber with sufficient endwise pressure to effect said interlocking of said particles while subjecting said charge to lateral restraint by the side walls of said chamber and thereafter releasing said end-wise pressure while maintaining said lateral restraint and discharging the resulting block from said chamber by forcing said resulting block endwise from said chamber into the entrance of a tubular passage, forming an end-wise continuation of said chamber and containing a series of previously formed blocks so as to advance said previously formed blocks through said passage and maintaining said lateral restraint upon said resulting block while it is being forced from said chamber and for a period of time while it is in said passage.

2,780,988
METHOD OF AND APPARATUS FOR PROCESSING WHOLE FRUIT
Wilber C. Belk and Elmer F. Frost, Jr., Lakeland, Fla., assignors to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application February 24, 1953, Serial No. 338,234
8 Claims. (Cl. 100—37)



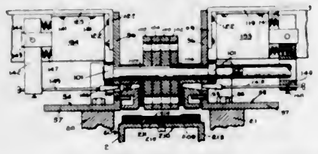
1. The method of processing citrus fruit which comprises making an incision in the rind of said fruit, forming an opening in the rind of the fruit opposite said incision, applying compressive forces to the rind surface of the fruit at a zone outside said incision, outside said opening and outside a relatively narrow space immediately adjacent said incision to progressively reduce the volume of said fruit and expel the juice from said fruit through said opening, and continuing the application of said compressive forces to the fruit to discharge the rind from the zone of compression through said narrow space.

2,780,989
WOOD WASTE SHAVING AND SAWDUST BALER
Clarence J. Guy, Laneville, Tex., assignor of one-half to R. H. Guy, Laneville, Tex.
Application March 4, 1953, Serial No. 340,270
4 Claims. (Cl. 100—218)



1. In a machine for baling wood shavings, a frame, a receiving platform arranged contiguous to the lower end of said frame, a baling chamber arranged in said frame, a pair of cylinder heads slidably mounted in said frame for movement towards and away from each other, springs for urging said heads away from each other, an ejector mounted for movement transversely through said baling chamber to eject the bales therefrom, hydraulic means for actuating said ejector and cylinder heads, doors hingedly connected to said frame, locks for maintaining the doors in closed position, each of said heads being provided with a plurality of slots in its inner surface, grid bars for vertical sliding movement mounted in said slots, said bars being disposed in the same plane as that of the head but being depressed in said slots as the heads reach their end positions of compression, and means extending through said heads and connecting said grid bars to said frame.

2,780,990
PARIMUTUEL TICKET PRINTING MACHINE
Arnold B. Gerhan, San Francisco, Calif.
Application June 25, 1949, Serial No. 101,428
14 Claims. (Cl. 101—93)



1. In a ticket printing and dispensing machine, a printing mechanism comprising a platen and a plurality of printing type having coplanar printing faces, said type being spaced from said platen for insertion of the ticket to be printed between said faces and said platen, means for selectively supporting certain only of said type and said platen for relative movement of said platen and said certain of said type into effective printing relation of said faces with said ticket at the plane of said coplanar faces for printing on said ticket by said faces, said type being arranged in spaced rows, means for supporting said ticket in a position for printing of said faces of said co-planar type along the marginal portions of said ticket, annular rows of type supported over said ticket, the printing faces of certain only of the type of said annular rows being in a printing position coplanar with the printing faces of said spaced rows of type for printing simultaneously with said last mentioned faces, and means supporting the type of said annular rows for movement to said printing position as desired.

2,780,991
CUSHION SHEET FOR STENCIL SHEET ASSEMBLIES
Thomas U. Marron, Chicago, and Keith S. Hoover, Elmhurst, Ill., assignors to A. B. Dick Company, Niles, Ill., a corporation of Illinois
Application February 2, 1951, Serial No. 209,078
1 Claim. (Cl. 101—128.2)

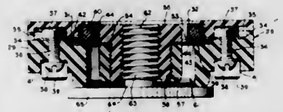
In the combination with a stencil sheet, a cushion sheet underlying the stencil sheet comprising a base sheet dimensioned to correspond with the stencil sheet, a continuous coating on the side of the base sheet adjacent the stencil sheet when in position of use, said cushion sheet having an overall pattern of embossments linearly arranged in parallel relation and spaced from 1/16 to 1/2 inch one from the other with valleys therebetween that minimize contact between the coated side of the cushion sheet and the stencil sheet to reduce adhesion and the possibility of lamination between the two adjacent surfaces and to reduce wrinkling in said sheets.

2,780,992
FIRING MECHANISM FOR A DEPTH CHARGE
Ronald O. Beach, Washington, D. C.
Application August 18, 1945, Serial No. 611,432
9 Claims. (Cl. 102—7)
(Granted under Title 35, U. S. Code (1952), sec. 266)

5. In a firing circuit for a depth charge adapted to be armed as the depth charge descends through a body of water, the combination of hydrostatic means for arming said circuit, an electroresponsive detonator included in said circuit, means connected in the firing circuit and effective when immersed in salt water for generating electrical energy for firing said detonator when the circuit is completed, a water-tight housing for said generating means, said housing having a diaphram formed integrally therewith and adapted to be ruptured by the pressure of the surrounding water thereby to admit water to the generating means, and hydrostatically controlled means for completing said firing circuit after the circuit has been armed.

8. A pressure responsive device comprising in combination, means movable in response to hydrostatic pressure, a contact element carried by said movable means, an annular contact settable at will to different settings, a plurality of steps on said annular contact for engagement with said contact element as the movable means is moved from an initial position to a selected position, and means for moving said annular contact to a selected setting.

2,780,993
ELECTROLYTICALLY CONTROLLED EXTENDER DELAY DEVICE FOR A MINE
John C. Goff, Silver Spring, Md., assignor to the United States of America as represented by the Secretary of the Navy
Application December 24, 1952, Serial No. 327,944
3 Claims. (Cl. 102—16)
(Granted under Title 35, U. S. Code (1952), sec. 266)

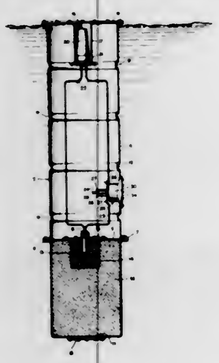


1. In a marine mine having a releasably locked extender therein adapted to be actuated to an armed position when released, the combination of an electrolytic cell secured to said mine and having an anode and cathode arranged therein, said anode and cathode being rendered effective by the sea water to decompose said cathode by electrolysis when a predetermined period of time has elapsed after the mine has been planted in the water, means slidably arranged on said mine for establishing an electrical connection between said anode and cathode as the slidable means is moved into engagement therewith, yieldable means in engagement with said slidable means for moving the slidable means into engagement with the anode and cathode, means in engagement with the extender and slidable means for releasing the extender when said cathode has been decomposed and the slidable means is forcibly ejected from the mine by the yieldable means, and pressure responsive means for moving the extender to said armed position.

2,780,994
FREE FLOATING MINE
Ralph D. Bennett, United States Navy, Silver Spring, Md.
Application October 1, 1946, Serial No. 700,541
2 Claims. (Cl. 102—18)
(Granted under Title 35, U. S. Code (1952), sec. 266)

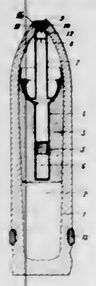
1. In a free floating mine of the character disclosed, the combination of an elongated cylindrical casing having an annular rib of greater diameter than the casing formed at one end thereof, a circular plate of the same diameter as the outer diameter of said rib and hermetically sealed thereto forming an air chamber, an explosive charge arranged within an end portion of said casing in a manner to weigh the said casing so as to cause it to float awash in an upright position within the water with the plate uppermost, an electroresponsive detonator adapted when energized to explode said charge, and a circuit for energizing said detonator, an inertia generator arranged in said circuit and comprising a permanent magnet for setting up a magnetic field, a voltage generating induction coil positioned in said field, frustum shaped magnetic means tiltable in response to a light

lateral impact applied to said plate for changing said field sufficiently to energize said detonator by the voltage induced in said coil, and a cylindrical support for se-



curing the generator to the upper end of said casing, said support encircling said magnetic means and carried interiorly by said plate in closely spaced adjacency therewith and coaxially disposed with respect to said casing.

2,780,995
PROJECTILE WITH EXTRA-SENSITIVE HEAD
Etereo Migliaccio, Colleferro, Rome, Italy, assignor to Bombrini, Parodi Delfino S. p. A., Rome, Italy, an Italian company
Application May 4, 1953, Serial No. 352,702
Claims priority, application Italy July 9, 1952
8 Claims. (Cl. 102—66)



1. A projectile with an extra-sensitive nose fuze comprising a shell, an incendiary charge contained in the shell and abutting against the bottom thereof, a bursting charge contained in the shell and supported by the said incendiary charge, a detonator metal casing located within said bursting charge and a detonator in said casing, said detonator casing having the form of a cylindrical tube terminating in its upper portion in the form of a cup, the outer surface of said cup having a portion in contact with the upper surface of said bursting charge and a portion in contact with the inner surface of said shell at the zone where the shell has an ogival shape, an extra-sensitive head applied to the upper end of said shell to transmit the ignition to said detonator and bursting charge when the projectile strikes a target, said extra-sensitive nose fuze comprising a metal socket containing a detonating charge, an igniting mixture which supports said detonating charge and a supporting disc of inert material closing the downward side of said extra-sensitive head, said detonating charge of the extra-sensitive fuze being fired by direct impact against the target.

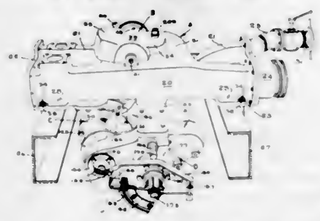
2,780,996
ROCKET PROPELLANT CHARGE AND LINER THEREFOR
Robert L. Hirsch, Glendale, Clyde F. Miller, Arcadia, and Anthony Bellin, Pasadena, Calif., assignors, by mesne assignments, to Aerojet-General Corporation, Cincinnati, Ohio, a corporation of Ohio
Application October 28, 1947, Serial No. 782,608
9 Claims. (Cl. 102—97)

1. A liner for a thermosetting alkyd-vinyl resin and inorganic perchlorate type of charge comprising a mixture of polyamide resins composed of the polymerization products of ethylene diamine with an acid selected from the group consisting of linoleic and linolenic acids and a non-drying modified alkyd resin comprising condensation products of polycarboxylic acid and polyhydric alcohol modified by a substance selected from the group consisting of saturated fatty acids, acids of low degree of unsaturation and non-drying vegetable oils.

2,780,997
SMOKELESS POWDER GRAINS AND METHOD OF MAKING SAME
William O. Baker, Morristown, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
No Drawing. Original application January 11, 1950, Serial No. 138,073, now Patent No. 2,668,132, dated February 2, 1954. Divided and this application May 22, 1953, Serial No. 358,216
1 Claim. (Cl. 102—98)

The process of producing a smokeless powder grain of great physical strength consisting of extruding a cellulose nitrate composition under high shear sufficient to produce detectable orientation of the molecules from X-ray scattering of the extruded composition to form a ribbon, drying said ribbon extrusion, maintaining said ribbon extrusion under tension while drying thereby imparting a uniaxial orientation to the cellulose nitrate molecules thereof, dividing the ribbon thus formed into wafers, and laminating said smokeless powder wafers to form said grain with diversified axes of uniaxial molecular orientation such that said grain has the characteristics of uniform combustion without fracture and fragmentation.

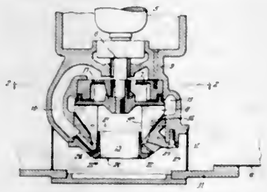
2,780,998
FIRE PUMP
William H. Cilker, Los Gatos, Calif., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application March 12, 1951, Serial No. 215,060
10 Claims. (Cl. 103—106)



1. A series parallel pump comprising a pair of impellers, a main inlet conduit and a main outlet conduit,

a valve housing having two spaced wall portions enclosing separate valve chambers, each of said wall portions having a plurality of ports therein, a first pair of said ports opening one from each of said wall portions to one of said impellers, a second pair of said ports opening one from each of said wall portions to one of said main conduits, a third pair of said ports opening to each other, and valve means mounted in the chambers of said valve housing for movement between predetermined adjusted positions therein, said valve means being constructed and arranged, in one adjusted position thereof, openly to communicate each of said first ports with said second port in the same wall portion therewith while closing off said third ports, and in another adjusted position of said valve means openly to communicate each of said first ports with said third port in the same wall portion therewith while closing off said second ports.

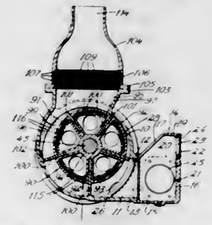
2,780,999
FUEL BOOSTER PUMP
James A. Compton, South Euclid, and Albert Paul, Cleveland, Ohio, assignors to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application December 12, 1951, Serial No. 261,296
4 Claims. (Cl. 103—113)



1. A combined fuel booster and vapor eliminating pump for pumping volatile fuels, including a pump casing having a centrifugal pumping chamber formed therein and an inlet and an outlet port connected to said chamber, a centrifugal impeller rotatably mounted in said chamber and having blades conforming to the contour of said chamber, an elongated sleeve mounted in said inlet port and providing at its inner surface an inlet throat, a portion of said sleeve extending into said chamber in overlapping relation with said impeller to prevent the return of vapor to the center of said impeller, the outer wall of said portion of said sleeve defining with the adjacent inner wall of said casing a vapor trapping recess, a portion of said blades extending into said trapping recess to provide communication between said recess and the remainder of said blades, and passage defining means for permitting vapor trapped in said recess to escape therefrom, said trapping recess being located radially inwardly of the maximum diameter of said chamber.

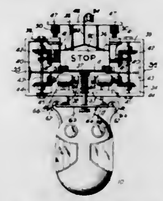
2,781,000
FOAM PUMP
David F. Thomas, West St. Paul, and Robert A. Hill, Minneapolis, Minn., assignors to Waterous Company, St. Paul, Minn., a corporation of Minnesota
Application December 30, 1955, Serial No. 556,718
7 Claims. (Cl. 103—136)

1. A foam pump including an inlet chamber having a liquid inlet port and an air port, a rotor housing communicating with said intake chamber to receive liquid and air therefrom, a rotor within said housing, means rotatably supporting said rotor eccentrically with respect to the axis of said housing, vanes slidably supported in said rotor, said vanes having outer ends slidable against the inner surface of said housing, an outlet passage in said rotor housing, and rib means bridging said outlet passage, the inner surface of said rib means forming a continuation of the inner surface of said rotor housing against which the outer ends of the vanes engage for



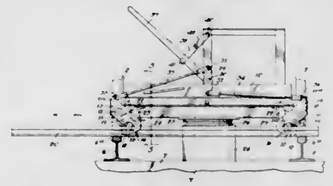
retraction, said rib means extending spirally across said outlet passage.

2,781,001
SUSPENDED RAPID TRANSIT RAILWAY SYSTEM
Alphonso Davino, Los Angeles, Calif.
Application August 28, 1950, Serial No. 181,825
2 Claims. (Cl. 104—89)



2. A suspended railway comprising a pair of substantially parallel channel shaped tracks arranged with their channels opening upwardly, means extending between the channels and upwardly therefrom for supporting said tracks in elevated position, a railway car, an upstanding U-shaped yoke pivoted to the top of the car, a wheel on the inner side of each leg of said yoke mounted for rotation so the tread of each wheel runs in the corresponding channel, and power means for driving the wheels, a bar cross member substantially parallel to the bight portion of the U-shaped yoke and therebelow and supported therefrom and each end projecting laterally outwardly from the pivot, hook members secured to each side of the car laterally of the pivot with the hooks thereof overlying the ends of said bar cross member and normally having the free extremity thereof adjacent to and spaced a small amount from said bar cross member.

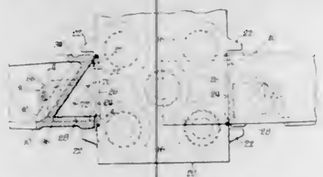
2,781,002
POSITIONING AND REMOVING DEVICE FOR RAILROAD MACHINE
Henry H. Talboys, Milwaukee, Wis., assignor to Nordberg Manufacturing Company, Milwaukee, Wis., a corporation of Wisconsin
Application August 16, 1952, Serial No. 304,827
7 Claims. (Cl. 105—177)



1. An anchoring and elevating device for use with railroad machines, including an element having one end portion adapted to be pivotally mounted for movement about an axis upon the machine frame, a rail engaging

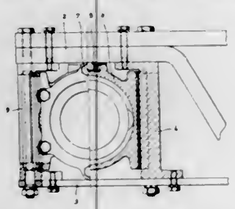
portion at the other end of said element, said rail engaging portion being formed and adapted to move into gripping engagement with a track rail upon movement of the element from an inoperative position to an operative position, and a roller journaled for rotation intermediate the rail engaging portion and the pivotal end portion of the element, said roller being rotatable about an axis extending generally parallel to said first axis and being formed and adapted to support the machine upon a transverse rail upon movement of the element from inoperative position to operative position.

2,781,003
SNUBBED BOLSTER TRUCK
Robert B. Cottrell, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application December 17, 1952, Serial No. 326,537
18 Claims. (Cl. 105—197)



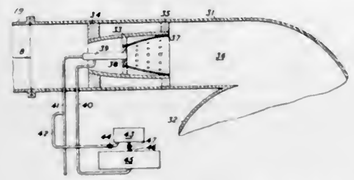
1. In a railway car truck, a side frame comprising tension and compression members, spaced columns integral with said members and defining therewith a bolster opening, said columns having inboard and outboard walls, a cradle spring seat on said tension member at the lower end of said opening, coiled load springs on said seat extending into said opening, a bolster having an end disposed between said columns within said opening and seated on said springs, vertical friction plates carried by said bolster in areas immediately adjacent the respective columns, an opening in each column adjacent each of said friction plates, each column opening communicating with a column pocket, vertically spaced wedge walls bridging said inboard and outboard walls and defining upper and lower limits of said pocket, converging wedge segments on said wedge walls extending diagonally between said inboard and outboard walls, a friction shoe in each of said pockets having wedge surfaces complementally engaging said wedge segments, compressed spring means engaged between said outboard walls and the shoes to urge the shoes into wedged engagement with said wedge segments and into frictional engagement with said plates.

2,781,004
JOURNAL BOX MOUNTING FOR ROLLER AXLE BEARINGS
Georg Rösch, Schweinfurt, Germany
Application June 29, 1954, Serial No. 440,210
Claims priority, application Germany July 4, 1953
4 Claims. (Cl. 105—221)



3. An arrangement for mounting an axle box between the upper and lower chord members of a truss bogie, comprising an axle box including a roller type axle bearing assembly disposed between and substantially contiguous with said upper and lower chord members, a first guide plate of substantially U-shaped cross-section disposed between said upper and lower chord members, said first guide plate including upper and lower substantially horizontal flanges removably fastened to said upper and lower chord members, respectively, and said first guide plate further including a substantially vertical web between said flanges engaging one side of said axle box, a second guide plate of substantially Z-shaped cross-section disposed between said upper and lower chord members, said second guide plate including upper and lower substantially horizontal flanges fastened to said upper and lower chord members, respectively, and said second guide plate further including a substantially vertical web between said flanges engaging the other side of said axle box, said axle box defining a spring-clip bore adjacent said upper chord member, and a peg-like projection fastened to said upper chord member and extending into said spring-clip bore.

2,781,005
METHOD OF REDUCING VANADIUM CORROSION IN GAS TURBINES
Tristram Allan Taylor, Countesthorpe, Leicester, John James Macfarlane, Cove, Farnborough, and Norman Stephenson, Narborough, near Leicester, England, assignors to Power Jets (Research and Development) Limited, London, England, a British company
Application June 27, 1951, Serial No. 233,796
Claims priority, application Great Britain June 28, 1950
16 Claims. (Cl. 110—1)

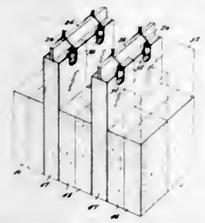


1. In a gas turbine plant in which fuel oil containing vanadium and sulphur is burnt and which includes heat-resisting metallic parts exposed to the resultant stream of hot combustion gases at a temperature in excess of 650° C. and normally liable to be corroded by the vanadium pentoxide content of the ash resulting from the combustion of said oil, the method of reducing said corrosion comprising the step of introducing into the plant upstream of said parts an additive selected from the group consisting of magnesium and zinc oxides and magnesium and zinc compounds yielding the oxide at the temperature of said hot combustion gases, the quantity of additive introduced being such that the molecular ratio of the minimum oxide content thereof to the vanadium pentoxide content of the ash is 3 to 1.

2,781,006
REFRACTORY WALL AND ROOF MAKING
Russell Pearce Heuer, Villanova, Pa., assignor to General Refractories Company, a corporation of Pennsylvania
Application September 10, 1952, Serial No. 308,749
4 Claims. (Cl. 110—99)

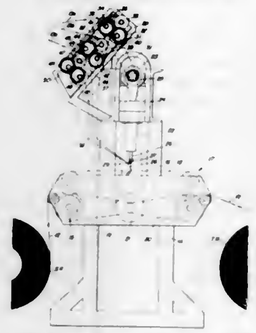
2. In a refractory roof, a plurality of spaced rows of relatively elongated basic refractory brick having their major axes vertical and having oxidizable metallic plates comolded with the brick and united thereto on opposed side surfaces of each row, the plates having at the sides adjacent the upper ends recesses accessible at the sides and the upper ends, at least one row of first relatively short brick between the rows of relatively elongated brick,

the top of relatively short brick in said rows of first relatively short brick being disposed below any of said plate recesses which are located at a position in the adjacent rows of said relatively elongated brick corresponding to the position of the supplemental relatively short brick



herein below referred to, and at least one row of supplemental relatively short brick above the first relatively short brick between the rows of relatively elongated brick, the supplemental relatively short brick having projections engaging in the recesses in the plates of the relatively elongated brick.

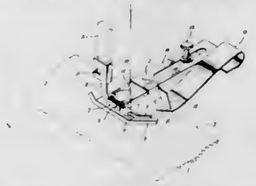
2,781,007
APPARATUS FOR MAKING PILE FABRICS
Roscoe Lee Thompson, La Grange, Ga., assignor to Calloway Mills Company, La Grange, Ga., a corporation
Application March 17, 1953, Serial No. 342,793
1 Claim. (Cl. 112—79)



In a tufting machine having a plurality of reciprocating needles for inserting pile yarns into a backing sheet, means for releasably holding the pile yarns inserted into the backing sheet to form loops, a plurality of rotatable yarn feed rolls each arranged to feed a group of the pile yarns to a group of said needles, each of said yarn feed rolls having a driven gear fixed for rotation therewith with the center of the gear being eccentric to the axis of rotation of its respective feed roll, each of said driven gears having a drive gear meshing therewith with the center of the drive gear being eccentric to its axis of rotation, and means for driving said drive gears to cause each yarn feed roll to advance its respective group of yarns to their respective needles at continuously varying rates.

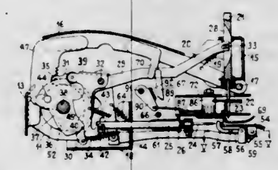
2,781,008
GUIDE MEANS FOR SEWING MACHINES
Ruth A. Nielsen, Freeport, Tex.
Application August 31, 1954, Serial No. 453,199
3 Claims. (Cl. 112—151)

1. Guide means for sewing machines comprising, in combination with a pressure foot, a bar disposed horizontally at right angles to the pressure foot and rigidly connected thereto at one end, and a guide member adjustably mounted on the bar whereby it may be advanced and retracted with respect to the pressure foot, the guide member including a portion which slidably engages the bar and a resilient, elongated, spring-like portion disposed generally parallel to the bar engaging portion and adjacent one side thereof, one side of the spring-like portion being connected, adjacent one end thereof, to the adjacent side



of the bar engaging portion adjacent the outer end thereof, the spring-like portion being folded upon itself adjacent its connected end and the free end thereof extending inwardly toward the pressure foot and being inclined downwardly and means on said spring-like portion extending upwardly therefrom forming a guiding surface mediate the ends of said spring-like portion and inclined upwardly toward the other end thereof.

2,781,009
APPARATUS FOR ATTACHING FLEXIBLE TIE ELEMENTS TO THE EDGE OF THIN SHEETS OR WEB STRUCTURES
Hans Spahr, Zurich, Switzerland
Application November 27, 1953, Serial No. 394,791
Claims priority, application Switzerland November 28, 1952
11 Claims. (Cl. 112—169)

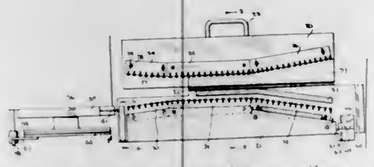


1. In an apparatus for feeding a filament to the selvage of web material and transforming said filament to a stringing tag and having mechanism including a first reciprocable needle for moving said filament through said selvage and forming a loop thereon, further having erector means to tilt said loop about said selvage, and a second reciprocable needle operable for threading a portion of said filament through said loop to obtain said tag; a housing for said mechanism, said housing conforming approximately to the palm of an operator's hand and including a fixed portion, in which said mechanism is mounted and a movable portion pivotally secured to said fixed portion, spring means normally urging said movable portion away from said fixed portion, and means operatively connecting said movable portion with said mechanism, whereby upon grasping said machine and closing the hand against the action of said spring means said movable portion is displaced relative to said fixed portion to actuate in sequence said first needle, said erector means and said second needle.

2,781,010
NECKTIE SEWING MACHINES
Victor M. Newman, New York, N. Y.
Application October 11, 1955, Serial No. 539,906
4 Claims. (Cl. 112—174)

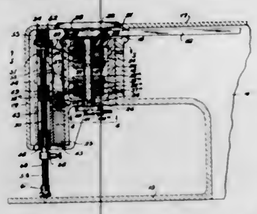
1. In a sewing mechanism comprising a pair of engageable, normally horizontal platforms each having opposed sets of teeth for crimping fabric when engaged by

superimposing the platforms with the fabric between the teeth, the provision of rubber stripping on the upper surfaces of at least one of said platforms for frictionally



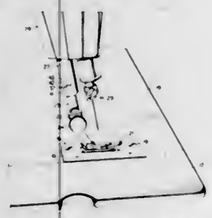
engaging the fabric and preventing its slippage from a predetermined position relative to said platforms while said platforms are being superimposed.

2,781,011
SEWING MACHINE
Waldemar A. Ayres, Lakewood, Ohio, assignor to White Sewing Machine Corporation, Lakewood, Ohio, a corporation of Delaware
Application December 27, 1954, Serial No. 477,782
9 Claims. (Cl. 112—221)



5. In a sewing machine, a head including a hollow vertical standard and a hollow horizontal arm projecting from said standard, a supporting unit secured to the free end of said horizontal arm, a vertically extending shaft rotatably supported in said unit in vertically spaced bearings, a hand wheel fixed to the upper end of said shaft above the upper of said bearings, a needle bar supported by said unit for vertical reciprocation and parallel to said shaft, means operatively connecting said shaft with said needle bar to effect reciprocation of the latter upon rotation of said shaft, and means for rotating said shaft.

2,781,012
THREAD CUTTERS FOR SEWING MACHINES
Ludwig J. Kuhar, Clark Township, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application June 23, 1954, Serial No. 438,775
4 Claims. (Cl. 112—252)

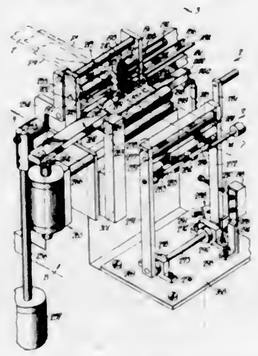


4. A sewing machine comprising a bed, a bracket-arm head overhanging said bed, a member supported from and having an outer surface extending below the lower end of said bracket-arm head, said member being provided with an open slot formed in the member from the outer surface thereof, said slot having a bottom and an open top, and a thread-cutting edge formed along a portion of the boundary of the open top of said slot.

2,781,013
STITCHED SEAM ADAPTED FOR USE IN FINISHING PIPED OPENINGS
Stanley J. Ketterer, Stratford, Conn., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application June 18, 1954, Serial No. 437,608
1 Claim. (Cl. 112—264)

In a bound buttonhole or the like, a base material having an opening therein, folded piping strips secured to said base material at opposite sides of and extending across the edges of said opening with the folded edges thereof in abutment substantially along the longitudinal center line of said opening, a facing material in contact with said piping strips and having an opening in register with the opening in the base material, and stitching securing said facing material to said piping strips about said opening, said stitching comprising single-thread chain-stitch blind stitches and each of the stitches consisting of a loop of thread passing through a loop from the previous stitch and into the underlying surface of the piping strip adjacent to the facing material at a point underlying and spaced from the edge of the opening in said facing material, passing out of the facing material at a point spaced away from the edge of said opening relative to the point of entry of said loop, passing through the facing material, and having a loop extending over the edge of the opening in the facing material to be entered by the loop for the next stitch.

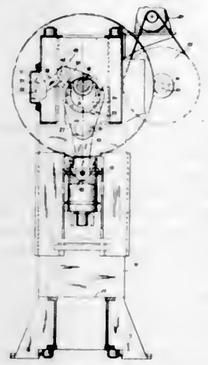
2,781,014
CAPACITOR TERMINAL TAB FORMING MACHINE
Francis Owen Gillin, New Bedford, Mass., assignor to Aerovox Corporation, a corporation of Massachusetts
Application February 6, 1951, Serial No. 209,676
2 Claims. (Cl. 113—1)



2. Apparatus of the character described for forming tabs from a continuous length of tape and for stitching such tabs to foil strip, said apparatus comprising tab stitching mechanism including perforating means having a longitudinal passageway associated therewith for the passage of tape longitudinally therethrough and the passage of foil transversely therethrough, a rotatable cam to reciprocate said perforating means, means for severing

tabs from a continuous length of tape, said means comprising a fixed blade and a reciprocable blade, means operatively connecting said cam and said reciprocable blade, means for feeding predetermined lengths of tape past said severing means into said longitudinal passageway of said stitching means to present such tape to said perforating means, means for aligning the end of such tape with said perforating means, means to rotate said cam and reciprocate said blade, and means controlled by said feeding means for actuation when said predetermined length of tab has been fed, and associated with said aligning means and said cam rotating means for operation of the same in sequence.

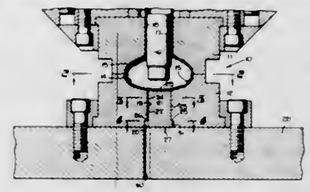
2,781,015
DRAW PRESS
Roy F. Dehn, Wickliffe, and William E. Ward, Shaker Heights, Ohio, assignors to The Cleveland Crane & Engineering Company, Wickliffe, Ohio, a corporation of Ohio
Application June 11, 1952, Serial No. 292,828
6 Claims. (Cl. 113—38)



1. In a draw press, a frame, an eccentric journaled in said frame, means to rotate said eccentric in one direction about a fixed axis, a ram, means to move said ram in a drawing stroke comprising two levers connected together by a pivot joint, one of said levers being journaled on said eccentric and the other lever pivotally connected with said ram, and means operated in synchronism with the rotation of said eccentric to move said joint to one side of a line through said axis and the center of the pivot connection between said ram and said lever connected thereto during the ram drawing stroke movement of said ram and to return said joint substantially to said line as said eccentric reaches the extremity of its drawing stroke movement whereby the centers of said joint and said eccentric lie substantially on said line, and operable to move said joint to the opposite side of said line during the ram return movement of said eccentric, the excursion of said joint on said opposite side of said line being substantially in excess of its excursion to the first mentioned side of said line.

2,781,016
DIE CONSTRUCTION
Frank W. Livermont, Duarte, Calif., assignor to Tubing Seal Cap, Inc., San Gabriel, Calif., a corporation of California
Application December 10, 1952, Serial No. 325,168
2 Claims. (Cl. 113—49)

2. Apparatus for use in hydraulically expanding a hollow workpiece, comprising in combination: an upper die and a lower die cooperating to define a cavity therebetween, a plate supporting the lower die, the lower die having a bore communicating with said cavity, a plug resting on said plate and having portions fitting within said bore, the upper end of the plug being shaped to conform to the contour of the cavity, the plug having a plurality of surfaces spaced radially inwardly from the wall of the bore and cooperating with said bore to define



liquid escape passages leading from said cavity, the lower die having a counterbore communicating with said bore and defining a downwardly facing shoulder therebetween, an upwardly facing abutment near the lower end of the plug engaging said shoulder, and a plurality of openings in the plate communicating with said counterbore.

2,781,017
SIGNALING DEVICE
Frank I. Fuller, Menlo Park, and Montgomery C. Swezy, Palo Alto, Calif., assignors to Western Progress, Inc., Palo Alto, Calif., a corporation of Nevada
Application March 23, 1954, Serial No. 418,092
7 Claims. (Cl. 116—63)

1. In a signaling device, a tripod, a plurality of vertical telescoping tubular sections mounted on said tripod, means for locking said telescoping sections at various positions, a reflector assembly rotatably mounted on the upper telescoping section and adapted to be rotated by the wind, said reflector assembly comprising a hub rotatably mounted on the upper telescoping section, a plurality of interlocking vanes mounted on said hub and adapted to be engaged by the wind, said vanes being painted with an orange-red fluorescent paint for daytime use and having only some of its vanes covered with light reflecting surfaces for nighttime use.

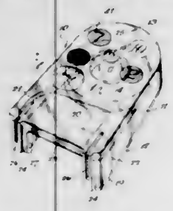
2,781,018
BALER TIER SIGNAL
Marcus E. McClellan, Ottumwa, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application October 26, 1953, Serial No. 388,376
7 Claims. (Cl. 116—67)

1. For a baler having a horizontal bale case including upper and lower containers holding upper and lower coils of tying strand: a strand-consumption signal com-

prising: a support having means for affixation to the bale case; an upright spindle fixed to and rising from the support; a driving member journaled on the spindle for angular movement about the spindle and having an upper ratchet portion including teeth spaced circumferentially as respects the spindle, said member further including a concentric annular lower portion; a torsion spring housed in the lower portion and surrounding the spindle and having one end anchored to the spindle and its other end anchored to the driving member so that angular movement of the driving member in one direction winds up the spring to store energy for driving the driving member in the opposite direction; a gong mounted on the spindle in vertically spaced relation above the ratchet portion; a clapper positioned in the space between the gong and ratchet member and rockable on the spindle on an axis normal to the spindle and having an under portion at one side of said axis engageable

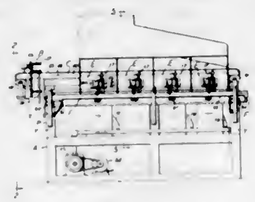
with the ratchet teeth and an upper portion at the other side of said axis engageable with the gong so that spring-driven angular movement of the driving member causes the ratchet teeth to rock the clapper and sound the gong; a lock member fixed to the driving member; a sear movably mounted on the support for movement into and out of engagement with the lock member for holding and releasing the spring-loaded driving member; an upright rockshaft journaled on the support and having means fixed eccentrically thereto and engageable with the sear to selectively achieve holding and release of the sear as respects the locking member; and upper and lower arms fixed to the rockshaft respectively adjacent to the strand containers and adapted respectively to engage portions of the upper and lower strands so that ultimate consumption of a predetermined amount of either strand will rock the rockshaft via the associated arm to release the sear and cause sounding of the gong.

2,781,019
CONTINUOUS MAGNETIC TAPE AND CARTRIDGE
Emil Tiger, Skokie, Ill., assignor to Sound, Inc., Chicago, Ill.
Application January 12, 1956, Serial No. 558,762
4 Claims. (Cl. 116—124)



1. A cartridge and continuous magnetic tape wound therein for use with a tape recording device, said tape having a recording surface thereof divided into separately distinguishable sectors of substantially equal lengths, each sector having identification means extending continuously between points of commencement and termination of the sector along the length of the tape, said cartridge having selection means cooperating with said identification means which enable accurate determination of the particular portion of the length of said tape on which specific subject matter is recorded and thereafter, accurate location and positioning of said portion with respect to the head of the recording device for purposes of playback, said cartridge having a restricted passageway along which the tape is led to traverse said selection means with said recording surface parallel to the face of the cartridge.

2,781,020
MULTIPLE SPRAYING APPARATUS
Delmer D. Scott, Encino, Calif., assignor to Nethercutt Laboratories, Los Angeles, Calif., a copartnership composed of Jack B. Nethercutt and Dorothy S. Nethercutt
Application March 16, 1953, Serial No. 342,447
15 Claims. (Cl. 118—6)

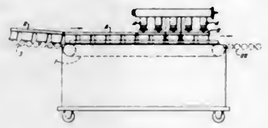


1. A machine for handling articles of the character described including, an elongate horizontally disposed frame, feed means at one end of the frame adapted to deliver the articles one after another at said end of the frame, an elongate transversely pitched conveyor receiving the articles from the feed means and adapted to move the articles longitudinally of the frame and a rail adjacent the conveyor and supporting the articles moved thereby the rail having openings spaced apart lengthwise thereof and adapted to pass the articles, a plurality of independently operated article coating mechanisms in a series lengthwise of the frame, one related to each opening to receive articles passed thereby, and an elongate conveyor extending lengthwise of the frame to the other end thereof and adapted to receive coated articles from said mechanisms and to discharge them from the machine.

2,781,021
MOISTENER FOR YARN OR THREAD WINDING MACHINE
William Schmitz, Chester, N. J., assignor of fifty percent to Henry J. Schmitz, Bloomfield, N. J.
Application September 17, 1953, Serial No. 380,680
2 Claims. (Cl. 118—264)

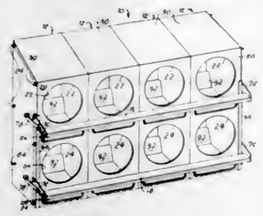
1. A moistening device for a yarn conditioning machine comprising a container for conditioning liquid and having a lid hinged thereto, a liquid applying body positioned within said container and in contact with the liquid therein and having a smooth surface over which a yarn to be treated is adapted to pass, guide means for maintaining said yarn in contact with said surface, said guide means comprising complementary side walls having registering recesses forming yarn guiding slots, said container and lid being hingedly connected at one end and having at their other ends guide baffles for guiding a yarn into said yarn guiding slots.

2,781,022
PAN COATING APPARATUS
Louis D. Mallet, Pittsburgh, and Raymond R. Maccary, Export, Pa., assignors to Mallet & Company, Inc., Pittsburgh, Pa., a corporation of Pennsylvania
Application March 9, 1954, Serial No. 414,942
3 Claims. (Cl. 118—313)



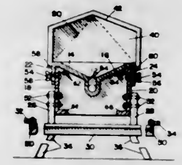
1. Apparatus for applying a coating compound in a band of predetermined width to the interior side surfaces of an open top baking pan, comprising a rotor disc adapted to rotate at high speed and having a flat upper surface lying in a horizontal plane, means for supporting the pan horizontally with its open top below the rotor, elevating means for effecting relative vertical movement between the pan and rotor for receiving the rotor inside the pan and for varying the depth of the rotor below the top of the pan, dispensing means for introducing a measured quantity of coating compound onto the upper surface of the rotor inward of its periphery while the rotor is rotating inside the pan and while the pan and rotor are being moved vertically relative to each other by said elevating means, whereby the coating compound will be flung radially outward from the periphery of the rotor onto the interior side surfaces of the pan in the form of a continuous band the width of which is determined by the extent of the relative vertical movement between the pan and rotor during the time that this coating compound is being flung outward by the rotor.

2,781,023
POULTRY NEST ASSEMBLY
Howard S. Brembeck, Milford, Ind.
Application May 19, 1955, Serial No. 509,470
7 Claims. (Cl. 119—45)



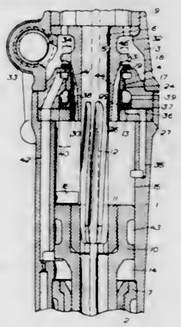
1. A poultry nest comprising a plurality of nesting compartments disposed in side by side relationship, each of said nesting compartments having a front panel provided with a plurality of spaced enlarged compartment access openings, a side panel for each of said compartments integrally connected to said front panel, a top wall integrally connected with the upper end of said front panel, each of said compartments having the side thereof opposite said side panel positioned in engagement with the side panel of the next adjacent compartment, a closure panel for the side opposite the side panel of the last compartment added to the nest, an angle member disposed at each of the remotely disposed front corners of said poultry nest and secured thereto, a pair of spaced brackets pivotally connected to said angle members, an elongated perch having its opposite ends carried by and secured to a horizontally aligned pair of said brackets, means on said brackets for eliminating the downward movement of said brackets, means on said brackets for holding said brackets in elevated position, means connecting said compartments and said angle members as a unit, a plurality of nests for each of said compartments, and means on said front panel cooperating with said compartment connecting means releasably securing said nests in said compartments.

2,781,024
AUTOMATIC WATER FOUNTAIN FOR POULTRY
Frank W. Lisec, Wymore, Nebr.
Application March 30, 1955, Serial No. 497,933
2 Claims. (Cl. 119—80)



2. A poultry drinking fountain comprising spaced parallel side walls, supporting means upon which the side walls are mounted, a tray having an elongated channel positioned in the center thereof with inclined panels extended outwardly and upwardly from upper edges of the channel, the extended edges of the inclined panels having depending flanges thereon and said flanges being positioned to overlap the side walls, said inclined panels being positioned to receive the wattles of a chicken the bill of which is positioned in the channel, a closure for the channel positioned at one end of the tray, and a water supply tank suspended at the opposite end of the tray and positioned with the interior thereof in communication with the interior of the channel.

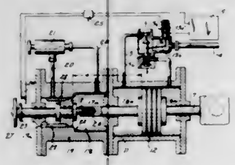
2,781,025
DISTRIBUTING VALVE MEANS FOR ELASTIC PRESSURE FLUID DRIVEN PERCUSSION TOOLS
Gösta Ivar Ekström, Nacka, Sweden, assignor to Atlas Copco Aktiebolag, Nacka, Sweden, a corporation of Sweden
Application March 23, 1954, Serial No. 418,162
8 Claims. (Cl. 121—19)



1. In a percussion tool, a cylinder, a hammer piston reciprocable in said cylinder under the action of an elastic pressure fluid, a first working chamber in the cylinder in which said pressure fluid acts to produce a percussion stroke of said piston, a second working chamber in the cylinder in which the pressure fluid acts to produce a return stroke of the piston, a valve chest, means for supplying pressure fluid to said valve chest, two valve seats in the valve chest, a valve member having a portion disposed between said valve seats and movable in the

valve chest from one of said valve seats to the other, i. e. from a position in which pressure fluid is admitted by said valve member to said first working chamber to a position in which pressure fluid is admitted by the valve member to said second working chamber, valve throwing means comprising pressure fluid actuated valve throwing surfaces for moving the valve member from one of the valve seats to the other and vice versa, and a valve throwing member separate from the valve member and carrying one of said valve throwing surfaces and disposed so as to engage the valve member and having a stroke approximately equal to the stroke of the valve member for moving the valve member towards one of the valve seats, said other valve throwing surface being provided on said valve member.

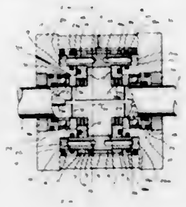
2,781,026
CONTROL APPARATUS FOR FLASH WELDING MACHINES
Hans Alfred Schlatter and Emil Wegmann, Zollikon-Zurich, Switzerland, assignors to Firma H. A. Schlatter A. G., Zollikon-Zurich, Switzerland
Application June 18, 1954, Serial No. 437,672
Claims priority, application Switzerland December 30, 1953
7 Claims. (Cl. 121—45)



5. In a flash welding machine, in combination, carriage means adapted to carry a work piece; support means supporting said carriage means for reciprocating movement; a first cylinder; a first piston located in said first cylinder and connected to said carriage for reciprocating the latter during movement of said first piston in said first cylinder; control means connected to said first cylinder for giving the piston therein a stroke in one direction greater than its stroke in the reverse direction so that said carriage is advanced while being reciprocated; a second cylinder coaxial with said first cylinder and having a pair of successive inner portions of different diameters joined by a shoulder in said second cylinder; a second piston located in the smaller of said inner portions of said second cylinder; a first rod portion connected to said first piston; a second rod portion connected to said second piston and threadedly engaging said first rod portion; conduit means extending between said inner portions of said second cylinder for directing fluid from one to the other of said inner portions and back again during reciprocation of said second piston; restricting means in said conduit means for restricting the flow of fluid therethrough so as to brake the moveemnt of said first piston until said second piston moves beyond said shoulder into the larger of said portions of said second cylinder; and manually operable turning means connected to said second rod portion for turning the latter with respect to said first rod portion so as to adjust distance between said first and second pistons and thereby control the moment at which said second piston moves beyond said shoulder.

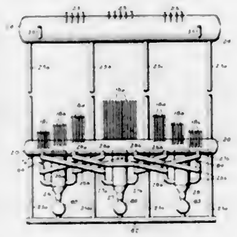
2,781,027
ROTARY ACTUATING DEVICE
Augustus P. Henry, Los Angeles, Calif., assignor to Control Specialists, Inc., a corporation of California
Application July 27, 1955, Serial No. 524,766
20 Claims. (Cl. 121—97)

1. A rotary hydraulic power actuating device comprising, in combination, a rotor casing, a rotor therein, a power output shaft fixedly carrying the rotor, a vane fixedly carried by the rotor, a fluid isolating barrier fixedly positioned in the casing, a seal ring in the casing, a pair of side plates in the casing and between which is interposed said ring for flatwise engagement of said plates with the opposite sides of said ring and also with the opposite sides of the rotor, said ring at its internal periphery engaging the outermost cylindrical surface or line element thereof of the vane and the outermost cylindrical surface or line element thereof of said barrier and the rotor beyond said vane peripherally engaging the inner



cylindrical surface or line element thereof of said barrier thereby to provide a pair of chambers each bounded by the rotor, said ring, said vane and said barrier but separated one from another by said vane and also by said barrier, an ingress means for flow of fluid under pressure into one of said chambers, an egress means for flow of fluid under pressure out of the other of said chambers, the casing internally thereof being shaped and dimensioned whereby with said ring installed an annular chamber is established in the casing the inner wall of which is constituted by the outer periphery of the ring, and means for admitting fluid under pressure to said annular chamber.

2,781,028
CONTROLLED CIRCULATION BOILER WITH ORIFICE DRUM
Wilbur H. Armacost, Scarsdale, N. Y., assignor to Combustion Engineering, Inc., a corporation of Delaware
Application July 5, 1952, Serial No. 297,267
4 Claims. (Cl. 122—406)

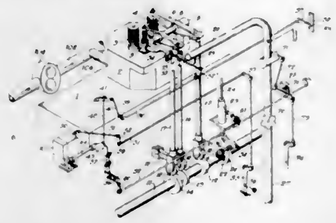


1. In a controlled circulation boiler of the type described, a generally vertical furnace for receiving and burning fuel; a plurality of contiguous steam generating tubes associated with said furnace for absorbing heat from the fuel burned therewithin having their inlets adjacent the lower portion and their outlets adjacent the upper portion of said furnace; a generally horizontal steam and water drum into which the outlets of at least a majority of said tubes communicate; an orifice drum parallel to said steam and water drum and having the inlets of said majority of tubes connected thereto; restrictor orifices associated with the inlets of the tubes so connected; a plurality of downcomers depending from said steam and water drum and longitudinally displaced therealong; and pump means fluidly connecting each of said downcomers to said orifice drum in substantially reverse longitudinal position with respect to the connection of the downcomers with the steam and water drum, said pump means being effective to circulate water through said orifice drum and said restrictor orifices into said tubes, through said tubes into the steam and water drum and thence through the downcomers back into said orifice drum.

2,781,029
FEED WATER HEATER
Johann Kolling, Oberhausen, Germany, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application May 18, 1953, Serial No. 355,752
1 Claim. (Cl. 122—441)

The combination with a steam generator having an upper steam and water confining drum, a multiple stage superheater receiving steam from said drum, said superheater having an interstage steam attemporator, said steam generator having a circulatory system including at least one large diameter downcomer, the upper end portion of said downcomer extending above the steam and water drum of said steam generator, separate means connecting the steam and water spaces of said drum with said downcomer and forming a steam space within said downcomer, a plurality of tubular heat exchange elements positioned in the steam space of said downcomer, a diaphragm embracing the lower end of said tubular heat exchange elements in the steam space of said downcomer, means for passing feed water through said tubular elements to discharge into said downcomer, and means for removing condensate from the steam space of said downcomer above said diaphragm and discharging said condensate into said steam attemperator.

2,781,030
DUAL FUEL VARIABLE SPEED ENGINE CONTROL
Ralph Miller, Milwaukee, Wis., assignor to Nordberg Manufacturing Company, Milwaukee, Wis., a corporation of Wisconsin
Application February 10, 1954, Serial No. 409,317
8 Claims. (Cl. 123—27)

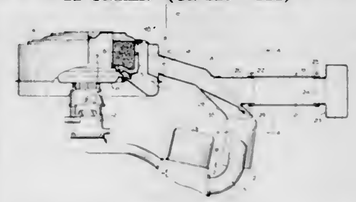


1. In a dual fuel internal combustion engine of the compression ignition type, adapted to operate under conditions of varying load and speed, the engine having a governor with a gas operating range and an oil operating range in the event of a substantial gas pressure failure, a gas supply line for supplying gas fuel to the engine from a gas fuel source, a pump for supplying oil fuel to the engine from an oil fuel source, a gas fuel control mechanism associated with the governor for varying the amount of gas fuel being supplied to the engine in accordance with the load during the gas operating range, an oil fuel control mechanism associated with the governor for varying the amount of oil fuel being supplied to the engine in accordance with the load during the oil operating range, manually operable means associated with the governor for varying the speed of the engine, and means for automatically varying the pressure of the gas supplied to the engine as the manually operable means varies the speed.

2,781,031
VALVE ARRANGEMENT FOR INTERNAL COMBUSTION ENGINES
Giuseppe Barberi, Genoa, Italy
Application June 1, 1953, Serial No. 358,663
1 Claim. (Cl. 123—47)

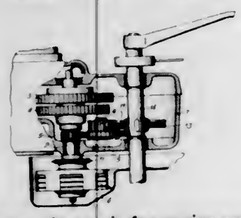
In an internal combustion engine, a crank case, a cylinder and cylinder head, a piston head, a connecting rod and crankshaft, an inlet valve mounted on said piston head, an outlet valve mounted in said cylinder head, a valve operator connected to said inlet valve extending adjacent to the connecting rod and terminating adjacent the crankshaft within the crank case, means adjustably mounted in the wall of the crank case and directly below the crankshaft and adapted to actuate said valve operator to open said inlet valve and spring means for returning said inlet valve to the closed position thereof.

2,781,032
AIR CLEANER ASSEMBLY WITH TEMPERATURE CONTROL
Joseph B. Sebok, Dearborn, and Frank Sebok, Hazel Park, Mich., assignors to Houdaille Industries, Inc., Detroit, Mich., a corporation of Michigan
Application November 17, 1954, Serial No. 469,386
12 Claims. (Cl. 123—122)



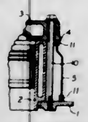
1. In an air cleaner assembly, an air cleaner, divided air inlet means leading to said cleaner, temperature responsive means controlling the flow of air through said divided inlet means, and intake silencing means carried by one of the divisions of said inlet means.

2,781,033
KICK STARTER DEVICE
Alfred Kreidler and Hanns Hilber, Stuttgart, Germany, said Hilber assignor to said Kreidler
Application June 23, 1954, Serial No. 438,774
Claims priority, application Germany June 27, 1953
2 Claims. (Cl. 123—185)



1. In an engine-gearbox unit for engine-assisted pedal cycles and for light motorcycles, a housing, an engine-driven shaft rotatably mounted within said housing, a second shaft rotatably mounted within and extending outside of said housing, power-transmitting means carried by said second shaft within said housing, an intermediate freewheel gear means rotatably mounted within said housing and being capable of transmitting an engine-starting torque from said second shaft to said engine-driven shaft, power receiving means carried by said intermediate freewheel gear means and operatively connected to said power-transmitting means, and said housing having a rib adjacent said second shaft, said intermediate free wheel gear means being adapted to be replaced by a free wheel lever, an arm, a second lever and a helical torsion spring, said free wheel lever being pivotally connected with said arm, and the latter being connected with said second lever by means of a pivot pin, and said second lever being secured to said second shaft, and said helical torsion spring being disposed on said second shaft and one end of said spring engaging said pivot pin and the other end of said spring abutting said rib of the housing in order to convert an engine-assisted pedal cycle into a light motorcycle.

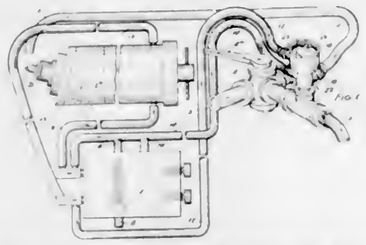
2,781,034
INTERNAL COMBUSTION ENGINE
Otto Herschmann, Hannover, Germany
Application October 6, 1953, Serial No. 384,452
Claims priority, application Germany November 28, 1952
11 Claims. (Cl. 123—195)



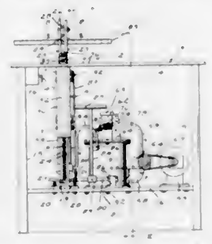
1. A two-stroke cycle internal combustion engine, comprising a crank case, at least one individual cylinder placed on top of said crank case, an individual cylinder head placed on said cylinder and projecting over the circumference of said cylinder, screw-bolt means for fixing said cylinder head directly to and spaced apart from said crank case, and an individual jacket enclosing said cylinder at a predetermined distance, said screw-bolt means projecting through said jacket, said jacket being held between the projecting part of said cylinder head and said crank case.

2,781,035
CONTROL MEANS FOR COOLING OF DRESSING DIAMOND OR THE LIKE
Joseph Loecy, Jr., Euclid, Ohio
Application May 10, 1954, Serial No. 428,728
1 Claim. (Cl. 125—11)

In a device of the class described, a cylinder, a plunger reciprocatable in said cylinder, a tool carried by the outer end of said plunger, fluid-actuated valve means for controlling the supply of a cooling fluid to the tool when in operative position, and a single fluid means for effecting movement of said plunger to and from operative position and for holding the same in operative or inoperative position within said cylinder and for rendering operative or inoperative said valve-controlled means for supplying the cooling fluid to the tool according to whether it is being moved to or from operative position, said fluid means including a single valve for controlling the operation of the same.

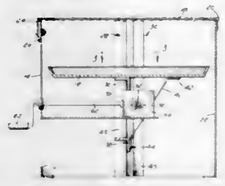


2,781,036
BRICK AND STONE CUTTING MACHINE
Herbert J. Moerbe, Giddings, Tex.
Application August 1, 1955, Serial No. 525,573
3 Claims. (Cl. 125—23)



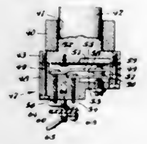
1. A stone and brick cutting machine comprising a substantially upright blade support, an upper stationary blade mounted in an upper part of the blade support and having a downwardly facing cutting edge, a lower blade slidably disposed in said blade support beneath the upper blade for movement toward and away from said upper blade, said lower blade having an upper cutting edge disposed in opposed relation to the cutting edge of the upper blade, thrust imparting means connected to and supported by the blade support and engaging under said lower blade and including a hydraulic ram, a storage tank containing a hydraulic medium, a conduit leading from the lower portion of said storage tank to said ram, a constantly operating pump interposed in said conduit between the tank and ram for supplying the hydraulic medium under pressure to the ram from said tank, a valve casing interposed in said conduit between the pump and ram and having an opening discharging into the tank, a valve body contained in said valve casing, spring means normally holding said valve body in an opened position wherein said casing opening is exposed to permit the hydraulic medium to return from the pump by way of a portion of the conduit to the tank and to permit the hydraulic medium to flow back to the tank from the ram, control means adapted to be actuated by the knee for moving said valve body against said spring means to a position for closing the casing opening, and said casing having a bypass communicating with said conduit through which the medium under pressure passes around the valve body from the pump to the ram, when the valve body is in a closed position, for extending the ram to forcibly displace the lower blade toward the stationary blade for severing a brick or stone disposed between the cutting edges of the blades.

2,781,037
BARBECUE OVEN
Sam H. Vuncannon, Coral Gables, Fla.
Application March 1, 1954, Serial No. 413,287
5 Claims. (Cl. 126—25)



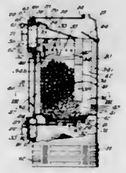
5. An oven comprising a housing, first and second pairs of back to back vertically disposed angle guide rails fixed in said housing, means for supporting a supply of fuel, said means being located in said housing and extending horizontally between said first and second pairs of guide rails, a first rack bar disposed between said first pair of guide rails for vertical sliding movement, a second rack bar disposed between said second pair of guide rails for vertical sliding movement, said rack bars being fixed to said supporting means for movement therewith, a horizontal driven shaft extending between and rotatably supported by said guide rails and disposed in said housing, gears fixed on the ends of said shaft meshing directly with said rack bars, and means rotatably supported by said housing and operatively connected to said driven shaft for rotating the latter.

2,781,038
COOKING BURNER CONTROL AND THERMOSTAT
Carroll J. Sherman, Indianapolis, Ind.
Application April 10, 1953, Serial No. 347,866
6 Claims. (Cl. 126—52)



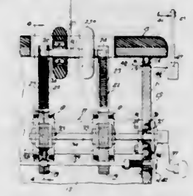
4. In combination with a gas burner which is formed to provide a vessel-supporting surface having an opening therethrough, means for controlling the flow of gas to said burner comprising a tubular member formed of relatively low thermo-conductive material, means for supporting said member in the opening through such vessel-supporting surface with the open, upper end of said member disposed substantially in the plane of said surface, a plug of relatively high, thermo-conductive material reciprocably received in, and largely shielded by, said tubular member, means yieldingly urging said plug toward upward projection beyond the open, upper end of said tubular member, a thermo-responsive element supported from the lower end of said plug with one end in direct, heat-exchanging contact therewith and the other end free to move relative to said plug, a switch supported from said plug and having a movable element shiftable, in response to movement of the last-mentioned end of said thermo-responsive element, to open and close said switch, a pair of terminal posts for said switch supported for movement with said plug, a pair of contact means, means supporting said contact means beneath said plug in the path of movement of said terminal posts, said terminal posts engaging said contact means upon downward movement of said plug, a normally-closed fluid valve, conduit means for connecting such a gas burner to a supply of gas through said valve, electrically driven motor means for opening and closing said valve, and means for electrically connecting said contact means in the energizing circuit of said motor means.

2,781,039
HEATERS OR THE LIKE FOR BURNING SOLID FUEL
Elmer R. Kaiser and James R. Garvey, Columbus, Ohio, assignors to Bituminous Coal Research, Inc., a corporation of Delaware
Application January 31, 1952, Serial No. 269,217
2 Claims. (Cl. 126—74)



1. In a heater or the like for burning solid fuel, in combination, a round shell, a combustion chamber inside said shell, a combustion gases passage inside said shell, said passage being defined by a refractory arch associated with said shell, a gas outlet beneath the bottom of said arch connecting said chamber and said passage, a duct on the outside of said shell, a port through said shell communicating with the interior of said duct and supplying overfire air, a manifold extending around the top of said combustion chamber, the interior of said manifold being in communication with said port, annularly spaced openings between the interior of said manifold and said combustion chamber, a grate adjacent the bottom of said combustion chamber, a firing door adjacent said manifold, spaced flanges on said firing door extending toward said heater to provide a sealing recess, a combustion gases dome above said passage to define a combustion gases chamber in communication with said sealing recess, a partition between said last-mentioned chamber and said combustion chamber, a fume vent assembly in said partition, linkage means for placing said combustion chamber in communication with said combustion gases chamber before said firing door is opened, and linkage means between said firing door and said assembly to at least hold said fume vent assembly in open position while said firing door is open.

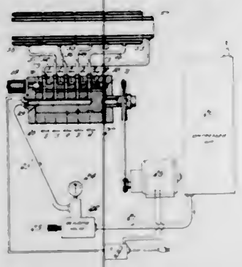
2,781,040
MASSAGE APPARATUS
Benjamin Hill, Frazer, Pa., assignor to Hill Laboratories Company, Frazer, Pa., a corporation of Pennsylvania
Application September 22, 1953, Serial No. 381,547
8 Claims. (Cl. 128—33)



1. A massage apparatus comprising a base, a body-supporting platform mounted on said base for reciproca-

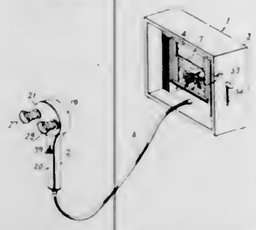
tory movement thereon, a plurality of back engaging rollers having portions extending through an aperture through said platform, means mounting said rollers for resiliently-resisted vertical movement, means to adjust the position of said mounting means vertically, and rollers spaced longitudinally from said first-mentioned rollers and mounted on said base in position to massage the legs or thighs of a person reclining on said platform upon movement thereof.

2,781,041
PROGRESSIVE COMPRESSION APPARATUS FOR TREATMENT OF BODILY EXTREMITIES
Bernard D. Weinberg, Freeport, N. Y.
Application December 2, 1955, Serial No. 550,591
10 Claims. (Cl. 128—60)



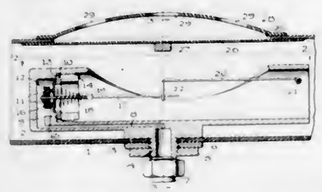
1. Apparatus of the character disclosed, comprising the combination of a sleeve for enclosing a human extremity and made up of separate, inflatable, pressure applying cells in end-to-end relation and an inner inflatable cell within and embracing the longitudinal extent of said first named cells and means for successive inflating said first named and then said longer, inner longitudinal cell.

2,781,042
APPARATUS AND METHOD FOR PRODUCING AUTO-KINEMATIC-STEREOSCOPIC VISION AND OPTICAL ILLUSIONARY EFFECTS
John B. Bartow, Blue Bell, Pa., assignor to Bartow Beacons, Inc., Blue Bell, Pa., a corporation of Pennsylvania
Application May 29, 1953, Serial No. 358,497
9 Claims. (Cl. 128—76.5)



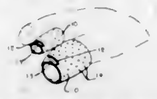
1. Apparatus for producing stereoscopic visual effects, comprising: object means arranged for cyclic movement across a field or area to be viewed by an observer; cyclically-operable means for effecting successive viewings of said object means, first by one eye of the observer and then by the other eye of the observer; means for driving said object means and said viewing means in synchronism at a speed above the threshold of persistence of human vision, whereby successive viewings by the observer's eyes occur at different instants within the time interval of a movement cycle of said object means, and the observer's eyes receive images which combine optically and stereoscopically if the brain accepts and fuses the images received by both eyes; and means for changing the phase relation between the operating cycles of said object means and of said viewing means, whereby the observer is caused to see a single image moving toward or away from the observer if the object means is being viewed stereoscopically with both eyes, and the observer is caused to see two images moving sidewise if loss of fusion occurs or a single image moving sidewise if the brain rejects the image of one eye.

2,781,043
OXYGEN ADMISSION VALVE FOR OXYGEN RE-BREATHING APPARATUS
Christian J. Lambertsen, Philadelphia, Pa.
Application December 21, 1953, Serial No. 399,445
8 Claims. (Cl. 128—142)



1. In a breathing apparatus, a re-breathing bag, a valve within the re-breathing bag, said valve having a valve seat and a valve head, means for connecting one side of said valve to a source of an oxygen-containing gas, the other side of said valve being in communication with the interior of the re-breathing bag, a valve stem extending from the valve head, a flexible diaphragm forming a part of the wall of the re-breathing bag, mechanism operable upon an inward distension of the flexible diaphragm due to a greater external pressure thereon to engage and move the valve stem in a direction to dislodge the valve head from the valve seat and thereby permit oxygen-containing gas to flow past the valve into the breathing apparatus, and a fluid-pervious member extending over the outside of the flexible diaphragm to protect it against inward distension except when the pressure of the surrounding media is greater than the pressure within the re-breathing bag.

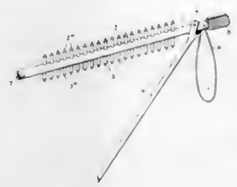
2,781,044
TOE SHIELD
Verna R. Bennett, Bogalusa, La.
Application January 25, 1956, Serial No. 561,226
5 Claims. (Cl. 128—153)



1. A toe shield for correcting ingrown toe nails comprising a hollow tubular member of resilient material open at both ends and adapted to be fitted onto the toe, said tubular member having an arcuate slot at the outer end thereof adapted to receive therethrough the ingrown nail and to separate the same as it grows from the flesh, and means for securing said member on the toe.

2,781,045
METHOD AND APPARATUS FOR WAVING HAIR
Gustav Rösch, Valparaiso, Chile
Application March 30, 1954, Serial No. 419,800
8 Claims. (Cl. 132—7)

4. The method of permanently waving hair which comprises the steps of impregnating each lock of hair to be waved with cold waving fluid, winding said lock into the shape of a hollow cylinder composed of a plurality of overlapping helical segments of hair, each segment running in an opposite direction from that of the previous



segment with respect to the longitudinal axis of the cylinder, retaining said hair in its overlapping helical form while it dries at least partially and then releasing the hair.

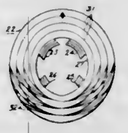
2,781,046
HAIR CURLER
Emily L. Moorhead, San Jose, Calif.
Application October 29, 1953, Serial No. 388,940
19 Claims. (Cl. 132—38)

14. A hair curler, comprising: a circular element having an annular retaining rim and retaining spokes spaced around said rim and extending from said rim toward the center of said circular element, the bottom edge of at least a portion of each of said spokes being disposed in a plane above the bottom edge of said rim so that said spokes define with said rim a circular space for confining within the rim and under said spokes a spiral coil of hair and any loose ends that would otherwise project generally tangentially from said coil; a tine element extending diametrically across said circular element for confining the coil of hair within said circular element; and hinge means for effecting relative movement of said elements for insertion and removal to and from a coil of hair.

2,781,047
HAIR CURLING DEVICE
Albert J. Whitehill, Butler, Pa.
Application April 12, 1955, Serial No. 500,737
17 Claims. (Cl. 132—40)

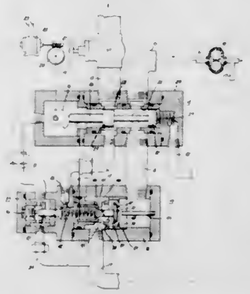
1. A hair curling device comprising a bobbin member embodying a base plate and an arbor rising centrally therefrom, the plate having a slot extending inwardly from the periphery thereof and terminating adjacent to the arbor, a curl forming shell formed to position on the base plate over the arbor, cooperating locking means between the base plate and shell permitting rotary winding motion of the shell on and relative to the base plate, the shell having an opening adapted to be aligned with said slot to receive a lock of hair when the shell is in one position on the base plate, and means for confining the lock of hair in the base plate slot.

2,781,048
HAIR TRIMMING TEMPLATE
Vincent Le Donne, Philadelphia, Pa.
Application May 11, 1954, Serial No. 429,090
4 Claims. (Cl. 132—45)



1. In a head-encircling hair trimming device, a template comprising a thin, flat, annular member of sheet material having a degree of inherent stiffness sufficient to enable it to maintain its original flat, annular form and a degree of flexibility sufficient to permit it to be bent from its normal flat plane, said member having an interior opening defined by a narrow inner non-resilient peripheral edge shaped to completely encircle and embrace the head on a line between the ears and the crown of the head and to support the said member in stable position on the head and above the normal hair line thereon, and said member when so supported extending outwardly from the head as a flat, brim-like projection of substantial width whereof the outer edge of said brim-like projection lies remote to the head and forms a continuous head-encircling gauge of predetermined contour for engagement by and guiding of the scissors during a trimming operation, whereby hair adjacent both surfaces of and of greater length than the width of said brim-like projection may be extended from the head at selectively varying angles to determine the trimming lengths of the hair in accordance with the character of the trim desired.

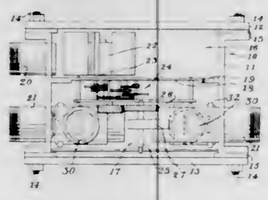
2,781,049
LIQUID FLOW CONTROL VALVE SYSTEM
Robert S. Binford and John W. Jacobson, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York
Application December 29, 1951, Serial No. 264,174
11 Claims. (Cl. 137—108)



11. A system for supplying a predetermined adjustable volume of liquid under varying input and delivery pressure conditions from a liquid pump comprising a throttle valve having an inlet conduit for connection to the liquid pump and a delivery conduit for connection to apparatus to which liquid is to be delivered, said valve including a low pressure exhaust opening and an adjustable flow control valve element for providing a variable flow control passage between said inlet and delivery conduits during operating conditions and for providing a connection between said delivery conduit and said exhaust opening during stand-by conditions, a bypass valve including a housing having a cylindrical bore therein, a connection from one end of said bore to said inlet conduit and a

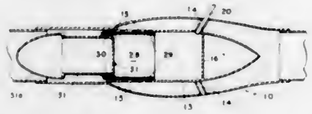
connection including a flow limiting orifice from the other end of said bore to said delivery conduit, a piston reciprocally mounted within said bore, said housing including a port extending from said bore and a connection therefrom to said exhaust conduit, said port being positioned for closure by said piston upon bias of said piston by the pressure of liquid from said delivery conduit and for opening thereof by the pressure of liquid from said inlet conduit, a spring connected to said piston for bias thereof in the closing direction, said piston including a liquid flow reaction compensating tip of a diameter larger than the remainder thereof positioned within said housing to partially obstruct the flow of liquid from said inlet conduit to said port, an overpressure relief pilot valve connected to the delivery conduit end of said bore for opening in response to an over-pressure condition therein, and a connection from said pilot valve for conveying liquid passed thereby to said exhaust conduit.

2,781,050
LIQUID FLOW CONTROL VALVE
Gordon Edwards, Victoria, British Columbia, Canada
Application August 31, 1953, Serial No. 377,665
6 Claims. (Cl. 137—119)



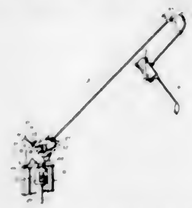
1. A liquid flow control valve comprising a liquid-tight casing; a wall dividing said casing into two compartments; a single inlet port in one of said compartments; a plurality of outlet ports in the other of said compartments; at least one port permitting liquid flow between said one compartment and said other compartment; and mechanism for directing to each of the outlet ports in turn, and for a predetermined interval of time, a liquid which enters said inlet port under pressure, said mechanism comprising: a bladed wheel rotatably mounted within said one compartment in a position where liquid which enters the inlet port under pressure will impinge upon the blades of the wheel and cause the wheel to rotate; a train of reducing gears mounted within said casing; a camshaft rotatably mounted within said other compartment, the axis of rotation of said camshaft being substantially parallel to the axis of rotation of said bladed wheel, the camshaft carrying at least one cam, said cam having an arcuate camming surface; the bladed wheel being operatively connected to one of the gears of said train, a gear wheel fixed to said camshaft and meshing with a relatively slow-moving gear wheel in said train of reducing gears, whereby the camshaft rotates slowly, as compared to said bladed wheel, whenever the bladed wheel is rotated by liquid entering the inlet port under pressure; a strip of resilient material mounted adjacent each outlet port, one end of each of said strips being mounted at a point adjacent the inner wall of said other compartment, the other end of each of said strips being free and each of said strips being swingable about its point of mounting from a position in which it seals the outlet port it is mounted adjacent to a position in which it permits flow therethrough; and a spring bearing against each of said strips, said springs normally biasing said strips to occupy positions in which they seal the outlet ports; each of said strips extending beyond the outlet port which it is intended to seal, in a direction away from its point of mounting, for a distance sufficient to enable said cam to contact the strip and peel it back from its spring-pressed port-sealing position once during each complete revolution of the camshaft.

2,781,051
FLEXIBLE, ROLLING-SEAL TYPE VALVES
Dean Hawley, Old Saybrook, Conn.; Dean A. Hawley, administrator of said Dean Hawley, deceased, assignor to Origins Incorporated, Rye, N. Y., a corporation of New York
Application March 27, 1951, Serial No. 217,810
15 Claims. (Cl. 137—219)



6. In a device of the character described, a valve body including a hollow, substantially cylindrical orifice member disposed in the path of fluid flow therethrough, and sealing means for controlling the passage of fluid through said orifice member including a hollow, substantially cylindrical member made of flexible material disposed within and being affixed at one end to said orifice member in position such that when fully extended it seals on the orifice member and affixed at its other end to a piston member disposed within said cylindrical member and providing opposite piston faces, one of which is exposed to the pressure of the incoming fluid and the other of which is exposed to the pressure of an actuating fluid within a control chamber provided at one end of said orifice member and which is sealed by said cylindrical member, the construction and arrangement being such that upon the pressure of the incoming fluid exceeding the pressure of the actuating fluid within the chamber, the piston member travels in direction as to introvert the cylindrical member, and that upon the pressure of the actuating fluid overcoming that of the incoming fluid the piston member travels in the opposite direction to extend the cylindrical member.

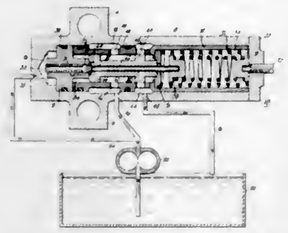
2,781,052
FLUID LOADER
William F. Schaetzly, Louisville, Ky.
Application August 24, 1953, Serial No. 376,013
12 Claims. (Cl. 137—276)



1. A load compensating swing joint for fluid loaders comprising, a lower vertical section, an S-shaped intermediate section having one vertical and one horizontal terminal portion with the vertical terminal portion swivelly connected to the top of the lower vertical section whereby said intermediate section may rotate with respect to the lower section about a vertical axis, an S-shaped upper section having one horizontal and one vertical terminal portion with the horizontal terminal portion swivelly connected to the horizontal terminal portion of the intermediate section whereby said upper section may rotate with respect to the intermediate section about a horizontal axis, a pair of buffer elements

one mounted vertically on each side of said intermediate section with the vertical plane of the buffers being substantially parallel to a vertical plane passing through the horizontal axis of rotation between said upper and intermediate joint sections, a pair of actuating arms carried by said upper section with one on each side of said upper section and extending perpendicularly to the horizontal axis of rotation of said upper section, and flexible means connecting the free ends of said arms and said buffers.

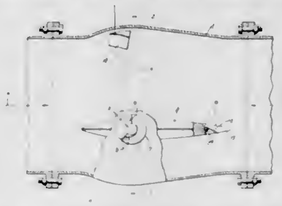
2,781,053
VALVE ASSEMBLY
Kenneth L. Berninger, Dayton, and Calvin C. Covert, Vandalia, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 13, 1953, Serial No. 354,828
3 Claims. (Cl. 137—492.5)



1. A valve assembly including, a valve housing having an inlet port, an outlet port and a pressure port, said inlet and pressure ports being subject to the same pressure fluid, a reciprocable valve element having a through bore disposed in said housing, first resilient means engaging said valve element for positioning the same to block communication between said inlet and outlet ports, a first servo chamber in said housing to which said valve element is exposed such that upon the application of fluid under pressure to said first servo chamber in opposition to said first resilient means, the valve element will move to connect said inlet and outlet ports, a second servo chamber in said housing connected to said pressure port, a reciprocable pilot member disposed in said second servo chamber, a reciprocable rod extending through the bore of said valve element and engaging said pilot member, second resilient means engaging said rod for maintaining said rod in engagement with said pilot member and opposing movement thereof, said pilot member being movable in response to a predetermined pressure of fluid in said second servo chamber acting in opposition to said second resilient means, and means connecting said first servo chamber with said pressure port upon movement of said pilot member due to said predetermined pressure of fluid in said second servo chamber, said first resilient means permitting movement of said valve element to connect the inlet and outlet ports when the pressure in said first servo chamber is less than said predetermined pressure.

2,781,054
SELF-OPERATING CHECK VALVE
Gerhard Neumann, Cincinnati, Ohio, assignor to General Electric Company, a corporation of New York
Application September 23, 1952, Serial No. 311,464
3 Claims. (Cl. 137—527.8)

1. In a conduit for the transmission of fluids in a desired direction through the conduit, a check valve comprising a valve disk rotatably mounted upon an off-center shaft extending transversely within the conduit for rotation to a normally open position with the plane of said disk essentially parallel to fluid flow by the velocity head of fluid flowing in the desired direction through the conduit on both sides of said disk, a spring-loaded tab rotatably attached to said valve disk within the periphery of said disk and maintained against the spring force with the plane of said tab essentially parallel to fluid flow by the velocity head of fluid flowing through the conduit in the desired direction and forming a streamlined configuration with said disk in said open position, said tab being

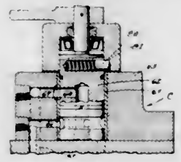


deflected in a closing direction to a position other than parallel to flud flow by the spring force upon cessation of fluid flow in the desired direction whereby reversal of the fluid flow from the desired direction can initiate rotation of said disk into a closed position traversing the bore of the conduit by the force on said tab and stop means to limit rotation of said disk and said tab at said closed position of said disk.

2,781,055
APPARATUS FOR HANDLING FLUID
Donald M. Jackson, Fullerton, Calif., assignor to Chiksan Company, Brea, Calif., a corporation of California
Application May 11, 1951, Serial No. 225,825
8 Claims. (Cl. 137—580)

5. In combination, a frame, a rotor, means pivotally mounting the rotor from the frame, a fluid handling duct stationary with the frame, a fluid handling duct stationary with the rotor, the rotor having a portion with a lateral recess in it entering it from one side and intersecting the pivotal axis of the rotor, and a fluid handling coupling carried by the rotor and having fluid handling elements coupled for relative movement about an axis coaxial with the rotor, one element being in connection with one duct and the other element being in connection with the other duct.

2,781,056
HYDRAULIC VALVE CONTROL FOR REVERSING TRANSMISSION
Louis D. Carufel, Muskegon, Mich., assignor to Continental Motors Corporation, Detroit and Muskegon, Mich., a corporation of Virginia
Application February 12, 1953, Serial No. 336,607
2 Claims. (Cl. 137—624)



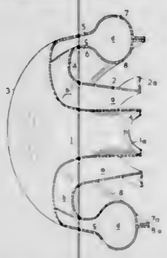
1. A unitary hydraulic valve control means applicable for controlling a plurality of coacting operating means of an assembled mechanism such as a reversing trans-

mission having driving and driven elements and a plurality of pressure actuated means, said unitary hydraulic valve control means comprising a valve casing, and a valve structure rotatably oscillating therein, said valve casing having a fluid pressure inlet means, a vent outlet means, and a plurality of pressure outlet means respectively adapted for successive connection with said plurality of pressure actuated means of said mechanism, one of said pressure outlet means being angularly offset from one side of said vent outlet means, another of said pressure outlet means being angularly offset an equal distance from the opposite side of said vent outlet means, said valve structure provided with a receiver communicating at all times with the fluid pressure inlet of said casing and having separate outlet passages communicating with said receiver and adapted to be successively placed into communication with said plurality of pressure outlet means of said valve casing, said valve structure having an arcuate exhaust passage separate from said outlet passages and arranged for open connection at all times with said vent outlet means and for alternate communication with each of said offset pressure outlet means, one of said outlet passages being angularly offset from one end of said arcuate exhaust passage, another of said outlet passages being angularly offset an equal distance from the other end of said arcuate exhaust passage, the arcuate dimensions from said offset outlet passages to the ends of said arcuate exhaust passage being substantially equal to but slightly less than the arcuate dimensions of said offset pressure outlet means whereby to provide a slight overlap between pressurizing and exhausting of same, said arcuate exhaust passage thereby being disposed in timed relationship with respect to said offset outlet passages on oscillation of said valve structure to exhaust a previously pressurized offset outlet means substantially immediately before pressurization is removed therefrom and prior to the succeeding opening of the other offset outlet means, said arcuate exhaust passage of said valve structure comprising an arcuate annular groove extending about the periphery of said valve structure and communicating at all times with said vent outlet means of said casing, said arcuate groove moved to vent only such offset outlet means which are out of registration with pressurized outlet passages.

2,781,057
TURBINE OUTLET DUCTING

Philip John Fletcher, Cove, Farnborough, England, assignor to Power Jets (Research and Development) Limited, London, England, a British company

Application March 1, 1954, Serial No. 413,336
Claims priority, application Great Britain March 6, 1953
10 Claims. (Cl. 138—39)

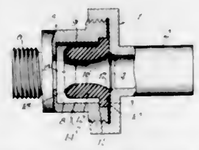


1. A diffusing and direction-changing duct unit for fluid, having an annular diffuser duct portion with radially spaced inner and outer walls arranged circularly about an axis to define an axially extending diffuser annulus, said walls being straight in the axial direction, a toroidal duct portion connected to the diffuser and disposed around the diffuser axis, and a pipe extending from the toroidal duct transversely to the diffuser axis, wherein the diffuser discharges into the toroidal duct substantially along a radius of the toroid and wherein the toroidal duct is of varying cross-section around its circumference and substantially non-diffusing.

2,781,058
FLOW CONTROL DEVICE

John D. Warbus, Lombard, Ill., assignor to General Electric Company, a corporation of New York

Application September 6, 1951, Serial No. 245,289
5 Claims. (Cl. 138—45)

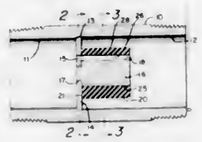


1. A flow control device, including structure defining a casing having fluid inlet and outlet passages and a chamber upstream of said outlet passage, said chamber being of larger internal diameter than said outlet passage, a cylinder of less diameter than said chamber, flange means fixed to said cylinder and extending radially therefrom to engage with the surrounding wall of said chamber to provide an annular space about said cylinder communicating only with said inlet passage, said cylinder having an axial passage of venturi shape registering with said casing outlet passage, means for maintaining a pre-established diameter of the inlet portion of said cylinder passage, and means for maintaining a pre-established diameter of the outlet portion thereof; a relatively long body portion of said cylinder intermediate its said inlet and outlet portions and comprehending the throat portion of said venturi-shaped passage being of resilient material, whereby the area of said throat will expand or contract according to the pressure differential between the static head of fluid within said annular space and the velocity head of fluid flowing through said cylinder passage.

2,781,059
FLOW CONTROL DEVICE

Edward J. Frey, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application January 8, 1954, Serial No. 402,947
5 Claims. (Cl. 138—46)



1. A controller for fluid under varying head pressure comprising: an outer casing having an inner fluid flow channel including a cylindrical outlet portion of uniform cross-section for a substantial length, a cylindrical inlet portion of larger cross-section and of uniform cross-section for a substantial length, and an intermediate wall portion between said inlet and outlet portions, said outlet portion having one or more longitudinal grooves; an inner solid cylindrical member of uniform diameter substantially the same as the diameter of said outlet portion extending for a substantial length and being partly in and supported by said outlet portion and having a portion cantilevered in said inlet portion and extending axially along said inlet portion; and an outer flexible tube member in said inlet portion around the cantilevered portion of said solid member with an end against said intermediate wall portion, said flexible tube member being radially spaced from said outer casing, said flexible member having an inner cylindrical surface of uniform cross-section throughout its effective controller length and having one or more longtiudinal grooves of uniform cross-section throughout their effective controller length and aligned with said first named one or more longitudinal grooves.

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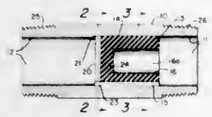

A controller adapted to be interposed in a fluid line for maintaining a substantially constant rate of flow in said line irrespective of varying head pressure comprising, a rigid tubular member having a passageway extending therethrough, the upstream portion being larger than the downstream portion to form a circular shoulder intermediate the ends of said passageway, an annular supporting disk abutting said shoulder, and a resilient flow control member fitting within said passageway having an end portion abutting said supporting disk, said resilient member comprising a substantially hollow cylindrical central chamber of uniform diameter throughout its length extending part-way therethrough and with its open end facing the inlet side of said rigid member, a plurality of straight longitudinally extending circumferentially spaced ribs formed integral with said resilient member in line contact with the inner surface of said passageway, said ribs being joined by integral arcuate portions that are spaced from said inner surface to form straight longitudinally directed circumferentially spaced grooves between said ribs, said arcuate portions moving outwardly toward said passageway surface to restrict flow through said grooves when fluid pressure is applied to said resilient member central chamber, said supporting disk being formed with ribs and arcuate portions matching the ribs and arcuate portions of said resilient member and abutting the entire end area of said resilient member.

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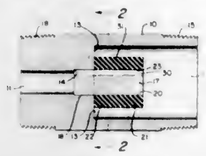

2. A controller having an inlet side and an outlet side and adapted to be connected in a fluid line for maintaining a substantially constant rate of flow in said line irrespective of varying head pressure comprising, an outer flexible tube member on said inlet side having an inner surface and being of uniform cross-section along its effective fluid controlling length, an inner solid member with an outer tubular shaped surface having longitudinally directed grooves and being of uniform cross-section along its effective fluid controlling length, said grooves extending along the effective fluid controlling length of said solid member and connecting said inlet and outlet sides of said controller, said outer surface being in contact with said inner surface between said grooves, and means radially spaced from said outer flexible tube member defining a pressure space therewith, said pressure space being adapted to contain inlet static fluid head pressure for variably constricting said grooves, whereby the flow of fluid from said inlet side to said outlet side through said grooves is controlled.

2,781,062
WOVEN BELT CONSTRUCTIONS

Robert L. White, Claremont, Calif.

Application October 3, 1955, Serial No. 538,123
4 Claims. (Cl. 139—425)

1. A new and improved belt of the class described which comprises: first and second woof wires located one above the other, each of said wires being bent so as to include loops facing alternate directions, said loops on said wires being of approximately equal dimensions, and said loops on said second woof wire being offset with respect to said loops on said first wire; and first and second warp wires engaging said woof wires so as to pass over parts of said loops formed on said first woof wires and parts of said loops formed on said second woof wires.

2,781,063
DROPPER BOTTLE CAP

Harold W. Williams, Pawling, N. Y.

Application August 17, 1955, Serial No. 529,045
7 Claims. (Cl. 141—24)

1. A dropper bottle cap comprising a cap shaped member of plastic material provided with interior screw threads for engagement with the neck of a bottle, an upwardly extending rim surrounding an air space at the top of the cap, an applicator tube attached directly to and extending downwardly from the cap and arranged in communication with said space, a diaphragm member of resilient plastic material providing a top closure for said

mission having driving and driven elements and a plurality of pressure actuated means, said unitary hydraulic valve control means comprising a valve casing, and a valve structure rotatably oscillating therein, said valve casing having a fluid pressure inlet means, a vent outlet means, and a plurality of pressure outlet means respectively adapted for successive connection with said plurality of pressure actuated means of said mechanism, one of said pressure outlet means being angularly offset from one side of said vent outlet means, another of said pressure outlet means being angularly offset an equal distance from the opposite side of said vent outlet means, said valve structure provided with a receiver communicating at all times with the fluid pressure inlet of said casing and having separate outlet passages communicating with said receiver and adapted to be successively placed into communication with said plurality of pressure outlet means of said valve casing, said valve structure having an arcuate exhaust passage separate from said outlet passages and arranged for open connection at all times with said vent outlet means and for alternate communication with each of said offset pressure outlet means, one of said outlet passages being angularly offset from one end of said arcuate exhaust passage, another of said outlet passages being angularly offset an equal distance from the other end of said arcuate exhaust passage, the arcuate dimensions from said offset outlet passages to the ends of said arcuate exhaust passage being substantially equal to but slightly less than the arcuate dimensions of said offset pressure outlet means whereby to provide a slight overlap between pressurizing and exhausting of same, said arcuate exhaust passage thereby being disposed in timed relationship with respect to said offset outlet passages on oscillation of said valve structure to exhaust a previously pressurized offset outlet means substantially immediately before pressurization is removed therefrom and prior to the succeeding opening of the other offset outlet means, said arcuate exhaust passage of said valve structure comprising an arcuate annular groove extending about the periphery of said valve structure and communicating at all times with said vent outlet means of said casing, said arcuate groove moved to vent only such offset outlet means which are out of registration with pressurized outlet passages.

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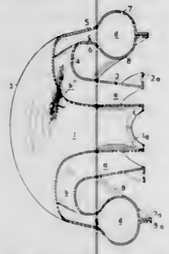

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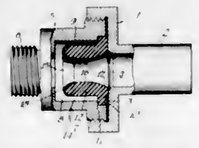

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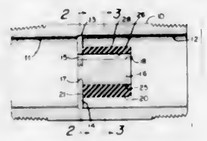

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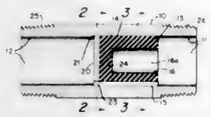

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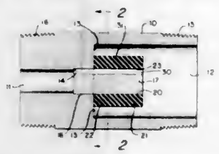

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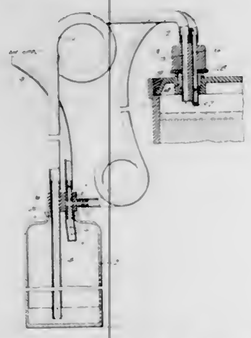
Harold W. Williams, Pawling, N. Y.
Application August 17, 1955, Serial No. 529,045
7 Claims. (Cl. 141—24)

1. A dropper bottle cap comprising a cap shaped member of plastic material provided with interior screw threads for engagement with the neck of a bottle, an upwardly extending rim surrounding an air space at the top of the cap, an applicator tube attached directly to and extending downwardly from the cap and arranged in communication with said space, a diaphragm member of resilient plastic material providing a top closure for said

air space and having a depending skirt portion adapted to fit inside said rim, said skirt portion and said rim having interengaging rib and groove means to ensure an air tight connection, said skirt portion being inwardly flexible to permit the diaphragm member to be snapped into position in the cap after the parts have been completed to their final shape.

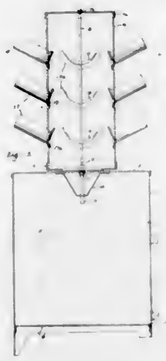
2,781,064
ELECTROLYTE DISPENSING APPARATUS
Kenneth Dawkins, Minneapolis, Minn., assignor to Gould-National Batteries, Inc., St. Paul, Minn., a corporation of Delaware
Application May 28, 1954, Serial No. 433,120
4 Claims. (Cl. 141—54)



3. In liquid dispensing apparatus for filling a receptacle having a top opening, a closure for said opening, a passage formed in said closure for conducting liquid to said receptacle, a second passage extending through said closure for exhausting air from said receptacle, said second passage being formed with an intake port adapted to be positioned at an elevation corresponding to the elevation of the liquid when the receptacle is full, a reservoir for the liquid, a flexible conduit disposed to receive liquid at one end from said reservoir and communicating at the other end with said passage for conducting liquid to said receptacle, a jet pump adapted to be operated by compressed air, means for supplying air under pressure to said pump, means for conducting the discharge from said pump into said reservoir, and a second flexible conduit connected at one end to said passage for exhausting air from said receptacle and connected at the other end to said pump whereby said pump may be made operative to draw air and excess liquid from said receptacle and to discharge the same into said reservoir.

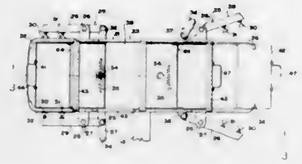
2,781,065
OIL CAN DRAIN STANDS
Simon C. Hofacer, Oscoda, Mich.
Application July 12, 1954, Serial No. 442,583
6 Claims. (Cl. 141—106)

6. In a stand for draining liquids from their containers, a base having a top and formed with a space beneath such top to accommodate a vessel receiving drained liquids, a hollow member surmounting and upstanding from said base and having a bottom closure rotatively seating on the base, a fitting establishing a vertical axis for rotation of said hollow member on the base, such member and the base being respectively a supported and supporting member, said fitting being fixed on one of such members and projecting freely into the other, and having a liquid inlet above and adjoining the closure and having a downwardly directed outlet, a liquid discharge pipe fixed on and downwardly projecting from said fitting and communicating with said outlet, and a plurality of supports for liquid containers, such supports being exteriorly carried by the hollow member, such member being apertured in



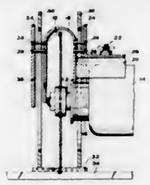
proximity to each such support to deliver draining liquid into such member.

2,781,066
PACKAGING APPARATUS FOR PACKING PERISHABLE FOODS IN ICE
Vernon R. Weingart, Mantua, Ohio
Application October 30, 1953, Serial No. 389,270
5 Claims. (Cl. 141—317)



1. An apparatus for packaging perishable foods in ice which consists of framing members for supporting a bag in a vertical position, mouth open, means pivoted in the horizontal plane for gripping and supporting said bag against the framing members, means above the level of the framing members and to one side thereof comprising at least a single bottomless compartment and support means therefor adapted to be brought over the mouth of the bag, the bottomless compartment being generally smaller than the open mouth of the bag.

2,781,067
SAFETY DEVICE FOR ROTARY CUTTERS
Robert C. Kaley, Landisville, Pa., assignor to De Walt Inc., a corporation of Pennsylvania
Application September 22, 1954, Serial No. 457,587
7 Claims. (Cl. 143—159)

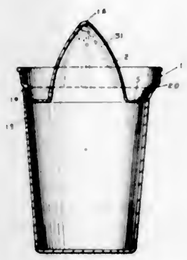


7. A guard for a rotary cutter comprising a ring mounted in axially spaced relation to said cutter and parallel thereto, a pair of axially spaced members forming a channel wherein said ring is mounted and at least two pins in said channel and contacting said ring to loosely support it in said channel substantially concentric said cutter so said ring may be moved rotatively relative to said pins and radially from said pins.

2,781,068
ROTARY JOINTER HEAD AND CUTTER
Victor E. Anderson, Portland, Oreg., assignor to Prentice Machine Works, Inc., Portland, Oreg., a corporation of Oregon
Application October 26, 1953, Serial No. 388,154
5 Claims. (Cl. 144—218)

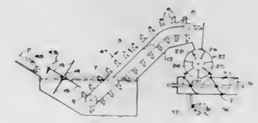
5. A veneer jointer head for cutting a straight edge in a stack of veneer sheets comprising a wheel having a discontinuous periphery made up of a plurality of recesses, a plurality of cutting teeth mounted in the recesses on the wheel and projecting therefrom, each tooth comprising a main cutting surface at a positive rake angle, a plurality of tapered lands and grooves in the top of the tooth having sharpened leading edges, a tooth base mounted in the recess and projecting laterally from one side of the wheel, a finishing cutting edge formed along the side edge of the tooth projecting therefrom, the lands and grooves in succeeding teeth being linearly staggered so that the grooves in one tooth are in alignment with the lands in the following tooth and vice versa.

2,781,069
JUICER AND MEASURING CUP COMBINATION
William R. Byrd, Erie, Pa.
Application October 12, 1953, Serial No. 385,323
1 Claim. (Cl. 146—3)



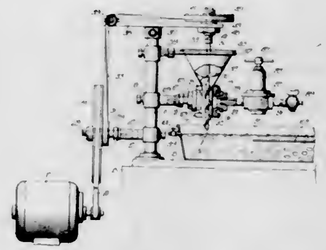
In combination, a juicer and a round container comprising an open topped container having a spout, a juicer supported on said container having a fruit engaging member with ridges thereon, said fruit engaging member terminating at the lower end in a radially outwardly extending portion to form a laterally extending portion, then extending generally axially and then outwardly to form a container engaging portion to engage the rim of said container and to support said juicer on said container, said axially extending portion extending into said container, and circumferentially spaced arcuate slots disposed through said radially extending portion to conduct fruit juice from one side of said juicer into said container, one side of said container bent outwardly to form said spout on one side of said rim, said axially extending portion of said juicer being bent outwardly to form a lip on said juicer interfitting with said container spout whereby relative rotation of said juicer is resisted, said juicer then extending axially to form a flange to telescopically engage said container and to support said juicer on top of said container in an inverted position with said lip on said juicer overlying said container spout, thereby forming a cover therefor.

2,781,070
APPARATUS FOR PEELING FRUIT AND VEGETABLES
Robert W. Kilburn, Lake Wales, Fla., and Frank D. Hickey, Mountain View, Calif., assignors to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application January 17, 1952, Serial No. 266,882
7 Claims. (Cl. 146—47)



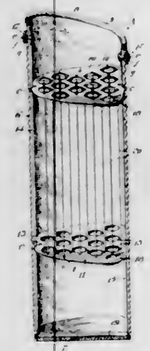
1. An apparatus for peeling fruit or vegetables comprising a tank adapted to contain an aqueous caustic solution, a treating chamber, means for maintaining steam under pressure in said chamber, means associated with said tank for immersing products deposited into the same in said solution to thereby completely coat said products with caustic solution, means for conveying the coated products to and for introducing them into said chamber whereby the coated products are subjected to steam under pressure in said chamber and the skin of the products is loosened and disintegrated under the combined action of the caustic coating and steam thereon, a cooling tank containing a cooling solution, means for discharging the treated products from the chamber suddenly into the atmosphere and into the cooling solution in said cooling tank, and means intermediate said discharging means and the cooling solution in the tank for directing jets of water upon the discharging products to slough off the loosened skin thereof.

2,781,071
HULLER HAVING FLEXIBLE HULLING TUBE
Ervine Olney Herman, Momence, Ill.
Application December 23, 1952, Serial No. 327,520
3 Claims. (Cl. 146—299)



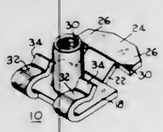
1. Dehulling apparatus for beans or the like comprising a screw conveyor, a portion of the conveyor comprising a cylindrical shaft with spaced spiral ridges thereon, the height of the ridges being substantially uniform and on the order of the diameter of the beans to be dehulled whereby a single layer of beans is conveyed, a flexible tube enclosing said portion of the conveyor, and means for applying fluid pressure to the outer side of the tube to force its inner face in contact with the conveyor and beans carried thereby.

2,781,072
RACK INSERT FOR GOLF BAGS
Louis L. Kouke, Los Angeles, Calif.
Application May 16, 1955, Serial No. 508,504
4 Claims. (Cl. 150—1.5)



1. In a club rack insert for golf bags, a pair of complementary plates formed with corresponding arrangements of club supporting apertures, a pair of elongated narrow posts between which said plates are interposed and arranged in spaced parallel relation to each other, means rigidly fastening said plates to said posts, and a series of parallel rods extending between said plates and connected at their ends thereto, there being a plurality of said rods leading from the margin of each of the apertures in said plates.

2,781,073
FASTENER AND HOLDER TO ENGAGE A SLOTTED PANEL
Warren L. Trafton, Grosse Pointe, Mich., assignor, by mesne assignments, to United-Carr Fastener Corporation, Boston, Mass., a corporation of Delaware
Application October 23, 1952, Serial No. 316,465
1 Claim. (Cl. 151—41.75)

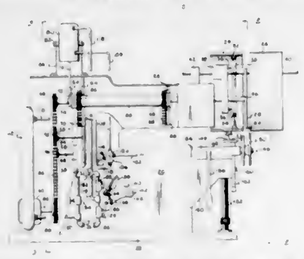


A fastening device for assembly into a slot present in the edge of a panel comprising a base, said base being of a width sufficient to span the slot in the panel for bearing against one face of the panel on both sides of the slot, a tongue extending from one end of the base and being inclined upwardly from the plane thereof, said tongue being centrally positioned relative to said base and having a width less than that of said base, a panel bearing portion of a width substantially equal to that of said base disposed on the other end of the tongue in spaced relation to the plane of the base for bearing against the panel face opposite to that engaged by the base at the end of the slots and on both sides adjacent the end, the outer corners of said panel bearing portion along the edge joining said tongue being downwardly turned in the direction of the plane of the base to form panel biting portions, a pair of spaced tongues extending from the other end of the base and being turned back to extend over the base to frictionally grip the panel edge on opposite sides of the slot, and a threaded member secured to said base between said spaced tongues and extending away from said base in the same direction as the spaced tongues.

2,781,074
LOAD DISTRIBUTING INSERT FOR PNEUMATIC TIRES
Harry Howard, Kansas City, Mo.
Application January 8, 1954, Serial No. 402,855
2 Claims. (Cl. 152—204)

1. For use with a pneumatic tire having a casing provided with an inflatable inner tube, a load distributing insert, mounted in the casing and positioned about the periphery of said inner tube, said insert comprising a sheath carrying two sets of spaced apart resilient bars of substantially equal lengths, the bars of each set being positioned in spaced apart end to end ring relation, said sets being transversely spaced apart, and the bars of the sets being circumferentially offset to break the joints therebetween, each of said bars having a length subtending an angular arc greater than that subtended by the area of contact of said tire with a roadway.

2,781,075
CONVOLUTION FORMING METHODS AND APPARATUS
Leslie W. Russell, San Diego, Calif., assignor to Solar Aircraft Company, San Diego, Calif., a corporation of California
Application September 17, 1952, Serial No. 309,985
11 Claims. (Cl. 153—77)



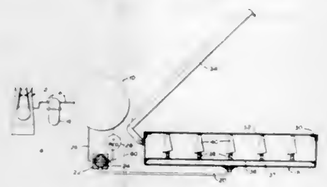
1. Apparatus for forming a convolution in a selected area of a tubular workpiece comprising a pair of freely rotatable cylindrical guide rolls for supporting said work piece at points closely adjacent said selected area, an inner forming roll of smaller diameter than said guide rolls, means mounting said inner forming roll internally of said workpiece opposite said selected area, means for bodily shifting said mounting means to selectively dispose the outer edge of said forming roll within and outwardly of the circumference of said guide rolls, and a freely rotatable outer forming roll mounted in opposed registering relation with said inner forming roll whereby when said inner roll is moved outwardly beyond said guide rolls, said selected area of said work piece will be forced outwardly into said outer forming roll to form a convolution in said work piece.

11. A method of forming convolutions in a selected area of a metallic tubular workpiece to a predetermined depth comprising the steps of forming a pair of convolutions at spaced points within said selected area to a depth less than said predetermined depth while restraining the intervening metal between said convolutions against substantial outward movement forcing said intervening metal radially outwardly beyond the depth of said pair of convolutions, forcing all of said selected area radially outwardly beyond the depth of said pair of convolutions, and finally forcing the central portion of said selected area radially outwardly to said predetermined depth while forcing the sides of the convolution axially towards each other.

2,781,076
ARC RESISTANT LAMINATE
Alfred W. Kehe, Berkley, Ill., assignor to The Richardson Company, Melrose Park, Ill., a corporation of Ohio
No Drawing. Application December 8, 1954, Serial No. 474,038
9 Claims. (Cl. 154—2.6)

1. A laminate having an average arc resistance of approximately 180 seconds as determined by the ASTM method No. D-495 comprising a plurality of superimposed paper base filler sheets impregnated with a phenolic resin, and wherein the surface lamina is provided with a resinous coating selected from the group consisting of butylated melamine formaldehyde resin, butylated urea formaldehyde resin and mixtures thereof.

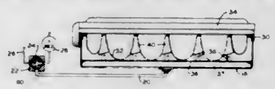
2,781,077
METHOD FOR VACUUM FORMING DUCTILE MATERIAL
Chester A. Dovidio, Leominster, Mass., assignor to Nixon Nitration Works, Nixon, N. J., a corporation of New Jersey
Application September 9, 1953, Serial No. 379,256
7 Claims. (Cl. 154—41)



4. The method of forming a sheet of thermoplastic material about a contoured object which comprises placing the object in an enclosure, covering the enclosure with a sheet of the thermoplastic material so as to render the enclosure substantially air-tight, applying heat to the thermoplastic material to soften the same, then applying reduced vacuum to the inside of the enclosure through the bottom thereof while still applying heat to the thermoplastic sheet so as to draw the sheet down into contact with the object situated therein, discontinuing the application of heat to the thermoplastic sheet, and thereafter applying full vacuum to the enclosure for the remainder of the drawing operation.

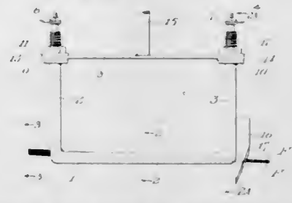
2,781,078
APPARATUS FOR VACUUM FORMING DUCTILE MATERIAL
Chester A. Dovidio, Leominster, Mass., assignor to Nixon Nitration Works, Nixon, N. J., a corporation of New Jersey
Original application September 9, 1953, Serial No. 379,256. Divided and this application June 4, 1954, Serial No. 434,619
7 Claims. (Cl. 154—41)

7. A vacuum forming apparatus for covering wood heels with a layer of pliable sheet material comprising a die box, a vacuum line connected with the bottom of the box for evacuating air from the interior thereof, a removable die plate adapted to be received in said box to form a vacuum chamber in the bottom of the box, a plurality of tubular nozzles projecting from the surface of the plate, means communicatively connecting the interior of each nozzle with said vacuum chamber, a closure on the



end of each nozzle, a spike projecting upwardly from each closure for impaling one of the heels to be covered, and an orifice in the side of each nozzle for drawing the sheet material down about the heel to be covered.

2,781,079
SEALING APPARATUS
John Atlee Ruby, Wilmington, Del., and Arthur Robert Reary, Boyertown, Pa.; said Ruby assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application November 17, 1953, Serial No. 392,562
7 Claims. (Cl. 154—42)



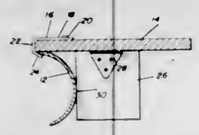
1. A heat-sealing device for heat-sealing thermoplastic webs comprising, in combination, a bar comprising an elongated, substantially straight, horizontal section and an upwardly projecting arm at each end thereof, said horizontal section being so formed in cross-section as to present two oppositely disposed heat-sealing surfaces, said surfaces meeting in a line below and parallel to the longitudinal axis of said horizontal section and on the vertical axis thereof, and means for heating said bar to heat-sealing temperatures.

2,781,080
WHEEL CHAIR
William Pavlicek, Katy, Tex.
Application June 2, 1955, Serial No. 512,623
1 Claim. (Cl. 155—30)

A wheel chair comprising two pairs of elongated side members, one of the side members of each pair being longer than the other, the side members of each pair being crossed and pivotally connected to each other intermediate their ends, the side members of corresponding lengths being arranged parallel to each other, the shorter side members being inclined downwardly and rearwardly and each having a rearward extension of its lower end lying in a substantially horizontal plane, the longer side members being inclined downwardly and forwardly and each having a forward extension of its lower end lying in a substantially horizontal plane, means rigidly connecting

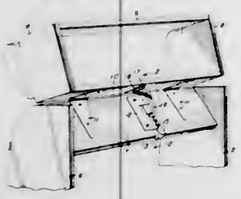
the side members of corresponding lengths in spaced relation to each other, a pair of axially aligned wheels connected to the rearward extensions and arranged to support the shorter side members, a pair of swivel type wheels connected to the forward extensions and arranged to support the longer side members, a seat pivotally connected to the shorter side members and pivotally and slidably connected to the longer side members, and a back rest pivotally connected at one end to the longer side members, the back rest being suspended from its pivotally connected end and the lower end of the back rest normally engaging and being supported by the seat.

2,781,081
BUMPER SEAT
Fred B. W. Hynes, Ottawa, Ill.
Application February 8, 1954, Serial No. 408,869
1 Claim. (Cl. 155—78)



A seat attachment for vehicle bumpers comprising a seat member, said seat member having flat top and bottom surfaces and a straight edge portion, a pair of spaced hook members secured to said seat member, each hook member including a stem rigidly affixed to the top surface of said seat member and extending to said straight edge, a bight portion projecting downwardly at said straight edge, and a free end portion extending angularly downwardly under the straight edge to underlie said bottom surface of the seat member whereby a bumper member may be received and hooked between said free end and the bottom surface of the seat member, and an abutment member hinged to the bottom surface of the seat member for swinging downwardly against a bumper about an axis transverse to said straight edge.

2,781,082
UPHOLSTERED CHAIR WITH ADJUSTABLE HEAD REST
Eugene M. Decker, Montgomery, Pa., assignor to Isaac C. Decker, Inc., Montgomery, Pa., a corporation of Pennsylvania
Application November 15, 1954, Serial No. 468,827
1 Claim. (Cl. 155—177)

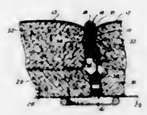


An upholstered lounging chair comprising a body structure including connected seat, arms and back all of which are covered by upholstery, said back having adjacent its upper end a rearwardly inclined frame member, a head rest having at its lower side a transverse frame member, hinges connecting said members, a plate carried by said back frame member, said plate having a portion at one side thereof turned upwardly and shaped to form a rack bar overlying a groove in the back frame member, said plate being cut away at the upper end of the rack bar to expose the groove beneath the rack bar, a flat spring disposed in said groove and extending beyond the lower end of said plate, an arm pivoted to the head rest member having a lower lateral portion engaging said rack and a spring connected to said arm for swinging said lower arm lateral portion downwardly to provide positive engagement with the rack bar as the head rest is moved toward the front of the chair, said lower arm portion moving off the rack bar at the upper end thereof and through the slot into said groove and into engagement with the flat spring upon return movement to the lower end of the rack bar.

2,781,083
SPRING STRUCTURE
Paul Agrillo, Gilroy, Calif.
Application July 22, 1952, Serial No. 300,200
3 Claims. (Cl. 155—179)

1. A spring structure comprising a plurality of helically coiled springs having at least two equidiametered dead convolutions at each of their ends, said dead convolutions being disposed at right angles with respect to the axes of said springs, and adapted to receive a diaphragm of flexible material with the marginal edges thereof disposed between the last and penultimate ones of said dead convolutions.

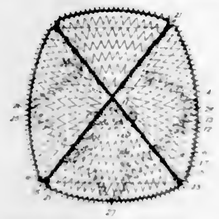
2,781,084
VEHICLE SEAT CUSHION
Michael R. Laitur, Plymouth, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application July 2, 1953, Serial No. 365,715
1 Claim. (Cl. 155—179)



In a vehicle seat cushion, a rectangular frame having a transverse dimension extending transversely of the vehicle and a longitudinal dimension extending at right angles thereto, a plurality of generally parallel sinuously corrugated wire springs extending in a direction longitudinally of said frame and being spaced from each other a short distance transversely of said frame, said wire springs having straight bar portions extending transversely of said frame and interconnected by integral end loops, resilient padding overlying said wire springs, upholstery material overlying said padding, a curved heading having a narrow cylindrical welt overlying said upholstery material and an attaching flange extending through separated portions of said upholstery material and said padding, said heading being curved transversely of said frame so that transversely spaced portions of the heading are located in different positions longitudinally of the frame and cross different portions of said sinuously corrugated wire springs, a bolster wire curved to correspond in curvature to the curvature of said heading and positioned between said sinuously corrugated wire springs and said padding, a plurality of flat clips with at least one clip being provided for each of said sinuously corrugated wire springs, each of said flat clips extending longitudinally of said frame and overlying two adjacent straight bar portions of one of said wire springs and having return bent end flanges crimped over the straight bar portions

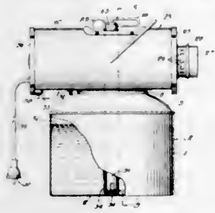
to clamp the clip thereto, the clips secured to the various wire springs being located in different positions on said wire springs longitudinally of said frame and in each instance being located so that the curved bolster wire which crosses each clip within the longitudinal extent thereof, each clip having a plurality of longitudinally spaced holes therein providing a plurality of selective attachment locations for said bolster wire so that one such hole in each clip will intersect or be closely adjacent to the adjacent portion of the curved bolster wire, a hog ring encircling the bolster wire adjacent each clip and extending through the hole in said clip located nearest the intersection of said clip and said bolster wire to anchor the bolster wire to all of the wire springs and to retain the bolster wire in its predetermined curved shape, and a listing strip attached to said bolster wire and to the flange of said heading.

2,781,085
VENTILATING SPRING CUSHION
Samuel P. Crane, Great Neck, N. Y., assignor to R. O. Kent Co., New York, N. Y., a copartnership consisting of said Crane and Stephen D. Kent
Application June 10, 1954, Serial No. 435,660
6 Claims. (Cl. 155—182)



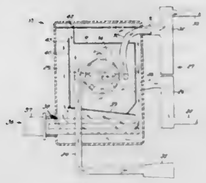
1. In a ventilating spring cushion having a plurality of rows of spring coils, means for securing said rows against displacement comprising a locking coil spring having a substantially straight axis and interlaced with and crossing successive rows, and a substantially straight knitting wire confined loosely within the interior of the locking spring in substantially parallel relation to the axis of the spring, said wire passing through and confining a spring coil of each row within the interior of the locking spring at a point where the locking spring crosses the row.

2,781,086
LIGHTER TORCH ASSEMBLY FOR A HEATER OF THE VAPOR GENERATING TYPE
James L. Breese, Santa Fe, N. Mex., assignor to Breese Burners, Inc., Santa Fe, N. Mex., a corporation of Delaware
Application August 25, 1954, Serial No. 452,075
3 Claims. (Cl. 158—10)



1. A lighter torch assembly for use with a heater of the vapor generating type, said assembly including a generally upright air duct adapted to extend through a burner housing and into a fuel receptacle, said duct having an open upper end, an aperture in the upper portion of the duct to admit air to the interior of the duct, an elongated member having a handle at the upper end thereof and a wick carried at the lower end thereof, said member being removably mounted in said air duct, said air duct having a flame and air outlet aperture in the lower portion thereof, a shutter carried by the upper end of said member and movably positioned by the handle in controlling relation to said aperture in said duct to thereby regulate combustion adjacent the lower end of said duct, and a closure for the open upper end of said air duct operatively associated with the upper end of said member.

2,781,087
FUEL OIL CONDITIONING SYSTEM
Peter Storti, Lakewood, and Ernest C. Webb, Bay Village, Ohio, assignors to Iron Fireman Manufacturing Company, Portland, Oreg.
Application September 17, 1953, Serial No. 380,816
6 Claims. (Cl. 158—36)



1. An oil conditioning system for an oil burner comprising a reservoir, a circulating pump having an inlet and an outlet, a first conduit means connecting said inlet to a remote source of oil, a second conduit means connecting said outlet to said remote source of oil, spill means from said second conduit to said reservoir, a third conduit constituting an outlet means for conditioned oil from said reservoir, a heater in said reservoir, baffle means in said reservoir adapted to direct oil from said spill means in said reservoir downwardly over said heater to be heated thereby then upwardly to release to a space above the surface of said oil in said reservoir tthe gas entrained in said oil, and said spill means including means opening from said second conduit below the surface of said oil in said reservoir to spill oil into said reservoir and means opening from said reservoir to said second conduit above the surface of said oil to spill gas from said reservoir to said second conduit.

2,781,088
MULTIPLE GAS BURNER
William P. Ayers, Lombard, Ill.
Application November 20, 1952, Serial No. 321,643
2 Claims. (Cl. 158—104)

1. In a heating device, a metal manifold through which a mixture of air and gas passes, said manifold having a wall formed with openings punched out of the metal, outwardly flared spaced apart portions of metal extending from the edges of each of the openings, said flared portions of metal at each opening defining a nipple, burner members of refractory material having hollow bases, said hollow bases being fitted over the nipples and ceramic cement sealing the spaces between the flared portions and the adjacent inner surfaces of the burner bases so that the burner members are securely bonded onto the nipples concentric to the openings.

2,781,089
EVAPORATING PROCESS AND APPARATUS
James Mair and Guy E. Sanford, Birmingham, Ala., assignors to Goslin-Birmingham Manufacturing Company, a corporation of Alabama
Application March 12, 1953, Serial No. 341,992
4 Claims. (Cl. 159—20)

1. The method of evaporating liquid which comprises maintaining a closed system circulating supply of cleaning liquid separate from the liquid to be evaporated, passing liquid to be evaporated and the cleaning liquid simultaneously in separate parallel paths through one zone in heat transfer relation with a heating medium therein maintained in a path separate from both the liquid to be evaporated and the cleaning liquid and heating the liquid to be evaporated therein under pressure to a temperature just below that at which ebullition occurs, regularly interchanging the liquid whereby after interchange each liquid flows in the path formerly occupied by the other liquid before interchange, conveying the heated liquid to be evaporated to another zone remote from the heating medium which zone is maintained at a pressure below that at which ebullition occurs in the heated liquid, and recirculating the cleaning liquid in the said closed system.

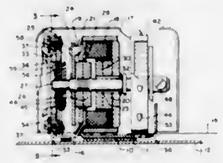
2,781,090
COMBINATION SCREEN AND STORM SASH FRAMES
Donald E. Semling, Merrill, Wis., assignor to Wisconsin Window Unit Co., Merrill, Wis., a corporation of Wisconsin
Application October 15, 1954, Serial No. 462,483
1 Claim. (Cl. 160—91)

A combination screen and storm sash frame comprising side stiles and top, bottom and intermediate rails, said stiles and rails being integrally joined to define two sash seats, a glass permanently mounted in one of said seats and a screen permanently mounted in the other said seat, a separate storm sash, said frame being provided with ways to slidably receive said separate sash, said ways being offset laterally from the plane of said screen seat, said frame, permanent glass and screen, ways and separate sash comprising a unitary handled closure means for a window frame, a window frame having a sill and a lintel, said window frame sill and the lower rail of the sash frame having interengaging means and said window frame lintel and the top rail of the sash frame having releasable latch means, said interengaging means and said latch means comprising means for mounting and dismounting said sash frame with respect to said window frame.

2,781,091
VENETIAN BLIND HEADBAR AND HARDWARE THEREFOR
Adolphe W. Loucony, Bridgeport, Conn., assignor to Conso Metal Products, Incorporated, Bridgeport, Conn., a corporation of Connecticut
Application April 23, 1953, Serial No. 350,664
5 Claims. (Cl. 160—173)

1. In a Venetian blind having a sheet metal open-top headbar having a bottom and side walls and tilter and cord lock fittings having a bottom portion mounted therein adjacent each end, the improvement wherein the bottom portion of the fitting conforms to the bottom of the headbar and said side walls of the headbar are provided with resilient gripping means thereon adjacent the bottom to grip and hold the side edges of the fittings, said gripping means yielding to enable the fittings to be snapped into the headbar with the bottom portion of the fitting in face-to-face engagement with the bottom of the headbar so that downward pull on the fitting causes no relative movement between the bottom portion of the fitting and the bottom of the headbar to release the grip of the gripping means on the edge of the fittings in the headbar.

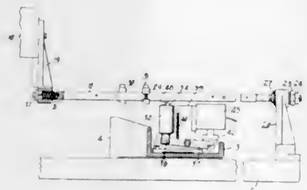
2,781,092
SEVERING DEVICE
Berthel F. Madsen, Chicago, Ill., assignor to Teletype Corporation, Chicago, Ill., a corporation of Delaware
Application April 20, 1954, Serial No. 424,347
7 Claims. (Cl. 164—41)



1. A material severing device comprising a pair of cooperating cutting elements, a rotatable shaft, a lever mounted upon the shaft and adapted to move one cutter with respect to the other when said shaft is rotated, material advancing means mounted upon the shaft in positive engagement with the material and adaptable to prevent rotation of said shaft in a predetermined direction whereby activation of said cutter is controlled by the advance of said material.

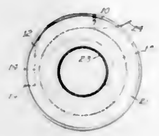
2,781,093
GAUGE FOR PAPER CUTTING AND LIKE MACHINES
William C. Rupp, Parma, Ohio, assignor to The Chandler & Price Company, Cleveland, Ohio, a corporation of Ohio
Application February 19, 1954, Serial No. 411,309
9 Claims. (Cl. 164—59)

9. In paper cutting machines and the like having a movable gauge; positioning means for said gauge comprising stops, a counterstop on said gauge adapted successively to engage said stops, means mounting said stops and counterstop for limited relative straight line movement in the direction of gauge movement independently of movement of said gauge, means operable to disengage said counterstop and an opposed stop independently of further gauge movement, and means operative thereupon



to impart such limited relative movement to said stop and counterstop to prevent reengagement and permit subsequent further advance of said gauge.

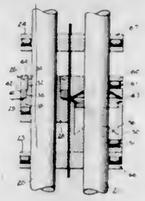
2,781,094
SPOOL TAPE CUTTER
David E. Martin, Woodlake, Calif.
Application March 23, 1954, Serial No. 418,163
1 Claim. (Cl. 164—84.5)



A tape cutter, comprising a substantially rectangular flat base, an arm extending from said base and having a flange on an end thereof, said arm extending arcuately from said base, said flange being arranged at right angles with respect to the adjacent portion of said arm, a cutting blade secured to said flange, said cutting blade including a portion extending beyond the free edge of said flange, said blade being of greater length than said flange, supporting webs extending inwardly from said rectangular flat base and having a pair of similar arcuate fingers extending from one end thereof, said webs being wider than the remaining portion of said fingers, heel portions extending from the opposite ends of said webs and adapted to snap over the ends of a core of a spool of tape, a flange extended outwardly from said base and arranged at right angles to said base, said fingers adapted to be inserted between the ends of a spool of tape, said fingers being arranged in spaced parallel relation with respect to each other, said fingers adapted to slide around the core of the spool of tape whereby a strip of tape of any length may be cut from the spool of tape, the free ends of said fingers being spaced from said heel portions.

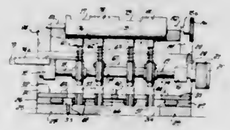
2,781,095
ROLLER PERFORATING DEVICE
Isidore Spinner, Chicago, Ill.
Application August 18, 1951, Serial No. 242,534
6 Claims. (Cl. 164—99)

1. Cutting instrumentalities for forming a linear series of perforations in a blank of material comprising a rotary cutting die having a series of radially projecting cutting teeth extending outwardly from the periphery thereof and of a width substantially equal to the width of the perforations to be formed in the blank, a rotary backing die designed for cooperation with said cutting teeth, said rotary dies being mounted for rotation about respective vertical axes, means for feeding the blank between said dies for successive perforating operation thereupon by said teeth, said backing die being of hollow cage-like construction and having circumferential openings and being provided with an upwardly facing circular knife edge over which said cutting teeth are adapted to successively pass upon rotation of the cutting die, said cage-like backing die being provided with a conical mound-like bottom having walls tapering outwardly toward the



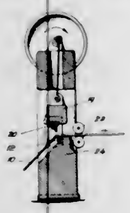
lower portion thereof to direct chips entering the die through said circular shearing edge outwardly through the said circumferential openings thereof, and means for rotating one of said dies, the other die being adapted to rotate due to tractional engagement with the blank undergoing feeding.

2,781,096
ADJUSTABLE PUNCHING DEVICE
William E. Garity, Los Angeles, Calif., assignor to Walter Lantz Productions, Inc., Los Angeles, Calif., a corporation of California
Application October 12, 1953, Serial No. 385,611
8 Claims. (Cl. 164—111)



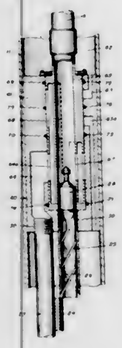
1. An adjustable punching device adapted to accurately and selectively form registration ports in cells adapted for use in the production of stereoscopic motion pairs, comprising: a body including a back provided with horizontally extending guides, a shaft having groups of oppositely inclined threads at its end portions, journaled on said body in parallel relation to said guides, and a bottom provided wtih a table mounted for controlled movement toward and away from said guides; two pairs of punch frames mounted for slidable movement on said guides, alternate punch frames being rigidly connected for simultaneous movement, each end frame being in operative threaded engagement with an end portion of the threaded shaft, whereby alternate punch frames are simultaneously and equally in opposite directions; removable, work-locating pins carried by the work table; each punch frame including a female die and a movable punch; a selectively operable punch operating head carried by said frame for actuating the punches in said punch frames, said punch operating head comprising a vertically movable horizontally disposed, controllably rotatable cylinder provided with a continuous, longitudinally extending face portion and spaced flats; said operating head being adapted to be partially rotated to present said continuous face in one position of said head, whereby all four punches may be simultaneously actuated, and a pair of flats in another position of rotation of said head whereby said flats prevent actuation of one selected pair of punches and allows cylindrical surfaces of said head to simultaneously operate the other selected pair of punches; and means for controllably actuating said threaded shaft and indicating the position or spacing of the punches.

2,781,097
MANUFACTURING SMALL-HOLE SIEVES
Hans Nold, Stockstadt (Rhine), Germany, assignor to Extraction & Chemical Company, Inc., New York, N. Y.
Application August 7, 1951, Serial No. 240,719
Public Law 619, August 23, 1954
Patent expires January 30, 1970
3 Claims. (Cl. 164—125)



1. The method of producing small-hole sieves from sheet metal of a diameter up to 1.5 mm., consisting in forming the small holes in closely spaced parallel rows across the metal sheet with axes extending oblique-angled to the plane of the sheet and with camlike beads on one side of the bottom of the sheet by the steps of intermittently feeding the sheet of metal over an edge of a stationary block and beneath an upper strip of closely spaced sharp pointed teeth that are end to end offset with respect to the block edge, moving the upper strip of teeth under pressure downwardly at a stationary position of the sheet to a position where the teeth points slightly overlap the block edge, the extending portion of the sheet swinging under pressure freely over the block edge and forming the small holes of the nature aforesaid by said downward movement of the teeth when they overlap said block edge at the points to be cut, raising the teeth to their initial position above the plane of the sheet, and feeding the metal sheet a step forward after completing of the aforesaid steps, the free perforated portion of the sheet being always freely swingable over the block edge under successive downward pressure movement of the teeth.

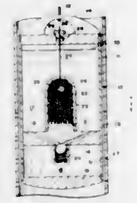
2,781,098
PERMANENT WELL COMPLETION APPARATUS
Walter J. Bielstein, Corpus Christi, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application September 7, 1954, Serial No. 454,342
16 Claims. (Cl. 166—55)



3. Permanent well completion apparatus which comprises, in combination, a mandrel adapted to be connected to the lower open end of a tubing string permanently arranged in a cased well at a level above a plurality of hydrocarbon productive strata having a passageway adapted to communicate with the tubing on connection thereto, an elongated tubular member connected to the lower end of said mandrel on an axis off-set from the longitudinal axis of the tubing, a nipple connected to said mandrel coaxially with the longitudinal axis of the tubing, retrievable plug means in said nipple for opening and closing said nipple and adapted to direct fluid flow from the tubing through the mandrel to said tubular member, an elongated carriage adapted to be lowered through said mandrel and nipple, a track member on said tubular member extending substantially the length of said tubular member and a spiral indexing means in said nipple for positioning said carriage on said track member.

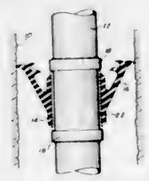
4. Apparatus in accordance with claim 3 in which the carriage is a gun perforator.

2,781,099
OIL WELL TOOL
John D. Chesnut, Newport Beach, Calif., assignor to Aerojet-General Corporation, Azusa, Calif., a corporation of Ohio
Application April 8, 1954, Serial No. 421,849
7 Claims. (Cl. 166—63)



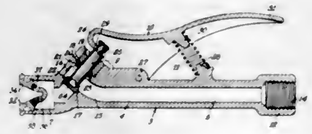
1. Apparatus for dumping fluids into well casings comprising a carrier having a vaporizing chamber, a heating element comprising a rigid fuel container in the vaporizing chamber and a self combustible fuel in the fuel container, said fuel container entirely surrounding the fuel and isolating it from surrounding pressures, and exhaust means from the vaporizing chamber communicating with the outside of the carrier, whereby fluid to be dumped may be placed in said vaporizing chamber in contact with the heating element, and heat from the heating element resulting from combustion of the fuel heats the fluid thereby creating a vapor pressure which expels fluid from the vaporizing chamber through the exhaust means into the well casing, the combustion of the fuel occurring independently of pressures surrounding the heating element.

2,781,100
WELL BORE SCRAPING DEVICE
Edwin C. Pyle and Forrest C. Pittman, Duncan, Okla., assignors to Halliburton Oil Well Cementing Company, Duncan, Okla
Application August 1, 1955, Serial No. 525,548
7 Claims. (Cl. 166—173)



5. In a well bore scraping device adapted to be attached to a well casing, comprising, a resilient finger member, said member having an arm extending from a base at an angle acute relative to said base, said base having means to be attached to said casing, said arm having at least one scraping element formed substantially normal to and extending into said acute angle, said arm terminating in an actuating element, said actuating element being adapted for frictional contact with a well bore wall whereby movement of said base relative to said well bore wall in the direction in which the arm is inclined relative to said base will flex said arm in pivoted relation about said actuating element and transfer said scraping element from inside said acute angle out into contact with said well bore wall.

2,781,101
NOZZLE FOR POWDER FIRE EXTINGUISHER
Frank B. Allen, Towaco, N. J., assignor, by mesne assignments, to The Fyr-Fyter Company, Dayton, Ohio, a corporation of Ohio
Application October 21, 1952, Serial No. 316,026
1 Claim. (Cl. 169—1)



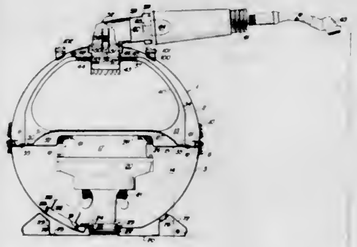
A shutoff nozzle for a dry powder fire extinguisher comprising a one-piece housing generally tubular in shape, the housing having a passage therethrough, one end of the passage being the inlet end, the other end of the passage being the outlet end, the inlet and outlet ends substantially in axial alignment, the inner portions of the inlet and outlet passages turned upwardly to an intersection defining a valve chamber, the inner end of the inlet passage wall forming a valve seat, a valve member reciprocable in the valve chamber, a main raised extension on the upper surface of the housing forming a valve member guideway and having a lateral opening therethrough forming pivotal mounting means, a squeeze grip operating handle carried by the pivotal mounting means on the upper surface of the housing, the handle having an inwardly turned and slotted valve member engaging end, a downwardly directed extension on the squeeze grip operating handle, an upwardly directed extension on the housing positioned rearwardly of the pivotal mounting means, a coiled spring positioned to receive the housing extension within one end and the handle extension within the other end, the end of the outlet of enlarged diameter, a diffusion member positioned in the outlet, both ends of the valve member grooved, the upper groove adapted to be received in the slotted end of the squeeze grip handle, and valve seating material molded over the other end of the valve member and engaged in the lower groove.

2,781,102
TILTING HOOD AND CAB FOR MOTOR VEHICLES
Evan S. Prichard, La Canada, Calif., assignor to Cook Bros. Equipment Co., Los Angeles, Calif., a corporation of California
Application May 7, 1953, Serial No. 353,517
7 Claims. (Cl. 180—89)

1. In a motor truck: a frame; an engine at one end of the frame and substantially to one side of the longitudinal center thereof; a cab on the frame opposite the engine and substantially to the other side of the longitudinal center of the frame; a hood for the engine having an open side facing one side of said cab; and common means pivotally mounting the same end of the hood and the cab

on said frame so that one or both can be raised to an engine exposing position.

2,781,103
SPHERICAL CLEANER—GENERAL ARRANGEMENT
George P. Daiger, Canton, Dale C. Gerber, North Canton, and Werner G. Seck, Canton, Ohio, assignors to The Hoover Company, North Canton, Ohio, a corporation of Ohio
Application March 25, 1954, Serial No. 418,556
11 Claims. (Cl. 183—37)

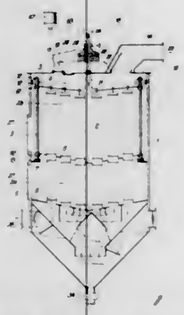


3. A suction cleaner comprising, a hollow sectional casing, a support for said casing, a bulkhead dividing said casing into substantially equal volumes, said casing being separably connected at said bulkhead to form upper and lower parts with said bulkhead mounted on said lower part and having a central opening between said parts, suction creating means mounted within said lower part, an air inlet connection formed in said upper part remote from said bulkhead, a filter having an air inlet opening within said upper part and substantially occupying its entire volume when in its inflated condition, means for supporting said filter within said upper part with said air inlet in alignment with said air inlet connection, said supporting means being attached to said bulkhead adjacent the edge thereof and comprising a skeletal frame extending upwardly along the inner wall of said upper part and an inwardly extending portion in alignment with said air inlet connection and means for detachably connecting said filter to said inwardly extending portion with said inlet opening in alignment with said inlet connection whereby said filter is fully exposed for removal and replacement when said upper part is separated from said lower part.

2,781,104
SLEEVE FILTER PLANT
Georg Fischer, Porz (Rhine), Germany
Application January 5, 1954, Serial No. 402,290
Claims priority, application Germany January 14, 1953
7 Claims. (Cl. 183—58)

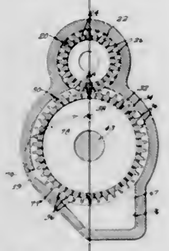
1. In a filter device, a casing having a fixed lower horizontal frame, a plurality of freely swinging rods pivotally carried in the casing, an upper movable frame supported by said rods, a series of vertical sectional filter sleeves suspended from the upper frame and attached to the lower frame in stretched condition, a vibrator acting on the movable frame to impart a rotary oscillating move-

ment to the sleeves, and a second movable frame pivotally supported on the lower free ends of the rods, and collars



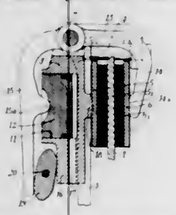
on said second movable frame for connection with the opposite sections of said sleeves.

2,781,105
SELF-LUBRICATING GEAR ASSEMBLY
Robert Cliborn, Cleveland, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application February 2, 1953, Serial No. 334,631
5 Claims. (Cl. 184—11)



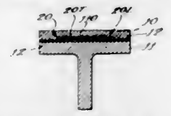
1. A lubrication system for meshing gears comprising, a rotatable gear having circumferentially spaced gear teeth, a casing having a sump formed therein holding a supply of lubricant in proximity to the teeth of the rotating gear, means providing a passageway in said casing receiving at one end thereof lubricant displaced by the teeth of said gear, said gear having a hollow portion providing a lubricant reservoir communicating with the other end of said passageway, and passageway means formed in said gear communicating with said reservoir and conducting lubricant outwardly of said reservoir to the said teeth of said gear.

2,781,106
DISC BRAKES FOR VEHICLE WHEELS
René Lucien, Paris, France
Application February 1, 1955, Serial No. 485,554
Claims priority, application France October 16, 1954
5 Claims. (Cl. 188—106)



1. A vehicle wheel brake comprising in combination a disc entirely fixed with respect to the said wheel, a fork-shaped support fixed with respect to the vehicle; a shaft carried by said support, the axis of said shaft being at right angles to the axis of the wheel; at least one pair of braking segments movable upon said support and parallel to the axis of the wheel and disposed on opposite sides of said disc; at least one first member rotatably movable about the axis of said shaft and adapted to be applied against one of said segments upon its face opposite to that which faces the disc; a second member of U-shape rotatably movable about the axis of said shaft, the two branches of said second member encompassing at the same time said first member and said pair of segments; and a motor operated by fluid under pressure and interposed between said first member and one of the branches of said second member, whereby an extension of said motor applies it on the one hand against one of said segments and, on the other hand, against one of the branches of said U-shaped member so as to cause the latter to pivot about its axis and thus to cause its other branch to apply a pressure against the other said segment.

2,781,107
FRICTION ELEMENT FOR BRAKE SHOES
Francis H. Smith, Detroit, and Ray E. Spokes, Ann Arbor, Mich., assignors to American Brake Shoe Company, New York, N. Y., a corporation of Delaware
Application March 20, 1952, Serial No. 277,704
5 Claims. (Cl. 188—251)



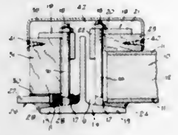
1. A friction element adapted for adhesive bonding to a brake shoe and comprising an elongated body of composition friction material having front and back faces and side and end edges, a woven reinforcing back having interwoven transverse and longitudinal strands embedded in a partially exposed relation in said back face of said body with the outermost longitudinal strands thereof spaced substantially from the respective side edges of said body to define unreinforced border strips along the respective edges of said back face, and strips of adhesive bonding material extended along and bonded to said border strips of said back face and overlapping and bonded to the exposed portions of the respective outermost strands of said reinforcing back.

2,781,108
SELF-ERECTING DERRICK
John P. Selberg, North Hollywood, and William H. Griffith, Oakland, Calif., assignors, by mesne assignments, to Dresser Equipment Company, Dallas, Tex., a corporation of Ohio
Continuation of application Serial No. 160,044, May 4, 1950. This application March 30, 1956, Serial No. 575,027
15 Claims. (Cl. 189—15)

2. In a self-erecting derrick, the combination of a derrick tower including an upwardly converging pair of legs; a derrick base for supporting said tower; a first pair of pivot means securing said tower legs to said base for rotation of said tower legs about a horizontal axis between an erect position and a prone position extending said tower horizontally in a forward direction from said pivot means; two unitary and structurally independent raising legs; a pair of universal pivot means on said base in front of said first pair of pivot means pivotally securing one end of each of said raising legs to said base for independent compound pivotal movement of each of said raising legs about a horizontal axis between positions corresponding to said prone and erect positions of said tower; means carried by the other ends of each of said raising legs, respectively, engaging said tower legs for movement therealong to apply to said tower an erecting force in response to

rotation of said raising legs about said second pair of pivot means; and power means for rotating both of said raising legs in unison.

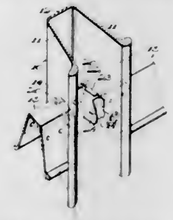
2,781,109
BUILDING CONSTRUCTION
Eugene Memmler, Glendale, Calif.
Application May 26, 1952, Serial No. 290,013
12 Claims. (Cl. 189—34)



1. A building construction having in combination: a structural member having a longitudinal axis and provided with a continuous metallic back-up flange, the structural member defining a recess adjacent said flange a wall panel member having an edge portion mounted adjacent said flange and extending into said recess, a horizontal stud-bolt in the recess having one end welded to said flange, a clamping strip extending in the direction of the longitudinal axis of said structural member and engaging an edge portion of said wall panel member, an element having an aperture receiving the stud-bolt, means on said element preventing separation of said element and said clamping strip, and a nut on the stud-bolt serving to clamp the wall panel member horizontally between the back-up flange and the clamping strip.

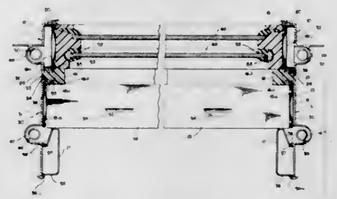
2,781,110
CONNECTOR FOR STRUCTURAL ELEMENTS
Warren C. Weller, Washington, D. C., and Hugh B. Johnson, Arlington County, Va., assignors to the United States of America as represented by the Secretary of the Navy
Application June 30, 1953, Serial No. 365,168
2 Claims. (Cl. 189—36)

1. In a connection between a first structural element and a second structural element, the combination with a pair of laterally spaced upright slots formed through a wall of said first element and a pair of spaced and complementary hooks on said second element, said hooks having bills directed in substantially the same direction and being adapted to protrude forwardly through said slots to provide upwardly directed channels between said bills and the forward surface of said wall; of a connector for securing said elements together, said connector being T-shaped and comprising a leg and a runner, said runner slidably seating in said channels to prevent retraction of said hooks through said slots, said leg being formed of spring metal, a rearwardly directed latch dog formed on said leg, a recess formed in said forward surface of said wall and providing a latch dog detent for engaging said latch dog and readily releasably securing said runner in said channels, said leg having a lower end directed for-



wardly of said forward surface of said wall substantially at right angles thereto and providing an actuating means for said connector, and said dog being located adjacent said forwardly directed lower end of said leg whereby such lower end also provides means for disengaging said latch dog from said detent.

2,781,111
METAL WINDOW
Aloysius T. Kunkel, Akron, Ohio
Application May 3, 1952, Serial No. 285,862
6 Claims. (Cl. 189—75)

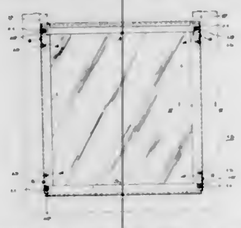


1. A metal frame for window or like closure panel means, comprising a frame member having enclosing sides connected at corners of the member, said sides each being of sectional shape defining web portions providing longitudinally extending panel seating portions presented inwardly of the frame for receiving closure panel means in the member and laterally spaced elongated retaining portions intermediate lateral side edges of each said side and projecting in the same direction angularly of the adjacent said web portions, and strips of substantially non-heat conducting material rigidly affixed to said retaining portions and forming an integrated unit therewith, said sides being laterally parted to substantial extent between said retaining portions along substantially the entire lengths of the sides to provide separate segments thereof, the spacing along the parting lines being sufficient to prevent substantial exchange of heat and cold between the parted segments.

2,781,112
WINDOW SASHES
Charles Fischer, Carnegie, Pa., assignor to Challenger Products, Inc., Carnegie, Pa., a corporation of Pennsylvania
Application July 19, 1955, Serial No. 522,980
6 Claims. (Cl. 189—76)

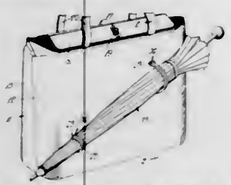
1. A window sash that comprises sash bars provided with channels to receive the edges of window panes and the like, splice members secured in the ends of the channels of two oppositely-disposed bars and protruding at right angles therefrom and into the adjacent ends of the other bars whose ends abut the channel edges of the

first-named bars, and fastening devices for connecting the splice members in the channels of the said other bars, the splice members each having a boss extending a slight



distance beyond the ends of the first-named channel members and outwardly past the outermost edge of the adjacent bar, whereby it will serve as a bearing shoe when the sash is slid along slideways in a window frame.

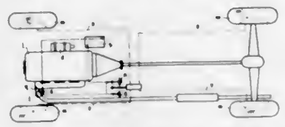
2,781,113
COMBINED HANDBAG AND UMBRELLA CARRIER
Louis Seeman, New York, N. Y., assignor to New York Umbrella Co. Inc., a corporation of New York
Application September 26, 1955, Serial No. 536,540
1 Claim. (Cl. 190—60)



An article of the character described comprising a container having a carrying handle, said container having a substantially flat side wall, said wall having two pairs of openings therethrough, a lining in said container extending parallel to the inner surface of said flat side wall and positioned adjacent said inner surface, a cord extending through each of said pairs of openings and slidable therethrough, the length of said cords being greater than the distance between the associated pair of openings with the free ends of each of said cords being positioned between the lining and the inner surface of said flat side wall, a retaining plate of rigid material for each end of each of said cords of dimensions greater than an opening, each plate having an opening therethrough and an arm extending therefrom, said arm having a pair of ears at its free end, an end of each of said cords extending through an opening in an associated plate and being clamped against said arm by said ears whereby the ends of said cords are restrained from withdrawal from said openings and said plates will be slidably clamped between the lining and the inner surface of said side wall, each of said cords defining a loop on the outer surface of said side wall, said loops extending parallel to each other at right angles to a line extending substantially diagonally across said side wall.

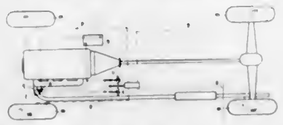
2,781,114
BRAKING SYSTEMS FOR VEHICLES
Alfred Graham Slee, Cardiff, and William Kenneth Cox, Porth, Wales, assignors to The British Electric Traction Company Limited, London, England and Thomas Ash & Company Limited, Birmingham, England
Application April 12, 1954, Serial No. 422,607
Claims priority, application Great Britain May 15, 1953
9 Claims. (Cl. 192—.058)

1. In a motor vehicle having wheels, an internal combustion engine, a driving connection between said engine and at least some of the wheels, a foot brake pedal, friction braking means on at least some of the wheels and operable by said foot brake pedal, an exhaust conduit receiving the exhaust gases from said engine, a butterfly valve in said exhaust conduit, solenoid means adapted on energization thereof to close said butterfly valve, a



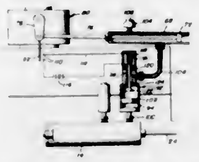
battery, an electric relay, an electric switch operable by said foot brake pedal prior to actuation of said friction braking means, said electric switch being adapted to complete an electrical circuit between said battery and said relay, and said relay being adapted to complete an electrical circuit between said battery and said solenoid.

2,781,115
BRAKING SYSTEMS FOR VEHICLES
Alfred Graham Slee, Cardiff, Wales, assignor to The British Electric Traction Company Limited, London, England, and Thomas Ash & Company Limited, Birmingham, England
Application April 12, 1954, Serial No. 422,606
Claims priority, application Great Britain May 15, 1953
7 Claims. (Cl. 192—.058)



1. In a motor vehicle having wheels, an internal combustion engine, a driving connection between said engine and at least some of said wheels, an exhaust conduit, a butterfly valve in said exhaust conduit, an electromagnetic solenoid connected to said valve, spring means urging said valve towards the open position, a brake pedal, friction braking means operable by said brake pedal, an electric switch on said brake pedal, and an electric battery whereby closure of said switch serves to energise said solenoid from said battery to close said valve, said electric switch being closable before operation of said friction braking means.

2,781,116
COMBINED ACCELERATION AND DECELERATION CONTROL
Richard A. Watson, Chatellerault, France
Application November 5, 1954, Serial No. 467,030
4 Claims. (Cl. 192—3)



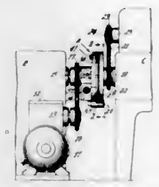
1. A combined accelerating and decelerating control means for a vehicle having a fuel metering device for an internal combustion engine and a hydrulic brake system including a master cylinder; said control means comprising a single pedal, means connecting the pedal to the master cylinder for actuation of the piston therein responsive to movement of the pedal, means connecting the pedal to the fuel metering device for actuation thereof by the pedal in a movement separate from the movement

actuating the piston in the master cylinder, said last means including a cylinder, a piston working in the cylinder and having a piston rod connected to the fuel metering device, said cylinder, piston and piston rod being commonly movable under actuation of the pedal to control the fuel metering device and means establishing fluid pressure communication between the master cylinder and the cylinder so that upon actuation of the piston in the master cylinder, the piston in the cylinder is moved by fluid pressure to move the piston rod independent of the cylinder and close off the fuel metering device, wherein valve means is interposed in said means establishing fluid pressure communication between the master cylinder and the cylinder and means including an electrical circuit and solenoid controlling the seating of said valve means and a switch actuated by extreme movement of said piston rod in the cylinder controlling the energization of the solenoid so that the valve is closed when the fuel metering device is almost rendered inoperative by movement of the piston rod whereby the engine is maintained in an idling stage.

2,781,117
AUTOMATIC BRAKE RELEASE MECHANISMS
Charles A. McLeod, Birmingham, Mich., assignor to A. S. Campbell Co., Inc., a corporation of Massachusetts
Application February 1, 1955, Serial No. 485,451
11 Claims. (Cl. 192—4)

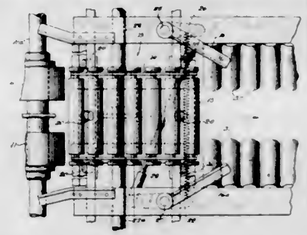
1. In an automatic parking brake release for use with a motor vehicle having an automatic transmission and speed range selector means, an engine providing a source of vacuum when running, and a parking brake mechanism including a spring loaded brake arm and a brake release lever adapted to set and release said parking brake comprising a vacuum power unit connected to said vacuum source fixed in respect to said brake arm and operatively connected to said brake release lever, and valve means operable responsive to shifting the automatic transmission of the vehicle to any "drive" position applying vacuum to said power unit whereby to move said brake release lever and release said parking brake.

2,781,118
CLUTCH MECHANISM
William Pechy, Belmar, N. J., assignor to American Can Company, New York, N. Y., a corporation of New Jersey
Application December 31, 1954, Serial No. 479,017
8 Claims. (Cl. 192—150)



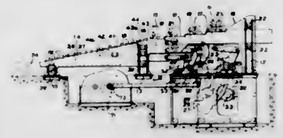
1. An overload release clutch mechanism, comprising a rotatable drive shaft having a driving member fixed thereon and a driven member freely rotatable relative thereto, a driving dog slidably carried by one of said members and having a shank portion slidable radially relative to said shaft, the outer end of said dog having a cam surface releasably engageable with a cooperating cam surface on the other of said members for driving said driven member with said shaft, pressure means carried by said one member and engaging said shank portion for normally yieldably holding said dog in said driving engagement, said cooperating cam surfaces being operative by retarded rotation of said driven member due to an overload to bodily displace said dog radially outwardly from said other member to discontinue said driving engagement while maintaining said pressure means yieldably engaged with said shank to hold said dog in non-driving relation to said driven member.

2,781,119
PACKAGE ALIGNING APPARATUS
Richard C. Talbot and Cyril A. Pavnica, Joliet, Ill., assignors to J. L. Ferguson Company, Joliet, Ill., a corporation of Illinois
Application May 13, 1954, Serial No. 429,503
7 Claims. (Cl. 198—29)



2. In apparatus for aligning packages, a carriage for receiving packages, conveyor means mounted on said carriage for permitting movement of successive packages in one direction with respect to said carriage, means for supporting said carriage, guide means for directing successive packages on said carriage laterally of said one direction into a desired line of movement while said packages are carried by said carriage, said supporting means permitting free movement of said carriage laterally of said one direction whereby a package carried by said carriage may readily be moved into said desired line of movement by said guide means, and means urging said carriage toward a neutral position laterally of said line of movement.

2,781,120
ARTICLE HANDLING AND TRANSFER APPARATUS
John A. Heiden, Pittsburgh, Pa., assignor to United Engineering and Foundry Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application October 13, 1953, Serial No. 385,829
11 Claims. (Cl. 198—29)



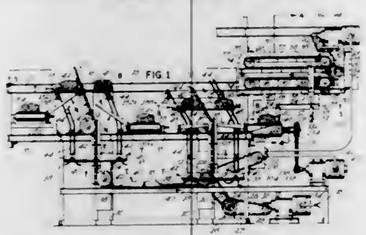
1. Apparatus for separating and arranging in orderly fashion a group of elongated workpieces such as billets, slabs and the like, and including transfer means upon which workpieces are placed for delivery thereto, said apparatus comprising a pair of downwardly sloping parallel skids with the upper ends thereof adjacent to said transfer means, stepped notched portions formed on the upper edges of said skids, a plurality of successive pairs of members, the members of each pair being laterally

spaced and parallel to one another and reciprocable in a linear forward and rearward direction, the members of succeeding pairs being at a lower level than and having their forward ends projecting beyond the forward ends of those immediately preceding, stepped notched portions formed on the upper edges of said members similar to and placed adjacent those formed on said skids and on forward movement thereof adapted to engage with and urge forward in step-by-step movement workpieces discharged by said transfer means to the stepped portions of said skids and on rearward movement to withdraw themselves from engagement with said workpieces and driving means for reciprocating said members and adapted to impose upon each pair of members a speed of reciprocation less in magnitude than that imposed upon the members immediately preceding, thus to reduce the speed of movement of the workpieces along said skids.

2,781,121
ARTICLE TRANSFERRING, LOADING AND UNLOADING DEVICE

Ernest Brandenberger, New Haven, Conn., assignor to American Machine & Foundry Company, a corporation of New Jersey

Application June 10, 1953, Serial No. 360,665
9 Claims. (Cl. 198—31)



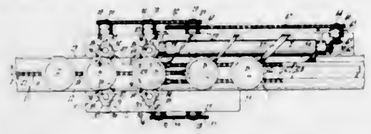
1. In a device for cooling loaves of bread, an endless conveyor comprising, a pair of parallel spaced endless chains, trays pivotally suspended between said chains, said trays having a center bar and fingers extending laterally from said center bar to form the bottom platform of said tray having a side on each side of said center bar, a loading platform constructed and arranged to interfinger with said bottom fingers of each side of said tray, an endless conveyor belt moving past said loading platform, drive means to drive said conveyor belt, a pusher mechanism constructed and arranged to push two separate rows of loaves of bread from said belt conveyor onto said loading platform one row at a position corresponding to one side of said interfingering tray and one row corresponding to said other side, control means to arrest said drive means to said endless conveyor belt and energize said pusher mechanism simultaneously just subsequent to the passage of one of said trays on said chain conveyor through said loading platform and prior to the arrival of the next subsequent tray.

2,781,122
APPARATUS FOR TIMING AND FEEDING ARTICLES

Walter A. Gueffroy, Roslyn Heights, N. Y., assignor to American Can Company, New York, N. Y., a corporation of New Jersey

Application December 11, 1952, Serial No. 325,471
7 Claims. (Cl. 198—34)

1. In an apparatus for receiving random spaced articles in processional order and for arranging them in timed order for timed advancement, the combination of a transfer conveyor having frictional engagement with the random spaced articles for advancing them along a predetermined path of travel, a pair of oppositely disposed rotatable timing elements located in direct transverse alignment one on each side of said transfer conveyor for the reception of said articles between them and operable at a peripheral speed differing from the speed of said transfer conveyor, each of said timing elements having a timing recess in the periphery thereof, said recesses being rotatable in opposite directions into oppositely aligned position for receiving and passing without engaging articles correctly positioned in timed rela-

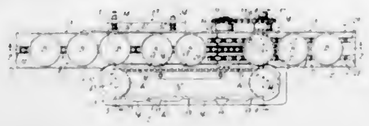


tion on said transfer conveyor, each of said timing elements also having a timing projection disposed adjacent its recess, said projections extending into the path of travel of said articles and being rotatable into oppositely aligned position for engaging between them and changing the speed of advancement of an untimed article relative to said transfer conveyor to reposition said untimed article on said transfer conveyor in a more accurately timed position, and means for actuating said transfer conveyor and said timing elements in synchronism at said relative speeds.

2,781,123
APPARATUS FOR TIMING AND FEEDING ARTICLES

Walter A. Gueffroy, Roslyn Heights, N. Y., assignor to American Can Company, New York, N. Y., a corporation of New Jersey

Application December 11, 1952, Serial No. 325,472
2 Claims. (Cl. 198—34)



1. In an apparatus for retiming randomly spaced cylindrical containers advancing in indiscriminate processional order, the combination of a transfer conveyor for frictionally engaging the bases of said containers to carry them along a predetermined straight line path of travel, a yieldable guide extending along one side of said transfer conveyor, an endless resilient timing belt of rubber-like material having a run extending along the opposite side of said transfer conveyor and movable in the same direction and at the same speed as said transfer conveyor, said belt operating around a pair of sprockets spaced longitudinally along said transfer conveyor and being provided on its inner side with a plurality of integrally formed teeth which are maintained in tight engagement with said sprockets by the inherent resiliency of said belt, a plurality of integral resilient timing projections formed on the outer side of said belt and extending into the path of travel of said containers, a series of timing recesses disposed between said timing projections for receiving correctly timed containers, said resilient timing projections and said yieldable guide cooperating to yieldably engage diametrically opposed portions of each untimed container to frictionally rotate the same reversely along its engaged timing projection and thence into its immediately succeeding timing belt recess to place said container into correctly timed position, and means for backing up the can engaging run of said resilient belt to prevent stretching of the belt to thereby maintain said projections in contact with said containers while they are being retimed.

2,781,124
YIELDABLY MOUNTED SUSPENSION TROUGHING IDLER

Theodor H. Troller, Akron, Ohio, assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application October 19, 1951, Serial No. 252,014
2 Claims. (Cl. 198—192)

1. In combination, a suspension belt-troughing idler including a flexible element having idler roller means supported on it and fixed relative to it for rotation therewith and providing annular belt-supporting surfaces at various points spaced from each of its opposite ends, said flexible element having bearings at its opposite ends including bearing portions rotating with said element as the latter turns and cooperating portions rotatably supporting said first mentioned bearing portions, and means for supporting said cooperating portions including a leaf type spring at at least one end of said flexible element, on which spring the cooperating portion of the bearing at that end is mounted in a position perpendicular to a tangent to the leaf spring adjacent the bearing supporting end of the latter.

2,781,125
STORAGE FILE FOR PHOTOGRAPHIC SLIDES

Hiram Lawrence Mills, Prairie Village, Kans.

Application May 25, 1953, Serial No. 357,196
8 Claims. (Cl. 206—73)

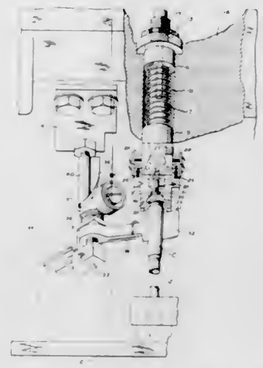
1. In a file, an open-top receptacle having a generally rectangular bottom with a pair of upstanding side walls along the opposite edges of the bottom, the confronting inner surfaces of said walls having opposed ledges spaced above said bottom, a freely movable generally upright separator plate extending crosswire of the bottom and having end portions resting on said ledges, said plate having a bottom edge disposed below the level of said ledges and adjacent to the bottom of the receptacle, said bottom edge being unconfined whereby it is free to move forwardly and rearwardly in a direction transverse to its own length, and means above said ledges for limiting the movement of said plate on the ledges to a predetermined tilting movement and a predetermined movement longitudinally of the ledges.

2,781,126
INSPECTION DEVICE

Forrest D. Wood, Excelsior Springs, Mo., assignor to Remington Arms Company, Inc., Bridgeport, Conn., a corporation of Delaware

Application October 12, 1953, Serial No. 385,476
6 Claims. (Cl. 209—72)

1. In an assembly machine comprising an indexible work holder and a reciprocating gate, means for detecting the absence of a correctly oriented component of a workpiece in said holder comprising a support carried by said gate, workpiece engaging jaws carried by said support, and a feeler held in said support for movement relative to said support and said jaws and adapted by such relative



movement to control the engagement of a workpiece by said jaws, said jaws comprising cam surfaces adapted for engagement by an element of said feeler.

2,781,127
APPARATUS FOR TESTING MAGNETS

Howard I. Becker, Jr., Erie, Pa., assignor to General Electric Company, a corporation of New York

Application July 11, 1951, Serial No. 236,202
6 Claims. (Cl. 209—115)

1. Apparatus for testing magnets comprising a generally vertical elongated member composed of a non-magnetic electrically-conducting material, said member being arranged to receive magnets to be tested at the upper end thereof, said member being of trough-shaped cross section and being inclined with respect to the vertical for causing the magnets to follow a path adjacent said member, said member including at its lower end a section further inclined from the vertical whereby the trajectory of magnets discharged from said lower end of said member varies with the speed of the magnets.

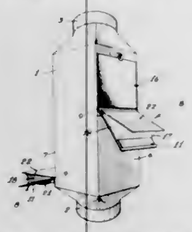
2,781,128
MAGNETIC SEPARATORS FOR DUCTS

Donald E. Stem, Santa Rosa, Calif.

Application September 13, 1954, Serial No. 455,421
8 Claims. (Cl. 209—223)

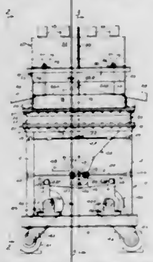
1. In a device for separating magnetic from non-magnetic materials blown under pressure to a duct, said duct having an opening on a side thereof between an inlet and an outlet of said duct, a door hinged on said side to cover said opening and being swingable outwardly into open position, a closed frame on the inside face of the door closed on its side and top so as to form

an inclined plate support opening, a magnetic plate covering said opening, a magnet enclosed in said frame and on said magnetic plate, the width of said magnetic plate



being such that the side edges of said plate are in immediate proximity of the adjacent sides of the duct to obstruct flow past the side edges of said plate, said plate being held inclined so as to face the flow through said duct.

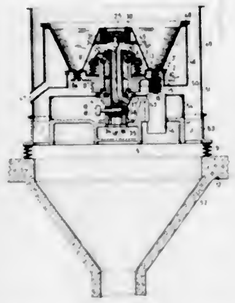
2,781,129
JIG
Charles H. Remer, Hibbing, Minn.
Application March 9, 1953, Serial No. 340,990
16 Claims. (Cl. 209—455)



1. An improved jig for separating ore and the like materials of different specific gravities comprising a slanted bed having a foraminous bottom and walls thereabout, a delivery chute at the elevated portion of said bed and a discharge chute at the lower portion of said bed, said bed having a layer of balls of heavy material thereon, an enclosure below said bed, said enclosure being adapted to be filled with a liquid, oscillating means operatively associated with said enclosure for moving the liquid upwardly and downwardly through said bed, said means including two eccentric mechanisms for operating said oscillating means, separate and independent drive means for said eccentric mechanisms whereby said mechanisms are adapted for simultaneous operation, each of said drive means being operative at a different speed, one of said eccentric mechanisms being adapted when driven at one speed to impose on the liquid a high amplitude low frequency oscillation, the other of said mechanisms being adapted when driven at a different speed to impose an independent and simultaneous low amplitude high frequency ocsillation.

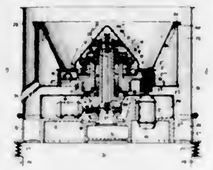
2,781,130
CENTRIFUGAL DEVICE FOR DEHYDRATING A FINE-GRANULAR MATERIAL
Wolfgang Gertrud Joseph Heckmann, Koln-Deutz, and Joseph Hubert Becker, Koln-Mulheim, Germany, assignors to Klockner-Humboldt-Deutz Aktiengesellschaft, Koln, Germany, a German corporation
Application June 28, 1954, Serial No. 439,822
Claims priority, application Germany June 30, 1953
12 Claims. (Cl. 210—72)

1. A centrifugal device comprising a sieve drum mounted for rotation about its axis and simultaneous vibration along its axis, means for rotating said sieve drum, and means for vibrating said sieve drum including a crank shaft, a connecting rod, a universal joint connecting said crank shaft to said connecting rod, said connecting rod extending generally in the direction of the axis



of said sieve drum, and means yieldable in the direction of said axis including a resilient member securing said connecting rod to said sieve drum, said yieldable means permitting yieldingly limited axial and universal movement of said sieve drum with respect to said connecting rod.

2,781,131
CENTRIFUGAL DEVICE
Wolfgang Gertrud Joseph Heckmann, Koln-Deutz, Germany, assignor to Klockner-Humboldt-Deutz A. G., Koln, Germany, a corporation of Germany
Application May 7, 1954, Serial No. 428,266
32 Claims. (Cl. 210—72)

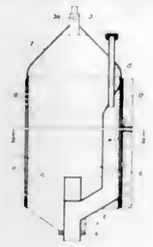


1. A centrifugal device, comprising in combination: a first system of masses including a frame work, an actuator for producing rotating movements and a vibrator for producing vibrating movements, said actuator and said vibrator being mounted on said frame work, a second system of masses including a sieve drum rotatable around its longitudinal axis, and three resilient means between said first and second systems of masses, two of said resilient means opposing each other and resiliently holding one mass from the other, the third such means resiliently connecting the vibrator to the second mass, all of said resilient means yielding in the direction of the longitudinal axis of the sieve drum for permitting vibrating movements of said second system of masses in said direction of the longitudinal axis of said sieve drum, said actuator imparting rotations to said sieve drum, and said vibrator imparting vibrating impulses to said sieve drum.

2,781,132
FILTER CELL
Gunnar Bolt Iversen, Gunder Georg Ulrich Wasmuth Swensen, and Gunnar Johansen, Heroya, near Porsgrunn, Norway, assignors to Norsk Hydro-Elektrisk Kvaelstofaktieselskab, Oslo, Norway
Application June 8, 1954, Serial No. 435,244
Claims priority, application Norway June 13, 1953
2 Claims. (Cl. 210—154)

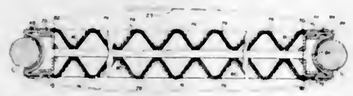
1. A filter cell comprising a drum having an unperforated, cylindrical wall provided with a longitudinal slot extending substantially the full length of the wall, a wire

wound helically on the drum wall with intermediate spaces between adjacent turns of the wire, a filter cloth stretched over said wire, and a pipe attached inside the



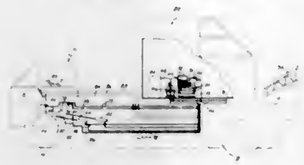
drum wall, said pipe being provided with a longitudinal slot extending substantially the full length of the drum wall and coinciding with said slot in said wall.

2,781,133
VACUUM FILTER
Robert B. Thompson, Salt Lake City, Utah, assignor to The Eimco Corporation, Salt Lake City, Utah, a corporation of Utah
Application January 5, 1954, Serial No. 402,219
2 Claims. (Cl. 210—199)



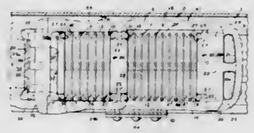
1. In a rotary vacuum filter having cake forming and cake discharge portions in its filtration cycle, a rigid corrugated apertured filter medium support member, the apertures of said member being distributed over its full filter medium supporting area, a flexible permeable filter medium positioned in direct contact with the outer surface of the corrugated support member, said filter medium having a total surface area equal to at least the total filter medium supporting area of the corrugated member, means for creating a zone of low pressure adjacent the inner surfaces of the corrugated member during the cake forming portion of the filtration cycle to provide an undulated filter surface as the filter medium conforms to the surface configuration of the support member, and means for creating a zone of high pressure adjacent the inner surface of the support member during the cake discharge portion of the filtration cycle to cause the filter medium to move away from the corrugated support member, whereby the filter cake formed upon the outer undulated surface of the filter medium is effectively dislodged.

2,781,134
APPARATUS FOR CONTROLLING TRUCK OPERATION FROM CRANE CAB
Lee D. Weir and Lee Whitcomb, Plainfield, Ill.
Application June 9, 1953, Serial No. 360,444
5 Claims. (Cl. 212—38)



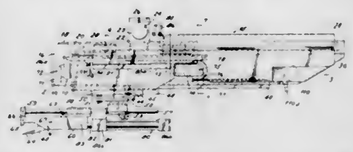
1. A remote control system for fluid operated cylinders including a turntable, a stationary axial post about which said turntable rotates, said post having an axial bore therethrough, a source of fluid under pressure mounted on said turntable, a control box therefor on said turntable, a conduit from said source to said control box, a plurality of valves in said box, a rotatable ring telescopically mounted over said post, said ring fastened to said turntable, conduits from said control box to said ring, said ring having passageways leading from said conduits to the bore of the same, peripheral grooves in the side of said post aligned with said passageways, said post having a plurality of passageways therein, one connected to each of said grooves, conduits connected to the lower end of the passageways in said post, said conduits extending to said fluid operated cylinders, an electric control including contact bands mounted on said post and leads therefrom extending through the axial bore in said post.

2,781,135
DRAFT GEAR AND CUSHIONING PAD THEREFOR
Hubert L. Spence, East Cleveland, and Donald Willison, Maple Heights, Ohio, assignors to National Malleable and Steel Castings Company, Cleveland, Ohio, a corporation of Ohio
Application November 13, 1952, Serial No. 320,242
14 Claims. (Cl. 213—40)



1. In a draft gear of the type comprising spaced followers and a group of cushioning pads therebetween, cooperating aligning elements effective between the ends of said group and said followers for maintaining a substantially aligned relation therebetween, said aligning elements comprising recesses in the lateral edges of said followers and tabs projecting from the ends of said group and engaging in said recesses, to embrace the sides of said followers and prevent transverse shifting of each end pad relative to its associated follower.

2,781,136
MATERIAL HANDLING APPARATUS
Francis J. Sehn, Detroit, and Maurice M. Clemons, Birmingham, Mich., assignors to Press Automation Systems Incorporated, Detroit, Mich., a corporation of Michigan
Application December 27, 1955, Serial No. 555,413
7 Claims. (Cl. 214—1)



1. A handling apparatus for sheet material or the like comprising a fixed frame, a movable frame carried by said fixed frame for relative translatory movement, a carrier frame carried by said movable frame for relative translatory movement and having means for engaging a workpiece, change-speed gearing means interconnecting said fixed frame and said movable frame, first fluid pressure operated actuating means for energizing said gearing means to effect relative movement between said movable frame and said fixed frame, second fluid pressure operated actuating means for effecting relative movement between said carrier frame and said movable frame, and control means for said first and second actuating means, including a source of fluid under pressure and valve

means for simultaneously introducing fluid from said source into both of said actuating means, said second actuating means being first actuated because of the lighter loads imposed thereon due to said change speed gearing.

2,781,137
SELF UNLOADING APPARATUS
Frank G. Lesniak and Walter A. Stubbe, Laurel, Miss., assignors to Masonite Corporation, Laurel, Miss., a corporation of Delaware
Application March 10, 1952, Serial No. 275,796
4 Claims. (Cl. 214—16.6)

1. A self-loading and unloading apparatus for handling a plurality of sheets comprising a rack containing a series of pairs of horizontally extending oppositely opposed compartments providing a central opening extending the height and length of the rack, paired sheet supporting roll members within each compartment, each pair of compartments associated with a sheet pusher member equipped with a substantially U-shaped element extending transversely therethrough across the width of the rack and adapted to receive a sheet edge, fixed sheet-raising members positioned immediately adjacent to the retracted position of said sheet pusher members and adapted to raise the leading edges of the sheets into the U-shaped pusher elements during the loading of said apparatus, said sheet pusher members being mounted on roller supports movable within the limits of the rack and connected to an upright pusher bar attached to a movable main carriage positioned within the rack and movable along the central axis thereof through said central opening, said pusher bar serving to simultaneously actuate the sheet pusher members, and said rack being mounted on means for movement along a guide rail.

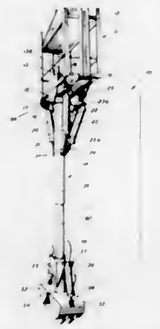
2,781,138
ATTACHMENT FOR CORN SHELLERS
Elsmer L. Kuskie, Central City, Nebr.
Application May 17, 1954, Serial No. 430,332
1 Claim. (Cl. 214—83.26)

In a corn sheller having a mobile base and at least one drag unit adapted to be loaded on the sheller when not in use, a raised platform for supporting the loaded drag unit, a pair of legs on said base supporting the platform, means for loading the drag unit onto the platform comprising a loading ramp adapted to incline downwardly and rearwardly from said platform and having a front end provided with a roller for guiding the drag unit onto the platform, and means for attaching said ramp to said legs and base for vertical adjustment comprising an apron on said legs inclining downwardly and rearwardly therefrom adjacent the platform, a pivotal member depending from said front end and loosely extended through said apron, a spacer on said pivotal member between said apron and front end for spacing said roller above the apron, a telescopically adjustable support extending between an intermediate portion of said ramp and said base and terminally pivoted to said base for swinging about an axis transverse to said ramp, and means on said support for locking the same in vertically adjusted positions.

2,781,139
MEANS FOR HANDLING ARTICLES
Donald D. Gordon and Charles A. Wortham, Dallas, Tex.
Application February 24, 1953, Serial No. 338,332
7 Claims. (Cl. 214—305)

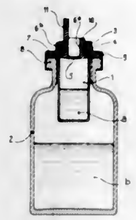
1. An inverting device comprising: a base frame; a support disposed in a substantially horizontal plane mounted on said base frame; and a carton inverter; said inverter including a planar imperforate top; a pair of sides extending perpendicularly from said top; flanges extending inwardly toward each other from said sides and rigidly held parallel to and spaced from said top, said flanges being disposable on opposite sides and slightly below the upper portions of said support; said inverter having an open front carton loading and unloading end; back side flanges positioned at corners of said inverter partly closing the rear end of said inverter; and means secured to said inverter at said rear end for mounting said inverter on said base frame for pivotal movement about a horizontal axis, said inverter being movable reciprocably through an arc of substantially 180 degrees from a loading position where said inwardly extending flanges are disposed on opposite sides of said support with said top disposed substantially parallel to and above said support to an unloading position wherein said inwardly extending flanges are disposed above said top, whereby an operator may press his hand against the rear wall of a carton to push the same out of the inverter along the top thereof, which forms the bottom when the carton is inverted, the way being open between the back side flanges whereby the carton may be pushed to be discharged from the inverter simply by pressing the hand against the rear side wall of the carton.

2,781,140
MUCKING MACHINE
Warner L. Cryderman, Skead, Ontario, Canada, assignor to Shaft Machines Limited, Toronto, Ontario, Canada
Application October 20, 1955, Serial No. 541,690
10 Claims. (Cl. 214—657)



1. In a mucking machine a cage, a telescoping boom, a clam on the free end of said boom, means for telescoping said boom, a gimbal type suspension for suspending said boom from said cage, means for moving said boom in any direction within its suspension, means for operating said clam, said gimbal type suspension comprising a yoke, means for mounting said yoke on said cage to swing about a first swing axis of said yoke, means for mounting said boom on said yoke to swing about a second swing axis of said yoke, said first axis being at right angles to said second axis, said means for moving said boom comprising a first cylinder and piston means connecting with said cage and with said boom and adapted to swing said boom about said first swing axis, and a second cylinder and piston means connecting with said yoke and with said boom and adapted to swing said boom about said second swing axis said first cylinder and piston means being universally connected whereby to swing said boom about said first swing axis for all positions of swing of said boom about said second swing axis.

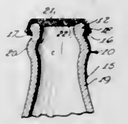
2,781,141
APPARATUS FOR THE SIMULTANEOUS PRESERVATION OF TWO DIFFERENT PRODUCTS OUT OF CONTACT WITH EACH OTHER IN THE INTERIOR OF A CONTAINER
Pierre Edouard Lucien, Paris, France
Application December 19, 1951, Serial No. 262,416
Claims priority, application France November 6, 1951
1 Claim. (Cl. 215—6)



An apparatus for simultaneously containing two different products out of contact with each other until mixture thereof is desired comprising in combination an outer container for one product and having an access opening provided therein, an inner container for the other of said products and being detachably positioned through said outer container access opening, said inner container having an access opening positioned substantially concentric with and within said outer container access opening, a closure formed of a resilient material and common to both containers, said closure consisting of a base, a tubular deformable wall connected to and extending from one face of said base substantially perpendicular thereto, and having the access opening end portion of said inner container loosely extending therein, said wall in its inner container retaining position being bent having an inverted U-shaped cross-sectional configuration with the access opening end portion of said inner container extending therebetween, a rim extending from said wall and mounted on said outer container around said access opening thereof and a protuberance extending from the outer face of said base pressing said bent wall against said inner container for retaining said inner container in the access opening of said outer container and capable of being used as a handle for pulling said base and thereby straightening said wall whereby said inner container is released and drops by gravity into said outer container and means for retaining said rim in position on said outer container.

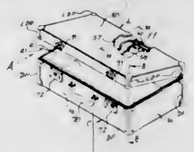
2,781,142
BOTTLE CAP REMOVER
Lloyd B. Baker, Muskegon, Mich.
Application September 25, 1953, Serial No. 382,279
1 Claim. (Cl. 215—46)

As a new article of manufacture, a container cap remover for use with a container of the type having a neck provided with an annular bead on its upper end, there being an annular bulge below said bead on the neck of the container, there being an annular recess between said bulge and bead, a cap mounted on the top of said container and having a portion crimped over the bead on said neck, said cap remover being fabricated of a single piece of material and shaped to include a plate having a flange on its upper end, said flange being interposed between the crimped portion of said cap and said bead, said flange being smooth on both its inner and outer surfaces, there being an arcuate recess in said flange intermediate the ends thereof, said recess extending downwardly from the upper edge thereof, said plate further including a



central curved portion fitting snugly against said bulge and the side edges of said central portion tapering inwardly, said plate being provided with a transversely disposed recess snugly seated in the recess between said bead and bulge, the recess in said plate receiving a portion of the crimped section of the cap, said plate further including an arcuate section at its lower end positioned below said bulge for engagement by a person's fingers, said cap remover adapted to be mounted on the container without altering the shape or structure of the container, said plate contacting approximately one fourth of the circumference of the neck of the container throughout the length of the plate, said flange having a width approximately equal to the width of the central curved portion at the widest point of the central curved portion.

2,781,143
ATTACHÉ CASE
Lewis Lifton, New York, N. Y.
Application July 3, 1956, Serial No. 595,639
5 Claims. (Cl. 217—69)

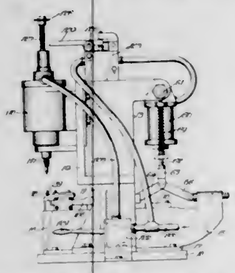


1. A dihedral strengthener adapted to be applied to substantially the entire elevation of companion faces of a corner of an article carrying enclosure having upper and lower surfaces at the upper and lower limits of said elevation; comprising, angularly arranged webs substantially coextensive with the extent of said elevation for embracing said companion faces, a base integral with the lower parts of said webs and defining therewith a socket for receiving the lower part of said corner and constituting a seat for said lower surface, wing means to conceal and engage a portion of said upper surface, a shank interconnecting said webs and wing means, means anchoring said webs to said faces, and means anchoring said wing means to said upper surface.

2,781,144
RIVETING APPARATUS
Kenneth C. Allison, Crystal Lake, Ill., assignor to Grigsby-Allison Company, Inc., Arlington Heights, Ill., a corporation of Delaware
Application April 11, 1950, Serial No. 155,335
6 Claims. (Cl. 218—1)

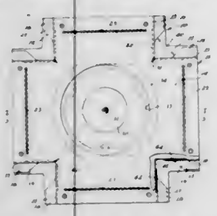
5. Apparatus for joining juxtaposed work members by a rivet extended through preformed coordinated openings

in said work members with the shank of the rivet positioned in upwardly projecting relation to its head end to provide for assembly of the rivet in the openings in the work members after lowering the edges of the openings about the shank of the rivet while so positioned, said apparatus including a rivet clenching device movable between raised and lowered positions, means for successively delivering substantially flat T-shaped rivet blanks to a fixed position in the path of said clenching device, said means including the discharge end of a guideway extending downwardly from said rivet clenching device, a propelling device movable in said guideway



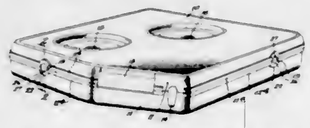
from a lowered to a raised position to move a rivet blank deposited above said propelling device to said fixed position, and punch and die mechanism operable to sever a rivet blank from a strip of rivet blank stock supplied to said apparatus and to deposit a rivet blank severed thereby above said propelling device when said propelling device is in lowered position, said punch and die mechanism being operable under control of means responsive to movement of the rivet clenching device from a lowered position to a raised position to so sever said rivet blank, and said propelling device being movable from said lowered to said raised position under control of means responsive to movement of the punch in a direction away from the die mechanism.

2,781,145
T AND CROSS BOXES FOR ELECTRIC HEADER DUCTS
Frank J. Kennedy, Mount Lebanon, Pa., assignor to National Electric Products Corporation, Pittsburgh, Pa., a corporation of Delaware
Application June 10, 1953, Serial No. 360,689
4 Claims. (Cl. 220—3.2)



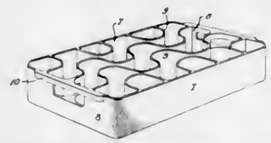
1. An electrical raceway box having a plurality of outlet passages, some of which are at an angle to others, the box comprising a top having pairs of downwardly extending panels, the panels of each pair being separated from one another by a gap and extending downwardly along planes that are at an angle to one another so as to form inwardly extending corners for the box and sides for angularly related outlet passages of the box, a bottom plate for the box, flanges at the lower edges of the panels, extending outwardly parallel to the bottom plate, the flanges being substantially parallel to and rigidly connected with the bottom plate, and filler pieces bridging the gaps between the panels of respective pairs of panels, each filler piece having two portions extending in the same angular relation to one another as adjacent panels at corners of the box, and each filler piece having portions extending beyond both sides of the gap and overlapping the panels and securely held in assembled relation to other parts of the box.

2,781,146
CLOSURE FOR PLASTIC CONTAINERS
William C. Eddy, Michigan City, Ind., assignor to Television Associates, Inc., Michigan City, Ind., a corporation of Illinois
Application June 23, 1954, Serial No. 438,810
3 Claims. (Cl. 220—4)



1. In a plastic casing comprising a pair of molded plastic members mating together along a peripheral rim, said rim on each member being provided with an outwardly extending flange, each of said flanged rims having at least one relieved zone, the relieved zone on one of said members being positioned to register with the relieved zone on the other member, a closure device adapted to hold said members together in mating position, said said members being positioned to register with the reduced-width portion fitting snugly into said registering relieved zones, said device having outwardly extending portions above and below said reduced-width portion engaging said flanges of said respective members, and said closure device having on its inner face at least one surface cooperating with the surfaces of the casing members for facilitating the cementing of said closure device to said members.

2,781,147
SHATTER-RESISTANT HARD RUBBER COMPOSITIONS AND METHOD OF MAKING THEM
Gordon A. Ruschman, River Forest, Ill., assignor to The Richardson Company, Cincinnati, Ohio, a corporation of Ohio
Application December 1, 1949, Serial No. 130,436
20 Claims. (Cl. 220—21)



16. A molded hard rubber bottle crate or case having a composition consisting of sulfur-vulcanized elastomer and fiber in which the fibrous ingredient exists for the most part in the form of cords and bundles having an average fiber length of 1½-in. to 2-in., said case being capable of sustaining substantially 1000 blows at 78 foot pounds, having the form of a partitioned box-like structure with a durometer hardness of external portions thereof of substantially 68 to 74 and of the partitions thereof of substantially 65 to 67.

2,781,148
QUICK ACTING CLOSURE
Victor Leon Reddle, Falls Church, Va., assignor to the United States of America as represented by the Secretary of the Army
Application November 16, 1954, Serial No. 469,323
1 Claim. (Cl. 220—40)

In a quick acting closure for an opening in a container wall, said opening being defined by a flange; the improvement comprising a closure carrier, a quick acting bayonet slot connection between said carrier and flange, an externally threaded, cup-shaped closure including a cylindrical side wall, said carrier being formed with an internally threaded hole axially thereof and threadedly receiving said closure therein for pre-setting said closure axially relative to said carrier, actuating means on said

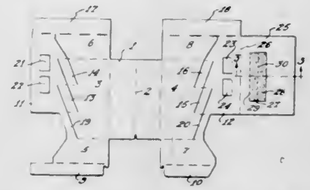
carrier, said carrier being moved by said actuating means to and from seated and disconnected positions in said neck, said closure being pre-set to a position wherein it closes said opening when said carrier is moved to said seated position, and locking means extending radially through said side wall of said closure into engagement with said carrier and locking said closure in said pre-set position.

2,781,149
HAND-OPENABLE TOP FOR CANS
Louis Fried, Philadelphia, Pa.
Application October 31, 1952, Serial No. 318,129
16 Claims. (Cl. 220—48)

1. A hand-openable can top comprising a substantially flat plate of a shape similar to that of the can to which it is to be applied, a pair of slits in said plate with the ends of one slit terminating adjacent the respective ends of the other slit, the major length of each slit being spaced from the respective portion of the other slit so as to define a can top portion substantially separate from the periphery of said can top and bridging said slits, means carried by said can top for normally maintaining said can top portion in substantially planar relation with the periphery of said can top and hand operated to displace at least part of said can top portion from the periphery, and frangible sealing means for effecting a sealing closure for the can top opening when said can top is engaged thereon.

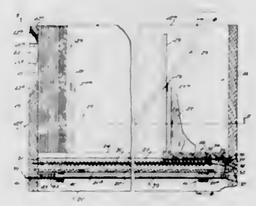
2,781,150
BOTTLE CARRIER WITH REINFORCED HANDLE AND METHOD OF MAKING IT
Robert M. Bergstein, Wyoming, Ohio, assignor to The Bergstein Packaging Trust, a trust composed of Robert M. Bergstein and Frank D. Bergstein
Application June 14, 1952, Serial No. 293,530
5 Claims. (Cl. 220—113)

1. In a reinforced handle construction for paperboard carriers and the like, a first handle part, a hand-hole opening in said handle part spaced from the upper edge thereof, a second handle part articulated to the upper edge of said first handle part and foldable relative thereto, a reinforcing panel formed in said second handle part and articulated thereto along a line of articulation spaced from the line of articulation connecting said first and second handle parts by a distance substantially equal to the distance between said last named line of articulation and the hand-hole opening in said first handle part, said reinforcing panel having a length greater than the length of the hand-hole opening in said first handle part and scored in the direction of the length thereof to define two reinforcing portions each having a width substantial-



ly equal to the distance between the line of articulation connecting said handle parts and the line of articulation joining said reinforcing panel to said second handle part, said handle parts lying in face-to-face relation with said reinforcing portions folded with respect to each other and with respect to said second handle part and juxtaposed between said first and second handle parts above the hand-hole openings defined therein.

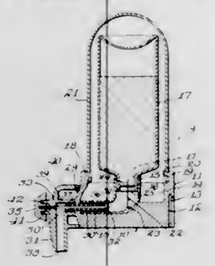
2,781,151
PAPER BAG HOLDER
Alexander B. Campbell, Jr., Jacksonville, Fla.
Application June 22, 1953, Serial No. 363,134
2 Claims. (Cl. 221—45)



1. A paper bag holder comprising a drawer open at the top and adapted to be slid into and out of a closure for receiving paper bags, said drawer comprising side members, a bottom member, a back and a front, said front having an opening therein adjacent one end through which bags are withdrawn which have been inserted through the top of said drawer, a guideway in the bottom of said drawer extending from the back to the front and being below the bottom of said bags, a slide member mounted in said guideway for sliding movement therein below the bottom of said bags, said slide having an upwardly extending bag pusher member attached thereto, a bag contacting member pivotally mounted on the upper end of said bag pusher and extending approximately the whole height of said drawer, said pivotal mounting being approximately in the middle of the length of said bag contacting member whereby its top end may be pivoted towards said back end of the drawer thereby permitting easier insertion of bags between the front end of the drawer and said bag contacting member and wherein said bag contacting member affords a uniform pressure against said bags to urge them towards the front of said drawer for withdrawal, biasing means attached to said slide member and said drawer urging said slide member towards the front of the drawer, and a catch means at

the rear of the drawer and the guideway and having an operating finger extending downward through an aperture formed in said bottom member, securing means attached to the rear of said slide member for engagement with said catch means whereupon movement of said slide to the rear of the drawer causes said securing means on the slide to be engaged by the catch means to hold the slide in position at the rear of the drawer, an operating rod for engaging said operating finger of said catch means reciprocably mounted on the underneath side of said bottom member and extending through an aperture formed in said front, and biasing means urging said operating rod to extend outward from said drawer beyond the front thereof whereby pushing inward on said rod presses the rear end of the rod against said operating finger to release the catch from said securing means on said slide to permit said biasing means attached to said slide to urge it toward the front of said drawer and thereby push said bags forward.

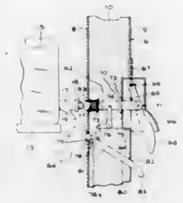
2,781,152
DISPENSER
Albert Lee Van Slyke, South St. Paul, Minn.
Application August 11, 1954, Serial No. 449,158
6 Claims. (Cl. 222—81)



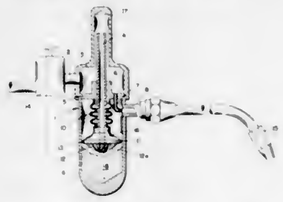
1. In combination for dispensing material from sealed pressurized tubes and containers for pressurized grease, mayonnaise, soap, toothpaste and shaving cream, an arrangement comprising an attachable base support serving as a stationary wall mounting, a tubular passageway in said support, a threaded open end on said tubular passageway upon which a container of pressurized material is adapted to be mounted in fluid tight relationship with said passageway, a projecting needle in the open end of said tubular passageway which punctures the pressure seal of a container mounted thereon, a sleeve within said tubular passageway projecting inwardly from a wall of said support, an outlet on the end of said sleeve and said wall, valve means for closing the inner end of said sleeve, valve stem means extending exteriorly of said wall and said sleeve for opening said valve means, tension means which resist the opening of said valve means, a flow nozzle secured to said base support on said outlet mounted about said valve stem, and a removable covering dome mounted on said support to cover said pressurized tube and containers.

2,781,153
LIQUID COOLER FOR REFRIGERATING APPARATUS
Edward H. Roberts, Jeffersontown, Ky., assignor to General Electric Company, a corporation of New York
Application December 14, 1955, Serial No. 553,086
2 Claims. (Cl. 222—183)

2. In a refrigerator having a storage compartment, a closure for said compartment, a liquid reservoir within said storage compartment, a plunger-actuated valve on said liquid reservoir, a fluid conducting pipe extending through said closure having a downwardly depending open end without said refrigerator, a stopcock within said fluid-conducting pipe rotatable to close said pipe, an upwardly extending funnel fixedly mounted on said stopcock, a plunger within said closure operable from without said refrigerator to actuate said reservoir valve, linkage means connecting said plunger to said funnel, biasing means for said plunger, said plunger movable against its biasing means to simultaneously actuate said reservoir valve, rotate said stopcock into pipe opening position, and pivot said funnel into fluid communicating relationship with said reservoir valve when said compartment is closed by said closure, said plunger movable by said biasing means to simultaneously rotate said stopcock into pipe closing position, pivot said funnel into a downwardly extending position to discharge liquid contained therein, and permit said plunger actuated valve on said reservoir to move into closing position.



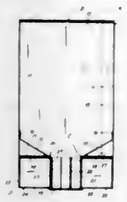
2,781,154
METALLIC POWDER PROJECTOR
Harlan L. Meredith, Norwalk, Calif., assignor to North American Aviation, Inc.
Application December 23, 1955, Serial No. 555,177
9 Claims. (Cl. 222—193)



1. A powder atomizer comprising a body, a manifold in said body, a gas inlet to said manifold, a reservoir for powdered material adjacent said manifold, a loosely held plunger in said reservoir, a first gas conduit between said manifold and said reservoir, means on said plunger adjacent said first conduit to cause turbulent flow in said reservoir, a discharge nozzle tube connected to said reservoir, and additional conduit means connecting said manifold and said reservoir, said additional conduit open to said reservoir adjacent to and directed toward said nozzle tube.

2,781,155
MEASURING AND DISPENSING CONTAINERS
Edwin B. Katz, St. Louis, Mo.
Application February 3, 1955, Serial No. 485,857
3 Claims. (Cl. 222—284)

1. A measuring and dispensing container of the class described, comprising in combination a main container section of rectangular horizontal cross-section having a top closure and a discharge opening at the bottom center thereof, a tray member of rectangular horizontal cross-section supported below the bottom of said main section, a measuring compartment in the center of said tray having a receiving opening at the top registering with the discharge opening in said main section and having a discharge opening at the bottom, said measuring compartment of the tray element being divided into adjacent sub-compartments formed from continuous strips of longitudinal material folded to generally rectangular form and seated in the central opening of the tray member, and a support for said tray having an underlying part which forms a closure for said discharge opening of said measuring compartment when the tray is in normal rest position, said tray being movable in said support to open the discharge openings of said measuring compartment to discharge a measured quantity of the contents of the main section of the container.



2,781,156
SOAP DISPENSER
William H. Wallo, Skokie, Ill.
Application October 13, 1954, Serial No. 462,023
6 Claims. (Cl. 222—531)

1. For use with a box having an opening adjacent an upper portion of the side wall thereof, a dispensing device for granular materials contained within the box, said device comprising a front wall adapted to engage and slide along said box side wall, a top wall adapted to seat upon the top wall of said box when the device is in its lowermost position, and a pair of side walls adapted to engage and slide along the front and rear walls of said box, a central wall portion spaced inwardly from said front wall and adapted to pass through said box opening, said last named wall being spaced inwardly from said front wall a distance less than the thickness of the side wall of said box whereby said side wall will be gripped between the outer surface of said last named wall and the inner surface of said front wall, and an opening in said last named wall portion spaced downwardly from the upper edge thereof, said last named wall portion having an inwardly bent portion along the upper edge of said wall opening said last named wall opening being positioned for alignment with the opening in said box when said device is raised upwardly a distance sufficient to place said inwardly bent portion in engagement with a portion of said box normally in alignment with said box opening.

2,781,157
COLLAPSIBLE SLIDING POCKET-COAT HANGER
Ernst Schoch, Schwerzenbach, Switzerland
Application October 13, 1952, Serial No. 314,450
2 Claims. (Cl. 223—94)

1. A collapsible coat hanger comprising a unitary arcuate center piece having radial inner and outer walls concentric to a single axis and opposed parallel side walls of substantial radial extent normal to said axis, said center piece having a unitary guide loop at each end thereof, with one loop thereof projecting laterally from one of said side walls, and the other loop thereof projecting laterally from the other side wall, an extension piece disposed at each side of said center piece having radial inner and outer walls concentric to the said axis and opposed side walls normal to said axis, said extension pieces being longitudinally slidably disposed within the respective guide loops and the adjacent side walls thereof being slidably engaged with said side walls of the center piece with the extension pieces overlying the opposite faces of the center piece when the coat hanger is fully slidably collapsed, and means on the opposite ends of each of the extension pieces engageable with inner and outer ends of the loops for limiting inward and outward movement of the extension pieces relative to the center piece.

2,781,158
LADDERS
Nathan S. Raitt, Norfolk, Va.
Application November 19, 1953, Serial No. 393,176
2 Claims. (Cl. 228—51)

1. Ladder for use on roofs comprising in combination: a main section; an auxiliary section; pivot means connecting the two sections and spaced from an end of each of the sections to provide projecting ends; and means for adjusting the pivotal position of the auxiliary section relative to the main section, said means comprising a pair of lines, one of said lines secured to the projecting end of the auxiliary section and the other line secured to the auxiliary section on the far side of the pivot means relative to the projecting end, said lines having movable engagement with the projecting end of the main section and extending therealong to the remote end of the main section for engagement therewith to hold the auxiliary section in adjusted position.

2,781,159
MOISTURE IMPERVIOUS CONTAINER
Lloyd G. Copeman, Metamora, Mich.; Elizabeth Jane Gerlach, executrix of said Lloyd G. Copeman, deceased
Application May 27, 1953, Serial No. 357,711
2 Claims. (Cl. 229—16)

1. A blank for a container comprising a bottom wall panel having a plurality of side wall panels extending from the edges of the bottom wall panel with the junction therebetween being defined by score lines, at least one of said

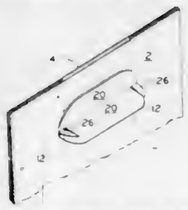
side wall panels having a top wall panel extending from the edge thereof opposite the edge of said side wall panel connected with the bottom panel, said side wall panel and said top wall panel having a score line at the junction therebetween, said side and top wall panels having a relatively narrow peripheral edge portion extending around the free edges thereof and provided with a layer of substantially non-tacky, cohesive latex, the adjacent peripheral edge portions of adjacent side wall panels intersecting at each corner of the bottom wall panel to form an inside right angle and a score line ex-

tending diagonally from each corner of the bottom wall panel to the apex of each of said inside angles, the peripheral edge portions of an opposite pair of said side wall panels intersecting at the outer corners of said side wall panels to form an outside right angle corner and being separated from the body portion of said last mentioned pair of side wall panels by score lines which intersect and extend to the free edges of said pair of opposite side wall panels, a score line extending diagonally across said outside right angle corners at the junction of said last mentioned peripheral edge portions, said blank having the latex coating disposed within the boundaries of said peripheral edge portions rendered non-cohesive and non-adherent.

2,781,160
AUTOMATIC DOUBLE WALL CARTON
Hubert V. Bolding, Jeffersonville, Ind., assignor to The Bradley & Gilbert Company, Louisville, Ky., a corporation of Kentucky
Application January 24, 1955, Serial No. 483,680
3 Claims. (Cl. 229—41)

1. In a single-blank collapsible carton, the combination of four outer walls hingedly connected together and forming a continuous and collapsible outer wall structure, opposed outer walls being of equal length, each of said outer walls having a top edge and a bottom edge, four top frame panels, each of said top frame panels being integrally hinged to the top edge of one of said outer walls and extending inwardly thereof, four inner walls, each of said inner walls being integrally hinged to one of said top frame panels and extending in parallel spaced relation to its respective outer wall when in erected condition, four bottom anchor panels, each of said bottom anchor panels being integrally hinged to one of said inner walls, four bottom members, each of said bottom members being integrally hinged to the bottom edge of one of said outer walls, said bottom anchor panels being fixedly secured to their respective bottom members, a first opposed pair of said bottom members having diagonal edges at diagonally opposite positions, and two bottom folding tabs, each of said bottom folding tabs being integrally hinged to one of said diagonal edges and fixedly secured to that one of the remaining opposed pair of said bottom members lying respectively adjacent thereto, a first pair of opposed inner walls having edge spacer panels integrally hinged at their vertical edges, and the remaining pair of inner walls having cam edges at their vertical edges for swinging said edge spacer panels outwardly toward and into engagement with their respective outer walls and for maintaining the vertical edges of said spacer panels in rigidifying abutting engagement with their respective outer walls.

2,781,161
GUSSET TYPE BAG
Richard E. Adams, Hightstown, N. J.
Application March 1, 1954, Serial No. 413,158
6 Claims. (Cl. 229—54)



1. A bag having front and rear panels connected at their opposite edges by side members which are centrally creased and extend inwardly between said panels as gussets when the bag is closed, the upper portions of the front and rear panels of the bag having registering handle openings therein, said handle openings extending beyond the creased edges of said gussets and said gussets having cuts formed therein providing locking tabs movable through said openings to prevent lateral displacement of the gussets.

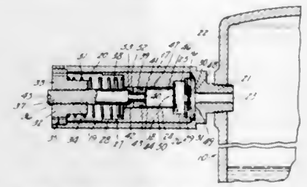
2,781,162
CARRY BAG
Albert Soffa, Wynnewood, Pa., assignor to Wolf Brothers, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application May 15, 1953, Serial No. 355,285
2 Claims. (Cl. 229—68)

2. A bag including connected front and back panels separated at their upper ends to form an opening for the bag, said front and back panels being formed with apertures spaced from the upper end of the bag to provide finger openings by which the bag may be carried, a reinforcing patch pasted to at least one of said front and back panels and surrounding said finger opening therein, the paste securing the patch to the panel terminating at lines spaced from the edges of the finger opening in the panel, and at least the lower edge of the finger opening and the edge of the reinforcing patch associated therewith being of serrated form.

2,781,163
FLUID-PRESSURE-OPERATED FLUID INJECTOR
Harry J. Sadler and Ernest E. Cook, Minneapolis, Minn.
Application December 1, 1954, Serial No. 472,438
3 Claims. (Cl. 230—52)

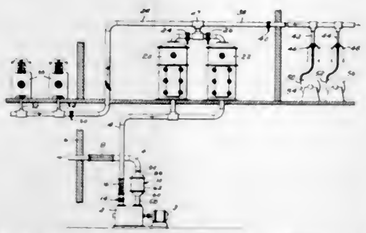
1. A fluid-pressure-operated fluid injector adapted for connection to the supply tank of a water supply system,

the pressure within said tank being variable between predetermined maximum and minimum values, comprising structure defining a primary expandable and contractible pressure chamber adapted for connection to said supply tank, structure defining a secondary expandable and contractible pressure chamber, said expandable and contractible chambers having relatively movable opposite end wall portions, one end wall of each of said chambers being relatively fixed and the other end wall of each thereof being connected for movement in common toward and away from said fixed walls of the chambers, yielding means urging the associated movable end walls of said expandable and contractible chambers in a direction tending to contract the primary chamber and expand the secondary chamber, structure defining a buffer



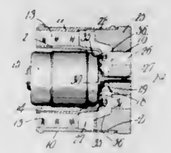
chamber, means defining a check valve equipped passage connecting said secondary chamber and said buffer chamber allowing communication between said secondary chamber and said buffer chamber only in the direction of the latter, means defining a check valve equipped passage adapted to connect said buffer chamber and said supply tank allowing communication between said buffer chamber and the supply tank only in the direction of the latter, means defining a passage from said secondary chamber to the air outside the supply tank which is at atmospheric pressure, and valve means for controlling the flow of air through said last-mentioned passage which valve means is adapted to be open at the minimum predetermined pressure within said supply tank and closed during the increase of pressure within said supply tank from its predetermined minimum value to its predetermined maximum value.

2,781,164
MEANS FOR INSURING QUIET OPERATION OF WASTE COLLECTING VACUUM SYSTEM
Frank E. Rowe, Jr., Hingham, Mass., assignor to Abington Textile Machinery Works, North Abington, Mass., a trust of Massachusetts
Application July 21, 1953, Serial No. 369,438
7 Claims. (Cl. 230—115)



1. In a vacuum cleaning system comprising a centrifugal vacuum pump, a suction line and an exhaust line, a one way valve unit in said exhaust line located close to said pump, said valve unit comprising an enlarged casing having a cross-sectional area which is larger than the cross-sectional area of the portion of the exhaust line to which said unit is connected, means forming a passage extending within said casing, the end of which has an opening forming a valve seat, said passage means communicating with the exhaust line and being spaced from the wall of the center section of the casing, and a pressure operated valve movable upwardly away from and downwardly toward said seat, said valve being moved downwardly to said closed position in response to initiation of backward flow, the volume of the exhaust line between said valve and pump when said valve is closed being insufficient to provide a back flow of gas through said pump which will cause undesirable shriek when the pressure differential between the suction and pressure sides of said pump causes backward flow to occur.

2,781,165
MOTOR DRIVEN FAN AND METHOD OF ASSEMBLING THE COMPONENTS THEREOF
Theodor H. Troller, Portal, Ariz., assignor to Joy Manufacturing Company, a corporation of Pennsylvania
Continuation of forfeited application Serial No. 783,147, October 30, 1947. This application December 14, 1953, Serial No. 397,989
10 Claims. (Cl. 230—117)

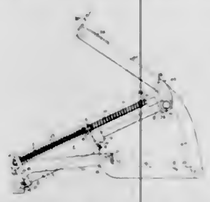


1. In combination, in an axial flow fan, a fan and motor casing comprising an outer annular wall and an inner annular wall in substantially concentric relation and a plurality of circumferentially spaced vanes connecting said walls and maintaining them in spaced relation, said outer annular wall circumferentially bounding a fan chamber and said inner annular wall bounding a chamber into which a motor is adapted to extend, said inner annular wall having a radially inwardly directed flange providing a transversely extending surface and surrounding an opening of substantial diameter, a motor having a casing between which and said inner wall clearance exists when said motor is assembled with said fan and motor casing, said motor having a portion extending into said opening and having a shaft, a fan for which said shaft constitutes a support and driving means, said motor casing having a wall having a surface thereon facing said transversely extending surface when said motor casing is arranged inside said inner annular wall and its shaft is supporting said fan inside said fan chamber, and means for fixing said motor casing relative to said fan and motor casing to center said fan in said fan chamber including only means adjustable to diminish the distance between said surface and means between said surfaces and substantially spaced from said opening and pressed into at least one of said surfaces and forming a seat for itself therein as the distance between said surfaces is decreased below a predetermined amount.

2,781,166
FOOT PUMPS
Harry Flood, Bury, and David Tatlock, Farnworth, England
Application July 15, 1952, Serial No. 298,896
4 Claims. (Cl. 230—175)

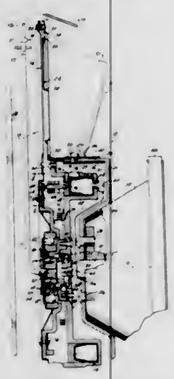
1. A footpump having a base framework, an operating lever, a plurality of cylinders, pistons working in the said cylinders, piston rods provided on said pistons, a cross piece, two parts pivotally connected together for forming the said base framework and swingable downwards only on each other into a folded state, and two portions pivotally connected together for forming the said operating lever and being foldable on each other, one part of

the base framework having a pivotal connection to said cylinders, the other part having a pivotal connection to one portion of said operating lever, said cross piece



being fixable to said piston rods, and the other of said portions of the operating lever having a pivotal connection to said cross piece as well as to said first-named portion.

2,781,167
ACTUATING MECHANISM FOR VARIABLE FLOW FLUID DISPLACEMENT ROTOR
Elmore J. Sanders, Orange, Calif.
Application February 28, 1955, Serial No. 490,781
18 Claims. (Cl. 230—270)



1. A fluid displacement rotor assembly comprising a first section rotatable about an axis and having angular fluid displacement vanes, a shutter section rotatable with the first section and adapted to be adjusted relative to the first section and by said adjustment to vary the rate of fluid flow past said vanes, first means movable axially relative to one of said sections and operable by said movement to control the relative adjusting movement of said sections, and actuating means operable to move said first means axially to thereby adjust the sections while the sections are turning, said first means and said actuating means being free of any element tending to move by centrifugal force in a direction for axially shifting said first means and thereby effecting a change in the relative positions of said sections.

2,781,168
GREAT CIRCLE COMPUTER
Ivan A. Greenwood, Jr., Stamford, Conn., assignor to General Precision Laboratory Incorporated, a corporation of New York
Application September 15, 1955, Serial No. 534,578
9 Claims. (Cl. 235—61)

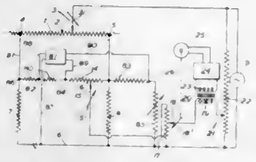
1. A course angle computer for the great circle navigation of a vehicle from any present position to a predetermined destination comprising, means for introducing latitudes and longitudes of present position and destination, first means adapted for reception of present latitude and destination latitude data having an output representative of the sine of the latitude difference, second means adapted for reception of present position and destination latitude and longitude data to produce an output representative of the cosine of destination latitude multiplied by sine of present latitude multiplied by the versed sine of longitude difference, third means adapted for

reception of destination latitude and longitude and present position longitude to produce an output representative of the product of the cosine of destination latitude and the sine of the longitude difference, summation means for adding the outputs of said first and second means, and arc tangent means actuated by said summation means and said third means to produce a shaft angle equal to said course angle.

2,781,169
VECTOR ADDER
John F. Donan, Los Angeles, and Lawrence D. Hindall, Gardena, Calif., assignors to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application March 16, 1951, Serial No. 216,064
9 Claims. (Cl. 235—61)

1. Means for the electronic addition of vectors at substantially any angle, comprising a constant frequency reference sine wave A. C. voltage source, variable phase-shifting means connected across said A. C. voltage source, two reference A. C. output circuits from said phase-shifting means having phase-shifted outputs, means for making the A. C. signals in said two reference A. C. output circuits equal in amplitude, a first and a second electronic tube modulator respectively connected to said two A. C. output circuits, said modulators each having bias control circuit means, said bias circuit of one of said modulators being adapted to receive a first D. C. voltage representing in amplitude one of the vectors to be added, and said bias circuit of the other modulator being adapted to receive a second, independent, D. C. voltage representing in amplitude a second vector to be vectorially added to the first at the angle set by said variable phase-shifting means, each of said modulators producing an amplified A. C. output of a phase determined by the angle set by said variable phase-shifting means and proportional to said D. C. voltages, respectively, electronic mixing means connected to both said amplified A. C. outputs, said mixing means having a single A. C. output with an amplitude giving the vector sum of said D. C. voltages, and means for converting said single A. C. output to a D. C. vectorial resultant output.

2,781,170
ELECTRICAL COMPUTING INSTRUMENTS
Donald Ferguson Walker, Hollinwood, England
Application December 12, 1951, Serial No. 261,218
Claims priority, application Great Britain May 21, 1947
5 Claims. (Cl. 235—61)



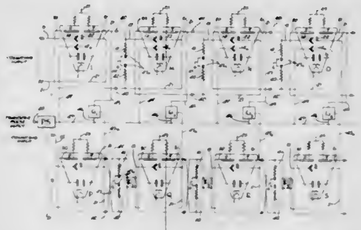
1. An electrical computing instrument, for deriving the value of an unknown quantity of a problem to be solved from three known quantities where the latter can be represented as elements of a triangle, comprising a uniform resistance having two connecting points on said uniform resistance symmetrically disposed with respect to its mid-point, a variable tapping for said resistance, a first control associated with said variable tapping, a conductor element, equal first and second impedance means connecting said two points respectively to the conductor element for yielding voltages v_1 and v_2 proportional to the currents flowing through them respectively, a source of electrical energy connected across said variable tapping and said conductor element, means for providing a difference voltage proportional to the difference between said voltage v_2 and a voltage of value

$$\tfrac{1}{2}(v_1+v_2)(1+\cos\theta)$$

said means including a second control, the angle θ being represented by the position of said second control, said means also including a cosine potentiometer and means for applying a voltage proportional to (v_1+v_2) to said cosine potentiometer, said last mentioned means including a negative-feedback high-gain amplifier, a linear potentiometer having a variable tapping which derives an output voltage proportional to the said difference voltage, connections for applying said difference voltages across said linear potentiometer, reference voltage means connected with said source and providing a reference voltage, out-of-balance current means connected between the variable tapping of said linear potentiometer and said reference voltage means, thereby deriving an out-of-balance current from the difference between the said output voltage from said linear potentiometer and said reference voltage, a third control associated with the said variable tapping of said linear potentiometer, the position of which third control directly determines the value of said out-of-balance current, a motor actuated by said out-of-balance current, and serving to adjust one of said controls when the other two of said controls are pre-set, in order to bring the quantity represented by the position of the motor-adjusted control into conformity with the triangle representing said known quantities.

2,781,171
ELECTRONIC COUNTING TUBE
Glenn E. Hagen, Redondo Beach, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application September 17, 1948, Serial No. 49,755
1 Claim. (Cl. 235—92)

In combination with a plurality of electronic counting tubes each having as many stable states as there are digits in the number system being counted, each having input means when energized to serially shift said tube from one stable state to the next in either direction and each having output means for producing a pulse when passing between the stable state representing the smallest digit and the stable state representing the largest digit, a first bank of tubes representing a plurality of significant figures, the output of each of said tubes being connected to the next by means for discriminating the direction of the pulse in said output means to the input means of the next tube to cause said tube to shift its stable state in the proper direction, means for applying additive or subtractive pulses to the first tube in said first bank to cause counting in all significant figure tubes, a second bank of similar tubes representing the same plurality of significant figures and connected to count as recited for said first bank, each tube of said first bank being connected to cause the tube in the second bank of tubes representing the same significant figure to count, a gate in each of said



latter connections, a pulse source having an output, means for limiting one cycle of pulses from said source to a number corresponding to the number of stable states in each tube, the output of said pulse source being simultaneously connected to the input of each tube of said first bank of tubes, means operated by shift of the stable state in each tube of the first bank to the stable state representing the largest digit to render said gates non-conducting, the discriminating means between each tube of said second bank being provided with a delay device to provide time for one complete cycling of each tube of said first bank with pulses from said pulse source before energizing the following tube in said second bank whereby a number counted in said first bank is transferred to said second bank with retention of the number transferred in said first bank.

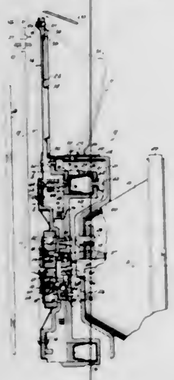
2,781,172
ELECTRO-MECHANICAL COUNTER
George H. Leonard, Darien, Conn.
Application February 27, 1953, Serial No. 339,269
24 Claims. (Cl. 235—132)

4. In combination with a plurality of counting shafts rotatably mounted relative to a frame and coupled together to rotate at different speeds, calibration means on each of the shafts, the calibrations on each of which calibration means are spaced apart equal angles of rotation, viewer mechanisms mounted relative to the frame to cooperate with the calibration means, those viewer mechanisms cooperating with the calibration means on counting shafts slower than the fastest counting shaft being able to move relative to the frame and maintain cooperation with any given calibration at least over the angle of rotation separating calibrations, cam means mounted on each of the counting shafts except the slowest, and means cooperating with said cam means and coupled to the viewer mechanism cooperating with the next slower shaft to cause said viewer mechanism to be positioned squarely opposite the proper calibration on the calibration means of said slower shaft over the angle of rotation between calibrations on said slower shaft.

the base framework having a pivotal connection to said cylinders, the other part having a pivotal connection to one portion of said operating lever, said cross piece

being fixable to said piston rods, and the other of said portions of the operating lever having a pivotal connection to said cross piece as well as to said first-named portion.

2,781,167
ACTUATING MECHANISM FOR VARIABLE FLOW FLUID DISPLACEMENT ROTOR
Elmore J. Sanders, Orange, Calif.
Application February 28, 1955, Serial No. 490,781
18 Claims. (Cl. 230—270)



1. A fluid displacement rotor assembly comprising a first section rotatable about an axis and having angular fluid displacement vanes, a shutter section rotatable with the first section and adapted to be adjusted relative to the first section and by said adjustment to vary the rate of fluid flow past said vanes, first means movable axially relative to one of said sections and operable by said movement to control the relative adjusting movement of said sections, and actuating means operable to move said first means axially to thereby adjust the sections while the sections are turning, said first means and said actuating means being free of any element tending to move by centrifugal force in a direction for axially shifting said first means and thereby effecting a change in the relative positions of said sections.

2,781,168
GREAT CIRCLE COMPUTER
Ivan A. Greenwood, Jr., Stamford, Conn., assignor to General Precision Laboratory Incorporated, a corporation of New York
Application September 15, 1955, Serial No. 534,578
9 Claims. (Cl. 235—61)

1. A course angle computer for the great circle navigation of a vehicle from any present position to a predetermined destination comprising, means for introducing latitudes and longitudes of present position and destination, first means adapted for reception of present latitude and destination latitude data having an output representative of the sine of the latitude difference, second means adapted for reception of present position and destination latitude and longitude data to produce an output representative of the cosine of destination latitude multiplied by sine of present latitude multiplied by the versed sine of longitude difference, third means adapted for

reception of destination latitude and longitude and present position longitude to produce an output representative of the product of the cosine of destination latitude and the sine of the longitude difference, summation means for adding the outputs of said first and second means, and arc tangent means actuated by said summation means and said third means to produce a shaft angle equal to said course angle.

2,781,169
VECTOR ADDER
John F. Donan, Los Angeles, and Lawrence D. Hindall, Gardena, Calif., assignors to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application March 16, 1951, Serial No. 216,064
9 Claims. (Cl. 235—61)

1. Means for the electronic addition of vectors at substantially any angle, comprising a constant frequency reference sine wave A. C. voltage source, variable phase-shifting means connected across said A. C. voltage source, two reference A. C. output circuits from said phase-shifting means having phase-shifted outputs, means for making the A. C. signals in said two reference A. C. output circuits equal in amplitude, a first and a second electronic tube modulator respectively connected to said two A. C. output circuits, said modulators each having bias control circuit means, said bias circuit of one of said modulators being adapted to receive a first D. C. voltage representing in amplitude one of the vectors to be added, and said bias circuit of the other modulator being adapted to receive a second, independent, D. C. voltage representing in amplitude a second vector to be vectorially added to the first at the angle set by said variable phase-shifting means, each of said modulators producing an amplified A. C. output of a phase determined by the angle set by said variable phase-shifting means and proportional to said D. C. voltages, respectively, electronic mixing means connected to both said amplified A. C. outputs, said mixing means having a single A. C. output with an amplitude giving the vector sum of said D. C. voltages, and means for converting said single A. C. output to a D. C. vectorial resultant output.

2,781,170
ELECTRICAL COMPUTING INSTRUMENTS
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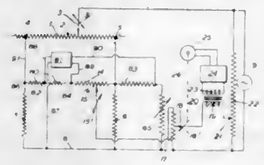


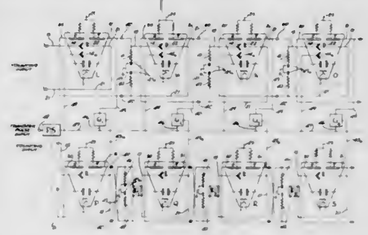
1. An electrical computing instrument, for deriving the value of an unknown quantity of a problem to be solved from three known quantities where the latter can be represented as elements of a triangle, comprising a uniform resistance having two connecting points on said uniform resistance symmetrically disposed with respect to its mid-point, a variable tapping for said resistance, a first control associated with said variable tapping, a conductor element, equal first and second impedance means connecting said two points respectively to the conductor element for yielding voltages v_1 and v_2 proportional to the currents flowing through them respectively, a source of electrical energy connected across said variable tapping and said conductor element, means for providing a difference voltage proportional to the difference between said voltage v_2 and a voltage of value

$$\tfrac{1}{2}(v_1+v_2)(1+\cos\theta)$$

said means including a second control, the angle θ being represented by the position of said second control, said means also including a cosine potentiometer and means for applying a voltage proportional to (v_1+v_2) to said cosine potentiometer, said last mentioned means including a negative-feedback high-gain amplifier, a linear potentiometer having a variable tapping which derives an output voltage proportional to the said difference voltage, connections for applying said difference voltages across said linear potentiometer, reference voltage means connected with said source and providing a reference voltage, out-of-balance current means connected between the variable tapping of said linear potentiometer and said reference voltage means, thereby deriving an out-of-balance current from the difference between the said output voltage from said linear potentiometer and said reference voltage, a third control associated with the said variable tapping of said linear potentiometer, the position of which third control directly determines the value of said out-of-balance current, a motor actuated by said out-of-balance current, and serving to adjust one of said controls when the other two of said controls are pre-set, in order to bring the quantity represented by the position of the motor-adjusted control into conformity with the triangle representing said known quantities.

2,781,171
ELECTRONIC COUNTING TUBE
Glenn E. Hagen, Redondo Beach, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application September 17, 1948, Serial No. 49,755
1 Claim. (Cl. 235—92)

In combination with a plurality of electronic counting tubes each having as many stable states as there are digits in the number system being counted, each having input means when energized to serially shift said tube from one stable state to the next in either direction and each having output means for producing a pulse when passing between the stable state representing the smallest digit and the stable state representing the largest digit, a first bank of tubes representing a plurality of significant figures, the output of each of said tubes being connected to the next by means for discriminating the direction of the pulse in said output means to the input means of the next tube to cause said tube to shift its stable state in the proper direction, means for applying additive or subtractive pulses to the first tube in said first bank to cause counting in all significant figure tubes, a second bank of similar tubes representing the same plurality of significant figures and connected to count as recited for said first bank, each tube of said first bank being connected to cause the tube in the second bank of tubes representing the same significant figure to count, a gate in each of said

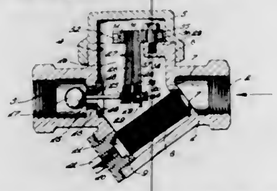


latter connections, a pulse source having an output, means for limiting one cycle of pulses from said source to a number corresponding to the number of stable states in each tube, the output of said pulse source being simultaneously connected to the input of each tube of said first bank of tubes, means operated by shift of the stable state in each tube of the first bank to the stable state representing the largest digit to render said gates non-conducting, the discriminating means between each tube of said second bank being provided with a delay device to provide time for one complete cycling of each tube of said first bank with pulses from said pulse source before energizing the following tube in said second bank whereby a number counted in said first bank is transferred to said second bank with retention of the number transferred in said first bank.

2,781,172
ELECTRO-MECHANICAL COUNTER
George H. Leonard, Darien, Conn.
Application February 27, 1953, Serial No. 339,269
24 Claims. (Cl. 235—132)

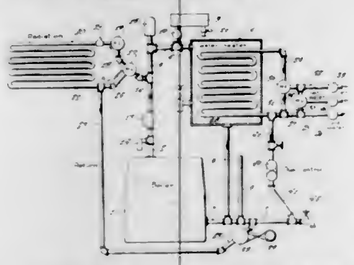
4. In combination with a plurality of counting shafts rotatably mounted relative to a frame and coupled together to rotate at different speeds, calibration means on each of the shafts, the calibrations on each of which calibration means are spaced apart equal angles of rotation, viewer mechanisms mounted relative to the frame to cooperate with the calibration means, those viewer mechanisms cooperating with the calibration means on counting shafts slower than the fastest counting shaft being able to move relative to the frame and maintain cooperation with any given calibration at least over the angle of rotation separating calibrations, cam means mounted on each of the counting shafts except the slowest, and means cooperating with said cam means and coupled to the viewer mechanism cooperating with the next slower shaft to cause said viewer mechanism to be positioned squarely opposite the proper calibration on the calibration means of said slower shaft over the angle of rotation between calibrations on said slower shaft.

2,781,173
STEAM TRAP
Alfred Bahr, Montreal, Quebec, Canada
Application August 15, 1956, Serial No. 604,129
13 Claims. (Cl. 236—59)



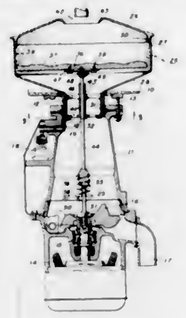
1. A bi-metallic element comprising at least two bi-metallic strips, one strip having, in the cold state, a longitudinal curvature different from that of the other strip, said strips being clamped together over a limited portion thereof and such that they are in direct contact with each other in said clamped portion while in the unclamped portion they are gradually divergent from each other in a direction away from said clamped portion, said strips being so constructed as to deflect in the same direction under a rise in temperature and such that said strips will come in mutual contact over a progressively and continuously increasing area under the temperature rise until both of said strips are in full length contact at a predetermined temperature whereby the thermostatic force exerted by said bi-metallic element on a member connected thereto can be represented by a smooth second degree curve.

2,781,174
DUAL HEAT-HOT WATER TANKLESS SYSTEM
George J. Smith, Jersey City, N. J.
Application April 27, 1954, Serial No. 425,917
3 Claims. (Cl. 237—8)



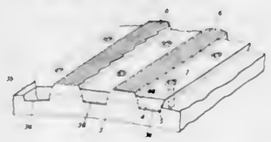
1. A combined hot water supply and heating system comprising a water-containing boiler with means for heating the water therein to a relatively high temperature, a hot water heater at a level above said boiler, a connection from the top of said boiler to the top of said heater, a return pipe from the bottom of said heater to the bottom of said boiler, whereby there is provided a closed circuit flow of water between said boiler and heater, an inlet for cold water into the lower portion of said heater in indirect contact with and adapted to be heated by conduction by the water circulating through said heater, a hot water exit for said heated water at the upper portion of said heater and leading to points of use, house heating radiation, a branch from said connection above said boiler to said radiation, a return from said radiation to said boiler and joining with said first return pipe at the bottom of said boiler, a thermostatic mixing valve in said branch between said connection and said radiation, a by-pass from said radiation entirely above the level of said boiler to said mixing valve to permit mixing of radiation return water with heated water passing through said mixing valve, and a branch from said cold water inlet to said first return pipe, a hot water thermostatic mixing valve in said exit and a lead from said cold water inlet to said hot water mixing valve, an outlet for tempered water from said hot water mixing valve, a second hot water thermostatic mixing valve with connections thereto from said tempered water outlet and said cold water inlet, and an exit from said second hot water mixing valve to provide further tempered hot water.

2,781,175
PEELING ATTACHMENT FOR GARBAGE DISPOSAL UNIT
Frank X. Metzger, Huntington, Ind.
Application March 1, 1954, Serial No. 413,247
3 Claims. (Cl. 241—101)



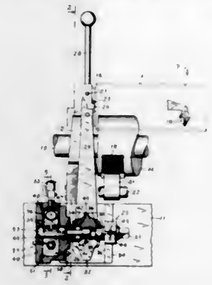
1. The combination of a peeling attachment for use in a sink having a waste outlet in its bottom and a water discharge spout above the outlet, with a disposal unit including a tube connected to said outlet, a rotor in alinement with said outlet and tube and driving means for the rotor, said attachment comprising a vegetable receiving receptacle with an opening in its top to receive water from the spout and a reduced depending tubular neck to telescopically fit the inlet tube of the disposal unit and through which water and waste from the receptacle are discharged into the disposal unit, an upright bearing tube fixed in the center of said neck, a rotary shaft extending through said tube and into said receptacle and the disposal unit, a vegetable abrading element in the receptacle fixed to the upper end of said shaft, a driving shaft axially alined with the first mentioned shaft and rotatable with the rotor of the disposal unit, and a detachable driving connection between said shafts.

2,781,176
ROTOR RIM CONSTRUCTION FOR FIXATION OF BLADES
Geoffrey Clark, Hull, England, assignor to Unipulver Limited, Hull, England, a British company
Application June 29, 1955, Serial No. 518,906
Claims priority, application Great Britain July 2, 1954
3 Claims. (Cl. 241—294)



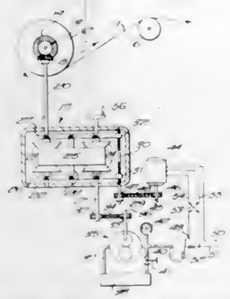
1. In a grinding mill having a rotor of the type which carries on its periphery a series of blades, a rotor rim having a plurality of slots cut therein parallel to the axis of rotation of the rotor and having a flat between each two adjacent slots, a blade disposed on each of said flats parallel to the slots, said blade having a width adjacent to the flat substantially equal to the width of the flat, and said blade tapering radially outwards to a width less than its width adjacent to the flat, a blade retaining bar disposed partially within each slot and having a lower portion fitting within said slot but of a depth less than the depth of the slot and an upper portion diverging radially outwards to a width greater than the width of the slot at the level of the flats the diverging portions of the bars resting upon the tapering portions of the blades, and means to secure the blade retaining bars to the rotor rim.

2,781,177
YARN WINDING
Svend A. Petersen, Brooklyn, N. Y., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
Application February 5, 1953, Serial No. 335,226
11 Claims. (Cl. 242—18)



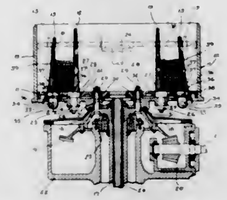
1. A winder for yarns comprising a rotatable mandrel for supporting a yarn package, a drive roll for driving the yarn package through frictional contact with the surface of the yarn package, a damper operatively connected to the mandrel for interposing a resistance to movements of said mandrel, said mandrel being moveable from winding position with the yarn package in contact with the drive roll to a doffing position with the yarn package out of contact with the drive roll, and means for reducing the resistance by the damper to the movement of the mandrel during at least a portion of the movement of the mandrel from the winding to the doffing position.

2,781,178
CONSTANT WEB TENSION UNWINDING MECHANISM
Richard LeB. Bowen, Jr., Pawtucket, R. I.
Application March 25, 1953, Serial No. 344,520
9 Claims. (Cl. 242—75)



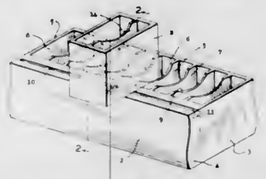
1. In a constant web tension unwinding mechanism, a beam carrying the web, said web travelling at a constant linear speed, a variable speed transmission provided with the usual first shaft, second shaft, and speed changing mechanism, said first shaft being arranged for engagement with said beam, a gear pump, said second shaft being arranged for direct engagement with said gear pump, a reversible electric motor including an electrical circuit thereto, said speed changing mechanism being arranged for engagement with said reversible electric motor, and means for controlling said electrical circuit by said gear pump.

2,781,179
REEL FOR ROLLING MILL
Joseph M. O'Malley, Worcester, Mass., assignor to Morgan Construction Company, Worcester, Mass., a corporation of Massachusetts
Application October 5, 1953, Serial No. 384,198
3 Claims. (Cl. 242—81)



1. A pouring reel for use in coiling the product of a rolling mill comprising a first series of pins arranged in a circle, a second series of pins arranged in a circle which is concentric with the first circle and whose diameter is substantially larger than the first, the two series of pins defining an annular space within which the coil is formed, means for rotating the product and the pins relative to each other about an axis passing through the center of the pin circles, the pins in the second circle being hingedly mounted on pivotal axes which are tangential to a circle concentric with the said axis for movement between positions inclined to the axis and positions parallel to the axis.

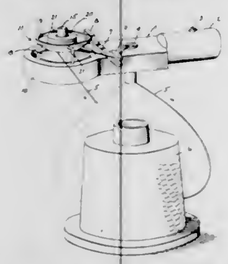
2,781,180
KNITTING BOX
Gerda Malta-Nielsen, Kirkland Lake, Ontario, Canada
Application March 6, 1953, Serial No. 340,793
1 Claim. (Cl. 242—146)



A device for use in multi-yarn knitting operations comprising an elongated rectangular-shaped open top compartmented yarn holder box having front, back, bottom and end walls, a plurality of longitudinally-spaced vertical partitions extending between the front and back walls and providing thereby a series of longitudinally-aligned open top compartments, each compartment being adapted to receive a spool of yarn, guideway means running parallel along the back wall throughout the extent thereof and rearwardly offset from the compartments, a slide element movable along the guideway means, an open top two-compartmented auxiliary spinner box having side, bottom and end walls and a single partition extending between the side walls to provide two open top compartments lying between its end walls, said spinner box pivotally connected to the slide centrally of its bottom wall for free rotation about a vertical axis, said spinner box having its sides when brought parallel to the front wall of the

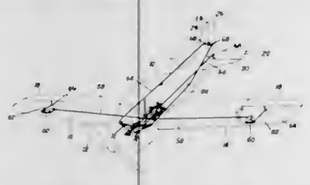
yarn holder box rearwardly spaced therefrom in order to have observation of the yarn spools in all of the compartments of the holder box and the length of the spinner box between the end walls being less than the distance between the sides thereof and the spinner box being sufficiently offset from the front wall of the holder compartment so that the spinner box may be swung sidewise to provide substantially full free access to the yarn holder compartments, whereby two selected yarns extending from the compartments of the auxiliary spinner box may be untwisted by spinning the same and passing the yarns one under the other and the spinner box slid from one end of the holder box to the other to pick up selected yarns without interference from the other yarns.

2,781,181
YARN TENSION GUIDE
Edward M. Ayars, Jr., Swarthmore, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application February 24, 1954, Serial No. 412,284
5 Claims. (Cl. 242—150)



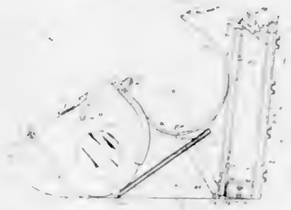
2. A yarn tension guide comprising a base, means at one end of the base for mounting the base upon a supporting structure, a yarn threading tube extending vertically through the base, yarn guiding means affixed to the base, yarn tension discs supported one above the other in contacting relationship at the other end of the base which discs are rotated by the action of the yarn passing therebetween, and at least one yarn rethreading retainer for the discs which retainers are secured to the base and located adjacent the tension discs for retaining in a rethreading position immediately adjacent the discs a yarn loop formed by the momentum of the tension discs after termination of the yarn winding operation to facilitate rethreading of the yarn between the discs upon resumption of the winding operation.

2,781,182
AERODYNAMIC AIRCRAFT CONTROL SYSTEM
Frederick W. Ross, Dearborn, Mich.
Application April 14, 1952, Serial No. 282,110
12 Claims. (Cl. 244—83)



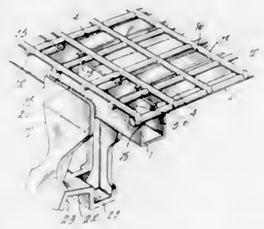
1. In an aircraft having a frame and equipped with an aerodynamic yaw element and a pair of spaced oppositely-movable roll elements, an aerodynamic control system comprising a primary control member, a secondary control member, a first motion-transmitting device operatively connecting said primary control member to said roll elements and simultaneously moving said roll elements in opposite directions, and a second motion-transmitting device operatively connecting said secondary control member to said yaw element, said first motion-transmitting device including a differential mechanism unit, said differential mechanism unit including a first lever pivotally mounted on said frame and operatively connected to one of said control members, said first motion-transmitting device including a second lever pivotally mounted on said first lever and operatively connected to the other of said control members.

2,781,183
JETTISONABLE PILOT COMPARTMENT
Richard D. Kaplan, East Meadow, N. Y., assignor to Republic Aviation Corporation, near Farmingdale, N. Y., a corporation of Delaware
Application September 8, 1954, Serial No. 454,809
12 Claims. (Cl. 244—140)



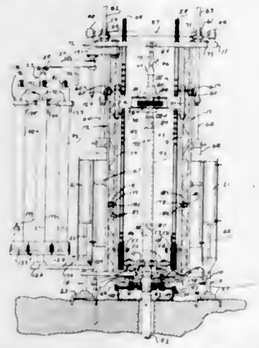
1. The combination with a passenger compartment and an aircraft fuselage having a chamber therein to receive and house the compartment, of an actuator means operatively connected between the chamber and compartment for moving the compartment into and out of the chamber, and a plurality of composite tracks operatively connected between the chamber and the compartment to guide the movements of the latter into and out of the former, each of said composite tracks comprising a pair of spaced rails carried by the chamber, a pair of spaced rails carried by the compartment, an intermediate rail slidably engaged with said chamber and compartment rails, and means for interconnecting said intermediate and compartment rails whereby they move as a unit on said chamber rails.

2,781,184
MATERIAL HANDLING PALLET
Charles C. Averill, Albion, Mich., assignor to Union Steel Products Company, Albion, Mich., a corporation of Michigan
Application May 21, 1953, Serial No. 356,480
6 Claims. (Cl. 248—120)



1. In a material handling pallet the combination of a deck bed comprising side sill members of upwardly facing channel section having aligned openings in their inner flanges extending to the webs thereof, joist members of upwardly facing channel section disposed in said openings in supported engagement with the web portions of the sill members, the joist members being fixedly secured to the sill members, a grid-like deck flooring unit disposed on said deck bed and comprising an upper and a lower series of spaced elements weldingly connected at their crossing points, the lower series of the flooring elements being disposed on and welded to the flanges of the sill members, the unper series being disposed on and welded to the flanges of said joist members, and opposed pairs of cast leg members spaced longitudinally of said sill members and having upwardly facing U-shaped integral saddle portions in which said sill members are supportedly seated with the arms of the leg member seats supportedly engaging the opposite sides of the sill member, said leg members being fixedly secured to the sill members.

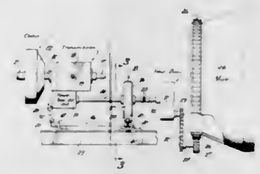
2,781,185
DRILLING APPARATUS
Davis Robbins, Oneonta, Ala.
Application June 2, 1954, Serial No. 433,991
8 Claims. (Cl. 255—51)



1. Drilling apparatus for drilling holes downwardly into the earth comprising a vertical frame, vertical guideways in the frame, a polygonal rotary driving shaft mounted to rotate in the frame and carried thereby, means for rotating said driving shaft, a transmission unit mounted for vertical movement in the guideways, means connecting the transmission unit in driving relation with the polygonal shaft, a hollow drill rod adapted to convey air from an air pressure source downwardly to clear the hole being bored of cuttings, a hollow drill bit connected to the lower end of the drill rod, means detachably connecting the drill rod to and driving the same from the transmission unit, a discharge housing for said cuttings surrounding the drill rod adjacent the lower end of the vertical frame, and power means connected to the transmission unit to raise the transmission unit in the guideways and to lower the transmission unit as drilling proceeds.

2,781,186
DRUM CONTROL MEANS FOR TRANSIT CONCRETE MIXERS
Henry C. Harbers, Pasadena, and Edward D. Sharpe, South Pasadena, Calif., assignors to Cook Bros. Equipment Co., Los Angeles, Calif., a corporation of California
Application November 17, 1952, Serial No. 321,008
18 Claims. (Cl. 259—177)

1. In a truck mixer having an engine driven shaft, a selective gear transmission, and a clutch for connecting said transmission to said shaft; a rotary mixing drum having internal blades operable to mix concrete in the drum or discharge the concrete therefrom according as the drum is rotated in one direction or the other; driving mechanism for said drum having a power take-off unit driven by said transmission and operable to selectively drive said drum in one direction or the other; and means associated with said mechanism movable to occupy a first position in which, when said drum is drivingly disconnected from said shaft following driving of said drum in one direction, it operates to prevent reverse rotation of said drum resultant of the weight of concrete



on the blades at the rising side of the drum, and a second position in which, when said drum is drivingly disconnected from said shaft following driving of said drum in the other direction, it operates to prevent reverse rotation of said drum resultant of the weight of concrete on the blades at the rising side of the drum.

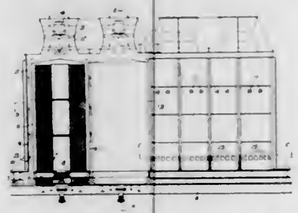
2,781,187
MATERIAL DISINTEGRATING AND REMOVING APPARATUS
John D. Russell, Cranberry Township, Venango County, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application August 29, 1950, Serial No. 181,977
13 Claims. (Cl. 262—9)

1. In combination, in a material-disintegrating and conveying apparatus, side bars having upper and lower edges and connected at their forward ends and pivotally mounted at their rearward ends for swinging movement, a drive shaft having its axis in the same straight line with the axis of such swinging movement and carrying three drive sprockets, two in line with said side bars and the third midway between said two, a shaft element rotatively supported at the end of the bars remote from said axis for rotation on an axis parallel to said first mentioned axis and midway between the upper and lower edges of said bars, chains driven by the sprockets in line with the side bars and guided on said side bars and connected in driving relation with said shaft element and carrying material disintegrating elements, a plurality of disintegrating elements supported by said shaft element and rotated by the latter, and a flight conveyor arranged in the space between said side bars and including a conveyor chain having opposite edges in adjacency to said side bars and engaging and driven by said third sprocket and having an idler disposed closely adjacent to and rearwardly of said shaft element at a fixed distance from the latter and carried by said bars between the upper and lower edges thereof.

2,781,188
MEANS FOR COOLING THE LOAD OF A COIL ANNEALING FURNACE OR THE LIKE
Charles George McKeown, Dudley, England, assignor to Controlled Heat & Air Limited, Smethwick, England, a British company
Application July 6, 1953, Serial No. 366,277
1 Claim. (Cl. 266—2)

Cooling means for loads being processed in a coil annealing furnace having a base surmounted by load

casings with substantially cylindrical vertical walls, said cooling means comprising means for circulating purging gas within said load casings and along the inner surfaces of said walls, a thin metal cover adapted to be lowered over such load casings, said cover having curved vertical wall sections which when said cover is so lowered are substantially uniformly radially spaced from the cylindrical vertical walls of such load casings, said cover being formed with converging-diverging ducts which when said cover is so lowered are located axially above the respective load casings, an axial flow type fan mounted within each of said converging-diverging ducts to evacuate air



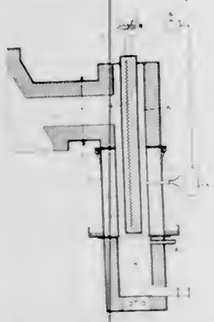
from within said cover by drawing such air upwardly along the vertical wall sections of said cover and along the outer surfaces of the cylindrical vertical walls and over the tops of said load casings, thereby abstracting heat from said load casings, transferring heat to said cover and carrying heat away through said ducts, a conical shield positioned below each said fan with its apex pointing upwardly, each of said curved vertical wall sections being provided with a plurality of main inlet ports adjacent its lower end to admit air to the space surrounding the load casings, each of said curved wall sections being provided also with an auxiliary inlet port located above said main inlet port and damper doors for regulating the inflow of air through said auxiliary inlet ports.

2,781,189

APPARATUS FOR CONDENSING METALS TO THE LIQUID STATE

Pierre Camescasse and Michel Petit, Bagneres-de-Bigorre, France, assignors to Soberma (Societe de Brevets d'Etudes et de Recherches pour le Magnesium), Paris, France, a corporation of France

Application March 10, 1953, Serial No. 341,458
Claims priority, application France March 17, 1952
7 Claims. (Cl. 266—15)



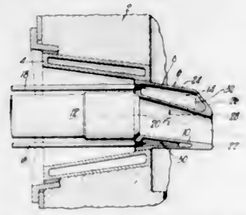
1. Apparatus for condensing metallic vapors to the liquid state comprising: a cylindrical chamber; means for introducing metallic vapors into said chamber; means for cooling a wall of said chamber to provide a condensing surface for said vapors; means for supplying heat to said chamber to control the temperature of said condensing surface, said means comprising a source of heat located substantially along the longitudinal axis of said chamber; means for measuring the temperature at the condensing surface; regulating means, automatically controlled by said temperature measuring means for varying the heat supplied to the chamber; and a connection to means for maintaining the condensing chamber under vacuum.

2,781,190

TUYERE

Frank Weir, Duquesne, Pa., assignor to United States Steel Corporation, a corporation of New Jersey

Application March 9, 1951, Serial No. 214,719
2 Claims. (Cl. 266—41)



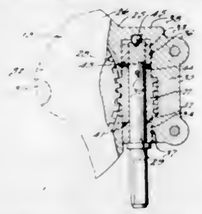
1. In a blast furnace, a substantially vertical wall for said furnace, a tuyere having its outer end adjacent the wall of the furnace and its inner end extending into the furnace, said tuyere comprising a body having an air passage therethrough, said air passage being inclined uniformly downwardly and inwardly into the furnace from a point adjacent its outer end, the axis of said air passage being arranged at an angle of between 5 and 15 degrees with the horizontal, said body having a vertical wall surrounding the air passage outlet, said body having a top portion sloping slightly downwardly and inwardly from its outer end and a portion merging with the top portion and sloping at a relatively steep angle downwardly to the top of the said wall, a cooling chamber in said body surrounding said passage, and a passageway in the lower part of said cooling chamber leading from its outer end to its inner end and decreasing in cross section from its outer end to its inner end, the inner end of said passageway having an opening into said cooling chamber.

2,781,191

VEHICLE WINDOW REGULATOR

Joseph Pickles, Dearborn, Mich., assignor to Hupp Corporation, Cleveland, Ohio, a corporation of Virginia

Application February 12, 1953, Serial No. 336,555
6 Claims. (Cl. 268—124)



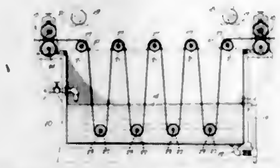
1. A window regulator comprising a reversible electric motor, a worm driven by said motor, a worm gear operatively meshing with said worm, the shape of said worm and worm gear teeth being such as to normally permit said worm gear to drive said worm in either direction, linkage means connected to said worm gear for moving a window to either a closed or open position, an antifriction thrust support at one end of said worm, and a frictional thrust support at the opposite end of said worm, said frictional thrust support preventing said worm gear from driving said worm when the worm gear is urged in a window-opening direction.

2,781,192

FABRIC TREATING AND FEEDING APPARATUS WITH CONSTANT TENSION ROLLER DRIVE

William C. Gilfillan, Willow Grove, Pa., assignor to H. W. Butterworth and Sons Company, Bethayre, Pa., a corporation of Pennsylvania

Application September 8, 1954, Serial No. 454,791
11 Claims. (Cl. 271—2.2)



6. In an apparatus for feeding continuous lengths of fabric materials through container apparatus for treating the same, means for feeding the material through said container apparatus at a substantially uniform rate and under substantially uniform tension comprising rotary feed means comprising alternating upper and lower sets of rotatable fabric supports over which the material is fed in a succession of loops, separate shafts on which certain of said rotatable fabric supports are mounted individually, a magnet-carrying driven member mounted for rotation in driving relation to each of a number of said individually mounted rotatable fabric supports, a driving rotor rotatably mounted in proximity to each magnet-carrying driven member, magnets carried by said driving rotors spaced from said first-mentioned magnets but in magnetic driving relation therewith, and means for rapidly adjusting the longitudinal distance between said magnet-carrying driven members and said driving rotors without dismantling any part of the equipment.

2,781,193

TEETER-TOTTER

Marvin S. Gowing, Kansas City, Mo.

Application March 3, 1954, Serial No. 413,844
3 Claims. (Cl. 272—30)

1. In a teeter-totter, the combination of a ball-shaped support member, a box-like head rotatably and rockably positioned on said support member, said head being provided with a channel-shaped recess having an open top and open ends, a beam extending through and adjustable longitudinally in said recess, said beam having a flat upper surface substantially coplanar with the upper surface of said head, a clamping plate hinged at one side thereof to said head at one side of said recess and extending transversely across the open top of the latter, and means provided at the relatively opposite side of said plate for releasably fastening the same to the head, said plate having a flat undersurface in frictional engagement with the upper surface of said beam, whereby to prevent the beam from shifting longitudinally in said recess when the plate is held in its clamping position by the fastening means.

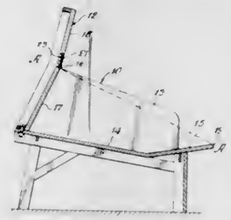
2,781,194

BOUNCING BALL GAME APPARATUS HAVING A SOUND STRIP

Henry L. Sistrunk, Western Springs, Ill., assignor to George H. Forsyth, Chicago, Ill.

Application August 7, 1953, Serial No. 372,985
6 Claims. (Cl. 273—30)

4. In a bouncing ball game apparatus having an elongated table court and an abutment wall projecting angularly upwardly at one end thereof to provide an unobstructed ball-rebounding surface for said table court, said abutment wall having a generally horizontal boundary line thereacross to define upper and lower rebounding areas having substantially the same surface resilience, the relative length of the table court and the height and angle of inclination of said lower rebounding area being



such that a line extending from the player position end of the table court to said boundary line is normal to the plane of the lower rebounding area, whereby a ball struck from the player position end of the court and impinging said lower rebounding area will rebound initially toward the court short of the player position end of the latter, and the rebounding area above said boundary line being disposed at a greater angle of inclination to the table court than that of the lower rebounding area.

2,781,195

BOWLING PIN SPOTTING AND RESPOTTING MECHANISM

Robert L. Holloway, Snyder, and Toivo John Bohm, John Zuercher, and Leopold Strauss, Buffalo, N. Y., assignors to American Machine & Foundry Company, a corporation of New Jersey

Application August 18, 1950, Serial No. 180,174
32 Claims. (Cl. 273—43)

1. A bowling pin spotting and respotting apparatus comprising a table, means for maintaining said table in a substantially horizontal position throughout its movement to and from the playing bed of a bowling alley for spotting and respotting bowling pins thereon, a plurality of pin spotting units mounted on said table, a plurality of pin respotting devices mounted on said table, means operatively connecting each of said units with one of said devices, said last-named means including a support normally positioning said unit in an inclined pin receiving and supporting position and said device in position to engage a pin standing on or off-spot on said alley bed, means mounting said supports on said table for movement relative thereto, and means for substantially simultaneously moving each of said supports to locate said devices in an inoperative position and to locate said units in upright pin delivery and spotting position relative to said bed.

2,781,196

GRIP MEMBER

Thomas O. Brandon, Longmeadow, Mass., assignor to A. G. Spalding & Bros., Inc., Chicopee, Mass., a corporation of Delaware

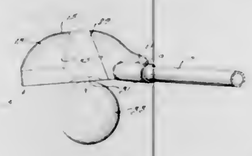
Application May 15, 1953, Serial No. 355,235
3 Claims. (Cl. 273—81.3)

1. A grip of substantially circular cross-section and having a predetermined uniformly tapered gripping surface from end to end and having a bore adapted to be

mounted on a shaft, said grip having a length to receive both hands of a player in alignment longitudinally of the shaft and having the center line of the grip and that of

the bore therethrough coinciding at the inner end of the grip and the center lines of the bore and grip relatively laterally displaced at the outer end of the grip.

2,781,197
GOLF PUTTER HAVING ALIGNING INDICIA THEREON
William R. Wiley, Phoenix, Ariz.
Application June 19, 1952, Serial No. 294,370
1 Claim. (Cl. 273—164)



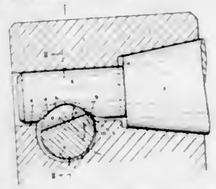
A golf club including a head having a striking face, and means on the upper portion of said head of a different color than the adjacent portion of said head and extending rearwardly from said striking face to provide an indicia, the front end portion of said indicia adjacent said striking face being arcuately curved and of substantially the same width as a golf ball so as to substantially blend into the contour of the golf ball when placed adjacent thereto, the sides of said indicia being rearwardly convergent so that the rear portion of said indicia is narrower than the portion thereof adjacent the striking face.

2,781,198
PHONOGRAPH RECORD PLAYER SPINDLE
Reuben C. Carlson, River Grove, Ill., assignor to Admiral Corporation, Chicago, Ill., a corporation of Delaware
Original application July 29, 1948, Serial No. 41,388. Divided and this application August 8, 1951, Serial No. 240,921
6 Claims. (Cl. 274—10)

1. A phonograph record changer spindle for a record player wherein a magazine is provided at one side of the turntable and means is provided for moving records of different sizes out of the magazine toward the turntable and the record is guided into the turntable by the spindle said spindle adapted to be stationarily secured at the axis of a turntable and having a record guiding portion extending in angular relation to one side of the turntable, and means on said spindle for slidable engagement with a record to prevent the record from vibrating the spindle in its passage thereover in the audible frequency

range comprising a rib formed in the spindle and extending longitudinally thereon.

2,781,199
DEVICE FOR CLAMPING A TOOL OR A DISC ON THE HOLDER OF A MACHINE TOOL
Adrianus G. Veldhuizen, Zaandijk, Netherlands, assignor to N. V. Nederlandsche Machinefabriek "Artillerie-Inrichtingen," Zaandam, Netherlands, a company of the Netherlands
Application January 7, 1955, Serial No. 480,431
Claims priority, application Netherlands January 12, 1954
6 Claims. (Cl. 279—77)



1. In a device for clamping the conical portion of a tool or like member having at least one shank with a transverse recess in one side thereof to the mating conical portion of a cooperative member having at least one bore for receiving said shank and rotatably supporting a locking bolt disposed perpendicularly to the axis of and partially intersecting said bore, said locking bolt having a locking portion for rotation into said shank recess to lock the conical portions in mating relation and a notch in one side of said locking portion for permitting the passage of said shank, the improvement in said locking bolt locking portion comprising a cam having a surface eccentric to the axis of said bolt and cooperatively engages the opposite end surfaces of said shank recess upon rotation of said bolt in respectively opposite directions for camming said shank longitudinally into and out of said bore, respectively.

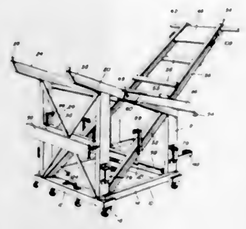
2,781,200
WINTER SPORTS VEHICLE
Howard A. Robison, Long Beach, Calif.
Application March 30, 1953, Serial No. 345,347
2 Claims. (Cl. 280—11.39)

2. A winter sports vehicle for use by a person wearing a pair of short skis on his feet, comprising: an elongated runner formed with an upwardly curved forward end portion; a forwardly and upwardly extending support member; means pivotally attaching the lower end of said support member to the intermediate portion of said runner; stop means limiting rearward pivoting of said support member relative to said runner; a seat secured to the

intermediate portion of said support member; and a handlebar secured to the upper portion of said support member, said support member and said seat being so located relative to said runner that said person may sit on said

seat straddling said runner with the latter supporting substantially all of his weight while he uses said short skis for maintaining equilibrium and for braking, said person leaning backwardly during a braking operation so as to transfer his center of gravity rearwardly of the lower end of said support member.

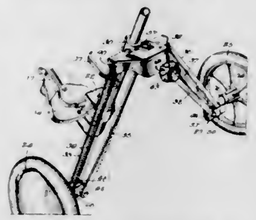
2,781,201
CONVERTIBLE CART
Joseph C. Tremblay, Sault Ste. Marie, Mich.
Application February 3, 1954, Serial No. 407,943
10 Claims. (Cl. 280—30)



1. A convertible cart comprising a main frame having a plurality of upstanding and cross members, a first pair of arms secured to and projecting forwardly from the upper end of said frame, a plurality of wheels secured to the bottom of said frame, a handle pivotally mounted to said frame, and means on said frame for detachably receiving a plurality of attachments whereby the cart may be used for various purposes, said first arms being inclined upwardly and outwardly, and a second pair of arms pivotally mounted on said first arms, said second pair of arms adapted to lift and carry tables, said frame being provided with a transverse resiliently mounted abutment member for retaining transported articles in vertical position.

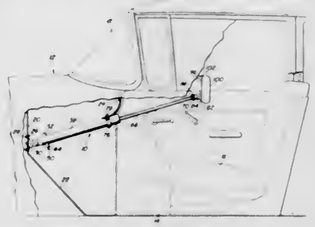
2,781,202
COLLAPSIBLE GOLF CART
Eugene Alonzo Odin, Chicago, Ill., assignor to The Louis Johnson Products Co., Inc., Highland Park, Ill., a corporation of Illinois
Application July 22, 1955, Serial No. 523,791
10 Claims. (Cl. 280—42)

1. In a cart of the character described, the combination including an elongated supporting frame adapted to support a golf bag, a stationary bracket fixed to the frame intermediate the length thereof, a movable bracket in associated relation with the stationary bracket and being journalled thereby, a wheel support disposed on each side of the elongated frame, a plurality of strut members pivotally connecting each wheel support to the brackets, certain of said strut members for each wheel support having pivotal connection therewith at one end and at



their opposite end pivotally connecting with the movable bracket, and at least one of said strut members for each wheel support pivotally connecting the support to the stationary bracket.

2,781,203
PASSENGER SAFETY DEVICE FOR VEHICLES
Alexander Kurilenko, South Williamsport, Pa.
Application March 30, 1955, Serial No. 497,868
1 Claim. (Cl. 280—150)



A safety device for a vehicle having a dashboard, a firewall, and a front seat for receiving a passenger, said safety device comprising an elongated cylindrical member having a closed and an open end, a clamp bracket adjacent the open end of the cylindrical member for securing the cylinder to the dashboard, a bracket mounted on the firewall in spaced relation to the dashboard, means pivotally interconnecting the bracket and the closed end of the cylindrical member thereby rigidly mounting the cylinder on the vehicle, a piston slidable in said cylindrical member, a piston rod extending longitudinally from said piston and the open end of said cylindrical member, an enlarged plate pivotally adjustably attached to the free end of said piston rod, an inflatable cushion formed from flexible material on the surface of the plate disposed remotely from the piston rod for positioning forwardly of a passenger disposed on the front seat whereby the passenger will engage the cushion when thrown forwardly towards the dashboard, a seal member on said piston thereby forming a fluid tight seal in relation to the cylindrical member, a spring urged check valve arrangement in the closed end of said cylindrical member for permitting fluid to enter the cylindrical member when the piston is moved longitudinally towards the open end of the cylindrical member thereby permitting the plate and cushion to be positioned adjacent the front of the chest of the passenger, and an adjustable metering valve in the closed end of the cylindrical member for regulating the flow of fluid from the cylindrical member during longitudinal movement of the piston towards the closed end of the cylindrical member thereby regulating the speed of forward movement of the cushion to a predetermined speed thereby cushioning any impact of the passenger with the cushion and permitting the cushion to be disposed adjacent the dashboard of the vehicle for easy access to the front seat of the vehicle.

mounted on a shaft, said grip having a length to receive both hands of a player in alignment longitudinally of the shaft and having the center line of the grip and that of

the bore therethrough coinciding at the inner end of the grip and the center lines of the bore and grip relatively laterally displaced at the outer end of the grip.

2,781,197
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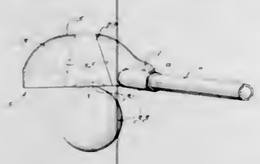

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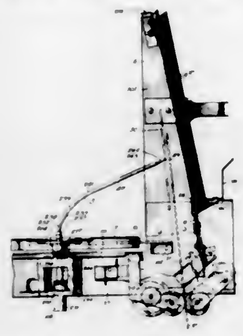

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Adrianus G. Veldhuizen, Zaandijk, Netherlands, assignor to N. V. Nederlandsche Machinefabriek "Artillerie-Inrichtingen," Zaandam, Netherlands, a company of the Netherlands
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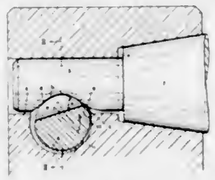

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2,781,200
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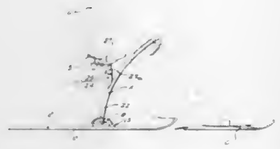
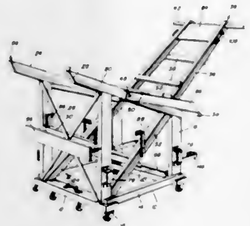
Howard A. Robison, Long Beach, Calif.
Application March 30, 1953, Serial No. 345,347
2 Claims. (Cl. 280—11.39)

2. A winter sports vehicle for use by a person wearing a pair of short skis on his feet, comprising: an elongated runner formed with an upwardly curved forward end portion; a forwardly and upwardly extending support member; means pivotally attaching the lower end of said support member to the intermediate portion of said runner; stop means limiting rearward pivoting of said support member relative to said runner; a seat secured to the intermediate portion of said support member; and a handlebar secured to the upper portion of said support member, said support member and said seat being so located relative to said runner that said person may sit on said



seat straddling said runner with the latter supporting substantially all of his weight while he uses said short skis for maintaining equilibrium and for braking, said person leaning backwardly during a braking operation so as to transfer his center of gravity rearwardly of the lower end of said support member.

2,781,201
CONVERTIBLE CART
Joseph C. Tremblay, Sault Ste. Marie, Mich.
Application February 3, 1954, Serial No. 407,943
10 Claims. (Cl. 280—30)



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2,781,202
COLLAPSIBLE GOLF CART
Eugene Alonzo Odin, Chicago, Ill., assignor to The Louis Johnson Products Co., Inc., Highland Park, Ill., a corporation of Illinois
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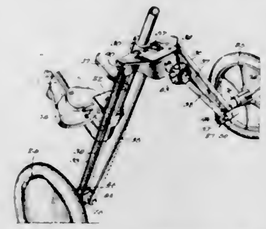
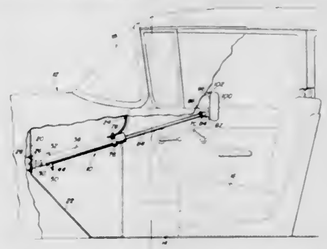
1. In a cart of the character described, the combination including an elongated supporting frame adapted to support a golf bag, a stationary bracket fixed to the frame intermediate the length thereof, a movable bracket in associated relation with the stationary bracket and being journalled thereby, a wheel support disposed on each side of the elongated frame, a plurality of strut members pivotally connecting each wheel support to the brackets, certain of said strut members for each wheel support having pivotal connection therewith at one end and at



their opposite end pivotally connecting with the movable bracket, and at least one of said strut members for each wheel support pivotally connecting the support to the stationary bracket.

2,781,203
PASSENGER SAFETY DEVICE FOR VEHICLES
Alexander Kurilenko, South Williamsport, Pa.
Application March 30, 1955, Serial No. 497,868
1 Claim. (Cl. 280—150)

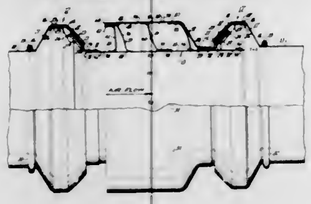


A safety device for a vehicle having a dashboard, a firewall, and a front seat for receiving a passenger, said safety device comprising an elongated cylindrical member having a closed and an open end, a clamp bracket adjacent the open end of the cylindrical member for securing the cylinder to the dashboard, a bracket mounted on the firewall in spaced relation to the dashboard, means pivotally interconnecting the bracket and the closed end of the cylindrical member thereby rigidly mounting the cylinder on the vehicle, a piston slidable in said cylindrical member, a piston rod extending longitudinally from said piston and the open end of said cylindrical member, an enlarged plate pivotally adjustably attached to the free end of said piston rod, an inflatable cushion formed from flexible material on the surface of the plate disposed remotely from the piston rod for positioning forwardly of a passenger disposed on the front seat whereby the passenger will engage the cushion when thrown forwardly towards the dashboard, a seal member on said piston thereby forming a fluid tight seal in relation to the cylindrical member, a spring urged check valve arrangement in the closed end of said cylindrical member for permitting fluid to enter the cylindrical member when the piston is moved longitudinally towards the open end of the cylindrical member thereby permitting the plate and cushion to be positioned adjacent the front of the chest of the passenger, and an adjustable metering valve in the closed end of the cylindrical member for regulating the flow of fluid from the cylindrical member during longitudinal movement of the piston towards the closed end of the cylindrical member thereby regulating the speed of forward movement of the cushion to a predetermined speed thereby cushioning any impact of the passenger with the cushion and permitting the cushion to be disposed adjacent the dashboard of the vehicle for easy access to the front seat of the vehicle.

2,781,204
POCKET SUPPLEMENT HOLDER AND ATTACHMENT THEREFOR
Samuel B. Kraus, Chicago, Ill.
Application August 19, 1953, Serial No. 375,202
4 Claims. (Cl. 281—17)

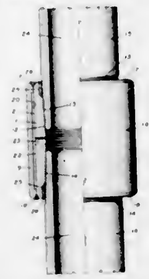
1. In an article of the character described, the combination with the front cover of a book, of a supplement holder having an attachment pocket, and an attachment member for releasably securing the said holder to the outside of said cover, said attachment member having telescoping relation with the rear cover of the holder and with said front cover of the book.

2,781,205
SEALED FLEXIBLE DUCT JOINT
Robert B. Lane, San Diego, and Benjamin R. Alsobrook, Chula Vista, Calif., assignors to Rohr Aircraft Corporation, Chula Vista, Calif., a corporation of California
Application May 10, 1954, Serial No. 428,612
5 Claims. (Cl. 285—106)



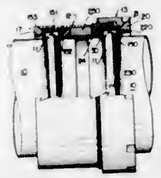
5. A flexible duct adapted to convey gas at a pressure substantially above atmospheric, comprising in combination: a first ball and socket joint; a long cylindrical tube hermetically connected to the small end of the ball member; a second ball and socket joint; a second tube having a cylindrical portion of substantially greater diameter than the diameter of said cylindrical tube concentrically surrounding said cylindrical tube and an inwardly tapered end portion hermetically connected to the small end of said second ball member; an annular support having one end hermetically connected to the cylindrical portion of said second tube and its other end extending radially inwardly to slidably engage the outside surface of said cylindrical tube; a first metallic ring having one end hermetically secured to the cylindrical portion of said second tube and its other end extending radially inward to slidably engage the surface of said cylindrical tube to form a slip joint therewith; a second metallic ring having one end hermetically secured to said cylindrical tube and its other end extending radially outward to slidably engage the inner surface of the cylindrical portion of said second tube to form a slip joint therewith; and a third metallic ring having one end hermetically secured to the cylindrical portion of said second tube and its other end extending radially inward to slidably engage the surface of said cylindrical tube to form a slip joint therewith, said cylindrical tube having one or more openings adapted to pass pressurized gas from within said tube into the area between said first and second metallic rings.

2,781,206
PRESSURE COMPENSATED PIPE COLLAR
Douglas Ragland, Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application May 18, 1953, Serial No. 355,529
1 Claim. (Cl. 285—106)



A pipe connection adapted for use in high pressure operations comprising a continuous metallic inner sleeve having interiorly threaded ends, a metallic outer sleeve spaced from said inner sleeve and connected to said inner sleeve at the ends thereof to form a chamber, a first metallic pipe member provided with an exteriorly threaded end portion engagedly connected to one threaded end of said inner sleeve, a second metallic pipe member provided with an exteriorly threaded end portion engagedly connected to the other threaded end of said inner sleeve, said chamber extending at least a substantial portion of the length of said threaded connections, said engaged threads being provided with thread sealing material whereby a fluid-tight seal is effected between the threadedly engaged portions of said pipe members and said inner sleeve, said inner sleeve being formed to provide port means positioned between the pipe ends and adapted to fluidly communicate the interior of said pipe members and said chamber whereby when high pressure fluids in said pipe members tend to deform said pipe members adjacent the threaded connections fluid pressure enters said chamber through said port means and offsets the tendency of said pipe members to deform by preventing outward expansion of said inner sleeve and thereby maintains the seal effected originally by said engaged threads and thread sealing material.

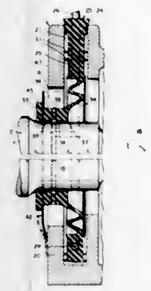
2,781,207
FLEXIBLE COUPLINGS FOR BEADED TUBING
James I. Detweiler, Burbank, and Douglas G. Thompson, Los Angeles, Calif., assignors to Lockheed Aircraft Corporation, Burbank, Calif.
Application January 12, 1953, Serial No. 330,842
3 Claims. (Cl. 285—233)



2. A coupling for connecting two thin walled tubes for relative angular movement, the tubes having external annular beads in spaced adjacent relation to their ends, said beads being arcuate in cross section, the coupling including a tubular body arranged around the end portions of the tubes in spaced surrounding relation thereto and protruding beyond the distal sides of the beads, the body having a flange projecting radially inward from one end thereof and the body having a cylindrical imperforate internal surface of substantially uniform diameter extending

from said flange to the other end of the body, means having threaded engagement with the other end of the body and projecting radially inward therefrom, said flange and said threaded engagement means having an inside diameter greater than the greatest outside diameter of said beads, split collars of channel shape cross section engaged over the beads to straddle the same and to surround the tubes, each collar having a cylindrical periphery engaging said internal surface of the body and having flanges projecting radially inward toward the tubes at each side of the respective beads, the inside diameter of said flanges of the collars being greater than the outside diameter of said tubes and substantially less than the greatest outside diameter of said beads, said flange of the body, said threaded means, and said flanges of the collars presenting flat faces lying in planes perpendicular to the longitudinal axis of the body, the distal flange of one collar having its flat face in engagement with the flat face of said flange of the body and the distal flange of the other collar having its flat face in engagement with the flat face of said means whereby the collars transmit from the beads to the body the axial forces tending to separate the tubes, and seal means in the body in the region between the two collars comprising seal rings bearing against the proximal flanges of the collars and sealing with said internal surface of the body and the peripheral surfaces of the tubes, and a spacer in the body between the seal rings, said threaded engagement of said means with the body being at the distal side of the closest adjacent seal ring so as to not constitute a path of fluid leakage from the tubes.

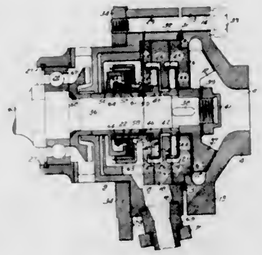
2,781,208
JOURNAL BOX SEAL WITH SPRING PLATE
Curtis D. Foss, Los Angeles, Calif.
Application August 31, 1950, Serial No. 182,573
4 Claims. (Cl. 286—6)



1. Seal means adapted to be mounted at the inner end of a journal box comprising a plate-like seal member receivable in the dust guard slot of the journal box and having an inner sealing ring section defining an opening for receiving an axle extending into the journal box, said member including a flexible resilient section radially outward of the sealing ring section, and a separate spring member interposed between the outside of the axially inner end of the journal box and the sealing ring section yieldably urging said sealing ring section axially in a direction away from the interior of the journal box.

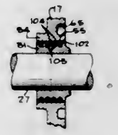
2,781,209
DYNAMIC SEAL FOR A CENTRIFUGAL PUMP
Joseph J. Jacobs, Wauwatosa, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application May 3, 1954, Serial No. 426,969
5 Claims. (Cl. 286—9)

1. In a machine for pumping liquid having a stationary casing, a shaft rotatably mounted in said casing, dynamic seal means including said casing for sealing said shaft to said casing when said shaft is rotating, said seal means comprising: a rotor rotatably mounted on said shaft in said casing; an annular flange presented by said rotor on one side thereof radially spaced from the outer periphery of said rotor; a plurality of blades presented by said rotor on said one side, said blades extending between said flange and said periphery of said rotor; and an annular groove



having a radially inner face defined by said casing, said groove complementing and encompassing said annular flange and being so disposed that the outer edge of said radially inner face has at least one point below and one point above all points of said radially inner face away from said edge, said rotor cooperating with said groove upon rotation of said shaft to provide liquid sealing between said casing and said shaft.

2,781,210
LABYRINTH SEAL
Homer J. Wood, Sherman Oaks, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California
Original application September 17, 1949, Serial No. 116,370, now Patent No. 2,684,196, dated July 26, 1954. Divided and this application April 25, 1952, Serial No. 284,423
5 Claims. (Cl. 286—10)

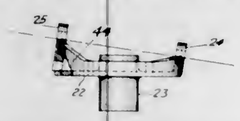


4. A seal structure, comprising: a shaft; a wall member having a central bore for the passage of said shaft; a tubular bore lining having an inner surface of initially uniform diameter, said lining being of material having a plastic flow characteristic; and means carried by the shaft having spaced circumferentially extending surface grooves defining annular lands adjacent the inner surface of said bore lining, said lands upon initial assembly of said shaft within said wall member having a broached fit in said bore lining, said lining material being bulged by plastic flow into said grooves to form a labyrinth seal by slight eccentric movements of said shaft causing engagement of said lands with the inner surface of said bore lining.

2,781,211
ADAPTER PLATE FOR STEERABLE WHEEL
Harleigh R. Holmes, Littleton, Colo.
Application September 14, 1953, Serial No. 380,042
1 Claim. (Cl. 287—20)

As an article of manufacture, an adapter plate for use in a front wheel hub and transmission assembly, comprising a substantially planar circular central portion provided at its center with an elongated tubular hub that projects unequal distances from opposite sides thereof, two diametrically positioned lugs projecting

from the side having the shorter hub projection, one lug being longer than the other and inclined inwardly in the direction of the axis of the hub, the two lugs being

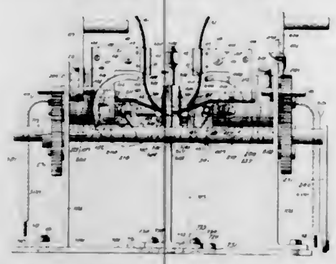


provided with inwardly facing parallel surfaces and with aligned openings for trunnions, the side of the plate having the lugs being also provided along its periphery with reenforcing flanges operatively joined to the lugs.

2,781,212
WIRE SUPPORTING DEVICE
Leonard L. Jugle, Elmhurst, Ill., assignor to Reliable Electric Company, Chicago, Ill., a corporation of Illinois
Application November 5, 1952, Serial No. 318,806
6 Claims. (Cl. 287—20.1)

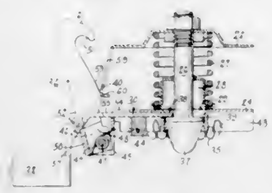
1. In a deadend having wire gripping means which includes a longitudinally disposed member, the combination of a yoke attached to said member and having a web portion disposed parallel to the longitudinal axis of said member, said web portion having an aperture formed therein, a bail extending generally rearwardly of said yoke and including two legs, the ends of each of said legs being bent over at substantially right angles to the axis of said bail, one of said bent ends passing through and being supported in said aperture for pivotal movement in a plane substantially parallel to the longitudinal axis of said member, a keyhole slot formed in said web portion forwardly of said aperture with the tail of said slot extending rearwardly toward said aperture, the bent over end portion of said other leg being provided with a head having a diameter greater than the width of said tail portion, said second leg being sufficiently longer than said first leg so as to permit said bail to extend in a rearward direction from said yoke, whereby pivoted movement of said bail in said aperture will cause said second leg to slide forwardly in said keyhole slot so that said head will register with the open end thereof to permit disengagement of said second leg from said yoke.

2,781,213
BARREL KNOT TIER
John P. Tarbox, Philadelphia, Pa., assignor, by mesne assignments, to Sperry Rand Corporation, New Holland, Pa., a corporation of Delaware
Application March 31, 1953, Serial No. 345,946
6 Claims. (Cl. 289—2)



1. A mechanism for tying together the free ends of a strand loop in a barrel knot, comprising a pair of rotatable members spaced axially longitudinally apart, a strand guiding and holding means mounted centrally between them and adapted to spread apart the main bodies of the free ends, a radially offset wrapping finger carried for rotation by each rotatable member and adapted each to receive and hold a free end on one side of said centrally mounted guiding and holding means, and mechanism adjacent said guiding and holding means adapted to effect the insertion of the free ends between the spread main bodies.

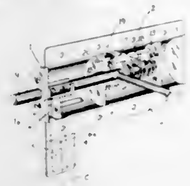
2,781,214
HOOD LATCH
Arthur Claud-Mantle, Trumbull, Conn., assignor to The Bassick Company, Bridgeport, Conn., a corporation of Connecticut
Application October 5, 1953, Serial No. 384,120
4 Claims. (Cl. 292—11)



4. In a hood latch, an upper plate attachable to the forward end of an alligator hood lid and carrying a depending postlike keeper, a lower plate attachable to the fixed part of the hood below the keeper plate and having a keeper aperture elongated lengthwise of the hood, a latch lever pivoted to the lower plate forwardly of said aperture and slightly to one side of the longitudinal axis of said aperture and having a latching lug at one side of said aperture to engage the keeper for latching the lid, said latch lever also having a lateral extension through a slot in a side flange extending downwardly from said lower plate, which extension is continued forwardly laterally of said plate at a lower level and provided at the forward end with a finger piece adapted to be located in a slot of a hood grille, a safety catch lever having a hooked upper end and a lower end pivoted to said flange depending from said lower plate so that said lever can swing in a vertical plane disposed transversely of the hood, said safety catch lever being provided between its ends with a body portion adapted to be engaged by a portion of said latch lever adjacent said slot for moving the hooked end of said latch lever laterally away from the keeper when the latch lever is moved to release the keeper, a spring acting on the lower end of said safety catch lever and urging the hooked end of said safety catch lever in the direction of the keeper, and a depending flange at the side of said upper plate having an aperture into which the hooked end of said safety catch lever is extended in the safety position of the latch, said safety catch lever having at least two camming surfaces engageable sequentially by the lower part of said apertured flange to swing the upper end of said lever laterally away from the upper plate when the lid is lowered from its fully raised position.

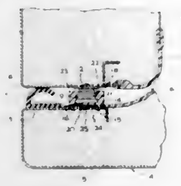
2,781,215
BOLT LOCK
Joseph R. Griffith, Lynwood, Calif.
Application May 5, 1955, Serial No. 506,289
8 Claims. (Cl. 292—148)

1. A bolt lock attachable to a door, cooperable with a padlock to lock said door to a jamb, and selectively unlockable from one side of said door and relockable from the other side of said door independently of said padlock, comprising: hollow body means having first and second ends, defining longitudinal recess means open at a longitudinal side aperture and at an aperture in said first end, and being attachable fixedly to a first side of a door, said side aperture being adjacent to a corresponding aperture in said door; bolt means mounted longitudinally within said recess means in said body means and passing through said first-end aperture in slidable engagement therewith; flange means projecting from said bolt means; spring means cooperable with said body means and said flange means to bias said bolt means in an outward direction, whereby a portion of said bolt may be made, in a locked position, to be maintained outwardly extended through said first-end aperture; staple means held in fixed relationship to said body means, cooperable with said padlock means to be interlocked therewith; side slot means defined by said body means, spaced from said side and end apertures; hasp means passing through said slot means, having an opening therein, at an external end, cooperable with said staple means to be locked thereto by said padlock;



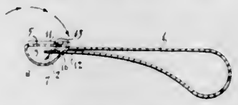
and having at an internal end a collar portion retainably slidable along said bolt means between two spaced positions relative to the longitudinal axis of said bolt means; whereby excess outward extension of the bolt means is prevented, unlocking retraction of the bolt means by the longitudinal motion of the hasp means in said side slot means is allowed, and unlocking retraction of the bolt means while the hasp means is immobilized is allowed, by the manual retraction of said bolt means from the second side of the door; catch means movably held by said body means and having a surface biased against said flange means, a portion of said surface being engageable with the flange means to maintain said bolt means in a withdrawn unlocked position and selectively disengageable from the flange means to allow the motion of said bolt in its outward direction under the force of said spring means; control means attached to said catch means, and an aperture in said body means allowing the manual grasping of a first portion of said control means from the first side of the door, a second portion of said control means being operable from the second side of the door, whereby said catch means may be disengaged from said flange means from either side of the door.

2,781,216
MAGNETIC DOOR LATCH
Thomas P. Foley, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application October 4, 1955, Serial No. 538,410
4 Claims. (Cl. 292—251.5)



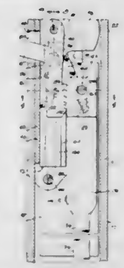
1. A magnetic door latch for holding a door member in closing relation with a cabinet member, said latch comprising a permanent magnet and a non-magnetic housing for supporting said magnet on one of said members, a cooperating armature adapted to form a surface portion of the other of said members and to be contacted by said magnet when said door member is closed, said housing including a bottom wall and opposed upwardly converging side walls, said magnet being loosely disposed in said housing and including side walls adapted to be engaged by the walls of said housing to retain said magnet in said housing and limit the forward movement of said magnet away from said bottom wall, and a keeper on the opposite side of said bottom wall from said magnet and being adapted to cause said magnet to be attracted towards said bottom wall when out of contact with said armature.

2,781,217
ONE PIECE CAR DOOR SEAL
William John Swan, Demaine, Saskatchewan, Canada
Application October 8, 1954, Serial No. 461,217
1 Claim. (Cl. 292—322)



A one piece car door seal comprising in combination a cavity enclosure, a tongue extending from one end of said enclosure, a prong extending downwardly into said enclosure in a direction away from said tongue, an arrow head formed on said prong, a slit in said cavity enclosure adapted to receive the distal end of said tongue, and an aperture in the distal end of said tongue, adapted to be engaged and locked by said prong when said tongue is passed through said slit, said cavity enclosure including a substantially semi-cylindrical base wall, a pair of side walls and flanges extending from the upper ends of said side walls, one end of said tongue connecting with one end of said base wall, one end of said prong connecting to the other end of said base wall and adapted to be folded over to form the upper wall of said enclosure, said flanges adapted to be angulated to clamp said upper wall and said prong in position, the wings of said arrow head locking behind the bounding edges of said aperture in said tongue.

2,781,218
LATCH UNIT FOR PANIC EXIT LOCK
Deane N. Jewett, Fraser, Mich., assignor to Detroit Hardware Manufacturing Co., Detroit, Mich., a corporation of Michigan
Application October 15, 1954, Serial No. 462,419
6 Claims. (Cl. 292—336)



1. A panic exit lock latch unit for cooperating door and door frame structures comprising a latch unit supporting structure adapted to be mounted near the upper edge of said door structure, a latch bolt movably mounted on said supporting structure for movement between unlocked and locked positions below and above said upper

edge respectively, a bolt-shifting member mounted on one of said structures for vertical reciprocation relatively thereto, motion-transmitting mechanism operatively connecting said member to said bolt and responsive to the downward reciprocation of said member to move said bolt upward into locking position above said upper edge, a detent catch mounted on said bolt-shifting member and reciprocable therewith, a detent movably mounted on said supporting structure for travel into and out of detaining engagement with said catch in the raised position of said member, yielding means normally urging said detent into detaining engagement with said catch, and a detent actuator mounted on one of said structures operatively engaging and moving said detent out of detaining engagement with said catch in response to the closing engagement of said door structure with said door frame structure whereby to release said member and bolt.

2,781,219
ADJUSTABLE STRIKE PLATE
Steve Baborik, Cairnbrook, Pa.
Application February 14, 1955, Serial No. 487,792
1 Claim. (Cl. 292—341.18)

An adjustable strike plate assembly for a door lock comprising a strike plate having at least one opening therethrough for reception of a latch mechanism, said strike plate having at least one aperture therethrough, said strike plate having a portion thereof having a plurality of rows of holes therein adjacent said opening, a securing plate of smaller dimensions than said portion of said strike plate, said securing plate having a plurality of rows of pins appended thereto and extending normal thereto, said pins being selectively extensible into said rows of holes, said securing plate being vertically and horizontally adjustable relative to said strike plate, said securing plate having a hole therethrough, and a fastener extending through said hole in said securing plate, said hole in said securing plate being offset from the center of said securing plate.

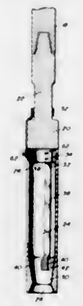
2,781,220
NO-GRIP DOORKNOB COVER
Henry Zietlow, Wausau, Wis.
Application July 8, 1954, Serial No. 442,008
1 Claim. (Cl. 292—347)

Means for preventing rotation of a door knob by small children, comprising a body of mesh material, said body having its ends open, a pair of cords threaded through said mesh material, said cords being arranged adjacent the ends of the body of mesh material, one of said cords adapted to draw the material together to close the outer end thereof, the other of said cords adapted to draw the material together over the stem of the door knob over which the material is positioned so that by untying the outer cord, the cover can be pushed back to expose the door knob and whereby the innermost cord will still support the cover, and whereby when a child attempts to open the door by turning the knob with the cover on the knob, the cover will slip around the knob, but when an adult firmly grips the cover and applies sufficient manual pressure thereto, the door knob can be turned.

2,781,221
DETACHABLE CARRYING DEVICE FOR PAINT AND OTHER CANS
Frank J. Pekora, Philadelphia, Pa.
Application March 4, 1952, Serial No. 274,796
1 Claim. (Cl. 294—31.2)

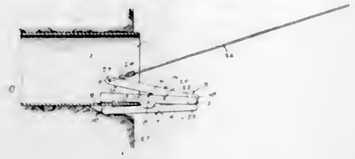
A detachable carrying device for cans having an enlarged rim at the top thereof which comprises a plain straight band of flexible metal longer than the circumference of the can and adapted to encircle and conform to the can just below the enlarged rim thereof and located wholly below said rim, the said metal band, when conformed to a can, having its ends brought together and projecting radially from the can with a pair of sets of spaced end apertures thereof in registration, fastening instrumentalities detachably securing said ends together at the pair of registering apertures and said metal band being provided between the sets of spaced end apertures with two sets of spaced intermediate apertures arranged so that when the metal band is conformed to a can an aperture of one intermediate set of apertures will be disposed diametrically opposite an aperture of the other intermediate set of apertures, and a wire handle member having upturned outer ends each of which is detachably passed through one of the diametrically opposed intermediate band apertures.

2,781,222
SLIP SOCKET RELEASER
Basil L. Smith, Orrington, Maine
Application April 18, 1955, Serial No. 501,911
6 Claims. (Cl. 294—102)



1. A slip socket release for a fishing tool of the type having a hollow cylindrical longitudinally slotted body with a supporting shank at its upper end and a fish receiving opening at its lower end, an internally toothed fish engaging slip socket slidable in said body, cooperating wedging surfaces on the body and the socket for compressing the internal teeth upon the fish upon downward movement of the slip socket in the body; said slip socket release comprising a clamp for fixedly embracing the shank of the body, fingers depending from the clamp for embracing the exterior of the body, fasteners carried by the fingers and engageable through slots in the body with said slip socket whereby the latter will be held in a raised position in the body to permit the internal teeth of the slip socket to be disengaged from the fish and the latter to be withdrawn.

2,781,223
GRAPPLE
Alvin F. Fluto, Wyndmere, N. Dak.
Application April 9, 1956, Serial No. 577,008
6 Claims. (Cl. 294—106)

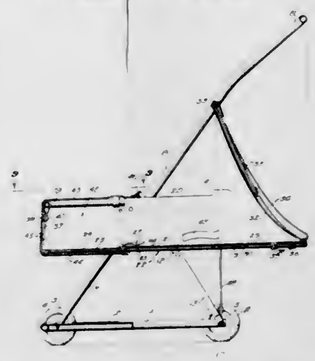


1. A grapple comprising a pair of elongated bars including a first bar and a second bar, complementary ends of said bars forming coacting jaws between which an element to be gripped is adapted to be disposed, means pivotally connecting said bars to one another intermediate of the ends of the bars for swinging movement of the jaws toward and away from one another, a lever pivotally connected to the first bar between the pivot of said bars and the other end of said first bar and at a point spaced from the ends of said lever, said lever having a first end located remote from said jaws and disposed for swinging movement into and out of engagement with the other end of said second bar, said lever having a second end disposed adjacent said jaws, and means connected to and extending from said second lever end at an acute angle to the axis of said lever and on which a pull is adapted to be exerted for swinging said lever relative to the first bar for moving the first end of the lever into engagement with said other end of the second bar for swinging the jaw of the second bar toward the jaw of the first bar for exerting a leverage force tending to spread said last mentioned bar ends to retain the jaws in tight gripping engagement with the element disposed therebetween.

2,781,224
LOG TONGS
Norman F. Meloy, Goldendale, Wash.
Application September 28, 1955, Serial No. 540,308
3 Claims. (Cl. 294—118)

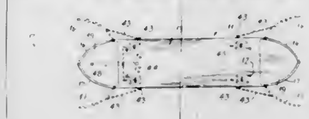
1. A pair of tongs comprising: a pair of opposed, coacting jaws hingedly connected at one end, means including arms on the hingedly connected ends of the jaws for opening said jaws, and means including additional arms on said hingedly connected ends of said jaws for closing said jaws.

2,781,225
COMBINATION STROLLER AND BABY CARRIAGE
Robert C. Heideman, North Hollywood, Calif., assignor to American Carry-Products Company, Inc., North Hollywood, Calif., a corporation of California
Application November 30, 1953, Serial No. 395,009
12 Claims. (Cl. 296—26)



1. A combination stroller and baby carriage, comprising: a wheel supported base frame; forward and rearward struts pivotally connected to said base frame; means relatively securing said struts to form with said base frame substantially triangular frame structures; parallel, forwardly and rearwardly extending seat suspension members connected to said frame structures substantially at the apices of said frame structures in the region of said means; an extensible frame joining said suspension members and movable between a forward extended position and a rearward retracted position; a seat structure supported from said seat suspension members and movable between a folded seat forming position and an extended bed forming position; and releasable fastening means for suspending the forward end of said seat from said extensible frame when said frame is extended and said seat is in its bed forming position.

2,781,226
CARGO VEHICLE BODY WITH FOLDABLE DOORS FOR IMPARTING A STREAMLINED SHAPE TO THE BODY
Walter Tydon, Hagerstown, Md., assignor to Fairchild Engine and Airplane Corporation, Hagerstown, Md., a corporation of Maryland
Application June 25, 1953, Serial No. 364,026
8 Claims. (Cl. 296—28)



1. In a cargo vehicle, the combination of an elongated hollow body of substantially tubular cross-section, and having at least one end open, a plurality of members hinged to said body at the sides of said open end thereof adjacent the open end thereof and extending substantially around its entire periphery, said members having a length in excess of one-half the width of said open end, means for securing said members with their free edges in abutting relation to close the open end of the body and form

an extension thereon of substantially V-shaped contour, and means for securing said doors in overlapping relation to close the said open end of said body and decrease the overall length of said body.

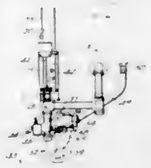
2,781,227
AUTO INSECT DEFLECTOR
William J. Black, Chatham, N. J., assignor to Curtiss-Wright Corporation, a corporation of Delaware
Application June 12, 1953, Serial No. 361,231
6 Claims. (Cl. 296—91)

1. An insect deflector for a vehicle comprising a vane-like deflector structure, a supporting member for the deflector structure, a turnable pivot pin inter-connecting the supporting member and deflector structure to provide a pivotal axis for the deflector structure, the deflector structure having a normal resting position on the supporting member at an acute angle to the horizontal, but swingable about the pivot pin through an angle to a deflecting position by aerodynamic pressure against the underside thereof, means for limiting the extent of the swinging movement, the pivot pin having at least one eccentric portion for causing translational movement of the deflector structure while in said non-deflecting position to a forward position or to a retracted position on the supporting member upon turning the pivot pin in one direction or the other, and means for locking said deflector on the supporting member in one of said forward or retracted positions.

2,781,228
IRRIGATION CONTROL SYSTEM
Carl A. Anderson, Lakewood, Calif., assignor to Harry M. Davis, Palmdale, Calif.
Application June 1, 1953, Serial No. 358,929
4 Claims. (Cl. 299—25)

4. In an irrigation control system including a water supply line and a normally closed solenoid actuated valve in said line, the combination of: electrical means controlling actuation of said valve and responsive to moisture content of the soil in the area to be irrigated comprising a direct current voltage supply source; an electron discharge means having its anode connected to one side of the supply source; a relay means connected in series between the supply source and the electron discharge means and connected to the valve for controlling actuation thereof; and a pair of spaced electrodes connected respectively to the other side of the supply source and to the cathode and control grid of the electron discharge means, said electrodes being adapted to be buried in soil to be irrigated at a selected depth.

2,781,229
SPRAYBAR DEVICE
Robert W. Thornburg, Minneapolis, Minn., assignor to Rosco Manufacturing Company, Minneapolis, Minn., a corporation of Minnesota
Application August 18, 1954, Serial No. 450,718
2 Claims. (Cl. 299—34)



2. A spraybar assembly for applying road surfacing fluid material comprising, an elongated tubular member horizontally disposed in said assembly and having depending spray nozzles communicating at spaced intervals therewith and flexible fluid connection for supplying the road surfacing fluid to the tubular member, a mounting structure rigidly attachable to the rear end of a conventional bituminous tank truck and maintaining the tubular member transversely of the direction of travel, said mounting structure having vertical guide means for the tubular member and a pair of spaced roller supports mounted to the tubular member at a lower position and slightly forwardly thereof with respect to the direction of travel of the tank truck during operation, whereby the tubular member will at all times be maintained at a uniform predetermined height from the road surface irrespective of variations in the height of the rear end of the tank truck because of changes in the weight of fluid in the tank.

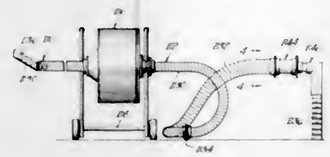
2,781,230
SOLUTION FEED FOR A CLEANING MACHINE
Clarence L. Pritchard, San Leandro, Calif., assignor to Malsbary Manufacturing Company, Oakland, Calif., a corporation of California
Application June 14, 1954, Serial No. 436,526
2 Claims. (Cl. 299—84)

1. In combination, a conduit having means for passing a liquid therethrough under pressure, a resistance in said conduit adapted to slightly impede the flow of the liquid therethrough, a by-pass for the conduit including an outlet passage disposed upstream of the resistance, a return passage disposed downstream of the resistance and a tank connecting the two passages, the tank having a second liquid therein of approximately the same specific gravity as the first liquid, the outlet passage having unrestricted connection to the top of the tank, and the return passage being connected to the bottom thereof whereby the first liquid is made to cause the second liquid to feed into the conduit, the outlet and return passages being connected to the conduit closely adjacent the resistance so as to render the inherent pressure drop in the conduit between the passages substantially negligible, and the resistance being liquid-controlled and variable in response to liquid pressure to maintain the pressure differential between the two passages due to the resistance substantially constant for different liquid pressures, and being sufficiently slight to cause liquid to pass through the by-pass in a gentle flow, and a metering valve in the outlet passage and operable to reduce the flow through the by-pass to a trickle.

2,781,231
HUB CONSTRUCTION
James J. Black, Cincinnati, Ohio, assignor to Trailmobile, Inc., Chicago, Ill., a corporation of Delaware
Application December 31, 1953, Serial No. 401,531
3 Claims. (Cl. 301—105)

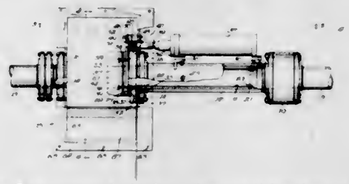
1. A wheel hub comprising a pair of spaced cylindrical bearing rings, said bearing rings being counterbored for the reception of wheel bearings, a plurality of ribs disposed intermediate said bearing rings, each of said ribs comprising longitudinal side walls, transverse end walls joining said side walls, and an outer wall, said outer wall extending axially of said hub, a plurality of arcuate inner walls interconnecting the adjacent side walls of adjoining ribs, a radial mounting flange extending outwardly beyond the ribs intermediate their end walls, said mounting flange being provided with a plurality of bolt holes adapted for the reception of studs for securing said flange to a wheel, said bolt holes being disposed about the circumference of a bolt hole circle, the outer wall of each of said ribs being arcuately configurated and being disposed concentrically with said bolt hole circle, whereby said outer walls function as a pilot surface for supporting a wheel during the mounting thereof.

2,781,232
CAN DISPATCHING APPARATUS
Clarence J. Smith, Rockford, Ill., assignor, by mesne assignments, to W. F. and John Barnes Company, Rockford, Ill., a corporation of Illinois
Application January 5, 1953, Serial No. 329,526
21 Claims. (Cl. 302—2)



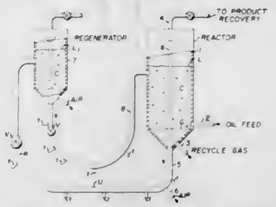
1. In an apparatus for transferring cans or the like pneumatically, the combination comprising inlet, intermediate and outlet conduit means for receiving cans or the like transversely therein so that the cans or the like may roll therethrough, track means within each of said conduit means for maintaining the cans or the like in a transversely extending position, and means for drawing air through the inlet and intermediate conduit means and for forcing air through the outlet conduit means for rolling cans or the like through said conduit means.

2,781,233
COMBINED PIPELINE SWITCH AND DIVERTER
Stanley P. Witek, Chicago, Ill., assignor to Crane Co., Chicago, Ill., a corporation of Illinois
Application May 3, 1954, Serial No. 427,286
7 Claims. (Cl. 302—28)



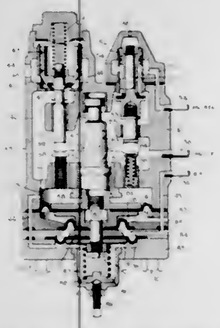
1. In a flow control device, the combination comprising first and second conduit means arranged for the interchange of fluid flow therebetween, one of said conduit means being axially movable away from the other out of the interchange position, said conduit means having end portions in substantial alignment at least in the interchange position, combined closure and deflector means swingable into substantially sealed engagement with said second conduit means after movement of the movable conduit means out of the interchange position to prevent fluid admission within the second conduit means, said combined means being engageable with an end portion of the said axially movable conduit and being adapted to deflect the fluid discharge from said first conduit means into transverse flow when in the sealed engagement, said second conduit means by predetermined engagement with said combined means being adapted to limit movement of said combined means and position the same through the sealed engagement therewith for the deflective action and to receive the force exerted against the combined closure and deflector means by the fluid flow impinging thereon, the exertion of the force providing at least in part for sealing action, and means positioning the conduit means and combined means in operative relation with each other.

2,781,234
AUTOMATIC CONTROL OF STANDPIPE AND U-BEND AERATION
Worth W. Boisture and James F. Ross, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application May 18, 1954, Serial No. 430,704
6 Claims. (Cl. 302—66)



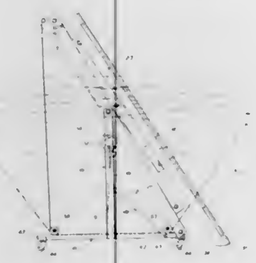
1. The method of maintaining the flowability of an aerated mixture of solids of widely different bulk densities and particle size in a system wherein the said mixture flows around curves and bends in at least one transfer line, the improvement which comprises correcting erratic flow or stoppage of flow of said mixture of solids by injecting from about 2–5 times the amount of an aerating gas normally required to maintain smooth flowability of the said mixture of solids into the transfer line system responsive to the tendency of the said mixture of solids to plug the said line as a result of said erratic flow or stoppage of flow, as evidenced by an increase in the gas pressure between two predetermined points whereby the said mixture is maintained in smoothly flowing state.

2,781,235
SELF-LAPPING RELAY FOR USE IN COMBINED PRESSURE AND VACUUM BRAKE SYSTEMS
Lewis A. Safford, Watertown, N. Y., assignor to The New York Air Brake Company, a corporation of New Jersey
Application April 22, 1953, Serial No. 350,353
5 Claims. (Cl. 303—4)



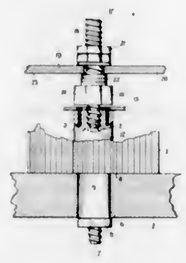
1. A self-lapping relay for controlling sub-atmospheric pressures in a vacuum train pipe in response to variations of super-atmospheric pressure in the brake pipe of an automatic air brake system comprising in combination a first valve controlling flow from the atmosphere to the vacuum train pipe; a second valve controlling flow from the vacuum train pipe to an evacuating means; an actuating mechanism for said valves shiftable from a neutral position, in which both valves are closed, in reverse directions to open said valves selectively; a differential displacement multiple abutment pressure motor in which the absolute pressures in the brake pipe and train pipe act concurrently on different effective abutment areas in a direction to cause opening of the second valve, the train pipe pressure acting on the larger of said areas; and loading means biasing said actuator in opposition to said pressures.

2,781,236
FOLDING SCAFFOLDS
Paul G. Becker and Clark G. Becker, Los Angeles, Calif.
Application October 25, 1954, Serial No. 464,208
2 Claims. (Cl. 304—29)



1. In a folding scaffold, the combination comprising a support member, an extendable and retractable pantograph linkage having an upper pair of arms pivotally connected to each other intermediate their ends at an upper pivot and a lower pair of arms pivotally connected to each other intermediate their ends at a lower pivot, a platform pivotally connected to the upper end of one of the upper arms and slidably carried by the upper end of the other upper arm, the linkage being supported by the support member at the lower pivot of the linkage to be pivotable about a horizontal axis when the linkage is in its retracted position, a winch having a first pulley and a second pulley, a first cable attached to the first pulley and the lower end of one of the lower arms, and a second cable attached to the second pulley and the lower end of the other lower arm, the cables being of different length and wound on to their respective pulleys so that when the winch is wound in one direction the linkage is extended, and when wound in the other direction the linkage is collapsed and then pivoted about the lower pivot while the linkage is collapsed.

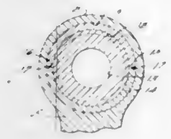
2,781,237
GEAR SHAFT SUPPORT
August Masse, Humboldt, Saskatchewan, Canada
Application October 23, 1953, Serial No. 388,012
1 Claim. (Cl. 308—18)



The combination of a machinery frame, an idler shaft rigidly secured in an aperture in said frame and projecting outwardly therefrom, an idler gear rotatable on said idler shaft, the outer end portion of the idler shaft being formed with a screw-threaded bore, a support member rigid with said frame and provided with an opening coaxial with and spaced outwardly from the outer end of said idler shaft, a stub shaft having an enlarged intermediate portion and first and second screw-threaded end portions, the first screw-threaded end portion of said stub shaft engaging said screw-threaded bore of the idler shaft, the second screw-threaded end portion of the stub shaft extending through said opening in said support member, a compression washer interposed between said support member and the enlarged intermediate portion of the stub shaft, a clamping nut provided on said second end portion of the stub shaft and urging said washer in sealing engagement with the support member, and an apertured keeper disc provided on the outer end of said idler shaft for retaining said gear thereon, said first end portion of said stub shaft extending through the aperture in said keeper disc, whereby to support the outer end of the idler shaft and said gear against vibration.

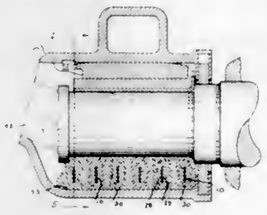
2,781,238
BALL TYPE BEARING FOR ROD END
Richard O. Carter, Grosse Pointe Woods, Mich.
Application October 23, 1953, Serial No. 387,902
1 Claim. (Cl. 308—72)

A rod end having a head containing an aperture, a race having a cylindrical outer surface and a truncated spherical inner surface, said race having diametrically disposed slots substantially parallel to the axis of said race and extending inwardly from the outer surface, the portions of the race from the bottom of the slots to the inner surface being broken providing irregular mating surfaces at the broken areas, a ball having a truncated spherical surface disposed within the two halves of said race and retained in intimate relationship therewith when the two halves of the race are pressed within the aperture of said head so that the broken areas are in intimate relationship, and means for preventing the lateral shifting of the race



within said aperture, said ball being larger than said race and made of porous material containing a lubricant.

2,781,239
BATT WASTE PACKING
Thomas W. Potter, Chicago, Ill., assignor to Journal Box Servicing Corporation, Indianapolis, Ind., a corporation of Indiana
Application November 12, 1953, Serial No. 391,654
4 Claims. (Cl. 308—88)



1. The combination with a railway journal box having a floor, front and back ends, and side walls between which walls a journal extends from said back end in spaced relation from said floor and said walls, a journal lubricating packing for feeding oil from over said floor upwardly against said journal by capillary action comprising a plurality of oil carrying batts positioned compressively one against another across said floor under the journal; each of said batts comprising a flat, planar, rectangular core of two layers of duck, one layer coextensive and united one with the other around all of their edges providing two opposite outer, approximately flat face side areas; twisted yarn loops in compressive contact one with the other and fixed to and extending from the core outer face areas and projecting beyond the top and bottom edges thereof; said batts being disposed in said packing with said cores each individually isolated one from the other by means of said yarn loops in spaced apart, approximately vertically disposed planes at right angles to the axis of said journal; said yarn loops between adjacent cores providing an uninterrupted, vertically disposed channel of yarn loops for capillary travel of the oil from the box floor to the journal.

2,781,240
PISTON ASSEMBLIES
Art I. Robinson, Dallas, Tex., assignor to Merla Tool Corporation, Dallas, Tex., a corporation of Texas
Application March 19, 1954, Serial No. 417,285
3 Claims. (Cl. 309—23)

1. A piston assembly including, a cylinder having a bore, a piston slidable within said cylinder and having an annular groove adjacent one end thereof, said groove having one wall thereof disposed in a plane which is normal to the axis of the piston and having a second inclined wall which is disposed at an angle with respect to a plane parallel to the axis, said inclined wall extending upwardly and outwardly from the first wall to the outer surface of the piston whereby the groove is substantially triangular in cross section, and a sealing ring of substantially the same cross-sectional shape as the groove mounted in said groove and having its external periphery engageable with the wall of the bore, said ring being constructed of a deformable material.

CHEMICAL

2,781,241
METHOD OF TREATING ANIMAL SKINS
Alexis E. Ushakoff, Beverly, Mass., assignor to Secotan, Inc., Somerville, Mass., a corporation of Massachusetts
No Drawing. Application December 24, 1951, Serial No. 263,129
2 Claims. (Cl. 8—94.18)

1. The method of tanning skins consisting of extracting and replacing all the water of a water-wet skin with an inert water-miscible organic solvent, then treating the skin with an organic solvent solution of a chemical agent effective to change the degree of swelling of the skin to impart the desired texture, thereafter drying the skin, then tanning the skin in an inert organic solvent solution of a tanning agent while maintaining the skin under non-aqueous conditions until the skin is finally tanned and dry.

2,781,242
PROCESS OF IMPROVING THE HAND OF POLYETHYLENE TEREPHTHALATE FABRIC BY HEAT SHRINKING AND HYDROLYZING THE FABRIC
Paul Knapp, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application February 5, 1954, Serial No. 408,604
5 Claims. (Cl. 8—115.5)

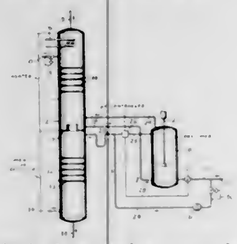
1. In the process for finishing a polyethylene terephthalate fabric, the improvement comprising first subjecting the fabric, while free to shrink, to dry heat at a temperature between about 200° C. and about 230° C. until the fabric has shrunk at least 3% warpwise and at least 3% fillingwise, and then immersing the fabric in an aqueous solution at about boiling temperature until

the fabric has lost between about 10% and about 20% in weight, said solution containing about 5% of a compound selected from the group consisting of alkali-metal salts of weak acids characterized by a pH of at least 12 in aqueous solution at a concentration of 0.1 N and alkali-metal hydroxides, and then drying the fabric, said fabric being free from wool and other components deleteriously affected by the aforesaid treatment.

2,781,243
PRODUCTION AND USE OF ACRYLONITRILE POLYMER SOLUTIONS
John Downing, Arthur Hodge, and James Gordon Napier Drewitt, Spondon, near Derby, England, assignors to British Celanese Limited, a corporation of Great Britain
No Drawing. Application June 14, 1951, Serial No. 231,663
Claims priority, application Great Britain June 29, 1950
12 Claims. (Cl. 18—54)

1. Compositions comprising an acrylonitrile polymer containing in the polymer molecule above 50% by weight of acrylonitrile dissolved in a solvent mixture of nitromethane and a mono-substituted acetic acid selected from the group which consists of monochloroacetic acid, glycollic acid and thioglycollic acid, containing 70–95% by weight of nitromethane.

2,781,244
CONTROLLED RECOVERY OF AMMONIA FROM LIQUORS CONTAINING FIXED AMMONIA VALUES
Clarence F. Hecklinger, Syracuse, N. Y., assignor to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York
Application September 18, 1952, Serial No. 310,320
3 Claims. (Cl. 23—193)



1. In the method of recovering ammonia in free form from a charge stream of liquid containing varying quantities of ammonium salts, wherein the charge stream is treated with lime to decompose the ammonium salts and liberate ammonia, the improvement which comprises adding to and reacting with the charge stream in a first liming zone a major portion, in the order of about 85% to about 95%, in variable quantity of the lime required to liberate the ammonia content of said stream, thereby providing free ammonia and a partially reacted stream containing residual, unreacted ammonium salts, separately withdrawing free ammonia and said partially reacted stream from said first liming zone, controlling the quantity of lime added within said first zone in response to pH determination of said partially reacted stream to maintain the same at an approximately constant level below that of the charge stream reacted with lime in amount stoichiometrically equivalent to its ammonium salt content, sending the partially reacted stream through a second liming zone, therein adding a constant quantity of lime providing a slight stoichiometric excess thereof with respect to unreacted ammonium salts, and removing free ammonia from the reacted product of said second zone, whereby substantially complete recovery of ammonia in free form is realized upon use of minimum quantity of lime.

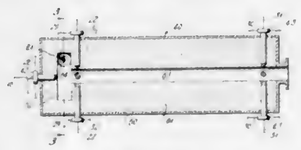
2,781,245
PROCESS OF RECOVERING AMMONIA FROM AMMONIACAL LIQUORS
Harold E. Robertson and Barney O. Strom, Syracuse, N. Y., assignors to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York
No Drawing. Application September 18, 1952, Serial No. 310,366
11 Claims. (Cl. 23—193)

1. In the process of recovering ammonia from an aqueous ammoniacal brine wherein the brine is treated with lime to decompose ammonium compounds in the brine, said lime comprising coarser particles comprising lime associated with impurities and finer lime particles and having been obtained from limestone by calcination thereof, the improvement which comprises separating the coarser particles from the remaining lime, reacting the separated coarser particles with an ammoniacal brine containing at least 5 grams of ammonium compounds per liter of brine, the proportion of ammoniacal brine to the coarser particles of lime being at least sufficient to provide a considerable excess of ammonium compounds, and then reacting the resulting brine with the remaining lime.

2,781,246
PROCESS FOR MAKING FURNACE CARBON BLACKS
Walter A. Goldtrap, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application April 20, 1951, Serial No. 221,960
15 Claims. (Cl. 23—209.4)

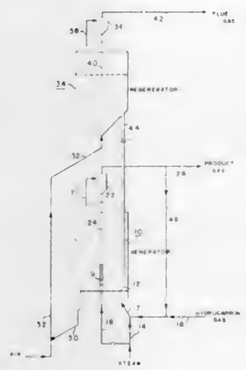
1. A process for producing carbon black comprising the steps of burning a fuel to produce hot combustion gases, pyrolitically converting a portion of a feed consisting essentially of hydrocarbons into carbon black and gas by passing said feed in a vaporous state in contact with said hot combustion gases, separating the major portion of said carbon black from said gas by dry separation process steps, washing the remaining carbon black out of said gas with a normally liquid oil consisting essentially of hydrocarbons, and passing said oil from said washing step containing said remaining carbon black as said feed and said fuel to said pyrolitic conversion.

2,781,247
CARBON BLACK PROCESS
Joseph C. Krejci, Phillips, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware
Application January 29, 1954, Serial No. 406,921
9 Claims. (Cl. 23—209.4)



1. In a process of the tangential flame, precombustion type in which a stream of carbonaceous reactant is converted to carbon black by longitudinal introduction into a preformed, helically traveling body of hot combustion gas, the improvement which comprises introducing at least one additional stream of reactant into said body of combustion gas in a direction transverse to the axial direction of flow of said combustion gas and at a locus downstream from the locus of formation of said combustion gas.

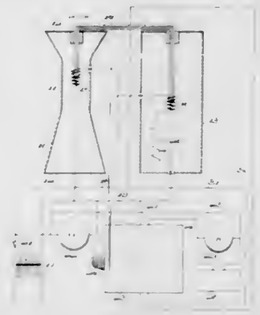
2,781,248
MANUFACTURE OF HYDROGEN
Everett Gorin, Pittsburgh, Pa., assignor to Pittsburgh Consolidation Coal Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application January 6, 1953, Serial No. 329,773
2 Claims. (Cl. 23—212)



1. The method of producing hydrogen from gaseous hydrocarbons and steam which comprises passing a gaseous hydrocarbon into a reaction zone maintained at a temperature between 1400 and 170° F. and at a total pressure which is between 20 and 50 atmospheres, maintaining an inventory of fluidized calcium oxide within said reaction zone under CO_2-absorbing conditions in an amount sufficient to absorb substantially all the carbon dioxide produced by reaction of said gaseous hydrocarbons with steam, introducing steam into said reaction zone in insufficient quantity to cause the partial pressure of steam to exceed 13 atmospheres whereby the partial pressure of steam at all points within said reaction zone is maintained below 13 atmospheres, the volume of steam thus introduced being at least twice the volume of gaseous hydrocarbons introduced into said reaction zone, and recovering the gaseous product of the reaction between said steam and said gaseous hydrocarbons.

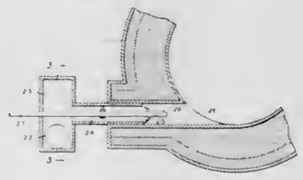
2,781,249
COMBUSTIBLE GAS DETECTOR
Martin Pisano, Hillside, N. J.
Application May 18, 1953, Serial No. 355,727
1 Claim. (Cl. 23—255)

In an apparatus for analyzing air for the presence of a combustible gas therein, the combination of a closed reference chamber, a separate tubular combustion chamber arranged in spaced relation adjacent said reference chamber and disposed for the flow therethrough of a current of air to be analyzed, a thermocouple unit extending between said chambers and having angularly disposed end portions projecting into corresponding ends of said chambers, the angular end portions of said unit each comprising a plurality of series-connected thermocouple junctions, a companion catalyst coils encircling the angular end portions of said unit about said junctions, and a heating circuit connecting said coils parallel, said combustion chamber having flared ends connected by an elongated throat at the zone of the coil in said combustion chamber for accelerating the velocity of said current



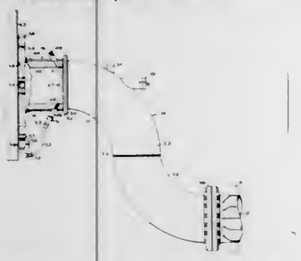
of air through said zone and simultaneously reducing the normal pressure of the air in said zone about the coil therein.

2,781,250
CARBON BLACK REACTOR
Neil C. Miller, Borger, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware
Application February 18, 1952, Serial No. 272,004
5 Claims. (Cl. 23—259.5)



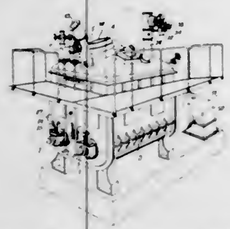
1. In a hydrocarbon reactor comprising an elongated, cylindrical reactor chamber open at both ends, a cylindrical combustion chamber having a diameter greater than that of said reactor chamber and a length less than its own diameter, closed at one end and axially connected to and communicating with one open end of said reactor chamber at the open end of said combustion chamber; at least one combustion tunnel, open at both ends, tangentially connected to and communicating with said combustion zone, the improvement which comprises a free oxygen supply conduit extending into said tunnel and terminating within said tunnel in a frusto-conical section converging in a downstream direction and forming an orifice at the downstream end of said conduit, the area of said orifice being from 27 to 30 percent of the cross-sectional area of said conduit, a free oxygen supply chamber having a diameter greater than that of said supply conduit and a length less than its own diameter, closed at one end and axially connected to and communicating with the open upstream end of said supply conduit at the open end of said supply chamber; at least one free oxygen supply pipe tangentially connected to and communicating with said supply chamber; a fuel gas supply pipe having a uniform cross-sectional area throughout, a closed downstream end and a plurality of outlets substantially perpendicular to the axis of said fuel gas supply pipe disposed around the circumference of its closed end extending through said supply chamber and supply conduit and terminating from 0.75 to 1.25 orifice diameters downstream from said orifice; and a reactant hydrocarbon supply pipe extending centrally into said combustion chamber through the center of said closed end of said combustion chamber.

2,781,251
QUENCH FOR FURNACE TYPE REACTORS
Robert C. Howell, Phillips, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware
Application January 15, 1951, Serial No. 206,033
3 Claims. (Cl. 23—277)



1. In the combination of a furnace and a liquid spray quench, said furnace having a ceramic refractory chamber adapted to carry out pyrolytic conversion of hot gases therein, said chamber being directly connected to discharge said hot converted gases into said quench, and a liquid dispenser disposed to spray liquid into said gases in said quench, the improvement in which said quench comprises a ceramic refractory first conduit section directly connected to said chamber to receive said hot gases therefrom, a heat conducting uninsulated metal second conduit section directly connected to said first section to receive said gases therefrom, said ceramic refractory in said first section being perforated, and said liquid dispenser comprising a metal liquid supply conduit and metal spray head located in said perforation in said perforated ceramic refractory and disposed and directed to spray said liquid through said perforation into and through said first section and out the discharge end thereof into said second section without said liquid spray contacting said ceramic refractory, whereby cracking and spalling of said ceramic refractory due to impingement of sprayed liquid on the same is substantially eliminated, and whereby the overall length of said furnace and quench, and thereby the pyrolytic reaction time therein, is reduced.

2,781,252
APPARATUS FOR PREPARING CELLULOSE XANTHATE
Tomizo Saito, Shinagawa-ku, Tokyo, Japan
Application December 13, 1952, Serial No. 325,751
4 Claims. (Cl. 23—285)



1. An apparatus for preparing cellulose xanthate, comprising a housing providing a vacuum chamber for containing alkali cellulose and hydrogen bisulphide for reaction therewith to produce cellulose xanthate, a feed pipe mounted on the upper portion of said housing for delivering thereto a charge of alkali cellulose, an upper pipe rotatably mounted in the upper portion of said feed pipe, a cylinder liner inside said feed pipe and slidably movable up and down therein, said housing having a top feed inlet to the vacuum chamber, and said cylinder liner being adjustable in the feed pipe to project the lower end thereof down through said inlet whereby to feed a charge of alkali cellulose into the vacuum chamber packing rings surrounding the cylinder liner in contact therewith at its upper portion and in contact with the internal periphery of the feed pipe, the cylinder liner intermediate its ends including an external flange having a bottom annular face acting as a valve member in cooperation with another packing ring mounted on a bottom portion of said feed pipe adjacent said inlet when said lower end of said cylinder liner is projected down through said inlet, a closing plate movable to overlie said inlet and rest on said other packing ring at a time other than when a charge of alkali cellulose is being fed into the vacuum chamber through said feed pipe and cylinder liner, still another packing ring on the upper side of said plate and so arranged thereon that, with said plate positioned to cover said inlet, said cylinder liner can be adjusted in said feed pipe to move said lower end thereof into tight engagement with the last-named packing ring thereby to seal closed said feed inlet, an exhaust cylinder for said chamber, a filter means coacting with said exhaust cylinder to prevent alkali cellulose from being sucked out of the said vacuum chamber during exhaustion of the latter, said exhaust cylinder being equipped with valves, and a plurality of shafts each rotatable to open or close a particular one of said valves.

2,781,253
ENGINE GENERATION OF HYDROGEN AND CARBON MONOXIDE
Jay B. Malin, Whittier, Calif., assignor to The Texas Company, New York, N. Y., a corporation of Delaware
Application December 14, 1950, Serial No. 200,731
3 Claims. (Cl. 48—196)

1. In the combustion engine generation of hydrogen and carbon monoxide by the reaction of a hydrocarbon with free oxygen wherein said reactants are charged to the combustion space of a cyclically operating internal combustion engine in approximate relative proportions for the formation of a partial combustion product composed essentially of hydrogen and carbon monoxide, compressed therein, subjected to internal combustion with the generation of mechanical energy, and the product hydrogen and carbon monoxide thereafter exhausted as a relatively pure stream, the improvement which comprises initiating the introduction of said reactants to the combustion space of said engine substantially simultaneously, simultaneously charging substantially the entire charge of said reactants to the combustion space, and purging the combustion space by charging steam thereto during the latter portion of the period in which the products of reaction are exhausted therefrom.

2,781,254
METHOD OF MANUFACTURING A CHEMICAL FERTILIZER FROM SLUDGE, CONTAINING AMMONIUM NITRATE, DICALCIUM PHOSPHATE, AND CALCIUM CARBONATE
Eiji Munekata, Kenji Doi, and Toshinori Onodera, Tsunetomi, Nobeoka, Miyazaki-ken, Japan, assignors to Asahi Chemical Industry Co., Ltd., Osaka, Japan
No Drawing. Application December 21, 1953, Serial No. 399,582
2 Claims. (Cl. 71—47)

1. A method of manufacturing a dry chemical fertilizer from sludge comprising essentially ammonium nitrate, dicalcium phosphate and calcium carbonate, and from

15 to 45 percent water, and which is subject to decomposition reactions

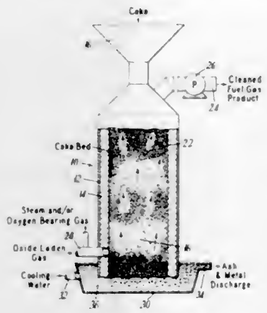
$$2NH_4NO_3+CaCO_3=Ca(NO_3)_2+2NH_3+H_2O+CO_2$$

and

$$2CaHPO_4+CaCO_3=Ca_3(PO_4)_2+Co_2+H_2O$$

which tend to take place upon heating in the presence of water and thereby result in the loss of fertilizer values, which comprises drying said sludge by spraying into a heated air flow containing carbonic acid gas in an amount less than that theoretically required to achieve equilibrium but sufficient to suppress the said reactions, said spraying and drying being substantially completed before the decomposition reactions can take place and being effected at a temperature from 160 to 180° C.

2,781,255
TREATMENT OF FUMES CONTAINING SUSPENDED SOLIDS
William A. Krivsky, Tonawanda, and Erich K. Modl, Niagara Falls, N. Y., assignors to Union Carbide and Carbon Corporation, a corporation of New York
Application November 16, 1955, Serial No. 547,182
8 Claims. (Cl. 75—25)

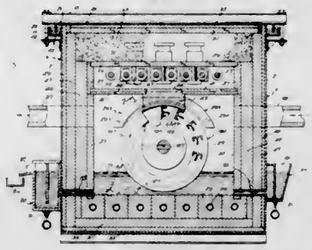


3. In the art of purifying gas contaminated with suspended particles of iron oxide, the improvement comprising providing a column of coke particles wherein the coke particles are introduced into said column at the top thereof, and the contaminated gas is introduced into and reduced at the bottom thereof, and separated as it progresses up the column, introducing into said column a quantity of oxygen-bearing gases and steam sufficient to control a reaction zone temperature in said column for the chemical reduction of the iron oxide contaminants, regulating the physical state in which the reduced iron occurs by varying the ratio of steam to oxygen input into said column, withdrawing gaseous fuel product from the top of the coke column, and removing coke ash and iron particles from the bottom of the coke column.

2,781,256
PROCESS FOR THE RAPID REMOVAL OF SULPHUR AND SILICON FROM PIG IRON
John H. Richards, Baldwin Borough, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
No Drawing. Application November 23, 1953, Serial No. 393,966
6 Claims. (Cl. 75—52)

3. A method of simultaneously reducing the sulphur and silicon contents of pig iron substantially saturated with carbon and containing manganese in a ratio of 1.2 to 1 relative to the silicon content, which consists in charging molten iron into a basic-lined vessel, covering the iron with a substantially neutral lime-silica slag having a melting range below 1250° C., said slag including also sulphur-absorbing ingredient selected from the group consisting of ferrous oxide, manganese oxide and mixtures thereof in amount between 10–50% by weight of the slag, surface-blowing said slag with oxygen-containing gas for a few minutes, until the oxygen partially oxidizes the silicon and manganese contents of the liquid iron, and terminating the blow before the carbon content is oxidized to a substantial extent, thereby causing a portion of the silicon and sulphur of the iron to combine with the slag.

2,781,257
METHOD AND APPARATUS FOR RECOVERING ZINC
Richard A. Wilkins, Rome, N. Y., assignor to Revere Copper and Brass Incorporated, Rome, N. Y., a corporation of Maryland
Application June 23, 1952, Serial No. 295,040
25 Claims. (Cl. 75—88)



1. The method of purifying zinc contaminated with lead which comprises heating a bath of such zinc in the bottom of a chamber closed against ingress of air for evaporating metal therefrom, discharging the evaporated metal vapors from the space above said bath and condensing them, controlling the temperature of the bath to maintain such temperature less than that of the boiling point of zinc at atmospheric pressure, maintaining the partial vapor pressure of the zinc in the metal vapor mixture above the bath at values that will cause the zinc to evaporate from the bath at such temperature and for concomitantly securing a low ratio of the partial vapor pressure of lead to that of zinc for reducing the amount of lead evaporated in respect to that of the zinc, whereby to cause the metal vapors discharged from the chamber to contain a maximum of zinc and a minimum of lead and to cause the lead content of the bath progressively to increase with respect to its zinc content, and scooping metal from the bath and raining it through the space above the bath for promoting evaporation of zinc from the bath.

2,781,258
METAL-WORKING TOOL
Antoni Niedzwiedzki, Grivegnee-lez-Liege, Belgium
No Drawing. Application April 8, 1952, Serial No. 281,275
Claims priority, application Belgium April 9, 1951
2 Claims. (Cl. 75—123)

1. As an article of manufacture a metal working tool for machine tool operations including cutting, turning, boring, reaming, milling, drilling, threading and the like, comprising a tool body having at least its working face portion consisting of an alloy steel substantially free of abrasive oxides and containing sulphur in the form of particles of lead sulphide present in an amount between .1 percent and 1 percent, said working face portion being characterized by having at least a portion of the sulphide homogeneously distributed throughout the alloy steel as soft, non-abrasive crystalline inclusions non-weldable with the said alloy steel and said working face portion further

having substantially reduced contact weldability as compared with a tool having its working face portion made from the same steel without the particles of metallic sulphide compound.

2,781,259

WEAR-RESISTANT FERROUS ALLOYS

George A. Roberts, Latrobe, Pa., assignor to Vanadium-Alloys Steel Company, Latrobe, Pa., a corporation of Pennsylvania

No Drawing. Application March 11, 1955, Serial No. 493,813
10 Claims. (Cl. 75—126)

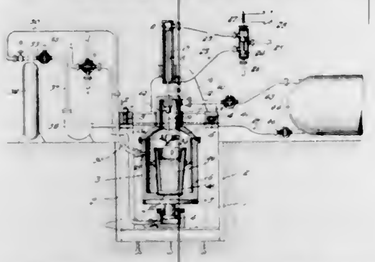
1. A wear-resistant high speed tool steel comprising, in proportions by weight, about 0.6 to 1.5% of carbon, about 0.2 to 6% of titanium, up to about 6% of vanadium, about 1% maximum of silicon, about 2% maximum of manganese, about 13–19% of tungsten, about 5% maximum of chromium, less than about 20% of cobalt, less than about 1.5% of columbium, less than about 0.5% of sulfur, the total maximum of titanium and vanadium being about 6%, the proportions of titanium, vanadium and carbon being selected within the given limits to provide 1 part of carbon for each 0.3–4 parts of titanium plus 1 part of carbon for each 1–4 parts of vanadium, and the balance substantially iron with residual impurities in ordinary amounts.

2,781,260

PROCESS AND APPARATUS FOR THE TREATMENT OF MOLTEN FERROUS ALLOYS

Maurice Charles Marie Grandpierre, Pont-a-Mousson, Nancy, France, assignor to The International Nickel Company, Inc., New York, N. Y., a corporation of Delaware

Application March 3, 1955, Serial No. 491,820
Claims priority, application France March 6, 1954
18 Claims. (Cl. 75—130)



1. The method for introducing a reactive metal into a molten ferrous alloy which comprises applying to a bath of said molten alloy a gas pressure at least equal to the vapor pressure of the reactive metal at the temperature of said molten alloy, inserting a reactive metal beneath the surface of said molten alloy and energetically stirring said molten alloy in contact with said reactive metal until substantially all of said reactive metal has become incorporated in said molten alloy.

2,781,261

PROCESS FOR THE MANUFACTURE OF TITANIUM-ALUMINUM ALLOYS AND REGENERATION OF INTERMEDIATES

Jonas Kamlet, Easton, Conn., assignor to National Distillers Products Corporation, New York, N. Y., a corporation of Virginia

No Drawing. Application October 30, 1953, Serial No. 389,503
13 Claims. (Cl. 75—135)

1. A cyclic process for the manufacture of titanium-aluminum alloys and the regeneration of the intermediates of said process which comprises the steps of: (*a*) reacting an alkali metal fluotitanate with metallic aluminum in stoichiometric excess at advanced temperatures to obtain the said titanium-aluminum alloy and a by-product mixture of alkali metal fluoaluminate and aluminum fluoride, and thereafter separating said alloy from said salt mixture; (*b*) reacting the mixture of alkali metal fluoaluminate and aluminum fluoride, in an aqueous medium, with lime in quantity sufficient to form a precipitate of calcium fluoride and a solution of alkali metal aluminates, and separating said precipitate from said solution; (*c*) carbonating the alkali metal aluminates solution with a carbon dioxide-containing gas to form a precipitate of aluminum hydroxide and a solution of alkali metal carbonates, and separating said precipitate from said solution; (*d*) reacting the calcium fluoride obtained in step (*b*) with sulfuric acid at advanced temperatures to form hydrogen fluoride gas, absorbing said gas in an aqueous medium and reacting the resultant solution of hydrofluoric acid with a member of the group consisting of titanium dioxide, hydrated titanium dioxide and titanic acid, whereby an aqueous solution of fluotitanic acid (H_2TiF_6) is obtained; and (*e*) neutralizing the fluotitanic acid with a member of the group consisting of the hydroxides, carbonates and the bicarbonates of the alkali metals, recovering the resultant alkali metal fluotitanate and returning the same to the first step of the process.

2,781,262

ALUMINUM-BASE ALLOY

Harold Ernest Gresham, Little Eaton, Alec George Farnsworth, Derby, Douglas W. Hall, Tynemouth, and William Michael Doyle, Slough, England, assignors to Rolls-Royce Limited, Derby, England, a corporation of Great Britain

No Drawing. Application October 21, 1953, Serial No. 387,524
Claims priority, application Great Britain October 25, 1952
5 Claims. (Cl. 75—143)

1. An aluminum-base alloy of the class which consists by weight of about 5% copper, about 1% nickel, about 0.15% silicon, about 0.2% titanium, about 0.25% manganese, about 0.25% iron, up to about 0.25% antimony, about 0.25% cobalt and the balance essentially aluminum plus impurities, characterized in that the alloy contains by weight about 0.05% to 0.50% of cadmium.

2,781,263

ALUMINIUM BASE ALLOY

Harold Ernest Gresham, Little Eaton, Alec George Farnsworth, Derby, and Douglas Wilson Hall, West Monkseaton, Northumberland, England, assignors to Rolls-Royce Limited, Derby, England, a corporation of Great Britain

No Drawing. Application April 28, 1954, Serial No. 426,292
Claims priority, application Great Britain July 18, 1949
12 Claims. (Cl. 75—144)

9. A forgeable and castable alloy having a stress-to-fracture characteristic in 100 hours at 300° C. in excess of 9000 pounds per square inch, and consisting by weight of about 3.5% to 7% copper, about 0.5% to 2% nickel, about 0.10% to 0.30% titanium, about 0.20% to 0.60% manganese, about 0.20% to 0.50% cobalt and the balance essentially aluminium.

2,781,264

NICKEL CHROMIUM BASE ALLOY AND A STATIONARY TURBINE BLADE MADE THEREFROM

Harold Ernest Gresham, Little Eaton, and Marcus Alan Wheeler, Darley Abbey, England, assignors to Rolls-Royce Limited, Derby, England, a corporation of Great Britain

Application October 20, 1953, Serial No. 387,252
Claims priority, application Great Britain October 25, 1952
10 Claims. (Cl. 75—171)

1. An alloy having a thermal shock index at 930° C. of at least about 45, an elongation not substantially

more than 1% under load of 2 long tons per square inch in 100 hours at 950° C., and an ultimate tensile strength at 950° C. of about 20 long tons per square inch, said alloy consisting by weight approximately of 18% to 22%

chromium, 8% to 10% molybdenum, 2% to 3% titanium, 0.5% to 2% aluminium, the impurities carbon and iron not exceeding respectively about 0.15% carbon and 1% iron, and the balance essentially nickel and the usual deoxidizers, cleansers and impurities.

2,781,265

PHOTOSENSITIVE MATERIAL

Frederick W. von Meister, Mendham, N. J., assignor to Keuffel & Esser Company, Hoboken, N. J., a corporation of New Jersey

No Drawing. Application March 15, 1952, Serial No. 276,870
14 Claims. (Cl. 96—75)

1. The method of producing photosensitive materials comprising the steps of treating a colloidal dispersion of polystyrene resin in an aqueous liquid with a flocculating agent to partially flocculate substantially all the particles to a size visible under 100× magnification, precoating a base material with said suspension of a polystyrene resin in an aqueous liquid to deposit a coating of said styrene resin on said base material and then applying an aqueous solution containing a light sensitive diazo compound to deposit a coating containing said light sensitive diazo compound over said resin coating.

2,781,266

LACTASE-HYDROLYZED LACTOSE IN FEED

Edwin G. Stimpson, Sayville, N. Y., assignor to National Dairy Research Laboratories, Inc., Oakdale, Town of Islip, N. Y., a corporation of Delaware

No Drawing. Application November 25, 1952, Serial No. 322,579
14 Claims. (Cl. 99—9)

1. A feed for animals and poultry comprising lactase-hydrolyzed lactose, a milk product, a cereal and a fat.

2,781,267

WHEY CONCENTRATE

Edwin Traisman, Des Plaines, and Howard L. Fleming, Palatine, Ill., assignors to Kraft Foods Company, Chicago, Ill., a corporation of Delaware

No Drawing. Application February 15, 1952, Serial No. 271,846
5 Claims. (Cl. 99—57)

1. A process for manufacturing smooth whey concentrate which comprises concentrating whey having a solids concentration between about 5 and about 10 percent to a solids concentration between about 50 and about 65 percent, concentration being effected at a temperature above about 140° F. and in a vacuum greater than 24 inches of mercury (relative to a 30 inch barometer), cooling the whey from a temperature above about 140° F. to a temperature below 60° F. in a time less than one and a half minutes while agitating said whey.

2,781,268

METHOD OF PRODUCING ANGEL FOOD BATTER AND CAKE

John A. Abbott, Jr., South San Francisco, Calif., Duffer B. Crawford, Westfield, N. J., and Kerwood M. Kelly, Omaha, Nebr., assignors to American Machine & Foundry Company, a corporation of New Jersey

Application September 10, 1954, Serial No. 458,522
(Filed under Rule 47(b) and 35 U. S. C. 118)
21 Claims. (Cl. 99—92)

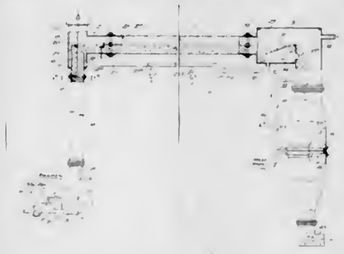
1. The process of making angel food cake comprising simultaneously pre-mixing all the ingredients of angel food cake to form a pre-mix, reducing the pH of said pre-mix, introducing said pre-mix under high pressure into an area of intense agitation to form a mix, maintaining said mix at a temperature range not exceeding 50° F., and conducting said mix gradually from said area of intense agitation and into a bake oven having a temperature in excess of 350° F. to form angel food cake.

2,781,269

METHOD AND APPARATUS FOR THE CONTINUOUS PRODUCTION OF CHEESE-FORMING CURD

Willis J. Harper and Dale A. Seiberling, Columbus, Ohio, assignors, by mesne assignments, to The Ohio State University Research Foundation, Columbus, Ohio, a corporation of Ohio

Application June 30, 1955, Serial No. 519,048
9 Claims. (Cl. 99—116)



1. The method of producing cheese-making curd which comprises introducing within a moving stream of a liquid casein-containing milk food ingredient an enzyme capable of delayed reaction with said milk food ingredient to produce a cheese-making curd-coagulum; subjecting said stream, during continual movement thereof and following the introduction of said enzyme therein, to relatively violent agitation, whereby to disperse said enzyme substantially uniformly throughout said stream; transforming said stream, following agitation thereof, into a relatively quiescent, non-turbulent column of substantially uniform diameter; and causing said column to coagulate during continual axial movement thereof to form therein a cheese-making curd-coagulum.

2,781,270

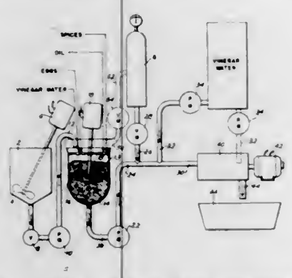
MANUFACTURE OF MAYONNAISE

Duffer B. Crawford, Westfield, and Curt Walter Hirsch, Glen Rock, N. J., assignors to American Machine & Foundry Company, a corporation of New Jersey

Application March 31, 1953, Serial No. 345,974
11 Claims. (Cl. 99—144)

1. The method of producing mayonnaise continuously comprising, forming a thin free-flowing mixture of oil and egg in formula proportions and a relatively small amount of the vinegar water required by formula, continuously emulsifying said slurry and pumping under pressure said

emulsified slurry and an inert gas and the remainder of the vinegar water required by formula into a closed chamber, vigorously agitating said constituents under

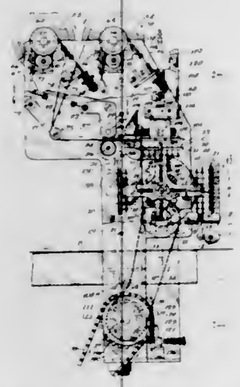


pressure in said closed chamber, and continuously introducing the final mayonnaise from said closed chamber into a container at atmospheric pressure.

2,781,271
PROCESS OF CURING BACON AND COMPOSITION THEREFOR
Clarence K. Wiesman, Chicago, and William K. Perrin, Riverdale, Ill., assignors to Armour and Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application March 14, 1952, Serial No. 276,704
6 Claims. (Cl. 99—159)

1. The process of preparing a bacon product having improved color characteristics, comprising curing a fresh bacon material with a salt-cure composition containing a minor proportion, between about 0.007 and 0.02 weight percent based on the common salt present, of an edible iodide salt, and smoking said cured bacon material to develop a bright color in said material.

2,781,272
METHOD OF FORMING A STACK OF INTERLEAVED CHEESE SLICES AND APPARATUS THEREFOR
Raymond G. Rudnik, Homewood, Roland E. Miller, Orangeville, and Henry Borgardt, Chicago, Ill., assignors to Kraft Foods Company, Chicago, Ill., a corporation of Delaware
Application July 29, 1954, Serial No. 446,586
14 Claims. (Cl. 99—178)



1. The method of forming a stack of interleaved slices of cheese and separator sheets, which method comprises the steps of transporting a succession of cheese slices through an arcuate path of travel about a horizontal axis, delivering mutually independent separator sheets respectively to the cheese slices in a predetermined portion of said path of travel, thereby forming a succession of assemblies respectively comprising a cheese slice and a separator sheet, and, in a succeeding portion of said path of travel, successively delivering a plurality of said assemblies into a stack.

2,781,273
METHOD OF MAKING BLOCK TALC AND RELATED MATERIALS
William J. Koch, Silver Spring, Md., assignor to the United States of America as represented by the Secretary of Commerce
Application August 26, 1953, Serial No. 376,767
4 Claims. (Cl. 106—39)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. The method of preparing block talc which comprises preparing a mixture of 80–100 percent talc, 0–12 percent clay and 0–10 percent barium carbonate, the materials in the mixture having a maximum particle size of 10 microns and containing a maximum of 5 percent impurities, subjecting the mixture to a minimum of 40,000 p. s. i. hydrostatic pressure and firing the product at a temperature of between 1800°–2315° F. for between 30 minutes to 1 hour, with a total firing time of 2 to 9 hours.

2,781,274
REINFORCED INORGANIC MOLDED PRODUCTS
Games Slayter, Newark, Ohio, assignor to Owens-Corning Fiberglas Corporation, a corporation of Delaware
No Drawing. Application April 28, 1951, Serial No. 223,660
15 Claims. (Cl. 106—108)

1. An inorganic molding compound consisting essentially of magnesium oxide and magnesium sulphate heptahydrate present in the ratio of 1–9 molecular equivalents of the oxide to one molecular equivalent of the sulphate, 2 to 12 percent by weight of water, and glass fibers in amounts ranging from 3–15 percent by weight.

2,781,275
VISCOSE SOLUTION AND METHOD OF SPINNING
Dirk Vermaas, Baarn, Netherlands, assignor to American Enka Corporation, Enka, N. C., a corporation of Delaware
No Drawing. Application April 7, 1952, Serial No. 281,036
Claims priority, application Netherlands May 12, 1951
2 Claims. (Cl. 106—165)

1. A process for manufacturing viscose rayon yarn having uniform core-skin properties comprising the steps of preparing xanthated alkali cellulose, extruding said xanthated alkali cellulose into a coagulating agent to form a thread, washing said coagulated thread with a liquid in which the xanthated alkali cellulose does not dissolve to remove sodium trithiocarbonate, contacting said washed coagulated thread with a dilute zinc salt solution to incorporate zinc salt therein, dissolving the treated thread in a solution of sodium hydroxide, and spinning the resultant zinc-containing substantially trithiocarbonate-free cellulose xanthate solution to form viscose rayon yarn.

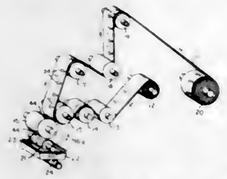
2,781,276
METHOD OF TREATING BENZYL CELLULOSE
Walter E. A. Simon, Kiel-Wellingdorf, Germany, assignor to Brycel Limited, Hackbridge, England
No Drawing. Application May 25, 1954, Serial No. 432,333
Claims priority, application Great Britain February 3, 1950
3 Claims. (Cl. 106—197)

1. A method of treating benzyl cellulose to avoid the formation of bubbles and pores in a plastic composition formed therewith comprising heating benzyl cellulose to a flowable condition and mixing the heated benzyl cellulose with a phenol, together with an alkaline catalyst to ensure reaction between said additional substance and the benzaldehyde, the quantity of said substance being that calculated to react with the benzaldehyde recoverable from a quantity of the benzyl cellulose on heating it to 220–240° C. for two hours.

2,781,277
METHOD OF MANUFACTURING ELECTRICAL RESISTORS
Walter J. Dwyer, Nashua, N. H., assignor to Sanders Associates, Incorporated, Nashua, N. H.
Application January 12, 1954, Serial No. 403,493
2 Claims. (Cl. 117—4)

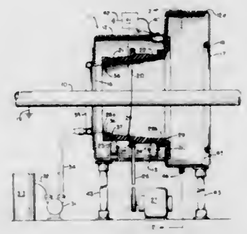
1. The method of manufacturing resistor elements which comprises moving a tape of asbestos material along a path at a predetermined speed; spraying a mixture of finely ground carbon and liquid silicone onto said tape in a series of layers; heating the resultant material to a temperature sufficient to air-dry it and drive off the solvent; curing the resultant material by further heating, applying a mixture of silicone resin and silver to provide a binding material to a part of said surface; curing said binding material at a temperature of approximately 300° C.; imprinting contacts of a mixture of epoxy resin and silver to provide an adhesive material on said binding material; curing said contacts by applying heat thereto at a temperature of approximately 180° C.; and cutting the tape into the desired elements.

2,781,278
METHOD OF PRINTING CARBON TRANSFER INK IN A SPACED DESIGN ON PAPER
Bernard Harmon, New York, N. Y.
Application August 13, 1952, Serial No. 304,099
4 Claims. (Cl. 117—36)



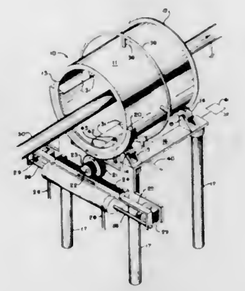
1. The method of printing carbon transfer ink in a spaced design on paper, which comprises melting a solid carbon ink to a predetermined temperature, continuously transferring said molten ink at that temperature to a transfer roller of rubbery, heat insulating material, inking a typographic printing plate of heat insulating rubbery material from said transfer roller, and, while maintaining said ink in molten transferable condition, printing the molten ink from said plate onto paper, and allowing the ink to solidify on the paper.

2,781,279
METHOD AND APPARATUS FOR SPRAY COATING OF ARTICLES
Merton R. Miller, Long Beach, Calif., assignor to Ransburg Electro-Coating Corp., a corporation of Indiana
Application November 26, 1951, Serial No. 258,213
10 Claims. (Cl. 117—93)



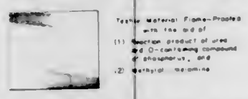
1. The method of coating an article by electrostatic deposition which comprises atomizing coating material into quiescent air from an annular member forming a substantially continuous atomizing zone extending substantially completely around the article while rotating the member in the plane of the annulus and while moving the article axially through the central portion of the zone, and creating an electrostatic charge differential between the atomized particles and the article of sufficient strength to move the particles through said quiescent air toward and to deposit them on said article.

2,781,280
METHOD AND APPARATUS FOR SPRAY COATING OF ARTICLES
Emery P. Miller, Williams Creek, Ind., assignor to Ransburg Electro-Coating Corp., a corporation of Indiana
Application March 11, 1953, Serial No. 341,752
4 Claims. (Cl. 117—93)



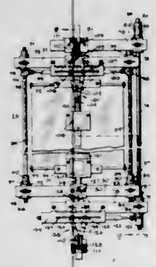
2. The method of coating an elongated article which comprises passing the article along a predetermined path parallel to its major axis, providing a member surrounding a portion of said path, feeding coating material to the interior of said member while rotating the member to distribute the coating material over its inner surface, contacting the inner surface with a roller extending an appreciable distance parallel to but spaced from said portion of the path to form a film of coating material on the roller, disrupting a portion of the film, creating an electrostatic field extending from said film portion to the article, said field having sufficient strength electrostatically to atomize coating material in said film portion and electrostatically to deposit the atomized coating material particles on the article.

2,781,281
FLAME-PROOFING OF TEXTILES
Alfred Berger, Basel, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm
Application May 23, 1955, Serial No. 510,533
18 Claims. (Cl. 117—136)



1. A process for rendering textile fabrics flameproof, which comprises impregnating the fabric in an aqueous liquid which contains (1) about 12–48% by weight of a reaction mixture obtained by heating an excess of urea together with an oxygen-containing compound of phosphorus selected from the group consisting of orthophosphoric acid, pyrophosphoric acid, meta-phosphoric acid and ammonium salts of these acids, at a high temperature, and (2) about 2–18% by weight of a methylolmelamine, the ratio of component (1) to component (2) ranging from 3:1 to 6:1, and drying the impregnated fabric at a raised temperature.

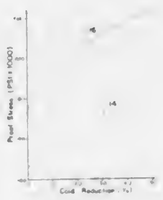
2,781,282
METHOD AND APPARATUS FOR MASKING SUPPORT BODIES
Willard L. Morgan, Pittsburgh, and Stephen H. Harwig, Edgewood, Pa., assignors to Libbey-Owens-Ford Glass Company, Toledo, Ohio, a corporation of Ohio
Application September 21, 1953, Serial No. 381,368
14 Claims. (Cl. 117—212)



10. The method of applying a plurality of coatings to a support body, comprising the steps of applying a first coating to the body, masking the central portion of the body, applying a second coating to opposite marginal edge portions of the body, unmasking the central portion of the body and masking the coated marginal edge portions thereof, and applying a third coating to the central portion of the body.

2,781,283
METHOD OF PROCESSING STAINLESS STEELS
Wesley Kalita, New Kensington, Pa., assignor to Allegheny Ludlum Steel Corporation, Brackenridge, Pa., a corporation of Pennsylvania
Application October 3, 1955, Serial No. 537,919
8 Claims. (Cl. 148—12.4)

1. In the method of producing stainless steel having a high hardness, high proof stress and substantial freedom from internal stresses from a hot worked intermediate product formed from an ingot having a composition comprising up to 0.25% maximum carbon, about 11.0% to about 14.5% chromium, and the balance substantially iron with incidental impurities, the steps comprising, subjecting the intermediate product to a subcritical normalizing treatment at a temperature in the range between 1200° F. and 1500° F., cold reducing the normalized intermediate product to effect a reduction therein of between 10% to 60% such that the thickness of the cold reduced intermediate product is within 10% to 40% of the finished thickness of the final product, heating the cold reduced intermediate product at a temperature in the range between 1700° F. and 1875° F., cooling to harden the product, cold reducing the hardened cold



reduced intermediate product 10% to 40% to the finish thickness of the final product, and stress relief annealing the final product at a temperature in the range between 700° F. and 1100° F., the final product being characterized by having a hardness of 46 R_c minimum and a proof stress in excess of 180,000 p. s. i.

2,781,284
GRAPHITIC HIGH CARBON-HIGH VANADIUM STEELS
Paul R. Borneman and Leonard V. Klaybor, Dunkirk, N. Y., assignors to Allegheny Ludlum Steel Corporation, Brackenridge, Pa., a corporation of Pennsylvania
No Drawing. Application November 9, 1955, Serial No. 545,993
4 Claims. (Cl. 148—31)

1. An iron alloy possessing excellent machinability characteristics, superior resistance to abrasion, scoring, scuffing and galling and controllable hardenability and consisting of, from about 1.5% to about 5.0% carbon, from about 1.4% to about 2.4% silicon, from about 0.10% to about 3.0% manganese, up to 1.0% chromium, up to 1.0% tungsten, up to 1.0% molybdenum, from about 3.0% to about 15.0% vanadium and the balance iron with incidental impurities, the alloy having from about 0.01% to 1.5% of carbon present in the form of graphite resulting from heat treatment at a temperature in the range between 1400° F. and 1550° F., and slowly cooling therefrom.

2,781,285
ELECTRIC POWER CABLES OF THE SOLID TYPE
Paul V. White, Waldwick, and Guy N. Everest, Ridgewood, N. J., assignors to The Okonite Company, Passaic, N. J., a corporation of New Jersey
Application March 16, 1954, Serial No. 416,474
3 Claims. (Cl. 154—2.21)

1. In the manufacture of electric power cables the method which comprises applying oil-and-gas-permeable insulation about a cable conductor; drawing the assembly thus provided into metal tubing, which is extended in a long run; with the tubing and its contained conductor assembly thus extended, sealing the ends of the tubing, passing current through the cable conductor to heat the same, evacuating the assembly, and filling the evacuated assembly with fluid insulation; finally swaging the tubing into intimate contact with the conductor assembly, and then reeling the cable thus provided upon a reel.

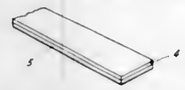
2,781,286
PHENOLIC RESIN GLUE COMPOSITIONS CONTAINING A VEGETABLE SHELL FLOUR DERIVATIVE
Joseph W. Ayers, Easton, Pa., and John J. Bradley, Jr., Winchester, Mass., assignors to Agrashell, Inc., Los Angeles, Calif., a corporation of Delaware
No Drawing. Application May 6, 1953, Serial No. 353,421
14 Claims. (Cl. 154—45.9)

1. A glue composition comprising an alkaline phenolic-aldehyde resin adhesive solution containing as an extender-bodying agent a vegetable shell flour which has been reacted with an alkali metal hydroxide and with a difficulty water-soluble alkaline hydroxide to an extent which has modified at least in substantial part its lignin content and ultimately converted the same at least in substantial part into a water-insoluble state.

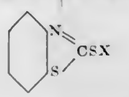
2,781,287
DIMENSIONALLY STABLE SHEET MATERIAL FOR REPRODUCTION PURPOSES
Edwin L. Gustus, Chicago, Ill., and Luther L. Yaeger, Madison, Wis., assignors, by mesne assignments, to Tru-Scale, Inc.
Application February 27, 1953, Serial No. 339,382
4 Claims. (Cl. 154—46)

3. A translucent sheet for reproduction purposes comprising synthetic resin having imbedded therein glass monofilaments, two planar layers of said monofilaments, said monofilaments being substantially parallel to one another, the monofilaments in each layer substantially having their axes in the same plane, the axes of monofilaments in one of said layers being disposed at an angle to the axes of said monofilaments in the other of said layers, substantially each of said monofilaments extending substantially from an edge of said sheet to another edge of said sheet, characterized by said synthetic resin having been polymerized while said monofilaments were maintained under tension and by being adapted to be a base for graphic reproduction and further characterized by smooth non-wavy surfaces of said sheet and by said synthetic resin being a flexible thermosetting synthetic resin and by the index of refraction of the glass in said monofilaments being at least approximately equal to the index of refraction of said synthetic resin and by possessing the characteristics of such a sheet in which said synthetic resin is chemically attached to said glass monofilaments through an addition bond provided by a vinyl-silicon radical attached to the surface of said glass monofilaments.

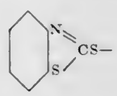
2,781,288
LAMINATED RUBBER ARTICLE AND A METHOD OF MAKING SAME
Keith E. Polmanteer, Midland, Mich., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan
Application August 30, 1954, Serial No. 452,802
10 Claims. (Cl. 154—139)



1. The method of preparing an article of manufacture which comprises laminating alternate layers of an organic rubber polymer in which at least .5 mol percent of the polymer units have residual C=C unsaturation and an alkenyl polysiloxane in which at least .01 mol percent of the polymer units have at least 1 alkenyl radical attached to the silicon atom, any remaining organic radicals in the siloxane being of the group consisting of saturated aliphatic hydrocarbon radicals, aryl hydrocarbon radicals and halogenated monovalent hydrocarbon radicals, in said siloxane there being on the average a total of from 1.9 to 2.1 organic radicals per silicon atom, each of said layers containing at least .5% by weight based on the weight of the respective polymers of a vulcanizing agent of the group consisting of sulfur, thiurammonosulfides, thiuramdisulfides, thiuramtetrasulfides, salts of dithiocarbamic acids, xanthates, xanthogendisulfides and benzothiazyl derivatives of the formula



where X is of the group consisting of hydrogen, metals and the radical



and thereafter heating the laminate until it vulcanizes into a unitary mass.

5. An article of manufacture comprising alternate co-vulcanized layers of an organic rubber polymer in which at least .5 mol percent of the polymer units have residual C=C unsaturation and an alkenylpolysiloxane in which at least .01 mol percent of the polymer units have at least 1 alkenyl radical attached to the silicon atom and any remaining organic groups in the siloxane being selected from the group consisting of saturated aliphatic hydrocarbon radicals, aryl hydrocarbon radicals and halogenated monovalent hydrocarbon radicals, in said siloxane there being on the average a total of from 1.9 to 2.1 organic radicals per silicon atom.

2,781,289
FUNGICIDAL COATING COMPOSITION CONTAINING THIANAPHTHENE CARBOXYLIC ACID SALT
Otto C. Elmer, Fishkill, and Edward R. Christensen, Beacon, N. Y., assignors to The Texas Company, New York, N. Y., a corporation of Delaware
No Drawing. Application December 20, 1952, Serial No. 327,170
4 Claims. (Cl. 167—33)

3. Fungicidal compositions comprising a liquid carrier, 0.1 to 10 percent of a metal salt of thianaphthene carboxylic acid selected from the group consisting of the copper, zinc, lead, and sodium salts, and 1 to 10 percent of a detergent selected from the group consisting of alkali metal and alkaline earth metal salts of fatty acids, of alkaryl sulfonates, and of alkyl sulfates.

2,781,290
THERAPEUTIC CATION EXCHANGE RESIN COMPOSITION
Gustav J. Martin, Ambler, and Miller J. Sullivan, Philadelphia, Pa., assignors to The National Drug Company, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application October 2, 1952, Serial No. 312,859
6 Claims. (Cl. 167—55)

1. A therapeutically active cation exchange resin composition comprising a cation exchange resin containing free acid groups and a polyamine, polyacid chelating compound.

2,781,291

MAGNESIUM CHELATE OF ETHYLENEDIAMINE-TETRAACETIC ACID FOR TREATMENT OF HYPERTENSION

Martin Rubin, Silver Spring, Md., and Frederick C. Bersworth, Verona, N. J., assignors, by direct and mesne assignments, to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application August 21, 1953, Serial No. 375,813
3 Claims. (Cl. 167—68)

1. A medical preparation consisting of a pyrogen-free aqueous solution of chemically pure disodium magnesium chelate compound of ethylenediamine tetraacetic acid having a pH within the range 7.2 to 7.4

2,781,292

PROCESS FOR THE PRODUCTION OF Δ^4-PREGNEN-11β, 14α, 17α, 21-TETROL-3,20-DIONE

Alejandro Zaffaroni and Felix Cordoba, Mexico City, Mexico, assignors to Syntex S. A., Mexico City, Mexico, a corporation of Mexico

No Drawing. Application February 11, 1955, Serial No. 487,709
1 Claim. (Cl. 195—51)

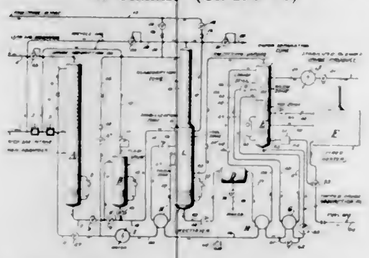
A process for the production of Δ^4-pregnen-11β,14α,-17α,21-tetrol-3,20-dione comprising dissolving Δ^4-pregnen-14α,17α,21-triol-3,20-dione in propylene glycol, adding the solution to an incubation mixture of finely divided animal adrenal tissue in a physiological saline solution containing potassium and magnesium ions and a buffer capable of maintaining a pH of from 6.8 to 7.8 and a salt selected from the class consisting of alkali metal fumarates and citrates, and incubating under agitation at a temperature of between 5 and 45° C. for at least 20 minutes, the adrenal tissue being present in an amount equal to from one part of tissue to 1 to 5 parts by volume of buffer solution, the starting compound being present in an amount approximately equal to one part of compound to 1000 parts of tissue, and the alkali metal salt being present in an amount equal to at least 2½ mols to each 200 parts by weight of the buffer solution.

2,781,293

ABSORPTION RECOVERY OF HYDROCARBONS

Edward Gray Ragatz, San Marino, Calif., assignor to Edw. G. Ragatz Co., San Marino, Calif., a partnership

Application May 7, 1953, Serial No. 353,519
10 Claims. (Cl. 196—8)



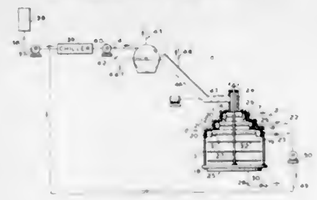
1. A method for recovering desired fractions from a hydrocarbon gas, removing undesired fractions from a raw crude-oil, and producing therefrom a stabilized crude-oil product enriched with said desired fractions, comprising the steps of absorbing the desired fractions from said gas in an absorption medium consisting essentially of lean topped crude-oil in a main absorption zone, blending the rich absorption medium with a crude-oil stream containing undesired low-boiling fractions, stabilizing the blend in a stabilizing zone, recovering a portion thereof as a stabilized crude-oil product enriched with said desired fractions as the only liquid product of the process, topping the remaining portion in a fractional distillation topping zone to produce said topped crude-oil absorption medium, passing the hot vapors without substantial condensation from the topping zone in countercurrent contact with the blend in effecting said stabilization thereof, passing the resulting hot topped crude-oil in indirect heat interchange with a stream of partially topped blend withdrawn from a cooler part and returned to a hotter part of the topping zone, passing the topped crude-oil from this interchange step in indirect heat interchange with a stream of the blend withdrawn from the stabilizing zone, returning vapors evolved from the thus heated blend to the stabilizing zone, and further cooling the hot-topped crude-oil before passing it to the main absorption zone as said absorption medium.

2,781,294

APPARATUS AND PROCESS FOR THE SEPARATION AND PURIFICATION OF WAX

Dwight L. McKay, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application September 4, 1953, Serial No. 378,542
13 Claims. (Cl. 196—17)



1. A process for the separation and purification of wax-oil mixtures which comprises cooling a waxy oil containing a pour depressant dissolved therein to a sufficiently low temperature to crystallize the wax contained therein; passing the resulting slurry into a purification zone; recovering a stream of substantially wax-free oil from said purification zone, thereby forming therein a mass of wax crystals; moving said mass of wax crystals through said purification zone; melting said wax crystals in a portion of said purification zone; passing at least a portion of the resulting melt as a reflux stream through said moving mass of crystals so as to wash occluded material from said wax crystals; recovering said reflux stream containing pour depressant from said purification zone; and removing purified wax product from said purification zone.

10. Apparatus for the purification of wax which comprises, in combination, a stepped crystal purification column comprising a series of tubular members having progressively larger diameters; means for introducing crystals into the small end of said column; filtering means disposed in said tubular members; means for melting crystals in the large end of said column; outlet means for withdrawing liquid from said large end of said column; a rotatable shaft axially disposed within said column; stirrer rods attached to and spaced apart along the length of said shaft below said filtering means; and scraper blades attached to said shaft above said stirrer rods, said blades being adapted to prevent the clogging of said filtering means with crystals.

2,781,295

CATALYST PROCESS FOR TREATING AN OIL WITH THE CATALYST

John W. Teter, Chicago, and Adolph I. Snow, Matteson, Ill., assignors to Sinclair Refining Company, New York, N. Y., a corporation of Maine

No Drawing. Application November 19, 1954, Serial No. 470,124
6 Claims. (Cl. 196—28)

1. A hydrocarbon conversion catalyst comprising an alumina base having incorporated thereon about 2 to 25 weight percent of molybdenum and about 1 to 15 weight percent of mixed metals, said amounts of molybdenum and mixed metals being calculated as oxides, said mixed metals consisting essentially of a combination of metal of atomic number of 25 to 26 with metal of atomic number of 28 to 30, said mixed metals being combined in amounts to provide on an approximately average basis metal atoms of 26.5 to 27.5 electrons.

5. The method of hydrodesulfurization of petroleum hydrocarbons which comprises contacting the hydrocarbons under hydrodesulfurization conditions with a catalyst comprising an alumina base having incorporated thereon about 2 to 25 weight percent of molybdenum and about 1 to 15 weight percent of mixed metals, said amounts of molybdenum and mixed metals being calculated as oxides, said mixed metals consisting essentially of a combination of metal of atomic number of 25 to 26 with metal of atomic number of 28 to 30, said mixed metals being combined in amounts to provide on an approximately average basis metal atoms of 26.5 to 27.5 electrons.

2,781,296

TREATMENT OF CRACKED HYDROCARBON DISTILLATES WITH A PHENYLENE DIAMINE, OXYGEN, AND ALKALI

Kenneth M. Brown, Hinsdale, Ill., and Charles R. McMahan, Houston, Tex., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application December 29, 1953, Serial No. 401,074
7 Claims. (Cl. 196—29)

1. A process for producing a substantially sweet hydrocarbon distillate of reduced gum formation which comprises treating sour distillate with caustic solution to remove a major portion of components which promote gum formation during subsequent sweetening, separating treated distillate from caustic solution, commingling a phenylene diamine inhibitor with the separated distillate and effecting sweetening thereof in the presence of an oxidizing agent and fresh caustic solution substantially free from impurities promoting gum formation.

2,781,297

TREATMENT OF PETROLEUM FRACTIONS

Herbert R. Appell, Chicago, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application October 24, 1952, Serial No. 316,815
13 Claims. (Cl. 196—44)

1. A combination process which comprises treating an arsenic-containing petroleum fraction with a reagent comprising a salt of a metal not higher than copper in the electromotive series of metals, recovering a purified petroleum fraction reduced in arsenic content, and subjecting said purified petroleum fraction to conversion with a catalyst comprising a noble metal.

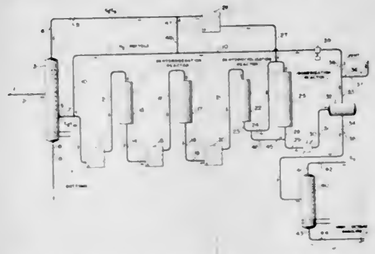
2,781,298

COMBINED OPERATION FOR CATALYTICALLY UPGRADING GASOLINE

Vladimir Haensel, Hinsdale, and Clarence G. Gerhold, Riverside, Ill., assignors to Universal Oil Products Company, Chicago, Ill., a corporation of Delaware

Application March 14, 1952, Serial No. 276,654
7 Claims. (Cl. 196—50)

1. A method for selectively upgrading a gasoline stream to effect a substantially improved yield of high octane product, which comprises, separating said stream into a fraction containing C_8 and lower boiling hydrocarbons and a higher boiling fraction containing predominantly C_9 and C_{10} hydrocarbons, passing the latter fraction together with hydrogen into contact with a dehydrogenating and dehydrocyclizing catalyst at conversion conditions substantially precluding hydrocracking and effecting substantial aromatization of naphthenic components and dehydrocyclization of paraffinic components thereof, passing a resulting dehydrogenated and dehydrocyclized stream into admixture with said lower boiling gasoline fraction and subsequently contacting the mixture with a



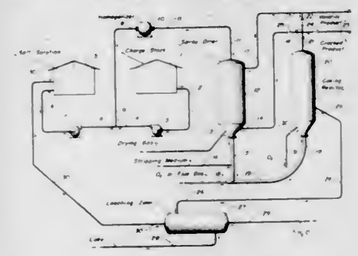
suitable isomerization catalyst at conversion conditions effecting the substantial isomerization of the paraffinic hydrocarbons therein, cooling and separating the resulting combined product stream passing from said isomerization contact to provide a gaseous hydrogen containing stream and a high yield of a liquid hydrocarbon stream having a high octane number, and returning at least a portion of the hydrogen containing gaseous stream into admixture with said high boiling fraction as the aforesaid hydrogen stream passing therewith.

2,781,299

HYDROCARBON CONVERSION PROCESS

Armand J. De Rosset, Clarendon Hills, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

Application July 19, 1954, Serial No. 444,307
9 Claims. (Cl. 196—52)



6. A process for producing coke which comprises emulsifying heavy hydrocarbon oil with an aqueous solution of a water-soluble, stable, metal salt which is unreactive with said oil, spray drying the resultant emulsion to form metal salt particles carrying occluded unvaporized oil, fluidizing said particles and subjecting the same to coking conditions while in fluidized state, thereby forming composite salt-coke particles, and leaching the last-mentioned particles with water to dissolve and separate the salt from the coke.

2,781,300

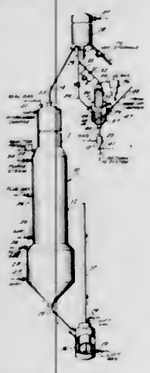
ADDING MAKE-UP CATALYST

Albert Wesley Hoge, Ridley Park, Pa., assignor to Houdry Process Corporation, Wilmington, Del., a corporation of Delaware

Application April 24, 1952, Serial No. 284,181
10 Claims. (Cl. 196—52)

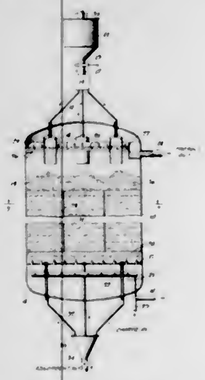
1. In a hydrocarbon conversion system in which a body of granular contact material is continuously circulated, with resultant production of fines requiring removal from said body, which fines are removed from said body by

the steps of continuously withdrawing a minor portion thereof, passing said withdrawn portion into an elutriating zone wherein said fines are separated from the coarser particles of contact material and removed, accumulating the elutriated coarse particles as a compact moving bed maintained at a constant level beneath said elutriating zone and in such position as to receive the elutriated particles by free fall to the surface thereof, and passing said coarse particles as a first compact moving stream from the bottom of said bed to a selected lower location within said circulating body, the flow of solids constituting said moving bed being maintained as an inverted cone of solids



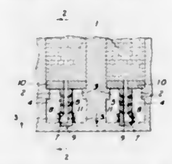
flow having diminishing flow area ultimately converging to form said first stream; the method of introducing regulated and controllable quantities of fresh make-up contact material to said circulating body as replacement for the elutriated material removed as fines which comprises: introducing said make-up material as a downwardly-discharging second compact moving stream directly into said cone of solids flow at a selectively controlled level therein, whereby the proportion of make-up material to retained coarser material which together constitute said first stream is determined by the ratio of the cross-sectional flow areas of said second stream and said retained material flowing in said cone of solids flow at said selected level.

2,781,301
METHOD FOR PURIFYING LIQUID HYDROCARBONS WITH SOLID ADSORBENTS
John W. Payne, Woodbury, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York
Application February 20, 1952, Serial No. 272,584
2 Claims. (Cl. 196—147)



1. A continuous process for the decolorization of liquid mineral oils of low asphalt content with a palpable particle form adsorbent to remove small amounts of undesirable impurities from said oils, which comprises maintaining a bed of said adsorbent as a downwardly gravitating columnar mass throughout the lower section of a confined treating zone, said bed having at least one horizontal dimension greater than 8 feet and said adsorbent being of a size within the range 10 to 60 mesh by Tyler Standard Screen Analysis; subdividing said bed downwardly from a level below the upper surface of said bed into a plurality of laterally confined side by side regions, the maximum horizontal distance across any one region being less than 8 feet; passing liquid mineral oil upwardly through said bed at a superficial velocity within the range about 1.5 to 5.5 feet per hour to effect removal of the undesirable impurities therefrom; removing purified liquid mineral oil from the upper section of said treating zone above the upper surface of said bed; removing used adsorbent together with adhering oil from the lower section of said bed; separating the adhering oil from the adsorbent and returning the oil so separated to the lower section of the bed.

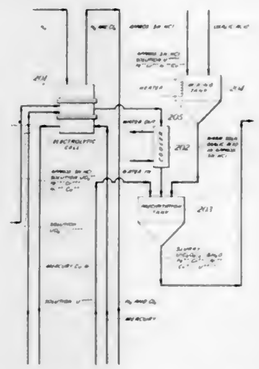
2,781,302
REGENERATIVE COKE OVEN STRUCTURE
Arthur Steding, Bochum, and Heinrich Hartewig, Essen, Germany, assignors to Didier-Kogag-Hinselmann, Koksofenbau und Gasverwertung A. G., Essen, Germany
Application August 20, 1952, Serial No. 305,352
In Germany June 29, 1949
Public Law 619, August 23, 1954
Patent expires June 29, 1969
4 Claims. (Cl. 202—141)



1. In a regenerative coke oven of the character described having a regenerator chamber through which gaseous heating media and waste gases alternately flow in opposite directions, said regenerator chamber having a lower wall defining the top wall of a channel beneath said regenerator chamber, the improvement comprising a partition wall extending longitudinally through said channel and throughout its entire vertical extent from floor to top wall and subdividing the latter into a supply channel for supplying gaseous heating media to said regenerator chamber in one direction of flow and into a discharge channel for the withdrawal of waste gases from said regenerator chamber in the opposite direction of flow, said partition wall being provided with a plurality of successive vertical passageways extending therethrough and separated from each other, said passageways being in communication at the top thereof with said regenerator chamber, successive passageways opening adjacent the bottom thereof alternately only into said supply channel and only into said discharge channel, and means for disconnecting each said passageway from its respective channel.

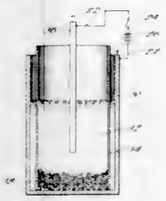
2,781,303
PROCESS OF RECOVERING URANIUM FROM SOLUTION
Robert Q. Boyer, Berkeley, Calif., and Scott B. Kilner, Knoxville, Tenn., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application March 31, 1945, Serial No. 585,998
19 Claims. (Cl. 204—1.5)

1. The process, employing an electrolytic cell including anode and cathode compartments and a mercury cathode, comprising introducing into the cathode compartment a first aqueous solution in which uranium is soluble, introducing into the anode compartment a second aqueous solution containing uranium and metal impurities of the group consisting of copper, nickel, iron, and chromium as positive ions, subjecting the two solutions to electrolysis in the respective compartments of the electrolytic cell,



whereby some uranium and metal ions contained in the second solution are transferred by electrolysis to the first solution, withdrawing the first solution from the cathode compartment after it has been electrolyzed and recovering uranium therefrom, withdrawing the second solution from the anode compartment after it has been electrolyzed and concentrating it by evaporation, and again introducing into the anode compartment the second solution after it has been concentrated.

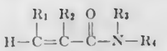
2,781,304
ELECTRODEPOSITION OF URANIUM
Harley A. Wilhelm and Donald H. Ahmann, Ames, Iowa, assignors to the United States of America as represented by the United States Atomic Energy Commission
Application August 15, 1946, Serial No. 690,750
7 Claims. (Cl. 204—1.5)



1. The process which comprises electrodepositing uranium from a fused bath containing uranium halide and in the presence of uranium carbide.

2,781,305
ELECTRODEPOSITION OF NICKEL
Henry Brown, Huntington Woods, Mich., assignor to The Udylite Research Corporation, Detroit, Mich., a corporation of Michigan
No Drawing. Application August 14, 1953, Serial No. 374,418
14 Claims. (Cl. 204—49)

1. A bath for electrodepositing fine-grained lustrous nickel comprising an aqueous acidic nickel solution consisting essentially of at least one material selected from the group consisting of nickel sulfate, nickel chloride and nickel fluoborate, having dissolved therein at least one brightener selected from the group consisting of organic sulfonamides, sulfonimides and sulfonic acids, and additionally a minor amount of a compound having the formula

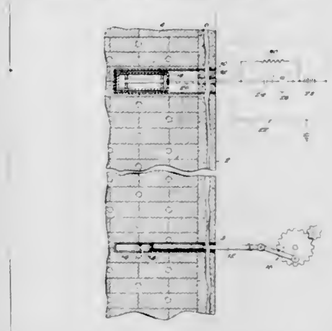


where R_1 and R_2 are selected from the group consisting of hydrogen, chlorine, bromine, methyl, methyl carboxy, carbonyl, carboxy, aldehydo, phenyl, furyl and the chloro, bromo, acetyl, methyl, carboxy, amino, methoxy, ethoxy, dioxymethylene, carbonyl amido, hydroxy and ethyl substitution products of phenyl and furyl, R_3 and R_4 are selected from the group consisting of hydrogen, methyl, formyl, acetyl, amino, amido, imido, carboxy, carbonyl, benzoyl and nicotinoyl radicals.

2,781,306
ELECTRODEPOSITION OF NICKEL
Henry Brown, Huntington Woods, Mich., assignor to The Udylite Research Corporation, Detroit, Mich., a corporation of Michigan
No Drawing. Application April 27, 1956, Serial No. 580,990
4 Claims. (Cl. 204—49)

1. A bath for electrodepositing ductile bright nickel plate comprising an aqueous acidic nickel solution consisting essentially of a material selected from the group consisting of nickel sulfate, nickel chloride, and a mixture of nickel sulfate and nickel chloride, having dissolved therein at least one compound selected from the group consisting of benzene sulfonamides and benzene sulfonimides in combination with an amount sufficient to enhance brightness of allyl urea.

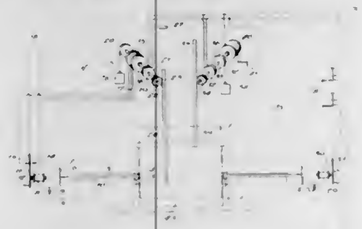
2,781,307
APPARATUS FOR THE MEASUREMENT OF NEUTRON ABSORPTION
Eugene P. Wigner, Oak Ridge, Tenn., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application March 4, 1947, Serial No. 732,324
1 Claim. (Cl. 204—193)



An apparatus for obtaining an indication of an electrical impulse directly proportional in magnitude to the neutron absorption of a sample of a substance, comprising a neutronic reactor having regions of different neutron flux density, a sample, means for moving the sample at a fixed frequency from a region of one neutron flux density to another region having a different neutron flux density in order to produce a variation at said frequency in the power output of the reactor, the sample size being smaller than the required mass of neutron absorber necessary to depress the neutron reproduction coefficient of the reactor to a value less than unity, an ionization chamber positioned within the neutron atmosphere and responsive to the reactor power output variation, and a meter coupled to the ionization chamber for measuring the amplitude of

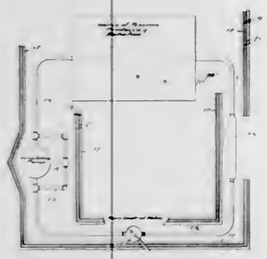
the reactor power output variation and possessing a natural period equal to the frequency of the periodic sample movement.

2,781,308
NEUTRONIC REACTOR CONTROL
Edward C. Creutz, Santa Fe, N. Mex., and Walter H. Zinn, Chicago, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application April 12, 1945, Serial No. 588,061
2 Claims. (Cl. 204—193)



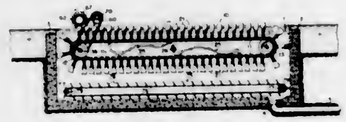
1. In combination with a neutronic reactor active portion comprising a mass of a material containing a thermal neutron fissionable isotope and a neutron slowing material, constructed and arranged to undergo a self-sustaining chain reaction, the improvement comprising a tubular member serving as a control rod or as a safety rod and consisting essentially of a material having a danger coefficient of at least 100 enclosed in inner and outer protective tubes of a material having a danger coefficient less than 10, and means to selectively insert and withdraw said member longitudinally into and from the active portion.

2,781,309
RADIATION SYSTEM
Joseph S. Levinger, Berwyn, Pa., Milo B. Sampson, Santa Fe, N. Mex., Arthur H. Snell, Oak Ridge, Tenn., and Roger G. Wilkinson, Santa Fe, N. Mex., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application November 2, 1945, Serial No. 626,380
1 Claim. (Cl. 204—193)



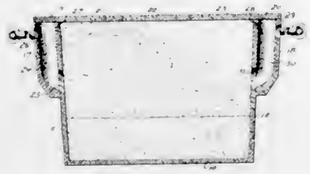
A device for irradiating bodies comprising, a neutronic reactor, a closed circulating system including a first reservoir disposed within the reactor, a second reservoir, a valve, and a pump for circulating a suspension of uranium oxide in deuterium oxide from the first reservoir to the other within a period of about 2.5 to 57 seconds, a suspension of uranium oxide in deuterium oxide disposed within the circulating system, and a shield having a first portion disposed between the reactor and the section of the circulating system disposed exterior to the reactor and a second portion confronting the circulating system provided with an aperture adjacent to the second reservoir, whereby the object to be irradiated may be disposed confronting the aperture and the magnitude of the neutron flux emanating from the second reservoir varied by the valve and pump without altering the neutron flux within the neutronic reactor.

2,781,310
SEWAGE TREATMENT APPARATUS AND METHOD
Gerson L. Ram, Bloomfield, N. J., and Dolph Rotfeld, New York, N. Y.
Application February 6, 1956, Serial No. 563,708
9 Claims. (Cl. 210—2)



1. Sewage treatment apparatus comprising a tank for containing raw or settled sewage, a plurality of open topped receptacles disposed in the tank, means for moving said receptacles in an endless path through the sewage in the tank, supply means positioned above a portion of said path for dropping sludge into said receptacles as they pass successively below said supply means, and means for blowing air through sludge in the receptacles.

2,781,311
PRECAST SEPTIC TANK
Jaman D. Brundage, Daytona Beach, Fla.
Application November 30, 1954, Serial No. 472,065
3 Claims. (Cl. 210—6)



1. A precast concrete septic tank comprising a rectangular shaped base having outwardly inclined sections extended upwardly from the longitudinal edges thereof and with diverging side walls extended upwardly from the longitudinal edges of the inclined sections and diverging end walls extended upwardly from the transverse edges of the base, the end walls having stacks for inlet and outlet T's extended therefrom and said stacks opening into the interior of the tank at points substantially midway of the height of said tank, the upper edges of said end walls having notches providing vents between the stacks and the interior of the tank, a sectional cover on the upper end of the tank and cover plates on the inlet and outlet stacks.

2,781,312
SELF-INDICATING ION EXCHANGE AND/OR FILTER APPARATUS
George H. Klumb, Northbrook, Robert E. Schulze, Deerfield, Marshall L. Roach, Glencoe, and Murl B. Sailsbury, Northbrook, Ill., assignors to Culligan, Inc., Northbrook, Ill., a corporation of Delaware
Application April 10, 1953, Serial No. 348,014
5 Claims. (Cl. 210—24)

1. Means for treating and purifying water from undesirable constituents contained therein, comprising a receptacle having an access opening and containing a loose mass of treating material and adapted to receive a supply of water to be treated, said treating material being loose within the receptacle and adapted to be freely dispersed through the water to purify the same, a filter for filtering the treated water and retaining in the receptacle the treating material and undesirable constituents and visual indicating means to impart color to the water being treated

when the treating material is partially or wholly exhausted and thereby signal the operator when the quality of the treated water is below a specified standard.

2,781,313
DRILLING MUD COMPOSITIONS
Richard A. Salathiel, Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
No Drawing. Application September 14, 1955, Serial No. 534,380
18 Claims. (Cl. 252—8.5)

1. A drilling mud comprising at least 5% by weight of finely divided solids in an aqueous saline medium to which has been added from about 1 to 15 pounds of starch per 42 gallon barrel of mud and from about 0.1 to 10 pounds per 42 gallon barrel of mud of an additive selected from the group consisting of water soluble alkali metal sulfides, polysulfides, and hydrosulfites, said starch and said additive being added in amounts sufficient to materially reduce the tendency of the drilling mud to lose water by filtration.

2,781,314
OIL COMPOSITIONS CONTAINING SOLID PARTICLES
Jones I. Wasson, Union, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application December 29, 1953, Serial No. 401,076
1 Claim. (Cl. 252—18)

An oil composition of improved rust preventive properties comprising a mineral lubricating oil, 1 to 6% by weight, based on the total composition, of sodium sulfonate and 0.05 to 0.15% by weight, based on the total composition, of finely divided substantially water- and oil-insoluble aluminum hydroxide having an average particle size of about 1 to 10 microns and capable of promoting and stabilizing a water-in-oil emulsion.

2,781,315
METHOD OF PURIFYING, CONCENTRATING, AND CONVERTING PETROLEUM SULFONATES WITH KETONES
Ulric B. Bray, Pasadena, Calif., assignor to Bray Oil Company, Los Angeles, Calif., a limited partnership
Application July 12, 1954, Serial No. 442,599
17 Claims. (Cl. 252—33)

1. The process of treating a material consisting of a major proportion of hydrocarbon oil containing alkali metal mahogany sulfonates, alkali metal green acid sulfonates and water-soluble inorganic sulfate and sulfite, which comprises: forming a mixture consisting essentially of said hydrocarbon oil, said alkali metal mahogany sulfonates, said alkali metal green acid sulfonates, said water-soluble inorganic sulfate and sulfite, at least 10 parts by volume of water per 100 parts by volume of said hydrocarbon oil and sulfonates and at least 5 parts by volume per 100 parts by volume of said hydrocarbon oil and sulfonates of a hydrocarbon oil-soluble emulsion breaking liquid which is a ketone selected from the class consisting of acetone, methyl ethyl ketone, diacetone alcohol, acetyl acetone and acetonyl acetone, the amounts of said water and said emulsion breaking liquid being sufficient to produce three separable phases, a concentrated mahogany sulfonate phase containing hydrocarbon oil, water and emulsion-breaking liquid, a hydrocarbon oil phase rejected from said concentrated mahogany sulfonate phase and an aqueous phase containing alkali metal green acid sulfonates and water-soluble inorganic sulfate and sulfite; and separating said three phases from each other.

2,781,316
METHOD OF PURIFYING, CONCENTRATING, AND CONVERTING PETROLEUM SULFONATES WITH ETHERS
Ulric B. Bray, Pasadena, Calif., assignor to Bray Oil Company, Los Angeles, Calif., a limited partnership
Application July 12, 1954, Serial No. 442,537
17 Claims. (Cl. 252—33)

1. The process of treating a material consisting of a major proportion of hydrocarbon oil containing alkali metal mahogany sulfonates, alkali metal green acid sulfonates and water-soluble inorganic sulfate and sulfite, which comprises: forming a mixture consisting essentially of said hydrocarbon oil, said alkali metal mahogany sulfonates, said alkali metal green acid sulfonates, said water-soluble inorganic sulfate and sulfite, at least 10 parts by volume of water per 100 parts by volume of said hydrocarbon oil and sulfonates and at least 5 parts by volume per 100 parts by volume of said hydrocarbon oil and sulfonates of a hydrocarbon oil-soluble emulsion-breaking liquid selected from the class consisting of ethylene glycol dimethyl ether, ethylene glycol monobutyl ether, p-dioxane, diethylene glycol monobutyl ether, diethylene glycol dimethyl ether, ethylene glycol ethyl ether acetate and ethylene glycol methyl ether acetate, the amounts of said water and said emulsion-breaking liquid being sufficient to produce three separable phases, a concentrated mahogany sulfonate phase containing hydrocarbon oil, water and emulsion-breaking liquid, a hydrocarbon oil phase rejected from said concentrated mahogany sulfonate phase and an aqueous phase containing alkali metal green acid sulfonates and water-soluble inorganic sulfate and sulfite; and separating said three phases from each other.

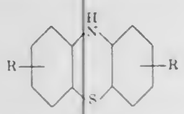
2,781,317
METHOD OF PURIFYING, CONCENTRATING, AND CONVERTING PETROLEUM SULFONATES WITH GLYCOLS
Ulric B. Bray, Pasadena, Calif., assignor to Bray Oil Company, Los Angeles, Calif., a limited partnership
Application July 12, 1954, Serial No. 442,491
17 Claims. (Cl. 252—33)

1. The process of treating a material consisting of a major proportion of hydrocarbon oil containing alkali metal mahogany sulfonates, alkali metal green acid sulfonates and water-soluble inorganic sulfate and sulfite, which comprises: forming a mixture consisting essentially of said hydrocarbon oil, said alkali metal mahogany sulfonates, said alkali metal green acid sulfonates, said water-soluble inorganic sulfate and sulfite, at least 10 parts by volume of water per 100 parts by volume of said hydrocarbon oil and sulfonates and at least 5 parts by volume per 100 parts by volume of said hydrocarbon oil and sulfonates of a hydrocarbon oil-soluble emulsion-breaking liquid which is a glycol containing three to six carbon atoms per molecule, the amounts of said water

and said emulsion-breaking liquid being sufficient to produce three separable phases, a concentrated mahogany sulfonate phase containing hydrocarbon oil, water and emulsion-breaking liquid, a hydrocarbon oil phase rejected from said concentrated mahogany sulfonate phase and an aqueous phase containing alkali metal green acid sulfonates and water-soluble inorganic sulfate and sulfite; and separating said three phases from each other.

2,781,318
MINERAL LUBRICATING OIL ADDITIVE
Elmer B. Cyphers, Cranford, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application March 28, 1952, Serial No. 279,205
5 Claims. (Cl. 252—47)

1. A lubricant composition consisting essentially of a mineral oil and in the range of about 0.2 to 5.0% by weight of a compound having the following general formula:



wherein the R groups are alkyl radicals, each having in the range of 4 to 16 carbon atoms.

2,781,319
LUBRICATING COMPOSITIONS
Emmett R. Barnum and Lyman E. Lorensen, Berkeley, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application March 22, 1954, Serial No. 417,964
5 Claims. (Cl. 252—47.5)

1. An improved mineral lubricating oil composition comprising a major amount of mineral lubricating oil and a minor amount, sufficient to depress the pour point of the oil and to improve its viscosity index, of a reaction product obtained by treating (1) a hydrolyzed copolymer of an α-hydrocarbon olefin of from 8 to 40 carbon atoms and a vinyl ester of a lower fatty acid of up to 5 carbon atoms with (2) an organic isocyanate, said final reaction product having a plurality of hydroxyl and carbamate radicals and the ratio of the number of polar groups to the nonpolar groups per molecule varying from 1:10 to 5:1 respectively.

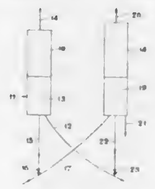
2,781,320
ALL PURPOSE DETERGENT BAR
Charles F. Jelinek, Parkwood, Easton, Pa., Raymond L. Mayhew, Phillipsburg, N. J., and John A. Yeager, Easton, Pa., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application May 12, 1953, Serial No. 354,646
11 Claims. (Cl. 252—121)

1. A detergent bar comprising (A) about 5 to 50% by weight of a synthetic organic anionic detergent selected from the group consisting of the water soluble alkali metal and amine salts of higher aliphatic sulfates and sulfonates containing a hydrocarbon radical with at least 11 carbon atoms in a straight chain, and alkylbenzene sulfates and sulfonates containing at least one alkyl side chain radical of at least 8 carbon atoms, (B) about 5 to 25% by weight of a synthetic organic anionic lathering agent selected from the group consisting of the water soluble alkali metal and amine salts of alkyl aryl sulfates and sulfonates containing at least one alkyl side chain radical of from 2 to 6 carbon atoms and devoid of alkyl side chain radicals of more than 6 carbon atoms, (C) about 5 to 25% by weight of a synthetic organic anionic lathering agent selected from the group consisting of the water soluble alkali metal and amine salts of lower branched chain aliphatic sulfates and lower alkyl esters of lower aliphatic sulfopolycarboxylic acids containing an open chain hydrocarbon radical of from 3 to 9 carbon atoms, and from about 25 to 75% by weight of a water-soluble salt of a higher aliphatic monocarboxylic acid.

2,781,321
ALL PURPOSE DETERGENT BAR
Raymond L. Mayhew, Phillipsburg, N. J., and John A. Yeager, Easton, Pa., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application May 12, 1953, Serial No. 354,647
9 Claims. (Cl. 252—161)

1. A detergent bar comprising, by weight, (A) about 5 to 50% of a synthetic organic anionic detergent selected from the group consisting of the water-soluble alkali metal and amine salts of an alkylbenzene sulfonate containing at least one alkyl side chain radical of at least 8 carbon atoms, (B) about 15 to 65% of a water-insoluble salt of a higher fatty acid of at least 9 carbon atoms with a polyvalent metal selected from the group consisting of calcium, magnesium, zinc and aluminum, (C) about 5 to 25% of a synthetic organic anionic lathering agent selected from the group consisting of the water-soluble alkali metal and amine salts of an alkylaryl sulfonate containing at least 1 alkyl side chain radical of from 2 to 6 carbon atoms and devoid of alkyl side chain radicals of more than 6 carbon atoms, and (D) about 5 to 25% of a synthetic organic anionic lathering agent selected from the group consisting of the water-soluble alkali metal and amine salts of a lower alkyl ester of a lower aliphatic sulfopolycarboxylic acid containing an open chain radical of from 3 to 9 carbon atoms.

2,781,322
TREATMENT OF OIL CONTAMINATED CLAY
Leslie Senior Thornes, Roy Turner, and John Welford Hyde, Sunbury-on-Thames, England, assignors to The British Petroleum Company Limited
Application November 26, 1952, Serial No. 322,724
Claims priority, application Great Britain December 7, 1951
2 Claims. (Cl. 252—417)



1. A process for recovering substantially oil- and carbon-free clay from oil-contaminated spent clay from the refining of lubricating oil comprising feeding the oil-contaminated clay at substantially ambient temperature continuously into a distillation zone to form and maintain a fluidized bed of clay therein, injecting a stream of hot air and hot clay into the distillation zone at a rate sufficient to maintain a temperature of about 800°–1100° F. and to burn a portion of the oil and to continuously provide the whole of the heat necessary to vaporize the remainder of the oil whereby the injected air and vaporized oil maintain the clay bed in a fluidized state, continuously removing the vaporized oil from the top of the distillation zone, condensing the oil vapors and recycling a portion of the recovered oil into admixture with spent clay feed to form a pumpable slurry, continuously removing substantially oil-free, carbon-contaminated clay from the fluidized bed in the distillation zone and passing same in a stream of air into a regeneration zone to form and maintain a fluidized bed of clay, and where the carbon is burned off the clay, continuously removing substantially carbon-free clay from the regeneration zone, injecting a portion of the recovered clay into a stream of air to constitute the stream of air and hot clay fed into the distillation zone for providing a portion of the heat requirements of that zone, and recovering the remainder of the regenerated clay.

2,781,323
METHOD OF PRODUCING A PLATINUM CATALYST ON REFRACTORY OXIDE SUPPORT
William K. Hunter, Morningsport, La., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
No Drawing. Application May 26, 1953, Serial No. 357,636
10 Claims. (Cl. 252—442)

1. A method of manufacturing a catalyst which comprises compositing a halogen component with an inorganic refractory oxide, calcining the composite at a temperature of from about 400° F. to about 1600° F., submerging said calcined composite in liquid water in an amount and for a time sufficient to distribute said halogen component uniformly throughout said composite, and subsequently adding to the thus treated composite an active metal component containing a metal in group VIII of the periodic table.

2,781,324
METHOD OF PREPARING A PLATINUM COMPOSITE REFORMING CATALYST
Vladimir Haensel, Hinsdale, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
No Drawing. Application July 7, 1953, Serial No. 366,522
14 Claims. (Cl. 252—466)

1. A method of manufacturing a catalyst which comprises commingling alumina with a platinum compound-ammonium hydroxide solution and an oxidizing agent in an amount to form a final catalyst containing from about 0.01% to about 1% by weight of platinum.

2,781,325
PRECIPITATED IRON CATALYSTS FOR CARBON MONOXIDE HYDROGENATION
Walter Rottig, Oberhausen-Sterkrade-Nord, Germany, assignor to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, and Lurgi Gesellschaft fuer Waermetechnik m. b. H., Frankfurt am Main-Heddernheim, Germany, a German corporation
No Drawing. Application January 3, 1952, Serial No. 264,851
Claims priority, application Germany January 8, 1951
7 Claims. (Cl. 252—472)

1. In the method for the production of carrier-free unsintered precipitated iron catalysts for use in carbon monoxide hydrogenation by precipitation of an aqueous iron salt solution with an alkaline reacting compound, the improvement for increasing the catalyst grain strength which comprises mechanically mixing iron powder having a grain size of about 10–250 μ with the wet catalyst precipitate to form a substantially uniform mixture, forming catalyst bodies from the mixture and thereafter reducing the catalyst bodies by contact with a reduction gas at a temperature between about 100 and 400° C.

2,781,326
MOLDING COMPOSITION
Ellis Lewis, Jr., Jenkintown, Pa., assignor to American Viscose Corporation, Wilmington, Del., a corporation of Delaware
No Drawing. Application August 23, 1952, Serial No. 306,061
4 Claims. (Cl. 260—14)

1. A particulate molding composition comprising, on the total composition weight, from about 10% to about 50% of a thorough mixture of a granular thermosetting resin precondensate selected from the group consisting of phenol-aldehyde resin precondensates, urea-aldehyde resin precondensates and melamine-aldehyde resin precondensates and, as a filler, cotton particles carrying non-fibrous organic solvent-soluble cellulose ester, said filler comprising, on the weight thereof, from 45% to 55% of fibrous cellulose in the form of cotton particles and, conversely, from 55% to 45% of the non-fibrous cellulose ester.

2,781,327
PHENOLIC RESIN GLUE COMPOSITIONS CONTAINING MODIFIED BARK PHLOEM FLOUR
Joseph W. Ayers, Easton, Pa., and John J. Bradley, Jr., Winchester, Mass., assignors to Agrashell, Inc., Los Angeles, Calif., a corporation of Delaware
No Drawing. Application May 6, 1953, Serial No. 353,422
7 Claims. (Cl. 260—17.2)

1. A glue composition comprising an alkaline phenolic-aldehyde resin adhesive solution containing as an extender-bodying agent a bark phloem flour the lignin content of which has at least in substantial part been modified by reaction with an alkali metal hydroxide and with a difficultly soluble (in water) alkaline hydroxide, the latter being employed in an amount which insolubilizes at least a substantial part of the bark phloem solubilized by the alkali metal hydroxide.

2,781,328
PHENOLIC RESIN GLUE COMPOSITIONS CONTAINING HYDROLYZED LIGNO-CELLULOSIC DEGRADATION PRODUCTS
Joseph W. Ayers, Easton, Pa., and John J. Bradley, Jr., Winchester, Mass., assignors to Agrashell, Inc., Los Angeles, Calif., a corporation of Delaware
No Drawing. Application May 6, 1953, Serial No. 353,423
11 Claims. (Cl. 260—17.2)

1. A glue composition comprising an alkaline phenolic-aldehyde resin adhesive solution containing as an extender-bodying agent a finely divided hydrolyzed lignocellulosic degradation product the lignin content of which has at least in substantial part been modified by reaction with an alkali metal hydroxide and with a difficultly water-soluble alkaline hydroxide, the latter being employed in an amount which insolubilizes at least a substantial part of the product solubilized by the alkaline metal hydroxide.

2,781,329
PROCESS FOR INHIBITING GELATION OF A SOLUTION CONTAINING POLYMERIZED ACRYLONITRILE
James V. Hewett, Camden, S. C., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application March 19, 1953, Serial No. 343,510
3 Claims. (Cl. 260—32.6)

1. A process for inhibiting gelation at a temperature of at least 100° C. of a solution of a polymer formed from acrylonitrile and at least one monomer selected from the group consisting of methylacrylate, 2-vinyl pyridine, vinyl acetate, N-tertiary octyl acrylamide, and

2-butoxyethyl methacrylate, and containing in the polymer molecule at least 85% acrylonitrile, in a solvent selected from the group consisting of N,N-dimethylformamide, N,N-dimethyl acetamide, tetramethylene cyclic sulfone, and ethylene cyclic carbonate, which comprises incorporating into said solution between about 0.2% and about 2.5% formaldehyde based on the weight of said solution.

2,781,330

RUBBER CONTAINING UREA COMPOUND AS AN ANTI-EXPOSURE CRACKING AGENT

Paul M. Downey, Nitro, W. Va., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application February 9, 1953, Serial No. 335,989
9 Claims. (Cl. 260—45.9)

1. A sulfur-vulcanizable rubber vulcanizate containing a urea compound of the formula

$$R—NH—CO.—NH—R'$$

where R and R' are unlike hydrocarbon radicals at least one of the substituents being an aromatic group.

2,781,331

THIOCYANATED HYDROGENATED DIENE POLYMERS AND PROCESS OF PRODUCING THE SAME

Rufus V. Jones and Peter J. Canterino, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application January 19, 1953, Serial No. 332,096
7 Claims. (Cl. 260—63)

1. A thermoplastic material comprising a polymer of a conjugated diene having 4 to 6 carbon atoms and up to a minor amount of a copolymerizable monomer containing an active vinylidene group, said polymer having been hydrogenated to produce a material having an unsaturation in the range from 2 to 50 percent and thereafter thiocyanated, the resulting material containing 5 to 30 percent by weight of thiocyanogen.

2,781,332

MANUFACTURE OF ETHERIFIED MELAMINE-FORMALDEHYDE RESINS

Geoffrey Swann, Hunts Cross, Liverpool, and Peter G. A. Evans, Childwall, Liverpool, England, assignors to Reichhold Chemicals, Inc., Detroit, Mich.

No Drawing. Application October 15, 1953, Serial No. 386,376
Claims priority, application Great Britain March 18, 1953
4 Claims. (Cl. 260—67.6)

1. A process for the manufacture of an etherified melamine-formaldehyde resin by condensing in a first stage melamine with an aqueous solution of a member of a group consisting of formaldehyde and substances yielding formaldehyde, in the presence of an alkaline catalyst, and in a second stage condensing the product with an unsubstituted, saturated monohydric aliphatic alcohol containing 3 to 5 carbon atoms in the molecule in the presence of an acid catalyst, wherein the alkaline catalyst employed in the first stage is a member of a group consisting of calcium, barium and strontium hydroxides and the acid catalyst employed in the second stage is provided by passing a stream of carbon dioxide through the reaction mixture, the reacting ingredients being employed in the ratio of 3.5 to 7 moles of aqueous formaldehyde and 4.5 to 7 moles of alcohol per mole of melamine.

2,781,333

POLYMERIZABLE COMPOSITIONS CONTAINING POLYGLYCIDYL ESTERS OF POLYCARBOXYLIC ACIDS

Ivor H. Updegraff, Stamford, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application September 10, 1952, Serial No. 308,920
12 Claims. (Cl. 260—78.5)

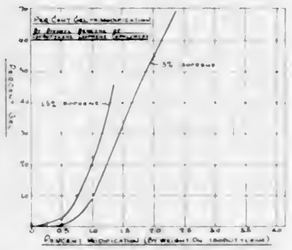
11. A composition of matter comprising the polymerization reaction product of (1) a polyglycidyl ester of a polycarboxylic acid, (2) a member selected from a group consisting of an ethylenically unsaturated polycarboxylic acid and the anhydrides thereof and (3) a member selected from the group consisting of styrene, side-chain halo-substituted styrenes, side-chain alkyl-substituted styrenes, ring-substituted halo styrenes and ring-substituted alkyl styrenes.

2,781,334

DIVINYL AROMATIC MODIFIED ISOOLEFIN-MULTIOLEFIN COPOLYMERS

Lester M. Welch, Madison, Howard L. Wilson, Raritan Township, Middlesex County, and Luther B. Turner, Cranford, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application May 1, 1952, Serial No. 285,391
8 Claims. (Cl. 260—80.7)



1. The process of copolymerizing to a hydrocarbon soluble polymer 95 to 99.5% by weight of an iso-olefin having 4 to 5 carbon atoms together with 0.5 to 30% by weight of a conjugated aliphatic diolefin of 4 to 8 carbon atoms, and from 0.1 to about 0.8% by weight based on the iso-olefin used of divinyl benzene, at a temperature between 0° C. and —164° C., by the addition of a dissolved Friedel-Crafts catalyst.

2,781,335

AQUEOUS ACETIC ACID SOLUBLE POLYAMINES OF EPOXIDE COPOLYMERS

Martin E. Cupery, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application June 23, 1952, Serial No. 295,127
19 Claims. (Cl. 260—85.7)

1. A polyamine copolymer wholly soluble in aqueous 5% acetic acid having an amino nitrogen content of 0.3 to 10% and which is the reaction product of a member of the class consisting of ammonia and amino-hydrogen-bearing monoamines with an epoxide copolymer consisting essentially of a polymerized monoethylenically unsaturated epoxy monomer and at least one polymerized vinylidene epoxy-free monomer selected from the class consisting of epoxy-free ethylenically unsaturated hydrocarbon compounds having a terminal ethylenic double bond, epoxy-free vinyl monomers containing oxygen, chloroprene, vinyl chloride, and vinylidene chloride, in a mole ratio of 1:1 to 1:75, said epoxide copolymer having a molecular weight of at least 800 and an epoxide oxygen content of 0.4 to 7%.

2,781,336

PROCESS FOR RECOVERY OF PRODUCTS FROM BARK

Piotr Zenczak, Seattle, Wash.

Application January 19, 1953, Serial No. 331,801
13 Claims. (Cl. 260—108)

1. The process of producing reaction products from bark which consists of reacting the bark with an alcoholic solution of an alkali metal hydroxide to produce a liquor containing the desired products, said reaction taking place at atmospheric pressure and within the range of atmospheric temperature and the reflux temperature of the solution, said alcoholic solution containing at least 5% water and the alcohol being a lower aliphatic alcohol separating solid residue from said liquor, and recovering the products from the separated liquor.

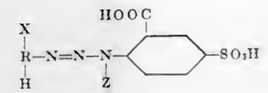
2,781,337

DIAZOAMINO COMPOUNDS

Eduard Moser, Basel, Albert Bolleter, Muttenz, and Christian Wittwer, Basel, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application August 20, 1954, Serial No. 451,295
Claims priority, application Switzerland August 28, 1953
9 Claims. (Cl. 260—140)

1. A diazoamino compound of the formula



in which R represents a benzene radical, X and H are each in ortho-position relatively to the —N=N— group, X represents a member selected from the group consisting of a hydrogen atom, a chlorine atom, a methyl group, a methoxy group and an ethoxy group, the latter three substituents being denoted by the symbol U, Z represents a member selected from the group consisting of a methyl group, a benzyl group and a straight chain alkyl radical containing 2 to 4 carbon atoms and bound to the nitrogen atom by an end carbon atom, the methyl and benzyl group being denoted by the symbol V and the alkyl radical containing 2 to 4 carbon atoms by the symbol W, and in which formula the radical

is the radical of an amine of the constitution

which is free from groups imparting solubility in water and of which the pK_A-value differs by at most ± 0.7 from the value $c_{(X;Z)}$, where the latter value is determined in accordance with the substituents present in the diazoamino compound and with the equations

$$c_{(X=H;\,Z=V)}=4.8,\ c_{(X=H;\,Z=W)}=4.2,\ c_{(X=U;\,Z=V)}=4.2$$

$$c_{(X=U;\,Z=W)}=3.5,\ c_{(X=Cl;\,Z=V)}=3.6,\ c_{(X=Cl;\,Z=W)}=2.9$$

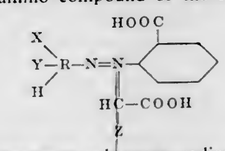
2,781,338

DIAZOAMINO COMPOUNDS

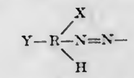
Eduard Moser, Basel, Albert Bolleter, Muttenz, and Christian Wittwer, Basel, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application August 20, 1954, Serial No. 451,296
Claims priority, application Switzerland August 28, 1953
6 Claims. (Cl. 260—140)

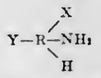
1. A diazoamino compound of the formula



in which R represents a benzene radical, Y is in para-position and X and H are each in ortho-position to the —N=N— group, X represents a member selected from the group consisting of a hydrogen atom, a chlorine atom, a nitro group, a methyl group, a methoxy group and an ethoxy group, the latter three substituents being denoted by the symbol U, Y represents a member selected from the group consisting of a hydrogen atom and a substituent and Z represents a member selected from the group consisting of a methyl group, an ethyl group, an n-propyl group, an isopropyl group and a phenyl radical, the ethyl and n-propyl group being denoted by the symbol V and the isopropyl group and phenyl radical by the symbol W, and in which formula the radical



is the radical of an amine which is free from groups imparting solubility in water and corresponds to the formula



and the pK_A-value of which amine differs by at most ± 0.7 from the value

$$c=c_{X;Z}-c_Y$$

where c is determined in accordance with the substituents present in the diazoamino compound and with the equations

$$c_{(X=H;\,Z=CH_3)}=3.4,\ c_{(X=U;\,Z=CH_3)}=2.7$$

$$c_{(X=Cl;\,Z=CH_3)}=2.3,\ c_{(X=NO_2;\,Z=CH_3)}=1.0$$

$$c_{(X=H;\,Z=V)}=3.2,\ c_{(X=U;\,Z=V)}=2.2$$

$$c_{(X=Cl;\,Z=V)}=2.0,\ c_{(X=NO_2;\,Z=V)}=0.5$$

$$c_{(X=H;\,Z=W)}=2.8,\ c_{(X=U;\,Z=W)}=2.0$$

$$c_{(X=Cl;\,Z=W)}=1.7,\ c_{(X=NO_2;\,Z=W)}=0.1$$

$$c_{(Y=CN,\ SO_2\,Alkyl,\ sulfonamide)}=1.0 \text{ and } c_{(Y=NO_2)}=1.4$$

and $c_Y=0$ when Y is different from CN, So_2 alkyl sulfonamide and NO_2.

2,781,339

COENZYME CONCENTRATES AND METHODS FOR THE PREPARATION THEREOF

Milton A. Mitz and Arthur E. Heath, Chicago, Ill., assignors to Armour and Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application May 4, 1951, Serial No. 224,664
11 Claims. (Cl. 260—211.5)

1. In a process for preparing a coenzyme A concentrate, the steps of mixing a crude aqueous solution of

coenzyme A with acid-conditioned charcoal to adsorb the coenzyme A thereon and thereafter eluting said coenzyme from the charcoal.

2,781,340
EXTRACTION OF COENZYME A FROM MICROBIOLOGICAL MATERIALS
John S. Evans and William H. De Vries, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan
No Drawing. Application September 28, 1951, Serial No. 248,884
16 Claims. (Cl. 260—211.5)

1. In a process for the isolation of coenzyme A, the steps comprising: contacting activated carbon with an aqueous solution of coenzyme A having a pH of between about one and five; separating the carbon containing the adsorbed coenzyme A from the aqueous solution; eluting the coenzyme A from the carbon with aqueous acetone having a pH of between about seven and eleven; and recovering coenzyme A from the eluate.

2,781,341
PROCESS FOR PREPARING SODIUM CARBOXYMETHYLCELLULOSE
Paulus Hermijnus de Ruyter, Arnhem, Netherlands, assignor to Algemene Kunstzijde Unie, N. V., Arnhem, Netherlands, a corporation of the Netherlands
No Drawing. Application January 22, 1952, Serial No. 267,689
Claims priority, application Netherlands February 7, 1951
2 Claims. (Cl. 260—232)

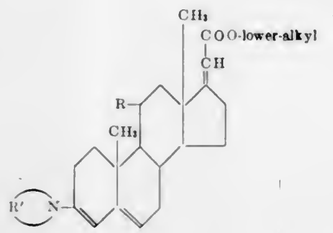
1. In a process for preparing sodium carboxymethylcellulose that is relatively low in salt content in which crude sodium carboxymethylcellulose is treated with a water-containing relatively low molecular weight organic polar liquid selected from the class consisting of methanol, ethanol and acetone and the polar liquid is thereafter separated at a pressure of less than 3 atmospheres, the improvement comprising thereafter subjecting the sodium carboxymethylcellulose mass, immediately after the separation at a pressure of less than 3 atmospheres, to a pressure of the order of 6 to 7 atmospheres whereby the preponderate portion of the polar liquid is selectively removed from the sodium carboxymethylcellulose.

2,781,342
STEROID ENAMINES
Milton E. Herr, Kalamazoo Township, Kalamazoo County, and Frederick W. Heyl, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan
No Drawing. Application May 17, 1952, Serial No. 288,546
20 Claims. (Cl. 260—239.5)

1. 3-(N-pyrrolidyl)-3,5-androstadiene-11,17-dione.

2,781,343
STEROID PRODUCTION
Barney J. Magerlein, Kalamazoo, and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan
No Drawing. Application December 5, 1955, Serial No. 550,818
48 Claims. (Cl. 260—239.5)

1. 3-amino-11-oxygenated-3,5,17(20)-pregnatriene-21-oic acid alkyl esters represented by the following formula:



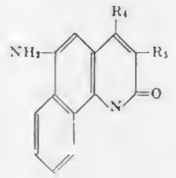
wherein R is selected from the group consisting of an α-hydroxy group, a β-hydroxy group, and a ketonic oxygen, and wherein R′ is an alkylene group containing less than nine carbon atoms and having a 4 to 5 carbon atom bridge between the valences which, together with the nitrogen atom, forms a ring which contains from five to six members, inclusive.

2,781,344
FORMYLATION OF AMINO-PYRIMIDINES
Frederick Comte, Kirkwood, Mo., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application May 4, 1953, Serial No. 352,970
9 Claims. (Cl. 260—256.4)

1. In the process of preparing an amino-formamido derivative of a compound selected from the class consisting of 4,5-diamino pyrimidine, 4,5-diamino uracil, 1 and 3 lower alkyl substituted 4,5-diamino uracils and acid salts of said uracils, by the reaction of said compound with formic acid; the step comprising carrying out said formylation reaction with from 1 to 5 equivalents of formic acid in the presence of nascent hydrogen and in the presence of an inert gas.

2,781,345
6-AMINO-7,8-BENZOCARBOSTYRILS
Julian Jacob Leavitt, Plainfield, and Robert Sidney Long, Bound Brook, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Original application January 26, 1954, Serial No. 406,358. Divided and this application April 15, 1955, Serial No. 501,724
3 Claims. (Cl. 260—288)

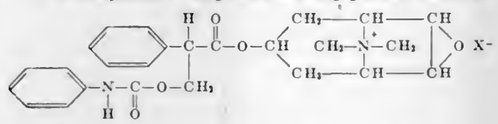
1. New compounds of the formula:



in which R_4 is a member of the group consisting of hydrogen lower alkyl and phenyl radicals; R_5 is a member of the group of hydrogen and lower alkyl radicals and R_4 and R_5 together may form a cyclohexene ring.

2,781,346
O-(PHENYL CARBAMYL)-N-METHYL SCOPOLAMINE QUATERNARY AMMONIUM SALTS
Robert B. Moffett, Kalamazoo Township, Kalamazoo County, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan
No Drawing. Application December 5, 1955, Serial No. 550,836
3 Claims. (Cl. 260—292)

1. A compound having the following general formula:



wherein X is a pharmacologically acceptable anion.

2,781,347
3-ACYLAMIDORHODANINES AND PROCESS FOR PREPARATION
Richard E. Strube, Kalamazoo, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan
No Drawing. Application November 7, 1955, Serial No. 545,575
9 Claims. (Cl. 260—295)

6. 3-acylamidorhodanines wherein the acylamido radical is selected from the group consisting of benzamido, p-nitrobenzamido and isonicotinamido radicals.

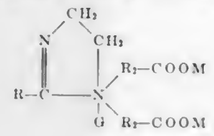
2,781,348
AMINES AND PROCESS FOR THE PREPARATION OF AMINES
Emil Schlittler, Basel, and Andreia Uffer, Riehen, Switzerland, assignors to Ciba Pharmaceutical Products, Inc., Summit, N. J.
No Drawing. Application May 9, 1949, Serial No. 92,245
Claims priority, application Switzerland May 21, 1948
10 Claims. (Cl. 260—296)

1. A process for the preparation of an amine, which comprises reducing a carboxylic acid amide containing at least once the

grouping, such grouping being the sole reducible part of said amide, to an amine which has the same number of carbon atoms, by reacting it with lithium-aluminum-hydride in an anhydrous organic solvent which is inert under the reaction conditions, as the reaction medium, and at an elevated temperature decomposing the resulting reaction mixture with an aqueous medium, and isolating the amine which is formed.

2,781,349
CERTAIN SALTS OF 2-HYDROCARBON IMIDAZOLINIUM DI-ALKANOIC ACID SALTS OF DETERGENT SULFONIC ACIDS OR SULFATE ACIDS
Hans S. Mannheimer, New York, N. Y.
No Drawing. Application April 2, 1956, Serial No. 575,300
2 Claims. (Cl. 260—309.6)

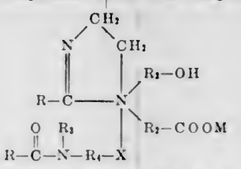
1. A compound selected from the class consisting of salts of detergent sulfonic acids and detergent sulfates respectively and an amphoteric surface active agent, said compound having the following formula:



in which R is a hydrocarbon radical of 4–18 carbon atoms, and each R_2 is aliphatic hydrocarbon of 1–4 carbon atoms, and G is selected from the class consisting of sulfonic acid and sulfate radicals of detergent sulfonic acid salts and detergent sulfate salts, and M is an alkali metal.

2,781,350
CYCLOIMIDINE DERIVATIVES AND PROCESS FOR PREPARING SAME
Hans S. Mannheimer, New York, N. Y.
No Drawing. Application May 21, 1956, Serial No. 585,940
12 Claims. (Cl. 260—309.6)

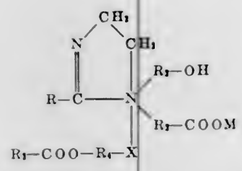
1. A novel compound of the following formula:



in which R is a hydrocarbon radical of 4–18 carbon atoms; R_2 is an organic group selected from the class consisting of (*a*) aliphatic hydrocarbon groups of 1–4 carbon atoms, (*b*) hydroxy substituted aliphatic hydrocarbon groups of 1–4 carbon atoms, (*c*) aliphatic ether groups, each of said groups having a single ether linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*d*) aliphatic ether groups, each of said groups having a single ether linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, (*e*) aliphatic keto groups each of said groups having a single keto linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*f*) aliphatic keto groups, each of said groups having a single keto linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms; R_3 is selected from the group consisting of (*g*) hydrogen, (*h*) aliphatic hydrocarbon radicals of 1–8 carbon atoms, (*i*) hydroxy substituted aliphatic hydrocarbon radicals of 1–8 carbon atoms, (*j*) aliphatic ether radicals, each of said radicals having ether linkage therein and otherwise being hydrocarbon of 2–8 carbon atoms, (*k*) aliphatic ether radicals, each of said radicals having ether linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–8 carbon atoms; R_4 is an organic group selected from the class consisting of (*l*) aliphatic, aromatic and aromatic-aliphatic hydrocarbon groups of 1–12 carbon atoms, (*m*) hydroxy substituted aliphatic, aromatic and aromatic-aliphatic hydrocarbon groups of 1–12 carbon atoms, (*n*) aliphatic, aromatic and aromatic-aliphatic groups, each of said groups having ether linkage therein and othrewise being hydrocarbon of 2–12 carbon atoms, (*o*) aliphatic, aromatic and aromatic-aliphatic groups having ether linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*p*) aliphatic, aromatic and aromatic-aliphatic groups, each of said groups including (CONH) and otherwise being hydrocarbon of 2–12 carbon atoms, (*q*) aliphatic, aromatic and aromatic-aliphatic groups, each of said groups including (CONH) and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms; X is a radical selected from the class of SO_3 and OSO_3; and M is an alkali metal.

2,781,351
CERTAIN IMIDAZOLINE ALKANOIC ACID SALTS OF CERTAIN DETERGENT ACIDS AND PROCESS
Hans S. Mannheimer, New York, N. Y.
No Drawing. Application November 21, 1956, Serial No. 623,526
13 Claims. (Cl. 260—309.6)

1. A novel compound of the following formula:



in which R is a hydrocarbon radical of 4–18 carbon atoms; R_2 is an organic group selected from the class consisting of (*a*) aliphatic hydrocarbon groups of 1–4 carbon atoms, (*b*) hydroxy substituted aliphatic hydrocarbon groups of 1–4 carbon atoms, (*c*) aliphatic ether groups, each of said groups having a single ether linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*d*) aliphatic ether groups, each of said groups having a single ether linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, (*e*) aliphatic keto groups, each of said groups having a single keto linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*f*) aliphatic keto groups, each of said groups having a single keto linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms; R_3 is selected from the group consisting of aliphatic and aliphatic-aromatic hydrocarbon radicals, with said aliphatic radicals containing 6–18 carbon atoms, and said aliphatic-aromatic radicals selected from the class of benzene and naphthalene rings, each having an aliphatic radical of 6–18 carbon atoms attached thereto; R_4 is an organic group selected from the class consisting of (*g*) aliphatic hydrocarbon groups of 1–12 carbon atoms, (*h*) hydroxy substituted aliphatic hydrocarbon groups of 1–12 carbon atoms, (*i*) aliphatic ether groups, each of said groups having at least one ether linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms (*j*) hydroxy substituted ether groups, each of said groups having at least one ether linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*k*) aliphatic groups, each of said groups containing CONH and otherwise being hydrocarbon of 2–12 carbon atoms; X is selected from the group consisting of SO_3 and OSO_3; and M is an alkali metal.

2,781,352

PROCESS FOR PREVENTING CORROSION, CORROSION INHIBITORS AND CERTAIN COGENERIC MIXTURES CONTAINING CYCLIC AMIDINES

Melvin De Groote and Jen-Pu Cheng, University City, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application June 9, 1955, Serial No. 514,396

27 Claims. (Cl. 260—309.6)

1. A process for the preparation of a solvent-soluble cogeneric mixture containing cyclic amidines and cyclic amidine derivatives which comprises reacting a polyalkylene amine capable of forming cyclic amidines with a blown fatty oil at a temperature above amidification temperature and below pyrolysis temperature of the mixture.

2,781,353

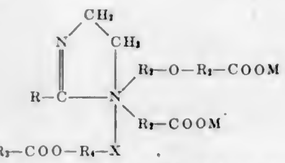
IMIDAZOLINE DERIVATIVES AND PROCESS

Hans S. Mannheimer, New York, N. Y., assignor to John J. McCabe, Jr., and Hans S. Mannheimer, as joint-venturers

No Drawing. Application March 26, 1956, Serial No. 573,630

15 Claims. (Cl. 260—309.6)

1. A novel compound of the following formula:



in which R is a hydrocarbon radical of 4–18 carbon atoms; R_2 is selected from the class consisting of (*a*) aliphatic hydrocarbon groups of 1–4 carbon atoms, (*b*) hydroxy substituted hydrocarbon groups of 1–4 carbon atoms, (*c*) aliphatic ether groups, each of said groups having a single ether linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*d*) aliphatic ether groups, each of said groups having a single ether linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, (*e*) aliphatic keto groups, each of said groups having a single keto linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*f*) aliphatic keto groups, each of said groups having a single keto linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms; R_3 is selected from the group consisting of (*g*) aliphatic and aliphatic-aromatic hydrocarbon radicals of 6–18 carbon atoms, with the aliphatic-aromatic hydrocarbon radicals, each having an aliphatic radical of at least 6 carbon atoms; R_4 is selected from the group consisting of (*h*) aliphatic hydrocarbon groups of 1–12 carbon atoms, (*i*) hydroxy substituted aliphatic hydrocarbon groups of 1–12 carbon atoms, (*j*) aliphatic ether groups, each of said groups having at least one ether linkage therein, and otherwise being hydrocarbon of 2–12 carbon atoms, (*k*) hydroxy substituted aliphatic ether groups, each of said groups having at least one ether linkage therein, and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*l*) aliphatic groups, each group containing —CONH— and otherwise being hydrocarbon of 2–12 carbon atoms; and M is an alkali metal.

2,781,354

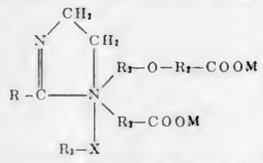
IMIDAZOLINE DERIVATIVES AND PROCESS

Hans S. Mannheimer, New York, N. Y., assignor to John J. McCabe, Jr., and Hans S. Mannheimer, as joint venturers

No Drawing. Application March 26, 1956, Serial No. 573,631

11 Claims. (Cl. 260—309.6)

1. A novel compound of the following formula:



in which R is a hydrocarbon radical of 4–18 carbon atoms; R_2 is selected from the class consisting of (*a*) aliphatic hydrocarbon groups of 1–4 carbon atoms, (*b*) hydroxy substituted hydrocarbon groups of 1–4 carbon atoms, (*c*) aliphatic ether groups, each of said groups having a single ether linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*d*) aliphatic ether groups, each of said groups having a single ether linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, (*e*) aliphatic keto groups, each of said groups having a single keto linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*f*) aliphatic keto groups, each of said groups having a single keto linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms; R_3 is selected from the class consisting of aliphatic hydrocarbon radicals of 6–18 carbon atoms, aliphatic-aromatic hydrocarbon radicals with the aliphatic

hydrocarbon being at least 6 carbon atoms; X is selected from the group of SO_3 and OSO_3; and M is an alkali metal.

2,781,355

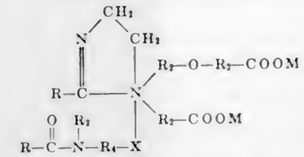
IMIDAZOLINE DERIVATIVES AND PROCESS

Hans S. Mannheimer, New York, N. Y., assignor to John J. McCabe, Jr., and Hans S. Mannheimer, as joint venturers

No Drawing. Application March 26, 1956, Serial No. 573,632

13 Claims. (Cl. 260—309.6)

1. A novel compound of the following formula:



in which R is a hydrocarbon radical of 4–18 carbon atoms; R_2 is selected from the class consisting of (*a*) aliphatic hydrocarbon groups of 1–4 carbon atoms, (*b*) hydroxy substituted hydrocarbon groups of 1–4 carbon atoms, (*c*) aliphatic ether groups, each of said groups having a single ether linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*d*) aliphatic ether groups, each of said groups having a single ether linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, (*e*) aliphatic keto groups, each of said groups having a single keto linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*f*) aliphatic keto groups, each of said groups having a single keto linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms; and M is an alkali metal; R_3 is selected from the class consisting of (*g*) hydrogen, (*h*) aliphatic hydrocarbon radicals of 1–8 carbon atoms, (*i*) hydroxy substituted aliphatic hydrocarbon radicals of 1–8 carbon atoms, (*j*) aliphatic ether radicals, each having at least one ether linkage therein and otherwise being hydrocarbon of 2–8 carbon atoms, (k) aliphatic ether radicals, each of said radicals having at least one ether linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–8 carbon atoms; R_4 is selected from the class consisting of (*l*) aliphatic hydrocarbon groups of 1–12 carbon atoms, (*m*) hydroxy substituted hydrocarbon groups of 1–12 carbon atoms, (*n*) aliphatic ether groups, each of said groups having at least one ether linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*o*) aliphatic ether groups, each of said groups having at least one ether linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*p*) aliphatic groups having a CONH linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms; and X is selected from the group consisting of SO_3 and OSO_3.

2,781,356

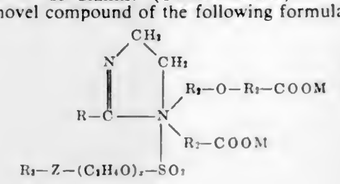
IMIDAZOLINE DERIVATIVES AND PROCESS

Hans S. Mannheimer, New York, N. Y., assignor to John J. McCabe, Jr., and Hans S. Mannheimer, as joint venturers

No Drawing. Application March 26, 1956, Serial No. 573,654

13 Claims. (Cl. 260—309.6)

1. A novel compound of the following formula:



in which R is a hydrocarbon radical of 4–18 carbon atoms; R_2 is selected from the class consisting of (*a*) aliphatic hydrocarbon groups of 1–4 carbon atoms, (*b*) hydroxy substituted hydrocarbon groups of 1–4 carbon atoms, (*c*) aliphatic ether groups, each of said groups having a single ether linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*d*) aliphatic ether groups, each of said groups having a single ether linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, (*e*) aliphatic keto groups, each of said groups having a single keto linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*f*) aliphatic keto groups, each of said groups having a single keto linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms; R_3 is a hydrocarbon radical selected from the group consisting of (*h*) aliphatic hydrocarbon radicals of 6–18 carbon atoms and (*i*) aliphatic-aromatic hydrocarbon radicals consisting of benzene and naphthalene groups each having an aliphatic hydrocarbon radical of 6–18 carbon atoms attached thereto; X is selected from the group consisting of SO_3 and OSO_3; and M is an alkali metal.

2,781,357

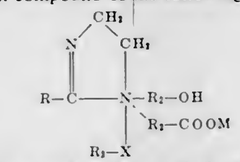
IMIDAZOLINE DERIVATIVES AND PROCESS

Hans S. Mannheimer, New York, N. Y., assignor to John J. McCabe, Jr., New Brunswick, N. J., and said Hans S. Mannheimer, as joint venturers

No Drawing. Application December 3, 1954, Serial No. 473,043

14 Claims. (Cl. 260—309.6)

1. A novel compound of the following formula:



in which R is a hydrocarbon radical of 4 to 18 carbon atoms; R_2 is an organic group selected from the class consisting of (*a*) aliphatic hydrocarbon groups of 1–4 carbon atoms, (*b*) hydroxy substituted aliphatic hydrocarbon groups of 1–4 carbon atoms, (*c*) aliphatic ether groups, each of said ether groups having a single ether linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*d*) aliphatic ether groups each of said groups having a single ether linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, (*e*) aliphatic keto groups, each of said groups having a single keto linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*f*) aliphatic keto groups, each of said groups having a single keto linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms; R_3 is a hydrocarbon radical selected from the group consisting of (*h*) aliphatic hydrocarbon radicals of 6–18 carbon atoms and (*i*) aliphatic-aromatic hydrocarbon radicals consisting of benzene and naphthalene groups each having an aliphatic hydrocarbon radical of 6–18 carbon atoms attached thereto; X is selected from the group consisting of SO_3 and OSO_3; and M is an alkali metal.

2,781,358

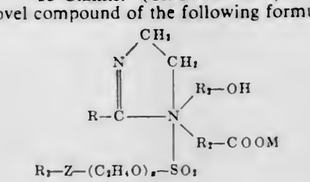
DETERGENT ACID SALTS OF CERTAIN IMIDAZOLINIUM COMPOUNDS

Hans S. Mannheimer, New York, N. Y.

No Drawing. Application June 21, 1956, Serial No. 592,749

13 Claims. (Cl. 260—309.6)

1. A novel compound of the following formula:



in which R is a hydrocarbon radical of 4 to 18 carbon atoms; R_2 is an organic group selected from the class consisting of (*a*) aliphatic hydrocarbon groups of 1–4 carbon atoms, (*b*) hydroxy substituted aliphatic hydrocarbon groups of 1–4 carbon atoms, (*c*) aliphatic ether groups, each of said groups having a single ether linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*d*) aliphatic ether groups, each of said groups having a single ether linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, (*e*) aliphatic keto groups each of said groups having a single keto linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*f*) aliphatic keto groups, each of said groups having a single keto linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, R_3 is a hydrocarbon radical of 6 to 20 carbon atoms; Z is an atom selected from the group consisting of oxygen and sulphur; *x* is a number of at least 1 and no greater than 5, and M is an alkali metal.

2,781,359
CYCLOHEXENE-4,5,4,5-TETRACARBOXYLIC DIIMIDES AND PREPARATION OF SAME

Richard Edwin Heckert, Wilmington, and William Joseph Middleton, Monroe Park, Wilmington, Del., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

Application December 21, 1953, Serial No. 399,565
5 Claims. (Cl. 260—326)

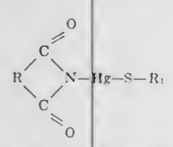
1. As a new class of compounds, cyclohexene-4,5,4,5-tetracarboxylic diimides.

2,781,360
ORGANO-THIOMERCURI COMPOUNDS

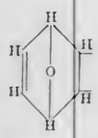
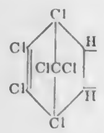
Morton Kleiman, Chicago, Ill., assignor to Velsicol Chemical Corporation, a corporation of Illinois

No Drawing. Application May 16, 1952, Serial No. 288,296
4 Claims. (Cl. 260—326)

1. As a new composition of matter a compound having the formula



wherein R is a radical selected from the group consisting of

and R_1 is the ethyl radical.

2,781,361
PROCESS FOR THE PRODUCTION OF 4-HYDROXYCOUMARIN

Eugene V. Hort, Westfield, N. J., assignor to Nopco Chemical Company, Harrison, N. J., a corporation of New Jersey

No Drawing. Application May 9, 1952, Serial No. 287,037
10 Claims. (Cl. 260—343.2)

1. In a process for the production of 4-hydroxycoumarin, the improvement which comprises heating an excess of an acetylsalicylic acid ester with an alkali metal at a temperature of from about 110° C. to about 210° C., the excess of acetylsalicylic acid ester comprising the sole solvent in the reaction system.

2,781,362
ALKYLATION PROCESS IMPROVEMENT FOR VAT DYES

Isaiah Von, Plainfield, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application October 3, 1955, Serial No. 538,263
9 Claims. (Cl. 260—355)

1. The process for the alkylation of a dihydroxydibenzanthrone which comprises suspending the dihydroxydibenzanthrone in an inert organic solvent, adding to said suspension at least a substantially stoichiometric quantity of a volatile aliphatic amine, adding thereto at least a substantially stoichiometric quantity of an alkali metal carbonate, removing the liberated aliphatic amine by distillation and heating the alkali metal salt of the dihydroxydibenzanthrone with at least a substantially stoichiometric quantity of an alkylating agent.

2,781,363
PURIFICATION OF VITAMIN K_1

Ralph F. Hirschmann, Westfield, Norman L. Wendler, Summit, and Richard Miller, New Brunswick, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application June 4, 1954, Serial No. 434,678
3 Claims. (Cl. 260—396)

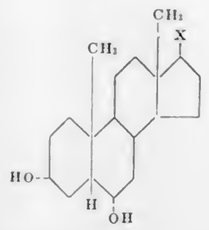
1. The process which comprises contacting a solution of impure vitamin K_1 that is at least 70% pure and has a Gardner color standard of around 13–15 in an organic solvent of the group consisting of saturated straight and branched chain and cyclic hydrocarbons, with a magnesia-silica gel type adsorbent to adsorb the vitamin and impurities on the adsorbent, eluting the vitamin from the adsorbent without substantial desorbtion of the impurities with a solvent mixture comprising a solvent of the group consisting of saturated straight and branched chain and cyclic hydrocarbons mixed with up to 15% by volume of a solvent of the group consisting of aromatic hydrocarbons, and evaporating the eluate to recover essentially pure vitamin K_1 having a Gardner color standard not greater than 11.

2,781,364
PREPARATION OF STEROIDS CONTAINING A 3β-HYDROXY-$\Delta^{5,6}$ GROUPING

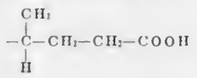
Peter Ziegler and Sydney Victor Hochner, Toronto, Ontario, Canada, assignors to Canada Packers, Limited, Toronto, Ontario, Canada

No Drawing. Application March 23, 1954, Serial No. 418,242
18 Claims. (Cl. 260—397.1)

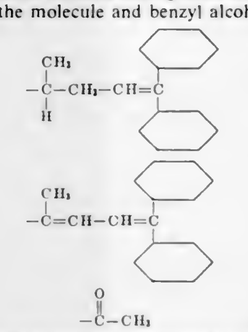
1. In a method of preparing a steroid having a 3β-hydroxy-$\Delta^{5,6}$ grouping from a steroid having a 3α,6α-dihydroxy grouping and having the following structural formula:



wherein X is selected from the group consisting of



esterified with an alcohol selected from the group consisting of the aliphatic alcohols having from one to four carbon atoms in the molecule and benzyl alcohol,



and the steps which comprise, reacting the latter mentioned steroid with an organic sulfonyl chloride to replace the hydroxyl groups at the 3α and 6α positions with sulfonate groups at the 3α and 6α positions, and thereafter reacting the resulting compound with a metal salt of a lower alkanoic acid in a reaction medium comprising an organic compound selected from the group consisting of the di-lower alkyl substituted lower alkanoic carboxylic acid amides and the lower alkyl substituted pyrrolidones liquid under the conditions of the reaction and a small amount of water, to replace the sulfonate group at the 3α position with an acyloxy group at the 3β position and eliminate the sulfonate group at the 6α position while introducing a double bond between the numbers 5 and 6 carbon atoms of the resulting steroid.

2,781,365
17α-HYDROXY-19-NORPROGESTERONE, PROCESS THEREFOR AND INTERMEDIATES OBTAINED THEREBY

Carl Djerassi, Birmingham, Mich., and Franz Sondheimer and George Rosenkranz, Mexico City, Mexico, assignors to Syntex, S. A., Mexico City, Mexico, a corporation of Mexico

No Drawing. Application April 23, 1954, Serial No. 425,310
Claims priority, application Mexico April 25, 1953
8 Claims. (Cl. 260—397.4)

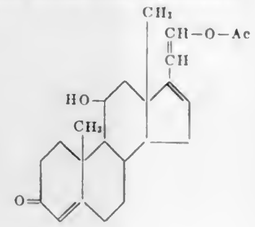
1. A process for the production of 19-nor-17α-hydroxyprogesterone which comprises reducing the 20-ketal of 3 - methoxy - 17α - hydroxy - 17β - acetyl - 1,3,5(10)-estratriene with an alkali metal in liquid ammonia to form the 20-ketal of 3-methoxy-17α-hydroxy-$\Delta^{2,5(10)}$-19-nor-pregnadien-20-one and thereafter hydrolysing and rearranging the last mentioned ketal in an acid medium.

2,781,366
11β,21-DIHYDROXY-4,16,20-PREGNATRIENE-3-ONE AND ESTERS THEREOF

William P. Schneider, Kalamazoo, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application July 11, 1955, Serial No. 521,365
2 Claims. (Cl. 260—397.45)

1. 11β-hydroxy-21-acyloxy-4,16,20 - pregnatriene - 3-one represented by the following formula:



wherein Ac is the acyl radical of a lower-aliphatic hydrocarbon carboxylic acid containing from one to eight carbon atoms, inclusive.

2,781,367
HYDROLYSIS OF STEROID SEMICARBAZONE

John T. Day, North Plainfield, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application June 15, 1954, Serial No. 436,991
15 Claims. (Cl. 260—397.45)

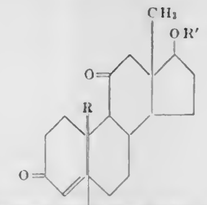
1. The process which comprises reacting a semicarbazone of a Δ^4-3,20-diketo-17-hydroxy-21-oxygenated-pregnene compound with an aqueous mineral acid in contact with a separate liquid phase comprising an essentially water-immiscible organic solvent, thereby hydrolyzing the semicarbazone linkages without substantially affecting other acid-sensitive groupings in the molecule, to produce a solution of the Δ^4-3,20-diketo-17-hydroxy-21-oxygenated-pregnene compound in the organic solvent phase and a solution of the corresponding salt of semicarbazide in the aqueous phase, and separating said organic solvent phase from the reaction mixture.

2,781,368
11-KETOTESTOSTERONE, 11-KETO-19-NORTESTOSTERONE, ESTERS THEREOF AND PROCESS

Frederick W. Heyl, Kalamazoo, and Milton E. Herr, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application January 15, 1953, Serial No. 331,495
14 Claims. (Cl. 260—397.45)

1. A steroid compound represented by the following formula:



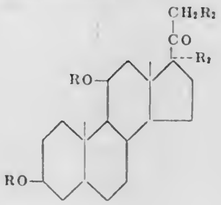
wherein R is selected from the group consisting of hydrogen and methyl and wherein R′ is selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing from one to eight carbon atoms, inclusive.

2,781,369
PROCESS FOR THE MANUFACTURE OF 11β-ACYLOXY STEROIDS

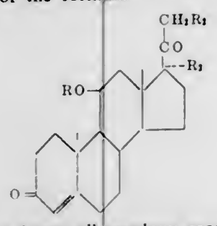
Eugene P. Oliveto, Bloomfield, and Emanuel B. Hershberg, West Orange, N. J., assignors to Schering Corporation, Bloomfield, N. J., a corporation of New Jersey

No Drawing. Application October 22, 1952, Serial No. 316,324
8 Claims. (Cl. 260—397.45)

4. A compound of the group consisting of normal and allo-pregnanes of the formula:



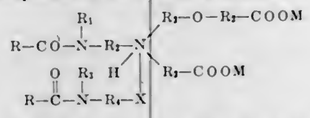
and pregnenes of the formula



wherein RO is a lower alkanoyloxy group, and R_2 is a member of the class consisting of H, OH, and lower alkanoyloxy and benzoyloxy groups.

2,781,370
DETERGENT SULPHONIC ACID AND SULPHATE SALTS OF CERTAIN AMPHOTERIC DETERGENTS
Hans S. Mannheimer, New York, N. Y.
No Drawing. Application February 28, 1956, Serial No. 568,168
6 Claims. (Cl. 260—401)

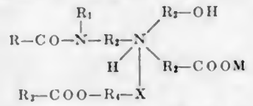
1. A compound of the following formula:



in which R is a hydrocarbon radical of 4–18 carbon atoms; R_2 is an organic group selected from the class consisting of (*a*) aliphatic hydrocarbon groups of 1–4 carbon atoms; (*b*) hydroxy substituted aliphatic hydrocarbon groups of 1–4 carbon atoms, (*c*) aliphatic ether groups, each of said ether groups having at least one ether oxygen linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*d*) aliphatic ether groups, each of said groups having at least one ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, (*e*) aliphatic keto groups, each of said groups having at least one carbonyl linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*f*) aliphatic keto groups, with each of said groups having at least one carbonyl linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, (*g*) aliphatic groups having keto carbonyl and ether oxygen linkages therein, and otherwise being hydrocarbon of 3–4 carbon atoms, (*h*) aliphatic groups, each of said groups having keto carbonyl and ether oxygen linkages therein and otherwise being hydroxy substituted hydrocarbon of 3–4 carbon atoms; R_1 is selected from the group consisting of hydrogen and monovalent radicals otherwise defined in said (*a*)–(*h*); R_3 is selected from the group consisting of (*g*) hydrogen, (*h*) aliphatic hydrocarbon radicals of 1–8 carbon atoms, (*i*) hydroxy substituted aliphatic hydrocarbon radicals of 1–8 carbon atoms, (*j*) aliphatic radicals, each of said radicals having at least one ether oxygen linkage therein and otherwise being hydrocarbon of 2–8 carbon atoms, (*k*) aliphatic radicals, each of said radicals having at least one ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–8 carbon atoms, (*l*) aliphatic radicals, each of said radicals having at least one keto carbonyl linkage therein and otherwise being hydrocarbon of 2–8 carbon atoms, (*m*) aliphatic radicals each of said radicals having at least one keto carbonyl linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–8 carbon atoms; R_4 is selected from the group consisting of (*n*) aliphatic, aromatic, and aromatic-aliphatic hydrocarbon groups of 1–12 carbon atoms, (*o*) hydroxy substituted aliphatic, aromatic and aromatic-aliphatic hydrocarbon groups of 1–12 carbon atoms, (*p*) aliphatic, aromatic and aromatic-aliphatic groups having at least one ether oxygen linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*q*) aliphatic, aromatic and aromatic-aliphtic groups, each of said groups having at least one ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*r*) aliphatic, aromatic and aromatic-aliphatic groups, each of said groups having a keto carbonyl linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*s*) aliphatic, aromatic and aromatic-aliphatic groups, each of said groups having a keto carbonyl linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*t*) aliphatic, aromatic and aromatic-aliphatic groups, each of said groups including a —CONH— linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*u*) aliphatic, aromatic and aromatic-aliphatic groups, each of said groups including a —CONH— linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms; X is selected from the group consisting of (SO_3) and (O—SO_3); and M is an alkali metal.

2,781,371
DETERGENT SULPHONIC ACID AND SULPHATE SALTS OF CERTAIN AMPHOTERIC DETERGENTS
Hans S. Mannheimer, New York, N. Y.
No Drawing. Application February 2, 1956, Serial No. 562,940
8 Claims. (Cl. 260—401)

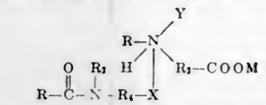
1. A compound of the following formula:



in which R is a hydrocarbon radical of 4–18 carbon atoms; R_2 is an organic group selected from the class consisting of (*a*) aliphatic hydrocarbon groups of 1–4 carbon atoms, (*b*) hydroxy substituted aliphatic hydrocarbon groups of 1–4 carbon atoms, (*c*) aliphatic ether groups, each of said ether groups having an ether oxygen linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*d*) aliphatic ether groups, each of said groups having an ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, (*e*) aliphatic keto groups, each of said groups having a carbonyl linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*f*) aliphatic keto groups, each of said groups having a carbonyl linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms; R_1 is selected from the group consisting of hydrogen and monovalent radicals otherwise defined in said (*a*)–(*f*); R_3 is selected from the group consisting of (*g*) aliphatic and aliphatic-aromatic hydrocarbon radicals of 6–18 carbon atoms, with the aliphatic-aromatic hydrocarbon radicals, each having an aliphatic radical of at least 6 carbon atoms; R_4 is selected from the group consisting of (*h*) aliphatic hydrocarbon groups of 2–12 carbon atoms, (*i*) hydroxy substituted aliphatic hydrocarbon groups of 2–12 carbon atoms, (*j*) aliphatic ether groups, each of said groups having at least one ether oxygen linkage therein, and otherwise being hydrocarbon of 2–12 carbon atoms, (*k*) hydroxy substituted aliphatic ether groups, each of said groups having at least one ether oxygen linkage therein, and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*l*) aliphatic groups, each group containing a —CONH— linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms; X is a radical selected from the group consisting of —SO_3 and —OSO_3; and M is an alkali metal.

2,781,372
DETERGENT SULPHONIC ACID AND SULPHATE SALTS OF CERTAIN AMPHOTERIC DETERGENTS
Hans S. Mannheimer, New York, N. Y.
No Drawing. Application February 10, 1956, Serial No. 564,637
7 Claims. (Cl. 260—401)

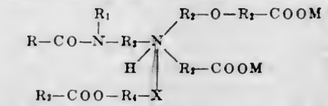
1. A compound of the following formula:



in which R is a hydrocarbon radical of 4–18 carbon atoms; Y is selected from the class consisting of R_6 and R_2—COOM; R_2 being an organic group selected from the class consisting of (*a*) aliphatic, aromatic and aromatic-aliphatic hydrocarbon groups of 1–12 carbon atoms, (*b*) hydroxy substituted aliphatic hydrocarbon groups of 1–12 carbon atoms, (*c*) aliphatic ether oxygen groups, each of said groups having at least one ether linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*d*) aliphatic ether groups, each of said groups having at least one ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*e*) aliphatic keto groups, each of said groups having carbonyl linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*f*) aliphatic keto groups, each of said groups having carbonyl linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*g*) aliphatic keto-ether groups, each of said groups having carbonyl and ether oxygen linkages therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms; R_6 is selected from the class consisting of (*h*) hydrogen and (*i*) monovalent radicals otherwise defined in (*a*)–(*g*); R_3 is selected from the class consisting of (*j*) hydrogen, (*k*) aliphatic hydrocarbon radicals of 1–8 carbon atoms, (*l*) hydroxy substituted hydrocarbon radicals of 1–8 carbon atoms, (*m*) aliphatic ether radicals, each of said radicals having at least one ether oxygen linkage therein and otherwise being hydrocarbon of 2–8 carbon atoms, (*n*) aliphatic ether radicals, each of said radicals having at least one ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–8 carbon atoms, (*o*) aliphatic keto radicals, each of said radicals having carbonyl linkage therein and otherwise being hydrocarbon of 2–8 carbon atoms, (*p*) aliphatic keto radicals, each of said radicals having carbonyl linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–8 carbon atoms; R_4 is selected from the class consisting of (*q*) aliphatic, aromatic and aliphatic-aromatic hydrocarbon groups of 1–12 carbon atoms, (*r*) aliphatic, aromatic and aromatic-aliphatic hydroxy substituted hydrocarbon groups of 1–12 carbon atoms, (*s*) aliphatic groups, each group having at least one ether oxygen linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*t*) aliphatic groups, each of said groups having at least one ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*u*) aliphatic keto groups, each of said groups having carbonyl linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*v*) aliphatic keto groups, each of said groups having carbonyl linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*w*) aliphatic groups, each of said groups including a —CONH— linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*x*) aliphatic groups, each of said groups including a —CONH— linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms; X is selected from the class of SO_3 and OSO_3; and M is an alkali metal.

2,781,373
DETERGENT SULPHONIC ACID AND SULPHATE SALTS OF CERTAIN AMPHOTERIC DETERGENTS
Hans S. Mannheimer, New York, N. Y.
No Drawing. Application March 12, 1956, Serial No. 570,670
8 Claims. (Cl. 260—401)

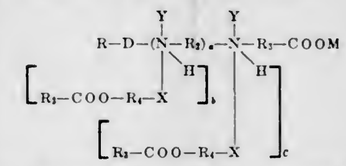
1. A compound of the following formula:



in which R is a hydrocarbon radical of 4–18 carbon atoms; R_2 is an organic group selected from the class consisting of (*a*) aliphatic hydrocarbon groups of 1–4 carbon atoms, (*b*) hydroxy substituted aliphatic hydrocarbon groups of 1–4 carbon atoms, (*c*) aliphatic ether groups, each of said ether groups having an ether oxygen linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*d*) aliphatic ether groups, each of said groups having an ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, (*e*) aliphatic keto groups, each of said groups having a carbonyl linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*f*) aliphatic keto groups, each of said groups having a carbonyl linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms; R_1 is selected from the group consisting of hydrogen and monovalent radicals otherwise defined in said (*a*)–(*f*); R_3 is selected from the group consisting of (*g*) aliphatic and aliphatic-aromatic hydrocarbon radicals of 6–18 carbon atoms, with the aliphatic-aromatic hydrocarbon radicals, each having an aliphatic radical of at least 6 carbon atoms; R_4 is selected from the group consisting of (*h*) aliphatic hydrocarbon groups of 1–12 carbon atoms, (*i*) hydroxy substituted aliphatic hydrocarbon groups of 1–12 carbon atoms, (*j*) aliphatic ether groups, each of said groups having at least one ether oxygen linkage therein, and otherwise being hydrocarbon of 2–12 carbon atoms, (*k*) hydroxy substituted aliphatic ether groups, each of said groups having at least one ether oxygen linkage therein, and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*l*) aliphatic groups, each group containing a —CONH— linkage therein and otherwise being hydrocarbon of 2—12 carbon atoms; X is a radical selected from the group consisting of —SO_3 and —OSO_3; and M is an alkali metal.

2,781,374
DETERGENT SULPHONIC ACID AND SULPHATE SALTS OF CERTAIN AMPHOTERIC DETERGENTS
Hans S. Mannheimer, New York, N. Y.
No Drawing. Application July 2, 1956, Serial No. 595,077
3 Claims. (Cl. 260—401)

1. A compound of the following formula:



in which R is selected from the class consisting of aliphatic and aliphatic-aromatic hydrocarbon radicals of 6–18 carbon atoms; D is selected from the class consisting of CH_2 and $CONHR_2$; R_2 is selected from the class consisting of (*a*) aliphatic hydrocarbon radicals of 2–4 carbon atoms, (*b*) hydroxy substituted hydrocarbon **radicals**

of 2–4 carbon atoms; Y is selected from the class consisting of (*c*) hydrogen, (*d*) R_7 and (*e*) R_5 COOM; R_5 is selected from the class consisting of (*f*) hydrocarbon groups of 1–4 carbon atoms, (*g*) hydroxy substituted hydrocarbon groups of 2–4 carbon atoms, (*h*) ether groups, each of said groups having an ether oxygen linkage therein and otherwise being hydrocarbon of 3–4 carbon atoms, (*i*) ether groups, each of said groups having an ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 3–4 carbon atoms; R_7 is selected from the group consisting of CH_3 and radicals monovalent otherwise defined in R_2; *a* is 1–5; *b* is zero to 5 and no greater than *a*; *c* is zero to 1; the sum of *b* and *c* is at least 1; R_3 is selected from the group consisting of (*j*) aliphatic and aliphatic-aromatic hydrocarbon radicals of 6–18 carbon atoms, with the latter having an aliphatic hydrocarbon radical of at least 6 carbon atoms; R_4 is selected from the group consisting of (*k*) aliphatic hydrocarbon and hydroxy substituted hydrocarbon groups of 1–12 carbon atoms, (*l*) aliphatic ether groups, each of said groups having at least one ether oxygen linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*m*) aliphatic ether groups, each of said groups having at least one ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*n*) aliphatic groups, each of said groups containing a —CONH— linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms; X is selected from the group consisting of SO_3 and OSO_3; and M is an alkali metal.

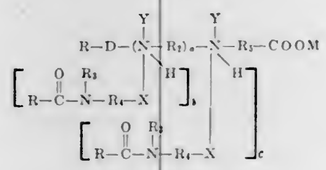
2,781,375
DETERGENT SULPHONIC ACID AND SULPHATE SALTS OF CERTAIN AMPHOTERIC DETERGENTS

Hans S. Mannheimer, New York, N. Y.

No Drawing. Application July 2, 1956, Serial No. 595,075

3 Claims. (Cl. 260—401)

1. A compound of the following formula:



in which R is selected from the class consisting of aliphatic and aliphatic-aromatic hydrocarbon radicals of 6–18 carbon atoms; D is selected from the class consisting of CH_2 and CONHR$_7$; R_2 is selected from the class consisting of (*a*) aliphatic hydrocarbon radicals of 2–4 carbon atoms, (*b*) hydroxy substituted hydrocarbon radicals of 2–4 carbon atoms; Y is selected from the class consisting of (*c*) hydrogen, (*d*) R_7 and (*e*) R_5 COOM; R_5 is selected from the class consisting of (*f*) hydrocarbon groups of 1–4 carbon atoms, (*g*) hydroxy substituted hydrocarbon groups of 2–4 carbon atoms, (*h*) ether groups, each of said groups having an etheroxygen linkage therein and otherwise being hydrocarbon of 3–4 carbon atoms, (*i*) ether groups, each of said groups having an ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 3–4 carbon atoms; R_7 is selected from the group consisting of CH_3 and monovalent radicals otherwise defined in R_2; *a* is 1–5; *b* is zero to 5 and no greater than *a*; *c* is zero to 1; the sum of *b* and *c* is at least 1; R_3 is selected from the group consisting of (*j*) hydrogen, (*k*) aliphatic hydrocarbon and hydroxy substituted hydrocarbon radicals of 1–8 carbon atoms, (*l*) aliphatic ether radicals each having at least one ether oxygen linkage therein and otherwise being hydrocarbon of 2–8 carbon atoms, (*m*) aliphatic ether radicals, each having at least one ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–8 carbon atoms; R_4 is selected from the group consisting of (*n*) aliphatic aromatic and aromatic-aliphatic hydrocarbon and hydroxy substituted hydrocarbon groups of 1–12 carbon atoms, (*n'*) aliphatic, aromatic and aromatic-aliphatic ether groups, each having at least one ether oxygen linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms; (*o*) aliphatic, aromatic and aromatic-aliphatic ether groups, each having at least one ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*p*) aliphatic, aromatic and aromatic-aliphatic groups having a CONH linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*q*) aliphatic, aromatic and aromatic-aliphatic groups, each of said groups having a keto carbonyl linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*r*) aliphatic, aromatic and aromatic-aliphatic groups, each of said groups having a keto carbonyl linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*s*) aliphatic, aromatic and aromatic-aliphatic groups each of said groups including a CONH linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms; X is selected from the group consisting of SO_3 and OSO_3 and M is an alkali metal.

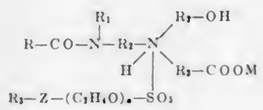
2,781,376
DETERGENT SULPHONIC ACID AND SULPHATE SALTS OF CERTAIN AMPHOTERIC DETERGENTS

Hans S. Mannheimer, New York, N. Y., assignor to John J. McCabe, Jr., New Brunswick, N. J., and said Mannheimer, as joint venturers

No Drawing. Application December 8, 1955, Serial No. 551,745

7 Claims. (Cl. 260—401)

1. A compound of the following formula:



in which R is a hydrocarbon radical of 4 to 18 carbon atoms; R_2 is an organic group selected from the class consisting of (*a*) aliphatic hydrocarbon groups of 1–4 carbon atoms; (*b*) hydroxy substituted aliphatic hydrocarbon groups of 1–4 carbon atoms, (*c*) aliphatic ether groups, each of said ether groups having an ether oxygen linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*d*) aliphatic ether groups, each of said groups having an ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, (*e*) aliphatic keto groups, each of said groups having a carbonyl linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*f*) aliphatic keto groups, with each of said groups having a carbonyl linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms; R_1 is selected from the group consisting of hydrogen and monovalent radicals otherwise defined in said (*a*)—(*f*); R_3 is a hydrocarbon radical of 6 to 20 carbon atoms; Z is an atom selected from the group consisting of oxygen and sulfur; *x* is a number of at least 1 and no greater than 5; and M is an alkali metal.

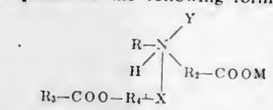
2,781,377
DETERGENT SULPHONIC ACID AND SULPHATE SALTS OF CERTAIN AMPHOTERIC DETERGENTS

Hans S. Mannheimer, New York, N. Y.

No Drawing. Application March 9, 1956, Serial No. 570,409

7 Claims. (Cl. 260—401)

1. A compound of the following formula:



in which R is a hydrocarbon radical of 6–18 carbon atoms; Y is selected from the class consisting of R_6 and R_2—COOM; R_2 is an organic group selected from the class consisting of (*a*) aliphatic, aromatic and aromatic-aliphatic hydrocarbon groups of 1–12 carbon atoms, (*b*) hydroxy substituted aliphatic hydrocarbon groups of 1–12 carbon atoms, (*c*) aliphatic ether groups, each of said groups having at least one ether oxygen linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*d*) aliphatic ether groups, each of said groups having at least one ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*e*) aliphatic keto groups, each of said groups having a single carbonyl linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*f*) aliphatic keto groups, each of said groups having a single carbonyl linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*g*) aliphatic keto-ether groups, each of said groups having ether oxygen and single carbonyl linkages therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*h*) aliphatic keto-ether groups, each of said groups having ether oxygen and single carbonyl linkages therein and otherwise being hydrocarbon of 2–12 carbon atoms; R_6 is selected from the class consisting of (*i*) hydrogen and (*j*) monovalent radicals otherwise defined in (*a*)—(*h*); R_3 is a radical selected from the class consisting of (*k*) aliphatic and aliphatic-aromatic hydrocarbon radicals of 6–18 carbon atoms; R_4 is a group selected from the class consisting of (*l*) aliphatic hydrocarbon groups of 1–12 carbon atoms, (*m*) hydroxy substituted aliphatic hydrocarbon atoms of 1–12 carbon atoms, (*n*) aliphatic ether groups, each of said groups having at least one ether oxygen linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*o*) aliphatic ether groups, each of said groups having at least 1 ether oxygen linkage therein, and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*p*) aliphatic groups, each of said groups containing a —CONH— linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, M is an alkali metal and X is selected from the class consisting of SO_3 and OSO_3.

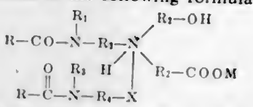
2,781,378
DETERGENT SULPHONIC ACID AND SULPHATE SALTS OF CERTAIN AMPHOTERIC DETERGENTS

Hans S. Mannheimer, New York, N. Y., assignor to John J. McCabe, Jr., New Brunswick, N. J., and said Mannheimer, as joint venturers

No Drawing. Application December 21, 1955, Serial No. 554,424

7 Claims. (Cl. 260—401)

1. A compound of the following formula:



in which R is a hydrocarbon radical of 4 to 18 carbon atoms; R_2 is an organic group selected from the class consisting of (*a*) aliphatic hydrocarbon groups of 1–4 carbon atoms, (*b*) hydroxy substituted aliphatic hydrocarbon groups of 1–4 carbon atoms, (*c*) aliphatic ether groups, each of said ether groups having an ether oxygen linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*d*) aliphatic ether groups, each of said groups having an ether ogygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, (*e*) aliphatic keto groups, each of said groups having a carbonyl linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*f*) aliphatic keto groups, each of said groups having a carbonyl linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms; R_1 is selected from the group consisting of hydrogen and monovalent radicals otherwise defined in said (*a*)—(*f*); R_3 is selected from the group consisting of (*g*) hydrogen, (*h*) aliphatic hydrocarbon radicals of 1–8 carbon atoms, (*i*) hydroxy substituted aliphatic hydrocarbon radicals of 1–8 carbon atoms, (*j*) aliphatic radicals, each of said radicals having at least one ether oxygen linkage therein and otherwise being hydrocarbon of 2–8 carbon atoms, (*k*) aliphatic radicals, each of said radicals having at least one ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–8 carbon atoms, (*l*) aliphatic radicals, each of said radicals having a carbonyl linkage therein and otherwise being hydrocarbon of 2–8 carbon atoms, (*m*) aliphatic radicals, each of said radicals having a carbonyl linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–8 carbon atoms; R_4 is selected from the group consisting of (*n*) aliphatic, aromatic, and aromatic-aliphatic hydrocarbon groups of 1–12 carbon atoms; (*o*) hydroxy substituted aliphatic, aromatic and aromatic-aliphatic hydrocarbon groups of 1–12 carbon atoms, (*p*) aliphatic, aromatic and aromatic-aliphatic groups having at least one ether oxygen linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*q*) aliphatic, aromatic and aromatic-aliphatic groups, each of said groups having at least one ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*r*) aliphatic, aromatic and aromatic-aliphatic groups, each of said groups having a carbonyl linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*s*) aliphatic, aromatic and aromatic-aliphatic groups, each of said groups having a carbonyl linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*t*) aliphatic, aromatic and aromatic-aliphatic groups, each of said groups including a —CONH—linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*u*) aliphatic, aromatic, and aromatic-aliphatic groups, each of said groups including a —CONH—linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms; X is selected from the group consisting of (SO_3) and (O—SO_3); and M is an alkali metal.

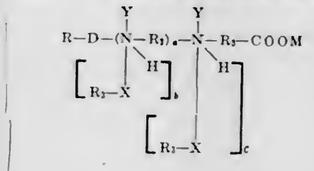
2,781,379
DETERGENT SULPHONIC ACID AND SULPHATE SALTS OF CERTAIN AMPHOTERIC DETERGENTS

Hans S. Mannheimer, New York, N. Y.

No Drawing. Application July 2, 1956, Serial No. 595,076

5 Claims. (Cl. 260—401)

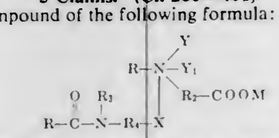
1. A compound of the following formula:



in which R is selected from the class consisting of aliphatic and aliphatic-aromatic hydrocarbon radicals of 6–18 carbon atoms; D is selected from the class consisting of CH_2 and $CONHR_2$; R_2 is selected from the class consisting of (*a*) aliphatic hydrocarbon radicals of 2–4 carbon atoms, (*b*) hydroxy substituted hydrocarbon radicals of 2–4 carbon atoms; Y is selected from the class consisting of (*c*) hydrogen, (*d*) R_7 and (*e*) R_5COOM; R_5 is selected from the class consisting of (*f*) hydrocarbon groups of 1–4 carbon atoms, (*g*) hydroxy substituted hydrocarbon groups of 2–4 carbon atoms, (*h*) ether groups, each of said groups having an ether oxygen linkage therein and otherwise being hydrocarbon of 3–4 carbon atoms, (*i*) ether groups, each of said groups having an ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 3–4 carbon atoms; R_7 is selected from the group consisting of CH_3 and monovalent radicals otherwise defined in R_2: *a* is 1–5; *b* is zero to 5 and no greater than *a*; *c* is zero to 1; the sum of *c* and *b* is at least one; R_3 is selected from the group consisting of (*j*) aliphatic hydrocarbon atoms of 6–18 carbon atoms and (*k*) aliphatic-aromatic hydrocarbon radicals having a maximum of 18 carbon atoms and consisting of benzene and naphthalene groups each having attached an aliphatic group of at least 6 carbon atoms; X is selected from the group consisting of SO_3 and OSO_3; and M is an alkali metal.

2,781,380
DETERGENT SULPHONIC ACID AND SULPHATE SALTS OF CERTAIN AMPHOTERIC DETERGENTS
Hans S. Mannheimer, New York, N. Y.
No Drawing. Application May 24, 1956, Serial No. 586,921
5 Claims. (Cl. 260—401)

1. A compound of the following formula:



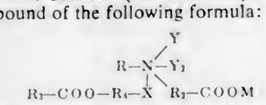
in which R is a hydrocarbon radical selected from the group consisting of aliphatic hydrocarbon radicals of 6–18 carbon atoms, aliphatic-aromatic hydrocarbon radicals of 6–18 carbon atoms, with the aliphatic portion thereof having at least 3 carbon atoms; Y and Y_1 are each selected from the class consisting of R_6 and

R_2—COOM

R_2 is selected from the class consisting of (*a*) aliphatic and hydroxy substituted aliphatic hydrocarbon groups of 1–12 carbon atoms, (*b*) aliphatic ether groups, each of said groups having at least one oxygen linkage and otherwise being hydrocarbons of 2–12 carbon atoms, (*c*) aliphatic ether groups, each of said groups having at least one oxygen linkage and otherwise being hydroxy substituted hydrocarbons of 2–12 carbon atoms, (*d*) aromatic and aliphatic-aromatic hydrocarbon groups having a maximum of 12 carbon atoms; R_6 selected from the class consisting of monovalent radicals otherwise defined in (*a*)–(*d*); R_3 is selected from the group consisting of (*a*–1) hydrogen, (*b*–1) aliphatic hydrocarbon radicals of 1–8 carbon atoms, (*c*–1) hydroxy substituted aliphatic hydrocarbon radicals of 1–8 carbon atoms, (*d*–1) aliphatic radicals, each of said radicals having at least one ether oxygen linkage therein and otherwise being hydrocarbon of 2–8 carbon atoms, (*e*–1) aliphatic radicals, each of said radicals having at least one ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–8 carbon atoms, (*g*–1) aliphatic radicals, each of said radicals having at least one carbonyl linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–8 carbon atoms; R_4 is selected from the group consisting of (*h*–1) aliphatic, aromatic, and aromatic-aliphatic hydrocarbon groups of 1–12 carbon atoms, (*i*–1) hydroxy substituted aliphatic, aromatic and aromatic-aliphatic hydrocarbon groups of 1–12 carbon atoms, (*j*–1) aliphatic, aromatic and aromatic-aliphatic groups having at least one ether oxygen linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*k*–1) aliphatic, aromatic and aromatic-aliphatic groups, each of said groups having at least one ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*l*–1) aliphatic, aromatic and aromatic-aliphatic groups, each of said groups having a carbonyl linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*m*–1) aliphatic, aromatic and aromatic-aliphatic groups, each of said groups having a carbonyl linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*n*–1) aliphatic, aromatic and aromatic-aliphatic groups, each of said groups including a —CONH— linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*o*–1) aliphatic, aromatic and aromatic-aliphatic groups, each of said groups including a —CONH— linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms; X is selected from the group consisting of SO_3 and OSO_3; and M is an alkali metal.

2,781,381
DETERGENT SULPHONIC ACID AND SULPHATE SALTS OF CERTAIN AMPHOTERIC DETERGENTS
Hans S. Mannheimer, New York, N. Y.
No Drawing. Application May 24, 1956, Serial No. 586,926
4 Claims. (Cl. 260—401)

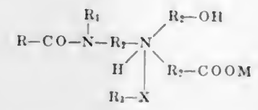
1. A compound of the following formula:



in which R is a hydrocarbon radical selected from the group consisting of aliphatic hydrocarbon radicals of 6–18 carbon atoms, aliphatic-aromatic hydrocarbon radicals of 6–18 carbon atoms, with the aliphatic portion thereof having at least 3 carbon atoms; Y and Y_1 are each selected from the class consisting of R_6 and R_2—COOM; R_2 is selected from the class consisting of (*a*) aliphatic and hydroxy substituted aliphatic hydrocarbon groups of 1–12 carbon atoms, (*b*) aliphatic ether groups, each group having at least one ether oxygen linkage therein and otherwise being hydrocarbons of 2–12 carbon atoms, (*c*) aliphatic ether groups, each group having at least one ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbons of 2–12 carbon atoms, (*d*) aromatic and aromatic-aliphatic hydrocarbon groups whose maximum number of carbon atoms is 12; R_6 selected from the class consisting of monovalent radicals otherwise defined in (*a*)–(*d*); R_3 is selected from the group of (*a*–1) aliphatic and aliphatic-aromatic hydrocarbon radicals of 6–18 carbon atoms, with the aliphatic-aromatic hydrocarbon radicals, each having an aliphatic radical of at least 6 carbon atoms; R_4 is selected from the group consisting of (*b*–1) aliphatic hydrocarbon groups of 1–12 carbon atoms, (*c*–1) hydroxy substituted aliphatic hydrocarbon groups of 1–12 carbon atoms, (*d*–1) aliphatic ether groups, each of said groups having at least one ether oxygen linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*e*–1) hydroxy substituted aliphatic ether groups, each of said groups having at least one ether oxygen linkage therein, and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*f*–1) aliphatic groups, each group containing a —CONH— linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms; X is a radical selected from the group consisting of SO_3 and OSO_3; and M is an alkali metal.

2,781,382
DETERGENT SULPHONIC ACID AND SULPHATE SALTS OF CERTAIN AMPHOTERIC DETERGENTS
Hans S. Mannheimer, New York, N. Y.
No Drawing. Application January 5, 1956, Serial No. 557,458
8 Claims. (Cl. 260—401)

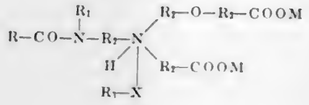
1. A compound of the following formula:



in which R is a hydrocarbon radical of 4 to 18 carbon atoms; R_2 is an organic group selected from the class consisting of (*a*) aliphatic hydrocarbon groups of 1–4 carbon atoms; (*b*) hydroxy substituted aliphatic hydrocarbon groups of 1–4 carbon atoms, (*c*) aliphatic ether groups, each of said ether groups having an ether oxygen linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*d*) aliphatic ether groups, each of said groups having an ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, (*e*) aliphatic keto groups, each of said groups having a carbonyl linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*f*) aliphatic keto groups, with each of said groups having a carbonyl linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms; R_1 is selected from the group consisting of hydrogen and monovalent radicals otherwise defined in said (*a*)–(*f*); R_3 is a hydrocarbon radical selected from the class consisting of (*h*) aliphatic hydrocarbon radicals of 6–18 carbon atoms and (*i*) aliphatic-aromatic hydrocarbon radicals consisting of benzene and naphthalene groups, each group having an aliphatic hydrocarbon radical of 6–18 carbon atoms attached thereto; X is selected from the group consisting of SO_3 and OSO_3; and M is an alkali metal.

2,781,383
DETERGENT SULPHONIC ACID AND SULPHATE SALTS OF CERTAIN AMPHOTERIC DETERGENTS
Hans S. Mannheimer, New York, N. Y.
No Drawing. Application February 14, 1956, Serial No. 565,307
8 Claims. (Cl. 260—401)

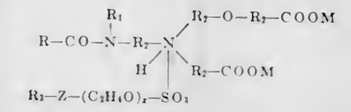
1. A compound of the following formula:



in which R is a hydrocarbon radical of 4–18 carbon atoms; R_2 is an organic group selected from the class consisting of (*a*) aliphatic hydrocarbon groups of 1–4 carbon atoms; (*b*) hydroxy substituted aliphatic hydrocarbon groups of 1–4 carbon atoms, (*c*) aliphatic ether groups, each of said ether groups having at least one ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, (*d*) aliphatic ether groups, each of said groups having at least one ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, (*e*) aliphatic keto groups, each of said groups having at least one carbonyl linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*f*) aliphatic keto groups, with each of said groups having at least one carbonyl linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, (*g*) aliphatic groups having keto carbonyl and ether oxygen linkages therein, and otherwise being hydrocarbon of 3–4 carbon atoms, (*h*) aliphatic groups, each of said groups having keto carbonyl and ether oxygen linkages therein and otherwise being hydroxy substituted hydrocarbon of 3–4 carbon atoms; R_1 is selected from the group consisting of hydrogen and monovalent radicals otherwise defined in said (*a*)–(*h*); R_3 is a hydrocarbon radical selected from the class consisting of (*i*) aliphatic hydrocarbon radicals of 6–18 carbon atoms and (*j*) aliphatic-aromatic hydrocarbon radicals consisting of benzene and naphthalene groups, each group having an aliphatic hydrocarbon radical of 6–18 carbon atoms attached thereto; X is selected from the group consisting of SO_3 and OSO_3; and M is an alkali metal.

2,781,384
DETERGENT SULPHONIC ACID AND SULPHATE SALTS OF CERTAIN AMPHOTERIC DETERGENTS
Hans S. Mannheimer, New York, N. Y.
No Drawing. Application February 28, 1956, Serial No. 568,159
7 Claims. (Cl. 260—401)

1. A compound of the following formula:



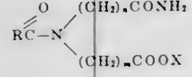
in which R is a hydrocarbon radical of 4–18 carbon atoms; R_2 is an organic group selected from the class consisting of (*a*) aliphatic hydrocarbon groups of 1–4 carbon atoms; (*b*) hydroxy substituted aliphatic hydrocarbon groups of 1–4 carbon atoms, (*c*) aliphatic ether groups, each of said ether groups having at least one ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, (*d*) aliphatic ether groups, each of said groups having at least one ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, (*e*) aliphatic keto groups, each of said groups having at least one carbonyl linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*f*) aliphatic keto groups, with each of said groups having at least one carbonyl linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, (*g*) aliphatic groups having keto carbonyl and ether oxygen linkages therein, and otherwise being hydrocarbon of 3–4 carbon atoms, (*h*) aliphatic groups, each of said groups having keto carbonyl and ether oxygen linkages therein and otherwise being hydroxy substituted hydrocarbon of 3–4 carbon atoms; R_1 is selected from the group consisting of hydrogen and monovalent radicals otherwise defined in said (*a*)–(*h*); R_3 is a hydrocarbon radical selected from the class consisting of aliphatic and aliphatic-aromatic hydrogen radicals of 6–20 carbon atoms; *x* is 1–5; Z is selected from the group consisting of oxygen and sulphur; and M is an alkali metal.

2,781,385
DIAMIDOCARBOXYLIC ACIDS AND CERTAIN SALTS THEREOF

John D. Spivack and William J. Lennon, Cranston, and Harry Kroll, Warwick, R. I., assignors to Geigy Chemical Corporation, a corporation of Delaware

No Drawing. Application September 21, 1953, Serial No. 381,486
6 Claims. (Cl. 260—404.5)

1. The diamidocarboxylic acid and their salts having the generic emperical formula



where

represents an aliphatic carboxylic acid residue having six to thirty carbon atoms inclusive, where *n* and *m* each represent the integers 1–2, and X represents hydrogen and metals of the alkali and alkaline earth metal groups.

2,781,386
MANUFACTURING DRYING PAINTS

Karl Culemeyer, Hamburg-Langenfelde, Germany, assignor, by mesne assignments, to Willy Spangenberg & Co., Hamburg-Eidelstedt, Germany, a firm

No Drawing. Application September 9, 1950, Serial No. 184,115
3 Claims. (Cl. 260—410.9)

1. The process of manufacturing drying paint bases which comprises reacting at a temperature of approximately 210° C. a substantially pure tallic oil fatty acid mixture, produced by rectification of tallic oil under high vacuum, with vinyl acetate, the proportion of the vinyl acetate to the fatty acid mixture being approximately equimolar.

2,781,387
4-METHYL-7-CYCLOHEXYLIDENE-3-HEPTENYL METHYL KETONE AND INTERMEDIATES

Joseph Donald Surmatis, Pompton Plains, N. J., assignor to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application June 10, 1955, Serial No. 514,747
3 Claims. (Cl. 260—410.9)

1. 3-methyl-6-cyclohexylidene-2-hexenyl halide.

2. 1-lower carbalkoxy - 4 - methyl-7-cyclohexylidene-3-heptenyl methyl ketone.

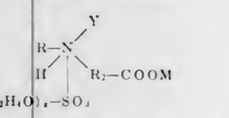
3. 4-methyl-7-cyclohexylidene-3-heptenyl methyl ketone.

2,781,388
DETERGENT SULPHONIC ACID AND SULPHATE SALTS OF CERTAIN AMPHOTERIC DETERGENTS

Hans S. Mannheimer, New York, N. Y.

No Drawing. Application March 6, 1956, Serial No. 569,693
6 Claims. (Cl. 260—458)

1. A compound of the following formula:



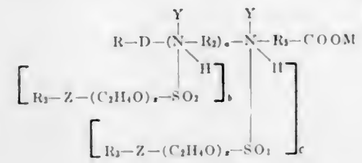
in which R is a hydrocarbon radical of 6–18 carbon atoms; Y is selected from the class consisting of R_6 and R_2—COOM; R_2 is an organic group selected from the class consisting of (*a*) aliphatic, aromatic and aromatic-aliphatic hydrocarbon groups of 1–12 carbon atoms, (*b*) hydroxy substituted aliphatic hydrocarbon groups of 1–12 carbon atoms, (*c*) aliphatic ether groups, each of said groups having at least one ether oxygen linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*d*) aliphatic ether groups, each of said groups having at least one ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*e*) aliphatic keto groups, each of said groups having a single carbonyl linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*f*) aliphatic keto groups, each of said groups having a single carbonyl linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*g*) aliphatic keto-ether groups, each of said groups having ether oxygen and single carbonyl linkages therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*h*) aliphatic keto-ether groups, each of said groups having ether oxygen and single carbonyl linkages therein and otherwise being hydrocarbon of 2–12 carbon atoms; R_6 is selected from the class consisting of (*i*) hydrogen and (*j*) monovalent radicals otherwise defined in (*a*)–(*h*); R_3 is a radical selected from the class consisting of (*k*) aliphatic and aliphatic-aromatic hydrocarbon radicals of 6–20 carbon atoms; Z is selected from the class consisting of oxygen and sulphur; *x* is 1–5; and M is an alkali metal.

2,781,389
DETERGENT SULPHONIC ACID AND SULPHATE SALTS OF CERTAIN AMPHOTERIC DETERGENTS

Hans S. Mannheimer, New York, N. Y.

No Drawing. Application June 13, 1956, Serial No. 591,033
6 Claims. (Cl. 260—458)

1. A compound of the following formula:



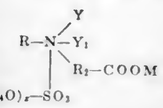
in which R is selected from the class consisting of aliphatic and aliphatic-aromatic hydrocarbon radicals of 6–18 carbon atoms; D is selected from the class consisting of CH_2 and $CONHR_2$; R_2 is selected from the class consisting of (*a*) aliphatic hydrocarbon radicals of 2–4 carbon atoms, (*b*) hydroxy substituted hydrocarbon radicals of 2–4 carbon atoms; Y is selected from the class consisting of (*c*) hydrogen, (*d*) R_7 and (*e*) R_5COOM; R_5 is selected from the class consisting of (*f*) hydrocarbon groups of 1–4 carbon atoms, (*g*) hydroxy substituted hydrocarbon groups of 2–4 carbon atoms, (*h*) ether groups, each of said groups being of 3–4 carbon atoms, having a single ether oxygen linkage therein and otherwise being hydrocarbon, (*i*) ether groups, each of said groups being of 3–4 carbon atoms, having a single ether linkage therein and otherwise being hydroxy substituted hydrocarbon; R_7 is selected from the group consisting of CH_3 and monovalent radicals otherwise defined in R_2; *a* is 1–5; *b* is zero to 5 and no greater than *a*; *c* is zero to 1; the sum of *b* and *c* is at least 1; R_3 is selected from the group consisting of aliphatic and aliphatic-aromatic hydrocarbon radicals of 6–20 carbon atoms; Z is selected from the group consisting of sulphur and oxygen; *x* is 1–5; and M is an alkali metal.

2,781,390
DETERGENT SULPHONIC ACID AND SULPHATE SALTS OF CERTAIN AMPHOTERIC DETERGENTS

Hans S. Mannheimer, New York, N. Y.

No Drawing. Application May 24, 1956, Serial No. 586,922
6 Claims. (Cl. 260—458)

1. A compound of the following formula:



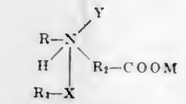
in which R is a hydrocarbon radical selected from the group consisting of aliphatic hydrocarbon radicals of 6–18 carbon atoms, aliphatic-aromatic hydrocarbon radicals of 6–18 carbon atoms, with the aliphatic portion thereof having at least 3 carbon atoms; Y and Y_1 are each selected from the class consisting of R_6 and R_2—COOM; R_2 is selected from the class consisting of (*a*) hydroxy substituted aliphatic hydrocarbon groups of 1–12 carbon atoms, (*b*) aliphatic ether groups, each of said groups containing at least one ether oxygen linkage therein and otherwise being hydrocarbons of 2–12 carbon atoms, (*c*) aliphatic ether groups, each of said groups containing at least one ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbons of 2–12 carbon atoms, (*d*) aliphatic, aromatic and aromatic-aliphatic hydrocarbon groups of 1–12 carbon atoms; R_6 selected from the class consisting of monovalent radicals otherwise defined in (*a*)–(*d*); R_3 is selected from the class consisting of aliphatic and aliphatic-aromatic hydrocarbon radicals of 6–20 carbon atoms; Z is selected from the class consisting of oxygen and sulphur; *x* is 1–5; and M is an alkali metal.

2,781,391
DETERGENT SULPHONIC ACID AND SULPHATE SALTS OF CERTAIN AMPHOTERIC DETERGENTS

Hans S. Mannheimer, New York, N. Y.

No Drawing. Application March 6, 1956, Serial No. 569,697
6 Claims. (Cl. 260—459)

1. A compound of the following formula:



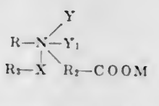
in which R is a hydrocarbon radical of 6–18 carbon atoms; Y is selected from the class consisting of R_6 and R_2—COOM; R_2 being an organic group selected from the class consisting of (*a*) aliphatic, aromatic and aromatic-aliphatic hydrocarbon groups of 1–12 carbon atoms, (*b*) hydroxy substituted aliphatic hydrocarbon groups of 1–12 carbon atoms, (*c*) aliphatic ether groups, each of said groups having at least one ether oxygen linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*d*) aliphatic ether groups, each of said groups having at least one ether oxygen linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*e*) aliphatic keto groups, each of said groups having carbonyl linkage therein and otherwise being hydrocarbon of 2–12 carbon atoms, (*f*) aliphatic keto groups, each of said groups having carbonyl linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms, (*g*) aliphatic keto-ether groups, each of said groups having carbonyl and ether oxygen linkages therein and otherwise being hydroxy substituted hydrocarbon of 2–12 carbon atoms; R_6 is selected from the class consisting of (*h*) hydrogen and (*i*) monovalent radicals otherwise defined in (*a*)–(*g*); R_3 is selected from the class consisting of (*j*) aliphatic hydrocarbon radicals of 6–18 carbon atoms, and (*k*) aliphatic-aromatic hydrocarbon radicals consisting of benzene and naphthalene groups, each group having an aliphatic hydrocarbon radical of 6–18 carbon atoms attached thereto; X is selected from the group consisting of SO_3 and OSO_3; and M is an alkali metal.

2,781,392
DETERGENT SULPHONIC ACID AND SULPHATE SALTS OF CERTAIN AMPHOTERIC DETERGENTS

Hans S. Mannheimer, New York, N. Y.

No Drawing. Application May 24, 1956, Serial No. 586,929
6 Claims. (Cl. 260—459)

1. A compound of the following formula:



in which R is a hydrocarbon radical selected from the group consisting of aliphatic hydrocarbon radicals of 6–18 carbon atoms, aliphatic-aromatic hydrocarbon radicals of 6–18 carbon atoms, with the aliphatic portion thereof having at least 3 carbon atoms; Y and Y_1 are each selected from the class consisting of R_6 and R_2—COOM; R_2 is selected from the class consisting of (*a*) hydroxy substituted aliphatic hydrocarbon groups of 1–12 carbon atoms, (*b*) aliphatic ether groups, each of said groups containing at least one ether linkager therein and otherwise being hydrocarbons of 2–12 carbon atoms, (*c*) aliphatic ether groups, each of said groups containing at least one ether linkager therein and otherwise being hydroxy substituted hydrocarbons of 2–12 carbon atoms, (*d*) aliphatic, aromatic and aromatic-aliphatic groups of 1–12 carbon atoms; R_6 selected from the class consisting of monovalent radicals otherwise defined in (*a*)–(*d*); R_3 is selected from the class consisting of aliphatic hydrocarbon radicals of 6–18 carbon atoms, and aliphatic-aromatic hydrocarbon radicals of 6–18 carbon atoms consisting of benzene and naphthalene groups, each having an aliphatic hydrocarbon radical of at least 6 carbon atoms attached thereto; X is selected from the class consisting of SO_3 and OSO_3; and M is an alkali metal.

2,781,393
DIELS-ALDER ADDUCTS AND PREPARATION OF SAME

Richard Edwin Heckert and Norman Edward Searle, Wilmington, Del., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 21, 1953, Serial No. 399,566
9 Claims. (Cl. 260—464)

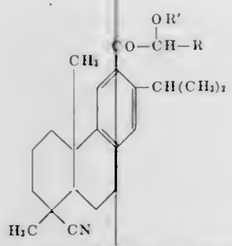
1. As a new class of compounds, 4,4,5,5-tetracyano-1-cyclohexenes.

2,781,394
6-HYDROXYACYL-1,4a-DIMETHYL-7-ISOPROPYL-1, 2, 3, 4, 4a, 9, 10, 10a - OCTAHYDROPHENANTHRENE - 1 - CARBONITRILES AND ESTERS THEREOF

Willard M. Hoehn, Wilmette, Ill., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Illinois

No Drawing. Application March 14, 1955, Serial No. 494,235
6 Claims. (Cl. 260—464)

1. A compound having the structural formula

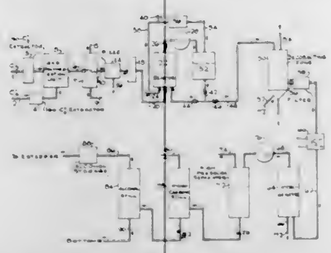


wherein R is a member of the group consisting of hydrogen and lower alkyl radicals and R′ is a member of the group consisting of hydrogen and acyl radicals of lower alkanoic acids containing fewer than 9 carbon atoms.

2,781,395
EXOISOMER OF DICYCLOPENTADIENE DICARBOXYLIC ACID
Herbert K. Wiese, Cranford, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application December 14, 1954, Serial No. 475,295
9 Claims. (Cl. 260—468)

1. A process for producing an alkali metal salt of the exo-isomer of a dicyclopentadiene dicarboxylic acid which comprises mixing an alkali metal cyclopentadienyl with an excess of carbon dioxide and maintaining the reaction mixture at a temperature below 0° C.

2,781,396
PREPARATION OF OXO OCTYL ALCOHOLS AND PLASTICIZER ESTERS
Charles E. Morrell, Westfield, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application February 24, 1954, Serial No. 412,153
10 Claims. (Cl. 260—475)



1. The process of producing alcohols which comprises passing to an acid polymerization zone a light gaseous hydrocarbon feed comprising at least a major proportion of propylene and substantially free of isobutylene, contacting said hydrocarbon feed with an acid polymerization catalyst under polymerization conditions of temperature and pressure conducive to formation of liquid polymeric olefinic hydrocarbons, separating a fraction of said olefinic product, passing said fraction to a carbonylation zone, treating said separated fraction in said zone with CO and H_2 in the presence of a cobalt carbonylation catalyst at elevated temperatures and pressures whereby an aldehyde product containing one more carbon atom than the feed to said carbonylation zone is obtained, reducing said aldehyde product in a hydrogenation zone and recovering a superior alcohol product.

7. In the process of producing primary octyl alcohols wherein low molecular weight olefins are polymerized in a polymerization zone to form olefinic polymers including a heptene fraction, and said heptene fraction subjected to the aldehyde synthesis reaction in a carbonylation zone and the aldehydes produced are subsequently hydrogenated to octyl alcohols, the improvement which comprises passing to said polymerization zone a light gaseous hydrocarbon feed comprising at least a major proportion of propylene and substantially free of isobutylene, contacting said feed with an acid polymerization catalyst under polymerization conditions of temperature and pressure conducive to formation of liquid polymeric olefinic hydrocarbons, separating a heptene fraction boiling in the range of from about 165° to about 215° F. from said olefinic product and passing said fraction to said carbonylation zone.

9. A mixture of primary octyl alcohols prepared in accordance with the process of claim 7.

10. A mixture of primary octyl phthalates prepared by first polymerizing a light gaseous hydrocarbon feed comprising a major proportion of propylene and a minor proportion of normal butylenes, said hydrocarbon feed being substantially free of isobutylene, to form an olefinic polymer including a heptene fraction, separating a heptene fraction from said olefinic polymer and subjecting said fraction to the aldehyde synthesis reaction in a carbonylation zone, whereby an aldehyde product is formed, hydrogenating the thus formed aldehyde product to the corresponding alcohol and esterifying said alcohol to form the corresponding phthalate.

2,781,397
PROCESS FOR PREPARING POLYCYCLIC DIBASIC ACID
Herbert K. Wiese and James H. McAteer, Cranford, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application December 30, 1953, Serial No. 401,437
9 Claims. (Cl. 260—514)

1. An improved process for producing an alkali metal salt of cyclodiene dicarboxylic acids which comprises feeding a cyclopentadienyl of an alkali metal into a body of inert liquid hydrocarbon containing an excess of dissolved CO_2 in a reaction zone and recovering alkali metal cyclodiene dicarboxylic acid salt from the reaction zone.

2,781,398
PHENYL CYCLOHEXYL BIS DIETHYL-AMINOETHANES
Henri Morren, Forest-Brussels, Belgium, assignor to Union Chimique Belge, S. A., Brussels, Belgium, a corporation of Belgium
No Drawing. Application November 3, 1955, Serial No. 544,810
Claims priority, application Belgium November 18, 1954
5 Claims. (Cl. 260—570.5)

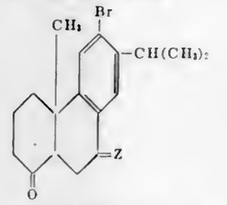
1. A composition of matter having spasmolytic action and low toxicity selected from the group consisting of the dihydrochloride of 1-phenyl-1-cyclohexyl-2,2-bis-(diethylamino-methyl)-ethane, and its isomer the dihydrochloride of 1-phenyl-1-cyclohexyl-3,4-bis-(diethylamino)-butane, and mixtures thereof.

2,781,399
PREPARATION OF SECONDARY AMINES
Sydney H. Shapiro, Chicago, Ill., assignor to Armour and Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application February 24, 1953, Serial No. 338,599
9 Claims. (Cl. 260—583)

1. A process for the production of secondary aliphatic hydrocarbon amines which comprises preheating a mixture of a reactant selected from the group consisting of aliphatic hydrocarbon nitriles and amines having from 8 to 22 carbon atoms and mixtures of said nitriles and amines, and a hydrogenation catalyst to remove substantially all of the water therefrom; contacting said mixture under elevated pressure with hydrogen while maintaining within the hydrogenation zone the ammonia formed until the total amine content becomes substantially constant; venting the ammonia formed from the hydrogenation zone; and thereafter continuing said hydrogenation reaction to substantial completion.

2,781,400
6-BROMO-1,2,3,4,4a,9,10,10a-OCTAHYDRO-7-ISOPROPYL-4a-METHYLPHENANTHRENE KETONES
Robert P. Jacobsen, Shrewsbury, Mass., assignor, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware
No Drawing. Application October 22, 1953, Serial No. 387,792
3 Claims. (Cl. 260—586)

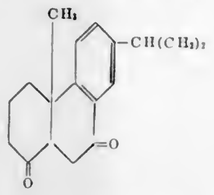
1. A compound of the fromula



wherein Z is selected from the group consisting of 2 hydrogen atoms individually bonded to the carbon atom in position 9, and a single oxygen atom doubly bonded to the aforesaid C_9 carbon.

2,781,401
1,2,3,4,4a,9,10,10a-OCTAHYDRO-7-ISOPROPYL-4a-METHYL-1,9-DIOXOPHENANTHRENES
Robert P. Jacobsen, Shrewsbury, Mass., assignor, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware
No Drawing. Application October 21, 1953, Serial No. 387,521
1 Claim. (Cl. 260—586)

A 1,2,3,4,4a,9,10,10a - octahydro - 7 - isopropyl - 4a - methyl-1,9-dioxophenanthrene, having the formula



2.781.402
ARYL SULFONES AND METHOD OF PRODUCING SAME
David H. Chadwick, Anniston, Ala., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application October 30, 1952, Serial No. 317,839
10 Claims. (Cl. 260—607)

1. The method of preparing aryl sulfones, which comprises reacting an aryl sulfonyl halide with at least equimolecular proportions of a compound selected from the group consisting of aryl hydrocarbons and the alkyl-, halogenated- and nitro-substituted derivatives thereof, said reaction being carried out at a temperature of at least 80° C. but below that temperature at which substantial decomposition of the sulfone occurs and in the presence of from about 0.1 mol up to substantially less than equimolecular amounts of aluminum chloride, basis aryl sulfonyl halide.

2,781,403
HIGH BARIUM-CONTENT PHENOLIC COMPOUNDS
James E. J. Kane, Elizabeth, N. J., and John R. Jones, Seattle, Wash., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application October 1, 1952, Serial No. 312,643
9 Claims. (Cl. 260—609)

1. The process of forming a barium salt of a phenolic compound containing more than one mol of barium per mol of hydroxyl radical which comprises the steps of treating a phenolic compound with a substantial excess of a basic barium neutralizing agent while contacting the reacting mixture with gaseous carbon dioxide and water, the mol ratio of barium to phenol hydroxyl radical being above about 1.3:1.0 and the mol ratio of carbon dioxide to phenol hydroxyl radical being above about 0.2:1:0 during the treating step.

2.781.404
SYNTHESIS OF ORTHO-ALKYL-p-ALKOXY-PHENOLS
Robert H. Rosenwald, Western Springs, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
No Drawing. Application December 28, 1953, Serial No. 400,818
8 Claims. (Cl. 260—613)

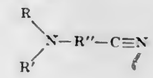
1. The process which comprises reacting an ortho-alkyl hydroquinone with from about 0.8 to about 1.25 mols of an etherification agent per mol of ortho-alkyl-hydroquinone at a temperature of from about room temperature to about 300° C. to form a major proportion of an ortho-alkyl-p-alkoxyphenol and a minor proportion of a meta-alkyl-p-alkoxyphenol.

2.781.405
FLUORO ETHERS AND METHOD OF PREPARATION
Julius G. Shukys, Chatham Township, Morris County, N. J., assignor to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York
No Drawing. Application May 28, 1952, Serial No. 290,581
1 Claim. (Cl. 260—614)

The method of preparing 2,2,3,3,3-pentafluoropropyl vinyl ether which comprises reacting 2,2,3,3,3-pentafluoropropanol with acetylene at elevated temperatures of about 150° C. and elevated pressures of about 250 p. s. i. in the presence of potassium 2,2,3,3,3-pentafluoropropanolate and separating 2,2,3,3,3-pentafluoropropyl vinyl ether from the products of said reaction.

2.781.406
STABILIZATION OF HALOGENATED HYDROCARBONS
William R. Dial, Akron, Ohio, assignor to Columbia-Southern Chemical Corporation, Allegheny County, Pa., a corporation of Delaware
No Drawing. Application June 15, 1953, Serial No. 361,845
10 Claims. (Cl. 260—652.5)

1. The method of stabilizing halogenated aliphatic hydrocarbons containing up to 3 carbon atoms which comprises adding thereto a small stabilizing quantity of a compound having the structure



wherein R is selected from the group consisting of hydrogen and an alkyl group of 1 to 3 carbon atoms, R′ is an alkyl group of 1 to 3 carbon atoms and R″ is an alkylene group selected from the group consisting of —CH_2— and —CH_2—CH_2—.

2,781,407
PREPARATION OF ALKYL-SUBSTITUTED AROMATIC COMPOUNDS
Louis Schmerling, Riverside, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
No Drawing. Application January 28, 1955, Serial No. 484,841
15 Claims. (Cl. 260—668)

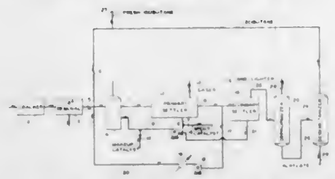
3. A process for the preparation of an aromatic hydrocarbon containing at least one alkyl substituent which comprises condensing an alkylfuran with an alkene, and aromatizing the resultant epoxide in the presence of a hydrogen halide and an organic acid at an aromatizing temperature of from about 0° to about 150° C. to form the desired alkyl-substituted aromatic hydrocarbon.

13. A process for the preparation of para-xylene which comprises condensing 2,5-dimethylfuran with ethylene, and aromatizing the resultant epoxide in the presence of hydrogen bromide in acetic acid at an aromatizing temperature of from about 0° to about 150° C. to form para-xylene.

2,781,408
POLYMERIZATION OF MIXTURES OF ALKYNES AND OLEFINS TO AROMATIC HYDROCARBONS
Donald R. Witt, Bartlesville, Okla., and Norman C. Carter, Old Ocean, Tex., assignors to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Application February 1, 1954, Serial No. 407,576
17 Claims. (Cl. 260—673)

1. A polymerization process comprising contacting a mixture of an alkyne corresponding to the formula HC≡CR, wherein R is selected from the group consisting of hydrogen, normal alkyl of not more than 8 carbon atoms, alkenyl, cycloalkyl, aryl, alkaryl, and aralkyl, and an aliphatic olefin with a catalyst comprising chromium oxide and a support comprising at least one member of the group consisting of silica, alumina, zirconia, titania, and activated clay under polymerizing conditions including a temperature in the range of −50 to 350° F. and a pressure in the range of 400 to 800 p. s. i. g. to produce copolymer comprising aromatic hydrocarbons.

2,781,409
CATALYTIC ALKYLATION OF HYDROCARBONS IN THE PRESENCE OF ACETYLENE AND HYDROGEN
Harold J. Hepp and Frederick E. Frey, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware
Application March 26, 1952, Serial No. 278,566
11 Claims. (Cl. 260—683.4)



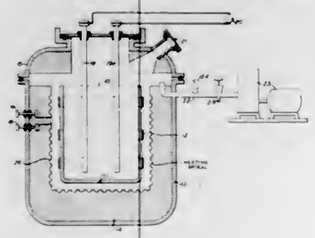
1. A process for the production of diisopropyl from isobutane and ethylene which process comprises cracking a normally gaseous hydrocarbon containing at least two carbon atoms per molecule to form a cracked product comprising hydrogen, ethylene, acetylene, propylene and C_4 hydrocarbons, removing butanes and any heavier hydrocarbons from the cracked product, directly utilizing the resulting cracked gas to supply the ethylene in a mixed-phase alkylation of isobutane with ethylene in the presence of an aluminum halide alkylation catalyst under alkylation conditions, and recovering an alkylate containing diisopropyl.

2,781,410
POLYMERIZATION OF ETHYLENE IN THE PRESENCE OF AN ALUMINUM TRIALKYL CATALYST
Karl Ziegler and Gunther Wilke, Mulheim an der Ruhr, and Erhard Holzkamp, Dusseldorf-Benrath, Germany; said Wilke and said Holzkamp assignors to said Ziegler
No Drawing. Application March 10, 1954, Serial No. 415,446
Claims priority, application Germany April 4, 1953
27 Claims. (Cl. 260—683.15)

1. In the process for the polymerization of ethylene into polymers ranging from butene to solid polymers averaging about C_{30} using aluminum trialkyls as catalysts, the improvement which comprises effecting the polymerization by contacting the ethylene at a temperature ranging between about 50 and 250° C. with an aluminum trialkyl catalyst activated with a metal selected from the group consisting of nickel, cobalt, and platinum.

ELECTRICAL

2,781,411
PROCESS AND APPARATUS FOR PURIFYING GLASS
Walter Geffcken, Carsten Eden, and Marga Faulstich, Mainz, Germany, assignors to Jenaer Glaswerk Schott & Gen., Mainz, Rhineland-Pfalz, Germany
Application June 4, 1954, Serial No. 434,651
Claims priority, application Germany June 10, 1953
9 Claims. (Cl. 13—31)

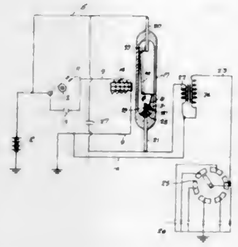


1. Process for purifying glass comprising the steps of setting the glass melt under vacuum, while at the same time for heating the melt an electrical current is passed through the melt.

2,781,412
IGNITION SYSTEM FOR INTERNAL COMBUSTION ENGINES
John G. Mike, Bridgeport, Conn.
Application October 2, 1952, Serial No. 312,759
4 Claims. (Cl. 123—148)

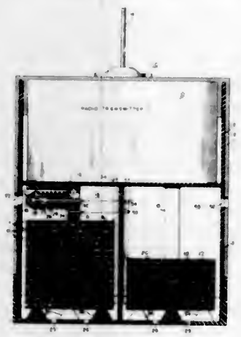
2. In an ignition system for internal combustion engines, a control circuit including a source of current, a cam-operated make-and-break device and a magnetic coil in series therewith, a primary circuit including said source of current and a make-and-break switch in series therewith including sealed mercury make-and-break contacts, said switch including a contact movable to and from a stationary contact and an armature connected to said movable contact operated by said coil to shift this

contact to engagement with the stationary contact to close the primary circuit, said coil having sufficient resistance to materially reduce the current in the control



circuit from that in the primary circuit, and a secondary circuit inductively coupled to the primary circuit and including ignition means for the engine.

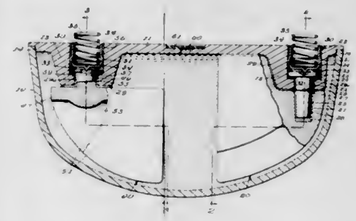
2,781,413
DEFERRED-ACTION BATTERY
James W. Luening, Great Neck, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois
Application February 18, 1954, Serial No. 411,210
17 Claims. (Cl. 136—112)



1. A deferred-action battery comprising: a battery cell requiring wetting with fluid to initiate activation and subsequent removal of said fluid therefrom upon substantial activation; a container enclosing said cell and including a gas valve having a vent with a closure mechanism therefor open at about the time of said wetting and including a fluid valve having at least one port for admitting said fluid to displace the gas in said container through said vent and thereby initiate said activation; and means for liberating a fluid-displacing gas in said container upon said substantial activation; said closure mechanism including means responsive in a time corresponding to sufficient displacement of the first-mentioned gas in said container and said substantial activation for closing said vent, whereby said fluid-displacing gas expels said fluid through at least one of said ports and conditions said battery for operation.

2,781,414
ELECTRICAL ENERGY PRODUCING CELLS AND METHOD OF MAKING THE SAME
George G. Ensign and Thomas L. Boswell, Elgin, Ill., assignors to Elgin National Watch Company, Elgin, Illinois, a corporation of Illinois
Application July 3, 1952, Serial No. 297,012
31 Claims. (Cl. 136—133)

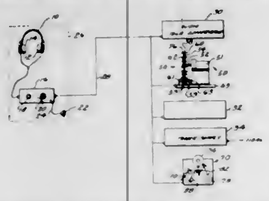
7. A cell construction comprising a support having an opening with an enlarged outer portion providing a shoulder, an electrode having a conductive extension located in the opening, said extension having an enlargement engaged with the shoulder, a metal cup in the enlarged portion of the opening and in conductive relation with the said enlargement, a coil spring engaged in the cup and projecting therefrom, and a sealing cement between and bonding the electrode and extension to the support and effective to prevent access of electrolyte to the cup.



2,781,415
TELEGRAPH TRANSMITTER
Jerome L. De Boo, Barrington, Ill., assignor to Teletype Corporation, Chicago, Ill., a corporation of Delaware
Application December 10, 1953, Serial No. 397,319
5 Claims. (Cl. 178—17)

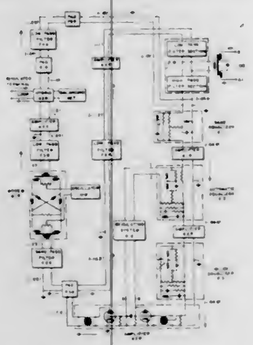
5. In a transmitter, a signal generator comprising an oscillatable member having a pair of abutment portions, a series of sequentially operable cams, an interponent having two kinds of motion associated with each cam, said interponent having a pair of arms terminating in confronting abutment portions adapted to be selectively presented over said first mentioned abutment portions, cam follower means integrally associated with each said interponent for cooperating with said cams, means for setting said interponents in accordance with a predetermined code comprising settable code bars having facilities in abuttal relation with said interponents, means for operating said cams to actuate said interponents sequentially, transmitting contact means, means controlled by said oscillatable member for controlling the actuation of said transmitting contact means, a detent member, a further cam means for actuating said detent member, and interlocking means comprising cooperating instrumentalities associated with said interponents and said detent member for constraining said interponents to one of said two kinds of motion while precluding the other of said two kinds of motion, whereby relative movement between said interponents and said detent member is afforded while reoperation of said setting means in accordance with a succeeding code signal is facilitated to thereby provide an overlap.

2,781,416
AUTOMATIC AUDIOMETER
Francis A. Brogan, San Antonio, Tex., assignor to the United States of America as represented by the Secretary of the Air Force
Application July 12, 1955, Serial No. 521,653
11 Claims. (Cl. 179—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)



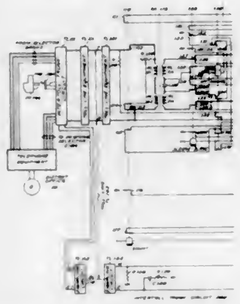
3. An audiometer comprising a source of a plurality of tones of preselected frequency, right and left ear phones, attenuator means adjustable to match each of the tones of said source with each of said phones, a tone selector switch operable to select a tone from said source, an attenuator device operable to provide a plurality of tone intensity levels, an intensity selector switch operable to select a tone level, a programming device operable to apply the selected tone to one of said phones for a predetermined interval, an intensity selector switch actuating mechanism including forward and reverse coils, circuit means controlled by said programming device for applying actuating impulses to said actuating mechanism, a manually controlled relay operative to determine the coil energized by said impulse, a printing device including indicia selecting means operatively connected to said intensity selector switch, actuating means operatively connected to said printing device, circuit means operative in response to a predetermined number of tone level presentations to energize said printing actuating means.

2,781,417
TELEPHONE TRANSMISSION SYSTEM
George G. Bower, Riverside, Calif., assignor to the United States of America as represented by the Secretary of the Army
Application August 7, 1953, Serial No. 373,070
4 Claims. (Cl. 179—15.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)



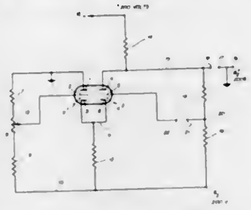
2. In a two-way repeatered transmission system a repeater for equalizing transmission in either direction to compensate for transmission line attenuation comprising a high pass filter coupled to the transmission line, a variable equalizer coupled to said filter and controlled by the incoming signal, a dividing network, means for applying the output from said variable equalizer to said dividing network, a first branch circuit including a demodulator coupled to said dividing network, a hybrid junction, means for coupling the output of the dividing network to said hybrid junction, a low pass filter coupled to said high pass filter, a second branch circuit coupled to said dividing network and said low pass filter whereby signals in either direction pass through said variable equalizer.

2,781,418
AUTOMATIC TELEPHONE SYSTEM
Frank Kessler, Los Angeles, Calif., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Original application January 30, 1953, Serial No. 334,197. Divided and this application January 7, 1954, Serial No. 409,472
3 Claims. (Cl. 179—16)



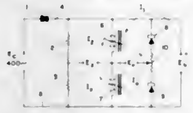
1. In a telephone system, a plurality of telephone circuits, means including a directively controlled electromechanical switch for interconnecting at least two of said telephone circuits, circuit means for transferring energy between said circuits through said switch, said telephone circuits having different classes of transmission level characteristics, said switch including level marking means for determining the class of said characteristics of that one of said circuits to which said switch has been directed, means consisting of a pad of resistors for controlling the level of energy transmission through said switch and means for selectively including said last named means in said energy transferring circuit responsive to said level marking means.

2,781,419
STABILIZED DIRECT CURRENT AMPLIFIER
Victor F. Ragni, Bethpage, N. Y., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application June 18, 1953, Serial No. 362,437
6 Claims. (Cl. 179—171)



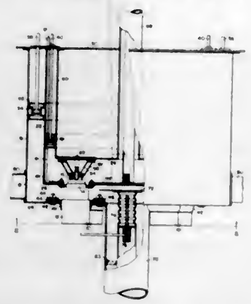
1. A stabilized D. C. amplifier network comprising a first electron discharge device having anode, control grid, and cathode electrodes, a second electron discharge device also having anode, control grid, and cathode electrodes, the cathodes of both devices being connected together and to one end of a grid bias-developing circuit, means coupled to the grid of said first device and the other end of said grid bias-developing circuit for applying the bias developed by said circuit thereto, a voltage dividing feedback network coupled between the anode of the second device and the other end of said circuit, an input circuit coupled between the grid of the second device and said voltage dividing feedback network so as to have impressed thereon a voltage proportional to the voltage on the anode of the second device, and first circuit means conductively connected directly to the anode of said first device for applying a positive source of potential to the latter and the negative source of the same potential to the other end of said grid bias-developing circuit, output circuit means operatively coupled between the anodes of both devices, and second circuit means including a load impedance for applying a second positive source of potential to the anode of said second device and the negative source thereof to said first circuit means, whereby a given change in bias on both the aforementioned grids will cause a current change in the first device which is greater than the current change in the second device.

2,781,420
AMPLIFIER
Robert F. Eno, Long Beach, Calif., assignor to North American Aviation, Inc.
Application August 21, 1953, Serial No. 375,623
12 Claims. (Cl. 179—171)



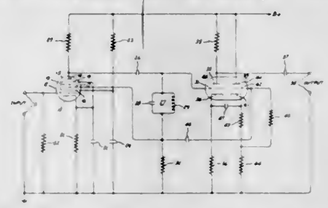
1. In an amplifier, a first current path comprising two series-connected coils each having a magnetic core, a second current path in parallel with said first current path comprising a potentiometer in series with similarly directed, carrier operated diodes, means providing a flow of carrier current through said parallel current paths, and means for coupling a signal voltage to said coils whereby their reactance is changed in accordance with the flow of signal current therethrough, the wiper of said potentiometer and the common connection of said coils forming the output terminals of said amplifier.

2,781,421
HIGH FREQUENCY AMPLIFIER
Coleman J. Miller, Catonsville, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 23, 1952, Serial No. 289,619
12 Claims. (Cl. 179—171)



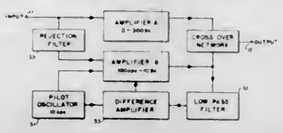
9. A radio frequency amplifier comprising a plurality of electron tubes equally spaced about a central axis, each of said tubes having a control grid and a cathode, a resonator comprising an annular resonant tuning cavity having an axis incident with said central axis, said cavity having a first cylindrical conductor electrically connected to the cathode of each of said tubes, said cavity having a second cylindrical conductor electrically connected to the control grid of each of said tubes with a grid bias connection physically passing along said second cylindrical conductor within said cavity and being electrically connected to said control grid.

2,781,422
BAND-PASS FILTER CIRCUIT
Charles N. Hood II, Auburn, N. Y., assignor to General Electric Company, a corporation of New York
Application January 7, 1953, Serial No. 330,008
7 Claims. (Cl. 179—171)



1. A high-Q electronic filter comprising a first electron discharge device having a plurality of electrodes including an anode, a cathode, a first control electrode, and a second control electrode, a second electron discharge device having a plurality of electrodes including an anode, a cathode and a control electrode, means for applying operating potentials to the electrodes of each of said devices, a parallel-resonant filter unit having first and second terminals, means for applying a signal wave to said first control electrode of said first device, means for deriving an output wave from said anode of said first device, means for simultaneously applying said derived wave to said control electrode of said second device and to said first terminal of said filter unit, means for deriving a frequency-selective voltage from said second terminal of said filter unit, means for applying said frequency-selective voltage to said second control electrode of said first device and means for simultaneously applying said frequency-selective voltage to said cathode of said second device, thereby to provide a frequency-selective degenerative voltage to said first and second device.

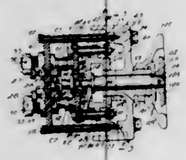
2,781,423
AMPLIFIER GAIN-STABILIZATION
Chester G. Kuczun, Brighton, and Paul A. Husman, Reading, Mass., assignors to Laboratory for Electronics, Inc., Boston, Mass., a corporation of Delaware
Application May 18, 1953, Serial No. 355,596
13 Claims. (Cl. 179—171)



1. In an electrical signal amplifier providing a substantially uniform gain characteristic throughout a spectrum between predetermined low and high cut-off frequencies, at least first and second amplifier channels connected substantially in parallel between a common input and output and selectively accommodating overlapping portions of said frequency spectrum, means for stabilizing the gain of said second amplifier channel comprising a pilot signal source, means for coupling said pilot signal source to the input of said second channel, means for

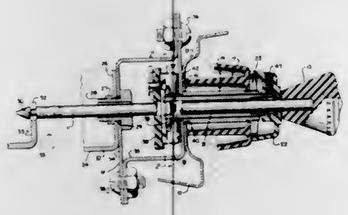
providing a gain-control signal to said second channel in response to the relative output of pilot signal from said second channel, the frequency of said pilot signal lying within the portion of said frequency spectrum accommodated by said first amplifier channel and outside of frequency spectrum effectively accommodated by said second amplifier channel.

2,781,424
ELECTRICAL CONTROLLING APPARATUS
James W. Woolf, Franklin, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application November 9, 1953, Serial No. 390,873
13 Claims. (Cl. 200—1)



1. In a reverse switch, a shaft, means for supporting said shaft for rotation on its axis and for bodily longitudinal movement, reverse switch contacts carried by said shaft and yieldingly supported thereby for movement longitudinally of the latter, relatively stationary reverse switch contacts, a handle for turning said shaft on its axis to change the relation of said first contacts to the second contacts to effect connections for reverse operation, means for preventing rotation of said shaft upon its axis when it is in a predetermined longitudinal relation to its supporting means, a second handle having a connection with said means for supporting said shaft for causing said second handle to undergo movement, upon rotation, in a direction lengthwise of said shaft and also having a connection with said shaft for moving the latter longitudinally with it, and a pilot switch arranged for opening and closing by said shaft, said means for preventing rotation of said shaft including an interlock controlled by longitudinal movement of said shaft and requiring said reverse switch contacts carried by said shaft to be moved in a direction longitudinal of said shaft to open circuit position before said shaft can be rotated.

2,781,425
SWITCH CONTROLLERS
Chester J. Glowzinski and Philip W. Maurer, Dearborn, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 2, 1953, Serial No. 359,004
2 Claims. (Cl. 200—4)



1. A controller for controlling a plurality of circuits in an automotive vehicle comprising; a bracket defining a wall having an aperture therein adapted to be mounted behind and spaced from an aperture in an instrument panel, a rotatable switch having an aperture therein mounted on one side of said wall, a reciprocal switch mounted on the other side of said wall, both of said switches having operative parts thereof axially aligned with both of said apertures and disposed on one side of said instrument panel, means for mounting said bracket including; a sleeve having a threaded end extending through the aperture in said panel and having the other end secured to said bracket, a collar surrounding the end of said sleeve passing through said aperture, said collar being disposed on the other side of said panel and having a projecting portion extending into a second aperture in said panel, and a nut threaded on said sleeve end for maintaining said collar and sleeve in a fixed non-rotatable position relative to said panel, a tubular driving member coaxially disposed relative to said threaded sleeve having one end operatively connected with said rotatable switch and the other end extending beyond the threaded end of said first sleeve, a second collar nonrotatably attached to said other end of said second sleeve for rotating parts of said rotatable switch through said second sleeve, and a control rod coaxially disposed relative to both of said sleeves and slidably carried by said second sleeve, said rod having one end operatively connected with said reciprocal switch and said other end extending through the apertures in said wall, said wall, said rotatable switch and said panel and having an end extending beyond the collared end of said second sleeve, and a control knob on said extending end of said rod for moving said reciprocal switch independently of said rotatable switch.

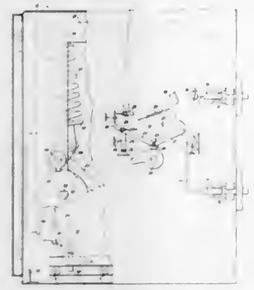
2,781,426
DISCONNECT SWITCH
Otto Lardelli, Baden, Switzerland, assignor to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland, a joint-stock company
Application June 9, 1955, Serial No. 514,189
8 Claims. (Cl. 200—48)

1. In a disconnect switch adapted for use on high voltage the combination comprising twin scissors each having at least one link, said scissors carrying the movable contact, the two lower links of each scissors being mounted upon movable axles for rotation about the axle axes and means for effecting movement of said axles vertically to the plane of the axles.

2,781,427
INTERLOCK ARRANGEMENT FOR A CIRCUIT BREAKER HAVING A STORED-ENERGY CLOSING DEVICE
George Rudolph, Broomall, Pa., assignor to General Electric Company, a corporation of New York
Application February 3, 1955, Serial No. 485,997
12 Claims. (Cl. 200—50)

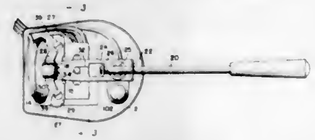
1. In a switchgear unit, a cubicle, a circuit breaker movable into and out of said cubicle and comprising a

closing spring which is dischargeable to close the circuit breaker, the circuit breaker being of the type which can be tripped free of its closing spring and in which means are provided for insuring tripping before withdrawal of the breaker from said cubicle, an interference member operable in a blocking position to prevent withdrawal of



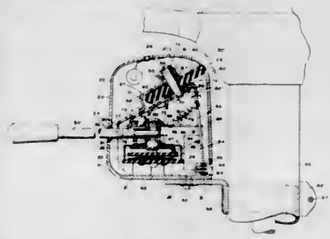
said breaker from said cubicle and movable into a disabled position to permit said withdrawal, means for maintaining said interference member in its blocking position while said closing spring is charged and means responsive to discharge of said closing spring for moving said interference member into its disabled position whereby to permit withdrawal of said breaker when said spring is discharged.

2,781,428
AUTOMOTIVE SIGNAL LIGHT CONTROL SWITCH
Robert R. Rossi, Audubon, N. J., assignor to Arrow Safety Device Company, Mount Holly, N. J., a corporation of New Jersey
Application November 26, 1951, Serial No. 258,204
9 Claims. (Cl. 200—61.37)



1. An automotive vehicle direction signal control switch responsive to movement of a steering member of the automotive vehicle comprising rotatable means adapted to be positioned in engagement with said steering member and to rotate in response to movement thereof, electrical switching means having a neutral position and an operative position on each side of its neutral position, and pivotally mounted means for actuating said electrical switching means and having a neutral position and an operative position on each side of its neutral position, said pivotally mounted means comprising a flat flexible strip of material extending from its pivot point and having its outermost end formed to provide a pair of spaced inverted V-shaped engaging members for engaging said rotatable means, one of said pair of engaging members engaging said rotatable means only when the pivotally mounted means is in one of its operative positions and the other of said engaging members engaging said rotatable means only when the pivotally mounted means is in the other of its operative positions, said flat flexible strip of material being adapted to be deflected when either one of said pair of engaging members is in engagement with said rotatable means, a first of said pair of engaging members when in its operative position engaging said rotatable means in a position to be urged toward its operative position by rotation of said rotatable means in response to movement of said steering member in one direction and to be urged toward its neutral position by rotation of said rotatable means in response to movement of said steering member in the other direction, and the second of said pair of engaging members when in its operative position engaging said rotatable means in a position to be urged toward its operative position by rotation of said rotatable means in response to movement of said steering member in said other direction and to be urged toward its neutral position by rotation of said rotatable means in response to movement of said steering member in said one direction.

2,781,429
DIRECTIONAL SIGNAL SWITCH
William L. Mappes, Cincinnati, and George D. Hart, Norwood, Ohio, assignors to Northeast Capital Corporation, New York, N. Y., a corporation of New York
Application February 8, 1954, Serial No. 408,918
8 Claims. (Cl. 200—61.37)

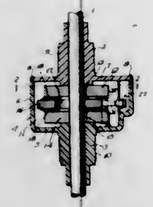


1. A vehicle direction signal device comprising a base member, means mounting said base member on the steering post of a vehicle, a switch mounted on said base member, a horizontally shiftable handle for operating said switch into open and closed positions, an upright support fulcrumed on said base and rockable toward and away from said steering post, a friction gear system including a friction wheel rotatably mounted on said support and movable therewith into and out of operative engagement with a rotatable portion of the vehicle steering mechanism, cam means on said support, engageable by said handle for rocking the support and effecting said operative engagement, upon shifting of said handle from neutral position, a lever member pivotally mounted intermediate its ends on said support, means at one end of said lever frictionally connected with said wheel and adapted to be driven thereby to rotate the lever member in a direction counter to the direction of rotation of said wheel, and means at the opposite end of said lever member engageable with said handle upon rotation of said lever member to control the position of said handle, whereby rotation of said steering mechanism is transmitted to said lever and handle, through said friction gear system.

2,781,430
CONTROL DEVICE
Lewis E. Thatcher, Chicago, Ill., assignor to Gaylord Products, Incorporated, Chicago, Ill., a corporation of Delaware
Application May 2, 1955, Serial No. 505,478
13 Claims. (Cl. 200—80)

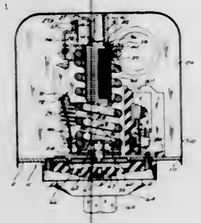
1. In a control device comprising a rotatable body, a pair of driving plates secured to said rotatable body in axial spaced relationship to each other, a driven plate loosely embracing said rotatable body between said driving plates and in face-to-face relationship with said driving plates, means disposed adjacent the periphery of said driven plate for exerting a radial force upon said driven plate to hold said driven plate in an eccentric position relative to said rotatable body when the latter is stationary, and means for frictionally engaging the opposed faces of said driven plate and said respective driv-

ing plates for rotating said driven plate and radially moving said driven plate to a substantially concentric posi-



tion with respect to said rotatable body in opposition to the force exerted by said first-mentioned means when the body rotates at a predetermined speed.

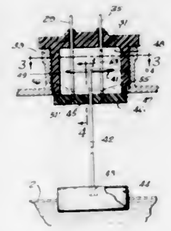
2,781,431
ELECTRIC SWITCHES AND PARTS THEREFOR
Uriel F. Carter, Milwaukee, Wis., assignor to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware
Application August 5, 1953, Serial No. 372,568
14 Claims. (Cl. 200—83)



1. In a condition responsive switch, in combination, a first pivoted lever comprising a member pivoted at one end thereof and having spaced arms extending in like directions from the pivoted end of said member, said arms being joined at their free ends, a second pivoted lever disposed between said arms intermediate the free end of said arms and the pivot of said first lever, the free end of said second lever extending generally toward the pivot of said first lever, an over-center spring interconnecting said arms and the free end of said second lever, a main spring, means to exert a force in response to a condition, said spring and said means being operatively connected with said member at points removed from said pivoted end, said first lever being movable to carry said over-center spring over the pivot of said second lever for snap movement of the latter, fixed contacts, movable contacts engageable with said fixed contacts, means to transmit motion of said second lever to said movable contacts comprising a spring mounted for movement with said second lever, and an operating member connected with said second lever for motion therewith in one direction and connected with said spring last mentioned during motion of said second lever in an opposite direction.

2,781,432
DEPLETION ALARM
Achille Kelly Ferrara, Elmwood Park, and Charles H. Serum, Chicago, Ill.
Application June 30, 1954, Serial No. 440,386
4 Claims. (Cl. 200—84)

1. A float-operated fluid level indicator apparatus for hydraulic brake systems which comprises a housing body adapted to replace the reservoir cap plug of a master cylinder brake fluid reservoir, said body including a threaded portion for engaging the threads of a vertically upstanding reservoir collar and having a hollow interior, a closure disc for covering the housing body hollow interior, a float element, a formed wire member carrying at a lower end of said float element and formed at its upper end into bilateral loops of substantially balanced mass, and an operating electric circuit including a first formed-wire conducting element extending into said housing body



and having a perpendicular section around which one of the formed-wire member bilateral loops passes, a portion of said first conducting element passing through said closure disc and presenting a contact surface for electrically engaging a related part of the bilateral loop, and a second formed-wire conducting element extending into said housing body including a portion deformed to avoid engagement with its related part of said bilateral loop, and a portion of said second formed-wire conducting element passing through said closure disc and disposed in the path of the related bilateral loop.

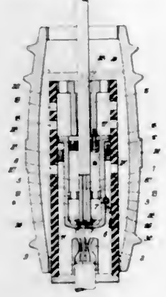
2,781,433
ELECTRO-MAGNETIC CIRCUIT BREAKER
Kurt W. Wilckens, Morrisville, Pa., assignor to Heinemann Electric Company, Trenton, N. J., a corporation of New Jersey
Application December 23, 1950, Serial No. 202,541
5 Claims. (Cl. 200—88)

1. The combination of an electromagnetic coil tending to heat on passage of current therethrough, a metallic frame in the flux field of said coil and including a core in said coil, said frame being composed entirely of stationary members all of which have a high magnetic permeability at normal atmospheric temperatures and which form a closed metallic magnetic circuit when at normal atmospheric temperatures, one of said members having much greater flux reluctivity than the other members when heated by abnormal current flow through said coil above normal atmospheric temperatures, and means interrupting the flow of heating current through said coil when said member of greater flux reluctivity is heated thereby and including an armature attracted by flux diverted by the reluctance of said last named member, said armature closing a metallic magnetic path for flux generated by said coil when said member of greater flux reluctivity is abnormally heated.

2,781,434
CURRENT-LIMITING FUSES COMPRISING FUSE LINKS OF SILVER AND COPPER
Kenneth W. Swain, Hampton Falls, N. H., assignor to The Chase-Shawmut Company, Newburyport, Mass.
Application January 6, 1955, Serial No. 480,080
7 Claims. (Cl. 200—131)

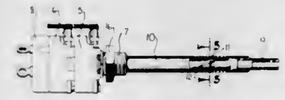
1. In a current-limiting fuse the combination of a substantially tubular casing, a pair of terminal elements each arranged on one end of said casing, a ribbon-type fuse link comprising a strip of silver and a pair of strips of copper bonded together to form a virtually unitary strip of sheet metal, said strip of silver being arranged in the center region of said casing and having a pair of lateral substantially V-shaped notches coextensive with said center region and the hot-spot region on said link when carrying current, the width of the wide open end of each of said pair of notches being substantially equal to the length of said strip of silver, the edges of each of said pair of notches enclosing an acute angle, and said pair of notches defining a short length of reduced cross-sectional area on said strip of silver closely approximating a point-heat-source, each of said pair of strips of copper beginning at opposite axially outer boundary lines of said strip of silver and each providing a direct current-path from said strip of silver to one of said pair of terminal elements.

2,781,435
ARC-EXTINGUISHING MECHANISM FOR ELECTRIC SWITCHES
Philipp Heilmann, Hosel, near Dusseldorf, Herman Losch, Ratingen, near Dusseldorf, Erwin Marx, Braunschweig, and Ludwig Schmitz, Ratingen, near Dusseldorf, Germany
Application March 10, 1952, Serial No. 275,832
17 Claims. (Cl. 200—150)



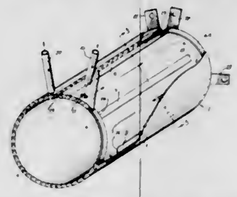
1. A switch operating with small quantities of extinguishing fluid comprising stationary and movable switching elements, a pressure-proof chamber enclosing the switching elements, at least one of the elements being constructed as a movable switch pin, a hollow piston slidably guided in said chamber, the hollow space of said hollow piston forming a first chamber, means adapted to move the hollow piston at the beginning of its movement in sole mechanical dependence on the switch pin movement, said hollow piston being formed with an opening whose cross section is larger than the cross section of the switch pin which owing to its slidability can be passed through said opening and in the switching-on motion contacts the stationary switching element, said means comprising a driver provided on said switch pin and adapted to carry the hollow piston with it in the circuit-breaking motion after a predetermined relative movement between the tip of the switch pin and the opening of the hollow piston, the space between said stationary switching element and said first chamber forming a second chamber constituting an arc chamber, a casing surrounding the first chamber and forming a third chamber, passage means being provided between said second and third chambers so as to form fluid passage resistances which are independent of the dynamic pressure, means for imparting switching-on and circuit breaking motions to the switch pin, and a supply of extinguishing fluid in said casing.

2,781,436
VARIABLE RESISTOR WITH MEANS FOR PREVENTING SHAFT RATTLE
Wayne A. Barden, Elkhart, Ind., assignor to Chicago Telephone Supply Corporation, Elkhart, Ind., a corporation of Indiana
Application August 3, 1955, Serial No. 526,217
9 Claims. (Cl. 201—55)



1. In a variable resistor having a contactor assembly including a shaft by which the contactor assembly may be adjusted, and a bearing in which said shaft is freely movably received; means for preventing rattle caused by vibration of the shaft in the bearing, without causing the shaft to bind in the bearing and thereby introduce undesirable high torque, said means comprising a spacing collar of substantially non-compressible material encircling a portion of the shaft, within the bearing, said collar having a radial thickness slightly less than the radial distance between the encircled portion of the shaft and the adjacent bore of the bearing, but great enough to prevent contact of the shaft with the bore of the bearing.

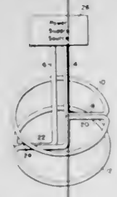
2,781,437
INDUCTION FURNACES
Bruce E. McArthur, Youngstown, Ohio, assignor to Magnethermic Corporation, Youngstown, Ohio, a corporation of Ohio
Application September 10, 1953, Serial No. 379,389
9 Claims. (Cl. 219—10.49)



9. A low-frequency induction furnace comprising a double-walled tube-like liner whose inner wall provides the lateral wall of a heating compartment, a single layer inductor winding closely surrounding the liner, said compartment being adapted for the reception of metal workpieces for inductive heating thereof in response to energization of said winding by the effect of a low-frequency alternating current directed therethrough, said liner walls being disposed in concentric relation to each other, and being of such relative sizes and conformation as to afford a space between them, the concentric walls of said liner comprising metallic material and being rendered electrically non-conductive in the annular direction by the provision of a narrow electrical gap which extends longitu-

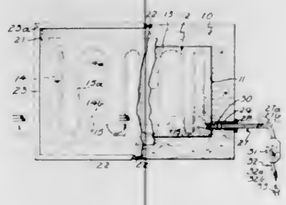
dinally from end-to-end of the liner, means adapted to introduce a coolant liquid under pressure into one portion of the space between the liner walls, and means adapted to effect discharge of said liquid from another portion of said space, said space portions being relatively so disposed as to ensure passage of liquid throughout all portions of the said space, and said furnace being further characterized by at least one of said liner walls being formed to provide inwardly directed corrugations.

2,781,438
ELECTRICAL HEATING APPARATUS
Ben H. Griffith, Jr., Baltimore, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application September 22, 1954, Serial No. 457,614
7 Claims. (Cl. 219—10.79)



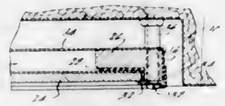
1. In heat treating apparatus operable with a suitable source of energy, the combination of an inductor member having an axis and having at least first and second turns, said first turn lying in a first plane and said second turn lying in a second plane, with the first plane and the second plane being substantially perpendicular to said axis, first and second spaced energy supply leads lying substantially in said first plane and being connected to said source of energy and to said first turn, third and fourth energy supply leads lying substantially in the second plane and being connected to said source of energy and to said second turn.

2,781,439
UNDERFOOT FOOT WARMER
Thomas D. Lane, San Jose, Calif.
Application September 2, 1953, Serial No. 377,993
3 Claims. (Cl. 219—19)



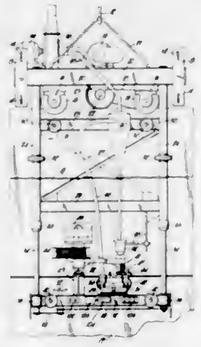
1. A foot warmer for under-foot use comprising a rigid base plate of poor thermal conductivity having a recess in the upper side thereof, a heater pad flush-mounted in said recess, said heater pad comprising a flexible body, a heating element arranged in said pad body, thermostat control means connected to said heating element to limit the maximum temperature thereof, a conductor cord connected to said heating element for connecting said element to a source of electrical energy, a thin sheet of heat conductive waterproof material overlying said pad and extending onto said base marginally around the recess therein, a layer of wear resistant material mounted over the entire top area of said base to enclose said pad in said recess, and fastening means securing said wear resistant material marginally to said base.

2,781,440
RADIANT HEATING PANELS
Erwin Peter Petersen, Milford, N. J., and Harold Le Roy Whitney, New York, N. Y., assignors to Continental Radiant Glass Heating Corporation, New York, N. Y.
Application October 19, 1954, Serial No. 463,118
5 Claims. (Cl. 219—34)



1. A radiant heating sub-panel comprising, a rectangular sheet-like frame member having outwardly bent flanges along each of its marginal edges, a sheet-like heating element mounted in said frame member in spaced relation thereto, a hollow rectangular frame member having inwardly bent flanges along its entire inner and outer marginal edges, said hollow frame member being disposed in mating relation with said sheet-like frame member such that the outer flange of the former overlaps the flanges of the latter and the inner flange of the hollow frame engages the heating element continuously along its marginal edge thereby to retain it in place.

2,781,441
TRAVELING APPARATUS FOR WELDING HORIZONTAL JOINTS BETWEEN VERTICALLY DISPOSED PLATES
William I. Ballentine, Jr., Whittier, and Harry C. Brest, Pomona, Calif., assignors to United States Steel Corporation, a corporation of New Jersey
Application September 25, 1953, Serial No. 382,426
15 Claims. (Cl. 219—126)

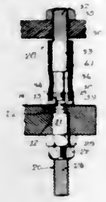


1. Apparatus for holding flux in contact with a horizontal seam between vertically disposed plate edges, comprising a frame, a carriage slidable on said frame toward and from the plate edges being welded, a tilting plate pivoted on said carriage on an axis parallel to said seam and shelf means mounted on said tilting plate adapted to engage the side of one of the plates being welded.

2,781,442
APPARATUS FOR RIVETING
William G. Flessner, Skokie, and Ernest W. Luke, Waukegan, Ill., assignors to Fansteel Metallurgical Corporation, a corporation of New York
Application March 9, 1953, Serial No. 341,074
5 Claims. (Cl. 219—150)

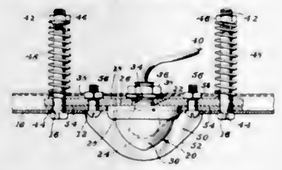
1. In a welder for spreading a rivet over thin metal stock, the combination of an electrode having an active face for contacting and supporting the head of a rivet, at least one apertured metal strip through which the rivet shank passes and over which the shank is to be

spread, means for supporting said metal strip in proper relation to the rivet so that the rivet shank extends through the aperture, and a movable electrode assembly including an elongated movable electrode having an active tip portion carried by a larger body portion, said movable electrode having its tip normally spaced from the shank face but movable toward the same to contact the shank face and exert pressure thereon, a resilient sleeve-like member carried by said larger body portion and also surrounding the tip portion, a substantial part of the sleeve surrounding said tip portion being free of any



lateral support so that said unsupported portion may yield substantially in all directions, said member having its unsupported portion extending from said movable electrode assembly toward the thin metal strip, said resilient member being self-seating on said metal strip and bearing against the same prior to any contacting of the movable electrode upon the shank face, said resilient member having lateral clearance from said tip portion and yielding upon movement of said electrode to engage the shank face, said electrodes contacting the rivet at opposite ends of the rivet and passing a heavy current through the rivet to heat the same, said resilient member serving to maintain the thin metal strip in self-seating position with respect to the rivet shoulder.

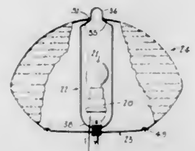
2,781,443
VEHICLE YIELDABLE LIGHT MOUNTING
William R. Cargle, Victoria, Tex.
Application February 19, 1954, Serial No. 411,333
3 Claims. (Cl. 240—8.2)



1. In a vehicle having an exterior electric light attached to a substantially-vertical wall thereof, the combination of a yieldable mounting for the light comprising: means defining a scuttle opening in the vehicle wall; a plate interiorly covering said opening and overlapping the marginal edges thereof, said plate having means for mounting the light thereon with the latter projecting through said opening, and having a pair of guiding apertures on opposite sides of said light mounting means; a pair of rods attached to the wall on opposite sides of said opening and extending inwardly of the wall and loosely through said guiding apertures in said plate; an abutment on each said rod; and a coil compression spring bearing against each said abutment and the inner side of said plate.

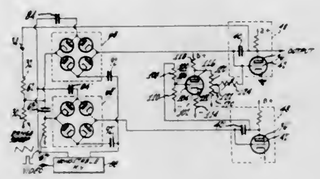
2,781,444
LAMP CONSTRUCTION
Isamu Noguchi, New York, N. Y.
Application February 14, 1955, Serial No. 487,917
2 Claims. (Cl. 240—36)

1. A lamp construction comprising a stretcher frame, a bulb mounting disposed within said frame, a cord-receiving nipple on said bulb-mounting and detachably secured to said frame, a spider detachably secured to said nipple and extending radially therefrom, and a distendable shade spacedly surrounding said frame having one end connected to said spider and the other end connected to said frame so as to be distended by the latter, said



spider comprising a plurality of relatively stiff, resilient wires each having its medial portion bent to form a tight helix circumposed about said nipple, said helices being resiliently distendable to permit the insertion of a cord between its convolutions into the central opening thereof, the end portions of said wires extending radially from said nipple and being connected to said shade.

2,781,445
CIRCUIT FOR CONTINUOUSLY CORRECTED STORAGE
Arthur C. Stocker, Collingswood, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application May 20, 1953, Serial No. 356,283
20 Claims. (Cl. 250—27)



13. The combination comprising a first signal storage means having an output responsive to a signal input, a second signal storage means having an output responsive to a signal input, means connected to said first signal storage means output to derive a difference signal between said first storage means output and an input signal from a source, means comprising first and second signal paths between said difference signal deriving means and said first storage means input to apply said difference signal thereto, one of said paths including said second storage means, and means to apply said second storage means output to said first storage means input for continuous correction and in a sense to conform said second output to said source signal.

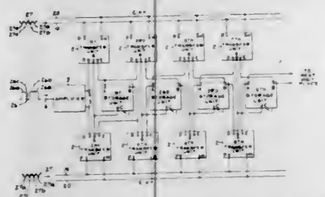
2,781,446
PULSE CYCLING CIRCUIT
John Presper Eckert, Jr., Gladwyne, and James R. Weiner, Philadelphia, Pa., and Robert F. Shaw, Brooklyn, and Albert A. Auerbach, Levittown, N. Y., assignors, by mesne assignments, to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware
Application March 28, 1952, Serial No. 279,156
29 Claims. (Cl. 250—27)

1. A pulse cycling circuit for producing one or more pulses, each occurring a predetermined time interval after an initial event, comprising; a first recirculating delay line having a feedback connection between two of its terminals and providing pulses during a first delay cycle; a second recirculating delay line having a feedback connection between two of its terminals and pro-

viding pulses during a second delay cycle of different length; and a coincidence gate, connected to a selected

point on each of said lines, for producing an output pulse only at the time the pulses derived from each of said lines occur simultaneously.

2,781,447
BINARY DIGITAL COMPUTING AND COUNTING APPARATUS
Burton R. Lester, Camillus, N. Y., assignor to General Electric Company, a corporation of New York
Application June 27, 1951, Serial No. 233,803
10 Claims. (Cl. 250—27)



1. A shifting register for use in binary digital computers comprising the combination of at least two multivibrator storage units and at least one transfer unit; said storage units each having two oppositely designated output terminals and a triggering input terminal, and having two stable states of conduction each representative of one of two binary numbers during which said two output terminals complementally reside at one of two predetermined potentials, each of said storage units being responsive to voltage pulses applied to the triggering input terminal thereof which trigger the storage unit to its opposite conduction state; said transfer unit comprising a multiterminal potential sensing and selective transmisson network having at least two sensing terminals, an input terminal for receiving triggering voltage pulses, and an output terminal for transmitting said voltage pulses; said transfer unit being interconnected between said storage units to sense through said sensing terminals the potentials at one output terminal of each said storage units and transmit a voltage pulse received at the input terminal thereof to the triggering input terminal of the succeeding one of said storage units in the shifting sequence only if the conduction states of said storage units are in a predetermined relation.

2,781,448
GATING CIRCUIT
Warren C. Struven, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application January 26, 1954, Serial No. 406,378
2 Claims. (Cl. 250—27)

1. A crystal gating circuit comprising first and second vacuum tubes having cathode follower resistors and negatively biased control means, power supply means connected across each of said tubes whereby same are normally nonconducting, a pair of crystal diodes connected in series between the cathodes of said tubes with their positive sides joined together at an output terminal, a resistor connected between the positive side of said power

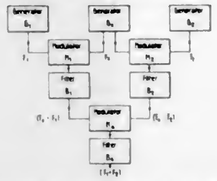
supply and said output terminal and having an ohmic value greatly in excess of said cathode follower resistors, and an input terminal and a gating terminal connected to the control means of said first and second tubes respectively for impressing positive signals thereon whereby simultaneous input and gating signals produce at said output terminal signals proportionate to said input signals below the value of the gating signal.

2,781,449
GRID EXCITATION
Glenn R. Mohr, Linthicum Heights, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application August 20, 1954, Serial No. 451,087
5 Claims. (Cl. 250—36)

1. In power supply apparatus including an electron discharge device having an anode, a grid and a cathode, the combination of a tank circuit and an excitation coil, said tank circuit including a first helical coil and a second helical coil, with a capacitive member connected in parallel with the latter coils, a load coil, said load coil being connected in a series arrangement with said first coil and said second coil, said tank circuit being connected in the plate circuit of said electron discharge device, with said first coil and said second coil being so positioned that their respective axes are substantially perpendicular to each other, said excitation coil being connected to the grid of said electron discharge device and being positioned for electrical coupling with said first coil thereby to provide excitation for said grid.

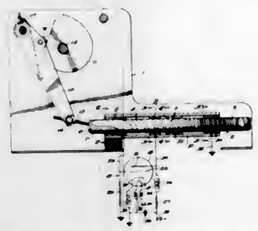
2,781,450
METHOD FOR FORMING A LINEAR COMBINATION OF FREQUENCIES AND APPARATUS FOR CARRYING OUT THIS METHOD
Wladimir Ianouchewsky, Paris, France, assignor to Ebauches S. A., Neuchatel, Switzerland
Application April 30, 1953, Serial No. 352,129
Claims priority, application France May 14, 1952
10 Claims. (Cl. 250—36)

1. In a system for forming a linear frequency combination from a number of initial frequencies, a frequency divider and a frequency multiplier connected in cascade for each of the said initial frequencies, each of the said initial frequencies being divided and multiplied in one of the said frequency dividers and frequency multipliers respectively whereby a changed frequency results for every initial frequency, an oscillator producing an auxiliary frequency, at least one frequency adding circuit each comprising modulator means for so combining two of the said changed frequencies with the said auxiliary frequency that sum and difference frequencies of the said auxiliary frequency and each one of the said changed frequencies are generated, two filter means for selecting a sum frequency and a difference fre-



quency respectively, modulator means for so combining the said selected sum frequency and difference frequency that a sum and a difference beat frequency are produced and an output filter means for selecting the said difference beat frequency which equals the sum of two of the said changed frequencies, a number of frequency adding circuits being provided for adding all the said changed frequencies and partial sums of changed frequencies so that the total sum of all the said changed frequencies is formed.

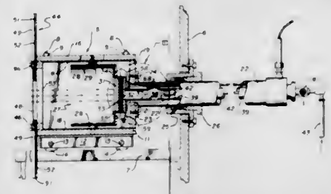
2,781,451
WIDE RANGE RADIO FREQUENCY TUNER
Harold T. Lyman, Milford, and Francis G. Mason, Weston, Conn., assignors to Aladdin Industries, Incorporated, Nashville, Tenn., a corporation of Illinois
Application June 8, 1954, Serial No. 435,159
7 Claims. (Cl. 250—40)



1. In a wide range radio frequency tuner, the combination comprising a coil having non-uniform inductance per unit length, first and second energy exchange electrodes adjacent the outside of said coil and spaced axially therealong, said second electrode being spaced a fixed distance in one axial direction from said first electrode, said coil and said electrodes being relatively movable along an axial path to vary the effective inductance between said electrodes, and electrode means disposed along said path in said one direction from said second electrode in fixed relation thereto for suppressing spurious resonances in the portion of said coil extending in said one direction beyond said electrodes.

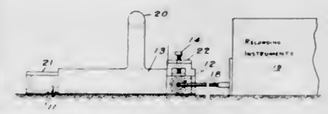
2,781,452
ION BEAM RECEIVER
Edward J. Lofgren, Berkeley, and Forrest Fairbrother, Jr., Livermore, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application July 22, 1955, Serial No. 527,891
16 Claims. (Cl. 250—41.9)

1. In a device for studying the characteristics of a charged particle beam, the combination comprising a beam collecting element, means delivering thermal energy to a first portion of said beam collecting element, means removing thermal energy from a second portion of said



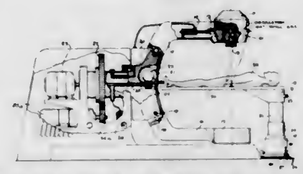
beam collecting element, and thermometric means responsive to the temperature of a selected area of said collecting element.

2,781,453
METHODS AND APPARATUS FOR DETERMINATION OF CHARACTERISTICS OF MATTER IN A SURFACE LAYER
Donald J. Belcher, Trevor R. Cuykendall, and Henri S. Sack, Ithaca, N. Y., assignors to Cornell University
Application February 11, 1953, Serial No. 336,232
6 Claims. (Cl. 250—83.6)



1. An apparatus for measuring the characteristics of a surface layer of material comprising a container having a flat bottom adapted to permit intimate contact with the surface of the layer to be measured, a source of radioactivity within said container in close proximity to and adapted to radiate through said container bottom, a detector for radioacitvity positioned within said container in close proximity to the bottom thereof, a shield of substantial thickness in said container between said radioactive source and said detector for preventing direct radiation from said source from reaching said detector, and means for connecting the output of said detector to measuring and recording equipment.

2,781,454
ROTATIONAL THERAPY UNIT
Donald T. Green, Ottawa, Ontario, Canada, and Carl B. Braestrup, New York, N. Y., assignors to Atomic Energy of Canada Limited, Ottawa, Ontario, Canada, a corporation of Canada
Application November 30, 1953, Serial No. 395,169
Claims priority, application Canada December 4, 1952
6 Claims. (Cl. 250—91)

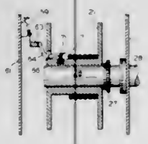


1. In an apparatus for radiation therapy, a source of radiation, means for rotating said source in a vertical circle about a horizontal axis, means for directing a beam of radiation from said source at a point on said horizontal axis and means for moving said source in a direction perpendicular to the plane of said vertical circle, said beam being directed at said point at each position of the source.

2,781,455
CARRIER FOR RADIOACTIVE MATERIAL
Walter W. Offner, San Rafael, Calif.
Application November 12, 1953, Serial No. 391,444
4 Claims. (Cl. 250—108)

1. A carrier for radioactive material comprising a frame, a handle at one end of said frame, a body of shielding material at the other end of said frame, said body being disposed to depend below said handle when said handle is grasped in the hand of a user, a guard on said frame for preventing the user from grasping said handle from one side thereof, and means in said body in a fixed location remote from said one side for receiving a radioactive substance.

2,781,456
CABLE REELS FOR A MINE VEHICLE OR THE LIKE
Roger M. Buckeridge, Downers Grove, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application July 15, 1954, Serial No. 443,576
3 Claims. (Cl. 307—9)



1. In a mine vehicle or the like having a cable reel for a supply cable consisting of a pair of power leads connected to a source of power at a fixed point, a control circuit connected across the power leads of said supply cable for control of power to said vehicle, and means for opening said control circuit when the amount of cable wound upon said reel reaches a minimum value comprising a switch connected in said control circuit, and switch actuating means carried by said reel and comprising a switch actuating arm which is rocked to non-actuating position by winding of cable upon said reel in excess of such minimum amount, and a second switch connected in said control circuit for energizing said control circuit irrespective of the condition of said first named switch.

2,781,457
AUTOMATIC PARALLELING DEVICE
Vincent M. Urban, Los Angeles, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application May 17, 1955, Serial No. 509,031
10 Claims. (Cl. 307—87)

1. Alternator paralleling apparatus comprising input means including a resistance and a glow discharge tube connected in series, output circuit means including rectifier and filter means connected across said glow tube in position to rectify alternating current impressed across said tube, a first relay having a coil connected across the output of said filter means and having single-pole double-throw contacts, means for connecting the normally open contact to one side of a D. C. voltage supply, a control capacitor connected at one end to the pole of

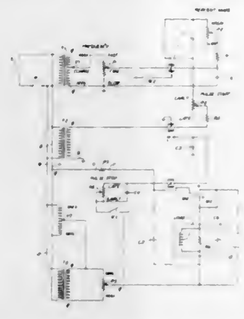
said contacts and adapted to be connected at the other end to the opposite side of the D. C. supply, and an output relay coil connected between the normally closed contact and said opposite side, said output relay coil operatively associated with switching contacts adapted to be in control of the main paralleling contactors of two alternators.

2,781,458
ELECTRONIC PULSE SHAPING AND DELAY CIRCUIT
George E. McElroy, Harrington Park, N. J., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware
Application March 26, 1954, Serial No. 418,913
5 Claims. (Cl. 307—106)

3. An electronic pulse delay circuit comprising an electronic tube having a cathode, a control grid, and an anode, a first resistor connected between said cathode and electrical ground, a source of substantially rectangular shaped signals connected across said resistor, a condenser connected between said cathode and control grid, a second resistor connected between said control grid and electrical ground, an output load circuit connected to said anode, and means connected to said second resistor to clip differentiated signals appearing across said resistor.

2,781,459
POWER CONTROL CIRCUIT
Charles E. Pollard, Jr., Hohokus, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application March 24, 1954, Serial No. 418,396
7 Claims. (Cl. 307—132)

7. A power control circuit comprising a first source of direct-current power; a first relay with an energizable winding and comprising a first armature, a first contact, and a second contact; said first armature arranged to contact said first contact when said first relay is operated and to contact said second contact when said first relay is not operated; a first manual switch operable to apply said first source to said first armature; a charging circuit including said first source, said first armature and said first contact, a per cent make potentiometer, and a first capacitor whereby said first capacitor is charged at a rate controlled by the impedance of said charging circuit; a discharging circuit in shunt of said first capacitor and including the winding of said first relay in series with a fine potentiometer whereby said first capacitor is discharged at a rate controlled by the impedance of said discharging circuit when said first armature is not in contact with said first contact; said per cent make potentiometer and said fine potentiometer manually adjustable to fix the relative impedance of said charging and discharging circuits whereby the level of direct current flowing through said first relay winding is sufficient to operate said first relay approximately one time per second and whereby the relative charge and discharge times of said first capacitor are approximately equal; a second source of alternating-current power; a second manual switch operable to apply said second source to the winding of said first relay through the agency of said fine potentiometer; said fine potentiometer manually adjustable to fix the magnitude of alternating current flowing through the winding of said first relay whereby the composite current comprising the direct and alternating currents flowing through the winding of said first relay in sufficient to cause said first relay to operate and to release at a repetition rate which is an integral multiple of the single cycle rate of and in synchronism with said second source; a second relay with an energizable winding and comprising a second armature and a third contact engaged by said second armature when said second relay is operated; an operating circuit for said

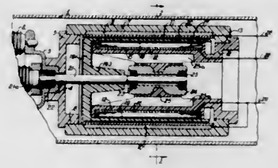


second relay and including the winding of said second relay, a pulse-start potentiometer, and said second contact for applying both of said sources to the winding of said second relay when said first relay is operated; said pulse-start potentiometer manually adjustable to fix the level of the composite current flowing through the winding of said second relay whereby a time delay interval between the operation of said first relay and the operation of said second relay is set; a third relay with an energizable winding and including a third armature and a fourth contact engaged by said third armature when said third relay is operated; an operating circuit for said third relay and including the winding of said third relay, a second capacitor, and said fourth contact for applying said first source to the winding of said third relay when said second relay is operated thereby to operate said third relay; a pulse-stop potentiometer in shunt of said second capacitor and manually adjustable to fix the minimum level of direct current through the winding of said third relay at a value below the release current for said third relay whereby said third relay will release a prescribed time delay interval after the operation of said second relay; and a load circuit connected to said second source of power through said fourth contact of said third relay.

2,781,460
ELECTROSTATIC MACHINE WITH CONVEYOR OF INSULATING MATERIAL
Noel Felici, Grenoble, France
Application March 7, 1955, Serial No. 492,491
Claims priority, application France November 21, 1951
30 Claims. (Cl. 310—6)

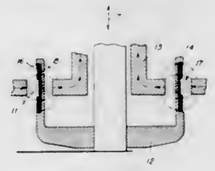
1. An electrostatic machine comprising an input inductor electrode, an input ionizer disposed in opposed

spaced relation to said input inductor electrode and maintained at a potential with respect to the potential of said electrode to provide therebetween an electric field, a conveyor of insulating material providing at opposite faces thereof generally parallel surfaces, means for supporting said conveyor and said electrode for movement of one with respect to the other in the direction transverse to said electric field and parallel to said faces of said conveyor with said conveyor disposed between said inductor electrode and said ionizer, an output inductor electrode disposed at the same side of said conveyor as said input inductor electrode and spaced from said input inductor electrode in the direction of movement of said conveyor relative to said input inductor electrode, an output ionizer disposed at the same side of said conveyor as said input ionizer and in opposed relation to said output inductor



electrode, said conveyor being supported also for movement of said conveyor and said output inductor electrode one with respect to the other in said direction of relative movement of said input inductor electrode and said conveyor with said conveyor disposed between said output inductor electrode and said output ionizer, a body having a resistivity not substantially less than 10^{10} ohms per cm. per $cm.^2$ extending between said two inductor electrodes in contact therewith and providing a surface extending parallel to the adjacent surface of said conveyor and spaced from said conveyor surface by a narrow continuous space of substantially constant width transversely of said surfaces and extending along said conveyor surface parallel to the direction of movement thereof, and means for confining a dielectric fluid medium in contact with said inductor electrodes, said ionizers and the faces of said conveyor adjacent thereto.

2,781,461
ELECTROMAGNETIC VIBRATION EXCITER
Galt B. Booth, Short Beach, William G. Brown, Guilford, and Karl Unholtz, Woodbridge, Conn., assignors, by mesne assignments, to Textron American, Inc., Providence, R. I., a corporation of Rhode Island
Application April 15, 1953, Serial No. 349,054
4 Claims. (Cl. 310—27)

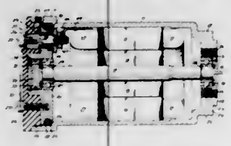


1. In an electromagnetic vibration exciter, a magnetic structure having an air gap and a moving assembly having driver coil means adapted to move in the air gap, wherein the driver coil means contains the combination of a direct current supply and windings through all or part of which the direct current shall be caused to flow to furnish force tending to maintain the moving assembly centered in the air gap; said windings also including variations therein adapted to prevent overtravel of the assembly.

2,781,462
OSCILLATING MOTOR
George D. Wheeler, Chicago, and Ray Wilson, Niles, Ill.
Application November 17, 1954, Serial No. 469,342
4 Claims. (Cl. 310—32)

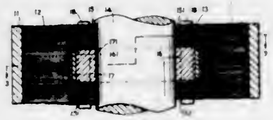
1. An oscillator direct current motor comprising a pair of parallel sheet metal frame members, an electromagnet positioned between said frame members, said electromagnet having a coil and a magnetic core, said core having opposite ends extending through right angle extensions of said frames and peened over for attaching said electromagnet to said frames, a power arm pivotally mounted on and extending through said frames, a pendulum attached at its upper end to said power arm, a permanent magnet attached to the lower end of said pendulum, said permanent magnet spaced above said electromagnet, and within its electromagnetic field, a ratio member attached to said power arm, an action arm attached to the other end of said ratio member and extending across said body members a contactor attached to one of said frames and positioned to contact said pendulum, a battery connected to said contactor, said coil and one of said frames whereby power flows through said coil creating an electromagnetic field when said contactor and said pendulum are in contact moving the pendulum in an upward arc, said pendulum adapted when the contact between it and the contactor is broken to swing by gravity in a downward arc, the upward and downward arcs oscillating the power arm and through the ratio arm, the action arm.

2,781,463
HERMETICALLY SEALED MOTOR
Anthony E. Sprando, Portland, Oreg., assignor to Iron Fireman Manufacturing Company, Portland, Oreg.
Application January 12, 1955, Serial No. 481,362
2 Claims. (Cl. 310—71)



1. An electric motor having a primary winding and a shaft surrounded by a cylindrical frame having a closed end and an open end, the open end of said frame being formed with a cylindrical extension of larger inside diameter than said frame, an end plate for said open end of said frame, a rear bearing for said shaft supported axially in said closed end of said frame with the driving end of said shaft extending therethrough, a front bearing for said shaft, said end plate being formed with a cylindrical bore axially therethrough adapted to receive and support said front bearing, a plurality of terminal studs for said primary winding, each of said studs being formed with a head section, a cylindrical section of smaller diameter than said head section and a cylindrical threaded section of smaller diameter than said cylindrical section, said end plate being formed with a plurality of transverse holes therethrough to receive and support said studs individually in said holes, means for securing said end plate in the end of said frame within said extension thereof, means for hermetically sealing each one of said terminal studs in a respective one of said transverse holes in said end plate and means for hermetically sealing said axial bearing supporting bore in said end plate, said means for sealing said end plate in said extension of said frame comprising an annular groove formed in the periphery of said end plate and an O-ring supported in said groove in compressed relation with the internal cylindrical surface of said extension, said means for sealing one of said terminal studs in one of said transverse holes in said end plate comprising a cylindrical substantially rigid insulating bushing having a head of larger diameter than said hole, said bushing extending into said hole from the front side of said end plate, said hole in said end plate being counterbored from its rear end to a larger diameter than said hole, a necked O-ring in said counterbore with the neck of said necked O-ring extending into said hole, a substantially rigid insulating washer adjacent said necked O-ring at the rear of said plate, said stud extending through said bushing said necked O-ring and said washer from the front of said plate with the head of said stud adjacent the front of said plate and the threaded section of said stud extending rearwardly from said plate, a nut threaded onto said stud, a lock washer surrounding said stud between said nut and said insulating washer, said nut being tightened on said stud to compress said necked O-ring sealably between said stud and said end plate, said means for sealing said axial bearing supporting bore in said end plate comprising a disk in said axial bore in front of said shaft and said front end bearing, said disk being formed with an annular groove in its peripheral edge, an O-ring in said groove in said disk in compressed relation to the inner surface of said axial bore and means for securing said disk axially in said axial bore.

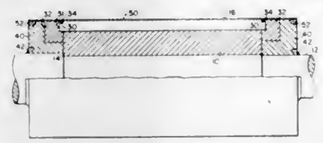
2,781,464
ELECTRIC MOTORS
Arthur William John Timms, Olton, Birmingham, England, assignor to James Beresford & Son Limited, Birmingham, England, a company with limited liability of Great Britain and Northern Ireland
Application January 23, 1956, Serial No. 560,815
Claims priority, application Great Britain December 2, 1955
2 Claims. (Cl. 310—90)



1. An electric motor of the squirrel cage induction type incorporating a rotor shaft, bearings for the end portions of said shaft, a rotor core, supplementary bearing means embedded in said rotor core intermediate the ends thereof, complementary bearing means to the said supplementary bearing means embedded in said rotor core which is associated with a part surrounding the core and conductor bars which pass through the rotor core and through the supplementary intermediate bearing means aforesaid which is embodied in the rotor core.

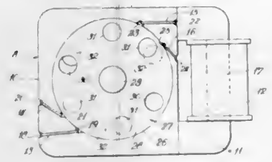
2,781,465
ROTOR FOR ELECTRIC MOTOR
Bernard W. Schuff, Wilkinsburg, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 15, 1955, Serial No. 494,310
11 Claims. (Cl. 310—211)

1. A rotor for a dynamoelectric machine comprising, a solid metal core mounted on a rotor shaft, said core having a plurality of circumferentially spaced longitudinal slots formed on the outer surface thereof, each of said slots having flat parallel opposite side walls so that a conductor bar can be inserted radially of the rotor through the mouth of each slot, a conductor bar positioned in each of said longitudinal slots and extending beyond the ends of said rotor core, said conductor bars retained in said slots by having integral portions of said core at the outer edges



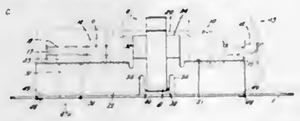
of said slots swaged towards each other to substantially close said slots, each end of each of said conductor bars being attached to separate shorting rings, end plates mounted on said rotor shaft adjacent each end of said core and hermetically sealed thereto, a thin walled metal tube positioned over the outer surface of said core so as to enclose said conductor bars, shorting rings and end plates, said tube being hermetically sealed at each end to the adjacent end plate.

2,781,466
INDUCTION MOTOR ROTOR ASSEMBLY
Edward J. Wagner, Berwyn, Ill., assignor to Dormeyer Corporation, Chicago, Ill., a corporation of Illinois
Application May 4, 1954, Serial No. 427,450
9 Claims. (Cl. 310—211)



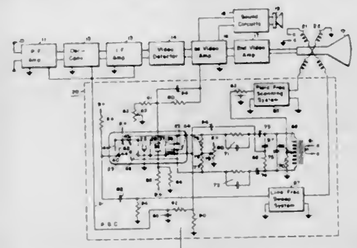
9. In a single phase induction motor provided with shading coils, a rotor assembly comprising a generally cylindrical core adapted to be rotated, said core being provided with a plurality of openings therein extending longitudinally thereof generally parallel to the axis of rotation, conductors mounted within said openings, said openings being oriented along a circle concentric with the axis of rotation of said core and being spaced outwardly therefrom, a number of said openings being equally spaced from each other on one side thereof, and the remainder of said openings being interposed between said last-mentioned openings and being equally spaced from each other but offset relative to the openings adjacent thereto diametrically opposite said equally spaced openings.

2,781,467
HOUSEHOLD MIXER CHASSIS
Harvey Levine, Fairfield, Conn., assignor to General Electric Company, a corporation of New York
Application April 16, 1956, Serial No. 578,319
8 Claims. (Cl. 310—254)



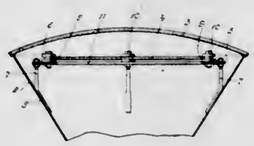
1. In a food mixer comprising a laminated stationary mixer motor field structure, an opening formed in said stationary mixer motor field structure, an armature disposed in said opening, said armature having a shaft provided with two end portions extending in opposite directions beyond said field structure, two parallel spaced beater drive shafts, a gear fixed to each of said beater drive shafts, a worm gear formed on one end portion of said armature shaft meshing with each of said gears fixed to said beater drive shafts, the improvement comprising a stamped sheet chassis, said stamped chassis having a horizontal table portion and two downwardly bent side portions substantially parallel to the axis of said armature shaft, an enlarged stamped opening formed in said horizontal table portion for receiving said field structure, and two relatively large transversely arranged stamped holes formed in said horizontal table portion for accurately positioning said beater drive shafts.

2,781,468
TELEVISION RECEIVER
Robert Adler, Northfield, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois
Application February 18, 1952, Serial No. 272,200
13 Claims. (Cl. 313—69)



1. In combination: a first electrode system comprising an electron source and an output electrode; a second electrode system comprising an electron gun including an elongated cathode for projecting a sheet-like electron beam of substantially rectangular cross-section, means including a deflection-control system responsive to an applied alternating signal for periodically sweeping said beam back and forth transversely across a predetermined mean path, and a pair of anodes having active portions on opposite sides of and asymmetrical with respect to said mean path, said active portions being adjacent and separated by a transition line parallel to and displaced from said mean path; and means direct-coupling said output electrode to said deflection-control system.

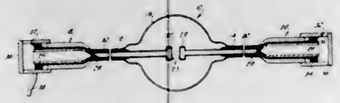
2,781,469
CATHODE-RAY TUBE, MORE PARTICULARLY FOR COLOUR TELEVISION
Pieter van Bree and Theodorus Hagenberg, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application October 20, 1953, Serial No. 387,195
Claims priority, application Netherlands November 4, 1952
2 Claims. (Cl. 313—92)



1. A cathode-ray tube comprising an envelope including a glass window at one end, a glass plate having a given coefficient of expansion disposed within the envelope near the glass window and supporting an electron-

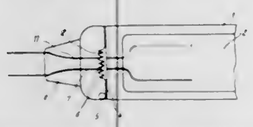
receiving member, and means for supporting and centering said glass plate within said envelope, said supporting means comprising a metal supporting frame mounted on said envelope and having a higher coefficient of expansion than that of said glass plate, and a plurality of slotted insulating support members secured to said metal frame and holding and surrounding said glass plate, said glass plate being disposed within the slots of said insulating members without clearance at ambient temperature and being free of contact with said metal frame.

2,781,470
ELECTRICAL CONNECTION MEANS
Emile Melvin Bellott, Little Rock, Ark., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application October 21, 1955, Serial No. 542,116
8 Claims. (Cl. 313—112)



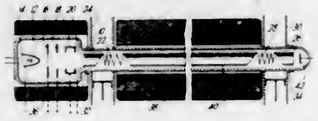
3. In combination with a lamp comprising a quartz envelope having opposed aligned narrow extremities and containing a plurality of opposing spaced electrodes disposed therewithin, the electrodes extending partially into said extremities, a plurality of molybdenum ribbon foils having one end portion in contact with each of said electrodes, the other end portion of said foils extending to a point without said envelope, a quartz member partially extending into each of said extremity, said quartz member firmly positioning the intermediate portions of said foils within said extremity and providing a support for said other end portion; means for providing connection of said electrodes to an electric source comprising an electrically conductive wire closely wound about said other end portion of each of said foils, a member consisting of an electrically conductive material engirdling said wound wire and in soldered contact therewith, and means for connecting said electrically conductive member to an electric source.

2,781,471
DIAPHRAGM FOR ELECTRIC DISCHARGE TUBE
Edouard Gomonet, Paris, France, assignor to Societe Anonyme pour les Applications de l'Electricite et des Gaz Rares-Etablissements Claude-Paz & Silva, Paris, France
Application September 27, 1955, Serial No. 536,852
Claims priority, application France September 28, 1954
2 Claims. (Cl. 313—174)



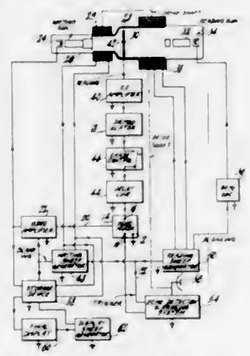
1. A diaphragm for an electric discharge tube having an atmosphere containing mercury vapor, said diaphragm being made of a material not wetted by clean mercury, and including at least one aperture through which liquid mercury cannot normally flow in both directions although it is possible for said mercury to pass from one side of the diaphragm to the other through said aperture, said aperture being formed by pressing-out a portion of the material of the diaphragm and being bordered, on one side only of the diaphragm, by a rim formed by at least a part of the material pressed-out when forming the aperture, and said rim incorporating, at least in the zone adjacent that portion of the diaphragm which surrounds the aperture, a plurality of breaks which are sufficiently narrow to prevent the passing of liquid mercury therethrough.

2,781,472
MICROWAVE AMPLIFIER
Philippe A. Clavier, Bayside, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application December 13, 1950, Serial No. 200,674
21 Claims. (Cl. 315—3.5)



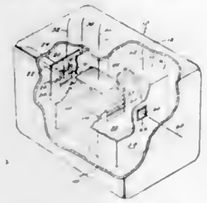
1. An electron discharge device including a wave-guide, a cathode and accelerating-electrode gun structure for producing an electron beam adjacent to the input end of said wave-guide, an electron collector at the output end of said wave-guide, signal input and output coupling devices at the ends of said wave-guide, and magnetic focussing means extending from said cathode to said output coupling device for sustaining the cross-sectional form of the beam during its transit from the cathode to the collector through the wave-guide, said cathode and accelerating-electrode structure embodying means producing a beam of uniform velocity throughout its cross-section and of high electron density at its center and non-linearly decreasing electron density outward of the center.

2,781,473
ELECTRICAL SIGNAL STORAGE
Frank D. Covely, Collingswood, N. J., and Richard E. Baker, Indianapolis, Ind., assignors to Radio Corporation of America, a corporation of Delaware
Application July 12, 1951, Serial No. 236,442
8 Claims. (Cl. 315—13)



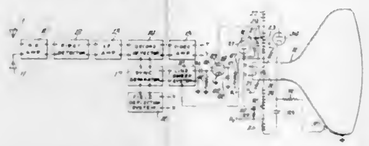
1. An electric signal storage system comprising a storage tube having a storage target, a reading electrode associated therewith, a reading beam electron gun, a writing beam electron gun, and deflection means one respectively for deflecting the electron beam from each gun, said writing gun having a control electrode, a signal circulating loop circuit having an input connected to said reading electrode and an output connected to said writing gun control electrode, means including said deflection means for deflecting said beams across said target on the same paths with the writing beam following the reading beam substantially by the delay time required for signals to traverse said signal circulating loop circuit whereby signals stored on said target are stored again after circulation in said loop circuit at substantially the same place on said target.

2,781,474
BEAM DEFLECTION ELECTROMETER AMPLIFIER TUBES
John Howard Coleman, West Palm Beach, Fla., assignor to Radiation Research Corporation, West Palm Beach, Fla., a corporation of Florida
Application July 16, 1951, Serial No. 236,970
10 Claims. (Cl. 315—21)



1. An electrometer tube comprising an evacuated envelope, a source of cathode rays in said envelope, means defining a substantially field-free space and including transverse members forming a transverse gridded aperture, means for accelerating electrons from said source and directing them as a beam through said gridded aperture into the substantially field-free space to trap positive ions, deflecting electrodes intermediate said accelerating means and said trapping region for establishing a deflecting field, said deflecting electrodes being disposed parallel to the central axis of the beam on opposite sides thereof, and means for collecting electrons after deflection of said beam.

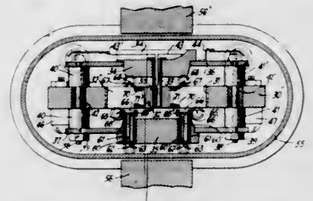
2,781,475
TELEVISION RECEIVER
George W. Fyler, Lombard, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application April 1, 1954, Serial No. 420,235
21 Claims. (Cl. 315—27)



1. In a television receiver of the type utilizing an electromagnetically deflected cathode-ray image reproducer, the combination of a deflection yoke winding for producing a magnetic field in the image reproducer, a sweep system for supplying a periodic deflection signal to said deflection winding and including an output stage coupled to said winding, at least one high-voltage winding inductively coupled to said deflection winding and connected to develop a voltage high compared with the voltage developed across said deflection winding, and rectifying means coupled to said high-voltage winding for developing a unidirectional potential from energy derived therefrom.

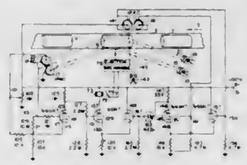
2,781,476
MAGNETRON
Lloyd P. Smith, Ithaca, N. Y., assignor to Radio Corporation of America, a corporation of Delaware
Application April 24, 1948, Serial No. 23,045
41 Claims. (Cl. 315—39.57)

1. An electron discharge device having an anode comprising a plurality of spaced anode elements defining a central space, adjacent elements being connected by hollow resonators, a cathode arranged adjacent said anode elements to supply electrons within said central space for exciting said resonators to produce a transverse alternating electric field within said resonators, means adjacent said anode for providing a magnetic field within said space and resonators and extending substantially normal to said electric field, and means for directing a



stream of electrons within a hollow resonator in a direction substantially parallel to the magnetic field to vary the impedance of said resonator.

2,781,477
PHOTOELECTRIC CONTROL APPARATUS
Robert K. Jenner, Jr., Lexington, Mass., assignor to Electronics Corporation of America, a corporation of Massachusetts
Application July 30, 1953, Serial No. 371,319
3 Claims. (Cl. 317—127)

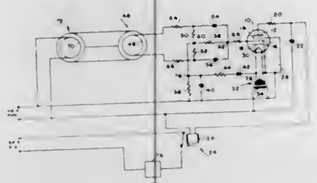


1. Apparatus to inspect a differentially coated tin can when said can is in a testing position, said apparatus being designed to be connected to a source of electrical current and comprising: means to direct a first beam of radiant energy toward the outside surface of said tin can when said tin can is in testing position, means to direct a second beam of radiant energy toward the inside surface of said tin can when said tin can is in testing position, a first photoelectric cell positioned so as to receive radiant energy from said first beam after its reflection by the outside surface of said tin can, a second photoelectric cell positioned so as to receive radiant energy from said second beam after its reflection by the inside surface of said tin can, means to connect the first and second photoelectric cells across said source of electrical current so as to form a bridge network, an electron valve having an input circuit and an output circuit, means to apply the differential voltage obtained from said bridge network to the input circuit of said electron valve, relay means connected to the output circuit of said electron valve and responsive to conduction therethrough, means to apply a blocking potential to the input circuit of said electron valve to prevent conduction therethrough, and timing means operable by said tin can to remove said blocking potential when said can is in testing position.

2,781,478
ELECTRICAL RELAY CIRCUIT
David A. Cooke, Sharon, Pa., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application July 13, 1953, Serial No. 367,467
2 Claims. (Cl. 317—142)

1. For use with equipment employing a utilization circuit, and means normally functioning to continuously maintain a displacement-error at substantially zero magnitude, an electrical apparatus for controlling energization of said utilization circuit by switch-over action therein in response to a displacement-error exceeding a predetermined magnitude, said apparatus comprising:

means for providing an error signal corresponding in phase and amplitude to the direction and magnitude, respectively, of said displacement-error; means for converting said error signal to a unipolar voltage corresponding

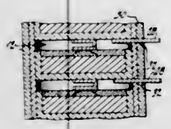


in magnitude to said displacement-error; current-controlling means connected to be triggered by said unipolar voltage when said displacement error exceeds said predetermined magnitude; and relay means energized by triggering of said current-controlling means to provide switch-over action in said utilization circuit.

2,781,479
HIGH SPEED PICK UP ENERGIZATION CONTROL SYSTEM FOR RELAYS
Neil O. Rice, Secane, Pa., assignor to General Electric Company, a corporation of New York
Application August 21, 1952, Serial No. 305,624
9 Claims. (Cl. 317—149)

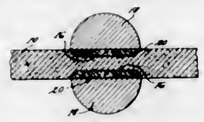
2. In combination, an electroresponsive device having a variable speed of response dependent upon the energization thereof, means for energizing the device including an alternating current full wave rectifier having output connections for supplying unidirectional energizing current to the device and alternating current input connections each input connection including a voltage doubling capacitor, and electron discharge means for supplying clipped half waves of the alternating current supplied to the rectifier voltage doubling capacitors to increase the speed of response of the device.

2,781,480
SEMICONDUCTOR RECTIFIERS
Charles W. Mueller, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application July 31, 1953, Serial No. 371,648
7 Claims. (Cl. 317—234)



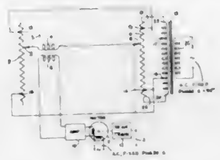
1. A rectifier device comprising a plurality of rectifier units arranged in stacked array, an insulating housing surrounding and enclosing said units, and a uniform coating of resistive material interposed between said units and said housing and extending along the length of said housing whereby a voltage applied across all of said units is substantially uniformly distributed across each of said units.

2,781,481
SEMICONDUCTORS AND METHODS OF MAKING SAME
Lorne D. Armstrong, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application June 2, 1952, Serial No. 291,355
14 Claims. (Cl. 317—239)



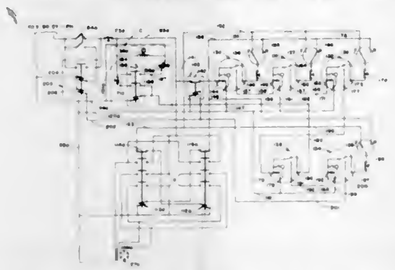
14. A semiconductor device comprising a wafer of N-type semiconductive germanium, a metallic electrode fused to a surface of said wafer, and a P–N rectifying junction disposed in said wafer adjacent to said electrode, said electrode consisting essentially of indium in which are dissolved minor proportions of germanium and a metal from the group consisting of gold, silver, copper and nickel.

2,781,482
SERVO SYSTEMS
James L. Montgomery, Indianapolis, Ind., assignor to the United States of America as represented by the Secretary of the Navy
Application September 21, 1953, Serial No. 381,526
7 Claims. (Cl. 318—29)
(Granted under Title 35, U. S. Code (1952), sec. 266)



2. A balanced bridge-type servo system comprising: a transmitting potentiometer having a controlling sliding contact; a receiving potentiometer having a controllable sliding contact and a terminal connection representative of a limiting position of movement of the said controllable sliding contact spaced inward from each end of the potentiometer such that the said terminal connections demarcate a middle and two end sections of the said receiving potentiometer; means coupling the said transmitting potentiometer to the said terminal connections in parallel with the said middle section of the receiving potentiometer; means for connecting an alternating current voltage across the said terminal connections such that the instantaneous voltages on each terminal are opposite in phase and a potential is produced on each of the aforesaid sliding contacts; means comparing the potentials of the two aforementioned sliding contacts to produce an electrical signal representing the position error of the said sliding contacts from null; a motor responsive to the said electrical error-signal coupled to the said controllable sliding contact for restoring the said controllable sliding contact to the null position; and means for applying to each of the said end sections an alternating-current potential in phase with the said alternating-current voltage for establishing in each of the said end sections a voltage gradient exceeding any concurrent gradient produced in the said middle section, such that movement of the said controllable sliding contact onto either end section causes an abrupt reversal in polarity and surge in amplitude of the error-signal applied to the said motor, thereby effectively applying a braking torque to the said motor and, as a result, limiting movement of the said controllable contact to the said middle section of the receiving potentiometer.

2,781,483
TIMING AND ACTUATING MECHANISM
William R. Smith and Chester C. Sperry, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan
Application March 31, 1953, Serial No. 346,006
21 Claims. (Cl. 318—102)

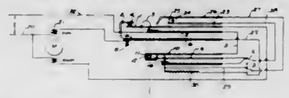


15. In apparatus for rotating and oscillating a shaft through a predetermined pattern, the combination comprising: a frame and a shaft rotatably supported in said frame; a panel mounted concentric with said shaft, said shaft being rotatable with respect to said panel; means including a first motor for effecting oscillation of said shaft with respect to said panel when said first motor is energized; a positioning motor mounted on said frame; means rotating said panel in response to energization of said positioning motor; a constantly running timing motor; means energizing said timing motor and said motor and means including cam means driven by said timing motor for energizing and de-energizing said positioning motor and for energizing and deenergizing said shaft oscillating motor in predetermined sequence with respect to each other.

2,781,484
THERMALLY CONTROLLED AUTOMATIC SWITCHES
Charles W. Slocum, Adrian, Mich., assignor to Stubnitz-Greene Spring Corporation, Adrian, Mich., a corporation of Michigan
Application June 7, 1952, Serial No. 292,260
4 Claims. (Cl. 318—221)

1. A thermally and electrically controlled apparatus for controlling a main electric circuit and a subsidiary electric circuit, having in combination a base of electric insulating material, a main switch circuit, a bimetallic compensating arm, a subsidiary switch circuit operatively coupled with the main circuit when the subsidiary circuit is closed and including a switch having a flexible spring arm provided with a contact on the free end, a straddling member on the free end of the compensating arm which straddles the free end of the said spring arm and carries a contact to engage with the contact on the free end of the spring arm to close the subsidiary circuit, a stop for the free end of the spring arm located on the free end of the compensating arm but on the other side of the spring arm from the contact carried by said straddling member, a bimetallic switch arm, a spring connecting the free end of this bimetallic switch arm with the free end of the spring arm, said two arms and spring arranged to form a toggle which can throw over center in the closing and opening of the subsidiary switch, said main circuit including a main line switch having a fixed arm carrying a contact on its free end, a flexible spring arm carrying a contact on its free end and a bimetallic arm having at its free end a spring connecting with the free end of the main switch spring arm of the main line switch, the spring, the spring arm and the bimetallic member of this main switch arranged in a toggle, to throw over center in opening and closing of the main switch, the main circuit having an electrical resistance portion producing heat for the main switch bimetallic arm during overload, said main circuit passing through the spring arm and the fixed arm of the main line switch, and said main circuit having another electrical resistance portion producing heat for the bimetallic arm of the subsidiary circuit switch during the period the main circuit is closed.

2,781,485
THERMALLY CONTROLLED ELECTRIC SWITCHES
Charles W. Slocum, Adrian, Mich., assignor to Stubnitz-Greene Spring Corporation, Adrian, Mich., a corporation of Michigan
Application July 17, 1952, Serial No. 299,402
9 Claims. (Cl. 318—221)

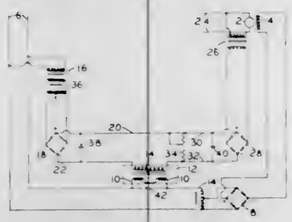


1. A thermally controlled automatic switch provided with two separate toggle switches involving each a spring arm, a stationary arm, and a bimetallic arm, the spring arm carrying a movable contact and the stationary arm carrying a stationary contact, all of the arms being operatively coupled into a circuit for controlling electrical appliances, a resistance heating unit in heat-exchanging relation to the bimetallic arm of one switch and acting as a heater therefor when current passes therethrough, a normally closed auxiliary shorting switch having contacts shorted across said heater the bimetallic arm of the other switch being distortable and operatively engageable with the movable arm of the auxiliary switch to thereby open the latter and to open the short circuit across said heater, thereby allowing current pass through the heater and to heat the bimetallic arm of said one switch for opening the latter and to cause a lag in the normal closing of said one switch due to the heat energy contained in the heating unit as caused by the opening of the auxiliary switch.

2,781,486
ELECTRICAL GENERATING SYSTEMS
Albert D. Gilchrist, Lyndhurst, Ohio, assignor to The Leece-Neville Company, Cleveland, Ohio, a corporation of Ohio
Original application August 14, 1953, Serial No. 374,190, now Patent No. 2,738,457, dated March 13, 1956. Divided and this application November 4, 1955, Serial No. 544,894
6 Claims. (Cl. 322—28)

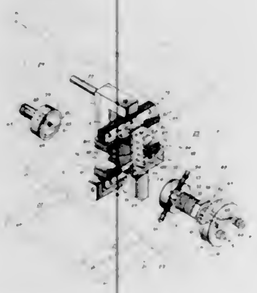
1. In an electrical system, a generator having terminals and a main field winding, a regulator having energizing coil means connected with the generator terminals and switch contacts responsive to said coil means, a field circuit having said main field winding therein and controlled by said switch contacts, resistance means in said field circuit in shunt relation to said switch contacts, and a bucking field winding connected in said field circuit so as to be energized in accordance with the voltage drop across said resistance means when said switch contacts are open.

2,781,487
VOLTAGE REGULATING SYSTEM
Theodore R. Kennedy, Lower Makefield Township, Pa., assignor to Ajax Electrothermic Corporation, Trenton, N. J., a corporation of New Jersey
Application January 6, 1954, Serial No. 402,494
4 Claims. (Cl. 322—36)



1. Means for regulating the voltage of a generator having an armature circuit and a field winding, said means comprising a constant voltage transformer, a saturable reactor having a control winding and a reactive winding, a pair of rectifiers having their outputs connected in opposing relation and in series with the control winding of said saturable reactor, one of said rectifiers being supplied by said constant voltage transformer, the other rectifier being supplied by said armature circuit, a biasing resistance connected across the output of the armature circuit rectifier to supply said control winding with current from said constant voltage transformer in response to the difference in voltage between said armature circuit and said constant voltage transformer, and a circuit including said reactive windings for controlling the current to said field winding.

2,781,488
METHOD AND APPARATUS FOR MEASURING FLUID SATURATION OF CORE SAMPLES
Carl W. Zimmerman, Paul P. Reichertz, and William C. Skinner, Dallas, Tex., assignors, by mesne assignments, to Socony Mobil Oil Company, Inc., a corporation of New York
Application August 27, 1953, Serial No. 376,924
16 Claims. (Cl. 324—13)

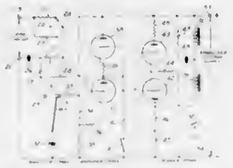


1. In a process wherein a fluid is passed to a porous material, the method for determining the quantity of said fluid contained within said porous material comprising admixing with said fluid a known quantity of a material having paramagnetic properties, passing said fluid containing said admixed paramagnetic material to said porous material, and determining the effect of said paramagnetic material upon the magnetic susceptibility of said porous material as a measure of the quantity of said fluid containing said admixed paramagnetic material contained within said porous material.

2,781,489
PHASE DETECTORS
Thracy Petrides, New York, N. Y., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application April 6, 1953, Serial No. 346,832
7 Claims. (Cl. 324—87)

1. A phase detector comprising a source of input signal voltage, first and second rectifiers coupled in opposite poled relation in parallel to said source of signal voltage, a source of reference pulse voltage, a source of negative biasing voltage, means to apply said negative biasing voltage to said first rectifier, means responsive to a pulse from said reference pulse source to apply to said first rectifier a positive reference voltage, a source of positive biasing voltage, means to apply said positive biasing voltage to said second rectifier, means responsive to said pulse from said reference pulse source to apply to said second rectifier a negative reference voltage, capacitive means connected to the output of said rectifier, and output coupling means connected across said capacitive means.

2,781,490
COULOMETER
Fern W. Mitchell, Jr., Easton, Pa., and Philip A. Shaffer, Jr., Pasadena, Calif.
Application January 7, 1952, Serial No. 265,336
6 Claims. (Cl. 324—111)

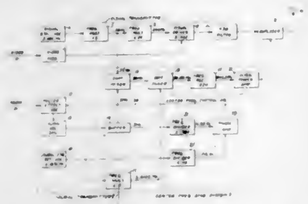


1. In an apparatus for measuring the electric charge delivered to an external load circuit in which the charge is used, the combination of: a condenser; means for connecting said condenser to the load circuit so as to discharge said condenser into the load circuit; means responsive to a decrease in the charge on said condenser to a lower limit for charging said condenser to an upper limit, the difference between said upper and lower limits being small as compared to said limits themselves, said charging means including a second condenser, including a source of substantially constant potential, and including means for alternately connecting said second condenser in series with said source and in series with the first condenser defined; and means for counting the excursions between said limits.

2,781,491
TRANSMISSION SYSTEMS
Ervin M. Bradburd, Fairlawn, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application December 11, 1952, Serial No. 325,480
10 Claims. (Cl. 332—19)

1. A transmission system comprising a first transmitter including a signal wave oscillator, a second transmitter

including a signal modulated oscillator, first and second mixing circuits and a reference oscillator, and a center frequency stabilizing system, means coupling the output of said modulated oscillator to said stabilizing system, means coupling the output of said reference oscillator to said stabilizing system, said stabilizing system comparing the phase of the output signals of said modulated oscillator and said reference oscillator for development of a control signal, means coupling the control signal to said modulated oscillator to stabilize the center frequency of said moduated oscillator, means coupling said first mixing circuit to the output of said signal wave oscillator, means coupling said first mixing circuit to the output of said modulated oscillator, said first mixing circuit adding

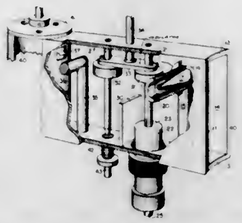


the signal from said signal wave oscillator to the stabilized signal of said modulated oscillator, means coupling said second mixing circuit to the output of said first mixing circuit, means coupling said second mixing circuit to the output of said reference oscillator, said second mixing circuit subtracting the signal from said reference oscillator from the resultant signal output of said first mixing circuit to provide a constant frequency offset between the signal from said signal wave oscillator and the resultant output of said second mixing circuit, a frequency multiplier coupled to the output of said second mixing circuit to provide the desired radiation frequency signal for said second transmitter, and a frequency multiplier coupled to said signal wave oscillator to provide the desired radiation frequency signal for said first transmitter.

2,781,492
CONTROLLABLE REACTIVE CURRENT SYSTEMS
John G. Spracklen, Chicago, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois
Application August 29, 1955, Serial No. 531,160
8 Claims. (Cl. 332—24)

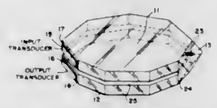
5. A controllable reactive-current device comprising: a reactance tube comprising means for projecting a stream of electrons along a predetermined discharge path, an output electrode system including a collector electrode positioned to intercept said electron stream, and a control system, said reactance tube having a substantially triangular control-signal-amplitude vs. collector-current operating characteristic over a predetermined control signal amplitude range; an oscillator for generating a reference signal of predetermined frequency; coupling means, intercoupling said oscillator and said control system, for applying said reference signal to said deflection system with a phase shift of approximately ninety degrees; and means for applying a control signal, substantially restricted in amplitude to said predetermined range, to said control system to control the effective frequency and phase of said reference signal by controlling the amplitude and polarity of reactive reference-signal current drawn by said collector electrode.

2,781,493
CAVITY RESONATOR DEVICES
Bruce B. Cork, Peck, Mich., and Melville Clark, Jr., Santa Fe, N. Mex., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application December 27, 1945, Serial No. 637,427
2 Claims. (Cl. 333—13)



1. A double-tuned resonant circuit comprising a plurality of conducting walls forming a cavity, a first elongated conductor connected at one end to a first cavity wall and extending into the cavity, a second elongated conductor connected at one end to said first cavity wall and extending into the cavity, an intermediate conductor connected to a cavity wall opposite said first cavity wall and extending into the cavity between said first and said second elongated conductors, a pair of conducting tuning slugs positioned about said first and said second elongated conductors respectively and movable along the respective axes of said conductors, and adjustable positioning means attached to said tuning slugs and extending through a wall of the cavity to provide simultaneous adjustment of the position of said tuning slugs.

2,781,494
ULTRASONIC DELAY LINES
Terrence J. Geoghegan, Mattapan, Mass., assignor to Laboratory for Electronics, Inc., Boston, Mass., a corporation of Delaware
Application March 18, 1953, Serial No. 343,203
8 Claims. (Cl. 333—30)

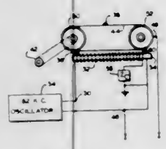


1. An ultrasonic delay line comprising, a unitary structure formed with a plurality of sonically coupled individual delay members providing a like plurality of folded multiple internal reflection delay paths disposed in mutually spaced planes.

2,781,495
DELAY LINE PHASE SHIFTER
Arden H. Fredrick, Boston, Mass., assignor to the United States of America as represented by the Secretary of the Navy
Application January 15, 1946, Serial No. 641,339
6 Claims. (Cl. 333—31)

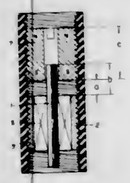
1. Apparatus for providing an output electrical signal shifted in phase with respect to an input electrical signal comprising a linear delay line including a uniform electrical winding, a plurality of movable contacts engageable with said uniform winding, said movable contacts being

electrically connected, said contacts being secured to an endless belt and spaced thereon whereby one of said con-



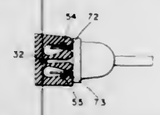
tacts engages said winding as another of said contacts is disengaged from said winding.

2,781,496
COIL SYSTEM EMPLOYING AT LEAST ONE HIGH-FREQUENCY COIL HAVING A PREMAGNETISED ROD-SHAPED CORE
Franciscus Johannes Maria Lathouwers, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application December 12, 1952, Serial No. 325,503
Claims priority, application Netherlands December 29, 1951
5 Claims. (Cl. 336—110)



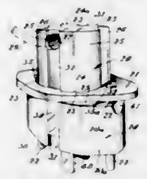
1. A high frequency coil system comprising a substantially bar-shaped ferromagnetic core, a coil winding on a portion of the length of said core whereby an end of the core projects a substantial distance from the corresponding end of the coil, said coil and core being fixed relative to one another, and a hollow, low-loss, high-resistance permanent magnet coaxially aligned with said coil and core at the ends thereof and producing a magnetic field which premagnetizes said core, said magnet being axially movable over a predetermined range of distances relative to said core, including distances at which said projecting end of the core enters within said hollow magnet, for varying the premagnetization of said core and thereby varying the inductance of said coil, said range of distances also having values at which the inductance of the coil always changes in the same sense when the magnet is moved in one direction.

2,781,497
CONTINUOUS ELECTRIC OUTLET
Alexander Sheskier, Massapequa Park, N. Y.
Application March 25, 1954, Serial No. 418,727
8 Claims. (Cl. 339—21)



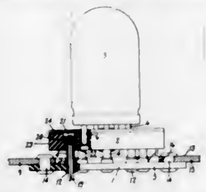
1. A continuous electric outlet comprising, in combination, a plurality of spaced longitudinally extending substantially rigid members, each of said members being provided with abutting lips defining an insulating channel therebetween, said lips being composed of an insulating material, at least one lip of each of said members being provided with a section extending longitudinally of said insulating channel and of reduced transverse thickness relative to the abutting portion of the lip, and a plurality of longitudinally extending conductors disposed within said insulating channels, respectively, whereby upon insertion of the prongs of an electric plug between said lips of said members, respectively, into said insulating channels, respective lips are displaced about said sections so that each prong is strongly gripped by the lips defining its respective channel to resist withdrawal, and said prongs contact said conductors with the channels, respectively.

2,781,498
RETAINING MEANS FOR ELECTRICAL PLUG AND RECEPTACLE ASSEMBLIES
Claude M. Maly, New York, N. Y.
Application November 19, 1953, Serial No. 393,152
9 Claims. (Cl. 339—91)



1. In a separable plug and receptacle assembly, the combination of a plug of insulating material having a first and a second extremity, male contacts extending from said first extremity and a reduced handgripping portion adjacent said second extremity of said plug, a platform member with an opening for slidably receiving said handgripping portion of said plug and elongated fasteners parallel with and spaced from said male contacts and each having a first and a second end with said first end attached to said platform member, said plug having a plurality of bores between said reduced handgripping portion and said first extremity thereof for slidably receiving said fasteners, whereby said second ends of said fasteners may be withdrawn into said plug between said first extremity and said reduced handgripping portion thereof when said platform member is slid along said reduced handgripping portion toward said second extremity of said plug, with a receptacle of insulating material having female contacts for reception of said male contacts, a plurality of sockets for said second ends of said fasteners when said male contacts are inserted into said female contacts and said platform member is slid along said handgripping portion toward said first extremity of said plug, and retaining means in said receptacle spaced from said female contacts for releasably engaging said second ends of said fasteners.

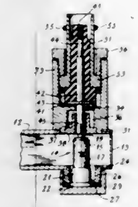
2,781,499
TUBE SOCKET ADAPTER
Robert S. McCreadie, Syracuse, N. Y., assignor to General Electric Company, a corporation of New York
Application October 16, 1951, Serial No. 251,553
2 Claims. (Cl. 339—154)



1. In combination an electronic chassis panel having a perforation therein, said perforation extending entirely through said panel, an insulating base member, means for attaching said base member to said chassis in

such manner that the member covers at least a portion of said perforation, a plurality of perforations in said base member, a plurality of hollow dip solder pin terminal members mounted on said base member in alignment with said perforations such that an electrical conductor can be inserted into said dip solder pins and through said perforations in said base member, an adapter comprising an insulating member having an upper and lower surface, an inner ring of separate spaced-apart perforations and an outer concentric ring of separate spaced-apart perforations, a first group of plug-receiving contact members engageable from said upper surface positioned within the perforations of one of said rings, a second group of plug-receiving contact members, engageable from said lower surface positioned within the perforations of the other ring and mounted over said hollow dip solder pin terminal members so as to make electrical contact therewith, and electrical conductors conductively connecting each of said plug-receiving contact members in said outer ring of perforations with a corresponding plug-receiving contact member of said inner ring.

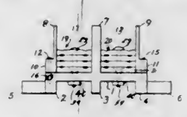
2,781,500
TERMINAL SUPPORT FOR BAYONET TYPE COAXIAL CONNECTOR
David G. Armstrong, West Newton, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application April 9, 1953, Serial No. 347,805
2 Claims. (Cl. 339—177)



1. An improved terminal device adapted to be used with a bayonet type coaxial connector, said terminal device comprising; a support member formed with an axial opening threaded adjacent one end and formed with an inside flange intermediate the ends of the opening; an insulator washer on the flange; a center conductor formed with a flange intermediate its ends for abutting said insulator washer; a tubular insulator formed with a flange at one end for butting up against the flange of said center conductor; a tubular adaptor formed at one end with a threaded flange and toward its other end with a pair of opposed pin-like projections on its outer surface, the pin-like projections adapted to register with a pair of spiral slots in a mating male bayonet type coaxial cable connector; and an externally threaded locknut formed at one end with an external tightening flange with opposed flats and formed internally with opposed longitudinal slots for registration with the pin-like projections on said tubular adaptor.

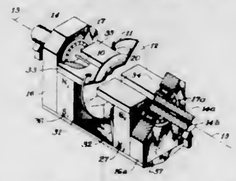
2,781,501
CONNECTOR BLOCK FOR WIRES
Ulmont L. McCroskey, Los Angeles, Calif.
Application December 8, 1955, Serial No. 551,969
3 Claims. (Cl. 339—198)

1. In an electrical terminal connector block an insulating block provided with a pair of grooves in its under side and an insulating base and an insulating partition upstanding from the upper side of said insulating base between said grooves, means for securing said insulating block to a panel board, said base being provided with bolt openings extending downwardly therethrough to said under side grooves, respectively, a pair of conductor tie-plates formed respectively with depending screw bolts and resting upon the upper side of said insulating block base, with their depending screw bolts depending through said bolt openings in said insulating base into said under side grooves, and with the inner side edges of said tie plates adjacent opposite sides of said partition, nuts threaded on the lower ends of said screw bolts against the under side of said grooves, a plurality of conductor clamp plates, two stacks of said clamp plates being mount-



ed in superimposed relation upon each of said tie-plates, said conductor clamp plates being provided with registering wire terminal grooves in their adjacent sides to receive wire terminals, and clamp screws extending downwardly through said conductor clamp plates of each of said stacks thereof, with the lower ends of said screws threaded in said tie-plates on which said stacks of conductors are mounted, and with the heads of said screws engaging the upper side of the uppermost conductor clamp plates of said stacks of clamp plates for securing said stacks of plates on said tie-plates and for clamping said wire terminals between said conductor clamp plates in said registering grooves in said adjacent sides of said conductor clamp plates.

2,781,502
SELF-ORIENTING GEOPHONE
David C. Richards, Dallas, Tex., assignor, by mesne assignments, to Socony Mobil Oil Company, Inc., a corporation of New York
Continuation of abandoned application Serial No. 71,952, January 21, 1949. This application March 18, 1954, Serial No. 417,121
8 Claims. (Cl. 340—17)

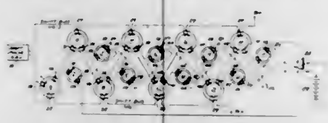


1. A self-orienting vibration sensitive device comprising a support, a vibrational system including a coil resiliently supported from said support and substantially constrained from rotation relative to said support, a magnet system mounted for free rotation relative to the axis of said coil, means for gravitationally biasing said magnet system to maintain said magnet fixed during rotation of said support, said magnet system having an air gap located with at least a portion of the periphery of the coil means extending into said air gap to form an electromagnetic coupling which is varied upon translational movement of said coil relative to said magnet system and which is substantially unchanged upon rotation of said support.

2,781,503
MAGNETIC MEMORY CIRCUITS EMPLOYING BIASED MAGNETIC BINARY CORES
Norman B. Saunders, Weston, Mass., assignor to American Machine & Foundry Company, a corporation of New Jersey
Application April 29, 1953, Serial No. 351,975
4 Claims. (Cl. 340—174)

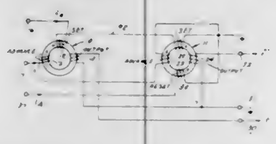
3. A reversible shift register comprising a first binary core, a shift winding on said core, means for applying

a shift pulse to said winding, first and second signal transferring windings on said core, a second binary core having a signal transferring winding thereon, a third binary core having a signal transferring winding thereon, a first coupling core having a controlled winding thereon connected in series with said first winding and said winding on said second core, a second coupling core having a controlled winding thereon connected in series with said second winding and said winding on said third core, said



first and second windings and said controlled windings being so arranged that voltages induced in said first and second windings when said first core is shifted cause said controlled windings to produce opposite polarity magnetizing forces in their respective coupling cores, saturation controlling windings on said coupling cores, and reversible means for flowing direct current concurrently through said controlling windings, said coupling cores being shifted when a shift pulse is applied to said shift winding on said first core at a lower shift current than is required to shift said first, second and third cores.

2,781,504
BINARY SYSTEM
Michele Canepa, South Norwalk, Conn., assignor to Olivetti Corporation of America, New York, N. Y., a corporation of Massachusetts
Application December 17, 1954, Serial No. 476,023
6 Claims. (Cl. 340—174)



2. A binary system capable of providing indications of the presence of a signal or of its binary complement comprising a pair of elements having a hysteresis loop, means for causing saturation of one of said elements in one direction, said means causing saturation of said second element in the opposite direction, a second means for causing saturation of the said two elements in the same direction, a third means energized prior to said first and second means for causing saturation of said second element in the direction opposite to that caused by said first and second means on said second element.

2,781,505
TEMPERATURE RESPONSIVE SYSTEM
Harry C. Grant, Jr., Ridgewood, N. J., assignor to Specialties Development Corporation, Belleville, N. J., a corporation of New Jersey
Application October 18, 1952, Serial No. 315,586
3 Claims. (Cl. 340—233)

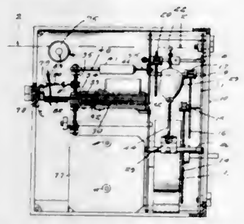
1. A temperature responsive alarm system comprising a normally unbalanced bridge circuit having in the first arm thereof an element adapted to be positioned in a zone subject to variations in temperature to indicate a predetermined temperature condition therein, said element including two spaced conductors of electricity spaced apart by material having one resistance at a normal temperature and having other resistances at predetermined balancing and responsive temperatures, said circuit having resistors in the second, third and fourth arms thereof, the resistance ratio of said second arm and said first arm and the resistance ratio of said third arm and said fourth arm being substantially the same only at the predetermined balancing temperature to balance the circuit and varying at all other temperatures; means for supplying alternating current to said branches of said circuit an alarm circuit; means responsive to the flow of unidirectional current connected across said branches at a point between said first and second arms and point between said third and fourth arms including switch means for controlling said alarm circuit; current block-

ing means arranged in said circuit between said first branch and said current responsive means for permitting the flow of current through said current responsive means substantially only in a single direction when said circuit is unbalanced and in such direction that said current responsive means is energized at temperatures between the balancing temperature and the responsive temperature; and current blocking means in said fourth arm, whereby alternating current is supplied to said first arm and unidirectional current is supplied to said responsive means at the responsive temperature.

2,781,506
FLAMMABLE VAPOR DETECTORS
William B. Harrison, Shadyside, Md.
Application January 14, 1955, Serial No. 481,932
7 Claims. (Cl. 340—237)

1. A fume detector comprising a pair of resistance units of substantially the same order of magnitude, a tube having closed ends sealing one of the resistance units from the ambient atmosphere, and a tube with the second resistance unit disposed centrally and co-axially thereof having ends provided with openings of limited area arranged peripherally of the centers of the ends to permit a controlled passage of the ambient atmosphere to the second resistance unit in encompassing relation thereto, said last-mentioned resistance unit being adapted to be heated to a glowing temperature for consuming fouling components in the atmosphere thereby to prolong the effective life of said last-mentioned unit and said openings being sufficiently small to exclude access of such volume of the atmosphere in contact therewith as will effect an explosion of air mixtures contaminated with explosive components.

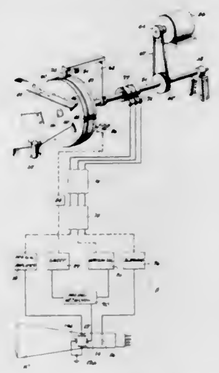
2,781,507
AIR RAID ALARM
Norman Saunders, Washington, D. C., assignor of forty percent to Orion T. Whiting, Jr., Washington, D. C.
Application March 16, 1954, Serial No. 416,486
1 Claim. (Cl. 340—253)



In an air raid alarm, a casing, a clock works mechanism mounted in said casing and including a gear train having a sprocket wheel, a solenoid mounted in said casing, means normally energizing said solenoid, an armature for said solenoid, said armature moving in a direction towards said mechanism when said solenoid is energized and away from said mechanism when said solenoid is deenergized, resilient means biasing said armature away from said mechanism when said solenoid is deenergized, a cylindrical element mounted on said armature, a plunger mounted for reciprocation in said element, means disposed between said element and said plunger constantly biasing said element and said plunger away from each other, said plunger having a notch formed therein adjacent an end thereof, said plunger being moved into engagement with said sprocket when said solenoid is energized to thereby render the clock works mechanism inoperative, an audible alarm in said casing actuated by said clock works, said armature, said element and said plunger moving as a unit away from said mechanism under the influence of said resilient means when said solenoid is deenergized whereby said plunger is disengaged from said sprocket to permit operation of said clock works and said audible alarm, a lock adapted to engage the notch in said plunger to secure said plunger in sprocket disengaged position, means for manually releasing said lock to reset said plunger for normal operation, a battery in said casing, an electric light in said casing, a fixed switch contact, a switch arm, a normally opened electric circuit having connected therein in series said battery, said light, said contact and said arm, resilient means for arresting the outer movement of said armature, said last named resilient means being movable with and in the same direction as said armature, means securing said switch arm on said last named resilient means for movement therewith, means supporting said fixed contact in the path of movement of said switch arm whereby deenergization of said solenoid effects engagement of said switch arm with said fixed contact to close said series circuit and illuminate said light, said light and said audible alarm means operating continuously to indicate a condition of power failure such as would otherwise create a false alarm, and said light operating intermittently with the power changes used in a true alarm.

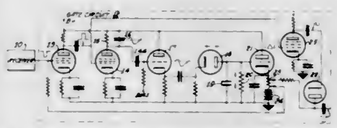
2,781,508
INTELLIGENCE TRANSMISSION SYSTEM
Eustace E. Suckling, Brooklyn, N. Y.
Application May 1, 1952, Serial No. 285,582
3 Claims. (Cl. 340—318)

1. In an intelligence transmission system a transmitting unit comprising a stationary tape supporting surface for supporting a length of previously prepared tape having the intelligence desired to be transmitted incorporated thereon, means positioned to repetitively scan the portions of said tape disposed on said supporting surface for providing electrical signals representative of the scanned intelligence incorporated in said tape and means respon-



sive to said electrical signals for generation of transmittable signals representative of the scanned intelligence.

2,781,509
SIDE-LOBE REJECTION CIRCUIT FOR PULSE RADAR SYSTEM
John Nathaniel Marshall, Philadelphia, Pa., assignor to Radio Corporation of America, a corporation of Delaware
Application November 30, 1948, Serial No. 62,716
10 Claims. (Cl. 343—6.5)

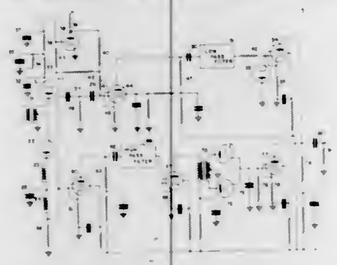


3. In a radar system including a ground-based radar set which produces a beam of pulse-modulated radio transmissions and cyclically scans a surrounding area therewith, at least one mobile station comprising a receiver responsive to signals from said ground station and a transmitter responsive to output from said receiver to transmit reply signals to said search radar, means for preventing transmission of said reply signals from said mobile station in response to side lobe pulse transmissions from said beam including, means responsive to pulses received at said mobile station to provide a voltage wave whose amplitude will remain above a value proportional to the amplitude of said received pulses during continued reception thereof and will substantially fully decay thereafter over a period of time equal to several periods of said cyclical scanning, a gating device for selectively passing only pulses exceeding an amplitude determined by a bias applied to the device, and means for applying said voltage to the gating device as a bias therefor.

2,781,510
ANTI-JAM RECEIVER FOR PULSE ECHO DETECTION SYSTEM
Leon Riebman, United States Navy
Application October 11, 1945, Serial No. 621,656
11 Claims. (Cl. 343—17.1)
(Granted under Title 35, U. S. Code (1952), sec. 266)

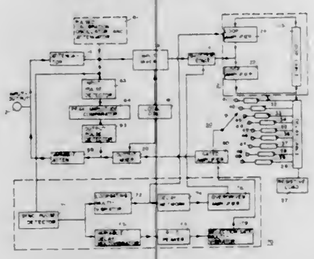
1. In a radio echo detection system comprising a tunable transmitter and a receiver having an intermediate frequency amplifier section that has a broad dynamic range for pulsed signals, said dynamic range being unaffected by the presence of continuous signals, and that provides less gain for continuous signals than for pulsed

signals when said continuous signals are substantially greater in amplitude than said pulsed signals, said continuous signals having a frequency differing from said pulse signals by at least a minimum frequency substantially equal to the highest video components in said pulsed signals the combination of, a linear detector coupled to the output of said intermediate frequency amplifier section, a first channel of amplification coupled to said de-



tector and including means operative to pass substantially only the heterodyne difference frequencies of said pulsed signal and said continuous signal, a second channel of amplification coupled to said detector and including means operative to pass substantially only the video frequencies of said pulsed signal, said second channel being rendered inoperative when the average amplitude of the output of said detector exceeds a selected value, and means coupled to said two channels for combining the outputs of said two channels.

2,781,511
ECHO SIMULATOR
Charles B. Pear, Jr., College Park, Md., assignor to the United States of America as represented by the Secretary of the Army
Application January 13, 1955, Serial No. 481,725
1 Claim. (Cl. 343—17.7)

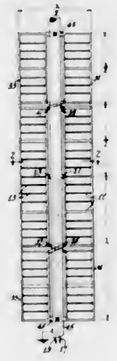


An echo simulator adapted to be connected to the antenna terminal of a pulsed radar set and to return a simulated echo signal to said antenna terminal in response to a transmitter pulse from said antenna terminal, said simulator comprising: an input-output terminal; an input attenuator connected to said terminal; an input mixer connected to the output of said attenuator; a gated shutter stage connected to the output of said mixer, said shutter stage being gated off during the interval between received pulses; a circulating amplifier connected to the output of said shutter stage, the loop transit time of said circulating amplifier being less than half of the period of the pulses emitted by said radar set; first gating means for gating said circulating amplifier off after a pulse received from said shutter stage has been circulated a plurality of times and for thereafter gating said circulating amplifier on before the next pulse is received from said shutter stage; a delay cable connected to receive circulating pulses from said circulating amplifier; a plurality of taps on said delay cable; a gated amplifier; switch means for connecting the input of said gated amplifier to any one of said taps; second gating means for gating said gated amplifier on for a time sufficient to pass only one of said circulating pulses; an output mixer connected to the output of said gated amplifier; an oscillator supplying a local signal to both said input mixer and said output mixer; a pulsed calibration oscillator for supplying a calibrating signal to the input of said input mixer; an amplitude comparator for indicating amplitude equality of the signal at the input of said input mixer and the signal at the output of said output mixer; adjustable gain control means for adjusting to unity the gain between the input of said input mixer and the output of said output mixer; and attenuator means connecting the output of said output mixer to said input-output terminal.

2,781,512
CYLINDRICAL NOTCH ANTENNA
Ralph O. Robinson, Jr., Silver Spring, Md., assignor to the United States of America as represented by the Secretary of the Navy
Application December 5, 1951, Serial No. 259,927
5 Claims. (Cl. 343—708)

2. In combination with an aerial vehicle having a cylindrical body terminating in a tubular end section of electrically conducting material terminating in an edge, an antenna system for the vehicle and forming a part thereof, comprising a recess open at the edge and extending from said edge into the section, the end remote from said open end of said recess being conductively terminated by said section thereby to form a notch, and means connected to opposite points on the sides of said notch feeding electro-magnetic energy to said notch, thereby causing said section to radiate.

2,781,513
SLOTTED SHEET ANTENNA
Donald W. Peterson, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application September 8, 1953, Serial No. 378,880
7 Claims. (Cl. 343—816)

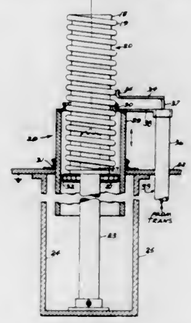


1. An antenna system comprising a plurality of conductive sheet elements radially arranged about a conductive supporting member and having an electrically continuous

outer edge, the inner edge of said sheets being substantially straight and parallel to said conductive supporting member, said inner edge being electrically and spatially discontinuous at points removed substantially one-half wavelength at the operating frequency from the center thereof, a transposing connection comprising metallic straps connecting the inner edge of each of said sheets with the inner edge of another of said sheets on the opposite side of said discontinuous points of said inner edge, and means for connecting transmission line means to the inner edge of said sheets.

2,781,514
HELICAL ANTENNA SYSTEM
William Sichak, Lyndhurst, and James J. Nail, Basking Ridge, N. J., assignors to International Telephone and Telegraph Corporation, a corporation of Maryland
Application April 29, 1953, Serial No. 351,852
11 Claims. (Cl. 343—895)

7. A radio antenna system comprising a ground plane conductor, a dielectric supporting structure of hollow cylindrical shape, a conductive element having one end coupled to said ground plane conductor disposed in the form of a helical radiator supported by and inside said dielectric structure extending above said ground plane conductor, adjustable means coupled to said ground plane conductor to short out portions of said helical radiator to thereby change the effective electrical lengths of said radiator for resonance, a coaxial transmission line carried by said adjustable means having an outer conductor



grounded and an inner conductor with one end thereof coupled to a source of radio frequency energy, and means to cause the second end of said inner conductor to couple energy to a portion of said helix at a given distance above said adjustable shorting means.

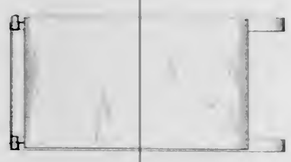
DESIGNS

FEBRUARY 12, 1957

179,671
SUCTION CLEANER NOZZLE
Carl Eric Sixten Andersson-Sason, Solna, Sweden, assignor to Aktiebolaget Elektrolux, Stockholm, Sweden, a corporation of Sweden
Application March 21, 1956, Serial No. 40,698
Claims priority, application Australia September 23, 1955
Term of patent 14 years
(Cl. D9—2)

179,672
MOULDING STRIP
Richard F. Baird, Oak Park, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application July 26, 1955, Serial No. 37,124
Term of patent 7 years
(Cl. D14—6)

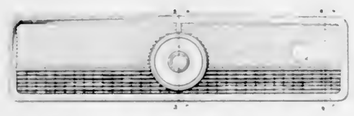
179,673
FOLDING BOOK RACK
Samuel D. Berlin, Baltimore, Md., assignor to The Malls Company, Baltimore, Md.
Application July 3, 1956, Serial No. 42,128
Term of patent 7 years
(Cl. D33—2)



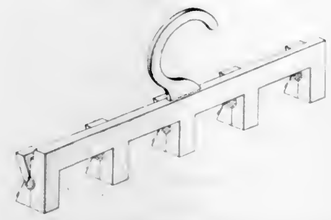
179,674
DESK STAND FOR A HAND TELEPHONE
Gerald A. Berting, Galion, Ohio, John A. Dienner, Evanston, Ill., and James M. Robinson, Galion, Ohio, assignors to North Electric Company, a corporation of Ohio
Application September 24, 1953, Serial No. 26,948
Term of patent 14 years
(Cl. D26—14)

179,675
SUNGLASS FRAME FRONT OR THE LIKE
Jack Bloch, Leominster, Mass., assignor to Foster Grant Co., Inc., Leominster, Mass., a corporation of Massachusetts
Application April 10, 1956, Serial No. 41,013
Term of patent 14 years
(Cl. D57—1)

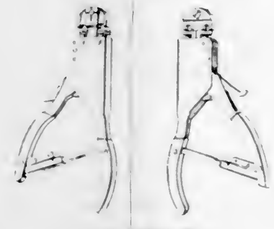
179,676
CONTROL PANEL FOR A LAUNDRY APPLIANCE
Dudley P. Combs, Newton, Iowa, assignor to The Maytag Company, Newton, Iowa, a corporation of Delaware
Application March 29, 1956, Serial No. 40,835
Term of patent 14 years
(Cl. D49—1)



179,677
GARMENT HOLDER
Gilbert C. Crill and Rae M. Crill, Lynwood, Calif.
Application March 19, 1956, Serial No. 40,649
Term of patent 14 years
(Cl. D33—8)



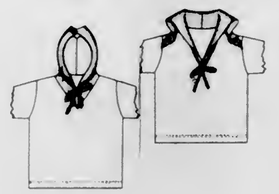
179,678
HAND TOOL FOR CRIMPING ELECTRICAL CONNECTORS ONTO CONDUCTORS
Henry W. Demler, Lebanon, Pa.
Application April 20, 1956, Serial No. 41,147
Term of patent 14 years
(Cl. D54—13)



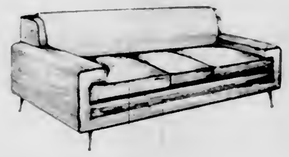
179,679
COMBINED DOORKNOB AND ROSE
Charles A. Ellis, Hamden, Conn., assignor to Sargent & Company, New Haven, Conn., a corporation of Connecticut
Application April 25, 1956, Serial No. 41,201
Term of patent 7 years
(Cl. D50—3)

179,680
SERVICE COUNTER FOR DISPENSING EDIBLES
Harold J. Fitzgerald, Milwaukee, Wis., assignor to Supurdisplay, Inc., Milwaukee, Wis., a corporation of Wisconsin
Application August 15, 1955, Serial No. 37,459
Term of patent 14 years
(Cl. D80—2)

179,681
KNITTED SHIRT OR SIMILAR ARTICLE
Meyer Geist, New York, N. Y.
Application February 27, 1956, Serial No. 40,360
Term of patent 14 years
(Cl. D3—25)



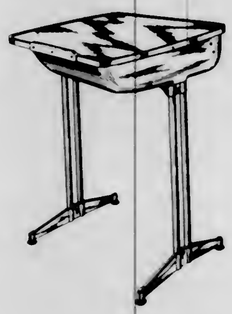
179,682
SOFA
Henry Peter Glass, Chicago, Ill., assignor to The Kenmar Manufacturing Company, East Palestine, Ohio, a corporation of Ohio
Application April 26, 1956, Serial No. 41,212
Term of patent 3½ years
(Cl. D15—11)



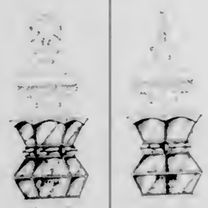
179,683
SOAP HOLDER
Reginald A. Harrison, De Queen, Ark.
Application April 26, 1956, Serial No. 41,210
Term of patent 7 years
(Cl. D4—3)

179,684
CONTROL INSTRUMENT
Robert Haven Hose, Mountainside, N. J., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application June 6, 1956, Serial No. 41,775
Term of patent 14 years
(Cl. D52—7)

179,685
DESK OR THE LIKE
Alfred C. Hoven, William S. Lindberg, and Walter E. Nordmark, Grand Rapids, Mich.
Application May 18, 1955, Serial No. 36,086
Term of patent 14 years
(Cl. D33—11)



179,686
LAMP
John E. Jacobsen, Chevy Chase, Md., and Russell Boris, Washington, D. C.
Application August 16, 1956, Serial No. 42,630
Term of patent 7 years
(Cl. D48—31)

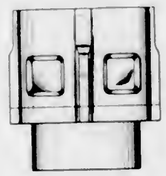


179,687
TRAY CART
Axel E. F. Johnson, Cincinnati, Ohio, assignor to Mealpack Corporation, Evanston, Ill., a corporation of Illinois
Application May 7, 1956, Serial No. 41,365
Term of patent 14 years
(Cl. D14—3)

179,688
SET OF TOY BUILDING BLOCKS OR SIMILAR ARTICLE
Nathan Kaplan, Flushing, N. Y., assignor to The Plas-Trix Company, Inc., Brooklyn, N. Y., a corporation of New York
Application April 20, 1956, Serial No. 41,139
Term of patent 14 years
(Cl. D34—15)

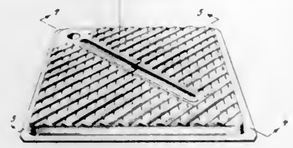
179,689
AMUSEMENT GAME APPARATUS
Steven F. Kordek, Chicago, Ill., assignor to Genco, Inc., Chicago, Ill., a corporation of Illinois
Application May 18, 1956, Serial No. 41,540
Term of patent 14 years
(Cl. D34—5)

179,690
SIGHT GAUGE FOR OIL CONDUITS AND THE LIKE
John T. Krapp, Port Washington, N. Y.
Application February 23, 1956, Serial No. 40,290
Term of patent 14 years
(Cl. D52—1)



179,691
SUN DIAL
Alfred E. Luders, Stamford, Conn.
Application April 11, 1955, Serial No. 35,460
Term of patent 14 years
(Cl. D42—7)

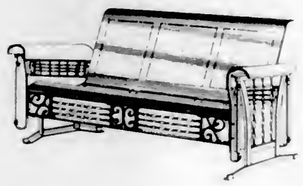
179,692
AQUARIUM FILTER
Jerry L. Malis, Wyndmoor, Pa.
Application October 14, 1955. Serial No. 38,375
Term of patent 14 years
(Cl. D91—2)



179,693
SWEATER
Naseeb A. Malouf, Yonkers, N. Y.
Application September 25, 1956, Serial No. 43,086
Term of patent 7 years
(Cl. D3—4)

179,694
LAMP OR SIMILAR ARTICLE
Gerald Moss, San Francisco, Calif.
Application September 24, 1956, Serial No. 43,051
Term of patent 14 years
(Cl. D48—19)

179,695
GLIDER
Morton Pearlstine, Cynwyd, Pa., assignor to The Bunting Company, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application August 17, 1955, Serial No. 37,532
Term of patent 14 years
(Cl. D15—11)

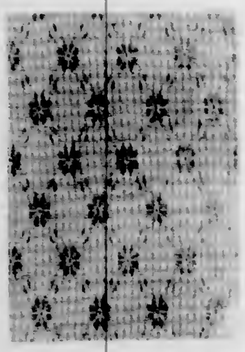


179,696
BIDET
Giovanni Ponti, Milan, Italy, assignor to American Radiator & Standard Sanitary Corporation, Pittsburgh, Pa., a corporation of Delaware
Application July 22, 1954, Serial No. 31,542
Claims priority, application Italy May 4, 1954
Term of patent 14 years
(Cl. D4—5)

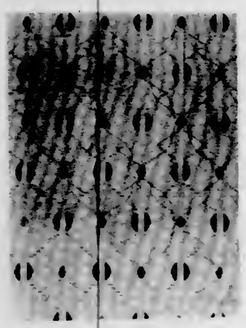
179,697
HOSE NOZZLE
Milton Price, Chicago, Ill., assignor to Milton Manufacturing Co., Inc., Chicago, Ill., a corporation of Illinois
Application September 26, 1955, Serial No. 38,093
Term of patent 14 years
(Cl. D91—1)

179,698
COOKING STOVE
Sheldon M. Rutter, Lake Forest, Ill., assignor to Crown Stove Works, Chicago, Ill., a corporation of Illinois
Application December 13, 1955, Serial No. 39,325
Term of patent 3½ years
(Cl. D81—4)

179,699
OPEN MESH TEXTILE FABRIC OR SIMILAR ARTICLE
Max Sadinoff, New York, N. Y.
Application February 17, 1956, Serial No. 40,196
Term of patent 3½ years
(Cl. D92—1)

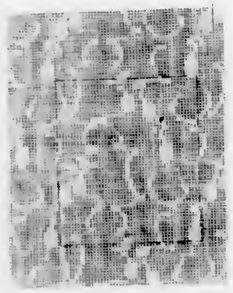


179,700
OPEN MESH TEXTILE FABRIC OR SIMILAR ARTICLE
Max Sadinoff, New York, N. Y.
Application February 17, 1956, Serial No. 40,197
Term of patent 3½ years
(Cl. D92—1)



179,701
OPEN MESH TEXTILE FABRIC OR SIMILAR ARTICLE
Max Sadinoff, New York, N. Y.
Application February 17, 1956, Serial No. 40,198
Term of patent 3½ years
(Cl. D92—1)

179,702
OPEN MESH TEXTILE FABRIC OR SIMILAR ARTICLE
Max Sadinoff, New York, N. Y.
Application June 28, 1956, Serial No. 42,067
Term of patent 3½ years
(Cl. D92—1)



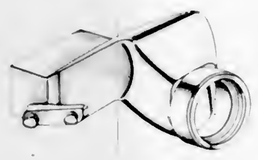
179,703
OPEN MESH TEXTILE FABRIC OR SIMILAR ARTICLE
Max Sadinoff, New York, N. Y.
Application June 28, 1956, Serial No. 42,068
Term of patent 3½ years
(Cl. D92—1)

179,704
OPEN MESH TEXTILE FABRIC OR SIMILAR ARTICLE
Max Sadinoff, New York, N. Y.
Application June 28, 1956, Serial No. 42,074
Term of patent 3½ years
(Cl. D92—1)

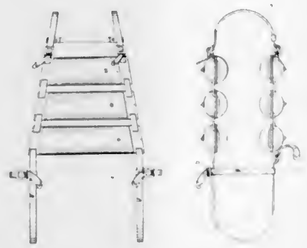
179,705
PITCHER
Louis M. Schnitzer, Brooklyn, N. Y., assignor to Everlast Metal Products Corp., a corporation of New York
Application August 30, 1955, Serial No. 37,718
Term of patent 14 years
(Cl. D44—21)

179,706
COMBINED PENCIL AND FLASHLIGHT
Sidney Schwartz, New York, N. Y., assignor to Bantam-Lite, Inc., New York, N. Y., a corporation of New York
Application November 14, 1955, Serial No. 38,879
Term of patent 14 years
(Cl. D74—24)

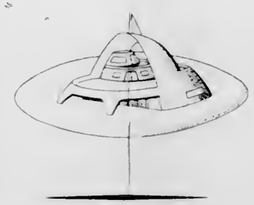
179,707
MEAT GRINDER ATTACHMENT
Hollum B. Shadid, Oklahoma City, Okla.
Application January 17, 1956, Serial No. 39,823
Term of patent 14 years
(Cl. D55—1)



179,708
SWIMMER'S AID
William Shofi, Bellerose, N. Y.
Application March 29, 1956, Serial No. 40,824
Term of patent 7 years
(Cl. D71—1)



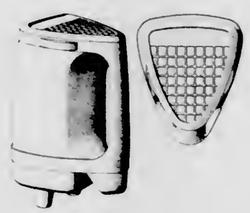
179,709
BUILDING OR SIMILAR ARTICLE
Bonnie Smith, Jr., Philadelphia, Pa.
Application March 12, 1956, Serial No. 40,615
Term of patent 14 years
(Cl. D13—1)



179,710
COMBINED ROSE AND KNOB FOR A DOOR LOCK
Andrea Spadini, Rome, Italy, assignor to The Yale & Towne Manufacturing Company, Stamford, Conn., a corporation of Connecticut
Application June 15, 1956, Serial No. 41,916
Term of patent 7 years
(Cl. D50—3)

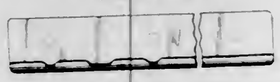
179,711
KITCHEN UTENSIL HANDLE OR SIMILAR ARTICLE
Franz Wagner, Chicago, Ill., assignor to Ekco Products Company, Chicago, Ill., a corporation of Illinois
Application September 9, 1954, Serial No. 32,225
Term of patent 14 years
(Cl. D44—29)

179,712
PORTABLE MIXER POWER UNIT
Chauncey E. Waltman, Chicago, Ill., assignor to Nu Tone, Inc., Cincinnati, Ohio, a corporation of New York
Application September 2, 1955, Serial No. 37,754
Term of patent 14 years
(Cl. D44—1)

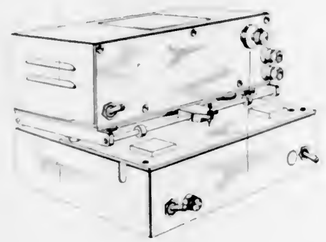


179,713
POWER BOAT
Ronald A. White, Coconut Grove, Fla.
Application August 3, 1955, Serial No. 37,311
Term of patent 7 years
(Cl. D71—1)

179,714
SHELF FOR SHAVING GEAR OR THE LIKE
George Wise, Washington, D. C.
Application August 23, 1954, Serial No. 32,131
Term of patent 14 years
(Cl. D4—3)



179,715
GRAPHIC RECORDER
John O. Yeiser, Palo Alto, Calif., assignor to Varian Associates, San Carlos, Calif., a corporation of California
Application July 14, 1955, Serial No. 36,978
Term of patent 14 years
(Cl. D26—14)



LIST OF REISSUE PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 12TH DAY OF FEBRUARY, 1957

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

ACF Industries, Inc.: *See*—
Boyce, Leonard D. Re. 24,274.
Albee, William H. Land vehicle or load-moving device comprising a flexible-walled, fluid-containing (peripherally-loaded) roller. Re. 24,272, 2–12–57, Cl. 180—9.
Alderson, Ross C., to Minneapolis-Honeywell Regulator Co. Automatic steering mechanism. Re. 24,273, 2–12–57, Cl. 244—77.
B-I-F Industries, Inc.: *See*—
Cary, Francis H. Re. 24,270.
Cary, Francis H. Re. 24,271.
Boyce, Leonard D., to ACF Industries, Inc. Carburetor deicing means. Re. 24,274, 2–12–57, Cl. 261—14.
Cary, Francis H., to B-I-F Industries, Inc. Telemetric apparatus for low and high range values. Re. 24,270, 2–12–57, Cl. 340—184.
Cary, Francis H., to B-I-F Industries, Inc. Telemetric apparatus. Re. 24,271, 2–12–57, Cl. 340—206.
General Filter Co.: *See*—
Lawlor, Joseph P. Re. 24,275.
Lawlor, Joseph P., to General Filter Co. Multicell filter apparatus. Re. 24,275, 2–12–57, Cl. 210—144.
Minneapolis-Honeywell Regulator Co.: *See*—
Alderson, Ross C. Re. 24,273.
Schuyler, Fred B. Truck dock bumper. Re. 24,276, 2–12–57 Cl. 267—1.

LIST OF PLANT PATENTEES

Arnesen, Edward B. Camellia plant. 1,562, 2–12–57, Cl. 47—60.
Bisbee, Roy A., to Stark Bro's Nurseries and Orchards Co. Apple tree. 1,565, 2–12–57, Cl. 47—62.
Boerner, Eugene S., to Jackson & Perkins Co. Rose plant. 1,563, 2–12–57, Cl. 47—61.
Boerner, Eugene S., to Jackson & Perkins Co. Rose plant. 1,564, 2–12–57, Cl. 47—61.
Byrum, Roy L., to Joseph H. Hill Co. Rose plant. 1,566, 2–12–57, Cl. 47—61.
Hill, Joseph H., Co.: *See*—
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Boerner, Eugene S. 1,564.
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Bisbee, Roy A. 1,565.

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American Radiator & Standard Sanitary Corp.: *See*—
Ponti, Giovanni. 179,696.
Andersson-Sason, Carl E. S., to Aktiebolaget Elektrolux. Suction cleaner nozzle. 179,671, 2–12–57, Cl. D9—2.
Baird, Richard F., to Chrysler Corp. Moulding strip. 179,672, 2–12–57, Cl. D14—6.
Bantam-Lite, Inc.: *See*—
Schwartz, Sidney. 179,706.
Berlin, Samuel D., to The Malls Co. Folding book rack. 179,673, 2–12–57, Cl. D33—2.
Berting, Gerald A., J. A. Dienner, and J. M. Robinson, to North Electric Co. Desk stand for a hand telephone. 179,674, 2–12–57, Cl. D26—14.
Bloch, Jack, to Foster Grant Co., Inc. Sunglass frame front or the like. 179,675, 2–12–57, Cl. D57—1.
Boris, Russell: *See*—
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Bunting Co., Inc., The: *See*—
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Chrysler Corp.: *See*—
Baird, Richard F. 179,672.
Combs, Dudley P., to The Maytag Co. Control panel for a laundry appliance. 179,676, 2–12–57, Cl. D49—1.
Crill, Gilbert C. and R. M. Garment holder. 179,677, 2–12–57, Cl. D33—8.
Crill, Rae M.: *See*—
Crill, Gilbert C. and R. M. 179,677.
Crown Stove Works: *See*—
Rutter, Sheldon M. 179,698.
Demler, Henry W. Hand tool for crimping electrical connectors onto conductors. 179,678, 2–12–57, Cl. D54—13.
Dienner, John A.: *See*—
Berting, Gerald A., Dienner, and Robinson. 179,674.
Ekco Products Co.: *See*—
Wagner, Franz. 179,711.
Ellis, Charles A., to Sargent & Co. Combined doorknob and rose. 179,679, 2–12–57, Cl. D50—3.
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Schnitzer, Louis M. 179,705.
Fitzgerald, Harold J., to Supurdisplay, Inc. Service counter for dispensing edibles. 179,680, 2–12–57, Cl. D80—2.
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Bloch, Jack. 179,675.
Geist, Meyer. Knitted shirt or similar article. 179,681, 2–12–57, Cl. D3—25.
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Glass, Henry P., to The Kenmar Mfg. Co. Sofa. 179,682, 2–12–57, Cl. D15—11.
Harrison, Reginald A. Soap holder. 179,683, 2–12–57, Cl. D4—3.
Hose, Robert H., to Minneapolis-Honeywell Regulator Co. Control instrument. 179,684, 2–12–57, Cl. D52—7.
Hoven, Alfred C., W. S. Lindberg, and W. E. Nordmark. Desk or the like. 179,685, 2–12–57, Cl. D33—11.
Jacobsen, John E., and R. Boris. Lamp. 179,686, 2–12–57, Cl. D48—31.
Johnson, Axel E. F., to Mealpack Corp. Tray cart. 179,687, 2–12–57, Cl. D14—3.
Kaplan, Nathan, to The Plas-Trix Co., Inc. Set of toy building blocks or similar article. 179,688, 2–12–57, Cl. D34—15.
Kenmar Mfg. Co., The: *See*—
Glass, Henry P. 179,682.
Kordek, Steven F., to Genco, Inc. Amusement game apparatus. 179,689, 2–12–57, Cl. D34—5.
Krapp, John T. Sight gauge for oil conduits and the like. 179,690, 2–12–57, Cl. D52—1.
Luders, Alfred E. Sun dial. 179,691, 2–12–57, Cl. D42—7.
Lindberg, William S.: *See*—
Hoven, Alfred C., Lindberg, and Nordmark. 179,685.
Malls, Jerry L. Aquarium filter. 179,692, 2–12–57, Cl. D91—2.
Malls Co., The: *See*—
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Malouf, Naseeb A. Sweater. 179,693, 2–12–57, Cl. D3—4.
Maytag Co., The: *See*—
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Milton Mfg. Co., Inc.: *See*—
Price, Milton. 179,697.
Minneapolis-Honeywell Regulator Co.: *See*—
Hose, Robert H. 179,684.
Moss, Gerald. Lamp or similar article. 179,694, 2–12–57, Cl. D48—19.
Nordmark, Walter E.: *See*—
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North Electric Co.: *See*—
Berting, Gerald A., Dienner, and Robinson. 179,674.
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Waltman, Chauncey E. 179,712.
Pearlstine, Morton, to The Bunting Co., Inc. Glider. 179,695. 2–12–57, Cl. D15—11.
Plas-Trix Co., Inc., The: *See*—
Kaplan, Nathan. 179,688.
Ponti, Giovanni, to American Radiator & Standard Sanitary Corp. Bidet. 179,696, 2–12–57, Cl. D4—5.
Price, Milton, to Milton Mfg. Co., Inc. Hose nozzle. 179,697. 2–12–57, Cl. D91—1.
Robinson, James M.: *See*—
Berting, Gerald A., Dienner, and Robinson. 179,674.
Rutter, Sheldon M., to Crown Stove Works. Cooking stove. 179,698, 2–12–57, Cl. D81—4.

Sadinoff, Max. Open mesh textile fabric or similar article. 179,699, 2–12–57, Cl. D92—1.
Sadinoff, Max. Open mesh textile fabric or similar article. 179,700, 2–12–57, Cl. D92—1.
Sadinoff, Max. Open mesh textile fabric or similar article. 179,701, 2–12–57, Cl. D92—1.
Sadinoff, Max. Open mesh textile fabric or similar article. 179,702, 2–12–57, Cl. D92—1.
Sadinoff, Max. Open mesh textile fabric or similar article. 179,703, 2–12–57, Cl. D92—1.
Sadinoff, Max. Open mesh textile fabric or similar article. 179,704, 2–12–57, Cl. D92—1.
Sargent & Co.: *See*—
Ellis, Charles A. 179,679.
Schnitzer, Louis M., to Everlast Metal Products Corp. Pitcher. 179,705, 2–12–57, Cl. D44—21.
Schwartz, Sidney, to Bantam-Lite, Inc. Combined pencil and flashlight. 179,706, 2–12–57, Cl. D74—24.
Shadid, Hollum B. Meat grinder attachment. 179,707, 2–12–57, Cl. D55—1.
Shofi, William. Swimmer's aid. 179,708, 2–12—57, Cl. D71—1.
Smith, Bonnie, Jr. Building or similar article. 179,709, 2–12–57, Cl. D13—1.
Spadini, Andrea, to The Yale & Towne Mfg. Co. Combined rose and knob for a door lock. 179,710, 2–12–57, Cl. D50—3.
Supurdisplay, Inc. *See*—
Fitzgerald, Harold J. 179,680.
Varian Associates: *See*—
Yeiser, John O. 179,715.
Wagner, Franz, to Ekco Products Co. Kitchen utensil handle or similar article. 179,711, 2–12–57, Cl. D44—29.
Waltman, Chauncey E., to Nu Tone, Inc. Portable mixer power unit. 179,712, 2–12–57, Cl. D44—1.
White, Ronald A. Power boat. 179,713, 2–12–57, Cl. D71—1.
Wise, George. Shelf for shaving gear or the like. 179,714, 2–12–57, Cl. D4—3.
Yale & Towne Mfg. Co., The: *See*—
Spadini, Andrea. 179,710.
Yeiser, John O., to Varian Associates. Graphic recorder. 179,715, 2–12–57, Cl. D26—14.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 12TH DAY OF FEBRUARY, 1957

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Abbott, John A., Jr., D. B. Crawford, and K. M. Kelly, to American Machine & Foundry Co. Method of producing angel food batter and cake. 2,781,268, 2–12–57, Cl. 99—92.
Abington Textile Machinery Works: *See*—
Rowe, Frank E., Jr. 2,781,164.
Abrahamsen, Henry C.: *See*—
Chapman, Dave, Daies, Abrahamsen, and Gaul. 2,780,845.
Adams, Richard E. Gusset type bag. 2,781,161, 2–12–57, Cl. 229—54.
Adler, Robert, to Zenith Radio Corp. Television receiver. 2,781,468, 2–12–57, Cl. 313—69.
Admiral Corp.: *See*—
Carlson, Reuben C. 2,781,198.
Aerojet-General Corp.: *See*—
Chestnut, John D. 2,781,099.
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Aerovox Corp.: *See*—
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Agrashell, Inc.: *See*—
Ayers, Joseph W., and Bradley. 2,781,288.
Ayers, Joseph W., and Bradley. 2,781,327.
Ayers, Joseph W., and Bradley. 2,781,328.
Agriculture, United States of America as represented by the Secretary of: *See*—
Young, Ray C., and Rusca. 2,780,839.
Agrillo, Paul. Spring structure. 2,781,083, 2–12–57, Cl. 155—179.
Ahmann, Donald H.: *See*—
Wilhelm, Harley A., and Ahmann. 2,781,304.
Aircraft-Marine Products Inc.: *See*—
Tritt, Russell L. 2,780,813.
Air Force, United States of America as represented by the Secretary of the: *See*—
Brogan, Francis A. 2,781,416.
Air Reduction Co., Inc.: *See*—
Shukys, Julius G. 2,781,405.
Ajax Electrothermic Corp.: *See*—
Kennedy, Theodore R. 2,781,487.
Aktiebolaget Svenska Mettalverken: *See*—
Fredriksson, Per S. E. 2,780,948.
Aktiengesellschaft Brown, Boveri & Cie: *See*—
Lardelli, Otto. 2,781,426.
Aladdin Industries, Inc.: *See*—
Lyman, Harold T., and Mason. 2,781,451.
Alexeff, Alexander V.: *See*—
Sanborn, Frank W., and Alexeff. 2,780,878.
Algemene Kunstzijde Unie, N. V.: *See*—
De Ruyter, Paulus H. 2,781,341.
Allegheny Ludlum Steel Corp.: *See*—
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Kalita, Wesley. 2,781,283.
Laine, Edward A. 2,780,985.
Allen, Earle F.: *See*—
Haynes, Artemas J., and Allen. 2,780,937.
Allen, Frank B., to The Fyr-Fyter Co. Nozzle for powder fire extinguisher. 2,781,101, 2–12–57, Cl. 169—1.
Allied Chemical & Dye Corp.: *See*—
Hecklinger, Clarence F. 2,781,244.
Robertson, Harold E., and Strom. 2,781,245.
Allis-Chalmers Mfg. Co.: *See*—
Jacobs, Joseph J. 2,781,209.
Allison, Kenneth C., to Grigsby-Allison Co., Inc. Riveting apparatus. 2,781,144, 2–12–57, Cl. 218—1.
Alsobrook, Benjamin R.: *See*—
Lane, Robert B., and Alsobrook. 2,781,205.
American Brake Shoe Co.: *See*—
Smith, Francis H., and Spokes. 2,781,107.
American Can Co.: *See*—
Gueffroy, Walter A. 2,781,122.
Gueffroy, Walter A. 2,781,123.
Pechy, William. 2,781,118.
American Carry Products Co., Inc.: *See*—
Heideman, Robert C. 2,781,225.
American Cyanamid Co.: *See*—
Leavitt, Julian J., and Long. 2,781,345.
Updegraff, Ivor H. 2,781,333.
Von, Isaiah. 2,781,362.
American Engineering Co.: *See*—
Lamond, Robert C. 2,780,917.
American Enka Corp.: *See*—
Vermaas, Dirk. 2,781,275.
American Machine & Foundry Co.: *See*—
Abbott, John A., Jr., Crawford, and Kelly. 2,781,268.
Brandenberger, Ernest. 2,781,121.
Crawford, Duffer B., and Hirsch. 2,781,270.
Holloway, Robert L., Bohm, Zuercher, and Strauss. 2,781,195.
Saunders, Norman B. 2,781,503.
American Steel Foundries: *See*—
Cottrell, Robert B. 2,781,003.
American Viscose Corp.: *See*—
Ayars, Edward M., Jr. 2,781,181.
Braunlich, Richard H. 2,780,833.
Lewis, Ellis, Jr. 2,781,326.
Roberts, Ingham S. 2,780,933.
Warner, Sterling W. 2,780,877.
Anderson, Carl A., to H. M. Davis. Irrigation control system. 2,781,228, 2–12–57, Cl. 299—25.
Anderson, Victor E., to Prentice Machine Works, Inc. Rotary jointer head and cutter. 2,781,068, 2–12–57, Cl. 144—218.
Appell, Herbert R., to Universal Oil Products Co. Treatment of petroleum fractions. 2,781,297, 2–12–57, Cl. 196—44.
Arbelt, Pierre, to Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny & Cirey. Apparatus for melting glass. 2,780,891, 2–12–57, Cl. 49—54.
Armacost, Wilber H., to Combustion Engineering, Inc. Controlled circulation boiler with orifice drum. 2,781,028, 2–12–57, Cl. 122—406.
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Mitz, Milton A., and Heath. 2,781,339.
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Armstrong, David G., to United States of America as represented by the Secretary of the Navy. Terminal support for bayonet type coaxial connector. 2,781,500, 2–12–57, Cl. 339—177.
Armstrong, Lorne D., to Radio Corp. of America. Semiconductors and methods of making same. 2,781,481, 2–12–57, Cl. 317—239.
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Bower, George G. 2,781,417.
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Rossi, Robert R. 2,781,428.
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Gentry, Hermond G. 2,780,970.
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Ekström, Gösta I. 2,781,025.
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Averill, Charles C., to Union Steel Products Co. Material handling pallet. 2,781,184, 2–12–57, Cl. 248—120.
Ayars, Edward M., Jr., to American Viscose Corp. Yarn tension guide. 2,781,181, 2–12–57, Cl. 242—150.
Ayers, Joseph W., and J. J. Bradley, Jr., to Agrashell, Inc. Phenolic resin glue compositions containing a vegetable shell flour derivative. 2,781,286, 2–12–57, Cl. 154—15.9.
Ayers, Joseph W., and J. J. Bradley, Jr., to Agrashell, Inc. Phenolic resin glue compositions containing modified bark phloem flour. 2,781,327, 2–12–57, Cl. 260—17.2.
Ayers, Joseph W., and J. J. Bradley, Jr., to Agrashell, Inc. Phenolic resin glue compositions containing hydrolyzed ligno-cellulosic degradation products. 2,781,328, 2–12–57, Cl. 260—17.2.
Ayers, William P. Multiple gas burner. 2,781,088, 2–12–57, Cl. 158—104.
Ayres, Waldemar A., to White Sewing Machine Corp. Sewing machine. 2,781,011, 2–12–57, Cl. 112—221.
Babcock & Wilcox Co., The: *See*—
Kolling, Johann. 2,781,029.
Babcock, William J. Speed change attachment for power tools. 2,780,942, 2–12–57, Cl. 74—417.
Baborik, Steve. Adjustable strike plate. 2,781,219, 2–12–57, Cl. 292—341.18.
Bahr, Alfred. Steam trap. 2,781,173, 2–12–57, Cl. 236—59.
Baker, Lloyd B. Bottle cap remover. 2,781,142, 2–12–57, Cl. 215—46.
Baker, Richard E.: *See*—
Covely, Frank D., and Baker. 2,781,473.
Baker, William O., to the United States of America as represented by the Secretary of the Navy. Smokeless powder grains and method of making same. 2,780,997, 2–12–57, Cl. 102—98.

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Ballentine, William L., Jr., and H. C. Brest, to United States Steel Corp. Traveling apparatus for welding horizontal joints between vertically disposed plates. 2,781,441, 2–12–57, Cl. 219—126.

Barber-Colman Co.: *See*—
Kennedy, Walter W. 2,780,980.

Barberi, Giuseppe. Valve arrangement for internal combustion engines. 2,781,031, 2–12–57, Cl. 123—47.

Barden, Wayne A., to Chicago Telephone Supply Corp. Variable resistor with means for preventing shaft rattle. 2,781,436, 2–12–57, Cl. 201—55.

Barnes Drill Co.: *See*—
Seborg, Earnest Y., and Greenberg. 2,780,893.

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Barnum, Emmett R., and L. E. Lorensen, to Shell Development Co. Lubricating compositions. 2,781,319, 2–12–57, Cl. 252—47.5.

Bartow Beacons, Inc.: *See*—
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Bartow, John B., to Bartow Beacons, Inc. Apparatus and method for producing autokinematic-stereoscopic vision and optical illusionary effects. 2,781,042, 2–12–57, Cl. 128—76.5.

Bassick Co., The: *See*
Claud-Mantle, Arthur. 2,781,214.

Beach, Ronald O. Firing mechanism for a depth charge. 2,780,992, 2–12–57, Cl. 102—7.

Bechtler, Hans C., to Pneumatil Corp. Control systems for spinning and roving frames. 2,780,908, 2–12–57, Cl. 57—80.

Becker, Clark G.: *See*—
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Becker, Howard L., Jr., to General Electric Co. Apparatus for testing magnets. 2,781,127, 2–12–57, Cl. 209—115.

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Heckmann, Wolfgang G., and Becker. 2,781,130.

Becker, Paul G. and C. G. Folding scaffolds. 2,781,236, 2–12–57, Cl. 304—29.

Belcher, Donald J., T. R. Cuykendall, and H. S. Sack, to Cornell University. Methods and apparatus for determination of characteristics of matter in a surface layer. 2,781,453, 2–12–57, Cl. 250—83.6.

Belk, Wilber C., and E. F. Frost, Jr., to Food Machinery and Chemical Corp. Method of and apparatus for processing whole fruit. 2,780,988, 2–12–57, Cl. 100—37.

Bell Telephone Laboratories, Inc.: *See*—
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Beloit Iron Works: *See*—
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Bennett, Ralph D. Free floating mine. 2,780,994, 2–12–57, Cl. 102—18.

Bennett, Verna R. Toe shield. 2,781,044, 2–12–57, Cl. 128—153.

Benson, Walter L., and O. L. Larkin, to Process Engineering Inc. Apparatus for filling a fire extinguisher. 2,780,899, 2–12–57, Cl. 53—268.

Beresford, James, & Son Ltd.: *See*—
Timms, Arthur W. J. 2,781,464.

Berger, Alfred, to Ciba Ltd. Flame-proofing of textiles. 2,781,281, 2–12–57, Cl. 117—136.

Bergstein Packaging Trust, The: *See*—
Bergstein, Robert M. 2,781,150.

Bergstein, Robert M., to The Bergstein Packaging Trust. Bottle carrier with reinforced handle and method of making it. 2,781,150, 2–12–57, Cl. 220—113.

Berker, Ralph C. Sliver coiler. 2,780,841, 2–12–57, Cl. 19—159.

Bernhardt, Ernest C., to E. I. du Pont de Nemours and Co. Extruder equipped with a mulling head. 2,780,831, 2–12–57, Cl. 18—12.

Berninger, Kenneth L., and C. C. Covert, to General Motors Corp. Valve assembly. 2,781,053, 2–12–57, Cl. 137—492.5.

Berry, Otto C. Casting machine. 2,780,849, 2–12–57, Cl. 22—93.

Bersworth, Frederick C.: *See*—
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Blefeld, Lawrence P., and H. W. Duffee, to Owens-Corning Fiberglas Corp. Method of forming yarns from staple glass fibers. 2,780,909, 2–12–57, Cl. 57—164.

Blelstein, Walter J., to Esso Research and Engineering Co. Permanent well completion apparatus. 2,781,098, 2–12–57, Cl. 166—55.

Binford, Robert S., and J. W. Jacobson, to General Electric Co. Liquid flow control valve system. 2,781,049, 2–12–57, Cl. 137—108.

Bituminous Coal Research, Inc.: *See*—
Kaiser, Elmer R., and Garvey. 2,781,039.

Black, James J., to Trailmobile, Inc. Hub construction. 2,781,231, 2–12–57, Cl. 301—105.

Black, William J., to Curtiss-Wright Corp. Auto insect deflector. 2,781,227, 2–12–57, Cl. 296—91

Bohm, Toivo J.: *See*—
Holloway, Robert L., Bohm, Zuercher, and Strauss. 2,781,195.

Boisture, Worth W., and J. F. Ross, to Esso Research and Engineering Co. Automatic control of standpipe and U-bend aeration. 2,781,234, 2–12–56, Cl. 302—66.

Bolding, Hubert V., to The Bradley & Gilbert Co. Automatic double wall carton. 2,781,160, 2–12–57, Cl. 229—41.

Bolleter, Albert: *See*—
Moser, Eduard, Bolleter, and Wittwer. 2,781,337.
Moser, Eduard, Bolleter, and Wittwer 2,781,338

Bolt, Harry C. Collapsible habitable structure. 2,780,844, 2–12–57, Cl. 20—2.

Booth, Galt B., W. G. Brown, and K. Unholtz, to Textron American, Inc. Electromagnetic vibration exciter. 2,781,461, 2–12–57, Cl. 310—27.

Bombrini, Parodi Delfino S. p. A.: *See*
Migliaccio, Etereo. 2,780,995

Borden, Philip H., to Central Industrial Corp. Safety razor. 2,780,866, 2–12–56, Cl. 30—60.5.

Borg-Warner Corp.: *See*—
Compton, James A., and Paul. 2,780,999
Roseman, Richard E. 2,780,929.

Borgardt, Henry: *See*—
Rudnik, Raymond G., Miller, and Borgardt. 2,781,272.

Borneman, Paul R., and L. V. Klaybor, to Allegheny Ludlum Steel Corp. Graphitic high carbon-high vanadium steels. 2,781,284, 2–12–57, Cl. 148—31.

Boswell, Thomas L.: *See*—
Ensign, George G., and Boswell. 2,781,314.

Bowen, Richard L., Jr. Constant web tension unwinding mechanism. 2,781,178, 2–12–57, Cl. 242—75.

Bower, George G., to the United States of America as represented by the Secretary of the Army. Telephone transmission system. 2,781,417, 2–12–57, Cl. 179—15.5.

Bowie, Adrian St. J., and J. L. Nelson, to Food Machinery and Chemical Corp. Nut pickup device. 2,780,904, 2–12–57, Cl. 56—328.

Boyce, John, and J. C. Olsen, to Food Machinery and Chemical Corp. Carton freezing apparatus. 2,780,927, 2–12–57, Cl. 62—114

Boyer, Robert Q., and S. B. Kilner, to the United States of America as represented by the United States Atomic Energy Commission. Process of recovering uranium from solutions. 2,781,303, 2–12–57, Cl. 204—1.5.

Braaten, Earl E.: *See*—
Schmitt, Roland G., Braaten, and Swedberg. 2,780,832.

Brace, George A., to The Hoover Co. Suction cleaner with bag adapter. 2,780,828, 2–12–57, Cl. 15—351.

Bradburd, Ervin M., to International Telephone and Telegraph Corp. Transmission systems. 2,781,491, 2–12–57, Cl. 332—19.

Bradley & Gilbert Co., The: *See*—
Bolding, Hubert V. 2,781,160.
Ayers, Joseph W., and Bradley. 2,781,286
Ayers, Joseph W., and Bradley. 2,781,327.
Ayers, Joseph W., and Bradley. 2,781,328.

Braestrup, Carl B.: *See*—
Green, Donald P., and Braestrup. 2,781,454.

Bram, Georges, to Compagnie de Pont-A-Mousson. Wrench with a flexible gripping band. 2,780,951, 2–12–57, Cl. 81—64.

Brandenberger, Ernest, to American Machine & Foundry Co. Article transferring, loading and unloading. 2,781,121, 2–12–57, Cl. 198—31.

Brandon, Thomas O., to A. G. Spalding & Bros., Inc. Grip member. 2,781,196, 2–12–57, 273—81.3.

Braunlich, Richard H., to American Viscose Corp. Apparatus for the production of artificial slubbed filaments. 2,780,833, 2–12–57, Cl. 18—8.

Bray Oil Co.: *See*—
Bray, Ulric B. 2,781,315.
Bray, Ulric B. 2,781,316.
Bray, Ulric B. 2,781,317.

Bray, Ulric B., to Bray Oil Co. Method of purifying, concentrating and converting petroleumum sulfonates with ketones. 2,781,315, 2–12–57, Cl. 252—33.

Bray, Ulric B., to Bray Oil Co. Method of purifying, concentrating and converting petroleum sulfonates with ethers. 2,781,316, 2–12–57, Cl. 252—33.

Bray, Ulric B., to Bray Oil Co. Method of purifying, concentrating and converting petroleum sulfonates with glycols. 2,781,317, 2–12–57, Cl. 252—33.

Breese Burners, Inc.: *See*—
Breese, James L. 2,781,086.

Breese, James L., to Breese Burners, Inc. Lighter torch assembly for a heater of the vapor generating type. 2,781,086, 2–12–57, Cl. 158—10.

Brendbeck, Howard S. Poultry nest assembly. 2,781,023, 2–12–57, Cl. 119—45.

Brest, Harry C.: *See*—
Ballentine, William L., Jr., and Brest. 2,781,441.

Brickman, Alan E., to United States Steel Corp. Special shaped wire. 2,780,860, 2–12–57, Cl. 29—193.5.

Bristow, Paul W.: *See*
Lawson, Robert H., and Bristow. 2,780,931.

British Celanese Ltd.: *See*—
Downing, John, Hodge, and Drewitt. 2,781,243.

British Electric Traction Co. Ltd., The: *See*—
Slee, Alfred G. 2,781,115.
Slee, Alfred G., and Cox. 2,781,114.

British Petroleum Co. Ltd., The: *See*
Thornes, Leslie, Sr., Turner, and Hyde. 2,781,322.

Brogan, Francis A., to The United States of America as represented by the Secretary of the Air Force. Automatic audiometer. 2,781,416, 2–12–57, Cl. 179—1.

Brown and Crow: *See*
Brown, Howard A. 2,780,868.

Brown, Henry. Electrodeposition of nickel. 2,781,305, 2–12–57, Cl. 204—49.

Brown, Henry. Electrodeposition of nickel. 2,781,306, 2–12–57, Cl. 204—49.

Brown, Howard A., to Brown and Crow. Comb attachment for hair clippers. 2,780,868, 2–12–57, Cl. 30—200.

Brown, Kenneth M., and C. R. McMahan, to Universal Oil Products Co. Treatment of cracked hydrocarbon distillates with a phenylene diamine, oxygen, and alkali. 2,781,296, 2–12–57, Cl. 196—29.

Brown, Robert N., to Kearfott Co., Inc. Floated gyro. 2,780,940, 2–12–57, Cl. 74—5.7.

Brown & Sharpe Mfg. Co.: *See*—
Twamley, William E. 2,780,857.

Brown, William G.: *See*—
Booth, Galt B., Brown, and Unholtz. 2,781,461.

Browning, Otis M. Automatic bedding marker. 2,780,977, 2–12–57, Cl. 97—230.

Brundage, Jaman D. Precast septic tank. 2,781,311, 2–12–57, Cl. 210—6.

Bryce, James. Musical gloves. 2,780,954, 2–12–57, Cl. 84—375.

Brycel Ltd.: *See*—
Simon, Walter E. A. 2,781,276.

Buckeridge, Roger M., to Goodman Mfg. Co. Cable reels for a mine vehicle or the like. 2,781,456, 2–12–57, Cl. 307—9.

Bullock, Oakle P. Automobile air cooler. 2,780,928, 2–12–57, Cl. 62—117.

Butterworth, H. W., and Sons Co.: *See*—
Gilfillan, William C. 2,781,192.

Byrd, William R. Juicer and measuring cup combination. 2,781,069, 2–12–57, Cl. 146—3.

Cabaniss, James M. Bait holder. 2,780,887, 2–12–57, Cl. 43—55.

Callahan, Robert. Fish bait holders. 2,780,885, 2–12–57, Cl. 43—44.6.

Callaway Mills Co.: *See*—
Thompson, Roscoe L. 2,781,007.

Camescasse, Pierre, and M. Petit, to Soberma (Societe de Brevets d'Etudes et de Recherches pour le Magnesium). Apparatus for condensing metals to the liquid state. 2,781,189, 2–12–57, Cl. 266—15.

Campbell, A. S., Co., Inc.: *See*—
McLeod, Charles A. 2,781,117.

Campbell, Alexander B., Jr. Paper bag holder. 2,781,151, 2–12–57, Cl. 221—45.

Campbell, Dewey H., to P. & G. Mfg. Co. Valve clearance gauges. 2,780,871, 2–12–57, Cl. 33—172.

Canada Packers, Ltd.: *See*—
Ziegler, Peter, and Hochner. 2,781,364.

Canepa, Michele, to Olivetti Corp. of America. Binary system. 2,781,504, 2–12–57, Cl. 340—174.

Canterino, Peter J.: *See*—
Jones, Rufus V., and Canterino. 2,781,331.

Carey, Edward G., to George W. Rogers Construction Corp. Marine fender. 2,780,919, 2–12–57, Cl. 61—48.

Cargle, William R. Vehicle yieldable light mounting. 2,781,443, 2–12–57, Cl. 240—8.2.

Carlson, Reuben C., to Admiral Corp. Phonograph record player spindle. 2,781,198, 2–12–57, Cl. 274—10.

Carr, James P., to Food Machinery and Chemical Corp. Wheel aligning gauge. 2,780,875, 2–12–57, Cl. 33—203.18.

Carter, James M. Fountain-type car mop. 2,780,821, 2–12–57, Cl. 15—128.

Carter, Norman C.: *See*—
Witt, Donald R., and Carter. 2,781,408.

Carter, Richard O. Ball type bearing for rod end. 2,781,238, 2–12–57, Cl. 308—72.

Carter, Uriel F., to Cutler-Hammer, Inc. Electric switches and parts therefor. 2,781,431, 2–12–57, Cl. 200—83.

Carufel, Louis D., to Continental Motors Corp. Hydraulic valve control for reversing transmission. 2,781,056, 2–12–57, Cl. 137—624.

Catlin, Robert T., and C. C. Clair, to Remington Arms Co., Inc. Template for use with a stud driver. 2,780,810, 2–12–57, Cl. 1—44.5.

Celanese Corp. of America: *See*—
Petersen, Svend A. 2,781,177.

Central Industrial Corp.: *See*—
Borden, Philip H. 2,780,866.

Chadwick, David H., to Monsanto Chemical Co. Aryl sulfones and method of producing same. 2,781,402, 2–12–57, Cl. 260—607.

Challenger Products, Inc.: *See*—
Fischer, Charles. 2,781,112.

Chamberlain, John, to United Aircraft Corp. Mass flow measuring device. 2,780,938, 2–12–57, Cl. 73—202.

Chandler & Price Co., The: *See*—
Rupp, William C. 2,781,093.

Chapla, Steve J. Masonry chisel. 2,780,867, 2–12–57, Cl. 30—168.

Chapman, Dave, B. Dales, H. C. Abrahamsen, and E. M. Gaul, to Whirlpool-Seeger Corp. Fabricated refrigerator door. 2,780,845, 2–12–57, Cl. 20—35.

Chase-Shawmut Co., The: *See*—
Swain, Kenneth W. 2,781,434.

Chemische Fabriek L. van der Grinten N. V.: *See*—
Nagels, Frederik. 2,780,973.

Cheng, Jen-Pu: *See*—
De Groote, Melvin, and Cheng. 2,781,352.

Chestnut, John D., to Aerojet-General Corp. Oil well tool. 2,781,099, 2–12–57, Cl. 166—63.

Chicago Telephone Supply Corp.: *See*—
Barden, Wayne A. 2,781,436.

Chiksan Co.: *See*—
Jackson, Donald M. 2,781,055.

Christensen, Edward R.: *See*—
Elmer, Otto C., and Christensen. 2,781,289.

Ciba Ltd.: *See*—
Berger, Alfred. 2,781,281.
Moser, Eduard, Bolleter, and Wittwer. 2,781,337.
Moser, Eduard, Bolleter, and Wittwer. 2,781,338.

Ciba Pharmaceutical Products, Inc.: *See*—
Schlittler, Emil, and Uffer. 2,781,348.

Cilker, William H., to Food Machinery and Chemical Corp. Fire pump. 2,780,998, 2–12–57, Cl. 103—106.

Clair, Curtis C.: *See*—
Catlin, Robert T., and Clair. 2,780,810.

Clark, Geoffrey, to Unipulver Ltd. Rotor rim construction for fixation of blades. 2,781,176, 2–12–57, Cl. 241—294.

Clark, Melville, Jr.: *See*—
Cork, Bruce B., and Clark. 2,781,493.

Claud-Mantle, Arthur, to The Bassick Co. Hood latch. 2,781,214, 2–12–57, Cl. 292—11.

Clavier, Philippe A., to Sylvania Electric Products Inc. Microwave amplifier. 2,781,472, 2–12–57, Cl. 315—3.5.

Clemons, Maurice M.: *See*—
Sehn, Francis J., and Clemons. 2,781,136.

Cleveland Crane & Engineering Co., The: *See*—
Dehn, Roy F., and Ward. 2,780,105.

Cliborn, Robert, to Thompson Products, Inc. Self-lubricating gear assembly. 2,781,105, 2–12–57, Cl. 184—11.

Clift, Gilbert B.: *See*—
McGay, John B., and Clift. 2,780,911.

Clor, Carol R. Pipe measuring apparatus. 2,780,870, 2–12–57, Cl. 33—125.

Cohen, Sidney J. Vacuum currycomb device. 2,780,829, 2–12–57, Cl. 15—365.

Coleman, John H., to Radiation Research Corp. Beam deflection electrometer amplifier tubes. 2,781,474, 2–12–57, Cl. 315—21.

Collins, Whitney, to Continental Aviation & Engineering Corp. Pilot burner for jet engines. 2,780,916, 2–12–57, Cl. 60—39.28.

Columbia-Southern Chemical Corp.: *See*—
Dial, William R. 2,781,406.

Combustion Engineering, Inc.: *See*—
Armacost, Wilbur B. 2,781,028.

Commerce, United States of America as represented by the Secretary of: *See*—
Koch, William J. 2,781,273.

Compagnie de Pont-A Mousson: *See*—
Bram, Georges. 2,780,951.

Compton, James A., and A. Paul, to Borg-Warner Corp. Fuel booster pump. 2,780,999, 2–12–57, Cl. 103—113.

Comte, Frederick, to Monsanto Chemical Co. Formylation of amino-pyrimidines. 2,781,344, 2–12–57, Cl. 260—256.4.

Conso Metal Products, Inc.: *See*—
Loncony, Adolphe W. 2,781,091.

Continental Aviation & Engineering Corp.: *See*—
Collins, Whitney. 2,780,916.

Continental Motors Corp.: *See*—
Carufel Louis D. 2,781,056.

Continental Radiant Glass Heating Corp.: *See*—
Petersen, Erwin P., and Whitney. 2,781,440.

Control Specialists, Inc.: *See*—
Henry, Augustus P. 2,781,027.

Controlled Heat & Air Ltd.: *See*—
McKeown, Charles G. 2,781,188.

Cook Bros. Equipment Co.: *See*—
Harbers Henry C., and Sharpe. 2,781,186.
Prichard, Evan S. 2,781,102.

Cook, Ernest E.: *See*—
Sadler Harry J., and Cook. 2,781,163.

Cooke, David A., to the United States of America as represented by the Secretary of the Navy. Electrical relay circuit. 2,781,478, 2–12–57, Cl. 317—142.

Coons, Curtis C., and J. C. Montgomery, to The Hoover Co. Air supported cleaner. 2,780,826, 2–12–57, Cl. 15—327.

Copeman, Lloyd G., deceased; E. J. Gerlock, executrix. Moisture impervious container. 2,781,159, 2–12–57, Cl. 229—16.

Cordoba, Felix: *See*—
Zaffaroni, Alejandro, and Cordoba. 2,781,292.

Cork, Bruce B., and M. Clark, Jr., to the United States of America as represented by the Secretary of the Navy. Cavity resonator devices. 2,781,493, 2–12–57, Cl. 333—13.

Cornell University: *See*—
Belcher, Donald J., Cuykendall, and Sack. 2,781,453.

Cottrell, Robert B., to American Steel Foundries. Snubbed bolster truck. 2,781,003, 2–12–57, Cl. 105—197.

Covely, Frank D., and R. E. Baker, to Radio Corp. of America. Electrical signal storage. 2,781,473, 2–12–57, Cl. 315—13.

Covert, Calvin C.: *See*—
Berninger, Kenneth L., and Covert. 2,781,053.

Cox, William K.: *See*—
Slee, Alfred G., and Cox. 2,781,114.

Crane Co.: *See*—
Witek, Stanley P. 2,781,233.

Crane, Samuel P., to R. O. Kent Co. Ventilating spring cushion. 2,781,085, 2–12–57, Cl. 155—182.

Crawford Duffer B.: *See*—
Abbott, John A., Jr., Crawford, and Kelly. 2,781,268.

Crawford, Duffer B., and C. W. Hirsch, to American Machine & Foundry Co. Manufacture of mayonnaise. 2,781,270, 2–12–57, Cl. 99—144.

Creutz, Edward C., and W. H. Zinn, to the United States of America as represented by the United States Atomic Energy Commission. Neutronic reactor control. 2,781,308, 2–12–57, Cl. 204—193.

Crittendon, Lexie R., and P. R. Haskell, to Remington Arms Co., Inc. Firearm ejector. 2,780,881, 2–12–57, Cl. 42—25.

Cryderman, Warner L., to Shaft Machines Ltd. Mucking machine. 2,781,140, 2–12–57, Cl. 214—657.

Culemeyer, Karl, to Willy Spangenberg & Co. Manufacturing drying paints. 2,781,386, 2–12–57, Cl. 260—410.9.

Culligan, Inc.: *See*—
Klumb, George H., Schulze, Roach, and Salisbury. 2,781,312.

Cupery, Martin E., to E. I. du Pont de Nemours and Co. Aqueous acetic acid soluble polyamines of epoxide copolymers. 2,781,335, 2–12–57, Cl. 260—85.7.

Curtiss-Wright Corp.: *See*—
Black, William J. 2,781,227.

Cutler-Hammer, Inc.: *See*—
Carter, Uriel F. 2,781,431.

Cuykendall, Trevor R.: *See*—
Belcher, Donald J., Cuykendall, and Sack. 2,781,453.

Cyphers, Elmer B., to Esso Research and Engineering Co. Mineral lubricating oil additive. 2,781,318, 2–12–57, Cl. 252—47.

Daiger, George P., D. C. Gerber, and W. G. Seck, to The Hoover Co. Spherical cleaner-general arrangement. 2,781,103, 2–12–57, Cl. 183—37.

Daimler-Benz Aktiengesellschaft: *See*—
Stump, Eugen. 2,780,943.

Dales, Benton: *See*—
Chapman, Dave, Dales, Abrahamsen, and Gaul. 2,780,845.

Darlington, Thomas B. Picker for berries and the like. 2,780,905, 2–12–57, Cl. 56—330.

Davino, Alphonso. Suspended rapid transit railway system. 2,781,001, 2–12–57, Cl. 104—89.

Davis, Chester L.: *See*—
Muffley, Leo W. 2,780,910.

Davis, Harry M.: *See*—
Anderson, Carl A., and Davis. 2,781,228.

Dawkins, Kenneth, to Gould-National Batteries, Inc. Electrolyte dispensing apparatus. 2,781,064, 2–12–57, Cl. 141—54.

Day, John T., to Merck & Co., Inc. Hydrolysis of steroid semicarbazone. 2,781 367, 2–12–57, Cl. 260—397.45.

Dearden, Harold V., to Beloit Iron Works. Paper-making machines. 2,780,967, 2–12–57, Cl. 92—44.

De Boo, Jerome L., to Teletype Corp. Telegraph transmitter. 2,781,415, 2–12–57, Cl. 178—17.

Deckel, Friedrich W.: *See*—
Fahlenberg, Paul. 2,780,971.

Deckel, Hans: *See*—
Fahlenberg, Paul. 2,780,971.

Decker, Eugene M., to Isaac C. Decker, Inc. Upholstered chair with adjustable head rest. 2,781,082, 2–12–57, Cl. 155—177.

Decker, Isaac C., Inc.: *See*—
Decker, Eugene M. 2,781,082.

Deere & Co.: *See*—
Kroll, Everett R., and Farber. 2,780,903.

Deere Mfg. Co.: *See*—
McClellan, Marcus E. 2,781,018.

De Groote, Melvin, and J. Cheng, to Petrolite Corp. Process for preventing corrosion, corrosion inhibitors and certain cogeneric mixtures containing cyclic amidines. 2,781,352, 2–12–57, Cl. 260—309.6.

Dehn, Roy F., and W. E. Ward, to The Cleveland Crane & Engineering Co. Draw press. 2,781,015, 2–12–57, Cl. 113—38.

De Roo, William C., to Hart & Cooley Mfg. Co. Baseboard construction. 2,780 979. 2–12–57, Cl. 98—40.

De Roo, William C., to Hart & Cooley Mfg. Co. Volume control for registers. 2,780,983. 2–12–57, Cl. 98—110.

De Rosset, Armand J., to Universal Oil Products Co. Hydrocarbon conversion process. 2,781,299, 2–12–57, Cl. 196—52.

De Ruyter, Paulus H., to Algemene Kunstzijde Unie, N. V. Process for preparing sodium carboxymethylcellulose. 2,781,341, 2–12–57, Cl. 260—232.

De Sherbinin, William N. Expansible building enclosure. 2,780,843, 2–12–57, Cl. 20—1.

Detroit Hardware Mfg. Co.: *See*—
Jewett, Deane N. 2,781,218.

Detweiler, James I., and D. G. Thompson, to Lockheed Aircraft Corp. Flexible couplings for beaded tubing. 2,781,207, 2–12–57, Cl. 285—233.

De Vries, William H.: *See*—
Evans, John S., and De Vries. 2,781,340.

De Walt Inc.: *See*—
Kaley, Robert C. 2,781,067.

Dial, William R., to Columbia-Southern Chemical Corp. Stabilization of halogenated hydrocarbons. 2,781,406, 2–12–57, Cl. 260—652.5.

Dick, A. B., Co.: *See*—
Marron, Thomas U., and Hoover. 2,780,991.

Dickinson, Christmas O. Mop-cleaning device. 2,780,822. 2–12–57, Cl. 15—142.

Dickinson, John, & Co., Ltd.: *See*—
Randall, John W. 2,780,969

Didier-Kogag-Hinselmann, Koksofenbau und Gasverwertung A. G.: *See*
Steding, Arthur, and Hartewig. 2,781,302.

Dietsch, Francis W.: *See*—
Musser, C Walton, and Dietsch. 2,780,961.

Dixon, Paul H., to the United States of America as represented by the Secretary of the Army. Cartridge belt link and strength member therefor. 2,780,963, 2–12–57, Cl. 89—35.

Djerassi, Carl, F. Sondheimer, and G. Rosenkranz, to Syntex, S. A. 17a-Hydroxy-19-norprogesterone, process therefor and intermediates obtained thereby. 2,781,365, 2–12–57, Cl. 260—397.4.

Doi, Kenji: *See*
Munekata, Eiji, Doi, and Onodera. 2,781,254.

Doran, John F., and L. D. Bindall, to Northrop Aircraft, Inc. Vector adder. 2,781,169, 2–12–57, Cl. 235—61.

Dormeyer Corp.: *See*—
Wagner, Edward J. 2,781,466

Dovidio, Chester A., to Nixon Nitration Works. Method for vacuum forming ductile material. 2,781,077, 2–12–57, Cl. 154—41.

Dovidio, Chester A., to Nixon Nitration Works. Apparatus for vacuum forming ductile material. 2,781,078, 2–12–57, Cl. 154—41.

Dow Chemical Co., The: *See*
Rubin, Martin, and Borsworth. 2,781,291.

Dow Corning Corp.: *See*
Polmanteer, Keith E. 2,781,288.

Downey, Paul M., to Monsanto Chemical Co. Rubber containing urea compound as an antiexposure cracking agent. 2,781,330, 2–12–57, Cl. 260—45.9.

Downing, John, A. Hodge, and J. G. N. Drewitt, to British Celanese Ltd. Production and use of acrylonitrile polymer solutions. 2,781,243, 2–12–57, Cl. 18—54.

Doyle, William M.: *See*—
Gresham, Harold E., Farnsworth, Hall, and Doyle. 2,781,262.

Dresser Equipment Co.: *See*—
Selberg, John P., and Griffith. 2,781,108.

Drewitt, James G. N.: *See*—
Downing, John, Hodge, and Drewitt. 2,781,243.

Dritz, Arthur, to John Dritz & Sons. Hand loom. 2,780,854. 2–12–57, Cl. 28—15.

Dritz, John, & Sons: *See*—
Dritz, Arthur. 2,780,854.

Duffee, Homer W.: *See*—
Bliefeld, Lawrence P., and Duffee. 2,780,909.

Du Pont, Allen B., Laboratories, Inc.: *See*—
McElroy, George E. 2,781,458.

Du Pont, E. I., de Nemours and Co.: *See*
Bernhardt, Ernest C. 2,780,834.
Cupery, Martin E. 2,781,335.
Heckert, Richard E., and Middleton. 2,781,359.
Heckert, Richard E., and Searle. 2,781,393.
Hewett, James V. 2,781,329.
Knapp, Paul. 2,781,242.
Ruby, John A., and Reary. 2,781,079.

Dwyer, Walter J., to Sanders Associates, Inc. Method of manufacturing electrical resistors. 2,781,277, 2–12–57. Cl. 117—4.

Eagleson, David A. Adjustable awning-supporting frame structure. 2,780,847, 2–12–57, Cl. 20—57.5.

Ebauches, S. A.: *See*—
Ianouchewsky, Wladimir. 2,781,450.

Eckert, John P., Jr., J. R. Weiner, R. F. Shaw, and A. A. Auerbach, to Sperry Rand Corp. Pulse cycling circuit. 2,781,446, 2–12–57, Cl. 250—27.

Eddy, William C., to Television Associates, Inc. Closure for plastic containers. 2,781,146, 2–12–57. Cl. 220—4.

Eden, Carsten: *See*—
Geffcken, Walter, Eden, and Faulstich. 2,781,411.

Edwards, Gordon. Liquid flow control valve. 2,781,050. 2–12–57, Cl. 137—119.

Edwards, Russell G.: *See*—
Harrison, Raymond B., and Edwards. 2,780,879.

Elmco Corp., The: *See*—
Thompson, Robert B. 2,781,133.

Ekström, Gösta I., to Atlas Copco Aktiebolag. Distributing valve means for elastic pressure fluid driven percussion tools. 2,781,025, 2–12–57, Cl. 121—19.

Electronics Corp. of America: *See*—
Jenner, Robert K., Jr. 2,781,477.

Elgin National Watch Co.: *See*—
Ensign, George G., and Boswell. 2,781,414.

Elmer, Otto C., and E. R. Christensen, to The Texas Co. Fungicidal coating composition containing thiananphthene carboxylic acid salt. 2,781,289, 2–12–57. Cl. 167—33.

Eno, Robert F., to North American Aviation, Inc. Amplifier. 2,781,420, 2–12–57, Cl. 179—171.

Ensign, George G., and T. L. Boswell, to Elgin National Watch Co. Electrical energy producing cells and method of making the same. 2,781,414, 2–12–57. Cl. 136—133.

Esso Research and Engineering Co.: *See*—
Bielstein, Walter J. 2,781,098.
Bolsture, Worth W., and Ross. 2,781,234.
Cyphers, Elmer B. 2,781,318.
Kane, James E. J., and Jones. 2,781,403.
Morrell, Charles E. 2,781,396.
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Evans, John S., and W. H. De Vries, to The Upjohn Co. Extraction of coenzyme A from microbiological materials. 2,781,340, 2–12–57, Cl. 260—211.5.

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Fairbank, Murry N., to Polaroid Corp. Photographic apparatus and process. 2,780,972, 2–12–57, Cl. 95—13.

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Fewtrell, George E., and B. W. Tyrrell, to Northern Electric Co., Ltd. Apparatus for forming multi-element cable. 2,780,906, 2–12–57, Cl. 57—13.

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Fletcher, Phillip J., to Power Jets (Research and Development) Ltd. Turbine outlet ducting. 2,781,057, 2–12–57, Cl. 138—39.

Flood, Harry, and D. Tatlock. Foot pumps. 2,781,166. 2–12–57, Cl. 230—175.

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Boyce, John, and Olsen. 2,780,927.
Carr, James P. 2,780,875.
Cilker, William H. 2,780,998.
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Fredrick, Arden H., to the United States of America as represented by the Secretary of the Navy. Delay line phase shifter. 2,781 995, 2–12–57, Cl. 333—31.

Fredriksson, Per S. E., to Aktiebolaget Svenska Metallverken. Rolling mill. 2,780,948, 2–12–57, Cl. 80—14.

Frey, Edward J., to General Motors Corp. Flow control device. 2,781,059, 2–12–57, Cl. 138—46.

Frey, Edward J., to General Motors Corp. Flow controller. 2,781,060 2–12–57, Cl. 138—46.

Frey, Edward J., to General Motors Corp. Flow controller. 2,781,061, 2–12–57, Cl. 138—46.

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Fulk, Walter F., to Owens-Corning Fiberglas Corp. Method and apparatus for making foliated glass. 2,780,889, 2–12–57, Cl. 49—1.

Fuller, Frank I., and M. C. Swezy, to Western Progress, Inc. Signaling device. 2,781,017, 2–12–57, Cl. 116—63.

Fuller, Leon B., and P. N. Welch, t J nes and Lamson Machine Co. Circle tolerance gauge for optical comparators. 2,780,956, 2–12–57, Cl. 88—24.

Fyler, George W., to Motorola, Inc. Television receiver. 2,781,475, 2–12–57, Cl. 315—27.

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Binford, Robert S., and Jacobson. 2,781,049.
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Gentry, Hermond G., to Atlanta Paper Co. Machine for setting up bottle cartons. 2,780,970, 2–12–57, Cl. 93—53.

Geoghegan, Terrence J., to Laboratory For Electronics, Inc. Ultrasonic delay lines. 2,781,494, 2–12–57, Cl. 333—30.

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Gerhan, Arnold B. Parimutuel ticket printing machine. 2,780,990, 2–12–57, Cl. 101—93.

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Gilfillan, William C., to H. W. Butterworth and Sons Co. Fabric treating and feeding apparatus with constant tension roller drive. 2,781,192, 2–12–57, Cl. 271—2.2.

Gillin, Francis O., to Aerovox Corp. Capacitor terminal tab forming machine. 2,781,014, 2–12–57, Cl. 113—1.

Gitlin, Louis T. Tufted mattress and method of tufting the same. 2,780,818, 2–12–57, Cl. 5—356.

Gleason Works, The: *See*—
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Goff, John C., to the United States of America as represented by the Secretary of the Navy. Electrolytically controlled extender delay for a mine. 2,780,993, 2–12–57, Cl. 102—16.

Goldtrap, Walter A., to Phillips Petroleum Co. Process for making furnace carbon blacks. 2,781,246, 2–12–57, Cl. 23—209.4.

Gomonet, Edouard, to Societe Anonyme pour les Applications de l'Electricite et des Gaz Rares Etablissements Claude-Paz & Silva. Diaphragm for electric discharge tube. 2,781,471, 2–12–57, Cl. 313—174.

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Buckeridge, Roger M. 2,781,456.

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Gordon, Donald D., and C. A. Wortham. Means for handling articles. 2,781,139, 2–12–57, Cl. 214—305.

Gorin, Everett, to Pittsburgh Consolidation Coal Co. Manufacture of hydrogen. 2,781,248, 2–12–57, Cl. 23—212.

Goslin-Birmingham Mfg. Co.: *See*—
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Gowing, Marvin S. Teeter-totter. 2,781,193, 2–12–57, Cl. 272—30.

Graham Mfg. Co., Inc.: *See*—
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Grals, Melvin L. Wet bandage fastener. 2,780,851, 2–12–57, Cl. 24—87.

Grandpierre, Maurice C. M., to The International Nickel Co., Inc. Process and apparatus for the treatment of molten ferrous alloys. 2,781,260, 2–12–57, Cl. 75—130.

Grant, Harry C., Jr., to Specialties Development Corp. Temperature responsive system. 2,781,505, 2–12–57, Cl. 340—233.

Grathwohl, Kenneth T. Disposable razor having easy cleaning sloping surfaces. 2,780,862, 2–12–57, Cl. 30—32.

Green, Donald T., and C. B. Braestrup, to Atomic Energy of Canada Ltd. Rotational therapy unit. 2,781,454, 2–12–57, Cl. 250—91.

Greenberg, Donald K.: *See*—
Seborg, Earnest Y., and Greenberg. 2,780,893.

Greenwood, Ivan A., Jr., to General Precision Laboratory Inc. Great circle computer. 2,781,168, 2–12–57, Cl. 235—61.

Gresham, Harold E., A. G. Farnsworth, D. W. Hall, and W. M. Doyle, to Rolls-Royce Ltd. Aluminum-base alloy. 2,781,262, 2–12–57, Cl. 75—143.

Gresham, Harold E., A. G. Farnsworth, and D. W. Hall to Rolls-Royce Ltd. Aluminium base alloy. 2,781,263, 2–12–57, Cl. 75—144.

Gresham, Harold E., and M. A. Wheeler, to Rolls-Royce Ltd. Nickel chromium base alloy and a stationary turbine blade made therefrom. 2,781,264, 2–12–57, Cl. 75—171.

Griffith, Ben H., Jr., to Westinghouse Electric Corp. Electrical heating apparatus. 2,781,438, 2–12–57, Cl. 219—10.79.

Grimth, Joseph R. Bolt lock. 2,781,215, 2–12–57, Cl. 292—148.

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Gueffroy, Walter A., to American Can Co. Apparatus for timing and feeding articles. 2,781,123, 2–12–57, Cl. 198—34.

Gunning, Leslie E. Furrow dimming implements. 2,780,975, 2–12–57, Cl. 97—55.

Gustus, Edwin L., and L. L. Yaeger, to Tru-Scale, Inc. Dimensionally stable sheet material for reproduction purposes. 2,781,287, 2–12–57, Cl. 154—46.

Guthman, Lawrence. Clasp. 2,780,853, 2–12–57, Cl. 24—243.

Guy, Clarence J., ½ to R. H. Guy. Wood waste shaving and sawdust baler. 2,780,989, 2–12–57, Cl. 100—218.

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Guy, Clarence J. 2,780,989.

Haddeld, Neal R. Fishing lures. 2,780,884, 2–12–57, Cl. 43—42.19.

Haensel, Vladimir, and C. G. Gerhold, to Universal Oil Products Co. Combined operation for catalytically upgrading gasoline. 2,781,298, 2–12–57, Cl. 196—50.

Haensel, Vladimir, to Universal Oil Products Co. Method of preparing a platinum composite reforming catalyst. 2,781,324, 2–12–57, Cl. 252—466.

Hagen, Glenn E., to Northrop Aircraft, Inc. Electronic counting tube. 2,781,171, 2–12–57, Cl. 235—92.

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Harbers, Henry C., and E. D. Sharpe, to Cook Bros. Equipment Co. Drum control means for transit concrete mixers. 2,781,186, 2–12–57, Cl. 259—177.

Haricot, Maurice. Musical boxes for which the tunes can be composed. 2,780,952, 2–12–57, Cl. 84—97.

Harman, Albert L. Wiener forming rack and smoke stick. 2,780,831, 2–12–57, Cl. 17—34.

Harmon, Bernard. Method of printing carbon transfer ink in a spaced design on paper. 2,781,278, 2–12–57, Cl. 117—36.

Harper, Willis J., and D. A. Selberling, to The Ohio University Research Foundation. Method and apparatus for the continuous production of cheese-forming curd. 2,781,269, 2–12–57, Cl. 99—116.

Harrison, Raymond B., and R. G. Edwards, to Stedfast Rubber Co., Inc. Stiffening of shoe uppers and stiffening elements therefor. 2,780,879, 2–12–57, Cl. 36—46.5.

Harrison, William B. Flammable vapor detectors. 2,781,506, 2–12–57, Cl. 340—237.

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Steding, Arthur, and Hartewig. 2,781,302.

Hartford National Bank and Trust Co.: *See*—
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Roovers, Wilhelmus A., and Van Steenis. 2,780,892.
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Haynes, Artemas J., and E. F. Allen, to V. E. Macy, Jr. Wind direction and velocity indicator. 2,780,937, 2–12–57, Cl. 73—189.

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Heckert, Richard E., and W. J. Middleton, to E. I. du Pont de Nemours & Co. Cyclohexene-4,5,4,5-tetracarboxylic diimides and preparation of same. 2,781,359, 2–12–57, Cl. 260—326.

Heckert, Richard E., and N. E. Searle, to E. I. du Pont de Nemours & Co. Diels-alder adducts and preparation of same. 2,781,393, 2–12–57, Cl. 260—464.

Hecklinger, Clarence F., to Allied Chemical & Dye Corp. Controlled recovery of ammonia from liquors containing fixed ammonia valves. 2,781,244, 2–12–57, Cl. 23—193.

Heckmann, Wolfgang G. J., to Klockner-Humboldt-Deutz A. G. Centrifugal device. 2,781,131, 2–12–57, Cl. 210—72.

Heckmann, Wolfgang G. J., and J. H. Becker, to Klockner-Humboldt-Deutz Aktiengesellschaft. Centrifugal device for dehydrating a fine granular material. 2,781,130, 2–12–57, Cl. 210—72.

Heideman, Robert C., to American Carry Products Co., Inc. Combination stroller and baby carriage. 2,781,225, 2–12–57, Cl. 296—26.

Heiden, John A., to United Engineering and Foundry Co. Article handling and transfer apparatus. 2,781,120, 2–12–57, Cl. 198—29.

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Heilmann, Phillip, H. Losch, E. Marx, and L. Schmitz. Arc-extinguishing mechanism for electric switches. 2,781,435, 2–12–57, Cl. 200—150.

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Henry, Augustus P., to Control Specialists, Inc. Rotary actuating device. 2,781,027, 2–12–57, Cl. 121—97.

Hepp, Harold J., and F. E. Frey, to Phillips Petroleum Co. Catalytic alkylation of hydrocarbons in the presence of acetylene and hydrogen. 2,781,409, 2–12–57, Cl. 260—683.4.

Herman, Ervine O. Huller having flexible hulling tube. 2,781,071, 2–12–57, Cl. 146—299.

Herr, Milton E.: *See*—
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Herr, Milton E., and F. W. Heyl, to The Upjohn Co. Steroid enamines. 2,781,342, 2–12–57, Cl. 260—239.5.

Herschmann, Otto. Internal combustion engine. 2,781,034, 2–12–57, Cl. 123—195.

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Hess, Hanns. Girders. 2,780,842, 2–12–57, Cl. 20—0.5.

Heuer, Russell P., to General Refractories Co. Refractory wall and roof making. 2,781,006, 2–12–57, Cl. 110—99.

Hewett, James V., to E. I. du Pont de Nemours and Co. Process for inhibiting gelation of a solution containing polymerized acrylonitrile. 2,781,329, 2–12–57, Cl. 260—32.6.

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Heys, Ralph C., to Beloit Iron Works. Paper-making machines. 2,780,968, 2–12–57, Cl. 92—49.

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Kilburn, Robert W., and Hickey. 2,781,070.

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Hill, Benjamin. 2,781,040.

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Hillberg, Bror, to Superior Concrete Accessories, Inc. Channel shaped anchor retaining strip for embedment in concrete. 2,780,936, 2–12–57, Cl. 72—103.

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Hirschmann, Ralph F., N. L. Wendler, and R. Miller, to Merck & Co., Inc. Purification of vitamin K1. 2,781,363, 2–12–57, Cl. 260—396.

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Hoehn, Willard M., to G. D. Searle & Co. 6-hydroxyacyl-1, 4a-dimethyl-7-isopropyl-1,2,3,4,4a,9,10,10a-octahydrophenanthrene-1-carbonitriles and esters thereof. 2,781,394, 2–12–57, Cl. 260—464.

Hofacer, Simon C. Oil can drain stands. 2,781,065, 2–12–57, Cl. 141—106.

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Coons, Curtis C., and Montgomery. 2,780,826.
Dalger, George P., Gerber, and Seck. 2,781,103.
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Hoover, Keith S.: *See*—
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Hort, Eugene V., to Nopco Chemical Co. Process for the production of 4-hydroxycoumarin. 2,781,361, 2–12–57, Cl. 260—343.2.

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Houdry Process Corp.: *See*—
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Howard, Harry, Load distributing insert for pneumatic tires. 2,781,074, 2–12–57, Cl. 152—204.

Howell, Robert C., to Phillips Petroleum Co. Quench for furnace type reactors. 2,781,251, 2–12–57, Cl. 23—277.

Hoy, Thomas H. Brush retractors. 2,780,949, 2–12–57, Cl. 81—3.

Hunter, William K., to Universal Oil Products Co. Method of producing a platinum catalyst on refractory oxide support. 2,781,323, 2–12–57, Cl. 252—442.

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Hynes, Fred B. W. Bumper seat. 2,781,081, 2–12–57, Cl. 155—78.

Ianouchewsky, Wladimir, to Ebauches S. A. Method for forming a linear combination of frequencies and apparatus for carrying out this method. 2,781,450, 2–12–57, Cl. 250—36.

Industrial Ovens, Inc.: *See*—
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Inman, William A. Apparatus for drying bulk grain. 2,780,876, 2–12–57, Cl. 34—90.

International Nickel Co., The: *See*—
Grandpierre, Maurice C. M. 2,781,260.

International Telephone and Telegraph Corp.: *See*—
Bradburd, Ervin M. 2,781,491.
Petrides, Thracy. 2,781,489.
Ragni, Victor P. 2,781,419.
Sichak, William, and Nail. 2,781,514.

Iron Fireman Mfg. Co.: *See*—
Sprando, Anthony E. 2,781,463.
Stortl, Peter, and Webb. 2,781,087.

Iversen, Gunnar B., G. G. U. W. Swensen, and G. Johansen, to Norsk Hydro-Elektrisk Kvaelstofaktieselskab. Filter cell. 2,781,132, 2–12–57, Cl. 210—154.

Jackson, Donald M., to Chiksan Co. Apparatus for handling fluid. 2,781,055, 2–12–57, Cl. 137—580.

Jackson, Harley T. Collapsible crib. 2,780,817, 2–12–57, Cl. 5—99.

Jacobs, Joseph J., to Allis-Chalmers Mfg. Co. Dynamic seal for a centrifugal pump. 2,781,209, 2–12–57, Cl. 286—9.

Jacobsen, Robert P., to G. D. Searle & Co. 6-bromo-1,2,3,4,-4a,9,10,10a-octahydro-7-isopropyl-4a-methylphenanthrene ketones. 2,781,400, 2–12–57, Cl. 260—586.

Jacobsen, Robert P., to G. D. Searle & Co. 1,2,3,4,4a,9,10,10a-octahydro-7-isopropyl-4a-methyl-1,9-dioxophenanthrenes. 2,781,401, 2–12–57, Cl. 260—586.

Jacobson, John W.: *See*—
Binford, Robert S., and Jacobson. 2,781,049.

Jasse, Joseph R., to Societe Nouvelle des Etablissements Brandt. Base plate for mortars and like apparatuses. 2,780,964, 2–12–57, Cl. 89—37.

Jaye Corp., The: *See*—
Jaye, Richard C. 2,780,896.

Jaye, Richard C., to The Jaye Corp. Apparatus for cutting pipe cover sections from cellular material. 2,780,896, 2–12–57, Cl. 51—110.

Jeavons, Philip S., to Wilmot-Breeden Ltd. Actuating means for door fastenings. 2,780,934, 2–12–57, Cl. 70—207.

Jelinek, Charles F., R. L. Mayhew, and J. A. Yeager, to General Aniline & Film Corp. All purpose detergent bar. 2,781,320, 2–12–57, Cl. 252—121.

Jenaer Glaswerk Schott & Gen., Main: *See*—
Gofficken, Walter, Eden, and Faulstich. 2,781,411.

Jenner, Robert K., Jr., to Electronics Corp. of America. Photoelectric control apparatus. 2,781,477, 2–12–57, Cl. 317—127.

Jensch, Clyde K., to Nordberg Mfg. Co. Twist drill sharpening attachment for tool grinder. 2,780,894, 2–12–57, Cl. 51—96.

Jewett, Deane N., to Detroit Hardware Mfg. Co. Latch unit for panic exit lock. 2,781,218, 2–12–57, Cl. 292—336.

Johannesen, Allan N., to the United States of America as represented by the Secretary of the Army. Receiver for liquid refrigerant. 2,780,922, 2–12–57, Cl. 62—1.

Johansen, Gunnar: *See*—
Iversen, Gunnar B., Swensen, and Johansen. 2,781,132.

Johnson, Hugh B.: *See*—
Weller, Warren C., and Johnson. 2,781,110.

Johnson, Louis, Products Co., Inc., The: *See*—
Odin, Eugene A. 2,781,202.

Jones, Frederick M., to Thermo King Corp. Method and means for preserving perishable foodstuffs in transit. 2,780,923, 2–12–57, Cl. 62—2.

Jones, John R.: *See*—
Kane, James E. J., and Jones. 2,781,403.

Jones and Lamson Machine Co.: *See*—
Fuller, Leon B., and Welch. 2,780,956.

Jones, Rufus V., and P. J. Canterino, to Phillips Petroleum Co. Thiocyanated hydrogenated diene polymers and process of producing the same. 2,781,331, 2–12–57, Cl. 260—63.

Journal Box Servicing Corp.: *See*—
Potter, Thomas W. 2,781,239.

Joy Mfg. Co.: *See*—
Russell, John. 2,781,187.
Troller, Theodor H. 2,781,124.
Troller, Theodor H. 2,781,165.
Woolf, James W. 2,781,424.

Jugle, Leonard L., to Reliable Electric Co. Wire supporting device. 2,781,212, 2–12–57, Cl. 287—20.1.

Kaiser, Elmer R., and J. R. Garvey, to Bituminous Coal Research, Inc. Heaters or the like for burning solid fuel. 2,781,039, 2–12–57, Cl. 126—74.

Kaley, Robert C., to De Walt Inc. Safety device for rotary cutters. 2,781,067, 2–12–57, Cl. 143—159.

Kalita, Wesley, to Allegheny Ludlum Steel Corp. Method of processing stainless steels. 2,781,283, 2–12–57, Cl. 148—12.4.

Kamlet, Jonas, to National Distillers Products Corp. Process for the manufacture of titanium-aluminum alloys and regeneration of intermediates. 2,781,261, 2–12–57, Cl. 75—135.

Kammerer, Archer W.: *See*—
Kammerer, Archer W., Jr. 2,780,830.

Kammerer, Archer W., Jr., to A. W. Kammerer. Pin retainer. 2,780,830, 2–12–57, Cl. 16—169.

Kane, James E. J., and J. R. Jones, to Esso Research and Engineering Co. High barium-content phenolic compounds. 2,781,403, 2–12–57, Cl. 260—609.

Kaplan, Richard D., to Republic Aviation Corp. Jettisonable pilot compartment. 2,781,183, 2–12–57, Cl. 244—140.

Karen, H. Peter, to Solar Aircraft Co. Fuel distribution system for jet engine and afterburner. 2,780,915, 2–12–57, Cl. 60—35.6.

Katz, Edwin B. Measuring and dispensing containers. 2,781,155, 2–12–57, Cl. 222—284.

Kearfott Co., Inc.: *See*—
Brown, Robert N. 2,780,940.

Kehe, Alfred W., to The Richardson Co. Arc resistant laminate. 2,781,076, 2–12–57, Cl. 154—2.6.

Kellogg, Bruce H., deceased, by H. J. Kellogg, administratrix, to Food Machinery and Chemical Corp. Wheel balancer. 2,780,939, 2–12–57, Cl. 73—458.

Kellogg, Helen J.: *See*—
Kellogg, Bruce H. 2,780,939.

Kelly, Kerwood M.: *See*—
Abbott, John A., Jr., Crawford, and Kelly. 2,781,268.

Kennedy, Frank J., to National Electric Products Corp. T and cross boxes for electric header ducts. 2,781,145, 2–12–57, Cl. 220—3.2.

Kennedy, Theodore R., to Ajax Electrothermic Corp. Voltage regulating system. 2,781,487, 2–12–57, Cl. 322—36.

Kennedy, Walter W., to Barber-Colman Co. Adjustable air distribution unit. 2,780,980, 2–12–57, Cl. 98—40.

Kent, R. O., Co.: *See*—
Crane, Samuel P. 2,781,085.

Kernan, William: *See*—
Slippel, John J., and Kernon. 2,780,907.

Kessler, Frank, to General Dynamics Corp. Automatic telephone system. 2,781,418, 2–12–57, Cl. 179—16.

Ketterer, Stanley J., to The Singer Mfg. Co. Stitched seam adapted for use in finishing piped openings. 2,781,013, 2–12–57, Cl. 112—264.

Keuffel & Esser Co.: *See*—
Von Meister, Frederick W. 2,781,265.

Kilburn, Robert W., and F. D. Hickey, to Food Machinery and Chemical Corp. Apparatus for peeling fruit and vegetables. 2,781,070, 2–12–57, Cl. 146—47.

Kilner, Scott B.: *See*—
Royer, Robert Q., and Kilner. 2,781,303.

Kinzelman, Joseph. Ironing device. 2,780,859, 2–12–57, Cl. 29—128.

Klaybor, Leonard V.: *See*—
Borneman, Paul R., and Klaybor. 2,781,284.

Kleeman, Edward W. Sediment remover for deep frying. 2,780,984, 2–12–57, Cl. 99—408.

Kleiman, Morton, to Velsicol Chemical Corp. Organo thiomercuri compounds. 2,781,360, 2–12–57, Cl. 260—326.

Kleinman, Jacob L. Shaving implements. 2,780,864, 2–12–57, Cl. 30—41.

Klockner-Humboldt-Deutz Aktiengesellschaft: *See*—
Heckmann, Wolfgang G. J., and Becker. 2,781,130.

Klockner-Humboldt-Deutz A. G.: *See*—
Heckmann, Wolfgang G. J. 2,781,131.

Klumb, George H., R. E. Schulze, M. L. Roach, and M. B. Salisbury, to Culligan, Inc. Self-indicating ion exchange and/or filter apparatus. 2,781,312, 2–12–57, Cl. 210—24.

Knapp, Paul, to E. I. du Pont de Nemours and Co. Process of improving the hand of polyethylene terephthalate fabric by heat shrinking and hydrolyzing the fabric. 2,781,242, 2–12–57, Cl. 8—115.5.

Koch, William J., to the United States of America as represented by the Secretary of Commerce. Method of making block talc and related materials. 2,781,273, 2–12–57, Cl. 106—39.

Koering, Herman J. Garden tool. 2,780,976, 2–12–57, Cl. 97—62.

Kolling, Johann, to The Babcock & Wilcox Co. Feed water heater. 2,781,029, 2–12–57, Cl. 122—441.

Kollmorgen, Ernst O., to Kollmorgen Optical Corp. Multiple revolution limit stop device. 2,780,941, 2–12–57, Cl. 74—10.2.

Kollmorgen Optical Corp.: *See*—
Kollmorgen, Ernst O. 2,780,941.

Kopczynski, John F. Attachment for windshields. 2,780,825, 2–12–57, Cl. 15—255.

Kouke, Louis L. Rack insert for golf bags. 2,781,072, 2–12–57, Cl. 150—1.5.

Kraft Foods Co.: *See*—
Rudnik, Raymond G., Miller, and Borgardt. 2,781,272.
Traisman, Edwin, and Fleming. 2,781,267.

Kraus, Samuel B. Pocket supplement holder and attachment therefor. 2,781,204, 2–12–57, Cl. 281—17.

Kreidler, Alfred, and H. Hilber, said Hilber assor. to said Kreidler. Kick starter device. 2,781,033, 2–12–57, Cl. 123—185.

Krejci, Joseph C., to Phillips Petroleum Co. Carbon black process. 2,781,247, 2–12–57, Cl. 23—209.4.

Krivsky, William A., and E. K. Modl, to Union Carbide and Carbon Corp. Treatment of fumes containing suspended solids. 2,781,255, 2–12–57, Cl. 75—25.

Kroll, Everett R., and F. Farber, to Deere & Co. Platform adjusting means for sidehill harvesters. 2,780,903, 2–12–57, Cl. 56—209.

Kroll, Harry: *See*—
Spivack, John D., Lennon, and Kroll. 2,781,385.

Kuczun, Chester G., and P. A. Husman, to Laboratory for Electronics, Inc. Amplifier gain-stabilization. 2,781,423, 2–12–57, Cl. 179—171.

Kuentz, Roger. Knitting machine. 2,780,932, 2–12–57, Cl. 66—115.

Kuhar, Ludwig J., to The Singer Mfg. Co. Thread cutters for sewing machines. 2,781,012, 2–12–57, Cl. 112—252.

Kunkel, Aloysius T. Metal window. 2,781,111, 2–12–57, Cl. 189—75.

Kunz, William R., to the United States of America as represented by the Secretary of the Army. Fire control mechanism. 2,780,965, 2–12–57, Cl. 89—154.

Kurilenko, Alexander. Passenger safety device for vehicles. 2,781,203, 2–12–57, Cl. 280—150.

Kuskie, Elsmer L. Attachment for corn shellers. 2,781,138, 2–12–57, Cl. 214—83.26.

Kusznir, Phillip S. Electric razor. 2,780,863, 2–12–57, Cl. 30—34.

Laboratory for Electronics, Inc.: *See*—
Geoghegan, Terrence J. 2,781,494.
Kuczun, Chester G., and Husman. 2,781,423.

Laine, Edward A., to Allegheny Ludlum Steel Corp. Apparatus for handling coils. 2,780,985, 2–12–57, Cl. 100—14.

Laitur, Michael R., to Ford Motor Co. Vehicle seat cushion. 2,781,084, 2–12–57, Cl. 155—179.

Lambertsen, Christian J. Oxygen admission valve for oxygen re-breathing apparatus. 2,781,043, 2–12–57, Cl. 128—142.

Lamond, Robert C., to American Engineering Co. Steering gear controls. 2,780,917, 2–12–57, Cl. 60—52.

Landa, Arthur J., and F. H. McDonald, to Remington Arms Co., Inc. Multiple work feeler safety control. 2,780,812, 2–12–57, Cl. 1—106.

Lane, Robert B., and B. R. Alsobrook, to Rohr Aircraft Corp. Sealed flexible duct joint. 2,781,205, 2–12–57, Cl. 285—106.

Lane, Thomas D. Underfoot foot warmer. 2,781,439, 2–12–57, Cl. 219—19.

Lantz, Walter, Productions, Inc.: *See*—
Garity, William E. 2,781,096.

Lardelli, Otto, to Aktiengesellschaft, Brown, Boveri & Cie. Disconnect switch. 2,781,426, 2–12–57, Cl. 200—48.

Larkin, Oscar L.: *See*—
Benson, Walter L., and Larkin. 2,780,899.

Lathouwers, Franciscus J. M., to Hartford National Bank and Trust Co., as trustee. Coil system employing at least one high-frequency coil having a prémagnetised rod-shaped core. 2,781,496, 2–12–57, Cl. 336—110.

Latter, Bruce B., to General Electric Co. Refrigerating apparatus having automatic defrosting. 2,780,924, 2–12–57, Cl. 62—4.

Lawson, Robert H., and P. W. Bristow, to Scott & Williams, Inc. Knitting machine and method. 2,780,931, 2–12–57, Cl. 66—14.

Leavitt, Julian J., and R. S. Long, to American Cyanamid Co. 6-amino-7,8-benzocarbostyrils. 2,781,345, 2–12–57, Cl. 260—288.

Le Donne, Vincent. Hair trimming template. 2,781,048, 2–12–57, Cl. 132—45.

Leece-Neville Co., The: *See*—
Gilchrist, Albert D. 2,781,486.

Lennon, William J.: *See*—
Spivack, John D., Lennon, and Kroll. 2,781,385.

Leonard, George H. Electro-mechanical counter. 2,781,172, 2–12–57, Cl. 235—132.

Lesniak, Frank G., and W. A. Stubbe, to Masonite Corp. Self unloading apparatus. 2,781,137, 2–12–57, Cl. 214—16.6.

Lester, Burton R., to General Electric Co. Binary digital computing and counting apparatus. 2,781,447, 2–12–57, Cl. 250—27.

Levine, Harvey, to General Electric Co. Household mixer chassis. 2,781,467, 2–12–57, Cl. 310—254.

Levinger, Joseph S., M. B. Sampson, A. H. Snell, and R. G. Wilkinson, to the United States of America as represented by the United States Atomic Energy Commission. Radiation system. 2,781,309, 2–12–57, Cl. 204—193.

Lewis, Ellis, Jr., to American Viscose Corp. Molding composition. 2,781,326, 2–12–57, Cl. 260—14.

Libault, André C. O. Means for printing legends on geographical maps. 2,780,957, 2–12–57, Cl. 88—24.

Libbey-Owens-Ford Glass Co.: *See*—
Morgan, Willard L., and Harwig. 2,781,282.

Lieff, Morris, to The Patent and Licensing Corp. Construction clip. 2,780,850, 2–12–57, Cl. 24—73.

Lifton, Lewis. Attaché case. 2,781,143, 2–12–57, Cl. 217—69.

Lisec, Frank W. Automatic water fountain for poultry. 2,781,024, 2–12–57, Cl. 119—80.

Livermont, Frank W., to Tubing Seal Cap, Inc. Die construction. 2,781,016, 2–12–57, Cl. 113—16.

Lockheed Aircraft Corp.: *See*—
Detweiler, James I., and Thompson. 2,781,207.

Losey, Joseph, Jr. Control means for cooling of dressing diamond or the like. 2,781,035, 2–12–57, Cl. 125—11.

Lofgren, Edward J., and F. Fairbrother, Jr., to the United States of America as represented by the United States Atomic Energy Commission. Ion beam receiver. 2,781,452, 2–12–57, Cl. 250—41.9.

Long, George E. Grade line stakes. 2,780,869, 2–12–57, Cl. 33—74.

Long, Sidney R.: *See*—
Leavitt, Julian J., and Long. 2,781,345.

Lorensen, Lyman E.: *See*—
Barnum, Emmett R., and Lorensen. 2,781,319.

Losch, Herman: *See*—
Heilmann, Phillip, Losch, Marx, and Schmitz. 2,781,435.

Loucony, Adolphe W., to Consso Metal Products, Inc. Venetian blind headbur and hardware therefor. 2,781,091, 2–12–57, Cl. 160—173.

Lucas, Joseph, (Industries) Ltd.: *See*
Westwood, Thomas. 2,780,855.

Lucien, Pierre E. Apparatus for the simultaneous preservation of two different products out of contact with each other in the interior of a container. 2,781,141, 2–12–57, Cl. 215—6.

Lucien, René. Disc brakes for vehicle wheels. 2,781,106, 2–12–57, Cl. 188—106.

Luening, James W., to Hazeltine Research, Inc. Deferred-action battery. 2,781,413, 2–12–57, Cl. 136—112.

Luke, Ernest W.: *See*—
Flessner, William G., and Luke. 2,781,442.

Lurgi Gesellschaft fuer Waermetechnik m. b. H.: *See*—
Rottig, Walter. 2,781,325.

Lyman, Harold T., and F. G. Mason, to Aladdin Industries, Inc. Wide range radio frequency tuner. 2,781,451. 2–12–57, Cl. 250—40.

Lyon, Charles G. Removable secondary glazing for windows. 2,780,846, 2–12–57, Cl. 20—56.4.

Maccary, Raymond R.: *See*—
Mallet, Louis D., and Maccary. 2,781,022.

Macfarlane, John J.: *See*—
Taylor, Tristram A., Macfarlane, and Stephenson. 2,781,005.

Macy, John M., to South Bend Bait Co. Device for anchoring a fishing reel. 2,780,883, 2–12–57, Cl. 43—22.

Macy, Valentine E., Jr.: *See*—
Haynes, Artemas J., and Allen. 2,780,937.

Mader, Stewart S.: *See*—
Silven, Herbert A., and Mader. 2,780,895.

Madsen, Berthel F., to Teletype Corp. Severing device. 2,781,092, 2–12–57, Cl. 164—41.

Magerlein, Barney J., and J. A. Hogg, to The Upjohn Co. Steroid production. 2,781,343, 2–12–57, Cl. 260—239.5.

Magnethermic Corp.: *See*—
McArthur, Bruce E. 2,781,437.

Mains, William D., to Graham Mfg. Co., Inc. Barometric type steam vacuum refrigeration. 2,780,930, 2–12–57, Cl. 62—152.

Mair, James, and G. E. Sanford, to Goslin-Birmingham Mfg. Co. Evaporating process and apparatus. 2,781,089, 2–12–57, Cl. 159—20.

Malin, Jay B., to The Texas Co. Engine generation of hydrogen and carbon monoxide. 2,781,253, 2–12–57, Cl. 48—196.

Mallet & Co., Inc.: *See*—
Mallet, Louis D., and Maccary. 2,781,022.

Mallet, Louis D., and R. R. Maccary, to Mallet & Co., Inc. Pan coating apparatus. 2,781,022, 2–12–57, Cl. 118—313.

Malone, Bert L.: *See*—
Malone, Grover C. and B. L. 2,780,982.

Malone, Grover C. and B. L. Cover for air conditioning unit. 2,780,982, 2–12–57, Cl. 98—94.

Malsbary Mfg. Co.: *See*—
Pritchard, Clarence L. 2,781,230.

Malta-Nielsen, Gerda. Knitting box. 2,781,180, 2–12–57, Cl. 242—146.

Maly, Claude M. Retaining means for electrical plug and receptacle assemblies. 2,781,498, 2–12–57, Cl. 339—91.

Mannheimer, Hans S. Certain salts of 2-hydrocarbon imidazolinium di-alkanoic acid salts of detergent sulfonic acids or sulfate acids. 2,781,349, 2–12–57, Cl. 260—309.6.

Mannheimer, Hans S. Cycloimidine derivatives and process for preparing same. 2,781,350, 2–12–57, Cl. 260—309.6.

Mannheimer, Hans S. Certain imidazoline alkanoic acid salts of certain detergent acids and process. 2,781,351, 2–12–57, Cl. 260—309.6.

Mannheimer, Hans S., to J. J. McCabe, Jr., and H. S. Mannheimer, as joint venturers. Imidazoline derivatives and process. 2,781,353, 2–12–57, Cl. 260—309.6.

Mannheimer, Hans S., to J. J. McCabe, Jr., and H. S. Mannheimer, as joint venturers. Imidazoline derivatives and process. 2,781,354, 2–12–57, Cl. 260—309.6.

Mannheimer, Hans S., to J. J. McCabe, Jr., and H. S. Mannheimer, as joint venturers. Imidazoline derivatives and process. 2,781,355, 2–12–57, Cl. 260—309.6.

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Mannheimer, Hans S., to J. J. McCabe, Jr., and H. S. Mannheimer, as joint venturers. Imidazoline derivatives and process. 2,781,357, 2–12–57, Cl. 260—309.6.

Mannheimer, Hans S. Detergent acid salts of certain imidazolinium compounds. 2,781,358, 2–12–57, Cl. 260—309.6.

Mannheimer, Hans S. Detergent sulphonic acid and sulphate salts of certain amphoteric detergents. 2,781,370, 2–12–57, Cl. 260—401.

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Mannheimer, Hans S., to J. J. McCabe, Jr., and said Mannheimer. Detergent sulphonic acid and sulphate salts of certain amphoteric detergents. 2,781,376, 2–12–57, Cl. 260—401.

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Mannon, Lloyd. Rearview mirrors. 2,780,959, 2–12–57, Cl. 88—87.

Mappes, William L., and G. D. Hart, to Northeast Capital Corp. Directional signal switch. 2,781,429, 2–12–57, Cl. 200—61.37.

Marine Trust Co. of Buffalo, The: *See*—
Scinta, Anthony C., and Rappi. 2,780,824.

Marron, Thomas U., and K. S. Hoover, to A. B. Dick Co. Cushion sheet for stencil sheet assemblies. 2,780,991, 2–12–57, Cl. 101—128.2.

Marshall, John N., to Radio Corp. of America. Side-lobe rejection circuit for pulse radar system. 2,781,509, 2–12–57, Cl. 343—6.5.

Martin, David E. Spool tape cutter. 2,781,094, 2–12–57, Cl. 164—84.5.

Martin, Gustav J., and M. J. Sullivan, to The National Drug Co. Therapeutic cation exchange resin composition. 2,781,290, 2–12–57, Cl. 167—55.

Marx, Erwin: *See*—
Heilmann, Phillip, Losch, Marx, and Schmitz. 2,781,435.

Mason, Francis G.: *See*—
Lyman, Harold T., and Mason. 2,781,451.

Masonite Corp.: *See*—
Lesniak, Frank G., and Stubbe. 2,781,137.

Masse, August. Gear shaft support. 2,781,237, 2–12–57, Cl. 308—18.

Matey, George J.: *See*—
Frost, Louis E., and Matey. 2,780,966.

Math, Fritz. Method of embedding metal profiles in ceramic masses. 2,780,837, 2–12–57, Cl. 18—59.

Maurer, Philip W.: *See*—
Glowzinski, Chester J. ,and Maurer. 2,781,425.

Mayhew, Raymond L.: *See*—
Jelinek, Charles F., Mayhew, and Yeager. 2,781,320.

Mayhew, Raymond L., and J. A. Yeager, to General Aniline & Film Corp. All purpose detergent bar. 2,781,321, 2–12–57, Cl. 252—161.

McArthur, Bruce E., to Magnethermic Corp. Induction furnaces. 2,781,437, 2–12–57, Cl. 219—10.49.

McAteer, James H.: *See*—
Wiese, Herbert H., and McAteer. 2,781,397.

McCabe, John J., Jr.: *See*—
Mannheimer, Hans S. 2,781,353–2,781,357.
Mannheimer, Hans S. 2,781,376.
Mannheimer, Hans S. 2,781,378.

McClellan, Marcus E., to Deere Mfg. Co. Baler tier signal. 2,781,018, 2–12–57, Cl. 116—67.

McCreadie, Robert S., to General Electric Co. Tube socket adapter. 2,781,499, 2–12–57, Cl. 339—154.

McCroskey, Ulmont L. Connector block for wires. 2,781,501, 2–12–57, Cl. 339—198.

McDonald, Frank H.: *See*—
Landa, Arthur J., and McDonald. 2,780,812.

McElroy, George E., to Allen B. Du Mont Laboratories, Inc. Electronic pulse shaping and delay circuit. 2,781,458, 2–12–57, Cl. 307—106.

McEwan, James, and J. A. Wilhelm; said Wilhelm assor. to said McEwan. Saw sharpener. 2,780,945, 2–12–57, Cl. 76—40.

McGay, John B., and G. B. Clift, to Rockwell Register Corp. Timed intermittent pneumatic drive mechanism. 2,780,911, 2–12–57, Cl. 60—7.

McGrew, Thomas A., and R. A. Wachter, to General Electric Co. Refrigerating apparatus having automatic defrost. 2,780,925, 2–12–57, Cl. 62—4.

McGuire, Clarence V. Method and apparatus for making a molded honeycomb structure. 2,780,946, 2–12–57, Cl. 77—62.

McKay, Dwight L., to Phillips Petroleum Co. Apparatus and process for the separation and purification of wax. 2,781,294, 2–12–57, Cl. 196—17.

McKeown, Charles G., to Controlled Heat & Air Ltd. Means for cooling the load of a coil annealing furnace or the like. 2,781,188, 2–12–57, Cl. 266—2.

McLeod, Charles A., to A. S. Campbell Co., Inc. Automatic brake release mechanisms. 2,781,117, 2–12–57, Cl. 192—4.

McMahan, Charles R.: *See*—
Brown, Kenneth M., and McMahan. 2,781,296.

Meloy, Norman F. Log tongs. 2,781,224, 2–12–57, Cl. 294—118.

Memmler, Eugene. Building construction. 2,781,109, 2–12–57, Cl. 189—34.

Merck & Co., Inc: *See*—
Day, John T. 2,781,367.
Hirschmann, Ralph F., Wendler, and Miller. 2,781,363.

Meredith, Harlan L., to North American Aviation, Inc. Metallic power projector. 2,781,154, 2–12–57, Cl. 222—193.

Merla Tool Corp.: *See*—
Robinson, Art I. 2,781,240.

Metzger, Frank X. Peeling attachment for garbage disposal unit. 2,781,175, 2–12–57, Cl. 241—101.

Middleton, William J.: *See*—
Heckert, Richard E., and Middleton. 2,781,359.

Midland Chemical Corp.: *See*—
Novak, Leo J., and Witt. 2,780,888.

Miglioccio, Etereo, to Bombrini, Parodi Delfino S. p. A. Projectile with extra-sensitive head. 2,780,995, 2–12–57, Cl. 102—66.

Mike, John G. Ignition system for internal combustion engines. 2,781,412, 2–12–57, Cl. 123—148.

Miller, Clyde F.: *See*—
Hirsch, Robert L., Miller, and Bellin. 2,780,996.

Miller, Coleman J., to Westinghouse Electric Corp. High frequency amplifier. 2,781,421, 2–12–57, Cl. 179—171.

Miller, Emery P., to Ransburg Electro-Coating Corp. Method and apparatus for spray coating of articles. 2,781,280, 2–12–57, Cl. 117—93.

Miller, Jess M. Magnifying mirror for medicine cabinet. 2,780,960, 2–12–57, Cl. 88—100.

Miller, John K. Ventilating apparatus. 2,780,981, 2–12–57, Cl. 98—43.

Miller, Merton R., to Ransburg Electro-Coating Corp. Method and apparatus for spray coating of articles. 2,781,279, 2–12–57, Cl. 117—93.

Miller, Neil C., to Phillips Petroleum Co. Carbon black reactor. 2,781,250, 2–12–57, Cl. 23—259.5.

Miller, Ralph. Method and apparatus for varying the final compression temperature in a four cycle internal combustion engine. 2,780,912, 2–12–57, Cl. 60—13.

Miller, Ralph, to Nordberg Mfg. Co. Dual fuel variable speed engine control. 2,781,030, 2–12–57, Cl. 123—27.

Miller, Richard: *See*—
Hirschmann, Ralph F., Wendler, and Miller. 2,781,363.

Miller, Roland E.: *See*—
Rudnik, Raymond G., Miller, and Borgardt. 2,781,272.

Mills, Hiram L. Storage file for photographic slides. 2,781,125, 2–12–57, Cl. 206—73.

Mills, Walter F., Sr. Installation gauge for a power take-off. 2,780,872, 2–12–57, Cl. 33—181.

Mitchell, Fern W., Jr., and P. A. Shaffer, Jr. Coulometer. 2,781,490, 2–12–57, Cl. 324—111.

Mitz, Milton A., and A. E. Heath, to Armour Co. Coenzyme concentrates and methods for the preparation thereof. 2,781,339, 2–12–57, Cl. 260—211.5.

Modl, Erich K.: *See*—
Krivsky, William A., and Modl. 2,781,255.

Moerbe, Herbert J. Brick and stone cutting machine. 2,781,036, 2–12–57, Cl. 125—23.

Moffett, Robert B., to The Upjohn Co. O-(phenylcarbamyl)-n-methyl scopolamine quaternary ammonium salts. 2,781,346, 2–12–57, Cl. 260—292.

Mohr, Glenn R., to Westinghouse Electric Corp. Grid excitation. 2,781,449, 2–12–57, Cl. 250—36.

Monroe, Charles Z., and D. German, to Ex-Cell-O Corp. Closure flap manipulating mechanism for carton filling machine. 2,780,900, 2–12–57, Cl. 53—284.

Monsanto Chemical Co.: *See*—
Chadwick, David H. 2,781,402.
Comte, Frederick. 2,781,344.
Downey, Paul M. 2,781,330.

Montgomery, James L., to the United States of America as represented by the Secretary of the Navy. Servo systems. 2,781,482, 2–12–57, Cl. 318—29.

Montgomery, John C.: *See*—
Coons, Curtis C., and Montgomery. 2,780,826.

Moorehead, Emily L. Hair curler. 2,781,046, 2–12–57, Cl. 132—38.

Morgan Construction Co.: *See*—
O'Malley, Joseph M. 2,781,179.

Morgan, Willard L., and S. H. Harwig, to Libbey-Owens-Ford Glass Co. Method and apparatus for masking support bodies. 2,781,282, 2–12–57, Cl. 117—212.

Morin, Louis H. Apparatus for applying low pressure advance and high pressure squeeze in the hydraulic operation of die casting dies. 2,780,836, 2–12–57, Cl. 18—30.

Morrell, Charles E., to Esso Research and Engineering Co. Preparation of oxo octyl alcohols and plasticizer esters. 2,781,396, 2–12–57, Cl. 260—475.

Morren, Henri, to Union Chimique Belge, S. A. Phenyl cyclohexyl bis diethylaminoethanes. 2,781,398, 2–12–57, Cl. 260—570.5.

Morrison, Willard L., to The Union Stock Yard and Transit Co. of Chicago. Gas distribution systems for a multiplicity of tanks containing liquefied hydrocarbons. 2,780,921, 2–12–57, Cl. 62—1.

Moser, Eduard, A. Bolleter, and C. Wittwer, to Ciba Ltd. Diazoamino compounds. 2,781,337, 2–12–57, Cl. 260—140.

Moser, Eduard, A. Bolleter, and C. Wittwer, to Ciba Ltd. Diazoamino compounds. 2,781,338, 2–12–57, Cl. 260—140.

Motorola, Inc.: *See*—
Fyler, George W. 2,781,475.

Mueller, Charles W., to Radio Corp. of America. Semiconductor rectifiers. 2,781,480, 2–12–57, Cl. 317—234.

Muffley, Leo W., ½ to C. L. Davis. Wheel and shaft assembly. 2,780,910, 2–12–57, Cl. 58—107.

Munekata, Eiji, and T. Onodera, to Asahi Chemical Industry Co., Ltd. Method of manufacturing a chemical fertilizer from sludge, containing ammonium nitrate, dicalcium phosphate and calcium carbonate. 2,781,254, 2–12–57, Cl. 71—47.

Musser, C W., and F. W. Dietsch, to the United States of America as represented by the Secretary of the Army. Devices for moving objects such as aircraft canopies. 2,780,961, 2–12–57, Cl. 89—1.

N. V. Nederlandsche Machinefabriek "Artillerie-Inrichtingen": *See*—
Veldhuizen, Adrianus G. 2,781,199.

Nagels, Frederik, to Chemische Fabriek L. van der Grinten N. V. Apparatus for carrying out a transfer process. 2,780,973, 2–12–57, Cl. 95—89.

Nail, James J.: *See*—
Sichak, William, and Nail. 2,781,514.

National Dairy Products Corp.: *See*—
Stimpson, Edwin G. 2,781,266.

National Distillers Products Corp.: *See*—
Kamlet, Jonas. 2,781,261.

National Drug Co., The: *See*—
Martin, Gustav J., and Sullivan. 2,781,290.

National Electric Products Corp.: *See*—
Kennedy, Frank J. 2,781,145.

National Malleable and Steel Castings Co.: *See*—
Spence, Hubert L., and Willison. 2,781,135.

Navy, United States of America as represented by the Secretary of the: *See*—
Armstrong, David G. 2,781,500.
Baker, William O. 2,780,997.
Bellott, Emile M. 2,781,470.
Cooke, David A. 2,781,478.
Frederick, Arden H. 2,781,495.
Cork, Bruce B., and Clark. 2,781,493.
Goff, John C. 2,780,993.
Montgomery, James L. 2,781,482.
Ressler, Murray, and Halpern. 2,780,962.
Robinson, Ralph O., Jr. 2,781,512.
Weller, Warren C., and Johnson. 2,781,110.

Nelson, John L.: *See*—
Bowle, Adrian S., and Nelson. 2,780,904.

Nethercutt Laboratories: *See*—
Scott, Delmer D. 2,781,020.

Neumann, Gerhard, to General Electric Co. Self-operating check valve. 2,781,054, 2–12–57, Cl. 137—527.8.

Newland, Roscoe, to Hutchinson Brothers Leather Co. Football helmets provided with face guards. 2,780,815, 2–12–57, Cl. 2—9.

Newman, Victor M. Necktie sewing machines. 2,781,010, 2–12–57, Cl. 112—174.

New York Air Brake Co., The: *See*—
Safford, Lewis A. 2,781,235.

New York Umbrella Co., Inc.: *See*—
Seeman, Louis. 2,781,113.

Nicks, Oran W., to North American Aviation, Inc. Variable configuration jet inlet. 2,780,913. 2–12–57, Cl. 60—35.5.

Niedzwiedzki, Antoni. Metal-working tool. 2,781,258, 2–12–57, Cl. 75—123.

Nielsen, Ruth A. Guide means for sewing machines. 2,781,008, 2–12–57, Cl. 112—151.

Nixon Nitration Works: *See*—
Dovidio, Chester A. 2,781,077.
Dovidio, Chester A. 2,781,078.

Noguchi, Isamu. Lamp construction. 2,781,444, 2–12–57, Cl. 240—36.

Nold, Hans, to Extraction & Chemical Co., Inc. Manufacturing small-hole sieves. 2,781,097, 2–12–57, Cl. 164—125.

Nopco Chemical Co.: *See*—
Hart, Eugene V. 2,781,361.

Nordberg Mfg. Co.: *See*—
Jensch, Clyde K. 2,780,894.
Miller, Ralph. 2,781,030.
Talboys, Henry H. 2,781,002.

Norsk Hydro-Elektrisk Kvaelstofaktieselskab: *See*—
Iversen, Gunnar B., Swensen, and Johansen. 2,781,132.

North American Aviation, Inc.: *See*—
Eno, Robert F. 2,781,420.
Frost, Louis E., and Matey. 2,780,866.
Meredith, Harlan L. 2,781,154.
Nicks, Oran W. 2,780,913.

Northeast Capital Corp.: *See*—
Mappes, William L., and Hart. 2,781,429.

Northern Electric Co., Ltd.: *See*—
Fewtrell, George E., and Tyrrell. 2,780,906.

Northrop Aircraft, Inc.: *See*—
Donan, John F., and Hindall. 2,781,169.
Hagen, Glenn E. 2,781,171.
Urban, Vincent M. 2,781,457.

Norton Co.: *See*—
Silven, Herbert A., and Mader. 2,780,895.

Novak, Leo J., and E. E. Witt, to Midland Chemical Corp. Treatment of soil with soil conditioning agents containing carboxymethyl dextran. 2,780,888. 2–12–57. Cl. 47—58.

Odin, Eugene A., to The Louis Johnson Products Co., Inc. Collapsible golf cart. 2,781,202, 2–12–57, Cl. 280—42.

Offner, Walter W. Carrier for radioactive material. 2,781,455, 2–12–57, Cl. 250—108.

Ohio State University Research Foundation, The: *See*—
Harper, Willis J., and Selberling. 2,781,269.

Okonite Co., The: *See*—
White, Paul V., and Everest. 2,781,285.

Olin Mathieson Chemical Corp.: *See*—
Temple, Lemuel M. 2,780,882.

Oliveto, Eugene P., and E. B. Hershberg, to Schering Corp. Process for the manufacture of 11β-acyloxy steroids. 2,781,369, 2–12–57, Cl. 260—397.45.

Olivetti Corp. of America: *See*—
Canepa, Michele. 2,781,504.

Olsen, John C.: *See*—
Boyce, John, and Olsen. 2,780,927.

O'Malley, Joseph M., to Morgan Construction Co. Reel for rodling mill. 2,781,179, 2–12–57, Cl. 242—81.

Ondeck, Elmer J., to Supreme Products Corp. Reversible drive for power tools. 2,780,944, 2–12–57, Cl. 74—764.

Onodera, Toshinori: *See*—
Munekata, Eiji, Doi, and Onodera. 2,781,254.

Origins Inc.: *See*—
Hawley, Dean. 2,781,051.

Owens-Corning Fiberglas Corp.: *See*—
Biefeld, Lawrence P., and Duffee. 2,780,909.
Fulk, Walter F. 2,780,889.
Russell, Robert G. 2,780,890.
Slayter, Games. 2,781,274.

P. & G. Mfg. Co.: *See*—
Campbell, Dewey H. 2,780,871.

Pacific Mills: *See*—
Wilkie, Robert C. 2,780,838.

Pankonin, William G., to Triangle Tool & Mfg. Co. Detachable base stapling machine. 2,780,809, 2–12–57, Cl. 1—3.

Patent and Licensing Corp., The: *See*—
Lieff, Morris. 2,780,850.

Paul, Albert: *See*—
Compton, James A., and Paul. 2,780,999.

Pavlicek, William. Wheel chair. 2,781,080, 2–12–57, Cl. 155—30.

Pavnica, Cyril A.: *See*—
Talbot, Richard C., and Pavnica. 2,781,119.

Payne, John W., to Socony Mobil Oil Co., Inc. Method for purifying liquid hydrocarbons with solid adsorbents. 2,781,301. 2–12–57, Cl. 196—147.

Pear, Charles B., Jr., to the United States of America as represented by the Secretary of the Army. Echo simulator. 2,781,511. 2–12–57, Cl. 343—17.7.

Pechy, William, to American Can Co. Clutch mechanism. 2,781,118, 2–12–57, Cl. 192—150.

Pedersen, Harry, to The Gleason Works. Gaging device. 2,780,873, 2–12–57. Cl. 33—185.

Peirson, Harold T. Ventilator rain baffle for roof eaves. 2,780,978, 2–12–57, Cl. 98—37.

Pekora, Frank J. Detachable carrying device for paint and other cans. 2,781,221, 2–12–57, Cl. 294—31.2.

Perrin, William K.: *See*—
Wiesman, Clarence K., and Perrin. 2,781,271.

Petersen, Erwin P., and H. L. Whitney, to Continental Radiant Glass Heating Corp. Radiant heating panels. 2,781,440, 2–12–57, Cl. 219—34.

Petersen, Svend A., to Celanese Corp. of America. Yarn winding. 2,781,177, 2–12–57, Cl. 242—18.

Peterson, Donald W., to Radio Corp. of America. Slotted sheet antenna. 2,781,513, 2–12–57, Cl. 343—816.

Petit, Michel: *See*—
Camescasse, Pierre, and Petit. 2,781,189.

Petridies, Thracy, to International Telephone and Telegraph Corp. Phase detectors. 2,781,489, 2–12–57, Cl. 324—87.

Petrolite Corp.: *See*—
De Groote, Melvin, and Cheng. 2,781,325.

Phillips Petroleum Co.: *See*—
Goldtrap, Walter A. 2,781,246.
Hepp, Harold J., and Frey. 2,781,409.
Howell, Robert C. 2,781,251.
Jones, Rufus V., and Canterino. 2,781,331.
Krejci, Joseph C. 2,781,247.
McKay, Dwight L. 2,781,294.
Miller, Neil C. 2,781,250.
Province, John H. 2,780,950.
Witt, Donald R., and Carter. 2,781,408.

Pickles, Joseph, to Hupp Corp. Vehicle window regulator. 2,781,191, 2–12–57, Cl. 268—124.

Piedmont Shirt Co.: *See*—
Switzman, Shepard S. 2,780,816.

Pisano, Martin. Combustible gas detector. 2,781,249, 2–12–57, Cl. 23—255.

Pittman, Forrest C.: *See*—
Pyle, Edwin C., and Pittman. 2,781,100.

Pittsburgh Consolidation Coal Co.: *See*—
Gorin, Everett. 2,781,248.

Pneumafil Corp.: *See*—
Bechtler, Hans C. 2,780,908.

Polaroid Corp.: *See*—
Fairbank, Murry N. 2,780,972.
Fairbank, Murry N. 2,780,974.

Pollard, Charles E., Jr., to Bell Telephone Laboratories, Inc. Power control circuit. 2,781,459, 2–12–57, Cl. 307—132.

Polmanteer, Keith E., to Dow Corning Corp. Laminated rubber article and a method of making same. 2,781,288, 2–12–57, Cl. 154—139.

Portco Corp.: *See*—
Wall, Howard M. 2,780,987.

Potter, Thomas W., to Journal Box Servicing Corp. Batt waste packing. 2,781,239, 2–12–57, Cl. 308—88.

Power Jets (Research and Development) Ltd.: *See*—
Fletcher, Philip J. 2,781,057.
Taylor, Tristram A., Macfarlane, and Stephenson. 2,781,005.

Prentice Machine Works, Inc.: *See*—
Anderson, Victor E. 2,781,068.

Press Automation Systems Inc.: *See*—
Sehn, Francis J., and Clemons. 2,781,136.

Prichard, Evan S., to Cook Bros. Equipment Co. Tilting hood and cab for motor vehicles. 2,781,102, 2–12–57, Cl. 180—89.

Pritchard, Clarence L., to Malsbary Mfg. Co. Solution feed for a cleaning machine. 2,781,230, 2–12–57, Cl. 299—84.

Process Engineering Inc.: *See*—
Benson, Walter L., and Larkin. 2,780,899.

Province, John H., to Phillips Petroleum Co. Hydraulic control system. 2,780,950, 2–12–57, Cl. 81—53.

Puckett, Billy E. Center locater. 2,780,874, 2–12–57, Cl. 33—191.

Pyle, Edwin C., and F. C. Pittman, to Halliburton Oil Well Cementing Co. Well bore scraping device. 2,781,100, 2–12–57, Cl. 166—173.

Rach, Herbert E. Snell adapter for fishhooks. 2,780,886, 2–12–57, Cl. 43—44.83.

Radase, Albert. Combined sharpening, sanding and honing machine. 2,780,897, 2–12–57, Cl. 51—141.

Radiation Research Corp.: *See*—
Coleman, John H. 2,781,474.

Radio Corp. of America: *See*—
Armstrong, Lorne D. 2,781,481.
Covely, Frank D., and Baker. 2,781,473.
Marshall, John N. 2,781,509.
Mueller, Charles W. 2,781,480.
Peterson, Donald W. 2,781,513.
Smith, Lloyd P. 2,781,476.
Stocker, Arthur C. 2,781,445.

Radnofsky, Matthew I. Visor and actuating assembly for a helmet. 2,780,814, 2–12–57, Cl. 2—8.

Ragatz, Edw. G., Co.: *See*—
Ragatz, Edward G. 2,781,293.

Ragatz, Edward G., to Edw. G. Ragatz Co. Absorption recovery of hydrocarbons. 2,781,293, 2–12–57, Cl. 196—8.

Ragland, Douglas, to Esso Research and Engineering Co. Pressure compensated pipe collar. 2,781,206, 2–12–57, Cl. 285—106.

Ragni, Victor F., to International Telephone and Telegraph Corp. Stabilized direct current amplifier. 2,781,419, 2–12–57, Cl. 179—171.

Raitt, Nathan S. Ladders. 2,781,158, 2–12–57, Cl. 228—51.

Ram, Gerson L., and D. Rotfeld. Sewage treatment apparatus and method. 2,781,310, 2–12–57, Cl. 210—2.

Randall, John W., to John Dickinson & Co. Ltd. Method of manufacturing tubular bags, envelopes, and like containers with folded bottoms. 2,780,969, 2–12–57, Cl. 93—35.

Ransburg Electro-Coating Corp.: *See*—
Miller, Emery P. 2,781,280.
Miller, Merton R. 2,781,279.

Rappl, Anton: *See*—
Scinta, Anthony C., and Rappl. 2,780,824.

Reary, Arthur R.: *See*—
Ruby, John A., and Reary. 2,781,079.

Reddle, Victor L., to the United States of America as represented by the Secretary of the Army. Quick acting closure. 2,781,148, 2–12–57, Cl. 220—40.

Reichertz, Paul P.: *See*—
Zimmerman, Carl W., Reichertz, and Skinner. 2,781,488.

Reichhold Chemicals, Inc.: *See*—
Swann, Geoffrey, and Evans. 2,781,332.

Reliable Electric Co.: *See*—
Jugle, Leonard L. 2,781,212.

Remer, Charles H. Jig. 2,781,129, 2–12–57, Cl. 209—455.

Remington Arms Co., Inc.: *See*—
Catlin, Robert T., and Clair. 2,780,810.
Crittendon, Lexie, and Haskell. 2,780,881.
Landa, Arthur J., and McDonald. 2,780,812.
Wood, Forrest D. 2,781,126.

Republic Aviation Corp.: *See*—
Kaplan, Richard D. 2,781,183.

Ressler, Murray, and H. S. Halpern, to the United States of America as represented by the Secretary of the Navy. Blast suppressor. 2,780,962, 2–12–57, Cl. 89—14.2.

Revere Copper and Brass Inc.: *See*—
Wilkins, Richard A. 2,781,257.

Rice, Neil O., to General Electric Co. High speed pick up energization control system for relays. 2,781,479, 2–12–57, Cl. 317—149.

Richards, David C., to Socony Mobil Oil Co., Inc. Self-orienting geophone. 2,781,502, 2–12–57, Cl. 340—17.

Richards, John H., to United States Steel Corp. Process for the rapid removal of sulphur and silicon from pig iron. 2,781,256, 2–12–57, Cl. 75—52.

Richardson Co., The: *See*—
Kehe, Alfred W. 2,781,076.
Ritenour, Gerald. 2,780,986.
Ruschman, Gordon A. 2,781,147.

Riebman, Leon. Anti-jam receiver for pulse echo detection system. 2,781,510, 2–12–57, Cl. 343—17.1.

Ring, Elliott, to General Electric Co. Ambient pressure responsive control for fuel oxidizer and nozzle exhaust area of reaction motors. 2,780,914, 2–12–57, Cl. 60—35.6.

Ritenour, Gerald, to The Richardson Co. Apparatus for guiding packaging straps. 2,780,986, 2–12–57, Cl. 100—25.

Roach, Marshall L.: *See*—
Klumb, George H., Schulze, Roach, and Sailsbury. 2,781,312.

Robbins, Davis. Drilling apparatus. 2,781,185, 2–12–57, Cl. 255—51.

Roberts, Edward H., to General Electric Co. Liquid cooler for refrigerating apparatus. 2,781,153, 2–12–57, Cl. 222—183.

Roberts, George A., to Vanadian-Alloys Steel Co. Wear-resistant ferrous alloys. 2,781,259, 2–12–57, Cl. 75—126.

Roberts, Ingham S., to American Viscose Corp. Liquid treating apparatus. 2,780,933, 2–12–57, Cl. 68—244.

Robertson, Harold E., and B. O. Strom, to Allied Chemical & Dye Corp. Process of recovering ammonia from ammoniacal liquors. 2,781,245, 2–12–57, Cl. 23—193.

Robinson, Art L., to Meria Tool Corp. Piston assemblies. 2,781,240, 2–12–57, Cl. 309—23.

Robinson, Lawrence R. Reinforced cutting tool. 2,780,858, 2–12–57, Cl. 29—105.

Robinson, Ralph O., Jr., to United States of America as represented by the Secretary of the Navy. Cylindrical notch antenna. 2,781,512, 2–12–57, Cl. 343—708.

Robison, Howard A. Winter sports vehicle. 2,781,200, 2–12–57, Cl. 280—11.39.

Rockwell Register Corp.: *See*—
McGay, John B., and Clift. 2,780,911.

Rodin, Emil A. Tool for holding and driving fasteners. 2,780,811, 2–12–57, Cl. 1—47.

Rogers, George W., Construction Corp.: *See*—
Carey, Edward G. 2,780,919.

Rohr Aircraft Corp.: *See*—
Lane, Robert B., and Alsobrook. 2,781,205.

Rohrscheib, George F., to Verson Allsteel Press Co. Anti-shock hydraulic circuit. 2,780,918, 2–12–57, Cl. 60—52.

Rolls-Royce Ltd.: *See*—
Gresham, Harold E., Farnsworth, and Hall. 2,781,263.
Gresham, Harold E., Farnsworth, Hall, and Doyle. 2,781,262.
Gresham, Harold E., and Wheeler. 2,781,264.

Ronish, George A. Bathtub brush. 2,780,823, 2–12–57, Cl. 15—160.

Roovers, Wilhelmus A., and O. L. Van Steenis, deceased (by J. D. Heijligers, executor), to Hartford National Bank and Trust Co., as trustee. Method of manufacturing optical windows and optical window manufactured by this method. 2,780,892, 2–12–57, Cl. 49—81.

Rösch, Georg. Journal box mounting for roller axle bearings. 2,781,004, 2–12–57, Cl. 105—221.

Rösch, Gustav. Method and apparatus for waving hair. 2,781,045, 2–12–57, Cl. 132—7.

Rosco Mfg. Co.: *See*—
Thornburg, Robert W. 2,781,229.

Roseman, Richard E., to Borg-Warner Corp. Air cooled unit air conditioner. 2,780,929, 2–12–57, Cl. 62—129.

Rosenkranz, George: *See*—
Djerassi, Carl, Sondheimer, and Rosenkranz. 2,781,365.

Rosenwald, Robert H., to Universal Oil Products Co. Synthesis of ortho-alkyl-p-alkoxyphenols. 2,781,404, 2–12–57, Cl. 260—613.

Ross, Frederick W. Aerodynamic aircraft control system. 2,781,182, 2–12–57, Cl. 244—83.

Ross, James F.: *See*—
Boisture, Worth W., and Ross. 2,781,234.

Rossi, Robert R., to Arrow Safety Device Co. Automotive signal light control switch. 2,781,428, 2–12–57, Cl. 200—61.37.

Rotfeld, Dolph: *See*—
Ram, Gerson L., and Rotfeld. 2,781,310.

Rottig, Walter, to Ruhrchemie Aktiengesellschaft, and Lurgi Gesellschaft fuer Waermetechnik m. b. H. Precipitated iron catalysts for carbon monoxide hydrogenation. 2,781,325, 2–12–57, Cl. 252—472.

Rowe, Frank E., Jr., to Abington Textile Machinery Works. Means for insuring quiet operation of waste collecting vacuum system. 2,781,164, 2–12–57, Cl. 230—115.

Rubin, Martin, and F. C. Bersworth, to The Dow Chemical Co. Magnesium chelate of ethylenediaminetetraacetic acid for treatment of hypertension. 2,781,291, 2–12–57, Cl. 167—68.

Ruby, John A., and A. R. Reary, said Ruby assor. to E. I. du Pont de Nemours and Co. Sealing apparatus. 2,781,079, 2–12–57, Cl. 154—42.

Rudnik, Raymond G., R. E. Miller, and H. Borgardt, to Kraft Foods Co. Method of forming a stack of interleaved cheese slices and apparatus therefor. 2,781,272, 2–12–57, Cl. 99—178.

Rudolph, George, to General Electric Co. Interlock arrangement for a circuit breaker having a stored-energy closing device. 2,781,427, 2–12–57, Cl. 200—50.

Ruhrchemie Aktiengesellschaft: *See*—
Rottig, Walter. 2,781,325.

Rumble, Roy W. Method of making a floor slab. 2,780,935, 2–12–57, Cl. 72—77.

Rupp, William C., to The Chandler & Price Co. Gauge for paper cutting and like machines. 2,781,093, 2–12–57, Cl. 164—59.

Rusca, Ralph A.: *See*—
Young, Ray C., and Rusca. 2,780,839.

Ruschman, Gordon A., to The Richardson Co. Shatter-resistant hard rubber compositions and method of making them. 2,781,147, 2–12–57, Cl. 220—21.

Russell, John D., to Joy Mfg. Co. Material disintegrating and removing apparatus. 2,781,187, 2–12–57, Cl. 262—9.

Russell, Leslie W., to Solar Aircraft Co. Convolution forming methods and apparatus. 2,781,075, 2–12–57, Cl. 153—77.

Russell, Robert G., to Owens-Corning Fiberglas Corp. Glass melting furnace. 2,780,890, 2–12–57, Cl. 49—17.

Rust, Mack D. Drive means for cotton picking spindles. 2,780,902, 2–12–57, Cl. 56—42.

Sack, Henri S.: *See*—
Belcher, Donald J., Cuykendall, and Sack. 2,781,453.

Sadler, Harry J., and E. E. Cook. Fluid-pressure-operated fluid injector. 2,781,163, 2–12–57, Cl. 230—52.

Safford, Lewis A., to The New York Air Brake Co. Self-lapping relay for use in combined pressure and vacuum brake systems. 2,781,235, 2,12–57, Cl. 303—4.

Sailsbury, Murl B.: *See*—
Klumb, George H., Schulze, Roach, and Sailsbury. 2,781,312.

Saito, Tomizo. Apparatus for preparing cellulose xanthate. 2,781,252. 2–12–57, Cl. 23—285.

Salathiel, Richard A., to Esso Research and Engineering Co. Drilling mud compositions. 2,781,313, 2–12–57, Cl. 252—8.5.

Saltzman, Shepard S., to Piedmont Shirt Co. Garment. 2,780,816, 2–12–57, Cl. 2—128.

Sampson, Milo B.: *See*—
Levinger, Joseph S., Sampson, Snell, and Wilkinson. 2,781,309.

Sanborn, Frank W., and A. V. Alexeff, to Industrial Ovens, Inc. Web treating apparatus. 2,780,878, 2-12-57, Cl. 34—159.

Sanders Associates, Inc.: *See*—
Dwyer, Walter J. 2,781,277.

Sanders, Elmore J. Actuating mechanism for variable flow fluid displacement rotor. 2,781,167, 2-12-57, Cl. 230—270.

Sanford, Guy E.: *See*—
Muir, James, and Sanford. 2,781,089.

Sasser, Otis E. Can opener. 2,780,861, 2-12-57, Cl. 30—19.

Saul & Co.: *See*—
Wiedemann, Erwin. 2,780,955.

Saunders, Norman, 40% to O. T. Whiting, Jr. Air raid alarm. 2,781,507, 2-12-57, Cl. 340—253.

Saunders, Norman B., to American Machine & Foundry Co. Magnetic memory circuits employing biased magnetic binary cores. 2,781,503, 2-12-57, Cl. 340—174.

Schaetzly, William F. Fluid loader. 2,781,052, 2-12-57, Cl. 137—276.

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Oliveto, Eugene P., and Hershberg. 2,781,369.

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Ude, Hans L. P. 2,780,840.

Schlatter, Hans A., and E. Wegmann, to Firma H. A. Schlatter A. G. Control apparatus for flash welding machines. 2,781,026, 2-12-57, Cl. 121—45.

Schlittler, Emil, and A. Uffer, to Ciba Pharmaceutical Products, Inc. Amines and process for the preparation of amines. 2,781,348, 2-12-57, Cl. 260—296.

Schmerling, Louis, to Universal Oil Products Co. Preparation of alkyl-substituted aromatic compounds. 2,781,407, 2-12-57, Cl. 260—668.

Schmitt, Roland G., E. E. Braaten, and V. K. Swedberg, to Walgreen Co. Machine for making suppositories or the like. 2,780,832, 2-12-57, Cl. 18—4.

Schmitz, Henry J.: *See*—
Schmitz, William. 2,781,021.

Schmitz, Ludwig: *See*—
Heilmann, Phillip, Losch, Marx, and Schmitz. 2,781,435.

Schmitz, William, to H. J. Schmitz. Moistener for yarn or thread winding machine. 2,781,021, 2-12-57, Cl. 118—264.

Schneider, William P., to The Upjohn Co. 11β,21-dihydroxy-4,16,20-pregnatriene-3-one and esters thereof. 2,781,366, 2-12-57, Cl. 260—397.45.

Schoch, Ernst. Collapsible sliding pocket-coat hanger. 2,781,157, 2-12-57, Cl. 223—94.

Schuff, Bernard W., to Westinghouse Electric Corp. Rotor for electric motor. 2,781,465, 2-12-57, Cl. 310—211.

Schulze, Robert E.: *See*—
Klumb, George H., Schulze, Roach, and Sallsbury. 2,781,312.

Scinta, Anthony C., and A. Rappl, deceased (by The Marine Trust Co. of Buffalo, executor); said Scinta and Rappl assors. to Trico Products Corp. Windsbield cleaner. 2,780,824, 2-12-57, Cl. 15—245.

Scott, Delmer D., to Nethercutt Laboratories. Multiple spraying apparatus. 2,781,020, 2-12-57, Cl. 118—6.

Scott & Williams, Inc.: *See*—
Lawson, Robert H., and Bristow. 2,780,931.

Searle, G. D., & Co.: *See*—
Hoehn, Willard M. 2,781,394.
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Jacobsen, Robert P. 2,781,401.

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Heckert, Richard E., and Searle. 2,781,393.

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Wells, Henry C. 2,780,848.

Sebok, Frank: *See*—
Sebok, Joseph B. and F. 2,781,032.

Sebok, Joseph B. and F., to Houdaille Industries, Inc. Air cleaner assembly with temperature control. 2,781,032, 2-12-57, Cl. 123—122.

Seborg, Earnest Y., and D. K. Greenberg, to Barnes Drill Co. Honing machine. 2,780,893, 2-12-57, Cl. 51—34.

Seck, Werner G.: *See*—
Daiger, George P., Gerber, and Seck. 2,781,103.

Secotan, Inc.: *See*—
Ushakoff, Alexis E. 2,781,241.

Seeman, Louis, to New York Umbrella Co., Inc. Combined handbag and umbrella carrier. 2,781,113, 2-12-57, Cl. 190—60.

Sehn, Francis J., and M. M. Clemons, to Press Automation Systems Inc. Material handling apparatus. 2,781,136, 2-12-57, Cl. 214—1.

Selberling, Dale A.: *See*—
Harper, Willis J., and Selberling. 2,781,269.

Selberg, John P., and W. H. Griffith, to Dresser Equipment Co. Self-erecting derrick. 2,781,108, 2-12-57, Cl. 189—15.

Semling, Donald E., to Wisconsin Window Unit Co. Combination screen and storm sash frames. 2,781,090, 2-12-57, Cl. 160—91.

Serum, Charles H.: *See*—
Ferrara, Achille K., and Serum. 2,781,432.

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Mitchell, Fern W., Jr., and Shaffer. 2,781,490.

Shaft Machines Ltd.: *See*—
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Shapiro, Sydney H., to Armour and Co. Preparation of secondary amines. 2,781,399, 2-12-57, Cl. 260—583.

Sharpe, Edward D.: *See*—
Harbers, Henry C., and Sharpe. 2,781,186.

Sharpe, Verlos G., to General Motors Corp. Wall mounted refrigerating apparatus. 2,780,926, 2-12-57, Cl. 62—89.

Shaw, Robert F.: *See*—
Eckert, John P., Jr., Weiner, Shaw, and Auerbach. 2,781,446.

Shell Development Co.: *See*—
Barnum, Emmett R., and Lorensen. 2,781,319.

Shelton, Darrell R. Safety pin. 2,780,852, 2-12-57, Cl. 24—159.

Sherman, Carroll J. Cooking burner control and thermostat. 2,781,038, 2-12-57, Cl. 126—52.

Sherman, Orville B. Apparatus for extruding plastic tubes. 2,780,835, 2-12-57, Cl. 18—14.

Sheskier, Alexander. Continuous electric outlet. 2,781,497, 2-12-57, Cl. 339—21.

Shukys, Julius G., to Air Reduction Co., Inc. Fluoro ethers and method of preparation. 2,781,405, 2-12-57, Cl. 260—614.

Sichak, William, and J. J. Nail, to International Telephone and Telegraph Corp. Helical antenna system. 2,781,514, 2-12-57, Cl. 343—895.

Silven, Herbert A., and S. S. Mader, to Norton Co. Crankpin grinding machine. 2,780,895, 2-12-57, Cl. 51—105.

Silvert, Mac. Tremie pipe construction. 2,780,920, 2-12-57, Cl. 61—63.

Simon, Walter E. A., to Brycel Ltd. Method of treating benzyl cellulose. 2,781,276, 2-12-57, Cl. 106—197.

Sinclair Refining Co.: *See*—
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Singer Mfg. Co., The: *See*—
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Ketterer, Stanley J. 2,781,013.
Kuhar, Ludwig J. 2,781,012.

Sippel, John J., and W. Kernan, to Skenandoa Rayon Corp. Creeping traverse for rayon pot spinning machines. 2,780,907, 2-12-57, Cl. 57—77.

Sistrunk, Henry L., to G. H. Forsyth. Bouncing ball game apparatus having a sound strip. 2,781,194, 2-12-57, Cl. 273—30.

Skenandoa Rayon Corp.: *See*—
Sippel, John J., and Kernan. 2,780,907.

Skinner, William C.: *See*—
Zimmerman, Carl W., Reichertz, and Skinner. 2,781,488.

Slayter, Games, to Owens-Corning Fiberglas Corp. Reinforced inorganic molded products. 2,781,274, 2-12-57, Cl. 106—108.

Slee, Alfred G., and W. K. Cox, to The British Electric Traction Co. Ltd., and Thomas Ash & Co. Ltd. Braking systems for vehicles. 2,781,114, 2-12-57, Cl. 192—058.

Slee, Alfred G., to The British Electric Traction Co. Ltd., and Thomas Ash & Co. Ltd. Braking systems for vehicles. 2,781,115, 2-12-57, Cl. 192—058.

Slocum, Charles W., to Stubnitz-Greene Spring Corp. Thermally controlled automatic switches. 2,781,484, 2-12-57, Cl. 318—221.

Slocum, Charles W., to Stubnitz-Greene Spring Corp. Thermally controlled electric switches. 2,781,485, 2-12-57, Cl. 318—221.

Smith, Basil L. Slip socket releaser. 2,781,222, 2-12-57, Cl. 294—102.

Smith, Clarence J., to W. F. and John Barnes Co. Can dispatching apparatus. 2,781,232, 2-12-57, Cl. 302—2.

Smith, Francis H., and R. E. Spokes, to American Brake Shoe Co. Friction element for brake shoes. 2,781,107, 2-12-57, Cl. 188—251.

Smith, George J. Dual heat-hot water tankless system. 2,781,174, 2-12-57, Cl. 237—8.

Smith, Lloyd P., to Radio Corp. of America. Magnetron. 2,781,476, 2-12-57, Cl. 315—39.57.

Smith, William R., and C. C. Sperry, to The Upjohn Co. Timing and actuating mechanism. 2,781,483, 2-12-57, Cl. 318—102.

Snell, Arthur H.: *See*—
Levinger, Joseph S., Sampson, Snell, and Wilkinson. 2,781,309.

Snider, Joseph W. Sign holder for automobiles. 2,780,880, 2-12-57, Cl. 40—129.

Snow, Adolph I.: *See*—
Teter, John W., and Snow. 2,781,295.

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Arbeit, Pierre. 2,780,891.

Societe Anonyme pour les Applications de l'Electricite et des Gaz Rares Etablissements Claude-Paz & Silva: *See*—
Gomonet, Edouard. 2,781,471.

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Jasse, Joseph R. 2,780,964.

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Soffa, Albert, to Wolf Brothers, Inc. Carry bag. 2,781,162, 2-12-57, Cl. 229—68.

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Sondheimer, Franz: *See*—
Djerassi, Carl, Sondheimer, and Rosenkranz. 2,781,365.

Sound Inc.: *See*—
Tiger, Emil. 2,781,019.

South Bend Bait Co.: *See*—
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Spahr, Hans. Apparatus for attaching flexible tie elements to the edge of thin sheets or web structures. 2,781,009, 2-12-57, Cl. 112—169.

Spalding, A. G., & Bros., Inc.: *See*—
Brandon, Thomas O. 2,781,196.

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Culemeyer, Karl. 2,781,386.

Specialties Development Corp.: *See*—
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Spence, Hubert L., and D. Willison, to National Malleable and Steel Castings Co. Draft gear and cushioning pad therefor. 2,781,135, 2-12-57, Cl. 213—40.

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Smith, William R., and Sperry. 2,781,483.

Sperry Rand Corp.: *See*—
Tarbox, John P. 2,781,213.
Eckert, John P., Jr., Weiner, Shaw, and Auerbach. 2,781,446.

Spinner, Isidore. Roller perforating device. 2,781,095, 2-12-57, Cl. 164—99.

Spivack, John D., W. J. Lennon, and H. Kroll, to Geigy Chemical Corp. Diamidocarboxylic acids and certain salts thereof. 2,781,385, 2-12-57, Cl. 260—404.5.

Spokes, Ray E.: *See*—
Smith, Francis H., and Spokes. 2,781,107.

Spracklen, John G., to Zenith Radio Corp. Controllable reactive current systems. 2,781,492, 2-12-57, Cl. 332—24.

Sprando, Anthony E., to Iron Fireman Mfg. Co. Hermetically sealed motor. 2,781,463, 2-12-57, Cl. 310—71.

Star Cutter Co.: *See*—
Willinghan, John R. 2,780,947.

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Steding, Arthur, and H. Hartewig, to Didier-Kogag-Hinselmann, Koksofenbau und Gasverwertung A. G., Regenerative coke oven structure. 2,781,302, 2-12-57, Cl. 202—141.

Stem, Donald E. Magnetic separators for ducts. 2,781,128, 2-12-57, Cl. 209—223.

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Stimpson, Edwin G., to National Dairy Products Corp. Inc. Lactase-hydrolyzed lactose in feed. 2,781,266, 2-12-57, Cl. 99—9.

Stocker, Arthur C., to Radio Corp. of America. Circuit for continuously corrected storage. 2,781,445, 2-12-57, Cl. 250—27.

Storti, Peter, and E. C. Webb, to Iron Fireman Mfg. Co. Fuel oil conditioning system. 2,781,087, 2-12-57, Cl. 158—36.

Strauss, Leopold: *See*—
Holloway, Robert L., Bohm, Zuercher, and Strauss. 2,781,195.

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Robertson, Harold E., and Strom. 2,781,245.

Strube, Richard E., to The Upjohn Co. 3-acylamidorhodanines and process for preparation. 2,781,347, 2-12-57, Cl. 260—295.

Struven, Warren C., to the United States of America as represented by the United States Atomic Energy Commission. Gating circuit. 2,781,448, 2-12-57, Cl. 250—27.

Stubbe, Walter A.: *See*—
Lesniak, Frank G., and Stubbe. 2,781,137.

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Slocum, Charles W. 2,781,485.

Stump, Eugen, to Daimler-Benz Aktiengesellschaft. Motion-transmitting device, particularly for the steering mechanism of motor vehicles. 2,780,943, 2-12-57, Cl. 74—459.

Suckling, Eustace E. Intelligence transmission system. 2,781,508, 2-12-57, Cl. 340—318.

Sullivan, Miller J.: *See*—
Martin, Gustav J., and Sullivan. 2,781,290.

Superior Concrete Accessories, Inc.: *See*—
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Supreme Products Corp.: *See*—
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Surmatis, Joseph D., to Hoffmann-La Roche Inc. 4-methyl-7-cyclohexylidene-3-heptenyl methyl ketone and intermediates. 2,781,387, 2-12-57, Cl. 260—410.9.

Swain, Kenneth W., to The Chase-Shawmut Co. Current-limiting fuses comprising fuse links of silver and copper. 2,781,434, 2-12-57, Cl. 200—131.

Swan, William J. One piece car door seal. 2,781,217, 2-12-57, Cl. 292—322.

Swann, Geoffrey, and P. G. A. Evans, to Reichhold Chemicals, Inc. Manufacture of etherified melamine-formaldehyde resins. 2,781,332, 2-12-57, Cl. 260—67.6.

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Sylvania Electric Products Inc.: *See*—
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Talbot, Richard C., and C. A. Pavnica, to J. L. Ferguson Co. Package aligning apparatus. 2,781,119, 2-12-57, Cl. 198—29.

Talboys, Henry H., to Nordberg Mfg. Co. Positioning and removing device for railroad machine. 2,781,002, 2-12-57, Cl. 105—177.

Tarbox, John P., to Sperry Rand Corp. Barrel knot tier. 2,781,213, 2-12-57, Cl. 289—2.

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Taylor, Tristram A., J. J. Macfarlane, and N. Stephenson, to Power Jets (Research and Development) Ltd. Method of reducing vanadium corrosion in gas turbines. 2,781,005, 2-12-57, Cl. 110—1.

Teletype Corp.: *See*—
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Temple, Lemuel M., to Olin Mathieson Chemical Corp. Electrically powered fire control mechanisms for firearms. 2,780,882, 2-12-57, Cl. 42—84.

Teter, John W., and A. I. Snow, to Sinclair Refining Co. Catalyst process for treating an oil with the catalyst. 2,781,295, 2-12-57, Cl. 196—28.

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Textron American, Inc.: *See*—
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Thatcher, Lewis E., to Gaylord Products, Inc. Control device. 2,781,430, 2-12-57, Cl. 200—80.

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Thomas, David F., and R. A. Hill, to Waterous Co. Foam pump. 2,781,000, 2-12-57, Cl. 103—136.

Thompson, Douglas G.: *See*—
Detweiler, James I., and Thompson. 2,781,207.

Thompson Products, Inc.: *See*—
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Thompson, Robert B., to The Elmco Corp. Vacuum filter. 2,781,133, 2-12-57, Cl. 210—199.

Thompson, Roscoe L., to Callaway Mills Co. Apparatus for making pile fabrics. 2,781,007, 2-12-57, Cl. 112—79.

Thornburg, Robert W., to Rosco Mfg. Co. Spraybar device. 2,781,229, 2-12-57, Cl. 299—34.

Thornes, Leslie S., R. Turner, and J. W. Hyde, to The British Petroleum Co. Ltd. Treatment of oil contaminated clay. 2,781,322, 2-12-57, Cl. 252—417.

Tiger, Emil, to Sound Inc. Continuous magnetic tape and cartridge. 2,781,019, 2-12-57, Cl. 116—124.

Timms, Arthur W. J., to James Beresford & Son Ltd. Electric motors. 2,781,464, 2-12-57, Cl. 310—90.

Trafton, Warren L., to United-Carr Fastener Corp. Fastener and holder to engage a slotted panel. 2,781,073, 2-12-57, Cl. 151—41.75.

Trailmobile, Inc.: *See*—
Black, James J. 2,781,231.

Traisman, Edwin, and H. L. Fleming, to Kraft Foods Co. Whey concentrate. 2,781,267, 2-12-57, Cl. 99—57.

Traycoff, Boris J. Metal cutting tool. 2,780,856, 2-12-57, Cl. 29—96.

Tremblay, Joseph C. Convertible cart. 2,781,201, 2-12-57, Cl. 280—30.

Triangle Tool & Mfg. Co.: *See*—
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Trico Products Corp.: *See*—
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Tritt, Russell L., to Aircraft-Marine Products Inc. Terminal applicator with automatic cycle and quality control. 2,780,833, 2-12-57, Cl. 1—177.

Troller, Theodor H., to Joy Mfg. Co. Yieldably mounted suspension troughing idler. 2,781,124, 2-12-57, Cl. 198—192.

Troller, Theodor H., to Joy Mfg. Co. Motor driven fan and method of assembling the components thereof. 2,781,165, 2-12-57, Cl. 230—117.

Tru-Scale, Inc.: *See*—
Gustus, Edwin L., and Yaeger. 2,781,287.

Tubing Seal Cap, Inc.: *See*—
Livermont, Frank W. 2,781,016.

Turner, Luther B.: *See*—
Welch, Lester M., Wilson, and Turner. 2,781,334.

Turner, Roy: *See*—
Thornes, Leslie, Sr., Turner, and Hyde. 2,781,322.

Twamley, William E., to Brown & Sharpe Mfg. Co. Tool holder. 2,780,857, 2-12-57, Cl. 29—96.

Tydon, Walter, to Fairchild Engine and Airplane Corp. Cargo vehicle body with foldable doors for imparting a streamlined shape to the body. 2,781,226, 2-12-57, Cl. 296—28.

Tyrrell, Bruce W.: *See*—
Fewtrell, George E., and Tyrrell. 2,780,906.

Ude, Hans L. P., to Schiess Aktiengesellschaft. Roller arrangement for drafting systems of spinning machines. 2,780,840, 2-12-57, Cl. 19—131.

Uffer, Andrea: *See*—
Schlittler, Emil, and Uffer. 2,781,348.

Unholtz, Karl: *See*—
Booth, Galt B., Brown, and Unholtz. 2,781,461.

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Union Stock Yard and Transit Co. of Chicago, The: *See*—
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United Engineering and Foundry Co.: *See*—
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United States Atomic Energy Commission, United States of America as represented by the: *See*—
Boyer, Robert Q., and Kilner. 2,781,303.
Creutz, Edward C., and Zinn. 2,781,308.
Levinger, Joseph S., Sampson, Snell, and Wilkinson. 2,781,309.
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ISSUED FEBRUARY 12, 1957

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36: 2,781,449
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41.9: 2,781,452
83.6: 2,781,453
91: 2,781,454
108: 2,781,455
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67.6: 2,781,332
78.5: 2,781,333
80.7: 2,781,334
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267— 1: Re.24,276
268— 124: 2,781,191
271— 2. 2: 2,781,192
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281— 17: 2,781,204
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286— 6: 2,781,208
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20. 1: 2,781,212
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292— 11: 2,781,214
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341. 18: 2,781,219
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296— 26: 2,781,225
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91: 2,781,227
299— 25: 2,781,228
34: 2,781,229
84: 2,781,230
301— 105: 2,781,231
302— 2: 2,781,232
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303— 4: 2,781,235
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307— 9: 2,781,456
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106: 2,781,458
132: 2,781,459
308— 18: 2,781,237
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88: 2,781,239
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310— 6: 2,781,460
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211: 2,781,465
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313— 69: 2,781,468
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315— 3. 5: 2,781,472
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317— 127: 2,781,477
142: 2,781,478
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234: 2,781,480
239: 2,781,481
318— 29: 2,781,482
102: 2,781,483
221: 2,781,484
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322— 28: 2,781,486
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324— 13: 2,781,488
87: 2,781,489
111: 2,781,490
332— 19: 2,781,491
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333— 13: 2,781,493
30: 2,781,494
31: 2,781,495
336— 110: 2,781,496
339— 21: 2,781,497
91: 2,781,498
154: 2,781,499
177: 2,781,500
198: 2,781,501
340— 17: 2,781,502
174: 2,781,503
2,781,504
184: Re.24,270
206: Re.24,271
233: 2,781,505
237: 2,781,506
253: 2,781,507
318: 2,781,508
343— 6. 5: 2,781,509
17. 1: 2,781,510
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708: 2,781,512
816: 2,781,513
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CLASSIFICATION OF DESIGNS

D 3— 4: Des. 179,693
25: Des. 179,681
D 4— 3: Des. 179,683
Des. 179,714
5: Des. 179,696
D 9— 2: Des. 179,671
D13— 1: Des. 179,709
D14— 3: Des. 179,687

D14— 6: Des. 179,672
D15—11: Des. 179,682
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D26—14: Des. 179,674
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D33— 2: Des. 179,673
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D44— 1: Des. 179,712
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D49— 1: Des. 179,676
D50— 3: Des. 179,679
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D52— 1: Des. 179,690
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D54—13: Des. 179,678
D55— 1: Des. 179,707

D57— 1: Des. 179,675
D71— 1: Des. 179,708
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D74—24: Des. 179,706
D80— 2: Des. 179,680
D81— 4: Des. 179,698
D91— 1: Des. 179,697

D91— 2: Des. 179,692
D92— 1: Des. 179,699
Des. 179,700
Des. 179,701
Des. 179,702
Des. 179,703
Des. 179,704

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
February 12, 1957 Volume 715 Number 2

TRADEMARKS

NOTICES

Service by Publication

A petition to cancel each of the registrations identified below having been filed, and the notice of such proceedings sent by registered mail to each registrant at the last known address having been returned by the post office as undeliverable, notice is hereby given that unless the registrants listed herein, their assigns or legal representatives, shall enter an appearance within thirty days from the date of this publication, the cancelation will be proceeded with as in the case of default.

Affiliated Retailers, Inc., New York, N. Y., Reg. No. 430,055, Canc. 6828.

Mme. Huntingford, Inc., Chicago, Ill., Reg. No. 421,501, Canc. 6831.

John K. Brater & Co., New York, N. Y., Reg. No. 369,252, Canc. 6844.

Kroesen Manufacturing Co., Long Beach, Calif., Reg. No. 361,123, Canc. 6857.

DAPHNE LEEDS,
Assistant Commissioner of Patents.

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

TM 75,365 (ALLIGATOR BRAND AND DESIGN), The Alligator Co., Oiled clothing; **TM 251,201** (ALLIGATOR), same, Coats, jackets, pants, etc., **filed** Dec. 10, 1956, D. C., S. D. N. Y., Doc. 115/272, *The Alligator Co. v. David Crystal Inc.*

TM 131,535 (LA ROSA AND DESIGN), V. Lopez & Co., Inc., Butter; **TM 313,418**, same, V. La Rosa & Sons, Inc., Alimentary paste products; **TM 389,868**, same, Butter, macaroni products, etc.; **TM 293,297** (LA ROSA GRADE A AND DESIGN), same, Alimentary pastes, **filed** July 25, 1955, D. C., E. D. N. Y. (Brooklyn), Doc. 15728, *V. La Rosa & Sons, Inc. v. Vincent Coppa.* Consent judgment Dec. 27, 1956. **Same,** Doc. 15729, V. La *Rosa & Sons, Inc. v. Morris Klamkin et al.* Decree as above.

TM 251,201. (See TM 75,365.)

TM 293,297. (See TM 131,535.)

TM 302,249 (PENN-HILLS), Industrial Oil Corp., Motor lubricating oils, **filed** Dec. 21, 1956, D. C., S. D. N. Y., Doc. 116/31, *Industrial Oil Corp. et al. v. Eastern Impex Co., Inc. et al.*

TM 313,418. (See TM 131,535.)

TM 377,752 (WONDER CHAIR), Bell Mfg. Co., Reclining chairs and convertible chair beds, **filed** Jan. 17, 1955, D. C., S. D. Calif. (Los Angeles), Doc. 17779–WB, *Bell Mfg. Co. v. Sleeper Lounge Co. et al.* Judgment for injunction restraining defendants from further infringement of valid trademark "Wonder Chair" (notice Dec. 10, 1956).

TM 389,868. (See TM 131,535.)

TM 441,375 (THE BLACK ANGUS), The Black Angus, Inc., Pastry pies, cakes, bread, **filed** Dec. 8, 1956, D. C., E. D. Pa. (Philadelphia), Doc. 21781, *Black Angus, Inc. v. Black Angus, Inc.*

TM 519,098 (HELANCA), Heberlein & Co., A. G., Wool-like threads and yarns of rayon; **TM 591,785**, same, Heberlein Patent Corp., Treating yarns and threads consisting of continuous artificial textile filaments, etc.; **TM 618,324**, same, Stretchable yarns and threads, **filed** Dec. 20, 1956, D. C., M. D. N. C. (Greensboro), Doc. 1081–G, *Heberlein Patent Corp. v. Wee-Sox Hosiery Mills, Inc.*

TM 591,785. (See TM 519,098.)

CONDITION OF TRADEMARK APPLICATIONS AS OF DECEMBER 31, 1956

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]	7,036
Date of oldest new application	June 25, 1956
Date of oldest amended application	Aug. 2, 1956

MERCHANT, JOHN, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application: New	Oldest Application: Amended
I. STERBA, J. R., Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 44 and Certification Marks (Goods) Class A	7–10–56	8–2–56
II. SHRYOCK, R. F., Classes 6, 18, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200; and Certification Marks (Services) Class B	6–25–56	8–10–56
III. WENDT, C. M., Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 36, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 50, 52	8–1–56	8–23–56
Renewals (All Classes)	11–30–56	11–30–56
Sec. 12 (c) Publications (All Classes)	11–30–56	11–30–56

Applications Filed During the Month of December 1956—1,734

Registrations Issued	385—No. 641,191 to No. 641,575
Renewals Issued	49

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

TM 618,324. (See TM 519,098.)

TM 634,501 (DUO-BED), Duo-Bed Corp., Headboards for beds, cocktail tables, pivotal sofa beds, etc.; **2,495,494**, T. S. Ziegenfuss, Twin bed and lounge; **2,630,581**, same, Convertible bed lounge; **2,602,937**, L. E. Frey, Sofa bed; **Des. 178,233**, same, Combined twin bed and sofa unit, **filed** Nov. 19, 1956, D. C., N. D. Calif. (San Francisco), Doc. 35989, *Duo-Bed Corp. et al.* v. *Simon Mattress Mfg. Co. et al.* Consent judgment for plaintiff; decree granting injunction against defendants from further infringement Dec. 18, 1956.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

SN 699,014. Surpass Leather Company, Philadelphia, Pa. Filed Nov. 28, 1955.

SURTAN
by Surpass

Owner of Reg. Nos. 58,834, 345,896, and others.

For Leather for Use in the Manufacture of Shoes.

First use Sept. 1, 1955.

SN 699,423. Phillips Associates, Incorporated, St. Paul, Minn. Filed Dec. 5, 1955.

SERVO

For Prepared and Partially Prepared Raw Rubbery, Raw Plastic, Liquid Rubbery and Liquid Plastic Materials Used in the Preparation of Molded Rubber Products, Plastics, and Paints.

First use Sept. 20, 1954.

CLASS 2

RECEPTACLES

SN 3,932. Emco Porcelain Enamel Co., Inc., Port Chester, N. Y. Filed Mar. 6, 1956.

EMCO

For Vegetable-Bins, Bread-Bins, Step-On Cans, Bread Boxes, and Canister Sets in the Form of Tiltable Bins.

First use 1939.

CLASS 4

ABRASIVES AND POLISHING MATERIALS

SN 1,693. S. C. Johnson & Son, Inc., Racine, Wis. Filed Jan. 30, 1956.

KAY-WAX

The word "Wax" is disclaimed apart from the mark as shown.

For Liquid Wax for Polishing, Finishing, and Coating Floors of Wood, Linoleum, Rubber Tile, Terrazzo, and Other Types of Surfaces.

First use on or before Jan. 1, 1933.

SN 11,968. Spec-Wick, Moultrie, Ga. Filed July 11, 1956.

SPEC WICK

For Liquid Cleaner and Polish for Eyeglass Lens and Frame.

First use Apr. 19, 1956.

CLASS 5

ADHESIVES

SN 11,965. Smooth-On Manufacturing Company, Jersey City, N. J. Filed July 11, 1956.

SONITE

For Epoxy Resin Compound Used as an Adhesive Cement for General Industrial Purposes.

First use June 4, 1956.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

SN 684,385. Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany. Filed Mar. 29, 1955.

BASF
1865

Owner of German Reg. No. 630,552, dated Nov. 26, 1952.

For Insecticides; Fungicides; Weed Killing Agents; Disinfecting Agents; Fire Extinguishing Agents; Hardening Agents; Dyes; Synthetic Resins; Tanning Agents; and Anticorrosives.

SN 693,349. Aircraft-Marine Products, Inc., Harrisburg, Pa. Filed Aug. 19, 1955.

AMP

For Thermo-Plastic Synthetic Resins and Molding Powder Composed of Synthetic Resin and a Refractory Filler.

First use Aug. 27, 1951, on molding powder composed of synthetic resins.

SN 697,767. Delaware Chemicals, Inc., Staten Island, N. Y. Filed Nov. 7, 1955.

DELAWARE CHEMICALS INCORPORATED

The words "Delaware Chemicals Incorporated" are disclaimed apart from the mark as shown.
For Pentaerythritol.
First use Nov. 16, 1954.

SN 5,975. Cela Landwirtschaftliche Chemikalien G. m. b. H., Ingelheim am Rhein, Germany. Filed Apr. 9, 1956.

CELATHION

Owner of German Reg. No. 669,122, dated Jan. 4, 1955.
For Animal and Plant Destroying Products.

SN 7,399. United States Rubber Company, New York, N. Y. Filed Apr. 30, 1956.

KRALASTIC

Owner of Reg. No. 535,264.
For Plastic Molding Powder.
First use Oct. 22, 1948.

SN 8,455. Warner-Lambert Pharmaceutical Company, New York, N. Y. Filed May 16, 1956.

VERSATOL

Owner of Reg. Nos. 422,352 and 426,953.
For Diagnostic Reagent.
First use Apr. 17, 1956.

SN 9,829. Texas-U. S. Chemical Company, New York, N. Y. Filed June 7, 1956.

TEXUS

For Synthetic Rubber Polymers.
First use May 14, 1956.

SN 10,217. Darworth Incorporated, Simsbury, Conn. Filed June 14, 1956.

CELLU-PEL

Owner of Reg. Nos. 543,130 and 550,577.
For Water Repellent for the Protection of Wood and Canvas Against Moisture Attack.
First use Apr. 26, 1956.

CLASS 7

CORDAGE

SN 15,164. American Chain & Cable Company, Inc., Bridgeport, Conn. Filed Sept. 6, 1956.

TRU-LAY

For Wire Rope.
First use July 11, 1924.

CLASS 10

FERTILIZERS

SN 1,084. W. R. Grace & Co., New York, N. Y. Filed Jan. 19, 1956.

WISE BIRD

For Fertilizer Material for Tobacco Plants.
First use Apr. 13, 1939.

CLASS 12

CONSTRUCTION MATERIALS

SN 659. The Carney Company, Inc., Mankato, Minn. Filed Jan. 13, 1956.

DICED

For Mineral Wool Insulation in the Form of Relatively Large, Independent Particles.
First use Jan. 11, 1956.

SN 704. Stonhard Company, Philadelphia, Pa., to Stonhard Company, Inc., Philadelphia, Pa. Filed Jan. 13, 1956.

STONHARD STONSEAL

Owner of Reg. Nos. 182,182, 537,185, and others.
For Liquid Material Adapted for Use, in Solution, for Sealing and Waterproofing Masonry.
First use Mar. 17, 1952.

SN 705. Stonhard Company, Philadelphia, Pa., to Stonhard Company, Inc., Philadelphia, Pa. Filed Jan. 13, 1956.

STONHARD STONCAP

Owner of Reg. Nos. 182,182, 537,185, and others.
For Patching and Resurfacing Cement Primarily for Floors and Roadways.
First use Apr. 2, 1954.

SN 936. Atlas Plywood Corporation, Boston, Mass. Filed Jan. 18, 1956.

Atlas Plywood

The word "Plywood" is disclaimed apart from the mark. Owner of Reg. Nos. 209,885, 635,766, and others.
For Plywood Panels, Sheets, and Veneer.
First use July 1925.

SN 1,349. Emmert & Vail, El Monte, Calif. Filed Jan. 24, 1956.

Glasteel

For Flat and Corrugated Fiberglass Reinforced Plastic Panels, Some of Which Are Steel Impregnated.
First use Nov. 4, 1955.

SN 1,472. Plyfloor, Inc., Beaumont, Miss. Filed Jan. 25, 1956.

PLYFLOOR

For Plywood Block Flooring.
First use during April 1948.

SN 2,068. Atlas Plywood Corporation, Boston, Mass. Filed Feb. 6, 1956.

Atlas Plywood
FROM AMERICAN FOREST TO FINISHED PRODUCT

The word "Plywood" is disclaimed apart from the mark as shown. Owner of Reg. No. 209,885.
For Plywood Panels, Sheets, and Veneer.
First use in February 1954.

SN 2,070. Atlas Plywood Corporation, Boston, Mass. Filed Feb. 6, 1956.

Atlas Plywood
FROM FOREST TO FINISHED PRODUCT

The word "Plywood" is disclaimed apart from its use as shown. Owner of Reg. Nos. 209,885, 635,766, and others.
For Plywood Panels, Sheets, and Veneer.
First use in August 1953.

SN 6,131. Plibrico Company, Chicago, Ill. Filed Apr. 10, 1956.

PLIRAM

For Thermo-Setting Plastic Refractory Material.
First use May 12, 1955.

SN 7,194. Kochton Plywood & Veneer Co., Inc., Chicago, Ill. Filed Apr. 26, 1956.

WAFERWOOD

For Textured Wood Paneling.
First use Jan. 15, 1956.

SN 8,084. Masonite Corporation, Chicago, Ill. Filed May 10, 1956.

PANELGROOVE

For Construction Board, and More Specifically Fiber Board, Insulating Board, Composite Board, Hardboard, and Synthetic Lumber or Artificial Lumber Used for Various Construction Purposes.
First use May 7, 1955.

SN 8,085. Masonite Corporation, Chicago, Ill. Filed May 10, 1956.

RIDGELINE

For Construction Board, and More Specifically Fiber Board, Insulating Board, Composite Board, Hardboard, and Synthetic Lumber or Artificial Lumber Used for Various Construction Purposes.
First use Feb. 7, 1956.

SN 8,086. Masonite Corporation, Chicago, Ill. Filed May 10, 1956.

RIDGEGROOVE

For Construction Board, and More Specifically Fiber Board, Insulating Board, Composite Board, Hardboard, and Synthetic Lumber or Artificial Lumber Used for Various Construction Purposes.
First use May 28, 1955.

SN 8,732. United Builders Supply Company, Des Moines, Iowa. Filed May 21, 1956.

Life-Guard

For Embossed Baked Enamel Aluminum Siding.
First use Dec. 15, 1955.
Subj. to Intf. with SN 12,818.

SN 12,715. The Flintkote Company, New York, N. Y. Filed July 24, 1956.

SHADO-KOOL

For Asphalt Roof Shingles.
First use on or about Feb. 8, 1956.

SN 12,818. Lifeguard Industries, Inc., Cincinnati, Ohio. Filed July 25, 1956.

LIFE-GUARD

For Aluminum Weatherboard or Siding.
First use Jan. 9, 1956.
Subj. to Intf. with SN 8,732.

SN 12,996. Universal Sewer Pipe Corporation, Cleveland, Ohio. Filed July 27, 1956.

UNILOC

For Vitrified Clay Pipe With Couplings Secured Thereto.
First use Jan. 27, 1955.

SN 13,052. Manley, Inc., Kansas City, Mo. Filed July 30, 1956.

SERV-O-RAMIC

For Prefabricated, Cafeteria Style Concession Stands.
First use Feb. 1, 1955.

SN 13,383. Pittsburgh Plate Glass Company, Pittsburgh, Pa. Filed Aug. 3, 1956.

WELDSEAL

For Sealing Tape for Metal.
First use Feb. 10, 1950.

SN 13,558. Winco Ventilator Company, St. Louis, Mo. Filed Aug. 7, 1956.

WINCO

Owner of Reg. No. 373,165.
For Metal Window Frames and Sash, Metal Sun Canopies, Metal Channels for Use in Erecting Glass Block Walls, and Window and Screen Combinations.
First use on or about Mar. 30, 1939.

SN 13,654. Emco Cement Products, Inc., Paxinos, Pa. Filed Aug. 9, 1956.

BONDSTONE

Owner of Reg. Nos. 543,465, 547,663, and 597,722.
For Combination of Materials Used in Making Artificial Building Stone.
First use on or about May 5, 1950.

SN 13,770. The Mastic Tile Corporation of America, Newburgh, N. Y. Filed Aug. 10, 1956.

MASTICO

For Rubber, Asphalt, and Vinyl Floor Tile.
First use Mar. 12, 1956.

SN 13,811. Basic, Incorporated, Cleveland, Ohio. Filed Aug. 13, 1956.

MAGBLOK

For Brick and Other Shaped Refractory Materials Suitable for Lining and Repairing of Furnaces.
First use July 19, 1956.

SN 13,816. The Cellcote Company, Inc., Cleveland, Ohio. Filed Aug. 13, 1956.

COROCRETE

For Acid Proof Flooring Composition.
First use June 5, 1954.

SN 14,567. Charles Conrad Kenerson, d. b. a. Kenerson Design Studio, Barre, Vt. Filed Aug. 24, 1956.

All-Seal

For Monument Setting Compound and Stone Caulking Compound.
First use Mar. 17, 1956.

CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

SN 689,830. Industrial Engineering Corporation, Louisville, Ky. Filed June 16, 1955.

MICRO

For Diaphragm Control Valve Using Pressures of the Controlled Fluid To Open It and of the Control Fluid To Regulate Degree of Valve Opening.
First use May 24, 1955.

SN 700,733. Dunbar Kapple, Inc., Geneva, Ill. Filed Dec. 28, 1955.

SPIRAL-FLEX

For Flexible Metal Conduit Assemblies Utilizing Convoluted Metal Conduit.
First use September 1955.

SN 596. Joslyn Mfg. and Supply Co., Chicago, Ill. Filed Jan. 12, 1956. Sec. 2(f) as to "Joslyn."

JOSLYN COMPLETE POLE LINE EQUIPMENT

No exclusive right to the words "Complete Pole Line Equipment" is claimed apart from the mark as shown. Owner of Reg. No. 581,435.
For Pole Line Hardware, Including Wireholders, Clevises, and Braces.
First use Nov. 11, 1955; Oct. 23, 1923, as to "Joslyn."

SN 3,173. Foil Process Corporation, Van Nuys, Calif. Filed Feb. 23, 1956.

PROXIMITY BONDED

For Products Formed From Metal Foils—Namely, Pipes or Tubes for Conducting Fluids.
First use Feb. 16, 1956.

SN 3,174. Foil Process Corporation, Van Nuys, Calif. Filed Feb. 23, 1956.

KNOKRODE

For Products Formed From Metal Foils—Namely, Pipes or Tubes for Conducting Fluids.
First use Feb. 16, 1956.

SN 3,175. Foil Process Corporation, Van Nuys, Calif. Filed Feb. 23, 1956.

STAINLESSTELIUM

For Products Formed From Metal Foils—Namely, Pipes or Tubes for Conducting Fluids.
First use Feb. 16, 1956.

SN 3,950. Carlos Pardo y Blanco, Mexico City, Mexico. Filed Mar. 6, 1956.

BARO

Owner of Mexican Reg. No. 61,213, dated June 8, 1950.
For Pressure Regulators of All Types, Faucets, Connections, and Accessories Thereof.

SN 4,263. America House, Ltd., New York, N. Y. Filed Mar. 12, 1956.

AMERICA HOUSE

Owner of Reg. No. 405,036.
For Wood and Base Metal Trivets; Metal Serving Trays; Lazy Susans; Pewter, Copper and Other Base Metal Bowls, Teapots, Sugar Bowls, Creamers, Serving Trays, Mugs, Salt and Pepper Cellars.
First use 1943.

SN 4,358. Productos Ceramicos, S. A., Monterrey, Nuevo Leon, Mexico. Filed Mar. 12, 1956.

PROCESA

The words "Marca Ind. Reg. Monterrey Mexico" are disclaimed apart from the mark. Owner of Mexican Reg. No. 70,939, dated Aug. 19, 1952.
For Commodes, Wash-Stands, Bath-Tubs, Urinal Bidet, and Sinks.

SN 6,345. The Murdock Mfg. & Supply Company, Cincinnati, Ohio. Filed Apr. 13, 1956.

EXPELO

For Frost Proof Sanitary Railway Coach Watering Hydrants.
First use Oct. 27, 1955.

SN 6,579. American Hoist & Derrick Company, St. Paul, Minn. Filed Apr. 18, 1956. Sec. 2(f).

CROSBY-LAUGHLIN

For Load Binders, Replacement Links for Chain, Hooks for Chain and Cargo Handling, Swivels, Shackles, Clevises, Double Clevis Links, Turnbuckles, Wire Rope Sockets, Wire Rope Socket Bolts, Purse Blocks, Eye Bolts, Ring Bolts, and Pad Eyes.
First use Apr. 5, 1956.

SN 8,509. South Chester Corporation, Chester, Pa. Filed May 17, 1956.

DRIVEBOLT

For Blind Fasteners.
First use Mar. 6, 1956.

SN 14,204. Allied Chain Link Fence Co., Inc., Miami, Fla. Filed Aug. 20, 1956.

ALLIED

For Fences.
First use January 1950.

SN 14,398. The Joclin Manufacturing Company, North Haven, Conn. Filed Aug. 22, 1956.

JOCLAMP

For Hose Clamps.
First use Apr. 13, 1956.

SN 14,586. Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y. Filed Aug. 24, 1956.

RB&W

For Metal Bolts, Nuts, Screws, Rivets, Clevis and Hinge Pins, and Washers.
First use January 1937.

SN 14,674. Morris B. Klasky, d. b. a. Klasco Products Co., to Klasco Products Co., Inc., Downey, Calif. Filed Aug. 27, 1956.

SECRET VALET

For Bathroom Deodorizer Roller for Supporting Rolls of Toilet Tissue.
First use Aug. 25, 1953.

SN 14,788. Klauer Manufacturing Company, Dubuque, Iowa. Filed Sept. 18, 1956.

K

Owner of Reg. No. 271,366.
For Eave Trough Hangers, Conductor Pipe Hooks, Conductor Pipe Fasteners, Conductor Pipe Heads, All Made of Metal.
First use 1904 for eave trough hangers.

SN 14,846. American Screen Products Company, Miami, Fla. Filed Aug. 30, 1956.

HAR·VEY

For Sliding Door Hardware.
First use June 1946.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

SN 17,509. The Sherwin-Williams Company, Cleveland, Ohio. Filed Oct. 15, 1956.

CATA-MIX

For Catalytic Type Composition for Use Within an Automotive Enamel.
First use Aug. 27, 1956.

SN 17,530. Tobias Paint Mfg. Co., Cleveland, Ohio. Filed Oct. 15, 1956.

DONO-LUX

For Paints, Paint Primers, Paint Enamels, Raw Linseed Oil, Asphalt Products, Stains, Varnishes, Paint Thinners, and Paint Colors.
First use February 1951.

SN 17,555. Devoe & Raynolds Company, Inc., New York, N. Y. Filed Oct. 16, 1956.

Bico-Flek

For Speckled Multicolored Coating Composition.
First use August 1956.

SN 17,624. Delta Brush Mfg. Corp., New York, N. Y. Filed Oct. 17, 1956.

DELTEX

Owner of Reg. No. 613,650.
For Artists' Colors, Varnishes, and Mediums.
First use Apr. 19, 1954.

SN 17,627. Elkhart Paint Mfg. Co., Inc., Elkhart, Ind. Filed Oct. 17, 1956.

ELPACO

For Paints, Enamels, and Other Coatings.
First use Jan. 5, 1946.

SN 17,629. The Empire Varnish Company, Cleveland, Ohio. Filed Oct. 17, 1956.

RESISTA-CRETE

For Protective Coatings for Concrete, Metal, and Other Surfaces.
First use July 24, 1954.

SN 17,726. General Plastics Corporation, Paterson, N. J. Filed Oct. 18, 1956.

Gencoté

For Plastic Paints.
First use Sept. 4, 1956.

SN 17,971. Tenax Finishing Products Company, Newark, N. J. Filed Oct. 22, 1956.

GRIPALLOY

For Paint.
First use May 1, 1948.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

SN 5,658. The Wm. S. Merrell Company, Cincinnati, Ohio. Filed Apr. 2, 1956. Sec. 2(f).

Merrell
Since 1828

No claim is made to the exclusive right to the use of the phrase "Since 1828" separate and apart from the mark as shown. Owner of Reg. No. 337,678.
For Medicinal and Pharmaceutical Preparations Intended for Internal and External Use in Liquid, Tablet, Powdered, Ointment, and Other Dosage Forms for Oral, Parenteral, and Topical Administration.
First use at least as early as Jan. 1, 1951; on or about Jan. 1, 1828, as to "Merrell."

SN 9,656. E. S. Miller Laboratories, Inc., Los Angeles, Calif. Filed June 5, 1956.

PROSCOMIDE

For Methylscopolamine Bromide for the Relief of Ulcer Pain.
First use May 24, 1956.

SN 9,713. Farbwerke Hoechst Aktiengesellschaft, vormals Meister Lucius und Brüning, Frankfurt am Main Hochst, Germany. Filed June 6, 1956.

BARALGIN

Owner of German Reg. No. 602,216, dated Nov. 2, 1950.
For Pharmaceuticals—Namely, Spasmolytic and Analgesic Agents.

SN 10,775. Le Roy I. Hafer, d. b. a. The Spinol Company, Pottsville, Pa. Filed June 22, 1956.

Spinol

For Combination of Medicinal Oils for Vapor Treatment of Nasal Congestion Associated With Colds and a Rub for Relief of Muscular Aches and Pains.
First use Aug. 1, 1906.

SN 11,312. The Warren-Teed Products Company, Columbus, Ohio. Filed June 29, 1956.

MYOTAL

For Preparation Containing Pentobarbital Sodium With Sinan for Veterinary Use Only.
First use Dec. 31, 1951.
Subj. to Intf. with SN 13,438.

SN 13,041. Lambert-Kay, Incorporated, Los Angeles, Calif. Filed July 30, 1956.

NO-MATE

For Chlorophyl Preparation in Tablet Form for Animals Used To Counteract Mating Odors.
First use Jan. 10, 1956.

SN 14,526. C. L. Bencard Limited, London, England. Filed Aug. 24, 1956.

PAYNOCIL

Owner of British Reg. No. 727,281, dated Feb. 23, 1954.
For Analgesics.

SN 14,599. Frederick Trout Company, Incorporated, Atlanta, Ga. Filed Aug. 24, 1956.

THEO-SERP

For Preparation for the Treatment of Essential Hypertension and for Tranquilizing.
First use Aug. 7, 1956.

SN 14,817. Madison Pharmaceutical Laboratories, Inc., New York, N. Y. Filed Aug. 29, 1956.

QUINPLEXIN

For Laxative Preparation Containing Sennosides.
First use Aug. 23, 1956.

SN 14,896. Merck & Co., Inc., Rahway, N. J. Filed Aug. 30, 1956.

NCB

For Coccidiostat for Domesticated Birds.
First use Aug. 22, 1956.

SN 14,939. Burroughs Wellcome & Co. (U. S. A.), Inc., Tuckahoe, N. Y. Filed Aug. 31, 1956.

ENSODYL

For Medicinal Preparation Used in the Treatment of Circulatory Disorders Such as Hypertension.
First use Aug. 13, 1956.

SN 15,103. Chicago Pharmacal Company, Chicago, Ill. Filed Sept. 5, 1956.

CITRISAN

For Medicinal Preparation in Tablet Form Adapted To Arrest and Combat Arthritic Processes, Relieve Pain and Spasm in Musculo-Skeletal Disorders, and Improve Capillary Strength.
First use Mar. 21, 1956.

SN 15,227. Rexall Drug Company, d. b. a. VCA Laboratories, Los Angeles, Calif. Filed Sept. 6, 1956.

INTRACEL

For Penetrating Analgesic Liquid for the Relief of Muscular Aches, Sprains, Strains, Muscular Stiffness Due to Exertion or Fatigue, Temporary Rheumatic and Neuritic Pains, Neuralgia, and Muscular Lumbago.
First use Aug. 17, 1956.

SN 15,228. Rexall Drug Company, Los Angeles, Calif. Filed Sept. 6, 1956.

THRU

For Penetrating Analgesic Liquid for the Relief of Muscular Aches, Sprains, Strains, Muscular Stiffness Due to Exertion or Fatigue, Rheumatic and Neuritis Pains of Temporary Nature, Neuralgia, and Muscular Lumbago.
First use Aug. 17, 1956.

SN 15,255. American Home Products Corporation, d. b. a. Ayerst Laboratories, Division of American Home Products Corporation, New York, N. Y. Filed Sept. 7, 1956.

SUVREN

For Tranquilizing Agent in Dosage Form.
First use Aug. 6, 1956.

SN 15,256. American Home Products Corporation, d. b. a. Ayerst Laboratories, Division of American Home Products Corporation, New York, N. Y. Filed Sept. 7, 1956.

MOTIVAN

For Treatment for Motion Sickness in Dosage Form.
First use Aug. 6, 1956.

SN 15,385. Merck & Co., Inc., Rahway, N. J. Filed Sept. 10, 1956.

REDITRIN-T

Owner of Reg. No. 621,687.
For Preparation for Use in Treatment of Anemias and Other Cases of Impoverished Blood Conditions and Other Metabolic Deficiencies.
First use Aug. 13, 1956.

SN [illegible] Van Pelt and Brown, Incorporated, Richmond, Va. Filed Sept. 10, 1956.

RAUDONNA

For Tranquilizing and Antispasmodic Preparation.
First use Feb. 28, 1955.

CLASS 19

VEHICLES

SN 2,678. The Anderson Company, Gary, Ind. Filed Feb. 15, 1956.

Cobrette

Owner of Reg. No. 617,762.
For Windshield Wiper Arms and Blades.
First use June 24, 1955.

SN 3,486. Truck Equipment Company, Denver, Colo. Filed Feb. 27, 1956.

Truco

For Truck Bodies and Vehicle Trailers—Namely, Cable Reel Trailers, Pole Trailers, Dump Trailers, and Low Body Trailers.
First use February 1951.

SN 4,808. Larry Lewis Co., Inc., Kansas City, Mo. Filed Mar. 19, 1956.

RAIZERS

For Vehicle Spring Adjustment Device Which Is Inserted Between the Coils of the Spring To Straighten and Lengthen Same.
First use Nov. 10, 1955.

SN 8,957. Kurt Haas, New York, N. Y. Filed May 24, 1956.

For Automobile Accessory, Comprising a Pad Which Protects the Upholstery of the Vehicle and Provides a Cushion for the Left Arm of the Driver.
First use May 8, 1956.

SN 15,423. Edward Weigl, d. b. a. Commodore Boats, New Bern, N. C. Filed Sept. 10, 1956.

Commodore

For Boats.
First use Jan. 1, 1956.

SN 15,730. Bert Scheuer, Inc., New York, N. Y. Filed Sept. 14, 1956.

FUTURAMIC

For Bicycles.
First use Aug. 27, 1956.

SN 15,775. Ekco Products Company, Chicago, Ill. Filed Sept. 17, 1956.

LOAD-FLO

For Hand-Operated Vehicles for Transporting Meat, Produce, and Other Articles.
First use Aug. 17, 1956.

SN 16,147. Frank W. Sarpolus, d. b. a. Zobel's Sea Skiff and Yacht Works, Sea Bright, N. J. Filed Sept. 21, 1956.

ZOBEL'S SEA FOX

For Boats.
First use on or about Oct. 1, 1931.

SN 16,204. Ford Motor Company, Dearborn, Mich. Filed Sept. 24, 1956.

CARAVAN

For Automobiles.
First use July 14, 1956.

SN 16,511. Veenema & Wiegers, Inc., Paterson, N. J. Filed Oct. 1, 1956.

W-W TRAILERS

The drawing is lined for silver. No claim is made to the word "Trailers" apart from the mark as shown.
For Automotive Truck and Trailer Bodies.
First use Jan. 15, 1946.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

SN 688,410. Gulton Industries, Inc., Metuchen, N. J. Filed May 27, 1955.

GI

The drawing is lined for grey but no claim is made as to color.
For Capacitors, Ceramic Microphone Elements, Electro-Mechanical Transducers, Thermistors, Electrical Cable, Electrical Cable Connectors, and Electronic Amplifiers.
First use Apr. 20, 1955.

SN 688,411. Gulton Industries, Inc., Metuchen, N. J. Filed May 27, 1955.

GI
GULTON INDUSTRIES, INC.

The drawing is lined for grey but no claim is made as to color.
For Capacitors, Ceramic Microphone Elements, Electro-Mechanical Transducers, Thermistors, Electrical Cable, Electrical Cable Connectors, and Electronic Amplifiers.
First use Apr. 20, 1955.

SN 696,651. Grundig Radio-Werke G. m. b. H., Furth/Bayern, Germany. Filed Oct. 18, 1955.

TELEBOY

Priority claimed under Sec. 44(d) on German application filed July 6, 1955; Reg. No. 680,686, dated Aug. 19, 1955.
For Magnetic Recording and Reproducing Apparatus.

SN 699,801. I-K-I Products Co., Edgerton, Wis. Filed Dec. 12, 1955.

I-K-I

For Automatic Electric Insecticide Vaporizer for Insect Control.
First use Apr. 1, 1955.

SN 1,159. Guardian Light Company, Oak Park, Ill. Filed Jan. 20, 1956.

GUARDIAN

For Outdoor Type Electric Lighting Fixtures Especially Useful for Illuminating Service Areas of Automobile Service Stations, Lamp Holders for Spot and Flood Lamps, Reflector Flood Lamps, Sign Lighting Units, and Poles for Supporting Lighting Fixtures.
First use Apr. 30, 1948.

SN 1,582. Gibson Refrigerator Company, Greenville, Mich. Filed Jan. 27, 1956.

TEL-O-MATIC

For Warning Light for an Electric Correlation Circuit Employed With an Electric Range for Signaling the Readiness of the Range for Automatic Cooking.
First use Feb. 1, 1954.

SN 1,744. Trylon Manufacturing Corporation, Brooklyn, N. Y. Filed Jan. 30, 1956.

TRYLON

For Vacuum Cleaners.
First use Jan. 4, 1956.

SN 1,745. Trylon Manufacturing Corporation, Brooklyn, N. Y. Filed Jan. 30, 1956.

SAXONY

For Vacuum Cleaners.
First use Jan. 4, 1956.

SN 2,036. The Hoover Company, North Canton, Ohio. Filed Feb. 3, 1956. Sec. 2(f).

HOOVER

Owner of Reg. No. 560,675.
For Electric Floor Polishers and Parts Thereof.
First use May 31, 1950.

SN 2,608. Western Gold and Platinum Company, San Francisco, Calif. Filed Feb. 13, 1956.

WESGO

For Ceramic Bodies—Namely, Insulators and Vacuum Tube Envelopes for Use in the Electronics Industry.
First use Dec. 26, 1951.

SN 2,729. Telex, Inc., St. Paul, Minn. Filed Feb. 15, 1956.

DUODYNE

For Sound Reproducer Head Set.
First use Feb. 2, 1956.

SN 2,938. Advance Machine Company, Minneapolis, Minn. Filed Feb. 20, 1956.

"HYDRO-JET"

For Electric Vacuum Cleaners.
First use Jan. 10, 1956.

SN 6,956. Rotron Manufacturing Co., Inc., Woodstock, N. Y. Filed Apr. 23, 1956.

AXIMAX

For Electric Motor-Driven Fans of the Vane-Axial Type.
First use Mar. 26, 1956.

SN 10,405. Cribben and Sexton Company, Chicago, Ill. Filed June 18, 1956.

JAMES-UNIVERSAL

Owner of Reg. No. 597,015.
For Electric Syringe Washers and Electric Dishwashing Machines.
First use June 2, 1956; Sept. 12, 1948, as to "James."

SN 10,947. Twentieth Century Manufacturing Company, d. b. a. Solar Arc Welders, Minneapolis, Minn. Filed June 25, 1956.

SOLAR

The drawing is lined for red.
For Electric Welders, Current Rectifying Attachment for Welders, Carbon Torches, Electrode Holders, and Ground Clamps.
First use Mar. 2, 1942.

SN 16,101. Corn Belt Automotive Warehousing, Inc., Omaha, Nebr. Filed Sept. 21, 1956.

Corn Belt

For Storage Batteries.
First use June 27, 1956.

SN 16,478. Orradio Industries, Inc., Opelika, Ala. Filed Sept. 26, 1956.

Double-Play

For Sound Recording Tape.
First use in or about August 1955.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

SN 694,335. Herbert Rubin, d. b. a. New York Toy & Game Mfg. Co., New York, N. Y. Filed Sept. 7, 1955.

CUTIE

For Doll-Carriage.
First use Apr. 7, 1955.

SN 698,574. Atom Manufacturing Company, South Attleboro, Mass. Filed Nov. 21, 1955.

STRIPER SWIPER

For Artificial Fishing Lures and Plugs.
First use July 1, 1955.

SN 699,802. I-K-I Products Co., Edgerton, Wis. Filed Dec. 12, 1955.

I-K-I

For Automatic Electric Insecticide Vaporizer for Insect Control.
First use Apr. 1, 1955.

SN 699,803. I-K-I Products Co., Edgerton, Wis. Filed Dec. 12, 1955.

I-K-I

For Automatic Electric Insecticide Vaporizer for Insect Control.
First use Apr. 1, 1955.

SN 699,804. I-K-I Products Co., Edgerton, Wis. Filed Dec. 12, 1955.

I-K-I

For Automatic Electric Insecticide Vaporizer for Insect Control.
First use Apr. 1, 1955.

SN 699,805. I-K-I Products Co., Edgerton, Wis. Filed Dec. 12, 1955.

I-K-I

For Automatic Electric Insecticide Vaporizer for Insect Control.
First use Apr. 1, 1955.

SN 699,806. I-K-I Products Co., Edgerton, Wis. Filed Dec. 12, 1955.

I-K-I

For Automatic Electric Insecticide Vaporizer for Insect Control.
First use Apr. 1, 1955.

SN 699,807. I-K-I Products Co., Edgerton, Wis. Filed Dec. 12, 1955.

I-K-I

For Automatic Electric Insecticide Vaporizer for Insect Control.
First use Apr. 1, 1955.

SN 699,808. I-K-I Products Co., Edgerton, Wis. Filed Dec. 12, 1955.

I-K-I

For Automatic Electric Insecticide Vaporizer for Insect Control.
First use Apr. 1, 1955.

SN 699,809. I-K-I Products Co., Edgerton, Wis. Filed Dec. 12, 1955.

I-K-I

For Automatic Electric Insecticide Vaporizer for Insect Control.
First use Apr. 1, 1955.

SN 699,810. I-K-I Products Co., Edgerton, Wis. Filed Dec. 12, 1955.

I-K-I

For Automatic Electric Insecticide Vaporizer for Insect Control.
First use Apr. 1, 1955.

SN 699,811. I-K-I Products Co., Edgerton, Wis. Filed Dec. 12, 1955.

I-K-I

For Automatic Electric Insecticide Vaporizer for Insect Control.
First use Apr. 1, 1955.

SN 699,812. I-K-I Products Co., Edgerton, Wis. Filed Dec. 12, 1955.

I-K-I

For Automatic Electric Insecticide Vaporizer for Insect Control.
First use Apr. 1, 1955.

SN 699,813. I-K-I Products Co., Edgerton, Wis. Filed Dec. 12, 1955.

I-K-I

For Automatic Electric Insecticide Vaporizer for Insect Control.
First use Apr. 1, 1955.

SN 699,814. I-K-I Products Co., Edgerton, Wis. Filed Dec. 12, 1955.

I-K-I

For Automatic Electric Insecticide Vaporizer for Insect Control.
First use Apr. 1, 1955.

SN 699,815. I-K-I Products Co., Edgerton, Wis. Filed Dec. 12, 1955.

I-K-I

For Automatic Electric Insecticide Vaporizer for Insect Control.
First use Apr. 1, 1955.

SN 699,816. I-K-I Products Co., Edgerton, Wis. Filed Dec. 12, 1955.

I-K-I

For Automatic Electric Insecticide Vaporizer for Insect Control.
First use Apr. 1, 1955.

SN 699,817. I-K-I Products Co., Edgerton, Wis. Filed Dec. 12, 1955.

I-K-I

For Automatic Electric Insecticide Vaporizer for Insect Control.
First use Apr. 1, 1955.

SN 699,818. I-K-I Products Co., Edgerton, Wis. Filed Dec. 12, 1955.

I-K-I

For Automatic Electric Insecticide Vaporizer for Insect Control.
First use Apr. 1, 1955.

SN 698,816. United Metal Products Corp., Detroit, Mich. Filed Nov. 23, 1955.

Rocket

For Cart for Carrying Golf Clubs.
First use Sept. 6, 1955.

SN 4 688. Florence A. Abod, Wilkes-Barre, Pa. Filed Mar. 16, 1956.

MOHAWK

For Artificial Fishing Lures.
First use on or about Mar. 1, 1952.

SN 5,368. New York Merchandise Co., Inc., New York, N. Y. Filed Mar. 28, 1956.

BLACK KNIGHT

For Toy Airplanes, Toy Cars, Toy Locomotives, and Toy Boats.
First use Nov. 23, 1954.

SN 14,313. Sara Anne Ayers, d. b. a. Originiques, New York, N. Y. Filed Aug. 21, 1956.

HEXIE THE VOODOO

For Dolls.
First use July 11, 1956.

SN 19,854. Scientific Anglers Incorporated, Midland, Mich. Filed Aug. 2, 1956.

WET CEL

Owner of Reg. No. 621,773.
For Fly Fishing Line.
First use September 1955.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

SN 692,055. Gewerkschaft Eisenhütte Westfalia, Wethmar near Lunen, Westphalia, Germany. Filed July 28, 1955.

GW EW

For Mining Machinery, and Mining Tools, and Parts Thereof.
First use 1936; in commerce August 1951.

SN 114. Weaver Manufacturing Company, Springfield, Ill. Filed Jan. 3, 1956. Sec. 2(f).

TRIPLE POST LIFT

The word "Lift" is disclaimed apart from the mark as shown. Owner of Reg. Nos. 423,646, 566,455, and 606,356.
For Hydraulic Lifts for Installation in Service Stations and Garages and the Like and Parts Thereof.
First use Dec. 20, 1950.

SN 3,562. Steven J. Steven, Brookfield, Ill. Filed Feb. 28, 1956.

ROTOR-SPADE

For Power Driven Auger Type Earth Working Tool.
First use Dec. 26, 1953.

SN 6,720. Herman L. Harms, South St. Paul, Minn. Filed Apr. 19, 1956.

Glide-Easy

For Tractor Seats and Seat Suspensions.
First use Jan. 31, 1955.

SN 8,550. Herold Products Company, Inc., Chicago, Ill. Filed May 18, 1956.

SPARTUS "70"

Owner of Reg. No. 569,013.
For Electric Razors.
First use Apr. 10, 1951.

SN 11,589. Klockner-Humboldt-Deutz Aktiengesellschaft, Koln-Deutz, Germany. Filed July 5, 1956.

HUMBOLDT

Owner of German Reg. Nos. 98,105 and 622,141, dated May 27, 1907 and June 18, 1952, respectively.
For Machines and Devices for Mineral and Coal Dressing; Filter Presses and Press Filters, Rotary Filters; Briquetting Machines and Devices for Coal, Lignite, Ores, and Other Minerals; Dryers for Solids; Cooling Apparatus for Dried Lignitic Coal; Screening Machines; Mineral Classifiers; Thickening Devices for Mud-Containing Water; Settling Machines; Flotation Apparatus; Magnetic Separators and Magnetic Separator Drums; Purifying Apparatus for Minerals; Centrifugating Apparatus; Briquette-Discharging Machines; Dust Separators, Cyclones; Centrifugal Pumps, Kilns, and Apparatus for Production of Cement; Kilns and Apparatus for Burning Lime and Gypsum; Calcining Furnaces; Carbonizing Furnaces; Converters; Flame Furnaces; Lye Drums; Settling Drums; Structural Steel Components for Buildings, Road Bridges, and Railroad Bridges; Hoist Superstructures; Vessels and Bins of Steel; Mechanical Reducing Machines and Apparatus; Grinding Mills, Kneading and Mixing Machines; Air-Blast Separators; Apparatus for the Chemical Industry Including Suction Gas Generators, Blowers, Chain and Cable Conveyors, Cupola Furnaces, Tower-Type Tanks, Zinc-Melting Pans; Apparatus for the Sugar Industry Including Conveyors and Loaders, Bucket Conveyors, Car-Tilting Devices, Conveyor Plants; Metallurgical Equipment Including Shaft Furnaces, Water-Jacket Furnaces, Apparatus for Metal-Refining Plants; Apparatus for Processing of Commercial Lead; Electric Melting Furnaces; Mechanical Roasting Furnaces.

SN 11,938. Kneib Bros. Mfg. Co., St. Joseph, Mo. Filed July 11, 1956.

POP-UP

For Mechanical Device for Loading Bales of Hay.
First use Apr. 28, 1955.

SN 15,222. Powermatic Machine Company, McMinnville, Tenn. Filed Sept. 6, 1956.

POWERMATIC

For Woodworking Machines.
First use in the year 1929.

SN 15,278. Hemphill Company, Pawtucket, R. I. Filed Sept. 7, 1956.

HEMPH-LON

For Knitting Machinery.
First use Apr. 18, 1955.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

SN 672. The FR Corporation, New York, N. Y. Filed Jan. 13, 1956.

"SEMI-PRO"

For Kits for Developing and Printing Photographs, Composed of Photographic Chemicals—Namely, Film and Paper Developers, Fixers, and Toners; Photographic Apparatus—Namely, Tanks, Film Clips, Film Wipers, Thermometers, Tongs, Trays, Printing Frames and Printing Paper, Graduates, Light Bulbs; and Instruction Booklet.
First use Oct. 13, 1955.

SN 5,589. Combined Optical Industries Limited, Slough, Buckinghamshire, England. Filed Apr. 2, 1956.

IGARD

Owner of British Reg. No. 727,429, dated Feb. 26, 1954.
For Plastic Ophthalmic Lenses.
First use 1939; in commerce July 1948.

SN 10,300. Collins Radio Company, Cedar Rapids, Iowa. Filed June 15, 1956. Sec. 2(f).

COLLINS

Owner of Reg. No. 356,554.
For Navigation Equipment—Namely, Radio Transmitters and Receivers, Distance Measuring Systems, Terminal Visual Omni-Range Systems, Visual Omni-Range Systems, Radio Approach Systems, and Card Reader Navigational Computers; Flight Control Systems—Namely, Autopilots, Approach Horizon Instruments, Course Indicator Instruments, Altitude Controls, Throttle Controls and Pitch Controls.
First use May 13, 1937.

SN 10,682. Hastings Instrument Company, Inc., Hampton, Va. Filed June 21, 1956.

JET VANE

For Air Direction and Velocity Indicating Devices.
First use Mar. 5, 1956.

SN 10,902. Northrop Aircraft, Inc., Hawthorne, Calif. Filed June 25, 1956.

SKY SCREEN

For Radar Plotting Boards.
First use July 27, 1955.

SN 11,298. Seiko Denki Kogyo Kabushiki-Kaisha (The Seiko Electric Instrument Industry Co., Ltd.), Toshima-ku, Tokyo-to, Japan. Filed June 29, 1956.

LEADER

For Photo-Electric Exposure Meters.
First use June 1, 1953; in commerce June 3, 1954.
Subj. to Intf. with SN 698,732.

SN 13,452. Kabushiki Kaisha Copal Koki Seisakusho, Itabashi-ku, Tokyo, Japan. Filed Aug. 6, 1956.

COPAL

Owner of Japanese Reg. No. 392,703, dated Oct. 13, 1950.
For Cameras, Lenses, Range Finders, Exposure Meters, Parts and Accessories Thereof.

SN 13,559. Aerofall Mills Limited, Toronto, Ontario, Canada. Filed Aug. 8, 1956.

SCALATRON

Owner of Canadian Reg. No. 103,549, dated June 8, 1956.
For Continuous Weighing Machines.
First use Dec. 20, 1955; in commerce Dec. 20, 1955.

SN 13,878. Simmon Brothers, Inc., Long Island City, N. Y. Filed Aug. 13, 1956.

AUTOMEGA

Owner of Reg. No. 533,711.
For Photographic Enlargers.
First use May 1, 1947.

CLASS 27

HOROLOGICAL INSTRUMENTS

SN 3,846. Jean R. Graef, Inc., New York, N. Y., to Girard Perregaux & Cie, S. A., La Chaux-De-Fonds, Switzerland. Filed Mar. 5, 1956.

GIRARD

Owner of Reg. Nos. 357,239 and 522,620.
For Watches and Components Thereof.
First use Feb. 23, 1956; in commerce Feb. 23, 1956.

CLASS 29

BROOMS, BRUSHES, AND DUSTERS

SN 15,064. Roll Dippers Inc., Maumee, Ohio. Filed Sept. 4, 1956.

DURASPONGE

For Artificial Sponges.
First use Aug. 30, 1956.

SN 15,287. Nashua Textile Company, Inc., Nashua, N. H. Filed Sept. 7, 1956.

SHOEKERCHIEF

For Polishing Cloths.
First use July 20, 1956.

CLASS 30

CROCKERY, EARTHENWARE, AND PORCELAIN

SN 13,655. Empire Crafts Corporation, Newark, N. Y. Filed Aug. 9, 1956.

LADY EMPIRE

For Semi-Vitreous Dinnerware.
First use May 29, 1956.

CLASS 32

FURNITURE AND UPHOLSTERY

SN 673,131. Reflector-Hardware Corporation, Chicago, Ill. Filed Sept. 13, 1954.

RHC

For Retail Store Display Equipment—Namely, Sign Supporting Stands, Counter Bins, Adjustable Display Stands and Shelves, Display Racks, Costumers, Garment Racks, Window Display Stands and Racks, Glass Panels for Counter and Shelf Construction, Bicycle Racks and Steel Display and Storage Bins, and on the Following Items Sold in Conjunction Therewith, viz., Sign Holders, Price Ticket Holders, Shelf Brackets, Metal Channels for Supporting Price Tickets, Splicers for Glass Counter Panels, Glass Panel Supports, Metal Shelf Edging Strips, Clamps Used in Counter Construction, and Counter Protecting Brackets.
First use 1937.

SN 673,133. Reflector-Hardware Corporation, Chicago, Ill. Filed Sept. 13, 1954.

Rite-Style

For Retail Store Display Equipment—Namely, Sign Supporting Stands, Counter Bins, Adjustable Display Stands and Shelves, Display Racks, Costumers, Garment Racks, Window Display Stands and Racks, Glass Panels for Counter and Shelf Construction, Bicycle Racks and Steel Display and Storage Bins, and on the Following Items Sold in Conjunction Therewith, viz., Sign Holders, Price Ticket Holders, Shelf Brackets, Metal Channels for Supporting Price Tickets, Splicers for Glass Counter Panels, Glass Panel Supports, Metal Shelf Edging Strips, Clamps Used in Counter Construction, and Counter Protecting Brackets.
First use on or about June 19, 1953.

SN 6,370. Peirce-Phelps, Inc., Philadelphia, Pa. Filed Apr. 13, 1956.

KITCH-O-MATIC

For Planned Household Kitchen Ensembles Composed of Cabinets and/or Sinks Combined With One or More Appliances Such as Dish Washers, Clothes Washers, Dryers, Refrigerators, Freezers, Surface Cooking Units, Ovens, Mixers and Radios, Together With Control Switches, Lighting Fixtures and Other Electrical Components, All Such Equipment Being in Various Combinations in Accordance With Predetermined Design and Generally Providing for Assembly Under and in Specially Fabricated Counter Tops, All Electrical Equipment Being Pre-Wired to a Central Terminal Box Where Applicable.
First use Feb. 13, 1956.

SN 12,132. American Metal Products Company, Detroit, Mich. Filed July 16, 1956.

amp

For Metal Structures, Such as Cabinets, Bins, Storage Racks, Seats, Springs and Supports Therefor, Including Supports of the Adjustable and Power Operated Type.
First use Jan. 28, 1951.

SN 12,133. American Metal Products Company, Detroit, Mich. Filed July 16, 1956.

AMP

For Metal Structures, Such as Cabinets, Bins, Storage Racks, Seats, Springs and Supports Therefor, Including Supports of the Adjustable and Power Operated Type.
First use Apr. 16, 1956.

SN 16,939. Bulova Watch Company, Inc., Flushing, N. Y. Filed Oct. 4, 1956.

REPAIR-MASTER

For Fitted Cabinets and Cases for Containing Parts of Horological Instruments and Tools.
First use Sept. 26, 1956.

SN 17,173. Hurricane Import Company, San Francisco, Calif. Filed Oct. 9, 1956.

KOFFEE KANE

Owner of Reg. No. 592,744.
For Rattan Peel Furniture—Namely, Chairs, Tables, and Settees.
First use Aug. 23, 1956.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

SN 676,905. Orr & Sembower, Inc., Reading, Pa. Filed Nov. 18, 1954.

YANKEE CLIPPER

For Units for Generating Steam or Hot Water and Component Parts Thereof.
First use Oct. 27, 1954.

SN 685,485. Fa. Karrena-Feuerungsbau G. m. b. H., Dusseldorf-Rath, Germany. Filed Apr. 14, 1955.

KARRENA

Owner of German Reg. No. 319,913, dated Aug. 30, 1924.
For Pipings and Ducts Carrying Hot Gases, Walls and Roofs for Industrial Furnaces and Steam Generators and Other Vessels for Heating Purposes, Suspended Ceilings for Furnaces for Pulverized Coal or Having Travelling or Graduated Grates; and Suspended Ceilings for Other Coal, Gas and Oil-Fired Furnaces of All Kinds.

SN 691,405. Wood Electric Co. Inc., Camden, Ark. Filed July 15, 1955.

WEATHERBUSTER

For Internal Combustion Engine Driven Air Cooled Refrigeration Condensing Unit for Application in Air Conditioning Systems.
First use Apr. 4, 1955.

SN 3,566. Woodland Manufacturing Company, Toledo, Ohio. Filed Feb. 28, 1956.

BALL FIRE

For Space Heaters.
First use Nov. 1, 1955.

SN 6,882. Water Service Laboratories, Inc., New York, N. Y. Filed Apr. 20, 1956.

BLEEDISTAT

For Device for Control of Salt Concentration in Circulating Water by Predetermined Bleed-Off of the Circulating Water in a Cooling Tower or Evaporating Condenser.
First use June 8, 1955.

SN 7,887. Joh. Vaillant K. G., Remscheid, Germany. Filed May 7, 1956.

Vaillant

For Gas Water Heaters, Gas Room Heaters.
First use Sept. 9, 1955; in commerce Sept. 9, 1955.

SN 8,487. The Lau Blower Company, Dayton, Ohio. Filed May 17, 1956.

PRESLOK

For Centrifugal Blower Wheels.
First use on or about Mar. 27, 1956.

SN 14,672. Kirby-Cogeshall-Steinau Co., Inc., Milwaukee, Wis. Filed Aug. 27, 1956.

LUMA-TILE by kcs

For Plastic Light Diffusing Panels for Room Lighting.
First use June 1956.

SN 14,798. Chelsea Products, Incorporated, Plainfield, N. J. Filed Aug. 29, 1956. Sec. 2(f).

Chelsea

For Ventilating Fans.
First use in 1936.

CLASS 35

BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

SN 8,882. The Russell Manufacturing Company, Middletown, Conn. Filed May 23, 1956.

RUSCO ULTRA-SPEED

Owner of Reg. Nos. 95,352, 405,815, and others.
For Conveyor Belts and Power Transmission Belts.
First use Apr. 25, 1956.

SN 15,713. Minnesota Rubber and Gasket Co., Minneapolis, Minn. Filed Sept. 14, 1956.

QUAD BAK

Owner of Reg. No. 581,372.
For Sealing Rings.
First use Mar. 19, 1956.

CLASS 37

PAPER AND STATIONERY

SN 8,888. Stocker Manufacturing Company, Netcong, N. J. Filed May 23, 1956.

GLASITE

Owner of Reg. Nos. 529,938, 572,108, and others.
For Wrapping Paper and Reinforced Paper.
First use Oct. 18, 1955.

SN 11,076. Hassenfeld Bros., Inc., Central Falls, R. I. Filed June 27, 1956.

"Park Ave"

For Pencils.
First use in or about 1932.

SN 11,235. Dexter Folder Company, Pearl River, N. Y., to Miehle Printing Press & Manufacturing Company, Chicago, Ill. Filed June 29, 1956.

DUPLICARD

For File and Classification Cards Having Photo-Sensitive Sheets Mounted in Apertures in Said Cards.
First use July 14, 1955.

SN 12,864. American Loose Leaf Corporation, New York, N. Y. Filed July 26, 1956.

HERCULOX

For Loose Leaf Binders and Parts Thereof.
First use September 1931.

SN 12,887. International Formprint Company, New York, N. Y. Filed July 26, 1956.

COPI-CARB

For Sets of Typing Paper Interleaved With Carbon Paper.
First use May 1, 1956.

SN 12,895. Merchant Suppliers Paper Co., d. b. a. Merchants Suppliers, New York, N. Y. Filed July 26, 1956.

CAP-IT

For Paper Protective Dress Covers.
First use Mar. 27, 1956.

SN 13,584. W. C. Hamilton & Sons, Miquon, Pa. Filed Aug. 8, 1956. Sec. 2(f) as to "Hamilton."

HAMILTON Starwhite

For Printing Paper.
First use Apr. 6, 1955.

SN 13,657. A. W. Faber-Castell Pencil Co., Inc., Newark, N. J. Filed Aug. 9, 1956.

MULTI-REPRO (MR)

For Drawing Pencils, Drawing Leads, Ink Pencils, Crayon Pencils, Mechanical Pencils.
First use June 5, 1956.

SN 13,664. George B. Graff Company, Cambridge, Mass. Filed Aug. 9, 1956.

GRAF-LOK

Owner of Reg. Nos. 103,233, 302,293, and 606,744.
For File Signals or Tabs.
First use June 22, 1956.

SN 13,744. Downgard, Inc., Milwaukee, Wis. Filed Aug. 10, 1956.

DOWNGARD

For Protective Cushioning Pads Consisting of Wrapped Mascerated Pulpwood.
First use Mar. 29, 1956.

SN 13,775. Paper Mate Manufacturing Company, Culver City, Calif. Filed Aug. 10, 1956.

PIGGY-BACK

For Ink Refill Cartridges for Ball-Point Pens.
First use Apr. 4, 1956.

SN 13,957. Binney & Smith Inc., New York, N. Y. Filed Aug. 15, 1956.

CRAYOLA

Owner of Reg. Nos. 121,394, 560,159, and others.
For Crayons.
First use July 1905.

CLASS 38

PRINTS AND PUBLICATIONS

SN 9,989. Edmund James Kerr, d. b. a. Kerr Publishing Co., Los Angeles, Calif. Filed June 11, 1956.

'Round the Town MAGAZINE

The word "Magazine" is disclaimed apart from the mark as shown.
For Magazines.
First use May 28, 1956.

SN 10,257. Miriam Pollatsek, d. b. a. Idea-Art, New York, N. Y. Filed June 14, 1956.

idea Art

For Covers of Books Containing Printed Reproductions of Drawings, and the Printed Reproduction of Each Individual Drawing.
First use May 10, 1955.

SN 11,538. Capitol Records, Inc., Los Angeles, Calif. Filed July 5, 1956.

BOZO

For Decalcomanias.
First use September 1951.

SN 14,163. Oakes Consumer Catalogs, Chicago, Ill. Filed Aug. 17, 1956.

TOYLANE

For Consumer Catalogs Published Annually.
First use July 25, 1956.

SN 14,389. Biel's Photocopy and Microfilm Service, Buffalo, N. Y. Filed Aug. 22, 1956.

MICROTAK

For Adherent Microfilm Prints.
First use on or about Aug. 15, 1956.

SN 14,449. Frederick E. Gymer, Cleveland, Ohio. Filed Aug. 23, 1956.

Write Way

For Monthly Publication.
First use Oct. 1, 1955.

SN 14,811. General Features Corporation, New York, N. Y. Filed Aug. 29, 1956.

A LIFT FOR LIVING

For Newspaper Feature.
First use April 1951.

SN 15,506. Ziff-Davis Publishing Company, New York, N. Y. Filed Sept. 11, 1956. Sec. 2(f).

RADIO & TELEVISION NEWS

Owner of Reg. Nos. 517,025, 517,468, and 521,506.
For Monthly Magazine.
First use July 30, 1948.

CLASS 39

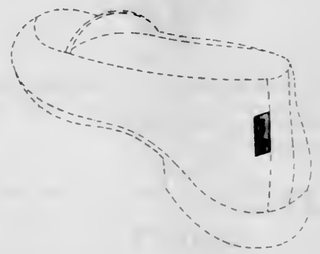
CLOTHING

SN 663,435. Cavalier Cravat Company, Louisville, Ky. Filed Mar. 29, 1954.

SUPREME

For Neckties.
First use Jan. 13, 1954.

SN 687,645. Levi Strauss & Company, San Francisco, Calif. Filed May 16, 1955.



The drawing is lined for red, but the mark is not considered to be restricted to any particular color.
For Shoes.
First use Nov. 19, 1954.

SN 694,487. R. Lee Hollingsworth, d. b. a. The Hollingsworth Company, Advertising, West Hempstead, N. Y. Filed Sept. 12, 1955.

SAFETY SCOUT

The drawing is lined for red and blue.
For Men's, Women's, Boys', and Girls' Clothes of All Kind and Description.
First use July 15, 1955.

SN 700,817. Samuel E. Schlein, Inc., New York, N. Y. Filed Dec. 29, 1955.

Hall of Fame

For Men's and Boys' Sportcoats, Suits, Suburban Coats, Leisure Coats, and Topcoats.
First use Aug. 1, 1955.

SN 791. Pauline L. Hirsch, d. b. a. Erik Sportswear Co., New York, N. Y. Filed Jan. 16, 1956.

ERIK

For Boys' Sports Jackets and Boys' Outerwear Jackets.
First use Oct. 21, 1955.

SN 12,232. Superba Cravats Inc., Rochester, N. Y. Filed

SN 1,033. Wembley, Inc., New Orleans, La. Filed Jan. 18, 1956.

THE TIE WITH The Golden Thistle

For Men's Neckties.
First use Jan. 4, 1956.

SN 7,661. Cherokee Manufacturing Company, Winder, Ga. Filed May 4, 1956.

For Work Clothes for Men and Boys—Namely, Jackets and Semidress Slacks, Dungarees, Pants and Shirts, and Dungarees for Ladies and Girls.
First use October 1953.

SN 10,279. Anvil Brand, Incorporated, High Point, N. C. Filed June 15, 1956. Sec. 2(f).

GOOD'UN

Owner of Reg. No. 541,246.
For Shirts and Dungarees for Men, Women, and Children and Overalls for Men and Boys.
First use Sept. 15, 1949.

SN 10,315. Her Grace, Inc., New York, N. Y. Filed June 15, 1956.

Her Grace

For Robes for Women and Girls.
First use May 31, 1956.

SN 10,664. Climatic Inc., New York, N. Y. Filed June 21, 1956.

For Men's, Women's, Boys', and Girls' Raincoats, Rain Jackets, Rain Capes, Rain Hoods, Hat Protectors, and Booties.
First use May 21, 1956.

SN 10,736. Western Leather Company, Milwaukee, Wis. Filed June 21, 1956.

FIX-TAN

For Leather Insoles.
First use Jan. 3, 1956.

SN 11,056. Bo-Peep Manufacturing Company, Inc., New York, N. Y. Filed June 27, 1956.

CREEP 'N CRAWLS

For Infants' and Children's Garments—Namely, Overalls, Combination Overalls and Blouses, and Combination Overalls and Jackets.
First use June 13, 1956.

SN 11,978. J. Jacobsen Trikotasjefabrikk, Larvik, Norway. Filed July 11, 1956.

BRYNJE

For Women's and Children's Blouses and Underwear and Men's, Women's, and Children's Net-Underwear and Health-Shirt in Sleeveless and T-Shirt Models.
First use during 1937; in commerce June 2, 1954.

SN 12,398. Lynbrook Hat Co., Inc., New York, N. Y. Filed July 24, 1956. Sec. 2(f).

For Men's Hats and Caps.
First use 1942.
Subj. to Intf. with SN 687,027.

SN 12,977. Select Sportswear, Inc., New York, N. Y. Filed July 27, 1956. Sec. 2(f).

SELECT

For Sweaters.
First use May 1, 1937.

SN 12,984. Standard Knitting Mills, Inc., Knoxville, Tenn. Filed July 27, 1956. Sec. 2(f) as to "Healthknit."

Healthknit

Owner of Reg. No. 543,705.
For Men's, Boys', and Children's Underwear, Infants' and Children's Sleepers, Men's, Boys', and Girls' Pajamas, Men's, Boys', and Infants' T-Shirts, Polo Shirts, Basque Shirts, and Sweat Shirts, and Women's and Girls' Pantles.
First use June 1955; Aug. 4, 1928, as to "Healthknit" on men's, boys', and children's underwear.

SN 13,142. Jos. H. Cohen & Sons, Inc., New York, N. Y. Filed July 31, 1956.

PIAZZA

For Men's and Boys' Suits, Slacks, Sport Coats, Top Coats, and Overcoats.
First use June 1, 1956.

SN 13,250. Salant & Salant, Inc., New York, N. Y. Filed Aug. 1, 1956.

KING KOLE

Owner of Reg. Nos. 551,747, 554,015, and 594,558.
For Men's and Boys' Walking Shorts and Sport Slacks.
First use July 27, 1956

SN 13,322. Superba Cravats, Inc., Rochester, N. Y. Filed Aug. 2, 1956.

INTERNATIONAL COLLECTION

For Neckties.
First use June 1, 1956.

SN 13,358. Henry A. Dix & Sons Corporation, New York, N. Y. Filed Aug. 3, 1956.

BLUE CROSS

Owner of Reg. No. 334,495 and others.
For Doctors', Dentists', Pharmacists', Waiters', Chefs', and Chauffeurs' Uniforms, Jackets, Aprons, Shirts, Collars, Suits, Hats, Caps, and Cuff Sets.
First use Aug. 9, 1935.

SN 13,375. Lord Jeff Knitting Company, Incorporated, Brooklyn, N. Y. Filed Aug. 3, 1956.

THE BAGGY SHAG

For Knitted Sweaters.
First use July 1, 1955.

SN 13,429. Dominick Fine Shoes, Inc., New York, N. Y. Filed Aug. 6, 1956.

The words "Custom Made Shoes" are disclaimed apart from the mark as shown.
For Men's Leather, Fabric, or Combinations of Leather and Fabric Shoes.
First use Oct. 9, 1934.

SN 13,472. Nu-Dell Plastics Corporation, Chicago, Ill. Filed Aug. 6, 1956.

The word "Sandals" is disclaimed apart from the mark as shown. The drawing is lined for blue, green, and gold.
For Plastic Sandals.
First use May 4, 1956.

SN 13,495. Wickbury, Ltd., New York, N. Y. Filed Aug. 6, 1956.

Wickfield

For Men's and Boys' Suits, Overcoats, Trousers, Hats, Caps, Outer Dress, Leather Gloves, Raincoats, Sweaters, Cravats, and Scarfs, Underwear, Hosiery, and Leather Belts.
First use June 1, 1929.

SN 13,525. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed Aug. 7, 1956.

CORAL ISLE

For Outer Shirts.
First use Feb. 1, 1956.

SN 13,540. Michaels, Stern & Company, Incorporated, Rochester, N. Y. Filed Aug. 7, 1956. Sec. 2(f).

RANGOON

Owner of Reg. No. 341,314.
For Men's Summer Coats and Trousers.
First use Oct. 7, 1935.

SN 13,583. General Textile Mills, Inc., New York, N. Y. Filed Aug. 8, 1956.

Owner of Reg. No. 606,758.
For Safety Hats.
First use June 29, 1956.

SN 13,646. John Arnold Clark, Worcester, Mass. Filed Aug. 9, 1956.

A JOHN ARNOLD CLARK BOOT
-The J.A.C. Brand-

Applicant disclaims the name of the goods and the descriptive word "Brand."
For Men's and Women's Boots and Shoes.
First use June 13, 1956.

SN 14,992. The Strouse, Adler Company, New Haven, Conn. Filed Aug. 31, 1956.

SO TRIM

Owner of Reg. No. 605,182.
For Foundation Garments—Namely, Girdles and Panty Girdles.
First use July 10, 1956.

CLASS 40

FANCY GOODS, FURNISHINGS, AND NOTIONS

SN 13,321. Sta-Rite Ginnie-Lou, Inc., Shelbyville, Ill. Filed Aug. 2, 1956. Sec. 2(f).

Cushion Tip

Owner of Reg. No. 584,423.
For Bobby Pins.
First use June 29, 1951.

SN 13,588. Sta-Rite Ginnie-Lou, Inc., Shelbyville, Ill. Filed Aug. 8, 1956. Sec. 2(f).

Cushion Tip

Owner of Reg. No. 584,423.
For Hair Pins.
First use June 29, 1951.

SN 13,589. Sta-Rite Ginnie-Lou, Inc., Shelbyville, Ill. Filed Aug. 8, 1956. Sec. 2(f).

Cushion Tip

Owner of Reg. No. 584,423.
For Hair Nets.
First use June 29, 1951.

SN 13,590. Sta-Rite Ginnie-Lou, Inc., Shelbyville, Ill. Filed Aug. 8, 1956. Sec. 2(f).

Cushion Tip

Owner of Reg. No. 584,423.
For Hair Curlers.
First use June 29, 1951.

SN 13,591. Sta-Rite Ginnie-Lou, Inc., Shelbyville, Ill. Filed Aug. 8, 1956. Sec. 2(f).

Cushion Tip

Owner of Reg. No. 584,423.
For Hair Brushes.
First use June 29, 1951.

SN 13,592. Sta-Rite Ginnie-Lou, Inc., Shelbyville, Ill. Filed Aug. 8, 1956. Sec. 2(f).

Cushion Tip

Owner of Reg. No. 584,423.
For Hair Combs.
First use June 29, 1951.

SN 13,593. Sta-Rite Ginnie-Lou, Inc., Shelbyville, Ill. Filed Aug. 8, 1956. Sec. 2(f).

Cushion Tip

Owner of Reg. No. 584,423.
For Hair Rollers.
First use June 29, 1951.

SN 13,594. Sta-Rite Ginnie-Lou, Inc., Shelbyville, Ill. Filed Aug. 8, 1956. Sec. 2(f).

Cushion Tip

Owner of Reg. No. 584,423.
For Hair Pads.
First use June 29, 1951.

SN 13,595. Sta-Rite Ginnie-Lou, Inc., Shelbyville, Ill. Filed Aug. 8, 1956. Sec. 2(f).

Cushion Tip

Owner of Reg. No. 584,423.
For Hair Nets.
First use June 29, 1951.

SN 13,596. Sta-Rite Ginnie-Lou, Inc., Shelbyville, Ill. Filed Aug. 8, 1956. Sec. 2(f).

Cushion Tip

Owner of Reg. No. 584,423.
For Hair Curlers.
First use June 29, 1951.

SN 13,597. Sta-Rite Ginnie-Lou, Inc., Shelbyville, Ill. Filed Aug. 8, 1956. Sec. 2(f).

Cushion Tip

Owner of Reg. No. 584,423.
For Hair Brushes.
First use June 29, 1951.

SN 13,598. Sta-Rite Ginnie-Lou, Inc., Shelbyville, Ill. Filed Aug. 8, 1956. Sec. 2(f).

Cushion Tip

Owner of Reg. No. 584,423.
For Hair Combs.
First use June 29, 1951.

SN 13,599. Sta-Rite Ginnie-Lou, Inc., Shelbyville, Ill. Filed Aug. 8, 1956. Sec. 2(f).

Cushion Tip

Owner of Reg. No. 584,423.
For Hair Rollers.
First use June 29, 1951.

SN 13,600. Sta-Rite Ginnie-Lou, Inc., Shelbyville, Ill. Filed Aug. 8, 1956. Sec. 2(f).

Cushion Tip

Owner of Reg. No. 584,423.
For Hair Pads.
First use June 29, 1951.

SN 14,699. Sta-Rite Ginnie-Lou, Inc., Shelbyville, Ill. Filed Aug. 27, 1956. Sec. 2(f).

Stainproof

For Bobby Pins.
First use Feb. 28, 1951.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

SN 686,509. Waite Carpet Company, Oshkosh, Wis. Filed Apr. 28, 1955.

Texture-Tuft

For Textile Rugs and Carpets.
First use Mar. 15, 1955.

SN 2,247. Pepperell Manufacturing Company, Boston, Mass. Filed Feb. 7, 1956.

SLIP-ON

For Bed Sheets.
First use July 1955.

SN 2,751. Celanese Corporation of America, New York, N. Y. Filed Feb. 16, 1956.

CRALON

Owner of Reg. No. 300,733.
For Textile Fabrics Made of Synthetic Fibers, Alone and in Admixture With Cotton, Wool, or Silk.
First use Feb. 1, 1956.

SN 4,265. America House, Ltd., New York, N. Y. Filed Mar. 12, 1956.

AMERICA HOUSE

Owner of Reg. No. 405,036.
For Plastic, Linen, Straw Place Mats; Cotton, Wool, and Nylon Rugs.
First use 1943.

SN 10,508. Bernard Bernstein Textile Co., d. b. a. Berntex Fabrics, New York, N. Y. Filed June 19, 1956.

MINIRON

For Cotton Piece Goods.
First use June 1, 1956.

SN 10,898. McCampbell & Company, Inc., New York, N. Y. Filed June 25, 1956. Sec. 2(f).

McCAMPBELL

Owner of Reg. Nos. 580,962 and 634,904.
For Textile Piece Goods of Cotton, Synthetic, and Mixtures of Cotton and Synthetic Fibers.
First use on or about Dec. 30, 1923.

SN 10,970. J. P. Stevens & Co., Inc., New York, N. Y. Filed June 20, 1956.

MAILMAN TWILL

The name of the fabric "Twill" is disclaimed apart from the mark as shown.
For Cotton Piece Goods.
First use May 22, 1956.

SN 10,973. Nippon Keori Kaisha, Ltd., Ikuta-ku, Kobe, Japan. Filed June 25, 1956.

NIKKE

For Worsted Fabrics, Woolen Fabrics, Blankets, and Felts.
First use Apr. 21, 1954.

SN 12,365. Arthur S. Helman, Inc., New York, N. Y. Filed July 18, 1956.

Hy-Brow

For Rayon Piece Goods.
First use July 2, 1956.

SN 12,505. D. M. Grattan Co., New York, N. Y. Filed July 20, 1956.

Belfiocco

For Textile Fabric in the Piece of Spun Rayon, a Synthetic Fibre Yarn.
First use June 1, 1955.

SN 14,129. Congoleum-Nairn Inc., Kearny, N. J. Filed Aug. 17, 1956.

TREASURE ISLE

For Plain or Flat Woven Floor Coverings of the Nature of Fiber Rugs.
First use June 26, 1956.

SN 14,444. D. B. Fuller & Co., Inc., New York, N. Y. Filed Aug. 23, 1956.

DOBBYSHEEN

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use Mar. 21, 1955.

SN 14,727. Cannon Mills Company, Kannapolis, N. C. Filed Aug. 28, 1956. Sec. 2(f).

DRYFAST

For Textile Towels.
First use in 1934.

SN 14,808. D. B. Fuller & Co., Inc., New York, N. Y. Filed Aug. 29, 1956.

BONNYFAIR

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use May 2, 1955.

SN 14,809. D. B. Fuller & Co., Inc., New York, N. Y. Filed Aug. 29, 1956.

PROVINCETOWN

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use Aug. 1, 1955.

CLASS 43

THREAD AND YARN

SN 3,484. Todd & Duncan Limited, Kinross, Scotland. Filed Feb. 27, 1956.

SPINDRIFT

Owner of British Reg. No. 740,897, dated Mar. 30, 1955; and U. S. Reg. No. 407,338.
For Yarns Made Wholly of Wool.

SN 10,578. American Enka Corporation, Enka, N. C. Filed Sept. 28, 1956.

ENKA

Owner of Reg. Nos. 409,392 and 433,947.
For Nylon Yarns.
First use Mar. 23, 1955.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

SN 2,387. Dr. Ing. Hans O. Scheid, Vienna, Austria. Filed Feb. 9, 1956.

DICA

Owner of Austrian Reg. No. 10,711, dated Apr. 12, 1949.
For Diamond Burs for Dental Purposes.

SN 2,388. Dr. Ing. Hans O. Scheid, Vienna, Austria. Filed Feb. 9, 1956.

DENDIA

Owner of Austrian Reg. No. 6,885, dated Jan. 3, 1949.
For Diamond Grinding Instruments for Dental Purposes and Acrylic Teeth.

SN 9,213. John Weber, d. b. a. Permadent Products, New York, N. Y. Filed May 28, 1956.

PERMAJACKET

For Porcelain Covering for Natural or Artificial Teeth.
First use on about Nov. 15, 1955.

SN 9,215. John Weber, d. b. a. Permadent Products, New York, N. Y. Filed May 28, 1956.

PERMIUM

For Dental Casting Alloys and Solders.
First use on about May 1, 1956.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

SN 692,431. Sheffield Chemical Company, Inc., Norwich, N. Y., to Sheffield Farms Company, Inc., New York, N. Y. Filed Aug. 3, 1955.

SHEFTENE

For Modified Proteins for Use in Food and Pharmaceutical Products.
First use Apr. 14, 1955.

SN 1,245. Ivanhoe Fruit Association, Ivanhoe, Calif. Filed Jan. 23, 1956.

STAR of IVANHOE

Owner of Reg. No. 168,879.
For Fresh Grapes.
First use Oct. 31, 1955; Apr. 24, 1922, as to "Ivanhoe."

SN 1,376. Masion Julien, Inc., New York, N. Y. Filed Jan. 24, 1956.

Maison Julien

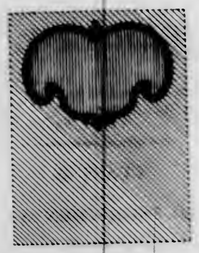
For Frozen and Dehydrated Soups.
First use Dec. 1, 1953.

SN 1,511. E. F. Drew & Co., Inc., New York, N. Y. Filed Jan. 26, 1956.

DREW

Owner of Reg. Nos. 440,189, 626,012, and others.
For Vegetable Oils and Hydrogenated Vegetable Oils for Incorporation Into Food and Industrial Products.
First use January 1952.

SN 2,747. California Packing Corporation, San Francisco, Calif. Filed Feb. 16, 1956.



The lining indicates green, red, and gold. The green rectangle outlined in dotted lines is intended to represent an indefinite portion of an overall green background. Owner of Reg. Nos. 120,014, 286,243, and others.

For Fresh and Processed Food Products—Namely, Fresh Vegetables, Canned Fruits, Canned Vegetables, Canned Fruit Juices, Canned Fruit Nectars, Canned Fish, Dried Fruits, Raisins, Tomato Puree, Tomato Juice, Coffee; and Condiments—Namely, Tomato Catsup, Tomato Sauce, Tomato Paste, Chili Sauce, Pickles, Pickle Relishes, and Chili Peppers.

First use in 1904.

SN 4,364. Red Star Yeast and Products Company, Milwaukee, Wis. Filed Mar. 12, 1956.

CONSUMER'S

For Compressed (Wet) Yeast, Dry Yeast, Yeast Foods, Baking Powder and Dry Malt Products Suitable for Use as Ingredients in Making Bakery Products.

First use in the year 1890.

SN 4,612. Challenge Cream & Butter Association, Los Angeles, Calif. Filed Mar. 15, 1956.

MORRO

For Natural Cheese.

First use Feb. 6, 1956.

SN 10,931. Smilen Bros., Inc., d. b. a. Smilen Bros., Brooklyn, N. Y. Filed June 25, 1956.

"NOURISH RIPE"

For Bananas.

First use 1935.

SN 11,764. Hawaiian Pineapple Company, Limited, d. b. a. Barron-Gray Packing Company, San Jose, Calif. Filed July 9, 1956. Sec. 2(f).

EVEREADY

Owner of Reg. Nos. 568,476 and 376,978.

For Canned Fruits, Canned Vegetables, Canned Fruit Nectars, Canned Vegetable Juices, and Canned Fruit Cocktail.

First use Dec. 19, 1930, on canned fruits.

SN 12,416. Foodland, Inc., Cleveland, Ohio. Filed July 19, 1956.

FOODLAND

For Canned Dog Food.

First use Oct. 1, 1935.

SN 12,609. Foltz Tea & Coffee Co., Inc., New Orleans, La. Filed July 23, 1956.

COFFEE'S READY

For Coffee Concentrate in Liquid Form.

First use Jan. 12, 1955.

SN 12,681. United Biscuit Company of America, Melrose Park, Ill. Filed July 23, 1956.

TOWN HOUSE

Owner of Reg. No. 587,813.

For Cookies.

First use Oct. 4, 1940.

SN 12,812. Jewett & Sherman Company, d. b. a. Holsum Products, Milwaukee, Wis. Filed July 25, 1956.

HOLSUM I.C.T.

Owner of Reg. Nos. 439,657, 557,620, and 612,828.

For Tea Concentrate.

First use July 14, 1952.

SN 18,673. Pulaski Canning Company, Pulaski, Wis. Filed Nov. 2, 1956.

Gold Kist

For Canned Vegetables.

First use about 1930.

SN 19,403. Planters Nut & Chocolate Co., Wilkes-Barre, Pa. Filed Dec. 3, 1956.

Cocktail

For Salted Peanuts.

First use 1938.

Subj. to Intf. with SN 2,426.

CLASS 48

MALT BEVERAGES AND LIQUORS

SN 1,811. St. Pauli Brauerei C. L. Wilh. Brandt, Bremen, Germany. Filed Jan. 31, 1956.

The drawing is lined for red. Owner of German Reg. No. 435,366, dated July 7, 1931.

For Beer.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

SN 14,105. R. Thorne & Sons Limited, Dumbarton, Scotland. Filed Aug. 16, 1956.

Thorne's Heritage

For Whisky.

First use September 1955.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

SN 694,024. Hamilton O. Cornwall Co. Inc., Paris, Maine. Filed Sept. 6, 1955.

For Novelty Goods and Gift Merchandise Including Figures, Figurines, Plaques, and Other Miscellaneous Articles of Manufacture for Combined Decorative Display and Utilitarian Purposes.

First use July 1, 1954.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

SN 698,608. Heine & Co., New York, N. Y. Filed Nov. 21, 1955.

HEIKODOR

Owner of Reg. No. 204,250.

For Natural and Synthetic Essential Oils; Aromatic Chemicals; Perfumes; Natural and Synthetic Aromatic, Flavoring and Coloring Components, Essences, and Extracts Used in the Manufacture of Perfumes, Cosmetics, and Toilet Goods.

First use in the year 1923.

SN 698,611. Heine & Co., New York, N. Y. Filed Nov. 21, 1955.

JASMYL

For Natural and Synthetic Essential Oils; Aromatic Chemicals; Perfumes; Natural and Synthetic Aromatic, Flavoring and Coloring Components, Essences, and Extracts Used in the Manufacture of Perfumes, Cosmetics, and Toilet Goods.

First use in the year 1926.

SN 11,579. Richard Hudnut, New York, N. Y. Filed July 5, 1956.

ENCHANTED BEAUTY

For Hand Lotion.

First use June 21, 1956.

SN 11,868. Olin Mathieson Chemical Corporation, New York, N. Y. Filed July 10, 1956.

GARDEN GLOVE

For Protective Hand Cream.

First use June 30, 1956.

SN 11,941. Prince Matchabelli, Inc., New York, N. Y. Filed July 11, 1956.

SYBARITE

For Perfume.

First use June 5, 1956.

SN 12,493. Carter Products, Inc., New York, N. Y. Filed July 20, 1956.

WHIRL-IN

For Deodorants.

First use May 15, 1956.

CLASS 52

DETERGENTS AND SOAPS

SN 1,697. Jean Jordeau, Inc., South Orange, N. J. Filed Jan. 30, 1956.

TROOPER

For Rinseless Shampoo.

First use Jan. 16, 1956.

SN 6,460. The Pennsylvania Salt Manufacturing Company, Philadelphia, Pa. Filed Apr. 16, 1956.

Pennsalt Chemicals

No claim is made to the word "Chemicals" apart from the mark as shown. Owner of Reg. Nos. 392,195, 557,812, and 559,207.

For Dry Cleaning Detergent for Charged Systems.
First use Feb. 1, 1953.

SN 6,631. Penray Company, Chicago, Ill. Filed Apr. 18, 1956.

PENRAY

Owner of Reg. No. 605,289.

For Automotive System Cleaner, Automotive System Sealer, Automotive Parts Cleaner, and Automotive Cooling System Conditioner.
First use June 26, 1950.

SN 8,693. The Procter & Gamble Company, Cincinnati, Ohio. Filed May 21, 1956.

BLUINITE

For Brightening Agent for Use in Detergents.
First use Apr. 11, 1956.

SN 8,959. J. I. Holcomb Manufacturing Company, Inc., Indianapolis, Ind. Filed May 24, 1956.

ZEN

For Cleaning Compound in Liquid Form for Removing Stains and Discolorations in Toilet Bowls and Urinals.
First use July 8, 1955.

SN 9,150. Kleen-O-Products, Inc., Beverly Hills, Calif. Filed May 28, 1956.

KLEEN-O-

For Engine and Carburetor Cleaner.
First use on or about Mar. 19, 1956.

SN 13,499. Ralph H. Wycoff, d. b. a. Wycoff Sales Company, Columbus, Ohio. Filed Aug. 6, 1956.

FOAM OFF

For Plastic Wall Tile Cleaner.
First use Jan. 20, 1956.

SN 13,517. Angier Chemical Company, Inc., Boston, Mass. Filed Aug. 7, 1956.

Santa Celesta

For Soaps—Namely, Toilet Soaps.
First use Nov. 3, 1955.

SN 13,716. Acorn Adhesives Co., Inc., Los Angeles, Calif. Filed Aug. 10, 1956.

SLY

For Chemical Cleaning Compounds.
First use July 26, 1956.

SN 13,875. Harry E. Schneiders, d. b. a. Alumalub Company, St. Louis, Mo. Filed Aug. 13, 1956.

ALUMALUB

For Liquid Composition for Cleaning and Lubricating Aluminum Windows, Screens, Doors, and Jalousies.
First use Apr. 10, 1954.

SN 14,256. The Maywood Company, Cicero, Ill. Filed Aug. 20, 1956.

ASK

For Abrasive Solvent Cleaner.
First use June 29, 1956.

SERVICE MARKS

CLASS 100

MISCELLANEOUS

SN 691,793. Special Services Corporation, Tyler, Tex. Filed July 22, 1955.

THE RIGHT HAND OF MANAGEMENT

SSC

For Business Surveys Including Population Counts, Area Income Surveys and Forecasting as to Future Growth of a Community; Property Inspections Including Physical Inspections, Appraisals and Location Evaluations; and Personnel Investigations of Prospective Employees.
First use Feb. 15, 1955.

SN 5,743. Piasecki Aircraft Corporation, Philadelphia, Pa. Filed Apr. 3, 1956.

For Engineering Services, for Others, in the Planning and Designing of Aircraft Usages and the Making of Feasibility Studies, for Others, in Mechanical, Aeronautical, and Electrical Fields.
First use Oct. 12, 1955.

CLASS 101

ADVERTISING AND BUSINESS

SN 678,637. Russell Kelly Office Service, Inc., Detroit, Mich. Filed Dec. 20, 1954. Sec. 2(f).

KELLY GIRLS

For Secretarial, Clerical, and Business Machine Services and Operators for Bookkeeping Machines and Employment Services Involving the Furnishing of Temporary Office Help.
First use on or about Mar. 1, 1948.

CLASS 102

INSURANCE AND FINANCIAL

SN 3,518. Continental Casualty Company, Chicago, Ill. Filed Feb. 28, 1956.

CAMP GUARD

For Accident and Sickness Insurance.
First use Jan. 10, 1956.

CLASS 103

CONSTRUCTION AND REPAIR

SN 696,821. Porete Mfg. Co., North Arlington, N. J. Filed Oct. 20, 1955.

PORETHERM

For Building Construction Services—Namely, Installation of Concrete in the Building of Structures.
First use about July 1925.

CLASS 107

EDUCATION AND ENTERTAINMENT

SN 699,468. Charles Raymond Bathe, d. b. a. Popo the Clown and as Count Popo de Bathe, San Francisco, Calif. Filed Dec. 6, 1955.

POPO

THE CONTINENTAL AMBASSADOR OF FUN

For Entertainment Service Featuring a Clown Character and Featuring a Puppet of the Same Name.
First use 1915.

TRADEMARK REGISTRATIONS ISSUED
PRINCIPAL REGISTER

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

641,191. MOTHER EARTH. Mulford-Hickerson Peat Humus Corp., d. b. a. M & H Peat Humus Co. SN 693,925. Pub. 11–27–56. Filed 8–30–55.

641,192. 18TH CENTURY BOUQUET. Agnes P. Hoke. SN 697,371. Pub. 11–27–56. Filed 10–31–55.

641,193. W AND WINDMILL DESIGN. The Wayside Gardens Co. SN 698,390. Pub. 11–27–56. Filed 11–16–55.

641,194. SOFT PAK. General Mills, Inc. SN 699,394. Pub. 11–27–56. Filed 12–5–55.

641,195. BLACK MAGIC. The Barnebey-Cheney Company. SN 3,344. Pub. 11–27–56. Filed 2–27–56.

641,196. GER-LITE. Gering Products, Inc. SN 3,529. Pub. 11–27–56. Filed 2–28–56.

641,197. JODA AND DESIGN. Joseph Davis Plastics Co. SN 4,004. Pub. 11–27–56. Filed 3–7–56.

641,198. DUTEX. Texon, Inc. SN 7,543. Pub. 11–27–56. Filed 5–2–56.

641,199. DEERWOOD PARK. UBC Distributors, Incorporated. SN 8,291. Pub. 11–27–56. Filed 5–14–56.

641,200. SNOW WHITE AND DESIGN. Marble Products Company of Georgia. SN 8,677. Pub. 11–27–56. Filed 5–21–56.

641,201. LIFEGARD. Cornell Seed Company. SN 8,929. Pub. 11–27–56. Filed 5–24–56.

641,202. WESTOVER. Armour and Company. SN 9,015. Pub. 11–27–56. Filed 5–23–56.

641,203. RICHWOOD. Armour and Company. SN 9,016. Pub. 11–27–56. Filed 5–23–56.

641,204. FLEX. Armour and Company. SN 9,017. Pub. 11–27–56. Filed 5–25–56.

641,205. SUR-BRAZE. Technion Design & Manufacturing Co., Inc. SN 9,197. Pub. 11–27–56. Filed 5–28–56.

641,206. SANTROL. George F. Pettinos, Inc. SN 9,484. Pub. 11–27–56. Filed 6–1–56.

641,207. SEAFLOUR. George F. Pettinos, Inc. SN 9,485. Pub. 11–27–56. Filed 6–1–56.

641,208. SIPAC. The United States Graphite Company Division of The Wickes Corporation. SN 9,612. Pub. 11–27–56. Filed 6–4–56.

641,209. ECCOFOAM. Emerson & Cuming, Inc. SN 9,704. Pub. 11–27–56. Filed 6–6–56.

641,210. NUKROS. Evergreen Hatchery Incorporated. SN 9,708. Pub. 11–27–56. Filed 6–6–56.

641,211. GRAKON. W. R. Grace & Co. SN 9,788. Pub. 11–27–56. Filed 6–7–56.

641,212. GRACENE. W. R. Grace & Co. SN 9,789. Pub. 11–27–56. Filed 6–7–56.

641,213. GRACINE. W. R. Grace & Co. SN 9,790. Pub. 11–27–56. Filed 6–7–56.

641,214. GRACON. W. R. Grace & Co. SN 9,791. Pub. 11–27–56. Filed 6–7–56.

641,215. GREX. W. R. Grace & Co. SN 9,792. Pub. 11–27–56. Filed 6–7–56.

641,216. WESTERN CHEF. Western Chef Products, Inc. SN 9,910. Pub. 11–27–56. Filed 6–8–56.

641,217. SHUR-TURF. Garfield Williamson, Inc. SN 10,049. Pub. 11–27–56. Filed 6–11–56.

641,218. GRACITE. W. R. Grace & Co. SN 10,162. Pub. 11–27–56. Filed 6–13–56.

641,219. TRIM FOAM AND DESIGN. Foams, Inc. SN 10,312. Pub. 11–27–56. Filed 6–15–56.

641,220. DESIGN OF GROTESQUE HUMAN. Phillips Petroleum Company. SN 10,477. Pub. 11–27–56. Filed 6–18–56.

CLASS 3

BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

641,221. SNAPAK. Schell Leather Goods Co., Inc. SN 9,900. Pub. 11–27–56. Filed 6–8–56.

641,222. STYLITE. Grainick and Sons Inc. SN 10,592. Pub. 11–27–56. Filed 6–20–56.

CLASS 4

ABRASIVES AND POLISHING MATERIALS

641,223. PENRAY AND DESIGN. Penray Company. SN 6,630. Pub. 11–27–56. Filed 4–18–56.

641,224. AUTOSOL. Solvolene Lubricants Limited. SN 8,719. Pub. 11–27–56. Filed 5–21–56.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

641,225. BALL O' PERFUME. Esquire Chemical Co. SN 698,413. Pub. 11–27–56. Filed 11–17–55.

641,226. DERGON. Arkansas Company, Inc. SN 699,053. Pub. 11–27–56. Filed 11–29–55.

641,227. WHY BUGS LEAVE HOME AND DESIGN. Andrew Wilson, Inc. SN 3,502. Pub. 11–27–56. Filed 2–27–56.

641,228. CYANATEX. American Cyanamid Company. SN 3,568. Pub. 11–27–56. Filed 2–29–56.

641,229. CON-SAL. Church & Dwight Co., Inc. SN 5,168. Pub. 11–27–56. Filed 3–26–56.

641,230. ALCROYD. Crosby Chemicals, Inc. SN 6,989. Pub. 11–27–56. Filed 4–24–56.

641,231. ESTERFLEX. Swift & Company. SN 7,126. Pub. 11–27–56. Filed 4–25–56.

641,232. VANOX. R. T. Vanderbilt Company, Inc. SN 7,298. Pub. 11–27–56. Filed 4–27–56.

641,233. DIAMID. Diamond Alkali Company. SN 7,490. Pub. 11–27–56. Filed 5–2–56.

641,234. DESIGN OF CHEVRON. Standard Oil Company of California. SN 11,445. Pub. 11–20–56. Filed 7–13–56.

CLASS 7

CORDAGE

641,235. GRAND HARVEST. Ponit Trading Company. SN 7,846. Pub. 11–27–56. Filed 5–7–56.

CLASS 8

SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS

641,236. CP. F. Charatan & Son Limited. SN 4,771. Pub. 11–27–56. Filed 3–19–56.

CLASS 9

EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES

641,237. BENJAMIN FRANKLIN. Benjamin Air Rifle Company. SN 7,743. Pub. 11–27–56. Filed 5–7–56.

CLASS 10

FERTILIZERS

641,238. BO-PEEP AND DESIGN. Gordon Callbeck, d. b. a. A & A Coal Company. SN 700,938. Pub. 11–27–56. Filed 11–17–55.

641,239. MA-DER-GRO. Hale Laboratories. SN 4,197. Pub. 11–27–56. Filed 3–9–56.

641,240. NISOL. W. R. Grace & Co. SN 8,662. Pub. 11–27–56. Filed 5–21–56.

641,241. FERT-O-STIK. Washington Organic Fertilizers, Inc. SN 8,810. Pub. 11–27–56. Filed 5–22–56.

641,242. TROPICAL SPLENDOR AND DESIGN. Joseph Schumacher. SN 11,616. Pub. 11–27–56. Filed 7–5–56.

641,243. DESIGN OF CHEVRON. Standard Oil Company of California. SN 12,854. Pub. 11–6–56. Filed 8–14–56.

CLASS 11

INKS AND INKING MATERIALS

641,244. POLENE. Western Laboratories, Inc. SN 8,596. Pub. 11–27–56. Filed 5–18–56.

CLASS 12

CONSTRUCTION MATERIALS

641,245. HY-TEMP REFRACTO. International Minerals & Chemical Corporation. SN 689,724. Pub. 11–27–56. Filed 6–17–55.

641,246. PURA-TEX STONE. U. S. Stone Corporation. SN 698,095. Pub. 11–27–56. Filed 11–10–55.

641,247. FIRE PLUG. Pennington Manufacturing Company. SN 699,981. Pub. 11–27–56. Filed 12–14–55.

641,248. SATELLITE. Gladding, McBean & Company. SN 2,779. Pub. 11–27–56. Filed 2–16–56.

641,249. EVANEER. Evans Products Company. SN 3,601. Pub. 11–27–56. Filed 2–29–56.

641,250. ORTAR. The Flintkote Company. SN 4,020. Pub. 11–27–56. Filed 3–7–56.

641,251. METAL ROLL. Artcraft Awning Company. SN 4,272. Pub. 11–27–56. Filed 3–12–56.

641,252. PROCESA ETC. AND DESIGN. Productos Ceramicos, S. A. SN 4,357. Pub. 11–27–56. Filed 3–12–56.

641,253. W AND DESIGN. Water Seals, Inc. SN 4,497. Pub. 11–27–56. Filed 3–13–56.

641,254. PETERSON. Peterson Window Corporation. SN 4,739. Pub. 11–27–56. Filed 3–16–56.

641,255. STASO AND KEYSTONE DESIGN. Central Commercial Company. SN 5,164. Pub. 11–27–56. Filed 3–26–56.

641,256. VP VAN-PACKER. Van-Packer Corporation. SN 5,473. Pub. 11–27–56. Filed 3–29–56.

641,257. SAVABRASS. Edlu Terrazo Designing Company. SN 7,081. Pub. 11–27–56. Filed 4–25–56.

641,258. DESIGN OF CHEVRON. Standard Oil Company of California. SN 12,855. Pub. 11–13–56. Filed 8–14–56.

CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

641,259. BE-GE. Be-Ge Manufacturing Co. SN 636,836. Pub. 3–22–55. Filed 10–18–52.

641,260. TWO ANNULAR SEGMENTAL INDENTATIONS IN TOP END OF LOCK NUT. MacLean-Fogg Lock Nut Company. SN 678,793. Pub. 11–27–56. Filed 12–22–54.

641,261. "RIVESTIMENTO DALMINE." Dalmine S. p. A. SN 692,910. Pub. 11–27–56. Filed 8–12–55.

641,262. TOWN AND COUNTRY. Ajax Hardware Manufacturing Corporation. SN 700,836. Pub. 11–27–56. Filed 12–30–55.

641,263. STA-KIT. R. S. Precision Products. SN 9,173. Pub. 11–27–56. Filed 5–28–56.

641,264. RUSSELL LINE AND DESIGN. The Risdon Manufacturing Company. SN 9,177. Pub. 11–27–56. Filed 5–28–56.

641,265. USP. United States Pipe and Foundry Company. SN 9,309. Pub. 11–27–56. Filed 5–29–56.

641,266. SLIDERITE. Grant Pulley & Hardware Corporation. SN 10,532. Pub. 11–27–56. Filed 6–19–56.

641,267. ADJUST-O-SHELF. Ridderstedt Manufacturing Corp. SN 10,803. Pub. 11–27–56. Filed 6–22–56.

CLASS 15

OILS AND GREASES

641,268. XLENT. Haller Engineering & Manufacturing. SN 676,053. Pub. 11–27–56. Filed 11–4–54.

641,269. GULFCUT. Gulf Oil Corporation. SN 9,264. Pub. 11–27–56. Filed 5–29–56.

641,270. DESIGN OF CHEVRON. Standard Oil Company of California. SN 11,447. Pub. 11–27–56. Filed 7–13–56.

641,271. MARNOL. Esso Standard Oil Company. SN 13,281. Pub. 11–27–56. Filed 8–2–56.

641,272. DEV-O-LUBE. Devolube Corporation of America, to Ernest F. Savage. SN 13,332. Pub. 11–27–56. Filed 8–28–56.

641,273. NAUTILUS. Shell Oil Company. SN 13,389. Pub. 11–27–56. Filed 8–3–56.

641,274. NASSA. Shell Oil Company. SN 13,390. Pub. 11–27–56. Filed 8–3–56.

641,275. OMALA. Shell Oil Company. SN 13,391. Pub. 11–27–56. Filed 8–3–56.

641,276. BOLMA. Shell Oil Company. SN 13,392. Pub. 11–27–56. Filed 8–3–56.

641,277. ONDINA. Shell Oil Company. SN 13,393. Pub. 11–27–56. Filed 8–3–56.

641,278. ALEXIA. Shell Oil Company. SN 13,394. Pub. 11–27–56. Filed 8–3–56.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

641,279. SKYKOTE. The Flintkote Company. SN 685,691. Pub. 11–27–56. Filed 4–18–55.

641,280. WAKOL. Walter G. Legge Company, Inc. SN 3,615. Pub. 11–27–56. Filed 2–29–56.

641,281. FI-RE-SIST. S. K. Laboratories, Inc. SN 5,548. Pub. 11–27–56. Filed 3–30–56.

641,282. ECOLITE. McDougall-Butler Co., Inc. SN 6,737. Pub. 11–27–56. Filed 4–19–56.

641,283. IROQUOIS. McDougall-Butler Co., Inc. SN 6,739. Pub. 11–27–56. Filed 4–19–56.

641,284. PARTAGLOSS. McDougall-Butler Co., Inc. SN 6,740. Pub. 11–27–56. Filed 4–19–56.

641,285. SURFASTYLE. McDougall-Butler Co., Inc. SN 6,741. Pub. 11–27–56. Filed 4–19–56.

641,286. UTILI-VAR. McDougall-Butler Co., Inc. SN 6,742. Pub. 11–27–56. Filed 4–19–56.

641,287. ZANZITE. McDougall-Butler Co., Inc. SN 6,743. Pub. 11–27–56. Filed 4–19–56.

641,288. SILCOA. Siliphane Corporation of America. SN 7,044. Pub. 11–27–56. Filed 4–24–56.

641,289. WEATHER-CLAD. The Sherwin-Williams Company. SN 7,120. Pub. 11–27–56. Filed 4–25–56.

641,290. ALUMIZOL. Gilmore & Nolan, Inc. SN 7,184. Pub. 11–27–56. Filed 4–26–56.

641,291. PEXTITE. The Peck, Stow & Wilcox Company. SN 8,094. Pub. 11–27–56. Filed 5–10–56.

641,292. MAR-NOT. The Sherwin-Williams Company. SN 8,162. Pub. 11–27–56. Filed 5–11–56.

641,293. KEM-KRETE. The Sherwin-Williams Company. SN 8,163. Pub. 11–27–56. Filed 5–11–56.

641,294. CRAYOLA. Binney & Smith Inc. SN 8,529. Pub. 11–27–56. Filed 5–18–56.

641,295. DESIGN OF CHEVRON. Standard Oil Company of California. SN 12,856. Pub. 11–13–56. Filed 8–14–56.

CLASS 17

TOBACCO PRODUCTS

641,296. LA FRAGRANCIA. The S. Frieder & Sons Company. SN 8,216. Pub. 11–27–56. Filed 5–14–56.

641,297. SAVOY. D W G Cigar Corporation. SN 8,636. Pub. 11–27–56. Filed 5–21–56.

641,298. NICOSAN. M & N Cigar Manufacturers, Inc. SN 10,178. Pub. 11–27–56. Filed 6–13–56.

641,299. DECISION. M & N Cigar Manufacturers, Inc. SN 10,179. Pub. 11–27–56. Filed 6–13–56.

641,300. FLOR DE ADDISON. M & N Cigar Manufacturers, Inc. SN 10,180. Pub. 11–27–56. Filed 6–13–56.

641,301. JOHN CARVER. M & N Cigar Manufacturers, Inc. SN 10,181. Pub. 11–27–56. Filed 6–13–56.

641,302. STUDENT PRINCE. M & N Cigar Manufacturers, Inc. SN 10,182. Pub. 11–27–56. Filed 6–13–56.

641,303. RIGOLETTO. M & N Cigar Manufacturers, Inc. SN 10,183. Pub. 11–27–56. Filed 6–13–56.

641,304. INSPIRATION. M & N Cigar Manufacturers, Inc. SN 10,184. Pub. 11–27–56. Filed 6–13–56.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

641,305. RESTAL. Pasquale Gervasi, d. b. a. Gervasi's Pharmacy. SN 691,634. Pub. 3–20–56. Filed 7–20–55.

641,306. SAL-C. De Leon Laboratories, Inc. SN 692,510. Pub. 5–8–56. Filed 8–5–55.

641,307. CYSTOPURIN. Johann A. Wülfing. SN 695,868. Pub. 11–27–56. Filed 10–4–55.

641,308. DETOXINUM. Johann A. Wülfing. SN 695,869. Pub. 11–27–56. Filed 10–4–55.

641,309. APYRON. Johann A. Wülfing. SN 695,871. Pub. 11–27–56. Filed 10–4–55.

641,310. COMPLAMIN. Johann A. Wülfing. SN 695,872. Pub. 11–27–56. Filed 10–4–55.

641,311. RAVERON. Robapharm Laboratoriums A. G. SN 697,188. Pub. 11–27–56. Filed 10–26–55.

641,312. ASMINOREL. S. J. Tutag & Company. SN 2,323. Pub. 11–27–56. Filed 2–8–56.

641,313. ION O-TRATE. Abbott Laboratories. SN 2,937. Pub. 11–27–56. Filed 2–20–56.

641,314. BIRD-A-VITE. Pet Center Corporation. SN 4,472. Pub. 11–27–56. Filed 3–13–56.

641,315. DIPHYLETS. S. J. Tutag & Company. SN 4,588. Pub. 11–27–56. Filed 3–14–56.

641,316. CO-DELTRA. Merck & Co., Inc. SN 5,115. Pub. 11–27–56. Filed 3–23–56.

641,317. DIOVAC. Gray Pharmaceutical Co., Inc. SN 6,000. Pub. 11–27–56. Filed 4–9–56.

641,318. OXAMYCIN. Merck & Co., Inc. SN 6,446. Pub. 11–27–56. Filed 4–16–56.

641,319. LYTENSENE. American Home Products Corporation, d. b. a. Wyeth Laboratories Division of American Home Products Corporation. SN 6,779. Pub. 11–27–56. Filed 4–20–56.

641,320. CYL-RE. Unilab, Inc. SN 7,050. Pub. 11–27–56. Filed 4–24–56.

641,321. BUTISOL SODIUM. McNeil Laboratories, Incorporated. SN 7,100. Pub. 11–27–56. Filed 4–25–56.

641,322. AMBONESTYL. Olin Mathieson Chemical Corporation. SN 7,363. Pub. 11–27–56. Filed 4–30–56.

641,323. NEOVIS. First Texas Chemical Manufacturing Company. SN 7,973. Pub. 11–27–56. Filed 5–9–56.

641,324. DURABOLIN. Organon Inc. SN 8,092. Pub. 11–27–56. Filed 5–10–56.

641,325. ALBARIN. Organon Inc. SN 8,093. Pub. 11–27–56. Filed 5–10–56.

641,326. DIFEN. Schenley Laboratories, Inc. SN 8,269. Pub. 11–27–56. Filed 5–14–56.

641,327. TACOSAL. Tablerock Laboratories, Inc. SN 8,282. Pub. 11–27–56. Filed 5–14–56.

641,328. BONADETTES. Chas. Pfizer & Co., Inc. SN 8,351. Pub. 11–27–56. Filed 5–15–56.

641,329. BONAMETS. Chas. Pfizer & Co., Inc. SN 8,352. Pub. 11–27–56. Filed 5–15–56.

641,330. SALISTOPERM. Permicutan-Gesellschaft für Chemische, Pharmazeutische und Kosmetische Erzeugnisse m. b. H. SN 8,436. Pub. 11–27–56. Filed 5–16–56.

641,331. P. R. N. Bristol Laboratories Inc. SN 8,466. Pub. 11–27–56. Filed 5–17–56.

641,332. HUBBARD'S. Hubbard Milling Company. SN 8,849. Pub. 11–27–56. Filed 5–23–56.

CLASS 19

VEHICLES

641,333. SUNBAN. Visors, Inc. SN 7,402. Pub. 11–27–56. Filed 4–30–56.

CLASS 20

LINOLEUM AND OILED CLOTH

641,334. JATA-MAT. Richard L. Capell, d. b. a. Jata-Mat Company. SN 683,353. Pub. 11–27–56. Filed 3–14–55.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

641,335. MARLIN AND DESIGN. Marlin Pool Equipment Company. SN 697,810. Pub. 11–27–56. Filed 11–7–55.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

641,336. BANSHEE. Charles L. Stuart. SN 677,823. Pub. 11–27–56. Filed 12–6–54.

641,337. TOM WISWELL. Whitman Publishing Company. SN 689,776. Pub. 11–27–56. Filed 6–17–55.

641,338. ROCK-A-BYE. The Perfection Manufacturing Company. SN 694,911. Pub. 11–27–56. Filed 9–19–55.

641,339. TENSHODO. Kabushiki Kaisha Tenshodo. SN 698,436. Pub. 11–27–56. Filed 11–17–55.

641,340. CORGI. The Mettoy Company Limited. SN 698,627. Pub. 11–27–56. Filed 11–21–55.

641,341. BELL-O-MATIC ETC. AND DESIGN. Bell-O-Matic Corporation. SN 188. Pub. 11–27–56. Filed 1–5–56.

641,342. HELLBENDER. D. C. Enloe, d. b. a. Whopper-Stopper Sporting Goods Company. SN 3,837. Pub. 11–27–56. Filed 3–5–56.

641,343. E-Z-RIG AND DESIGN. Robert Corson. SN 5,028. Pub. 11–27–56. Filed 3–22–56.

641,344. OK-DOKE. Martin O. Fixen, d. b. a. Fixen Plastic Company. SN 5,186. Pub. 11–27–56. Filed 3–26–56.

641,345. HH AND DESIGN. Happy Hour Inc. SN 6,424. Pub. 11–27–56. Filed 4–16–56.

641,346. BABY LAND. M & S Doll Company. SN 7,613. Pub. 11–27–56. Filed 5–3–56.

641,347. UNGAR. Ungar Electric Tools, Inc. SN 8,730. Pub. 11–27–56. Filed 5–21–56.

641,348. BILLIONAIRE. C. B. Donald Company. SN 8,756. Pub. 11–27–56. Filed 5–22–56.

641,349. TICKY THE CLOWN CLOCK. C. B. Donald Company. SN 8,757. Pub. 11–27–56. Filed 5–22–56.

641,350. 9-ALL. C. B. Donald Company. SN 8,758. Pub. 11–27–56. Filed 5–22–56.

641,351. THUMPER. Nissen Trampoline Company. SN 8,795. Pub. 11–27–56. Filed 5–22–56.

641,352. BEE-VO. Beaver Toys, Inc. SN 9,246. Pub. 11–27–56. Filed 5–29–56.

641,353. FLASH. Selchow & Righter Company. SN 9,297. Pub. 11–27–56. Filed 5–29–56.

641,354. DECOY. Selchow & Righter Company. SN 9,299. Pub. 11–27–56. Filed 5–29–56.

641,355. DEAD PAN. Selchow & Righter Company. SN 9,300. Pub. 11–27–56. Filed 5–29–56.

641,356. GYPSY. Walling Keith, d. b. a. Fishermen's Products Company, to Walling Keith Chemicals, Inc. SN 9,797. Pub. 11–27–56. Filed 6–7–56.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

641,357. REACH-FORK. The Raymond Corporation. SN 682,473. Pub. 11–27–56. Filed 2–28–55.

641,358. MAGIC. Nathan K. Morris, d. b. a. N. K. Morris Mfg. Company. SN 684,862. Pub. 11–27–56. Filed 4–4–55.

641,359. OR. Owen-Richards Company, Inc. SN 693,563. Pub. 11–27–56. Filed 8–23–55.

641,360. HRS & CO. AND DESIGN. Henry Rogers Sons & Co., Ltd. SN 695,183. Pub. 11–27–56. Filed 9–22–55.

641,361. FB AND DESIGN. Felix Böttcher. SN 695,800. Pub. 11–27–56. Filed 10–4–55.

641,362. TORQ-AIR-MATIC. Thomas C. Wilson, Inc. SN 695,866. Pub. 9–18–56. Filed 10–4–55.

641,363. RAPIDORR. Dorr-Oliver Incorporated. SN 1,573. Pub. 11–27–56. Filed 1–27–56.

641,364. FRANCOTYP. Francotyp Gesellschaft m. b. H. SN 1,865. Pub. 11–27–56. Filed 2–1–56.

641,365. DYNASERT. United Shoe Machinery Corporation. SN 2,836. Pub. 11–27–56. Filed 2–16–56.

641,366. SESCO AND CIRCULAR DESIGN. Sesco, Inc. SN 6,472. Pub. 11–27–56. Filed 4–16–56.

641,367. SPINOFF AND DESIGN. Homeward Products, Inc. SN 7,090. Pub. 11–27–56. Filed 4–25–56.

641,368. KAR-GO. General Motors Corporation. SN 8,219. Pub. 11–27–56. Filed 5–14–56.

641,369. SLING-MOR. Latrobe Steel Company. SN 8,563. Pub. 11–27–56. Filed 5–18–56.

641,370. TRUE-TRACE AND DESIGN. True-Trace Corporation. SN 8,728. Pub. 11–27–56. Filed 5–21–56.

641,371. LOK-IT. Hugh E. Dierker. SN 8,838. Pub. 11–27–56. Filed 5–23–56.

641,372. PEDESTALEG. Royal McBee Corporation. SN 8,881. Pub. 11–27–56. Filed 5–23–56.

641,373. DESIGN OF OCTOPUS. Frank Sommer. SN 9,189. Pub. 11–27–56. Filed 5–28–56.

641,374. KUSH-GO E-Z WEEDER. Kush-Go Co. SN 9,365. Pub. 11–27–56. Filed 5–31–56.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

641,375. G-V. G-V Controls Inc. SN 682,728. Pub. 11–27–56. Filed 3–3–55.

641,376. SIGNA-GLOW. Industrial Development Laboratories, Inc. SN 5,728. Pub. 11–27–56. Filed 4–3–56.

641,377. RAYDYNE. Raydyne Corporation. SN 5,942. Pub. 11–27–56. Filed 4–6–56.

CLASS 28

JEWELRY AND PRECIOUS-METAL WARE

641,378. MARVELLA. Marvella Pearls, Inc. SN 3,421. Pub. 11–27–56. Filed 2–27–56.

641,379. SANTA'S WORKSHOP. Santa's Workshop, Inc. SN 9,594. Pub. 11–27–56. Filed 6–4–56.

CLASS 29

BROOMS, BRUSHES, AND DUSTERS

641,380. ATOMCOLLO. American Collo Corporation. SN 698,117. Pub. 11–27–56. Filed 11–14–55.

641,381. LOOFA-FOAM. Terry Foam Incorporated. SN 8,037. Pub. 11–27–56. Filed 5–9–56.

CLASS 30

CROCKERY, EARTHENWARE, AND PORCELAIN

641,382. SANTA'S WORKSHOP. Santa's Workshop, Inc. SN 9,673. Pub. 11–27–56. Filed 6–5–56.

CLASS 32

FURNITURE AND UPHOLSTERY

641,383. TRAVEL HEIR AND DESIGN. Kolcraft Products, Inc. SN 12,199. Pub. 11–27–56. Filed 7–16–56.

CLASS 33

GLASSWARE

641,384. SANTA'S WORKSHOP. Santa's Workshop, Inc. SN 9,815. Pub. 11–27–56. Filed 6–7–56.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

641,385. AMAZON. Mustee Heater Company, d. b. a. Amazon Heater Company. SN 694,734. Pub. 11–27–56. Filed 9–15–55.

641,386. C AND DESIGN OF GROTESQUE BIRD. Frank R. Cook Co., d. b. a. Hart Machine & Mfg. Co. SN 7,768. Pub. 11–27–56. Filed 5–7–56.

CLASS 35

BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

641,387. GULF. Gulf Oil Corporation. SN 690,463. Pub. 11–27–56. Filed 6–29–55.

641,388. WET-GRIP. Charles T. Fuetterer. SN 1,230. Pub. 11–27–56. Filed 1–23–56.

641,389. MIRAFLEX. The Flexible Tubing Corporation. SN 4,435. Pub. 11–27–56. Filed 3–13–56.

641,390. REDI GRIP. United Co-Operatives, Inc. SN 6,202. Pub. 11–27–56. Filed 4–11–56.

CLASS 36

MUSICAL INSTRUMENTS AND SUPPLIES

641,391. ORGANOTE AND DESIGN. Clarence R. Swanson, d. b. a. Organote Co. SN 687,646. Pub. 11–27–56. Filed 5–16–55.

641,392. DUAL. Gebrüder Steidinger, Kommanditgesellschaft. SN 691,719. Pub. 11–27–56. Filed 7–21–55.

641,393. SONORAMA. M. Hohner, Inc. SN 3,858. Pub. 11–27–56. Filed 3–5–56.

641,394. PIROLA. M. Hohner, Inc. SN 10,882. Pub. 11–27–56. Filed 6–25–56.

641,395. ATLANTA. M. Hohner, Inc. SN 10,883. Pub. 11–27–56. Filed 6–25–56.

641,396. RAMA. Rama Records, Inc. SN 10,912. Pub. 11–27–56. Filed 6–25–56.

641,397. TICO AND DESIGN. Tico Recording Co., Inc. SN 10,946. Pub. 11–27–56. Filed 6–25–56.

641,398. CONTESSA. M. Hohner, Inc. SN 11,077. Pub. 11–27–56. Filed 6–27–56.

641,399. ARIETTA. M. Hohner, Inc. SN 11,078. Pub. 11–27–56. Filed 6–27–56.

641,400. OUVERTURE. M. Hohner, Inc. SN 11,079. Pub. 11–27–56. Filed 6–27–56.

641,401. EDUCATOR. M. Hohner, Inc. SN 11,080. Pub. 11–27–56. Filed 6–27–56.

CLASS 37

PAPER AND STATIONERY

641,402. DURO. Sonoco Products Company. SN 7,703. Pub. 11–27–56. Filed 5–4–56.

641,403. "MATCH-MATE." Norcross, Inc. SN 8,015. Pub. 11–27–56. Filed 5–9–56.

CLASS 38

PRINTS AND PUBLICATIONS

641,404. I. I. I. INTERNATIONAL IMPORT INDEX ETC. John E. Felber, d. b. a. Printing Consultants. SN 976. Pub. 11–27–56. Filed 1–18–56.

641,405. "SHOOTIN' THE FREEZE" AND DESIGN. Excelsior Quick Frosted Meat Products, Inc. SN 1,581. Pub. 11–27–56. Filed 1–27–56.

641,406. NATION OF CELESTIAL SPACE - CELESTIA - ETC. AND DESIGN. James T. Mangan. SN 2,710. Pub. 11–27–56. Filed 2–15–56.

641,407. SUPER VALU AND DESIGN. Super Valu Stores, Inc. SN 2,931. Pub. 11–27–56. Filed 2–17–56.

641,408. NEW HORIZONS IN FOOD SERVICE. W. H. Frick, Inc. SN 5,190. Pub. 11–27–56. Filed 3–26–56.

641,409. DELL FIRST EDITION. Dell Publishing Company, Inc. SN 6,597. Pub. 11–27–56. Filed 4–18–56.

641,410. MARVELOUS MIKE. United Feature Syndicate, Inc. SN 9,206. Pub. 11–27–56. Filed 5–28–56.

641,411. ORDNANCE. American Ordnance Association. SN 9,422. Pub. 11–27–56. Filed 6–1–56.

641,412. DUROPRINT. Duroprint Company. SN 9,630. Pub. 11–27–56. Filed 6–5–56.

641,413. THERIMAGE. Dennison Manufacturing Company. SN 9,702. Pub. 11–27–56. Filed 6–6–56.

641,414. INSIDER. A. C. Nielsen Company. SN 10,009. Pub. 11–27–56. Filed 6–11–56.

641,415. WATER WORKS ENGINEERING. The Reuben H. Donnelley Corporation. SN 10,143. Pub. 11–27–56. Filed 6–13–56.

641,416. FIRE ENGINEERING. The Reuben H. Donnelley Corporation. SN 10,144. Pub. 11–27–56. Filed 6–13–56.

641,417. ELECTRICITY ON THE FARM MAGAZINE AND DESIGN. The Reuben H. Donnelley Corporation. SN 10,145. Pub. 11–27–56. Filed 6–13–56.

641,418. STORY-TOLD FILMS. Al Kane Productions, Inc., d. b. a. Al Kane Productions Incorporated. SN 10,176. Pub. 11–27–56. Filed 6–13–56.

641,419. WASTES ENGINEERING. The Reuben H. Donnelley Corporation. SN 10,220. Pub. 11–27–56. Filed 6–14–56.

641,420. CHEMICAL WEEK. McGraw-Hill Publishing Company, Inc. SN 10,444. Pub. 11–27–56. Filed 6–18–56.

641,421. DESIGN OF CHEVRON. Standard Oil Company of California. SN 11,454. Pub. 11–6–56. Filed 7–13–56.

CLASS 39

CLOTHING

641,422. CELEBRITY SPORTSWEAR. Palm Beach Company. SN 688,072. Pub. 11–27–56. Filed 5–23–55.

641,423. "RALEIGH." Raleigh Haberdasher, Inc. SN 692,545. Pub. 11–27–56. Filed 8–5–55.

641,424. KINGLY. P. D. Murphy Company, Incorporated. SN 698,629. Pub. 11–27–56. Filed 11–21–55.

641,425. LUSTRE GLO. Newman and Neugass Inc. SN 688. Pub. 11–27–56. Filed 1–13–56.

641,426. WRIGHT. Langenberg Hat Company. SN 4,028. Pub. 11–27–56. Filed 3–7–56.

641,427. ALADDIN. A. Davis & Sons, Inc. SN 5,600. Pub. 11–27–56. Filed 4–2–56.

641,428. GLAMA-FELT. A. Davis & Sons, Inc. SN 5,601. Pub. 11–27–56. Filed 4–2–56.

641,429. LONGWOOD. Morris B. Sachs, Inc. SN 6,290. Pub. 11–27–56. Filed 4–12–56.

641,430. ARCHER. Cluett, Peabody & Co., Inc. SN 7,162. Pub. 11–27–56. Filed 4–26–56.

641,431. DEVON. Cluett, Peabody & Co., Inc. SN 7,164. Pub. 11–27–56. Filed 4–26–56.

641,432. DRAKE. Cluett, Peabody & Co., Inc. SN 7,166. Pub. 11–27–56. Filed 4–26–56.

641,433. BIB'N TUCKER. Jack and Jill Togs, Inc. SN 8,334. Pub. 11–27–56. Filed 5–15–56.

641,434. RAGBAK. Lebow Bros., Inc. SN 8,488. Pub. 11–27–56. Filed 5–17–56.

641,435. DEVONSHIRE. Stern, Merritt Co., Inc. SN 8,514. Pub. 11–27–56. Filed 5–17–56.

641,436. FURIGINELA. Furiginals, Ltd. SN 8,543. Pub. 11–27–56. Filed 5–18–56.

641,437. DUBS. M. Hoffman & Company, Inc. SN 8,552. Pub. 11–27–56. Filed 5–18–56.

641,438. LAMORA. Catalina, Inc. SN 8,626. Pub. 11–27–56. Filed 5–21–56.

641,439. LUVISCA. Courtaulds Limited. SN 8,930. Pub. 11–27–56. Filed 5–24–56.

641,440. SPAR. Cluett, Peabody & Co., Inc. SN 9,092. Pub. 11–27–56. Filed 5–28–56.

641,441. MATADOR. Cluett, Peabody & Co., Inc. SN 9,098. Pub. 11–27–56. Filed 5–28–56.

641,442. FASHION PICTURE. Chester H. Roth Co., Inc. SN 9,592. Pub. 11–27–56. Filed 6–4–56.

641,443. SUGARFOOTS. Sbicca of California. SN 9,816. Pub. 11–27–56. Filed 6–7–56.

641,444. LITTLE X. Peter Pan Foundations, Inc. SN 10,017. Pub. 11–6–56. Filed 6–11–56.

641,445. BELLISSIMA. Wispese Corporation. SN 10,051. Pub. 11–27–56. Filed 6–11–56.

641,446. ALL TIME. I. C. Isaacs & Company, Inc. SN 10,783. Pub. 11–27–56. Filed 6–22–56.

641,447. GLAMOUR GAMS. Haymaker Sports, Inc. SN 10,879. Pub. 11–27–56. Filed 6–25–56.

641,448. NARROWETTE. Diana Corset Co., Inc. SN 10,987. Pub. 11–27–56. Filed 6–26–56.

641,449. KASHMALON. Rojay Blouses, Inc. SN 11,190. Pub. 11–27–56. Filed 6–28–56.

641,450. MOR-LIN. Morgan & Lindsey, Inc. SN 11,280. Pub. 11–27–56. Filed 6–29–56.

641,451. TWIN-WEAR. Vanette Hosiery Mills. SN 12,686. Pub. 11–27–56. Filed 7–23–56.

641,452. PRECIOUS. Ed White Junior Shoe Co. SN 13,109. Pub. 11–27–56. Filed 7–30–56.

641,453. DATES 'N DEBS. Ed White Junior Shoe Co. SN 13,111. Pub. 11–27–56. Filed 7–30–56.

641,454. LUCKIES AND DESIGN. Ed White Junior Shoe Co. SN 13,112. Pub. 11–27–56. Filed 7–30–56.

641,455. STRETCH MATES. Arnold Shoe Products Company, Inc. SN 13,133. Pub. 11–27–56. Filed 7–31–56.

641,456. YOGI. Benjamin R. Percin. SN 13,171. Pub. 11–27–56. Filed 7–31–56.

CLASS 40

FANCY GOODS, FURNISHINGS, AND NOTIONS

641,457. RIVIERA. Riviera Trading Corp. SN 1,172. Pub. 11–27–56. Filed 1–20–56.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

641,458. ROMANO. Gregge & Levine, Inc. SN 1,584. Pub. 11–27–56. Filed 1–27–56.

641,459. KINGSTON AND DESIGN. Kingston Mills, Inc. SN 8,561. Pub. 11–27–56. Filed 5–18–56.

641,460. "NANCY HART." Anchor Rome Mills, Inc. SN 8,611. Pub. 11–27–56. Filed 5–21–56.

641,461. DURUG. Duracote Corporation. SN 8,640. Pub. 11–27–56. Filed 5–21–56.

641,462. ROYAL BATISTE. Susan Thomas. SN 9,505. Pub. 11–27–56. Filed 6–1–56.

641,463. HAIRLON. Herbert Schlanger, d. b. a. The Herbert Schlanger Co. SN 10,026. Pub. 11–27–56. Filed 6–11–56.

641,464. LUSTERBAND. D. B. Fuller & Co., Inc. SN 10,995. Pub. 11–27–56. Filed 6–26–56.

641,465. SUMMERLON. North Star Woolen Mill Company. SN 11,030. Pub. 11–27–56. Filed 6–26–56.

641,466. KAILANI. D. B. Fuller & Co., Inc. SN 11,360. Pub. 11–27–56. Filed 7–2–56.

641,467. PAPRIKA. D. B. Fuller & Co., Inc. SN 11,361. Pub. 11–27–56. Filed 7–2–56.

641,468. ROYALON. I. C. Isaacs & Co., Inc. SN 11,486. Pub. 11–27–56. Filed 7–3–56.

641,469. CHLOROPHOBIC. Joseph Bancroft & Sons Co. SN 11,530. Pub. 11–27–56. Filed 7–5–56.

641,470. DOELAV AND DESIGN. Double Woven Corporation of America. SN 11,750. Pub. 11–27–56. Filed 7–9–56.

641,471. PICNIC. D. B. Fuller & Co., Inc. SN 11,757. Pub. 11–27–56. Filed 7–9–56.

CLASS 43

THREAD AND YARN

641,472. BALTIC. The American Thread Company. SN 13,634. Pub. 11–27–56. Filed 8–9–56.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

641,473. APPLI-CURL. Dorothy M. Metscher. SN 8,682. Pub. 11–27–56. Filed 5–21–56.

641,474. AMBUL-AID. James P. Callahan. SN 8,742. Pub. 11–27–56. Filed 5–22–56.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

641,475. REPRESENTATION OF A GROTESQUE FIGURE HOLDING CUP. Gold Prize Coffee Co., Inc. SN 666,891. Pub. 11–27–56. Filed 4–27–54.

641,476. SIRIUS AND DESIGN. Andelsselskabet Odense Eksportslagteri. SN 676,026. Pub. 11–27–56. Filed 10–25–54.

641,477. JUPITER AND DESIGN. Andelsselskabet Odense Eksportslagteri. SN 676,027. Pub. 11–27–56. Filed 10–25–54.

641,478. ROYAL DANE AND DESIGN. Holstebro Svineslagteri A/S. SN 678,455. Pub. 10–23–56. Filed 12–16–54.

641,479. MRS. BEEN'S HOT SAUCE AND DESIGN. Mrs. N. L. Been. SN 694,041. Pub. 11–27–56. Filed 9–1–55.

641,480. OLD-DUTCH. G. P. Gundlach & Co., Inc. SN 696,884. Pub. 11–27–56. Filed 10–21–55.

641,481. DOWN-EAST. G. P. Gundlach & Co., Inc. SN 696,885. Pub. 11–27–56. Filed 10–21–55.

641,482. PAISLEY'S. S. C. Clayton Co., Inc. SN 697,533. Pub. 11–27–56. Filed 11–2–55.

641,483. SETAYS. Marshall Field & Company. SN 698,696. Pub. 11–27–56. Filed 11–22–55.

641,484. DESIGN OF CHEF AND CAKE. Fount-Wip, Inc. SN 699,219. Pub. 11–27–56. Filed 12–1–55.

641,485. FLAVORSTAT. Flavor Corporation of America. SN 699,790. Pub. 11–27–56. Filed 12–12–55.

641,486. ROUND THE CLOCK AND DESIGN. Emmental Cheese Corporation. SN 700,149. Pub. 11–27–56. Filed 11–17–55.

641,487. CHATHAM ETC. AND DESIGN. The Siler City Mills, Inc. SN 700,820. Pub. 11–27–56. Filed 12–29–55.

641,488. LIQUASMOKE. Meat Industry Suppliers, Inc. SN 259. Pub. 11–27–56. Filed 1–6–56.

641,489. POWER. J. & A. Farms. SN 336. Pub. 11–27–56. Filed 1–9–56.

641,490. VOLUME. J. & A. Farms. SN 337. Pub. 11–27–56. Filed 1–9–56.

641,491. MILNOT. Milnot Company. SN 352. Pub. 11–27–56. Filed 1–9–56.

641,492. SOMERSET AND DESIGN. Safeway Stores, Incorporated. SN 834. Pub. 11–27–56. Filed 1–16–56.

641,493. NIF-TY. D. F. Stauffer Biscuit Company, Inc. SN 1,400. Pub. 11–27–56. Filed 1–24–56.

641,494. MOTHER'S AND DESIGN. Mother's Food Products, Inc. SN 2,242. Pub. 11–27–56. Filed 2–7–56.

641,495. PINE MOUNTAIN. The Gardens Industries, Inc. SN 3,671. Pub. 11–27–56. Filed 3–1–56.

641,496. TOLIBIA. Tolibia Cheese Manufacturing Corporation. SN 3,720. Pub. 11–27–56. Filed 3–1–56.

641,497. VELVET. International Milling Company. SN 4,643. Pub. 11–27–56. Filed 3–15–56.

641,498. CANTERBURY. Brown & Haley. SN 5,820. Pub. 11–27–56. Filed 4–5–56.

641,499. MOUNTAIN. Brown & Haley. SN 5,821. Pub. 11–27–56. Filed 4–5–56.

641,500. WHITESIDE FARMS. Pharr Canning Co., Inc. SN 5,864. Pub. 11–27–56. Filed 4–5–56.

641,501. MAYVIAR. Aktiebolaget Sveriges Forenade Konservfabriker. SN 6,494. Pub. 11–27–56. Filed 4–17–56.

641,502. DWARFIES. Dwarfies Corporation. SN 6,600. Pub. 11–27–56. Filed 4–18–56.

641,503. SUNDAY DINNER. Schloss & Kahn Grocery Company. SN 6,642. Pub. 11–27–56. Filed 4–18–56.

641,504. THE GOLDEN PHEASANT. Gimbal Brothers. SN 6,718. Pub. 11–27–56. Filed 4–19–56.

641,505. REPRESENTATION OF A PHEASANT. Gimbal Brothers. SN 6,719. Pub. 11–27–56. Filed 4–19–56.

641,506. TAVERN. Armour and Company. SN 7,057. Pub. 11–27–56. Filed 4–25–56.

641,507. DELAWARE VALLEY. New Standard Baking Co., d. b. a. Delaware Valley Cake Co. SN 7,453. Pub. 11–27–56. Filed 5–1–56.

641,508. MIRAMAR. Santa Barbara Coastal Lemon Co. SN 7,632. Pub. 11–27–56. Filed 5–3–56.

641,509. HOSPITALITY HOUSE. Standard Brands Incorporated. SN 7,641. Pub. 11–27–56. Filed 5–3–56.

641,510. FINESSE. Anderson, Clayton & Co. SN 7,730. Pub. 11–27–56. Filed 5–7–56.

CLASS 47

WINES

641,511. PINK ELEPHANT AND DESIGN. Fromm and Sichel, Inc. SN 684,937. Pub. 11–27–56. Filed 4–5–55.

641,512. LAS TORRES AND DESIGN. Miguel Torres. SN 699,017. Pub. 11–27–56. Filed 11–28–55.

641,513. CHARLES FOURNIER. Urbana Wine Company, Inc. SN 9,907. Pub. 11–27–56. Filed 6–8–56.

641,514. LITTLE CHAMP. De La Salle Institute, d. b. a. Mont La Salle Vineyards and The Christian Brothers of California. SN 10,218. Pub. 11–27–56. Filed 6–14–56.

CLASS 48

MALT BEVERAGES AND LIQUORS

641,515. KRUEGER AND DESIGN. G. Krueger Brewing Company. SN 9,275. Pub. 11–27–56. Filed 5–29–56.

641,516. BREWED FOR MODERN TASTE AND DESIGN. American Brewery, Inc. SN 9,925. Pub. 11–27–56. Filed 6–11–56.

641,517. AMERICAN AND DESIGN. American Brewery, Inc. SN 9,926. Pub. 11–27–56. Filed 6–11–56.

641,518. AMERICAN AND DESIGN OF EAGLE. American Brewery, Inc. SN 9,927. Pub. 11–27–56. Filed 6–11–56.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

641,519. OLD GOVERNOR. Zalie Levin and Alex E. Hochman. SN 3,261. Pub. 11–27–56. Filed 3–19–56.

641,520. VICTORY V AND DESIGN. Standard Distillers Products, Inc. SN 13,180. Pub. 11–27–56. Filed 7–31–56.

641,521. BLUE DIAMOND. J. A. Dougherty's Sons Inc. Distillers. SN 13,743. Pub. 11–27–56. Filed 8–10–56.

641,522. SR. Schenley Industries, Inc. SN 13,783. Pub. 11–27–56. Filed 8–10–56.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

641,523. JET ACTION BONDO AND DESIGN. Jaycee Chemical Corporation. SN 7,018. Pub. 11–27–56. Filed 4–24–56.

641,524. DECRA-BRITE. L. O. F Glass Fibers Company. SN 10,890. Pub. 11–27–56. Filed 6–25–56.

641,525. PRESFOAM. Scovill Manufacturing Company. SN 11,037. Pub. 11–27–56. Filed 6–26–56.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

641,526. LA-PLUS. Saint Cornelius the Centurion Chapel of Valley Forge Military Academy, to Lanolin Plus, Inc. SN 684,783. Pub. 11–27–56. Filed 4–20–55.

641,527. COLORTINT. The Nestle-Le Mur Company, d. b. a. Nestle Le Mur. SN 695,434. Pub. 11–27–56. Filed 9–27–55.

641,528. LIBRA. Constellaire, Inc., d. b. a. Constellaire. SN 700,370. Pub. 11–27–56. Filed 12–21–55.

641,529. FLORENCE BENSON. Erwin K. Weitz, d. b. a. Florence Benson Products. SN 1,135. Pub. 11–27–56. Filed 1–19–56.

641,530. SOLUCONE. Soluol Chemical Co., Inc. SN 2,315. Pub. 11–27–56. Filed 2–8–56.

641,531. CAPRICORN. Constellaire, Inc., d. b. a. Constellaire. SN 2,761. Pub. 11–27–56. Filed 2–16–56.

641,532. LEO. Constellaire, Inc., d. b. a. Constellaire. SN 2,762. Pub. 11–27–56. Filed 2–16–56.

641,533. AVONOL. Avon Products, Inc. SN 4,418. Pub. 11–27–56. Filed 3–13–56.

641,534. ARRID. Carter Products, Inc. SN 7,070. Pub. 11–27–56. Filed 4–25–56.

CLASS 52

DETERGENTS AND SOAPS

641,535. SWEEPING BEAUTY. J. W. Kelso, Jr., d. b. a. The Peerless Manufacturing Company. SN 683,401. Pub. 11–27–56. Filed 3–14–55.

641,536. DESIGN OF CHEVRON. Standard Oil Company of California. SN 11,451. Pub. 11–13–56. Filed 7–13–56.

Service Marks

CLASS 100

MISCELLANEOUS

641,537. WE CO AND DESIGN. Weinschel Engineering Co., Inc. SN 2,060. Pub. 11–27–56. Filed 2–3–56.

CLASS 101

ADVERTISING AND BUSINESS

641,538. INFORMATIVE RESEARCH. Informative Research. SN 665,915. Pub. 11–27–56. Filed 5–7–54.

641,539. HS AND DESIGN. Henry Strauss Productions, Inc. SN 695,656. Pub. 11–27–56. Filed 9–30–55.

641,540. NELCO. New Era Letter Company, Inc. SN 696,575. Pub. 11–27–56. Filed 10–17–55.

641,541. K-N- INC. AND DESIGN. Kresge-Newark, Inc. SN 700,735. Pub. 11–27–56. Filed 12–28–55.

CLASS 102

INSURANCE AND FINANCIAL

641,542. THE LIFETIME PLAN. Public Relations and Fund Raising Counsel Inc. SN 696,907. Pub. 11–27–56. Filed 10–21–55.

CLASS 103

CONSTRUCTION AND REPAIR

641,543. REPRESENTATION OF A TAILOR. Robert A. Parker, d. b. a. R. A. "Bob" Parker Lumber Company. SN 661,492. Pub. 11–27–56. Filed 2–23–54.

641,544. GLACO. Ekco Products Company. SN 3,164. Pub. 11–27–56. Filed 2–23–56.

CLASS 104

COMMUNICATION

641,545. INDEPENDENT AND DESIGN. United States Independent Telephone Association. SN 695,192. COLLECTIVE MARK. Pub. 11–27–56. Filed 9–22–55.

CLASS 105

TRANSPORTATION AND STORAGE

641,546. GATEWAY ETC. AND DESIGN. Gateway Transportation Co. SN 692,053. Pub. 11–27–56. Filed 7–28–55.

641,547. KLEEN-PACK. Allied Van Lines, Inc. SN 693,960. Pub. 11–27–56. Filed 8–31–55.

CLASS 106

MATERIAL TREATMENT

641,548. PERFO PRINT. The United Piece Dye Works. SN 3,251. Pub. 11–27–56. Filed 2–23–56.

CLASS 107

EDUCATION AND ENTERTAINMENT

641,549. SEARCH FOR BEAUTY. Charles Antell, Inc. SN 1,758. Pub. 11–27–56. Filed 1–31–56.

Collective Membership Marks

CLASS 200

641,550. DESIGN OF GREEK LETTERS—PI KAPPA ALPHA. The Pi Kappa Alpha Fraternity. SN 696,904. Pub. 11–27–56. Filed 10–21–55.

641,551. BY INVITATION MEMBER ETC. AND DESIGN. Rice Leaders of the World Association. SN 700,656. Pub. 11–27–56. Filed 12–27–55.

641,552. DESIGN OF EMBLEM. Phi Mu Fraternity. SN 1,266. Pub. 11–27–56. Filed 1–23–56.

Certification Mark

CLASS A

GOODS

641,553. OREGON-WASHINGTON-CALIFORNIA PEAR BUREAU ETC. AND DESIGN. Oregon-Washington-California Pear Bureau. SN 671,772. Pub. 11–27–56. Filed 8–16–54.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

641,554. Marcus Breier Sons, Inc., Amsterdam, N. Y. SN 685,453. Filed P. R. 4–13–55. Am. S. R. 10–22–56.

LAVA LEATHER

For Leather for Use in Men's, Women's, and Children's Jackets.
First use Dec. 15, 1954.

CLASS 8

SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS

641,555. New York Merchandise Co., Inc., New York, N. Y. SN 6,127. Filed P. R. 4–10–56. Am. S. R. 10–1–56.

WALES CHINA

The word "China" is disclaimed apart from the mark as shown.
For Ash Trays, Pipes, Pipe Racks, Cigarette Holders, Lighters, Cigarette Cases, and Cigarette Boxes.
First use Aug. 24, 1950.

CLASS 15

OILS AND GREASES

641,556. Victrylite Candle Company, Oshkosh, Wis. SN 13,104. Filed P. R. 7–30–56. Am. S. R. 11–1–56.

LIGHT YOUR EVENINGS WITH LOVELINESS

For Candles.
First use Oct. 1, 1953.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

641,557. Lou J. Eppinger Manufacturing Company, Detroit, Mich. SN 677,403. Filed P. R. 11–29–54. Am. S. R. 11–15–56.

Glo'in

For Artificial Fish Lures.
First use Aug. 8, 1954.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

641,558. Electronic Instrument Co., Inc., Brooklyn, N. Y. SN 13,032. Filed 7–30–56.

Uni-Probe

For A-C; D-C Ohm's Test Probe.
First use Apr. 7, 1954.

CLASS 32

FURNITURE AND UPHOLSTERY

641,559. Trendline Furniture Corporation, Kendallville, Ind. SN 9,308. Filed 5–29–56.

Trendline

For Upholstered Furniture—Namely, Sofas, Lounge Chairs, Platform Rockers, Sectional Sofas, and Sectional Chair Pieces With One Arm, Two Arms and No Arms.
First use Nov. 7, 1948.

CLASS 37

PAPER AND STATIONERY

641,560. Pope L. Moseley, Sylacauga, Ala. SN 680,010. Filed P. R. 1–17–55. Am. S. R. 5–11–56.

The Tax File

For Partially Printed Envelopes for the Retention of Business Records.
First use Dec. 21, 1954.

641,561. Micropoint Pen Company, Sunnyvale, Calif., to Micropoint, Incorporated, Sunnyvale, Calif. SN 691,063. Filed P. R. 7–11–55. Am. S. R. 11–19–56.

FILLS-ANY

For Ink Cartridges for Ball-Point Pens.
First use Aug. 23, 1954.

CLASS 38

PRINTS AND PUBLICATIONS

641,562. Hitchcock Publishing Company, Wheaton, Ill. SN 686,646. Filed P. R. 5–2–55. Am. S. R. 2–23–56.

Grinding and Abrasive

For Publication Published Quarterly.
First use Feb. 15, 1955.

641,563. Hitchcock Publishing Company, Wheaton, Ill. SN 686,650. Filed P. R. 5–2–55. Am. S. R. 2–24–56.

Abrasives

For Publication Published Quarterly.
First use Feb. 15, 1955.

641,564. Chester L. Krause, Iola, Wis. SN 9,274. Filed P. R. 5–29–56. Am. S. R. 11–27–56.

NUMISMATIC NEWS

For Periodic Publication.
First use Jan. 1, 1953.

CLASS 39

CLOTHING

641,565. Brae-Burn Hat Co. Inc., New York, N. Y. SN 688,615. Filed 5–23–55.

Yearounder

For Ladies' Hats.
First use Mar. 15, 1939.

641,566. A. Schreter & Sons, Inc., Baltimore, Md. SN 689,969. Filed P. R. 6–21–55. Am. S. R. 12–4–56.

CLIP-DOWN

For Men's Neckties.
First use June 6, 1955.

641,567. Vargish Knitwear Co., Union City, N. J., to J. C. Penney Company, New York, N. Y. SN 690,983. Filed P. R. 7–8–55. Am. S. R. 10–17–56.

Lam-Fur

For Sweaters.
First use June 20, 1955.

641,568. Trimble Hat Company, Minneapolis, Minn. SN 691,645. Filed P. R. 7–20–55. Am. S. R. 11–19–56.

Rosollino

For Hats.
First use on or about Mar. 15, 1955.

CLASS 40

FANCY GOODS, FURNISHINGS, AND NOTIONS

641,569. Rand Rubber Company, Inc., Brooklyn, N. Y. SN 13,606. Filed 8–8–56.

PINFAST

For Dress Shields.
First use in March 1938.

641,570. Needle Industries Limited, Birmingham, England. SN 15,387. Filed 9–10–56.

For Hand Sewing Needles.
First use Apr. 12, 1949; in commerce Apr. 12, 1949.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

641,571. John Agosta, d. b. a. Fontana D'Oro Oil Company, New York, N. Y. SN 1,828. Filed 2–1–56.

MODICA

For Olive Oils, Used for Cooking Purpose.
First use April 1953.

CLASS 47

WINES

641,572. Mother Goldstein Wine Company, d. b. a. Imperial Wine Co., Hartford, Conn. SN 13,771. Filed P. R. 8–10–56. Am. S. R. 11–23–56.

MOTHER GOLDSTEIN

For Wines.
First use Feb. 27, 1951.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

641,573. Millefiori Cucchi, Societa per Azioni, Milan, Italy. SN 657,445. Filed P. R. 12-4-53. Am. S. R. 5-3-56.

The drawing is lined for gold and red. Priority is claimed under Sec. 44(d) on Italian application filed Oct. 29, 1953; Reg. No. 120,494, dated Jan. 18, 1955.

For Hygienic Bitter Liquor Distilled From Medicinal Herbs.

641,574. G. F. Heublein & Bro. Incorporated, d. b. a. L. Relsky & Cie, Cockeysville, Md., now by change of name to Heublein, Inc. SN 672,513. Filed P. R. 8-31-54. Am. S. R. 4-28-55.

The World's Most Honored

VODKA

For Vodka.
First use Apr. 22, 1954.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

641,575. Louisville Ladder Company, Louisville, Ky. SN 686,667. Filed P. R. 5-2-55. Am. S. R. 11-19-56.

AMERICAN STANDARD

For Aluminum Extension Ladders, Aluminum Straight Ladders, Aluminum Swing Stages and Aluminum Scaffold Planks.
First use Mar. 24, 1955.

TRADEMARK REGISTRATIONS RENEWED

113,709. WAFOIDS. Cl. 18. 10-13-16.
113,796. REPETTI. Cl. 46. 10-31-16.
114,542. PENN LEATHER CO. AND DESIGN. Cl. 1. 12-19-16.
115,622. KELLOGG'S. Cl. 18. 2-27-17.
116,318. RED BAR. Cl. 46. 4-24-17.
116,319. TOMINI. Cl. 46. 4-24-17.
116,320. TUMA. Cl. 46. 4-24-17.
314,884. "ASCOT-KNITWEAR" AND DESIGN. Cl. 39. 7-10-34.
324,237. DIAMOND KNIT AND DESIGN. Cl. 39. 5-14-35.
337,243. RIBOLASTIC. Cl. 39. 8-4-36.
337,707. ZILFILEJAS AND DESIGN. Cl. 18. 8-18-36.
340,734. STURDY AND DESIGN. Cl. 46. 11-17-36.
340,885. AERISWELD. Cl. 14. 11-24-36.
341,119. DON "Q." Cl. 49. 12-1-36.
341,496. R D A. Cl. 6. 12-8-36.
341,503. R D A AND DESIGN. Cl. 6. 12-8-36.
341,775. SCARLET FLAME AND DESIGN. Cl. 1. 12-22-36.
341,907. VITUNG. Cl. 18. 12-29-36.
341,918. MINTONS. Cl. 30. 12-29-36.
341,967. THOROUGHBRED AND DESIGN. Cl. 18. 12-29-36.
342,219. CARON AND DESIGN. Cl. 52. 1-12-37.
342,244. BEAVER AND DESIGN. Cl. 4. 1-12-37.
342,245. UNIVERSAL AND DESIGN. Cl. 4. 1-12-37.
342,365. OPTIMATIC. Cl. 26. 1-12-37.
342,514. MENNEN AND DESIGN. Cl. 52. 1-19-37.
342,535. BLACK ONYX. Cl. 1. 1-19-37.
342,752. AUTOMOTIVE RETAILER. Cl. 38. 1-26-37.
342,875. ELEKTRIT. Cl. 4. 2-2-37.
342,888. REDDY KILOWATT ETC. AND DESIGN. Cl. 38. 2-2-37.
343,106. AM AND DESIGN. Cl. 23. 2-9-37.
343,198. BASS. Cl. 48. 2-9-37.
343,912. A M AND DESIGN. Cl. 6. 3-9-37.
344,441. AMOCO. Cl. 13. 3-23-37.
344,546. LUBREX. Cl. 6. 3-30-37.
344,657. WEST POINTER AND DESIGN. Cl. 27. 3-30-37.
344,857. HANDI-PEN. Cl. 37. 4-6-37.
345,003. VERI-BEST AND DESIGN. Cl. 29. 4-13-37.
345,096. DENTLOCK. Cl. 51. 4-13-37.
345,126. JET. Cl. 46. 4-13-37.
345,394. SHAMROCK. Cl. 39. 4-27-37.
345,411. HUMOCO-PAK AND DESIGN. Cl. 2. 4-27-37.
345,466. ROLLER DERBY. Cl. 22. 4-27-37.
345,523. KORN'S. Cl. 11. 4-27-37.
345,576. DURO. Cl. 23. 5-4-37.
345,577. DURO METAL PRODUCTS CO. AND DESIGN. Cl. 23. 5-4-37.
346,149. NOR-MOC. Cl. 39. 5-18-37.
346,222. PRIVATE CELLAR. Cl. 49. 5-18-37.
346,325. BEL-BEMBERG. Cl. 43. 5-25-37.
346,447. SWIMFAST. Cl. 39. 5-25-37.

TRADEMARK REGISTRATIONS CANCELED

Section 8

53,674. ACME. Cl. 12. 6-12-06.
124,394. KOHRS ETC. AND DESIGN. Cl. 46. 2-11-19.
126,709. I. O. A. DAINTY AND DESIGN. Cl. 46. 9-30-19.
202,889. SKP SPRING BROOK. Cl. 46. 9-8-25.
271,180. QUAKER SILVER AND DRAWING. Cl. 28. 5-27-30.
275,694. GULFSTEEL AND DESIGN. Cl. 13. 9-30-30.
289,577. THE POST-ENQUIRER OAKLAND AND DESIGN Cl. 38. 12-1-31.
317,372. CAMEO. Cl. 47. 9-25-34.
359,444. CARNATION. Cl. 49. 8-23-38.
359,652. CARNATION. Cl. 47. 8-30-38.
361,760. THOR. Cl. 24. 11-1-38.
394,460. BLU-BRITE MINED ZIRCONS K. Cl. 28. 4-7-42.
406,300. SWEET PICKIN'S. Cl. 46. 3-21-44.

The following registrations issued Dec. 19, 1950

534,847. EVERTALLS. Cl. 39.
534,857. TIRE-WITE AND DESIGN. Cl. 52.

534,859. RECTANGULAR LABEL WITH DESIGN. Cl. 46.
534,882. SYLVAN SILENT ALUMINUM AND DESIGN. Cl. 23.
534,886. LAVA-LAINE. Cl. 39.
534,887. MAR-KAY OF DALLAS. Cl. 39.
534,891. LUSTRO-MAT. Cl. 50.
534,895. ROLLGEAR. Cl. 12.
534,896. TOPDOG. Cl. 12.
534,901. JUNE PRESTON. Cl. 39.
534,903. PERMA-THRIFT. Cl. 31.
534,914. HI-PLANE. Cl. 39.
534,919. SABU AND DESIGN. Cl. 46.
534,936. INSUL-DUC. Cl. 12.
534,941. ARTLINE AND DESIGN. Cl. 11.
534,942. MERCURY THE HOUSEWIFE'S FRIEND AND DESIGN. Cl. 52.
534,946. AGCA. Cl. 46.
534,948. CHAMELEON. Cl. 42.
534,951. CUMMERSTOLE. Cl. 39.
534,956. DOUBLE HEADER AND DESIGN. Cl. 39.
534,958. CORNTAILS. Cl. 46.
534,960. METALLA. Cl. 42.
534,966. TWIST RAMBLE TWIST. Cl. 42.
534,967. GLUCALBOTT. Cl. 18.
534,968. TROPICAL ARTICLES AND DESIGN. Cl. 39.
534,972. T. M. DESIGN. Cl. 51.
534,974. SUPERTUMOLYSE. Cl. 18.
534,975. TUMOLYSE. Cl. 18.
534,982. CHIME. Cl. 52.
534,983. TAN-DOE. Cl. 42.
534,988. BUN-CRAFT. Cl. 46.
534,993. SIMPLEX. Cl. 23.
534,997. DEL ORA. Cl. 46.
534,998. WOODVILLE. Cl. 12.
535,001. MOMBO. Cl. 42.
535,005. TURNEROY. Cl. 42.
535,007. GEMAR IN OVAL DESIGN. Cl. 4.
535,009. OLATHE COWBOY. Cl. 39.
535,010. GROWER. Cl. 46.
535,013. VISCOLIZED. Cl. 39.
535,014. HEP. Cl. 46.
535,015. PEBEL. Cl. 52.
535,016. KEN. Cl. 1.
535,019. SOLAFLOR. Cl. 4.
535,029. MODERN AGE LIGHTWEIGHTS AND REPRESENTATION OF FEATHER. Cl. 39.
535,034. GLUV-GARD. Cl. 40.
535,036. SCHOONER. Cl. 39.
535,041. SATIN MATT. Cl. 12.
535,042. REPRESENTATION OF TWO WOMEN. Cl. 39.
535,045. REPRESENTATION OF THREE GIRLS. Cl. 39.
535,048. HALLDONETTES. Cl. 39.
535,053. T. M. DESIGN. Cl. 31.
535,055. MY-LUKS. Cl. 39.
535,059. PERMODO. Cl. 31.
535,062. FIDITTI. Cl. 39.
535,067. PATIO. Cl. 39.
535,068. VIENNETTES. Cl. 39.
535,070. MARCHANA. Cl. 42.
535,073. ORLACEL. Cl. 42.
535,074. ORLOFLEX. Cl. 42.
535,075. BONNARRAY. Cl. 39.
535,076. BRAEFAIR. Cl. 39.
535,081. TOUR WITH PURE. Cl. 103.
535,083. SUNDAY SUPPERTIME. Cl. 104.
535,085. TELEPIX. Cl. 104.
535,088. SME DESIGN. Cl. 101.
535,090. ELEC AND DESIGN. Cl. 100.
535,092. T. M. DESIGN. Cl. 18.
535,093. WARD'S AND DESIGN. Cl. 46.
535,096. YEAST-AYD. Cl. 46.
535,099. THE BUTTERER. Cl. 23.
535,105. BOSTROM. Cl. 23.
535,106. ALL-PROTECT AND DESIGN. Cl. 16.
535,107. GUARD Z OIL. Cl. 31.
535,108. COCAMALLOW AND DESIGN. Cl. 46.
535,109. SIZZLE SNACK AND DESIGN. Cl. 46.
535,110. COOK WATERPACK. Cl. 35.
535,112. BATT. Cl. 46.
535,113. MONTE CASSINO. Cl. 46.
535,114. KIRK'S TUMBLEBUG. Cl. 22.
535,116. BRAMBLCIDE. Cl. 6.
535,117. FIT-RITE. Cl. 19.
535,121. ELECTROCLENE. Cl. 24.
535,122. STRAIGHTLINE. Cl. 24.

The following registrations issued Dec. 26, 1950

535,124. ATOM AND DESIGN. Cl. 15.
535,125. FLEXITYP. Cl. 50.
535,126. DUC D'ORLEANS AND DESIGN. Cl. 46.
535,130. NORRIS ETC. AND DESIGN. Cl. 46.
535,131. COLDWELL. Cl. 45.
535,142. SILVER WHITE. Cl. 46.
535,145. WEAVES. Cl. 37.
535,147. TRU-FORM V AND DESIGN. Cl. 39.
535,149. E AND DESIGN. Cl. 23.
535,151. NIFTY. Cl. 13.
535,152. SKY ROOM. Cl. 45.
535,158. PENGUIN. Cl. 37.
535,160. DONALD DRAKE. Cl. 46.
535,173. FIRE-WAND. Cl. 23.
535,176. RED COACH. Cl. 49.
535,178. IRONBREW AND DESIGN. Cl. 45.
535,183. SOUTHERN DELIGHT. Cl. 45.
535,186. ZIPPO. Cl. 37.
535,189. HURLBUT PERMANENT LEDGER. Cl. 37.
535,194. TIMS E-Z LURE. Cl. 22.
535,197. MILK-O-MAT. Cl. 23.
535,207. LUCY LEE. Cl. 46.
535,214. FLYCASTER. Cl. 6.
535,215. SEABEE. Cl. 22.
535,216. PELICAN AND DESIGN. Cl. 9.
535,217. RED FOX AND DESIGN. Cl. 9.
535,223. BADGES OF THE BRAVE. Cl. 42.
535,225. TRIMZ. Cl. 42.
535,227. SHAV KING. Cl. 13.
535,230. INFLATO GIANT PLAYMATES. Cl. 22.
535,231. HECO. Cl. 21.
535,237. CUB. Cl. 10.
535,238. JUBILEE. Cl. 10.
535,240. SYMPHONY. Cl. 39.
535,243. WA-IT. Cl. 22.
535,248. LEWIS GOLF SHORT AND DESIGN. Cl. 39.
535,251. REELON. Cl. 22.
535,256. HARRIS ANTI JACK POT. Cl. 21.
535,261. AQUA-SONIC. Cl. 24.
535,262. PLEXTEL. Cl. 42.
535,265. NYLONBREEZE —WITH EASE—. Cl. 42.
535,266. NYLOAIRE. Cl. 42.
535,268. NYLONAIRE. Cl. 42.
535,273. TROY CRAFT AND DESIGN. Cl. 42.
535,277. DIZZY DOODLER. Cl. 22.
535,280. HY-G. Cl. 21.
535,285. WALLMASTER. Cl. 21.
535,286. SILVER STAR BRAND. Cl. 46.
535,291. HAMHURGER. Cl. 46.
535,292. CRACKER JACK. Cl. 22.
535,294. SWAG-ART. Cl. 13.
535,298. BROTHERHOOD. Cl. 47.
535,299. WIGWAM. Cl. 46.
535,301. SPAR. Cl. 8.
535,304. CHALET AND DESIGN. Cl. 27.
535,313. THE ABATOY. Cl. 22.
535,315. SOUTHERN CROSS. Cl. 18.
535,323. SHAGORA. Cl. 42.
535,327. BUDRELL. Cl. 46.
535,328. TUKETTE. Cl. 37.
535,329. G-50. Cl. 37.
535,330. LITTLE PROSPECTOR AND DESIGN. Cl. 46.
535,334. JEWELSTICK. Cl. 51.
535,335. BUBBULATED FAZT. Cl. 52.
535,339. GOLD CUP AND DESIGN. Cl. 28.
535,341. UTIL-TEE. Cl. 39.
535,352. FOUR SUIT AND DESIGN. Cl. 8.
535,353. PARKART. Cl. 22.
535,358. F. FARMCREST AND DESIGN. Cl. 23.
535,359. FOTOVUE. Cl. 37.
535,360. LITTLE JOE AND DESIGN. Cl. 46.
535,362. HANCO. Cl. 31.
535,363. JULCO. Cl. 21.
535,368. DOECHAM. Cl. 39.
535,371. REPRESENTATION OF BIG TOP TENT. Cl. 45.
535,372. MERRY-GO-BANK. Cl. 22.
535,375. MAM-ZELLE. Cl. 44.
535,376. KNIGHT'S COLLAR. Cl. 28.
535,382. FLOWERGRAM. Cl. 37.

535,385. POMFRET CLUE. Cl. 48.
535,386. FLUID SOUND. Cl. 21.
535,388. DIMPLETIE. Cl. 39.
535,389. SAVOIR-FAIRE. Cl. 39.
535,391. MYPAL. Cl. 18.
535,392. MY-PAL. Cl. 18.
535,393. FLEXALUM. Cl. 21.
535,395. STRAIN-O-KAP. Cl. 31.
535,403. ZERO-FLOW. Cl. 31.
535,405. DOUBLE EXPOSURE. Cl. 28.
535,407. NISBET BUG CATCHER IT PUTS THEM IN THE BAG AND DESIGN. Cl. 23.
535,409. "KEEP 'EM." Cl. 22.
535,411. HOLYROOD. Cl. 39.
535,414. "KA-LAP-SO." Cl. 8.
535,422. COOK'S. Cl. 48.
535,423. NORTHERN AND DESIGN. Cl. 37.
535,427. T. M. DESIGN. Cl. 37.
535,431. GLOBE. Cl. 31.
535,432. BEBOP. Cl. 47.
535,435. SHIMMER MIX. Cl. 37.
535,436. OSMITIP. Cl. 37.
535,452. T. M. DESIGN. Cl. 37.
535,455. HAMMOND. Cl. 27.
535,456. REEVES AND DESIGN. Cl. 42.
535,457. GIZMO. Cl. 23.
535,466. REPRESENTATION OF WOMAN AND CHILDREN. Cl. 102.
535,476. INGRAMS LONDON. Cl. 44.
535,477. QUALITY TESTED AND DESIGN. Cl. 52.
535,479. THEY'RE WELL WORN BUT THEY'VE WORN WELL. Cl. 4.
535,480. BLOK MESH. Cl. 12.
535,481. KOOL-TONE. Cl. 51.
535,483. BOSTROM WITH DESIGN. Cl. 19.
535,488. JACKSTACKER. Cl. 23.
535,489. SCHWERIN SYSTEM. Cl. 100.

TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

501,818. HYDRO-LAMINS. Cl. 6. 8–24–48. Kingsland-Ferguson, Inc. Walter Ratner, Chicago, Ill. Amended to appear:

HYDROLAMINS

507,057. PHENERGAN. Cl. 6. 2–22–49. Societe des Usines Chimiques Rhone-Poulenc. American Home Products Corporation, New York, N. Y. Amended: In line 7 of the statement, "of wounds" is deleted.

595,463. SUTCO. Cl. 21. 9–21–54. The O. A. Sutton Corporation, Inc., Wichita, Kans. Amended to appear:

Sutco

TRADEMARK REGISTRATIONS—NEW CERTIFICATES

New Certificates issued under sections 7(c), 7(f), 7(g) of the Trademark Act of 1946 for the unexpired term of the original registrations.

436,573. CAPETTE. Cl. 6. Wick & Fry, Inc. 2–10–48. New Cert. Sec. 7(c), to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., 2–12–57.

516,350. HUGHESNEWS. Cl. 38. Hughes Tool Company, doing business as Hughes Aircraft Company. 10–18–49. New Cert. Sec. 7(c), to Hughes Aircraft Company, Culver City, Calif., 2–12–57.

532,875. WIDGIT. Cl. 19. Beall Manufacturing Corporation. 10–31–50. New Cert. Sec. 7(c), to Charles T. Beall, doing business as Beall Manufacturing Company, Grand Rapids, Mich., 2–12–57.

553,399. G. A. 50. Cl. 52. The Martin Dennis Company, assignor, by mesne assignments, to John H. Nutting. 1–15–52. New Cert. Sec. 7(c), to The Lexol Corporation, Caldwell, N. J., 2–12–57.

601,081. PARKS & RECREATION. Cl. 38. William L. McCullough, doing business as Finch & McCullough. 1–18–53. New Cert. Sec. 7(c), to American Institute of Park Executives, Inc., Aurora, Ill., 2–12–57.

613,313. "PERSON TO PERSON PAGING." Cl. 104. Aircall, Inc. 9–27–55. New Cert. Sec. 7(c), to American Telephone and Telegraph Company, New York, N. Y., 2–12–57.

617,632. A 30 MILE EXTENSION OF YOUR TELEPHONE BELL. Cl. 104. Aircall, Inc. 12–13–55. New Cert. Sec. 7(c), to American Telephone and Telegraph Company, New York, N. Y., 2–12–57.

REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

CLASS 17

TOBACCO PRODUCTS

344,776. Apr. 6, 1937. Fernandez, Palicio y Compania, S. en C., Havana, Cuba. Pub. by F. Palicio y Compañia, S. A., Fábrica de Tabacos, Havana, Cuba.

MONTERREY

For Cigars.

CLASS 29

BROOMS, BRUSHES, AND DUSTERS

341,974. Dec. 29, 1936. Lockhart Manufacturing Company, Pittsburgh, Pa. Pub. by registrant.

WINNER

For Household Brooms and Mops.

341,975. Dec. 29, 1936. Lockhart Manufacturing Company, Pittsburgh, Pa. Pub. by registrant.

SUPER

For Household Brooms and Mops.

341,976. Dec. 29, 1936. Lockhart Manufacturing Company, Pittsburgh, Pa. Pub. by registrant.

PRIDE

For Household Brooms and Mops.

CLASS 39

CLOTHING

342,618. Jan. 19, 1937. G. Henry Stetson, San Fernando, Calif. Pub. by John B. Stetson Company, Philadelphia, Pa.

For Hats and Caps for Men and Women.

343,758. Mar. 2, 1937. Sox Miller, Inc., Philadelphia, Pa. Pub. by Sox Miller Co., Philadelphia, Pa.

CAMBRIDGE HALL CLOTHES

"Clothes" is disclaimed.
For Men's Coats, Trousers, Vests, and Overcoats.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

344,046. Mar. 9, 1937. I. B. Kleinert Rubber Company, New York, N. Y. Pub. by registrant.

Conforma

For Sanitary Belts.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

342,328. Jan. 12, 1937. The Rath Packing Company, Waterloo, Iowa. Pub. by registrant.

AQUILA D'ORO

For Dry Sausage.

342,409. Jan. 19, 1937. Robert C. Graham, d. b. a. Graham Farms, Washington, Ind. Pub. by Graham Brothers, Inc., Washington, Ind.

TRU-FRIEND

For Dog Food.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

341,330. Dec. 8, 1936. George Ballantine & Son, Limited, Glasgow, Scotland. Pub. by George Ballantine & Son, Limited, Dumbarton, Scotland.

Ballantine's

For Whisky.

Erratum

In the notice of republication under section 12(c) of the Trademark Act of 1946, of Registration No. 168,942, appearing in the OFFICIAL GAZETTE of Feb. 10, 1953, page 274, the drawing should have appeared as follows:

CLOSEKOTE

LIST OF REGISTRANTS OF TRADEMARKS

REGISTERED FEBRUARY 12, 1957

A & A Coal Co.: *See*—
Callbeck, Gordon.

Abbott Laboratories, North Chicago, Ill. 534,967, canc. Cl. 18.

Abbott Laboratories, North Chicago, Ill. 641,313, pub. 11–27–56. Cl. 18.

Acme Cement Plaster Co., St. Louis, Mo. 53,674, canc. Cl. 12.

Adam, Bob, d. b. a. Yeast-Ayd Feeds, formerly d. b. a. Yeast Feed Distributors, Sterling, Kans. 535,096, canc. Cl. 46.

Addressograph-Multigraph Corp., Cleveland, Ohio. 343,106, ren. 2–9–57. Cl. 23.

Addressograph-Multigraph Corp., Cleveland, Ohio. 343,912, ren. 3–9–57. Cl. 6.

Adler Sons Shoe Corp., New York, N. Y. 534,847, canc. Cl. 39.

Agosta, John, d. b. a. Fontana D'Oro Oil Co., New York, N. Y. 641,571. Cl. 46.

Aircall, Inc., to American Telephone and Telegraph Co., New York, N. Y. 613,313, new cert. Cl. 104.

Aircall, Inc., to American Telephone and Telegraph Co., New York, N. Y. 617,632, new cert. Cl. 104.

Ajax Hardware Mfg. Corp., Los Angeles, Calif. 641,262, pub. 11–27–56. Cl. 13.

Aktiebolaget Sveriges Forenade Konservfabriker, Goteburg, Sweden. 641,501, pub. 11–27–56. Cl. 46.

Allied Van Lines, Inc., Broadview, Ill. 641,547, pub. 11–27–56. Cl. 105.

All-Protect Products Corp., New York, N. Y. 535,106, canc. Cl. 16.

Al-Vern Corp., Jerome, Mich. 435,243, canc. Cl. 22.

American Bemberg Corp., to Beaunit Mills, Inc., New York, N. Y. 346,325, ren. 5–25–57. Cl. 43.

American Binder Co., Inc., The, New York, N. Y. 535,359, canc. Cl. 37.

American Brewery, Inc., Baltimore, Md. 641,516–18, pub. 11–27–56. Cl. 48.

American Collo Corp., Ridgefield, N. J. 641,380, pub. 11–27–56. Cl. 29.

American Cyanamid Co., New York, N. Y. 641,228, pub. 11–27–56. Cl. 6.

American Gas and Electric Co., New York, N. Y. 535,090, canc. Cl. 100.

American Home Products Corp.: *See*—
International Vitamin Corp.
Societe des Usines Chimiques Rhone-Poulenc.

American Home Products Corp., d. b. a. Wyeth Laboratories Division of American Home Products Corp., New York, N. Y. 641,319, pub. 11–27–56. Cl. 18.

American Institute of Park Executives, Inc.: *See*—
McCullough, William L.

American Machine and Metals, Inc., New York, N. Y. 535,121, canc. Cl. 24.

American Oil Co., The, New York, N. Y. 344,441, ren. 3–23–57. Cl. 13.

American Ordnance Association, Washington, D. C. 641,411, pub. 11–27–56. Cl. 38.

American Telephone and Telegraph Co.: *See*—
Aircall, Inc.

American Thread Co., The, New York, N. Y. 641,472, pub. 11–27–56. Cl. 43.

Anchor Rome Mills, Inc., Rome, Ga. 641,460, pub. 11–27–56. Cl. 42.

Andelsselskabet Odense Eksportslagteri, Odense, Denmark. 641,476–7, pub. 11–27–56. Cl. 46.

Anderson, Clayton & Co., Sherman, Tex. 641,510, pub. 11–27–56. Cl. 46.

Antell, Charles, Inc., Baltimore, Md. 641,549, pub. 11–27–56. Cl. 107.

Anthony Growers Cooperative Association, Anthony, N. Mex. 534,946, canc. Cl. 46.

Apex Refrigerator Sales Corp., New York, N. Y. 535,362, canc. Cl. 31.

Arkansas Co., Inc., Newark, N. J. 641,226, pub. 11–27–56. Cl. 6.

Armour and Co., Chicago, Ill. 641,202–4, pub. 11–27–56. Cl. 1.

Armour and Co., Chicago, Ill. 641,506, pub. 11–27–56. Cl. 46.

Arnold Shoe Products Co., Inc., Boston, Mass. 641,455, pub. 11–27–56. Cl. 39.

Artcraft Awning Co., St. Louis, Mo. 641,251, pub. 11–27–56. Cl. 12.

Ascot Knitwear Co.: *See*—
Feld, Martin J.

Atkins & Durbrow, Inc., New York, N. Y. 535,237–8, canc. Cl. 10.

Automotive Retailer: *See*—
Automotive Retailer Publishing Corp.

Automotive Retailer Publishing Corp., New York, N. Y., to H. F. Ohmeis, d. b. a. Automotive Retailer, Morristown, N. J. 342,752, ren. 1–26–57. Cl. 38.

Avon Products, Inc., New York, N. Y. 641,533, pub. 11–27–56. Cl. 51.

Ballantine, George, & Son, Ltd., Glasgow, by George Ballantine & Son, Ltd., Dumbarton, Scotland. 341,330, 12(c) pub. 2–12–57. Cl. 49.

Bancroft & Sons Co., Wilmington, Del. 641,469, pub. 11–27–56. Cl. 42.

Barnebey-Cheney Co., The, Columbus, Ohio. 641,195, pub. 11–27–56. Cl. 1.

Barr Co., The, Washington, D. C. 535,262, canc. Cl. 42.

Bass, Ratcliff & Gretton, Ltd., Burton-on-Trent, England. 343,198, ren. 2–9–57. Cl. 48.

Battaglia, William, San Jose, Calif. 535,112, canc. Cl. 46.

Bay State Crabmeat Co., Boston, Mass. 535,286, canc. Cl. 46.

Beall, Charles T.: *See*—
Beall, Mfg. Corp.

Beall Mfg. Co.: *See*—
Beall Mfg. Corp.

Beall Mfg. Corp., to C. T. Beall, d. b. a. Beall Mfg. Co., Grand Rapids, Mich. 532,875, new cert. Cl. 19.

Beaunit Mills, Inc.: *See*—
American Bemberg Corp.

Beaver Toys, Inc., Beaver Falls, Pa. 641,352, pub. 11–27–56. Cl. 22.

Been, Mrs. N. L., Penvill, Tex. 641,479, pub. 11–27–56. Cl. 46.

Be-Ge Mfg. Co., Gilroy, Calif. 641,259, pub. 3–22–55. Cl. 13.

Bell-O-Matic Corp., Chicago, Ill. 641,341, pub. 11–27–56. Cl. 22.

Bellows, R. C., d. b. a. The Mineral Springs Bottling Co., Humboldt, Iowa. 535,435, canc. Cl. 37.

Benjamin Air Rifle Co., St. Louis, Mo. 641,237, pub. 11–27–56. Cl. 9.

Benson, Florence, Products: *See*—
Weitz, Erwin K.

Beverage Distributors, Inc., d. b. a. Marlboro Beverage Co., San Francisco, Calif. 535,152, canc. Cl. 45.

Big Top Beverages, Inc., Dallas, Tex. 535,371, canc. Cl. 45.

Binney & Smith Inc., New York, N. Y. 641,294, pub. 11–27–56. Cl. 16.

Blue Hill Candy Co., St. Louis, Mo. 535,108, canc. Cl. 46.

Bostrom Mfg. Co., Milwaukee, Wis. 535,105, canc. Cl. 23.

Bostrom Mfg. Co., Milwaukee, Wis. 535,483, canc. Cl. 19.

Botany Mills, Inc., Passaic, N. J. 535,070, canc. Cl. 42.

Bottcher, Felix, Koln-Braunsfeld, Germany. 641,361, pub. 11–27–56. Cl. 23.

Bozeman Canning Co., Mount Vernon, Wash. 406,300, canc. Cl. 46.

Brae-Burn Hat Co. Inc., New York, N. Y. 641,565. Cl. 39.

Breier, Marcus, Sons, Inc., Amsterdam, N. Y. 641,554. Cl. 1.

Bristol Laboratories Inc., New York, N. Y. 641,331, pub. 11–27–56. Cl. 18.

Brooks Paper Co., St. Louis, Mo. 535,125, canc. Cl. 50.

Brotherhood Corp., The, New York, N. Y. 535,298, canc. Cl. 47.

Brown & Haley, Tacoma, Wash. 641,498–9, pub. 11–27–56. Cl. 46.

Bruner-Ritter, Inc., New York, N. Y. 535,339, canc. Cl. 28.

Bryant Mfg. Co., Inc., Providence, R. I. 535,117, canc. Cl. 19.

Bumper Products, Inc., New York, N. Y. 534,956, canc. Cl. 39.

Büsing & Cie: *See*—
Büsing & Cie, G. m. b. H.

Büsing & Cie, G. m. b. H., Reutlingen, Wurtemberg, to Büsing & Cie, Wurtemberg, Germany. 337,243, ren. 8–4–56. Cl. 39.

Cabassa, Jose M. G.: *See*—
Cabassa, Luis G.

Cabassa, Luis G., Santurce, San Juan, to J. M. G. Cabassa, Hato Rey, Puerto Rico. 337,707, ren. 8–18–56. Cl. 18.

California Growers Wineries Inc., Fresno, Calif. 317,372, canc. Cl. 47.

California Growers Wineries, Inc., Fresno, Calif. 359,444, canc. Cl. 49.

California Growers Wineries, Inc., Fresno, Calif. 359,652, canc. Cl. 47.

Callahan, James P., Memphis, Tenn. 641,474, pub. 11–27–56. Cl. 44.

Callbeck, Gordon, d. b. a. A & A Coal Co., Denver, Colo. 641,238, pub. 11–27–56. Cl. 10.

Callot Soeurs of Paris, Inc., New York, N. Y. 535,042, canc. Cl. 39.

Capell, Richard L., d. b. a. Jatu-Mat Co., San Francisco, Calif. 641,334, pub. 11–27–56. Cl. 20.

Car Washing Supplies Co.: *See*—
Ingram, Doyle.

Carnegie, Hattie, Inc., New York, N. Y. 535,405, canc. Cl. 28.

Caron Corp.: *See*—
Daltroff, E., & Cie.

Carpenter Cook Co., Menominee, Mich. 535,299, canc. Cl. 46.

Carroll, William C., Jr., d. b. a. Craig Carroll Co., Portland, Oreg. 535,107, canc. Cl. 31.

Carter Products, Inc., New York, N. Y. 641,534, pub. 11–27–56. Cl. 51.

Carter-Waters Corp., The, Kansas City, Mo. 535,480, canc. Cl. 12.

Catalina, Inc., Los Angeles, Calif. 641,438, pub. 11–27–56. Cl. 39.

Cecil, Paul W., Oklahoma City, Okla. 534,936, canc. Cl. 12.

Central Commercial Co., Chicago, Ill. 641,255, pub. 11–27–56. Cl. 12.

Chalet Swiss Watch & Jewelry Co., New York, N. Y. 535,304, canc. Cl. 27.

Charatan, F., & Son Ltd., London, England. 641,236, pub. 11–27–56. Cl. 8.

Chime Cosmetics, Inc., New York, N. Y. 534,982, canc. Cl. 52.

Christian Brothers of California, The: *See*—
De La Salle Institute.
Church & Dwight Co., Inc., Syracuse, N. Y. 641,229, pub. 11–27–56. Cl. 6.
Clayton, S. C., Co., Inc., Boston, Mass. 641,482, pub. 11–27–56. Cl. 46.
Clean-Rite Vacuum Stores of Washington, Inc., Washington, D. C. 534,993, canc. Cl. 23.
Clergue-Parfumeur, Societe a Responsabilite Limitee, Paris, France. 534,972, canc. Cl. 51.
Cluett, Peabody & Co., Inc., Troy, N. Y. 641,430–2, pub. 11–27–56. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 641,440–1, pub. 11–27–56. Cl. 39.
Collins, Ashton B., Birmingham, Ala., to Reddy Kilowatt, Inc., New York, N. Y. 342,888, ren. 2–2–57. Cl. 38.
Commonwealth Shoe and Leather Co., Whitman, Mass. 346,149, ren. 5–18–57. Cl. 39.
Conceley, R. D., d. b. a. Man-O-War Remedy Co., Lima, Pa. 341,967, ren. 12–29–56. Cl. 18.
Consolidated Cosmetics, Chicago, Ill. 535,334, canc. Cl. 51.
Constellaire: *See*—
Constellaire, Inc.
Constellaire, Inc., d. b. a. Constellaire, Brooklyn, N. Y. 641,528, pub. 11–27–56. Cl. 51.
Constellaire, Inc., d. b. a. Constellaire, Brooklyn, N. Y. 641,531–2, pub. 11–27–56. Cl. 51.
Continental Soap Corp., Chicago, Ill. 535,335, canc. Cl. 52.
Cook, A. D., Inc., Lawrenceburg, Ind. 535,110, canc. Cl. 35.
Cook Electric Co., Chicago, Ill. 535,280, canc. Cl. 21.
Cook, F. W., Co., Inc., Evansville, Ind. 535,422, canc. Cl. 48.
Cook, Frank R., Co., d. b. a. Hart Machine & Mfg. Co., Denver, Colo. 641,386, pub. 11–27–56. Cl. 34.
Cooper, Abrahams S., New York, N. Y. 535,382, canc. Cl. 37.
Coopers, Inc., Kenosha, Wis. 535,341, canc. Cl. 39.
Corneli Seed Co., St. Louis, Mo. 641,201, pub. 11–27–56. Cl. 1.
Corntails Co., Inc., Alexandria, Va. 534,958, canc. Cl. 46.
Corson, Robert, West Collingswood, N. J. 641,343, pub. 11–27–56. Cl. 22.
Courtnulds Ltd., London, England. 641,439, pub. 11–27–56. Cl. 39.
Craig Carroll Co.: *See*—
Carroll, William C., Jr.
Crest Specialties, Chicago, Ill. 535,372, canc. Cl. 22.
Crosby Chemicals, Inc., De Ridder, La. 641,230, pub. 11–27–56. Cl. 6.
Curtis-Stephens-Embry Co., Inc., Reading, Pa. 535,029, canc. Cl. 39.
D W G Cigar Corp., Detroit, Mich. 641,297, pub. 11–27–56. Cl. 17.
Dallas Wholesale Co., Ltd., Selma, Ala. 534,914, canc. Cl. 39.
Dalmine S. p. A., Milan, Italy. 641,261, pub. 11–27–56. Cl. 13.
Daltroff, E., & Cie., d. b. a. Parfumerie Caron, to Caron Corp., Paris, France, to Caron Corp., New York, N. Y. 342,219, ren. 1–12–57. Cl. 52.
Davega City Radio, Inc., to Davega Stores Corp., New York, N. Y. 346,447, ren. 5–25–57. Cl. 39.
Davega Stores Corp.: *See*—
Davega-City Radio, Inc.
Davis, A., & Sons, Inc., New York, N. Y. 641,427–8, pub. 11–27–56. Cl. 39.
Davis, Joseph, Plastics Co., Arlington, N. J. 641,197, pub. 11–27–56. Cl. 1.
De La Salle Institute, d. b. a. Mont La Salle Vineyards and The Christian Brothers of California, Napa, Calif. 641,514, pub. 11–27–56. Cl. 47.
Delaware Valley Cake Co.: *See*—
New Standard Baking Co.
De Leon Laboratories, Inc., Atlanta, Ga. 641,306, pub. 5–8–56. Cl. 18.
Dell Publishing Co., Inc., New York, N. Y. 641,409, pub. 11–27–56. Cl. 38.
Dennison Mfg. Co., Framingham, Mass. 641,413, pub. 11–27–56. Cl. 38.
Destileria Serralles, Inc., to Destileria Serralles, Inc., Ponce, Puerto Rico. 341,119, ren. 12–1–56. Cl. 49.
Devolube Corp. of America, Los Angeles, Calif., to E. F. Savage. 641,272, pub. 11–27–56. Cl. 15.
Dewey and Almy Chemical Co., to W. R. Grace & Co., Cambridge, Mass. 341,496, ren. 12–8–56. Cl. 6.
Dewey and Almy Chemical Co., to W. R. Grace & Co., Cambridge, Mass. 341,503, ren. 12–8–56. Cl. 6.
Dexter Machine Products, Inc., Chelsea, Mich. 534,882, canc. Cl. 23.
Diamond Alkali Co., Cleveland, Ohio. 641,233, pub. 11–27–56. Cl. 6.
Diamond Knitting Mills: *See*—
Effenberg, Louis.
Diamond Knitting Mills, Inc.: *See*—
Effenberg, Louis.
Diamond Match Co., The, New York, N. Y. 535,427, canc. Cl. 37.
Diamond Match Co., The, New York, N. Y. 535,452, canc. Cl. 37.
Diana Corset Co., Inc., New York, N. Y. 641,448, pub. 11–27–56. Cl. 39.
Dierker, Hugh E., Los Angeles, Calif. 641,371, pub. 11–27–56. Cl. 23.
Dimple The Corp., New York, N. Y. 535,388, canc. Cl. 39.
Donald, C. B., Co., St. Paul, Minn. 641,348–50, pub. 11–27–56. Cl. 22.
Donnelley, Reuben H., Corp., The, Chicago, Ill. 641,415–19, pub. 11–27–56. Cl. 38.
Donovan Enterprises, Inc., Saugatuck, Conn. 535,036, canc. Cl. 39.
Door Oliver Inc., Stamford, Conn. 641,363, pub. 11–27–56. Cl. 23.
Double Woven Corp. of America, Dunmore, Pa. 641,470, pub. 11–27–56. Cl. 42.
Doughboy Industries, Inc., New Richmond, Wis. 535,230, canc. Cl. 22.
Dougherty's, J. A., Sons Inc. Distillers, Philadelphia, Pa. 641,521, pub. 11–27–56. Cl. 49.
Drake, L. F., Mercedes, Tex. 535,160, canc. Cl. 46.
Drug Laboratories, Inc.: *See*
United American Co.
Drug Products Co., Inc., The, Brooklyn, N. Y. 113,709, ren. 10–31–56. Cl. 18.
Du Benny Undergarment, Inc., New York, N. Y. 535,147, canc. Cl. 39.
Du Pont, E. I., de Nemours and Co.: *See*—
Rayflex Fabrics, Inc.
Duracote Corp., Ravenna, Ohio. 641,461, pub. 11–27–56. Cl. 42.
Duro Metal Products Co., Chicago, Ill. 345,576, ren. 5–4–57. Cl. 23.
Duro Metal Products Co., Chicago, Ill. 345,577, ren. 5–4–57. Cl. 23.
Duroprint Co., Rutherford, N. J. 641,412, pub. 11–27–56. Cl. 38.
Dwarfies Corp., Council Bluffs, Iowa. 641,502, pub. 11–27–56. Cl. 46.
Edlu Terrazo Designing Co., Chicago, Ill. 641,257, pub. 11–27–56. Cl. 12.
Effenberg, Louis, d. b. a. Diamond Knitting Mills, to Diamond Knitting Mills, Inc., Philadelphia, Pa. 324,237, ren. 5–14–55. Cl. 39.
Ekco Products Co., Chicago, Ill. 641,544, pub. 11–27–56. Cl. 103.
Electric Household Utilities Corp., Chicago, Ill. 361,760, canc. Cl. 24.
Electronic Instrument Co., Inc., Brooklyn, N. Y. 641,558. Cl. 26.
Emerson & Cuming, Inc., Canton, Mass. 641,209, pub. 11–27–56. Cl. 1.
Emmental Cheese Corp., New York, N. Y. 641,486, pub. 11–27–56. Cl. 46.
Emmons Loom Harness Co., Lawrence, Mass. 535,149, canc. Cl. 23.
Enloe, D. C., d. b. a. Whopper-Stopper Sporting Goods Co., Sherman, Tex. 641,342, pub. 11–27–56. Cl. 22.
Eppinger, Lou J., Mfg. Co., Detroit, Mich. 641,557. Cl. 22.
Esquire Chemical Co., Downers Grove, Ill. 641,225, pub. 11–27–56. Cl. 6.
Esso Standard Oil Co., New York, N. Y. 641,271, pub. 11–27–56. Cl. 15.
Evans Products Co., Plymouth, Mich. 641,249, pub. 11–27–56. Cl. 12.
Evergreen Hatchery Inc., Dysart, Iowa. 641,210, pub. 11–27–56. Cl. 1.
Excelsior Quick Frosted Meat Products, Inc., Long Island City, N. Y. 641,405, pub. 11–27–56. Cl. 38.
Felber, John E., d. b. a. Printing Consultants, Newark, N. J. 641,404, pub. 11–27–56. Cl. 38.
Feld, Martin J., Novelty Knitting Mills, Inc., also d. b. a. Ascot Knitwear Co., Philadelphia, Pa. 314,884, ren. 7–10–54. Cl. 39.
Fernandez, Palicio y Compania, S. en C. by F. Palicio y Compania, S. A., Fabricade Tabacos, Habana, Cuba. 344,776, 12(c) pub. 2–12–57. Cl. 17.
Field, Marshall, & Co., Chicago, Ill. 641,483, pub. 11–27–56. Cl. 46.
Finch & McCullough: *See*—
McCullough, William L.
First Texas Chemical Mfg. Co., Dallas, Tex. 641,323, pub. 11–27–56. Cl. 18.
Fishermen's Products Co.: *See*—
Keith, Walling.
Fixen, Martin O., d. b. a. Fixen Plastic Co., Minneapolis, Minn. 641,344, pub. 11–27–56. Cl. 22.
Fixen Plastic Co.: *See*—
Fixen, Martin O.
Flavor Corp. of America, Chicago, Ill. 641,485, pub. 11–27–56. Cl. 46.
Flavorex Co.: *See*—
Sachs, Harvey.
Flexible Tubing Corp., The, Guilford, Conn. 641,389, pub. 11–27–56. Cl. 35.
Flintkote Co., The, New York, N. Y. 641,259, pub. 11–27–56. Cl. 12.
Flintkote Co., The, New York, N. Y. 641,279, pub. 11–27–56. Cl. 16.
Foams, Inc., Port Washington, Wis. 641,219, pub. 11–27–56. Cl. 1.
Fontana D'Oro Oil Co.: *See*—
Agosta, John.
Fort Orange Chemical Co., Inc., Albany, N. Y. 345,096, ren. 4–13–57. Cl. 51.
Fount-Wip, Inc., Los Angeles, Calif. 641,484, pub. 11–27–56. Cl. 46.
Francotyp Gesellschaft m. b. H., Berlin-Reinickendorf, Germany. 641,364, pub. 11–27–56. Cl. 23.
Frick, W. H., Inc., Cleveland, Ohio. 641,408, pub. 11–27–56. Cl. 38.
Frieder, S., & Sons Co., The, Philadelphia, Pa. 641,296, pub. 11–27–56. Cl. 17.
Frigid Midget Corp., New York, N. Y. 535,053, canc. Cl. 31.
Fromm and Sichel, Inc., New York, N. Y. 641,511, pub. 11–27–56. Cl. 47.
Fuetterer, Charles T., Cuyahoga Falls, Ohio. 641,388, pub. 11–27–56. Cl. 35.
Fuller, D. B., & Co., Inc., New York, N. Y. 641,464, pub. 11–27–56. Cl. 42.
Fuller, D. B., & Co., Inc., New York, N. Y. 641,466–7, pub. 11–27–56. Cl. 42.

Fuller, D. B., & Co., Inc., New York, N. Y. 641,471, pub. 11–27–56. Cl. 42.
Furiginals, Ltd., New York, N. Y. 641,436, pub. 11–27–56. Cl. 39.
G. M. Co. Mfg. Inc., Long Island City, N. Y. 535,457, canc. Cl. 23.
G-V Controls Inc., East Orange, N. J. 641,375, pub. 11–27–56. Cl. 26.
Gamble-Skogmo, Inc., Minneapolis, Minn. 535,358, canc. Cl. 23.
Gardens Industries, Inc., The, Hamilton, Ga. 641,495, pub. 11–27–56. Cl. 46.
Gar-Mar Co., The, Dallas, Tex. 535,277, canc. Cl. 22.
Gateway Transportation Co., La Crosse, Wis. 641,546, pub. 11–27–56. Cl. 105.
General Mills, Inc., Minneapolis, Minn. 641,194, pub. 11–27–56. Cl. 1.
General Motors Corp., Detroit, Mich. 641,368–9, pub. 11–27–56. Cl. 23.
Gering Products, Inc., Kenilworth, N. J. 641,196, pub. 11–27–56. Cl. 1.
Gervasi, Pasquale, d. b. a. Gervasi's Pharmacy, Newark, N. J. 641,305, pub. 3–20–56. Cl. 18.
Gervasi's Pharmacy: *See*—
Gervasi, Pasquale.
Gibson, George M., Bellevue, Iowa. 535,261, canc. Cl. 24.
Gilmore & Nolan, Inc., Los Angeles, Calif. 641,290, pub. 11–27–56. Cl. 16.
Gimbal Brothers, South San Francisco, Calif. 641,504–5, pub. 11–27–56. Cl. 46.
Gladding, McBean & Co., Los Angeles, Calif. 641,248, pub. 11–27–56. Cl. 12.
Globe Milker Co., Des Moines, Iowa. 535,431, canc. Cl. 31.
Gluv-Gard Mfg. Co., New York, N. Y., to Gluv-Gard Mfg. Co., Inc. 535,034, canc. Cl. 40.
Gluv-Gard Mfg. Co., Inc.: *See*—
Gluv-Gard Mfg. Co.
Gold Prize Coffee Co., Inc., Chicago, Ill. 641,475, pub. 11–27–56. Cl. 46.
Golden State Co., Ltd., San Francisco, Calif. 535,330, canc. Cl. 46.
Gonzalez, Henry, d. b. a. Paulsom Candles, Woodhaven, N. Y. 535,291, canc. Cl. 46.
Gotham Knitting Mills, Inc., New York, N. Y. 534,886, canc. Cl. 39.
Grace, W. R., & Co.: *See*—
Dewey and Almy Chemical Co.
Grace, W. R., & Co., New York, N. Y. 641,211–15, pub. 11–27–56. Cl. 1.
Grace, W. R., & Co., New York, N. Y. 641,218, pub. 11–27–56. Cl. 1.
Grace, W. R., & Co., New York, N. Y. 641,240, pub. 11–27–56. Cl. 10.
Graham Brothers, Inc.: *See*—
Graham, Robert C.
Graham Farms: *See*
Graham, Robert C.
Graham, Robert C., d. b. a. Graham Farms, by Graham Brothers, Inc., Washington, Ind. 342,409, 12(c) pub. 2–12–57. Cl. 46.
Grainick and Sons Inc., Philadelphia, Pa. 641,222, pub. 11–27–56. Cl. 3.
Grant Pulley & Hardware Corp., Flushing, N. Y. 641,266, pub. 11–27–56. Cl. 13.
Gray Pharmaceutical Co., Inc., Newton, Mass. 641,317, pub. 11–27–56. Cl. 18.
Gregge & Levine, Inc., New York, N. Y. 641,458, pub. 11–27–56. Cl. 42.
Griffin and Busch, Mendota, Calif. 535,207, canc. Cl. 46.
Guidera, H. A., & Son, Shafter, Calif. 534,997, canc. Cl. 46.
Gulf Oil Corp., Pittsburgh, Pa. 641,269, pub. 11–27–56. Cl. 15.
Gulf Oil Corp., Pittsburgh, Pa. 641,387, pub. 11–27–56. Cl. 35.
Gulf States Steel Co., Birmingham, Ala. 275,694, canc. Cl. 13.
Gundlach, G. P., & Co., Inc., Cincinnati, Ohio. 641,480–1, pub. 11–27–56. Cl. 46.
Hale Laboratories, Bay City, Tex. 641,239, pub. 11–27–56. Cl. 10.
Haller Engineering & Mfg., Anoka, Minn. 641,268, pub. 11–27–56. Cl. 15.
Hammond Instrument Co., Chicago, Ill. 535,455, canc. Cl. 27.
Happy Hour Inc., St. Paul, Minn. 641,345, pub. 11–27–56. Cl. 22.
Hart Machine & Mfg. Co.: *See*—
Cook, Frank R., Co.
Hartmann Mfg. Co., Racine, Wis. 535,099, canc. Cl. 23.
Harwick, Curtis J., d. b. a. Standard Chemical Co., to Harwick Standard Chemical Co., Akron, Ohio. 344,546, ren. 3–30–57. Cl. 6.
Harwick Standard Chemical Co.: *See*—
Harwick, Curtis J.
Haymaker Sports, Inc., New York, N. Y. 641,447, pub. 11–27–56. Cl. 39.
Heide, Henry, Inc.: *See*—
Repetti.
Heinemann Electric Co., Trenton, N. J. 535,231, canc. Cl. 21.
Heublein, G. F., & Bro., Inc., d. b. a. L. Relsky & Cie, now by change of name to Heublein, Inc., Cockeysville, Md. 641,574. Cl. 49.
Heublein, Inc.: *See*—
Relsky, L., & Cie.
Hilvert, Fred G., Co., Inc., to Fred G. Hilvert Co., Inc., Distributors, Phoenix, Ariz. 345,126, ren. 4–13–57. Cl. 46.
Hilvert, Fred G., Co., Inc., Distributors: *See*—
Hilvert, Fred G., Co., Inc.
Hitchcock Publishing Co., Wheaton, Ill. 641,562–3. Cl. 38.
Hoffman, J. S., Co., Chicago, Ill. 116,318–20, ren. 4–24–57. Cl. 46.
Hoffman, M., & Co., Inc., Boston, Mass. 641,437, pub. 11–27–56. Cl. 39.
Hohner, M., Inc., New York, N. Y. 641,393–5, pub. 11–27–56. Cl. 36.
Hohner, M., Inc., New York, N. Y. 641,398–401, pub. 11–27–56. Cl. 36.
Hoke, Agnes P., Princeton, N. J. 641,192, pub. 11–27–56. Cl. 1.
Hollywood Shoe Polish, Inc., Richmond Hill, N. Y. 535,019, canc. Cl. 4.
Holstebro Svineslagteri A/S, Holstebro, Denmark. 641,478, pub. 10–23–56. Cl. 46.
Homeward Products, Inc., Des Moines, Iowa. 641,367, pub. 11–27–56. Cl. 23.
Hooper, Alfred, Dorset, Vt. 535,313, canc. Cl. 22.
Hubbard Milling Co., Mankato, Minn. 641,332, pub. 11–27–56. Cl. 18.
Hughes Aircraft Co.: *See*—
Hughes Tool Co.
Hughes Tool Co., d. b. a. Hughes Aircraft Co., to Hughes Aircraft Co., Culver City, Calif. 516,350, new cert. Cl. 38.
Humblet Laboratories Ltd., London, England. 534,974–5, canc. Cl. 18.
Humoco Corp., Louisville, Ky. 345,411, ren. 4–27–57. Cl. 2.
Hunter Douglas Corp., New York, N. Y. 535,393, canc. Cl. 21.
Hurlbut Paper Co., South Lee, Mass. 535,189, canc. Cl. 37.
Hyer, C. H., & Sons, Olathe, Kans. 535,009, canc. Cl. 39.
Imperial Wine Co.: *See*—
Mother Goldstein Wine Co.
Industrial Development Laboratories, Inc., Jersey City, N. J. 641,376, pub. 11–27–56. Cl. 26.
Informative Research, Los Angeles, Calif. 641,538, pub. 11–27–56. Cl. 101.
Ingram, Doyle, d. b. a. Car Washing Supplies Co., Chicago, Ill. 535,477, canc. Cl. 52.
Ingram, J. G., & Son Ltd., London, England. 535,476, canc. Cl. 44.
International Milling Co., Minneapolis, Minn. 641,497, pub. 11–27–56. Cl. 46.
International Minerals & Chemical Corp., Chicago, Ill. 641,245, pub. 11–27–56. Cl. 12.
International Vitamin Corp., New York, N. Y., to American Home Products Corp., d. b. a. Ives-Cameron Co., Division of American Home Products Corp., New York, N. Y., and Radnor, Pa. 341,907, ren. 12–29–56. Cl. 18.
Isaacs, I. C., & Co., Inc., Baltimore, Md. 641,446, pub. 11–27–56. Cl. 39.
Isaacs, I. C., & Co., Inc., Baltimore, Md. 641,468, pub. 11–27–56. Cl. 42.
Island Creek Coal Sales Co., Huntington, W. Va. 341,775, ren. 12–22–56. Cl. 1.
Island Creek Coal Sales Co., Huntington, W. Va. 342,535, ren. 1–19–57. Cl. 1.
Ives-Cameron Co. Division of American Home Products Corp.: *See*—
International Vitamin Corp.
Izsack, Madame Joseph, nee Simone Mevs, Port-au-Prince, Haiti. 534,968, canc. Cl. 39.
J. & A. Farms, Blythe, Calif. 641,489–90, pub. 11–27–56. Cl. 46.
Jack and Jill Togs, Inc., New York, N. Y. 641,433, pub. 11–27–56. Cl. 39.
Jata-Mat Co.: *See*—
Capell, Richard L.
Jaycee Chemical Corp., Northford, Conn. 641,523, pub. 11–27–56. Cl. 50.
Johnson Fare Box Co., Chicago, Ill. 535,256, canc. Cl. 21.
Jonquet, Albert, Millau (Aveyron), France. 535,368, canc. Cl. 39.
Juliana Export and Import Corp., New York, N. Y. 535,363, canc. Cl. 21.
Kabushiki Kaisha Tenshodo, Chuoku, Tokyo, Japan. 641,339, pub. 11–27–56. Cl. 22.
Kaukap, Inc., New York, N. Y. 535,122, canc. Cl. 24.
Kane, Al, Productions, Inc., d. b. a. Al Kane Productions Inc., Philadelphia, Pa. 641,418, pub. 11–27–56. Cl. 38.
Kaufmann Department Stores: *See*—
May Department Stores Co., The.
Kaylon Inc., New York, N. Y. 534,951, canc. Cl. 39.
Keith, Walling, d. b. a. Fishermen's Products Co., Birmingham, Ala., to Walling Keith Chemicals Inc. 641,356, pub. 11–27–56. Cl. 22.
Kellogg Co.: *See*—
Kellogg Toasted Corn Flake Co.
Kellogg Toasted Corn Flake Co., to Kellogg Co., Battle Creek, Mich. 115,622, ren. 2–27–57. Cl. 18.
Kelly, Henry, Importing & Distributing Co. Inc., New York, N. Y. 535,176, canc. Cl. 49.
Kelso, J. W., Jr., d. b. a. The Peerless Mfg. Co., Des Moines, Iowa. 641,535, pub. 11–27–56. Cl. 52.
Ken Corp., Temple City, Calif. 535,016, canc. Cl. 1.
Kimberly Gem Co., Inc., New York, N. Y. 394,460, canc. Cl. 28.
Kingsland-Ferguson, Inc. Walter Ratner, Chicago, Ill. 501,818, Am. 7(d). Cl. 6.
Kingston Mills, Inc., Catersville, Ga. 641,459, pub. 11–27–56. Cl. 42.
Kirk, C. D., Orlando, Fla. 535,114, canc. Cl. 22.
Kiwi Polish Co. Proprietary Ltd., The, Richmond, near Melbourne, Australia. 535,479, canc. Cl. 4.
Klebnert, I. B., Rubber Co., New York, N. Y. 344,046, 12(c) pub. 2–12–57. Cl. 44.
Klik Promotions, Inc., New York, N. Y. 535,414, canc. Cl. 8.
Kohrs Packing Co., Davenport, Iowa. 124,394, canc. Cl. 46.
Kohrs Packing Co., Davenport, Iowa. 126,709, canc. Cl. 46.
Kohrs Packing Co., Davenport, Iowa. 202,889, canc. Cl. 46.
Kolcraft Products, Inc., Chicago, Ill. 641,383, pub. 11–27–56. Cl. 32.

Kool Tone Mfg. Co.: *See*—
Rudinger, C. I.
Korn, Wm., Inc., New York, N. Y. 345,523, ren. 4–27–57. Cl. 11.
Korth-Jefferson, Inc., Jefferson, Wis. 535,055, canc. Cl. 39.
Krause, Chester L., Iola, Wis. 641,564. Cl. 38.
Kresge-Newark, Inc., Newark, N. J. 641,541, pub. 11–27–56. Cl. 101.
Krueger, G., Brewing Co., Newark, N. J. 641,515, pub. 11–27–56. Cl. 48.
Kuebler Brewing Co., Inc., Easton, Pa. 535,385, canc. Cl. 48.
Kush-Go Co., Dearborn, Mich. 641,374, pub. 11–27–56. Cl. 23.
L. O. F. Glass Fibers Co., Toledo, Ohio. 641,524, pub. 11–27–56. Cl. 50.
Landry, W. A.: *See*—
Landry, William A.
Landry, William A., d. b. a. W. A. Landry, New York, N. Y. 535,323, canc. Cl. 42.
Langenberg Hat Co., St. Louis, Mo. 641,426, pub. 11–27–56. Cl. 39.
Langley Corp., San Diego, Calif. 535,215, canc. Cl. 22.
Lanolin Plus, Inc.: *See*—
Saint Cornelius The Centurion Chapel of Valley Forge Military Academy.
Lantron, Egbert L., Mesa, Ariz. 535,124, canc. Cl. 15.
Lawrence Products Co., Inc., Attalla, Ala. 534,966, canc. Cl. 42.
Lebow Bros., Inc., Baltimore, Md. 641,434, pub. 11–27–56. Cl. 39.
Legge, Walter G., Co., Inc., New York, N. Y. 641,280, pub. 11–27–56. Cl. 16.
Lenzner, Sol, Corp., Buffalo, N. Y. 535,131, canc. Cl. 45.
Levin, Zalie, and Alex E. Hochman, Clayton, Mo. 641,519, pub. 11–27–56. Cl. 49.
Lewis Knitting Co., Janesville, Wis. 535,248, canc. Cl. 39.
Lewis-Shepard Products, Inc., Watertown, Mass. 535,488, canc. Cl. 23.
Lexol Corp., The: *See*—
Martin Dennis Co.
Liberty Frock Co., Inc., Kansas City, Mo. 535,045, canc. Cl. 39.
Lincoln Electric Co., The, Cleveland, Ohio. 340,885, ren. 11–24–56. Cl. 14.
Lincoln Fabrics Co., Inc., New York, N. Y. 534,960, canc. Cl. 42.
Lindberg Instrument Co., Berkeley, Calif. 535,386, canc. Cl. 21.
Lion Specialty Co., Chicago, Ill. 534,859, canc. Cl. 46.
Lockhart Mfg. Co., Pittsburgh, Pa. 341,974–6, 12(c) pub. 2–12–57. Cl. 29.
Lockhart Mfg. Co., Pittsburgh, Pa. 345,003, ren. 4–13–57. Cl. 29.
Los Angeles Soap Co., Los Angeles, Calif. 534,857, canc. Cl. 52.
Louisville Ladder Co., Louisville, Ky. 641,575. Cl. 50.
Love, William F., d. b. a. Mercury Chemical Co., Corona, N. Y. 534,942, canc. Cl. 52.
M & H Peat Humus Co.: *See*—
Mulford-Hickerson Peat Humus Corp.
M & N Cigar Manufacturers, Inc., Tampa, Fla. 641,298–304, pub. 11–27–56. Cl. 17.
M & R Dietetic Laboratories, Inc., Columbus, Ohio. 535,014. canc. Cl. 46.
M & S Doll Co., New York, N. Y. 641,346, pub. 11–27–56. Cl. 22.
MacLean-Fogg Lock Nut Co., Chicago, Ill. 641,260, pub. 11–27–56. Cl. 13.
Madera Bonded Wine and Liquor Co., The, d. b. a. Wine Associates, Baltimore, Md. 535,432, canc. Cl. 47.
Madison Pharmacal Co.: *See*—
Richason, T. F.
Magnus, Edward H., d. b. a. Henry Magnus, Chicago, Ill. 535,178, canc. Cl. 45.
Magnus, Henry: *See*—
Magnus, Edward H.
Mam-Zelle Corp., Gardena, Calif. 535,375, canc. Cl. 44.
Mangan, James T., Chicago, Ill. 641,406, pub. 11–27–56. Cl. 38.
Man-O-War Remedy Co.: *See*—
Conoley, R. D.
Marble Products Co. of Georgia, Atlanta, Ga. 641,200, pub. 11–27–56. Cl. 1.
Mar-Kay Co., The, Dallas, Tex. 534,887, canc. Cl. 39.
Marlboro Beverage Co.: *See*—
Beverage Distributors, Inc.
Marlin Pool Equipment Co., Sherman Oaks, Calif. 641,335, pub. 11–27–56. Cl. 21.
Marshall, Mat, Inc., Miami, Fla. 535,389, canc. Cl. 39.
Martin Dennis Co., The, to J. H. Nutting, to The Lexol Corp., Caldwell, N. J. 553,399, new cert. Cl. 52.
Marvella Pearls, Inc., New York, N. Y. 641,378, pub. 11–27–56. Cl. 28.
Maxwell-Phillip Co., Inc., New York, N. Y. 535,227, canc. Cl. 13.
May Department Stores Co., The, St. Louis, Mo., d. b. a. Kaufmann Department Stores, Pittsburgh, Pa. 535,292, canc. Cl. 22.
McAnany, George T., Vista, Calif. 535,007, canc. Cl. 4.
McCullough, William L., d. b. a. Finch & McCullough, to American Institute of Park Executives, Inc., Aurora, Ill. 601,081, new cert. Cl. 38.
McDougall-Butler Co., Inc., Buffalo, N. Y. 641,282–7, pub. 11–27–56. Cl. 16.
McGraw-Hill Publishing Co., Inc., New York, N. Y. 641,420, pub. 11–27–56. Cl. 38.
McNeil Laboratories, Inc., Philadelphia, Pa. 641,321, pub. 11–27–56. Cl. 18.
McNeil Machine & Tool Co.: *See*—
McNeil, Raymond P.
McNeil, Raymond P., d. b. a. McNeil Machine & Tool Co., Stratford, Conn. 535,151, canc. Cl. 13.
Meat Industry Suppliers, Inc., Chicago, Ill. 641,488, pub. 11–27–56. Cl. 46.
Mennen Co., The, Morristown, N. J. 342,514, ren. 1–19–57. Cl. 52.
Merck & Co., Inc., Rahway, N. J. 641,316, pub. 11–27–56. Cl. 18.
Merck & Co., Inc., Rahway, N. J. 641,318, pub. 11–27–56. Cl. 18.
Mercury Chemical Co.: *See*—
Love, William F.
Metscher, Dorothy M., Sheboygan, Wis. 641,473, pub. 11–27–56. Cl. 44.
Mettoy Co., Ltd., The, Northampton, England. 641,340, pub. 11–27–56. Cl. 22.
Micropoint, Inc.: *See*—
Micropoint Pen Co.
Micropoint Pen Co., to Micropoint, Inc., Sunnyvale, Calif. 641,561. Cl. 37.
Milleflori Cucchi, Societa per Azioni, Milan, Italy. 641,573. Cl. 49.
Miller, Harry D., Sandwich, Ill. 535,352, canc. Cl. 8.
Miller, Sox, Inc., by Sox Miller Co., Philadelphia, Pa. 343,758, 12(c) pub. 2–12–57. Cl. 39.
Minot Co., Litchfield, Ill. 641,491, pub. 11–27–56. Cl. 46.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn. 342,365, ren. 1–12–57. Cl. 26.
Mintons Ltd., Stoke-on-Trent, England. 341,918, ren. 12–29–56. Cl. 30.
Mont La Salle Vineyards: *See*—
De La Salle Institute.
Morgan & Lindsey, Inc., Jasper, Tex. 641,450, pub. 11–27–56. Cl. 39.
Morris, N. K., Mfg. Co.: *See*—
Morris, Nathan K.
Morris, Nathan K., d. b. a. N. K. Morris Mfg. Co., Avon by the Sea, N. J. 641,358, pub. 11–27–56. Cl. 23.
Mosaic Tile Co., The, Zanesville, Ohio. 535,041, canc. Cl. 12.
Moseley, Pope L., Sylacauga, Ala. 641,560. Cl. 37.
Mother Goldstein Wine Co., d. b. a. Imperial Wine Co., Hartford, Conn. 641,572. Cl. 47.
Mother's Food Products, Inc., Newark, N. J. 641,494, pub. 11–27–56. Cl. 46.
Motivation Charts Inc., Jewell, Iowa. 535,186, canc. Cl. 37.
Mulford-Hickerson Peat Humus Corp., d. b. a. M & H Peat Humus Co., Apopka, Fla. 641,191, pub. 11–27–56. Cl. 1.
Murdoch, Hillson Ltd., Glasgow, Scotland. 535,411, canc. Cl. 39.
Murphy, P. D., Co., Inc., New York, N. Y. 641,424, pub. 11–27–56. Cl. 39.
Mustee Heater Co., Cleveland, Ohio. 641,385, pub. 11–27–56. Cl. 34.
Nee Simone Meys: *See*—
Izsack, Madame Joseph, nee Simone Meys.
Needle Industries Ltd., Birmingham, England. 641,570. Cl. 40.
Nestle Lemur: *See*—
Nestle-Lemur Co., The.
Nestle-Lemur Co., The, d. b. a. Nestle Lemur, New York, N. Y. 641,527, pub. 11–27–56. Cl. 51.
New Era Letter Co., Inc., New York, N. Y. 641,540, pub. 11–27–56. Cl. 101.
Newman and Neugass Inc., New York, N. Y. 641,425, pub. 11–27–56. Cl. 39.
New Standard Baking Co., d. b. a. Delaware Valley Cake Co., Philadelphia, Pa. 641,507, pub. 11–27–56. Cl. 46.
New York Merchandise Co., Inc., New York, N. Y. 641,555. Cl. 8.
Nielsen, A. C., Co., Chicago, Ill. 641,414, pub. 11–27–56. Cl. 38.
Nisbet, A. R., & Sons, San Angelo, Tex. 535,407, canc. Cl. 23.
Nissen Trampoline Co., Cedar Rapids, Iowa. 641,351, pub. 11–27–56. Cl. 22.
Norcross, Inc., New York, N. Y. 641,403, pub. 11–27–56. Cl. 37.
Norris Inc., Atlanta, Ga. 535,130, canc. Cl. 46.
Northern Paper Mills, Green Bay, Wis. 535,423, canc. Cl. 37.
North Star Woolen Mill Co., Sanford, Maine. 641,465, pub. 11–27–56. Cl. 42.
Novelty Knitting Mills, Inc.: *See*—
Feld, Martin J.
Nutting, John H.: *See*—
Martin Dennis Co.
Ohio Hydrate & Supply Co., The, Woodville, Ohio. 534,998, canc. Cl. 12.
Olmeis, Herbert F.: *See*—
Automotive Retailer Publishing Corp.
Olin Mathieson Chemical Corp., New York, N. Y. 641,322, pub. 11–27–56. Cl. 18.
Oregon-Washington-California Pear Bureau, Portland, Oreg. 641,553, pub. 11–27–56. Cl. A.
Organnon Inc., Orange, N. J. 641,324–5, pub. 11–27–56. Cl. 18.
Organote Co.: *See*—
Swanson, Clarence R.
Owen-Richards Co., Inc., Birmingham, Ala. 641,359, pub. 11–27–56. Cl. 23.
Pacific Produce Co., San Francisco, Calif. 535,142, canc. Cl. 46.
Packers, Budrell, Inc., Everett, Mass. 535,327, canc. Cl. 46.
Palicio, F., y Compania, S. A., Fabricade Tabacos: *See*—
Fernandez, Palicio y Compania, S. en C.
Palm Beach Co., Sanford, Maine. 641,422, pub. 11–27–56. Cl. 39.
Parfumerie Caron: *See*—
Daltroff, E., & Cie.
Parker, R. A. "Bob," Lumber Co.: *See*—
Parker, Robert A.

Parker, Robert A., d. b. a. R. A. "Bob" Parker Lumber Co., Ponca City, Okla. 641,543, pub. 11–27–56. Cl. 103.
Paulsom Candles: *See*—
Gonzalez, Henry.
Payne, E. Roy L., Beverly Hills, Calif. 535,343, canc. Cl. 22.
Peck, Stow & Wilcox Co., The, Southington, Conn. 641,291, pub. 11–27–56. Cl. 16.
Peerless Mfg. Co., The: *See*—
Kelso, J. W., Jr.
Peerless Mills Co., of New York, Inc., New York, N. Y. 535,265–8, canc. Cl. 42.
Penguin Pens, Inc., New York, N. Y. 535,158, canc. Cl. 37.
Penn Leather Co., Philadelphia, Pa. 114,542, ren. 12–19–56. Cl. 1.
Penney, J. C., Co.: *See*—
Vargish Knitwear Co.
Pennington Mfg. Co., Addison, Ill. 641,247, pub. 11–27–56. Cl. 12.
Penray Co., Chicago, Ill. 641,223, pub. 11–27–56. Cl. 4.
Percin, Benjamin R., North Hollywood, Calif. 641,456, pub. 11–27–56. Cl. 39.
Perfection Mfg. Co., The, St. Louis, Mo. 641,338, pub. 11–27–56. Cl. 22.
Permentan-Gesellschaft fur Chemische, Pharmazeutische und Kosmetische Erzeugnisse m. B. H., Munich, Germany. 641,330, pub. 11–27–56. Cl. 18.
Permutit Co., The, New York, N. Y. 535,059, canc. Cl. 31.
Pet Center Corp., New York, N. Y. 641,314, pub. 11–27–56. Cl. 18.
Peter Pan Foundations, Inc., New York, N. Y. 641,444, pub. 11–5–56. Cl. 39.
Peterson Window Corp., Ferndale, Mich. 641,254, pub. 11–27–56. Cl. 12.
Pettinos, George F., Inc., Philadelphia, Pa. 641,206–7, pub. 11–27–56. Cl. 1.
Pfizer, Chas., & Co., Inc.: *See*—
Wick & Fry, Inc.
Pfizer, Chas., & Co., Inc., Brooklyn, N. Y. 641,328–9, pub. 11–27–56. Cl. 18.
Pharr Canning Co., Inc., Van Buren, Ark. 641,500, pub. 11–27–56. Cl. 46.
Phi Mu Fraternity, Memphis, Tenn. 641,552, pub. 11–27–56. Cl. 200.
Phillips Petroleum Co., Bartlesville, Okla. 641,220, pub. 11–27–56. Cl. 1.
Pi Kappa Alpha Fraternity, The, Memphis, Tenn. 641,550, pub. 11–27–56. Cl. 200.
Pinelli, Anthony R., Chicago, Ill. 535,113, canc. Cl. 46.
Pittsburg Storage Co., Pittsburg, Tex. 535,360, canc. Cl. 46.
Polk Miller Products Corp., Richmond, Va. 535,092, canc. Cl. 18.
Polsen, Samuel D., Bridgeport, Conn. 535,197, canc. Cl. 23.
Ponit Trading Co., St. Louis, Mo. 641,235, pub. 11–27–56. Cl. 7.
Post-Enquirer Publishing Co., Oakland, Calif. 289,577, canc. Cl. 38.
Printing Consultants: *See*—
Felber, John E.
Productos Ceramicos, S. A., Monterrey, Nuevo Leon, Mexico. 641,252, pub. 11–27–56. Cl. 12.
Public Relations and Fund Raising Counsel Inc., Syracuse, N. Y. 641,542, pub. 11–27–56. Cl. 102.
Pure Oil Co., The, Chicago, Ill. 535,081, canc. Cl. 103.
Quaker Silver Co., Attleboro, Mass. 271,180, canc. Cl. 28.
R. S. Precision Products, Floral Park, N. Y. 641,263, pub. 11–27–56. Cl. 13.
Radiant Pen Corp., New York, N. Y. 535,438, canc. Cl. 37.
Raleigh Haberdasher, Inc., Washington, D. C. 641,423, pub. 11–27–56. Cl. 39.
Rama Records, Inc., New York, N. Y. 641,396, pub. 11–27–56. Cl. 36.
Rand Rubber Co., Inc., Brooklyn, N. Y. 641,569. Cl. 40.
Rath Packing Co., The, Waterloo, Iowa. 342,328, 12(c) pub. 2–12–57. Cl. 46.
Raydyne Corp., Springfield, Ill. 641,377, pub. 11–27–56. Cl. 26.
Rayflex Fabrics, Inc., New York, N. Y., to E. I. du Pont de Nemours and Co., Wilmington, Del. 535,073–4, canc. Cl. 42.
Raymond Corp., The, Greene, N. Y. 641,357, pub. 11–27–56. Cl. 23.
Reddy Kilowatt, Inc.: *See*—
Collins, Ashton B.
Reelon Corp., South San Francisco, Calif. 535,251, canc. Cl. 22.
Reeves Brothers, Inc., New York, N. Y. 535,456, canc. Cl. 42.
Reliance Life Insurance Co. of Pittsburgh, Pittsburgh, Pa. 535,466, canc. Cl. 102.
Relsky, L., & Cie: *See*—
Heublein, G. F., & Bro. Inc.
Repetti, to Henry Heide, Inc., New York, N. Y. 113,796, ren. 10–31–56. Cl. 46.
Rhodes, James H., & Co., Chicago, Ill. 342,244–5, ren. 1–12–57. Cl. 4.
Rice Leaders of the World Association, New York, N. Y. 641,551, pub. 11–27–56. Cl. 200.
Rice-O'Neill Shoe Co., St. Louis, Mo. 535,068, canc. Cl. 39.
Richason, T. F., d. b. a. Madison Pharmacal Co., Anderson, Ind. 535,315, canc. Cl. 18.
Ridderstedt Mfg. Corp., Batavia, Ill. 641,267, pub. 11–27–56. Cl. 13.
Risdon Mfg. Co., The, Naugatuck, Conn. 641,264, pub. 11–27–56. Cl. 13.
Riverside Mills Co.: *See*—
Ward, James B.
Riviera Trading Corp., New York, N. Y. 641,457, pub. 11–27–56. Cl. 40.
Rodriguez y Compania, Habana, Cuba. 534,919, canc. Cl. 46.
Robapharm Laboratoriums A. G., Basel, Switzerland. 641,311, pub. 11–27–56. Cl. 18.
Rogers, Henry, Sons & Co., Ltd., Wolverhampton, England. 641,360, pub. 11–27–56. Cl. 23.
Rogers Sportwear Co., Inc., Brooklyn, N. Y. 535,062, canc. Cl. 39.
Rojay Blouses, Inc., New York, N. Y. 641,449, pub. 11–27–56. Cl. 39.
Roller Derby Skate Corp.: *See*—
Seltzer, Leo A.
Ross, Howard L., d. b. a. Howard L. Ross Associates, New York, N. Y. 534,891, canc. Cl. 50.
Ross, Howard L., Associates: *See*—
Ross, Howard L.
Roth, Chester H., Co., Inc., New York, N. Y. 641,442, pub. 11–27–56. Cl. 39.
Royal McBee Corp., Port Chester, N. Y. 641,372, pub. 11–27–56. Cl. 23.
Rudinger, C. I., d. b. a. Kool Tone Mfg. Co., San Francisco, Calif. 535,481, canc. Cl. 51.
S. K. Laboratories, Inc., Baltimore, Md. 641,281, pub. 11–27–56. Cl. 16.
Sachs, Harvey, d. b. a. Flavorex Co., Baltimore, Md. 535,183, canc. Cl. 45.
Sachs, Morris B., Inc., Chicago, Ill. 641,429, pub. 11–27–56. Cl. 39.
Safeway Stores, Inc., Baltimore, Md., and Oakland, Calif. 534,988, canc. Cl. 46.
Safeway Stores, Inc., Oakland, Calif. 641,492, pub. 11–27–56. Cl. 46.
Saint Cornelius The Centurion Chapel of Valley Forge Military Academy, Wayne, Pa., to Lanolin Plus, Inc., Chicago, Ill. 641,526, pub. 11–27–56. Cl. 51.
Santa Barbara Coastal Lemon Co., Santa Barbara, Calif. 641,508, pub. 11–27–56. Cl. 46.
Santa's Workshop, Inc., North Pole, N. Y. 641,379, pub. 11–27–56. Cl. 28.
Santa's Workshop, Inc., North Pole, N. Y. 641,382, pub. 11–27–56. Cl. 30.
Santa's Workshop, Inc., North Pole, N. Y. 641,384, pub. 11–27–56. Cl. 33.
Savage, Ernest F.: *See*—
Devolube Corp. of America.
Savoy Watch Co. Inc., New York, N. Y. 344,657, ren. 3–30–57. Cl. 27.
Sbicca of California, Los Angeles, Calif. 641,443, pub. 11–27–56. Cl. 39.
Schell Leather Goods Co., Inc., Cincinnati, Ohio. 641,221, pub. 11–27–56. Cl. 3.
Schenley Industries, Inc., New York, N. Y. 641,522, pub. 11–27–56. Cl. 49.
Schenley Laboratories, Inc., New York, N. Y. 641,326, pub. 11–27–56. Cl. 18.
Schlanger, Herbert, d. b. a. The Herbert Schlanger Co., New York, N. Y. 641,463, pub. 11–27–56. Cl. 42.
Schlanger, Herbert, Co., The: *See*—
Schlanger, Herbert.
Schloss & Kahn Grocery Co., Montgomery, Ala. 641,503, pub. 11–27–56. Cl. 46.
Schmelzerson, I., & Sons, Inc., New York, N. Y. 634,901, canc. Cl. 39.
Schreter, A., & Sons, Inc., Baltimore, Md. 641,566. Cl. 39.
Schumacher, Joseph, Hallandale, Fla. 641,242, pub. 11–27–56. Cl. 10.
Schwerin Research Corp., New York, N. Y. 535,489, canc. Cl. 100.
Scovill Mfg. Co., Brooklyn, N. Y. 641,525, pub. 11–27–56. Cl. 50.
Sears, Roebuck and Co., Chicago, Ill. 534,903, canc. Cl. 31.
Selchow & Righter Co., New York, N. Y. 641,353–5, pub. 11–27–56. Cl. 22.
Seltzer, Leo A., Portland, Oreg., to Roller Derby Skate Corp., Litchfield, Ill. 345,466, ren. 4–27–57. Cl. 22.
Senghusch Self-Closing Inkstand Co., Milwaukee, Wis. 344,857, ren. 4–6–57. Cl. 37.
Sesco, Inc., Detroit, Mich. 641,366, pub. 11–27–56. Cl. 23.
Shell Oil Co., New York, N. Y. 641,273–8, pub. 11–27–56. Cl. 15.
Sherwin-Williams Co., The, Cleveland, Ohio. 641,289, pub. 11–27–56. Cl. 16.
Sherwin-Williams Co., The, Cleveland, Ohio. 641,292–3, pub. 11–27–56. Cl. 16.
Shlansky, Louis, Corp., also known as Louis Shlansky Corp. New York, N. Y. 535,048, canc. Cl. 39.
Silbersteln, Sam, Corp., New York, N. Y. 535,075–6, canc. Cl. 39.
Siler City Mills, Inc., The, Siler City, N. C. 641,487, pub. 11–27–56. Cl. 46.
Silicote Corp., The, Oshkosh, Wis. 535,214, canc. Cl. 6.
Siliphase Corp. of America, New York, N. Y. 641,288, pub. 11–27–56. Cl. 16.
Societe des Usines Chimiques Rhone-Poulenc, American Home Products Corp., New York, N. Y. 507,057. Am. 7(d). Cl. 6.
Solomon, A., to A. Solomon Co., New Orleans, La. 345,394, ren. 4–27–57. Cl. 39.
Solomon, A., Co.: *See*—
Solomon, A.
Soluol Chemical Co., Inc., Natick, R. I. 641,530, pub. 11–27–56. Cl. 51.
Solvolene Lubricants Ltd., London, England. 641,224, pub. 11–27–56. Cl. 4.
Sommer, Frank, Winnipeg, Manitoba, Canada. 641,373, pub. 11–27–56. Cl. 23.
Sonoco Products Co., Hartsville, S. C. 641,402, pub. 11–27–56. Cl. 37.
Southern Management Engineers, Atlanta, Ga. 535,088, canc. Cl. 101.

Spencer, Richard, Chicago, Ill. 535,301, canc. Cl. 8.
Spojene zavody na vyrobu karborunda a elektritu, narodni podnik (United Carborundum and Electrite Works, National Corp.) : *See*—
Spojene zavody pro vyrobu karborunda a elektritu akciova spolecnost (United Carborundum and Electrite Works Co.)
Spojene zavody pro vyrobu karborunda a elektritu akciova spolecnost (United Carborundum and Electrite Works Co.) to Spojene zavody na vyrobu karborunda a elektritu, narodni podnik (United Carborundum and Electrite Works, National Corp.), Nova Benatky, Czechoslovakia. 342,875, ren. 2–2–57. Cl. 4.
Staley Milling Co., Kansas City, Mo. 535,010, canc. Cl. 46.
Standard Brands Inc., New York, N. Y. 641,509, pub. 11–27–56. Cl. 46.
Standard Chemical Co. : *See*—
Harwick, Curtis J.
Standard Distillers Products, Inc., Baltimore, Md. 641,520, pub. 11–27–56. Cl. 49.
Standard Oil Co. of California, San Francisco, Calif. 641,234, pub. 11–20–56. Cl. 6.
Standard Oil Co. of California, San Francisco, Calif. 641,243, pub. 11–6–56. Cl. 10.
Standard Oil Co. of California, San Francisco, Calif. 641,258, pub. 11–13–56. Cl. 12.
Standard Oil Co. of California, San Francisco, Calif. 641,270, pub. 11–27–56. Cl. 15.
Standard Oil Co. of California, San Francisco, Calif. 641,295, pub. 11–13–56. Cl. 16.
Standard Oil Co. of California, San Francisco, Calif. 641,421, pub. 11–6–56. Cl. 38.
Standard Oil Co. of California, San Francisco, Calif. 641,536, pub. 11–13–56. Cl. 52.
Stauffer, D. F., Biscuit Co., Inc., York, Pa. 641,493, pub. 11–27–56. Cl. 46.
Steidlinger, Gebruder, Kommanditgesellschaft, St. Georgen/schwarzwald, Germany. 641,392, pub. 11–27–56. Cl. 36.
Stern, Merritt Co., Inc., New York, N. Y. 641,435, pub. 11–27–56. Cl. 39.
Stetson, G. Henry, San Fernando, Calif., by John B. Stetson Co., Philadelphia, Pa. 342,618, 12(c) pub. 2–12–57. Cl. 39.
Stetson, John B. : *See*—
Stetson, G. Henry.
Strauss, Henry, Productions, Inc., New York, N. Y. 641,539, pub. 11–27–56. Cl. 101.
Stuart, Charles L., Albany, N. Y. 641,336, pub. 11–27–56. Cl. 22.
Sturdy Dog Food Co. : *See*—
Sturdy Dog Food Co., Inc.
Sturdy Dog Food Co., Inc., to Sturdy Dog Food Co., Syracuse, N. Y. 340,734, ren. 11–17–56. Cl. 46.
Super Valu Stores, Inc., Hopkins, Minn. 641,407, pub. 11–27–56. Cl. 38.
Sutton, O. A., Corp., Inc., The, Wichita, Kans. 595,463. Am. 7(d). Cl. 21.
Swanson, Clarence R., d. b. a. Organote Co., Minneapolis, Minn. 641,391, pub. 11–27–56. Cl. 36.
Swartz, Sophia, New York, N. Y. 535,015, canc. Cl. 52.
Swift & Co., Chicago, Ill. 641,231, pub. 11–27–56. Cl. 6.
Symphony Lingerie Co., Inc., New York, N. Y. 535,240, canc. Cl. 39.
Tablerock Laboratories, Inc., Greenville, S. C. 641,327, pub. 11–27–56. Cl. 18.
Tanbro Fabrics Corp., New York, N. Y. 534,983, canc. Cl. 42.
Tanbro Fabrics Corp., New York, N. Y. 535,001, canc. Cl. 42.
Technion Design & Mfg. Co., Inc., New York, N. Y. 641,205, pub. 11–27–56. Cl. 1.
Tel-O-Post Co., Akron, Ohio. 535,173, canc. Cl. 23.
Terry Foam Inc., New Hope, Pa. 641,381, pub. 11–27–56. Cl. 29.
Tesco Corp., The, Cleveland, Ohio. 353,409, canc. Cl. 22.
Texon, Inc., South Hadley Falls, Mass. 641,198, pub. 11–27–56. Cl. 1.
Thomas, Susan, New York, N. Y. 641,462, pub. 11–27–56. Cl. 42.
Thompson Horticultural Chemicals Corp., Los Angeles, Calif. 535,116, canc. Cl. 6.
Tico Recording Co., Inc., New York, N. Y. 641,397, pub. 11–27–56. Cl. 36.
Timcor, Inc., Cleveland, Ohio. 535,194, canc. Cl. 22.
Timely Clothes, Inc., Rochester, N. Y. 535,067, canc. Cl. 39.
Tolibia Cheese Mfg. Corp., Fond du Lac, Wis. 641,496, pub. 11–27–56. Cl. 46.
Torres, Miguel, Villafranca del Panades, Barcelona, Spain. 641,512, pub. 11–27–56. Cl. 47.
Tourangeaulnk Co., Minneapolis, Minn. 534,941, canc. Cl. 11.
Trendline Furniture Corp., Kendallville, Ind. 641,559. Cl. 32.
Trimble Hat Co., Minneapolis, Minn. 641,568. Cl. 39.
Trimz Co., Inc., Chicago, Ill. 535,225, canc. Cl. 42.
Troy Yarn & Textile Co., Pawtucket, R. I. 535,273, canc. Cl. 42.
True-Trace Corp., El Monte, Calif. 641,370, pub. 11–27–56. Cl. 23.
Turner Jones Co., Inc., New York, N. Y. 535,005, canc. Cl. 42.
Tutag, S. J., & Co., Detroit, Mich. 641,312, pub. 11–27–56. Cl. 18.
Tutag, S. J., & Co., Detroit, Mich. 641,315, pub. 11–27–56. Cl. 18.
Tyler Products, Inc., North Hollywood, Calif. 535,109, canc. Cl. 46.
UBC Distributors, Inc., Chicago, Ill. 641,199, pub. 11–27–56. Cl. 1.
Ungar Electric Tools, Inc., Los Angeles, Calif. 641,347, pub. 11–27–56. Cl. 22.
Unilab, Inc., New York, N. Y. 641,320, pub. 11–27–56. Cl. 18.
United American Co., also d. b. a. United American Co., Inc., New York, N. Y., and Louisville, Ky., to Drug Laboratories, Inc., New York, N. Y. 535,391–2, canc. Cl. 18.
United American Co., Inc. : *See*—
United American Co.
United Co-Operatives, Inc., Alliance, Ohio. 641,390, pub. 11–27–56. Cl. 35.
United Feature Syndicate, Inc., New York, N. Y. 641,410, pub. 11–27–56. Cl. 38.
United Piece Dye Works, The, Lodi, N. J. 641,548, pub. 11–27–56. Cl. 106.
United Shoe Machinery Corp., Boston, Mass. 641,365, pub. 11–27–56. Cl. 23.
United States Graphite Co., The, Division of The Wickes Corp., Saginaw, Mich. 641,208, pub. 11–27–56. Cl. 1.
United States Independent Telephone Association, Washington, D. C. 641,545, pub. 11–27–56. Cl. 104.
United States Pipe and Foundry Co., Birmingham, Ala. 641,265, pub. 11–27–56. Cl. 13.
U. S. Stone Corp., Paterson, N. J. 641,246, pub. 11–27–56. Cl. 12.
United Wallpaper, Inc., Chicago, Ill. 535,145, canc. Cl. 37.
Universal Fountain Pen & Pencil Co., to Universal Fountain Pen & Pencil Co., Inc., New York, N. Y. 535,328–9, canc. Cl. 37.
Universal Fountain Pen & Pencil Co., Inc. : *See*—
Universal Fountain Pen & Pencil Co.
Urbana Wine Co., Inc., Hammondsport, N. Y. 641,513, pub. 11–27–56. Cl. 47.
Vanderbilt, R. T., Co., Inc., New York, N. Y. 641,232, pub. 11–27–56. Cl. 6.
Vanette Hosiery Mills, Dallas, Tex. 641,451, pub. 11–27–56. Cl. 39.
Van-Packer Corp., Bettendorf, Iowa. 641,256, pub. 11–27–56. Cl. 12.
Vurgish Knitwear Co., Union City, N. J., to J. C. Penney Co., New York, N. Y. 641,567. Cl. 39.
Vibro-Plus Corp., New York, N. Y. 534,895–6, canc. Cl. 12.
Victrylite Candle Co., Oshkosh, Wis. 641,556. Cl. 15.
Viscol Co., The, Stamford, Conn. 535,013, canc. Cl. 39.
Visors, Inc., Saginaw, Mich. 641,333, pub. 11–27–56. Cl. 19.
WPIX, Inc., New York, N. Y. 535,085, canc. Cl. 104.
Wagner, Charles P., and Brother : *See*—
Wagner, Wiltz W.
Wagner Tool & Supply Corp., Long Island City, N. Y. 535,395, canc. Cl. 31.
Wagner, Wiltz W., d. b. a. Charles P. Wagner and Brother, New Orleans, La. 535,126, canc. Cl. 46.
Walker, Hiram, & Sons Inc., Peoria, Ill. 346,222, ren. 5–18–57. Cl. 49.
Walling Keith Chemicals, Inc. : *See*—
Keith, Walling.
Wallmaster Radios, Inc., San Francisco, Calif. 535,285, canc. Cl. 21.
Wamsutta Mills, New Bedford, Mass. 534,948, canc. Cl. 42.
Ward, James B., d. b. a. Riverside Mills Co., Nashville, Tenn. 535,093, canc. Cl. 46.
Washington Organic Fertilizers, Inc., Wapato, Wash. 641,241, pub. 11–27–56. Cl. 10.
Water Seals, Inc., Chicago, Ill. 641,253, pub. 11–27–56. Cl. 12.
Wayside Gardens Co., The, Mentor, Ohio. 641,193, pub. 11–27–56. Cl. 1.
Weinreich Brothers Co., New York, N. Y. 535,376, canc. Cl. 28.
Weinschel Engineering Co., Inc., Kensington, Md. 641,537, pub. 11–27–56. Cl. 100.
Weitz, Erwin K., d. b. a. Florence Benson Products, Union City, N. J. 641,529, pub. 11–27–56. Cl. 51.
Western Laboratories, Inc., Burbank, Calif. 641,244, pub. 11–27–56. Cl. 11.
Western Chef Products, Inc., Spokane, Wash. 641,216, pub. 11–27–56. Cl. 1.
Westinghouse Radio Stations, Inc., Indianapolis, Ind., and Philadelphia, Pa. 535,083, canc. Cl. 104.
White, Ed, Junior Shoe Co., Paragould, Ark. 641,452–4, pub. 11–27–56. Cl. 39.
White, Halbert L., Kansas City, Mo. 535,294, canc. Cl. 13.
Whitman Publishing Co., Racine, Wis. 641,337, pub. 11–27–56. Cl. 22.
Whopper-Stopper Sporting Goods Co. : *See*—
Enloe, D. C.
Wick & Fry, Inc., to Chas. Pfizer & Co., Inc., Brooklyn, N. Y. 436,573, new cert. Cl. 6.
Wilfong Fireworks & Specialties Co., Fort Worth, Tex. 535,216–17, canc. Cl. 9.
Williamson, Garfield, Inc., Jersey City, N. J. 641,217, pub. 11–27–56. Cl. 1.
Wilson, Andrew, Inc., Springfield, N. J. 641,227, pub. 11–27–56. Cl. 6.
Wilson Cabinet Co., Inc., Smyrna, Del., now by merger and change of name, Wilson Refrigeration, Inc. 535,403, canc. Cl. 31.
Wilson, Thomas C., Inc., Long Island City, N. Y. 641,362, pub. 9–18–56. Cl. 23.
Wispese Corp., New York, N. Y. 641,445, pub. 11–27–56. Cl. 39.
Wormalds & Walker Ltd., Dewsbury, England. 535,223, canc. Cl. 42.
Wulfing, Johann A., Dusseldorf, Germany. 641,307–10, pub. 11–27–56. Cl. 18.
Wyeth Laboratories Division of American Home Products Corp. : *See*—
American Home Products Corp.
Yeast-Ayd Feeds : *See*—
Adam, Bob.
Yeast Feed Distributors : *See*—
Adam, Bob.

U. S. GOVERNMENT PRINTING OFFICE 0—1957

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
February 19, 1957 Volume 715 Number 3

PATENTS

NOTICES

Service by Publication

In accordance with Rule 47(b) of the Rules of Practice of the United States Patent Office in Patent Cases, notice is hereby given of the filing on March 26, 1953, of an application for patent entitled "Pin Wheel Feeding Unit," on behalf of Clark Storer, whose last known address is 821 Pearl Street, Miamisburg, Ohio. The application was made in compliance with Rule 47(b) and 35 U. S. C. 118 by Standard Register Company, of Dayton, Ohio, without execution by the said Clark Storer. Notice of the filing directed to the above noted address has been returned undelivered.

Any action to be taken by the said Clark Storer in connection with the said application must be taken within thirty days of the publication of this notice.

ARTHUR W. CROCKER,
Feb. 4, 1957. *First Assistant Commissioner of Patents.*

Adjudicated Patents

(D. C. Calif.) Welch Patent No. 2,534,644 (33—126.04), for a device used to measure the quantity of gasoline in airplane wing tanks and known as "dipstick," *Held* invalid. *Grindle* v. *Welch*, 146 F. Supp. 44 ; — USPQ —.

(D. C. Puerto Rico) Kline Patent No. 2,600,993 (112—79), for carpet tufting machine. Claims 3 and 4 *Held* invalid. *Kline* v. *Creative Textiles Inc.*, 146 F. Supp. 65 ; — USPQ —.

Disclaimer

Des. 178,294.—*William Lasar*, Downey, Calif. MEAT GRINDER. Patent dated July 17, 1956. Disclaimer filed Jan. 11, 1957, by the inventor.

Hereby enters this disclaimer to the single claim of said patent.

Classification Order No. 210

Classification Order No. 210, dated January 23, 1957, incorporates changes in the following classes :

Classes 200, 260, 315

The above changes will be incorporated in the Manual of Classification replacement sheets dated April 1957.

M. C. ROSA,
Jan. 22, 1957. *Director, Patent Examining Operation.*

Patents Available for Licensing or Sale

2,607,985. Hair Pushing Attachment for Electric Hair Clippers. Francis L. Bush, 683 Mill St., Watertown, N. Y.

2,721,565. Dishwasher. E. Bewen, 3027 Texas Ave., St. Louis 18, Mo.

2,760,482. Sun-Operated Heating Devices. Adnan Tarcici, Yemen Legation, Alhamra St., Beirut, Lebanon. Correspondence to Michael S. Striker, 511 Fifth Ave., New York 17, N. Y.

2,763,489. Hand Truck Provided With Track Type Treads. William I. Marsalis. Correspondence to Lewis & Alexander, 1011–14 Deposit Guaranty Bank Building, Jackson, Miss.

2,766,304. Process for Preparing Azulenes. Karl Ziegler, 2 Kaiser Wilhelm Platz, Mulheim, Ruhr, Germany, and Klaus Hafner, 23 Oberstrasse, Mulheim, Ruhr, Germany. Correspondence to Michael S. Striker, 511 Fifth Ave., New York 17, N. Y.

General Electric Company is prepared to grant non-exclusive licenses under the following 53 patents on reasonable terms to domestic manufacturers.

Applications for license under the following 5 patents may be addressed to : Patent Counsel, Switchgear & Control Division, General Electric Company, 6901 Elmwood Ave., Philadelphia 42, Pa.

2,310,065. Supervision of Electric Systems.

2,384,362. Automatic Reclosing Circuit Breaker System.

2,561,848. Out-of-Step Protective System.

2,573,514. Reversible Electric Switch.

2,599,231. Insertable Hinge Mounting Structure.

Applications for license under the following 4 patents may be addressed to : General Electric Company, Aircraft Gas Turbine Division, Cincinnati 15, Ohio, Attention : Counsel.

2,537,800. Variable Density Fluid Energy Converters.

2,645,293. Apparatus for Regulating Propulsion Power Plants.

2,657,531. Wall Cooling Arrangement for Combustion Devices.

2,749,705. Fusible Link Jet Motor Control.

Applications for license under the following 5 patents may be addressed to : Patent Counsel, Construction Materials Division, General Electric Company, 1285 Boston Ave., Bridgeport 2, Conn.

2,716,738. Lampholders for Tubular Lamps.

2,742,620. Compressible Lampholder With Torsion Spring Contacts for Double Ended Discharge Lamps.

2,742,621. Compressible Lampholders With Recessed Contacts for Double Ended Discharge Lamps.

2,754,350. Coaxial High Frequency Conductor and Process of Its Fabrication

2,754,353. Composite Electrical Insulation and Method of Fabrication.

Applications for license under the following 4 patents may be addressed to : General Electric Company, Application & Television Receiver Division, Appliance Park, Louisville 1, Ky.

2,481,979. Filtering Device for a Clothes Washer.

2,751,773. Drive Mechanism for Clothes Washing Machine and the Like.

2,761,303. Soil Extraction Means for Clothes Washers and the Like.

2,767,944. Supporting Structure for Clothes Washing Machines and the Like.

New Applications Received During December 1956

Patents	6,384
Designs	354
Plants	9
Reissues	18
Total	6,765

Issue

Patents	899	No. 2,781,515 to No.	2,782,413, incl.
Designs	35	No. 179,716 to No.	179,750, incl.
Plants	2	No. 1,567 to No.	1,568, incl.
Reissues	4	No. 24,277 to No.	24,280, incl.
Total	940		

Applications for license under the following 8 patents may be addressed to: General Electric Company, Research Services, Post Office Box 1088, Schenectady, N. Y.

2,613,302. Humidity Indicator.

2,622,972. Gas Producer and Method of Operation.

2,717,343. P-N Junction Transistor.

2,725,504. Hall Effect Device.

2,726,312. Thermal Control System.

2,731,713. Method of Making a Focused Multicell.

2,732,312. Method of Making a Coated Transparent Fluorescent Screen.

2,736,822. Hall Effect Apparatus.

Applications for license under the following 17 patents may be addressed to: General Electric Company, Patent Counsel, Chemical and Metallurgical Division, 1 River Road, Schenectady 5, N. Y.

2,445,567. Stabilizing Organo-Substituted Polysiloxanes.

2,479,374. Preparation of Organo-Silicon Compounds.

2,510,642. Preparation of Organo-Silicon Halides.

2,673,210. Triorganosilylphenylene Phosphorus Derivatives.

2,684,349. Silicone Rubber Having Improved Flame-Retardant Properties.

2,704,748. Silicone Rubbers With Improved Compression Set.

2,709,176. Cleavage of Organohalogenopolysilanes.

2,713,564. Silicone Rubber of Improved Compression Set Containing a Metallic Dialkyl Dithiocarbamate.

2,717,258. Methods for Preparing Dimethyl Silanediol.

2,717,902. Organopolysiloxane Fluids Stabilized With Organic Phosphites.

2,729,572. Stable Solutions of an Aluminum Salt of a Methyl Silane Triol.

2,741,630. Process for Preparing Alkylpolysiloxanes.

2,753,365. Silicone Fluids of Improved Lubricity.

2,758,946. Silicone Water-Repellent Compositions.

2,759,959. Allylphenyl Organosilanes.

2,767,208. Method of Making Carbonyl Compounds by Decomposing Polymeric Vinyl Peroxides.

2,768,061. Hydrogen Reduction Method and Apparatus.

Applications for license under the following 4 patents may be addressed to: General Electric Company, Transformer Division, 100 Woodlawn Ave., Pittsfield, Mass. Attention Patent Counsel.

2,363,909. Electric Circuit.

2,682,593. Electrical Contact.

2,769,954. Reactors and Reactor Connections.

2,772,369. Parallel Operation of Tap Changing Transformers.

Applications for license under the following patent may be addressed to: General Electric Company, Component Products Division, 1635 Broadway, Fort Wayne, Ind. Attention Patent Counsel.

2,771,587. Inductive Device.

Applications for license under the following 5 patents may be addressed to: Patent Counsel, Electronic Components Division, General Electric Company, Syracuse, N. Y.

2,744,838. Electron Discharge Device Cathode and Method of Making Same.

2,758,273. Voltage Regulated Power Supply.

2,763,565. Means and Methods for Processing Cathode Ray Tube Bulbs.

2,764,958. Liquid Dispensing Device for Cyclically Operating Applicators.

2,765,245. Method of Making P-N Junction Semiconductor Units.

CONDITION OF PATENT APPLICATIONS AS OF DECEMBER 31, 1956

Total number of pending applications (excluding Designs)	217,395
Total number of pending Design applications	6,358
Total number of applications awaiting action (excluding Designs)	112,980
Total number of Design applications awaiting action	3,010
Date of oldest new application	Aug. 17, 1955
Date of oldest amended application	Oct. 7, 1954

ROSA, M. C., Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
I. STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.
II. STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 23, 26, 37, 42, 44, 48, 51, 54, 69, 70.
III. YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
IV. FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
V. HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	8, 20, 29, 33, 36, 40, 41, 52, 66.
VI. MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS	1, 4, 5, 9, 10, 18, 22, 28, 45, 47.
VII. KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
CL. GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	1-31-56	2-7-55
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers	3-23-56	9-15-55
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys	5-1-56	4-1-55
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Feeding of Indefinite Lengths	4-10-56	5-26-55
5. (VI) ROBINSON, C. W., Harvesters; Potato Diggers; Stalk Pullers and Choppers; Stone Gatherers; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates	5-4-56	10-6 55
6. (I) SURLE, H., Carbon Chemistry (part), e. g. Natural Resins, Proteins, Heterocyclic Amides, Amines, General Organic Processes	1-4-56	10-26-55
7. (IV) GONSALVES, J. E., Optics, Photographic Apparatus	1-12-56	9-29-55
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture	12-22-55	8-22-55
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	3-21-56	4-19-55
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	1-20-56	8-1-55
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	4-3-56	8-1-55
12. (III) SPINTMAN, S., Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	2-2-56	11-15-54
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	2-17-56	1-13-55
14. (III) MANIAN, J. C., Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes	2-15-56	1-11-55
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	3-16-56	3-7-55
16. (II) LOVEWELL, N. N., Television; Telephony; Recorders	11-28-55	10-14-54
17. (IV) LEIGHEY, R. A., Paper Manufactures; Packaging; Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	1-6-56	2-28-55
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	2-1-56	2-23-55
19. (VII) PATRICK, P. L., Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners	4-2-56	7-19-55
20. (V) BROWN, L. M., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking	4-9-56	4-19-55
21. (III) MADER, R. C., Textiles	3-13-56	3-20-55
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows; Boring and Drilling	12-27-55	1-24-55
23. (II) ANDRUS, L. M., Cash and Fare Registers; Calculators and Counters; Education	1-4-56	10-11-54
24. (III) DRACOPOULOS, P. T. (HICKEY, T. J., acting), Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	3-13-56	5-6-55
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus	3-1-56	1-3-56
26. (II) YOUNG, R. R., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanism	5-1-56	1-3-56
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	3-27-56	11-4-55
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Chute, Skid, Guide and Way Conveyers; Fluid Current Conveyers; Pressure Modulating Relays; Pneumatic Dispatch; Store Service; Wheel Substitutes	1-4-56	6-9-55
29. (V) HABECKER, L. B., Tools; Woodworking; Button, Barrel and Wheel Making; Rubber Tire Removing Tools; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers	4-26-56	4-25-56
30. (VII) O'LEARY, R. A., Refrigeration; Heating Systems; Automatic Temperature and Humidity Regulation, Thermostats, Humidistats; Illuminating Burners; Miscellaneous Heating	7-9-56	11-10-55

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) HUTCHISON, E. W., Carbon Chemistry (part), e. g. Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Synthetic Resins (part)	3-6-56	8-1-55
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	4-10-56	11-28-55
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Building Structures; Roads and Pavements	4-10-56	4-1-55
34. (IV) SHANK, J. S. (acting), Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	4-2-56	4-1-55
35. (IV) BROMLEY, E. D., Dispensing; Filling and Closing Receptacles; Toilet, Kitchen and Table Articles; Sheet or Web Feeding	2-16-56	8-10-55
36. (V) McFADYEN, A. D., Measuring and Testing	12-30-55	12-12-55
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating	11-30-55	9-14-55
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g. Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	3-26-56	2-20-56
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	4-3-56	3-1-55
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	6-1-56	1-4-56
41. (V) GURLEY, R. B., Coin Controlled Apparatus; Dispensing Cabinets; Coin Handling; Mail, Fare or Other Collection Boxes or Chutes; Buckles, Buttons and Clasps; Racks; Fire Escapes; Ladders; Scaffolds	1-3-56	1-3-55
42. (II) MARANS, H., Electric Signaling; Signals and Indicators; Telegraphy; Electrical Connectors	8-17-55	1-10-55
43. (I) ARNOLD, D., Medicines, Poisons, Cosmetics; Sugar and Starch; Skins, and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus)	1-30-56	8-10-55
44. (II) EVANS, N. H., Antennas; Automatic Pilots; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	9-12-55	10-7-54
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances	2-3-56	3-25-55
46. (I) WILES, W. G., Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Surgery (part); Radioactive Medicines; Irradiation Chemistry; Carbon Chemistry (part)	1-30-56	3-2-55
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles	5-1-56	1-19-56
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Spark Plugs and Ignition Systems, Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers	12-23-55	11-22-54
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring	12-30-55	6-27-55
50. (I) BENGEL, W. G., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber	2-28-56	2-23-55
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Music	4-9-56	2-1-55
52. (V) NEFF, P. R., Supports; Joint Packing; Valved Pipe Joints or Couplings; Rod Joints or Couplings; Tool Handle Fastenings; Shaft Packing	3-2-56	3-1-55
53. (IV) REYNOLDS, E. R., (NINAS, G. A., acting), Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings and Shutters; Harness; Whip Apparatus	4-2-56	11-4-55
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g. X-Ray, Ultraviolet, Radioactive) Applications	3-22-56	3-11-55
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Sorting Solids; Centrifugal Bowl Separators; Comminutors	9-15-55	12-8-54
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	4-4-56	1-11-56
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings	6-21-56	2-24-56
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Food Apparatus; Closure Operators; Baths, Closets, Sinks and Spittoons	2-27-56	8-4-55
59. (I) HENKIN, B., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	3-19-56	7-18-55
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	3-1-56	2-4-55
61. (III) MORSE (Miss), E. L., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery	4-5-56	8-4-55
62. (IV) SHAPIRO, A., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination	4-6-56	12-1-55
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds	4-3-56	8-1-55
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	4-2-56	4-13-55
66. (V) LISANN, I., Geometric Instruments; Automatic Weighing Scales; Acoustics	3-6-56	12-3-54
67. (VII) KRAFFT, C. F., Laminated Fabrics; Ornamentation; Bleaching, Dyeing, Fluid Treatment of Textiles	1-12-56	6-13-55
69. (II) GALVIN, D. J., Wave Guides; Electric Meters; Sound Recording; Conductors; Insulators	3-8-56	1-3-55
70. (II) BREWRINK, J. L., Security laws administration.	4-6-56	2-20-56
CLASS. DIVS. I BAILEY, J. S., Paper Making; Mineral Oils	4-3-56	9-30-55
CLASS. DIVS. II LADY, J. E., Oscillators; Amplifiers; Resistances and Rheostats	4-6-56	1-16-56
CLASS. DIVS. III WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres	4-3-56	8-29-55
CLASS. DIVS. IV BERLOWITZ, W. (acting), Harrows and Diggers; Plows; Fluid Sprinkling, Spraying and Diffusing	4-0-56	3-1-56
CLASS. DIVS. V ANGEL, C. D., Liquid Separation or Purification; Sewerage	6-4-56	7-2-56
DESIGNS (III) A—MONCURE, J. A. Industrial Arts	6-1-56	7-13-56
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts		

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during February 1957, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

Patents ..... Numbers 2,188,895 to 2,192,165, inclusive
Plant Patent ..... Numbers 361 to 364, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

In the United States Patent Office
Before the Board of Appeals

EX PARTE EDWARD ALDER

Appeal No. 432—28. Decided September 19, 1956

1. PATENTABILITY—NON-ANALOGOUS ARTS—REFERENCE FROM NON-ANALOGOUS ART.

Held that a process for producing chemicals in their elemental state e. g. free boron, titanium, uranium, etc. and a fuel slug for a nuclear reactor relate to non-analogous arts, and *Held* that it was not proper to modify the disclosure of the process to defeat claims to the fuel slug.

2. APPLICATION—DISCLOSURE—DATE OF LITERATURE SHOWING KNOWLEDGE OF THE ART.

Held, with regard to literature, not referred to in the application as filed, purporting to demonstrate utility of applicant's device, that the "• • • disclosure of the cited literature, in order to be available to show what is knowledge of the art as to this application, must bear a date prior to the filing date of the application, and not a later date, so that those publications which are subsequent to the filing date are not available for applicant's purpose."

3. PATENTABILITY—PARTICULAR SUBJECT MATTER—FUEL SLUG FOR NUCLEAR REACTOR.

Claims for a fuel slug to be used in a nuclear reactor *Held* properly rejected for lack of an adequate supporting disclosure of utility where the application did not describe an operable nuclear reactor in which the slug could be used.

APPEAL from the Examiner.

MODIFIED.

Before GENIESSE, DUNCOMBE, and ASP, *Examiners-in-Chief*

GENIESSE, *Examiner-in-Chief*:

This is an appeal from the action of the Examiner finally rejecting claims 41 to 47, inclusive. Claims 43, 45 and 47 were withdrawn from consideration under Rule 142 (b). The appeal as to these claims will be dismissed.

Claim 41 is reproduced as illustrative.

41. An energy producing unit of a nuclear reactor comprising a plurality of separate composite slugs in predetermined relative positions for participation in a self-sustaining chain reaction developing energy in said reactor, each slug consisting of an inner carrier member of solid material of relatively small absorption cross-section for neutrons and an outer relatively thin layer of fissionable material on the surface of said carrier member providing for the evolution of neutrons at the said surface of the carrier.

The references relied upon by the Examiner are:

Weintraub, 1,019,394, March 5, 1912.

French Patent, 861,390, October 28, 1940.

The appealed claims relate to a fuel slug to be used in a nuclear reactor, the slug consisting of a solid core portion made of a material such as carbon which has a relatively small capture cross-section for neutrons (a moderator), and a thin coating of fissionable material on the surface of the core.

The claims were rejected (1) as unpatentable over Weintraub or the French patent and (2) as lacking an adequate supporting disclosure of utility.

Weintraub discloses a process for forming a coating on a carbon tube, uranium being one of the coating materials disclosed. After the coating operation, the carbon tube is mechanically separated from the uranium or other deposited material.

The rejection on Weintraub is based on inherent anticipation in that at an intermediate point in his process, a uranium-coated carbon tube may have been produced. However, this patent contains no suggestion of coating with fissionable material, a core having a small absorption cross section for neutrons, and since the claims call for a solid core, they are not readable on Weintraub's intermediate product. [1] Weintraub was concerned with producing various chemicals in their elemental state e. g. free boron, titanium, uranium, etc. Since Weintraub's process relates to a non-analogous art, it is not proper to modify his disclosure to defeat the claims.

The French patent relates to a nuclear reactor which uses as one type of fuel, agglomerated fissionable material enclosed in a metallic sheath. While this patent relates to the same art as that involved in the claims, the slug it discloses is substantially different, so that the patent is not a proper anticipation of the claimed subject matter.

The rejection based on either Weintraub or the French patent, taken separately, will not be sustained.

In the rejection based on the lack of an adequate supporting disclosure of utility, the Examiner stated that appellant had failed to describe an operable reactor in which the claimed slug could be used. Appellant cited certain literature not referred to in the application as filed, purporting to disclose nuclear reactors in which, according to counsel, the presently claimed slugs could be used. To support this conclusion, appellant has indicated that one skilled in the art, and having knowledge of such literature could construct a reactor capable of using the presently claimed slugs. This literature is as follows:

H. D. Smyth "Atomic Energy For Military Purposes" (Princeton University Press, Princeton, 1945).
Glasstone "Source Book on Atomic Energy" page 390, (Van Nostrand, July 1950).
Le Journal de Physique et Le Radium, July, August, September 1951, pages 751–755.
"Nucleonics" March 1952, Vol. 10, No. 3, pages 10–17.

[2] The disclosure of the cited literature, in order to be available to show what is knowledge of the art as to this application, must bear a date prior to the filing date of the application, and not a later date, so that those publications which are subsequent to the filing date are not available for applicant's purpose.

Smyth mentions nuclear reactors in Sections 7.19 and 8.37 appearing on pages 114 and 142, respectively, as well as in Appendix 4, pages 239–245. We find the last sentence of Section 7.19, relating to critical spacing and diameter of the solid uranium rods, of interest. For reasons given in the "Foreword" and the first paragraph on page 239 of this publication, Smyth's description of various reactors was designedly restricted to general statements and did not include critical data. However, it is clear that all critical data were based on the use of solid uranium rods. It is evident that entirely different considerations would prevail with respect to the spacing and size of appellant's composite slug as compared with corresponding considerations for the homogeneous slug of Smyth. It is also apparent from Smyth's discussion of critical data that the solid slug could not be replaced by the claimed slug without affecting the validity of such

data. It is not believed that any of the reactors mentioned by Smyth would be operable when using appellant's slugs dimensioned and located according to data determined to be critical for solid uranium rods. Smyth fails to adequately supplement the present disclosure by reason of his deliberate withholding of critical dimensions, as well as by reason of the fact that his discussion dealing with solid fissionable slugs is not applicable to the claimed type of slug.

The Glasstone, Nucleonics and Le Journal citations give more detailed information than does Smyth as to the structure of atomic piles and reactors. But this information relates to the use of solid bars or slugs of fissionable materials. Since the critical dimensions relate to a space distribution of such solid slugs in a mass of moderator, such critical dimensions are obviously not applicable to what are in effect hollow slugs filled with a moderator. The calculations, as shown by Smyth must take into account the moderating effect on fast neutrons, and the capturing effect of the fissionable material on both fast and slow neutrons. These are all volume effects. The description of this case refers to prior art reactors but it is there not directly asserted that the presently claimed slugs may replace the prior art slugs without other alteration of the reactor. We are of the opinion that the description of Glasstone, Nucleonics and Le Journal are not available by reason of dates to supplement the present description, and also that even if available they are not of such character as to supplement the present specification in a manner to provide a description in accordance with the requirements of 35 U. S. Code (1952 Ed.), Section 112.

To recapitulate, we hold that Smyth fails to sufficiently describe any reactor, and that Glasstone, Nucleonics and Le Journal are not available because of late dates. We also hold that the information in Smyth shows that the presently claimed slugs cannot operatively replace the solid slugs of the reactor piles referred to in the citations relied on by appellant.

The appeal is dismissed as to claims 43, 45 and 47.

[3] The decision of the Examiner is affirmed for the reasons stated.

MODIFIED.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

1,912,539, 1,991,624, R. C. Paul, Stocking foot; **2,657,478**, W. J. Paul, Heel construction for flimsy foot coverings; **2,687,528**, same, Toe protector for hose; **2,687,583**, same, Blank for stocking foot devices, **filed** Dec. 28, 1956, D. C., S. D. N. Y., Doc. 116/73, *Sondra Undergarments Co., Inc.* v. *Richard Paul, Inc.*

1,991,624. (See 1,912,539.)

2,231,270, J. L. Huston, Snap-on cork, **filed** Dec. 3, 1956, D. C., S. D. Ind. (Indianapolis), Doc. IP 56/c/314, *James L. Huston* v. *Denver O. Cooper.*

2,381,739, R. B. Gray, Hidden barrier; **2,421,613**, Gray and De Weese, Plastic liner for containers, **filed** Dec. 28, 1956, Ct. Cls., Doc. 540/56, *The Glenn L. Martin Co.* v. *The United States.*

2,421,613. (See 2,381,739.)

2,444,873, A. S. Goldberg, Securing device, **filed** Jan. 2, 1957, D. C., S. D. N. Y., Doc. 116/108, *The Bunting Co., Inc.* v. *Metro Tool & Die Works et al.*

2,457,347, Casler and Milner, Electrical outlet structure, **filed** Jan. 6, 1956, D. C., S. D. Ind. (Indianapolis), Doc. IP 56/c/1, *Leslie Casler et al.* v. *Fred C. Pridgen.* Cause dismissed Dec. 26, 1956.

2,476,334, A. S. Titcomb, Abrasive wheel; **Re. 23,717** (of **2,501,422**), same, Abrasive block or segment, **filed** Dec. 29, 1956, D. C. Conn. (New Haven), Doc. 6495, *A. Shepard Titcomb* v. *Norton Co.*

2,501,422. (See 2,476,334.)

2,605,753, A. M. Madle, deceased, by Dorothy H. Madle, administratrix, Current generating device; **2,693,791**, L. J. **Lechtenberg**, Breather for air-cooled internal-combustion engines; **2,693,789**, same, Air-cooled internal-combustion engine, **filed** Dec. 9, 1954, D. C., N. D. Iowa (Dubuque), Doc. 711, *Briggs & Stratton Corp.* v. *Clinton Machine Co., Inc.* Claim 5 of Patent 2,605,753 held invalid; claims 1, 2, 4, 5, 6, 7, 8, 14, 15, and 16 of Patent 2,693,789 held invalid Dec. 31 1956.

2,617,415, Rosen and Nadel, Face mask, **filed** Jan. 3, 1957, D. C. Mass. (Boston), Doc. 57/7–S, *A. B. C. Oxygen Equipment Corp.* v. *Eliot Medical Plastics Inc. et al.*

2,657,478. (See 1,912,539.)

2,681,673, B. A. Mackey, Drill bit, **filed** Jan. 3, 1957, D. C., N. D. Ill. (Chicago), Doc. 57c18, *Parker Mfg. Co.* v. *Time Saver Tools, Inc. et al.*

2,687,528. (See 1,912,539.)

2,687,583. (See 1,912,539.)

2,693,789. (See 2,605,753.)

2,693,791. (See 2,605,753.)

2,714,269, G. R. S. Charles, Ornamental beaded necklace, **filed** Apr. 12, 1956, D. C., S. D. N. Y., Doc. 108/341, *Outstanding Jewelry Co., Inc.* v. *Richelieu Corp. et al.* Stipulation and order of discontinuance Dec. 31, 1956.

2,722,324, Wagner and Werner, Hanger bracket pump mountings, **filed** Dec. 4, 1956, D. C. Kans. (Kansas City), Doc. KC–813, *Wagner Iron Works* v. *Shawnee Mfg. Co., Inc.* **Same**, Doc. KC–814, *Wagner Iron Works* v. *Henry Mfg. Co.*

2,736,323, E. G. McDonough, Permanent waving solutions and method, **filed** Dec. 17, 1956, D. C., E. D. Va. (Norfolk), Doc. 2339, *Tidewater Patent Development Co., Inc.* v. *Hunt Drug Store et al.*

Re. 23,717. (See 2,476,334.)

Des. 157,269, J. F. Laskowitz, Chair, **filed** Dec. 28, 1956, D. C., S. D. Calif. (Los Angeles), Doc. 20882–TC, *Contour Chair-Lounge Co., Inc. et al.* v. *Ward Bowling et al.*

Des. 162,777, Berger and Klein, Combined knife, saw, and fork, **filed** —, 1955, D. C., N. D. N. Y. (Utica), Doc. 5707, *Ernest Klein* v. *Burns Mfg. Co., Inc.* Complaint dismissed Oct. 24, 1956. Same, **appeal** filed Dec. 12, 1956, C. C. A., 2nd Cir., Doc. 24432, *Ernest Klein* v. *Burns Mfg. Co., Inc.*

Plant Pat. 470, W. W. Smith, Jr., Sansevieria, **filed** July 8, 1955, D. C., N. D. Ohio (Toledo), Doc. 7419 (formerly Doc. 31950, Cleveland), *Sylvan Hahn* v. *Heinl Greenhouse et al.* Consent judgment; plant patent held valid and infringed Dec. 27, 1956.

REISSUES

FEBRUARY 19, 1957

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,277
CAP ORNAMENT AND PLUME HOLDER

Roscoe T. Davis, Greenville, Ill., assignor to De Moulin Bros. & Co., Greenville, Ill.

Original No. 2,721,410, dated October 25, 1955, Serial No. 427,511, May 4, 1954. Application for reissue November 15, 1956, Serial No. 623,276

2 Claims. (Cl. 41—34)

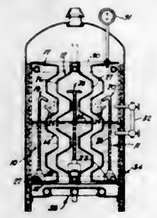
2. An improved cap ornament and plume holder comprising a substantially flat ornament having laterally extended curved ends for attachment to a cap, spaced threaded prongs carried by the curved ends of said ornament extensible through a portion of said cap, clamping nuts engageable with said prongs for securing said ornament on said cap, and a vertical hollow open ended tube carried by said ornament on the rear surface thereof between said prongs for receiving the stem of a plume therein.

24,278
STEAM BOILER

Carl Z. Alexander, Chatham, N. J.

Original No. 2,664,861, dated January 5, 1954, Serial No. 176,235, July 27, 1950. Application for reissue September 28, 1954, Serial No. 459,224

3 Claims. (Cl. 122—165)



2. A steam boiler comprising a fire box, two outer and a central water section disposed above the fire box in spaced horizontal arrangement, the spaces between the sections communicating with the fire box and the opposed surfaces of the spaced sections being of wave form, each wave having a substantial amplitude with the crests and troughs of the waves in substantially horizontal arrangement and flattened in substantially vertical planes, the flattened crests of the waves of the outer sections further being aligned with each other and with the flattened troughs of the waves of the central section, the troughs of the central section forming vertically aligned and constricted passageways therebetween, and means for enclosing the water sections and the firebox; the boiler further comprising a geyser fountain for each section, the fountain for each outer section comprising a tube, one end of the tube communicating with the water at the bottom of the section, the free end of the tube being above the water level and directed toward the inner surface of the crest of a wave above the water level in the same section, a dam horizontally disposed [in] *within* said last mentioned [trough] *crest* and adapted to partially retain the water from the tube in the [trough] *crest*, the fountain for the central section comprising another tube, one end of said other tube communicating with the water at the bottom of the central section, the free end of said other tube being extended upwardly through the aligned passageways and bifurcating adjacent the free end extremity thereof into two outlets above the water level, each outlet being directed toward the inner surface of the crest of a wave of the central section above the water level.

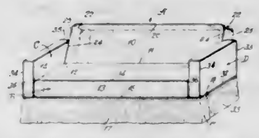
24,279
SLIP COVER

Ethel Schutte and William J. Reavis, Baltimore, Md., assignors to S & E Manufacturing Company, Baltimore, Md., a corporation of Maryland

Original No. 2,671,499, dated March 9, 1954, Serial No. 326,269, December 16, 1952. Application for reissue March 7, 1956, Serial No. 570,438

(Filed under Rule 47(a) and 35 U. S. C. 116)

4 Claims. (Cl. 155—182)

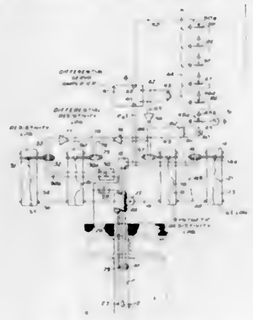


3. A slip cover for an article of upholstered furniture having a back, arms and a seat, said cover comprising arm sections each substantially in the form of a blank to enable it to be readily draped over the inside, top and outside surfaces of a chair arm, the portion of each section for covering the outside surfaces of a chair arm being wider than the portion thereof for covering the inside surface of such arm and including a rear extension foldable vertically around the rear side of the arm, each of said arm sections having its rear and its front edges free from the seat and back covering portions of the cover, a non-stretchable corded welt provided on and defining said front edge of the arm section, front panels for covering the front faces of the chair arms, each of said front panels having a side edge only secured by said welt to a portion of the front edge of an arm section that will be positioned along a side edge of the front face of an arm when the cover is assembled on a chair, the remaining edge portions of said front panel being separated from the welted front edge of the arm section, each of said front panels having an area substantially greater than the area of the front face of the chair arm, so that edge portions thereof may overlie a side and the top of an arm in overlapping relation to the front edge portion of said arm section, the portion of said welt connecting an arm section and front panel being positionable on a side edge of the front face of an arm to properly position said arm section and front panel with relation to the chair arm and being maintained in such position while the front face panel is drawn across the face of the arm and under the portions of the welted front edge of the arm section that are separated from said face panel, said

welt being manipulatable to follow the contour of the sides and top of the front face of an arm and holding the overlapped side and top portions of said front face panel against disarray on the front face of the chair arm.

24,280
ACOUSTIC VELOCITY-ELECTRICAL RESISTANCE CORRELATION WELL LOGGING
Allen A. Stripling, Dallas, Tex., assignor, by mesne assignments, to Socony Mobil Oil Company, Inc., New York, N. Y., a corporation of New York
Original No. 2,713,147, dated July 12, 1955, Serial No. 364,717, June 29, 1953. Application for reissue December 3, 1956, Serial No. 626,571
14 Claims. (Cl. 324—1)

1. The method of locating sections of earth formations having abnormal fluid content which comprises generating two electrical signals which vary in relation to depth below the earth's surface in accordance with two earth parameters one of which is an electrical resistivity function of the formations and the other an acoustic velocity function of said formations, generating a synthetic signal in dependence upon a mathematical power function, an assumed normal fluid saturation of the formations and one of said electrical signals, and recording as a function of depth of said formations said



synthetic signal and the other of said electrical signals to indicate by departures therebetween the sections having said abnormal fluid saturation.

PLANT PATENTS

GRANTED FEBRUARY 19, 1957

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,567
RASPBERRY PLANT
Conio Loretto, Joseph N. Loretto, and Leonard Loretto, Brant Township, Erie County, N. Y., assignors to First Burgundy, Inc., Brant Township, Erie County, N. Y., a corporation of New York
Application March 7, 1956, Serial No. 570,198
1 Claim. (Cl. 47—62)

A new and distinct variety of raspberry plant, substantially as herein shown and described, characterized particularly as to novelty by the burgundy color of its fruit, and further characterized by its vigorous, erect and dense growth and high productivity.

1,568
ALMOND TREE
Vincent B. Rodgers, Ballico, Calif.
Application December 10, 1954, Serial No. 474,635
1 Claim. (Cl. 47—62)

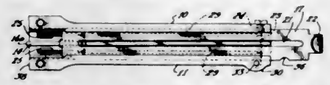
A new and distinct variety of almond tree as shown and described, distinctively characterized—in comparison with the Mission almond, with which there is general resemblance in the three and nuts—by a faster and more vigorous growing and branching habit, the tree having a broader top; and the nuts being soft shell, with a substantially higher percentage of crack-out and a better quality and flavor of the kernel; and further characterized—in comparison to the Soft-Shell Texas almond—by a smooth rather than pubescent kernel.

PATENTS

GRANTED FEBRUARY 19, 1957

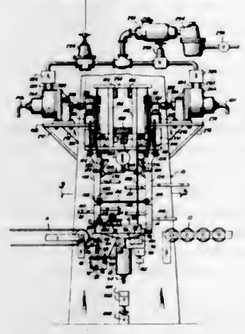
GENERAL AND MECHANICAL

2,781,515
STAPLE FEED MAGAZINE
Albert G. Juilfs, Newtown, Ohio, assignor to Senco Products, Inc., Cincinnati, Ohio, a corporation of Ohio
Application March 30, 1953, Serial No. 345,490
9 Claims. (Cl. 1—49)



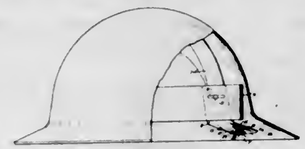
1. A staple magazine and feed structure for use with a stapling machine, said structure comprising a housing, a staple support bar fixed wtihin said housing and arranged to slidably retain a strip of staples thereon, a follower slidable on said support bar for pushing said strip of staples in a forwardly direction on said support bar, a cover member mounted in said housing over said support bar and slidable in a rearward direction to expose said support bar, and means for biasing said follower on said support bar in a forwardly direction, said last-mentioned means comprising a pair of extensible spring members each having one end spaced from said cover member and fixed within one end of said housing and a pair of pulleys spaced from said cover member and fixed within the other end of said housing, said support bar extending between said pulleys and said springs extending forwardly from adjacent the rear end of said housing around said pulleys and being connected at their other ends to said follower.

2,781,516
STRAPPING MACHINE
Morris M. Eisenberg, Clarence, Mo.
Application August 27, 1954, Serial No. 452,556
8 Claims. (Cl. 1—123)



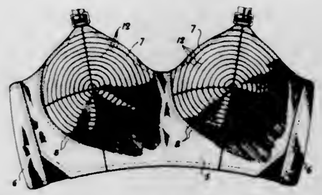
1. In a strapping machine, the combination of; means for supporting the object to be strapped, a continuous strap guide frame disposed around the object, feeding means for feeding a length of strap into the frame with overlapping portions, said feeding means including a drive wheel continuously rotationally locked to an air motor, means for clamping said strap against said object to allow tensioning of said strap, means for reversing said air motor to tension said strap and to cause said air motor to stall, means for nailing said overlapping portions to said object, means operable incident to said nailing to sever said strap, and means operable incident to said nailing to remove the air supply to said air motor, said drive wheel remaining in continuous driving engagement with said strap through an entire cycle of operation.

2,781,517
MOLDED PROTECTIVE HAT
Joseph R. Fisher, Penn Township, Allegheny County, Pa., assignor to Mine Safety Appliances Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application February 10, 1954, Serial No. 409,355
15 Claims. (Cl. 2—3)



1. In a molded protective hat, a plurality of anchors disposed at circumferentially spaced intervals around the lower surface of the hat, a bonded lamination permanently covering and engaging the lower surface of a portion of each anchor to secure it to said hat surface, and the rest of the anchor being free and exposed for detachable suspension from a hat lining.

2,781,518
BRASSIERE AND LIKE FOUNDATION GARMENT
Joseph Verreault, Quebec, Quebec, Canada, assignor to Dominion Corset Co. Ltd., Quebec, Quebec, Canada
Application April 13, 1953, Serial No. 348,156
2 Claims. (Cl. 2—42)

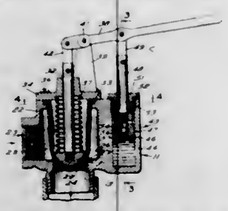


1. A foundation garment including breast pockets having outer facing and inner lining plies, a pair of helical lines of stitching spiralling from the center to the periphery of each breast pocket, each helical line of stitching comprising zig-zag stitches of V formations, each stitch extending angularly with respect to a circumferential line concentric with the apex of the pocket, one of said helical lines overlying the outer facing ply of the pocket and interlocked with the other helical line overlying the inner lining ply.

2,781,519
FLUSHING SYSTEM
Rodney H. Marchant, Oakland, Calif.
Application September 6, 1952, Serial No. 308,258
2 Claims. (Cl. 4—31)

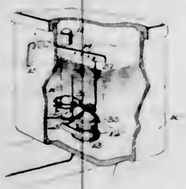
1. An improved bowl flushing system comprising a main valve having a passage therethrough and a movable

valve member therein, said valve being adapted for connection between a supply of water and a bowl to be flushed, said movable valve member having a normally closed and an open position to control water flow through said valve to said bowl; a pivotally mounted lever engaging said valve member for moving same from closed to open position; and a timer including a piston connected to said lever to retard return motion thereof to closed position of said valve member, a housing about



said piston defining a piston chamber thereabout in substantially parallel spaced relation to the movement of said movable valve member, a fluid within said chamber, a ball check valve within said piston and communicating therethrough for transmitting fluid flow in one direction through said piston, and a restricted passageway in said housing between opposite ends of said chamber and adapted to accommodate return flow of fluid about said piston whereby said main valve is maintained opened a predetermined time each time it is actuated.

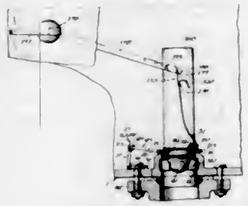
2,781,520
VALVE BALL MOUNTINGS FOR TOILET FLUSH TANKS
Richard Micek, Walsenburg, Colo.
Application May 17, 1954, Serial No. 430,062
8 Claims. (Cl. 4—57)



1. A valve ball mounting for a toilet flush tank having an overflow pipe and outlet provided with a valve ball seat, and a valve ball coacting with said seat, a hinge bracket mounted on said pipe, hinge means carried by the bracket, a resilient yoke straddling said pipe to extend at its forward end portion over said ball and having free rear ends held by the resiliency of the yoke in pivotal engagement with said hinge means, stop means on said bracket coacting with the rear ends of said yoke and disposed to space the rear end portions of the yoke away from said hinge means and limit the yoke against lateral play to swing in a straight path lying in a plane with the center of said seat, and means connecting the ball with the forward end portion of said yoke.

2,781,521
VALVE ACTUATING ATTACHMENT MEANS
Edward G. Schmidt, La Grange, and Axel B. Nelson, Chicago, Ill., assignors to Crane Co., Chicago, Ill., a corporation of Illinois
Application September 7, 1954, Serial No. 454,554
3 Claims. (Cl. 4—57)

1. In combination with a flush tank for a water closet or the like provided with an outlet and a valve member therefor, a tripping mechanism mounted in the upper part of the tank, the latter mechanism including a lever arm having an aperture therethrough, flexible means such as a cord connected to said valve member for raising the valve member from the closed position, said flexible means having at least one element of enlarged bead-like form, a resilient clip member connecting the flexible means to said lever arm, said clip member consisting of a single piece of wire and comprising an upstanding leg formed into a hook and adapted to receive the marginal portion of the lever arm between the aperture and an outer limit thereof through the restricted opening of the hook and within the interior thereof for securement of the clip member and attached flexible means, said marginal portion of the lever arm being of relatively greater depth than the restricted opening of the hook and the outer leg of the hook being deflectable for the passage of the aforesaid marginal portion through the restricted opening, said wire clip member having a lower portion for attachment of the flexible means, said lower attachment portion being formed into a loop of sufficient size to loosely contain the portion of the flexible means immediately below the enlarged element thereof while not so large as to permit the passage of the enlarged element therethrough when the flexible means is subjected to an axial pull, said loop having an outer deflectable leg for insertion and withdrawal of the portion of the flexible means below the enlarged element thereof between the terminal portion of the outer leg and opposite portion of the loop by the application of transverse force in opposite directions respectively for insertion and withdrawal of the flexible means into and out of the central portion of the loop, said extending leg and hook and the lower attachment portion each extending in single planes substantially at right angles to each other, the loop formation of the lower attachment portion further being disposed at an angle with respect to the upstanding leg from which the lower attachment portion extends, the angle being sufficient to cause the loop formation to extend and to engage said flexible means passing therethrough transversely to a straight line through the central portion of the loop and the center of contact between the hook formation and lever arm at the top whereby to permit the flexible means to assume this straight line substantially throughout the portion under load during tripping of the lever arm and raising of the valve member into the open position for substantially straight line pull of the flexible means during this actuation, said resilient clip member being constructed of round wire and said hook formation being of smooth curvature at the top thereof to permit swiveling of the clip member with respect to said lever arm in any direction to facilitate the substantially straight line pull of the flexible means during actuation of the valve member, said flexible means having at least a second element of enlarged bead-like form adjacent the lower end thereof, said valve member having an upwardly extending portion, a wire element having a portion embracing said upwardly extending portion in substantially fixed relation and including a portion therebeyond formed into a loop of sufficient size to loosely contain the portion of the flexible means immediately above the said second enlarged element thereof while not so large as to permit the passage of the second enlarged element therethrough when the flexible means is subjected to axial pull, said portion of the wire element forming the loop extending substantially horizontally at least when the valve member is in the closed position whereby to effect substantially straight line axial pull of the flexible means along its entire length under load during actuation and in cooperation with the said resilient clip member.



2,781,522
PORTABLE BATHS
Clive Selsey Phillips, Tunbridge Wells, Kent, and Patricia Rosemary Doreen Millns, St. Paul's Cray, Kent, England
Application May 6, 1955, Serial No. 506,628
3 Claims. (Cl. 4—177)

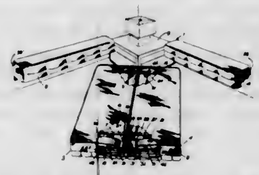
1. A portable bath for bathing infants, comprising a collapsible flexible container for the water and a pair of longitudinal rigid frame members having secured thereto longitudinal rim parts of the container and fore and aft frame units adapted to act as struts for the longitudinal frame members and dimensioned so as to span a normal domestic bath and to rest upon or to be secured to the flange of the domestic bath, the longitudinal members and fore and aft units being formed from standard channel section metal bars and the ends of the longitudinal members being formed with lugs in continuity with the opposed limbs of the channels and pivoted to the corresponding limbs of the channels of the fore and aft units by pivot members, the channels of the longitudinal members being opposed and the said fore and aft units being bent forwards from their pivoted connections to the longitudinal members and thereby shaped so that parts thereof contiguous to the longitudinal members will nest in the channels of the longitudinal members.

2,781,523
CRIB COVER
Herman F. Scott, Gary, Ind.
Application May 22, 1950, Serial No. 163,515
2 Claims. (Cl. 5—3)

1. A crib cover having a pair of elongated members flexibly connected at one end thereto and arranged in spaced relationship with respect to the cover to provide guideways for embracing supporting means on a crib, and means integral with the other ends of the members for detachably embracing under tension portions of the cover.

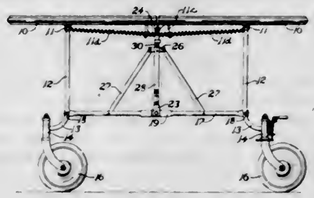
2,781,524
MOTORIZED BEDS
Chester C. Andes, Independence, Mo.
Application March 24, 1955, Serial No. 496,532
11 Claims. (Cl. 5—8)

1. In a divan-bed structure, a bed, means supporting one end of the bed for pivotal movement about a vertical axis adjacent said one end, spaced elongate rollers under the bed with the axes of said rollers in a substantially horizontal plane and spaced transversely of the frame, said rollers axes converging at an acute angle to a point on said vertical axis, an endless flexible band extending around and operatively engaged with the spaced rollers, means rotatably mounting the spaced rollers on the bed whereby the lower run of said flexible band engages a floor on which the bed is movable, said spacing of the rollers being such that the rollers and band thereon co-



operate to maintain the bed in substantially level condition, and power means operatively connected with at least one of the spaced rollers for rotating same and driving the flexible band for moving said other end of the bed.

2,781,525
COLLAPSIBLE STRETCHER
Lester L. Bauer, Toledo, Ohio, assignor to Gendron Wheel Company, Perrysburg, Ohio, a corporation of Ohio
Application March 7, 1955, Serial No. 492,555
4 Claims. (Cl. 5—81)

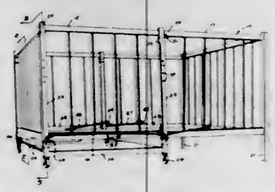


1. A collapsible stretcher having a pair of articulated assemblies movable between a position of use and a collapsed position, each assembly comprising a body-supporting panel section, supporting leg elements pivoted to the outer end position of the panel section, brace arm members pivoted to the lower portion of said leg elements respectively, means for pivotally connecting the adjacent ends of said arm members, said connecting means including vertical post members, and pivotal connections between the upper ends of said post members and the adjacent ends of said panel sections respectively, a sleeve slidable on one of said post members, diagonal braces pivoted to opposite sides of said sleeve respectively at one end and an intermediate portion of said brace arm members respectively, the improvement which comprises an elongate spring arm fixed at one end to said post with its upper end overlapping said sleeve, pins rigid with said sleeve and spring arm and extending in opposite directions, said spring arm having a hole to receive the sleeve carried pin, there being holes in the sleeve and post adapted to register when the stretcher is in position of use for reception of the spring arm carried pin, the arrangement being such that in the collapsing movement of the parts the spring arm engages the sleeve carried pin thereby to hold the spring arm carried pin from entering the hole in the post, and a handle rigid with said spring arm for moving the parts to collapse position.

2,781,526
COMBINATION PLAYPEN AND CRIB
James L. Zimmerman, Mansfield, Ohio
Application September 4, 1953, Serial No. 378,595
2 Claims. (Cl. 5—93)

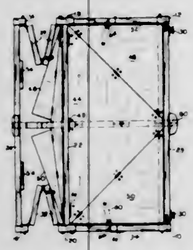
1. In a combined crib and play pen, substantially similar but reversed stationary and movable sections, the movable section being shorter than the stationary sec-

tion, said sections each comprising a side wall and end walls connected to the side wall, said side walls having free ends, said movable section being telescoped into said stationary section with the movable section and walls positioned along the inner sides of the stationary section end walls with the free ends of the movable section end walls adjacent to the stationary section side wall, the end walls of the sections having lower ends, said sections having bottom walls at the lower ends of the end walls with the bottom wall of the movable section overlying and spaced above the bottom wall of the stationary section, and pairs of links pivoted at one end to points spaced along the lower ends of the movable section end walls and at another end to points spaced along the lower



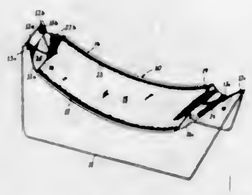
ends of the stationary section end walls enabling swinging said movable section upwardly and outwardly of said stationary section to an extended position alongside of said stationary section with the free ends of the end walls of the sections in close proximity to each other, a horizontal frame underlying said stationary section, said stationary section and said frame having vertical corner posts, means confining the corner posts of the frame to vertical sliding engagement with the corner posts of the stationary section whereby the stationary section can be raised or lowered relative to the frame, and latch means on the stationary section engageable with portions of the frame corner posts for holding the stationary section in selected positions of elevation relative to the frame.

2,781,527
CONVERTIBLE CRIB AND PLAY-YARD CONSTRUCTIONS
Henry J. Landry, Ashburnham, Mass.
Application October 8, 1953, Serial No. 384,911
14 Claims. (Cl. 5—99)



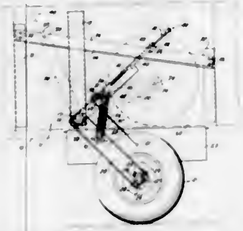
1. A folding convertible play-yard and crib construction comprising front and rear members and a parallel central supporting member, said members being separately connected by a plurality of in-folding semi-side walls, and a separate articulated multi-part floor at each side of said central member, each of said floor parts having a connection with its adjacent in-folding semi-side wall, so that either part of the device at either side of the central member may be separately automatically folded, means pivoting each floor part to a member, and means to raise each floor, said latter means being located on a different member.

2,781,528
HAMMOCK
Salvatore A. Lo Vico, Hollis, N. Y.
Application December 23, 1953, Serial No. 399,981
2 Claims. (Cl. 5—122)



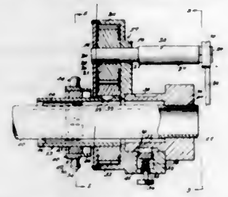
1. A hammock comprising a rectangular body of sheet material having a pair of at least roughly trapezoidal end portions integral with said body, first and second anchor means each including at least one ring adjacent a respective end portion, two continuous strip members engaging said rings and extending between said first and second anchor means on opposite sides of said body, said strip members lining the edges of said body and the inclined flanks of said trapezoidal end portions, a pair of transverse strips connected at their ends with said continuous strip members and extending along the junction lines between said body and said end portions, and auxiliary strip means connected with said continuous strip members and extending from said rings across the respective end portions to the center of the corresponding transverse strip.

2,781,529
RETRACTABLE WHEEL ASSEMBLY FOR BOATS
Lawrence C. Moody, Dallas, Tex., assignor to Texas Longhorn Boat Manufacturing Co., Inc., a corporation of Texas
Application April 1, 1955, Serial No. 498,500
10 Claims. (Cl. 9—1)



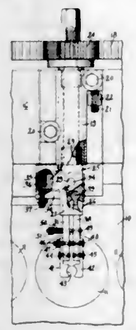
1. In a boat having a pair of longitudinal, laterally spaced wheel housings, a wheel assembly retractable into each of said housings, said wheel assemblies each comprising a supporting member vertically disposed on each side of a housing, a transverse shaft journaled at its ends in the lower ends of said vertical members, a pair of parallel wheel supporting arms connected at one end for rotation about said shaft, an axle supported between said pair of arms at the opposite end thereof, a wheel on said axle, a lever pivoted at one end to said shaft between said wheel supporting arms, a pair of inclined rails supported above and in transverse relation to said shaft and having longitudinally spaced slots therein, a lock release handle comprising a rod attached to and slidable longitudinally of said lever and having a locking bar affixed transversely thereto, said handle being effective to rotate said lever on said shaft, means biasing said locking bar against said rails for selective reception in said slots, and means yieldingly connecting said wheel supporting arms and said lever to raise and lower said arms and wheel in relation to said housing upon actuation of said handle.

2,781,530
RATCHET GEAR ASSEMBLY FOR WRENCHES AND DIES
Roy O. Wright, Huntington, W. Va.
Application January 12, 1955, Serial No. 481,459
1 Claim. (Cl. 10—124)



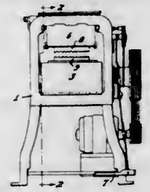
A tool comprising a hollow tubular sleeve having a cutout therein, a housing surrounding said sleeve and including a pair of spaced parallel end walls and an annular side wall, there being registering apertures in said end walls, a shaft including a cylindrical stem extending through said registering apertures, an enlarged shank extending from said stem and terminating in a square shaped portion, a pinion gear keyed to said stem and rotatably positioned in said housing, a gear member meshing with said pinion gear and keyed to said sleeve, a head extending from said housing and provided with a chamber, there being a recess in said housing, a die head having a portion seated in said recess and provided with a plurality of teeth on its outer periphery, said die head being provided with an inner threaded portion, a stud slidably mounted in said head and including an inclined prong mounted for movement into and out of engagement with the teeth on said die head, a coil spring circumposed on said stud and abutting said prong, a gauge mounted on said sleeve, a knob arranged on the outer end of said stud, said gauge including a ring mounted on said sleeve and provided with a plurality of threaded apertures, there being a first, second and third slot in said sleeve, a semicircular bracket mounted on said ring and having slots therein, said bracket including two sections of different thicknesses, means extending through said slots for engagement with a work piece for restraining the sleeve to move only axially of the work piece, and a handle provided with a socket for receiving the square shaped portion of said shaft.

2,781,531
ADJUSTABLE FINGER GRIPPING MEANS IN TRANSFER MECHANISMS
Erwin B. Byam, Wolcott, Conn., assignor to The Waterbury Farrel Foundry & Machine Company, Waterbury, Conn., a corporation of Connecticut
Application November 12, 1953, Serial No. 391,652
5 Claims. (Cl. 10—166)



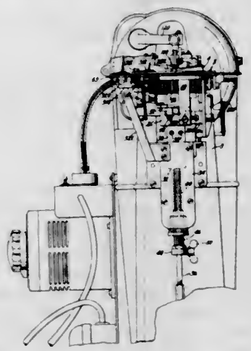
1. A transfer mechanism for a metal-working machine having a plurality of dies, said mechanism comprising a finger holder having spaced wall members, a finger bar member pivoted thereto having a depending leg, a second leg member having an upper portion within said holder and pivoted to the first member adjacent its upper end at a point between said wall members and extending into said holder in substantially parallel and spaced relation to said first leg, gripping fingers on the lower ends of each of said legs, and means for holding said finger bar member in adjusted positions about its pivot with the holder, said means comprising an arm on the finger bar member, an adjusting screw in the holder at one side of the member engaging said arm and a spring at the other side thereof urging the member against said screw.

2,781,532
PROCESS AND APPARATUS FOR LACING LEATHER
Howard H. Hoffman, Newport, Ky., assignor to The Louis G. Freeman Company, Cincinnati, Ohio, a corporation of Ohio
Application February 6, 1952, Serial No. 270,241
17 Claims. (Cl. 12—51)



1. A process of producing a laced structure which comprises acting upon a flexible web to deflect aligned portions of the web alternately to either side of a median plane, passing along said median plane a lacing element so that alternately deflected portions of said web lie to either side of said lacing element, engaging a strip of lacing material with an end of said lacing element, and thereafter withdrawing said lacing element so as to position said lacing strip between the alternately deflected portions of said web.

2,781,533
MACHINES FOR CONTRACTING THE MARGINS OF SHEET MATERIAL
Edward Quinn, Saugus, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application October 14, 1955, Serial No. 540,441
25 Claims. (Cl. 12—97)



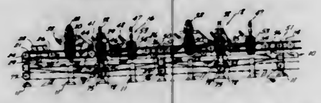
1. In a machine for crimping the margin of a piece of sheet material, a work support, means operative inter-

planes, said side arms and neck portions being semi-cir-

2,781,540

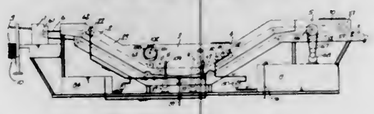
mittently in cooperation with said support for forming a pucker in the margin of a work piece, and feeding means operable intermittently in timed relation to the operation of said puckering means for holding said work piece stationary while said puckering means forms a pucker in said work piece and for advancing said work piece lengthwise of its margin after formation of said pucker whereby a succession of uniform puckers is formed step by step in the margin of said work piece.

2,781,534
WASHER FOR BENT LAMINATED GLASS
Carl J. Cochran, New Kensington, and Martin W. Neuhausen, Zellenople, Pa., assignors to Pittsburgh Plate Glass Company
Application June 24, 1952, Serial No. 295,214
16 Claims. (Cl. 15—77)



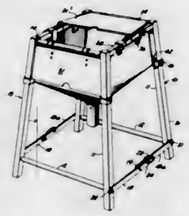
1. Apparatus for washing curved-surface articles, said apparatus comprising a conveyor supporting the articles and along which successive articles travel with different areas of the surface of the article at different levels transversely of the conveyor and with the lowest level of each article adjacent to the transverse middle of the article as the article travels along the conveyor, a plurality of brush-supporting axles at different locations lengthwise of the conveyor with axes of rotation extending transversely of the direction of movement of the conveyor, brushes on the axles, there being on the axles at at least one location a plurality of brushes transversely spaced from one another and the brushes at any location having a plurality of brushes being substantially symmetrical transversely of the center of support of the articles on the conveyor to avoid rotative forces tending to turn the articles on the conveyor, at least some of the brushes being at different levels and in position to contact the different-level areas of the surfaces of each successive article as it is advanced along the conveyor, successive brushes in the direction of travel of the conveyor being at progressively lower levels so that successive brushes contact with successive areas toward which washing fluid tends to flow on said articles, and conduits adjacent to the brushes for supplying water to the articles.

2,781,535
SHEET CLEANING MACHINES
William I. Phillips and James C. Lawrence, Seattle, Wash., assignors to C & H Supply Company, Seattle, Wash., a corporation of Washington
Application May 7, 1954, Serial No. 428,158
6 Claims. (Cl. 15—77)



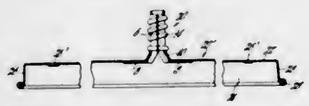
1. A sheet cleaning machine comprising a tank, conveying means operable to move a sheet edgewise through said tank in succession through an initial washing station, a scrubbing station, a rinsing station, and a drying station, means at such initial washing station operable to supply liquid to the sheet, scrubbing means at the scrubbing station operable to engage and scrub the sheet during its movement by said conveying means, spraying means at said rinsing station operable to rinse the sheet, drying means at the drying station operable to remove moisture from the sheet, and timing means operable by said conveying means to initiate operation of said spraying means at the rinsing station substantially when such sheet reaches the rinsing station and further operable to terminate such operation of said spraying means substantially when such sheet leaves the rinsing station.

2,781,536
DUST BAG AND STAND FOR MOPS
Wanda L. Paul, New York, N. Y.
Application May 22, 1953, Serial No. 356,632
1 Claim. (Cl. 15—104)



A dust receptacle and collapsible mount therefor comprising a stand having four inwardly leaning corner square legs; upper and lower rungs securing the front pair of legs together to form a front section and similar rungs forming a back section; upwardly breaking toggles connecting the lower parts of the sections together; downwardly breaking toggle bars joining the upper portions of the sections together, the ends of the bars when the latter are in substantially straight horizontal distended position snugly abutting against the legs; locks for maintaining the bars in straight position; a dust bag within the bounds of the upper rungs and bars; straps secured to the upper margins of the bag and disposed over the rungs and bars for suspending the bag therefrom; a pair of lids each covering about half the bag and hinged on respective upper rungs, the free marginal portions of the lids meeting and each provided with a semi-circular slot to provide a round hole adapted to receive a mop handle; a funnel member in the bottom portion of the bag and having a stem portion opening therebelow, and a collecting vessel removably secured to said stem portion.

2,781,537
CONSTRUCTION FOR BRUSH OR THE LIKE
Alfred L. Le Febvre, Southwick, and Herbert D. Rice, Westfield, Mass., assignors to Stanley Home Products, Inc., Easthampton, Mass., a corporation of Massachusetts
Application November 24, 1954, Serial No. 470,989
3 Claims. (Cl. 15—146)

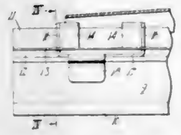


1. A device for connecting a brush support to the end of a tubular handle having an internal screw thread at lower end thereof comprising in combination, a connection formed from a single strip of relatively thin and resilient metal to have an upper transverse end wall and elongated side arms and flat unconnected lower wings, said side arms at upper ends thereof and opposite sides of said upper wall having connections therebetween and said arms depending vertically in parallel adjacency from said upper wall, said side arms at lower ends thereof and inner ends of the wings being connected by neck portions, said wings extending outwardly relative to said side arms transversely to a vertical plane extending vertically between said side arms and being disposed in horizontal planes, said side arms and neck portions being semi-circular in transverse cross-section and said arms being formed with a screw thread for engaging the internal threads of a hollow handle, inner longitudinal edges of said side arms being normally slightly spaced apart and the connections between said side arms and upper wall being arranged whereby said side arms may yield inwardly towards one another.

2,781,538
BROOM
Samuel C. Lay, Portland, Ind.
Application April 29, 1953, Serial No. 351,797
1 Claim. (Cl. 15—174)

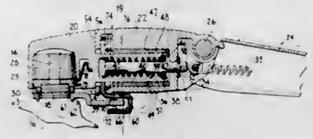
A broom comprising a tubular handle formed with a hollow elliptical lower end, a fibrous head encompassing said lower end, adhesive means securing the fibers of the upper portion of said head together, a ferrule encompassing the upper portion of said head and the lower end of said handle, said lower end of said handle having a pair of diametrically opposed openings, a bowed resilient member disposed interiorly of the lower end of said handle, said resilient member extending axially of said handle, oppositely projecting anchoring pins carried by said member extending outwardly through said openings and into said head, and a clamping ring engaging about said ferrule for tightly binding said ferrule to said head, said clamping ring being disposed in the vicinity of said pins and compressing said head tightly against said pins.

2,781,539
WINDSHIELD WIPER
John R. Oishei, Buffalo, N. Y., assignor to Trico Products Corporation, Buffalo, N. Y.
Application May 29, 1951, Serial No. 228,818
13 Claims. (Cl. 15—245)



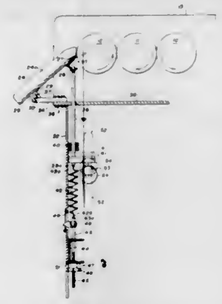
1. A windshield wiper comprising a blade body having a relatively thin wiping edge along one margin and an anchoring head along its opposite margin joined to the body by a reduced neck, a surface conforming flexible backing strip having longitudinal side margins, and a pressure applying superstructure operatively engaging the latter, said backing strip having opposed portions extending lengthwise of and engaging beneath and supporting the anchoring head at opposite sides of the neck, and a secondary supporting member extending over the head and interlocking with the opposed portions at opposite sides of the neck, said secondary supporting member extending thence downwardly to straddle the body in engagement therewith to afford lateral support therefor beneath the backing strip.

2,781,540
WINDSHIELD WIPER ARM MOUNTING
Raymond A. Deibel, Cheektowaga, N. Y., assignor to Trico Products Corporation, Buffalo, N. Y.
Application October 27, 1954, Serial No. 464,967
15 Claims. (Cl. 15—255)

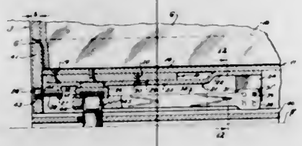


1. A windshield cleaner for a curved windshield, comprising an oscillatory drive shaft, a wiper arm unit fixed thereon, a wiper blade carried by the arm back and forth across the windshield when said drive shaft oscillates, means for adjusting the attitude of said wiper relative to the windshield to maintain the wiper blade substantially normal to the windshield surface during such wiper movement, said means including cooperating cam and follower parts with one part straddling an edge of the other part to enable separation upon relative movement lengthwise of the arm, and yieldable means normally holding the parts in a cooperating relationship while yielding to permit their separation.

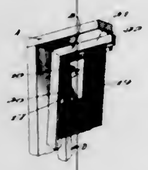
2,781,541
ADJUSTMENTS OF A SCRAPER BLADE IN A ROLLER MILL
Gosta R. Linden, Park Ridge, N. J., assignor to J. M. Lehmann Company, Inc., Lyndhurst, N. J., a corporation of New York
Application August 9, 1954, Serial No. 448,615
3 Claims. (Cl. 15—256.5)



1. The combination in a roller grinding mill having a frame, a plurality of rollers comprising a train of rollers and a scraping blade disposed to scrape material processed by said rollers from the surface of said last roller of said train of an apron detachably pivoted to said frame for receiving said processed material scraped off by said scraping blade, said scraping blade secured to said apron at the end thereof distant from the portion thereof pivoted to said frame, a hook suspended from the bottom of said apron near the portion thereof holding said scraping blade, a vertical rod terminating in a T-section at its upper end slideably mounted within said frame with its T-shaped end disposed to engage said hook, a tension spring exerting a downward pull on said rod, a nut rotatably mounted on a threaded lower portion of a second rod attached to said tension spring arranged to vary the tension exerted by said spring, a stop for said nut mounted on said frame, a flange fixed on said first rod above said spring and disposed to be raised by a cam mounted on said frame and operable by a lever whereby the tension of said spring on said first rod is released and said hook may be disengaged from said T-shaped terminus of said first rod.

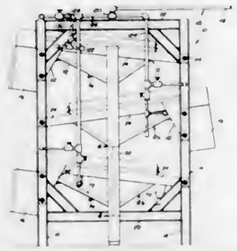
2,781,542
ADJUSTABLE HINGE MECHANISM
George L. West, Pittsburgh, Pa., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania
Application January 31, 1955, Serial No. 485,076
20 Claims. (Cl. 16—129)

1. In a checking floor hinge for a door having a channel member having downturned sides and extending along the bottom end thereof, a base plate adjustably mounted for edgewise movement within said channel member adjacent the hinge edge of said door and having a main section provided with elongated slots extending in the edgewise direction of said bottom of the door, an aperture extending upwardly through the end thereof adjacent the hinge edge of the door and downwardly extending flanges at the other end thereof having abutting engagement with the inside of the downturned sides of the adjacent channel member, screw means extending through said slots in the main section of the base plate and securing it to the bottom of said door in the channel member in a slidably adjustable position and a check arm having an upstanding boss on the upper portion thereof at one end and received in said aperture in the end of the base plate, said check arm having a recess therein below said raised boss adapted to engage a check means therebelow when in an installed position.

2,781,543
SPRING HINGE
Henry L. Majeske, Coral Gables, Fla., assignor to American Screen Products Co., Miami, Fla., a corporation of Florida
Application August 23, 1954, Serial No. 451,482
2 Claims. (Cl. 16—180)



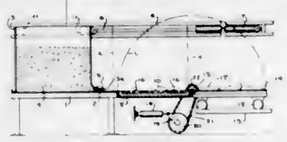
1. A device for hingedly connecting a screen frame to a window frame and wherein said screen frame is provided with a vertically elongated slot opening inwardly toward the center thereof, and wherein said window frame is provided with an aperture opening inwardly toward the center thereof; comprising a unitary member formed from a single strand of resilient material, the said member comprising a coil, a pair of legs extending in the same direction from opposite ends of the coil and terminating in lateral extensions, one of said legs being shorter than the other and the said extension thereof being of hook form for reception within the slot in said screen frame and the extension of the longer leg being straight and being removably engageable within the aperture in said window frame, said legs being disposed at one end of said coil and the longer leg being provided with a finger engageable manipulating loop from which said straight extension extends.

2,781,544
SEAFOOD CLEANING MACHINE
Paul C. Skrmetta, New Orleans, La., assignor of twelve and one-half percent to Herman J. Agregaard and twelve and one-half percent to Antoine Rodi Rodriquez, both of New Orleans, La., and fifty percent to Raphael O. Skrmetta, New Orleans, La.
Application June 10, 1955, Serial No. 514,561
19 Claims. (Cl. 17—2)



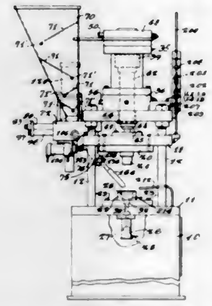
1. A shrimp cleaning machine including a longitudinally extending generally flat shrimp receiving platform having flexible, transversely downwardly curved side edges, support means over which said flexible side edges are entrained, means operatively connected to said platform for transversely reciprocating the same, longitudinally extending rollers engaging the top surface of the platform adjacent the side edges of the latter to thereby form crotches with the platform, said rollers being oscillatably driven by their contact with the top surface of the platform, the surfaces of the rollers and platform having different coefficients of friction whereby a shrimp received in a crotch will cling to one surface and slip on the other surface to thereby rotate the shrimp until a loose end of its shell is caught between the roller and platform and the shell is unwound from the shrimp and drawn through the crotch and from the platform.

2,781,545
MACHINE FOR THE PRODUCTION OF MOLDED BOARDS
Enn Vallak, Grythyttan, Sweden
Application April 5, 1955, Serial No. 499,454
Claims priority, application Sweden April 21, 1954
4 Claims. (Cl. 18—5)



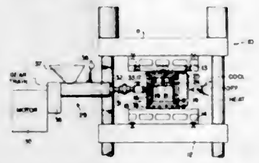
1. A machine for the production of molded boards from finely divided material, comprising in combination, a frame, a mold having a plane surface and having in said surface at least one mold depression, said mold being hinged to said frame and being tiltable about a horizontal hinge axis adjacent an edge of said mold between a first position wherein said surface is disposed substantially horizontally and said depression is open on top and a second position for the discharge of the molded board from said mold, said second position being disposed at an angle larger than a right angle relative to said first position, a carriage having a cover pivoted near one side edge thereon and being movable to and from a station adjacent said mold wherein said pivot axis substantially coincides with said hinge axis, and means for rotating said mold between said first and second positions, whereby, when said mold is in said first position and said carriage in said station, said cover may be tilted about said coinciding axis to abut against said surface to cover said depression, thereafter said mold may be tilted with said cover to said second position to discharge the molded board onto said cover, and subsequently said mold may be returned alone to said first position.

2,781,546
MOLDING MACHINE FOR RESINOUS MATERIALS
Thomas L. Hallenbeck and Lawrence D. Ninneman, Toledo, Ohio, assignors to Baker Brothers, Inc., Toledo, Ohio, a corporation of Ohio
Application November 15, 1951, Serial No. 256,441
4 Claims. (Cl. 18—30)



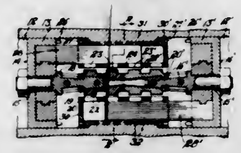
1. In combination with a molding apparatus having a relatively stationary die; a relatively movable die; a hydraulic actuator for reciprocating the movable die to perform molding operations; a material measuring and transferring device for feeding moldable material into the stationary die; means for supplying comminuted moldable material to said device; fluid operated means for actuating said material measuring and transferring device; electrically energized means for controlling the flow of pressure fluid to said fluid operated means; means including a time-controlled relay associated with said electrically energizable means for predetermining the number of material measuring and transferring movements occurring during each molding operation, and electrically operated means for controlling the flow of fluid to said hydraulic actuator to move the relatively movable die to molding position and retract the same.

2,781,547
MOLDING PROCEDURE AND APPARATUS
Sven K. Moxness, Racine, Wis., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application December 26, 1951, Serial No. 263,320
14 Claims. (Cl. 18—30)



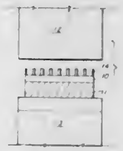
1. In plastic molding of bodies of high optical quality, the procedure of heating a mold above the softening temperature of the material to be used, filling the mold cavity with said material in a softened state, continuing the filling procedure until the pressure in the mold cavity rises high enough to also force material from the mold cavity into a connected pressure chamber, the pressure chamber also being heated, continuing the filling of the mold cavity and pressure chamber until a predetermined amount of material has been forced into the pressure chamber, terminating the filing procedure, and cooling the mold and the pressure chamber, with the pressure chamber being cooled more slowly than the mold so that the molding material in the chamber tends to be more fluid than that in the mold cavity and is forced into the mold cavity by the chamber pressure as shrinkage takes place in the mold.

2,781,548
CORES AND DIES FOR PRODUCING HOLLOW BODIES
Louis H. Morin, Bronx, N. Y., assignor to Coats & Clark, Inc., New York, N. Y., a corporation of Delaware
Application June 22, 1953, Serial No. 363,310
10 Claims. (Cl. 18—42)



6. A die and core structure for producing a spool having an inner tube, an outer barrel, and end walls joining the tube and barrel, said structure comprising a pair of relatively movable dies having mating cavities which define outer sides of the spool barrel; a pair of core units movable toward and from said mating cavities and adapted to engage each other to define end faces of the spool as well as internal construction of the spool as hereinafter described, each core unit comprising an outer head portion, a plurality of longitudinal core elements extending from said head portion and spaced circumferentially thereof, and a central mandrel portion extending from the head portion and disposed inwardly of said core elements; each said head portion defining the outer surface of an end wall of the spool; said core elements of one unit interfitting with those of the other unit and being disposable between the tube and barrel of the spool, said interfitting core elements defining inner surfaces of the barrel and end walls and outer surfaces of the tube; said mandrel portions being adapted to abut each other to define inner surfaces of the tube, each mandrel portion comprising at least one section and at least one mandrel element movably engaged with said section, and said mandrel element being movable toward and from said tube and having a plurality of spaced projecting members on the outer surface thereof for forming weight-reducing openings in said tube.

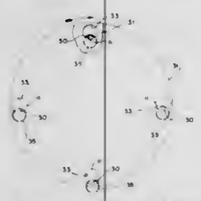
2,781,549
METHOD OF MOLDING ARTICLES HAVING SPACED DISCONTINUITIES THEREIN
John R. Milne, Dallas, Tex.
Application April 19, 1952, Serial No. 283,259
20 Claims. (Cl. 18—47.5)



1. The process for making a molded article comprising electro-orienting particles of a first material on a surface of a second material, molding a third material within the interstices formed by the particles of said first material oriented on the surface of said second material to fill said interstices to a depth at least partially that of said particles of said first material and form a coherent body comprising said molded third material containing said particles

of said first material at least partially imbedded therein, and thereafter removing at least a portion of at least said first material from said coherent body.

2,781,550
METHOD FOR MAKING ELASTIC BANDS
William H. Spencer, Alliance, Ohio
Application July 18, 1952, Serial No. 299,549
5 Claims. (Cl. 18—53)



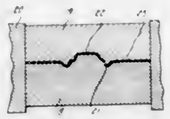
3. A method of making elastic tubing as for production of elastic bands, comprising the steps of providing a length of thin-walled cylindrical tubing of vulcanizable, flexible, rubber-like material, mounting said tubing on a horizontally extending supporting mandrel to suspend freely therefrom along an area of contact between the upper peripheral surface of the mandrel and the inner periphery of the tubing, and in the presence of open heat of vulcanization moving the horizontally extending mandrel about a continuous orbit while simultaneously rotating the mandrel about its axis and thereby imparting rotative movement to the tubing on the mandrel, said rotative movement of the tubing being for at least a part of the time in which the elastic material becomes set during the vulcanizing cycle, whereby the particles of the elastic material are substantially uniformly aligned in the tubing, and whereby said vulcanized tubing will have uniform cylindrical shape and uniform elasticity and tensile strength.

2,781,551
METHOD OF MAKING HOLLOW CONTAINERS
Louis J. Richerod, Adrogue, Argentina
Application January 5, 1952, Serial No. 265,149
5 Claims. (Cl. 18—55)

1. The method of forming a tubular member of integrated polyethylene and vinyl resin which is adapted to be used as a container, which comprises mechanically compressing to a sheet of polyethylene a sheet of vinyl resin plasticized to render it flexible but with a slightly higher softening point than the polyethylene, forming such composite mass into a tube with the polyethylene inside, heating such tube to a temperature at which the vinyl resin can be stretched and at which the polyethylene will flow readily under pressure, and while so heated expanding such tube by internal fluid pressure whereby the vinyl resin is caused to stretch to the desired shape and the polyethylene liner is caused to flow to keep the inside surface of the vinyl resin covered and to unite with the vinyl resin to form a substantially integral sheet so that the tubular member will remain flexible with no tendency for the layers to separate in use.

2,781,552
PROCESS FOR MAKING THIN ARTICLES OF POLYTETRAFLUOROETHYLENE
Roland M. Gray, Newark, Del., assignor to United States Ceramic Tile Company, East Sparta, Ohio, a corporation of Delaware
Application October 21, 1955, Serial No. 608,416
(Filed under Rule 47(b) and 35 U. S. C. 118)
6 Claims. (Cl. 18—55)

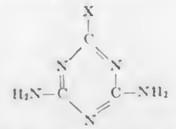
1. The method of forming shaped articles of polytetrafluoroethylene which comprises cutting a flat blank not exceeding 1/16 inch in thickness from a preform of pressed and sintered polytetrafluoroethylene, heating said blank to gel temperature and pressing said heated blank while



at not substantially less than gel temperature in dies which are at a temperature substantially below the gel temperature.

2,781,553
SPRAY MOLDING PROCESS
Andrew Anthony Varela, Old Greenwich, Conn., and Howard Tracy Bangs, North Plainfield, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application March 13, 1953, Serial No. 342,272
15 Claims. (Cl. 18—60)

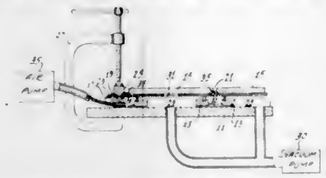
1. A molding process which comprises spraying a solution of a resinous aldehyde condensate of an aminotriazine having the structural formula:



in which X is a substituent containing no more than 10 carbon atoms of the group consisting of aliphatic hydrocarbon radicals containing from 1 to 9 carbon atoms, cycloaliphatic hydrocarbon radicals, aralkyl radicals, and $—NR^1R^2$, wherein R^1 and R^2 each is a substituent of the group consisting of said hydrocarbon radicals, aryl radicals and hydrogen atoms, on a mold heated to a temperature of at least about 300 degrees Fahrenheit to form essentially a single integral coating on an area of the mold, substantially evaporating the solvent therefrom to produce a film of thickness not substantially exceeding about 0.008 inch, partially and substantially uniformly curing the film, introducing into the mold a charge containing a fusible thermosetting resin of the group consisting of phenolic, urea, triazine, polyester, aniline-formaldehyde and epoxy resins, and thereafter molding and curing the charge and the film to the infusible and insoluble state as an integral article by the application of heat and pressure to the charge and the film with the mold closed; in which process said partially cured film is cured at least to the state in which the film does not disintegrate as a result of resin flow during the subsequent molding operation but not beyond the state in which the film is sufficiently fusible to bond integrally to said charge during the molding operation.

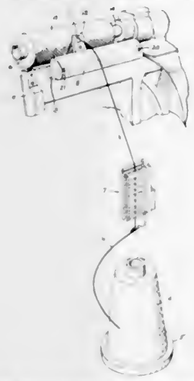
2,781,554
METHOD AND APPARATUS FOR MAKING TILE PANELS
Donald R. Robinson, Tottenville, N. Y., assignor to Tile Council of America, Incorporated, a corporation of New York
Application March 2, 1956, Serial No. 569,178
12 Claims. (Cl. 18—61)

1. Apparatus for holding tiles in position during setting of grout in the manufacture of tile panels, said apparatus comprising a panel support member having a series of ridges arranged to support each tile of the panel glazed surface toward the support member, said tiles positioned in spaced relation to form grooves between the tiles, said ridges also forming a cavity under each of the tiles and tunnels under the grooves between the tiles, a flexible element positioned between said tiles and said support member to provide a fluid seal between said ridges and said tiles, means for creating a partial vacuum in said cavities to hold said tiles in position, and means to create a pressure greater than atmospheric



pressure in the tunnels under the grooves between the tiles to press said flexible element against said tiles whereby said flexible element forms a leak-proof bottom to said grooves in order that a fluid grout may be inserted in the grooves between the tiles to form a tile bonding agent for the panel.

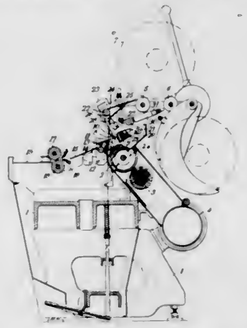
2,781,555
ABRADED-YARN PRODUCTION
Richard MacHenry, Prospect Park, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application May 19, 1953, Serial No. 356,008
6 Claims. (Cl. 19—.64)



1. In apparatus comprising a winding spindle, a yarn-traversing guide mounted for reciprocation along an ambit extending lengthwise of the spindle and adjacent the surface of a yarn wound about the spindle, and yarn-tensioning and guiding means spaced and positioned laterally from the spindle; means having an elongate abrasive surface disposed in adjacent substantially fixed relation to said ambit, the lengthwise direction of the abrasive surface being substantially parallel to that of the ambit and the transverse direction of said surface extending away from the ambit and the spindle, the longitudinal direction of the abrasive surface extending transversely in spaced relation to a straight line extending between the guide and a yarn-discharging point of said tensioning and guiding means, the surface facing away from said line.

2,781,556
TEXTILE COMBING MACHINE
John Raymond Foster, Accrington, England, assignor to T. M. M. (Research) Limited, Helmshore, Rossendale, England
Application October 12, 1953, Serial No. 385,633
Claims priority, application Great Britain October 14, 1952
2 Claims. (Cl. 19—116)

1. In a textile combing machine, the combination of a comb cylinder, a detaching mechanism, a rocking shaft located above said cylinder, pivot means located intermediate said rocking shaft and comb cylinder, a nipper assembly, means supporting the latter from said pivot means for swinging movement thereabout towards and away from said detaching mechanism, means for oscillating said rocking shaft in timed relationship with the



rotation of said cylinder, a top comb fixed on said rocking shaft and positioned to swing towards and away from said detaching mechanism, and connections between said rocking shaft and said nipper-supporting means for swinging said nipper assembly back and forth during the oscillation of said rocking shaft.

2,781,557
ACOUSTICAL AND AIR DISTRIBUTING CEILING CONSTRUCTION
Walter M. Ericson, Wauwatosa, Wis.
Application November 15, 1951, Serial No. 256,574
12 Claims. (Cl. 20—4)

1. In an air circulation system, a plenum chamber having a room ceiling at its bottom provided with discontinuous apertures opening downwardly through said ceiling from said plenum chamber said apertures having an aggregate area adequate for normal ventilating requirements and not exceeding one percent of the ceiling area and said apertures being in a substantially uniform pattern of distribution throughout the ceiling area and of such size and spacing from each other that flow from the several apertures laps and merges closely below the ceiling as a descending blanket of air.

2,781,558
BEAUTY SHOP PARTITION
Paul Peter Tarzia, San Francisco, Calif.
Application January 19, 1954, Serial No. 404,880
3 Claims. (Cl. 20—4)

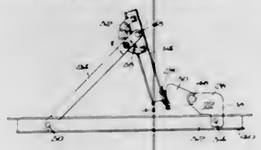
1. A beauty shop partition comprising a longitudinal base member having a plurality of upwardly facing trans-

verse grooves therein, a plurality of vertically disposed stud members positioned on said base member with the lower ends of said stud members received in said grooves, a cap member having a plurality of downwardly facing grooves therein, said studs having the upper ends thereof received in said downwardly facing grooves, said cap member having a longitudinally extending vertical slot therein, each of said stud members being provided with a longitudinal slot extending vertically from the upper end thereof and aligned with the longitudinal slot in said cap member, and a plate of transparent material extending vertically above said cap member and longitudinally thereof, said plate having the lower edge thereof passing through the longitudinal slot in said cap member and received in the longitudinal slots in said stud members.

2,781,559
PREFABRICATED FRAMES
Adelard Savoie, Danvers, Mass.
Application March 26, 1954, Serial No. 418,864
6 Claims. (Cl. 20—11)

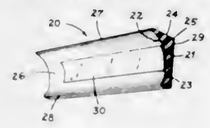
1. Prefabricated frame to surround and define a wall opening in a building comprising, jamb and lintel units, said jamb units including a half-jamb and a trim member attached to one edge thereof at right angles thereto, the lintel units including a half lintel and a trim member attached to one edge thereof at right angles thereto, said half jambs having grooves to receive the ends of the half lintels, the trim members on the jamb and lintel units adapted to lie in a single plane with the ends of the trim members of the jamb units in abutting relation with the ends of the trim members of the lintel units when the units are assembled, the abutting ends of said trim members having matching grooves, means to seat in the grooves in the trim members to hold the members in alignment, and means to secure the units together.

2,781,560
WINDOW HINGE AND GUIDE LINK
Richard Ziesmer, Pittsburgh, Pa.
Application June 5, 1953, Serial No. 359,789
2 Claims. (Cl. 20—53)



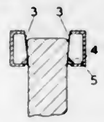
1. The combination comprising a window frame having vertical and horizontal rails forming a window opening, a window sash fitted in the opening having vertical and horizontal rails, a compound hinge comprising an arm member pivoted at one end and to the window frame and having frame contacting surfaces thereon for limiting its swing to an arc of 90° from a position normal to the plane of the window when the sash is closed to a position parallel with the plane of the window when the sash is opened, said compound hinge comprising also a link pivoted at one end to a vertical rail of the sash and at its other end to the free end of said arm member, said compound hinge members overlying one another when the sash is closed and being in substantial alignment end-to-end when the sash is opened whereby the rail of the sash to which the link is pivoted moves laterally toward the vertical center line of the window frame as the sash opens, and a guide link for effecting such operation of the hinge and sash having one end pivotally connected to a horizontal rail of the sash intermediate the two side rails and its other end pivotally connected to a horizontal rail of the frame intermediate the vertical center line of the frame and the side of the frame remote from the compound hinge.

2,781,561
GLAZING CONSTRUCTION
Robert T. Gifford and Sergius Vernet, Yellow Springs, Ohio, assignors to Dicks-Pontius Company, Dayton, Ohio, a corporation of Ohio
Application February 26, 1953, Serial No. 339,126
10 Claims. (Cl. 20—69)



1. A glazing strip of preformed composition adapted for use in the assembly of a pane in a frame having stops, without nails or fastening means passing therethrough comprising, in combination, an elongated strip of spongy rubberlike material of substantially greater heighth than thickness having a weather resistant surface, a relatively non-stretchable material coextensive in length with and fixed to said strip along its longitudinal extent for preventing elongation of said strip prior to its installation, and a coating of adhesive on at least one side of said strip for securing said strip in position on said stops during assembly, the opposite side of said strip being adapted to bear in yieldable sealing engagement against said pane, said strip including a lower marginal portion adapted to project below the edge of said pane when assembled in said frame for tending to resist displacement of said strip in direction transverse to the strip.

2,781,562
APPARATUS FOR THE CONTINUOUS CASTING OF METALS
John F. Hobbs and Neil B. Muir, Birmingham, England, assignors to Imperial Chemical Industries Limited, a corporation of Great Britain
Application April 24, 1953, Serial No. 350,802
Claims priority, application Great Britain May 14, 1952
4 Claims. (Cl. 22—57.2)

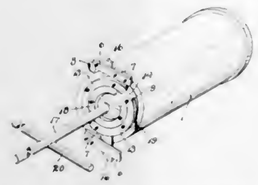


1. A continuous casting mold comprising a substantially rectangular frame, rigid end walls fixed to said frame and depending therefrom, side walls of thin, deformable, heat-conducting material fixed to said frame at their upper edges only and means for applying a coolant to the surfaces of said side walls away from the casting to deflect the opposite surfaces against the casting as the casting shrinks during its travel through the mold.

2,781,563
APPARATUS FOR AERATING GRANULAR MATERIAL
Walter Horth, Chicago, Ill., assignor to Herbert Simpson Corporation, Chicago, Ill., a corporation of Illinois
Application April 1, 1952, Serial No. 279,848
2 Claims. (Cl. 22—89)

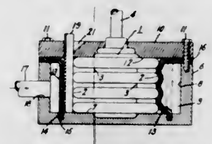
1. In an apparatus for aerating granular material, a housing having a feed inlet and a feed outlet, a rotatable aerator assembly including a shaft rotatably mounted in said housing, said shaft having a portion of polygonal cross-section and a reduced cross-section portion, and a plurality of bars for mounting along said shaft having socket portions with polygonal sockets therein for receiving said polygonal shaft portion to mount said bars in fixed angular relation on said shaft, said socket portions each having a gap therein extending from the outer periphery thereof to the socket thereof and of width to receive said shaft reduced portion, and said socket portions having projections adjacent the respective gaps and overlying the span of the sockets inwardly of the gaps for locking the socket portions of the bars on the polygonal portion of said shaft, whereby said bars may be individually engaged with said shaft at said reduced portion by means of said gaps and thence moved axially of the shaft onto the shaft polygonal portion without disassembling the shaft from the housing and whereby the projections on the socket portions serve to retain the bars against radial displacement relative to the shaft polygonal portion.

2,781,564
CENTRIFUGAL SLEEVE CASTING MOLD
Harold N. Meyers, Muskegon, Mich., assignor to Sealed Power Corporation, Muskegon, Mich., a corporation of Michigan
Application July 2, 1953, Serial No. 365,627
1 Claim. (Cl. 22—113.5)



A cylindrical mold having an open end, spaced keeper members fixed to said mold at its open end having free end portions spaced from said open end of said mold, a closure having a central opening therethrough seated against the mold at said open end thereof, members, one for each keeper member, secured to said closure and extending generally radially outward beyond the closure, movable on rotative movement of said closure to between said keeper members and the adjacent end of the mold, or to disengage from said keeper members, and a pair of arc shaped bars of like radius of curvature secured to and spaced from the outer side of the closure, said bars at adjacent ends having gaps between them.

2,781,565
METHOD AND APPARATUS FOR MAKING BELLOWS
Leonard W. Atchison, Erie, Pa., assignor to General Electric Company, a corporation of New York
Application March 20, 1952, Serial No. 277,681
2 Claims. (Cl. 22—116)



1. The method of constructing a bellows which is used to separate a high pressure zone from a low pressure zone which zones are subject to a wide range of normal pressure differences which comprises forming a bellows with a plurality of alternately inwardly and outwardly facing annular convolutions each having a portion of curved transverse cross section, applying a predetermined abnormally high pressure to the side of said bellows which during use is normally subjected to said zone of higher pressure, limiting the longitudinal movement of said bellows, under the influence of said predetermined abnormal pressure, supplying a low melting point alloy to the side of said bellows which during use is normally facing the low pressure zone and only into the spaces provided by said alternate convolutions, and allowing the alloy to cool and solidify while continuing to apply said abnormally high pressure and to limit said longitudinal movement, whereby said alloy conforms to the shape assumed by said alternate convolutions under the influence of said predetermined abnormal pressure and limited longitudinal movement conditions.

2. Apparatus for casting a low melting point alloy into the inwardly facing annular convolutions of a bellows which comprises a bellows, a mold having a bottom wall and a side wall for receiving the bellows with one end of said bellows engaging the bottom wall of said mold, a cover for closing said mold and engaging the other end of said bellows to limit longitudinal movement of said bellows, means for supplying a predetermined pressure to the interior of said bellows, a flexible tubular diaphragm between said bellows and said side wall of said mold, means for supplying pressure between said diaphragm and said side wall of said mold to urge said diaphragm against said bellows, and an elongated member of arcuate cross section between said diaphragm and said bellows and extending transversely of said convolutions, said member extending through said cover to provide a passage for supplying a low melting point alloy to said inwardly facing convolutions of said bellows.

2,781,566
PAPER CLIP
William Lee Hammer, Wauwatosa, Wis.
Application March 3, 1953, Serial No. 340,081
4 Claims. (Cl. 24—66)

1. A paper clip comprising a single length of spring wire bent to include an axially expandable coil spring portion forming one end of said clip and a pair of superimposed cooperating U-shaped portions lying in substantially parallel planes disposed substantially perpendicular to the axis of said axially expandable coil spring portion, said superimposed cooperating U-shaped portions forming the other end of said clip, said axially expandable coil spring portion having a diameter substantially equal to the width of said U-shaped portions, and said U-

shaped portions each including one leg formed by extending one of the opposite sides and opposite ends of said axially expandable coil spring portion.

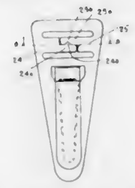
2,781,567
LATCH MECHANISM
Dola Taft Lewis, Beaufort, N. C., assignor of one-half to Uzzell Lewis, Beaufort, N. C.
Application May 18, 1953, Serial No. 355,598
3 Claims. (Cl. 24—128)

1. A latch mechanism comprising a casing, a pulley in the casing, a rope having an abutment and trained over said pulley for moving the abutment in opposite directions, a pin in said casing, a rope locking member swingable on said pin in opposite directions into abutment engaging and disengaging positions respectively, a compression spring having its ends attached to said casing and to said member for swinging the member into abutment engaging and disengaging positions by exerting pressure against said member upon opposite sides of said pin, said member being slotted for sliding on said pin in opposite directions to cause said spring to exert pressure against said member at opposite sides of the pin, said abutment in one direction of movement thereof sliding said member in its abutment engaging position in one direction to cause said spring to exert pressure against the member for swinging the member into abutment disengaging position, said pin engaging one end of the slot to stop sliding movement of said member in said one direction to limit movement of said abutment in said one direction whereby to latch said rope against movement in the same direction.

2,781,568
FASTENING DEVICE
Edward K. P. Graham, Stockholm, Sweden
Application November 1, 1951, Serial No. 254,250
2 Claims. (Cl. 24—129)

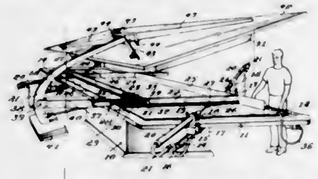
1. A fastening device comprising a body of oblong shape having a slot extending transversely therethrough, near one end thereof, said slot adapted to have a loop of flexible cord pass therethrough, said slot being of oblong section and having a width not less than the diameter of said cord and less than twice the diameter of said cord, said body including an engagement member lying at right angles to said slot, located at the side of said slot and adapted to receive the end of the loop after it has been passed through said slot, a surface between the slot and said engagement member, whereby, as a tension force is exerted on said cord, one loop part will be squeezed against said surface by the tension on another loop part, said body having at the end thereof opposite to said engagement member, a slot dimensioned similarly to said first mentioned slot extending through said device, and a second engagement member adapted to cooperate with a second loop portion of said cord.

2,781,569
QUICK COUPLING AND RELEASING GARTER CLASP
Adolph Eilertsen, Brooklyn, N. Y.
Application May 19, 1953, Serial No. 356,017
6 Claims. (Cl. 24—246)



1. A garter clasp of pliable plastic material having an upper portion formed with confronting cantilever arms disposed at right angles to the major axis of the clasp and provided with a cross slot above and below the arms said arms being displaceable laterally of the major plane of the clasp and returning to initial position by their own resiliency and with means interlocking the inner ends to each other when the arms are disposed in alignment with each other.

2,781,570
ADJUSTABLE MOLD
Howard C. Seymour, New York, N. Y.
Application February 26, 1954, Serial No. 412,852
2 Claims. (Cl. 25—41)

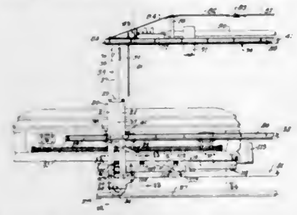


2. In a molding apparatus, an upright, a base supported on said upright, a plurality of channels secured to said base and each provided with a slot, a support member adjustably supported by each of said channels, manually operable means for moving said support members, a pair of ears extending upwardly from said support member, a bearing block pivotally mounted between said pair of ears, a leveling screw engaging said bearing block, a cylinder mounted on said bearing block and adapted to be connected to a source of hydraulic fluid under pressure, a rod connected to said cylinder, a heating plate supported on said base, a plurality of panels movably supported on said plate and connected to said rods, clamps connecting said panels together, an arm extending from said base and provided with a bifurcated rear portion, a bar pivotally mounted in the bifurcated portion of said arm, a counterweight connected to said bar, a cover connected to said bar, a hydraulic ram for pivoting said bar, and nozzles carried by said arm for supplying air under pressure through said cover to the material between said panels.

2,781,571
APPARATUS FOR HANDLING AND LOWERING BURIAL CASKETS
Clark Blachly, Jamestown, Kans.
Application December 12, 1955, Serial No. 552,392
11 Claims. (Cl. 27—32)

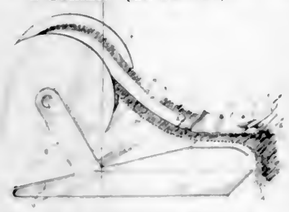
1. Portable burial apparatus adapted for laterally and vertically moving a casket and lowering same into a

grave: comprising assembled detachably interconnected units consisting of front and rear side structural units each including at both ends thereof a pair of upright laterally spaced parallel twin posts and means for retaining said twin posts in spaced parallel positions; end frame units each including a pair of laterally spaced vertical, parallel post members and transverse lateral means rigidly secured to and interconnecting the upper ends of said post members, each of said vertical post members being vertically adjustable and slidably carried



within the space between one of said pairs of upright parallel twin posts, means for retaining said post members in vertically adjusted positions; a top frame unit, carrying casket raising and lowering mechanism, supported on said end frame units; and mobile means carried on said front and rear side structural units adapted for supporting the casket while the latter is moved laterally thereon within the apparatus to center the casket over the grave; said units being adapted to be assembled for use at the grave with only detachable connections between them.

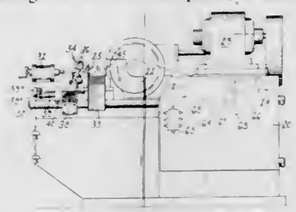
2,781,572
APPARATUS FOR RELEASING FILAMENTS SEWN TO A TAPE
Frederick E. Anderson, Elizabeth, W. Va., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application August 23, 1955, Serial No. 530,020
2 Claims. (Cl. 28—17)



1. An apparatus for separating small bundles of cut filaments from the tape onto which those filaments are sewn, the apparatus comprising a base, an unwind spindle capable of receiving a spool of tape sewn to a layer of filaments by means of two rows of single thread chain stitching, a face plate containing a slot whose length is substantially the same as the width of said tape, and a thin flat finger attached to said face plate at right angles to the longitudinal axis of said slot and pointing in the direction towards which said tape enters said slot, said finger being narrower than the distance between said two rows of stitching.

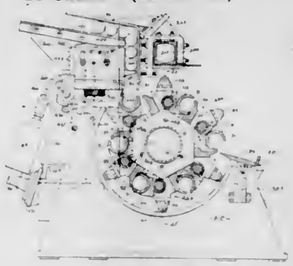
2,781,573
ROD-SAWING MACHINE
Alphonse A. Espari, Hamden, and Louis J. Paffumi, New Haven, Conn., assignors to Interstate Manufacturing Corporation, Orange, Conn., a corporation of Connecticut
Application May 13, 1954, Serial No. 429,538
1 Claim. (Cl. 29—69)

In a rod-sawing machine, a bed, a saw carriage on the bed and reciprocable thereon, a work-holding clamp on the bed and toward which said carriage is movable, said clamp having a movable jaw, means for feeding the work toward said clamp transversely of the path of the carriage, said means including a prime mover, a movable stop member having a work-engaging stop portion movable into the path of the work for stopping and blocking the work against the pressure of the feeding means, the stop portion being movable out of said work path to permit discharge of the cut off piece, means controlled



by the movement of said stop portion for rendering said prime mover inoperative when said stop portion is in the inoperative position and operative when the stop portion is in the work-blocking position thereof, power-operated means for actuating said stop member, power-operated means for actuating said movable jaw of the clamp, and power-operated means for actuating said saw carriage, each power-operated means being controlled in timed relationship by movement of said carriage.

2,781,574
AUTOMATIC BAR FEED FOR MULTIPLE-SPINDLE BAR WORKING MACHINES
Bernard C. Harney, Syracuse, and Franklin D. Lakins, Nedrow, N. Y., assignors to Lipe-Rollway Corporation, Syracuse, N. Y., a corporation of New York
Application September 6, 1955, Serial No. 532,690
11 Claims. (Cl. 29—93)

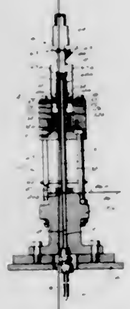


1. An automatic stock bar feed structure for automatic multiple spindle bar working machines having a rotatable work spindle carrier, a stock bar reel including a circular series of bar guides mounted for rotation about the axis of said carrier and being connected thereto for indexing therewith, said bar guides being arranged in alinement with the spindles respectively of the bar working machine, a stock bar pusher movable along each of said bar guides for feeding a stock bar toward said spindles, said bar pushers being of sufficient length to pass through the machine spindles to the bar gripping collets thereof, and power operated means carried by and rotatable with said reel for moving said pushers toward and through the machine spindles for the feeding of the stock bars.

2,781,575
APPARATUS FOR ASSEMBLING LIQUID DISPENSING CONTAINER ELEMENTS
Constantine W. Kulig, Hartford, Conn., assignor to Emhart Manufacturing Company, Hartford, Conn., a corporation of Delaware
Application January 9, 1952, Serial No. 265,633
1 Claim. (Cl. 29—235)

A device for assembling a closure to a flexible tube comprising a base, a tube support means resiliently

mounted on said base for supporting flexible tubing against flexure of a straight length and for resiliently arresting the motion of a closure in assembly position, a closure support resiliently mounted on said base coaxial with said tube support, a closure pusher means mounted coaxial with said closure holder, means on said pusher



for moving said closure holder axially toward said tube support and gripper means mounted on said pusher for removing said closure from said holder, said means for moving said closure holder being of sufficient length to move the closure holder axially away from a closure toward said base when the movement of a closure is arrested by the tube support.

2,781,576
APPARATUS FOR ASSEMBLING THE ELEMENTS OF LIQUID-DISPENSING CONTAINERS
Frank C. Jennings, Westboro, Mass., assignor to Emhart Manufacturing Company, a corporation of Delaware
Application January 23, 1951, Serial No. 207,414
4 Claims. (Cl. 29—235)

1. Apparatus for assembling the elements of a dispensing container comprising in combination means for supporting a flexible tube at one station and a container at a second station, means for holding a container closure with an opening therein in alignment with the axis of said tube, for moving the closure with respect to said tube support to cause insertion at one end of the tube in said opening in the closure and for thereafter moving said closure and tube as a unit to withdraw the tube from its supporting means, guiding means engaging the tube at a point spaced from the closure to maintain the engaged portion of the tube in substantial alignment with the closure holding means, and means for moving the closure holding and guiding means with the assembled tube and closure therein to said second station and directing said engaged portion of the tube and the closure into the container to complete the assembly of the elements.

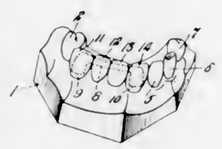
2,781,577
METHOD OF MAKING CORROSION RESISTANT SOLDERED JOINTS
William James Smellie, Sheffield, England, assignor to The Sheffield Smelting Company Limited, Sheffield, England
No Drawing. Application August 28, 1953, Serial No. 377,223
2 Claims. (Cl. 29—492)

1. A method of making corrosion resistant soldered joints between metal parts, at least one of which parts consists of a metal selected from the group consisting of aluminium and its alloys, which method comprises the step of applying to said parts a flux having a melting point between 250° and 500° C., and consisting of effective amounts of potassium chloride, lithium chloride, sodium chloride, lithium fluoride and at least one salt selected from the group consisting of zinc chloride and cadmium chloride, the potassium and lithium chloride each being present in an amount not exceeding 70% by weight, the zinc chloride, cadmium chloride and lithium fluoride each being present in an amount not exceeding 20% by weight and the sodium chloride being present in an amount not exceeding 45% by weight, which flux on melting by heating produces a metallic coating on the metal part cleaned by the applied flux, and then applying a solder consisting of zinc 95% by weight, silver 5% by weight.

2,781,578
MOTOR DRIVEN HAND CARVING KNIFE
Leonard P. Guilfoyle, Ridgefield, N. J.
Application July 1, 1955, Serial No. 519,438
6 Claims. (Cl. 30—272)

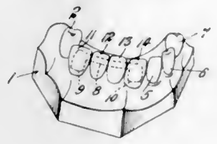
1. A meat carving knife having a blade and holding handle thereof, a slide movable on the handle to which the blade is coupled, a row of ball bearings between the slide and the handle disposed in the direction of the movement of the slide, and an electrical motor housed in the handle for reciprocating the slide and knife blade.

2,781,579
DENTAL PROSTHETIC DEVICE
Edward O. Liebig, Chatham, N. J., assignor to Baker & Co., Inc., Newark, N. J., a corporation of New Jersey
Application June 8, 1955, Serial No. 513,970
4 Claims. (Cl. 32—5)



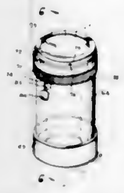
1. A dental prosthetic device comprising a porcelain member bonded to a metal support consisting of an alloy of from 50%–80% gold, 10%–40% platinum, 0%–15% palladium, 1%–10% copper, and 1%–10% rhodium.

2,781,580
DENTAL PROSTHETIC DEVICE
Edward O. Liebig, Chatham, N. J., assignor to Baker & Co., Inc., Newark, N. J., a corporation of New Jersey
Application June 8, 1955, Serial No. 513,969
4 Claims. (Cl. 32—5)



1. A dental prosthetic device comprising a porcelain member bonded to a metal support consisting of an alloy of from 50%–80% palladium, 2%–15% platinum, 10%–30% gold, and 1%–10% rhodium.

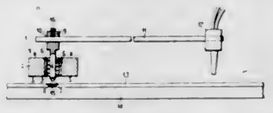
2,781,581
CHART READING DEVICE
James J. Brady, North Hollywood, Calif., assignor to Technical Oil Tool Corporation, Ltd., Los Angeles, Calif., a corporation of California
Application October 26, 1953, Serial No. 388,407
10 Claims. (Cl. 33—1)



1. A reading device for a shart having a plurality of pricked marks therethrough aligned in a known azimuthal direction, with one of said marks being radially offset from the center of the chart a distance proportional to the angular inclination of a well bore from the vertical and in the direction of the inclination of said well bore, which comprises: a chart holder having a light transmitting opening extending therethrough from front to back and a seat adapted to support the edges of a chart to extend across said opening whereby points of light are transmitted through said indicia marks; a compass ring concentrically mounted on the front of said holder for rotation relative to said holder; and a transparent index disc mounted for rotation relative to said holder and said ring and positioned concentric with said ring and in front of a chart supported in said holder, said disc having a radial index line positionable in said known direction relative to said ring by a first rotation of said disc, and said light points being aligned in said known direction by rotation of said holder relative to said disc to bring said points in parallelism with the index line, said disc then being rotated relative to said chart and said compass ring to bring said index line through the point which is radially offset from the center of the chart to determine the direction of angular inclination.

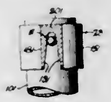
2,781,582
MAGNETIC CENTER HOLDER FOR A WORKSHOP COMPASS
Walter Würsch, Tagerschen, Switzerland
Application August 30, 1955, Serial No. 531,500
Claims priority, application Switzerland February 7, 1955
6 Claims. (Cl. 33—27)

1. A magnetic center holder for a workshop compass, comprising in combination: a holder pad having at least one permanent magnet and defining a passage having an axis, a leg of the workshop compass having a point and extending through said passage and being movable in said passage in all directions relative to the axis of said pas-



sage, and resilient means connecting the said leg to the said pad, the said point projecting beyond the underside of the said pad in the rest position.

2,781,583
GUNSIGHT ATTACHMENT
Donald O. Grimble, Eagle Harbor, N. Y.
Application April 20, 1955, Serial No. 502,661
1 Claim. (Cl. 33—47)

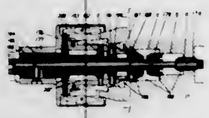


A gunsight attachment for a shotgun barrel having a bead sight adjacent its muzzle end and including a bead, said attachment comprising a sleeve adapted to be slid onto said barrel, means for holding said sleeve fast to said barrel after being mounted thereon, an upstanding head on said sleeve and having a recess therein open at its rear end and closed at its front end and on its inner side; opening to the interior of said sleeve and having opposing flat side walls converging toward the front end thereof, the angle between said side walls being bisected by an imaginary plane in which the central longitudinal axis of said sleeve lies, said recess being adapted to receive said bead with said convergent side walls engaging opposite sides thereof so as to angularly position the attachment on said barrel, and a sight blade on said head and projecting upwardly from the top thereof in vertical alinement with said axis and hence with said bead.

2,781,584
MEASURING DEVICE
Carl I. Cederholm, South Worthington, Mass.
Application December 8, 1955, Serial No. 551,837
6 Claims. (Cl. 33—138)

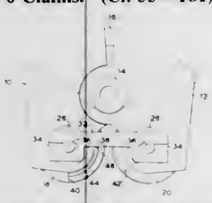
1. In a ground measuring device having a handle member and a wheel of predetermined circumference rotatably mounted on one end of the handle member; a reel mounted on the wheel for independent coaxial rotation with respect thereto, a stake having a body member, a rod reciprocably mounted on said body member for extension relative thereto for insertion in the ground to hold the stake to the ground, a spring biased to retract said rod from its extended position, a latch carried by the body member for holding said rod in extended position against the action of the spring, a measuring tape connected at one end to said latch and at the other end to the reel, and a second spring biasing the latch to rod-holding position, said second spring being yieldable to a predetermined pulling force on the tape, in excess of that necessary to hold the tape taut, to release the latch and permit retraction of the rod by the first spring to thereby release the stake from the ground.

2,781,585
GAUGE FOR MEASURING INTERNAL DIMENSIONS
David Gabriel Stalhandske and Erik Arne Johnson, Bofors, Sweden
Original application February 17, 1949, Serial No. 76,894. Divided and this application October 1, 1951, Serial No. 249,054
10 Claims. (Cl. 33—174)



1. A gauge device for measuring simultaneously a plurality of internal dimensions of a work piece comprising a plurality of pressure members stepped in length arranged coaxially each within the other for sliding longitudinal displacement between fixed limiting positions, gauge elements individual to and actuated by one end of each said pressure member for gauging different dimensions of said work piece, the displacement of each said pressure member being a measure of the corresponding dimension to be measured, each said pressure member being provided at its opposite end with a shoulder and said shoulders being arranged in circumferentially spaced relation, spring means for maintaining each of said pressure members at one of its limiting positions and gauge indicating means individual to each said pressure member, each said guage indicating means being arranged in circumferential alignment with said shoulder on the respectively associated pressure member and being actuated by means including said shoulder.

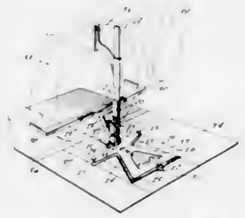
2,781,586
METHOD AND APPARATUS FOR SYNCHRONIZING THREADING ROLLS
Glenn S. Eigenbrode, Waynesboro, Pa., assignor to Landis Machine Company, Waynesboro, Pa., a corporation of Pennsylvania
Application January 25, 1955, Serial No. 484,036
6 Claims. (Cl. 33—181)



1. Apparatus for synchronizing threading rolls rotatably mounted in a support comprising means defining radially extending reference lines on said rolls in predetermined relation with the thread starts on the rolls, a timing gauge adapted to be secured to said support, said gauge having a reference edge disposed on a line joining the centers of said rolls when said gauge is secured to said support, and a timing gauge segment having an edge adapted to extend from one of said reference lines to said reference edge in a direction parallel to the axis of the rolls whereby said rolls may be synchronized by positioning them with one end of the edge of said timing segment on said reference line and another portion of the segment edge against said reference edge.

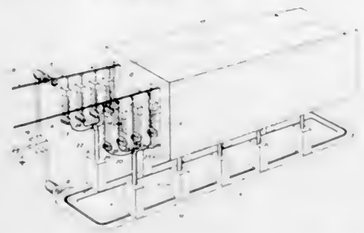
2,781,587
WHEEL ALIGNER
Oswin Haucke, Brooklyn, N. Y.
Application December 9, 1954, Serial No. 474,186
3 Claims. (Cl. 33—203.15)

1. A gauge adapted to measure and adjust the alignment of vehicular wheels comprising a planar base having longitudinal and transverse leveling means, enabling the base to be disposed in a horizontal plane, said base including indicia defining a longitudinal axis of symmetry and opposing lateral edges, the prolongation of said lateral edges intersecting at a predetermined angle, in combination with a plate adjoining and parallel to the planar base, said plate and base being pivotally secured to each other about a common axis, whereby the plate can be rotated relative to the base about the said axis, said plate including a scale graduated to read the angular position of the plate with reference to a datum position, said base being normally superimposed over the plate and including a perforation whereby the said scale can be seen through the base, said plate also including a second scale parallel to the first said scale and spaced radically there-



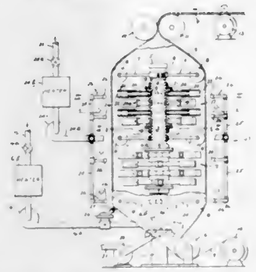
from, one of the said edges being used as an index to read on the said second scale relative angular displacement of the plate and base, in combination with a vertical post normal to the base and located above the said common axis, said post being rotatably secured to the base about a fulcrum parallel to the base and perpendicular to the longitudinal axis, said post including means for contacting a vehicular wheel whereby the post can be adjusted parallel to the vertical wheel axis, in further combination with a support integral with and perpendicular to the base, a scale mounted on the support and indicating means secured to the post and cooperating with the last mentioned scale whereby angular displacements of the post relative to the support can be read by the position of the indicating means relative to the scale.

2,781,588
APPARATUS FOR DRYING SEALED CONTAINERS
Horace G. Warren and Merriam E. Johnson, Rochester, N. Y., assignors, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application April 12, 1954, Serial No. 422,463
8 Claims. (Cl. 34—1)



1. In apparatus for evacuating and drying sealed containers, the combination which comprises a heating chamber capable of holding a plurality of the containers, a first conveyor passing through the chamber and upon which a series of the containers is carried through the chamber, a second conveyor disposed adjacent the heating chamber and substantially parallel to the first conveyor in its path through the chamber, a series of pumping units carried by the second conveyor and disposed adjacent the chamber, means for synchronizing the movement of the two conveyors, and a conduit on each pumping unit connecting it to at least one of the containers on the first conveyor and movable in a slot in the heating chamber.

2,781,589
METHOD AND APPARATUS FOR PROCESSING PLASTIC TUBING
Richard E. Cornwell, Claymont, Del., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application August 31, 1953, Serial No. 377,404
9 Claims. (Cl. 34—12)

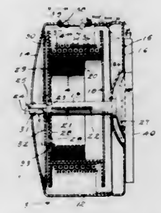


7. A method of processing continuously advancing plastic tubing in opened form comprising the steps of conducting the tubing through a treating zone, maintaining the tubing in opened form during its travel through said zone, supplying a treating medium to the treating zone, separating the treating medium supply into a plurality of small confined streams, directing the small confined streams in a confined manner to a plurality of points immediately adjacent the inside surface of the tubing wall, discharging the streams of treating medium into the atmosphere of the tubing interior whereby the treating medium streams strike the inner wall surface of the tubing in solvent-free condition, continuously rotating the plurality of small confined streams to uniformly distribute the treating medium against all portions of the inner wall surface of the tubing, distributing treating medium against the tubing exterior, and slitting the tubing after it leaves the treating zone.

2,781,590
AUTOMATIC ELEVATOR FOR DRYER
Edward A. Heckman, Allentown, and Walter J. Tesche, Coopersburg, Pa., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application June 12, 1953, Serial No. 361,114
5 Claims. (Cl. 34—45)

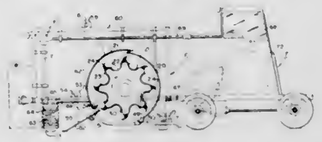
1. An elevator system for an article dryer having a bath region, a vapor region above the bath region and an evaporation region above the vapor region said system comprising a carrier for the articles, a sprocket, a rotary driver for the sprocket, means for supporting the carrier from the sprocket, a pluralty of switches disposed around and controlled by the sprocket, a relay, means for controlling the relay to start the driver to lower the carrier to the bath region, means controlled by the switches for reversing the rotation of the driver to raise the carrier from the bath region through the vapor and evaporation regions and time delay relays controlled by the switches for sequentially stopping the driver to hold the carrier for predetermined and independently timed stops in the bath, vapor and evaporation regions.

2,781,591
RETRACTIBLE ROSARY
Charles J. Bufalino, Jr., West Pittston, Pa.
Application July 6, 1954, Serial No. 441,220
3 Claims. (Cl. 35—23)



1. A retractible rosary comprising a casing having an opening in a side thereof, a shaft disposed centrally through the ends of said casing, one end of said casing having a polygonal opening and one end of said shaft being polygonal and slidable endwise through said opening, a reel in said casing rotatable on said shaft, a coil spring fixed at one end to said reel and at the other end to said shaft, said reel including a wall having a plurality of circumferentially spaced apart keeper openings, a plate in said casing having a polygonal opening through which said polygonal end of said shaft loosely engages, a resilient pawl carried by said plate engageable in a selected one of said keeper openings, a rib fixed on said shaft and disposed between said reel wall and said pawl, a magnetized button fixed on the other end of said shaft exteriorly of said casing, and a rosary having one end fixed to said reel and projecting through said first-named opening, said rosary including a cross adapted to be magnetically attached to said button.

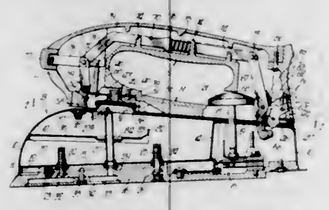
2,781,592
SNOW REMOVING MACHINE
Abner S. McKee, Paonia, Colo., assignor of one-half to David J. McKee, Denver, Colo.
Application December 9, 1953, Serial No. 397,150
3 Claims. (Cl. 37—12)



1. In a snow removing machine, a wheeled frame structure for movement on a surface, a hollow member forming a drum rotatably mounted on the frame structure and constructed to have circumferentially spaced outwardly projecting blades on its surface extending longitudinally thereof, a casing of substantial cylindrical configuration surrounding a substantial and major part of the hollow member and spaced therefrom to provide an annular passage for snow, said casing having a snow receiving

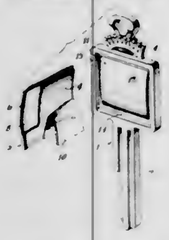
opening, means for rotating the hollow member relative to the casing in a direction to have the blades move from the front of the drum over the top to the back, means for causing the blades on the front side of the drum to pick up snow as the machine is moved forward, means for maintaining a high temperature within the hollow member to thereby melt the snow picked up by each blade as the hollow member rotates to move the blade from front to back, said hollow member being provided with a plurality of openings in its wall between said blades to permit the escape of gases and vapors from the interior of the hollow member and contact with the snow picked up by the blades, and means for varying the size of each opening.

2,781,593
ELECTRIC STEAM IRON
Edward P. Schreyer, Ridgefield, Conn.
Application May 5, 1953, Serial No. 353,067
8 Claims. (Cl. 38—77)



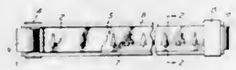
5. An electric steam iron comprising a sole plate, a boiler affixed thereon, electric heating means in heat conductive relation with both said sole plate and said boiler, a handle pivotally mounted at its rear to the body of the iron and having a spring-urged closure mounted thereon for cooperation with a filling opening in the roof of the boiler, means for latching the handle in closed position for normal use of the iron, and means for latching the handle in rearwardly tilted open position for convenience in holding the iron inverted to drain water therefrom, a single finger-operated element on the handle for controlling the forward and the rear latch when the handle is closed and in wide open position, respectively, and a transmission between said finger-operated element and both the forward and the rear latch for releasing the front latch preparatory to opening the handle and for releasing the rear latch preparatory to re-closing the handle.

2,781,594
DECORATIVE PLATE AND MOUNTING
Norman J. Stupell, New York, N. Y., assignor to Signa-Craft, Inc., New York, N. Y., a corporation of New York
Application August 27, 1954, Serial No. 452,606
1 Claim. (Cl. 40—2)



A key provided with a decorative mounting comprising a curved plate having a convex outer face with a distinctive marking thereon and a concave inner face having a layer of adhesive thereon for attaching it to the key, said key having an operative portion and a handle portion, said handle portion having a convex mounting surface thereon shaped to fit the concave inner face of said plate and substantially coextensive therewith for mounting said plate on said key, said convex mounting surface having a rim at its edge, and the layer of adhesive on the inner face of the plate terminating short of said rim, whereby the plate will be prevented from moving laterally when the handle portion of the key is grasped for use and whereby the rim will obstruct flow of the adhesive.

2,781,595
TOY RULER WITH ANIMATED FIGURES
Serge Jules Charles Bourdin, Paris, France
Application March 26, 1954, Serial No. 419,036
Claims priority, application France March 30, 1953
7 Claims. (Cl. 40—96)



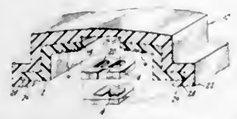
1. Toy ruler comprising in combination a casing constituted by two lateral transparent elongated plates arranged in parallel spaced relationship and top and bottom covers longitudinally secured to said plates, two transparent bars arranged inside said casing with their ends rounded into semi-cylinders, the top and bottom surfaces of said bars being respectively in engagement with said covers, said bars leaving a gap between themselves and relative to the inner face of each of said transparent plates, a transparent endless flexible strip carrying a decorative design arranged around said bars and adapted to be shifted along and in said gap provided between said bars and said transparent plates, a thin background element inserted between said two transparent bars and carrying a design in accordance with said design carried by said strip and driving means manually operable from the exterior of said casing and operatively connected to said strip for shifting said strip in said casing, while said background remains stationary.

2,781,596
COLLAPSIBLE CRUCIFIX
Frank J. Curran, Downers Grove, Ill.
Application June 9, 1955, Serial No. 514,224
1 Claim. (Cl. 41—10)

A folding cross comprising a normally upright member having a transverse slot located intermediate its ends, arms normally projecting from the opposite sides of said member, substantially semi-circular portions formed on the inner ends of said arms and extending into opposite sides of the slot, pins extending through the axial centers of the semi-circular portions of said arms and said member for pivoting said arms to said member, there being off-set recesses in the semi-circular portions of said arms forming pointed projections on the peripheries of said semi-circular portions, there being a longitudinal bore in said member extending into said transverse slot,

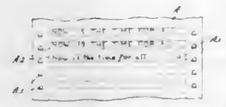
a rod mounted in said bore, a washer secured to the upper end of said rod and having opposite portions extending into said recesses for engaging said semi-circular portions, and a spring mounted on said rod for actuating said rod to move said arms to extended position.

2,781,597
ORNAMENTAL ARTICLE
Harry C. Doane, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 31, 1953, Serial No. 345,897
4 Claims. (Cl. 41—35)



1. An ornamental article comprising a shaped core member having an opening therethrough, a layer of transparent plastic material molded around a portion of said core member, said plastic layer having a recessed portion in register with the opening in said core member to provide a shaped cavity, and an ornamental insert member permanently secured within said cavity to provide a third dimensional appearance when viewed through said transparent plastic layer.

2,781,598
TYPOGRAPHIC NEGATIVE FILM
James C. Plastaras, Lynbrook, N. Y., assignor to Mergenthaler Linotype Company, a corporation of New York
Application July 3, 1951, Serial No. 234,980
5 Claims. (Cl. 41—46)



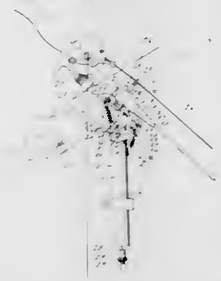
1. A single unitary phototypographic negative film having opaque portions and partially transparent portions which define photographic type line images fixed thereon, and spaced apart in the direction of its length, said opaque portions being located along opposite edges beyond the ends of the type line images, and permanent means in said opaque portions for locating the film lengthwise upon a cutout fixture for line correction purposes, said locating means comprising a plurality of pairs of permanent light-tight protuberances located in the opaque portions of the film and formed therefrom, there being one pair of protuberances for each type line and said pairs being spaced apart lengthwise of the film to accord with the spacing of the type line images, each of said protuberances being bounded on one side by a slit in the film to form opposed edge surfaces along said slit and being stamped from the body of the film beyond said slit to offset one of said edge surfaces from the plane of the film and from alignment with the other edge surface, to permit one of said surfaces to serve as a locating stop for engagement with a corresponding stop surface in the cutout fixture, while preventing the transmission of light through said opaque portions in the area of said protuberance.

2,781,599
FISHHOOK RELEASE IMPLEMENT
Carl J. Steiner, Alton, Ill.
Application March 15, 1955, Serial No. 494,367
1 Claim. (Cl. 43—53.5)

An implement wherewith the separation of a fish from the hook whereon said fish has been caught may be accomplished without manually contacting the fish, said implement being formed from a length of relatively heavy wire material to comprise an elongated shank portion terminating at one end in a handle portion, and at the opposite end in an oval helically generated loop portion, the loop portion being adapted by means of said handle portion to be first manipulated into a position wherein a fishing line suspended from above will be confined therein, and thereupon to be propelled angularly downwardly until said loop portion engages a fishhook secured on the lower end of said line, said loop portion including: a first segment of arcuate contour that is coplanar with and merges into the shank portion aforesaid; a second segment of semicircular contour; a third segment of arcuate contour that slopes upwardly in a direction toward the handle portion, said second segment

being coplanar with the first segment from the point of mergence thereinto to the point of mergence into said third segment; a fourth segment of semicircular contour formed on a radius slightly smaller than the radius whereon the aforesaid second segment is formed; a fifth segment of arcuate contour that slopes upwardly in a direction away from the handle portion, said fourth segment merging into the third segment and in a higher plane into said fifth segment in helical fashion; said first and fifth segments defining an opening therebetween for entrance of the line into said loop portion; and a tapered tip constituting the terminal end of the fifth segment aforesaid, the apex of said tip portion overlying the second segment aforesaid whereby to obviate escape of the line from the loop via said opening when the implement is in operational status.

2,781,600
FISHING ROD SUPPORT
Leo G. McDonnell, Detroit, Mich.
Application June 3, 1955, Serial No. 512,991
3 Claims. (Cl. 43—15)



1. A fishing rod holder comprising a tubular support column, a tiltable platform pivoted on the upper end of said column, the pivot axis of said platform being located substantially on the longitudinal axis of said column, a tension spring substantially housed within said column and operatively connected at its upper end to said platform at one side of the longitudinal axis of said column, said tension spring normally urging said platform into a first position wherein a fishing rod mounting thereon would be inclined with its handle end lower than the tip end thereof, and coacting means carried by said column and platform at the other side of the longitudinal axis of said column engageable to maintain said platform in a second position wherein said fishing rod would be in-

clined with its handle end higher than the tip end thereof, said coacting means including a latch element mounted on said column, a first spring means normally maintaining said latch element in a retracted position, latch element engaging means carried by said platform, said engaging means including a catch element, a second spring means normally maintaining said catch element in a non-operative position, said catch element being displaced from said non-operative position when coacting with said latch element to maintain said platform in said second position, said first spring means being effective to restore said latch element to retracted position and said second spring means being effective to restore said catch element to non-operative position upon movement of said platform beyond said second position thereby to disengage said coacting means and permit said tension spring to swing said platform from said second position to said first position.

2,781,601
AUTOMATIC FISHING LINE PULLER
Robert B. Crossley, Oklahoma City, Okla.
Application May 21, 1954, Serial No. 431,560
2 Claims. (Cl. 43—15)

1. In an automatic fishing line puller, an elongated guide rod having a rear end and a forward end, a tubular slide circumposed on said guide rod, said slide having a rear end and a forward end and upper and lower sides, a trigger shaft journaled transversely on the lower side of the slide, a forwardly extending latch arm on one end of said shaft, said latch arm terminating in a latch dog, the forward end of the guide bar having a latch dog retainer with which said latch dog is engageable to hold the slide in its forward cocked position, a trigger on and extending forwardly from the other end of said shaft, said trigger comprising a forwardly angulated arm having a forward end, a line guide loop thereon, an assembly secured to the upper side of the slide including a forward hook and a rearwardly inclined fishing line anchor pin, a rear hook on the rear end of said guide bar aligned with said forward hook, and an elastic band connected to and stretched between said rear hook and said forward hook.

2,781,602
FISHING APPARATUS
Henry R. Warford, Memphis, Tenn.
Application August 20, 1956, Serial No. 605,024
9 Claims. (Cl. 43—24)

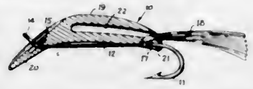
1. In a fishing apparatus, the combination of a fishing rod having handle means and having a tip remote therefrom, a plurality of spaced guides mounted along the length of said fishing rod extending from adjacent said tip thereof to a point adjacent said handle means, each of said guides comprising a hollow rigid tube having a flared bell mouth at each end thereof, at least one of said bell mouths on each of said guides being cut out adjacent said fishing rod to fit on said rod and prevent turning of said guides relative to said rod, a line mounted on said rod extending through said guides, the internal diameter of said guides being substantially greater than the diameter of said line for free passage of the line therethrough, the outermost one of said guides adjacent said tip being curved to form a rigid crook having a main body portion secured to the tip of said rod and an integral projecting portion extending therefrom, the innermost one of said guides adjacent said handle means being split from one end thereof along a substantial portion of the length there-

of to form a longitudinal slot in said innermost guide whereby said line may be secured therein.

2,781,603
COMBINED MINIATURE CHUM POT, LURE, AND SINKER
Harry Ganger, Atlantic City, N. J.
Application June 3, 1955, Serial No. 513,132
1 Claim. (Cl. 43—41)

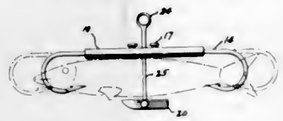
A combined miniature chum pot, lure and sinker, including a multiplicity of convolutions formed from a strand of spring metal, the convolutions at the forward end being of reduced diameter, and increasing in diameter towards the center of the combined miniature chum pot, lure and sinker, then decreasing in diameter towards the rear end thereof; and adjustable socket and bolt within the convolutions, the socket having a large eyelet at its forward end and of no greater diameter than the diameter of the adjacent convolution; an end plate at the end of the bolt and of greater length than width, the end plate being of less length than the diameter of the adjacent convolution; and the last strand of the convolutions encircling the end plate so that the bolt can not be turned until the last strand has been moved to a position towards the forward end of the combined miniature chum pot, lure and sinker, the space between the adjustable socket and bolt and convolutions being of such size as to receive chum therein.

2,781,604
FISH LURE
John E. Brown, South Amherst, Ohio
Application March 16, 1955, Serial No. 494,595
6 Claims. (Cl. 43—42.28)



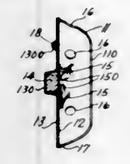
4. A fishing lure comprising an elongated shank, an eye formed on one end of said shank, a hook secured to the opposite end of said shank, a barb on said shank adjacent said hook, a flexible tail engaged over said shank at said barb, and a body cast so as to encompass said shank adjacent said eye, to encompass said shank adjacent said hook, and to encompass a portion of said tail adjacent said shank.

2,781,605
FISH HOOK
Charles W. Eilermann, Cincinnati, Ohio
Application September 20, 1955, Serial No. 535,452
3 Claims. (Cl. 43—44.2)



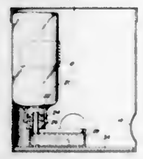
2. A fish hook having a pair of colinear hook elements and including an eye, a slotted sleeve, each element having a shank and a barb at one end and a right angle projection terminating in an operating button at the opposite end thereof the projection being adapted to cooperate with said slotted sleeve, to provide a bait holding compound fish hook, said hook elements being slidable by means of said button toward and away from each other in the sleeve, and a connecting member opposite said eye having a clasp for holding a bait.

2,781,606
MEANS FOR CARRYING AND DRYING ARTIFICIAL FLIES
James R. Hoffhines and Charles C. Thomas, Detroit, Mich., assignors to Plasti-Print, Incorporated, a corporation of Michigan
Application December 15, 1953, Serial No. 398,366
3 Claims. (Cl. 43—57.5)



1. A storage and drying container for magnetically attractable artificial flies comprising a back element having a well formed therein, a permanent magnet in said well, a face element disposed over said back element retaining said magnet in said well, and a front dome element apertured opposite said magnet through which artificial flies may be placed in said container, said magnet maintaining said artificial flies readily accessible for selection and removal, the said front dome being transparent and having a plurality of vent apertures thereabout and a drain aperture at the bottom thereof, and means for securing said container to apparel of a fisherman with the drain aperture downwardly disposed.

2,781,607
GRAVITY OPERATED LIQUID DISPENSER
Lemuel H. Smiley, Knoxville, Tenn., assignor of forty percent to Mary R. Smiley, Knoxville, Tenn.
Application November 10, 1954, Serial No. 467,987
4 Claims. (Cl. 43—131)

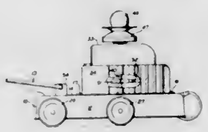


1. An insect and rodent exterminator comprising a housing having entrance apertures therethrough, a plurality of receptacles arranged in side by side abutting relationship in said housing with the outer of the receptacles receiving bait therein, a liquid poison dispenser removably secured to the inner wall of said housing, a tubular conduit connecting said dispenser with one of said receptacles, and a removable disk in said housing, said receptacles being secured to said disk.

2,781,608
COMBINED DRAFTING BOARD AND EASEL
Leonard A. Cutrow, Los Angeles, Calif.
Application April 2, 1954, Serial No. 420,620
6 Claims. (Cl. 45—131)

1. A combined adjustable drafting board and artist's easel, comprising: a board adapted as a supporting base for a drawing, painting canvas or the like; a two-sectional frame having a first section hingedly connected at one end to the back of the board on an axis extending transversely and adjacent the lower edge thereof, the second frame section being pivotally connected to the other end of said first section for angular adjustment relative thereto; a brace rod carried by the free end of said second section and movable thereon to one position to operatively engage an upper portion of the board so as to support the same in spaced relation to said free end of said second section and to a second position to release said upper portion of said board to allow the same to rest directly upon the free end of said second section; and locking means extending between and operative to lock said sections in selected positions of angular adjustment, said board and frame being adapted for use upon a table or like support as a drafting board with the bottom edge of the board and said other end of said first section resting upon the table and with the upper portion of the board resting directly against the free end of the second section, or with the full length of the first section resting upon the table and the lower edge portion of the board disposed outwardly and below the edge of the table to increase the inclination of the board without changing the relative angular adjustment between said frame sections, said board and frame also being convertible to an easel by connecting said brace rod to the upper portion of said board, locating the lower edge of the board outwardly and below the edge of the table and relatively adjusting said frame sections to cause the board to assume a position substantially normal to the plane of the table and the first section supported thereby.

2,781,609
TOY POWER LAWN MOWER
Richard M. Allen, East Hampton, Conn., assignor to The Gong Bell Manufacturing Company, East Hampton, Conn., a corporation of Connecticut
Application November 15, 1955, Serial No. 546,877
8 Claims. (Cl. 46—39)



1. A toy power mower comprising a rotor housing, at least one axle journaled in said housing, ground en-

gageable wheels carried by said axle for rotation therewith, a simulated motor casing mounted on said housing, an upstanding shaft extending rotatably through said motor casing having its upper end projecting above said motor casing and its lower end depending into said housing, said shaft being mounted for limited free vertical shifting movement, a rotor including a horizontally disposed plate having radially extending markings carried on the lower end of said shaft for rotation and vertical shifting movement therewith, transmission means carried by said axle for rotation therewith and arranged under said rotor to be engaged by and disengaged from the latter when said rotor is moved into and out of its lower position of vertical shifting movement, rotation of said rotor and shaft in their lower position of vertical shifting movement serving to rotate said axle and wheels for propelling said housing along a supporting surface, radially extending openings in said housing for exposing said markings, and a starter carried on the upper end of said shaft and rotor for rotation and vertical shifting movement with said shaft and adapted to be simultaneously elevated and rotated by a pull cord, whereby said rotor is adapted to be rotated in an upper position of its vertical shifting movement and allowed to drop to its lower vertical position into driving engagement with said transmission means for propelling said housing.

2,781,610

JET PROPELLED TOY VEHICLE

Yukio Yamauchi, Los Angeles, Calif.

Application October 18, 1955, Serial No. 541,166

5 Claims. (Cl. 46—99)

1. A toy jet racing vehicle comprising a hollow body having front and rear ends and top and side portions and an inner flat surface on the top portion adjacent to and spaced from the rear end, said top portion of the body having a balloon neck opening, said rear end having an opening, a blow nozzle mounted in the opening in the rear end of the body, an inflatable balloon supported on the body and having an elongated neck extending through the neck opening in the top portion of the body and extending across said inner flat surface on the top portion of the body, and having a mouth secured to the inner end of the blow nozzle for inflating the balloon through said blow nozzle and for deflating said balloon through the blow nozzle, and a free turbine sounding wheel rotatably mounted in the blow nozzle for rotation by air passing through the nozzle to simulate a jet engine sound while the balloon is deflating.

2,781,611

DOLL FOR SELECTIVELY EXHIBITING SYMPTOMS OF SICKNESS

Anita West Bills and Dorothy S. Clark, Northbrook, Ill.

Application November 24, 1953, Serial No. 394,103

5 Claims. (Cl. 46—135)

1. A doll adapted to exhibit symptoms of sickness which comprises a body having a head and neck portion, diaphragms on the sides of the neck portion confining spaces therebehind, a pump mechanism on said head portion adapted to compress air into said spaces for distending said diaphragms to simulate mumps on the neck portion, a check valve for retaining compressed air in

said spaces, and mechanism for selectively releasing said check valve.

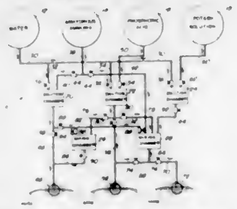
2,781,612

METHOD OF SOIL CONDITIONING AND FERTILIZING

John Warren Dugan, Houma, La., assignor to Flo-Mix Fertilizers Corporation, Houma, La., a corporation of Delaware

Application February 27, 1953, Serial No. 339,217

5 Claims. (Cl. 47—58)



1. A process of soil fertilization which comprises directing a stream of liquid ammonia toward the soil, blanketing the stream of ammonia with a solution of potash and water just prior to application to the soil, injecting the resultant solution into the soil beneath the surface thereof, then sequentially injecting a stream of phosphoric acid into the soil.

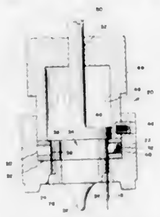
2,781,613

DUMMY LEAD INSERTER FOR WAFER STEMS

Donald B. Watkins, Emporium, Pa., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application June 30, 1955, Serial No. 519,096

2 Claims. (Cl. 49—76)



1. An upper press jaw for forming electron tube wafer stems and the like comprising a jaw with downwardly directed stem forming elements and a central recess in the upper portion thereof, a spindle rigidly connected with the jaw having a hollow portion communicating with the recess in the jaw, a vertical bore through the jaw and communicating with the recess, resiliently urged means engaging a lead inserted into the bore, and a block

in the hollow portion of the spindle freely movable vertically therein to press on the upper end of the inserted lead.

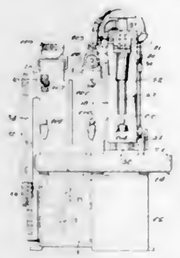
2,781,614

GRINDING APPARATUS

Clifford L. Garrison, Adrian, Mich., assignor to Oliver Instrument Company, Adrian, Mich., a corporation of Michigan

Application October 24, 1951, Serial No. 252,855

2 Claims. (Cl. 51—100)



1. Apparatus for grinding form tools in combination with a grinding machine having a frame supporting a rotatable grinding wheel formed with a transversely curved grinding zone and a spherically shaped mounting element for a tool carrying holder, means for adjusting the holder mounting element relative to the grinding wheel in a direction substantially tangential of the periphery of the wheel, a form tool-carrying holder having one end supported upon the mounting element for oscillatory movement about the center of said spherically shaped element, the opposite end of the holder carrying a template shaped to the configuration to be imparted to the form tool by engagement with the grinding wheel, said holder being formed with means intermediate its ends for supporting a form tool to be ground, an abutment member having a curved surface of a radius substantially larger than that of the transverse curvature of the peripheral grinding zone of said grinding wheel arranged to be engaged by the template, the curved surface of said abutment member and the curved grinding zone of said grinding wheel at the point of contact with said tool having the planes of their arcs of curvature in spaced parallel relation with one another and their arcs of curvature located on the surface of a cone vertically generated from the center of said spherically-shaped mounting element, whereby grinding of the form tool is effected through a comparatively narrow linear zone tangentially of the periphery of the grinding wheel.

2,781,615

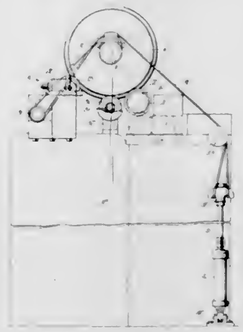
WHEEL HOLD-DOWN DEVICE

Ralph M. McLean, Jr., Skokie, Ill., assignor to Standard Railway Equipment Manufacturing Company, Chicago, Ill., a corporation of Delaware

Application July 25, 1955, Serial No. 524,152

5 Claims. (Cl. 51—104)

1. In a device for truing wheels mounted on opposite ends of a vehicle axle, a cradle for rotatably supporting the wheels including a driven roller and an idler roller, drive means for said driven roller to rotate said wheels, an abrading tool for truing said wheels to a rotund shape, a flexible hold-down member passing over the vehicle axle and anchored at one end to said cradle for maintaining



said wheels in said cradle, and power means for applying force to said hold-down member.

2,781,616

HONING MACHINE

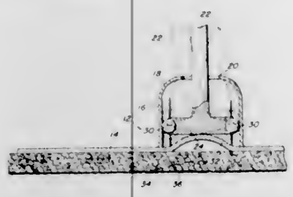
Mark R. Estabrook, Rockford, Ill., assignor to Barnes Drill Co., Rockford, Ill., a corporation of Illinois

Application March 18, 1955, Serial No. 495,301

7 Claims. (Cl. 51—184.3)

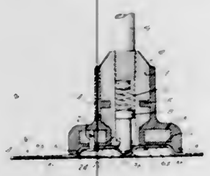
1. In a honing machine, the combination of an expansible honing tool having abrasive elements engageable with the wall of a work bore, a head supporting said tool, means including a member coupled to said elements and mounted on said head for movement relative thereto to expand said tool, electrically actuated drive means having an output member and selectively operable to move the member at predetermined fast, intermediate, and slow speeds, a connection between said members including a part yieldably urged into a first position and movable into a spaced position in response to the building up of a predetermined expansion pressure on said elements after engagement of the same with said bore wall, a switch actuated in response to movement of said part out of said first position and operable when actuated to change the energization of said drive means and cause movement of said output member at said intermediate speed, a second switch mounted on said head and operating when actuated to produce a further change in the energization of said drive means and cause movement of said output member at said slow speed, and a motion multiplying connection between said part and said second switch operating to actuate the latter in response to movement of the part into said spaced position thereof.

2,781,617
SWIVEL SANDER
Jerry J. Lines, Eau Claire, Wis.
Application May 27, 1955, Serial No. 511,460
3 Claims. (Cl. 51—195)



1. A swivel sander comprising a backing plate, a housing secured to one side of said backing plate, a shaft, said shaft having one end extending into said housing, a head on said shaft within said housing, pockets formed in said housing in circumferentially spaced relation, sockets in said head aligned with said pockets, and ball members freely seated in said sockets and said pockets connecting said shaft to said housing, said backing plate having a bowed portion projecting into said housing, said head being seated on said bowed portion.

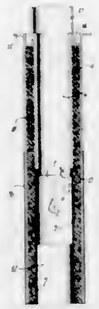
2,781,618
ABRASIVE ARTICLES AND HOLDERS THEREFOR
Adolph J. Larson, Wauconda, Ill., assignor to Contur Abrasive Company, Inc., Crystal Lake, Ill., a corporation of Illinois
Application March 27, 1956, Serial No. 574,196
13 Claims. (Cl. 51—197)



1. A holder for finishing articles comprising a molded resilient body, a hub molded in said body including an extension adjacent one face of said body, a carrier molded in said body and encircling said extension in spaced relation thereto, and article retaining means mounted on said carrier and extending beyond said one face of the body for cooperation with the finishing article, said resilient body accommodating relative movement of said carrier and said extension limiting such movement.

2,781,619
METHOD OF MAKING FILTER CARTRIDGE
Alfred W. Gardes, Detroit, Mich., assignor to Indiana Commercial Filters Corporation, a corporation of Indiana
Application September 3, 1953, Serial No. 378,203
1 Claim. (Cl. 53—13)

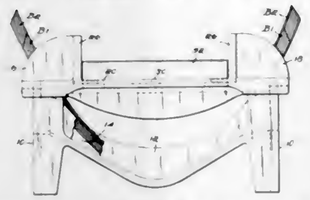
The method of making a filter cartridge, including the steps of placing a tubular perforated core inside one end of an elongated tubular cover of stretchable fabric, securing the cover to the core with a part of the fabric extending therebeyond, joining a tool to one end of the core to provide in effect a longer core, rolling a unitary sheet of filter medium around both the fabric cover core and tool, compressing the filter medium during rolling to reduce its original thickness, retroverting the extended part of the fabric cover over the outside of the wound filter medium, restraining the filter medium from radial expansion and compressing the filter medium axially inside the retroverted cover to substantially the length of the core to form an uninterrupted filter medium of uniform density, and folding in both ends of the cover between the filter medium and the core at the same end of the cartridge.



2,781,620
BAG FEEDING AND FILLING MACHINE
Frank L. Hopkins and Richard H. Ayres, Minneapolis, Minn., assignors to Bemis Bro. Bag Co., St. Louis, Mo., a corporation of Missouri
Application September 20, 1954, Serial No. 457,102
21 Claims. (Cl. 53—52)

1. In a bag feeding and filling machine, bag filling means, a magazine for holding a plurality of bags in closed flat form and in side-by-side stacked relationship, a bag extractor movable between a bag extracting position adjacent the magazine and a bag delivery position remote therefrom, a bag transfer device including a pusher element and a bag holder movable between a retracted bag receiving position adjacent the delivery position of the extractor and a projected position in register with the bag filling means, opposed bag opening fingers adapted to be received within a bag and engage opposite inner wall surfaces thereof to fully open the bag, mechanism including opposed bag wall engaging members for partially opening the bag and moving the same out of the holder into engagement with said fingers when said transfer device is in said projected position, and actuator mechanism for said fingers and bag wall engaging members causing the same to release the bag after the bag is filled and permit the filled bag to move into the path of travel of said pusher element when said transfer device is moved to its retracted position, whereby subsequent movement of said transfer device to its projected position will cause the filled bag to be displaced.

2,781,621
BANDING APPARATUS FOR FORMING PACKAGES
Edward W. Wilson, Nashua, N. H., assignor to Nashua Corporation, Nashua, N. H., a corporation of Massachusetts
Application May 20, 1954, Serial No. 431,185
5 Claims. (Cl. 53—198)



1. An appliance for facilitating banding of a plurality of objects comprising a base member with end frames, spaced webs between the frames defining two spaced open-topped pockets, and upwardly concaved bottoms for said pockets, a top member seated on the base member and having webs extending along the outer sides of said pockets and between the two to expose the tops of the pockets between them, said webs being elevated adjacent the ends of the member to provide laterally positioned shoulders, a member having two angularly disposed flanges, the member being rotatably supported at the junction of its flanges at the middle portion of the top and having two positions of adjustment in each of which one flange extends toward one of the side webs and provides a supporting surface substantially coplanar with the top of the web and the other extends vertically to provide an aligning guide for objects supported in bridging relation across the open top of a pocket by the other flange and by the web toward which it extends.

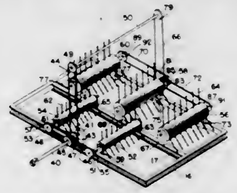
2,781,622
PACKAGING DEVICE
Willie M. Shoffner, Dayton, Ohio, assignor to Roto-Table Co., Dayton, Ohio, a corporation of Ohio
Application October 2, 1953, Serial No. 383,733
16 Claims. (Cl. 53—258)

1. In a packaging device; a frame, a reciprocable ram in the frame having a pusher member at the end, a spout in the frame in front of said pusher member, said spout being divided longitudinally into two parts, each part having a flat bottom wall and outwardly inclined side walls to form a tray slide, one of said parts extending to adjacent the retracted position of said pusher member and being laterally adjustable on said frame, the said other part extending from the outer end of said one member part-way therealong and being pivotally supported on said frame, and spring means biasing said other part about its pivotal support in a direction to separate the outer ends of said parts.

2,781,623
STONE GATHERING MACHINE
Peter Britanius Anderson, Southey, Saskatchewan, Canada
Application December 21, 1954, Serial No. 476,714
2 Claims. (Cl. 55—17)

1. In a stone gathering machine providing a main frame and a gathering apron suspended to swing in the frame, a reel carried by the apron, said reel comprising a shaft which means by which the shaft may be connected to be driven, end plates fixed on the shaft, arms intermediately pivotally mounted at quarterly intervals on the peripheral portions of the end plates, springs connecting the one end of each of the arms to the end plates constraining the arms against movement in one direction, bars carried on the other ends of the arms extending transversely between the end plates, teeth on the bars, anchoring means securing the bars against movement of the arms in the other direction, and upstanding arms on the apron, said upstanding arms providing forks in which the reel is rotatable.

2,781,624
ROTARY ROW CROP BEATER
Elton E. Mountz, Joanna, Pa.
Application October 12, 1953, Serial No. 385,553
2 Claims. (Cl. 55—118)



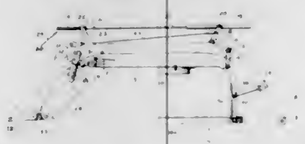
1. A row crop beater adapted to be drawn by a draft vehicle comprising a frame having forward and rear end members connected by side members and supporting a hood thereon, a dividing member fixed in the side members of the frame providing forward and rear sections therein, a plurality of rotatable flail beaters mounted longitudinally of the frame in the forward frame section operably supported by the forward end member and the dividing member, said beaters spaced and aligned to conform with the hills of the row crops, and a plurality of rotatable flail beaters supported by the dividing member and the rear end member in the rear frame section mounted in staggered relation with the beaters in the forward frame section and being aligned and positioned to beat the valleys of the row crops between the hills, vertically adjustable tracking wheels attached to the rear end member of the frame for operational adjustment, and driving means operatively associated with and adapted to rotate said beaters.

2,781,625
PORTABLE NUT HARVESTER
Morton E. Phelps, Morton F. Phelps, and William D. Phelps, Sr., Little Rock, Ark.
Application December 30, 1955, Serial No. 556,513
5 Claims. (Cl. 56—328)

1. In a portable nut harvester, a mobile frame, a separator including a vertically disposed hollow body having a closed top and a bottom provided with a discharge opening carried by said frame, said body also having an inlet port adjacent the bottom thereof and an

outlet port adjacent the top thereof, a source of suction operatively connected to said body outlet port, means operatively connected to said body inlet port for receiving nuts and associated sticks and sweepings from a ground surface and delivering same through said inlet port into said body, an upstanding convolute baffle positioned within said body and extending over said body discharge opening and carried by the body bottom, an air lock and transfer unit embodying a chamber having a top wall and a bottom wall provided with spaced openings positioned below said hollow body so that the top wall is adjacent the bottom of said body and the bottom wall is remote from the bottom of said body, the top wall of said chamber having an opening connected in communication with the discharge opening in said body bottom, a discharge chute connected in communication with the bottom wall of said chamber, and means in said chamber for conveying the nuts and broken up sticks and sweepings received from said body to said chute.

2,781,626
RAKE SUSPENSION FOR SIDE DELIVERY RAKE
Melvin J. Happe, New Holland, and Horace G. McCarty, Ephrata, Pa., assignors, by mesne assignments, to Sperry Rand Corporation, New Holland, Pa., a corporation of Delaware
Application December 31, 1953, Serial No. 401,548
5 Claims. (Cl. 56—377)



1. A side delivery rake comprising a main frame having a forward hitch for connection to a tractor and rear supporting wheels, a pair of levers fulcrumed on said frame in diagonally horizontally spaced relation, links universally connected to said respective levers, a sub-frame universally connected to each of said links for swinging movement about a diagonal axis extending between said links, a rake basket carried by the sub-frame with its major axis parallel to said diagonal axis, said basket depending below the diagonal axis just in advance of one of the said wheels, a downwardly and forwardly inclined guideway carried by the main frame forwardly of said diagonal axis, a slide adjustable in said guideway, said slide being universally connected to the sub-frame whereby adjustment of the slide along said guideway will simultaneously cause a longitudinal bodily adjustment of the sub-frame and diagonal axis and an angular adjustment of the sub-frame about its said axis, in combination with a rigid link connected transversely between said frame and the rake basket to laterally position the rake basket, the connection of said link to the rake basket being so spaced below said diagonal axis that the movement of said connection responsive to angular adjustment of the sub-frame is substantially equal and opposite to the resulting bodily movement of the sub-frame.

2,781,627
ANTI-BALLOONING SPINDLE FOR RING SPINNING MACHINES
Willem Johannes Netelenbos, Meindert Otger, and Johannes Gerhardus Robbenhaar, Almelo, Netherlands
Application May 28, 1951, Serial No. 228,572
Claims priority, application Netherlands June 10, 1950
4 Claims. (Cl. 57—73)

1. In a ring spinning machine for suppressed balloon type spinning of yarn and the like, a high speed spindle including a base portion and a neck portion, a sleeve surrounding said base portion, and a number of narrow, spaced, projecting, continuously curved guide elements distributed over the sleeve and spindle portions, the effective surface, number, spacing distance, and extent of projection of said guide elements being so selected that

during spinning, adjoining sections of said sleeve and spindle portions are filled in successive order, and the yarn is guided along a helicoid path whereby contact of the yarn with the sleeve and spindle portions is limited to the narrow, intermittent guide elements and friction is reduced to a minimum.

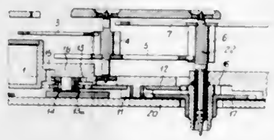
2,781,628
TEXTILE SPINDLE
Allen Raymond Andrews, West Hartford, Conn., and Albert E. Winslow, Greenville, S. C., assignors, by mesne assignments, to Standard Screw Company, a corporation of New Jersey
Application March 9, 1955, Serial No. 493,274
6 Claims. (Cl. 57—135)

1. A textile spindle comprising a blade, a whorl thereon, upper and lower annular mounting means fixed in spaced relation on said blade below said whorl, said annular mounting means being fitted peripherally with resilient boots and the boot on at least the lower of said annular mounting means being formed with at least one ear on the outer surface thereof, and a composite base formed by complementary longitudinal housing portions assembled lengthwise about said blade below said whorl and having respectively matched transverse grooves therein forming circumferential seats supporting said annular mounting means at the resilient boots thereon upon assembly of said composite base, at least one of said longitudinal housing portions being slotted adjacent the transverse groove therein for said lower mounting means to receive the outer surface ear on the boot for said mounting means and thereby fix said boot against rotation with respect to said composite base upon assembly of said housing portions.

2,781,629
TEXTILE SPINDLE
Albert E. Winslow, Greenville, S. C., assignor, by mesne assignments, to Standard Screw Company, Bellwood, Ill., a corporation of New Jersey
Application August 5, 1954, Serial No. 447,977
5 Claims. (Cl. 57—135)

5. A textile spindle comprising a blade, a whorl thereon, upper and lower bearing units fixed in spaced relation on said blade below said whorl, said bearing units being prelubricated and sealed and being fitted peripherally with resilient boots, and a composite base formed by complementary longitudinal housing portions assembled lengthwise about said blade below said whorl and having respectively matched transverse grooves therein forming circumferential seats supporting said bearing units at the resilient boots thereon upon assembly of said composite base.

2,781,630
DIAL TRAIN FOR ROSKOPF TYPE WATCHES
Joseph Bamat, Grenchen, Switzerland, assignor to Amida S. A., Grenchen, Switzerland, a Swiss firm
Application May 3, 1954, Serial No. 427,145
Claims priority, application Switzerland February 16, 1954
2 Claims. (Cl. 58—125)

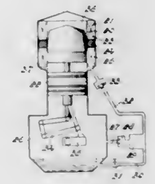


1. In a clockwork for Roskopf type watches including a plate and a dial, the combination of a barrel provided with a single series of peripheral teeth located between the cover and the bottom of said barrel, a minute wheel, a gear including two coaxial pinions, one of which is in permanent mesh with said barrel teeth and the other controls the minute wheel, an elastic member interconnecting the two coaxial pinions to produce a friction drive between the latter said two coaxial pinions and said minute wheel being fitted between the plate and the dial, a hollow cannon pinion located in close proximity with the barrel, said hollow cannon pinion being operatively connected with said minute wheel, a seconds wheel extending coaxially and revolubly inside the cannon wheel, gears operatively interconnecting the seconds wheel with the teeth on the barrel and an escape wheel controlled by the seconds wheel.

2,781,631
EXPANSIBLE BRACELET WITH DETACHABLE END CONNECTIONS AND A LATCH THEREFOR
Henry Showell, Handsworth, Birmingham, England, assignor to Henry Showell Limited, Birmingham, England, a British company
Application November 25, 1955, Serial No. 549,138
5 Claims. (Cl. 59—79)

1. A spring link unit for an expansible bracelet or the like comprising, a pair of crossed links, pivot means for rotatably connecting said links intermediate their ends, a spring for urging said crossed links towards a relatively parallel position, one of said links formed with a keyhole slot adjacent to each of the ends thereof, a headed pin positioned adjacent to each of the ends of the other of said links which headed pins are adapted to be removably accommodated within the keyhole slots of adjacent link units, a shutter plate pivotally mounted on said pivot means, and elements carried by said shutter plate which elements may be adjustably positioned by angular movement of said shutter plate between positions wherein the slots are uncovered and wherein a part of the slots are covered.

2,781,632
DEVICE FOR CIRCULATING A MEDIUM IN A RECIPROCATING ENGINE
Roelf Jan Meijer, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application September 6, 1950, Serial No. 183,441
Claims priority, application Netherlands September 21, 1949
8 Claims. (Cl. 60—24)

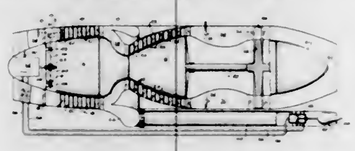


8. A device comprising a vessel adapted to contain a fluid medium, said vessel also containing lubricating oil intermingled with said fluid medium, means operatively associated with said vessel for subjecting fluid medium contained therein to variations in pressure, and a circulation device, said circulation device comprising a pair of conduits, the first of said conduits having one end communicating with said vessel, the second of said conduits also having one end communicating with said vessel, the other end of each of said first and second conduits communicating with each other, means in each of said conduits for permitting flow of said medium in said conduits in one direction only, an air chamber interposed between the other ends of said conduits, and means for blowing a mixture of said fluid medium and said lubricating oil from said second conduit into said vessel upon a predetermined pressure differential between said second conduit and said vessel.

2,781,633
APPARATUS FOR MOUNTING SOLID PROPELLANT GRAINS IN A ROCKET MOTOR
William L. Rogers, Covina, and Robert L. Noland, Duarte, Calif., assignors, by mesne assignments, to Aerojet-General Corporation, Cincinnati, Ohio, a corporation of Ohio
Application April 15, 1949, Serial No. 87,626
11 Claims. (Cl. 60—35.6)

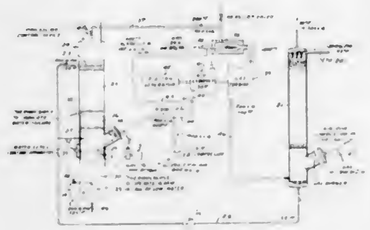
1. In a rocket motor having a forward closure member, a firing chamber, and an exhaust nozzle opening from the rear of said chamber: means for supporting a plurality of solid propellant grains within the chamber, said means comprising a rod means disposed centrally and longitudinally within the chamber, a front trap within the front end of the chamber, a rear trap within the rear end of the chamber, and an intermediate trap within the chamber located between the front and rear traps, said traps being mounted on said rod means, means for clamping adjacent traps against respective ends of said grains, said last-named means comprising means fastening the first trap to the rod means and a clamping member threaded to the rod means at the rear of the intermediate trap and turned up against the intermediate trap and a threaded nut on the rod means at the rear trap and turned up against the rear trap, means at the chamber side of the nozzle for supporting said rearward trap, means for centrally positioning said intermediate trap, and means attached to said forward closure member for centrally supporting said forward trap.

2,781,634
COMPRESSOR FLOW CONTROL MEANS
Vincent Moore, Glen Rock, N. J., assignor to Curtiss-Wright Corporation, a corporation of Delaware
Application November 1, 1950, Serial No. 193,376
1 Claim. (Cl. 60—35.6)



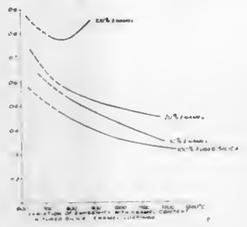
A gas turbine power plant for aircraft or other vehicles; said power plant comprising a combustion chamber; an axial flow air compressor assembly having a plurality of stages of compressor blades for supplying said combustion chamber with air for combustion with fuel in said chamber; a turbine assembly drivably connected to said compressor assembly and arranged to be driven by gases from said combustion chamber; a first duct having a rearwardly directed nozzle through which the exhaust gases discharge from the turbine assembly; a second duct communicating with said compressor assembly at an intermediate stage of said compressor assembly for bleeding off air from said compressor assembly, said second duct having a rearwardly directed nozzle at its discharge end through which said bleed air discharges into the surrounding atmosphere to add to the power plant thrust; means for adjusting said second duct nozzle for varying its effective discharge area thereby controlling the rate of said air bleed so that said air bleed is a maximum when said second duct nozzle is open to its maximum extent and when said second duct nozzle is closed all the compressor air contributing substantially to the powerplant thrust is supplied to said combustion chamber; and control mechanism for causing operation of said nozzle varying means to maintain a predetermined angle of attack of the compressor air on a stage of compressor blades upstream of said intermediate stage; said control mechanism including means responsive to changes in the direction of the fluid flow over said upstream stage of compressor blades, means adjustable for setting the magnitude of said predetermined angle of attack, means operatively connected to said responsive means and movable in response to deviation in said angle from the set value in a direction and to an extent dependent on the direction and magnitude of said deviation, and means operatively connecting said movable means to said nozzle varying means for adjusting said second duct nozzle upon deviation of said angle of attack from the set value so as to restore said angle of attack to said set value by increasing or decreasing said air bleed to an extent dependent on the magnitude of the increase or decrease respectively in said angle of attack from said set value.

2,781,635
PROCESS AND HEATING SYSTEM FOR PROVIDING HOT WATER AND POWER FOR SULFUR MINING
Vas Hubert Brogdon, Port Sulphur, La., assignor to Freeport Sulphur Company, New York, N. Y., a corporation of Delaware
Application April 26, 1952, Serial No. 284,673
2 Claims. (Cl. 60—39.05)



1. A process of providing large quantities of hot process water and power needed in sulfur mining, in a system including a packed heating tower, a gas turbine and an air compressor operated by said turbine which comprises, maintaining a reservoir of water in a bottom portion of said tower, burning fuel under pressure in a zone below the packing in said tower but above and adjacent the surface of the water in said reservoir, directing the flame of the burning fuel downwardly toward the surface of the water in said reservoir whereby radiant heat of the flame is taken up by said water, thereby forming combustion gases under pressure in said zone, feeding scale-forming water under pressure into direct contact with the resulting combustion gases arising in said tower so as to heat said water to temperatures required in sulfur mining while flowing downwardly over said packing and through said zone, maintaining said zone at a pressure related to the temperature to which the water is to be heated, withdrawing the heated water from said reservoir, for use in sulfur mining, withdrawing cooled combustion gases from the tower after they have given up heat to the water in said tower, feeding at least a part of said gas from said air compressor to said zone, burning fuel with air from said compressor in a separate combustion zone, cooling the resulting hot combustion gases by mixing therewith the said cooled combustion gases, feeding the resulting cooled gas mixture to said turbine, and preheating the scale-forming water being fed to said tower by direct contact with the exhaust gases from said turbine.

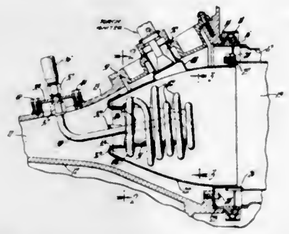
2,781,636
LOW EMISSIVITY COATINGS FOR METAL SURFACES
Eric A. Brandes, Chalfont St. Peter, and Robert B. Waterhouse, Windsor, England, assignors to Fulmer Research Institute Limited, Stoke Poges, England
Application June 23, 1952, Serial No. 295,052
4 Claims. (Cl. 60—39.69)



1. A method of preparing a coating material for a metal surface for the reduction of heat transference thereby in which a low emissivity refractory material of the group consisting of fused silica, stabilized zirconia, alumina, mineral cordierite, magnesia and ceria is prepared in the form of particles between 0.1 and 0.001 mm. size, in which 95 to 70% by weight of said prepared refractory material is milled together with 5 to 30% of an enamel frit in dried and ground condition to form a milled composition and in which an aqueous suspension containing a binder and a wetting agent is added to the milled composition in the proportion of between 100 and 150 mls. to 100 grams of solid.

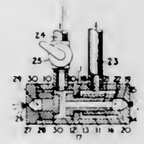
4. A gas turbine flame tube having first and second coatings applied to the internal surface thereof, the first coating being a protective vitreous enamel layer and the second a coating material prepared according to the method claimed in claim 1.

2,781,637
COMBUSTION CHAMBER WITH FUEL VAPORIZER
Floyd G. Dougherty, Indianapolis, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 15, 1950, Serial No. 200,965
7 Claims. (Cl. 60—39.71)



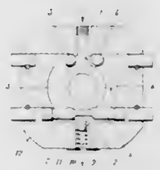
5. A combustion apparatus comprising, in combination, a combustion chamber structure defining an air passage with an inlet and an outlet, a flame tube therein comprising an entrance portion with a first air inlet at the end thereof toward the combustion chamber air inlet, a sleeve within the first inlet extending downstream and defining a second air inlet, a tubular ring fuel injection manifold disposed around the sleeve adjacent the first air inlet with orifices formed therein for discharge of fuel, a fuel heating coil arranged around the sleeve downstream from the manifold and discharging into the manifold, and means for supplying fuel to the heating coil.

2,781,638
COMBUSTION APPARATUS AND LIQUID FUEL DISCHARGE APPARATUS ADAPTED FOR USE THEREWITH
Walter George Fletcher and Peter Frederick Ashwood, Farnham, England, assignors to Power Jets (Research and Development) Limited, London, England, a British company
Continuation of application Serial No. 28,924, May 24, 1948. This application July 29, 1953, Serial No. 371,028
Claims priority, application Great Britain May 23, 1947
8 Claims. (Cl. 60—39.74)



6. A liquid fuel discharge apparatus for producing a main fuel jet which can be varied over a wide range, and a continuously operating pilot jet from the same fuel supply, not appreciably affected by the variation of the main jet, comprising a fuel discharge device, a fuel circulating system therethrough constituted by a supply connection thereto, and a spill return line therefrom, and means in said circulating system for causing the flow in said spill return line to differ variably from that in said supply connection, said fuel discharge device having a main nozzle of the spill type at one end, fed by said supply connection, a spillway extending from said main nozzle to said spill return line, and a pilot nozzle at the other end of the device fed from said spillway.

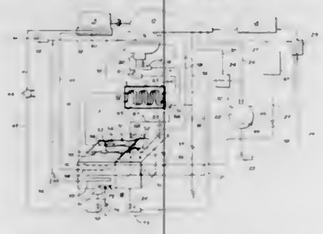
2,781,639
FRONT PLATE FOR A FLUID TRANSMISSION COMPRISING MEMBERS FOR DISTRIBUTING AND ADJUSTING THE PRESSURE IN THE CIRCUIT
Giovanni Badalini, Rome, Italy, assignor to Cambi Idraulici Badalini S. p. A., Rome, Italy, an Italian company
Application April 20, 1954, Serial No. 424,482
Claims priority, application Italy March 8, 1954
2 Claims. (Cl. 60—53)



1. In combination, a valve plate having ports connecting the supply and return lines between driving and driven ends of a fluid transmission, the lines being interchangeable as to supply and return, said valve plate having an inlet duct leading from a supplemental pump and a discharge duct having a branch leading to each port, a one-way valve in said discharge duct adapted to be opened to exhaust under a predetermined pressure, one-way valve means between said inlet duct and each of said ports to admit pressure from said inlet duct to said ports, and valve means in each branch between each of said ports and said discharge duct adapted to be closed by pressure in said ports, said valve means being rigidly connected to each other, whereby when one is closed the other is held open.

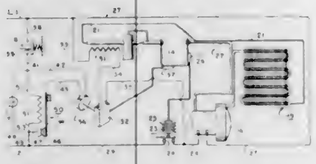
where ammonia is separated from the weak solution for passage and being downstream of said first portion a dis-

2,781,640
STEAM DRIVE PRIME MOVER SYSTEM
Frederick W. Riehl, Denver, Colo.
Application April 22, 1955, Serial No. 503,300
4 Claims. (Cl. 60—95)



1. In a steam-driven prime mover system including a boiler and a turbine and a condenser connected in a closed circuit, and a cooling water circuit for said condenser, a heat conservation apparatus including means providing first and second closed chambers, a jet pump connecting said chambers and having an inlet in communication with the first chamber and an outlet for discharge into the second chamber, means for forcing condensate from said condenser through said jet pump to maintain a subatmospheric pressure in said first chamber, means for supplying water to said first chamber to be evaporated therein, means for bypassing cooling water around said condenser, heat exchange means arranged to transfer heat from the condensate supplied to said jet pump to the cooling water in said bypassing means for subcooling the condensate supplied to said pump whereby a lower pressure may be produced in said first chamber than in said condenser, means for maintaining a subatmospheric pressure in said second chamber higher than the vapor pressure of the water discharged by said jet pump, and means for returning to the condensate portion of said closed circuit water heated in said second chamber by operation of said pump.

2,781,641
REFRIGERATION APPARATUS DEFROSTING CONTROL
William J. Foley, Ridley Park, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application October 30, 1952, Serial No. 317,646
5 Claims. (Cl. 62—4)

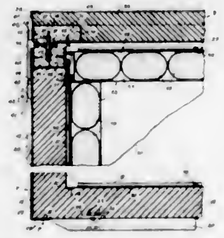


1. In a refrigerator having a cabinet with an access opening therein, a door for opening and closing said opening, a cooling element for refrigerating media in said cabinet, refrigerating machinery for circulating refrigerant through said cooling element, means for heating said cooling element to remove frost therefrom, control mechanism for said heating means including a timer motor and means for energizing said heating means after a predetermined period of operation of said timer motor, a supply circuit for said timer motor, said supply circuit including first and second switches, said first switch being actuated to a closed position in response to opening of said door, and means in said supply circuit for measuring the individual periods of time during which said first switch is in its closed position and for opening said second switch in the event one of the closed periods of said first switch exceeds a predetermined interval of time.

2,781,642
AUTOMOBILE COOLING
James W. Jacobs, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 21, 1953, Serial No. 350,185
13 Claims. (Cl. 62—4)

1. In combination with a vehicle having an engine for supplying power for propelling the vehicle, said engine having an ignition system including a manually operable ignition switch and a clock operated ignition switch arranged in parallel, means cooperating with said engine for cranking said engine in response to closing of either of said switches, air conditioning apparatus supported on said vehicle including a refrigerant compressor, power transmitting means between said engine and said compressor, transmission means on said vehicle for propelling said vehicle by said engine, a control lever for said transmission means, and means operatively interconnecting said ignition system, said engine, and said control lever for preventing closing of said clock operated ignition switch in one position of said control lever.

2,781,643
APPARATUS FOR REFRIGERATING FOODSTUFFS
Starr W. Fairweather, Montreal West, Quebec, Canada
Application January 19, 1953, Serial No. 331,768
4 Claims. (Cl. 62—87)

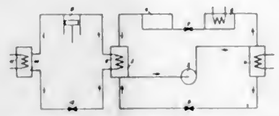


2. In an apparatus for packing foodstuffs requiring a specific temperature, including a portable container defining an air-tight compartment, a removable liner for said compartment said liner comprising a plurality of separable hollow slabs, each of said slabs comprising top, bottom and side walls, a plurality of expansible tubular sections disposed within said slab in side-by-side relation between two opposing sides of the slab and an eutectic mixture sealed within said tubular sections whereby freezing of said eutectic mixture expands the tubular sections to substantially fill the interior of said slab.

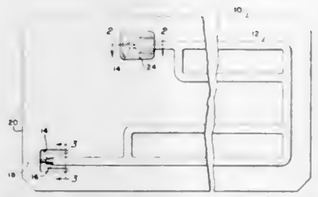
2,781,644
METHOD FOR OPERATING AN ABSORPTION REFRIGERATING SYSTEM
Vsevolod Šapošnikov, Prague-Podli, and Miroslav Patrman, Prague-Stresovice, Czechoslovakia, assignors to VSCHP, Vyzkumny ustav stroju chladicich a potravinarskych, Prague, Czechoslovakia
Application November 9, 1954, Serial No. 467,848
Claims priority, application Czechoslovakia November 11, 1953
3 Claims. (Cl. 62—119)

1. In the method of absorption cooling with a two component, ammonia-water refrigerant in a cooling plant wherein ammonia is evaporated in an evaporator within the space to be cooled and is thereafter absorbed by a weak aqueous solution of ammonia in an absorber to produce a strong solution which is pumped to a generator

where ammonia is separated from the weak solution for return of the latter to the absorber while the separated ammonia is fed through a condenser and an expansion valve to the evaporator; the further step of cooling the aqueous solution of ammonia in the absorber to a temperature below that at which solidification of said solution occurs so that ice is frozen out of said solution for obtaining a low evaporating temperature of the refrigerant up to minus 70° centigrade and a high initial cooling performance.

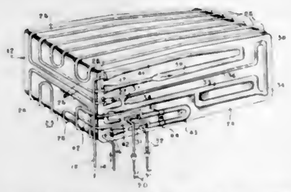


2,781,645
HEAT EXCHANGER
Edward C. Simmons, Dayton, Ohio, assignor to General Motors Corporation, Dayton, Ohio, a corporation of Delaware
Application September 17, 1952, Serial No. 310,006
5 Claims. (Cl. 62—126)



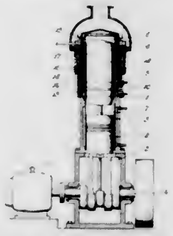
2. A heat exchanger comprising a roll forged element having an internal passage formed therein, said passage having a terminus arranged at a point inside the outer periphery of said roll forged element and comprising a tongue portion struck away from the roll forged element, said passage extending to an edge portion of said tongue, and a conduit connected to said tongue portion and having a passage communicating with said internal passage.

2,781,646
EVAPORATOR DEFROSTING ARRANGEMENT
Leslie B. M. Buchanan, Wilbraham, Mass., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application December 11, 1953, Serial No. 397,530
4 Claims. (Cl. 62—126)



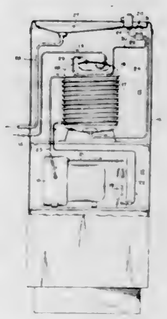
2. An evaporator provided with a refrigerant passage having an inlet and an outlet, and means for defrosting said evaporator by the application of heat to but portions of said refrigerant passage, which portions constitute substantially less than the total length of the refrigerant passage, and by the circulation of heated refrigerant within said evaporator passage, said evaporator passage having two portions thereof arranged in closely spaced relationship, one of said portions being adjacent the inlet of the evaporator passage and the other of said portions being intermediate the inlet and outlet of the evaporator passage and being downstream of said first portion a distance sufficient to receive refrigerant which has previously been evaporated in said first passage portion and recondensed in a third portion of the passage intermediate said first and second portions, said heat applying means comprising a single heater disposed in heat-exchange relationship with both said first and second portions of the evaporator passage.

2,781,647
COLD-GAS REFRIGERATOR
Jacob Willem Laurens Köhler and Aldert Teunis Bloem, Emmasingel, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application December 30, 1954, Serial No. 478,696
Claims priority, application Netherlands January 20, 1954
5 Claims. (Cl. 62—136)



1. A cold-gas refrigerator comprising; a cylinder; a piston reciprocating in said cylinder; a chamber of relatively low temperature; a chamber of relatively high temperature; a freezer, a regenerator, and a cooler connected in series and communicating said chambers with each other; the volume of each space being varied by said reciprocating piston while a medium which is always in the same state of aggregation in the refrigerator performs a closed thermodynamic cycle therein; the wall of said cylinder being constituted of at least two portions abutting each other at adjacent ends and meeting at a point coextensive with the juncture of the cooler and the regenerator, one of said portions serving as a running surface for said piston and the other portion being the inner boundary wall of said regenerator.

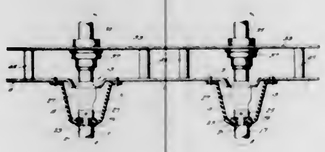
2,781,648
WATER COOLER APPARATUS
Wallace R. Lyman, Springfield, Mass., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 8, 1955, Serial No. 492,863
5 Claims. (Cl. 62—141)



1. In liquid cooling apparatus, the combination of a tank adapted to contain liquid to be cooled, a liquid

supply pipe communicating with said tank, a liquid delivery pipe communicating with the lower portion of said tank, a refrigerant heat exchanger associated with said tank for cooling the contents thereof, and an air purge tube having one end thereof in communication with the top of said tank and the other end thereof in communication with said delivery pipe, said purge tube having a portion thereof in engagement with said refrigerant heat exchanger for cooling the fluid flowing therethrough.

2,781,649
MULTIPLE SHAFT COUPLING
Robert J. Stahl and George R. West, Redwood City, Calif., assignors to Color Television Incorporated, San Carlos, Calif., a corporation of California
Application August 17, 1954, Serial No. 450,362
4 Claims. (Cl. 64—1)



1. Multiple shaft coupling mechanism for connecting between a plurality of driving and driven shaft mechanisms of which the driving shafts are contained in one assembly and the driven shafts are contained in the second assembly, one of said assemblies being adapted for juxtapositioning relative to the other, comprising a support means having a plurality of bearing surfaces adapted to hold and locate one set of shafts, each shaft of the set protruding through its bearing surface beyond the support means, a second support means in which the second set of shafts is supported, bearing means for supporting the second set of shafts in generally aligned position relative to the first set, one of each of the shafts of one set terminating in a flattened blade and the other set of shafts terminating as a bifurcated element having an end slot of generally Y-shaped configuration, the flattened blade being of a thickness approximating that of the width of the stem of the Y-shaped element and adapted to fit therein and being of a transverse dimension of the order of that of the bifurcated element transverse to its axis, means to mount the bearings of at least one of the sets of shafts individually resiliently with respect to each other and to the remaining shafts of the set, the normal bearing support position being to approximately align the supported shaft with its complementary shaft of the other set but movable to accommodate misalignment of the respective shafts, a driving connection between the two shafts being established when the blade members of one set of the shafts are positioned within the slots of the Y-shaped members of the other set of shafts and supports are juxtapositioned relative to each other to permit penetration of each blade-ended shaft into its complementary bifurcated-ended shaft.

2,781,650
CHILD'S COAXER FEEDING VESSEL
Cornelia D. Lee, Los Angeles, Calif.
Application March 29, 1954, Serial No. 419,512
1 Claim. (Cl. 65—15)

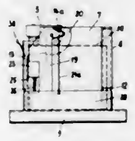
A vessel, said vessel having a transparent bottom, said bottom being cut away in a groove extending diametrically across said bottom from side to side, said groove having shallow slots in the side edges near the bottom of the groove, flat pads on the bottom of said vessel on either side of said groove maintaining said vessel erect on a supporting surface, and a card having its edges fitting

slidably within said slots, said card having a picture on one surface thereof.

2,781,651
TRAY
Ralph S. Cutler, Los Angeles, Calif.
Application May 2, 1955, Serial No. 505,160
1 Claim. (Cl. 65—53)

A drinking vessel support comprising a tray formed with a bottom wall having an inwardly and downwardly inclined top surface and formed with a central recess having a dished bottom and bordered by an upstanding margin merging into said inclined surface, a drinking vessel supporting stand loosely positioned in said recess having a marginal wall loosely seating on the marginal portion of the bottom of said recess with its upper edge terminating above the upper margin of said recess adjacent thereto, said stand having a top wall merging with the upper edge of said marginal wall, said top wall being formed with a central drainage opening leading to said recess adapted to serve as a finger-hold and said top wall having its upper face inclined inwardly and downwardly to said opening and formed with radially extending vessel supporting members with drainage channels therebetween leading to said opening, and said top wall being formed with a downwardly projecting surge guard flange surrounding the opening therein terminating in spaced relation to said dished bottom.

2,781,652
TABLE LIGHTER
Herbert Mayer, Augsburg, Germany
Application March 8, 1955, Serial No. 492,959
Claims priority, application Germany August 2, 1954
21 Claims. (Cl. 67—4.1)

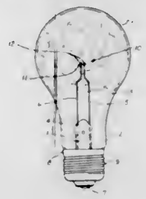


1. A table lighter comprising, in combination, a weighted base part adapted to rest on a supporting surface; an upper part mounted on said base part for movement toward and away from the same so that when said upper part is raised, said base part is restrained by the weight thereof from following said upper part so that said upper part moves upwardly away from said base part; flame producing means and ignition means mounted on said parts, said ignition means being operatively connected with said base part and said upper part so as to be operated during movement of said upper part away from said base part whereby said flame producing means is ignited when the lighter is grasped at said upper part and is raised from the supporting surface.

2,781,653
FURNACE LIGHTER
Alfred L. Thompson, Blue Lake, Calif.
Application May 13, 1955, Serial No. 508,242
4 Claims. (Cl. 67—6.1)

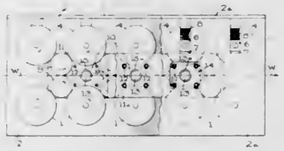
4. A remotely manually operable, spark-producing, furnace lighter, adapted to ignite a gas flame, comprising: hollow laterally deformable longitudinal sleeve means, having a manually graspable first end and a second end longitudinally spaced from said first end, holder means borne fixedly on said second end of the sleeve means; torque-transmitting means carried within said sleeve means, rotatable relative thereto, having first and second terminal portions rotatably connected to said first and second ends of the sleeve means respectively; screw means attached to said first terminal portion of the torque-transmitting means in torque-imparting relationship thereto, said screw means having a longitudinal axis and bearing generally helical thread means coaxial therewith; follower means threadedly engaged with said thread means and adapted for longitudinal reciprocation along said screw means; bearing means, carried by said holder means spaced from said second end of the sleeve means, serving to rotatably hold said second terminal portion of the torque-transmitting means; serrated sparking wheel means connected fixedly to said second terminal portion of said torque-transmitting means between said bearing means and the second end of the sleeve means; flint receptacle means carried by said holder means, and flint means held thereby to be frictionally sparkingly engageable with said wheel means; whereby the forcible linear motion of the follower means along the screw means is transformed into a forcible rotational motion transmitted from said first end to said second end of the torque-transmitting means, resulting in the spark-producing rotational motion of the wheel means relative to the flint means, in frictional engagement therewith; said follower means having an encircling circumferential peripherally outwardly serrated ratchet-wheel portion around the inner threaded engagement of said follower means with said thread means; handle means; and spring pawl means carried by said handle means in peripheral virtually perpendicular relationship with respect to said peripherally outwardly serrated ratchet-wheel portion, cooperating with said serrated portion of the follower means to form a ratchet preventing the rotation of the follower means relative to the handle means when the handle means is moved in a first direction along the screw means, thus permitting the rotation of the screw means, and said ratchet allowing the rotation of the follower relative to the handle means when the handle means is moved in a direction opposite said first direction, thus preventing the rotation of the screw means.

2,781,654
COATED LAMP
Marvin Pipkin, Granger Township, Medina County, Ohio, assignor to General Electric Company, a corporation of New York
Application October 1, 1953, Serial No. 383,529
9 Claims. (Cl. 67—31)



2. An electric lamp comprising a glass bulb containing a light source and having on said bulb a coating of an organic plastic lacquer composed essentially of the dried product of a material selected from the group consisting of the acrylic acid esters, cellulose esters and mixtures of vinyl resins and cellulose esters, and about 15 to about 400 cubic centimeters of an ester of silicic acid per gallon of said lacquer.

2,781,655
MACHINES FOR CONTINUOUS DYEING OF WEBS UNDER PRESSURE
Hugh M. Brown, Clemson, S. C., assignor to The Clemson Agricultural College of South Carolina, Clemson, S. C., a corporation of South Carolina
Application October 7, 1954, Serial No. 460,832
6 Claims. (Cl. 68—22)



1. A dyeing machine comprising at least six rolls mounted in rolling contact with each other in a ring formation, and a pair of plates engaging the ends of said rolls to form a closed chamber inside of said ring formation, means for driving two of said rolls on opposite sides of said ring formation in opposite direction, a pair of rolls on one side of said ring comprising feed rolls and forming an inlet gate for introducing web material into said chamber and a pair of rolls on the opposite side of said ring formation from said inlet gate and forming an outlet gate for said web material, and connections for passing dyeing liquor through said chamber, said inlet and outlet gates supporting a section of said web material in said chamber free of support between said gates.

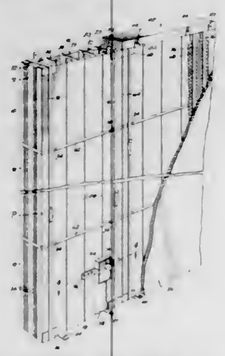
2,781,656
CURVED-BOLT DOOR LOCK
Antonio Guzman, Sao Paulo, Brazil
Application May 4, 1954, Serial No. 427,516
6 Claims. (Cl. 70—136)

5. A lock having a housing, key-controlled means including a gear, a curved bolt having a hub engaged and rotated by the gear, a notched fixed element within the housing, a detent carried by the bolt hub and adapted for engagement with the notched fixed element, spring

means for urging the detent against the notched fixed element said detent being adapted to be engaged by the gear and freed from engagement with the notched ele-

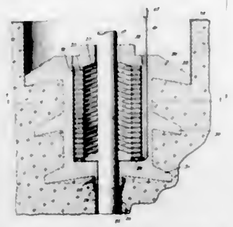
ment by operation of the key-controlled means whereby the bolt can be rotatively moved to open or closed position without interefernce from the notched element.

2,781,657
PRE-STRESSED CLAY TILE PARTITION PANELS
Robert B. Taylor, St. Charles, Ill., assignor to Structural Clay Products Research Foundation, Chicago, Ill., a trade association
Application June 29, 1951, Serial No. 234,225
2 Claims. (Cl. 72—16)



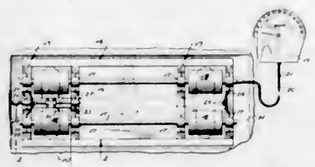
2. A wall construction comprising a plurality of aligned prestressed unitary tile panels, each panel including a plurality of tile units set end to end, each such unit having parallel end walls, parallel side walls terminating at the end walls, transverse partitions dividing the inner portion of the tile unit into rectangular longitudinal compartments, pairs of opposed lugs on said partitions presenting opposed parallel faces at the mid-section of the longitudinal compartments, the lugs serving to divide each longitudinal compartment into two semi-compartments, the distance between the opposed lugs being less than the width of an electrical outlet box intended for use in the wall, knock-out grooves at least adjacent the intersections of the side walls and the transverse partitions whereby selected sections of the side walls may be removed where desired, serrations along the outer side of the end walls, each of the tile units being separated by spaced cementitious inserts positioned between adjacent units and adjacent the corners thereof, said spaced inserts defining a substantial opening therebetween, gusset plates positioned adjacent the corners at the ends of the tile panels, each such gusset plate having an extending nailing lug, a plurality of tensioned bands wrapped longitudinally around each tile panel and overlying the gusset plates, thereby prestressing the tile units in their end to end assembled relation, said panels being positioned in edge to edge relation, a header plate positioned on the upper edges of and extending over a plurality of panels, fastening means extending through the lugs and securing the gusset plates to the header at the wiper end of the panels, other fastening means extending through the lugs and securing the gusset plates to a base at the lower end of the panels, and a cementitious facing on the exposed walls of the panels, the facing being locked to the tile panels by keying with the panel serrations and the openings between the cementitious inserts within each panel.

2,781,658
POST-STRESSED CONCRETE STRUCTURE
Curzon Dobell, Bronxville, N. Y., assignor to Stressteel Corporation, New York, N. Y., a corporation of Delaware
Original application July 31, 1951, Serial No. 239,423. Divided and this application August 28, 1952, Serial No. 306,862
2 Claims. (Cl. 72—50)



1. A reinforced structure comprising a body of concrete and at least one stressed steel rod disposed therein, said rod being free to move with respect to the concrete body, a hollow housing embedded within the body adjacent a surface thereof and an end portion of said rod disposed within said housing, a stack of metallic plates positioned within said housing, said stack having an aligned hole therethrough and said rod portion being disposed within said hole, at least some of said plates having a plurality of separate rod-gripping prongs integral therewith and extending inwardly toward said surface and resiliently bearing against said stressed rod, said prongs being sufficiently resilient to distribute the tensional load on the rod between them.

2,781,659
SPEEDOMETER TESTERS
Frank Moorman Parker, Jr., deceased, late of Chambersburg, Pa., by Phyllis A. Parker, executrix, Chambersburg, Pa.
Application November 17, 1953, Serial No. 392,694
1 Claim. (Cl. 73—2)

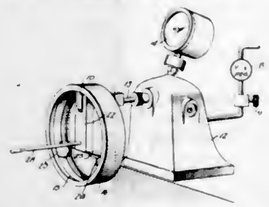


A speedometer testing device comprising supporting beams arranged in parallel relation, and lying in substantially the same plane, a pair of shafts arranged in spaced parallel relationship transversely of above and rotatably mounted in bearings on said beams, a drum fixed on each shaft, a speed indicator, a flexible shaft connecting said speed indicator to one of said shafts to indicate the peripheral speed of said drums, a brake shaft rotatably mounted in bearings on said beams, a handle fixed to said brake shaft outwardly of said beams for rotating the brake shaft, an eccentric fixed on said brake shaft between said beams, a brake support between said beams and movable toward and away from said drums, brake shoes mounted on said brake support for engagement with said drums, a cross member above said eccentric, a pair of elements on opposite sides of said brake shaft and extending through said cross member and secured to said brake support, the effective distance between said cross member and said brake support being adjustable by said elements for compensating for wear of said brake shoes, means for rotating said brake shaft to operate said brake, a wheel guide mounted on each outside beam, said wheel guide including an upright secured to its associated outside beam and a cross member having outwardly flaring portions diverging outwardly of the testing device, and mounted in said wheel guide for contacting the edge of a wheel preventing the wheel from riding off the end of the drums.

2,781,660
FLOWMETER
Charles Gobel, Philadelphia, Pa.
Application June 6, 1955, Serial No. 513,538
2 Claims. (Cl. 73—21.5)

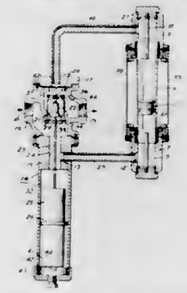
1. In a flowmeter, a vertically extending inner transparent tube, a vertically extending outer transparent tube in spaced relation to the inner transparent tube, there being an annular space between the outer and inner transparent tubes, an inlet connection at the bottom of the inner transparent tube, an outlet connection at the bottom of the space between the inner and outer transparent tubes, and walls forming a slot in the side of the inner transparent tube, the slot extending longitudinally of the inner transparent tube for a substantial length and the closely adjacent side walls of the slot being angularly disposed with respect to the radius so that flow of liquid outwardly through the slot is substantially tangentially directed.

2,781,661
RACE-CONTOUR SCANNING GAGE
Horace B. Van Dorn, New Britain, Conn., assignor to The Fafnir Bearing Company, New Britain, Conn., a corporation of Connecticut
Application February 8, 1954, Serial No. 408,849
15 Claims. (Cl. 73—37.9)



1. In a gaging device of the character indicated, a gage member having an internal air-supply passage with a gage opening on one side thereof, said opening having a blast axis directed away from said member, support means including two support areas spaced on opposite sides of the blast axis of said gage opening and in a first support plane for abutting a curved surface to be gaged and for positioning said opening in spaced relation with said surface, said areas being axially behind the discharge end of said opening in the sense of said blast axis, whereby said opening may project beyond the plane of said supporting means, and whereby a first axis of stability for orientation of said opening may be defined, further support means including two essentially point-support areas straddling said first plane, means movably guiding said further support means with respect to said gage member and constraining said further support means for movement generally parallel to said first plane and at a substantially constant distance from said gage opening, pneumatic supply means for said passage, and pressure-responsive measuring means in communication with said passage.

2,781,662
VISCOSITY METER
Nathaniel Brewer, Newtown, Pa., assignor to Fischer & Porter Company, Hatboro, Pa., a corporation of Pennsylvania
Application July 22, 1952, Serial No. 300,164
8 Claims. (Cl. 73—56)



1. A viscosity meter including an upright metering tube whose horizontal internal cross-sectional area increases from a threshold point near the inlet end thereof to a limiting point near the outlet end thereof, a viscosity-sensitive metering float in said metering tube forming therewith a passage of variable effective area for the passage of fluid past said metering float, the area of said passage increasing as the float assumes a position nearer the outlet end thereof and decreasing as the float assumes a position nearer the inlet end thereof, a differential pressure regulator shunted across the inlet and outlet of said metering tube, and means forming a flow-restricting orifice between said metering tube and said regulator and disposed in series with said metering tube, the relationship between such orifice-means and said metering tube and said metering float being such that the pressure-drop across said orifice-means is substantially greater than the pressure-drop across said metering-float, said regulator providing a relatively constant pressure-drop across said orifice-means and across said metering tube and providing a relatively constant rate-of-flow through said metering tube.

2,781,663
WELL FLUID SAMPLING DEVICE
George P. Maly, Fullerton, and John R. Brown, Inglewood, Calif., assignors to Union Oil Company of California, Los Angeles, Calif., a corporation of California
Application January 16, 1956, Serial No. 559,461
15 Claims. (Cl. 73—151)

1. A well fluid sampling device comprising, in combination, an elongated body member; a plurality of resilient fluid-tight sealing members coaxially spaced along the length of said body member in fluid-tight relationship

therewith, each of said sealing members having a normal diameter less than that of the well bore in which the device is employed but capable of lateral expansion to form a fluid-tight seal at its periphery with the walls of said bore; means for so expanding said sealing members; tubular members extending between adjacent sealing means and registering therewith in fluid-tight relationship, each of said tubular members being coaxially positioned

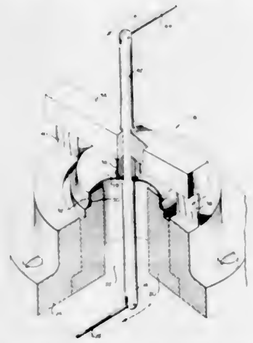
around said body member and having an internal diameter substantially larger than the diameter of said body member and an external diameter less than that of said sealing members with which it is in register; and controllable valve means in register with perforations in said tubular members for establishing and disestablishing communication between the exterior of the device and the annular spaces between said tubular members and said body member.

2,781,664
HUMIDITY INDICATOR
William L. W. Ogden, Baltimore, and Donald F. Murphy, Towson, Md., assignors to Bendix Aviation Corporation, Baltimore, Md., a corporation of Delaware
Application August 26, 1955, Serial No. 530,665
7 Claims. (Cl. 73—337)

1. In a humidity indicator, a dial plate bearing a scale, a pivotally mounted pointer cooperating with said scale, a pulley operatively connected to the pointer for driving the latter, a belt of non-hygroscopic material trained over said pulley, a bell crank member pivotally mounted on said dial plate in spaced relation to said pulley in a plane substantially parallel to the plane of the plate and having a pair of angularly-extending arms to which the ends of said belt are connected and a third arm constituting a lever for exerting a driving torque on said bell crank member, a hygroscopic element in the form of a cable made up of hygroscopic material having its one end anchored to said dial plate and its other end connected to the third or driving arm of said bell crank, said belt incorporating spring means biasing said bell crank in a direction tending to tension said cable.

2,781,665
MOTION TRANSMITTING MEANS FOR PRESSURE DEVICES
Yao T. Li, Watertown, Mass.
Application January 23, 1953, Serial No. 332,975
5 Claims. (Cl. 74—18.1)

1. A motion transmitting device for a region sealed under high pressure, comprising a frame, a sealing diaphragm having a rim portion secured to the frame, a beam spanning the diaphragm and having a connection to the central portion thereof to resist outward flexure of the diaphragm under pressure, the diaphragm having its central portion at or near the same level as the line



of engagement between the rim and the frame support members of high tensile strength connecting the beam at its ends to the frame, and motion transmitting means connected internally to the diaphragm and externally to the beam, said support members being flexible to permit rocking motion of the diaphragm and beam.

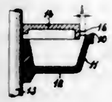
2,781,666
DIAL TYPE OF IMPULSE SENDER
James E. Bosh, Berwyn, Ill., assignor, by mesne assignments, to International Telephone and Telegraph Corporation, a corporation of Maryland
Application December 26, 1951, Serial No. 263,399
2 Claims. (Cl. 74—152)

1. In a calling device including a sending mechanism and a rotatable finger-wheel member, means for driving the sending mechanism in one direction only responsive to back and forth rotation of the finger-wheel member, said driving means including a ratchet wheel and a pawl, the ratchet wheel having teeth inclined to promote clutching engagement by the ratchet for one direction of rotation of the finger-wheel member and to avoid clutching engagement for the other direction of rotation, the pawl having two oppositely acting arms each ending in two angularly disposed tooth-contacting faces effective during respective directions of rotation of the finger-wheel member, both faces of one arm being disposed at a non-clutching angle with respect to said teeth, the two faces of the other arm being disposed respectively at a clutching and a non-clutching angle with respect to said teeth.

2,781,667
RECORD PLAYER
Willem Giskes, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application May 19, 1955, Serial No. 509,613
Claims priority, application Netherlands May 20, 1954
3 Claims. (Cl. 74—206)

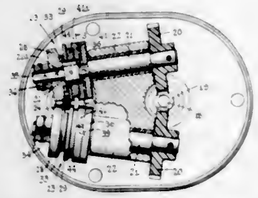
1. A device for driving the rim of a record player turntable comprising a motor shaft, a hollowed friction wheel being provided with a shaft, a running surface on said friction wheel being constituted of a ring of elastic

material, said friction wheel being drivingly engaged between said turntable rim and said motor shaft, and a separate supporting element on said friction wheel shaft



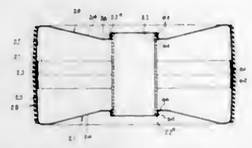
located in said hollow and composed of a non-elastic material whereby the deformation of said running surface in a radial direction is limited.

2,781,668
EXTENDABLE ANTENNA
Joseph Berta, Fairfield, Conn., assignor to Casco Products Corporation, Bridgeport, Conn., a corporation of Connecticut
Application May 14, 1953, Serial No. 355,105
11 Claims. (Cl. 74—208)



1. In an extendable and retractable antenna, a friction drive comprising a longitudinally movable strip; a pair of opposed, spaced, movable members engaging between them and under continuous force oppositely disposed surfaces of said strip for advancing and retracting the strip; actuating means connected to one of said members; and means responsive to increased resistance to movement of the strip, for causing the movable members and strip to more forcibly engage each other so as to prevent slippage therebetween during operation of said actuating means.

2,781,669
WHEELS
Harry Whitesell, Chicago, Ill.
Application September 2, 1952, Serial No. 307,431
4 Claims. (Cl. 74—230.3)



1. A wheel comprising in combination a cylindrical hub member, a body member comprising a pair of substantially identical circular sheet metal body elements each comprising an integral sheet metal blank of form to provide a slightly conical peripheral flange portion of wheel peripheral size and having one end edge of wheel crown diameter and facing axially in one direction, an axially extending central hub neck portion of size to seat on to one end portion of the hub member aforesaid and having the axial outer end facing axially in the direction opposite to the aforesaid edge of the peripheral flange portion, and a slightly dished conical body portion extending radially between the ends of the hub neck portion and the peripheral flange portion, each of which ends is axially removed from the edge of the peripheral flange of its body portion, each semi-diameter of such body element being of generally Z-shaped radial cross-section, both of said body members being mounted with their hub neck portions seated on the opposite end portions of the cylindrical hub member respectively and with their axial outer ends facing away from each other and in substantial registry with the proximate ends of the cylindrical hub member, and the crown diameter end edges of the body members facing each other, both of said crown diameter end edges registering and substantially contacting each other around the wheel crown periphery, together with a ring shaped element seated against the annular inside surfaces of both of the peripheral flange portions adjacent to the crown diameter edges of said peripheral flange portions, said ring shaped element and both of the peripheral flange portions being connected to the cylindrical hub member and to the hub neck portions of said body members solely by the conical body flange portions of such body members, together with means to lock the hub neck portions of the body elements against separating movement from each other.

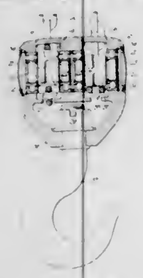
2,781,670
BELT SUPPORTING AND ALIGNING STRUCTURES
Arnie J. Kindig, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a corporation of Ohio
Application June 22, 1954, Serial No. 438,534
4 Claims. (Cl. 74—241)

1. A conveyer belt supporting and training idler roll assembly of low overall height including a stationary frame having an elongated tubular support means adapted to extend transversely of said conveyor belt, a fixed leg mounted in cantilever on said tubular support means extending laterally and generally horizontally therefrom, means forming a fist at the free end of said fixed leg, an inclined upstanding pivot shaft in said fist, a roller supporting frame above said stationary frame including an elongated tubular member positioned substantially directly above said elongated tubular support means, a plurality of spaced legs including a central leg mounted in cantilever on said tubular member extending laterally and generally horizontally therefrom, roller means carried between said last named legs, said central leg lying substantially directly above said fixed leg, a bore in said central leg adjacent the free end thereof, antifriction bearing means in said bore and mounted on said pivot shaft whereby said roller supporting frame may swing about said pivot shaft, and means on said central leg and said fixed leg cooperating to limit swinging movement of said roller supporting frame with respect to said stationary frame.

2,781,671
CHAIN HOIST
William H. Devonshire, Williamsville, N. Y., assignor to Columbus McKinnon Chain Corporation, Tonawanda, N. Y.
Original application April 23, 1948, Serial No. 22,916. Divided and this application August 31, 1953, Serial No. 381,061
2 Claims. (Cl. 74—243)

1. An idler sheave for use with a link chain comprising a body member of generally square prism form having stub shaft portions formed integral therewith and extending from the opposite ends thereof for providing the axis of rotation thereof, said body member being flat-sided to receive in flatwise disposed relation thereon alternately successive links of a chain, the corners of said

body member being truncated in planes parallel to said axis and being centrally grooved in a direction normal

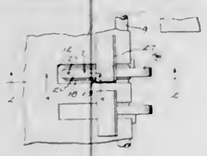


to said axis to receive therein the intermediate edgewise disposed links of the chain.

2,781,672
BRAKE OR STOP MECHANISM
Eric J. Hirvonen, Worcester, Mass., assignor to Leland-Gifford Company, Worcester, Mass., a corporation of Massachusetts
Original application October 7, 1950, Serial No. 189,002, now Patent No. 2,647,407, dated August 4, 1953. Divided and this application June 26, 1953, Serial No. 364,381
2 Claims. (Cl. 74—531)

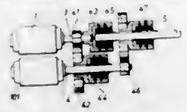
1. A reciprocatory member having an advance and a retractive stroke and means to latch the member at the end of the retractive stroke comprising a movable element in a channel at an angle to the line of reciprocation, and means striking the element upon the member reaching the end of the stroke and pushing the element rearwardly in the channel, a recess in the striking means receiving the element while still in the channel, resilient means urging the element towards the recess, the angle of the channel being such as to cause relatively easy reception of the element in the notch but difficult ejection thereof to allow a re-advance stroke of the member.

2,781,673
BRAKE LATCH ATTACHMENT
John F. Carroll, New Salem, Ill.
Application March 6, 1953, Serial No. 340,776
3 Claims. (Cl. 74—540)



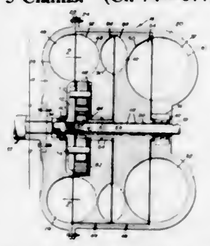
1. An attachment for a brake pedal latch comprising an elongated strip of metal having a turned back end forming a hook adapted to engage around an end of a pivoted brake pedal latch and including portions disposed above and beneath the latch end, said portions having aligned openings adapted to register with an opening in said latch end, a fastening extending through the openings of the hook portion and of the latch end for securing the strip to the latch end and longitudinally thereof, and said strip including a long free end portion forming an extension of the hook portion disposed on the upper side of the latch, said extension extending upwardly from the upper side of the latch to provide a portion adapted to be engaged by the vehicle operator for rocking the latch to an operative position.

2,781,674
INFINITELY VARIABLE DRIVING MECHANISM
Fritz Kaerger, Bad Homburg vor der Hohe, Germany, assignor to Firma Patentverwertung W. Reimers G. m. b. H., Bad Homburg vor der Hohe, Germany
Application September 25, 1953, Serial No. 382,409
Claims priority, application Germany September 29, 1952
14 Claims. (Cl. 74—665)



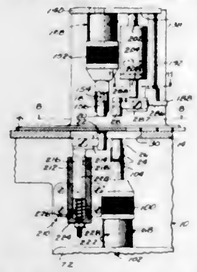
1. In a transmission arrangement, in combination, first variable drive means adjustable between two speed limits; second drive means adapted to rotate at at least one predtermined speed; a shaft connected to and driven by one of said drive means; transmission means including a coupling and connecting the other of said drive means with said shaft, said transmission means having a predetermined ratio so that said second drive means rotating at said predetermined speed drives said shaft at the same speed as said first drive means rotating at one of said speed limits, said coupling being in coupling position when said other drive means drives said shaft and being in a disconnected position when said one drive means drives said shaft.

2,781,675
HYDRAULIC DRIVE
Perl E. De Ford, Twin Falls, Idaho, assignor of one-half to Emerson A. Tolman, Twin Falls, Idaho
Application August 17, 1953, Serial No. 374,569
5 Claims. (Cl. 74—677)



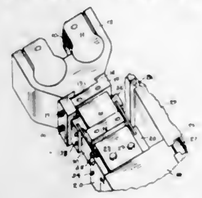
1. A power transmission device comprising a drive shaft, a housing secured to said drive shaft, having its opposite ends presenting impellers, a driven shaft journaled within said housing, a first runner member having a cylindrical main body portion and a longitudinally projecting boss, said runner member having a longitudinal bore receiving said driven shaft, a second runner member having a main body portion of cylindrical configuration, the second runner member being journaled on said boss, the end face of the second runner member opposite the first runner member being recessed, an internal ring gear formed in that portion of the second runner member defining said recess, a sun gear secured to the free end of said boss, a first set of planet gears meshing with said sun gear, a second set of planet gears meshing with said ring gear, means for imparting rotation of one set of planet gears to the other set of planet gears, and a spider secured to said driven shaft and supporting both sets of planet gears for orbital rotation thereof, the adjacent faces of said first and second runner members each being provided with an annular groove, vane members in said grooves whereby the first and second runner members are hydraulically coupled, the recessed end face of said second runner member and the opposite end face of said first runner member each being provided with an annular groove, vane members in the last mentioned grooves in opposed relation to said impellers, whereby said housing and said first and second runners are hydraulically coupled.

2,781,676
MACHINE FOR SAWING BUTTON CORES
Milan R. Ostrow, Fairlawn, N. J., assignor to Standard Button Machine Co., Inc., Paterson, N. J., a corporation of New York
Application February 4, 1955, Serial No. 486,047
11 Claims. (Cl. 79—16)



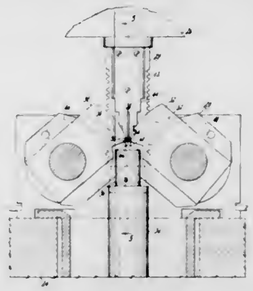
1. A machine for cutting a plurality of cores simultaneously from button material comprising, in combination, parallel, disaligned upper and lower saw spindles, tubular saws carried by the spindles, means constantly rotating the spindles, means for advancing the upper spindle in a downward direction and the lower spindle in an upward direction, simultaneously to cause the saws carried by the spindles to cut separate cores from the button material, and for then causing the spindles to be retracted, lower and upper back-pegs opposed to the respective saws, and upper and lower ramrods disposed centrally of the spindles and effective as the spindles recede to dislodge the cores from the saws.

2,781,677
RESILIENTLY MOUNTED FORM ROLLING DEVICE
George W. Lyman, Holden, and George W. Bibber, Worcester, Mass., assignors to Reed Rolled Thread Die Company, Holden, Mass., a corporation of Massachusetts
Application May 18, 1955, Serial No. 509,192
4 Claims. (Cl. 80—6)



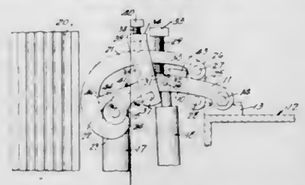
1. A form rolling device comprising a carrier, a primary support therefor which is movable linearly relative to a rotated piece of work, a die roll rotatably mounted on the carrier for rolling a form on the work, a movable intermediate support between and spaced from the carrier and primary support, a pair of leaf springs rigidly connected to the primary support and the intermediate support which permits a limited linear movement of the die roll in one direction, and a pair of leaf springs rigidly connected to the intermediate support and the carrier which permit a limited linear movement of the die roll in a direction perpendicular to the other.

2,781,678
COLD WORKING APPARATUS AND METHOD
Charles A. Nichols, Anderson, George L. Weiser, Middletown, and Richard M. Goodwin, Anderson, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 17, 1952, Serial No. 299,316
4 Claims. (Cl. 80—25)



1. In a gap rolling apparatus, the combination comprising; two gap rolls associated with one another for a rolling operation, a driving means for rotating said rolls, a workholder for holding work to be rolled by said rolls, yieldable means for urging said workholder toward said rolls and capable of yielding as the work is rolled, means for operatively connecting said driving means and workholder for causing said workholder to move away from said rolls against said yieldable means during a portion only of the rotation of said work rolls and just prior to engagement of the rolls with the work, means operated by said driving means effective upon a predetermined movement of said workholder for releasing said operative connector means so that said workholder is free to move by action of said yielding means, and means on said rolls for stopping the last-named movement of the workholder to predetermine the start of a rolling action with respect to the work.

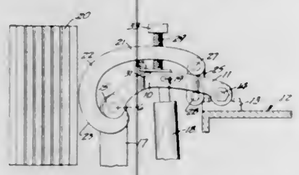
2,781,679
STRAIGHTENING TOOL FOR UPPER CONTROL ARM
Henry E. Johnson, Webster, and Carl M. Hatle, Roslyn, S. Dak.
Application December 30, 1953, Serial No. 401,349
2 Claims. (Cl. 81—15)



1. An auto mechanic's tool for straightening, in a wheel suspension, an unintentionally bent upper control arm of the type joined pivotally at one end to a king-pin journal and at the other end joined pivotally to the framework of an automotive vehicle, said tool comprising, an elongated body of substantially stronger construction than said control arm and adapted to positioning with the control arm in the same general longitudinal direction, the medial portion of said elongated body then being in spaced relation with the medial portion of the control arm, the ends of said body converging toward the pivotally joined ends of the upper control arm and having bearing portions for applying substantially vertical force upon the underside of the upper control arm adjacent the pivotally joined ends thereof, bending mechanism having a first and a second member mounted medially of said elongated

body, each member being shiftable in a general vertical direction opposite to the vertical direction of force exerted by each of said bearing portions to establish compressive contact with a medial position on said control arm, said first member being shiftably extensible for pushing simultaneously on the top side of the bent area of the upper control arm and on a medial portion of the structurally stronger elongated body, and said second member being shiftably retractable for bearing simultaneously on the underside of the upper control arm at a reversely bent area and on the top side of a medial portion of the structurally stronger elongated body for pulling the reversely bent control arm toward the elongated body, whereby said tool may be appropriately extended or retracted to bring said upper control arm, by corrective bending, substantially into its original proper configuration.

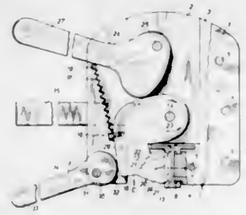
2,781,680
UPPER CONTROL ARM STRAIGHTENER
Henry E. Johnson, Webster, and Carl M. Hatle, Roslyn, S. Dak.
Application September 16, 1953, Serial No. 380,553
1 Claim. (Cl. 81—15)



An auto mechanic's tool for straightening, in a wheel suspension assembly, an unintentionally bent upper control arm of the type joined pivotally at one end thereof to a king-pin journal and at the other end mounted pivotally in a pair of bifurcated legs to the framework of an automobile body, said tool comprising, a body portion for overlying said control arm, a pair of bifurcated downwardly and reversely formed straddling hooks formed integrally at one end of said body for underlying in pressing relation with the pivotal joint of the upper control arm at each side of the king-pin journal, a depending end extension pivotally attached to said body in spaced relation to said gripping members and adapted to pass downwardly and below the bifurcated legs of the upper control arm, an abutment member extending transversely outward from said depending end extension, said end extension being removable from the body and said pivotal connection and being securable in abutted relation with respect to said upper control arm, and a bearing member mounted medially of said body and having a substantially flat leading surface for advancing toward the upper surface of said upper control arm at the bent area thereof, whereby said bearing member may be moved with respect to the body portion of said tool to contact the bent area of the upper control arm and, upon further advancement, to correctively straighten said arm.

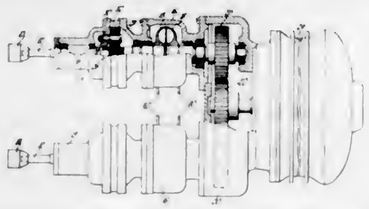
2,781,681
APPARATUS FOR FIXING A STRUCTURAL ELEMENT TO A FRAME BAR
Ernst Koller, Basel, Switzerland
Application July 24, 1953, Serial No. 370,015
2 Claims. (Cl. 81—15)

1. A tool arrangement comprising, in combination, a supporting means having a work piece receiving portion adapted to receive and support a work piece; a work tool member turnably mounted on said supporting means for turning movement from an inoperative position to an engaging position and from there to a working position, said work tool member having a working portion adapted to engage the work piece and two cam surface portions spaced from said working portion; manually operable first moving means mounted on said supporting means and having a cam surface adapted to engage one of said cam surface portions of said work tool member for turning said work tool member from said inoperative position thereof to said engaging position thereof, said first moving means being adapted to multiply an input force applied thereto by a predetermined factor; and manually operable second



moving means independent of said first moving means, said second moving means being mounted on said supporting means and having a cam surface adapted to engage the other of said cam surface portions of said work tool member for turning said work tool member from said engaging position thereof to said working position thereof, said second moving means being adapted to multiply an input force applied thereto by a factor greater than said predetermined factor.

2,781,682
TORQUE WRENCH DRIVEN BY FLUID COUPLING
Walter B. Herndon, Ann Arbor, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 28, 1955, Serial No. 491,041
12 Claims. (Cl. 81—52.4)

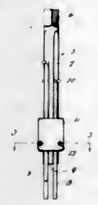


2. A torque wrench comprising in combination a shaft for turning a screw-threaded fastening, a fluid coupling for driving the shaft, a motor for driving the fluid coupling, means for simultaneously supplying power to the motor and a continuous flow of liquid through the coupling and means for maintaining the liquid in the coupling at a pressure sufficient to prevent cavitation.

2,781,683
BROKEN TAP EXTRACTOR
Kenneth W. Weeks, West Hartford, Conn., assignor to The Walton Company, Hartford, Conn.
Application January 27, 1955, Serial No. 484,539
2 Claims. (Cl. 81—90)

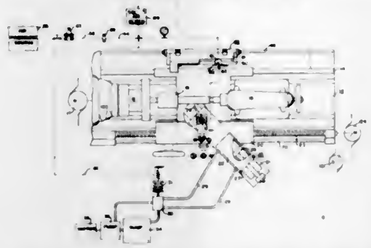
1. In a broken tap extractor, the combination of a shank having a plurality of elongated grooves in its outer surface, a series of fingers contained in said grooves and slidable therein to project ends of said fingers beyond a corresponding end of the shank, a sleeve slidable over said shank and fingers, and a plurality of clamping screws threaded to said sleeve and extending through the wall thereof into engagement with said fingers for clamping them against the bottoms of their respective grooves; said sleeve being snugly slidable upon the shank, and said

fingers, when positioned in said grooves, having cross-sectionally curved outer surfaces on the line of a circle of



lesser diameter than the outer diameter of the shank to thereby provide a loose sliding fit for said fingers between the shank and the sleeve.

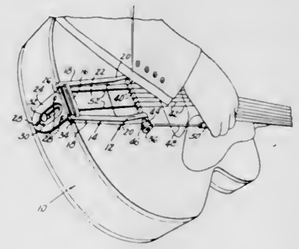
2,781,684
DUAL AUTOMATIC CYCLE MACHINE
Claude E. Greene and Walter V. Sturm, Sidney, Ohio, assignors to The Monarch Machine Tool Company, a corporation of Ohio
Application March 8, 1950, Serial No. 148,432
4 Claims. (Cl. 82—14)



1. A control system for a machine tool having first and second movable parts with said second part having a servomotor powered movement controlled by a single tracer device cooperating with a pattern assembly, said tracer device having a body and a finger movable relative thereto along a first path with said relative movement controlling said servomotor, said control system including a first and a second pattern, said first and second patterns being of different shapes, first means including said first pattern and said tracer for providing to said parts a given closed cycle of operation having an operational and a return stroke, second means having a first condition and a second condition and in said first condition being responsive to at least a part of said return stroke to shift both the first and second patterns in a first direction substantially perpendicular to said first path to establish the second pattern in a position for cooperation with said tracer and third means including said second pattern and said tracer for providing to said parts a closed cycle of operation similar to said given cycle and having a second operational stroke and a return stroke, said second means in said second condition being responsive to at least a part of said last-named return stroke to shift both the first and second patterns in a direction opposite to said first direction to establish the first pattern in a position for cooperation with said tracer.

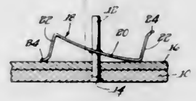
2,781,685
PITCH CHANGING ATTACHMENT FOR STRINGED MUSICAL INSTRUMENTS
Robert C. White and Ulyan A. Martin, Springfield, Mo.
Application July 24, 1956, Serial No. 599,743
5 Claims. (Cl. 84—312)

1. A pitch changing attachment for a stringed instrument comprising a bracket adapted for connection to the instrument; a main support member of approximately U-shaped configuration connected at one end to said bracket and including laterally spaced arms; a shaft journalled in and extending between the arms; means spaced longitudinally of the shaft and disposed between the arms for connecting a plurality of strings of the instrument to the shaft in position extending at least partially there about, whereby to change the pitch of the strings responsive to rotation of the shaft; handle means rigid with the shaft



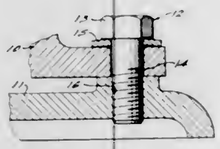
and adapted for swinging by the user to effect said rotational movement of the shaft; and resilient, yielding means interposed between the shaft and said member, under tension effective to return the shaft to a normal, rest position following rotation of the shaft, comprising a pair of parallel, elongated, springs rods fixedly secured at one end to the shaft and projecting radially from the shaft, said rods at their other ends being loosely, slidably engaged in said member.

2,781,686
RESILIENT SHEET METAL FASTENER HAVING STUD BITING APERTURE THEREIN
Thomas R. Boyd, Chicago, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application February 1, 1954, Serial No. 407,463
4 Claims. (Cl. 85—36)



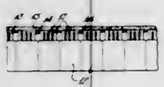
1. A resilient sheet metal fastener for use with a threadless stud, and comprising a substantially rectangular body portion which is normally planar but which is flexible along the longitudinal axis of the body portion, flanges extending in opposite directions from opposite ends of said body portion, each of said flanges having an outwardly turned free end, said body portion having an aperture therethrough with at least opposed edges being deformed from the median plane of the body portion in opposite directions with each said edge extending transversely of the longitudinal axis of the body portion and the deformation of each edge being in the same direction as the flange nearest thereto to present sharp stud-engaging lips of sufficient hardness to bite into an associated threadless stud to form threads thereon, one of said flanges and the opposite end of the body portion contacting a workpiece to resiliently position the body obliquely to the axis of the associated stud, said workpiece contacting flange being sufficiently flexible to shift outwardly upon imposition of a force to the body portion along the axis of the associated stud whereby the body portion, when positioned against the workpiece, assumes a concave deformation for aggressively urging the stud-engaging lips into biting contact with the stud.

2,781,687
ASSEMBLY COMPRISING CALIBRATED BOLT AND CALIBRATED DEFORMABLE CONICAL WASHER
Louis T. Knocke, Birmingham, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application February 24, 1954, Serial No. 412,233
1 Claim. (Cl. 85—62)



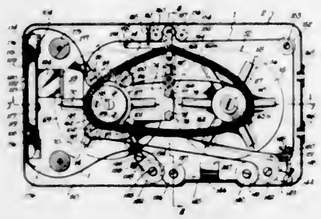
A bolted together assembly comprising a bolt having a predetermined elasticproof load and spaced abutments between which clamping pressure is applied to the assembly by stressing the bolt, a washer on said bolt compressed by said clamping pressure between said abutments into a substantially flattened condition, said washer having in its relaxed state a frustoconical shape and a permanent cone height at least slightly greater than the maximum reduction in the spacing of said abutments effected by stress of the bolt to a value approximately equal to its elasticproof load, the maximum resistance of said washer to compression from its permanent cone height being approximately equal to the elasticproof load of the bolt.

2,781,688
MOTION PICTURE FILM
Marvin Camras, Chicago, Ill., assignor to Armour Research Foundation of Illinois Institute of Technology, Chicago, Ill., a corporation of Illinois
Application August 1, 1951, Serial No. 239,818
1 Claim. (Cl. 88—16.2)



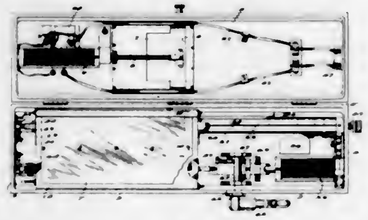
A motion picture film comprising a film base a picture area on said film base extending longitudinally thereof a magnetic particle sound track on said film base also extending longitudinally thereof, and a longitudinally extending substantially uniform width sprocket hole portion adjacent to said sound track, aligned regularly spaced uniform sprocket holes of preselected geometrical configuration in said portion adapted to be engaged by driving means to drive said film, and further relatively narrower rectangular apertures between said sprocket holes and in said portion aligned with said sprocket holes and with each other, said further rectangular apertures each having a length transversely of said film base and said portion thereof substantially the same as the transverse dimension of said sprocket holes but being different in geometrical configuration from said sprocket holes to increase the longitudinal regularity of the flexibility of said film base and particularly the sound track thereof to permit substantially smooth relative motion between the sound track and a sound reproducing head, said further apertures being plural in number between adjacent sprocket holes and being all of substantially the same geometrical configuration.

2,781,689
MOTION PICTURE REPRODUCING APPARATUS
Don Heyer, Los Angeles, Calif., assignor to International Pneumatic Corporation, Los Angeles, Calif.
Original application July 19, 1945, Serial No. 603,873, now Patent No. 2,568,734, dated September 25, 1951. Divided and this application September 17, 1951, Serial No. 246,888
20 Claims. (Cl. 88—18.7)



1. A support for a film coil, comprising a reel mounted for rotation about an axis, said reel having a plurality of radially extending rollers mounted for rotation about their axes and upon which an edge of the film rests, a member substantially normal to said axis supporting said reel by engagement with said rollers and thereby causing said rollers to be rotated as the reel revolves.

2,781,690
FILM BOX FOR PHOTOGRAPHIC CAMERAS
John E. Fillingame, Washington, D. C., assignor to National Geographic Society, Washington, D. C., a corporation of the District of Columbia
Application April 29, 1954, Serial No. 426,446
8 Claims. (Cl. 88—24)

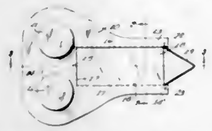


1. For use in a camera, a film-containing box having an aperture through one wall thereof, a shutter, means for actuating said shutter to expose a portion of the film, and means for feeding the film in sequential steps past said aperture; said feeding means comprising a bed plate for supporting the film, a transparent cover plate hinged to said bed plate for maintaining the film in planar condition on said bed plate, wheels secured to said bed plate and forming therewith a movable carriage, and rails rigidly secured to said box to constitute tracks for said carriage.

2,781,691
STEREOSCOPIC VIEWER WITH COUPLED PICTURE AND OCULAR ADJUSTING MEANS
Pompey Mainardi and Marcus N. Mainardi, Paterson, N. J.
Application January 31, 1952, Serial No. 269,172
11 Claims. (Cl. 88—29)

1. A viewer for stereoscopic viewing of a combined diapositive composed of two complementary, stereoscopic diapositive pictures extending in head to head or tail to tail relation from a median, vertical dividing line of the diapositive, comprising, in combination, a casing having a supporting surface for the combined diapositive; a pair of oculars mounted on said casing for movement toward and away from each other; an optical system located between said supporting surface and said oculars for projecting through said oculars, respectively, images, rotated in opposite directions through 90°, of the pictures of a combined diapositive on said supporting surface; and moving means located in said casing for moving the combined diapositive in its own plane along said supporting surface and in the direction of the diapositive dividing line, said moving means being operatively connected to at least one of said oculars to automatically move the combined diapositive through a distance proportional to the extent of movement of said oculars toward or away from each other.

2,781,692
MICROSCOPE SLIDE HOLDER
Björn O. Krause, East Orange, N. J.
Application December 1, 1953, Serial No. 395,514
1 Claim. (Cl. 88—40)



A microscope slide holder for providing a means for handling and positioning microscope slides so that the microscope slides will be protected from wear and tear, comprising a plate including an enlarged section adjacent one end thereof, a pair of spaced parallel knobs adapted to be gripped in the fingers and said knobs extending upwardly from the enlarged section of said plate and secured thereto, there being a slot in said plate defining a pair of spaced parallel arms, each of said arms being provided with a channel shaped groove extending longitudinally along its inner surface for slidably receiving a microscope slide, the inner end of said slot being extended into the body of the plate beyond the inner end of said arms with the upper and lower portions of the plate being extended over the inner end of the slot, there being a pair of opposed notches in said arms adjacent the outer ends thereof, a spring clip made of resilient material and including a pair of diverging portions each terminating in an outwardly extended finger mounted for movement into and out of engagement with said notches for selectively retaining the slide in the slots and whereby the clip may be removed by squeezing the diverging portions together, said holder adapted to be placed on a stage or platform of a microscope and the position thereof adapted to be adjusted by gripping the knobs to move the holder from one position to another.

2,781,693
SPECTACLES HAVING INTERCHANGEABLE LENS
Augusta C. Brumby, Atlanta, Ga.
Application July 20, 1951, Serial No. 237,784
5 Claims. (Cl. 88—47)

1. In spectacles having a lens removably mounted in a lens receiving member in a frame, the improvement comprising a generally U-shaped lens receiving member having parallel key-ways, one at each end thereof, each of said keyways including an enlarged pocket opening upwardly with respect to the respective ends of said U-shaped lens receiving member, a lens, a rim around the edge of said lens, said rim including a flexible metallic strip, a threaded socket at one end of said strip, a lug at the other end of said strip, and a screw engaging said lug and said socket to hold said rim tightly around said lens, said rim having keys extending laterally therefrom with each of said keys including a neck portion connecting an enlarged head portion to said rim, said enlarged head portions being slidable downwardly into the enlarged upwardly opening pockets of said key-ways in said lens receiving member to hold said lens in position, said head portion and said pocket having interengaging portions which prevent relative lateral movement between the head portion and the pocket.

2,781,694
MICROSCOPE OBJECTIVE
Kinji Takahashi, Otaku, Tokyo, Japan, assignor to Nippon Kogaku K. K., Tokyo, Japan, a corporation of Japan
Application July 23, 1953, Serial No. 369,804
2 Claims. (Cl. 88—57)

1. An achromatic microscope objective with increased correction of spherical aberration and longitudinal color abberation, comprising a single front lens and two doublet lenses axially spaced in air and having the following magnitudes, where $R_{Subscript}$ is the radius of the lens surfaces from the front to the rear of the objective with the + and — signs corresponding to surfaces which are respectively convex and concave to the front of the objective, $D_{Subscript}$ and $S_{Subscript}$ the axial distances between the successive lens surfaces in such direction, n_d the index of refraction of the lens component, and ν_d the Abbe number of the lens component:

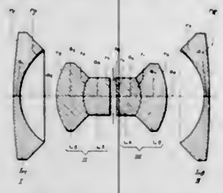
[Numerical aperture 0.65. Focal length 10 mm. Petzval sum 0.084.]

Radius	Thickness or Spacing	n_d	ν_d
$R_1=\infty$	$D_1=8.870$	1.741	27.7
$R_2=-8.904$	$S_1=0.632$		
$R_3=-93.612$	$D_2=1.264$	1.741	27.7
$R_4=+18.785$	$D_3=4.400$	1.487	69.0
$R_5=-11.982$	$S_2=0.819$		
$R_6=+44.065$	$D_4=1.264$	1.741	27.7
$R_7=+15.923$	$D_5=4.400$	1.487	69.0
$R_8=-20.523$			

2,781,695
OPTICAL SYSTEM WITH LARGE EFFECTIVE IMAGE ANGLE
Gunter Klemt, Kreuznach, Rhineland, Germany, assignor to Jos. Schneider & Co., Kreuznach, Rhineland, Germany
Application July 29, 1955, Serial No. 525,175
Claims priority, application Germany August 31, 1954
6 Claims. (Cl. 88—57)

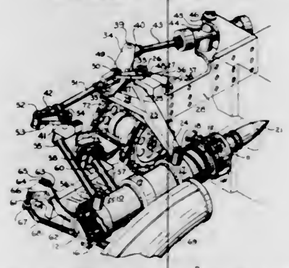
1. A wide-angle optical objective system consisting of four air-spaced members including an inner pair of collective members enclosing a diaphragm space and an

outer pair of dispersive members encompassing said inner pair, each of said dispersive members being a single meniscus-shaped lens, each of said collective members being composed of a negative and a positive component cemented together, each of said negative components being approximately concentrically concavo-convex and facing said diaphragm space with its concave side, the



inner faces of said positive components at the boundaries of said diaphragm space being at least approximately plane, the center thickness of each of said collective members being equal to at least 25% of the overall physical length of the system, said overall physical length being not greater than 85% of the overall focal length of the system.

2,781,696
AUTOMATIC AMMUNITION LOADING DEVICE
James G. Shonts, Palo Alto, and Samuel H. Stephenson, Mountain View, Calif., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application January 13, 1949, Serial No. 70,686
8 Claims. (Cl. 89—45)



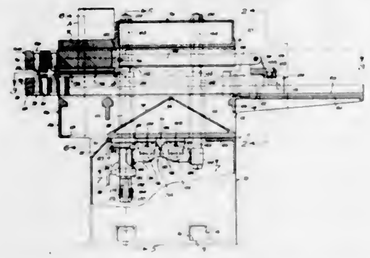
1. In combination with a gun having a breech adapted to receive a load having a rim thereon, a tubular loading case having a closed after end and an open forward end, means guiding said case for movement in an arcuate path from a load receiving position to a parallel load delivery position wherein said open end faces said breech, moving means including a servomotor accelerating said case along said path from said receiving position and then decelerating said case adjacent said delivery position to deliver the load into the breech by free flight delivery, load centering and supporting members resiliently carried by the loading case adjacent said forward end and actuated by the rim of the load to operative and inoperative positions, said members functioning in operative position to maintain the load in a predetermined aligned position within the loading case during the loading stroke, and to direct the course of the load as it leaves the loading case under its own inertia for free flight delivery into the breech of the gun.

2,781,697
TRIGGER MECHANISM FOR A SEMIAUTOMATIC FIREARM
John W. Kimball, Detroit, Mich.
Application March 15, 1955, Serial No. 494,586
9 Claims. (Cl. 89—144)
(Granted under Title 35, U. S. Code (1952), sec. 266)

2. In a trigger mechanism for a firearm having an impact type of firing member, a longitudinal trigger bar having a step portion at the rear end thereof, said trigger bar being pivotally mounted for normally holding the firing member in the cocked position, a disconnector slidably mounted in the front end of said trigger bar for longitudinal reciprocal movement therein and having a lug projecting outwardly from the side thereof, a pivotal trigger disposed beneath the front end of said trigger bar and having a raised portion adjacent the rear end thereof for contacting the underside of said lug upon retraction of said trigger and thereby transmitting the pivotal movement of the latter directly to said trigger bar to release the firing member from cocked position, cam

means operative on the rear end of said disconnector for forcing the latter forwardly in said trigger bar to disengage said lug from the top of said raised trigger portion after the release of the firing member, and spring means operative on the top edge of the forward end of said trigger bar for normally imparting pivotal movement thereto whereby said projecting lug on said disconnector moves downwardly in front of said raised portion on said trigger following disengagement with the top thereof so that reengagement therebetween requires said trigger to return to the position assumed prior to the retraction thereof and thereby limits operation of the firearm to a single cycle for each pull of said trigger.

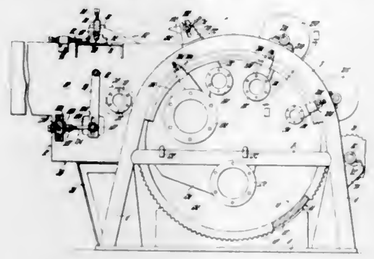
2,781,698
FLASH TRIMMING MACHINE
Henry E. Morton, Muskegon Heights, Mich.
Application August 3, 1953, Serial No. 371,783
8 Claims. (Cl. 90—38)



1. A flash trimming machine for open-centered workpieces comprising a frame structure, a lower clamping device stationarily mounted on said frame structure, an upper clamping structure movably mounted on said frame structure above said lower clamping device for upward motion relatively thereto, an upper clamping device mounted on said upper clamping structure, a lower cutting unit reciprocably mounted on said frame structure beneath said lower clamping device and having a lower cutting tool thereon, an upper cutting unit reciprocably mounted on said upper clamping structure above said lower cutting unit and having an upper cutting tool thereon, mechanism for reciprocating said upper and lower cutting units and cutting tools, and mechanism for selectively raising and lowering said upper clamping structure and upper clamping device relatively to said lower clamping device, said raising and lowering mechanism including spaced vertically-directed parallel members connected at spaced locations to said upper clamping structure, a motor reciprocably connected to one of said parallel members, and motion-transmitting equalizing

mechanism operatively interconnecting said members, said motion-transmitting and equalizing mechanism including a pair of rocking levers pivotally mounted end to end, said levers having their adjacent ends operatively engaging one another and their remote ends operatively engaging said spaced parallel members.

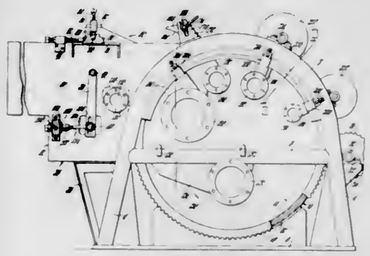
2,781,699
CYLINDER PAPER MACHINE
James W. Joslyn, Hudson Falls, N. Y., assignor to The Sandy Hill Iron & Brass Works, Hudson Falls, N. Y., a corporation of New York
Application March 25, 1955, Serial No. 496,769
7 Claims. (Cl. 92—43)



1. Paper making apparatus comprising in combination, transversely spaced side frames, a cylinder in the form of a hollow tube having a foraminous surface and circumferential bearing surface on opposite ends thereof, supporting bearing strips on which the bearing surfaces are rollable for supporting the cylinder for rotation, a pond chamber at the ascending side of the cylinder having side and bottom walls and other walls forming a recirculating chamber separate from and rearwardly of the pond chamber, a unitary pond slice in the pond chamber having outer and inner substantially vertical transverse walls connected at lower ends with a curving wall portion and having opposite side walls joined to said first named walls and being substantially contiguous to the inner sides of the pond side walls, means for admitting fluid stock to the pond chamber, means for moving said pond slice vertically and horizontally and for swinging the same to adjust the inner wall and to the ascending side of the cylinder and bottom wall of the pond chamber, means to control the level of stock in the pond chamber and the flow of stock into the recirculating chamber for the recirculation of stock, the upper side of said pond slice adapted to receive stock for recirculation thereof and a side wall thereof provided with an outlet registrable with an outlet provided in the side wall of the pond chamber for stock recirculation, means for directing stock into the slice at the upper portion of the ascending side of the cylinder, and the upper edge of the inner wall of the slice provided with a lip.

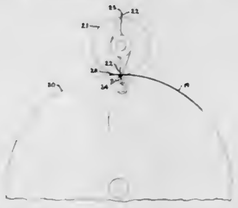
2,781,700
PAPER MACHINE
James W. Joslyn, Hudson Falls, N. Y., assignor to The Sandy Hill Iron & Brass Works, Hudson Falls, N. Y., a corporation of New York
Application March 25, 1955, Serial No. 496,771
3 Claims. (Cl. 92—43)

1. Paper making apparatus comprising in combination, a supporting structure having an elongated cylinder rotatable therein on a horizontal axis and provided with a foraminous web forming surface, a head box having opposite side walls extending away from opposite ends of said cylinder, a rear wall connecting rear ends of said side walls and a bottom wall connecting lower ends of said side and rear walls extending to said cylinder, a unitary slice in said head box including; outer rear and inner forward walls connected in horizontally spaced U shape relation by a transversely concaved bottom wall and side walls adjacent the side walls of the head box connected to said outer and inner and bottom walls and having an opening for stock in the upper side thereof, and adjustable mounting means between said slice and



walls of the head box adapted and arranged for movement of the slice vertically and horizontally and angularly to position the inner and bottom wall of the slice relative to the ascending surface of the cylinder and bottom wall of the head box and provide a space for stock between said slice and the bottom wall of the head box and surface of the cylinder.

2,781,701
ART OF PACKAGING HANDLED CONFECTIONS
Walter A. Schoen, Milwaukee, Wis., assignor to Milprint, Inc., Milwaukee, Wis., a corporation of Delaware
Application March 4, 1953, Serial No. 340,234
2 Claims. (Cl. 93—35)

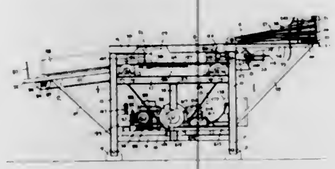


1. The method of producing containers, which comprises, longitudinally advancing a web of flexible material, initially folding and longitudinally sealing the advancing web to form a flat tube thereafter severing the tube into successive tube sections, and finally folding each tube section back upon itself along a transverse line near one end thereof and securing the folded portions to each other and to the adjacent outer wall above said fold line while simultaneously locally piercing the tube wall directly on the fold line to thereby provide the tube section with a closed end having a local aperture therein.

2,781,702
STACKING MACHINE
Rudolph A. Kunz, Jr., St. Paul, Minn.
Application March 16, 1953, Serial No. 342,405
4 Claims. (Cl. 93—93)

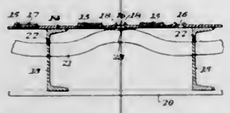
1. In a stacking machine a repository for sheets of material, a feed mechanism disposed adjacent said repository and feeding sheets to said repository and depositing them upon one another to form a stack in said repository, a magazine disposed adjacent said repository and receiving the completed stack, delivery mechanism including a movable member movable in said repository and engaging the sheets and transferring the same to the magazine, a normally inactive electric motor, power transmission elements between said motor and said

delivery mechanism and causing operation thereof, a kicker switch operated by the movement of sheets prior to arrival at the repository, a counter including a rotatable member, a circuit controlled by said kicker switch and giving to said rotatable member a step-by-step movement, a motor starting switch operated by said rotatable member after a predetermined number of operations of said kicker switch, a motor circuit including said motor starting switch and motor, a normally closed motor stopping switch in said motor circuit, control means operated by said transmission for opening said motor stopping switch after energization of the motor, a resetting relay having a coil and a resetting switch, said resetting switch



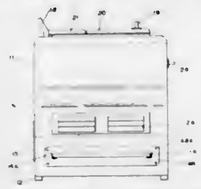
and said resetting coil being connected in said motor circuit, a locking switch means controlled by said transmission for operating said locking switch, said locking switch paralleling said resetting switch, said locking switch operating in conjunction with said motor stopping switch and being movable to close upon opening of the motor starting switch, said locking switch closing before the opening of the motor closing switch, said resetting relay closing the resetting switch upon energization of the coil thereof and time controlled means for maintaining said resetting relay switch open for a predetermined length of time during opening of the motor starting switch and means for resetting said counter and opening said motor starting switch during the timing of said resetting relay.

2,781,703
FLOORING STRUCTURE
Harold Nagin, Pittsburgh, Pa., assignor to Reliance Steel Products Company, McKeesport, Pa., a corporation of Pennsylvania
Application July 20, 1950, Serial No. 174,909
3 Claims. (Cl. 94—30)



2. In a flooring construction employing metal shapes of substantially standard structural cross section, in combination, a plurality of main supporting bars in spaced parallel relation, said bars having generally vertical webs with spaced rectangular openings therein between the top and bottom thereof, said spaced openings in laterally adjacent webs being in registry, a plurality of integral rectangular crossbars in spaced parallel relation at right angles to said main supporting bars, said openings having a width generally equal to the width of one of said crossbars and an area generally conforming in cross section to that of one of said crossbars and with sufficient clearance to enable said crossbars to be threaded through said openings respectively, said crossbars extending through aligned ones of said openings in said webs of said main supporting bars and being affixed thereto, the bottoms of said openings being in supporting relation to the bottoms of said crossbars, said crossbars further being symmetrical and sinuous in side elevation with the crests thereof and the tops of said main supporting bars generally defining a planar surface, and supporting surface means affixed to the tops of said main supporting bars and to said crests of said crossbars to complete said flooring construction.

2,781,704
XEROGRAPHIC COPIER
Clyde R. Mayo and Edward Raymond Sabel, Rochester, N. Y., assignors to The Haloid Company, Rochester, N. Y., a corporation of New York
Application April 14, 1951, Serial No. 221,103
2 Claims. (Cl. 95—1.7)

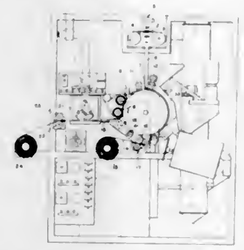


1. Xerographic exposing apparatus for exposing an electrophotographically sensitive plate to a projected light image of a document to be reproduced adapted to operate in conjunction with other electrical equipment on the same electrical circuit such as xerographic fusing apparatus and the like, said exposing apparatus comprising a cabinet having a lamp compartment and a closed light-impervious camera chamber, said lamp compartment overlying said camera chamber and having extensions projecting respectively forwardly and rearwardly of the ends of said camera chamber, a transparent exposure panel in the top wall of said lamp compartment a plurality of lamps mounted at spaced positions within the extensions of said lamp compartment adjacent to the periphery of said exposure panel providing at least twice as brilliant illumination of the corners and edges of said panel than at the center portion of said panel, said extensions of said lamp compartment having air vents in the top and bottom respectively thereof to permit free flow of cooling air across said lamps during operation of said apparatus, a hinged cover connected to said top wall of said lamp compartment adjustably positionable over said exposure panel for retaining thereon the document to be reproduced, a wide angle lens having a focal length of less than about 4½ inches mounted in the upper wall of said camera chamber centered beneath said exposure panel, the angle between the axis of said lens and a corner of said exposure panel being greater than 30 degrees and the lamps being positioned beyond the angle of reflection from the exposure panel to the lens, the front wall of said cabinet having a horizontal slot therein below the forward extension of said lamp compartment and opening into said camera chamber to permit the insertion of an electrophotographically sensitive plate into said camera chamber, horizontal guide means adjustably mounted within said camera chamber in cooperation with said slot to receive and guide the plate thereinto and adapted to allow a light shield to be removed and inserted at said plate while in said guide means, and a relay operating to close an electrical circuit including the lamps and simultaneously opening an electrical circuit including other electrical equipment operating from the same power outlet.

2,781,705
PAPER HANDLING MECHANISM FOR XEROGRAPHIC COPYING MACHINE
Herbert E. Crumrine, William G. Lewis, and Clyde R. Mayo, Rochester, N. Y.
Application October 29, 1953, Serial No. 389,098
8 Claims. (Cl. 95—1.7)

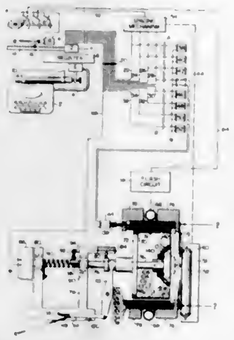
1. A xerographic continuous copying machine for reproducing images from microfilm including microfilm

continuous feeding mechanism, a rotary drum having an insulating photoconductive surface, and treating means past which said drum is successively movable, said means including drum charging means, light exposure means operating to project an image from the microfilm onto the photoconductive surface of the drum, image developing means, and image transfer means, said image transfer means comprising a paper supply roll, an upper paper drag roll located in proximity to the bottom of the drum, a lower paper drag roll located beneath and in pressure engagement with the upper drag roll and acting to hold a paper web thereagainst as the paper travels between the drag rolls and thence around the upper drag roll and



against the drum, a paper guide roll located in proximity to the drum above the upper drag roll and acting with the upper drag roll to hold the paper web in contact with the drum as it travels past the drum, the paper traveling thence away from the drum and over the guide roll in a horizontal plane, a charging grid located in proximity to the path of the paper intermediate the upper drag roll and said guide roll, and upper and lower paper drive rolls in pressure engagement with opposite surfaces of the paper while in said horizontal plane at a point beyond said guide roll and acting to draw the paper through the machine against the tension of said drag rolls and at a peripheral speed greater than that of the drum.

2,781,706
PHOTOGRAPHIC COMPOSING APPARATUS
Rene A. Higonnet and Louis M. Moyroud, Cambridge, Mass., assignors to Graphic Arts Research Foundation, Inc., Cambridge, Mass., a corporation of Delaware
Application May 21, 1953, Serial No. 356,512
Claims priority, application Great Britain June 9, 1952
4 Claims. (Cl. 95—4.5)



1. Photographic type composing apparatus including, in combination, a support for a number of characters arranged annularly in a cylindrical surface, a support bearing a circle of lenses coaxially with said surface, each lens having a corresponding character and the lens axes being disposed in a conical surface intersecting the characters and having its apex in the cylinder axis, a support having an image receiving surface passing through the apex in a plane at right angles to the cylinder axis, the plane of each lens having a common line of intersection with the planes of its corresponding character and the image receiving surface, means to illuminate all of the characters to project their images toward the apex, means to mask the characters selectively to permit only the image of a selected character to be formed in the image receiving surface, the characters being distorted in inverse fashion to the distortion of their images in projection, and mechanism to move the image receiving surface after each projection to space the characters in a line.

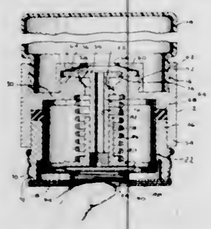
2,781,707
MULTIPLE LIGHT-FLASH-PRODUCING SYSTEM
Harold E. Edgerton, Belmont, Mass.
Application September 12, 1952, Serial No. 309,307
17 Claims. (Cl. 95—11)

2. A light-flash-producing-and-recording system having, in combination, a plurality of condensers, a plurality of normally non-conductive discharge devices through which electric energy may discharge when conductive, one discharge device corresponding to each condenser, a discharge circuit connecting each condenser to its corresponding discharge device to enable the discharge of the electric energy charged in the condenser through its corresponding discharge device when the discharge device is rendered conductive, the discharge circuits sharing a common load impedance, means for charging each condenser, means for applying successive triggering voltages to the successive discharge devices to render the discharge devices conductive rapidly in predetermined sequence in order to discharge the condensers through their corresponding discharge devices rapidly in the said predetermined sequence, a common flash lamp connected to the common load impedance of the discharge circuits of the discharge devices and responsive to the discharges of electric energy therethrough for producing light flashes rapidly in the said predetermined sequence at a single location, and a field lens for focusing the light flashes produced by the flash lamp upon a camera lens in order to form an out-of-focus image of the flash lamp upon a substantial area of the camera film, thereby to produce rapid shadow exposures upon the film in the said predetermined sequence of an object located between the field lens and the camera and focused upon the film.

2,781,708
SELF-CONTAINED DEVELOPING UNIT
Fred Perlin, Oconomowoc, Wis., assignor to The Parker Pen Company, Janesville, Wis., a corporation of Wisconsin
Application December 4, 1953, Serial No. 396,159
9 Claims. (Cl. 95—90.5)

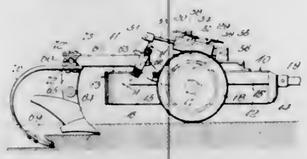
8. A developing device comprising a tank having means at one end for securement to a container and having a passage communicating with the container and the interior of the tank, the other end being closed by a removable cap, a film cartridge having a casing and an open end and a closure element for closing the open end and sealing the cartridge against light, spring means yieldingly biasing the closure element to closed position, the cartridge being removably mounted in the tank

with its open end toward the container, and the tank having a projection engaging the closure element and of such



length to move the closure element to open position when the cartridge is in the casing.

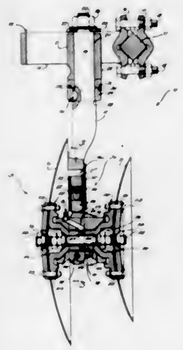
2,781,709
MEANS FOR CUTTING STALKS OR THE LIKE AND PLOWING OR CULTIVATING THE GROUND
Frederick Clay Caldwell and Edward Lasater Caldwell, Jr., Corpus Christi, Tex., assignors to E. L. Caldwell & Sons, Corpus Christi, Tex., a firm
Application January 12, 1955, Serial No. 481,426
5 Claims. (Cl. 97—46.27)



1. A machine for cutting a plurality of rows of cotton or like plants and plowing under the cut plants, comprising a plurality of transversely spaced plowshares, a frame common to said plowshares, vertically swinging levers pivotally mounted upon said common frame and extending in the direction of travel of said common frame, wheels mounted upon said levers, arms carried by said levers to swing therewith, a transverse bar arranged near the rear end of the common frame and mounted upon said arms, stocks mounted upon the transverse bar and carrying the plowshares, the levers and arms being so arranged that when the plowshares are in the lowered position and are plowing the ground said wheels are in the lowered position and are supporting the common frame and plowshares and regulating the depth that the plowshares cut, means to swing said levers upon their pivots to hold said wheels in engagement with the ground and raise the common frame and thereby cause the common frame to raise said plowshares and to swing said arms to further raise the plowshares by such swinging movement, stalk cutting mechanism for severing stalks of the plants and including means movable with relation to the common frame, means serving to mount the severing mechanism upon the common frame so that the severing mechanism is supported by the common frame and is raised and lowered by the vertical adjustment of said common frame, and power-operated means to drive the severing mechanism.

2,781,710
STANDARD ASSEMBLY FOR A DISK BEDDER GANG
John R. Padrick, Anniston, Ala., assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Application May 26, 1953, Serial No. 357,401
11 Claims. (Cl. 97—54)

11. In a ground working tool assembly including a standard supported in an upright position with respect to the ground and a ground working tool shiftably connected to the standard so as to be in vertically tiltable relationship to the ground, the combination of means for locking said ground working tool in predetermined tilted positions comprising a slide carried by the standard and movable transversely thereto, a block slidable longitudinally of said standard and engaged with said slide in a manner to be so moved in response to the aforesaid transverse movement of said slide, said ground working tool



having means interlocking with said block when said ground working tool is positioned at a predetermined angled position with respect to the ground, said block, in response to said lateral movement of said slide in one direction, being caused to move into locking relationship with said tool for locking said tool in said predetermined angled position.

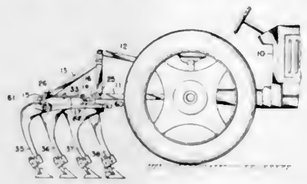
2,781,711
GARDEN TOOL
Chester L. Williams, Troy, N. Y., assignor of fifty percent to Vella A. Barna, Troy, N. Y.
Application October 12, 1953, Serial No. 385,381
1 Claim. (Cl. 97—66)

A garden tool comprising a handle, a blade pivoted at its central portion on the handle for swinging a selected edge portion of the blade into working position at the lower end of the handle, a U-shaped slide on the handle, a guard bar bridging the end portions of the slide, an inverted L-shaped bracket secured to the guard bar, in spaced relation with respect to the handle and behind which the blade is swingable, and a set screw carried by the bracket in a position for engaging the front surface of the blade to secure the blade in swingably adjusted position.

2,781,712
CULTIVATOR
James G. Thomas, Elizabethtown, and Alonza G. Roberts, Bladenboro, N. C.
Application July 27, 1954, Serial No. 446,116
3 Claims. (Cl. 97—198.1)

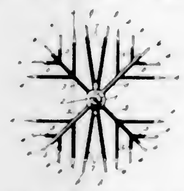
1. A tractor cultivator comprising, in combination, a horizontal rigid frame adapted to be fixedly supported upon the tractor, the horizontal frame including at least

two fixed spaced memers, said members having a plurality of keyhole shaped slots evenly spaced along the two members and the slots in the two members being evenly aligned with each other for supporting a plurality of tooth carrying shanks, each shank having a pair of fixed plates carried across its upper edge, the said plates being so located on the shank as to contact the under surface of the horizontal frame members, at least a pair of studs extending upwardly from one of the said plates, at least a single stud



extending upwardly from the other plate, said studs having body portions of such size as to be slidably receivable into the smaller portions of the keyhole slots and heads on the upper ends thereof of such size as to be slidable through the large openings of the keyhole slots, the distance of the heads of the studs from the plates being substantially the same as the thickness of the horizontal frame member, whereby the stud heads are slidable along the upper surface of the frame member adjacent the slots as the studs are slid to the smaller end of the keyhole slot.

2,781,713
COTTON CHOPPERS
Lonnie Alvis Gilliland, Detroit, Ala.
Application June 25, 1953, Serial No. 364,080
1 Claim. (Cl. 97—213)



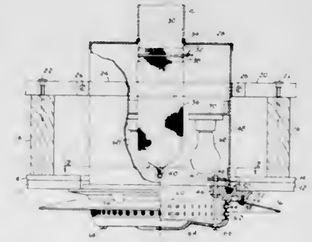
A cotton chopper of the character described comprising a hub adapted for attachment on a shaft for the purpose of being revolved, said hub having an integral main bar extending outward from each quarter position on the circumference face of the hub, each main bar having two integral bars extending from its middle portion and opposite each other at an angle of approximately 45 degrees compared to the main bar, each of said second integral bars having a pointed end; two additional integral bars extending from the main bar at the same angle and positioned approximately mid way between the said second bars and the end of the main bar, the said third bars and the end of each main bar having their ends formed flat; two additional main bars extending from each of two sides of the hub with the ends of each being formed flat; all of said main bars and additional bars having the same radius to thus extend to the same circumference edge.

2,781,714
UNIT HEATING AND VENTILATING APPARATUS
Otto A. Labus, La Crosse, Wis., assignor to The Trane Company, La Crosse, Wis.
Application January 28, 1953, Serial No. 333,649
3 Claims. (Cl. 98—38)

1. Apparatus for conditioning air comprising a casing having inlet openings and discharge openings, said casing having a passageway for the flow of air from said inlet openings to said discharge openings, a heat exchanger in said passageway, ducts extending from each end of said casing and in fluid communication with said passageway, said ducts each having a plurality of rows of uniformly and closely spaced upwardly directed air discharge orifices of substantially uniform size, the orifices in each row being staggered with relation to the orifices in an adjacent row and the distance between any two adjacent orifices in the same row being substantially equal to the maximum distance across an orifice, a shaft rotatably mounted in said casing between said heat exchanger and said discharge openings, means for driving said shaft,

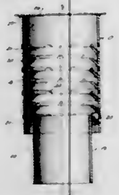
first fan impellers mounted on said shaft for moving air through said passageway from said inlet openings through said heat exchanger and through said discharge openings, and second fan impellers mounted on said shaft for moving air through said passageway from said inlet openings through said heat exchanger, and through said discharge orifices, said second fan impellers having a greater diameter than said first fan impellers, the second fan impeller and said staggered orifices in each duct maintaining a substantially pressurized condition in said duct and forming an upwardly directed substantially continuous air jet extending from one end of said rows of orifices to the other.

2,781,715
AIR DIFFUSING DEVICE
Otto A. Labus, La Crosse, Wis., assignor to The Trane Company, La Crosse, Wis.
Application May 11, 1953, Serial No. 353,961
3 Claims. (Cl. 98—40)



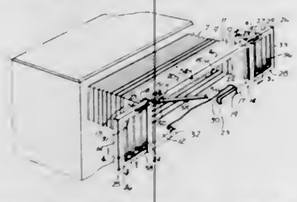
1. A diffuser for discharging air into a conditioned space comprising an enclosure having a flange and being adapted to be mounted in a hole in the wall or ceiling of the conditioned space with a surface of the flange abutting the wall or ceiling, and with a portion of said enclosure extending outwardly into said conditioned space, said enclosure being adapted to be secured in air flow communication with a duct having air under pressure, a tubuiar porous cloth member in said enclosure and having an open end secured in air flow communication with said duct, means for closing said tubular member at a point spaced from said open end, said outwardly extending portion of said enclosure having a plurality of closely spaced nozzles for discharging air from said enclosure, the axes of said nozzles being substantially parallel to said surfaces of said flange which is adapted to abut the wall or ceiling.

2,781,716
DRAFT EQUALIZING STACK HEAD WITH RAIN GUARDS
William O. Moran, Tulsa, Okla.
Application February 2, 1955, Serial No. 485,795
2 Claims. (Cl. 98—58)



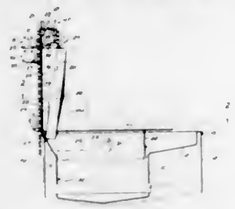
1. A draft equalizing stack head adapted to vertically surmount the flue of a chimney, said stack head having a vertical tubular wall forming a flue therein, an open bottom end, an imperforate top thereon, said bottom end being adapted to be connected with the top of the chimney so that the flue of the chimney is in communication with the flue of said stack head, means for securing said stack head to said chimney, said vertical tubular wall having a plurality of horizontally disposed rows of apertures therethrough, said rows being spaced substantially uniformly from each other, each of said apertures being of uniform area, said top being spaced from the topmost horizontal row of apertures therein and forming with the adjacent vertical tubular wall above said topmost horizontal row of apertures a capacity chamber, a rain guard for each horizontal row of apertures comprising an annular plate having its bottom edge abutting the inner surface of the vertical tubular wall and attached thereto so that the bottom edge is in alignment with the bottoms of said apertures and inclining upwardly toward the center of the flue in the vertical tubular wall a distance such that the vertical projection of said plate on said vertical wall is less than the vertical aperture proximal thereto so that rain striking said plate is drained out through said apertures adjacent said annular plate, the total area of said apertures being sufficient to permit free movement of exhaust gases from the chimney as determined for still-day operating conditions for said chimney, whereby when wind blows against one apertured portion of the stack head, the vacuum created at the opposite apertured portion of the stack head is offset by the wind flowing through the apertures in the first portion to the apertures in the second portion, whereby the action of the wind regardless of direction or velocity in acting on any apertured portion of the chimney does not change the uniform draft of still-day operating conditions in said chimney.

2,781,717
WINDOW UNIT FOR USE WITH AIR CONDITIONERS
Paul E. Hord, Tebbetts, Mo.
Application May 26, 1954, Serial No. 432,427
6 Claims. (Cl. 98—94)



5. A window unit for use with an air conditioner wherein the unit is mounted in a window opening comprising, a hollow substantially rectangular shell of a width less than the width of the window opening and having trackway housings on the upper and lower portions of the shell and extending across the width thereof, U-shaped extension frames having a vertical member connected to parallel legs arranged at the ends of the shell with the legs slidable in the trackway housings for movement of the extension frames toward and away from the shell, said legs having inwardly facing channels therein, an extensible panel member in each of the extension frames and having end portions secured to the shell and to the vertical member of the extension frames remotely of the shell respectively, said extensible panel members having a plurality of vertical folds therein defining a plurality of vertically extending panel portions, hinge means connecting adjacent edges of adjacent panel portions to form a hinged connection therefor, means in the panel portions providing vertical rigidity thereto, said panel portions extending into the channels of the legs of the extension frames, cooperative means in the channels of the legs of the extension frames and the panel portions extending therein retaining said panel portions against relative hinging movement when the extension frames are in selected extended position, and resilient means engaging the panel portions and legs of the extension frames to form a substantially weathertight seal therebetween.

2,781,718
AUTOMATIC FLOATING COVERS FOR FRY KETTLES
Harold N. Shaw, Erie, Pa.
Application November 16, 1954, Serial No. 469,129
13 Claims. (Cl. 99—403)

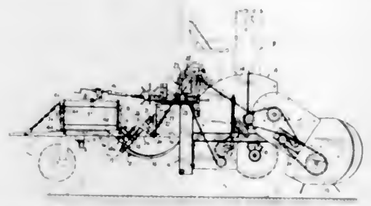


1. In combination, a fry kettle having a fat receiving portion and adapted to receive a food basket, a cover of a size to fit within said fat receiving portion in contact with and covering the fat therein, motor operated means for moving said cover out of fat covering position, means including a member positioned to be engaged by the food basket during manipulation thereof for controlling said motor, and means for stopping said motor after said cover has been moved a predetermined distance.

2,781,719
TENSIONING MEANS FOR HAY BALERS
Robert G. Hedtke, Excelsior, Minn., assignor to Minneapolis-Moline Company, Hopkins, Minn., a corporation of Minnesota
Application July 9, 1954, Serial No. 442,339
3 Claims. (Cl. 100—19)

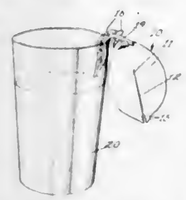
1. For a baler which includes a baling chamber, means for tying bales formed in the chamber with encompassing strands of twine taken from separate supply balls thereof at opposite sides of the baling chamber, and needles swingably mounted forwardly of the supply balls to dispose the twine around the bales and said needles being movable from rearward normal positions forwardly and then rearwardly back to said normal positions; the improvement which comprises a twine box secured to each side of the baling chamber at the rear thereof and longitudinally elongated to hold a plurality of twine balls side by side and one ahead of the other, a transverse yoke connecting

the needles below and forwardly of the twine boxes, said twine boxes having openings at their upper rear portions out through which the twine passes from the balls, primary, adjustable twine tensioners located below said openings and operative to yieldably resist the pulling of twine from the balls, the twine passing downwardly from said primary twine tensioners and then forwardly beneath the twine boxes toward said needles, eyes on the twine boxes guiding the twine downwardly and then forwardly,



secondary twine tensioners located on the baling chamber below the lower forward corners of the twine boxes and having surfaces angling downwardly and forwardly over which the twine passes toward the needles, and levers pivoted on the secondary twine tensioners and spring biased to bear frictionally downward on the twine passing over said surfaces, and the said levers extending downwardly and forwardly over the said yoke and being normally cammed upward clear of the twine by said yoke when the needles are in their normal positions.

2,781,720
JUICE EXTRACTOR
Norma J. Jefferson, Belhaven, N. C., assignor of one-half to E. S. Jefferson, Belhaven, N. C.
Application December 20, 1954, Serial No. 476,391
1 Claim. (Cl. 100—211)



A one piece juice extractor comprising a hollow collapsible body of elastic material providing a normally closed receptacle adapted for reception therein of a slice of fruit to be squeezed, said body having an elongated slit therein providing a pair of opposed wall members normally urged towards contacting relationship along the confronting edges of said slit, said members being spreadable to open said slit for providing entrance in said body of a slice of fruit, said body having apertures therein disposed along the confronting edges of said slit for permitting egress therethrough of juice expressed from said fruit when said body is collapsed, and a stem on said body opposite said slit having leaf shaped support members extending therefrom adapted to support said body on the upper edge of a container in at least one position wherein said apertures open substantially downwardly.

2,781,721
PRINTING AND SEGREGATING MACHINE
Joseph A. Dunn, Oak Park, Ill.
Application June 4, 1954, Serial No. 434,426
6 Claims. (Cl. 101—46)

1. A device for making and segregating multiple copies from an original document which comprises, an electrically actuated typewriting machine through which a plurality of superimposed webs and interleaved carbon papers are passed, a frame, a printing station upon said frame, said superimposed webs and carbon papers being provided with a plurality of spaced notches, an electric switch carried by said frame and having a control arm engageable with one of said notches to deenergize the typewriting machine when a predetermined portion of said web is in printing position in said printing station, a sequential numbering device for passing an original document therethrough to be numbered, a switch carried by said numbering device and connected to said typewriting

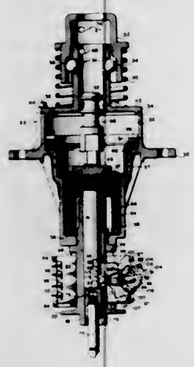
machine for energizing said typewriting machine when the numbering device is actuated, means for transversely severing said webs and carbon papers into a plurality of sections each comprising a plurality of printed copies and interleaved carbon sheets, means on said frame for guiding each individual copy and carbon sheet of each section forwardly from said printing station, a plurality of receptacles carried beneath the path of travel of said copies and carbon papers upon said frame, means for depositing predetermined copies of each section from said guides to predetermined receptacles, and means for depositing the interleaved carbon sheets of each section from said guides to a common receptacle.

2,781,722
TYPE GROUP AND TYPE SELECTING MEANS FOR WHEEL PRINTERS
Donald H. Apgar, Binghamton, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application May 4, 1955, Serial No. 505,866
6 Claims. (Cl. 101—93)

1. In a machine controlled by records of the type having holes at one position to select a first group of type and at another position for selecting another group of type but including said one position, a rotatable printing wheel carrying said groups of type, means for analyzing said records, a clutch adapted upon its engagement to rotate said printing wheel to select either of said groups of type, means for releasing said clutch for engagement, a supplemental clutch for controlling said clutch releasing means, a cam disk rotated by said supplemental clutch, a print control magnet for controlling said supplemental clutch, means under control of said analyzing means for transmitting differentially timed electrical impulses to energize

said print control magnet once in accordance with the hole at said one position, and a second time for the hole at the other position, means under control of said print control magnet when energized by said one impulse to cause at the time the one impulse is transmitted the engagement of said supplemental clutch and the initiation of the rotation of said cam disk, means comprising a cam portion of said disk to actuate said clutch releasing means at another different time having a definite delayed time relationship to the time the supplemental clutch is engaged, to cause said first named clutch to be engaged to effect the rotation of said printing wheel to select said first group of type, a supplemental cam portion of said cam disk, and means controlled by said supplemental cam portion and said print control magnet when energized the second time after the initiation of the rotation of the cam disk to cause the actuation of said clutch releasing means at a still different time having a definite delayed time relationship to the time the supplemental clutch is engaged to engage said first named clutch to select said other group of type.

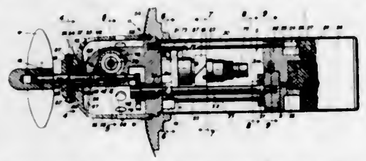
2,781,723
MINE FIRING CONTROL DEVICE
Joseph D. Turlay, Bethesda, Md.
Application July 14, 1943, Serial No. 494,625
11 Claims. (Cl. 102—16)
(Granted under Title 35, U. S. Code (1952), sec. 266)



2. In a hydrostatic mechanism for moving a detonator into operative relation with respect to a booster charge, in combination, a slideable rod for supporting the detonator, said rod having an initial position and an extended position, means for moving the rod in either direction between said initial position and said extended position selectively in accordance with variations in pressure of the surrounding water, a shoulder on said rod, a circuit closing device having a moveable element adapted to be engaged by said shoulder during the movement of the rod from the extended position toward the initial position, and a firing circuit for said detonator adapted to be closed by said circuit closing device when the rod has moved a predetermined distance from said extended position toward said initial position.

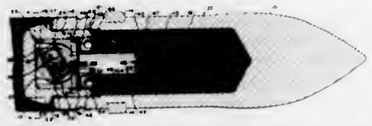
2,781,724
EXPLODER
John M. Stockard, Washington, D. C., and Stuart C. Miller, Silver Spring, Md.
Application September 23, 1948, Serial No. 50,726
24 Claims. (Cl. 102—17)
(Granted under Title 35, U. S. Code (1952), sec. 266)

16. In a torpedo exploder, a revoluble discardable impeller, means retaining the impeller on the exploder for revolution, mechanical arming means including a gear train driven by the impeller, and means which is a part



of the gear train gradually advancing the retaining means to a position whereat the impeller is free to be discarded.

2,781,725
FUZE FOR SMALL CALIBER PROJECTILE
William J. Donahue, Jr., Takoma Park, Md.
Application June 9, 1950, Serial No. 167,243
2 Claims. (Cl. 102—79)
(Granted under Title 35, U. S. Code (1952), sec. 266)

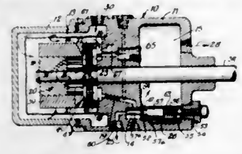


1. A base fuze for an explosive shell comprising a casing, a rotor supported within the casing in a safe position and constructed and arranged to have rotative movement therein when the shell has been fired from a gun, a mass detachably secured to said rotor and slideable within said casing when detached from the rotor, a shear pin detachably securing said rotor to said mass for locking said rotor in said safe position and for releasing the rotor for movement to an armed position in response to centrifugal force when the pin is sheared in response to setback force of the mass as the shell is fired from a gun, a detonator arranged within said rotor and adapted to be driven to a firing position when the fuze is in said armed position and upon impact of the shell with the target, a frangible diaphragm secured to the casing in alignment with the detonator when the rotor is in said armed position for preventing movement of the detonator to said firing position in response to creep forces acting on the projectile as the projectile travels along a trajectory, a cylindrical member secured to the casing in alignment with said diaphragm and extending into a bursting charge arranged within said shell, an end wall on said cylindrical member in predetermined spaced relation with respect to said detonator and located in said firing position thereof, a firing pin secured to and struck-out from said end wall and extending into said cylindrical member for firing said detonator when the detonator is forcibly driven through said diaphragm and into engagement with said pin in response to said impact, and means arranged within said detonator and fired thereby for firing the bursting charge in time delayed relation with respect to said impact.

2,781,726
REVERSIBLE FUEL PUMP FOR OIL BURNERS
Walter J. Bangs, Chicago, Ill., assignor to Tuthill Pump Company, a corporation of Illinois
Application November 29, 1952, Serial No. 323,262
1 Claim. (Cl. 103—3)

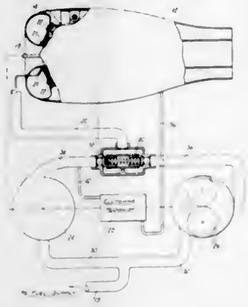
A fuel pump comprising a housing having inlet and outlet passages and including a main body portion, a shaft extending through said main body portion and projecting from one end only of the housing, a cap removably secured to the main body portion and sealing the opposite end of the housing, an internal-external gear pump unit mounted on the end of the shaft within the housing, a pump unit cover plate surrounding the shaft and affixed to the pump unit to form therewith a permanent assembly

and having a pair of ports extending through said plate communicating respectively with the inlet and outlet sides of the pump unit, there being on each side of the plate a pair of arcuate grooves communicating with said ports, the grooves on the side of the plate adjacent to the pump unit extending in opposite directions toward each other from said ports and the grooves on the other side of the plate extending in the same direction away from the ports,



so that rotation of the pump unit and cover plate assembly from a first position in the housing to a second position in the housing will place the groove which was in communication with the outlet passage in communication with the inlet passage and vice versa, and bolt means extending through said assembly into the main body portion of the housing and accessible for withdrawal and replacement on removal of the housing cap for securing the assembly in either of said two positions.

2,781,727
PUMP APPARATUS
John T. Marshall and Charles O. Weisenbach, South Bend, Ind., assignors to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application March 15, 1950, Serial No. 149,742
2 Claims. (Cl. 103—11)



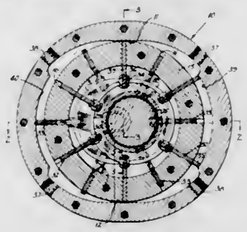
1. An apparatus for pressurizing fluid comprising a gear pump provided with an inlet and an outlet, a centrifugal pump provided with an inlet and an outlet, a common source of fluid connected to the inlets of said pumps, a common discharge line connected to the outlets of said pumps, said pumps being provided with a common drive, a control mechanism interposed between the common drive and said gear pump, said mechanism including a fluid drive, a friction clutch, a conduit adapted to connect said fluid drive to a source of fluid, and means conscious to the centrifugal pump discharge pressure for disengaging said clutch at a predetermined pressure and cutting off the fluid to said drive at another higher pressure.

2,781,728
PNEUMATICALLY POWERED HYDRAULIC PUMP
Howard R. Fischer and Marcel P. D'Haem, Utica, N. Y., assignors to Chicago Pneumatic Tool Company, New York, N. Y., a corporation of New Jersey
Application March 2, 1954, Serial No. 413,980
9 Claims. (Cl. 103—50)

1. A pump including in combination a pneumatic portion having a housing including a pressurized pneumatic medium inlet means, an automatic valve arranged in a recess formed in the pneumatic portion, an hydraulic portion having a housing including a pressurizing chamber, a reservoir portion having an enclosed reservoir for containing a supply of hydraulic medium, means to conduct pressurized pneumatic medium from the pneumatic portion to the surface of hydraulic medium in the reservoir, means including passageways to allow flow of hydraulic medium from the reservoir portion to the pressurizing chamber, a cylinder affixed to the housing of the pneumatic portion, a piston means reciprocably arranged in

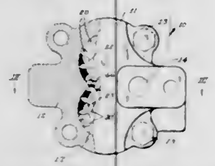
the cylinder and having a ram extendable into the pressurizing chamber, means including a distributor valve arranged in the pneumatic portion and affixed to the piston means, said distributor valve adapted to direct flow of pressurized pneumatic medium to operate the automatic valve so that the latter will direct flow of pressurized pneumatic medium into the cylinder to cause movement of the piston and the ram, an outlet means connected to the pressurizing chamber, and means including passageways to allow flow of hydraulic medium from the outlet means to the reservoir when pump operation is terminated.

2,781,729
FLUID PUMP
Chester W. Johnson, Butte, and Clarence T. Keogh, Whitehall, Mont.
Application December 22, 1955, Serial No. 554,760
6 Claims. (Cl. 103—120)



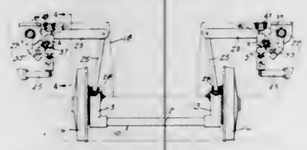
1. A fluid pump comprising a closed housing having opposed abutments on the inner surface of the wall thereof, a rotatable shaft having an end portion axially disposed in said housing, a hollow rotor circumposed about said shaft end portion and connected to the latter for rotation therewith, said rotor in its rotational travel successively wipingly contacting said housing abutments, there being a plurality of slots in said rotor extending in radial spaced relation therearound, a first sleeve disposed within said rotor and rotatable about an axis eccentrically disposed with respect to said shaft end portion, a second sleeve disposed within said rotor and rotatable about another axis eccentrically disposed with respect to said first-named axis and said shaft end portion, a plurality of vanes projecting in radial relation about each of said first and second sleeves and each slidable in a slot of said rotor, the vanes being arranged so that one of the vanes of one of said sleeves is intermediate adjacent vanes of the other of said sleeves, and an inlet and an outlet arranged in spaced relation in the portion of the wall of said housing on each side of and between said abutments, the part of the housing wall between the adjacent inlet and outlet and the adjacent portion of said rotor defining a pump chamber, the vanes of the one sleeve successively extending into and closing one of said pump chambers and the vanes of the other sleeve successively extending into and closing the other of the pump chambers upon execution of the rotational travel of said rotor.

2,781,730
IMPLEMENT PUMP
Carleton H. Newmier, Cleveland, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application October 22, 1952, Serial No. 316,231
10 Claims. (Cl. 103—126)



1. In a gear pump, a pair of meshing rotary gears, bushing means in said pump having formed thereon a sealing face engaging the sides of the gears and means providing an inlet on one side of the gear mesh and an outlet on the other side of the gear mesh, said face of said bushing means having a recess formed therein on the outlet side of the mesh diverging away from the mesh generally tangential to each of the gears and lying adjacent the gear teeth but terminating at the root diameter of the gears and providing a tangential flow path in said bushing means at the outlet minimizing flow reversal and reducing hydraulic shock losses.

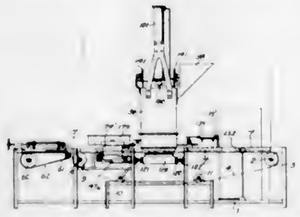
2,781,731
SUSPENSION FOR LIGHT WEIGHT VEHICLES
John R. Furrer, Milwaukee, Wis., assignor to ACF Industries Incorporated, a corporation of New Jersey
Application October 19, 1951, Serial No. 252,111
15 Claims. (Cl. 105—210)



1. In a vehicle, a body, an axle structure, wheels journalled on said axle structure, separate similar suspension means supporting opposite sides of said body on opposite end portions of said axle structure, said supporting means including resilient means in torsion and normally opposing downward movement of the body, and a hydraulic interconnection between said suspension means responsive to rolling movements of said body for automatically varying the torsion of said suspension means to compensate for said movements.

2,781,732
APPARATUS FOR PRODUCING ROUNDED DOUGH BODIES FOR THE FORMATION OF BAKERY ROLLS AND BUNS
Chester P. Lenherr, Newark, N. J., assignor to White Castle System, Inc., Columbus, Ohio, a corporation of Delaware
Application March 10, 1953, Serial No. 341,497
10 Claims. (Cl. 107—4)

1. Dough-handling apparatus comprising: a frame formed with longitudinal guides for the reception and advancement of a plurality of dough-receiving trays, said guides including tray-receiving and discharging ends; an endless primary conveyor movable along said guides for imparting movement to the trays positioned thereon; a power-actuated mechanism for imparting intermittent driving movement to said conveyor, said mechanism including a single revolution clutch device having a movable control element; a pressure fluid-actuated means cooperative with the control element of said clutch device to effect a single revolution on the part thereof in producing an incremental advance of said conveyor and trays engaged therewith along said guides; a container for said pressure fluid; pipe means leading from said container to said pressure fluid-actuated means; an electrically controlled valve positioned in and normally restraining fluid flow through said pipe means; an operating circuit for said valve, said circuit including a

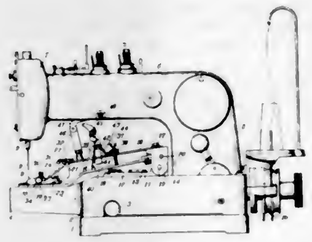


switch mounted on said frame contiguous to said guides and operated by the engagement therewith of empty trays deposited on the receiving end of said guides to close said circuit and open said valve; means carried by said frame and coordinated with the intermittent advance of said conveyor to deposit on the trays when the latter occupy one position on said guides separate bodies of dough; and means operative when said trays occupy a second position on said guides to round and uniformly shape said bodies.

2,781,733
APPARATUS FOR DISPENSING MATERIAL BENEATH THE SHANK OF A GROUND-WORKING TOOL
William T. Graham, Amarillo, Tex.
Application August 12, 1953, Serial No. 373,805
2 Claims. (Cl. 111—7)

2. A device for attachment to the lower end of the shank of a chisel type plow including a chisel on said shank for depositing anhydrous ammonia fertilizer or the like from a source of supply carried by said plow to the furrow made by the chisel on said shank comprising, a shoe having a body provided with vertically spaced slots and laterally spaced threaded openings near its upper end, bolts extending through said slots adjustably securing the shoe to the shank and chisel, said shoe being of the same width and conforming in curvature to said shoe, said shank being enlarged in thickness at its lower end providing a shoulder of the same thickness of the lower end of the shank and the thickened portion being tapered forwardly to a point and engaging the underface of said chisel, said shoe having a threaded socket on the rear face of the thickened portion and having connection with lateral passageways leading to the respective sides of said thickened portion, a coupling member having a threaded opening therethrough and ears having slots mating with the spaced threaded openings in the shank of said shoe, set screws extending through said slots in said ears and engaging said threaded openings in the threaded openings of the shank of said shoe adjustably securing said coupling thereto, a pipe having one end turned laterally and having threads for engaging in the threaded socket in said shoe and having its other end threaded and engaging said coupling, and means connecting said source of supply of said fertilizer to said coupling, said chisel being of a width to overlie the openings in the tapered sides of the thickened end of the shoe to prevent clogging of said openings.

2,781,734
BUTTON SEWING MACHINES
William T. Maxant, Ayer, Mass., and Carl De Paul and Bertram Morton Zeldis, Philadelphia, Pa., assignors to Chandler Machine Co., Ayer, Mass., a corporation of Massachusetts
Application October 7, 1953, Serial No. 384,662
4 Claims. (Cl. 112—114)

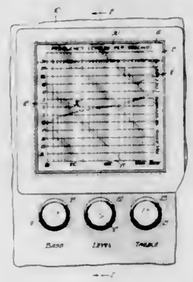


1. A button clamp for a sewing machine comprising a pair of arms having opposed jaws adapted to receive the head of a shank button therebetween and to embrace the rim thereof for holding the shank projecting from the jaws in position for stitching to a fabric, and a seat between the jaws in position for engaging the head of the button held thereby, an L-shaped clip on at least one of the arms and having one angular portion extending along the arm and a second angular portion extending downwardly therefrom below said jaw in position to hold the jaws in elevated positions, and means pivotally and adjustably connecting the first-mentioned angular portion of the clip to the arm for downward swinging movement of the second-mentioned angular portion relative thereto, said adjusting means being at the outer surface of the arm and accessible laterally at a point outside of the space between the jaws.

2,781,735
SAILING CRAFT MULTIPLE HULL ARRANGEMENT
William E. Roberts and Walter P. Rountree, Gainesville, Fla.; said Rountree assignor to said Roberts
Application March 16, 1953, Serial No. 342,434
1 Claim. (Cl. 114—61)

A craft adapted for sailing comprising, a single keelless hull having a substantially flat deck and having a length approximately seven times its width, said hull having a width greater than its depth, said deck having a mast receiving socket in the forward portion thereof, combined keel and ballast means comprising a flying deck extending laterally beyond each side of said hull and transversely thereto for carrying riders at least on the laterally extending portions thereof for ballasting purposes, said flying deck being secured to said flat deck in substantially the mid-portion thereof, and two water engaging pontoons, each of said pontoons having a depth greater than the depth of the said hull, each of said pontoons being V-shaped at the bottom portion thereof to provide a keel disposed normally in a horizontal plane lower than the horizontal plane of the bottom of the hull, said pontoons being disposed in parallel relationship to said hull and to each other, one of said pontoons being disposed in spaced apart relation from substantially the mid-portion of said hull and secured to the underside of one end portion of said flying deck, the other of said pontoons being oppositely disposed from said first mentioned pontoon on the opposite side of said hull and in spaced apart relationship thereto, and said second pontoon being secured to the underside of the other end portion of said flying deck, the bottom of the mid-portion and the stern portion being substantially flat and the bottom of the bow portion being formed with a downwardly faced channel whereby the bow is forced to climb up.

2,781,736
INDICATING MEANS
Frank P. Bennett, Chicago, Ill., assignor to Bell & Howell Company, Chicago, Ill., a corporation of Illinois
Application June 7, 1955, Serial No. 513,705
15 Claims. (Cl. 116—124.1)

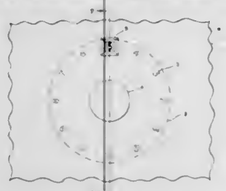


1. Tone control indicating means for use with an audio amplifier having bass, level and treble control means comprising, in combination, a chart bearing a rectangular tone control indicating grid, a flexible tone control indicator strip movably mounted with respect to said chart, means connected to the ends of said flexible strip for shifting the same individually with respect to said chart as a function of the settings respectively of said bass and treble control means, and means connected to said flexible strip for bodily shifting the same with respect to said chart as a function of the setting of said level control means without changing the relative positions of the ends thereof adjusted as aforesaid.

2,781,737
ILLUMINATED DIALS
Robert T. Killman, Baltimore, Md., assignor to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware
Application September 17, 1953, Serial No. 380,728
3 Claims. (Cl. 116—124.4)

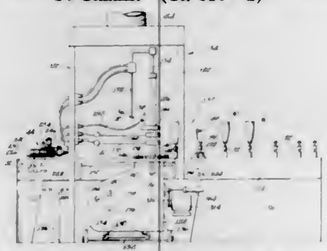
1. A visual indicator comprising a first member having at least one index aperture; a second member carrying

visibly phosphorescent indicia arranged to register with said index aperture to indicate the relative positions of said first and second members, said indicia being concealed by said first member except at said index aperture;



a source of radiant energy for exciting at least one of said phosphorescent indicia which are hidden from view by said first member; and shielding means associated with said aperture for preventing excitation of an indicium registered with said index aperture.

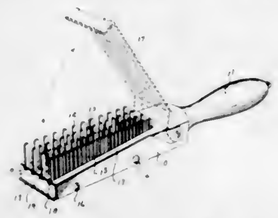
2,781,738
SPRAY COATING APPARATUS
Jens A. Paasche, Chicago, Ill., assignor to Cline Electric Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application September 8, 1954, Serial No. 454,801
14 Claims. (Cl. 118—2)



1. A spraying apparatus for applying a coating to articles on a continuous conveyor having a plurality of equally spaced article supports mounted thereon, a spraying chamber having a plurality of movably mounted spray guns, detector means mounted adjacent the entrance of said spraying chamber for detecting vacant article supports, said detector means including a movably mounted member engageable with and shiftable by articles on said article supports, valve means having an inlet connectable with a source of air under pressure and mounted for movement in response to movement of said movable member, and means actuated by said article supports for opening said valve means when the supports are vacant and inoperative to open said valve means when an article on a support shifts said member and said valve means, control means responsive to said detector means and mounted at a distance from said detector means for controlling the actuation of said spray guns in accordance with the condition of said detector means, said control means having cam members positioned thereon, said cam members having an operative and an inoperative position, and pneumatic means connected with an outlet of said valve means and actuated upon opening of said valve means for moving said cam member to the inoperative position when said detector means detects a vacant article support.

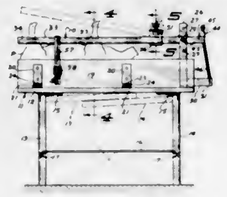
2,781,739
ANIMAL HAIR GROOMER
Marion Talbert Dick and Homer G. Hamilton, Des Moines, Iowa
Application June 17, 1953, Serial No. 362,231
5 Claims. (Cl. 119—93)

1. In a hair groomer, a base member, a plurality of rows of spaced apart comb elements on said base member each having elongated teeth depending from the bottom of said base member and at least one of said rows



of comb elements having finer teeth than at least one of the others; said rows of comb elements each having longer teeth as they progress in one direction.

2,781,740
OPERATING TABLE FOR PIGS
Joseph W. Duffy, Oldham, S. Dak.
Application December 6, 1955, Serial No. 551,296
10 Claims. (Cl. 119—103)

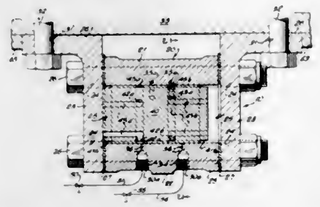


1. A device for holding an animal while it is operated upon, comprising a trough-like lower member of U-shaped cross section to receive the animal in an inverted position, a swinging upper section hinged at one end to said lower member and adapted when the animal is in place to be swung downwardly, said upper section having openings to receive the front and rear legs of the animal, and means for releasably holding the upper section downward to restrain the animal and hold it in said lower member.

2,781,741
RETRACTABLE MULTI-COLOR WRITING INSTRUMENT
Paul Tintner, Great Neck, N. Y.
Application June 9, 1955, Serial No. 514,275
13 Claims. (Cl. 120—42.13)

1. A retractable writing instrument comprising a housing having relatively rotatable and separable front and rear sections and a cap section, said front section having an orifice at its forward end, a member fixed to said front section at the rear thereof, said member having a plurality of guide openings, a removable writing implement in each of said openings projecting within said front section, retractile means for each of said implements, means for extending a selected implement through said orifice; said means comprising a plunger projecting from said cap, a device fixed to said plunger extending within said housing rear section and carrying a pin in offset relation therewith, guide means for said device fixed in said housing rear section whereby upon relative rotation of the front and rear housing sections said pin may be positioned over a selected writing implement for extending the latter when said plunger is depressed, means for indicating the implement to be selected for extension through said orifice upon said rotation, stop means for maintaining the selected implement in extended position after being extended through said orifice, and means to release said stop means for permitting the selected implement to retract.

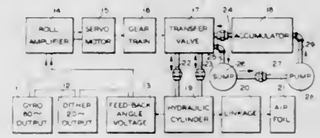
2,781,742
PNEUMATIC VIBRATOR AND STARTING SYSTEM THEREFOR
Edward M. Poole, Barberton, Ohio, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application August 21, 1953, Serial No. 375,638
4 Claims. (Cl. 121—17)



1. A pneumatic vibrator comprising, in combination, a cylinder having closed end walls; a relatively massive piston reciprocably mounted in said cylinder; first and second inlet ports in the side wall of said cylinder; first passage means in said piston opening through one end thereof and communicating with said first port when said one end of the piston is adjacent the corresponding end of said cylinder; second passage means in said piston opening through the opposite end thereof and communicating with said second port when said opposite end of the piston is adjacent the opposite end of said cylinder; exhaust port means in the side wall of said cylinder intermediate said inlet ports; first valve means selectively operable to connect a source of pressure fluid to said inlet port to move said piston toward such opposite end of said cylinder to initiate relative reciprocation between said piston and cylinder to vibrate said cylinder; second valve means operable to connect a source of pressure fluid to said second inlet ports; time delay means activated upon operation of said first valve means to operate said second valve means a preset time interval after operation of said first valve means; and a cyclically operable timer operatively associated with said first valve means and said time delay means to periodically and simultaneously operate said first valve means and activate said time delay means for a predetermined time interval.

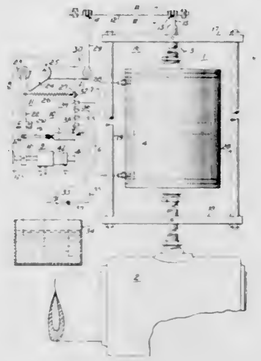
2,781,743
ELECTRO-HYDRAULIC SERVOMECHANISM FOR CONTROL OF ROLL, PITCH AND YAW OF A GUIDED MISSILE
Alfred K. Mann, New York, N. Y., Edward P. Ney, Minneapolis, Minn., and Leland B. Snoddy, Charlottesville, Va., assignors to the United States of America as represented by the Secretary of the Navy
Application June 24, 1948, Serial No. 35,051
1 Claim. (Cl. 121—41)

In a stabilization system for an aerial vehicle such as a guided missile, equipped with deviation correcting means actuable in either one of two senses by a fluid servomotor, a source of alternating current of a given frequency, means generating a first alternating voltage signal of said given frequency and of a magnitude commensurate with the degree of said deviation and of a phase distinctive of the sense of said deviation, means generating a second alternating voltage signal of said given frequency and of a magnitude commensurate with the degree of actuation of said deviation correcting means and of a phase distinctive of the sense of actuation of said deviation correcting means, means generating a third alternating voltage



signal of a frequency which is a sub-multiple of said given frequency, an amplifier having impressed on its input said third alternating voltage signal in series with the differential of said first and second alternating voltage signals, an electric servomotor having a first phase energized by said first mentioned alternating current source and a second phase energized by the output of said amplifier, and a transfer valve controlling said fluid servomotor and actuable in either of two senses by said electric servomotor whereby said third alternating voltage acting through said electric servomotor effects a dithering vibration of the transfer valve to reduce its static friction.

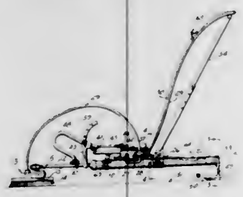
2,781,744
PNEUMATIC SIGNAL RESPONSIVE HYDRAULICALLY ACTUATED POSITIONERS FOR HIGH PRESSURE SERVO-VALVES PROVIDED WITH A COMPENSATING OR FOLLOWUP MECHANISM
Ray S. Williams, Orrville, Ohio, assignor to Hogan Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application September 2, 1954, Serial No. 453,825
9 Claims. (Cl. 121—41)



1. A pneumatic signal responsive hydraulic actuated positioner comprising a cylinder and a cylinder head at one end thereof, the cylinder having a bore therein, a differential piston in the cylinder bore, one face of which is larger in area than the other, a central bore in the piston coaxial with said cylinder bore, a sleeve in the piston bore, said sleeve having an inlet port for hydraulic fluid and an outlet port, the piston having a port therein communicating with the sleeve outlet port

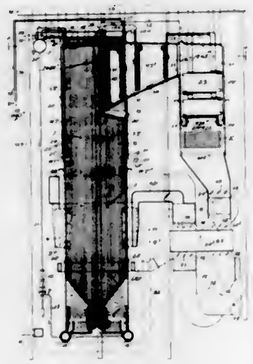
and with that end of the cylinder to which the piston face of larger area is exposed, the cylinder having a supply port for supplying hydraulic fluid to the piston face of smaller area, a pilot valve in the bore of the sleeve and provided with spaced lands disposed on either side of the sleeve inlet port, one of said lands controlling the outlet port of said sleeve, and means connected to said pilot valve for actuating the same in response to a pneumatic signal force being applied thereto, the piston moving in the same direction as the pilot valve and coming to rest when the outlet port of the sleeve registers with its controlling land, the outlet port in said sleeve also communicating with the discharge end of the cylinder bore when the controlling land shuts off communication between the supply port and the outlet port.

2,781,745
HYDRAULIC MOTOR FOR A SCRUBBING MACHINE
Forrest L. Bailes, Dodge City, Kans.
Application March 29, 1955, Serial No. 497,561
3 Claims. (Cl. 121—164)



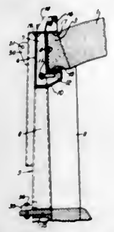
1. A scrubbing machine comprising a horizontally disposed cylinder, a reciprocating piston working within said cylinder, a piston rod extending slidably through one end of said cylinder and having the other end exteriorly of said one end of said cylinder, means for connecting a tool on said other end of said piston rod, a closed housing exteriorly of said cylinder, a partition in said housing subdividing said housing into two valve chambers, said housing being provided on one side intermediate the ends thereof with an inlet chamber connected in communication with each of said valve chambers, an exhaust port adjacent each end of said housing on said one side connected in communication with the adjacent one of said valve chambers, a distributing port adjacent each end of said housing on the other side thereof also connected in communication with the adjacent one of said valve chambers, said housing being provided with a bore extending inwardly from one end thereof through both of said valve chambers, conduit means connecting each end of said cylinder with the adjacent one of said distributing ports, other conduit means connecting said inlet chamber to a source of fluid under pressure and said exhaust ports to a place of fluid disposal, a valve mounted within said bore for a limited rotary movement and having a portion projecting from said housing, the portions of said valve within each of said valve chambers each being provided with a pair of apertures disposed at a right angle to each other, the apertures of one of said pairs of apertures being arranged with respect to the apertures of the other pair so that at the limit of rotary movement of said valve in each direction one aperture of one pair connects said inlet chamber with the adjacent one of said distributing ports and one aperture of the other pair connects the other distributing port with the adjacent exhaust port, and means carried on said piston rod exteriorly of said cylinder operatively connected to said valve projecting portion so that upon execution of reciprocal movement of said piston rod in one direction said valve is moved to the limit of its movement in one direction and upon execution of movement of said piston in the other direction said valve is moved to the limit of its movement in the other direction.

2,781,746
ART OF GENERATING AND HEATING STEAM
Wilbur H. Armacost, Scarsdale, N. Y., and Leonard J. Marshall, Tenafly, N. J., assignors to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware
Application October 17, 1952, Serial No. 315,228
1 Claim. (Cl. 122—479)



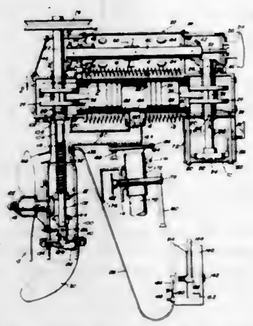
A reheat cycle boiler installation having a single controlled water circulation system for generating and heating steam comprising physically separated first and second furnaces: first and second steam generating sections disposed respectively in said first and second furnaces in parallel fluid flow relation and having tubular water wall linings adapted to be subject to radiant heat; means for forceably circulating water through said steam generating sections; means for firing fuel into each of said sections to produce a first and a second stream of gas respectively in each, first and second gas passages opening respectively from said sections; a superheater adapted to be subject to radiant heat and to receive primary steam from said steam generating sections and disposed in heat exchange relationship only to said first stream; a reheater adapted to be subject to radiant heat and to receive secondary or reheat steam and disposed in heat exchange relationship only to said second stream; additional means for absorbing heat from the said gases including an additional superheater comprising intermediate and finishing portions, said finishing portion disposed in said first passage ahead of said intermediate portion in the gas flow sense and absorbing heat only from said first gas stream, the steam inlet of said intermediate portion operatively connected to the steam outlet of said radiant superheater; said intermediate portion comprising at least two parallel flow paths of the fluid being heated, one in said first gas passage and exposed to said first gas stream, and the other in said second gas passage and exposed to said second gas stream, the steam inlet of said superheater finishing portion connected to the steam outlet of said intermediate portion; first control means for altering the heat content of the gas stream reaching the superheater by varying the heat absorbed from said stream by the water wall linings of said first steam generating section, while maintaining constant steam generating load; second control means for altering the heat content of the gas stream reaching the reheater by varying the heat absorbed from said second stream by the water wall linings of said second steam generating section, while maintaining constant steam generating load; and control means for varying the rate at which fuel is fired into said two sections.

2,781,747
FURNACE DOOR FRAME
Ottwin L. Braun, Pittsburgh, Pa., assignor to Reliance Steel Products Company, McKeesport, Pa., a corporation of Pennsylvania
Application September 21, 1953, Serial No. 381,261
6 Claims. (Cl. 122—499)



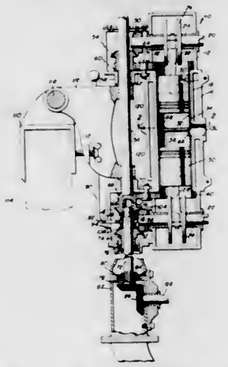
1. In a furnace having a doorway with a skew-back and a skew-back channel at the upper end thereof, and a hollow water-cooled frame for said doorway including a body portion with hollow door frame legs depending from opposite sides thereof and a bottom lintel laterally offset and projecting outwardly from the bottom thereof, the combination comprising a pair of saddle assemblies secured in spaced lateral relation to the upper edge of the furnace skew-back channel, each of said assemblies having a horizontal roller with its axis extending parallel to said channel, a pair of mounting lugs secured in spaced lateral relation to the upper edge of said frame, each of said lugs having a rearwardly and downwardly opening recess for initial vertical hooking engagement over one of the saddle rollers, engagement of said lugs with said rollers providing pivotal support for said frame in contact with said skew-back channel about which the frame may swing from an angular inclined position relative to the skew-back channel and doorway to a vertical position mounted in the doorway with the frame lintel engaged with the underside of the skew-back channel.

2,781,748
OPPOSED PISTON SLEEVE VALVE OUTBOARD MOTOR
John Stucke, Philadelphia, Pa.
Application September 1, 1953, Serial No. 377,869
2 Claims. (Cl. 123—51)



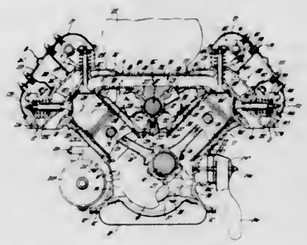
1. An internal combustion engine comprising a cylindrical housing, a pair of spaced parallel crankshafts with a crankshaft being disposed in transverse relation at each end of the housing, a pair of opposed pistons reciprocably received in said housing and operatively connected to said crankshafts, a rotary sleeve valve mounted in said housing and receiving said pistons, a lay shaft interconnecting said crankshafts for simultaneous rotation thereof, said rotary valve having a single opening disposed centrally therein, said cylindrical housing having a plurality of circumferentially spaced openings in the same transverse plane as the opening in the valve, and means interconnecting said lay shaft and rotary sleeve valve for rotating said valve in timed relation to the crankshafts and pistons for sequential registry of the opening in the valve with the openings in the cylindrical housing for intake, ignition and exhaust of a power producing mixture.

2,781,749
OPPOSED PISTON SLEEVE VALVE OUTBOARD MOTOR
John Stucke, Philadelphia, Pa.
Application June 4, 1954, Serial No. 434,422
10 Claims. (Cl. 123—51)



1. An outboard motor comprising a housing, a pair of parallel spaced crankshafts rotatably journaled in said housing, a cylinder disposed between said crankshafts, reciprocating opposed pistons slidable in said cylinder and operatively connected to said crankshafts, a tubular sleeve valve rotatable in said cylinder, and means interconnecting each end of the valve and the crankshafts for transmitting the power from one crankshaft to the other for simultaneous rotation of the crankshafts and rotation of the sleeve valve.

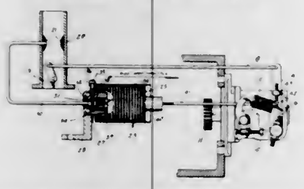
2,781,750
ENGINE CONSTRUCTION
Charles A. Chayne, Bloomfield Township, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 27, 1952, Serial No. 273,597
22 Claims. (Cl. 123—55)



1. A V-type engine comprising an engine block formed to provide a camshaft gallery between adjacent walls of the angularly disposed banks of cylinders thereof, said block also being formed to provide a transversely disposed pair of end walls having outer edges between said banks and at the opposite ends of said camshaft

gallery in said block, a camshaft for said engine adapted to be rotatably mounted in said camshaft gallery, a support for said camshaft disposed within said camshaft gallery and having bearings formed therein for rotatably supporting said camshaft, said support and said block being formed to provide abutment means extending along the length of and between said banks and across the outer edges of said end walls and the outer ends of said cylinders for supporting said support with respect to said block.

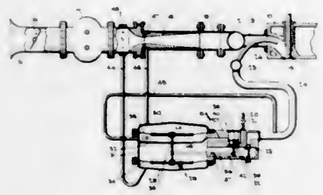
2,781,751
GOVERNOR COMPENSATOR
Walter E. Benjamin, Anderson, Ind., assignor to The Pierce Governor Company, Inc., Anderson, Ind., a corporation
Application December 27, 1954, Serial No. 477,841
9 Claims. (Cl. 123—103)



1. A governor system for internal combustion engines comprising a carburetor, a venturi in said carburetor, a valve in said carburetor for controlling flow of fuel and air through said venturi, a speed responsive flyball governor including a spring loaded control lever connected to said valve for opening and closing said valve in accordance with variations of engine load to maintain a constant engine speed, and compensating means for controlling said governor to provide identical engine speeds at no load and full load, comprising a bellows connected to said venturi and responsive to venturi pressure, a rod coupling said bellows to said control lever whereby said bellows may assist the spring loading of said control lever when engine load increases, a needle valve between said bellows and said venturi to control the rate of collapse of said bellows to prevent overrunning of a predetermined engine speed when the load on said engine increases, and a spring loaded disc valve by-passing said needle valve for admitting air to said bellows when engine load decreases to prevent overrunning of said preset engine speed.

2,781,752
CHARGE-FORMING APPARATUS FOR GAS INTERNAL COMBUSTION ENGINES
Hendrik K. J. van den Bussche, Delft, Netherlands, assignor to Shell Development Company, Emeryville, Calif., a corporation of Delaware
Application June 16, 1953, Serial No. 362,102
4 Claims. (Cl. 123—120)

1. In a charge-forming apparatus for a gas-fuel internal combustion engine having an intake valve, the combination with a source of gas under pressure, of: an air duct for the supply of air to said intake valve including an air flow controller and a metering restriction downstream from said controller; a gas conduit connected between said source of gas and said air duct at a point therein downstream of the said restriction therein, said gas conduit being in free communication at said point with the air duct to feed gas into the air duct and including a gas metering valve and a metering restriction downstream from the gas metering valve; a differential flow-responsive actuator including a pair of diaphragms connected to move in unison and to actuate said metering valve by the movement thereof, said actuator being connected to axially displaced points in the air duct near said metering restriction therein so as to subject two surfaces of said diaphragms to opposed forces produced by the differential between air pressures in the air duct and being further connected to axially displaced points in the gas conduit near said metering restriction therein so as to subject two other surfaces of said diaphragms to opposed forces produced by the differential between gas pressures in the gas duct, the connections being such that the metering valve is moved toward open position upon an increase

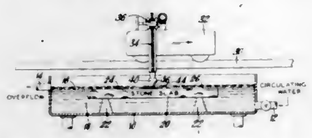


in the differential between said air pressures corresponding to an increase in the rate of air flow and upon a decrease in the differential between said gas pressures corresponding to a decrease in the rate of gas flow, said air duct and gas conduit being of ample diameter downstream from the said restrictions therein, whereby the lower of said air pressures is substantially equal to the lower of said gas pressures.

2,781,753
LAUNCHER FOR A TOY AERIAL PROPELLER
Frederick K. Formis, Chattanooga, Tenn.
Application December 29, 1953, Serial No. 400,902
1 Claim. (Cl. 124—16)

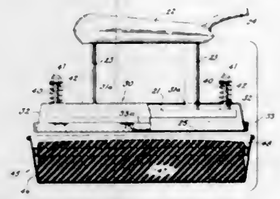
In a toy, the combination which comprises a tubular housing having longitudinally positioned oppositely disposed grooves in the inner surface and a head in one end and a plug in the opposite end, said head and said plug each having a flange of equal circumference to said housing and engaging the open ends of said housing to retain said head and said plug outwardly of said housing, a bearing in said head and said plug, a twisted rod positioned in the housing with each end of the rod rotatably mounted in one of said bearings, a disc having projections extended therefrom fixedly carried by an end of the rod extended from one end of the housing, a traveler having oppositely disposed openings in sides thereof and threadedly mounted to travel on said twisted rod, a spring on said twisted rod circumjacent thereto and engaging said traveler to urge said traveler toward said head, a loop extended from the end of the housing opposite to that from which the end of the rod on which the disc is positioned extends, and rods extended from the loop into the housing and having inwardly extended ends positioned in the openings of the traveler, said rods being positioned in the grooves in the inner surface of the housing.

2,781,754
THERMAL TEXTURING OF ROCK
Robert B. Aitchison, New York, N. Y., and David H. Fleming, Jr., Chatham, and Harry V. Inskeep, Plainfield, N. J., and Raymond E. Armstrong, Jr., Clark Township, N. Y., assignors to Union Carbide and Carbon Corporation, a corporation of New York
Application December 19, 1955, Serial No. 553,867
5 Claims. (Cl. 125—1)



1. In the method of thermal texturing the surface of a body of spallable rock by the application of a wide ribbon-like oxy-fuel flame in a direction transversely of said flame across the surface of said body of spallable rock, the improvement which comprises carrying out said thermal texturing while said body of rock is immersed in a liquid coolant so that a thin substantially uniform protective layer of such coolant is provided above the surface of said body.

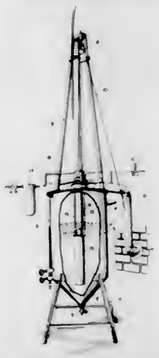
2,781,755
WALL PAPER REMOVER
John P. Howard, Cleveland, Ohio
Application April 24, 1952, Serial No. 284,074
7 Claims. (Cl. 126—271.1)



3. A wall paper remover comprising a heating means, a moisture applicator associated with said heating means for relative movement between a contacting and a non-contacting position, and a moistening means for engaging said applicator in said non-contacting position so that said applicator can absorb moisture without having it vaporize, said moistening means including a pan for retaining a pool of liquid and including a liquid transferring means in said pan contacting said pool and having a surface spaced from said pool for supporting said moisture applicator in said non-contacting position and for transferring liquid thereto from said pool.

2,781,756
APPARATUS FOR SUBMERGED COMBUSTION OF LIQUID FUELS
Kenneth A. Kobe, Austin, Tex.
Application April 26, 1952, Serial No. 284,492
3 Claims. (Cl. 126—360)

3. Apparatus for heating liquids comprising a container for liquid to be heated, means forming a tubular combustion chamber, a lining of refractory material in said chamber, a burner head mounted at one end of said chamber, an atomizing fuel nozzle included in said head and positioned axially thereof and adapted to deliver only liquid fuel and to discharge axially into said chamber, means forming a tubular chamber included in said head and surrounding said nozzle and having a smaller diameter than that of said combustion chamber, means for delivering air to said nozzle-surrounding chamber, means for delivering oil to said nozzle, and a disc having air passages extending therethrough positioned in said nozzle-surrounding chamber and extending over its cross-section, said disc receiving said nozzle in a central opening in the disc, a portion of said passages extending through said disc obliquely with respect to the plane of its face and being arranged circumferentially around said opening to impart a whirling motion to air discharged from said nozzle-surrounding chamber to said combustion chamber,



another portion of said passages extending through said disc perpendicularly with respect to the plane of its face and being arranged circumferentially around said opening radially outwardly of the first-named portion of said passages, the remaining end of said combustion chamber being open and arranged to discharge combustion gases therefrom beneath the surface of a liquid in said container.

2,781,757
LAMINATED CAST IN FRACTURE TREATMENT
John M. Hauser, Chevy Chase, and Thomas E. Forrest, Baltimore, Md., assignors to Elkins-Ewall Rubber Co., Inc., a corporation of Pennsylvania
No Drawing. Application February 17, 1955, Serial No. 488,995
6 Claims. (Cl. 128—89)

1. For fracture treatment, a support comprising an inner lamination of foam selected from the group consisting of polyurethane and polyvinyl chloride for direct contact with the skin having an outer covering of plaster of Paris in adherent engagement therewith.

2,781,758
ARTIFICIAL FEMORAL HEAD
Michel Jacques Chevalier, Paris, France
Application January 24, 1955, Serial No. 483,637
Claims priority, application France January 29, 1954
4 Claims. (Cl. 128—92)

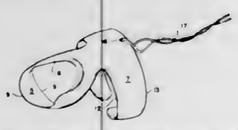
1. A prosthesis as described, adapted to be secured to the resected portion of the femur comprising, in combination, a femur head made of metal and having substantially the shape of a spherical segment, said head having a solid front portion and a rear portion formed with a depression extending inwardly from the flat face of the spherical segment; a nail adapted to be driven into the medullary portion of the femur and including an extension projecting obliquely from one end of said nail, said extension and said nail being formed with an aperture passing in longitudinal direction of said extension through said extension and said nail; a metal pin integrally formed with said front portion of said head and projecting therefrom through said depression and beyond said flat face and being located in said aperture; and an intermediate part formed from plastic material, said intermediate part having a front portion abutting against said solid front portion of said head and slidably mounted in said de-

pression of said head and having a rear portion adapted to be placed against the resected portion of the femur, said intermediate part being formed with an opening passing therethrough and said extension on said nail being located in said opening of said intermediate part, whereby said intermediate part may be easily assembled with said nail and said head so that an intermediate part may be exchanged against an intermediate part of different shape if such a need arises during the fitting of the prosthesis to the resected portion of the femur.

2,781,759
SYRINGE
Walter F. Pawlowski, Norfolk, Va.
Application June 15, 1953, Serial No. 361,714
6 Claims. (Cl. 128—241)

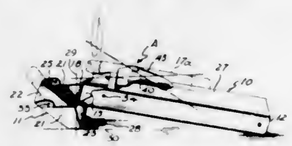
1. A syringe having a barrel-like nozzle, means attached to one end of the nozzle for admitting pressure water into the interior thereof, a spiral conduit on the outer surface of said nozzle and communicating with the nozzle interior through spaced apertures, and a tube arranged within the nozzle in spaced relation to the inner surface thereof and secured to the opposite end thereof for draining the water.

2,781,760
SURGICAL INSTRUMENT
Austin R. Baer, New York, N. Y.
Application May 17, 1955, Serial No. 508,931
10 Claims. (Cl. 128—303)



1. A surgical instrument comprising a substantially crescentic blade the inner edge of which is provided with a substantially concave contour adapted to fit into the recess formed by the nail and the quick of a finger, a supporting frame the ends of which engage and support the crescentic blade, and a finger-ring portion secured to the blade-supporting frame and adapted to engage the distal phalanx of the finger so as to hold the blade in operative position beneath and projecting beyond the fingernail, the projecting portion of the crescentic blade being provided with a surgical implement.

2,781,761
POCKET ASH TRAY
Edwin B. Royle, Saratoga, Calif.
Application September 14, 1953, Serial No. 380,014
2 Claims. (Cl. 131—241)

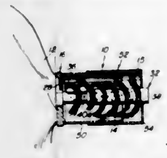


1. In a pocket ash tray comprising an elongated ash and cigarette butt receiving receptacle open at one end and closed at the other, a cup-shaped cap formed to close the open end of said receptacle, and a hinge pivotally connecting an edge of the cap to a side of the receptacle at its open end; a pocket clip comprising an attaching portion attached to the opposite side of said receptacle from said hinge adjacent the open end of said receptacle, a transversely troughed clip arm secured at one end thereof to said attaching portion and extending from the attaching portion longitudinally alongside said receptacle toward its closed end, the trough curvature of the clip arm approximating in size and shape the exterior curvature of a cigarette, the bottom of the trough being straight to receive and support a lighted cigarette placed in the trough of the clip with the receptacle in reclining position with its clip side uppermost, and the cigarette is positioned with its lighted end extending over the open end of the receptacle when the cap is opened approximately 90°, and an embossment formed on the free end of said clip arm and extending toward the receptacle to space the clip from the receptacle and to grip a piece of pocket fabric inserted between the clip and the receptacle.

2,781,762
POCKET TYPE CIGARETTE EXTINGUISHER AND SAVER
Max H. Mears, Hayward, Calif.
Application May 21, 1953, Serial No. 356,371
1 Claim. (Cl. 131—256)

A cigarette carrier, snuffer and saver for carrying in one's garment pocket comprising a primary unit having a handle at one end and a sheath at the opposite end, said sheath being channel-shaped in cross-section and providing a first channel which is open at the outer end and is adapted to partly receive the cigarette which is intended to be extinguished and carried about for future disposition, the portion of the handle adjacent to the inner end of said first channel being likewise provided with a second channel aligned with said first channel, and a lever unit of an over-all length less than the length of said primary unit and having a pivot intermediate its ends mounted on an intermediate portion of said primary unit and having a spring pressed trip at one end normally receding and movable into the second channel and also having a portion movable into the first channel, said last named portion being likewise channel-shaped in cross-section to provide a third channel and telescopically movable completely into the first channel under normal circumstances, the first and third channels registering and providing a cigarette receiver, said last named channel-shaped portion having its outer open end spaced inwardly from the adjacent outer open end of the first channel and the trip portion thereof being spaced inwardly from the adjacent end of the handle, and said last named portion having a closure at its inner end integral therewith and formed of the same material, and said closure being spaced from said pivot and closing off the inner end of said third channel and constituting the bottom of said cigarette receiver.

2,781,763
HAIR WAVE FORMING DEVICE
Harry L. Casey and Arlen W. Costello, Norfolk, Va.
Application March 8, 1955, Serial No. 492,826
5 Claims. (Cl. 132—7)

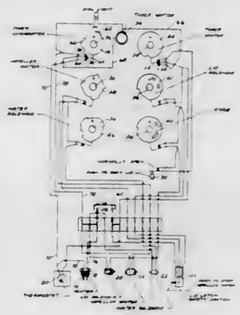


1. A hair wave forming device comprising a base member adapted to be positioned against the head, a tubular member extending perpendicularly from said base member, said tubular member having a plurality of apertures in the wall thereof, said tubular member adapted to have hair spirally wound thereon, a cap detachably secured to said base and surrounding said tubular member and enclosing the spirally wound hair, said tubular member projecting through the cap whereby fluid solution may be poured into the open outer end of the tubular member for passage through said apertures and thorough wetting of the spirally wound hair, said cap preventing discharge of excessive hair waving solution to adjacent areas.

2,781,764
HAIR TREATMENT CAP
Beulah F. Miller, Brunswick, Ohio
Application June 7, 1954, Serial No. 434,790
2 Claims. (Cl. 132—9)

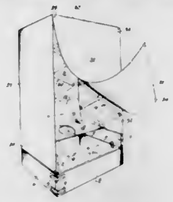
1. In a cap of the class described, in combination, a cap body of resilient material for positioning on the head of a wearer to enclose the hair therewithin, said body having a skirt section for frictionally engaging a wearer's head, fastening devices in said skirt, a porous liner capable of retaining and supplying liquid within said body likewise substantially conforming with a wearer's head and having a portion adjacent the skirt section of the cap body, fastening parts in said portion removably engaged with the fastening devices, and a treatment material carrying element mounted intermediate the body and liner and of substantially the same area.

2,781,765
OPERATIONAL CYCLE FOR DISHWASHERS
Virgil K. Steidley, Jackson, Mich., assignor, by mesne assignments, to The Apex Electrical Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application May 1, 1953, Serial No. 352,491
5 Claims. (Cl. 134—57)



1. In an automatic dishwasher having a storage tank from which heated water is drawn for washing and rinsing, a vat in which the dishes are washed and rinsed and control mechanism for regulating the sequence of operation of the dishwasher, the combination of water heating means for the storage tank, timer means for initiating each operation of the dishwasher and determining the minimum duration thereof, and thermostatic means response to the temperature of water in the storage tank and operatively connected to said timer means to arrest its effective operation to increase the time interval between operations beyond said minimum pending the heating of the water to a predetermined temperature.

2,781,766
COLLAPSIBLE AND PORTABLE OUTDOOR SHELTER
William C. Krieger, Estacada, Oreg.
Application April 5, 1954, Serial No. 420,990
1 Claim. (Cl. 135—4)



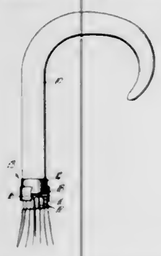
A structure of the class described comprising in combination a base of boxlike formation including vertically disposed side and rear walls and a seat secured to the top edges of all of said walls to rigidly interconnect the same, each of said side walls being made of an upper part and a lower part hingedly connected whereby the lower part is foldable upwardly and inwardly with respect to the upper part, a front wall hingedly connected at one of its ends to the lower part of one side wall and lockable by latching means at its opposite end to the lower part of the other side wall when both of said lower

parts are in an unfolded vertical position, vertically disposed toggle frames pivotally and slidably attached at their bottom ends to said side and rear walls of the base, a roof frame comprising front, rear, and side members, one end of one top arm of each toggle frame being pivotally attached to its respective member of said roof frame and one end of its companion top arm being pivotally and slidably attached to its respective member of the roof frame by means of a pin carried by said companion arm and extending through a horizontal slot in its respective member of the roof frame, and said slot having a notch formed at one of its ends and intermediate its ends to receive said pin to hold its respective toggle frame selectively in a fully elevated position or in a position at reduced elevation when desired, the adjacent edges of all of said toggle frames being permanently pivotally interconnected to insure stabilized erection and uniform and stabilized extensible and retractable movement of all of the toggle frames, and a cover supported by said roof frame and toggle frames.

2,781,767
COLLAPSIBLE BEACH TENT
Guy Blankenship, Jr., Pasadena, Tex.
Application October 12, 1954, Serial No. 461,873
5 Claims. (Cl. 135—7.1)

2. A collapsible tent and beach shelter comprising a foldable frame having a pliable covering secured thereto, said frame including a straight, one-piece ridge pole, a pair of straight, one-piece legs each swivelly connected and foldably attached to an end of said ridge pole, each end of said ridge pole having a pair of arms hingedly connected thereto and on opposite sides thereof, a brace rod for each arm, said brace rod having its ends pivoted to an arm and to a leg.

2,781,768
UMBRELLA TIP CUP
Uemura Takasi, Nakanoku, Tokyo, Japan, assignor to Goro Miura, Tokyo, Japan
Application September 15, 1953, Serial No. 380,223
9 Claims. (Cl. 135—44)

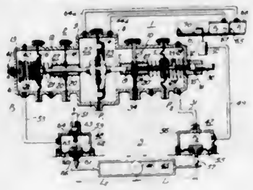


1. An umbrella tip cup, comprising two relatively rotatable closely fitting sleeves, means for fixing one of said sleeves to a handle, one of said sleeves having on the surface thereof exposed to the other of said sleeves a spiral propulsion groove, projecting means carried by the other of said sleeves and riding in said propulsion groove for follower action, said groove being of varying depth for various axial locations thereof, whereby an eccentric locking action may be achieved between said projecting means and said groove for one relative angular position of said sleeves.

2,781,769
OVER-TEMPERATURE PROTECTION DEVICES
Sydney H. Reiter, Elizabeth, N. J.
Application November 14, 1955, Serial No. 546,407
7 Claims. (Cl. 137—74)

1. In a temperature-responsive device adapted for the control of the operation of certain mechanism, the combination of a tubular member, a fusible element and a closure element, both carried by said tubular member in spaced relation lengthwise therealong whereby the interior of the tubular member between said elements is closed by said elements; the fusible element being in fixed position on said tubular member and the closure member being held against movement towards the fusible element but free for movement away therefrom, a means for producing a vacuum in the interior of the tubular member between said elements; the closure element being exposed to the atmosphere and the fusible element having the character that it will melt when subjected to a predetermined temperature and a means having an operating element which when shifted, is adapted to control the actuation of the certain mechanism; said operating element being arranged that it will be shifted upon movement of said closure element away from said fusible element.

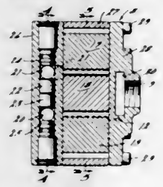
2,781,770
REGULATORS
John G. Sutton, Jr., Pittsburgh, Pa., assignor to Hogan Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application August 17, 1953, Serial No. 374,785
10 Claims. (Cl. 137—85)



1. A regulator comprising a multi-chambered housing having spaced diaphragms therein and pressure chambers on each side of the diaphragms, a link connecting said diaphragms, a valve actuated in response to movement of said diaphragms for developing an output pressure acting in one of said chambers, one of said diaphragms being responsive to a variable input pressure and developing a force opposing the force of the diaphragm to which the output pressure is applied, a relay comprising a beam having a fulcrum, a housing connected to said output pressure and having a diaphragm connected to said beam on one side of the fulcrum for exerting a turning force on the beam, a second housing having a diaphragm connected to the beam on the opposite side

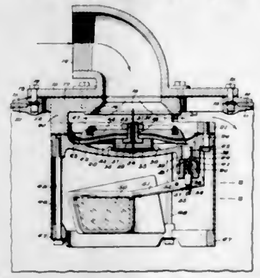
of the fulcrum, a valve actuated by said beam and adapted to establish a pressure in the second housing that will balance the turning force exerted on the beam by said first mentioned housing diaphragm, and a connection from the output of the beam actuated valve to a diaphragm chamber of said multi-chambered housing which exerts a force algebraically additive to the force of the input pressure diaphragm, the gradient of said regulator being dependent upon the pressure output of said beam actuated valve.

2,781,771
FLOW EQUALIZER
John C. Monahan, East Detroit, Mich.
Application August 20, 1954, Serial No. 451,234
3 Claims. (Cl. 137—101)



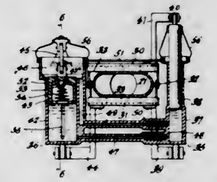
1. A fluid flow equalizing device comprising housing means; first, second and third intersecting cavities formed in said housing means and complementary in shape to gears disposed therein; first, second and third gears disposed in said first, second and third cavities with said first gear in intermeshing relationship with said second gear and said third gear diametrically opposed to said first gear and in intermeshing relationship with said second gear; a fluid inlet passage communicating with the said first and second intersecting cavities at one side of the region of intermeshing teeth of said first and second gears; another fluid inlet passage communicating with said second and third intersecting cavities at one side of the region of intermeshing teeth of said second and third gears; an outlet passage communicating with said first and second intersecting cavities at the side of the region of intermeshing teeth of said first and second gears opposite to said first-named inlet passage; another outlet passage communicating with said second and third intersecting cavities at the side of the region of intermeshing teeth of said second and third gears opposite to said another inlet passage; an outlet chamber having a shuttle piston therein and communicating with said outlet passages on opposite sides of said piston; and a pair of outlet ports communicating with said outlet chamber on opposite sides of said piston.

2,781,772
LEVEL CONTROL VALVES FOR TANKS
John G. Russell, Cleveland, Ohio
Application May 6, 1952, Serial No. 286,285
5 Claims. (Cl. 137—411)



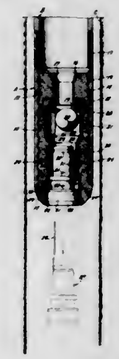
1. In a fluid pressure operated valve mechanism for tanks having a fluid pressure chamber and a flow channel connecting said chamber with said tank, a pilot valve for controlling the flow of fluid through said channel comprising a primary valve and a secondary valve opening in the same direction, a float and means operated by said float including a lost motion connection between the float and the secondary valve for opening said primary and secondary valves in the sequence stated.

2,781,773
CONTROL UNIT FOR MILKING MACHINES
Albert G. Perkins, Grand Island, N. Y.
Application November 8, 1952, Serial No. 319,504
15 Claims. (Cl. 137—455)



1. A control device for shutting off the vacuum to the teat cup of a milking machine when the surge of milk substantially ceases, comprising a flexible contractible milk and vacuum flow tube section, means in substantially embracing relation to said tube section applied thereto to move as an expanding and contracting unit therewith in response to the variation in vacuum therein and contractible about such section to a closed sealing position when the surges of milk substantially cease, and a fluid pump unit interposed between said embracing means for actuation in response to the contracting and expanding movements of the tube section and including a cylinder having an outlet port and an inlet port and a piston operating therein and having a portion at its inner end normally covering said outlet port and a grooved portion adapted to register with said outlet port when said embracing means is contracted to a predetermined degree and fluid transfer resisting load means connected to one of said ports to retard inward motion of said piston when said outlet port is uncovered.

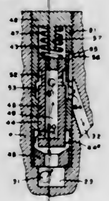
2,781,774
VALVE APPARATUS FOR AUTOMATICALLY FILLING WELL CONDUITS
Reuben C. Baker, Coalinga, and Martin B. Conrad, Downey, Calif., assignors to Baker Oil Tools, Inc., Vernon, Calif., a corporation of California
Application July 3, 1951, Serial No. 235,072
12 Claims. (Cl. 137—493.2)



1. In well apparatus: a tubular member having a fluid passage therein; said tubular member having connecting

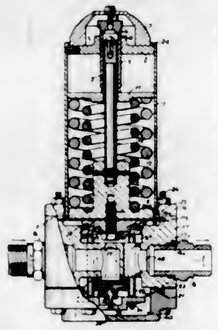
means thereon for attaching said tubular member to the lower end of a conduit section forming part of a conduit string to be disposed in a well bore; a first valve member for closing said passage; a second valve member in said first valve member for closing said passage; means providing a confined space between said first valve member and second valve member into which fluid cannot enter when said tubular member is in a fluid medium, whereby said second valve member has a total first fluid pressure actuatable surface subject to the pressure of fluid above said valve member only to urge said second valve member downwardly to passage closing position, and said second valve member has a total second fluid pressure actuatable surface subject to the pressure of fluid below said valve members only, when said second valve member is in both closed and open positions, to urge said second valve member upwardly to passage opening position; the area of said first surface being substantially greater than the area of said second surface when said second valve member is in both open and closed positions.

2,781,775
LIMITED CAPACITY CHECK VALVE
Wesley P. Merrill, Wauwatosa, Wis., assignor to The Oilgear Company, Milwaukee, Wis., a corporation of Wisconsin
Application September 1, 1950, Serial No. 182,683
11 Claims. (Cl. 137—498)



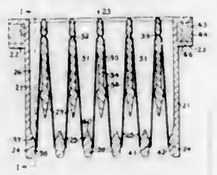
10. A limited capacity check valve comprising a body structure having an axial bore, a valve plunger arranged in said bore and forming with the walls thereof a pressure chamber at one end of said bore and a spring chamber at the other end of said bore, said body structure having an inlet port which communicates with said bore and with said pressure chamber and an outlet port which is spaced from said inlet port and communicates with said bore and with said spring chamber so that said plunger has one of its ends subjected to any pressure in said inlet port and its other end subjected to any pressure in said outlet port, a first valve carried by said plunger and adapted to block communication between said ports when said plunger is in a first position, a second valve carried by said plunger and so located that it will block one of said ports in response to said plunger being moved away from said first position more than a predetermined limited distance, and a spring arranged in said spring chamber for urging said plunger toward and normally holding it in said first position so that said first valve will block communication between said ports until the pressure in said inlet port exceeds the pressure in said outlet port by a predetermined amount which either will cause said plunger in response to liquid being supplied to said inlet port at a rate not in excess of a predetermined limited rate to move into a second position in which said first valve is moved far enough from its initial position to permit liquid to flow from said inlet port to said outlet port as fast as it is supplied to said inlet port, or will cause said plunger in response to liquid being supplied to said inlet port at a rate in excess of said limited rate to move farther into a third position in which said second valve blocks said one port and said plunger blocks communication between said spring chamber and said outlet.

2,781,776
PRESSURE REGULATING VALVES
Jean Louis Gratzmuller, Paris, France
Application April 8, 1952, Serial No. 281,115
Claims priority, application France April 10, 1951
8 Claims. (Cl. 137—505.44)



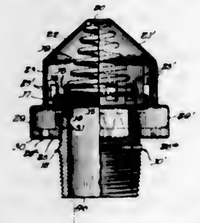
1. A pressure regulating valve comprising a valve casing forming a pressure chamber having inflow and outflow passages and provided with an annular clamping end surface, a stationary valve seat disposed between said passages, a housing, means for securing the housing to the valve casing including an assembling member having a clamping surface in opposition to the clamping surface of the valve casing, said housing forming a cylindrical spring chamber axially aligned with said pressure chamber, a flat faced spring pressed piston slidably mounted in said spring chamber to have its working face subject to the fluid pressure in said pressure chamber, the periphery of said piston being of rounded section so as to make line contact with the wall of said spring chamber, a rod carried by said piston, means for guiding said rod within said spring chamber, a normally flat and unstretched sealing element of readily yieldable resilient material having its periphery clamped and compressed between the said clamping surfaces of the valve casing and the assembling member whereby one side of the uncompressed portion of the sealing element lies across said working surface of the piston, a movable valve member in said valve casing cooperating with said seat, a supporting member operably connected with said valve member disposed on the side of said uncompressed portion of the sealing element opposite the piston, and means traversing said sealing element for connecting said valve supporting member to said working face of the piston.

2,781,777
NON-RETURN VALVES
George John Oxnam, Norwood Green, Southall, England, assignor to Alan Muntz & Company Limited, Hounslow, England, a company of Great Britain
Application August 7, 1952, Serial No. 303,096
Claims priority, application Great Britain August 16, 1951
9 Claims. (Cl. 137—525.5)



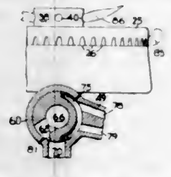
1. A non-return valve comprising a body, including a supporting member and a seating member, a plurality of spaced ribs upon said seating member, a clamping surface upon said supporting member and upon each of said ribs, said clamping surfaces being approximately parallel to the direction of fluid flow through the valve, clamping means exerting pressure in a direction approximately perpendicular to the first named direction, and a resilient lamina having a region thereof at its root end clamped by said clamping means between said clamping surfaces on said ribs and said supporting member, arranged to form a fluid-tight seal with said seating member when in its closed position, and to have its free end lifted off said seating member in response to fluid pressure in one direction through the valve, characterised in that said lamina is curved in the said region and in the face portion thereof between adjacent ribs about an axis substantially perpendicular to the longitudinal axes of said ribs.

2,781,778
PRESSURE RELIEF VALVE STRUCTURE
Constantine Lisciani, Chicago, Ill., assignor to The Protectoseal Company, Chicago, Ill., a corporation of Illinois
Application July 1, 1952, Serial No. 296,625
6 Claims. (Cl. 137—540)



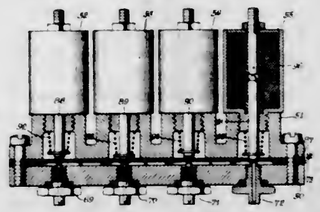
4. A relief valve means comprising, in combination, a conduit means adapted for operatively connecting the relief valve means to the exterior of a storage container, a valve seat carried by said conduit means, and spring-biased pressure relief gasket means including a conical pressure relief spring for setting the relief valve means within predetermined limits of pressure relief, a hood structure for the spring-biased pressure relief gasket means including a hood base, venting means formed on the hood structure operatively connecting the conduit means to the atmosphere, a chamber formed by the hood structure and hood base for receiving the spring biased pressure relief means, and drain holes formed in said hood base, and said spring-biased pressure relief gasket means comprising upper and lower cup-shaped members and a gasket, said lower cup-shaped member operatively mounting the gasket and providing drip means adapted for draining condensate toward the drain holes.

2,781,779
GAS RANGE BURNER CONTROL
Frank J. Kindl, Cleveland, Ohio, assignor to The W. J. Schoenberger Co., Cleveland, Ohio
Application January 26, 1952, Serial No. 268,377
2 Claims. (Cl. 137—599)



1. In a fluid control valve of the type described, a body having a tapered axial bore therein and provided at one end with a discharge outlet for connection to a main burner, a tapered plug rotatably received within said bore and having an axial recess therein opening at one end in communication with said discharge outlet, said plug having a radial inlet passage communicating with said recess and being provided with an elongate groove in its outer surface starting in a predetermined circumferentially spaced relation from said radial inlet passage and extending away therefrom through a predetermined circumferential extent of said plug so that one end of said groove is disposed closer to said radial inlet passageway than is the opposite end of said groove, said body having an inlet passageway, a first discharge passageway and a second discharge passageway, all opening upon the surface thereof defining said tapered bore and in circumferentially spaced relation to each other, said radial inlet passageway and elongate groove in the plug and said inlet passageway, first and second discharge passageways in the body all being disposed substantially within the same plane, said body having a second discharge outlet with which said first and second discharge passageways communicate for connection to a secondary burner, the spacing between said first and second discharge outlets and said inlet passageway in the body being so related to the length of said groove that said groove simultaneously places the first and second discharge passageways in flow communication with said inlet passageway in one position of said plug, the spacing between said one end of the groove from said radial inlet passageway being less than either the width of said inlet passageway in said body or the spacing between such inlet passageway and said first discharge passageway next adjacent thereto so that in another position of said plug, said inlet passageway in the body will be in communication with said first and second discharge passageways and said radial inlet passageway in the plug, and the spacing between said opposite end of the groove and said radial inlet passageway being greater than the width of said inlet passageway in the body so that in a further position of said plug, the valve will be closed.

2,781,780
VALVE FOR HEATERS
Jerome G. Zahradka, Cicero, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application August 19, 1952, Serial No. 305,120
1 Claim. (Cl. 137—608)



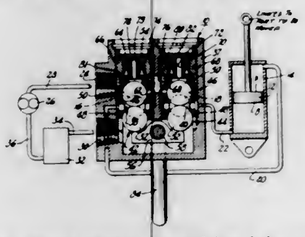
A fuel metering device for a heater unit and the like including in combination, a base plate having an essentially flat uni-planar upper surface and further having a fuel inlet passage extending therethrough and communicating with such upper surface, a series of fuel outlet orifice units dsposed in said base plate and extending therethrough from the upper surface to the lower surface thereof, said orifice units having portions projecting upwardly beyond said upper surface of said base plate, a fuel-guiding gasket supported on said upper surface of said base plate and having a thickness greater than the projecting portions of said orifices and having a series of apertures embracing respective ones of said projecting portions and further having respective slots interconnecting such apertures so as to form a fuel container in communication with said fuel inlet passage, a thin metallic sheet supported on said gasket and having apertures respectively aligned with the apertures in said gasket, a

flexible rubber diaphragm supported on said metallic sheet and spaced thereby from the respective upper extremities of said orifice units so that fuel may flow unimpeded from said fuel container through said orifice units, an upper plate secured to said base plate for holding the operating elements of the fuel metering device in an assembled condition, a series of plungers supported by said upper plate in respective axial alignment with said orifice units, respective spring biasing means for urging said plungers downwardly against said diaphragm to seat said diaphragm against said upper extremities of said orifice units and arrest the fuel flow through such units, and a plurality of independently operable solenoid units associated with respective ones of said plungers selectively to move said plungers against said spring biasing means to unseat said diaphragms selectively from said upper extremities of said orifice units and permit the flow of fuel through selected ones of said orifice units.

2,781,781
VALVE

Howard E. Hruska, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application February 28, 1952, Serial No. 273,841
11 Claims. (Cl. 137—621)

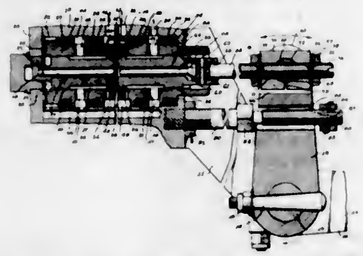


1. A fluid control device comprising inlet and outlet ports, a first passage connecting the inlet port with the outlet port, a second passage connecting the inlet port with the outlet port, two working ports, one of which is connected to the first passage intermediate its ends and the other of which is connected to the second passage intermediate its ends, a valve in each passage for controlling communication between the respective working ports and the inlet and outlet ports, said valve comprising two valve seats, one between the working port and the inlet port and the other between the working port and the outlet port, two valve members for the valve seats, said valve members having a neutral position in which communication is established between the respective working ports and the inlet and outlet ports via said passages, said valve members being movable in one direction from said neutral position to cause one of said valve members to move toward said one valve seat and the other of said valve members to move further away from said other valve seat and movable in the opposite direction to cause said one valve member to move further away from said one valve seat and the other valve member to move toward said other valve seat, means for hydraulically balancing said one valve member, said means comprising a valve guide element having a seat thereon for supporting said one valve member, said guide element and said one valve member always being in a state of hydraulic balance whether said one valve member is on or off said one valve seat, said other valve member being subjected to hydraulic reaction proportional to its effective seating area when it is moved toward said other seat, and means for moving said valves so that said one valve member of one of the valves moves toward said one seat and the other valve member of said other valve moves toward said other seat.

2,781,782
VALVE CONTROL LINKAGE

Harvey F. Gerwig, Glendale, Calif., assignor to Weston Hydraulics, Limited, North Hollywood, Calif., a corporation of California

Application December 10, 1952, Serial No. 325,121
8 Claims. (Cl. 137—622)

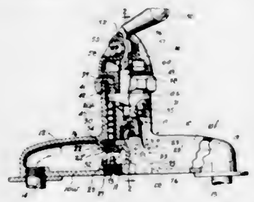


7. In a valve control mechanism of the type which includes a shuttle mounted within a valve housing having an aperture at one end for sliding movement therein toward and away from the housing aperture, rod means extending through the housing aperture adapted to effect the movement of said shuttle, means rigidly securing one portion of said rod means to one end of said shuttle spaced from the housing aperture for transmitting movement thereto in one direction, and pin and slot defining means connecting the opposite end of said shuttle and said rod means, said pin means having a limited freedom of movement in said slot defining means toward said one shuttle end and held against opposite movement by said slot defining means whereby to transmit opposite movement to said shuttle from said rod means.

2,781,783
MIXING FAUCETS

James C. Ross, Seattle, Wash.

Application December 15, 1952, Serial No. 326,072
2 Claims. (Cl. 137—636.4)

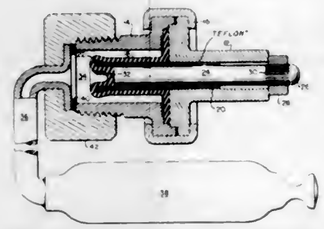


1. A mixing faucet comprising a housing formed with separate pressure chambers for hot and cold water, respectively, a mixing chamber above said pressure chambers and a water sealed cam chamber above said mixing chamber; each pressure chamber having a port opening upwardly therefrom into said mixing chamber and each port having a downwardly facing valve seat therein, a valve fitted to each seat having a vertical actuating stem extended upwardly through the corresponding port and mixing chamber and continuing into the cam chamber, a head mounted on the housing for turning about a vertical axis, a circular cam contained in the cam chamber and having a vertical stem extending axially thereof mounted in said head for rotation on the turning axis of the head and also for vertical movement of the cam along said axis; said cam having camming surfaces operatively engaged with said valve stems and designed for the selective opening and closing of either valve by rotative adjustment of the cam in opposite directions from a neutral position, and by the vertical movement of the cam to open both valves simultaneously; said vertical stem of the cam having an upwardly opening channel directed diametrically through its upper end portion, a hand lever pivotally mounted at one end in said head on a horizontal mounting axis and extended radially therefrom for up and down oscillation, a flat cam head formed on the inner end of said hand lever in the plane of its oscillation, and contained in the upper end channel of the cam mounting stem, and thereby providing an operating connection with the stem whereby the radial swinging of the lever effects a corresponding rotary adjustment of the cam, and whereby up and down oscillation of the lever effects vertical adjustment of the cam accordingly.

2,781,784
ACTUATING DEVICE HAVING GUIDED SUPPORTS WITH A FLEXIBLE MEMBER

William E. Baker, Wellesley, Mass., assignor to Standard-Thomson Corporation, Boston, Mass., a corporation of Delaware

Application June 10, 1953, Serial No. 360,740
8 Claims. (Cl. 137—789)

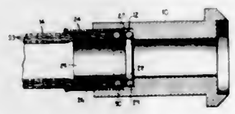


4. An actuating device having the combination of a closure comprised of a body portion and a connector portion forming a pressure chamber, a sleeve slidable within the body, an actuating piston slidable within the sleeve, the end of the piston being within the end of the sleeve, and a flexible member secured to the body and forming a seal for the chamber, said member having a tubular portion surrounding the sleeve, folding over its end and slidably extending along its inner surface and a bearing portion closing said tubular portion and bearing upon the piston, the flexible member being entirely supported against the chamber pressure by the body, sleeve and piston.

2,781,785
RADIO SHIELDING FOR IGNITION CABLE AND METHOD OF MAKING SAME

Richard J. Davies, Afton, N. Y., assignor to Bendix Aviation Corporation, New York, N. Y., a corporation of Delaware

Application September 29, 1952, Serial No. 312,054
12 Claims. (Cl. 138—25)



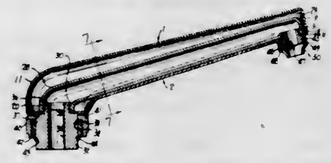
1. A flexible shielding conduit comprising a plurality of braided wire tubes telescoped to form a multi-ply hose, a channel shaped annular ferrule fitted over the end of said hose, a tubular end-fitting telescoped with said ferrule, said fitting having an internal shoulder engaged by the end of said ferrule, and solder means securing the end portions of said tubes to each other and to said ferrule and securing said ferrule in said fitting.

7. The method of making a flexible shielding conduit which includes the steps of assembling a plurality of braided wire tubes in telescoped relation to form a multiply hose, soldering the end portions of said tubes together, placing a channel-shaped ferrule over the end portion of said hose, placing an end-fitting over said ferrule with solder disposed between the end of said ferrule and said fitting, heating the thus assembled parts to fuse the solder while axially compressing the assembly to thereby simultaneously connect the ferrule to both the fitting and the end portion of the hose.

2,781,786
COMPOSITE FIXTURE UNIT

Stephen A. Young, Delphi, Ind.

Application April 10, 1953, Serial No. 347,993
3 Claims. (Cl. 138—64)

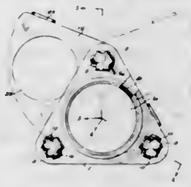


1. A composite sink faucet spout unit of the class described, comprising a liquid carrying member having angularly formed inlet and outlet portions, a first shell member having end wall portions, said member forming a partial enclosure for said carrying member, a second shell member completing said enclosure, elements on at least one of said shell members engaging the other of said members for maintaining the same in connected relation, and a spud engaging said liquid carrying member at one of the portions described and at least one of said shell member to maintain said liquid carrying member in position with respect to such shell member.

2,781,787
GATE VALVE

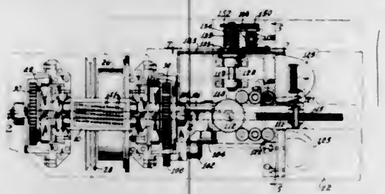
Clarence W. Johnson, Edmonton, Alberta, Canada

Application November 24, 1954, Serial No. 471,001
2 Claims. (Cl. 138—94.5)



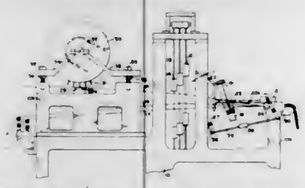
1. A valve comprising a pair of pipe connections having a passage extending therethrough, each said pipe connection having symmetrically arranged thereon a flange of substantially equilateral triangular contour extending radially outwardly from said passage, means connecting said flanges together comprising a bolt extending through said flanges adjacent each of the three apex portions thereof, said bolt having a spool fixed thereto, said flanges having pairs of registering openings through which said bolts loosely extend, each said bolt having at one end a head for rotating said bolt spool, the spool being adjacent to but spaced from said head, said spool having a curved annular surface in seating engagement with one of said flanges, and a nut threaded on the other end of said bolt and having a curved annular surface in seating engagement with the other of said flanges, a sector-shaped gate swingably mounted on one of said bolts between said flanges and having an opening therein for registry with said passage and an imperforate portion for closure of said passage, and sealing means carried by each flange and in constant engagement with said gate.

2,781,788
LOOM
Arthur J. Murphy, Brooklyn, N. Y., assignor of one-half to S. Lawrence Atkins, New York, N. Y.
Application August 20, 1951, Serial No. 242,603
13 Claims. (Cl. 139—11)



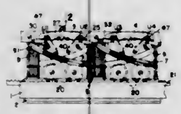
1. In a loom, a plurality of parallel needles of two different lengths having eyes for carrying warp threads, a needle carrier on one side of said eyes supporting the needles of smaller length, another needle carrier also on said one side of said eyes supporting the needles of longer length, said needles of longer length passing entirely through the carrier for said smaller length needles, and means for continuously driving said needle carriers toward and away from each other.

2,781,789
METHOD AND APPARATUS FOR PRODUCING PILE FABRICS
Walter A. Rice, Amsterdam, N. Y., assignor, by mesne assignments, to Mohasco Industries, Inc., Amsterdam, N. Y., a corporation of New York
Application September 28, 1955, Serial No. 537,215
9 Claims. (Cl. 139—38)



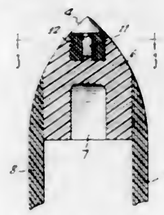
1. A method of weaving a pile fabric, which comprises forming sheds of pile and binder warp yarns, inserting a filling yarn into each shed and beating up the inserted yarn, periodically drawing the pile warp yarns out of the top line of sheds to form pile loops, retaining the yarns drawn out in loop form until after the insertion and beat-up of a filling yarn binding the loops, clamping selected pile warp yarns to be drawn out of a shed to form loops by gripping the yarns at the side of the shed remote from the fell of the fabric, and releasing the pile yarn loops and the clamped yarns in that order.

2,781,790
QUILL CHECK FOR NARROW WARE LOOM
Allan S. Hutchins, Oakham, Mass., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a corporation of Massachusetts
Application December 14, 1953, Serial No. 397,907
10 Claims. (Cl. 139—136)



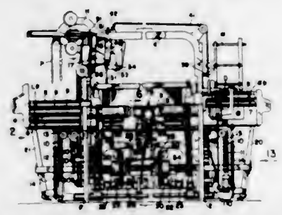
1. In a narrow ware loom having a lay and a shuttle moving with respect to the lay along a path during loom operation and provided with a weft quill rotatable thereon, quill checking means independent of the shuttle normally spaced from the quill mounted on the lay for movement against the quill, and means pivoted on the lay operated by the shuttle as the latter approaches the second named means near the end of said path to cause said checking means to move against said quill to resist rotation thereof.

2,781,791
SHUTTLE STRUCTURE
Glen W. Neely, Wood Dale, Ill., assignor to The Richardson Company, Melrose Park, Ill., a corporation of Ohio
Application May 16, 1955, Serial No. 508,424
11 Claims. (Cl. 139—196)



1. In a shuttle, a molded end formed from a synthetic resinous composition, a metal point for said end having a shank embedded therein, and a reinforcing fibrous tubular member disposed about said shank, said fibrous tubular member being resin impregnated and comprising an integral part of said molded end.

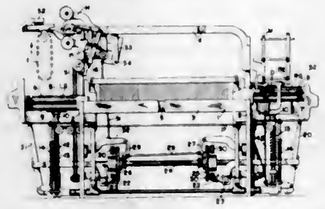
2,781,792
WEFT REPLENISHING LOOM
William E. Kimmel, Millbury, and Clifford Darwin, Paxton, Mass., assignors to Crompton & Knowles Loom Works, Worcester, Mass., a corporation of Massachusetts
Application April 23, 1954, Serial No. 425,138
15 Claims. (Cl. 139—232)



1. In a loom having two shuttles for weaving a fabric part of which is 1 x 1 and another part of which is 2 x 2, a reserve bobbin magazine having four stacks of reserve bobbins, one pair of stacks having bobbins corresponding to one of the shuttles and the other pair of stacks having bobbins corresponding to the other shuttle, means causing weft replenishing operations with respect to both shuttles when both the 1 x 1 and 2 x 2 parts of the fabric are being woven, and selector means drawing bobbins from one of said pairs of stacks for the replenishing operations occurring during the weaving of the 1 x 1 part of the fabric and from the other pair of stacks for replenishing operations occurring during the weaving of the 2 x 2 part of the fabric.

2,781,793
PICK AND PICK LOOM
William E. Kimmel, Millbury, Mass., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a corporation of Massachusetts
Application July 5, 1955, Serial No. 519,754
20 Claims. (Cl. 139—232)

1. In a loom having two shifting shuttle boxes at one end thereof and operating with two shuttles having distinctive weft running pick and pick, weft replenishing mechanism at said one end of the loom normally capable of performing a weft replenishing operation for either shuttle when the latter is depleted of weft and is inactive in the upper shuttle box in replenishing position, control means for the shuttle boxes and weft replenishing mechanism causing the loom to operate nonautomatically with respect to weft replenishment for a period of successive beats of the loom during which one or the other of said two shuttles is active every beat of the period and then



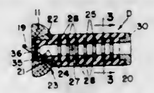
operative automatically with respect to weft replenishment for a second period of successive beats of the loom, the periods alternating during loom operation, each shuttle during the second period being in said replenishing position at least once, and a reserve weft bunch in each shuttle of sufficient length to permit continued weaving from any beat in either period when the bunch is reached in the weaving operation until the shuttle reaches the replenishing position thereof in the next of said second periods.

2,781,794
ELECTRIC PROTECTION FOR LOOMS
Robert W. Bordewieck, South Braintree, and Victor F. Sepavich, Worcester, Mass., assignors to Crompton & Knowles Loom Works, Worcester, Mass., a corporation of Massachusetts
Application June 29, 1954, Serial No. 439,986
24 Claims. (Cl. 139—341)

1. In electric protection means for a loom dependent for continued operation thereof on energization of an electromagnetic device at a given time in each beat of the loom, a shuttle moving in a path across the loom incident to operation of the latter and having a magnetic body thereon, an electric impulse generating unit which the shuttle passes in its flight across the loom comprising means to create a magnetic field and a coil electromagnetically associated with said field, said magnetic body on the shuttle in the flight thereof cooperating with said field to induce in said coil all the electric power required to energize said device, and electric connections between said coil and said device by which said electric current when generated in said coil can energize said device.

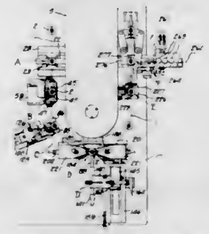
2,781,795
SHUTTLE FOR NARROW WARE LOOM
Richard G. Turner, Worcester, Mass., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a corporation of Massachusetts
Application September 15, 1954, Serial No. 456,178
10 Claims. (Cl. 139—371)

1. In a narrow ware shuttle having a bow and a weft compartment, a tubular detector member on the bow having a thread passage therethrough communicating with said compartment and normally occupying a position projecting from the bow in a direction away from said compartment, said detector member being made of an inherently soft elastic rubber and being deflectable laterally from said position, and a plurality of spaced



separate means within said detector projecting into said passage to prevent a weft thread moving through the passage from engaging the parts of said detector between said spaced separate means.

2,781,796
MOUNT MAKING MACHINE FOR ELECTRIC LAMPS AND SIMILAR DEVICES
Lee E. Dilts, South Euclid, Ohio, assignor to General Electric Company, a corporation of New York
Application November 29, 1952, Serial No. 323,315
5 Claims. (Cl. 140—71.6)

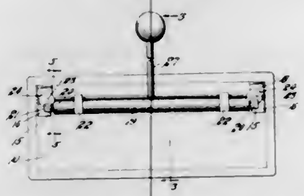


1. In a mount making machine for electric lamps and similar devices, the combination of means for holding a stem having a pair of leads of different lengths extending downwardly from one end thereof along opposite sides of the vertical longitudinal axis of the stem and being bent to extend laterally with hooked ends enclosing said axis and facing horizontally in opposite directions, and mechanism for mounting a filament between the leads and including a transfer arm movable longitudinally in a horizontal direction between the stem in said holding means and an adjacent filament receiving position, the said transfer arm being rotatable about its axis and including means for holding a filament by engagement with a mid-portion thereof, means for moving the transfer arm longitudinally forward toward said stem, means operable upon forward movement of said arm to rotate the arm about its axis sufficiently to turn a filament held thereby from a horizontal position to a nearly vertical position, means operable upon the conclusion of the forward motion of said arm to effect slight additional rotation of the arm to bring the filament into a vertical position aligned with the stem axis and with the ends of the filament in the hooked ends of the leads at the work station, and means thereafter operable to clamp said hooked ends for attaching the ends of the filament to the leads.

2,781,797
PRESS FOR CLOSING THE RINGS OF MECHANICAL BINDINGS
Arthur F. Brook, Poughkeepsie, N. Y., assignor to Wire-O Corporation, Poughkeepsie, N. Y., a corporation of New York
Application September 16, 1953, Serial No. 380,437
1 Claim. (Cl. 140—93)

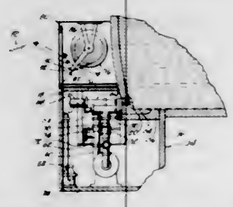
A press for closing the rings of mechanical bindings, comprising a base for supporting the bindings, said base having a back gage for positioning the bindings and upstanding posts at opposite ends of said gage, L-shaped angle bars secured over the front of said posts and

forming with the front of said posts vertical guideways at the sides of the posts, bearing blocks slidably engaged in the upper ends of said guideways, screws mounted in the posts and engaging said bearing blocks to effect vertical adjustments of the same, an eccentric roll shaft having eccentrically disposed pins in opposite ends of



the same journaled in said bearing blocks, an angularly projecting handle engaged with the intermediate portion of said shaft for rocking the same, a closing bar slidably engaged in the lower portions of said guideways and hangers extending from said closing bar up over the top of said eccentric roll shaft and loosely confining said bar to the shaft.

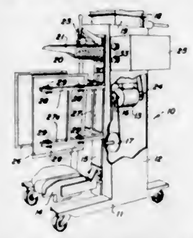
2,781,798
MILK PUMPING APPARATUS
Bernard J. McGovern, Chicago, Sigmund P. Skoli, Elmwood Park, and Chester Witt, Deerfield, Ill., assignors to Mojonnier Bros. Co., Chicago, Ill., a corporation of Illinois
Application April 10, 1953, Serial No. 347,922
3 Claims. (Cl. 141—25)



1. An apparatus for transferring liquid, comprising a mobile base, a tank mounted on said base, a compartment mounted on said base and including a portion of said tank for heat exchange purposes, a centrifugal pump having an inlet and an outlet and mounted in said compartment, conduit means including an adjustable valve connecting said tank and said inlet of the pump, a second conduit means including a valve connecting said tank and the outlet of the pump and said first mentioned conduit means including means adapted to be connected with a source of liquid for transferring liquid from said source to said tank.

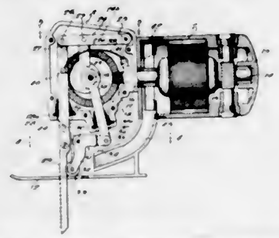
2,781,799
BAG-FILLING APPARATUS
James H. Bradford, Tooele, Utah, assignor of one-half to Combined Metals Reduction Company, a corporation of Utah
Application May 14, 1951, Serial No. 226,191
10 Claims. (Cl. 141—68)

1. The combination, with bag filling apparatus for partially sealed, valve-type bags, including a rest for the bottom of the bag, means for vibrating said rest, a feed spout, forced feed means operable within said spout, an electrical drive motor, and a pair of mutually spaced, flat, bag-forming plates operably disposed between said rest and said feed spout, of a drive control, comprising an electrical relay having an acutating coil connected in the electrical supply circuit of said drive motor, an armature connected as a switch in control relation to said supply circuit, and a load atttached to and normally biasing said armature into position electrically closing said supply circuit, said load having value effectively less than normal



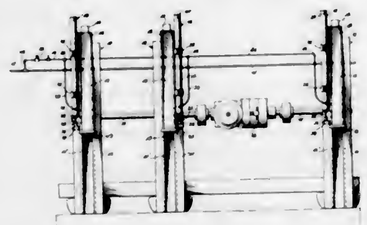
for an overload protective device, but slightly greater than balances the effect on said coil of operating current normally supplied said drive motor.

2,781,800
MANUALLY PORTABLE BAYONET SAW WITH OVAL STROKE
Walter A. Papworth, Syracuse, N. Y.
Application November 5, 1954, Serial No. 467,130
14 Claims. (Cl. 143—68)



12. A power driven, reciprocable, manually portable cutting tool comprising: a frame; a motor in said frame, cutter means mounted in the frame for movement generally endwise of itself, said cutter means including a tool plunger and a toothed cutting tool secured thereto; a gear having driving connection with the motor; major eccentric means driven by said gear and operatively pivotally connected to the tool plunger for imparting endwise movement thereto; minor eccentric means driven by the gear and operating a member for thrusting the cutting tool edgewise into the work during its cutting stroke only; and spring means resiliently urging the cutter means into engagement with said member.

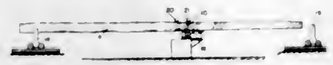
2,781,801
AUTOMATIC AIR SNUBBER FOR SETWORK MECHANISM
William Harrison Scott, Jonesville, La.
Application January 13, 1955, Serial No. 481,589
1 Claim. (Cl. 143—120)



In a sawmill setworks comprising a sawmill carriage for conveying a log during a sawing operation, a plurality

of headblock bases fixed on said carriage and positioned transverse to the direction of travel thereof; a plurality of headblock knees, one on each of said bases, having their faces arranged parallel to the direction of travel of said carriage and adapted to slide in relationship to said base; a plurality of toothed racks, one secured to each of said knees; a plurality of toothed setting pinions one engaging each of said toothed racks for advancing and retracting said knees in unison to maintain their parallel face arrangement; and a plurality of air cylinders with the cylinder of each attached to one of said bases and the piston rod attached to the said corresponding knee, and air under pressure supplied to each of said air cylinders to maintain a continuous equalized force on all knees in a direction opposite to that of set as said knees are advanced and retracted to a set position thereby holding the teeth of said racks in intimate contact with the teeth of said pinion during all stages of the sawing operation preventing oversetting of said setworks during the sawing operation.

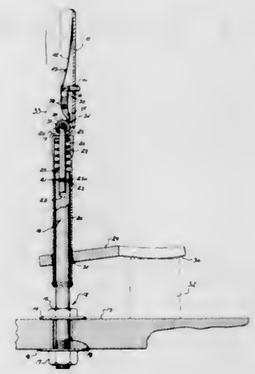
2,781,802
MEANS FOR INCISING WOODEN POLES AND THE LIKE
Harry A. Pence, Oakland, Calif., assignor to J. H. Baxter & Co., San Francisco, Calif., a corporation of California
Application July 27, 1953, Serial No. 370,401
3 Claims. (Cl. 144—2)



1. In a device for incising a wooden pole, a rotating incisor wheel engaging said pole, parallel spaced rows of incising teeth on the periphery of said incisor wheel, the teeth in each row spaced apart, said rows extending parallel to the axis of said wheel, ridges on the periphery of said wheel between said rows of incising teeth, the top surfaces of said ridges being substantially flat and located a shorter radial distance from said wheel periphery than the tips of said teeth, the tips of the teeth in each row extending in transverse alignment parallel to the wheel axis, the forward faces of said teeth with respect to the direction of rotation of said wheel being slightly convex, the opposite rear faces of said teeth being slightly concave.

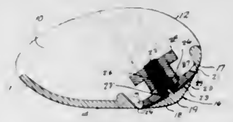
2,781,803
CAM ACTUATED ADJUSTABLE HOLD DOWN CLAMP
John W. Nelson, Minneapolis, Minn.
Application September 23, 1953, Serial No. 381,924
2 Claims. (Cl. 144—290)

1. In an adjustable safety clamp the combination of an elongated standard having means at one end for securing to a support, an extension secured axially with respect to said standard and in interfitting relation, said securing being accomplished by an annular groove in one of said standard and extension and a cooperating abutment pin disposed transversely in the other of said standard and extension for engagement with said annular groove to permit axial rotation while preventing lengthwise movement of the extension with respect to said standard, a sleeve element surrounding said standard and said extension at least in the area of the juncture between the extension and the standard, said sleeve element having a cam bearing surface at one end thereof and provided with an opening through the cam bearing surface for permitting said extension to extend freely therethrough, a laterally extending work-engaging jaw mounted on said sleeve in opposed relation to a support when the safety clamp is mounted thereon, a ratchet head positionable at the end of said extension, a reciprocable handle likewise positionable at the end of said extension, securing means for releasably retaining both of said ratchet head and said handle in operable position, and cooperating



latch mechanism on said handle for engaging with said ratchet head to hold said handle and cam in clamping relation with respect to said sleeve element and said work engaging jaw.

2,781,804
WOODWORKING PLANE WITH RAZOR BLADE
Jack K. Wilson, Norman E. Wilson, and Robert S. Wilson, Springfield, Mo.
Application April 15, 1955, Serial No. 501,542
3 Claims. (Cl. 145—5)



1. A woodworking tool comprising a shoe having a bottom and a pair of side walls rising from said bottom, said bottom having at least a portion of its under-face which is flat, said bottom having a closed slot extending transversely thereof and also extending inwardly from said flat under-face, a saddle positioned between said side walls and on one side of said slot and sloping upwardly from said bottom, an upstanding ridge on the inner surface of said saddle, a mounting element projecting perpendicularly from the intermediate portion of said saddle, a razor blade having opposed cutting edges and a centrally disposed opening positioned so that the opening surrounds said mounting element and the body of the blade rests upon said saddle with one of its cutting edges projecting through said slot, a backing member wholly covering and abutting the body of said blade, said backing member having a recess in its under face receiving said saddle ridge, and means detachably securing said backing member to said mounting element.

2,781,805
HAMMER WITH SPRING SHANK HANDLE
Henry B. Freeman, Placerville, Calif.
Application April 7, 1955, Serial No. 499,849
1 Claim. (Cl. 145—29)

A tool comprising a hammer head, a handle for said tool, a tubular shank of a length of spring steel adapted to absorb shock directed to the tool when in use, said shank having a plurality of annular external grooves formed therein, a flexible hand grip formed with a bore

extending inwardly from one end thereof adapted to be driven over said shank, said annular grooves presenting sharp edges to bite into the wall of said bore and securely

fasten the hand grip to the shank, and one end of said shank being connected with said head said grooves providing increased resiliency of said shank.

2,781,806
COLLAPSIBLE SAW
David A. Wilson, St. Helens, Oreg.
Application September 8, 1955, Serial No. 533,125
2 Claims. (Cl. 145—33)

1. A collapsible saw, comprising a saw blade member, a handle member having a longitudinal groove and a transverse locking slot in one of its ends, a brace member including at least a pair of elongated sections, securing means to selectively secure said sections together in longitudinal extension or render said brace member collapsible to reduced length, one end of the brace member being receivable within the longitudinal groove in the handle member, pin means on said one end of the brace member for releasable engagement with the said locking slot, the opposite end of the brace member having therein a longitudinal groove and a transverse notch, a tensioning member mounted detachably on the end of the handle opposite the locking slot and having therein a longitudinal groove and a transverse slot, and pin means on the opposite ends of the saw blade member for releasable engagement, respectively, in the transverse notch and the transverse slot in the tensioning member.

2,781,807
EXPANDING BIT SCREW DRIVER
Joseph A. Labbee, Jr., Providence, R. I.; Katherine G. Labbee, administratrix of said Joseph A. Labbee, Jr., deceased
Application February 19, 1953, Serial No. 337,773
3 Claims. (Cl. 145—50)

1. A fastening tool having a handle and a shank, said shank having a tip for insertion into a screw head cavity, said shink and tip being longitudinally split forming two longitudinally separable parts selectively movable outwardly away from each other and inwardly towards each other, a longitudinal bore through said shank, the side walls of said bore forming recesses in the inner walls of the separable parts, the bottom end of said bore having an enlarged diameter, and means slidably mounted on said shank and engaging the separable parts, said means including a shell ring around said shank, an actuating pin in said bore having its upper end secured to said shell ring, and a cam element integral with the free end of said pin, said means being selectively movable upwardly whereby said cam element moves said separable parts outwardly away from each other, and movable downwardly whereby said actuating pin moves said cam element into the enlarged bore end and said ring moves said separable parts inwardly towards each other, each of said tip portions including a recess on its outer side face having a longitudinally extending inclined wall and an abutment transverse shoulder, whereby the split tip may be engaged within the screw head cavity.

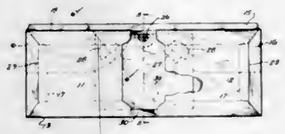
2,781,808
COMBINED ARROW QUIVER AND CARRYING CASE
Francis E. Barnard, Delton, Mich.
Application July 6, 1956, Serial No. 596,248
5 Claims. (Cl. 150—1.5)

1. A combined arrow quiver and carrying case assembly comprising an elongated tubular body member including a transverse bottom and top closing opposite ends thereof, strap means on the body member for hanging the body member on the back of a user, and an elongated longitudinally extending slot portion extending through a side wall portion of the body member, the lower end of the slot portion terminating above the bottom of the body member and the top of the slot portion terminating at an intermediate portion of the body member whereby arrows longitudinally disposed in the body member may be removed point portion first from the slot portion adjacent the hips of a user, and the strap means may be circumposed about the body member for preventing accidental loss of arrows when the body member is removed from the user's back.

2,781,809
BRIEF BAG EDGE SEAM
Walter J. Wolf, Chicago, Ill., assignor to Leathercraft, Inc., Chicago, Ill., a corporation of Illinois
Application March 29, 1955, Serial No. 497,648
2 Claims. (Cl. 150—1.6)

1. In a brief bag or the like having a pair of panel sections and a gusset section extending between the panel sections, an edge seam connecting each panel section to the gusset section with their edges extending outwardly and comprising an edge protecting strip of substantially T-shaped cross section having its center leg interposed between the panel and gusset sections and its cross leg overlying the outwardly extending edges of the panel and gusset sections, a first row of stitching extending through the center leg of the edge protecting strip and the gusset section only for securing the edge protecting strip to the gusset section, said first row of stitching being normally visible from the exterior of the gusset section, and a second row of stitching overlying the first row of stitching and extending through the panel section, the center leg of the edge protecting strip and the gusset section for securing together the panel section, edge protecting strip and gusset section and for concealing the first row of stitching from exterior view.

2,781,810
STITCHLESS BILLFOLDS
Roland Landdeck, West Bend, Wis., assignor to Enger-Kress Company, West Bend, Wis., a corporation of Wisconsin
Application March 1, 1955, Serial No. 491,327
9 Claims. (Cl. 150—38)

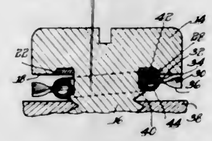


1. In a billfold having a back and having front panels folded upwardly from said back providing spaced apart ends intermediate the length of the billfold to provide a gap, a flap folded downwardly from the upper edge of each panel on the inner side thereof, an elongated slide member within the billfold juxtaposed to said flaps spanning said gap, means flexibly connecting said slide member to said flaps, and a bill compartment divider foldably connected to the lower edge of said slide member and positioned within the billfold between the downwardly folded flaps and the back.

2,781,811
COMBINED TREE WRAPPER AND GROUND SHEET
Georgia Dilar and George R. Dilar, Hamilton, Ontario, Canada
Application March 28, 1956, Serial No. 574,564
3 Claims. (Cl. 150—52)

1. In a combined ground-sheet and disposal bag for cut trees, a base centre-piece of a flexible substance formed substantially disc-like and roughly conforming diametrically to the girth of the particular tree at its widest spread, a rim of flexible substance united to the centre-piece and having a V-shaped cut-out therein, the width of the rim being in rough conformity to the height of the particular tree, the marginal portions of said rim bordering the cut-out being provided with complemental members of a separable closing device whereby the rim constitutes the siding of the bag when the cut-out is closed by means of said device, and means for closing the mouth of the bag when the centre-piece and rim are thus transformed.

2,781,812
HELICAL SPLIT RING BITING TOOTH WASHER ADAPTED TO BE RETAINED ON A ROTARY FASTENER
Robert W. Beart, Park Ridge, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application May 4, 1955, Serial No. 505,980
7 Claims. (Cl. 151—35)



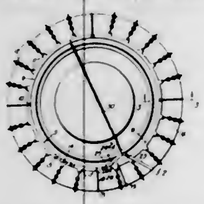
1. A sheet metal lock washer comprising a helically twisted split-ring body having adjacently disposed ends providing a substantially closed ring for preventing entanglement of the washer with other washers when such washers are stored in bulk, a helically twisted split-ring section having one margin integral with said body, and axially deflected tooth elements extending radially from an opposite margin of said split-ring section, said body having a resiliently collapsible radial cross section including axially spaced portions respectively projecting axially of opposite sides of roots of said tooth elements for increasing resistance of said body to helical collapsing and for providing a resilient abutment for obtaining additional spring locking action and for preventing complete collapsing of said tooth elements when the washer is clamped between a workpiece and a rotary fastener head, said axially spaced portions presenting axially oppositely facing surfaces which are curved in radial cross section and are spaced axially of opposite sides of said roots for respectively engaging a workpiece and a rotary fastener head for facilitating initial tightening of the rotary fastener and minimizing marring of a workpiece.

2,781,813
TRACTION WHEEL CONSTRUCTION
Arthur D. Ferguson, Des Moines, Iowa
Application February 14, 1955, Serial No. 487,908
7 Claims. (Cl. 152—208)

1. In a wheel traction means, a wheel tire, a source of fluid pressure, a movable auxiliary traction lug, comprising, a cylindrical housing inside said wheel tire and radially arranged therewith, a piston element slidably mounted in said cylindrical housing capable of being moved to extend radially outwardly beyond the periphery of said wheel tire, a spring means for yieldingly holding said piston in a radially inwardly position of its sliding movement, a second piston element slidably mounted within said first piston and in communication with the radially inner bottom of said cylindrical housing, a means for operatively connecting the inner bottom of said cylindrical housing with said source of fluid pressure, a lock bar slidably mounted in said first piston element; said cylindrical housing having a well capable of receiving one end of said lock bar for holding said first piston

against sliding movement and in a radially outward position, and a means for causing said lock bar to enter said well when said second piston is in a radially outward position.

2,781,814
ANTI-SKID TIRE CHAIN AND FASTENING MEANS THEREFOR
Merel C. Vivian, McDonald, Ohio
Application January 13, 1955, Serial No. 481,538
3 Claims. (Cl. 152—242)



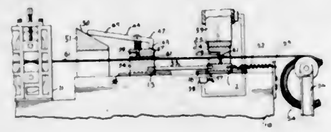
1. An anti-skid device for tires comprising a pair of sectional rings adapted for mounting circumferentially at the opposite sides of a tire, cross chains connecting the rings to each other, said rings including a pair of end sections and at least one intermediate section pivotally connected to each side section, a resilient substantially U-shaped clip adapted to grip the tire, arms on the clip pivoted to one of said end sections, a laterally projecting pin carried by the other of said end sections, and a fork-shaped latching member carried by said arms lockably engaging said pin in the fork thereof.

2,781,815
PNEUMATIC TIRE
Vance J. Davis, Detroit, Mich., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application March 10, 1954, Serial No. 415,400
10 Claims. (Cl. 152—352)

1. A pneumatic tire having a carcass of strain-resisting elements and a rubber tread of decreasing thickness towards the center of the tread, said tread having at least five circumferentially extending and functionally continuous ribs separated by circumferentially extending grooves formed in the surface thereof and a crown radius of between 145% of the tire section and infinity when the tire is mounted on a rim and inflated, each of the outermost of said ribs having a mean width less than the mean width of each of the ribs next adjacent thereto, and each remaining rib having a mean width greater than the mean width of each of said ribs next adjacent said outermost ribs the cross-sectional area of each tread segment in which each of said ribs is located being substantially the same.

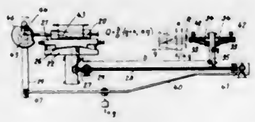
2,781,816
DEVICE FOR MAKING MEASURED INDICATIONS ON METAL RIBBON
Ivar S. Lawson, Ashville, N. Y.
Application September 24, 1952, Serial No. 311,229
3 Claims. (Cl. 153—2)

1. In a device for preparing a moving strip of metal ribbon for making formed articles of measured length and predetermined cross-sectional shape, the combination of a rack for supporting a coil of sheet metal ribbon, a support adjacent said rack, a set of dies mounted on the support for movement longitudinally thereof from a starting position, means biasing said dies toward starting position, stop means mounted on the support a predetermined distance in advance of the dies and connected thereto for movement therewith, means actuated by longitudinal movement of said dies for initiating the operation of said dies to form a transverse score and temporary open edged projection adjacent thereto in the strip so that the strip can be subsequently readily broken at the line of score, roller means in advance of the stop means for continu-



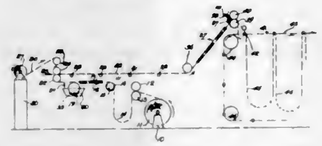
ously moving the strip for bringing the projection into engagement with the stop means and for subsequently flattening the projection, and means fixed on said support in advance of said stop means for releasing the stop means so that said biasing means can return the stop means and the set of dies to starting position, the arrangement being such that as the projection on the strip engages the stop means, the dies and stop means will move on the support for a predetermined amount of movement whereupon the dies will be actuated to form a combined score and projection, the stop releasing means will release the stop from the projection, and the stop means and the set of dies will return to starting position.

2,781,817
DEVICE FOR BENDING CONTACT SPRINGS
Gustav Vilhelm Tunberg, Hagersten, Anders Ossian Jörgensen, Traneberg, Alexander Parschin, Stockholm, and Ernst Erik Teodor Edman, Hagersten, Sweden, assignors to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a Swedish company
Application November 15, 1952, Serial No. 320,764
Claims priority, application Sweden November 28, 1951
12 Claims. (Cl. 153—48)



1. A device for curving blank material in form of strips of various thicknesses for use as contact springs in electromagnetic devices, comprising curving means including two coacting pressure members movable relative to each other for exerting a curving pressure upon a strip placed therebetween, and pressure regulating means for varying the pressure exerted by said pressure members so as to decrease said pressure with increasing thickness of the strip material, said pressure regulating means including elastically deformable means having a pressure characteristic negative with increasing pressure, means responsive to the thickness of the strip material and coacting with said deformable means for applying a pressure to the latter increasing with increasing thickness of the strip material, and transmission means controlled by said deformable means and coacting with said pressure members to vary the pressure therebetween as a function of the pressure upon said deformable means.

2,781,818
METHOD AND APPARATUS FOR FLANGING METALLIC AND ASPHALTIC SHEET MATERIALS
George Beckman, Lowell, Ind., and John Robert, Chicago, Ill., assignors to Abbott Coburn, Chicago, Ill.
Application January 2, 1953, Serial No. 329,356
10 Claims. (Cl. 154—1.8)



1. A method of forming continuously metallic and fibrous laminations into a composite sheet which consists in linearly displacing thin metallic and fibrous sheet materials from separate rolls to a common path, applying coating materials to at least one of the confronting surfaces of said materials prior to reaching their common path of traverse preparatory to effecting contact therebetween, then bringing said metallic and fibrous materials together under pressure while in motion along said common path, then turning overlapping parallel edges of said metallic sheet material around and under the edge regions of said fibrous sheet material while in motion to define protecting edge flanges, retaining in alignment the formed protecting turned edge flanges with the overlapping unturned parallel edges of the metallic sheet material in the region of the conversion from unturned to turned edge sheet material, and then rolling said combined sheets into rolls of uniform length for convenient handling and storage.

3. In an apparatus for continuously flanging sheet materials in a continuity of displacement therethrough under tension, the combination with a plate for guiding a continuous sheet of material therethrough and therealong in a predetermined path, of elongated sheet guide and edge turning means on said plate spaced to substantially conform with and to the width of the sheet that is continuously displaced along said plate, and yieldable means on said plate for retaining the edges of the sheet along the path of travel in said plate, means on said plate for effecting the alignment of the unturned laminated sheet with the turned portion thereof responsive to turning the flange during the continuous forward traverse of the laminated sheet including a shaft extending crosswise above the plate and from which the plate is suspended, rollers mounting the plate for free lateral displacement whereby the plate and shaft are laterally displaced in alignment with the sheets upon the development of force between the sheets and the said sheet guide, and means to maintain the laminated sheet under tension in its travel through the flanging and turn-under device.

2,781,819
INTEGRATED MICA OIL-IMPREGNATED SHEET
Moses D. Heyman, Woodmere, N. Y.
Application January 2, 1951, Serial No. 203,944
4 Claims. (Cl. 154—2.6)

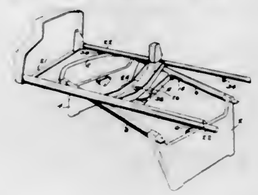
[redacted]

1. In a mica sheet comprised of thin laminae of mica having activated surfaces and arranged in random fashion whereby portions of said surfaces are in contiguous relation and act on each other to cohere said laminae into an integrated sheet, the remaining portions of said activated surfaces defining a multiplicity of pores among the laminae and the activated surfaces of said pores having catalytic force, a mass of hydrocarbon oil occupying said pores and in a polymerized state induced by said catalytic force.

2,781,820
PROCESS FOR THE PRODUCTION OF INSULATING LAMINATES AND PRODUCT
Robert Stanley Rogers, Greenwich, Conn., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
Application August 5, 1953, Serial No. 372,512
12 Claims. (Cl. 154—28)

12. Process for the production of insulating laminates, which comprises applying to each side of a fibrous batting, having spaced apertures therein, a layer of water-impermeable film having spaced holes in register with said apertures in said fibrous batting, and sealing the two layers of film together within said apertures and around said holes and also around the periphery of said batting.

2,781,821
TURNTABLE SEATS
James F. Spielman, Torrington, Conn., assignor, by mesne assignments, to Reconstruction Finance Corporation, Washington, D. C.
Application February 15, 1955, Serial No. 488,259
6 Claims. (Cl. 155—96)

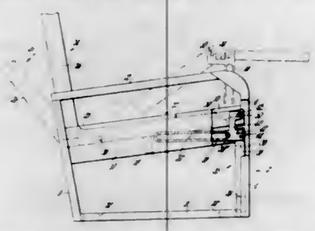


1. In a seat, the combination of a fixed base assembly; a seat frame; a spring-loaded, vertically extending, pivotal and slidable mount mounting the seat frame on the base assembly for rotation of the seat frame relative to the base assembly; projecting studs carried by the base assembly and cooperating depressions in the seat frame registering with said studs when the seat frame is in either of two positions relative to the base assembly 180° apart, said studs cooperating with said depressions to lift the frame vertically so that the studs will clear the depressions when rotation of the seat frame is initiated, the studs maintaining the frame in its elevated position throughout a half-turn of the seat frame; and means positively to effect a movement of translation of the seat frame and its mount during the rotation of the seat frame.

2,781,822
CHAIR
Albert P. Krikorian, Hampden, Mass.
Application December 19, 1952, Serial No. 326,916
4 Claims. (Cl. 155—106)

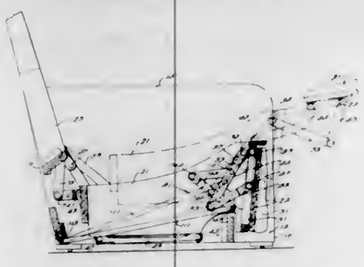
1. A chair construction comprising in combination, a supporting structure, an integral seat and back, pivotal connections between said seat and back and said supporting structure for swinging of said seat and back between substantially upright and reclining positions, a depending leg rest at the forward portion of said seat, an elongated plate having an end fixed to said leg rest and an elongated free end portion extending transversely therefrom and below the seat of said seat and back, pivotal connections between said plate and said seat, a stop fixed to said struc-

ture, the free end portion of said plate provided with an elongated slot for engaging said stop and having closed opposite ends, said plate being slidable on said stop, all



adapted and arranged whereby as said seat swings from horizontal to reclining position said leg rest is swung to leg supporting position forwardly of said seat and limited in further swinging thereof.

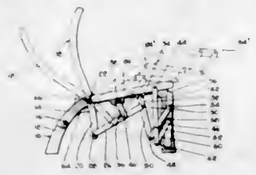
2,781,823
RECLINING CHAIR
Edward M. Knabusch and Edwin J. Shoemaker, Monroe, Mich., assignors to La-Z-Boy Chair Company, a corporation of Michigan
Application May 21, 1953, Serial No. 356,484
2 Claims. (Cl. 155—106)



1. In a reclining chair, a base, a seat frame, a back frame, a leg rest adjacent the front of said seat frame, link means supporting said seat and back frames on said base for movement between a sitting and reclining position so that when said chair is reclined said seat frame will move forwardly and upwardly, linkage mechanism connecting said leg rest with said seat frame so that when said chair is reclined said leg rest will move upwardly and forwardly from a generally inoperative, vertical position to a generally horizontal, operative leg supporting position, said linkage mechanism including a pair of spaced links pivotally connected with said leg rest, a second link pivotally connected intermediate the ends thereof with one of said pair of links and adjacent one end of said second link with the other of said pair of links, means pivotally connecting the opposite end of said second link to said seat frame, a third link pivotally connected intermediate the ends thereof to said seat frame and pivotally connected adjacent one end thereof to said one of said pair of links, a rodlike member pivotally connected adjacent one end thereof to said third link and extending within said seat frame and having its opposite end pivotally connected to said chair base.

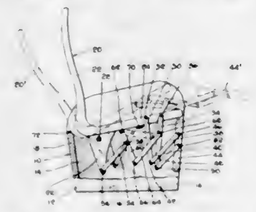
2,781,824
ARTICLE OF REPOSE FOR SUPPORTING THE BODY OF A PERSON
Anton Lorenz, Boynton Beach, Fla.
Application January 28, 1954, Serial No. 406,737
13 Claims. (Cl. 155—106)

1. An article of repose for supporting the body of a person, comprising in combination: a support, a constrained linkage including at least one stationary link and at least three movable links, said stationary link being included in said support, a first movable link of said constrained linkage constituting a seat, a second movable link of said constrained linkage constituting a back-rest, said constrained linkage including a first controlling link pivoted to said seat, a second controlling link pivoted to said seat, a leg-rest, a first controlling bar pivoted at spaced points thereof to said first controlling link, said second controlling link and said leg-rest and a second



controlling bar pivoted at spaced points thereof to said second controlling link and said leg-rest, said first controlling bar and said second controlling link crossing each other at the pivotal connection connecting same with each other, and a movable link of said constrained linkage other than said seat and back rest being in operative engagement with one of said two controlling links for effecting movement of the latter and of said leg-rest in dependence on coordinated movements of the movable links of said constrained linkage.

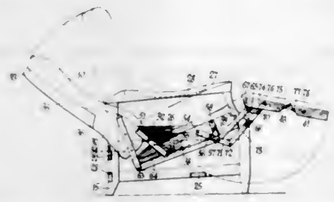
2,781,825
ARTICLE OF REPOSE FOR SUPPORTING THE BODY OF A PERSON
Anton Lorenz, Boynton Beach, Fla.
Application January 28, 1954, Serial No. 406,738
24 Claims. (Cl. 155—106)



1. An article of repose for supporting the body of a person, comprising in combination: a support, a unit including a back-rest and a seat rigid with each other, said unit being rockably mounted on said support, a first controlling link pivoted to said seat, a second controlling link pivoted to said seat, a leg-rest, a first controlling bar pivoted at spaced points thereof to said first controlling link, said second controlling link and said leg-rest, a second controlling bar pivoted at spaced points thereof to said second controlling link and said leg-rest, said first controlling bar and said second controlling link crossing each other at the pivotal connection connecting same with each other, and means positioned between said unit and one of said two controlling links to move the latter in response to the rocking movement of said unit so as to produce a movement of the leg-rest in dependence on a movement of said unit.

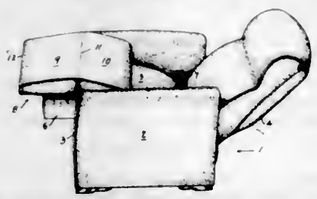
2,781,826
RECLINING CHAIR HAVING DEEP UPHOLSTERED SEAT AND DISAPPEARING FOOTREST
Wilbur J. Rote, Williamsville, N. Y.
Application October 31, 1955, Serial No. 543,823
5 Claims. (Cl. 155—106)

1. A reclining chair having a relatively fixed frame including front and rear legs and side rails extending between the legs above the bottoms thereof, a seat member disposed within the side rails and extending between the front and rear legs, each of said side rails having positioned therein a rear fixed pivot adjacent the rear portion of the fixed frame, a downwardly extending rear seat link pivotally mounted on each rear fixed pivot and rigidly secured to the seat member adjacent the rear thereof, a front fixed pivot positioned in each of said side rails remote from the rear pivot and toward the front of the fixed frame, a front seat link pivotally mounted on each front pivot and extending downwardly therefrom, a hinge link pivotally mounted on each front seat link below the front fixed pivot and also pivotally mounted on the seat member, said hinge links being inclined forwardly and upwardly, whereby when said links are actuated the seat member will have a forward motion with respect to the



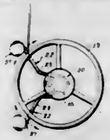
fixed frame and an arcuate upward motion at its front end, a back pivotally mounted on the rear fixed pivots between the side rails and above the rear portion of the seat frame, a forwardly extending transmission lever disposed below the back and having a pivotal connection to the back at one end and also a pivotal connection to the front seat link, said back being tiltable from an upright to a reclined position to thereby actuate the movement of the seat member concurrently with the motion of the back, a leg rest disposed between the front legs and being substantially vertical when the back is upright, a bracket on each upper corner of the leg rest, and a generally parallelogram linkage including said bracket as one short link thereof connected to each of said front seat links to move the leg rest outwardly and upwardly as the back is moved to an inclined position.

2,781,827
CHAIR HAVING AN EXTENSIBLE SEAT CUSHION
Pearl B. Bell, San Francisco, Calif.
Application January 10, 1955, Serial No. 480,868
1 Claim. (Cl. 155—165)



A lounge chain comprising a frame having a rearwardly inclined back section, a forwardly and upwardly inclined seat section and a relatively short apron projecting forwardly from the seat section supported thereon, and an arched, elongated flexible cushion member lying on the seat section and the apron and being of a length to present a lip projecting forwardly from the apron when the rear end of said member lies substantially midway on the seat, the cushion being made of two tapered sections having their heavy ends hingedly interconnected in one of the surfaces of the cushion, so as to naturally contour itself to the lower thighs, knee sections and angles of a seat occupant, with the lip forming a self-contouring support for the feet of the occupant, and the heavy end of the rear section of the cushion being thinner than the heavy end of the other section to provide an off-set between the two sections.

2,781,828
ARMREST FOR STEERING GEAR
Bernard Ferrar, Los Angeles, Calif.
Application September 12, 1952, Serial No. 309,327
3 Claims. (Cl. 155—198)

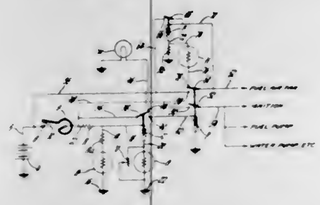


1. An arm rest attachment for a steering column of a motor vehicle including: a clamp adapted to be secured to said steering column and formed with bearing means having its axis substantially parallel to, and closely adjacent the axis of said clamp; an arm positioned to extend upwardly and outwardly from said clamp, said arm having its lower end pivotally supported by said bearing means; an arm rest carried by the upper end of said arm; and a pair of axially disposed coil springs biasing said arm to a predetermined pivotal position with respect to said clamp, each of said springs having one end connected to said clamp and another end connected to said arm and being stressed in opposite directions.

2,781,829
MOUNTING FOR OIL BURNERS
Robert D. Zucker, Louisville, Ky., and Robert B. Duggan, Jeffersonville, Ind., assignors to American Radiator & Standard Sanitary Corporation, Pittsburgh, Pa., a corporation of Delaware
Application May 28, 1953, Serial No. 357,964
1 Claim. (Cl. 158—2)

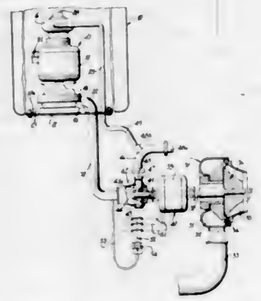
In a heating apparatus, a vertical wall with an aperture therein, an oil burner including a blower housing and a blast tube extending through said aperture, a plurality of bolts positioned on opposite sides of and securing said blast tube to the front wall of said housing, the heads of said bolts extending outwardly from said front wall, said blast tube being of a substantially smaller diameter than said aperture in said vertical wall, a supporting member having a flat portion and an upward facing channel portion, cushioning means secured to the inner wall surface of said channel portion, means securing said flat portion to said vertical wall above said vertical wall aperture with said channel portion projecting outwardly therefrom, a pair of angular supporting members, a hanger shaft secured to and extending between said angular members, means securing said angular supporting members to said burner housing front wall above said blast tube, said hanger shaft being offset from the center of gravity of said burner and being supported on said cushioning means so that said burner is swingable by gravity toward said vertical wall, a plate

member having an aperture therein of substantially the same diameter as and receiving said blast tube, abutment members secured on said plate member and aligned with said bolt heads, cushioning means secured on said abutment members and engaged by said bolt heads to hold said plate member against said vertical wall, and fire resistant cushioning material secured to said plate member and positioned between said vertical wall and said plate member and having an aperture therethrough receiving said tube, said material tightly fitting around and being sleeved on said tube, and said plate member and insulating means forming a sealing means for said vertical wall aperture when said blast tube is positioned therein.

2,781,830
BURNER SAFETY CONTROL SYSTEM WITH PURGING
Robert J. Cassidy, Mansfield, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Original application November 12, 1949, Serial No. 126,817, now Patent No. 2,672,188, dated March 16, 1954. Divided and this application February 25, 1954, Serial No. 412,543
4 Claims. (Cl. 158—28)

1. In a control system for fuel burners, a grounded source of power, a power relay connected thereto to control burner operation including a power switch to control operation of a fan to supply air for combustion, a bypass circuit connected to said source and around said power switch including a normally open fan relay switch, an electrically operable magnetic field creating means connected to said bypass circuit on the side of the power switch controlling the fan remote from the source of power and to ground to actuate said fan relay switch upon closure of said power switch, and means connected to said magnetic field creating means to gradually progressively decrease the current flow through the magnetic field creating means with the opening of the power switch to a point where the magnetic field creating means releases the fan relay switch to delay opening of said fan relay switch for a predetermined time after opening of said power switch.

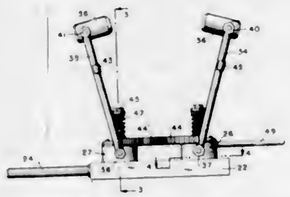
2,781,831
PUMPING ASSEMBLY
Pierce T. Angell, Euclid, Ohio, assignor to Thompson Products, Inc., a corporation of Ohio
Application September 11, 1952, Serial No. 309,127
9 Claims. (Cl. 158—36.3)

9. A pumping system comprising, a booster pump for initially pressurizing a stream of fluid, a first motor having a driving connection with said booster pump, a main pump receiving said stream of fluid from said booster pump and driving said stream of fluid at additionally increased pressure, a fluid motor having a driving connection with said booster pump and receiving fluid from said main pump to drive said fluid motor, means to drive said main pump, and pressure-responsive control means for inactivating said first motor only when the discharge pressure of said booster pump attains a predetermined value, whereby said booster pump is driven by said fluid motor alone only when the discharge of the main pump



is sufficient to supply the normal point of utilization of the stream of fluid and the fluid motor.

2,781,832
BURNER FOR GLASS BLOWING LATHE
Lawrence T. O'Connor, Benson, Ariz.
Application August 11, 1953, Serial No. 373,698
3 Claims. (Cl. 158—99)
(Granted under Title 35, U. S. Code (1952), sec. 266)



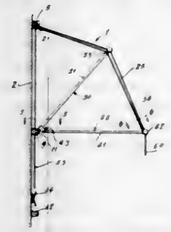
1. In apparatus of the character described, a base, a pair of supporting blocks pivotally mounted on said base at spaced points for angular adjustment about spaced axes substantially perpendicular to said base, a pair of burner heads, each of said heads having an arm carrying the respective head, means mounting one of said arms on each of said supporting blocks, means for conveying combustible gases to the burner heads, each of said supporting blocks having a sector gear mounted thereon, the gear teeth of said sector gears engaging one another, whereby simultaneous complementary angular adjustment of the position of both of said supporting blocks and of the burner heads carried thereby may be effected by angular displacement of either one of said blocks, each of said arms being pivotally mounted on its respective supporting block for pivotal movement about an axis perpendicular to the axis of said supporting block.

2,781,833
FLUID FLOW CONTROL FOR GAS BURNER
Per L. F. Feyling, Belmont, Mass., assignor to J. W. Greer Company, Wilmington, Mass., a corporation of Massachusetts
Application May 22, 1953, Serial No. 356,787
2 Claims. (Cl. 158—114)

1. A gas burner having an elongated chamber, means for introducing gas at an end thereof, said chamber having an elongated slot orifice leading therefrom and means for selectively varying the intensity of the flame

emanating from said orifice substantially throughout the length thereof, said means comprising a transversely flexible, longitudinally twistable, thin, elongated damper twistable to at least 90° along its longitudinal axis mounted within said orifice and having its longitudinal axis extending parallel to the length of said orifice, and means for independently rotating each end of the damper about the longitudinal axis thereof to twist said damper about its longitudinal axis at least 90° so that at least a portion of a face of said damper is at least 90° out of phase with another portion of said face for obstructing said orifice to varying extents along its length.

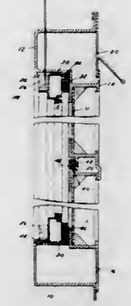
2,781,834
AWNING
Roy S. Woodard, St. Louis, Mo.
Application June 21, 1954, Serial No. 438,086
2 Claims. (Cl. 160—56)



1. An awning comprising a head rod mounted on a wall, awning rope guides attached to said head rod adjacent opposite ends thereof, an intermediate support having a pair of legs and a horizontal member, said legs being pivotally mounted at one end on the wall and hingedly attached, at the other end, to said horizontal member; a lower support, having a pair of legs and a horizontal member, said legs at one end being pivotally mounted on and beneath the legs of the intermediate support, and hingedly attached at the other end to the lower support horizontal member; a fabric curtain successively mounted on and extending between the head rod and the horizontal member of the intermediate support and the horizontal member of the lower support, said fabric curtain lying inboard of the guides on the head rod, and of the ends of the horizontal members of the intermediate and lower supports; and an awning rope secured to the ends of the horizontal member of the lower support, and extending from the head rod awning rope guides to the said horizontal member of the lower support along and outboard of the sides of the fabric curtain.

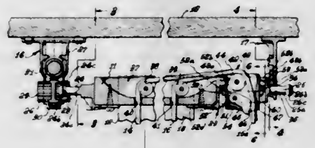
2,781,835
AWNING WINDOW CONSTRUCTION
Elmer A. Westman, Fenton, Mich., assignor, by mesne assignments, to Valley Metal Products Co., Plainwell, Mich., a corporation of Michigan
Application September 11, 1953, Serial No. 379,553
6 Claims. (Cl. 160—90)

1. A window frame having a header portion, a sill portion and two similar jamb portions, each such portion being channel-shaped in cross section and with the channel opening outwardly of the frame, the inner side wall of the channel being of less width than the outer side wall thereof, said inner side wall provided with a flange projecting inwardly of the window opening within and substantially parallel to the plane of the frame and positioned between the inner and outer faces of the frame, the outer face of each such flange provided with a linearly extending groove which is generally keystone shaped in cross section and the side walls of which converge as they project toward the face of the flange, and a generally V-shaped resilient gasket seated within each groove and extending for the length thereof and having one side of the V-shaped seated against the bottom of the groove and the opposite side of the V-shape seated against one of said converging side walls of the groove and normally projecting outwardly therefrom and beyond the outer face of the flange and resistingly depressible



into the groove superimposing the opposite side wall of the V-shape, a sash hinged within the frame for swinging movement, said sash having one portion adapted to close over the channel opening when the sash is closed and having another portion adapted to close against that side of the V-shaped gasket normally projecting outwardly beyond the groove to depress the same toward the groove.

2,781,836
REVERSIBLE VENETIAN BLIND
James C. Bennett, Inglewood, Calif., assignor to Anderson Die Casting & Engineering Corporation, Los Angeles, Calif., a corporation of California
Application November 27, 1948, Serial No. 62,306
6 Claims. (Cl. 160—173)

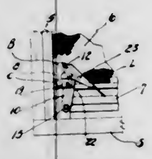


1. A Venetian blind construction comprising a tilt rail supported by a pair of hangers one of which is provided with a tilting mechanism, a fixture secured to each end of said tilt rail, said fixture including a pintle projecting from an end of said rail and an enlargement on the outer end of said pintle to support said rail on the hangers, either of said enlargements being adapted for a driving connection with the hanger having a tilting mechanism thereon and a cord lock means which contains a hollow block, a roller rotatably mounted in said block over which the lift cords pass, and an adjustable lock member for locking the lift cords and pintles located on opposite sides of said block mounted in trunnions to permit the cord lock means to be swung to either side of said fixture.

2,781,837
LOCKING MEANS FOR HOLD-DOWN BRACKETS
Albert Peterson, Saginaw, Mich., assignor to The Columbia Mills, Inc., Syracuse, N. Y.
Application June 10, 1953, Serial No. 360,783
3 Claims. (Cl. 160—328)

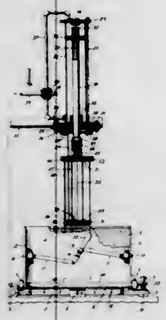
1. The combination with an angular holddown bracket mounted on a window frame and having a face secured to a side of said frame and a face extending laterally there-

from, said laterally extending face having a slot therein adjacent its junction with said laterally extending face, an angular clip including a leg extending loosely through said slot alongside the face of the bracket which is secured to the window frame, said clip having a leg extending laterally adjacent said laterally extending face of the bracket and swingable away from the said face of the bracket in a generally angular plane relative thereto, a



locking lever pivotally mounted on said bracket and swingable laterally inwardly into sandwiched relation with said laterally extending bracket face and clip into overlying relation with said bracket, means urging the laterally extending leg of the clip toward said laterally extending face of the bracket, and disengageable means on said lever and clip engageable in interlocking relation when the lever is swung laterally inwardly to overlying relation.

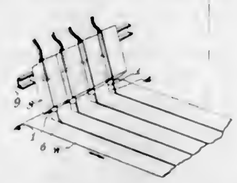
2,781,838
MACHINE AND METHOD FOR PRODUCING FOAM GLASS SHAPES
Ralph E. Von Hagel and John K. Forbes, Jacksonville, Fla.
Application May 27, 1953, Serial No. 357,878
7 Claims. (Cl. 164—18)



6. A machine for severing rectilinear shapes from brittle, cellular foam glass blocks, comprising a flat surfaced, rigid supporting member for said blocks, a thin walled crushing tool of hollow, elongated rectilinear shape having a mounting end and a crushing end, said wall being of increased thickness toward said crushing end, power means mounting said tool at said mounting end and operative to reciprocate said tool longitudinally toward and away from said surface of said member, said crushing end having a blunt, unbevelled, operative crushing edge.

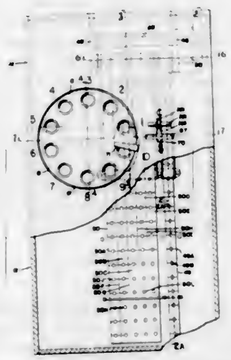
7. The method of forming rectilinear shapes from a brittle, cellular foam glass material block which comprises the steps of placing said block in firm contact with a rigid conforming supporting surface, and forcing through said block a rectilinear, thin walled crushing tool having an unbevelled, blunt leading edge, said tool moving forwardly through said block in a straight path in said rectilinear direction, thereby to form a crushed path conforming in shape to the path of said leading edge through said block.

2,781,839
WEB SLITTING APPARATUS
Paul Urban Bockrath, Kenmore, and Raymond Clifford Dill, Tonawanda, N. Y., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware
Application October 2, 1953, Serial No. 383,744
4 Claims. (Cl. 164—36)



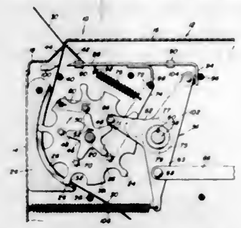
1. In an apparatus for slitting webs of thermoplastic material into a plurality of webs of lesser width comprising a bank of heated knives disposed in the path of travel of a continuous web of thermoplastic material, said bank extending transversely of said web, the improvement which comprises heated knives in said bank, each comprising in combination an elongated metal rod terminating at one end in a thin knife blade integral therewith having at least one edge substantially in alignment with the length of the rod and having a cavity open at the opposite end adapted to receive an electrical resistance heating unit, an electrical resistance heating unit housed in said cavity adjacent the blade end.

2,781,840
STAMP DISPENSING MACHINE
Helmer C. Hanson, Loveland, Colo., assignor, by mesne assignments, to Eureka Specialty Printing Company, Scranton, Pa., a corporation of Pennsylvania
Application September 24, 1953, Serial No. 382,069
17 Claims. (Cl. 164—42)



17. In a stamp dispensing machine having a supporting frame, a pair of stamp strip supply means each including a strip guiding device shiftably mounted on the frame, the stamp strips being in continuous form with regularly longitudinally spaced feed openings, a single first selector means including manually operable parts for selecting the quantity of stamps to be delivered, feed means engageable with said openings and controlled by said selector means, and a second selector means effective for shifting said guiding devices and thereby engaging one of said stamp strips with said feed means while removing the other said strip from engagement therewith, whereby the said second selector means determines the action of said first selector means in procuring delivery from one or the other stamp supply means.

2,781,841
TICKET ISSUING MACHINE
Percival Dignan, Los Angeles, Calif.
Application September 14, 1955, Serial No. 534,198
12 Claims. (Cl. 164—48)

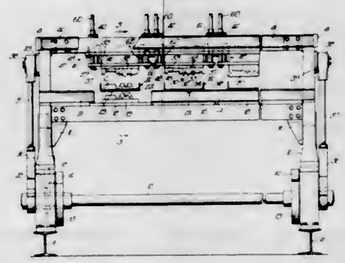


1. A ticket issuing machine comprising a support, a ticket feed wheel having a plurality of ticket engageable spokes, said ticket feed wheel being carried by said support for rotation, an actuator pivotally carried by said support, and a ticket cutoff knife carried by said support, said actuator including a first arm having an overriding one-way driving connection with said ticket feed wheel, and a second arm having a lost motion driving connection with said knife whereby initial pivoting of said actuator will result in the feeding of a ticket and further pivoting will result in the cutting off of the ticket, stop means connected to said ticket feed wheel for limiting the rotation of said ticket feed wheel upon pivoting of said actuator whereby the ticket is correctly aligned with said knife.

2,781,842
PAPER TRIMMING AND CUTTING MACHINE
Leo C. Williams, Pearl River, N. Y., assignor, by mesne assignments, to Miehle Printing Press & Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application September 5, 1951, Serial No. 245,184
21 Claims. (Cl. 164—48)

1. In a machine of the character described having movable knife means and movable clamp means, at said knife means, for immovably holding a stack of paper material while the same is being trimmed by said knife means, a feed table, a reciprocable feed carriage mounted on said table for feeding stacks of paper material successively into clamping relation with said clamp means, mechanism including a reversible electric motor for reciprocating said carriage, means for supplying current to said motor and comprising a circuit therefor, a manually actuated switch in said circuit for closing the same to thereby start said motor in one direction and effect movement of said carriage and each stack toward said clamp means, a second switch in said circuit automatically actuated when each stack is delivered to said clamp means for breaking said circuit to thereby stop said motor, and a third switch in said circuit automatically actuated when each stack is engaged by said clamp means for closing said circuit to thereby start said motor in the reverse direction and effect return movement of said carriage away from said clamp means.

2,781,843
APPARATUS FOR PERFORATING HOLLOW ARTICLES
Alfred E. Comstock, Palmer, Mass., assignor, by mesne assignments, to The Diamond Match Company, New York, N. Y., a corporation of Delaware
Application July 16, 1952, Serial No. 299,214
5 Claims. (Cl. 164—51)

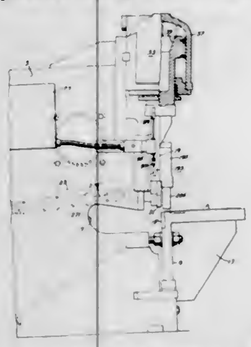


1. Slitting-perforating apparatus comprising a series of flat blades arranged in side edge abutting, coplanar relation as a blade assembly, said assembly being mounted for movement as a unit toward and from a hollow, nonplanar molded pulp article to be slit-perforated, said blades being disposed with the cutting surfaces thereof in a non-aligned arrangement which is in approximate conformity with surfaces of the article to be slit-perforated by said blade assembly, means to move said assembly into and out of cutting position, the cutting surface of certain of said blades being provided with serrated cutting edges sharpened to slice a line of perforations in a surface of said molded pulp article extending normal to the plane of cutting movement of the blade, the cutting surface of other of said blades having convergent cutting edges sharpened to slice a slit through a surface of the article extending at an abrupt angle to said perforated surface, an article engaging die defined by angularly related surfaces and conforming in shape to the outline of said article and blade assembly, means yieldably supporting said die for movement with said blade assembly and immediately adjacent the same into nested and sustaining relation to said article, a further article engaging die shaped in conformity with the outline of the article and complementary to the outline of the first die, means to move said last named die oppositely of the direction of movement of said first named die and said blade assembly into nested and sustaining engagement with the opposite surface of the article.

2,781,844
HYDRAULIC HOLD-DOWN FOR RECIPROCATING RAM
Eugene W. Pearson, Orinda, and Rolland A. Richardson, Alameda, Calif., assignors to Pacific Industrial Manufacturing Co., a corporation of California
Application June 25, 1954, Serial No. 439,394
12 Claims. (Cl. 164—51)

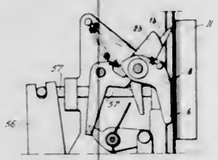
1. In a machine employing a ram movable on a plurality of ways to perform an operation on a piece of work, and means for supporting the work during such operation; means for immobilizing such work during the performance of such operation, said means comprising a plurality of hold down devices mounted on said ram for movement therewith; means for initiating a work stroke of said ram; means coupled thereto for urging said hold down devices into engagement with such work; means for delaying approach of said ram to such work until such engagement by said hold down devices; means for building up work holding pressure in said hold down devices as the ram approaches such work; means for normally holding said ram under light positive pressure

to said ways under no load conditions; and means for increasing said pressure during a work stroke of said



ram through the application of pressure developed in said hold down devices as the ram approaches such work.

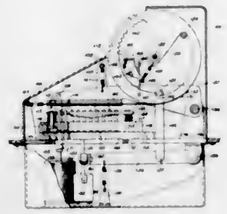
2,781,845
CARD ARRESTING DEVICE FOR USE IN TIME RECORDING APPARATUS
Lars Folke Bertil Ahlberg, Storangen, and Sven Ingvar Lundgren, Johanneshov, Sweden, assignors to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden
Application April 30, 1953, Serial No. 352,222
Claims priority, application Sweden May 12, 1952
4 Claims. (Cl. 164—59)



1. A card arresting device for use in a time recording apparatus employing time cards punched with holes in row arrangement, the said device comprising card guiding means including guide tracks for slidably receiving a card and a stationary stop member forming a back stop for a card inserted in the guiding means, a pair of independently movable detecting fingers positioned side by side for detecting and entering the same punch hole in the card, a pair of locking members, each coacting with one of said fingers and movable jointly with the respective finger in the same direction, and yieldable means resiliently urging each finger and the respective locking member toward said back stop, the said fingers and locking members being disposed in a spatial relationship such that upon at least one of said fingers detecting and entering the lowest punch hole by the action of said yieldable means, the follow movement of the respective locking member presses the card against said back stop.

2,781,846
PUNCH SELECTOR
James J. Madden, Woodhaven, and Eric E. Sumner, New York, N. Y., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application January 7, 1954, Serial No. 402,799
4 Claims. (Cl. 164—112)

1. A selecting mechanism comprising a rotatable surface having one end of a tape or string secured thereto, means for winding said tape onto said surface, an array of selectable punch elements, means responsive to said winding for directing an unwound section of said tape along said array, means for predetermining the amount of said rotation so as to select any predetermined one of said selectable elements an individual interposer selecting element secured to said unwound portion, means responsive to the winding of a predetermined length of said

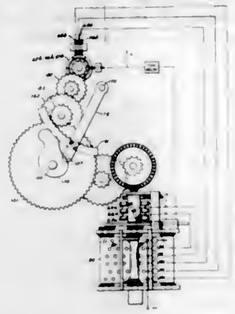


tape or string onto said rotatable surface for positioning said interposer in registry with a predetermined individual one of said punch elements, a ram for actuating said interposer and said predetermined punch element, electrical means for actuating said ram, a switch and a control element for said switch for energizing said electrical means and means responsive to the actuation of said rotatable surface for actuating said control element into a ready position, so as to permit its subsequent operation.

2,781,847
SELECTIVELY PROGRAMMED PERFORATING APPARATUS
Lawrence D. Kilheffer and James L. Hagemeyer, Dayton, Ohio, assignors to The National Cash Register Company, Dayton, Ohio, a corporation of Maryland
Application October 9, 1953, Serial No. 385,196
15 Claims. (Cl. 164—113)

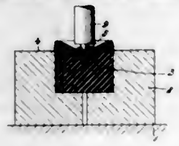
1. In an apparatus of the class described, the combination of a data entry device including a plurality of switching means which are settable according to data to be punched, each setting of the switching means being capable of representing data of different significance, and including a further switching means which is settable along with the plurality of switching means to represent the significance of the data set on the plurality of switching means; punching apparatus of the step-by-step type for punching data under control of the plurality of switching means, one after another; variable program control means for coordinating the control of the punching apparatus by the plurality of switching means to provide a plurality of different pre-arranged individually selectable punching sequences according to the significance of the data, each sequence causing the punching apparatus to be controlled from certain preselected ones of the plurality of switching means in a certain order; and means to control the program control means from the further switching means in the entry device to select the particular one of the pre-arranged punching sequences according to the significance of the data to be punched.

2,781,848
TRACING AND REPRODUCING DEVICES
Albert G. Thomas, Chattanooga, Tenn.
Application August 10, 1953, Serial No. 373,187
36 Claims. (Cl. 164—115)



1. In a device for making a record representing configuration of an object, means for tracing said object along a plurality of axes, means for amplifying movements along said axes of said tracing means, means including a belt for recording characterizations representing configuration of said object, means associating said amplifying means with said recording means to produce said record, means for moving said belt, and means associating said amplifying means with said belt-moving means to cause movement of said belt in proportion to the fastest rate of movement of said tracing means along any said axis.

2,781,849
METHOD OF FORMING SMALL APERTURES IN THIN METAL PLATE-SHAPED ARTICLES
Willem Frederik Bladergroen and Karel Jan Perk, Dordrecht, Netherlands, assignors to The Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application January 29, 1953, Serial No. 334,054
Claims priority, application Netherlands March 25, 1952
2 Claims. (Cl. 164—125)

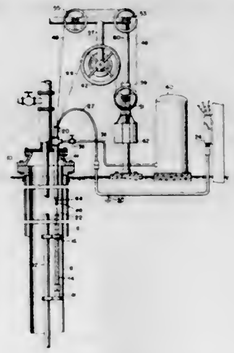


1. A method of forming small apertures in a thin metal, plate-shaped article comprising placing a non-compressible plastic mass in a metal receptacle, positioning a metal disk having the periphery of a surface thereof abutting said metal receptacle and another portion of said surface abutting said plastic mass, arranging said plate-shaped article on said metal disk, said article and said disk having thicknesses of the same order, pressing a punch into a surface of said article, to thereby form a small through-aperture in said article and shape said article conically.

2,781,850
METHOD AND COMPOSITION FOR SELECTIVE PLUGGING OF OIL WELLS
Theodore J. Nowak, Fullerton, and Paul W. Fischer, Whittier, Calif., assignors to Union Oil Company of California, Los Angeles, Calif., a corporation of California
No Drawing. Application June 21, 1954,
Serial No. 438,355
8 Claims. (Cl. 166—33)

5. The method of selectively plugging oil- and water-producing formations penetrated by a well bore to decrease the production of water therefrom which comprises injecting into said formations a composition as defined in claim 1, allowing said composition to remain in said formations until said composition has polymerized to at least a semi-solid stage, and thereafter placing the well in production.

2,781,851
WELL TUBING HEATER SYSTEM
Grafton A. Smith, Tulsa, Okla., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
Application October 11, 1954, Serial No. 461,463
6 Claims. (Cl. 166—60)



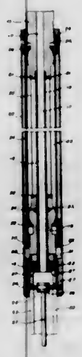
1. Heating apparatus for a well containing a production string of tubing, said apparatus comprising a second tubing string parallel to the production string, an insulated conductor cable extending within said second string substantially throughout the length thereof, said second string being filled with a dielectric fluid, and means for supplying a heating current to said conductor cable.

2,781,852
WELL PACKER
Robert C. Rumble, Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application December 17, 1953, Serial No. 398,720
7 Claims. (Cl. 166—120)

1. A well packer which comprises, in combination, a mandrel provided with a longitudinal passageway for flow of fluids therethrough and having a port fluidly com-

municating said passageway with an exterior surface of the mandrel, a body member attached to the mandrel, a slidable member mounted on the mandrel, a plurality of circumferentially spaced apart spring members attached to said slidable member and to said body member, and a deformable packing member attached to said slidable member and to said body member surrounding said spring members and enclosing a space in communication with the port on the mandrel communicating with the passageway whereby movement of said slidable member toward the body member expands said spring members laterally thereby to permit well fluids to enter filling said space through said port, and further movement of said slidable member past said port toward said body member entraps said well fluid in said space and expands the deformable packing member against the wall of the well.

2,781,853
PACKER FOR WELLS
Robert C. Rumble and Beldon A. Peters, Houston, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application December 17, 1953, Serial No. 398,721
9 Claims. (Cl. 166—137)

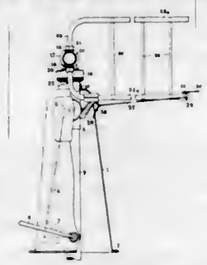


1. A well packer comprising a body member, a mandrel slidable in said body member, said mandrel being formed to provide a longitudinal fluid passageway and to provide a port adapted to fluidly communicate said passageway and the exterior of said mandrel, a plurality of spring members connected to said body member and to said mandrel, the connection of said spring members to said mandrel being above said port, a deformable packing member surrounding said spring members and sealingly connected to said body member and to said mandrel, the connection of said packing member and said mandrel being above said port, said port adapted to be positioned within said packing member when said packing member is in initial retracted position, means on said body member for retaining said mandrel from movement relative to said body member when said packing member is in initial retracted position, means on said body member adapted to release said retaining means to permit said mandrel to move relative to said body member whereby said relative movement expands said spring members radially outwardly thereby expanding said deformable packing member and fluid from within said passageway enters said expanded packer and further relative movement between said mandrel and said body member closes off said port to entrap said fluid within said deformed packing member and maintains said expanded packing member in sealing relation with the wall of the well.

2,781,854
WIRE LINE RELEASING TOOL AND WELL PLUG
George Boer, Wallace M. O'Reilly, and Martin E. True, Houston, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application May 17, 1954, Serial No. 430,117
3 Claims. (Cl. 166—218)

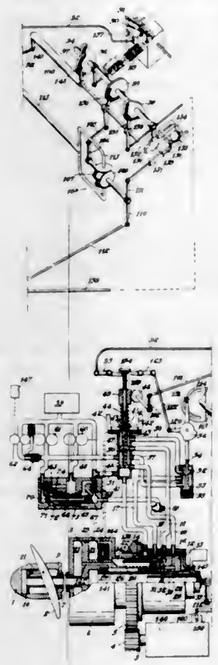
3. A releasing tool for an expanded well plug, said plug including an expansible sleeve adapted to contain a supply of expanding fluid therein, a pulling head, a passage in said head for the supply and release of fluid in said sleeve, and a check valve in said passage which normally retains fluid in said sleeve, said tool comprising a housing enclosing vertically aligned first and second spaced apart chambers adapted to have a confined fluid in said first chamber, passages fluidly communicating said chambers, a first movable piston in said first chamber having a piston rod attached thereto, said piston rod sealingly extending through the upper end of said housing, biasing means in said first chamber adapted to urge said first piston to the lower end of said first chamber, a second movable piston in said second chamber normally held at the upper end of said second chamber and movable in response to the action of the confined fluid when said first piston is moved to the upper end of said first chamber to displace said confined fluid from said first chamber through said communicating passages to said second chamber, a pin member attached to said second piston and slidable through the lower end of said housing adapted to engage and unseat said check valve and permit fluid to escape from said sleeve, retrieving arms arranged on the lower portion of said housing adapted to engage the pulling head to prevent relative upward movement therebetween, and means for moving said piston rod against said biasing means to elevate said tool and plug.

2,781,855
APPARATUS FOR EXTINGUISHING FIRES
René Biro, Chaville, France
Application July 29, 1953, Serial No. 371,102
Claims priority, application France October 27, 1952
5 Claims. (Cl. 169—25)



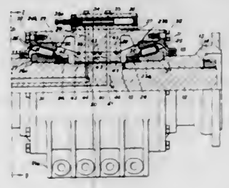
1. Apparatus for fighting fires comprising, in combination, a base member; a plurality of nozzles movably mounted on said base member in fixed spaced relationship; means for maintaining said nozzles parallel to each other; first conduit means attached respectively to a first group of said plurality of nozzles and adapted to be connected to a source of fluid fire extinguishing material under pressure for transmitting the fire extinguishing material under pressure to said first group of nozzles; second conduit means attached respectively to the remainder of said plurality of nozzles and adapted to be connected to a source of pulverulent fire extinguishing material under pressure for transmitting the fire extinguishing material under pressure to the remainder of said plurality of nozzles; and means for regulating the amount of fire extinguishing material transmitted by each of said conduit means.

2,781,856
CONTROL SYSTEM FOR VARIABLE PITCH SCREW PROPELLERS
Ellis Danvers and Henry Twitchen, Gloucester, England, assignors to Rotol Limited, Gloucester, England, a British company
Application June 1, 1953, Serial No. 358,863
Claims priority, application Great Britain June 6, 1952
9 Claims. (Cl. 170—135.74)



1. A control system for a variable pitch marine screw propeller having a hydraulic pitch change motor, said control system comprising a manual control member, means constraining said control member for movement in a single predetermined path, valve means to control the admission of hydraulic fluid to said pitch change motor, said valve means having a neutral setting corresponding to zero rate of adjustment of pitch; overridable transmission means from said control member to said valve means to effect adjustment of said valve means in one or the other sense from said neutral setting as said control member is moved in one or the other sense in a first part of said predetermined path and to allow adjustment of said valve about said neutral setting in a second part of said predetermined path; follow-up means operably interposed between said motor and said overridable transmission means responsive to pitch to cancel said adjustment whereby each position of said control member in said first part of said predetermined path corresponds to a particular pitch, the arrangement being such that when said control member is at the beginning of said first part of said predetermined path the pitch is maximum reverse and that as said control member is moved progressively from said beginning through said first part of said predetermined path to the end thereof the pitch changes progressively from maximum reverse through zero to a forward pitch substantially within the forward pitch range; engine power controlling means, a transmission from said control member to said power controlling means such that movements of said control member within said first part of said predetermined path controls engine power to prevent overspeeding of the engine at all pitches corresponding to positions of said control member within said first part of said predetermined path; propeller speed responsive means, a transmission between said speed responsive means and said valve means whereby the valve means is automatically adjusted during the second part of the movement of the manual control member, speed selection means for adjusting said speed responsive means to vary the setting of said valve means to which said speed responsive means tends to move said valve means at any particular speed, and transmission means from said control member to said speed selection means whereby movements of said control member in said second part of said predetermined path effect adjustment of said speed selection means.

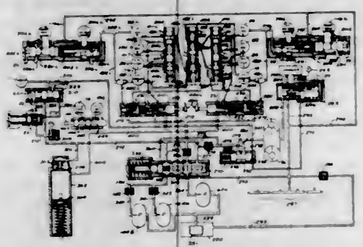
2,781,857
HYDRAULICALLY OPERATED VARIABLE PITCH MARINE SCREW PROPELLER
George C. Harvey, Kegworth, Derby, England, assignor to Slack & Parr (Marine) Limited, Derby, England
Application April 14, 1954, Serial No. 423,089
4 Claims. (Cl. 170—160.32)



1. Hydraulic control gear for a variable pitch marine screw propeller comprising in combination a hollow propeller shaft on the outer end of which the propeller is mounted and which extends inwardly into the hull of the vessel, a control member arranged coaxially within said propeller shaft to rotate therewith and axial movement of which relatively to the propeller shaft effects pitch-changing of the propeller blades, said control member extending with the propeller shaft into the hull of the vessel, hydraulic control means for positively effecting axial movement in both directions of said control member relatively to the propeller shaft, an element operatively connected to said propeller shaft, bearers secured to the hull which carry said element, means for attaching said element to said bearers to angularly and longitudinally fix said element to the hull of the vessel, a thrust bearing for said propeller shaft carried by said element and which locates the propeller shaft both axially and radially with respect to said element and therefore with respect to the hull of the vessel, and a control valve incorporated with said element for governing the supply of hydraulic fluid to said hydraulic control means, said element serving as a means for transferring hydraulic fluid

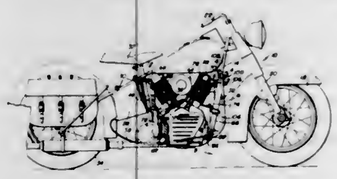
from an external source of supply to said hydraulic control means to enable the latter to effect axial movement of said member.

2,781,858
VEHICLE DRIVING AND STEERING TRANSMISSION AND HYDRAULIC CONTROL THEREFOR
Oliver K. Kelley and Jack W. Qualman, Birmingham, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 17, 1952, Serial No. 293,982
12 Claims. (Cl. 180—6.7)



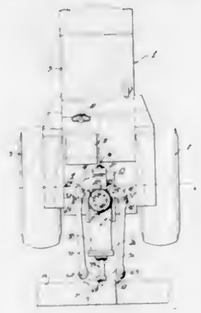
3. An apparatus for transmitting driving torque to the traction elements of a vehicle of the type having ground engaging endless tracks on opposite sides thereof and for steering said vehicle comprising, a driving member, torque output members for connection respectively to traction elements on opposite sides of the vehicle, a gear set between the driving member and one torque output member, a gear set between the driving member and the other torque output member, friction engaging devices associated with each gear set and which are selectively engageable to condition the gear sets for transmission of torque at different speed ratios, hydraulic actuators for the devices, a hydraulic system including pressure lines and exhaust ports, manually controlled valves in the hydraulic system operable for the transmission of hydraulic medium to selected device actuators of both gear sets for the transmission of torque at relatively high speed ratio, a movable steering element, a steering valve in the hydraulic system operable by the steering element to discontinue the supply of hydraulic medium to the actuator of the engaged device of one gear set for its disengagement and for the supply of hydraulic medium to the actuator of another selected device of said one gear set for its engagement for the transmission of torque through said one gear set at a lower speed ratio, a pressure line in the hydraulic system connecting the hydraulic actuator for the last named selected device to the said steering valve so that the pressure thereof acts upon the steering valve in opposition to the movement of the valve by the steering element.

2,781,859
OIL RADIATOR FOR MOTORCYCLES
Charles Warren, Detroit, Mich., assignor of forty percent to James H. Davis, Bradenton, Fla.
Application October 15, 1954, Serial No. 462,597
7 Claims. (Cl. 180—33)



1. In combination with a motorcycle including a frame, an engine mounted on said frame, a seat, a crash bar projecting laterally from the frame, a supplemental oil system for said engine comprising: a radiator mounted on said crash bar forwardly of the position normally occupied by the operator's leg, said radiator including upper and lower chambers interconnected by a plurality of tubes, a reservoir mounted on said frame beneath the seat, a first conduit connecting the upper chamber of said radiator with said reservoir, said engine including a scavenging pump and a pressure supply pump, a second conduit leading from said reservoir to the inlet of said supply pump, the outlet of said supply pump being connected to a gallery for supplying oil to the moving parts of the engine, and a third conduit connecting the outlet of said scavenging pump with the lower chamber of said radiator.

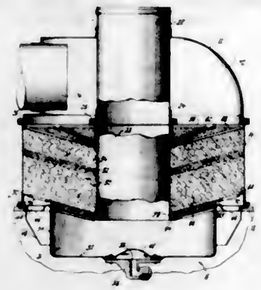
2,781,860
HYDRAULIC STEERING MECHANISM FOR JOINTED VEHICLES
Charles H. Herr, Jr., and George O. Christensen, Springfield, Ill., assignors to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application March 24, 1955, Serial No. 496,390
11 Claims. (Cl. 180—79.2)



1. A steering mechanism for an articulated vehicle having pivotally interconnected front and rear units adapted for relative horizontal angling about a common axis into and out of a straight course driving position, said mechanism comprising a jack having relatively contractible and expansible thrust transmitting elements, pivot means concentric with said common axis operatively mounting one of said thrust transmitting elements in horizontally swingable relation to both of said units, a pair of links having relatively adjacent ends pivotally connected with the other of said thrust transmitting elements, and a pair of torque transmitting elements operatively connected, respectively, with said front and rear units and pivotally connected with said links on centers at predetermined radial distances from said common axis, said radial distances and the effective lengths of said links being proportioned so as to position said centers at opposite sides of said common axis when said units are in said straight course driving position.

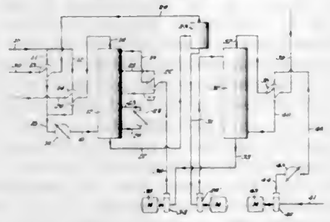
2,781,861
AIR CLEANER
Donald B. Lewis, Lapeer, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 3, 1954, Serial No. 407,910
1 Claim. (Cl. 183—15)

Air cleaner means which includes separate filter housing, cover and liquid sump members secured together and having separate air inlet passage means cooperatively disposed and formed within and through said cover and housing members and in open communication with said liquid sump member, air filtering means disposed within said housing and including a plurality of alternate layers of adjacently disposed filter materials of different densities, air outlet passage means formed through said housing and cover members and in open communication with said liquid sump, said sump as secured to said housing having the outer wall thereof disposed inside the space defined by the outer wall of said housing for limiting said outlet passage means through said housing to within the inner periphery thereof, said filter materials within said



housing being inclined upwardly and outwardly in the direction of the flow of air therethrough for directing liquids entrained in said air towards the outer periphery of said housing, and drain passage means formed within the outer periphery of said housing and outside of said sump for exhausting liquids carried over from said sump into said filter materials and directed by said filter materials into said drain passage means away from said air cleaner means.

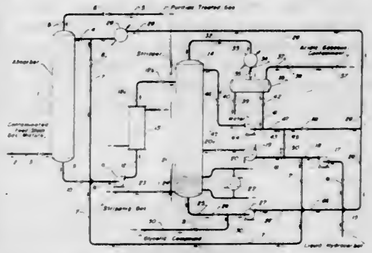
2,781,862
COLD RECOVERY ABSORPTION SYSTEM
Frederick Fussman, New York, N. Y., assignor, by mesne assignments, to Blaw-Knox Company, Pittsburgh, Pa., a corporation of Delaware
Application April 3, 1952, Serial No. 280,262
2 Claims. (Cl. 183—114)



1. In a cold recovery system for methanol having unwanted carbon dioxide or other unwanted gaseous component dissolved therein, the steps comprising, continuously introducing said methanol into a stripper vessel substantially at subzero temperature, and continuously introducing a gas inert to said methanol into said stripper vessel to flow in countercurrent relation to said methanol and at a temperature relative to said methanol to lower the temperature thereof and strip said gaseous component therefrom.

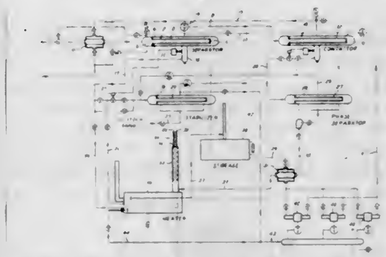
2,781,863
GAS PURIFICATION PROCESS
Herman S. Bloch, Chicago, and Howard E. Mammen, North Riverside, Ill., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
Application December 30, 1953, Serial No. 401,124
18 Claims. (Cl. 183—115)

1. A gas washing process which comprises contacting a gas mixture contaminated by an acidic gaseous component with a substantially anhydrous liquid absorbent composition comprising at least one glycolic compound



and a liquid hydrocarbon, and thereafter recovering from the contacting step a gas stream substantially free of said acidic gaseous contaminant.

2,781,864
FLUID SEPARATION PROCESS
Charles B. Jahn and Vernon B. Scott, Houston, Tex., said Scott assignor to said Jahn
Application December 27, 1952, Serial No. 328,185
7 Claims. (Cl. 183—121)

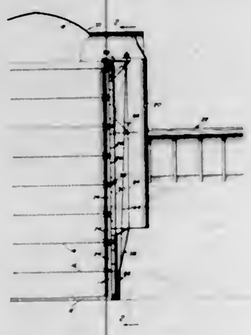


1. A process for continuously contacting a stream of gas with a stream of liquid and for separating the liquid from the gas comprising the steps of admixing said streams of gas and liquid; providing a porous body having chains of interconnected pores therein forming flow passages from one side of the body to another side thereof, said pores being of a size that said liquid can collect therein and temporarily bridge across the pores to be blown by said gas from pore to pore in said chains thereof; flowing the admixed streams through the porous body from said one side thereof to said another side, collecting liquid in said pores from said admixed streams while the latter are flowing through the body, said liquid being so collected in sufficient quantity that it will temporarily bridge across at least some of the pores as aforesaid, and blowing said collected liquid by said gas from pore to pore to move it through said porous body in intimate contact with said gas; withdrawing a stream of gas from said another side of said porous body, and also withdrawing a separate stream of said liquid from said another side.

2,781,865
SILO ELEVATOR
Glenn A. Brott, Baldwin, Mich.
Application March 24, 1954, Serial No. 418,354
3 Claims. (Cl. 187—6)

1. In a combination with a silo of the type including an external chute and tension hoops, a silo elevator, said silo elevator comprising a vertical trackway mounted within said chute and secured to said hoops, a pulley mounting bracket mounted at an upper edge of a vertical wall of the silo in alignment with said chute, a first

pulley carried by said mounting bracket in alignment with said chute, a second pulley carried by said mounting bracket in spaced relation to said first pulley, a flexible member entrained over said pulleys, one end of said flexible member being disposed within said chute, a carriage disposed within said chute in guided engagement with said trackway, said carriage being secured to said one end of said flexible member in supported relation, a counter-balance carried by an opposite end of said flexible

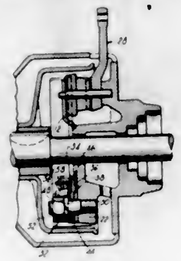


member externally of said chute, said trackway being formed by spaced parallel tracks, each of said tracks being provided at spaced intervals with ears, a clamp releasably securing each ear to one of said hoops, said clamp including a first clamp portion releasably clamping one of said hoops, a second clamp portion releasably clamping one of said ears, said second clamp portion being adjustably supported by said first clamp portion.

2,781,866
HYDRAULIC LIFT
Thomas B. Milam, Leesburg, Fla.
Application August 10, 1955, Serial No. 527,567
3 Claims. (Cl. 187—17)

1. Hydraulic lift comprising a base and on said base a vertically extensible hydraulic lifting ram and a pair of vertically disposed spaced parallel flanges beams arranged so that the flanges of each form track means, a horizontal platform externally mounted on the upper end of said lifting ram having one side thereof adjacent said track means, a vertically extensible lowering ram mounted adjacent said track means, a rigid framework extending downwardly from said platform and rigidly related thereto comprising a frame fixed to said platform at the side adjacent said track means, and inclined struts fixed to the opposite side of said platform extending to the lower part of said frame, means mounted at high and low points of said frame engageable with said flanges to constrain said platform to move in a vertical direction, a plate on the lower end of said ram and rigid connecting means between said plate and said framework.

2,781,867
BRAKE AND ANCHOR ASSEMBLY
Edward K. Dombeck, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application January 24, 1951, Serial No. 207,469
6 Claims. (Cl. 188—78)

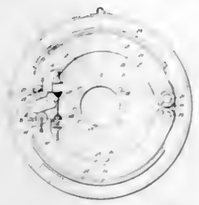


1. A brake, arranged to be mounted on a non-rotating member, comprising a supporting member having two radially outwardly extending shoe guiding arms, a hardened anchor plate having substantially parallel shoe-engaging surfaces formed on opposite lateral edges thereof, and recess for locating said anchor plate on said supporting member and engaging said anchor plate to urge it against said supporting member, said supporting member and said anchor plate being provided with a mating boss and recess for locating said anchor plate on said supporting member, said anchor and retainer plates and said supporting member being provided with aligned congruent openings, a fastening member received by said openings for securing the anchor and retainer plates and said supporting member rigidly together and to the non-rotating member, said fastening member being adapted to transmit torque directly to the non-rotating member independently of said supporting member, two brake shoes, each having a rim and a web, at least one end of each web being convexly curved for sliding and rocking movement on a corresponding one of said shoe-engaging surfaces, two shoe return springs, each being connected in tension between a corresponding shoe and said retainer plate for maintaining said convex shoe ends in engagement with said anchor plate, and two laterally extending ears formed on said retainer plate and projecting outwardly beyond corresponding shoe-engaging surfaces, said shoes being guided into engagement with said anchor plate by engagement with said supporting member, said arms, and said ears, said shoe-engaging surfaces being disposed in such manner as to provide self-centering action of said shoes.

2,781,868
BRAKE ASSEMBLY
Bryan E. House, Ashtabula, Ohio, assignor to Rockwell Spring and Axle Company, Coraopolis, Pa., a corporation of Pennsylvania
Application March 4, 1955, Serial No. 492,075
8 Claims. (Cl. 188—78)

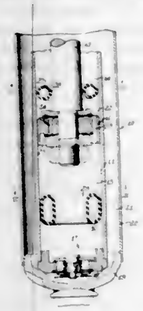
1. In an internally expanding brake, a support, two brake shoe assemblies pivoted at adjacent ends on said support, a rotatable actuator cam on said support disposed between the other ends of said shoes, means providing open-ended cam roller bearing sockets on said other ends of said shoes facing said cam, cam follower rollers on said other ends of said shoes freely rotatably and laterally rockably mounted in said sockets for full surface engagement with said cam, a retainer spring ex-

tending between each shoe and associated roller for retaining the rollers on the shoes but permitting said rotation and rocking movement during normal operation,



and return spring means urging both shoes toward each other for providing operational engagement between said cam and said shoes.

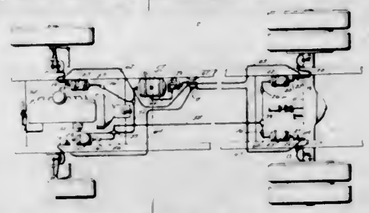
2,781,869
TELESCOPIC SHOCK ABSORBERS
Eric G. Boehm, Derby, and Carl F. Lautz, Buffalo, N. Y., assignors to Houdaille Industries, Inc., a corporation of Michigan
Application March 9, 1951, Serial No. 214,782
2 Claims. (Cl. 188—88)



1. In a direct acting hydraulic shock absorber including a cylinder inside and in spaced relation to a reservoir chamber tube, said cylinder being in valved communication at its lower end with the space between said cylinder and casing providing a reservoir, a piston dividing said cylinder into rebound stroke and compression stroke chamber portions wherein the compression stroke portion is between the piston and the valved lower end portion of the cylinder, and an air cell structure in free floating relation within said rebound stroke chamber portion above the piston and directly subjected to hydraulic fluid pressure that develops in said rebound stroke chamber portion on both the compression and rebound strokes of the piston in order to afford a predetermined amount of free travel of the piston during at least the compression stroke thereof as a result of compressibility of the air in said air cell structure.

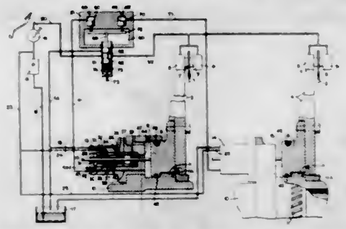
2,781,870
EMERGENCY AIR BRAKE ACTUATOR
George Oliver Clements, West Long Branch, N. J.
Application April 27, 1954, Serial No. 425,851
6 Claims. (Cl. 188—106)

1. An emergency brake system for use on a vehicle having wheel brakes comprising an auxiliary tank positioned adjacent each wheel brake of the vehicle, means connecting the auxiliary tanks to a tank of a conventional air brake system of the vehicle, means preventing the return of fluid from the auxiliary tanks to said tank of the vehicle, a solenoid actuated valve, and means controlled by the solenoid actuated valve for applying fluid from the auxiliary tanks to brake actuating elements of the vehicle



upon drop in pressure of fluid of the conventional brake system of the vehicle.

2,781,871
HYDRAULIC TORQUE CONTROLLER FOR BRAKES
John L. Altekruse, Cuyahoga Falls, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application April 13, 1954, Serial No. 422,743
6 Claims. (Cl. 188—152)



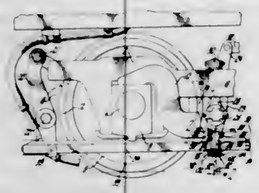
1. A torque control for a hydraulically operated brake having a brake element rotatable with a wheel and a hydraulically operated brake shoe frictionally engageable with said brake element, said torque control comprising a torque control valve located in a supply line between a pressure supply and a brake-actuating pressure responsive element to control supply of fluid from said pressure supply to said brake actuating pressure responsive element, said torque control valve comprising a three-way valve for controlling supply to said pressure responsive element and a servomotor including a cylinder for controlling operation of said three-way valve, torque sensing means mounted at said brake and responsive to torque at said brake for alternately connecting said servomotor cylinder to a hydraulic pressure supply and an exhaust, adjustable means at said torque control valve for opposing movement of its three-way valve in a direction to close off supply of pressure fluid to said pressure responsive element, and a movable piston in said servomotor cylinder and biased by said adjustable means for actuating said three-way valve to cut off pressure supply and open exhaust to said pressure responsive element at said brake when torque at said brake in excessive, said adjustable bias means being adapted to restore supply of pressure to said brake actuating pressure responsive element to reapply the brake when brake torque is reduced to a non-excessive amount.

2,781,872
SLACK ADJUSTING CONNECTION
William F. Holln, Riverside, Ill., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 20, 1954, Serial No. 444,513
9 Claims. (Cl. 188—202)

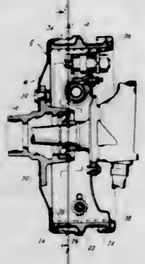
1. In a clasp brake rigging the combination of a tension bar having an offset end integral therewith, an elongated member supported by said offset end of said bar and spaced from and parallel to said bar, a crosshead member

tion extending away from said rim thereon, said ends

guided by said bar and having a hole through which said elongated member extends, a brake lever, means connecting the lower end of said lever to said crosshead member, and means to move said crosshead member to different positions along said elongated member whereby the effective length of said bar relative to the lower end of said lever is adjustable.



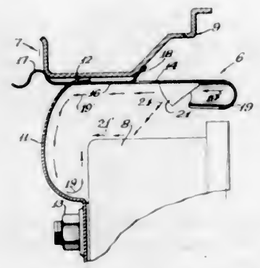
2,781,873
BRAKE DRUM
Rudolph A. Goepfrich, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application June 17, 1953, Serial No. 362,247
3 Claims. (Cl. 188—264)



1. For use in cooperation with a friction-producing element, a rotatable drum comprising a substantially cylindrical drum-ring including a sheet metal shell having metallic lining formed therein to provide a continuous relatively smooth inner surface adapted for engagement with a friction-producing element, an annular rib at each of the open ends of said shell, a third annular rib located on the outer surface of said shell substantially midway between the open ends thereof, a drum-back, a plurality of fastening members for securing said drum-back to a rotatable member, a substantially cylindrical transverse flange located at the periphery of said drum-back, said transverse flange extending contiguously to said drum-ring and contacting said third rib of the drum-ring whereby said drum-ring and drum-back may be secured together, said transverse flange having a plurality of circumferentially spaced openings arranged for expelling air from the cavity formed between said transverse flange and drum-ring, said drum-ring being spaced from the base of said drum-back to provide an annular passage to said cavity thereby permitting complete circulation of air into the brake and exit from said openings and a plurality of louvers formed in said transverse flange serving as air scoops to forcibly pump air through the braking system.

2,781,874
BRAKE DRUM COOLING DEVICE
James K. Gaylord, Chicago, Ill., assignor to Gaylord Products, Incorporated, Chicago, Ill., a corporation of Delaware
Application December 29, 1953, Serial No. 400,887
2 Claims. (Cl. 188—264)

1. In a rotatable automobile wheel, a brake drum, a tire rim encircling said drum, a brake cooling device comprising a generally tubular body disposed between said drum and rim, said body and drum defining an axial passageway, blades on said body to circulate air through said passageway responsive to rotation of the wheel, means



detachably securing said device on the tire rim, said means comprising resilient arms circumferentially spaced on said body, and spaced abutments on each of said arms engaging opposite sides of said rim.

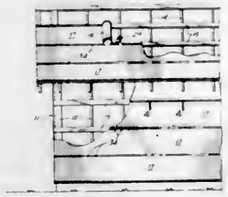
2,781,875
DOOR CONSTRUCTION
Vernon E. Noel and Romer G. Weyant, Elkhart, Ind., assignors to B & N Aluminum Welding Corp., Elkhart, Ind., a corporation of Indiana
Application March 17, 1953, Serial No. 342,874
1 Claim. (Cl. 189—46)

A rectangular fabricated door comprising front and rear sheet metal panels having their central portions in spaced relation, a corrugated pad conforming to the shape of such central portions so as to occupy the space therebetween and bonded to the inner sides of said panels, three of the corresponding edges of said panels being shaped and fastened together to form a continuous marginal recess for fitting into a door frame, the joint between said three corresponding edges being formed by the front panel having a peripheral edge folded back in a reverse direction along its inner side, said rear panel having its corresponding edge turned toward the front panel and extending into engagement with the latter, the terminal portion of said corresponding edge being turned laterally so as to fit under the folded back portion of the front panel, and a resilient weather sealing member having a generally U-shaped cross-section fitting over the folded back portion of the front panel so that one leg of the sealing member is clamped between said terminal portion and said folded back portion, the other leg fitting over and being bonded its entire length to the exposed side of said folded back portion to provide a flexible weather stripping for engagement with a door frame, the remaining pair of corresponding edges being joined to form a box-like section for fitting against the hinge-carrying side of the door frame, the hinged edge of said door being relatively straight and the opposite edge being cambered to present a concave face toward its rear panel.

2,781,876
WINDOW GUIDE SPRING ASSEMBLY
Vincent Van Fleet, Detroit, Mich.
Application October 22, 1954, Serial No. 464,055
5 Claims. (Cl. 189—72)

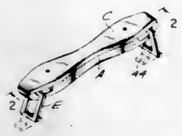
4. A generally T-shaped sash guide spring element having an upright portion and a head portion, said head portion being of arcuate shape and having its outer ends tensioned toward its concave side and provided on said side with wear-resistant plastic adjacent to said ends.

2,781,877
BUILDING MATERIAL
Ned A. Ochiltree, River Forest, Ill., assignor to Ceco Steel Products Corporation, Omaha, Nebr., a corporation of Nebraska
Application January 31, 1955, Serial No. 485,100
8 Claims. (Cl. 189—86)



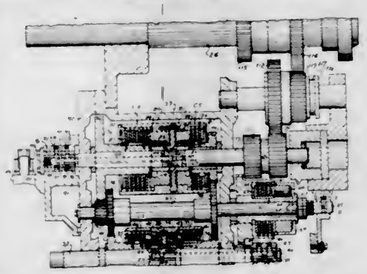
1. A strip of sheet building material comprising a central area provided with transversely disposed major corrugations of substantial depth and width and marginal areas at the opposite sides of said central area provided with transversely disposed minor corrugations of lesser depth and width than said major corrugations, said major corrugations terminating at the inner boundaries of said marginal areas and merging endwise into the inner ends of said minor corrugations.

2,781,878
HANDLE
William Finkelstein, Philadelphia, Pa.
Application October 28, 1955, Serial No. 543,453
1 Claim. (Cl. 190—57)



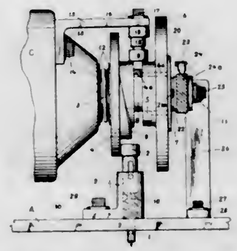
In a transparent or translucent baggage handle comprising a top transparent or translucent plastic sandwich member and a bottom transparent or translucent plastic sandwich member, each member having a rim to define a cavity therein, the rim on the bottom section being recessed from its outer side surface, the rim on said upper portion interfitting and overlapping the recessed portion of the rim on the lower section whereby the outer surface is continuous, the ends on the lower section extending away from said rim thereon, said ends each having a pair of walls extending at right angles to one another to provide a T-shaped end, a split shaped ring or bag attaching loop, said split end of said ring being held freely by said T-shaped end whereby the handle may be raised or lowered to lie against the surface of the luggage to which said handle is attached.

2,781,879
MACHINE TOOL TRANSMISSION AND CONTROL THEREFOR
Robert C. Ebersold, Chagrin Falls, Ohio, assignor to The Warner & Swasey Company, Cleveland, Ohio, a corporation of Ohio
Application December 17, 1953, Serial No. 398,759
17 Claims. (Cl. 192—4)



1. In a machine tool, a control mechanism for operating a plurality of fluid actuated devices two at a time in selected order comprising, a plurality of individually operable two position electromagnetically actuated valves, a fluid operated valve, the total number of valves being one less than the number of devices controlled, a source of fluid under pressure, conduit means connecting said source of pressure to two of said electro-magnetically operated valves and outlets of one of the latter to the inlets of said fluid pressure operated valve and of another of said electromagnetically operated valves, other conduit means connecting the outlets of said other electromagnetically actuated valve to said fluid pressure actuated valve for operation of the latter and to one of said fluid actuated devices, still other conduit means connecting outlets of said fluid pressure actuated valve and of the other of the first two mentioned electromagnetically actuated valves to the devices to be actuated, and means for selective energization of said electromagnetically actuated valves.

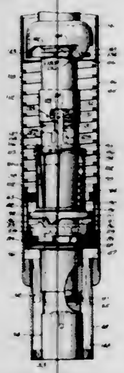
2,781,880
INTERMITTENT CLUTCH
Frederic F. Walz, Bayside, N. Y.
Application May 12, 1952, Serial No. 287,431
2 Claims. (Cl. 192—33)



1. An intermittent clutch comprising a drive shaft, a clutch plate connected to said drive shaft and adapted to move longitudinally thereof, a clutch tooth rigidly attached to said clutch plate, an output crank supported by

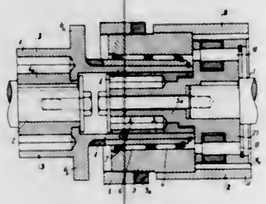
said driveshaft and free to rotate relative thereto, said output crank having a spline way cut therein to release said tooth, a cam surface attached to the face of said clutch plate, a cam guide rigidly supported relative to the longitudinal axis of said drive shaft, locking means adapted to move normal to the longitudinal axis of said drive shaft, a connecting link attached to said crank, and indexing means connected to said connecting link.

2,781,881
TORQUE APPLIER
Paul A. Sturtevant, Elmhurst, Ill.
Application April 25, 1951, Serial No. 222,903
40 Claims. (Cl. 192—56)



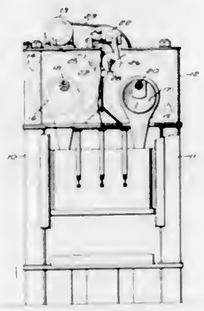
1. In a torque applier, a rotatable spindle torsionally yieldable in response to resistance to rotation encountered thereby, a tube surrounding said spindle and rigidly connected thereto at one end, a connection at the other end of said tube with said spindle, permitting relative movement between the spindle and said other end of the tube during torsional yielding of said rotatable spindle, a clutch element mounted on said tube for rotation therewith and axial movement relative thereto, means releasably holding said clutch element against axial movement, and means operated by said connection for releasing the holding means upon relative movement between said spindle and said other end of the tube.

2,781,882
SAFETY COUPLINGS
Gustave Burkhardt, La Garenne-Colombes, France
Application May 14, 1954, Serial No. 429,945
Claims priority, application France May 15, 1953
8 Claims. (Cl. 192—56)



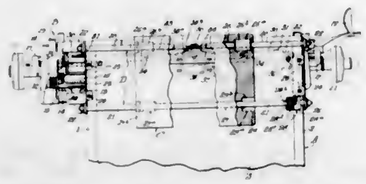
1. In a coupling for a drive and a driven shaft, the drive shaft having a sleeve integral therewith and the driven shaft having a sleeve with a conical surface integral therewith fitting over the sleeve of the drive shaft, a tightening ring having an interior conical surface complementary to the conical surface on the driven shaft sleeve, a plurality of needle roller bearings positioned between said conical surfaces at an angle to the axis of said shafts, whereby on rotation of said tightening ring in a direction opposite to the direction of rotation of the shafts the tightening ring is tightened onto said driven shaft sleeve, and a cage to hold said bearings in position, that improvement comprising means on said drive shaft operable at a predetermined speed to lock said tightening ring to said shaft, and means on said drive shaft acting on said locking means to retain said locking means in the locked position.

2,781,883
PRESSURE CONTROL FOR POWER PRESSES
Fred J. Rode, Chicago, Ill., assignor to Niagara Machine & Tool Works, Buffalo, N. Y.
Application February 9, 1955, Serial No. 487,067
9 Claims. (Cl. 192—150)



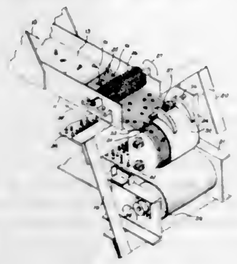
1. In a power press having a frame, a reciprocable slide, and drive means for said slide including an eccentric driving part, a member acting between said eccentric driving part and said frame, said member having a part rotatably engaging said frame and a part rotatably supporting said eccentric driving part on an axis laterally offset from the axis of rotatable engagement with said frame, whereby the reaction thrust against said eccentric driving part exerts a turning moment on said member, and machine controlling torque responsive means opposing said turning moment to control machine operation in accordance with the magnitude of said reaction thrust.

2,781,884
TILT COMPENSATOR FOR TYPEWRITER OR LIKE MACHINE CARRIAGES
Harry L. Lambert, West Hartford, Conn., assignor to Royal McBee Corporation, New York, N. Y., a corporation of New York
Application October 11, 1955, Serial No. 539,748
5 Claims. (Cl. 197—82)



1. In a typewriter or like machine, the combination of a frame; a carriage member mounted on said frame for letter spacing and return travel; a compensator member mounted on said frame for travel parallel to the direction of carriage member letter spacing and return travel; and drive transmitting means interconnecting said carriage member and said compensator member for causing letter spacing and return travel of said carriage member to be accompanied by parallel travel of said compensator member in the opposite direction, the respective masses of said carriage member and said compensator member being different and the drive transmitting ratios of said drive transmitting means to said members respectively being so related to the difference between said masses that force is applied from the smaller of the two masses to said drive transmitting connections with a larger mechanical advantage than is the force applied from the larger of the two masses to said drive transmitting connections.

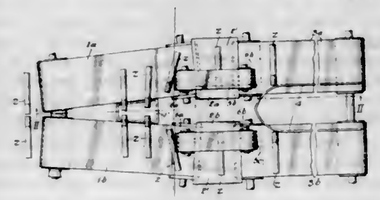
2,781,885
ARTICLE FEEDING AND INSPECTION MACHINE
Edward Crisp Taylor, Johnston, R. I., assignor to General Electric Company, a corporation of New York
Application July 3, 1953, Serial No. 365,941
7 Claims. (Cl. 198—33)



7. Apparatus for feeding flanged cylindrical bases comprising a channelling pan receiving bases in bulk, an orienting grid at the forward end of the pan including a plurality of substantially horizontal parallel spaced bars defining channels capable of accommodating bases oriented flange up and depending by their flanges from said bars, a frame supporting said channelling pan and orienting grid and a plurality of inclined leaf springs supporting said frame, said springs being disposed in a vertical plane parallel to said bars and making an acute angle with the frame in the direction of advance of the bases therethrough, means for vibrating said frame whereby to cause said bases to progress through said pan and grid, means preventing the advance of nonoriented bases beyond a given point, said bars being terminated at their forward ends in wedge-shaped portions, and means for delivering said bases flange down comprising a plurality of semicircular spaced plates corresponding in thickness to said bars and aligned therewith at their upper ends disposed to be overlapped by the wedge-shaped ends of said bars, said semicircular plates forming reverted channels dropping away from the ends of said bars, and a cover over said plates to constrain said bases to progress through said reverted channels whereby to be deposited flange down at the ends thereof.

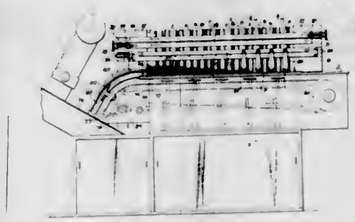
2,781,886
CONVEYOR MECHANISM FOR CIGARETTE MAKING MACHINES
Carl Stelzer, Hamburg-Bergedorf, Germany, assignor to Kurt Korber & Co. K.-G., Hamburg-Bergedorf, Germany
Application March 23, 1955, Serial No. 496,218
Claims priority, application Germany April 7, 1954
6 Claims. (Cl. 198—33)

1. In a cigarette-making machine, a cigarette receiving and conveying device including two horizontally arranged side by side endless transfer belts arranged with one of their ends adjacent one another and with their other ends laterally spaced from each other to form two divergent conveyor paths, said adjacent ends of said transfer belts being adapted to receive sets of filter tip cigarette pairs, the cigarettes in each pair being disposed transversely of said conveyor belts and arranged in axial alignment with the filter tip ends adjacent one another on the respective conveyors, two spaced parallel and horizontally arranged conveyor belts arranged in substantially a straight line path with the transfer belts for receiving the cigarettes



from said transfer belts, the ends of said conveyor belts being spaced from the ends of said transfer belts, a stationary bridge member having a highly polished surface arranged in the space between each discharge end of said transfer belts and each receiving end of said conveyor belts, and an endless driven belt disposed above each of said stationary bridge members for engaging and conveying the cigarettes discharged upon said bridge member.

2,781,887
MACHINE FOR COLLATING BISCUITS AND LIKE THIN ARTICLES FOR WRAPPING PURPOSES
Leslie Gordon Forster, Ealing, London, England, assignor to Forsters Machine Company Limited, Hayes, England, a British company
Application November 10, 1953, Serial No. 391,315
Claims priority, application Great Britain November 10, 1952
12 Claims. (Cl. 198—35)



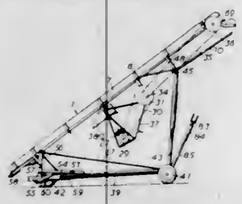
1. Collating machine comprising: a series of longitudinally movable conveyor fingers, each finger having a plurality of pairs of vertically spaced operating arms, the arms of each pair extending transversely in both directions from the stem; two sets of vertically spaced horizontal guide plates located on opposite sides of said fingers and leaving a space therebetween through which the said fingers move longitudinally while the said arms move between the plates; a plurality of vertical hoppers in which the biscuits to be assembled are first stacked with the lowermost biscuits at different heights, said hoppers being located along one side of the machine adjacent one of said sets of horizontal guide plates; and a transversely reciprocable plunger for each hopper located at such a height that its end engages the lowermost biscuit and pushes said biscuit between the corresponding guide plates and in front of a conveyor finger.

2,781,888
FLEXIBLE CONVEYOR HAVING SUCCESSIVELY SHIFTABLE SECTIONS FOR LONG FACE MINING
Wilhelm Löbbe, Oberaden, Germany, assignor to Gewerkschaft Eisenhutte Westfalia, Lunen, Germany, a firm
Application May 27, 1948, Serial No. 29,484
Claims priority, application France July 2, 1947
5 Claims. (Cl. 198—109)

1. In a long wall mining planer having a planer cutting head movable along the forward longitudinal portion of a conveyor, a longitudinally extending substantially stationary, laterally flexible trough and endlessly movable conveying means positioned partly within said trough for coal conveying action therein and substantially flexible with said trough, said trough being composed of a multiple number of substantially rigid sections having groups of at least two in number inter-connected for limited lateral angular displacement relative to each other and having intermediate said groups at least one section secured to the sections of adjacent groups, substantially against lateral displacement relative to each other, the improvement

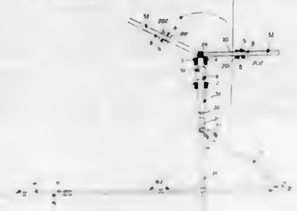
which comprises that the inner angle displacement sides of inter-connected trough sections of said groups are arranged in butting position relative to each other, and in which the outer angle displacement sides of such sections are provided with inter-connecting means composed of a strap externally carried by one section side and overlapping the adjacent end of the other section side when said group sections are substantially in alignment, and means positioned for co-operating with said strap and said other section side for limiting the angular displacement between said outer angle displacement sides.

2,781,889
ELEVATORS
William Thomas Teagle, Blackwater, Truro, England
Application October 29, 1954, Serial No. 465,692
Claims priority, application Great Britain November 2, 1953
15 Claims. (Cl. 198—118)



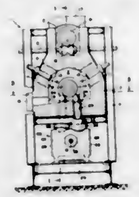
1. A portable elevator comprising a supporting structure having a wheeled chassis, an elevating mechanism mounted in an inclined position upon said structure, means mounted at one end of said chassis providing a pivotal support for the discharge end of the elevating mechanism, and means mounted at the other end of the chassis for supporting the receiving end of said mechanism, the latter means comprising an arrangement of toggle levers adapted in a folded condition to support the receiving end of the elevating mechanism at a position near the ground, and in an extended condition to support the receiving end of said mechanism at a raised position a predetermined distance above the ground, and spring means connected to bias said toggle levers towards their extended position to counterbalance the weight of the receiving end of the mechanism during the raising and lowering thereof.

2,781,890
CONTROL MECHANISM FOR STACKER-CONVEYER SYSTEM
Stanley M. Mercier, Bexley, Ohio, assignor to The Jeffrey Manufacturing Company, a corporation of Ohio
Original application September 18, 1950, Serial No. 185,425, now Patent No. 2,734,642, dated February 14, 1956. Divided and this application April 23, 1953, Serial No. 350,595
6 Claims. (Cl. 198—124)



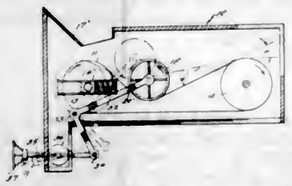
1. A stacker system including a stacker having a boom, means mounting said stacker for swinging movement about an upright axis, a tractor for swinging said stacker including inside and outside traction devices, a mast on said tractor, a carriage on the top of said mast supporting said boom for limited rectilinear movement relative thereto, and control means operable by inward movement of said carriage relative to said boom to control the outside traction device.

2,781,891
WORK CONVEYING MECHANISM
Quentin M. Bloom, Huntingdon Valley, Pa., assignor to Selas Corporation of America, Philadelphia, Pa., a corporation of Pennsylvania
Original application July 15, 1950, Serial No. 174,009. Divided and this application September 26, 1951, Serial No. 248,399
5 Claims. (Cl. 198—127)



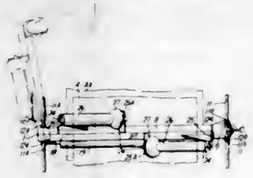
1. A conveying mechanism for elongated cylindrical articles comprising a plurality of pairs of conveying members, means to mount said pairs of members in a line with the members forming side by side rows on opposite sides of a vertical plane extending along the path through which the articles are to be moved, means to mount the members of each pair in an upwardly extending direction and at an angle to the vertical in the direction of said path with the members of one row tilted in one direction and the members of the other row tilted in an opposite direction along said path, drive means extending along said path, gearing between said drive means and said members to rotate said members of each pair in opposite directions, and a cap on the top of each member upon which an article to be conveyed is supported, whereby an article supported jointly by members of each pair will be moved along said path as said members are rotated.

2,781,892
PROJECTION MACHINES FOR LOOSE MATERIAL
Jean Thevenieau, Samois-sur-Seine, France, assignor to Societe Preparation Industrielle des Combustibles, Fontainebleau, France, a French company
Application December 2, 1953, Serial No. 395,685
Claims priority, application France December 3, 1952
5 Claims. (Cl. 198—128)



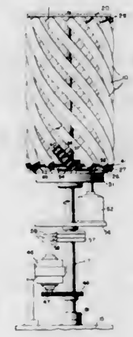
1. Apparatus for projecting loose material comprising an endless belt mounted on a pair of laterally spaced rotatable drums, one of which is laterally adjustable relative to the other; means for feeding the material to be projected onto the upper surface of the upper reach of said belt; means for rapidly moving said belt about said drums at a predetermined rate of speed whereby the material will be projected in a direction generally perpendicularly to the longitudinal axis of the drum on the projection side of the apparatus; and adjustable deflecting means for deflecting the upper reach of said belt a predetermined amount to produce a predetermined angle of projection of the material from said belt so that the projected material will follow a predetermined trajectory, said adjustable deflecting means including a rotatable spool-shaped roller member extending transversely of and engaging the upper reach of said belt and displaceable toward and from the horizontal plane passing through the axis of said drums and adjustable means for controlling the amount of the displacement of said spool-shaped roller member.

2,781,893
TROUGHING CONVEYOR BELT APPARATUS
Rudolf Millik, Greenock, Renfrew, Scotland, assignor to Millik Conveyors Limited, London, England, a British company
Application June 12, 1953, Serial No. 361,355
Claims priority, application Great Britain June 20, 1952
8 Claims. (Cl. 198—192)



1. A unit for supporting a transversely troughed endless conveyor belt comprising a rigid framework constituted by two upright posts adapted to stand adjacent opposite edges of the vertically aligned upper and lower runs of said belt and a cross member arranged toward the bottom of and interconnecting said posts; hinge means comprising a socket element and a pin element, one of which upwardly extends from one of said posts, said hinge element being inclined to the vertical in the direction of the run of the belt; an arm carrying two inclined shafts mounted in shallow V formation, a plain cylinder freely revoluble on each shaft for supporting one of the inclined side portions of the upper run of said belt and at the inner end of each shaft a freely revoluble disc-like roller larger in diameter than the associated cylinder to provide laterally spaced transversely offset points of support for the middle portion of said troughed belt run, said arm being hingedly mounted by one end on said hinge element on one post, and temporarily supported at the end remote from the axis of hinging on said other post, so that the arm and belt supporting means thereon can be swung as a unit to and from beneath the belt with a slightly downward movement to clear the underside of the troughed belt run.

2,781,894
TUBULAR FILM ADVANCER
Robert A. Covington, Jr., and Vincent H. Waldin, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application April 7, 1955, Serial No. 499,826
2 Claims. (Cl. 203—270)

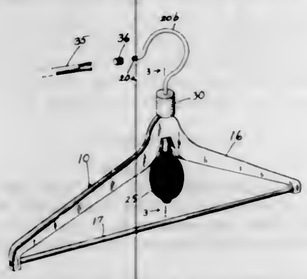


1. An apparatus for advancing a tubular film by axial progression thereover in generally concentric relationship therewith comprising in combination a power-driven rotatable support means, a multiplicity of rolls provided with external resilient sleeves having substantially equal uniform diameters, said rolls being rotatably mounted on said support means with the axes of said rolls fixed with respect to said support means and curved in helical patterns at substantially the same angle with respect to the elements of a cylinder bounded by said helical patterns, said angle being in the range of between about 1° and about 89°, first driving means revolving each of said rolls at substantially the same angular velocity in the same direction for advance of said tubular film over said apparatus and second driving means revolving said support means in a direction opposite to the direction of rotation of said rolls and at an angular velocity such as to counterbalance precisely all velocity components in planes normal to the direction of tubular film input imparted to said tubular film by contact of said sleeves with the interior surface of said tubular film.

2,781,895
VACUUM PACKED CLOTHING AND HANGER THEREFOR
Alva T. Smith, Milwaukee, Wis.
Application October 27, 1955, Serial No. 543,119
7 Claims. (Cl. 206—7)

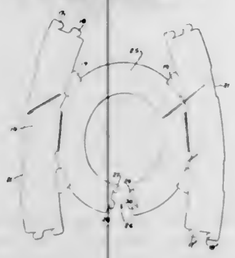
5. An apparel package comprising a clothes hanger, apparel supported on said hanger, said clothes hanger and apparel being positioned within a flexible gas-impermeable container, said container being evacuated of air and hermetically sealed, a tube extending through said supporting member, one end of said tube being shaped into a hook portion for suspending the hanger, said hook portion extending outside of said container,

a closure for sealing the open end of said tube, the other end of said tube extending within the sealed container



and provided with a check valve for sealing said tube and preventing passage of air therethrough.

2,781,896
HAT CARTON INSERT
Arthur J. Weiss, Bergenfield, N. J., assignor to Robert Gair Company, Inc., New York, N. Y., a corporation of Delaware
Application December 14, 1953, Serial No. 398,119
2 Claims. (Cl. 206—9)

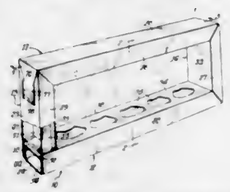


2. A hat carton insert formed from a single flat paperboard blank having a panel adapted to fit within a carton when the insert is set up for use, said panel having a central opening to receive the crown of a hat, and elongated panels of generally arcuate form extending from the midpoints of two opposite edges of said first panel, each of the elongated panels adjoining said first panel at a relatively short fold line intermediate the ends of the respective elongated panel, said elongated panels folding downwardly and bending into the form of an arcuate collar supporting said first panel along an arcuate line lying within the perimeter of said first panel, and said first panel being formed initially with an opening at one side adapted to be drawn closed when the insert is set up for use, bringing the first panel into approximately frusto-conical form to support a hat from the inner edge of its brim without undue distortion of the flare of the brim.

2,781,897
GUN CASE
Vernon F. Dale, Onalaska, Wis.
Application January 27, 1955, Serial No. 484,429
2 Claims. (Cl. 206—16)

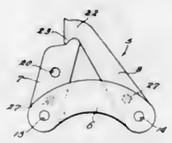
1. In a gun case, an elongated rigid housing having a main gun confining section and a closure section hingedly attached to the main section, a porous lining for the entire interiors of each of said sections, said main section having an inwardly offset brim sealingly cooperable with the brim lining of said closure section when closed, cooperating transverse retainer members carried by both of said sections for maintaining a gun in fixed position within the housing, and an atmospheric vent at each end of one of said sections, both of said vents having openings spanned by said porous lining to filter air passing through the openings.

2,781,898
DISPLAY SUPPORT
John D. Desmond and Raymond A. Cote, Philadelphia, Pa., assignors to Container Corporation of America, Chicago, Ill., a corporation of Delaware
Application February 28, 1955, Serial No. 490,807
6 Claims. (Cl. 206—45.19)



1. A display support formed from a one piece blank of resilient sheet material such as paperboard folded to provide an open rectangular frame having upper and lower walls and end walls, said upper and lower walls respectively comprising an outer primary panel, a secondary panel spaced inwardly from and parallel with said primary panel, and a tertiary panel spaced inwardly from and parallel with said secondary panel, said secondary panel being integrally attached along a fold line to one side of said primary panel and said tertiary panel being integrally attached along a fold line to the other side of said primary panel.

2,781,899
LAST HINGE SET
Edward F. Schmank, Portsmouth, Ohio, assignor to Vulcan Corporation, Portsmouth, Ohio, a corporation of Ohio
Application August 6, 1954, Serial No. 448,354
2 Claims. (Cl. 206—46)

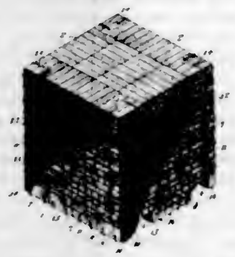


1. An article of manufacture adapted for use as a hinge set package for installation in the articulated members of a collapsible shoe last comprising three component elements consisting of a last part link, a catch plate and a latch lever all predisposed in a triangularly shaped arrangement with the respective end portions of said elements overlapping and in surface contact at two corners of the arrangement, and element securing means between the end portions of the elements forming the two corners of the triangular arrangement, said means being characterized by the fact that they are each severable by a shearing force exertive on adjacent elements after installation of said hinge set package in a shoe last.

2,781,900
CONTAINER FOR OIL AND THE LIKE
James E. Snyder, Ruby Jean Swartz, and Irene Collins, Akron, Ohio, assignors, by mesne assignments, to The Goodyear Tire & Rubber Company, a corporation of Ohio
Application October 19, 1953, Serial No. 386,952
9 Claims. (Cl. 206—46)

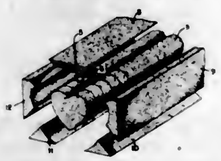
4. A package of fluent material comprising a container formed of a tube of film holding the material, with the opposed inner surfaces of the film sealed in flat contact at both ends thereof, with the sealed ends pleated and each snugly held by a band the inner edge of which is located inwardly of the respective seals, and which band prevents release of the respective pleated ends of the tube and protects the seal against strains produced by pressure of the contents of the package against the inner edge of the seal.

2,781,901
BRICK CAGE
William E. White, Bethlehem, Pa., and John R. Clark, Silver Spring, Md., assignors, by mesne assignments, to said John R. Clark and Thomas Somerville III, Kenwood, Md., trustees
Application January 11, 1954, Serial No. 403,275
10 Claims. (Cl. 206—65)



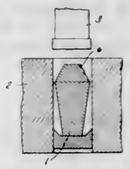
1. An enclosure for objects stacked in a rectangular pile, the walls of said enclosure comprising a plurality of panels, each panel being formed of intersecting horizontal and vertical wires, the horizontal wires at one side edge of said panel being bent at right angles to the principal plane of the panel and having thereon vertical wires spaced apart and forming alternative detents, and at least some of the horizontal wires at the other side edge of said panel being offset outwardly and bent downwardly and forming hook members engaging a detent on an adjoining panel.

2,781,902
SPECIAL PACKAGE
Vernon L. Smithers, Akron, Ohio, assignor to The V. L. Smithers Manufacturing Company, Akron, Ohio, a corporation of Ohio
Application February 23, 1954, Serial No. 411,854
2 Claims. (Cl. 206—65)



1. As a special package an oblong block of resinous foam material comprising, a medial portion extending longitudinally of said block having at least one ball-shaped object cut from the interior thereof, a severed and separable dome-shaped top portion extending longitudinally of said object throughout the length of said medial portion, and removable means for holding said object and portions together in block form.

2,781,903
HOT TRANSFORMATION OF METALS
Jean Buffet, Beaumont-sur-Oise, and André Gueussier, Ugine, France, assignors to Comptoir Industriel d'Etirage et Profilage de Metaux, Paris, France, a corporation of France
Application December 23, 1954, Serial No. 477,394
Claims priority, application France January 13, 1954
1 Claim. (Cl. 207—10)

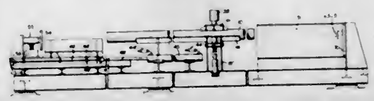


The method of deforming a billet of alloy that is incapable of being directly extruded without large scrap losses such as a tungsten alloy containing 18% tungsten, 4% chromium, and 1% vanadium or a chromium-nickel base alloy containing about 75% nickel and about 20% chromium, comprising compressing said billet heated to about 1095° C. under a pressure between 10 and 100 kgs. per sq. mm. while confining it within a closed space to decrease its length to about 3 to 40% and extruding the compressed billet having a temperature of about 1100° C. through a die.

2,781,904
METHOD OF DEWATERING AND DRESSING VERY FINE-GRAINED MINERAL SUBSTANCES
Wilhelm Reerink, Essen-Bredeney, Walter Müschenborn, Essen, and Erich Nötzold, Essen-Haarzopf, Germany
No Drawing. Application January 12, 1954, Serial No. 403,668
Claims priority, application Germany January 14, 1953
11 Claims. (Cl. 209—12)

1. A method of dewatering and dressing very fine-grained substances which comprises in combination the steps of hydrophobising said substances, continuously centrifugally screening the hydrophobised substances, separating the matter passing through the centrifugal screen into floatable particles and waste water, and returning the floating fraction to the continuous centrifugal screening.

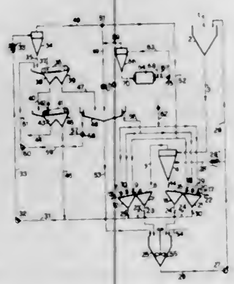
2,781,905
TUBE INSPECTING MACHINE
Adrian Phillips, Bronx, N. Y., assignor, by mesne assignments, to Baldwin-Lima-Hamilton Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application October 18, 1955, Serial No. 541,133
11 Claims. (Cl. 209—72)



11. A machine for inspecting tubes, comprising a support for maintaining a tube in position for inspection, a carriage for supporting a mandrel, the carriage having means for projecting the mandrel supported thereon, means for operating the carriage toward the support to

cause the mandrel to engage the tube, means rendered effective by approach of the carriage to the tube support for actuating the mandrel projecting means to propel said mandrel through the tube, a reject mechanism for ejecting an unsatisfactory tube, timing means for actuating said reject mechanism, means for rendering the timing means effective to actuate the reject mechanism upon failure of the mandrel to pass through the tube in a predetermined time, and control means actuated by the mandrel after passing through the tube for rendering the timing means ineffective to actuate the reject mechanism.

2,781,906
PROCESS AND APPARATUS FOR THE SEPARATION OF MIXTURES OF SOLID PARTICLES
Freerk J. Fontein, Heerlen, Netherlands, assignor to Stamicarbon N. V., Heerlen, Netherlands
Application May 27, 1954, Serial No. 432,771
Claims priority, application Netherlands July 4, 1951
27 Claims. (Cl. 209—172.5)

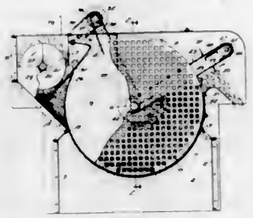


1. A process of reconditioning a diluted suspension of fine magnetic particles and contaminating solid particles in a liquid which comprises the steps of separating said suspension while said magnetic particles are in finely divided state into at least two fractions, the first of which includes the bulk of the liquid and the bulk of the slowly settling particles, including the bulk of the magnetic particles, the second of which includes a small portion of the liquid, a correspondingly small portion of the slowly settling particles and the bulk of the quickly settling particles, thickening at least the bulk of said first fraction without prior magnetic separation, and magnetically separating magnetic particles from said second fraction.

2,781,907
APPARATUS AND PROCESS FOR THE VORTICAL SEPARATION OF LIQUID SUSPENSIONS
Freerk J. Fontein, Heerlen, Netherlands, assignor to Stamicarbon N. V., Heerlen, Netherlands
Application August 23, 1954, Serial No. 451,654
Claims priority, application Netherlands August 26, 1953
10 Claims. (Cl. 209—211)

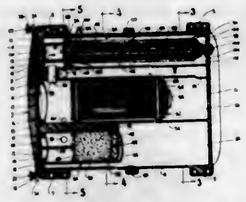
1. A process of treating liquid suspensions which comprises the steps of subjecting said suspension to vortical separation into two fractions in a hydrocyclone, and restricting variation in the composition of the discharged fractions due to variations in feed by conducting each fraction downwardly into a liquid body disposed below the level at which said fraction is discharged from the hydrocyclone, to effect a siphonic action between said liquid bodies through said hydrocyclone.

2,781,908
SCALPER
Joseph Gollbach, Sacramento, Calif.
Application June 8, 1953, Serial No. 360,229
5 Claims. (Cl. 209—361)



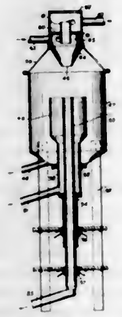
1. A scalper comprising a pair of vertically disposed, horizontally spaced, coaxial, circular, perforated discs supported for rotation about their common axis, an arcuately extending stationary bottom wall extending across the space between said discs along their lower peripheral edges and extending along the peripheries of said discs to points respectively at opposite sides of said axis, feed means for feeding grain and the like onto said bottom wall at one of said points, means for rotating said discs for movement of their said peripheral edges along said bottom wall to the other of said points, a rake extending between said discs and over the end of said bottom wall at said other of said points, means for moving said rake outwardly from between said discs for drawing straw and other material that was mixed with said grain from the space between said discs and for discharging it outwardly of said space, said rake being an elongated generally horizontally extending endless member providing an upper and a lower flight and outwardly projecting tines on said flights spaced along the lengths of the latter, a shaft supporting said discs for rotation and to which they are secured, said endless member being a chain, a tubular spacer on said shaft between said discs and a second shaft outwardly of said discs supported for rotation, a sprocket wheel secured on said last mentioned shaft and said chain extending over said spacer and said sprocket wheel, the means for actuating said rake being a motor connected with the shaft supporting said discs and with said second shaft.

2,781,909
DIESEL OIL SEPARATOR
Malcolm W. Thompson, Tulsa, Okla., assignor to Warner Lewis Company, Tulsa, Okla., a corporation of Delaware
Application February 17, 1954, Serial No. 410,820
4 Claims. (Cl. 210—43)



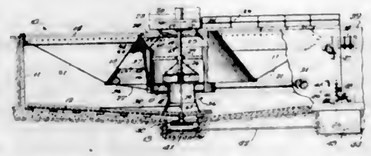
1. A separator for removing water and debris from a diesel oil mixture, comprising a housing, a lower chamber in the housing, an inlet in the lower chamber for the diesel oil mixture, a knock-out chamber in the lower chamber communicating with said inlet for removing the free water from the mixture, an upper chamber in the housing in communication with the lower chamber, a surface type filter in the upper chamber communicating with the knock-out chamber to remove debris from the mixture and coalesce the remaining water in the mixture, a central chamber in the housing in communication with the upper chamber, a baffle assembly in the central chamber communicating with the surface type filter for removing the coalesced water, an outlet in the upper chamber for the separated water, and an outlet in the upper chamber for the diesel oil.

2,781,910
PROCESS OF THICKENING SUSPENSIONS OR EMULSIONS
Freerk J. Fontein, Heerlen, Netherlands, assignor to Stamicarbon N. V., Heerlen, Netherlands
Application May 8, 1953, Serial No. 353,837
Claims priority, application Netherlands November 30, 1951
7 Claims. (Cl. 210—51)



1. A process of thickening a liquid dispersion to obtain a product having a minimum concentration of dispersed matter therein comprising the steps of continuously feeding said dispersion under pressure tangentially into a radially symmetrical space to establish concentric inner and outer liquid vortices moving in opposite axial directions therein, discharging clarified liquid from said inner vortex from one axial end of said space, discharging thickened liquid dispersion from said outer vortex from the other axial end of said space in the form of a hollow diverging cone, and separately receiving thickened liquid dispersion discharged from said space in the form of a hollow cone of apex angle less than a fixed limit.

2,781,911
CLARIFIER CONSTRUCTION
John Galandak, Montclair, N. J., assignor to Graver Tank & Mfg. Co., Inc., East Chicago, Ind., a corporation of Delaware
Application August 2, 1954, Serial No. 447,078
6 Claims. (Cl. 210—55)

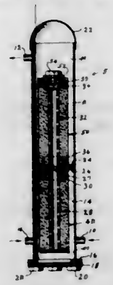


1. A slurry clarifier comprising a side wall and a connected bottom forming a large upwardly open tank, said tank having a diameter substantially greater than the depth and being arranged to contain liquid to be clarified, a generally central structural unit comprising annular partition means normally submerged in the liquid and extending from the top surface thereof downwardly to points spaced from and above the bottom, said partition means being substantially spaced from said side walls, movable sludge impeller devices comprising a sludge scraper truss directly above the bottom and a liquid impeller above the truss, overflow collector launders normally submerged in the liquid and distributed over the area of the tank and horizontally extending from and connected to upper parts of the side wall and said central unit, a plurality of structural tension means peripherally distributed about the tank and having adjacent ends thereof connected to said unit and other ends thereof operatively connected to said side wall and providing the sole support for said unit, a central vertical shaft for rotating the truss, means on the central unit to drive the shaft, motor means above the top of the tank, and a second shaft connecting the motor means to the impeller to drive the latter.

2,781,912
DRIER-FILTER
Kenneth M. Newcum, Zellenople, Pa.
Application March 1, 1954, Serial No. 412,986
7 Claims. (Cl. 210—112)

1. A filter-drier of the type having an elongated casing with inlet and outlet fittings, the improvement which comprises: an elongated one-piece body of water-absorbing material forming a drier element, a filter bag of fiberglass having an open end facing the inlet fitting, the filter bag being otherwise completely closed and surrounding the drier element on all sides except at the inlet end, the inlet end of the drier element being spaced from the casing by the filter bag and being supported solely by the filter bag and the contact of the filter bag with the casing the fiber glass of the filter bag serving to protect and cushion the drier element against direct contact with other parts of the device.

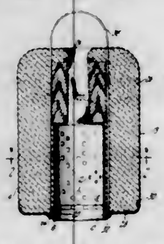
2,781,913
GAS AND LIQUID FILTER/SEPARATOR
Malcolm W. Thompson, Tulsa, Okla.
Application January 21, 1955, Serial No. 483,292
2 Claims. (Cl. 210—120)



1. A liquid filter and coalescer comprising a jacket, a fluid inlet to said jacket, a fluid outlet to said jacket, a partition in said jacket between said inlet and said outlet, a fluid passage through said partition, a first perforate tubate member connected at one end to the inlet side of said partition, a second perforate tubate member connected at one end to the outlet side of said partition, said ends of said tubate members which are connected

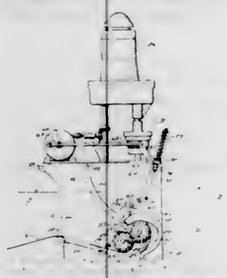
to said partition being in fluid communication with each other through said fluid passage, a first cylindrical fibrous filter element disposed on said first tubate member, a second cylindrical fibrous filter element disposed on said second tubate member, means to seal the ends of each of said fibrous filter elements to prevent fluid bypass around said filter elements and into said tubate members, the seal on said second filter element including substantially coaxial sleeves penetrating both ends of said second filter element, and means to maintain said second filter element in compression between said coaxial sleeves.

2,781,914
SOCK TYPE FILTERS
James H. De Voe, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 1, 1954, Serial No. 433,651
6 Claims. (Cl. 210—148)



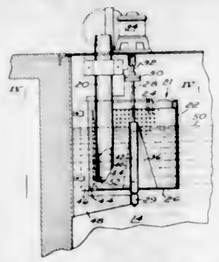
1. A filter element for fluids comprising a porous mass of filtering material, a tubular member of relatively rigid material having a perforated wall surrounded by said mass, said member having one end open to the exterior of said mass, a base supporting plate surrounding said one end of said mass, a sock enclosing said mass and base plate, and a bail extending through said mass having two portions extending along opposite sides of said tubular member and clinched into position between the latter and said base plate.

2,781,915
APPARATUS FOR SCREENING AND COMMINUTING
Arthur Wormser, Tucson, Ariz., assignor to Infilco Incorporated, Tucson, Ariz., a corporation of Delaware
Application June 8, 1953, Serial No. 360,039
14 Claims. (Cl. 210—152)

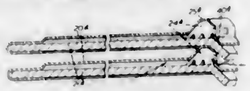


6. Apparatus for screening solids from, and comminuting them in, a stream of liquid including a bar screen extending transversely of said stream of liquid partway its depth, comminuting means mounted adjacent said screen transversely of an unscreened portion of said stream, said comminuting means comprising two rollers rotatably mounted adjacent, and with their longitudinal axes parallel to, one another, said rollers having teeth protruding from their circumferences, in rows diverging from said axes and from one another at the bite of said rollers, said teeth being arranged in different planes of rotation so that at the bite the teeth of one roller enter the spaces between the teeth of the other and pass the teeth of the other roller with small clearance upon rotation of said rollers, means for rotating said rollers about their longitudinal axes in the same direction but at different speeds, rake means adapted to move material intercepted by said screen toward the bite of said rollers, and wall means downstream of said rollers preventing escape of uncomminuted material to downstream of said screen and comminutor.

2,781,916
SELF-CLEANING SCREEN DEVICE
James J. Coleman, Stroudsburg, Pa., assignor to The Patterson-Kelley Co., Inc., East Stroudsburg, Pa.
Application June 22, 1954, Serial No. 438,410
3 Claims. (Cl. 210—152)

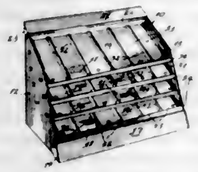


1. A screen for cleaning liquids having accumulations of lint or the like therein, comprising a basket type screen adapted to be disposed within a sump in at least partially submerged relation in the liquid therein, a debris scraper disposed externally of said screen arranged to scrape solids accumulations therefrom as the screen rotates, a pump intake conduit extending into said screen for withdrawing screened liquid therefrom, the intake end portion of said conduit being disposed adjacent a rotating side wall portion of said screen in the region of said scraper device, and a baffle plate device carried internally of said screen and rotatable therewith periodically into the region of the intake end portion of said conduit for impelling the liquid interiorly of said screen against said conduit and against the screen side wall in the region of said scraper device incidental to rotation of said screen.

2,781,917
LIQUID FILTERS
William Swallow, London, England, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 23, 1954, Serial No. 418,045
Claims priority, application Great Britain April 1, 1953
2 Claims. (Cl. 210—178)

1. A filter unit enclosed in a casing having an inlet aperture and an outlet aperture, said unit comprising a plurality of filter elements arranged in a stack, means holding said stack in assembled relation, said elements being formed with openings defining a passage leading through the stack and communicating with one of said apertures, each of said elements being preformed as an integral structure prior to stacking and including a sheet of permeable material and a relatively rigid sheet attached in sealed relation at their peripheries, said rigid sheet having interconnecting grooves communicating with said sheet of permeable material, one of said grooves being

defined by a ridge formed in said rigid sheet and surrounding said passage and presenting an annular shoulder contacting the permeable material of one adjacent element, said rigid sheet having at least one opening whereby fluid may flow between said one groove and said passage, and a continuous surface on said rigid sheet contacting the permeable sheet of its element to clamp it against the annular shoulder of another adjacent element to maintain a seal around said main passage.

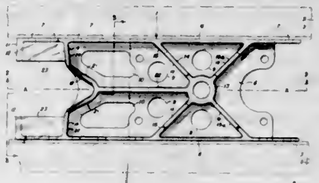
2,781,918
DISPLAY AND DISPENSING CONTAINER
Floyd R. Palm, Jr., Rockford, Ill., assignor to National Lock Company, Rockford, Ill., a corporation of Delaware
Application July 13, 1953, Serial No. 367,673
2 Claims. (Cl. 211—128)



1. In a dispenser for displaying and dispensing packaged merchandise such as screws and other merchandise, a metal frame for said dispenser having spaced side walls, a relatively narrow and forwardly and downwardly inclined top wall having a depending flange at each end joined to a side wall and a depending flange at the rear thereof for supporting said dispenser in elevated position and for connecting the rear upper end of the side walls, a relatively narrow and downwardly inclined front wall connecting the forward, lower end of the side walls, multiple continuous shelves mounted within the frame and bridging the side walls with these shelves disposed in spaced parallel relation and inclined downwardly and forwardly to facilitate sliding of the contained packages to a lower position, the opposite ends of each shelf extending to and joined to the side walls at the forward edge of said walls, longitudinally extending arcuate ribs forming integral divisions on each shelf for separating these shelves into rows of varying widths for receiving packages of predetermined widths, means for supporting the opposite sides of said shelves, a transverse flange member bridging the side walls for supporting the upper end of said shelves, and a transverse flanged member for supporting the forward end of each shelf and bridging the forward edge of the side walls, each of said last mentioned flanged members having a flange secured to the lower, forward end of a shelf and another flange providing an elevated abutment at the forward, lower end of its shelf for intercepting the lower package of each row of a shelf and retaining the packages in display and dispensing position.

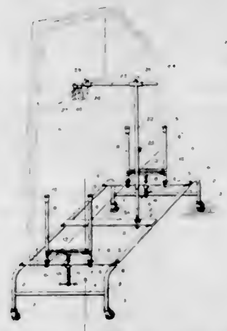
2,781,919
COMBINED CENTER FILLER AND DRAFT LUG UNIT
Emil H. Blattner, Buffalo, N. Y., assignor to The Symington-Gould Corporation, Depew, N. Y., a corporation of Maryland
Application July 18, 1950, Serial No. 174,499
8 Claims. (Cl. 213—57)

1. In a combined bolster center filler and draft lug unit, the combination of, transversely spaced vertical side walls, a vertical hollow post of less height than said side walls and interposed therebetween, transversely spaced vertical draft lugs extending inwardly of said unit from extremities of said side walls, diagonally arranged ribbing extending rearwardly from said post to each of said side walls, a vertical rib V-shaped in plan directed toward



said post, said rib being positioned between said draft lugs and post and joining said side walls, and a central rib parallel to said side walls and joining said V-shaped rib and post.

2,781,920
ADJUSTABLE SUPPORTING RACKS
Harvey J. Burington, Salem, Oreg.
Application March 4, 1954, Serial No. 414,077
2 Claims. (Cl. 214—1)

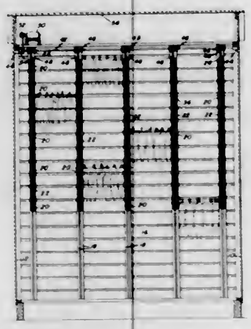


1. A rack for use in hanging and removing vehicle doors, comprising a wheeled base, a pair of U-shaped door supporting members, each member being formed of a pair of tubular vertical members, a horizontal connecting bar fixed between said tubular members, serrated cushioning means on the upper side of said connecting bar, a pair of upright guides for each supporting member fixed to said base and slidably engaging in said tubular members, means threadably carried by said base and rotatably connected to said horizontal connecting bar for vertically adjusting said U-shaped members, an inverted L-shaped bracket formed with a tubular vertical side, an upright supporting bar fixed to said base and loosely engaging in said tubular vertical side, means locking said bracket in vertically adjusted position, and a pair of door clamping jaws carried by the upper horizontal side of said bracket.

2,781,921
TOBACCO HANGER
Wiley Z. Barkley, Elm City, N. C.
Application April 8, 1954, Serial No. 421,892
1 Claim. (Cl. 214—16)

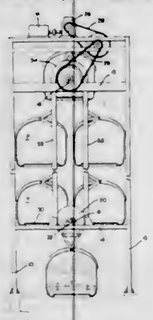
A tobacco hanger for use in a tobacco curing barn, said hanger comprising a plurality of tier poles, said tier poles being arranged in horizontally spaced sets with the poles in each set being in vertically spaced relation in the same vertical plane, a plurality of pairs of flexible members, each pair of flexible members connecting the opposite ends of the tier poles of a set together, a pair of spaced parallel shafts adapted to be rotatably mounted adjacent the top of a barn in overlying relationship to

the opposite ends of the tier poles, means mounted on said shafts for connecting one flexible member of each pair to one of said shafts and the other flexible member of each pair to the other of said shafts, and drive means for imparting rotation to said shafts to simultaneously lower said sets of tier poles to a compacted position in the lower portion of the barn and to simultaneously elevate them to vertically spaced positions in the upper portion of the barn, and a plurality of pairs of vertical guideways adapted to be mounted in the barn, each pair of guideways receiving the ends of the tier poles of each set and guiding the same for vertical movement,



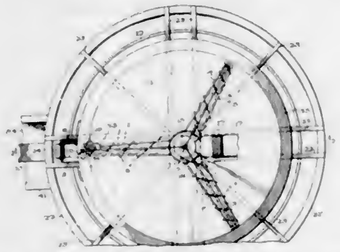
each of said flexible members comprising an elongated chain having the free ends thereof disposed adjacent each other and with the intermediate portions thereof disposed in spaced parallel relationship, a plurality of brackets secured to said intermediate portions in vertical spaced relation, said brackets including pairs of spaced L-shaped plates engaging and supporting the ends of the tier poles, the upper bracket of said brackets being in the form of a clevis, said chain being entrained around the web portion of said clevis, said means connecting said flexible members to the shafts including a cable secured at one end to the web portion of the clevis, said cable being secured at its other end to said shaft.

2,781,922
AUTOMOBILE STORAGE ELEVATOR
George J. Hibbard, Seattle, Wash.
Application May 25, 1953, Serial No. 357,050
3 Claims. (Cl. 214—16.1)



1. An automobile storage elevator, comprising: a supporting structure rising from a supporting surface rotatably supporting four sprocket wheels mounted in spaced superimposed pairs with upper and lower wheels axially aligned in the two pairs, an endless chain encircling each pair of sprockets, a series of integral, rigid triangular brackets mounted on each chain and each forming a link of the chain and extending outwardly therefrom substantially in the plane of the supporting chain with the brackets on the two chains aligned horizontally in pairs, a car supporting platform hung depending from each pair of brackets, each platform having an upper frame pivotally connected at the ends to the outer ends of the associated pair of brackets and having a substantially flat lower floor spaced below and supported by the upper frame adapted to support an automobile with its center of gravity substantially below the associated brackets and with the center line of the automobile parallel to the axes of said sprocket wheels, upward and downward runs of the platforms having small clearance therebetween to accommodate slight swinging of the platforms, said floor being solid and being lipped on all sides to protect cars below from drippings from cars above, said floor having at its sides wheel-receiving channels and having at a first end means blocking said channels preventing passing of the wheels of an automobile and having at a second end raised means normally blocking said channels to prevent the wheels of an automobile from rolling thereof and permitting the passage of the wheels when the automobile is under power, said upper frame having rigid means securing the same to said floor at said first end and said upper frame at said second end comprising a bowed member having depending chains at its ends secured to the sides of said floor whereby the space between the bowed member and the floor permits access of an automobile to the platform.

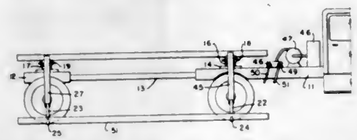
2,781,923
COOLING DEVICE
Ernest G. Puttman, Walnut Creek, Calif., assignor, by mesne assignments, to Kaiser Steel Corporation, Oakland, Calif., a corporation of Nevada
Application March 7, 1955, Serial No. 492,530
14 Claims. (Cl. 214—17)



1. In a device of the type described, the combination of a frame structure, a generally conical stationary surface supported by the frame structure, means including at least one arm overlying and movable with respect to the conical surface, said arm being disposed in circumferentially sweeping relation with respect to said conical surface, guide vanes mounted on said arm, conveyor discharging means mounted beneath the conical surface and movable with respect thereto, said conveyor discharging means also being disposed in alignment and movable with said arm, a charging means, a rotatable shaft supporting said arm, said conveyor means and said charging means, and drive means engaging said shaft to rotate the shaft and said first mentioned means and said conveyor means with respect to the conical surface.

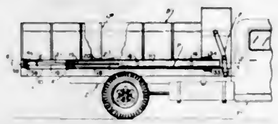
2,781,924
HYDRAULIC PIPE LOADING APPARATUS FOR VEHICLES
John Wallace Hughes, Midland, Tex., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
Application July 11, 1955, Serial No. 521,157
3 Claims. (Cl. 214—77)

1. Apparatus for transferring a load of pipe from a lower level onto the bed of a truck at a higher level, said apparatus comprising a pair of pipe-loading booms of a length greater than the height of the truck bed, said booms being hinged horizontally in spaced relationship to the same side of said truck bed for pivotal movement in a vertical plane, hydraulic jack means hinged to each of said booms for raising said booms so that they move from a position where the lower ends thereof touch the ground to a position where they extend above the truck, a hydraulic pressure-fluid system for actuating said hydraulic jack means, a bridge member hinged at one end



thereof to one of said booms in a manner such that the free end of said bridge member is nearer the truck and movably adjustable in a vertical plane passing through said boom, bridge support means secured between each bridge and the boom connected thereto for adjustably positioning said bridge at a predetermined angle above said boom, whereby upon joint pivoted elevation of said loading booms carrying a pipe, the pipe rolls inwardly on said booms and said bridges to be discharged therefrom at the level of the uppermost layer of pipe already loaded on the truck.

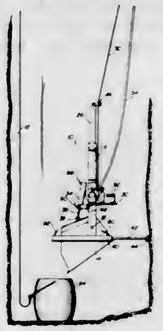
2,781,925
POWER OPERATED UNLOADING APPARATUS FOR TRUCK BODIES
Walter M. Baldridge and Kenneth R. Davisson, Severance, Colo.
Application January 27, 1954, Serial No. 406,524
2 Claims. (Cl. 214—82)



1. In combination with a vehicle body for containing material, a movable wall in the body to move the material toward either end, and fluid pressure operated means for moving the wall comprising a fixed cylinder, a piston movable in the cylinder, four cables connected at opposite ends and to opposite sides of the wall, four sheaves mounted on one end of and for movement with the piston, said four sheaves being positioned on a common axis vertical to the axis of movement of said piston, and means including anchors for the cables and fixed sheaves carried by the vehicle body for connecting the cables around the sheaves movable with the piston so that upon movement of the piston in the cylinder in one direction the wall will move in one direction and movement of the piston in the opposite direction will move the wall in an opposite direction.

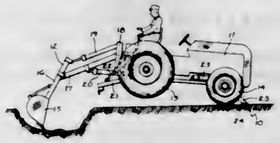
2,781,926
SCOOPING APPARATUS FOR MINE SHAFTS
Robert C. Sights, Las Vegas, Nev.
Application October 7, 1954, Serial No. 460,929
3 Claims. (Cl. 214—95)

1. A shaft excavating apparatus comprising a yoke and an excavating bucket, said yoke including a bight portion and a pair of spaced arms, said bucket being pivotally carried between said arms, a working platform supported by said yoke between said arms above said bucket, a winding drum on said platform having a supporting cable wound thereon, guide means on said yoke cooperating with said winding drum for maintaining a portion of the supporting cable parallel thereto for a portion of the length of the yoke, extensible means carried by said yoke arms for engaging the wall of a shaft within which the



apparatus is disposed, extensible means interconnecting said bucket and said platform for controlling the tilt of said bucket relative to the yoke, means rendering said winding drum operable from said platform for raising and lowering the apparatus, and means carried by said platform for actuating said extensible means.

2,781,927
STABILIZING APPARATUS
Vaino J. Holopainen, Rutland, Mass., assignor to Wainoy Corporation, Hubbardston, Mass., a corporation of Massachusetts
Application June 21, 1954, Serial No. 437,958
2 Claims. (Cl. 214—138)

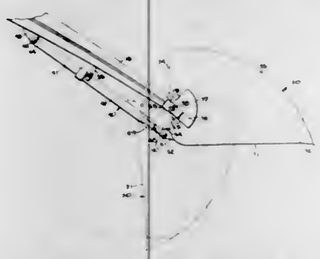


1. A stabilizing apparatus for use with a vehicle having a hydraulic digging attachment operatively connected to the rear end thereof, the attachment comprising a boom pivotally connected at one end to the vehicle and a dipper stick pivotally connected to the other end of the boom, a leg pivotally connected at one end to the front end of the vehicle and opposite the end to which the attachment is connected, a pad having a dependent web formed on the other end of the leg, and a hydraulic motor consisting of a cylinder and piston connected between the vehicle and the leg for moving the leg from a retracted position away from the ground to a downwardly- and forwardly-extending operative position contacting the ground at a point substantially forward of the point of normal contact of the front wheel with the ground, the attachment tending to move the vehicle rearwardly along the ground during operation and the stabilizing apparatus resisting such movement when in the said operative position.

2,781,928
TIP SCOOP
James Curtis McNeice, Lillington, Leamington Spa, and Alexander Patterson, Leamington Spa, England, assignors to Massey-Harris-Ferguson (Sales) Limited, a British company
Application October 5, 1953, Serial No. 384,193
Claims priority, application Great Britain October 9, 1952
3 Claims. (Cl. 214—140)

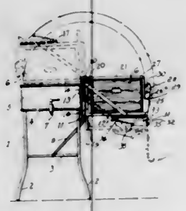
1. For use with a tractor having a hydraulic system and equipped with a forwardly extending lifting attach-

ment adapted to be rocked vertically by hydraulic actuators energized from the hydraulic system, a tip scoop comprising, in combination, a scoop shovel having a bottom, a rear wall upstanding from the bottom, and upstanding side walls, means including a bracket secured near the lower rear corner on each of said side walls for connecting said shovel to the said lifting attachment for pivoting about a transverse axis, a hydraulic ram pivot-



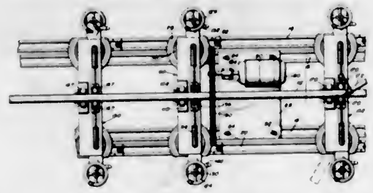
ally connected directly between said lifting attachment and the edge of said rear wall which is lowermost when the shovel bottom is substantially horizontal, means connecting said ram to the tractor's hydraulic system including a control valve for selectively supplying pressure fluid to extend said ram for rocking the shovel to a loading and carrying position, trapping fluid in said ram for maintaining the shovel in such position, or venting the ram to permit the shovel to swing to a dumping position.

2,781,929
DEVICE FOR EMPTYING MILK BOTTLES AND THE LIKE BY THE CASE
Leander Uhrich, Calgary, Alberta, Canada
Application August 5, 1954, Serial No. 448,040
3 Claims. (Cl. 214—314)



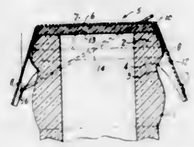
1. A device for emptlying milk bottles and the like by the case, comprising in combination a supporting framework, a fluid containing tank supported above said framework, a rack for supporting the associated case at one side of said tank pivotally supported by upward extensions of said framework, a perforate cover panel also hingedly secured on the same axis as said rack to said extensions, and means adapted to clamp said cover panel over said case and to said rack, thereby holding said case and said bottles in said case, in said rack, said rack, said case and said cover panel adapted to swing through approximately 180 degrees so that the upper side of said case registers with the upper side of said tank whereby the contents of said bottles are deposited in said tank, said rack comprising a pair of rear vertical members, the upper ends of said members being hooked, the lower ends of said members extending to form operating handles, a base extending at right angles from said vertical members, and diagonal braces extending between the upper ends of said vertical members and said base.

2,781,930
PIPE HANDLING APPARATUS
Henry E. Menser and Roy L. Jeffords, Princeton, and Cyrus O. Vancil, Paducah, Ky., assignors of one-fourth to Claude Anderson, Princeton, Ky.
Application August 9, 1955, Serial No. 527,285
5 Claims. (Cl. 214—340)



1. In a pipe handling apparatus having a plurality of spaced parallel rails and a pair of carriages mounted on said rails, a pair of horizontally adjustable holders carried by each carriage, means operatively connected with each holder for adjustment thereof on said carriages, means to latch said holder adjusting means in selected positions, and means movably disposed on said rails for rotating the pipe, said pipe rotating means including a third carriage, a motor carried by said third carriage, a first gear adapted to be attached to the pipe, a second gear enmeshed therewith and driven by said motor, and means including a flange extending across the ends of the teeth of one of said gears to prevent said gears from becoming separated in response to relative movement in a plane parallel to the axes of rotation of each of said gears.

2,781,931
BOTTLE CLOSURES
Hjalmar Carlson, San Francisco, Calif.
Application October 10, 1955, Serial No. 539,428
3 Claims. (Cl. 215—95)

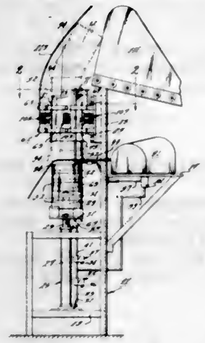


1. A closure for a bottle neck having an annular bead, with an annular groove underneath the bead, the closure comprising a disc adapted for overlying the top of the bottle neck and having a pair of depending wings with inwardly turned side flanges cut to present points engaging in the bottom of the groove when the disc is placed on the top, the wings having extensions projecting downward below the points, and means for pulling the downward extensions toward one another to cause the extensions to swing downward on the points for exerting downward pull on the disc.

2,781,932
TAPING MACHINE
Herbert W. Hittle and William H. Dearborn, Jr., Indianapolis, Ind., assignors to Radio Corporation of America, a corporation of Delaware
Application October 25, 1954, Serial No. 464,374
6 Claims. (Cl. 216—9)

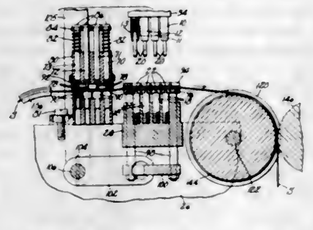
1. A machine for taping together a plurality of stacked cartons comprising in combination a platform for receiving said cartons, a mechanism for dispensing a fixed length of gummed tape across the top of said cartons, means for supporting said tape above said cartons while it is being dispensed, means disposed above said platform including spaced spring biased shoes for pressing said tape against the sides of said cartons, means for

raising said platform whereby said cartons are carried between said spring biased shoes, means for aligning said



cartons between said spring biased shoes, and means for frictionally supporting said cartons when said raising means is withdrawn.

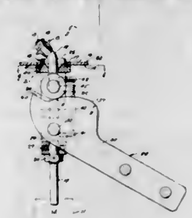
2,781,933
MACHINES FOR INSERTING SPACED GROUPS OF TUBULAR FASTENERS
Sylvester L. Gookin, Cohasset, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application November 10, 1953, Serial No. 391,230
6 Claims. (Cl. 218—.5)



1. In a machine for successively inserting groups of tubular fasteners in spaced relation in a tape, tape feeding means, a gang of punching tools operative on successive portions of the tape at one level, a gang of cooperative setting tools between the tape feeding means and said punching tools and adapted simultaneously to upset a plurality of fasteners at a different level in a plurality of holes afforded by said gang punching tools, a pair of members arranged to act one on each side of successive portions of the tape in the operating zone of said setting tools, means for operating both of said gangs of tools substantially simultaneously, and mechanism for operating said members alternately above and below the punching level to press successive perforated portions of tape into registry with the setting tools and thereafter to strip said successive portions with their simultaneously inserted fasteners therefrom.

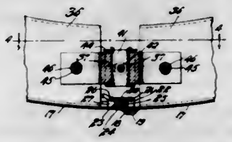
2,781,934
TOOL FOR SPINNING EYELETS FROM ONE SIDE
Arthur S. Caswell, Philadelphia, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa.
Application September 4, 1953, Serial No. 378,624
1 Claim. (Cl. 218—38)

A portable tool for spinning inaccessible ends of metal eyelets comprising a rotatably driven shaft, a first sleeve, a second sleeve, a manually operable cam, a first roller and a second roller; said first sleeve slidably mounted relative to said driven shaft; said first roller mounted on said first sleeve; said second sleeve slidably mounted relative to said driven shaft; said manually operated cam pivotally mounted on said second sleeve; spring means to maintain said cam in surface to surface engagement with said first roller; said second roller positioned on one end of said driven shaft; said manually operable cam effective to move said second sleeve away from said first



sleeve against the bias of said spring means; a stop member mounted on said driven shaft; said second sleeve positioned to engage the surface of said stop member when said cam is manually operated to thereby move said second roller from a position forwardly removed from said first sleeve to a similar position less removed from said sleeve.

2,781,935
HIGH NESTING SECTIONAL FUEL TANK
Charles W. Spieth, Herbert M. Wright, and Alfred L. Clark, Wichita, Kans., assignors to Beech Aircraft Corporation, Wichita, Kans., a corporation of Delaware
Application December 8, 1955, Serial No. 551,884
7 Claims. (Cl. 220—5)

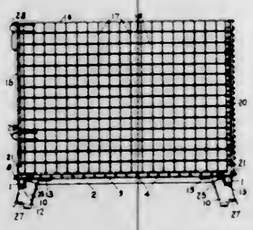


1. High nesting sectional fuel tank comprising the combination of a longitudinally split intermediate and tapered end sections joined in end-to-end relation, the opposite edges of said longitudinally split intermediate section having external companion hook engaging elements for securing said section in generally cylindrical form, a longitudinally extending sealing strip overlying said joint at the inside of the section, a lever hinged on the edge portion of the section at one side of said joint and extending over said packing to the other side of the joint, means on said other side of the joint for securing said lever in position holding said packing over the joint, internal coupling rings overlapping opposing end portions of the intermediate and end sections, said rings having annular grooves therein in line with the meeting ends of the intermediate and end sections, packing rings in said grooves in sealing engagement with said meeting ends and externally accessible screw means securing said coupling rings in position.

2,781,936
MATERIALS HANDLING PALLET
Dewey H. Bitney, Albion, Mich., assignor to Union Steel Products Company, Albion, Mich.
Application October 18, 1954, Serial No. 462,763
10 Claims. (Cl. 220—6)

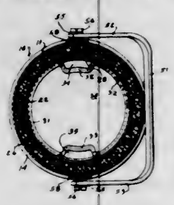
1. In a walled materials handling pallet, the combination of a deck bed comprising side members and cross members extending between and fixedly secured to said side members, a grid like deck disposed on said deck bed and comprising an upper series and a lower series

of spaced slats fixedly connected at their crossing points, the lower series of slats being disposed transversely of and fixedly secured upon the side bed members to project outwardly beyond the same, the cross members being in supporting relation to the upper series of deck slats and fixedly secured thereto, deck guard rails secured upon the upper sides of said projecting ends of the lower series of deck slats, side and end walls comprising fixedly connected vertical and horizontal slats, each of said end walls having one of its vertical edges hingedly connected to the adjacent vertical edge of a different one of said



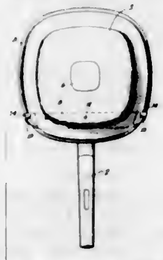
side walls to permit the collapsing of each end wall on a side wall, the vertical slats of the side walls having inwardly projecting hinge arm extensions at their lower ends connected by pivot rods, each pivot rod being disposed at the outer side of and pivotally connected to a deck slat of the upper series adjacent to but spaced inwardly from a side bed member, said hinge arms being disposed between adjacent slats of the bottom series when the walls are erected and in supported engagement with the said bed side members and at the inner sides of the guard rails, the collapsed pairs of walls being collapsible in overlapping relation upon the deck.

2,781,937
INSULATED CONTAINER
Herbert M. Piker, Wyoming, Ohio, assignor to The Hamilton Metal Products Company, Hamilton, Ohio, a corporation of Ohio
Application December 24, 1952, Serial No. 327,859
6 Claims. (Cl. 220—17)



1. An insulated container of the class described comprising an inner bucket including an open upper end, a bottom and an upstanding body portion from the perimeter of the bottom, a bead or ledge inwardly projecting from said body portion at a point intermediate the bottom and its upper end, said inner bucket being substantially circular in plan to a given inner diameter for the full heighth of its body portion and said inwardly projecting bead or ledge inwardly projecting equally at all points from the container body portion, and a shallow tray including a bottom and upstanding wall with an outwardly projecting radial rim at the upper end of the wall and with the diameter of the tray wall such as to pass through the inwardly projecting bead or ledge and the rim having a diameter substantially equal to the inner diameter of the bucket for engagement with the said bead or ledge and thereby suspend the tray within the inner bucket, said tray bottom, upstanding wall and radial rim being so formed, at least, at one place on the circumference thereof so as to provide a space between said tray bottom, upstanding wall and radial rim and the bucket body portion and its inwardly projecting bead or ledge to form a hand hole whereby the tray may be grasped for positioning with and removal from the interior of the bucket.

2,781,938
COVERED SKILLET AND BRACKET COMBINATION
John Caldwell Hampshire, New Rochelle, N. Y., assignor to Bridgeport Brass Company, Bridgeport, Conn., a corporation of Connecticut
Application February 15, 1955, Serial No. 488,389
5 Claims. (Cl. 220—18)

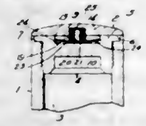


3. A cooking and decorating ensemble comprising a skillet having an outwardly extending peripheral flange; a lid for said skillet and having an outwardly extending flange shaped to fit on said skillet flange in superimposed relation; both of said flanges being of generally rectangular contour and having slightly convex side portions; and a wall bracket having arms which project forwardly at locations straddling two opposite ones of said flange side portions adjacent to the lower corners of said skillet, and fingers which project towards each other and over the adjacent portions of said lid flange so as to both mount said skillet and lid and hold the lid on the skillet when said arms straddle either two opposite sides or two mutually adjacent sides of said skillet; whereby said skillet and lid may be oriented either vertically or angularly on said bracket according to decorative taste; said fingers being springy and being angled so that said flanges wedge beneath said fingers.

2,781,939
MAGNETIC TANK PATCHING DEVICE
Arlie F. Lockwood, Portland, Oreg.
Application October 20, 1955, Serial No. 541,660
4 Claims. (Cl. 220—24)

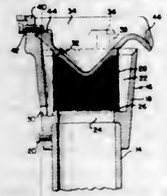
1. A magnetic tank patching device comprising a pad of flexible resilient sealing material having a sealing portion providing a back surface and an oppositely directing sealing surface and a pad holding structure for holding said pad with its sealing surface pressed against the wall of a tank, said pad holding structure including at least one permanent magnet and providing magnetic pole portions at positions on opposite sides of said sealing portion of said pad, said holding structure also including a backing portion extending between said pole portions and in contact with said back surface of said pad, said backing portion being a pre-formed curved spring member having a convex surface in contact with said pad.

2,781,940
FASTENING DEVICE
Ernest L. Schlage, Burlingame, and Marron Kendrick, Atherton, Calif., assignors to Schlage Lock Company, a corporation
Application July 21, 1953, Serial No. 369,286
4 Claims. (Cl. 220—25)



1. In combination with a body provided with an outwardly opening recess wherein said recess is polygonal in cross sectional contour and provided with a pair of opposed parallel sidewalls, mounting means for releasably securing an element to said body, said means comprising: a relatively flat spring having a pair of opposite parallel side edges spaced apart a distance slightly greater than the width of said recess between said sidewalls whereby said spring becomes slightly bowed toward the bottom of said recess when pressed into the latter between said sidewalls, thereby resisting withdrawal from said recess, said flat spring being centrally apertured for receiving the shank of a bolt therethrough whereby the head of said bolt may be positioned between said flat spring and the bottom of said recess with the shank of said bolt extending axially outwardly of said recess, for screw threadedly receiving said element thereon.

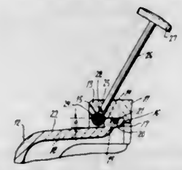
2,781,941
VERTICAL VENT FITTING
Griffith W. Lindsay, Dayton, Ohio, assignor to Buckeye Iron & Brass Works, Dayton, Ohio, a corporation of Ohio
Application March 31, 1955, Serial No. 498,259
3 Claims. (Cl. 220—44)



1. In a vent fitting for a vertical vent pipe; a generally cylindrical body part with a bore therethrough adapted to receive the upper end of a vent pipe in its lower end so gases from the pipe will pass upwardly through the body, an inverted cone shaped cover member at the top of the body extending outwardly beyond the body, axial projections on one of said cover and body engaging the other thereof to hold the cover fixedly spaced from the body to define an upwardly outwardly opening vent, means detachably securing said cover in place, and a vented upwardly opening channel formed about the inside of said body part to catch moisture that flows down the inner wall thereof, there being a cylindrical screen member having its lower end resting in said channel and its upper end engaging the lower side of said cover.

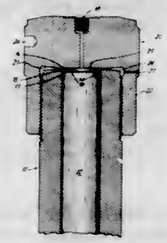
2,781,942
SEALED JOINT
Clifford L. Eastburg, Canton, Ohio, assignor to The Timken Roller Bearing Company, Canton, Ohio, a corporation of Ohio
Application April 22, 1953, Serial No. 350,395
1 Claim. (Cl. 220—46)

A sealing and locking joint assembly comprising a generally cylindrical housing having a substantially squared end face and having a counterbore in such end providing a cylindrical interior surface extending inwardly from said end face and terminating in an inwardly stepped shoulder extending perpendicular thereto, and there being a continuous, annular groove of semicircular cross-section provided in such surface adjacent to said end face, a generally cylindrical cover member having a closed end and having its open end provided with a radially outwardly projecting flange having a cylindrical outer surface snugly received within said end of the housing with the end face of said flange engaged against said shoulder, the outer edge of said flange being disposed substantially perpendicular to said interior surface of said housing and in tangential relation to said semicircular groove at the innermost edge thereof, and the exterior of said cover adjacent said flange defining a gap with said inner surface of the housing, an annular, compressible



locking ring of circular radial cross-section received within said groove, said locking ring normally being of greater radial thickness, when unstressed, than the radial width of said gap and projecting partially across said gap, said locking ring being force fitted within said groove and having a peripheral length, when unstressed, greater than the greatest length of said groove so that when seated in said groove, the locking ring engages against said outer edge of said flange along a line substantially coincident with said inner edge of the groove whereby said flange sealingly engages said locking ring and locks said cover within the housing, and there being a circular bore through said housing intersecting said groove to permit the insertion of a tool therethrough for removal of the locking ring, said bore being inclined to the longitudinal axis of said housing with its outer opening being spaced farther from said end face of the housing than is the inner opening thereof.

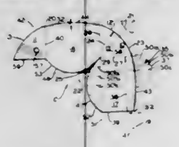
2,781,943
PRESSURE SEAL
Robert E. Carlstrom, Hamden, Conn.
Application January 29, 1954, Serial No. 407,129
10 Claims. (Cl. 220—46)



1. A pressure seal for containing fluid within a vessel under high pressure, said seal comprising: a cylindrical port, a circular sealing ring of hard, resilient, metallike material fitting closely within said port, and a cap for closing said port, the inner face of the cap contacting the sealing ring in a zone removed from its outer periphery and the contour of the adjacent surfaces of the cap and sealing ring leaving a space above the outer peripheral portion of the sealing ring whereby the sealing ring is unsupported and free to be deflected in a direction axially

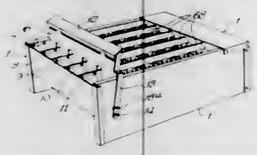
of the port by pressure within the vessel, the space above the sealing ring being vented to the atmosphere and the sealing ring having a substantially cylindrical peripheral surface closely spaced from the cylindrical wall of the port whereby pressure within the vessel will deform the sealing ring and cause the central zone thereof to seal against the cap and a portion of the peripheral surface to seal against the cylindrical wall of the port.

2,781,944
RECESSED HOUSING FOR VALVES AND FITTINGS FOR LIQUID PETROLEUM PRODUCT TANKS
Henry H. Clute, San Mateo, Calif.
Application December 13, 1954, Serial No. 474,800
3 Claims. (Cl. 220—62)



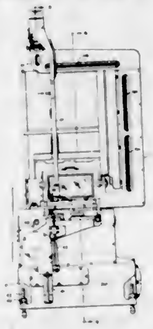
3. An L-shaped blank of sheet or plate metal for making a recessed compartment for flush mounting in an opening of conforming shape in the cylindrically curved side wall of a fluid storage tank of predetermined radius; said blank comprising a pair of generally triangular, relatively reversed side wall portions at opposite ends of one leg of said blank, the opposite, outer edges of said triangular side wall portions being circularly curved with said predetermined radius, a first transverse wall portion in said one leg interposed between said triangular side wall portions and of a length for forming to trough shape of predetermined curvature, thereby to position the two triangular wall portions in predetermined spaced, parallel, opposed relation, a second transverse wall portion similar to the first and abutting a side edge of one triangular wall portion, thereby forming the other leg of the L-shaped blank, the inner edges of said transverse wall portions being curved to adjoin each other, and a side of the other triangular wall portion being formed to abut the outer end of the second transverse wall portion, when the two transverse wall portions are bent to their predetermined troughed curvature.

2,781,945
AUTOMATIC MULTIPLE CONVEYOR
John F. Skold, Chicago, Ill.
Application November 7, 1955, Serial No. 545,249
10 Claims. (Cl. 221—114)



1. A multiple conveyor for sequentially dispensing articles stored thereon comprising means forming a frame, a plurality of endless link chain conveyors positioned adjacent each other in said frame, each of said conveyors including a plurality of equi-spaced dividers forming compartments therein, a pair of parallel spaced endless rails in said frame for supporting and guiding each of said conveyors, each said conveyor including a plurality of engaging means slidably engaged with said rails for tracking said conveyor in a path conforming to said rails, a plurality of actuating means positioned in said frame corresponding in number to said conveyors, each of said actuators adapted to engage, move a predetermined distance and disengage from each corresponding said conveyor when operated, a shaft having a plurality of cam means thereon journalled for rotation in said frame, each of said cams adapted to sequentially operate each said actuator in a predetermined sequence for each revolution of said shaft, whereby one revolution of said shaft will sequentially move each of said conveyors to dispense therefrom a single article positioned in a predetermined said compartment in each said conveyor.

2,781,946
MACHINE FOR APPLYING SLIP COVERS TO PAPER CONTAINERS
Isaac L. Wilcox, Fulton, and Herman Pesch, Fayetteville, N. Y., assignors to Oswego Falls Corporation, Fulton, N. Y., a corporation of New York
Application August 10, 1951, Serial No. 241,302
2 Claims. (Cl. 221—158)



1. Apparatus for feeding slip covers formed of readily deformable material such as paperboard and having straight cylindrical flanges to a cover applying head, a vertically extending chute for feeding covers to the applying head, a cover conveyor having a horizontal portion and being operable to advance a procession of covers to the upper end of said chute, means operable to deposit covers in vertical edgewise position on the horizontal portion of said first conveyor, a cover engaging member positioned above the path traveled by the covers on the horizontal portion of said conveyor to engage covers superimposed upon the covers advanced by said conveyor, said member being mounted for movement in the direction traveled by said superimposed covers, and said cover engaging member comprising a ring of substantially the same diameter as said cover members and being freely suspended from a horizontal pin in a vertical plane parallel with the direction of travel of the covers and having its lowermost portion clearing the covers moved along by the conveyor to yieldingly restrain advancement of any superimposed covers.

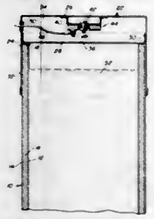
2. Apparatus for feeding slip covers formed of readily deformable material such as paperboard and having a central discoidal portion with a straight cylindrical flange depending therefrom, to a cover applying head comprising a chute of relatively flat rectangular cross section extending vertically upwardly from said head and arranged to direct covers thereto by gravity, the upper portion of said chute merging in two spaced apart cover receiving inlets, each of said inlets having a bottom wall inclined downwardly and inwardly toward the axis of the chute and becoming a sidewall thereof, a pair of convex rolls positioned in side by side relation between said inlets, the inlet portions of said bottom walls being above and overlying a portion of the upper periphery of the rolls, said rolls being journaled for free rotation on parallel, substantially horizontal axes extending transversely to the length of said chute, said rolls being mounted for movement toward and from each other,

spring means yieldingly maintaining the zenith of the peripheries of said rolls in contact, a cover conveyor operable to propel covers in edgewise position vertically upwardly between said rolls with the discoidal portion of the covers parallel to the axes of the rolls, whereby said rolls yieldingly engage opposite sides of the discoidal portions of said covers and to discharge all of said covers to said inlets with the cover flanges depending.

2,781,947
TABLET COUNTING AND BATCHING MACHINES
James Gordon Webster, deceased, late of Blackley, Manchester, England, by Gabriel P. Clay, Witton, Birmingham, and Hugh Christopher Russel Pearson, Manchester, executors, and Leslie Aldred, Blackley, Manchester, England, assignors to Imperial Chemical Industries Limited, a corporation of Great Britain
Application April 7, 1952, Serial No. 281,014
Claims priority, application Great Britain April 11, 1951
4 Claims. (Cl. 221—296)

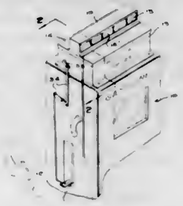
1. In apparatus for counting or batching fragile tablets having a chute down which the tablets pass in single file and a gate at the lower end of the chute, the combination of means for applying differential air pressure directly to at least one tablet at a location above the lower end of the chute, said pressure being of sufficient magnitude to retain said tablet and the tablets thereabove against downward passage when the gate is open, and means coordinating the operation of the gate with the application of the differential pressure.

2,781,948
HEAT BARRIER CONTAINER WITH MEANS TO SUPPLY TEMPERED GAS TO REPLACE DISCHARGED TEMPERED LIQUIDS
Robert A. Emmons, Omaha, Nebr., assignor to S & L Sales, Inc., Omaha, Nebr., a corporation of Nebraska
Application September 20, 1954, Serial No. 457,229
13 Claims. (Cl. 222—1)



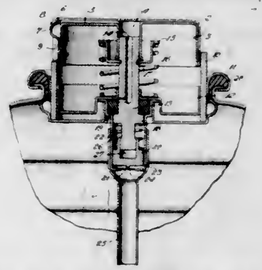
3. In a dispenser for materials needing temperatures modified from those around them, comprising: a container for the material to be dispensed, a discharge outlet for the container, a chamber having an air inlet opening and having an air outlet opening connected into the container, so that as the contents are discharged from the container air is delivered through the chamber outlet into the container to replace the contents, the air passing through the chamber, being delivered into the chamber through the chamber inlet to replace that delivered into the container, and air tempering means in the chamber adapted to change the temperature of the air in the chamber, the tempering means being located with respect to the inlet and outlet of the chamber to temper the air brought into the chamber before it is delivered into the container.

2,781,949
MECHANICAL AND ELECTRICAL MEANS FOR STIMULATING SALES OF MERCHANDISE
Charles Edward Stoneburner, Arlington, Va.
Application February 21, 1956, Serial No. 566,894
5 Claims. (Cl. 222—27)



4. In a mechanical and electrical means for stimulating sale of merchandise or service in a gasoline station comprising in combination, a gasoline dispensing pump having a movable lever for control of the motor of the dispensing pump, a housing on the pump, a motor driven shaft rotatably mounted in the housing, an oscillatable shaft within the housing parallel to the rotatable shaft, a plurality of drums mounted on the rotatable shaft, upper and lower brake bands encompassing each drum, said brake bands being hingedly mounted at one end, the other ends of said brake bands extending above and below said oscillatable shaft, cam members on the oscillatable shaft, a cam being disposed between the last named ends of the brake bands, spring means urging said ends into contacting engagement with said cams, an oscillatable switch in circuit with the motor of the driven shaft, said switch being operable under movement of said oscillatable shaft, the oscillatable shaft being connected to the movable lever of said dispensing pump to oscillate said shaft and release said brake bands permitting free rotation of said drums, spaced peripheral electrical contacts on said drums, signal means within the housing including an electrical circuit and a plurality of contacts in circuit with said signal means positioned to engage contacts on said drums in the event of stoppage of any of the drums to align said contacts and thereby energize said signal means.

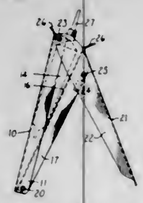
2,781,950
DISPENSING VALVE
Thomas R. Pritchard, Kearny, N. J., assignor to Tanra Manufacturing Co., Orange, N. J., a corporation of New Jersey
Application January 8, 1953, Serial No. 330,202
1 Claim. (Cl. 222—82)



A dispensing valve adapted for use with a pressure vessel open at the top, comprising a valve adapted to close and hermetically seal the open top of the pressure vessel; a depending cup with a pierceable bottom, formed in the base of the valve; a sleeve with a vertical slot in its wall, extending upward from such base; a plunger slideably closing the opening of the cup in sealing en-

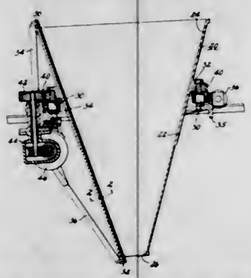
gagement therewith, having a finger piece confined and slideable within the sleeve in engagement with its slot, and within the cup having an extensible end terminating in a piercing point with yieldable means urging the extensible end and the piercing point against the bottom of the cup; yieldable means urging the finger piece outward of the sleeve; a chamber within the cup communicating with the bottom thereof; and a passage through the plunger connecting an outlet port through the slot engaging portion of the finger piece with an inlet port in the side of the plunger, the said inlet port being spaced from the end of the piercing point so that it will be within the chamber only when the plunger is depressed and the pierceable bottom is penetrated by the piercing point.

2,781,951
DEVICE FOR COLLAPSING TUBES CONTAINING MEDICINAL COMPOUNDS
George W. Hanford, Syracuse, N. Y., assignor to G. C. Hanford Mfg. Company, Syracuse, N. Y., a corporation of New York
Application October 14, 1955, Serial No. 540,534
5 Claims. (Cl. 222—103)



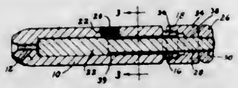
1. A device for collapsing tubes containing medicinal compounds comprising a back member, an actuating member, said members being pivotally joined at like ends, a tube compressor member pivotally connected at one end to the opposite end of said back member and extending toward the pivotal connection of said back and actuating members, said compressor member being movable about its pivot away from said back member to form, in conjunction with said back member, a V-shaped compartment for the reception of a collapsible tube, said actuating member being operable upon movement about its pivot toward said back member to engage and move said compressor member toward said back member to collapse the tube.

2,781,952
MATERIAL HANDLING APPARATUS
Donald G. Mahoney, Muncie, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 5, 1954, Serial No. 427,827
8 Claims. (Cl. 222—168)



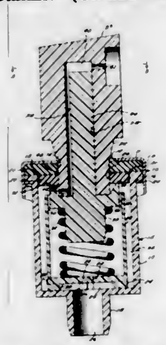
1. A feeding device for lead oxide paste and the like, comprising in combination, a vertically disposed hopper of generally truncated conical shape having fully open ends with the smaller diameter opening disposed adjacent the bottom of the hopper, support means for rotatably supporting the hopper, a stationary scraper blade disposed in scraping relation to the internal side of the hopper and extending the entire length thereof and means for rotating the hopper.

2,781,953
GREASING RAM DEVICE WITH PLUNGER TO BOOST PRESSURE
Charles H. Sylvander, Taunton, Mass.
Application March 13, 1953, Serial No. 342,051
2 Claims. (Cl. 222—388)



1. A greasing ram device comprising a hollow body having a bore extending longitudinally therethrough, a filling hole extending laterally through a midportion of said body into communication with the said bore, and a discharge opening communicating with said bore, a plunger embodying a shaft and an integral, elongate, enlarged portion at its inner end extending into and slidable in said bore, said shaft carrying a head outside said body, said enlarged portion being sufficiently long to extend from said hole to said discharge opening when in discharge position, and a collar attached to said body inwardly of said plunger head having a hole therethrough in which said plunger shaft slides, the outer end of said collar being so positioned as to serve as a stop member by limiting the movement of said plunger head, said enlarged portion being of such size that it cannot pass through said collar hole and discharge openings, and of such length that the inner end, in withdrawn position of said plunger, is outwardly of said filling hole to facilitate charging with grease.

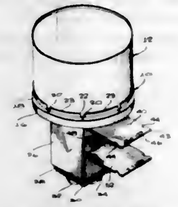
2,781,954
METERING VALVE
Frank E. Bretz, Jr., Elmhurst, Ill., assignor to Delta Dynamics, Inc., River Grove, Ill., a corporation of Illinois
Application April 7, 1955, Serial No. 499,806
13 Claims. (Cl. 222—394)



1. A metering valve mechanism comprising a cup-shaped metering member, a gasket member normally spaced from the open end of said metering member, one of said members being movable relative to the other whereby to engage and disengage the rim of the cup of the metering member and the gasket member, an actuating member for said one member and having a dispensing channel for the metering member, and a cup-shaped valve body operatively connected to said actuating member and arranged to be actuated thereby into and out of

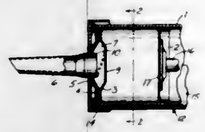
engagement with said gasket member to close and open the dispensing channel, said actuating member being arranged to alternately open and close the cup-shaped member and the dispensing channel.

2,781,955
MEASURING DISPENSER FOR GRANULAR MATERIALS
Kenneth B. Kidd, Scottsdale, Ariz.
Application February 3, 1956, Serial No. 563,220
2 Claims. (Cl. 222—436)



1. A measuring dispenser for granular materials comprising: a base plate having a peripheral flange formed with a circumferential series of spring tongues engageable about the open end of a granular materials container, to provide a lid for said container; a barrel extending from said base plate in communication at one end with the container interior for gravitation of granular materials into the barrel responsive to inversion of the container; a plurality of slides spaced longitudinally of and selectively shiftable transversely of said barrel, for partitioning the same at a selected location intermediate its ends to trap material within the barrel between said location and the other end thereof; and a closure at said other end of the barrel for releasing the trapped material.

2,781,956
NON-DRIP CALKING GUN NOZZLE
William A. Sherbondy, Cleveland, Ohio
Application May 9, 1955, Serial No. 506,903
6 Claims. (Cl. 222—491)



1. In a dispensing device for plastic material, the combination of a receptacle for plastic material provided with a central opening at one end thereof, a hinged valve member for opening and closing such opening, and a tubular dispensing spout having a flexible, radially outwardly extending flange which is peripherally secured at such receptacle end to form a chamber therewith,, said valve member being swung into such chamber under the influence of pressure on the material in said receptacle for flow through said spout, said flange being laterally flexible for flexing toward such receptacle end to displace through said spout some of the material in such chamber and to engage and move said valve member to a position closing such opening.

2,781,957
REWEAVING NEEDLES
Anastasia S. Le Szen, Montgomery, Minn.
Application June 30, 1952, Serial No. 296,408
1 Claim. (Cl. 223—102)

A needle comprising a needle bar terminating in an elongated, flattened and pointed head portion substantially oval edgewise and provided with an eye elongated therein with its major axis extending longitudinally of said head portion, said head portion having adjacent one edge thereof a longitudinal threading slot therein in the rear of said eye terminating at one end at the rear portion of said eye and curving rearwardly and inwardly of said head portion, and a resilient arm at said edge of said portion forming one side of said slot, said slot having a permanently open rear entrance end and a permanently open front end opening into the rear portion and at one side of said eye, said arm flexing outwardly of the slot to provide for passing a thread forwardly

therethrough directly into the rear portion of said eye and reacting inwardly of said slot to partly close the slot and prevent the thread from passing from said eye back into said slot, said head portion having a thread groove therein extending rearwardly from said rear portion of said eye and terminating at said rear portion, said head portion being provided with a tongue extending forwardly therefrom partway into said eye at one side of the eye and across said arm and the front end of the slot to lock the thread in the eye against movement into the front end of the slot.

2,781,958
FISHING ROD HOLDER
Edward A. Lewandowski, Buffalo, N. Y.
Application August 18, 1954, Serial No. 450,671
3 Claims. (Cl. 224—5)

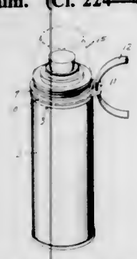
1. A fishing rod holder adapted to be worn by the user thereof comprising, an elongated body part adapted to extend from adjacent the hip downwardly along the thigh of the user, a saddle member carried by said body part adjacent the upper end thereof and projecting laterally outwardly therefrom to bear against the user's hip, means for securing the holder to the body of the user with said saddle member bearing against the hip and spacing said upper body part end outwardly therefrom and with said body part extending downwardly therefrom, and a socket member carried by said body part adjacent the lower end thereof and on the side thereof opposite from said saddle member, said socket member having means defining a relatively large diameter socket therein adapted to receive the handle of a fishing rod and at least one relatively smaller diameter socket adapted to receive different sections of a fishing rod, all of said sockets extending in the general direction of said body part

whereby the fishing rod and the sections thereof will be held in an upright position, means defining a relatively deep first cut out portion in the wall of said relatively large diameter socket for accommodating the reel of a fishing rod, and means providing a relatively shallow second cut out portion in the wall of said relatively large diameter socket in a position offset from said first cut out portion for accommodating the forefinger grip of a fishing rod handle.

2,781,959
BEVERAGE HOLDER
Wallace W. Loveland, Newport, Minn.
Application December 2, 1953, Serial No. 395,720
15 Claims. (Cl. 224—29)

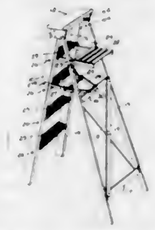
1. A longitudinally extending flexible beverage support for anchoring and supporting in relatively bodily spaced relationship a series of cans or bottles suspended in fixed relation in a cooling medium, the support including in combination an elongated, flexible member having a series of longitudinally spaced closed loops, a series of ring means mounted in said loops, receptacle engaging elements secured in relatively fixed spaced relation in said ring means, these elements including a part designed to extend about the body of the receptacle to be supported and suspend the same in relative longitudinal and bodily spaced relationship.

2,781,960
FLEXIBLE VACUUM BOTTLE CARRIER
Kenneth E. Dick, Alameda, Calif., assignor to The Dicar Company, a copartnership
Application November 9, 1953, Serial No. 390,937
1 Claim. (Cl. 224—45)



In combination with a vacuum bottle having a cylindrical outer body terminating in a circular edge at one end thereof and an inner bottle coaxial within said body, said inner bottle having a neck portion projecting outwardly of said one end of said outer body and the outer end of said neck portion being provided with a pouring mouth; an interiorly threaded section rigid with said outer body at said one end of said outer body, a collar separate from said inner bottle extending over and in engagement with said neck portion and in threaded engagement with said threaded section for releasably securing said inner bottle within said outer body independently of a cap and closure for said inner bottle, said collar including a flange projecting radially outwardly and over the edge of said body at said threaded section, said collar including a threaded portion at the side of said flange opposite to said threaded section for threaded connection with a cap; an annular member held coaxial with said body and held between said flange and said edge by said flange independently of such cap and said annular member being releasable from said collar upon removal of said collar from said threaded section, and a flexible element including a loop connected with said annular member at one side thereof and projecting therefrom providing means for connecting said body to a person for carrying said vacuum bottle by such person.

2,781,961
SELF-LEVELLING STEPLADDER
Jack William Bendick, Winnipeg, Manitoba, Canada, assignor to Bendick Paul Limited, Winnipeg, Manitoba, Canada, a corporation of Manitoba
Application January 21, 1954, Serial No. 405,424
10 Claims. (Cl. 228—29)



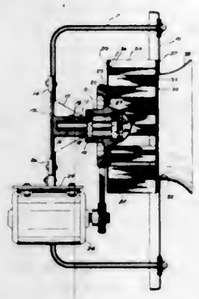
8. A self-levelling stepladder comprising a pair of front legs, the legs in said pair being rigidly interconnected with one another, a pair of back legs, the legs in said pair being rigidly interconnected with one another, and means including pin and slot interconnections respectively pivotally connecting each leg of one pair with the corresponding leg of the other pair, said pin and slot interconnections having a clearance to permit movement of the upper ends of one pair of legs relative to the upper end of the other pair of legs, the slot of said pin and slot interconnections being relatively elongated, and being disposed at a small angle with respect to the plane of a floor upon which said ladder is adapted to be rested when the legs are in open position and rising upward from the front legs towards the back legs of the ladder, the pins of said pin and slot interconnection being slideable in opposite directions relative to each other within said slots thereby permitting one of said pairs of legs to cant relative to the other of said pairs of legs in accordance with irregularities in the surface of a floor upon which said ladder is rested with its legs in open position, and spreader members for limiting the pivotal spreading apart of said pairs of legs with respect to one another, said spreader members being loosely jointed to allow sufficient play to the spreader to permit the canting movement of the back legs without strain.

2,781,962
BLADE FASTENING MEANS
Stuart Wilder, Jr., Indianapolis, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 26, 1951, Serial No. 238,756
3 Claims. (Cl. 230—134)

1. In combination, a footed blade, a blade carrying member containing a mating undercut slot having a relieved area in the sidewalls thereof intermediate its ends, said blade foot having a groove formed in the surface thereof and extending thereabout transverse to the longitudinal axis of the foot, and a releasable spring clip

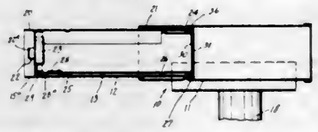
mounted in the groove in said blade foot, the foot of said blade being received in said mating slot in said blade carrying member with said spring clip mounted thereon, said clip having diverging terminal portions that project above the peripheral surface of said blade carrying member and are received in the relieved area in the blade carrying member locking the blade and the blade carrying member together, the terminal portions of said clip being readily accessible and being movable into the groove in said blade foot to unlock the foot of the blade from the blade carrying member and allow separation of one from the other.

2,781,963
BLOWER
Guy S. Faber, Chicago, Ill.
Application June 16, 1950, Serial No. 168,561
2 Claims. (Cl. 230—134)



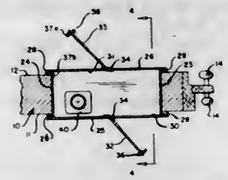
1. A blower comprising a rotatably mounted circular disc-like carrier, a first annulus of substantially rectangular primary vanes secured along one side to the carrier, a second annulus of substantially rectangular secondary vanes secured along one side to the carrier, said annuli being concentric with the carrier, and an elongated solid member having all of its transverse dimensions but a fraction of the length of a vane, said solid member being formed into a ring and secured to the leading edge of each of the secondary vanes and to the trailing edge of each of the primary vanes along the opposite side of the vanes.

2,781,964
MAILBOX STRUCTURE
Joe Ledgerwood, Bloomfield, Ind.
Application November 29, 1954, Serial No. 471,576
1 Claim. (Cl. 232—17)



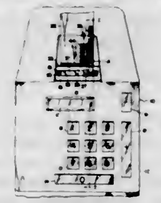
In a mail box structure, a cylindrical housing open at its outer end and affixed in substantially horizontal position, a stop on the inner surface of said housing spaced inwardly from the open end thereof, an intermediate cylindrical sleeve closed at its inner end slidably mounted in said housing, a bead projecting laterally from the closed end of said intermediate sleeve to engage said stop and limit the outward movement of said intermediate sleeve, an annular bead on the inner surface of said intermediate sleeve spaced inwardly from the outer end of the latter, a cylindrical receptacle sleeve closed at its inner end mounted for longitudinal and rotary movement within said intermediate sleeve, an annular bead on the exterior surface of said receptacle sleeve spaced from the closed end thereof to engage said intermediate sleeve bead to limit the outward sliding movement of said receptacle sleeve, said receptacle sleeve having an elongated opening in its cylindrical wall extending substantially from the annular bead thereof to the outer open end of said sleeve, a yieldable latch mounted at the open end of said receptacle sleeve for locking engagement with the adjacent end of said intermediate sleeve when the sleeves are in complete nested relationship, and a cover for the open end of said receptacle sleeve.

2,781,965
MILK DELIVERY AND STORAGE CONTAINER
Nelson Dembs, Detroit, Mich.
Application April 11, 1955, Serial No. 500,453
1 Claim. (Cl. 232—43.4)



A unitary article of manufacture comprising three separate unitary sub-assemblies joined to one another as sub-assemblies to form the article, the first sub-assembly being a four sided sheet metal box having two vertical open ends with their edges transversely flanged outwardly, the other two sub-assemblies being identical sheet metal pans, each having a plate portion of greater area than that of an open box end with its flange, with the box flanges being welded to the plate portions, the plate portions having transverse flanges surrounding the box, each plate portion having a hole occupying approximately 50% of the area of the plate portion overlying the adjacent open end of the box, each hole containing and being closed by a hinged door flush with the remainder of the plate portion, the hinge line for each cover being a vertical edge of the hole located approximately half way between the other vertical edge of that hole and that vertical side of the box most remote from such other vertical edge of that hole, the two plates being reversely positioned on the box so that the hole and cover of one are not in horizontal alignment with the hole and cover of the other but are as far removed horizontally from the hole and cover of the other as is possible, whereby the human arm to be passed through both holes must extend diagonally across the box and cannot extend through the box on an axis parallel to vertical box sides.

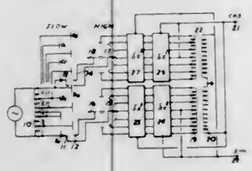
2,781,966
LINE COUNTER
Harry M. Silverberg, Queens Village, N. Y.
Application October 6, 1953, Serial No. 384,393
2 Claims. (Cl. 235—60)



1. In an indicating device for equally spaced lines of repeated numerals recorded in columnar formation on a tape operatively extending from the casing of a calculating machine, a bar supported by said casing, a clamp

slidably mounted on said bar, an indicating arm pivotally supported by said clamp and rotatably movable between an operative position adjacent said tape and selected forwardly retracted positions relatively remote with respect to said tape, said arm having a number-bearing portion with a column of equally spaced numbers thereon in sequential order and disposed substantially parallel to said columnar formation on the tape when the arm is in its said operative position, the spacing of the numbers on said arm corresponding to the spacing of the numerals on said columnar formation.

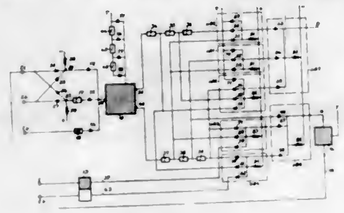
2,781,967
COMPUTING APPARATUS
Rolf Edmund Spencer, Ealing, London, and Richard Herbert Booth, Beaconsfield, England, assignors to Electric & Musical Industries Limited, Hayes, England, a company of Great Britain
Application January 25, 1951, Serial No. 207,728
Claims priority, application Great Britain January 28, 1950
11 Claims. (Cl. 235—61)



2. Apparatus for evaluating the instantaneous value of cos ax where a is a constant and x is an independent variable, comprising means for storing values of the functions cos ax and sin ax for successive particular values of the independent variable x, switch means operable in dependence on x for simultaneously selecting the stored value of cos ax and sin ax for the particular value of x nearest the instantaneous value thereof, further switch means operable in dependence on x for forming the product of $a\delta x$ and the selected value, to represent the difference δx between the instantaneous value of x and said nearest particular value thereof, means for forming an incremental signal proportional to the product of δx and the selected value of sin ax, said last means being predetermined to cause the constant of proportionality of the incremental signal to represent a and means for subtracting said incremental signal from the selected value of cos ax to evaluate approximately cos ax for the instantaneous value of x.

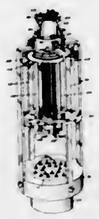
2,781,968
ADDITION AND SUBTRACTION OPERATING DEVICE FOR ELECTRIC CALCULATING MACHINES OPERATING IN THE BINARY SYSTEM
Pierre Jacques Charles Chenus, Paris, France, assignor to Compagnie des Machines Bull (Societe Anonyme), Paris, France
Application April 5, 1952, Serial No. 280,820
Claims priority, application France April 11, 1951
8 Claims. (Cl. 235—61)

1. Algebraic serial adder for adding or subtracting a binary number B to or from a binary number A, said numbers being represented by respective trains of entry pulses B and A, said adder comprising three pulse receiving "YN" devices, having each two outputs Y and N adapted to separately manifest the reception of an entry pulse and the non-reception of an entry pulse, the first YN device being connected to an input of the adder for uniquely receiving the pulses A; the second YN device receiving, from two other inputs of the adder, the pulses B and carry pulses C produced by the adder itself, through a first "and" gate; the third YN device receiving said pulses B or said pulses C through a first "or" buffer; a pair of two-input "and" gates and one three-input "and" gate the inputs of which are differently connected to the outputs of said three YN devices; a second "or" buffer the inputs of which are connected to the outputs of said two-input and three-input "and" gates to deliver at its output pulses representative of the sum or difference result; a first carry "and" gate with an input connected to the output Y of said first YN device; a second carry "and" gate with an input connected to the output N of



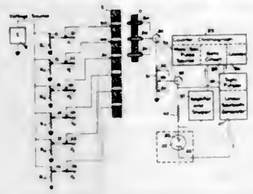
said first YN device, another input of each of said carry "and" gates being connected to the output Y of said third YN device; a carry "or" buffer the inputs of which are connected to the outputs of both carry "and" gates and to the output Y of said second YN device; a carry circuit path between the output of said carry "or" buffer and one of said other inputs of the adder; control means controlling said carry "and" gates so that carry pulses are fed to said circuit path through the first carry "and" gate for addition or through the second carry "and" gate for subtraction.

2,781,969
CALCULATING APPARATUS
Alexander Somerville, Birmingham, Ala.
Application January 27, 1951, Serial No. 208,184
19 Claims. (Cl. 235—61)



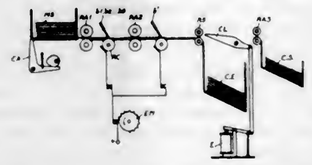
13. Apparatus for determining the product of a pair of variable quantities expressed in input voltages proportional to the quantities, including, a cathode for producing a beam, an anode for accelerating and focusing the beam, a deflector system for bending the beam in accordance with the values of the input voltages, a splitter plate for splitting the deflected beam into quadrants, the splitter plate being positioned to split the beam into equal quadrants for a condition of no beam deflection, a lens system for spreading the beam to facilitate the splitting of the beam into the different quadrants, a plurality of collector plates operative to receive different portions of the split beam, a circuit for obtaining the difference between the combined strengths of predetermined beam portions and the combined strengths of the remaining beam portions to produce an output signal proportional to the product of the quantities, and means including a plurality of adjustable impedances in the circuit for altering the position of the beam to center the beam for zero input voltages and to obtain a zero output voltage for at least one zero input voltage.

2,781,970
ANALOG COMPUTER
Sidney Kaufman, Houston, Tex., assignor to Shell Development Company, Emeryville, Calif., a corporation of Delaware
Application October 8, 1951, Serial No. 250,299
3 Claims. (Cl. 235—61)



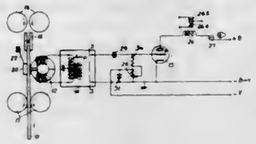
1. An electronic computer, comprising a constant source of potential, a fixed support member, a plurality of electrical outlets mounted thereon, a voltage divider network interconnecting said source and said outlets in such a manner that the potential appearing at each outlet bears a predetermined ratio to the potential at each other outlet, a movable support member, a plurality of plugs mounted thereon, said plugs being adapted for simultaneous connection with said outlets, a plurality of contacts each connected to one of said plugs, a movable switch mounted to sweep over said contacts, a plurality of second contacts, a voltage divider network interconnecting said movable switch and said second contacts in such a manner that the potential appearing at each of said second contacts bears a predetermined ratio to the potential at each other second contact, a second switch mounted to sweep over said second contacts, said second switch being mechanically ganged with said first switch, a sawtooth generator of periodical linearly rising voltages, a thermionic voltage comparator having its cathode connected to the second switch and its anode connected to said sawtooth generator, said comparator becoming conductive when the voltage applied to its anode by said generator becomes more positive than that applied to its cathode by said second switch, a counter circuit comprising a source of high frequency pulses, and means connecting said counter circuit to said voltage comparator and to said sawtooth generator, whereby said counter circuit operates to count the high frequency pulses occurring between a signal transmitted thereto from the sawtooth generator upon the start of a periodically rising voltage and a signal transmitted thereto from said thermionic voltage comparator upon said comparator becoming conductive.

2,781,971
ARRANGEMENT FOR CHECKING THE TRANSCRIPTION OF NUMERALS ON DOCUMENTS
Knut Andreas Knutsen, Paris, France, assignor to Compagnie des Machines Bull (Societe Anonyme), Paris, France
Application June 16, 1951, Serial No. 231,958
Claims priority, application France June 17, 1950
7 Claims. (Cl. 235—61.7)



4. An electromagnetic device for checking the transcription of data on register cards for accounting machines, each datum to be checked being accompanied by a checking symbol in a special column of the card, said device comprising: means for feeding the cards, first reading out members for reading said data, checking symbol excepted, second reading out members for reading out said checking symbols that are located with respect to the first members and the feeding of the cards so as to read a symbol after the corresponding datum has been completely read out, means for determining two electric parameters, each of which corresponds to a conventional figure, for each item of a column of a datum read out in the machine and according to a pre-established correspondence between a numerical item and a conventional figure, means transforming the different electric parameters into combinations of electric circuits for separately calculating a characteristic figure on each of the two series of conventional figures corresponding to one datum, said symbol being excepted, whereby two resulting further electric parameters are delivered, electromagnetic registering means for registering said further electric parameters, electromagnetic means for comparing said registered parameters and the results of the reading of the registered checking symbol and for signalling an error in case of a discrepancy between them.

2,781,972
READING DEVICE CONTROLLED BY MAGNETIC RECORD CARDS
Adam Chaimowicz, Paris, France, assignor to Compagnie des Machines Bull (Societe Anonyme), Paris, France
Application May 6, 1952, Serial No. 286,407
Claims priority, application France May 17, 1951
4 Claims. (Cl. 235—61.11)

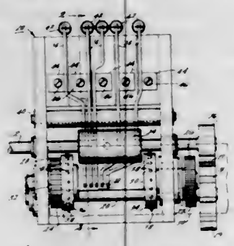


2. In combination, a magnetic sensing head, a card feeding device for feeding record cards past said sensing head, said cards bearing magnetic marks on their two sides, an amplifier connected to the sensing head outlet for amplifying the current impulses generated by the passage of magnetic marks before the sensing head, said amplifier incorporating voltage discriminating means with a lower limit of operating voltage comprising manually settable resistor means for adjusting said voltage limit to a value inferior to the value of the voltage derived from the passage of marks situated on the card side which is the closest, with respect to the sensing head, and superior to the one corresponding to the passage of marks situated on the card side which is remote with respect to the sensing head, and means comprising electromagnetical relays for controlling the working of execution control means and connected to the outlet of said amplifier.

2,781,973
PUNCHED TAG READER
John S. Baer, Woodbury, and Robert A. Oberdorf, Delaware Township, Camden County, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application October 24, 1955, Serial No. 542,352
3 Claims. (Cl. 235—61.11)

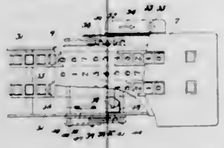
1. A tag reader comprising a base structure, means providing a tag support surface attached to said base structure and having apertures to receive sensing pins, a tag guide member attached to said means and having apertures in alignment with said tag support surface apertures to receive sensing pins, a plurality of flexible arms each having one end fixed with respect to said support

surface means, a plurality of sensing pins respectively each on a separate one of said flexible arms at the other end thereof, said pins being normally positioned to be disengaged from said sensing pin apertures, a pivot in said base structure, a plurality of sensing arms pivotally mounted on said pivot, each of said sensing arms having at one end a substantially L-shaped portion positioned to move said other end of a different one of said flexible arms, each of said sensing arms being yieldingly biased at its other end to push said flexible arms to urge said sensing pins into said apertures, a plurality of contact plates each attached to a separate one of said sensing arms between said pivot and said biased ends, signal switches attached to said base structure and positioned



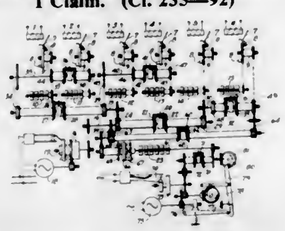
to be closed respectively by said contact plates when said pins are fully advanced, a drive shaft mounted on the said base structure, a cam to be driven by said shaft and positioned to cam said sensing arms out of engagement with said flexible arms, a pinion fixed said said drive shaft, a Geneva gear having a plurality of concave, arcuate teeth to coact with said pinion, an advancing shaft, an advancing pinion mounted thereon, said Geneva gear being mounted on said advancing shaft coaxially with said advancing pinion, and advancing means cooperating with said advancing pinion, said advancing means including sprocket means adapted to engage a tag to be read and to advance said tag by incremental amounts when said sensing arms are cammed out of engagement with said flexible arms.

2,781,974
CALCULATING MACHINE
Mitsuru Okazaki, Katsushika-ku, Tokyo, Japan
Application August 19, 1953, Serial No. 375,239
Claims priority, application Japan August 22, 1952
3 Claims. (Cl. 235—71)



3. A calculating machine comprising a plurality of calculating units corresponding to numerals of different orders; each unit having a rotatable numeral wheel formed with ten flat shaped teeth having different numerals from zero to nine, inclusive, a toothed wheel of the same shape as said numeral wheel and rotatable about an axis parallel to that of the numeral wheel, and an endless chain passing around said numeral wheel and said toothed wheel and having finger windows disposed at intervals corresponding to the tooth pitch of said numeral wheel; a numeral card slidable transversely below the upper runs of said endless chains and having different numerals from zero to nine, inclusive, arranged in longitudinal columns to be seen through said windows of said endless chains and the columns of different numerals from nine to zero, inclusive, inscribed between the first mentioned columns, said first and other columns of said numerals being seen alternately through said windows when said numeral card is displaced transversely with respect to said endless chains; an adding transfer mechanism having a decimal adding cam secured to one side of said toothed wheel of at least one unit; a bar having one end in the form of a fork engaging the axis of said toothed wheel, said one unit and being guided thereby, the other end of said bar forming a pawl which is engageable with the windows in the lower run of said endless chain of the calculating unit of higher order adjacent said one unit so that said pawl slides on the engaged chain during adding movement and meshes with a selected window of the chain during decimal transfer movement, a return spring connected to said bar, and a roller cooperating with said decimal adding cam to control said bar; a subtracting transfer mechanesm having a decimal subtracting cam secured to said numeral wheel of said one unit, a bar having one end in the form of a fork engaging the axis of said numeral wheel and being guided thereby, the other end of said bar forming a pawl engageable with the windows in the lower run of said endless chain of the calculating unit of higher order adjacent said one unit so that said pawl slides on said chain during subtracting movement and meshes with a selected window during decimal transfer movement, a return spring connected to said bar, and a roller cooperating with said decimal subtracting cam to control said bar; and changing means alternately bringing said pawls of said bars of said adding and subtracting mechanisms to operative positions engaging said chain of the adjacent unit and for simultaneously displacing said card laterally to dispose the corresponding columns of numerals on said card in alignment with said chains.

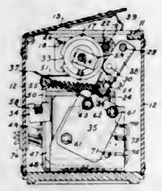
2,781,975
TOTALIZING METER
Richard Pudelko and Hans Tobler, Zug, Switzerland, assignors to Landis & Gyr, A. G., Zug, Switzerland, a body corporate of Switzerland
Application April 14, 1952, Serial No. 282,170
Claims priority, application Switzerland April 25, 1951
1 Claim. (Cl. 235—92)



Apparatus for totalizing pulses, including in combination a plurality of positive pulse escapement devices, at least one negative pulse escapement device, a plurality of remotely controlled relays, individually controlling said escapement devices, individually totalizing registers separately actuated by said escapement devices, a common branched driving means powering said escapement devices through its several branches, said relays releasing their respective escapement devices independently of each other, said branched driving means, including a unidirectional motor and a succession of differential gearings for distributing the driving power between said motor and said individual registers, said differential gearing being interconnected so that the first differential drives two differentials, at least one of which drives two additional differentials; and a summation meter, means connecting said meter to said common branched driving means, said last named means comprising a differential drive having two sun gears, one sun gear being connected to the planetary

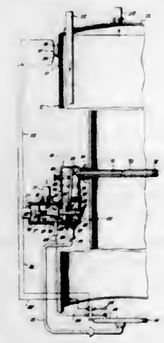
gear of said common branched driving means lying nearest to the driving motor, the other sun gear being connected to said negative pulse escapement device through gearing having a 1:2 step up ratio from said escapement device to said sun gear, the planetary gearing of said differential being connected to said meter.

2,781,976
PREDETERMINING COUNTER
Walter W. Hoffmann, Waukesha County Wis., assignor to Durant Manufacturing Co., Milwaukee, Wis., a corporation of Wisconsin
Application September 11, 1953, Serial No. 379,612
4 Claims. (Cl. 235—132)



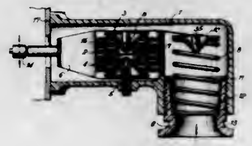
1. In a counter, a succession of numeral wheels of progressively higher order, a peripherally notched predetermining wheel rotatably adjustable relative to each of said numeral wheels, a normally stationary reset shaft about which said wheels are rotatable during counting operation, an electric switch having a contact movable in opposite directions, means for moving said switch contact in one direction whenever all of said predetermining wheel notches attain alined positions, a permanent magnet mounted independently of said shaft for holding said switch contact in fixed position when moved in said direction, and means carried by said shaft for releasing said switch contact from said magnet and for moving the contact in the opposite direction only when the shaft has been rotated sufficiently to substantially reset said numeral wheels.

2,781,977
SAFETY GAS CONTROL SYSTEM FOR HOT WATER HEATERS
Robert F. Stanley, Glendale, and Frank M. Day, Pasadena, Calif., assignors to Pioneer Water Heater Corp., Los Angeles, Calif., a corporation of California
Application May 10, 1954, Serial No. 428,636
4 Claims. (Cl. 236—21)



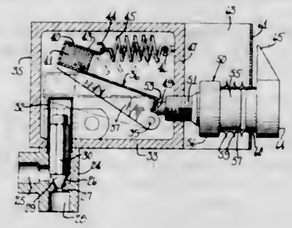
1. In combination: a water heater including a main burner, a pilot burner for igniting said main burner, and a storage tank having a cold water inlet and a hot water outlet; means for feeding fuel to said main burner including a control valve; thermally responsive means for opening and closing said valve in accordance with predetermined minimum and maximum temperatures of water at a first predetermined location in said tank; a thermal electric generator heated by the pilot burner flame; an electromagnet energized by said generator when said pilot flame exists to enable said valve to be opened and closed by said thermally responsive means and to hold said valve closed in the absence of said pilot flame; and switch means disposed completely externally of said tank and in thermal contact with the external surface of said tank and responsive to the temperature of water in said tank at a second predetermined location where water vapor in the tank will not accumulate, said second location being substantially below said outlet and substantially above said first location to open the circuit to said electromagnet when the water temperature in said tank at said second location reaches a predetermined maximum value substantially above the maximum water temperature at said first location.

2,781,978
TEMPERATURE REGULATOR FOR ROOM HEATING
Gerhard Göbel, Hamburg-Wellingbuttel, Germany
Application July 10, 1952, Serial No. 298,169
4 Claims. (Cl. 236—38)



1. In a temperature regulator for room heaters with a convector-type heating element, wherein said temperature regulator comprises a casing enclosing a temperature-sensitive element and having an inlet opening and an outlet opening, with said opening being capable of drawing-in room air, which is not influenced by the room heater, but which is capable of affecting the temperature-sensitive element, in combination a spring counteracting said temperature-sensitive element, a lever operably connected to said temperature-sensitive element and to said spring, a throttle flap connected to said lever for controlling the heating in said room, and a hollow nut screwed into said casing of the temperature regulator abutting against said spring for adjusting the tension thereof, said nut having a bore serving as said inlet for the air sucked through the casing.

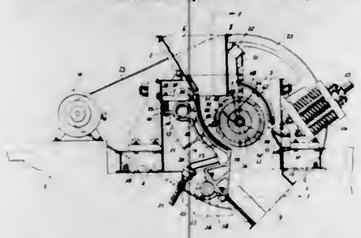
2,781,979
THERMO-MAGNETIC REFRIGERANT VALVE
El Roy J. Kraft, Des Plaines, Ill., assignor to The Dole Valve Company, Chicago, Ill., a corporation of Illinois
Application July 13, 1955, Serial No. 521,749
6 Claims. (Cl. 236—48)



1. In a refrigerant shut-off valve particularly adapted to shut-off the flow of refrigerant in a secondary refrigerant loop of a dual temperature refrigerator, a valve body having a central valve chamber, an inlet leading into said chamber and an outlet leading therefrom, a metallic valve

biased by gravity to block the passage of refrigerant from said inlet to said outlet, a housing extending from said valve body and having said valve movable therein, an arm pivotally mounted in said casing for movement toward and from said valve, at least an outer portion of which is magnetic, a thermal element having a cylinder extending within said housing, a casing on the outside of said housing and a piston extensible from said cylinder into engagement with said arm upon predetermined rises in temperature, for moving said arm toward said valve to envelope said valve with the magnetic field of said arm and effect opening thereof, and a spring having connection with said arm for biasing said magnet away from said valve to accommodate said valve to close by gravity, and for retractibly moving said piston within said cylinder.

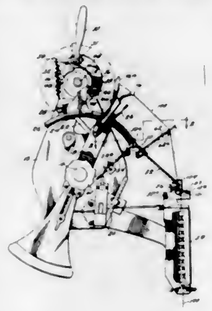
2,781,980
SLUGGER ROLL CRUSHER
Lester E. Ferguson, River Edge, N. J., assignor to Kennedy-Van Saun Mfg. & Eng. Corporation, New York, N. Y., a corporation of Delaware
Application March 15, 1954, Serial No. 416,103
3 Claims. (Cl. 241—239)



1. In a slugger roll crusher, an open frame, a casing supported by the frame and having a crushing chamber, a material inlet above the crushing chamber and extending above the frame and a crushed material outlet below the crushing chamber and extending below the frame, a shaft rotatably mounted on the frame and exteriorly of and on opposite sides of the casing and extending through the crushing chamber, a fly-wheel mounted on an end portion of the shaft, a slugger roll secured on the shaft within the crushing chamber, a swing jaw pivotally mounted at the upper end within the casing and on one side of the shaft, a spring cage mounted on the frame and exteriorly of and on each side of the casing, and a rod secured at one end in each spring cage with the opposite end having a ball and socket connection with the lower end of the swing jaw exteriorly of the casing.

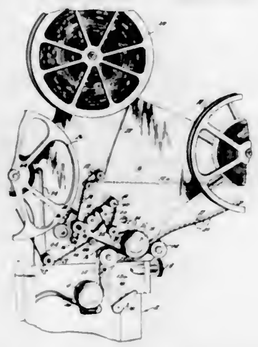
2,781,981
POSITIVE STOP DEVICE IN WINDING MACHINES
Edmund Demarche, Utica, N. Y., assignor to Skenandoa Rayon Corporation, Utica, N. Y., a corporation of Delaware
Continuation of abandoned application Serial No. 81,556, March 15, 1949. This application January 19, 1954, Serial No. 404,934
4 Claims. (Cl. 242—37)

1. A stop mechanism for thread winding machines comprising a rotatable spindle, a cone on said spindle for receiving the thread, a rotatable step cam, a pivoted traverse mechanism for feeding the thread to said cone, and means for stopping rotation of said spindle, said means including a pivoted arm, a thread tension sensing leverage pivoted at the free end of said pivoted arm, said leverage comprising a hub pivoted to said arm, a first arm attached to said hub and extending from the pivot thereof toward said step cam, a second arm attached to said hub and extending from the pivot thereof downward, a third arm attached to said hub at a point well below the pivot thereof and extending in a direction substantially opposite to that of said first arm, the thread being wound on said cone being arranged to pass under the free end portion of said second arm and over the free end portion of said third arm so that the torque produced by a normal



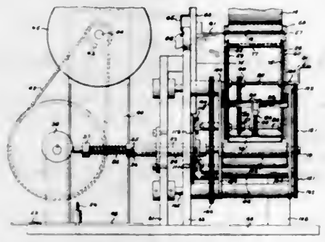
unplucked thread on said second arm is opposite to that produced by such thread on said third arm so as to eliminate jumpy and shaky motion of said thread tension sensing leverage particularly when said cone is built up and the speed of said thread is increased because of the increased cone diameter.

2,781,982
REELING SYSTEM
Warren Rex Isom, West Collingswood, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application June 2, 1952, Serial No. 291,172
The terminal fifteen years of the term of the patent to be granted has been disclaimed
9 Claims. (Cl. 242—55)



9. As an attachment for a motion picture projector, a bracket, first and second supply reel means mounted on said bracket, said first supply reel means being provided to accommodate a picture bearing film, said second supply reel means being provided to accommodate a sound record bearing film, take-up reel means mounted on said bracket for said sound record bearing film, means carried by said bracket for defining a path of advancement of said sound record bearing film between said second supply reel means and said take-up reel means, said path defining means including a first film motion stabilizing means, a second film motion stabilizing means, and a film driving sprocket, and means carried by said bracket for defining a portion of a path of advancement of said picture bearing film, said picture film path lying in substantially the same general plane as said sound record film path, said picture film path defining means including said sprocket, said sprocket being driven by said picture bearing film.

2,781,983
STRIP WINDING APPARATUS
George P. McGraw, Jr., Downers Grove, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application November 8, 1952, Serial No. 319,501
6 Claims. (Cl. 242—55)



1. In an apparatus for winding strip material into rolls the combination of a forming member having a concave surface for solely guiding an advancing strip through a curved path to form the initial convolutions of a roll of said strip, means for advancing said strip into engagement with said forming member to effect the formation of several convolutions of a roll in said strip, means for vibrating said forming member axially of said roll, and means engageable with the periphery of said roll for imparting rotation thereto to wind said strip onto said roll.

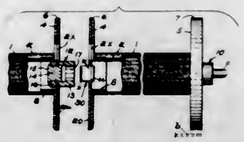
2,781,984
TAPE SPEED GOVERNOR
Walter S. Buslik and James A. Weidenhammer, Poughkeepsie, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application October 26, 1955, Serial No. 542,864
5 Claims. (Cl. 242—75)

1. A device for feeding tape at a regulated speed comprising, in combination, a drum over which said tape passes, means supporting said drum for free rotation, a reel having one end of said tape connected thereto, a motor for driving said reel to wind up said tape, electrically operated means for controlling the connection of said motor in driving relation with said reel, a member arranged closely adjacent said drum and carrying electric contact means, means for rotating said member at a constant speed, a contact arm pivotally connected at one end to said member and having frictional engagement at its other end with said drum, said tape acting to rotate said drum as it is wound upon said reel and said drum operating when rotated relative to said member to engage said contact arm with said contact means, and circuit means including said contact arm and said contact means for controlling the energizing of said electrically operated means.

2,781,985
BOBBIN
Nels P. Hoffstedt, Chicago, Ill., assignor to William F. Stahl, Kenilworth, Ill.
Application June 12, 1953, Serial No. 361,229
4 Claims. (Cl. 242—118)

1. In a bobbin structure, a multiple-sided core, said core having a relatively thin coating over the outer surface thereof, said coating being a relatively hard material adapted to swell upon the application of suitable swelling agents thereto, and a flange mounted upon said core over said coating thereon, said flange being equipped with multiple projections, one for each side of said core, extending laterally therefrom in engagement with the coated sides of said core, said projections being relatively long for engagement with the sides of said core over extended areas thereof, said projections along the adjacent edges thereof which lie along each corner of said multiple-sided core being recessed from the outer edges inwardly toward said flange to define open areas, said open areas terminating spaced distances from said flange to provide restricted necks integral with said flange that grip said core at the corners thereof, said coating being swollen within the open areas defined by said projections and substantially abutting the projections and necks in the anchorage of said flange upon said core.

2,781,986
TUFTING YARN SPOOL BEARING AND ASSEMBLY
Walter Bixby, Boston, Mass., assignor to Shawmut Engineering Company, Boston, Mass., a corporation of Massachusetts
Application March 24, 1953, Serial No. 344,341
2 Claims. (Cl. 242—123)

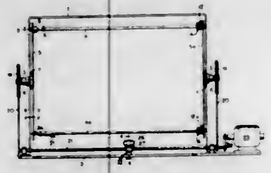


1. A bearing assembly unit for centered flatwise connection at the outer face of a pile-fabric loom yarn spool head plate having a peripheral flange and central aperture, said unit adapting the spool for angularly fixed interconnection with an axial socket of an axially aligned spool of a plurality thereof, said unit comprising a mounting plate conformant to and adapted for centering within and by the flange of such spool head plate and having a central square aperture, and an axially extending male bearing element having an intermediate laterally open hollow portion formed by spaced parallel side walls defining two opposite sides of a cross-sectional square, said intermediate portion fitted through and projecting outwardly of the square aperture of the mounting plate, and said intermediate portion having integrally formed at the respective ends thereof at opposite faces of the mounting plate a transverse end wall presenting a square outer end face spanning said side walls and a plurality of radially projecting rigid header wings flatwise abutting and rigidly welded to the adjacent inner face of the mounting plate thereby fixedly presenting the said male element itself to constitute a hollow laterally open projective centered spool-supporting gudgeon when assembled to such spool head plate.

2,781,987
YARN GUIDE
Edward A. Tashjian, Romford, R. I., assignor to Universal Winding Company, Cranston, R. I., a corporation of Massachusetts
Application July 19, 1954, Serial No. 444,180
8 Claims. (Cl. 242—157)

1. In a yarn guiding device the combination comprising a guide member having a yarn receiving eye and a base portion, said base portion having opposed notches formed in the sides thereof and extending transversely of the longitudinal axis of said guide member, and a supporting member for said guide member formed of resilient wire and including an upwardly extending length, a downwardly extending length spaced from and substantially parallel to said upwardly extending length, said two lengths being seated in said notches, and a reverse bend formed on the lower end of said downwardly extending length to provide an upstanding stub having its end in engagement with the bottom of said guide member.

2,781,988
WINDING MACHINE FOR LINK SAUSAGE
Carl H. Peschke, Detroit, Mich.
Application March 19, 1954, Serial No. 417,329
1 Claim. (Cl. 242—113)



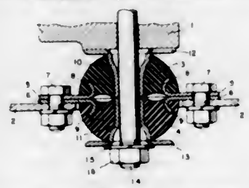
A winding machine reel comprising a pair of end members, a pair of spaced journal members respectively carried by the respective end members and jointly establishing an axis of rotation for the reel, a pair of rods bridged between the end members at opposite sides of said axis, a pair of mountings on each end member for the corresponding ends of the rods, means on the end members for guiding the mountings in sliding travel to and from said axis, means for clamping the mountings rigidly to the end members in selective positions of said sliding travel, means for pivoting an end of one of said rods transversely thereof upon the corresponding mounting, means for releasing the pivotal rod at its other end from its mounting whereby such rod may be swung laterally about its pivotal end, and means on the mountings for the other rod for releasing such rod from its mountings.

2,781,989
KITE
Thomas D. Hagood and William S. Roden, Albertville, Ala.
Application January 15, 1954, Serial No. 404,158
5 Claims. (Cl. 244—154)

1. In a helicopter kite, an elongated plate like fuselage having an oval forward portion, a fan shaped rear portion, a vertical rod traversing said forward portion, said rod having an upper portion projecting above said forward portion and a lower portion projecting below said forward portion, a kite line loop on the lower por-

tion of the rod, and a bladed rotor journalled on the upper portion of the rod, said rear portion being devoid of a rotor.

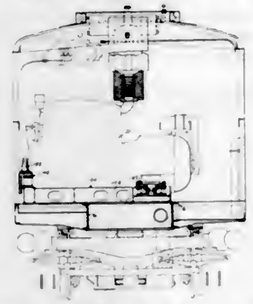
2,781,990
DOUBLE ACTING RESILIENT SUPPORT FOR ENGINE MOUNTINGS
Carlo Via, Milan, Italy, assignor to Societa Applicazioni Gomma Antivibranti S. A. G. A. Societa per Azioni, Milan, Italy
Application October 22, 1953, Serial No. 387,650
Claims priority, application Italy November 19, 1952
4 Claims. (Cl. 248—9)



1. In a double acting resilient support, the combination of a central rigid tubular structure the exterior surface of which flares outwardly at each end, a pair of members secured each to a different end of said tubular structure and extending transversely therefrom to provide flat working surfaces surrounding the ends of said tubular structure, said tubular structure being adapted to receive a mounting bolt for securing such structure to a device to be mounted by the support, a flat mounting plate structure disposed in a plane transverse to said tubular structure and intermediate of the outwardly flared ends thereof, said mounting plate structure being provided with an opening disposed coaxially with respect to said tubular structure and defined by an annular flange the inner surface of which is generally arcuate in cross-section and convex with respect to said tubular structure, the inner diameter of said opening being greater than the maximum outer diameter of the flared ends of said tubular structure, and an annular elastic structure dipsosed between and bonded to said flange and said tubular structure and extending for substantially the entire length of said tubular structure so as to terminate adjacent said flat working surfaces, the end surfaces of said elastic structure each being a segment of a sphere and curving away from the corresponding one of said flat working surfaces toward said flange, whereby increasing axial loads applied in either direction cause a portion only of said elastic structure to be stressed first primarily in flexion and then primarily in compression.

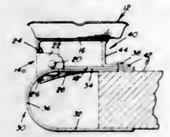
2,781,991
ENGINE MOUNTING
Robert Walsh, Wilmington, Del., assignor to ACF Industries, Incorporated, a corporation of New Jersey
Original applications September 2, 1949, Serial No. 113,727, now Patent No. 2,719,488, dated October 4, 1955, and February 20, 1951, Serial No. 211,962, now Patent No. 2,717,746, dated September 13, 1955. Divided and this application April 30, 1952, Serial No. 285,281
3 Claims. (Cl. 248—22)

1. An engine cradle comprising a pair of spaced parallel channel members disposed with horizontal outwardly extending upper and lower flanges, plate tie members extending horizontally between said channel members adjacent the ends thereof and secured thereto at the inner ends of said lower flanges, said upper flanges being transversely slotted adjacent one end of the cradle and said lower flanges extending beyond said upper flanges at the other end of said cradle, the free end portions of said upper flanges at the slotted ends thereof being similarly bent upwardly, a V-shaped mounting supporting plate seated on and secured to said free end portions of said upper flanges, a pair of resilient engine mountings



secured to the opposite sides of said V-shaped mounting supporting plate adapted to support one end of an engine, angle bracket means secured to said lower cradle flanges at the end of said cradle opposite said V-shaped mounting supporting plate and beyond said upper flanges, a second pair of resilient engine mountings secured respectively to said angle bracket means and adapted to support the other end of said engine, and upwardly extending flanges on said plate tie members extending transversely of said channel members at the respective ends thereof and secured thereto to reinforce said cradle.

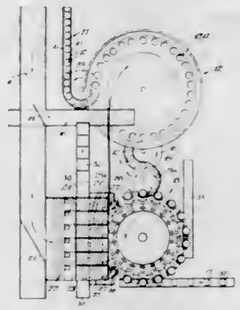
2,781,992
ASH TRAY SUPPORT
Dora T. Cunningham, Springfield, Mo.
Application May 13, 1954, Serial No. 429,610
4 Claims. (Cl. 248—226)



2. In combination, a flat bottomed ash tray, and means for detachably and hingedly mounting said tray on a table or the like, said means being characterized by a substantially U-shaped bracket embodying an upper arm underlying and fixed to the bottom of said tray, a lower arm, the latter having a resilient tongue struck out therefrom and providing a spring finger, said upper arm having a depending bight portion, the latter having lateral spaced ears hingedly attached to the adjacent end of said lower arm, and said spring finger having a flexed free end portion under tension and bearing against a cooperating lower edge on said bight portion, and a rigid stop interposed between and disposed at right angles to the free end portions of said upper and lower arms and fixed to said lower arm.

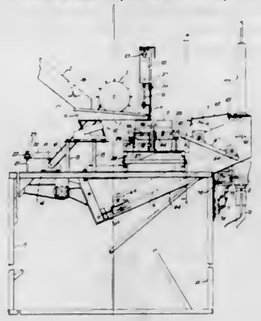
2,781,993
PROCESS OF WEIGHT FILLING OF CONTAINERS
Roy M. Magnuson, Campbell, Calif.
Application April 13, 1951, Serial No. 220,932
5 Claims. (Cl. 249—18)

1. The method of filling containers to a desired net weight content with material of a character having units of measurable size and weight which comprises establishing a flow of material to be filled, establishing a flow of containers and carrying the containers through an underfilling zone and a unit-by-unit weight filling zone, diverting a part of the flow of material into the underfilling zone and underfilling containers therein, transmitting the remainder of the flow of material and establishing a plurality of parallel unit-by-unit files of the material



progressing in a timed relation to the progress of the containers through the weight filling zone, bringing a series of the containers simultaneously into register with the discharge ends of the unit-by-unit files and successively placing a unit feed into each container until the desired weight is reached, and thereafter diverting any subsequent unit-by-unit feed with respect to a container filled to the desired weight.

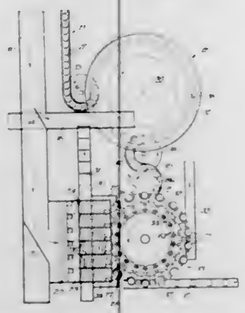
2,781,994
BAG FILLING AND WEIGHING MACHINE
Frank F. Lindstaedt, San Anselmo, Selmer A. Melbostad, San Francisco, and Fred S. Wright, Sonoma, Calif.; said Melbostad assignor to said Lindstaedt
Application January 29, 1951, Serial No. 208,412
4 Claims. (Cl. 249—46)



1. In a bag filling and weighing machine, a receiving bucket, a balance having a first arm and a second arm and having the bucket suspended from one arm thereof and having a balancing weight on the second arm, a vibrator pan having a normally open, horizontal discharge end disposed over the bucket, a frame member mounted above the discharge end, a cylinder swingably suspended from the frame member having a downwardly projecting plunger movable therein, a gate mounted on the lower end of the plunger and disposed normally over the feed end of the pan, and means for depressing the plunger for moving the gate into closing position with respect to the pan, the cylinder having means for adjusting the same to a desired angular position and the gate being formed to leave a dribble feed opening at the end of the pan, with the size of the opening depending upon the angular adjustment of the cylinder, and the weight-

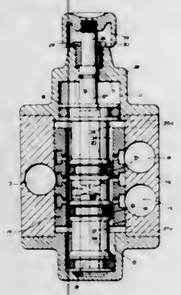
carrying arm of the balance having a minor weight mounted thereabove adapted to be picked up by said arm during the dribble feed to effect a braking action on the downward movement of the bucket, the movement of the bucket controlling the feeding means.

2,781,995
APPARATUS FOR WEIGHT FILLING OF CONTAINERS
Roy M. Magnuson, Campbell, and Traver J. Smith, San Jose, Calif.: said Smith assignor to said Magnuson
Application April 13, 1951, Serial No. 220,933
4 Claims. (Cl. 249—59)



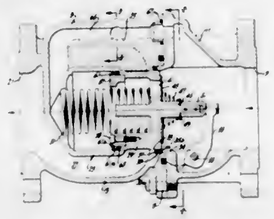
1. In a weight filling machine, a base, a turret mounted for rotation thereon, a series of container weighing units carried by said turret, each unit comprising a scale lever pivotally mounted on said turret about an axis and including an inwardly projecting balance arm and an additional outwardly projecting arm, said additional arm being disposed in outboard relation to said turret, means attached to said additional arm for supporting a container, said container supporting means being disposed beyond the periphery of said turret, container feed means adjacent to a portion of the path of travel of said container supporting means, and container discharge means adjacent to another portion of said path.

2,781,996
MANUALLY OPERABLE PNEUMATIC VALVES
Cosby Donald Philipps Smallpeice, Swanwick Shore, near Southampton, England
Application November 18, 1953, Serial No. 392,794
Claims priority, application Great Britain May 21, 1953
3 Claims. (Cl. 251—31)



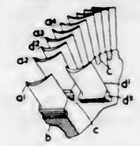
1. A pneumatic valve comprising a body with a passage therein to which a gaseous fluid may be supplied, a piston movable axially in a bore of the body to control the supply of gaseous fluid from said passage, said body providing a cylindrical chamber at each end of said piston, one of said chambers being of larger diameter than the other, separate bores in said piston providing communication between said passage and said chambers, respectively, the bore leading to said larger chamber incorporating a restriction, and a controllable plunger element adapted to close and open a leak from said larger chamber, said plunger element adapted when moved to open said leak to extend into the adjacent end of the bore leading to the said larger chamber and to subsequently make a seal therewith when the piston end moves into said larger chamber.

2,781,997
BALANCED SHUT-OFF VALVE
William F. Berck, Hayward, Calif., assignor to Ralph N. Brodie Company, San Leandro, Calif., a corporation of California
Application December 6, 1952, Serial No. 324,501
6 Claims. (Cl. 251—51)



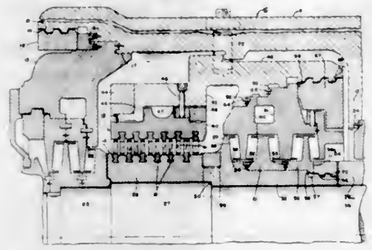
1. A valve, comprising a valve body having an inlet and an outlet, a cylinder suspended within, in annular-spaced relation with respect to, and by the valve body, said cylinder having an open end opening toward and coaxial with the inlet and a blind end facing the outlet, a piston slidably fitting within the cylinder, said valve body having formed therein a circular valve seat axially spaced from the open end of and of the same diameter as the cylinder and disposed axially inwardly of the inlet of the valve body and adapted to slidably receive the piston to engage said seat, and means for moving the piston from closed to open position and from open to closed position, said piston being open at the end thereof adjacent the blind end of the cylinder and being closed at the end thereof closest the valve seat, and having an outwardly opening pressure-responsive valve in the closed end thereof, and a restricted passageway formed in the walls of the valve body communicating at one end with the interior of the cylinder and at its opposite end with the interior of the valve body at a point between the valve seat and the inlet.

2,781,998
BLADED ROTORS
Richard H. H. Barr, Brentford, England, assignor of one-half to Centrax Power Units Limited, Brentford, England, a British company
Application March 2, 1951, Serial No. 213,517
Claims priority, application Great Britain March 7, 1950
6 Claims. (Cl. 253—39)



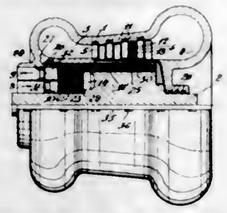
1. A rotor for an axial fluid flow energy conversion machine comprising a body member of circular elevation having at its periphery blade-root receiving sockets spaced apart in the peripheral direction, energy converting blades formed integrally with said body member and extending radially therefrom between some at least of said sockets, there being at least one socket between the blades of each adjacent pair of said integral blades and blade-root retaining means extending from the body member into the sockets, the said retaining means being capable in operation of taking the whole of the centrifugal stresses of blades retained in the sockets.

2,781,999
TURBINE CONSTRUCTION
Carl Brennecke, Mulheim an der Ruhr Saarn, Germany, assignor to Siemens-Schuckertwerke Aktiengesellschaft, Erlangen, Germany, a corporation of Germany
Application September 7, 1955, Serial No. 532,927
Claims priority, application Germany September 24, 1954
4 Claims. (Cl. 253—39)



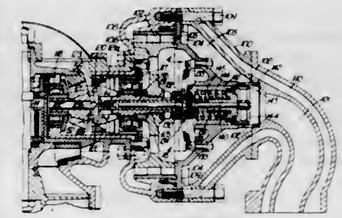
1. An elastic fluid turbine comprising, a rotor, a stationary blade holder which is axially divided, cooperating blading carried by said rotor and said stationary blade holder, an inner casing which is axially undivided enclosing said stationary blade holder, means securing said stationary blade holder to said inner casing, an outer casing which is axially undivided having at one end an access opening to permit entry of said inner casing and at the other end a radially inwardly projecting end wall substantially enclosing said inner casing, means securing said inner casing to said outer casing, a sealing ring portion on said rotor, said inner casing having an annular projection encompassing the said sealing ring portion of said rotor and defining therewith an annular sealing area, and stationary sealing rings distributed along and supported by the annular projection of said inner casing whereby they are disposed within the sealing area.

2,782,000
GAS-TURBINE
Max Ledinegg, Vienna, Austria, assignor to Simmering-Graz-Pauker Aktiengesellschaft für Maschinen-, Kessel- und Waggonbau, Vienna, Austria, a company of Austria
Application December 29, 1951, Serial No. 264,120
Claims priority, application Austria May 28, 1951
8 Claims. (Cl. 253—39.15)



1. In a gas turbine rotor, in combination, a rotor body having an axis and being formed with a plurality of slots extending in axial direction of said rotor body in the outer surface thereof and with a cavity adapted to receive a secondary cooling medium; a plurality of detachable units, each unit mounted in one of said slots slidable in axial direction so as to permit removal and mounting of each unit in axial direction independently of the other units, each unit including a row of axially spaced rotor blades formed with passage means for a coolant, means securing the respective unit to said rotor body against radial movement, and a conduit means secured to the rotor blades of said row of rotor blades and communicating with said passage means in the associated row of rotor blades so as to permit circulation of a coolant through said conduit means and the rotor blades of the respective unit independently of the other units, a part of said conduit means of each of said detachable units being located in said cavity so as to be cooled by said secondary cooling medium.

2,782,001
COMPRESSED AIR-DRIVEN TURBINES
George Charles Meredew, London, England, Kenneth Victor William Berris, Adelaide, South Australia, Australia, and Frederick Edward Samuel Smedley, Beeston, England, assignors to Bernard Bercovitz, Leaside, Ontario, Canada, and Rolls-Royce Limited, Derby, England, a British company
Application February 11, 1953, Serial No. 336,378
Claims priority, application Great Britain February 26, 1952
9 Claims. (Cl. 253—59)

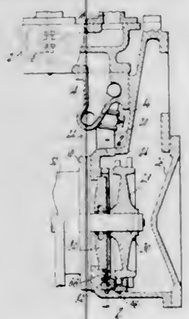


1. A compressed-air-driven turbine comprising a rotor including a rotor shaft having an axial bore extending along at least a part of the length of the shaft from one end thereof, a stator embodying bearings for supporting the rotor shaft during rotation, a nozzle for directing air onto the rotor and an inlet conduit for compressed air leading to the nozzle having at least one control port through which the air passes, a valve member cooperating with the port to constitute a valve to control the supply of air to the nozzle, a two-part axially extending control rod for the valve member of which one part is rotatable with the rotor shaft, is partly within, supported by and axially slidable along the bore aforesaid, with one end protruding from the end of the shaft, centrifugal means carried by the rotor for effecting axial movements of the said rod part, the other part of the rod being outside the said bore and operatively connected to the valve member to effect movements thereof on axial movements of the rod, a rolling-contact thrust bearing between the two parts of the rod comprising two races and rolling members between the races, one of the races being attached to the first-mentioned rod part for rotation therewith and means for holding the other race against rotation while permitting the thrust bearing to move axially and to float radially.

2,782,002
NOZZLE STRUCTURE FOR FLUID-DRIVEN TURBINES
Christopher A. Schellens, St. George, Maine
Application October 24, 1952, Serial No. 316,755
7 Claims. (Cl. 253—78)

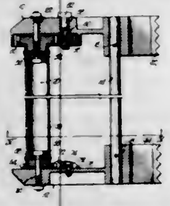
1. In a fluid-driven turbine having a casing with an interior surface and with a wheel rotatable therein, an annular shoulder on the interior surface of said casing coaxial with the wheel, a plurality of stages of buckets on the rim of the wheel, and an arcuate segment of fixed

reversing buckets between successive stages, said segment having a convex arcuate face and a plane side face; means for securing said segment with its plane side face against said shoulder, said means comprising a circumferential groove in the inner surface of the casing accurately and uniformly spaced axially from said shoulder, a series of oversize radial holes extending from the outer surface of said casing inward to said groove, the diameter of each said oversize hole being greater than the width



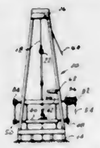
of said groove, screw-threaded bolt holes having a diameter equal to the width of said groove and extending into the convex surface of said segment, the spacing of said bolt holes from the plane face of the segment being accurately equal to the spacing between said groove and said shoulder, and bolts having a diameter accurately equal to the width of said groove extending through said oversize holes and groove and screw-threaded in said bolt holes.

2,782,003
WIRE STRETCHER
Francis Eugene Wagoner, Miami, Okla.
Application February 8, 1954, Serial No. 408,745
1 Claim. (Cl. 254—162)



A wire stretcher comprising an upper elongated head and a lower elongated head, each normally disposed horizontally; a substantially V-shaped, post-engaging, toothed jaw integral with one end of each head respectively; a post-embracing chain coupled with each head respectively for clamping the jaw thereof to the post, each chain having bolt and nut take-up means on one end thereof for drawing the jaws tightly against the post, each head having a pair of opposed, bifurcated lugs on the sides thereof, one for releasable engagement with the take-up means and the other for releasable engagement with a selected chain link; a normally upright standard rigidly interconnecting the heads adjacent their jaws; an elongated, tubular spindle between the heads at the opposite ends thereof; plugs secured to the spindle and closing the ends thereof; bolt and nut means attaching each plug to the proximal head for rotation of the plugs and the spindle together as a unit on the normally vertical, longitudinal axis of the spindle; a gear integral with the uppermost plug between the spindle and the upper head; a vertical shaft rotatably carried by the upper head between the gear and the standard; a pinion on the shaft below the upper head and in mesh with said gear for rotating the spindle upon rotation of said shaft; a number of flats on the upper end of the shaft above the upper head for securing a tool to rotate the shaft; a toothed sprocket wheel integral with the lowermost plug between the spindle and the lower head; a pawl swingable horizontally on the lower head between the wheel and the standard; and a spring on the lower head engaging the pawl for yieldably biasing the latter against the teeth of the wheel for releasably holding the spindle against retrograde rotation, said spindle having a series of transverse wire-receiving opening throughout the length thereof.

2,782,004
METHOD OF PULLING A DRILL STRING
Daniel Ward Harrigan, Brooklyn, N. Y.
Application April 23, 1952, Serial No. 283,900
2 Claims. (Cl. 255—1.8)



1. A method of pulling a drill string formed of a plurality of stands of drill pipe coupled by pipe joints including the steps of hoisting the drill string out of the drilling hole while supporting the string adjacent the upper end thereof, moving a second supporting means upwardly during the movement of the drill string in such a manner that there is no relative motion between the drill string and the second supporting means for a period during the movement of the drill string, attaching the second supporting means to the drill string at a point below the upper end thereof, then reducing the rate of the first hoisting movement to support the string from the second supporting means, uncoupling the portion of the drill string above the second supporting means while continuing the upward movement of the drill string by the second supporting means, then accelerating the rate of hoisting of the first hoisting movement to pull the uncoupled stand of the drill string upwardly clear of the remainder of the string moving upwardly with said second supporting means, releasing the first supporting means from the removed stand of drill string, moving the first supporting means at the same speed as the second supporting means attaching the first supporting means to the upper end of the upwardly moving drill string, releasing the second supporting means and reducing its rate of upward motion whereby to support the drill string solely from the first supporting means, then lowering the second supporting means and repeating the operation.

2,782,005
WELL DRILLING BIT
Arthur I. Appleton, Northbrook, Ill.
Application August 20, 1952, Serial No. 305,464
6 Claims. (Cl. 255—340)

1. An earth drilling bit of the rotary type and comprising, in combination, a hollow mandrel having means at one end for attachment to a drill collar, a plurality of cutter holders, a plurality of rotary cutters journaled upon corresponding ones of said cutter holders, each said cutter holder having a slide housed within said mandrel and a leg situated outside said mandrel but projecting radially beyond the same, said slides being complementary to each other and to the inside of said mandrel, means within said mandrel precluding movement of said slides relative thereto in all directions except one, a plurality of frangible elements securing each of said slides independently to said mandrel, said frangible elements

when broken permitting movement of said slides in said one direction, and means mechanically connecting said

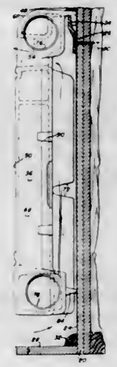
slides to said mandrel for limiting the extent of movement of said slides in said one direction.

2,782,006
PANEL FOR RADIANT HEATING OR COOLING SYSTEMS
Karl Gunnar Frenger, Wheaton, Ill.
Application October 16, 1952, Serial No. 315,090
Claims priority, application Norway October 20, 1951
10 Claims. (Cl. 257—124)

1. In a panel for radiant heating or cooling of rooms, preferably a ceiling, comprising a plurality of heat conductive plates arranged in heat transfer and supported engagement with a plurality of spaced-apart fluid conducting pipes of round cross section, each of said plates being provided with substantially arcuate marginal flanges at either end thereof for mounting a pair of adjoining plates on said pipes by means of adjacent flanges embracing a portion of an intermediate pipe, the improvement that comprises a clip, means for holding said clip on one of said flanges against rotation about said pipe during pushing up of the adjacent flange into embracing relation with the intermediate pipe, said clip extending across the vertical center line of the pipe and engaging said other flange to bias the two adjacent flanges toward one another and to clamp them against said intermediate pipe.

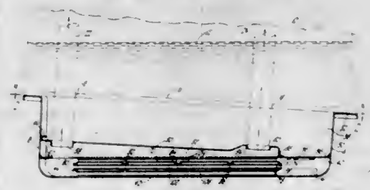
2,782,007
BASEBOARD RADIATOR
Remie William Glatt, Utica, N. Y., assignor to Utica Radiator Corporation, Utica, N. Y., a corporation of New York
Application May 14, 1954, Serial No. 429,717
3 Claims. (Cl. 257—133)

1. A unitary, cast baseboard radiator section comprising a rectangular body defining an internal chamber extending substantially throughout the length and width of said body, said body having a substantially planar front wall and fins extending outwardly from the rear wall thereof, a hollow member of relatively small width disposed above said body and coextensive in length therewith and defining a secondary internal chamber, said member being spaced from said body to define an air slot therebetween, the interior of said hollow member communicating with said chamber at least at the ends thereof, a flange extending rearwardly from the top of said hollow member beyond the confines of said fins, lugs extending downwardly from the rear edge of said flange, spacer lugs extending rearwardly from said body beyond the confines of said fins, horizontal openings in the ends of said hollow member, horizontal openings in the ends of said body adjacent the bottom thereof, and rearwardly



facing tool wells at the ends of said body, said wells having vertically extending end walls which are horizontally slotted for the reception of bolts.

2,782,008
HEAT EXCHANGERS FOR FLUIDS
Robert F. Caughill, Lockport, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 9, 1953, Serial No. 397,168
2 Claims. (Cl. 257—198)

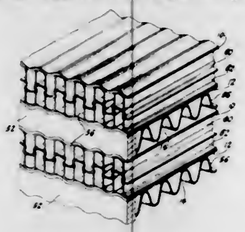


2. A heat exchanger unit adapted to form a cover for a sump, said unit comprising a relatively shallow container with an open side flanged at its periphery to facilitate attachment of the container to said sump, a partition spaced from said open side dividing the interior of said container into upper and lower compartments, said partition having spaced openings therein, means in the form of an inverted trough secured to the upper side of said partition and defining a passage with one end communicating with one of said openings, said trough means having means for upwardly discharging fluid received through said one opening, heat exchanger means arranged in said lower compartment and through which fluid received from said sump through said partition may be circulated, said heat exchanger means including multiple sets of plates, at least one plate of each of said sets having depressed portions or ribs defining a tortuous passage for a fluid within that set, and said sets being separated from each other and the interior walls of said lower compartment by flow separating means.

2,782,009
HEAT EXCHANGERS
Edward V. Rippingille, Farmington, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 14, 1952, Serial No. 276,567
7 Claims. (Cl. 257—245)

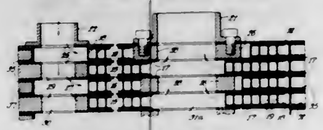
1. A heat exchanger comprising spaced corrugated plates defining alternately disposed conduits for different

fluids, a pair of sinuously shaped heat absorbing members extending between adjacent plates and delineating individual fluid passages, one of said members being fixedly secured to one of said adjacent plates, the other



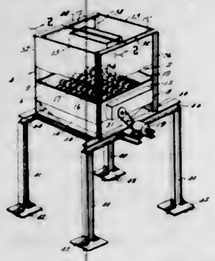
to the other of said adjacent plates, the walls of the individual undulations of said members being deformed substantially throughout their length to provide complementary portions through which said members are lockingly engaged.

2,782,010
HEAT EXCHANGER
Clyde S. Simpelaar, Racine, Wis., assignor to Modine Manufacturing Company, Racine, Wis., a corporation of Wisconsin
Application December 18, 1948, Serial No. 66,000
2 Claims. (Cl. 257—245)



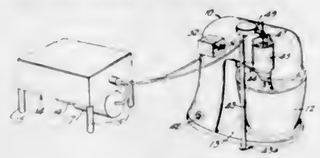
1. A heat exchanger comprising in combination, a unit composed of alternate slabs of passes and intermediate slabs of passes, said slabs of passes comprising nested together complementally formed channel shaped fins, separation sheets between the slabs, outer sheets, inlet and outlet passageways for said alternate passes extending crosswise of the slabs, each passageway of said alternate passes having walls to block out adjacent intermediate passes, inlet and outlet passageways for said intermediate passes, each passageway of said intermediate passes having walls to block out adjacent alternate passes, and inlet and outlet connections leading out from said respective inlet and outlet passageways.

2,782,011
HOPPERS
Maurice Fitzgerald, Yonkers, N. Y., assignor to Sho-Me, Inc., New York, N. Y., a corporation of New York
Application June 19, 1953 Serial No. 362,872
2 Claims. (Cl. 259—6)



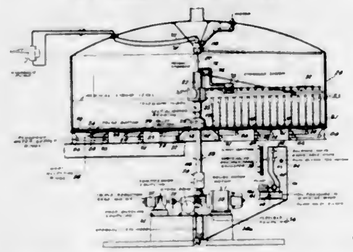
1. In an apparatus for storing and dispensing granular material, a vertically extending frame having a clear passage through opposite ends for the passage of collecting means beneath said frame, a second frame mounted on top of the aforesaid frame and extending vertically upwardly therefrom and forming a guide means above said first mentioned frame, a hopper supported by said second frame and extending to a position below the top of said first frame, the guide means formed by said second frame confining within said second frame and above said hopper, receptacles containing different materials held separately in said receptacles for discharge into said hopper, the said hopper being adapted to hold all of the different materials discharged therein from the receptacles, and means in said hopper to pre-mix said different materials as said materials are discharged into collecting means movable through said first frame beneath said hopper.

2,782,012
TIMING CONTROL MECHANISM FOR FOOD MIXERS AND THE LIKE
William R. Coyne and Carl W. Brabender, Minneapolis, Minn., and Emery C. Swanson, Springfield, Ill., assignors to Pillsbury Mills, Inc., Minneapolis, Minn., a corporation of Delaware
Application February 25, 1952, Serial No. 273,294
19 Claims. (Cl. 259—24)



1. A control attachment for food mixers and the like of the type having a variable speed power source and a mixing bowl in which ingredients are adapted to be intermixed, said attachment comprising a timing mechanism, a speed control connected to and operated by said timing mechanism and connected to the variable speed power source of the mixer to controllably vary the speed thereof according to said timing mechanism, an ingredient discharging apparatus having an outlet, means mounting said ingredient discharging apparatus with the outlet thereof directed into the mixing bowl of the mixer for discharging an ingredient into said mixing bowl, said ingredient discharging apparatus including means connected to and operated by said timing mechanism for controlling the discharge from said apparatus into the mixing bowl, and means connected with said timing mechanism for starting and stopping the power source of the mixer.

2,782,013
LAUTER TUBS
Edwin L. Dittrich, East Orange, N. J., assignor, by mesne assignments, to The Pfaudler Co., Rochester, N. Y., a corporation of New York
Application November 9, 1953, Serial No. 390,890
6 Claims. (Cl. 259—108)

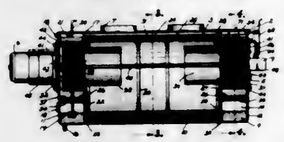


5. A lauter tank having a valley bottom and a false bottom spaced above said valley bottom, a shaft projecting upwardly into said tank through said bottoms, lower bearing means for said shaft below said tank bottoms, a self-alining bearing for said shaft in substantially horizontal alinement with said false bottom and in vertical alinement with said lower bearing means whereby said shaft is relieved of bending stresses and free of supporting bearings above said self-alining bearing, means operatively engaging said shaft below said bottoms for rotating and moving the same vertically in said bearings, means on said shaft having a plurality of radially extending lauter arms, a plurality of blades rotatably supported by and depending from said lauter arms, a device on said lauter arms including motor means for rotating said blades, remote control means for said motor means located on the outside of said tank, a sleeve on said self-alining bearing enclosing said shaft to an elevation above the liquid level in said tank, and an apron sleeve depending from said lauter arm means and telescopically and slidably engaging said first mentioned sleeve to prevent access of liquid to said self-alining bearing.

2,782,014
EGG BEATER
Ralph P. De Vault, Arcadia, Calif.
Application September 6, 1955, Serial No. 532,390
3 Claims. (Cl. 259—131)

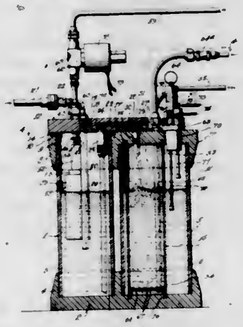
1. An egg beater comprising a pair of frame members each separately pivoted on a shaft; a pair of beater shafts each separately pivotally mounted in a separate one of said frame members and each carrying a separate beater; a pair of gears each separately mounted on one of said beater shafts; a gear carried by said shaft and meshing with said pair of gears; one of said frame members being pivoted on said shaft at a point remote from one portion of said other frame member and immediately adjacent another portion of said other frame member; latch means carried by the adjacent ends of said frame members and operative to lock said frame members in their extreme positions and crank means operative to drive said shaft to rotate said beaters.

2,782,015
EVAPORATIVE COOLER
Herald B. Perrine, El Cajon, Calif.
Application March 7, 1955, Serial No. 492,569
4 Claims. (Cl. 261—23)



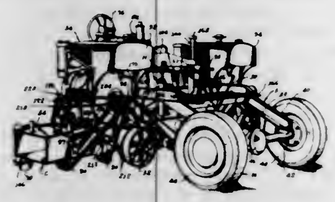
1. An evaporative cooler comprising, a casing having spaced walls defining a chamber adapted to contain a quantity of liquid in the lower portion thereof, a hollow cylindrical open-ended drum in the chamber with the drum ends spaced only slightly from opposed walls of said chamber, said drum having a cylindrical porous wall of absorbent material, means rotatably supporting said drum in the chamber in a position immersing the lower portion of the drum in the liquid contained in the lower portion of the casing chamber, air moving means arranged exteriorly of the spaced walls defining the chamber and having inlet ducts each extending through said opposed walls and into the open ends of the hollow drum for a distance substantially one-fourth the length of the drum and an outlet duct communicating with the compartment to be cooled, ducts communicating the compartment to be cooled with the chamber exteriorly of the periphery of the drum, and means rotating the drum and operating the air moving means whereby the lower portion of the drum moves through the liquid in the lower portion of the casing to wet the absorbent material on said drum and air is drawn through the ducts from the compartment to be cooled to the chamber and through the absorbent material and cooled by evaporation of the liquid therein and is then delivered by the air moving means to the compartment to be cooled.

2,782,016
CARBONATING APPARATUS
Frank M. Iannelli, East Orange, N. J.
Application June 11, 1954, Serial No. 436,047
6 Claims. (Cl. 261—70)



1. A carbonating apparatus comprising a reservoir having an inlet with a check valve for liquid under pressure from a supply of liquid to be carbonated, means including a control valve for controlling flow of gas under pressure into said reservoir and for venting of gas from said reservoir to the atmosphere, alternately, a closed liquid distributing tank, means for establishing communication between said reservoir and said tank including an outlet pipe in the reservoir, a check valve in said outlet pipe and an inlet passage in said tank adjacent the top thereof above the liquid level therein communicating with said outlet pipe at the discharge side of said check valve whereby the liquid from said reservoir may flow through said outlet pipe and said inlet passage into the tank, a gas inlet pipe for the tank to communicate with a source of carbon dioxide gas for admitting gas to the tank adjacent the bottom thereof to carbonate the liquid therein, a discharge pipe for the tank with its entrance end adjacent the bottom of the tank, means providing a supply of carbon dioxide gas to the reservoir through the first named means under pressure substantially greater than the pressure of the liquid supply to force the liquid in the reservoir from the reservoir into the tank, means providing a constant supply of carbon dioxide to said gas inlet pipe that leads to said tank at a pressure substantially less than the gas pressure supplied to said reservoir, and valve means for relieving gas pressure in said tank in excess of a predetermined maximum pressure.

2,782,017
PAVEMENT CUTTING APPARATUS
William H. Lewis, Arcadia, Calif., assignor, by mesne assignments, to Joint Saw Company, Arcadia, Calif., a corporation of California
Application April 17, 1953, Serial No. 349,418
15 Claims. (Cl. 262—20)

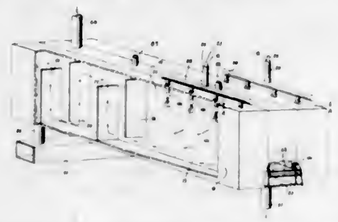


1. A mobile pavement cutting apparatus for sawing spaced weakened plane joint kerfs transversely of an elongate roadway paving strip, comprising: a vehicle including a frame, means for supporting said vehicle for movement longitudinally along said strip to and from selected plane joint locations, a saw carriage support, means for mounting said support from said frame for vertical movement relative thereto, a saw carriage, means mounting said carriage from said support for horizontal movement relative thereto, a plurality of saws mounted by said carriage in a common plane transverse of the direction of travel of said vehicle when moving longitudinally of said strip and parallel to the direction of horizontal motion of said carriage, means interconnecting said frame and saw carriage support for bodily moving said carriage and saws vertically with respect to said frame to engage and disengage said saws with respect to said strip, means interconnecting said frame and carriage for bodily moving said saw carriage and saws horizontally with respect to said frame whereby said saws may perform a transverse kerf cutting operation while engaged with said strip and means for rotating said saws while engaging said strip and moving transversely thereof.

2,782,018
METHOD OF HEAT PROCESSING FINELY DIVIDED MATERIALS AND FURNACE THEREFOR
James H. Bradford, Tooele, Utah, assignor of one-half to Combined Metals Reduction Company, a corporation of Utah
Application June 5, 1950, Serial No. 166,170
12 Claims. (Cl. 263—21)

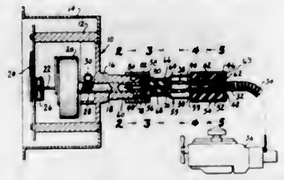
1. A method of heat processing materials, comprising maintaining a fired reaction zone; maintaining an elongate, annular, circulation zone surrounding the reaction zone in intimate association therewith; introducing raw material to be processed into a forced stream of combustion-supporting fluid to form a dynamic fluid suspension of said raw material; passing the resulting fluid suspension through and along substantially the length of said circulation zone in substantially helical flow formation, for preheating said raw material while at the same time abstracting heat from peripheral regions of said reaction zone; and passing the thus preheated raw material into and through said reaction zone while dynamically maintaining the said fluid-suspension thereof.

2,782,019
INDIRECT HEAT CALCINING KILN
Arthur Clinton Turney and Boleslaw J. Zubrzycki, Arvida, Quebec, Canada, assignors, by mesne assignments, to F. L. Smidth & Co., New York, N. Y.
Application July 25, 1952, Serial No. 300,994
13 Claims. (Cl. 263—21)



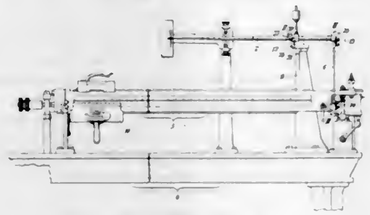
6. Apparatus for retorting finely divided, fluidizable solid material comprising; two sidewalls composed of high heat conductivity ceramic material spaced from 6" to 36" apart, and defining a generally horizontal, elongated, trough shaped retorting chamber therebetween having a height which is substantially greater than its width; a porous diaphragm formed from porous highly heat resistant material and having substantial resistance to flow of fluidizing gas therethrough extending between said side walls and forming the bottom of said retorting chamber; means for supplying a controlled flow of fluidizing gas upwardly through said porous diaphragm; top closure means for said retorting chamber extending between said side walls; means for exhausting spent fluidizing medium from the upper regions of said retorting chamber; means including material supply and discharge means for maintaining within said retorting chamber a relatively deep, horizontally moving bed of finely divided fluidized solid material within said retorting chamber; means distinct from said fluidizing gas for heating the outside of said sidewalls to a temperature higher than the temperature of said fluidizing gas to transfer through said sidewalls heat requisite for the retorting of the fluidized material contained in said bed; and burner means arranged to direct flame upwardly into said fluidizing chamber from the level of said diaphragm as an auxiliary source of heat for heating said material.

2,782,020
SPEEDOMETER DRIVING MEANS
William McCandless, Toledo, Ohio
Application November 5, 1954, Serial No. 467,169
12 Claims. (Cl. 264—2)



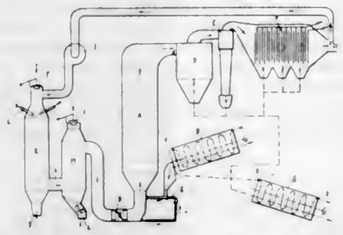
1. In a device of the class described, a rotating flexible core-like driving means, a flexible housing enclosing said driving means cooperating with a fixed portion of an engine having a rotating part rotating the flexible core-like driving means, a non-circular end portion on the rotating driving means distal from the engine, a body of rubbery dampening material adapted to resiliently engage the non-circular end portion of the driving means and extending beyond the portion, a conventional speedometer including a driven shaft, non-circular means located on the driven shaft of the speedometer adapted to cooperate with the dampening body to drive the shaft by means of the rotating core-like driving means, and means cooperating with the speedometer and adapted to cooperate with the flexible housing of the driving means to hold the parts in assembled relation.

2,782,021
ARTICULATING CONNECTORS FOR WEIGHING SCALES
George F. Yeager, Altoona, Pa.
Application February 11, 1954, Serial No. 409,697
3 Claims. (Cl. 265—58)



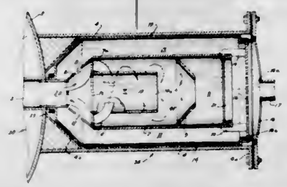
1. In a weighing scale having a horizontally-arranged weigh beam, a horizontally-arranged indicator arm above the weigh beam provided intermediate its ends with a clamp, a fulcrum standard for the indicator arm provided at the top with a similar clamp, and means operatively connecting one end of the indicator arm to the corresponding end of the weigh beam, an articulating element comprising a short strip of very thin flexible ribbon steel and laminae of like material flanking opposite end portions of the strip, the opposite end portions of said element being secured respectively within the clamps of the indicator arm and of the fulcrum standard, and the laminae lapping the strip to a substantial distance beyond the respective clamps to prevent sharp bending of the strip immediately at the clamps during operation of the scale.

2,782,022
APPARATUS FOR PREPARING METALS AND ALLOYS FROM SUBSTANCES, CONTAINING FINE-GRAIN METAL
Gerolf Strohmeier, Leoben, Austria
Application April 17, 1953, Serial No. 416,293
2 Claims. (Cl. 266—8)



1. Apparatus for reducing metal from its ore in ore suspended as a fine powder in a reducing gas comprising a reduction chamber, a dust precipitation chamber connected for removal of dust from the gas passed from said reduction chamber, means for regenerating a portion of the reaction gas connected for receiving the gas from said dust precipitation chamber, means for agitating the regenerated gas, and means for passing said regenerated gas to said reduction chamber.

2,782,023
METAL PRODUCING APPARATUS
Paul Weiss, Bonn, Germany, assignor to Vereinigte Aluminium-Werke Aktiengesellschaft, Bonn, Germany
Application February 13, 1956, Serial No. 565,261
Claims priority, application Germany February 11, 1955
12 Claims. (Cl. 266—18)

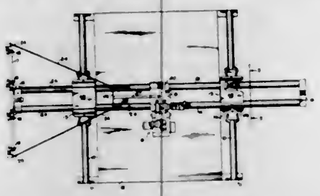


4. In a metal reducing apparatus, in combination, a rotary furnace having an outlet through which a vapor including the reduced metal in vapor state and foreign particles is adapted to pass; elongated inner and outer condenser housings carried by said furnace for rotation therewith and defining between themselves an elongated annular space, said outer housing having a removable end wall formed with a condenser outlet communicating only with said annular space and said inner housing having in its interior a transverse partition formed with a first opening and dividing said inner housing into a pair of chambers one of which is nearer to said furnace than the other, a wall portion of said inner housing which defines part of said one chamber being formed with a second opening communicating with said annular space; conduit means carried by said inner housing in said one chamber, receiving all of the vapors from said furnace outlet, and passing through said partition to direct the vapors into said other chamber; a tube carried by said partition in said other chamber and communicating through said first opening with said one chamber, said tube having an open end distant from said one chamber to receive vapor from said other chamber for directing the same through said one chamber and second opening into said annular space to move along the same to said condenser outlet when the latter is operatively connected to a vacuum pump or the like; trap means located in said other chamber beyond said tube for trapping foreign particles to prevent the same from moving into said tube; and a pair of half cylindrical shells located next to the inner face of said outer housing in said annular space, so that when said end wall of said outer housing is removed said shells may be removed from the interior of said outer housing with metal which has condensed on the inner face of said shells.

2,782,024
UNIVERSAL GAS TORCH CUTTING MACHINE
Adolph Peter Demmer, North St. Paul, Minn., and Charles T. Evans, Chatham, N. J., assignors to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York
Application October 11, 1954, Serial No. 461,638
8 Claims. (Cl. 266—23)

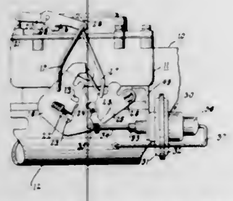
7. A universal gas torch cutting machine comprising a pair of spaced parallel guide rails, a pair of wholly independent carriages one mounted on each guide rail and each having at least two supporting members in rolling contact with its guide rail, said supporting members being spaced apart longitudinally of the guide rails to prevent rocking of the carriages lengthwise of the rails, a pair of

spaced parallel torch bar and tracer supporting rails the exterior surfaces of which are curved in transverse cross section, supporting members mounted on said carriages for freely supporting said torch bar and tracer rails on said carriages for substantially friction-free movement transversely of said carriages, a tracer fixedly secured to said torch bar and tracer rails, a torch bar fixedly secured to and supported by and across both of said torch bar and



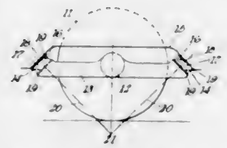
tracer rails, and at least one gas torch mounted on said torch bar, the supporting members mounted on the carriages for supporting one of the torch bar and tracer rails supporting it for longitudinal movement only in the plane of the torch bar and tracer rails and the supporting members for the other torch bar and tracer rail supporting it primarily for longitudinal movement but permitting it to move for adjustment purposes in a transverse direction.

2,782,025
THROTTLE VALVE CONTROL MECHANISM
Elmer Olson, Rochester, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 7, 1955, Serial No. 499,893
5 Claims. (Cl. 267—1)



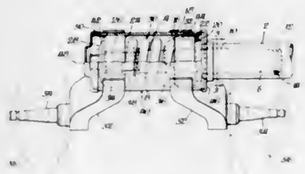
1. A dashpot for use with a source of sub-atmospheric pressure including, a housing having first and second walls, a flexible diaphragm disposed in said housing and dividing it into first and second chambers, a reciprocable rod attached to said diaphragm, a vent in the first wall of said housing whereby said first chamber is always subjected to atmospheric pressure, means connecting said second chamber with the source of sub-atmospheric pressure through a fitting having a stepped bore therein, said rod having a portion with a diameter complementary to one step of said stepped bore, said rod having interconnected axial and transverse passages therein, a check valve disposed within said axial passage and adapted to engage a seat for blocking said axial passage against the source of sub-atmospheric pressure, and resilient means for urging said diaphragm in a direction for exhausting air from the first chamber, said housing having a calibrated orifice through the second wall thereof interconnecting said second chamber and atmosphere, said calibrated orifice and second chamber being constructed and arranged that upon communication of sub-atmospheric pressure to said second chamber said rod portion will remain in the other step of said bore during the initial movement of said diaphragm to compress said resilient means, said rod portion being adapted to enter the complementary diameter of the stepped bore during the final movement of said diaphragm in compressing said resilient means to thereby provide a dashpot effect.

2,782,026
RESILIENT SUSPENSIONS FOR VEHICLE AXLE BOXES OR CASINGS
Archie John Hirst, Leicester, England, assignor to Metalastik Limited, Leicester, England, a corporation of Great Britain
Application November 10, 1954, Serial No. 468,103
6 Claims. (Cl. 267—3)



1. A resilient suspension for a vehicle axle box comprising, in combination, an axle beam extending fore and aft of the axle box and having plane faces at the ends thereof facing upwardly and outwardly, means on the vehicle chassis providing two plane faces arranged parallel with and in juxtaposition to the plane faces on the ends of said beam, a block of resilient material interposed between the faces of each pair of faces, the inclination of the plane faces to the vertical plane containing the axis of the axle being such that the compression axes of said blocks of resilient material intersect at a point located below the axis of the axle a distance not less than one-half the radius of the wheels carried by said axle and not substantially greater than said radius.

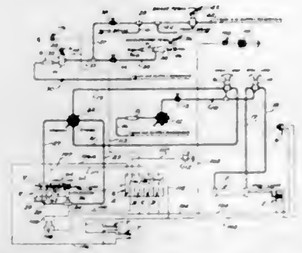
2,782,027
TORSION SPRING SUSPENSION
Ernest C. Bergquist and John A. Buvelot, Chicago, Ill., assignors to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application June 30, 1953, Serial No. 364,984
12 Claims. (Cl. 267—58)



2. In a suspension assembly for supporting a related vehicle, a shaft fixedly and nonrotatably secured to the vehicle, a pair of axially spaced bearing blocks on the shaft, one of said blocks presenting an outer bearing portion and being rigidly secured to the shaft and the other of said blocks being journally mounted on said shaft, spring means interconnecting the blocks and operative to resist relative rotational movement therebetween about the axis of the shaft, a spindle operative to rotatably mount a wheel, and means journally receiving said first-mentioned block and connecting the spindle to the journally mounted bearing block, to permit limited rotation of the spindle about the axis of the shaft.

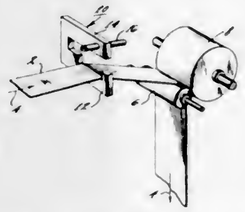
2,782,028
DOOR OPERATING SYSTEM
John R. Almond, Detroit, Mich., assignor to The Midland Steel Products Company, Cleveland, Ohio, a corporation of Ohio
Application May 5, 1951, Serial No. 224,738
17 Claims. (Cl. 268—20)

3. A door-operating system for vehicles comprising a motor having a double-acting fluid piston and cylinder assembly for opening and closing a door; a control valve having an inlet port for connection to a source of fluid under pressure, an atmosphere vent port, two pressure outlets connected to opposed ends of said cylinder, the door-opening connection including a transfer check valve, a valve member for alternately connecting said inlet port to said outlets for opening and closing the door, and a pair of opposed electric solenoids connected to said valve member to actuate said member; switch means mechanically actuated by said motor, said switch means comprising first contact means that are open when the door motor is in the closed position and which are closed when the door motor moves to open the door, said switch means



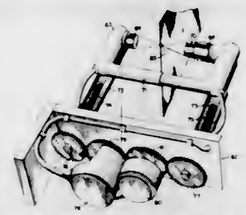
including second contact means that are normally open but are closed when the door motor approaches its open position, a source of current, step-treadle contact means, sensitive door-edge contact means; said step-treadle and door-edge contact means each being in a series circuit that includes said current source, said first contact means and said door-opening solenoid; said current source, said second contact means, and said door-closing solenoid also being connected in series; and means arranged for control by the vehicle operator for moving said valve member, comprising a two-way manual switch, a source of current for said switch, and connections from said switch to said door-opening and closing solenoids.

2,782,029
REELING SYSTEM
Joseph M. Uritis, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application March 31, 1954, Serial No. 420,055
4 Claims. (Cl. 271—2.6)



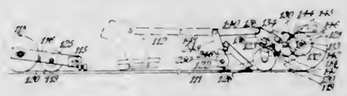
1. In a reeling system for a ribbon-like web member, a driving roller, a pressure roller, said rollers being positioned to receive a web member therebetween in web driving relation, and a web guide member positioned to guide said web member into alignment with said rollers, said guide member including a web supporting arm, a mounting arm and means pivotally supporting said guide means for pivotal motion about an axis and in a direction transverse of the web member, said supporting arm and said axis lying on opposite sides of said web member, said guide member being pivotally movable under the influence of inequalities in the tension in the edges of the web member.

2,782,030
WEB POSITIONING DEVICE
Carl M. Webster, Akron, and Robert F. Snyder, Lakemore, Ohio, assignors to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application June 29, 1954, Serial No. 440,086
5 Claims. (Cl. 271—2.6)



1. A device for positioning a moving web relative to a fixed line-of-travel comprising a first and second exploring means each disposed adjacent to and each independently responsive to the lateral displacement of a respective opposing edge of the web, a first and second supporting means for the first and second exploring means respectively, driving means operatively associated with the first and second supporting means and responsive to the orientation of the first and second exploring means with reference to their respective web edges to maintain a fixed relationship between the first and second exploring means and their respective web edges, and means actuated by the displacement of the first and second supporting means with reference to a predetermined line-of-travel to correctively position the moving web in relation thereto.

2,782,031
RECIPROCATING TAPE
George William Tebbs, London, England, assignor to Headley Townsend Backhouse, Nassau, Bahamas, British West Indies
Application October 4, 1954, Serial No. 460,126
Claims priority, application Great Britain October 8, 1953
10 Claims. (Cl. 271—3)

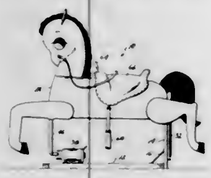


1. A conveyor for sheets comprising a surface for supporting the sheets, two parallel side-by-side flexible elongated members each reciprocable lengthwise parallel to and above the support surface, means for giving such reciprocatory movement to said members in out of phase relation, and at least two abutments distributed between the two members and carried thereby, said abutments being operable to engage in succession behind the rear edge of a sheet during movement of the members in one direction (the forwarding direction) and to push the sheet step by step over the surface and to return idly during movement of the members in the opposite direction into position ready for engagement during a following movement in the forwarding direction with the rear edge of another sheet.

2,782,032
HOBBY HORSES
Ralph B. Plympton, West Lanham Hills, Md.
Application May 24, 1954, Serial No. 431,665
1 Claim. (Cl. 272—53.1)

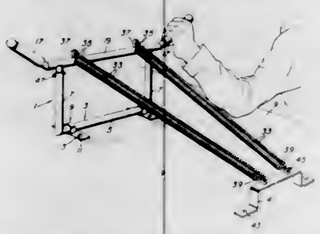
In a hobby horse, the combination of an elongated base having front and rear ends, an upstanding support member provided at the rear end of said base, a double acting hinge including a lower leaf secured to the upper end of said support member, an intermediate leaf, and upper leaf and a pair of forwardly and rearwardly spaced hinge

pins connecting the lower leaf and the upper leaf to the respective front and rear edges of the intermediate leaf, an elongated horse body disposed above said base and secured at its rear end to the upper leaf of said hinge, a motor mounted on the front end portion of said base, a crank rotatable in a vertical plane by said motor, and a pitman arm operatively connecting said crank to the front end portion of said horse body whereby to al-



ternately raise and lower the same, the lower and intermediate and upper leaves of said hinge being in abutment when said crank is substantially midway between its opposite throws, whereby said body may swing about the respective hinge pins alternately during travel of said crank between its opposite respective midway throw positions and alternately shift the axis of swinging of the body from one hinge pin to the other.

2,782,033
WRIST AND FOREARM EXERCISER
Enrique Ugartechea, Mexico City, Mexico, assignor of one-half to Rolando Ugartechea, Chicago, Ill.
Application January 13, 1956, Serial No. 559,004
1 Claim. (Cl. 272—67)



In combination, a table, a U-shaped rocker having a bottom portion and upright sides, means pivotally mounting said bottom portion horizontally on said table for vertical rocking of said rocker, a horizontal member bridging said sides, means connecting said member to said sides for rocking the rocker, a pair of hand grips on said member outwardly of said sides for rocking the rocker adapted for grasping by a hand of an arm resting at the elbow on said table, said hand grips slanting upwardly from said rocker to facilitate grasping thereof with the forearm slanting upwardly from the table, a bracket of inverted U-shape attached to the table in laterally spaced relation to said rocker, and coil springs attached to said bracket and to said member intermediate said sides for opposing rocking of said rocker in one direction.

2,782,034
BASKETBALL BACKSTOP MOUNT FOR A GARAGE ROOF
John J. Donoghue, Worcester, Mass.
Application November 10, 1955, Serial No. 546,105
3 Claims. (Cl. 273—1.5)

1. A basketball backstop assembly for attachment to an elongated building roof comprising a horizontal bottom support adapted to be secured to the side portion of a building adjacent the roof thereof, a plurality of forwardly extending arms rigidly secured to said bottom support, respective vertical upstanding members at the end of said arms, a basketball backstop secured vertically to said vertical members, an inclined rear strut, first hinge means connecting the top end of said rear strut to the upper

portion of said backstop, an anchor element adapted to be secured to the building roof, and second hinge means connecting the lower end of said rear strut to said anchor element.

2,782,035
GOLF CLUB WEIGHTING MEANS
James V. T. East, Chicago, Ill., assignor to Fawick Flexi-Grip Company, a corporation of Ohio
Application March 8, 1954, Serial No. 414,607
3 Claims. (Cl. 273—81)

1. A hand-grip weighting assembly comprising a hollow shaft formed with an open end, a rubber hand grip mounted thereon and having, as a closure for the said open end of the shaft, an outer end wall formed with a central hole through it, and a weighting member freely projecting from said end wall into the shaft and having an anchoring portion of waisted form buttoned into the said hole and held in position wholly by the resilience of the wall of said hole, the said weighting member thus being held out of contact with the inner face of the said shaft.

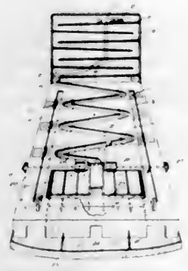
2,782,036
ARROW VANES
William M. Folberth, Jr., Lakewood, and Frederick G. Folberth, Rocky River, Ohio
Application June 3, 1954, Serial No. 434,154
5 Claims. (Cl. 273—106.5)

1. In an arrow or the like adapted to be propelled by force applied to the rear end thereof, a hollow tubular shaft having a nock at the rear end thereof and provided with a series of slots generally aligned with the longitudinal axis of said shaft near but slightly spaced from the rear end thereof, said slots extending through the wall of said shaft to the hollow interior thereof, said slots in said

series being spaced apart to provide webs therebetween and a unitary vane having an edge disposed in said slots, said edge having projecting portions extending into said

slots and having notches between said projecting portions, said notches being spaced to correspond to the spacing of said webs and receiving said webs when said projecting portions are disposed in said slots.

2,782,037
SURFACE PROJECTILE BALL GAME
Alberto Grau Rovira, Barcelona, Spain
Application April 15, 1953, Serial No. 349,009
Claims priority, application Spain April 16, 1952
2 Claims. (Cl. 273—122)



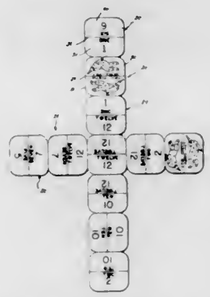
1. A game arrangement comprising, in combination, means forming two inclined guide channels, each having a higher and a lower end and having a bottom wall extending from one end thereof to the other; a playing ball having a predetermined weight and adapted to be placed into one of said guide channels at the higher end thereof so as to roll downward within the same to the lower end thereof; means at the lower end of the other of said guide channels for propelling another playing ball having a predetermined weight from said lower end toward said higher end thereof; and a trapdoor located partly in said bottom wall of one of said channels and partly in said bottom wall of the other of said channels, said trapdoor being openable in downward direction by a weight at least equal to the sum of the predetermined weights of both playing balls but remaining closed when exposed to a weight equal to the predetermined weight of one of said balls, whereby said trapdoor remains closed when only one of said balls is located thereon, and automatically opens when both said balls are located thereon, said balls in such event falling through said trapdoor means out of said channels.

2,782,038
MAGNETIC GAME APPARATUS
John A. Engel, Jr., Baltimore, Md.
Application April 16, 1954, Serial No. 423,803
6 Claims. (Cl. 273—130)

1. A game of the class described comprising a flat base, a stiff flat top fixably disposed over a first portion of said base, a stiff opaque flat movably mounted cover disposed over a second portion of said base, said cover being spaced from said base to define a cavity to receive a plurality of magnetically attractable objects placed in preselected positions therein, indicia disposed in rows and files on said top, and delineations of rows and files on said cover, the files of the indicia defining the arrange-

ment of the files of delineations, said pre-selected positions being defined by said delineations.

2,782,039
EDUCATIONAL GAME
Helen E. Martin, San Antonio, Tex.
Application January 12, 1953, Serial No. 330,724
1 Claim. (Cl. 273—137)

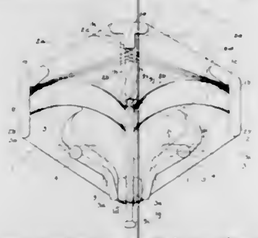


A set of pieces for an educational game for developing the mathematical sense, said pieces being identically shaped and made of a hard material, each piece consisting of a chip of generally square shape with gently rounded corners, thereby having four flat sides, each of said chips having a marked face and a blank back, the marking on some of said chips comprising two numbers one of which is disposed on one side portion of said face and the other on the other side portion of said face, each number having associated therewith the word corresponding thereto, the marking on some of said chips comprising a pictorial representation and a number denoting the numerical value thereof, each rounded corner following an arc having a substantial radius, the shape of each chip thereby being such that the set of chips may be readily shuffled face down on a table or board in edgewise contact with each other without turning any chips wrong side up, and each chip being of such thickness as to permit it to stand upright on any one of its four flat sides.

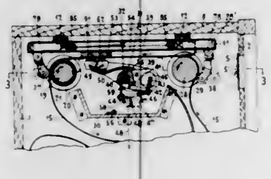
2,782,040
CARD SHUFFLER AND TRAY
Albert J. Matter, Park Ridge, Ill.
Application March 22, 1954, Serial No. 417,544
8 Claims. (Cl. 273—149)

1. In a card shuffler, a tray having thereon a central divider movable between a rearward limit and a forward limit, with its rear end being a card separating end, card retaining walls on the tray on opposite sides of the divider and having toward their rear forwardly facing stops, the parts being so proportioned that when two groups of cards are placed on edge between the stops and the divider they are oblique to the latter and contact the same at such a distance from said separating end that the cards of each group receive their final stressing when com-

pressed rearwardly into a compact arc and all cards are still engaged with the divider, whereby each card is automatically released upon moving the divider forward; and lever devices mounted on the front portion of the tray for movements adapted to press all of the cards into their final arc shapes before any card is released as aforesaid.

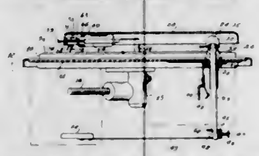


2,782,041
MAGNETIC SOUND RECORDING AND REPRODUCING DEVICE
Willy Müller, Zurich, Switzerland, assignor to Internova Trust, Vaduz, Principality of Liechtenstein
Application January 12, 1951, Serial No. 205,646
8 Claims. (Cl. 274—4)



1. In a magnetic record transducing device for recording and reproducing sounds, a casing having mounted therein a driven roller and an idle roller on spaced parallel axes a sound head positioned between said two rollers, a magnetic sound record in the form of an endless band loosely threaded over said rollers and over said sound head so that the latter engages the underside of said endless band, a cover hingedly attached to said casing, and two pressure rollers mounted freely rotatably on the inner face of said cover on two spaced parallel axes and operative to frictionally urge said magnetic sound record in engagement with said driven roller and idle roller respectively, in the closed position of said cover, whereby upon operation of said driven roller said magnetic sound record is moved lengthwise.

2,782,042
TONE ARM WITH A CUTTING AND PLAY-BACK NEEDLE
Walter C. Hironimus, Charlotte, Mich., assignor to Wilcox-Gay Corporation, Charlotte, Mich., a corporation of Michigan
Application October 5, 1951, Serial No. 249,977
1 Claim. (Cl. 274—23)

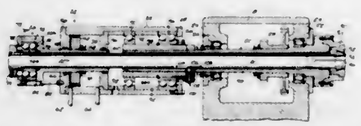


In sound recording and reproducing apparatus; a tone arm carrying a sound translating element at one end and secured at the other end on a vertical post; said post being rotatable in a journal; said post carrying a feed arm; driving means for said feed arm; means for pivotally supporting said post in said journal in one position with the feed arm disengaged from its driving means; said post being slidably raisable in another position in said journal and means for pivotally supporting said post in said other position for engaging said feed arm with its driving means; said sound translating element having one stylus mounted therein, said stylus comprising a single shank and a pair of needles, said needles and said post being in substantially linear arrangement; the needle nearer said post being a reproducing needle, and the needle more remote from said post being a recording needle, the tone arm extending at an angle to the turn table when the post is raised and extending parallel to the turn table when the post is lowered; the recording needle engaging a record on said turn table when said post is raised; and the reproducing needle disengaging said record when the post is raised; the reproducing needle engaging a record on said turn table when the post is lowered; and the recording needle disengaging said record when the post is lowered.

2,782,043
MAGNETIC TAPE
Dallas R. Andrews, Collingswood, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application August 22, 1950, Serial No. 180,779
5 Claims. (Cl. 274—41.4)

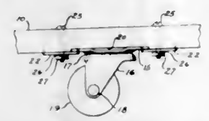
1. A magnetic recording and reproducing tape having on a side thereof spaced indicia provided with energy reflecting characteristics different from those of the background upon which they are superimposed, the indicia having an outline configuration such that substantially no part thereof is at right angles to the edges of said tape.

2,782,044
NON-ROTATING COLLET ACTUATOR
Adam F. Gabriel and Arthur G. Kozacka, Chicago, Ill., assignors to Acme Industrial Company, Chicago, Ill., a corporation of Illinois
Application April 21, 1955, Serial No. 502,954
6 Claims. (Cl. 279—4)



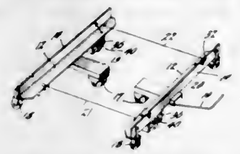
1. In a machine tool having an elongated hollow spindle, a collet at one end of the spindle, means mounting said spindle and collet for rotary movement and driving means for rotating the spindle and collet, the collet being movable longitudinally of the spindle in one direction to grip a workpiece and in the opposite direction to release the workpiece, the combination comprising an elongated draw member slidable within the spindle and secured at one end to said collet, means for rotatively securing said draw member with said spindle for rotation whenever the spindle rotates, a stationary cylinder journaled about the other end of said spindle and carried thereon by a plurality of anti-friction bearings disposed in said cylinder, a non-rotating piston reciprocably mounted in said cylinder in spaced relation to said collet, means for operatively connecting said piston with said draw member including a thrust bearing and a sleeve member telescoped over said draw member and rigidly connecting the thrust bearing with the piston for translating the reciprocable piston motion into slidable motion of said rotating draw member, and means for supplying pressure fluid alternately to opposite sides of the piston to shift it longitudinally of the spindle and thereby positively operate said collet to grip or release the workpiece.

2,782,045
CASTER MOUNTING FOR CREEPERS AND THE LIKE
Reed O. Hulbert, Ashtabula, Ohio, assignor to The Smashproof Company, Ashtabula, Ohio, a partnership
Application January 4, 1954, Serial No. 401,847
6 Claims. (Cl. 280—32.6)



1. A creeper comprising a pair of longitudinal side rails, casters adapted to support said rails including mounting plates having two holes at each of two opposite sides thereof, said side rails being provided with recesses in their undersides within which the caster mounting plates are fitted, two generally rectangular attaching plates having downturned corners forming sharp cleats associated with each caster, each plate being disposed with two of its cleats engaged in two holes at one side of a caster mounting plate and the remaining two in the adjacent rail portion, and a single fastening element for each plate passing therethrough and through the rail portion overlain thereby, said attaching plates and fastening elements constituting the only means securing the casters to the side rails.

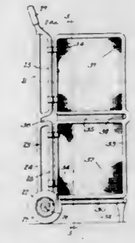
2,782,046
ARTICLE SUPPORTING DOLLY COMPRISING TWO INTERCONNECTED TRUCK MEMBERS
Thomas T. Swain, Burlington, N. C., assignor to Western Electric Company, Incorporated, a corporation of New York
Application December 24, 1953, Serial No. 400,241
5 Claims. (Cl. 280—35)



1. A dolly comprising two T-shaped truck members to jointly receive and carry an article to be transported, caster wheels supporting each of said T-shaped truck members, a drum secured to each of said truck members, cable means wound on said drum on each of said truck members, means on each of said truck members for securing the cable means to opposite truck members, and gear means to actuate said drums to apply tension to said cable means.

2,782,047
FOLDING MATERIAL HANDLING CART
Joseph A. Moran, High Point, N. C.
Application August 10, 1953, Serial No. 373,416
4 Claims. (Cl. 280—36)

1. A material handling cart comprising a supporting frame, wheels on one end of said supporting frame, a bottom frame hingedly mounted on one end of said supporting frame for movement about a horizontal axis, side frames hingedly connected on said supporting frame for movement about a vertical axis, a lower front frame slidable on said side frames for movement fore and aft by sliding relative to said supporting frame, an upper front frame hingedly connected to said lower front frame for swinging movement about a horizontal axis and a supporting member fixed on said bottom frame spaced from said wheels and a screen on each of said frames.

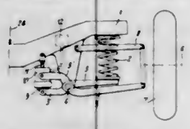


2,782,048
GOLF BAG CART
Robert E. Williams and Ellsworth C. Engel, Muskegon, Mich.
Application September 22, 1952, Serial No. 310,811
3 Claims. (Cl. 280—42)

1. A collapsible golf cart comprising a vertical golf bag support, a transverse pivot member carried by the support, a connector pivoted at its upper portion to said pivot member rearwardly of the support for forward and rearward swinging movement of the connector relative to the support, a pair of rearwardly projecting pivot members at the rear upper portion of the connector, a pair of legs pivoted at their upper ends to said last named pivot members for lateral inward and outward movement of the legs and said legs being swingable forwardly and rearwardly with a corresponding movement of the connector, a pair of wheel mountings, wheels journaled on the mountings, inner, outer and intermediate pivot members carried by the wheel mountings in a position transversely with respect to the axis of the wheels, means pivotally connecting the lower ends of the legs to the outer pivot members of said wheel mountings, a foldable handle pivoted to the upper portion of the support, a vertically movable connecting rod pivoted at one end portion to the handle and extending downwardly therefrom, means pivotally and slidably connecting the lower end of the connecting rod to the connector, a pair of spreader links having outer end portions pivoted to the respective legs and said links being pivoted at their inner ends to the lower portion of the connecting rod, said links swinging the legs inwardly and outwardly by a raising and lowering movement of the handle and connecting rod, a pair of vertical brace rods pivoted at their lower ends to the inner pivot members of the wheel mountings, swivel means carried by the support, said brace rods being secured at their upper ends to said swivel means, a pair of vertical wheel caster adjusting rods, means pivotally connecting the lower ends of the last named rods to the intermediate pivots of the wheel mountings, a pair of rearwardly extending pivot members carried by the lower central portion of the connector,

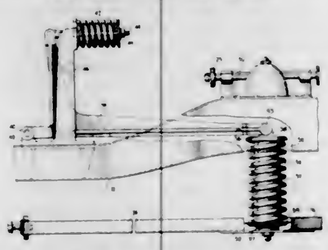
said last named rods being pivoted at their upper ends to said last named pivot members, said handle swingably actuating the connector forwardly and rearwardly to swing said legs, said brace rods and said caster adjusting rods inwardly and outwardly at the sides of the support as well as forwardly and rearwardly at the rear of the support by the raising and lowering of the handle.

2,782,049
LOAD COMPENSATING DEVICE FOR RESILIENT SUSPENSIONS
Lucien Peras, Billancourt, France, assignor to Regie Nationale des Usines Renault, Billancourt, France
Application June 21, 1955, Serial No. 516,909
4 Claims. (Cl. 280—124)



1. A device for compensating for variations in the average height of a resilient suspension comprising, in combination with a suspended member, a member sensitive to the load on the suspension, a cylinder articulated to said sensitive member, said cylinder having a delivery chamber, a fluid reservoir feeding said cylinder, a piston provided with a valve in said cylinder, a piston rod rigidly connecting said piston to the suspended member, a by-pass in the cylinder adapted to be uncovered according to the positions of the cylinder in relation to the piston, the cylinder having a head at one end and a cap slidable over said cylinder at said end, said cap and said head defining a secondary chamber, said piston having a rod extension extending through said head into said secondary chamber, said head being provided with a valve and said rod extension having a groove in its wall to provide communication between the secondary chamber and the delivery chamber of the cylinder, means defining a space of variable volume and said cylinder being provided with a port to establish communication between said delivery chamber of the cylinder and the space of variable volume, said port being covered and uncovered in selected positions of said slidable cap.

2,782,050
VEHICLE SPRING SUSPENSION
Alden F. Shum, York, Maine
Application February 14, 1955, Serial No. 487,825
6 Claims. (Cl. 280—124)

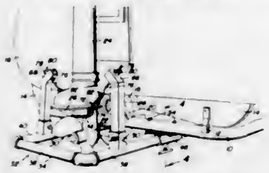


1. A vehicle wheel mounting comprising a frame, a relatively movable wheel-supporting member carried by said frame, means for guiding the movement of said supporting member with respect to said frame, a lever pivotally mounted on said frame with its pivot axis substantially perpendicular to the lengthwise direction of said frame and to the direction of movement of said supporting member, a compressible spring acting between one portion of said lever and said supporting member and urging said lever and said supporting member apart, and means including a spring interconnecting another portion of said lever and said frame, said last-mentioned spring acting in the direction which resists and which is transverse to the direction of movement of said supporting member toward said frame.

2,782,051
SPRING SUSPENSION FOR A TANDEM TRAILER DEVICE
Otho W. Smith, Bedford, Ind.
Application August 17, 1955, Serial No. 528,946
3 Claims. (Cl. 280—124)

1. A trailer supporting dolly adapted for attachment to a tractor comprising, a frame, means for connecting said frame to a tractor, an axle, wheels rotatably secured to opposite ends of said axle, a pair of housings depending from and secured to said frame in spaced-apart relation, a pair of rectangular tubular guides secured to said axle with one of said guides being vertically slidable in one of said housings and the other of said guides being vertically slidable in the other of said housings, means seated in and supported by said guide normally biasing said guide means out of said housing, vertically adjustable means on said housing limiting the movement of said guide therefrom, and arcuate means on said guide cooperating with the inner surface of said housing whereby lateral rocking motion of said axle is accommodated.

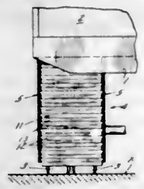
2,782,052
BOAT TRAILER ATTACHMENT FOR SUPPORT OF THE BOAT POWER MEANS
Robert E. Albrecht and Charles W. Bloomquist, Bismarck, N. Dak.
Application July 18, 1955, Serial No. 522,722
1 Claim. (Cl. 280—150)



A boat trailer support attachment comprising a U-shaped support frame including a bight portion connected to a pair of side frame members, attaching means contained on end portions of the side frame members for detachably connecting the U-shaped frame in a rearwardly extending position from a boat trailer, a pair of oppositely disposed vertical support elements extending upwardly from the spaced frame members, a flexible support element carried at opposite end portions of the upwardly extending support elements for engagement beneath the cavitation plate of the power means of a boat being transported, said vertical support elements including a lower end portion removably secured in an upwardly opening socket member on an upper portion of the side frame members, the support elements including mutually convergent upper end portions, said flexible

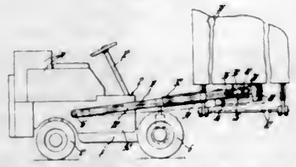
support element including an intermediate portion having a centrally padded portion engageable with the cavitation plate of the power means of the boat being transported, adjusting bolt elements extending through the upper convergent end portions of the support elements, opposite end portions of the flexible support element being secured to said adjusting bolt elements for controlling the amount of tension applied on the plate.

2,782,053
SPLASH GUARD FLAP FOR AUTOMOTIVE VEHICLES
Daniel S. Long, Owatonna, Minn.
Application April 4, 1955, Serial No. 498,867
2 Claims. (Cl. 280—154.5)



1. In a truck flap of the kind described, a pair of elongated depending link chains, means for mounting said chains at their upper ends to a vehicle closely behind a supporting wheel thereof and in spaced parallel relationship transversely of the direction of movement of said vehicle, a plurality of louvers extending horizontally between said chains, and means on the opposite ends of each of said louvers for anchoring said louvers each to different selected links on said chains, said louvers having longitudinally extending upper and lower portions in oblique angular relation to each other, the lower edge of each louver being disposed below the horizontal plane of the top edge of the adjacent underlying louver and rearwardly spaced from the top portion thereof, whereby to provide an open passage therebetween, each link of said chains comprising a pair of vertically extending elements spaced apart in a direction longitudinally of said louvers and connected at their opposite ends by horizontally disposed pivot elements whereby said links are connected together for pivotal movements with respect to each other about horizontal axes extending transversely of the direction of movement of the vehicle, said pivotal connections restraining said links against relative movement in the direction of said axes, said means for anchoring said louvers to the links comprising a tubular portion on the opposite end of each louver, each of said tubular portions encompassing the adjacent vertically extending element of a different one of said links.

2,782,054
LIFT TRUCK WITH HITCH MEANS FOR MANEUVERING SEMI-TRAILERS
Corless B. Nelson, Chicago, Ill., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 21, 1953, Serial No. 381,333
8 Claims. (Cl. 280—479)

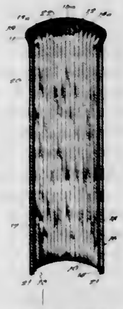


1. A lift truck comprising a truck frame, a lift pivotally connected to said frame, lifting means interposed between said frame and said lift remote from said pivotal connection, king pin receiving means mounted on said lift and movable longitudinally with respect thereto, means to move said king pin receiving means longitudinally with respect to said lift, and lifting means on said lift independently movable relative to the movement of said king pin receiving means.

2,782,055
BUMPER HITCH FOR TRAILER
Adrien M. Maschek and Clyde Hartline, New Orleans, La., assignors of one-third to Ludovic J. Gerrets, New Orleans, La.
Application January 25, 1956, Serial No. 561,241
9 Claims. (Cl. 280—502)

1. A bumper type trailer hitch comprising an elongated chain, an upper bumper engaging fitting connected to one end of said chain, a lower bumper engaging fitting, a chain anchor adjustably carried by said lower bumper engaging fitting, a lower portion of said chain being releasably connected to said chain anchor, a hitch ball support having a bumper engaging flange, locking means on said flange locking said support to said chain intermediate said upper fitting and said chain anchor, and adjusting means carried by said lower fitting retaining said chain anchor relative to said lower fitting to tension said chain.

2,782,056
BOOK BINDING
Anthony J. Allegretti, Westchester, Ill., assignor, by mesne assignments, to R. R. Donnelley & Sons Company, Chicago, Ill., a corporation of Delaware
Application September 21, 1954, Serial No. 457,374
3 Claims. (Cl. 281—21)



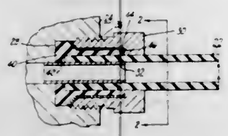
1. A bound book of the character described, comprising: a stack of sheets having trimmed rear margins, the rear marginal portions of said sheets being secured together by a coating of elastic adhesive which covers the back of the stack and normally the rear marginal portion of both faces of each sheet; a pair of end sheets wrapped around the faces and substantially the entire back of said stack and firmly adhered to the exposed parts of said coating, the adjacent margins of said end sheets being

very slightly spaced apart and being characterized by the fact that they have matching ruptured fibers extending toward each other and stuck in said adhesive, and there being detached fibrous material from said end sheet blanks stuck in the adhesive between the adjacent margins of the sheets; board covers adhered to the faces of said end sheets; and a flexible back piece connecting said board covers.

2,782,057
WASTE DISPOSAL APPARATUS
Walter L. Moore, Jr., Fern Creek, Ky., assignor to General Electric Company, a corporation of New York
Application August 25, 1955, Serial No. 530,565
4 Claims. (Cl. 285—206)

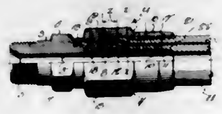
1. Waste disposal apparatus comprising a housing enclosing a comminuting chamber having an inlet opening for water and waste material at the top thereof, said housing including a tubular portion forming said opening and adapted to project upwardly through the drain opening of a sink, a circumferential ledge on the outer surface of said tubular portion, a ring member adapted to rest on the bottom wall of the sink and engage said ledge so as to support said housing, and means engaging said housing and lower surface of the bottom wall of the sink for securing said ring member, sink and housing together.

2,782,058
CONNECTOR FOR FLEXIBLE TUBING
Paul E. Clingman, Dayton, Ohio, and Clyde H. Schamel, Detroit, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 14, 1952, Serial No. 320,538
2 Claims. (Cl. 285—212)



1. A connector of the character described comprising; a member having; a bore, a female threaded portion coaxial with said bore and a substantially radial wall extending between said bore and threaded portion, a male nut having; male threads receivable in said female threads, a central bore, a flange providing an apertured radial wall on one end of said bore and an inclined surface on the other end of said bore, a length of tubing having; a free end, an internal diameter substantially equal to the bore in said member and an outer diameter less than the aperture in the radial wall of said nut, a tubular elastomeric member having; an annular portion sealingly attached to the outside surfaces of said tubing adjacent the end of the tubing, an inwardly extending flange portion attached to the end surfaces of said end of tubing, and an outwardly extending flange having a portion thereof engageable with the radial wall of said member and an inclined surface, and a gland of more wear resistant material than said elastomeric member interposed between said nut and elastomeric member, said gland having a portion shaped to engage the inclined surface of the outward extending flange and being constructed and arranged to compress both flange portions of said elastomeric member against the radial wall of said member for effecting a seal therebetween when the nut is threaded in said member so the inclined surfaces thereof through the inclined portion of the gland which engages the inclined surface of said flange compresses both of the flanges against said radial wall.

2,782,059
REUSEABLE HOSE COUPLINGS
Don F. Stranberg, Waukegan, Ill., assignor to Charles L. Conroy, Waukegan, and Walter Fritsch, Libertyville, Ill.
Application September 20, 1951, Serial No. 247,487
1 Claim. (Cl. 285—247)

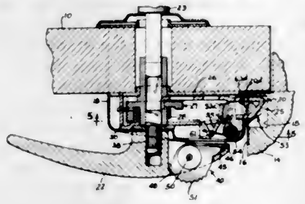


A two-piece reuseable coupling for manual attachment to the end of a non-metallic compressible hose comprising, a fitting connector provided with a nipple insert for projection into the bore of said hose and having spaced coaxial cylindrical portions of different outside diameters and an annular conical expanding shoulder extending between said cylindrical portions, said cylindrical portions having external threads of like pitch, the inner portion adjacent said connector being of larger diameter than the outer portion, a non-deformable shell threaded on the larger portion of said insert and abutting said connector to definitely determine the relative assembled positions of said shell and insert, the outer end of said shell having an internal cylindrical bore of smaller diameter than the normal outer diameter of the hose and having threads of opposed pitch to those of the insert, and an enlarged internal annular recess formed in said shell between its threaded portion and the inner end of its bore, the diameter of said recess being substantially the same as the normal outer diameter of said hose, said hose extending into said shell into abutted engagement with the inner end wall of the shell bore, the enlarged threaded portion of said insert partially extending into the bore of said shell and said conical expanding shoulder being positioned entirely within the longitudinal confines of said annular recess, the enlarged portion of said insert extending into said annular recess cooperating with the circumferential wall of said recess to create a zone of maximum compression of the hose wall at its end, the cylindrical internal threaded portion of said shell cooperating with the reduced cylindrical threaded portion of said insert to compress the hose wall to a lesser degree than the maximum compression of the end of said hose.

2,782,060
SEPARABLE CONDUIT FITTING
Arthur I. Appleton, Northbrook, Ill.
Application May 1, 1952, Serial No. 285,384
4 Claims. (Cl. 285—248)

4. A fitting adapted for attachment to the free end of sheathed conduit having a spirally grooved core therein and comprising the combination of a tubular body having a main bore and a counterbore therein, a tapered seat on said body positioned between said main bore and said counterbore and forming a portion of the wall of said counterbore and being inclined in an inwardly direction toward the main bore, a radial shoulder situated at the bottom of said counterbore adjacent to and concentric with said main bore, external threads on said body disposed in concentric relation with the counterbore and said inwardly tapered seat and surrounding at least a portion of the length of said counterbore, an inner ferrule adapted for insertion into the conduit along the inner peripheral wall thereof, external threads on said inner ferrule for engaging the spirally grooved conduit core, an outer ferrule of substantially uniform thickness disposed in radially spaced surrounding relation with said inner ferrule, said inner and outer ferrules being rigidly joined to each other at one end to form a unitary thimble, the opposite end of said outer ferrule terminating in a radially deformable sealing skirt flaring outwardly toward its free end, a sealing nut having threads at one end thereof adapted for engagement with said external threads on said body and having at its other end a radially inwardly disposed flange, an annular tapered wedge concentric with said counterbore and associated with said nut for axial movement therewith toward and into engagement with the outwardly flaring skirt of said outer ferrule upon tightening of said nut on said body, said annular wedge being of increasing thickness toward the end thereof remote from said body for applying radially inward annular squeeze on the conduit sheath as an incident to tightening of said nut, said annular wedge also being adapted to force said thimble toward the bottom of said counterbore and to force said outer ferrule into positive engagement with said tapered seat to form an electrical conducting path from said thimble to said body.

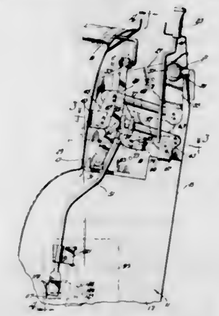
2,782,061
DOOR LATCH
Earl M. Borchers and Axel W. Ahlgren, Rockford, Ill., assignors to Amerock Corporation, a corporation of Illinois
Application January 7, 1954, Serial No. 402,622
8 Claims. (Cl. 292—169)



1. In a door latch, the combination comprising a case, a bolt spring biased to extend from the case, means for retracting said bolt including a rotary handle, an opening in said case, a locking element including a dog carried by said handle and removably insertable into said opening to prevent rotation of the handle, and a projection movable with said bolt and into abutment with said element to push said dog from said opening when the bolt member strikes an obstruction and is shifted thereby toward its retracted position, said projection thereby unlocking said handle.

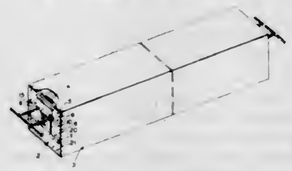
2,782,062
DOOR LOCK
Glen A. Smith, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 5, 1953, Serial No. 329,546
19 Claims. (Cl. 292—216)

2. In a door fastening mechanism, an operating mechanism adapted to be mounted on a door and including a support, a primary lever for releasing the fastening mechanism from inside and outside the door, said lever being pivoted to said support and having a slot with a radial part and a circumferential part with respect to said primary lever pivot, locking link means slidably mounted in said slot, means to move said locking link



means from the radial to the circumferential part of said slot, a lock release rod operably connected to said link means, and manually operable means for rotating said primary lever.

2,782,063
HANDLE
William S. Ziegfeld, Manheim Township, Lancaster County, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania
Application May 28, 1956, Serial No. 587,547
8 Claims. (Cl. 294—15)

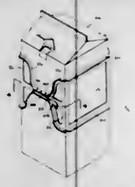


1. A handle for gripping the cleats of a double batten end of a carton, which end includes spaced upper and lower outer cleats secured together by a pair of spaced inner cleats to provide an opening for the reception of the handle therebetween, said handle comprising an internal bearing member for disposition between said inner cleats and against the inner surface of said lower outer cleat, an external bearing member for disposition against the outer surface of said upper outer cleat, a load-supporting member connecting said bearing members as a unit and disposed to receive the lower edge of said upper outer cleat, a locating member projecting laterally of said internal bearing member for engagement with the upper edge of said lower outer cleat to locate said handle with respect to said end structure, and a hand grip member secured to said unit and disposed to bring said external bearing member into engagement with the outer surface of said upper outer cleat upon lifting of a carton with said handle and to apply the lifting force of said handle in the general plane of said locating member.

2,782,064
CARTON HOLDER
William J. Montgomery, Nampa, Idaho
Application July 16, 1954, Serial No. 443,896
4 Claims. (Cl. 294—31.2)

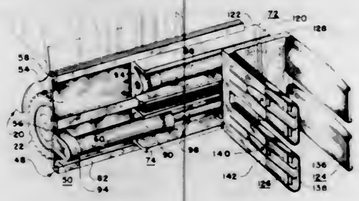
1. In a holder for a rectangular carton, a back panel and side panels, said panels having vertical edges, fold lines connecting adjacent edges of the panels, the side panels having vertical edges remote from the back panel, terminal panels having free vertical edges and other ver-

tical edges, fold lines connecting said other edges to the remote edges, and releasable connection means extend-



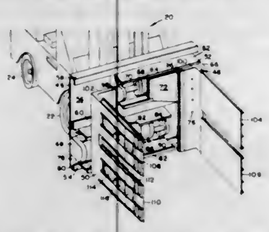
ing between and connected to the free edges of the terminal panels.

2,782,065
MATERIAL HANDLING MECHANISM FOR LIFT TRUCKS
John G. Lord, Swarthmore, Pa., assignor, by mesne assignments, to Shell Development Co., a corporation
Application July 8, 1955, Serial No. 520,762
4 Claims. (Cl. 294—87)



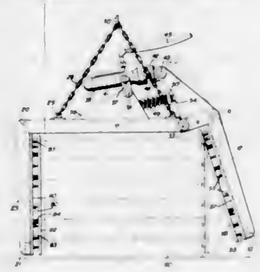
1. A load clamp for a lift truck and the like including a frame assembly having a pair of vertically spaced stationary horizontal guides, a cylinder fixedly joined to said frame assembly, disposed in each of said stationary guides, a primary slide member guidably supported in each of said guides, a piston rod from each cylinder connected to its adjoining primary slide member for moving said primary slide member between extended and retracted positions, a jaw-carrying secondary slide member guidably supported by each primary slide member, and pulley-and-chain means for amplifying the relative amount of movement of each of said secondary slide members in relation to its primary slide member on each of said primary slide members comprising a chain carried between pulleys on the primary slide member, with a link on one span of the chain fixedly connected to said frame assembly and a link on the other span of the chain connected to the secondary slide member.

2,782,066
JAW CONSTRUCTION FOR LIFT TRUCKS
John G. Lord, Swarthmore, Pa., assignor, by mesne assignments, to Shell Development Co., a corporation
Application July 8, 1955, Serial No. 520,761
3 Claims. (Cl. 294—99)



1. A grip jaw for lift trucks and the like including a cushion pad, socketed retention members fixedly secured at spaced vertical distances from each other to the back of said cushion pad, a unit of three support prongs juxtaposed to the rear surface of said cushion pad, the rear end portion of each of said prongs joined together, the center support prong extending forwardly a lesser distance than the outer prongs, said socketed retention members positioned on the back of said cushion pad arranged to receive the tips of said support prongs, the tips of said support prongs disposed within the sockets of said retention members, but not fixedly joined thereto, whereby said cushion pad may be moved in respect to said support prongs, and means for preventing the disengagement of said cushion pad from said support prongs comprising a projection fixedly secured to the center recessed member with the free end portion of said projection disposed within an aperture in the front tip portion of said center prong.

2,782,067
HOIST LINE GRAPPLE FOR HANDLING LOGS
Joseph G. La Bonte and Daniel D. Chase III, Manchester, N. H.
Application June 23, 1952, Serial No. 295,082
1 Claim. (Cl. 294—113)

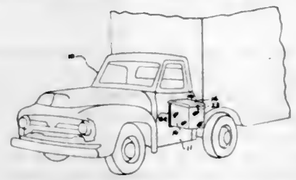


A rectangular grapple for lifting longitudinally piled logs out of a pile comprising a relatively long and relatively short section, each section comprising a pair of angle bars at opposite sides of the grapple forming a pair of longitudinal upper arms on each section, said upper arms terminating in pairs of depending end arms at opposite ends of the grapple, means pivotally connecting the pairs of longitudinal upper arms together for swinging of the short section on the long section in opposite directions to swing the end arms thereof toward and away from the end arms of the long section, a hoist line suspending the long section for lowering the same and the short section to position said pairs of end arms opposite the opposite ends of the logs, a crossbar connecting the lower end of each pair of end arms, means on said grapple for swinging the short section in opposite directions, prongs on said end arms and crossbars for biting into the ends of the logs when said end arms of the short arms are swung toward the end arms of the long section, sleeves on the end arms, panels having studs fast thereto, said studs being slidably engaged within the sleeves, said panels having holes in registration with the prongs on said arms through which the prongs protrude when the panels are moved toward the arms, springs on the studs between the panels and the arms normally operating to hold the panel yieldably separated from the arms and means on the studs preventing their disengagement from the sleeves.

2,782,068
SLEEPING DEVICE FOR MOTOR VEHICLES
Delbert E. Esche, Dearborn, Mich.
Application June 15, 1954, Serial No. 436,903
3 Claims. (Cl. 296—23)

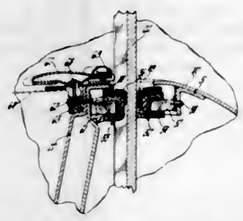
1. The combination with a wall of a door of a motor vehicle body having an opening therethrough in the lower half thereof and a seat structure within the body ad-

jacent to the opening, of a collapsible enclosure unit carried by the wall of said door on the outer side thereof and with which the opening communicates adapted to be extended beyond the side of the vehicle body to provide a box-like addition to said seat to form a bed extending transversely of the vehicle, said collapsible enclosure unit comprising: a top cover rotatably hinged at the top adapted to swing outwardly and upwardly from the opening in said door, a bottom plate rotatably hinged at the bottom



adapted to swing outwardly and downwardly from the opening in said door, and a flexible sheet suitably secured to said top cover and to said door in the vicinity of the opening therethrough, said flexible sheet being of such size and shape as to form the sides and bottom of a box-like hood when said collapsible enclosure unit is opened, said bottom plate being within said box-like hood in the bottom portion thereof and shaping said flexible sheet to form said box-like hood.

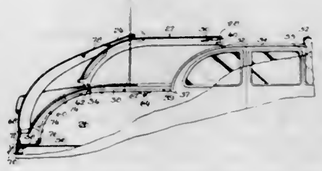
2,782,069
DRAFT STRIP FOR LOWERABLE GLASS PANE ON A VEHICLE
Harold A. Storch, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 30, 1953, Serial No. 394,991
4 Claims. (Cl. 296—44)



1. In a vehicle body, in combination, a frame defining an opening, a curved glass disposable across the opening, means defining a housing for the glass at one side of the opening, means guiding the glass for retraction into the housing from a position across the opening, and a yieldably mounted draft strip extending across the glass adjacent the said side of the opening and engaging the glass, the draft strip comprising a channel-shaped strip of cushioning material with the outer face of the base of the channel engaging the glass and also comprising leaf springs extending from the means defining the housing into the channel-shaped strip at spaced points, the springs urging the channel against the glass.

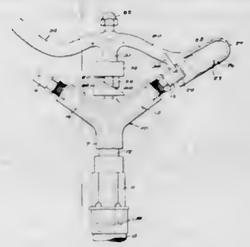
2,782,070
RETRACTABLE AUTOMOBILE ROOF TOP
Joseph M. Chaban, Bensenville, Ill.
Application December 31, 1953, Serial No. 401,615
12 Claims. (Cl. 296—107)

1. In combination with an automobile body, a retractable roof top, a trunk lid assembly, the said trunk lid assembly comprising a lid, a framing to support said lid and to receive therewithin the said retracted roof top, a hinge means adjacent the bottom end of said lid and to the related portion of said framing whereby the said trunk lid can be opened rearwardly adjacent the top end to permit the slidable entry of the said roof top beneath the said trunk lid and within the said framing, pivot means mounted adjacent the upper portions of the sides of said framing in juxtaposition with the opening in the automobile for said trunk lid assembly, whereby the said framing the said lid cover hingedly mounted thereon and the said roof top, if retracted within the said framing, can be raised as a unitary assembly to act as a trunk lid revolving about said pivot means to provide access to the interior of the trunk compartment; means attached to and support-



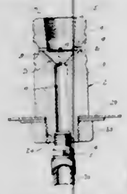
ing said roof for sliding movement, guide rails adjacent the top of the said automobile body and similar guide rails mounted within the said framing in alignment with each other at their junction to provide a clear way for the said slidable movement means mounted on said roof top, a detent mounted on said framing to keep the top end of said lid secured adjacent the upper part of said framing and to retain, if present, the retractable roof, between the said lid and the said framing; retaining means adapted to engage said slidable movement means with said automobile body and a locking means to fix said roof top in juxtaposition with said automobile body.

2,782,071
REACTION TYPE SPRINKLER
Vincent Chavez, Los Angeles, Calif.
Application August 11, 1955, Serial No. 527,831
1 Claim. (Cl. 299—69)



A lawn sprinkler comprising a stationary member for connection to a water supply, a sprinkler head loosely and rotatably carried by said member, said head comprising a vertical tubular stem, a pair of divergent tubular arms extending from said stem, a nozzle on the outer end of each arm, a vertical shaft extending upwardly from the junction of said arms, a lever pivotally carried by said shaft, an impeller blade carried by said lever and disposed in a position to at least partly intersect the stream of water from one of said nozzles, an impact member carried by said lever engageable with one of said nozzles to thereby progressively rotate said head upon movement of said impeller relative to said head, a cam fixed on said shaft having a cam surface inclined to the vertical, and a cam engaging pin carried by said lever adapted upon rotation of said lever to raise said impeller out of contact with said stream.

2,782,072
LIQUID SPRAY DISPENSER
Erwin O. Stock and Lester A. Stock, Newton, Wis.
Application May 20, 1955, Serial No. 509,916
2 Claims. (Cl. 299—86)

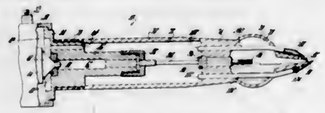


1. A liquid spray dispenser comprising a receptacle having an open top for a liquid to be sprayed, a closure closing said open top of said receptacle, said closure having an opening therein, a spray-forming device mounted in the opening in said closure, said device including an upright body supported intermediate its ends in the closure opening with its lower end extending into said receptacle and its upper end positioned exteriorly thereof, said body having a first bore extending inwardly from said lower end and terminating at a point spaced from the upper end thereof, a flexible conduit positioned within the receptacle and having one end connected in communication with said first bore and having its other end adjacent to and spaced above the bottom of said receptacle, there being a second bore in said body extending inwardly from its upper end and terminating a point spaced from the terminating point of said first bore, said second bore being of a larger diameter than said first bore, said second bore being adapted to be connected to a source of air pressure, said body having a plurality of recesses arranged in spaced relation and extending inwardly from the side wall thereof, said recesses all lying in the same plane, said body being provided with a passage connecting each of said recesses to the lower end of said second bore, said body being further provided with a plurality of passages each connecting the termination point of said first bore with the adjacent one of said second bores at a point adjacent the point of connection of said second bore with the associated recess, each of said second-named passages being arranged at an angle to the vertical, said closure also having an opening for the admission of outside air into said receptacle.

2,782,073
NEBULIZERS
Stephen C. Shadegg, Phoenix, Ariz.
Application October 30, 1953, Serial No. 389,254
4 Claims. (Cl. 299—88.5)

1. A nebulizer comprising a flask, said flask having a chamber for receiving liquid medication, a discharge nozzle at one side of said chamber, an air nozzle on the opposite side of said chamber and directed toward the said outlet, means for forcing air through said nozzle, a capillary tube having an upper outlet and positioned between said air nozzle and said outlet and positioned to intercept and be acted on by air emitted from said air nozzle, said tube having a lower end positioned adjacent the bottom of said chamber, and a baffle positioned intermediate said upper end of said capillary tube and said discharge outlet, and baffle comprising a cone having its apex facing said upper end of said capillary tube and positioned in close proximity thereto and having its base facing said discharge outlet.

2,782,074
ELECTROSTATIC SPRAYING APPARATUS
John Sedlacsik, Garfield, N. J.
Application November 15, 1954, Serial No. 468,670
2 Claims. (Cl. 299—140)



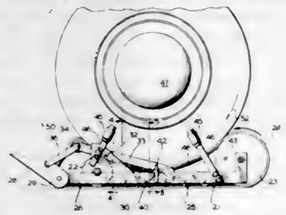
1. In an aero-electrostatic atomizing apparatus of the class described for attachment to a spray gun for use in discharging an electrically-charged air-supported stream of coating material, the improvement in a fluid spray nozzle comprising an outer main casing disposed forwardly of the spray gun and in axial alignment therewith, the rearward extremity of said casing being fixed to the forward extremity of the spray gun, a fluent coating material supply chamber within said casing, a longitudinally extending discharge orifice in the forward extremity of said casing terminating in an outer forwardly-facing discharge lip and communicating with said chamber facilitating discharge of the coating material therefrom, means coaxial with and extending longitudinally through said casing facilitating feeding of a supply of coating material to said chamber, a motive agent conduit coaxial with said casing and extending longitudinally thereof from a point within said casing to a point outside of said casing and having an outer inwardly directed discharge opening converging on the adjacent discharge lip of said discharge orifice for discharging the motive agent in impinging relation upon the main discharge of coating material at a multiplicity of points lengthwise and transversely thereof.

2,782,075
COLLAPSIBLE BENCH
Roscoe Fagan, Kansas City, Kans.
Application April 4, 1955, Serial No. 498,973
3 Claims. (Cl. 304—2)

1. A collapsible bench comprising an elongated platform having a pair of normally coplanar sections provided with innermost ends in abutting relationship; a tie joining the outermost ends of said sections therebeneath, said tie having a pair of lengths hingedly connected beneath said innermost ends of the sections, each length having a post joining a corresponding section adjacent the hinge connection; take-up means clamping the posts and said innermost ends together; leg structure swingably mounted on each section respectively at the outermost ends thereof; a brace swingable on each leg structure respectively and slidable along corresponding tie lengths; and releasable means locking the braces to their sections and tie lengths with the leg structures disposed in supporting relationship to the platform.

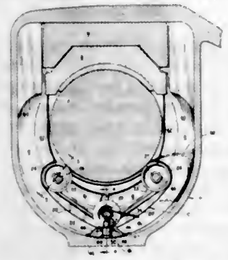
2,782,076
TRACTION DEVICE
John C. Miller, Schenectady, N. Y.
Application July 17, 1951, Serial No. 237,165
29 Claims. (Cl. 305—3)

1. A traction device for supporting a vehicle wheel in driving engagement without direct connection thereto comprising a frame, two spaced wheel support rollers mounted on said frame, an endless belt closely encircling said support rollers whereby the assembly rests on the lower flight of the belt, and frame mounted wheel



engaging means adapted to prevent relative longitudinal displacement of a wheel mounted on said support rollers.

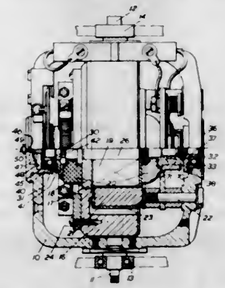
2,782,077
MECHANICAL JOURNAL LUBRICATORS
Lloyd A. Johnson, Woodside, Dan A. Christensen, Palo Alto, and Antone D. Martin, Menlo Park, Calif., assignors, by mesne assignments, to Federal-Mogul-Bower Bearings, Inc., Detroit, Mich., a corporation of Michigan
Application January 20, 1955, Serial No. 482,954
21 Claims. (Cl. 308—91)



1. In combination with a railway truck journal assembly of the type having a journal housing supported from the top side of a truck journal and an oil reservoir formed in the lower portion of the housing below the exposed lower side of the journal, that improvement which comprises: a mechanical oil circulator adapted to be driven by the rotation of the journal and operable in cooperation therewith to circulate large quantities of oil throughout the interior of said journal assembly, said circulator including a pair of channel shaped thin-walled frame members, means pivotally connecting the end of one frame member to the end of the other with the open side of the channels facing in the same direction, stiff spring means urging said frame members to pivot toward one another, axle means interconnecting the side flanges of said frame members adjacent the opposite ends thereof, pulleys mounted on said axle means, a plurality of narrow resilient belts encircling said pulleys, pedestal means carried by said frame members for supporting said circulator from the bottom of the journal housing with said frame members embracing the journal from the lower opposite sides thereof and with said journal cradled against the upper runs of said belts.

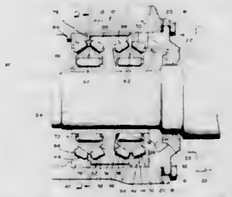
2,782,078
GYROSCOPIC APPARATUS
Gordon Percy Wright, Hillington, Glasgow, Scotland, assignor to Kelvin & Hughes Limited, Glasgow, Scotland, a company of Great Britain
Application July 24, 1953, Serial No. 370,072
Claims priority, application Great Britain
February 10, 1953
3 Claims. (Cl. 308—178)

1. A gyroscopic apparatus comprising a gyro rotor spindle mounted at each end in a ball bearing carried in a gimbal ring, said bearings comprising inner and outer races having balls between them, said races being axially relatively movable to an extent of five to fifteen thousandths of an inch, and holding means for holding the races resiliently at one end of the limit of such axial movement, said balls being spaced by cages, said holding



means comprising plates engaging the outer surfaces of the said outer races, said plates being centrally recessed so as to avoid contact with the said cages and the said inner races, said holding means further including rings engaging the inner surfaces of the said inner races, said rings being centrally recessed to avoid engaging the said outer races.

2,782,079
RAILROAD COASTER
Anton J. Kachnik, Chicago, Ill.
Application September 10, 1954, Serial No. 455,225
7 Claims. (Cl. 308—180)

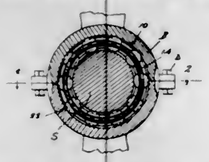


1. A roller bearing assembly comprising a housing, a sleeve enclosed within the housing and adapted to receive a rotatable shaft, a roller bearing race member within said housing radially spaced from one side of said sleeve, a second roller bearing race member within said housing radially spaced from the other side of said sleeve, a ring member on each side of said sleeve positioned between said sleeve and each of said race members, roller bearings positioned between said sleeve and said ring members, other roller bearings positioned between said ring members and said race members, said ring members being entirely supported between said roller bearings, and an anti-friction sleeve fixed to said housing and encircling said first sleeve but spaced slightly therefrom while said roller bearings are operative, but automatically contacting said first sleeve on failure of said roller bearings to provide a load bearing journal.

2,782,080
ANTI-FRICTION BEARING
William L. Norton, Detroit, Mich.
Application March 20, 1953, Serial No. 343,707
4 Claims. (Cl. 308—217)

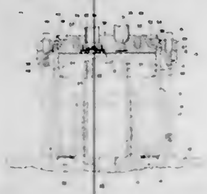
1. A bearing comprising spaced concentric normally closed split rings of spring material, an annular row of circumferentially spaced elongated bars carried by and extending between the rings, said rings having aligning openings extending therethrough between the bars, an

annular row of elongated bearing rollers extending between the rings adjacent the bars, trunnions carried by each bearing roller and extending longitudinally from



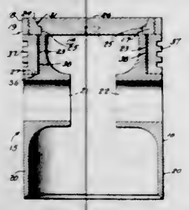
opposite ends thereof, the trunnions lying an axial alignment with the longitudinal axes of their respective rollers, and the trunnions of each roller extending through aligned openings in the rings.

2,782,081
PUMP CYLINDER ASSEMBLY
James Entwistle, Long Island City, N. Y., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application April 26, 1945, Serial No. 590,435
3 Claims. (Cl. 309—3)



1. A cylinder liner assembly comprising a cylinder having an annular end and an internal seat for a liner, a cylinder liner having a conforming seat and a circumscribing flange with upper and lower faces of which the lower forms a ledge for seating the liner upon the cylinder end and the upper forms a ledge for the reception of a clamping ring, a clamping ring having a flange to engage the upper ledge of the liner flange and a flange to bear upon the end of the cylinder, means to clamp the ring and the liner in place comprising bolts seated in the cylinder end, an annular ledge within the liner having an upwardly directed face, a cylinder head conforming to the inner circumference of the liner and having a ledge with a downwardly directed face abutting the annular ledge on the liner, and means to unite the liner and head comprising abutting fine flanges sealed by atomic welding.

2,782,082
PISTONS AND PISTON PACKING FOR INTERNAL COMBUSTION ENGINES
John L. Harrah, Bedford, Ohio
Application October 12, 1953, Serial No. 385,535
5 Claims. (Cl. 309—14)

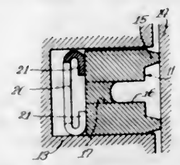


1. In combination, a cylindrical piston comprising a main body having a crown and skirt portion; said main body having wrist pin bosses positioned immediately above said skirt; a sectional cap ring consisting of an inner and an outer ring, each of said rings having coacting threaded surfaces extending thereon; a piston packing comprising an annular back member whose outer periphery is disposed with a transverse helically extending rib thereon, said packing having a slot extending therethrough; the upper periphery of said piston being so proportioned so as to properly receive said packing; said cap ring being positioned immediately above said packing being engaged with the upper peripherical edge of said main body, said cap ring retaining said packing around said piston.

2,782,083
PISTONS
Andrew James Hewson, Meriynston, Victoria, Australia
Application August 2, 1954, Serial No. 447,185
2 Claims. (Cl. 309—14)

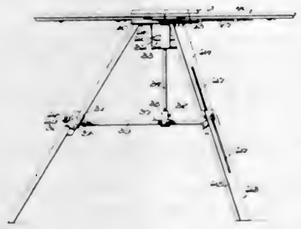
1. A piston having a lower portion provided with hollow bosses therein, said piston being reduced in diameter above the bosses to provide an upper portion having an external screw-threaded recess, said recess being formed in the top wall of said upper portion and terminating in a thickened portion of the top wall, a hollow body adapted to fit on said upper portion and having an internal screw thread which is complementary to the external screw thread on said upper portion, said hollow body being provided with circumferential grooves around its outer surface adapted to receive piston rings, the top wall of said hollow body being provided with a countersunk bore adapted to be aligned with the screw-threaded recess in the top wall of said upper portion of the piston, said bore and said recess being adapted to receive a countersunk machine screw for securing said hollow body to said upper portion, said top wall of said hollow body being provided with tool-receiving holes at diametrically opposite sides thereof for reception of a tool for removing said hollow body from said upper portion, and a locking member comprising a portion adapted to lie under the head of said machine screw, and a tail adapted to engage in one of the tool-receiving holes.

2,782,084
PISTON RING ASSEMBLY AND PISTON RING EXPANDER
John F. Shirk, Hagerstown, Ind., assignor to Perfect Circle Corporation, Hagerstown, Ind., a corporation of Indiana
Application March 3, 1955, Serial No. 491,905
12 Claims. (Cl. 309—43)



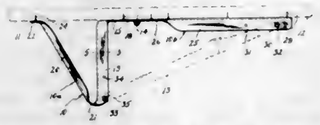
1. A piston ring expander comprising a strip of sheet metal alternately slotted from opposite edges of the strip and having portions at the respective edges of the strip reversely bent to extend axially toward each other with the edges spaced from each other.

2,782,085
COLLAPSIBLE TABLE
Joseph A. Natale, Philadelphia, Pa., assignor of forty-nine percent to Louis Cooper, Philadelphia, Pa.
Application December 5, 1955, Serial No. 551,106
10 Claims. (Cl. 311—32)



1. A table including a head having a bottom plate, an adjustably rotatable top plate overlying the bottom plate and having a stem slidably and rotatably fitting through the bottom plate, a table top disposed between said plates, and coacting means carried one by said stem and the other by said bottom plate and operable by rotative adjustment of the top plate to clamp the table top between said plates.

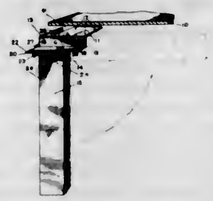
2,782,086
SUPPORTING HINGE BRACKETS FOR DROP LEAVES
Paul S. Gaston, Washington, D. C.
Application January 18, 1956, Serial No. 559,956
4 Claims. (Cl. 311—64)



1. The combination of a table top having an overhanging edge portion, a drop leaf for said table top, a combined supporting and hinge bracket comprising a stationary section secured to and extending downwardly from the overhanging edge portion of said table top and a movable section hinged to said stationary section and secured to the underside of said drop leaf, and a collapsible supporting strut pivoted at its opposite ends to the respective stationary and movable sections of said bracket.

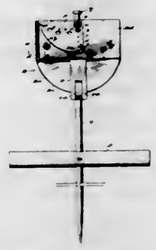
2,782,087
FOLDING LEG FITTING
John J. Parikos, Baltimore, Md.
Application March 17, 1955, Serial No. 494,939
5 Claims. (Cl. 311—99)

1. A corner fitting for attaching a leg to a table top comprising, a box-like structure of quasi-cubical form with walls formed to fit over the top portion of the leg and tightly encompass it, and another wall spaced from the walls and forming the crown of the structure and arranged for attachment to the underside of said table,



a plate tongue for mounting on said top portion, and a catch bar pivoted on said structure including a jaw adapted to align and engage with said tongue when the leg is in a vertical position for supporting said table top.

2,782,088
SUNLIGHT DURATION RECORDER
John R. Davis, Jr., Fairland, Md.
Application June 30, 1953, Serial No. 364,992
3 Claims. (Cl. 346—107)



1. A sunlight duration recorder comprising a semi-cylindrical casing formed of opaque material and comprising two semi-circular walls joined along their curved edges by a semi-cylindrical wall, and a flat face wall extending between the straight edges of said semi-circular walls, the axis of said semi-cylindrical wall being located substantially in the plane of said face wall, one end of said face wall being joined with one straight edge of said semi-cylindrical wall, and the other end of said face wall having an end portion turned back into said casing in spaced parallel relation with the adjacent end portion of said semi-cylindrical wall, thereby providing a narrow slit in said casing for introducing a strip of photographic material within said casing in contact with said semi-cylindrical wall, and said flat face wall having a plurality of light-receiving apertures spaced along said axis, and including a movable shutter for selectively exposing one of said apertures while obscuring the remaining apertures.

CHEMICAL

2,782,089
PROCESS OF IMPROVING THE HEAT STABILITY OF POLYTHIOUREA THREADS BY APPLYING AN EPOXY COMPOUND
Lech Rakowski, Harold M. Gordon Williams, and Donald L. Wilson, Coventry, England, assignors to Courtaulds Limited, London, England, a British company
No Drawing. Application January 21, 1953, Serial No. 332,528
Claims priority, application Great Britain February 25, 1952
13 Claims. (Cl. 8—115.5)

1. A process for improving the heat stability of a thread of a polythiourea obtained by condensing carbon disulphide with an aliphatic diamine, the amino groups of which are separated by a hydrocarbon chain containing at least three carbon atoms which comprises stretching said thread at least 50% at an elevated temperature not less than about 45° C. and immersing the thread in a bath having a temperature of from about 0° C. to about 50° C. and comprising from about 25% to 100% of an epoxy compound selected from the group consisting of epichlorhydrin, ethylene oxide, propylene oxide and glycidol, the remainder of said bath being an inert organic solvent, for a time sufficient to substantially improve the heat stability of said thread.

2,782,090

STABILIZATION OF CELLULOSIC FABRICS BY APPLYING ALKYL SILICON HALIDE VAPORS

Edward Robbart, Cambridge, Mass.

No Drawing. Application July 21, 1954, Serial No. 444,917

13 Claims. (Cl. 8—116)

1. The method of stabilizing water insoluble cellulosic fabrics having free hydroxy groups, comprising exposing the said fabric for not more than about 5 minutes and at a temperature of less than about 100° F. to organo silicon halide vapors, having as organo substituents alkyl groups with between one and four carbon atoms, the conditions of time and temperature being such that reaction takes place between the halogen of said organo silicon halide and said free hydroxy groups with the liberation of free hydrogen halide, immediately thereafter neutralizing and removing the resulting by-products by immersing the fabric in a basic aqueous solution having a pH between 7 and 11, then tensioning the fabric at least to substantially its original dimension preceding exposure to said vapors and drying it while held under tension at said dimension, whereby said fabric is stabilized against shrinkage.

2,782,091

URANIUM RECOVERY PROCESS

John J. Brunner, Weston, Mass., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application July 13, 1951, Serial No. 236,707

6 Claims. (Cl. 23—14.5)

1. A process for selectively extracting the uranium values from a low grade uranium containing hydroxide precipitate which also contains large amounts of hydrated silica and iron and aluminum hydroxides which comprises digesting said precipitate with sulfuric acid at a pH in the range of 3 to 3.8 at a temperature between 68° C. and 100° C. for a period of at least one hour, and then separating the digest liquor from the digested solid residue.

2. A process for selectively recovering a high grade uranium concentrate from a low grade uranium containing hydroxide precipitate that also contains large amounts of hydrated silica and iron and aluminum hydroxides which comprises digesting said precipitate with sulfuric acid at a pH in the range of 3 to 3.8 at a temperature between 68° C. and 100° C. for a period of at least one hour, separating the digest liquor from the digested solid residue, adding hydrogen peroxide to the digest liquor to cause the precipitation of uranyl peroxide, and then separating the precipitated uranyl peroxide from the digest liquor.

2,782,092

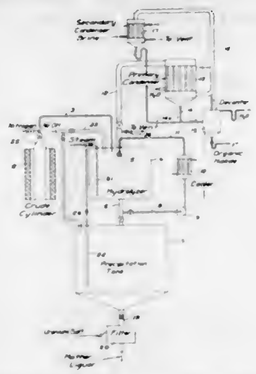
RECOVERY OF METAL SALTS FROM MIXTURES

David X. Klein, Wilmington, Del., and Walter V. Wirth, Woodstown, N. J., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application April 12, 1945, Serial No. 588,064

12 Claims. (Cl. 23—14.5)

1. The method of recovering uranium values and a saturated perhalocarbon containing from 7 to 8 carbon atoms in which the halogen substituents are selected from the group consisting of fluorine and chlorine and which contains no more than 2 chlorine atoms per molecule from a mixture of uranium hexafluoride and said saturated perhalocarbon which comprises treating the mixture with sufficient water to form an aqueous uranyl fluoride solution, separating said saturated perhalocarbon



from the solution, and then treating the solution to precipitate the uranium as a water-insoluble compound.

2,782,093

PROCESS FOR THE PRODUCTION OF ALKALI METAL BICARBONATES

Georges Hulot and Antoine Birman, Paris, France, assignors to Society d'Etudes Chimiques pour l'Industrie et l'Agriculture, Paris, France

No Drawing. Application April 4, 1952, Serial No. 280,648

Claims priority, application France April 7, 1951

12 Claims. (Cl. 23—64)

1. A process for the production of alkali metal bicarbonates which comprises: reacting carbon dioxide gas at atmospheric pressure with an aqueous solution containing an alkali metal chloride and a member of the group consisting of primary and secondary alkylamines, the alkyl radicals of which contain from 3 to 4 carbon atoms, and then separating the resulting alkali metal bicarbonate from the solution.

2,782,094

POTASSIUM NITRATE OF REDUCED TENDENCY TO CAKING AND SETTING

Jack Ames, Ardrossan, Scotland, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain

No Drawing. Application May 6, 1954, Serial No. 428,101

Claims priority, application Great Britain June 12, 1953

10 Claims. (Cl. 23—102)

1. Potassium nitrate of reduced tendency to caking and setting on storage comprising discrete potassium nitrate particles carrying on their surfaces a deposit of at least one salt of an acid selected from the group consisting of the a:a′, b:b′ and a:b′ disulphonic acids of dinaphthylmethanes, said salt being soluble in a saturated aqueous potassium nitrate solution at 20° C.

2,782,095

SODIUM NITRATE OF REDUCED TENDENCY TO CAKING AND SETTING

Jack Ames, Ardrossan, Scotland, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain

No Drawing. Application May 28, 1954, Serial No. 433,265

Claims priority, application Great Britain August 19, 1953

10 Claims. (Cl. 23—102)

1. Sodium nitrate of reduced tendency to caking and setting on storage comprising discrete sodium nitrate particles carrying on their surfaces a deposit of at least one salt of an acid selected from the group consisting of the α:α′, β:β′ and α:β′ disulphonic acids of dinaphthylmethanes said salt being soluble in a saturated aqueous sodium nitrate solution at 20° C.

2,782,096

AMMONIUM NITRATE OF REDUCED TENDENCY TO CAKING AND SETTING ON STORAGE

Jack Ames, Ardrossan, Scotland, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain

No Drawing. Application April 19, 1954, Serial No. 424,279

Claims priority, application Great Britain June 1, 1953

11 Claims. (Cl. 23—103)

1. Ammonium nitrate of reduced tendency to caking and setting on storage comprising discrete ammonium nitrate particles carrying on their surfaces a deposit of at least one salt of an acid selected from the group consisting of the α:α′, β:β′ and α:β′ disulphonic acids of dinaphthylmethanes, said salt being soluble in a saturated aqueous ammonium nitrate solution at 20° C.

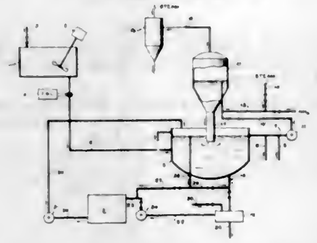
2,782,097

AMMONIUM SULFATE PRODUCTION

John J. Costolow, Pasadena, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware

Application June 25, 1953, Serial No. 363,974

8 Claims. (Cl. 23—119)



2. An aqueous process for the continuous production of ammonium sulfate crystals which comprises continuously adding an aqueous solution of a trivalent metallic ion to an aqueous solution of ammonium sulfate in a crystallization zone, said trivalent ion being selected from the group consisting of Cr^{+++}, Fe^{+++}, and Al^{+++}, maintaining the ion concentration in said crystallization zone between 5 and 1000 parts ion per million parts of solution in said crystallization zone; withdrawing a portion of solution from said crystallization zone; adding water, ammonia, and sulfuric acid to said withdrawn solution using acid in excess of that required for reaction with ammonia; passing the resulting solution to an evaporization zone; removing a portion of the water in said evaporation zone to provide a solution of a concentration metastable to crystal formation; gravitating the resulting solution to said crystallization zone; maintaining the pH of the gravitated solution at a pH less than 8 by means of said excess acid; maintaining the concentration of ammonium sulfate in aqueous solution in said crystallization zone in the temperature and concentration region wherein said solution is metastable to crystal formation; breaking crystals in said crystallization zone to form crystal seeds; allowing said crystal seeds to grow; withdrawing a portion of the crystals and solution from the crystallizer; separating crystals from last solution withdrawn; and recirculating the solution having crystals removed to the crystallization zone.

2,782,098

METHOD OF MAKING MANGANESE DIOXIDE DEPOLARIZER

Lloyd Berg, Bozeman, Mont., Jack A. Davidson and Robert L. Nickelson, Minneapolis, Minn., and William F. Nye, Fair Haven, N. J., assignors to the United States of America as represented by the Secretary of the Army

No Drawing. Application April 29, 1954, Serial No. 426,614

1 Claim. (Cl. 23—145)

A method of synthesizing a gamma-type manganese dioxide depolarizer for Le Clanche type dry cells comprising spraying an aqueous solution of permanganic acid against a hard surface of a granite slab maintained at temperatures between 150 to 200° C.; removing the layer of manganese dioxide formed by thermal decomposition on the surface of said slab; and grinding the solid gamma-type manganese dioxide thus formed to the desired fineness.

2,782,099

PREPARATION OF BARIUM HYDROXIDE

George S. Haines, St. Albans, and Frank D. Heindel and Chester C. Meeker, South Charleston, W. Va., assignors to Food Machinery and Chemical Corporation, New York, N. Y., a corporation of Delaware

Application February 15, 1954, Serial No. 410,272

4 Claims. (Cl. 23—186)

1. The process of preparing pure, crystalline barium hydroxide octahydrate by reacting barium sulfide with sodium hydroxide in the absence of ammonia, comprising: preparing a hot, dilute aqueous solution of barium sulfide and sodium hydroxide, wherein the concentrations of each of said compounds falls within the area H of the accompanying drawing; cooling said solution sufficiently to precipitate barium hydrate octahydrate crystals; and separating the crystals from the solution.

2,782,100

METHOD OF IMPROVING STABILITY OF CONCENTRATED HYDROGEN PEROXIDE IN CONTACT WITH STAINLESS STEEL AND ALUMINUM ALLOYS

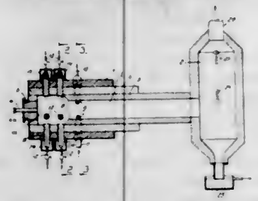
Frank P. Greenspan, Buffalo, N. Y., assignor, by mesne assignments, to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware

No Drawing. Application January 13, 1951, Serial No. 205,968

1 Claim. (Cl. 23—207.5)

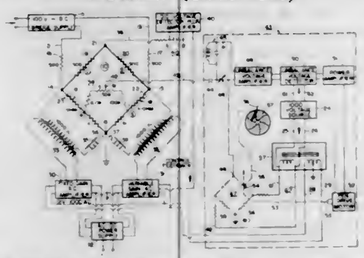
The method of storing a concentrated aqueous solution of hydrogen peroxide containing at least 70% hydrogen peroxide in contact with the surface of a metallic alloy selected from the group consisting of stainless steel alloys and aluminum alloys, which comprises contacting the surface of said alloy for at least one hour with an aqueous solution of hydrogen peroxide containing at least 20% hydrogen peroxide and not less than about 10 p. p. m. orthophosphoric acid, removing said solution from contact with said surface, incorporating at least 5 p. p. m. of orthophosphoric acid with the concentrated solution of hydrogen peroxide to be stored, and bringing said last solution into contact with the so treated metal surface.

2,782,101
MANUFACTURE OF CARBON BLACK
George L. Heller, Monroe, La., assignor to Columbian Carbon Company, New York, N. Y., a corporation of Delaware
Application August 22, 1951, Serial No. 243,020
5 Claims. (Cl. 23—209.4)



1. In the process for producing furnace blacks by decomposing hydrocarbons by which a combustible mixture of a fluid hydrocarbon fuel and an oxygen-containing gas is blasted into one end of an elongated, cylindrical reaction chamber in a direction substantially tangential to the chamber walls and burned therein to form a turbulent swirling body of oxidizing blast flame gases passing longitudinally through the chamber at a temperature in excess of that at which hydrocarbons are decomposed to form carbon black, and the hydrocarbon make to be decomposed is separately injected into the swirling gases at a point downstream from the entry of said gases to the chamber, the steps of injecting into the hot gas stream a normally liquid hydrocarbon make containing a substantial proportion of aromatic constituents and neutralizing the oxidizing capacity of the blast flame gases passing through the chamber by separately injecting into, and rapidly uniformly mixing with, said gas stream, prior to the mixing of the hydrocarbon make therewith, a normally gaseous reducing agent substantially free of aromatics.

2,782,102
GAS ANALYZER
Wilfred H. Howe, Sharon, Mass., assignor to The Foxboro Company, Foxboro, Mass., a corporation of Massachusetts
Application August 31, 1954, Serial No. 453,230
9 Claims. (Cl. 23—255)

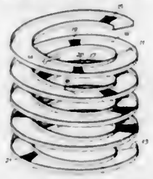


1. In an electrical bridge gas combustibility measuring system, in combination, a direct current excited electrical bridge, a reference resistance in one arm of said bridge, a measuring resistance in another arm of said bridge, means for associating gas with said measuring resistance for combustion by heat from said measuring resistance, a first alternating current supply means essentially exclusively operatively associated with said reference resistance arm for producing a predetermined set value of alternating current in said reference resistance, a second alternating current supply means essentially exclusively operatively associated with said measuring resistance arm for producing and varying a gas combustion temperature in said measuring resistance, means operatively connecting the output of said direct current bridge to said second alternating current supply means, whereby a predetermined resistance value relation is maintained between said measuring resistance and said reference resistance, and means for making the direct current function in said bridge compatible with respect to said alternating current components.

2,782,103
ANALYZER FOR GASEOUS MIXTURES
Spencer S. Prentiss, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application October 12, 1951, Serial No. 251,115
1 Claim. (Cl. 23—255)

Apparatus for indicating the presence of a combustible gaseous mixture comprising a metallic casing having an electrode positioned within and electrically insulated from the casing, a tip of electrically conductive refractory material positioned between and electrically connecting said casing and said electrode, a catalytically active agent positioned on said tip, said agent being capable of initiating combustion of a gaseous mixture to be analyzed, alternating current amplifying means having the input terminals thereof connected to said electrode and said casing, respectively, and means to indicate the output signal of said amplifying means which is representative of electrical voltage fluctuations that are generated by combustion of the mixture to be analyzed taking place in the region of said tip.

2,782,104
APPARATUS FOR THE CONTINUOUS LIXIVATION, EXTRACTION OR THE LIKE OF VEGETABLE MATTER
Carl Glinka, Krefeld-Uerdingen, Germany, assignor to Buttner-Werke Aktiengesellschaft, Krefeld-Uerdingen, Germany, a German corporate body
Application May 7, 1954, Serial No. 428,341
Claims priority, application Germany May 11, 1953
5 Claims. (Cl. 23—270)



1. Apparatus for treating a material with a liquid comprising a continuously upwardly inclined channel having such shape that one portion of the length thereof overlies another portion of the length thereof, conveyor means for causing the material to travel continuously upwardly in the channel, means supplying the liquid to the upper part of the channel in order that it may flow downwardly in the channel through the material therein, and an opening in said one channel portion directly above said other channel portion for delivering liquid straight downwardly by gravity without confinement from said one channel portion to said other channel portion.

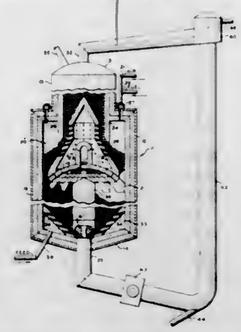
2,782,105
FURNACE FOR ACTIVATING COKE
Daniel S. Maisel, Union, and William M. Goryl, Morristown, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application December 2, 1952, Serial No. 323,666
1 Claim. (Cl. 23—277)

An apparatus of the character described including in combination, a rectangular furnace oblong in horizontal cross section, a plurality of spaced vertically arranged metal heating tubes in said furnace and parallel to and spaced from the long vertical side walls of said furnace, said heating tubes being arranged in two rows in staggered relation to receive radiant heat on both sides of said tubes, sets of burners opening into said furnace and extending through said long side walls of said furnace, each set of burners being arranged in a horizontal row with each row being spaced vertically one above the other for supplying radiant heat directly to opposite sides of each of said metal heating tubes, means for controlling said burners for supplying different amounts of heat to selected portions of said metal heating tubes, an elongated feed hopper communicating with the upper ends of said metal heating tubes for supplying solids to be treated to said metal tubes and for downward passage therethrough, rake means in said feed hopper for insuring equal distribution of solids to said metal heating tubes, means

including a pipe for introducing activating gas into the upper portion of said metal heating tubes for passage down through said tubes at a greater velocity than that of the downwardly moving solids, vertically arranged cooling tubes forming extensions at the lower ends of said metal heating tubes and extending below said furnace, an indirect heat exchanger for said cooling tubes, a discharge chamber for receiving treated solids from said cooling tubes, grid means in said discharge chamber communicating with the lower outlet ends of said cooling tubes and for maintaining a column of solids in each of said tubes, said grid means including a stationary upper grid and a spaced lower oscillatable grid for controlling the removal of treated and cooled solids from said cooling tubes, a pipe for introducing inert blanketing gas into said discharge chamber, said discharge chamber being provided with a gas disengaging space and means for removing gas from said disengaging space.

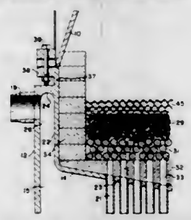
2,782,106
PEBBLE HEAT EXCHANGER CHAMBER
Louis C. Bearer and Robert L. McIntire, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware
Application December 26, 1951, Serial No. 263,248
4 Claims. (Cl. 23—284)

1. An improved pebble heat exchanger comprising in combination a single closed, upright, elongated shell; pebble inlet means in the upper end of said shell; gaseous effluent outlet means in the upper end of said shell; gaseous material inlet means in the lower end portion of said shell; pebble outlet means in the lower end of said shell; a pebble elevator connected at its lower end to said pebble outlet means and at its upper end to said pebble inlet means; a refractory generally annular wall extending downwardly from a restricted central portion of said shell so as to form a combustion chamber between said wall and said shell, said combustion chamber being closed in its upper portion and open in its lower portion; an imperforate load supporting dome transversely disposed within said shell intermediate said combustion chamber and the lower end of said shell, supported at its periphery by said shell and forming a reaction chamber between said dome and the lower end of said shell; a perforate dome, perforate in a section opposite the lower end of said refractory wall and also in a section substantially above the lower end of said refractory wall, extending upwardly and inwardly from said shell and said imperforate dome at a steeper slope than said imperforate



dome to a level above the level of said combustion chamber so as to form an annulus between said perforate dome and said refractory wall, said perforate dome being spaced from the lower end of said refractory wall so as to form pebble conduit means therebetween; pebble conduit means disposed at the periphery of said domes leading from the bottom of said combustion chamber into said reaction chamber; and a gaseous effluent conduit extending upwardly through said imperforate dome into the chamber formed between said domes and through said perforate dome and said shell to the exterior of said shell.

2,782,107
REACTOR FOR MAKING HYDROGEN CYANIDE
Byron N. Inman, Tonawanda Township, Erie County, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application January 14, 1953, Serial No. 331,207
6 Claims. (Cl. 23—288)

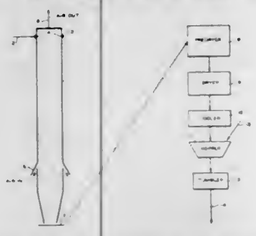


1. A reactor for making hydrogen cyanide by the reaction between ammonia, oxygen and hydrocarbon comprising a cylindrical heat exchanger with a bottom gas collecting chamber and a coolant chamber separated from the gas collecting chamber by means of a partition, a gas mixing chamber joined to the top of the heat exchanger, a reentrant pocket in the top of said heat exchanger opening onto the gas mixing chamber, a plurality of tubes opening into the collecting chamber, supported by the partition and passing through the coolant chamber to connect with the reentrant pocket, a platinum metals porous catalyst bed in said pocket, said catalyst bed being exposed to said gas mixing chamber, a conduit for admitting gases to the gas mixing chamber and means for withdrawing cooled effluent gases from the gas collecting chamber.

2,782,108
PRODUCTION OF CRYSTALLINE AMMONIUM NITRATE

Herbert R. Antle, Dumas, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware

Application September 18, 1953, Serial No. 380,979
8 Claims. (Cl. 23—302)

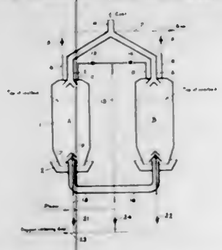


4. A process for the production of ammonium nitrate prills which comprises spraying molten ammonium nitrate solution at a concentration of at least 94 percent and at a temperature at which said ammonium nitrate flows freely into the upper portion of a prilling zone thereby breaking ammonium nitrate up into droplets, gravitating said droplets to the bottom of said prilling zone, admitting air into the lower portion of said prilling zone, and sending said air upward and countercurrent to the gravitating droplets, regulating the flow and temperature of said air so that it will cool the gravitating droplets to a temperature above the monoclinic critical temperature of said ammonium nitrate solution but below the solidification temperature during the gravitating period thereby forming prills, removing said prills while still containing moisture in the range of 2 to 3 weight percent from said prilling zone at a temperature substantially the same as the said second temperature, and drying and cooling said prills.

2,782,109
METHOD OF GASIFYING SOLID FUEL

Irving Roberts, Meadowbrook, Pa.

Original application August 29, 1951, Serial No. 244,172. Divided and this application March 8, 1955, Serial No. 492,917
3 Claims. (Cl. 48—206)



1. The continuous method of efficiently gasifying solid fuel comprising directing steam down through a hot first bed of said fuel to preheat the steam, conducting the preheated steam from the bottom of said bed to the bottom of a second bed of said fuel while directing oxygen-containing gas up through the second bed to sustain combustion therein in order to generate product gas, conducting the product gas away from the top of the second bed until the temperature of the top of that bed has been raised a predetermined amount by heat from the product gas, then stopping the withdrawal of product gas from the top and the delivery of steam and oxygen-containing gas to the bottom of the second bed, directing steam down through the hot second bed to preheat the steam, conducting the preheated steam from the bottom of the second bed to the bottom of the first bed while directing oxygen-containing gas up through the first bed to sustain combustion therein in order to generate product gas, conducting the product gas away from the top of the first bed until the temperature of the top of that bed has been raised a predetermined amount by heat from the product gas, and continuing to reverse the cycle periodically, whereby steam is preheated in each bed alternately by heat absorbed by the bed from the product gas that has just left it.

2,782,110
METAL-CERAMIC BONDED GRANULAR MATERIAL

John Cantrell, Edwin Percy Degg, and Frederick Laurence Nobes, Manchester, England, assignors, by mesne assignments, to The Carborundum Company, Niagara Falls, N. Y., a corporation of Delaware

No Drawing. Application November 20, 1952, Serial No. 321,714
Claims priority, application Great Britain November 20, 1951
7 Claims. (Cl. 51—308)

1. An article of manufacture comprising 5% to 95% by weight of a non-metallic inorganic granular material held together in 95% to 5% by weight of a bonding matrix, said bonding matrix comprising a vitreous ceramic material selected from the group consisting of borosilicate glass and lead bisilicate glass and a metallic material selected from the group consisting of copper, copper-tin alloy, aluminum and iron, said vitreous ceramic material and metallic material being so proportioned that both the ceramic material and the metal are in substantially continuous phase.

2,782,111
PLANT GROWTH REGULATING COMPOSITIONS

Herman S. Bloch, Chicago, and Alfred E. Hoffman, Clarendon Hills, Ill., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application October 27, 1952, Serial No. 317,164
2 Claims. (Cl. 71—2.6)

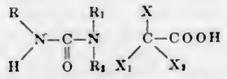
1. A plant growth regulating composition consisting essentially of an alkylbenzene hydrocarbon, said alkylbenzene hydrocarbon containing from 9 to 13 carbon atoms per molecule, and a compound selected from the group consisting of halogenated aryloxy monocarboxylic aliphatic acids, their salts, esters, amides, thioamides, and nitriles.

2,782,112
HERBICIDE

Everett E. Gilbert, Flushing, Julian A. Otto, Long Island City, and Silvio A. Pellerano, Brooklyn, N. Y., assignors to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York

No Drawing. Application January 4, 1954, Serial No. 402,136
31 Claims. (Cl. 71—2.6)

1. A compound suitable for use as a herbicide having the general formula

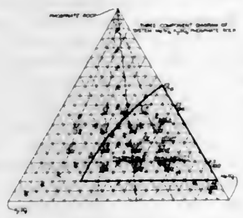


wherein R represents a cyclic group selected from the class consisting of the phenyl, alkyl-phenyl, aralkyl-phenyl, diphenyl, naphthyl, cyclohexyl and alkyl-cyclohexyl radicals, and their halogen substitution products; R_1 represents a group selected from the class consisting of hydrogen and an aliphatic hydrocarbon radical having no more than six carbon atoms; R_2 represents an aliphatic hydrocarbon radical having no more than six carbon atoms; X represents a halogen; and X_1 and X_2 represent a member of the group selected from the class consisting of hydrogen and halogen.

2,782,113
FERTILIZER COMPOSITIONS AND METHOD OF PREPARATION THEREOF

Grover L. Bridger and David R. Boylan, Ames, Iowa, assignors to Iowa State College Research Foundation, Inc., Ames, Iowa, a corporation of Iowa

Application March 8, 1952, Serial No. 275,578
2 Claims. (Cl. 71—47)



1. The method of producing a fertilizer composition from phosphate rock characterized by high phosphorus availability, comprising mixing phosphate rock with metallic sulphates selected from the group consisting of magnesium sulphate and a mixture of magnesium sulphate and potassium sulphate, controlling the relative proportions of phosphate rock to said metallic sulphates in the mixture so that said proportions are defined by a point falling within the labeled area of high phosphorus availability in the three component diagram of Figure 2, said area including the points falling on the solid boundary line therearound, heating said mixture to a temperature at which it can be completely melted, continuing said heating at said melting temperature until said mixture is converted to a fused, molten mass, then quenching said fused, molten mass to produce a fertilizer product characterized by high phosphorus availability.

2,782,114
MELTING OF HIGH MELTING POINT METALS OR ALLOYS

Jack Preston, Birmingham, England, assignor to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

No Drawing. Application December 14, 1954, Serial No. 475,277
Claims priority, application Great Britain December 18, 1953
10 Claims. (Cl. 75—10)

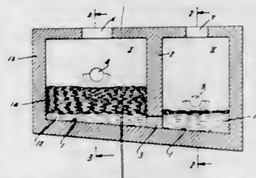
1. Method of manufacture of a consumable electrode for use in the arc melting of high melting point reactive metals and alloys which comprises introducing a particulate raw material selected from the group consisting of said high melting point reactive metals and alloys into the melting chamber of an arc melting furnace, fusing the central portion of said particulate raw material and sintering the remainder of said raw material, said fusing and sintering occurring simultaneously from the heat of an electrode arc.

2,782,115
PROCESS OF PRODUCING PIG IRON AND STEEL

Anton Wimmer, Hohenlimburg, Westphalia, Germany

Application August 24, 1953, Serial No. 376,163
8 Claims. (Cl. 75—40)

1. In the production of pig iron and steel, the steps of charging a furnace with an iron-containing material and with a composition essentially consisting of 20% of iron and titanium and the remainder of aluminum and silicon in an amount of 10–70% aluminum and 70–10% silicon and burning in the furnace said composition, thereby



melting and reducing said iron-containing material and forming a reduced molten iron.

2,782,116
METHOD OF PREPARING METALS FROM THEIR HALIDES

Frank H. Spedding and Harley A. Wilhelm, Ames, Iowa, and Wayne H. Keller, St. Louis, Mo., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application September 6, 1946, Serial No. 695,299
1 Claim. (Cl. 75—84.1)

A method of preparing metallic thorium in compact form, consisting of mixing thorium fluoride, zinc chloride, and a reducing agent selected from the group consisting of alkali metals and alkaline earth metals; heating at least a portion of the mixture obtained to about from 400° to 600° C. to initiate reduction of thorium fluoride and said zinc chloride; completing said reduction reactions while maintaining the reaction mixture under superatmospheric pressure, whereby a coherent metallic phase and a separate slag phase form: separating said two phases; and heating the metal obtained to about from 1900° to 2050° C. in vacuo whereby zinc is distilled from the thorium.

2,782,117
METHOD OF RECLAIMING URANIUM

Harley A. Wilhelm, Ames, Iowa, and C F. Gray, Baton Rouge, La., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application June 5, 1946, Serial No. 674,648
4 Claims. (Cl. 75—84.1)

1. In a process for the reclamation of uranium metal from compositions comprising uranium metal particles partially coated with an oxide scale surface, the steps which comprise contacting the uranium particles with an oxide scale-removing solution, removing said solution therefrom, intimately admixing magnesium metal with the uranium particles to form a mixture thereof, compressing said mixture into briquettes, smelting said compositions and the magnesium metal within a temperature from about 1250° C. to about 1400° C., and then casting the uranium metal within a temperature range from about 1280° C. to about 1300° C.

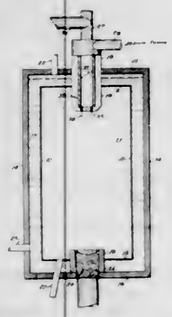
2,782,118
PRODUCTION OF REFRACTORY METALS

Ralph S. Hood, Marblehead, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

Application February 19, 1952, Serial No. 272,379
6 Claims. (Cl. 75—84.5)

1. In a process for producing a group IVa metal selected from the group consisting of titanium and zirconium wherein a directed moving vapor stream of a halide of said group IVa metal is mixed with a directed moving vapor stream of a reducing metal selected from the group consisting of sodium and magnesium, the step of inter-

posing a liquid film of one of the foregoing reactants between said moving streams at a point at which said



streams would otherwise contact each other, thereby delaying reaction between said vapors until they have moved past said point.

2,782,119
PROCESS OF PRODUCING SILVERY IRON
Edwin A. Jones, Jackson, Ohio, assignor, by mesne assignments, to Interlake Iron Corporation, Cleveland, Ohio, a corporation of New York
No Drawing. Application May 21, 1953, Serial No. 356,590
2 Claims. (Cl. 75—129)

1. A process of producing silvery iron which comprises the steps of producing in a blast furnace pig iron containing silicon above foundry pig iron silicon content and within the range of approximately 4% to 17% silicon, said blast furnace pig iron having a silicon percentage less than that to be obtained in the final silvery iron product, producing in an electric furnace ferro-silicon having a silicon percentage higher than that to be obtained in the final silvery iron product and up to approximately 55% silicon, and combining the products of the respective furnaces in a mixing hearth outside of the furnaces in proportions to produce a silvery iron final product containing within the range of approximately 6% to 20% silicon, the said blast furnace silicon-containing pig iron having a tapping temperature between approximately 2500° F. and 2900° F. and the said electric furnace ferro-silicon having a tapping temperature between approximately 2800° F. and 3200° F.

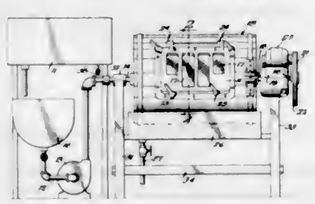
2,782,120
COMBINED DEVELOPER AND FIXER
Jerome Stewart Goldhammer, Levittown, and John Andrew Maurer, Jr., New York, N. Y.
No Drawing. Application February 15, 1954, Serial No. 410,426
14 Claims. (Cl. 96—61)

1. In a chemical composition of increased activity and having in aqueous solution a pH value not in excess of 9.5 and adapted for combined developing and fixing of silver halide photographic emulsions, the combination of a developing agent selected from the group consisting of 2,4 - diaminophenol (amidol), 2,4 - diaminoresorcinol, 6-methyl-2,4-diaminophenol, 5-methyl - 2,4-diaminophenol, 4-amino - 6 - methyl - 2 - methylamino-phenol, 6-amino-4-methyl-2-methylamino-phenol, 5-dimethylamino-2-methylamino-phenol, 1,2,4-triaminobenzene, 5-methyl - 1,2,4-triaminobenzene, 4-hydroxy : 2',4' - diaminodiphenylamine, 4:2',4' - triaminodiphenylamine, and 1,3-diamino - 4,6-dihydroxybenzene; a dihydroxybenzene selected from the group consisting of pyrocatechol, resorcinol and hydroquinone; the ratio of the dihydroxybenzene to the developing agent being in the range from 7.5% to 200% by weight, an alkali, and a fixing agent selected from the group consisting of thiosulfates and cyanides.

2,782,121
COMBINED DEVELOPER AND FIXER
Jerome Stewart Goldhammer, Levittown, N. Y.
No Drawing. Application February 15, 1954, Serial No. 410,427
14 Claims. (Cl. 96—61)

1. In a chemical composition of increased activity and having in aqueous solution a pH value not in excess of 9.5 and adapted for combined developing and fixing of silver halide photographic emulsions, containing a developing agent selected from the group consisting of 2,4 diaminophenol, 2,4 diaminoresorcinol, 6-methyl 2,4, diamino-phenol, 5-methyl 2,4 diaminophenol, 4-amino-6 - methyl - 2 - methyl - amino - phenol, 6 - amino - 4-methyl-2-methylamino-phenol, 5 dimethylamino-2-methylamino-phenol, 1,2,4, triamino-benzene, 5-methyl 1,2,4 triamino benzene, 4 hydroxy : 2'4' diaminodiphenylamine, 4 : 2'4' triaminodiphenylamine, and 1,3 diamino 4,6 dihydroxybenzene; and a dihydroxybenzene selected from the group consisting of pyrocatechol, resorcinol and hydroquinone; the ratio of the dihydroxybenzene to the developing agent being in the range from 7.5% to 200% by weight, the combination of an alkali metal hydroxide and ammonium thiosulfate.

2,782,122
CHEESE MANUFACTURE
Donald M. Greer, Hinsdale, and John L. Zink, Chicago, Ill., assignors to Armour and Company, Chicago, Ill., a corporation of Illinois
Application May 19, 1951, Serial No. 227,174
1 Claim. (Cl. 99—116)



In a process for the preparation of cheese wherein a body comprising curd particles in whey is obtained, the steps of pumping curd particles in whey from said body to a whey-separating zone, discharging the pumped curd particles in whey into said separating zone onto a support adapted to retain the curd particles while permitting whey to pass therethrough, and progressively building up a bed of curd particles on said support while draining whey through said bed, whereby a body of drained curd particles is obtained for forming into cheese.

2,782,123
SWEETENING AGENT AND METHOD OF PREPARING THE SAME
Martin Rubin, Silver Spring, Md.
No Drawing. Application June 4, 1954, Serial No. 434,675
12 Claims. (Cl. 99—141)

1. The process of treating plant juices derived from Jerusalem artichoke tubers to obtain a sweetening agent therefrom which comprises treating the juices with an acid at an elevated temperature until the conversion is from 25% to 85% complete.

2,782,124
BRIGHT-DRYING POLISH EMULSIONS
Guido von Rosenberg and Wilhelm Sauer, Gersthofen, Germany, assignors to Farbwerke Hoechst A. G., vormals Meister Lucius & Bruning, Frankfurt am Main Hochst, Germany, a company of Germany
No Drawing. Application April 27, 1953, Serial No. 351,467
Claims priority, application Germany April 29, 1952
9 Claims. (Cl. 106—10)

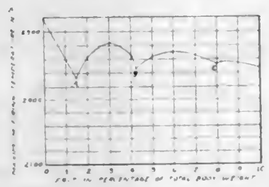
1. A solvent-free, self-polishing, aqueous emulsion consisting essentially of an ester wax which is the reaction product of oxidized montan wax and a polyhydric aliphatic alcohol containing at most six carbon atoms, said ester wax having a saponification number of at least 100, a nonionic emulsifier, and a compound selected from the group consisting of high molecular, paraffinic waxes and their air-oxidation products, said compound having a melting point of at least 65° C.

2,782,125
CERAMIC BODIES
Charles E. Butler, Huntington, W. Va., assignor to McGraw Electric Company, Milwaukee, Wis., a corporation of Delaware
No Drawing. Application April 29, 1953, Serial No. 352,045
8 Claims. (Cl. 106—46)

1. A ceramic material consisting essentially of the reaction product of a mixture of from about 32% to about 45% clay, about 10% to about 25% silica, about 45% to about 54% feldspar, and from about 40% to about 20% by weight of a glass frit comprising as essential ingredients:

	Approximate percentage of total weight of frit
Barium oxide	33
Sodium oxide	9
Boric oxide	18
Zinc oxide	13
Silicon dioxide	25

2,782,126
CERAMIC BODIES
Charles E. Butler, Huntington, W. Va., and Robert Nichols Hazelwood, Milwaukee, Wis., assignors to McGraw Electric Company, Milwaukee, Wis., a corporation of Delaware
Application April 30, 1953, Serial No. 352,104
2 Claims. (Cl. 106—46)



1. An insulator body composition consisting essentially of a porcelain base of about 32% clay, about 48% feldspar and about 20% silica by weight of said base, and from about 1¾% to about 4% by weight of the total body composition of a glass frit consisting essentially of the following ingredients in the approximate indicated percentages by weight of total frit:

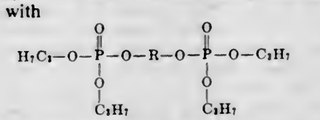
BaO	33
SiO_2	25
B_2O_3	18
ZnO	13
Na_2O	9

2,782,127
PLASTICIZED CELLULOSE COMPOUND AND A SHEET MADE THEREFROM
Eric Eaton Walker, Wilfred Rogerson Foggon, Ronald Stanley Locke, and Michael Pearman Shaw, Spondon, near Derby, England, assignors to British Celanese Limited, a corporation of Great Britain
No Drawing. Application February 13, 1953, Serial No. 336,878
Claims priority, application Great Britain February 22, 1952
14 Claims. (Cl. 106—177)

1. A composition of matter comprising a cellulose derivative selected from the group consisting of ethyl cellulose, benzyl cellulose and cellulose esters of alkanoic acids containing up to 4 carbon atoms, a plasticiser therefore containing halogen selected from the group consisting of chlorine and bromine, a colouring matter of which the rate of fading by light is normally accelerated by the presence of the plasticiser, and, to reduce this deleterious effect of the latter, a small proportion of an alkali metal salt of an acid selected from the group consisting of benzene carboxylic acids and their homologues, hydroxy derivatives and alkoxy derivatives.

2,782,128
PLASTICIZED CELLULOSE ACETATE
Walter D. Paist, Berkley Heights, and Frank Berardinelli, South Orange, N. J., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
No Drawing. Application April 16, 1952, Serial No. 282,701
3 Claims. (Cl. 106—177)

1. A composition of matter comprising cellulose acetate plasticized with



in which R is selected from the group consisting of alkylene and alkyleneoxyalkylene radicals having 4 to 8 carbon atoms.

2,782,129
FIRE RETARDANT COATED ROOFING SHEET AND PROCESS FOR PREPARING
Joseph W. Donegan, Leonia, N. J., assignor to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York
Application December 20, 1955, Serial No. 563,402
8 Claims. (Cl. 117—30)

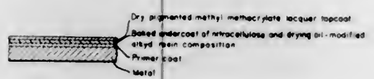
1. A fire retardant asphalt roof covering comprising an asphalt-saturated felt base having applied thereto a composite coating comprising a layer of unexpanded vermiculite positioned between two layers of a composition comprising an asphalt and between about 5% and

about 20% of asbestos fibres of a type classifiable as a group 7 grade asbestos, said composition having a softening point by ASTM test method D–36–26 between about 250° F. and about 285° F.

2,782,130
NON-WOVEN FABRIC
Irving S. Ness, Princeton, and Ronald V. Lints, Rahway, N. J., and De Witt R. Petterson, West Springfield, Mass., assignors to Chicopee Manufacturing Corporation, a corporation of Massachusetts
Application May 7, 1952, Serial No. 286,481
12 Claims. (Cl. 117—38)

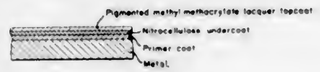
1. A web of carded fibers substantially all of whose fibers lying in parallelism are bonded together by a binder infused locally into the body of the web to form a binder pattern occupying from about 5 to about 35% of the total lateral surface of the web, said binder pattern comprising a series of parallel, uniformly spaced, broken lines of binder, each line in the series comprising substantially symmetrical areas of binder uniformly separated by spaces that are substantially free of binder, said parallel broken lines being inclined obliquely with respect to the direction of fiber alignment in the web; a second series of parallel, uniformly spaced broken lines of binder, each line in the second series likewise comprising substantially symmetrical areas of binder uniformly separated by spaces that are substantially free of binder, said second series of lines also being inclined obliquely with respect to direction of fiber alignment, but in the opposite sense or direction; said first series of parallel broken lines being so disposed with respect to said second series of parallel broken lines that the areas of one series lie in the intersegmental spaces of the other series and so that every straight line parallel to the direction of fiber alignment intersects at least two such areas within a distance in the direction of fiber orientation equal to the average length of the fibers composing the web whereby a band of fibers having a width of from about 0.02 to about 0.05 inch connects such areas.

2,782,131
METHYL METHACRYLATE LACQUER COATED METAL ARTICLE AND PROCESS THEREFOR
William T. M. Johnson, Philadelphia, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application June 4, 1954, Serial No. 434,663
13 Claims. (Cl. 117—74)



1. A metal article having a hard, adherent, crack-resistant, multiple-layer coating comprising a layer of a coating composition and a superposed layer of pigmented methyl methacrylate lacquer in adherent contact therewith, said first-mentioned layer being a baked layer of a liquid coating composition comprising pigment, solvent, and organic film-forming material, the latter comprising 10–25% of lacquer-grade nitrocellulose, 0–7% of aminoaldehyde resin, 0–12% of plasticizer, and 60–90% of alkyd resin, said alkyd resin being modified with 35–70%, by weight of the finished resin, of a member of the group consisting of glyceride oils having drying properties and fatty acids derivable therefrom, and the methyl methacrylate component of said pigmented methyl methacrylate lacquer having a relative viscosity between 1.117 and 1.196.

2,782,132
METHYL METHACRYLATE LACQUER COATED METAL ARTICLE AND PROCESS THEREFOR
William T. M. Johnson, Philadelphia, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application June 4, 1954, Serial No. 434,664
2 Claims. (Cl. 117—74)



1. A metal article having a hard, adherent, multiple-layer coating consisting of a layer of pigmented primer in adherent contact with said metal, a layer of undercoat in adherent contact with said primer, and a topcoat layer of pigmented methyl methacrylate lacquer in adherent contact with said undercoat, said undercoat consisting of lacquer-grade nitrocellulose and 5–30% of pigment based on the total weight of the nitrocellulose, and the methyl methacrylate component of said pigmented methyl methacrylate lacquer having a relative viscosity between 1.117 and 1.196.

2,782,133
PROCESS OF IMPREGNATING CELLULOSIC MATERIAL HALOGENO-NITRIDES OF PHOSPHORUS
Pierre Henri Paul Vallette, La Contamine, Lancey, France, assignor to Compagnie Française des Matieres Colorantes, Paris, France, a French company
No Drawing. Application April 20, 1954, Serial No. 424,499
Claims priority, application France April 29, 1953
3 Claims. (Cl. 117—138)

1. A process for the treatment of a fibrous cellulosic material which comprises impregnating the material with an aqueous solution consisting essentially of the water soluble products of the reaction of anhydrous ammonia on a halogenonitride of phosphorus, and thereafter subjecting the material to a temperature between 100° C. to 170° C.

2,782,134
IMPREGNATED DIELECTRIC MATERIAL
William J. Musgrave, Winnetka, Ill., assignor to John E. Fast & Co., an Illinois corporation
No Drawing. Application June 30, 1953, Serial No. 365,231
4 Claims. (Cl. 117—154)

1. A dielectric material adapted to be subjected to an electric field comprising paper impregnated with a dielectric compound including a polyisobutylene that is liquid at ordinary room temperature and a small proportion of a compound of the class consisting of phenyl beta-naphthylamine and paraphenylenediamine to inhibit destructive chemical reaction between said paper and said polyisobutylene when subjected to said field.

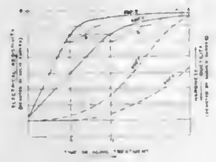
2,782,135
METHOD FOR PRODUCING ARTICLES HAVING HIGH CREEP RESISTANCE
Bruce Frederick Richardson, Ottawa, Ontario, Canada, assignor to Cobalt Chemicals, Limited, Cobalt, Ontario, Canada, a corporation of Canada
No Drawing. Application December 8, 1953, Serial No. 397,050
6 Claims. (Cl. 148—11.5)

1. The method for producing articles having high strength at high temperatures and high creep resistance which comprises forming a forgeable alloy consisting essentially of primary non-ferrous metals and about 1 to 4 percent by weight of a secondary non-ferrous metal together with about 0.25 to 0.75 percent silicon and about 0.50 to 1.00 percent manganese by weight, said secondary metal having a substantially greater affinity for a selected non-metallic element than does any one of said primary metals, said primary metals comprising about 35 to 55 percent cobalt, about 5 to 15 percent nickel, about 17 to 27 percent chromium and about 12 to 18 percent tungsten each by weight based upon the weight of the alloy, shaping the alloy to a desired shape, and subsequently treating the alloy to introduce the selected non-metallic element and form hard compounds of said secondary metal with said non-metallic element dispersed in a matrix comprising essentially said primary metals thereby imparting high creep resistance to the alloy, said non-metallic element being selected from the group consisting of carbon and nitrogen.

2,782,136
PROCESS FOR THE PRODUCTION OF A HARD METAL OF INCREASED TOUGHNESS
Victor Berg, Kapfenberg, Austria
No Drawing. Application December 21, 1951, Serial No. 262,883
Claims priority, application Austria December 27, 1950
2 Claims. (Cl. 148—13)

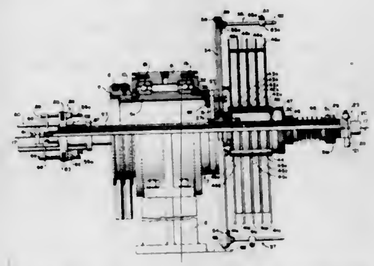
1. The process of toughening the binding matrix of a hard metal carbide selected from the group consisting of titanium, columbium, tantalum and tungsten, sintered in a matrix of cobalt metal as a mixture of fine particles having an average grain size of 0.5 to 2 microns and coarse particles having an average particle size of 2 to 5 microns, the ratio of fine to coarse particles being in the range of 1:3 to 3:1, comprising heating the sintered product at a temperature in the range of 800 to 900° C. for a period of two to ten hours to allow dissolved hard carbide to precipitate.

2,782,137
HEAT TREATMENT OF RESISTOR ALLOYS
John H. Jackson, Columbus, Ohio, assignor, by mesne assignments, to The C. O. Jelliff Manufacturing Corporation, Southport, Conn., a corporation of Connecticut
Application November 19, 1952, Serial No. 321,389
4 Claims. (Cl. 148—21.9)



1. The method of increasing the electrical resistivity of an age-hardenable alloy composed predominantly of nickel, chromium, and manganese and containing those components in amounts of from about 44% to 70% nickel, about 8% to 28% chromium, and about 15% to 36% manganese, without deleteriously decreasing the ductility thereof which comprises subjecting the alloy to a solution annealing treatment by heating it to a temperature in the range from 1500° F. to 2100° F., then subjecting the annealed alloy to an aging treatment by heating it at a temperature in the range from 600° F. to 1200° F. for a period of time between one-quarter hour and one hundred hours, and terminating said aging treatment at a point in that region of the curve of resistivity versus aging time of the alloy being treated at the aging temperature being used where such curve first begins to flatten out, whereby the electrical resistivity of the alloy is increased to a value near the maximum obtainable without deleteriously decreasing the ductility of the alloy.

2,782,138
WIRE TAPING MACHINE
John W. Olson, Hastings on Hudson, and Samson Sortland, Dobbs Ferry, N. Y., assignors to Anaconda Wire and Cable Company, a corporation of Delaware
Application May 22, 1953, Serial No. 356,852
7 Claims. (Cl. 154—2.27)



1. A wire taping device adapted to superimpose a plurality of helical layers of paper tape upon a wire comprising a sleeve member, an immobile tubular member mounted coaxially within said sleeve member, said tubular member providing a path for wire to be taped, said sleeve member being rotatable about said immobile tubular member, an aligning die having a central opening adapted to have a wire pass therethrough mounted on said immobile tubular member at one end thereof, a taping head fixedly mounted on said sleeve member at the same end as said die, said taping head including at least one pair of guiding fingers affixed about the periphery of said sleeve member adjacent said die, each said pair of guiding fingers comprising one finger extending substantially perpendicular to the path of said wire and one finger extending substantially parallel to said path, whereby a tape which passes from a position parallel to the wire first over said perpendicular finger and thence over said parallel finger is guided thereby helically on to the wire as it emerges through said central opening in said die, a tape dispenser fixedly mounted on said sleeve member, means for guiding tape from said tape dispenser to said taping head, means for pulling the wire through said immobile tubular member and said die, and means for rotating said sleeve member.

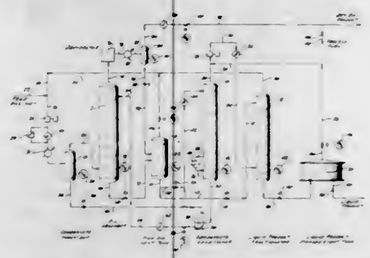
2,782,139
REINFORCED RUBBER ARTICLES
Rutherford B. Hill, St. Albans, and Harry W. Kilbourne, South Charleston, W. Va., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application June 16, 1954, Serial No. 437,306
12 Claims. (Cl. 154—52)

9. Vulcanized fiber reinforced rubber articles, said fiber being adhered to the vulcanized rubber by means of 2-mercapto-4-methyl-5-thiazole carboxylic acid.

2,782,140
METHOD OF THERMALLY SEALING RUBBER HYDROCHLORIDE FILMS
Paul J. Vaughan, Cuyahoga Falls, Ohio, assignor, by mesne assignments, to The Goodyear Tire & Rubber Company, a corporation of Ohio
Application September 4, 1953, Serial No. 378,476
4 Claims. (Cl. 154—124)

1. The method of sealing adjacent plies of plastic rubber hydrochloride film together, which method comprises stretching the film until it breaks with the adjacent layers of the film contacting one another at and during the break, and thereby fusing the edges of said layers together at the break.

2,782,141
ABSORPTION PROCESS
Robert A. King, San Gabriel, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California
Application February 9, 1953, Serial No. 335,714
12 Claims. (Cl. 196—8)



1. A process for the separation of wet hydrocarbon gas mixtures containing normally liquid and liquefiable constituents which comprises compressing a wet hydrocarbon feed gas to a relatively high pressure, cooling the compressed feed gas to effect condensation of the higher boiling hydrocarbons, separating this feed gas condensate from the compressed feed gas, flashing said feed gas condensate into a condensate conditioning zone at a pressure maintained between about —1 p. s. i. g. and about —14 p. s. i. g. to produce a lean condensate and flashed vapors, countercurrently contacting said lean condensate and said compressed feed gas in an absorption zone at a pressure between about 50 p. s. i. g. and about 2500 p. s. i. g. to form a rich condensate and a lean gas saturated with vapors of said lean condensate, refrigerating said lean gas to a subatmospheric temperature without substantial change in pressure forming a recovered lean condensate fraction and a lean condensate-free dry gas product, simultaneously flashing said rich condensate and said recovered lean condensate fraction into a vent zone at a pressure maintained between about 25 p. s. i. g. and about 250 p. s. i. g. to form a flashed rich condensate and a first vapor recycle, compressing said flash vapor countercurrently contacting the compressed flashed vapor with said flashed rich condensate in a liquid product fractionation zone at a pressure between about 0 p. s. i. g. and about 100 p. s. i. g. to produce a liquid hydrocarbon product and a second vapor recycle, combining said first and second vapor recycle streams with said wet hydrocarbon feed gas, passing said liquid product into a product storage zone at a pressure maintained between about 0 p. s. i. g. and about 70 p. s. i. g., combining evolved vapor from said storage zone with said flashed vapor, and removing a liquid hydrocarbon product from said storage zone.

2,782,142
RECOVERY OF VALUABLE DEWAXING AIDS FROM WAXES
Albert N. De Vault, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Application November 18, 1952, Serial No. 321,287
11 Claims. (Cl. 196—17)

1. A process for the recovery of a wax crystallization aid selected from the group consisting of a condensation product of a chlorinated paraffin wax and naphthalene, a product of condensation of paraffin wax and an aromatic hydrocarbon, and a polymerization product of an ester of methacrylic acid and a fatty alcohol, present in a wax separated from a wax-bearing hydrocarbon oil by solvent dewaxing employing said wax crystallization aid, comprising passing said wax through a fixed bed of a solid adsorbent at a temperature of at least 10° F. above the melting point of said wax in an amount within the limits of 0.1 to 10 volumes per volume of said solid adsorbent, whereby said crystallization aid present in said wax is adsorbed by said solid adsorbent and a minor portion of said wax is mechanically retained on said solid adsorbent, washing said wax from the surface of said adsorbent, separating adsorbed crystallization aid from said solid adsorbent by passing in contact therewith a desorbent solvent selected from the group consisting of a single component organic solvent containing from 4 to 10 carbon atoms in the molecule and a functional group selected from the group consisting of >C=O and —OH, and a mixture of polar and nonpolar solvents, and recovering said crystallization aid from said desorbent solvent as a product of the process.

2,782,143
TREATMENT OF PETROLEUM DISTILLATES
Edward J. Bicek, La Grange, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
No Drawing. Application April 5, 1954, Serial No. 421,200
2 Claims. (Cl. 196—23)

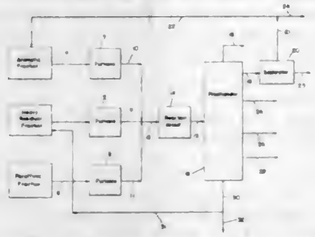
1. A process for removing arsenic from a gasoline fraction which comprises treating said gasoline fraction with cumene hydroperoxide and acetic acid, and thereafter water washing the gasoline.

2. A process which comprises treating a gasoline fraction containing arsenic with both cumene hydroperoxide and glacial acetic acid, thereafter treating the gasoline fraction with water, and subjecting the treated gasoline fraction reduced in arsenic to reforming in the presence of a platinum-containing catalyst.

2,782,144
TREATING SILICA-METAL OXIDE COMPOSITES AND CRACKING PROCESS
William A. Pardee, Fox Chapel, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware
No Drawing. Application August 1, 1950, Serial No. 177,139
3 Claims. (Cl. 196—52)

1. A process of cracking a petroleum oil which comprises contacting said oil at cracking conditions with a silica-alumina cracking catalyst composite prepared by a process comprising immersing a calcined silica-alumina cracking catalyst composite in an aqueous solution of ammonium hydroxide, removing ammonium hydroxide from said composite, and then calcining said composite at a temperature of about 1400° F.

2,782,145
PROCESS OF CRACKING
Seymour W. Ferris, Mount Holly, N. J., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Application January 20, 1954, Serial No. 405,142
2 Claims. (Cl. 196—66)



2. Process for simultaneously converting a heavy petroleum residual fraction and a petroleum straight run paraffinic naphtha to lower boiling hydrocarbons which comprises: (*a*) heating a heavy petroleum residual fraction, maintained in the liquid phase, to a temperature which is below its cracking temperature and which is within the range of from about 650 to 900° F.; (*b*) heating a refractory aromatic fraction, maintained in the liquid phase, to a temperature within the range of from 1000 to 1300° F.; (*c*) heating a straight run petroleum paraffinic naphtha boiling above about 130° F., maintained in the liquid phase, to the temperature at which incipient cracking occurs and which is within the range of from 675 to 950° F.; substantially simultaneously admixing liquid streams of the three so-heated materials at rates such that the temperature of the resulting admixture is above the cracking temperature of the residual fraction and the paraffinic naphtha, whereby a portion of said residual fraction and a portion of said paraffinic naphtha are converted to lower boiling hydrocarbons without concomitant coke formation, and separating said lower boiling hydrocarbons from the reaction mixture.

2,782,146
FLUIDIZING ACID SLUDGES
Henry C. Paulsen and Joseph W. Dowling, Elizabeth, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application May 9, 1952, Serial No. 287,032
3 Claims. (Cl. 196—148)

1. The method of conditioning heavy viscous substantially unpumpable sulfuric acid sludge to facilitate pumping thereof and prevent the settling out of unpumpable tar from spent acid obtained therefrom, said sulfuric acid sludge being obtained from the sulfuric acid treatment of a petroleum oil, comprising mixing said acid sludge with at least 2 volume percent of a compound selected from the group consisting of phenol and alkylated phenol.

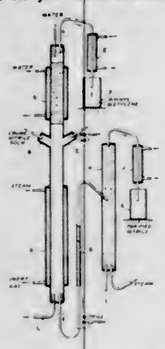
2,782,147
PROCESS FOR PREPARING COKING BLENDS
Eugène M. Burstlein, Thionville, Moselle, France, assignor of one-half to Societe des Acieries de Longwy (Societe Anonyme), Paris, France, a corporation of France
Application January 11, 1954, Serial No. 403,293
Claims priority, application France January 19, 1953
14 Claims. (Cl. 202—25)

1. A coking process, using a plurality of different grade coals in a divided state, and if needs be additional substances, comprising the steps of: (*a*) making from the different grades of coal predetermined amounts of two separate mixes calculated on account of the characteristics of the coke to be obtained, viz. a first mix A consisting substantially of the fusible coals and a second mix B consisting substantially of the inert coals and any additional substances; (*b*) granulometrically separating the first mix A on a predetermined mesh size selected within a range of from about 2 mm. to about 6 mm. depending on petrographic analysis of the coals, to obtain a first oversize consisting predominantly of conglomerate coal particles and in the screenings petrographic constituents of the coal already liberated and essentially fusible vitrain; (*c*) progressively and controllably disintegrating said first oversize separated in step *b* by a splitting operation in combination with a screening operation on a mesh-size selected within a range of from about 2 mm. to about 6 mm. depending on petrographic analysis of the coal, and recycling the oversize of said screening operation to the disintegrating step whereby to obtain continuously in the screenings the liberated petrographic constituents of the coals forming mix A which are thus subtracted from any destruction of the grains; (*d*) granulometrically separating the screenings obtained in step *b* and the screenings obtained in step *c* on a mesh size selected within a range of from about 1 mm. to about 4 mm. to obtain an oversize fraction consisting predominantly of hard and comparatively inert petrographic constituents of the coal, viz. durain and mineral constituents, and screenings consisting of the other petrographic constituents of the coal and essentially fusible vitrain; (*e*) progressively and controllably grinding said oversize fraction obtained in step *d* in combination with a screening operation of the ground product on a mesh-size selected within a range of from about 0.5 mm. to about 2 mm. depending on the desired bulk density in the coke ovens and recycling to the grinding step the oversize obtained in said screening operation to continuously obtain in the screenings the hard and inert petrographic constituents of the coals forming said mix A, and simultaneously treating the coals and additional substances of said mix B by the same process applied to said oversize fraction obtained in step *d* for giving to said mix B and said oversize fraction a very fine granulometric size without producing a high quantity of fine dust; (*f*) forming a coking blend by mixing predetermined proportions of the screenings obtained in steps *e*, *d* and *b* calculated to give in said coking blend a percentage of volatile matters comprised between 16% and 35%; (*g*) carbonizing said coking blend.

2,782,148
PROCESS FOR THE PURIFICATION OF ACRYLIC ACID NITRILE
Max Geiger, Riehen, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm
Application December 4, 1951, Serial No. 259,743
Claims priority, application Switzerland June 22, 1951
4 Claims. (Cl. 202—39.5)

1. In the process of purification of acrylic acid nitrile by removing divinylacetylene which is performed by the use of a gaseous mixture containing at least acrylic acid nitrile and divinylacetylene in dilute form as starting material and is conducted in a continuous manner, the steps which comprise introducing the gaseous mixture which is derived from the reaction tower used for the synthesis of acrylic acid nitrile and contains at least acrylonitrile and divinylacetylene into the upper part of a heated distillation column, the lower part of which is charged with a dilute solution of acrylic acid nitrile throughout the

whole process, causing to flow water through an extraction column placed on the top of said distillation column, in countercurrent to the gaseous mixture in order to extract acrylic acid nitrile therefrom, and heating the said dilute solution of acrylic acid nitrile in the lower part of

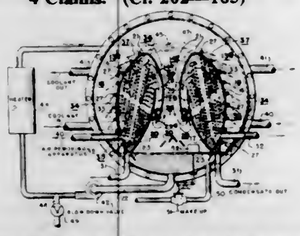


the distillation column in order to evaporate the divinylacetylene, other easily volatile compounds and a part of the acrylic acid nitrile, the solution flowing out of the lower end of the distillation column being free from divinylacetylene and the divinylacetylene escaping at the top of the extraction column in vapor form.

2,782,149
PROCESS OF REFINING ACRYLONITRILE BY DISTILLATION
Olof Sundén and Carl Gunnar Carlsson, Ljungaverk, Sweden, assignors to Superfosfat Fabriks Aktiebolag, Stockholm, Sweden, a company of Sweden
No Drawing. Application December 22, 1952, Serial No. 327,428
Claims priority, application Sweden December 29, 1951
4 Claims. (Cl. 202—42)

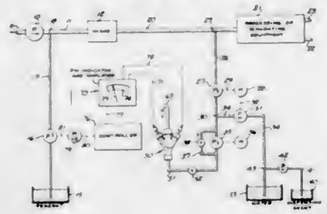
1. The method of removing divinyl acetylene from a crude acrylonitrile, which comprises the steps of subjecting the crude acrylonitrile to fractional distillation, regulating the water content in the still so that the water content in the top product at least corresponds with the water content in a ternary azeotropic mixture of acrylonitrile, divinyl acetylene and water, with a boiling point of 67.5° C. distilling off said ternary azeotropic mixture and recovering the acrylonitrile substantially free from divinyl acetylene and water at the bottom of the still.

2,782,150
EVAPORATOR APPARATUS
Ernest F. Stalcup, Lansdowne, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application October 23, 1953, Serial No. 387,840
4 Claims. (Cl. 202—185)



1. In combination, a flash evaporator comprising a tubular shell structure, a pair of curved partition structures disposed within said shell structure in mutually spaced relation with each other and forming a pair of vapor-collecting sections, said partition structures together with said shell structure defining a pair of vaporizing sections, means for spraying heated liquid into said vaporizing sections, said partition structures further jointly defining a central vertical passageway communicating with said vaporizing sections at its upper end and with said vapor-collecting sections at its lower end, means disposed adjacent the lower end of said passageway for separating entrained liquid from vapor, vapor-condensing means including a plurality of tubes disposed in each of said vapor-collecting sections, condensate offtake conduit means extending through said shell and communicating with the lower portions of each of said vapor-collecting sections, and conduit means extending through said shell and communicating with each of said vapor-collecting sections above said condensate offtake conduit means for removing air therefrom.

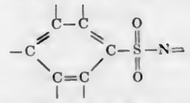
2,782,151
METHOD OF TESTING OILS
James G. Suthard, Long Beach, Calif., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware
Application September 20, 1951, Serial No. 247,537
9 Claims. (Cl. 204—1)



1. A method of testing an oil sample of an oil substantially completely insoluble in water to determine the hydrogen ion concentration thereof by use of spaced glass and reference electrodes, said method including the steps of: mixing together said oil sample, a volume of water sufficient to produce an oil-in-water dispersion, and a small amount of a non-ionic water-soluble surface-active wetting agent having the property of preferentially wetting the electrode glass with water as compared with wetting the glass with oil, the volume of water and the intensity of mixing being sufficient, in the presence of said agent, to form a water-continuous dispersion comprising an external phase of water with the oil dispersed as small droplets therein; and bridging said electrodes with said dispersion to develop between the electrodes a potential difference related to the hydrogen ion concentration of said oil sample.

2,782,152
ELECTRODEPOSITION OF NICKEL
Arthur H. Du Rose, Euclid, and John D. Little, Bay Village, Ohio, assignors to The Harshaw Chemical Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application February 16, 1954, Serial No. 410,712
7 Claims. (Cl. 204—49)

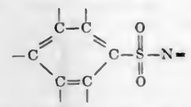
1. A solution for electrodeposition of nickel in the form of bright and smooth deposits, said solution containing a nickel ion yielding compound of the class consisting of nickel sulfate, nickel chloride, nickel sulfamate and nickel fluoborate together with cooperating addition agents, one of said addition agents being an organic sulfur compound containing the group



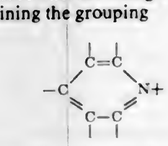
one thereof being selected from the class consisting of coumarin and its alkyl, acyl, chlorine and carboxy derivatives and a third thereof being an aminopolyaryl methane compound having six nuclear carbon atoms in each aryl group said first mentioned addition agent being present in concentration from one-half gram per liter to saturation, said second mentioned addition agent being present in concentration from 0.01 to 0.5 gram per liter and said third mentioned addition agent being present in concentration from 0.0005 to 0.3 gram per liter.

2,782,153
NICKEL ELECTRODEPOSITION
Arthur H. Du Rose, Euclid, and John D. Little, Bay Village, Ohio, assignors to The Harshaw Chemical Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application February 16, 1954, Serial No. 410,713
9 Claims. (Cl. 204—49)

1. A solution for electrodeposition of nickel in the form of bright and smooth deposits, said solution containing a nickel ion yielding compound of the class consisting of nickel sulfate, nickel chloride, nickel sulfamate and nickel fluoborate together with cooperating addition agents, one of said addition agents being an organic sulfur compound containing the group



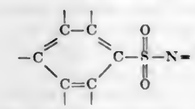
one thereof being selected from the class consisting of coumarin and its alkyl, acyl, chlorine and carboxy derivatives and a third thereof being a quaternary nitrogen compound containing the grouping



and having at least one aliphatic carbon atom attached to the nitrogen atom of said group, said first mentioned addition agent being present in concentration from one-half gram per liter to saturation, said second mentioned addition agent being present in concentration from 0.01 to 0.5 gram per liter and said third mentioned addition agent being present in concentration from 0.0005 to 0.3 gram per liter.

2,782,154
NICKEL PLATING
Arthur H. Du Rose, Euclid, and John D. Little, Bay Village, Ohio, assignors to The Harshaw Chemical Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application February 16, 1954, Serial No. 410,714
7 Claims. (Cl. 204—49)

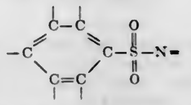
1. A solution for electrodeposition of nickel in the form of bright and smooth deposits, said solution containing a nickel ion yielding compound of the class consisting of nickel sulfate, nickel chloride, nickel sulfamate and nickel fluoborate together with cooperating addition agents, one of said addition agents being an organic sulfur compound containing the group



one thereof being selected from the class consisting of coumarin and its alkyl, acyl, chlorine and carboxy derivatives and a third thereof being an alkylene amine of the form $NH_2[(CH_2)_2NH]_n(CH_2)_2NH_2$, where n is an integer from 2 to 40, said first mentioned addition agent being present in concentration from one-half gram per liter to saturation, said second mentioned addition agent being present in concentration from 0.01 to 0.5 gram per liter and said third mentioned addition agent being present in concentration from 0.0001 to 0.3 gram per liter.

2,782,155
ELECTROPLATING OF NICKEL
Arthur H. Du Rose, Euclid, and John D. Little, Bay Village, Ohio, assignors to The Harshaw Chemical Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application February 16, 1954, Serial No. 410,715
7 Claims. (Cl. 204—49)

1. A solution for electrodeposition of nickel in the form of bright and smooth deposits, said solution containing a nickel ion yielding compound of the class consisting of nickel sulfate, nickel chloride, nickel sulfamate and nickel fluoborate together with cooperating addition agents, one of said addition agents being an organic sulfur compound containing the group



one thereof being selected from the class consisting of coumarin and its alkyl, acyl, chlorine and carboxy derivatives and a third thereof being a polyalkylene glycol compound of the formula $R(CH_2CH_2O)_nH$ where n is an integer from 10 to 100 and R is a radical of the class consisting of R'O and R'NH, R' being selected from the class consisting of hydrogen, alkyl radicals having from 1 to 20 carbon atoms and aryl radicals having from 1 to 20 carbon atoms, said first mentioned addition agent being present in concentration from one-half gram per liter to saturation, said second mentioned addition agent being present in concentration from 0.01 to 0.5 gram per liter and said third mentioned addition agent being present in concentration from 0.0005 to 0.3 gram per liter.

2,782,156
PURIFICATION OF FUSED SALT ELECTROLYTES
Bertram C. Raynes, Euclid, Ohio, assignor, by mesne assignments, to Horizons Titanium Corporation, Princeton, N. J., a corporation of New Jersey
No Drawing. Application September 10, 1954, Serial No. 455,341
5 Claims. (Cl. 204—64)

1. In the electrolytic deposition of a transition metal of the group consisting of titanium, zirconium, hafnium, thorium, vanadium, niobium and tantalum in a fused salt bath, the improvement which comprises removing water and contaminant elements whose salts and oxides are more electropositive than those of said transition metal from the fused salt bath by subjecting said bath to a preliminary electrolysis at a cell voltage in excess of that required to effect deposition of the transition metal at the cathode and sufficient to effect decomposition of said water and said salts and oxides of said contaminant elements and deposition of said contaminant elements at the cathode, and continuing said preliminary electrolysis for a period of time sufficient to insure substantially complete removal of all of said water and said contaminant elements from said bath thereby removing said contaminant elements from the bath and subsequently electrolyzing the purified bath to obtain the transition metal in substantially pure form as an electrodeposit.

2,782,157
PROCESS FOR THE MANUFACTURE OF ALIPHATIC DINITRILES
Jonas Kamlet, New York, N. Y., assignor to The Goodyear Tire & Rubber Company, a corporation of Ohio
No Drawing. Application June 6, 1955, Serial No. 513,599
17 Claims. (Cl. 204—72)

1. A process for the manufacture of aliphatic alpha, omega-dinitriles of general formula:

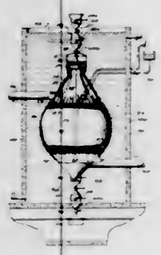
$$CN(CH_2)_{2n}CN$$

where n is an integer between 2 and 5, which comprises submitting a solution containing a member of the group consisting of the omega-cyanoaliphatic acids of general formula:

$$CN(CH_2)_nCOOH$$

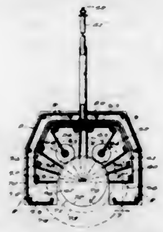
and a member of the group consisting of the alkali metal, ammonia, primary amine, secondary amine and tertiary amine salts of the same omega-cyanoaliphatic acid, to electrolysis in an electrolytic cell equipped with a smooth anode constructed of a member of the group consisting of platinum and iridium and thereafter separating the resultant aliphatic alpha, omega-dinitrile from the electrolysis product.

2,782,158
NEUTRONIC REACTOR
John A. Wheeler, Richland, Wash., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application November 2, 1945, Serial No. 626,376
1 Claim. (Cl. 204—193)



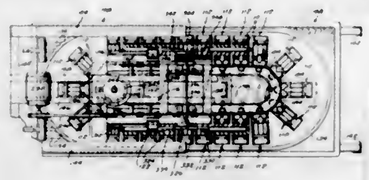
A neutronic reactor comprising a graphite mass having a plurality of parallel spaced openings extending therethrough between opposite faces, each opening having a central portion and oppositely disposed side portions, a plurality of graphite tubes, each tube fitting only in the central portion of an opening and having diametrically opposed slits providing communication at a plurality of regions along the length of the tube between the interior of the tube and the side portions of the opening, a plurality of uranium-containing spheres in each graphite tube, means for supplying helium under pressure to the end of one side portion of each opening located at one of said opposite faces of the graphite mass, means closing the end of the other side portion located at said one opposite face of the graphite mass, means for exhausting helium from the end of said other side portion of each opening located at the other of said opposite face of the graphite mass, and means closing the end of said one side portion of each opening located at said other opposite face of the graphite mass, whereby helium forced into the graphite mass at said one side portion of each opening must pass through the slits in the graphite tube in the central portion of the opening and over the uranium-containing spheres in the graphite tube in order to exit from the graphite mass at the other side portion of each opening.

2,782,159
ELECTROPLATING ANODE STRUCTURE
Ernest V. Berry, Los Angeles, Calif.
Application June 29, 1953, Serial No. 364,569
9 Claims. (Cl. 204—212)



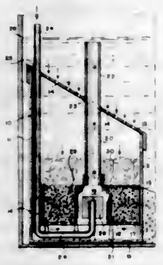
1. An anode structure for chromium electroplating a cylindrical cathode surface of a crank pin as it rotates in a circular path in a vertical plane, which includes: two laterally spaced inverted substantially U-shaped sheets fabricated from an electrical insulating acid-resistant material, which sheets are formed with horizontal lower edges on which said anode may be supported in an upright position when not in use; means for maintaining said sheets including the lower portions thereof in a predetermined laterally spaced relationship; a plurality of circumferentially spaced, transversely disposed shafts extending between said sheets; a plurality of rollers mounted on said shafts, said rollers adapted to rotatably contact said cylindrical surface and maintain said sheets at a fixed predetermined distance therefrom; a plurality of anode plates; electrical insulating means separating said plates; means for removably supporting said plates in fixed, circumferentially spaced, radially disposed positions between said side walls in sufficient quantity as to provide a desired area ratio between said anode and said surface; and electrical power supply means that supply substantially the same potential for each of said anode plates.

2,782,160
ELECTROPOLISHING APPARATUS
Milton A. Treuhaft, Newark, and Carl E. Swanson, North Arlington, N. J., assignors to Hudson Electrochemical Company, Union City, N. J.
Application March 24, 1951, Serial No. 217,354
6 Claims. (Cl. 204—222)



1. Apparatus for electro-polishing metal articles comprising a tank for holding electrically conductive film-forming liquid, a supporting frame extending above said tank, article-supporting racks, means on each of said racks for supporting articles to be polished, means on said frame for supporting said racks for vertical movement within said tank, first drive means for reciprocating vertically said racks, a plurality of wiper carriers having vertically-extending juxtaposed leg portions, supporting means on said frame for supporting said wiper carriers for movement along a path adjacent said racks and so directed that juxtaposed leg portions of said wiper carriers pass on opposite sides of said racks, second drive means for moving said wiper carriers along said path, a plurality of spaced resilient wipers carried by each leg portion of said wiper carriers, said wipers extending inwardly so as to pass along opposite sides of said racks, and means for making electrical connection to said article-supporting means on each of said racks.

2,782,161
AQUARIUM FILTER
Harding W. Willinger and Herbert N. Nestler, New York, N. Y.
Application May 28, 1954, Serial No. 432,965
4 Claims. (Cl. 210—16)



1. In an aerating and filtering device adapted to be disposed below the water level in an aquarium, a generally triangular housing comprising an enclosure including a bottom and side walls and adapted to fit in a corner of the aquarium, a triangular filter material receiving chamber comprising an enclosure including side walls and a perforated bottom wall positioned in said housing, the side walls of said chamber abutting the inner surface of the side walls of said housing, the perforated bottom for said chamber extending inwardly and centrally from the side walls of said chamber and being spaced from the bottom wall of said housing, a funnel shaped member connected to the inner portions of the bottom wall of said chamber along the larger end thereof and open to the space intermediate said bottom walls, a tube connected to the smaller end of said funnel shaped member, said tube extending upwardly in said housing, a cover for said housing, said cover having perforations therein admitting water and impurities but not fish, said tube extending through an opening in said cover for said housing, filter material in said chamber, an air delivery means located in the space between the bottom walls of said housing and said chamber and extending within said funnel shaped member, air conduit means extending from said air delivering means to the exterior of the device, said air delivering means comprising means to break up and disperse air passing therethrough, whereby water entering said housing is drawn through said filter chamber into the space intermediate said bottom walls and caused to be returned to the aquarium through said funnel and tube under the influence of the air passing from the bottom portion of said housing through said funnel and tube.

2,782,162
METHOD OF TREATING SEA WATER
Robert W. Liddell, Jr., Bethel Township, Allegheny County, Pa., assignor to Hagan Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
No Drawing. Application July 7, 1952, Serial No. 297,565
12 Claims. (Cl. 210—23)

1. A method of treating sea water whereby it is rendered less scale-forming when heated which comprises adding thereto an effective amount up to 50 parts per million of a water-soluble molecularly dehydrated phosphate of the group consisting of the alkali metals and ammonium having a molar ratio of group member oxide to phosphorus pentoxide from about 0.4:1 to about 2.0:1, and a water soluble salt of lignin sulfonic acid.

2,782,163
EMULSION DRILLING FLUID COMPOSITION AND METHOD
Doyne L. Wilson, Pasadena, Calif., assignor to Oil Base, Inc., Compton, Calif., a corporation of California
No Drawing. Application November 14, 1952, Serial No. 320,604
12 Claims. (Cl. 252—8.5)

1. An alkaline emulsion drilling fluid comprising a clay-water mud, a mineral oil, an emulsifier comprising at least about 15% of sodium humate and at least about 15% of lignite by weight, the sodium humate being present in proportions of from about 0.5 to 3 parts by weight to one part of lignite, said emulsifier being present in sufficient concentration to form a stable oil-in-water emulsion, and an alkali compound providing at least a part of the alkalinity of said alkaline emulsion drilling fluid.

2,782,164
CORROSION PREVENTION
Paul W. Fischer, Whittier, and John W. Scheffel, Fullerton, Calif., assignors to Union Oil Company of California, Los Angeles, Calif., a corporation of California
No Drawing. Application September 8, 1953, Serial No. 379,090
22 Claims. (Cl. 252—8.55)

1. The method for reducing the corrosiveness of oil and gas well fluids comprising moisture and at least one acidic material selected from the class consisting of carbon dioxide and hydrogen sulfide towards ferrous metals under conditions of elevated temperature and pressure which comprises introducing into said well fluid a corrosion inhibiting amount of a mixture comprising between about 15 and about 85 percent by weight of a metal soap selected from the class consisting of the alkaline-earth and heavy metal soaps of oil-soluble petroleum sulfonic acids and carboxylic acids containing at least about 8 carbon atoms, and between about 85 and about 15 percent by weight of the product obtained by heating a mixture essentially comprising an alkylolamine monomer containing between 2 and about 20 carbon atoms and a fatty material selected from the class consisting of fatty acids containing at least about 12 carbon atoms and fatty oils which contain fatty acid radicals containing at least about 12 carbon atoms at a temperature between about 100° C. and about 320° C. for between about ½ and about 10 hours.

2,782,165
GREASE COMPOSITIONS
Walter H. Peterson, Point Richmond, and Arnold A. Bondi, Berkeley, Calif., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware
Application May 10, 1951, Serial No. 225,624
14 Claims. (Cl. 252—41)

1. The method of preparing a grease composition which comprises extracting a grease comprising essentially a mineral lubricating oil and a soap of high molecular weight carboxylic acid, with a normally liquid solvent for said oil to remove substantially all of the mineral lubricating oil from said grease, displacing said normally liquid solvent with a liquefied normally gaseous second solvent, heating said soap and second solvent above the critical temperature of the solvent while maintaining the solvent in a liquid state, evaporating the solvent from said soap above the critical temperature thereof, whereby a soap aerogel is formed, and dispersing said aerogel in a second mineral lubricating oil, whereby a second grease composition is formed.

2,782,166

ESTER BASE LUBRICATING GREASES

John J. Kolfenbach, Somerville, Arnold J. Morway, Rahway, and Paul V. Smith, Jr., Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application May 7, 1949, Serial No. 92,076

1 Claim. (Cl. 252—42.1)

A lubricating grease consisting essentially of lubricating oil thickened to a grease consistency with 5–30% by weight, based on total composition, of alkali metal soap of a C_{12}–C_{22} substantially saturated fatty acid, said lubricating oil comprising about 10–60% by weight, based on total composition, of a lubricating oil base selected from the group consisting of lubricating grade di-esters of aliphatic monohydric alcohols with aliphatic dibasic acids having 4–12 carbon atoms and lubricating grade light mineral oil, and about 20–60% by weight, based on total composition, of a lubricating oil grade complex ester formed of 1.0 mol of butyl alcohol, 0.5 mol of triethylene glycol, and 1 mol adipic acid.

2,782,167

VISCOSITY INDEX IMPROVERS

Thomas S. Tutwiler, Elizabeth, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application November 30, 1950, Serial No. 198,475

3 Claims. (Cl. 252—52)

1. A lubricating composition comprising a lubricating oil having combined therein from 0.01% to 10.0% by weight of an oil soluble copolymer of from 20% to 50% by weight of a methoxy vinyl ether having the general formula

$$CH_3—(O—CH_2—CH_2)_n—O—CH=CH_2$$

wherein n is an integer from 1 to 2 with from 80% to 50% by weight of an alkyl vinyl ether having the formula

$$R—O—CH=CH_2$$

wherein R is an alkyl group containing from 6 to 10 base to form a moist mixture, and then heating said moist within a range of from 8,000 to 30,000 Staudinger.

2,782,168

PREPARING LUMINESCENT MATERIALS

Cecil R. Fetters, Toledo, Ohio, assignor to Libbey-Owens-Ford Glass Company, Toledo, Ohio, a corporation of Ohio

No Drawing. Application July 15, 1953, Serial No. 368,219

3 Claims. (Cl. 252—301.4)

1. In a method of making phosphors in which a phosphor base is treated with an activator and then fired, the steps of dissolving the activating material in a liquid aliphatic alcohol that will at least partially decompose at the firing temperature to release non-oxidizing gases, mixing the solution of activating material with a phosphor base to form a moist mixture, and then heating said moist mixture to the firing temperature in a closed container.

2,782,169

CONTINUOUS PROCESS FOR PRODUCING BITUMINOUS EMULSIONS

Eldon C. Brown, Rutherford, Wilfred H. Driesen, Mountain Lakes, and Jacob S. Guepet, Clifton, N. J., assignors to The Patent and Licensing Corporation, New York, N. Y., a corporation of Massachusetts

No Drawing. Application August 21, 1952, Serial No. 305,714

13 Claims. (Cl. 252—311.5)

1. A bituminous emulsion containing clay as the emulsifying agent and having the majority of bitumen particles of a size from 3 to 10 microns.

8. A process for the production of an asphalt-clay emulsion comprising simultaneously passing through an attrition type colloid mill a molten asphalt and a clay slip comprising bentonite clay and water adjusted to a pH in the range 4.0 to 4.5 the water comprising 44% to 50% by weight of the finished emulsion.

2,782,170

WITHDRAWN

2,782,171

LEATHER LIQUID POLISH

Elliott Morrill and Lawrence Newburn, Indianapolis, Ind., assignors to The Best Foods, Inc., New York, N. Y., a corporation of New Jersey

No Drawing. Application December 29, 1952, Serial No. 328,533

7 Claims. (Cl. 260—8)

1. A liquid polish for shoes and leather comprising an alkaline aqueous dispersion of about 1 to 18% by weight of a thermoplastic homopolymeric polybutyl methacrylate resin and about 0.25 to 3.5% by weight of a protein selected from the class consisting of vegetable protein and casein.

2,782,172

WHITE FACTICE AND ISOCYANATE-MODIFIED POLYESTER COMPOSITION

William L. Bruce, Norrkoping, Sweden, assignor, by mesne assignments, to The Goodyear Tire & Rubber Company, a corporation of Ohio

No Drawing. Application January 22, 1953, Serial No. 332,770

6 Claims. (Cl. 260—22)

1. A composition of matter comprising from 0.50 to 30 parts by weight of white factice and 100 parts by weight of an elastomeric isocyanate-modified linear polyester selected from the group consisting of (A) the reaction product resulting from the reaction of a mixture comprising (1) a material prepared from bifunctional ingredients including at least one dibasic carboxylic acid and at least one complementary bifunctional reactant in which the functional groups are selected from the class consisting of the hydroxyl group and the hydrogen-bearing amino groups, the hydrogen-bearing amino groups being present in an amount not to exceed 7.5% of the total functional groups of said complementary bifunctional reactant, said material having a hydroxyl number from 40 to 100 and an acid number from 0 to 7, and (2) at least one diisocyanate selected from the group consisting of 4,4'-diphenyl diisocyanate; 4,4'-diphenylene methane diisocyanate; dianisidine diisocyanate; 4,4'-tolidine diisocyanate; 1,5-naphthalene diisocyanate; 4,4'-diphenyl ether diisocyanate, and p-phenylene diisocyanate, the diisocyanate being used in an amount ranging from 0.70 to 0.99 mol per mol of said material; (B) the reaction product resulting from the reaction of a mixture comprising (3) a material prepared from bifunctional ingredients including at least one dibasic carboxylic acid and at least one complementary bifunctional reactant in which the functional groups are selected from the class consisting of the hydroxyl group and the hydrogen-bearing amino groups, the hydrogen-bearing groups being present in an amount not to exceed 30% of the total functional groups of said complementary bifunctional reactant, said material having a hydroxyl number from 30 to 140 and an acid number from 0 to 12, and (4) at least one tolylene diisocyanate used

in an amount ranging from 0.85 to 1.10 mols per mol of said material; (C) the reaction product resulting from the reaction of a mixture comprising (5) a polyester prepared from bifunctional ingredients including at least one dibasic carboxylic acid containing at least three carbon atoms, and at least one glycol, said polyester having an hydroxyl number from 30 to 140 and an acid number from 0 to 12, (6) at least one bifunctional additive selected from the group consisting of diamines, amino alcohols, dicarboxylic acids, amino carboxylic acids, hydroxy carboxylic acids and the ureas, guanidines, and thioureas containing a primary amino group, said bifunctional additive being used in an amount such that the total number of —NH_2 and —COOH equivalents present in said bifunctional reactant shall be from 0.06 to 0.24 equivalent per mol of polyester, and (7) at least one tolylene diisocyanate used in an amount equal to the sum of from 0.85 mol to 1.10 mols of diisocyanate per mol of polyester plus the molar amount of diisocyanate equivalent to the mols of said bifunctional additive used; (D) the reaction product resulting from the reaction of a mixture comprising (8) a polyester prepared from bifunctional ingredients including at least one dibasic carboxylic acid containing at least three carbon atoms and at least one glycol, said polyester having a hydroxyl number between 40 and 100 and an acid number from 0 to 7, (9) at least one bifunctional additive selected from the group consisting of diamines, amino alcohol, dicarboxylic acids, amino carboxylic acids, hydroxy carboxylic acids, and the ureas, guanidines and thioureas containing a primary amino group, said bifunctional additive being used in an amount such that the total number of —NH_2 and —COOH equivalents present in said bifunctional reactant shall be from 0.06 to 0.48 equivalent per mol of polyester, and (10) at least one diisocyanate selected from the group consisting of 4,4'-diphenyl diisocyanate; 4,4'-diphenylene methane diisocyanate; 4,4'-tolidine diisocyanate; dianisidine diisocyanate; 1,5-naphthalene diisocyanate; 4,4'-diphenyl ether diisocyanate, and p-phenylene diisocyanate, the diisocyanate being used in an amount equal to the sum of from 0.70 mol to 0.99 mol of diisocyanate per mol of polyester plus the molar amount of diisocyanate equivalent to the mols of bifunctional additive used (A) and (B) being reacted with a sufficient amount of at least one polyisocyanate to bring the total number of —NCO equivalents present in said composition to from 2.80 to 3.20 equivalents per mol of said material and (C) and (D) being reacted with a sufficient amount of at least one polyisocyanate to bring the total number of —NCO equivalents present in said composition to the sum of from 2.80 to 3.20 equivalents per mol of said polyester plus twice the molar amount of bifunctional additive used in the preparation of said elastomeric reaction product.

2,782,173

PRODUCTION OF POLYVINYL ACETATE BEADS AND EMULSIONS

John E. Bristol and Edward P. Czerwin, Niagara Falls, and Norris Turnbull, Grand Island, N. Y., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 15, 1953, Serial No. 355,406

7 Claims. (Cl. 260—29.6)

1. A process for preparing a dispersion of polyvinyl acetate comprising polymerizing at reflux temperature in the presence of polymerization catalyst vinyl acetate to a solids content of about 30% by weight and thereafter mixing the polymerizate with agitation and heat with an aqueous solution containing 0.04 to 1% by weight based on the polyvinyl acetate of polyvinyl alcohol hydrolyzed between about 80 and 90% and recovering the unreacted vinyl acetate by distillation.

2,782,174

DISPERSIONS OF PERFLUOROCARBON POLYMERS

Alexander C. Hetherington, Mountainside, and Wilber O. Teeters, River Edge, N. J., assignors to The M. W. Kellogg Company, New York, N. Y., a corporation of Delaware

No Drawing. Application October 8, 1952, Serial No. 313,792

15 Claims. (Cl. 260—29.6)

1. A composition comprising finely divided solid particles of plastic polytrifluorochloroethylene and not more than 20% by weight of a substantially non-solvent, normally liquid dispersing medium, said composition being readily dispersible by stirring alone in a substantially non-solvent, normally liquid dispersing medium to produce a stable dispersion and having been prepared by a process comprising the removal of the greater portion of said liquid dispersing medium from a dispersion prepared by milling said plastic polytrifluorochloroethylene in said liquid dispersing medium.

2,782,175

SURFACE COATINGS OF SOLUTIONS OF FURFURAL-MODIFIED HYDROLYZED VINYL ACETATE-VINYL CHLORIDE COPOLYMERS

Paul F. Bruins, Brooklyn, N. Y., and Stephen S. Dorn, North Arlington, N. J., assignors to Carboline Co., St. Louis, Mo., a corporation of Missouri

No Drawing. Application March 28, 1951, Serial No. 218,084

10 Claims. (Cl. 260—30.4)

1. A method which consists in forming an original solution of a copolymer in a solvent which includes furfural, said copolymer being a copolymer of vinyl chloride and vinyl acetate and vinyl alcohol, said copolymer having a maximum of substantially 10% of copolymerized vinyl alcohol and a maximum of substantially 10% of copolymerized vinyl acetate and a maximum of substantially 91% of copolymerized vinyl chloride, the weight of the furfural in said solvent being at least substantially equal to the weight of said dissolved copolymer resin, carrying out a reaction between said dissolved copolymer resin and only some of said furfural in said solution to produce a modified solution having dissolved therein a reaction product of said dissolved copolymer and said furfural containing acetal groups, said reaction product remaining dissolved in said modified solution, said modified solution containing unreacted furfural and being stable on storage in closed containers.

2,782,176

HALOGEN CONTAINING VINYLIDENE RESINS STABILIZED WITH A MIXTURE OF ZINC AND CALCIUM SALTS OF PHENYL CARBOXYLIC ACIDS

Joseph R. Darby, Webster Groves, and Leo D. Frederickson, Jr., St. Louis, Mo., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application May 14, 1951, Serial No. 226,296

13 Claims. (Cl. 260—30.6)

1. A composition resistant to the discoloring effects of heat comprising a halogen-containing vinylidene resin and as a stabilizer therefor a zinc salt of a phenyl mono carboxylic acid and a calcium salt of a phenyl carboxylic acid.

2,782,177
ACETAL COMPOUNDS AS PLASTICIZERS FOR POLYMERS

Wilbur F. Fischer, Cranford, and Jeffrey H. Bartlett, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application December 6, 1954, Serial No. 473,452

5 Claims. (Cl. 260—33.2)

1. A composition of matter comprising a polymeric material selected from the group consisting of natural rubber and synthetic rubber-like polymers and copolymers of diolefinic materials and a plasticizing amount of a mixture of isomeric acetals prepared by reacting a mixture of C_8 aldehydes obtained by the catalytic oxonation of a mixture of C_7 olefins at a temperature between 250 and 400° F. and pressures between 150 and 400 atmospheres consisting essentially of isomers having the formula

$$\begin{array}{cccc} RCH & -CH & -CH & -CHO \\ | & | & | & \\ R_2 & R_3 & R_1 & \end{array}$$

where R is selected from the group consisting of hydrogen, methyl, and ethyl, R_1, R_2 and R_3 are selected from the group consisting of hydrogen, methyl, ethyl and isopropyl and wherein R plus R_1 plus R_2 plus R_3 contain a total of 4 carbon atoms, with an alcohol having 6–16 carbon atoms, said alcohol being obtained by hydrogenating the product obtained by the catalytic oxonation of a mixture of olefins having 5–15 carbon atoms at a temperature between 250 and 400° F. and pressures between 150 and 400 atmospheres.

2,782,178
BINDERS FOR FIBROUS PRODUCTS

Homer W. Duffee, Newark, and Marshall C. Armstrong, Hebron, Ohio, assignors to Owens-Corning Fiberglas Corporation, Toledo, Ohio, a corporation of Delaware

No Drawing. Application February 9, 1952, Serial No. 270,903

25 Claims. (Cl. 260—33.4)

1. A bonded glass fiber product comprising glass fibers and a binder securing the fibers together containing the resinous reaction product of formaldehyde with an amide selected from the group consisting of urea, melamine, guanidine and mixtures thereof and methylated urea present in the ratio of 1 part by weight methylated urea to 2–5 parts by weight amide.

2,782,179
PROCESS FOR PREPARING POLYTETRAFLUOROETHYLENE-ASBESTOS COMPOSITIONS

John F. Lontz, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application January 14, 1953, Serial No. 331,303

2 Claims. (Cl. 260—41)

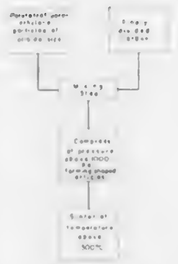
1. Process for preparing a composition capable of being molded into articles having high stiffness and dimensional stability, which process comprises adding together in an aqueous medium 80 to 25 parts by weight of tetrafluoroethylene homopolymer particles of colloidal size and 20 to 75 parts by weight of finely divided dispersible asbestos until a homogeneous mixture of the two wet solids is obtained, then coagulating the polymer particles, removing the aqueous medium and drying the solid mixture.

2,782,180
MODIFIED POLYTETRAFLUOROETHYLENE COMPOSITIONS AND PRODUCTS RELATED THERETO

Verne Wesley Weidman, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application August 25, 1952, Serial No. 306,301

8 Claims. (Cl. 260—41)



1. A pressure-coalescing molding composition comprising colloidal particles of a polymer of the class consisting of tetrafluoroethylene polymers and chlorotrifluoroethylene polymers, intimately admixed with coke flour filler, the quantity of filler being from 1 to 9 parts by weight per part of said polymer, the minimum sintering temperature of the polymer being within the range of 300° to 327° C.

2,782,181
OXIDIZABLE RUBBER CONTAINING A PHTHALIDYL PHENOL AS ANTIOXIDANT

Joseph F. Shekleton, Lyndhurst, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application February 23, 1954, Serial No. 412,079

7 Claims. (Cl. 260—45.8)

1. An oxidizable rubbery polymer of a conjugated diene containing a phthalidyl phenol as an antioxidant, the rubber portion of said rubbery composition being selected from the group consisting of natural rubber, polychloroprene, the copolymers of isobutylene with butadiene, the copolymers of isobutylene with isoprene, the copolymers of butadiene with styrene and the copolymers of butadiene with acrylonitrile.

2,782,182
PROCESS FOR INTERPOLYMERIZATION OF MALEIC ANHYDRIDE WITH VINYL ALKYL ETHERS

Robert M. Verburg, North Plainfield, N. J., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application October 30, 1951, Serial No. 253,958

4 Claims. (Cl. 260—78.5)

1. In the process of interpolymerizing vinyl alkyl ethers and maleic anhydride to produce interpolymers thereof wherein a solution of a mixture of a vinyl alkyl ether containing 1 to 5 carbon atoms in the alkyl group and maleic anhydride in an inert organic solvent therefor is subjected to the action of a peroxide polymerization catalyst to thereby effect interpolymerization thereof, the improvement which comprises incorporating in the reaction mixture as an additional catalyst for said interpolymerization a minor amount of a previously prepared interpolymer of such vinyl alkyl ether and maleic anyhydride.

2,782,183
POLYMER SEPARATION METHOD FOR CALCIUM POLYACRYLATES

Reginald N. González, Holyoke, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application August 8, 1952, Serial No. 303,410

8 Claims. (Cl. 260—88.7)

1. A method of preparing a solid pulverulent calcium salt of a hydrolyzed acrylonitrile polymer having from 66 to 74 percent of the original cyano nitrogen content converted to and evolved as ammonia, which comprises precipitating the said calcium salt at a temperature above 75° C. to form a suspension in a medium substantially entirely comprised of water, filtering the resulting suspension while maintaining the temperature above 75° C., and drying the precipitate at a temperature above 75° C.

2,782,184
N,N-BIS(1,1-DIHYDROPERFLUOROALKYL) ACYLAMIDES AND POLYMERS THEREOF

Donald R. Husted, St. Paul, and Arthur H. Ahlbrecht, White Bear Township, Ramsey County, Minn., assignors to Minnesota Mining & Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application July 17, 1953, Serial No. 368,825

7 Claims. (Cl. 260—89.7)

1. As new and useful reactive fluorocarbon compounds, the N,N-bis(1,1-dihydroperfluoroalkyl) acylamides having the formula:

$$\begin{array}{c} R_fH_2C \\ \\ R_f'H_2C \end{array} \!\!>\!N\!-\!C(=O)\!-\!R$$

where R_f and R_f' are perfluoroalkyl groups, one of which contains 1 to 11 carbon atoms and the other contains 3 to 11 carbon atoms, and R is an aliphatic group containing 1 to 17 carbon atoms selected from the class consisting of hydrocarbon groups and perfluoroalkyl groups.

2,782,185
DISAZO DYESTUFFS

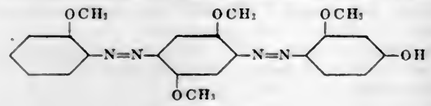
Ernst Merian, Allschwil, Switzerland, assignor, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company

No Drawing. Application October 26, 1953, Serial No. 388,437

Claims priority, application Switzerland October 31, 1952

1 Claim. (Cl. 260—186)

The disazo dyestuff which corresponds to the formula



2,782,186
MONOAZO DYESTUFFS

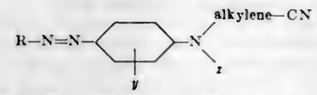
Ernst Merian, Allschwil, Switzerland, assignor, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company

No Drawing. Application September 2, 1952, Serial No. 307,565

Claims priority, application Switzerland September 7, 1951

6 Claims. (Cl. 260—196)

1. A monoazo dyestuff which corresponds to the formula



wherein the "alkylene" is a lower alkylene group, R stands for a member selected from the group consisting of radicals of the benzene and naphthalene series which possess in ortho-position to the azo group a substituent selected from the group consisting of H, Cl and Br, and in para-position to the azo group a methylsulfonyl group, R being free of further substituents, *y* stands for a member selected from the group consisting of hydrogen and lower alkyl, and *z* stands for a member selected from the group consisting of lower alkyl, lower hydroxyalkyl and lower cyanoalkyl.

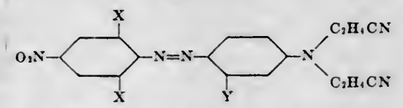
2,782,187
AZO DYES FOR POLYESTER FIBER

Mario Francesco Sartori, Monroe Park, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application October 1, 1954, Serial No. 459,829

6 Claims. (Cl. 260—205)

1. An azo dye of the general formula



wherein the X's designate members of the group consisting of hydrogen and halogen, while Y represents a member of the group consisting of hydrogen and lower alkyl.

2,782,188
MONOAZO DYESTUFFS

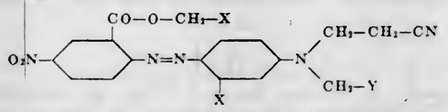
Ernst Merian, Allschwil, near Basel, Switzerland, assignor, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company

No Drawing. Application April 20, 1953, Serial No. 349,983

Claims priority, application Switzerland April 22, 1952

6 Claims. (Cl. 260—207.1)

1. A monoazo dyestuff which corresponds to the formula



wherein each X stands for a member selected from the group consisting of hydrogen and methyl, and wherein Y stands for a member selected from the group consisting of hydrogen, methyl, hydroxymethyl, hydroxyethyl and hydroxypropyl.

2,782,189
MONOAZO DYESTUFFS

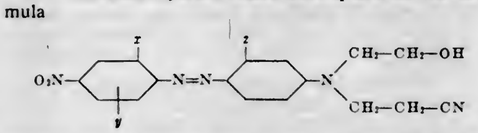
Ernst Merian, Allschwil, Switzerland, assignor, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company

No Drawing. Application September 5, 1952, Serial No. 308,143

Claims priority, application Switzerland September 7, 1951

5 Claims. (Cl. 260—207.5)

1. A monoazo dyestuff which corresponds to the formula



wherein *x* stands for a member selected from the group consisting of H, Cl and Br, *y* stands for a member selected from the group consisting of H, Cl, Br, methyl and methoxy, and *z* stands for a member selected from the group consisting of Cl and Br.

2,782,190

DEPOLYMERIZED ALGINIC ACID DERIVATIVES

Karl A. Fischer, Ahrensburg, and Herbert Sydow, Hamburg, Germany

No Drawing. Application March 8, 1952, Serial No. 275,662
Claims priority, application Germany March 10, 1951
5 Claims. (Cl. 260—209.6)

1. A process of preparing partially depolymerized alginic acid derivatives comprising the steps of treating at a raised temperature an aqueous solution of a water-soluble alkali metal salt of alginic acid having a pH of less than 7 with a reducing agent which does not react chemically to form derivatives of alginic acid so as to partially depolymerize said alkali metal salt of alginic acid; and collecting said partially depolymerized alkali metal salt of alginic acid.

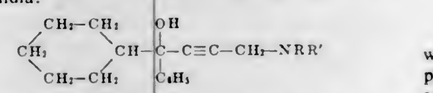
2,782,191

NITROGEN CONTAINING CARBINOLS

Walter Reppe and Heinrich Pasedach, Ludwigshafen (Rhine), Erich Dreher, Ludwigshafen (Rhine)-Oppau, and August Amann, Ludwigshafen (Rhine), Germany, assignors to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

No Drawing. Application March 22, 1954, Serial No. 417,941
Claims priority, application Germany March 24, 1953
5 Claims. (Cl. 260—239)

1. Members of the group consisting of basic nitrogen containing carbinols, the hydrohalides and the methyl halides thereof wherein the free base form has the general formula:



and R and R′ are radicals selected from the class consisting of methyl and ethyl and —NRR′ is a radical selected from the class consisting of pyrrolidino, piperidino, morpholino and hexamethylene-imino radicals.

2,782,192

STEROID PRODUCTION

Raymond L. Pederson, Roman P. Holysz, and Arnold C. Ott, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application September 23, 1953, Serial No. 381,998
12 Claims. (Cl. 260—239.5)

1. A metal halide complex compound selected from the group consisting of 22-N-piperidyl-20(22)-bisnorcholen-3-one metal halide complex and 22-N-piperidyl-4,20(22)-bisnorcholadien-3-one metal halide complex wherein the metal is selected from the group consisting of zinc, mercury, aluminum, and antimony, and wherein the halide ion is selected from the group consisting of chloride and bromide.

2,782,193

PROCESS FOR THE PREPARATION OF 15α,17α-OXIDO-Δ⁵-PREGNENE-3β-OL-20-ONE

Carl Djerassi, Birmingham, Mich., and George Rosenkranz and John Pataki, Mexico City, Mexico, assignors to Syntex S. A., Mexico City, Mexico, a corporation of Mexico

No Drawing. Application May 25, 1954. Serial No. 432,324
1 Claim. (Cl. 260—239.55)

A process for the preparation of 16α,17α-oxido-Δ⁵-pregnen-3β-ol-20-one comprising treating the 16-(γ-methyl-δ-acetoxy)-valerate of Δ⁵-pregnen-3β,16-diol-20-one-3-acetate with hydrogen peroxide in an alkaline medium.

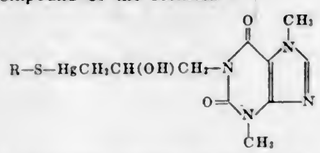
2,782,194

MERCAPTO DERIVATIVES OF MERCURATED 1-ALKYL-THEOBROMINE

John H. Biel, Milwaukee, Wis., assignor to Lakeside Laboratories, Inc., a corporation of Wisconsin

No Drawing. Application March 20, 1956, Serial No. 572,609
6 Claims. (Cl. 260—242)

1. A compound of the formula



wherein R is a water solubilizing residue of the group consisting of monocarboxy substituted lower alkyl groups, polycarboxy substituted lower alkyl groups, monocarboxy substituted aromatic groups, polycarboxy substituted aromatic groups, lower polyhydric alcohol groups, and salts thereof.

2,782,195

MANUFACTURE OF DIHYDROPYRIDAZINES

Jean Druey, Riehen, and Kurt Eichenberger, Basel, Switzerland, assignors to Ciba Pharmaceutical Products, Inc., Summit, N. J.

No Drawing. Application August 31, 1954, Serial No. 453,423
Claims priority, application Switzerland September 8, 1953
10 Claims. (Cl. 260—250)

1. 1-R-3-lower alkoxy-6-oxo-1,6-dihydropyridazines in which R represents a member of the group consisting of phenyl, lower alkyl and lower hydroxy alkyl radicals, and which contain a member of the group of chlorine and bromine in at least one of the positions 4 and 5 of the pyridazine ring.

2,782,196

METHOD OF HALOGENATING THIOUREA DIACETONE ALCOHOL DERIVATIVES

Mortimer T. Harvey, South Orange, N. J., assignor to Harvel Research Corporation, a corporation of New Jersey

No Drawing. Application December 28, 1953, Serial No. 400,814
8 Claims. (Cl. 260—251)

7. The method for halogenating a material selected from the group consisting of (*a*) a reaction product of thiourea and diacetone alcohol and having empirical formula $C_7H_{12}N_2S$, (*b*) hydrogenated (*a*) having empirical formula $C_7H_{14}N_2S$, (*c*) hydrohalogenated (*a*) having empirical formula $C_7H_{13}N_2SX$ in which X is a halogen atom, comprising contacting said material with a free halogen to combine therewith 2–6 atoms of halogen per mole thereof, said thiourea-diacetone alcohol reaction product obtainable by reacting 1 mole of thiourea with 1 mole of diacetone alcohol in the presence of HCl catalyst.

2,782,197

PREPARATION OF KETO PYRIMIDINES

Mortimer T. Harvey, South Orange, N. J., assignor to Harvel Research Corporation, a corporation of New Jersey

No Drawing. Application February 2, 1951, Serial No. 209,202
6 Claims. (Cl. 260—251)

1. A novel organic reaction product selected from the group consisting of (*a*) urea-diacetone alcohol organic reaction product which in substantially purified condition is normally a white crystalline solid having a melting point of approximately 279° C.–280° C. and (*b*) urea-mesityl oxide organic reaction product which in substantially purified condition is normally a white crystalline solid having a melting point of approximately 290° C.–291° C., each of said products (*a*) and (*b*) composed of carbon, hydrogen, nitrogen and oxygen, having a carbon content of substantially 60% and a nitrogen content of substantially 20%, and being substantially insoluble in cold water and substantially soluble in hot 1–1 hot alcohol-water.

2,782,198

HALOGENATION OF UREA-DIACETONE ALCOHOL AND UREA-MESITYL OXIDE REACTION PRODUCTS

Mortimer T. Harvey, South Orange, N. J., assignor to Harvel Research Corporation, a corporation of New Jersey

No Drawing. Application July 27, 1953, Serial No. 370,613
10 Claims. (Cl. 260—251)

1. The method comprising halogenating a compound selected from the group consisting of (*a*) urea-diacetone alcohol organic reaction product which in substantially purified condition is normally a white crystalline solid having a melting point of approximately 279–280° C. and (*b*) urea-mesityl oxide organic reaction product which in substantially purified condition is normally a white crystalline solid having a melting point of approximately 290–291° C. by contacting said compound with free halogen to combine with said compound 2–6 atoms of halogen per mole of said compound, said (*a*) and (*b*) each having the empirical formula of $C_7N_2H_{12}O$ and each being soluble in hot water, soluble in hot alcohol, soluble in hot alcohol-water and soluble in hot alcohol-toluene 1–1, said (*a*) and (*b*) obtainable by reacting 1 mole of urea with a compound selected from the group consisting of 1 mole of mesityl oxide and 1 mole of diacetone alcohol respectively in the presence of HCl catalyst.

2,782,199

TROPINE ESTER OF XANTHENE-9-CARBOXYLIC ACID AND SALTS THEREOF

John W. Cusic, Skokie, Ill., assignor, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware

No Drawing. Application January 13, 1954, Serial No. 403,909
4 Claims. (Cl. 260—292)

1. A member of the class consisting of the tropine ester of xanthene-9-carboxylic acid and the non-toxic salts thereof.

2,782,200

PROCESS FOR PREPARING 3-(4′-CHLOROBENZHYDRYLOXY)-TROPANE

Cyril H. Nield, New Brunswick, N. J., and William F. X. Bosch, Brooklyn, N. Y., assignors to Schenley Laboratories, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application July 12, 1955, Serial No. 521,611
7 Claims. (Cl. 260—292)

1. A process for the preparation of 3-(4′-chlorobenzhydryloxy)-tropane hydrochloride which comprises heating at a temperature of 145°–155° C. a solution of 3-tropanol in xylol to which 4-chlorobenzhydryl chloride has been added, filtering, washing the filtrate produced by filtering, extracting the washed filtrate with hydrochloric acid, separating the acid extract from the xylol layer thus formed, alkalinizing the acid extract with potassium hydroxide, extracting the oily base which separates with benzol, evaporating the benzol, and converting the crude product resulting therefrom to its hydrochloride by treating it with alcoholic hydrogen chloride.

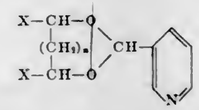
2,782,201

CYCLIC ACETALS OF PYRIDINE(3) ALDEHYDE

Floyd E. Anderson, Yonkers, N. Y., assignor to Nepera Chemical Co., Inc., Yonkers, N. Y., a corporation of New York

No Drawing. Application February 23, 1956, Serial No. 567,058
15 Claims. (Cl. 260—297)

1. Compounds of the group consisting of dioxolanes of the formula



wherein *n* is selected from the group consisting of zero, one and two and X is a member of the group consisting of hydrogen, alkyl and hydroxyalkyl radicals containing 1 to 6 carbon atoms, their salts and their quaternaries.

2,782,202

PRODUCTION OF DRY N,N-DIISOPROPYL-2-BENZOTHIAZOLESULFENAMIDE

Robert E. Henderson, Cuyahoga Falls, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application September 27, 1955, Serial No. 537,066
2 Claims. (Cl. 260—306.6)

1. The process of producing substantially dry N,N-diisopropyl-2-benzothiazolesulfenamide which comprises adding water to an N,N-diisopropyl-2-benzothiazolesulfenamide-containing mixture and separating the N,N-diisopropyl-2-benzothiazolesulfenamide from the water phase by centrifuging, while maintaining the water-sulfenamide mixture at a temperature sufficiently high to keep the N,N-diisopropyl-2-benzothiazolesulfenamide in molten state until the sulfenamide has been separated from the water phase.

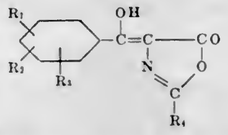
2,782,203

AXAZOL-5-ONE COMPOUNDS

Gustav Adolf Weitnauer, Milan, Italy, assignor to Lepetit S. p. A., Milan, Italy, a corporation of Italy

No Drawing. Application October 25, 1952, Serial No. 316,942
6 Claims. (Cl. 260—307)

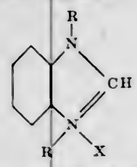
1. A member of the class consisting of compounds of the formula



and their ketonic tautomeric isomers, wherein R_1 and R_2 are members of the group consisting of hydrogen, halogen, lower alkyl and lower alkoxy radicals, R_3 is a member of the class consisting of hydrogen and the nitro group, and R_4 is a member of the class consisting of phenyl, lower alkyl and halogenated lower alkyl radicals.

2,782,204
BENZIMIDAZOLE COMPOUNDS
Leon E. Tenenbaum, Ardsley, N. Y., assignor to Nepera Chemical Co., Inc., Yonkers, N. Y., a corporation of New York
No Drawing. Application July 1, 1955, Serial No. 519,637
3 Claims. (Cl. 260—309.2)

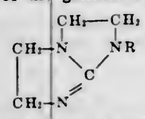
1. Compounds of the formula:



wherein R is an alkyl group containing 8 to 9 carbon atoms and X is one equivalent of an anion of the group consisting of chloride, bromide, iodide, phosphate and sulfate.

2,782,205
IMIDAZOLE DERIVATIVES
Arthur F. McKay, Pointe Claire, Quebec, and David L. Garmaise, Montreal, Quebec, Canada, assignors to Monsanto Canada Limited, La Salle, Quebec, Canada, a body politic and corporate
No Drawing. Application March 29, 1956, Serial No. 574,588
7 Claims. (Cl. 260—309.6)

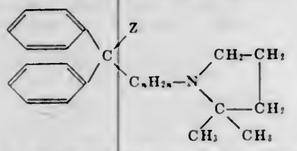
1. 1 - substituted - 2,3,5,6 - tetrahydro - 1 - imidaz (1,2-a) imidazoles of the general formula



wherein R is a radical selected from the group consisting of an alkyl radical having from 10 to 20 carbon atoms.

2,782,206
2,2-DIMETHYL-α,α-DIPHENYL-1-PYRROLIDENE-ALKANOAMIDES
Brooke D. Aspergren, Kalamazoo, Richard V. Heinzelman, Kalamazoo Township, Kalamazoo County, and Robert B. Moffett, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan
No Drawing. Application October 21, 1953, Serial No. 387,513
8 Claims. (Cl. 260—313)

1. A new class of compounds having the formula:



in which *n* is an integer from one to six, inclusive, and Z is selected from the class consisting of the cyano and carbamyl groups.

2,782,207
PRODUCTION OF COPPER-PHTHALOCYANINE PRECURSOR
Melvin A. Perkins and Myron S. Whelen, Brandywine Hundred, Del., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application May 17, 1954, Serial No. 430,400
6 Claims. (Cl. 260—319)

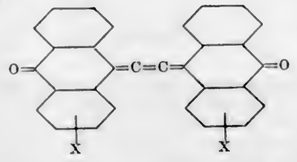
1. In the process of producing copper phthalocyanine precursor by heating together, at a temperature not exceeding 95° C., phthalonitrile, a copper salt and ammonia in an organic solvent, the improvement which consists of effecting the reaction in the presence of a non-gaseous oxidizing agent which is inert toward the solvent.

2,782,208
CHLORINATED COBALT PHTHALOCYANINE PRECURSORS
Robert A. Brooks, Salem, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application June 10, 1952, Serial No. 292,723
6 Claims. (Cl. 260—346.3)

1. A process for producing an intermediate complex compound adapted to yield a polychloro cobalt phthalocyanine upon being treated with reducing agents, which comprises reacting an agent of the group consisting of chlorinated phthalic anhydride and mixtures of chlorinated and unchlorinated phthalic anhydride, the chlorine content of the agent being on the average not less than 2 atoms of chlorine per molecule, with urea, and a salt of cobalt in an inert organic liquid in the presence of a molybdate catalyst at a temperature in the range of 140° to 180° C., the quantities of the reagents mentioned being in the proportions of not less than 5 moles of the phthalic reagent and not less than 2 moles of urea per mole of cobalt salt, and recovering from that portion of the reaction mass which is soluble in organic solvents a complex compound, devoid of tinctorial properties and corresponding in constitution to the empirical formula $C_{40}Cl_xH_{20-x}N_{11}Co$, wherein *x* represents an integer not less than 10 and not greater than 20.

2,782,209
DIANTHRONE ETHYLENE DERIVATIVES CONTAINING BROMINE AND PROCESS OF MAKING SAME
Emil Schwamberger, Frankfurt am Main-Fechenheim, Germany, assignor to Cassella Farbwerke Mainkur Aktiengesellschaft, Frankfurt am Main-Fechenheim, Germany, a company of Germany
No Drawing. Application January 13, 1953, Serial No. 331,099
Claims priority, application Germany January 16, 1952
4 Claims. (Cl. 260—351)

2. The reaction products of bromine in a strong acid of the group consisting of chlorosulfonic acid and sulfuric acid mono-hydrate on a dianthrone ethylene compound of the formula



(wherein the X's represent substituents of the group consisting of hydrogen, methyl and chlorine).

2,782,210
NEW OXIDATION PRODUCTS OF ORGANIC COMPOUNDS, AND A METHOD OF MAKING SAME
Hans Joachim Teuber, Heidelberg, Germany
No Drawing. Application June 20, 1952, Serial No. 294,713
Claims priority, application Germany July 24, 1951
9 Claims. (Cl. 260—396)

1. In a method of producing oxidation products of organic compounds, the step comprising oxidizing organic compounds with phenolic hydroxyl groups with metal salts of nitroso disulfonic acid.

2,782,211
MANUFACTURE OF DEHYDRO COMPOUNDS OF THE PREGNANE SERIES
Albert Wettstein and Julius Schmidlin, Basel, Switzerland, assignors to Ciba Pharmaceutical Products, Inc., Summit, N. J.
No Drawing. Application August 31, 1954, Serial No. 453,420
Claims priority, application Switzerland September 4, 1953
12 Claims. (Cl. 260—397.3)

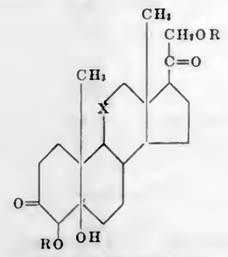
1. A process for the manufacture of 11:12-dehydro compounds of the pregnane series, which comprises reacting a pregnane compound which contains in one of the positions 11 and 12 a hydroxyl group and in the other position a halogen atom with zinc in the presence of a member of the group consisting of an aliphatic carboxylic acid and an aliphatic alcohol.

2,782,212
14-METHYL PREGNENES AND METHOD
Hans Heusser, Oskar Jeger, and Leopold Ruzicka, Zurich, Switzerland, assignors to Ciba Pharmaceutical Products, Inc., Summit, N. J.
No Drawing. Application January 26, 1954, Serial No. 406,363
Claims priority, application Switzerland January 29, 1953
5 Claims. (Cl. 260—397.45)

1. A process of preparing 14-methyl substituted steroids which comprises treating a member selected from the group consisting of a Δ^{14}-3,20-dioxygenated-16-keto-pregnene and a Δ^{14}-3,17-dioxygenated-16-keto-androstene with a methyl magnesium halide in the presence of a cupro-halide and then reducing the 16-carbonyl group to a methylene group.

2,782,213
4,5,21-TRIHYDROXYPREGNANE-3,20-DIONE, 11-OXYGENATED DERIVATIVES AND ESTERS THEREOF
Frank B. Colton, Chicago, Ill., assignor, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware
No Drawing. Application June 29, 1954, Serial No. 440,269
6 Claims. (Cl. 260—397.45)

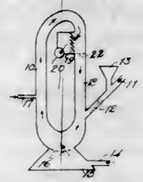
1. A compound of the structural formula



wherein X is a member of the class consisting of methylene, carbinol and carbonyl radicals and R is a member of the class consisting of hydrogen and (lower alkyl)-CO- radicals.

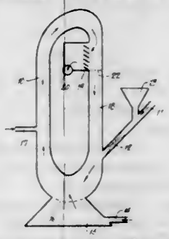
2,782,214
OXIDATIVE ALKALINE FUSION OF SULFUR-CONTAINING ORGANIC COMPOUNDS
Willard R. Sprowls, New York, N. Y., assignor to The Baker Castor Oil Company, New York, N. Y., a corporation of New Jersey
Application December 30, 1952, Serial No. 328,719
7 Claims. (Cl. 260—413)

1. A continuous process for the oxidative alkaline fusion of an organic compound containing a thio sulfur atom which is directly linked to a hydrocarbon radical of the aliphatic type, said compound being selected from the class consisting of organic monosulfides and mercaptans, which comprises: (*a*) charging said compound and an effective amount of a strong base, both of these compounds being in finely-divided form the particle size of said compounds, when charged as solids, not exceeding about 10 microns, into an enclosure containing a catalyst selected from the group consisting of metals and metal



compounds of group VI and group VIII metals of the periodic table and mixtures thereof; (*b*) introducing an elastic fluid selected from the class consisting of steam and inert gases substantially simultaneously into said enclosure to convey said charged compounds and the reaction products thereof through said enclosure; (*c*) heating the contents of said enclosure to an elevated temperature from about 180° to 425° C.

2,782,215
OXIDATIVE ALKALINE FUSION OF ORGANIC COMPOUNDS
Malcolm Kent Smith, Elizabeth, and Laszlo Auer, South Orange, N. J., assignors to The Baker Castor Oil Company, New York, N. Y., a corporation of New Jersey
Application December 30, 1952, Serial No. 328,762
16 Claims. (Cl. 260—413)



1. A continuous process for the oxidative alkaline fusion of aliphatic organic compounds selected from the group consisting of unsaturated aliphatic acids and functional derivatives thereof, which comprises: (*a*) charging the aliphatic organic compound and an effective amount of a strong base, both of these compounds being in finely divided form, the particle size of said compounds, when charged as solids, not exceeding about 10 microns, into an enclosure, at least stoichiometric amounts of water being present in said enclosure; (*b*) introducing an elastic fluid selected from the group consisting of steam and inert gases substantially simultaneously into said enclosure to convey said charged compounds and the reaction products thereof through said enclosure; and (*c*) heating the contents of said enclosure to an elevated temperature of about 180°–425° C.

2,782,216
REFINING VEGETABLE OILS
Lester P. Hayes and Hans Wolff, Decatur, Ill., assignors to A. E. Staley Manufacturing Company, Decatur, Ill., a corporation of Delaware
No Drawing. Application January 26, 1953, Serial No. 333,374
20 Claims. (Cl. 260—424)

1. In the process of degumming a vegetable oil by treating the oil with water and thereafter separating the aqueous component from the oil, the improvement which comprises, treating the oil prior to separation of the aque-

ous component from the oil with a small amount of at least one acid anhydride selected from the group consisting of acetic anhydride, propionic anhydride, butyric anhydride, maleic anhydride, succinic anhydride, monomethyl succinic acid anhydride and dimethyl succinic acid anhydride.

2,782,217

ISONONYLPHENYL-n-OCTANE SULFONATE

Joachim Dazzi, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application January 7, 1953, Serial No. 330,159

1 Claim. (Cl. 260—456)

Isononylphenyl n-octanesulfonate.

2,782,218

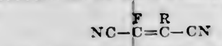
1-FLUORO-1,2-DICYANO - 2 - HYDROCARBON SUBSTITUTED ETHYLENES, AND THEIR PREPARATION FROM THE CORRESPONDING 1,1 - DIFLUORO - 2 - CYANOETHYLENES AND ALKALI CYANIDES

John Jay Drysdale, Clifton Park Manor, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 6, 1955, Serial No. 506,653

12 Claims. (Cl. 260—465.7)

5. A fluorodinitrile of the formula



wherein R is a saturated organic radical of up to seven carbons, of the class consisting of alkyl, cycloalkyl, perfluoroalkyl, and perfluorocycloalkyl radicals.

2,782,219

METHOD FOR PREPARING POLYFUNCTIONAL ORGANIC COMPOUNDS IN A FLAME AND HYDROPEROXY ORGANIC COMPOUNDS PREPARED THEREBY

Charles S. Cleaver, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application November 6, 1952, Serial No. 319,170

26 Claims. (Cl. 260—465.8)

1. Process which comprises contacting an aqueous dispersion of an organic compound having at least one functional group and a hydrogen-bearing carbon atom with an oxygen-containing fuel combusting mixture having a normal combustion wave, maintaining the aqueous dispersion of said organic compound in intimate mixture with said combusting mixture in a zone where the temperature of said combusting mixture is at least 1500° F. measured at standard atmospheric pressure, removing the aqueous dispersion thereby obtained from contact with said combusting mixture before complete combustion of said organic compound occurs, collecting the aqueous dispersion thus removed and separating therefrom a monomeric organic product having an additional functional group and of higher molecular weight than the organic compound originally contained in said aqueous dispersion.

2,782,220

CONDENSATION OF DI-ALKYL SUCCINATES

Donald William Ingram, Norton-on-Tees, England, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain

No Drawing. Application March 29, 1954, Serial No. 419,600

Claims priority, application Great Britain May 1, 1953

7 Claims. (Cl. 260—468)

1. A process for the production of an alcohol complex of a dialkali metal derivative of a lower dialkyl cyclohexa - 1,4 - diene - 2,5 - diol - 1,4 - dicarboxylate, which comprises reacting a lower dialkyl succinate with an alkali metal alkoxide in the presence of an organic diluent which is liquid under reaction conditions and has a boiling point above that of any alcohol formed in the reaction, said diluent being selected from the group consisting of excess succinate and paraffinic, aromatic and cyclic hydrocarbons.

2,782,221

PRODUCTION OF TEREPHTHALATES FROM CYCLOHEXANE-2,5-DIOL-1,4-DICARBOXYLATES

Hugh Wilma Boulton Reed, Norton-on-Tees, England, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain

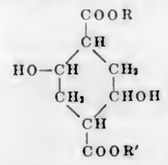
No Drawing. Application March 27, 1953, Serial No. 345,260

Claims priority, application Great Britain April 28, 1952

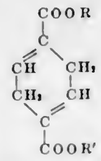
8 Claims. (Cl. 260—475)

1. A process for the production of a compound having the structure:

where R and R′ are selected from the group consisting of hydrogen and alkyl, which comprises dehydrating a cyclohexane derivative having the structure:—



whereby there is produced a cyclohexadiene derivative having the structure:



which is then dehydrogenated by thermal treatment of said cyclohexadiene derivative at a temperature within the range of from 150° to 750° C.

2,782,222

PRODUCTION OF TEREPHTHALIC ACID OR ESTERS THEREOF

Dennis Thompson, Norton-on-Tees, England, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain

No Drawing. Application March 29, 1954, Serial No. 419,576

Claims priority, application Great Britain May 1, 1953

10 Claims. (Cl. 260—475)

1. A process for the production of 1,4-benzene derivative having a formula: $C_6H_4(COOX)_2$ in which X is lower alkyl which comprises the step of treating 1,4-cyclohexadiene derivatives having a formula:

$$C_6H_8(COOX)_2$$

at a temperature of 50° to 300° C. by passing a gas containing free oxygen therethrough.

2,782,223

PRODUCTION OF TEREPHTHALATES FROM 2,5-DIACYLOXY-CYCLOHEXANE-1,4-DICARBOXYLATES

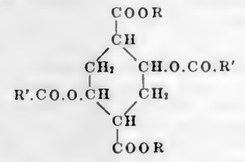
Hugh Wilma Boulton Reed, Norton-on-Tees, England, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain

No Drawing. Application March 29, 1954, Serial No. 419,578

Claims priority, application Great Britain May 1, 1953

2 Claims. (Cl. 260—475)

1. A process for the production of a lower dialkyl terephthalate comprising the steps of decomposing by subjecting to a temperature of 200° to 650° C., a di-ester of a dialkyl cyclohexane-2,5-diol-1,4-dicarboxylate, having the formula:



wherein R and R′ are lower alkyl groups, to obtain a lower dialkyl cyclohexa-1,4-diene-1,4-dicarboxylate and thermally dehydrogenating said cyclohexa-1,4-diene-1,4-dicarboxylate by heating the same at a temperature of 350° to 650° C.

2,782,224

PRODUCTION OF TEREPHTHALIC ACID AND ESTERS

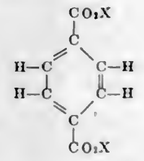
Peter Smith, Norton-on-Tees, England, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain

No Drawing. Application April 23, 1954, Serial No. 425,303

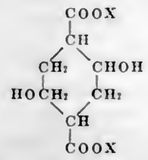
Claims priority, application Great Britain May 1, 1953

8 Claims. (Cl. 260—475)

1. In a process for the preparation of organic compounds of the formula:



by dehydration and dehydrogenating a starting material comprising a compound having the formula:



wherein X is lower alkyl, respectively, the improvement which comprises conducting said dehydration by heating in the liquid phase said starting material at a temperature of at least 150° C. in a solution containing from 0.01% to 5% by weight of a di-alkali metal salt of cyclohexane-2,5-diol-1,4-dicarboxylic acid.

2,782,225

PRODUCTION OF TEREPHTHALIC ACID, ESTERS OR ACID ESTERS

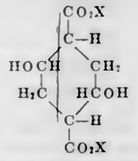
David Gwyn Jones, Norton-on-Tees, England, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain

No Drawing. Application April 2, 1954, Serial No. 420,753

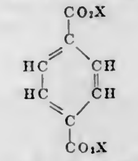
Claims priority, application Great Britain May 1, 1953

5 Claims. (Cl. 260—475)

1. In a process for the conversion of a compound having the structure:



wherein X is lower alkyl, by dehydration and subsequent dehydrogenation to form a compound of the formula:



wherein X has the meaning above, the improvement which comprises conducting said dehydration by heating the starting material in the liquid phase in the presence as a solvent of a hydroxyl compound selected from the group consisting of water and aliphatic alcohols containing no more than four carbon atoms, said heating being carried out at a temperature from 150° C. to the critical temperature of said solvent while employing a pressure sufficient to maintain said reaction in the liquid phase.

2,782,226

PRODUCTION OF HYDRACRYLIC ACID ESTERS

Marius Séon, Montreuil-sous-Bois, and Jean Leleu, Aulnay-sous-Bois, France, assignors to Pechiney Compagnie de Produits Chimiques et Electrometallurgiques, Paris, France, a corporation of France

No Drawing. Application May 4, 1954, Serial No. 427,650

Claims priority, application France May 7, 1953

7 Claims. (Cl. 260—484)

1. A process for producing monoethylene glycol hydracrylate, which comprises producing a hydracrylic acid ester by reacting ethylene oxide, carbon monoxide and water in the presence of a cobalt carbonyl catalyst under superatmospheric carbonylating pressures and at reaction temperatures of the order of 100° C. and below.

2,782,227

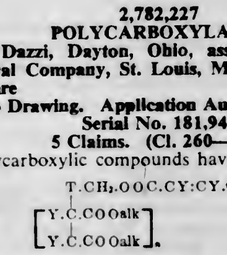
POLYCARBOXYLATES

Joachim Dazzi, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application August 28, 1950, Serial No. 181,947

5 Claims. (Cl. 260—485)

1. Polycarboxylic compounds having the formula



in which T is an alkenyl radical of from 9 to 23 carbon atoms, Y is selected from the class consisting of hydrogen and the methyl radical, alk is an alkyl radical of from 1 to 6 carbon atoms, and *n* is a number of from 1 to 3.

2,782,228

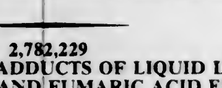
PREPARATION OF ADDUCTS OF LIQUID, LINEAR POLYBUTADIENE AND ESTERS OF ITACONIC AND ACONITIC ACIDS

Joachim Dazzi, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application May 21, 1953, Serial No. 356,600

5 Claims. (Cl. 260—485)

1. The process which comprises heating a linear liquid polymeric butadiene hydrocarbon with an ester having the formula



in which R and R′ are alkyl radicals of from 1 to 8 carbon atoms and Y is selected from the class consisting of hydrogen and the radical —COOR, and recovering from the resulting reaction product an adduct in which from 1 to 2 moles of said ester are combined at each of at least 5 percent of the olefinic units of said polymeric hydrocarbon.

2,782,229

PREPARATION OF ADDUCTS OF LIQUID LINEAR POLYBUTADIENE AND FUMARIC ACID ESTERS

Joachim Dazzi, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application April 27, 1953, Serial No. 351,513

5 Claims. (Cl. 260—485)

1. The process which comprises heating, at a temperature of 125° C. to 300° C., a liquid, linear polymeric butadiene hydrocarbon with an ester selected from the class consisting of an alkyl fumarate having from 1 to 8 carbon atoms in the alkyl radical and an alkoxyalkyl fumarate having from 2 to 8 carbon atoms in the alkoxyalkyl radical and tetrahydrofurfuryl fumarate, and recovering from the resulting reaction product a viscous adduct in which from 1 to 3 moles of said ester are combined at each of at least 5 percent of the olefinic units of said polymeric hydrocarbon.

2,782,230

SULFONATION WITH SULFUR TRIOXIDE

William H. Seaton, Nitro, W. Va., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application April 6, 1953, Serial No. 347,139

4 Claims. (Cl. 260—505)

1. In a process of producing a substantially inorganic salt-free organic sulfonate surface active agent by sulfonation of an alkylated aromatic hydrocarbon containing at least 10 carbon atoms in the side chain with sulfur trioxide and neutralizing the sulfonic acid so produced, the steps of adding a material of the group consisting of elemental mercury and mercury salts to the crude sulfonation mass after completing the sulfonation reaction without a catalyst but before neutralization of the sulfonic acid is complete, heating and stirring the mixture, and neutralizing the sulfonated material.

2,782,231

PREPARATION OF MALONANILIC ACID AND SUBSTITUTED MALONANILIC ACIDS

Bryan C. Redmon, Baltimore, Md., assignor to National Distillers Products Corporation, New York, N. Y., a corporation of Virginia

No Drawing. Application December 17, 1952, Serial No. 326,577

6 Claims. (Cl. 260—518)

1. In the process for producing malonanilic acid, and substituted malonanilic acids, which comprises reacting carbon dioxide with an alkali-metal derivative of a compound of the group consisting of acetanilide and substituted acetanilide, the step of effecting the reaction of the carbon dioxide with the acetanilide derivative while the latter is in anhydrous suspension in an inert liquid at a temperature within the range of 20° C. to 100° C. and thereby forming the corresponding malonanilate.

2,782,232

PRODUCTION OF GENTISATES

Wesley C. Stoesser and William R. Surine, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application May 13, 1953, Serial No. 354,870

8 Claims. (Cl. 260—521)

1. In a method wherein a 5-halosalicylate is hydrolyzed substantially completely by reaction with an aqueous solution of a basic sodium compound to form a solution comprising sodium gentisate, the steps of enriching the solution with a water-soluble and ionizable sodium salt other than sodium gentisate and sodium salicylate and bringing the hydrolysis mixture to a pH value not higher than 9, crystallizing sodium gentisate from the resulting mixture, and removing crystalline sodium gentisate from the mixture while the latter is at a temperature not higher than 30° C.

2,782,233

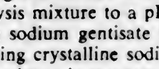
BORIC TRIS-(FLUOROCARBOXYLIC) ANHYDRIDES

Earl L. Muetterties, Hockessin, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 11, 1955, Serial No. 493,811

6 Claims. (Cl. 260—545)

1. Boric tris(fluorocarboxylic)anhydrides of the general formula



wherein R is a fluoroalkyl group in which all carbon atoms bear two fluorine atoms and the remaining atom attached to the terminal carbon atom is selected from the class consisting of hydrogen and fluorine.

2,782,234

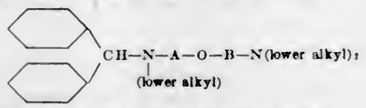
N-ALKYL-N-(DIALKYLAMINOALKOXYALKYL) BENZHYDRYLAMINES AND SALTS THEREOF

Kurt J. Rorig, Evanston, Ill., assignor, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware

No Drawing. Application August 13, 1954, Serial No. 449,787

7 Claims. (Cl. 260—570)

1. A compound of the structural formula



wherein A and B are lower alkylene radicals.

2,782,235

PREPARATION OF C-NITROSODIARYLAMINES

Robert Lazare Lantz, Paris, and Gilbert Henri Victor Kremer, Ermont, France, assignors to Compagnie Francaise des Matieres Colorantes, Paris, France, a French body corporate

No Drawing. Application January 4, 1955, Serial No. 479,866

5 Claims. (Cl. 260—576)

1. A process for the preparation of a C-nitrosodiarylamine from the corresponding N-nitrosodiarylamine, which comprises treating said N-nitrosodiarylamine with an aqueous solution of a hydrogen halide in the presence of a lower alkyl alcohol containing more than two atoms of carbon in the alkyl radical, and maintaining the aqueous mixture agitated at a temperature in the range of 0–50° C.

2,782,236

PRODUCTION OF AMINODIBORANES

George F. Huff, Pittsburgh, Pa., assignor to Callery Chemical Company, Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application October 15, 1953, Serial No. 386,399

7 Claims. (Cl. 260—583)

1. That method of making an aminodiborane comprising reacting an amine-borine and an aprotonic acid of the Lewis type in proportions of 2 mols of the former to 1 of the latter, and then separating and recovering from the reaction products the aminodiborane thus formed.

2,782,237

MANUFACTURE OF ALIPHATIC PRIMARY AMINES

Frank Hindley and James Wotherspoon Fisher, Spondon, near Derby, England, assignors to British Celanese Limited, a British company

No Drawing. Application March 13, 1953, Serial No. 342,295

Claims priority, application Great Britain March 17, 1952

10 Claims. (Cl. 260—585)

1. Process for the manufacture of aliphatic primary amines containing at the most only small quantities of secondary amines, which comprises heating a reaction system consisting of one molecular proportion of a substantially anhydrous aliphatic alcohol, 1.1–1.5 molecular proportions of ammonia, 0–0.1 molecular proportions of the secondary amine corresponding to the alcohol, and a hydrogenating catalyst selected from the group which consists of nickel, cobalt, iron, copper chromite and nickel chromite catalysts, to a temperature of 170°–220° C. under a pressure sufficient to keep the alcohol in the liquid phase.

2,782,238

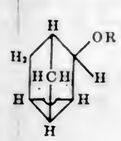
NORTRICYCLYL ETHERS

Henry Bluestone, Samuel B. Soloway, Julius Hyman, and Rex E. Lidov, Denver, Colo., assignors, by mesne assignments, to Shell Development Company, Emeryville, Calif., a corporation of Delaware

No Drawing. Application July 20, 1951, Serial No. 237,843

3 Claims. (Cl. 260—612)

1. A nortricyclyl ether having the following planar structural formula:



wherein R is an aromatic radical.

2,782,239

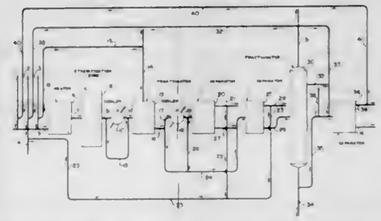
ETHERIFICATION OF HYDROXYAROMATIC COMPOUNDS

Julian M. Mavity, Hinsdale, Ill., assignor to Universal Oil Products Company, Chicago, Ill., a corporation of Delaware

Application April 4, 1951, Serial No. 219,241

6 Claims. (Cl. 260—613)

5. The process which comprises reacting hydroquinone and methanol in a reaction zone at a temperature of from about 350° to about 700° F. in the presence of a finely divided silica-alumina catalyst carried into said reaction zone as a suspension in a hydrocarbon oil having a boiling range higher than that of p-methoxyphenol, withdrawing reaction products and catalyst in commingled state from said reaction zone, separating dimethyl ether, methanol and water from other reaction products and catalyst, recycling at least a portion of said separated dimethyl



ether and methanol within the process, subsequently separating hydrocarbon oil from the other reaction products and catalyst, and recycling at least a portion of the hydrocarbon oil for further use in the process, subsequently separating liquid reaction products from catalyst, and thereafter treating the liquid reaction products to separate p-methoxyphenol, dimethoxybenzene and a hydroquinone-tar fraction.

2,782,240

ETHERS OF POLYOXYALKYLENE GLYCOLS

Robert E. Hefner and Malcolm E. Pruitt, Lake Jackson, Tex., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application November 21, 1952, Serial No. 321,944

14 Claims. (Cl. 260—613)

1. The process for preparing alkali metal salts of monoethers of polyoxyalkylene glycols which consists essentially of reacting at least one compound of the class consisting of the 1,2-epoxides of ethylene, propylene, and butylene with the alkali metal salt of a monohydroxy compound of the class consisting of aliphatic alcohols and phenols having from 1 to 20 carbon atoms and containing only carbon, hydrogen, and oxygen in the molecule, with no functional group other than the hydroxy group attached thereto, said reaction being carried out under relatively moisture-free conditions in the temperature range of 60° to 200° C. by adding the 1,2-epoxy compound to a well-agitated solution of the alkali metal salt of the monohydroxy compound in a diluent which is relatively inert to both the alkali metal and the 1,2-epoxy compound until at least 5 moles of 1,2-epoxy compound have been added for each mole of the alkali metal salt of the monohydroxy compound.

2,782,241

BARK TREATMENT PROCESS AND PRODUCT

Kenneth Russell Gray and Hartzell Lance Crosby, Shelton, Wash., assignors to Rayonier Incorporated, Shelton, Wash., a corporation of Delaware

No Drawing. Application March 2, 1955, Serial No. 491,796

19 Claims. (Cl. 260—619)

18. A water-soluble aromatic product comprising at least 6% phenolic hydroxyl produced by digesting a bark of the group consisting of Western hemlock, Douglas fir, White fir, Sitka spruce and Southern Yellow pine in an

aqueous solution of sodium hydroxide having a concentration of about 1% and containing about 0.065 part sodium hydroxide per part of bark at a temperature of from 65° C. to 150° C. for from 0.5 to 2 hours, said bark product having combined therewith from 0.04 to 0.13 part of sodium hydroxide per part of dry bark.

2,782,242

PURIFICATION OF PHENOL

James K. Clark, St. Lambert, Quebec, Canada, assignor to B. A.-Shawinigan Limited, Montreal, Quebec, Canada, a corporation of Canada

Application September 23, 1954, Serial No. 458,001

10 Claims. (Cl. 260—621)

1. A process for the purification of phenol made from cumene by way of the hydroperoxide comprising (*a*) first extracting the said phenol with a hydrocarbon liquid selected from the group consisting of the alkanes containing 6 to 9 carbon atoms and mixtures thereof in an amount and at such a temperature that only two phases are produced, both liquid, rich in phenol and in hydrocarbon respectively, (*b*) separating the said hydrocarbon phase from the phenol phase, (*c*) extracting the said hydrocarbon phase with water in an amount and at a temperature such that only two liquid phases are produced, rich in hydrocarbon and in water respectively, and (*d*) recovering the purified phenol from the aqueous phase.

2,782,243

HYDROGENATION OF ESTERS

Lawrence G. Hess and Helmut W. Schulz, Charleston, W. Va., assignors to Union Carbide and Carbon Corporation, a corporation of New York

No Drawing. Application March 29, 1954, Serial No. 419,575

7 Claims. (Cl. 260—638)

1. A process for the production of alcohols from esters which comprises reacting a lower aliphatic ester with hydrogen under hydrogenating conditions in the presence of a catalyst consisting of copper oxide promoted with chromium oxide and containing from 1 to 5 parts of chromium per 100 parts of copper.

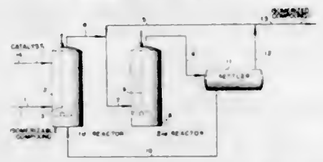
2,782,244

ISOMERIZING HYDROCARBONS WITH THE CATALYST IN THE CONTINUOUS PHASE INVERTING THE PHASES AND SEPARATING THE CATALYST EMPLOYING PHASE INVERSION

Lewis E. Drehman, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application January 24, 1952, Serial No. 267,972

7 Claims. (Cl. 260—683.5)



1. A process for the isomerization of a hydrocarbon selected from the group consisting of isomerizable straight-chain and cyclic hydrocarbons under isomerization conditions which comprises the steps of in a first zone intimately admixing and contacting under said conditions all of said hydrocarbons and an isomerization catalyst immiscible therewith in a volume ratio of hydrocarbons to catalyst of less than 1, the catalyst constituting the continuous phase and the hydrocarbon constituting the discontinuous phase; then in a second zone admixing intimately with said hydrocarbon and catalyst admixture, obtained as aforesaid, a sufficient amount of a hydrocarbon to cause a phase inversion; and then allowing the final admixture thus obtained to settle and separating the catalyst and the hydrocarbon phases thus formed each from the other.

ELECTRICAL

2,782,245

ELECTRIC FURNACE FOR MELTING OF HIGH MELTING POINT METALS OR ALLOYS

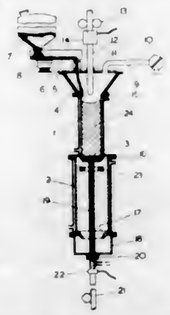
Jack Preston, Hall Green, Birmingham, England, assignor to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

Application March 25, 1955, Serial No. 496,716

Claims priority, application Great Britain April 2, 1954

5 Claims. (Cl. 13—9)

1. Arc-melting furnace which comprises a cooled arc-melting crucible superimposed above a cooled arc-melting crucible of larger cross sectional area, a cooled base member longitudinally adjustable between an upper position where it serves as a base closure for the upper crucible and a lower position where it serves as a base closure for the lower crucible, means for supplying raw material to the crucible assembly, means for evacuating the said assembly and a longitudinally adjustable consumable electrode assembly for the upper crucible adapted also to function as a stem for an electrode formed in the



upper crucible for use in the operation of the lower crucible.

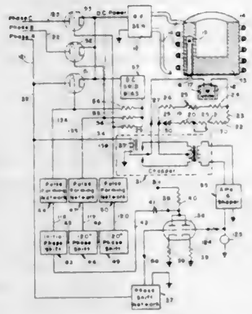
2,782,246

TEMPERATURE CONTROL

Arthur D. Evans, Dallas, Tex., assignor to Texas Instruments Incorporated, Dallas, Tex., a corporation of Delaware

Application March 30, 1955, Serial No. 497,858

24 Claims. (Cl. 13—24)



21. A method of controlling the temperature of electric furnaces in which the electrical power to said furnace is supplied through at least one grid controlled, gas-filled thermionic emission device, comprising the steps of cyclically supplying power to said furnace through said at least one device, producing a voltage which is a function of the difference between actual furnace temperature and a reference temperature, and controlling the conductive period of said at least one device during each cycle by said voltage whereby the electrical power to said furnace is continuously controlled.

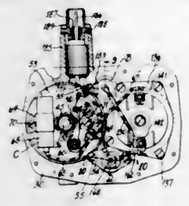
2,782,247

IGNITION DISTRIBUTOR AND COIL UNIT

Max G. Bales, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Original application August 17, 1950, Serial No. 179,970, now Patent No. 2,662,105, dated December 8, 1953. Divided and this application March 17, 1953, Serial No. 342,924

4 Claims. (Cl. 123—148)



1. In an ignition system for an internal combustion engine including an ignition coil and an ignition distributor the combination with a housing having an opening to support an ignition coil provided with a primary winding and a second opening having a bore to receive a condenser unit housed in a condenser housing, said unit including a core, a coil of a foil winding electrically connected with the core, a second foil winding grounded to the housing of the condenser, and a conducting rod attached to the core and extending beyond the bore in first mentioned housing; a coupling for retaining the unit with the bore; a yieldable grommet of rubberlike material located between the rod and coupling for insulating the rod from the coupling, said rod being adapted to engage portions of a metal socket when said socket is attached to said coupling for electrically connecting the core with a current source through a conducting member having one end electrically connected with the core and having the other end connected with the primary winding of the ignition coil.

2,782,248

ELECTRICAL CABLE STRUCTURE

Frank M. Clark, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application June 1, 1951, Serial No. 229,401

5 Claims. (Cl. 174—25)

1. A liquid dielectric filled electrical cable comprising an electrical conductor and layered paper insulation therefor impregnated with said liquid dielectric, one layer of said paper insulation being in direct contact with said conductor and being separated from the next adjacent layer of said paper insulation by a layer of resinous material completely surrounding said conductor.

2,782,249

SUBMARINE CABLE

Paul Marcel Martin, Paris, France

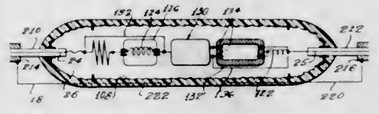
Application March 18, 1950, Serial No. 150,392

In France June 13, 1944

Section 1, Public Law 690, August 8, 1946

Patent expires June 13, 1964

14 Claims. (Cl. 174—70)



1. In a submarine cable, in combination, a central conductor; a dielectric material insulating said central conductor; a repeater apparatus connected to said central conductor; a housing for said repeater apparatus; a plastic material filling said housing and bonded to said dielectric material; and an earthing wire enclosed by said dielectric material except at its outer end and extending over a path within said dielectric material substantially longer than the linear distance from the end of said housing to the adjacent end of said dielectric material.

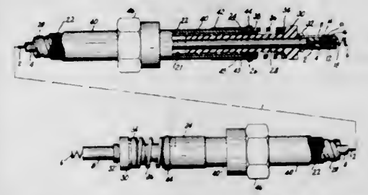
2,782,250

SHIELDED ELECTRICAL CONDUCTOR

Robert C. Woofter, Cortland, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application December 13, 1951, Serial No. 261,431

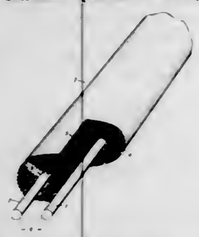
2 Claims. (Cl. 174—77)



1. An electrical conductor assembly for use with the spark plugs of an internal combustion engine or the like having in combination a conducting element surrounded by a sheath of suitable insulating material, a flexible metal conduit surrounding said sheath, a shielding covering surrounding said flexible metal conduit, a resilient termi-

nal connected to said conducting element, a protective sheath of flexible waterproof material surrounding and applied to the outer surface of said shielding covering means for connecting the conductor assembly in operative position including a ferrule positioned adjacent the end of the conductor assembly, said ferrule having an annular flange portion and a part surrounding said protective sheath and engaging the sheath with sufficient force to form a water-tight joint between itself and said sheath, a cooperating nut engaging the annular flange portion of said ferrule and adapted to hold the conductor in operative position, a flange member mounted on the conducting element adjacent the terminal, resilient means between said flange member and the flange portion of said ferrule, adapted to exert pressure between said flange member and the flange portion of said ferrule engaged by said nut when the conductor is assembled in position, in order to exert a pressure on the terminal through the flange member to insure a good contact and a water-tight seal at the flange member.

2,782,251
CABLES FOR HIGH FREQUENCY USE
Lawrence C. Ebel, Dobbs Ferry, and Ralph G. D'Ascoli, Yonkers, N. Y., assignors, by mesne assignments, to Belden Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application November 29, 1952, Serial No. 323,251
3 Claims. (Cl. 174—113)



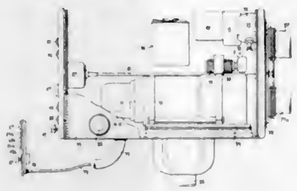
1. An electrical cable particularly adapted for the transmission of high frequency electrical energy, comprising a pair of spaced conductor wires, a continuous core of multi-cellular, low density insulating material separating said conductor wires, and a sheath of high density insulating material impervious to fluid and compatible with the material forming said core surrounding said electrical conductor wires and core, the core having a dielectric constant less than that of the sheath, at least a substantial proportion of the individual cells in said core being sealed from each other and said core being bonded directly to said sheath to prevent the longitudinal flow of gas or vapor through the interior of said sheath.

2,782,252
PHASE ERROR CORRECTION APPARATUS FOR COLOR TELEVISION INDEXING SYSTEM
George A. Fedde, Philadelphia, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application February 18, 1953, Serial No. 337,538
16 Claims. (Cl. 178—5.4)

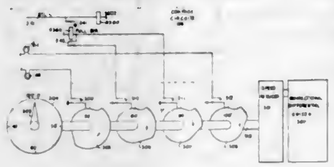
14. A cathode-ray tube system for reproducing a color television image as defined by a color video wave indicative of visual aspects of said image, said system comprising a cathode-ray tube having an electron beam intercepting member, means for generating electrons and for directing the same in beam formation towards said beam intercepting member and means for varying the flow of electrons from said generating means, said intercepting member comprising first portions each comprising a plurality of stripes of fluorescent material arranged in substantially parallel relationship, said stripes being adapted to produce light of different colors in response to electron impingement, and said member further comprising second portions spaced apart substantially parallel to said fluorescent stripes and having a response characteristic upon electron impingement different from the response characteristic of said first portions; means for scanning said electrons in beam formation across said beam intercepting member at a given nominal rate thereby to energize said first and second portions; means for applying said color video wave to said electron flow varying means thereby to produce variations of the response of said first portions; a source of a first signal coupled to said tube for varying the flow of electrons from said generating means at a first nominal frequency value; means for deriving from said intercepting member a second signal having a carrier frequency determined by the frequency of said first signal and having first order upper and lower sideband components, said sideband components each having a nominal frequency value as determined by the rate of scanning said second portions and undergoing frequency variations as determined by variations of the rate of scanning said second portions; frequency selective means energized by said second signal and adapted to selectively transmit said sideband components and attenuate other components of said second signal, said frequency selective means having phase characteristics which vary as a function of the frequency of signals applied thereto whereby said means impart to the said transmitted sideband components phase variations as determined by the frequency variations of the said transmitted components about their respective nominal frequency value; means for combining said transmitted sideband components to produce a first heterodyne signal having a nominal frequency value equal to twice the nominal rate of scanning said second portions and having phase variations substantially equal to the sum of the phase variations of said transmitted sideband components; means for combining one of said transmitted sideband components and said first signal to produce a second heterodyne signal having a nominal frequency equal to the nominal rate of scanning said second portions and having phase variations equal to the phase variations of said one transmitted sideband component; a transmission path coupled to said last mentioned combining means, said transmission path having a phase characteristic which varies as a function of the frequency of a signal applied thereto whereby said path imparts additional phase variations to said second heterodyne signal; and means for combining said first and second heterodyne signals to produce an output heterodyne signal having a nominal frequency equal to the nominal rate of scanning said second portions and having phase variations substantially equal to the difference between the phase variations of said first heterodyne signal and the total phase variations of said second signal.

2,782,253
CAMERAS, PARTICULARLY TELEVISION CAMERAS
Douglas Allanson, Cambridge, England, assignor to Pye Limited, Cambridge, England, a British company
Application March 17, 1952, Serial No. 276,895
Claims priority, application Great Britain March 22, 1951
12 Claims. (Cl. 178—7.2)

1. In a camera having adjustable focussing means including a focus control member for focussing the camera in accordance with the object distance, the combination of two adjustable potentiometers each adapted to be connected to a voltage supply, and to supply when so connected an output voltage variable according to the adjustment of said potentiometer, adjusting means for one of said potentiometers coupled for movement with said focus control member, manually operable adjusting means for the other potentiometer, an electric motor drive for said focus control member, electrical voltage generating means connected with said motor drive for producing a feed-back voltage variable in accordance with the rate of movement of said drive, and means differentially controlled by the output voltages of said two potentiometers and by said feed-back voltage for controlling the operation of said motor drive.

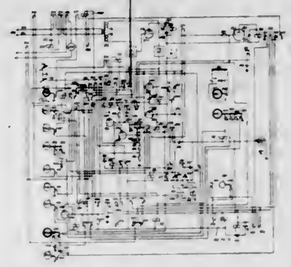


2,782,254
TAPE MEASURING DEVICE FOR A TELETYPEWRITER MESSAGE STORING UNIT
Leith Johnston, Chicago, and Richard C. Stiles, La Grange, Ill., assignors to Automatic Electric Laboratories, Inc., Chicago, Ill., a corporation of Delaware
Application October 13, 1953, Serial No. 385,824
10 Claims. (Cl. 178—17)



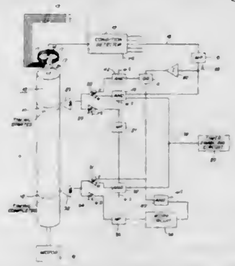
9. In a teletypewriter system having a plurality of message storage units, an automatic selecting switch having an incoming conductor over which signals of a telegraph message are received together with means for selecting one of said storage units for receiving the signals of said message, a reperforator in each of said storage units operated in response to received signals to produce a record thereof upon a tape, a storage bin in each message storage unit for storing tape upon which a record has been produced by the respective reperforator, a transmitter in each message storage unit operated according to the record stored in the respective storage bins for transmitting signals and a means for removing the tape from the storage bin and directing it to the transmitter, means in each message storage unit for registering the amount of tape in the respective storage bins, means associated with each of said registering means and operated in response to each operation of the respective reperforator for controlling said registering means in one manner to register the receipt of additional tape by the respective storage bin, and means associated with each registering means and operated in response to each operation of the respective transmitter for controlling said registering means in another manner to register the removal of tape from the respective storage bin, means in each message storage unit for marking the storage unit busy to prevent its selection for the receipt of additional messages, and means in each message storage unit controlled by the respective registering means for rendering said last means effective as soon as a predetermined linear amount of tape is stored in the respective storage bin.

2,782,255
TELEPHONOGRAPH
Max G. Handschin, Kusnacht, near Zurich, and Walter Spieser, Zurich, Switzerland, assignors to Promundo, Schaan, Liechtenstein
Application December 31, 1951, Serial No. 264,318
18 Claims. (Cl. 179—6)



1. In a telephonograph comprising, in combination, a replying device, a recording and reproducing device, a cancelling device, a motor for driving said devices, and mechanical switch-controlling cam means also driven by said motor, and automatic control apparatus including amplifiers and mechanical switches for controlling the aforesaid devices, a plurality of separable housings mounted one upon another in a vertical array, with said devices being mounted in one of said housings, said apparatus in an adjacent housing, and mechanical switch actuating means extending separably from said cam means in at least one of said housings to said switches in another of said housings for controlling the equipments from one housing to another.

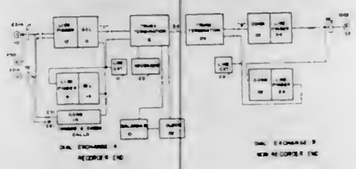
2,782,256
TIMING CIRCUITS
William A. Malthaner, New Providence, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application March 5, 1953, Serial No. 340,472
14 Claims. (Cl. 179—7.1)



1. A timing circuit comprising alterable memory means having a plurality of memory sections each comprising a plurality of memory elements, means for successively reading the condition of each memory element of a memory section, means for detecting a condition to be timed, means for generating a timer enabling pulse at regular predetermined intervals, each of said pulses being of a duration sufficient for said reading means to read the condition of each memory element of a memory section exactly once, means for placing a mark in a memory element in a first memory section on the first simultaneous occurrence of said condition and one of said timer

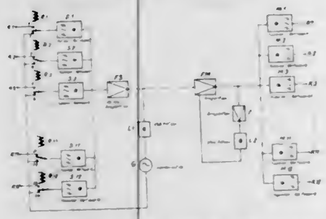
enabling pulses, means for placing a mark in a memory element in a second memory section on the simultaneous occurrence of the output from said reading means for said first memory section and one of said timer enabling pulses, and means for removing said mark in said first memory section on cessation of said condition before the placing of said mark in said second memory section.

2,782,257
AUTOMATIC TELEPHONE SYSTEM
William H. Blashfield and James M. Blackhall, Galion, Arne Oxaal, Kenton, and Walter J. Bergman, Galion, Ohio, assignors to North Electric Company, a corporation of Ohio
Application July 23, 1951, Serial No. 238,092
48 Claims. (Cl. 179—7.1)



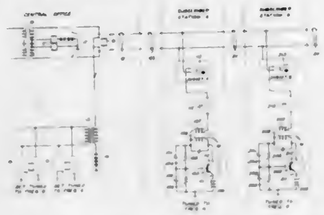
1. In an automatic telephone exchange, a plurality of subscriber lines therein, switching links for establishing connections between said subscriber lines with seizure thereof by a calling line, and call extending means operative with seizure thereof over one of said links by a calling subscriber to seize an idle one of said regular call establishing links, and link control means associated with said call extending means for extending a connection to the calling party line over the link seized by said call extending means.

2,782,258
AUTOMATIC CONTROL SYSTEM
Fritz Ragnar Valdemar Stålemark, Stora Essingen, Stockholm, and Dan Björn Hjalmar Lundvall, Stockholm, Sweden, assignors to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a company of Sweden
Application December 21, 1951, Serial No. 262,816
Claims priority, application Sweden December 29, 1950
9 Claims. (Cl. 179—15)



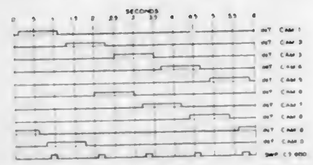
1. An automatic control system for controlling the transmission level of a multi-channel carrier transmission system comprising a plurality of signal intelligence circuits, filtering and modulating means for each circuit, an output amplifier connected with each of said modulating and filtering means, a signal generator, means connecting said generator with the output amplifier for controlling the level of the signal produced by said generator, individual switch means interconnected with each circuit, the associated modulating and filtering means and the signal generator, and means responsive to signal intelligence energies in each circuit to operate the associated switch means to disconnect the respective circuit from its associated modulating and filtering means and to connect the output of said generator to the modulating and filtering means of the said respective circuit.

2,782,259
CALLING SUBSCRIBER IDENTIFIER USING TRANSISTOR OSCILLATOR IN SUBSETS
Thomas L. Dimond, Rutherford, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 23, 1953, Serial No. 400,039
4 Claims. (Cl. 179—17)



1. In a telephone system a party line, a plurality of subscriber's stations connected to said party line, a transistor oscillator tuned to a different frequency at each of said stations connected to said line, means including manually operable contact means and gas discharge tube means for individually interconnecting each of said oscillators and said subscriber's line and means for energizing an interconnected oscillator over said line and connections between said interconnected oscillator and said gas tube means and said line for applying the output of said interconnected oscillator through said gas tube means to said line.

2,782,260
RINGING CONTROL CIRCUIT FOR TELEPHONE SYSTEMS
George Elliott, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application May 27, 1954, Serial No. 432,755
5 Claims. (Cl. 179—17)

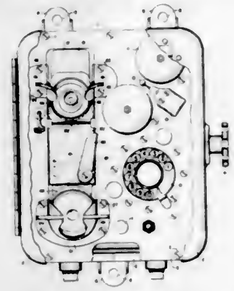


1. In a telecommunication system, a ringing current application system comprising a plurality of common ringing current conductors, means for sequentially applying ringing currents of different character thereto, the periods of application of each current of like character to said different conductors being staggered, means for selectively and sequentially employing said common conductors in pairs for producing time coded ringing current applications, one such selected pair providing overlapping periods for a single long ring code and another such selected pair providing time spaced periods for a two short ring code.

2,782,261
SHIP SERVICE TELEPHONE MOUNTING
Oscar W. Henrikson, Chicago, and Fredric E. Wood, McHenry, Ill., assignors to Automatic Electric Laboratories, Inc., Chicago, Ill., a corporation of Delaware
Application April 26, 1955, Serial No. 503,851
4 Claims. (Cl. 179—100)

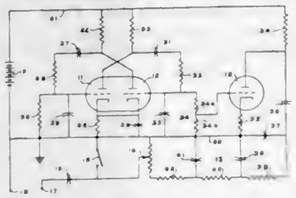
1. In a telephone substation comprising a handset having a transmitter unit and a receiver unit; a handset mounting including a recess, a catch in said recess, a plurality of outer retaining members, a slidable platform mounted in said recess and having a pair of inner encircling members and a gasket for each of said encircling members adapted

to encompass and receive said transmitter and receiver units respectively when the handset is placed thereon for preventing water from flowing into said units, a locking mechanism for said platform including a lever and a latch bar and means for engaging said latch bar with said catch, and maintaining said handset in its mounting when said latch bar is engaged with said catch of said recess, manual operation of said lever to lift said latch bar from said catch thus permitting said handset to be slid away from said outer retaining members, a set of switchhook switching contacts, an arm secured in said



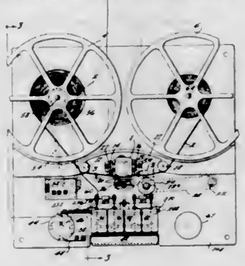
recess for operating said switching contacts and means for operating said arm in one direction to close said switching contacts in response to said sliding movement of said handset away from said outer retaining members and for operating said arm in the opposite direction to open said switching contacts in response to said sliding movement of said handset toward said outer retaining members whereby said locking mechanism is effective in cooperation with said outer retaining members for locking said units with said gaskets inside said inner encircling members.

2,782,262
MAGNETIC RECORDING METHOD
John Hays Hammond, Jr., and Ellison S. Purington, Gloucester, Mass.; said Purington assignor to said Hammond
Application February 14, 1952, Serial No. 271,532
3 Claims. (Cl. 179—100.1)



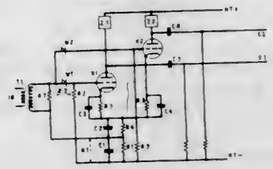
1. The method of determining a selected position on a magnetic record medium adapted to have selections recorded thereon while said medium is being driven at a predetermined speed comprising the steps of recording on said record medium a marking signal adapted to produce a tone of sub-audible frequency when reproduced at said predetermined speed while said record is being driven at said predetermined speed, reproducing signals recorded on said record medium while said record medium is being driven at a speed higher than said predetermined speed, said marking signal being audible at said higher speed, repeatedly reversing the direction in which said record medium is being driven at said higher speed upon each reproduction of said marking signal, incrementally reducing said higher speed upon each of said reversals, and stopping the motion of the record when said marking signal is reproduced as a tone of low audible frequency.

2,782,263
MAGNETIC RECORDING AND REPRODUCING APPARATUS
John J. Hoehn, Merchantville, and Fielding B. Hills, Acto, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Original application July 1, 1954, Serial No. 440,758. Divided and this application October 31, 1955, Serial No. 543,993
2 Claims. (Cl. 179—100.2)



1. In a magnetic recording and reproducing apparatus, control means for conditioning said apparatus for reproducing operation, control means for conditioning said apparatus for recording operation, control means for conditioning said apparatus for high speed operation in a forward direction, control means for conditioning said apparatus for high speed operation in a reverse direction, push-button actuating means for each of said control means, each of said actuating means including a sector-shaped member having a central opening, and an interlock bar extending through said opening, said actuating means associated with each of said high speed operation control means having an interlock actuating protuberance extending into their respective openings, said interlock bar having depending fingers positioned for cooperative engagement with said protuberance for shifting said interlock bar to a blocking position upon operation of said actuating means associated with said high speed operation control means, each of said push-button actuating means associated with said recording and reproducing operation control means having a blocking shoulder extending into their respective openings in a position to be engaged by said interlock bar when said interlock bar is in said blocking position whereby to prevent the actuation of said recording and reproducing operation control means when said apparatus is in condition for high speed operation.

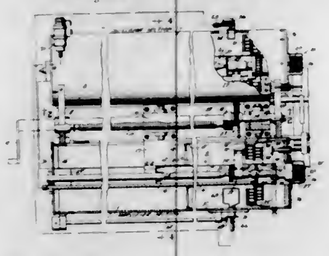
2,782,264
THERMIONIC VALVE AMPLIFYING CIRCUITS
George Alexander Dodd and John Boura, Taplow, England, assignors to British Telecommunications Research Limited, Taplow, England, a British company
Application October 28, 1953, Serial No. 388,738
Claims priority, application Great Britain
October 31, 1952
6 Claims. (Cl. 179—171)



1. A thermionic valve amplifier comprising two thermionic valves each having an anode, a cathode and a control electrode, an input circuit, a first asymmetrically-conducting element connected in the low resistance direction between said input circuit and the control electrode

of one of said valves, a second asymmetrically-conducting element connected in the low resistance direction between said input circuit and the control electrode of the other of said valves, biasing means for both said elements, a connection between said input circuit and the cathodes of said valves, a first load impedance in the anode circuit of said first valve, a second load impedance in the anode circuit of said second valve and connections from the anodes of said valves to a common output circuit.

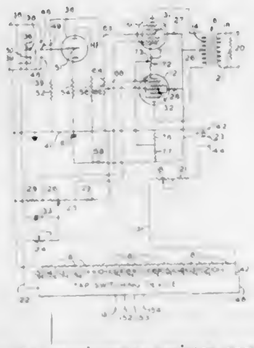
2,782,265
RADIO FREQUENCY OSCILLATOR-AMPLIFIER TUNING UNIT
John Edward Stankey, Altadena, Calif., assignor to the United States of America as represented by the Secretary of the Air Force
Application July 24, 1952, Serial No. 300,671
4 Claims. (Cl. 179—171)



1. In a radio frequency tuning unit consisting of an oscillator section and an amplifier section, a high frequency radio oscillator, of the tuned plate, tuned cathode type, a vacuum tube having as electrodes a grid, a plate and a cathode, a multiple concentric conductor pair of separate and distinct members which end at different points and each of which has inner, intermediate and outer concentric conductors extending coaxially with each other and at a common end connected respectively to the cathode, grid and plate electrodes of said vacuum tube, with the inner conductor capacitively coupled with the tube cathode electrode and with the intermediate conductor capacitively coupled with the tube grid electrode and with the outer conductor capacitively coupled with the tube plate electrode, axially movable shorting conductors terminating the outer end of each of said pair of members, variable capacitors terminating the inner end of each of said pair of members and connected across pairs of electrodes of said vacuum tube, a feedback circuit including a variable capacitor coupling the cathode and plate of said vacuum tube, and a single lead screw adjustable operating means simultaneously adjusting both sections of the tuning unit and mechanically connected to said shorting conductors and to said variable capacitors for simultaneously adjusting the same at different but coordinated rates to vary the frequency of the oscillator.

2,782,266
VOLUME CONTROL
Herbert Belar, Palmyra, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application August 30, 1954, Serial No. 452,865
The terminal fifteen years of the term of the patent to be granted has been disclaimed
3 Claims. (Cl. 179—171)

1. An amplifier comprising a phase inverter tube, said tube having a cathode, an anode and a control electrode, a switch having first and second movable contacts, a connection from said first contact to said control electrode, amplifier input terminals, first and second fixed contacts engageable by said first movable contact, connections from said input terminals to said fixed contacts, a pair of amplifier tubes, said tubes each having at least two electrodes to serve as control electrodes, means connecting one of said control electrodes in each tube in push-pull arrangement, said means including said phase inverter tube, biasing means for the other of said control electrodes in said tubes, said biasing means comprising three resistors connected in series relationship, the ends of said series combination being connected to a common circuit connection in said amplifier circuit, one of said resistors serving as a potentiometer and having a sliding potentiometer contact, means connecting the others of said control electrodes to the ends of said potentiometer

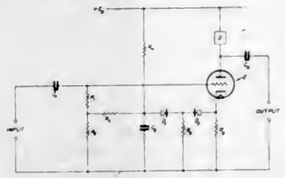


resistor, a second potentiometer resistor connected at one end to said common circuit connection, adjustable means for applying a voltage negative with respect to said common circuit point to said second potentiometer resistor, means for connecting said sliding contact selectively to points on said second potentiometer resistor, a capacitor connected between said sliding contact and said second movable switch contact, first and second fixed contacts being engageable by said second movable switch contact, a connection from said last named first fixed contact to said common circuit point, and a connection from said last named second fixed contact to one of said input terminals.

2,782,267
PUSH-PULL TRANSISTOR AMPLIFIER
John W. Beck, Huntington Park, Calif., assignor to North American Aviation, Inc.
Application October 8, 1953, Serial No. 384,831
1 Claim. (Cl. 179—171)

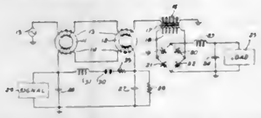
In a push-pull amplifier, a single-ended A.-C. input circuit, a N–P–N transistor and a P–N–P transistor similarly connected to said A.-C. input circuit, a point of common reference potential connected to a similar electrode of each said transistor and common to said input circuit and D.-C. bias means including a separate D.-C. source and load impedance connected in series between said point and the output electrode of each said transistor, both of the junctions of the output electrodes with their respective load impedances being capacitively coupled to a single common output terminal, whereby each transistor has its own complete and separate direct current bias path but contributes alternating current output to the common output terminal between which and said reference point an output load may be connected.

2,782,268
INSTANTANEOUS AUTOMATIC GAIN CONTROL AMPLIFIER
William E. Ayer, San Carlos, Calif., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application March 29, 1954, Serial No. 419,636
4 Claims. (Cl. 179—171)



1. An amplifier of the type described comprising a tube having a plate, a control grid and a cathode; means for supplying plate voltage to said tube including a positive conductor and a common return; a cathode resistor connected between said cathode and said common return; a first diode having its collector connected to said cathode; a second diode having its collector connected to the positive side of a voltage source of which the negative side is connected to the common return; the emitters of said diodes being electrically tied together; a second resistor connected between said emitters and said common return to form the common path for currents flowing through both of said diodes; and a condenser connected between the collector of said second diode and the said common return.

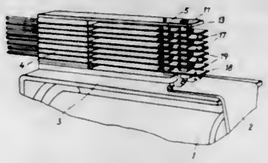
2,782,269
MAGNETIC AMPLIFIER CIRCUITS
Dwight W. Grant, Bedminster, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application June 28, 1955, Serial No. 518,487
12 Claims. (Cl. 179—171)



1. A magnetic amplifier circuit which comprises a saturable reactor having at least a load winding and a control winding, a pair of capacitors connected from respectively opposite ends of said control winding to a point of reference potential, said control winding and said capacitors forming a π-type filter network having a predetermined pass band, a terminating resistor connected across one of said capacitors having a value substantially equal to the image impedance of said filter network at one frequency in its said pass band, and means to connect a source of signals within said pass band in frequency across the other of said capacitors, whereby the gain of said magnetic amplifier is both increased substantially and maintained substantially constant over at least a major portion of the signal frequency range.

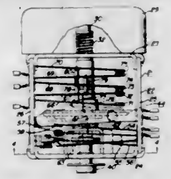
2,782,270
CONTACT SPRING GROUP IN ELECTRO-MAGNETIC CONNECTING APPARATUS
Eric Axel Wiberg, Stockholm, Sweden, assignor to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden
Application December 1, 1953, Serial No. 395,541
Claims priority, application Sweden December 22, 1952
4 Claims. (Cl. 200—1)

1. In a switching device of the class including a plurality of substantially stationary switching blades and a plurality of coacting movable switching blades alternately stacked in spaced relationship electrically insulated from each other, each of said switching blades having a free contact end and an intermediate slot, and an axially movable lifting comb extending through said slots and engaging with its teeth the movable blades for flexing the latter into and out of engagement with the stationary blades upon movement of said comb, one movable switching blade with an intermediate slot having an approximate peripheral outline of two rectangles in longitudinally and laterally staggered relationship, one of said rectangles defining a guide portion and the other a retaining portion, the maximum width of the slot being wider than the thickness of the comb and the maximum length of the slot being longer than the width of the comb, the combined peripheral outline of the slot por-



tions and the peripheral outline of the comb being correlated so as to permit movement of the comb from the guide portion into the retaining portion by lateral displacement of the comb towards the contact end of the respective blade and by turning of the comb about its longitudinal axis, the intermediate slots of all the other blades having a rectangular peripheral outline providing space for said combined lateral and rotational movement of the comb, the respective teeth of the comb underlying the respective movable blades in the position of the comb nested in said retaining slot portion, and further comprising locking means holding one end of the comb in its nested position in said retaining slot whereby the comb in the said position is secured against lateral displacement toward and away from the contact end of the respective blade and also against axial turning.

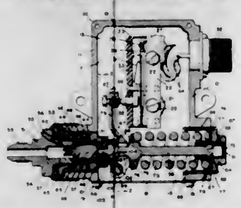
2,782,271
TIME SWITCH
Richard H. Jordan, Mansfield, Ohio
Application December 9, 1952, Serial No. 324,887
8 Claims. (Cl. 200—27)



1. A snap acting switch, comprising a base, first and second contact members carried by said base and constructed for mutual cooperation, first and second cam means movable relative to said base parallel to a first path, a first cam follower arranged to cooperate with said first cam means to relatively move said first member and said first cam along a second path, a second cam follower arranged to cooperate with said second cam means to relatively move said second member and said second cam means along a third path generally parallel to said second path, first means relatively urging together said first cam follower and first cam means along said second path, second means relatively urging together said second cam follower and second cam means along said third path, first surface means on said first cam follower and first cam means to gradually relatively move said first cam follower

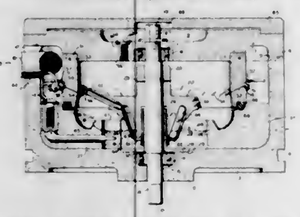
and said first cam means along said second path against the opposition of said first urging means, second surface means on said first cam follower and first cam means to permit said first urging means to effect rapid relative movement therebetween along said second path in two discrete steps to effect rapid relative movement between said first and second members in a first direction, and third surface means on said second cam follower and second cam means to permit second urging means to effect rapid relative movement therebetween along said third path to effect rapid relative movement between said first and second members in a direction opposite to said first direction.

2,782,272
SWITCH MECHANISMS
Richard T. Cornelius, Minneapolis, Minn.
Application May 7, 1953, Serial No. 353,584
7 Claims. (Cl. 200—82)



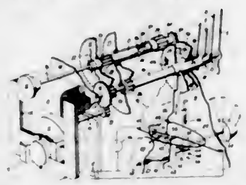
1. In a fluid pressure operated switch mechanism, a case, an insert mounted in said case and having an annular wall and an end wall, means forming a cylinder in said annular wall, said end wall providing a surface within said cylinder extending inwardly of said cylinder to form a stop, a piston slidable in said cylinder and engageable with said stop, a fitting carried by said case and conducting fluid into said cylinder to urge said piston against said stop, a plunger disposed within said case in coaxial alignment with said piston, guide means carried by said case and guiding one end of said plunger for axial movement in said case, a stem on the other end of said plunger, guide means carried by said insert and receiving said stem to further guide said plunger for reciprocating movement, said piston engaging said stem and urging said plunger for movement away from said fitting, a compression coil spring acting between a part fixed relative to said case and said plunger and resisting movement of said plunger by said piston, said end wall providing another surface within said case encircling said plunger and forming a second stop, means forming a shoulder on said plunger engageable with said second stop and a switch operated by said plunger.

2,782,273
SINGLE-POLE, MULTI-CONTACT MERCURY JET SWITCH
William R. Davis and James H. Deery, Redwood City, Calif., assignors to Detroit Controls Corporation, Detroit, Mich., a corporation of Michigan
Application June 7, 1955, Serial No. 513,704
7 Claims. (Cl. 200—32)



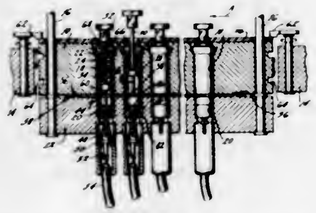
1. A rotary jet switch comprising: a bowl provided at its bottom with a central mercury supply well surrounded at its upper end by an annular mercury return sump, the surfaces of said sump being polished; a ring of peripherally spaced contact pins mounted on and within said bowl substantially above the level of said sump; a rotor mounted within said bowl coaxially therewith and provided with a nozzle having an orifice directed toward said ring of contact pins; a centrifugal pump provided on said rotor for pumping a stream of mercury from said well through said nozzle and on to said contact pins; and means for establishing electrical communication between mercury contained within the bottom of said bowl and a point external thereto.

2,782,274
LOW COST CLOCK SWITCH
Howard A. Powers, Medfield, Henry L. Mutti, Westboro, and Robert L. Boyles, Framingham Center, Mass., assignors to General Electric Company, a corporation of New York
Application June 19, 1953, Serial No. 362,899
11 Claims. (Cl. 200—38)



1. Automatic timed electrical switching apparatus comprising an electric switch, a switch actuator member for opening and closing said switch, manually adjustable means movable between two fixed positions for controlling said actuator member to open and close said switch and movable to a third fixed position for controlling said actuator member to set said switch for closure, electric clock mechanism for moving said actuator member with respect to said manually adjustable means at a pre-set time to close said switch when said manually adjustable means has been used to set said switch for closure, and manually adjustable means for establishing said pre-set time for said clock mechanism.

2,782,275
PLUGBOARD FOR COMPUTER PROGRAMMING SYSTEM
Arthur W. Vance, Cranbury, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application October 21, 1953, Serial No. 387,496
10 Claims. (Cl. 200—46)

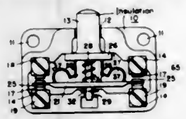


1. A programming plugboard for a computer comprising a plurality of first electrical contact devices each including an electrically-conductive contact element, a plurality of second electrical contact devices each including an electrically-conductive contact element operatively associated with the contact element of a different one of said first contact devices for completing an electrical circuit therewith, and means for supporting said first and second contact devices in operative relation to each other including means for positioning a punch card between said first and second contact devices to prevent engagement of certain associated ones of said contact elements and to permit engagement of the other associated contact elements in accordance with the program represented by holes through said punch card, each of the contact elements of said first contact devices being movable and manually operable and having a card punching portion for punching holes through said card to change said program.

2,782,276
IGNITION CUT-OFF DEVICE
George J. Woods, Omer, Mich.
Application March 15, 1954, Serial No. 416,163
1 Claim. (Cl. 200—61.47)

In an ignition cut-off device for mounting on a vehicle, the combination of a housing having threaded openings on each of three sides, a bracket, and a threaded shaft in each of said openings in integral association with said bracket, a mercury switch in supported relationship with said bracket, means whereby upon turning said shaft said mercury switch is positioned for controlling the opening and closing of an electrical circuit in said vehicle.

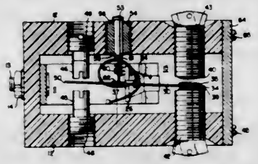
2,782,277
SNAP-ACTION SWITCH
Ralph B. Immel, Williamsville, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application November 28, 1951, Serial No. 258,655
13 Claims. (Cl. 200—67)



11. An electric switch comprising a base having a recess therein, spaced stationary contacts disposed in said recess, a substantially rigid bridging contact member movable into and out of bridging engagement with said stationary contacts, said bridging contact member having a generally rectangular opening therein, a reciprocating operating member slidably disposed at one side of the recess, a guide pin for the operating member disposed in said recess, spring toggle members connecting the ends of the rectangular opening in the bridging contact member and the operating member, portions of said toggle members being disposed at one side of the bridging contact member to pass through the opening in the bridging contact member from one side of the bridging contact member to the other during actuation of the bridging contact member by reciprocation of the operating member, said operating member being movable in one direction by an external force, and a return spring for moving the operating member in the opposite direction, said return spring surrounding said guide pin.

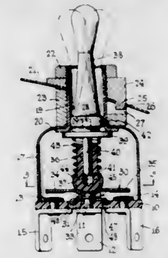
2,782,278
MAGNETIC SNAP SWITCH
Max D. Peters, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application April 27, 1954, Serial No. 425,871
13 Claims. (Cl. 200—67)

8. A switch including in combination a frame, a torsion member mounted in said frame, a lever arm mounted near its center at the center of said torsion member and supported thereby, a contact on the first end of said lever, a stationary contact mounted in said frame to cooperate



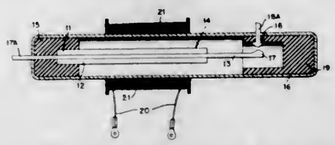
with said movable contact, magnetic means mounted on said frame in spaced relation to a second end of said lever, said second end of said lever acting as an armature.

2,782,279
TOGGLE SWITCH
Franklin E. Heusser, Shelton, Conn., assignor to Casco Products Corporation, Bridgeport, Conn., a corporation of Connecticut
Application April 29, 1953, Serial No. 352,006
8 Claims. (Cl. 200—68)



1. In a toggle switch comprising a casing; a tubular neck portion attached to said casing projecting therefrom and having transverse abutment means within said casing integral with said neck; an elongate handle mounted in said neck portion having at its inner end a transverse flange engageable with said abutment means; and having interposed between its ends a section of a ball which bears against the walls of said neck whereby said handle has universal movement within said neck when moved; and yieldable means urging said flange into engagement with said abutment means whereby when said handle is movd in either direction said abutment constitutes a fulcrum surface for the handle.

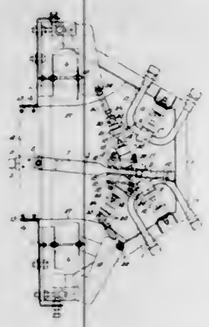
2,782,280
MAGNETOSTRICTIVE RELAY
Lawrence R. Bickford, Jr., Poughkeepsie, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 13, 1955, Serial No. 552,760
13 Claims. (Cl. 200—87)



6. A magnetostrictive element comprised of a first elongated portion of substantially uniform thickness cut from a crystal of a ferromagnetic material in a direction orientated to the crystallographic axis so that it has positive magnetostrictive coefficient, a second elongated portion of substantially uniform thickness cut from a single crystal of the same ferromagnetic material as said first portion and cut in a direction orientated to the crystallo-

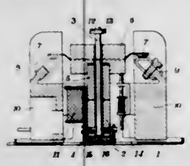
graphic axis so that it has a negative magnetostrictive coefficient, said portions being bonded together, means for clamping one end of element, said element being adapted to be driven at its free end, and magnetic polarizing means including said magnetostrictive element in its magnetic circuit for driving said element.

2,782,281
HIGH-FREQUENCY ELECTRICAL APPARATUS
John Edward George Cosier, Purley, and Robert John Cave, Caterham, England, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application October 16, 1952, Serial No. 315,092
Claims priority, application Great Britain December 20, 1951
10 Claims. (Cl. 200—98)



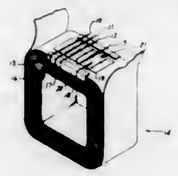
1. A switch for high-frequency currents comprising a plurality of fixed first contacts, a movable switch member being provided with a plurality of second contacts each of which may be alternately connected to one of said fixed first contacts, said switch member including a hollow conductive bellows for providing entrance of a cooling fluid and electrically connecting said switch member to said second contacts and permitting movement of said switch member in predetermined directions.

2,782,282
MAGNETICALLY OPERABLE SWITCH
Eduard Schrack, Vienna, Austria
Application June 10, 1953, Serial No. 360,771
Claims priority, application Austria June 26, 1952
9 Claims. (Cl. 200—111)



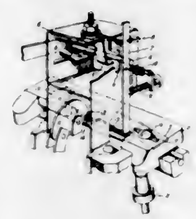
1. In a magnetically operable switch the combination comprising a base, a movable armature having contact bridging means rigidly connected thereto, magnet core means connected to the base and in magnetic relation to the armature, straight guide means of such size as to allow loose guiding of the armature in a linear path and at one end connected to the base for pivotal movement about at least an axis transverse of the guide means, and stop means carried by the opposite end of the guide means, said loose guiding of the armature permitting the armature to seat against the core means to prevent humming.

2,782,283
ELECTRICAL WINDING
Donald O. Schwennesen, Skokie, Ill., assignor to Essex Wire Corporation
Application May 16, 1955, Serial No. 508,558
3 Claims. (Cl. 200—113)



1. A pre-assembly of connection leads for multitap electrical transformers consisting of a plurality of insulated wires including two primary leads all with stripped ends, an insulating panel having a number of apertures at least equal to the number of insulating leads, said insulating wires lying upon the outermost surface of said panel and stapled thereto, said stripped ends threaded through said apertures for connection to transformer take-out leads, two jumper wires positioned adjacently parallel one of said primary leads, one jumper spliced to said primary lead, the other jumper fused to the transformer primary take-out tap, and a fuse wire joining the remote ends of said jumper wires.

2,782,284
ADJUSTABLE LATCHING MECHANISM
Norton M. Case, Lenox, Mass., assignor to General Electric Company, a corporation of New York
Application September 9, 1955, Serial No. 533,474
6 Claims. (Cl. 200—116)

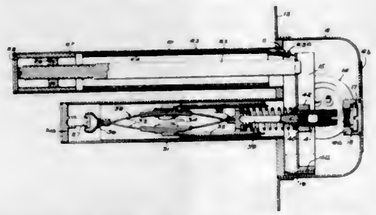


1. An adjustable latching mechanism comprising a movable latching element having two releasable movable elements engaged therewith for movement one after the other upon movement of said latching element, said latching element having two generally straight non-parallel latching edges which are disposed with respect to each other at an angle and engaged by said releasable elements, and said latching element being mounted for movement in a direction generally parallel to one of said edges.

2,782,285
AIR FLOW AND LIQUID LEVEL DETECTION AND CONTROL APPARATUS
John H. Cantlin, Fayville, Mass., assignor to Fenwal Incorporated, Ashland, Mass., a corporation of Massachusetts
Application September 13, 1954, Serial No. 455,639
5 Claims. (Cl. 200—122)

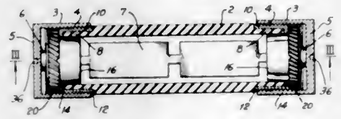
1. For fluid flow and liquid level detection and control, a sealed chamber, a pair of high expansion shells integral and communicating at said chamber, a heater in one and a switch in the other of said shells, and chamber-carried means arranged and connected for positioning by the expansion of said one as compensated by the expansion

of said other shell, said means coupled to said switch whereby to actuate said switch responsive directly to said



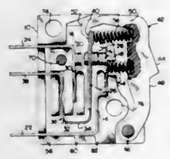
positioning, and thereby to signal change in the cooling effect of the medium subject to detection and control.

2,782,286
FERRULE TYPE RENEWABLE CARTRIDGE FUSE
Lewis Detch, Pittsburgh, Pa.
Application February 17, 1953, Serial No. 337,357
9 Claims. (Cl. 200—131)



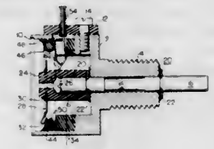
1. In a cartridge fuse having an elongated hollow cylinder open at both ends formed of electrical insulating material, a fusible link within the cylinder, a metallic collar on each end formed with external screw threads, and an outer closing member on each end formed with screw threads mating and cooperating with the screw threads of the collar, the invention comprising a fusible link retaining member resting on each collar and closing the end of the cylinder, said fusible link retaining member formed with a slot for passing the end of the fusible link in the cylinder therethrough with the end of the fusible link protruding, said fusible link retaining member also formed on its outer face with a central depression, said outer closing member formed with a nub positioned to cooperate with the central circular depression in the face of the fusible link retaining member whereby the protruding end of the fusible link may be bent down and be held firmly by the nub in the circular depression, said fusible link retaining member further being formed with a venting slot connecting said first mentioned slot with the periphery of said retaining member.

2,782,287
SWITCH MECHANISM
John G. Smith, Philadelphia, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application July 26, 1954, Serial No. 445,870
5 Claims. (Cl. 200—153)



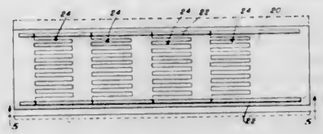
1. A switch structure comprising two relatively fixed, spaced apart and confronting contact members; a contact arm mounted for movement between the two contact members and operable upon movement to engage one or the other contact member; an actuating finger for controlling the movement of the arm and swingably mounted for movement in the plane of movement of the arm; a pair of coil springs; one of said springs being interposed between the finger and one of the contact members; the other of said springs being interposed between the finger and the movable arm; the first spring being under such tension as to urge the finger away from the contact member; the second spring acting as the operating connection between the finger and the movable arm and operable to move the arm into engagement with one of said contact members and thereafter yieldingly compress as further movement of the finger in the same direction is absorbed thereby; and means carried by the finger engageable with the side of the arm opposite to the direction in which the finger is urged to thereby draw the arm in the direction of movement of the finger and into engagement with the other of said contact members when the finger is moved by the first spring.

2,782,288
VARIABLE IMPEDANCE DEVICE
Foster E. Weld, Newton Highlands, Mass., assignor to The Gamewell Company, Newton Upper Falls, Mass., a corporation of Massachusetts
Application April 8, 1954, Serial No. 421,767
8 Claims. (Cl. 201—48)



1. A variable impedance assembly having, in combination, a body, a shaft rotatably supported in the body, a substantially toroidal impedance element supported by the body about the shaft axis, a contact plate secured to the shaft having a brush contact bearing upon the impedance, a guide element supported by the body and provided with a number of thin slots, a terminal supported by the body adjacent each slot, and a spring contact wire secured to each terminal and extending into the adjacent slot, one wire being constrained by its slot and bent so as to bear resiliently at a precisely determined position upon said impedance with its constraining slot determining the position in which it bears on said impedance, and another wire being bent so as to bear slidably upon said plate.

2,782,289
HEATING DEVICE
Max Nathanson, Montreal, Quebec, Canada
Application May 13, 1954, Serial No. 429,619
11 Claims. (Cl. 219—19)



1. An electrical heating unit comprising a base sheet of non-conducting material, a cover sheet of non-conducting material disposed on one side of said base sheet, a wire resistance element disposed between said base sheet and said cover sheet and sewn to one of said sheets, a heat reflecting sheet disposed on the second side of said base sheet, and a mass of cured resinous material disposed between said base and cover sheets and about said element, adhesively securing each one to the other.

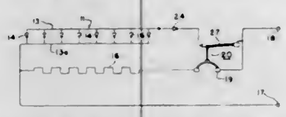
angular relation to the axis of said rings, said shell having

2,782,290

TEMPERATURE RESPONSIVE CONTROL DEVICE

Patrick E. Lannan, Cleveland, and Charles E. Freese, Parma, Ohio, assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application September 28, 1954, Serial No. 458,849
6 Claims. (Cl. 219—20)



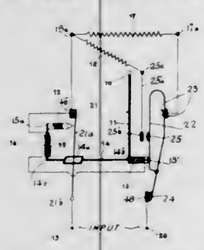
1. An electrically heated fabric comprising a fabric sheet, a flexible cable temperature sensing element carried by said sheet comprising a pair of parallel flexible conductors and a layer of rectifying material intermediate said conductors, said layer being substantially continuous and in electrical contact with said conductors throughout its extent and said rectifying material having a negative temperature coefficient of rectification whereby its resistance to current in its relatively non-conducting direction decreases with an increase in temperature, means connected to said conductors for applying a potential across said material tending to establish a control current through said material in its relatively non-conducting direction, said control current increasing as the temperature of said material increases, an electric heating element for said fabric sheet, and thermal means actuated by a predetermined magnitude of said control current to deenergize said heating element.

2,782,291

THERMOSTATIC HEATING CONTROL SYSTEMS

Maurice Christophe Cayet, Paris, France, assignor to Procedes Sauter, Paris, France, a corporation of France

Application January 14, 1954, Serial No. 404,009
Claims priority, application France January 19, 1953
9 Claims. (Cl. 219—20)



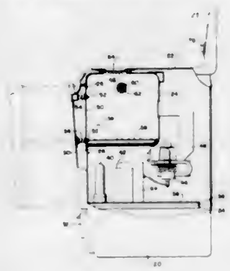
1. In an electrical energy control system for electrical heating apparatus having two heating elements connected in parallel, a displaceable assembly, a bi-laminar element connected with said displaceable assembly for common movement therewith, a push stud carried by said bi-laminar element, a single-pole interrupter for interrupting the input current actuated by said push stud thereby controlling the operation of said heating apparatus under thermostatic regulation thereof by the effect of thermal deformations of said bi-laminar element, means including a cam member with a plurality of arched portions and provided with markings indicative of the setting thereof during use and a roller cooperating with said cam member in three positions for displacing said assembly into three positions corresponding to three distinct operating conditions, namely, a first one of said three positions corresponding to the open circuit condition of said apparatus with said roller engaging a first small arched portion of said cam member, a second position corresponding to continuous full load operation of said apparatus with said roller engaging a second small arched portion of said cam member following said first portion, and a third variable position corresponding to the operation of said apparatus under regulation thereof with said roller tangentially engaging a large arched portion of said cam member at any point thereof thereby providing a variable setting for said control system while operating said apparatus under thermostatic regulation, and spring means cooperating with said roller to provide a snap action when passing from one position to another.

2,782,292

DOMESTIC APPLIANCE

George B. Long, Dayton, Ohio, assignor to General Motors Corporation, Dayton, Ohio, a corporation of Delaware

Application April 17, 1952, Serial No. 282,867
4 Claims. (Cl. 219—35)



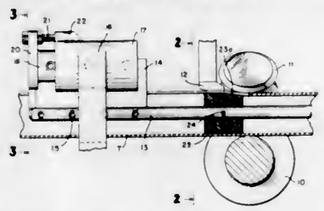
1. In combination an electronic oven including an outer enclosure having a front opening, a box-shaped oven liner having a front opening registering with said enclosure front opening, a high frequency generator associated with said oven liner for feeding said oven liner with high frequency energy, a horizontally slidable door for closing said front opening, guide means disposed wholly outside of said oven liner for guiding said door in its horizontal movement to and from a closed position, and a flat metal plate secured to the front of said door and engaging the walls surrounding the oven liner opening when said door is closed, said metal plate closing said oven liner opening and being resiliently biased into tight engagement with the walls surrounding said oven liner opening for preventing arcing between said oven liner and metal plate.

2,782,293

DEVICE FOR PREVENTING TUBE COLLAPSE IN TUBE MILLS

Veryl H. Sanner, Toledo, Ohio, assignor to The Etna Machine Company, Toledo, Ohio, a corporation of Ohio

Application September 15, 1955, Serial No. 534,462
6 Claims. (Cl. 219—59)



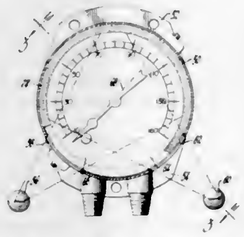
1. In a tube mill for progressively forming a thin walled metallic ribbon into tubular form and resistance welding the edges thereof as the form is advanced past a pair of electrodes engaging the respective spaced edges of the tube in advance of the point of weld and having pressure rolls for squeezing together the edges of the tube form at the point of weld, the improvement which comprises a plug supported and restrained from axial movement within the tube in the region underlying adjacent portions of the electrodes and the pressure rolls, said plug being of non-conductive material and shaped at the top and bottom to conform to the curvature of the tube, and a downwardly and rearwardly inclined surface on the top side of the plug to guide and support the adjacent edge portions of the tube as the same pass to the pressure rolls where they are brought into engagement.

2,782,294

ILLUMINATED DIAL INSTRUMENT

Robert A. Tinich, Chicago, Ill., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application September 22, 1954, Serial No. 457,622
1 Claim. (Cl. 240—2.1)



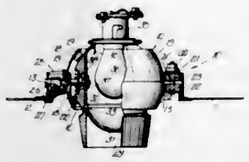
An instrument comprising a casing having a circular window of transparent substance and a dial protected by said window, means positioned to project light from at least two directions into spaced edge portions of said window, said casing enclosing said instrument and window and having slots in registry with said edge portions, the peripheral edge surface of said transparent substance of said window being rough to diffuse light, the said edge surface and the forwardly facing marginal portion of said window substance being coated with a ceramic paint for light reflection except at said edge portions, a resilient gasket contacting the rearwardly directed marginal portion of said window substance, and the arrangement of the dial being such that light rays originating at said means and reflected from the said coating at the window edge and margin are uniformly directed to said dial.

2,782,295

READING LIGHT FOR AIRCRAFT

Norbert H. Schwenkler, Chicago, Ill., assignor to Patent License Corporation, Chicago, Ill., a corporation of Illinois

Application August 31, 1954, Serial No. 453,271
8 Claims. (Cl. 240—7.35)



1. A lighting fixture comprising a lamp housing having a generally spherical outer surface, an external mounting shell in which said housing is adjustably swivelled, said shell presenting a curved outer surface of generally spherical character, coaxial clamp rings frictionally engageable with the spherical surface of said outer shell, and adjustable means securing said clamp rings in clamping and locking engagement with said outer surface of said shell when said shell is positioned in a predetermined angular relation to the axis of said rings, said shell having internal means in engagement with said outer surface of said lamp housing for frictionally restraining the movement of said housing relative to said shell.

2,782,296

CLAMP ON CHRISTMAS TREE LIGHT

Alfred E. Walter, Brooklyn, N. Y.

Application February 7, 1955, Serial No. 486,422
3 Claims. (Cl. 240—10)

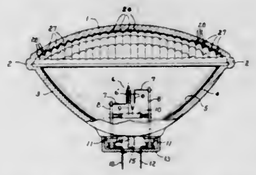
1. An improved electric Christmas tree candle light including a socket having an upstanding peripheral flange and a closed bottom, a manually operated clamp having two clamping elements pivoted together intermediate the ends thereof with both elements having interior mutually facing serrated jaws at one end and finger pieces for manipulating the clamp at the other end, with the bottom of the socket fixed upon the upper exterior portion of one jaw of one of said clamping elements, a candle socket member having a hollow lower end fitting externally upon the first mentioned socket and an upper hollow end with a solid intermediate section between the lower and upper hollow ends, electrical receptacle means supported in the solid intermediate section and extending downwardly therethrough into said first mentioned socket, means for connecting said receptacle means in the latter socket to a current source, an upwardly extending tube fitting in the upper hollow end of the candle socket member, a lamp socket adapted to fit into the upper end of the tube and having a pronged plug means connected thereto within the tube and adapted to be plugged into the first mentioned electrical receptacle means within the upper hollow end of said candle socket member.

2,782,297

LIGHT PROJECTION DEVICE

John O. Geissbuhler, South Euclid, and William W. Kirk, Jr., Lyndhurst, Ohio, assignors to General Electric Company, a corporation of New York; patent dedicated to the Public insofar as it relates to lamps and lamp parts to the extent stated in document recorded in the United States Patent Office, January 4, 1954, Liber U-238, page 394

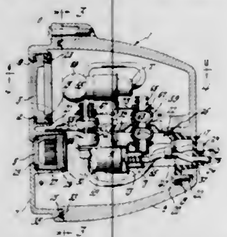
Application June 29, 1953, Serial No. 364,724
11 Claims. (Cl. 240—41.3)



1. A light-projection device comprising a concave reflector member of approximately paraboloidal shape, a light-transmitting cover glass member covering the open mouth of said reflector member, and a concentrated light

source mounted approximately at the focus of said reflector member and comprising a coiled monoplane filament having three side-by-side segments disposed closely adjacent one another in a horizontal plane and extending in the general direction of the reflector axis with the central segment thereof approximately centered at the focus of said reflector member, one of said members being divided into a series of horizontally extending primary flutes of relatively large size for vertically spreading the light rays passing therethrough, the portions of said one member other than at the opposite sides thereof being provided with a series of relatively small vertically extending secondary flutes superimposed on said horizontal primary flutes, said secondary flutes being of relatively wide horizontal light spread and substantially all of the secondary flutes within the central zone of said one member intermediate the top and bottom zones thereof being of a lesser horizontal light spread than the others of said secondary flutes, and the said side portions of the said one member being provided with a series of relatively small vertically extending prisms superimposed on said horizontal flutes and of a refractive power to direct the light rays passing therethrough into the opposite side extremities of the beam component produced by the said portions of the said one member other than the said side portions thereof.

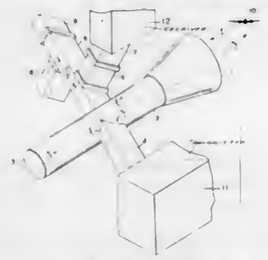
2,782,298
VEHICLE LAMP HAVING RESILIENTLY MOUNTED BULB SOCKETS
Charles F. Scholz, Maple Heights, and Spott C. Krausse, Bay Village, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 18, 1953, Serial No. 399,102
8 Claims. (Cl. 240—90)



1. An internal vibration and shock suppression mounting for lamp bulbs comprising a main support adapted to be rigidly secured within a lamp casing, a plurality of resilient tubular isolators positioned on said support and extending through and on each side thereof, a socket mounting member secured to the ends of said isolators on each side of said support, and a bulb and bulb socket assembly secured to said member, the weight of said bulb and bulb socket assembly being effective as a vertical load in a direction substantially parallel to the longitudinal axes of said isolators.

2,782,299
ANTI-PULLING DUPLEXER
Richard M. Whitehorn, Baltimore, Md., assignor to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware
Application January 18, 1952, Serial No. 267,116
4 Claims. (Cl. 250—13)

1. In a duplex signal transmission system including a transmitter and a receiver; an antenna, a circular waveguide feeding said antenna, means short circuiting the end of said circular waveguide remote from said antenna, a pair of branch waveguides of rectangular cross-section joining said circular waveguide on opposite sides thereof, said branch guides having a common axis at the junction, said axis being normal to and intersecting the axis of said circular waveguide at a point which is effectively an integral number of quarter wavelengths of the carrier frequency of said transmitter from said short circuiting means, said branch waveguides having a common plane

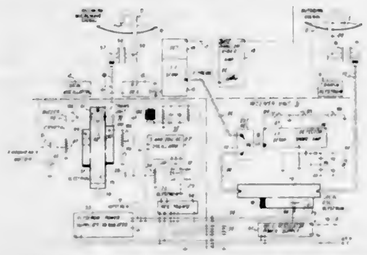


of symmetry normal to the lines of electric intensity therein, said plane of symmetry making such an angle θ with the axis of said circular waveguide that energy of the TE_{01} mode in one of said branch waveguides will excite in said circular waveguide energy of the TE_{11} mode, said angle θ being defined by the formula

$$\theta=\tan^{-1}\frac{2\pi a}{\lambda g}$$

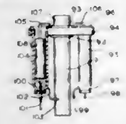
where a is the radius of said circular waveguide and λg is the wavelength thereof, said transmitter and said receiver each being connected to a respective one of said branch waveguides.

2,782,300
MODULATION METER
Edwin Dyke, Brookfield, and Henry Magnuski, Chicago, Ill., assignors to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application March 6, 1952, Serial No. 275,188
12 Claims. (Cl. 250—15)



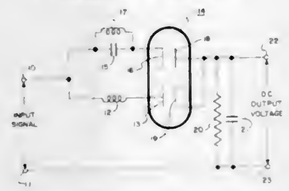
1. Apparatus for adjusting the modulation deviation of a frequency modulated microwave relay station which includes an incoming frequency modulation receiver having a frequency discriminator, an adjustable gain amplifier, and an outgoing transmitter frequency modulated by the amplified signal from the amplifier; said apparatus including in combination, an auxiliary frequency modulated microwave transmitter to produce a modulated test signal, means for coupling said test signal to the incoming receiver, auxiliary test receiver means, means for coupling said test receiver to the outgoing transmitter, test meter means for indicating the frequency deviation of a modulated wave applied thereto, and switching means connected to said test meter means and including a first conductor adapted to be connected to said incoming receiver at a point ahead of the frequency discriminator thereof and a second conductor connected to said test receiver means for providing the modulated wave from the outgoing transmitter, said switching means selectively connecting said test meter means to the incoming receiver of said relay station and to said auxiliary receiver means, whereby the gain of the amplifier of the relay station may be adjusted to produce the same indication on said test meter means when said test meter means is connected to said auxiliary receiver means, as when said test meter means is connected to the incoming receiver.

2,782,301
APPARATUS FOR CONNECTING CIRCUIT ELEMENTS TO ELECTRONIC TUBE SOCKET
Glen Peterson, Tulsa, Okla.
Original application September 21, 1949, Serial No. 117,056, now Patent No. 2,647,990, dated August 4, 1953. Divided and this application January 12, 1953, Serial No. 330,718
5 Claims. (Cl. 250—16)



1. A geometrical arrangement of electrical conductors and insulators, for connecting a plurality of electronic circuit elements to an electronic vacuum tube which minimizes unwanted accessory impedances, said geometrical arrangement being comprised of more than one tubular conducting surfaces separated and in some regions insulated from each other, at least one of said tubular surfaces being larger in diameter than and approximately parallel to at least one of said other tubular surfaces, said tubular surfaces being adjacent each other and arranged in pairs having approximately equal lengths and being conductively connected to more than one element of said electronic vacuum tube, respectively, at one extremity, and electrically shorted together at the other extremity, said circuit elements being included in said tubular conducting surfaces of small diameter.

2,782,302
FREQUENCY DISCRIMINATORS OR THE LIKE
Eugene H. Thom, Montebello, Calif., assignor to Hoffman Electronics Corporation, a corporation of California
Application March 15, 1954, Serial No. 416,189
3 Claims. (Cl. 250—27)

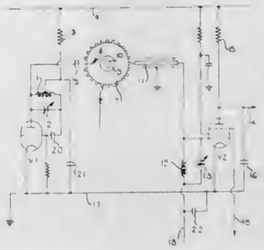


1. A discriminator circuit including a first unidirectionally conductive device having a first element and a second element, a second unidirectionally conductive device having first and second elements, a plurality of input terminals, a first circuit branch including an element exhibiting inductive reactance, said first circuit branch being connected between one of said input terminals and said first element of said first unidirectionally conductive element, a second circuit branch including an element exhibiting capacitive reactance, and a high impedance element continuous with respect to direct current shunting said capacitive element, said second branch being connected between said one input terminal and said second element of said second unidirectionally conductive device, a plurality of output terminals, said second element of said first unidirectionally conductive device and said first element of said second unidirectionally conductive being connected to each other and to a first of said output terminals, a second of said output terminals being connected to a second of said input terminals, and a parallel-connected resistance-capacitance combination shunting said first and second output terminals.

2,782,303
SWITCHING SYSTEM
Edwin A. Goldberg, Princeton Junction, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application April 30, 1952, Serial No. 285,198
13 Claims. (Cl. 250—27)

1. A switching system comprising at least six diodes each having an anode and cathode, the cathode of a first, second and fifth of said diodes being connected together, the cathodes of a third, fourth and sixth of said diodes being connected together, the anodes of said second and fourth diodes being connected together, means to apply a negative bias to each of said connected together cathodes, means to apply a positive bias to said connected together anodes, means to apply switching signals to the anodes of said fifth and sixth diodes, means to apply signals to be switched to the anodes of said first and third diodes, and means to derive switched signals from the connected together anodes of said first and third diodes.

2,782,304
ELECTRICAL IMPULSE GENERATORS
William Woods-Hill, Letchworth, England, assignor to The British Tabulating Machine Company Limited, London, England
Application January 13, 1953, Serial No. 331,058
Claims priority, application Great Britain February 13, 1952
6 Claims. (Cl. 250—27)



1. An electrical impulse generator comprising, in combination, a radio frequency signal generator, a radio frequency amplifier and rectifier for amplifying and rectifying radio frequency signals produced by said radio frequency signal generator, said radio frequency amplifier and rectifier having an input circuit and an output circuit, a capacity coupler coupling said radio frequency signal generator to the input circuit of said radio frequency amplifier and rectifier, means for mechanically varying the coupling of said capacity coupler between first and second coupling levels in accordance with a predetermined pattern to feed corresponding radio frequency signals of either a first or a second amplitude level to the input circuit of said radio frequency amplifier and rectifier, means for rendering said radio frequency ampli-

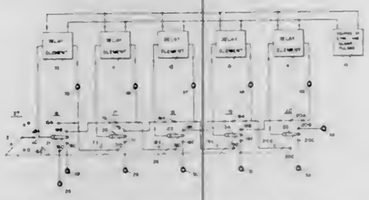
fier and rectifier solely responsive to radio frequency signals of said first amplitude level and nonresponsive to radio frequency signals of said second amplitude level, said radio frequency amplifier and rectifier amplifying and rectifying said radio frequency signals of said first amplitude to produce at the output circuit a series of electrical impulses corresponding to said predetermined pattern of occurrences of said first level of coupling.

2,782,305

DIGITAL INFORMATION REGISTER

Byron L. Havens, Closter, and Charles R. Borders, Alpine, N. J., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application November 23, 1951, Serial No. 257,747
22 Claims. (Cl. 250—27)



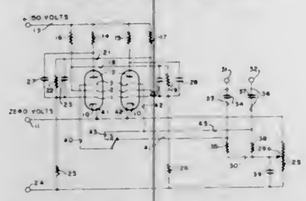
1. A register for digital information comprising the combination of: a plurality of delay elements each having input and output terminals; and switching means associated with each of said delay elements for selectively connecting the input terminal of each of said delay elements to its own output terminal, to the output terminal of another one of said delay elements, or to an external source of digital information.

2,782,306

ELECTRONIC TRIGGER CIRCUIT

Arthur H. Dickinson, Greenwich, Conn., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application August 9, 1951, Serial No. 241,082
3 Claims. (Cl. 250—27)



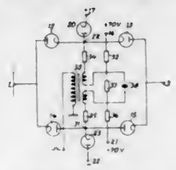
1. In a switching circuit having two tubes respectively comprised of a cathode, first, second and third grids, and a plate and two stable conditions alternately assumed and characterized by stable second grid current in the respective tubes; resistors connected to the respective second grids and plates so as to be disposed in their current paths; means for rendering the different tubes conductive between their cathodes and second grids to provide the stable second grid currents; means for rendering the tubes conductive between their cathodes and plates to provide plate currents; conductive connections for applying pulses to the third grids of each tube to render the one having stable second grid current conductive between its cathode and plate to provide plate current; means including a capacitor connected between the plate and the first grid of each tube to apply a negative-going voltage to the latter to decrease the second grid current when plate current flows in that tube; and means including a capacitor connected between the second grid of each tube and the first grid of the other tube to apply a positive-going voltage to the first grid of the non-conductive tube to initiate stable second grid current flow therein upon a decrease in the second grid current in the conductive tube, said last mentioned means also being effective upon the initiation of stable second grid current flow in the previously non-conductive tube to drive the first grid of the previously conductive tube further in the negative direction to where the latter tube becomes non-conductive, there being no conductive connection between the conductive connections for applying pulses to the third grids of each tube and the cathode, first, second, or third grids, or plate of either of said tubes.

2,782,307

ELECTRONIC SWITCHING DEVICE FOR USE IN RADIO SYSTEMS AND MULTI-CHANNEL TELEPHONE SYSTEMS EMPLOYING SUCCESSIVE PULSES

Carl Henric von Sivers, Stockholm, Kurt Reid Wadö and Klas Rudolf Wickman, Hagersten, and Lars Bernhard Person, Stockholm, Sweden, assignors to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a company of Sweden

Application October 10, 1951, Serial No. 250,672
Claims priority, application Sweden October 12, 1950
4 Claims. (Cl. 250—27)



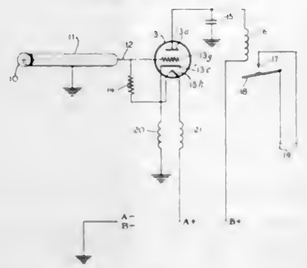
1. An electronic switching device in the form of a T-four-terminal network comprising two series branches in parallel connection between the input and output terminals of the switching device, each series branch including two diode means in series connection with each diode means having a cathode and plate, the diode means in one branch being coupled with their cathodes and the diode means of the other branch being coupled with their plates, a first shunt diode means having a plate and cathode connected with its plate to a connection point between the said cathodes of said cathode coupled series branch, a second shunt diode means having a plate and cathode connected with its cathode to a connection point between the plates of said plate coupled diode means, the connection point between the cathodes of the cathode-connected diode means being further connected to a point adapted to be at a first positive potential and the connection point between the plates of said two plate connected diodes being further connected to a point adapted to be at a first negative potential, the cathode of said first shunt diode means being connected to a point adapted to be at a potential less positive than said first positive potential and the plate of said second shunt diode means being connected to a point adapted to be at a potential less negative than said first negative potential for rendering both the shunt diode means conductive and all the series diode means non-conductive, thereby providing a high attenuation between the input and output terminals of the network, and control means for applying in one branch a negative pulse at the connection point between the cathodes of said cathode-connected series diodes and the plate of the first shunt diode means so as to cause the said connection point to become negative, and for applying in the other branch a positive pulse at the connection point between the plates of said plate-connected series diode means and the cathode of the second shunt diode means so as to cause the last mentioned connection point to become positive for rendering all the series diode means conductive and the shunt diode means non-conductive, thereby providing a low attenuation between the input and output terminals of the network for the duration of said negative and positive pulses.

2,782,308

CAPACITY OPERATED CONTROL SYSTEM

John P. Rug, Buffalo, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Continuation of application Serial No. 646,046, February 7, 1946. This application May 13, 1953, Serial No. 354,755
5 Claims. (Cl. 250—36)



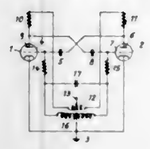
1. A control system comprising, a radio frequency oscillator including a resonant transmission line open circuited electrically at its remote end, a loading element coupled to said remote end of said line and responsive to a predetermined change of a control condition for producing through said line a substantial increase of the load on said oscillator thereby substantially reducing its amplitude of oscillation, and means effective on said change of oscillation amplitude for providing a desired control effect.

2,782,309

FREQUENCY STABLE MULTIVIBRATOR

Felix Aasma, Jarnbrott, Sweden, assignor to Telefonaktiebolaget L. M. Ericsson, Stockholm, Sweden, a corporation of Sweden

Application July 7, 1954, Serial No. 441,889
Claims priority, application Sweden July 8, 1953
5 Claims. (Cl. 250—36)



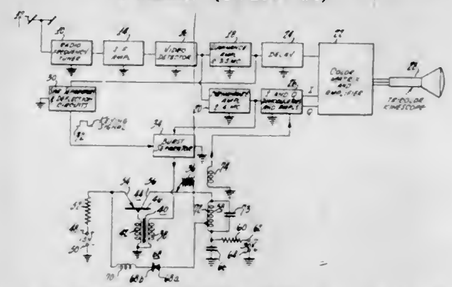
1. A frequency stable multivibrator system comprising first and second electron discharge means, each having an anode, a cathode and a grid, a resistive energizing circuit connected to the anode of each discharge means, positive feed back circuit means connecting the anode of each discharge means with the grid of the other discharge means, at least one of said feed back circuit means including a timing network, a step-up transformer means having a primary and a secondary, said primary being included in said resistive circuits in series connection and said secondary being connected between the grid and the cathode of each discharge means in series therewith, said series connection including a grid leak for at least one of said discharge means, the transformer windings being equally directed to obtain a positive feed back, one of the transformer windings being further connected in a resonance circuit tuned to the fundamental frequency of the multivibrator system, the primary of the transformer having an impedance of small value relative to the resistance in said resistive circuits.

2,782,310

FREQUENCY CONTROLLED OSCILLATOR

Louis Jack Kabell, Palo Alto, Calif., assignor to Radio Corporation of America, a corporation of Delaware

Application September 12, 1955, Serial No. 533,584
4 Claims. (Cl. 250—36)



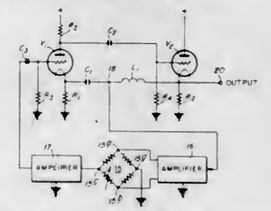
1. In an automatic frequency controlled oscillator system, the combination of: a source of frequency reference signal; a semi-conductor amplifier device having electrodes respectively corresponding to a base, emitter and collector; an emitter bias source means having a first and second terminals; a collector bias source means having a first and second terminals; an impedance means connected between said emitter and said first terminal of said emitter bias source means; a connection from said second terminal of said emitter bias source means to said base electrode to define an input circuit between said emitter and base; a first resonant circuit means tuned to resonate at approximately the frequency of said reference signal when operatively connected as hereinafter defined; a connection from a first point in said resonant circuit to said collector electrode; a resistance means connected from said first terminal of said collector bias source to a second point in said resonant circuit; a capacitor connected from the resonant circuit extremity of said resistance means to the second terminal of said collector bias source means; a connection from said collector bias source means second terminal to said emitter bias source second terminal; a second resonant circuit means connected from a point in said first resonant circuit means to said emitter electrode in a manner to cause osciliation by said amplifier device; voltage responsive variable reactance means included in said second resonant circuit and so connected therein as to change the resonance of said second tuned circuit as a function of changes in the potential of said collector electrode; and means coupled with said source of frequency reference signal and said amplifier device input circuit to impose therein electrical signal variations corresponding to said reference signal.

2,782,311

BRIDGE CONTROLLED OSCILLATOR

Roy E. Colander, Reseda, and William H. Chester, North Hollywood, Calif., assignors to Bendix Aviation Corporation, North Hollywood, Calif., a corporation of Delaware

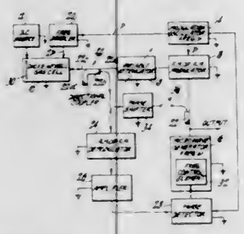
Application September 17, 1953, Serial No. 380,746
5 Claims. (Cl. 250—36)



1. Apparatus of the type described comprising: an oscillator consisting of an amplifier and positive feedback circuit means connecting the output of the amplifier to

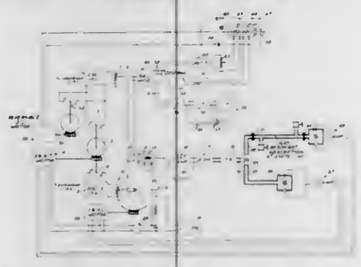
the input thereof at a predetermined frequency and defining with the amplifier a closed loop circuit; means for deriving from said loop circuit a potential in quadrature to the potential applied to the amplifier input by said positive feedback circuit; and amplitude modulating bridge means separate from said loop circuit having an input circuit connected to said quadrature potential deriving means and an output circuit connected to the amplifier input, for variably applying said quadrature potential to said amplifier input without further phase shift.

2,782,312
GAS RESONANCE FREQUENCY CONTROL
Lowell E. Norton, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application June 30, 1953, Serial No. 365,178
16 Claims. (Cl. 250—36)



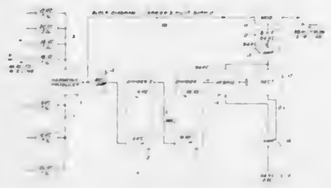
1. A frequency control system comprising a gas cell of the type having means for providing a field periodically varying in space and in time, means for providing a first frequency signal and a second frequency signal synchronized with and double the frequency of the first frequency signal, means to apply said second frequency signal to said gas cell, a generator of a signal at an unmodulated resonance frequency of the gas of said cell, means to modulate the signal of said generator to derive a pair of sideband signals displaced equally in frequency from said generator signal frequency, means to apply said sideband signals to said gas cell to derive a pair of reflected sideband signals, the lower of the reflected signals being at the frequency of the higher of the said applied signal frequencies and vice versa, means to demodulate said reflected signals with a fixed phase signal from said generator as a supplied carrier to derive a demodulation signal, and means to compare the phase of said demodulated signal with said first frequency signal to derive a control voltage.

2,782,313
HIGH PRECISION FREQUENCY STANDARDS
Warren A. Marrison, Berkeley Heights, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application July 29, 1953, Serial No. 371,064
12 Claims. (Cl. 250—36)



1. A system for supplying energy of standard frequency which comprises a selective element characterized by an energy-frequency response curve having a peak at a specified frequency f_0 and, on either side of said peak, a sloping portion, two independent tunable oscillation sources, means for adjusting the frequency of one of said sources approximately to that of a point on one of said sloping portions, means for adjusting the frequency of the other of said sources approximately to that of a point on the other of said sloping portions, means for applying the energies of said sources individually to said selective element, means for deriving from said selective element two independent output signals each of which is representative of the degree to which said selective element modifies the energy of one of said sources, and means responsive to said output signals for tuning both of said sources in the same sense to equalize the magnitudes of said output signals, thereby holding the sum frequency of said two sources equal to $2f_0$, and means for simultaneously holding the difference frequency of said two sources to a fixed value equal to the width of said response curve.

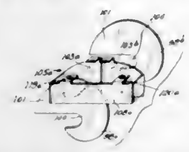
2,782,314
FREQUENCY SUPPLY CIRCUITS FOR CARRIER SYSTEMS
Walter F. Miller, Whippany, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application February 1, 1954, Serial No. 407,549
9 Claims. (Cl. 250—36)



1. A two-way carrier transmission system including a pair of terminal stations, each of said stations including means to selectively receive a pilot wave of a first frequency f_p that is transmitted from the other terminal station, an oscillation generator of a frequency f_0 that differs from said first frequency f_p by a low base frequency f_b to which both f_p and f_0 are harmonically related, a frequency subdivider adapted to derive waves of the base frequency f_b from applied waves of frequency f_0, a connection from said oscillation generator to said frequency subdivider to apply waves of frequency f_0 thereto, a modulator connected to receive waves of said base frequency f_b from said frequency subdivider and waves of said pilot frequency f_p from said selective receiving means, connections to apply output waves of frequency f_0 from said modulator to said frequency subdivider, frequency multiplying means energized by the base frequency wave output of said frequency subdivider for generating a pilot wave of frequency f_p, means to transmit said generated pilot wave f_p to said other terminal station, and means responsive to said selectively received pilot wave to maintain said oscillation generator effectively disconnected from said frequency subdivider so long as said pilot waves are being received.

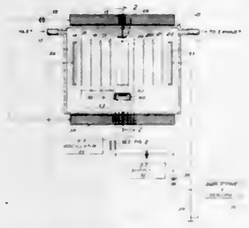
2,782,315
HIGH FREQUENCY TUNING APPARATUS
Robert R. English, Itasca, Ill., assignor to Oak Mfg. Co., Chicago, Ill., a corporation of Illinois
Application October 16, 1951, Serial No. 251,570
7 Claims. (Cl. 250—40)

1. A high frequency tuner including a tuner section comprising sheet metal shaped to form a one-turn inductance loop having the general shape of an incomplete thin walled and rectangular pipe length, the rectangular section having opposed short and long sides, one long side being broken at the center to form a pair of stator plates, a shaft perpendicular to the planes containing the opposed long sides, said shaft lying outside of the region within the loop, at least one metallic rotor plate insulatingly carried by said shaft for rotation in a plane



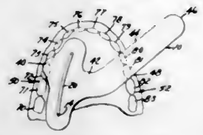
lying between the opposed long sides and parallel thereto, said rotor plate having one electrically unitary plate portion intermeshing the two parts of the stator plates simultaneously and symmetrically for capacitance variation, said rotor plate having the part adjacent the shaft at all times outside of the loop and substantially ineffective for tuning.

2,782,316
MASS SEPARATION
Charles F. Robinson, Pasadena, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application June 20, 1952, Serial No. 294,685
3 Claims. (Cl. 250—41.9)



1. In a mass spectrometer, the combination which comprises an analyzer chamber, a plurality of electrodes disposed in the chamber parallel to each other, means including the electrodes for developing a substantially parabolic D. C. field across a space in the chamber, means for superimposing an R. F. field on the D. C. field, ion collection means including at least one collector electrode disposed exteriorly of and adjacent a boundary of the D. C. field, means developing an ionizing electron beam directed transversely of the D. C. field to ionize gas molecules therein, and means forming a field to prevent electrons from impinging on the collector means.

2,782,317
DENTAL X-RAY FILM HOLDER
Charles J. Vacanti and Marion H. Jackson, Omaha, Nebr.
Application November 18, 1953, Serial No. 392,805
3 Claims. (Cl. 250—70)



1. A dental X-ray film holder comprising a portion adapted to receive and hold an X-ray film of a type adapted to be placed in the mouth for X-ray photography of the teeth, and portions attached to said film holding portion and disposed one on each side thereof respectively to be gripped between the teeth, said tooth gripping portions being so disposed and shaped that one of said portions on one side of said film holding portion can be gripped between the teeth on one side of the mouth while the other of said tooth gripping portions is gripped between the teeth on the other side of the mouth, whereby the film is held in position with stability, said other tooth gripping portion being so disposed with respect to said film holding portion that when said film holding portion is disposed parallel to and on the inner side of the teeth on one side of the mouth then said other tooth gripping portion will be disposed between the teeth on the other side of said mouth at a point at the forward end of the row of teeth on said other side.

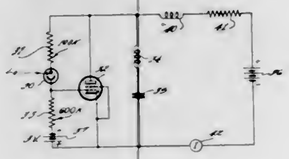
2,782,318
RADIOACTIVITY EARTH EXPLORATION
Gerhard Herzog, Houston, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware
Application August 9, 1951, Serial No. 240,992
2 Claims. (Cl. 250—71)

2. A device for logging a bore-hole traversing an earth formation comprising an elongated instrument housing adapted to be passed through the bore-hole while suspended on a conductor cable, a source of neutrons disposed within said housing, a scintillation detector also disposed within the housing and spaced from said source, said scintillation detector having a sensitive surface whose vertical dimension is not more than one sixth the distance between said source and said surface, means between said source and said detector for absorbing radiation which might otherwise pass directly from the source to the detector, means surrounding the vertical surface of the detector for absorbing neutrons and gamma rays which may be scattered in said formations and returned to the bore-hole, said detector being primarily responsive to gamma rays induced in said formation by neutron bombardment, and means for recording the output of said detector.

2,782,319
RADIATION DETECTION
Kenneth B. McAlpine and Dale W. Rinehart, Brackenridge, Pa., assignors to Pittsburgh Plate Glass Company
No Drawing. Application November 14, 1951, Serial No. 256,384
5 Claims. (Cl. 250—83)

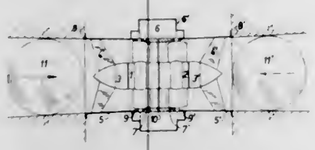
1. The method of visibly detecting cumulative exposure to short-wave radiation which comprises placing a piece of a glass composition at a position where short-wave radiation may strike the composition and observing at intervals the extent of darkening of the composition, said composition consisting by weight of about 40% to 80% SiO_2, about 10% to 23% of an alkali oxide selected from the group consisting of sodium oxide, potassium oxide, rubidium oxide as well as mixtures thereof, and about 5% to 45% of an alkaline earth, oxide selected from the class consisting of barium oxide, strontium oxide and combinations thereof.

2,782,320
PHOTOTUBE CIRCUIT
Edward O. Johnson, Princeton, and William M. Webster, Jr., Mercer County, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application October 29, 1953, Serial No. 389,077
6 Claims. (Cl. 250—214)



1. A circuit for attaining extremely high photocurrent amplification with a gas filled phototube comprising a gas filled phototube adapted to be exposed to incident light, a voltage supply across said phototube equal to or greater than the breakdown potential of the phototube, a path of variable impedance in parallel with the phototube, said path being of relatively high impedance when phototube current is relatively low, triggering means for suddenly dropping the impedance of the path periodically to a relatively low impedance in response to current build-up in the phototube, current conducting means in said path, said current conducting means comprising means to drop the voltage across the phototube during a condition of low path impedance, a resonant circuit in parallel with the variable impedance path having a capacitor, said capacitor comprising charging means while the variable impedance path is conducting current in its low impedance condition and discharging means for reversing the current in the resonant circuit to drive the voltage across the variable impedance path and across the phototube negative periodically thereby allowing the phototube to deionize and the variable impedance path to recover its original relatively high impedance periodically.

2,782,321
TURBINE FOR DRIVING A GENERATOR
Arno Fischer, Saarbrucken, Saar Territory
Application April 28, 1953, Serial No. 351,607
Claims priority, application Spain April 30, 1952
28 Claims. (Cl. 290—4)



15. A turbine arrangement comprising, in combination, a guide means for guiding a fluid selectively in opposite directions along a predetermined path; a pair of turbine wheels arranged in said predetermined path in such manner that the fluid consecutively flows through said turbine wheels in a sequence depending on the direction of flow of the fluid; supporting means supporting said turbine wheels for rotation independently of each other; locking means for selectively locking the turbine wheel through which the flow of fluid first passes so that the locked turbine wheel serves as a guide wheel for guiding the fluid to the other turbine wheel; electric generator means including a rotor; and coupling means for selectively connecting said rotor with any one of said turbine wheels for connecting said rotor for rotation with said other of said turbine wheels when one of said turbine wheels is locked.

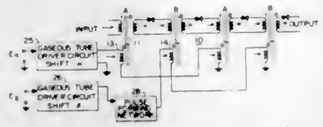
2,782,322
LOAD DIVISION SYSTEM FOR POWER TRANSMISSION
John F. Hysler, Webster Groves, Mo., assignor to Vickers Incorporated, Detroit, Mich., a corporation of Michigan
Application July 21, 1951, Serial No. 237,883
16 Claims. (Cl. 307—57)

1. A plurality of generator system, each having a generator, a slip coupling with a slip control operable in response to signals, and motor means for driving the generator through the slip coupling, said generators being connected in parallel to supply a load, means in each system for producing a load signal indicative of the output load of the generator in the system, a static impedance network for differentially combining the load signals of the respective generators and for producing from said combined signals a separate load division signal for each system, said load division signal for any given system being a function of the direction and degree of deviation of the load carried by the generator of the system from a desired proportion of the total load carried by all the generators, and means for applying the load division signal for a system to the slip control of the system to force the generator of the system to assume only a desired proportion of the total load carried by all the generators.

2,782,323
PARALLEL OPERATION OF MOTOR-GENERATOR SET
David H. Ransom, Pines Lake, and Fred Benjamin, Fair Lawn, N. J., assignors, by mesne assignments, to Reconstruction Finance Corporation, New York, N. Y., a corporation of the United States of America
Original application January 30, 1951, Serial No. 208,554, now Patent No. 2,692,366, dated October 19, 1954. Divided and this application June 23, 1954, Serial No. 438,824
3 Claims. (Cl. 307—57)

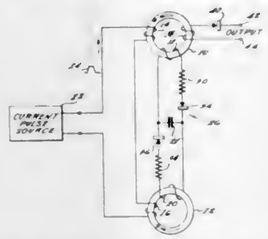
1. In a system including a plurality of motor generator sets adapted to be connected for parallel operation wherein the motor of each set comprises an auxiliary field, circuit means for connecting the fields of the respective generators in parallel, speed regulating means for each set including reactor means comprising a control winding, circuit means connecting the output of each reactor means with the field of the motor associated therewith, means in circuit with the armature of each motor for establishing a potential proportional to the load of the generator associated therewith, a common circuit interconnecting the control winding of each of said reactor means and the potential establishing means of each motor whereby an unbalance in the generator loads is operative to provide a control current in said common circuit of a magnitude and in a direction to modify the outputs of the reactor means to correspondingly adjust the speed of the motors respectively associated therewith and thereby restore the balance of load between the generators.

2,782,324
MAGNETIC SWITCHING ELEMENT DRIVER CIRCUITS
Donald H. Lee, Philadelphia, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application April 16, 1954, Serial No. 423,628
18 Claims. (Cl. 307—88)



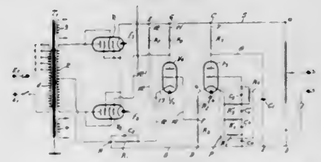
1. A circuit for energizing a plurality of static magnetic circuit elements, comprising in combination, a gaseous discharge device having a pair of input terminals and anode and cathode output electrodes, a power source connected for supplying discharge current for said device, an electromagnetic storage network coupled to said power source for assuming a charge of fixed value when said discharge device is not sustaining a discharge, means connected for selectively triggering the discharge device to cause discharge of said network through said device, and a load circuit coupling windings about said plurality of elements in series with the discharge current of said device.

2,782,325
MAGNETIC FLIP-FLOP
Ole K. Nilssen, Collingswood, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application December 6, 1954, Serial No. 473,280
18 Claims. (Cl. 307—88)



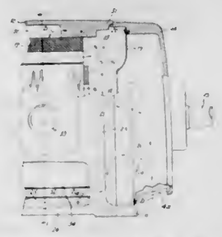
1. A magnetic device comprising a plurality of magnetic elements each having two magnetic states, separate winding means linked to said elements for applying magnetizing forces thereto, means for simultaneously applying energizing input currents to at least portions of said winding means in directions such as to tend to change the state of only one of said elements, and means responsive to changes of state of one and another of said elements for respectively applying energizing currents to at least portions of said winding means of said another and said one elements, said responsive means including a storage capacitor, and separate unilateral impedance means each connected in series with at least a portion of a different one of said winding means and said capacitor.

2,782,326
APPARATUS USED IN THE APPLICATION OF PHYSIOTHERAPEUTIC CURRENTS
Gustave Léon Bosman, Brussels, Belgium, assignor, by mesne assignments, to Soprotec Societe de Promotion Technique, Luxembourg, a corporation of Luxembourg
Application December 6, 1952, Serial No. 324,547
Claims priority, application Belgium December 11, 1951
14 Claims. (Cl. 307—106)



6. In a current impulse modulator device for physiotherapeutic applications in combination a transformer supplied externally by a generator of alternating current at the desired frequency two valves having control grids and arranged so as to be fed in current by said transformer and to convert the alternating current to continuous current, the intensity of which is adapted to be controlled by the grids of said valves, a modulator supplied by changes in the currents for physiotherapeutic use and acting so as to control said grids and a rhythm generator similarly supplied by a change in the currents produced by such changes and whereby said modulator is controlled, the anode of the modulator valve being supplied with current for physiotherapeutic use partly through a lead in which is located a resistance and connected to this anode and partly by a lead in which are located resistances, and a D. C. voltage being maintained across one of those resistances by a condenser which voltage over a lead connected to the cathode of the modulator biases the grid of the modulator with respect to the cathode in such a manner that no current flows through the modulator between anode and cathode when no current flows through the load circuit of the rhythm generator, the grid of one of the generator tubes being thus connected to its cathode through the resistance, the working being such that when an alternating current flows in the load circuit of the rhythm generator the modulator tube becomes conducting at the rhythm of this current so as to cause to flow in the resistance a current adapted to bias the grid of one of the generator tubes negatively with respect to its cathode at this rhythm.

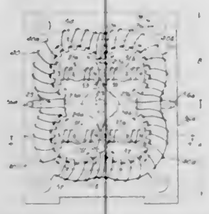
2,782,327
DYNAMOELECTRIC MACHINE
Thomas F. Worth, Lynn, Mass., assignor to General Electric Company, a corporation of New York
Application October 27, 1954, Serial No. 465,105
5 Claims. (Cl. 310—59)



1. In a dynamoelectric machine, an axially central annular magnetic material stator core portion, and an axially central frame comprising a unitary cast member following the arcuate curvature of the core around substantially 180° and having a plurality of inwardly depending ribs arranged to contact the core within the sec-

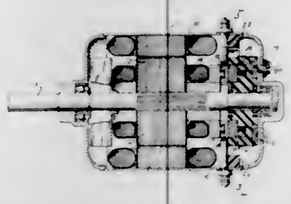
tor thus defined, said frame having straight side portions depending from said sector to form depending hollow legs with ventilating medium openings therethrough and terminating in a transverse base having integrally formed corner feet and including a middle web portion between the feet and arranged to close the base and contact the core through a substantial arc to support the core and aid in transferring heat therefrom.

2,782,328
DYNAMOELECTRIC GENERATORS
Edward J. Lindberg, Yonkers, N. Y.
Application April 18, 1952, Serial No. 283,042
21 Claims. (Cl. 310—112)



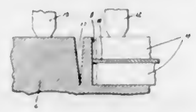
1. A dynamoelectric machine comprising the combination of one pair of magnetized double-poled rotors having parallel adjacent axes, means to rotate said rotors synchronously in opposite directions to cause two opposite poles, one on each of said rotors, to be brought into alignment on each half revolution, a stationary inductive armature core, said core forming two pole traversing arc sections, said arc sections being disposed concentrically respectively of said axes and adjoined through a mean ridge joining section from which they extend oppositely and arc-wise outwardly to two separated extreme ridge areas, conductors inductively wound on said armature core, and a stationary accessory armature, said accessory armature being disposed in magnetically isolated relation with respect to said extreme ridge areas.

2,782,329
DYNAMOTOR
Thomas G. Kirby, Ecorse, and Thomas H. Oster, Dearborn, Mich., assignors to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application June 8, 1953, Serial No. 359,984
13 Claims. (Cl. 310—138)



1. A dynamoelectric machine comprising a stationary field member, a wound rotor member provided with a commutator, said field and rotor members being laminated to conduct substantially all of the flux along an entirely laminated iron circuit, a rotatable brush carriage carrying rotating brushes which bear upon the commutator, slip rings mounted upon said brush carriage and connected electrically to the brushes carried in the rotatable brush carriage, and fixed alternating current output brushes bearing upon said slip rings, said brush carriage being propelled only by friction between itself and the rotor and commutator and being retarded by a speed sensitive braking means.

2,782,330
COMMUTATOR CONSTRUCTION AND METHOD OF MAKING THE SAME
Joseph E. Baclawski, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York
Application October 31, 1955, Serial No. 543,716
5 Claims. (Cl. 310—234)



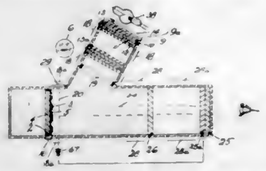
1. In combination, a commutator bar having a recess formed at one end thereof, and a pair of rectangular leads having their ends superposed in said recess, said bar having a slot of a depth substantially equal to that of said superposed lead ends extending substantially across said bar adjacent the end of said recess, said lead ends being brazed in said recess.

2,782,331
ELECTRIC HOIST MOTOR STATOR MOUNT
Erford E. Robins, North Tonawanda, and Loren W. Lerch and Humphrey F. Parker, Buffalo, N. Y., assignors to Columbus McKinnon Chain Corporation, Tonawanda, N. Y.
Application December 13, 1955, Serial No. 552,939
4 Claims. (Cl. 310—258)

1. In an electric hoist, a frame including complementary shaped motor mount and cover frame sections adapted to be assembled in abutting aligned relation at opposed rim portions of the frame sections, a hoist motor slip-fitted into said motor mount frame section and having an anchor pin protruding radially therefrom, said motor mount frame section being notched to receive said protruding pin when the hoist motor is slip-fitted into said mount section while the protruding pin lies flush with the rim edge of said mount section, and means detachably interconnecting said mount section and said cover section whereby to lock them together in opposed rim abutting engagement whereby said cover section is held in abutting engagement against on side of the protruding portion of said pin and whereby the protruding portion of said pin is completely encircled between said frame sections, said cover section including a bearing member engaging in slip-fitting relation the shaft of said motor when said frame sections are brought together.

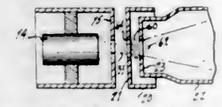
2,782,332
METHOD AND DEVICE FOR READING IMAGES OF INVISIBLE RADIATION
Edward Emanuel Sheldon, New York, N. Y.
Application April 6, 1949, Serial No. 85,752
15 Claims. (Cl. 313—67)

1. A composite device comprising in combination an imperforated and continuous layer of material having dielectric and piezo-electric properties, said layer having an extended surface, a conducting member adjacent to one side of said dielectric layer and photo-electric means



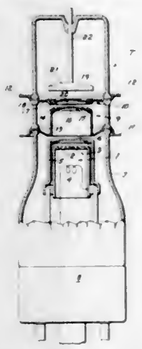
mounted on the opposite side of said dielectric layer and comprising photo-emissive material.

2,782,333
SHORTENED TRIPLE GUN FOR COLOR TELEVISION
Robert E. Benway and Richard H. Hughes, Lancaster, Pa., assignors to Radio Corporation of America, a corporation of Delaware
Application August 18, 1954, Serial No. 450,661
10 Claims. (Cl. 313—70)



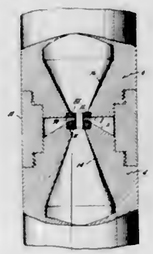
1. In an electron gun for a cathode ray tube comprising electrode means including a cathode electrode for forming a beam of electrons along a path, a plurality of electrodes spaced along said beam path for providing an electron lens system for focusing the electron beam to a small point, said plurality of electrodes including a cup-shaped electrode having an aperture in the central portion thereof and a tubular electrode having a portion thereof telescoped within said cup-shaped electrode and being insulatingly spaced from said cup-shaped electrode for providing a prefocusing lens in said beam path, said telescoped portion of said tubular electrode including a plate portion closing said tubular electrode and having an aperture in the center of said plate portion and aligned with the aperture of said cup-shaped electrode, said plurality of electrodes including means adjacent to said tubular electrodes to form a principal electron focusing lens in the path of said electron beam.

2,782,334
VELOCITY MODULATED ELECTRON DISCHARGE DEVICES
Bernard C. Gardner, Los Altos, Calif., assignor to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware
Application March 10, 1952, Serial No. 275,808
3 Claims. (Cl. 313—82)



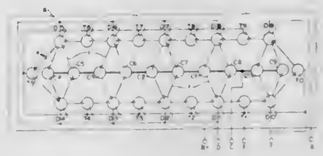
1. An electron discharge device of the reflex klystron type comprising an electron gun including a cathode for emitting a single composite beam of primary electrons, a substantially planar reflecting electrode positioned in the path of said electrons, a pair of spaced electron-permeable members defining a unitary gap traversed by said beam, said cathode having an electron emissive surface of irregular configuration and including a series of projecting areas and depressed areas for providing an electron beam density in the vicinity of said cathode which varies in random manner from point to point throughout the cross-sectional area of the beam as presented to said gap whereby hysteresis in said device is substantially reduced.

2,782,335
ELECTRON-OPTICAL APPARATUS
Sidney G. Ellis, Princeton Junction, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application February 29, 1952, Serial No. 274,217
5 Claims. (Cl. 313—84)



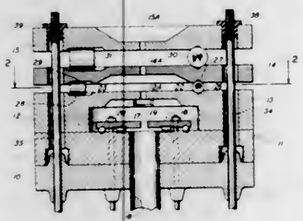
1. In electron optical apparatus of the type having a magnetic field electron lens, pole piece means between which said magnetic field is formed, said pole piece means having pole tips, said pole tips having magnetic field defining surfaces and being constituted of iron the crystals of which are uniformly oriented with respect to the surfaces of said pole tips.

2,782,336
SELF-COMPLEMENTING GAS COUNTER TUBE
Robert B. Koehler, Hopewell Junction, and Richard K. Richards, Poughkeepsie, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 8, 1953, Serial No. 396,804
6 Claims. (Cl. 313—196)



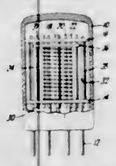
1. A gaseous discharge storage tube of the glow transfer type wherein a glow discharge is sequentially transferred from one preselected position to another to store digit representing electrical impulses including, an anode, a plurality of aluminum cathodes formed as elongated U-shaped electrodes, a coating of anodized aluminum oxide on the exterior surfaces of said cathodes to confine a glow discharge between said anode and said cathodes to the interior surfaces of the latter, a plurality of insulating strips, means supporting said cathodes on said strips including tabs on said U-shaped electrodes whereby the upper ends of each of said cathodes are equidistantly spaced from said anode.

2,782,337
SUPPORTING MEANS FOR VACUUM ELECTRODES
Charles F. Robinson, Pasadena, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application June 22, 1953, Serial No. 363,326
11 Claims. (Cl. 313—250)



1. A vacuum tube comprising a plurality of electrodes, means holding the electrodes in fixed spaced relation comprising first and second insulating spacers disposed between adjacent electrodes and seated in spaced relation in a first pair of aligned grooves in proximal faces of the adjacent electrodes, a third insulating spacer disposed between the adjacent electrodes and seated in a second pair of aligned grooves in the proximal faces of the adjacent electrodes, each groove of the second pair being spaced from and oriented normal to the respective groove of the first pair, and clamping means clamping the electrodes against the spacers.

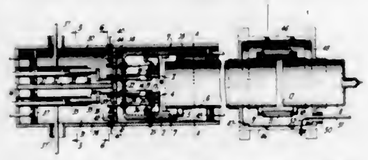
2,782,338
GRID ALIGNMENT IN ELECTRON TUBES
William J. Rhyne, Prospect Park, Pa., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application December 9, 1953, Serial No. 397,131
4 Claims. (Cl. 313—299)



1. In an electron discharge device including nested grids with the lateral wires of one grid aligned with the lateral wires of another grid, and an anode, each of said grids and anode having elongated support elements thereon, the combination comprising a first insulating spacer receiving and positioning the one ends of said support elements, a second insulating spacer within the confines of the anode receiving and positioning the opposite ends of the grid support elements, and a third insulating spacer receiving and positioning the opposite ends of both the anode support elements and at least one of the support elements for each grid.

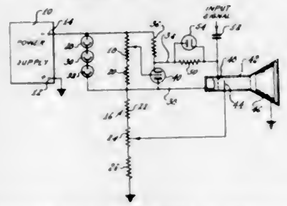
2,782,339
ELECTRON BEAM AMPLIFIER DEVICE
Leon S. Nergaard, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application January 7, 1949, Serial No. 69,634
8 Claims. (Cl. 315—4)

1. An electron discharge device comprising an envelope containing means for producing two convergent electron beams, said means including a pair of spaced adjacent cathodes, a pair of spaced grids respectively one adjacent each of said cathodes and separate leads connected to each of said cathodes and grids and extending through said envelope to permit the application of different potentials to said cathodes and grids for imparting different velocities and space charge densities to said beams, separate tunable cavity resonator means coupled between the leads connected to each cathode and the grid adjacent thereto, means coupled to each of



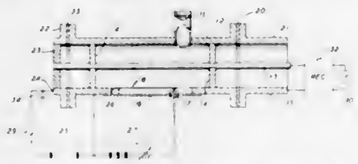
said cavity resonator means for applying a signal thereto, an elongated drift tube adjacent to said grids and through which said convergent beams are directed during operation of said device, and a collector disposed in the path of said beams beyond said drift tube.

2,782,340
REGULATED BIAS VOLTAGE SUPPLY
Manuel Siskel, Camden, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application December 29, 1953, Serial No. 400,963
7 Claims. (Cl. 315—30)



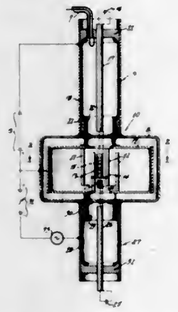
1. A regulated bias voltage supply comprising a source of unidirectional voltage, a voltage divider network connected across said source, means connected across a portion of said network to maintain a constant potential across said portion, a variable impedance tube having an anode, a grid and a cathode, a resistor connected between said cathode and one end of said portion, said anode being connected to the other end of said portion, said grid being connected to a point on said portion, and output means to derive a regulated bias voltage output across said anode and said cathode.

2,782,341
COAXIAL NOISE DIODE
Gordon L. Gamble, Morristown, and Lyle A. Jakus, Harding Township, Morris County, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 22, 1952, Serial No. 327,275
2 Claims. (Cl. 315—39)



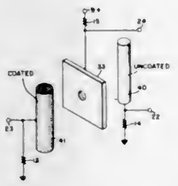
1. An electron discharge device comprising a section of coaxial transmission line, said section comprising an outer cylindrical conductor having a longitudinal recess in the inner surface thereof, an inner conductor coaxially supported within said outer conductor, insulating members supporting said inner conductor, said members being hermetically sealed to said conductors, a connection in said outer conductor for evacuating and hermetically sealing said section, and thermionic cathode means in said recess of said outer conductor, said means comprising a filamentary cathode having an emitting surface substantially coincident with the plane of the inner surface of said outer conductor, said inner conductor adapted to serve as an anode.

2,782,342
MAGNETRON
George R. Kilgore, Spring Lake, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application July 1, 1947, Serial No. 758,444
15 Claims. (Cl. 315—39.57)



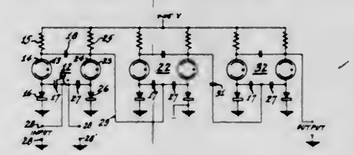
12. A magnetron comprising an anode structure defining an interaction space therein, two cathodes positioned in part within said space and insulated from each other and said anode structure, and a tunable coaxial line having its outer conductor coupled to said anode structure and its inner conductor coupled to one of said cathodes.

2,782,343
GLOW DISCHARGE TUBE
Helmut J. Geisler, Wappingers Falls, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application May 22, 1952, Serial No. 289,304
2 Claims. (Cl. 315—169)



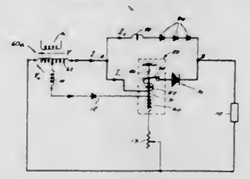
1. In a trigger tube of the glow transfer type, a single anode providing a preselected ionic leakage path therethrough, two cathodes unequally spaced from and positioned on opposite sides of said anode; load impedances of different ohmic value connected in circuit with each cathode so that the voltage drop across a glow discharge between the anode and that cathode having the higher ohmic impedance value in circuit therewith is less than the voltage drop across a glow discharge between the anode and the cathode having the lower ohmic value in circuit therewith; and a load resistor connected between the anode and a source of voltage, said load resistor being of such ohmic value that a glow discharge exists between the anode and only one of said cathodes at any given time, whereby voltage amplification is obtained when a glow discharge is transferred from the cathode having the lower ohmic impedance in circuit therewith to the cathode having the higher ohmic impedance in circuit therewith.

2,782,344
BINARY RECIPROCONDUCTIVE CIRCUIT
Samuel Sharin, Brooklyn, N. Y., assignor to Radio Corporation of America, a corporation of Delaware
Application March 23, 1954, Serial No. 418,039
14 Claims. (Cl. 315—201)



1. A binary reciproconductive circuit including a pair of series circuits each comprising a resistance element, a dual-electrode glow-discharge device having a first electrode connected to said resistance element, and a unidirectional current conducting device having one terminal connected to a second electrode of said glow-discharge device; means to apply direct potential across both of said series circuits, a capacitive element connected between the first electrodes of said pair of glow-discharge devices, a pair of capacitive components connected in series between the second electrodes of said pair of glow-discharge devices, means to apply an input pulse between the junction of said pair of capacitive components and the terminals of said unidirectional devices remote from said electrodes, and means to derive an output pulse between one of said first electrodes and the terminals of said unidirectional devices remote from said electrodes.

2,782,345
ALTERNATING CURRENT SWITCHING DEVICE
Fritz Kesselring, Zollikon, Zurich, Switzerland, assignor to FKG Fritz Kesselring Geratebau A. G., Bachtobel-Weinfelden, Thurgau, Switzerland, a corporation of Switzerland
Application March 18, 1953, Serial No. 343,077
19 Claims. (Cl. 317—11)

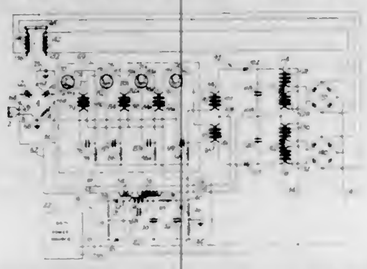


1. In a switching device having a first path and a current path in parallel, said parallel combination of said first and current paths being in series with a source and load, said current path comprising an electromagnetic switching device and a current rectifier, said first path containing an inductor and a first rectifier.

2,782,346
MEASURING APPARATUS
Horace E. Darling, North Attleboro, Mass., assignor to The Foxboro Company, Foxboro, Mass.
Application July 16, 1952, Serial No. 299,086
1 Claim. (Cl. 318—21)

A measuring system formed of passive elements and adapted for energization by commercial supply line power without the need for an oscillator to produce alternating-current of a relatively high frequency, comprising, in combination, a high-impedance bridge network having first and second input terminals and first and second output terminals, said bridge comprising a pair of condensers and a pair of resistive elements arranged in the form of a Wheatstone bridge, the ohmic resistance of one of said resistive elements being variable in accordance with

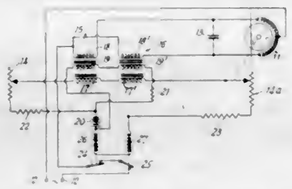
changes in a condition to be measured, one of said condensers being adjustable for rebalancing said bridge, a power supply unit arranged to provide both direct-current and alternating-current potentials and adapted to be connected to commercial alternating-current supply line mains, said power supply unit including two half-wave rectifiers arranged to produce uni-directional pulsating current, an inductor-transformer having a primary winding and two secondary windings, said primary winding being connected to said half-wave rectifiers, filter means including a shunt condenser connected to said primary winding for providing a filtered direct-current output, a first pair of wires connecting one of said secondary windings directly to said input terminals of said bridge network to provide said network with alternating-current energy at twice the frequency of said supply line mains, a condenser connected in parallel with said primary winding to tune said transformer to resonance at twice the frequency of said supply line mains, a first transistor for input impedance matching having a base electrode connected to said first output terminal of said bridge network,



an interstage transformer having primary and secondary windings, a second pair of wires connecting said interstage transformer primary winding between said second bridge output terminal and the emitter electrode of said first transistor, a multi-stage transistor amplifier having an input circuit coupled to the secondary winding of said interstage transformer and including a second transistor having a base electrode connected to said second output terminal of said bridge circuit, a circuit connected to said power supply filter means for providing direct-current energizing potential to said multi-stage transistor amplifier, a phase-sensitive detector coupled to the output of said multi-stage transistor amplifier, a third pair of wires connecting the other of said secondary windings of said inductor-transformer to said phase-sensitive detector, magnetic amplification means connected to the output of said phase-sensitive detector, and a reciprocating motor having first and second solenoid windings connected to the output of said magnetic amplification means and mechanically linked to said adjustable condenser to rebalance said bridge in response to changes in the ohmic resistance of said one resistive element.

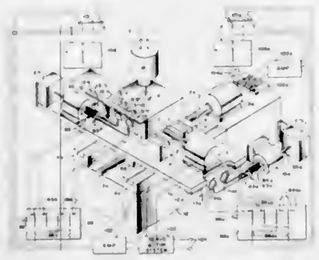
2,782,347
FAIL-SAFE SERVO SYSTEM
John A. Herbst, Montville, N. J., assignor to Bogue Electric Manufacturing Co., Paterson, N. J., a corporation of New Jersey
Application June 20, 1952, Serial No. 294,575
6 Claims. (Cl. 318—29)

4. In a servo system including a reversible motor, a loop circuit including a variable resistor operable by said motor and a manually operable variable resistor, a power circuit for said motor, amplifier means in said loop circuit responsive to input signals regulated by said second mentioned resistor for determining the direction of the current in said power circuit, said loop circuit including a fixed resistance and the windings of a pair of relays in series therewith, a pair of switch means in said power circuit respectively operable by said relays, said loop circuit being operative to carry normal operating currents ranging between predetermined minimum and maximum values, one of said relays being operative to open the switch means



associated therewith in response to current values in said loop circuit less than said minimum value and the other of said relays being operative to open the switch means associated therewith in response to current values in said loop circuit greater than said maximum value.

2,782,348
MOTOR DRIVEN PRECISION POSITIONING DEVICE
Hans P. Luhn, Armonk, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application May 18, 1954, Serial No. 430,655
14 Claims. (Cl. 318—39)

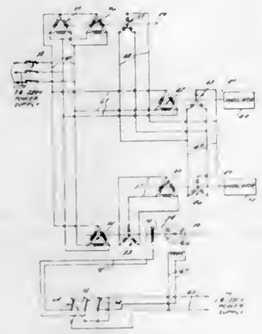


1. A machine for performing a predetermined operation on a workpiece comprising, in combination, a driven forming member, a workpiece support member, means for holding one of said members in a fixed position, means for movably supporting the other of said members, a magnetized element affixed to the movable one of said members and comprising alternately polarized sections disposed along a longitudinal axis of said element, magnetic sensing means positioned adjacent said element and movable in a path parallel to said longitudinal axis, said sensing means operating to emit pulses corresponding to the polarity of the section immediately adjacent thereto and being inoperative to emit pulses when in an aligned position between two adjacent polarized sections, means for moving said sensing means, a motor operatively connected to the movable one of said members, and control means operating selectively in response to said pulses for energizing said motor to move said movable member in the same direction as said sensing means.

2,782,349
MOTOR SPEED CONTROL SYSTEM
Thomas C. Sharp, North Hollywood, Calif., assignor to Radio Corporation of America, a Delaware corporation
Application August 21, 1953, Serial No. 375,607
5 Claims. (Cl. 318—44)

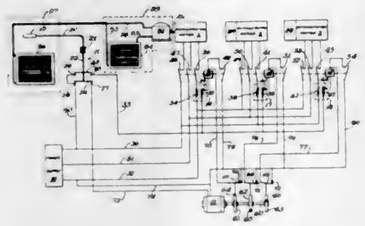
1. A motor speed control system comprising a first motor having a wound stator and a wound rotor, a second motor having a wound stator and a wound rotor, a distributor having a wound stator and a wound rotor, means for interconnecting all of said rotors, a rotary

transformer having a wound stator and a wound rotatable rotor, said rotor being normally stationary, means for connecting said transformer rotor to said second mentioned motor stator, a reversible motor mechanically connected to said transformer rotor for rotating said rotor in one of two directions for varying the number of revolutions of said second mentioned motor within a pre-



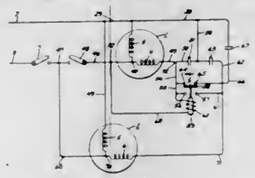
determined period, means mechanically connected to said first motor for indicating the number of revolutions of said motor within a predetermined period, and means mechanically connected to said second motor for indicating the number of revolutions of said second motor within a predetermined period, the difference between the indications of said indicating means showing the difference in revolutions between said motors within a predetermined period.

2,782,350
ELECTRICAL CIRCUIT FOR MULTIPLE MOTOR SYSTEM
Adna R. Clark, Evansville, Ind., assignor, by mesne assignments, to Whirlpool-Seeger Corporation, a corporation of Delaware
Application August 6, 1953, Serial No. 372,625
5 Claims. (Cl. 318—102)



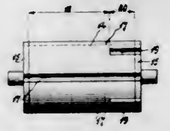
1. In combination, a plurality of refrigeration motors, a power supply, a plurality of relays, a plurality of automatic overload controls, each of said automatic overload controls associated with the windings of one of said relays, circuit means connected to said power supply and associated with each of said relays and each of said automatic overload controls and operating responsive to the operation of said relays for connecting said power supply to the refrigeration motors associated therewith, timing means operable to sequentially initially momentarily energize each of said relays, shunt circuit means operating responsive to the initial operation of each of said relays for shunting said timing means to hold said relays energized, each of said automatic overload controls operating responsive to an overload of the refrigeration motor associated therewith for opening the shunt circuit means associated therewith.

2,782,351
ALTERNATING CURRENT MOTOR CIRCUIT
Fred W. Suhr, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York
Application December 9, 1954, Serial No. 474,129
7 Claims. (Cl. 318—103)



1. In combination, first and second capacitor-run alternating current motors connected for parallel operation and each having a main winding and an auxiliary winding, phase displacing means in series with the auxiliary winding of said first motor, means arranged to disconnect said phase displacing means as said first motor comes up to speed, means adapted to connect said motors across a source of alternating current power, said last-mentioned means being further adapted to connect said second motor alone across said source, and a run capacitor having first and second parts, said first part being permanently connected in series with the auxiliary winding of said first motor, said disconnecting means being arranged to connect said second part in series with the auxiliary winding of said first motor and said first part in series with the auxiliary winding of said second motor when said disconnecting means disconnects said phase displacing means, said second part being connected in series with the auxiliary winding of said second motor.

2,782,352
ALTERNATING-CURRENT MOTOR
György Bakos, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application May 29, 1953, Serial No. 358,243
3 Claims. (Cl. 318—173)

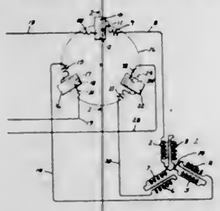


1. An alternating current motor capable of operating at least at two different speeds comprising a rotor of the short-circuit type for asynchronous starting, said rotor having one part thereof including a group of distinct poles equal to one group of stator poles and extending in the axial direction of said rotor, another part of said rotor having another group of distinct poles equal to another group of stator poles and extending in the axial direction of said rotor, said other group of rotor poles having a smaller number of distinct poles than said first group of rotor poles, said larger group being approximately ⅓ the axial length of said small group, and means for switching from one group of stator poles to another group of stator poles thereby causing said motor to rotate at different speeds as a synchronous motor.

2,782,353
THREE PHASE DYNAMOELECTRIC MACHINE
Richard E. Seely, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York
Application December 29, 1954, Serial No. 478,397
5 Claims. (Cl. 318—225)

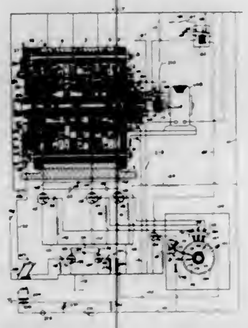
1. A three phase alternating current dynamoelectric machine comprising three phase windings, three lines re-

spectively arranged to connect said windings to a three phase source of alternating current power; and protective means comprising three heating elements respectively connected in series with said lines between said windings and said lines, means movable in response to heat arranged in physical proximity to said heating elements, three stationary contact means respectively connected in the lines to said windings, and three movable contact



means respectively engageable with said stationary contact means secured to and electrically insulated from said movable means, said movable contact means being arranged to be in engagement with said stationary contact means respectively until said movable means respond to heat to disengage said movable contact means from said stationary contact means respectively to open the connections to said windings.

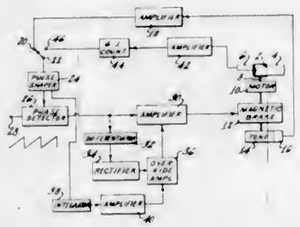
2,782,354
MOTOR
Albert G. Thomas, Chattanooga, Tenn.
Application January 28, 1954, Serial No. 406,740
7 Claims. (Cl. 318—254)



1. In a motor having stator means, and having rotor means adapted to be rotated in steps, means for energizing said motor to cause step movements of said rotor, and means for increasing the energization of said motor substantially at the beginnings of said step movements.

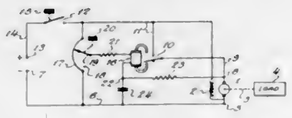
2,782,355
WEB FEEDING MEANS
Roy C. Wilcox, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application September 30, 1955, Serial No. 537,786
9 Claims. (Cl. 318—302)

1. A control means for a web feeding system, said control means comprising a capstan for driving a web member, means for rotationally driving said capstan, means for producing a signal indicative of the rotational velocity of said capstan, a source of reference signal, means for comparing said reference signal and said signal indicative of said velocity, said comparing means being responsive to said two sets of signals to produce a signal indicative of a frequency discrepancy of said velocity indicating signal with respect to said reference signal, a signal responsive torque control member coupled to said capstan driving means, means for applying said signal from said comparing means to said torque control member, means responsive to signals from said comparing means for producing signals indicative of the direction



of the frequency discrepancy between signals from said source and said velocity indicating signals, and means for applying said direction indicating signal to said torque control member.

2,782,356
MOTOR CONTROL SYSTEM
David Mannheimer, West Hempstead, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application September 15, 1955, Serial No. 534,487
8 Claims. (Cl. 318—331)

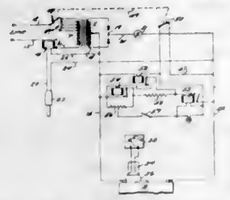


1. In a control system for a D. C. motor, a source of actuating potential for said motor, controllable switching means operative in first and second senses respectively to connect and disconnect said actuating source to and from said motor, potential storing means connected across said motor so as to charge from said actuating source when said switching means is operated in said first sense and to discharge through said motor when said switching means is operated in said second sense, and control means responsive to the potential of said storing means for operating said switching means in said first sense until said storing means acquires a first value of charge potential from said actuating source for which event said control means responds to operate said switching means in said second sense and maintain the latter operation until said charge potential diminishes by discharge to a second value lower than said first value and greater than zero whereupon operation of said switching means in said first sense is resumed so that said actuating potential is switched successively on and off to said motor during the respective charging and discharging time intervals of said storing means.

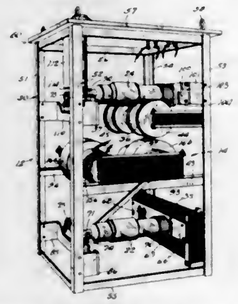
2,782,357
6–12 VOLT BATTERY TESTER
Benjamin F. W. Heyer, Greenwich, Conn., and John W. Horton, Inglewood, Calif.
Application August 13, 1953, Serial No. 373,974
12 Claims. (Cl. 320—14)

1. In an electrical tester of a load type for 6 and 12 volt automotive storage batteries and the like, a load circuit, selective load means in said load circuit for applying selected loads to a 6 or 12 volt battery to be tested, a meter circuit, a volt meter in said meter circuit to read cell voltage of a battery under load, means of making voltage connection across a battery cell while said load

means is applied to a battery, and voltage sensitive means operable by the battery voltage for selectively and automatically activating the proper load means in said load circuit for a 6 or 12 volt battery.



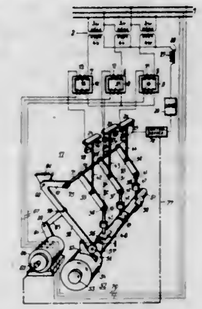
2,782,358
POWER SUPPLY
Joseph Kozinski, Chicago, Ill., assignor to H. G. Fischer & Co., Franklin Park, Cook County, Ill., a corporation of Illinois
Application March 19, 1953, Serial No. 343,461
5 Claims. (Cl. 321—16)



1. In a high voltage, low current type of power supply, the combination of a pair of cascaded iron core transformer systems having high leakage reactance, one system having a primary for connection to an alternating current power line, the other system having a secondary output for delivering high potential, said one transformer system being of the type having a substantially constant output potential for a predetermined current load over variations of primary input potentials, said one transformer system beyond a predetermined current overload having sharply reduced output potential, said other transformer system having high leakage reactance for providing poor voltage regulation with increase in load current, means for operating said one transformer system at said predetermined point, as a normal part of the operation of the two systems whereby upon overload of the second transformer system, the output potential of the second transformer system will drop faster and further than would normally be the case with only one or the other of the transformer systems alone.

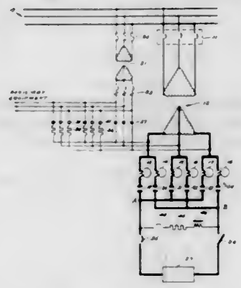
2,782,359
ADJUSTABLE CONTACT CONVERTER
Floris Koppelmann, Berlin-Siemensstadt, Germany, assignor to Licentia Patent-Verwaltungs-G. m. b. H., Hamburg, Germany
Application March 25, 1953, Serial No. 344,609
19 Claims. (Cl. 321—48)

1. In a contact converter, in combination, a load circuit including a pair of contacts, a source of alternating voltage in series with said contacts, mechanism for periodically opening and closing said contacts in step with said voltage, said mechanism being synchronized with said source for invariably closing said contacts at a time when the voltage across said contacts is substantially zero, saturable electromagnetic reactance means connected in said circuit as a variable impedance in series with said contacts, biasing means for said reactance means periodically varying the degree of saturation thereof, thereby changing the value of said impedance, and ad-



justing means for so synchronizing said biasing means with said mechanism as to delay the rise of current in said circuit, following the closure of said contacts, for a selected length of time.

2,782,360
STARTING CIRCUIT FOR MECHANICAL RECTIFIERS
John A. Kuzmack, Havertown, Pa., assignor to I–T–E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania
Application January 24, 1955, Serial No. 483,497
8 Claims. (Cl. 321—48)

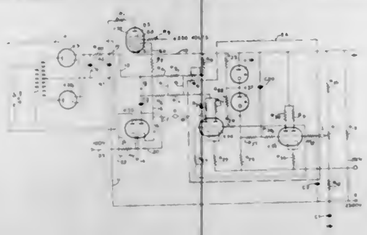


1. In a mechanical rectifier energizing a D. C. load from an A. C. source; a first and a second transformer having primary and secondary windings; commutating reactors and cooperating contacts; said first and second transformer primary windings connectible to said A. C. source; each of said first transformer secondary windings forming a closed series connection with one of said commutating reactors, one of said cooperating contacts and said D. C. load; each of said second transformer secondary windings connected to energize said first transformer secondary winding before said first transformer primary winding is connected to said A. C. source and forming a closed series connection with one of said commutating reactors, cooperating contacts, said D. C. load and a variable impedance.

2,782,361
PROTECTION CIRCUIT FOR SERIES TUBE REGULATION SYSTEM
Charles T. Baker, Poughkeepsie, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application February 19, 1954, Serial No. 411,302
4 Claims. (Cl. 323—22)

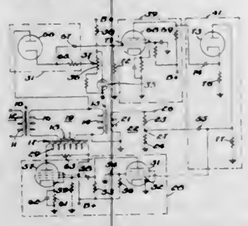
1. A high voltage direct current regulated power supply having as its input a source of unregulated direct current

voltage and rendering an output of substantially constant voltage, a regulator tube having a cathode, a control grid, and an anode, said regulator tube being connected between the input and output of said direct current regulated power supply, amplifier means coupling the output of said regulated power supply to the control grid of said regulator tube, whereby the grid potential and thus the conductivity of the regulator tube is varied in response to a change in output voltage of said power supply in such a manner that the output voltage of said power supply is maintained reasonably constant over a



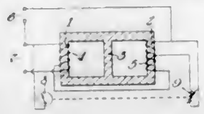
substantial range of load variation and, or variation in the magnitude of the unregulated direct current voltage, and protection circuit means for protecting said regulator tube against transient voltages, said protection circuit means including a first diode having its cathode connected to the control grid of said regulator tube and its anode coupled through a capacitor to the anode of said regulator tube, a second diode having its cathode directly connected to the anode of said first diode and its anode connected to a source of substantially constant potential, and a resistor shunting said second diode.

2,782,362
PEAK VOLTAGE REGULATOR
Herbert O. Lewis, Burbank, Calif., assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application December 29, 1955, Serial No. 556,142
6 Claims. (Cl. 323—45)



1. Means for regulating the peak value of an alternating output voltage, comprising an input transformer, an output transformer, a compensating transformer, the secondary of said compensating transformer connected serially with the primary of said output transformer and the secondary of said input transformer, a first feedback loop comprising a variable-gain amplifier having an input received from said output transformer, and the primary of said compensating transformer connected to the output of said variable-gain amplifier, and a second feedback loop for controlling the gain of said variable-gain amplifier and comprising, monitor means for passing voltage peaks which exceed a preset voltage level, said monitor means having its input connected to said output transformer, amplifier means connected to the output of said monitor means, peak-detector means connected to the output of said amplifier means for providing a negative-direct voltage output proportional to the amplitude of its input signal, and the output of said peak-detector means connected to said variable-gain amplifier to control its gain inversely, to the magnitude of the peak-detector means output, whereby the voltage provided by said compensating transformer regulates the voltage provided from said output transformer.

2,782,363
MAGNETIC CONTROL DEVICES
Philip H. Briggs, Wythenshawe, Manchester, England, assignor to Robertshaw-Fulton Controls Company, Greensburg, Pa.
Application February 9, 1953, Serial No. 335,897
1 Claim. (Cl. 323—50)

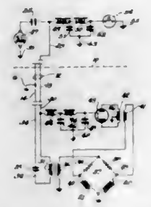


In a voltage regulating device having a source of alternating voltage, the combination comprising a closed magnetic core having two outer legs and a center leg, an inductance coil wound on each of said outer legs and defining a pair of auto transformers each having an input and an output portion, circuit means for connecting said input portions of said transformers in series across the source, a pair of output terminals for the regulating device connected across said output portion of one of said transformers, a variable resistance element connected across said output portion of said other transformer, a voltage sensitive device coupled to said output portion of said one transformer and being mechanically coupled to said variable resistance element, said element being responsive to any voltage variation of the source for compensating therefor whereby the desired voltage value is restored.

2,782,364
METHOD AND APPARATUS FOR LOCATING DISPLACEABLE OIL IN SUBTERRANEAN FORMATIONS
Ellis W. Shuler, Jr., and Henry F. Dunlap, Dallas, Tex., and Lloyd E. Gourley, Jr., Socorro, N. Mex., assignors to The Atlantic Refining Company, Philadelphia, Pa., a corporation of Pennsylvania
Application October 27, 1952, Serial No. 317,102
13 Claims. (Cl. 324—1)

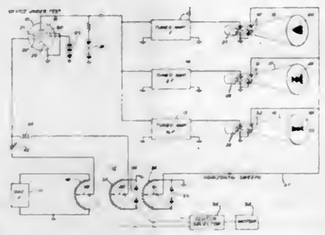
1. A method of investigating earth formations traversed by a bore hole and the fluids contained therein comprising the steps of establishing in said bore hole a body of electrically conductive liquid having a conductivity lower than the conductivity of naturally-occurring formation waters, maintaining, at the wall of said bore hole, the pressure of said conductive liquid in excess of the pressure of naturally-occurring formation fluids for a time sufficient to cause a portion of said conductive fluid to enter said formations, and obtaining at least one individual indication that is primarily a function of the resistivity of said formations and the fluids contained therein in each of three zones of said formations laterally displaced one from the other and displaced outwardly from the wall of said bore hole, said zones including a first zone containing that portion of said conductive liquid which has entered said formations, a second zone containing naturally-occurring formation fluids in substantially their virgin state and a third zone intermediate said first and said second zones.

2,782,365
ELECTRICAL LOGGING APPARATUS
Jacques H. Castel, Houston, Tex., assignor to Perforating Guns Atlas Corporation, Houston, Tex., a corporation of Delaware
Application April 27, 1950, Serial No. 158,576
7 Claims. (Cl. 324—34)



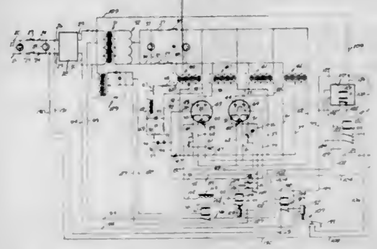
7. In a logging apparatus, a high frequency electromagnetic exploring instrument comprising, a housing, an elongate body of magnetizable material carried by said housing, said body having a pair of longitudinally spaced annular grooves therein, a single layer winding disposed in each of said grooves, insulating material disposed in said grooves outwardly of said windings and embedding said windings, and means including voltage transformer means in said housing for energizing said single layer windings to produce a pair of discrete longitudinally spaced magnetic fields surrounding said body.

2,782,366
VISUAL INDICATOR OF HARMONIC DISTORTION
Virgil W. Wall, Bellflower, Calif., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application April 13, 1953, Serial No. 348,538
7 Claims. (Cl. 324—57)



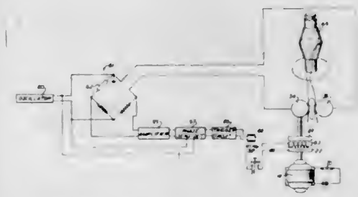
6. A visual indicator of wave distortion comprising a plurality of oscilloscopes each having beam deflection means for deflecting the beam in first and second directions, time sweep means common to all the oscilloscopes for synchronously controlling the deflection means of the respective oscilloscopes for the first direction, means to impress a reference wave upon the input of a device to be tested, means synchronous with the time sweep means to vary an input parameter of the device to be tested, and a plurality of tuning means each tuned to a different harmonic of said reference wave in the output of the device to be tested, each said tuning means being connected between the output circuit of the device to be tested and the deflecting means for said second direction in a respective one of the oscilloscopes.

2,782,367
ELECTRONIC DEVICE RESPONSIVE TO VARIABLE ELECTRICAL CONDUCTANCES AND CAPACITANCES OF MATERIAL, SUCH AS MOISTURE CONTENT IN LIGNOCELLULOSE MATERIALS
James E. Dallas, Seattle, Wash., assignor to Plywood Research Foundation, Tacoma, Wash., a corporation of Washington
Application November 3, 1952, Serial No. 318,424
9 Claims. (Cl. 324—61)



1. In a device responsive to variable electrical conductances and capacitances of material, electronic tube means providing two isolated cathode, grid and plate combinations; a conductor and resistance connecting each of the cathodes to a conductor connected with the common conductor of three sources of alternating current out of phase with each other; a voltage responsive device coupled between said cathodes; a grid circuit for said electronic tube means directly including therein the conductance and capacity of a material under test and being connected with the other conductor of one of said sources of alternating current; a plate circuit connected with the plate of one of said combinations and connected with the other conductor of the second source of alternating current; and a plate circuit connected with the plate of the other of said combinations and connected with the other conductor of the third source of alternating current, whereby variations in the conductance and capacity of a material under test will be reflected in the voltage responsive device coupled between said cathodes.

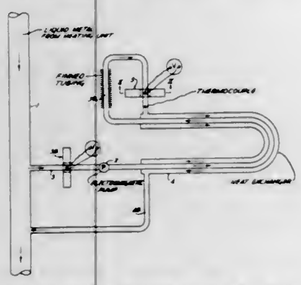
2,782,368
CALIBRATING MACHINE
Lawrence A. McCarthy, Haverhill, Mass., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application March 3, 1953, Serial No. 340,099
2 Claims. (Cl. 324—62)



1. An apparatus for comparing the impedance of prewound insulated wire coil type impedance units, having excess turns of insulated wires therein, with a given standard in a bridge circuit, the apparatus comprising means to rotatably support a prewound impedance unit,

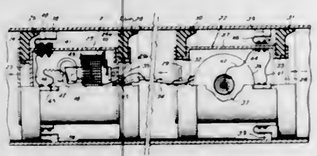
a rotatable element having teeth adapted to bite successively through the insulation and electrically engage the wire of the excess turns of the unit to include the unit in the bridge circuit, power means energizable to rotate the element to cause it to remove the insulated wire at a given rate from the coil unit until the impedance of the coil unit bears a predetermined relation to the standard, and means actuable when said relation to the standard is reached to cause de-energization of the power means and stopping of the element at the position where the excess insulated wire is to be cut from the unit.

2,782,369
DETERMINATION OF CONTAMINATION OF LIQUID METALS
Robert C. Werner, Orange, Tex., and Shelby L. Walters, Evans City, Pa., assignors, by direct and mesne assignments, to Callery Chemical Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application May 4, 1953, Serial No. 353,018
10 Claims. (Cl. 324—65)



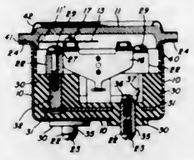
1. In the operation of a liquid metal heating system in which the metal is circulated through conduits from and to a heat source, the method of determining non-metallic impurity in said metal comprising subjecting a portion of said conduit to a substantially constant magnetic field flowing across the conduit perpendicular to the direction of metal flow, providing a pair of electrodes at opposite sides of said conduit portion in a plane perpendicular to said magnetic field and said direction of metal flow, and connecting said electrodes to means for indicating the E. M. F. induced in the metal flowing through said portion, lowering of said E. M. F. at a given metal temperature indicating the said impurities to be in excess of solubility at that temperature.

2,782,370
PIPE LINE INSTRUMENT
Burton Ver Nooy, Tulsa, Okla., assignor to T. D. Williamson, Inc., Tulsa, Okla., a corporation of Oklahoma
Application August 6, 1953, Serial No. 372,755
19 Claims. (Cl. 324—72)



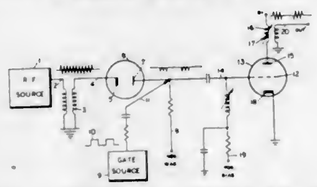
1. An apparatus for measuring current flow in a pipe line which comprises, in combination, body means adapted to be inserted in a pipe line and moved longitudinally therethrough, separate longitudinally spaced apart contact means carried by the body means to continuously electrically contact the inner wall of the pipe line as the body means moves therethrough, a circuit connecting said contact means to each other and including therein a current sensing and measuring means carried by said body means, said sensing and measuring means being sensitive to both direction and amount of current flow normally occurring in the pipe line between said contact means and providing an output continuously reflecting said direction and amount, and recording means operatively associated with said sensing and measuring means and, in operation, recording said output and providing a record of variations in both said direction and amount of current flow as such variations occur along the pipe line.

2,782,371
ELECTRICAL INSTRUMENT
Francis X. Lamb, East Orange, N. J., assignor to Weston Electrical Instrument Corporation, Newark, N. J., a corporation of New Jersey
Application March 28, 1952, Serial No. 279,129
20 Claims. (Cl. 324—156)



1. In a housing for an electrical instrument: a cup-shaped case having an open end terminating in an outwardly-directed flange, a unitary cup-shaped, resilient insulator member molded directly within the case, said member, extending along the entire inner wall of the case, supporting members imbedded in said insulator member said members being spaced from the case and adapted to support the instrument mechanism, and a transparent cover closing the open end of the case, said cover including a flange portion abutting the case flange and a cylindrical ring portion extending into the case and overlapping the side wall of the insulator member.

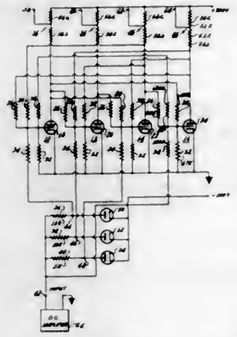
2,782,372
PULSE MODULATORS
Irving F. Barditch, Baltimore, Md., assignor to Aircraft Armaments, Inc., Baltimore, Md., a corporation of Ohio
Application February 13, 1953, Serial No. 336,702
4 Claims. (Cl. 332—9)



1. A pulse modulator for producing radio frequency pulses comprising, a source of continuous wave R. F. energy, a gate source generating substantially square wave gating pulses, a rectifier having an anode and a cathode, said cathode connecting with said source of R. F. energy, said anode connecting with said gate source and receiving said gating pulses so that said rectifier will conduct R. F. energy only in response to said gating pulses whereby to produce rectified R. F. pulses having a pulse width and repetition rate substantially equal to the pulse width and repetition rate of said gating pulses, a vacuum tube having a cathode, an anode and a control grid, said control grid connecting with said rectifier anode and being so biased that said vacuum tube is normally saturated and therefore will block said gating pulses and will respond only to said rectified R. F. pulses, and transformer means connecting with the anode of said vacuum tube and being

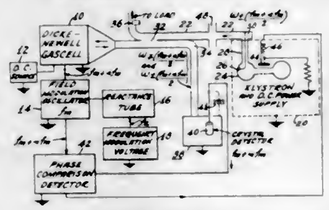
responsive to current flow therethrough to produce pulses of R. F. energy having a pulse width and repetition rate substantially equal to the pulse width and repetition rate of said gating pulses.

2,782,373
SIGNAL-AMPLITUDE RESPONSIVE CIRCUIT
Charles C. Shumard, Hopewell, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application December 31, 1953, Serial No. 401,669
6 Claims. (Cl. 332—11)



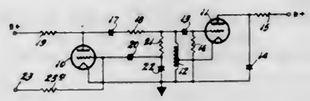
1. A circuit that assumes at least three different states in accordance with amplitude variations of an input voltage, said circuit comprising at least three voltage responsive electron control devices arranged in a predetermined operational order, each of said control devices having anode, cathode and control electrodes and conductive and non-conductive operating conditions, separate impedance means coupling each of said device anodes to said control electrode of each of the others of said devices, separate input terminals coupled to said control electrodes, and input means for applying a different voltage to each of said input terminals in accordance with the amplitude of said input voltage to bias said control devices in said order to one of said operating conditions as said input voltage varies in one direction and in the reverse order as said input voltage varies in the opposite direction.

2,782,374
FREQUENCY MODULATION WITH GAS CELL CONTROL
George W. Leck, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application April 29, 1953, Serial No. 351,866
8 Claims. (Cl. 332—19)



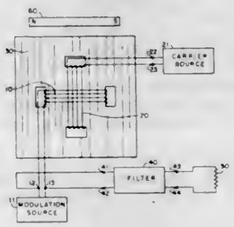
1. A frequency modulation system comprising a gas cell of the type having means for providing a field periodic in time and space, means for applying field modulation signals to said gas cell means, means to frequency-modulate said field modulation signals, a microwave generator having frequency control means, means to apply energy from said microwave generator to said gas cell to derive energy reflected from said gas, means to recover the difference frequency signal between energy at the microwave generator frequency and the reflected energy, means to compare the said difference frequency with the frequency of said field modulation signals and to derive a frequency control voltage in accordance with said comparison, and means to apply said frequency control voltage to said frequency control means, whereby the said microwave generator is frequency-modulated and its carrier frequency is frequency stabilized.

2,782,375
WIDE DEVIATION REACTANCE TUBE MODULATOR CIRCUIT
Carl Oscar Carlson, Burbank, Calif., assignor to Bendix Aviation Corporation, North Hollywood, Calif., a corporation of Delaware
Application November 5, 1951, Serial No. 254,870
4 Claims. (Cl. 332—28)



1. A variable frequency oscillator circuit comprising: an oscillator having a tuned frequency-determining circuit; a variable gain amplifier having input terminals and output terminals and having small but finite capacity between its output terminals; means for varying the gain of said amplifier; input means connected to said amplifier input terminals for applying thereto a potential of such phase as to produce between said output terminals an output current substantially in positive phase quadrature with respect to the potential of said tuned circuit; and means connecting said output terminals to said tuned circuit and including resistance means in series between said output terminals and said tuned circuit, said resistance means being of such magnitude as to appreciably retard the phase of said output current; whereby the current delivered from the output terminals of said amplifier to said tuned circuit has a positive quadrature component and a negative resistance component, both of which vary directly with the gain of said amplifier to increase the frequency of said oscillations and simultaneously increase the negative resistance inserted into said tuned circuit in response to an increase in the gain of said amplifier.

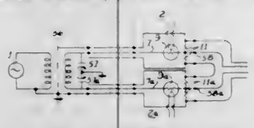
2,782,376
SUPPRESSED CARRIER MODULATOR
Harry T. Mortimer, Los Angeles, Calif.
Application February 24, 1956, Serial No. 567,694
9 Claims. (Cl. 332—51)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A magnetic modulation means comprising a first signal source for producing a modulation frequency, a second signal source for producing a carrier frequency to be modulated, first and second coil windings connected to said first and second signal sources, respectively, said first and second coil windings being wound in crosswise manner on a form of magnetically anisotropic material having a determined grain orientation such that the mag-

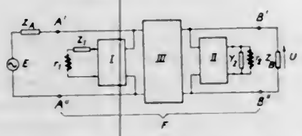
netomotive force of said first coil winding is in the direection of grain orientation of said material and the magnetomotive force of said second coil winding is in a direction perpendicular thereto, unidirectional magnetic means for producing a magnetomotive force in a direction perpendicular to the direction of grain orientation of said magnetically anisotropic material and in the same plane as the magnetomotive force of said second coil winding, and filtering means capable of passing frequencies in the region of said second frequency source connected across said first coil winding for obtaining a modulated output signal therefrom.

2,782,377
MICROPOTENTIOMETERS
Myron C. Selby, Washington, D. C., assignor to the United States of America as represented by the Secretary of Commerce
Application June 29, 1951, Serial No. 234,166
14 Claims. (Cl. 333—26)
(Granted under Title 35, U. S. Code (1952), sec. 266)



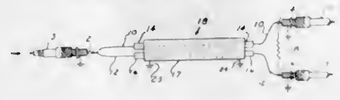
3. An adjustable-amplitude constant-voltage source for producing known, accurately controllable balanced and unbalanced voltages in a range from 1 to 10^6 microvolts over a frequency from zero to several thousand megacycles per second comprising a micropotentiometer in the form of a waveguide having coaxial center and outer input terminals adapted to be connected to a source of adjustable-amplitude, adjustable-frequency current, and coaxially arranged center and outer output terminals corresponding respectively to said input terminals for connection to a load, a resistor electrically joining and coaxial with the center and outer output terminals of said waveguide, said resistor comprising a thin, planar annulus of conductive material having a finite resistance, the magnitude of which is of an order which is negligible compared to the impedance of the load, and the thickness of said annulus being such as to permit complete current penetration through the thickness of said annulus throughout said frequency range, and current-responsive means electrically connecting corresponding center input and output terminals, the physical extent of said current-responsive means and said resistor as measured in a direction extending between the input and output terminals of said waveguide being negligibly small as compared to a wavelength of the highest frequency source-current.

2,782,378
FOUR-TERMINAL IMPEDANCE NETWORK WITH VARIABLE ATTENUATION
Nils-Olof Johannesson, Vartan, and Dan Björn Hjalmar Lundvall, Hagersten, Sweden, assignors to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a company of Sweden
Application March 5, 1953, Serial No. 340,645
Claims priority, application Sweden March 12, 1952
7 Claims. (Cl. 333—28)

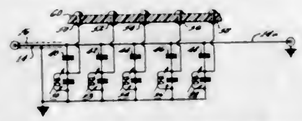


1. An attenuator having an attenuation versus frequency characteristic variable about an average attenuation versus frequency curve comprising an impedance network having input and output terminals, a second impedance network connected with the input terminals of said first network and terminated by a circuit including an impedance and a variable resistance, and a third impedance network connected with the output terminals of said first network and terminated by a circuit including an admittance and a second variable resistance the first, second and third networks being constructed and arranged so that the variation with respect to frequency of the effective attenuation of said attenuator corresponds to the average curve for normal values of said variable resistances and is varied from the average curve for other values of said variable resistances.

2,782,379
DIRECTIONAL LINE SPLITTING COUPLER
Henry M. Diambra, Washington, D. C., and George G. Edlen, Silver Spring, Md., assignors to Entron, Inc., Bladensburg, Md., a corporation of Delaware
Application December 24, 1953, Serial No. 400,256
6 Claims. (Cl. 333—35)

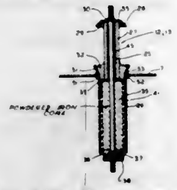


1. A line-splitting directional coupler for connecting a main coaxial cable to a plurality of subsidiary coaxial lines, comprising a grounded panel, a main coaxial cable connector and two subsidiary coaxial cable connectors mounted on said panel for cable connection from the front thereof, a length of coupler cable mounted on the back of said panel, said coupler cable comprising two individually insulated one-quarter wavelength conductors surrounded by a common flexible grounded outer conductor, the coupler cable providing thereby two substantially one-quarter wavelength coaxial cables for the lowest frequency carried by said main coaxial cable, and having a characteristic impedance such that it serves as a matching section between the main cable and the respective subsidiary coaxial lines, said coupler cable being tightly coiled on itself with adjacent turns in electrical contact with each other at said flexible outer conductor, the insulated conductors of the coupler cable being connected together at one end to said main coaxial cable connector to form a common junction, each of the other ends of the coupler cable being connected respectively to one of said subsidiary cable connectors, and a resistor connected between the other ends of said insulated conductors, the Q of the coupler cable being sufficiently low so that the cable functions as a one-quarter wavelength transformer over a desired band of frequencies.

2,782,380
FREQUENCY MARKER
Ralph S. Coate, Haddonfield, and John R. Meagher, Gloucester City, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application April 28, 1954, Serial No. 426,252
8 Claims. (Cl. 333—76)

4. A frequency marker adapted to produce a plurality of successive frequency pips, each of a different frequency, on a frequency response curve of a circuit under test, said marker comprising a plurality of resonant circuits

each tuned to a different frequency and each having a high end and a low end, means connecting each of said low ends together, a plurality of capacitors each having one end connected to a separate one of said high ends of said resonant circuits respectively, means connecting the other ends of said capacitors to each other, a plurality of electrically conductive finger contact means, and a separate connection from each of said high ends of said resonant circuits to a separate one of said finger contact means respectively, a sheet of insulating material, said finger contact means comprising a plurality of rivets fixed in spaced relationship on said sheet and each having a head extending from one side of said sheet, said separate connections to said finger contact means extending from the other side of said sheet, a casing surrounding said resonant circuits and capacitors, said casing being formed with an opening therein, said sheet being fixed to said casing and covering said opening, and said heads of said rivets extending outwardly from said casing.

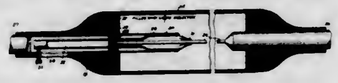
2,782,381
FILAMENT VOLTAGE TERMINAL FOR PULSE TRANSFORMER
Walter P. Dyke, Cambridge, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application January 30, 1946, Serial No. 644,394
1 Claim. (Cl. 333—79)



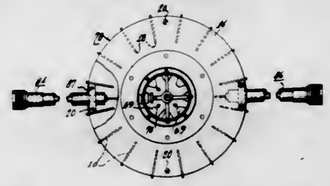
A terminal for high frequency electrical apparatus having a metallic shielding enclosure therefor, said terminal comprising a substantially cylindrical hollow conducting support with an outwardly extending flare rigidly fastened to said enclosure and extending inwardly from said enclosure through a mating circular opening, a center conductor threaded at both ends for the attachment of circuit leads, a ceramic insulating tube having metallized bands at its ends positioned at the outer end of said center conductor, a dished metallic disc, the upper metallized band of said ceramic tube being electrically and mechanically secured to said center conductor by soldered connection to said disc, a soft metallic seal, the lower metallized band of said ceramic tube being secured by said metallic seal to said support at said flare, an insulating retaining washer, a hollow cylinder of powdered high permeability magnetic material surrounding said center conductor insulated from and wholly enclosed by said support, said support, said conductor and said cylinder forming a coaxial line over the entire axial length of said cylinder having high frequency attenuation, whereby substantially all electromagnetic field energy flowing through said terminal passes through said magnetic cylinder, high frequency current flow through said terminal being thereby substantially eliminated and low frequency current flow therethrough substantially unaffected.

2,782,382
ATTENUATOR FOR SURFACE WAVE PROPAGATION
Andre G. Clavier, Nutley, N. J., and David L. Thomas, Lee, London, England, assignors to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application May 25, 1950, Serial No. 164,245
12 Claims. (Cl. 333—81)

1. An attenuator in combination with a single conductor guide line of the type capable of surface propagation of high frequency energy by means of an electromagnetic field formed about the guide line, said guide line presenting a predetermined impedance to said energy comprising a first single line section connected to said guide line and presenting a higher impedance to said energy than said guide line, and a slidable line section having one end in slidable engagement with said first line section and a portion in slidable engagement with said guide line and presenting substantially the same impedance to said energy as said guide line, whereby the electrical impedance of said attenuator may be varied by changing the effective lengths of said guide line and said first line section upon moving said slidable line section.

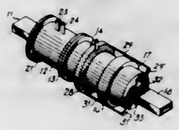


2,782,383
CAVITY RESONATOR
George Arthur Olive, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application April 20, 1953, Serial No. 349,869
3 Claims. (Cl. 333—83)



1. A cavity resonator comprising two relatively flat disc-like members spaced from and parallel to each other, and a plurality of planar and rectangular plate-like metallic vanes positioned edgewise, spaced from each other, and arranged at substantially equal angular intervals about a predetermined axis normal to said members, one of the two major dimensions of each of said vanes extending radially from said axis, said vanes being held between and in contact with said members, the distance between each pair of adjoining vanes, measured adjacent their inner edges, being less than a half-wavelength at the resonator resonant frequency, whereby the said inner edges define one virtual wall of said resonator completely surrounding said axis, the spaces between the outer edges of adjacent vanes, and also between the inner edges of adjacent vanes, being open.

2,782,384
MICROWAVE GUIDE ROTATABLE JOINT
John F. Valeski, Valhalla, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York
Application April 27, 1954, Serial No. 425,810
11 Claims. (Cl. 333—98)



1. A microwave rotatable joint comprising, a first circular waveguide section, a second circular waveguide section, a rotatable joint connecting said first and second circular waveguide sections, means for passing microwave field energy in a mode having full-period circumferential variation of intensity through said waveguide

sections, a member active in the Faraday magneto-optical sense positioned in said first circular waveguide section, and electromagnetic coil on said first circular waveguide section positioned to impress a magnetic field on said member, an annular resistor positioned around one of said waveguide sections, brush means anchored on the other of said waveguide sections slidably engaging said resistor at positions determined by the angular relation of said first and second waveguide sections, a direct current source connected to said resistor to produce a potential drop therein and circuit means interconnecting said brush means and said coil for controlling the sense and amplitude of direct current applied to said coil through said resistor to adjust the sense and degree of microwave field rotation produced by the interaction of said magnetic field on said member to equal the sense and degree of relative rotation of the first and second waveguide sections.

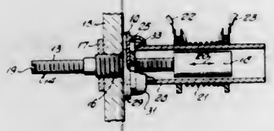
2,782,385

ELECTRONIC TUNER

Anthony Collett, Verona, N. J., assignor to The Colber Corp., Irvington, N. J., a corporation of New Jersey

Application June 8, 1954, Serial No. 435,150

2 Claims. (Cl. 336—136)



1. An electronic tuner device comprising a base member having a flat front face, a hub portion on said base member extending from said face and adapted to be positioned through the opening of a panel to which the device is to be secured, said hub portion being provided with an elongated medial aperture to receive and be engaged by the shaft of an electronic tuner proportioned to project from the base member for engagement by a tuning tool, said hub being adapted to be engaged by a member to tighten the base member in said panel, a flange on the base member extending away from the flat face thereof and defining with the base member a recess, a disc made of a material softer than that of the shaft, proportioned to be positioned within the recess and provided with a medial aperture proportioned to be tightly engaged by the tuner shaft, complementary means on the disc and base member to key them against independent movement, a support for an electronic coil adapted to be positioned in the recess, said coil and disc member having complementary means to key them against independent movement.

2,782,386

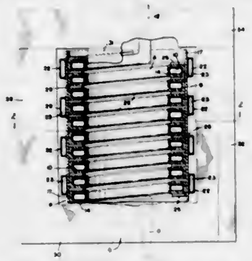
HIGH-FREQUENCY TRANSFORMER CONSTRUCTION

Frank J. Cornell, Shaker Heights, Ohio, assignor to The Ohio Crankshaft Company, Cleveland, Ohio, a corporation of Ohio

Application September 11, 1953, Serial No. 379,620

4 Claims. (Cl. 336—220)

1. A transformer comprised of a pair of coils in mutual inductive relationship, one of said coils being comprised of a plurality of axially spaced turns of electrically conductive material, the other of said coils being comprised of a conductor peripherally and axially coextensive with the turns of said first coil and having conductive portions



extending at least between the turns thereof, the portions and the turns being alternately disposed.

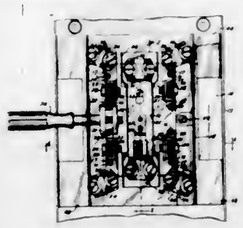
2,782,387

BY-PASS FACILITIES FOR SOCKET-TYPE ELECTRIC METERS

Orville K. Coleman, West Lafayette, Ind., assignor, by mesne assignments, to Duncan Electric Company, Inc., Lafayette, Ind., a corporation of Indiana

Original application October 1, 1949, Serial No. 119,074, now Patent No. 2,626,309, dated January 20, 1953. Divided and this application October 27, 1952, Serial No. 317,130

3 Claims. (Cl. 339—19)



1. By-pass facilities for socket-type electric meters having plug-in blades on the rear thereof, including a pair of blade-receiving and contacting means, conductor clamping means connected with each for making connection with a circuit to extend through the meter plugged-in in said blade-receiving means, and conductive lugs forming extensions on said blade-receiving means extending toward one another with their opposed ends aligned and exposed for joint clamping by a bridging by-pass clamp engaging opposite sides of both and of less height than the tips of the blade-receiving means with a clear space generally between the tips to provide for the passage of by-pass clamp means past said extensions and between said blade-receiving means and into engagement with the far side of the extensions for clamping thereon.

2,782,388

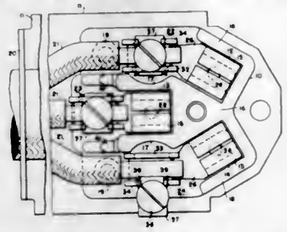
ELECTRIC RANGE OUTLET RECEPTACLE

John J. Opalenik, Fairfield, and Willard H. Bullis, Easton, Conn., assignors to The Bryant Electric Company, Bridgeport, Conn., a corporation of Connecticut

Application April 30, 1953, Serial No. 352,171

3 Claims. (Cl. 339—192)

2. In an electrical wiring device, in combination, a base of insulating material having upwardly extending integrally formed barriers thereon, three wiring terminals mounted on said base, each of said terminals comprising a base portion having a contact member attached thereto, said barriers being disposed between the base portions of two terminals and the contact member of the third terminal, a pair of spaced substantially parallel legs extending from the base portion of each terminal for receiving a conductor therebetween, opposed openings through said legs spaced from the base portion for receiving a support having a threaded opening located between said legs when the support is disposed in the openings in both legs, a screw disposed in the opening in said support for applying pressure on the conductor, said barriers being adjacent to legs of at least two of



said terminals, the support and the screw for each of said two of the terminals being movable in a direction away from an adjacent barrier and the contact member for the third terminal to permit placing the conductor in the terminal, cooperating means on said support and one of said legs for preventing complete withdrawal of said support from the opening in said one leg when the support is moved away from the other leg and the adjacent barrier, and said barrier preventing complete removal of said support in a direction towards said barrier.

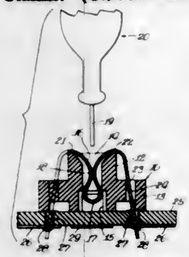
2,782,389

SUBMINIATURE TUBE RECEPTACLE

John Sunko, Elgin, and William C. Biedermann, Des Plaines, Ill., assignors to Motorola, Inc., Chicago, Ill., a corporation of Illinois

Application January 11, 1954, Serial No. 403,102

3 Claims. (Cl. 339—192)



3. A socket for a subminiature electron valve or the like, including in combination: a body of insulating material having a top with a series of apertures extending inwardly therefrom and further having a base opposite said top and adapted to be disposed upon a mounting surface, said base being apertured to provide an enlarged section for each of said apertures; a resilient electrically conductive strip member associated with each of said apertures in said top, each of said strip members having a looped portion disposed in one of said apertures including a closed, enlarged end section extending into said enlarged section in said base to retain said looped portion against withdrawal, said looped portion also having a constricted intermediate resilient pin retaining section formed by opposing sides of said loop and further having a pair of bent over sections extending in opposite directions across said top of said body to prevent inward motion of said looped portion, and said strip members having alternate ones of said bent over sections extending over said body from said top and terminating below said base thereof for engaging the mounting surface to make electrical connection and to mount the socket.

2,782,390

ELECTRICAL DISTRIBUTING PANEL

Andrew W. Vincent, Rochester, N. Y., assignor to Talk-O Products, Inc., Rochester, N. Y., a corporation of New York

Original application April 25, 1950, Serial No. 157,956. Divided and this application July 19, 1952, Serial No. 299,827

4 Claims. (Cl. 339—198)

2. A terminal panel comprising a sheet of insulating material having at least two parallel rows of holes therein, a conducting strip for each row contacting one surface of said sheet and provided with integral tapped embossings to register with certain of the holes of its row, and a terminal screw threaded into each tapped embossing to retain a conductor against the face of the projecting portion of the embossing at said other surface of said sheet, each of said strips having a notched end for clamping connection to the screw terminals of electrical apparatus.

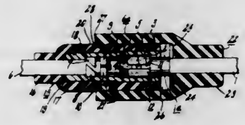
2,782,391

WATERPROOF LINE CONNECTOR

Robert E. Kirk, Warren, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

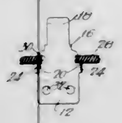
Application October 2, 1952, Serial No. 312,794

2 Claims. (Cl. 339—211)



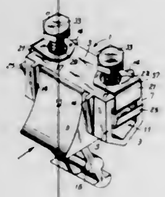
1. A leakproof electrical connector adapted to be held together with sufficient force to prevent any accidental separation, comprising, a plurality of electrical conducting elements having an insulating covering, a male terminal with an annular skirt attached to an end of one of said conducting elements, an outer resilient insulating sleeve having a chamber in one end and an opening in the other end sealingly engageable with the insulating covering of said one conducting element, a washer engageable between a wall of the chamber about the opening and the skirt of said male terminal to hold said male terminal in position securely against separation through the opening of said insulating sleeve, a female terminal connected to an end of a second conducting element and engageable by said male terminal, an insulating and protective sleeve member having multiple internal diameters of which one forms a shoulder engaging one end of said female terminal to hold said terminal entirely within said sleeve member against separation through one end thereof, a sleeve body having an opening in one end sealingly engageable with the insulating covering of the second conducting element and having a chamber in the other end, a shoulder formed inside said sleeve body at one side of the chamber engageable by said protective sleeve member holding said sleeve member with said female terminal securely against separation through the opening of said sleeve body, said sleeve body having an annular groove formed on the outer surface thereof intermediate opposite ends of said body, and an inwardly projecting bead formed on said outer sleeve at the chamber end remote from the opening at one side, said bead being adapted to snap into and cooperate with the annular groove of said sleeve body, said washer and said sleeve member cooperating with said outer sleeve and said sleeve body respectively together with said bead and groove to lock said male and female terminals together in leakproof relationship and protected from accidental separation.

2,782,392
ELECTRICAL TERMINAL POST HAVING MEANS TO SECURE IT TO A PANEL
Anthony Dan Stolle, Chicago, Ill., assignor to International Register Company, Chicago, Ill., a corporation of Illinois
Application December 29, 1954, Serial No. 478,253
3 Claims. (Cl. 339—220)



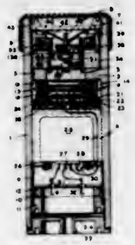
1. A terminal post mounted in a mounting aperture formed in a mounting panel, said terminal post being formed from relatively thin flat sheet stock and comprising a shank portion disposed in said mounting aperture, and a pair of wing members bent to extend laterally outwardly in opposite directions from the opposite marginal edges of said terminal post, said wing members having panel abutting edges which abut one face of said mounting panel, said panel abutting edges being inclined at an angle to a transverse plane normal to said terminal post, said shank portion being pressed into a tight frictional fit in said mounting aperture, and the inclined panel abutting edges of said wing members being forced against one face of said mounting panel whereby to cause said wing members to twist about their junctions with said terminal post and to become slightly spring loaded to maintain the stability of said terminal post relatively to said mounting panel.

2,782,393
ELECTRICAL LINE TERMINAL BLOCK
Oliver A. Vordtriede, St. Louis, Mo., assignor, by mesne assignments, to A. B. Chance Company, Centralia, Mo., a corporation of Missouri
Application February 4, 1953, Serial No. 335,049
5 Claims. (Cl. 339—272)



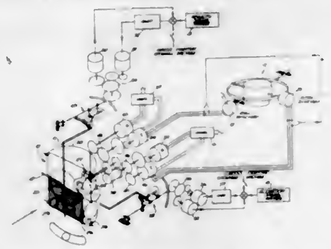
1. An electrical line terminal block comprising a tubular socket open at both ends and having threaded openings on one side of the socket and respectively adjacent said ends, screws respectively threaded through said openings, two bars, each of which is composed of a spring strip formed as a U-shape at one end and having aligned openings in the U-shape, the U-shape of each bar embracing one end of the socket with one of said openings outside and the other opening inside of the socket, each of said screws passing through the respective openings of one of the bars, each bar having a cantilever extension reaching from one open end substantially to the other open end of said socket, said extensions being directed oppositely within the socket, the end of each extension springingly engaging the end of the screw that passes through the openings of the other bar.

2,782,394
ELECTROKINETIC-TRANSDUCING DEVICES
Edward V. Hardway, Jr., Richmond, Va., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application December 3, 1953, Serial No. 395,892
40 Claims. (Cl. 340—13)



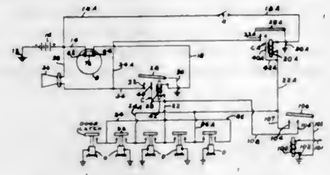
40. In a transducing device, the combination of a liquid-tight housing, an electrokinetic cell mounted in said housing, said housing being filled with liquid, and compressible means submerged in the liquid in said housing on one side of said cell, the compressible means affording volumetric compliance for said cell in accordance with its compressibility.

2,782,395
AIRCRAFT NAVIGATION INSTRUMENT
Edmund B. Hammond, Jr., Merrick, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application June 11, 1954, Serial No. 436,169
11 Claims. (Cl. 340—27)



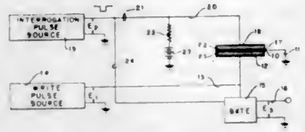
1. A navigation instrument for aircraft by means of which said aircraft may be controlled to approach and thereafter maintain a desired flight path comprising an instrument housing having a substantially circular viewing opening in the front wall thereof, a reference index located substantially at the center of said opening, azimuth and elevation pointers, means for supporting said pointers in said housing for movement in directions to the right and left and upwardly and downwardly, respectively, across said opening relative to said index, means for controlling said pointers at least in part in accordance with the roll and pitch attitude of said craft such that said pointers are aligned with said reference index not only when the craft is on said path but also when the craft is off said path and its roll and pitch attitude are so adjusted to cause the craft asymptotically to approach said path, a horizon-simulating background member disposed directly behind said pointers and having a normally horizontal line thereon sub-dividing the same into sky and ground areas, and means for stabilizing said background member with respect to the roll and pitch axes of said aircraft, whereby to indicate to the pilot the magnitude and direction of craft control in roll and pitch required to maintain said azimuth and elevation pointers in alignment with said reference index.

2,782,396
BURGLAR ALARM SYSTEM FOR AUTOMOBILES
Lester T. Marsh, Shenandoah, Va., and Hugh P. Marsh, Washington, D. C.
Application June 25, 1953, Serial No. 363,976
2 Claims. (Cl. 340—63)



1. In a burglar alarm for a motor vehicle having a battery, a door lock, an ignition switch lock and a plurality of closure means, an alarm, an alarm circuit connected to said battery for operation of said alarm through two parallel grounding branches, a manual setting switch and a relay switch in series in one grounding branch, an automatic setting switch responsive to operation of said door lock to locking position and a second relay switch in series in said other grounding branch, a switch operated by each of said closure means having a contact connected in parallel to each of said relay switches for simultaneous operation of both relay switches in response to opening of any closure, said branches being in parallel, will operate the alarm circuit independently whenever their setting switch is set.

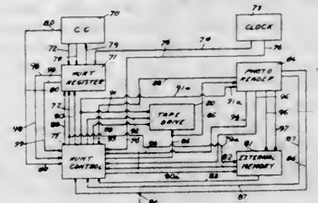
2,782,397
PIEZOELECTRIC INTERROGATION OF FERROELECTRIC CONDENSERS
Donald R. Young, Poughkeepsie, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application October 1, 1953, Serial No. 383,537
9 Claims. (Cl. 340—173)



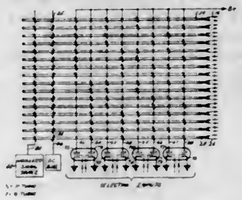
1. Apparatus for determining the state of polarization of a ferroelectric storage capacitor comprising means for applying a potential to the terminals of a piezoelectric device rigidly mechanically coupled to said storage capacitor, and means for detecting the polarity of a signal produced at the terminals of the storage capacitor as a result of the mechanical stress developed therein through piezoelectric action of said device.

2,782,398
APPARATUS FOR PHOTOELECTRICALLY CATALOGING DIGITAL DATA ON MAGNETIC TAPE
Charles F. West, Melbourne, Fla., John E. De Turk, Ann Arbor, Mich., and John H. MacNeill, Melbourne, Fla., assignors to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware
Application August 28, 1953, Serial No. 377,219
9 Claims. (Cl. 340—174)

4. In a data storage and selection system, a magnetic storage medium, means for storing data on said medium as a pattern of magnetized areas, visible marks on said medium indicating the location of particular portions of said magnetically-stored data arranged in two longitudinal rows, one row representing 1's and the other representing 0's, photoelectric means for sensing the visible markings, means for relative movement of the storage medium and the sensing means in both directions and means under control of said photoelectric sensing means to alter the relative position of the sensing means and the storage medium until the desired data is in position to be sensed by the magnetic sensing head comprising an electronic shift register for recording the desired block number in binary form and means for comparing the number stored in the shift register digit-by-digit with the photoelectrically sensed marks.

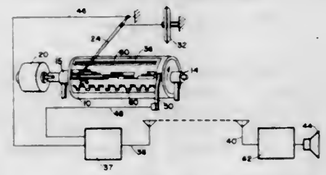


2,782,399
MAGNETIC SWITCHING DEVICE
Jan A. Rajchman, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application March 2, 1953, Serial No. 339,861
17 Claims. (Cl. 340—174)



4. A magnetic distributive switch comprising a plurality of magnetic cores, input coil means inductively coupled to each of said cores, output coil means inductively coupled to each of said cores, means to apply an alternating current signal to said input coil means, means to saturate all said cores at one polarity of magnetic saturation, and means to selectively drive a desired one of said cores from said saturation to desaturation including means to drive said desired core toward magnetic saturation in the opposite polarity, and a plurality of selecting coils inductively coupled by windings to said plurality of magnetic cores in accordance with a desired combinatorial code, substantial transmission of said signal to said output coil means occurring only through said desired one of said cores.

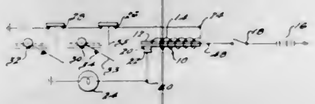
2,782,400
CODE TELEMETERING
Edward R. Van Krevelen, Robbinsdale, Minn., assignor to General Mills, Inc., a corporation of Delaware
Application May 18, 1953, Serial No. 355,555
10 Claims. (Cl. 340—204)



1. In a device for telemetering code signals to indicate measurements which has a moving cylindrical code carrier with a non-conductive surface with conductive areas exposed, a contact arranged to bear on the sur-

face and complete a telemetering circuit when it contacts said areas, means for moving the code carrier relative to the contact to carry said conductive areas past the contact, means responsive to a measurement for moving the contact member across the area and positioning it in accordance with the measurement, a telemetering circuit for transmitting the measurement to a remote location creating a signal when the contact member is in contact with one of the conducting areas, the improvement comprising having the conductive areas arranged in long and short lengths parallel to the relative path of movement of the code carrier to generate long and short signals to form code letters identifying the position of the contact, the arrangement of long and short signals varying in a certain sequence as the contact member moves across the surface so that the telemetering signal will be indicative of the position of the contact member, the complete sequence forming a group and the group being repeated so that the entire sequence is repeated in an axial direction as the contact continues to move across the surface, and an additional identifying code letter for each group of letters, the group identifying letters being different for each group and spaced circumferentially from said axially repeated groups.

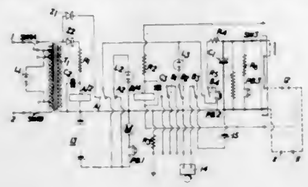
2,782,401
PLURAL CONDITION RESPONSIVE SIGNAL SYSTEM WITH INITIAL TESTING
Leonard Boddy, Ann Arbor, Mich., assignor to King-Seeley Corporation, Ann Arbor, Mich., a corporation of Michigan
Application September 3, 1953, Serial No. 378,281
3 Claims. (Cl. 340—213)



1. A signal system for indicating the existence of a plurality of physical conditions on a motor vehicle having a battery and electric switch means that are actuable to start operation of the vehicle, said system including an electric signal control circuit connected to the battery so as to provide substantially full battery voltage, an auxiliary circuit containing a signaling device, said auxiliary circuit being controlled in accordance with the condition of said control circuit, circuit connections for rendering both said control circuit and said auxiliary circuit subject to the direct control of said switch means and for completing said auxiliary circuit to energize said device when said switch means are initially actuated to start operation of the vehicle, a delayed action relay having an actuating member controlled in accordance with the condition of said control circuit for opening said auxiliary circuit after said device has been energized and thus shown to be in operative condition, and condition actuated means responsive to the existence of a plurality of critical physical conditions and controlling the condition of said control circuit.

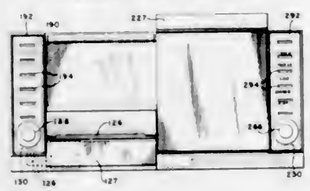
2,782,402
ELECTRICAL POWER SUPPLY APPARATUS
Anders Mathisen, London, England, assignor of one-half to Graviner Manufacturing Company Limited, London, England, a British company, and one-half to The Wilkinson Sword Company, London, England, a British company
Application June 21, 1954, Serial No. 438,179
Claims priority, application Great Britain June 26, 1953
11 Claims. (Cl. 340—213)

1. Electrical power supply apparatus comprising a step-down transformer, said transformer having an input winding connected to mains input terminals and an output winding, current rectifying means, a storage capacitor, said current rectifying means and said capacitor being connected electrically in series with said output winding, a pair of utilisation terminals electrically connected respectively to opposite electrodes of said storage capacitor, an electromagnetic relay having an energising winding, said relay having a pair of electrical contacts which are held in the open position when said relay is energised, an electrically operated alarm, said alarm having



an electrical operating circuit which is completed upon closure of said electrical contacts, and a further pair of terminals between which the energising winding of said relay is connected, whereby when a further pair of normally-open contacts is connected electrically in series with a utilisation circuit between said pair of utilisation terminals, each of said further pair of terminals can be connected to one of said further pair of normally-open contacts respectively for energising said relay from said storage capacitor through said utilisation circuit when said normally-open contacts are open.

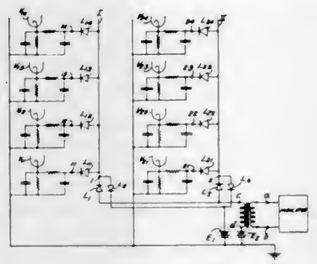
2,782,403
SLOTTED SWITCH POSITION INDICATOR
George C. Pearce, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 10, 1955, Serial No. 493,339
3 Claims. (Cl. 340—252)



1. In combination, a control means having a plurality of control positions, means having an exposed surface provided with a series of spaced window means, a movable sheet member located behind and concealed behind said exposed surface and having a series of spaced indicating means with a different spacing than said first mentioned series, and means responsive to the operation of said control means to various control positions for moving each of said indicating means successively into registration with a different window means of said exposed surface.

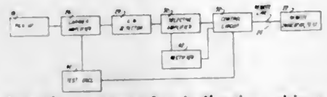
2,782,404
CIRCUIT CONTROL SYSTEM FOR SUPERVISING THE OPERATION OF A PLURALITY OF DEVICES
Gustav Ruben Bergman, Hagersten, Sweden, assignor to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden
Application July 21, 1954, Serial No. 444,891
Claims priority, application Sweden August 7, 1953
4 Claims. (Cl. 340—253)

1. In a circuit control system for supervising the operation of a plurality of devices formed into at least two groups each including at least two devices each having an operating voltage of a predetermined normal magnitude, a rectifier individual to and connected with each device, a first common rectifier individual to each of said groups and having one terminal connected to one terminal of each rectifier within its group, a first reference D.-C. voltage source common to both groups and having one terminal connected to the other terminals of said first common rectifiers, a second common rectifier individual to each of said groups having one terminal connected to said one terminal of each rectifier within its group, a second source of D.-C. voltage having one terminal connected to the other terminals of said second common rectifiers, connections between the other terminals of said voltage sources and ground, said individual recti-

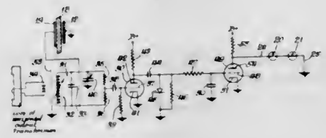


fiers and said first common rectifiers being all conducting in the same direction and said second common rectifiers being conducting in the opposite direction, said first voltage source and the voltages of said devices applied to the other terminals of said individual rectifiers having a magnitude such that current will not flow through the individual rectifiers and the first common rectifiers when all devices are operating normally, and said second voltage source having a voltage such that current will flow in the conducting direction of the second common rectifiers but of a magnitude below said predetermined normal value when all said devices are operating normally, and indicating means responsive to changes in magnitudes of said currents in said common rectifiers.

2,782,405
APPARATUS FOR DETECTING MOTION IN A CONFINED SPACE
William J. Weisz, Skokie, and Donald R. Jones, Chicago, Ill., assignors to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application May 27, 1954, Serial No. 432,685
8 Claims. (Cl. 340—258)



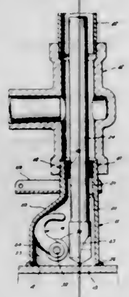
1. A detection system for indicating object motion in space according to the extent at which the same amplitude modulates a carrier wave in a predetermined frequency range, said system including in combination, means for radiating a carrier wave into the space, receiver means for intercepting the carrier wave, oscillator means coupled to said receiver means and operative to modulate the intercepted carrier wave at a selected frequency outside the predetermined frequency range, detecting means coupled to said receiver means to demodulate amplitude variations of the carrier signal and produce an indicating signal, first circuit means coupled to said detecting means and responsive only to a detected signal in the predetermined frequency range, second circuit means coupled to said detecting means and responsive to a detected signal of said selected frequency, an alarm circuit including first and second switch means therein, said first switch means being coupled to and operated by response of said first circuit means, said second switch means being coupled to and operated by response of said second circuit means, whereby said alarm circuit indicates both the certain object motion to be detected and failure of said means for radiating a carrier wave, said receiver means and said detecting means.

2,782,406
PILOT LIGHT SWITCH
James J. Krakora, Jr., Chicago, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application December 2, 1953, Serial No. 395,815
2 Claims. (Cl. 340—258)

1. In a television receiver having a manually operated control knob for effecting a desired adjustment of the receiver and including sweep system constituting a source of a periodic signal, the combination of a bridge network having a first arm including a capacitor, a second arm including a capacitive element adjacent the control knob and exhibiting capacity variations from a selected capacity in response to the proximity of the hand of an operator to the control knob, and third and fourth arms each including resistance means, said bridge being balanced only when said capacitive element exhibits said selective capacity; means for deriving an alternating current signal from the periodic signal source and for impressing the alternating current signal across one diagonal of said bridge network; a rectifying circuit connected across the other diagonal of said bridge network and developing a negative unidirectional control potential whenever said bridge is in an unbalanced condition; a discharge device having a control electrode, a cathode and an anode; means connecting said control electrode and cathode across said rectifying circuit to decrease the space current through said device in response to the negative control potential from said rectifying circuit; impedance means connecting said anode to a point of positive direct-current potential; and at least one indicating lamp connected between said anode and said cathode to be illuminated whenever the negative control potential from said rectifying circuit decreases the space current in said device beyond a selected point.

2,782,407
POSITION INDICATOR FOR PIPE SCRAPER
Burton Ver Nooy, Tulsa, Okla., assignor to T. D. Williamson, Inc., Tulsa, Okla., a corporation of Oklahoma
Application December 22, 1953, Serial No. 399,777
9 Claims. (Cl. 340—282)

1. Apparatus for indicating the passage of a body adapted to be moved within a pipeline in sliding engagement with the inner wall thereof, said apparatus comprising, a housing having an end adapted to be mounted on a pipeline to enclose an opening through the wall thereof, said housing also having a passageway opposite said end with the housing providing a clear path between the passageway and said end so that a boring tool can be moved along said path to cut said opening, a trigger within the housing and having a free end portion, means mounting said trigger from said housing for movement of said free end portion between a first position extending through said opening into the pipeline to be engaged by

said body and a second position wholly removed from said clear path, and means operable in response to move-



ment of the trigger to indicate engagement of the trigger by a body within the pipeline.

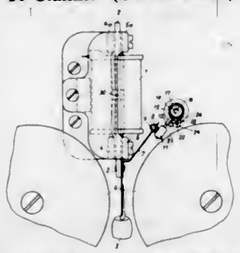
2,782,408
DIGITAL POTENTIOMETER FOR REFLECTED BINARY CODE
Walter W. Fisher, Pacoima, and Carl E. Sohlgren, San Fernando, Calif., assignors to Bendix Aviation Corporation, North Hollywood, Calif., a corporation of Delaware
Application September 7, 1954, Serial No. 454,304
11 Claims. (Cl. 340—347)

1. Apparatus for translating reflected binary code multidigit signals into corresponding impedance values between first and second main terminals comprising: a plurality of digital circuit sections corresponding respectively to the different digits of said signal; each section above the lowest having first interconnected input and output terminals and second interconnected input and output terminals and every section containing impedance means of twice the impedance of the impedance means in the next lower section, the major portion of the impedance in each section being connected between its second input terminal and its second output terminal; a digital switch for each circuit section operable by its corresponding digit of the multidigit signal into first and second positions, respectively, according to the value of the digit; the highest digital switch connecting the first main terminal to the first or second input terminal of the highest digital section according to its position; each intermediate digital switch connecting the output terminals of the next higher section to the input terminals of its associated section in direct or transposed relation according to its position; and the lowest digital switch connecting said second main terminal directly to the first output terminal of the last intermediate section and through the impedance of the lowest section to the second output terminal of said last intermediate section in one position, and connecting said second main terminal directly to the second output terminal and through said last-mentioned impedance to said first output terminal of the last intermediate section in the other position.

2,782,409
SYSTEM FOR PROJECTING MOVABLE LINES ON A C. R. T. FACE
Arthur L. Brockway, Jr., and Henry P. Dantzig, Baltimore, Md., assignors to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware
Application September 17, 1952, Serial No. 310,082
4 Claims. (Cl. 340—369)

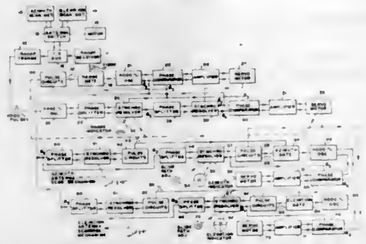
1. Means for projecting onto the spherical face of a cathode ray tube from a location in front of and displaced from the axis of the tube a replica of a rotatable indicium, said replica being undistorted for all possible positions of said indicium; said means comprising, a point source of light at said location, a spherical shell located between said point source of light and said face, said shell and said face having radii of curvature proportional to the respective distances from said location of corresponding points on their surfaces and having parallel axes of generation, the centers of curvature of said shell and said face defining with said point source of light a straight line, said shell being opaque except for a transparent area having the shape of said indicium, and means for rotating said shell about its axis of generation.

2,782,410
POLARIZED RINGING DEVICE FOR USE IN TELEPHONE SYSTEMS
Harald Valdemar Alexandersson, Lidingo, and Helge Edvard Lindström, Stuvsta, Sweden, assignors to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden
Application January 15, 1954, Serial No. 404,314
Claims priority, application Sweden January 30, 1953
10 Claims. (Cl. 340—397)



1. An A. C. operated polarized ringing device including a bell striker for use in telephone systems, said device comprising solenoid means including a vibratory armature means for actuating the striker, and means for partially damping the vibratory energy of the armature means generated by energizing the solenoid means, said damping means including fixed abutment means and a member extending from said armature means and slidably engaging said abutment means, the pressure of the engagement between the member and the abutment means controlling the damping of the vibratory energy of the armature means.

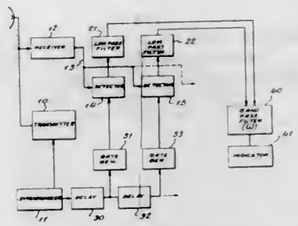
2,782,411
GROUND CONTROLLED AIRCRAFT LANDING SYSTEM
Joseph T. McNaney, Towson, Md., assignor to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware
Application April 28, 1950, Serial No. 158,678
45 Claims. (Cl. 343—7.3)



1. Means for determining and indicating the range of a target; said means comprising a radio echo device, a pair of current generating devices each responsive to current applied thereto to generate an alternating current output having a phase governed by the phase of the applied current, means applying the video response of said radio echo device to the first of said generating devices, means applying the transmitted signal of said radio echo device to the second of said generating devices, means to compare the phase of the outputs of said generating devices, a servo motor driven by the resultant of said comparison, means driven by said servo motor to vary the phase of the output of said second generating device in a direction to reduce the difference in the phase of said outputs, gating means governing the admittance of the video response of said radio echo device to the first of said generating devices, means varying the time of the gating action of said gating means as a function of the output of said second generating device, range indicating means, means driving said range indicating means in accordance with the phase of the output of said second generating device.

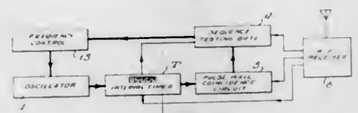
2,782,412
GATED VIDEO INTEGRATOR RADAR SYSTEM
Charles E. Brockner, Amityville, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application May 13, 1952, Serial No. 287,473
14 Claims. (Cl. 343—13)

1. A gated video integrator radar system comprising a pulsed transmitter, a receiver responsive to reflections of energy from said transmitter, a scanning antenna, means for integrating signals from small increments of range comprising a plurality of peak voltage responsive sampling detectors connected in parallel to said receiver, timing means connected to said transmitter and adapted to gate on said detectors once each pulse recurrence in-



terval of said pulse transmitter for instants corresponding to predetermined ranges, low pass filter means connected to the output of each one of said detectors, combining means coupled to the outputs of said filter means and to said timing means, and signal threshold means connected to the output of said combining means for rejecting signals below a certain level.

2,782,413
AUTOMATIC LORAN RECEIVER
Winslow Palmer, West Hempstead, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application March 8, 1949, Serial No. 80,249
18 Claims. (Cl. 343—103)



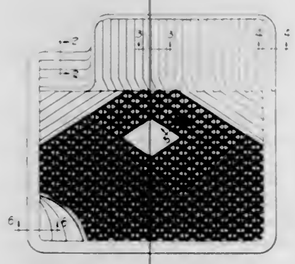
1. Means for measuring the difference in time between separate distinguishable recurring signals, said time measuring means comprising means responsive to the distinguishable feature of said signals, a reference oscillator, sequence gate means to synchronize said reference oscillator to one of said signals, and selective coincidence means to automatically synchronize a delayed portion of said reference oscillator output with another of said signals, whereby said delay provides a measure of the time between said signals.

DESIGNS

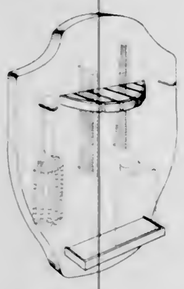
FEBRUARY 19, 1957

179,716
GRIP HANDLE OR SIMILAR ARTICLE
Clarence S. Burtchaell, Ross, Calif.
Application May 1, 1956, Serial No. 41,290
Term of patent 7 years
(Cl. D87—5)

179,717
AUTOMOBILE FLOOR MAT
James R. Caldwell, Wooster, Ohio, assignor to The Wooster Rubber Company, Wooster, Ohio
Application November 3, 1955, Serial No. 38,711
Term of patent 14 years
(Cl. D9—6)

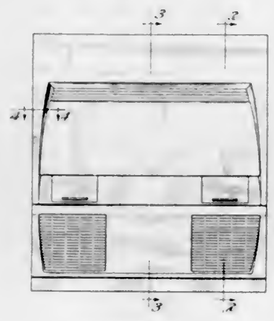


179,718
HOLDER FOR TOILET ARTICLES
Robert H. Cornett, Culver City, Calif.
Application October 28, 1955, Serial No. 38,609
Term of patent 14 years
(Cl. D86—10)

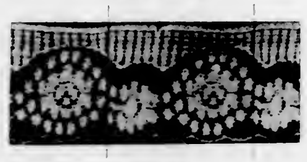


179,719
COMBINED LETTER OPENER AND STAMP DRAWER
Edward J. Coyne, Minneapolis, Minn.
Application April 10, 1956, Serial No. 40,992
Term of patent 7 years
(Cl. D74—1)

179,720
PANEL FRONT FOR COIN CONTROLLED DISPENSING MACHINE OR SIMILAR ARTICLE
Harold W. Darr, Minneapolis, Minn., assignor to Refrigeration Engineering Company, Montgomery, Minn., a corporation of Minnesota
Application June 17, 1955, Serial No. 36,559
Term of patent 7 years
(Cl. D52—3)



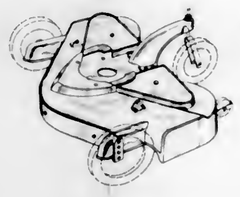
179,721
LACE
Bert Edson, East Providence, R. I., assignor to North American Lace Co., Inc., Philadelphia, Pa.
Application August 29, 1956, Serial No. 42,772
Term of patent 3½ years
(Cl. D47—6)



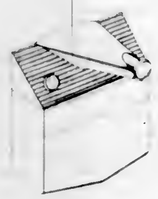
179,722
ELECTRIC HAND DRYER
Milton Fine, Philadelphia, Pa.
Application January 20, 1954, Serial No. 28,607
Term of patent 14 years
(Cl. D4—3)

179,723
LUGGAGE LOCK OR THE LIKE
Charles S. Gehrie, Montclair, N. J., assignor to Presto Lock Co., Garfield, N. J., a limited partnership
Application April 13, 1956, Serial No. 41,067
Term of patent 14 years
(Cl. D50—7)

179,724
MOWER HOUSING
Leonard B. Goodall, Warrensburg, Mo., assignor to Goodall Equipment, Inc., Minneapolis, Minn., a corporation of Minnesota
Application June 15, 1956, Serial No. 41,903
Term of patent 14 years
(Cl. D40—1)



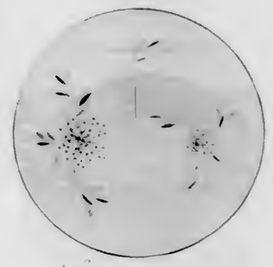
179,725
LIQUID SOAP DISPENSER
Robert L. Gruen, New York, N. Y., assignor to U. S. Sanitary Specialties Corporation, Chicago, Ill., a corporation of Illinois
Application June 22, 1956, Serial No. 42,002
Term of patent 14 years
(Cl. D4—3)



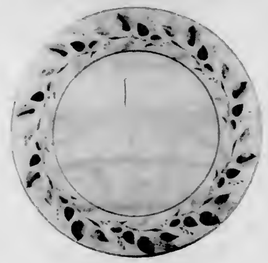
179,726
WINDOW MOUNTED ROOM AIR CONDITIONER
Webster B. Harpman, Poland, Ohio
Application June 1, 1956, Serial No. 41,722
Term of patent 14 years
(Cl. D62—4)

179,727
PLATE OR SIMILAR ARTICLE
Takeshi Inoue, Atsuta-ku, Nagoya, Japan, assignor to Noritake Co., Inc., New York, N. Y., a corporation of New York
Application January 13, 1956, Serial No. 39,726
Term of patent 7 years
(Cl. D44—15)

179,728
PLATE OR SIMILAR ARTICLE
Takeshi Inoue, Atsuta-ku, Nagoya, Japan, assignor to Noritake Co., Inc., New York, N. Y., a corporation of New York
Application January 13, 1956, Serial No. 39,728
Term of patent 7 years
(Cl. D44—15)



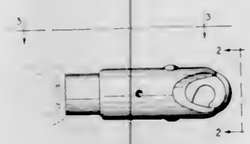
179,729
PLATE OR SIMILAR ARTICLE
Takeshi Inoue, Atsuta-ku, Nagoya, Japan, assignor to Noritake Co., Inc., New York, N. Y., a corporation of New York
Application January 13, 1956, Serial No. 39,730
Term of patent 7 years
(Cl. D44—15)



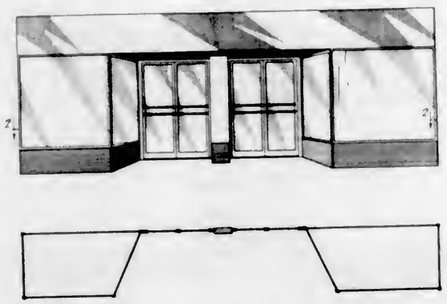
179,730
PLATE OR SIMILAR ARTICLE
Takeshi Inoue, Atsuta-ku, Nagoya, Japan, assignor to Noritake Co., Inc., New York, N. Y., a corporation of New York
Application January 13, 1956, Serial No. 39,738
Term of patent 3½ years
(Cl. D44—15)

179,731
PLATE OR SIMILAR ARTICLE
Takeshi Inoue, Atsuta-ku, Nagoya, Japan, assignor to Noritake Co., Inc., New York, N. Y., a corporation of New York
Application January 13, 1956, Serial No. 39,739
Term of patent 3½ years
(Cl. D44—15)

179,732
SNAP FASTENER
Frank J. Kahl, Los Angeles, and Elbert M. Coplen, Venice, Calif.
Application June 6, 1955, Serial No. 36,382
Term of patent 14 years
(Cl. D17—14)



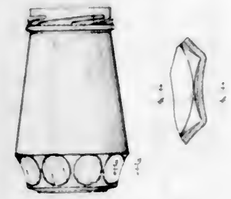
179,733
STORE FRONT
Rush H. Kress, New York, N. Y.
Application May 17, 1955, Serial No. 36,050
Term of patent 14 years
(Cl. D13—1)



179,734
ELECTRIC SHAVER
Harper Landell, Ambler, Pa., assignor to Schick Incorporated, Lancaster, Pa., a corporation of Delaware
Application June 26, 1956, Serial No. 42,051
Term of patent 14 years
(Cl. D22—3)

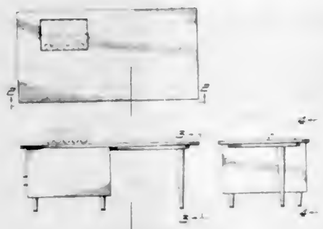
179,735
DOUGHNUT MAKING DEVICE
Francis John Reginald Law, Stourbridge, England, assignor to Taylor, Law & Company Limited, Stourbridge, England, a British company
Application September 27, 1954, Serial No. 32,459
Claims priority, application Great Britain July 8, 1954
Term of patent 14 years
(Cl. D44—1)

179,736
JAR OR SIMILAR ARTICLE
Arnold Ira Lorenzen, Toledo, Ohio, assignor to Kraft Foods Company, Chicago, Ill., a corporation of Delaware
Application June 15, 1956, Serial No. 41,910
Term of patent 14 years
(Cl. D58—25)



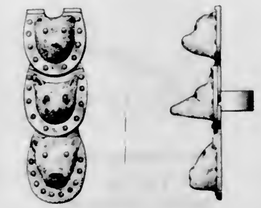
179,737
WHEEL COVER OR SIMILAR ARTICLE
George Albert Lyon, Detroit, Mich.
Application April 26, 1955, Serial No. 35,689
Term of patent 14 years
(Cl. D14—30)

179,738
COMBINED RADIO-PHONOGRAPH AND COCKTAIL TABLE
Samuel Mallos, Ann Arbor, Mich.
Application January 19, 1956, Serial No. 39,850
Term of patent 14 years
(Cl. D33—14)



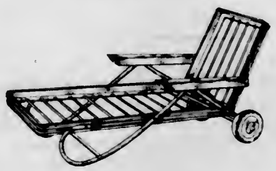
179,739
VENT COVER FOR STAND PIPES OR THE LIKE
Durward C. McClelland, Houston, Tex.
Application January 3, 1956, Serial No. 39,547
Term of patent 14 years
(Cl. D58—26)

179,740
NECKERCHIEF SLIDE
Harold A. Nagel, Hickman Mills, Mo.
Application December 23, 1954, Serial No. 33,662
Term of patent 14 years
(Cl. D17—10)



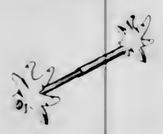
179,741
LAMP BASE
Guillermo D. Padgett, Youngstown, Ohio
Application September 27, 1956, Serial No. 43,108
Term of patent 3½ years
(Cl. D48—19)

179,742
ADJUSTABLE CHAISE LOUNGE
Morton Pearlstine, Cynwyd, Pa., assignor to The Bunting Company, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application June 21, 1955, Serial No. 36,619
Term of patent 14 years
(Cl. D15—11)

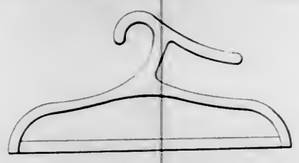


179,743
GIRDLE
Robert Perrier, Charbonnieres les Bains, France, assignor to La Gaine Scandale, S. A., Lyon, France
Application June 1, 1955, Serial No. 36,328
Term of patent 14 years
(Cl. D20—2)

179,744
EXPANSIBLE BOOK RACK
Herbert C. Sexton, Los Angeles, Calif.
Application March 1, 1955, Serial No. 34,806
Term of patent 14 years
(Cl. D33—3)

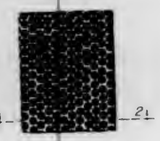


179,745
COAT HANGER
Roger M. Snook, San Francisco, Calif., assignor of one-half to Henry Gifford Hardy, Berkeley, Calif.
Application August 2, 1954, Serial No. 31,712
Term of patent 14 years
(Cl. D80—8)

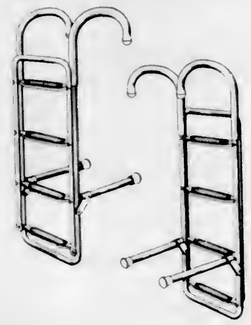


179,746
COMPRESSOR OR THE LIKE
Gustav H. Sudmeier, Torrance, Calif.
Application April 16, 1956, Serial No. 41,086
Term of patent 14 years
(Cl. D65—1)

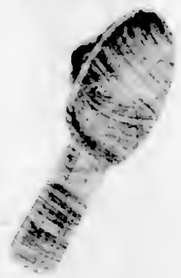
179,747
PLASTIC COATED SHEET MATERIAL
Arthur D. Sylvester and Arno Scheiding, Rowayton, Conn., assignors to L. E. Carpenter & Co., Inc., Wharton, N. J., a corporation of New Jersey
Application November 28, 1955, Serial No. 39,056
Term of patent 14 years
(Cl. D87—3)



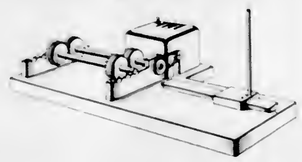
179,748
BOARDING LADDER
Charles W. Tunstead, Minneapolis, Minn.
Application December 30, 1955, Serial No. 39,539
Term of patent 14 years
(Cl. D15—8)



179,749
CHAISE LOUNGE
George M. Wenzel, San Francisco, Calif.
Application April 4, 1956, Serial No. 40,909
Term of patent 14 years
(Cl. D15—11)



179,750
PILOTING APPARATUS FOR USE IN GAUGING SURFACE FINISH
Fritz A. Zander, Ann Arbor, Mich., assignor to Marion E. Abbott, Ann Arbor, Mich., trustee
Application December 29, 1955, Serial No. 39,757
Term of patent 14 years
(Cl. D52—1)



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PATENTS WERE ISSUED ON THE 19TH DAY OF FEBRUARY, 1957

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Alexander, Carl Z. Steam boiler. Re. 24,278, 2–19–57, Cl. 122—165.
Davis, Roscoe T., to De Moulin Bros. & Co. Capornament and plume holder. Re. 24,277, 2–19–57, Cl. 41—34.
De Moulin Bros. & Co.: *See*—
Davis, Roscoe T. Re. 24,277.
Reavis, William J.: *See*—
Schutte, Ethel, and Reavis. Re. 24,279.
S & E Mfg. Co.: *See*—
Schutte, Ethel, and Reavis. Re. 24,279.
Schutte, Ethel, and W. J. Reavis, to S & E Mfg. Co. Slip cover. Re. 24,279, 2–19–57, Cl. 155—182.
Socony Mobil Oil Co., Inc.: *See*—
Stripling, Allen A. Re. 24,280.
Stripling, Allen A., to Socony Mobil Oil Co., Inc. Acoustic velocity-electrical resistance correlation well logging. Re. 24,280, 2–19–57, Cl. 324—1.

LIST OF PLANT PATENTEES

First Burgundy, Inc.: *See*—
Loretto, Conio, J. N., and L. 1,567.
Loretto, Conio, J. N., and L., to First Burgundy, Inc. Raspberry plant. 1,567, 2–19–57, Cl. 47—62.
Loretto, Joseph N.: *See*—
Loretto, Conio, J. N., and L. 1,567.
Loretto, Leonard: *See*—
Loretto, Conio, J. N., and L. 1,567.
Rodgers, Vincent B. Almond tree. 1,568, 2–19–57, Cl. 47—62.

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Abbott, Marion E.: *See*—
Zander, Fritz A. 179,750.
Bunting Co., Inc., The: *See*—
Pearlstine, Morton. 179,742.
Burtchaell, Clarence S. Grip handle or similar article. 179,716, 2–19–57, Cl. D87—5.
Caldwell, James R., to The Wooster Rubber Co. Automobile floor mat. 179,717, 2–19–57, Cl. D9—6.
Carpenter, L. E., & Co., Inc.: *See*—
Sylvester, Arthur D., and Scheiding. 179,747.
Coplen, Elbert M.: *See*—
Kahl, Frank J., and Coplen. 179,732.
Cornett, Robert H. Holder for toilet articles. 179,718, 2–19–57, Cl. D86—10.
Coyne, Edward J. Combined letter opener and stamp drawer. 179,719, 2–19–57, Cl. D74—1.
Darr, Harold W., to Refrigeration Engineering Co. Panel front for coin controlled dispensing machine or similar article. 179,720, 2–19–57, Cl. D52—3.
Edson, Bert, to North American Lace Co., Inc. Lace. 179,721, 2–19–57, Cl. D47—6.
Fine, Milton. Electric hand dryer. 179,722, 2–19–57, Cl. D4—3.
Gehrle, Charles S., to Presto Lock Co. Luggage lock or the like. 179,723, 2–19–57, Cl. D50—7.
Goodall Equipment, Inc.: *See*—
Goodall, Leonard B. 179,724.
Goodall, Leonard B., to Goodall Equipment, Inc. Mower housing. 179,724, 2–19–57, Cl. D40—1.
Gruen, Robert L., to U. S. Sanitary Specialties Corp. Liquid soap dispenser. 179,725, 2–19–57, Cl. D4—3.
Hardy, Henry G.: *See*—
Snook, Roger M. 179,745.
Harpman, Webster B. Window mounted room air conditioner. 179,726, 2–19–57, Cl. D62—4.
Inoue, Takeshi, to Noritake Co., Inc. Plate or similar article. 179,727, 2–19–57, Cl. D44—15.
Inoue, Takeshi, to Noritake Co., Inc. Plate or similar article. 179,728, 2–19–57, Cl. D44—15.
Inoue, Takeshi, to Noritake Co., Inc. Plate or similar article. 179,729, 2–19–57, Cl. D44—15.
Inoue, Takeshi, to Noritake Co., Inc. Plate or similar article. 179,730, 2–19–57, Cl. D44—15.
Inoue, Takeshi, to Noritake Co., Inc. Plate or similar article. 179,731, 2–19–57, Cl. D44—15.
Kahl, Frank J., and E. M. Coplen. Snap fastener. 179,732, 2–19–57, Cl. D17—14.
Kraft Foods Co.: *See*—
Lorenzen, Arnold I. 179,736.
Kress, Rush H. Store front. 179,733, 2–19–57, Cl. D13—1.
La Gaine Scandale, S. A.: *See*—
Perrier, Robert. 179,743.
Landell, Harper, to Schick Inc. Electric shaver. 179,734, 2–19–57, Cl. D22—3.
Law, Francis J. R., to Taylor, Law & Co. Ltd. Doughnut making device. 179,735, 2–19–57, Cl. D44—1.
Lorenzen, Arnold I., to Kraft Foods Co. Jar or similar article. 179,736, 2–19–57, Cl. D58—25.
Lyon, George A. Wheel cover or similar article. 179,737, 2–19–57, Cl. D14—30.
Mallos, Samuel. Combined radio-phonograph and cocktail table. 179,738, 2–19–57, Cl. D33—14.
McClelland, Durward C. Vent cover for stand pipes or the like. 179,739, 2–19–57, Cl. D58—26.
Nagel, Harold A. Neckerchief slide. 179,740, 2–19–57, Cl. D17—10.
Noritake Co., Inc.: *See*—
Inoue, Takeshi. 179,727–179,731.
North American Lace Co., Inc.: *See*—
Edson, Bert. 179,721.
Padgett, Guillermo D. Lamp base. 179,741, 2–19–57, Cl. D48—19.
Pearlstine, Morton, to The Bunting Co., Inc. Adjustable chaise lounge. 179,742, 2–19–57, Cl. D15—11.
Perrier, Robert, to La Gaine Scandale, S. A. Girdle. 179,743, 2–19–57, Cl. D20—2.
Presto Lock Co.: *See*—
Gehrle, Charles S. 179,723.
Refrigeration Engineering Co.: *See*—
Darr, Harold W. 179,720.
Scheiding, Arno: *See*—
Sylvester, Arthur D., and Scheiding. 179,747.
Shick Inc.: *See*—
Landell, Harper. 179,734.
Sexton, Herbert C. Expansible book rack. 179,744, 2–19–57, Cl. D33—3.
Snook, Roger M., ½ to H. G. Hardy. Coat hanger. 179,745, 2–19–57, Cl. D80—8.
Sudmeier, Gustav H. Compressor or the like. 179,746, 2–19–57, Cl. D65—1.
Sylvester, Arthur D., and A. Scheiding, to L. E. Carpenter & Co., Inc. Plastic coated sheet material. 179,747, 2–19–57, Cl. 87—3.
Taylor, Law & Co. Ltd.: *See*—
Law, Francis J. R. 179,735.
Tunstead, Charles W. Boarding ladder. 179,748, 2–19–57, Cl. D15—8.
U. S. Sanitary Specialties Corp.: *See*—
Gruen, Robert L. 179,725.
Wenzel, George M. Chaise lounge. 179,749, 2–19–57, Cl. D15—11.
Wooster Rubber Co., The: *See*—
Caldwell, James R. 179,717.
Zander, Fritz A., to M. E. Abbott. Piloting apparatus for use in gauging surface finish. 179,750, 2–19–57, Cl. D52—1.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 19TH DAY OF FEBRUARY, 1957

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

ACF Industries Inc.: *See*—
Furrer, John R. 2,781,731.
Walsh, Robert. 2,781,991.

Aasma, Felix, to Telefonaktiebolaget L M Ericsson. Frequency stable multivibrator. 2,782,309, 2–19–57, Cl. 250—36.

Acme Industrial Co.: *See*—
Gabriel, Adam F., and Kozacka. 2,782,044.

Aerojet-General Corp.: *See*—
Rogers, William L., and Noland. 2,781,633.

Agregaard, Herman J.: *See*—
Skrmetta, Paul C. 2,781,544.

Ahlberg, Lars F. B., and S. I. Lundgren, to Telefonaktiebolaget L M Ericsson. Card arresting device for use in time recording apparatus. 2,781,845, 2–19–57, Cl. 164—59.

Ahlbrecht, Arthur H.: *See*—
Husted, Donald R., and Ahlbrecht. 2,782,184.

Ahlgren, Axel W.: *See*—
Borchers, Earl M., and Ahlgren. 2,782,061.

Aircraft Armaments, Inc.: *See*—
Barditch, Irving F. 2,782,372.

Air Force, United States of America as represented by the Secretary of the: *See*—
Stankey, John E. 2,782,265.

Air Reduction Co., Inc.: *See*—
Demmer, Adolph P., and Evans. 2,782,024.

Aitchison, Robert B., D. H. Fleming, Jr., H. V. Inskeep, and R. E. Armstrong, Jr., to Union Carbide and Carbon Corp. Thermal texturing of rock. 2,781,754. 2–19–57, Cl. 125—1.

Albrecht, Robert E., and C. W. Bloomquist. Boat trailer attachment for support of the boat power means. 2,782,052, 2–19–57. Cl. 280—150.

Aldred, Leslie: *See*—
Webster, James G., and Aldred. 2,781,947.

Alexandersson, Harald V., and H. E. Lindström, to Telefonaktiebolaget L M Ericsson. Polarized ringing device for use in telephone systems. 2,782,310, 2–19–57, Cl. 340—397.

Allanson, Douglas, to Pye Ltd. Cameras, particularly television cameras. 2,782,253 2–19–57. Cl. 178—7.2.

Allegretti, Anthony J., to R. R. Donnelley & Sons Co. Book binding. 2,782,056, 2–19–57, Cl. 281—21.

Allen, Richard M. to The Gong Bell Mfg. Co. Toy power lawn mower. 2,781,609, 2–19–57. Cl. 46—39.

Allied Chemical & Dye Corp.: *See*—
Donegan Joseph W. 2,782,129.
Gilbert, Everett E., Otto and Pellerano. 2,782,112.

Allis-Chalmers Mfg. Co.: *See*—
Herr, Charles H., Jr., and Christensen. 2,781,860.

Almond, John R., to The Midland Steel Products Co. Door operating system. 2,782,028, 2–19–57. Cl. 268—20.

Altekruse, John L., to The Goodyear Tire & Rubber Co. Hydraulic torque controller for brakes. 2,781,871, 2–19–57, Cl. 188—152.

Amann, August: *See*—
Reppe, Walter, Pasedach, Dreher, and Amann. 2,782,191.

American Cyanamid Co.: *See*—
Varela, Andrew A., and Bangs. 2,781,553.

American Radiator & Standard Sanitary Corp.: *See*—
Zucker, Robert D., and Duggan. 2,781,829.

American Screen Products Co.: *See*—
Majeske, Henry L. 2,781,343.

American Steel Foundries: *See*—
Bergquist, Ernest C., and Buvelot. 2,782,027.

American Viscose Corp.: *See*—
Cornwell, Richard E. 2,781,589.
MacHenry, Richard. 2,781,555.

Amerock Corp.: *See*—
Borchers, Earl M., and Ahlgren. 2,782,061.

Ames, Jack, to Imperial Chemical Industries Ltd. Potassium nitrate of reduced tendency to caking and setting. 2,782,094, 2–19–57, Cl. 23—102.

Ames, Jack, to Imperial Chemical Industries Ltd. Sodium nitrate of reduced tendency to caking and setting. 2,782,095, 2–19–57, Cl. 23—102.

Ames, Jack, to Imperial Chemical Industries Ltd. Ammonium nitrate of reduced tendency to caking and setting on storage. 2,782,096, 2–19–57, Cl. 23—103.

Amida S. A.: *See*—
Bamat, Joseph. 2,781,630.

Anaconda Wire and Cable Co.: *See*—
Olson, John W., and Sortland. 2,782,138.

Anderson, Claude: *See*—
Menser, Henry E., Jeffords, and Vancil. 2,781,930.

Anderson Die Casting & Engineering Corp.: *See*—
Bennett, James C. 2,781,836.

Anderson, Floyd E., to Nepera Chemical Co., Inc. Cyclic acetals of pyridine (3) aldehyde. 2,782,201, 2–19–57, Cl. 260—297.

Anderson, Frederick E., to E. I. du Pont de Nemours and Co. Apparatus for releasing filaments sewn to a tape. 2,781,572, 2–19–57, Cl. 28—17.

Anderson, Peter B. Stone gathering machine. 2,781,623, 2–19–57, Cl. 55—17.

Andes, Chester C. Motorized beds. 2,781,524, 2–19–57, Cl. 5—8.

Andrews, Allen R., and A. E. Winslow, to Standard Screw Co. Textile spindle. 2,781,628, 2–19–57, Cl. 57—135.

Andrews, Dallas R., to Radio Corp. of America. Magnetic tape. 2,782,043, 2–19–57, Cl. 274—41.4.

Angell, Pierce T., to Thompson Products, Inc. Pumping assembly. 2,781,831, 2–19–57, Cl. 158—36.3.

Antle, Herbert R., to Phillips Petroleum Co. Production of crystalline ammonium nitrate. 2,782,108, 2–19–57, Cl. 23—302.

Apex Electrical Mfg. Co., The: *See*—
Steidley, Virgil K. 2,781,765.

Apgar, Donald H., to International Business Machines Corp. Type group and type selecting means for wheel printers. 2,781,722, 2–19–57, Cl. 101—93.

Appleton, Arthur I. Well drilling bit. 2,782,005, 2–19–57, Cl. 255—340.

Appleton, Arthur I. Separable conduit fitting. 2,782,060, 2–19–57, Cl. 285—248.

Armacost, Wilbur H., and L. J. Marshall, to Combustion Engineering, Inc. Art of generating and heating steam. 2,781,746, 2–19–57, Cl. 122—479.

Armour and Co.: *See*—
Greer, Donald M., and Zink. 2,782,122.

Armour Research Foundation of Illinois Institute of Technology: *See*—
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Armstrong Cork Co.: *See*—
Ziegfeld, William S. 2,782,063.

Armstrong, Marshall C.: *See*—
Duffee, Homer W., and Armstrong. 2,782,178.

Armstrong Raymond E., Jr.: *See*—
Aitchison, Robert B., Fleming, Inskeep, and Armstrong. 2,781,754.

Army, United States of America as represented by the Secretary of the: *See*—
Berg, Lloyd, Davidson, Nickelson, and Nye. 2,782,098.

Ashwood Peter F.: *See*—
Fletcher, Walter G., and Ashwood. 2,781,638.

Aspergren, Brooke D., R. V. Heinzelman, and R. B. Moffett, to The Upjohn Co. 2,2-dimethyl-α,α-diphenyl-1-pyrrolidenealkanoamides. 2,782,206, 2–19–57, Cl. 260—313.

Atchison, Leonard W., to General Electric Co. Method and apparatus for making bellows. 2,781,565, 2–19–57, Cl. 22—116.

Atkins, S. Lawrence: *See*—
Murphy, Arthur J. 2,781,788.

Atlantic Refining Co., The: *See*—
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Auer, Laszlo: *See*—
Smith, Malcolm K., and Auer. 2,782,215.

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Johnston, Leith, and Stiles. 2,782,254.

Ayer, William E., to the United States of America as represented by the Secretary of the Navy. Instantaneous automatic gain control amplifier. 2,782,268, 2–19–57, Cl. 179—171.

Ayres, Richard H.: *See*—
Hopkins, Frank L., and Ayres. 2,781,620.

B. A. Shawinigan Ltd.: *See*—
Clark, James K. 2,782,242.

B & N Aluminium Welding Corp.: *See*—
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Baclawski, Joseph E., to General Electric Co. Commutator construction and method of making the same. 2,782,330, 2–19–57, Cl. 310—234.

Badalini, Giovanni, to Cambi Idraulici Badalini S. p. A. Front plate for a fluid transmission comprising members for distributing and adjusting the pressure in the circuit. 2,781,639, 2–19–57, Cl. 60—53.

Badische Anilin- & Soda-Fabrik Aktiengesellschaft: *See*—
Reppe, Walter, Pasedach, Dreher, and Amann. 2,782,191.

Baer, Austin R. Surgical instrument. 2,781,760, 2–19–57, Cl. 128—303.

Baer, John S., and R. A. Oberdorf, to Radio Corp. of America. Punched tag reader. 2,781,973, 2–19–57, Cl. 235—61.11.

Bailes, Forrest L. Hydraulic motor for a scrubbing machine. 2,781,745, 2–19–57, Cl. 121—164.

Baker Brothers, Inc.: *See*—
Hallenbeck, Thomas L., and Ninneman. 2,781,546.

Baker Castor Oil Co., The: *See*—
Smith, Malcolm K., and Auer. 2,782,215.
Sprowls, Willard R. 2,782,214.

Baker, Charles T., to International Business Machines Corp. Protection circuit for series tube regulation system. 2,782,361, 2–19–57, Cl. 323—22.

Baker & Co., Inc.: *See*—
Liebig, Edward O. 2,781,579.
Liebig, Edward O. 2,781,580.

Baker Oil Tools, Inc.: *See*—
Baker, Reuben C., and Conrad. 2,781,774.

Baker, Reuben C., and M. B. Conrad, to Baker Oil Tools, Inc. Valve apparatus for automatically filling well conduits. 2,781,774, 2–19–57, Cl. 137—493.2.

Baker, William E., to Standard-Thomson Corp. Actuating device having guided supports with a flexible member. 2,781,784, 2–19–57, Cl. 137—789.

Bakos, György, to Hartford National Bank and Trust Co., as trustee. Alternating-current motor. 2,782,352, 2–19–57, Cl. 318—173.

Baldridge, Walter M., and K. R. Davisson. Power operated unloading apparatus for truck bodies. 2,781,925, 2–19–57, Cl. 214—82.

Baldwin-Lima-Hamilton Corp.: *See*—
Phillips, Adrian. 2,781,905.

Bales, Max G., to General Motors Corp. Ignition distributor and coil unit. 2,782,247, 2–19–57, Cl. 123—148.

Bamat, Joseph, to Amida S. A. Dial train for Roskopf type watches. 2,781,630. 2–19–57, Cl. 58—125.

Bangs, Howard T.: *See*—
Varela, Andrew A., and Bangs. 2,781,553.

Bangs, Walter J., to Tuthill Pump Co. Reversible fuel pump for oil burners. 2,781,726, 2–19–57, Cl. 103—3.

Barditch, Irving F., to Aircraft Armaments, Inc. Pulse modulators. 2,782,372, 2–19–57, Cl. 332—9.

Barkley, Wiley Z. Tobacco hanger. 2,781,921, 2–19–57, Cl. 214—16.

Barna, Vella A.: *See*—
Williams, Chester L. 2,781,711.

Barnard, Francis E. Combined arrow quiver and carrying case. 2,781,808, 2–19–57, Cl. 150—1.5.

Barnes Drill Co.: *See*—
Estabrook, Mark R. 2,781,616.

Barr, Richard H. H., ½ to Centrax Power Units Ltd. Bladed rotors. 2,781,998, 2–19–57, Cl. 253—39.

Bartlett, Jeffrey H.: *See*—
Fischer, Wilbur F., and Bartlett. 2,782,177.

Bauer, Lester L., to Gendron Wheel Co. Collapsible stretcher. 2,781,525, 2–19–57, Cl. 5—81.

Baxter, J. H., & Co.: *See*—
Pence, Harry A. 2,781,802.

Bearer, Louis C., and R. L. McIntire, to Phillips Petroleum Co. Pebble heat exchange chamber. 2,782,106, 2–19–57, Cl. 23—284.

Beart, Robert W., to Illinois Tool Works. Helical split ring biting tooth washer adapted to be retained on a rotary fastener. 2,781,812, 2–19–57, Cl. 151—35.

Beck, John W., to North American Aviation, Inc. Push-pull transistor amplifier. 2,782,267, 2–19–57, Cl. 179—171.

Beckman, George, and J. Robert, to A. Coburn. Method and apparatus for flanging metallic and asphaltic sheet materials. 2,781,818, 2–19–57, Cl. 154—1.8.

Beech Aircraft Corp.: *See*—
Spleth, Charles W., Wright, and Clark. 2,781,935.

Belar, Herbert, to Radio Corp. of America. Volume control. 2,782,266, 2–19–57, Cl. 179—171.

Belden Mfg. Co.: *See*—
Ebel, Lawrence C., and D'Ascoli. 2,782,251.

Bell & Howell Co.: *See*—
Bennett, Frank P. 2,781,736.

Bell, Pearl B. Chair having an extensible seat cushion. 2,781,827, 2–19–57, Cl. 155—165.

Bell Telephone Laboratories, Inc.: *See*—
Dimond, Thomas L. 2,782,259.
Gamble, Gordon L., and Jakus. 2,782,341.
Grant, Dwight W. 2,782,269.
Madden, James J., and Sumner. 2,781,846.
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Marrison, Warren A. 2,782,313.
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Wall, Virgil W. 2,782,366.

Bemis Bro. Bag Co.: *See*—
Hopkins, Frank L., and Ayres. 2,781,620.

Bendick, Jack W., to Bendick Paul Ltd. Self-levelling step-ladder. 2,781,961, 2–19–57, Cl. 228—29.

Bendick Paul Ltd.: *See*—
Bendick, Jack W. 2,781,961.

Bendix Aviation Corp.: *See*—
Brockway, Arthur L., Jr., and Dantzig. 2,782,409.
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Colander, Roy E., and Chester. 2,782,311.
Davies, Richard J. 2,781,785.
Dombeck, Edward K. 2,781,867.
Fisher, Walter W., and Sohlgren. 2,782,408.
Goepfrich, Rudolph A. 2,781,873.
Hruska, Howard E. 2,781,781.
Killman, Robert T. 2,781,737.
Marshall, John T., and Weisenbach. 2,781,727.
McNaney, Joseph T. 2,782,411.
Ogden, William L. W., and Murphy. 2,781,664.
Whitehorn, Richard M. 2,782,299.

Benjamin, Fred: *See*—
Ransom, David H., and Benjamin. 2,782,323.

Benjamin, Walter E., to The Pierce Governor Co., Inc. Governor compensator. 2,781,751, 2–19–57, Cl. 123—103.

Bennett, Frank P., to Bell & Howell Co. Indicating means. 2,781,736, 2–19–57, Cl. 116—124.1.

Bennett, James C., to Anderson Die Casting & Engineering Corp. Reversible Venetian blind. 2,781,836, 2–19–57, Cl. 160—173.

Benway, Robert E., and R. H. Hughes, to Radio Corp. of America. Shortened triple gun for color television. 2,782,333, 2–19–57, Cl. 313—70.

Berardinelli, Frank: *See*—
Palst, Walter D., and Berardinelli. 2,782,128.

Berck, William F., to Ralph N. Brodie Co. Balanced shut-off valve. 2,781,997, 2–19–57, Cl. 251—51.

Bercovitz, Bernard: *See*—
Meredew, George C., Berris, and Smedley. 2,782,001.

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Berg, Victor. Process for the production of a hard metal of increased toughness. 2,782,136, 2–19–57, Cl. 148—13.

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Bergman, Walter J.: *See*—
Blashfield, William H., Blackhall, Oxaal, and Bergman. 2,782,257.

Bergquist, Ernest C., and J. A. Buvelot, to American Steel Foundries. Torsion spring suspension. 2,782,027, 2–19–57, Cl. 267—58.

Berris, Kenneth V. W.: *See*—
Meredew, George C., Berris, and Smedley. 2,782,001.

Berry, Ernest V. Electroplating anode structure. 2,782,159, 2–19–57, Cl. 204—212.

Berta, Joseph, to Cusco Products Corp. Extendable antenna. 2,781,668, 2–19–57, Cl. 74—208.

Best Foods, Inc., The: *See*—
Morrill, Elliott, and Newburn. 2,782,171.

Bibber, George W.: *See*—
Lyman, George W., and Bibber. 2,781,677.

Bicek, Edward J., to Universal Oil Products Co. Treatment of petroleum distillates. 2,781,143, 2–19–57, Cl. 196—23.

Bickford, Lawrence R., Jr., to International Business Machines Corp. Magnetostrictive relay. 2,782,280, 2–19–57, Cl. 200—87.

Biedermann, William C.: *See*—
Sunko, John, and Biedermann. 2,782,389.

Biel, John H., to Lakeside Laboratories, Inc. Mercapto derivatives of mercurated 1-alkyl-theobromine. 2,782,194, 2–19–57, Cl. 260—242.

Bills, Anita W., and D. S. Clark. Doll for selectively exhibiting symptoms of sickness. 2,781,611, 2–19–57, Cl. 46—135.

Birman, Antoine: *See*—
Hulot, Georges, and Birman. 2,782,093.

Biro, René. Apparatus for extinguishing fires. 2,781,855, 2–19–57, Cl. 169—25.

Bitney, Dewey H., to Union Steel Products Co. Materials handling pallet. 2,781,930, 2–19–57, Cl. 220—6.

Bixby, Walter, to Shawmut Engineering Co. Tufting yarn spool bearing and assembly. 2,781,986, 2–19–57, Cl. 242—123.

Blachly, Clark. Apparatus for handling and lowering burial caskets. 2,781,571, 2–19–57, Cl. 27—32.

Blackhall, James M.: *See*—
Blashfield, William H., Blackhall, Oxaal, and Bergman. 2,782,257.

Bladergroen, Willem F., and K. J. Perk, to Hartford National Bank and Trust Co., as trustee. Method of forming small apertures in thin metal plate-shaped articles. 2,781,849, 2–19–57, Cl. 164—125.

Blankenship, Guy, Jr. Collapsible beach tent. 2,781,767, 2–19–57, Cl. 135—7.1.

Blashfield, William H., J. M. Blackhall, A. Oxaal, and W. J. Bergman, to North Electric Co. Automatic telephone system. 2,782,257, 2–19–57, Cl. 179—7.1.

Blattner, Emil H., to The Symington-Gould Corp. Combined center filler and draft lug unit. 2,781,919, 2–19–57, Cl. 213—57.

Blaw-Knox Co.: *See*—
Fussman, Frederick. 2,781,862.

Bloch, Herman S., and H. E. Mammen, to Universal Oil Products Co. Gas purification process. 2,781,863, 2–19–57, Cl. 183—115.

Bloch, Herman S., and A. E. Hoffman, to Universal Oil Products Co. Plant growth regulating compositions. 2,782,111, 2–19–57, Cl. 71—2.6.

Bloem, Aldert T.: *See*—
Köhler, Jacob W. L., and Bloem. 2,781,647.

Bloom, Quentin M., to Selas Corp. of America. Work conveying mechanism. 2,781,891, 2–19–57, Cl. 198—127.

Bloomquist, Charles W.: *See*—
Albrecht, Robert E., and Bloomquist. 2,782,052.

Bluestone, Henry, S. B. Soloway, J. Hyman, and R. E. Lidov, to Shell Development Co. Nortricyclyl ethers. 2,782,238, 2–19–57, Cl. 260—612.

Bockrath, Paul U., and R. C. Dill, to E. I. du Pont de Nemours & Co. Web slitting apparatus. 2,781,839, 2–19–57, Cl. 164—36.

Boddy, Leonard, to King-Seeley Corp. Plural condition responsive signal system with initial testing. 2,782,401, 2–19–57, Cl. 340—213.

Boehm, Eric G., and C. F. Lautz, to Houdaille Industries, Inc. Telescopic shock absorbers. 2,781,869, 2–19–57, Cl. 188—88.

Boer, George, W. M. O'Reilly and M. E. True, to Esso Research and Engineering Co. Wire line releasing tool and well plug. 2,781,854, 2–19–57, Cl. 166—218.

Bogue Electric Mfg. Co.: *See*—
Herbst, John A. 2,782,347.

Bondi, Arnold A.: *See*—
Peterson, Walter H., and Bondi. 2,782,165.

Booth, Richard H.: *See*—
Spencer, Rolf E., and Booth. 2,781,967.

Borchers, Earl M., and A. W. Ahlgren, to Amerock Corp. Door latch. 2,782,061, 2–19–57, Cl. 292—169.

Borders, Charles R.: *See*—
Havens, Byron L., and Borders. 2,782,305.

Bordewieck, Robert W., and V. F. Sepavich, to Crompton & Knowles Loom Works. Electric protection for looms. 2,781,794, 2–19–57, Cl. 139—341.

Bosch, William F. X.: *See*—
Nield, Cyril H., and Bosch. 2,782,200.

Bosh, James E., to International Telephone and Telegraph Corp. Dial type of impulse sender. 2,781,666, 2–19–57, Cl. 74—152.

Bosman, Gustave L., to Soprotec Societe de Promotion Technique Luxembourg. Apparatus used in the application of physiotherapeutic currents. 2,782,326, 2–19–57, Cl. 307—106.

Boura, John: *See*—
Dodd, George A., and Boura. 2,782,264.

Bourdin, Serge J. C. Toy ruler with animated figures. 2,781,593, 2–19–57, Cl. 40—96.

Boyd, Thomas R., to Illinois Tool Works. Resilient sheet metal fastener having stud biting aperture therein. 2,781,686, 2–19–57, Cl. 85—36.

Boylan, David R.: *See*—
Bridger, Grover L., and Boylan. 2,782,113.

Boyles, Robert L.: *See*—
Powers, Howard A., Mutti, and Boyles. 2,782,274.

Brabender, Carl W.: *See*—
Coyne, William R., Brabender, and Swanson. 2,782,012.

Bradford, James H., ½ to Combined Metals Reduction Co. Bag-filling apparatus. 2,781,799, 2–19–57, Cl. 141—68.

Bradford, James H., ½ to Combined Metals Reduction Co. Method of heat processing finely divided materials and furnace therefor. 2,782,018, 2–19–57, Cl. 263—21.

Brady, James J., to Technical Oil Tool Corp. Ltd. Chart reading device. 2,781,581, 2–19–57, Cl. 33—1.

Brandes, Eric A., and R. B. Waterhouse, to Fulmer Research Institute Ltd. Low emissivity coatings for metal surfaces. 2,781,636, 2–19–57, Cl. 60—39.69.

Braun, Ottwin L., to Reliance Steel Products Co. Furnace door frame. 2,781,747, 2–19–57, Cl. 122—499.

Brennecke, Carl, to Siemens-Schuckertwerke Aktiengellschaft. Turbine construction. 2,781,999, 2–19–57, Cl. 253—39.

Bretz, Frank E., Jr., to Delta Dynamics, Inc. Metering valve. 2,781,954, 2–19–57, Cl. 222—394.

Brewer, Nathaniel, to Fischer & Porter Co. Viscosity meter. 2,781,662, 2–19–57, Cl. 73—36.

Bridgeport Brass Co.: *See*—
Hampshire, John C. 2,781,938.

Bridger, Grover L., and D. R. Boylan, to Iowa State College Research Foundation, Inc. Fertilizer compositions and method of preparation thereof. 2,782,113, 2–19–57, Cl. 71—47.

Briggs, Philip H., to Robertshaw-Fulton Controls Co. Magnetic control devices. 2,782,363, 2–19–57, Cl. 323—50.

Bristol, John E., E. P. Czerwin, and N. Turnbull, to E. I. du Pont de Nemours & Co. Production of polyvinyl acetate beads and emulsions. 2,782,173, 2–19–57, Cl. 260—29.6.

British Celanese Ltd.: *See*—
Hindley, Frank, and Fisher. 2,782,237.
Walker, Eric E., Foggon, Locke, and Shaw. 2,782,127.

British Tabulating Machine Co., Ltd., The: *See*—
Woods-Hill, William. 2,782,304.

British Telecommunications Research Ltd.: *See*—
Dodd, George A., and Boura. 2,782,264.

Brockner, Charles E., to Sperry Rand Corp. Gated video integrator radar system. 2,782,412, 2–19–57, Cl. 343—13.

Brockway, Arthur L., Jr., and H. P. Dantzig, to Bendix Aviation Corp. System for projecting movable lines on a CRT face. 2,782,409, 2–19–57, Cl. 340—369.

Brodie, Ralph N., Co.: *See*—
Berck, William F. 2,781,997.

Brogdon, Vas H., to Freeport Sulphur Co. Process and heating system for providing hot water and power for sulfur mining. 2,781,635, 2–19–57, Cl. 60—39.05.

Brook, Arthur F., to Wire-O Corp. Press for closing the rings of mechanical bindings. 2,781,797, 2–19–57, Cl. 140—93.

Brooks, Robert A., to E. I. du Pont de Nemours and Co. Chlorinated cobalt phthalocyanine precursors. 2,782,208, 2–19–57, Cl. 260—346.3.

Brott, Glenn A. Silo elevator. 2,781,865, 2–19–57, Cl. 187—6.

Brown, Eldon C., W. H. Driesen, and J. S. Guepet, to The Patent and Licensing Corp. Continuous process for producing bituminous emulsions. 2,782,169, 2–19–57, Cl. 252—311.5.

Brown, Hugh M., to The Clemson Agricultural College of South Carolina. Machines for continuous dyeing of webs under pressure. 2,781,655, 2–19–57, Cl. 68—22.

Brown, John E. Fish lure. 2,781,604, 2–19–57, Cl. 43—42.28.

Brown, John R.: *See*—
Maly, George P., and Brown. 2,781,663.

Bruce, William L., to The Goodyear Tire & Rubber Co. White factice and isocyanate-modified polyester composition. 2,782,172, 2–19–57, Cl. 260—22.

Bruins, Paul F., and S. S. Dorn, to Carboline Co. Surface coatings of solutions of furfural-modified hydrolyzed vinyl acetate-vinyl chloride copolymers. 2,782,175, 2–19–57, Cl. 260—30.4.

Brumby, Augusta C. Spectacles having interchangeable lens. 2,781,693, 2–19–57, Cl. 88—47.

Brunner, John J., to the United States of America as represented by the United States Atomic Energy Commission. Uranium recovery process. 2,782,091, 2–19–57, Cl. 23—14.5.

Bryant Electric Co., The: *See*—
Opalenik, John J., and Bullis. 2,782,388.

Buchanan, Leslie B. M., to Westinghouse Electric Corp. Evaporator defrosting arrangement. 2,781,646, 2–19–57, Cl. 62—126.

Buckeye Iron & Brass Works: *See*—
Lindsay, Griffith W. 2,781,941.

Bufalino, Charles J., Jr. Retractible rosary. 2,781,591, 2–19–57, Cl. 35—23.

Buffet, Jean, and A. Gueussier, to Comptoir Industriel d'Etirage et Profilage de Metaux. Hot transformation of metals. 2,781,903, 2–19–57, Cl. 207—10.

Bullis, Willard H.: *See*—
Opalenik, John J., and Bullis. 2,782,388.

Burington, Harvey J. Adjustable supporting racks. 2,781,920, 2–19–57, Cl. 214—1.

Burkhardt, Gustave. Safety couplings. 2,781,882, 2–19–57, Cl. 192—56.

Burroughs Corp.: *See*—
Lee, Donald H. 2,782,324.
Smith, John G. 2,782,287.

Burstlein, Eugéne M., ½ to Societe des Acieries de Longwy (Societe Anonyme). Process for preparing coking blends. 2,782,147, 2–19–57, Cl. 202—25.

Buslik, Walter S., and J. A. Weidenhammer, to International Business Machines Corp. Tape speed governor. 2,781,984, 2–19–57, Cl. 242—75.

Butler, Charles E., to McGraw Electric Co. Ceramic bodies. 2,782,125, 2–19–57, Cl. 106—46.

Butler, Charles E., and R. N. Hazelwood, to McGraw Electric Co. Ceramic bodies. 2,782,126, 2–19–57, Cl. 106—46.

Buttner-Werke Aktiengesellschaft: *See*—
Glinka, Carl. 2,782,104.

Buvelot, John A.: *See*—
Bergquist, Ernest C., and Buvelot. 2,782,027.

Byam, Erwin B., to The Waterbury Farrel Foundry & Machine Co. Adjustable finger gripping means in transfer mechanisms. 2,781,531, 2–19–57, Cl. 10—166.

C & H Supply Co.: *See*—
Phillips, William I., and Lawrence. 2,781,535.

Caldwell, E. L., & Sons: *See*—
Caldwell, Frederick C. and E. L. 2,781,709.

Caldwell, Edward L., Jr.: *See*—
Caldwell, Frederick C. and E. L. 2,781,709.

Caldwell, Frederick C. and E. L., Jr., to E. L. Caldwell & Sons. Means for cutting stalks or the like and plowing or cultivating the ground. 2,781,709, 2–19–57, Cl. 97—46.27.

Callery Chemical Co.: *See*—
Huff, George F. 2,782,236.
Werner, Robert C., and Walters. 2,782,369.

Cambi Idraulici Badalini S. p. A.: *See*—
Badalini, Giovanni. 2,781,639.

Camras, Marvin, to Armour Research Foundation of Illinois Institute of Technology. Motion picture film. 2,781,688, 2–19–57, Cl. 88—16.2.

Cantlin, John H., to Fenwal Inc. Air flow and liquid level detection and control apparatus. 2,782,285, 2–19–57, Cl. 200—122.

Cantrell, John, E. P. Degg, and F. L. Nobes, to The Carborundum Co. Metal-ceramic bonded granular material. 2,782,110, 2–19–57, Cl. 51—308.

Carboline Co.: *See*—
Bruins, Paul F., and Dorn. 2,782,175.

Carborundum Co., The: *See*—
Cantrell, John, Degg, and Nobes. 2,782,110.

Carlson, Carl O., to Bendix Aviation Corp. Wide deviation reactance tube modulator circuit. 2,782,375, 2–19–57, Cl. 332—28.

Carlson, Hjalmar. Bottle closures. 2,781,931, 2–19–57, Cl. 215—95.

Carlsson, Carl G.: *See*—
Sundén, Olof, and Carlsson. 2,782,149.

Carlstrom, Robert E. Pressure seal. 2,781,943, 2–19–57, Cl. 220—46.

Carroll, John F. Brake latch attachment. 2,781,673, 2–19–57, Cl. 74—540.

Casco Products Corp.: *See*—
Berta, Joseph. 2,781,668.
Heusser, Franklin E. 2,782,279.

Case, J. I., Co.: *See*—
Padrick, John R. 2,781,710.

Case, Norton M., to General Electric Co. Adjustable latching mechanism. 2,782,284, 2–19–57, Cl. 200—116.

Casey, Harry L., and A. W. Costello. Hair wave forming device. 2,781,763, 2–19–57, Cl. 132—7.

Cassella Farbwerke Mainkur Aktiengesellschaft: *See*—
Schwanberger, Emil. 2,782,209.

Cassidy, Robert J., to General Motors Corp. Burner safety control system with purging. 2,781,830, 2–19–57, Cl. 158—28.

Castel, Jacques H., to Perforating Guns Atlas Corp. Electrical logging apparatus. 2,782,365, 2–19–57, Cl. 324—34.

Caswell, Arthur S., to I-T-E Circuit Breaker Co. Tool for spinning eyelets from one side. 2,781,934, 2–19–57, Cl. 218—38.

Caughill, Robert F., to General Motors Corp. Heat exchangers for fluids. 2,782,008, 2–19–57, Cl. 257—198.

Cave, Robert J.: *See*—
Cosier, John E. G., and Cave. 2,782,281.

Cayet, Maurice C., to Procedes Sauter. Thermostatic heating control systems. 2,782,291, 2–19–57, Cl. 219—20.

Ceco Steel Products Corp.: *See*—
Ochiltree, Ned A. 2,781,877.

Cederholm, Carl I. Measuring device. 2,781,584, 2–19–57, Cl. 33—138.

Celanese Corp. of America: *See*—
Paist, Walter D., and Berardinelli. 2,782,128.
Rogers, Robert S. 2,781,820.

Centrax Power Units Ltd.: *See*—
Barr, Richard H. H. 2,781,998.

Chaban, Joseph M. Retractable automobile roof top. 2,782,070, 2–19–57, Cl. 296—107.

Chalmowicz, Adam, to Compagnie des Machines Bull (Societe Anonyme). Reading device controlled by magnetic record cards. 2,781,972, 2–19–57, Cl. 235—61.11.

Chance, A. B., Co.: *See*—
Vordtriede, Oliver A. 2,782,393.

Chandler Machine Co.: *See*—
Maxant, William T., De Paul, and Zeldis. 2,781,734.

Chase, Daniel D., III: *See*—
La Bonte, Joseph G., and Chase. 2,782,067.

Chavez, Vincent. Reaction type sprinkler. 2,782,071, 2–19–57, Cl. 299—69.

Chayne, Charles A., to General Motors Corp. Engine construction. 2,781,750, 2–19–57, Cl. 123—55.

Chenus, Pierre J. C., to Compagnie des Machines Bull (Societe Anonyme). Addition and subtraction operating device for electric calculating machines operating in the binary system. 2,781,968, 2–19–57, Cl. 235—61.

Chester, William H.: *See*—
Colander, Roy E., and Chester. 2,782,311.

Chevalier, Michel J. Artificial femoral head. 2,781,758, 2–19–57, Cl. 128—92.

Chicago Pneumatic Tool Co.: *See*—
Fischer, Howard R., and D'Haem. 2,781,728.

Chicopee Mfg. Corp.: *See*—
Ness, Irving S., Lints, and Petterson. 2,782,130.

Christensen, Dan A.: *See*—
Johnson, Lloyd A., Christensen, and Martin. 2,782,077.

Christensen, George O.: *See*—
Herr, Charles H., Jr., and Christensen. 2,781,860.

Chrysler Corp.: *See*—
Knocke, Louis T. 2,781,687.

Ciba Ltd.: *See*—
Geiger, Max. 2,782,148.

Ciba Pharmaceutical Products, Inc.: *See*—
Druey, Jean, and Eickenberger. 2,782,195.
Heusser, Hans, Jeger, and Ruzicka. 2,782,212.
Wettstein, Albert, and Schmidlin. 2,782,211.

Clark, Adna R., to Whirlpool-Seeger Corp. Electrical circuit for multiple motor system. 2,782,350, 2–19–57, Cl. 318—102.

Clark, Alfred L.: *See*—
Spieth, Charles W., Wright, and Clark. 2,781,935.

Clark, Dorothy S.: *See*—
Bills, Anita W., and Clark. 2,781,611.

Clark, Frank M., to General Electric Co. Electrical cable structure. 2,782,248, 2–19–57, Cl. 174—25.

Clark, James K., to B. A.-Shawinigan Ltd. Purification of phenol. 2,782,242, 2–19–57, Cl. 260—621.

Clark, John R.: *See*—
White, William E., and Clark. 2,781,901.

Clavier, Andre G., and D. L. Thomas, to International Standard Electric Corp. Attenuator for surface wave propagation. 2,782,382, 2–19–57, Cl. 333—81.

Clay, Gabriel P.: *See*—
Webster, James G., and Aldred. 2,781,947.

Cleaver, Charles S., to E. I. du Pont de Nemours and Co. Method for preparing polyfunctional organic compounds in a flame and hydroperoxy organic compounds prepared thereby. 2,782,219, 2–19–57, Cl. 260—465.8.

Clements, George O. Emergency air brake actuator. 2,781,870, 2–19–57, Cl. 188—106.

Clemson Agricultural College of South Carolina, The: *See*—
Brown, Hugh M. 2,781,655.

Cline Electric Mfg. Co.: *See*—
Paasche, Jens A. 2,781,738.

Clingman, Paul E., and C. H. Schamel, to General Motors Corp. Connector for flexible tubing. 2,782,058, 2–19–57, Cl. 285—212.

Clute, Henry H. Recessed housing for valves and fittings for liquid petroleum product tanks. 2,781,944, 2–19–57, Cl. 220—62.

Coate, Ralph S., and J. R. Meagher, to Radio Corp. of America. Frequency marker. 2,782,380, 2–19–57, Cl. 333—76.

Coats & Clark, Inc.: *See*—
Morin, Louis H. 2,781,548.

Cobalt Chemicals, Ltd.: *See*—
Richardson, Bruce F. 2,782,135.

Coburn, Abbott: *See*—
Beckman, George, and Robert. 2,781,818.

Cochran, Carl J., and M. W. Neuhausen, to Pittsburgh Plate Glass Co. Washer for bent laminated glass. 2,781,534, 2–19–57, Cl. 15—77.

Colander, Roy E., and W. H. Chester, to Bendix Aviation Corp. Bridge controlled oscillator. 2,782,311, 2–19–57, Cl. 250—36.

Colber Corp., The: *See*—
Collett, Anthony. 2,782,385.

Coleman, James J., to The Patterson-Kelley Co., Inc. Self-cleaning screen device. 2,781,916, 2–19–57, Cl. 210—152.

Coleman, Orville K., to Duncan Electric Co., Inc. By-pass facilities for socket-type electric meters. 2,782,387, 2–19–57, Cl. 339—19.

Collett, Anthony, to The Colber Corp. Electronic tuner. 2,782,385, 2–19–57, Cl. 336—136.

Collins, Irene: *See*—
Snyder, James E., Swartz, and Collins. 2,781,900.

Collins Radio Co.: *See*—
Lewis, Herbert O. 2,782,362.

Color Television Inc.: *See*—
Stahl, Robert J., and West. 2,781,649.

Colton, Frank B., to G. D. Searle & Co. 4,5,21-trihydroxypregnane-3,20-dione, 11-oxygenated derivatives and esters thereof. 2,782,213, 2–19–57, Cl. 260—397.45.

Columbia Mills, Inc., The: *See*—
Peterson, Albert. 2,781,837.

Columbian Carbon Co.: *See*—
Heller, George L. 2,782,101.

Columbus McKinnon Chain Corp.: *See*—
Devonshire, William H. 2,781,671.
Robins, Erford E., Lerch, and Parker. 2,782,331.

Combined Metals Reduction Co.: *See*—
Bradford, James H. 2,781,799.
Bradford, James H. 2,782,018.

Combustion Engineering, Inc.: *See*—
Armacost, Wilbur H., and Marshall. 2,781,746.

Commerce, United States of America as represented by the Secretary of: *See*—
Selby, Myron C. 2,782,377.

Compagnie des Machines Bull (Societe Anonyme): *See*—
Chalmowicz, Adam. 2,781,972.
Chenus, Pierre J. C. 2,781,968.
Knutsen, Knut A. 2,781,971.

Compagnie Francaise des Matieres Colorantes: *See*—
Lantz, Robert L., and Kremer. 2,782,235.
Vallette, Pierre H. P. 2,782,133.

Comptoir Industriel d'Etirage et Profilage de Metaux: *See*—
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Comstock, Alfred E., to The Diamond Match Co. Apparatus for perforating hollow articles. 2,781,843, 2–19–57, Cl. 164—51.

Conrad, Martin B.: *See*—
Baker, Reuben C., and Conrad. 2,781,774.

Conroy, Charles L.: *See*—
Stranberg, Don F. 2,782,059.

Consolidated Electrodynamics Corp.: *See*—
Hardway, Edward V., Jr. 2,782,394.
Robinson, Charles F. 2,782,316.
Robinson, Charles F. 2,782,337.
Warren, Horace G., and Johnson. 2,781,588.

Container Corp. of America: *See*—
Desmond, John D., and Cote. 2,781,898.

Contur Abrasive Co., Inc.: *See*—
Larson, Adolph J. 2,781,618.

Cooper, Louis: *See*—
Natale, Joseph A. 2,782,085.

Cornelius, Richard T. Switch mechanisms. 2,782,272, 2–19–57, Cl. 200—82.

Cornell, Frank J., to The Ohio Crankshaft Co. High-frequency transformer construction. 2,782,386, 2–19–57, Cl. 336—220.

Cornwell, Richard E., to American Viscose Corp. Method and apparatus for processing plastic tubing. 2,781,589, 2–19–57, Cl. 34—12.

Cosier, John E. G., and R. J. Cave, to Hartford National Bank and Trust Co., as trustee. High-frequency electrical apparatus. 2,782,281, 2–19–57, Cl. 200—98.

Costello, Arlen W.: *See*—
Casey, Harry L., and Costello. 2,781,763.

Costolow, John J., to Phillips Petroleum Co. Ammonium sulfate production. 2,782,097, 2–19–57, Cl. 23—119.

Cote, Raymond A.: *See*—
Desmond, John D., and Cote. 2,781,898.

Courtaulds Ltd.: *See*—
Rakowski, Lech, Williams, and Wilson. 2,782,089.

Covington, Robert A., Jr., and V. H. Waldin, to E. I. du Pont de Nemours and Co. Tubular film advancer. 2,781,894, 2–19–57, Cl. 203—270.

Coyne, William R., C. W. Brabender, and E. C. Swanson, to Pillsbury Mills, Inc. Timing control mechanism for food mixers and the like. 2,782,012, 2–19–57, Cl. 259—24.

Crane Co.: *See*—
Schmidt, Edward G., and Nelson. 2,781,521.

Crompton & Knowles Loom Works: *See*—
Bordewieck, Robert W., and Sepavich. 2,781,794.
Hutchins, Allan S. 2,781,790.
Kimmel, William E. 2,781,793.
Kimmel, William E., and Darwin. 2,781,792.
Turner, Richard G. 2,781,795.

Crosby, Hartzell L.: *See*—
Gray, Kenneth R., and Crosby. 2,782,241.

Crossley, Robert B. Automatic fishing line puller. 2,781,601, 2–19–57, Cl. 43—15.

Crumrine, Herbert E., W. G. Lewis, and C. R. Mayo. Paper handling mechanism for xerographic copying machine. 2,781,705, 2–19–57, Cl. 95—1.7.

Cunningham, Dora T. Ash tray support. 2,781,992, 2–19–57, Cl. 248—226.

Curran, Frank J. Collapsible crucifix. 2,781,596, 2–19–57, Cl. 41—10.

Curtiss-Wright Corp.: *See*—
Moore, Vincent. 2,781,634.

Cusic, John W., to G. D. Searle & Co. Tropine ester of xanthene-9-carboxylic acid and salts thereof. 2,782,199, 2–19–57, Cl. 260—292.

Cutler, Ralph S. Tray. 2,781,651, 2–19–57, Cl. 65—53.

Cutrow, Leonard A. Combined drafting board and easel. 2,781,608, 2–19–57, Cl. 45—131.

Czerwin, Edward P.: *See*—
Bristol, John E., Czerwin, and Turnbull. 2,782,173.

Dale, Vernon P. Gun case. 2,781,897, 2–19–57, Cl. 206—16.

Dallas, James E., to Plywood Research Foundation. Electronic device responsive to variable electrical conductances and capacitances of material, such as moisture content in lignocellulose materials. 2,782,367, 2–19–57, Cl. 324—61.

Dantzig, Henry P.: *See*—
Brockway, Arthur L., Jr., and Dantzig. 2,782,409.

Danvers, Ellis, and H. Twitchen, to Rotol Ltd. Control system for variable pitch screw propellers. 2,781,856, 2–19–57, Cl. 170—135.74.

Darby, Joseph R., and L. D. Frederickson, Jr., to Monsanto Chemical Co. Halogen containing vinylidene resins stabilized with a mixture of zinc and calcium salts of phenyl carboxylic acids. 2,782,176, 2–19–57, Cl. 260—30.6.

Darling, Horace E., to The Foxboro Co. Measuring apparatus. 2,782,346, 2–19–57, Cl. 318—21.

Darwin, Clifford: *See*—
Kimmel, William E., and Darwin. 2,781,792.

D'Ascoli, Ralph G.: *See*—
Ebel, Lawrence C., and D'Ascoli. 2,782,251.

Davidson, Jack A.: *See*—
Berg, Lloyd, Davidson, Nickelson, and Nye. 2,782,098.

Davies, Richard J., to Bendix Aviation Corp. Radio shielding for ignition cable and method of making same. 2,781,785, 2–19–57, Cl. 138—25.

Davis, James H.: *See*—
Warren, Charles. 2,781,859.

Davis, John R., Jr. Sunlight duration recorder. 2,782,088, 2–19–57, Cl. 346—107.

Davis, Vance J., to United States Rubber Co. Pneumatic tire. 2,781,815, 2–19–57, Cl. 152—352.

Davis, William R., and J. H. Deery, to Detroit Controls Corp. Single-pole, multi-contact mercury jet switch. 2,782,273, 2–19–57, Cl. 200—32.

Davisson, Kenneth R.: *See*—
Baldridge, Walter M., and Davisson. 2,781,925.

Day, Frank M.: *See*—
Stanley, Robert F., and Day. 2,781,977.

Dazzi, Joachim, to Monsanto Chemical Co. Isononylphenyl-n-octanesulfonate. 2,782,217, 2–19–57, Cl. 260—456.

Dazzi, Joachim, to Monsanto Chemical Co. Polycarboxylates. 2,782,227, 2–19–57, Cl. 260—485.

Dazzi, Joachim, to Monsanto Chemical Co. Preparation of adducts of liquid, linear polybutadiene and esters of itaconic and aconitic acids. 2,782,228, 2–19–57, Cl. 260—485.

Dazzi, Joachim, to Monsanto Chemical Co. Preparation of adducts of liquid linear polybutadiene and fumaric acid esters. 2,782,229, 2–19–57, Cl. 260—485.

Dearborn, William H., Jr.: *See*—
Hittle, Herbert W., and Dearborn. 2,781,932.

Deery, James H.: *See*—
Davis, William R., and Deery. 2,782,273.

De Ford, Perl E., ½ to E. A. Tolman. Hydraulic drive. 2,781,675, 2–19–57, Cl. 74—677.

Degg, Edwin P.: *See*—
Canrell, John, Degg, and Nobes. 2,782,110.

Deibel, Raymond A., to Trico Products Corp. Windshield wiper arm mounting. 2,781,540, 2–19–57, Cl. 15—255.

Delta Dynamics, Inc.: *See*—
Bretz, Frank E., Jr. 2,781,954.

Demarche, Edmund, to Skenandoa Rayon Corp. Positive stop device in winding machines. 2,781,981, 2–19–57, Cl. 242—37.

Dembs, Nelson. Milk delivery and storage container. 2,781,965, 2–19–57, Cl. 232—43.4.

Demmer, Adolph P., and C. T. Evans, to Air Reduction Co., Inc. Universal gas torch cutting machine. 2,782,024, 2–19–57, Cl. 266—23.

De Paul, Carl: *See*—
Maxant, William T., De Paul, and Zeldis. 2,781,734.

Desmond, John D., and R. A. Cote, to Container Corp. of America. Display support. 2,781,898, 2–19–57, Cl. 206—45.19.

Detch, Lewis. Ferrule type renewable cartridge fuse. 2,782,286, 2–19–57, Cl. 200—131.

Detroit Controls Corp.: *See*—
Davis, William R., and Deery. 2,782,273.

De Turk, John E.: *See*—
West, Charles F., De Turk, and MacNeill. 2,782,398.

De Vault, Albert N., to Phillips Petroleum Co. Recovery of valuable dewaxing aids from waxes. 2,782,142, 2–19–57, Cl. 196—17.

De Vault, Ralph P. Egg beater. 2,782,014, 2–19–57, Cl. 259—131.

De Voe, James H., to General Motors Corp. Sock type filters. 2,781,914, 2–19–57, Cl. 210—148.

Devonshire, William H., to Columbus McKinnon Chain Corp. Chain hoist. 2,781,671, 2–19–57, Cl. 74—243.

D'Haem, Marcel P.: *See*—
Fischer, Howard R., and D'Haem. 2,781,728.

Diambra, Henry M., and G. G. Edlen, to Entron, Inc. Directional line splitting coupler. 2,782,379, 2–19–57, Cl. 333—35.

Diamond Match Co., The: *See*—
Comstock, Alfred E. 2,781,843.

Dicar Co., The: *See*—
Dick, Kenneth E. 2,781,960.

Dick, Kenneth E., to The Dicar Co. Flexible vacuum bottle carrier. 2,781,960, 2–19–57, Cl. 224—45.

Dick, Marion T., and H. G. Hamilton. Animal hair groomer. 2,781,739, 2–19–57, Cl. 119—93.

Dickinson, Arthur H., to International Business Machines Corp. Electronic trigger circuit. 2,782,306, 2–19–57, Cl. 250—27.

Dicks-Pontius Co.: *See*—
Gifford, Robert T., and Vernet. 2,781,561.

Dignan, Percival. Ticket issuing machine. 2,781,841, 2–19–57, Cl. 164—48.

Dilar George R.: *See*—
Dilar, Georgia and G. R. 2,781,811.

Dilar, Georgia and G. R. Combined tree wrapper and ground sheet. 2,781,811, 2–19–57, Cl. 150—52.

Dill, Raymond C.: *See*—
Bockrath, Paul U., and Dill. 2,781,839.

Dilts, Lee E., to General Electric Co. Mount making machine for electric lamps and similar devices. 2,781,796, 2–19–57, Cl. 140—71.6.

Dimond, Thomas L., to Bell Telephone Laboratories, Inc. Calling subscriber identifier using transistor oscillator in subsets. 2,782,259, 2–19–57, Cl. 179—17.

Dittrich, Edwin L., to The Pfaudler Co. Lauter tubs. 2,782,013, 2–19–57, Cl. 259—108.

Djerassi, Carl, G. Rosenkranz, and J. Pataki, to Syntex S. A. Process for the preparation of 16α, 17α-oxido-Δ⁴pregnene-3β-ol-20-one. 2,782,193, 2–19–57, Cl. 260—239.55.

Doane, Harry C., to General Motors Corp. Ornamental article. 2,781,597, 2–19–57, Cl. 41—35.

Dobell, Curzon, to Stressteel Corp. Post-stressed concrete structure. 2,781,658, 2–19–57, Cl. 72—50.

Dodd, George A., and J. Boura, to British Telecommunications Research Ltd Thermionic valve amplifying circuits. 2,782,264, 2–19–57, Cl. 179—171.

Dole Valve Co., The: *See*—
Kraft, El Roy J. 2,781,979.

Dombeck, Edward K., to Bendix Aviation Corp. Brake and anchor assembly. 2,781,867, 2–19–57, Cl. 188—78.

Dominion Corset Co. Ltd.: *See*—
Verreault, Joseph. 2,781,518.

Donahue, William J., Jr. Fuze for small caliber projectile. 2,781,725, 2–19–57, Cl. 102—79.

Donegan, Joseph W., to Allied Chemical & Dye Corp. Fire retardant coated roofing sheet and process for preparing. 2,782,129, 2–19–57, Cl. 117—30.

Donnelley, R. R., & Sons Co.: *See*—
Allegretti, Anthony J. 2,782,056.

Donoghue, John J. Basketball backstop mount for a garage roof. 2,782,034, 2–19–57, Cl. 273—1.5.

Dorn, Stephen S.: *See*—
Bruins, Paul F., and Dorn. 2,782,175.

Dougherty, Floyd G., to General Motors Corp. Combustion chamber with fuel vaporizer. 2,781,637, 2–19–57, Cl. 60—39.71.

Dow Chemical Co., The: *See*—
Hefner, Robert E., and Pruitt. 2,782,240.
Stoesser, Wesley C., and Surine. 2,782,232.

Dowling, Joseph W.: *See*—
Paulsen, Henry C., and Dowling. 2,782,146.

Dreher, Erich: *See*—
Reppe, Walter, Pasedach Dreher, and Amann. 2,782,191.

Drehman, Lewis E., to Phillips Petroleum Co. Isomerizing hydrocarbons with the catalyst in the continuous phase inverting the phases and separating the catalyst employing phase inversion. 2,782,244, 2–19–57, Cl. 260—683.5.

Driesen, Wilfred H.: *See*—
Brown, Eldon C., Driesen, and Guepet. 2,782,109.

Druey, Jean, and K. Eichenberger, to Ciba Pharmaceutical Products, Inc Manufacture of dihydropyridazines. 2,782,195, 2–19–57, Cl. 260—250.

Drysdale, John J., to E. I. du Pont de Nemours and Co. 1 - fluoro - 1,2 - dicyano - 2 - hydrocarbon substituted ethylenes, and their preparation from the corresponding 1, 1-difluoro-2-cyanoethylenes and alkali cyanides. 2,782,218, 2–19–57, Cl. 260—465.7.

Duffee, Homer W., and M. C. Armstrong, to Owens-Corning Fiberglas Corp. Binders for fibrous products. 2,782,178, 2–19–57, Cl. 260—33.4.

Duffy, Joseph W. Operating table for pigs. 2,781,740, 2–19–57, Cl. 119—103.

Dugan, John W., to Flo-Mix Fertilizers Corp. Method of soil conditioning and fertilizing. 2,781,612, 2–19–57, Cl. 47—58.

Duggan, Robert B.: *See*—
Zucker, Robert D., and Duggan. 2,781,829.

Duncan Electric Co., Inc.: *See*—
Coleman, Orville K. 2,782,387.

Dunlap, Henry F.: *See*—
Schuler, Ellis W., Jr., Dunlap, and Gourley. 2,782,364.

Dunn, Joseph A. Printing and segregating machine. 2,781,721, 2–19–57, Cl. 101—46.

Du Pont, E. I., de Nemours and Co.: *See*—
Anderson, Frederick E. 2,781,572.
Bockrath, Paul U., and Dill. 2,781,839.
Bristol, John E., Czerwin, and Turnbull. 2,782,173.
Brooks, Robert A. 2,782,208.
Cleaver, Charles S. 2,782,219.
Covington, Robert A., Jr., and Waldin. 2,781,894.
Drysdale, John J. 2,782,218.
Inman, Byron N. 2,782,107.
Johnson, William T. M. 2,782,131.
Johnson, William T. M. 2,782,132.
Lontz, John F. 2,782,179.
Muetterties, Earl L. 2,782,233.
Perkins, Melvin A., and Whelen. 2,782,207.
Sartori, Mario F. 2,782,187.
Weldman, Verne W. 2,782,180.

Durant Mfg. Co.: *See*—
Hoffmann, Walter W. 2,781,976.

Du Rose, Arthur H., and J. D. Little, to The Harshaw Chemical Co. Electrodeposition of nickel. 2,782,152, 2–19–57, Cl. 204—49.

Du Rose, Arthur H., and J. D. Little, to The Harshaw Chemical Co. Nickel electrodeposition. 2,782,153, 2–19–57, Cl. 204—49.

Du Rose, Arthur H., and J. D. Little, to The Harshaw Chemical Co. Nickel plating. 2,782,154, 2–19–57, Cl. 204—49.

Du Rose, Arthur H., and J. D. Little, to The Harshaw Chemical Co. Electroplating of nickel. 2,782,155, 2–19–57, Cl. 204—49.

Dyke, Edwin, and H. Magnuski, to Motorola, Inc. Modulation meter. 2,782,300, 2–19–57, Cl. 250—15.

Dyke, Walter P., to the United States of America as represented by the Secretary of the Navy. Filament voltage terminal for pulse transformer. 2,782,381, 2–19–57, Cl. 333—79.

East, James V. T., to Fawick Flexi-Grip Co. Golf club weighting means. 2,782,035, 2–19–57, Cl. 273—81.

Eastburg, Clifford L., to The Timken Roller Bearing Co. Sealed joint. 2,781,942, 2–19–57, Cl. 220—46.

Ebel, Lawrence C., and R. G. D'Ascoli, to Belden Mfg. Co. Cables for high frequency use. 2,782,251, 2–19–57, Cl. 174—113.

Ebersold, Robert C., to The Warner & Swasey Co. Machine tool transmission and control therefor. 2,781,879, 2–19–57, Cl. 192—4.

Edgerton, Harold E. Multiple light-flash-producing system. 2,781,707, 2–19–57, Cl. 95—11.

Edlen, George G.: *See*—
Diambra, Henry M., and Edlen. 2,782,379.

Edman, Ernst E. T.: *See*—
Tunberg, Gustav V., Jörgensen, Parschin, and Edman. 2,781,817.

Eichenberger, Kurt: *See*—
Druey, Jean, and Eichenberger. 2,782,195.

Eigenbrode, Glenn S., to Landis Machine Co. Method and apparatus for synchronizing threading rolls. 2,781,586, 2–19–57, Cl. 33—181.

Ellermann, Charles W. Fish hook. 2,781,605, 2–19–57, Cl. 43—44.2.

Ellertsen, Adolph. Quick coupling and releasing garter clasp. 2,781,569, 2–19–57, Cl. 24—246.

Elsenberg, Morris M. Strapping machine. 2,781,516, 2–19–57, Cl. 1—123.

Electric & Musical Industries Ltd.: *See*—
Spencer, Rolf E., and Booth. 2,781,967.

Elkins-Ewall Rubber Co., Inc.: *See*—
Hauser, John M., and Forrest. 2,781,757.

Elliott, George, to General Dynamics Corp. Ringing control circuit for telephone systems. 2,782,260, 2–19–57, Cl. 179—17.

Ellis, Sidney G., to Radio Corp. of America. Electron-optical apparatus. 2,782,335, 2–19–57, Cl. 313—84.

Emhart Mfg. Co.: *See*—
Jennings, Frank C. 2,781,576.
Kulig, Constantine W. 2,781,575.

Emmons, Robert A., to S & L Sales, Inc. Heat barrier container with means to supply tempered gas to replace discharged tempered liquids. 2,781,948, 2–19–57, Cl. 222—1.

Engel, Ellsworth C.: *See*—
Williams, Robert E., and Engel. 2,782,048.

Engel, John A., Jr. Magnetic game apparatus. 2,782,038, 2–19–57, Cl. 273—130.

Enger-Kress Co.: *See*—
Landdeck, Roland. 2,781,810.

English, Robert R., to Oak Mfg. Co. High frequency tuning apparatus. 2,782,315, 2–19–57, Cl. 250—40.

Entron, Inc.: *See*—
Diambra, Henry M., and Edlen. 2,782,379.

Entwistle, James, to the United States of America as represented by the United States Atomic Energy Commission. Pump cylinder assembly. 2,782,081, 2–19–57, Cl. 309—3.

Ericson, Walter M. Acoustical and air distributing ceiling construction. 2,781,557, 2–19–57, Cl. 20—4.

Esche, Delbert E. Sleeping device for motor vehicles. 2,782,068, 2–19–57, Cl. 296—23.

Espari, Alphonse A., and L. Paffumi, to Interstate Mfg. Corp. Rod-sawing machine. 2,781,573, 2–19–57, Cl. 29—69.

Essex Wire Corp.: *See*—
Schwennesen, Donald D. 2,782,283.

Esso Research and Engineering Co.: *See*—
Boer, George, O'Reilly, and True. 2,781,854.
Fischer, Wilbur F., and Bartlett. 2,782,177.
Kolfenbach, John J., Morway, and Smith. 2,782,166.
Maisel, Daniel S., and Goryl. 2,782,105.
Paulsen, Henry C., and Dowling. 2,782,146.
Rumble, Robert C. 2,781,852.
Rumble, Robert C., and Peters. 2,781,853.
Tutwiler, Thomas S. 2,782,167.

Estabrook, Mark R., to Barnes Drill Co. Honing machine. 2,781,616, 2–19–57, Cl. 51—184.3.

Etna Machine Co., The: *See*—
Sanner, Veryl H. 2,782,293.

Eureka Specialty Printing Co.: *See*—
Hanson, Helmer C. 2,781,840.

Evans, Arthur D., to Texas Instruments Inc. Temperature control. 2,782,246, 2–19–57, Cl. 13—24.

Evans, Charles T.: *See*—
Demmer, Adolph P., and Evans. 2,782,024.

FKG Fritz Kesselring Geratebau A. G.: *See*—
Kesselring, Fritz. 2,782,345.

Faber, Guy S. Blower. 2,781,963, 2–19–57, Cl. 230—134.

Fafnir Bearing Co., The: *See*—
Van Dorn, Horace B. 2,781,661.

Fagan, Roscoe. Collapsible bench. 2,782,075, 2–19–57, Cl. 304—2.

Fairweather, Starr W. Apparatus for refrigerating foodstuffs. 2,781,643, 2–19–57, Cl. 62—87.

Farbwerke Hoechst A. G. vormals Meister Lucius & Bruning: *See*—
Von Rosenberg, Guido, and Sauer. 2,782,124.

Fast, John E., & Co.: *See*—
Musgrave, William J. 2,782,134.

Fawick Flexi-Grip Co.: *See*—
East, James V. T. 2,782,035.

Fedde, George A., to Philco Corp. Phase error correction apparatus for color television indexing system. 2,782,252, 2–19–57, Cl. 178—5.4.

Federal-Mogul-Bower Bearings, Inc.: *See*—
Johnson, Lloyd A., Christensen, and Martin. 2,782,077.

Fenwal Inc.: *See*—
Cantlin, John H. 2,782,285.

Ferguson, Arthur D. Traction wheel construction. 2,781,813, 2–19–57, Cl. 152—208.

Ferguson, Lester E., to Kennedy-Van Saun Mfg. & Eng. Corp. Slugger roll crusher. 2,781,980, 2–19–57, Cl. 241—239.

Ferrar, Bernard. Armrest for steering gear. 2,781,828, 2–19–57, Cl. 155—198.

Ferris, Seymour W., to Sun Oil Co. Process of cracking. 2,782,145, 2–19–57, Cl. 196—66.

Fetters, Cecil R., to Libbey-Owens-Ford Glass Co. Preparing luminescent materials. 2,782,168, 2–19–57, Cl. 252—301.4.

Feyling, Per L. F., to J. W. Greer Co. Fluid flow control for gas burner. 2,781,833, 2–19–57, Cl. 158—114.

Fidelity Union Trust Co.: *See*—
Merlan, Ernst. 2,782,185.
Merlan, Ernst. 2,782,186.
Merlan, Ernst. 2,782,188.
Merlan, Ernst. 2,782,189.

Fillingame, John E., to National Geographic Society. Film box for photographic cameras. 2,781,690, 2–19–57, Cl. 88—24.

Finkelstein, William. Handle. 2,781,878, 2–19–57, Cl. 190—57.

Firma Patentverwertung W. Reimers, G. m. b. H.: *See*—
Kaerger, Fritz. 2,781,674.

Fischer, Arno. Turbine for driving a generator. 2,782,321, 2–19–57, Cl. 290—4.

Fischer, H. G., & Co.: *See*—
Kozinski, Joseph. 2,782,358.

Fischer, Howard R., and M. P. D'Haem, to Chicago Pneumatic Tool Co. Pneumatically powered hydraulic pump. 2,781,728, 2–19–57, Cl. 103—50.

Fischer, Karl A., and H. Sydow. Depolymerized alginic acid derivatives. 2,782,190, 2–19–57, Cl. 260—209.6.

Fischer, Paul W.: *See*—
Nowak, Theodore J., and Fischer. 2,781,850.

Fischer, Paul W., and J. W. Scheffel, to Union Oil Co. of California. Corrosion prevention. 2,782,164, 2–19–57, Cl. 252—8.55.

Fischer & Porter Co.: *See*—
Brewer, Nathaniel. 2,781,662.

Fischer, Wilbur F., and J. H. Bartlett, to Esso Research and Engineering Co. Acetal compounds as plasticizers for polymers. 2,782,177, 2–19–57, Cl. 260—33.2.

Fisher, James W.: *See*—
Hindley, Frank, and Fisher. 2,782,237.

Fisher, Joseph R., to Mine Safety Appliances Co. Molded protective hat. 2,781,517, 2–19–57, Cl. 2—3.

Fisher, Walter W., and C. E. Sohlgren, to Bendix Aviation Corp. Digital potentiometer for reflected binary code. 2,782,408, 2–19–57, Cl. 340—437.

Fitzgerald, Maurice, to Sho-Me, Inc. Hoppers. 2,782,011, 2–19–57, Cl. 259—6.

Fleming, David H., Jr.: *See*—
Aitchison, Robert B., Fleming, Inskeep, and Armstrong. 2,781,754.

Fletcher, Walter G., and P. F. Ashwood, to Power Jets (Research and Development) Ltd. Combustion apparatus and liquid fuel discharge apparatus adapted for use therewith. 2,781,638, 2–19–57, Cl. 60—39.74.

Flo-Mix Fertilizers Corp.: *See*—
Dugan, John W. 2,781,612.

Foggon, Wilfred R.: *See*—
Walker, Eric E., Foggon, Locke, and Shaw. 2,782,127.

Folberth, Frederick G.: *See*—
Folberth, William M., Jr., and F. G. 2,782,036.

Folberth, William M., Jr., and F. G. Arrow vanes. 2,782,036, 2–19–57, Cl. 273—106.5.

Foley, William J., to Westinghouse Electric Corp. Refrigeration apparatus defrosting control. 2,781,641, 2–19–57, Cl. 62—4.

Fontein, Freerk J., to Stamicarbon N. V. Process and apparatus for the separation of mixtures of solid particles. 2,781,906, 2–19–57, Cl. 209—172.5.

Fontein, Freerk J., to Stamicarbon N. V. Apparatus and process for the vortical separation of liquid suspensions. 2,781,907, 2–19–57, Cl. 209—211.

Fontein, Freerk J. Process of thickening suspensions or emulsions. 2,781,910, 2–19–57, Cl. 210—51.

Food Machinery and Chemical Corp.: *See*—
Greenspan, Frank P. 2,782,100.
Haines, George S., Heindel, and Meeker. 2,782,099.

Forbes, John K.: *See*—
Von Hagel, Ralph E., and Forbes. 2,781,838.

Ford Motor Co.: *See*—
Kirby, Thomas G., and Oster. 2,782,329.

Formis, Frederick K. Launcher for a toy aerial propeller. 2,781,753, 2–19–57, Cl. 124—16.

Forrest, Thomas E.: *See*—
Hauser, John M., and Forrest. 2,781,757.

Forster, Leslie G., to Forsters Machine Co. Ltd. Machine for collating biscuits and like thin articles for wrapping purposes. 2,781,887, 2–19–57, Cl. 198—35.

Forsters Machine Co. Ltd.: *See*—
Forster, Leslie G. 2,781,887.

Foster, John R., to T. M. M. (Research) Ltd. Textile combing machine. 2,781,556, 2–19–57, Cl. 19—116.

Foxboro Co., The: *See*—
Darling, Horace E. 2,782,346.
Howe, Wilfred H. 2,782,102.

Frederickson, Leo D., Jr.: *See*—
Darby, Joseph R., and Frederickson. 2,782,176.

Freeman, Henry B. Hammer with spring shank handle. 2,781,805, 2–19–57, Cl. 145—29.

Freeman, Louis G., Co., The: *See*—
Hoffman, Howard H. 2,781,532.

Freeport Sulphur Co.: *See*—
Brogdon, Vas H. 2,781,635.

Freese, Charles E.: *See*—
Lannan, Patrick E., and Freese. 2,782,290.

Frenger, Karl G. Panel for radiant heating or cooling systems. 2,782,006, 2–19–57, Cl. 257—124.

Fritsch, Walter: *See*—
Stranberg, Don F. 2,782,059.

Fulmer Research Institute Ltd.: *See*—
Brandes, Eric A., and Waterhouse. 2,781,636.

Furrer, John R., to ACF Industries Inc. Suspension for light weight vehicles. 2,781,731, 2–19–57, Cl. 105—210.

Fussman, Frederick, to Blaw-Knox Co. Cold recovery absorption system. 2,781,862, 2–19–57, Cl. 138—114.

Gabriel, Adam F., and A. G. Kozacka, to Acme Industrial Co. Non-rotating collet actuator. 2,782,044, 2–19–57, Cl. 279—4.

Gair, Robert, Co., Inc. *See*—
Weiss, Arthur J. 2,781,896.

Galandak, John, to Graver Tank & Mfg. Co., Inc. Clarifier construction. 2,781,911, 2–19–57, Cl. 210—55.

Gamble, Gordon L., and L. A. Jakus, to Bell Telephone Laboratories, Inc. Coaxial noise diode. 2,782,341, 2–19–57, Cl. 315—39.

Gamewell Co., The: *See*—
Weld, Foster E. 2,782,288.

Ganger, Harry. Combined miniature chum pot, lure and sinker. 2,781,603, 2–19–57, Cl. 43—41.

Gardes, Alfred W., to Indiana Commercial Filters Corp. Method of making filter cartridge. 2,781,619, 2–19–57, Cl. 53—13.

Gardner, Bernard C., to Raytheon Mfg. Co. Velocity modulated electron discharge devices. 2,782,334, 2–19–57, Cl. 313—82.

Garmaise, David L.: *See*—
McKay, Arthur F., and Garmaise. 2,782,205.

Garrison, Clifford L., to Oliver Instrument Co. Grinding apparatus. 2,781,614, 2–19–57, Cl. 51—100.

Gaston, Paul S. Supporting hinge brackets for drop leaves. 2,782,086, 2–19–57, Cl. 311—64.

Gaylord, James K., to Gaylord Products, Inc. Brake drum cooling device. 2,781,874, 2–19–57, Cl. 188—264.

Gaylord Products, Inc.: *See*—
Gaylord, James K. 2,781,874.

Geiger, Max, to Ciba Ltd. Process for the purification of acrylic acid nitrile. 2,782,148, 2–19–57, Cl. 202—39.5.

Geisler, Helmut J., to International Business Machines Corp. Glow discharge tube. 2,782,343, 2–19–57, Cl. 315—169.

Geissbuhler, John O., and W. W. Kirk, Jr., to General Electric Co. Light projection device. 2,782,297, 2–19–57, Cl. 240—41.3.

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Gerrets, Ludovic J.: *See*—
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Gerwig, Harvey F., to Weston Hydraulics, Ltd. Valve control linkage. 2,781,782, 2–19–57, Cl. 137—622.

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Gifford, Robert T., and S. Vernet, to Dicks-Pontius Co. Glazing construction. 2,781,561, 2–19–57, Cl. 20—69.

Gilbert, Everett E., J. A. Otto, and S. A. Pellerano, to Allied Chemical & Dye Corp. Herbicide. 2,782,112, 2–19–57, Cl. 71—2.6.

Gilliland, Lonnie A. Cotton choppers. 2,781,713, 2–19–57, Cl. 97—213.

Glakes, Willem, to Hartford National Bank and Trust Co., as trustee. Record player. 2,781,667, 2–19–57, Cl. 74—206.

Glatt, Remie W., to Utica Radiator Corp. Baseboard radiator. 2,782,007, 2–19–57, Cl. 257—133.

Glinka, Carl, to Buttner-Werke Aktiengesellschaft. Apparatus for the continuous lixivation, extraction or the like of vegetable matter. 2,782,104, 2–19–57, Cl. 23—270.

Gobel, Charles. Flowmeter. 2,781,660, 2–19–57, Cl. 73—215.

Göbel, Gerhard. Temperature regulator for room heating. 2,781,978, 2–19–57, Cl. 236—38.

Goepfrich, Rudolph A., to Bendix Aviation Corp. Brake drum. 2,781,873, 2–19–57, Cl. 188—264.

Goldberg, Edwin A., to Radio Corp. of America. Switching system. 2,782,303, 2–19–57, Cl. 250—27.

Goldhammer, Jerome S., and J. A. Maurer, Jr. Combined developer and fixer. 2,782,120, 2–19–57, Cl. 96—61.

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Gookin, Sylvester L., to United Shoe Machinery Corp. Machines for inserting spaced groups of tubular fasteners. 2,781,933, 2–19–57, Cl. 218—0.5.

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Graham, Edward K. P. Fastening device. 2,781,568, 2–19–57, Cl. 24—129.

Graham, William T. Apparatus for dispensing material beneath the shank of a ground-working tool. 2,781,733, 2–19–57, Cl. 111—7.

Grant, Dwight W., to Bell Telephone Laboratories, Inc. Magnetic amplifier circuits. 2,782,269, 2–19–57, Cl. 179—171.

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Gratzmuller, Jean L. Pressure regulating valves. 2,781,776, 2–19–57, Cl. 137—505.44.

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Gray, Kenneth R., and H. L. Crosby, to Rayonier Inc. Bark treatment process and product. 2,782,241, 2–19–57, Cl. 260—619.

Gray, Roland M., to United States Ceramic Tile Co. Process for making thin articles of polytetrafluoroethylene. 2,781,552, 2–19–57, Cl. 18—55.

Greene, Claude E., and W. V. Sturm, to The Monarch Machine Tool Co. Dual automatic cycle machine. 2,781,684, 2–19–57, Cl. 82—14.

Greenspan, Frank P., to Food Machinery and Chemical Corp. Method of improving stability of concentrated hydrogen peroxide in contact with stainless steel and aluminum alloys. 2,782,100, 2–19–57, Cl. 23—207.5.

Greer, Donald M., and J. L. Zink, to Armour and Co. Cheese manufacture. 2,782,122, 2–19–57, Cl. 99—116.

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Grimble, Donald O. Gunsight attachment. 2,781,583, 2–19–57, Cl. 33—47.

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Gulf Research & Development Co.: *See*—
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Guzman, Antonio. Curved-bolt door lock. 2,781,656, 2–19–57, Cl. 70—136.

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Haines, George S., F. D. Heindel, and C. C. Meeker, to Food Machinery and Chemical Corp. Preparation of barium hydroxide. 2,782,099, 2–19–57, Cl. 23—186.

Hallenbeck, Thomas L., and L. D. Ninneman, to Baker Brothers, Inc. Molding machine for resinous materials. 2,781,546, 2–19–57, Cl. 18—30.

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Hammond, Edmund B., Jr., to Sperry Rand Corp. Aircraft navigation instrument. 2,782,395, 2–19–57, Cl. 340—27.

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Handschin, Max G., and W. Spieser, to Promundo. Telephonograph. 2,782,255, 2–19–57, Cl. 179—6.

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Hanford, George W., to G. C. Hanford Mfg. Co. Device for collapsing tubes containing medicinal compounds. 2,781,951, 2–19–57, Cl. 222—103.

Hanson, Helmer C., to Eureka Specialty Printing Co. Stamp dispensing machine. 2,781,840, 2–19–57, Cl. 164—42.

Happe, Melvin J., and H. G. McCarty, to Sperry Rand Corp. Rake suspension for side delivery rake. 2,781,626, 2–19–57, Cl. 56—377.

Hardway, Edward V., Jr., to Consolidated Electrodynamics Corp. Electrokinetic-transducing devices. 2,782,394, 2–19–57, Cl. 340—13.

Harney, Bernard C., and F. D. Lakins, to Lipe-Rollway Corp. Automatic bar feed for multiple spindle bar working machines. 2,781,574, 2–19–57, Cl. 29—93.

Harrah, John L. Pistons and piston packing for internal combustion engines. 2,782,082, 2–19–57, Cl. 309—14.

Harrigan, Daniel W. Method of pulling a drill string. 2,782,004, 2–19–57, Cl. 255—1.8.

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Harvey, Mortimer T. 2,782,197.
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Harvey, George C., to Slack & Parr (Marine) Ltd. Hydraulically operated variable pitch marine screw propeller. 2,781,857, 2–19–57, Cl. 170—160.32.

Harvey, Mortimer T., to Harvel Research Corp. Method of halogenating thiourea diacetone alcohol derivatives. 2,782,196, 2–19–57, Cl. 260—251.

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Haucke, Oswin. Wheel aligner. 2,781,587, 2–19–57, Cl. 33—203.15.

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Havens, Byron L., and C. R. Borders, to International Business Machines Corp. Digital information register. 2,782,305, 2–19–57, Cl. 250—27.

Hayes, Lester P., and H. Wolff, to A. E. Staley Mfg. Co. Refining vegetable oils. 2,782,216, 2–19–57, Cl. 260—424.

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Heckman, Edward A., and W. J. Tesche, to Western Electric Co., Inc. Automatic elevator for dryer. 2,781,590, 2–19–57, Cl. 34—45.

Hedtke, Robert G., to Minneapolis-Moline Co. Tensioning means for hay balers. 2,781,719, 2–19–57, Cl. 100—19.

Hefner, Robert E., and M. E. Pruitt, to The Dow Chemical Co. Ethers of polyoxyalkylene glycols. 2,782,240, 2–19–57, Cl. 260—613.

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Heller, George L., to Columbian Carbon Co. Manufacture of carbon black. 2,782,101, 2–19–57, Cl. 23—209.4.

Henderson, Robert E., to The Goodyear Tire & Rubber Co. Production of dry N,N-diisopropyl-2-benzothiazolesulfenamide. 2,782,202, 2–19–57, Cl. 260—306.6.

Henrikson, Oscar W., and F. E. Wood, to Automatic Electric Laboratories, Inc. Ship service telephone mounting. 2,782,261, 2–19–57, Cl. 179—100.

Herbst, John A., to Bogue Electric Mfg. Co. Fail-safe servo system. 2,782,347, 2–19–57, Cl. 318—29.

Herndon, Walter B., to General Motors Corp. Torque wrench driven by fluid coupling. 2,781,682, 2–19–57, Cl. 81—52.4.

Herr, Charles H., Jr., and G. O. Christensen, to Allis-Chalmers Mfg. Co. Hydraulic steering mechanism for joined vehicles. 2,781,860, 2–19–57, Cl. 180—79.2.

Herzog, Gerhard, to The Texas Co. Radioactivity earth exploration. 2,782,318, 2–19–57, Cl. 250—71.

Hess, Lawrence G., and H. W. Schulz, to Union Carbide and Carbon Corp. Hydrogenation of esters. 2,782,243, 2–19–57, Cl. 260—638.

Hetherington, Alexander C., and W. O. Teeters, to The M. W. Kellogg Co. Dispersions of perfluorocarbon polymers. 2,782,174, 2–19–57, Cl. 260—29.6.

Heusser, Hans, O. Jeger, and L. Ruzicka, to Ciba Pharmaceutical Products, Inc. 14-methyl pregnenes and method. 2,782,212, 2–19–57, Cl. 260—397.45.

Hewson, Andrew J. Pistons. 2,782,083, 2–19–57, Cl. 309—14.

Heyer, Benjamin F., and J. W. Horton. 6-12 volt battery tester. 2,782,357, 2–19–57, Cl. 320—14.

Heyer, Don, to International Pneumatic Corp. Motion picture reproducing apparatus. 2,781,689, 2–19–57, Cl. 88—18.7.

Heyman, Moses D. Integrated mica oil-impregnated sheet. 2,781,819, 2–19–57, Cl. 154—2.6.

Hibbard, George J. Automobile storage elevator. 2,781,922, 2–19–57, Cl. 214—16.1.

Higonnet, Rene A., and L. M. Moyroud, to Graphic Arts Research Foundation, Inc. Photographic composing apparatus. 2,781,706, 2–19–57, Cl. 95—4.5.

Hill, Rutherford B., and H. W. Kilbourne, to Monsanto Chemical Co. Reinforced rubber articles. 2,782,139, 2–19–57, Cl. 154—52.

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Hironimus, Walter C., to Wilcox-Gay Corp. Tone arm with a cutting and play-back needle. 2,782,042, 2–19–57, Cl. 274—23.

Hirst, Archie J., to Metalastik Ltd. Resilient suspensions for vehicle axle boxes or casings. 2,782,026, 2–19–57, Cl. 267—3.

Hirvonen, Eric J., to Leland-Gifford Co. Brake or stop mechanism. 2,781,672, 2–19–57, Cl. 74—531.

Hittle, Herbert W., and W. H. Dearborn, Jr., to Radio Corp. of America. Taping machine. 2,781,932, 2–19–57, Cl. 216—9.

Hobbs, John F., and N. B. Muir, to Imperial Chemical Industries Ltd. Apparatus for the continuous casting of metals. 2,781,562, 2–19–57, Cl. 22—57.2.

Hoehn, John J., and F. B. Hills, to Radio Corp. of America. Magnetic recording and reproducing apparatus. 2,782,263, 2–19–57, Cl. 179—100.2.

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Hoffman, Howard H., to The Louis G. Freeman Co. Process and apparatus for lacing leather. 2,781,532, 2–19–57, Cl. 12—51.

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Holin, William F., to General Motors Corp. Slack adjusting connection. 2,781,872, 2–19–57, Cl. 188—202.

Holopainen, Vaino J., to Wain-Roy Corp. Stabilizing apparatus. 2,781,927, 2–19–57, Cl. 214—138.

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House, Bryan E., to Rockwell Spring and Axle Co. Brake assembly. 2,781,868, 2–19–57, Cl. 188—78.

Howard, John P. Wall paper remover. 2,781,755, 2–19–57, Cl. 126—271.1.

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Huff, George F., to Callery Chemical Co. Production of aminodiboranes. 2,782,236, 2–19–57, Cl. 260—583.

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Hulot, Georges, and A. Birman, to Society d'Etudes Chimiques pour l'Industrie et l'Agriculture. Process for the production of alkali metal bicarbonates. 2,782,093, 2–19–57, Cl. 23—64.

Husted, Donald R., and A. H. Ahlbrecht, to Minnesota Mining & Mfg. Co. N,N-bis (1,1-dihydroperfluoroalkyl) acylamides and polymers thereof. 2,782,184, 2–19–57, Cl. 260—89.7.

Hutchins, Allan S., to Crompton & Knowles Loom Works. Quill check for narrow ware loom. 2,781,790, 2–19–57, Cl. 139—136.

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Iannelli, Frank M. Carbonating apparatus. 2,782,016, 2–19–57, Cl. 261—70.

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Immel, Ralph B., to Westinghouse Electric Corp. Snap-action switch. 2,782,277, 2–19–57, Cl. 200—67.

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International Business Machines Corp.: *See*—
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International Pneumatic Corp.: *See*—
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International Standard Electric Corp.: *See*—
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Isom, Warren R., to Radio Corp. of America. Reeling system. 2,781,982, 2–19–57, Cl. 242—55.

Jackson, John H., to The C. O. Jelliff Mfg. Corp. Heat treatment of resistor alloys. 2,782,137, 2–19–57, Cl. 148—21.9.

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Jacobs, James W., to General Motors Corp. Automobile cooling. 2,781,642, 2–19–57, Cl. 62—4.

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Jakus, Lyle A.: *See*—
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Jefferson, E. S.: *See*—
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Jeffords, Roy L.: *See*—
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Jeffrey Mfg. Co., The: *See*—
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Mercier, Stanley M. 2,781,890.

Jeger, Oskar: *See*—
Heusser, Hans, Jeger, and Ruzicka. 2,782,212.

Jelliff, C. O., Mfg. Corp., The: *See*—
Jackson, John H. 2,782,137.

Jennings, Frank C., to Emhart Mfg. Co. Apparatus for assembling the elements of liquid-dispensing containers. 2,781,576, 2–19–57, Cl. 29—235.

Johannesson, Nils-Olof, and D. B. H. Lundvall, to Telefonaktiebolaget L M Ericsson. Four-terminal impedance network with variable attenuation. 2,782,378, 2–19–57, Cl. 333—28.

Johnson, Chester W., and C. T. Keogh. Fluid pump. 2,781,729, 2–19–57, Cl. 103—120.

Johnson, Clarence W. Gate valve. 2,781,787, 2–19–57, Cl. 138—94.5.

Johnson, Edward O., and W. M. Webster, Jr., to Radio Corp. of America. Phototube circuit. 2,782,320, 2–19–57, Cl. 250—214.

Johnson, Erik A.: *See*—
Stalhandske, David G., and Johnson. 2,781,585.

Johnson, Henry E., and C. M. Hatle. Straightening tool for upper control arm. 2,781,679, 2–19–57, Cl. 81—15.

Johnson, Henry E., and C. M. Hatle. Upper control arm straightener. 2,781,680, 2–19–57, Cl. 81—15.

Johnson, Lloyd A., D. A. Christensen, and A. D. Martin, to Federal-Mogul-Bower Bearings, Inc. Mechanical journal lubricators. 2,782,077, 2–19–57, Cl. 308—91.

Johnson, Merriam E.: *See*—
Warren, Horace G., and Johnson. 2,781,588.

Johnson, William T. M., to E. I. du Pont de Nemours and Co. Methyl methacrylate lacquer coated metal article and process therefor. 2,782,131, 2–19–57, Cl. 117—74.

Johnson, William T. M., to E. I. du Pont de Nemours and Co. Methyl methacrylate lacquer coated metal article and process therefor. 2,782,132, 2–19–57, Cl. 117—74.

Johnston, Leith, and R. C. Stiles, to Automatic Electric Laboratories, Inc. Tape measuring device for a teletypewriter message storing unit. 2,782,254, 2–19–57, Cl. 178—17.

Joint Saw Co.: *See*—
Lewis, William H. 2,782,017.

Jones, David G., to Imperial Chemical Industries Ltd. Production of terephthalic acid, esters or acid esters. 2,782,225, 2–19–57, Cl. 260—475.

Jones, Donald R.: *See*—
Weiss, William J., and Jones. 2,782,405.

Jones, Edwin A., to Interlake Iron Corp. Process of producing silvery iron. 2,782,119, 2–19–57, Cl. 75—129.

Jordan, Richard H. Time switch. 2,782,271, 2–19–57, Cl. 200—27.

Jörgensen, Anders O.: *See*—
Tunberg, Gustav V., Jörgensen, Parschin, and Edman. 2,781,817.

Joslyn, James W., to The Sandy Hill Iron & Brass Works. Cylinder paper machine. 2,781,699, 2–19–57, Cl. 92—43.

Joslyn, James W., to The Sandy Hill Iron & Brass Works. Paper machine. 2,781,700, 2–19–57, Cl. 92—43.

Julliis, Albert G., to Senco Products, Inc. Staple feed magazine. 2,781,515, 2–19–57, Cl. 1—49.

Kabell, Louis J., to Radio Corp. of America. Frequency controlled oscillator. 2,782,310, 2–19–57, Cl. 250—36.

Kachnik, Anton J. Railroad coaster. 2,782,079, 2–19–57, Cl. 308—180.

Kaerger, Fritz, to Firma Patentverwertung W. Reimers, G. m. b. H. Infinitely variable driving mechanism. 2,781,674, 2–19–57, Cl. 74—665.

Kaiser Steel Corp.: *See*—
Puttman, Ernest G. 2,781,923.

Kamlet, Jonas, to The Goodyear Tire & Rubber Co. Process for the manufacture of aliphatic dinitriles. 2,782,157, 2–19–57, Cl. 204—72.

Kaufman, Sidney, to Shell Development Co. Analog computer. 2,781,970, 2–26–57, Cl. 235—61.

Keller, Wayne H.: *See*—
Spedding, Frank H., Wilhelm, and Keller. 2,782,116.

Kelley, Oliver K., and J. W. Qualman, to General Motors Corp. Vehicle driving and steering transmission and hydraulic control therefor. 2,781,858, 2–19–57, Cl. 180—6.7.

Kellogg, M. W., Co., The: *See*—
Hetherington, Alexander C., and Teeters. 2,782,174.

Kelvin & Hughes Ltd.: *See*—
Wright, Gordon P. 2,782,078.

Kendrick, Marron: *See*—
Schlage, Ernest L., and Kendrick. 2,781,940.

Kennedy-Van Saun Mfg. & Eng. Corp.: *See*—
Ferguson, Lester E. 2,781,980.

Keogh, Clarence T.: *See*—
Johnson, Chester W., and Keogh. 2,781,729.

Kesselring, Fritz, to FKG Fritz Kesselring Geratebau A. G. Alternating current switching device. 2,782,345, 2–19–57, Cl. 317—11.

Kidd, Kenneth B. Measuring dispenser for granular materials. 2,781,955, 2–19–57, Cl. 222—436.

Kilbourne, Harry W.: *See*—
Hill, Rutherford B., and Kilbourne. 2,782,139.

Kilgore, George R., to Radio Corp. of America. Magnetron. 2,782,342, 2–19–57, Cl. 315—39.57.

Kilheffer, Lawrence D., and J. L. Hagemeyer, to The National Cash Register Co. Selectively programmed perforating apparatus. 2,781,847, 2–19–57, Cl. 164—113.

Killman, Robert T., to Bendix Aviation Corp. Illuminated dials. 2,781,737, 2–19–57, Cl. 116—124.4.

Kimball, John W. Trigger mechanism for a semiautomatic firearm. 2,781,697, 2–19–57, Cl. 89—144.

Kimmel, William E., and C. Darwin, to Crompton & Knowles Loom Works. Weft replenishing loom. 2,781,792, 2–19–57, Cl. 139—232.

Kimmel, William E., to Crompton & Knowles Loom Works. Pick and pick loom. 2,781,793, 2–19–57, Cl. 139—232.

Kindig, Arnie, to The Jeffrey Mfg. Co. Belt supporting and aligning structures. 2,781,670, 2–19–57, Cl. 74—241.

Kindl, Frank J., to The W. J. Schoenberger Co. Gas range burner control. 2,781,779, 2–19–57, Cl. 137—599.

King, Robert A., to Union Oil Co. of California. Absorption process. 2,782,141, 2–19–57, Cl. 196—8.

King-Seeley Corp.: *See*—
Boddy, Leonard. 2,782,401.

Kirby, Thomas G., and T. H. Oster, to Ford Motor Co. Dynamotor. 2,782,329, 2–19–57, Cl. 310—138.

Kirk, Robert E., to General Motors Corp. Waterproof line connector. 2,782,391, 2–19–57, Cl. 339—211.

Kirk, William W., Jr.: *See*—
Geissbuhler, John O., and Kirk. 2,782,297.

Klein, David X., and W. V. Wirth, to the United States of America as represented by the United States Atomic Energy Commission. Recovery of metal salts from mixtures. 2,782,092, 2–19–57, Cl. 23—14.5.

Klemt, Gunter, to Jos. Schneider & Co. Optical system with large effective image angle. 2,781,695, 2–19–57, Cl. 88—57.

Knabusch, Edward M., and E. J. Shoemaker, to La-Z-Boy Chair Co. Reclining chair. 2,781,823, 2–19–57, Cl. 155—106.

Knocke, Louis T., to Chrysler Corp. Assembly comprising calibrated bolt and calibrated deformable conical washer. 2,781,687, 2–19–57, Cl. 85—62.

Knutsen, Knut A., to Compagnie des Machines Bull (Societe Anonyme). Arrangement for checking the transcription of numerals on documents. 2,781,971, 2–19–57, Cl. 235—61.7.

Kobe, Kenneth A. Apparatus for submerged combustion of liquid fuels. 2,781,756, 2–19–57, Cl. 126—360.

Koehler, Robert B., and R. K. Richards, to International Business Machines Corp. Self-complementing gas counter tube. 2,782,336, 2–19–57, Cl. 313—106.

Köhler, Jacob W. L., and A. T. Bloem, to Hartford National Bank and Trust Co., as trustee. Cold-gas refrigerator. 2,781,647, 2–19–57, Cl. 62—136.

Kolfenbach, John J., A. J. Morway, and P. V. Smith, Jr., to Esso Research and Engineering Co. Ester base lubricating greases. 2,782,166, 2–19–57, Cl. 252—42.1.

Kolier, Ernst. Apparatus for fixing a structural element to a frame bar. 2,781,681, 2–19–57, Cl. 81—15.

Koppelmann, Floris, to Licentia Patent-Verwaltungs-G. m. b. H. Adjustable contact converter. 2,782,359, 2–19–57, Cl. 321—48.

Korber, Kurt, & Co. K.-G.: *See*—
Stelzer, Carl. 2,781,886.

Kozacka, Arthur G.: *See*—
Gabriel, Adam F., and Kozacka. 2,782,044.

Kozlnski, Joseph, to H. G. Fischer & Co. Power supply. 2,782,358, 2–19–57, Cl. 321—16.

Kraft, El Roy J., to The Dole Valve Co. Thermo-magnetic refrigerant valve. 2,781,979, 2–19–57, Cl. 236—48.

Krakora, James J., Jr., to Motorola Inc. Pilot light switch. 2,782,406, 2–19–57, Cl. 340—258.

Krause, Björn O. Microscope slide holder. 2,781,692, 2–19–57, Cl. 88—40.

Krausse, Spott C.: *See*—
Scholz, Charles F., and Krausse. 2,782,298.

Kremer, Gilbert H. V.: *See*—
Lantz, Robert L., and Kremer. 2,782,235.

Krieger, William C. Collapsible and portable outdoor shelter. 2,781,766, 2–19–57, Cl. 135—4.

Krikorian, Albert P. Chair. 2,781,822, 2–19–57, Cl. 155—106.

Kulig, Constantine W., to Emhart Mfg. Co. Apparatus for assembling liquid dispensing container elements. 2,781,575, 2–19–57, Cl. 29—235.

Kunz, Rudolph A., Jr. Stacking machine. 2,781,702, 2–19–57, Cl. 93—93.

Kuzmack, John A., to I-T-E Circuit Breaker Co. Starting circuit for mechanical rectifiers. 2,782,380, 2–19–57, Cl. 321—48.

Labbee, Joseph A., Jr., deceased; K. G. Labbee, administratrix. Expanding bit screw driver. 2,781,807, 2–19–57, Cl. 145—50.

Labbee, Katherine G.: *See*—
Labbee, Joseph A., Jr. 2,781,807.

La Bonte, Joseph G., and D. D. Chase, III. Hoist line grapple for handling logs. 2,782,067, 2–19–57, Cl. 294—113.

Labus, Otto A., to The Trane Co. Unit heating and ventilating apparatus. 2,781,714, 2–19–57, Cl. 98—38.

Labus, Otto A., to The Trane Co. Air diffusing device. 2,781,715, 2–19–57, Cl. 98—40.

Lakeside Laboratories, Inc.: *See*—
Biel, John H. 2,782,194.

Lakins, Franklin D.: *See*—
Harney, Bernard C., and Lakins. 2,781,574.

Lamb, Francis X., to Weston Electrical Instrument Corp. Electrical instrument. 2,782,371, 2–19–57, Cl. 324—156.

Lambert, Harry L., to Royal McBee Corp. Tilt compensator for typewriter or like machine carriages. 2,781,884, 2–19–57, Cl. 197—82.

Landdeck, Roland, to Enger-Kress Co. Stitchless billfolds. 2,781,810, 2–19–57, Cl. 150—38.

Landis & Gyr, A. G.: *See*—
Pudelko, Richard, and Tobler. 2,781,975.

Landis Machine Co.: *See*—
Eigenbrode, Glenn S. 2,781,586.

Landry, Henry J. Convertible crib and play-yard constructions. 2,781,527, 2–19–57, Cl. 5—99.

Lanman, Patrick E., and C. E. Freese, to Westinghouse Electric Corp. Temperature responsive control device. 2,782,290, 2–19–57, Cl. 219—20.

Lantz, Robert L., and G. H. V. Kremer, to Compagnie Francaise des Matieres Colorantes. Preparation of C-nitrosodiarylamines. 2,782,235, 2–19–57, Cl. 260—576.

Larson, Adolph J., to Contur Abrasive Co., Inc. Abrasive articles and holders therefor. 2,781,618, 2–19–57, Cl. 51—197.

Lautz, Carl F.: *See*—
Boehm, Eric G., and Lautz. 2,781,869.

Lawrence, James C.: *See*—
Phillips, William I., and Lawrence. 2,781,535.

Lawson, Ivar S. Device for making measured indications on metal ribbon. 2,781,816, 2–19–57, Cl. 153—2.

Lay, Samuel C. Broom. 2,781,538, 2–19–57, Cl. 15—174.

La-Z-Boy Chair Co.: *See*—
Knabusch, Edward M., and Shoemaker. 2,781,823.

Leathercraft, Inc.: *See*—
Wolf, Walter J. 2,781,809.

Leck, George W., to Radio Corp. of America. Frequency modulation with gas cell control. 2,782,374, 2–19–57, Cl. 332—19.

Ledgerwood, Joe. Mailbox structure. 2,781,964, 2–19–57, Cl. 232—17.

Ledinegg, Max, to Simmering-Graz-Pauker Aktiengesellschaft für Maschinen-, Kessel- und Waggonbau. Gas-turbine. 2,782,000, 2–19–57, Cl. 253—39.15.

Lee, Cornelia D. Child's coaxer feeding vessel. 2,781,650, 2–19–57, Cl. 65—15.

Lee, Donald H., to Burroughs Corp. Magnetic switching element driver circuits. 2,782,324, 2–19–57, Cl. 307—88.

Le Febvre, Alfred L., and H. D. Rice, to Stanley Home Products, Inc. Construction for brush or the like. 2,781,537, 2–19–57, Cl. 15—146.

Lehmann, J. M., Co., Inc.: *See*—
Linden, Gosta R. 2,781,541.

Leland-Gifford Co.: *See*—
Hirvonen, Eric J. 2,781,672.

Leleu, Jean: *See*—
Séon, Marius, and Leleu. 2,782,226.

Lenherr, Chester P., to White Castle System, Inc. Apparatus for producing rounded dough bodies for the formation of bakery rolls and buns. 2,781,732, 2–19–57, Cl. 107—4.

Lepetit S. p. A.: *See*—
Weitnauer, Gustav A. 2,782,203.

Lerch, Loren W.: *See*—
Robins, Erford E., Lerch, and Parker. 2,782,331.

Le Szen, Anastasia S. Reweaving needles. 2,781,957, 2–19–57, Cl. 223—102.

Lewandowski, Edward A. Fishing rod holder. 2,781,958, 2–19–57, Cl. 224—5.

Lewis, Dola T., ½ to U. Lewis. Latch mechanism. 2,781,567, 2–19–57, Cl. 24—128.

Lewis, Donald B., to General Motors Corp. Air cleaner. 2,781,861, 2–19–57, Cl. 183—15.

Lewis, Herbert O., to Collins Radio Co. Peak voltage regulator. 2,782,362, 2–19–57, Cl. 323—45.

Lewis, Uzzell: *See*—
Lewis, Dola T. 2,781,567.

Lewis, William G.: *See*—
Crumrine, Herbert E., Lewis, and Mayo. 2,781,705.

Lewis, William H., to Joint Saw Co. Pavement cutting apparatus. 2,782,017, 2–19–57, Cl. 262—20.

Li, Yao T. Motion transmitting means for pressure devices. 2,781,665, 2–19–57, Cl. 74—18.1.

Libbey-Owens-Ford Glass Co.: *See*—
Fetters, Cecil R. 2,782,168.

Licentia Patent-Verwaltungs-G. m. b. H.: *See*—
Koppelmann, Floris. 2,782,359.

Liddell, Robert W., Jr., to Hagan Corp. Method of treating sea water. 2,782,162, 2–19–57, Cl. 210—23.

Lidov, Rex E.: *See*—
Bluestone, Henry, Soloway, Hyman, and Lidov. 2,782,238.

Liebig, Edward O., to Baker & Co., Inc. Dental prosthetic device. 2,781,579, 2–19–57, Cl. 32—5.

Liebig, Edward O., to Baker & Co., Inc. Dental prosthetic device. 2,781,580, 2–19–57, Cl. 32—5.

Lindberg, Edward J. Dynamo electric generators. 2,782,328, 2–19–57, Cl. 310—112.

Linden, Gosta R., to J. M. Lehmann Co., Inc. Adjustments of a scraper blade in a roller mill. 2,781,541, 2–19–57, Cl. 15—256.5.

Lindsay, Griffith W., to Buckeye Iron & Brass Works. Vertical vent fitting. 2,781,941, 2–19–57, Cl. 220—44.

Lindstaedt, Frank F., S. A. Melbostad, and F. S. Wright; said Melbostad assor. to said Lindstaedt. Bag filling and weighing machine. 2,781,994, 2–19–57, Cl. 249—46.

Lindström, Helge E.: *See*—
Alexandersson, Harald V., and Lindström. 2,782,410.

Lines, Jerry J. Swivel sander. 2,781,617, 2–19–57, Cl. 51—195.

Lints, Ronald V.: *See*—
Ness, Irving S., Lints, and Petterson. 2,782,130.

Lipe-Rollway Corp.: *See*—
Harney, Bernard C., and Lakins. 2,781,574.

Lisciani, Constantine, to The Protectoseal Co. Pressure relief valve structure. 2,781,778, 2–19–57, Cl. 137—540.

Little, John D.: *See*—
Du Rose, Arthur H., and Little. 2,782,152.
Du Rose, Arthur H., and Little. 2,782,153.
Du Rose, Arthur H., and Little. 2,782,154.
Du Rose, Artubr H., and Little. 2,782,155.

Löbbe, Wilhelm, to Gewerkschaft Eisenhutte Westfalia. Flexible conveyor having successively shiftable sections for long face mining. 2,781,888, 2–19–57, Cl. 198—109.

Locke, Ronald S.: *See*—
Walker, Eric E., Foggon, Locke, and Shaw. 2,782,127.

Lockwood, Arlie F. Magnetic tank patching device. 2,781,939, 2–19–57, Cl. 220—24.

Long, Daniel S. Splash guard flap for automotive vehicles. 2,782,053, 2–19–57, Cl. 280—154.5.

Long, George B., to General Motors Corp. Domestic appliance. 2,782,292, 2–19–57, Cl. 219—35.

Lontz, John F., to E. I. du Pont de Nemours and Co. Process for preparing polytetrafluoroethylene-asbestos compositions. 2,782,179, 2–19–57, Cl. 260—41.

Lord, John G., to Shell Development Co. Material handling mechanism for lift trucks. 2,782,065, 2–19–57, Cl. 294—87.

Lord, John G., to Shell Development Co. Jaw construction for lift trucks. 2,782,066, 2–19–57, Cl. 294—99.

Lorenz, Anton. Article of respose for supporting the body of a person. 2,781,824, 2–19–57, Cl. 155—106.

Lorenz, Anton. Article of repose for supporting the body of a person. 2,781,825, 2–19–57, Cl. 155—106.

Loveland, Wallace W. Beverage holder. 2,781,959, 2–19–57, Cl. 224—29.

Lo Vico, Salvatore A. Hammock. 2,781,528, 2–19–57, Cl. 5—122.

Luhn, Hans P., to International Business Machines Corp. Motor driven precision positioning device. 2,782,348, 2–19–57, Cl. 318—39.

Lundgren, Sven I.: *See*—
Ahlberg, Lars F. B., and Lundgren. 2,781,845.

Lundvall, Dan B. H.: *See*—
Johannesson, Nils-Olof, and Lundvall. 2,782,378.
Stålemark, Fritz R. V., and Lundvall. 2,782,258.

Lyman, George W., and G. W. Bibber, to Reed Rolled Thread Die Co. Resiliently mounted form rolling device. 2,781,677, 2–19–57, Cl. 80—6.

Lyman, Wallace R., to Westinghouse Electric Corp. Water cooler apparatus. 2,781,648, 2–19–57, Cl. 62—141.

MacHenry, Richard, to American Viscose Corp. Abraded-yarn production. 2,781,555, 2–19–57, Cl. 19—64.

MacNeill, John H.: *See*—
West, Charles F., De Turk, and MacNeill. 2,782,398.

Madden, James J., and E. E. Sumner, to Bell Telephone Laboratories, Inc. Punch selector. 2,781,846, 2–19–57, Cl. 164—112.

Magnuski, Henry: *See*—
Dyke, Edwin, and Magnuski. 2,782,300.

Magnuson, Roy M. Process of weight filling of containers. 2,781,993, 2–19–57, Cl. 249—18.

Magnuson, Roy M., and T. J. Smith; said Smith assor. to said Magnuson. Apparatus for weight filling of containers. 2,781,995, 2–19–57, Cl. 249—59.

Mahoney, Donald G., to General Motors Corp. Material handling apparatus. 2,781,952, 2–19–57, Cl. 222—168.

Mainardi, Marcus N.: *See*—
Mainardi, Pompey and M. N. 2,781,691.

Mainardi, Pompey and M. N. Stereoscopic viewer with coupled picture and ocular adjusting means. 2,781,691, 2–19–57, Cl. 88—29.

Maisel, Daniel S., and W. M. Goryl, to Esso Research and Engineering Co. Furnace for activating coke. 2,782,105, 2–19–57, Cl. 23—277.

Majeske, Henry L., to American Screen Products Co. Spring hinge. 2,781,543, 2–19–57, Cl. 16—180.

Malthaner, William A., to Bell Telephone Laboratories, Inc. Timing circuits. 2,782,256, 2–19–57, Cl. 179—7.1.

Maly, George P., and J. R. Brown, to Union Oil Co. of California. Well fluid sampling device. 2,781,663, 2–19–57, Cl. 73—151.

Mammen, Howard E.: *See*—
Bloch, Herman S., and Mammen. 2,781,863.

Mann, Alfred K., E. P. Ney, and L. B. Snoddy, to the United States of America as represented by the Secretary of the Navy. Electro-hydraulic servo mechanism for control of roll, pitch and yaw of a guided missile. 2,781,743, 2–19–57, Cl. 121—41.

Mannheimer, David, to Sperry Rand Corp. Motor control system. 2,782,356, 2–19–57, Cl. 318—331.

Marchant, Rodney H. Flushing system. 2,781,519, 2–19–57, Cl. 4—31.

Marrison, Warren A., to Bell Telephone Laboratories, Inc. High precision frequency standards. 2,782,313, 2–19–57, Cl. 250—36.

Marsh, Hugh P.: *See*—
Marsh, Lester R. and H. P. 2,782,396.

Marsh, Lester R. and H. P. Burglar alarm system for automobiles. 2,782,396, 2–19–57, Cl. 340—63.

Marshall, John T., and C. O. Weisenbach, to Bendix Aviation Corp. Pump apparatus. 2,781,727, 2–19–57, Cl. 103—11.

Marshall, Leonard J.: *See*—
Armacost, Wilbur H., and Marshall. 2,781,746.

Martin, Antone D.: *See*—
Johnson, Lloyd A., Christensen, and Martin. 2,782,077.

Martin, Helen E. Educational game. 2,782,039, 2–19–57, Cl. 273—137.

Martin, Paul M. Submarine Cable. 2,782,249, 2–19–57, Cl. 174—70.

Martin, Ulyan A.: *See*—
White, Robert C., and Martin. 2,781,685.

Maschek, Adrian M., and C. Hartline, ⅛ to L. J. Gerrets. Bumper hitch for trailer. 2,782,055, 2–19–57, Cl. 280—502.

Massey-Harris-Ferguson (Sales) Ltd.: *See*—
McNeice, James C., and Patterson. 2,781,928.

Mathisen, Anders, ½ to Graviner Mfg. Co. Ltd., and ½ to The Wilkinson Sword Co. Electrical power supply apparatus. 2,782,402, 2–19–57, Cl. 340—213.

Matter, Albert J. Card shuffler and tray. 2,782,040, 2–19–57, Cl. 273—149.

Maurer, John A., Jr.: *See*—
Goldhammer, Jerome S., and Maurer. 2,782,120.

Mavity, Julian M., to Universal Oil Products Co. Etherification of hydroxyaromatic compounds. 2,782,239, 2–19–57, Cl. 260—613.

Maxant, William T., C. De Paul, and B. M. Zeldis, to Chandler Machine Co. Button sewing machines. 2,781,734, 2–19–57, Cl. 112—114.

Mayer, Herbert. Table lighter. 2,781,652, 2–19–57, Cl. 67—4.1.

Mayo, Clyde R.: *See*—
Crumrine, Herbert E., Lewis, and Mayo. 2,781,705.

Mayo, Clyde R., and E. R. Sabel, to The Haloid Co. Xerographic copier. 2,781,704, 2–19–57, Cl. 95—1.7.

McAlpine, Kenneth B., and D. W. Rinehart, to Pittsburgh Plate Glass Co. Radiation detection. 2,782,319, 2–19–57, Cl. 250—83.

McCandless, William. Speedometer driving means. 2,782,020, 2–19–57, Cl. 264—2.

McCarthy, Lawrence A., to Western Electric Co., Inc. Calibrating machine. 2,782,368, 2–19–57, Cl. 324—62.

McCarty, Horace G.: *See*—
Happe, Melvin J., and McCarty. 2,781,626.

McDonnell, Leo G. Fishing rod support. 2,781,600, 2–19–57, Cl. 43—15.

McGovern, Bernard J., S. P. Skoll, and C. Witt, to Mojonnier Bros. Co. Milk pumping apparatus. 2,781,798, 2–19–57, Cl. 141—25.

McGraw Electric Co.: *See*—
Butler, Charles E. 2,782,125.
Butler, Charles E., and Hazelwood. 2,782,126.

McGraw, George P., Jr. to Western Electric Co., Inc. Strip winding apparatus. 2,781,983, 2–19–57, Cl. 242—55.

McIntire, Robert L.: *See*—
Bearer, Louis C., and McIntire. 2,782,106.

McKay, Arthur F., and D. L. Garmaise, to Monsanto Canada Ltd. Imidazole derivatives. 2,782,205, 2–19–57, Cl. 260—309.6.

McKee, Abner S., ½ to D. J. McKee. Snow removing machine. 2,781,592, 2–19–57, Cl. 37—12.

McKee, David J.: *See*—
McKee, Abner S. 2,781,592.

McLean, Ralph M., Jr., to Standard Railway Equipment Mfg. Co. Wheel hold-down device. 2,781,615, 2–19–57, Cl. 51—104.

McNaney, Joseph T., to Bendix Aviation Corp. Ground controlled aircraft landing system. 2,782,411, 2–19–57, Cl. 343—7.3.

McNeice, James C., and A. Patterson, to Massey-Harris-Ferguson (Sales) Ltd. Tip scoop. 2,781,928, 2–19–57, Cl. 214—140.

Meagher, John R.: *See*—
Coate, Ralph S., and Meagher. 2,782,380.

Mears, Max H. Pocket type cigarette extinguisher and saver. 2,781,762, 2–19–57, Cl. 131—256.

Meeker, Chester C.: *See*—
Haines, George S., Heindel, and Meeker. 2,782,099.

Meijer, Roelf J., to Hartford National Bank and Trust Co., as trustee. Device for circulating a medium in a reciprocating engine. 2,781,632, 2–19–57, Cl. 60—24.

Melbostad, Selmer A.: *See*—
Lindstaedt, Frank F., Melbostad, and Wright. 2,781,994.

Menser, Henry E., R. L. Jeffords, and C. O. Vancil, ¼ to C. Anderson. Pipe handling apparatus. 2,781,930, 2–19–57, Cl. 214—340.

Mercier, Stanley M., to The Jeffrey Mfg. Co. Control mechanism for staker-conveyer system. 2,781,890, 2–19–57, Cl. 198—124.

Meredew, George C., K. V. W. Berris, and F. E. S. Smedley, to B. Bercovitz and Rolls-Royce Ltd. Compressed air-driven turbines. 2,782,001, 2–19–57, Cl. 253—59.

Mergenthaler Linotype Co.: *See*—
Plastarns, James C. 2,781,598.

Merian, Ernst, to Saul & Co., as nominee of Fidelity Union Trust Co. Disazo dyestuffs. 2,782,185, 2–19–57, Cl. 260—186.

Merian, Ernst, to Saul & Co., as nominee of Fidelity Union Trust Co. Monoazo dyestuffs. 2,782,186, 2–19–57, Cl. 260—196.

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Merian, Ernst, to Saul & Co., as nominee of Fidelity Union Trust Co. Monoazo dyestuffs. 2,782,189, 2–19–57, Cl. 260—207.5.

Merrill, Wesley P., to The Oilgear Co. Limited capacity check valve. 2,781,775, 2–19–57, Cl. 137—498.

Metalastik Ltd.: *See*—
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Meyers, Harold N., to Sealed Power Corp. Centrifugal sleeve casting mold. 2,781,564, 2–19–57, Cl. 22—113.5.

Micek, Richard. Valve ball mountings for toilet flush tanks. 2,781,520, 2–19–57, Cl. 4—57.

Midland Steel Products Co., The: *See*—
Almond, John R. 2,782,028.

Miehle Printing Press & Mfg. Co.: *See*—
Williams, Leo C. 2,781,842.

Milam, Thomas B. Hydraulic lift. 2,781,866, 2–19–57, Cl. 187—17.

Milk Conveyors Ltd.: *See*—
Milik, Rudolf. 2,781,893.

Milik, Rudolf, to Milk Conveyors Ltd. Troughing conveyor belt apparatus. 2,781,893, 2–19–57, Cl. 198—192.

Miller, Beulah F. Hair treatment cap. 2,781,764, 2–19–57, Cl. 132—9

Miller, John C. Traction device. 2,782,076, 2–19–57, Cl. 305—3.

Miller, Stuart C.: *See*—
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Miller, Walter F., to Bell Telephone Laboratories, Inc. Frequency supply circuits for carrier systems. 2,782,314, 2–19–57, Cl. 250—36.

Millns, Patricia R. D.: *See*—
Phillips, Clive S., and Millns. 2,781,522.

Milne, John R. Method of molding articles having spaced discontinuities therein. 2,781,549, 2–19–57, Cl. 18—47.5.

Milprint, Inc.: *See*—
Schoen, Walter A. 2,781,701.

Mine Safety Appliances Co.: *See*—
Fisher, Joseph R. 2,781,517.

Minneapolis-Honeywell Regulator Co.: *See*—
Moxness, Sven K. 2,781,547.
Peters, Max D. 2,782,278.

Minneapolis-Moline Co.: *See*—
Hedtke, Robert G. 2,781,719.

Minnesota Mining & Mfg. Co.: *See*—
Husted, Donald R., and Ahlbrecht. 2,782,184.

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Simpelaar, Clyde S. 2,782,010.

Moffett, Robert B.: *See*—
Aspergren, Brooke D., Heinzelman, and Moffett. 2,782,206.

Mohasco Industries, Inc.: *See*—
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Mojonnier Bros. Co.: *See*—
McGovern, Bernard J., Skoll, and Witt. 2,781,798.

Monahan, John C. Flow equalizer. 2,781,771, 2–19–57, Cl. 137—101.

Monarch Machine Tool Co., The: *See*—
Greene, Claude E., and Sturm. 2,781,684.

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Hill, Rutherford R., and Kilbourne. 2,782,139.
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Seaton, William H. 2,782,230.

Montgomery, William J. Carton holder. 2,782,064, 2–19–57, Cl. 294—31.2.

Moody, Lawrence C., to Texas Longhorn Boat Mfg. Co., Inc. Retractable wheel assembly for boats. 2,781,529, 2–19–57, Cl. 9—1.

Moore, Vincent, to Curtiss-Wright Corp. Compressor flow control means. 2,781,634, 2–19–57, Cl. 60—35.6.

Moore, Walter L., Jr., to General Electric Co. Waste disposal apparatus. 2,782,057, 2–19–57, Cl. 285—206.

Moran, Joseph A. Folding material handling cart. 2,782,047, 2–19–57, Cl. 280—36.

Moran, William O. Draft equalizing stack head with rain guards. 2,781,716, 2–19–57, Cl. 98—58.

Morin, Louis H., to Coats & Clark, Inc. Cores and dies for producing hollow bodies. 2,781,548, 2–19–57, Cl. 18—42.

Morrill, Elliott, and L. Newburn, to The Best Foods, Inc. Leather liquid polish. 2,782,171, 2–19–57, Cl. 260—8.

Mortimer, Harry T. Suppressed carrier modulator. 2,782,376, 2–19–57, Cl. 332—51.

Morton, Henry E. Flash trimming machine. 2,781,698, 2–19–57, Cl. 90—38.

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Sunko, John, and Biedermann. 2,782,389.
Welsz, William J., and Jones. 2,782,405.
Zahradka, Jerome G. 2,781,780.

Mountz, Elton E. Rotary row crop heater. 2,781,624, 2–19–57, Cl. 55—118.

Moxness, Sven K., to Minneapolis-Honeywell Regulator Co. Molding procedure and apparatus. 2,781,547, 2–19–57, Cl. 18—30.

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Ogden, William L. W., and Murphy. 2,781,664.

Müschenborn, Walter: *See*—
Reerink, Wilhelm, Müschenborn, and Nötzold. 2,781,904.

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Natale, Joseph A., 49% to L. Cooper. Collapsible table. 2,782,085, 2–19–57, Cl. 311—32.

Nathanson, Max. Heating device. 2,782,289, 2–19–57, Cl. 219—19.

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Nelson, Corless B., to General Motors Corp. Lift truck with hitch means for maneuvering semi-trailers. 2,782,054, 2–19–57, Cl. 280—479.

Nelson, John W. Cam actuated adjustable hold down clamp. 2,781,803, 2–19–57, Cl. 144—290.

Nepera Chemical Co., Inc.: *See*—
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Tenenbaum, Leon E. 2,782,204.

Nergaard, Leon S., to Radio Corp. of America. Electron beam amplifier device. 2,782,339, 2–19–57, Cl. 315—4.

Ness, Irving S., R. V. Lints, and D. R. Petterson, to Chicopee Mfg. Corp. Non-woven fabric. 2,782,130, 2–19–57, Cl. 117—38.

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Netelenbos, Willem J., M. Otger, and J. G. Robbenhaar. Anti-ballooning spindle for ring spinning machine. 2,781,627, 2–19–57, Cl. 57—73.

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Newmier, Carleton H., to Thompson Products, Inc. Implement pump. 2,781,730, 2–19–57, Cl. 103—126.

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Nichols, Charles A., G. L. Weiser, and R. M. Goodwin, to General Motors Corp. Cold working apparatus and method. 2,781,678, 2–19–57, Cl. 80—25.

Nickelson, Robert L.: *See*—
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Nield, Cyril H., and W. F. X. Bosch, to Schenley Laboratories, Inc. Process for preparing 3-(4′-chlorobenzhydryloxy)-tropane. 2,782,200, 2–19–57, Cl. 260—292.

Nilssen, Ole K., to Radio Corp. of America. Magnetic flip-flop. 2,782,325, 2–19–57, Cl. 307—88.

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Takahashi, Kinji. 2,781,694.

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Noel, Vernon E., and R. G. Weyant, to B & N Aluminum Welding Corp. Door construction. 2,781,875, 2–19–57, Cl. 189—46.

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Norton, Lowell E., to Radio Corp. of America. Gas resonance frequency control. 2,782,312, 2–19–57, Cl. 250—36.

Norton, William L. Anti-friction bearing. 2,782,080, 2–19–57, Cl. 308—217.

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Ochiltree, Ned A., to Ceco Steel Products Corp. Building material. 2,781,877, 2–19–57, Cl. 189—86.

O'Connor, Lawrence T. Burner for glass blowing lathe. 2,781,832, 2–19–57, Cl. 158—99.

Ogden, William L. W., and D. F. Murphy, to Bendix Aviation Corp. Humidity indicator. 2,781,664, 2–19–57, Cl. 73—337.

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Okazaki, Mitsuru. Calculating machine. 2,781,974, 2–19–57, Cl. 235—71.

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Olson, Elmer, to General Motors Corp. Throttle valve control mechanism. 2,782,025, 2–19–57, Cl. 267—1.

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Palm, Floyd R., Jr., to National Lock Co. Display and dispensing container. 2,781,918, 2–19–57, Cl. 211—128.
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Papworth, Walter A. Manually portable bayonet saw with oval stroke. 2,781,800, 2–19–57, Cl. 143—68.
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Parikos, John J. Folding leg fitting. 2,782,087, 2–19–57, Cl. 311—99.
Parker, Frank M., Jr., deceased; P. A. Parker, executrix. Speedometer testers. 2,781,659, 2–19–57, Cl. 73—2.
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Perkins, Melvin A., and M. S. Whelen, to E. I. du Pont de Nemours & Co. Production of copper-phthalocyanine precursor. 2,782,207, 2–19–57, Cl. 260—319.
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Preston, Jack, to Imperial Chemical Industries Ltd. Electric furnace for melting of high melting point metals or alloys. 2,782,245, 2–19–57, Cl. 13—9.
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Standard Railway Equipment Mfg. Co.: *See*—
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Stelzer, Carl, to Kurt Korber & Co. K.-G. Conveyor mechanism for cigarette making machines. 2,781,886, 2–19–57, Cl. 198—33.
Stephenson, Samuel H.: *See*—
Shonts, James G., and Stephenson. 2,781,696.
Stiles, Richard C.: *See*—
Johnston, Leith, and Stiles. 2,782,254.
Stock, Erwin O. and L. A. Liquid spray dispenser. 2,782,072, 2–19–57, Cl. 299—86.
Stock, Lester A.: *See*—
Stock, Erwin O. and L. A. 2,782,072.
Stockard, John M., and S. C. Miller. Exploder. 2,781,724, 2–19–57, Cl. 102—17.
Stoesser, Wesley C., and W. R. Surine, to The Dow Chemical Co. Production of gentisates. 2,782,232, 2–19–57, Cl. 260—521.
Stolle, Anthony D., to International Register Co. Electrical terminal post having means to secure it to a panel. 2,782,392, 2–19–57, Cl. 339—220.
Stoneburner, Charles E. Mechanical and electrical means for stimulating sales of merchandise. 2,781,949, 2–19–57, Cl. 222—27.
Storch, Harold A., to General Motors Corp. Draft strip for lowerable glass pane on a vehicle. 2,782,069, 2–19–57, Cl. 296—44.
Stranberg, Don F., to C. L. Conroy and W. Fritsch. Reuseable hose couplings. 2,782,059, 2–19–57, Cl. 285—247.
Stressteel Corp.: *See*—
Dobell, Curzon. 2,781,658.
Strohmeier, Gerolf. Apparatus for preparing metals and alloys from substances, containing fine-grain metal. 2,782,022, 2–19–57, Cl. 266—8.
Structural Clay Products Research Foundation: *See*—
Tayler, Robert B. 2,781,657.
Stucke, John. Opposed piston sleeve valve outboard motor. 2,781,748, 2–19–57, Cl. 123—51.
Stucke, John. Opposed piston sleeve valve outboard motor. 2,781,749, 2–19–57, Cl. 123—51.
Stupell, Norman J., to Signa-Craft, Inc. Decorative plate and mounting. 2,781,594, 2–19–57, Cl. 40—2.
Sturm, Walter V.: *See*—
Greene, Claude E., and Sturm. 2,781,684.
Sturtevant, Paul A. Torque applier. 2,781,881, 2–19–57, Cl. 192—56.
Suhr, Fred W., to General Electric Co. Alternating current motor circuit. 2,782,351, 2–19–57, Cl. 318—103.
Sumner, Eric E.: *See*—
Madden, James J., and Sumner. 2,781,846.
Sun Oil Co.: *See*—
Ferris, Swymour W. 2,782,145.
Sundén, Olof, and C. G. Carlsson, to Superfosfat Fabriks Aktiebolag. Process of refining acrylonitrile by distillation. 2,782,149, 2–19–57, Cl. 202—42.
Sunko, John, and W. C. Biedermann, to Motorola, Inc. Subminiature tube receptacle. 2,782,389, 2–19–57, Cl. 339—192.
Superfosfat Fabriks Aktiebolag: *See*—
Sundén, Olof, and Carlsson. 2,782,149.
Surine, William R.: *See*—
Stoesser, Wesley C., and Surine. 2,782,232.
Suthard, James G., to Petrolite Corp. Method of testing oils. 2,782,151, 2–19–57, Cl. 204—1.
Sutton, John G., Jr., to Hagan Corp. Regulators. 2,781,770, 2–19–57, Cl. 137—85.
Swain, Thomas T., to Western Electric Co., Inc. Article supporting dolly comprising two interconnected truck members. 2,782,046, 2–19–57, Cl. 280—35.
Swallow, William, to General Motors Corp. Liquid filters. 2,781,917, 2–19–57, Cl. 210—178.
Swanson, Carl E.: *See*—
Trenhaft, Milton A., and Swanson. 2,782,160.
Swanson, Emery C.: *See*—
Coyne, William R., Brabender, and Swanson. 2,782,012.
Swartz, Ruby J.: *See*—
Snyder, James E., Swartz, and Collins. 2,781,900.
Sydow, Herbert: *See*—
Fischer, Karl A., and Sydow. 2,782,190.
Sylvander, Charles H. Greasing ram device with plunger to boost pressure. 2,781,953, 2–19–57, Cl. 222—388.
Sylvania Electric Products Inc.: *See*—
Rhyne, William J. 2,782,338.
Rug, John P. 2,782,308.
Watkins, Donald B. 2,781,613.
Symington-Gould Corp., The: *See*—
Blattner, Emil H. 2,781,919.
Syntex S. A.: *See*—
Djerassi, Carl, Rosenkranz, and Pataki. 2,782,193.
T. M. M. (Research) Ltd.: *See*—
Foster, John R. 2,781,556.
Takahashi, Kinji, to Nippon Kogaku K. K. Microscope objective. 2,781,694, 2–19–57, Cl. 88—57.
Takasi, Uemura, to G. Miura. Umbrella tip cup. 2,781,768, 2–19–57, Cl. 135—44.
Talk-O Products, Inc.: *See*—
Vincent, Andrew W. 2,782,390.
Tanra Mfg. Co.: *See*—
Pritchard, Thomas R. 2,781,950.
Tarzia, Paul P. Beauty shop partition. 2,781,558, 2–19–57, Cl. 20—4.
Tashjian, Edward A., to Universal Winding Co. Yarn guide. 2,781,987, 2–19–57, Cl. 242—157.
Taylor, Edward C., to General Electric Co. Article feeding and inspection machine. 2,781,885, 2–19–57, Cl. 198—33.
Taylor, Robert B., to Structural Clay Products Research Foundation. Pre-stressed clay tile partition panels. 2,781,657, 2–19–57, Cl. 72—16.
Teagle, William T. Elevators. 2,781,889, 2–19–57, Cl. 198—118.
Tebbs, George W., to H. T. Backhouse. Reciprocating tape. 2,782,031, 2–19–57, Cl. 271—3.
Technical Oil Tool Corp., Ltd.: *See*—
Brady, James J. 2,781,581.
Teeters, Wilber O.: *See*—
Hetherington, Alexander C., and Teeters. 2,782,174.
Telefonaktiebolaget L M Ericsson: *See*—
Aasma, Felix. 2,782,309.
Ahlberg, Lars F. B., and Lundgren. 2,781,845.
Alexandersson, Harald V., and Lindström. 2,782,410.
Bergman, Gustav R. 2,782,404.
Johannesson, Nils-Olof, and Lundvall. 2,782,378.
Stålemark, Fritz R. V., and Lundvall. 2,782,258.
Tunberg, Gustav V., Jörgensen, Parschin, and Edman. 2,781,817.
Von Sivers, Carl H., Wadö, Wickman, and Person. 2,782,307.
Wiberg, Eric A. 2,782,270.
Tenenbaum, Leon E., to Nepera Chemical Co., Inc. Benzimidazole compounds. 2,782,204, 2–19–57, Cl. 260—309.2.
Tesche, Walter J.: *See*—
Heckman, Edward A., and Tesche. 2,781,590.
Teuber, Hans J. New oxidation products of organic compounds, and a method of making same. 2,782,210, 2–19–57, Cl. 260—396.
Texas Co., The: *See*—
Herzog, Gerhard. 2,782,318.
Texas Instruments Inc.: *See*—
Evans, Arthur D. 2,782,246.
Texas Longhorn Boat Mfg. Co., Inc.: *See*—
Moody, Lawrence C. 2,781,529.
Thevenieau, Jean, to Societe Preparation Industrielle des Combustibles. Projection machines for loose material. 2,781,892, 2–19–57, Cl. 198—128.
Thom, Eugene H., to Hoffman Electronics Corp. Frequency discriminators or the like. 2,782,302, 2–19–57, Cl. 250—27.
Thomas, Albert G. Tracing and reproducing devices. 2,781,848, 2–19–57, Cl. 164—113.
Thomas, Albert G. Motor. 2,782,354, 2–19–57, Cl. 318—254.
Thomas, Charles C.: *See*—
Hoffhines, James R., and Thomas. 2,781,606.
Thomas, David L.: *See*—
Clavier, Andre G., and Thomas. 2,782,382.
Thomas, James G., and A. G. Roberts. Cultivator. 2,781,712, 2–19–57, Cl. 97—198.1.
Thompson, Alfred L. Furnace lighter. 2,781,653, 2–19–57, Cl. 67—6.1.
Thompson, Dennis, to Imperial Chemical Industries Ltd. Production of terephthalic acid or esters thereof. 2,782,222, 2–19–57, Cl. 260—475.
Thompson Malcolm W., to Warner Lewis Co. Diesel oil separator. 2,781,909, 2–19–57, Cl. 210—43.
Thompson, Malcolm W. Gas and liquid filter/separator. 2,781,913, 2–19–57, Cl. 210—120.
Thompson Products, Inc.: *See*—
Angell, Pierce T. 2,781,831.
Newmier, Carleton H. 2,781,730.
Tile Council of America, Inc.: *See*—
Robinson, Donald R. 2,781,554.
Timken Roller Bearing Co., The: *See*—
Eastburg, Clifford L. 2,781,942.
Tinich, Robert A., to General Motors Corp. Illuminated dial instrument. 2,782,294, 2–19–57, Cl. 240—2.1.
Tintner, Paul. Retractable multi-color writing instrument. 2,781,741, 2–19–57, Cl. 120—42.13.
Tobler, Hans: *See*—
Pudelko, Richard, and Tobler. 2,781,975.
Tolman, Emerson A.: *See*—
De Ford, Perl E. 2,781,675.
Trane Co., The: *See*—
Labus, Otto A. 2,781,714.
Labus, Otto A. 2,781,715.
Trenhaft, Milton A., and C. E. Swanson, to Hudson Electrochemical Co. Electropolishing apparatus. 2,782,160, 2–19–57, Cl. 204—222.

Trico Products Corp.: *See*—
Deibel, Raymond A. 2,781,540.
Oishei, John R. 2,781,539.

True, Martin E: *See*—
Boer, George, O'Reilly, and True. 2,781,854.

Tunberg, Gustav V., A. O. Jörgensen, A. Parschin, and E. E. T. Edman, to Telefonaktiebolaget L M Ericsson. Device for bending contact springs. 2,781,817, 2–19–57, Cl. 153—48.

Turlay, Joseph D. Mine firing control device. 2,781,723, 2–19–57, Cl. 102—16.

Turnbull, Norris: *See*—
Bristol, John E., Czerwin, and Turnbull. 2,782,173.

Turner, Richard G., to Crompton & Knowles Loom Works. Shuttle for narrow ware loom. 2,781,795, 2–19–57, Cl. 139—371.

Turney, Arthur C., and B. J. Zubrzycki, to F. L. Smidth & Co. Indirect heat calcining kiln. 2,782,019, 2–19–57, Cl. 263—21.

Tuthill Pump Co.: *See*—
Bangs, Walter J. 2,781,726.

Tutwiler, Thomas S., to Esso Research and Engineering Co. Viscosity index improvers. 2,782,167, 2–19–57, Cl. 252—52.

Twitchen, Henry: *See*—
Danvers, Ellis, and Twitchen. 2,781,856.

Ugartechea, Enrique, ½ to R. Ugartechea. Wrist and forearm exerciser. 2,782,033, 2–19–57, Cl. 272—67.

Ugartechea, Rolando: *See*—
Ugartechea, Enrique. 2,782,033.

Uhrich, Leander. Device for emptying milk-bottles and the like by the case. 2,781,929, 2–19–57, Cl. 214—314.

Union Carbide and Carbon Corp.: *See*—
Aitchison, Robert B., Fleming, Inskeep, and Armstrong. 2,781,754.
Hess, Lawrence G., and Schulz. 2,782,243.

Union Oil Co. of California: *See*—
Fischer, Paul W., and Scheffel. 2,782,164.
King, Robert A. 2,782,141.
Maly, George P., and Brown. 2,781,663.
Nowak, Theodore J., and Fischer. 2,781,850.

Union Steel Products Co.: *See*—
Bitney, Dewey H. 2,781,936.

United Shoe Machinery Corp.: *See*—
Gookin, Sylvester L. 2,781,933.
Quinn, Edward. 2,781,533.

United States Atomic Energy Commission, United States of America as represented by the: *See*—
Brunner, John J. 2,782,091.
Entwistle, James. 2,782,081.
Klein, David X., and Wirth. 2,782,092.
Spedding, Frank A., Wilhelm, and Keller. 2,782,116.
Wheeler, John A. 2,782,138.
Wilhelm, Harley A., and Gray. 2,782,117.

United States Ceramic Tile Co.: *See*—
Gray, Roland M. 2,781,552.

United States Rubber Co.: *See*—
Davis, Vance J. 2,781,815.

Universal Oil Products Co.: *See*—
Bicek, Edward J. 2,782,143.
Bloch, Herman S., and Hoffman. 2,782,111.
Bloch, Herman S., and Mammen. 2,781,863.
Mavity, Julian M. 2,782,239.

Universal Winding Co.: *See*—
Tashjian, Edward A. 2,781,987.

Upjohn Co., The: *See*—
Aspergren, Brooke D., Heinzelman, and Moffett. 2,782,206.
Pederson, Raymond L., Holysz, and Ott. 2,782,192.

Uritis, Joseph M., to Radio Corp. of America. Reeling system. 2,782,029, 2–19–57, Cl. 271—2.6.

Utica Radiator Corp.: *See*—
Glatt, Reml W. 2,782,007.

VSCHP, Vyzkumny ustav strojn chladicich a potravinarskych: *See*—
Saposnikov, Vsevolod, and Patrman. 2,781,644.

Vacanti, Charles J., and M. H. Jackson. Dental X-ray film holder. 2,782,317, 2–19–57, Cl. 250—70.

Vallak, Enn. Machine for the production of molded boards. 2,781,545, 2–19–57, Cl. 18—5.

Vallette, Pierre H. P., to Compagnie Francaise des Matieres Colorantes. Process of impregnating cellulosic material halogeno-nitrides of phosphorous. 2,782,133, 2–19–57, Cl. 117—138.

Valley Metal Products Co.: *See*—
Westman, Elmer A. 2,781,835.

Vance, Arthur W., to Radio Corp. of America. Plugboard for computer programming system. 2,782,275, 2–19–57, Cl. 200—46.

Vancil, Cyrus O.: *See*—
Menser, Henry E., Jeffords, and Vancil. 2,781,930.

Van den Bussche, Hendrik K. J., to Shell Development Co. Charge-forming apparatus for gas internal combustion engines. 2,781,752, 2–19–57, Cl. 123—120.

Van Dorn, Horace B., to The Fafnir Bearing Co. Race contour scanning gage. 2,781,661, 2–19–57, Cl. 73—37.9.

Van Fleet, Vincent. Window guide spring assembly. 2,781,876, 2–19–57, Cl. 189—72.

Van Krevelen, Edward R., to General Mills, Inc. Code telemetering. 2,782,400, 2–19–57, Cl. 340—204.

Varela, Andrew A., and H. T. Bangs, to American Cyanamid Co. Spray molding process. 2,781,553, 2–19–57, Cl. 18—60.

Vaughan, Paul J., to The Goodyear Tire & Rubber Co. Method of thermally sealing rubber hydrochloride films. 2,782,140, 2–19–57, Cl. 154—124.

Verburg, Robert M., to General Aniline & Film Corp. Process for interpolymerization of maleic anhydride with vinyl alkyl ethers. 2,782,182, 2–19–57, Cl. 260—78.5.

Vereinigte Aluminium-Werke Aktiengesellschaft: *See*—
Welss, Paul. 2,782,023.

Vernet, Sergius: *See*—
Gifford, Robert T., and Vernet. 2,781,561.

Ver Nooy, Burton, to T. D. Williamson, Inc. Pipe line instrument. 2,782,370, 2–19–57, Cl. 324—72.

Ver Nooy, Burton, to T. D. Williamson, Inc. Position indicator for pipe scraper. 2,782,407, 2–19–57, Cl. 340—282.

Verreault, Joseph, to Dominion Corset Co. Ltd. Brassiere and like foundation garment. 2,781,518, 2–19–57, Cl. 2—42.

Vla, Carlo, to Societa Applicazioni Gommo Antivibranti S. A. G. A. Societa per Azioni. Double acting resilient support for engine mountings. 2,781,990, 2–19–57, Cl. 248—9.

Vickers Inc.: *See*—
Hysler, John F. 2,782,322.

Vincent, Andrew W., to Talk-O Products, Inc. Electrical distributing panel. 2,782,390, 2–19–57, Cl. 339—198.

Vivian, Merel C. Anti-skid tire chain and fastening means therefor. 2,781,814, 2–19–57, Cl. 152—212.

Von Hagel, Ralph E., and J. K. Forbes. Machine and method for producing foam glass shapes. 2,781,838, 2–19–57, Cl. 154—45.

Von Rosenberg, Guido, and W. Sauer, to Farbwerke Hoechst A. G. vormals Meister Lucius & Bruning. Bright-drying polish emulsions. 2,782,124, 2–19–57, Cl. 106—10.

Von Sivers, Carl H., K. R. Wadö, K. R. Wickman, and L. B. Person, to Telefonaktiebolaget L M Ericsson. Electronic switching device for use in radio systems and multi-channel telephone systems employing successive pulses. 2,782,307, 2–19–57, Cl. 250—27.

Vordtriede, Oliver A., to A. B. Chance Co. Electrical line terminal block. 2,782,393, 2–19–57, Cl. 339—272.

Vulcan Corp.: *See*—
Schmank, Edward F. 2,781,899.

Wadö, Kurt R.: *See*—
Von Sivers, Carl H., Wadö, Wickman, and Person. 2,782,307.

Wagoner, Francis E. Wire stretcher. 2,782,003, 2–19–57, Cl. 254—162.

Waln-Roy Corp.: *See*—
Holopainen, Vaino J. 2,781,927.

Waldin, Vincent H.: *See*—
Covington, Robert A., Jr., and Waldin. 2,781,894.

Walker, Eric E., W. R. Foggon, R. S. Locke, and M. P. Shaw, to British Celanese Ltd. Plasticized cellulose compound and a sheet made therefrom. 2,782,127, 2–19–57, Cl. 106—177.

Wall, Virgil W., to Bell Telephone Laboratories, Inc. Visual indicator of harmonic distortion. 2,782,366, 2–19–57, Cl. 324—57.

Walsh, Robert, to ACF Industries, Inc. Engine mounting. 2,781,991, 2–19–57, Cl. 248—22.

Walter, Alfred E. Clamp on Christmas tree light. 2,782,296, 2–19–57, Cl. 240—10.

Walters, Shelby L.: *See*—
Werner, Robert C., and Walters. 2,782,369.

Walton Co., The: *See*—
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Walz, Frederic F. Intermittent clutch. 2,781,880, 2–19–57, Cl. 192—33.

Warford, Henry R. Fishing apparatus. 2,781,602, 2–19–57, Cl. 43—24.

Warner Lewis Co.: *See*—
Thompson, Malcolm W. 2,781,909.

Warner & Swasey Co., The: *See*—
Ebersold, Robert C. 2,781,879.

Warren, Charles, 40% to J. H. Davis. Oil radiator for motorcycles. 2,781,859, 2–19–57, Cl. 180—33.

Warren, Horace G., and M. E. Johnson, to Consolidated Electrodynamics Corp. Apparatus for drying sealed containers. 2,781,588, 2–19–57, Cl. 34—1.

Waterbury Farrel Foundry & Machine Co., The: *See*—
Byam, Erwin B. 2,781,531.

Waterhouse, Robert B.: *See*—
Brandes, Eric A., and Waterhouse. 2,781,636.

Watkins, Donald B., to Sylvania Electric Products Inc. Dummy lead inserter for water stems. 2,781,615, 2–19–57, Cl. 49—76.

Webster, Carl M., and R. F. Snyder, to The Goodyear Tire & Rubber Co. Web positioning device. 2,782,030, 2–19–57, Cl. 271—2.6.

Webster, James G., deceased (G. P. Clay and H. C. R. Pearson, executors), and L. Aldred, to Imperial Chemical Industries Ltd. Tablet counting and batching machines. 2,781,947, 2–19–57, Cl. 221—296.

Webster, William M., Jr.: *See*—
Johnson, Edward O., and Webster. 2,782,320.

Weeks, Kenneth W., to The Walton Co. Broken tap extractor. 2,781,683, 2–19–57, Cl. 81—90.

Weidenhammer, James A.: *See*—
Buslik, Walter S., and Weidenhammer. 2,781,984.

Weidman, Verne W., to E. I. du Pont de Nemours and Co. Modified polytetrafluoroethylene compositions and products related thereto. 2,782,180, 2–19–57, Cl. 260—41.

Weisenbach, Charles O.: *See*—
Marshall, John T., and Weisenbach. 2,781,727.

Weiser, George L.: *See*—
Nichols, Charles A., Weiser, and Goodwin. 2,781,678.

Weiss, Arthur J., to Robert Gair Co., Inc. Hat carton insert. 2,781,896, 2–19–57, Cl. 206—9.

Welss, Paul, to Vereinigte Aluminium-Werke Aktiengesellschaft. Metal producing apparatus. 2,782,023, 2–19–57, Cl. 266—18.

Welsz, William J., and D. R. Jones, to Motorola, Inc. Apparatus for detecting motion in a confined space. 2,782,405, 2–19–57, Cl. 340—258.

Weltmaner, Gustav A., to Lepetit S. p. A. Oxazol-5-one compounds. 2,782,203, 2–19–57, Cl. 260—307.

Weld, Foster E., to The Gamewell Co. Variable impedance device. 2,782,288, 2–19–57, Cl. 201—48.

Werner, Robert C., and S. L. Walters, to Callery Chemical Co. Determination of contamination of liquid metals. 2,782,369, 2–19–57, Cl. 324—0.

West, Charles F., J. E. De Turk, and J. H. MacNeill, to Raytheon Mfg. Co. Apparatus for photoelectrically cataloging digital data on magnetic tape. 2,782,398, 2–19–57, Cl. 340—174.

West, George L., to Pittsburgh Plate Glass Co. Adjustable hinge mechanism. 2,781,542, 2–19–57, Cl. 16—129.

West, George R.: *See*—
Stahl, Robert J., and West. 2,781,649.

Western Electric Co., Inc.: *See*—
Heckman, Edward A., and Tesche. 2,781,590.
McCarthy, Lawrence A. 2,782,368.
McGraw, George P., Jr. 2,781,983.
Swain, Thomas T. 2,782,046.

Westinghouse Electric Corp.: *See*—
Buchanan, Leslie B. M. 2,781,646.
Foley, William J. 2,781,641.
Immel, Ralph B. 2,782,277.
Lannan, Patrick E., and Freese. 2,782,290.
Lyman, Wallace R. 2,781,648.
Stalcup, Ernest F. 2,782,150.

Westman, Elmer A., to Valley Metal Products Co. Awning window construction. 2,781,835, 2–19–57, Cl. 160—90.

Weston Electrical Instrument Corp.: *See*—
Lamb, Francis X. 2,782,371.

Weston Hydraulics, Ltd.: *See*—
Gerwig, Harvey F. 2,781,782.

Wettstein, Albert, and J. Schmidlin, to Ciba Pharmaceutical Products, Inc. Manufacture of dehydro compounds of the pregnane series. 2,782,211, 2–19–57, Cl. 260—397.3.

Weyant, Romer G.: *See*—
Noel, Vernon E., and Weyant. 2,781,875.

Wheeler, John A., to the United States of America as represented by the United States Atomic Energy Commission. Neutronic reactor. 2,782,158, 2–19–57, Cl. 204—193.

Whelen, Myron S.: *See*—
Perkins, Melvin A., and Whelen. 2,782,207.

Whirlpool-Seeger Corp.: *See*—
Clark, Adna R. 2,782,350.

White Castle System, Inc.: *See*—
Lenherr, Chester P. 2,781,732.

White, Robert C., and U. A. Martin. Pitch changing attachment for stringed musical instruments. 2,781,685, 2–19–57, Cl. 84—312.

White, William E., and J. R. Clark, to said J. R. Clark and T. Somerville, III. Brick cage. 2,781,901, 2–19–57, Cl. 206—65.

Whitehorn, Richard M., to Bendix Aviation Corp. Anti-pulling duplexer. 2,782,299, 2–19–57, Cl. 250—13.

Whitesell, Harry. Wheels. 2,781,669, 2–19–57, Cl. 74—230.3.

Wiberg, Eric A., to Telefonaktiebolaget L M Ericsson. Contact spring group in electromagnetic connecting apparatus. 2,782,270, 2–19–57, Cl. 200—1.

Wickman, Klas R.: *See*—
Von Sivers, Carl H., Wadö, Wickman, and Person. 2,782,307.

Wilcox-Gay Corp.: *See*—
Hironimus, Walter C. 2,782,042.

Wilcox, Isaac L., and H. Pesch, to Oswego Falls Corp. Machine for applying slip covers to paper containers. 2,781,946, 2–19–57, Cl. 221—158.

Wilcox, Roy C., to Radio Corp. of America. Web feeding means. 2,782,355, 2–19–57, Cl. 318—302.

Wilder, Stuart, Jr., to General Motors Corp. Blade fastening means. 2,781,962, 2–19–57, Cl. 230—134.

Wilhelm, Harley A.: *See*—
Spedding, Frank H., Wilhelm, and Keller. 2,782,116.

Wilhelm, Harley A., and C. F. Gray, to the United States of America as represented by the United States Atomic Energy Commission. Method of reclaiming uranium. 2,782,117, 2–19–57, Cl. 75—84.1.

Wilkinson Sword Co., The: *See*—
Mathisen, Anders. 2,782,402.

Williams, Chester L., 50% to V. A. Barna. Garden tool. 2,781,711, 2–19–57, Cl. 97—66.

Williams, Harold M. G.: *See*—
Rakowski, Lech, Williams, and Wilson. 2,782,089.

Williams, Leo C., to Miehle Printing Press & Mfg. Co. Paper trimming and cutting machine. 2,781,842, 2–19–57, Cl. 164—48.

Williams, Ray S., to Hagan Corp. Pneumatic signal responsive hydraulically actuated positioners for high pressure servo-valves provided with a compensating or followup mechanism. 2,781,744, 2–19–57, Cl. 121—41.

Williams, Robert E., and E. C. Engel. Golf bag cart. 2,782,048, 2–19–57, Cl. 280—42.

Williamson, T. D., Inc.: *See*—
Ver Nooy, Burton. 2,782,370.
Ver Nooy, Burton. 2,782,407.

Willinger, Harding W., and H. N. Nestler. Aquarium filter. 2,782,161, 2–19–57, Cl. 210—16.

Wilson, David A. Collapsible saw. 2,781,806, 2–19–57, Cl. 145—33.

Wilson, Donald L.: *See*—
Rakowski, Lech, Williams, and Wilson. 2,782,089.

Wilson, Doyne L., to Oil Base, Inc. Emulsion drilling fluid composition and method. 2,782,163, 2–19–57, Cl. 252—8.5.

Wilson, Edward W., to Nashua Corp. Banding apparatus for forming packages. 2,781,621, 2–19–57, Cl. 53—198.

Wilson, Jack K., N. E. and R. S. Woodworking plane with razor blade. 2,781,804, 2–19–57, Cl. 145—5.

Wilson, Norman E.: *See*—
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Winslow, Albert E.: *See*—
Andrews, Allen R., and Winslow. 2,781,628.

Winslow, Albert E., to Standard Screw Co. Textile spindle. 2,781,629, 2–19–57, Cl. 57—135.

Wire-O Corp.: *See*—
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Young, Stephen A. Composite fixture unit. 2,781,786, 2–19–57, Cl. 138—64.

Zabradka, Jerome G., to Motorola, Inc. Valve for heaters. 2,781,780, 2–19–57, Cl. 137—608.

Zaleski, John F., to General Precision Laboratory Inc. Microwave guide rotatable joint. 2–19–57, Cl. 333—98.

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Ziesmer, Richard. Window hinge and guide link. 2,781,560, 2–19–57, Cl. 20—53.

Zimmerman, James L. Combination playpen and crib. 2,781,526, 2–19–57, Cl. 5—93.

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266— 8: 2,782,022
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CLASSIFICATION OF DESIGNS

D 4— 3: Des. 179,722
Des. 179,725
D 9— 6: Des. 179,717
D13— 1: Des. 179,733
D14—30: Des. 179,737
D15— 8: Des. 179,748
D15—11: Des. 179,742
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D17—10: Des. 179,740
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D58—25: Des. 179,736
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D62— 4: Des. 179,726
D65— 1: Des. 179,746
D74— 1: Des. 179,719
D80— 8: Des. 179,745
D86—10: Des. 179,718
D87— 3: Des. 179,747
5: Des. 179,716

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
February 19, 1957 Volume 715 Number 3

TRADEMARKS

NOTICES

Service by Publication

A petition to cancel the registration identified below having been filed, and this Office having been unable to obtain satisfactory service of notice of the proceeding, notice is hereby given that unless said registrant, its assigns or legal representatives shall enter an appearance within thirty days from the date of this publication, the cancellation will be proceeded with as in the case of default.

Gude Brothers, Kieffer Company, New York, N. Y., Reg. No. 176,181, Canc. No. 6848.

DAPHNE LEEDS,
Assistant Commissioner of Patents.

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

TM 223,259 (PRESIDENT), **TM 258,603** (AMBASSADOR), Bulova Watch Co., Inc., Watches; **TM 262,865** (CO-ED), same, Wrist watches; **TM 335,457** (TUXEDO), same, Watches—namely, wrist or strap watches; **TM 316,745** (MINUET), **TM 323,564** (DEBUTANTE), **TM 440,648** (ELIZABETH), same, Watches, more especially wrist or strap watches, filed Sept. 10, 1954, D. C., S. D. N. Y., Doc. 95/311, *Bulova Watch Co., Inc.* v. *Longines Wittnauer Watch Co., Inc.* Order of discontinuance Dec. 26, 1956.

TM 258,603. (See TM 223,259.)

TM 262,865. (See TM 223,259.)

TM 273,655 (ADMIRAL), Admiral Corp., Radio receiving sets, vacuum or electron tubes, and radio speakers; **TM 406,695**, same, Laundry washing machines; **TM 407,816**, same, Cabinets for radios, cabinets for combination radios and phonographs, etc.; **TM 409,912**, same, Radio receiving sets, loud speakers, amplifiers, etc.; **TM 412,089**, same, Electric stoves; **TM 419,299**, same, Publication comprising a house organ appearing monthly; **TM 440,488**, same, Phonograph needles; **TM 549,906**, same, Radio receiving sets and parts thereof, etc.; **TM 589,773**, same, Dehumidifiers and humidifiers, and room air conditioners; **TM 405,192**, same, Continental Radio and Television Corp., Electric refrigerators; **TM 439,930**, same, R. W. Beckett Corp., Domestic and industrial oil burners for heating and parts thereof: **TM 431,296** (DUTCH ADMIRAL FOUR STAR AND DESIGN), H. A. S. Van Daalen, Life saving equipment—namely, electrical signal lights and flash lights, filed Dec. 21, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c2135, *Admiral Corp.* v. *Admiral Employment Bureau, Inc. et al.*

TM 316,745. (See TM 223,259.)

TM 323,564. (See TM 223,259.)

TM 335,457. (See TM 223,259.)

TM 405,192. (See TM 273,655.)

TM 406,695. (See TM 273,655.)

TM 407,816. (See TM 273,655.)

TM 409,912. (See TM 273,655.)

TM 412,089. (See TM 273,655.)

TM 419,299. (See TM 273,655.)

TM 431,296. (See TM 273,655.)

TM 439,930. (See TM 273,655.)

TM 440,488. (See TM 273,655.)

TM 440,648. (See TM 223,259.)

TM 525,763 (GENUINE ROCKINGHAM VIRGINIA POULTRY), Rockingham Poultry Marketing Co-Operative, Inc.,

CONDITION OF TRADEMARK APPLICATIONS AS OF DECEMBER 31, 1956

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]	7,036
Date of oldest new application	June 25, 1956
Date of oldest amended application	Aug. 2, 1956

MERCHANT, JOHN, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application	
	New	Amended
I. STERBA, J. R., Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 44 and Certification Marks (Goods) Class A	7-10-56	8-2-56
II. SHRYOCK, R. F., Classes 6, 18, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200; and Certification Marks (Services) Class B	6-25-56	8-10-56
III. WENDT, C. M., Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 36, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 50, 52	8-1-56	8-23-56
Renewals (All Classes)	11-30-56	11-30-56
Sec. 12 (c) Publications (All Classes)	11-30-56	11-30-56

Applications Filed During the Month of December 1956—1,734

Registrations Issued ..... 339—No. 641,576 to No. 641,914
Renewals Issued 46

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

Fresh frozen poultry: **TM 564,739** (ROCKINGHAM), same, Fresh dressed poultry and frozen poultry, **filed** Dec. 21, 1956, D. C., E. D. Va. (Norfolk), Doc. 2343, *Rockingham Poultry Marketing Cooperative, Inc.* v. *Rockingham Produce Co., Inc. et al.*

TM 549,908. (See TM 273,655.)

TM 564,739. (See TM 525,763.)

TM 589,773. (See TM 273,655.)

TM 594,000 (DREAM STUFF AND DESIGN), M. Gorman, doing business as The Marilyn Shoppe, Perfume, **filed** June 4, 1955, D. C., S. D. N. Y., Doc. 101/97, *Marilyn Gorman, doing business as The Marilyn Shoppe* v. *The Andrew Jergens Co.* Stipulation and order of dismissal with prejudice Dec. 28, 1956.

TM 610,140 (HICKORY SMOKED AND DESIGN), Charles G. Bathe, Potato chips and canned shoestring potatoes, **filed** Dec. 13, 1956, D. C., S. D. Calif. (Los Angeles), Doc. 20824-HW, *Paine & Co. et al.* v. *Leland J. Davis et al.*

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

SN 691,630. Lifetime Foam Products, Inc., Chicago, Ill. Filed July 20, 1955.

Lifetime Foam

Applicant disclaims the word "Foam" apart from the mark as shown and without affecting any common law rights to the composite mark.

For Foam Rubber by the Piece or as Piece Goods.

First use June 1, 1955.

SN 696,481. Whittaker, Clark & Daniels, Inc., New York, N. Y. Filed Oct. 14, 1955. Sec. 2(f).

JAIPUR

Owner of Reg. No. 406,891.

For Crude Ground Talc.

First use Jan. 10, 1936.

SN 698,974. The B. F. Goodrich Company, d. b. a. B. F. Goodrich Chemical Co., a division of The B. F. Goodrich Company, Akron, Ohio. Filed Nov. 28, 1955.

DARLANA

For Synthetic Fibers and Filaments in the Form of Staple Fibers, Continuous Filaments, or Tow.

First use Oct. 3, 1955.

SN 4,834. Pluess-Staufer (North American) Inc., New York, N. Y. Filed Mar. 19, 1956.

OMYA

For Whiting.

First use during June 1948.

SN 6,892. Black Panther Company, Inc., Sanford, N. C. Filed Apr. 23, 1956.

E-z lite

The drawing is lined for the color red. Owner of Reg. No. 353,606.

For Charcoal.

First use Mar. 14, 1956.

SN 7,158. Albert H. Buell, d. b. a. Buell's, Eastford, Conn. Filed Apr. 26, 1956.

For Specially Prepared Soils for African Violets, Gloxinias, Potting Purposes, and for Rooting Plants.

First use in January 1955.

SN 7,995. J. & L. Adikes, Inc., d. b. a. Tri-State Seed Co., Jamaica, N. Y. Filed May 9, 1956.

CENTRAL PARK

For Grass Seed.

First use Apr. 12, 1910.

SN 8,678. Marble Products Company of Georgia, Atlanta, Ga. Filed May 21, 1956.

KALOGA TERRAZZO CHIPS WHITE

No claim is made for the words "Terrazzo Chips" and "White" apart from the mark as shown.

For Chips or Flakes of Marble for Use in the Manufacture of Terrazzo.

First use Jan. 27, 1956.

SN 9,510. White Shell Corporation, Jacksonville, Fla. Filed June 1, 1956.

SNOW WHITE

For Crushed Oyster Shell.

First use as early as May 1931.

SN 10,050. Garfield Williamson, Inc., Jersey City, N. J. Filed June 11, 1956.

YANKEE

For Grass Seed.

First use in the year 1925.

SN 10,330. Meat Industry Suppliers, Inc., Chicago, Ill. Filed June 15, 1956.

FLAVAROMA

Owner of Reg. Nos. 517,774 and 605,558.

For Hickory Wood Flakes Impregnated With Spices.

First use Apr. 2, 1956.

SN 11,916. The Dayton Rubber Company, Dayton, Ohio. Filed July 11, 1956.

POLY-KOOLFOAM

Owner of Reg. No. 555,554.
For Flexible Foam Material.
First use May 5, 1956.

CLASS 2

RECEPTACLES

SN 699,136. Continental Can Company, Inc., New York, N. Y. Filed Nov. 30, 1955.

FAMILY-PAK

For Paper Cups and Paper Plates.
First use Oct. 31, 1955.

SN 699,904. W. R. Grace & Co., Cambridge, Mass. Filed Dec. 13, 1955.

CRYOVAC

Owner of Reg. No. 384,060.
For Containers—Namely, Flexible Plastic Bags and Tubing.
First use March 1955.

SN 7,802. Hill Bros. Coffee, Inc., San Francisco, Calif. Filed May 7, 1956.

PUL-EZE

For Shipping Cases Made of Paper Board.
First use Jan. 5, 1954.

SN 11,767. Herz Manufacturing Corporation, New York, N. Y. Filed July 9, 1956.

SUNSHINE

Owner of Reg. Nos. 527,709 and 535,583.
For Paper Food Dishes.
First use Nov. 4, 1938.

SN 12,158. Continental Can Company, Inc., New York, N. Y. Filed July 16, 1956.

SAVORLOCK

For Metal Containers—Namely, Empty Metal Cans.
First use June 20, 1956.

SN 13,858. J. J. Little & Ives Sales Corporation, New York, N. Y. Filed Aug. 13, 1956.

MONTE CARLO

For Tableware, Consisting of Cups, Saucers, Plates, Platters, Bowls, and Dishes, Molded of Plastic or Synthetic Resins.
First use July 25, 1956.

CLASS 3

BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

SN 14,938. Hugo Bosca Company, Incorporated, Springfield, Ohio. Filed Aug. 31, 1956.

Magnafold

For Leather Goods—Namely, Billfolds, Key Cases, Coin Purses, Letter Cases, Dressing Cases, Portfolios, Brief Cases, Ring Binder Cases in the Nature of Brief Cases, Traveling Bags and Ladies' Handbags.
First use June 20, 1956.

CLASS 4

ABRASIVES AND POLISHING MATERIALS

SN 12,400. Aqua Shine Corporation, Denver, Colo. Filed July 19, 1956.

AQUA-SHINE

For Polish for Automobiles, and Glass, Paint, and Chrome Surfaces.
First use on or about Mar. 15, 1956.

SN 12,401. Aqua Shine Corporation, Denver, Colo. Filed July 19, 1956.

AQUA-SHINE

The drawing is lined for the color yellow but no claim is made to specific colors.
For Polish for Automobiles, and Glass, Paint, and Chrome Surfaces.
First use on or about Mar. 15, 1956.

SN 12,635. Dana E. Keech, d. b. a. Keech Manufacturing Co., Los Angeles, Calif. Filed July 23, 1956.

RAZORMATE

For Razor Blade Strops.
First use June 15, 1956.

SN 13,301. Mary Carter Paint Factories, Tampa, Fla. Filed Aug. 2, 1956.

WOW

For Liquid Wax for Automobile Bodies.
First use July 16, 1956.

SN 13,384. Anthony H. Richard, d. b. a. Richard's Floor Surfacing & Coverage Co., Alexandria, La. Filed Aug. 3, 1956.

RICHARD'S Floor Cleaner KING OF THEM ALL

The words "Floor Cleaner" are disclaimed apart from the mark.
For Cleaner and Polish for Floors, Furniture, Fixtures, Etc.
First use July 2, 1956.

SN 13,514. American-Marietta Company, d. b. a. O-Cedar Division of American-Marietta Company, Chicago, Ill. Filed Aug. 7, 1956.

FOOT-NOTE

For Self-Polishing Wax.
First use on or about July 24, 1956.

SN 13,572. James V. Credendino, d. b. a. Ad-A-Luster Products Co., Mount Vernon, N. Y. Filed Aug. 8, 1956.

AD-A-LUSTER

For Furniture and Leather Polish.
First use in September 1951.

SN 13,594. Mikart Company, Webster City, Iowa. Filed Aug. 8, 1956.

MiKART

For General Purpose Cleaning and Polishing Compound.
First use Apr. 30, 1956.

SN 13,776. Frank Partridge, Incorporated, New York, N. Y., now by change of name F. Partridge & Sons, Inc. Filed Aug. 10, 1956.

ANTIQWAX

For Polishing Wax.
First use Aug. 1, 1950.

CLASS 5

ADHESIVES

SN 697,966. Continental Tapes, Cayce, S. C. Filed Nov. 9, 1955.

ANCHOR

For Pressure Sensitive Adhesive Tapes.
First use Sept. 1, 1954.

SN 12,946. Ewing Mill Company, Brownstown, Ind. Filed July 27, 1956.

GLU-X

For Cereal Flour for Use as a Glue Extender.
First use June 17, 1952.

SN 13,573. James V. Credendino, d. b. a. Ad-A-Luster Products Co., Mount Vernon, N. Y. Filed Aug. 8, 1956.

AD-A-GRIP

For Glue.
First use in March 1952.

SN 13,742. Diamond Alkali Company, Cleveland, Ohio. Filed Aug. 10, 1956.

MOROC

For Modified Silicate of Soda for Use as Foundry Cores and Mold Binder for Sand.
First use Mar. 22, 1956.

SN 14,083. The Lehon Company, Bellwood, Ill. Filed Aug. 16, 1956. Sec. 2(f).

STAY-TITE

For Asphalt-Asbestos Plastic Cement.
First use July 1, 1913.

SN 15,580. Bemis Bro. Bag Company, Minneapolis, Minn. Filed Sept. 13, 1956.

BEMISTAPE

For Pressure Sensitive Tape for Sealing Bag Tops and Other Receptacle Closures.
First use May 24, 1956.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

SN 681,821. Allied Chemical & Dye Corporation, New York, N. Y. Filed Feb. 17, 1955. Sec. 2(f).

ANTIOXIDANT B

The word "Antioxidant" is disclaimed apart from the mark as shown.
For Organic Chemical Sold for Use as an Antiskinning Agent for Compositions Containing Drying Oils or Resins.
First use Nov. 29, 1944.

SN 683,385. Gallowhur Chemical Corporation, Ossining, N. Y. Filed Mar. 14, 1955.

GALLOSAN

For Bactericidal Composition for Pulp and Paper.
First use on or about May 14, 1953.

SN 698,965. Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed Nov. 28, 1955.

KOSMOS

Owner of German Reg. No. 24,185, dated May 7, 1897.
For Coal Tar Dyestuffs.

SN 4,500. Witco Chemical Company, New York, N. Y. Filed Mar. 13, 1956.

WITCO

For Carbon Blacks; Metallic Salts of Fatty Acids, Especially of the Following Acids—Stearic, Oleic, 2 Ethyl Hexoic, Iso Octoic, Tall Oil, Rosin, and Naphthenic; Oxidized Asphalt Known as Hard Hydrocarbon; Esters of Organic Acids; Fatty Acids; Stabilizers for Vinyl Resins; Calcium Carbonate and Cobalt Hydrate.
First use on or about June 1937.

SN 4,579. The Tanatex Chemical Corporation, Kearny, N. J. Filed Mar. 14, 1956.

TANAVOL

Owner of Reg. Nos. 576,799, 603,173, 616,978.
For Compounds Instrumental in the Fixation of Coloring Matters Upon Fibres—Namely, Dyeing Assistants and Leveling, Exhausting, Penetrating, Wetting, and Dispersing Agents.
First use Mar. 3, 1956.

SN 10,531. Grandpa Brands Co., d. b. a. C. S. Dent & Co., Cincinnati, Ohio. Filed June 19, 1956.

Vantines

For Incense in Cone and Powder Form.
First use 1866.

SN 12,878. The Dow Chemical Company, Midland, Mich. Filed July 26, 1956.

ZERTAN

For Polymerized Ethylene Resins in the Form of Molding Granules.
First use Apr. 24, 1956.

SN 13,774. Omaha Chemical Company, Omaha, Nebr. Filed Aug. 10, 1956.

PROTI-QUAN

For Test Paper for the Semi-Quantitative Estimation of Protein in Urine.
First use Apr. 23, 1956.

SN 13,941. Wallerstein Company, Inc., New York, N. Y. Filed Aug. 14, 1956.

DRYCON

For Sizing Compositions for Textile Fabrics.
First use Jan. 26, 1956.

CLASS 8

SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS

SN 16,532. Nova Manufacturing Co., Inc., Brooklyn, N. Y. Filed Sept. 27, 1956.

THE SPINAWAY

For Ash Trays.
First use July 1, 1955.

CLASS 11

INKS AND INKING MATERIALS

SN 690,140. Diagraph-Bradley Industries, Inc., Herrin, Ill. Filed June 24, 1955.

QUIK-SPRAY

For Stencil Ink.
First use June 9, 1955.

SN 14,170. Printers Ink & Supply Co., Inc., Birmingham, Ala. Filed Aug. 17, 1956.

S-D SUR-DUZ

For Additive Inks for the Graphic Arts.
First use Jan. 30, 1956.

CLASS 12

CONSTRUCTION MATERIALS

SN 692,002. The Joclin Manufacturing Company, North Haven, Conn. Filed July 27, 1955.

FLUOROLIN

For Aluminum Foil Covered With Polyfluorocarbon Film on One Side and Adhesive on the Other Used as a Protective and Friction-Resistant Facing Material on Processing Equipment, Bag Formers, Bread Chutes, and Various Other Surfaces.
First use on or about June 17, 1955.

SN 7,712. Win-Chek, Hackensack, N. J. Filed May 4, 1956.

STATIC TENSION

For Storm Windows.
First use Jan. 15, 1956.

SN 14,685. Nicolet Industries, Inc., New York, N. Y. Filed Aug. 27, 1956.

N

For Asbestos Paper, Rollboard, Cloth, Insulation and Insulating Panels, Building Felts, Packing, and Gaskets; Corrugated Asbestos Paper, Sheets, and Blocks; Asbestos Pipe Insulation; Asbestos Pipe and Boiler Coverings; Asbestos Cement; Asbestos Pipe Joint Tape; Asbestos Millboard and Ductboard; and Wool Felt.
First use about Jan. 1, 1896.

SN 14,801. G. & W. H. Corson, Inc., Plymouth Meeting, Pa. Filed Aug. 29, 1956.

HOME-CRETE

For Package Dry Concrete Mix.
First use June 29, 1956.

CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

SN 690,438. The Deniston Company, Chicago, Ill. Filed June 29, 1955. Sec. 2(f) as to "Deniston."

DENISTON

Owner of Reg. Nos. 421,401 and 522,675.
For Nails, Drive Screws, Bolts, and Metal Fasteners Having Lead Portions Adjacent to the Heads Thereof.
First use June 20, 1955.

SN 3,500. Wheeling Steel Corporation, Wheeling, W. Va. Filed Feb. 27, 1956.

Electrotest

For Metal Pipe.
First use Feb. 6, 1956.

SN 3,867. Lyon Metal Products, Incorporated, Aurora, Ill. Filed Mar. 5, 1956.

SNAP-IN

For Fasteners for Shelf Dividers and the Like.
First use Oct. 18, 1928.

SN 4,501. Worcester Valve Co., Inc., Worcester, Mass. Filed Mar. 13, 1956. Sec. 2(f).

WORCESTER

For Valves, and Particularly Ball, Gate, Globe, Needle, Check, and Plug Valves.
First use May 1947.

SN 4,887. The Coca-Cola Bottling Works Company, Cincinnati, Ohio. Filed Mar. 20, 1956. Sec. 2(f).

Toas-Tite

Owner of Reg. No. 545,578.
For Manually Supported Utensil for Toasting Sandwiches.
First use Jan. 15, 1945.

SN 6,118. Kovax Products, New York, N. Y. Filed Apr. 10, 1956.

KOVAX

For Tie Racks.
First use Mar. 1, 1947.

SN 8,780. Lake Drive Products Co., Inc., Edgerton, Wis. Filed May 22, 1956.

REV-A-TRAY

For Shelves, Trays, Revolving Shelves, Revolving Trays, and Hardware Therefor, Sold in Kits for Assembly.
First use November 1955.

SN 11,473. ES Products, Inc., Larchmont, N. Y. Filed July 3, 1956.

SPRED-NAIL

For Nails.
First use Apr. 17, 1956.

SN 14,207. American Screw Company, Willimantic, Conn. Filed Aug. 20, 1956.

TORQ-SET

For Screws, Bolts, Studs, Rivets, and Allied Fasteners.
First use July 8, 1955.

SN 14,991. Joseph G. Stertz, d. b. a. Wee-Fit Miniature Plumbing Fitting Manufacturing Company, Phoenix, Ariz. Filed Aug. 31, 1956.

wee fit

For Miniature Plumbing Fittings for Training Purposes.
First use Mar. 20, 1956.

SN 15,042. Le Fiell Mfg. Co., Los Angeles, Calif. Filed Sept. 4, 1956.

ROTO-DRAW

For Tapered Metal Tubing.
First use Sept. 14, 1955.

SN 15,110. Elkay Manufacturing Company, Chicago (Cicero), Ill. Filed Sept. 5, 1956. Sec. 2(f).

STURDIBILT

Owner of Reg. No. 343,405.
For Custom Built Sheet Metal Products—Namely, Metal Sinks, Lavatory Basins, Shower Bath Compartments, Lavatory Flush Tanks, Arm and Leg Baths, Drinking Fountains, Bath Tubs, and Sanitary Laundry Trays.
First use Dec. 16, 1935.

SN 15,139. J. C. Penney Company, New York, N. Y. Filed Sept. 5, 1956.

toddletime

For Non-Electric Bottle Sterilizers and Baby Baths for the Use of Infants and Children.
First use from April 1955.

SN 15,251. E. B. Wiggins Oil Tool Company, Inc., Los Angeles, Calif. Filed Sept. 6, 1956.

CONNECT-O-MATIC

For Couplings for Conduits for Gaseous and Liquid Fluids.
First use Mar. 15, 1956.

SN 15,252. Zallea Brothers, Wilmington, Del. Filed Sept. 6, 1956. Sec. 2(f).

ZALLEA

For Expansion Joints Used in Air, Gas, and Liquid Pipe Lines.
First use 1931.

SN 15,346. Calumet & Hecla, Inc., Chicago, Ill. Filed Sept. 10, 1956.

Owner of Reg. Nos. 538,833, 591,553, and others.
For Metal Tubing.
First use May 17, 1956.

SN 15,354. Curtiss-Wright Corporation, Quehanna, Pa. Filed Sept. 10, 1956.

Hi-Tide

For Baby Bath Seats.
First use Feb. 24, 1956.

SN 15,529. A. W. Cash Company, Decatur, Ill. Filed Sept. 12, 1956.

CASH STANDARD

The word "Standard" is disclaimed apart from the mark as shown.
For Pressure Actuated Valve Mechanisms, Multiway Hydraulic Valves, Fott Valves, Differential Pressure Control Valves, Hand Control Valves, Hydraulic Control Valves, Pneumatic Control Valves, Draft Controlling Valve Mechanisms, Liquid-Level Controllers, Solenoid-Operated Valves for Controlling Refrigerants, Refrigerant-Control Valves for Use With Thermostatic Devices, Volume-Flow Control Valves, Altitude Governors, Cooling-Water Governors, Pressure Governors, Pump Governors, Vacuum Governors, Zone-Control Governors, Regulators, Condenser-Water Regulators, Excess-Pressure Pump Governors, Pressure Pilots, Steam Traps, Check Valves, Strainers, Automatic Valves, Back Pressure Valves, Balanced Valves, Expansion Valves, Diaphragm Motor Valves Hydraulic-Operating Valves, Pressure-Reducing Valves, Pressure Reducing and Regulating Valves, Regulating Valves, and Unloading Valves.
First use Apr. 12, 1916.

SN 16,563. The Sheffield Silver Company, New York, N. Y. Filed Sept. 27, 1956.

STRATA

For Hollow-Ware Made of Stainless Steel.
First use Aug. 24, 1956.

CLASS 14

METALS AND METAL CASTINGS AND FORGINGS

SN 699,548. The Carpenter Steel Company, Reading, Pa. Filed Dec. 7, 1955.

TEN STAR

For Steel, Particularly Tool and Die Steels in the Form of Wire, Strips, Bars, Billets, and Other Shapes.
First use Nov. 7, 1955.

SN 1,764. The Carpenter Steel Company, Reading, Pa. Filed Jan. 31, 1956.

DOUBLE HEADER

For Steel, Particularly Tool and Die Steels in the Form of Wire, Strips, Bars, Billets, and Other Shapes.
First use Dec. 21, 1955.

SN 1,765. The Carpenter Steel Company, Reading, Pa. Filed Jan. 31, 1956.

MEL-TROL

For Steel, Particularly Tool and Die Steels in the Form of Wire, Strips, Bars, Billets, and Other Shapes.
First use Dec. 21, 1955.

SN 8,485. Inland Steel Company, Chicago, Ill. Filed May 17, 1956.

FROSTIN

For Tin Plate.
First use Apr. 10, 1956.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

SN 4,941. Cargill, Incorporated, Minneapolis, Minn. Filed Mar. 21, 1956.

EXTRALIN

For Raw and Boiled Linseed Oil for Paint.
First use Dec. 12, 1955.

SN 12,154. Camel Lead Color & Chemical Products Mfg. Corp., Brooklyn, N. Y. Filed July 16, 1956. Sec. 2(f).

MAGIC

For Prepared Shellac and Varnishes, Lacquers, Paint, Enamels, Flat Paints, Oil Paints, Oil Colors.
First use Jan. 1, 1928.
Subj. to Intf. with SN 17,739.

SN 17,510. The Sherwin-Williams Company, Cleveland, Ohio. Filed Oct. 15, 1956.

EXLON

For Automotive Enamel.
First use Aug. 27, 1956.

SN 17,511. The Sherwin-Williams Company, Cleveland, Ohio. Filed Oct. 15, 1956.

Beauty-Lok

For Natural Wood Finish Compositions Including Varnishes and Sealers.
First use Sept. 4, 1956.

SN 17,529. Tobias Paint Mfg. Co., Cleveland, Ohio. Filed Oct. 15, 1956.

RICHARD'S

For Paints, Paint Primers, Paint Enamels, Raw Linseed Oil, Asphalt Products, Stains, Varnishes, Paint Thinners, and Paint Colors.
First use September 1951.

SN 17,739. Magic Iron Cement Company, Cleveland, Ohio. Filed Oct. 18, 1956.

Maqic

Owner of Reg. Nos. 412,098, 593,186, and others.
For Porcelain Glaze, Clear Plastic, Aluminum Paint, and Enamels in Various Colors, Sold in Aerosol Spray Containers.
First use July 1954.
Subj. to Intf. with SN 12,154.

SN 18,446. The Martin-Senour Company, Chicago, Ill. Filed Oct. 30, 1956.

Poly-Sol

For Exterior Masonry Paints.
First use Sept. 20, 1956.

SN 18,536. United Co-Operatives, Inc., Alliance, Ohio. Filed Oct. 31, 1956.

WEATHER-AMIC

For Exterior Oil Paints, Enamels, Varnishes, Stains, Roof Coatings, Caulking Compounds, and Paint Thinner.
First use Sept. 20, 1956.

SN 18,543. The Arco Company, Cleveland, Ohio. Filed Nov. 1, 1956.

ARCO

Owner of Reg. Nos. 52,055, 118,847, and 124,361.
For Paints; Varnishes; Enamels; Lacquers; Paint-Type Primers, Sealers, Undercoaters, and Surfacers; Thinners; Reducers; Asphaltum Paints; Heavy Protective Coatings for Exterior Masonry, Metal and Stacks; Primers for Heavy Protective Coatings for Exterior Masonry; Caulking Compounds; Crack Fillers; Glazing Compounds; Below Grade Foundation Coatings; Roofing Cements; Additives for Paints To Permit Baking of Said Paints; Rubbing and Polishing Compounds; Rubber Dressing; Cable Coatings; Pipe Joint Compounds; Boiler Setting Compounds; and Spot Puttys.
First use on or about May 15, 1904, on paint.

SN 18,544. The Arco Company, Cleveland, Ohio. Filed Nov. 1, 1956.

DUM DUM

Owner of Reg. Nos. 108,734 and 117,504.
For Heavy Protective Coatings for Exterior Masonry, Metal and Stacks; Primers for Heavy Protective Coatings for Exterior Masonry; Caulking Compounds; Crack Fillers; Glazing Compounds; and Pipe Joint Compounds.
First use in or about 1915.

SN 18,545. The Arco Company, Cleveland, Ohio. Filed Nov. 1, 1956.

ARCOTONE

For Paints, Enamels, Primers, and Undercoaters or Sealers.
First use in 1932 on paints.

SN 18,546. The Arco Company, Cleveland, Ohio. Filed Nov. 1, 1956.

MASONOC

For Heavy Protective Coatings for Exterior Masonry, Metal, and Stacks; Primers for Heavy Protective Coatings for Exterior Masonry; and Crack Fillers.
First use in 1935.

SN 18,547. The Arco Company, Cleveland, Ohio. Filed Nov. 1, 1956.

DUM DUM MASONOC

Owner of Reg. Nos. 117,503 and 108,734.
For Heavy Protective Coatings for Exterior Masonry, Metal, and Stacks; Primers for Heavy Protective Coatings for Exterior Masonry; and Crack Fillers.
First use in 1935.

SN 18,549. The Arco Company, Cleveland, Ohio. Filed Nov. 1, 1956.

ARCO 45

Owner of Reg. Nos. 52,055, 124,361, and 118,847.
For Enamels and Thinners for Enamels.
First use in June 1954.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

SN 693,973. The Continental Pharmacal Company, Cleveland, Ohio. Filed Aug. 31, 1955.

ELECTROSOL

For Electrolyte Solution for Intravenous Injection.
First use Oct. 23, 1952.

SN 697,718. Tablerock Laboratories, Inc., Greenville, S. C. Filed Nov. 4, 1955.

SENAZOL

For Product Containing Hormones, Minerals, Vitamins, Lipotropics, and a Cerebral Stimulant Especially Designed for Treating Senile States Which Are Encountered in Geriatrics.
First use Aug. 15, 1955.

SN 751. Carroll Chemical Company, Baltimore, Md. Filed Jan. 16, 1956.

DROP-O-SWEET

For Concentrated Saccharine Solution for Use on a Reducing or Diabetic Diet.
First use Dec. 1, 1953.

SN 1,070. Gides, Incorporated, Beverly Hills, Calif. Filed Jan. 19, 1956.

Guidavita

For Dietary Vitamin Food Supplements.
First use Jan. 12, 1956.

SN 2,353. Gray Pharmaceutical Co., Inc., Newton, Mass. Filed Feb. 9, 1956.

GERISERP

For Pharmaceutical Preparation Intended To Produce Tranquilizing Effects.
First use Nov. 29, 1954.

SN 2,686. The Chattanooga Medicine Co., Chattanooga, Tenn. Filed Feb. 15, 1956.

NORMALIN

For Preparation for Pre-Menstrual Tension.
First use Jan. 25, 1956.

SN 4,589. S. J. Tutag & Company, Detroit, Mich. Filed Mar. 14, 1956.

GRANUCAPS

For Timed Disintegration Capsules Containing Internal Medicinal Preparations.
First use October 1954.

SN 13,764. Hicks Pharmacal Company, Newark, N. J. Filed Aug. 10, 1956.

ARTHRYCIN

For Preparation for Relief of Pain of Arthritis and Rheumatism.
First use Aug. 10, 1956.

SN 13,781. Rystan Company, Mount Vernon, N. Y. Filed Aug. 10, 1956.

DERIFIL

For Deodorant Tablet for Internal Administration.
First use July 10, 1956.

SN 13,792. The Upjohn Company, Kalamazoo, Mich. Filed Aug. 10, 1956.

MICHIMYCIN

For Antibiotic Preparation.
First use Mar. 30, 1956.

SN 13,793. The Upjohn Company, Kalamazoo, Mich. Filed Aug. 10, 1956.

DERMANARY

For General Dermatological Lotion for Veterinary Use.
First use May 16, 1956.

SN 13,794. The Upjohn Company, Kalamazoo, Mich. Filed Aug. 10, 1956.

UPRIN

For Analgesic Preparation.
First use May 16, 1956.

SN 13,839. Heilkraft Medical Company, Boston, Mass. Filed Aug. 13, 1956.

FORSALTOL

For Analgesic Agent for Use in the Treatment of Rheumatic and Gouty Affections, Sciatica, and Neuralgia.
First use Jan. 20, 1934.

SN 15,727. The Purdue Frederick Company, New York, N. Y. Filed Sept. 14, 1956.

SOMATOVITE CHEWTAB

For Pharmaceutical Preparation To Improve Appetite and Benefit Growth.
First use Aug. 23, 1956.

CLASS 19

VEHICLES

SN 6,086. Alweg Aktiebolag, Stockholm, Sweden. Filed Apr. 10, 1956.

ALWEG

Owner of Swedish Reg. No. 74,911, dated Oct. 23, 1953.
For Land Vehicles—Namely, Railway Cars, Tramway Cars, Motor Cars, and Components Thereof.

SN 16,205. Ford Motor Company, Dearborn, Mich. Filed Sept. 24, 1956.

RANGER

For Automobiles.
First use July 18, 1956.

SN 16,540. Hamilton Manufacturing Company, Two Rivers, Wis. Filed Sept. 27, 1956.

The mark comprises the letter "H" on a rhomboid-like background.
For Shop Trucks—Namely, Waste Metal Trucks, Galley Transfer Trucks, Galley Cabinet Trucks and Form Transfer Trucks of the Adjustable and Non-Adjustable Type.
First use on or about Aug. 13, 1956, on transfer trucks.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

SN 663,684. George Schoenborn-Buchheim, d. b. a. Garvenswerke, Vienna, Austria. Filed Mar. 31, 1954.

For Electric Switches, Electric Gears, and Electric Motors.
First use 1869; in commerce 1936.

SN 693,091. Louis Rubin, Long Island City, N. Y. Filed Aug. 15, 1955.

CLAREMONT

Owner of Reg. No. 582,777.
For Television Cathode Ray Tubes.
First use Feb. 1, 1951.

SN 693,092. Louis Rubin, Long Island City, N. Y. Filed Aug. 15, 1955.

An ULTRA-VAC

For Television Cathode Ray Tubes.
First use Feb. 1, 1952.

SN 4,196. Gruendler Crusher and Pulverizer Company, St. Louis, Mo. Filed Mar. 9, 1956.

VEGE-A-TRIM

For Electrically Driven Garbage-Disposal Units.
First use Feb. 1, 1956.

SN 4,314. The Fast-Lok Manufacturing Company, Bridgeport, Conn. Filed Mar. 12, 1956. Sec. 2(f).

FAST-LOK

For Electrical Equipment—Namely, Electrical Conduit and Outlet Box Supports, Electrical Conduit Clamps, and Bar Hangers.
First use May 28, 1950.

SN 5,302. Infra Electronic Corporation, Roseland, N. J. Filed Mar. 27, 1956.

The drawing is lined for red.
For Dictating Machines.
First use June 1, 1955.

SN 7,547. Transandean Associates, Inc., Orange, N. J. Filed May 2, 1956. Sec. 2(f).

CASE

For Electrical Line Equipment, Such as Electrical Insulated Transposition Brackets and the Like.
First use Jan. 1, 1947.

SN 9,764. The Astatic Corporation, Conneaut, Ohio. Filed June 7, 1956.

For Microphones for Use With Radio and Television Broadcasting, Public Address Systems, Recording and Reproducing, Etc.
First use Apr. 9, 1956.

SN 10,353. Silvray Lighting, Inc., New York, N. Y. Filed June 15, 1956.

SKYCEIL

For Electric Lighting Fixtures.
First use February 1955.

SN 15,938. Blaupunkt-Werke GMBH, Hildesheim, Germany. Filed Sept. 19, 1956.

Owner of German Reg. No. 612,541, dated Oct. 11, 1951.
For Radio Receiving Apparatus and Television Receiving Sets.
First use in 1935; in commerce summer 1956 on radio receiving apparatus; as to "Blue Spot" on radios in 1928.

SN 15,939. Blaupunkt-Werke GMBH, Hildesheim, Germany. Filed Sept. 19, 1956.

BLUE SPOT

Owner of German Reg. No. 390,912, dated Aug. 31, 1928.
For Radio Receiving Apparatus and Television Receiving Sets.
First use in 1928; in commerce summer 1956 on radio receiving apparatus.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

SN 671,992. Flores Yo-Yo Corporation of America, New York, N. Y. Filed Aug. 20, 1954.

Flores

For Yo-Yo Tops.
First use Aug. 6, 1954.

SN 693,496. South Bend Bait Company, South Bend, Ind. Filed Aug. 22, 1955.

SUPER-JET

For Fishing Lines.
First use July 12, 1955.

SN 695,878. American Machine & Foundry Company, New York, N. Y. Filed Oct. 5, 1955.

UNDERLANE

For Bowling Alley Ball Returns and Ball Return Tracks.
First use approximately Apr. 26, 1955.

SN 856. Wham-O Powermaster Corporation, d. b. a. Wamo Manufacturing Company, San Gabriel, Calif. Filed Jan. 16, 1956.

wamo

Owner of Reg. No. 603,251.
For Sling Shots, Throwing Daggers, Golf Practice Balls.
First use Oct. 15, 1955.

SN 4,654. Louis Marx & Company, Inc., New York, N. Y. Filed Mar. 15, 1956.

LINE MAR

Owner of Reg. Nos. 617,781 and 528,753.
For Toy Automotive Vehicles Including Passenger Cars, Trucks, Tractors, Excavating and Earth-Moving Machinery; Boats; Airplanes; Railway Toys; Animal Toys; Toy Weapons; Savings Banks; Cartoon and TV Character Toys; and Miscellaneous Toys—Namely, Screwballs, Kaleidoscope, Play Scale, Telephone, Cash Register, Household Appliance Toys, Service Station, Carousel, and Construction Sets.
First use Aug. 10, 1954.

SN 7,470. John C. Backe, Gaylord, Mich. Filed May 2, 1956.

HOOK MASTER

For Fish Hook Disgorging Tool.
First use May 1, 1956.

SN 10,595. Morton Hague, d. b. a. The Gamby Company, Michigan City, Ind. Filed June 20, 1956.

MONKEY-ROPE

For Swing Exercising Devices.
First use May 14, 1955.

SN 10,888. Jumpmaster Company, Calumet, Iowa. Filed June 25, 1956.

JUMPMASTER TEST OF CHAMPIONS

No claim is made to the words "Test of Champions" apart from the mark as shown.
For Mechanical Apparatus Consisting of Base, Upright and Adjustable Horizontal Arm Used To Increase and Measure the Jumping Ability of Basketball Players.
First use Oct. 1, 1954.

SN 13,257. Trimline Tackle Co. Inc., New York, N. Y. Filed Aug. 1, 1956.

SEA-SPIN

For Fishing Reels.
First use Dec. 12, 1955.

SN 13,258. Trimline Tackle Co., Inc., New York, N. Y. Filed Aug. 1, 1956.

TRIM-SPIN

For Fishing Reels.
First use November 1954.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

SN 656. Burgess Vibrocrafters, Inc., Grayslake, Ill. Filed Jan. 13, 1956.

Owner of Reg. Nos. 533,162 and 531,702.
For Unitary Portable Electric Tools and Apparatus Including Jig Saws, Knife and Scissors Sharpeners, Band Saws, and Belt Sanders.
First use July 31, 1950, on jig saws.

SN 1,544. Racine Hydraulics & Machinery, Inc., Racine, Wis. Filed Jan. 26, 1956.

RACINE HYDRA-QUAD

Owner of Reg. Nos. 600,991, 608,206, and 614,627.
For Multiple Tamping Machines and Parts and Replacements Therefor.
First use July 28, 1954.

SN 2,818. Rockwell Spring and Axle Company, Coraopolis, Pa. Filed Feb. 16, 1956.

WIDE RANGE

For Vehicle Drive Axle Assemblies.
First use Jan. 27, 1956.

SN 3,233. Richard B. Smith, d. b. a. Knifemaster Products Co., Hickory, N. C. Filed Feb. 23, 1956.

KNIFEMASTER

For Machines for Sharpening Cutlery, Such as Butcher Knives, Bread Knives, and the Like.
First use Apr. 5, 1955.

SN 4,365. J. E. Rhoads & Sons, Wilmington, Del. Filed Mar. 12, 1956. Sec. 2(f).

RHOADS

Owner of Reg. Nos. 145,187 and 510,597.
For Textile Strapping Including Loom Strapping and Clutch Strapping.
First use 1890.

SN 4,982. Pneumafil Corporation, Charlotte, N. C. Filed Mar. 21, 1956.

PNEUMACLEAR

For Auxiliary Cleaning Equipment for Textile Machinery and the Like.
First use Feb. 10, 1956.

SN 11,885. Thatcher Glass Manufacturing Company, Inc., Elmira, N. Y. Filed July 10, 1956.

NU-GLAS

For Machinery for the Treatment of Glass Bottle Surfaces.
First use June 6, 1956.

SN 12,642. The Leeds Conveyor Manufacturing Co., East Haven, Conn. Filed July 23, 1956.

QUALITY LEEDS

For Material Handling Conveyors, Including Portable Adjustable Belt Booster Conveyors, Wire Mesh Belt Conveyors, Stationary Conveyors, Portable Conveyors, Chain Conveyors, Rail Conveyors, Roller Conveyors, Curved Line Conveyors, Straight Line Conveyors, Inclined Conveyors, Conveyor Sections, and Spiral Conveyors.
First use on or about Oct. 3, 1955.

SN 15,280. William G. Jensen, d. b. a. The Jensen Co., Elkhorn, Wis. Filed Sept. 7, 1956.

JET BUG-AIRE

For Bug Fogging Attachment for Power Lawn Mowers.
First use Mar. 1, 1956.

SN 18,467. Simplicity Manufacturing Company, Port Washington, Wis. Filed Oct. 30, 1956.

WONDER-BOY

For Tractors.
First use Aug. 11, 1956.

SN 18,600. The Tait Manufacturing Company, Dayton, Ohio. Filed Nov. 1, 1956.

COMMANDER

For Water Pumps, Water Systems, Sump Pumps, and Cellar Drainers.
First use June 5, 1956, on water systems.

SN 18,601. The Tait Manufacturing Company, Dayton, Ohio. Filed Nov. 1, 1956.

DOLPHIN

For Water Pumps and Water Systems.
First use Feb. 16, 1956, on water pumps.

CLASS 24

LAUNDRY APPLIANCES AND MACHINES

SN 685,962. Davis Specialties, Inc., Evanston, Ill., to Bishop David Freeman Co., Evanston, Ill. Filed Apr. 21, 1955.

DOUBLEPLATE

For Press Plates.
First use on or about Dec. 29, 1954.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

SN 636,682. Marian E. Bourns, d. b. a. Bourns Laboratories, Riverside, Calif., to Bourns Laboratories, Inc., Riverside, Calif. Filed Oct. 16, 1952. Sec. 2(f).

BOURNS LABORATORIES

For Instruments Embodying Potentiometers—Namely, Altimeters, Pressure Indicators, Airspeed Indicators, Position Indicators, and Accelerometers.
First use Feb. 25, 1947.

SN 2,980. Grant Money-Meters Company, Providence, R. I. Filed Feb. 20, 1956.

GRANT ELECTROTOLLER

The word "Grant" is disclaimed apart from the mark as shown. Owner of Reg. No. 552,515.
For Toll Receiving and Registering Apparatus.
First use on or about August 1955.

SN 4,585. The Turner Brass Works, Sycamore, Ill. Filed Mar. 14, 1956. Sec. 2(f).

TURNER

Owner of Reg. No. 633,186.
For Instruments for Detecting Leaks in Gas Lines of Refrigerating Equipment and Other Fuel Lines.
First use Apr. 1, 1954.

SN 6,995. Dexter Folder Company, Pearl River, N. Y., to Miehle Printing Press & Manufacturing Company, Chicago, Ill. Filed Apr. 24, 1956.

VIDIFILE

For File Jackets for Strips and/or Individual Sections of Microfilm.
First use Mar. 28, 1956.

SN 9,323. Pako Corporation, Minneapolis, Minn. Filed June 14, 1956.

PAKO

Owner of Reg. No. 388,732.
For Photographic Apparatus and Equipment, Particularly Photographic Printing, Developing, Washing, Drying and Trimming Machines, Including X-Ray Printing and Developing Machines, Film Clips and Roll Hangers, and Apparatus and Equipment for Replenishing and Tempering Chemicals for Film Printing and Processing.
First use Aug. 20, 1946.

SN 11,166. The Geolograph Company, Oklahoma City, Okla. Filed June 28, 1956.

GEOLOGRAPH TIME WILL TELL

Owner of Reg. No. 390,122.
For Mechanical Well Logging Instruments.
First use June 18, 1938.

SN 13,162. Michigan Tool Company, Detroit, Mich. Filed July 31, 1956.

SINE LINE

For Gear Checking Machines, Hob Checking Machines, Cutter Checking Machines.
First use 1936 on gear checking machines.

SN 13,585. Hewlett-Packard Company, Palo Alto, Calif. Filed Aug. 8, 1956.

HEWLETT hp PACKARD

Owner of Reg. Nos. 399,314, 626,870, and others.
For Instruments Used for Measuring and Testing Purposes—Namely, Directional Couplers, Distortion Analyzers, Electronic Counters, Frequency Meters, Frequency and Modulation Monitors, Frequency Converters, Oscillators, Power Meters, Pulse Generators, Ratiometers, Scalers, Secondary Frequency Standards, Signal Generators, Square Wave Generators, Standing Wave Indicators, Tachometer Indicators, Voltmeters, Wave Analyzers, Wave Function Generators.
First use in January 1941.

SN 13,846. Intercontinental Dynamics Corporation, Englewood, N. J. Filed Aug. 13, 1956.

sigmatron

For Random Signal Generator.
First use June 1, 1956.

SN 13,936. Sperry Rand Corporation, Great Neck, N. Y. Filed Aug. 14, 1956.

GYROFIN

For Ship Stabilizing Systems and Components Therefor.
First use June 1, 1956.

CLASS 27

HOROLOGICAL INSTRUMENTS

SN 1,381. Montres Rolex (S. A. Rolex Uhren AG) (Rolex Watch Co. Ltd.), Geneva, Switzerland. Filed Jan. 24, 1956.

ORCHID

Priority under Sec. 44(d) on Swiss Reg. No. 158,669, dated Nov. 12, 1955.
For Timepieces of All Kinds and Parts Thereof.

CLASS 28

JEWELRY AND PRECIOUS-METAL WARE

SN 689,833. Gemex Company, Union, N. J., to The Gemex Corporation, Union, N. J. Filed June 20, 1955.

CANDIDE

For Watch Bracelets and Watch Straps, Not Incorporating or Containing Synthetic Pearls.
First use Dec. 1, 1952.

CLASS 29

BROOMS, BRUSHES, AND DUSTERS

SN 15,288. Nashua Textile Company, Inc., Nashua, N. H. Filed Sept. 7, 1956.

KARKERCHIEF

For Polishing Cloths.
First use July 31, 1956.

CLASS 31

FILTERS AND REFRIGERATORS

SN 3,205. Lec Refrigeration Ltd., Bognor Regis, Sussex, England. Filed Feb. 23, 1956.

Lec

For Refrigerators and Units Comprising an Electric Motor and Compressor for Use in Refrigerators.
First use Nov. 19, 1945; in commerce Dec. 15, 1949.

SN 3,952. Polar Chips Mfg. Co., Fort Worth, Tex. Filed Mar. 6, 1956.

POLAR CHIPS

For Ice-Making Machines and Parts Thereof.
First use September 1953.

SN 18,422. Engine Life Products Corporation, El Monte, Calif. Filed Oct. 30, 1956.

Maxiflo

For Full Flow Filter Cases and Filter Replacement Elements.
First use Mar. 28, 1956.

SN 18,459. Raetone Commercial Refrigerator Corp., Plymouth Meeting, Pa. Filed Oct. 30, 1956.

Raetone

For Refrigerators, Refrigerated Cases, Refrigerated Units, Frozen Food Cabinets, Freezing Cabinets, and Accessories and Parts Therefor.
First use on or about Oct. 12, 1956.

SN 18,460. Raetone Commercial Refrigerator Corp., Plymouth Meeting, Pa. Filed Oct. 30, 1956.

Rt

For Refrigerators, Refrigerated Cases, Refrigerated Units, Frozen Food Cabinets, Freezing Cabinets, and Accessories and Parts Therefor.
First use on or about Oct. 12, 1956.

CLASS 32

FURNITURE AND UPHOLSTERY

SN 17,696. Bankers Box Company, Chicago, Ill. Filed Oct. 18, 1956.

R-Kive

For Cardboard and Corrugated-Board Storage Filing Boxes.
First use Oct. 3, 1956.

SN 17,698. Borroughs Manufacturing Company, Kalamazoo, Mich. Filed Oct. 18, 1956.

CYCLOPS

For Storage Cabinets.
First use Mar. 26, 1956.

SN 17,999. The Englander Company, Inc., Chicago, Ill. Filed Oct. 23, 1956.

BACK Magic

For Mattresses and Box Springs.
First use July 11, 1956.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

SN 697,849. Geo. D. Roper Corporation, Rockford, Ill. Filed Nov. 7, 1955.

TEM TROL

For Thermostatically-Controlled Gas Burners.
First use about May 5, 1955.

SN 699,261. Texas Delta Development Corporation, Lockhart, Tex. Filed Dec. 1, 1955.

TEDCO

For Oxyacetylene Welding and Cutting Devices and Parts.
First use Aug. 18, 1954.

SN 1,390. Romac Industries, Inc., Camden, N. J. Filed Jan. 24, 1956.

BASEVECTOR

For Baseboard Radiators, Air Distributing Ducts, Convectors and Their Parts, and Radiator Coverings for Use With Home and Industrial Hot Water and Hot Air Heating Systems.
First use Dec. 6, 1955.
Subj. to Intf. with SN 6,503.

SN 9,158. The Liquid Carbonic Corporation, Chicago, Ill. Filed May 28, 1956.

LIQUIDWELD

For Welding Torches and Welding Apparatus.
First use May 2, 1956.

SN 14,740. Heatrite, Inc., Minneapolis, Minn. Filed Aug. 28, 1956.

HEATRITE

For Hot Water Heaters.
First use in 1947.

SN 15,533. Degree Corporation, Mission, Kans. Filed Sept. 12, 1956.

MONOFOIL

For Industrial Fans and Parts Thereof.
First use Aug. 27, 1956.

CLASS 35

BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

SN 15,480. Minnesota Rubber and Gasket Co., Minneapolis, Minn. Filed Sept. 11, 1956.

QUAD-RING

Owner of Reg. No. 581,372.
For Sealing Rings.
First use Jan. 19, 1953.

CLASS 36

MUSICAL INSTRUMENTS AND SUPPLIES

SN 11,853. Hardman, Peck & Company, New York, N. Y. Filed July 10, 1956.

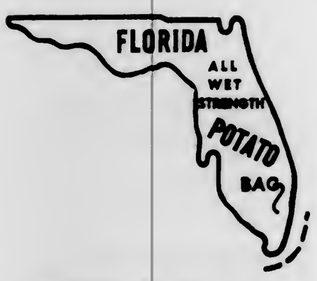
DUO *Piano*

Applicant disclaims any rights to the exclusive use of the word "Piano" apart from the mark as shown.
For Player Pianos.
First use July 1, 1955.

CLASS 37

PAPER AND STATIONERY

SN 684,105. Bemis Bro. Bag Company, St. Louis, Mo. Filed Mar. 24, 1955. Sec. 2(f).



Applicant makes no claim to the words "All Wet Strength" or "Potato Bag" apart from the mark shown. Owner of Reg. No. 549,099.
For Paper Bags.
First use Feb. 8, 1950.

SN 686,553. B. C. Lucas & Sons, Baltimore, Md. Filed Apr. 29, 1955.

For Loose Leaf Binders, Loose Leaf Sheets, Blank Books, Record Books, Ring Binders, Sales Book Covers, Phone Book Covers.
First use Mar. 15, 1955.

SN 694,073. Mercury-Stat Co., Philadelphia, Pa. Filed Sept. 1, 1955.

PENNART

For Illustration Boards, Artists' Papers, Pencils, Paper Pads, and Mounting Boards.
First use Aug. 18, 1955.

SN 694,244. Michigan Paper Company, Plainwell, Mich. Filed Sept. 6, 1955.

MICHIGAN

CARONIA E. F.

No claim is made for the letters "E. F." and the term "Michigan" apart from the mark shown.
For Printing and Book Papers.
First use Oct. 11, 1954.

SN 1,555. Western Tablet & Stationery Corporation, Dayton, Ohio. Filed Jan. 26, 1956.

SPORTS

For Loose Writing Paper for School or Office Use Put Up in Wrapped Packages, Boxes, or Banded.
First use in or about September 1953.

SN 6,044. Rawl Engineering & Mfg. Co., Inc., Providence, R. I. Filed Apr. 9, 1956.

POLLY ANN

Owner of Reg. No. 633,163.
For Fountain Pens and Mechanical Pencils.
First use in May 1954.

SN 13,761. Gulf States Paper Corporation, Tuscaloosa, Ala. Filed Aug. 10, 1956.

For Wrapping and Butchers' Paper.
First use June 28, 1956.

CLASS 39

CLOTHING

SN 682,341. Kay Windsor Frocks, Inc., Boston, Mass. Filed Feb. 25, 1955. Sec. 2(f).

The Look You Love

For Dresses.
First use Jan. 7, 1950.

SN 690,025. Niehues & Dutting, Nordhorn, Germany. Filed June 27, 1956.

nino-VEL

Owner of German Reg. No. 681,565, dated Sept. 13, 1955.
For Woven Articles of Clothing—Namely, Coats, Anoraks, Windjackets, Shorts, Shirts, Dresses, Skirts, Men's and Women's Suits, Trousers, and Caps.

SN 690,484. Patterson-Fletcher Company, Fort Wayne, Ind. Filed June 29, 1955.

Applicant disclaims the words "Clothes," "Patterson-Fletcher," and "Fort Wayne" apart from the mark.
For Men's Suits, Sport Coats, and Outer Coats.
First use Nov. 5, 1954.

SN 692,208. The Dayton Company, Minneapolis, Minn. Filed Aug. 1, 1955.

Dayton Dual Room

Owner of Reg. No. 408,077.
For Women's and Misses' Coats, Dresses, Suits, Fur Coats, Fur Jackets, and Shoes and Women's Hats.
First use Aug. 31, 1942, on women's and misses' coats, dresses, suits, fur coats, and fur jackets.

SN 2,327. Watumull Brothers, Honolulu, Territory of Hawaii. Filed Feb. 8, 1956.

Luau

The word "Luau" is Hawaiian for "feast."
For Women's Dresses.
First use Dec. 21, 1955.

SN 3,295. Mary Johnson, Bridgeport, Conn. Filed Feb. 24, 1956.

TY-INS

For Children's Dresses, Suits, and Blouses.
First use Dec. 19, 1955.

SN 5,409. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed Mar. 29, 1956. Sec. 2(f).

TABBER

For Outer Shirts.
First use January 1949.

SN 6,606. Famous-Sternberg, Inc., New Orleans, La. Filed Apr. 18, 1956.

Deansgate

For Jackets.
First use Feb. 27, 1956.

SN 11,055. Bo-Peep Manufacturing Company, Inc., New York, N. Y. Filed June 27, 1956. Sec. 2(f).

BABY IN THE CARRIAGE

For Infants' Garments—Namely, Diaper Sets, Dresses, Sun Suits, Blouses, and Overalls.
First use in April 1951.

SN 12,071. Dumont Handkerchiefs, Inc., New York, N. Y. Filed July 13, 1956.

DUO-NITIAL

For Handkerchiefs.
First use December 1955.

SN 13,729. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed Aug. 10, 1956.

ICE MIST

For Shirts.
First use Jan. 26, 1956.

SN 13,830. L. Greif & Bro., Inc., Baltimore, Md. Filed Aug. 13, 1956.

Signator

For Suits, Top Coats, Overcoats, Slacks, Sport Coats, and Jackets for Men, Boys, and Youths.
First use Mar. 1, 1956.

SN 13,832. Robert Hall Clothes, Inc., New York, N. Y. Filed Aug. 13, 1956.

UNIVERSITY HALL

For Men's Jackets, Overcoats, Sports Coats, Raincoats, and Slacks, and Young Men's Student Suits.
First use on or about Apr. 24, 1950.

SN 14,007. Luther D. Sanders, d. b. a. Traverse Bay Woolen Company, Traverse City, Mich. Filed Aug. 15, 1956.

TRAVERSE BAY

For Woolen Coats, Scarves, Gloves, Skirts, Sweaters, and Jackets.
First use June 1, 1947.

SN 14,126. Robert Crean & Company Limited, Toronto, Ontario, Canada. Filed Aug. 14, 1956.

CREAN
DURA CRAFT

Owner of Canadian Reg. Nos. N. S. 70/18,417 and 70/18,418, dated Feb. 8, 1944.
For Hats.

SN 14,594. Standard Knitting Mills, Inc., Knoxville, Tenn. Filed Aug. 24, 1956.

MACDEE

Owner of Reg. No. 390,993.
For Men's and Boys' Knitted Underwear.
First use in June 1938.

SN 15,009. Bedford Baby Togs, New York, N. Y. Filed Sept. 4, 1956.

SLEEPY
-EYES-

For Infants' and Children's Sleepers and Pajamas.
First use Feb. 13, 1956.

SN 15,247. Venus Foundation Garments, Inc., Chicago, Ill. Filed Sept. 6, 1956.

PARISFORM

For Girdles, Panty Girdles, Corselets (Also Referred to as Combination or All-in-One Garments), Garter Belts, Brassieres, Bandeaux, and Bandettes (Articles of Women's Clothing for Confining or Shaping the Bust and Extending Only Slightly or Not at all Below the Bust).
First use Feb. 8, 1922.

SN 15,390. Peter Pan Foundations, Inc., New York, N. Y. Filed Sept. 10, 1956.

MADAME X

For Girdles, Corsets, and Brassieres.
First use Aug. 15, 1956.

SN 15,472. Leading Lady Foundations, Inc., Cleveland, Ohio. Filed Sept. 11, 1956.

Guest ★ Star

For Brassieres.
First use June 15, 1956.

CLASS 43

THREAD AND YARN

SN 10,974. Nippon Keori Kaisha, Ltd., Ikuta-ku, Kobe, Japan. Filed June 25, 1956.

NKK

For Yarns.
First use Apr. 21, 1954; in commerce Apr. 21, 1954.

SN 18,056. Celanese Corporation of America, New York, N. Y. Filed Oct. 24, 1956.

F-36

For Yarn.
First use Aug. 20, 1956.

SN 18,689. Aberfoyle Manufacturing Company, Philadelphia, Pa. Filed Nov. 5, 1956.

ABERCROFT

For Cotton Yarns.
First use Sept. 27, 1956.

SN 18,711. Caron Spinning Company, Rochelle, Ill. Filed Nov. 5, 1956.

Caraloft

For Yarn.
First use Oct. 19, 1956.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

SN 12,047. Robert W. Ogle, Los Angeles, Calif. Filed July 12, 1956.

DIAL-A-DOSE

For Syringes.
First use June 8, 1956.

SN 12,258. The Diamond Match Company, New York, N. Y. Filed July 17, 1956.

For Toothpicks.
First use Feb. 21, 1956.

SN 12,259. The Diamond Match Company, New York, N. Y. Filed July 17, 1956.

INDEPENDENCE

For Toothpicks.
First use Feb. 21, 1956.

SN 12,273. William James Graham-Palmer, London, England. Filed July 17, 1956.

Vibrette

Owner of British Reg. No. 744,708, dated July 26, 1955.
For Vibratory Apparatus for Massage and Parts and Fittings for Such Apparatus.

SN 12,312. The Upjohn Company, Kalamazoo, Mich. Filed July 17, 1956.

VETCAP

For Disposable Plastic Capsule for Veterinary Use.
First use Mar. 29, 1956.

SN 12,438. Edward C. Littleton, San Francisco, Calif. Filed July 19, 1956.

ABC

For Hearing Aid Devices—Namely, Electric Amplifier for Sound.
First use Jan. 31, 1955.

SN 12,638. George E. Koehler, d. b. a. Baby-Touch Hair Remover Company, St. Louis, Mo. Filed July 23, 1956.

BABY TOUCH

For Article for Removing Superfluous or Unsightly Hair.
First use Feb. 5, 1931.

SN 12,671. Harold B. Sanders, Alton, Ill. Filed July 23, 1956.

The drawing is lined for red but no claim is made to color.
For Machines Used To Produce Cervical Traction.
First use June 7, 1956.

SN 12,774. Air Reduction Company, Incorporated, New York, N. Y. Filed July 25, 1956.

S-C-R-A-M

For Anesthesia Masks.
First use May 11, 1956.

SN 12,828. J. J. Monaghan Company, Inc., Denver, Colo. Filed July 25, 1956.

VENTALUNG

For Respiratory Apparatus.
First use Sept. 10, 1955.

SN 12,881. Esta Medical Laboratories, Inc., Chicago, Ill. Filed July 26, 1956.

EXQUISET

For Physician's Prescription Packages Containing Appliances and Medication for Vaginal Use.
First use May 10, 1956.

SN 12,898. Personal Products Corporation, New Brunswick, N. J. Filed July 26, 1956.

MODESS

Owner of Reg. Nos. 215,220 and 525,046.
For Tampons.
First use Apr. 20, 1956.

SN 12,916. Wacline, Inc., Dayton, Ohio. Filed July 26, 1956.

Wacline

For Frequency Regulators, Voltage Regulators, Speed Regulators, Dummy-Loads, Electric and Electronic Meters of Various Types, and Electromedical Apparatus.
First use May 1, 1956.

SN 13,023. Clover Farm Stores Corporation, Cleveland, Ohio. Filed July 30, 1956.

Clover Farm

For Sanitary Napkins and Toothpicks.
First use in 1927.

SN 13,458. Loy's Brassiere Company, Hollywood, Calif. Filed Aug. 6, 1956.

TWIN

For Prosthetic Device Having the Contours of a Female Breast.
First use July 20, 1956.

SN 13,599. Donold D. Pauldine, d. b. a. Ritz Beauty Salon, Elmira, N. Y. Filed Aug. 8, 1956.

ANALASCOPE

For Device Used To Analyze the Shape of an Individual's Face To Determine Proper Facial Makeup and Hair Styling Consisting of a Holder and Opaque Cards With Cutouts of the Seven Basic Shaped Faces.
First use Apr. 26, 1956.

SN 13,881. Sterling Drug Inc., New York, N. Y. Filed Aug. 13, 1956.

AMPTAINER

For Ampul Containers.
First use July 24, 1956.

CLASS 45

SOFT DRINKS AND CARBONATED WATERS

SN 684,921. Bo-Mar Products, Inc., Union City, N. J. Filed Apr. 5, 1955.

C'est Bon

The mark consists of the French words "C'est Bon" meaning "it's good."
For Grenadine Flavoring Syrup for Making Soft Drinks.
First use July 13, 1954.

SN 12,737. Charles William Midgley, Sacramento, Calif. Filed July 24, 1956.

Sound out with

TOOT

For Soft Drinks.
First use July 19, 1956.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

SN 661,942. Fred Fear & Co., Brooklyn, N. Y. Filed Mar. 3, 1954.

SUSAN BAKER

Owner of Reg. Nos. 390,528, 393,611, and 533,563.
For Pure Maple Syrup, Blended Cane and Maple Syrup, and Fruit Syrup.
First use 1942.

SN 669,355. Pierce & Reese, Philadelphia, Pa. Filed July 2, 1954.

No claim is made to the words "Reliability," "Quality," and "Integrity" except in the association shown.
For Fresh and Frozen Beef Steaks, Fresh Dressed and Frozen Poultry.
First use May 3, 1954.

SN 684,809. Consolidated Blenders, Inc., Fremont, Nebr. Filed Apr. 4, 1955.

For Dehydrated Alfalfa in Bulk and Pellet Form, for Use as an Ingredient in Feed for Cattle, Hogs, Sheep, and Poultry.
First use Jan. 22, 1955.

SN 692,167. Geraldine A. Smith, d. b. a. Mrs. Harold Smith, Cody, Wyo. Filed July 29, 1955.

Son-of-a-Gun
in a sack

No claim is made to the words "In a Sack" apart from the mark as shown.
For Prepared Pudding Mix.
First use Nov. 20, 1952.

SN 695,777. August Storck G. m. b. H., Halle, Westphalia, Germany. Filed Oct. 3, 1955.

SALVO

Owner of German Reg. No. 106,618, dated Apr. 8, 1908.
For Hard Candy, Eating, Baking, and Cooking Chocolate.

SN 695,778. August Storck G. m. b. H., Halle, Westphalia, Germany. Filed Oct. 3, 1955.

SVEDESSA

Owner of German Reg. No. 446,959, dated July 8, 1932.
For Hard Candy, Eating, Baking, and Cooking Chocolate.

SN 698,500. Caroline Poultry Farms, Inc., Federalsburg, Md. Filed Nov. 18, 1955.

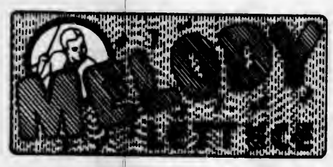
The drawing is lined for red and blue.
For Fresh Dressed and Frozen Poultry.
First use May 1, 1953.

SN 699,386. Farmers' Rice Growers Cooperative, San Francisco, Calif. Filed Dec. 5, 1955.

ADA'S PRIMERA

"Primera" is translated as "first."
For Rice.
First use May 1954.

SN 700,174. L. B. Bailey and Son, Salinas, Calif. Filed Dec. 19, 1955.



The word "Lettuce" is disclaimed. The drawing is lined for purple and green, but the mark is not restricted to said colors.
For Fresh Lettuce.
First use Oct. 10, 1955.

SN 5,112. McCormick & Company, Incorporated, Baltimore, Md. Filed Mar. 23, 1956.

SCHILLING GOLDEN WEST

Owner of Reg. Nos. 65,822, 288,290, and others.
For Coffee.
First use Feb. 20, 1956.

SN 5,141. Valley Evaporating Company, Yakima, Wash. Filed Mar. 23, 1956.

EMPIRE

Owner of Reg. No. 152,910.
For Evaporated and Dried Fruits, Canned Fruits, Canned Vegetables, Jams, Jellies, Fruit Preserves, Canned and Bottled Fruit Juices.
First use in 1879 on canned fruits, canned vegetables, and jams.

SN 7,134. Weidner Canning Co., Inc., Plymouth, Ind. Filed Apr. 25, 1956.

WE PICK

For Pickles, Pickle Relish, Sweet and Hot Peppers, and Sweet Onions and Cauliflower.
First use Dec. 15, 1954.

SN 8,786. Sam McDaniel & Sons, Inc., Bedford, Va. Filed May 22, 1956.

McDaniel's
BUNKER HILL

Owner of Reg. No. 603,999.
For Chili.
First use May 9, 1956.

SN 9,217. Hale-Halsell Company, McAlester, Okla. Filed May 17, 1956.

For Coffee and Food Flavoring Extracts.
First use Dec. 15, 1927.

SN 9,854. Farmcraft Feeds, Inc., Des Moines, Iowa. Filed June 8, 1956.

WEAN-GRO

For Vitamin and Mineral Enriched Feed for Young Livestock.
First use on or about Sept. 25, 1953.

SN 10,940. Sunshine Biscuits, Inc., Long Island City, N. Y. Filed June 25, 1956.

NIKS

For Biscuits and Crackers.
First use Dec. 8, 1931.

SN 11,282. Muir-Roberts Co., Inc., Salt Lake City, Utah. Filed June 29, 1956. Sec. 2(f).

Owyhee

Owner of Reg. No. 432,185.
For Fresh Vegetables.
First use June 1, 1946.

SN 11,313. Frank M. Wilson Company, Stockton, Calif. Filed June 29, 1956.

Khaki

For Canned Fruits and Canned Vegetables.
First use 1940.

SN 11,324. Alta California Dairies, Inc., Willows, Calif. Filed July 2, 1956.

GLAD'S

For Cottage Cheese.
First use Apr. 1, 1954.

SN 11,827. The Woods Company, Yuma, Ariz. Filed July 9, 1956.

FIGHTER

Owner of Reg. No. 432,276.
For Fresh Melons and Fresh Lettuce.
First use June 11, 1946, on fresh melons.

SN 11,890. Whiz Fish Products Company, Inc., Seattle, Wash. Filed July 10, 1956.

SNOWMIST

Owner of Reg. Nos. 613,255 and 409,010.
For Canned Shellfish, Canned Fish, Frozen Shellfish, and Frozen Fish.
First use June 2, 1953, on canned fish and shellfish.

SN 11,904. Paul F. Beich Company, Bloomington, Ill. Filed July 11, 1956.

TOP BANANA

For Candy.
First use Apr. 16, 1956.

SN 11,905. Paul F. Beich Company, Bloomington, Ill. Filed July 11, 1956.

BANANA BOAT

For Candy.
First use Apr. 16, 1956.

SN 11,956. Pierce Packing Company, Billings, Mont. Filed July 11, 1956.

PENNY WISE

For Bacon, Frankfurters, and Bologna.
First use Dec. 30, 1955.

SN 11,983. Vermont Maple Products Co., Inc., Barre, Vt. Filed July 11, 1956.

MAPLE MUSEUM

For Maple Cream, Maple Syrup, Maple Sugar, and Maple Vinegar.
First use May 1950.

SN 12,139. Bedford Products, Inc., Dunkirk, N. Y. Filed July 16, 1956.

SHOREWOOD

For Jelly, Marmalade, and Fruit Preserves.
First use August 1950 on jelly.

SN 12,140. Bedford Products, Inc., Dunkirk, N. Y. Filed July 16, 1956.

GRETCHEN

For Jelly, Marmalade, and Fruit Preserves.
First use April 1951.

SN 12,253. Bremco Alfalfa Mills, Inc., New Bremen, Ohio. Filed July 17, 1956.

ALFALASS

For Animal Feeds—Namely, Blends of Alfalfa Meal and Molasses.
First use Mar. 19, 1955.

SN 12,275. Halco Products, Inc., Orlando, Fla. Filed July 17, 1956.

Southern GOLD

For Citrus Products—Namely, Fresh, Chilled Citrus Juices.
First use Feb. 29, 1956.

SN 12,337. Mack Bowman, San Antonio, Tex. Filed July 18, 1956.

Bow's Zesty BARBECUE SAUCE

No claim is made to the words "Zesty Barbecue Sauce" apart from the mark as shown.
For Barbecue Sauce.
First use June 5, 1956.

SN 12,595. Wesley Crawford Foundation, d. b. a. Wesley Crawford and Son, Tacoma, Wash. Filed July 23, 1956.

Medallion

For Fresh Tomatoes.
First use July 3, 1956.

SN 12,630. Ito Packing Co., Reedley, Calif. Filed July 23, 1956.

DADDY-O

For Fresh Fruits and Vegetables.
First use July 6, 1956.

SN 12,824. McGowen-Educator Food Company, Lowell, Mass. Filed July 25, 1956. Sec. 2(f).

BOSTONIAN

Owner of Reg. No. 419,285.
For Cookies.
First use June 1, 1944.

SN 12,860. Abbey of the Genesee, Piffard, N. Y. Filed July 26, 1956.

MONKS'

For Bread.
First use in June 1952.

SN 13,176. Schulze and Burch Biscuit Co., Chicago, Ill. Filed July 31, 1956.

SLIM-THINS

For Cookies.
First use July 13, 1956.

SN 13,208. The Glidden Company, Cleveland, Ohio. Filed Aug. 1, 1956.

PROMINE

For Edible Soy Protein.
First use Nov. 4, 1955.

SN 13,282. R. G. Free, d. b. a. Pet Food Packers, Washington Court House, Ohio. Filed Aug. 2, 1956.

MAC

For Dog Food.
First use Dec. 15, 1955.

SN 13,314. Safeway Stores, Incorporated, Oakland, Calif. Filed Aug. 2, 1956.

SAFEWAY

Owner of Reg. Nos. 224,893, 225,594, and 226,854.
For Meats and Poultry—Namely, Fresh, Cured, and Cooked Meat and Luncheon Meats and Fresh and Frozen Fowl.
First use November 1949 on fresh ground beef.

SN 13,357. Dinner Ready Corporation, New York, N. Y. Filed Aug. 3, 1956.

DINNER REDY

For Pre-Cooked Frozen Chicken.
First use June 7, 1956.

SN 13,564. American Potato Company, Idaho Falls, Idaho. Filed Aug. 8, 1956.

AMPCO

For Potato Product—Namely, Dehydrated or Instant Mashed Potatoes.
First use Aug. 4, 1955.

SN 13,621. The U. & J. Lenson Corp., Brooklyn, N. Y. Filed Aug. 8, 1956.

HOSTESS

For Coffee.
First use in the year 1946.

SN 13,622. The U. & J. Lenson Corp., Brooklyn, N. Y. Filed Aug. 8, 1956.

REGENT

For Coffee.
First use in the year 1946.

SN 13,623. The U. & J. Lenson Corp., Brooklyn, N. Y. Filed Aug. 8, 1956.

VOGUE

For Coffee.
First use in the year 1946.

SN 13,913. Fruit Products Corporation, New York, N. Y. Filed Aug. 14, 1956.

MALTEE-FROST

Owner of Reg. Nos. 357,323, 593,070, and others.
For Frozen Confections on Sticks, and a Dry Powder Flavoring for Making the Same.
First use Feb. 21, 1955.

CLASS 48

MALT BEVERAGES AND LIQUORS

SN 12,509. Horlacher Brewing Company, Allentown, Pa. Filed July 20, 1956.

COBURGER

For Beer.
First use 1935.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

SN 689,337. The Black Prince Company, Inc., Nutley, N. J. Filed June 13, 1955.

BLACK PRINCE

Owner of Reg. No. 329,094.
For Brandy, Gin, Alcoholic Cordials, and Liqueurs.
First use Apr. 1, 1914.

SN 1,237. Hill Thomson & Company Limited, Edinburgh, Scotland. Filed Jan. 23, 1956. Sec. 2(f).

SOMETHING SPECIAL

For Whisky.
First use 1912; in commerce 1934.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

SN 14,238. Germain's, Inc., Los Angeles, Calif. Filed Aug. 20, 1956. Sec. 2(f).

FLYING DISK

For Mechanical Bird Repellent for Protecting Gardens.
First use Oct. 23, 1950.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

SN 12,159. Ralph Crancer, Pacific Palisades, Calif. Filed July 16, 1956.

GRAYAWAY

For Hair Color Restorer.
First use July 11, 1956.

SN 12,351. Frances Denney, Philadelphia, Pa. Filed July 18, 1956.

GAY MOOD

For Perfume, Cologne, Dusting Powder, Talcum Powder, Sachet Powders, and Bath Oil.
First use July 9, 1956.

SN 12,411. Colgate-Palmolive Company, New York, N. Y. Filed July 19, 1956.

DISTINGUISHED SERVICE

For Shave Cream.
First use Nov. 22, 1955.

SN 12,426. Richard Hudnut, New York, N. Y. Filed July 19, 1956.

SEVEN WINDS

For Cologne.
First use July 16, 1956.

CLASS 52

DETERGENTS AND SOAPS

SN 14,392. Donal Sales Co., Detroit, Mich. Filed Aug. 22, 1956.

Dufine

For Liquid Cleaner for Cleaning Upholstery, Rugs, Lamp Shades, and Like Articles.
First use Feb. 1, 1956.

SN 14,435. Colgate-Palmolive Company, New York, N. Y. Filed Aug. 23, 1956.

DYNAMO

For Liquid Cleaner, Cleanser, and Detergent.
First use June 28, 1956.

SN 14,437. Colgate-Palmolive Company, New York, N. Y. Filed Aug. 23, 1956.

BURST

For Sudsing Cleaner, Cleanser, and Detergent.
First use July 6, 1956.

SN 14,496. Martha Sparks, Denver, Colo. Filed Aug. 23, 1956.

Forest Cloud

For Shampoo.
First use June 9, 1956.

SN 18,427. Household Research Corporation of America, d. b. a. Household Research Corp., Cambridge, Mass. Filed Oct. 30, 1956.

WOOL BRITE

For Household Detergents.
First use Oct. 25, 1955.
Subj. to Intf. with SN 8,314 and SN 11,734.

SERVICE MARKS

CLASS 100

MISCELLANEOUS

SN 696,446. Clifford M. Larson, d. b. a. Larcliff, New Rochelle, N. Y. Filed Oct. 14, 1955.

LARCLIFF

Owner of Reg. No. 529,152.
For Engineering Consultation and Advisory Services in Connection With Petroleum Viscosity-Flow Problems.
First use Apr. 1, 1951.

SN 697,061. United Geophysical Corporation, Pasadena, Calif. Filed Oct. 24, 1955.

V-LOG

For Geophysical Exploration Services in Which Well Logs of Earth Velocity Characteristics Are Made.
First use on or about Mar. 23, 1954.

CLASS 102

INSURANCE AND FINANCIAL

SN 10,385. American Global Insurance Co., Inc., Agana, Guam. Filed June 18, 1956.

AMERICAN GLOBAL INSURANCE CO., INC.

For Underwriting of All Forms of Insurance.
First use Oct. 21, 1953.

CLASS 106

MATERIAL TREATMENT

SN 8,467. Brooklyn Better Bleach, Inc., Jersey City, N. J. Filed May 17, 1956.

BBB

For Treating and Dressing Skins and Furs—Namely, by Deodorizing and Removing Fatty Matter From the Skins, and Tanning and Preserving the Same, and at the Same Time Treating the Hair Thereof, To Clean the Fur and Impart a Sheen Thereto.
First use in the year 1933.

SN 11,535. The Burkhardt Company, Detroit, Mich. Filed July 5, 1956.

Burco SHEEN

For Surface Coating Printed Paper of Others With a Plastic Finish.
First use Nov. 9, 1955.

CLASS 107

EDUCATION AND ENTERTAINMENT

SN 1,486. F. Burr Tillstrom, d. b. a. Burr Tillstrom Productions, Chicago, Ill. Filed Jan. 25, 1956.

Owner of Reg. Nos. 549,291 and 551,824.
For Title for Television Programs, Specifically Puppet Shows.
First use Nov. 7, 1955.

SN 1,487. F. Burr Tillstrom, d. b. a. Burr Tillstrom Productions, Chicago, Ill. Filed Jan. 25, 1956.

KUKLA, FRAN and OLLIE

a Burr Tillstrom Production

Owner of Reg. No. 551,824.
For Title for Television Programs, Specifically Puppet Shows.
First use Nov. 7, 1955.

COLLECTIVE MEMBERSHIP MARKS

CLASS 200

SN 2,203. Supreme Council, Mystic Order of Veiled Prophets of the Enchanted Realm, Chicago, Ill. Filed Feb. 6, 1956.

Owner of Reg. No. 625,339.
For Indicating Membership in a Fraternal Association Organized To Promote Works of Charity by Its Members in Charitable, Humanitarian and Civic Causes.
First use June 2, 1954.

SN 8,208. Delta Upsilon Fraternity, New York, N. Y. Filed May 14, 1956.

For Indicating Membership in a National Collegiate Fraternal Society Organized to Further the Cultural, Social, and Educational Ideals of Members.
First use 1858.

SN 12,207. National Grange of the Patrons of Husbandry, Washington, D. C. Filed July 16, 1956.

NATIONAL GRANGE OF THE PATRONS OF HUSBANDRY

Owner of Reg. No. 617,619.
For Indicating Membership in a Fraternal Society.
First use 1867.

CERTIFICATION MARKS

CLASS A

GOODS

SN 688,520. Filper Corporation, San Leandro, Calif. Filed May 31, 1955.

FILPER Pitted
FOR *Better* FLAVOR

The mark certifies that the peaches have been pitted on a particular machine. Owner of Reg. No. 591,350.
For Canned Peaches.
First use Aug. 17, 1953.

TRADEMARK REGISTRATIONS ISSUED
PRINCIPAL REGISTER

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

641,576. BRIGHTCELL. Canadian International Paper Company. SN 657. Pub. 12–4–56. Filed 1–13–56.

641,577. PURE SEAL PAK AND DESIGN. Charter Seed Company. SN 3,276. Pub. 12–4–56. Filed 2–24–56.

641,578. CONSOL KENVALE ETC. AND DESIGN. Pittsburgh Consolidation Coal Company. SN 5,053. Pub. 12–4–56. Filed 3–22–56.

641,579. PROBAN. Proban Limited. SN 5,056. Pub. 12–4–56. Filed 3–22–56.

641,580. ASRC AND DESIGN. American Synthetic Rubber Corporation. SN 5,075. Pub. 12–4–56. Filed 3–23–56.

641,581. HY-X. Henry Field Seed & Nursery Company. SN 8,648. Pub. 12–4–56. Filed 5–21–56.

641,582. FAIRVIEW. The Fair. SN 9,453. Pub. 12–4–56. Filed 6–1–56.

641,583. C/F AND DESIGN. Mitchell Farms. SN 9,566. Pub. 12–4–56. Filed 6–4–56.

641,584. INTERPLASTICS AND DESIGN. Interplastics Corporation. SN 9,919. Pub. 12–4–56. Filed 6–11–56.

641,585. TRIBETA. Kleinwanzlebener Saatzucht Vorm. Rabbethge & Giesecke Aktiengesellschaft. SN 10,239. Pub. 12–4–56. Filed 6–14–56.

641,586. CERAMAKOTE. Basic Ceramics, Inc. SN 11,131. Pub. 12–4–56. Filed 6–28–56.

641,587. SPRAY-BOND. Loren Products Corporation. SN 11,268. Pub. 12–4–56. Filed 6–29–56.

641,588. MAGICLAY. American Artists' Color Works, Inc. SN 12,246. Pub. 12–4–56. Filed 7–17–56.

641,589. FRENCH'S. The R. T. French Company. SN 12,806. Pub. 12–4–56. Filed 7–25–56.

CLASS 2

RECEPTACLES

641,590. FRIGID-LITE. Insulation Associates, Inc. SN 698,981. Pub. 10–23–56. Filed 11–28–55.

CLASS 4

ABRASIVES AND POLISHING MATERIALS

641,591. SPUN GOLD. S. M. Arnold, Inc. SN 294. Pub. 12–4–56. Filed 1–9–56.

641,592. STEL O DEX. Leavitt Machine Company. SN 6,438. Pub. 12–4–56. Filed 4–16–56.

CLASS 5

ADHESIVES

641,593. SO-E-Z. Branded Products Corp. SN 7,235. Pub. 12–4–56. Filed 4–27–56.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

641,594. PRESERVA-STIK. James Robert Tully, d. b. a. Wood Preserva-Products. SN 680,825. Pub. 12–4–56. Filed 1–31–55.

641,595. EASTMAN. Eastman Kodak Company. SN 691,449. Pub. 12–4–56. Filed 7–18–55.

641,596. NICO-FUME. Diamond Black Leaf Company. SN 696,958. Pub. 12–4–56. Filed 10–24–55.

641,597. CHLOR-O-GAS. Halben Chemical Co. Inc. SN 696,977. Pub. 12–4–56. Filed 10–24–55.

641,598. LANO-SEPTIC. Lanolized, Incorporated. SN 1,796. Pub. 12–4–56. Filed 1–31–56.

641,599. EPATAM 3311. Perdeck Solder Products Limited. SN 3,768. Pub. 12–4–56. Filed 3–2–56.

641,600. LION AND DESIGN. Monsanto Chemical Company. SN 4,657. Pub. 12–4–56. Filed 3–15–56.

641,601. CROFATOL. Crosby Chemicals, Inc. SN 6,990. Pub. 12–4–56. Filed 4–24–56.

641,602. TBTO. Metal and Thermit Corporation. SN 7,031. Pub. 12–4–56. Filed 4–24–56.

641,603. ERJO. Edwin R. Joseph, d. b. a. E. R. Joseph Co. SN 7,254. Pub. 12–4–56. Filed 4–27–56.

641,604. DU PONT AND DESIGN. E. I. du Pont de Nemours and Company. SN 7,337. Pub. 12–4–56. Filed 4–30–56.

641,605. SEPTAMENE. Constructional Chemicals, Inc. SN 7,767. Pub. 12–4–56. Filed 5–7–56.

641,606. SEPARAN. The Dow Chemical Company. SN 7,970. Pub. 12–4–56. Filed 5–9–56.

641,607. FONO-MAGIC. R-Columbia Products Co. SN 8,694. Pub. 12–4–56. Filed 5–21–56.

CLASS 10

FERTILIZERS

641,608. WONDERBARK. Roderick I. McLellan, d. b. a. Rod McLellan Co. SN 6,027. Pub. 12–4–56. Filed 4–9–56.

641,609. GRO! GRO!!! South Memphis Stockyard Company. SN 12,389. Pub. 12–4–56. Filed 7–18–56.

CLASS 11

INKS AND INKING MATERIALS

641,610. MAGIC MARKER. Speedry Products, Inc. SN 9,601. Pub. 12–4–56. Filed 6–4–56.

641,611. SATELLITE. Scripto, Inc. SN 11,798. Pub. 12–4–56. Filed 7–9–56.

641,612. SPACE MASTER. Scripto, Inc. SN 11,800. Pub. 12–4–56. Filed 7–9–56.

CLASS 12

CONSTRUCTION MATERIALS

641,613. GRAY CIRCUMFERENTIAL BAND. Orangeburg Manufacturing Co., Inc. SN 687,401. Pub. 12-4-56. Filed 5-12-55.

641,614. AMSEAL AND DESIGN. American-Marietta Company. SN 691,653. Pub. 12-4-56. Filed 7-21-55.

641,615. ADAPANE. The Adapane Company. SN 696,926. Pub. 12-4-56. Filed 10-24-55.

641,616. "SPREADS LIKE WARM BUTTER." Basic Refractories Incorporated, now by change of name Basic, Incorporated. SN 700,295. Pub. 12-4-56. Filed 12-20-55.

641,617. ERECTANGLE. Orchard Brothers Incorporated. SN 2,374. Pub. 12-4-56. Filed 2-9-56.

641,618. SEA JACKET. Tarr and Wonson, Limited. SN 2,933. Pub. 12-4-56. Filed 2-17-56.

641,619. METTOWEE. Fair Haven Slate Company, Inc. SN 3,377. Pub. 12-4-56. Filed 2-27-56.

641,620. TIP-TOP. Northwest Ga. Enterprises, Inc. SN 5,662. Pub. 12-4-56. Filed 4-2-56.

641,621. EVERGLAZE. Globe Roofing Products Co., Inc. SN 6,249. Pub. 12-4-56. Filed 4-12-56.

641,622. VERTI-STRIPE. Sears, Roebuck and Co. SN 7,951. Pub. 12-4-56. Filed 5-8-56.

CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

641,623. AMERICAN. United States Steel Corporation. SN 668,424. Pub. 8-16-55. Filed 7-23-54.

641,624. SAFE-T-FLOW. Safe-T Flow Corporation. SN 696,832. Pub. 12-4-56. Filed 10-20-55.

641,625. CONCEAL-A-VENT. Alfonso J. Diletto, d. b. a. Enterprise Ornamental Statuary Products. SN 2,956 Pub. 12-4-56. Filed 2-20-56.

641,626. PRESTITE. Buckeye Iron & Brass Works. SN 7,752. Pub. 12-4-56. Filed 5-7-56.

641,627. SPRINK-O-MATIC. Russell Sabor. SN 8,440. Pub. 12-4-56. Filed 5-16-56.

641,628. STEAM-IT. Market Forge Company. SN 11,273. Pub. 12-4-56. Filed 6-29-56.

641,629. PUT YOUR DRAWERS ON ROLLERS AND DESIGN. Melvin J. Houck, d. b. a. Mel Houck Products. SN 11,484. Pub. 12-4-56. Filed 7-3-56.

641,630. PRESTO. Snell-Jones Mfg. Co., Inc. SN 11,646. Pub. 12-4-56. Filed 7-3-56.

CLASS 15

OILS AND GREASES

641,631. PARAGON NONE BETTER ETC. AND DESIGN. Paragon Oil Company, Incorporated. SN 700,936. Pub. 12-4-56. Filed 12-27-55.

641,632. UNION CARBIDE. Union Carbide and Carbon Corporation. SN 14,299. Pub. 12-4-56. Filed 8-20-56.

641,633. HERITAGE. Victrylite Candle Company. SN 14,602. Pub. 12-4-56. Filed 8-24-56.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

641,634. GRIPSHEEN. West Disinfecting Company. SN 642,506. Pub. 7-20-54. Filed 2-19-53.

641,635. A-M JELLED MAGIC AND DESIGN. American Marietta Company. SN 686,522. Pub. 12-4-56. Filed 4-29-55.

641,636. CRETO. The Marsol Corporation. SN 8,862. Pub. 12-4-56. Filed 5-23-56.

CLASS 17

TOBACCO PRODUCTS

641,637. REGENT ETC. AND LABEL DESIGN. Riggio Tobacco Corporation. SN 7,533. Pub. 12-4-56. Filed 5-2-56.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

641,638. LIBRACAPS. Lamb & Foerster, to Lamb & Berlin, Inc. SN 638,859. Pub. 1-4-55. Filed 12-2-52.

641,639. NY-VIM. Nyal Company, Inc., d. b. a. Nyal Company. SN 654,681. Pub. 5-18-54. Filed 10-13-53.

641,640. PALATABS. The Central Pharmacal Company. SN 696,117. Pub. 12-4-56. Filed 10-10-55.

641,641. GASTROSEAL. E. W. Heun Co. SN 698,613. Pub. 12-4-56. Filed 11-21-55.

641,642. DR. LE GEAR'S PIG SWIG AND DESIGN. Dr. L. D. Le Gear Medicine Company. SN 73. Pub. 12-4-56. Filed 1-3-56.

641,643. CLOVER-FEEN. Clover Chemical Company. SN 238. Pub. 12-4-56. Filed 1-6-56.

641,644. SUN-GOLD. Sun-Gold Vitamin Supply Co. SN 2,589. Pub. 12-4-56. Filed 2-13-56.

641,645. EKG INC. AND DESIGN. Eric, Kirk & Gary, Inc. SN 3,375. Pub. 12-4-56. Filed 2-27-56.

641,646. TRE-O-TABS. S. J. Tutag & Company. SN 4,586. Pub. 12-4-56. Filed 3-14-56.

641,647. TRE-O-CAPS. S. J. Tutag & Company. SN 4,587. Pub. 12-4-56. Filed 3-14-56.

641,648. PENTASERPINE. Nysco Laboratories, Inc. SN 4,980. Pub. 12-4-56. Filed 3-21-56.

641,649. PANZYNORM. Nordmark Pharmaceutical Laboratories, Inc. SN 6,270. Pub. 12-4-56. Filed 4-12-56.

641,650. VARO-VITA. George S. Varner, d. b. a. Varner Mills. SN 6,879. Pub. 12-4-56. Filed, 4-20-56.

641,651. SPEEDRIN. Harvey Wolfson, d. b. a. Columbia Medical Company. SN 7,053. Pub. 12-4-56. Filed 4-24-56.

641,652. VITA RESPITAL. Premo Pharmaceutical Laboratories, Inc. SN 7,456. Pub. 12-4-56. Filed 5-1-56.

641,653. FLUORAMIN. George Wayne Edwards, d. b. a. Deaf Smith County Pharmaceutical Co. SN 8,477. Pub. 12-4-56. Filed 5-17-56.

641,654. RYTHROSITE. Xttrium Co. SN 8,519. Pub. 12-4-56. Filed 5-17-56.

641,655. TERGEMIST. Abbott Laboratories. SN 8,602. Pub. 12-4-56. Filed 5-21-56.

641,656. D-Q. The Borden Company. SN 9,334. Pub. 12-4-56. Filed 5-31-56.

641,657. TASHAN. Hoffmann-La Roche Inc. SN 9,468. Pub. 12-4-56. Filed 6-1-56.

641,658. RARICAL. Ortho Pharmaceutical Corporation. SN 12,696. Pub. 12-4-56. Filed 8-13-56.

CLASS 19

VEHICLES

641,659. ZENITH. Boles-Aero, Inc. SN 9,435. Pub. 12-4-56. Filed 6-1-56.

641,660. SKIMBOAT. Luria-Cournand, Inc. SN 9,558. Pub. 12-4-56. Filed 6-4-56.

641,661. NASHUA. Stanley F. Raczynski, d. b. a. Nashua Manufacturing Co. of California. SN 9,588. Pub. 12-4-56. Filed 6-4-56.

641,662. INFLATOPLANE. Goodyear Aircraft Corporation. SN 9,859. Pub. 12-4-56. Filed 6-8-56.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

641,663. ZZYON AND DESIGN. Zzyon Corporation. SN 3,506. Pub. 12-4-56. Filed 2-27-56.

641,664. HOLLY-LITES. Julius Kupfer, Inc. SN 3,612. Pub. 12-4-56. Filed 2-29-56.

641,665. ELECTROTALKER AND DESIGN. Municipal Street Sign Co., Inc. SN 3,701. Pub. 12-4-56. Filed 3-1-56.

641,666. DOYLE. Doyle Vacuum Cleaner Company. SN 5,511. Pub. 12-4-56. Filed 3-30-56.

641,667. KOZY KIDDY. Radiant Products, Inc. SN 5,790. Pub. 12-4-56. Filed 4-4-56.

641,668. WASTE KING. Given Manufacturing Co., now by change of name Waste King Corporation. SN 7,251. Pub. 12-4-56. Filed 4-27-56.

641,669. SINTOX. Lodge Plugs Limited. SN 7,258. Pub. 12-4-56. Filed 4-27-56.

641,670. FABMIKA. Sprague Electric Company. SN 8,885. Pub. 12-4-56. Filed 5-23-56.

641,671. FLAT-STAT. Control Products, Inc. SN 9,118. Pub. 12-4-56. Filed 5-28-56.

641,672. HERMES SONIC AND DESIGN. Hermes Sonic Company. SN 9,267. Pub. 12-4-56. Filed 5-29-56.

641,673. TRAC-O-LITE. Comet Lamp Company. SN 9,772. Pub. 12-4-56. Filed 6-7-56.

641,674. SUPER-LUMEN. Duro-Test Corporation. SN 10,084. Pub. 12-4-56. Filed 6-12-56.

641,675. GENCATROL. General Cable Corporation. SN 10,087. Pub. 12-4-56. Filed 6-12-56.

641,676. FLIK-A-LITE. New York Merchandise Co., Inc. SN 10,188. Pub. 12-4-56. Filed 6-13-56.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

641,677. THE GERBER BABY. Gerber Products Company. SN 691,687. Pub. 12-4-56. Filed 7-21-55.

641,678. GERBER. Gerber Products Company. SN 692,325. Pub. 12-4-56. Filed 8-2-55.

641,679. FRAN-TICK THE TRAIN. Sifo Company. SN 694,008. Pub. 12-4-56. Filed 8-31-55.

641,680. ROCK-A-BYE TWIN BUILD-UP. Sifo Company. SN 694,009. Pub. 12-4-56. Filed 8-31-55.

641,681. KINDER-SCHOOL. Sifo Company. SN 694,014. Pub. 12-4-56. Filed 8-31-55.

641,682. AQUA-GLIDE AND DESIGN. Consolidated Research and Development Corporation. SN 694,201. Pub. 12-4-56. Filed 9-6-55.

641,683. GRIZZLY AND DESIGN. Maxwell Manufacturing Company. SN 4,339. Pub. 12-4-56. Filed 3-12-56.

641,684. MONSANTO. Monsanto Chemical Company. SN 4,346. Pub. 12-4-56. Filed 3-12-56.

641,685. DESIGN OF BABY'S HEAD. Gerber Products Company. SN 4,439. Pub. 12-4-56. Filed 3-13-56.

641,686. CHAMPION. Cyril Edmond McDonald. SN 4,730. Pub. 12-4-56. Filed 3-16-56.

641,687. PER-F-ECT. E. L. Blair & Son. SN 4,883. Pub. 12-4-56. Filed 3-20-56.

641,688. SPINDOO AND DESIGN. Lewis Sargent. SN 9,493. Pub. 12-4-56. Filed 6-1-56.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

641,689. KITCHEN KING AND DESIGN. Wall Trading Corporation. SN 675,676. Pub. 7-12-55. Filed 10-28-54.

641,690. BALZERS. Geraetebau-Anstalt, Balzers. SN 676,624. Pub. 12-4-56. Filed 11-15-54.

641,691. HOLIDAY. Otto Owings, Inc., to Wells Specialty, Inc. SN 687,403. Pub. 2-21-56. Filed 5-12-55.

641,692. REPRESENTATION OF TWO CROSSED RECTANGLES. Cummins Engine Company, Inc. SN 689,269. Pub. 8-21-56. Filed 6-10-55.

641,693. STA-GREEN. Daniel M. Cochario. SN 692,903. Pub. 12-4-56. Filed 8-12-55.

641,694. STRAIGHTLINE. Nordischer Maschinenbau Rud. Baader. SN 1,461. Pub. 12-4-56. Filed 1-25-56.

641,695. BATCHMOBILE. Noble Company. SN 6,950. Pub. 12-4-56. Filed 4-23-56.

641,696. HYDRO-FLATER. Taylor E. Decker, d. b. a. Decker Manufacturing Co. SN 8,538. Pub. 12-4-56. Filed 5-18-56.

641,697. ELEC-TRI-FLEX. Triangle Package Machinery Company. SN 8,591. Pub. 12-4-56. Filed 5-18-56.

641,698. GOLDEN TOUCH. Underwood Corporation. SN 9,064. Pub. 12-4-56. Filed 5-25-56.

641,699. "HOOKOUT." Dr. Otto Stader, d. b. a. Ardmore Specialties. SN 9,408. Pub. 12-4-56. Filed 5-31-56.

641,700. SW AND DESIGN. Stevens Walden Inc. SN 9,417. Pub. 12-4-56. Filed 5-31-56.

641,701. CLINTON AND DESIGN. Clinton Machine Company. SN 9,440. Pub. 12-4-56. Filed 6-1-56.

641,702. HEADMASTER. The Waterbury Farrel Foundry & Machine Company. SN 9,507. Pub. 12-4-56. Filed 6-1-56.

641,703. COPPERHEAD. Joy Manufacturing Company. SN 9,643. Pub. 12-4-56. Filed 6-5-56.

641,704. KPMP AND DESIGN. Kwikset Locks, Inc. SN 9,649. Pub. 12-4-56. Filed 6-5-56.

641,705. VENTOUX. Regie Nationale des Usines Renault. SN 9,668. Pub. 12-4-56. Filed 6-5-56.

641,706. UNIVIBER. Viber Company. SN 9,831. Pub. 12-4-56. Filed 6-7-56.

641,707. WORTHINGTON. Worthington Corporation. SN 9,835. Pub. 12-4-56. Filed 6-7-56.

641,708. MARK III. The International Silver Company. SN 9,865. Pub. 12-4-56. Filed 6-8-56.

641,709. HI-TORK AND DESIGN. John M. R. Lyeth, Jr., d. b. a. Lyeth Engineering Company. SN 9,876. Pub. 12-4-56. Filed 6-8-56.

641,710. OMARK AND DESIGN. Joseph B. Cox, d. b. a. Omark Industries. SN 9,951. Pub. 12-4-56. Filed 6-11-56.

641,711. MIDAS. Midas, Inc. SN 10,000. Pub. 12-4-56. Filed 6-11-56.

641,712. DESIGN OF OVAL AND RECTANGLE. A. B. Dick Company. SN 10,082. Pub. 12-4-56. Filed 6-12-56.

641,713. STAPLE-MASTER. Markwell Manufacturing Co. Inc. SN 16,002. Pub. 12-4-56. Filed 10-8-56.

641,714. PUNCHMASTER. Markwell Manufacturing Co. Inc. SN 16,003. Pub. 12–4–56. Filed 10–8–56.

641,715. ATOMIC. Markwell Manufacturing Co. Inc. SN 16,004. Pub. 12–4–56. Filed 10–8–56.

641,716. DESIGN OF EIGHT-ARMED HUMAN FIGURE. Thomas Collators Inc. SN 16,007. Pub. 12–4–56. Filed 10–9–56.

641,717. MEYER-DUMORE. Geo. J. Meyer Manufacturing Co. SN 16,311. Pub. 12–4–56. Filed 10–10–56.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

641,718. DISPENSA-SLIDE. A. S. Aloe Company. SN 686,596. Pub. 12–4–56. Filed 5–2–55.

641,719. CHUM AND DESIGN. Emil C. Hellwig, d. b. a. E. C. Hellwig. SN 1,439. Pub. 12–4–56. Filed 1–25–56.

641,720. CLIP-PER CASE. Hela Manufacturing Corp. SN 4,955. Pub. 12–4–56. Filed 3–21–56.

641,721. ACCOFIL. Perry Industries Incorporated. SN 15,430. Pub. 12–4–56. Filed 9–13–56.

CLASS 27

HOROLOGICAL INSTRUMENTS

641,722. LANGTON. Importadora de Relogios Sul-Americana S. A. SN 686,453. Pub. 12–4–56. Filed 4–28–55.

641,723. RUBY SHOCK STOP OIL AND DESIGN. Pierre Seitz. SN 8,709. Pub. 12–4–56. Filed 5–21–56.

CLASS 28

JEWELRY AND PRECIOUS-METAL WARE

641,724. GALE CREATIONS AND DESIGN. Gale Creations, Inc. SN 1,154. Pub. 12–4–56. Filed 1–20–56.

641,725. JUNIOR PROM. D. Lisner & Co. Inc. SN 12,820. Pub. 12–4–56. Filed 7–25–56.

CLASS 31

FILTERS AND REFRIGERATORS

641,726. BLACK MAGIC. The Barnebey-Cheney Company. SN 3,343. Pub. 12–4–56. Filed 2–27–56.

641,727. CLIP IT. Carl L. Boehler, d. b. a. C. L. B. Company, to C. L. B. Company (Texas corporation). SN 8,186. Pub. 12–4–56. Filed 5–14–56.

641,728. KWIKSET AND DESIGN. Kwikset Locks, Inc. SN 9,646. Pub. 12–4–56. Filed 6–5–56.

641,729. KPMP AND DESIGN. Kwikset Locks, Inc. SN 9,650. Pub. 12–4–56. Filed 6–5–56.

641,730. FRAM. Fram Corporation. SN 9,715. Pub. 12–4–56. Filed 6–6–56.

CLASS 32

FURNITURE AND UPHOLSTERY

641,731. SWINGLINE. Speed Products Company, Inc., now by change of name Swingline, Inc. SN 685,775. Pub. 12–4–56. Filed 4–18–55.

641,732. MONO-AISLE. Sedgwick Equipment Corporation. SN 4,154. Pub. 12–4–56. Filed 3–8–56.

641,733. NETHERWOOD. Tepper's Plainfield. SN 5,951. Pub. 12–4–56. Filed 4–6–56.

641,734. TREASURY OF SLEEP. Holman-O. D. Baker Co. Inc. SN 7,089. Pub. 12–4–56. Filed 4–25–56.

641,735. TOPCRAFT. Topcraft, Inc. SN 7,545. Pub. 12–4–56. Filed 5–2–56.

641,736. SPICE BOX. Williams Furniture Corporation. SN 8,302. Pub. 12–4–56. Filed 5–14–56.

641,737. NU-FOLD. William L. Shepherdson. SN 8,711. Pub. 12–4–56. Filed 5–21–56.

641,738. SECTRAY ETC. AND DESIGN. The Globe-Wernicke Co. SN 9,979. Pub. 12–4–56. Filed 6–11–56.

641,739. SLEEPER-ETTE. The Dayton Rubber Company. SN 12,800. Pub. 12–4–56. Filed 7–25–56.

641,740. BETSY ROSS. Columbia Bedding Company. SN 13,024. Pub. 12–4–56. Filed 7–30–56.

641,741. FURNITURE ACCENTS. Nepenge, Inc. SN 13,166. Pub. 12–4–56. Filed 7–31–56.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

641,742. YEAROUND AND DESIGN. The Williamson Heater Company, now by change of name The Williamson Company. SN 685,941. Pub. 1–3–56. Filed 4–20–55.

641,743. ANTHRATUBE AND DESIGN. Axeman-Anderson Company. SN 3,139. Pub. 12–4–56. Filed 2–23–56.

641,744. FRIVAP. Thermica, Societe Anonyme. SN 3,245. Pub. 12–4–56. Filed 2–23–56.

641,745. TIGER-EY. Doray Lamp Co., Inc. SN 8,474. Pub. 12–4–56. Filed 5–17–56.

641,746. MARK II VISCOUNT. Goldy-Harvey-Reese Enterprises, Inc., d. b. a. G. H. R. Enterprises, Inc. SN 9,261. Pub. 12–4–56. Filed 5–29–56.

641,747. IM-PAK. Utility Appliance Corp. SN 10,500. Pub. 12–4–56. Filed 6–18–56.

641,748. WHIRLPOOL. Whirlpool-Seeger Corporation. SN 10,634. Pub. 12–4–56. Filed 6–20–56.

641,749. DAMPERMATIC. Bencon-Morris Corporation. SN 10,975. Pub. 12–4–56. Filed 6–26–56.

641,750. BATHMASTER. Jackes-Evans Manufacturing Company. SN 11,170. Pub. 12–4–56. Filed 6–28–56.

CLASS 35

BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

641,751. STRIP-O-SEAL. The Franklin C. Wolfe Company, Inc. SN 667,918. Pub. 1–25–55. Filed 6–8–54.

CLASS 36

MUSICAL INSTRUMENTS AND SUPPLIES

641,752. PRINCESS. Aileen Stanley. SN 2,586. Pub. 12–4–56. Filed 2–13–56.

641,753. CHOREO. Choreo Record Company. SN 6,098. Pub. 12–4–56. Filed 4–10–56.

641,754. MASTER PLAY. Auto-Pneumatic Action Co. Inc. SN 11,837. Pub. 12–4–56. Filed 7–10–56.

641,755. DUO MATIC. Hardman, Peck & Company. SN 12,083. Pub. 12–4–56. Filed 7–13–56.

CLASS 37

PAPER AND STATIONERY

641,756. NON-REPRO. American Lead Pencil Company. SN 681,826. Pub. 12–4–56. Filed 2–17–55.

641,757. COLORAY. American Lead Pencil Company. SN 688,203. Pub. 12–4–56. Filed 5–25–55.

641,758. ART MAT. Crocker, Burbank Papers Inc. SN 689,349. Pub. 12–4–56. Filed 6–13–55.

641,759. ART GLOSS. Crocker, Burbank Papers Inc. SN 689,350. Pub. 12–4–56. Filed 6–13–55.

641,760. RIVIERA. Ferber Pen Corp. SN 700,593. Pub. 12–4–56. Filed 12–27–55.

641,761. MARTHA WASHINGTON. Doeskin Products, Inc. SN 6,598. Pub. 12–4–56. Filed 4–18–56.

641,762. WILLOW. Doeskin Products, Inc. SN 6,599. Pub. 12–4–56. Filed 4–18–56.

641,763. CHEEKIST. Sirrue Inc. SN 6,645. Pub. 12–4–56. Filed 4–18–56.

641,764. PURI-TUF. Garrett-Buchanan Company. SN 7,588. Pub. 12–4–56. Filed 5–3–56.

641,765. FRATERNITY. Hollywood Novelty Co., Inc. SN 9,471. Pub. 12–4–56. Filed 6–1–56.

641,766. WHITEX. The Frederick Post Co. SN 9,585. Pub. 12–4–56. Filed 6–4–56.

641,767. BLUTEX. The Frederick Post Co. SN 9,586. Pub. 12–4–56. Filed 6–4–56.

CLASS 38

PRINTS AND PUBLICATIONS

641,768. CHEMICAL PROGRESS. Union Carbide and Carbon Corporation. SN 684,080. Pub. 12–4–56. Filed 3–23–55.

641,769. PRESIDENTIAL FAMOUS FIRSTS IN HISTORY AND DESIGN. V. Wesley Carmack. SN 1,668. Pub. 12–4–56. Filed 1–30–56.

641,770. THE LINK. The Greenwich Junior Woman's Club, Incorporated. SN 5,297. Pub. 11–20–56. Filed 3–27–56.

641,771. JOHNNY REB AND BILLY YANK. New York Herald Tribune Inc. SN 10,701. Pub. 12–4–56. Filed 6–21–56.

641,772. KINDLE. John L. Davenport, d. b. a. The Kindle Press. SN 10,759. Pub. 12–4–56. Filed 6–22–56.

641,773. THE WAITING ROOM. M D Publications, Inc. SN 10,788. Pub. 12–4–56. Filed 6–22–56.

641,774. TOVER. Tover, Inc. SN 10,816. Pub. 12–4–56. Filed 6–22–56.

CLASS 39

CLOTHING

641,775. STEIN'S ETC. Stein's Stores Inc. SN 682,077. Pub. 12–4–56. Filed 2–21–55.

641,776. SHADOLITE. Hickey-Freeman Company. SN 684,221. Pub. 12–4–56. Filed 3–25–55.

641,777. PUPPET-JAMA AND DESIGN. Savada Bros. Inc. SN 687,502. Pub. 12–4–56. Filed 5–13–55.

641,778. CELEBRITY. Palm Beach Company. SN 688,071. Pub. 12–4–56. Filed 5–23–55.

641,779. TERRY TYON. National Sales Associates, Inc. SN 690,090. Pub. 12–4–56. Filed 6–23–55.

641,780. SUBURBAN FASHIONS, INC. Suburban Fashions, Inc. SN 692,817. Pub. 12–4–56. Filed 8–10–55.

641,781. LENOX. Cluett, Peabody & Co., Inc. SN 700,577. Pub. 12–4–56. Filed 12–27–55.

641,782. GRAD. Cluett, Peabody & Co., Inc. SN 27. Pub. 12–4–56. Filed 1–3–56.

641,783. MICRO-AIRE. Techno Efficiency Council, Inc. SN 177. Pub. 12–4–56. Filed 1–4–56.

641,784. MICOTEMP. Techno Efficiency Council, Inc. SN 178. Pub. 12–4–56. Filed 1–4–56.

641,785. ARROW JAC. Cluett, Peabody & Co., Inc. SN 572. Pub. 12–4–56. Filed 1–12–56.

641,786. "PAK-IT." Resistol Hats, Inc. SN 832. Pub. 12–4–56. Filed 1–16–56.

641,787. HOLBROOK. Holbrook Hat Company. SN 985. Pub. 12–4–56. Filed 1–18–56.

641,788. SLIP'N CLIP. Basford Products Corporation. SN 8,112. Pub. 12–4–56. Filed 5–11–56.

641,789. TATTEN-HALL. Eagle Bros. SN 8,643. Pub. 12–4–56. Filed 5–21–56.

641,790. ICE-O-LITE. J. Schoeneman, Incorporated. SN 8,708. Pub. 12–4–56. Filed 5–21–56.

641,791. BUCKAROO. Smith Brothers Manufacturing Co. SN 8,715. Pub. 12–4–56. Filed 5–21–56.

641,792. HE-MAN. Man Size, Inc. SN 8,784. Pub. 12–4–56. Filed 5–22–56.

641,793. TU WAY. Cluett, Peabody & Co., Inc. SN 9,087. Pub. 12–4–56. Filed 5–28–56.

641,794. PACE. Cluett, Peabody & Co., Inc. SN 9,090. Pub. 12–4–56. Filed 5–28–56.

641,795. SHOREHAM. Cluett, Peabody & Co., Inc. SN 9,091. Pub. 12–4–56. Filed 5–28–56.

641,796. CONTINENTAL. Cluett, Peabody & Co., Inc. SN 9,100. Pub. 12–4–56. Filed 5–28–56.

641,797. NORSEMAN. Windsor Shirt Co., Inc. SN 9,318. Pub. 12–4–56. Filed 5–29–56.

641,798. COL-TEES. Melrose Corporation. SN 9,562. Pub. 12–4–56. Filed 6–4–56.

641,799. D-1. Brown Company. SN 10,127. Pub. 12–4–56. Filed 6–13–56.

641,800. BIB-DIT. Florence C. Wells. SN 11,207. Pub. 12–4–56. Filed 6–28–56.

641,801. GO-N-DRY. D. Glasgow & Sons. SN 11,366. Pub. 12–4–56. Filed 7–2–56.

641,802. BRISTOL. Bristol Knitting Mills, Inc. SN 11,468. Pub. 12–4–56. Filed 7–3–56.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

641,803. CHROMAQ. Philip Wick Co., Inc., to A-Q Mills, Inc. SN 665,262. Pub. 12–4–56. Filed 4–26–54.

641,804. INFRA RAY. Marcus Breier Sons, Inc. SN 742. Pub. 12–4–56. Filed 1–16–56.

641,805. STERIL-SET. Southerland Fabrics, Inc. SN 7,704. Pub. 12–4–56. Filed 5–4–56.

641,806. I. B. C. Herbert Glatt, d. b. a. Magla Products. SN 10,313. Pub. 12–4–56. Filed 6–15–56.

641,807. COLERAINE. Massachusetts Textile Company—Bernhard Altmann, Inc. SN 11,490. Pub. 12–4–56. Filed 7–3–56.

641,808. FASHION FAIR. D. B. Fuller & Co., Inc. SN 11,847. Pub. 12–4–56. Filed 7–10–56.

641,809. ALTOCRAT. Massachusetts Textile Company—Bernhard Altmann, Inc. SN 11,865. Pub. 12–4–56. Filed 7–10–56.

641,810. IRVCO. Irving S. Cohen, Inc. SN 12,068. Pub. 12–4–56. Filed 7–13–56.

641,811. BLUTEX. F H Paul & Stein Bros. Inc. SN 12,102. Pub. 12–4–56. Filed 7–13–56.

CLASS 43

THREAD AND YARN

641,812. GODFREYARN AROUND THE WORLD AND DESIGN. Howard G. Godfrey & Co., Inc. SN 12,617. Pub. 12–4–56. Filed 7–23–56.

641,813. ATCO. The American Thread Company. SN 14,120. Pub. 12–4–56. Filed 8–17–56.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

641,814. STERACYCLIC CONTROL. Shampaine Electric Company, Inc. SN 3,775. Pub. 12–4–56. Filed 3–2–56.

641,815. NOISEFOE. Mine Safety Appliances Company. SN 6,452. Pub. 12–4–56. Filed 4–16–56.

641,816. THINEX. Youngs Rubber Corporation. SN 6,667. Pub. 12–4–56. Filed 4–10–56.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

641,817. SUNPICT. Seabrook Farms Co. SN 626,829. Pub. 11–24–53. Filed 3–21–52.

641,818. MAR-SE. Penn Food Distributors, Inc., also known as Penn Food Distributors Inc. and Penn Food Distributors. SN 638,971. Pub. 7–10–56. Filed 12–4–52.

641,819. CERTIFIED AND DESIGN. Certified Grocers of Illinois, Inc. SN 656,768. Pub. 8–31–54. Filed 11–23–53.

641,820. GARDEN FRESH. National Tea Co. SN 667,731. Pub. 12–4–56. Filed 6–4–54.

641,821. SENORA. Korbro Oil Corporation. SN 668,760. Pub. 12–4–56. Filed 6–23–54.

641,822. DOUGLAS. Omaha Cold Storage Company, d. b. a. Ocoma Feed Mills, now by change of name Ocoma Foods Company. SN 676,072. Pub. 12–4–56. Filed 11–4–54.

641,823. SHAMROCK. Moriarty Meat Company. SN 683,462. Pub. 4–3–56. Filed 3–28–55.

641,824. CK AND DESIGN. C. K. Foods, Inc. SN 684,414. Pub. 12–4–56. Filed 3–29–55.

641,825. HONEGGERS. Honeggers' & Co., Inc. SN 686,907. Pub. 12–4–56. Filed 5–5–55.

641,826. PETNIP. Flavor Corporation of America. SN 692,221. Pub. 12–4–56. Filed 8–1–55.

641,827. CALORIZED. Central Soya Company, Inc. SN 694,048. Pub. 12–4–56. Filed 9–1–55.

641,828. KATHRYN BEICH. Paul F. Beich Company. SN 697,268. Pub. 12–4–56. Filed 10–28–55.

641,829. TERRA BELLA. Terra Bella Citrus Association. SN 698,088. Pub. 12–4–56. Filed 11–10–55.

641,830. CALLA. Fitzsimmons Stores, Ltd., d. b. a. Smart & Final Iris Co., Smart & Final Co., Smart & Final Co., Ltd., and Haas Baruch & Co. SN 56. Pub. 12–4–56. Filed 1–3–56.

641,831. SMALL FRY TREATS. J. P. Fritz Candy Company, Inc., d. b. a. Fritz Candy Co. SN 493. Pub. 12–4–56. Filed 1–11–56.

641,832. TARGET HITS THE MARK AND DESIGN. A. E. Staley Manufacturing Company. SN 3,473. Pub. 12–4–56. Filed 2–27–56.

641,833. CALGOLD. Peter Justesen Company, Incorporated, d. b. a. Calgold Food Products. SN 3,769. Pub. 12–4–56. Filed 3–2–56.

641,834. PHILLIPS FINER FLAVOR. Phillips Packing Co., Inc. SN 5,129. Pub. 12–4–56. Filed 3–23–56.

641,835. MELLOWEST. Washington Canners Cooperative, d. b. a. Washington Canners. SN 5,259. Pub. 12–4–56. Filed 3–26–56.

641,836. BROKEN DRUM. K. R. Nutting, d. b. a. K. R. Nutting Co. SN 6,274. Pub. 12–4–56. Filed 4–12–56.

641,837. EARFRESH. Gem Canning Company. SN 6,420. Pub. 12–4–56. Filed 4–16–56.

641,838. LACTICAM. Mead Johnson & Company. SN 6,936. Pub. 12–4–56. Filed 4–23–56.

641,839. MISS CHICKEN. Meat Industry Suppliers, Inc. SN 7,101. Pub. 12–4–56. Filed 4–25–56.

641,840. BC BREAKFAST COCKTAIL AND DESIGN. D. E. Winebrenner Company, Inc. SN 7,139. Pub. 12–4–56. Filed 4–25–56.

641,841. BC. D. E. Winebrenner Company, Inc. SN 7,140. Pub. 12–4–56. Filed 4–25–56.

641,842. PLATEAU. Cain's Marcelle Potato Chip Company, Inc. SN 7,159. Pub. 12–4–56. Filed 4–26–56.

641,843. WEEKENDER. The City Baking Company, d. b. a. Rice's Bakery. SN 8,471. Pub. 12–4–56. Filed 5–17–56.

641,844. TIME OUT. Southern Foods Company. SN 8,583. Pub. 12–4–56. Filed 5–18–56.

641,845. "YOUR KIND." Arrowhead Ranches, Inc. SN 8,612. Pub. 12–4–56. Filed 5–21–56.

641,846. PLYMOUTH ROCK. Plymouth Citrus Growers Association. SN 8,691. Pub. 12–4–56. Filed 5–21–56.

641,847. FRENCH'S AND PENNANT DESIGN. The R. T. French Company. SN 9,136. Pub. 12–4–56. Filed 5–28–56.

641,848. DOLE. Hawaiian Pineapple Company, Limited. SN 9,266. Pub. 12–4–56. Filed 5–29–56.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

641,849. MARIGOLD. Schenley Distillers, Inc., d. b. a. Number One Distilling Company. SN 14,010. Pub. 12–4–56. Filed 8–15–56.

641,850. PALO VIEJO AND DESIGN. Puerto Rico Distillers, Inc. SN 14,358. Pub. 12–4–56. Filed 8–21–56.

641,851. PALO VIEJO. Puerto Rico Distillers, Inc. SN 14,359. Pub. 12–4–56. Filed 8–21–56.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

641,852. COL-ITE AND DESIGN. Colonial-Hites Company. SN 699,702. Pub. 12–4–56. Filed 12–9–55.

641,853. VISO-DESKPLATE. D. C. Hey Co., Inc. SN 5,359. Pub. 12–4–56. Filed 3–28–56.

641,854. ROCK OF AGES AND DESIGN. Rock of Ages Corporation. SN 8,576. Pub. 12–4–56. Filed 5–18–56.

641,855. ROCK OF AGES. Rock of Ages Corporation. SN 9,897. Pub. 12–4–56. Filed 6–8–56.

641,856. MODEL. Henry A. Enrich and Co., Inc. SN 12,074. Pub. 12–4–56. Filed 7–13–56.

641,857. NAMETTES. Berglund-Swenson Co., Inc. SN 12,781. Pub. 12–4–56. Filed 7–25–56.

641,858. WARNER JET–84. The Warner Brooder Corporation. SN 13,402. Pub. 12–4–56. Filed 8–3–56.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

641,859. SURGEX. Ernest Braun. SN 687,761. Pub. 12–4–56. Filed 5–18–55.

641,860. LIQUID NAILS. Nailtex, Inc. SN 688,654. Pub. 12–4–56. Filed 6–1–55.

641,861. DRAGOCO AND DESIGN. Dragoco, Spezialfabrik Konz. Riech- und Aromastoffe, Gerberding & Co. G. m. b. H., d. b. a. Dragoco. SN 696,517. Pub. 12–4–56. Filed 10–17–55.

641,862. MADRONOS AND DESIGN. Perfumeria Parera, Sociedad Anonima. SN 696,727. Pub. 12–4–56. Filed 10–19–55.

641,863. TIARA. Alexandra de Markoff Sales Corporation. SN 696,875. Pub. 9–25–56. Filed 10–21–55.

641,864. C. H. B. Edgar James Callahan, d. b. a. E. J. Callahan. SN 698,837. Pub. 12–4–56. Filed 11–25–55.

641,865. WELLITE. The Wella Corporation. SN 1,928. Pub. 12–4–56. Filed 2–1–56.

641,866. FOUR PENNY. Four Penny Products Co., Inc. SN 2,627. Pub. 12–4–56. Filed 2–14–56.

641,867. ROULETTE. Roux Laboratories, Inc. SN 4,479. Pub. 12–4–56. Filed 3–13–56.

641,868. MAR-VON. Frank Pessek, d. b. a. Northern Beauty Products. SN 5,233. Pub. 12–4–56. Filed 3–26–56.

CLASS 52

DETERGENTS AND SOAPS

641,869. ATLAS. Atlas Supply Company. SN 6,683. Pub. 12–4–56. Filed 4–19–56.

641,870. DEVONGLO. Devon Inc. SN 8,832. Pub. 12–4–56. Filed 5–23–56.

Service Marks

CLASS 101

ADVERTISING AND BUSINESS

641,871. AMERICAN HOSPITAL AND LIFE OF SAN ANTONIO AND DESIGN. The American Hospital and Life Insurance Company. SN 229. Pub. 12–4–56. Filed 1–6–56.

CLASS 102

INSURANCE AND FINANCIAL

641,872. AUDIO AND VISUAL REPRESENTATION OF A COIN SPINNING ON A HARD SURFACE. Northwestern Bank of Commerce. SN 691,883. Pub. 12–4–56. Filed 7–25–55.

641,873. TORCH AND SHIELD DESIGN, ETC. Paul L. Smith Agency, Inc. SN 696,183. Pub. 12–4–56. Filed 10–10–55.

641,874. MANAGED FUNDS INCORPORATED AND DESIGN. Managed Funds Incorporated. SN 696,370. Pub. 12–4–56. Filed 10–13–55.

CLASS 106

MATERIAL TREATMENT

641,875. HOLLANDER DYED AND FEATHERLITED PHLANKETTE AND DESIGN. A. Hollander & Son, Inc. SN 673,663. Pub. 11–29–55. Filed 9–23–54.

641,876. HOLLANDER DYED AND FEATHERLITED BACKETTE AND DESIGN. A. Hollander & Son, Inc. SN 673,664. Pub. 11–29–55. Filed 9–23–54.

641,877. MARTREAT. The Marley Company. SN 2,150. Pub. 12–4–56. Filed 2–6–56.

641,878. EVRON. T. P. Sales Corporation. SN 5,946. Pub. 12–4–56. Filed 4–6–56.

641,879. DESIGN OF INDIAN AND TEEPEE. T. P. Sales Corporation. SN 5,947. Pub. 12–4–56. Filed 4–6–56.

641,880. MISTIQUE. T. P. Sales Corporation. SN 5,948. Pub. 12–4–56. Filed 4–6–56.

641,881. TUFF-PUFF. T. P. Sales Corporation. SN 5,949. Pub. 12–4–56. Filed 4–6–56.

CLASS 107

EDUCATION AND ENTERTAINMENT

641,882. WHAT'S YOUR ALIBI. Theodore Granik. SN 2,423. Pub. 12–4–56. Filed 2–10–56.

Certification Marks

CLASS A

GOODS

641,883. SAFE TRANSIT AND DESIGN. Porcelain Enamel Institute, Inc. SN 685,043. Pub. 12–4–56. Filed 4–6–55.

641,884. V AND DESIGN OF SHIELD. United States Department of Agriculture. SN 11,212. Pub. 12–4–56. Filed 6–27–56.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

641,885. Pittsburgh Consolidation Coal Company, Pittsburgh, Pa. SN 697,406. Filed P. R. 10–31–55. Am. S. R. 10–31–56.

BRADFORD

For Coal.
First use July 7, 1955.

CLASS 12

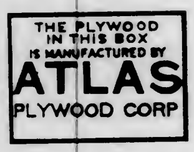
CONSTRUCTION MATERIALS

641,886. Atlas Plywood Corporation, Boston, Mass. SN 938. Filed P. R. 1–18–56. Am. S. R. 11–21–56.

CROSS-BANDED
PLYWOOD

For Plywood Sheets, Veneer and Panels.
First use July 1925.

641,887. Atlas Plywood Corporation, Boston, Mass. SN 940. Filed P. R. 1–18–56. Am. S. R. 11–21–56.



For Plywood Panels, Sheets and Veneer.
First use December 1939.

641,888. Atlas Plywood Corporation, Boston, Mass. SN 942. Filed P. R. 1–18–56. Am. S. R. 11–21–56.

For Plyfold Hinged Panels.
First use February 1950.

641,889. American Aluminum Window Corp., Malden, Mass. SN 7,899. Filed P. R. 5–8–56. Am. S. R. 11–29–56.

TRIPLE-GUIDE

For Aluminum Windows.
First use September 1954.

CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

641,890. John J. Hydock, d. b. a. Pultite Clothesline Company, Reading, Pa. SN 700,750. Filed P. R. 12–28–55.

PUL-TITE

Am. S. R. 9–14–56.
For Fasteners for Tensioning Clotheslines.
First use Oct. 24, 1953.

CLASS 14

METALS AND METAL CASTINGS AND FORGINGS

641,891. Reeves Steel and Manufacturing Company, Dover, Ohio. SN 699. Filed P. R. 1–13–56. Am. S. R. 12–14–56.

For Galvanized Steel Sheets.
First use Dec. 9, 1955.

CLASS 15

OILS AND GREASES

641,892. Richfield Oil Corporation, Los Angeles, Calif. SN 693,847. Filed P. R. 8–29–55. Am. S. R. 11–5–56.

**PROTECTIVE
LUBRICATION
BY
RICHFIELD**

For Lubricating Oils, Lubricating Greases, and Penetrating Oils.
First use Dec. 14, 1932.

641,893. Cities Service Oil Company, New York, N. Y. SN 699,701. Filed P. R. 12–9–55. Am. S. R. 10–31–56.

FILTER FILM

For Mineral Oil Base Air Intake Filter Wetting and Adhesive Composition.
First use June 12, 1953.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

641,894. Reliance Dental Mfg. Co., Chicago, Ill. SN 687,001. Filed P. R. 5–6–55. Am. S. R. 12–13–56.

For Antiseptic Ointment for Treating Pain and Discomfort Caused by Dentures.
First use Jan. 20, 1955.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

641,895. Dialight Corporation, Brooklyn, N. Y. SN 1,943. Filed P. R. 2–2–56. Am. S. R. 12–7–56.

OIL TIGHT

For Electric Panelboard Pilot and Signal Light Unit.
First use June 29, 1955.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

641,896. Strombeck-Becker Manufacturing Company, Moline, Ill. SN 695,660. Filed P. R. 9–30–55. Am. S. R. 10–15–56.

**toddler
train**

For Mobile Toy Train Set of Articulately Interconnected Units.
First use on or about July 26, 1951.

CLASS 31

FILTERS AND REFRIGERATORS

641,897. Hussmann Refrigerator Co., St. Louis, Mo. SN 1,872. Filed P. R. 2–1–56. Am. S. R. 12–14–56.

SHELF SERVICE

For Refrigerated Display Cases.
First use Oct. 3, 1955.

CLASS 37

PAPER AND STATIONERY

641,898. McLaurin-Jones Company, Brookfield, Mass., now by change of name to McLaurin-Angier Co., Needham, Mass. SN 695,008. Filed P. R. 9–20–55. Am. S. R. 9–19–56.

DRY-STIK

For Gummed Paper in Sheet Form.
First use July 1, 1955.

641,899. James Seeman Designs, Inc., Richmond Hill, N. Y. SN 695,448. Filed P. R. 9–27–55. Am. S. R. 11–6–56.

"Easy Apply"

For Wallpapers.
First use Sept. 1, 1955.

CLASS 38

PRINTS AND PUBLICATIONS

641,900. Farm Journal, Inc., Philadelphia, Pa. SN 695,403. Filed P. R. 9–27–55. Am. S. R. 10–22–56.

COUNTRYSIDE MARKETING

For Monthly Newspaper.
First use Sept. 8, 1955.

641,901. Feature Publications, Inc., New York, N. Y. SN 698,594. Filed P. R. 11–21–55. Am. S. R. 11–1–56.

TRUE MEDIC STORIES

For Bi-Monthly Publication.
First use Oct. 25, 1955.

641,902. Quigley Publishing Company, Inc., New York, N. Y. SN 698,639. Filed P. R. 11–21–55. Am. S. R. 11–2–56.

Television Today

For Regularly Published Section in a Motion Picture Magazine.
First use July 18, 1955.

CLASS 39

CLOTHING

641,903. Fortuna Foundations, Inc., New York, N. Y. SN 694,870. Filed P. R. 9–19–55. Am. S. R. 10–30–56.

Control Yourself

It's Lighter than you think

For Brassieres and Girdles.
First use Aug. 24, 1955.

641,904. Union Mfg. Co., Los Angeles, Calif. SN 696,195. Filed P. R. 10–10–55. Am. S. R. 11–3–56.

HARRIS *Slacks*

The word "Slacks" is disclaimed apart from the mark shown.
For Work Clothes, Comprising Slacks, for Men, Women, and Children.
First use July 1, 1954.

641,905. Swirl, Inc., Easley, S. C. SN 696,470. Filed P. R. 10–14–55. Am. S. R. 11–3–56.

TY-WRAP

For Women's and Misses' Textile Aprons.
First use Aug. 25, 1955.

641,906. Adolf Dassler, d. b. a. Adidas Sportschuhfabrik Adi Dassler, Herzogenaurach, Bavaria, Germany. SN 698,775. Filed 11–23–55.

adidas the mark with the 3 stripes

Owner of German Reg. No. 666,461, dated Nov. 12, 1954.
For Shoes for Men and Women.

641,907. The H. D. Lee Company, Incorporated, Kansas City, Mo. SN 699,238. Filed P. R. 12–1–55. Am. S. R. 11–13–56.

Blu-Fast

For Work and Utility Clothing—Namely, Waistband Overalls for Ladies, Men, Girls, and Boys.
First use Nov. 7, 1955.

641,908. Union Manufacturing Company, Los Angeles, Calif. SN 699,940. Filed P. R. 12–13–55. Am. S. R. 10–22–56.

PEG-LEGS

For Slacks and Trousers.
First use Sept. 1, 1955.

641,909. Stein's Stores, Inc., New York, N. Y. SN 700,486. Filed P. R. 12–22–55. Am. S. R. 10–26–56.

STEIN'S

SAMSON GAB-TWIST

For Men's Suits, Trousers, Coats, and Overcoats.
First use August 1954.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

641,910. Pyramid Manufacturing Co. Inc., New York, N. Y. SN 699,828. Filed P. R. 12–12–55. Am. S. R. 11–15–56.

ELASTIKNIT

For Ribbed and Jersey Knitted Fabric of Linen, Cotton, Woolen, and/or Synthetic Fibers and Combinations of Same Containing Elastic Yarn, Sold as Piece Goods Which May Be Cut or Separated and Used for Waistbands and the Like.
First use Nov. 3, 1955.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

641,911. Sea Snack Company, Philadelphia, Pa. SN 673,303. Filed P. R. 9–16–54. Am. S. R. 9–21–55.

Sea Snack

For Shrimp-in-Sauce, Shrimp Cocktail, and Shrimp Mayon.
First use Mar. 5, 1949.

CLASS 48

MALT BEVERAGES AND LIQUORS

641,912. Eugene F. West, New York, N. Y. SN 694,461. Filed P. R. 9–9–55. Am. S. R. 9–20–56.

No claim is made to the words "Is made from the most carefully selected barley malt hops, yeast, obtainable and pure water for better flavor in all climates," and "12 fluid ozs."
For Beer.
First use Aug. 20, 1955.

641,913. Eugene F. West, New York, N. Y. SN 695,862. Filed P. R. 10–4–55. Am. S. R. 9–20–56.

No claim is made to the words "Is made from the most carefully selected barley malt hops, yeast, obtainable and pure water for better flavor in all climates" and "12 fluid ounces."
For Beer.
First use Aug. 20, 1955.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

641,914. D. E. Williams Limited, Tullamore, Ireland. SN 693,951. Filed P. R. 8–30–55. Am. S. R. 11–23–56.

"Give Every Man his Dew"

For Irish Whiskey.
First use at least as early as 1938.

TRADEMARK REGISTRATIONS RENEWED

112,946. BROADAN WALL. Cl. 38. 10–3–16.
114,808. PAUL JONES. Cl. 39. 1–2–17.
114,882. GTD AND DESIGN. Cl. 26. 1–9–17.
114,938. CARBO-HYDROGEN. Cl. 6. 1–16–17.
114,950. ORIOLE. Cl. 23. 1–16–17.
115,043. ALMO. Cl. 15. 1–16–17.
115,656. HULLEAD. Cl. 16. 2–27–17.
116,245. DESIGN OF SCROLL. Cl. 52. 4–17–17.
116,370. PRACTIPEDIC. Cl. 44. 4–24–17.
116,451. DESIGN OF CIRCLE AND RECTANGLE COLORED RED. Cl. 16. 5–1–17.
339,662. DERMO-G. Cl. 18. 10–13–36.
340,428. UNION BOB CAT AND DESIGN. Cl. 37. 11–10–36.
340,429. UNION RACCOON AND DESIGN. Cl. 37. 11–10–36.
340,435. CEDAROMA. Cl. 2. 11–10–36.
341,434. VACUTOP. Cl. 50. 12–8–36.
341,447. SORBOTEX. Cl. 6. 12–8–36.
341,621. DESIGN OF CROWN. Cl. 46. 12–15–36.
341,770. MARY ESTHER. Cl. 46. 12–22–36.
342,162. POLKA DOT. Cl. 46. 1–5–37.
342,262. SUNDAE-SICLE. Cl. 46. 1–12–37.
342,362. AMPLIPHONIC. Cl. 36. 1–12–37.
342,418. WHITE ANGEL AND DESIGN. Cl. 39. 1–19–37.
342,581. OVER THE TOP AND DESIGN. Cl. 39. 1–19–37.
342,766. SOUTHERN DELIGHT. Cl. 46. 1–26–37.
342,940. FRUIT-SICLE. Cl. 2. 2–2–37.
343,171. CURITOE. Cl. 18. 2–9–37.
344,065. GUN. Cl. 23. 3–9–37.
344,183. BELL'S. Cl. 46. 3–16–37.
344,184. DESIGN OF TURKEY. Cl. 46. 3–16–37.
344,213. BENZO-SOL. Cl. 15. 3–16–37.
344,214. TOLU-SOL. Cl. 15. 3–16–37.
344,276. FILATEX AND DESIGN. Cl. 43. 3–16–37.
344,277. SPUDDIES. Cl. 46. 3–16–37.
344,998. SPALT-TABLETTEN AND DESIGN. Cl. 18. 4–13–37.
345,036. SANTOFLEX. Cl. 6. 4–13–37.
345,358. FLEETWAY AND DESIGN. Cl. 35. 4–27–37.
345,364. NIBS. Cl. 46. 4–27–37.
345,388. SUNNYDAY. Cl. 13. 4–27–37.
345,511. BOOSTER. Cl. 46. 4–27–37.
345,720. GIANA. Cl. 39. 5–4–37.
345,988. FLEXCO AND DESIGN. Cl. 13. 5–11–37.
346,156. NU-DENT. Cl. 44. 5–18–37.
346,370. A & F CO. Cl. 2. 5–25–37.
346,371. A & F CO. Cl. 3. 5–25–37.
346,372. A & F CO. Cl. 8. 5–25–37.
346,373. A & F CO. Cl. 39. 5–25–37.

TRADEMARK REGISTRATIONS CANCELED

Section 8

52,832. NATIONAL. Cl. 29. 5–22–06.
52,864. OKATEX. Cl. 29. 5–22–06.
52,866. HARD PAN. Cl. 29. 5–22–06.
52,867. CONQUEROR. Cl. 29. 5–22–06.
80,310. DERMATYPE. Cl. 37. 12–6–10.
257,838. TATOO. Cl. 51. 6–18–29.
276,590. COLOR-RAY. Cl. 34. 10–21–30.
277,895. COLORBRITE AND DRAWING. Cl. 37. 12–2–30.
326,462. TATTOO HAWAIIAN. Cl. 51. 7–23–35.
337,296. STREEMCURV. Cl. 27. 8–4–36.
347,018. PEDRO'S RUM. Cl. 49. 6–15–37.
432,291. TATTOO. Cl. 2. 8–26–47.
528,894. ROCKWELL "R" AND DESIGN. Cl. 13. 8–8–50.
531,813. ROLON. Cl. 42. 10–10–50.
532,686. LAURA LEE. Cl. 46. 10–31–50.
533,231. ORIGINAL JOBBERS AND DESIGN. Cl. 23. 11–7–50.
533,869. VIRGINIA LEE AND DESIGN. Cl. 12. 11–28–50.
535,247. SPARTON. Cl. 21. 12–26–50.

The following registrations issued Jan. 2, 1951

535,494. ADS AND DESIGN. Cl. 16.
535,500. HOBBLE HOBBY. Cl. 22.
535,503. STEELINE. Cl. 32.
535,504. CIGO. Cl. 49.
535,505. TRU-FORM BY MISS D. BENAY. Cl. 39.
535,516. BABY'S FRIEND. Cl. 2.
535,519. FREEDOM PERFECT AND DESIGN. Cl. 15.
535,528. MUSITENDA. Cl. 22.
535,533. FREEDOM F. C. AND DESIGN. Cl. 15.
535,546. T. M. DESIGN. Cl. 12.
535,558. 5 IN 1. Cl. 6.
535,561. VANITY ORGANIZER. Cl. 2.
535,562. PERFECTONE. Cl. 4.
535,564. ZAPRIME. Cl. 16.
535,566. HELSINGBORG AND DESIGN OF THREE TOWERS. Cl. 39.
535,568. BERRYKLEER. Cl. 16.
535,572. Q. T. GUM. Cl. 51.
535,573. TOTSY TUFFET. Cl. 32.
535,574. UNITROL. Cl. 10.
535,575. SHELL DESIGN. Cl. 6.
535,580. HATOMIC. Cl. 23.
535,581. POWELL PROCESS P AND DESIGN. Cl. 51.
535,585. KLASPIES. Cl. 39.
535,587. MANI-BEE. Cl. 44.
535,591. ARDIN GRAND VIN ROSE AND DESIGN. Cl. 47.
535,595. SUPER-STRENGTH CO-IN PRODUCTS AND DESIGN. Cl. 39.

535,598. ASHFORD PARK. Cl. 39.
535,601. WEE BROWNIE AND DESIGN. Cl. 39.
535,602. CIGO. Cl. 49.
535,606. ENCHARMA. Cl. 51.
535,607. T. M. DESIGN. Cl. 22.
535,612. BASEBALL TOOTHPASTE. Cl. 51.
535,613. FOOTBALL TOOTHPASTE. Cl. 51.
535,617. GEE BEE. Cl. 42.
535,622. CASPAD. Cl. 18.
535,623. CHAR-AL-AC. Cl. 18.
535,625. GLAMALETHA. Cl. 26.
535,626. ORTHOREX. Cl. 26.
535,627. YANKEE LOOMS. Cl. 42.
535,637. SAF SLEEP AND DESIGN. Cl. 42.
535,649. FIRE OF SPRING. Cl. 51.
535,650. ANNIE B. WRIGHT GLOSSARINE. Cl. 51.
535,655. CHARMAROY. Cl. 42.
535,661. MAGNOWAX. Cl. 15.
535,664. TIRROPEEN. Cl. 50.
535,667. BLEND-TEX. Cl. 16.
535,668. SENECA BRAND PEAT MOSS. Cl. 1.
535,671. TIMBALLIGINELE AND DESIGN. Cl. 51.
535,675. CREPE DEMURE. Cl. 42.
535,676. BALL BRAND POTWOOD AND DESIGN. Cl. 22.
535,682. PHOENIX IN CIRCLE. Cl. 6.
535,686. DEXEL. Cl. 15.
535,696. CORAL-TWIST. Cl. 42.
535,697. A CRITIQUE EXCLUSIVE. Cl. 39.
535,698. WINTER FRAST. Cl. 42.
535,702. OVERJAMA. Cl. 39.
535,705. T. M. DESIGN. Cl. 32.
535,709. POLARDINE. Cl. 42.
535,712. PAUL FLATO ORIGINAL CROWN JEWELS. Cl. 2.
535,713. TWISTIGHT. Cl. 32.
535,715. TAL. Cl. 6.
535,721. BIRTHDAY JOLLY. Cl. 2.
535,722. BOOTQUET. Cl. 50.
535,723. CONACON. Cl. 26.
535,728. CAN-TEX. Cl. 26.
535,732. HOUSE OF BALTIMORE. Cl. 49.
535,739. COLUMBIA-MATIC. Cl. 32.
535,745. TY-MASK. Cl. 39.
535,746. SECT-O-DESK AND DESIGN. Cl. 32.
535,747. FROST GARD. Cl. 39.
535,749. DIG-N-2. Cl. 32.
535,754. DOECO. Cl. 1.
535,755. REPRESENTATION OF A SPIRAL BAND. Cl. 23.
535,756. FRANKOAT. Cl. 39.
535,764. K. SURTHIN CIRCULAR DESIGN. Cl. 13.
535,766. IMPRESSIVE. Cl. 39.
535,767. LUMILUSTRE. Cl. 16.
535,771. DREAM BOAT. Cl. 39.
535,772. KALI. Cl. 2.
535,775. PROFILE PETS. Cl. 22.
535,777. GOLDEN VIOLIN. Cl. 51.
535,786. BBZ-200. Cl. 6.
535,789. STRAPMASTER. Cl. 32.
535,797. HAPPY HOURS. Cl. 39.
535,813. SONNET. Cl. 39.
535,815. THE DREAM WEAVER. Cl. 107.
535,818. DREAM WEAVER. Cl. 107.
535,820. GREAT WESTERN FIRE AND MARINE INSURANCE AND DESIGN. Cl. 102.
535,821. AUDISCOPE. Cl. 107.
535,822. THE DIRT DOCTOR. Cl. 104.
535,833. CAMPBELL CLOSET-WALL. Cl. 32.
535,834. DUTCH FARMS. Cl. 46.
535,835. FUZZ FREE. Cl. 1.
535,842. YOU LIKE IT IT LIKES YOU. Cl. 45.
535,844. DENTIBRUSH. Cl. 29.
535,847. RE-CORD-IT. Cl. 37.
535,848. HORNUNG'S. Cl. 48.
535,850. POULTRY FEED FACTS. Cl. 38.
535,852. MORE POWER TO YOU. Cl. 23.
535,855. EYEL-ETTE. Cl. 23.
535,856. BESTLE ON LABEL DESIGN. Cl. 47.
535,859. BOUCLE WEAVE. Cl. 42.
535,860. ROBERT CART. Cl. 27.
535,861. EASE BACK. Cl. 32.
535,862. LAHER BATTERIES LIKE CAMELS—GO LONGER WITH WATER AND REPRESENTATION OF TWO CAMELS. Cl. 21.
535,865. WEAVER'S TOP-O-THE-POPPER. Cl. 46.
535,867. JAWSET. Cl. 23.
535,871. KWIK. Cl. 52.
535,873. NU-LINE. Cl. 1.
535,874. SOFT AS A MIST. Cl. 37.
535,875. DRY-OR-SHADE. Cl. 24.
535,876. KANO AND DESIGN. Cl. 39.
535,883. LITE-RITE. Cl. 9.
535,885. ROLL-A-LITE. Cl. 21.
535,887. GOLDENWARE. Cl. 23.
535,892. MRS. SANTA CLAUS COMES TO TOWN. Cl. 39.
535,896. ODOR-BAN. Cl. 21.
535,899. PARKER TOPS IN TELEVISION. Cl. 21.
535,901. YOUR VERY OWN. Cl. 37.
535,905. SEVIGNY. Cl. 18.

TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

538,108. POMO-GREEN. Cl. 6. 2–20–51. Food Machinery and Chemical Corporation, San Jose, Calif. Amended to appear:

pomo-green

565,193. FLEX-GRIP. Cl. 50. 10–14–52. Hungerford Plastics Corporation, New Providence, N. J. Amended: In the statement the description of goods is deleted and ***handle bar and other hand grips, excluding golf club grips, sold to manufacturers*** is inserted in lieu thereof.

615,062. ESTA SOL. Cl. 6. 11–1–55. Food Machinery and Chemical Corporation, San Jose, Calif. Amended to appear:

EstaSol

637,8883. KEAPSIT. Cl. 2. 12–4–56. The American Thermos Bottle Company, now by change of name The American Thermos Products Company, Norwich, Conn. Corrected: In lines 3 and 4, "1180 Harrison Ave., Station B Cincinnati 22, Ohio" should be deleted and *Norwich, Connecticut* inserted in lieu thereof.

638,390. SYNCRO CONTINUREEL. Cl. 23. 12–11–56. Syncro Machine Company, Perth Amboy, N. J. Corrected: In line 1, "Synchro" should be *Syncro*.

638,880. SOLVONA. Cl. 52. 12–18–56. Renuzit Home Products Co., doing business as Columbia Petroleum Products Co., Philadelphia, Pa. Corrected: In line 2, "Colombia" should be *Columbia*.

REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

152,771. Mar. 7, 1922. Finnish Cellulose Association, Helsingfors, Finland. Pub. by registrant.

FINLAND SUOMI

For Wood Pulp.

CLASS 12

CONSTRUCTION MATERIALS

406,574. Apr. 11, 1944. John J. Widmayer, d. b. a. Widmayer Steel Company, Washington, D. C. Pub. by registrant.

SPRACRETE

For Plaster.

CLASS 17

TOBACCO PRODUCTS

114,585. Dec. 19, 1916. United Cigar Manufacturers Company, New York, N. Y. Pub. by General Cigar Co., Inc., New York, N. Y.

PALMER HOUSE BOUQUET

For Cigars.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

125,852. June 17, 1919. Union Manufacturing Company, New Britain, Conn. Pub. by registrant.

UNION

For Lathe Chucks, Milling Machine Chucks, Planer Chucks, Drill Chucks, Boring Mill Chucks, Face-Plate Jaws, and Boring Mill Table Jaws.

CLASS 39

CLOTHING

114,654. Dec. 26, 1916. Penrson Brothers, London and Bournemouth, England. Pub. by Mattamac Limited, London, England.

Mattamac

For Waterproof Outerwear.

234,586. Nov. 1, 1927. Rugby Knitting Mills, Inc., Buffalo, N. Y. Pub. by registrant.

RUGBY UGGED WEAR

For Sweaters, Bathing Suits, Drawers, Under-Shirts, Union Suits of Knitted or Woven Fabrics, and Hosiery for Men, Women, and Children.

340,717. Nov. 17, 1936. Sears, Roebuck and Co., Chicago, Ill. Pub. by registrant.

Royal Purple

For Hosiery.

343,311. Feb. 16, 1937. Globe Knitting Works, Grand Rapids, Mich. Pub. by Modern Globe, Inc., Pawtucket, R. I.

DOUBLER

For Negligee Dress Shirts.

For Men's, Boys', Women's, or Children's Knit Underwear Made of Wool, Silk, Cotton, Rayon, or Combinations Thereof.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

442,925. June 21, 1949. Woodrow Miller, d. b. a. Miller's Honey Company, Colton, Calif. Pub. by Sioux Honey Association, Cooperative, d. b. a. Western Honey Producers, Sioux City, Iowa, and Anaheim, Calif.

For Honey.

396,204. June 30, 1942. Cluett, Peabody & Co., Inc., Troy, N. Y. Pub. by registrant.

LIST OF REGISTRANTS OF TRADEMARKS

REGISTERED FEBRUARY 19, 1957

A-Q Mills, Inc.: *See*—
Wick, Philip, Co., Inc.
Abbott Laboratories, North Chicago, Ill. 641,655, pub. 12–4–56. Cl. 18.
Abercrombie & Fitch Co., New York, N. Y. 346,370, ren. 5–25–57. Cl. 2.
Abercrombie & Fitch Co., New York, N. Y. 346,371, ren. 5–25–57. Cl. 3.
Abercrombie & Fitch Co., New York, N. Y. 346,372, ren. 5–25–57. Cl. 8.
Abercrombie & Fitch Co., New York, N. Y. 346,373, ren. 5–25–57. Cl. 39.
Adamo Co., The: *See*—
Adamo, Joseph M.
Adamo, Joseph M., d. b. a. The Adamo Co., Los Angeles, Calif. 535,859, canc. Cl. 42.
Adapane Co., The, Winnipeg, Manitoba, Canada. 641,615, pub. 12–4–56. Cl. 12.
Adidas Sportschuhfabrik Adi Dassler: *See*—
Dassler, Adolf.
Allied Dealers Supply Co.: *See*—
Feagan, Walter S.
Aloe, A. S., Co., St. Louis, Mo. 535,503, canc. Cl. 32.
Aloe, A. S., Co., St. Louis, Mo. 641,718, pub. 12–4–56. Cl. 26.
Altmann, Bernhard, Inc.: *See*—
Massachusetts Textile Co., Altmann, Bernhard, Inc.
American Aluminum Window Corp., Malden, Mass. 641,889. Cl. 12.
American Artists' Color Works, Inc., Hazleton, Pa. 641,588, pub. 12–4–56. Cl. 1.
American Hospital and Life Insurance Co., The, San Antonio, Tex. 641,871, pub. 12–4–56. Cl. 101.
American Lead Pencil Co., Hoboken, N. J. 641,756–7, pub. 12–4–56. Cl. 37.
American-Marietta Co., Chicago, Ill. 641,614, pub. 12–4–56. Cl. 12.
American-Marietta Co., Chicago, Ill. 641,635, pub. 12–4–56. Cl. 16.
American Synthetic Rubber Corp., Louisville, Ky. 641,580, pub. 12–4–56. Cl. 1.
American Thermos Bottle Co., The, now by change of name The American Thermos Products Co., Norwich, Conn. 637,883, cor. Cl. 2.
American Thermos Products Co., The: *See*—
American Thermos Bottle Co., The.
American Thread Co., The, New York, N. Y. 641,813, pub. 12–4–56. Cl. 43.
Apex Specialties Co.: *See*—
Carson, George M.
Ardin, Lucien, Inc., New York, N. Y. 535,591, canc. Cl. 47.
Ardmore Specialties: *See*—
Stader, Dr. Otto.
Armour and Co., Chicago, Ill. 535,606, canc. Cl. 51.
Arnold, S. M., Inc., St. Louis, Mo. 641,591, pub. 12–4–56. Cl. 4.
Arrowhead Ranches, Inc., Glendale, Ariz. 641,845, pub. 12–4–56. Cl. 46.
Associated Products, Inc., Chicago, Ill. 432,291, canc. Cl. 2.
Atlas Plywood Corp., Boston, Mass. 641,886–8. Cl. 12.
Atlas Powder Co., Wilmington, Del. 535,564, canc. Cl. 16.
Atlas Supply Co., Newark, N. J. 641,869, pub. 12–4–56. Cl. 52.
Aurora Mfg. Co., Aurora, Ind. 535,885, canc. Cl. 21.
Auto-Pneumatic Action Co. Inc., New York, N. Y. 641,754, pub. 12–4–56. Cl. 36.
Axeman-Anderson Co., Williamsport, Pa. 641,743, pub. 12–4–56. Cl. 34.
Baaford Products Corp., Bloomfield, N. J. 641,788, pub. 12–4–56. Cl. 39.
Babee-Tenda Corp., The: *See*—
Baby Safety Enterprises, Inc.
Baby Safety Enterprises, Inc., Stamford, Conn., to The Babee-Tenda Corp., Metropolis, Ill. 535,528, canc. Cl. 22.
Ballowitz, Dr., & Co., Bad Soden, Germany. 344,998, ren. 4–13–57. Cl. 18.
Bancroft-Rellim Corp., Boston, Mass. 535,573, canc. Cl. 32.
Barnebey-Cheney Co., The, Columbus, Ohio. 641,726, pub. 12–4–56. Cl. 31.
Bartow Textiles, Inc., Cartersville, Ga. 535,655, canc. Cl. 42.
Basic Ceramics, Inc., Cleveland, Ohio. 641,586, pub. 12–4–56. Cl. 1.
Basic, Inc.: *See*—
Basic Refractories Inc.
Basic Refractories Inc., now by change of name Basic, Inc., Cleveland, Ohio. 641,616, pub. 12–4–56. Cl. 12.
Bausch & Lomb Optical Co., Rochester, N. Y. 535,626, canc. Cl. 26.
Beacon-Morris Corp., Boston, Mass. 641,749, pub. 12–4–56. Cl. 34.
Belch, Paul F., Co., Bloomington, Ill. 641,828, pub. 12–4–56. Cl. 46.
Belgard, Austin B., Chicago, Ill. 535,723, canc. Cl. 26.
Bell, William G., Co., The, Boston, Mass. 344,183–4, ren. 3–16–57. Cl. 46.
Bellcraft Jewelry Co., Inc., Long Island City, N. Y. 535,728, canc. Cl. 26.
Belvedere Fabrics, Inc., New York, N. Y. 535,675, canc. Cl. 42.
Berglund-Swenson Co., Inc., Arlington, N. J. 641,857, pub. 12–4–56. Cl. 50.
Berry Brothers, Inc., Chicago, Ill. 535,568, canc. Cl. 16.
Blair, E. L., & Son, Williamsport, Pa. 641,687, pub. 12–4–56. Cl. 22.
Boehler, Carl L., d. b. a. C. L. B. Co., Houston, Tex., to C. L. B. Co. 641,727, pub. 12–4–56. Cl. 31.
Boles-Aero, Inc., Burbank, Calif. 641,659, pub. 12–4–56. Cl. 49.
Borden Co., The, New York, N. Y. 641,656, pub. 12–4–56. Cl. 18.
Brach, E. J., & Sons, Chicago, Ill., to J. C. Penney Co., New York, N. Y. 341,770, ren. 12–22–56. Cl. 46.
Branded Products Corp., Hackensack, N. J. 641,593, pub. 12–4–56. Cl. 5.
Braun, Ernest, Portland, Maine. 641,859, pub. 12–4–56. Cl. 51.
Breier, Marcus, Sons, Inc., Amsterdam, N. Y. 641,804, pub. 12–4–56. Cl. 42.
Bristol Knitting Mills, Inc., Fall River, Mass. 641,802, pub. 12–4–56. Cl. 39.
Brown Co., Boston, Mass. 641,799, pub. 12–4–56. Cl. 39.
Brown, David W., Co., also known as David W. Brown Co., Philadelphia, Pa. 535,601, canc. Cl. 39.
Brownback, Lillian H., d. b. a. Qui Salt Co., Linfield, Pa. 535,572, canc. Cl. 51.
Buckeye Iron & Brass Works, Dayton, Ohio. 641,626, pub. 12–4–56. Cl. 13.
Burlington Agency: *See*—
Tschuor, Carl M.
C. K. Foods, Inc., Duluth, Minn. 641,824, pub. 12–4–56. Cl. 46.
C. L. B. Co.: *See*—
Boehler, Carl L.
Cadé, Marie J., New York, N. Y. 535,671, canc. Cl. 51.
Cain's Marcelle Potato Chip Co., Inc., Bowling Green, Ohio. 641,842, pub. 12–4–56. Cl. 46.
Calgold Food Products: *See*—
Justesen, Peter, Co., Inc.
Callahan, E. G.: *See*—
Callahan, Edgar J.
Callahan, Edgar J., d. b. a. E. G. Callahan, Hialeah, Fla. 641,864, pub. 12–4–56. Cl. 51.
Campbell Closet-Wall Corp., from R. P. Campbell, d. b. a. Campbell Closet-Wall Co., Middletown, Ohio. 535,833, canc. Cl. 32.
Canadian International Paper Co., Montreal, Quebec, Canada. 641,576, pub. 12–4–56. Cl. 1.
Carbo Hydrogen Co. of America, Pittsburgh, Pa., to National Cylinder Gas Co., Chicago, Ill. 114,938, ren. 1–16–57. Cl. 6.
Carmack, Wesley V., Arlington, Va. 641,769, pub. 12–4–56. Cl. 38.
Carson, George M., d. b. a. Apex Specialties Co., New Rochelle, N. Y. 535,625, canc. Cl. 26.
Cart, Robert, Societe Anonyme, Le Locle, Switzerland. 535,860, canc. Cl. 27.
Central Pharmacal Co., The, Seymour, Ind. 641,640, pub. 12–4–56. Cl. 18.
Central Soya Co., Inc., Fort Wayne, Ind. 641,827, pub. 12–4–56. Cl. 46.
Certified Grocers of Illinois, Inc., Chicago, Ill. 641,819, pub. 8–31–54. Cl. 46.
Charter Seed Co., Twin Falls, Idaho. 641,577, pub. 12–4–56. Cl. 1.
Choreo Record Co., Dallas, Tex. 641,753, pub. 12–4–56. Cl. 36.
Cities Service Oil Co., New York, N. Y. 641,893. Cl. 15.
City Baking Co., The, d. b. a. Rice's Bakery, Baltimore, Md. 641,843, pub. 12–4–56. Cl. 46.
Clinton Machine Co., Clinton, Mich. 641,701, pub. 12–4–56. Cl. 23.
Clover Chemical Co., Eightyfour, Pa. 641,643, pub. 12–4–56. Cl. 18.
Cluett, Peabody & Co., Inc., Troy, N. Y. 396,204, 12(c) pub. 2–19–57. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 641,781–2, pub. 12–4–56. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 641,785, pub. 12–4–56. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 641,793–6, pub. 12–4–56. Cl. 39.
Cochario, Daniel M., West Hollywood, Calif. 641,693, pub. 12–4–56. Cl. 23.
Cohen, Albert, d. b. a. Consolidated Industries, Boston, Mass. 535,595, canc. Cl. 39.
Cohen, Irving, S., Inc., New York, N. Y. 641,810, pub. 12–4–56. Cl. 42.
Colonial-Hites Co., West Columbia, S. C. 641,852, pub. 12–4–56. Cl. 50.
Colonial Tanning Co., Inc., Boston, Mass. 535,754, canc. Cl. 1.
Columbia Bedding Co., Chicago, Ill. 641,740, pub. 12–4–56. Cl. 32.
Columbia Mills, Inc., The, Syracuse, N. Y. 535,739, canc. Cl. 32.

Columbia Petroleum Products Co.: *See*—
Renuzit Home Products Co.
Comet Lamp Co., New York, N. Y. 641,673, pub. 12–4–56. Cl. 21.
Conn, C. G.: *See*—
Sopranl, Inc.
Consolidated Cosmetics, Chicago, Ill. 535,777, canc. Cl. 51.
Consolidated Industries: *See*—
Cohen, Albert.
Consolidated Research and Development Corp., Monrovia, Calif. 641,682, pub. 12–4–56. Cl. 22.
Constructional Chemicals, Inc., Austin, Tex. 641,605, pub. 12–4–56. Cl. 6.
Consumers Packing Co., Lancaster, Pa. 535,834, canc. Cl. 46.
Control Products, Inc., Harrison, N. J. 641,671, pub. 12–4–56. Cl. 21.
Cosmos Pharmaceutical Corp., New York, N. Y. 535,612–13, canc. Cl. 51.
Costello-Mausure, Inc., Detroit, Mich. 535,896, canc. Cl. 21.
Cox, Joseph B., d. b. a. Omark Industries, to Oregon Saw Chain Corp., Portland, Oreg. 641,710, pub. 12–4–56. Cl. 23.
Crane Co., Chicago, Ill. 345,388, ren. 4–27–57. Cl. 13.
Crocker, Burbank Papers Inc., Fitchburg, Mass. 641,758–9, pub. 12–4–56. Cl. 37.
Crosby Chemicals, Inc., De Ridder, La. 641,601, pub. 12–4–56. Cl. 6.
Crown Cork & Seal Co., Inc.: *See*—
Crown Cork and Seal Co. of Baltimore City, The.
Crown Cork and Seal Co. of Baltimore City, The, to Crown Cork & Seal Co., Inc., Baltimore, Md. 114,950, ren. 1–16–57. Cl. 23.
Cummins Engine Co., Inc., Columbus, Ind. 641,692, pub. 8–21–56. Cl. 23.
Curtis Lighting, Inc., Chicago, Ill. 276,590, canc. Cl. 34.
Dassler, Adolf, d. b. a. Adidas Sportschuhfabrik Adi Dassler, Herzogenaurach, Bavaria, Germany. 641,906. Cl. 39.
Davenport, John L., d. b. a. The Kindle Press, Lido Beach, N. Y. 641,772, pub. 12–4–56. Cl. 38.
Davison Newman Co. Ltd.: *See*—
West Indian Produce Association, Ltd., The.
Dayton Rubber Co., The, Dayton, Ohio. 641,739, pub. 12–4–56. Cl. 32.
Deaf Smith County: *See*—
Edwards, George W.
Decker Mfg. Co.: *See*—
Decker, Taylor E.
Decker, Taylor E., d. b. a. Decker Mfg. Co., Rockford, Ill. 641,696, pub. 12–4–56. Cl. 23.
De Markoff, Alexandra, Sales Corp., New York, N. Y. 641,863, pub. 9–25–56. Cl. 51.
Denney, Frances, Philadelphia, Pa. 535,892, canc. Cl. 39.
Dermetics, Inc., New York, N. Y. 535,649, canc. Cl. 51.
Dermo-G, Inc.: *See*—
Greenfield, Louis D.
Devon Inc., Buffalo, N. Y. 641,870, pub. 12–4–56. Cl. 52.
Dialight Corp., Brooklyn, N. Y. 641,895. Cl. 21.
Diamond Black Leaf Co., Cleveland, Ohio. 641,596, pub. 12–4–56. Cl. 6.
Dick, A. B., Co., Niles, Ill. 641,712, pub. 12–4–56. Cl. 23.
Diletto, Alfonso J., d. b. a. Enterprise Ornamental Statuary Products, Meadowbrook, Pa. 641,625, pub. 12–4–56. Cl. 13.
Distillers Exchange, Inc., New York, N. Y. 347,018, canc. Cl. 49.
Doeskin Products, Inc., New York, N. Y. 641,761–2, pub. 12–4–56. Cl. 37.
Donovan Enterprises, Inc., Saugatuck, Conn. 535,771, canc. Cl. 39.
Doray Lamp Co., Inc., Chicago, Ill. 641,745, pub. 12–4–56. Cl. 34.
Double Duty Products, Inc., to Products Packaging Inc., Cleveland, Ohio. 341,434, ren. 12–8–56. Cl. 50.
Dow Chemical Co., The, Midland, Mich. 641,606, pub. 12–4–56. Cl. 6.
Doyle Vacuum Cleaner Co., Grand Rapids, Mich. 641,666, pub. 12–4–56. Cl. 21.
Dragoco: *See*—
Dragoco, Spezialfabrik Konz Riech- und Aromastoffe, Gerberding & Co., G. m. b. H.
Dragoco, Spezialfabrik Konz Riech- und Aromastoffe, Gerberding & Co., G. m. b. H., d. b. a. Dragoco, Holzminden-Weser, Germany. 641,861, pub. 12–4–56. Cl. 51.
Dry-Or-Shade, Inc., New York, N. Y. 535,875, canc. Cl. 24.
Du Benay Undergarment, Inc., New York, N. Y. 535,505, canc. Cl. 39.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 641,604, pub. 12–4–56. Cl. 6.
Duro-Test Corp., North Bergen, N. J. 641,674, pub. 12–4–56. Cl. 21.
Eagle Bros., New York, N. Y. 641,789, pub. 12–4–56. Cl. 39.
Eastman Kodak Co., Rochester, N. Y. 641,595, pub. 12–4–56. Cl. 6.
Educational Methods, Inc., Wilmington, Del., now by change of name Audiscope Corp. 535,821, canc. Cl. 107.
Edwards, George W., d. b. a. Deaf Smith County Pharmaceutical Co., Hereford, Tex. 641,653, pub. 12–4–56. Cl. 18.
Elder Mfg. Co., St. Louis, Mo. 535,745, canc. Cl. 39.
Enrich, Henry A., and Co., Inc., New York, N. Y. 641,856, pub. 12–4–56. Cl. 50.
Enterprise Ornamental Statuary Products: *See*—
Diletto, Alfonso J.
Eric, Kirk & Gary, Inc., Cincinnati, Ohio. 641,645, pub. 12–4–56. Cl. 18.
F. & A. Distributing Co., Bayonne, N. J. 535,732, canc. Cl. 49.
Fair, The, Chicago, Ill. 641,582, pub. 12–4–56. Cl. 1.
Fair Haven Slate Co., Inc., Fair Haven, Vt. 641,619, pub. 12–4–56. Cl. 12.
Family Games, Inc., San Francisco, Calif. 535,607, canc. Cl. 22.
Farm Journal, Inc., Philadelphia, Pa. 641,900. Cl. 38.
Feagan, Walter S., d. b. a. Allied Dealers Supply Co., Los Angeles, Calif. 535,494, canc. Cl. 16.
Feature Publications, Inc., New York, N. Y. 641,901. Cl. 38.
Ferber Pen Corp., Englewood, N. J. 641,760, pub. 12–4–56. Cl. 37.
Filatex Corp., to Filatex Corp., New York, N. Y. 344,276, ren. 3–16–57. Cl. 43.
Finnish Cellulose Association, Helsingfors, Finland. 152,771. Cl. 1.
Firmaet Georg Restle A/S, Copenhagen, Denmark. 535,856, canc. Cl. 47.
Fischer, Howard L., d. b. a. Louis Laboratories, Minneapolis, Minn. 535,844, canc. Cl. 29.
Fitzsimmons Stores, Ltd., d. b. a. Smart & Final Iris Co., Smart & Final Co., Smart & Final Co., Ltd., and Haas Baruch & Co., Los Angeles, Calif. 641,830, pub. 12–4–56. Cl. 46.
Flato, Paul, Sales Corp., New York, N. Y. 535,712, canc. Cl. 2.
Flavor Corp. of America, Chicago, Ill. 641,826, pub. 12–4–56. Cl. 46.
Flexible Steel Lacing Co., Chicago, Ill. 345,988, ren. 5–11–57. Cl. 13.
Flobert Co., Inc., The, New York, N. Y. 535,797, canc. Cl. 39.
Food Machinery and Chemical Corp., San Jose, Calif. 538,108. Am. 7(d). Cl. 6.
Food Machinery and Chemical Corp., San Jose, Calif. 615,062. Am. 7(d). Cl. 6.
Fortuna Foundations, Inc., New York, N. Y. 641,903. Cl. 39.
Four Penny Products Co., Inc., Chicago, Ill. 641,866, pub. 12–4–56. Cl. 51.
Fram Corp., Providence, R. I. 641,730, pub. 12–4–56. Cl. 31.
Frank Bros.-Neptune Mfg. Co., Louisville, Ky. 535,756, canc. Cl. 39.
Freedom-Valvoline Oil Co., Freedom, Pa. 535,519, canc. Cl. 15.
Freedom-Valvoline Oil Co., Freedom, Pa. 535,533, canc. Cl. 15.
French, R. T., Co., The, Rochester, N. Y. 641,589, pub. 12–4–56. Cl. 1.
French, R. T., Co., The, Rochester, N. Y. 641,847, pub. 12–4–56. Cl. 46.
Fritz Candy Co.: *See*—
Fritz, J. P.
Fritz, J. P., Candy Co., Inc., d. b. a. Fritz Candy Co., Newport, Minn. 641,831, pub. 12–4–56. Cl. 46.
Fuller, D. B., & Co., Inc., New York, N. Y. 641,808, pub. 12–4–56. Cl. 42.
Fuller, Louis E., New York, N. Y. 80,310, canc. Cl. 37.
G. H. R. Enterprises, Inc.: *See*—
Goldy-Harvey-Reese Enterprises, Inc.
Gale Creations, Inc., New York, N. Y. 641,724, pub. 12–4–56. Cl. 28.
Garrett-Buchanan Co., Philadelphia, Pa. 641,764, pub. 12–4–56. Cl. 37.
Gem Canning Co., Emmett, Idaho. 641,837, pub. 12–4–56. Cl. 46.
General Cable Corp., New York, N. Y. 641,675, pub. 12–4–56. Cl. 21.
General Cigar Co., Inc.: *See*—
United Cigar Manufacturers Co.
General Mills, Inc.: *See*—
Sperry Flour Co.
General Mills, Inc., Minneapolis, Minn. 342,766, ren. 1–26–57. Cl. 46.
General Mills, Inc., Minneapolis, Minn. 344,277, ren. 3–16–57. Cl. 46.
Geraetebar-Anstalt, Balzers, Balzers, Liechtenstein. 641,690, pub. 12–4–56. Cl. 23.
Gerber Products Co., Fremont, Mich. 641,677–8, pub. 12–4–56. Cl. 22.
Gerber Products Co., Fremont, Mich. 641,685, pub. 12–4–56. Cl. 22.
Gimbel Brothers, Inc., New York, N. Y. 535,617, canc. Cl. 42.
Given Mfg. Co., Los Angeles, Calif., now by change of name Waste King Corp. 641,668, pub. 12–4–56. Cl. 21.
Glasgow, D., & Sons, New York, N. Y. 641,801, pub. 12–4–56. Cl. 39.
Glatt, Herbert, d. b. a. Magia Products, Newark, N. J. 641,806, pub. 12–4–56. Cl. 42.
Globe Knitting Works, Grand Rapids, Mich., by Modern Globe, Inc., Pawtucket, R. I. 343,311, 12(c) pub. 2–19–57. Cl. 39.
Globe Roofing Products Co., Inc., Whiting, Ind. 641,621, pub. 12–4–56. Cl. 12.
Globe-Wernicke Co., The, Norwood, Cincinnati, Ohio. 641,738, pub. 12–4–56. Cl. 32.
Godfrey, Howard G., & Co., Inc., New York, N. Y. 641,812, pub. 12–4–56. Cl. 43.
Goldenware, Inc., Milan, Ill. 535,887, canc. Cl. 23.
Goldy-Harvey-Reese Enterprises, Inc., d. b. a. G. H. R. Enterprises, Inc., North Hollywood, Calif. 641,746, pub. 12–4–56. Cl. 34.
Goodell, William F., d. b. a. W. F. Goodell Co., Louisville, Ky. 535,561, canc. Cl. 2.
Goodyear Aircraft Corp., Akron, Ohio. 641,662, pub. 12–4–56. Cl. 19.
Gould & Lewis Co., New York, N. Y. 535,516, canc. Cl. 2.
Granik, Theodore, Washington, D. C. 641,882, pub. 12–4–56. Cl. 107.

Great Western Fire & Marine Insurance Co., San Francisco, Calif. 535,820, canc. Cl. 102.
Greenfield, L. D., Co.: *See*—
Greenfield, Louis D.
Greenfield, Louis D., d. b. a. L. D. Greenfield Co., to Dermo-G, Inc., New York, N. Y. 339,662, ren. 10–13–56. Cl. 18.
Greenfield Tap and Die Corp., Greenfield, Mass. 114,882, ren. 1–9–57. Cl. 26.
Greenfield Tap and Die Corp., Greenfield, Mass. 344,065, ren. 3–9–57. Cl. 23.
Greenwich Junior Woman's Club, Inc., The, Greenwich, Conn. 641,770, pub. 11–20–56. Cl. 38.
Gruen Watch Co., The, Cincinnati, Ohio. 337,296, canc. Cl. 27.
Gulf States Paint Co., Houston, Tex. 535,767, canc. Cl. 16.
Haas Baruch & Co.: *See*—
Fitzsimmons Stores, Ltd.
Hanson-Van Winkle-Munning Co., Matawan, N. J. 535,786, canc. Cl. 6.
Hardin Chemical Co., Inc., Middletown, N. J. 535,558, canc. Cl. 6.
Hardman, Peck & Co., New York, N. Y. 641,755, pub. 12–4–56. Cl. 36.
Harris, Dan D., New York, N. Y. 535,721, canc. Cl. 2.
Hartmann Mfg. Co., Racine, Wis. 535,867. Cl. 23.
Hawaiian Pineapple Co., Ltd., Honolulu, Territory of Hawaii. 641,848, pub. 12–4–56. Cl. 46.
Halben Chemical Co. Inc., New York, N. Y. 641,597, pub. 12–4–56. Cl. 6.
Hela Mfg. Corp., New York, N. Y. 641,720, pub. 12–4–56. Cl. 26.
Hellwig, E. C.: *See*—
Hellwig, Emil C.
Hellwig, Emil C., d. b. a. E. C. Hellwig, Burlington, Iowa. 641,719, pub. 12–4–56. Cl. 26.
Helsingborgs Gummifabriks Aktiebolag, Halsingborg, Sweden. 535,566 canc. Cl. 39.
Henry Field Seed & Nursery Co., Shenandoah, Iowa. 641,581, pub. 12–4–56. Cl. 1.
Hermes Sonic Co., New York, N. Y. 641,672, pub. 12–4–56. Cl. 21.
Heun, E. W., Co., St. Louis, Mo. 641,641, pub. 12–4–56. Cl. 18.
Hey, D. C., Co., Inc., Minneapolis, Minn. 641,853, pub. 12–4–56. Cl. 50.
Hickey-Freeman Co., Rochester, N. Y. 641,776, pub. 12–4–56. Cl. 39.
Hoffmann-La Roche Inc., Nutley, N. J. 641,657, pub. 12–4–56. Cl. 18.
Holbrook Hat Co., Perth Amboy, N. J. 641,787, pub. 12–4–56. Cl. 39.
Hollander, A., & Son, Inc., Newark, N. J. 641,875–6, pub. 11–29–55. Cl. 106.
Hollywood Novelty Co., Inc., New York, N. Y. 641,765, pub. 12–4–56. Cl. 37.
Holman-O. D. Baker Co. Inc., East Boston, Mass. 641,734, pub. 12–4–56. Cl. 32.
Holmes, Charles H., Chicago, Ill. 535,702, canc. Cl. 39.
Honeggers' & Co., Inc., Fairbury, Ill. 641,825, pub. 12–4–56. Cl. 46.
Horn, Albert, d. b. a. Horn Hosiery, Blenheim, N. J. 535,766, canc. Cl. 39.
Horn Hosiery: *See*—
Horn, Albert.
Hornung, Jacob, Brewing Co., Philadelphia, Pa. 535,848, canc. Cl. 48.
Houck, Mel, Products: *See*—
Houck, Melvin J.
Houck, Melvin J., d. b. a. Mel Houck Products, Tulare, Calif. 641,629, pub. 12–4–56. Cl. 13.
Hungerford Plastics Corp., New Providence, N. J. 565,193. Am. 7(d). Cl. 50.
Hussmann Refrigerator Co., St. Louis, Mo. 641,897. Cl. 31.
Hydock, John J., d. b. a. Pultite Clothesline Co., Reading, Pa. 641,890. Cl. 13.
Importadora de Relogios Sul-Americana S. A., Rio de Janeiro, Brazil. 641,722, pub. 12–4–56. Cl. 27.
Insulation Associates, Inc., Fanwood, N. J. 641,590, pub. 10–23–56. Cl. 2.
International Silver Co., The, Meriden, Conn. 641,708, pub. 12–4–56. Cl. 23.
Interplastics Corp., New York, N. Y. 641,584, pub. 12–4–56. Cl. 1.
Isaacs, I. C., & Co., Inc., Baltimore, Md. 342,581, ren. 1–19–57. Cl. 39.
Jackes-Evans Mfg. Co., St. Louis, Mo. 641,750, pub. 12–4–56. Cl. 34.
Jasper Chair Co., Jasper, Ind. 535,861, canc. Cl. 32.
Jasper Novelty Furniture Co., Jasper, Ind. 535,713, canc. Cl. 32.
Jobbers Supply Co., Inc., Kansas City, Mo. 533,231, canc. Cl. 23.
Johnson, S. C., & Son, Inc., Racine, Wis. 535,562, canc. Cl. 4.
Joseph, E. R., Co.: *See*—
Joseph, Edwin R.
Joseph, Edwin R., d. b. a. E. R. Joseph Co., Trooper, Norristown, Pa. 641 603, pub. 12–4–56. Cl. 6.
Joy Mfg. Co., Pittsburgh, Pa. 641,703, pub. 12–4–56. Cl. 23.
Justesen, Peter, Co., Inc., d. b. a. Calgold Food Products, New York, N. Y. 641,833, pub. 12–4–56. Cl. 46.
Kalmus-Golden, Inc., New York, N. Y. 535 746, canc. Cl. 32.
Kaunitz & O'Brien, Inc., New York, N. Y. 535,876, canc. Cl. 39.
Kindle Press, The: *See*—
Davenport, John L.
King-Seeley Corp., Ann Arbor, Mich. 535,764, canc. Cl. 13.
Kleinwanzlebener Saatzucht vorm. Rabbethge & Giesecke Aktiengesellschaft, Einbeck, Hannover, Germany. 641,585, pub. 12–4–56. Cl. 1.
Kobbie Hobby Manufacturers, Coraopolis, Pa. 535,500, canc. Cl. 22.
Korbro Oil Corp., Brooklyn, N. Y. 641,821, pub. 12–4–56. Cl. 46.
Kreisler, Jacques, Mfg. Corp., North Bergen, N. J. 535,789, canc. Cl. 32.
Kupfer, Julius, Inc., New York, N. Y. 641,664, pub. 12–4–56. Cl. 21.
Kwikset Locks, Inc., Anaheim, Calif. 641,704, pub. 12–4–56. Cl. 23.
Kwikset Locks, Inc., Anaheim, Calif. 641,728–9, pub. 12–4–56. Cl. 31.
La Cigogne de Strasbourg, G. & L. Stein, Societe a Responsabilite Limitee, Schiltigheim, Bas-Rhin, France. 535,504, canc. Cl. 49.
La Cigogne de Strasbourg, G. & L. Stein, Societe a Responsabilite Limitee, Schiltigheim (Bas-Rhin), France. 535,602, canc. Cl. 49.
Laher Spring and Tire Corp., Oakland, Calif. 535,862, canc. Cl. 21.
Lamb & Berlin, Inc.: *See*—
Lamb & Foerster.
Lamb & Foerster, Silver Spring, Md., to Lamb & Berlin, Inc. 641,638, pub. 1–4–55. Cl. 18.
Lanolized, Inc., New York, N. Y. 641,598, pub. 12–4–56. Cl. 6.
Laura Lee Candies: *See*—
Salinger, Joseph E.
Lawrence Products Co., Inc., Attalla, Ala. 535,696, canc. Cl. 42.
Leavitt Machine Co., Orange, Mass. 641,592, pub. 12–4–56. Cl. 4.
Lee, H. D., Co., Inc., The, Kansas City, Mo. 641,907. Cl. 39.
Leeds, Herbert R., & Co., Inc., New York, N. Y. 535,709, canc. Cl. 42.
Legear, Dr. L. D., Medicine Co., St. Louis, Mo. 641,642, pub. 12–4–56. Cl. 18.
Leming, George D., Philadelphia, Pa. 535,722, canc. Cl. 50.
Les Parfums de Dana, Inc., New York, N. Y. 535,772, canc. Cl. 2.
Lisner, D., & Co., Inc., New York, N. Y. 641,725, pub. 12–4–56. Cl. 28.
Litchfield Hatcheries, Inc., Litchfield, Minn. 535,873, canc. Cl. 1.
Lite-Rite Match Co.: *See*—
Widlin, Edgar F.
Lodge Plugs Ltd., Rugby, England. 641,669, pub. 12–4–56. Cl. 21.
Loren Products Corp., New York, N. Y. 641,587, pub. 12–4–56. Cl. 1.
Louis Laboratories: *See*—
Fischer, Howard L.
Lowe, Joe, Corp.: *See*—
Southern Dairies, Inc.
Lowe, Joe, Corp., New York, N. Y. 342,262, ren. 1–12–57. Cl. 46.
Lowe, Joe, Corp., New York, N. Y. 342,940, ren. 2–2–57. Cl. 2.
Luria-Cournand, Inc., Havre de Grace, Md. 641,660, pub. 12–4–56. Cl. 19.
Lyeth Engineering Co.: *See*—
Lyeth, John M. R.
Lyeth John M. R., Jr., d. b. a. Lyeth Engineering Co., East Detroit, Mich. 641,709, pub 12–4–56. Cl. 23.
M D Publications, Inc., New York, N. Y. 641,773, pub. 12–4–56. Cl. 38.
Magia Products: *See*—
Glatt, Herbert.
Managed Funds Inc., St. Louis, Mo. 641,874, pub. 12–4–56. Cl. 102.
Man Size, Inc., Brooklyn, N. Y. 641,792, pub. 12–4–56. Cl. 39.
Marjack Co., Inc.: *See*—
Marjack Co., The.
Marjack Co., The, d. b. a. Marjack Co., Inc., Washington, D. C. 535,865, canc. Cl. 46.
Market Forge Co., Everett, Mass. 641,628, pub. 12–4–56. Cl. 13.
Markwell Mfg. Co., Inc., New York, N. Y. 641,713, pub. 12–4–56. Cl. 23.
Marley Co., The, Kansas City, Mo. 641,877, pub. 12–4–56. Cl. 106
Marsol Corp., The, Bay City, Tex. 641,636, pub. 12–4–56. Cl. 16.
Massachusetts Textile Co., Bernhard Altmann, Inc., New York, N. Y. 641,807, pub. 12–4–56. Cl. 42.
Massachusetts Textile Co., Bernhard Altmann, Inc., New York, N. Y. 641,809, pub. 12–4–56. Cl. 42.
Maltumac Ltd.: *See*—
Pearson Brothers.
Maxwell Mfg. Co., Vancouver, Wash. 641,683, pub. 12–4–56. Cl. 22.
McCormick, Marjorie T.: *See*—
Westinghouse Radio Stations, Inc.
McCormick, Marjorie T., d. b. a. Marjorie Thoma, Pittsburgh, Pa. 535,815, canc. Cl. 107.
McDonald, Cyril E., Washington, D. C. 641,686, pub. 12–4–56. Cl. 22.
McLaurin Angler Co.: *See*—
McLaurin-Jones Co.
McLaurin-Jones Co., Brookfield, now by change of name to McLaurin Angler Co., Needham, Mass. 641,898. Cl. 37.
McLellan, Rod, Co.: *See*—
McLellan, Roderick I.
McLellan, Roderick I., d. b. a. Rod McLellan Co., South San Francisco, Calif. 641,608, pub. 12–4–56. Cl. 10.

Mead Johnson & Co., Evansville, Ind. 641,838, pub. 12–4–56. Cl. 46.
Meat Industry Suppliers, Inc., Chicago, Ill. 641,839, pub. 12–4–56. Cl. 46.
Melrose Corp., Los Angeles, Calif. 641,798, pub. 12–4–56. Cl. 39.
Metal and Thermit Corp., Woodbridge, N. J. 641,602, pub. 12–4–56. Cl. 6.
Metzler, Joseph A., d. b. a. Southern Delinting Co., Pine Bluff, Ark. 535,835, canc. Cl. 1.
Meyer, Geo. J., Mfg. Co., Cudahy, Wis. 641,717, pub. 12–4–56. Cl. 23.
Midas, Inc., Chicago, Ill. 641,711, pub. 12–4–56. Cl. 23.
Mine Safety Appliances Co., Pittsburgh, Pa. 641,815, pub. 12–4–56. Cl. 44.
Mitchell Farms, Windfall, Ind. 641,583, pub. 12–4–56. Cl. 1.
Modern Globe, Inc.: *See*—
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Monsanto Chemical Co., St. Louis, Mo. 345,036, ren. 4–13–57. Cl. 6.
Monsanto Chemical Co., St. Louis, Mo. 641,600, pub. 12–4–56. Cl. 6.
Monsanto Chemical Co., St. Louis, Mo. 641,684, pub. 12–4–56. Cl. 22.
Moorman Mfg. Co., Quincy, Ill. 535,850, canc. Cl. 38.
Morlarty Meat Co., Chicago, Ill. 641,823, pub. 4–3–56. Cl. 46.
Morris & Co., to Morris & Co., Inc., Baltimore, Md. 114,808, ren. 1–2–57. Cl. 39.
Municipal Street Sign Co., Inc., Brooklyn, N. Y. 641,665, pub. 12–4–57. Cl. 21.
Murphy Chair Co., Inc., Owensboro, Ky. 535,705, canc. Cl. 32.
Nailtex, Inc., Brooklyn, N. Y. 641,860, pub. 12–4–56. Cl. 51.
Nashua Mfg. Co. of California: *See*—
Raczyski, Stanley F.
Natalie of Hollywood Inc., Brooklyn, N. Y. 535,715, canc. Cl. 6.
National Cylinder Gas Co.: *See*—
Carbo Hydrogen Co. of America.
National Sales Associates, Inc., Chicago, Ill. 641,779, pub. 12–4–56. Cl. 39.
National Tea Co., Chicago, Ill. 641,820, pub. 12–4–56. Cl. 46.
Nepengo, Inc., New York, N. Y. 641,741, pub. 12–4–56. Cl. 32.
New York Herald Tribune Inc., New York, N. Y. 641,771, pub. 12–4–56. Cl. 38.
New York Merchandise Co., Inc., New York, N. Y. 641,676, pub. 12–4–56. Cl. 21.
Noble Co., Oakland, Calif. 641,695, pub. 12–4–56. Cl. 23.
Nordberg Mfg. Co., Milwaukee, Wis. 535,852, canc. Cl. 23.
Nordlacher Maschinenbau Rud. Baader, Lubeck, Germany. 641,694, pub. 12–4–56. Cl. 23.
Nordmark Pharmaceutical Laboratories, Inc., Irvington, N. J. 641,649, pub. 12–4–56. Cl. 18.
Northern Beauty Products: *See*—
Pessek, Frank.
Northern Maple Co., Vulcan, Mich. 535,676, canc. Cl. 22.
Northwestern Bank of Commerce, Duluth, Minn. 641,872, pub. 12–4–56. Cl. 102.
Northwest Ga. Enterprises, Inc., Rome, Ga. 641,620, pub. 12–4–56. Cl. 12.
Nu-Dent Porcelain Studio Inc., New York, N. Y. 346,156, ren. 5–18–57. Cl. 44.
Number one Distilling Co.: *See*—
Schenley Distillers, Inc.
Nutting, K. R., d. b. a. K. R. Nutting Co., Salinas, Calif. 641,836, pub. 12–4–56. Cl. 46.
Nutting, K. R., Co.: *See*—
Nutting, K. R.
Nyal Co.: *See*—
Nyal Co., Inc.
Nyal Co., Inc., d. b. a. Nyal Co., New York, N. Y. 641,639, pub. 5–18–54. Cl. 18.
Nysco Laboratories, Inc., Long Island City, N. Y. 641,648, pub. 12–4–56. Cl. 18.
Ocoma Feed Mills: *See*—
Omaha Cold Storage Co.
Ocoma Foods Co.: *See*—
Omaha Cold Storage Co.
Omaha Cold Storage Co., d. b. a. Ocoma Feed Mills, now by change of name Ocoma Foods Co., Omaha, Nebr. 641,822, pub. 12–4–56. Cl. 46.
Omark Industries: *See*—
Cox, Joseph B.
Orangeburg Mfg. Co., Inc., Orangeburg, N. Y. 641,613, pub. 12–4–56. Cl. 12.
Orchard Brothers Inc., Rutherford, N. J. 641,617, pub. 12–4–56. Cl. 12.
Oregon Saw Chain Corp.: *See*—
Cox, Joseph B.
Ortho Pharmaceutical Corp., Raritan, N. J. 641,658, pub. 12–4–56. Cl. 18.
Owings, Otto, Inc., Dallas, Tex., to Wells Specialty, Inc., North Liberty, Ind. 641,691, pub. 2–21–56. Cl. 23.
Palm Beach Co., Sanford, Maine. 641,778, pub. 12–4–56. Cl. 39.
Paragon Oil Co., Inc., Long Island City, N. Y. 641,631, pub. 12–4–56. Cl. 15.
Parker Service Corp., Chicago, Ill. 535,899, canc. Cl. 21.
Patio Construction and Novelty Corp., Brooklyn, N. Y. 535,749, canc. Cl. 32.
Patterson-Sargent Co., The, Cleveland, Ohio. 115,656, ren. 2–27–57. Cl. 16.
Patterson-Sargent Co., The, Cleveland, Ohio. 116,451, ren. 5–1–57. Cl. 16.
Paul, F H, & Stein Bros. Inc., New York, N. Y. 641,811, pub. 12–4–56. Cl. 42.
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Penn Food Distributors: *See*—
Penn Food Distributors, Inc.
Penn Food Distributors, Inc., also known as Penn Distributors Inc., and Penn Food Distributors, Philadelphia, Pa. 641,818, pub. 7–10–56. Cl. 46.
Penney, J. C., Co.: *See*—
Brach, E. J., & Sons.
Perdeck Solder Products Ltd., Waltham Abbey, Essex, England. 641,599, pub. 12–4–56. Cl. 6.
Perfumeria Parera, Sociedad Anonima, Badalona, Barcelona, Spain. 641,862, pub. 12–4–56. Cl. 51.
Perry Industries Inc., Brooklyn, N. Y. 641,721, pub. 12–4–56. Cl. 26.
Pessek, Frank, d. b. a. Northern Beauty Products, St. Paul, Minn. 641,868, pub. 12–4–56. Cl. 51.
Phillips Packing Co., Inc., Cambridge, Md. 641,834, pub. 12–4–56. Cl. 46.
Pittsburgh Consolidation Coal Co., Pittsburgh, Pa. 641,578, pub. 12–4–56. Cl. 1.
Pittsburgh Consolidation Coal Co., Pittsburgh, Pa. 641,885. Cl. 1.
Plymouth Citrus Growers Association, Plymouth, Fla. 641,846, pub. 12–4–56. Cl. 46.
Pollman, Rose F., Chicago, Ill. 535,580, canc. Cl. 23.
Porcelain Enamel Institute, Inc., Washington, D. C. 641,883, pub. 12–4–56. Cl. A.
Porritts & Spencer Ltd., Bury, England. 535,664, canc. Cl. 50.
Post, Frederick, Co., The, Chicago, Ill. 641,766–7, pub. 12–4–56. Cl. 37.
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Powell's, Doctor, Laboratory: *See*—
Powell, George R.
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Press Dress & Uniform Co.: *See*—
Press Brothers Dress Corp.
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Puerto Rico Distillers, Inc., Arecibo, Puerto Rico. 641,850–1, pub. 12–4–56. Cl. 49.
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Quigley Publishing Co., Inc., New York, N. Y. 641,902. Cl. 38.
R-Columbia Products Co., Highwood, Ill. 641,607, pub. 12–4–56. Cl. 6.
Raczynski, Stanley F., d. b. a. Nashua Mfg. Co. of California, Tulare, Calif. 641,661, pub. 12–4–56. Cl. 19.
Radiant Products, Inc., Monroe, N. C. 641,667, pub. 12–4–56. Cl. 21.
Reeves Steel and Mfg. Co., Dover, Ohio. 641,891. Cl. 14.
Regie Nationale des Usines Renault, Billancourt, Selne, France. 641,705, pub. 12–4–56. Cl. 23.
Reliance Dental Mfg. Co., Chicago, Ill. 641,894. Cl. 18.
Renuzit Home Products Co., d. b. a. Columbia Petroleum Products Co., Philadelphia, Pa. 638,880, cor. Cl. 52.
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Richfield Oil Corp., Los Angeles, Calif. 641,892. Cl. 15.
Riegel Paper Corp., New York, N. Y. 277,895, canc. Cl. 37.
Riggio Tobacco Corp., Brightwaters, N. Y. 641,637, pub. 12–4–56. Cl. 17.
Ring & Brewer, Dallas, Tex. 535,598, canc. Cl. 39.
Rock of Ages Corp., Burlington, Vt. 641,854–5, pub. 12–4–56. Cl. 50.
Rockwell Mfg. Co., Pittsburgh, Pa. 528,894, canc. Cl. 13.
Rollins, Velda A., Bronxville, N. Y. 535,775, canc. Cl. 22.
Ross & Roberts, Inc., West Haven, Coun. 531,813, canc. Cl. 42.
Roux Laboratories, Inc., New York, N. Y. 641,867, pub. 12–4–56. Cl. 51.
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Savada Bros. Inc., New York, N. Y. 641,777, pub. 12–4–56. Cl. 39.
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Scholl Mfg. Co., Inc., The, Chicago, Ill. 116,370, ren. 4–24–57. Cl. 44.

Scripto, Inc., Atlanta, Ga. 641,611–12, pub. 12–4–56. Cl. 11.
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Seeman, James, Designa, Inc., Richmond Hills, N. Y. 641,899. Cl. 37.
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Shepherdson, William L., Phoenix, Ariz. 641,737, pub. 12–4–56. Cl. 32.
Sifo Co., St. Paul, Minn. 641,679–81, pub. 12–4–56. Cl. 22.
Sioux Honey Association, Cooperative, d. b. a. Western Honey Producers, Sioux City, Iowa, and Anaheim, Calif. 442,925, 12(c) pub. 2–19–57. Cl. 46.
Sitrue Inc., New York, N. Y. 641,763, pub. 12–4–56. Cl. 37.
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Smart & Final Co., Ltd.: *See*—
Fitzsimmons Stores, Ltd.
Smart & Final Iris Co.: *See*—
Fitzsimmons Stores, Ltd.
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Speed Products Co., Inc., now by change of name Swingline, Inc., Long Island City, N. Y. 641,731, pub. 12–4–56. Cl. 32.
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Suburban Fashions, Inc., New York, N. Y. 641,780, pub. 12–4–56. Cl. 39.
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Thoma, Marjorie: *See*—
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Thomas Collators Inc., New York, N. Y. 641,716, pub. 12–4–56. Cl. 23.
Topcraft, Inc., Baltimore, Md. 641,735, pub. 12–4–56. Cl. 32.
Tover, Inc., Chicago, Ill. 641,774, pub. 12–4–56. Cl. 38.
Treasure Co., Milwaukee, Wis. 535,847, canc. Cl. 37.
Triangle Package Machinery Co., Chicago, Ill. 641,697, pub. 12–4–56. Cl. 23.
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Tutag, S. J., & Co., Detroit, Mich. 641,646–7, pub. 12–4–56. Cl. 18.
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Union Carbide and Carbon Corp., New York, N. Y. 641,632, pub. 12–4–56. Cl. 15.
Union Carbide and Carbon Corp., New York, N. Y. 641,768, pub. 12–4–56. Cl. 38.
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Union Oil Co. of California, Los Angeles, Calif. 535,686, canc. Cl. 15.
United Cigar Manufacturers Co., by General Cigar Co., Inc., New York, N. Y. 114,585, 12(c) pub. 2–19–57. Cl. 17.
United States Department of Agriculture, Washington, D. C. 641,884, pub. 12–4–56. Cl. A.
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United States Rubber Co., Passaic, N. J. 345,358, ren. 4–27–57. Cl. 35.
United States Steel Corp., Pittsburgh, Pa. 641,623, pub. 8–16–55. Cl. 13.
Utica Knitting Co., Utica, N. Y. 535,747, canc. Cl. 39.
Utility Appliance Corp., Los Angeles, Calif. 641,747, pub. 12–4–56. Cl. 34.
Vacuum Oil Co., Rochester, to Socony Mobil Oil Co., Inc., New York, N. Y. 115,043, ren. 1–16–57. Cl. 15.
Van Dyk & Co., Belleville, N. J. 341,447, ren. 12–8–56. Cl. 6.
Varner, George S., Rock Island, Ill. 641,650, pub. 12–4–56. Cl. 18.
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Wall Trading Corp., New York, N. Y. 641,689, pub. 7–12–55. Cl. 23.
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Wella, Florence C., New York, N. Y. 641,800, pub. 12–4–56. Cl. 39.
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Whiting, John L., & Son Co., Boston, Mass. 52,864, canc. Cl. 29.
Whiting, John L., & Son Co., Boston, Mass. 52,866–7, canc. Cl. 29.
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Williamson Heater Co., The, now by change of name The Williamson Co., Cincinnati, Ohio. 641,742, pub. 1–3–56. Cl. 34.
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Younghusband, James L., Chicago, Ill. 257,838, canc. Cl. 51.
Youngs Rubber Corp., New York, N. Y. 641,816, pub. 12–4–56. Cl. 44.
Zzyon Corp., Seattle, Wash. 641,663, pub. 12–4–56. Cl. 21.

U. S. GOVERNMENT PRINTING OFFICE: 0—1957

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
February 26, 1957 Volume 715 Number 4

PATENTS

NOTICES

Adjudicated Patents

(D. C. Conn.) Lines Patent No. 2,224,403 (219—39), for electrical heating of storage and transportation system of viscous fluid. Held infringed. *Electric Pipe Line, Inc.* v. *Fluid Systems, Inc.*, 146 F. Supp. 262; 111 USPQ 268.

(D. C. Pa.) Belsinger Patent No. 2,453,614 (229—6), for easy packing container. Claim 1 *Held* valid and not infringed. *Belsinger, Inc.* v. *American Viscose Corporation*, 146 F. Supp. 289; 111 USPQ 270.

(D. C. Pa.) Belsinger Patent No. 2,512,539 (229—23), for easy packing container. Claim 1 *Held* invalid. *Id.*

Classification Order No. 211

The following transfers are hereby ordered to take effect on Monday, February 4, 1957:

From Division 4 to Division 61
Class 203, Longitudinal Feeding of Running or Indefinite Lengths

From Division 66 to Division 36
Class 249, Automatic Weighers
Class 265, Weighing Scales

M. C. ROSA,
Jan. 30, 1957. *Director, Patent Examining Division.*

Patents Available for Licensing or Sale

Eastman Kodak Company announces that non-exclusive licenses upon reasonable terms are available to domestic applicants (under the circumstances prevailing at the time) under the following U. S. patents:

2,537,876. N-Arylthiazolo Monomethine Cyanine Dyes.
2,537,877. Bis-(2-Azolyl) Carbanilides.
2,537,880. Process for Preparing Polymethine Dyes.
2,537,883. Readily Loadable Roll Film Camera.
2,537,885. Blade and Cover Blind Shutter for Cameras.
2,537,887. Camera Shutter Having Built-In Synchro-Flash Mechanism.
2,537,888. Two-Blade Shutter Having Built-In Flash Synchronizing Switch.
2,537,905. Speed Adjusting Mechanism for Disk Type Camera Shutters.
2,537,912. Objective With Variable Space for Controlling Aberrations.
2,537,924. Photographic-Imbibition Dye Printing Process.
2,537,925. Daylight-Loading Developing Tank.
2,538,008. Dialkylaminobenzylidene Dyes.
2,538,009. Photographic Material Containing Dialkylaminobenzylidene Filter Dye.
2,541,012. Method of Preparing a Viscous Cellulose Acetate Solution.
2,541,014. Erector Lens for Low-Power Telescopes.
2,541,015. Preparation of Hydroxy Cyclammonium Quaternary Salts.
2,541,400. N, N'-Alkylenecyanine Dyes.
2,541,416. Heated Drying Roller.
2,541,472. Direct Positive Emulsion Containing Desensitizing Dye.
2,541,474. Preparation of Silver Halide Dispersions and Photographic Emulsions Using Polyacrylamide Peptizers.
2,541,475. Film Sprocket Guard.
2,541,476. Light-Tight Film Cartridge.
2,541,478. Laminating Process and Products.
2,541,479. Method and Apparatus for Coating Photographic Film.
2,541,484. Objectives of Petzval Type With a High Index Collective Lens Element Cemented to Lower Index Dispersive Element.
2,541,485. Telephoto Objectives Corrected for Distortion.
2,541,488. Electrolytic Diazo Process.
2,541,490. Tone Control in Photographic Development.
2,543,013. Printing Plate and Method of Printing.
2,543,045. Cellular Printing Plate and Method of Printing.
2,543,046. Cellular Printing Plate and Method of Manufacture Thereof.
2,543,047. Method of Printing Through Cellular Plates.
2,543,086. Method of Preparing Dustless Photographic Fixing Powders.
2,544,640. Mixed Grain Photographic Emulsions.
2,544,879. Film Metering Double Exposure Prevention Camera.
2,544,883. Attaching Means for Masking Strips.
2,544,901. Apochromatic Process Lens.
2,544,902. Preparation of Soluble Nitrocellulose Having Carboxyl Groups in the Primary Position.
2,544,905. Method of Making Photographic Relief Images.
2,544,906. Polyvinyl Azine Sound Track Coating.
2,544,910. Tone Control in Photography.
2,548,520. Copolymers of Proteins Having Unsaturated Radicals United Therewith.
2,548,525. Film Winding Control for Roll-Film Handling Apparatus.
2,548,529. Camera Part Latching and Guiding Construction.
2,548,530. Film-Winding Control and Counter for Roll-Holding Cameras.
2,548,534. Reel Spindle.
2,548,537. Method of Making Cellulose Ester Lithographic Printing Plates.
2,548,549. Roll Holding Camera With Movable Spool Section.
2,548,552. Acidifying Compound for Photographic Baths.
2,548,554. Projection Viewing Apparatus.

New Applications Received During December 1956

Patents	6,384
Designs	354
Plants	9
Reissues	18
Total	6,765

Issue

Patents	1,054	No. 2,782,414 to No.	2,783,467, incl.
Designs	43	No. 179,751 to No.	179,793, incl.
Plants	6	No. 1,569 to No.	1,574, incl.
Reissues	3	No. 24,281 to No.	24,283, incl.
Total	1,106		

2,548,564. Photographic Silver Halide Element With Mordanted Dye Layer.

2,548,565. Method of Making Relief Printing Plates.

2,548,569. Reversed Telephoto Objective Having a High-Index Positive Front Lens Element.

2,548,571. Merocyanine Dyes Containing a Benzimidazole Nucleus.

2,548,574. Sulfonamide Substituted P-Phenylene-Diamines Containing O-Alkoxy Groups as Silver Halide Photographic Developers.

2,548,575. Mordanted Imbibition Dye-Printing Blank.

2,550,661. Color Couplers Containing Terphenyl Radicals.

2,551,650. Measurement of Temperature Distribution on the Surface of Solid Bodies.

2,552,175. Continuous Oxidation of Alcohols.

2,552,184. Illuminator for Optical Projectors.

2,552,185. Illuminator for Optical Projectors.

2,552,200. Light-Tight Photographic Film Cartridge.

2,552,209. Fusion Photothermography.

2,552,213. Flash Synchronizer for Focal Plane Type Camera Shutters.

2,552,220. Automatic Shutdown Arrangement for Document Copying Apparatus.

2,552,225. Negative Carrier.

2,552,229. Fog Inhibitors for Photographic Emulsions.

2,552,230. Fog Inhibitors for Photographic Emulsions.

2,552,233. Photographic Stencil.

2,552,240. N-β-Methylsulfonamidoethyl-p-Phenylenediamines.

2,552,241. p-Phenylenediamines Containing Alkylacylamidoethyl or Alkylacylamidoethoxy Ring Substituents.

2,552,242. p-Phenylenediamines Containing N-Alkyl-Acetamido Ethyl Substituent.

2,552,252. N,N'-Diarylthiazolinocarbocyanine Dyes.

2,552,262. Film-Winding Control for Cameras.

2,552,266. Apparatus for Photographically Copying Either Both or Only One Side of a Document.

2,552,273. Built-In Flash Synchronizer Having Two Switches for Selective Use.

2,552,276. Film Spool Centering Pin.

2,556,540. Water Spot Prevention in Photographic Film.

2,556,546. Diaphragm Assembly.

2,556,550. Heat Sensitive Printing Element and Method.

2,556,560. Stamp Rotating Mechanism.

2,559,836. High Aperture Corrected Photographic Objective Comprising Five Components in Axial Alignment.

2,559,844. Optical Objective System Comprising a Positive Member and a Negative Auxiliary Member.

2,559,858. Microcard Holder for Viewers.

2,559,860. Mold for Centering Lenses in Plastic Mountings.

2,559,861. Mold for Centering Relatively Large Uncentered Lenses in Plastic Mountings.

2,559,875. Wide Angle Corrected Photographic Objective Comprising Four Meniscus Components in Axial Alignment.

2,559,880. Film Measuring and Double-Exposure Prevention Device.

2,559,881. Optical System Comprising a Positive Member and a Weak Auxiliary Member.

2,559,892. Film Winding Control for Cameras.

2,559,896. Process for Purifying N-Methyl-p-Aminophenol.

2,559,907. Method for Producing Hydroxy Cyclammonium Quaternary Salts.

2,559,910. Electric Timer.

2,559,911. Interlocking Motion-Picture Camera Diaphragm and Shutter Release Structure.

2,563,782. Setting Type Shutter With Power-Operated Release Means and Flash Synchronizing Switch.

2,563,785. Direct Positive Photographs From Hydrazine-Containing Developers.

2,563,791. Photographic Emulsions Peptized With Zein.

2,565,418. Method of Preparing Photographic Silver Halide Emulsions.

2,566,165. Film Perforation Pitch Gauge.

2,566,167. Photographic Silver Halide Emulsion Supersensitized With a Benzimidazole Base.

2,566,180. Direct Positive Photographic Color Process.

2,566,184. Deesterified Polymers Which Become Insoluble in Water When the Aqueous Solutions Are Evaporated From Their Hydrosols.

2,566,185. Lamp Tube for Projector Devices Formed From Two Identical Channel-Shaped Members.

2,566,202. Setting Type Shutter Having Built-In Flash Synchronizing Switch and Safety Switch.

2,566,204. Numbering Stamp.

2,566,234. Photographic Direct Positive Matrix Process.

2,566,245. Complex Compounds of the Platinum Group as Photographic Fog Inhibitors.

2,566,250. New Polymers Containing Lactam Units in the Polymer Chain.

2,566,259. 8-Alkyl Sulfonamidoethyl-N-Substituted Saturated Heterocyclic Developers.

2,566,263. Stabilizing Photographic Emulsions With Chloropalladites and Chloroplatinites.

2,566,265. Method of Making Fine Line Screens.

2,566,266. Pressure Equalizing Device.

2,566,267. Quick-Loading Camera Body and Back Construction.

2,566,271. Photographic Developer Containing Substituted Sulfonamide Groups.

2,566,281. Daylight Loading Developing Tank.

2,566,290. Multicolor Printing Device.

2,566,302. Copolymers of Cinnamoyl-Vinyl Aromatic Hydrocarbons.

2,568,503. Cellulose Ester Lithographic Printing Process.

2,571,661. Film Winding and Shutter Tensioning Mechanism.

2,571,686. Method of Recovering Cellulose Ester Film Scrap.

2,571,698. Photographic Masking Process.

2,571,702. Stabilizer for Camera Shutter Trip Mechanism.

2,571,725. Eliminating Stain in Photographic Color Material.

2,571,756. Toggle Driven Photographic Shutter.

2,571,761. Method of Reacting Tertiary Amines With Polyvinyl Esters and Products Obtained Thereby.

2,571,764. Lantern Slide Mount.

2,571,775. Pyrro-Colinocarbocyanine Dyes and Process for the Preparation Thereof.

2,571,793. Tool Feeding Mechanism for Lens Generators.

2,571,796. Film Cassette.

2,571,801. Multiple Motor Drive.

2,571,804. Lens Mount and Film Gate Arrangement for Projection Apparatus.

2,571,807. Film Winding and Rewinding Mechanism.

2,574,995. Photographic Objective Consisting of Three Simple Elements and a Cemented Triplet Therebehind.

2,575,002. Latent Image Intensification.

2,575,012. Rapid Film Wind Device.

2,575,018. Photographic Sensitizing Dyes Comprising a Benzoxazole Nucleus.

2,575,024. Roll Film Camera Utilizing Spring Closed Film Retorts.

2,575,025. Light Lock for Roll-Film Spools.

2,575,035. Camera, Including Rapid Film Threading and Releasing Means.

2,575,373. Acyloxy Polymethine Dye Intermediates.

2,578,281. Halogenation of N-Methyl-4-Amino-Phenol.

2,578,282. Protective Layer for Finished Photographic Film.

2,578,292. Disodium-N,N'-Dimethyl-p-Phenylene-Diaminomethane Sulfonate and Process for Preparation.

2,578,295. Film Take-Up Chamber for Photographic Apparatus.

2,578,296. Lamp Ejecting Socket.

2,578,303. Quinaldinium Salts and Method of Synthesis.

2,578,304. Lepidinium Salts and Method of Synthesis.

2,578,320. Photographic Apparatus for Successively Copying Each Side of a Document.

2,578,325. Oxyfluoride Glasses.

2,578,333. Photographic Color Correction Process.

2,592,366. Noncaking Photographic Acid Fixing Powders.

2,632,715. Process of Subbing Cellulose Ester Sheet Material and Product Thereof.

2,725,155. Semi-Automatic Readymount Machine.

2,743,296. Manufacture of Lower Aliphatic Acid Anhydrides.

2,744,950. One Dimensional Unsharp Masking.

2,747,478. Continuously Driven Printing Machine.

2,748,190. Black Printers and Electrooptical Methods of Making Them.

Applications for license may be addressed to: Director, Patent Department, Eastman Kodak Company, 343 State Street, Rochester 4, N. Y.

CONDITION OF PATENT APPLICATIONS AS OF DECEMBER 31, 1956

CONDITION OF PATENT APPLICATIONS AS OF DECEMBER 31, 1956

Total number of pending applications (excluding Designs)	217,395
Total number of pending Design applications	6,358
Total number of applications awaiting action (excluding Designs)	112,980
Total number of Design applications awaiting action	3,010
Date of oldest new application	Aug. 17, 1955
Date of oldest amended application	Oct. 7, 1954

ROSA, M. C., Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
I. STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.
II. STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 23, 26, 37, 42, 44, 48, 51, 54, 69, 70.
III. YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
IV. FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
V. HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	8, 20, 29, 33, 36, 40, 41, 52, 66.
VI. MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS	1, 4, 5, 9, 10, 18, 22, 28, 45, 47.
VII. KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
CL. GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	1-31-56	2-7-55
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers	3-23-56	9-15-55
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys	5-1-56	4-1-55
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Feeding of Indefinite Lengths	4-10-56	5-26-55
5. (VI) ROBINSON, C. W., Harvesters; Potato Diggers; Stalk Pullers and Choppers; Stone Gatherers; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates	5-4-56	10-6 55
6. (I) SURLE, H., Carbon Chemistry (part), e. g. Natural Resins, Proteins, Heterocyclic Amides, Amines, General Organic Processes	1-4-56	10-26-55
7. (IV) GONSALVES, J. E., Optics, Photographic Apparatus	1-12-56	9-29-55
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture	12-22-55	8-22-55
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	3-21-56	4-19-55
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	1-20-56	8-1-55
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	4-3-56	8-1-55
12. (III) SPINTMAN, S., Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	2-2-56	11-15-54
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	2-17-56	1-13-55
14. (III) MANIAN, J. C., Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes	2-15-56	1-11-55
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	3-16-56	3-7-55
16. (II) LOVEWELL, N. N., Television; Telephony; Recorders	11-28-55	10-14-54
17. (IV) LEIGHEY, R. A., Paper Manufactures; Packaging; Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	1-6-56	2-28-55
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	2-1-56	2-23-55
19. (VII) PATRICK, P. L., Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners	4-2-56	7-19-55
20. (V) BROWN, L. M., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking	4-9-56	4-19-55
21. (III) MADER, R. C., Textiles	3-13-56	3-20-55
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows; Boring and Drilling	12-27-55	1-24-55
23. (II) ANDRUS, L. M., Cash and Fare Registers; Calculators and Counters; Education	1-4-56	10-11-54
24. (III) DRACOPOULOS, P. T. (HICKEY, T. J., acting), Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	3-13-56	5-6-55
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus	3-1-56	1-3-56
26. (II) YOUNG, R. R., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanism	5-1-56	1-3-56
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	3-27-56	11-4-55
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Chute, Skid, Guide and Way Conveyers; Fluid Current Conveyers; Pressure Modulating Relays; Pneumatic Dispatch; Store Service; Wheel Substitutes	1-4-56	6-9-55
29. (V) HABECKER, L. B., Tools; Woodworking; Button, Barrel and Wheel Making; Rubber Tire Removing Tools; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers	4-26-56	4-25-56
30. (VII) O'LEARY, R. A., Refrigeration; Heating Systems; Automatic Temperature and Humidity Regulation, Thermostats, Humidistats; Illuminating Burners; Miscellaneous Heating	7-9-56	11-10-55

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Amended
31. (I) HUTCHISON, E. W., Carbon Chemistry (part), e. g. Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Synthetic Resins (part)	3-6-56	8-1-55
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	4-10-56	11-28-55
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Building Structures; Roads and Pavements	4-10-56	4-1-55
34. (IV) SHANK, J. S. (acting), Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	4-2-56	4-1-55
35. (IV) BROMLEY, E. D., Dispensing; Filling and Closing Receptacles; Toilet, Kitchen and Table Articles; Sheet or Web Feeding	2-16-56	8-10-55
36. (V) McFADYEN, A. D., Measuring and Testing	12-30-55	12-12-55
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating	11-30-55	9-14-55
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g. Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	3-26-56	2-20-56
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	4-3-56	3-1-55
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	6-1-56	1-4-56
41. (V) GURLEY, R. B., Coin Controlled Apparatus; Dispensing Cabinets; Coin Handling; Mail, Fare or Other Collection Boxes or Chutes; Buckles, Buttons and Clasps; Racks; Fire Escapes; Ladders; Scaffolds	1-3-56	1-3-55
42. (II) MARANS, H., Electric Signaling; Signals and Indicators; Telegraphy; Electrical Connectors	8-17-55	1-10-55
43. (I) ARNOLD, D., Medicines, Poisons, Cosmetics; Sugar and Starch; Skins, and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus)	1-30-56	8-10-55
44. (II) EVANS, N. H., Antennas; Automatic Pilots; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	9-12-55	10-7-54
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances	2-3-56	3-25-55
46. (I) WILES, W. G., Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Surgery (part); Radioactive Medicines; Irradiation Chemistry; Carbon Chemistry (part)	1-30-56	3-2-55
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles	5-1-56	1-19-56
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Spark Plugs and Ignition Systems, Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers	12-23-55	11-22-54
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring	12-30-55	6-27-55
50. (I) BENGEL, W. G., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber	2-28-56	2-23-55
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Music	4-9-56	2-1-55
52. (V) NEFF, P. R., Supports; Joint Packing; Valved Pipe Joints or Couplings; Rod Joints or Couplings; Tool Handle Fastenings; Shaft Packing	3-2-56	3-1-55
53. (IV) REYNOLDS, E. R., (NINAS, G. A., acting), Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings and Shutters; Harness; Whip Apparatus	4-2-56	11-4-55
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g. X-Ray, Ultraviolet, Radioactive) Applications	3-22-56	3-11-55
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Sorting Solids; Centrifugal Bowl Separators; Comminutors	9-15-55	12-8-54
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	4-4-56	1-11-56
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings	6-21-56	2-24-56
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Food Apparatus; Closure Operators; Baths, Closets, Sinks and Spittoons	2-27-56	8-4-55
59. (I) HENKIN, B., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	3-19-56	7-18-55
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	3-1-56	2-4-55
61. (III) MORSE (Miss), E. L., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery	4-5-56	8-4-55
62. (IV) SHAPIRO, A., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination	4-6-56	12-1-55
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds	4-3-56	8-1-55
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	4-2-56	4-13-55
66. (V) LISANN, I., Geometric Instruments; Automatic Weighing Scales; Acoustics	3-6-56	12-3-54
67. (VII) KRAFFT, C. F., Laminated Fabrics; Ornamentation; Bleaching, Dyeing, Fluid Treatment of Textiles	1-12-56	6-13-55
69. (II) GALVIN, D. J., Wave Guides; Electric Meters; Sound Recording; Conductors; Insulators	3-8-56	1-3-55
70. (II) BREWRINK, J. L., Security laws administration.		
CLASS. DIVS. I BAILEY, J. S., Paper Making; Mineral Oils	4-6-56	2-20-56
CLASS. DIVS. II LADY, J. E., Oscillators; Amplifiers; Resistances and Rheostats	4-3-56	9-30-55
CLASS. DIVS. III WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres	4-6-56	1-16-56
CLASS. DIVS. IV BERLOWITZ, W. (acting), Harrows and Diggers; Plows; Fluid Sprinkling, Spraying and Diffusing	4-3-56	8-29-55
CLASS. DIVS. V ANGEL, C. D., Liquid Separation or Purification; Sewerage	4-9-56	3-1-56
DESIGNS (III) A—MONCURE, J. A. Industrial Arts	6-4-56	7-2-56
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	6-1-56	7-13-56

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during February 1957, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1955*.

Patents	Numbers 2,188,895 to 2,192,165, inclusive
Plant Patent	Numbers 361 to 364, inclusive

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,196,823. M. Breth, Cloth laying machine, **filed** Dec. 20, 1949, D. C., S. D. N. Y., Doc. 54/295, *Cutting Room Appliances Corp.* v. *Empire Cutting Machine Co., Inc. et al.* Stipulation and order of dismissal Jan. 9, 1957.

2,301,081. B. Rosenberg, Window curtain, **filed** Oct. 16, 1952, D. C., S. D. N. Y., Doc. 79/235, *Cameo Curtains, Inc.* v. *Howard Curtain Co., Inc.* Stipulation and order of discontinuance Jan. 7, 1957.

2,326,634. M. L. Gebhard et al., Reflex light reflector, **filed** Jan. 7, 1957, D. C., S. D. Miss. (Jackson), Doc. 2592, *Minnesota Mining & Mfg. Co.* v. *Cataphote Corp.* **Same,** Doc. 2593, *Minnesota Mining & Mfg. Co.* v. *Micro Beads, Inc.*

2,499,141, W. G. Helmus, Heat-treatment of webs of textile materials; **2,499,142,** same, Heat setting of textile fabrics, **suit** for Declaratory Judgment filed Sept. 7, 1950, D. C., S. D. N. Y., Doc. 60/357, *Triangle Finishing Corp. et al.* v. *Fair Lawn Finishing Co. et al.* Plaintiff's first cause of action dismissed; Patent 2,499,141 as to claims 1 to 7 and Patent 2,499,142 as to claims 1 to 5 held invalid and not infringed by plaintiffs; defendants enjoined; counterclaim dismissed Jan. 10, 1957.

2,499,142. (See 2,499,141.)

2,511,343. E. W. Kaiser, Prefabricated piping system; **2,570,246,** same, Expansion means for jacket or conduit system; **2,592,574,** same, Pipe joint fitting; **2,641,451,** same, Heat exchanger; **2,649,769,** same, Jacketed valve; **2,650,111,** same, Expansion joint enclosure; **2,658,527,** same, Conduit system; **2,658,530,** same, Combined support and turbulence effecting device; **2,674,947,** same, Fuel supply system; **2,680,901,** same, Method of assembling jacketed conduit systems; **2,696,835,** same, Conduit construction, **suit** for Declaratory Judgment filed Dec. 2, 1955, D. C., N. D. Ill. (Chicago), Doc. 55c2249, *Ric-Wil Inc. et al.* v. *E. B. Kaiser Co., Inc. et al.* Agreed order dismissing cause Jan. 9, 1957.

2,570,246. (See 2,511,343.)

2,587,470. F. Herzegh, Pneumatic tire, **filed** June 29, 1954, D. C. Md. (Baltimore), Doc. 7501, *The B. F. Goodrich Co.* v. *United States Rubber Co.* Claims 11, 12, 13, 19, and 20 of Patent 2,587,470 held invalid and not infringed; complaint dismissed (notice Jan. 9, 1957).

2,592,574. (See 2,511,343.)

2,641,451. (See 2,511,343.)

2,649,769. (See 2,511,343.)

2,650,111. (See 2,511,343.)

2,658,527. (See 2,511,343.)

2,658,530. (See 2,511,343.)

2,660,355. C. S. Allen, Method of applying sealing spouts for lighter fluid cans; **2,670,885,** same, Plastic spout for liquid containers, **filed** Nov. 4, 1955, D. C., N. D. Ohio (Cleveland), Doc. 32231, *West Penn Closure Corp.* v. *Products Packaging, Inc.* Decree holding Patent 2,660,355 valid and infringed as to claims 1 to 6; defendant enjoined from further infringement of said patent; action dismissed with prejudice to defendant as to said patent and without prejudice to either party as to Patent 2,670,885 Jan. 8, 1957.

2,667,487. W. H. Felnstone, Condensation products of trimethylhydroxyethyl ammonium hydroxide and dimethylxanthine and process of preparing same, **filed** Oct. 18, 1956, D. C., S. D. N. Y., Doc. 114/51, *Nepera Chemical Co., Inc.* v. *Red Star Chemical Co., Inc.* Consent judgment; defendant enjoined Jan. 8, 1957.

2,670,885. (See 2,660,355.)

2,673,976. C. M. Williams et al., Display sign, **suit** for Declaratory Judgment filed Jan. 4, 1957, D. C., E. D. Ill. (Danville), Doc. 1507–D (transferred from D. C., N. D. Ill. (Chicago), Doc. 56c1388), *Time-O-Matic, Inc.* v. *American Sign and Indicator Corp.*

2,674,947. (See 2,511,343.)

2,675,644. H. Senior et al., Weeping doll, **appeal** filed May 17, 1956, C. C. A., 4th Cir., Doc. 7229, *Baltimore Products Co. et al.* v. *American Character Doll Co. et al.* Judgment of District Court affirmed Jan. 7, 1957.

2,680,901. (See 2,511,343.)

2,689,562. Adams and Kleiner, Blood donor assembly; **2,689,563,** R. L. Huber, Donor set, **filed** May 2, 1956, D. C. N. J. (Newark), Doc. 377/56, *R. K. Laros Co.* v. *Becton, Dickinson & Co.* Consent dismissal Jan. 8, 1957.

2,689,563. (See 2,689,562.)

2,696,835. (See 2,511,343.)

2,749,384. W. J. Scott, Plastic connectors, **filed** Jan. 8, 1957, D. C., S. D. N. Y., Doc. 116/168, *Ideal Industries, Inc.* v. *Hi-Seale Products Corp.*

2,752,764. H. B. Lederer, Magnetic earrings with interchangeable ornaments, **filed** Jan. 11, 1957, D. C., S. D. N. Y., Doc. 116/215, *Henry B. Lederer* v. *Rite Grade Corp. et al.*

Des. 157,592, Des. 157,593, Des. 157,594, P. R. Hollaender, Coupling element, **filed** Jan. 7, 1957, D. C., S. D. Ohio (Cincinnati), Doc. 3915, *The Tubeway Co.* v. *The Hollaender Mfg. Co. et al.*

Des. 157,593. (See Des. 157,592.)

Des. 157,594. (See Des. 157,592.)

Des. 159,667. M. M. Ross, Rattle, **filed** Dec. 7, 1951, D. C., S. D. N. Y., Doc. 71/324, *Morton M. Ross* v. *Plastic Playthings, Inc. et al.* Stipulation and order of dismissal Jan. 8, 1957.

Des. 168,763. T. Prisland, Acoustical correction tile, **filed** Sept. 26, 1955, D. C., S. D. Miss. (Jackson), Doc. 2392, *The Celotex Corp.* v. *Stokes, Inc.* Consent judgment Jan. 5, 1957.

Des. 172,923. H. Federman, Watch, **filed** Dec. 2, 1954, D. C., S. D. N. Y., Doc. 97/147, *Henry Federman* v. *Hanover Watch Co., Inc. et al.* Stipulation and order of discontinuance Jan. 9, 1957.

Des. 179,486. B. Levine, Shoe, **filed** Jan. 9, 1957, D. C., S. D. N. Y., Doc. 116/173, *Herbert Levine, Inc.* v. *Ansonia De Luxe Shops, Inc.*

REISSUES

FEBRUARY 26, 1957

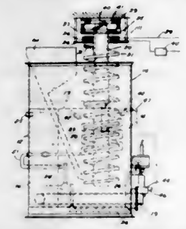
Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,281
DEGREASING APPARATUS

Harry H. Jones, Huntington Woods, and Robert C. White, Detroit, Mich., assignors, by mesne assignments, to Robert C. White, doing business as Manufacturers Process Co.

Original No. 2,662,851, dated December 15, 1953, Serial No. 251,334, October 15, 1951. Application for reissue December 12, 1955, Serial No. 552,688

11 Claims. (Cl. 134—65)



12. Apparatus for treating work with a fluid, comprising a chamber adapted to contain a fluid and open at the top, a spiral conveyor extending into the chamber through the open top of the latter to a position below the fluid level in the chamber and having a vertical support, a work-carrying ramp mounted on the support and extending helically around the support from a position below the fluid level to a position above the chamber, means for depositing work on the ramp below the fluid level, means on the support above the open top of the chamber for moving the ramp vertically with a vibrating motion, and means also on the vertical support above the open top of the chamber for oscillating the ramp about its vertical axis during vibration of said ramp to advance the articles along the ramp.

24,282
COMBINED STEPLADDER

Harry P. Bair, Baltimore, Md., assignor of fifty percent to Roger I. Bair, Baltimore, Md.

Original No. 2,675,155, dated April 13, 1954, Serial No. 309,315, September 12, 1952. Application for reissue April 28, 1955, Serial No. 504,706

5 Claims. (Cl. 228—29)

1. In a combination ladder of the type comprising a step section and a prop section having spaced elongated side rails and longitudinally spaced parallel rungs carried by the side rails and extending therebetween, spaced parallel brackets carried by the step section and extending outwardly therefrom adjacent the upper end thereof, hook shaped guides carried by the brackets remote from the step section for partially embracing the side rails of the prop section and slidably coupling said prop section to said step section, hooks carried by the guides and ex-

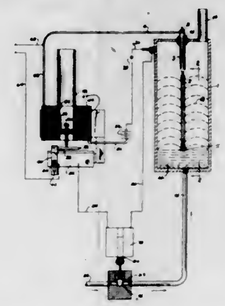
tending outwardly and downwardly from adjacent sides thereof, and links carried by the step section and adapted to be engaged with said hooks for engaging a rung of the prop section and arresting upward movement of the prop section relative to the step section.

24,283
METHOD OF BALANCING CURRENT VOLUME AND STEAM GENERATION BY USE OF CURRENT CONDUCTING FILMS

Glenn W. Watson, Detroit, Mich., assignor to Detroit Wabeek Bank and Trust Co., Detroit, Mich., a corporation of Michigan

Original No. 2,748,254, dated May 29, 1956, Serial No. 402,010, January 4, 1954. Application for reissue October 29, 1956, Serial No. 619,096

7 Claims. (Cl. 219—40)



7. The method of balancing current volume and steam generation in a steam generating vessel including a fluid supply and electrodes of opposite potential consisting in mounting at least one electrode in initial surface contact with a body of liquid in said vessel whereby films of liquid will rise between said electrodes, and regulating said fluid supply responsive to the amount of current consumed by the varying quantity of said films rising between said electrodes.

PLANT PATENTS

GRANTED FEBRUARY 26, 1957

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,569
IRIS PLANT

Mark G. Lafky, Sherwood, Oreg.

Application November 28, 1955, Serial No. 549,580

1 Claim. (Cl. 47—60)

A new and ornamental variety of white iris plant of the Tingitana strain particularly characterized as to novelty by its large pure white blooms, the bright yellow colored beard running down the center of the three large outer petals of each flower, its early blooming period, and its good forcing qualities.

1,570
ROSE PLANT
Eugene S. Boerner, Newark, N. Y., assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York
Application May 16, 1956, Serial No. 585,371
1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the large-flowered polyantha class, substantially as herein shown and described, characterized particularly as to novelty by the long-lasting quality of its flowers, the decided branching of the sepals, with a "hood" above the bud, the distinctive Thulite Pink, lightly overcast with Deep Rose Pink, general color tonality of its flowers, and the distinctive Vandyke Red coloring in its new foliage.

1,571
CHRYSANTHEMUM PLANT
Eugene S. Boerner, Newark, N. Y., assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York
Application May 28, 1956, Serial No. 587,915
1 Claim. (Cl. 47—60)

A new and distinct variety of chrysanthemum plant of the decorative type, substantially as herein shown and described, characterized particularly as to novelty by its upright and vigorous habits of growth, its clean foliage, the large size and profuse quantity of its blooms, and the distinctive Pale Persian Lilac, lightly overcast with Rose Pink, general color tonality of its flowers.

1,572
ROSE PLANT
Charles Mallerin, Varces, Allieres et Risset, France, assignor to The Conard-Pyle Company, West Grove, Pa., a corporation of Pennsylvania
Application May 16, 1956, Serial No. 585,372
1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the hybrid polyantha class, substantially as herein shown and described, characterized particularly as to novelty by its well-branched, balanced, very vigorous but compact and medium tall habits of growth, its clean, abundant, well-spaced foliage which is unusually resistant to blackspot and mildew, and the abundance, good form and vivid Signal Red general color tonality of its blooms.

1,573
ROSE PLANT
Charles Mallerin, Varces, Allieres et Risset, France, assignor to The Conard-Pyle Company, West Grove, Pa., a corporation of Pennsylvania
Application May 16, 1956, Serial No. 585,373
1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the large-flowered climber class, substantially as herein shown and described, characterized particularly as to novelty by its vigorous habit of growth, its good hardiness, its abundant and attractive foliage, its very good remontance, its habit of producing a terminal bloom on each new shoot, the very good form and size of its blooms, the strong and appealing fragrance of its blooms, and the iridescent Spirea Red general color tonality of its blooms which clears to Iridescent Cardinal Red in cool weather.

1,574
ROSE PLANT
William E. Silva, Sebastopol, Calif., assignor to Peter J. Booy Rose Nursery, San Jacinto, Calif., a partnership consisting of Peter J. Booy and Henry F. Eckardt
Application February 14, 1956, Serial No. 565,521
1 Claim. (Cl. 47—61)

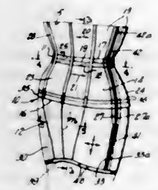
A new and distinct variety of rose plant of the floribunda class, substantially as herein shown and described, characterized as to novelty by its vigorous, bushy spreading habit of growth and sturdy stems, by its profuse flowering habit from spring until fall, the distinctive rich yellow coloring of the blooms and compact arrangement of the petals, and its resistance to common rose diseases.

PATENTS

GRANTED FEBRUARY 26, 1957

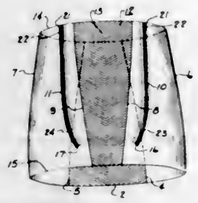
GENERAL AND MECHANICAL

2,782,414
CINCHING GIRDLE
Arthur Goldstein, New York, N. Y., assignor to Tru Balance Corsets, Inc., New York, N. Y., a corporation of New York
Application December 14, 1954, Serial No. 475,050
6 Claims. (Cl. 2—28)



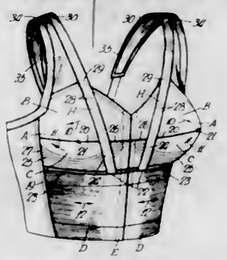
1. A cinching girdle having, in combination, a waistline encircling portion extending over the midriff covering portion of the garment and thigh encircling portion, said waistline portion comprising elastic waistband members to each side of which are oppositely flared bands comprising trapezoidally outlined sections of shaping gussets extending upwardly to provide a diaphragm encircling band, and extending downwardly to provide a hip encircling band portion, said thigh encircling portion being seamed adjacent the upper edge thereof to the lower edge of the hip encircling band portion and being of differentially expansive elastic fabrics.

2,782,415
DROP FRONT PANEL GIRDLE
Geraldine H. Emery, Edgewood, Pa.
Application November 15, 1954, Serial No. 468,836
4 Claims. (Cl. 2—38)



1. A girdle comprising connected rear and side sections, a front section having edges part of which are made integral with said side sections only at the bottom thereof forming a continuous bottom hem line, the remaining edges of the front section being free from the side sections and initially curving outwardly and upwardly toward the top hem line, the initial portion of the free edges of the front section adapted to extend from the position of the groin of the wearer, and detachable slide fastening means secured to the side and front sections and following the curved edges of the front section to secure the remaining free edges of the front section in position.

2,782,416
POSTURE SUPPORTING BRASSIERE
Michael Ginsburg, Verona, N. J.
Application December 31, 1954, Serial No. 479,009
2 Claims. (Cl. 2—42)



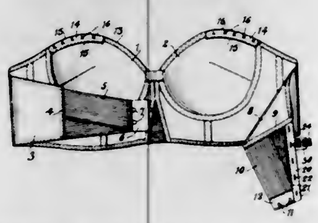
1. A posture supporting brassiere having its front part made up of two upper breast cup portions joined together at a front vertical middle seam and two laterally stretchable sections joined to the lower edge of said breast cup portions along a horizontal seam about midway of the height of the front of the brassiere, and said lower sections being joined together along a downward extension of said front vertical seam, a plurality of vertical back sections extending from and between the side edges of said breast cup portions and said lower sections and seamed together along vertical seams to form a complete back enclosure and heavy fabric strap members stitched to said breast cup portions and extending obliquely divergently upwardly from the lower edges of the breast cup portions at the horizontal seam adjacent the vertical seam to the top of the breast cup and an additional heavy fabric strap member stitched to and extending along the upper edge of the vertical back sections, both straps extending upwardly from the top edge of the breast cup portions and forming shoulder straps.

2,782,417
REINFORCING MEANS FOR BRASSIERES
Herbert Magidson, Los Angeles, Calif.
Application November 7, 1955, Serial No. 545,254
2 Claims. (Cl. 2—42)

1. A brassiere cup reinforcing means, comprising: a generally U-shaped resilient member having a central flattened portion of approximately one-third the length of said member disposed in the plane of said member and adapted to lie flatwise with respect to the chest and to conform readily to the transverse curvature thereof; and legs of generally circular cross-section, said legs curving upwardly from the extremities of said flattened central

portion and having lower end portions gradually decreasing in dimension to blend with the extremities of said flattened central portion, said flattened central portion being relatively stiff in the plane of the U-shaped member, whereby said legs act as cantilevers and the lower end portions of said legs remain relatively fixed against deflection with respect to said flattened central portion during either a longitudinal spreading apart or contracting movement of the upper portion of the legs in the plane of said member.

2,782,418
BRASSIERE
Arthur Garson, New York, N. Y.
Application March 30, 1955, Serial No. 497,965
2 Claims. (Cl. 2—42)

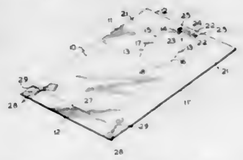


1. A brassiere having a breast cup having an upper marginal edge, a concealed strip secured to the inner surface of said edge and terminating at the outer edge of the cup, said strip having a plurality of equally spaced apertures formed therein, the brassiere having a rear expansible band, a concealed elastic strip secured along the upper inner edge of said band and being expansible coextensively with the band, the last-mentioned strip being provided with a plurality of apertures, a shoulder strap having a hook member at each of its opposite ends, one of said hook members being adapted for selective engagement with any one of the said apertures in the front strip and the other of said hook members being adapted for engagement with any of the apertures in the rear strip, the apertures in the front strip being of triangular form; the apertures in the rear strip being slot-like, and the hook members having T-shaped ends for entry into the apertures in both strips.

2,782,419
SCARF SQUARE AND TRIANGLE
Sophia Swartz, New York, N. Y.
Application May 26, 1954, Serial No. 432,515
6 Claims. (Cl. 2—48)

1. A scarf body having a relatively narrow end portion and marginal side edge diverging outwardly from the said end portion, the said scarf body being provided with a pair of slits intersecting each other adjacent the said end portion, the said slits being of substantially the same length, each of the slits being formed adjacent one of the marginal edge portions of the scarf to form a pair of strap members, the material between the said slits being foldable along a line joining the free ends of the slits to form a neck opening, the material between the ends of the said side edge of the scarf body being of a length to form a body encircling member, the depth of the scarf between the lines joining the ends of the said slits and the ends of the side edges of the scarf body being of a dimension to provide a bust and midriff covering portion.

2,782,420
DISPOSABLE BIB
Ethel D. Barager, Buffalo, N. Y.
Application September 23, 1953, Serial No. 381,918
1 Claim. (Cl. 2—49)



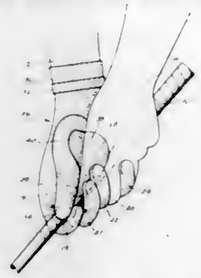
A one-piece disposable paper bib comprising a rectangular body sheet having lateral and longitudinal edges, a neck opening formed in said body sheet, a slit extending inwardly from one edge of said body sheet to said neck opening, a fold line on said body sheet parallel to and spaced from one of said lateral edges, a cohesive mass disposed on the upper surface of said body sheet along a line extending inwardly and upwardly from the juncture of said lateral edge with each of said longitudinal edges, each of said cohesive masses extending an equal distance on both sides of said fold line, the lateral edge portion of said body sheet adjacent said fold line forming a pocket when said edge portion is folded upwardly so that each of said cohesive masses on one side of said fold line is placed in contacting apposition to its respective cohesive mass on the other side of said fold line whereby the entire folded lateral edge portion, except at its terminal portions, is spaced from the upper surface of said body sheet.

2,782,421
MITTEN
Jonathan Winson, New York, N. Y., assignor to Air Baby, Inc., New York, N. Y., a corporation of New York
Application August 27, 1956, Serial No. 606,417
7 Claims. (Cl. 2—158)

1. A heat sealed waterproof vinyl mitten made from flat vinyl sheeting, the finished mitten having palm and back sides each having fingertip, finger and hand regions, the palm and back sides heat sealed together along at least their fingertip marginal edge providing an edge seam, the improvement wherein the mitten includes at least one flat vinyl fingertip blank heat sealed to at least the palm side across the finger region of said side, the fingertip blank extending into said fingertip marginal edge seam, the fingertip blank heat sealed along its entire peripheral edge, the heat sealed construction turned inside out providing a mitten with a reversed seam fabrication.

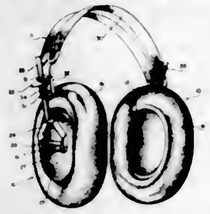
2,782,422
GOLF TRAINING GLOVE
Michael Bencriscutto, Racine, Wis.
Application February 25, 1954, Serial No. 412,416
6 Claims. (Cl. 2—161)

1. A golf training glove for one hand of a wearer comprising an unapertured palm portion and a first thumb receiving portion, in combination, a second thumb receiving portion secured to the surface of said palm portion adjacent said first thumb receiving portion, and having



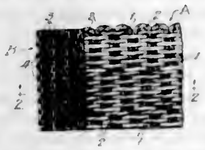
the thumb receiving opening wholly without the surface of said glove.

2,782,423
NOISE ATTENUATING EAR PROTECTORS
Eli Simon, Los Angeles, and Frank W. Thomas and Phillip J. Wiegand, Burbank, Calif., assignors to Lockheed Aircraft Corporation, Burbank, Calif.
Application January 18, 1954, Serial No. 404,439
3 Claims. (Cl. 2—209)



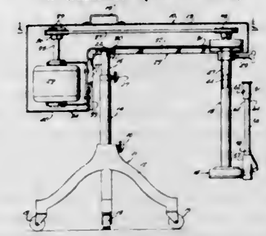
1. A sound attenuating ear protector comprising an ear enclosing pad of resilient deformable foamed polyester resin-isocyanate plastic having a slow gentle elastomeric return characteristic following deformation, said pad comprising a main web for extending across the external ear, said web having a concave inner surface, a thickened marginal bead on said web, said bead having a rounded inner edge presenting line contact with the head of the user, said bead following the concave configuration of the web, said web being offset rearwardly with respect to the rounded inner edge of said bead, a thin, dished, bendable reinforcing plate encased in said web, said bead extending in part beyond said plate, said plate having a concave face generally conforming to the concavity of said web, said plate being encased in the rear portion of said web so as to leave the major inner portions of said pad free for easy deformation in order to more readily conform to the cranial contours of the user.

2,782,424
RUG BINDING
Joseph V. Yana, Oshkosh, Wis., assignor to Waite Carpet Company, a corporation of Wisconsin
Application March 1, 1954, Serial No. 413,010
3 Claims. (Cl. 2—278)



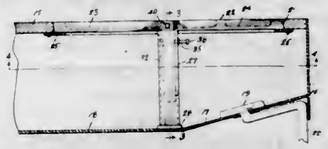
1. A woven rug comprising a body portion having warp and filler strands formed of twisted lengths of paper fibre and a narrow elongated binding enclosing and securing the free ends of the warp strands of the body portion from raveling, said binding extending along the entire width of the body portion and being wrapped around the free ends of the warp strands and having portions extending on top and bottom of the body portion for a distance inward from the edge thereof sufficient to enclose the ends of the warp strands and enable securing of the binding to the body portion, and sewn stitches securing the binding to the body portion, said binding having warp strands of paper fibre running transversely to the warp strands of the body portion and extending across the width of the body portion and filler strands of cotton yarn extending parallel to the warp strands of the body portion, whereby the binding is sufficiently flexible because of the cotton yarn to be closely wrapped around the end of the body portion and is partly constructed of a material similar to that of the body portion namely, paper fibre, which may take the same shade of a color as the material forming the body portion.

2,782,425
FLUID CIRCULATING APPARATUS
George A. Schroeter, Briar Cliff Manor, N. Y.
Application April 21, 1954, Serial No. 424,669
5 Claims. (Cl. 4—178)



1. Apparatus for circulating fluid in a bath comprising a horizontal frame, a motor depending from one end of said frame with the shaft thereof extending upwardly, a driven shaft including a surrounding sleeve depending from the other end of said frame, a pump on the lower end of said sleeve and coupled with the driven shaft, coupling means between the motor shaft and said driven shaft, and means including a tripod and castor for rotatably supporting said frame at a point between the motor and said driven shafts, said last-mentioned means being horizontally hinged to said frame for tilting the latter about said tripod and moving the pump and motor into a raised position, whereby said motor will be operatively engaged to said driven shaft when said frame is rotated or tilted.

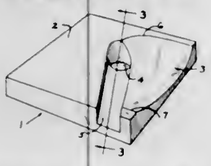
2,782,426
TABLE HAVING REVERSIBLE TRAY MOUNTED THEREIN AND MEANS FOR WASHING THE SAME
Loren R. Townsend, Tucson, Ariz.
Application June 11, 1954, Serial No. 436,032
1 Claim. (Cl. 4—187)



A device of the character described comprising a table top having an opening therein, a gasket affixed to the underside of said table top adjacent said opening and extending inwardly with respect to said opening in a plane parallel with the plane of said table top, a sink mounted

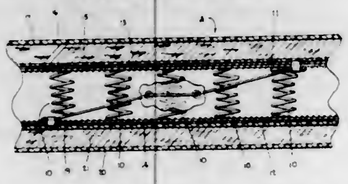
beneath said table top, a pair of hollow vertical supports mounted in said sink, a pair of support bars slidably mounted in said hollow supports, a tray revolubly mounted upon the upper ends of said support bars and having food compartments in one face thereof, latch means carried by said hollow supports for maintaining said support bars in raised position, and latch means for maintaining said support bars in lowered position, said tray adapted to contact said gasket when in lowered position and to be rotated to a reverse position when in raised position on said support bars.

2,782,427
CONVALESCENT'S PILLOW
George R. Ericson, Kirkwood, Mo.; Mary A. Ericson, executrix of George R. Ericson, deceased
Application February 11, 1954, Serial No. 409,562
1 Claim. (Cl. 5—338)



A pillow comprising, in combination, a pad of soft, resilient material of substantial length and width, an upper head-supporting surface for said pillow formed by one portion of said pillow, a second portion for said pillow having a scooped portion tapering lengthwise of said pillow for supporting the upper trunk of the body, a hole in said pillow located at the juncture between said one portion and said second portion to receive the shoulder, and a channel in said pillow extending from said hole at an angle to said second portion to remove the pressure on the upper arm whereby the pillow contour gives even distribution of weight.

2,782,428
MATTRESS HANDLE
William F. Caster, St. Paul, Minn.
Application October 15, 1952, Serial No. 314,882
8 Claims. (Cl. 5—345)



2. A mattress handle in combination with a mattress having a pair of spaced frame members therein lying inwardly of, and substantially parallel to, the mattress wall, the handle including a unitary relatively rigid wire bar, means connecting said bar to said parallel frame members and extending substantially in the plane thereof, and an integral off-set portion intermediate the ends of said bar extending through the mattress side wall and lying outwardly thereof and substantially parallel thereto in the plane of the said side wall.

2,782,429
LIFE-SAVING APPARATUS
Georges B. L. Hennebutte, Biarritz, France
Application October 5, 1954, Serial No. 460,392
Claims priority, application France October 9, 1953
5 Claims. (Cl. 9—19)

1. A portable life-saving apparatus of the inflatable type designed to be worn in a deflated condition, comprising a folded gastight envelope having at least one generally horizontal fold, the lower part of said apparatus beyond said fold being folded back inwardly, a gas

cylinder housed horizontally inside said fold, and duct means between said cylinder and said inwardly folded part.

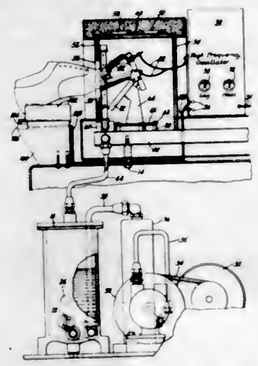
2,782,430
FLOTATION AND THERMAL PROTECTING APPAREL
Matthew I. Radnofsky, Newton Square, Pa.
Application February 17, 1953, Serial No. 337,449
15 Claims. (Cl. 9—20)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. Thermal protection apparel comprising a fabric vest having attached thereto an inflatable bladder constructed of two layers of airtight material joined along their edges and forming a hood for the head of a person, said layers forming therebetween a sealed compartment, there being loosely packed between the layers of airtight material and in such compartment an even thickness of alpaca, and oral means directly connected to said alpaca filled compartment for inflating said bladder.

2,782,431
METHODS OF AND APPARATUS FOR CONDITIONING THE UPPERS OF PULLED-OVER SHOES
Mieth Maeser, Beverly, and John J. Brophy, Salem, Mass., assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application December 16, 1954, Serial No. 475,712
4 Claims. (Cl. 12—1)

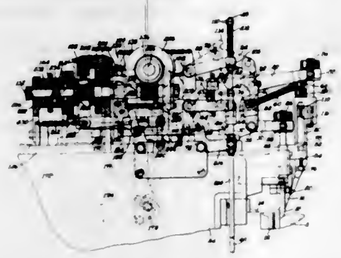
4. Apparatus for conditioning shoe parts for lasting, comprising in combination a chamber having a restricted opening adapted to receive the toe end of a pulled-over shoe, means for supporting a shoe with its toe projecting through said opening and into said chamber, electrodes arranged within said chamber to establish an electric field through marginal portions of the upper of said shoe, an oscillator operable to energize said electrodes, means for supplying hot vapor laden air to said chamber, switch means adapted and arranged to be actuated from a first position into which it is normally biased to a second position by disposition of a shoe in operating position with respect to said supporting means, and connections between said switch means and said oscillator including

time delay means whereby upon movement of said switch means to said second position and after the expiration of



a lag interval said oscillator is caused to energize said electrodes for a predetermined heating interval.

2,782,432
ROUGH ROUNDING MACHINES
Alphonse C. Kulik, Ipswich, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application January 10, 1955, Serial No. 480,842
16 Claims. (Cl. 12—85)

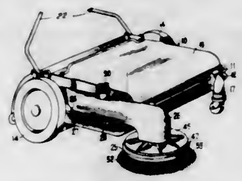


1. In a sole rounding machine having a rounding knife and a gage movable from an inoperative position into an operative position for positioning a shoe relatively to the knife, gage operating mechanism comprising an operator controlled member mounted for movement in one path to move said gage into and out of its operative position, and power operated means acting upon said member to move it lengthwise thereof in another path while said gage is in its operative position to vary the operative position of said gage.

2,782,433
PRE-BREASTED HEEL
Gustave Frost, Long Beach, N. Y., assignor to Andrew Geller, Inc., Brooklyn, N. Y., a corporation of New York
Application December 6, 1955, Serial No. 551,357
2 Claims. (Cl. 12—142)

2. The method of breasting a heel which consists in splitting the heel section of an outer sole, then die-cutting from the lower layer of said heel section a blank to form the breast covering and being of sufficient length to extend forwardly into the shank section of the shoe, securing the breast covering to the breast portion of the heel while leaving the forward portion thereof free and unattached, then affixing the breasted heel to the shoe, removing any excess material between the forward portion of the blank and the rear edge of the lower layer of the outer sole, and then securing said portion in place on the lower surface of the upper layer.

2,782,434
FLOOR SWEEPER HAVING AUXILIARY BRUSH FOR SWEEPING IN CORNERS
Edwin D. Parker and Earl E. Stelzer, Springfield, Ohio, assignors to Parker Sweeper Company, Springfield, Ohio, a corporation of Ohio
Application February 7, 1952, Serial No. 270,321
2 Claims. (Cl. 15—49)



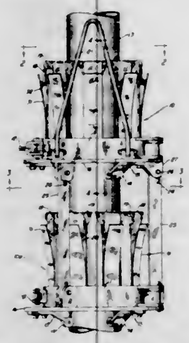
1. In a floor sweeper of the type having a frame carried by front and rear wheels and carrying a main sweeper and debris receptacle, the combination with said frame; of a housing lying alongside the frame and extending forwardly of the frame; a rotating brush lying forwardly of the frame; means for rotating said brush including a vertically extending shaft journalled in the forward end of the housing, said brush being carried by the shaft, said means also including driving mechanism connected with the shaft and extending rearwardly therefrom, said housing overlying said means; and means for adjustably attaching the housing to the frame, said last means including a horizontally extending pivot carried by the frame and on which the housing is mounted for swinging in a vertical plane, a vertically extending screw element and a cooperating threaded element, said elements being spaced horizontally of the pivot, one of said elements being carried by the frame and the other of said elements being carried by the housing.

2,782,435
DEBRIS COLLECTING APPARATUS
Rosella M. Stone, Kansas City, Kans.
Application May 4, 1954, Serial No. 427,407
2 Claims. (Cl. 15—83)

1. Debris collecting apparatus comprising a housing having side walls and including in one end portion an open transverse bottom portion, a removable debris receptacle slidably received within said housing including a vertical end portion defining a removable end of said housing, a rotatably mounted ground engaging brush extending out of said open bottom portion and including a driven

shaft journalled in said side walls of said housing, a power source carried on said housing, power transmitting means operably connected between said power source and the driven shaft for driving said shaft and brush and urging debris into said housing and into said receptacle, a ground engaging scoop hingedly supported on an edge of said transverse open bottom portion of the housing between said brush and said receptacle, said scoop including a blade extending transversely of said open bottom portion, a shaft including a pair of support wheels journalled thereon secured on said blade, stop means engageable between said housing and said blade for maintaining an angular relationship between said housing and blade, a ground engaging caster wheel secured on the underside of said housing in equidistant spaced relation to said support wheels, and spring means operably connected between said blade and said housing for resiliently urging said blade into ground engaging contact behind said brush and also for holding said pair of wheels in housing supporting position.

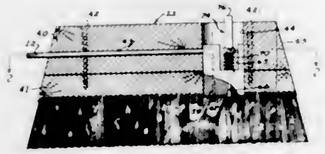
2,782,436
PIPE CLEANER WITH TANDEM SCRAPING HEADS
John S. Tomer, Tulsa, Okla.
Application April 5, 1955, Serial No. 499,351
9 Claims. (Cl. 15—104.04)



1. An apparatus for cleaning pipe comprising in combination a pair of substantially similar cleaning heads, coupling means for flexibly connecting said cleaning heads in tandem, shackle means fixed to the leading head for drawing said heads over said pipe, each of said heads comprising a hinged split ring, a plurality of spring arms having one end fixed to said ring and a free end extending forwardly thereof, pivotally supported cutters at said free ends of said spring arms adapted to be resiliently held in cutting position against said pipe by said spring arms, and resilient means normally maintaining said cutters in a cutting position to scrape said pipe and, when an obstruction on the surface of said pipe is encountered, permitting said cutters to revolve on said spring arms out of said cutting position.

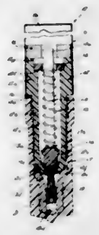
2,782,437
FOUNTAIN BRUSH
Virgil L. Clem, Santa Ana, and Milton H. Nordyke, Riverside, Calif.
Application July 11, 1952, Serial No. 298,250
2 Claims. (Cl. 15—128)

1. In a fountain brush, a block having a top and a bottom, bristles on said bottom, a chamber in said block opening through said top and said bottom, a valve assembly in said chamber, said valve assembly comprising a body having a bottom surface flush with said block bottom, a vertical duct extending through said body having a lower end portion opening through said bottom surface, a vertical journal bore at one side of said duct extending through said body having a lower end opening through said bottom surface in laterally spaced relation to said duct, a vertical rotary valve shaft journaled in said journal bore, said shaft having an upper end and a lower end, a valve plate on and extending laterally from one side only of the lower end of said shaft and normally closing said lower end of the duct, a head on the upper end of the shaft, a helical spring surrounding said shaft



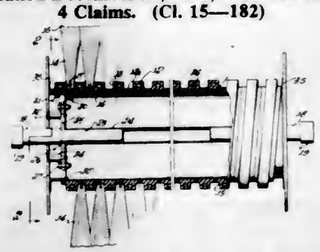
and compressed between said head and a portion of said body and holding said valve plate in rotary sliding engagement with said bottom surface of the valve assembly body, said spring having opposite ends secured to said head and a portion of said body whereby said valve plate is yieldably held in closing relation to the lower end of the duct, and a valve operating lever comprising a radial arm fixed to said head for rotating the valve plate out of duct closing position against the resistance of said spring.

2,782,438
SEALED FOUNTAIN BRUSH
Frederick R. Wittnebert, Whitewater, and Wirt V. Dunlop and Albert E. Neely, Chicago, Ill., assignors to Dupli-Color Products Company, Inc., Chicago, Ill., a corporation of Illinois
Application February 18, 1955, Serial No. 489,040
7 Claims. (Cl. 15—139)



3. A fountain applicator brush which comprises a container having a dispensing nozzle with an elongated side guide wall and an orifice through the end thereof, a spring loaded brush and valve unit shiftably mounted in the nozzle and having a valve for regulating flow to said orifice and a brush projecting beyond said valve and adapted to extend through said orifice, a closure cap having a deep skirt for snugly embracing the guide wall of the nozzle to align the cap axially on the nozzle, said cap having a resiliently deformable seal portion adapted to surround the orifice and sealingly engage the end of the nozzle along a steep inclined wedging plane, said seal converging from the skirt of the cap to a small closed recess in the cap aligned with the brush when the skirt aligns the cap on the nozzle, said recess accommodating the length of the brush projecting beyond the orifice and being sized for shaping the brush into compacted form, said converging seal portion being effective to smoothly gather and guide the brush bristles in the recess, and cooperating means on the cap and nozzle to draw the deformable seal into wedge fit engagement with the end of the nozzle while securing the cap on the nozzle whereby the brush and container will be sealed by the cap.

2,782,439
ROTARY BRUSHES
Louis M. Ballard, Duarte, Calif., assignor to Wayne Manufacturing Company, Pomona, Calif., a corporation of California
Application December 22, 1952, Serial No. 327,393
4 Claims. (Cl. 15—182)



1. A rotary brush comprising a rotatable externally essentially cylindrical rigid metal body, a tubular member formed of rubber carried about and bonded to said body and containing a radially outwardly facing groove extending helically about the axis of rotation of said body, bristles having looped inner portions removably received in said groove and projecting outwardly therefrom, and an elongated flexible member extending through said looped portions of the bristles and helically within the groove to removably retain the bristles therein and fastened at its opposite ends to said body, said rubber member having a radially outwardly projecting portion extending helically between successive turns of said groove, said groove and said projecting portion of the member each having an axial dimension about as great as its radial dimension.

2,782,440
DEVICE FOR CLEANING A COFFEE MAKER
Robert K. Little, Philadelphia, Pa.
Application January 6, 1954, Serial No. 402,427
4 Claims. (Cl. 15—213)

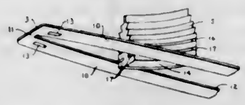
1. In a device for cleaning a coffee maker bowl having a main body bowl portion with an opening at its top and a tubular extension at its bottom, the combination comprising a rigid, elongated member consisting of a central stem having a lower end shaped to fit snugly within the tubular extension of the bowl, flexible cleaning flap means secured to an intermediate portion of said stem and adapted to exert a wiping force against the interior of said main body bowl portion when said stem is rotated with said flap means positioned within said main body bowl portion and the lower end of said stem bearing within said tubular extension, and a handle portion extending from at least one end of said stem.

2,782,441
REVERSIBLE MOP HEAD AND FRAME THEREFOR
Saul S. Lipton, Belmont, Mass.
Application May 31, 1956, Serial No. 588,360
3 Claims. (Cl. 15—229)

1. A reversible mop head, for a mop of the type employing as a supporting frame for the head a wire loop having one free end, comprising a plurality of mop strands arranged side by side to form a band having a front surface and a rear surface, two superposed layers of tape attached across said front surface along a line offset from the centers of the strands so as to leave a short fringe on one side of the tape and a longer fringe on the other, said layers forming between them a first pocket for receiving the loop, and two additional layers of tape attached across the rear surface of the band, the

latter layers forming between them a second pocket for receiving the loop, each of said pockets having an open end for admitting the loop and a closed end, and said open ends being disposed at opposite ends of the band and so located that, when the loop is received in either pocket, the other pocket and the portions of the strands between the pockets will be above and toward the outside of the loop when a portion of the short fringe is turned toward the inside of the loop with the pockets right side up with respect to the loop.

2,782,442
WINDSHIELD WIPER BLADE ASSEMBLY AND METHOD OF ASSEMBLING THE COMPONENTS THEREOF
Fred A. Krohm, Hobart, Ind., assignor to Productive Inventions, Inc., a corporation of Indiana
Application January 30, 1953, Serial No. 334,147
8 Claims. (Cl. 15—245)

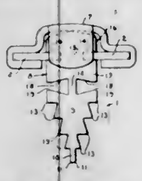


1. A windshield wiper blade comprising an elongated resilient wiping member and an elongated resiliently flexible member having longitudinal portions embracing and supporting the wiping member, a pressure device mounted on the blade, a pair of openings provided adjacent each extremity of the flexible member, a pair of fittings, each of said fittings having portions held in said openings by said wiping member, and means providing a detachable connection between one of the fittings and the pressure device.

2,782,443
WINDSHIELD WIPER ASSEMBLY
Fred A. Krohm, Hobart, Ind., assignor to Productive Inventions, Inc., a corporation of Indiana
Application March 9, 1953, Serial No. 341,051
19 Claims. (Cl. 15—245)

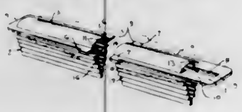
7. A windshield wiper blade comprising an elongated resilient wiping member and an elongated resiliently flexible one-piece member having longitudinal portions embracing and supporting the wiping member, said longitudinal portions being arranged in substantially the same plane, holes provided in the longitudinal portions, and connecting means having means held in said holes for locking said longitudinal portions in said plane.

2,782,444
WINDSHIELD WIPER BLADE
Fred A. Krohm, Hobart, Ind., assignor to Productive Inventions, Inc., a corporation of Indiana
Application August 20, 1953, Serial No. 375,448
10 Claims. (Cl. 15—245)



1. An elongated resilient one-piece wiper body having opposed grooves in its sides forming a movable wiping portion joined to the remainder of the body by a flexible web, said grooves forming a pair of spaced abutments at each side of the body for determining the extent of movement of the wiping portion, the width of the grooves being greater adjacent the sides of the web than adjacent the sides of the body.

2,782,445
WINDSHIELD WIPER BLADE ASSEMBLY AND PRESSURE DEVICE THEREFOR
Fred A. Krohm, Hobart, Ind., assignor to Productive Inventions, Inc., a corporation of Indiana
Application January 14, 1954, Serial No. 404,052
25 Claims. (Cl. 15—245)

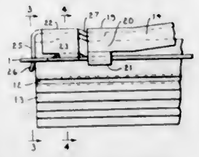


25. A windshield wiper blade comprising an elongated resilient wiping means and resiliently flexible means supporting the wiping means substantially throughout its length, one of said means having reduced longitudinally extending extremities forming with an intermediate portion a pair of abutments for limiting free sliding movement of a pressure device adapted for connection with said extremities.

2,782,446
WINDSHIELD WIPER BLADE UNIT AND PRESSURE UNIT THEREFOR
Fred A. Krohm, Hobart, Ind., assignor to Productive Inventions, Inc., a corporation of Indiana
Continuation of application Serial No. 297,098, July 3, 1952. This application November 21, 1956, Serial No. 626,039
12 Claims. (Cl. 15—245)

9. In a windshield wiper blade assembly comprising a resilient wiping element and a resiliently flexible backing strip generally longitudinally co-extensive with said element, a pressure-distributing yoke slidably engageable with said assembly, means on the assembly for limiting movement of the yoke in one direction, the improvement of an abutment for limiting movement of said yoke in an opposite direction, said abutment comprising a central portion overlying said wiper element, and depending leg portions formed integrally with said central portion and interposed between said wiper element and said backing strip to retain said abutment in position upon said blade assembly and in the path of sliding movement of said yoke.

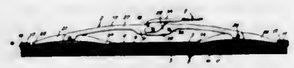
2,782,447
WINDSHIELD WIPER
John W. Anderson, Gary, Ind., assignor to Productive Inventions, Inc., a corporation of Indiana
Application January 15, 1954, Serial No. 404,279
8 Claims. (Cl. 15—245)



5. A windshield wiper comprising a blade assembly having a resilient wiping element and a resiliently flexible support having an elongated slot with the element secured therein so that portions of the element overlie opposite sides of the support, a pair of fittings located adjacent the ends of the blade assembly for limiting relative longitudinal movement between the blade assembly and a pressure device adapted for connection with the blade assembly, one of said fittings having a portion interposed between the support and an overlying portion of the element and a portion extending in one end of the slot.

2,782,448
WINDSHIELD WIPER BLADE ASSEMBLIES
John W. Anderson, Gary, Ind., assignor to Productive Inventions, Inc., a corporation of Indiana
Continuation of applications Serial No. 2,258, January 14, 1948, and Serial No. 293,549, June 14, 1952. This application March 21, 1956, Serial No. 573,012
12 Claims. (Cl. 15—245)

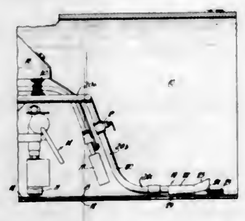
8. A windshield wiper blade comprising an elongated resilient wiper element and elongated substantially uniformly resiliently flexible means engaging and supporting the element substantially throughout its length for limiting movement thereof to a direction substantially perpendicular to a surface to be wiped, and means carried by the blade for detachably holding the element and flexible means assembled.

2,782,449
WINDSHIELD WIPER BLADE AND CARRIAGE ASSEMBLIES
John W. Anderson, Gary, Ind., assignor to Productive Inventions, Inc., a corporation of Indiana
Original application August 7, 1947, Serial No. 766,956. Divided and this application September 27, 1956, Serial No. 612,542
17 Claims. (Cl. 15—245)

1. A windshield cleaner comprising a flexible squeegee unit conformable to a surface to be wiped, a pressure distributing device having relatively movable parts engaged with the squeegee unit for distributing arm applied pressure to said unit, said device comprising bridge means and yokes pivotally mounted on the opposite extremities of the bridge means, the ends of the yokes being longitudinally movable on the squeegee unit, and detachable means adjacent the extremities of the unit for limiting the extent of such longitudinal movement.

2,782,450
WIPER ARM SPRING
Israel Nesson, Lynn, Mass., assignor to Max Zaiger, Swampscott, Mass.
Application January 17, 1955, Serial No. 482,303
7 Claims. (Cl. 15—255)

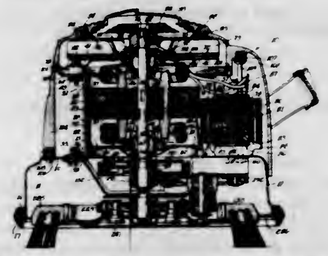
1. A spring assembly, for a wiper arm of the type hinged to an arm coupling, comprising a spring housing having an end wall adjacent said coupling, a screw mounted in said housing and having an end projecting through said end wall, means connecting said end to said coupling and permitting the screw to swing with respect to the coupling in the same direction as the arm, a coil spring mounted in said housing and encircling said screw, a projection on the other end of said screw bearing on one end of said spring, the other end of the spring bearing on said end wall, said projection being adjustable toward and away from said end wall to vary the spring compression, and means holding said housing in engagement with said arm for swinging movement therewith with respect to the coupling.

2,782,451
APPARATUS FOR CLEANING SEAM EDGES FOR WELDING
George Sneddon, Jr., McKeesport, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application August 27, 1953, Serial No. 376,903
1 Claim. (Cl. 15—304)



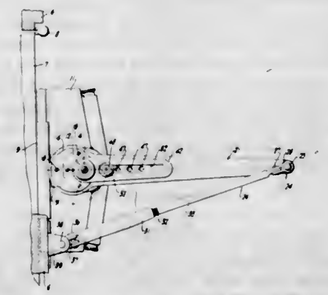
An apparatus for cleaning inside seam edges of partially formed pipes preparatory to welding these edges comprising a pipe having in succession an upper horizontal section, a downwardly sloping section and a lower horizontal section, a compression spring bearing against the top of said upper horizontal section and adapted to bear against a portion of a welding machine, said pipe being adapted to have an air stream introduced to its upper horizontal section, a vacuum blast tube carried by the free end of the lower horizontal section of said pipe and having a discharge opening at the end remote from the free end, an ejector tube supported within said vacuum blast tube and communicating with said pipe, a nozzle at the extremity of said ejector tube directed toward but spaced from said discharge opening, a brush on the under side of said vacuum blast tube adjacent the discharge end thereof, said vacuum blast tube having a suction opening rearwardly of said brush and nozzle enabling aspirating action of air discharging from said nozzle to withdraw moisture and foreign material loosened by said brush, and a rest on the under side of said vacuum blast tube behind said suction opening, said spring being adapted to hold said rest in contact with the inside faces of pipes to position said brush and said suction opening, the discharge end of said vacuum blast tube sloping upwardly to avoid deposition to moisture on the seam edges.

2,782,452
FLOOR POLISHING AND SCRUBBING MACHINE
William H. Kitto, Evanston, and Kurt Burian, Chicago, Ill., assignors to G-M Laboratories, Inc., Chicago, Ill., a corporation of Illinois
Application November 27, 1950, Serial No. 197,724
5 Claims. (Cl. 15—385)



1. In a floor polishing and scrubbing machine, housing means having an open bottom end, floor working means rotatably supported within said housing means and extending below said bottom end for floor working purposes, said floor working means substantially closing said open bottom end of the housing means, an electric motor mounted within said housing means above said floor working means for driving said floor working means, a fan disposed within said housing means and adjacent an air inlet opening near the top of said housing means and driven by said motor for drawing cooling air through said air inlet opening, baffle means in an upper part of the housing means and beneath said fan and closely surrounding an upper portion of the motor for directing the cooling air from the inlet opening to the upper portion of the motor, means providing a restricted air passageway adjacent a lower portion of the motor so that the cooling air flows closely past said lower portion of the motor, said cooling air flowing through said restricted passageway and building up a positive air pressure above said floor working means and then flowing out of the housing means around said floor working means to restrain entry of foreign material into said housing means, and clutch means operatively connecting said motor and said floor working means, said clutch means being disposed in general alignment with said restricted air passageway so that cooling air is directed over said clutch means for cooling purposes.

2,782,453
DOOR CLOSER LINKAGE
Ernest L. Schlage, Burlingame, Calif., assignor to Schlage Lock Company, a corporation
Application February 11, 1952, Serial No. 270,908
2 Claims. (Cl. 16—49)



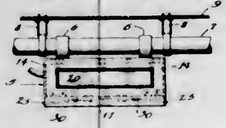
1. A door closer linkage comprising a housing, a shaft rotatable in said housing about a first axis, a hub on said housing concentric with a second axis parallel to said first axis, a first lever journaled on said hub, a second lever

fast on said shaft, said second lever having a slot therein, said first lever having a plurality of pin mountings thereon, and a pin in one of said mountings and extending into said slot.

2,782,454
PLASTIC UTENSIL HANDLE
Rudi L. Baer, Roslyn Heights, N. Y.
Application February 9, 1956, Serial No. 564,390
2 Claims. (Cl. 16—116)

1. A handle for utensils and the like comprising a tubular member of substantially uniform thickness having an enlarged body portion and a reduced body portion extending therefrom, the end of each portion having an opening of a different diameter, the opening at the end of the reduced portion being of a diameter just sufficient to receive a fastening member, a separable cap member for the opening of the enlarged body portion, said cap member being substantially coextensive in diameter with the diameter of said enlarged body portion and having a reduced neck portion of a diameter substantially coextensive with the internal diameter of the opening of said enlarged body portion so as to fit snugly therein, said cap member having a central aperture therein coaxial with the axis of said tubular member, and a fastening member extending through said cap and tubular member, said cap and tubular member being of molded plastic materials.

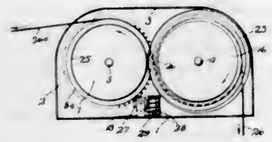
2,782,455
HINGE CONSTRUCTION FOR CABLE TERMINAL
George C. Motsinger, Chicago, Ill., assignor to Reliable Electric Company, Chicago, Ill., a corporation of Illinois
Application February 11, 1954, Serial No. 409,648
2 Claims. (Cl. 16—128)



1. A hinge construction for a door enclosing the door opening of a cable terminal, said hinge construction comprising a pair of leaf spring members secured rigidly to the bottom of said terminal at respective regions spaced a substantial distance inwardly from the ends of said bottom, said spring members each having a bend therein adjacent the respective securing regions and extending to the ends of said bottom in spaced relation with said bottom, the free end of each spring member having a pintle engaging the adjacent end of said door whereby the engaged portions of said door are movable in a plane parallel to the plane of the door opening and a U-shaped flange on the edge of the door opposite the hinged edge may engage and disengage a cooperating sealing rib on the top edge of said terminal, the said spring members providing a bias which pulls said door toward said members.

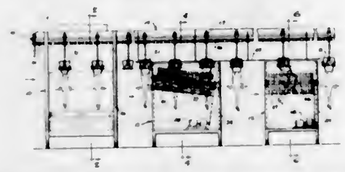
2,782,456
HEAVY DUTY WINDOW BALANCE
Bertrand F. Kenyon, Grand Rapids, Mich., assignor to Mechano Gear Shift Company, Grand Rapids, Mich., a corporation of Michigan
Application April 21, 1954, Serial No. 424,559
3 Claims. (Cl. 16—198)

1. A balance for a window sash comprising, a housing having spaced vertical sides, two horizontally spaced shafts supported by and extending between the housing sides, a drum having a horizontal hub rotatively mounted on one of said shafts, a web of circular form connected with and extending vertically from the hub, and a cylindrical flange at the outer edges of the web, said web at its outer side having a helical groove with one end located inwardly from said flange and the other end adjacent the flange, said groove progressively increasing in radius from the first mentioned to the last mentioned ends of the groove, a tape wound on said flange, a second drum mounted on the second shaft having a hub, web and



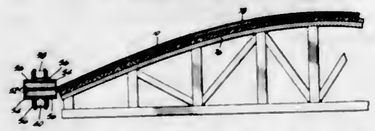
flange, a cable connected at one end with the first drum adjacent the outer end of said groove and to the second drum flange, windable on said last mentioned flange, and windable spring means operatively connected to the second drum, normally tending to rotate said second drum in a direction to wind the said cable onto the flange thereof, said spring means progressively decreasing in force, and resistingly yieldable to wind said cable into said groove of the first drum and unwind the tape therefrom, said spring means having increasing resisting force as the cable is wound into said groove due to the helical shape of the groove.

2,782,457
POULTRY PICKING METHOD
Irvin R. Lentz and Delos B. Van Dolah, Chicago, Ill., assignors to Swift & Company, Chicago, Ill., a corporation of Illinois
Application November 4, 1952, Serial No. 318,604
6 Claims. (Cl. 17—45)



1. A method of picking the back feathers of poultry, said method comprising: moving the poultry carcass lineally and applying a lateral picking force directly to said carcass during said movement.

2,782,458
METHOD AND APPARATUS FOR PRODUCING FLAT FIBERGLASS REINFORCED PLASTIC PANELS
Dale C. Emmert, El Monte, and Kenneth E. Vail, Rosemead, Calif.
Application December 7, 1954, Serial No. 473,712
16 Claims. (Cl. 18—1)

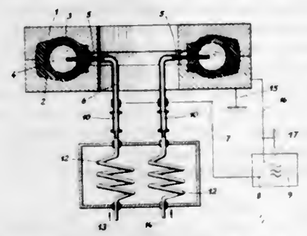


1. Apparatus for producing a fiber reinforced plastic panel including a fiber mat source of supply, means for impregnating said mat with plastic, means for covering a surface of said impregnated mat with a flexible sheet, an elongated curing oven, an elongated working surface disposed longitudinally within said oven, said working surface being arched from one of its sides to its other side to provide an elongated hump disposed longitudinally within said oven, conveyer means for drawing said impregnated mat longitudinally over said arched surface in said oven, and gripping means operatively engageable with said flexible covering at the opposite sides of said arched surface to apply lateral tension to said covering whereby said impregnated mat is compressed by said covering against said arched surface during the curing operation to produce a substantially flat panel.

2,782,459
COVERING
Leslie John Moncrieff, London, England, assignor to British Celanese Limited, a company incorporated of Great Britain
Application September 13, 1951, Serial No. 246,455
Claims priority, application Great Britain September 26, 1950
10 Claims. (Cl. 18—1)

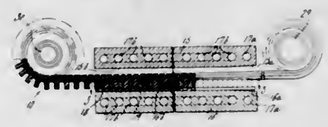
2. Process for providing rods with a covering of normally rigid thermoplastic material, wherein a tube of said material of smaller internal cross-sectional area than the maximum cross-sectional area of the rod is converted into a temporarily limp condition by swelling with a homogeneous mixture of a solvent and a non-solvent, and while in said condition is expanded gradually to an internal cross-sectional area at least as great as said maximum cross-sectional area, by being drawn over a three dimensional shaping surface, and is drawn from said surface on to the rod, pressure being exerted on the internal surface of the tube by air supplied to the interior of the tube in regions behind and in front of said shaping surface, and the tube subsequently being hardened in position by evaporation.

2,782,460
ARRANGEMENT FOR DIELECTRIC HEATING
Hans-Dietrich Krug and Heinrich Bauermeister, Hannover, Germany, assignors to Firma Continental Gummi-Werke A. G., Hannover, Germany, a corporation of Germany
Application July 15, 1953, Serial No. 368,177
Claims priority, application Germany July 19, 1952
6 Claims. (Cl. 18—6)



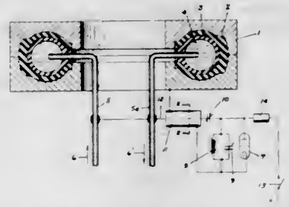
2. An arrangement for heating articles of dielectric material, such as vehicle tire parts; an electrically conductive outer mold part adapted for receiving therein the tire part to be heated, an expansible inner mold part adapted for being received within the said tire part, electrically conductive means within said inner mold part and forming an electrode, pipes connected with said inner mold part for supplying an electrically conductive fluid therein under pressure, a high-frequency electric generator having two poles, means connecting one of said poles to ground and to said outer mold part, and means connecting the other of said poles to said pipes for effecting electrical connection of the said other pole with said electrically conductive fluid.

2,782,461
METHOD AND APPARATUS FOR MOLDING CONVEYOR BELTS
Robert A. Esslinger, Cresskill, N. J., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application October 6, 1955, Serial No. 538,849
12 Claims. (Cl. 18—6)



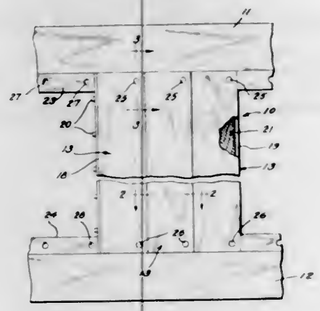
1. In apparatus for molding plastic material under heat and pressure, a pair of relatively movable pressure members, a perforated mold mounted on one of said members, a porous pad interposed between said one member and said mold for sealing the perforations in the latter, the other of said members forcing a quantity of said material into said perforations and into contact with said pad, whereby projections are formed on said material and a roughened impression is formed on said projections, while overflow of the material between said mold and pad is restricted but air is permitted to escape through said pad as said material is forced into said perforations.

2,782,462
METHOD OF PREHEATING OF VULCANIZING ARTICLES OF RUBBER OR RUBBERLIKE MATERIAL
Hans Dietrich Krug, Hannover, Germany, assignor to Continental Gummi-Werke Aktiengesellschaft, Hannover, Germany
Application July 13, 1953, Serial No. 367,637
Claims priority, application Germany July 15, 1952
1 Claim. (Cl. 18—53)



A method of vulcanizing, preferably pre-heating vehicle tires and other hollow articles of rubber or rubberlike material in an electrically conductive mold in cooperation with a high frequency electric condenser field, which includes the steps of: placing an elastic curing bag into the article to be processed; placing the article to be processed with said curing bag therein into said mold; introducing electrically conductive liquid into said curing bag so as to cause the latter to press the article to be processed into complete and close contact with the mold, and only after close contact has been established between the article to be processed and the adjacent inner mold wall, applying high frequency electric energy to the article to be processed while using the mold as one electrode and using said liquid as another electrode.

2,782,463
PREFABRICATED WOODEN BUILDING
Knut Lennart Bergvall and Ernst Erik Dahlberg, Stockholm, Sweden
Application May 1, 1951, Serial No. 223,908
2 Claims. (Cl. 20—2)

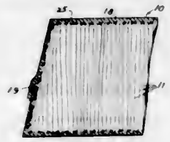


1. In a wooden building structure comprising vertically spaced floor structures and wall structures therebetween with at least said wall structures being formed of elongated and upstanding flanged box-beam elements arranged side-by-side and each having a length substantially equal to the distance between the floor structures above and below the related wall structure; the combination of an upper plate at the underside of the floor structure above each wall structure, a lower sill resting on the floor structure below each wall structure, a single dowel carried by each of the upper and lower ends of each of the box-beam elements and extending normal to the plane of the related wall structure, said upper plate and lower sill having spaced bores therein receiving said dowels at the upper and lower ends, respectively, of the box-beam elements to hold the latter in parallel relationship, and cooperating means arranged along the adjacent longitudinal edges of the successive box-beam elements and preventing relative longitudinal movement of the latter, said cooperating means being separable in directions lying in the plane of the related wall structure at right angles to the longitudinal axes of the related box-beam elements.

2,782,464
VENTILATING VENT FOR WALL OF BUILDING
Robert H. Joppich, Adams, Mass.
Application July 27, 1954, Serial No. 446,127
2 Claims. (Cl. 20—4)

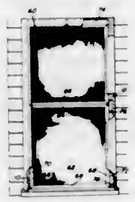
1. A vent for a wall construction having interior and exterior spaced walls with said exterior wall formed of overlapping siding, an aperture extending upwardly and inwardly through said exterior wall to communicate with the space between said interior and exterior walls, said aperture opening into the bottom edge of a length of said siding and spaced from the outer edge of said length of siding, and a vent sleeve seated in said aperture, said vent sleeve having a transverse hole therethrough, and a substantially U-shaped retaining wire extending through said hole with the ends of said wire lying against the outer surface of said vent sleeve.

2,782,465
PLASTIC COVERED INSULATION PRODUCT AND METHOD FOR PRODUCING SAME
George Bruce Palmer, Jr., Grosse Pointe, Mich.
Application November 25, 1953, Serial No. 394,347
9 Claims. (Cl. 20—35)



7. A refrigerator door comprising a mass of temperature insulating material having substantially the shape and dimensions of the door, an envelope of permeable flexible material completely and snugly enclosing said mass, a thermoset plastic composition impregnating said envelope and bonding siad envelope to said mass, and an outer covering of thermoset plastic composition integrally connected with the impregnated envelope and completely enclosing the same, said thermoset composition being cured under heat and pressure to provide a rigid finished door.

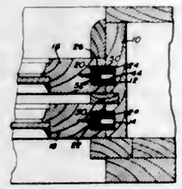
2,782,466
SASHLESS WINDOW
John V. Rylander, Pasadena, Calif.
Application May 21, 1953, Serial No. 356,368
3 Claims. (Cl. 20—52.2)



3. A window construction comprising a frame having parallel jambs, a header and a stool, an inner peripheral recess extending around the entire inner edges of said header and jambs, said recess having vertical and horizontal deepened sections, a pair of shutter elements received in said recess, said deepened sections comprising means for removal and insertion of said shutter elements from and into said recess at predetermined positions only, said deepened sections being in said header and one of said jambs, said deepened section in said jamb being adjacent the lower portion thereof, said deepened section in said jamb terminating above the lower edge of said jamb, and means for lockingly preventing the removal of said shutter elements from the outside thereof comprising a lock selectively rotatable into a deepened section of said recess, said shutter elements being arranged with the upper edge of the lower shutter element extending into a substantially C-shaped flange formed in the lower edge of the upper shutter element.

2,782,467
FRICTION WINDOW SUPPORT
Ben W. White, Ben M. White, and Johnny H. White, Blytheville, Ark.
Application September 24, 1953, Serial No. 382,102
3 Claims. (Cl. 20—52.4)

1. A combined friction type window support and weather-stripping for use in combination with a window frame and double-hung vertically sliding sash, said sash and said frame being provided with aligned grooves in the vertical edges thereof, said support comprising a plurality of pairs of horizontally telescoping opposed vertically extending channel members, a first of each of said channel members of said pairs of channel members having apertures therethrough, the other channel members of each of said pairs of channel members having recessed portions therein offset inwardly toward said first of said channel members, said recessed portions having holes therethrough in alignment with said apertures, strips of rubber-like ma-



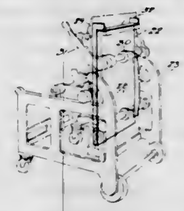
terial seated in and between said channel members of each of said pairs of channel members, and fasteners extending through said holes and said strips, and said apertures secured to said sash holding said first channel members in the grooves in said sash with said strips urging said other channel members into the grooves in said frame.

2,782,468
GROOVED PLYWOOD PANEL
Carl S. Leonardson, Jack Gifford Gates, and Cornelius Reckers, Olympia, Wash., assignors to Georgia-Pacific Plywood Company, Olympia, Wash., a corporation of Georgia
Application September 1, 1954, Serial No. 453,464
7 Claims. (Cl. 20—89)

1. A plywood panel having outer face and back plies of substantially identical thickness and at least one inner ply, said plies being secured in face to face contact by adhesive with the grain of the face ply parallel with the grain of the back ply and with the grain of at least one inner ply extending transversely of the grain of said face and back plies, said face ply having a plurality of parallel relatively narrow closely spaced grooves formed therein by removal of a predetermined volume of wood, and said back ply having a plurality of relatively wide widely spaced parallel grooves formed therein by removal of a volume of wood substantially identical with said predetermined volume removed from said face ply, said grooves in said back ply being separated by portions of said back ply which are unreduced in thickness and which present flat surfaces in a common plane having a total area at least about one-half that of said back ply.

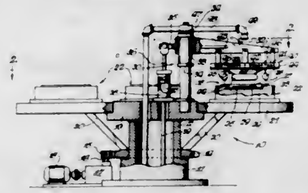
2,782,469
CASTING MOLD FOR PRINTER'S BASE AND STEREOTYPES
Woodrow J. Hargraves and Leo A. Clarke, Mercedes, Tex.
Application August 31, 1953, Serial No. 377,378
1 Claim. (Cl. 22—5)

In apparatus for casting type high metal blocks for printing type forms, in combination with a stereotype casting box having a vertical base plate and a supporting frame therefor, a mold plate formed with a plurality of parallel spaced ribs on its operative face, the said ribs having opposite convex surfaces and defining channels therebetween, a mounting panel for said mold plate having a right-angular flange on one end extending opposite from said mold plate and providing means for supporting the latter in a vertical plane, a frame for said mold plate enclosing one end and both sides thereof and having means comprising right angular portions on its open end



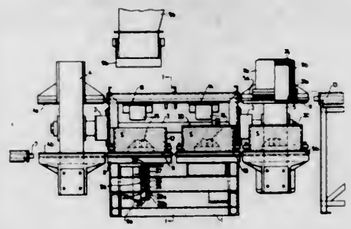
for supporting the same in a vertical plane on said mounting panel, and means on each side of said mounting panel for retaining said frame thereon.

2,782,470
APPARATUS FOR TREATING SHELL-TYPE MOLDS
Wendell L. Georgen, Chicago, Halsey R. Bilter, Evanston, and Frank Yrigoyen, Cicero, Ill., assignors to International Harvester Company, a corporation of New Jersey
Application March 4, 1954, Serial No. 414,004
7 Claims. (Cl. 22—9)



7. Apparatus for cooling and straightening frangible shell-type molds comprising a mold support, said mold support having a supporting surface conforming generally to one surface of a shell mold supported on said support, a frame positioned adjacent said mold support, weighted members adjustably supported on said frame, power actuated means for moving said weighted members in contact with a shell mold on said support to apply a constant pressure on said mold, and means associated with said mold support for subjecting said mold to a coolant liquid to effectuate quick cooling of the same.

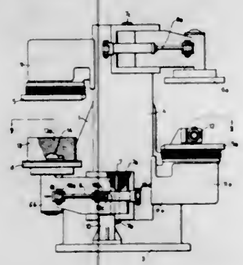
2,782,471
MOLDING MACHINES
Ivar Magnus Mathisen, Sandnes, Norway, assignor to Aktiebolaget Westin & Backlund, Stockholm, Sweden, a corporation of Sweden
Application April 9, 1953, Serial No. 347,758
Claims priority, application Sweden September 11, 1952
7 Claims. (Cl. 22—20)



1. In a molding machine comprising means for transmitting pattern plates successively from an initial position through a plurality of successive treatment stations,

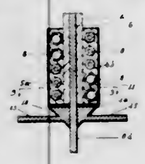
including a flask filling station and a pattern drawing station and back to the vicinity of said initial position, the improvement which comprises means for inverting the pattern plate and mold assembly preliminary to drawing the patterns so as to present said assembly at the drawing station with the pattern plate in inverted position, and a second means positioned to receive the pattern plate separated at said drawing station and effect a second inversion of said pattern plate preliminary to its association in a succeeding mold assembly for positioning at said flask filling station, said first and second inversion means being mounted in spaced relation on a common rotatable shaft.

2,782,472
MOLDING MACHINES AND A METHOD OF MANUFACTURING CASTING MOLDS
Karl Göran Westin, Stockholm, Sweden, assignor to Aktiebolaget Westin & Backlund, Stockholm, Sweden, a corporation of Sweden
Application April 9, 1953, Serial No. 347,739
Claims priority, application Sweden December 20, 1952
4 Claims. (Cl. 22—32)



1. A mold machine for the manufacture of casting molds comprising in combination two squeezing and pattern separating units, a rotatable shaft carrying said units, each unit including a mold table and a squeezing plate arranged in opposed relation thereto, said units being disposed diametrically opposite one another on opposite sides of the axis of said shaft with the mold table and the squeezing plate of one unit in inverted relation to the corresponding elements of the other of said units, and means for rotating said shaft so as to change the relative positions of said units between a mold-forming position and a pattern-separating position whereby patterns may be separated automatically while a single skilled operator continuously forms molds, said pattern-separating being effected in one unit while said mold-forming is being effected in the other unit.

2,782,473
CONTINUOUS CASTING METHOD AND APPARATUS
Joseph B. Brennan, Cleveland, Ohio
Application March 20, 1953, Serial No. 343,563
7 Claims. (Cl. 22—57.2)



1. Continuous casting apparatus comprising a die provided with an elongated passage therethrough for the flow of molten material thereinto from one end and therethrough for discharge from the other end in the form of a continuous shape-retaining casting of cross-section the same as that of said passage, said passage having a wall portion lengthwise co-extensive therewith relative to which a surface portion of the molten material flows in contact, means for maintaining the entire cross-section of the flowing material in molten condition in a portion of the length of such passage from such one end toward such other end, temperature modifying means along such wall portion for respectively extracting heat from the molten material in contact therewith to progressively cool such surface portion to less than the melting point of the material through a substantial portion of its cross-section thickness to thereby impart tensile strength to the material as it continues to flow toward such other end and for heating such surface portion of the previously cooled material to form a thin, molten, slippery skin for facilitating passage of the material through said die and for effecting a smoothening action by the sliding contact of such surface portion of the material with said wall portion.

2,782,474
APPARATUS FOR CASTING ELECTROTYPES
Homer L. Bishop, Dayton, Ohio, assignor, by direct and mesne assignments, of 65.4 percent to said Homer L. Bishop and Earl E. Stansell, West Carrollton, jointly, 32.6 percent to Clark Patton, Springfield, and 2 percent to Ralph H. Daugherty, Dayton, Ohio
Application May 2, 1952, Serial No. 285,818
8 Claims. (Cl. 22—58)

2. In a machine for casting electrotype plates utilizing molten metal, the combination including a pair of conveyors, means for driving the conveyors at a uniform rate of speed, said conveyors having bearing seats, a plurality of molds, each of the molds having a plurality of apertures, means for connecting the molds to the conveyors, said means including links extending parallel to the direction of movement of the conveyors, outwardly directed pins for journaling the links in the bearing seats of the conveyors, there being four links for each mold, inwardly directed pins projecting into the apertures in the molds, there being considerable clearance between the pins and the bearing seats in the conveyors and the pins seated in the apertures in the molds so as to prevent binding, and cam means for deflecting the path of the molds from a level even with the conveyor to another level below the conveyor without deflecting the conveyors.

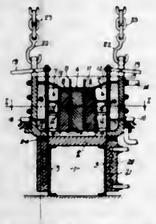
2,782,475
APPARATUS FOR VACUUM CASTING OF URANIUM
Harley A. Wilhelm and C. F. Gray, Ames, Iowa, assignors to the United States of America as represented by the United States Atomic Energy Commission
Application December 8, 1944, Serial No. 567,283
2 Claims. (Cl. 22—73)

1. An apparatus for treating uranium in vacuo which comprises a heat resistant base, a refractory block supported on said base, a mold supported on said block and having a casting chamber therein, a crucible supported on said mold and having a melting chamber therein, said chambers connected by an aperture, means adapted to close and open said aperture, insulation around said mold and crucible, a shield over said insulation and in engagement with said base, whereby the assembly may be hermetically sealed, and an induction heating coil sur-

rounding said apparatus along part of its height and being adjustable along its vertical axis, the uranium-con-

tacting surfaces of said crucible, said mold and said closing means consisting of graphite.

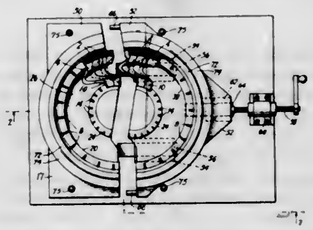
2,782,476
APPARATUS FOR CASTING AIR FOILS AND THE LIKE
Joseph B. Brennan, Cleveland, Ohio
Application October 16, 1952, Serial No. 315,093
2 Claims. (Cl. 22—79)



1. Apparatus for casting a relatively tall and thin wall metal article comprising a single mold formed with a cavity which is the counterpart of such article and with openings leading into such cavity at different levels commencing adjacent the bottom of said cavity, molten metal feed means supported for movement relative to said mold and provided with a supply port for successively communicating with said mold openings from the lowermost opening up for upward flow of metal in said cavity from the bottom up as said feed means is moved relative to said mold, heating means effective to heat the metal in said cavity as the level thereof progressively rises, and cooling means adjacent and below said heating means for solidifying the metal in said cavity, said heating and cooling means also being supported for movement relative to said mold in a direction such that the latter solidifies the metal progressively upwardly from the bottom while the former heats the progressively rising level of molten metal above the solidified metal.

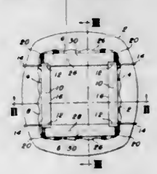
2,782,477
PRECISION CASTING MOLD AND METHOD OF MAKING
Morris M. Bean and Bruce McPhaden, Yellow Springs, Ohio, assignors to Morris Bean and Company, Yellow Springs, Ohio
Application March 11, 1953, Serial No. 341,642
13 Claims. (Cl. 22—131)

8. A core jig including an annular channel member in which a mold may be formed, said channel member having near its inner and outer peripheries, respectively, inner and outer annular core-supporting ledges, a first and second plurality of core-print locating keys integrally secured to said inner and outer core-supporting ledges, respectively, and uniformly accurately spaced along each core-uniformly accurately spaced along each core-supporting ledge, each key providing side surfaces adapted to bear against the side faces of the core prints of adjacent cores in said jig, each pair of adjacent keys along each ledge being adapted to straddle a core print of a core in said jig, and said core jig being divided into at



least two separable portions, whereby the cores can be assembled in separate groups in each portion thereof and said portions can thereafter be brought together and unified with the cores in said jig being accurately held spaced around said annular channel member without cumulative error, and whereby said cores can all be withdrawn simultaneously in an axial direction from said unified core jig while leaving said keys integrally secured to said inner and outer core-supporting ledges.

2,782,478
SECTIONAL HOT TOP
Edgar Marburg, Pittsburgh, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application September 8, 1953, Serial No. 378,921
6 Claims. (Cl. 22—147)

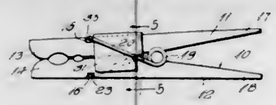


1. A sectional hot top for a mold comprising a pair of slabs of refractory material, the inner surface of each of said slabs being substantially wider at the bottom than at the top to form a wedge surface on each end of the slab, said wedge surface being substantially wider at the top than at the bottom, a flange extending from each end surface and having an inwardly facing wedge surface thereon, said last named wedge surface being of substantial width at the top thereof, means for supporting the slabs in spaced apart relationship on the mold with their lower portions contacting the inner surface of the mold and with spaces between adjacent ends of the slabs, the distance between the inwardly facing wedge surfaces of opposite slabs being greater at the top than at the bottom, a second pair of slabs of refractory material one located in each of said spaces, the outer surface of each of said second pair of slabs being substantially wider at the top than at the bottom to form a wedge surface on the ends of the slab, said last named wedge surface being of substantial width at the top thereof, said last named wedge surfaces contacting the second wedge surfaces on the first pair of slabs, and an inwardly facing wedge surface on each end of the second pair of slabs contacting the first wedge surfaces on the first pair of slabs, said last named wedge surface being substantially wider at the top than at the bottom.

2,782,479
BUNDLE TIE
Ralph W. French, Ludlow, Mass., assignor to Ludlow Manufacturing & Sales Co., Boston, Mass., a corporation of Massachusetts
Application December 1, 1953, Serial No. 395,340
1 Claim. (Cl. 24—18)

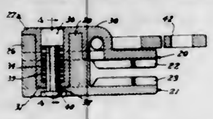
A tie for a bundle, which comprises a length of relatively soft compressible twine adapted to be wrapped about the bundle and having sections at its ends extending in opposite directions and lying side by side, and a clamp made of a smooth strip of sheet metal wrapped about the end sections of the twine and extending through more than 360°, the strip having a flat portion adjacent its inner end and a curved portion joined to and facing the flat portion, said portions of the strip wholly enclosing the end sections of the twine and compressing the end sections toward the longitudinal axis of the space defined by the portions to distort and force the end sections together with flat surfaces thereof in close contact, the strip having a flat portion adjacent its outer end joined to the curved portion and overlying the inner flat portion, with the free end edge of the outer flat portion lying close to the junction between the inner flat portion and the curved portion.

2,782,480
ATTACHMENT FOR SPRING-TYPE CLOTHESPIN
Hayes Tweedle, Brighton, Ontario, Canada
Application June 15, 1955, Serial No. 515,755
1 Claim. (Cl. 24—137)



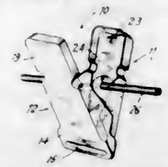
In combination with a spring-type clothespin having a pair of jaws each provided with a transverse groove in its outer face, and spring means having portions normally engaging in said grooves, the provision of means attachable to said clothespin for maintaining the jaws thereof in alignment, said means comprising a top plate, a pair of side plates dependent from the side edges of said top plate in close proximity to the sides of both of said jaws, an inwardly directed shoulder formed at the lower rear corner portion of each of said side plates, said shoulders engaging the inner face of one of said jaws, and a trough formed integrally with the forward edge of said top plate, said trough being positionable in one of said transverse grooves inwardly of said spring means, and said attachment being formed from a single piece of flat spring metal.

2,782,481
SLIDERS FOR SLIDE FASTENERS
Bert M. Mercer, New York, N. Y.
Application August 17, 1953, Serial No. 374,616
7 Claims. (Cl. 24—205.15)



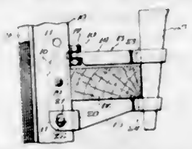
1. A slider for slide fasteners, comprising wings of which one overlies another in normally parallel and spaced relation and each wing having a channel portion with the respective said channel portions registering one with the other, a first one of said wings having a post projecting toward the other wing and said other wing having a hollow stud projecting toward the said first wing, said post and stud being in substantially interfitting and longitudinally movable engagement with each other and maintaining said wings in operative relationship with each other and permitting limited movement of said wings toward and away from each other, resilient means in the hollow of said stud actuating said wings into normal position toward each other, and stop means for limiting approach and separation of said wings.

2,782,482
HANGING CLIP
Samuel J. Baril, New York, and Fred G. Stein, Long Beach, N. Y., assignors to Hobar, Inc., New York, N. Y., a corporation of New York
Application May 9, 1955, Serial No. 507,108
3 Claims. (Cl. 24—252)



1. A clip comprising a pair of opposed members including jaw portions at one end thereof and finger gripping portions at the other end thereof, each of said members further including a pair of spaced parallel ears, the ears on one member extending toward the ears on the other member, each of said ears being formed with a hook having an opening extending toward the finger gripping portion, the hooks on at least one of said members being laterally displaced from the plane of the ear to permit interengagement with the adjacent hook on the other member, spring means between opposed surface portions of said members for biasing the jaw portions thereof toward each other and maintaining the interengaged relation of said hooks yet permitting movement of the intermediate portions of said members toward each other to move the interengaged hooks out of engagement and to provide a space therebetween.

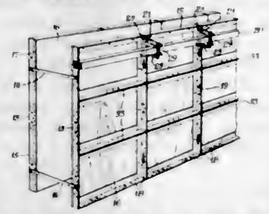
2,782,483
LINER CLAMP FOR PANEL FORMS
Dominick M. De Canio, Chicago, Ill., assignor to Universal Form Clamp Company, Chicago, Ill., a corporation of Illinois
Application July 11, 1955, Serial No. 521,332
2 Claims. (Cl. 25—131)



1. A liner clamp for use with a concrete form including a plurality of panel forms each having a frame with laterally extending flange portions, the panel forms being arranged in edge-engaging relation to one another and having aligned openings along the extending flange portions thereof, said clamp comprising a generally U-shaped bracket with the bight portion thereof having a laterally projecting pin disposed for insertion in a pair of the aligned openings through adjoining panel flanges to pivotally support the clamp, a clamping element disposed on said bracket to embrace the adjoining panel flanges which

receive said pin at a position spaced from said pin, said U-shaped bracket being adapted to embrace a liner between the leg portions of said bracket which extend outwardly from the panel forms, one of said leg portions being hingedly connected at its inner end to the bight portion of said bracket for movement relative to the other of said leg portions, said pin, clamping element and the inner edge of said bight portion of said clamp being disposed relative to one another so that when said liner clamp is positioned on adjoining panel flanges said inner edge of said bight portion extends inwardly of the outer edges of the adjoining flanges, said U-shaped bracket including means defining a pair of aligned openings through the outer ends of said leg portions, and means movably positionable through the aligned openings in said leg portions, whereby a liner embraced by said U-shaped bracket may be wedged against the edges of the liner clamp supporting flanges by said movably positionable means.

2,782,484
LINER CLAMP FOR PANEL FORMS
Dominick M. De Canio, Chicago, Ill., assignor to Universal Form Clamp Co., Chicago, Ill., a corporation of Illinois
Application December 29, 1952, Serial No. 328,326
4 Claims. (Cl. 25—131

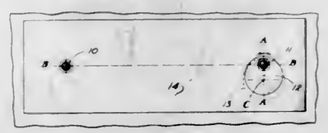


1. A liner clamp for use with a concrete form including a plurality of panel forms each having a frame with laterally extending flange portions, the panel forms being arranged in edge-engaging relation to one another and having aligned openings along the extending flange portions thereof, said clamp comprising a generally U-shaped bracket with the bight portion thereof having a laterally projecting pin disposed for insertion in a pair of the aligned openings through adjoining panel flanges to pivotally support the clamp, a clamping element disposed on said bracket to embrace the adjoining panel flanges which receive said pin at a position spaced from said pin, said U-shaped bracket being adapted to embrace a liner between the leg portions of said bracket which extend outwardly from the panel forms, said pin, clamping element and the inner edge of the bight portion of said clamp being disposed relative to one another so that when said liner clamp is positioned on adjoining panel flanges said inner edge of the bight portion of said U-shaped bracket extends inwardly of the outer edges of the adjoining flanges, said U-shaped bracket including means defining a pair of aligned openings through the outer ends of said leg portions, and means movably positionable through the aligned openings in said leg portions, whereby a liner embraced by said U-shaped bracket may be wedged against the edges of the liner clamp supporting flanges by said movably positionable means.

2,782,485
METHOD OF MACHINE-MAKING LACE HAVING VARIEGATED COLOR PATTERN
Charles F. Schwerzler, Hudson Heights, N. J.
No Drawing. Application June 23, 1954,
Serial No. 438,865
3 Claims. (Cl. 28—76)

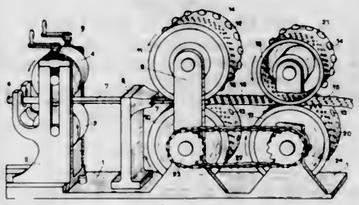
1. The method of machine-making lace having a variegated predetermined color pattern which comprises fast-dyeing a plurality of individual yarns in the colors determined by said color pattern, each yarn being of a different color and being provided in a quantity determined by the proportion of that color in said lace, providing a conventional embroidery machine having a plurality of needles, providing a base of Japanese silk cloth, mounting said cloth on said machine in a stretched flat condition, feeding said yarns to the needles of said machine in accordance with said color pattern and progressively forming lace on said cloth, removing said cloth and lace from said machine and subjecting the same to treatment by a caustic solution to dissolve said cloth thereby providing machine-made lace having a variegated predetermined color pattern.

2,782,486
LOCATING PIN
Roland Eugene Delamater, Cleveland, Ohio, assignor to The Foote-Burt Company, Cleveland, Ohio, a corporation of Ohio
Application July 7, 1954, Serial No. 441,880
8 Claims. (Cl. 29—1)



1. A locating pin assembly for metal working machine tool fixtures comprising a fixed pin mounted in the fixture, a shaft mounted for vertical axial and free rotational movement in spaced relation with said pin and a second pin mounted in the end of said shaft, the axis of said shaft being disposed in offset relation to the centerline between the first and second named pins at an angle of ninety degrees.

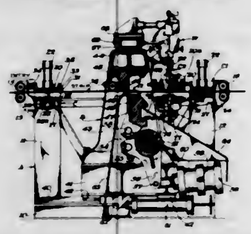
2,782,487
DEVICE FOR MAKING METAL PELLETS, PARTICULARLY FOR SHOTGUNS
Ilario Properzi, Milan, Italy
Application January 30, 1951, Serial No. 208,484
Claims priority, application Italy May 12, 1950
2 Claims. (Cl. 29—1.22)



1. Apparatus for producing metal pellets from a metallic band including in combination, a first rolling unit for receiving the band and including a pair of rollers having respective peripheral rolling rims spaced apart a distance less than the thickness of the metallic band, each of said rolling rims having at least two transversely spaced series of recesses extending around the periphery thereof with said recesses on one of said rims being in precise correspondence with said recesses on the other of said rims, whereby said rolling unit produces a metallic strip having at least two transversely spaced longitudinal series of projections formed on each side thereof, a second unit for receiving the metallic strip from said first unit and including a pair of rollers having respective rolling surfaces spaced apart a distance substantially equal to the spacing of said rolling rims of said first unit, one of said rolling surfaces of said second unit having at least two transversely spaced series of recessess extending around

the periphery thereof, and the other of said rolling surfaces of said second unit having radially movable punching members in mating relation with said last-mentioned series of recesses, stationary cam means for moving said punching members outwardly from said last mentioned rolling surface to remove the projections from the metallic strip and produce the aforementioned metal pellets, and means for synchronizing the rotational movement of said rollers of the first and second rolling units.

2,782,488
STRIP SPLICER
Lysle V. Anderson, Warren, Ohio, assignor to E. W. Bliss Company, Canton, Ohio, a corporation of Delaware
Continuation of abandoned application Serial No. 35,442, June 26, 1948. This application August 3, 1954. Serial No. 447,572
4 Claims. (Cl. 29—33)

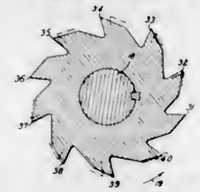


1. Apparatus for splicing metal strips comprising support structure, a pair of longitudinally spaced stationary strip clamps supported on said structure, a strip shear and welding unit having longitudinally spaced shear and welding means disposed between said clamps, a support for said unit reciprocal toward one of said clamps and away from another by a distance substantially equal to the spacing between said shear and welding means, the strip clamp nearest the shear means being mounted for limited longitudinal reciprocation to space the sheared ends of strips for welding, abutment means on said unit for engaging and moving said movable clamp, and resilient means arranged to oppose said motion of the clamp.

2,782,489
ROTARY METAL CUTTER
Sanford L. Hargrove and Theodore R. Sharp, Wichita, Kans., assignors to Boeing Airplane Company, Wichita, Kans., a corporation of Delaware
Application February 4, 1952, Serial No. 269,804
2 Claims. (Cl. 29—103)

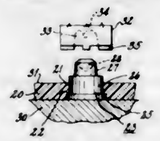
2. A milling cutter comprising: a generally cylindrical cutter body; a plurality of longitudinally disposed circumferentially spaced blade seats projecting outwardly from the periphery of said body and joined integrally thereto, each seat having one helically shaped blade receiving face which is generally radially disposed with relation to the cutter body; spaced slots extending circumferentially through said seats and blade receiving faces, dividing the seats into a series of sections each of which is integrally joined to said body at its base; and a helical cemented carbide metal blade seated against each sectional blade receiving face and brazed to the respective individual sections along their adjacent surfaces.

2,782,490
MILLING CUTTER
Carl O. Graves, Norwood, Ohio, assignor to The Cincinnati Milling Machine Co., Cincinnati, Ohio, a corporation of Ohio
Application June 27, 1952, Serial No. 295,927
1 Claim. (Cl. 29—103)



A multi-helix milling cutter for use in milling operations in which the toothed periphery of the cutter is rotated to successively individually engage its teeth with a workpiece during relative traversing movement of the cutter and workpiece, said cutter comprising a body portion having a multiplicity of circumferentially spaced helically extending peripheral teeth formed with cutting edges of equal radial extent to define a surface of revolution, said teeth including diametrically opposite teeth having corresponding basic helix angles, each followed by a succession of intermediate helical teeth of similar angle, the helix angles of said intermediate teeth varying one from the other serially by small increments in a progression of initially incrementally increasing and subsequently incrementally decreasing angles, the circumferential spacing of said teeth being substantially equal in a central axially transverse plane of said cutter, and the spacing of said intermediate teeth at the advanced ends of their cutting faces varying progressively in a series of initial small increasing and subsequent decreasing amounts, whereby during cutting as the cutter is rotated and relative traverse is effected between the cutter and workpiece the sequentially operating initial work engaging advanced ends of the respective individual teeth of said rotating cutter will effect non-periodic sequential engagement with a workpiece in a manner to prevent development of a chatter pattern during cutting.

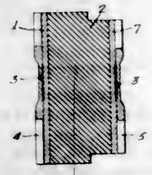
2,782,491
METHOD OF MAKING AN ELECTRICAL CONNECTION
Ward Cole, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 5, 1952, Serial No. 286,167
1 Claim. (Cl. 29—155.5)



In a method of making an electrical connection, the steps comprising; providing an insulating support having a plurality of openings therein, forcing a terminal having an annular shoulder portion adjacent to one end and an intermediate shoulder thereon into each of said openings from one side of the support, each of said terminals being formed of a ductile metal, deforming the terminal on the other side of said support opposite the end shoulder portion using a tool having a lower end formed with a series of depending swaging lugs operable to deform the intermediate shoulder of the terminal to form a plurality of extensions extending from the terminal securing the terminal to said support, notching

the free end of the terminal on the side of the extensions simultaneously with the deforming step using said tool which provides a triangular rib in a recess receiving the end of the terminal centrally through and upwardly from the depending swaging lugs, said notching forming a groove with sharp edges on a tapered portion of the free terminal end, placing a bare portion of a conductor in each groove formed by said notching, applying pressure axially in opposed directions to the ends of the terminal and heating the terminal for causing the sharp edges to melt and flow under pressure and heat and fuse with the bared portions of the conductors.

2,782,492
METHOD OF BONDING FINE WIRES TO COPPER OR COPPER ALLOYS
Arthur L. Frost, Wilmington, Del., assignor to Atlas Powder Company, Wilmington, Del., a corporation of Delaware
Application February 11, 1954, Serial No. 409,749
9 Claims. (Cl. 29—155.5)



1. The method of bonding a fine, high resistance wire to a surface of metal selected from the group consisting of copper and copper alloys which comprises laying said high resistance wire on said metal surface; laying upon said high resistance wire at an angle thereto and crossing said high resistance wire at a point corresponding to the desired bonding area a wire of a nickel alloy selected from the group consisting of nickel-zinc-copper alloys and nickel-cobalt-iron alloys and applying an electric current transversely through said nickel alloy wire, said high resistance wire and said metal at said point of crossing thereby generating heat in said high resistance wire to cause said nickel alloy wire in contact therewith to fuse and flow down about said high resistance wire and to weld to said high resistance wire and to said metal surface.

2,782,493
ALUMINUM COATED FERROUS ARTICLE
James B. Russell, Spokane, Wash., assignor to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation of Delaware
No Drawing. Application January 2, 1952, Serial No. 264,662
8 Claims. (Cl. 29—196.2)

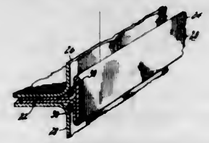
1. A composite article comprising a base portion of ferrous metal coated with an aluminum base alloy consisting essentially of from about 1 to about 6% silicon and at least one element selected from the group consisting of boron, titanium, vanadium and zirconium in amount from about 0.02 to about 0.20% boron and titanium, and about 0.1 to 0.25% vanadium and zirconium, the total not exceeding about 0.5%, the balance substantially all aluminum and impurities in normal amounts.

2,782,494
METHOD OF MAKING AN ANTI-SKID AND TRACTION CHAIN
Harry Gordon, Duluth, Minn.
Application May 21, 1953, Serial No. 356,352
2 Claims. (Cl. 29—403)

1. In the construction of an anti-skid and traction device having aperture link-supporting means adapted to be mounted at the sides of a conventional automobile tire, the method which consists in marginally cutting and severing from a discarded tire casing an arcuate length of beaded edge containing a multiplicity of wire members disposed longitudinally therein, transversely cutting arcuate segments at preselected spaced positions through the length of beaded edge, stripping from each end of

each of the arcuate segments the bead material other than the longitudinal wires to expose the end portions of said wires, inserting the exposed wires at each end of an arcuate segment through respective apertures in the link-supporting means while maintaining preselected spaced relation between said segments, and reversely bending and securing the bent ends in place around the link-supporting means.

2,782,495
JOINING OF METALS
George W. Beck, Dayton, Ohio, and Howard F. Rentz, Detroit, Mich., said Beck assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware and said Rentz assignor to Briggs Manufacturing Company, Detroit, Mich., a corporation of Michigan
Application October 14, 1953, Serial No. 386,049
2 Claims. (Cl. 29—450)



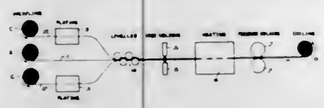
1. In a method for joining two sheet metal parts having inturned flanges along the joining surfaces, the steps comprising; providing a joining strip of a substantially T-shaped cross section, providing elongated, uncured, tacky rubberlike beads, placing said beads on either side of said joining strip, forcing the leg portion of the joining strip between said flanges and simultaneously deforming said beads into weatherproof fillets at the contiguous portions of the T and the parts to be joined, holding the flanges in position with respect to the joining strip, welding the said flanges and the leg of the T at spaced points therealong while in the bead material in deformed condition, and subsequently curing the rubberlike material in the beads for causing the same to bond to the contiguous metal surfaces and form a weatherproof seal therebetween.

2,782,496
METHOD FOR ASSEMBLING REFRIGERATION SYSTEMS
Edward L. Augustauskas, Erie, Pa., assignor to General Electric Company, a corporation of New York
Application April 8, 1954, Serial No. 421,729
7 Claims. (Cl. 29—469)

1. The method of assembling an evacuated refrigeration system which comprises connecting the components of the system into an evaporator assembly and a condensing unit assembly, closing the end tubes of at least one of said assemblies by fusible plugs, connecting and

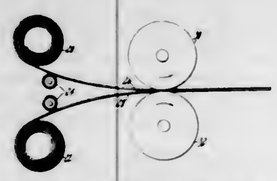
sealing together said assemblies with said plugs preventing communication therebetween, separately evacuating said assemblies with at least said one assembly being evacuated prior to its connection to the other of said assemblies, melting said plugs to effect communication between said assemblies whereby a complete evacuated system is formed without leakage of air thereinto, and maintaining the end tubes of said assemblies in an inclined position during the melting to cause the melt from the plugs to be deposited over a length of said tubes whereby the deposited melt is not restrictive of flow within the system.

2,782,497
METHOD OF MAKING CLAD STEEL
John M. Campbell, Washington, Pa., assignor to Composite Steels, Inc., Washington, Pa., a corporation of Pennsylvania
Application September 28, 1955, Serial No. 537,141
2 Claims. (Cl. 29—471.5)



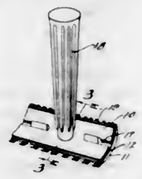
1. A continuous method of making clad metal, comprising continuously uncoiling a coil of carbon steel strip and a coil of stainless steel strip and feeding those strips in the same direction in superimposed spaced relation, plating the side of the traveling stainless steel strip next to the other strip with a pressure weldable material, then bringing the traveling strips together and welding their edges together to form a composite strip, heating the composite strip to a pressure welding temperature, and rolling the composite strip under sufficient pressure to weld its component strips together throughout their width.

2,782,498
METHOD FOR MAKING COMPOSITE STOCK
Peter Mushovic and Harold W. Schultz, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 14, 1950, Serial No. 195,535
2 Claims. (Cl. 29—497.5)



1. In a process for bonding aluminum to steel wherein the aluminum is relatively soft and the steel is relatively hard, the steps comprising; cleaning and roughening the bonding surfaces of both the aluminum and steel, fastening the aluminum to the steel to prevent relative movement thereof, rolling the aluminum and steel under pressure sufficient to deform the aluminum by 65% to 80% of its original thickness while simultaneously extruding the aluminum longitudinally of the steel and in the direction of rolling for causing relative movement between the aluminum and steel while maintaining the temperature of the aluminum and steel at the bight of the rolls substantially constant throughout the rolling operation and within temperature limits of between 1010° F. and 800° F., whereby a coextensive, strong and ductile bond devoid of brittle iron-aluminum interlayer is formed.

2,782,499
DEVICE FOR CUTTING HAIR
Harlow Grey, Howell, Mich.
Application August 28, 1953, Serial No. 377,044
5 Claims. (Cl. 30—31)

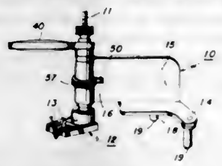


2. In a hair cutting device adapted to be used with a flexible safety razor blade, separable inner and outer blade clamping members having interfitting convex and concave blade engaging surfaces respectively adapted to receive said blade therebetween, means for clamping said members together to flex and clamp said blade between said surfaces, and a row of teeth extending outward from the outer member at an angle to the concave surface thereof, said concave surface terminating adjacent the bases of said row of teeth.

2,782,500
RATCHET PIPE CUTTER
Elmer G. Kelley, San Jose, Calif.
Application June 25, 1956, Serial No. 593,749
3 Claims. (Cl. 30—99)

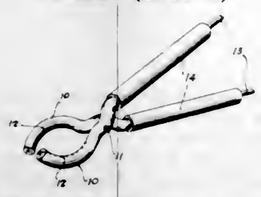
1. A ratchet pipe cutter comprising a C-shaped cutter head, a pair of arms pivotally mounted in the cutter head for movement toward and away from each other, a cutter wheel mounted on one of said arms, a pair of pressure rollers mounted on the other of said arms, an adjusting screw mounted in the cutter head and operatively connected to the arms for moving said arms alternately toward and away from each other upon opposite rotative movements of the adjusting screw, an operating handle having a C-shaped end portion rotatably supporting the cutter frame therein, ratchet means operating between the cutter head and the handle for limiting relative rotative movement of the cutter head to one direction only, a tubular extension on the handle, a screw adjusting rod mounted for axial and rotative movement in the tubular extension, spring means biasing the rod axially toward the cutter head for operative engagement with the adjusting screw in a predetermined rotative position of the cutter head in the handle, a spring-pressed latch mounted to retain the rod outwardly clear of the cutter head, and a latch releasing element carried by the cutter head for releasing engagement of the latch upon each complete revolution of the cutter head relative to the operating handle, thereby freeing the rod for spring pressed movement toward the adjusting screw.

2,782,501
NEEDLE CARRYING ADAPTER ARM FOR MAP-MAKING ENGRAVING INSTRUMENTS
Harold K. Adams, Riverdale, Md.
Application July 22, 1955, Serial No. 523,761
9 Claims. (Cl. 30—164.9)



1. A scratching tool carrying arm for a map making engraving instrument of the type having an elongated body to be grasped by the fingers and moved over a coated sheet, the body having means at its rear to support it for sliding movement and at its front a vertically disposed rotatable shaft carrying at its lower end a horizontally swingable tool carrying arm, said arm being made of metal and comprising a pair of laterally opposed branches united at their inner ends by a connecting portion supported from the shaft, an elongated slide at the outer end of each of said branches, said slides being longitudinally alined and disposed transversely of said branches in the same horizontal plane, tool supporting means on each of said slides, and means fastening said slides in adjusted positions.

2,782,502
METHOD OF SEVERING ITALIAN CHEESES
Raymond T. Stahl, Green Bay, Wis., assignor to Swift & Company, Chicago, Ill., a corporation of Illinois
Original application November 20, 1952, Serial No. 321,615, now Patent No. 2,729,890, dated January 10, 1956. Divided and this application June 6, 1955, Serial No. 513,322
3 Claims. (Cl. 31—5)

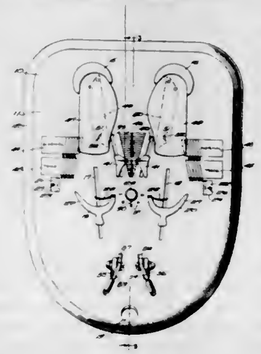


1. A method of subdividing cheese curd loaves into units of lesser length which comprises: directing jets of heated fluid against said curd loaf from sources which lie substantially in a single plane about the circumference thereof, and simultaneously applying mechanical pressure at the point of fluid pressure application until the units become severed.

2,782,503
INTERPROXIMAL STOPS FOR PREVENTING FILLING OVERHANG INTO THE INTERPROXIMAL SPACE BETWEEN TEETH
Lyman F. Thompson, Fayetteville, Ark.
Application August 21, 1953, Serial No. 375,659
4 Claims. (Cl. 32—63)

1. A dental aid for preventing the packing of fillings into the interproximal space between teeth comprising an elongated, deformable, wedge-shaped strip tapering to a point at one end and being triangular in cross-section for insertion between the teeth for pressing a matrix band into conformance with the wall of a tooth at the gingival area of the tooth, said strip being mounted on a strip of dental floss.

2,782,504
FOOT MEASURING DEVICE
Andrew Del Pesco, Danielson, Conn.
Application September 15, 1950, Serial No. 185,081
4 Claims. (Cl. 33—3)

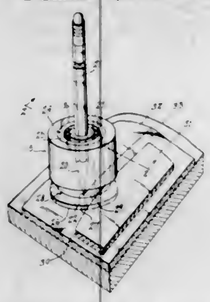


1. In a foot measuring device, a base, spaced fixed heel abutments on said base, toe engaging elements slidably mounted on said base, size indicia including a pointer and a movable size indicator, mechanism for shifting the movable size indicator in accordance with movement of the toe engaging elements, means for initially setting the pointer in accordance with a manufacturer's style last, and means for indicating the width of the foot.

2,782,505
PANTOGRAPH
Charles Henry Guischard, Massapequa, N. Y.
Application June 3, 1955, Serial No. 513,001
1 Claim. (Cl. 33—25)

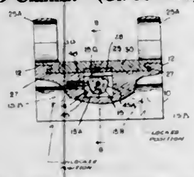
In a pantograph including elements forming a frame thereof and lying in a plane, pivotal mounting means for one end of the frame, parts of the frame forming a parallelogram, means holding the said parts of the frame pivotally to each other at the corners of the parallelogram, a tracing point, means mounting the tracing point at a corner of the parallelogram, an arm of one of the said elements extending from a corner of the parallelogram remote from the said pivotal mounting means and from the tracing point, a writing element, and securing means attaching the writing element to the end of the said arm, the improvement comprising a connecting member in the said securing means, means mounting the said member at one end slidably in direction parallel to the said plane of the frame and to the said arm and at the other end in fixed relationship to the writing element, a coil spring disposed with its longitudinal axis generally parallel to and adjacent to the said member and to plane of the said frame, and means establishing the spring in fixed relationship at one end to the writing element and at the other to the end of the said member remote from the writing element, so that the distance of the writing element from the said arm is variable by force applied to the spring and the resulting sliding movement of the said member with respect to the said arm.

2,782,506
ROTARY DEVICE FOR RAPID GRADING OF PATTERNS
Dixon Ingram, Brooklyn, N. Y., assignor to Sunny Young, Inc., New York, N. Y.
Application October 19, 1953, Serial No. 386,897
1 Claim. (Cl. 33—42)



In a pattern tracing device, a sharpened pencil adapted to be drawn across the material to trace a line thereon and being guided in its travel by a pattern, a support for said pencil slidable over the material to be traced and being rotatable about a vertical axis, said support including a solid cylindrical body with a chamber in its upper portion, said chamber being circular in cross-section, said solid body having a central tapered opening through its bottom portion communicating with said chamber for receiving the tapered portion of the sharpened pencil, said tapered opening terminating in a restricted straight portion to receive the lead point of the sharpened pencil, a ball bearing assembly plugging the upper end of said chamber, said assembly having a central opening to receive the body of the pencil, said cylindrical body having an annular groove in the outer surface thereof, said groove in cross-section being similar in shape to the edge of the guiding pattern in order to receive said edge frictionally, the entrance edges to said groove being tapered to facilitate movement of the pattern edge into the groove.

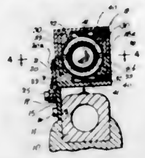
2,782,507
TELESCOPIC GUN SIGHT MOUNTING
Chester J. Fallon and Harry W. Taggart, Detroit, Mich.
Application March 11, 1955, Serial No. 493,791
9 Claims. (Cl. 33—50)



1. A telescopic gun sight mount comprising a base member adapted to be fixed to the gun, a laterally slidable member mounted upon said base member and provided with means for securing a telescope thereto, said slidable member being of greater width than said base member and carrying a pair of stops on each edge thereof arranged to coact with the edges of said base member to limit the sliding movement, and means carried by said base member for locking one pair of stops against said base member.

2,782,508
DETACHABLE SIDE MOUNT
Jessie T. Ivy, Seattle, Wash.
Application May 24, 1954, Serial No. 431,741
2 Claims. (Cl. 33—50)

1. In combination with a gun having a frame portion and a barrel mounted thereby; a detachable telescope mounting means comprising a mounting plate that is rigidly fixed to said frame to extend in a vertical plane along said barrel and at one side thereof, a carrier plate extended along the mounting plate with its lower edge portion overlapped with the top edge portion thereof, telescope mounting blocks applied to the forward and rearward end portions of said carrier plate and adapted to be fixed thereto at different positions of vertical adjustment, for support of a sighting telescope along the gun barrel and spaced thereabove, screws rotatably ap-



plied through the overlapping portion of the carrier plate and threaded into the mounting plate to functionally secure them together; said screws being removable from the plates for the detachment of the carrier plate and telescope from the gun; the overlapped surfaces of said plates being formed, respectively, with a single longitudinal ridge and a single longitudinal groove fitted one within the other, and whereby the relationship of said plates, when functionally secured together by said screws, is definitely established.

2,782,509
TELESCOPE MOUNTINGS
Jessie T. Ivy, Seattle, Wash.
Application July 27, 1953, Serial No. 370,274
1 Claim. (Cl. 33—50)

A telescope mounting comprising two base blocks adapted to be rigidly secured to a gun barrel in spaced relationship therealong, and a cap removably applied to each block; said base blocks and said caps having their juxtaposed surfaces formed with semi-cylindrical recesses of the same radius and axially coinciding with each other and together providing an opening through each block, and said openings of the two blocks being axially aligned and adapted to contain the barrel portion of a telescope therein with adjusting clearance; said recesses being circumferentially channeled and there being circularly curved bushings fitted in said channels for radial shifting therein and adapted to seat tightly against opposite sides of the telescope barrel as contained in the openings, and adjusting screws threaded into the blocks and caps and engaged with the bushings for effecting their telescope adjusting movements; the cap of the first base block being applied to the top surface thereof and the adjusting screws being applied to the cap and base for effecting vertical adjustments of the telescope, and the cap of the second block being applied to a side surface thereof and the adjusting screws of that block being applied to cap and block for effecting horizontal adjustment of the telescope.

2,782,510
SCOPE SIGHT LENS PROTECTORS
Edward F. Kramm, Alpena, Mich.
Application July 30, 1956, Serial No. 600,912
1 Claim. (Cl. 33—50)

A scope sight lens protector as described, for protecting the lens of a conventional scope sight as mounted upon a conventional gun, the same comprising three circular bands for mounting medially and at the ends of the scope sight, a housing mounted upon the medial band, a clamp slidably positioned within said housing, said clamp being formed with bores through its ends, angular members pivotally connected to upper sides of the circular end bands of the scope sight, lens covers mounted on said angular members, cable supporting brackets formed with cable sleeve mounted at the upper inner faces of said circular end bands, a cable supporting bracket formed with

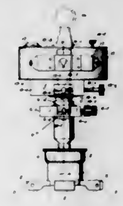
a cable sleeve at the lower side of the rear circular band, a manually operated cable passed through said sleeve extended forwardly and anchored within a slot at one end of the clamp as slidably mounted within said housing as supported upon said medial band; a lens cover operating cable passed medially through and anchored within a slot at the opposite end of the clamp slidable within said housing, the ends of said cable being passed slidably through the sleeves of the angular brackets of the said end bands and connected at their ends to the lens cover supporting angular members.

2,782,511
DETACHABLE TELESCOPE MOUNT
Jessie T. Ivy, Seattle, Wash.
Application September 16, 1954, Serial No. 456,596
3 Claims. (Cl. 33—50)

1. A telescope mounting of the character described comprising a carrier plate equipped for fixed securement to a gun frame to extend therealong and at one side thereof in a vertical plane, brackets extended vertically upward from forward and rearward end portions of said plate, each including an arm at its upper end directed horizontally over the gun frame, and a collar adjustably secured to each bracket and arm between the arm and gun frame; said collars being adapted to receive a telescope therein for its functional support above and along the gun frame with sighting clearance between them; one of said collars being horizontally adjustable along the arm portion of the corresponding bracket, and the other being adjustable vertically along the bracket corresponding thereto, each collar having the side portion thereof opposite the supporting bracket removably attached to provide for application and removal of a telescope from the mounting without requiring change in the fixed securement of the collars.

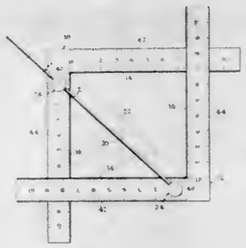
2,782,512
INSTRUMENTS FOR MEASURING ANGLES
Jorge Viale S., Piura, Peru
Application September 23, 1952, Serial No. 311,172
1 Claim. (Cl. 33—72)

In an instrument for measuring the angle formed by two lines from the instrument to two observed points, the combination of a base; a post mounted on said base, adjustable relative thereto and having an axially disposed socket; a sleeve having a closed lower end with a central orifice therein, mounted in said socket, rotatable relative to said post and about a screw passed through said orifice and tapped into said post, said sleeve having an outwardly turned peripheral flange at its upper end; a hollow shaft, mounted in said sleeve, rotatable relative to said sleeve and having an outwardly turned peripheral flange resting upon the upper end of said sleeve, said shaft having an axial conical bore; a tapered solid shaft, mounted in said bore, rotatable relative to said hollow shaft and biased



into yielding engagement with said hollow shaft; means adapted to clamp said sleeve to said hollow shaft to effect unitary rotation of said sleeve and said hollow shaft relative said post; means adapted to alternatively constrain said shafts to rotate as a unit and to effect rotation of said solid shaft relative to said hollow shaft; a main scale on said hollow shaft; an auxiliary scale on said solid shaft; and means mounted on said solid shaft for determining the two lines, said auxiliary scale being so related to said main scale as to move synchronously with said main scale during unitary rotation of the two shafts, and to move relative to said main scale during rotation of said solid shaft relative to said hollow shaft.

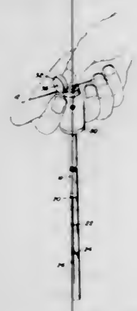
2,782,513
GEOMETRICAL INSTRUMENTS
Robert C. Brandt, New Orleans, La., assignor to Brandt Corporation, New Orleans, La., a corporation of Louisiana
Application January 23, 1956, Serial No. 560,765
4 Claims. (Cl. 33—95)



3. In a geometrical instrument of the character described, the combination comprising: two opposed overlapping angle members, each having a pair of straight edges intersecting at a 90° included angle, and said members being arranged so that said edge pairs define a rectangle; a bar adjustably connecting said members, said bar being parallel to but spaced from a line connecting the apexes of said edge pairs; and a clamping bracket carried by each of said members, at least one of said brackets slidably receiving said rod and both of said brackets permitting pivotal movement of said rod relative to the corresponding member, the pivotal axes of said brackets being on the same side of and spaced equidistantly from said line and from the apex of the cor-

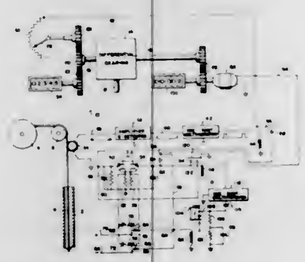
responding member, whereby said apexes are unobstructed by said rod and brackets, said brackets being adjustable to clamp said members against pivotal movement relative to said rod.

2,782,514
HOLLOW OIL DIP STICK
Clarence R. Scott and Malcolm McClean, Fremont, Nebr.
Application May 10, 1955, Serial No. 507,216
2 Claims. (Cl. 33—126.4)



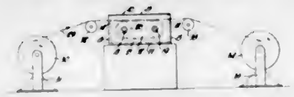
1. An oil dip stick for internal combustion engines, comprising a combined handle and stop member, a tubular oil rod extending upwardly through said handle, a major portion of said oil rod depending below said handle, said oil rod being transparent, markings on said oil rod for facilitating the determining of the amount of oil disposed within the internal combustion engine, said oil rod having an open upper end closable by one's finger to retain oil in said oil rod when withdrawn from an engine for a reading, a closure cap hingedly carried by said handle normally closing said upper end, said closure cap having a vent opening.

2,782,515
DEPTH MEASURING SYSTEM FOR WIRE LINES
Fred M. Mayes, Newtown Square, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Application November 3, 1955, Serial No. 544,700
8 Claims. (Cl. 33—129)



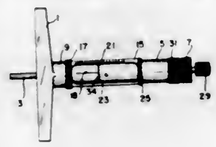
1. Means for measuring longitudinal displacement of a flexible elongated member comprising a displacement indicator, means driven by said member in approximate conformity with its displacement and driving said indicator, said member being provided with equally spaced markers, means detecting said markers, and means controlled by deviations of occurrence of detection of a marker from predetermined indications of said indicator for applying corrections to said indicator.

2,782,516
APPARATUS FOR MEASURING ELONGATED MAGNETIC PRODUCTS
Albert L. Stoeckel, Euclid, and Carl T. Zimmermann, Cleveland Heights, Ohio, assignors to United States Steel Corporation, a corporation of New Jersey
Application October 23, 1953, Serial No. 388,033
6 Claims. (Cl. 33—129)



1. Apparatus for measuring the length of elongated magnetic products comprising a frame, means on top of said frame defining an open-bottomed trough running the length thereof adapted to receive said product as it travels lengthwise, spaced sprockets journaled in the frame, a chain trained around said sprockets, the upper run of the chain lying below the bottom of said trough, and magnets spaced along said chain extending into the bottom of the trough and adapted to attract into frictional engagement therewith the product traversing said trough.

2,782,517
MICROMETER DEPTH GAGE
Arthur W. Daniel, Donnelsville, Ohio
Application October 13, 1952, Serial No. 314,467
3 Claims. (Cl. 33—170)



1. In combination, in a depth gauge micrometer, a base, a measuring spindle which is moved outwardly of the base to effect depth measurements, a thimble carried on an end of the spindle, said thimble having indicia around a periphery thereof, a stationary outer barrel fast to a base portion supported around the measuring spindle in spaced relation therewith and through which barrel said thimble moves toward the base to effect a depth measurement, said barrel having indicia extending in the direction of barrel length and which indicia cooperate with the indicia of said thimble to indicate the traverse of the thimble through the barrel and the movement of the spindle from the base, said barrel having a cut-out portion bordering the indicia thereof to expose the indicia of the thimble to view in the cooperative relation, the indicia on the barrel length being so arranged that the numerical values thereof increase toward the base, and the depth gage micrometer having means extending parallel with the fixed scale substantially coextensive with the fixed scale and cooperable with the movable scale for indexing the movable scale in coordination with the fixed scale.

2,782,518
VALVE TAPPET AND CAM LOBE CHECKING DEVICE
Rahe J. Tieman, Fort Wayne, Ind., assignor to International Harvester Company, a corporation of New Jersey
Application May 19, 1954, Serial No. 430,773
12 Claims. (Cl. 33—181)

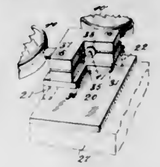
1. A device for indicating the angular relationship between the longitudinal axes of a valve tappet bore formed in the cylinder block of an internal combustion engine and the tappet-engaging surface of a cam lobe, comprising: a flat mounting plate adapted to be firmly secured to the cylinder block; an elongated, cylindrical hollow body having a portion thereof adapted to slide longitudinally within the tappet bore; means for interconnecting said body to said mounting plate for limited relative longitudinal movement therebetween; a dial indicator gauge secured to said body including a pivotally supporting rod adapted to pivot about an axis extending substantially perpendicular to said tappet bore axis, said gauge being capable of indicating the direction and degree of pivoting of said rod from a zero position wherein

said rod is disposed in longitudinal alignment with said tappet bore axis; a head pivotally supported at one end of said body for rocking movement about an axis perpendicular to said tappet bore axis and parallel to the pivoting axis of said rod, said head having a flat cam-engaging face; means operatively interconnecting said head and said rod whereby rocking movement of said head effects a corresponding pivoting of said rod; and yieldable means for continually urging said cam-engaging face of said head into engagement with the cam lobe tappet-engaging surface.

2,782,519
CENTERING TOOL
James J. Gill, Fairfield, Conn.
Application March 1, 1955, Serial No. 491,436
1 Claim. (Cl. 33—185)

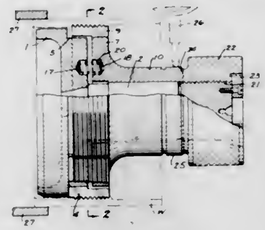
A tool for accurately locating a plane passing through the centerline of a cylindrical workpiece comprising a hollow tubular member adapted to be gripped by a chuck of a drill press or the like; a rod passing longitudinally through said tubular member and providing an accurate bearing fit at the upper end thereof; a conical seat at the lower end of said tubular member; a centering member rotatable and longitudinally slidable on said rod and provided with a conical surface adapted to mate with that on the lower end of said tubular member; a cylindrical member integral with the lower end of said rod and having an exterior surface concentric with the centerline of said rod; a spring between said cylindrical member and said centering member urging the latter into engagement with the conical seat on the lower end of said tubular member; a mounting on said tubular member for supporting an indicator in position to cooperate with said cylindrical member; and a pair of angularly-disposed legs rigidly attached to the lower end of said cylindrical member and having the apex thereof in exact coincidence at all times with the centerline of said rod.

2,782,520
LOCATING FIXTURE
Arthur L. Amend, Oakford, near Langhorne, Pa.
Application March 31, 1955, Serial No. 498,231
3 Claims. (Cl. 33—185)



1. A locating fixture to coordinate the center of the spindle of a jig borer or the like to the intersection of two edges of a piece of work, comprising a base having rectangular edges, lower vertical locating surfaces in right angle relation to one another extending below the base at the locating edges and secured to the base, a set of upper vertical locating surfaces above the base disposed at right angles to one another and each parallel to one of the lower locating surfaces, dial indicator gauges disposed respectively one at right angles to each of the upper locating surfaces above the base, equidistant from the corner of the upper locating surfaces, and having feelers adapted in their free position to extend beyond the upper locating surfaces to an extent determined by preload.

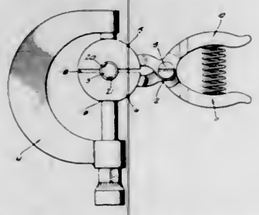
2,782,521
TOOL FOR GAUGING THREADS ON WORK PIECES
John J. Parker and London T. Morawski, Detroit, Mich.
Application August 21, 1953, Serial No. 375,652
7 Claims. (Cl. 33—199)



5. A tool for use in gauging the concentricity of internal threads of a work piece relative to the body of a work piece comprising, a first member having an externally threaded portion and an axially extending stud portion, a second member having an externally threaded portion and a hub portion mounted on said stud portion, means for holding the members against free relative rotation and for relative movement axially, a nut threaded on one member and reacting against the other member and operable to shift the members axially, the externally threaded portions of the members forming a substantially complete thread formation when the members are in a predetermined relative axial position so that the threaded formation may be threaded into the internal threads of the work piece and the tool thereby secured to the work piece, the nut being operable to shift the members and cause the

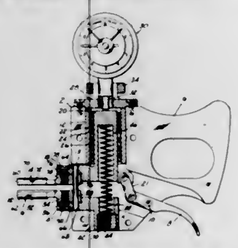
threaded portions thereof to bind against the internal threads of the work piece and hold the work piece and tool against relative rotation, whereby, considering the work piece on the one hand and the tool on the other hand, one may be supported and rotated in a fixed axis and a gauge applied to the other to thus gauge the concentricity of the internal threads of the work piece relative to the body thereof.

2,782,522
THREAD GAUGE
Robert H. Black, Los Angeles, Calif.
Application September 14, 1953, Serial No. 379,894
2 Claims. (Cl. 33—199)



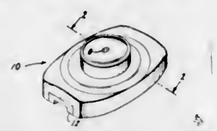
2. A thread gauge comprising two opposed semi-circular blocks, means connecting said blocks urging said blocks into clamping engagement with a threaded member to be tested, said blocks having in their mutually opposed faces approximately semi-cylindrical recesses in the walls of which approximately semi-circular thread segments are formed, the outer side of one block being semi-circularly shaped and the outer side of the other block having a flat formed thereon whereby a micrometer may measure the distance between the flat and the outer side of the first-mentioned block to determine the size of the thread, the flat being substantially parallel to the opposed faces between the blocks.

2,782,523
INTERNAL THREAD COMPARATOR
Bror Walter Swanson, New Britain, Conn., assignor to The Whitney Chain Company, Hartford, Conn., a corporation of Connecticut
Application August 27, 1953, Serial No. 376,870
8 Claims. (Cl. 33—199)



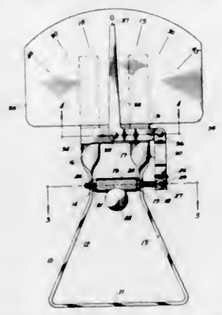
3. In a thread gaging comparator, a body having a fixed jaw and a movable jaw, ball bearings slidably supporting said movable jaw in said body for movement toward and away from said fixed jaw, manual means controlling the position of said jaws, a common aligning pin engaging both of said jaws and having an axis parallel to the direction of relative movement of said jaws to preserve alignment of said jaws during their relative movement, co-operative gage elements supported on said jaws, each of said gage elements having a recess slidably embracing said aligning pin to preserve alignment of said gage elements during relative movement thereof with said jaws, and a dial indicator on said body for indicating the spacing of said gage elements.

2,782,524
MAGNETIZED SPOT LEVELS
Theodore B. H. Vogt, Fair Lawn, N. J.
Application December 7, 1955, Serial No. 551,670
1 Claim. (Cl. 33—212)



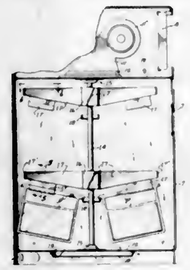
A level of the class described comprising a lightweight non-magnetic housing having a flat base and having a cylindrical shell imbedded in the top thereof, the axis of said shell being at right angles to said base, said shell having a floor and having a transparent disc spaced upward from the floor parallel with said base, said shell between said floor and said disc containing a liquid nearly filling the same but also containing an air bubble of small diameter whereby when said base is set on a true horizontal surface said bubble will be positioned against said disc in the center thereof, said base having a permanently magnetized steel member therein having at least a portion thereof exposed through the undersurface of the base, said disc having a circle inscribed thereon in axial alignment therewith and having a greater diameter than the bubble, said floor having a detent therein in axial alignment with said circle, said magnetized member comprising an inverted channel member, said housing having a longitudinal cannel through the underside thereof, said inverted channel member registering in said longitudinal channel with the edges of the two flanges of the channel member lying in the plane of and flush with said flat base.

2,782,525
EARTH MOVING MACHINE LEVEL INDICATOR
Chester M. Eubank, Paoli, Ind.
Application April 12, 1956, Serial No. 577,737
2 Claims. (Cl. 33—215)



1. In an earth moving machine level indicator, a U-shaped frame having a pair of upwardly extending, spaced apart legs and a lower interconnecting member; a cross bar fixed across an uppper portion of said legs; a dial plate also fixed across an upper portion of said legs; a shaft rockably carried by and across said legs below said bar; a crank arm extending normally from one end of said shaft; a weight bar fixedly carried immediately across the underside of and normal to said shaft; a weight adjustably attached and positioned on each end of said weight bar; a sweep bar pivotally engaging said cross bar; a lever arm extending normally from said sweep bar; and means interengaging said lever arm and said crank arm rocking the sweep bar across the said dial plate upon rotation of the shaft.

2,782,526
ROTARY PHOTOGRAPHIC FILM DRIERS
Joe C. Cota, Los Angeles, Calif.
Application May 3, 1955, Serial No. 505,627
2 Claims. (Cl. 34—82)

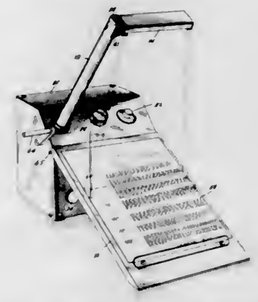


1. A rotary photographic film drier including a housing, a motor-driven blower in the upper part of said housing for circulating air through said housing, a wheel-like support rotatably supported in said housing and having radial vane-like members designed to hold film-holding frames, means on the underside of said members for suspending film-holding frames therefrom to revolve therewith, said vane-like members having angle portions to be impinged by the moving air in said housing for revolving said wheel-like support and said film-holding frames, filtering means through which the air is drawn by said blower, and means in connection with said blower for heating the air discharged therefrom, whereby to facilitate the drying action, the means on the underside of said radial vane-like members are positioned to hold the film-holding frames in tilted position within their planes.

2,782,527
HAIR DRYING DEVICE
Pierre Schweitzer and George Rapp, New York, N. Y., assignors to Ultimo Manufacturing Corporation, Orange, N. J., a corporation of Delaware
Application August 17, 1955, Serial No. 528,954
3 Claims. (Cl. 34—99)

1. A hair drying device for attachment to an air supply comprising, a hood formed of pliant, air impervious material, a head receiving opening in the bottom of said hood, an elastic member incorporated within the edge of said opening and adapted to yieldably reduce the size of said opening, a first duct communicating with the interior of said hood and adapted to lead the drying air into the hood, a second duct communicating with the interior of the hood adapted to lead air out of the hood and valve means consisting of a tubular housing having an inside diameter of a size which will permit a flow of air therethrough sufficient to insure the security of the hood upon the head of the wearer at all adjustments of the valve and having a plurality of apertures in the side wall thereof and a sleeve rotatably carried upon the housing, said sleeve having a series of apertures in the wall therein disposed so as to be registrable with the housing apertures upon rotation of the sleeve, said sleeve and housing being carried by the free end of the second duct to control the passage of air through the hood and out of the second duct.

2,782,528
READER TRAINING DEVICE
Max E. Wastl, Lafayette, Ind.
Application August 27, 1952, Serial No. 306,710
17 Claims. (Cl. 35—35)



1. A reading pacer for pacing the reading of reading material supported on a fixed support, comprising an optical system which casts on the reading matter a transverse linear band of illumination of higher light intensity than adjacent areas of the reading material and thereby defines a reading area, said system including a movable light reflecting device in the path of the band-producing light, and speed regulated means to move said device to cause said reading area to move progressively downward over the reading matter at a predetermined rate.

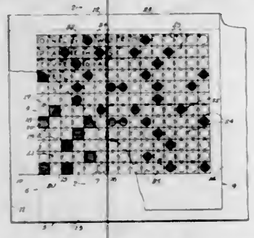
2,782,529
ENUNCIATING TELESCOPE
B. Claude Shinn, Norman, Okla.
Application March 28, 1955, Serial No. 497,351
3 Claims. (Cl. 35—43)

1. In educational apparatus for public use, the combination of optical means for transmitting light along a predetermined optical path to produce and display a magnified image of a natural phenomenon to be observed; electrically responsive playback means for reproducing an audible explanation of said phenomenon; shiftable shutter structure operably associated with said optical means and normally disposed in blocking relationship to said path to screen said image from view; control means adapted upon actuation thereof for supplying electrical current to said playback means and for shifting the structure to a position clearing said path and exposing said image to view; a coin operable mechanism; and means operably coupling said mechanism with said control means for actuating the latter when a coin is deposited in said mechanism.

2,782,530
CROSSWORD PUZZLE STRUCTURE
Ramon G. Larroca, Los Angeles, Calif.
Application July 6, 1955, Serial No. 520,172
7 Claims. (Cl. 35—71)

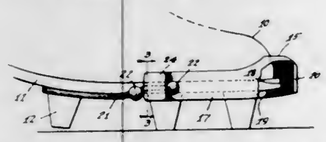
4. A crossword puzzle structure comprising a back, said back having a flat space receptive of a sheet to be marked, a plurality of pigmented units in irregularly spaced squared arrangement above said back, said units

having their pigmented surfaces raised above the flat space of said back, and a movable masking element superposed over the back and the sheet thereon, said masking



element having holes in squared arrangement, some of said holes being in register with said pigmented units, and all of said holes being numbered.

2,782,531
KICKING TOE
Garland D. Frazier and Kenneth Z. Crawford, Crawfordsville, Ind.; said Crawford assignor to said Frazier
Application March 1, 1955, Serial No. 491,358
1 Claim. (Cl. 36—2.5)

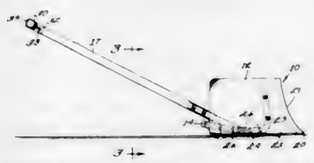


A kicking toe for ready application to and removal from a cleated football shoe, comprising a unitary body having a front portion for engagement with a football and two spaced rearwardly projecting arms adapted to extend along the sides of a shoe-sole, said front portion having a forwardly presented face of substantial extent transversely of the toe and lying substantially in a vertical plane, the inner face of said body, including said arms, having an inwardly opening groove for receiving the edge of the shoe-sole, and an elastic cord secured to said arms near the rear ends thereof and engageable behind cleats on the shoe-sole for releasably retaining the kicking-toe in position on the shoe, said arms being flexible and said front portion being of larger cross-section than said arms to resist distortion of said forwardly presented face when the arms are flexed in accommodating the kicking toe to shoe-soles of different width, at least one of said arms being provided near its rear end with a lateral projection having a groove running longitudinally of the shoe, the end of the cord having a pair of spaced abutments and being receivable in said groove with either of said abutments in engagement with the front face of said projection.

2,782,532
BODY BALANCER ARCH SUPPORT
John Francis Schipper, Homestead, Fla.
Application October 11, 1955, Serial No. 539,728
7 Claims. (Cl. 36—71)

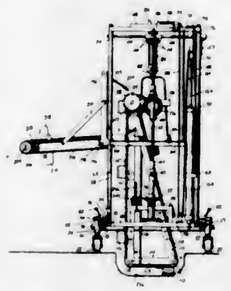
1. A body balancer comprising a pad of resilient material to be positioned under and confined to that area of the foot including the cuboid bone, the external, middle and internal cuneiforms, the scaphoid, a portion of the heel bone and partially under the metatarsal section of a human foot, said pad having a narrow intermediate portion, a heel portion of greater width than the intermediate portion, and a forward portion also of greater width than the intermediate portion, the edges of said forward portion and said heel portion being convex in formation and the edges of said intermediate portion being concave in formation.

2,782,533
MANUALLY-ACTUATED SNOW PLOW
Margaret Eslinger, Ashford, Conn.
Application July 27, 1954, Serial No. 446,027
1 Claim. (Cl. 37—53)



In a manually-actuated snow plow, the combination which comprises blades positioned to form a V with the meeting edges of the blades providing a concave nose, spaced runners having arcuate lower edges and upwardly extended forward ends positioned between the blades, bolts passing through said blades and said upwardly extended ends of the runners for directly securing the upwardly extended ends of the runners to the blades, the lower surfaces of the runners being extended downwardly below lower edges of the blades, a handle extended rearwardly and upwardly from the blades, a cross bar on the extended end of the handle, bars connected to the opposite end of the handle, bolts passing through said bars and said runners for directly connecting the lower end of the handle to the runners, and rollers extended between and rotatably mounted in said runners.

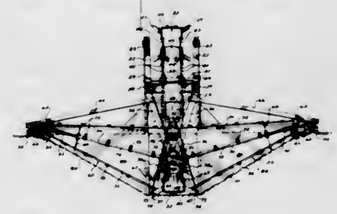
2,782,534
EARTH DIGGING MACHINE
Cleo Wall, Colfax, Iowa
Application October 15, 1951, Serial No. 251,349
7 Claims. (Cl. 37—85)



1. In an earth digging machine, a base frame member having a plurality of wheels for moving the same over the ground, a plurality of separately operable means on said base frame for adjusting it relative to the horizontal when on uneven ground, a pulley on each of two opposite ends of said base frame, a separate frame member having roller wheels thereon and movable on said base frame respectively towards and away from each of said pulleys, a crank means on said separate frame, a pair of cable members separately wound on said crank means and secured at one end to said separate frame member, the intermediate portion of each cable member reeved respectively over one of said pulleys whereby the selective rotation of said crank will move said separate frame member on said base frame in two directions respectively, a gear means on said separate frame member, a socket member connected to said gear means by a universal joint, a source of power on said separate frame means operatively connected to said gear means, a vertical frame structure mounted on said separate frame member, a carriage means arranged within said vertical frame structure and vertically movable therein, a hydraulic pump on said separate frame member operatively associated with said source of power, a fluid reservoir on said separate frame member, a hydraulic cylinder having a plunger moving in a vertical plane mounted on said separate frame member, hose means connecting said hydraulic motor, fluid reservoir and hydraulic cylinder, cable and pulley means connecting the free end of said plunger to the top of said carriage means whereby said plunger and said carriage means move in the same vertical direction at the same time, manually operable valve means associated with said cylinder for controlling the speed of the movement of said plunger, a triangular frame structure having a horizontal bottom side mounted on said carriage means and vertically movable therewith, an endless chain extending in a triangular path around said triangular structure, a plurality of spaced apart buckets on said endless chain, a stop bar member extending from each of said buckets adapted to engage said endless chain and thereby limit the tilt of said buckets for the purpose of controlling the size of its bite, a gear means on said carriage means associated with said endless chain for rotating the same, a shaft member disconnectibly associated at one end with said socket member and connected at its other end to said second mentioned gear means, manually operable clutch means on said shaft for connecting and disconnecting it with said socket member, a conveyor member mounted on said carriage means having a pair of endless chains respectively oppositely disposed thereon, said last mentioned chains operatively connected to said second mentioned gear means, a plurality of spaced apart buckets on said last mentioned chains synchronized with said first mentioned buckets so that each time a bucket on the first mentioned endless chain dumps its load, a bucket from the conveyor will be in position to receive it, a scoop means for cleaning each of said first mentioned buckets each time they pass a predetermined point when said chain is in operation, comprising, a scoop member pivotally secured to said carriage means and extending into the path of said first mentioned buckets at a point where they will normally commence the discharge of their load, said scoop member being enveloped by each bucket each time they pass said last mentioned point, the movement of said buckets causing said scoop member to move therewith until said buckets move free of said scoop member, said scoop member when moving within said bucket effecting a scoop action against material carried therein, and means on said scoop member for automatically returning it to original position for association with successive buckets on said chain.

2,782,535
DITCHING MACHINE
Revllo Fuller, Phoenix, and James Orien Lair, Tolleson, Ariz., assignors to Fullerform, Inc., Phoenix, Ariz., a corporation of Arizona
Application September 28, 1953, Serial No. 382,694
14 Claims. (Cl. 37—97)

1. In a ditching machine, a cylindrical digger wheel rotatable on a transverse horizontal axis, a transversely disposed conical digger wheel on each side of said cylindrical digger wheel each rotatable on an axis angularly related to each other and to said axis of said cylindrical digger wheel, digging teeth on said cylindrical digger wheel traveling in a path to cut a vertical sided trench, digging teeth on said conical digger wheels traveling in conically arranged circular paths for cutting sloping sides of the ditch, certain of said digging teeth on each of said conical digger wheels traveling in a path which is angularly related to the path traveled by the digging teeth on said cylindrical digging wheel and having a portion which lies within the projection of the width of said last mentioned digging teeth path, means for simultaneously rotating said cylindrical digger wheel and said conical digger wheels including means for rotating said conical digger wheels in the same direction and at a faster revo-

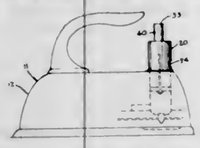


lution per minute than said cylindrical digger wheel, means for bodily moving said digger wheels while simultaneously rotating at feeding movement along a berm to cut a ditch therein, scraper blade means located behind said digger wheel to finally size the ditch cut by said digger wheels, said scraper blades to be positioned relative to said wheels so that material scraped up in front of said scraper blade means is downwardly and forwardly engaged by and discharged from the ditch by said digger wheel teeth, and a ground contacting shoe engaging the bottom of the finished ditch carried on and fixed to said scraper blade means, and berm contacting shoes located at the outer ends of said conical digger wheels and carried on said scraper blade means.

2,782,536
CONVEYOR PRESSING AND IRONING APPARATUS
James F. Kroener and Osmund J. Gensley, Reading, Pa., assignors to American Safety Table Company, Inc., Reading, Pa., a corporation of Pennsylvania
Application September 4, 1953, Serial No. 378,462
8 Claims. (Cl. 38—11)

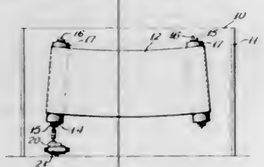
1. In a pressing and ironing machine, a base structure having a longitudinally extending upwardly presenting work supporting surface, a unit disposed over said base structure and having a longitudinally extending downwardly presenting work engaging surface, and means mounting said unit on said base structure for adjustment of the space between said surfaces, said means comprising a rack and pinion assembly for each end of said unit, each assembly including a vertically extending rack subassembly axially shiftable and mounting the associated end of said unit for vertical swinging movement of the unit, and a pinion subassembly operable from one side of said machine to shift said rack subassembly axially to a desired position, said pinion subassembly including means for releasably locking said rack subassembly in the position selected.

2,782,537
STEAM PRESSING IRON
Rafael Vera-Mege, Concepcion, Chile
Application June 29, 1954, Serial No. 440,218
2 Claims. (Cl. 38—77)



1. In a steam pressing iron, a steam generating chamber having a top wall, a water storage chamber having a top wall and a bottom wall arranged in superimposed relation with respect to said steam chamber with the bottom wall spaced from the top wall of said steam chamber, a cylinder extending vertically through the top and bottom walls of said water chamber and having the lower end portion extending into the space between the bottom wall of said water chamber and the top wall of said steam chamber and having the upper end portion exteriorly of the top wall of said water chamber, a nozzle projecting through the top wall of said steam chamber and connected in communication with the lower end portion of said cylinder, there being an aperture in the portion of said cylinder between the top and bottom walls of said water chamber adjacent the bottom wall of said water chamber, an upstanding housing exteriorly of said water chamber and having the lower end portion surrounding the upper end portion of said cylinder and having the upper end portion exteriorly of the upper end portion of said cylinder, a piston slidable within said cylinder, a piston rod extending vertically and slidably through the upper end portion of said cylinder and the upper end portion of said housing and having the lower end fixedly secured to said piston, a plunger mounted in the upper end portion of said housing for up and down movement and operatively connected to the upper end of said piston rod, a valve chamber in said water chamber and connected in communication with said cylinder portion aperture, said valve chamber being provided with an aperture for ingress therethrough of water contained in said water chamber, and a valve in said valve chamber normally in open position with respect to the valve chamber aperture and movable to closed position with respect to the last mentioned aperture in response to pressure flowing through the cylinder aperture.

2,782,538
DISPLAY DEVICE
Leonard Peretti, Chicago, Ill., assignor to Arvey Corporation, Chicago, Ill., a corporation of Delaware
Application May 31, 1956, Serial No. 588,436
5 Claims. (Cl. 40—96)

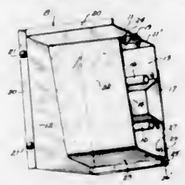


5. An animated display device comprising a fixed component including a vertically extending facing formed with a sight opening, a movable component comprising an endless belt disposed to move substantially parallel to the plane of and to embrace and to remain in substantial registry with said sight opening, the edges of said belt being arcuate and substantially concentric and the upper being shorter than the lower, and means for supporting and moving said belt comprising a pair of spaced cylinders rotatably engaged to said fixed component with their axes substantially parallel to said facing and slightly inclined at their upper ends toward each other an equal degree to the vertical and telescopically disposed within said belt gravitationally retaining it thereover freely spaced from the cylinder ends, and means for driving one of said cylinders.

2,782,539
ROTATABLE CALENDAR STAND
Giles A. Baker, Scarsdale, N. Y., assignor, by mesne assignments, to Pyro Plastics Corporation, Union, N. J.
Application March 29, 1955, Serial No. 497,690
4 Claims. (Cl. 40—111)

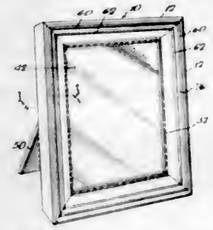
1. A stand for calendars and the like comprising a body having a sloping front face, an opening across said face, a cylinder mounted for rotation and pivoted within said body, data on said cylinder visible through said opening, said cylinder being so positioned that a minor portion thereof extends outwardly beyond said face, arcuate extensions at the ends of said opening into which the ends of said cylinder fit, flanges along the top and bottom edges of said opening extending outwardly and supporting said cylinder, and means in said body at the ends thereof supporting the ends of said cylinder.

2,782,540
ILLUMINATED DISPLAY SIGN FOR WINDOWS
Gilbert C. Jacobs, Milwaukee, Wis., assignor to Everbrite Electric Signs, Inc., Milwaukee, Wis., a corporation of Wisconsin
Application August 19, 1954, Serial No. 450,865
2 Claims. (Cl. 40—132)



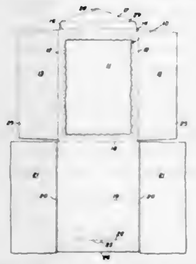
1. An illuminatable display sign for mounting adjacent the inner face of a window pane, comprising a box-like frame with illuminating means therewithin, the display sign also having a display panel to be visible throughout an adjacent window pane, said panel including a flat face forming the front of the frame and an integral rearward extension forming the bottom of the frame, said panel normally completely closing the front and bottom of the frame, complementary hook means formed on the forward top portion of the frame and the upper margin of the panel to hingedly mount the panel on the frame in a manner so that the face of the panel, in its normal closed position relative to the frame, forms a downwardly spreading acute angle with the face of an adjacent window pane, and means releasably securing the lower portion of the panel to the frame, the panel, when said securing means is released, being hingedly movable to bring its lower margin into substantial engagement with an adjacent window pane with the panel extension being swung free of portions of the bottom of the frame to thereby provide a bottom service opening into the interior of the illuminated display sign frame.

2,782,541
WOODEN PICTURE FRAME WITH METAL TRIM AND METHOD OF MAKING THE SAME
Maurice Spertus, Chicago, Ill.
Application July 6, 1954, Serial No. 441,510
3 Claims. (Cl. 40—152)



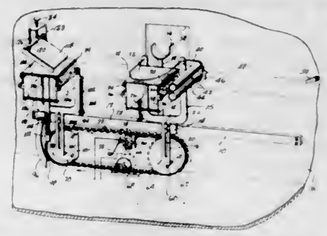
1. A picture frame comprising longitudinal and transverse lengths of wooden strips joined at their extremities to form a frame adapted to encompass a picture area, said strips being formed on their faces with grooves parallel to the lengths of said strips and joining at their extremities to form a continuous groove about the picture area; a metal frame interengaging said continuous groove, said metal frame being formed of sheet metal strips joined at their extremities, said sheet metal strips being formed with flanges longitudinally of the strips and bent transverse to the face thereof, said flanges entering said grooves, there being spaced protruding ribs formed on said metal strips providing therebetween a closed channel encompassing the picture area; and shallow veneer strips of wood of the same kind and finish as the wood of the frame body attached in said channel and covering the entire bottom thereof between said ribs, so as to encompass the picture area, concentric with the wooden frame body; the said metal ribs spaced by the veneer strips giving an effect of spaced metal inlays in the wooden frame.

2,782,542
PICTURE MOUNTS
Gilbert A. Blevens, Chicago, Ill., assignor, by mesne assignments, to Taprell Loomis, Inc., Rochester, Mich., a corporation of Michigan
Application January 8, 1953, Serial No. 330,321
3 Claims. (Cl. 40—152.1)



1. A picture mount formed from a single piece of cardboard to provide an apertured picture panel, side flaps hingedly secured to opposite side edges of said panel and foldable over one side thereof and cooperating therewith to provide a picture receiving pocket positioned between facing surfaces of said panel and flaps, the aggregate width of the flaps being within the width of said picture panel, a body panel slightly wider than the picture panel having an end edge hingedly connected to one end edge of said picture panel and cooperating therewith to close one end of said pocket, said body panel being folded to overlie the side of said folded flaps remote from said pocket, means for securing said body panel to said flaps to retain the parts in assembled relation, a tongue hingedly connected to the end edge of said picture panel opposite said one end edge, said tongue being foldable over the end of said flaps and the end edge of said body panel opposite that connected to said picture panel to close the other end of said pocket, said body panel being formed with a slit adapted to receive said tongue, edges of said slit frictionally engaging said tongue in position in said slit to releasably hold said tongue in pocket closing position, and side flaps of an aggregate width greater than the width of the body panel hingedly connected to opposite side edges of said body panel and adapted to be folded over said picture panel.

2,782,543
FINGER PRINTING APPARATUS
Ricardo Hurtado Soto, Bogota, Colombia
Application January 13, 1956, Serial No. 559,051
9 Claims. (Cl. 41—4)



3. Finger printing apparatus comprising a stationary support; a finger rest on said support on which may be positioned a finger the print of which is to be recorded; a carriage mounted on said support for horizontal sliding movement; an inking assembly mounted on the carriage for vertical sliding movement and adapted, when shifted upwardly, for inking said finger; a printing assembly mounted on the carriage for vertical sliding movement and spaced horizontally from the inking assembly, said printing assembly adapted, when shifted upwardly, for pressing against the inked finger a web on which the print is to be made; means for horizontally shifting the carriage to first locate the inking assembly in position to ink the finger and then locate the printing assembly in position to impose the print of the inked finger upon said web; and means responding to horizontal movement of the carriage in one direction to advance the web upon the printing assembly.

2,782,544
FIBER GLASS DISPLAY ARTICLE AND METHOD OF MAKING SAME
Frank J. Tobin, Cleveland, Ohio
Application January 7, 1955, Serial No. 480,536
3 Claims. (Cl. 41—21)

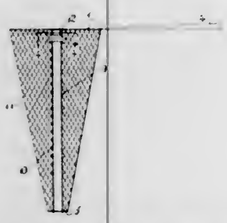
1. A translucent, hardened, resin-containing, hollow, fiber glass display article comprising a raised face portion consisting primarily of matted fiber glass and a side portion extending from the face portion at an obtuse in-

cluded angle thereto, consisting primarily of unpressed chopped fiber glass and capable of passing more light therethrough than the face portion.

2,782,545
ADJUSTABLE HAND POSITIONER FOR SHOTGUNS AND RIFLES
Mathew J. Schadeck, San Joaquin, Calif.
Application September 20, 1954, Serial No. 457,065
1 Claim. (Cl. 42—71)

A hand positioner for a firearm having a forestock, arranged for hand engagement, said positioner comprising an elongated body, means to secure the body on the underside of the forestock lengthwise thereof, said body being of upwardly facing channel form in section and having an elongated slot in the bottom thereof, a threaded stem depending through the slot, a head fixed on the upper end of the stem, said head being slidable and non-turnable in the channel, and a knob for hand edge abutment adjustably threaded on the stem whereby to clamp the bottom of the channel between the head and the knob at any position of the latter along the slot in immediately adjacent relationship thereto.

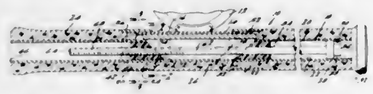
2,782,546
LANDING NET
Frederick James Edworthy, Millwater, Manitoba, Canada
Application January 26, 1955, Serial No. 484,093
2 Claims. (Cl. 43—11)



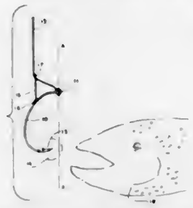
1. A landing net for anglers comprising in combination an upper hoop provided with a split, a base plate having a radial slot, the slot in said base plate being in alignment with the split in said hoop, a pair of parallel brace rods extending between said hoop and said base plate, one each adjacent each side of said split and said slot, adapted to maintain said hoop and said base plate in spaced relationship, enclosing material secured to said upper hoop around the perimeter thereof, to said base plate around the perimeter thereof, and to said brace rods along the length thereof, a handle extending from said upper hoop, and means adjacent said split adapted to hold said brace rods in spaced and parallel relationship and adapted to pass a line through said split.

2,782,547
FISHING ROD HANDLE AND REEL SEAT
Earl L. McMullin, Hastings, Mich., assignor to Orchard Industries, Inc., Hastings, Mich., a corporation of Michigan
Application May 26, 1955, Serial No. 511,161
8 Claims. (Cl. 43—22)

1. In a fishing rod handle, means for positively clamping a reel to said handle comprising, in combination, a tubular member having a wall defining a bore, said wall of said tubular member also being provided with an aperture which communicates with the bore of the tubular member intermediate the ends thereof, a pair of seat members carried by said tubular member at opposite ends of the aperture in the wall of said tubular member, each of said seat members having an annular band portion spacedly encompassing said tubular member and a body portion defining guideways extending inwardly of said band portion, a clamping element including a body portion extending between said seat members, the opposite ends of said body portion of said clamping element being disposed in the guideways defined by said seat members, said clamping element also including a plurality of transversely projecting cam portions extending through the aperture in the wall of said tubular member and terminating in the bore of said tubular member, a pair of jaw elements mounted in the bore of said tubular member in longitudinally spaced relationship, each of said jaw elements having a cam surface engageable with the cam portions of said clamping element, and means for moving said jaw elements into engagement with said cam portions of said clamping element to effect transverse movement of said clamping element relative to said band portions of said seat members.



2,782,548
FISHHOOK
Earl M. Linton, Tampa, Fla.
Application November 19, 1954, Serial No. 469,975
1 Claim. (Cl. 43—37)



A fish hook comprising a curved length of metal formed at its lower end with a sharp point adapted to receive a bait thereon and to impale the mouth of a fish, an eye integrally formed at the upper end of said curved length of metal for connecting a fish line thereto, and a length of normally straight spring wire secured at its lower end to the back of said curved length of metal intermediate said eye and point, and an eye integrally formed at the upper end of said spring wire adapted to slidably receive the fishing line.

2,782,549
FISH LURE
Walter Jordan, Edmonton, Alberta, Canada
Application July 16, 1953, Serial No. 368,251
1 Claim. (Cl. 43—42.51)

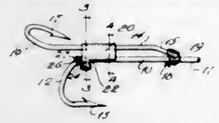
A fish lure comprising a relatively thin plate having, when viewed in side elevation, oppositely curved upper and lower edges, a vertical rear edge and a vertical front edge, said upper and lower edges curving into said front and rear edges, said rear edge being longer than said front edge, and a hook element secured adjacent said rear

edge, said hook being pivotally secured adjacent said rear edge at a point removed from the longitudinal centre line of said plate, said plate having bends in opposite directions to provide upper and lower portions, the lines of said bends being parallel to the longitudinal axis, along the major part of the length thereof so that when viewed in cross-section, said plate includes upper and lower portions in spaced relationship, separated by a centre portion, said portions lying in different planes in angular relationship one with the other.

2,782,550
BAIT HARNESS AND FISHHOOK
Norbert C. Bretl, Stevens Point, Wis., assignor of fifty percent to Clifford W. Peickert, Stevens Point, Wis.
Application August 2, 1955, Serial No. 525,916
2 Claims. (Cl. 43—44.4)

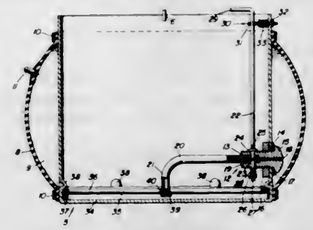
1. For use when fishing, a live bait, an endless rigid band embracing and stabilizing the body portion only of said bait somewhat midway between the head and tail portions of said bait and having fishhook anchoring holes therein, and a conventional fishhook having a shank with a curvate bend and terminal barb at one end passing through said body portion and holes in said band, whereby to thus securely join the bait to the band, or vice versa, and the fishhook to said body portion, said band being snug-fitting and conformable in shape, generally speaking, to the portion of the bait which is encircled and embraced thereby.

2,782,551
ATTACHMENT FOR FISHHOOKS
Jerry W. Raymond, Wenatchee, Wash.
Application April 7, 1953, Serial No. 347,340
1 Claim. (Cl. 43—44.82)



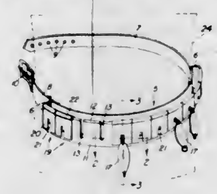
An attachment for a standard fish hook which hook has a straight shank formed at one end with an eye for its attachment to a fishing line and formed at its other end into a bill; said attachment comprising an auxiliary fish hook having a shank formed at one end with a bill and having a terminating portion at its other end directed laterally relative to the plane of its bill portion, a tie wire soldered between its ends to said laterally directed portion of said shank, and a clip formed from a flat piece of metal bent to U-form and applied to the shank of the said auxiliary hook near its bill portion, with the free edge portions thereof containing the auxiliary hook shank therebetween and soldered thereto and with the closed end of the U-shaped portion spaced from the shank, and a tie wire soldered between its ends to the U-shaped seat of said clip, said wire being wrapped about the standard fish hook bill to hold the same in position between the sides of the said clip, and the shank thereof maintained in a position extended along the shank of the auxiliary hook, the end of the laterally directed portion of the auxiliary hook shank engaging the standard hook shank at a point adjacent the eye thereof, and said first mentioned tie wire being wrapped about the adjacent portions of the shank of the standard hook thus joining the hooks together.

2,782,552
LIVE BAIT PAIL
David Adams, Roseville, and Herbert Moss, Detroit, Mich.
Application March 7, 1955, Serial No. 492,377
8 Claims. (Cl. 43—57)



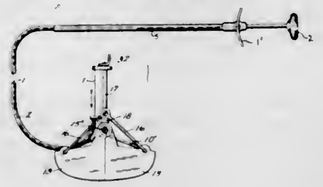
1. A live bait pail of the character described comprising: a bucket for the reception of water, a resilient, collapsible inflatable air jacket encircling said bucket, and means for conveying air under pressure from the jacket into the lower portion of the bucket.

2,782,553
FISHING TACKLE BELT
Stanley S. Harris, Culver, Oreg.
Application February 17, 1955, Serial No. 488,769
5 Claims. (Cl. 43—57.5)



1. A fishing tackle belt for mounting on a human body, said belt comprising: a channel bar for the reception of fishhooks, means for mounting said channel bar on the body, said channel bar including a front wall having slots therein accommodating the shanks of the hooks, and means for removably securing the shanks in the slots.

2,782,554
TOY GRABS
Heinrich Müller, Nurnberg, Germany
Application January 5, 1953, Serial No. 329,673
1 Claim. (Cl. 46—40)



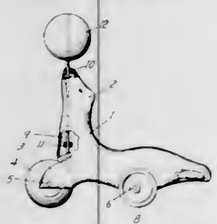
A toy grab, comprising a suspension rod vertically positioned when in operation, two grab shells pivoted to said rod at the lower end thereof and capable of movement between open and closed positions, a slide member seated on said rod, struts linking said member with points

of said shells spaced from the respective shell pivot points whereby movement of said member along said rod causes said shells to move between said positions, and mechanical actuating means for moving said member along said rod, said actuating means comprising a manual control device, and a cable-like control connection connecting said device with said rod and slide members, said control connection having one end rigidly connected with said device, said control connection being semi-rigid along a substantial part of its length extending from said device to permit controlling the position of said suspension rod by movement of said device.

2,782,555
SCALE MODEL GUN TURRET
Lewis H. Glaser, Brentwood, Calif., assignor to Revell, Incorporated, Venice, Calif., a corporation of California
Application January 15, 1954, Serial No. 404,249
5 Claims. (Cl. 46—93)

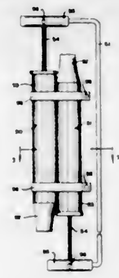
1. In a model or toy gun turret, a housing having an inclined front wall, a support member depending from said housing providing a means for mounting and rotating said turret on a base therefor, a plurality of openings in said front wall, the sides of said openings extending vertically from a horizontal edge of said front wall, the width of said openings being less than the height thereof, said openings being of substantially equal size and being spaced apart at substantially equal intervals along said front wall, a plurality of gun barrels equal in number to the number of said openings, each of said openings having one of said gun barrels extending therethrough, a connecting bar integral with each of said barrels at the breech ends thereof and extending transversely of said barrels, the diameter of the breech ends of said barrels being substantially equal to the width of said openings whereby said guns fit snugly in said openings and are pivotally supported between the sides of said openings to permit elevation and lowering of said guns in a manner resembling the movement of a battery of real guns.

2,782,556
WHEELED TOY
Paul R. Otis, Allegan, Mich.
Application April 28, 1955, Serial No. 504,580
5 Claims. (Cl. 46—104)



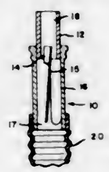
1. A toy comprising a figure simulating an animal including a substantially horizontal body portion having an upright neck and head portion, said body portion having forwardly diverging arms, a spherical front wheel journaled between said arms, an axle rotatably mounted on said body portion in rearwardly spaced relation to the front wheel and intermediate the front and rear ends of the body portion, wheels eccentrically and fixedly mounted on said axle with the eccentricity thereof in nonaligned relation, a vertically disposed slightly inclined spindle rotatably mounted within said neck and head portion to project from the top thereof, a ball mounted on the upper end of said spindle, and a convexedly faced disc on the lower end of said spindle in supported frictional driving engagement with said spherical front wheel at the rear of the axis thereof and at one side of the central plane of the wheel transverse of its axis.

2,782,557
PUMP OPERATED CALL DEVICE
Max Harley, Detroit, Mich.
Application March 12, 1956, Serial No. 571,021
1 Claim. (Cl. 46—180)



A double acting call device comprising two oppositely disposed side by side single acting call units arranged in a unitary assembly, each unit having a call head and a body, said head having a vibrating reed and open at both ends to provide air inlet and outlet ports, said body comprising a long airtight tube or cylinder open at both ends, with the head disposed in and seal fitted in one end opening with its air inlet port inside the cylinder, a piston in said cylinder, a piston rod connected to said piston and passing through the other end opening of said cylinder, means for securing the two units together side by side and in opposed relation to form a unitary assembly, with each unit having its call head located adjacent the piston rod of the other unit, and common actuating means for said piston rods for moving each of them relative to its cylinder and moving both of them simultaneously in the same direction, but with opposite effects on the heads associated with said piston rods, the actuating means being a long rod alongside the device and extending from end to end of it and connected at its opposite ends to the two opposed piston rods.

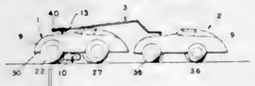
2,782,558
CALL DEVICE
Max Harley, Highland Park, Mich.
Application August 29, 1955, Serial No. 531,051
2 Claims. (Cl. 46—180)



1. A hunter's call device comprising a conventional call head and a body, said call head being of conventional form and having a vibrating reed, and open at both ends to provide air inlet and outlet ports, said body comprising a long limp tube of highly resilient highly flexible airtight material, such as rubber, in the form of a cylinder, whose length is considerably greater than its diameter, with a closed end opposite the head end, the latter end being

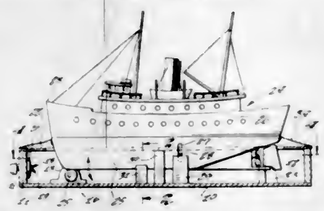
open and seal fitted over the air inlet port of the head, whereby the device may be manipulated for game calling by holding the call head in one's palm with the outlet end of the head covered by the palm and with the tube suspending freely from the palm, and shaking the tube freely and rapidly in short jerky strokes from the palm while the tube is so suspended, with the tube being long enough and limp enough and of small enough diameter and resilient enough to whip or distort substantially by bending out of vertical when so shaken to expel air from within the tube outwardly through said head to produce sounds while so shaken, the sounds being a continuous chatter during the period of shaking to simulate a duck feed call.

2,782,559
MULTIPLE VEHICLE TOY
Walter L. Strauss, New York, N. Y.
Application July 14, 1954, Serial No. 443,385
11 Claims. (Cl. 46—206)



1. A multiple vehicle toy comprising a self-propelled first vehicle including a driving mechanism, a free wheeling second vehicle disposed in the same horizontal plane as the first vehicle, a rigid connecting arm coupled with one end to the driving mechanism continuously to revolve the other end of said arm about said first vehicle as center in a generally horizontal plane, the said other end of the arm being secured to the second vehicle, freely rotatable relative thereto whereby the revolutions of said arm causes the second vehicle to circle about the first vehicle while both the vehicles simultaneously travel along together in a generally common direction.

2,782,560
PITCH AND ROLL VESSEL
John A. Pollnitz, Bronx, N. Y.
Application June 7, 1955, Serial No. 513,817
3 Claims. (Cl. 46—243)

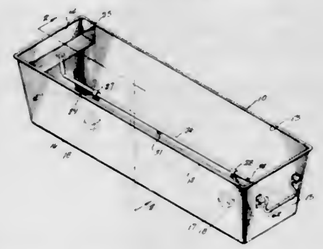


1. An article of the class described comprising a hollow casing, a model boat positioned within said casing, said model boat extending upwardly above the top of said casing in freely spaced relationship thereto, and electric means for imparting an oscillating movement to said model within said casing, said electric means comprising electric motor means mounted within said casing, means for supplying current to said electric motor means, switch means operable from outside of said casing connected in series with said motor and an eccentric on a drive shaft of said motor, the bottom of said model and the front thereof resting on said eccentric, a pair of oppositely disposed supports mounted within said casing on opposite sides of said model, a transverse pin and the ends thereof supported on said supports, said model having a vertically elongated slot therethrough receiving said pin therethrough, a first mounting block within said casing having a downwardly and inwardly inclined upper edge supporting the bottom of said model near the center thereof, and a second mounting block disposed oppositely of said first mounting block and supporting the rear of said model whereby to impart a rolling motion to said model as it pitches about said pin.

2,782,561
TREE SURROUNDING RING
Robert A. Smith, Haskell, N. J.
Application July 22, 1954, Serial No. 444,978
3 Claims. (Cl. 47—25)

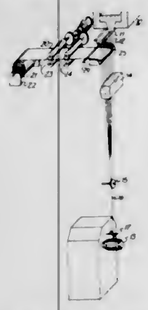
1. A tree surrounding ring device comprising at least one portion having detachable connected ends, the said portion having an inner and outer vertical wall of substantially equal height and being spaced apart from each other and a substantially horizontal base connecting the said vertical walls, the lower edge of the said vertical walls being adapted to engage the ground, the said inner and outer vertical wall having downwardly extending projections securing the said ring device in the ground one of the said detachable connecting ends having a channel-like projection member of a width narrower than the said base and disposed slightly lower than the latter, the said projection member having a crosswise disposed slot in the upper portion thereof, and the other of the said detachably connecting ends having a latch adapted to be disposed vertically when inserted into the slot of the said projection member so that the connected ends engage in such manner that the base of one end is flush with the base of the other end.

2,782,562
FLOWER BOX
John Watkins, Buffalo, N. Y.
Application August 26, 1955, Serial No. 530,753
2 Claims. (Cl. 47—38)



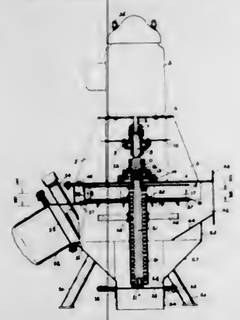
1. A flower box comprising a flat bottom, a pair of upstanding side walls rising from said bottom, and an end wall between and attached to the adjacent ends of said side walls and forming an enclosure for housing a mass of soil, said flat bottom having a plurality of openings arranged in spaced relation with respect to each other and spaced from said side and end walls, a cup having a perforated bottom and a side wall extending about the boundary of said bottom positioned within said enclosure so that the perforated bottom is spaced above said flat bottom with the free edge of the cup side walls surrounding each of said openings and secured to said flat bottom, a solid plug fabricated of filtering material and conformably shaped to fit within the inverted cup insertable into each of said openings and the adjacent cup from a point exteriorly of said flat bottom, and cooperating means on each of said plugs and cup side wall of the adjacent cup for releasably securing said plug to said cup.

2,782,563
METHOD AND MEANS FOR PRODUCING METAL-COATED GLASS FIBERS
Robert G. Russell, Granville, Ohio, assignor to Owens-Corning Fiberglas Corporation, a corporation of Delaware
Application November 23, 1953, Serial No. 393,580
11 Claims. (Cl. 49—17)



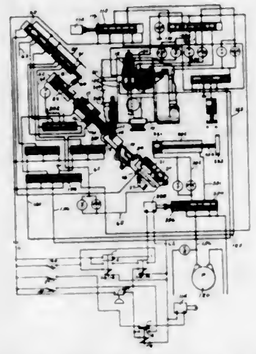
9. Apparatus for producing metal-coated glass filaments comprising means for providing streams of molten glass, means for attenuating said streams into filaments, an applicator for preheating and melting metal in sheet form for application to said glass filaments, means for feeding sheet metal over said applicator, said applicator comprising a planar-surface member constructed of high temperature resistant, heat-conducting material to permit heat-softening of the metal thereon, means for heating said member, said planar-surface member being located adjacent said filaments in a zone where the filaments are sufficiently hot with heat retained following formation that some retained heat will be transmitted to metal on said member, said planar member also being inclined to said filaments to promote movement of said metal toward said filaments to effect a coating thereof.

2,782,564
CENTRIFUGAL ABRADING MACHINE
Arno J. Liebman, Pittsburgh, Pa., assignor to Centriblast Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application October 11, 1954, Serial No. 461,504
20 Claims. (Cl. 51—9)



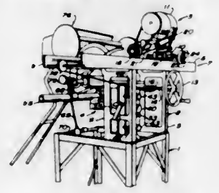
1. An abrading machine in the form of a self-contained unit comprising a casing with side walls and a bottom having a laterally projecting enclosure at one side thereof providing an enclosed extension terminating in a window for the discharge of abrasive pellets against an object placed in front of the window against the extension, a centrifugal abrasive throwing wheel in the casing rotatable about a vertical axis at the level of the window, a means for driving the wheel, and a conveyor in the casing extending down from the wheel for gathering abrasive pellets which rebound from the object being abraded and collect in the casing and discharging said abrasive pellets into the wheel.

2,782,565
VALVE GRINDER
Alvin J. Jones and Harold E. Balsiger, Waynesboro, Pa., assignors to Landis Tool Company, Waynesboro, Pa.
Application March 25, 1954, Serial No. 418,579
10 Claims. (Cl. 51—37)



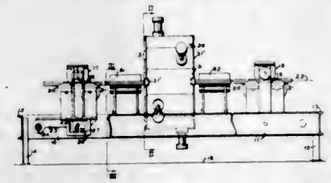
1. A grinding machine having a bed, a work support mounted thereon, means for rotatably supporting a work piece on said work support, a grinding wheel support slidably mounted on said bed, means for effecting relative transverse and longitudinal movement between said supports, means including a switch actuated in response to said transverse movement for initiating said longitudinal movement at a predetermined point in said transverse movement and means including another switch operable at a predetermined point in said longitudinal movement for stopping said transverse movement.

2,782,566
LAWN MOWER GRINDING MACHINES
Edgar K. Rogers and Floyd R. Rogers, Lindsey, Ohio
Application April 21, 1954, Serial No. 424,636
5 Claims. (Cl. 51—48)



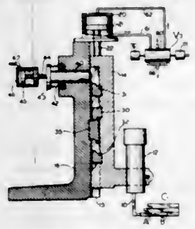
1. In a lawnmower grinding machine, in combination, a frame, a trackway fixed to the frame, a reciprocatory carriage on the trackway, means for sliding the carriage along the trackway, a motor driven grinding wheel adjustably mounted on the carriage, a dovetail way fixed to the frame, a dovetail slidably mounted in the dovetail way for locating a device to be ground vertically to the trackway, means for sliding the dovetail, a bracket pivotally attached to the dovetail, rocking means for pivoting the bracket about a generally horizontal axis for locating the device to be ground horizontally to the trackway, a shaft operatively connected to and carried by the bracket, additional rocking means for pivoting the shaft about a generally vertical axis for locating the device to be ground in parallel relationship to the trackway, and means for securing the device to be ground to the shaft.

2,782,567
BAR GRINDING MACHINE
Stephen Opalick, Youngstown, Ohio, assignor of two-fifths to Raymond S. Powers, Youngstown, Ohio
Application August 10, 1955, Serial No. 527,518
12 Claims. (Cl. 51—87)



1. A grinding machine for removing surface defects from hot rolled bar and rod stock and the like comprising a base, means to forcibly propel stock therealong, a frame mounted on said base intermediate its ends and disposed generally tranversely to the line of movement of said stock, a plurality of grinders mounted on said frame for radial movement toward and away from said line of movement, alternate ones of said grinders being mounted in offset relation to the others, separate actuators for said grinders, separate control means for said actuators whereby said grinders may be independently moved toward or away from said stock, and arcuate mirror means positioned adjacent said frame and beneath said stock whereby to expose the lower surfaces of said stock to the view of an operator positioned in direct viewing relation to upper surfaces of said stock.

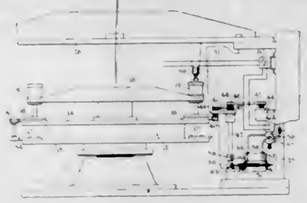
2,782,568
TRACER-POSITIONING APPARATUS
Constantine F. Cafolla, Waterloo, and Edwin R. Smith, Seneca Falls, N. Y., assignors to Seneca Falls Machine Company, Seneca Falls, N. Y., a corporation of Massachusetts
Application December 20, 1955, Serial No. 554,226
2 Claims. (Cl. 51—100)



1. In a pattern-and-tracer control mechanism comprising a plurality of pattern plates and a single associated tracer, in combination, a tracer slide having three spaced lugs fixed thereon, a bracket for said slide having a double fixed abutment engageable by two of said lugs successively to determine two different operative positions of said slide and tracer, a third abutting member movable to and from engaging position with respect to the third lug on said slide, and selective means to move said third member to lug-engaging position.

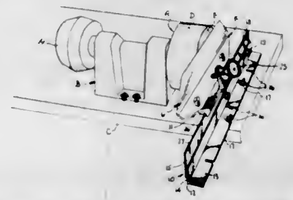
2,782,569
CORNER GRINDING MECHANISM AND METHOD
Bruce D. Robbins, Arnold, Pa., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania
Application December 11, 1952, Serial No. 325,296
3 Claims. (Cl. 51—101)

1. In combination with a machine for edge grinding glass plates comprising a relatively large grinding wheel, a rotatable table and means for mounting a glass plate in fixed relation to said rotatable table to rotate an edge thereof past said wheel, a corner grinding attachment comprising an arm pivotally mounted on said machine, a relatively small grinding wheel journaled in said arm, a motor, drive means connecting said motor to said small wheel to rotate the latter, tension means to urge said arm



and small wheel toward the edge of the glass plate mounted on said table, power means connected to said arm for moving said arm and small wheel away from said edge, and control means to deactivate said power means when the corners of the edge pass the position to which the small wheel is urged by said tension means when the control means is deactivated.

2,782,570
GRINDING GUIDE AND CARRIER
George H. Ische, Minneapolis, Minn.
Application November 9, 1954, Serial No. 467,765
4 Claims. (Cl. 51—122)

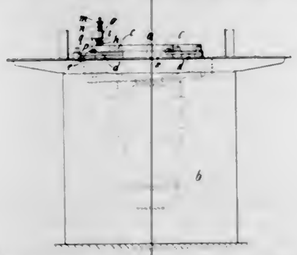


1. For grinding the beveled edge of a cutting blade of the character described upon the radial end face of an abrasive wheel operatively arranged above a work surface, a guide rail having an upper guide edge extending tangentially to a circle centered on the axis of the wheel and spaced from the end face thereof, an angle iron and means mounting the said guide rail on the angle iron for up and down movements and means mounting the angle iron upon the work surface for adjustment toward and away from the wheel, a carrier for holding the blade as it is ground and having spaced lugs and a clamp screw for clamping the blade against said lugs with the beveled edge of the blade projecting above the lugs, and the carrier having in its bottom an elongated groove resting upon the said guide edge of the guide with the beveled edge of the blade engaging the end face of the wheel whereby as the carrier is moved along the guide rail the blade will be guided at the proper path and at the proper angle across the radial end face of said wheel.

2,782,571
LAPPING MACHINES
Oswin P. Hanson, Flixton, Manchester, England, assignor to Flexibox Limited, Manchester, England, a British company
Application July 5, 1955, Serial No. 520,014
Claims priority, application Great Britain June 3, 1955
6 Claims. (Cl. 51—131)

1. In a lapping machine, a frame, a rotatable lap plate having an annular lap surface adapted to receive an article and capable of producing a desired surface on

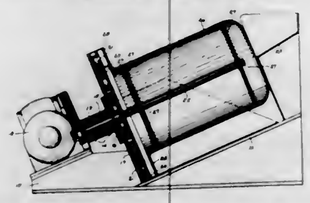
the article by relative movement between the lap surface and article, means for rotating the lap plate, a generally circular lap surface conditioning and article holding ring positioned on said surface, means supported by the frame and cooperatively associated with said ring to restrain the same from revolving with the plate while permitting the ring to rotate about its axis, said ring having a diameter such as to overlap one edge of said surface more than the other, and adjustable pressure applying means supported by the frame and engaging the top of the ring only at the side thereof that has the least overlap relative to an edge of said surface for increasing the wear on the surface adjacent said last mentioned edge thereof to compensate for the greater wear imparted to the surface at the side of the ring that has the greater overlap relative to the opposite edge of the surface so that the lapping surface is worn substantially uniformly and maintained substantially flat from edge to edge.



2,782,572
CYLINDER HONES
James T. Clark, Fort Morgan, Colo.
Application April 20, 1956, Serial No. 579,478
5 Claims. (Cl. 51—184.3)

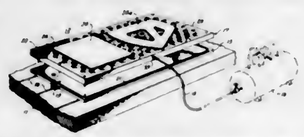
1. A cylinder honing tool comprising: a shaft; a disc secured on the forward extremity of said shaft; a bearing spider slidably mounted on said shaft rearwardly of said disc; hone arms hingedly mounted on said spider and extending forwardly about and forwardly of said disc; a honing device tiltably mounted on the forward extremity of each arm; inclined portions on each arm adapted to contact said disc as said spider is forced forwardly, so that the incline of said portions will act to expand the forward extremities of said arms from each other; and means for urging said spider forwardly on said shaft to cause said disc to exert an expanding action on said arms.

2,782,573
WORK FEEDING DEVICE
Harold E. Balsiger, Waynesboro, Pa., assignor to Landis Tool Company, Waynesboro, Pa.
Application November 13, 1952, Serial No. 320,296
7 Claims. (Cl. 51—215)



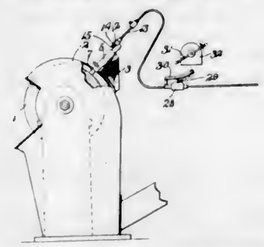
2. Means for feeding work pieces into a machine comprising a pair of spaced rollers angularly related so as to cause said work pieces to move axially thereon, means for rotating said rollers, means for supplying work pieces to said rollers comprising a hopper rotatable about an inclined axis, a rotatable disc in said hopper and having means thereon for removing work pieces from said hopper, means for rotating said disc including a motor, a chute connecting said hopper and said rollers, said rotating means serving to transfer said work pieces from said hopper to said chute, and means including a curved portion in said chute, a switch in the circuit of said motor and attached to said chute and having its operating member extend through the wall of said chute into the path of the work pieces, whereby when the movement of said work pieces is obstructed at a point beyond said curved portion one of the work pieces in said curved portion will be forced against said switch by pressure of other work pieces being fed into said chute, to stop said motor.

2,782,574
WORK HOLDER
Milburn C. Copold, San Diego, Calif., assignor to General Dynamics Corporation, San Diego, Calif., a corporation of Delaware
Application September 16, 1954, Serial No. 456,504
3 Claims. (Cl. 51—235)



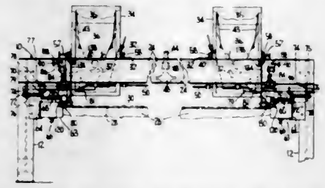
1. A vacuum work holder comprising a first plate having a plurality of exhaust openings arranged in rows and in staggered relationship, said plate having spaced apart perimetrical, groove-like recesses formed therein located about said openings, flexible gaskets disposed in said recesses and embodying outwardly curving lip portions operative to yieldably engage the undersurface of work to be held when said work is disposed thereover, said lip portions serving upon engagement with the undersurface of said work to block off the outer portions of said recesses to thereby substantially prevent the entry of foreign matter into said recesses, and a second plate forming with said first plate a plurality of communicating passages interconnecting said exhaust openings, said communicating passageways being adapted to permit the exhausting of air therethrough, said exhaust openings adapted to be selectively blocked by closure means.

2,782,575
BUFFING STICK FEEDER
Carl R. Housdorfer, Grand Rapids, Mich.
Application November 7, 1955, Serial No. 545,202
7 Claims. (Cl. 51—263)



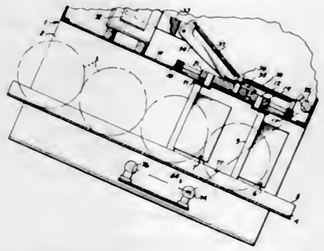
1. Apparatus as described comprising, an elongated stick holder having an open end and a transverse member at the opposite end, a rod mounted on and slidably passing freely through said transverse member, means mounted beyond said transverse member for longitudinally moving said rod at intervals in the direction of its length toward the open end of said holder, said rod being adapted to engage at one end against the inner end of a stick of buffing or polishing material in said holder and slidably bodily move said stick at its other end beyond the open end of said holder, and releasable means associated with said rod beyond said transverse member for normally preventing longitudinal movement of the rod in the opposite direction.

2,782,576
APPARATUS FOR DISPENSING PLASTER
Charles S. Cusick and Robert V. Lange, Ford City, Pa., assignors to Pittsburgh Plate Glass Company
Application December 13, 1954, Serial No. 474,758
5 Claims. (Cl. 51—277)



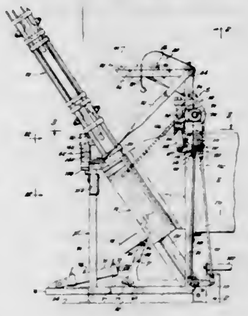
1. In combination with apparatus for depositing thin strips of plaster along the margins of the upper surface of a horizontally moving glass sheet supporting member having a width greater than that of the supported sheet and including plaster dispensing means disposed above and aligned with the exposed marginal edges of the supporting member, the improvement comprising spaced shaft support housings located beyond the plaster dispensing means along the path of movement of the supporting member, a shaft carried by each support housing, and a tamping wheel rotatable about each shaft and having a peripheral surface including a portion aligned with an exposed marginal edge of the glass sheet supporting member and a portion extending laterally inwardly of the exposed marginal edge to provide rolling contact with the dispensed plaster strips to compress the latter to a thickness equal to that of the supported glass sheet at the glass-plaster interface.

2,782,577
APPARATUS FOR HANDLING ARTICLES
William R. Beall, Glendale, Calif., assignor of one-half to Raymond Bannister, Santa Paula, Calif.
Application December 5, 1955, Serial No. 550,972
12 Claims. (Cl. 53—59)



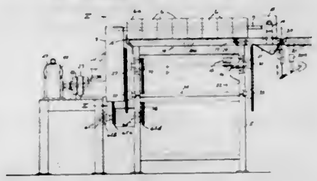
1. In an apparatus for delivering articles in predetermined lots, the combination comprising a guideway for said articles, two gates for said articels spaced along said guideway, means normally maintaining a first one of said gates in closed position and the second in open position, and means responsive to movement of an article along said guideway, for moving said first gate to open position and said second gate to closed position.

2,782,578
STACKING APPARATUS
Homer W. Madden, Hanover, Ind.
Application May 13, 1954, Serial No. 429,424
18 Claims. (Cl. 53—61)



1. Apparatus for stacking a plurality of articles into a receptacle, comprising: a frame having a vertically inclined wall; feeding means for disposing a plurality of said articles in aligned courses against the rear of said inclined wall; a horizontal shaft carried by said frame; a pusher member connected to said shaft and normally disposed forwardly of said wall, said pusher member being moved rearwardly and upwardly to an upright position by rotation of said shaft; power-operated means interposed between said pusher member and said frame; a roll of paper carried by said frame; paper feeding means operated by the rotation of said shaft for positioning a length of paper in front of said receptacle; and, cutter means operated by the rotation of said shaft for cutting said length of paper from said roll.

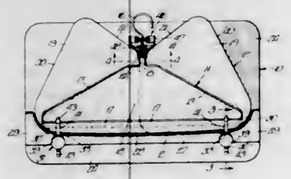
2,782,579
ARTICLE TRANSFER SYSTEM
Carl E. Herschel, Newtown Square, Pa., and Charles D. Vandenburgh, Charlestown, Md., assignors to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application December 31, 1952, Serial No. 329,046
16 Claims. (Cl. 53—197)



1. Apparatus for handling apertured articles comprising a plurality of elongate straight-bodied members adapted to extend with clearance through the apertures of a group of such articles, a rotor having recesses spaced along its periphery, each recess being adapted to receive an end portion of a member, means for storing a plurality of the members in lengthwise parallel arrangement, said storing means having an opening for discharging the members therethrough one by one in a direction normal with respect to their lengthwise direction, said storing means and an end portion of the opening being relatively disposed with respect to the rotor for transferral of an end portion of each member into a recess of the rotor in registry with the opening, means spaced from the rotor in a direction parallel to its axis of rotation for providing additional support to a member having one end portion supported within a recess in registry with the opening, the support means having a

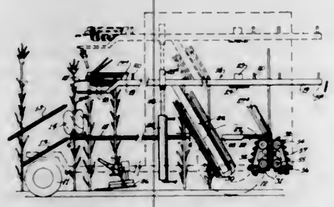
surface upon which a portion of such a member loosely rests with its length substantially parallel to said axis, means for clamping a member within each recess whereby a member is cantilever-supported by the rotor and said clamping means when the recess in which such member is held passes out of registry with the supporting means and the opening, means connected in timed relationship with the rotor for actuating the clamping means before said recess therewith moves out of registry with the opening, means connected in timed relationship with the rotor for actuating the clamping means to release the member held in each recess at a fixed point angularly spaced with reference to the rotor axis from said opening and loading means disposed adjacent to a path traversed by the members as they move from said opening to said fixed point for carrying a plurality of said articles over the unsupported end of a supported member into positions wherein the member extends through the apertures of such articles.

2,782,580
DEVICE FOR APPLYING GARMENT HANGER COVERS
Arden L. Iverson, Lincolnwood, Ill., assignor to Para-Lux Products Company, Chicago, Ill., a corporation of Illinois
Application November 10, 1953, Serial No. 391,300
12 Claims. (Cl. 53—219)



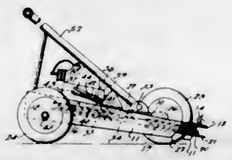
1. A device for applying protective paper covers to wire garment hangers comprising a work table, a member on said table engageable by a margin of a stack of covers on the table to register said stack, and a gauge having arms of unequal length adapted to overhang said stack margin in two operative positions of the gauge, said gauge being adjustably movable relative to said table to select and position either arm thereof for registering engagement by a garment hanger.

2,782,581
FOLIAGE STRIPPING FINGER FOR CANE HARVESTERS
Byron C. Thomson, Thibodaux, La.
Application July 13, 1953, Serial No. 367,382
13 Claims. (Cl. 56—17)



1. A foliage stripping finger for an endless stripping chain of a cane harvester or the like comprising a substantially V-shaped member of resilient plastic material having stand-off connectors rigidly joined to the terminal portions thereof.

2,782,582
POWER MOWER WITH ENDLESS BELT CUTTING MEANS
Gilbert A. McClearen, Wyandotte, Mich., assignor to Jay C. Taylor, Detroit, Mich., as Trustee
Application September 5, 1952, Serial No. 307,950
2 Claims. (Cl. 56—25)



1. In a lawnmower, a frame having a generally horizontal leading edge, a pulley belt arranged in a closed loop having a forward portion generally parallel to, below, and rearward of said leading edge, a plurality of blades spaced along said belt and secured thereto and extending outwardly therefrom, said leading edge extending forward of the forward ends of said blades at the forward portion of said loop to comprise a guard, a pair of transversely spaced pulleys journaled on said frame and located below and adjacent the opposite ends respectively of said leading edge, a rear pulley journaled on said frame rearwardly of the first-named pulleys, said belt extending around the three pulleys in driving relation and the forward portion of said loop spanning said transversely spaced pulleys, a motor having a rotating drive shaft and mounted on said frame directly above said rear pulley, said shaft being coaxial with said rear pulley and keyed thereto to rotate the same, forward ground engaging means within said loop and carried by said frame, and rear ground engaging means carried by said frame rearwardly of the first-named ground engaging means.

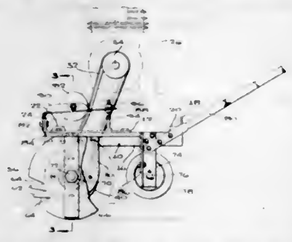
2,782,583
TRIMMER ATTACHMENT FOR MOWERS
John T. Oberle, Memphis, Tenn.
Application December 12, 1955, Serial No. 552,384
6 Claims. (Cl. 56—25.4)

1. The combination with a mower, provided with a rotatable cutter blade, of an attachment comprising an elongated bar having a forward end and a rearward end, said bar being hingedly connected adjacent said rearward end to said mower, said bar being resiliently connected adjacent said forward end to said mower, and a lifter blade projecting from the forward end of said bar, said lifter blade being adapted to lift grass for the cutting thereof by said cutter blade.

2,782,584
DISC TYPE LAWN EDGER
Robert L. Lokey, Chula Vista, Calif.
Application March 25, 1955, Serial No. 496,759
3 Claims. (Cl. 56—25.4)

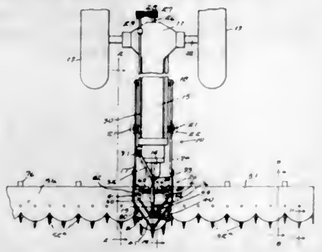
1. A lawn edge trimmer comprising a rollable frame adapted to support a prime mover; a drive shaft journaled in the frame; means for drivingly connecting the shaft to said prime mover; a stationary knife disc mounted on the frame adjacent one end of the shaft in a vertical

plane, said disc having a series of side-by-side comb teeth defining combing notches between them, said series being formed on the leading edge of the disc with the uppermost notch of the series having a top edge intersecting the periphery of the disc at a point substantially horizontally aligned with the center point of the disc, the lowermost notch of the series having a lower edge intersecting the periphery of the disc at a point substantially horizontally aligned with the point of contact between said rollable frame and the ground surface, said notches all having their top edges inclined from the horizontal



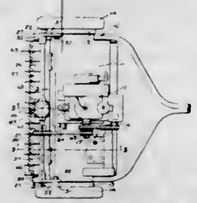
in a direction toward the periphery of the disc from the inner ends of the notches, for guiding into the notches stalks lying across the plane of the disc at different elevations between horizontal planes passing through the disc center and said point of contact, and for cutting of the stalks so guided against edges of the several notches; and an elongated knife blade extending diametrically of the disc and secured to the shaft for rotation therewith, said blade being disposed in face-to-face contact with said disc and traversing said edges when rotated with the shaft to shear the stalks within said notches.

2,782,585
TRACTOR MOUNTED ROTARY DISC TYPE MOWING ASSEMBLY
Paul Reo Hervey, El Paso, Tex.
Application March 25, 1954, Serial No. 418,615
3 Claims. (Cl. 56—25.4)



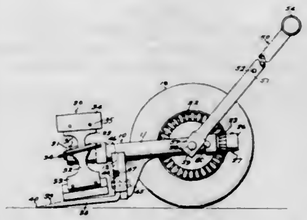
1. In a mowing machine attachment for the front end of a tractor or the like, a supporting frame, a cutting device carried by said frame at the lower extremity thereof, said cutting device including a center section and opposite side sections pivotally secured thereto, rotatable cutting blades on the under side of each section, common means for rotating all of said blades simultaneously, said means including a vertical drive shaft for each section, chain and sprocket connection from each shaft to each blade of its associated section, vertically arranged cutter means carried by said center section, a drive shaft for said last named cutter means, common means for driving all of said shafts from the power take off of the tractor, each blade comprising a pair of aligned cutting edges and each blade being set at right angles to its associated blade to provide an overlapping cut, and hydraulic means carried by said frame for selectively pivoting either or both of said side sections.

2,782,586
AUXILIARY CUTTER ATTACHMENT FOR LAWN MOWERS
Merle E. Specht, Marathon, Fla.
Application November 25, 1955, Serial No. 549,078
11 Claims. (Cl. 56—238)



1. An attachment for power lawn mowers having a main frame with side members and a power output shaft, said attachment comprising an elongated housing extending transversely of said lawn mower, brackets secured to the ends of said housing, flanges on opposite ends of said housing, bolts securing said flanges to the side members of said frames, said housing having a longitudinal slot through the forward side thereof, a pair of juxtaposed cutter bars slidable longitudinally in said slot and within and forwardly of said housing, teeth along the longitudinal forward edges of said cutter bars and forwardly of said slot, guide means in said housing and slidably engaged by said cutter bars for controlling sliding movement of said bars, a stub shaft at right angles to said cutter bars and rotatably mounted on said housing, a pair of oppositely directed eccentrics on the lower end of said stub shaft and rotatable therewith, means connecting said eccentrics to different cutter bars for reciprocating said cutter bars simultaneously in opposite directions upon rotation of said stub shaft, and a drive connection between said stub shaft and the power output shaft of said lawn mower for rotating said stub shaft.

2,782,587
LAWN EDGER
Vivian L. Ott, Norfolk, Va., assignor to Utility-Tools, Incorporated, Norfolk, Va., a corporation of Virginia
Application June 9, 1954, Serial No. 435,419
1 Claim. (Cl. 56—249)



A lawn edger comprising an integral cast frame having parallel side members and a forward transverse frame member connected between said side members, an axle of uniform circular cross-sectional shape from end to end extending between said side frame members, a wheel mounted on said axle between said side frame members, one of said side frame members having an inwardly extending lug provided with a cylindrical recess lug slidably receiving the adjacent end of said axle, a lug carried by the other side frame member and having a cylindrical opening slidably receiving said axle and through and beyond which said axle extends, a single pin passing through said other side frame member and through said axle, said one side frame member being formed as a single tube from end to end constituting the entire frame member, a shaft mounted in said tube and having its

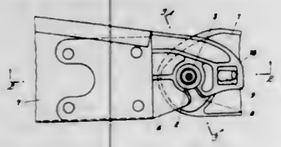
ends extending therebeyond, a bearing in the rear end of said tube, a pinion carried by the rear end of said shaft and abutting said bearing, a gear carried by said wheel and meshing with said pinion rearwardly of said axle, a rotary cutting device carried by the forward end of said shaft, and a stationary blade carried by said transverse frame member and projecting forwardly beneath and cooperating with said rotary cutting device, said stationary blade having its forward end projecting forwardly beyond said rotary cutting device and constituting a relatively thin pick-up finger.

2,782,588

MOUNTING MEANS FOR SIDE DELIVERY BOARD FOR MOWING MACHINE

Friedrich Philipp, Remscheid-Lennep, Germany, assignor to Gebrüder Bussatis, Remscheid-Lennep, Germany, a corporation of Germany

Application November 9, 1953, Serial No. 391,009
Claims priority, application Germany November 12, 1952
3 Claims. (Cl. 56—314)



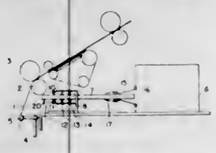
1. An easily releasable connection of the side delivery board with the outside-shoe of the mowing beam of a mowing machine comprising a latch resiliently mounted on the said outside-shoe, and the said side delivery board having a notch receiving the said latch and securing the said side delivery board to the said outside-shoe for relative rotation, means for interengaging the said outside-shoe with the said side delivery board to limit the relative rotating movement to slight movements in order to follow the unevenness of the soil, and the said notch of the said delivery board extending into a slot leading to the outside, and a bolt extending from the said outside-shoe, and the said latch being slidingly mounted on the said bolt, so that the said bolt may enter the slot and bring the said resiliently mounted latch into the said notch of the said delivery board.

2,782,589

TELESCOPIC SUCTION TUBES

Joachim Fürstenberg, Esslingen (Neckar), Germany, assignor to Pneumafil Corporation, Charlotte, N. C., a corporation of Delaware

Application June 25, 1952, Serial No. 295,466
4 Claims. (Cl. 57—34.5)



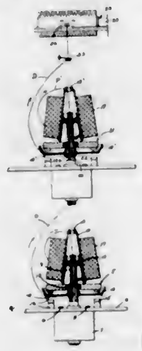
1. In combination with a thread suction installation for a spinning machine having drafting rollers for drafting threads, at least one nozzle tube placed transversely of the drafting rollers adjacent the thread passing therethrough, said tube communicating with a collecting conduit, and means permitting said tube to be rapidly shifted in an axial direction away from the drafting rollers upon the occurrence of a broken thread to permit an operator to work freely between the nozzle end of a tube and the drafting rollers to mend the break, said means permitting the tube to be restored to initial position when the thread is mended, said means supporting the tube at spaced points, said means at one of said points including a supporting ring connected with the collecting conduit and having a stuffing box effecting a seal with the outside of the tube, and a holder at another of the points spaced from the supporting ring and stuffing box.

2,782,590

YARN TWISTING METHOD AND APPARATUS

William B. Lowe, Swarthmore, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Application May 14, 1953, Serial No. 354,911
7 Claims. (Cl. 57—58.52)



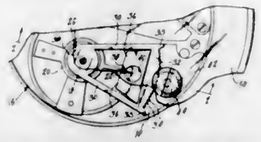
1. The method of forming a twisted multi-ply yarn strand which comprises the steps of twisting a first singles yarn strand in a two-for-one yarn twister, twisting a second singles yarn strand in another two-for-one yarn twister, feeding one of said twisted singles yarn strands into the other two-for-one yarn twister, and simultaneously twisting both of said singles yarn strands in said other yarn twister to form a multi-ply cord.

2,782,591

WATCH REGULATING DEVICE

Gene F. Guida, Bogota, and Arthur Guida, Fairview, N. J.

Application July 6, 1954, Serial No. 441,392
4 Claims. (Cl. 58—111)



1. In a watch regulator mechanism, a removable back of a watch case, a regulator cock located below and in spaced relation to said removable back, a regulator lever pivoted on said cock, a pointer carried by said lever, a sector gear pivotally mounted on said back and engaged with the lever to pivot therewith, a pinion in mesh with the gear to shift the same about the common pivot axis of the gear and lever, and a screw rotatable with the pinion, said screw extending through said back and having a head accessible from without the case, the sector gear, screw and pinion being carried by said back free of connections to the cock and lever so as to be removable with said back from the watch case, said sector gear being formed with a circular element at one end concentric with said axis, the sector gear having teeth at its other end meshing with the pinion, said sector gear further including arms diverging from the circular element and disposed tangentially to said element at opposite sides of the regulating lever pointer, said sector

gear further including a bight extending between the divergent ends of the arms and on which the teeth are formed, said bight, arms, and circular element all lying in a common plane paralleling the plane of rotation of the lever, said sector gear additionally including wings rigid with said bight at opposite sides of said pointer, said wings being inclined out of the first-named plane into the plane of the lever and engaging opposite sides of the pointer.

2,782,592

ELIMINATION OF CARBON IN JET COMBUSTORS

John J. Kolfenbach, North Plainfield, Theodore B. Wasserbach, Cranford, and Raymond W. Walker, Union, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application January 30, 1953, Serial No. 334,364
10 Claims. (Cl. 60—35.4)

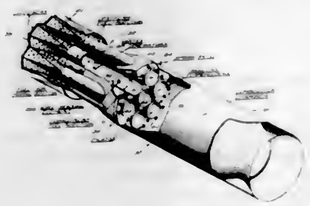
1. The method of eliminating carbonaceous deposits within the combustion section of a jet-type aircraft engine operating on a hydrocarbon type fuel which consists of introducing within said combustion section both an alkaline earth metal compound and an amphoteric metal compound in amounts sufficient to furnish a total of the said metals of from 0.00001 to 0.1 weight percent of said fuel, said alkaline earth metal compound being selected from the class consisting of barium compounds and mixtures of barium compounds and calcium compounds in which mixtures barium atoms predominate numerically over calcium atoms, the atomic ratio of total alkaline earth metal to total amphoteric metal introduced into the said combustion section being in the range of from 3 to 1 to 5 to 1, said metal compounds being of a character to form oxides of the said amphoteric metals and the said alkaline earth metals in an oxidizing atmosphere at temperatures of from 500° F. to 4000° F.

2,782,593

MULTI-UNIT RAMJET

John G. Lee, Farmington, and Richard C. Mulready, Glastonbury, Conn., assignors to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application June 8, 1951, Serial No. 230,564
15 Claims. (Cl. 60—35.6)



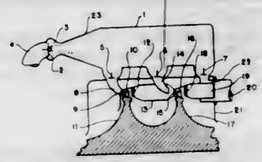
4. In a ramjet power plant, a supersonic diffuser section, a subsonic diffusion and mixing section downstream of said supersonic diffuser section, a combustion section receiving fluid from said mixing section and being defined by a wall, at least one of said sections comprising a plurality of individual units with each unit forming a separate path for the fluid flowing therethrough, means for introducing fuel in said mixing section, means for igniting said fuel comprising pilot flame mechanism in said combustion section, including at least one jet emitting combustible products into said combustion section, shield means protruding from the burner wall located upstream of and adjacent to said flame mechanism, and means for igniting the pilot flame produced by said flame mechanism.

2,782,594

APPARATUS FOR GENERATING COMBUSTION GASES UNDER PRESSURE

August H. Schilling, Atherton, Calif., assignor to Schilling Estate Company, San Francisco, Calif., a corporation of California

Application December 24, 1951, Serial No. 263,117
8 Claims. (Cl. 60—39.16)



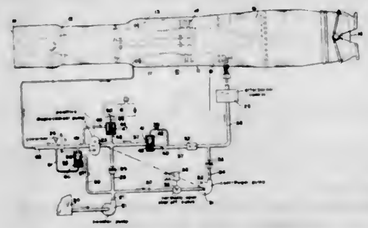
7. An explosion plant for delivering partially deenergized explosion gases, comprising a plurality of explosion chambers, a plurality of nozzle and blading systems, said chambers being each provided with an air inlet valve, a fuel inlet valve, two nozzle valves connected to separate nozzle and blading systems, an outlet valve, and means for igniting a combustible mixture therein, and a valve control mechanism operating to open and close the nozzle and outlet valves of each chamber in succession, so that each such valve is open only when the others are closed, and opening the air inlet valve substantially simultaneously with the opening of the outlet valve.

2,782,595

FUEL SYSTEM FOR A GAS TURBINE ENGINE

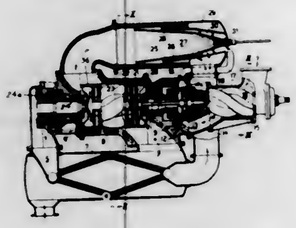
Bruce H. Pauly, Secane, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application August 29, 1952, Serial No. 307,084
3 Claims. (Cl. 60—39.28)



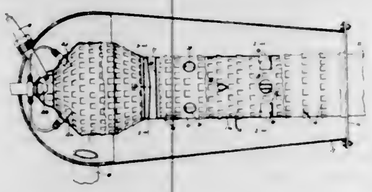
3. Fuel pumping apparatus for supplying fuel under pressure to a fuel control for a turbojet having an afterburner, comprising a fuel source, a booster pump having an inlet connected to said source and a discharge outlet, a positive displacement pump of limited capacity having an inlet connected to said discharge outlet of the booster pump and a discharge outlet connected to said fuel control, a check valve preventing backflow from said positive displacement pump to said booster pump, a bypass including a check valve connecting said inlet of said positive displacement pump to the discharge outlet thereof, a centrifugal pump of large capacity and adapted to be driven with said positive-displacement pump, said centrifugal pump having an inlet connected to the discharge outlet of the booster pump and a discharge outlet connected to the inlet of said positive displacement pump, and constant pressure differential throttling valve means interposed and connected between said centrifugal pump and said positive displacement pump for maintaining a constant flow of fuel at said inlet of the positive displacement pump sufficient to unload the latter while effecting limited flow of fuel through said bypass to said fuel control.

2,782,596
ELASTIC FLUID ACTUATED POWER SYSTEMS
Teodor Immanuel Lindhagen, Stockholm, and Hans Robert Nilsson, Ektorp, Sweden, assignors, by mesne assignments, to Svenska Rotor Maskiner Aktiebolag, Nacka, Sweden, a corporation of Sweden
Original application Serial No. 776,928, September 30, 1947, now abandoned; Serial No. 289,161, May 21, 1952, now Patent No. 2,627,161, dated February 3, 1953. Divided and this application January 30, 1953, Serial No. 334,222
Claims priority, application Sweden April 3, 1947
The portion of the term of the patent subsequent to February 3, 1970, has been disclaimed
6 Claims. (Cl. 60—39.61)



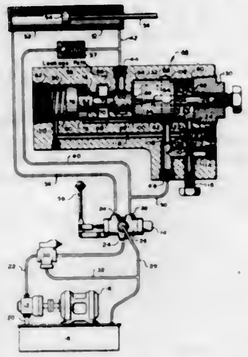
1. An elastic fluid power plant comprising compressor means, heating means for producing high temperature motive fluid from compressed elastic fluid delivered by said compressor means, power producing expander means operated by said motive fluid comprising a rotary positive displacement engine of the expansible chamber type having intermeshing rotors, passages for flow of cooling fluid through said rotors in proximity to the surfaces thereof, means for dividing the compressed medium into different portions, means for supplying a first of said portions as cooling fluid to and exhausting the same from said passages, means for cooling walls of said heating means by a second of said portions, and means for introducing both of said portions into said heating means for conversion into high temperature motive fluid.

2,782,597
COMBUSTION CHAMBER HAVING IMPROVED AIR INLET MEANS
James R. Parsons and Robert W. Macaulay, Scotia, N. Y., assignors to General Electric Company, a corporation of New York
Application March 15, 1952, Serial No. 276,842
4 Claims. (Cl. 60—39.65)



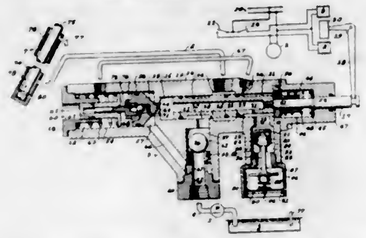
1. A combustion chamber comprising an elongated tubular shell defining a combination space, a plurality of fuel injectors mounted in said shell, a plurality of air-admitting louvers in said shell, a plurality of apertures in said shell for admitting combustion air to the combustion space, and a plurality of tubes secured across said air apertures and projecting into said combustion space at right angles to the longitudinal axis of said shell, each tube having a longitudinal slot opening toward the fuel injectors whereby combustion air exiting from the slots provides flame protection for said tubes.

2,782,598
POWER TRANSMISSION
Edward H. Gatwood, Detroit, Mich., assignor to Vickers Incorporated, Detroit, Mich., a corporation of Michigan
Application May 24, 1955, Serial No. 510,625
17 Claims. (Cl. 60—52)



1. A flow regulating valve for controlling flow in hydraulic power transmission systems comprising a throttle through which fluid is adapted to flow at a regulated rate, a pressure compensating valve for maintaining a substantially constant pressure drop across the throttle to regulate the flow rate therethrough, resilient means shifting the throttle to a closed position when flow to the flow regulating valve ceases, and pressure responsive means for operating the throttle to a predetermined throttling position when flow to the flow regulating valve is initiated.

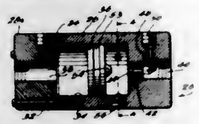
2,782,599
CONTROL MEANS FOR HYDRAULIC ELEVATORS
William Stelzer, Summit, N. J.
Application March 21, 1955, Serial No. 495,647
12 Claims. (Cl. 60—52)



1. In a hydraulic system including a power driven pump, a hydraulic fluid reservoir connected to the intake of said pump, a hydraulic motor mechanism adapted to receive fluid from said pump to do work, a control valve comprising a body and movable element to control the transmission of hydraulic fluid discharged by said pump, a relief valve to open a path for the fluid discharged by said pump to return to said reservoir, means responsive to the hydraulic pressure generated by said pump to open said relief valve, a chamber containing hydraulic fluid, resilient means tending to resist the expansion of said chamber with a progressively increasing force, means responsive to the hydraulic pressure in said chamber to urge to close said relief valve, and means to bias said control valve to assume a neutral position where said hydraulic motor mechanism is shut off from said pump and said reservoir, and where said chamber is in communication with said reservoir to be relieved of pressure, said control valve being so constructed that when said plunger of said control valve is moved a certain distance in one direction

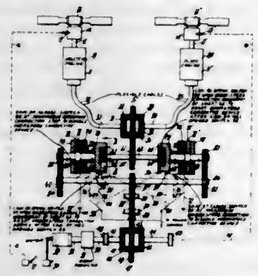
the hydraulic pressure of the fluid discharged by said pump is communicated to said chamber as well as to said hydraulic motor mechanism and the communication between said chamber and said reservoir is cut off, and when said plunger is moved further the communication between said pump and said chamber is cut off so that the hydraulic fluid in said chamber is locked and held under pressure by said resilient means.

2,782,600
HYDRAULIC BRAKE SAFETY DEVICE
Orman E. Crown and Ernest L. Conrad, Los Angeles, Calif.
Application May 21, 1953, Serial No. 356,496
1 Claim. (Cl. 60—54.5)



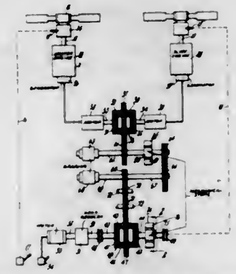
For use in a hydraulic brake system for automotive vehicles a safety device for a pulsating system comprising a cylinder closed at one end and open at the other, a removable head for the open end of said cylinder, a pressure fluid inlet in said head, a bleeder aperture in said head communicating with said inlet, a solid, one piece piston slidably received in said cylinder, a circumferential groove in said piston, an integral conical valve plug on the face of said piston opposite said head and disposed centrally thereof, an outlet passage in the closed end of said cylinder centrally thereof, a reduced threaded portion adjacent the inner end of said passage, a conical valve seat threadedly received in said threaded passage for adjustment relative to said valve plug, a filler aperture communicating with said passage and spring pressed detents radially disposed in the wall of said cylinder adjacent the closed end thereof, whereby upon movement of said piston to a position adjacent the closed end of said cylinder, said valve plug will engage said valve seat to close said passage and said detents will engage said groove to hold said valve plug in engagement with said valve seat.

2,782,601
ELECTRO-MECHANICAL SYNCHRONIZING APPARATUS
Robert C. Hamilton, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 25, 1952, Serial No. 311,353
10 Claims. (Cl. 60—97)



1. In a mechanism for synchronizing the speed of a controlled engine with the speed of a master engine, a governor for controlling the speed of each engine, a differential mechanism disposed between said engines and having its opposite sides driven by said engines, a displaceable member operatively connected with the governor of said controlled engine and associated with said differential mechanism to be displaced thereby upon a variation in the speed of the controlled engine with respect to the speed of the master engine, the operative connection between said displaceable member and the governor of said controlled engine including a movable element, and an electrical error correction limiting device disposed between said displaceable member and the movable element, said error correction limiting device defining a range of movement of said movable element by said displaceable member whereby only a predetermined synchronization error correction can be applied to the governor of said controlled engine.

2,782,602
ELECTRO-MECHANICAL SYNCHRONIZING APPARATUS
Robert C. Hamilton, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 25, 1952, Serial No. 311,354
6 Claims. (Cl. 60—97)

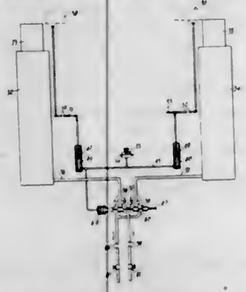


1. In a mechanism for synchronizing the speed of a controlled engine with the speed of a master engine, a first differential mechanism disposed between said engines and having its opposite sides driven by said engines, a first displaceable member associated with said first differential mechanism to be displaced thereby upon a variation in the speed of the controlled engine with respect to the speed of the master engine, a second differential mechanism disposed between said first displaceable member and said controlled engine, said second differential mechanism having a second displaceable element operatively connected to said first displaceable element to be displaced thereby, the opposite sides of said second differential mechanism being operatively connected to a manual control and the governor of said controlled engine respectively, whereby the governor of said controlled engine may be adjusted manually through opposite sides of said second differential mechanism or automatically through said second displaceable member and one side of said second differential mechanism, and means including mechanical stops in the operative connection between said first and second displaceable members for positively stopping said first displaceable member when the speed of the controlled engine differs from the speed of the master engine by more than a predetermined amount.

2,782,603
POWER CONTROL SYSTEM
Julian B. Beecroft, Whitby, Ontario, Canada
Application September 3, 1953, Serial No. 378,393
10 Claims. (Cl. 60—97)

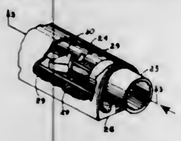
1. Means for correlating the movement of two members at least one of which is hydraulically operated comprising a valve controlling movement of the hydraulically operated member, a closed auxiliary hydraulic control circuit comprising a hydraulic cylinder unit associated with each of said members and arranged to provide equal and

opposite hydraulic displacement upon correlated movement of said members, a dash-pot connected in said control circuit and acting on said valve, means for balancing



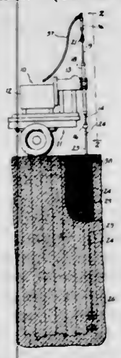
said closed hydraulic control circuit and spring bias means biasing said valve and dash-pot to a predetermined position with said control members in correlated position.

2,782,604
DRAIN TILE
Lorenzo S. Mixon, Miami, Fla.
Application December 20, 1954, Serial No. 476,323
2 Claims. (Cl. 61—11)



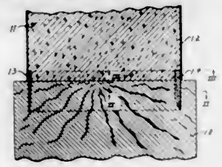
1. A drain tile comprising an elongated member, said member having an opening extending along its full length, a base portion mounted on said elongated member, said base portion having a substantially longitudinally positioned slot extending the full length of said elongated member, a gutter mounted on said base portion on each side of said slot forming a fluid passageway and a plurality of transversely disposed slots formed in said base portion at said gutters.

2,782,605
PROCESS AND APPARATUS FOR GROUTING POROUS FORMATIONS
Louis S. Wertz, Shaker Heights, and Lee Turzillo, Bay Village, Ohio, assignors, by direct and mesne assignments, to Intrusion-Prepakt, Incorporated, Cleveland, Ohio, a corporation of Delaware
Application September 19, 1952, Serial No. 310,394
12 Claims. (Cl. 61—36)



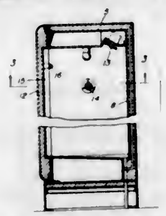
1. A method for solidifying columns in the earth by mixing the soil in situ with a liquid solidifying agent comprising the steps of rotating a shaft having an elongated sidewardly extending blade about an axis while simultaneously advancing it axially into the earth so that said blade progressively moves and loosens the soil in advance of its rotational movement, and forcing a liquid solidifying agent into the earth adjacent the blade, the rotation of the blade mixing the soil with the solidifying agent.

2,782,606
COMPOSITE WOOD AND CONCRETE PILE
Joseph H. Fox, Birmingham, Ala.
Application October 2, 1953, Serial No. 383,788
2 Claims. (Cl. 61—53)



1. In a composite structure-supporting pile including a lower wooden portion and an upper concrete portion, a metal shell for the concrete mounted on top of the wooden portion, a ring wedge shape in cross section fitting snugly within and welded to the lower end of the shell and extending downwardly therefrom into the wooden portion for anchoring the shell within the wooden portion, and wedge shaped anchoring ribs formed on the inner surface of the ring and projecting radially inwardly therefrom into said wooden portion.

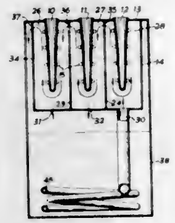
2,782,607
GARMENT STORAGE COMPARTMENT FOR REFRIGERATORS
Nina Mae Jacobs, Tulsa, Okla.
Application October 31, 1955, Serial No. 543,734
1 Claim. (Cl. 62—102)



In a refrigerating apparatus including a casing, a vertical partition in said casing dividing the same and forming a closed compartment in one side thereof, refrigerant control means in the upper part of said compartment, a door for said compartment having a recess in its inner side, clothes hanger bars in said recess parallel with said door, and a fan in the upper rear part of said compartment orientated downwardly towards said door to direct air into the recess and to clothes hung on said bars.

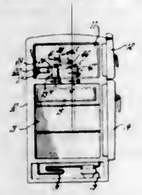
2,782,608
ICE MAKING APPARATUS
Arthur A. French and Arthur N. McGregor, London, England
Application December 3, 1953, Serial No. 395,925
Claims priority, application Great Britain December 18, 1952
4 Claims. (Cl. 62—106)

1. Apparatus for use in forming frozen blocks of material in moulds and then freezing the frozen blocks from the moulds in which they have been frozen, such apparatus comprising a plurality of hollow heat exchange elements open at their upper ends, evaporator pipes mounted in heat exchange relation with said elements, means for supplying refrigerant to said evaporator pipes, a tank for defreezing fluid in which said elements and pipes are permanently located in fixed relation thereto, said tank being adapted to be supplied with defreezing fluid for superficial melting of the blocks, means for mounting the said elements and tank with the open ends of said elements permanently uppermost; means to supply a body of defreezing fluid in said tank around the major part of



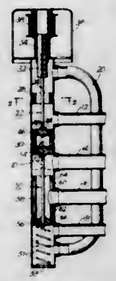
the surface of said elements and pipes in heat exchange relation therewith when freeing of the blocks is required, means for heating the defreezing fluid, at least one partition between adjacent elements in said receiver and dividing the container into compartments, said partitions having a flow path for the defreezing fluid at the upper parts thereof whereby the defreezing fluid is permitted to flow from one compartment to another to cause the surface melting of the blocks to occur seriatim, and openings for emptying said tank when supply of defreezing fluid thereto ceases.

2,782,609
ICE BLOCK MAKING APPARATUS
Robert Galin, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 11, 1955, Serial No. 500,457
10 Claims. (Cl. 62—106)



1. In an ice block making apparatus, the combination of a unitary freezing device for containing water to be frozen comprising a flexible metal tray having a plurality of rigid walls loosely anchored therein for movement therewith and relative thereto, said walls dividing the interior of said tray into compartments in which water is frozen into separated ice blocks, a refrigerated stationary means for supporting said device while freezing water therein, means pivotally mounting said unitary freezing device for rotary movement with respect to said stationary supporting means, means for rotating said unitary device together with ice blocks frozen therein about its pivotal mounting away from said stationary supporting means into a substantially inverted position relative thereto, and means for stopping the rotary movement of one end of said unitary freezing device while continuing to rotate its other end to twist said tray and shift the rigid walls therein relative thereto for breaking a bond between said unitary device and ice blocks in said compartments thereof whereby to release the separated ice blocks therefrom.

2,782,610
VALVE CONSTRUCTION FOR REVERSE CYCLE SYSTEM
Frank J. Martin, Miami, Fla., assignor to Seal-O-Matic, Inc., Coral Gables, Fla., a corporation of Florida
Application January 24, 1955, Serial No. 483,537
17 Claims. (Cl. 62—115)

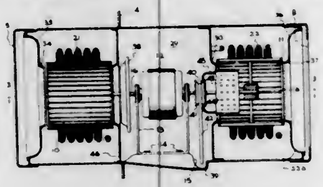


14. Valve structure for use with a reverse-cycle heating-cooling system wherein a compressor delivers fluid under pressure in either direction through an arrangement of coils, comprising, in combination, a master valve body movable within a first valve chamber, control means for moving said master valve body, a first pair of valve seats alternately engageable by said master valve body in accordance with the setting of said control means, a slave valve body movable within a second valve chamber, a second pair of valve seats alternately engageable by said slave valve body, a first pair of conduits each connected to one of said valve chambers and adapted to be connected at their remote ends to the inlet and outlet, respectively, of said compressor, a second pair of conduits associated with said valve chambers and adapted to be connected at their remote ends to respective opposite ends of said arrangement of coils, said conduits being so arranged with respect to said valve chambers that said slave valve body is moved from one to the other of said second pair of valve seats by fluid pressure when said master valve body is moved from one to the other of said first pair of valve seats and the direction of fluid flow through said arrangement of coils correspondingly is reversed, means associated with one of said valve bodies to apply a torque to at least one of its valve heads when said one head is seated against the corresponding valve seat, said torque being applied in a plane perpendicular to the plane of said corresponding valve seat and in such a direction as to tip said one head away from engagement with said corresponding valve seat, whereby when the system pressures within the valve structure have become nearly equalized after cutting off said compressor prior to reversing the cycle, said one head breaks away from its corresponding valve seat to permit the flow of fluid therethrough to rapidly equalize the system pressures so that the master valve body may readily be shifted from one position to the other by said control means.

2,782,611
AIR CONDITIONING APPARATUS
Leonard W. Atchison, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application November 3, 1955, Serial No. 544,681
4 Claims. (Cl. 62—129)

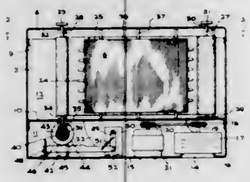
1. In a self-contained unit for conditioning a room, a casing for said unit, first partitioning means within said casing defining a pair of compartments, a pair of openings in each of said compartments, said pair of compartments adapted to communicate with the room air and outside air respectively, a motor in said casing having a shaft, a centrifugal blower in each of said compartments fixed, respectively, to one end of said shaft, a refrigeration system in said casing comprising an evaporator, con-

denser and compressor, said evaporator and condenser each substantially encompassing and concentric with one of said blowers, whereby said evaporator blower moves room air and said condenser blower moves outside air, an orifice in said first partitioning means communicating with said evaporator blower, second partitoning means in



one of said compartments having an orifice adjacent said condenser blower, an opening in said casing whereby outside air is admitted to each of said blowers through said orifices, means mounted on said motor shaft movable into air sealing engagement with said orifice in said first partitioning means.

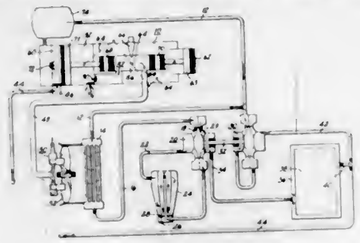
2,782,612
FILTER FOR AIR CONDITIONING APPARATUS
William G. Spiegelhalter, Erie, Pa., assignor to General Electric Company, a corporation of New York
Application December 5, 1955, Serial No. 551,093
4 Claims. (Cl. 62—129)



1. Air conditioning apparatus for an enclosure comprising a refrigeration system including an evaporator, means to circulate air over said evaporator and into said enclosure, a filter comprising a flexible strip associated in part with said evaporator for filtering said circulating air, said filter strip movable adjacent said evaporator so as to present successive unused portions to said circulating air, and indexing means for moving said filter strip so as to present uniform successive unused portions of said strip to said circulating air, said indexing means acting to move a portion of said strip each time said apparatus is activated.

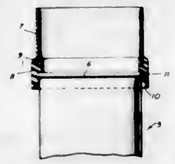
2,782,613
REFRIGERATING APPARATUS HAVING A FREE PISTON COMPRESSOR
Albert N. Addie, La Grange Park, Ill., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 20, 1956, Serial No. 560,339
4 Claims. (Cl. 62—136)

1. In a cooling system for use in refrigerating air for railway cars and the like, a free piston air compressor, an after-cooler arranged to cool the compressed air discharged from said free piston compressor, a two-stage turbine, means for supplying the compressed air thus cooled into the first stage of said two-stage turbine so as to partially re-expand said air, a dehumidifier, means for directing the air leaving said first stage of said turbine into said dehumidifier so as to remove moisture therefrom, means for directing air leaving said dehumidifier into the second stage of said turbine so as to further expand said air to a pressure corresponding substantially to atmospheric pressure, means forming a space to be cooled, said means including hollow walls, means directing said expanded air through the hollow portion of said walls, a centrifugal compressor, means drivingly connecting said centrifugal compressor to said turbine, means feeding a portion of the air leaving said hollow walls to said cen-



trifugal compressor, means conveying the compressed air leaving said centrifugal compressor to the inlet of said after-cooler, and means for conveying another portion of the air leaving said hollow walls to the inlet of said free piston compressor.

2,782,614
DRINKING ATTACHMENT FOR CANS
William F. Currie, South Gate, Calif.
Application July 13, 1954, Serial No. 442,989
1 Claim. (Cl. 65—13)



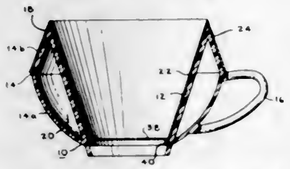
A sanitary drinking attachment for beverage cans of the type including a bead on the upper ends thereof, said attachment comprising: a sleeve of a diameter approximating that of the can, and a resilient ring mounted on the lower end portion of the sleeve and depending therefrom and engageable over the upper portion of the can, said ring having an annular groove in its upper end portion for the reception of the sleeve, said ring further including an internally bevelled lower end portion for the reception of the can, said ring still further including a circumferentially extending internal groove immediately adjacent said internally bevelled lower end portion for the reception of the bead for frictionally anchoring the ring on the can.

2,782,615
DUST-PAN
Elmer L. Johnson, Chicago, Ill.
Application July 7, 1954, Serial No. 441,779
11 Claims. (Cl. 65—20)

1. A dust-pan comprising, a central bottom portion, a pair of sections at each side of the central bottom portion hinged to each other with one section of each pair hinged to the central bottom portion a handle extending rearwardly of said central bottom portion, and manually-operated means on said handle shiftable towards the

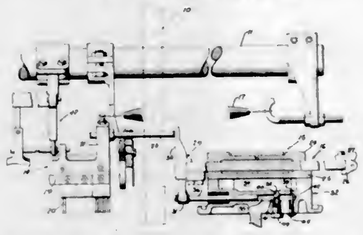
main axis of said handle for relatively shifting the sections between positions wherein the one section of each pair is disposed in the plane of the central bottom portion with the other section of each pair disposed transverse to the central bottom portion in which position said other sections diverge outwardly with respect of the rear end of the pan and positions wherein both of the sections of each pair are disposed transverse to the plane of the central bottom portion with the other section of each pair disposed in the plane of the respective one section whereby the respective planes of the pairs of sections extend inwardly towards each other in the direction of the forward end of the pan.

2,782,616
PAPER CUP AND HOLDER
Theodore Eron, Englewood, N. J.
Application November 13, 1953, Serial No. 391,991
9 Claims. (Cl. 65—61)



6. An improved liner holder comprising an upright, hollow, liner-receiving body that is open both at top and bottom, said body having a relatively steep, continuous inside wall surface of inverted truncated conical shape adapted to serve as a continuous rigid backing for a liner having a side wall, said liner having a closed bottom, said liner-receiving body further having at its upper end an outside wall surface which extends outwardly and downwardly from the upper edge thereof at an acute angle to said inside wall surface, the upper portion of said outside wall surface being of upright truncated conical shape whereby to form with said inside wall surface annular wedge-shaped section, said wedge-shaped section being adapted to fit snugly into a correspondingly acute-angled annular wedge-shaped recess between a liner side wall and a skirt depending outwardly and downwardly therefrom at an angle approximately equal to said first-mentioned acute angle, the tight fit between said inner and outer upper surfaces of the liner and said body being adapted to provide frictional gripping action whereby the liner can be picked up by merely axially thrusting the body onto the inverted liner.

2,782,617
SLIDER BOX ASSEMBLY FOR WARP KNITTING MACHINES
Harold C. Noe, Upper Montclair, N. J., assignor to Kidde Manufacturing Co., Inc., Bloomfield, N. J., a corporation of Delaware
Application August 17, 1955, Serial No. 529,054
12 Claims. (Cl. 66—86)



1. A slider box assembly for warp knitting machines comprising a pusher bar having an end adapted to be engaged by pattern cams and having another end for effecting movement of a guide bar, a casing having bearing means for slidably supporting said pusher bar with its ends disposed outwardly thereof, and shock absorber means operatively associated with said pusher bar and said casing for damping the movement of said pusher bar towards the pattern cams.

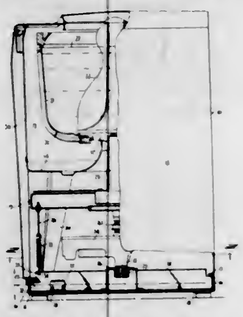
2,782,618
STOCKING TOP
Louise V. Ish, Clifton, N. J.
Application February 26, 1952, Serial No. 273,407
6 Claims. (Cl. 66—172)

1. A stocking top or welt having exact permanent areas in appropriate and correct positions for each garter fastener of a garter garment placed circumferentially about the top or welt of the stocking with these exact permanent areas alternating in appearence from one to the other and in duplicate on both halves of the stocking top or welt with each half being the welt portion of the stocking from the median or center back seam to the median or center front of the stocking and these permanent areas being unlike the remaining portion of the stocking top or welt in appearance.

2,782,619
SWEATER CONSTRUCTION AND METHOD OF MAKING SAME
Max Bialostok, Brooklyn, N. Y., assignor to Daniel Bialostok, Brooklyn, N. Y.
Application October 7, 1954, Serial No. 460,800
12 Claims. (Cl. 66—176)

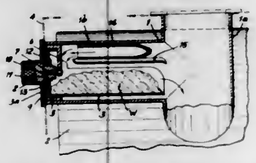
1. In a jacket sweater construction, a pair of front panels, a pair of shoulders, a yoke, a collar and lapels all formed of a single sheet of continuously knitted flat fabric with selvage edges, comprising a pair of generally vertically extending front panels, a pair of forward yoke portions each extending obliquely upwards from the upper end of one of said front panels for overlying the shoulder of the wearer, a pair of rearward yoke portions each extending angularly from the upper end of one forward yoke portion and joined together along a mitered juncture, the inner edge of said forward and rearward yoke portions being foldable outwards to define a collar and lapels.

2,782,620
WATER LEVEL CONTROL FOR AUTOMATIC WASHING MACHINES
Walter J. Roth and James R. Foster, Webster City, Iowa, assignors, by mesne assignments, to Gamble-Skogmo, Inc., Minneapolis, Minn., a corporation of Delaware
Application October 9, 1952, Serial No. 313,945
4 Claims. (Cl. 68—12)



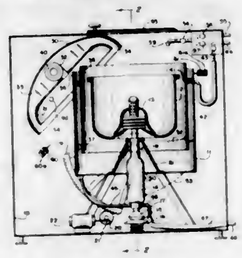
1. In an automatic washing machine, the combination comprising an outside stationary frame, an inside assembly including a rotary tub for containing clothes and water and an agitator in the tub, an electrically controlled water valve for filling the tub with water to a working level, an electric motor for operating the tub and agitator, an automatic control circuit for sequentially operating the valve, tub and agitator, and including a valve solenoid for controlling the valve and an agitator solenoid for controlling the agitator, a base structure forming part of the outside frame and having means yieldably supporting the weight of the inside assembly, and a switch operatively arranged for actuation by downward movement of the said yieldable support means and connected in circuit to control both of the solenoids.

2,782,621
DEVICE FOR THE AUTOMATIC DISPENSATION OF DETERGENTS, PARTICULARLY FOR USE WITH FULLY AUTOMATIC WASHING MACHINES
Gottfried Leuenberger, Schlieren, Switzerland, assignor to Ad. Schulthess & Co. A. G., Zurich, Switzerland
Application July 30, 1953, Serial No. 371,235
Claims priority, application Switzerland August 19, 1952
3 Claims. (Cl. 68—17)

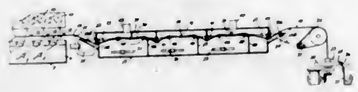


1. A device for the automatic dispensation of detergents, particularly for use with fully automatic washing machines, comprising in combination, a container for the reception of a detergent required for a washing operation, said container being in association with a tub and having a connection to a water inlet, said connection being such that when water is admitted for the washing operation it will flow through said container and flush the detergent into the tub, said container being shaped like a drawer scoop and removably slid into a position leading into the tub, said container being situated beneath the opening of the water inlet, said water inlet being provided with a valve so that when the valve is opened the detergent is flushed into the tub, a T-shaped tubular part having the cross-tube portion in a vertical position, the lower end of said cross-tube portion being fixed to the tub and opening into the tub, said tubular part being used to introduce the detergent for the preliminary washing, the leg of said tubular T-part being in horizontal position and receiving said drawer-shaped container, the water inlet fitting passing through the horizontal part of the T-shaped part and opening into said drawer-shaped container.

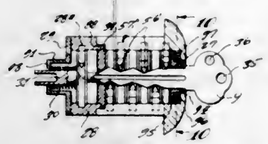
2,782,622
DOMESTIC APPLIANCES
Robert R. Candor, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 2, 1953, Serial No. 365,759
6 Claims. (Cl. 68—25)



1. A combined washer and dryer comprising, an outer casing, an inner casing fixed to said outer casing and located within said outer casing, a tub within said inner casing, an agitator within said tub, power means for moving said agitator and rotating said tub, means for tilting said tub and casings from a vertical position for washing clothes to a non-vertical position for drying clothes, air directing means including an outer hood and an inner hood located within said outer hood, said outer hood being in alignment with said outer casing and said inner hood being in alignment with said inner casing when said tub and casings are in their non-vertical position, a heating element located between said hoods, and a blower having an inlet connected with the space between said hoods and having an outlet located in alignment with said tub when said tub is in a non-vertical position, said blower forcing heated air into said tub, said heated air after being forced into said tub flowing outwardly over an edge of said tub, thence downwardly between said tub and inner casing and thence upwardly between said casings and into the space between said hoods.

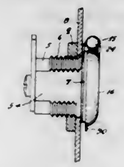
2,782,623
APPARATUS FOR TREATING CONTINUOUS FILAMENTARY BUNDLES
Elvin L. Coe, Nitro, and William P. Dooley, South Charleston, W. Va., assignors to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application November 3, 1951, Serial No. 254,752
7 Claims. (Cl. 68—181)

1. An apparatus for treating a continuous running filamentary bundle including a container having a bottom wall and a pair of longitudinal side walls between which said filamentary bundle is adapted to travel, a plurality of longitudinally spaced baffles extending between said side walls and dividing said container into a number of individual compartments, means at one end of said container for feeding liquid into said container to a level extending above the top portions of said baffles, means at the end of said container opposite said liquid feed means for discharging liquid from said container, said liquid feed and discharge means cooperating to maintain the liquid level in said container at an approximately constant plane and providing a liquid flow in a countercurrent direction to the travel of said filamentary bundle, a first and a second series of stationary guide elements extending transversely of said container, said guide elements each having a surface adapted to engage with the filamentary bundle during its travel through said container, means for supporting the guide elements of said first series with their bundle engaging surfaces extending downwardly toward the container bottom wall and below the liquid level plane, said guide elements of said first series being spaced apart longitudinally of said container with at least one guide element extending into each of said compartments, said second series of guide elements being supported by said container with their bundle engaging surfaces extending in an upward direction away from the container bottom wall and above the liquid level plane, said guide elements of said second series being spaced apart longitudinally of said container with at least one guide element extending above each compartment intermediate the guide elements of said first series and adjacent the baffle located therebetween, and means for tensioning the filamentary bundle whereby said first and second series of guide elements are adapted to cause the filamentary bundle to travel a sinuous path through said container with the guide elements of said first series sequentially depressing the bundle within each of said compartments while the guide elements of said second series elevate the bundle above the liquid level plane and strip the excess liquid therefrom after each such bundle depression.

2,782,624
PICK-PROOF CYLINDER LOCK
Stephen Pelle, Bronx, N. Y.
Application August 6, 1952, Serial No. 302,919
3 Claims. (Cl. 70—419)



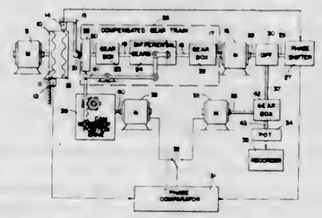
1. A lock device comprising a hollow cylinder, a plurality of slide assemblies rotatably disposed within said hollow cylinder, said cylinder having diametrically opposed slots and a plurality of grooves intermediate said slots, said grooves being of varying depth, said slide assemblies having slides adapted to be projected into said slots and said grooves and retracted therefrom, some of said assemblies being arranged so as to project their respective slides into one of said slots, the remainder of said assemblies being arranged so as to project their respective slides into the diametrically opposed slot, said assemblies being adapted to receive a key of the type that is serrated on both edges whereby to engage the slides projected into the first slot on one edge and to engage the slides projected into the second slot on the opposite edge thereof, said cylinder having a second pair of longitudinal slots disposed 90° apart from said first pair of slots, said grooves being ratchet-shaped, said slides having flared ends whereby to slide in and out of said ratchet-shaped grooves in one direction of rotation of said slide assemblies and to slide into but not out of said grooves in the opposite direction of rotation, a second hollow cylinder adapted to coincide with said first hollow cylinder and secured thereto whereby to provide an interior compartment adjacent said assemblies, a plate member rigidly secured within said first hollow cylinder adjacent said assemblies and intermediate said second hollow cylinder and said assemblies, said plate member having an opening at the center thereof, said second hollow cylinder having a plurality of ratchet-shaped grooves at the interior thereof and an annular recess, an additional assembly longitudinally adjustable within said interior compartment adjacent said assemblies, said additional assembly having a slide adapted to extend into said last mentioned grooves and said annular recess, means operable by said key extending into said opening of said plate member for adjusting said additional assembly longitudinally in said compartment so as to position the slide of said additional assembly in said annular recess.

2,782,625
COVER FOR CYLINDER LOCKS
Merton S. Williams, Terryville, Conn., assignor to The Eagle Lock Company, Terryville, Conn., a corporation of Connecticut
Application June 2, 1953, Serial No. 359,111
4 Claims. (Cl. 70—455)



2. A cover for a cylinder lock having a case with a flange thereon; said cover including a supporting member having an opening therein adapted to receive a portion of the lock case in a position wherein the flange will engage the supporting member for retaining it in clamped position between said flange and a separate member on which said lock is mounted, an extension on said supporting member formed into a loop, a cover adapted to fit over the said flange and having a pair of spaced projections formed into loops cooperating with the said loop on the supporting member, pivot means including a hinge pin extending through said loops, the said hinge pin having an enlarged portion fitting snugly in one of the loops and a reduced portion extending through the other loops, and a spring surrounding the said reduced portion and providing a bearing for said other loops; the said spring being anchored at one end to said cover and at its opposite end to the supporting member for biasing the cover toward closed position.

2,782,626
ANGLE MEASURING AND CORRECTING MEANS
William T. Jochum, Glendale, Edgar B. Romberg, Whittier, and Ralph H. Ostergren, Fullerton, Calif., assignors to North American Aviation, Inc.
Application June 20, 1952, Serial No. 294,744
15 Claims. (Cl. 73—1)



6. Means for determining the error in a gear train, comprising a rapidly rotating structure coaxial with the

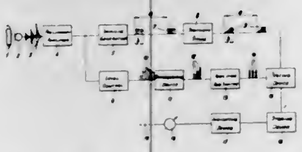
output shaft of said gear train and having a uniform sinusoidal magnetic track symmetrical about the axis of rotation of said structure, a plurality of fixed magnetic heads, a plurality of movable magnetic heads attached to said output shaft, said fixed heads being separated and said movable heads being separated by a distance equal to an integral multiple of an average wave length of said sinusoidal track, a mechanically driven electrical phase shifter, a prime mover for driving said gear train and said phase shifter in synchronism, a differential gear between said prime mover and said phase shifter to introduce correction into said phase shifter, a motor mechanically connected to said differential gear, recording means attached to said motor to record the shaft rotation of said motor, a phase comparator electrically connected to said motor, one said plurality of heads being electrically connected to said phase shifter, the other said plurality of heads being electrically connected to said phase comparator, said phase comparator being electrically connected to said phase shifter, whereby an error in rotation of said output shaft of said gear train causes an error in the voltage phase difference between said fixed and said movable heads, said phase shifter shifts the phase of one of the voltages in accordance with the angle through which said gear train output shaft should have turned, the difference in phase between the voltages applied to said phase comparator drives said motor and causes the setting of said phase shifter to change and place the two voltages applied to said phase comparator in phase, and the record of the rotation of said motor is recorded as the error in said gear train.

2,782,627

DEVICE FOR MEASURING THE AMPLITUDE OF THE VIBRATIONS OF A WATCH ESCAPEMENT

Max Hetzel, Bienne, Switzerland, assignor to Bulova Watch Company Inc., New York, Bienne Branch, Bienne, Switzerland, a joint-stock company

Application March 13, 1953, Serial No. 342,109
Claims priority, application Switzerland May 19, 1952
2 Claims. (Cl. 73—6)



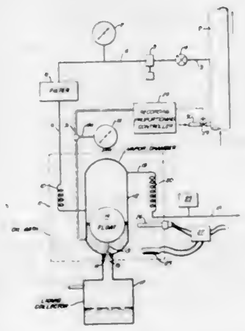
1. A device for measuring the amplitude of the balance vibrations of an assembled watch, comprising in combination, a microphone excited by the mechanical pulsations of the watch so as to generate one set of electrical signals in response to the pulsations produced in each half period of the vibration of the watch, an amplifying stage connected to said microphone so as to amplify the electrical signals produced thereby, a voltage impulse generator connected to said amplifying stage and responsive to the first amplified signal of each set of amplified signals, a sawtooth generator fed with the voltage impulses of said voltage impulse generator and producing voltage sawtooth impulses, the time interval between two voltage sawtooth impulses being equal to the time interval between the first signals of two sets of said electrical signals, a level control device having an input connected to said amplifying stage to also receive said amplified signals, the time constant of said level controlling device being larger than the time constant of the damping of the natural resonance frequencies of said watch and said microphone, said level control device having an output voltage which increases steeply at the first amplified signal of each set of amplified signals, a differentiating device supplied with the output of said level controlling device so as to generate sets of sharp controlling impulses separated by time intervals being proportional to the time intervals of said mechanical pulsations of the watch, a testing device connected to said sawtooth generator and controlled by said sharp controlling impulses to apply said voltage sawtooth impulses to a condenser under the control of said sharp controlling impulses, so as to apply to said condenser a potential being proportional to the time interval between the first and the last impulses of each set of said sharp controlling impulses, and an indicating instrument indicating the difference between a constant voltage and a voltage proportional to the maximum voltage across said condenser.

2,782,628

CONTINUOUS VOLATILITY DETERMINATION

Robert B. Jacobs, Homewood, and Cecil E. Williams, Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application July 15, 1953, Serial No. 368,184
8 Claims. (Cl. 73—53)



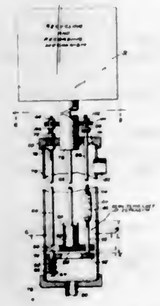
1. A continuous volatility-determining instrument which comprises a float chamber having an opening at its lower part, a valve seat surrounding said opening, a valve member for engaging said seat and closing said opening, a float within said chamber connected to said valve member for moving said member toward and away from said seat, a metering pump discharging into said float chamber at a point above the liquid level maintained therein, said float controlled valve member and pump maintaining a constant liquid level in said float chamber substantially above said opening, a preheater tube through which said metering pump discharges liquid into said float chamber, said preheater tube having an inside diameter sufficiently small to minimize any tendency for separation of vapor and liquid during preheating of a metered sample and having a length sufficient to bring said metered liquid sample to a controlled uniform temperature at a defined flow rate, a capillary vent from an upper part of said float chamber and communicating therewith substantially above said float, said capillary vent having an inside diameter in the range of about 0.005 inch to 0.03 inch and having a length sufficient to allow a flow of about 200 cc. per minute of nitrogen measured at standard conditions with a pressure drop of 35 pounds p. s. i. across the capillary at a temperature of about 20° C., a constant temperature bath substantially surrounding said preheater tube, said float chamber and said capillary vent tube, and a pressure indicator communicating with said float sample below the liquid level therein as determined by said float.

2,782,629

TEMPERATURE COMPENSATED VISCOMETER

Austin S. Norcross, Newton, Mass.

Application March 11, 1954, Serial No. 415,482
12 Claims. (Cl. 73—57)



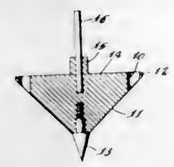
1. Apparatus for determining the viscosity of a fluid comprising a cylinder member having a bore disposed therein, a piston member reciprocally disposed in the bore, the cylinder and piston members being immersed in the fluid so that the fluid is entrapped as the piston member is withdrawn from the bore in the cylinder member, the radial clearance between the cylinder and piston members being sufficiently great to form a primary annular orifice through which a portion of the entrapped fluid escapes to permit the piston member to be returned whereby the time required for the piston member to return a predetermined distance under the influence of a restoring force is a measure of the fluid viscosity, one of the members having an aperture extending therethrough to form a fluid passage in parallel with the primary orifice so that the remainder of the entrapped fluid passes therethrough, flow restricting means disposed adjacent the end of the aperture to form a secondary orifice which limits the flow of fluid through the aperture, and temperature responsive means for varying the spacing of the flow restricting means with respect to the end of the aperture as a function of the temperature of the fluid whereby the time for the piston to return is a measure of the viscosity of the fluid in terms corresponding to a standard temperature irrespective of the actual temperature of the fluid.

2,782,630

UNIVERSAL PENETROMETER CONE

Lawrence C. Brunstrum, Flossmoor, and Arthur C. Borg, Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application April 29, 1955, Serial No. 504,812
8 Claims. (Cl. 73—64)



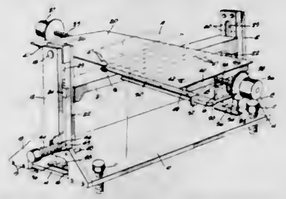
1. A universal penetration cone assembly adapted for use in determining the penetration of lubricating greases which comprises in combination a truncated cone portion, a tip of lesser taper than said cone fixed to the truncated face of said cone, a region of increased frictional resistance to flow adjacent the periphery of said cone, and a shank extending axially of said cone and of said tip, said shank being adapted to be trimmed to the desired gross weight of the cone assembly.

2,782,631

CENTER OF WEIGHT DISTRIBUTION LOCATOR

John H. Baltrukonis, William G. Messenger, and Bryce A. Wheeler, Los Angeles, Calif., assignors to Hughes Aircraft Company, a corporation of Delaware

Application April 14, 1955, Serial No. 501,681
8 Claims. (Cl. 73—65)



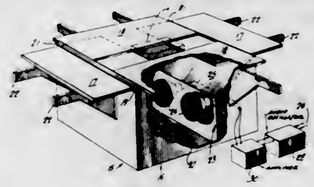
1. A mechanism for determining the center of weight distribution of an object comprising: a base structure; an object supporting platform; means for suspending said platform relative to said base structure; an indicator carried by said platform suspending means, said indicator being adapted for cooperation with a fixed reference indicia; means for laterally adjustably positioning said platform relative to said suspending means; and shiftable counter-balance means operable by said positioning means to move the same to correct any unbalance of said platform due to changes in the lateral position thereof.

2,782,632

METHOD AND APPARATUS FOR INSPECTING HONEYCOMB PANELS

Arthur L. Klein, Los Angeles, and George G. Grimm, Pacific Palisades, Calif., assignors to Douglas Aircraft Company, Inc., Santa Monica, Calif.

Application July 5, 1952, Serial No. 297,372
16 Claims. (Cl. 73—67.2)



1. The method of determining, from one face of a laminated article, the presence of defects in the union between the face lamina and the adjacent lamina, comprising: stably disposing the laminated article in a fluid medium with said face lamina uppermost disposing finely subdivided material on said face; impinging on said face a train of sonic pressure waves at a frequency in resonance with the period of the defectively bonded portions of said face to cause said portions to vibrate; and continuing to impinge said train on said face until the vibrating portions are substantially clear of the subdivided material.

2,782,633

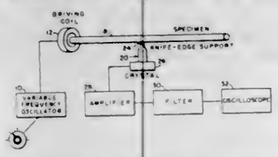
APPARATUS FOR DETERMINING ELASTIC CONSTANTS

Henry E. Stauss, Alexandria, Va., Frank E. Martin, Washington, D. C., and Douglas S. Billington, Oak Ridge, Tenn.

Application January 14, 1952, Serial No. 266,434
3 Claims. (Cl. 73—67.2)
(Granted under Title 35, U. S. Code (1952), sec. 266)

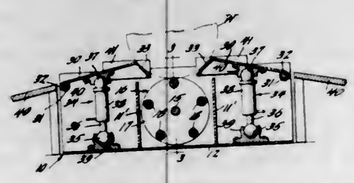
3. An apparatus for determining the elastic constants of metals comprising variable frequency means to subject a specimen bar to free-free vibrations, means for

indicating the frequency of said vibrations, an acoustical probe contacting the specimen bar at a node, an electro-



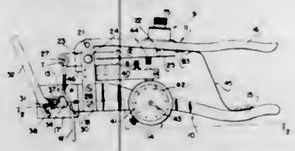
mechanical transducer connected to said probe, and displaying means connected therewith to display the energy detected by said transducer.

2,782,634
AUTOMOBILE TESTING DEVICE
Howard J. Murray, Harrisburg, Pa.
Application September 19, 1955, Serial No. 534,916
3 Claims. (Cl. 73—71.7)



1. In an automobile testing device the combination of a base, a rotor supported by said base for rotation about a horinzontal axis, a series of impact rollers carried by said rotor for free rotation around axes concentric and parallel to said horizontal axis, and means for positioning a wheel of a vehicle on said rotor for successive engagement by the respective rollers as the rotor is rotated, the ensuing rotation of said rollers in engagement with the wheel tending to minimize the rotational forces imparted to the wheel.

2,782,635
PULL TESTING TOOLS
Frank J. Knight, Reseda, Calif., assignor to Lockheed Aircraft Corporation, Burbank, Calif.
Application April 11, 1955, Serial No. 500,470
8 Claims. (Cl. 73—95)

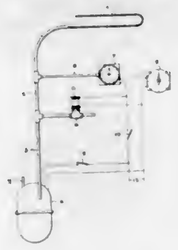


1. A pliers-like hand tool for tensile testing wires comprising a first handle lever, means on the first lever for gripping a wire, an arm projecting laterally from the first lever, a second handle lever mounted on the arm for pivotal movement, a third lever pivotally mounted on the arm between the first and second handle levers, the pivotal axis of the third lever being parallel with the axis of pivotal movement of the second handle lever, means on the third lever adjacent and at one side of its axis of pivotal movement for positively although manually releasably engaging the wire for movement therewith, a leaf spring secured to the third lever and extending therefrom to constitute an extension thereof projecting a substantial distance from the other side of the axis of pivotal movement of the third lever, means spaced remotely from said other side of the axis of pivotal movement of the third lever for transmitting force and movement from the second lever to the spring whereby relative angular movement between the first and second levers tensions the wire, and means on the third lever actuated by deflection and movement of the spring upon such tensioning of the wire to visibly indicate the tensile force applied to the wire.

2,782,636
INTERNAL BALANCES FOR WIND FORCE MEASUREMENTS ON AERODYNAMIC OBJECTS
Max P. Peucker, Washington, D. C., assignor to the United States of America as represented by the Secretary of the Navy
Application August 21, 1950, Serial No. 180,684
11 Claims. (Cl. 73—147)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. An internal balance for measuring an external force applied axially to an aerodynamic body supported on a one piece sting without introducing measurable quantities due to side and normal forces acting on the body comprising, in combination, a pair of elliptical flat springs arranged symmetrically in opposed relation about the axis of the body and joined together at the ends thereof to form a unitary structure, means at one of the joined ends of the springs for securing said unitary structure to the sting, means at the other of said joined ends of the springs for securing the body to said unitary structure, two pairs of active strain gages for each of said springs respectively, the strain gages of each pair being disposed on opposite side surfaces of the spring individual thereto, and means arranged externally of the body and connected electrically to said strain gages for producing a visual indication of the magnitude and direction of said axial force, said strain gages being arranged in a bridge circuit in such a manner that the outputs thereof cancel in the bridge circuit in response to the compressional and tension forces in the springs due to the normal and side forces acting on the body.

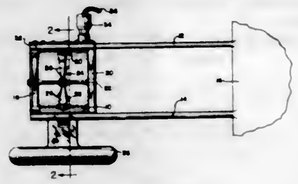
2,782,637
APPARATUS FOR TESTING COMPRESSORS
Owen H. Scheldorf, Fern Creek, Ky., assignor to General Electric Company, a corporation of New York
Application July 13, 1955, Serial No. 521,735
2 Claims. (Cl. 73—168)



1. Compressor testing apparatus comprising a fixed restrictor, a line connecting said restrictor to the compressor discharge conduit, a normally closed pressure switch communicating with said line, a solenoid-operated relief valve connecting said line to a source of constant back pressure, a clock, an electric circuit controlling said valve and connecting said pressure switch in series with said clock, and a switch in said circuit for closing

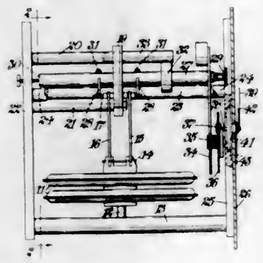
said valve and starting said clock, said pressure switch stopping said clock when the pressure built up in said line by said compressor increases to a predetermined value.

2,782,638
TIDAL CURRENT METER
William S. von Arx, Woods Hole, Mass., assignor to the United States of America as represented by the Secretary of the Navy
Application December 30, 1949, Serial No. 135,911
3 Claims. (Cl. 73—187)



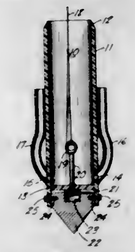
1. A water current meter comprising, an open-ended cylindrical housing, support members disposed across the open-ends of said housing, a shaft axially disposed in said housing and rotatable in said support members, a propeller having a plurality of blades mounted on said shaft, a magnet attached to one of said blades, a counterweight attached to a propeller blade diametrically opposite the first-mentioned of said blades, a tapered fin attached to and extending axially rearward from said housing, a stabilizing weight attached to and extending radially downward from said housing, an inductor attached external to said housing, and vibrator-interrupter circuit means for indicating voltage intensity electrically connected to said inductor.

2,782,639
ALTIMETERS
Ernest Mark Hedworth Appleby, Kempshott, near Basingstoke, England, assignor to Appleby & Ireland Limited, Kempshott, near Basingstoke, England, a British company
Application February 19, 1954, Serial No. 411,511
5 Claims. (Cl. 73—386)



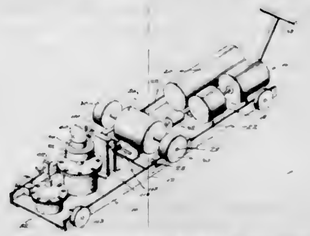
1. An altimeter comprising in combination, a frame, a pressure-sensitive capsule thereon, a rock-shaft transverse to and spaced from the axis of the capsule, a lever arm on the rock shaft, a fixed guide-cam in a plane transverse to the rock shaft and having a contour which approaches the rock shaft in a spiral and is transverse to the lever arm, pivoted link means extending from the capsule toward the cam, a cam-follower operable along the cam contour by the link means, means on the cam-follower slidably engaged with said lever arm to operate the lever arm, and multiplying mechanism from the rock-shaft to pointer means, the cam-shape being such as to make pointer movement per unit height increment uniform throughout the range.

2,782,640
FLOATING MATTER THICKNESS MEASURING APPARATUS
Richard D. Croft, Chagrin Falls, and Franklin Veatch, Lyndhurst, Ohio, assignors to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
Application January 4, 1954, Serial No. 402,046
10 Claims. (Cl. 73—425.4)



1. Apparatus for measuring the thickness of matter floating on a liquid comprising a container open at the upper end thereof, means forming at least one normally unobstructed opening in said container remote from said open end, and at least one riser extending upwardly from said opening to a point between the upper and the remote opening, the distance between said point and said open end being greater than the thickness of the floating matter, said riser when operative adapted to provide a liquid overflow when the liquid level in said container is above said point.

2,782,641
BALANCING APPARATUS
Arthur C. Allen, Chicago, Ill., assignor to Stewart-Warner Corporation, Chicago, Ill., a corporation of Virginia
Application June 1, 1951, Serial No. 229,351
14 Claims. (Cl. 73—457)

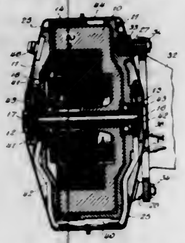


1. In an apparatus for balancing a mounted vehicle wheel, a hydraulic jack including a cylinder, a piston in the cylinder, a jack rod carried by the piston and having a chamber at its upper end and a passage connecting the chamber with the cylinder, a diaphragm closing the chamber, means carried by the diaphragm to support vehicle structure, a pressure source connected to force hydraulic fluid into the cylinder for raising the piston, and a fluid pressure responsive vibration pickup connected to the cylinder to produce signals corresponding to vibratory pressure variations therein.

2,782,642
EVACUATED GYROSCOPIC ASSEMBLY
Lennox F. Beach, Sea Cliff, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Continuation of application Serial No. 2,779, January 16, 1948. This application April 8, 1953, Serial No. 347,436
7 Claims. (Cl. 74—5)

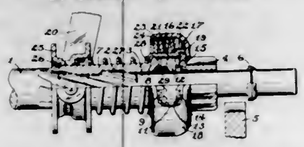
1. An evacuated gyroscopic assembly comprising a rotor, a cylindrical frame rotatably supporting said rotor, and an airtight housing enveloping and fitting on

said frame, said housing having a boss defining a first oil sump providing cavity adjacent the curved peripheral



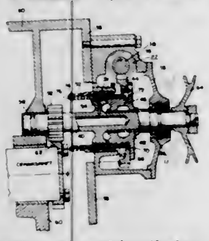
surface of the frame and a portion defining a second oil sump providing cavity adjacent one of the ends of the cylindrical frame.

2,782,643
ENGINE STARTER GEARING
Donald L. Miller, Horseheads, N. Y., assignor to Bendix Aviation Corporation, Elmira Heights, N. Y., a corporation of Delaware
Application May 31, 1955, Serial No. 511,828
10 Claims. (Cl. 74—6)



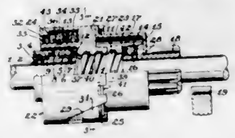
1. In an engine starter transmission a power shaft, a driving coupling member splined thereon having inclined driving surfaces formed thereon, a driven coupling member slidably journalled on the shaft and having inclined driven surfaces cooperating with the inclined surfaces on the driving coupling member, a pinion slidably journalled on the power shaft, an overrunning clutch connection between the driven coupling member and pinion, a thimble surrounding the clutch and coupling members and attached at one end to the driving coupling member and yielding means external to said thimble cooperating therewith to oppose separation of the coupling members.

2,782,644
ENGINE STARTERS
William A. Wiseman, Muskegon, Mich., assignor to Continental Motors Corporation, Muskegon, Mich., a corporation of Virginia
Application March 8, 1954, Serial No. 414,795
5 Claims. (Cl. 74—7)



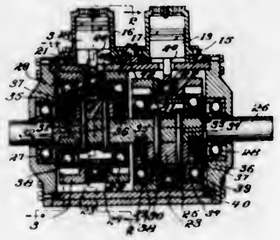
1. In combination, a multi-cylinder engine having a crankshaft operative therein, a crankshaft gear carried by said crankshaft, a starter mechanism for said engine mounted on said engine at right angles to a plane passed through the axis of said crankshaft, intermediate transmission means coacting with said starter mechanism and in mesh with said engine crankshaft gear, said transmission means comprising a rotatable shaft axially aligned parallel to the axis of said crankshaft, driving means on said shaft coacting with said crankshaft gear, a hub flange on said shaft fixed thereon, a drum rotatable on said shaft adjacent said hub flange, driven by said starter mechanism and having fixed thereon a helical coil extending over said drum and said shaft hub flange, adapted to tightly engage said drum and said shaft hub flange when said drum is driven by said starter mechanism.

2,782,645
STARTER GEARING FOR INTERNAL COMBUSTION ENGINES
John J. Sabatini, Elmira, N. Y., assignor to Bendix Aviation Corporation, Elmira Heights, N. Y., a corporation of Delaware
Application July 5, 1955, Serial No. 519,851
7 Claims. (Cl. 74—7)



1. In an engine starter drive a power shaft, a sleeve fixed thereon, a screw shaft slidably journalled on the sleeve, means connecting the screw shaft to rotate with the sleeve, a pinion slidably journalled on the power shaft for movement into and out of mesh with a gear of the engine to be started, a control nut threaded on the screw shaft, means limiting the travel of the control nut on the screw shaft, means for actuating the pinion from the control nut including a barrel member fixed at one end to the pinion and having an inclined connection with the control nut of the same direction as the threads of the screw shaft but of steeper inclination, and yielding means for resisting meshing movement of the pinion and barrel with respect to the control nut.

2,782,646
MECHANISM FOR CONVERTING ROTARY MOTION TO OR FROM RECIPROCATING MOTION
Lorin M. Christian, Atlanta, Ga.
Application February 23, 1955, Serial No. 490,003
5 Claims. (Cl. 74—44)



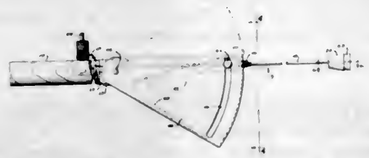
1. A mechanism for converting rotary motion to or from reciprocating motion comprising a housing, said housing being provided with means intermediate its ends for connection of a reciprocating drive element thereto, a shaft extending transversely through said housing and rotatably supported in the ends of said housing and having each of its ends exteriorly of the adjacent end of said housing, each of the projecting ends of said shaft being adapted for connection to a rotary drive element, a cylindrical body surrounding and disposed eccentrically with respect to said shaft connected to said shaft for rotation therewith, an antifriction bearing, having inner and outer raceways, conformably shaped to fit and surrounding the outer periphery of said body and having the

inner raceway connected to said body, a ring surrounding said bearing and having the inner periphery rotatably engaging and supported on the outer raceway of said bearing, said ring having its outer periphery engaging the inner surface of said housing, and another antifriction bearing having inner and outer raceways eccentrically disposed about said shaft and having the inner raceway fixed to said ring, said another bearing having its outer raceway adapted for connection to a reciprocating drive element.

2,782,647
MECHANICAL MOVEMENT FOR CONVERTING ROTARY MOTION INTO RECIPROCATING MOTION HAVING AN ADJUSTABLE NON-HARMONIC STROKE AND A QUICK RETURN STROKE
Ernest Wildhaber, Brighton, N. Y., assignor to The Gleason Works, Rochester, N. Y., a corporation of New York
Original application February 6, 1951, Serial No. 209,665, now Patent No. 2,747,468, dated May 29, 1951. Divided and this application January 30, 1953, Serial No. 334,155
3 Claims. (Cl. 74—69)

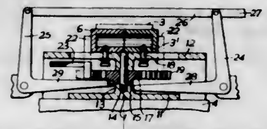
1. A mechanical movement for converting rotary motion into reciprocatory motion of variable stroke, with one stroke being slower than the opposite stroke and the central part of the slower stroke being of non-harmonic character, comprising a support, rotary drive and driven members mounted to turn on the support about axes which are eccentric relative to each other, the driven member being of substantially disc shape, supporting antifriction bearing means engaging the peripheral portion of the driven member, the adjacent end faces of said members each having a radial guideway therein, a slide in each guideway and a pin pivotally connecting said slides for transmitting motion from the drive member to the driven member, a cam stationary on the support and having a continuous internal cam surface, a pair of cam follower rollers mounted on opposite ends of the slide on the driven member and engaging diametrically opposed parts of said cam surface for effecting reciprocation of the last-mentioned slide as the driven member rotates, a crank pin carried by the driven member and disposed adjacent the face thereof opposite from the face having the radial guideway, and a member mounted for reciprocation on the support and connected to said crank pin for reciprocation thereby.

2,782,648
RACK AND PINION GEARING
Herbert J. McClellan, Chippewa Falls, Wis.
Application April 3, 1953, Serial No. 346,701
2 Claims. (Cl. 74—90)



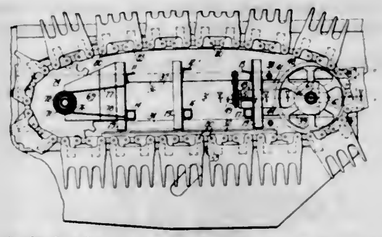
1. Fishing apparatus comprising a stock, a bracket mounted on said stock, a tubular rod journaled in said bracket to receive a fishing line extending longitudinally therethrough, a hand lever pivotally mounted on said bracket and movable in one direction relative to said rod by manual pressure thereon, spring means disposed between said bracket and said hand lever resiliently urging said hand lever in the opposite direction, and means disposed externally of said bracket drivingly connecting said hand lever to said rod for rotating said rod in successively opposite directions as said lever is alternatively moved by manual pressure thereon and by said spring means, said means connecting said hand lever to said rod comprising a plate having one end pivotally connected to said bracket and having teeth on the other end, and a pinion gear disposed on said rod externally of said one end of said bracket and in mesh with the teeth on said plate.

2,782,649
CHANGE SPEED MECHANISM
Arthur Shortland, Leicester, England, assignor to Mellor Bromley & Co. Limited, Leicester, England, a British company
Application November 8, 1954, Serial No. 467,546
Claims priority, application Great Britain November 11, 1953
13 Claims. (Cl. 74—230.16)



1. In a change speed mechanism, at least one rotary member of variable effective diameter, said rotary member comprising a core and at least one ring composed of a plurality of arcuate sections mounted seriatim around said core, a drive transmitter drivingly engageable with said rotary member, and means for moving said sections, individually and seriatim, alternatively into positions in which they extend end-to-end around said core and provide the latter with a periphery of enlarged diameter for driving engagement with said drive transmitter, or into positions in which they are out of driving engagement with this transmitter.

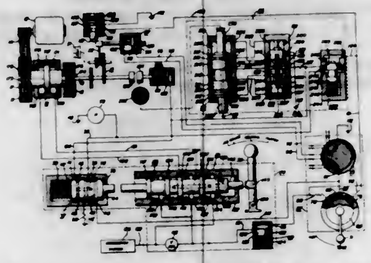
2,782,650
CHAIN TIGHTENER
Rector C. Fergason, Gadsden, Ala., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application August 6, 1954, Serial No. 448,348
7 Claims. (Cl. 74—242.14)



1. A slack take-up mechanism for an endless belt drive comprising, in combination, a support; a belt contacting element mounted on said support for back and forth movement in belt tightening and belt slackening directions; variable length thrust transmitting means including an adjusting element mounted on said support in rotatable relation to the latter and to said belt contacting element for selectively securing said belt contacting element in different operative positions against movement in said belt slackening direction and for selectively moving said belt contacting element from one of said operative positions to another in said belt tensioning direction by rotation of said adjusting element in one direction; one-way torque transmitting means operatively associated with said ad-

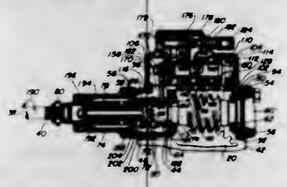
justing element and including a rocker pivotally mounted on said support for rotating said adjusting element in said one direction by pivotal movement of said rocker in a predetermined direction; and resilient means operatively interposed between said support and rocker for biasing the latter in said predetermined direction.

2,782,651
HYDRAULIC JOGGER
Bernard Sassen, Torrington, Conn., and Nagle V. Gusching, Sidney, Ohio, assignors to The Monarch Machine Tool Company, a corporation of Ohio
Application April 22, 1953, Serial No. 350,354
17 Claims. (Cl. 74—364)



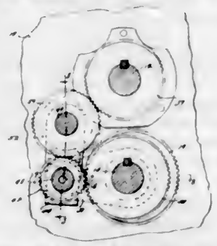
1. In combination with two relatively movable and coacting elements subject to jamming interference, the provision of a hydraulic circuit and pulsator mechanism to aid in the movement of one element to eliminate the jamming, comprising, a movement control valve having an inlet for connection to a fluid pressure source, a restricted orifice outlet in said valve, a pulsator control valve having a normally closed fluid passageway, means for connecting said pulsator mechanism through said fluid passageway to a source of fluid pressure to operate said pulsator mechanism, valve means operable by the movement of said element to reduce the pressure at said restricted outlet below a given value, and means responsive to a reduction of fluid pressure at said restricted outlet below said given value to open the fluid passageway in said pulsator control valve.

2,782,652
VALVE STRUCTURE FOR STEERING MECHANISM
Edward H. Fletcher, Cedar Falls, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application May 25, 1954, Serial No. 432,111
11 Claims. (Cl. 74—388)



1. Steering control mechanism of the class described, comprising: a main housing having first and second opposite ends and a side transverse to said ends and further having an interior partition parallel to the first end to divide the housing into a control compartment adjacent to said first end and a worm compartment adjacent to the second end, said first end and partition having alined openings therein coaxial on an axis parallel to the side of the housing, and said side having an opening therein registering with the control compartment; a worm journaled in the worm compartment via the partition and on an axis coaxial with the axis of said end and partition openings, said worm having an axial shaft extension projecting into the control compartment; an external control member coaxial with the worm shaft extension and projecting into the control compartment, said member having thereon within said control compartment a coaxial sleeve supported on the worm shaft extension for both angular and axial movement relative to the housing; a valve housing having an open side abutting the side of the main housing in register with the control compartment opening and having a valve bore on an axis parallel to the worm and sleeve axis, said valve housing including fluid ports along the bore; a valve carried in the bore and having axially spaced fluid-control portions therein, said valve being selectively shiftable back and forth in the bore to opposite sides of a central neutral position to vary the relationship between said ports and fluid-control portions; an actuating arm fixed to the valve and projecting through the open sides of the valve housing and main housing and into the control compartment; means interconnecting the arm and the control sleeve for incurring fixation and shifting of the valve in response respectively to fixation and axial shifting of the control sleeve; and securing means rigidly securing the housings together, said securing means being releasable to enable shifting of the valve housing relative to the main housing and valve along a path parallel to the axis of the valve for securing adjustment of the neutral relationship between the ports and fluid portions while the valve position is fixed by fixation of the control sleeve.

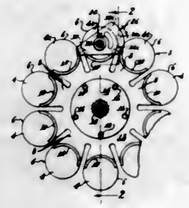
2,782,653
CONSTANT FULL MESH GEARING
Charles T. Turner and Orville L. Appler, Baltimore, Md., assignors to Flynn & Emrich Co., Baltimore, Md., a corporation of Maryland
Application March 9, 1955, Serial No. 493,126
13 Claims. (Cl. 74—392)



1. A permanent mesh gearing system comprising a fixed position gear, a variable position gear spaced from said fixed position gear, a fixed position idler gear meshing with said fixed position gear, a universal idler gear meshing with said fixed position idler gear and with said variable position gear, a movable mount for said universal idler gear and means interconnecting said variable position gear with said universal idler gear and said universal idler gear with said fixed position idler gear whereby all said gears are maintained in permanent mesh.

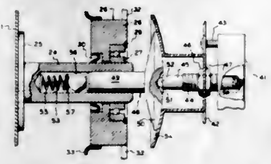
2,782,654
INTERMITTENT MOTION MECHANISM
Leonhard Florens Reinhold, Great Kills, N. Y., assignor to Radio Corporation of America, a corporation of Delaware
Application March 31, 1953, Serial No. 346,007
The terminal 15 years of the term of the patent to be granted has been disclaimed
6 Claims. (Cl. 74—436)

1. In an intermittent motion mechanism comprising, in combination, a star-wheel having a plurality of teeth, each tooth of said star-wheel having a circular end portion, a shank, and a locking lip extending outwardly from said tooth and bridging said shank, said lip being arcuate and complementary of said circular end portion to define with said circular end portion a circular track at the end of the tooth, a driving member cooperatively associated with said star-wheel, said driving member including a driving



element for periodically advancing said star-wheel and a locking element, said driving element being engageable with the periphery of the teeth of said star-wheel, said locking element being engageable with said locking lip to effect, in cooperation with said driving element, positive locking of said star-wheel during periods between said periodic advancements.

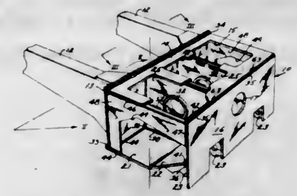
2,782,655
PROTECTIVE MEANS FOR HIGH SPEED ROTATING SYSTEM
Aidan M. Stone, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application November 26, 1954, Serial No. 471,465
5 Claims. (Cl. 74—573)



1. In a rotating system subject to vibration from an unbalanced rotating mass, means detecting displacement of the rotating system from its normal rotational axis comprising, a shaft for the rotating system, an actuator carried by an end of said shaft and axially movable with respect thereto, means biasing said actuator outwardly away from said shaft end, a positioning device receiving said actuator to limit the axial movement thereof while permitting transverse movement responsive to gyrations and vibrations of said shaft, means defining an inclined wall depression in said actuator in a face thereof opposite said shaft, and a control device having an actuating plunger biased into cooperative engagement with said actuator within said depression, whereby transverse movement of said actuator results in axial movement of said plunger.

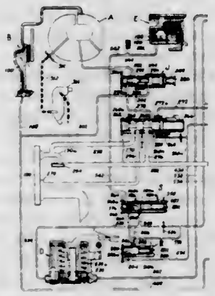
2,782,656
GEAR CASE
John H. McCarthy and Norman E. Risk, Peoria, Ill., assignors to Caterpillar Tractor Co., Peoria, Ill., a corporation of California
Application February 1, 1955, Serial No. 485,544
4 Claims. (Cl. 74—606)

1. A case comprising a plurality of plates joined by welding and comprising a fluid containing compartment and adjacent dry compartments, means to arrest the flow of fluid between abutting faces of said plates from the fluid containing compartment to the dry compartments, said means comprising an aperture through one of the abutting plates exteriorly of said fluid containing com-



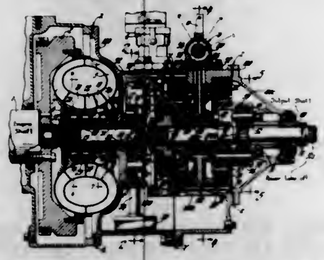
partment and a fluid-tight dam in said aperture joining said plate.

2,782,657
PRESSURE REGULATING SYSTEM FOR MOTOR VEHICLE TRANSMISSION CONTROLS
Carroll J. Lucia, Birmingham, Mich., assignor to Studebaker-Packard Corporation, Detroit, Mich., a corporation of Michigan
Application March 31, 1955, Serial No. 498,405
11 Claims. (Cl. 74—645)



1. In a hydraulic control system for a transmission for an accelerator pedal controlled engine having low and high driving ranges, an output shaft, a pressure reservoir, hydraulically operated clutch means to engage the high range drive, and control valve means connecting with the reservoir and the clutch means to effect the engagement of the high range drive, a pressure regulating system comprising pump means to deliver fluid under pressure to the reservoir, a regulator valve connecting with the reservoir and said pump means to regulate the fluid pressure in the reservoir, said regulator valve including piston means movable in one direction to increase the fluid pressure delivered to the reservoir by said pump means, and movable in the opposite direction to decrease the fluid pressure delivered to the reservoir by said pump means, a throttle control valve connecting with the reservoir to deliver throttle pressure to the regulator valve which is substantially proportional to the speed increasing position of the accelerator pedal to move the piston means in said one direction, a modulating valve connecting with the reservoir and said regulator valve, a speed responsive governor control valve operatively responsive to the speed of rotation of the output shaft connecting with said pump means to deliver fluid pressure to the modulating valve which is substantially proportional to the speed of rotation of the output shaft, said modulating valve being movable in one direction to admit governor pressure to the regulator valve to move the piston means thereof in said opposite direction, and said modulating valve being movable in the opposite direction to admit reservoir pressure to said regulator valve to move the piston means thereof in said opposite direction when the high range clutch means is engaged.

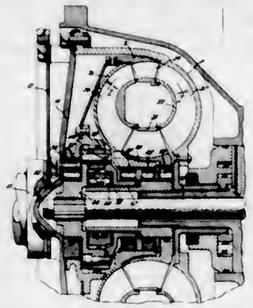
2,782,658
COMPOSITE FLUID AND GEAR DRIVE
Robert M. Schaefer, Indianapolis, Ind., and Oliver K. Kelley, Birmingham, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 18, 1951, Serial No. 206,602
10 Claims. (Cl. 74—645)



1. In fluid pressure supply systems for power transmissions, the combination of an engine and of a pump driven by the said engine, a transmission assembly adapted to drive a load shaft and driven by said engine, the said assembly including a fluid torque converter, step ratio drive means embodied in said assembly and connected to be driven by the said converter, fluid pressure actuation means for said step ratio drive means, a fluid pressure working space in the said converter, supply passages connecting the said pump to the said actuating means including a distributing valve, lubrication passages adapted to deliver oil under pressure from said valve to the running parts of the said assembly, an over-pressure relief valve connected directly to the output of said pump, a pressure regulator valve connected to the output of said pump, heat exchanger means for cooling the oil body of said assembly, a delivery passage connecting the output of said regulator valve to the said heat exchanger, said passage including a valve responsive to the temperature of the said oil body, a return passage from said heat exchanger leading to the suction intake of said pump and to the lubrication passages of said assembly, a by-pass valve adapted to prevent flow to the suction side of said pump when the pressure of the oil coming from said cooler is below a given value, and an arrangement of the passages connecting the delivery of said pump to the said actuators such that fluid pressure being relieved by the said valve from the said actuators is exhausted to the said lubrication passages.

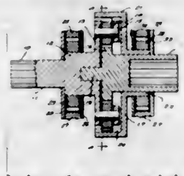
2,782,659
HYDRODYNAMIC TORQUE CONVERTER AND GEARING
Oliver K. Kelley, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 18, 1952, Serial No. 294,291
9 Claims. (Cl. 74—677)

1. A power transmitting device comprising in combination an input shaft rotating a pump in one sense for circulating liquid, an output shaft, a first turbine rotated by liquid from the pump and mounted on a freely rotatable driving gear, a fixed support, a reaction gear rotatable about the output shaft, a one-way brake between the reaction gear and the support permitting rotation of the reaction gear in the sense of rotation of the pump, a planet carrier having a driving connection with the output shaft, planet gears meshing with the driving and reaction gears, a second turbine rotated by liquid flowing from the first turbine, second turbine being adapted to be urged to rotate in either sense by liquid flowing from the first turbine, an over-running clutch connecting the second turbine to the carrier in response to second turbine speed tending to exceed carrier speed in the sense of rotation of the pump, a one-way brake connecting the second turbine to the support to prevent reverse rotation, and an over-running clutch connecting the input shaft directly to



the output shaft around said pump and turbines to transmit torque from the output shaft to the input shaft whenever the speed of the output shaft in the sense of rotation of the pump tends to exceed the speed of the input shaft.

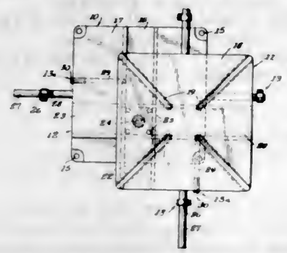
2,782,660
VARIABLE SPEED TRANSMISSIONS
Frederick L. Davis, Fayetteville, N. C.
Application January 7, 1953, Serial No. 330,113
5 Claims. (Cl. 74—752)



1. In a transmission for maintaining a substantially constant speed at the output end despite variations in speed at the input end; a leader constituting the input element; a follower constituting the output element; a planetary gear train operatively connecting said elements and comprising a set of planetary gears and sun gear of which one is carried by the follower and the other by the leader; an orbit gear surrounding and meshing with the planetary gears; a direct-connected gear pump having its driving element axially coincident with the orbit gear; a valve controlling the output of said pump to load the latter and impose a restraining force opposing rotation of the orbit gear and varying such restraining force according to the degree of opening movement of the valve; and leader actuated means to vary the degree of opening movement of said valve, so that, as leader speed may decline, restraining force on the orbit gear will increase to reduce the leader-follower speed ratio and thereby keep the follower speed substantially constant.

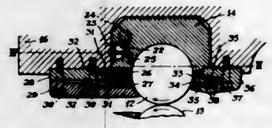
2,782,661
FLOATING WORK TABLE
Richard O. Lewis, Bell, Calif.
Application August 23, 1954, Serial No. 451,637
6 Claims. (Cl. 77—63)

1. A work table comprising two similar plates, each provided with a slideway in one face thereof, one of said plates being adapted to be fixedly mounted on the table of a machine having a tool, the other plate being adapted to mount a piece of work on which said tool is operable, and a slide unit comprising two similar slide members in cruciform arrangement and in different planes, one said slide member being slidably movable in the slideway of one plate and the other slide member being similarly movable in the slideway of the other plate, said slideways be-



ing undercut along their sides and the slide members being formed to interfit said undercut sides to connect the plates against transverse separation.

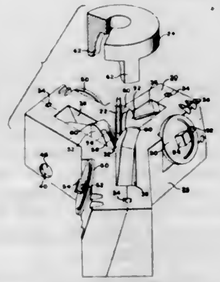
2,782,662
LUBRICATING MEANS FOR A ROLLING MILL
Cyril Anthony Malone, deceased, late of Bamford, England, by Laura Malone, executrix, of Bamford, England, William France, Sheffield, and John France Whitfield, Huddersfield, England, assignors to Samuel Osborn & Company Limited, Sheffield, England, a British company
Application March 15, 1954, Serial No. 416,312
Claims priority, application Great Britain March 16, 1953
5 Claims. (Cl. 80—1)



1. A rolling mill for cold rolling metal sheet or strip comprising, in combination, a pair of roll housings constituting a roll stand, a pair of small diameter upper and lower companion work rolls, a roll supporting member for the upper roll resiliently and adjustably suspended in the roll stand, a roll supporting member for the lower roll adjustably mounted in the roll stand, a half bearing in each roll-supporting member affording metal-to-metal contact between said roll supporting member and the roll therein substantially throughout the length of the working surface of said roll, at least one lubricating passage in each bearing in open communication with the bearing-contacting surface of the roll therein, a pressure fed lubricant reservoir within each roll-supporting member and having open communication with said lubricating passage therein, lubricant sealing means supported adjacent exposed faces of each bearing at opposite sides of the axis of the roll in said bearing and in wiping contact with and longitudinally of that part of the roll surface exposed by the bearing, supporting and retaining plates for said lubricant sealing means detachably secured to each roll-supporting member at opposite sides of a roll, and pressure fluid filed flexible members interposed between the lubricant sealing means and the retaining plates urging said sealing means in lubricant sealing and wiping engagement with a roll.

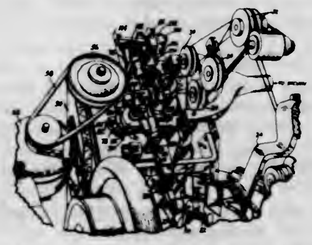
2,782,663
COLD FORMING APPARATUS
Carl L. Clevenger, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 1, 1955, Serial No. 531,935
2 Claims. (Cl. 80—25)

1. An apparatus for forming at least three helical splines on a shaft comprising; a pillow block having at least three slots radially arranged about a common center line, said slots each having walls extending through said block at an angle to said center line, a plurality of bores arranged in said block and communicating with said slots to form bearing in the walls of said slots, said bores being equidistantly spaced from said center line and perpendicularly extending from the walls of said slots, at least three die segments constructed and arranged to be pivotally mounted in said slots, each of said segments having a bore extending therethrough and having a ridge on a curved surface thereof disposed equidistantly from said center line



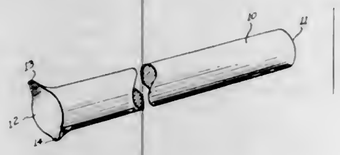
when the bores in said die segments are aligned with the respective bores in said block, and a means for pivotally mounting said die segments on the slots of said block, said means including; a plurality of pivot pins each having axially spaced and aligned journal portions and having a bearing portion intermediate said journal portion eccentrically disposed relative to said journal portions, and receivable in the bores of said segments for providing a pivot therefor, and an adjustment and locking means on one end of each pin for rotating the eccentric bearing portions relative to said block and thereby adjustably moving said segment relative to said center line.

2,782,664
DEVICE FOR STRIPPING INSULATION FROM WIRES
Washington J. Caldwell, Toledo, Ohio
Application August 29, 1952, Serial No. 307,105
6 Claims. (Cl. 81—9.51)



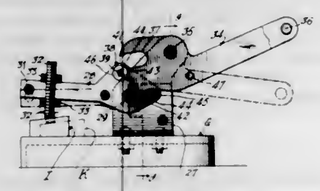
1. In a device of the class described, the combination of means for moving an insulated wire strand along its longitudinal axis at selected times, a supporting means for the strand, a scraping edge cooperating with the supporting means moving in a circular orbit about a rotative axis oblique to the axis of the strand, support means for the scraping edge moving in its circular orbit about its rotative axis, means to rotate the support means and the rotating scraping edge in a second orbit around the longitudinal axis of the strand, means to establish contactual relation between the rotating scraping edge and the strand to scrape the insulation from the strand, and means for operating the last two of said means in timed relation with the first means.

2,782,665
PICK-HAMMER AUTO BODY TOOL
Frank J. Pinkerton, Sr., Frenchtown, N. J.
Application April 15, 1955, Serial No. 501,556
1 Claim. (Cl. 81—15)



An auto body repair tool of the nature of a hammer comprising an elongated cylindrical metallic rod of substantial weight having a flat end substantially normal to the axis of said rod, and a blunted point extending laterally outwardly from said body at said flat end and beyond the plane thereof, said blunted point being defined by an outer rounded surface that merges in with the cylindrical surface of the rod and an inwardly inclined end surface that merges in with said flat end.

2,782,666
WORK-HOLDING CLAMP FOR WORKPIECES OF VARIABLE THICKNESS
Henry Reid, West Orange, N. J.
Application September 8, 1954, Serial No. 454,763
9 Claims. (Cl. 81—17)

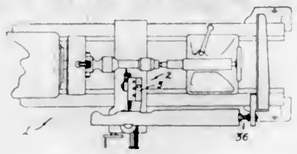


1. A work-holding clamp comprising a work-engaging member, means mounting said work-engaging member to travel toward and away from a work support into work-clamping and work-clearing positions respectively, an operating mechanism including an operating member and rapid-drive means movable around a single pair of parallel axes to drive said work-engaging member rapidly from said work-clearing position to a point near said work-clamping position and from said point back to said work-clearing position during movement of said operating member in opposite directions respectively, said rapid-drive means having a continuous driving connection with said work-engaging member throughout said movements and being disconnected when said work-engaging member reaches said point, and cam means also movable around said axes and drivingly connected to said work-engaging member at said point simultaneously with disengagement of said rapid-drive means during movement of said work-engaging member from said work-clearing position to drive said work-engaging member into work-clamping position and said cam means being continuously drivingly connected to said work-engaging member to move the latter from said work-clamping position back to said point and being disconnected from said work-engaging member at said point at the same time that said rapid-drive means is connected to said work-engaging member to drive the latter from said point to said work-clearing position.

2,782,667
TAP EXTRACTOR WITH SLIDABLY ADJUSTABLE FINGERS
George J. Miller, Windsor, Conn., assignor to The Walton Company, Hartford, Conn.
Application May 27, 1955, Serial No. 511,581
6 Claims. (Cl. 81—90)

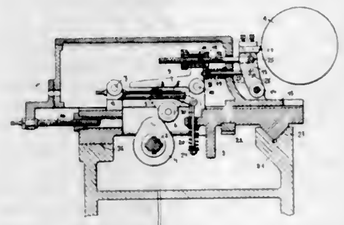
1. An extractor for broken taps including a holder having a plurality of grooves disposed longitudinally in its outer surface and extending to a free end thereof, a separate elongated finger member slidably mounted in each of said grooves and having an end portion adapted to be extended beyond the said free end of the holder, a sleeve surrounding said fingers and holder, and resilient means combined with said sleeve for independently retaining each of the fingers in position within its respective groove in said holder.

2,782,668
PROFILING ATTACHMENT AND/OR SYSTEM FOR A MACHINE TOOL
Bernard E. Richet, North Hollywood, Calif.
Application April 7, 1952, Serial No. 280,915
1 Claim. (Cl. 82—14)



A profiling attachment for a machine tool having a movable tool post base means and provided with a variable width template having a reference edge and a guiding edge, said template being adapted to be effectively mounted in operative position with respect to the machine tool, comprising: a laterally recessed base member adapted to be mounted upon movable tool post base means of a machine tool; a tool bit carrying slide member slidably mounted in the laterally recessed base member; anti-friction means effectively positioned between the slide member and the base member to facilitate slidable movement of the slide member with respect to the base member; adjustable fastening means cooperable with the tool bit carrying slide member for adjustably and removably fastening a cutting tool bit in a selected forwardly projecting position with respect to the tool bit carrying slide member and with respect to the direction of slidable movement thereof; a rearwardly directed pivotally movable template supporting and engaging member carried by the base member and cooperable to slidably pivotally movably support the underside of a variable width template and to slidably movably engage the back reference edge of the variable width template; rearwardly directed follower means carried by the tool bit carrying slide member for slidably movable engagement with respect to the front guiding edge of the variable width template, whereby movement of the template engaging member and the follower means along the reference edge and the guiding edge, respectively, of the variable width template will cause slidable movement of the tool bit carrying slide member and the cutting tool bit carried thereby in a manner corresponding to the width of the template positioned between the template engaging member and the follower means; rearwardly directed hollow bore means in the rear of the base member; hollow tube means having one closed end and one open end mechanically carried by the slide member with the open end in movable slidable alignment with the hollow bore means in the base member; and compression biasing spring means extending from the closed end of the hollow tube means through the open end thereof into the hollow bore means into engagement with the base member whereby to effectively bias the follower means carried by the slide member into forced engagement with respect to the front guiding edge of the variable width template and whereby to effectively bias the template engaging member into forced engagement with respect to the rear reference edge of the variable width template.

2,782,669
MECHANISM FOR COPY TURNING
Heinrich Brandenberger, Zurich, Switzerland
Application July 2, 1952, Serial No. 296,906
Claims priority, application Switzerland August 2, 1951
5 Claims. (Cl. 82—19)

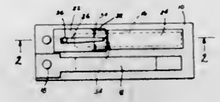


1. In a copying mechanism, in combination, a carriage movable in one direction and adapted to move in longitudinal direction of a work piece; a tool slide mounted on said carriage movable in a direction transverse to said one direction; adjusting means for adjusting the position of said tool slide to the diameter of a work piece, said adjusting means moving said tool slide on said carriage; a tool holder pivotally mounted on said tool slide for oscillating movement in a direction transverse to said one direction between a tool advancing position and a tool retracting position; a continuously rotating drive shaft means having an axis extending in said one direction; a copy cam mounted on said shaft means for rotation therewith and slidable in axial direction of the same, said copy cam being moved along said shaft means with said carriage; a cam follower roller engaging said cam; a first lever pivotally mounted on said carriage and supporting said cam follower roller and being oscillated by said cam; a second lever pivotally mounted on said carriage at a fixed distance from said first lever; a movable adjusting element movably mounted on said first lever located intermediate said two levers and engaging said second lever for transmitting the movement from said first lever at a variable ratio to said second lever; and an adjustable member of variable length having ends pivotally mounted on said second lever and on said tool holder, respectively, said adjustable member extending in said transverse direction and being adapted to adjust said tool advancing and tool retracting positions of said tool holder, said cam, said levers, said tool holder, and said adjustable element being arranged in a single transverse plane.

2,782,670
TRAINING ATTACHMENTS FOR STRINGED INSTRUMENTS
Richard A. Lipski, Terryville, Conn.
Application November 12, 1953, Serial No. 391,474
1 Claim. (Cl. 84—283)

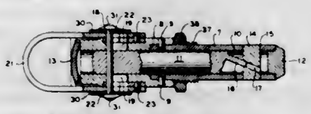
In a bow guide for attachment to a violin or similar stringed instrument having a finger board and a bridge, a pair of parallel, inverted U-shaped rubber-covered wire guiding members secured at right angles to a pair of elongated vertical channel shaped side clips, said clips having inwardly extending upper and lower ribs detachably spring clamped upon the opposite sides of said finger board, and a pair of short felt pads for engagement with said bridge to prevent scratching thereof and to minimize the muting of the musical tone of the instrument during use.

2,782,671
MECHANICAL VALVE FOR AN ACCORDION REED
Alexander E. Magalik, Flushing, and Gabriel J. Jacomini, Queens Village, N. Y.
Application March 2, 1953, Serial No. 339,510
7 Claims. (Cl. 84—360)



1. An accordion reed plate having two air passages formed therein, a vibrating tongue mounted on one side of said plate opposite one of said air passages, a second vibrating tongue mounted on the opposite side of said plate opposite the second air passage, and a pair of valve plates mounted on said reed plate, one on each side thereof and opposite said air passages and vibrating tongues, a closure flap pivotally mounted on each said valve plate for movement into and out of closed position against said accordion reed plate and relative to the air passage situated opposite thereto, and a spring connected between said valve plate and each said closure flap to urge said flap into closed position against said accordion reed plate and relative to the air passage situated opposite thereto.

2,782,672
LOCK PIN HAVING ECCENTRICALLY ACTUATED PLUNGER AND COOPERATING LOCKING SLIDE MEANS
Frank L. Davis, College Point, N. Y., assignor to Davis Aircraft Products Inc., New York, N. Y., a corporation of New York
Application March 11, 1954, Serial No. 415,460
5 Claims. (Cl. 85—5)



1. In a lock pin having a transversely shiftable locking slide at the inner end and a longitudinally shiftable plunger connected to project and to retract said slide, a cross-pin on the outer end of said plunger projecting to opposite sides of the locking pin, bearing discs journalled

on a common axis on said opposite sides of the locking pin and having cam slots extending from said axis toward the rims of said discs and through which the projecting ends of the cross-pin pass and an operating yoke having spaced sides overlying and connected with said bearing discs and having cam slots through which said projecting ends of the cross-pin extend and which substantially coincide with the slots in the bearing discs and whereby rocking movement imparted to said yoke will be effective through said cam slots and cross-pin to shift said plunger longitudinally for projecting and retracting said locking slide.

2,782,673
MULTI-PRONGED SHEET METAL CORNER FASTENER

Theodore Packard, East Orange, N. J., assignor to E. B. Packard Co., Inc., New York, N. Y., a corporation of New York

Original application March 10, 1952, Serial No. 275,830, now Patent No. 2,715,730, dated August 23, 1955. Divided and this application June 13, 1955, Serial No. 514,857

1 Claim. (Cl. 85—13)

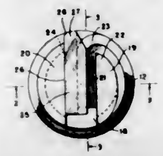
A fastener for wooden joints, said fastener comprising two adjacent side portions of equal length having a common center line and forming an included angle of substantially ninety degrees, and two other side portions constituting a continuation of the first-mentioned side portions and located at the ends thereof, each first-mentioned side portion forming an angle of substantially ninety degrees with the adjacent second-mentioned side portion along a common line of turning which extends parallel to said center line, the two second-mentioned side portions being of equal length, the second-mentioned side portions forming free end extremities substantially less in length than the first-mentioned side portions, said fastener having an upper edge and a lower edge, a central tooth extending from said lower edge and having two oblique inner edges joining each other at a point upon said center line, said central tooth further having two outer edges extending substantially parallel to said center line upon separate first-mentioned side portions and joining separate inner edges, whereby said central tooth consists of two separate half portions located upon separate first-mentioned side portions and having separate points, said points curving obliquely outwardly relative to the planes of the first-mentioned side portions, two outer teeth extending from said lower edge, each outer tooth having inner and outer edges, said inner and outer edges having oblique portions joining each other at a point upon a separate line of turning, whereby each outer tooth is located upon two adjacent first-mentioned and second-mentioned side portions the inner edge of each outer tooth further having a portion extending parallel to the center line from the lower edge to said oblique portion, the outer edge of each outer tooth further having a portion extending parallel to the center line from the oblique portion to the upper edge of the fastener, and two intermediate teeth extending from said lower edge, each intermediate tooth being located upon a separate first-mentioned side portion between the central tooth and an outer tooth and being of substantially V-shape, said central and outer teeth being of substantially the same height, said intermediate teeth having a height less than that of the inner and outer teeth.

2,782,674
COIL SPRING THREAD HAVING SHEAR-PREVENTING AND LOCKING MEANS

John O. Forster, Harrison, N. Y., and Adolph H. Mussgnug, Danbury, Conn., assignors to Heli-Coil Corporation, Danbury, Conn., a corporation of Delaware

Application May 26, 1954, Serial No. 432,452

5 Claims. (Cl. 85—46)



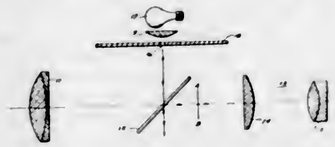
1. A lock stud or screw comprising a shank including a screw-threaded end portion and being provided with a diametrically extending slot in its end, a wire coil having inner and outer thread-forming portions and being wound on said end portion so as to engage said thread thereof with the inner portions and to project from the thread of said end portion with said outer portions, said coil including a diametrical tang in continuation of the end convolution of said coil adjacent said slot so that there is a bend between said tang and said end convolution, said tang engaging in said slot and bearing against the slot wall adjacent said end convolution, and a key having opposed faces and being tightly fitted with said faces in said slot between the opposite wall of the latter and said tang, said key extending with its one end which is adjacent said bend beyond said slot in front of said end convolution substantially as far as the outer diameter of said coil, said key end being shaped substantially according to the outer portion of said coil wire so as to be adapted to engage in the same thread groove the wire coil on said stud or screw is intended to engage.

2,782,675
ARTIFICIAL HORIZON

Howard J. Eckweiler, Manhasset, N. Y., assignor to Kollsman Instrument Corporation, Elmhurst, N. Y., a corporation of New York

Application December 10, 1952, Serial No. 325,159

3 Claims. (Cl. 88—1)



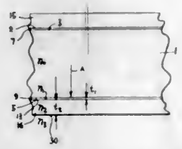
1. An optical instrument comprising in combination an optical sighting system and artificial horizon means, said optical sighting system comprising means developing an original line of sight including an objective lens, said artificial horizon means comprising a restricted light source, a semi-transparent glass in the line of sight of said optical sighting system and in the path of light from said restricted source, a light transmitting fluid having a surface at which the light from said source is refracted, an enclosure for said fluid, a concave mirror forming the bottom of said enclosure and holding said fluid, said concave mirror and refracting liquid therein forming an optical system for projecting an image of said restricted light source in the said line of sight, said concave mirror facing said semi-transparent glass and being positioned at a distance therefrom so as to project said image to the focal point of said objective lens of said optical sighting system and providing an indication of the horizon in the line of sight thereof.

2,782,676
REFLECTION REDUCTION COATINGS AND METHOD FOR COATING SAME

Harold Osterberg, Stamford, Conn., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts

Application March 1, 1952, Serial No. 274,456

2 Claims. (Cl. 88—1)



1. An optical element having a hard, durable reflection-reduction bilayer coating bonded to a surface thereof and arranged to provide an exposed surface having substantially zero reflectivity at a preselected wavelength, said optical element being formed of a transparent material having a predetermined refractive index n_0, a first layer of substantially clear dielectric material having a high refractive index n_1 relative to the refractive index of said optical element and being a value within the range of 1.8 to 4.5, said first layer being disposed upon said surface of said element and providing a first interface therebetween, and a second layer of substantially clear dielectric material having a low refractive index n_2 relative to the refractive index of said first layer and being a value within the range of 1.3 to 1.6, said second layer being disposed upon the surface of said first layer and providing a second interface therebetween, the optical with path value p_1 (the actual thickness expressed in wavelength value $\times$ refractive index n_1) of said first layer being in a range between $\frac{1}{20}$ of a wavelength to $\frac{1}{100}$ of a wavelength at said preselected wavelength and being that value within said latter range which satisfies the following equation:

$$\cos 2p_1=\frac{w_3^2(w_1^2w_2^2+1)-w_1^2-w_2^2}{2w_1w_2(1-w_2^2)}$$

and wherein w_1 is the Fresnel coefficient for the interface between the optical element and said first layer and is equal to

$$\frac{n_0-n_1}{n_0+n_1}$$

wherein w_2 is the Fresnel coefficient for the interface between the first and second layers and is equal to

$$\frac{n_1-n_2}{n_1+n_2}$$

and wherein w_3 is the Fresnel coefficient for the interface between the second layer and air and is equal to

$$\frac{n_2-n_3}{n_2+n_3}$$

and wherein n_3 indicates the refractive index of air to which said second layer is to be exposed, and the optical path value p_2 (the actual thickness expressed in wavelength value $\times$ refractive index n_2) of said second layer being in a range between a little more than $\frac{1}{4}$ wavelength to a little more than $\frac{1}{3}$ wavelength at said preselected wavelength and being that value which satisfies the equation:

$$-2p_2=\theta_1-\theta_2$$

wherein θ_1 and θ_2 are interrelated angular values, θ_1 being dependent upon said selected optical path value p_1 for said first layer and the coefficients w_1 and w_2 for the interfaces adjacent said first layer as established by the following pair of equations

$$\sin\theta_1=w_1\sin 2p_1$$

and

$$\cos\theta_1=-(w_1\cos 2p_1+w_2)$$

and θ_2 being dependent upon said selected p_1 value and the interface coefficients w_1 and w_2, as established by the following pair of equations

$$\sin\theta_2=w_1w_2\sin 2p_1$$

and

$$\cos\theta_2=w_1w_2\cos 2p_1+1$$

and wherein the following relationships of refractive indices

$$n_1^2>n_2^2n_0>n_2^2$$

and

$$n_1^2>n_2^2n_0>n_0^2$$

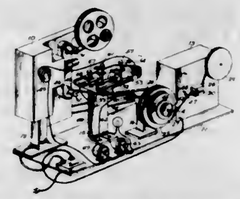
for the selected materials of said first and second layers and said optical elements are satisfied.

2,782,677
SYNCHRONIZING ATTACHMENT FOR PICTURE PROJECTORS AND SOUND RECORDERS

Israel N. Steigman, Brooklyn, N. Y.

Application August 24, 1954, Serial No. 451,890

8 Claims. (Cl. 88—16.2)



5. In picture film and sound tape synchronizing means, a film-feeding motor, feeding means for unperforated magnetic sound tape, means interposed between the motor and the tape feeding means to maintain the speed of the motor at a rate just sufficient to take up the tape fed by the tape feeding means, take-up reels for the film and tape, an operative connection to the motor, said connection including a common shaft for and rotatable as a unit with said reels, a pulley loose on the shaft and a slip clutch between the shaft and the pulley, the maximum speed of the shaft being determined by the tape, and the rotational speed of the pulley being not less than that of the shaft, said speed-maintaining means comprising a feeler for the film fed by the film feeding means, the feeler being arranged at a control portion of the film between the motor and the film take-up reel, and means responsive to bodily movement of the feeler by the film to control the speed of the motor comprising a resistance in a divided circuit to the motor and means interposing the resistance into the divided circuit and cutting the resistance out of said circuit.

2,782,678
COPYING CAMERA

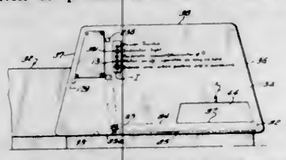
John O. Taylor, Pleasantville, N. Y., assignor to American Type Founders, Inc., Elizabeth, N. J., a corporation of New Jersey

Application August 26, 1955, Serial No. 530,814

11 Claims. (Cl. 88—24)

1. A copying camera comprising a strip of photosensitive film, means for transporting said film past an exposure area, a lens, a shutter for said lens, illuminating means, a masking element movable in said exposure area to determine the size of the exposure, means for mounting the copy to be photographed, movable means for measuring the size of the copy, said measuring means

being connected to and adapted to move said masking element to delimit the exposure area in a predetermined ratio to copy size, a control switch mounted on said element and electrically connected to said transport means, said switch being in the path of said film, means for producing notches in said film which are adapted to move past said switch to permit the latter to close whereby



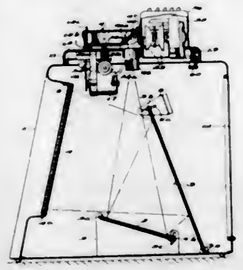
the movement of said film is stopped, means connecting said switch to said shutter whereby the latter opens when said switch closes, means connecting said switch with said illuminating means whereby the latter is fired after the opening of the shutter to expose the film, and means connected with said switch to produce a subsequent notch after an exposure has been taken on said film.

2,782,679
OPTICAL PROJECTION VIEWING AND INDICATING MEANS FOR MEASURING INSTRUMENTS
Antoine Brueder, Paris, France, assignor to Societe Anonyme Andre Citroen, Paris, France
Application October 19, 1954, Serial No. 463,285
Claims priority, application France November 26, 1953
5 Claims. (Cl. 88—24)

1. A viewing apparatus, notably for instrument panels of vehicles, adapted to provide an indication of a measured value determined by the position of a movable member of a measuring instrument and adapted to be viewed by an observer whose eyes are in a substantially fixed position relative to the instrument panel, said apparatus comprising an optical system incorporating a light source providing a light pencil forming an image of said source, said light pencil moving substantially in a plane and being responsive to the position of said movable member, and a block of transparent material secured on the instrument panel and having an input face facing said light pencil and a plane output face having engraved thereon a straight graduated line facing the observer's eyes, said light pencil entering said block after passing through said input face and for any position of said movable member substantially in a same plane and parallel to a same direction in said plane, and issuing from said block through the output face thereof substantially in a plane passing through said graduated line and parallel to the perpendicular to said output face so as to form on said graduation an image of said light source, said light pencil continuing its travel towards the observer's eyes whereby the observer perceives the said image with a brightness value substantially independent of the position of said image along said graduated line and also independent, therefore, of the measurement to be read.

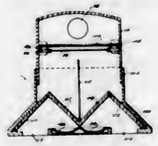
2,782,680
PROJECTION READER
George Blaine Howell, Tampa, Fla., assignor, by mesne assignments, to Empire Steel Products Corporation, a corporation of Florida
Application August 16, 1951, Serial No. 242,126
5 Claims. (Cl. 88—24)

1. A film-projection device comprising a base arranged in a horizontal plane, film-driving means comprising a pair of rotary spindles mounted in vertical bearings and passing through said base, each spindle being movable vertically from a lower position to an upper position, a pair of film-supporting spools supported on said base and having sockets for receiving the upper ends of said spindles, means for driving said spools when said spindles are in the upper position comprising a clutch element on



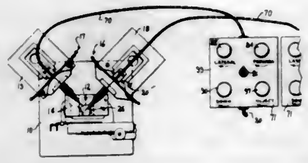
the upper end of each spindle engaging the socket portion of the corresponding spool in the upper position of the spindle and being disengaged therefrom in the lower position of the spindle, means for driving said spindles in opposite directions, and means interconnecting said spindles for selectively raising one of said spindles into its upper spool-driving position and simultaneously lowering the other spindle into non-driving position.

2,782,681
MAGNIFYING REFLECTION VIEWER FOR STEREOSCOPIC PICTURES
Jacob C. Copeland, Chicago, Ill.
Application August 7, 1952, Serial No. 303,055
3 Claims. (Cl. 88—29)



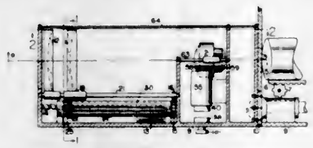
1. A magnifying reflecting binocular viewer for viewing a pair of stereoscopic pictures comprising in combination, a housing, means within said housing for positioning two stereoscopic pictures along one plane in said housing, matched magnifying and reflecting optical systems in said housing, one system for each of two stereoscopic pictures positioned by said positioning means, each of said magnifying and reflecting optical systems comprising a spherical mirror, a semi-transparent mirror and an opaque planar mirror, said semi-transparent mirror extending across the field of one of a pair of stereoscopic pictures held in said positioning means and being at an angle of approximately 45° with respect to the plane defined by said positioning means and also with respect to the axis of said spherical mirror, said planar opaque mirror being positioned in said housing at an angle of approximately 90° with respect to said semi-transparent mirror and spaced from the field of said stereoscopic picture whereby said opaque planar mirror receives light from a stereoscopic picture only after the direction of said light has been changed by said semi-transparent mirror, and whereby the light passing through the two matched optical systems from each of said two stereoscopic pictures held in said positioning means passes through said semi-transparent mirror once in the direction of the axis of said spherical mirror and is reflected once by a semi-transparent mirror, once by a spherical mirror and once by an opaque planar mirror to reverse the images of said pictures in one direction.

2,782,682
MICROMANIPULATORS
Iben Browning, Buffalo, N. Y., and Lloyd S. Lockingen, Houston, Tex.
Application May 29, 1953, Serial No. 358,458
13 Claims. (Cl. 88—40)



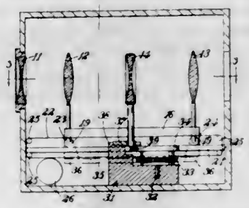
1. A micromanipulator for use with a microscope or like optical instrument having an object supporting stage, said micromanipulator comprising a supporting block arranged to be supported in a fixed position relative to said stage during use thereof, means for accurately moving and positioning a micromanipulator tool relative to an object upon said stage and while within the object field of said optical instrument, said moving and positioning means being secured to said supporting block and having a pair of control arms extending laterally in opposite directions therefrom, each of said control arms comprising temperature responsive means arranged to flex in a substantially horizontal direction when subjected to changes in temperature, electrical heating means disposed adjacent each of said control arms, a supporting bar secured to the outer free ends of both of said control arms, a micromanipulator tool supporting means supported by said supporting bar and extending forwardly therefrom, and readily controllable means connected to each of said electrical heating means and arranged to be connected to a source of electrical energy for controlling the amounts of current being supplied thereto.

2,782,683
SELECTIVE ELECTRICAL LENS ADJUSTING MECHANISMS FOR VARIABLE MAGNIFICATION SYSTEMS
Joseph B. Walker, Los Angeles, Calif.
Application February 18, 1954, Serial No. 411,060
15 Claims. (Cl. 88—57)



1. In a variable focal length lens adjusting mechanism, a divergent lens, means to axially translate said lens, plural similar mechanically adjusted electrical impedance devices alterable in impedance in accordance with said translation, an amplifier controlled by one of said devices, the combination of amplifier and device having predetermined non-linear input-output characteristics in amplitude of electrical energy, an electrically controlled mechanical means actuated by said energy connected to a convergent lens for movement thereof coaxially with respect to said first lens to change the focal length of the divergent-convergent lens combination and means to switch said amplifier from one to another of said impedance devices to focus an image of objects at different distances from said lens combination upon an image surface.

2,782,684
VARIABLE MAGNIFICATION OPTICAL SYSTEMS
Harold Horace Hopkins, London, England, assignor to W. Watson & Sons Limited, Loudon, England, a British company
Application October 5, 1954, Serial No. 460,361
Claims priority, application Great Britain October 9, 1953
13 Claims. (Cl. 88—57)



1. A variable magnification optical system comprising two positive (convergent) lenses and a negative (divergent) lens, all arranged on a common optical axis with the two positive lenses spaced apart, and the negative lens between the two positive lenses and spaced from at least one of them, the said lenses all being movable axially and the positive lenses being constrained to maintain a constant axial distance between them during their axial movement, and, in combination with the lenses, magnification varying means for continuously and simultaneously moving the two positive lenses and the negative lens along the optical axis relative to a stationary support according to a law such that the distance from a fixed point on the support at which the image of an object at a fixed distance from the said fixed point on the support is accurately focussed remains constant while the size of the said image is continuously varied during the operation of the magnification varying means, the distance between the image position for the rear one of the said positive lenses and the corresponding conjugate object position for the other of the said positive lenses being finite and not greater numerically than a small multiple of the focal length of one of the said positive lenses.

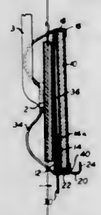
2,782,685
OPTICAL DEVICE PROVIDING A LIGHT DEFINING APERTURE
Glenn L. Dimmick, Haddon Heights, and Mary E. Widdop, Oaklyn, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Original application April 22, 1947, Serial No. 743,222, now Patent No. 2,633,427, dated March 31, 1953. Divided and this application November 2, 1951, Serial No. 254,496
5 Claims. (Cl. 88—61)

1. An article of manufacture comprising a transparent base plate having a substantially nonreflective opaque coating thereon, said coating having an opening therein for transmitting light, said coating being composed of a combination of copper and manganese fluoride.

2,782,686
AUTOMOBILE REARVIEW MIRROR
Albert Rothgart and Henry I. Sobel, Brooklyn, N. Y.
Application March 1, 1956, Serial No. 568,824
1 Claim. (Cl. 88—86)

A mirror assembly for attachment to an installed automobile rear-vision mirror, said assembly comprising a

mounting plate having an integral top hook and a bottom extension extending perpendicularly forwardly thereof and terminating in an upturned flange, said extension having a slot therein, a mirror mounted on the front face of said mounting plate, the top end of said mirror being held by said hook and the bottom end thereof resting upon said extension, said mirror having a depending adjusting piece secured to the bottom end thereof, said adjusting piece having a tab extending through the slot in said extension, a strip of tacky plastic secured to the rear surface of said mounting plate, and means including a pair of spring clips for attaching said mounting plate immovably to the front of said installed automobile mirror.

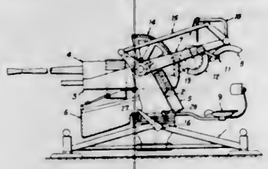


said spring clips then resiliently urging said mounting plate and the installed rear-view mirror in flush abutting engagement, said plastic strip adhering to the face of the installed rear-view mirror by pressure of said spring clips, said tab being movable back and forth in said slot to move the lower end of said mirror relative to said mounting plate along said bottom extension between a normal position in which the mirror is substantially parallel to the mounting plate and a tilted position in which the mirror is upwardly tilted at an angle to said mounting plate, the upturned flange of said bottom extension serving as top means to limit the forward movement of the lower end of said mirror.

2,782,687
GUN CARRIAGE WITH PEDAL-CONTROLLED TRAINING

Heinrich Herlach, Zurich, Switzerland, assignor to Machine Tool Works Oerlikon, Administration Company, Zurich-Oerlikon, Switzerland, a Swiss company

Application May 16, 1952, Serial No. 288,134
7 Claims. (Cl. 89—41)

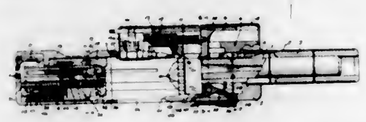


3. In a gun, a carriage comprising a lower immovable supporting member and a cradle mount rotatably mounted upon said supporting member to carry out a training movement; a gunner seat connected to said cradle mount, at least one pedal, means rotatable about a substantially vertical axis, a pivot carried by said rotatable means and firmly connected with said pedal for a joint swinging movement therewith, a coupling element connected to said lower supporting member and having a coupling surface extending concentrically to said axis, and a clamping device connected with said pivot and having a clamping roller engaging said coupling surface to provide a clamping connection between the clamping device and the coupling element when the pedal is swung by the gunner.

2,782,688
MACHINE GUN

Wayne E. Leek, Ilion, Charles H. Morse, Herkimer, and Charles C. Webb, Mohawk, N. Y., assignors to Remington Arms Company, Inc., Bridgeport, Conn., a corporation of Delaware

Application January 11, 1954, Serial No. 403,278
7 Claims. (Cl. 89—199)

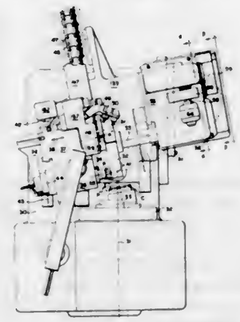


1. In a machine gun having a barrel and a spring-urged breech bolt reciprocable between positions locked to said barrel for firing and remote therefrom for extraction and reloading, the combination comprising a box-like receiver into which said barrel extends and into which said breech bolt reciprocates to lock to said barrel, a box-like bolt compartment releasably secured to said receiver to form a longitudinal rearward extension of said receiver, within which the reciprocation of said breech bolt is completed, said bolt compartment being of adequate length to receive and completely house the breech bolt and spring mechanism associated therewith when said breech bolt is in said position remote from the barrel, and means to releasably retain said breech bolt in said remote position completely enclosed in said bolt compartment, said receiver and said bolt compartment being joined to each other by means including a hinge bolt mounted parallel to the axis of the bore of the barrel in one of the longitudinal corners of the bolt compartment and extending therefrom into secured relation in an aligned bore in one of the longitudinal corners of said receiver, said hinge bolt forming a journal about which said bolt compartment can be rotated to swing said bolt compartment and the breech bolt contained therein to one side out of opposition to the open rear end of the box-like receiver.

2,782,689
GEAR CUTTING MACHINE WITH AUTOMATIC LOADER

Leonard O. Carlsen, Rochester, and Herman A. Male, Brighton, N. Y., assignors to The Gleason Works, Rochester, N. Y., a corporation of New York

Application October 18, 1954, Serial No. 462,660
13 Claims. (Cl. 90—1)

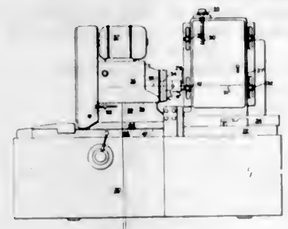


1. A machine tool having a spindle for supporting a workpiece for a work operation, a transfer member rotatable unidirectionally about and translatable along an axis parallel to the spindle and having a plurality of sets of jaws each of which is adapted to engage a workpiece on the spindle in one position of rotation of the transfer member, and an indexible magazine having a plurality of carriers for workpieces, said magazine being so disposed that each indexing operation brings a successive carrier into a position wherein the workpiece supported thereon is parallel to the spindle and engageable by one set of jaws while another set of jaws is engageable with a workpiece on the spindle.

2,782,690
MACHINE FOR CUTTING CLUTCH TEETH AND THE LIKE

Ernest Wildhaber and Norman W. Fowler, Brighton, N. Y., assignors to The Gleason Works, Rochester, N. Y., a corporation of New York

Application September 23, 1955, Serial No. 536,242
14 Claims. (Cl. 90—9.4)

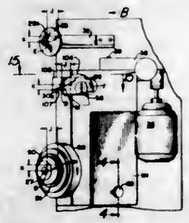


1. A tooth cutting machine or the like, comprising a frame, a sliding base movable rectilinearly on the frame, a swinging base movable angularly on the sliding base about a first axis perpendicular to the direction of sliding base movement, a lever fulcrumed to the sliding base on an axis parallel to the first axis and having a cam surface engageable with a cam follower surface on the swinging base, a slide reciprocable rectilinearly on the frame at an angle to the direction of sliding base motion and having a straight guide surface extending in the last-named direction, a follower on the lever engaging said guide surface of the slide, and means for reciprocating the slide.

2,782,691
MACHINE FOR MAKING IMPELLERS

Perry L. Feagans, Los Angeles, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California

Application June 17, 1953, Serial No. 362,357
10 Claims. (Cl. 90—13)

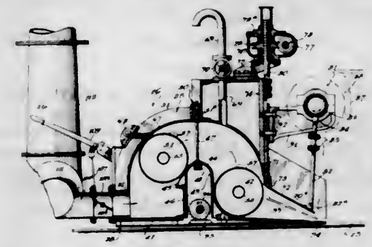


1. An attachment for producing skew bladed impeller wheels on a profiling machine, said profiling machine having motorized work-supporting carriage means capable of two degrees of motion in a horizontal plane, a motorized cutter-supporting carriage means capable of vertical motion, motor means for operating said cutter, a plurality of feelers, and switch means operated by said feelers to control said motorized carriage means in accordance with a plurality of patterns in contact with said feelers, said attachment comprising: an upright angle plate adapted to be secured to the horizontal work-supporting carriage means; a plurality of patterns carried by said angle plate in contact with said feelers; a rotating work piece supporting spindle carried by said angle plate; and means for rotating at least one of said patterns in synchronism with said spindle whereby said cutter in cooperation with the controlled motions of said carriage means generates the desired skew bladed impeller wheel.

2,782,692
SECONDARY HEADBOX

Paul Boronow, Appleton, and Willard C. Notbohm, Kaukauna, Wis., assignors to Valley Iron Works, Appleton, Wis., a corporation of Wisconsin

Application December 8, 1952, Serial No. 324,708
3 Claims. (Cl. 92—39)

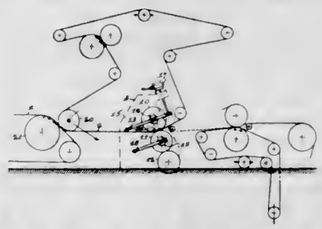


1. A secondary headbox for a paper making machine comprising, in combination, a base plate, a pressure tight housing on said base plate which extends transversely to the machine, said housing being generally semi-cylindrical in cross-section and opening downwardly, means for supplying stock at a uniform pressure across the upstream end of said housing, valve means in said supply means for controlling the supply of stock to said housing, a transversely extending, generally inverted U shaped weir defining member which extends into said housing and which is disposed intermediate the upstream and downstream end of said housing so as to define a generally semi-circular path for said stock, a pair of distributing rolls supported in said housing, said distributing rolls being disposed on opposite sides of said weir defining member and extending transversely to the machine, the upstream roll being disposed adjacent the top of said weir defining member and the downstream roll being located adjacent the bottom of said weir defining member, said distributing rolls being perforated so as to have uniform openings which comprise from 50 to 20 percent of the surface area of said rolls, and means for rotating said rolls.

2,782,693
PRESS ROLL ASSEMBLY FOR PAPER MACHINES

Stanley C. Williams, Pointe Claire, Quebec, Canada, assignor to Dominion Engineering Works Limited, Montreal, Quebec, Canada

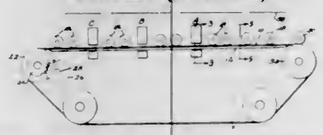
Application October 25, 1954, Serial No. 464,577
1 Claim. (Cl. 92—49)



In a paper making machine, a Fourdrinier wire, a couch roll around which the delivery end of the wire is trained, a suction pick-up roll positioned in close proximity

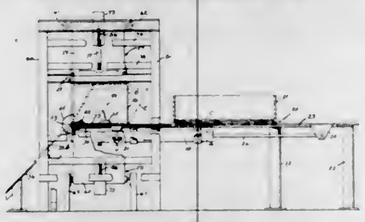
to said couch roll to form a nip therewith, a suction press roll spaced horizontally from the side of the pick-up roll remote from the couch roll, an endless looped pick-up felt having the lower portion thereof trained around said pick-up roll and said suction press roll so that the lower run of the felt travels horizontally beneath said rolls, said suction pick-up roll serving to transfer the paper from the forming wire to the under side of the lower run of the pick-up felt, a granite press roll engaging the lower side of a portion of the lower run of the pick-up felt which is in contact with the lower portion of the suction press roll, and a backing-up roll underlying the granite press roll in supporting contact therewith, said suction press roll being provided in the lower portion thereof with a downwardly opening suction box overlying the nip formed by and between the suction press roll and the granite roll.

2,782,694
INTERMITTENTLY OPERATING APPARATUS FOR MAKING BAGS
Arthur W. Richens, Chester County, Pa., assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York
Application August 10, 1953, Serial No. 373,284
6 Claims. (Cl. 93—22)



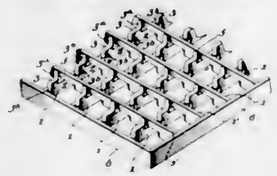
1. Apparatus for making bags comprising means to advance a series of spaced bag lengths, said advancing means operating intermittently, means operative during a dwell in the advance for gripping a bag length of flattened gusseted tube near an open end thereof, said means also being operative to open such end of said tube to form an open rectangular box having its bottom in the flattened body of the tube, tucking means operable during the dwell in said advance for collapsing said box-like structure against the body of the bag to leave an upstanding fin running across the tube, additional means operative during the dwell in said advance for subjecting said upstanding fin to heat and pressure and other means for folding and pasting said upstanding fin against the body of the bag.

2,782,695
CARTON SET-UP MACHINE
William E. Meissner, Devon, and Hyde W. Ballard, West Chester, Pa., assignors to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application June 18, 1954, Serial No. 437,662
10 Claims. (Cl. 93—53)



1. A carton set-up assembly comprising a horizontal table, means associated with said table for moving flat cartons from a supply to a set-up station at one end of said table, a suction element in the table at said set-up station, a pivoting plate hinged at one end of the table adjacent the set-up station, a suction element on said pivoting plate, means for pivoting the plate through an arc substantially more than 180° from a position overlying the set-up station, latch means for selectively retaining the plate in a 90° position with respect to the table, and means for sequentially actuating the flat carton advancing means, the plate pivoting means, the suction means and the latch means whereby a flat carton is conveyed to the set-up station, squared and removed from the station.

2,782,696
MANUFACTURE OF METAL GRATING
Sidney James Francis and Henry Joseph Carter, Benoni, Transvaal, Union of South Africa, assignors to New Era Engineers (Proprietary) Limited, Springs, Transvaal, Union of South Africa
Application March 24, 1953, Serial No. 344,394
Claims priority, application Union of South Africa March 25, 1952
3 Claims. (Cl. 94—30)



1. A grating having crossing sets of parallel bars, each bar having a continuous elongated edge, the opposite edge being provided with spaced relatively wide notches having oppositely inclined lugs projecting from opposite sides of each notch and being substantially parallel to each other, the two sets of bars being reversed with the notches of one set interlocking with the notches of the other set, the ends of the oppositely inclined lugs of one set of bars contacting or abutting the continuous portions of the second set of bars and with the lower edges of the lugs of one set in contact with the upper edges of the lugs of the other set to lock the bars in place.

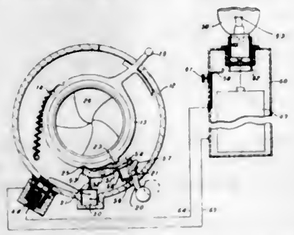
2,782,697
FILM PROCESSING
Victor Krupa, Los Angeles, Calif., assignor to Peerless Film Processing Corporation, New York, N. Y., a corporation of New York
No Drawing. Application January 5, 1952, Serial No. 265,205
4 Claims. (Cl. 95—1)

1. The method of treating exposed and developed motion picture film to reduce the shrinkage therein which comprises subjecting said film while maintained under reduced pressure to the vapor given off by a heated mixture of water, glycerine, ethyl alcohol and camphor for an appreciable length of time.

2,782,698
ELECTROMAGNETICALLY OPERATED PHOTOGRAPHIC SHUTTER WITH FLASHLAMP SYNCHRONIZER
Wilbur G. Hill, Binghamton, N. Y., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
Application May 6, 1953, Serial No. 353,390
1 Claim. (Cl. 95—11.5)

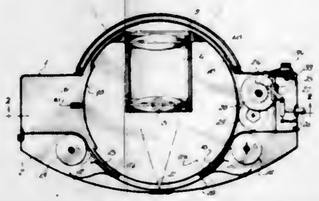
In a photographic shutter, a tensionable master member having a notch and a projection spaced therefrom, a pivotally supported actuating lever comprising a detent portion adapted to engage said notch upon tensioning said master member and a latch portion adapted to engage said projection upon complete pivotal movement of said actuating lever, manual means for releasing said master member

comprising a release lever operable to engage said actuating lever effecting movement thereof to a limited extent so that the said detent portion clears said notch without said latch portion engaging said projection and an automatic synchronizing arrangement for operation with flash bulbs of the type having an igniter fusible by electric current comprising an ignition current source, a circuit



connecting said source with the igniter including, in series, a switch and an electromagnet, said actuating lever being moved by said electromagnet when energized by closure of said switch to the full extent of its pivotal movement so that said latch portion engages said projection, holding said master member until said magnet is de-energized due to fusion of said igniter.

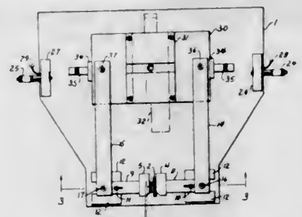
2,782,699
SCANNING CAMERA
John J. Vanderhooft, Jamaica, N. Y.
Application August 10, 1953, Serial No. 373,246
3 Claims. (Cl. 95—16)



1. A stereoscopic camera comprising an optical system embodying the two stereoscopic points of view including a rotatable single lens having a width substantially as great as the interocular spacing, an enclosure connected to said optical system, said enclosure having a curved rear wall with a slit in it, means to converge said two points of view, means to rotatably mount said optical system and enclosure, a lenticular screen or grid mounted behind said enclosure, means to mount a film behind screen or grid, whereby said optical system scans said screen or grid and film as it rotates.

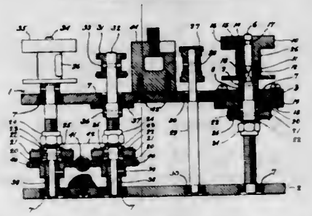
2,782,700
CAMERA MOUNTS
Anthony Peter Ianuzzi, Hollis, N. Y., assignor, by direct and mesne assignments, of seventy-three and one-half percent to Michael Myerberg, twenty percent to Arthur Gray, Jr., and two percent to Louis C. Blendermann, New York, N. Y., and two percent to Monide, Inc., one and one-fourth percent to Stewart F. Alexander, and one and one-fourth percent to Bernice Alexander
Application May 21, 1953, Serial No. 356,431
5 Claims. (Cl. 95—18)

1. A camera mount for taking stereoscopic pictures, comprising a bed plate and camera supporting member slidable thereon, stop means for limiting sliding movement of the supporting member at each of two predetermined locations, a trapezoidal linkage connected to the bed plate and camera supporting member and comprising a pair of bars, a pivot connecting one end of each bar to the camera supporting member, a pair of pivot blocks slidable on the bed plate and pivotally connected to the other ends of the said bars, a right and left hand



screw threadably engaged in the pivot blocks for adjusting their position and a thrust member fixed to the bed plate for holding the screw against axial movement.

2,782,701
PHOTOGRAPHIC FILM TRANSPORT MECHANISM
Carl A. Helber, Maple Heights, Ohio, assignor to Goodyear Aircraft Corporation, Akron, Ohio, a corporation of Delaware
Application October 23, 1953, Serial No. 387,867
1 Claim. (Cl. 95—31)

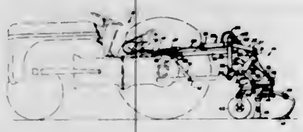


In a photographic film strip transport mechanism for intermittant film transport the combination of a supporting frame consisting of a bottom plate and a top plate spaced from each other, a projecting lens mount including a film gate fixed to the upper face of said top plate, a resiliently mounted plate inserted in said gate to exert slight pressure against the film face, a resilient film edge guide, a plurality of shafts each rotatably supported in pairs of bearings inserted in said bottom and top plates, and carrying, respectively, a film take-off reel, a film idling reel, a film sprocket reel, and a film wind-up reel, each reel being fixed to its respective shaft, slip clutch means mounted partly to the under side of said top plate and partly to said take-off reel shaft, an electric motor provided with a worm shaft and being mounted to said bottom plate, said motor being adapted to be continuously rotated, a pair of worm gears in simultaneous operative engagement with diametrically opposed portions of said worm shaft, one of said worm gears being rotatable about the sprocket reel shaft and the other worm gear about the wind-up reel shaft, slip clutch means engaging said worm gears with their respective shafts, an escapement wheel having a plurality of stop lugs and being fixed to said sprocket wheel shaft, a rigid, and spring-loaded escapement lever pivotally mounted in said frame tangential to said escapement wheel with an end thereof in arresting engagement with one of the escapement wheel lugs, said lever resisting under compression rotation of said sprocket, and an electro-magnetic relay for releasing by a short electric command said lever from said escapement wheel against the spring load for intermittent transport of the film driven by the sprocket reel a desired distance fixed by the circumferential distance between one stop lug and an adjacent stop lug of the escapement wheel.

2,782,702
PHOTOGRAPHIC SHUTTER
Frederick P. Willcox, Westmoreland Hills, Md., assignor to Fairchild Camera and Instrument Corporation, a corporation of Delaware
Application January 31, 1950, Serial No. 141,495
7 Claims. (Cl. 95—63)

2. In a photographic shutter, a shutter blade mounted for pivotal movement through an angle not exceeding substantially 60°, a toothed sector mounted for pivotal movement through an angle of substantially 180°, a cranked link connecting a point on said blade with said sector, and a toothed quadrantlike member pivoted adjacent said sector for driving said sector through substantially 180° during movement of said member through a substantially smaller angle.

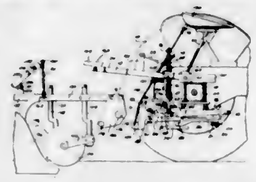
2,782,703
DEPTH CONTROL MECHANISM FOR TRACTOR-MOUNTED IMPLEMENTS
John M. Chambers, Leamington Spa, and Leonard R. Payne, Yardley, Birmingham, England, assignors to Massey-Harris-Ferguson (Sales) Limited, a British company
Application April 12, 1952, Serial No. 282,022
Claims priority, application Great Britain April 14, 1951
17 Claims. (Cl. 97—46.07)



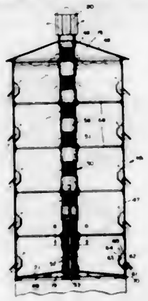
1. In an implement for attachment to a tractor having trailingly pivoted draft links adapted to be raised and lowered by a power operated actuator controlled by a movable control member, the combination of a frame attachable to the tractor hitch links to be raised and lowered therewith, a soil engaging tool assembly, a parallel motion linkage mounting said tool assembly on said frame for generally vertical movement relative thereto under the urging of the soil pressure on the tool of the assembly, and a linkage interposed between said tool assembly mounting and the control member on the tractor for transmitting the movements of the assembly to the control member on the tractor.

2,782,704
IMPLEMENT ATTACHING MEANS FOR TRACTORS
Truman A. Jackson, McHenry, Ky.
Application August 29, 1951, Serial No. 244,207
3 Claims. (Cl. 97—47.14)

2. In a tractor mounted implement the combination of a pair of vertically spaced attaching devices connecting said implement to said tractor, the lower of said devices being constituted to draw said implement but to release it upon the occurrence of excessive draft force therein, and the other comprising a lifting arm, a tension member connected between said lifting arm and said implement to transmit an upward lifting force to said implement but disengageable upon the occurrence of substantial rearward angular pull by the implement subsequent to release of said device constituted to draw said implement, a housing on said implement, a compression spring in the housing and a connection from said spring extending outside of the housing and connected with said tension member.

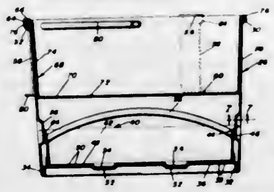


2,782,705
GRAIN STORAGE STRUCTURE AND METHOD
George C. Breidert, La Canada, Calif., assignor to The G. C. Breidert Co., a corporation of California
Application April 14, 1952, Serial No. 282,141
4 Claims. (Cl. 98—55)



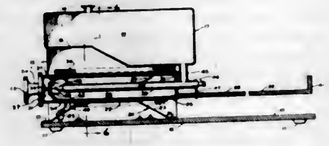
1. In a storage structure for grain or the like, encasement means providing a storage chamber, a conduit extending through said chamber, said conduit having apertured walls, water-absorbent means disposed along said conduit and covering a portion of its area, means establishing communication between the ends of said conduit and the exterior of said chamber, and air circulation means operatively associated with said conduit.

2,782,706
FILTER LEACHER FOR COFFEE URNS
Angelo Colonna, Philadelphia, Pa.
Application December 24, 1953, Serial No. 400,230
6 Claims. (Cl. 99—315)



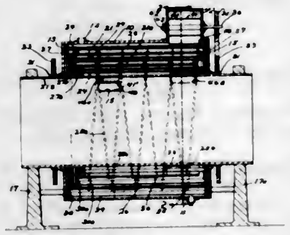
1. For use in a coffee making urn, a sectional leacher which is easy to assemble and disassemble and equally easy to sterilize and keep clinically clean, an outer strainer comprising a relatively deep basket-like receptacle for ground coffee embodying a perforated bottom and an upstanding imperforate marginal wall provided with diametrically opposite indentations constituting keepers, an inner insertable and removable relatively shallow basket-like strainer fitted telescopically into said outer strainer and having a perforated bottom resting atop said first named bottom and provided with perforations out of line with the perforations in said first named bottom and also having an upstanding wall provided with keeper notches in which said keepers are separably seated, said inner strainer having a handle to facilitate expeditious handling and use thereof relative to the complemental outer strainer, the respective bottoms of said strainers having elongate extruded portions separably nested together and serving as handy guides in quickly lining up the keeper notches with their cooperating keepers.

2,782,707
FRANKFURTER COOKING AND FILLING APPARATUS
William G. Spies, Bloomfield, N. J., assignor of one-half to Eric Pusinelli, New York, N. Y.
Application August 8, 1955, Serial No. 526,909
6 Claims. (Cl. 99—355)



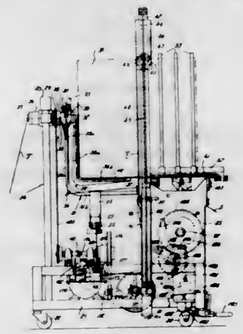
3. Cooking apparatus of the class described, comprising in combination means defining a controllably heated cooking chamber, an elongated cooking receptacle closed at both ends and longitudinally slidably disposed in said cooking chamber to be at least partially removed therefrom at will, said receptacle being adapted to receive therein an elongated edible to be cooked, a fixed injection tube member open at one end and extending slidably through a closed end portion of said receptacle and extending longitudinally centrally of said edible with said open end disposed in said edible when said receptacle is positioned in said chamber, a plunger member slidably disposed in said tube member, a supply reservoir for a liquid to be injected in said edible and duct means connecting said supply reservoir to an end portion of said tube member spaced from said open end, said duct means being shut off by said plunger member when said plunger member is inserted in said tube member and open for communication with said tubular member when said plunger member is at least partially withdrawn from said tubular member.

2,782,708
APPARATUS FOR TREATING PACKAGED GOODS
Edward C. Novotny, Milwaukee, Wis.
Application May 10, 1955, Serial No. 507,324
4 Claims. (Cl. 99—365)



1. In an apparatus for treating canned goods, an outer casing having an enlarged centrally disposed opening at each end, a hollow drum arranged through each opening and extending outwardly beyond each opening, a pair of drums disposed between said casing and said first mentioned drum and enclosed wholly therein, each of said drums equally spaced from each other with the adjacent drum to said casing spaced the same distance as said drums, spaced medium outlets on said casing to receive and expel means for treating said canned goods, a pair of driven plates disposed within said casing and between the ends of said casing and said adjacent drum, other driven plates one each disposed between adjacent ends of said drums, a plurality of spaced channels secured to said first plates, other spaced channels secured to each of said other driven plates and one of said first mentioned plates, each of said channels arranged a distance equally from the outer periphery of each adjacent drum, spiral members arranged above the outer periphery of each of said drums, rotative movement of said plates moving said cans in said spirals over the peripheral surface of each drum and means arranged to transfer each can from the peripheral surface of said adjacent drums in turn to said other drums, said cans being transferred, after traveling over said drums, into the interior of said hollow drum.

2,782,709
BUNDLE TYING APPARATUS
Ralph W. French, Ludlow, Robert Shields, Agawam, and Kenneth H. Pond, Longmeadow, Mass., assignors to Ludlow Manufacturing & Sales Co., Boston, Mass., a corporation of Massachusetts
Application May 14, 1953, Serial No. 355,036
14 Claims. (Cl. 100—27)



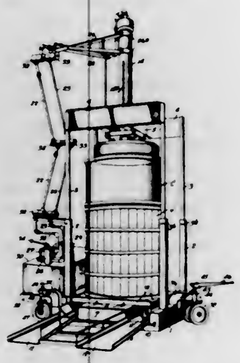
1. In a bundle tying machine having a table for supporting a bundle, the combination of an arm mounted at one side of the table and rotatable through arcs of multiples of 360° in a single tying operation of the machine to lay a wrap of twine substantially in a plane around a bundle on the table, means for rotating the arm, a gripper for holding the end of the twine, a pair of die members mounted at the side of the wrapping plane remote from the arm mounting and separable to receive between them the end portions of a twine wrap held by the gripper and the arm, respectively, the die members being closable to form a throat containing the end portions of said wrap, the arm and the gripper initially lying at opposite sides of the die members, means for forcing a blank edgewise into the throat to form a clip tightly enclosing the end portions of the twine wrap, means for opening the gripper, means for actuating the open gripper to cause it to move past the clip and grip the twine between the clip and the arm, means for severing the twine between the clip and the closed gripper, and means for returning the closed gripper to its initial position.

2,782,710
SAFETY DEVICE FOR PRESSURE VESSELS
Ralph Lee Hall, Jr., Houston, Tex., assignor to Hall Laboratories, Inc., Houston, Tex., a corporation of Texas
Application December 31, 1952, Serial No. 328,844
4 Claims. (Cl. 103—82)

1. A safety device for pressure vessels comprising a closure member for an opening in the vessel, a dome on said closure member, said closure having a forward

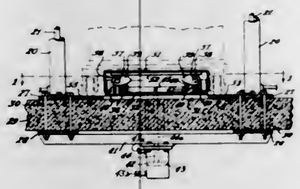
2,782,712

2,782,710
PORTABLE PRESS
Francis B. Fishburne, Asheville, N. C.
Application July 21, 1952, Serial No. 299,999
10 Claims. (Cl. 100—100)



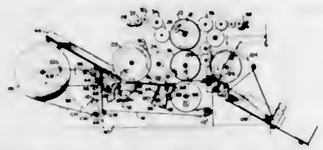
1. A portable press comprising a rigid frame, a vertical hydraulic cylinder and a pump carried by said frame, a plunger working within said cylinder and extending downwardly from the lower end thereof, and a support below said plunger for the material being pressed, said cylinder passing freely through said frame and being detachably secured at its lower end thereto, and means including said pump and a manually operated valve for occasioning movement of said cylinder vertically relative to said frame and plunger, when said cylinder is detached from said frame.

2,782,711
DOLLY SUPPORT FOR HOGSHEAD LOADER AND COMPACTOR
Raymond Heizer, Jr., and Jacob Douglas Gay, Jr., Lexington, and Harry Guthrie Bell, Paris, Ky., assignors to Gay-Bell Corporation, Paris, Ky., a corporation of Kentucky
Application December 14, 1953, Serial No. 397,920
24 Claims. (Cl. 100—229)



1. Support structure for a hogshead lift and compacting mechanism comprising: a pair of H-plates, each H-plate comprising a pair of parallel legs and a centrally located cross beam joining said legs, said H-plates being adapted to be disposed on the upper and lower sides of a building floor and secured together through said floor; a ram for packing tobacco within a hogshead; means to lift and support a hogshead; mechanism to reciprocate said ram into and out of said hogshead; said ram and reciprocating mechanism being based on the legs of the upper H member; said hogshead lift and support means being based on the cross beam of said upper H member; and a force transfer member joining said upper cross beam with the cross beam of said lower H member.

2,782,712
SHEET OR WEB FED ROTARY PRINTING PRESS
Clarence Lloyd Claff and Carl A. Moeller, Randolph, Mass., assignors, by mesne assignments, to M. B. Claff & Sons, Inc., Randolph, Mass., a corporation of Massachusetts
Application December 22, 1952, Serial No. 327,390
4 Claims. (Cl. 101—144)



1. A printing press for both roll and sheet feed, comprising a plate cylinder, a transfer cylinder and an impression cylinder rotatably disposed in a generally vertical row on spaced parallel axes with the plate cylinder at the top and the impression cylinder at the bottom, sheet feeding means comprising a generally horizontal sheet feed table substantially aligned with the bite of the transfer and impression cylinders, means for supporting a paper roll for web supply, and means for directing the web beneath the feed table from the roll into engagement with the underside of the impression cylinder remote from the transfer cylinder and then around the said impression cylinder in engagement therewith to the bite between impression and transfer cylinders to cause the web to embrace a substantial portion of the periphery of the impression cylinder prior to entry into the bite of the impression and transfer cylinders.

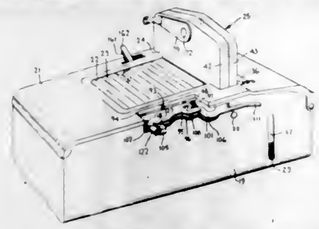
2,782,713
TYMPAN ROLL ADJUSTING MEANS FOR ROTARY PRINTING MECHANISM
John T. Davidson, Dayton, Ohio, assignor to The Standard Register Company, Dayton, Ohio, a corporation of Ohio
Application January 9, 1953, Serial No. 330,559
16 Claims. (Cl. 101—247)

1. In a printing mechanism, a tympan shaft, end extensions on said shaft eccentric to the main body of the shaft and concentric to each other, a journal bearing for one of said end extensions providing for rotary and tilting movements of said shaft, and a mounting for the other end extension including a relatively rotatable sleeve having an eccentric bore receiving said other end extension, control means for rotating said sleeve to effect tilting movements of said shaft, and control means for rotating said shaft to effect bodily shifting motions thereof about said end extensions.

2,782,714
PRINTING MEANS IN AUTOGRAPHIC REGISTERS
John T. Davidson, Dayton, Ohio, assignor to The Standard Register Company, Dayton, Ohio, a corporation of Ohio
Application February 28, 1952, Serial No. 274,021
10 Claims. (Cl. 101—274)

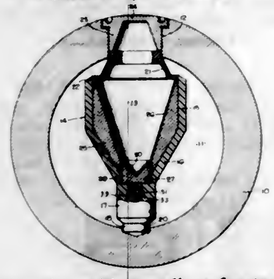
1. An autographic register, including means for advancing record forms to and from a recording position, a writing table upon which said record forms lie when in recording position, an opening in said table, an identification plate holder holding an identification plate movable

to and from registry with said opening on one side of said table, an imprinting unit in registry with said opening on the opposite side of the table and cooperable with the identification plate through said opening to print upon the



intervening record forms, and interlocking means preventing operation of said form advancing means during movement of said plate holder to and from registry with said opening and preventing movement of said plate holder during operation of said form advancing means.

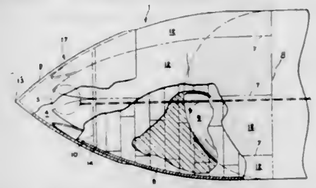
2,782,715
WELL PERFORATOR
John J. Udry, South Gate, Calif., assignor, by mesne assignments, to Borg-Warner Corporation, Vernon, Calif., a corporation of Illinois
Application October 5, 1951, Serial No. 249,838
4 Claims. (Cl. 102—20)



1. In combination with a well perforator in which a shaped charge having a forwardly opening concavity is contained within a fluid-tight housing adapted to be lowered into a well borehole: a support for said shaped charge inside of said housing; a port in said housing in front of said concavity and in axial alignment with the axis of penetration of said shaped charge; a fluid seal member closing said port, said seal member being relatively thin at a point in alignment with said axis as compared to the thickness of the adjacent wall of said housing surrounding said port and being positioned relative to the forward end of said concavity of said shaped charge at a distance less than the optimum stand-off distance thereof; a through opening in the rear end of the concavity of said shaped charge; a separate shaped charge positioned in said opening, to the rear of said concavity, and coaxial with said shaped charge axis of penetration and facing said seal member, said separate shaped charge being separated from the adjacent portion of said shaped charge by an intermediate, relatively thin wall of non-explosive material; and detonator means positioned adjacent the rear end of said separate shaped charge.

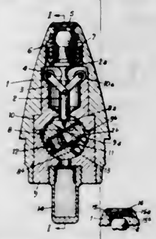
2,782,716
DESTRUCTIBLE COVER FOR FRAGILE DOME
Stephen E. Johnston, Kanab, Utah, assignor to North American Aviation, Inc.
Application November 30, 1953, Serial No. 394,968
7 Claims. (Cl. 102—56)

1. A destructible protective assembly for a fragile dome adapted to pass through a fluid comprising a closure converging over said dome, said closure having a forward part heading into said fluid, an explosive charge spaced from said dome and adjacent said forward part of said



closure, and shock absorbent padding covering said dome whereby the explosion of said charge opens said closure, dispersing said padding and said closure so as to cause said fluid to expose said dome.

2,782,717
FUZE
Heinrich Burri and Fritz Alfred Schori, Zurich, Switzerland, assignors to Machine Tool Works Oerlikon, Administration Company, Zurich-Oerlikon, Switzerland, a Swiss company
Application July 3, 1952, Serial No. 297,136
2 Claims. (Cl. 102—71)

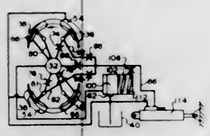


1. In a projectile, a casing having a passage formed therein and extending from front to rear along a longitudinal axis, a rotor pivoted in said casing behind said passage for rotation about a transverse axis extending at right angles to said longitudinal axis, said rotor being rotated about said transverse axis by centrifugal forces produced when said projectile is rotated about said longitudinal axis, a striker pin movably mounted in said passage, resilient means located in said casing and engaging said striker pin to hold it in engagement with said rotor in the transport position and thereby secure the rotor against rotation, pin-retaining means located in front of said casing and comprising a compound closing the front of said passage and melting by heat developed by the firing of the projectile, said pin-retaining means preventing the pin from shifting out of its transport position prior to firing, and means actuated by centrifugal forces and connected with said striker pin for moving said striker pin out of engagement with said rotor when the projectile is rotated about the longitudinal axis and after the melting of said compound, said pin-retaining means further comprising an abutting surface for the striker pin to prevent the striker pin from moving beyond the armed position after the melting of the compound.

2,782,718
SPEED-COMPENSATED FLOW CONTROL
Raymond B. Pettibone, Detroit, Mich., assignor to Vickers Incorporated, Detroit, Mich., a corporation of Michigan
Application May 4, 1955, Serial No. 505,958
8 Claims. (Cl. 103—42)

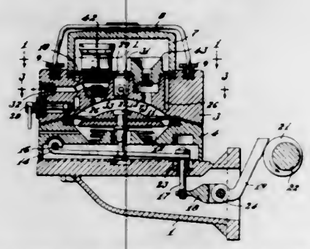
1. A fluid flow control system for delivering a controlled flow rate to a load from pumping mechanism

driven at variable speed, comprising: delivery conduit means connecting the pump and the load; valve means to divert fluid from said conduit; first and second flow restrictive means in said conduit; means for withdrawing fluid from said conduit at a rate proportional to pump



speed at a point between said first and second restrictive means; and means for utilizing the pressure differential between a point upstream of said first restrictive means and a point downstream of said second restrictive means to control said valve.

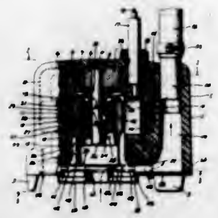
2,782,719
FUEL PUMP
Basile J. Georgias, Boston, Mass.
Application July 7, 1954, Serial No. 441,828
4 Claims. (Cl. 103—42)



1. For supplying fuel to an engine at a predetermined pressure, a device having a vacuum chamber for connection to a source of supply and a delivery conduit for connection to the engine, a pump chamber intermediate the vacuum chamber and delivery conduit, means associated with the pump for drawing fuel from the vacuum chamber and forcing it into the delivery conduit, a duct leading from the vacuum chamber to the pump chamber, the inlet end of said duct being located above the bottom of the vacuum chamber, a check valve in said duct to check flow from the pump chamber to the vacuum chamber, a check valve between the pump chamber and the delivery conduit to check flow from the delivery conduit to the pump chamber, a relief conduit leading from the delivery conduit to the vacuum chamber, a relief valve in the relief conduit to keep the pressure in the delivery conduit from rising above said predetermined pressure, and means inside the supply chamber for adjusting the relief valve, a portion of the wall of the supply chamber being transparent so that the setting of the valve may be observed without opening the chamber, said portion being substantially flat on one side and convex on the other side so as to magnify the valve setting.

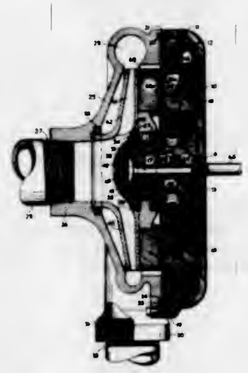
2,782,720
SUBMERSIBLE PUMP-MOTOR
Richard W. Dochterman, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York
Application October 29, 1954, Serial No. 465,551
15 Claims. (Cl. 103—87)

1. A motor comprising a housing of insulating material having a bore formed therein, said bore being formed to be open at one end of said housing and closed at the other end thereof, a stator member entirely encased within said housing and positioned concentric with said bore and in relatively close proximity thereto, a shaft member secured within said housing and positioned to extend into said bore concentrically with said stator member, means independent of said housing encased therein and joining said stator member and said shaft member to ensure con-



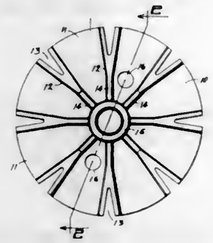
centricity thereof, an eyelet member rigidly positioned on said shaft member, and a rotor member rotatably supported on said shaft and substantially axially aligned with said stator member, said eyelet member being arranged to determine the axial position of said rotor member on said shaft member.

2,782,721
MOTOR DRIVEN PUMPS
Howard T. White, Philadelphia, Pa.
Application August 19, 1949, Serial No. 111,106
9 Claims. (Cl. 103—87)



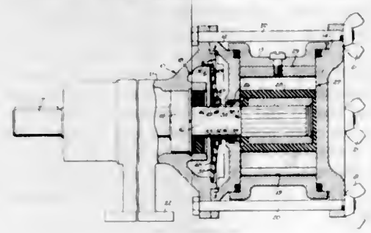
1. A motor driven pump, a stationary housing having an annular motor casing portion with a motor stator and winding therein, said motor stator having a transverse face disposed in a radial plane at one end thereof, said housing having an impeller casing portion in juxtaposed axial alignment with said motor casing portion, said housing having rim portions separable on a radial plane, said impeller casing portion having fluid inlet and fluid outlet connections, a separator plate extending radially and interposed between said casing portions and extending over said face, said motor casing portion having a hub fixedly carried thereby and extending through said separator plate and into said impeller casing section, an impeller in said housing rotatably supported by said hub, the rotor of the motor being mounted on one side of said impeller and spaced axially from and in facing relation to said face to form an axial fluid gap between said motor rotor and said separator plate, and said impeller on the other side thereof having fluid impelling members thereon for the delivery of fluid from said inlet connection to said outlet connection.

2,782,722
PLASTIC IMPELLER
Horace A. Chubbuck, Belleville, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application August 1, 1955, Serial No. 525,614
2 Claims. (Cl. 103—115)



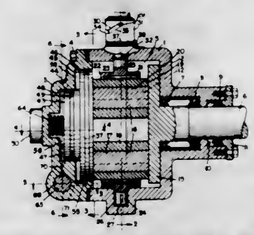
1. A pump impeller comprising an impeller hub supporting an impeller body, said pump impeller body being provided with a series of radial channels separated by bifurcated radial blades and being further provided with a plurality of holes through the impeller body at locations intermediate the impeller body periphery and the impeller hub, alternate bifurcated blades being of substantially uniform thickness in an axial direction, the blades intermediate said alternate blades being substantially reduced in axial thickness near the impeller hub.

2,782,723
SHAFT SEAL FOR PUMPS
Warren Doble, North Hollywood, Calif., and Albert E. Doerr, Mexico City, Mex., assignors, by mesne assignments, to Jabsco Pump Company, Burbank, Calif., a corporation of California
Application October 22, 1951, Serial No. 252,544
2 Claims. (Cl. 103—117)



1. In combination: a housing providing axially-spaced biasing-means and rotor chambers; a shaft rotatably mounted in said housing and extending through said biasing-means chamber into said rotor chamber and terminating within said rotor chamber; a rotor in said rotor chamber and having a hub removably mounted on said shaft, said hub having an opening in one end into which said shaft extends and being closed at its other end so that it completely encloses that portion of said shaft which extends into said rotor chamber; and an annular sealing device encompassing said shaft and engaging said one end of said hub and said housing to prevent leakage from said rotor chamber along said shaft into said biasing-means chamber, said sealing device including an annular sealing element engageable with said one end of said hub and movable axially of said shaft, including annular sealing means between said sealing element and said housing, and including biasing means located in said biasing-means chamber and engaging said sealing element for biasing said sealing element into engagement with said one end of said hub, whereby no contamination of said shaft and said biasing means by a material in said rotor chamber occurs, while permitting removal of said rotor from said shaft.

2,782,724
VANE-TYPE ROTARY PUMPS AND MOTORS
Marion W. Humphreys, Euclid, Ohio
Application May 11, 1950, Serial No. 161,427
6 Claims. (Cl. 103—120)

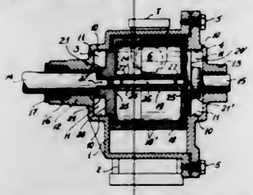


1. In a pump, the combination of a hollow casing formed with fluid intake and discharge passages, a rotor journalled in said casing, said rotor comprising a flange and a radially slotted tubular extension, vanes radially slidably fitted into such extension and having one end engaging such flange and the other end substantially flush with the end of such extension, a reaction member in said casing comprising an inner cylindrical member disposed within such extension and engaged by the inner edges of said vanes and an outer cylindrical member surrounding such extension and engaged by the outer edges of said vanes, said inner and outer cylindrical members having one end engaged with such flange and the other end substantially flush with the end of such extension, means in said casing supporting said reaction member for rotation about its centrial axis and in a position with its axis eccentric with respect to the axis of said rotor, said reaction member and rotor forming therebetween and between successive vanes a plurality of cavities which alternately increase and decrease in size during rotation of said rotor, a valve plate in said casing in sliding engagement with those ends of said reaction member, rotor, and vanes which are substantially flush and formed with passages therethrough alternately communicating such cavities with such intake and discharge passages during rotation of said rotor, spring means compressed between said casing and said plate for holding the latter in sliding engagement with said reaction member, rotor, and vanes as aforesaid, said value plate forming with said casing separate cylindrical and annular balancing chambers, such intake passage leading to one of such chambers, and such discharge passage leading to the other one of such chambers, the area of said valve plate exposed to fluid under pressure in the chamber communicating with the discharge passage being such as to substantially balance the area of said valve plate which is acted upon by pressure of fluid discharged from such cavities, whereby said spring means is effective to hold said plate in sliding engagement with said reaction member, rotor, and vanes at substantially constant force irrespective of variation in the pressure of the fluid discharged by said pump.

2,782,725
ROTARY PUMP
Laurencio Bróchner Hójberg, Vicente Lopez, Province of Buenos Aires, Argentina
Application May 18, 1954, Serial No. 430,633
2 Claims. (Cl. 103—137)

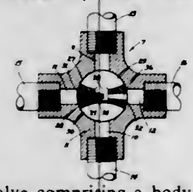
1. In a low-speed rotary wing pump of the type having a cylindrical casing with tangential intake and discharge ports, a cylindrical rotor eccentrically mounted in said casing, a passage extending diametrically through said

rotor and a pair of spring-loaded wings movably arranged in said passage, and shaft means for rotating said rotor, the improvements in said rotor consisting of two cast cup-shaped members adjacent one another, each of said members comprising a cylindrical wall provided with a pair of diametrically opposed slots, an end wall having a transverse internal groove registering with said diametrically opposed slots in said cylindrical wall, and be-



ing adapted for guiding said wings therein, said diametrically opposed slots in one of said members registering with the corresponding slots in the other member; and a pair of parallel transverse walls extending from the edges of one slot to the corresponding edges of the opposite slot, thereby providing one half of said passage, the free edges of said cylindrical walls of said two cup-shaped members being provided with recessed rims for overlapping one another when assembled to form said rotor.

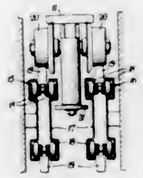
2,782,726
MULTI-WAY VALVE UNIT WITH JET PUMP
Eddie J. Perrin, Lodi, Calif.
Application February 23, 1954, Serial No. 411,832
1 Claim. (Cl. 103—262)



A four-way valve comprising a body having a central bore and four equally circumferentially spaced radial ports opening into said central bore, a rotary plug valve in the central bore, said rotary plug valve having opposed, symmetrically related, separated circumferential cavities therein, said cavities each being of a circumferential extent greater than 90° but less than 180° whereby radially opposed lands remain on the rotary plug valve, the rotary plug valve having a central recess opening into communication with one cavity only, the rotary plug valve having alined radial bores therein opening between corresponding lands and the recess, and a nozzle secured in one of said radial bores and projecting into the recess in alinement with but terminating short of the other radial bore.

2,782,727
CONVEYOR SYSTEMS
Donald Mayer King, Hitchin, England
Application June 2, 1953, Serial No. 359,009
Claims priority, application Great Britain June 4, 1952
6 Claims. (Cl. 104—172)

1. In a conveyor system comprising in combination a plurality of individual load carrying trolleys, a main track adapted to support said trolleys, an endless driven chain located above said main track, pusher dogs depending from said chain at spaced points therealong to engage trolleys present on said main track and to propel the same along the latter, at least one switch device in said main track and a branch track communicating with said main track in the region of the switch device so that on actuation of the latter trolleys may be diverted from said main track to said branch track and vice versa, the provision of a branch track comprising a pair of endless driven chains disposed in spaced parallel relation so as to provide support for the load carrying trolleys, stop devices disposed at differing levels and at spaced points along said branch track, a load bar mounted on each trolley for limited vertical movement relatively thereto, resilient means associated with said load bar so that the

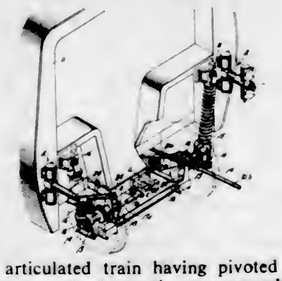


latter will be depressed against the action of such resilient means when loaded and raised by said resilient means when unloaded and an outwardly directed arm also associated with said load bar, the arrangement being such that when a trolley is present on the branch track the arm on the load bar is dependent upon the loading of said trolley to co-operate with a selected stop device located along the branch track.

2,782,728
SKATE FOR RAILROAD CARS
Samuel Jones Beck, Baxley, Ga., assignor to Safety Skate Company, a corporation of Kansas
Application December 18, 1952, Serial No. 326,725
9 Claims. (Cl. 104—260)

1. A skate for use as brake beneath a railroad car wheel, said skate comprising an elongated skid bar adapted to slide on a rail; an abutment on the skid bar for said wheel; a releasable rail clamp mounted on the abutment, said clamp being normally in a closed position in engagement with the rail; and structure movable on the skid bar to and from a position for releasing said clamp to an open position out of engagement with the rail, said structure being within the path of travel of said wheel for movement thereby to said clamp releasing position as the wheel rolls upon the skid bar and against said abutment.

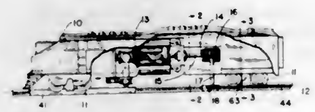
2,782,729
ARTICULATED RAILWAY TRAINS
Francisco M. F. Heredia, Madrid, Spain, assignor to Patentes Talgo, S. A., Madrid, Spain, a corporation of Spain
Application October 15, 1952, Serial No. 314,813
32 Claims. (Cl. 105—4)



1. In an articulated train having pivoted car bodies mounted on two-wheel running gears, wheel-steering

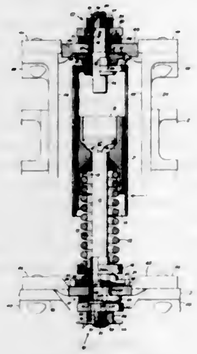
mechanism comprising inextensible connections lying wholly at one side of the axis of the train and connecting a point of each running gear at this side of the train axis with a point of the car body behind it lying at this side of the train axis, independent inextensible connections lying wholly at the other side of the axis of the train and connecting a point of each running gear located at that side of the train axis with a point of the car body ahead of it located at that side of the train axis.

2,782,730
TOY RAILROAD TRAIN AND TRACK
Lester W. Frank, Cleveland, Ohio
Application October 26, 1954, Serial No. 464,713
9 Claims. (Cl. 105—29)



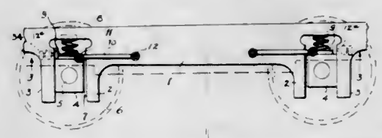
1. A toy railway system comprising, in combination, a pair of spaced apart parallel tracks at least one of which has a regularly perforated web, a locomotive having wheels for engaging the top surface of said tracks, a motor within said locomotive, driving gear wheel means connected to said motor and having a portion located between said tracks with its axis substantially perpendicular to the plane of the tracks and with its gear teeth in meshing engagement with said perforated track for driving the locomotive.

2,782,731
SNUBBER END CONNECTION
Emil H. Blattner, Williamsville, N. Y., assignor to The Symington-Gould Corporation, Depew, N. Y., a corporation of Maryland
Application January 8, 1953, Serial No. 330,247
11 Claims. (Cl. 105—191)



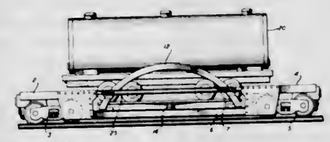
1. An end connection for connecting a snubber to one of a pair of relatively movable members of a railway truck comprising a mounting on said one member, a mounting plate detachably connected to said mounting, a bolt having a threaded end portion projecting from said snubber and extending through said mounting plate, and a connector threadedly connected to said bolt outwardly of said mounting plate, said connector in connecting position having a press fit with said bolt inwardly of said threaded end portion and being drivable thereinto through said threaded connection.

2,782,732
ANTI-HUNTING MEANS FOR RAIL TRUCKS
William T. Rossell, New York, N. Y., assignor to Transit Research Corporation, New York, N. Y., a corporation of New York
Application December 8, 1952, Serial No. 324,623
5 Claims. (Cl. 105—225)



1. In a rail truck, a truck frame having pedestal assemblies at the corners thereof each of said assemblies comprising pedestal guides, a journal box between said guides, spring means supporting a corner of said frame from said journal box, a member having a friction surface on its lower side interposed between said journal box and its spring means, said journal box being slidable with respect to its said member and its friction surface to the extent permitted by said pedestal guides, and a link holding said member against substantial horizontal movement with respect to said frame, said link being connected to said frame and to said member through rubber cushioning elements.

2,782,733
RAILROAD CAR FOR TRANSPORTING ROAD VEHICLES
Joseph Ewing, Bedford Village, N. Y.
Application September 16, 1954, Serial No. 456,478
3 Claims. (Cl. 105—368)

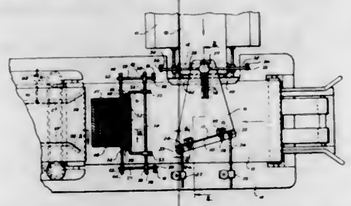


1. A railroad car for transporting automobile trailers having front and rear end portions each including a car truck individual thereto, a dropped center frame portion interconnecting the two end portions, a loading platform adapted to receive and carry a trailer, a turntable for rotatably supporting said loading platform on said frame portion, said turntable having a diameter greater than the width of said car and substantially equal to the length of said loading platform, wherein said turntable includes front and rear sections and a side section on each side of the car, means for hinging the side sections to the car frame so that they can be turned from a horizontal plane to vertical planes.

2,782,734
OBLIQUE CURLING LOAF MOLDERS
Walter B. Nichols, Kansas City, Mo., assignor to Stickelber & Sons, Inc., a corporation of Missouri
Application May 8, 1951, Serial No. 225,205
The portion of the term of the patent subsequent to August 4, 1970, has been disclaimed
4 Claims. (Cl. 107—9)

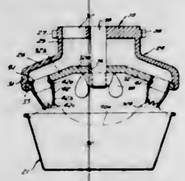
1. In a molding machine, a conveyor belt, feeding means discharging sheeted dough pieces crosswise of said conveyor belt onto the same from one side thereof, a stop member over said belt extending obliquely to the direction of travel thereof in the discharge path of said dough pieces to limit movement thereof transversely of said belt, and a deflector plate extending over said feeding

means at its discharged end and over said conveyor belt from adjacent said side thereof to adjacent said stop



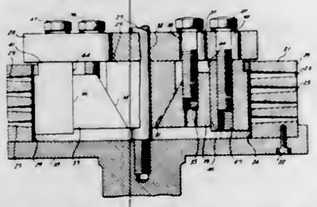
member, said deflector inclining downwardly toward said stop member.

2,782,735
ICE CREAM TART NOZZLE
Ralph F. Anderson, Rockford, Ill.
Application July 11, 1955, Serial No. 521,232
6 Claims. (Cl. 107—14)



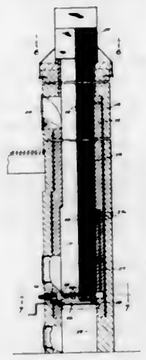
1. A filler nozzle for filling cups with ice cream and the like to form tarts comprising a downwardly opening bell-shaped body having an inlet at the upper end thereof, a bottom wall attached to said body and extending across the lower end thereof, said bottom wall having a plurality of discharge openings arranged concentrically of the bottom wall in the outer extremities thereof, said openings being equally spaced from one another and providing the sole outlets for the ice cream from the nozzle, a plurality of individual nozzle elements of like number to said discharge openings attached to the bottom each in communication with one of said discharge openings, said discharge openings having their centers spaced apart a distance less than the spacing of the centers of the nozzle elements from the center of the bottom wall, said nozzle elements extending downwardly from the bottom wall and slanted inwardly toward the axis of said body at an angle of less than 45° to the axis of the bottom wall to direct the ice cream flowing therefrom inwardly toward the center of the cup to fill the central portion of the cup with the ice cream flowing from said nozzles.

2,782,736
MACHINE FOR FORMING FEED PELLETS
William Johnson, Des Moines, Iowa
Application October 3, 1955, Serial No. 538,210
2 Claims. (Cl. 107—14)



1. In a feed pelletizing machine, a base, an upright perforated die ring rotatably mounted on said base, a support member extended across said ring at a position above the ring and fixedly supported on said base, a pair of feed compressing members movably mounted on said support member and arranged within said ring adjacent diametrically opposite portions thereof, a bearing member arranged between said compressing members and having vertically inclined sides facing said compressing members, a pair of block members movably supported on said support member and corresponding to said compressing members, with each block member having an inclined side engaged with an inclined side of said bearing member and an opposite side engaged with a corresponding compressing member, whereby on movement of a block in one direction along an inclined side of said bearing member, the corresponding compressing member is moved in a direction toward said die ring.

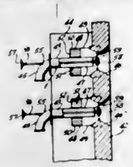
2,782,737
INCINERATOR APPARATUS
Delbert H. Henderson, Cleveland, Ohio
Application December 18, 1952, Serial No. 326,698
15 Claims. (Cl. 110—18)



1. Incinerator structure comprising walls forming a combustion chamber, a chimney flue extending upwardly from and in communication with said chamber, partition means extending longitudinally of said flue and dividing said flue into a charging passage and a smoke passage, said partition means extending to said chamber, there being a closable opening leading into said charging passage above said combustion chamber for the introduction of rubbish or the like, a horizontally extending elongated heat conducting housing extending across said combustion chamber and spaced below said chimney flue, means for heating said housing, spaced grates each of which extends a substantial distance beneath said housing and extending laterally thereof and forming a bottom for said combustion chamber, said housing being disposed over the space between said grates and an ash pit below said grates, said spacing between said grates being less than the greatest width of said housing.

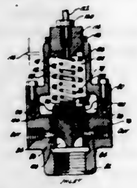
2,782,738
CONTROL OF FLAME LENGTH IN FURNACES
Ronald E. Zoller, London, England, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application January 12, 1953, Serial No. 330,729
Claims priority, application Great Britain January 11, 1952
3 Claims. (Cl. 110—28)

1. Fuel burning apparatus comprising walls defining a furnace chamber, fuel burning means for firing said furnace chamber comprising a plurality of burner elements arranged to discharge streams of fluid fuel through a wall of said furnace chamber with the fuel discharge axes of said burner elements substantially parallel to one another to produce a common flame, means for supplying combustion air to said furnace chamber around each of said fuel streams, a rotatable deflector arranged to effect a mixing of each of said fuel streams with the surrounding air stream, each of said deflectors having a



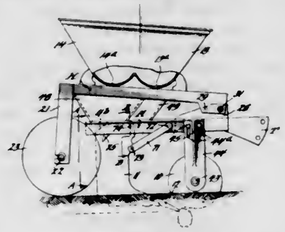
sector substantially ineffective for said mixing action and producing a corresponding air-rich sector in said flame, and means for rotating said deflectors to vary the relative positions of said ineffective sectors and of the corresponding air-rich sectors in said flame.

2,782,739
DISTRIBUTION OF FLUIDS
John G. Freer, Anaheim, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California
Application April 22, 1955, Serial No. 503,286
14 Claims. (Cl. 111—7)



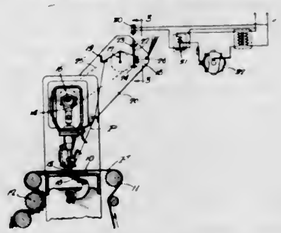
6. An apparatus for the uniform dispensing of a liquid at a plurality of spaced points which comprises a movable vehicle, a liquid storage vessel supported thereon, a liquid inlet thereto, a liquid pump connected at its inlet to said vessel, means for driving said pump at a rate which is a predetermined function of the velocity of said vehicle, an elongated manifold conduit disposed transverse to said vehicle, a conduit opening from the outlet of said pump into an intermediate point of said manifold conduit, an elongated tool bar supported from and transverse to said vehicle, a plurality of injection shanks supported from spaced points along said tool bar and adapted to be extended to subsurface points, a plurality of liquid flow dividers, said dividers comprising a body element having a central fluid inlet channel and a plurality of lateral orifices opening therefrom, a movable valve element disposed within said inlet channel, a hollow cap element sealably secured to said body element, a flexible diaphragm secured at its periphery and disposed in a transverse position between said cap and body elements and attached at its center to said valve element, a loading spring system disposed within said cap element and adapted to bias said valve element toward a position at which the inlet ends of said orifices are sealed, means for connecting said inlet channels to said manifold conduit whereby liquid pressure therein tends to move said valve element against said loading spring system and open said orifices, a plurality of conduits connecting the outlet end of each of said orifices to one of said plurality of injection shanks, a compensating liquid reservoir disposed on said vehicle, and a compensating conduit connecting the lower part of said reservoir with the cap element of each of said liquid flow dividers, said compensating reservoir and conduits containing a liquid having a low volatility and substantially the same specific gravity as that of the liquid being dispensed whereby the net liquid pressure acting on said valve element and diaphragm to open said orifices and the liquid flow rate therethrough is substantially unaffected by the inclination of said tool bar and manifold conduit from the horizontal.

2,782,740
AGRICULTURAL IMPLEMENT
Charles K. Wood, Louisville, Miss., assignor to Taylor Machine Works, Louisville, Miss., a corporation of Mississippi
Application June 21, 1955, Serial No. 516,980
3 Claims. (Cl. 111—52)



1. An agricultural implement comprising a main frame supported for movement over the ground, a hopper frame supported for movement over the ground and disposed above said main frame, a forward hopper and a rear hopper supported on said hopper frame and extending transversely thereof, means pivotally connecting said hopper frame to said main frame in a plurality of positions each for movement about a horizontal axis, a plurality of hollow furrow-forming boots mounted on said frame in side-by-side relationship, each boot having a first funnel associated therewith and leading into said boot, said first funnels being of substantial fore-and-aft extent and carried by said main frame, a second funnel carried by said main frame in advance of each of said boots for conducting material downwardly to the surface of the ground independently of the boot, connecting means pivotally engaged to each of said boots and to said main frame, a shear pin securing each of said boots to said main frame, and a transversely extending stop member carried by each of said boots and disposed at a point abutting said main frame.

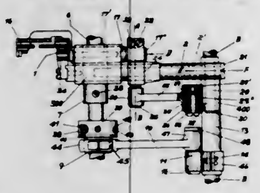
2,782,741
INDIVIDUAL PILE YARN CONTROL APPARATUS FOR PILE FABRICS
John E. Smith, Norristown, Pa., assignor to James Lees and Sons Company, Bridgeport, Pa., a corporation of Pennsylvania
Application October 25, 1954, Serial No. 464,588
14 Claims. (Cl. 112—79)



1. For pile fabrics, a pile yarn control apparatus comprising a fixed guide member for said yarn, a movable guide member spaced apart from said fixed guide member operable to guide said yarn in a normal path between said guide members, a beater element intermediate said guide members operable to cycle in a path intersect-

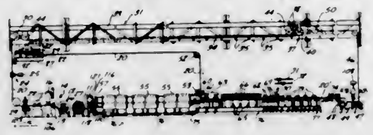
ing said normal path and between positions at respectively opposite sides of the normal path, and operable to engage the yarn in said path and displace the same out of said normal path to one of said positions and into an extended path, means operable in timed relation to said beater element to immobilize the yarn at one of said guide members during the travel of said beater element in each cycle from its point of engagement with the yarn to said one position to cause the beater element to advance a preselected length of yarn past said other guide member, and operable to advance a length of yarn equal to said preselected length past said one guide member during travel of the beater element in the remainder of each cycle to return the yarn to said normal path, and means selectively operable during the travel of said beater element to adjust said movable guide member to displace the position of said normal path relative to said one position of the beater element to thereby change the preselected length of yarn advanced past said other guide member during travel of the beater element in the cycle to said one position and likewise the length of yarn advanced past said one guide member during the travel of the beater element in the remainder of each cycle.

2,782,742
SEWING MACHINE
Otto Hess, Ludwigsburg, Wurttemberg, Germany
Application June 24, 1952, Serial No. 295,184
Claims priority, application Germany June 30, 1951
4 Claims. (Cl. 112—209)



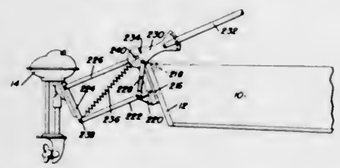
2. In a high speed sewing machine a cloth feeding mechanism comprising a main driving shaft supported in the machine and adapted to be rotated by a driving means of the sewing machine, a feed dog and a differential feed dog both adapted to feed the cloth to be worked and each of which is adapted to move along the path of an ellipse the major axis of which is horizontal, a feed bar and a differential feed bar mounted parallel to each other and each of which is rigidly connected to the respective feed dog, a cam fixed to said main driving shaft, a lifting rocker entirely surrounding the cam and in which said cam is pivotally mounted and in which said feed bar and said differential feed bar are shiftably mounted to execute a shifting motion, said feed dog and said differential feed dog being provided directly adjacent said lifting rocker, a swinging head rockshaft supported in the sewing machine and arranged parallel to said main driving shaft, a feed rocker pivotally mounted on said swinging head rockshaft, said feed bar being pivotally connected directly to said feed rocker, means operated by said main driving shaft to impart an oscillating swinging motion to said feed rocker around the axis of said swinging head rockshaft, a cross slider shiftably mounted on said feed bar adjacent said lifting rocker and rigidly fixed to one end of said differential feed bar, and a lever linked to said feed rocker at one end thereof and at the other end to said cross slider and adapted to shift said cross slider to and fro along said feed bar, a connecting rod one end of which is pivotally connected to said cam, a hub rotatably mounted upon the stationary swinging head rockshaft and to which the feed rocker is secured, and a lever secured to said hub one end of which is pivotally connected to the other end of the connecting rod.

2,782,743
CONTINUOUS TUBE MILL WITH TENSION COMPENSATOR
Frank J. Kennedy, Mount Lebanon, Pa., assignor to National Electric Products Corporation, Pittsburgh, Pa., a corporation of Delaware
Application October 1, 1952, Serial No. 312,555
11 Claims. (Cl. 113—33)



1. In tube making apparatus in which a strip from a supply reel splicing station, where the strip is stopped and started as required in connecting new lengths to the strip, is fed through a tube forming mill with continuous motion, the combination comprising heating means through which the strip passes and in which it is highly heated on its way to the tube mill, feed means beyond the heating means for advancing the strip, a slack accumulator between the supply reel splicing station and the heating means, said slack accumulator including a guide wheel around which the strip passes to change its direction of run, a carriage in which the guide wheel is supported, a track along which the carriage is movable to vary the slack in said accumulator, a second guide wheel around which the strip passes to change its direction of run at a location beyond the slack accumulator but ahead of the region where the strip is highly heated, a support on which the second guide wheel is movable to change the tension of the strip between the supply reel splicing station and the region at which the strip is highly heated, and resilient means urging the wheel support to move in a direction to increase the tension of the strip, the force of said resilient means being correlated with the average strip tension so as to successively yield and expand in response to sudden variations in the strip tension and thereby compensate such variations.

2,782,744
OUTBOARD MOTOR MOUNTING APPARATUS
Thomas G. Staley, Eagle Point, Oreg.
Application June 24, 1954, Serial No. 439,025
4 Claims. (Cl. 115—41)



1. An adjustable mounting device adapted for supporting an outboard motor from the stern transom of a boat, said device comprising a mounting plate, means securable to the boat transom, a horizontally disposed shaft mounted on said plate means, a parallelogram linkage constituting an outboard motor support means pivotally attached to said shaft and plate means at one end whereby the plate means forms one side of the linkage, an operating member secured to said shaft, a link eccentrically pivoted at one end to said operating member and at its other end to said linkage adjacent its connection to said plate means, resilient means connected between said linkage and operating means to assist in moving said linkage to its upper position during actuation of said operating member.

2,782,745
PORTABLE STANDARD
William C. Paschke, Melrose, Minn.
Application May 4, 1955, Serial No. 505,917
3 Claims. (Cl. 116—63)

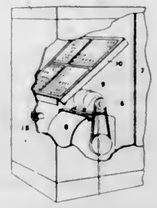
1. A portable signal standard comprising, a generally flat weighted base, looped handle members secured peripherally of the base, each of said handle members lying in spaced relation with its neighboring handle member and terminating upwardly in a combined horizontal hand hold and fulcrum, socket means disposed medially in the upper surface of the flat base, and a post removably positioned in upstanding relation in the socket means, a pair of signal cross arms pivotally secured at a common pivot point medially of the ends of said post, a sleeve member mounted for longitudinal reciprocation on the post, and pivot linkages secured to each of said arms and said sleeve whereby sliding movement of said sleeve in one direction will cause said cross arms to diverge and movement in the other direction will cause them to converge.

2,782,746
FIRE ALARM ACTUATOR
Walter H. Johnson, Tacoma, Wash.
Application January 18, 1954, Serial No. 404,521
12 Claims. (Cl. 116—101)

1. A fire alarm actuator comprising a container adapted to be filled with a supply of gas under pressure, said container having a resilient portion adapted to be distended due to an increase of pressure of the gas within the container and means mounted adjacent said portion for severing said portion to release said gas when said portion is distended a predetermined amount.

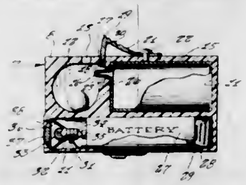
2,782,747
ALARM FOR AIR CONDITIONING SYSTEM
Donovan C. Alderfer, Telford, Pa.
Application April 11, 1955, Serial No. 500,412
2 Claims. (Cl. 116—112)

1. An alarm for an air conditioning system having a substantially closed blower compartment comprising a substantially rectangular shaped body portion open at one end and having one side formed with a rectangular shaped opening mounted in the wall of said blower compartment, a vibratory reed mounted in the side opposite to the side having the rectangular shaped opening, a damper pivotally mounted in the open end of said body portion and adapted to automatically swing to a position



closing said rectangular opening upon a change in air pressure within the blower compartment, the end of said damper being bent to contact the vibratory reed when not in rectangular opening closing position.

2,782,748
PERSONAL ALARM DEVICE
Teddy V. Zegarowitz, Long Branch, N. J.
Application July 26, 1955, Serial No. 524,510
1 Claim. (Cl. 116—112)



A mugging preventor of the character described, including a casing having a first chamber for a container and a second substantially circular sounding chamber beyond said first chamber having an upwardly open whistle slot in the casing, a triller ball within said second chamber, the latter having a spout opening connecting the two chambers beneath said whistle slot but rearwardly thereof, and the casing having an additional upwardly open slot directly above said spot opening, an elongated cutter extending down through the additional slot, means for operating said cutter through said additional slot at will, a compressed air container located in the container chamber and having a closed hollow spout projecting through the spout opening into the path of said cutter, said container being a replaceable single use unit, said cutter being disposed in effective position to cut off said spout upon said cutter being moved longitudinally of its length, said casing having a stop for said cutter within the same, a spring secured at one end upon the exterior of the casing, the other end of said spring being secured to one end of the cutting member with a finger portion upon the junction of the spring and cutting member, said finger portion being depressible to cause the cutting member to cut off the spout.

2,782,749
DETERIORATION TELLTALE
John S. Beckett, Glendale, and William J. Marenus, Burbank, Calif., assignors to Aseptic Thermo Indicator Company, North Hollywood, Calif., a corporation of California
Application July 25, 1955, Serial No. 523,960
4 Claims. (Cl. 116—114)

1. A telltale device for indicating deterioration of the contents of a closed package of food or the like comprising an absorbent base having a visible surface portion; and a diffusion material in contact with a portion of said base, said diffusing material being wax-like and having a softening range from a substantially solid non-diffusing state to

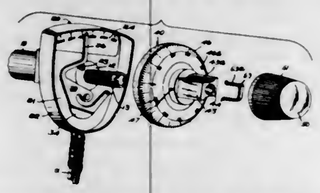
a limpid rapidly diffusing liquid state, said range coinciding with a selected range of temperatures, said diffusing material being adapted to soften and diffuse into said base

when the temperature becomes elevated above a selected non-deterioration temperature, for a distance dependent upon the time, said visible surface of said base being altered in appearance by said diffused material.

2,782,750
METHOD OF DEFINING EXCAVATION LIMITS
Robert J. Hundhausen, Spokane, Wash., assignor of one-half to Daniel W. Butner, Spokane, Wash.
Application August 6, 1954, Serial No. 448,404
8 Claims. (Cl. 116—114)

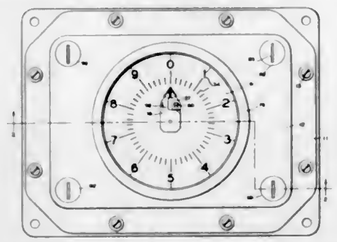
1. The method of defining excavation limits which consists in drilling a number of holes in the earth on planes defining selected ones of the excavation limits and to points beyond the excavation depth limit, depositing in the hole a material distinguishable from the surrounding earth in quantity to fill the hole to the excavation depth limit, and then depositing a second material distinguishable from the surrounding earth and the first named material for a portion of the balance of the hole, and then filling the balance of the hole with a third material distinguishable from the surrounding earth and the first and second named materials.

2,782,751
ADJUSTING MEANS
Florian F. Yanikoski, Natick, Mass., assignor to Fenwal Incorporated, Ashland, Mass., a corporation of Massachusetts
Application October 14, 1954, Serial No. 462,356
4 Claims. (Cl. 116—124)



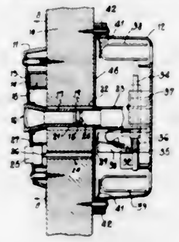
1. Apparatus for ordering and indicating the setting of devices wherein a longitudinal adjustment is effected by a rotatable regulating element, comprising a dial mounted laterally of the device and calibrated in units correlated with the longitudinal adjustment, a pointer reciprocable over said dial, a knob received on said regulating element, and cam and follower means coupling said knob and pointer whereby rotation of said knob orders both the longitudinal adjustment of said device and the lateral positioning of said pointer, vernier scale means on the cam, the cam and follower means so constructed that multiple turns of said knob and element in full range adjustment of said device are reduced to a single sweep of said pointer.

2,782,752
ILLUMINATION OF INDICATING APPARATUS
Maxwell Dorn, Jersey City, N. J., and Werner Rosenbaum, New York, N. Y., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application June 25, 1954, Serial No. 439,446
7 Claims. (Cl. 116—129)



1. In combination, a pair of indicator members adapted for rotation one in front of the other on coaxial shafts, the outer indicator member comprising an elongated body having a tip end and a portion adjacent said tip end provided with a first identifying symbol, said portion being laterally offset in one direction from a line extending between said tip end and the pivot for said outer indicator member, the inner indicator member comprising an elongated body having a tip end and a portion adjacent said last-mentioned tip end provided with a second identifying symbol, said last-mentioned portion being laterally offset in a direction opposite to said one direction from a line extending between said last-mentioned tip end and the pivot for said inner indicator member so that said second identifying symbol remains exposed to view when said members are in the same angular position where the tip end of the outer member is substantially directly in front of the tip end of the inner member.

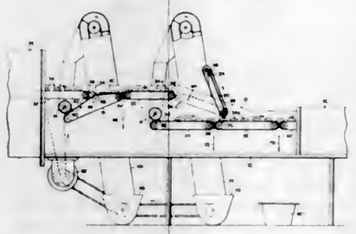
2,782,753
DOOR CHIME AND VIEWER
Alexis C. Grohsgal, Cranston, R. I., assignor to Cable Electric Products, Inc., New York, N. Y., a corporation of New York
Application September 2, 1953, Serial No. 378,017
7 Claims. (Cl. 116—169)



1. A signalling device having a housing adapted to be mounted in a vertical position on the inside of a door and a pair of spaced vibratile signalling elements located inside of the housing at the top and bottom thereof respectively which is characterized by a weighted plunger movably supported in the housing between the signalling elements, said plunger being vertically reciprocable in an endwise direction into and out of engagement with the signalling elements and being biased by its weight to a

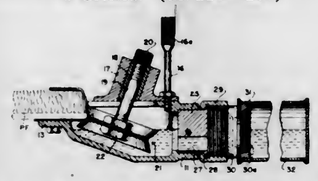
position away from engagement with the signalling element at the top of the housing, a bracket carried by the housing, a yoke pivotally supported on said bracket, said yoke having a portion extending on opposite sides of the plunger at a point intermediate its ends, a spring surrounding the plunger, said spring being interposed between the plunger and the yoke and normally supporting the plunger on the yoke in a position with the ends of the plunger spaced from the signalling elements, an actuator lever pivoted on the bracket, a coil spring connecting one end of the actuator lever to the yoke and imparting a snap action to the yoke upon pivotal movement of the actuator lever, a leaf spring engaging with the actuator lever and biasing the actuating lever in one direction and stops engaging with the yoke and limiting the pivotal movement thereof to positions where the ends of the plunger are normally spaced from the signalling elements.

2,782,754
CANDY-MAKING MACHINE
Charles E. Bookidis, Davenport, Iowa
Application August 22, 1955, Serial No. 529,650
1 Claim. (Cl. 118—13)



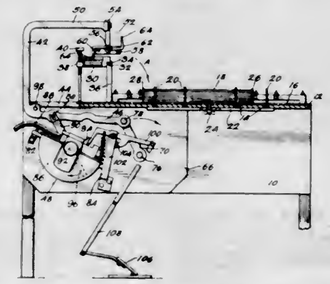
Apparatus for the manufacture of confections of the type having tacky centers to which additive materials are caused to adhere, comprising: a first distributor adapted to contain a first supply of additive material and having an outlet; a first conveyor movable past said outlet to receive thereon from said outlet a layer of the first additive material, said conveyor being movable to a transfer zone beyond said outlet; center-conveying means supporting tacky centers thereon, bottoms down, and operative to move the centers, still bottoms down, onto the aforesaid layer at a point beyond said outlet and short of the transfer zone so that the centers rest on and adhere to at least part of the material in said layers; a second distributor spaced from the transfer zone and adapted to contain a second supply of additive material, said second distributor having an outlet; a second conveyor movable past the second distributor outlet to receive additive material therefrom in layer fashion, said second conveyor being movable to a discharge end beyond said transfer zone; receiving means at and for receiving centers from said discharge end; transfer means at the transfer zone for moving centers from the first conveyor to the second conveyor and operative to turn the centers to present new tacky portions to the second layer to rest in and cause at least part of the additive material in said second layer to adhere thereto; and a by-pass conveyor having one end adjacent to and spaced above the receiving means and extending back toward the transfer zone in a retracted position, said by-pass conveyor in said retracted position having a second end spaced from the transfer zone to enable transfer of the centers from the first conveyor to the second conveyor and thence below said one end of said by-pass conveyor to the receiving means, said by-pass conveyor being movable to and operative in a by-pass position retaining its said one end adjacent to the receiving means and having its second end immediately adjacent the transfer zone so as to extend from the transfer zone to the receiving means for by-passing the transfer means and second conveyor so as to effect delivery of the centers to the receiving means free from the second additive material.

2,782,755
FLUID APPLICATORS
Joseph T. Pospiszel, North Broadalbin, N. Y., assignor to Mohasco Industries, Inc., Amsterdam, N. Y., a corporation of New York
Application March 26, 1956, Serial No. 573,669
5 Claims. (Cl. 118—207)



1. An applicator for applying a liquid to the edge of carpeting, which comprises a hollow base having a top opening and a hollow lateral neck, the base having a lip extending along part of the edge of the opening, a reservoir for the liquid attached to the neck, a cover mounted on the base and closing the part of the top opening remote from the lip, and a disc mounted on the cover for rotation within the base on an axis inclined to the plane of the cover, the periphery of the disc being exposed through the top opening of the base adjacent the lip.

2,782,756
MACHINE FOR APPLYING SPOTS OF GLUE TO SHEETS OF PAPER
William G. Hunt, Laurinburg, N. C.
Application September 12, 1955, Serial No. 533,668
7 Claims. (Cl. 118—211)

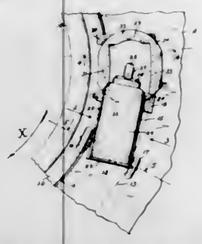


7. A gluing machine comprising a support on which a plurality of paper sheets may be stacked, adhesive supply means, means for transferring adhesive from the supply means to the sheets, said transferring means including movable means mounted on the support and a plurality of adhesive receiving fingers pivotally mounted on the movable means, drive means operatively connected to the movable means for moving the fingers from the supply means to the sheets and back again whereby adhesive may be applied to the sheets, said fingers being mounted in spaced relation to one another, and means for limiting the downward pivotal movement of the fingers.

2,782,757
TIRE SIDE WALL STRIPING DEVICE
Francis J. Carnes, West Roxbury, Mass.
Application April 27, 1954, Serial No. 425,839
4 Claims. (Cl. 118—301)

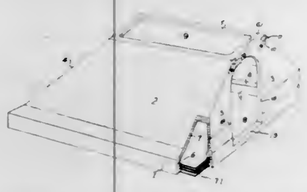
1. A device for spraying an annular strip of a vehicle tire side, comprising a carriage, means on said carriage

for cooperating with a portion of the rim holding said tire for maintaining the position of the carriage on a portion of the tire side adjacent the rim, said means being constructed and arranged to permit rotation of said tire side in relation to said carriage, a container



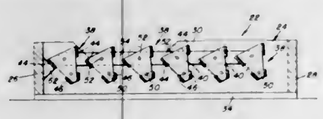
mounted on said carriage provided with a spray nozzle and holding a supply of spraying material under pressure, and a guard on said carriage in the form of a hopper positioned to receive a spray from said nozzle and constructed and arranged to limit the spray to the width of said strip.

2,782,758
PORTABLE CONCRETE FARROWING HOUSE
Harrison I. Turner, Cordova, Ill.
Application March 17, 1954, Serial No. 416,825
12 Claims. (Cl. 119—19)



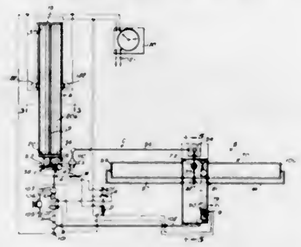
1. A portable thin-walled reinforced molded structure for housing livestock comprising a smooth substantially vertical front wall and smooth sloping side and rear walls, all united at their lower edges to a sill of increased thickness, and having a smooth flattened top, and means of ingress and egress through the front wall.

2,782,759
INCUBATOR EGG TURNING DEVICE
Samuel M. Heise and Grover C. Tipton, Monette, Ark.
Application September 22, 1955, Serial No. 535,820
2 Claims. (Cl. 119—44)



1. An incubating tray compriisng an open rectangular frame having upper and lower edges defined by oppositely disposed end and side wall members, a plurality of open framework horizontally pivotal egg cradles, said cradles being pivotally supported at lower pivot portions to oppositely disposed pivot portions on said side wall members, said cradles including an upper end portion pivotal in an arcuate path within the confines of the upper and lower edges of said frame below said upper edges, a reciprocable pivot lever element extending in parallel relationship between an inner surface portion of one of said side wall members and an adjacent end of said cradles below said upper edges, said pivot lever including a plurality of longitudinally disposed pivot portions pivotally connected to each of said cradles in vertically spaced relation to the pivot connection between the side walls of said frame and the lower portion of said cradles, the side wall member adjacent the pivot lever element including an elongated horizontally disposed notched out portion, and an actuating element extending laterally from said pivot lever in reciprocable overlying relationship in the notched out portion of said side wall member and being offset downwardly relative to said upper edges.

2,782,760
AUTOMATIC POULTRY FEED AND WATER DISPENSER
William E. Wolfe, Grottoes, Va.
Application January 13, 1955, Serial No. 481,558
5 Claims. (Cl. 119—51.5)

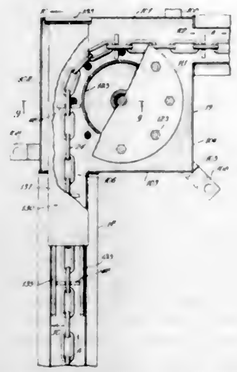


1. An automatic poultry feed and water dispenser comprising a feed trough supported at one end by pivotal means and at the other end by resilient means, feed dispensing means discharging into said feed trough, said feed dispensing means including a feed storage bin having downwardly converging sides spaced apart at their lower edges and positioned above said feed trough, horizontally rotatable feed measuring means positioned intermediate said bin and said feed trough, a hydraulic cylinder comprising a piston and piston rod slidably secured therein operatively engaged to said feed measuring means, means responsive to the weight of feed in said feed trough to actuate said hydraulic cylinder, a water trough adjacent said feed trough, means for flushing and refilling said water trough, and means responsive to the actuation of said hydraulic cylinder to actuate said flushing and refilling means, said horizontally rotatable feed measuring means comprising a horizontally rotatable axle having a number of paddle members spaced equidistantly therearound and extending longitudinally thereof to define a number of V-shaped compartments, the edges of said compartments being adapted to mate with the said lower edges of said feed bin converging sides.

2,782,761
AUTOMATIC POULTRY FEEDER
Maynard S. Martin and Monroe L. Martin, Goshen, Ind., assignors, by direct and mesne assignments, to Gerald L. Kitson, Rockford, Mich., and Nat Cordis, Silver Lake, Wis.
Application August 11, 1951, Serial No. 241,451
6 Claims. (Cl. 119—52)

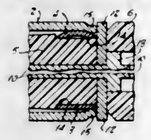
1. For use in an automatic poultry feeder of the type utilizing an endless open top feeder trough for carrying feed throughout a poultry house or the like, an articulated, endless conveyor chain for moving said feed along said endless trough, comprising a plurality of articulately interlocked, alternately transverse, open-centered, link elements and a plurality of spaced, planar flight members extending transversely and symmetrically of a vertical plane passing through the longitudinal axis of said chain, said flight members being mounted to and extending transversely between lower and upper arms of certain separated links of said chain with said lower arms passing

therethrough so that the lower extremities of said flight members and said lower arms of said certain links, to which they are attached, lie in a flush relation for coplanar sliding engagement with a bottom planar wall of said trough; said certain links thereby being maintained by said flight members in a substantially vertical upright position during movement of said chain along said trough



with other intervening and transversely related links being maintained in a substantially horizontal position for the reception and engagement in open center portions thereof of teeth members associated with a rotatable driving sprocket mounted over said trough in a substantially coplanar relation with said certain links for driving engagement with said chain.

2,782,762
SNAP-ACTION CAP FOR FOUNTAIN PEN OR THE LIKE
Donald H. Young, Southbury, Conn., assignor to Waterman Pen Company, Inc., New York, N. Y., a corporation of New York
Application September 7, 1955, Serial No. 532,970
10 Claims. (Cl. 120—42.01)



1. In a writing instrument or the like having a barrel incorporating a cap stop, the combination therewith of a cap having a circular end opening defined by an inwardly projecting bead, a plurality of humps spaced around the barrel adjacent but ahead of the cap stop to form a bead space between the humps and stop, the said humps being dimensioned to spring the cap head to out-of-round in its passage over the said humps into the said bead space.

2,782,763
FOUNTAIN PENS
Harlan H. Zodtner, Janesville, Wis., assignor to The Parker Pen Company, Janesville, Wis., a corporation of Wisconsin
Application June 24, 1953, Serial No. 363,713
8 Claims. (Cl. 120—50)

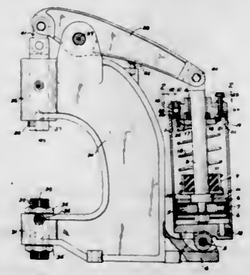
5. A filler-and-reservoir element for a capillary pen comprising a sheet rolled upon itself to define between the convolutions thereof capillary spaces of spiral form, and including a central body portion at the inner end of said sheet and a plurality of tongue portions extending convolutely from the outer end of said central portion and rolled on the central portion, the tongue portions being rolled in relatively different degrees of tightness to form spiral spaces of corresponding different wall-to-wall

dimensions, said tongues decreasing in their extended length progressively axially along said element from the rear to the front thereof.

2,782,764
WRITING INSTRUMENT
Charles F. Lehman, Jr., Fort Worth, Tex., assignor of one-half to Allen Bronston, Fort Worth, Tex.
Application March 12, 1954, Serial No. 415,805
1 Claim. (Cl. 120—102)

A writing instrument comprising an elongated body terminating in a writing point lying on the longitudinal axis of said body and formed with a generally triangular prism portion having its axis parallel to and offset from the longitudinal axis of said body to provide three generally flat faces for engagement by the thumb, first finger, and second finger when said instrument is held in normal writing position, said prism portion being of cross-section conforming in size and shape to the natural triangle defined by the thumb, first finger and second finger when in writing instrument gripping position, said body having a laterally enlarged portion between said writing point and said prism portion to preclude slipping of the thumb and first and second fingers along said prism portion toward said writing point, said laterally enlarged portion and the flat faces of said prism portion of said body being joined by concavely curved surfaces conforming generally to the convex curvatures of the adjacent portions of the thumb and first and second fingers.

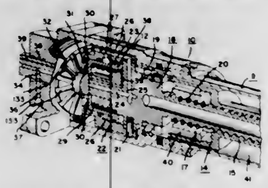
2,782,765
AIR CYLINDER
Herbert M. Robinson, Detroit, Mich., assignor to Robinson Products, Inc., Detroit, Mich., a corporation of Michigan
Application July 28, 1954, Serial No. 446,239
3 Claims. (Cl. 121—38)



1. In combination, a cylinder having closures at both ends, a piston in said cylinder, a piston rod extending from said piston through one of said closures, fluid intake and exhaust means at the opposite closure, a sealing member for said rod in the first closure, a shock absorber on

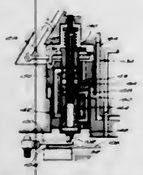
said piston, a coil spring surrounding said rod and seated on said shock absorber, a stop plate for said shock absorber seated on said spring and bearing against said sealing member, an air inlet through the first closure to said cylinder, means for adjusting said inlet, and an inwardly opening check valve in the first closure for admitting air to said cylinder.

2,782,766
ACTUATOR LOCKING MEANS
Roy C. Bodem, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 5, 1954, Serial No. 402,289
8 Claims. (Cl. 121—40)



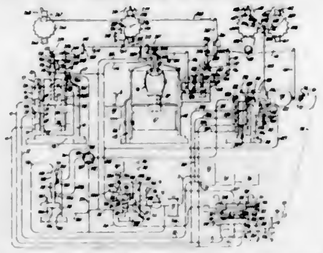
1. The combination with a fluid pressure operated actuator having a cylinder and a reciprocable piston disposed in said cylinder capable of fluid pressure actuation in either direction; locking means disposed in said cylinder and operatively associated with said piston for preventing movement thereof in the absence of fluid pressure application to said cylinder, said locking means being operable to prevent piston movement at any position of said piston with respect to said cylinder and comprising a stationary locking element, a locking element movable relative to said stationary element to permit movement of said piston, one of said locking elements having a plurality of grooves therein, the other of said locking elements having a plurality of openings therein, and a plurality of balls disposed within the openings of said other locking element and engageable with the grooves in said one locking element for interconnecting said elements so as to prevent movement of said movable locking element, and means operable to release said locking means to permit movement of said piston.

2,782,767
REVERSING SERVO FOR FUEL CONTROL
Stanley G. Best, Manchester, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Original application August 31, 1951, Serial No. 244,551. Divided and this application April 1, 1954, Serial No. 420,245
3 Claims. (Cl. 121—41)



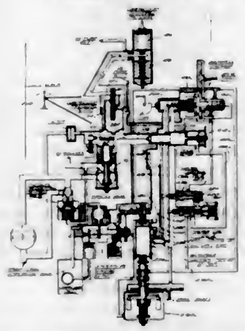
1. In a servo mechanism having a member to be moved, said member having two operative sides, a source of fluid under pressure, means for continuously exposing one of said sides to fluid from said source, a drain, valve means movable for selectively connecting the other side of said member to said source or drain to effect movement of said member in either of two directions, and means for reversing the movement of said member upon movement of said valve means beyond a predetermined position in one of its directions of movement.

2,782,768
GOVERNOR FOR A WATER WHEEL
Fred H. Rued, Lafayette, Calif., assignor, by mesne assignments, to Baldwin-Lima-Hamilton Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application September 14, 1953, Serial No. 380,075
4 Claims. (Cl. 121—42)



1. A governor for a water wheel controlled by a hydraulic servomotor comprising a valve housing having a supply conduit therein, means for supplying said supply conduit with fluid under pressure, means forming a flow restriction in said supply conduit, a valve body movable in said housing and having a valve passage therein open to said supply conduit, means movable on said valve body for controlling flow through said valve passage, a flyball governor responsive to the speed of said water wheel for moving said movable means, means forming a pressure passage open to said supply conduit between said restriction and said movable means, means for positioning said servomotor in accordance with the pressure in said passage, means for releasing pressure from said pressure passage, and means responsive to the movement of said servomotor for controlling said releasing means.

2,782,769
HYDRAULIC SERVO SYSTEM FOR FUEL CONTROL
Stanley G. Best, Manchester, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Original application August 31, 1951, Serial No. 244,551. Divided and this application April 1, 1954, Serial No. 420,244
3 Claims. (Cl. 121—42)

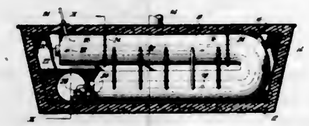


1. In a servo system including a fluid cylinder, the combination of a source of fluid under pressure and means for controlling the flow of fluid to said cylinder comprising a plurality of pilot valves in series relation between said source and cylinder, means for overriding the effect of one of said valves on said cylinder upon movement of another of said valves in a given direction, at least one additional pilot valve in series with said plurality of valves, and means for overriding the effect of said plurality of valves on said cylinder upon movement of said additional valve in a given direction.

2,782,770
HYDRAULIC PUMP JACK WITH SEPARABLE PISTON
Earl M. Vanalstyne, Garden Grove, Calif., assignor of one-half to Lorin A. Lockard, Garden Grove, Calif.
Original application July 2, 1952, Serial No. 296,867, now Patent No. 2,708,912, dated May 24, 1955. Divided and this application April 21, 1955, Serial No. 503,003
5 Claims. (Cl. 121—47)

1. A pressure relieving piston for use within a cylinder, comprising: a piston head of smaller diameter than said cylinder; a piston rod affixed thereto; and an annular skirt positioned on the under side of said head, said skirt having a sealing relationship with said cylinder and with said head and skirt being sufficiently different in mass and the area exposed to a fluid exerting pressure thereon that they will move at different velocities and separate upon said piston rod breaking.

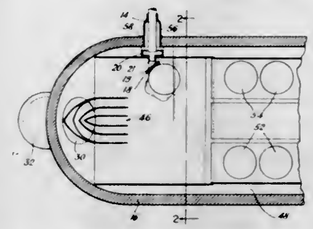
2,782,771
JET-TYPE PROPULSION EQUIPMENT FOR BOATS
William H. Gruber, Kansas City, Mo.
Application May 28, 1954, Serial No. 433,109
5 Claims. (Cl. 122—47)



1. In propulsion equipment, a housing having fireproof walls; a U-shaped, tubular, water drum having a bight, a first leg and a second leg, said drum being provided with a water inlet and a steam outlet, said legs being closed at the outermost ends thereof; a fire tube within said drum, said tube extending from end to end of the drum and passing through said ends; means mounting said first leg on one of said walls with the second leg disposed therebeneath; and a source of heat energy within the housing and discharging into said tube, said outlet and inlet being in said first leg, said source discharging into said tube adjacent the outermost end of the second leg.

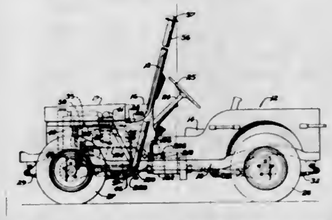
2,782,772
VAPOR GENERATOR AND LIQUID FLOW MEANS THEREFOR
Robert U. Blaser, Alliance, Ohio, assignor to The Babcock & Wilcox Company, Rockleigh, N. J., a corporation of New Jersey
Application July 6, 1951, Serial No. 235,532
6 Claims. (Cl. 122—406)

1. In a steam generator of the type including a horizontally elongated steam and water drum, steam generating riser tubes discharging steam and water mixtures into the drum at positions distributed throughout a major part of the length of the drum, a large diameter downcomer communicating with an end portion of the drum and leaving a major part of the drum length without a downcomer, thereby compelling the water within the drum to flow longitudinally over a substantial part of the length of the drum to reach a downcomer, and a feedwater inlet tube connection through the drum wall near the inlet



of the downcomer and between that inlet connection and said positions; the combination therewith of a whirl chamber having a whirl producing inlet portion communicating with the feedwater inlet tube connection, a directional spout secured to the outlet portion of the whirl chamber and directing the water discharged from the whirl chamber outlet toward the downcomer inlet; and flow distributing and velocity dissipating means extending across the flow of fluid at the outlet of the spout.

2,782,773
PRESSURIZING AND VENTILATING SYSTEM AND APPARATUS FOR INTERNAL-COMBUSTION ENGINES AND TRANSMISSION MECHANISMS
Donald D. Stone, Flint, Mich., assignor, by mesne assignments, to Bank of America National Trust and Savings Association, San Francisco, Calif., as agent
Application August 18, 1953, Serial No. 374,969
8 Claims. (Cl. 123—1)

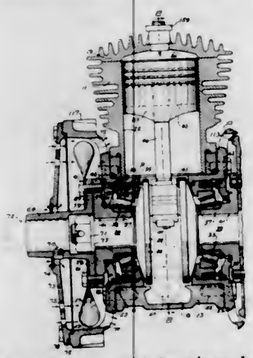


1. A method for operating an engine and enclosed power transmission mechanism for the drive wheels of an automotive vehicle while submerged wherein under normal operation air is circulated in an engine crankcase through an air inlet and outlet including the steps of closing the air inlet into the crankcase, closing an air outlet from the crankcase, and directing air under pressure into the crankcase and into the enclosure for the power transmission mechanism to establish a pressure therein above atmospheric pressure when the engine of the vehicle is submerged.

2,782,774
VERSATILE INTERNAL COMBUSTION ENGINES
Elmer P. Jasper, Algonac, Mich.
Application September 1, 1953, Serial No. 377,893
2 Claims. (Cl. 123—41.65)

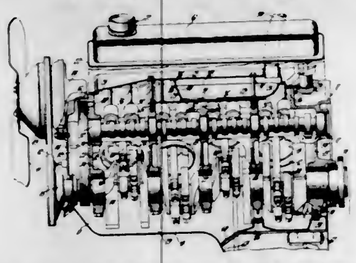
1. In a crankcase assembly for an internal combustion engine the combination of, a casing enclosing a space suitable for a rotating crank shaft with a connected connecting rod and crank pin bearing, said casing being provided with a cylinder mounting aperture between two end walls each having an end aperture therein, said end

apertures being in alignment with each other on an axis which passes through the enclosed space and intersects the cylinder axis, an annular flywheel end housing and an annular fan end housing each having an annular flange of smaller diameter than its respective housing projecting axially therefrom and of a size and shape fitting one



of said end apertures, said housings being respectively mounted one upon each end wall of the casing with the smaller annular flange of each housing inserted into the corresponding end aperture of the casing, and attachment means securing each housing to the adjacent casing end wall.

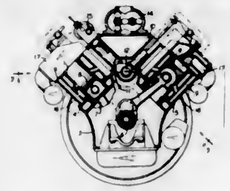
2,782,775
ENGINE INTERIOR VENTILATION SYSTEM
Clayton B. Leach, Pontiac, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 17, 1954, Serial No. 430,120
8 Claims. (Cl. 123—41.86)



1. An interior ventilation system for engines comprising an engine frame having a row of cylinders formed therein and a head and a crankcase for said cylinders, valves for said cylinders in said head, valve operating mechanism mounted on said head, a cover for said valve operating mechanism, passage means for connecting the interior of said cover to the interior of said crankcase, means for supplying air to said cover and through said passage means to said crankcase for scavenging therefrom vaporous substances resulting from the operation of said engine, said cover being closed to the atmosphere except through said air supplying means and said passage means, and outlet means for said crankcase for exhausting said vaporous substances and said air from said crankcase.

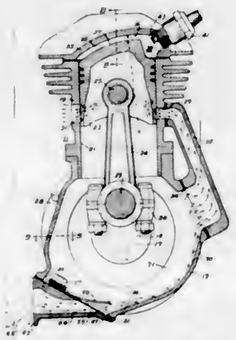
2,782,776
SCAVENGING AIR HOUSING FOR INTERNAL COMBUSTION ENGINES
Johann Kremser, Hannover, Germany
Application October 6, 1953, Serial No. 384,418
7 Claims. (Cl. 123—55)

1. A two-stroke cycle internal combustion engine, comprising a crank case, two rows of cylinders mounted on said crank case in form of a V, a casing mounted on the center part of said crank case between said two rows of cylinders and forming a center scavenging receiver, and a lateral scavenging receiver surrounding each



of said rows of said cylinders and removably mounted on said crank case, and each of said lateral scavenging receivers being connected with said center scavenging receiver between said rows of cylinders.

2,782,777
INTERNAL COMBUSTION ENGINES
Elmer P. Jasper, Algonac, Mich.
Application September 1, 1953, Serial No. 377,890
5 Claims. (Cl. 123—73)

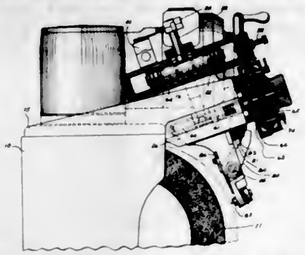


1. In a vertical cylinder two-cycle internal combustion engine utilizing crankcase compression for charging the combustion space, a crankcase having a bottom thereon, an intake manifold mounted on the bottom of the crankcase having an intake passage therein disposed tangentially thereto for admitting a charge of fuel gas tangentially thereto at the low point in the bottom of the crankcase, and a reed type intake check valve mounted on the crankcase attached end of the manifold with the vibrating end of the reed at a low point in the crankcase whereby to agitate the heavy fuel fractions and oil residues to commingle with the entering fuel charged air.

2,782,778
AUTO RADIAL PROFILE DRESSER
Harold E. Balsiger, Waynesboro, Pa., assignor to Landis Tool Company, Waynesboro, Pa.
Application June 10, 1954, Serial No. 435,849
4 Claims. (Cl. 125—11)

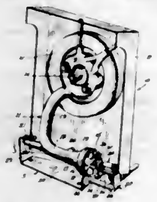
2. In a grinding machine, a grinding wheel support, a grinding wheel rotatably mounted thereon, a radial profile trueing device mounted for engagement with said grinding wheel at a point other than the point of contact between said wheel and the work piece comprising a housing, a shaft rotatably mounted in said housing, a trueing tool on said shaft and means for rotating said shaft comprising parallel pistons, one on each side of said shaft and movable in a path at right angles to the

axis of said shaft, and connections between said pistons and said shaft including a pinion on said shaft, rack teeth



on said pistons for engaging said pinion, whereby to provide a balanced driving force acting on said shaft.

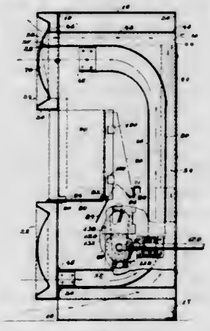
2,782,779
MOUNTING FOR ROTATABLE GAS BURNER
John E. Chambers, Shelbyville, Ind., assignor to Chambers Corporation, a corporation of Indiana
Application March 10, 1953, Serial No. 341,569
2 Claims. (Cl. 126—39)



1. In combination, a support for a rotatable gas burner and a gas nozzle for directing gas from a supply line to said burner, said burner comprising a horizontal plate member, an upstanding flange on one end of said horizontal plate member, said flange having a vertical U-shaped slot with its open end facing upwardly, the said slot forming a bearing surface adapted to receive one end of the neck portion of a gas burner, the other end of said horizontal plate member having upstanding ears formed from the same sheet of material as said horizontal plate member, said ears having upper surfaces defining curved bearing surfaces coaxial with said first mentioned bearing surface, said second mentioned bearing surfaces being adapted to receive the other end of the neck portion of a burner, and a tongue extending between said ears and bent upward at the end thereof to form a support bracket for a gas nozzle for directing gas to the gas burner, said gas nozzle supported by said bracket and orientated coaxially of said bearing surfaces so as to extend into a central opening in the end of the neck portion of a burner unit to be supported on said bearing surfaces.

2,782,780
FUEL BURNING RADIANT AND AIR HEATER
Howard L. Bourner, Nashville, Tenn., assignor to Temco, Inc., Nashville, Tenn., a corporation of Tennessee
Application September 17, 1953, Serial No. 380,753
3 Claims. (Cl. 126—89)

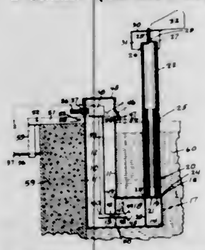
1. In a space heater, the combination comprising an outer casing having top, rear, and side walls, the lower ends of said rear and side walls being formed to be mounted on a floor, and the front of said casing being open; inner side and top panels mounted within said outer casing in spaced relation to said side and top walls, respectively, of the outer casing; an elongated combustion burner mounted between said side walls to extend transversely within the lower central portion of the casing; radiant means mounted to extend directly above said combustion burner; an elongated U-shaped outer air deflection panel having a lower portion extending rearwardly beneath said burner from a region near the lower open front of the casing, and having an intermediate portion extending upwardly at the rear of said burner in forwardly spaced relation to said rear wall, and having a top portion extending forwardly over said burner below, and in spaced relation to, said top panel, and terminating at a region near the upper open front of the casing; an elongated U-shaped inner air deflection panel disposed between said burner and said outer air deflection panel, and spaced from each, said inner air deflection panel having a lower portion extending rearwardly beneath said burner from a region near the lower open front of the casing, and having an intermediate portion extending upwardly at the rear of said burner, and having a top portion extending forwardly over said burner and terminating at a region near the upper open front of the casing; said outer air deflection panel and said inner air deflection panel having their side edges contiguous to the inner faces of said side panels; a horizontal hearth shelf extending laterally between said side panels and having a rear edge spaced from said inner air deflection panel; said lower portion of said outer air deflection panel being spaced above the plane of the lower extremity of said casing and forming with said side walls and the open front of said casing a



lower air inlet opening; said top portion of said outer air deflection panel, said top panel, and said side panels forming with the open front of said casing an upper air outlet opening; said lower portions of said inner and outer air deflection panels and said side panels forming with the open front of the casing an intermediate air inlet opening; said top portions of said inner and outer air deflection panels and said side panels forming with the open front of the casing an intermediate air outlet opening; said hearth shelf, said lower portion of said inner air deflection panel, and said side panels forming with the open front of said casing an upper air inlet opening; said top portion of said inner air deflection panel and said side panels forming with the open front of the casing a lower air outlet opening; the lower portion of the inner air deflection panel and said hearth shelf defining with said side panels a passage from said upper air inlet opening for secondary combustion air passing to and past said burner and said radiant means and to said lower air outlet opening; the inner and outer air deflection panels defining with said side panels a passage from said intermediate air inlet opening for first heat exchange air passing upward and behind said burner to said intermediate air outlet opening; said outer deflection panel and said rear walls and top panels defining with said side panels a passage from said lower air inlet opening for second heat exchange air passing upward and behind said first heat exchange air passage to said upper air outlet opening, said last mentioned passage being always separated from said secondary combustion air passage by the first heat exchange air passage whereby said second heat exchange air passage is always insulated by the

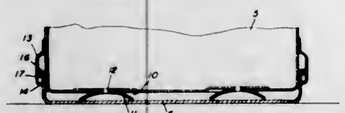
air within the first heat exchange passage from the heat of said secondary combustion air passage, and will always contain air having a lower temperature, moving at a lower velocity, than either the first heat exchange passage air or the secondary combustion air passage air.

2,782,781
STOCK TANK HEATER
Roy F. Broyhill, Dakota City, Nebr.
Application February 6, 1953, Serial No. 335,559
1 Claim. (Cl. 126—360)



A stock tank heater comprising a vertically positioned chamber, a horizontally positioned chamber communicating with said vertically positioned chamber at the bottom thereof, said horizontally positioned chamber being of relatively short length, whereby said chambers will provide a substantially L-shaped combustion unit, said vertically positioned chamber having a plurality of air inlet openings at upper portions thereof, a fuel burning unit mounted in said vertical chamber and in a portion of said horizontal chamber, a baffle plate positioned between said chambers, a flue pipe communicating with said horizontal chamber, a baffle member positioned laterally across said horizontal chamber and being of lesser width than said chamber to provide a tortuous passageway for heated air passing upwardly through said flue pipe, a further pipe enclosing said flue pipe and spaced therefrom to provide means for draining condensation downwardly and externally of said flue pipe, the lower end of said further pipe being spaced above said horizontal chamber to permit drainage into the water of a stock tank, said flue pipe extending upwardly to a height above the open upper end of said stock tank.

2,782,782
HEAT REGULATED COOKING VESSEL
Alfred R. Taylor, East Haven, Conn.
Application June 24, 1954, Serial No. 439,001
4 Claims. (Cl. 126—374)



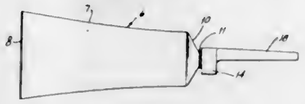
1. A cooking vessel including a fixed bottom, an auxiliary bottom underlying and normally in direct contact with the fixed bottom, means connecting the auxiliary bottom to the vessel for vertical movement toward and away from the fixed bottom, and thermal responsive means positioned between the fixed and auxiliary bottoms and operating to separate the same when subjected to predetermined temperature.

2,782,783
PATIENT RESTRAINING JACKET
Emmie L. Gay, San Diego, Calif.
Application November 8, 1954, Serial No. 467,302
5 Claims. (Cl. 128—134)

1. A patient restraining jacket comprising: a unitary front panel and a unitary back panel; said front panel having a bifurcated neck portion; shoulder tabs extending from said bifurcated portion; said back panel having shoulder tabs spaced to align with said first mentioned tabs; tie tapes secured to said front and back panels adjacent the sides thereof for securement of the panels to each other; and releasable means for securing said shoulder

tabs together across the shoulders of a patient; said panels being discrete and separable when said tie tapes and releasable means are released; whereby the jacket may be opened on either or both sides and the application to and removal from a patient without moving the patient from the bed is facilitated.

2,782,784
SOLUTION APPLICATOR TUBE
Robert P. Ritter, San Rafael, Calif., assignor to Cutter Laboratories, Inc., a corporation of California
Application July 20, 1955, Serial No. 523,176
2 Claims. (Cl. 128—232)



1. In combination, a flexible container having a screw-threaded end having a central aperture, and a nozzle for attachment to said screw-threaded end, said nozzle having a screw-threaded hub at one end thereof having a transverse portion extending across said hub with a conical plug disposed centrally of the hub and adapted to close the central aperture of the flexible container when the hub is screwed onto the screw-threaded end of the container and to open said central aperture when the hub is unscrewed slightly on the screw-threaded end of the container, and a plurality of passages disposed about the conical plug for movement of liquid from the container to the nozzle.

2,782,785
COLOSTOMY WASHING DEVICE
Anna Arcand, San Francisco, Calif.
Application April 15, 1955, Serial No. 501,598
3 Claims. (Cl. 128—283)

1. In combination with a colostomy bag having open ends, a flushing head having a perforated spray plate therein, an inlet fitting connected to the head for connecting the same to a water supply, and a spring clip for detachably securing the flushing head to the top of the bag.

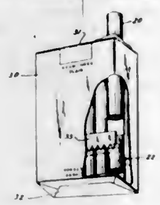
2,782,786
ELECTROCARDIOGRAPH ELECTRODE WITH ABSORBENT CONTACT SURFACE
Louis R. Krasno, Pensacola, Fla.
Application October 10, 1955, Serial No. 539,444
4 Claims. (Cl. 128—417)

1. An electrocardiograph electrode comprising; a substantially rigid, porous and self-sustaining body of calcium sulphate, and an electrically conductive connector secured to said body, said body having an exposed face for contact with a test surface.

2,782,787
LIMA BEAN OPENER
Frank W. Cary, Dresher, Pa.
Application December 8, 1951, Serial No. 260,666
10 Claims. (Cl. 130—30)

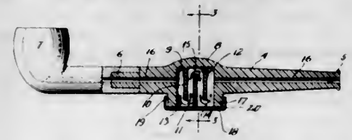
8. A device for severing the ventral suture from a lima bean pod for the release of beans attached thereto comprising a pair of closely spaced side walls of substantial length and breadth interconnected by an end wall, a single cutting blade extending between said side walls intermediate the ends thereof, the plane of said blade forming an acute angle with said end wall, the cutting edge of said blade being closer to said end wall than the remaining portion of said blade is to said end wall, and handle means extending from at least one of said walls.

2,782,788
CIGARETTE PACKAGING ARRANGEMENT
George D. Sholty, New York, N. Y.
Application December 22, 1955, Serial No. 554,849
12 Claims. (Cl. 131—4)



1. A cigarette packaging arrangement comprising, in combination, a container having opposite ends each of which is capable of being opened; a plurality of filter cigarettes located in said container, each of said cigarettes having a removable filter and said cigarettes being arranged in said container with the filters thereof located next to one of said ends of said container; and means in said container for preventing the filters of said cigarettes from being removed from the container with said cigarettes only when the latter are removed from said container through the end opposite from said one end thereof, whereby when the cigarettes are removed from said opposite end of said container the cigarettes emerge from the container without a filter while when the cigarettes are removed from said one end of said container the cigarettes emerge with the filters.

2,782,789
STEM FOR TOBACCO PIPES AND THE LIKE
Herman W. Fisher, Philadelphia, Pa.
Application January 31, 1955, Serial No. 484,976
2 Claims. (Cl. 131—210)

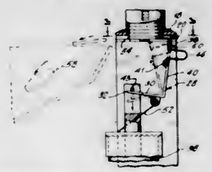


1. A smoker's pipe stem or similar device having a baffle chamber interposed in the passageway for the smoke, said chamber having a plurality of baffle plates extending cross-wise of the axis of the passageway and arranged so that the smoke must follow a tortuous path through the chamber alternately under and over the plates, and the bottom of the chamber having an access opening and a readily removable closure cap for said access opening, any one of said baffle plates which provides an underpass for the smoke being secured to the walls of the chamber at the top and at the sides and any one of said baffle plates which provides an overpass being secured at the sides, and said stem with its chamber and baffle plates being formed as a unitary piece.

2,782,790
HAIR TREATING COMPOSITION AND METHODS FOR USE OF SAME
Herman I. Hersh, Evanston, and Frank P. Bessing, Chicago, Ill., assignors, by mesne assignments, to said Hersh
No Drawing. Application May 24, 1952, Serial No. 289,908
12 Claims. (Cl. 132—7)

1. The method of conditioning hair on the human head comprising the steps of wetting the hair with a non-aqueous composition containing a silane having attached to the silicon atom at least two but less than four hydrolyzable groups selected from the class consisting of alkoxy, aryloxy and acyloxy radicals and alkoxy, aryloxy and acyloxy radicals together with a halogen group selected from the class consisting of chlorine and bromine and from 1–3 percent by weight of a polysiloxane fluid, and moistening the hair with an aqueous medium while arranged in the desired position to cause hair setting.

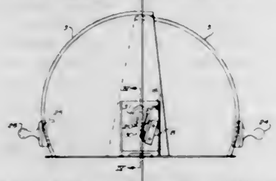
2,782,791
COIN DISPENSING MECHANISM
Arthur T. Sigo, Chicago, Ill., assignor, by mesne assignments, to Serv-Kraft, Inc., New York, N. Y., a corporation of New York
Application September 15, 1952, Serial No. 309,683
3 Claims. (Cl. 133—5)



1. In a coin dispensing mechanism of the character described, a chute for holding a stack of coins, a frame

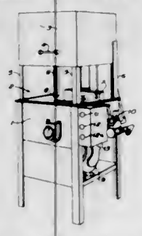
at one end of said chute for supporting the bottom coin in the stack, said frame having two side shoulders separated by a through slot, said shoulders being adapted to support said end coin near two opposite side edges thereof with an exposed rear edge between, and a coin ejecting member beneath said slot and having a finger adapted to move forward through said slot to push said end coin forward out of said chute, said member comprising an arm pivoted beneath said slot and its free end adapted to swing forward along an arcuate path in the line of said slot, said finger comprising a flat strip spring having a hairpin loop along its length and an outer edge, the inner end of said spring being attached to said arm at a point removed from the free end thereof, said hairpin loop projecting backward through an opening in said arm between said point and said free end, the rear face of said finger bearing against the forward face of said arm at its free end.

2,782,792
DISHWASHING APPARATUS
Frederick W. Robson and Gerhard L. Wiederhold, Rochester, N. Y., assignors to Toledo Scale Company, Toledo, Ohio, a corporation of New Jersey
Application March 5, 1956, Serial No. 569,628
4 Claims. (Cl. 134—58)



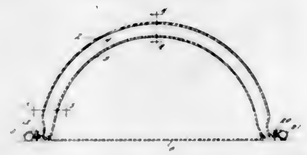
1. In a dishwashing machine, in combination, a frame having a washing and rinsing space thereabove, a shaft supported by the frame, a pair of pivotally mounted hoods rockable in opposite directions about the axis of the shaft for enclosing or exposing the washing and rinsing space, washing mechanism including spraying means within said space, rinsing mechanism including spraying means within said space, an electrical circuit for controlling the operation of the washing and rinsing mechanisms, and a pair of cams that are rockable about the axis of the shaft and that are operatively connected one to one of the hoods and the other to the other of the hoods whereby rocking of a hood causes rocking of a cam, said circuit including a safety switch that is operated by the cams and that is adapted, whenever either one of the hoods is rocked, to open the circuit which stops and prevents operation of either the washing mechanism or of the rinsing mechanism.

2,782,793
AUTOMATIC WASHING MACHINE
Robert O. Bradley and Bruce E. Robinson, Toledo, Ohio, assignors to Toledo Scale Company, Toledo, Ohio, a corporation of New Jersey
Application October 28, 1953, Serial No. 388,797
5 Claims. (Cl. 134—58)



1. In a dishwashing machine, in combination, a frame, a closure cooperating with said frame to enclose or expose a washing space, spraying mechanism within said washing space adapted to have wash water conducted therethrough from a supply source, supply mechanism adapted to force water through said spraying mechanism, electrical means for controlling the operation of said supply mechanism, switch means operative in response to the position of said closure for controlling the operation of said electrical means, interlocking means on said closure and said frame, said interlocking means comprising a pivotal shaft on the frame, an arm that is carried by said shaft and that is rocked by said closure when the closure is closed and a finger that is carried by said shaft and that engages in a cooperating opening in said closure when said arm is rocked by said closure, means carried by said shaft for operating said switch means so as to permit operation of said electrical means when said interlocking means is engaged, and means operated in conjunction with said electrical means for preventing disengagement of said interlocking means while said machine is in operation.

2,782,794
PNEUMATIC TENT STRUCTURE
Norman W. White, Andover, Mass.
Application January 28, 1955, Serial No. 484,668
4 Claims. (Cl. 135—1)

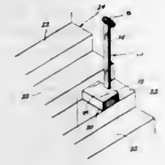


1. A pneumatic tent structure comprising spaced laminae of fluid impervious materal divided into a plurality of substantially parallel elongated compartments, a layer of fabric connecting the opposed ends of the compartments, said fabric layer having a length substantially less than the lengths of the compartments secured thereto and restricting the outward movement of the compartment ends, a conduit positioned along at least one side of said structure and secured in spaced relation thereto, by means of a fabric apron, individual sections of flexible tubing lying between and connecting said conduit and said compartments, and means for closing the individual tubing sections.

2,782,795
BEACH AND GARDEN UMBRELLA AND MECHANISM FOR OPENING AND CLOSING SAME
Samuel N. Small, Valley Stream, N. Y.
Application March 14, 1955, Serial No. 494,084
9 Claims. (Cl. 135—20)

1. In an umbrella having a post and a collapsible canopy carried adjacent to the upper end of said post, the combination comprising a latch piece disposed longitudinally of and within said post and mounted therein for vertical shifting movement longitudinally of said post and rotative movement about an axis transverse of said post, spring means connected to said latch piece for resiliently urging the latter in one direction of rotation when said latch piece is shifted to an upper position and in the other direction of rotation when the latch piece is shifted to a lower position, an abutment projecting transversely from said latch piece, a runner operatively connected to said canopy and slidable up and down along said post below said abutment for respectively spreading and collapsing said canopy, said runner being sl dable upwards against said abutment to shift said latch piece to its upper position to subject the latch piece to swinging movement in said one direction under the force of said spring means, and a support member on said latch piece spaced below said abutment and movable with said latch piece upon rotation of the latter in said one direction from a retracted position out of the path of said runner to an extended position disposed in said runner path, said runner being slidable partially downwards into engagement with said support member to shift said latch piece downwards and retain said supporting member in its extended position against the force of said spring means, slight upward movement of said runner out of engagement with said support member thus releasing the latter for retraction under the force of said spring means and for further downward movement of said runner.

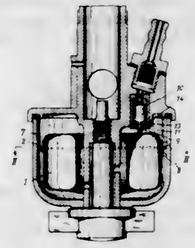
2,782,796
STAIR-WALKING AID
Margaret Scott Blue, St. Louis, Mo.
Application October 29, 1954, Serial No. 465,480
2 Claims. (Cl. 135—47)



1. A portable stair-walking aid designed to provide a partial step to be used when ascending and descending stairs: comprising a platform and a staff rigidly connected together, the platform having a planar, lower surface adapted to rest upon the tread of a step and being at least approximately as long as a stair tread is wide, and as wide as the bottom of a human foot, so that the platform may be securely and non-rockably bottomed upon the stair tread, the platform having a height of about one-half a stair riser and having a flat upper surface to receive the foot of the user, it being at least approximately as long and as wide as a human foot, so as to receive a person's foot and hold it steadily as the person steps onto the platform, a rigid staff secured rigidly to one side of and rising from the platform to the height of the hand, and having a handle at the top of the staff to be grasped by the hand of the user when the user stands upon the upper platform surface, whereby the user may hold the walking aid when stepping upon it and carry it from step to step, the entire walking aid being unitary and the parts being immovable relatively to each other, and the aid being made of strong, rigid and lightweight material so that it may be carried.

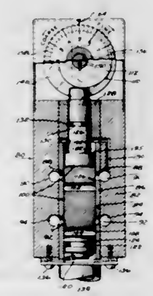
2,782,797
FLOATS FOR THE CARBURETTORS OF INTERNAL COMBUSTION ENGINES
Fritz Hintermayr, Nurnberg-Reichelsdorf, Germany
Application July 13, 1953, Serial No. 367,701
9 Claims. (Cl. 137—409)

1. In a carburetor for an internal combustion engine of the type in which the carburetor includes a cylindrical float casing removably secured to a carburetor housing, a bore in said carburetor housing, a valve in said bore, and in which said float casing retains a supply of fuel at a substantially constant level by means of said valve,



an annular float positioned to bear against said valve to operate it, said float being enclosed in said float casing, the improvement comprising an outwardly extending annular flange encircling said float substantially at the level of said fuel on said float as it floats freely in said fuel.

2,782,798
HYDRAULIC DRIVES FOR MACHINE TOOLS
Albert A. Ericson, Glenwood Landing, N. Y., assignor to The Farmingdale Corporation, a corporation of New York
Original application March 18, 1948, Serial No. 15,523, now Patent No. 2,707,374, dated May 3, 1955. Divided and this application October 20, 1949, Serial No. 122,529
3 Claims. (Cl. 137—505.22)

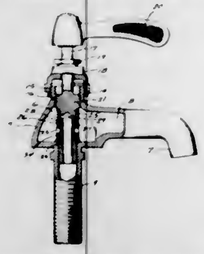


1. In a hydraulic feed for machine tools, a restrictor valve comprising a casing having a longitudinal bore therein having portions of larger and smaller diameter, a valve plunger mounted for endwise movement in said bore, said plunger having a portion of larger diameter fitting the larger diameter of the bore, and a neck of reduced diameter fitting the smaller diameter of the bore, said plunger portion of larger diameter having a shoulder thereon surrounding said neck of reduced diameter, said plunger being in sealing relation to the bore, said casing having pairs of ports therein at opposite sides of said plunger, metering passages in the plunger connecting the ports of respective pairs, a fluid connection from a port in the casing to the space in the bore in the casing above the shoulder on the plunger and spaced from the bore wall for admitting pressure to said space for urging the plunger in one direction and spring means for urging the plunger in the other direction.

2,782,799
PIPE JOINTS FOR PIPE SYSTEMS AND LIKE FLUID HANDLING ARRANGEMENTS
Wilhelm Vobbe, Osnabrück, Germany, assignor to G. Kromschroder Aktiengesellschaft, Osnabrück, Germany
Application July 20, 1955, Serial No. 523,264
Claims priority, application Germany July 26, 1954
10 Claims. (Cl. 137—608)

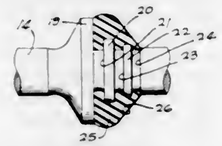
1. A pipe joint for pipes of a pipe system, comprising a first double-conduit nipple forming part of one pipe and provided with first ducts, first part tion means within said first double-conduit nipple and defining said first ducts, a second double-conduit nipple constructed for connection with said first double-conduit nipple and provided with second ducts, second partition means within said second double-conduit nipple and defining said second ducts, said first partition means extending in angular relation to said second partition means in connected pos.tion of said nipples, intermediate means interposed between both said double-conduit nipples and provided with passageways, and means arranged on said intermediate means to facilitate adjustment of said passageways relative to said ducts of both said double-conduit nipples and to thereby direct fluid flow through said ducts and said passageways in a predetermined path.

2,782,800
VALVE
Albert F. Hillebrand, West Allis, Wis.
Application November 30, 1951, Serial No. 259,179
1 Claim. (Cl. 137—625.38)



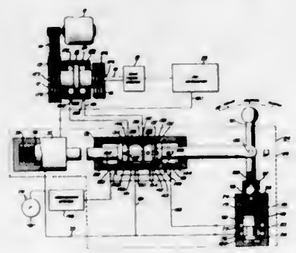
In a valve, a valve body having a threaded opening and a chamber, a plug having an axial bore connected to an inlet and extending into said chamber, a stem having an enlarged thread in engagement with said threaded opening to render it axially movable by rotating it relative to said valve body, a threaded extension of lesser diameter than said enlarged thread and extending coaxially therefrom into said chamber in axial alignment with said plug, a cylinder having an internal thread in meshing engagement with said threaded extension to close its bore at the threaded end and render it axially movable with said stem with its open end encompassing said plug, said cylinder having one or more transverse openings located between its threaded portion and its open end, an annular shoulder formed on the inner diameter of said cylinder between said transverse openings and said threaded portion to form an annular groove with the end of said threaded extension, a seal of elastic material and toroidal configuration retained within said annular groove and having an inner diameter smaller than either the diameter of said cylinder bore or the outer diameter of said plug but radially compressible between the walls of said plug and said groove, and a discharge nozzle in communication with said chamber, whereby the fluid flowing through said plug enters said cylinder and escapes through said openings into said chamber to be discharged through said nozzle, and as the cylinder moves over said plug to increasingly encompass it, said openings move adjacent to said plug causing the plug to interfere with the flow of fluid into them to gradually decrease the flow of fluid therethrough until said annular seal is moved over said plug to girdle it and cause said seal to be compressed between the walls of said groove and said plug to effect a seal and terminate the flow of fluid to said openings.

2,782,801
SLIDING VALVE SPOOL SEAL
Walter D. Ludwig, Royal Oak, Mich.
Application January 16, 1953, Serial No. 331,573
3 Claims. (Cl. 137—625.48)



1. A valve structure of the class described, comprising: a valve housing having a bore formed therethrough communicating with inlet and outlet ports; a valve spool body slidable in said bore; a plurality of stepped, peripherally disposed cylindrical flanges formed on said body intermediate its ends; said flanges being spaced apart by channels of equal width and which extend inwardly beyond the surface of the spool body; a body of flexible sealing material molded on said stepped flanges and filling said channels and engaging a face of the largest of said stepped flanges and projecting beyond the periphery of said largest flange and engaging the inner surface of said bore; and, the outer surface of said sealing body tapering away from the periphery thereof to the periphery of the spool body.

2,782,802
HYDRAULIC CONTROL SYSTEM
Bernard Sassen, Sidney, Ohio, assignor to The Monarch Machine Tool Company
Application May 12, 1951, Serial No. 226,073
1 Claim. (Cl. 137—621)

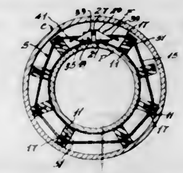


A hydraulic pressure control circuit for a fluid pressure utilization device, said circuit comprising first and second valves, said first valve having a valve body and a movable valve member therein, a land on said member defining with said body a chamber, an inlet and an outlet in said body adapted to communicate with said chamber, a surface on said land adjacent said outlet, a spring disposed to urge said valve member in a given direction to effect a closing of said outlet by said surface, said inlet adapted to be connected to a source of pressure fluid and said outlet adapted to be connected to a receptor having a low back pressure relative to the pressure of said source, a branch line connected to said inlet, said second valve including a valve body and a movable valve member therein, inlet means on said second valve body connected to said branch line, first and second outlets on said second valve body for connection to said utilization device, land means on said second valve member being movable to alternative positions for directing alternatively the fluid to said first and second outlets, said second valve body having first and second walls, said land means on said second valve member being disposed near said first wall, said land means forming first and second chambers with said first and second walls, said land means having equal areas opposing the associated walls, first and second restricted outlets from said first and second chambers, respectively, said inlet means of said second valve adapted to communicate with said first and second chambers, an operating lever, means for connecting said lever to said first valve spring, and means for connecting said lever to said second valve member, said second valve member being movable by said lever a given distance so as to close the inlet means to said first chamber to a degree establishing a given lowered fluid pressure in said first chamber, said given lowered pressure establishing a differential pressure in said first and second chambers and hence a differential force on said second valve member, the movement of said lever by said given distance exerting a force on said first valve spring to raise the pressure in said branch line, said differential force acting on said lever establishing a torque greater than and in opposition to the torque established by the force of said first valve spring acting on said lever to thus hold said lever at said given distance.

2,782,803
REINFORCED FLEXIBLE CONDUIT
Edward M. Rothermel and Russell B. Waddell, Jr., Waynesville, N. C., assignors to The Dayton Rubber Company, a corporation of Ohio
Application December 14, 1953, Serial No. 398,126
3 Claims. (Cl. 138—56)

1. A flexible conduit having a corrugated exterior surface and a substantially smooth cylindrical interior surface comprising a coiled reinforcing member having spaced convolutions, said member comprising a spring wire surrounded by a surface layer of organic plastic material formed with a substantially smooth flattened area over the innermost surfaces thereof concentric with the interior surface of said conduit, an externally corrugated tubular layer of a flexible organic plastic material engaging and partially surrounding the convolutions of said coiled reinforcing member and being bonded to said surface layer, said tubular layer surrounding and being bonded to substantially the entire surface of each of said convolutions except for said flattened areas and extending between each convolution and being formed with smooth and flattened interior surfaces therebetween coextensive with the flattened areas of said convolutions, whereby the cylindrical interior surface area of said conduit is defined by the flattened interior surfaces of said convolutions and the flattened interior surface areas of said tubular layer.

2,782,804
PIPE SPACING DEVICE
Donald H. Bond, Houston, Tex., assignor, by mesne assignments, to The Texas Pipe Line Company, Houston, Tex., a corporation of Texas
Application May 27, 1953, Serial No. 357,719
12 Claims. (Cl. 138—65)

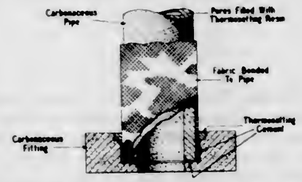


1. A pipe spacing device adapted to be secured around the outer surface of a pipe, comprising a plurality of blocks spaced from one another; connector means connecting said blocks together in a string; said blocks being mounted on said connector means for movement lengthwise thereof; fastening means coacting with said blocks and said connector means holding said blocks on said connector means and limiting the extent of movement thereof to a short distance sufficient to counteract the tendency for said blocks to tilt during application to a pipe; and coupling means for coupling together the ends of said string to secure said device around a pipe.

2,782,805
CONDUIT AND METHOD OF MAKING SAME
Gilbert E. Leadbetter, Mansfield, Ohio
Application November 24, 1952, Serial No. 322,295
6 Claims. (Cl. 138—74)

4. As a new article of manufacture, an elongated blank of resiliently deformable material having a longitudinal center section and having spaced-apart longitudinal edge portions of increased thickness and greater resistance to deformation with respect to the longitudinal center section of the blank therebetween, such center section having a slight transverse curvature and the thicker edge portions being curved correspondingly and reversely relative to the center section, such normally open blank being adapted to form a closed conduit having a longitudinal seam and a wall section of increased rigidity in the region thereof by a bringing together of the longitudinal edges of the blank in a direction to reverse the curvature of the center section.

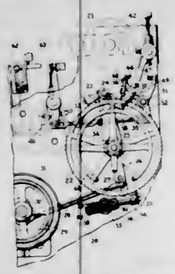
2,782,806
REINFORCED PIPE JOINT
Robert P. Stambaugh, Grand Island, N. Y., and Willie H. Watts, Avon Lake, Ohio, assignors to Union Carbide and Carbon Corporation, a corporation of New York
Application February 17, 1954, Serial No. 410,931
9 Claims. (Cl. 138—76)



1. An assembly for carbonaceous pipe comprising, in combination, a fabric-bonded, resin-impregnated, carbo-

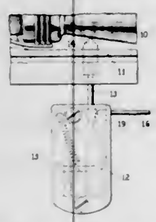
naceous pipe; a resin-impregnated carbonaceous flange member having opposite faces and a stepped-diameter boring having a relatively large diameter section and a relatively small diameter section axially aligned therewith, said relatively small diameter section passing through said flange member, said relatively large diameter section adapted to receive said carbonaceous pipe in a relatively loose fitting thereby providing a small annular space between said carbonaceous pipe and the internal surface of said large diameter section of said boring; and an infusible, resinous cementing agent in said annular space to firmly hold said carbonaceous pipe therein.

2,782,807
STOP MOTION FOR LOOMS
Maurice R. Flamand, Valley Falls, R. I., assignor to Draper Corporation, Hopedale, Mass., a corporation of Maine
Application June 24, 1954, Serial No. 438,937
9 Claims. (Cl. 139—228)



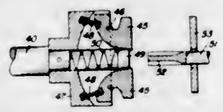
1. In a loom having a knock-off control by which the loom may be stopped, means for sensing a fault in the filling as inserted at each pick and means affected by said sensing means and interconnected for actuating said knock-off means to stop the loom including a moving actuator and an impulse receiving means and means forming a functional part of said actuator and receiving means and selectively positioned so that in one position contact between the moving actuator and impulse receiving means will be effective to stop the loom at the pick upon which the filling fault indication first occurred, and when in another position will be effective only upon continued indication of filling failure to stop the loom.

2,782,808
FILLING FEELER FOR LOOMS
Albert A. Laferte, Hopedale, Mass., assignor to Draper Corporation, Hopedale, Mass., a corporation of Maine
Application October 19, 1954, Serial No. 463,194
7 Claims. (Cl. 139—270)



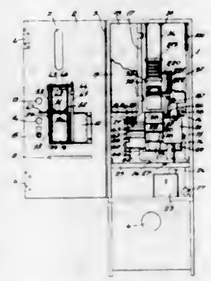
1. A side slipping filling feeler for looms comprising in combination a casing, a feeler member having a shank and a tip, an opening in said casing through which said shank extends and within which it may slide rectilinearly or may slip sidewise to initiate filling replenishment, spring means urging the feeler member toward a filling engaging position, said shank having cross sections of different thicknesses such that it may not side slip in the opening in the casing when a shank portion of normal cross-section is registered with that opening, but may sideslip only at such time as the filling on a bobbin contacted by the feeler tip is substantialy exhausted at which time a shank portion of reduced thickness is in cooperation with said opening.

2,782,809
COIL WINDING MACHINE
Bruce E. Smallridge, Irondequoit, N. Y., assignor to Genesee Machine Builders, Inc., Irondequoit, N. Y., a corporation of New York
Application January 25, 1954, Serial No. 405,812
9 Claims. (Cl. 140—92.1)



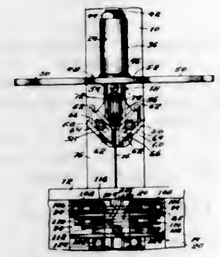
2. In a coil winding machine, a coil support comprising a plurality of pivoted jaws, spaced equi-angularly about a common axis, means constantly urging said jaws about their respective pivots toward said axis to move the jaws to collapsed position, and means for holding said jaws in extended, coil-supporting position.

2,782,810
AUTOMATIC DRINK VENDING MACHINE
Robert L. Richter, Stockholm, Sweden
Application March 11, 1952, Serial No. 275,999
28 Claims. (Cl. 141—174)



1. An automatic drink vending machine of the kind in which after deposition of one or more coins a certain quantity of a beverage contained in the machine is filled into a paper cup, said machine comprising a housing containing a magazine for cups, a beverage container disposed laterally of said magazine, a metering device at the lower discharge end of said beverage container for discharging a measured quantity of the beverage, a cup receiver movable reciprocably between an end position beneath a cup release opening in said magazine so as to receive a cup therefrom and an end position beneath the discharge point of said metering device, means for releasing a cup from said magazine into said cup receiver, means for moving said cup receiver between its two positions, said housing including an aperture providing access to said cup receiver when in the position beneath said cup magazine, a shutter normally closing said aperture, said shutter being openable by the user, a closure member coupled to said shutter and actuated thereby into a position blocking off the cup discharge opening in said magazine when said shutter is opened, and a plate member movable with said cup receiver into a position covering said aperture when said cup receiver occupies its end position beneath said metering device.

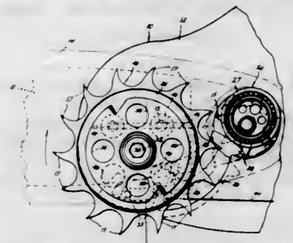
2,782,811
SWIVELING BLADE-GUIDE ATTACHMENT FOR CONTOUR SAWING MACHINES
Oscar A. Johnson, South Norwalk, Conn.
Application May 11, 1954, Serial No. 428,997
1 Claim. (Cl. 143—17)



In a contour sawing machine of the type having a horizontal work table through which a flexible blade having a cutting edge moves vertically, and an upper and a lower frame intermediate which said work table is disposed; a rotary guide surrounding said blade and supported on said machine for rotation about the longitudinal axis of said blade, said guide comprising an upper guide assembly carried by said upper frame, said upper guide assembly including a saw blade guide sleeve rotatable about the longitudinal axis of said blade, a handle assembly carried by said sleeve for imparting rotation thereto, said handle assembly comprising a flange surrounding said sleeve intermediate its ends and fixedly secured to said sleeve, oppositely disposed arms carried by said flange and extending outwardly therefrom to define handles for manually imparting rotation to said sleeve and flange, a guide block partially surrounding said cutting blade and dependingly carried by said flange, a guide wheel rotatably mounted on said block and contacting the edge of said blade remote from the cutting edge thereof, cutting blade guides slidably mounted in said block on opposite sides of said blade for movement in converging rectilinear paths toward and away from said blade, means for securing said cutting blade guides in a selected position in their paths of movement to contact opposite sides of said blade, and means carried by said support block contacting the cutting edge thereof to prevent the blade from moving out of contact from its contact with said guide wheel and said cutting blade guides, said handles manually operable for rotating said guide wheel and said saw guides to impart a twist to said blade to establish a desired position of angular relation between the cutting edge of said blade and said work surface, and a lower guide assembly carried by said lower frame and having saw blade guiding means freely rotatable about the longitudinal axis of said blade so as to guide the cutting edge of said blade in a vertical path through said work surface in said desired angular position in response to the twist imparted thereto by said upper guide assembly.

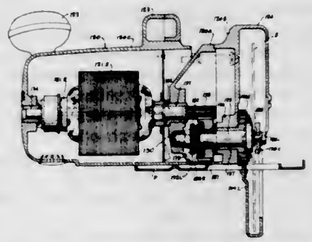
2,782,812
CHAIN SAW BUCKING DEVICE
Albert Altmiller, Orofino, Idaho
Application May 24, 1954, Serial No. 431,950
8 Claims. (Cl. 143—32)

1. In a powered chain saw having an endless series of claws disposed to continuously engage a work piece during movement of the saw therethrough and forming a bucking device, the improvement which comprises means mounting the series of claws for unidirectional movement about a path substantially parallel to the plane of the chain saw support bar and in a direction opposed to the movement of the saw chain, and manually controlled



powered means operably connected to effect movement of said claws according to manual selection.

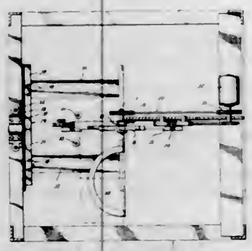
2,782,813
POWER DRIVEN HAND MANIPULATED PORTABLE SAWS
Edmund C. Dudek, Evergreen Park, Ill., assignor to Portable Electric Tools, Inc., Chicago, Ill., a corporation of Illinois
Application December 9, 1953, Serial No. 397,196
2 Claims. (Cl. 143—43)



1. In a portable circular saw, including a gear housing and a motor housing in alignment therewith, a driving motor in said motor housing having a power shaft projecting into said gear housing through one wall thereof, a driven shaft parallel to said output shaft and having one end projecting through the other wall of the gear housing, said one end thereof having means for driving such a circular saw, a spur gear fixed with relation to said power output shaft within said gear housing, said driven shaft having a first bearing portion supported in an opposite wall of the gear housing, a gear mounting portion, a screw threaded portion and a second bearing portion the latter being supported in said one wall, said portions being arranged in that order between said one end and the other end of the driven shaft, means between said first bearing portion and said gear mounting portion providing a shoulder facing toward said other end of said driven shaft and in substantial alignment with the inner end of the said first bearing portion, a second spur gear meshed with said first spur gear and carried on said gear mounting portion and rotatable relative thereto, smooth surfaced friction discs on each side of and bearing axially against said second spur gear with one of said discs bearing against said shoulder, means affording a slidable non-rotatable connection between said discs and said gear mounting portion of said driven shaft, spring disc means loosely on the threaded portion of said driven shaft and abutting the other friction disc, and an adjustment nut on said threaded portion within said gear housing for adjusting the frictional engagement of said friction discs against the said second gear, and a circular saw mounted at the end of the driven shaft exteriorly of the gear housing, whereby when an abnormal resistance torque is applied to the revolving saw the driven shaft is stopped and the spur gear thereon rotates idly and without any undue

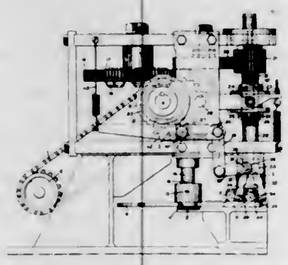
torque being transmitted therefrom to the motor shaft, and thus preventing the saw from kicking abruptly away from the work or from the hand of the operator.

2,782,814
MACHINE FOR FORMING LONGITUDINALLY CURVED MEMBERS
Egmont S. Smith, Houston, Tex., assignor to B & B Engineering & Supply Company, Inc., Houston, Tex., a corporation of Texas
Application March 26, 1954, Serial No. 418,905
13 Claims. (Cl. 143—85)



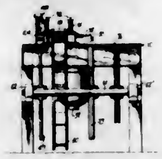
13. A machine for forming a longitudinally curved concavo-convex member comprising; a pair of annular saws of different diameter, each mounted for rotation about its central axis; and a work piece carrier comprising, a pivot, a support arm mounted for rotation about such pivot, work support means having work piece engaging surfaces including surfaces confronting each other and converging toward the pivot upon which the arm is mounted and at least one surface extending perpendicular to the confronting surfaces for engaging and supporting a work piece, said support means dimensioned for movement about the smaller of said saws and within the bore through the larger of said saws; and means for mounting the work support means on the arm in a position to pass the work piece engaging surfaces and the work piece carried thereby through the saws upon rotation of the support arm about its pivot.

2,782,815
CLOSURE ASSEMBLY DEVICE
Guy McLaughlin, Jr., Lancaster, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania
Application August 23, 1952, Serial No. 306,010
3 Claims. (Cl. 144—2)



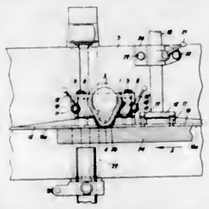
1. In a device for coating corks yieldably held to tops by unset adhesive, a rotatable pocketed carrier for moving equally spaced tops with corks thereon from a feeding device through a coating station to a delivery position, a feeding device for delivering tops with corks to the carrier, coating means at the coating station mounted for rotation and reciprocation about and along an axis normal to the carrier and substantially coincident with the axis of a cork in coating position at the coating station, means for rotating the carrier and coating means alternatively, and means for reciprocating the coating means into and out of engagement with the cork, said device being characterized by the rotating means rotating the carrier the space between pockets alternatively with rotating the coating means one revolution and reciprocating the coating means one cycle.

2,782,816
SLOTTING APPARATUS FOR CLOTHESPIN MACHINES
Hillman A. Lisherness, North Anson, Maine, assignor, by mesne assignments, to Forster Mfg. Co., Inc., a corporation of Maine
Original application January 14, 1949, Serial No. 70,986, now Patent No. 2,667,191, dated January 26, 1954. Divided and this application January 15, 1954, Serial No. 404,156
3 Claims. (Cl. 144—9)



2. Slotting means for clothespin making machine comprising a guideway, means for advancing individual stock pieces having shaped head and body portions along the guideway in abutting transverse relation to the direction of advance, slotting means extending into the guideway for slotting the body portions of the advancing pieces inwardly from the end opposite the head, said guideway comprising a main wall having a portion shaped to conform to the side of the shaped head and adjacent body portion of the stock pieces, resiliently mounted guiding means opposite the shaped portion of the main wall for maintaining the shaped head and adjacent body portion of the stock pieces in frictional engagement with the conformingly shaped main wall of the guideway during advance of the stock pieces, and resiliently mounted wall means engaging the head end of the pieces axially thereof.

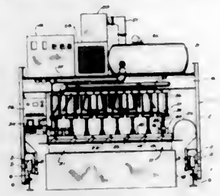
2,782,817
EDGE TRIMMING ATTACHMENT AND FENCE ADJUSTING MEANS FOR PLANER TABLES
Rudolf Steiner, Iffwil, Switzerland, assignor to Mawera Maschinen-Werkzeuge-Apparate-G. m. b. H., Langenthal, Switzerland, a Swiss firm
Application July 26, 1955, Serial No. 524,490
Claims priority, application Switzerland July 26, 1954
6 Claims. (Cl. 144—117)



1. An attachment for a planer table, said attachment comprising a support member resting on the planer table, a cutter shaft rotatably mounted on said support members perpendicular to the planer table, driving means for said cutter shaft mounted on said support means, two work guides resting on the work table and having plane guide surfaces for guiding the work, means for individually adjustably connecting said work guides with said support

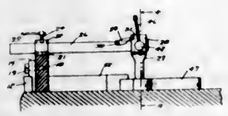
member for individually moving said guide surfaces relatively to said support member in a direction perpendicular to the axis of rotation of said cutter shaft, and means separate from said support member connected with and adjustably securing one of said guides to the planer table.

2,782,818
THERMO-PRESSURE MACHINE FOR FORMING PANEL ASSEMBLIES
Blaine C. Christeson, East Tawas, Mich., assignor to Anderson Coach Company, East Tawas, Mich., a corporation of Michigan
Application March 14, 1955, Serial No. 494,177
14 Claims. (Cl. 144—281)



1. A thermo-pressure apparatus, which comprises a framework, a pair of tracks, a supporting deck for a panel member to be subjected to heat and pressure, said tracks being at opposite sides of said supporting deck, holding means for said framework, said holding means including wheeled means for movably mounting said framework on said tracks, a platen means, means supported on said framework for moving said platen means to and from a panel member mounted on said supporting deck and applying suitable pressure to said panel member through said platen member, means for supplying operating power to said means for moving said platen means to and from said panel member, electric conductor means on the face of said platen in position to be pressed into contact with the face of said panel member to be subjected to heat and pressure, and means for supplying a suitable electric current to said electric conductor means for heating said panel member as said current passes through the latter.

2,782,819
WORK CLAMPING DEVICE
Abram Levy, Jr., Atlanta, Ga.
Application February 3, 1956, Serial No. 563,316
1 Claim. (Cl. 144—290)

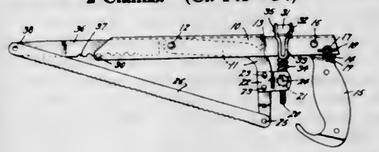


A work clamp for a work table of the type having a miter square connected thereto for sliding engagement thereover comprising a yoke clamp detachably secured to said miter square, a horizontal bar longitudinally slidable in said yoke clamp and adapted to be locked therein in adjusted position, a bifurcated finger encompassing the outer end of said horizontal bar and pivotally secured thereto by means of a link, an eccentric cam pivotally mounted in said bar and engaging said finger whereby said finger is caused to oscillate with relation to said bar upon rotation of said eccentric, and a jaw pivotally connected to said finger for engagement with the work to be clamped, said jaw having a plurality of work clamping faces.

2,782,820
HANDSAW
Raymond C. Dreier, Chicago, Ill., assignor to Dreier Brothers, Inc., Chicago, Ill., a corporation of Illinois
Application January 18, 1954, Serial No. 404,475
6 Claims. (Cl. 145—32)

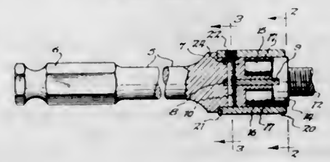
1. A saw comprising, a straight longitudinal compression frame member, a rigid cross-member on one end of said frame member, a pair of links pivotally mounted on opposite sides of said frame member adjacent the other end thereof, a pair of tensioned elements on opposite sides of said frame member respectively connected at one of their ends to said cross-member and pivotally connected at their opposite ends to said links, at least one of said tensioned elements being a saw blade, and means interconnecting said links for transferring the tensional forces from one of said tensioned elements to the other through said links, thereby equalizing the tensions in said elements.

2,782,821
HACKSAW FRAME WITH ANGULARLY ADJUSTABLE HANDLE
Arthur R. Gunnerson, Denver, Colo.
Application October 12, 1955, Serial No. 540,092
2 Claims. (Cl. 145—34)



1. In a hacksaw frame having a frame member provided with a handle and means for securing a hacksaw blade in a desired angular relation to said frame member, means for varying the angular position of said handle relative to said frame so that the relative angular position between said saw blade and said handle may be maintained regardless of variations in relative position between said saw blade and said frame member.

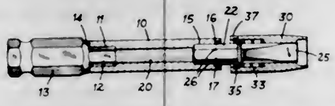
2,782,822
MAGNETIC SCREW DRIVERS
Frederick G. Clark, Buffalo, N. Y., assignor, by direct and mesne assignments, to Magna Driver Corporation, Buffalo, N. Y., a corporation of New York
Application May 22, 1953, Serial No. 356,695
5 Claims. (Cl. 145—50)



1. A magnetic screw driver comprising a shank having the outer end thereof provided with a diametrically extending slot, a flat screw driver bit of a magnetic material extending into said slot and having the outer end thereof extending beyond said shank for engagement with a slot in a screw head, said shank and bit having registering holes extending crosswise of said shank, a pin extending

through said holes for holding said bit on said shank, a sleeve extending about and secured to the outer end of said bit and having a portion thereof extending beyond said end of said bit, said shank also having a pair of longitudinally extending holes extending inwardly from the outer end thereof at opposite sides of said slot, and a magnet in each of said holes having its outer end terminating at the outer end of the shank in spaced relation to said bit for holding a screw within the outer end of said sleeve and in engagement with said bit.

2,782,823
MAGNETIC SCREW DRIVER
De Alt E. Williams, Jr., Dayton, Ohio, assignor to The Apex Machine and Tool Company, Dayton, Ohio, a corporation of Ohio
Application April 12, 1954, Serial No. 422,462
1 Claim. (Cl. 145—51)



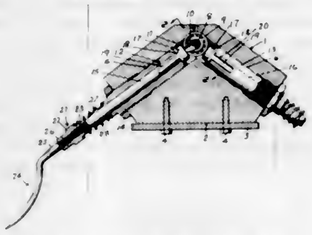
A magnetic screw driver assembly comprising a bit holder including means defining a socket of non-circular section, a bit of magnetic material having the forward working end thereof formed to drive a screw and having the rearward end thereof complementary in section to said socket for driven fit therein, a sleeve shorter than said bit mounted on said bit for movement lengthwise thereof, the forward end of said sleeve being formed to be received over the head of a screw to be driven by said bit and having an annular seat therein limiting reception of said screw head therein, a spring mounted within said sleeve in cooperative relation with said bit and biasing said bit rearwardly to a normal position wherein said working end thereof is retracted within said forward end of said sleeve while said rearward end of said bit projects beyond said sleeve for engagement within said bit holder socket, a permanent bar magnet within said socket in position to magnetize said bit upon insertion thereof in said socket, said sleeve and said socket being of non-magnetic material to direct the magnetic flux toward said working end of said bit causing said bit to retain said head of said screw within said forward end of said sleeve by magnetic attraction, cooperating stop means on said bit and said sleeve limiting retractive movement of said bit in said sleeve to a normal position of said working end thereof spaced between the forward end of said sleeve and the radial plane of said seat in said sleeve to assure maintained magnetic attraction of said bit and said screw, and means limiting insertion of said bit in said socket to cause said bit to be projected forwardly of said sleeve into firm driving engagement with said screw in response to a thrust force applied to said bit holder relative to said sleeve.

2,782,824
FLAT OR SPADE TYPE WOOD BORING BIT
Clarence J. Robinson, Wilmington, Ohio, assignor to The Irwin Auger Bit Company, Wilmington, Ohio, a corporation of Ohio
Application April 27, 1954, Serial No. 425,915
1 Claim. (Cl. 145—116)

A spade type wood boring bit having a flattened blade body portion provided with substantially parallel side faces and bevelled edges joining said side faces, said bevelled edges including an end edge, and a point extending outwardly from said flattened blade body portion, said point comprising a point body portion terminating in an apex and having a pair of substantially parallel side faces and narrow bevelled edges joining the last-named side faces and extending to said end edge intermediate the ends of said end edge, each side face of said point body portion being provided with a longitudinally inclined elongated flute partly defined by two elongated substantially parallel edges on said point body portion, with one of said elongated substantially parallel edges extending from the apex of the point body portion toward the juncture of the blade body portion and point body

portion and the other of said elongated substantially parallel edges extending, from a location at one of said narrow bevelled edges intermediate said apex and said end edge, toward the juncture of the blade body portion and point body portion, and the juncture of the other of said narrow bevelled edges and one side face of said point body portion providing a cutting edge.

2,782,825
DEVICE FOR REMOVING THE MEAT FROM COCONUTS
Henri Daniel Rey, Papeete, Tahiti
Application January 29, 1954, Serial No. 407,067
6 Claims. (Cl. 146—7)

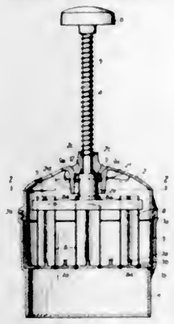


4. A device for removing the meat from coconuts comprising: a body, means for securing said body stationary on a support, a downwardly inclined bore within said body open at its lower end, a rotary hammer at the upper end of said bore and a power actuatable shaft rotatably supported on said body and connected with said hammer for rotating the latter about an axis extending transversely of the axis of said bore, a tool holder within said bore having an upper end adjacent to but out of engagement with said hammer upon rotation of the latter and a lower end projecting outwardly of said bore, a meat cutting tool on said lower end, said holder and said head being supported within said bore for upward movement axially of said bore to a position with said head in engagement with said hammer only upon generally upward pressure against said tool when the meat in a coconut is forced against said tool in a meat cutting operation.

2,782,826
VEGETABLE SHREDDER
Karl Zysset, Lyss, Switzerland
Application March 11, 1954, Serial No. 415,628
2 Claims. (Cl. 146—160)

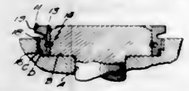
1. In a vegetable shredder comprising a two-part bell-like housing having an upper and a lower portion and

adapted to be put over the goods to be shredded, and a knife blade manually depressable by a spring-loaded actuating stem which has a lower end portion, said blade being mounted on the latter and on each actuation being angularly movable by an automatically-operating indexing device, the improved indexing device including a socket in the upper housing portion, said socket having a plurality of internal helical grooves, and a checking member rotatably but axially immovably mounted on the lower end-portion of the stem, said checking member comprising a ring seated on said stem portion, a sleeve mounted on said ring and having two diametrical cams



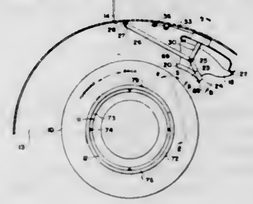
engageable in said grooves, and a helical torsion spring disposed in said sleeve and coiled about said stem portion, one end of the spring being anchored in the sleeve and the other bearing on said ring; the whole in such combination that on depressing the stem the checking member in the first stage is rotated in one direction relatively to the stem and the spring is disengaged from the latter, while the stem and knife blade are not rotated, and that in the last stage of the stem's upward movement the spring engages the stem and the latter together with the checking member and knife blade are rotated in the other direction.

2,782,827
SNAP RING CONNECTION BETWEEN THREADED FASTENER AND LOCKING COLLAR
Joseph Rosan, Newport Beach, Calif.
Application June 12, 1953, Serial No. 361,149
1 Claim. (Cl. 151—41.73)



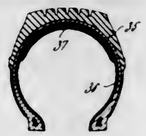
In combination: a threaded fastening element comprising a portion of external polygonal form with an even number of sides, said portion having a circumferentially extending ring of notches in the apexes thereof; and locking means for non-rotatably but detachably securing said fastening element in a body of material having a bore and a counterbore, said locking means comprising a collar member having an internal polygonal wall provided with twelve alternating flutes and recesses adapted to mate with and receive said fastening element, the internal polygonal wall of said collar having an annular groove intersecting the flutes of said internal polygonal wall and extending to a depth beyond the radially outermost portion of said recesses sufficient to receive a split ring, and an expansible ring of circular cross-section fitting said grove and adapted to lock said fastening element against relative axial movement when said ring of notches is in planar registry with said annular groove, the exterior of said collar having a cylindrical pilot portion at one of its ends of slightly less diameter than said counterbore for guiding said collar into said counterbore and also having axially directed broaching serrations adjoining said pilot portion for interlocking engagement with the side wall of said counterbore, said collar also having a prying flange at its other end separated from said broaching serrations by a circumferentially extending groove of less diameter than the smallest diameter of said serrations adapted to be located in spaced relation to the surface of said body of material surrounding said counterbore.

2,782,828
TIRE CHAIN AND APPLICATOR
George Mitchell Croll, West Vancouver, British Columbia, Canada
Application January 31, 1955, Serial No. 485,091
14 Claims. (Cl. 152—214)



1. In vehicle tire chains and applicator therefor the combination comprising a carrier subsantially in the shape of an inverted U, means normally retaining the carrier on a vehicle clear of a vehicle tire, said carrier on being released dropping down on to and straddling the tire, a chain rim on each side of and concentric with the tire rim on which the vehicle tire is mounted, an annular track carried by each chain rim, a plurality of cross chains extending transversely over the carrier and slidably carried thereby, slides secured to the ends of the cross chains at the lower edges of the carrier, trackways in the slides for receiving the annular chain rim tracks when the carrier is on the tire, and latches mounted on the chain rims for engaging the slides and removing the chains from the carrier when the wheel is rotated in one direction, said chains riding back on to the carrier and the latches releasing the slides thereof when the wheel is rotated in the opposite direction.

2,782,829
PNEUMATIC ARTICLE AND METHOD OF MAKING SAME
Lester C. Peterson and Harvey J. Batts, Indianapolis, Ind., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application April 14, 1954, Serial No. 423,064
12 Claims. (Cl. 152—347)

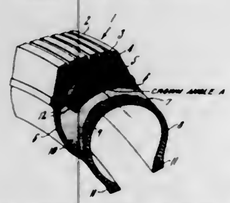


1. In a method of making a self-sealing vehicle-supporting pneumatic article comprised of raw vulcanizable rubber stock, the improvement which comprises the steps of compounding an unreacted sealant material comprised of (A) 100 parts of an elastomeric copolymer of an isoolefin having from 4 to 7 carbon atoms with from 0.5 to 10% of an aliphatic conjugated diolefin having from 4 to 14 carbon atoms, (B) from 0.2 to 2.5 parts of a 2,6-dimethylol-4-hydrocarbon substituted phenol, in which the said hydrocarbon is selected from the group consisting of alkyl, cycloalkyl, aryl, and aralkyl radicals and (C) from 0.1 to 5 parts of a heavy metal halide, subsequently lami-

nating the resulting unreacted sealant material as a sealant layer with the said raw rubber stock comprising the remainder of the assembly, and thereafter subjecting the resulting laminate to vulcanizing temperatures in a mold of desired shape for a time sufficient to cure said rubber stock and to react said sealant material simultaneously.

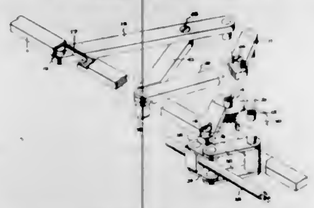
8. In a self-sealing vehicle-supporting pneumatic article comprised of vulcanized rubber stock, the improvement which comprises a sealant layer comprised of a heat-reacted product of (A) 100 parts of an elastomeric copolymer of an isoolefin having from 4 to 7 carbon atoms with from 0.5 to 10% of an aliphatic conjugated diolefin having from 4 to 14 carbon atoms, (B) from 0.2 to 2.5 parts of a 2,6-dimethylol-4-hydrocarbon substituted phenol, in which the said hydrocarbon is selected from the group consisting of alkyl, cycloalkyl, aryl, and aralkyl radicals and (C) from 0.1 to 5 parts of a heavy metal halide.

2,782,830
PNEUMATIC TIRE
Edward H. Wallace, Grosse Pointe, Mich., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application July 15, 1953, Serial No. 368,113
1 Claim. (Cl. 152—355)



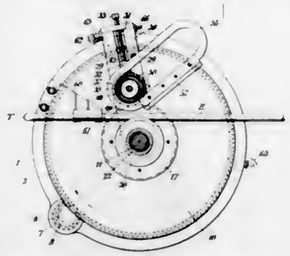
A pneumatic tire comprising in combination vulcanized rubber grooved tread and sidewall portions, an underlying carcass of rubberized tire fabric consisting of nylon cords disposed at a cord angle of from 30° to 40° and having a ten pound stretch of from 10% to 15%, and a breaker strip consisting of rayon cords disposed at a cord angle from 1° to 3° higher than the angle of said carcass cords and having a ten pound stretch of from 5% to 8%, interposed between said tread and carcass, the cord angle being defined as the lesser angle the cord makes with the circumferential center line of the crown portion of the tire.

2,782,831
AUTOMATIC GAUGE FOR PRESS BRAKES
Harry H. Todd, Jr., Cranbury, N. J., assignor to General Electric Company, a corporation of New York
Application June 15, 1955, Serial No. 515,663
8 Claims. (Cl. 153—21)



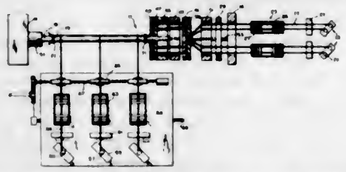
1. An automatic gauge for a press brake including a fixed lower die and a vertically-reciprocating upper die comprising a frame adapted to be mounted on said brake and including a gauge bar supporting member, a gauge bar slidably supported on said member, reciprocating means including a parallel motion actuating means for periodically advancing and retracting said bar in parallel relationship to said lower die, positioning means including a turret having a plurality of spaced stops mounted thereon for limiting the advancing movement of said gauge bar and means operated by said upper die for effecting operation of said reciprocating means and said positioning means.

2,782,832
BENDING MACHINES
Ralph M. Shaw, Jr., Edgewater Park, N. J., assignor to Pedrick Tool and Machine Co., Philadelphia, Pa., a corporation of Pennsylvania
Application April 26, 1955, Serial No. 504,009
3 Claims. (Cl. 153—46)



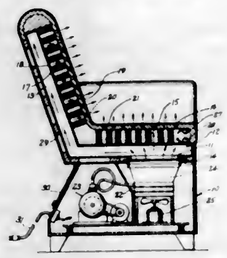
1. In a bending machine, a circular die element and a coaxial spur wheel both fixedly supported; a member rotatable about the common axis of the die element and the spur wheel as a center; a stationary holder for sustaining a work piece in the form of a tube or bar with a free end portion thereof tangential to the die element; a shaft free to revolve about an axis on the rotatable member disposed in eccentric relation to the axis of the die element; a spur pinion fast on the shaft and adapted to roll on the fixed spur wheel; a second spur pinion also fast on the shaft; and a straight sided elongate loop shaped member having rack teeth internally of one straight side in mesh with the second mentioned spur pinion, and a swaging shoe externally of said one side, whereby, as the rotatable member is turned, the loop element is swung about the shaft from a normally retracted position until the face of the shoe contacts fully with the work piece, and is thereafter pivotally shifted for maintenance of the shoe in tangential relation to the die element in causing the distal end of the work piece to be bent around the die element by pressure action.

2,782,833
APPARATUS FOR MAKING NON-WOVEN TUBULAR FABRIC
Adolphe Rusch, Rumson, N. J., assignor to the United States of America as represented by the Secretary of the Army
Application January 3, 1955, Serial No. 479,687
2 Claims. (Cl. 154—1.7)
(Granted under Title 35, U. S. Code (1952), sec. 266)



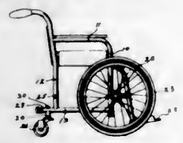
1. An apparatus for making non-woven tubular bodies comprising a feed source for supplying warp threads to said body, a condenser spaced from said fixed feed source, a first fixed heddle and a second fixed heddle, a first pair of slidable friction clamping members in operable association with said second heddle, a third movable heddle, and a second pair of slidable friction clamping members in operable association with said third heddle, said warp threads passing through said first, second, and third heddles and terminating at said second pair of friction clamping members, a mandrel in axial alignment with said heddles and said friction clamping members whereby when said third movable heddle and said second clamping means are drawn over said mandrel, said warp threads are longitudinally deposited over said mandrel, and means for applying filler threads upon said mandrel.

2,782,834
AIR-CONDITIONED FURNITURE ARTICLE
Benny Richard Vigo, Tampa, Fla.
Application May 27, 1955, Serial No. 511,549
2 Claims. (Cl. 155—1)



1. A chair comprising a hollow upstanding base having an open top and an opening in the side wall thereof for the admission of outside air therein, a hollow seat including a fixed bottom wall and a top wall movable toward and away from the bottom wall positioned so that the bottom wall bridges and is supported upon the open top of said base, there being provided an opening in the bottom wall of said seat, a conduit depending from the opening in said seat bottom wall, an air conditioning unit within said base operable to cool the air in said conduit, a hollow back rising from the rear edge of said seat and connected in communication therewith, there being reticulated openings in said seat top wall and in the front wall of said back, a motor fan assembly positioned within said conduit so that the fan directs air toward and through said bottom wall seat opening, a source of electric current connected to the motor of said assembly, a first contact positioned within and fixedly carried by said seat and electrically connected to said source, and a second contact positioned within and dependingly carried by said seat top wall and movable into contact with said first contact in response to the weight applied to said seat top wall by an occupant when seated on said seat to close the circuit and energize said fan motor assembly.

2,782,835
INVALID WHEEL CHAIR HAVING REVERSIBLE DRIVE AND CASTER WHEELS
John C. Liebich, Toledo, Ohio, assignor to Gendron Wheel Company, Perrysburg, Ohio, a corporation of Ohio
Application March 19, 1954, Serial No. 417,289
1 Claim. (Cl. 155—30)

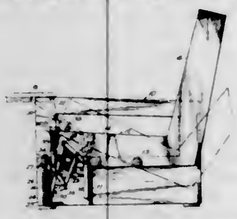


An invalid wheel chair comprising a pair of laterally spaced side frames; brace members holding these side frames in spaced relation, each side frame comprising: a single bar substantially of inverted L-shape having stem and foot portions oriented with the stem portion extending substantially vertically and the foot portion extending rearwardly from the upper end thereof so as respectively to constitute a front leg and a combined arm rest and top frame member; a single bar of substantially inverted J-shape having stem and curved portions oriented with the stem portion extending generally vertically and the curved portion extending rearwardly therefrom and respectively constituting a combined rear leg and back rest support, and a handle; the rear end of the foot portion of the L-shaped bar being rigidly affixed to the stem portion of the J-shaped bar at a point below the curved portion thereof, and the lower end of the stem portion of the L-shaped bar terminating below the lower end of the stem portion of the J-shaped bar; a single straight bar horizontally disposed in the fore-and-aft direction of the frame and having a forward end rigidly affixed to the stem portion of the L-shaped bar at a point above the lower end thereof, the lower end of the J-shaped bar being rigidly affixed to the straight bar at a point forwardly of its rear end, whereby said straight bar constitutes a bottom frame member with the rear portion thereof extending rearwardly from the juncture with the stem of the J-shaped bar, said rear portion having an aperture extending vertically therethrough intermediate the rear end of said straight bar and the juncture thereof with the lower end of said J-shaped bar; a bumper on the rear end of said straight bar; a stud tube rigidly depending from the rear portion of said straight bar with the interior of the stub tube in registry with the aperture and, together with said aperture constituting a first caster bearing; a second single bar of substantially inverted J-shape having stem and curved portions oriented with the curved portion extending rearwardly and the stem portion extending downwardly nad forwardly therefrom, the rear end of the curved portion being secured to the stem portion of the L-shaped bar at a point below its juncture with the foot portion and constituting a leg rest support; a single straight stub bar horizontally disposed in the fore-and-aft direction of the frame and having forward and rear ends rigidly affixed to the stem portions of the J-shaped bar constituting the leg rest support and the front leg of the frame; a first wheel bearing support in the stub bar; a second wheel-bearing support in the stem of the J-shaped bar substantially in the horizontal plane of the first wheel bearing support; the lower end of the stem portion of the L-shaped bar being hollow and constituting a second caster bearing; said invalid wheel chair further including a pair of relatively large wheels disposed on opposite sides of the frame and journalling selectively in said large wheel bearings, and a pair of relatively small wheels disposed on opposite sides of the frames, and caster supports for said small wheels swivelling respectively about vertical axes in said caster bearings, said caster supports functioning to offset said small wheels from the swivel axes thereof whereby, upon forward movement of said wheel chair, said small wheels lie beneath said bumpers and, upon rearward movement of the wheel chair, said caster wheels lie forwardly of said bumpers.

2,782,836
RECLINING CHAIR
Edwin G. Krakauer, Roslyn Heights, N. Y., assignor to Kay Manufacturing Corporation, New York, N. Y., a corporation of New York
Application April 8, 1953, Serial No. 347,475
9 Claims. (Cl. 155—105)

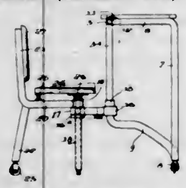
1. In a reclining chair having a movable frame provided with a seat portion and with a back portion and having a fixed frame, a pivot arranged intermediate the front and the back portion of the movable frame and swingably mounting the movable frame on the fixed frame, a movable leg-rest at the front of the movable

frame, and linkage means interposed between the leg-rest and the movable frame and constituting the sole means for swinging the leg-rest into an operative substantially horizontal position in forward spaced relation to and at the top part of the seat portion when said movable frame is tilted in one direction about said pivot, said linkage moving the leg-rest into an inoperative substantially vertical position largely below the movable



frame after the movement of the movable frame in the opposite direction about said pivot to the relatively untilted position of the movable frame, a second pivot hinging the linkage to the fixed frame and a third pivot hinging the linkage to the movable frame, the linkage comprising a leg-rest-lifting link having a slidable connection with the leg-rest and carrying the third pivot at a point intermediate the ends of said link.

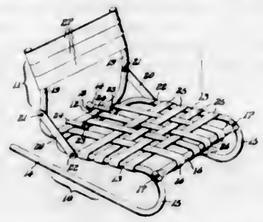
2,782,837
TABLES OF HORIZONTALLY NESTABLE FORM
Adrian A. Munsch, Wexford, Pa.
Application December 2, 1955, Serial No. 550,533
2 Claims. (Cl. 155—124)



1. A combined table and chair structure comprising a table top having two legs adjacent to two of its corners, a chair frame member pivotally connected on a vertical axis, to one of the legs, a seat pivoted at its rear edge on the chair frame, legs for the chair frame, the seat being at such height that it will be moved toward and from a position beneath the table top, when the chair frame is swung about its pivot, the chair frame legs serving as a substitute for other legs for the table top, and a leg that is normally yieldably supported by the chair frame, in slightly elevated position relative to the other legs, and is of such length that it may be pushed against the floor on which the chair frame legs and table legs rest.

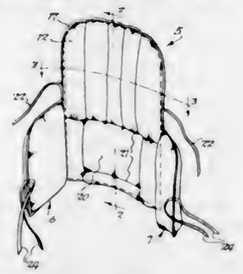
2,782,838
BEACH CHAIRS
Eli H. Gruber, Malvern, Pa.
Application September 25, 1953, Serial No. 382,435
1 Claim. (Cl. 155—153)

In a collapsible beach chair, a seat frame formed integrally from a single length of bar metal with a cross portion at the rear, and forwardly extending side portions with downward and rearward retroversions in continuation of said side portions for service as supporting runners, said runners being rearwardly divergent to permit the cross portions to pass down between them under the weight of the user of the chair; a U-shaped back frame likewise integrally formed from a length of bar metal; webbing spanned between the side portions of the seat frame and between the side portions of the back frame; and means connecting the back frame to the seat frame with capacity for being folded down upon said seat frame, wherein the connecting means comprises brace links whereof the opposite ends are pivotally connected respectively to the side portions of the seat and back



frames substantially at equal distances from the cross portions of said frames; and wherein clips extending rearward from the cross portion of the seat frame receive the cross portion of the back frame for maintenance of the latter frame upright during use of the chair.

2,782,839
CHILD'S CHAIR PAD
Thomas D. Cole, Lockport, N. Y., assignor to Lockport Mills, Inc., Lockport, N. Y.
Application April 11, 1955, Serial No. 500,385
3 Claims. (Cl. 155—182)

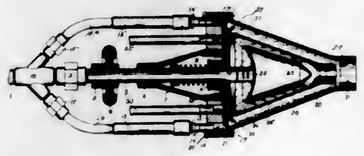


1. A pad for use in a child's chair and including a back portion formed to extend upwardly from the seat of the chair to above the child's shoulders, said back portion having an insert of sufficient stiffness to prevent any substantial deformation thereof by a child, said insert being curved about a substantially upright axis with the sides thereof extending forwardly to support the upper part of a child's body against tipping sidewise in either direction, padding material extending about said insert and conforming to the shape of said insert, and means for releasably securing said pad to a highchair.

2,782,840
ADJUSTABLE "T" CUSHION COVER
Howard R. Armbrecht, Richmond, Va., assignor to Crawford Manufacturing Co., Inc., Richmond, Va., a corporation of Virginia
Application April 20, 1955, Serial No. 502,633
6 Claims. (Cl. 155—182)

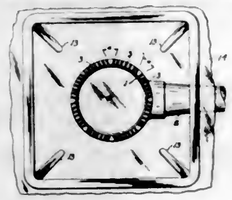
1. A universal cover for cushions of T shaped configuration comprising top and bottom panels each having extensions projecting outwardly from each side edge of the forward portions thereof, side panels secured around the periphery of said extensions to form expansible pockets for the reception of portions of the T projections of the cushion, means joining the forward edges of said top and bottom panels to each other, and tape-like elements extending laterally from the joined portions of said top and bottom panels to overlie and conceal the edges of said pockets.

2,782,841
PROJECTOR FOR FUEL COMBUSTION
John E. Hale, Euclid, Ohio
Application November 3, 1950, Serial No. 193,765
7 Claims. (Cl. 158—76)



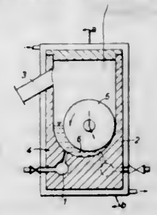
1. In a fuel burner of the type comprising a base member and a housing member defining a circular sectioned chamber into which air and fuel are introduced, the combination of an air distributor, an air control cone and mounting means for the latter, said air distributor being mounted on the base member at one end of the chamber and said control cone having a base confronting the distributor, the cone being mounted for axial movement toward and away from the distributor, the distributor including formations for directing air flow thereover to follow a substantially spiral course, and means associated with the cone mounting means for introducing air into the space between the base of the cone and the air distributor to flow radially out from such space into the chamber.

2,782,842
BURNERS FOR GAS COOKERS
Christoph Halfmann and Heinz Aleweld, Gelsenkirchen, Germany
Application June 8, 1953, Serial No. 360,176
Claims priority, application Germany September 30, 1952
6 Claims. (Cl. 158—116)



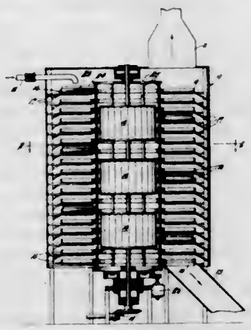
1. A burner for gas cookers, comprising in combination, a burner body, a removable top cover for said burner body, means for supplying said burner body with gas, said burner body including a vertical tubular member having a substantially flat annular top edge, a plurality of groups of vertical slots in said top edge, the slots in each group being substantially parallel to each other and the central slot in each group being substantially radial with respect to the annular top of said burner body, and spacer means provided at the underside of said cover and resting on the top edge of said body whereby to provide a space therebetween, said space and each of said slots being narrow enough to prevent any lighting back of flames formed at the exterior of said slots.

2,782,843
APPARATUS FOR CONTINUOUS REMOVAL OF VOLATILE MATERIALS FROM LIQUIDS
Wolf Rodenacker, Dormagen, Germany, assignor to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany
Application March 2, 1953, Serial No. 339,873
Claims priority, application Germany March 3, 1952
3 Claims. (Cl. 159—11)



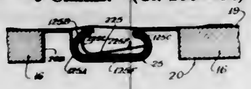
1. An apparatus for the continuous removal of volatile materials from liquids, which comprises a casing defining a substantially enclosed evaporating chamber having an inner wall at least a portion of which is curved, a cylindrical roll eccentrically positioned in said chamber to form a crescent-shaped clearance with the curved portion of the inner wall thereof, means defining a liquid inlet into the wider portion of said clearance, means defining a liquid outlet out of the narrower portion of said clearance, means for rotating said cylindrical roll, and vapor outlet means positioned in said chamber for the removal of vapors therefrom.

2,782,844
STAGE EVAPORATOR APPARATUS
Arnold Weisselberg, Leonia, N. J.
Application September 30, 1955, Serial No. 537,676
7 Claims. (Cl. 159—18)



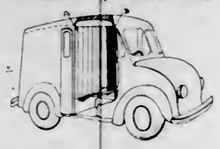
1. In a stage evaporator unit for a solute or solid contained in an evaporable liquid, said unit including a closed housing with an inlet at the top thereof for the liquid and also an outlet stack for a gaseous drying medium: a set of superposed fans coaxially disposed vertically within the housing, and means to rotate the same for circulating a gaseous drying medium; a set of superposed, radially extending rake elements mounted about the fans coaxially therewith; superposed annular pans supported horizontally by the housing and mounted respectively beneath the corresponding rake elements which are adapted to dip therein, each pan being provided with a radial dam affording an opening directed to the next succeeding lower pan, the associated rake elements being adapted to ride over the corresponding dams—all contained within the housing; and means to effect relative rotation between the rake elements and the pans about the vertical axis of the housing.

2,782,845
ACCORDION DOORS
Werner E. Johnson, Janesville, Wis., assignor to Hough Manufacturing Corporation, a corporation of Connecticut
Application December 29, 1955, Serial No. 556,273
6 Claims. (Cl. 160—84)



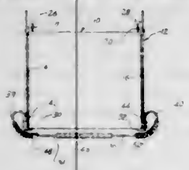
1. In an accordion door cover, a plurality of wide slats and alternate narrow pivot slats, inner and outer flexible covering sheets over slats adhesively secured in the inner and outer faces of said slats to pivotally interconnect the adjacent edges thereof, one of said pivot slats comprising a hollow sheet metal member of substantially the same size and configuration as the other pivot slats and into which adjacent edges of separately formed outer covering sheets are extended, and means within said hollow member for anchoring said edges in said hollow member.

2,782,846
REFRIGERATOR CURTAINS AND MOUNTINGS
John Arthur Bussard, Rock Island, Ill.
Application July 15, 1954, Serial No. 443,687
1 Claim. (Cl. 160—84)



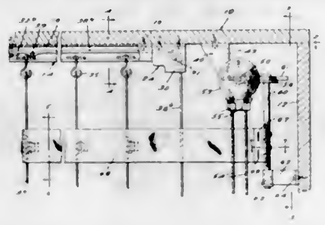
An adjustable closure for the refrigeration compartment of a milk truck including a pair of spaced parallel tracks rigidly mounted in the upper part of the compartment, a plurality of manually slidable carriers mounted on each of said tracks each having a supporting hook depending therefrom, a pair of separate pleated curtains of strong, fibrous material, one member of each pleat being suspended by an adjacent supporting hook, said curtains each having been folded into a series of wide pleats along the whole height of the curtain and the adjacent members of each pleat firmly stitched together vertically close to their folds whereby they will naturally resume the pleated position for their full length when contracted but may be drawn into wide-open position when extended all of said supporting hooks being spaced close to corresponding edges of their respective pleats whereby when the curtains open, the pleats will project uniformly in one direction about three-quarters of their width and will project approximately one-quarter of their width in the opposite direction.

2,782,847
CURTAIN ATTACHMENT FOR TELEVISION CABINETS
Seichi Terauchi, Honolulu, Territory of Hawaii
Application April 8, 1955, Serial No. 500,108
1 Claim. (Cl. 160—124)



A curtain attachment for a television cabinet comprising a U-shaped frame including side members extendable along the sides of the cabinet, a bight part extending across the cabinet front, means adjustable longitudinally of the side members at one end thereof to engage against the back of the cabinet, and means at the other ends of the side members engageable against the front of the cabinet; and a pair of curtains slidable on said bight part for selectively exposing and concealing the front of the cabinet.

2,782,848
VENETIAN BLIND
Ramiro Cereceda, Los Angeles, Calif.
Application August 28, 1953, Serial No. 377,123
1 Claim. (Cl. 160—172)

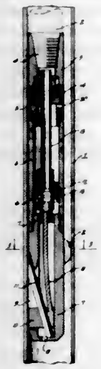


In Venetian blind construction, a header board having an end panel, an elongated channel member secured to said header board, the legs of said channel member being provided with opposed, spaced apart flanges, loose plates transversely bridging the flanges of the channel member for slide movement thereon, revoluble hooks centrally depending from said loose plates, elongate blind slats vertically depending from said hooks, a pair of spaced apart, parallel tapes adjacent the suspended ends of said slats and disposed horizontally across the edges of the slats and having the slats therebetween, said tapes provided with transverse, spaced apart interconnecting tapes, securing means between the interconnecting tapes and the slats, a vertical shaft, means secured to the header board end panel for supporting the shaft for turning movement, a cross plate of greater length than the width of the slats intermediately secured to said shaft, each parallel tape of the first named tapes being attached to an end of said plate, means for turning the shaft to move the first tapes and to rotate the said slats and hooks relative to the loose plates, and further means for causing translational movement of the loose plates on the said flanges to separate or cause approach of the slats.

2,782,849
CURTAIN HOLD BACK
Stanley P. Sadloski and Clara J. Sadloski, New Britain, Conn.
Application October 12, 1954, Serial No. 461,832
7 Claims. (Cl. 160—330)

1. In an adjustable curtain hold back to be slidably received in a conventional hollow C-shaped curtain rod section, a flexible longitudinally extending strip having a plurality of transverse corrugations formed therein to slidably engage opposite inner faces of said curtain rod section, one extremity of said strip terminating beyond the vertical limits of one of said corrugations to frictionally engage one of said inner faces, the other extremity being upwardly curled to provide an integrally formed stop section to engage a curtain slidably supported on said curtain rod section.

2,782,850
PIPE REAMER AND MILL
Elmo L. Condra, Long Beach, Calif.
Application April 29, 1955, Serial No. 504,891
10 Claims. (Cl. 164—0.8)



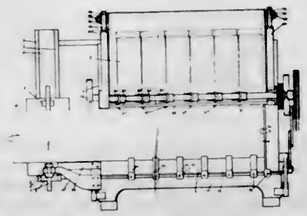
10. A pipe reamer and mill comprising a coupling adapted to be attached to drill pipe, a cylinder below the coupling, a fitting connecting the cylinder and the coupling, a piston in said cylinder, a tube rising from the piston and extending through said fitting, packing means in the fitting around the tube, said tube being open at the top and bottom thereof, the bottom opening being below the piston, a mandrel below and attached to said cylinder, cutters on one side of the mandrel, a block, said mandrel having a window therein through which said block may move, means mounting said block in the mandrel for vertical and lateral movement in said window, and a cable connecting said block and the piston, and a restricting orifice in the lower part of the cylinder, said orifice being below the piston.

2,782,851
DIE CUTTING AND CREASING MACHINE AND METHOD OF MAKING
Marshall E. Gazette, Weymouth, Mass.
Application October 20, 1953, Serial No. 387,277
4 Claims. (Cl. 164—30.5)

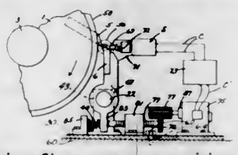
1. In a machine for cutting or creasing paper sheets, a cylindrical roll of hard material, and a thin sheet wrapped around and removably secured to said cylinder, said sheet having a cutting element secured to its surface consisting of a wire of hard material and uniform diameter bent to shape.

2,782,852
AUTOMATIC MACHINE FOR CUTTING TO SIZE FROM A ROLL OF CORRUGATED AND DOUBLE CORRUGATED PAPER, SMOOTH CARDBOARD OR OTHER SIMILAR MATERIAL
Pietro Molla, Pontenuovo di Magenta, Italy, assignor to S. A. F. F. A.-S. p. A. Fabbriche Fiammiferi ed Affini, Milan, Italy, an Italian company
Application December 28, 1953, Serial No. 400,517
12 Claims. (Cl. 164—62)

1. A machine for feeding and cutting pliable material comprising a work table, a feeder plate movably mounted on said table for lateral movement of said table, carriage means mounted on said table and attached to said plate for movement with said plate, means for supporting a roll of the material on said carriage means so that the material may be drawn from said roll across said plate transversely to the direction of movement of said plate, cutting means mounted adjacent said plate for cutting the material upon lateral movement of said plate, means for engaging the material upon lateral movement of said plate for retaining the material substantially stationary on said plate during movement of said material into said cutting means, and means for simultaneously actuating said plate and said carriage means laterally across said table to push the material on said plate into said cutting means.



2,782,853
PRECISION FIBER CUTTER
Robert D. Heffelfinger, Lansdowne, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application August 8, 1955, Serial No. 526,956
19 Claims. (Cl. 164—68)

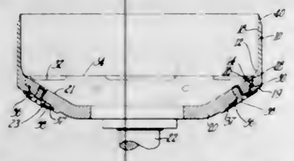


1. A precision fiber cutter comprising a rotatable cutter head, at least one fiber cutting blade mounted in the head, a stationary fiber cutting blade which cooperates with the blade of the head to cut the fibers, means for feeding a bundle of fibers or filaments to the cutting edge of the stationary blade, a mounting for the stationary blade, means for moving the stationary blade mounting toward and away from the rotatable blade to adjust the clearance between the stationary blade and the rotatable blade, and resilient means contacting the stationary blade mounting and opposing the adjusting means to hold the stationary blade mounting firmly in the adjusted position, and means for providing angular adjustment of the stationary blade along the stationary blade axis to further adjust the blade clearance.

2,782,854
ROTARY KNIVES FOR TRIMMING MACHINES
Anton Mühlbach, Frankfurt am Main Nied, Germany, assignor, by mesne assignments, to United Shoe Machinery Corporation, Boston, Mass., a corporation of New Jersey
Application July 2, 1954, Serial No. 440,903
Claims priority, application Germany July 22, 1953
4 Claims. (Cl. 164—70)

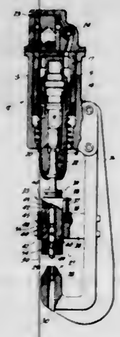
1. In a two-part rotary trimming knife having a cylindrical blade member engageable with a driven hub member by complementary sets of flanges separated on each member by circumferential spaces, a plurality of clamping means operable to lock the members together when the flanges are in overlapping axial engagement and releasable to permit the members to be moved axially of each other by rotating the flanges on one member into alinement with the recesses on the other, each clamping means comprising a flexible leaf spring associated with one set of

complementary flanges, the spring having one end contacting a conical exterior surface on the blade member and the other end contacting a substantially alined conical exterior surface on the hub member, and a clamping



screw located intermediate the ends of the spring having a shank threaded in the hub member and a conical head extending through said spring and engageable with the hub member when the screw is in fully advanced clamping position.

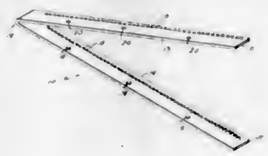
2,782,855
PORTABLE PUNCHING TOOL
Arthur Marcoux, Hermosa Beach, Calif., assignor to Douglas Aircraft Company, Inc., Santa Monica, California
Application May 19, 1953, Serial No. 356,011
3 Claims. (Cl. 164—94)



1. A portable punching tool comprising: a pneumatic hammer, said hammer comprising first piston means adapted to controllably advance a reciprocatable punching die means, second piston means located within said first piston means, said second piston means being adapted to deliver rapid percussions, a force transmitting member disposed in one end of said first piston means so as to receive the rapid percussions of said second piston means and transmit them to the reciprocatable punching die means, and control means arranged to provide independent control of the first and second piston means; frame means attached to said pneumatic hammer for supporting a reciprocatable die means; male punching die means, including a pilot pin, disposed in said frame means and arranged to be controllably advanced by said first piston means to a preselected position whereat the pilot pin will pass through a preformed opening in a workpiece and to receive intermittent blows from said second piston means when the preselected position is attained to punch the workpiece at points about the preformed opening; and female punching die means located in said frame means and disposed in coacting alignment with said male punching die means.

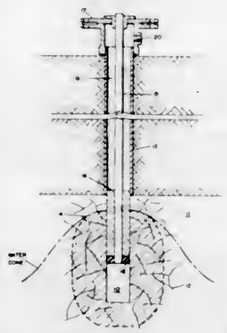
2,782,856
PERFORATING DEVICE
Elizabeth Staley, Albany, N. Y.
Application September 30, 1953, Serial No. 383,304
9 Claims. (Cl. 164—120)

1. In a perforating and punchout device for removing selected pages containing desired data from publications for insertion in a ring binder, the improvement comprising an elongated planular strip of material folded upon itself transversely of its longitudinal axis to provide upper and lower portions adapted to receive a selected page therebetween closely adjacent the line of binding of the page in said publication; and cooperating perforating and punch-out means located in spaced relation in said upper and lower portions longitudinally thereof; said perforating means including a single longitudinal row of closely spaced perforating prong elements disposed adjacent one edge of said lower portion and substantially along the entire length thereof, beginning at a point adjacent the line of fold and terminating adjacent its free end; cooperating apertures for said prong elements, similarly disposed in



said upper portion, cooperatively to receive said prong elements; and at least two widely spaced punch-out members of larger diameter than said prong elements to remove sections of paper from said page aligned longitudinally of said lower portion adjacent the opposite edge thereof, one of which is inwardly disposed from the fold line, and the other of which is inwardly disposed from the free edge of said lower portion; and cooperating apertures for said members, similarly disposed in said upper portion, cooperatively to receive said members, whereby said page simultaneously is adapted to be perforated to provide a tear line, as well as punch-out openings therein of a size readily to receive the rings of a ring binder book cover.

2,782,857
PLUGGING OFF WATER SANDS
Roscoe C. Clark, Jr., Ponca City, and George C. Howard, Tulsa, Okla., assignors to Stanolind Oil and Gas Company, Tulsa, Okla., a corporation of Delaware
Application December 10, 1953, Serial No. 397,348
13 Claims. (Cl. 166—22)

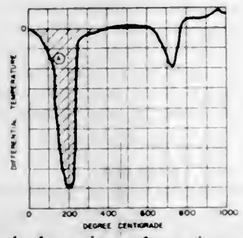


1. A method of plugging off water production from a formation which produces both water and oil comprising injecting into said well a hydrophobic liquid slurry of hydraulic cement, displacing said slurry into said formation and producing said well to cause cement in the water zone of said formation to set when contacted by water.

2,782,858
WELL CEMENTING MATERIALS AND THEIR APPLICATION
Rufus V. Jones, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Application November 24, 1950, Serial No. 197,509
22 Claims. (Cl. 166—31)

1. A hydraulic cement containing a small proportion sufficient to reduce the water loss properties of said cement when slurried of a substituted chitin selected from at least one of the group consisting of the water-soluble salts of chitin sulfate, carboxymethyl chitin and carboxyethyl chitin.

2,782,859
INCREASING THE PERMEABILITY OF EARTHY FORMATIONS
Arthur W. Garst, Tulsa, Okla., assignor to Stanolind Oil and Gas Company, Tulsa, Okla., a corporation of Delaware
Application February 13, 1953, Serial No. 336,805
8 Claims. (Cl. 166—42)



1. A method of treating a formation containing a hydrated argillaceous material to increase its permeability, comprising contacting said formation with a hydrogen donor to cause the adsorbed cations on said argillaceous material to be replaced by hydrogen, and then contacting said formation with a salt of a metal which yields a cation having a diameter greater than 2.69 Angstrom units.

2,782,860
APPARATUS FOR WELL WORKOVER OPERATIONS
Gilbert H. Tausch and James R. Dublin, III, Houston, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N J., a corporation of Delaware
Application October 19, 1953, Serial No. 386,768
10 Claims. (Cl. 166—218)

1. Apparatus for conducting operations in a cased and tubed well without manipulating said tubing which comprises a tubular member having a continuous open passage and sized for movement through the tubing and provided with external sealing means on its upper end, said tubular member being lowerable through and releasably and sealingly secured in the lower end of said tubing to form a continuous open passageway with said tubing, means on the upper end of said tubular member for lowering and retrieving said tubular member in and from said tubing, and a telescoping tubular extension member slidably engageable with its first end with the lower end of said tubular member and with its second end projecting a substantial distance from the second end of the tubular member such that the effective length of said passageway is lengthened when said tubular extension member is in a second position and shortened when said tubular extension member is in a first position, said tubular extension member being adapted to move freely from said first to said second position and vice versa.

2,782,861
HELICOPTER BLADES AND THRUST AUGMENTERS THEREFOR
Constantin Paul Lent, New York, N. Y.
Application June 12, 1952, Serial No. 293,044
4 Claims. (Cl. 170—135.4)

1. In an aerial vehicle including a rotating armature, blades mounted in said armature, said armature mounted upon an upright support, prime mover means for rotating said armature, said prime mover means including a number of rocket engines comprising a combustion chamber and an exhaust nozzle, said engines secured to the outer tips of said blades, propellants delivery means leading to the combustion chamber and means to ignite said propellants in said combustion chamber to produce a reaction force to rotate said blades and said armature respectively; and means to vary the thrust of said rocket engines including a centrally movable core in each of said engines, said core adjustably mounted and movable within said exhaust nozzle of each of said engines, and means to move said core longitudinally within said nozzle.

2,782,862
PROPELLER BLADE
Clifford B. Wright, Tipp City, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 29, 1952, Serial No. 279,372
8 Claims. (Cl. 170—159)

1. A hollow metal propeller blade comprising, a pair of halves symmetrical to each other on opposite sides

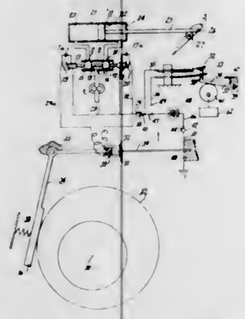
of a plane located longitudinally of the blades and including the area of contiguous surface of each half which plane contains the transverse neutral axis in the spanwise direction therebtween, each half having a semi-cylindrical shank section and an integral airfoil section, each said airfoil section having a leading edge mating surface, a trailing edge mating surface, a tip end mating surface and an inwardly projecting rib portion which is coextensive with one of the said edge surfaces and which merges into said edge surface adjacent the shank portion, said halves being arranged so that mating surfaces of said tip, leading and trailing edges, said shank section, and said rib portions are disposed in contiguous relation to each other, means uniting said halves at the contiguous portions thereof, and interlocking means between the shank sections lying between the circumferences of the shank sections and complementing said uniting means and cooperable with said uniting means such that said sank sections may better sustain the shear loads imposed thereon during rotation of the propeller blade.

2,782,863

PROPELLER GOVERNOR MECHANISM

Paul J. Christy and Albert P. Dinsmore, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application August 2, 1952, Serial No. 302,442
9 Claims. (Cl. 170—160.17)



2. In a variable pitch propeller of the type having a rotatable hub, a plurality of blades journaled in said hub for movement about their longitudinal axes, a regulator attached to and rotatable with said hub, a nonrotatable, eccentric member disposed within said regulator, a lever disposed in and rotatable with said regulator, said lever having a surface in engagement with said eccentric member, a source of electrical energy, a source of fluid under pressure, torque unit means within said hub and operatively connected with said blades for effecting pitch changing movements thereof, valve means in circuit connection between said source of fluid pressure and said torque unit means for effecting movement thereof, said valve means being electrically actuated, and switch means disposed within said regulator and rotatable therewith, said switch means being actuated in part by said lever and in part by centrifugal force due to rotation of said regulator for effecting energization of said valve means.

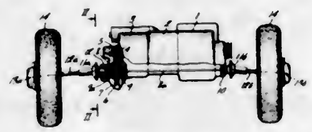
2,782,864

PROPELLING UNIT FOR MOTOR VEHICLES WITH INDEPENDENT SUSPENSION DRIVING WHEELS

Antonio Fessia, Milan, Italy, assignor to Fiat Societa per Azioni, Turin, Italy

Application September 29, 1953, Serial No. 383,018
Claims priority, application Italy November 27, 1952
3 Claims. (Cl. 180—55)

1. A propelling unit for a motor vehicle having independently-suspended driving wheels disposed on an axis extending transversely to the longitudinal axis of the vehicle, comprising, in combination, a flat engine having cylinders having axes disposed in a common plane, an engine driven shaft extending transversely of the vehicle longitudinal axis and superposed with respect to the axis of the driving wheels, reduced speed transmission shaft means substantially coaxial with the axis of the driving wheels, means disposed adjacent one side of the vehicle and adapted for transmitting rotation from said engine driven shaft to said reduced speed shaft means, shafts



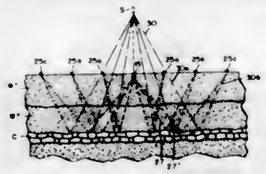
for transmitting the drive from said reduced speed shaft means and last mentioned means to said driving wheels, and universal joints for connecting said reduced speed shaft means and said last mentioned means to said shafts transmitting the drive to said wheels, said reduced speed shaft means comprising a torque bar disposed transversely of the vehicle adjacent one side of the engine between said means for transmitting rotation from said engine driven shaft to said reduced speed shaft means and a universal joint disposed on the other side of the vehicle.

2,782,865

METHOD OF GEOPHYSICAL EXPLORATION

John J. Jakosky, Los Angeles, Calif., assignor, by direct and mesne assignments, of forty percent to International Geophysics, Inc., Los Angeles, Calif., a corporation of California, and sixty percent to Signal Oil and Gas Company, a corporation of Delaware

Application May 6, 1952, Serial No. 286,391
6 Claims. (Cl. 181—.5)



1. In seismic exploration, the method of making records from which characteristics of subterranean strata may be determined, which comprises creating at the earth's surface a first explosion impulse, creating above the earth's surface a second explosion impulse at a predetermined distance and time interval from said first explosion impulse, and sequentially recording at horizontally spaced aligned points along the earth's surface the resultant seismic waves created by said respective explosion impulses and the seismic waves reflected from said strata.

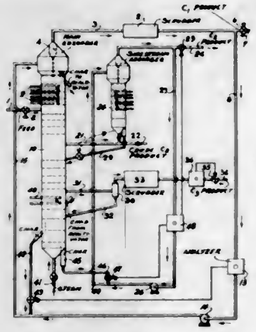
2,782,866

CONTROLLED ADSORPTION PROCESS AND APPARATUS

Lewis D. Etherington, Cranford, Harvey E. W. Burnside, Locust, and James W. Brown, Mountainside, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application June 9, 1954, Serial No. 435,562
9 Claims. (Cl. 183—4.1)

1. A continuous adsorption process for separating a gaseous feed mixture into at least two of its components which comprises introducing said feed mixture at a substantially constant volumetric rate into an intermediate portion of a vertically elongated adsorption zone, passing said feed mixture upwardly through said zone, introducing finely divided solid adsorbent into an upper portion of said zone, passing said adsorbent downwardly through said zone in countercurrent flow with respect to said feed mixture, maintaining said adsorbent in said zone as a multiplicity of superimposed stages each of which contains a densely fluidized transverse bed having an upper level and a more dilute solid-in-gas suspension thereabove, withdrawing a fraction containing the separated relatively less adsorbable of said feed components from an upper portion of said zone at a rate controlled to maintain a substantially constant pressure at the top of said contacting zone, passing the adsorbent containing the relatively more adsorbable feed component from the bottom portion of said adsorption zone to a desorption zone, desorbing said relatively more adsorbable feed component from said adsorbent in said desorption zone, removing a fraction containing said desorbed component from an upper portion of said desorption zone, returning the resulting regenerated adsorbent to the upper portion of said adsorption zone, passing said withdrawn less adsorbable fraction to and continuously analyzing it in a gas analyzing zone, and controlling the purity of the withdrawn less adsorbable fraction by automatically adjusting the recirculation rate of the regenerated adsorbent to the top of the adsorption zone in response to and in direct relation to the analytically determined concentration of the more adsorbable components persent in said less adsorbable fraction.

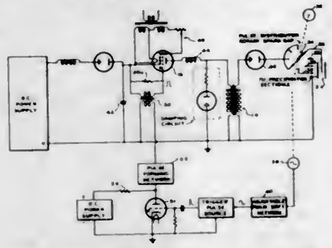


2,782,867

PULSER CIRCUIT

Herbert J. Hall, Hopewell Township, Mercer County, N. J., assignor to Research Corporation, New York, N. Y., a corporation of New York

Application September 3, 1952, Serial No. 307,588
7 Claims. (Cl. 183—7)



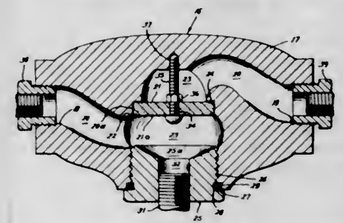
4. A pulse-charging system for energizing an electric precipitator comprising pulse-forming circuit elements including capacitor means, circuit elements including a series inductance means connecting a source of unidirectional current across said capacitor means, pulsing circuit elements including a thyratron having a control grid and an inductance means connected in series across said capacitor means, said inductance means being supplied by the plate current of the thyratron the cathode of said thyratron and one side of said capacitor being associated with the negative side of said source of unidirectional current means for supplying periodic triggering pulses to the grid of said thyratron to periodically fire same, and circuit elements including a unidirectional current passing device connecting said pulsing circuit with complementary electrodes of a precipitator device.

2,782,868

FILTER

Royce Hopkins, Houston, Tex.

Application June 1, 1954, Serial No. 433,550
1 Claim. (Cl. 183—61)



A filter for cleaning a stream of gas comprising, a one piece oval shaped body having an in line inlet and outlet, a streamline interconnecting passageway between the inlet and outlet, a turn in said passageway, said filter adapted to be positioned in a flow line with the section of the passageway immediately downstream of said turn extending upwardly from the turn, said passageway at the turn increasing in diameter to provide a generally flat spherical shaped expansion chamber with the passageway upstream of the chamber opening into the side wall of the lower section of the chamber, a sintered metal powder filter element extending across the chamber at an intermediate point thereof and above the point where the upstream portion of the passageway enters the chamber, said filter element seated on a downwardly facing shoulder with its upstream side facing downwardly so that filtered matter will tend to gravitate therefrom, a plug having a diameter greater than the diameter of the filter element and releasably secured in a bore opening into the passageway at the turn and below the filter element, said plug having a depression in its nose forming a portion of the spherical chamber and providing a trap in which filtered matter which drops from the upstream face of the filter element may collect, said plug when removed providing access to the filter element for replacement thereof, and venting means for inducing reverse flow of gas downstream of the filter element to clean out the element and the trap.

2,782,869

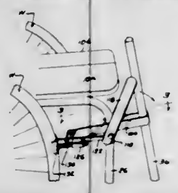
PREPARATION OF SILICA GELS

Earl H. Gray, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application July 2, 1951,
Serial No. 234,899
43 Claims. (Cl. 183—114.2)

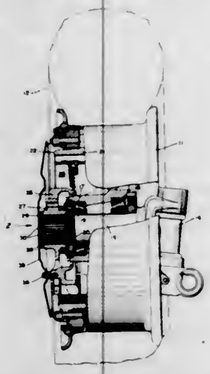
14. A process for removing a hydrocarbon from a gaseous stream which comprises passing said gaseous stream over a gel-type adsorbent which was precipitated in the presence of the hydrocarbon to be removed, said hydrocarbon selected from the group consisting of benzene and substituted benzene, said substituted benzene having at least one attached acyclic hydrocarbon radical, the total number of carbon atoms in the substituents not exceeding six.

2,782,870
BRAKE FOR INVALID'S CHAIR
George A. Sill, Elgin, Ill., assignor to The Sta-Firm Chair Corporation, Elgin, Ill., a corporation of Illinois
Application May 7, 1953, Serial No. 353,538
3 Claims. (Cl. 188—2)



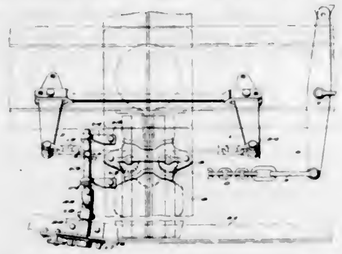
1. A brake device for a wheel chair of the type having a pair of side frames, a seat, a back and a pair of large side support wheels, said device including a clamp member, a bolt for fastening said clamp member to one of said side frames, said clamp member having a leg extending toward one of said support wheels, said leg having an end bent transversely thereto, an operating handle mounted on said bolt, a lever pivotally connected thereto below said bolt, an opening in the transverse end of said leg member, said lever extending therethrough, a lug carried on the side of said lever, said lug having an opening therethrough, a rod reciprocably movable through said opening, a brake shoe connected to one end of the same and a coiled spring on said rod between one side of said lug and said brake shoe.

2,782,871
WHEEL STRUCTURE WITH NON-ROTATING HUB CAP
Hans O. Schjolin, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 25, 1953, Serial No. 382,247
1 Claim. (Cl. 188—18)



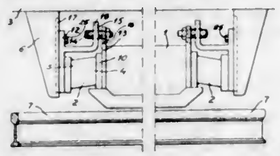
A wheel structure with a non-rotating hub cap or cover plate for a vehicle, comprising, in combination, a non-rotatable wheel axle having a plurality of splines at an outboard end thereof, a wheel rotatably journalled on said axle, a brake drum mounted on said wheel and rotatable therewith, an internally splined hub affixed to the external splines on said axle, an annular spider member mounted rigidly on said hub, a brake shoe assembly supported by and operatively attached to said spider member, said shoe assembly being stationary and supported by said spider member relative to said brake drum rotatable with said wheel, and a hub cap attached to said spider member serving as a non-rotatable cover plate extending radially outwardly beyond said brake drum and spaced from the outboard end of said brake drum and said wheel to form an annular space therebetween and permit air to circulate through the space to the brake drum and shoe assembly.

2,782,872
BRAKE RIGGING
Ernest G. Goodwin, Toledo, Ohio, assignor to Unitcast Corporation, Toledo, Ohio, a corporation of Ohio
Application March 10, 1950, Serial No. 148,861
6 Claims. (Cl. 188—33)



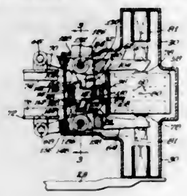
1. The combination in a brake rigging for a railway car having a truck provided with a bolster pivotally connected to a body bolster of the underframe of the car, of live and dead levers pivotally mounted on respectively opposite sides of the truck bolster, a fulcrum lever for imparting a braking force to said live and dead levers, a member mounted on the under-side of the body bolster, a pair of sheaves carried by said member and a pair of chains, each chain being passed around one of said sheaves, said chains constituting the means through which a braking force is delivered to the live lever from said fulcrum lever and through which said dead lever is deaded.

2,782,873
DEVICE IN ELECTRICAL RAIL BRAKES
Sverre Smith, Eksjo, Sweden, assignor to Aktiebolaget Eksjoverkan, Eksjo, Sweden
Application July 31, 1952, Serial No. 301,851
2 Claims. (Cl. 188—41)



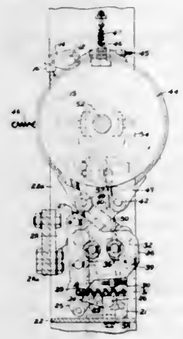
1. In railroad vehicle brake system the combination of a magnetic rail brake shoe, supporting brackets suspended from the vehicle near the respective ends of said brake shoe, guiding means between the respective ends of said brake shoe and the adjacent brackets permitting vertical movement of said brake shoe between an elevated inoperative position in which the brake shoe is spaced from the rail and a depressed operative position in which the brake shoe is magnetically attracted to the rail, and elastic elements connecting said brake shoe to said brackets, said elements being pretensioned in the direction to hold said brake shoe normally in its inoperative position, said elastic elements each comprising a single rubber block interposed longitudinally of said brake shoe between each end of said brake shoe and the adjacent one of said brackets so as to transfer from said brake shoe to said bracket under compression and tension respectively the entire braking force occurring in the longitudinal direction of said brake shoe, each of said two rubber blocks having opposite surfaces secured to said brake shoe and said related bracket, respectively, to permit simultaneously, under torsion, angular adjustment of said brake shoe about a longitudinal axis nearly coincident with the longitudinal center of gravity line of said brake shoe, each of said two rubber blocks having a substantially rhomboidal longitudinal cross section when said brake shoe is in its inoperative position and a substantially parallelogrammatic longitudinal cross section when said brake shoe is in its operative position.

2,782,874
HAND BRAKE
William J. Casey III, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application October 25, 1950, Serial No. 192,101
7 Claims. (Cl. 188—59)



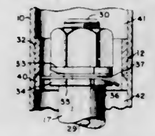
1. In a brake arrangement for a railway car truck, a pair of levers pivoted about vertical axes, a lever arm extending from each lever toward the other, the lever arms being operative for swinging the levers in response to a force applied to the lever arms in direction longitudinally of the levers, a rack between the levers for so applying the force having oppositely projecting teeth and each overlapping an adjacent lever arm, said lever arms having involute gear tooth surfaces and said teeth having gear surfaces engaging the gear tooth surfaces along vertical tangential surfaces, and an actuating lever operatively associated with said rack for moving the same in said direction, said actuating lever and rack having engagement with each other along vertical tangential surfaces, said rack having movement about infinite vertical axes and such movement being limited only by engagement by said surfaces.

2,782,875
STEERING MECHANISM FOR CRAWLERS
Robert E. Gerber, Indianapolis, Ind., assignor to Insley Manufacturing Corporation, Indianapolis, Ind., a corporation of Indiana
Application April 13, 1955, Serial No. 501,127
7 Claims. (Cl. 188—77)



1. In brake mechanism having a brake drum and a brake band embracing the drum, the improvement which comprises a link and lever assembly interconnecting the ends of the brake band, a pivotally mounted spring tensioned bracket for said assembly normally held by the spring in brake released position, and means for rocking said bracket, said last means including a toggle which, when straightened rocks said bracket to apply the brake and tensions the spring.

2,782,876
PISTON VALVE FOR HYDRAULIC DAMPERS
George W. Crabtree, Cleveland Heights, Ohio
Application March 15, 1952, Serial No. 276,772
5 Claims. (Cl. 188—88)



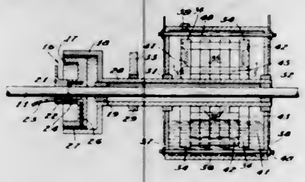
1. A valved piston structure for hydraulic shock absorbers of the cylinder piston type comprising a piston having an axial bore, resilient valve disk means within said bore fitting same and arranged crosswise thereof, said valve disk means embodying a plurality of thin, resilient valve disks differentiating in area with respect to each other with the largest of said valve disks dimensioned to fit the bore in said piston, backing elements at opposite sides of the valve disk means, and means coupling the backing elements and valve disk means with the piston, said backing elements including central areas in direct contact with central portions of the valve disk means, and laterally offset local areas spaced from lateral portions of the valve disk means and arranged in laterally offset relation to said central areas, the laterally offset areas permitting a limited localized deflection of a portion of the valve disk means when subjected to hydraulic pressure, which deflection causes forming of a pressure-responsive, variable crescent-shaped fluid passage through the valved piston structure between the wall of the bore of the piston and the edge of the deflected valve disk means.

2,782,877
SPRING CONTROLLING UNIT
George W. Crabtree, Cleveland Heights, Ohio
Application May 1, 1953, Serial No. 352,520
2 Claims. (Cl. 188—88)

1. In a double acting, hydraulic spring controlling unit with cylinder means and valved piston means controlling the flow of liquid in said cylinder means, a piston rod, a tubular liquid storage element, and a valve-controlled, elongated nut member securing the piston rod and tubular liquid storage element to each other and to the valved piston means, said piston rod having an axially perforated, threaded end portion extended through the valved piston means and threadedly engaged with one end of the elongated nut member, said elongated nut

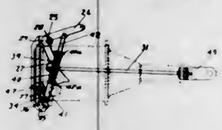
member including at its other end check valve means embodying a screw-like body coupled with the tubular liquid storage element and threadedly engaged with the elongated nut member.

2,782,878
SPEED RESPONSIVE HYDRAULIC BRAKE
William Hancock, Knoxville, Iowa
Application March 27, 1952, Serial No. 278,867
3 Claims. (Cl. 188—183)



1. Braking means for a motor vehicle comprising, a drive shaft rotatably suported by said vehicle, a cylindrical member rotatably supported concentric about said drive shaft, a clutch member between the drive shaft and cylindrical member to selectively impart rotation from the drive shaft to the cylindrical member, a container attached to the vehicle and concentric about the cylindrical member and rotatably engaged therewith, a plurality of groups of radially extending paddles attached to said cylindrical member within the container, fluid within said container, a first longitudinal paddle attached to each group of radially extending paddles, and a second longitudinal paddle connected to the radially extending paddles and slidable radially relative thereto, longitudinal slots formed in the outer of said radial paddles, guide means attached to both ends of said second longitudinal paddle, and said guide means received in said longitudinal slots.

2,782,879
OPERATING MECHANISM FOR AUTOMATIC SLACK ADJUSTER
George B. Dorey, Montreal, Quebec, Canada, assignor to Continental Transport Appliances, Limited, Montreal, Quebec, Canada, a company of Canada
Application June 30, 1954, Serial No. 440,426
5 Claims. (Cl. 188—196)

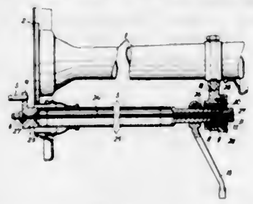


4. In a slack adjuster for taking up slack in the brake leverage system of a railway car having a power cylinder and an operating rod actuated thereby for applying the brake and a take up device in the leverage system operable by rotation for taking up slack in the system, said device including a swinging lever and ratchet rotating means for rotating the take up device by swinging movement of the swinging lever; the herein described improved mechanism for operating the take up device including a support bracket stationarily mounted with respect to the cylinder; a bell crank lever pivoted on the bracket and having one arm connected with the lever of the take up device and the adjacent arm connected with the operating rod; a pawl pivotally mounted on the bracket at a location remote from the pivot of the bell crank lever adapted to holdingly engage with the swinging edge of one of the lever arms, and a spring connected with the pawl and with the bell crank lever for moving the latter in a direction to operate the take up device and also bias the pawl into holding engagement with the bell crank lever, said spring being energized by movement of the bell crank lever under the influence of the operating rod moving in a brake applying direction, and said pawl being arranged and adapted to holdingly engage with the edge of an arm of the bell crank lever for retaining the spring energized independently of the operating rod and holding said spring energized until a predetermined extent of movement of the operating rod is attained.

2,782,880
AUTOMATIC SLACK ADJUSTER FOR RAILWAY BRAKE RIGGING
Henry Kump, Berwick, Pa., and William F. Dietrichson, Garden City, N. Y., assignors to American Car and Foundry Company, New York, N. Y., a corporation of New Jersey
Application October 3, 1952, Serial No. 313,006
12 Claims. (Cl. 188—200)

12. In a slack adjuster for railway car brake rigging having a cylinder push rod, a brake lever fulcrum member, yieldable interengaging means adjustably locking said fulcrum on said cylinder push rod, means for automatically adjusting the position of said brake lever fulcrum member on said push rod comprising shiftably mounted means on the car slidably engageably with said fulcrum member when the push rod travels beyond its normal forward stroke due to excess slack in the brake rigging, and means fixed to said push rod adapted to hold said shiftably mounted means rigidly engaged with the adjustable brake lever fulcrum member during the initial portion of the return stroke of said push rod.

2,782,881
VEHICLE BRAKE
Albert E. Roller, Stuttgart, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application April 13, 1954, Serial No. 422,954
Claims priority, application Germany April 17, 1953
8 Claims. (Cl. 188—216)



1. In combination with a vehicle having wheels and a hydraulically operated brake mechanism for said wheels including one internal brake for each of said wheels and adapted to act on said wheels, an additional hand brake mechanism for at least some of said wheels comprising one hollow shaft intermediate said wheels for each wheel included in the additional hand brake mechanism and connected to a corresponding one of said internal brakes, a spring within said hollow shaft, and means for turning said shaft to apply said brake and for simultaneously tensioning said spring so that, when said turning means are released, said spring retracts said brake and returns said shaft to its original position.

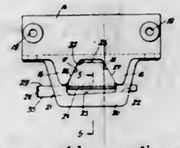
2,782,882
BRAKE BEAM
Hilding C. Carlson, Hammond, Ind., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application November 26, 1951, Serial No. 258,127
1 Claim. (Cl. 188—225.6)

A railway brake beam comprising a truss structure including a compression member, generally U-shaped in cross section, a substantially V-shaped tension member, and a separable strut connected therebetween, said compression member having a rear wall with top and bottom webs projecting forwardly therefrom, the ends of said wall and webs having notches therein, the notches in said webs being substantially normal to the notches in said wall, said wall and webs additionally presenting at the ends thereof rearwardly converging substantially flat surfaces, said tension member having opposite end locking portions presenting rearwardly converging substantially flat surfaces removably engaging respective surfaces of the compression member, the surfaces of each of said locking portions having three spaced lugs removably seated in the related notches of the compression member, the engagement between said lugs and notches being a separable interlocking engagement whereby upon detachment of said strut the tension member may be bent toward straight line configuration thereof to release said lugs from the related notches and said surfaces from interengagement to accommodate separation of the compression and tension members from each other by sliding said tension member forwardly away from said compression member.

2,782,883
REPLACEABLE INSERT
Joseph Rosan, Balboa Island, Calif.
Application May 2, 1952, Serial No. 285,739
4 Claims. (Cl. 189—34)

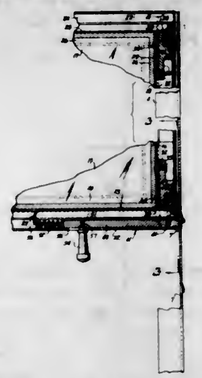
1. In combination, a body of material and an insert of relatively harder material, said insert comprising: a substantially cylindrical, axially inner section having exterior screw threads on a portion thereof and terminating in a circumferentially substantially smooth inner end; an integral outer section having an enlarged, smooth, annular, circular flange portion of a greater diameter than the outer diameter of said screw threads and a smooth, annular, circular locking-channel portion of less diameter than the root diameter of said screw threads, said insert being molded in said body of material with the outer end of said outer section flush with a surface of said body, and means on said insert for receiving a fastening element for securing said body to an object, said flange and locking-channel portions forming with the surrounding body of material radially interlocking portions preventing axial displacement of said insert relative to said body and said screw threads cooperating with said interlocking portions to prevent rotation of said insert relative to said body, said insert being capable of removal by drilling a hole through said outer section of a diameter at least as large as the outside diameter of said screw threads and of sufficient depth to intersect with said screw-threaded inner section to destroy said radially interlocking portions, whereupon said inner section may be unscrewed from said body of material.

2,782,884
DETACHABLE JOINT MEANS FOR RIGIDLY CONNECTING AN IMPLEMENT TO A TRACTOR
Heinrich G. F. Roessler, Gaggenau, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application January 31, 1952, Serial No. 269,219
4 Claims. (Cl. 189—36)



4. A readily disengageable coupling having a bracket member for connection with a tractor and a male member for connection with an agricultural implement to be pushed by said tractor in front thereof, said bracket member having a base plate, a pair of vertical parallel ridges with opposed inclined sides relative to each other and a bridging member integral with and extending across said ridges at a distance from said base plate, a portion of said base plate, said ridges and said bridging member forming a female member for receiving said male member, said bridging member being provided with a pair of spaced lateral openings contiguous with the internal top face of said bridging member, the axes of said openings being essentially aligned and parallel to said internal top face and extending in the direction of said bridging member across said ridges, said male member being of complementary shape with said female member for full contact with said opposed inclined sides but of lesser dimension in the direction of said distance and provided with a transverse groove extending essentially parallel to said aligned axes with said male member inserted in its assembled position in said female member, and a wedge member for insertion into said lateral openings to hold said male and female members in fixed position against relative angular movement about an axis parallel to said ridges, said wedge member extending transversely of said male member and being supported by said bridging member to prevent deformation of said wedge member as a result of the moment around the vertical axis of the male member produced by forces on said implement during pushing thereof.

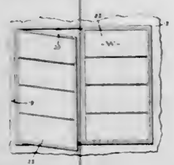
2,782,885
METAL WINDOW AND WEATHER STRIP CONSTRUCTION
Henry J. Bianco, Baltimore, Md., assignor to The Burch Company, Baltimore, Md., a corporation of Maryland
Application June 30, 1953, Serial No. 365,055
10 Claims. (Cl. 189—72)



1. A metal window sash adapted to slide vertically in spaced U-shaped guide tracks, comprising: a top rail; a

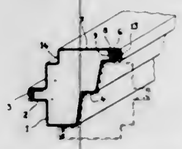
bottom rail; a pair of vertical side rails positioned in between said top and bottom rails; weather strips for sealing the spaces between said window sash and said guide tracks; and common means carried by said side rails for securing said top rail, said bottom rail and said weather strips to said side rails.

2,782,886
MOUNTING FOR STEEL WINDOW FRAMES
John R. Coleman, Long Beach, Calif.
Application July 8, 1953, Serial No. 366,794
4 Claims. (Cl. 189—75)



1. A window structure, comprising: a wall having an opening therein, the front portion of said wall being covered by siding material and the inwardly-facing surfaces of said opening being covered by finishing material; a generally Z-shaped in cross-section metal window sash disposed in the front portion of said opening and having a flat intermediate section parallel with the adjacent inwardly-facing surface of said opening; a transverse projection formed on the rear end of said sash in line with said rear transverse flange and extending toward the adjacent inwardly-facing surface of said opening; a front transverse flange formed on the front portion of said sash and extending away from said opening with its front surface substantially coinciding with the front surface of said siding material, the latter material extending behind said last-mentioned flange so as to assist in holding said sash in place, and said finishing material engaging said projection so as to assist in holding said sash in place; a metal surround that secures said sash in place until said siding and finishing material is applied, said surround including an elongated, flat base attached to the front surface of said wall before said siding and finishing material is applied so as to extend into said opening, and a forwardly-extending leg integrally formed on the end of said base that extends into said opening, said siding and finishing material covering said surround to as to protect it from the elements; and attachment means for securing said leg to said sash.

2,782,887
WINDOW CONSTRUCTION
Friedrich Zimmermann, Troisdorf, Germany
Application February 9, 1952, Serial No. 270,798
5 Claims. (Cl. 189—75)

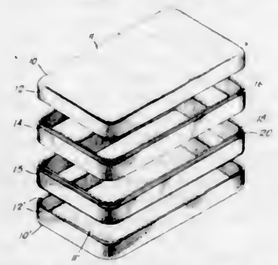


1. A new construction for window frames and sashes comprising a structural hollow metal shell having a terraced profile on at least one side thereof and a window supporting ledge extending from the opposite side thereof, said shell containing a foam insulating material foamed to substantially completely fill the interior thereof and self-bond to the metal shell.

2,782,888
INTERLOCKING SIDING
Edwin M. Rodenbaugh and Fred W. Boyles, Mount Lebanon Township, Allegheny County, Pa., assignors to Produx, Inc., Pittsburgh, Pa., a corporation of Pennsylvania
Application February 3, 1953, Serial No. 334,902
6 Claims. (Cl. 189—86)

1. In a joint formation between overlapped upper and lower sections included in a clapboard wall, an upwardly open U-shaped portion formed in the upper end of the lower section, a nailing flange forming an upward continuation of one of the legs of the U-shaped portion, a laterally outwardly offset loop integral with the other leg of the U-portion and having a skirt contiguous therewith and extending in parallel relationship downwardly therefrom, said upper section including a laterally offset clapboard portion defining an outwardly sloping body portion having an inturned ledge in the lower end thereof and having an upturned fulcrum nose provided at the inner edge of the ledge which at least in an initial position engages the lower section substantially at the junction between the offset loop and the skirt, and a downwardly opening groove forming portion carried by the fulcrum nose and accommodating the loop therein, said groove portion being wider than the loop and directly engaging the outwardly offset portion thereof along their resulting area of interfaced contact when rocked thereagainst in assuming the final position of the upper section about the fulcrum nose as a center.

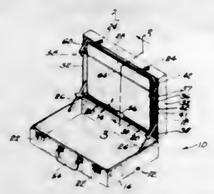
2,782,889
LIGHTWEIGHT LUGGAGE
Jack Eber, Bronx, N. Y.
Application July 8, 1955, Serial No. 520,781
2 Claims. (Cl. 190—28)



1. In luggage of the character described, a pair of similar outer one-piece cast parts, each part comprising an outer wall and a peripheral wall disposed angularly to the outer wall, a pair of substantially similar O-shaped one-piece hollow frames, one edge of each frame having a groove at the outer surface thereof to receive the free edge portions of the peripheral walls of said cast parts

and secured to said frames with outer surfaces of the case parts and frames flush, the other edge portion of one of said frames having a groove on its outer surface to receive a part at the adjacent edge of the other frame in flushly alining the outer surfaces of the frames one with respect to the other when the case parts, including the frames, are in closed position, and the case parts and frames being all of substantially the same depth.

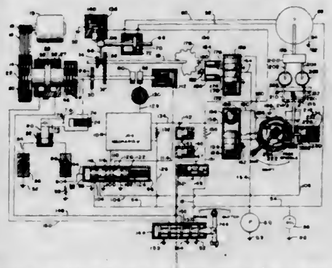
2,782,890
BRIEF CASE
Robert W. Powell, Winnetka, and Sherwin Tirsky, Northbrook, Ill., assignors to National Briefcase Mfg. Co., a corporation of Illinois
Application September 1, 1955, Serial No. 532,057
5 Claims. (Cl. 190—51)



1. In a brief case unit, the combination comprising a box type case having a boxlike body housing with an inverted boxlike lid hinged thereon, an inner underarm type case disengageably received in said lid and having a pair of opposed walls movably jointed along one edge of said inner case and separable along the opposite edge thereof, said inner case having slide fastener means disengageably interconnecting said walls, said lid having side, front and rear walls arranged in boxlike fashion and surmounted by a top wall, a retaining lug mounted on said rear wall and projecting forwardly from the lower end portion thereof for engaging and retaining said one edge of said inner case, a retaining bail having arms swingably mounted on said side walls and a bail rod element extending between said arms, said bail being swingable over the opposite edge of said inner case to retain said inner case in said lid when said inner case is closed, said bail being swingable away from said inner case to release the same, and disengageable latching means on said side walls for retaining said bail in position over said inner case, said inner case including a fan file housed therein and extending between said walls thereof, said fan file including flexible end elements extending between said walls of said inner case and divider means extending between said flexible end elements, said fan file being movable into open position by separation of said walls of said inner case, said bail also being movable over the one of said walls of said inner case to retain said inner case adjacent said top wall of said lid in said lid when said fan file is open.

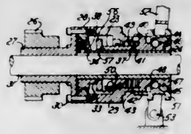
2,782,891
SAFETY CONTROLS
Bernard Sassen, Sidney, Ohio, assignor to The Monarch Machine Tool Company
Application September 24, 1952, Serial No. 311,195
8 Claims. (Cl. 192—4)

1. In a power operated gear shifting mechanism, a selector valve, locking means for said selector valve a gear train having an input and an output shaft, a speed responsive device connected to said gear train arranged to prevent gear shifting while said gear train is rotating above a predetermined speed, said speed responsive device comprising a pump which displaces fluid substantially proportionately to the speed of one member of said gear train and discharges it through an orifice, and a speed valve connected between said pump and said orifice and having means to permit releasing of said locking



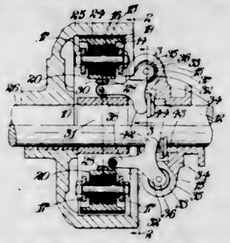
means so that said selector valve may be caused to select.

2,782,892
TRANSMISSION MECHANISM EMPLOYING A POSITIVE CLUTCH ENGAGING ELEMENT
Gilbert H. Hannon, Green Bay, Wis.
Application February 17, 1954, Serial No. 410,890
13 Claims. (Cl. 192—30)



1. A transmission mechanism comprising a drive member, a driven member mounted in coaxial relationship with said drive member, a clutch element, means pivotally connecting said element with only one of said members to move from a position substantially normal to the axis of movement of said one of said members to an angular position inclined to said axis of movement of said one of said members, stop means provided on the other of said members to engage said element when moved into said angular position, clutch element engaging means provided on said other of said members for limited axial movement along said other of said members, means for causing said clutch element engaging means to rotate with said other of said members, and means for moving said clutch element engaging means into engagement with said element and to move said element to said angular position against said stop to lock said element and said members together to move in unison.

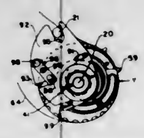
2,782,893
FRICTION CLUTCHES WITH TORSIONAL RESILIENT MOUNTINGS
Charles Wallace Chapman, Burstow, near Horley, England, assignor to Compression Ignition Limited, Twickenham, England, a British company
Application January 13, 1953, Serial No. 331,085
Claims priority, application Great Britain January 25, 1952
6 Claims. (Cl. 192—76)



1. A friction coupling comprising two rotatable members, a drum fixed to one of said members, a hub fixed

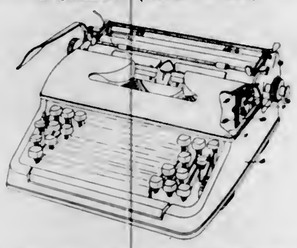
to the other, a number of friction shoes disposed within said drum, a supporting arm, a pivotal connection securing each said shoe to said supporting arm, a pivotal connection securing each supporting arm to said hub, each of which pivotal connections comprises a torsionally resilient bush arranged with its axis parallel to the axis of rotation of the coupling, and which torsionally resilient connections on said bush are arranged to tend to withdraw the shoes from the drum, an operator controlled member having associated therewith a number of adjustable parts arranged respectively to engage said shoes and all engaging an abutment adjustably mounted on the control member, pivotal connections between said adjustable parts and the control member which connections comprise torsionally resilient bushes tending to move said adjustable parts out of engagement with said abutments and into a clutch engaging position.

2,782,894
PIN TYPE FEEDING DEVICE
Albert W. Metzner, Dayton, Ohio, assignor to The Standard Register Company, Dayton, Ohio, a corporation of Ohio
Application October 25, 1952, Serial No. 316,858
13 Claims. (Cl. 197—133)



1. A platen assembly for a writing or like machine, including a rotatable shaft, longitudinally spaced apart body members mounted on said shaft for unison rotation therewith, a platen supported on said body members for unison rotation therewith, strip feed devices rotatably mounted on said body members and radially adjustable with respect to the longitudinal axis of said platen, and rotary driving connections between said platen and said feed devices alternatively established and discontinued by radial adjustment of said devices.

2,782,895
DETACHABLE COVER HOOD FOR A TYPEWRITING MACHINE
Otto Winter and Guido Dassler, Wilhelmshaven, Germany, assignors to Olympia Werke Aktiengesellschaft, Wilhelmshaven, Germany, a corporation of Germany
Application February 17, 1954, Serial No. 410,997
Claims priority, application Germany February 21, 1953
3 Claims. (Cl. 197—186)

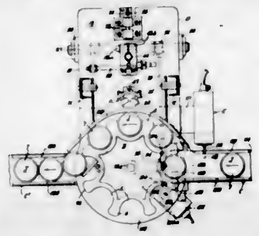


1. In a typewriter, the combination with a casing housing automatic ribbon mechanism and the operative connections between the keys and the type bars, of a cover hood and means for detachably and pivotally supporting said cover hood upon said casing; said supporting means comprising pegs and means securing the same to and spaced below the top surface of said cover hood adjacent the rear at each side thereof, plates secured to the opposite sides of said casing and provided with horizontal forwardly opening sockets for receiving the respective pegs, vertically movable slides mounted on said plates and spring means urging said slides upwardly into position to block the openings of said sockets after insertion of said pegs therein.

2,782,896
SAFETY LANDING FOR MOVING SIDEWALK
Myron A. Kendall and Alfred D. Sinden, Aurora, Ill., assignors to Stephens-Adamson Mfg. Co., a corporation of Illinois
Application June 1, 1953, Serial No. 358,837
3 Claims. (Cl. 198—16)

1. In a conveyor system, the combination of an endless conveyor having a continuous ribbon belt presenting a relatively smooth transport surface moving in a forward direction, a landing at least a portion of which is in longitudinal alignment with the transport surface and including a fixed support, and means for closing the space between the transport surface and the landing in the area where transfer between the transport surface and the landing is to be effected, said means including a flexible strip extending across substantially the entire width of said transfer area and having one edge anchored to the fixed support and a relatively pointed sealing edge projecting in a rearward direction over the transport surface in close proximity thereto with said sealing edge being positioned only slightly below the level of said transport surface whereby articles or foreign matter tend to ride over the sealing edge, but if entering the gap between the flexible strip and the transport surface tend to deflect the sealing edge of said strip upwardly away from the transport surface rather than downwardly into engagement with it, said flexible strip having a stiffness at least as great as rubber of durometer hardness 50, whereby any tendency of said sealing edge to curl under and assume a trailing position is substantially eliminated.

2,782,897
JAR-CAPPING APPARATUS
Arthur H. Filander, Baltimore, Md., assignor to Franklin Balmar Corporation, a corporation of Delaware
Application August 31, 1953, Serial No. 377,483
2 Claims. (Cl. 198—22)



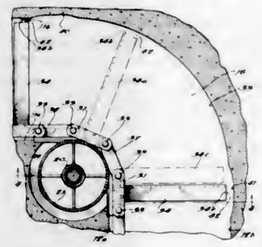
1. In jar-capping apparatus, a conveyor for delivering jars; a rotatable jar feeder having a predetermined period of dwell and provided with a plurality of pockets to receive jars from the conveyor; driving mechanism for the feeder including a toothed ratchet wheel connected with the feeder and a reciprocating arm having a pawl adapted to engage said teeth to rotate the wheel; a finger disposed along the conveyor and arranged to move toward and away from the jar delivery path; a solenoid for moving the finger including a coil and a

core connected with the finger and a spring connected with the core to urge the finger out of the delivery path when the solenoid is de-energized; and a switch electrically connected with said coil having a contact arm engageable with first said arm, the switch being arranged so that when the two said arms are engaged the switch is closed to energize the solenoid, whereby the finger is moved into the jar delivery path, said engagement taking place for a predetermined period just before said pawl engages a tooth.

2,782,898
COLLATING MECHANISM
Abraham Novick, Flushing, N. Y., assignor to F. I. Smithe Machine Co., Inc., New York, N. Y., a corporation of New York
Application April 14, 1955, Serial No. 501,416
7 Claims. (Cl. 198—35)

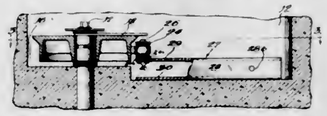
1. A mechanism for rearranging spaced out blanks into fanned out relation for marginal gumming so that each blank overlaps its predecessor, in combination, slow feeding means comprising a slow moving conveyor, rollers forming with the conveyor a feed bight, the conveyor being adapted to feed the blanks in fanned out relation and at a comparatively low level, and relatively fast feeding means disposed to advance each blank at a relatively high level over the preceding blanks which are already in the feed bight of the slow feeding means, said fast feeding means including a feed member disposed above the blank feed path and near enough to the feed bight to control and continue the feeding of each blank through engagement with the upper face thereof until it has been obstructed by engagement with the feed bight forming rollers of the slow feeding means, the construction and arrangement being such that each blank is caused to arrive at the feed bight on a definite time schedule, to be substantially squared at the bight, and to be thereafter taken under positive control by the slow feeding means.

2,782,899
CONTINUOUS CONVEYOR TYPE BARN GUTTER CLEANERS
Robert L. Yuenger, Harvard, Ill., assignor to Starline, Inc., a corporation of Illinois
Application October 25, 1954, Serial No. 464,394
6 Claims. (Cl. 198—171)



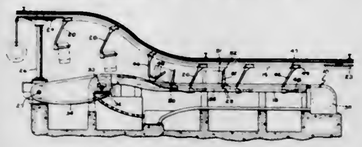
1. A barn gutter cleaner comprising: a continuous depressed gutter having two troughs disposed at an angle to one another; a guide member having an arcuate guide surface at the corner of the inner walls of said troughs; a continuous chain movable along the inner walls of the troughs which rides on said guide surface, said chain being flexible in a horizontal plane and the links thereof having a pitch length which is so related to the radius of curvature of said guide surface as to cause substantial chordal rise of a chain link traversing said surface; a plurality of spaced flights secured to said chain and extending across the troughs, there being a predetermined space between the outer ends of said flights and the outer walls of said troughs; means for moving said chain to carry said flights along the troughs; and a shallow, upright, arcuate concavity in the outer wall of each trough in the area which is traversed by a flight as the chain link on which the flight is mounted moves in chordal rise on said guide surface, said concavity providing a recess in the face of said wall.

2,782,900
CONVEYOR FLIGHT FOR CONTINUOUS CHAIN TYPE BARN GUTTER CLEANERS
Robert G. Ferris, Harvard, Ill., assignor to Starline, Inc., a corporation of Illinois
Application December 8, 1954, Serial No. 473,793
3 Claims. (Cl. 198—176)



1. In a barn gutter cleaner having a depressed gutter with upright sides and a flat bottom, and a continuous movable link chain mounted along one side wall of the gutter, said chain having a plurality of apertures in certain links, a conveyor flight comprising: a channel iron having spaced, parallel legs connected by an upright web, each of said legs having a plurality of holes in one of its end portions and said flight extending from the chain substantially entirely across the gutter; and depending fastening bolts extending through the apertures in a link of the chain and through the holes in a leg of said flight; whereby the flight is secured to the chain with said one leg abuting the underside of the chain and the other leg resting on the gutter floor to support the flight and chain.

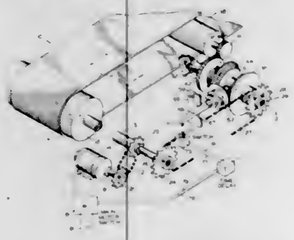
2,782,901
HANDLING OF ANNULAR ARTICLES
Ernest R. Comtois, Worcester, and Alfred F. Prentice, West Boylston, Mass., assignors to Morgan Construction Company, Worcester, Mass., a corporation of Massachusetts
Application May 9, 1955, Serial No. 507,020
10 Claims. (Cl. 198—177)



1. Apparatus for the handling of annular articles comprising a horizontal transfer conveyor, a hook carrier having a portion which overlies the conveyor, the carrier arranged to move at the same speed as the conveyor, hooks depending from the carrier and residing in a groove in the conveyor during their passage thereover, dogs extending upwardly from the conveyor, and a cam track engaged by each dog to determine its aspect, the dogs engaging the articles and moving them in the direction of movement of the conveyor and the carrier, a hook associated with each dog and having the open end extending away from the direction of the movement,

a second cam track engaged by each hook at the end of its travel with the conveyor, the second cam track tilting the free end of the hook upwardly so that it enters the center of the article.

2,782,902
PROTECTIVE DEVICES FOR BELT CONVEYORS
William W. Sloane, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application November 8, 1952, Serial No. 319,551
10 Claims. (Cl. 198—203)



1. In a belt conveyor, a protective device operable upon slippage in excess of a predetermined amount between the motor driven pulley and the belt of such conveyor which comprises means responsive to the difference in the speed of said belt and said pulley occasioned by slippage of said belt on said pulley, said means including a differential gear driven by said pulley, a differential gear driven by said belt, a support for a gear meshing with said differential gears, a switch controlled by the movement of said support for opening the circuit to the motor driving said pulley, and means affording a slipping connection between one of said differential gears and its driving means whereby said support may be held in position where said switch is maintained in open condition during permissible slippage of said belt, and whereby said support is held in position actuating said switch during period of excessive slippage of said belt, and time delay means connected in circuit with said switch for presenting the opening of the circuit to said motor when excessive slippage takes place for periods of short duration only.

2,782,903
GRAIN AUGER
Samuel F. Kennedy, Taylorville, Ill.
Application March 1, 1954, Serial No. 412,982
1 Claim. (Cl. 198—213)

An auger for conveying grain for use in combination with a portable hand rotary power tool having a drive chuck and at least one handle extending substantially perpendicular to said drive chuck, said auger comprising a tube having an open intake end, the other end of said tube having a closed end wall, an outlet in communication with said tube, a screw conveyor journalled in said end wall and extending through and beyond said intake end, a torque arm engageable with the handle of the rotary tool, and means adjustably supporting the torque arm on said tube, said means including at least one guide bracket on said tube, each of said brackets having aligned apertures therethrough, said torque arm being slidably adjustably received in said aperture in said bracket, said torque arm having an eye at one end thereof receivable over said handle.

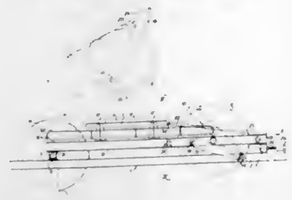
2,782,904
AUTOMATIC RECIPROCATING FEED DEVICE
Arlon G. Sangster, Worcester, Mass., assignor to Arter Grinding Machine Company, Worcester, Mass., a corporation of Massachusetts
Application June 26, 1952, Serial No. 295,745
12 Claims. (Cl. 198—221)

2. Automatic feed device for feeding pieces in line in abutting relation and comprising a plurality of reciprocating arms arranged in side-by-side relation, means to reciprocate the arms generally alternately, a yielding feeder finger on each arm, said feeder fingers being arranged in a common path, means on each feeder finger to cause another feeder finger to be yieldingly displaced upon contact of said feeder finger in the travel thereof in a direction to feed, and means to accelerate each finger at the start of the feed stroke.

2,782,905
PATTERN TUFTING DEVICE FOR PILE FABRICS
John E. Smith, Norristown, Pa., assignor to James Lees and Sons Company, Bridgeport, Pa., a corporation of Pennsylvania
Application March 5, 1956, Serial No. 569,308
8 Claims. (Cl. 203—200)

1. In pile yarn control apparatus, a yarn guide device having tensioning means for the individual yarns operable selectively between positions providing minimum and maximum tensions respectively, and means to supply lengths of yarns to said guide device in a relatively tensionless condition, said guide device comprising a fixed guide member having aperture means therein for passing each of said yarns, a movable member for each yarn cooperable with said fixed guide member and engageable with said yarn, and selectively operable means for each of said movable members to displace the same between a first position to exert a minimum tension on said yarn and a second position to exert a maximum tension on said yarn, said supply means comprising a yarn beater mounted for rotation in a cylindrical path intersecting the yarn path to said guide device, and a pair of interengaging yarn pullers mounted for rotation to engage the yarn in said path and advance the same when tensioned.

2,782,906
CABLE LAYING APPARATUS
Aubrey Douglas Lidderdale, Bromley, England, assignor to Telegraph Construction & Maintenance Company Limited, London, England, a British company
Application January 10, 1956, Serial No. 558,314
Claims priority, application Great Britain January 11, 1955
8 Claims. (Cl. 203—340)



1. Apparatus for laying submarine cables having repeaters at intervals comprising a main sheave for paying out the cable, a secondary sheave located forwardly of the main sheave, a cradle arranged between the two sheaves and adapted to support a repeater during the paying out operation, and means for raising the secondary sheave to a position above the main sheave and where the cable and its associated repeater are lifted clear of the main sheave.

2,782,907
GETTER ASSEMBLIES AND METHOD OF MAKING THE SAME
Herman Rueger, Lancaster, Pa., assignor to Radio Corporation of America, a corporation of Delaware
Application November 29, 1951, Serial No. 258,970
2 Claims. (Cl. 206—.4)

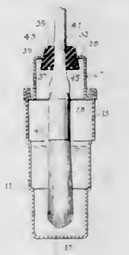
2. Method of making a getter assembly comprising the steps of feeding getter material to a continuous stock of similar open troughs joined by elongated flat ears while unavoidably contaminating said ears with said material; feeding a plurality of spaced wire-like loop members each having a U-shaped structure including a transverse portion longer than one of said troughs, and legs terminating in U-shaped hooks having parallel arms, to cause said U-shaped hooks to receive two adjacent ones of said ears between said arms; pressing said arms in a direction normal to said adjacent ears to undulate said arms and a portion only of said ears in phase relation along said arms; and severing said adjacent ears in regions thereof spaced from said arms in directions remote from said trough; whereby said contaminated ears are effectively fixed to said arms against relative movement along and transversely of said arms.

2,782,908
GARMENT BAG
James Moffett, Detroit, Mich.
Application April 23, 1953, Serial No. 350,558
12 Claims. (Cl. 206—7)

8. The method of enclosing an article suspended on a suspended coat hanger which comprises providing a double-walled enclosure having an apexed top with one side of said top closed and one side open, drawing said enclosure upwardly over said suspended article and said hanger while said article feeds into said open side of the top, suspending said enclosure on said hanger by the closed

side of said top, and sealing the open side of said top while the enclosure is so suspended.

2,782,909
PAINT BRUSH STORAGE DEVICE
Paul E. McNamara, Rochester, N. Y.
Application March 2, 1955, Serial No. 491,670
4 Claims. (Cl. 206—15.1)



2. The combination with a paint brush having a bristle portion of relatively large cross sectional area and a handle portion of substantially less cross sectional area, of a liquid holding container having sufficient horizontal cross sectional area to accommodate said bristle portion of said brush, a cover member removably engageable in sealed relation with said container near the upper edge thereof, said cover member being domed upwardly so that the central portion thereof is at a materially higher elevation than the upper edge of said container when said cover member is in normal position engaged with said container, an opening in the central portion of said cover member, said opening being of larger area than the cross sectional area of said handle portion and of smaller area than the cross sectional area of said bristle portion, and a soft resilient and easily compressible sleeve surrounding said handle portion in frictionally gripping and supporting relation thereto, the exterior surface of said sleeve being tightly wedged into and supported from said opening of said cover member, the part of said handle portion above said resilient sleeve being uncovered and exposed so that it may be manually grasped for use in a painting operation without removing the brush from said cover member, the domed cover member then serving to catch paint dripping from the brush when it is held in an inverted position as in applying paint to a ceiling.

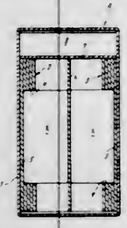
2,782,910
COMBINATION CIGARETTE DISPENSER, SUPPORT, AND LIGHTER
Saul Leibow, Providence, R. I.
Application October 27, 1955, Serial No. 543,150
4 Claims. (Cl. 206—41.4)

1. A combination cigarette pack support and lighter comprising a frame having a rectangular rim with depending portions extending therefrom and adapted to

be seated within a cigarette pack container to support same, said rim comprising a front rail having a slot therein, a lock hinge pivotally mounted on said rail and having an inwardly extending tooth movable through said slot when said hinge is swung to operative locking position, said tooth being adapted to penetrate the cig-

arette container whereby to lock the frame thereto, and a cover pivotally mounted on said rim and housing a lighter, said cover having a depending flange, said flange being positioned so as to snugly overlie at least the portion of said front rail having the lock hinge mounted thereon, when the cover is in closed position, whereby to positively maintain said hinge in locking position.

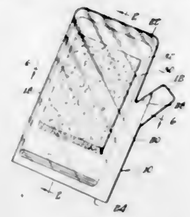
2,782,911
PACKAGES
Hugh K. Fisher, St. Louis, Mo., assignor to James R. Kearney Corporation, St. Louis, Mo., a corporation of Missouri
Application August 5, 1954, Serial No. 448,012
3 Claims. (Cl. 206—47)



1. A package comprising a receptacle, a pair of insert members located within said receptacle, each of said insert members having an inwardly facing recess formed therein which receives a portion of an article packaged within said receptacle whereby said portions are supported by said insert members, said recess of each insert member being of such depth that it extends only partially through the thickness of the insert member, a sheet of material which extends from side to side and end to end of said receptacle and provides a separate compartment within said receptacle which receives loose parts of the articles packaged by said receptacle, and a second sheet of material medially positioned between said insert members and which serves as a separator and buffer which is interposed between and protects parts of the articles packaged by said receptacle, the first-mentioned sheet of material resting on edge portions of said pair of insert members and on an edge portion of said second sheet of material.

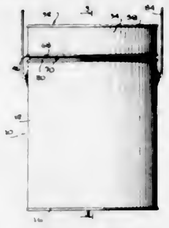
2,782,912
CLEANING UNIT PACKAGE
James G. Humphrey, Chicago, Ill.
Application September 10, 1953, Serial No. 379,430
5 Claims. (Cl. 206—47)

1. A cleaning unit package comprising a container element made of a flexible substantially waterproof material having the general configuration of a hand covering including a thumb portion, at least one partition member of flexible substantially waterproof material provided with side edges and joined to said container element adjacent said side edges, said partition member being disposed within said hand covering and extending from near the open end thereof toward the bottom closed end of said hand covering whereby to form a plurality of individual compartments within said hand covering, at least one



said partition member having an edge free adjacent the area of said thump portion whereby said thumb portion is rendered accessible through one of said compartments, a polishing cloth disposed within one of said compartments, and a sponge member disposed within another of said compartments.

2,782,913
PAINT PRODUCTS AND CONTAINERS FOR THE SAME
Seymour Devick, Teaneck, N. J.
Application August 31, 1953, Serial No. 377,649
8 Claims. (Cl. 206—47)

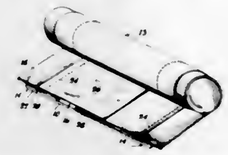


1. In combination, a can of white paint having an open end, a cover on said can of white paint, said open end of the can of white paint and said cover having mating halves of interengaging means; a can of pigment having two open ends with a clear space between said ends, a pair of covers on said can of pigment, said open ends of the can of pigment and said covers having mating halves of interengaging means; and a coupling ring having back-to-back halves of interengaging means similar to the halves of the interengaging means on the covers, whereby one cover is adapted to be removed from each can and the open ends of the cans coupled by the coupling ring to form a larger can in which the pigment can constitutes an extension of the can of white paint, the enlarged can having its own cover which consists of the cover left on the can of pigment.

2,782,914
HEAT INSULATION STRUCTURE
Jeremiah D. Giles, Litchfield, Conn.
Application August 9, 1955, Serial No. 527,243
3 Claims. (Cl. 206—59)

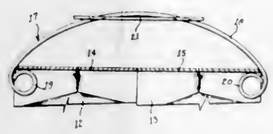
1. A roll of thermal insulation adapted to be opened up to form an insulating structure comprising spaced layers of material to resist the flow of heat, which structure will be held so as to run from the inner face of one stud of a building to the inner face of an adjacent stud, such roll comprising a sheet of paper having symmetrical zig-zag folds adjacent each side in which the paper is folded inwardly over on top of the body of the sheet

and then folded again outwardly over on top of the infolded portion, each of such fold lines being sharply pressed by the rolling to hold the three layers of paper in the zig-zag fold with their faces in contact, a crease line in the bottom layer of paper within the confines of the zig-zag fold, so that when the sheet is unrolled the top two layers of paper and a portion of the bottom layer of the zig-zag fold may be rotated as a unit about said crease line to form a pair of stiffened support members that stand upright along the length of the sheet near



its edges, a thin sheet of aluminum foil attached near its edges to the top layer of paper of the respective zig-zag folds, said sheet of foil having an expansible pleat which is adapted to expand and allow the support members to be rotated into upright position whereby the three layers of paper at the base of the respective upright support members may be nailed to adjacent studs of a building to hold said layers of paper of the support members in face-to-face contact against relative movement and to hold the support members and the sheet of foil carried by them pressed closely against the inner faces of such studs.

2,782,915
LIQUID-CONTAINER PACK
Jerry Fahringer, Phoenixville, Pa.
Application June 27, 1955, Serial No. 518,213
1 Claim. (Cl. 206—65)



A liquid-container pack comprising; a plurality of rectangular cardboard containers having tentlike tops terminating in apexes with open sides, said containers lying in adjacent relationship to each other with their apexes in alignment; a retaining band surrounding said containers so as to hold them together in a unit pack form; and a handle member detachably attached to said containers, said handle member comprising an arcuate length of wire having its ends bent back upon itself in spiral fashion, and a flat grasping member attached to said wire at a point between its ends, the spiral ends of said wire being received in the apexes of said containers from the open sides thereof.

2,782,916
CARRYING DEVICE FOR CANS
Edward L. Goenen, Appleton, Wis.
Application March 7, 1955, Serial No. 492,575
4 Claims. (Cl. 206—65)

1. In combination with a plurality of juxtaposed cans, each having a lateral wall structure, end walls at the ends of the lateral wall structure and rims at the locality of said lateral wall structure extending outwardly beyond said end walls and connecting said end walls to said lateral wall structure, an assembly device comprising an elongated shank, radial arms extending outwardly from the ends of said shank, annuli issuing from said arms and fingers projecting from said annuli and extending within the inner confines of said rims and holding the cans from outward movement, said assembly device being resilient

and yielding to accommodate forcing the fingers on one annulus over the rims of the corresponding cans and maintain the cans in assembled relation and a handle secured to one of said annuli.

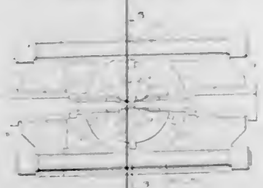
2,782,917
NEEDLE DISPENSING BOX
Heinrich Kruft, Dusseldorf, Germany
Application February 4, 1953, Serial No. 335,126
Claims priority, application Germany April 17, 1952
2 Claims. (Cl. 206—66)

1. In a circular box for the accommodation of needles and needle-shaped articles a circular bottom, a circular lid having a circumferentially dependent side wall and a circular sheet having an outwardly bulged peripheral edge being located between said bottom and said lid and secured to said bottom, said circular sheet having straight grooves in its upper face extending from edge to edge of the sheet in a fan-shaped arrangement to harbor said needles and needle-shaped articles, said dependent side wall having a circumferential groove applied to the outer periphery of said circular sheet to retain and rotatably guide said lid, the dependent side wall being provided with an outlet opening adapted to register selectively with each of the ends of the straight grooves for removal and replacement of the articles therein.

2,782,918
EXTRACTION OF PENTAERYTHRITOL WITH AQUEOUS ACETONE
Ivan Christoffel, Hopewell, Va., assignor to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York
Application June 18, 1954, Serial No. 437,721
7 Claims. (Cl. 260—637)

1. In a process for the production of pentaerythritol by condensation of formaldehyde and acetaldehyde in aqueous medium in the presence of an alkali earth metal hydroxide, the steps which comprise adding acetone to the aqueous reaction mixture containing at least 15 mols of water per mol of acetaldehyde fed to precipitate alkali earth metal compounds contained therein, separating said alkali earth metal compounds from the reaction mixture and recovering pentaerythritol from the resulting solution.

2,782,919
TOOL SUPPORTING MEANS IN BILLET EXTRUSION PRESSES
Eric Norman, Bournemouth West, England, assignor to The Loewy Engineering Company Limited, London, England, a corporation of Great Britain
Application July 1, 1952, Serial No. 296,685
Claims priority, application Great Britain July 4, 1951
2 Claims. (Cl. 207—4)

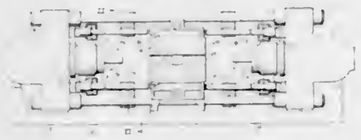


1. A billet extrusion press, including spaced crossheads, a billet container holder between said crossheads, tie rods extending through said crossheads and billet container holder clamping the crossheads and billet container holder together as a rigid unit, axially aligned and opposed hollow extrusion tools extending from the crossheads toward each other, means on each crosshead mounting the tools for axial adjustment and for fixing the tools against movement when adjusted, a billet container in said billet container holder having a main bore, and opposed radial crossbores for the slidable reception of said extrusion tools in said crossbores, the ends of said tools being located in the main bore of said billet container and having a fixed spacing with reference to each other, so as to form an extrusion gap, means located in a plane passing through said main bore and at right angles to the longitudinal axis of said tools for supporting said billet container against movement at right angles to said plane but for radial expansion movement in said plane, and means cooperating with said supporting means for supporting said billet container for radial expansion in said container holder at each side of said plane, whereby said billet container can expand under extrusion pressure without affecting the fixed adjustment of said tools.

2,782,920
TOOL MOUNTING MEANS FOR BILLET EXTRUSION PRESSES
Eric Norman, Bournemouth West, England, assignor to The Loewy Engineering Company Limited, London, England, a corporation of Great Britain
Application July 1, 1952, Serial No. 296,686
Claims priority, application Great Britain July 4, 1951
4 Claims. (Cl. 207—4)

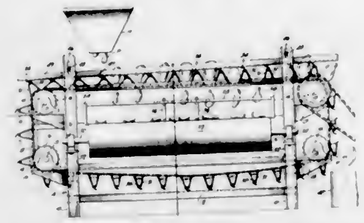
1. A billet extrusion press, including spaced crossheads, a billet container holder between said crossheads, means clamping the crossheads and the billet container holder together as a rigid unit, a billet container, means mounting said billet container for radial expansive movement in said holder, axially aligned and opposed hollow extrusion tools extending from said crossheads toward each other, said billet container having a main bore, said billet container having opposed radial crossbores for the slidable reception of said extrusion tools, the ends of said tools being located in the main bore of said billet container so as to form an extrusion gap between the ends of said tools, means to adjust said tools from said crossheads to fix said extrusion gap, including adjustable cooperating stop means on said crossheads and said tools to stop the inward movement of said tools, and fluid pressure means acting between said crossheads and said tools to force said cooperative adjustable stop means into engagement, said fluid pressure adapted to be regulated in accordance with the pressure of the extrusion operation to provide a substantially constant extrusion gap.

2,782,921
DOUBLE-ACTING BILLET EXTRUSION PRESSES
Eric Norman, Bournemouth West, England, assignor to The Loewy Engineering Company Limited, London, England, a corporation of Great Britain
Application July 8, 1952, Serial No. 297,651
Claims priority, application Great Britain July 12, 1951
2 Claims. (Cl. 207—9)



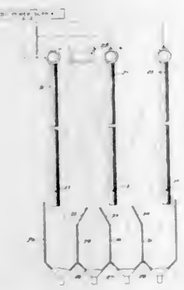
1. In a billet extrusion press of the double-acting type, a container having a billet chamber open at both ends, two pressing stems adapted to enter the billet chamber at opposite ends, hydraulic means comprising cylinders for moving said pressing stems into the billet chamber, tie rods connecting said main cylinders, a holder for said billet container, means slidingly supporting said holder to permit movement of the billet container and the holder in the direction of movement of said pressing stems, pressure loaded hydraulic thrust bearings at the side of said billet container in alignment with the movement thereof having a predetermined spacing between said thrust bearings and said billet container holder whereby axial displacement of said billet container between said thrust bearings is permitted and displacement beyond said predetermined spacing between said thrust bearings and said billet container holder is prevented by abutment of said billet container holder with said thrust bearings.

2,782,922
SIZING APPARATUS
Francis Bertinot, Church Point, La.
Application January 25, 1952, Serial No. 268,279
5 Claims. (Cl. 209—102)



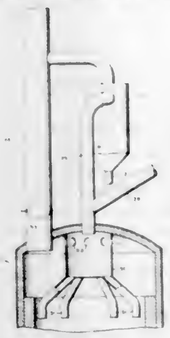
1. A sizing machine comprising a frame defining a horizontal supporting structure, a carrier movable on said supporting structure, said carrier comprising a plurality of sizing members cooperating to form a conveyor for the articles being sized, each of said members comprising two slats pivoted to each other along their upper edges thereby forming a downwardly opening trough-like member, a roller mounted on said member, means urging the lower edges of said slats together whereby to separate the slats of adjacent members, means mounted on the frame above the supporting structure for varying the distance between adjacent members, said means comprising an inclined guide member, and said guide member being channel shaped to receive the roller.

2,782,923
METHOD AND APPARATUS FOR BENEFICIATING ORE
Charles C. Cook, Jr., and James E. Lawver, Lakeland, Fla., assignors to International Minerals & Chemical Corporation, a corporation of New York
Application March 30, 1951, Serial No. 218,476
14 Claims. (Cl. 209—127)



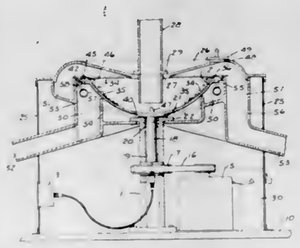
11. An electrostatic separation machine comprising a solid particle feed mechanism, a source of substantially unidirectional electricity, at least three electrodes connected to said source of electricity, said electrodes having the electrode headers horizontally spaced and parallel and the depending portions of the electrodes substantially vertically suspended in parallel alignment, at least the two electrodes between which the feed mechanism delivers feed being of opposite polarity, the depending portions of said electrodes consisting of a plurality of spaced elements having convex curvature in the direction of the oppositely charged electrode.

2,782,924
PEBBLE HEATING APPARATUS AND METHOD OF REMOVING FINES FROM PEBBLE FEED
Dick S. Hall, Phillips, Tex., and Curt E. Forkel, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware
Application March 15, 1954, Serial No. 416,054
5 Claims. (Cl. 209—138)



1. In a pebble heater apparatus utilizing a moving bed of pebbles, a pebble heater chamber comprising an upright closed shell; a pebble outlet in the lower portion thereof; a stack extending from the upper portion thereof; a pebble surge chamber within the upper portion of said shell, said pebble surge chamber being provided with a plurality of pebble outlet conduits and at least one opening in the side thereof at a level above the pebble layer therein; an elutriator positioned in proximity to the upper portion of said preheater, said elutriator comprising an outer shell, an outlet extending upwardly from a point within the lower portion of the chamber formed by said shell, an outlet extending downwardly from the bottom of said shell, and an inlet extending into the chamber formed by said shell at a point above the lower end of said upwardly extending outlet; a conduit extending from the upper portion of said pebble surge chamber to the inlet of said elutriator; and a pebble supply conduit extending into said last named conduit.

2,782,925
CONTINUOUSLY OPERABLE CENTRIFUGAL ORE CONCENTRATOR
Walter N. T. Morton, Windsor, Ontario, Canada
Application May 5, 1955, Serial No. 506,305
20 Claims. (Cl. 209—211)

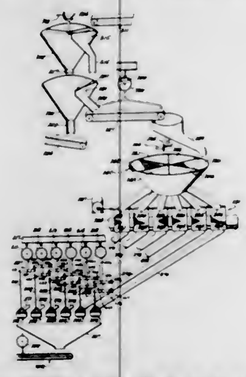


1. A continuously operating centrifugal separating device comprising, a support, means forming a vessel adapted to contain fluent material, means rotatably mounting said vessel on said support, means operable to rotate said vessel, said vessel having an open upper side, said vessel having orifice means adjacent said upper side, means forming a system of channels on the interior of said vessel, said channels being angled to meridians of said vessel and terminating adjacent said orifice means so that relatively heavy particulate matter separated centrifugally from fluent matter in said vessel passes through said channels for discharge through said orifice means.

2,782,926
APPARATUS FOR MEASURING FINENESS MODULUS
Walter E. Saxe, Pasadena, Calif., assignor to The Conveyor Company, Inc., Los Angeles, Calif., a corporation of California
Application February 26, 1951, Serial No. 212,780
8 Claims. (Cl. 209—237)

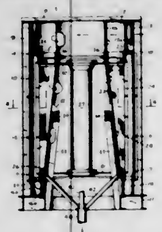
4. In apparatus for continuously measuring the fineness modulus of material such as sand which includes a plurality of fractions of different finenesses, the combination of: a plurality of separate screens of different meshes; continuously-operating feed means for moving a separate stream of material from a common bulk supply directly onto and across each said separate screen to separate said material into different fractions and to deliver the retained fractions from the respective screens in continuous streams; and receiving means for receiving said continuous streams, said receiving means including means for

totaling said fractions to obtain the fineness modulus of the material, and said receiving means including means



for discharging material therefrom at a rate to maintain the quantity totaled thereby substantially constant.

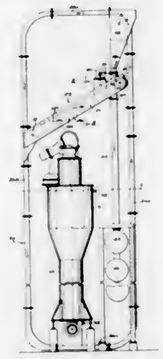
2,782,927
VIBRATING SCREEN
Herbert William Derrick, Jr., Buffalo, N. Y.
Application February 17, 1955, Serial No. 488,846
5 Claims. (Cl. 209—250)



1. A vibrating screen device comprising a housing, a screen of circular cross-section accommodated within the housing, annular means connecting said screen to the housing, an inlet opening in the housing for admitting a moving fluid stream carrying the material to be screened, means for guiding the fluid stream to impart a whirling motion thereto, said whirling motion impelling the material to be screened into contact iwth the screen, means for vibrating the screen, separate discharge openings in the housing for the material which passes through the screen and the oversize material, and annular seals intermediate the screen and the annular means connecting the screen to the housing to cushion the screen so that it will be vibrated independently of the housing and to prevent the escape of the material between the screen and the annular means connected to the housing.

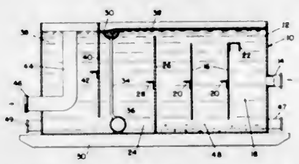
2,782,928
DRAINAGE DEVICE FOR SOLVENT EXTRACTION APPARATUS
Raymond T. Anderson, Lakewood, Ohio, assignor, by mesne assignments, to International Basic Economy Corporation, New York, N. Y., a corporation of New York
Application January 19, 1953, Serial No. 331,814
1 Claim. (Cl. 210—55)

Means for draining an entrained solution of oil and solvent from leached oil-bearing material, said means comprising an enclosure, having side walls and a top and bottom wall, a continuous conveyor within said enclosure and having upper and lower flights traveling in respectively opposed directions, a partition extending longitudinally between said flights and adjacent to said upper flight and extending transversely from one side wall to the other, scraper means carried by said conveyor and disposed to travel along the upper side of said partition in sliding contact therewith, means for admitting liquid-bearing leached material from said elevator onto one end of said partition, the direction of movement of said scraping means being adapted to carry said material along said partition while liquid drains therefrom, means for removing the drained material from said enclosure, means for removing from the enclosure



liquid thus drained from said material, said enclosure being inclined at an acute angle to the horizontal, said upper flight being disposed to travel downwardly along the partition and said lower flight being disposed to travel upwardly along the bottom wall of the enclosure, the means for admitting material being above the upper end of the partition, and the means for removing material being adjacent the upper end of the lower flight, whereby the material is first scraped downwardly and then upwardly, said partition terminating short of the lower end of the enclosure whereby material traveling downwardly on the upper side of the partition can fall directly on to the ascending lower flight of the scraper means.

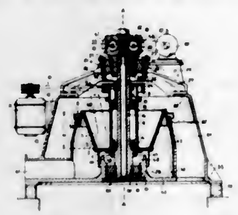
2,782,929
TANK CLEANING PORTABLE SEPARATOR
William W. Colket, West Chester, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Application August 2, 1954, Serial No. 447,290
1 Claim. (Cl. 210—60)



An oil-water separator for use in cleaning petroleum storage tanks comprising a rectangular receptacle having an inlet and an outlet at opposite ends, a first partition extending upwardly from the bottom of the receptacle to terminate below the normal water line requiring the liquid to flow thereover, said partition being spaced from the inlet end of the receptacle to form a separating compartment therein; a plurality of spaced apart baffles extending between the walls of the receptacle substantially parallel to said first partition, each baffle suspended above the bottom of the receptacle and terminating at a point below the top of the first partition; a second partition extending downwardly from the top of the receptacle to terminate at a point above the bottom requiring the liquid

flow to pass thereunder, said second partition spaced between the first partition and the outlet end forming a skimming compartment between the partitions and a depth control compartment adjacent the outlet; a skimming trough extending across the receptacle in the skimming compartment elevationally positioned to receive the floating oil; a drain connected to receive the skimmed oil from said skimmer; a depth control means connected to the outlet in the depth control compartment; and sludge drains at each end of said receptacle to remove collected debris from the bottom of the receptacle.

2,782,930
CENTRIFUGAL EXTRACTOR WITH OSCILLATING MEANS THEREFOR
Wolfgang Gertrud Joseph Heckmann, Koln-Deutz, Germany, assignor to Klockner-Humboldt-Deutz A. G., Koln, Germany, a corporation of Germany
Application October 18, 1954, Serial No. 462,941
8 Claims. (Cl. 210—72)

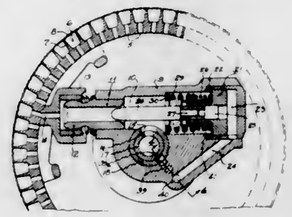


1. In a centrifugal device, the combination of: a support, an axle, connecting means connecting said axle with said support, said connecting means preventing said axle from rotations about its axis and permitting oscillations of said axle in the direction of the longitudinal axis thereof, a hollow shaft surrounding at least a portion of said axle, said hollow shaft being rotatably mounted on said axle and being engaged with the latter for participating in oscillations thereof, a sieve drum rigid with said rotatable hollow shaft, driving means operatively connected with said hollow shaft for rotating same together with said sieve drum, and oscillating means operatively connected with said axle for oscillating same together with said sieve drum.

2,782,931
TRAPS FOR PEELERS
Arthur W. Haas, Rochester, N. Y., assignor to Toledo Scale Company, Toledo, Ohio, a corporation of New Jersey
Application June 8, 1954, Serial No. 435,185
1 Claim. (Cl. 210—149)

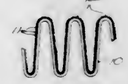
A peeler trap comprising, in combination, a box-like receptacle having a refuse inlet, and a rectangularly shaped perforated resilient sheet having a single horizontal crease which imparts a flattened V-shaped form to the sheet, said sheet being positioned vertically in the receptacle and being held in place under tension by being sprung between diagonally opposite corners of the receptacle to divide the receptacle into two parts, one of said parts having an outlet for the solid portion of the refuse and the other of said parts having an outlet for water separated from the refuse, said crease imparting horizontal stiffness to the sheet when the sheet is held under tension between said opposite corners.

2,782,932
AUTOMATIC DUMP FOR BACKWASHING FUEL FILTER
Rex C. Darnell, Dexter, Mich., assignor to Michigan Wire Cloth Company, Detroit, Mich., a corporation of Michigan
Application January 25, 1954, Serial No. 405,709
4 Claims. (Cl. 210—167)



1. In a fuel filter which has a slotted cage and a filter secured on the slotted cage and a rotor rotating in the cage to successively bring the slots or successive areas in communication with the low pressure side of the pump in a fuel supplying system while the outside of the cage has its major area exposed to the pressure of the fuel on the high pressure side of the pump, the combination of a valve casing for location in the rotor, a reciprocable valve in said casing, means for controlling the opening of said valve responsive to the pressure of the high pressure fuel and dumping means for periodically automatically opening the valve by releasing the high pressure fuel acting on the control means and substituting action of the low pressure on the control means and valve to thereby momentarily widely open the valve and flush the valve chamber.

2,782,933
FLOCKED FILTER MEDIA
Nicholas Monsarrat, Seekonk, Mass., assignor to Fram Corporation, Providence, R. I., a corporation of Rhode Island
Application January 4, 1954, Serial No. 401,859
2 Claims. (Cl. 210—169)



1. A filter for filtering fluids, comprising a casing constructed for the passage therethrough of a fluid to be filtered, an annular filter element in said casing formed of a flocked sheet of porous paper that is pleated and arranged in an annulus with the pleats extending longitudinally thereof so that the fluid is filtered by passing through the pores of the paper, said sheet having flock filaments adhesively secured thereto so as not to seriously reduce the porosity of the paper and disposed in slightly spaced relation to each other with the individual filaments extending approximately erect from the face of the paper and in the up stream direction, whereby dirt in the stream will lodge primarily on the ends of the individual filaments out of contact with the surface of the paper and thereby help prevent clogging of the porous paper.

2,782,934
FLOATING OIL SCREENS
Lynn A. Maysilles, Wayne, Mich., assignor, by mesne assignments, to Industrial Wire Cloth Products Corporation, Wayne, Mich., a corporation of Delaware
Application December 10, 1953, Serial No. 397,334
1 Claim. (Cl. 210—170)

In a floating oil screen for an internal combustion engine, a domed member having depending cylindrical walls,

an inverted frusto conical cup member extending into and sealed in said domed member to thereby provide a float chamber and also an annular space open downwardly within the said depending walls, an outlet tube leading from said annular space, a disc-like screen fixed to said depending walls below said outlet tube to thereby enclose

said annular space, said screen being provided with a central opening, and a valve closing said central opening and comprising a disc portion of oil resistant flexible elastic material having a slit therethrough, said material being of such thickness as to allow opening of said slit only under a predetermined pressure.

2,782,935
WIRE TAKE-UP DEVICE FOR A DRUM FILTER
Robert C. Wahrmund, Baytown, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application October 14, 1954, Serial No. 462,329
4 Claims. (Cl. 210—199)

1. A wire tensioning device for a continuous filter of the type including a hollow, end-plated filter drum, a filter cloth on the periphery of said drum and an embracing wire wound around said cloth, said tensioning device comprising a spindle having an extensive axle, support means connected with said spindle and one of said end plates for rotatably supporting said spindle on said end plate in the interior of said drum with said extensive axle of said spindle extending through said end plate, a helical torsion spring about said spindle, means interconnecting said spring with said spindle and said support means, a sheave fixed to said axle and carrying an end portion of said wire and a pulley element on said end plate of said drum adjacent the periphery thereof adapted to direct said wire from said sheave to the surface of said drum, whereby the torsional force of said spring may compensate for elongation and shortening of said wire.

2,782,936
TIERABLE NESTING RECEPTACLE
Warren H. Lockwood, Shaker Heights, Ohio
Application September 16, 1952, Serial No. 309,885
5 Claims. (Cl. 211—126)

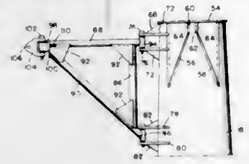
1. A receptacle adapted for tiering and nesting with receptacles of like construction comprising a planiform bottom structure providing a load supporting and carrying surface, support members disposed above the bottom inwardly of vertical planes through the end edges of the bottom and spaced apart one near each end of the receptacle to provide a pair of parallel tiering support members adapted to support the bottom structure of a second like receptacle tiered thereon, means rigidly attached near two opposed side edges of said bottom structure and rigidly attached to opposite ends of said support members and holding each of said support members always in the same fixed relation, said bottom structure including on at least one end a portion beneath the corresponding support member and projecting beyond the vertical plane through the corresponding support member to provide bearing surface for tiering bearing on a support member of an underlying like receptacle, said means extending upwardly from a side edge of said bottom structure and being located outwardly of the vertical plane through said edge and so constructed and arranged that said means nests with similar means on an underlying like receptacle, there being a clearway extending upwardly from said projecting portion toward and directly beneath said corresponding support member, said clearway being provided for the insertion of the projecting portion of a like receptacle nested therein, the locus of attachment to the bottom structure of the means holding said corresponding support member being inward of said vertical plane through said corresponding support member, and means on the bottom structure adapted for cooperative engagement with the support members of an underlying like receptacle structure for maintaining a plurality of the receptacles in vertical tiered alignment with the perimeter of an upper receptacle vertically directly aligned above the perimeter of a lower receptacle.

2,782,937
ADJUSTABLE DISPLAY FIXTURE FOR GARMENTS
Isidor H. Schlissel, New York, N. Y.
Application August 23, 1954, Serial No. 451,462
1 Claim. (Cl. 211—166)

An adjustable display fixture for garments comprising a stand having a base and an upright pole, a transversely disposed elongated loop member slidably and pivotally secured to said pole, in spaced relation thereto and disposed at an angle to the vertical and a plurality of transversely disposed adjustable hanger members slidably, pivotally and removably secured to the pole and spaced from said loop member, each hanger member including a sleeve bearing member encircling said pole, means for adjustably securing said sleeve bearing member on the pole, a socketed cylindrical portion extending laterally of said sleeve bearing member, said socketed portion having a keyway therein, an angular shank slidably and adjustably connected to said socketed portion, said shank having a key on one end slidably engaged in the keyway in the socketed portion, and a bar secured to the other end of the shank and disposed transversely of the pole.

2,782,938
SWIVELLING LOAD-HANDLING DEVICES, NOTABLY FOR SHIPS AND THE LIKE
Paul Andre Mege, Saint-Germain-en-Laye, France
Application September 14, 1954, Serial No. 455,850
Claims priority, application France September 17, 1953
5 Claims. (Cl. 212—3)

1. Means for handling loads on board ship comprising a mast, an angle member pivotally mounted on the top portion of said mast for movement about a vertical axis in parallel relationship with the axis of the mast, a boom having one end secured to said mast for movement about a horizontal axis and a vertical axis, a halyard sling for suspending said boom from the extreme end of said angle member opposite said mast, flexible elements each having an end attached to the said extreme end of said angle member and extending on opposite sides of said angle member for causing it to be pivotally displaced about its vertical axis, a stationary capping member se-



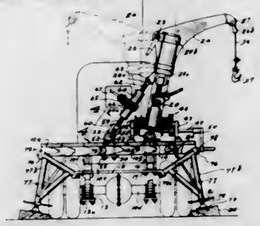
cured at the upper portion of the mast comprising a central part and two aligned lateral projections extending on each side of the mast and substantially in perpendicular relationship with respect to the plane of said angle member when the latter occupies a symmetrical position with respect to said flexible element, pulley means positioned on each end of said lateral projections and adapted to guide said flexible element and means for securing said flexible elements to maintain said angle member in various angular positions.

2,782,939
MOTOR TRUCKS CARRYING A FOLDABLE CRANE
Henricus F. J. Bernaerts, Weert, Netherlands
Application October 5, 1954, Serial No. 460,495
Claims priority, application Netherlands October 13, 1953
2 Claims. (Cl. 212—8)

1. A motor truck having front and rear wheels and carrying a foldable crane comprising a frame supported by said front and rear wheels, a boom pivoted on the axis of said rear wheels of the truck and folding down in forward direction toward the front end of said truck in its collapsed inoperative position and a crane arm pivoted to said boom and folding down in rearward direction toward the rear end of said truck in its collapsed, inoperative position, a first, hydraulically operated actuator disposed between said frame and said boom and adapted to raise said boom relative to said frame upon the axis of said rear wheels as pivotal axis into operative position, and a second, hydraulically operated actuator disposed between said boom and said crane arm and adapted to swing said crane arm relative to said boom for a first rising run, and cable operated means for swinging further said crane arm for a second rising run from the position at the end of said first rising run into raised operative position.

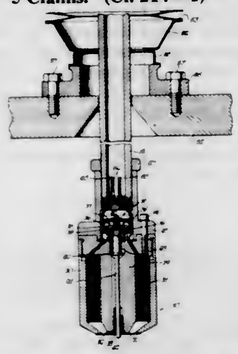
2,782,940
LIFTING, TRANSPORTING AND PLACING DEVICE
Herman F. Beseler, Minneapolis, Minn.
Application July 21, 1952, Serial No. 300,059
4 Claims. (Cl. 212—59)

1. A tree-handling device having in combination, a vehicle having supporting wheels and a platform, a member mounted on said platform extending longitudinally thereof and swingable about an axis extending longitudinally of said platform, a mast carried by said member and pivoted thereto adjaent its lower end about an axis extending transversely of said platform, means connected at its ends to said mast and member respectively and extensible and contractible for switching said mast about said last mentioned axis, means connected at its



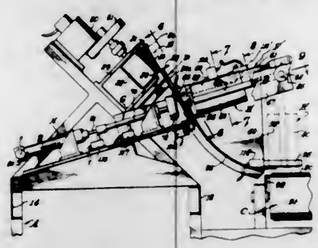
end to said mast and platform respectively and extensible and contractible for moving said mast about said first mentioned axis, a boom rotatably carried on said mast at the upper end thereof and extending outwardly therefrom, means including a hand operated member for rotating said boom, and a hoist having means adapted to engage a load comprising a cable supported by said boom.

2,782,941
FOLLOW-UP MECHANISM
Harold V. Lichtenberger, Idaho Falls, Idaho, and Leonard J. Koch, Clarendon Hills, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application March 12, 1954, Serial No. 415,984
5 Claims. (Cl. 214—1)



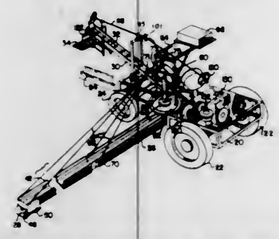
1. An electromagnet comprising inner and outer members of high magnetic permeability forming between them an annular space open at one end, an electric coil positioned in the annular space, a disk of low magnetic permeability bridging the gap between the members at said one end of the annular space, the disk being thin enough to constitute an insufficient flux path across the gap between the members upon energization of the coil and thus to provide for the passage of sufficient flux through an object of high magnetic permeability when in abutment with the disk to enable the object to be held against the disk, the disk being thick enough to provide an adequate path for magnetic residual flux to dissipate quickly across the gap between the members upon cessation of energization of the coil and thus to enable quick release of the object from the members, an element slidably mounted in the inner member, and resilient means causing an end of the element to extend beyond the side of the disk away from the inner and outer members, engagement of the object with the disk causing the element to retract against the resilient means to a position of flushness of said end of the element with the disk.

2,782,942
STACKING MACHINE
Delmer D. Scott, Encino, Calif., assignor to Nethercutt Laboratories, Los Angeles, Calif., a copartnership
Application April 28, 1953, Serial No. 351,570
5 Claims. (Cl. 214—6)



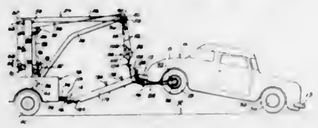
1. A machine adapted to deposit stacks of a predetermined number of articles onto a continuously moving discharge conveyor, including, an elongate frame, a plurality of like stacking mechanisms in a series lengthwise of the frame, supply means adapted to supply articles one after another lengthwise of the frame and to discharge them by gravity one at a time to said mechanisms, the said discharge conveyor extending lengthwise of the frame and adapted to receive vertically disposed stacks of articles from said mechanisms and to move them lengthwise of the machine for discharge therefrom, each mechanism including, a pivotally mounted receiver open at its outer end and open at one side and in the direction that the conveyor moves, means adapted to swing the receiver transversely of the frame and conveyor between a loading position where it receives articles delivered by gravity from the supply means and an unloading position where it is vertically disposed and deposits the stack of articles on the conveyor to be carried by the conveyor away from said open side of the receiver, and a retainer adjacent the open side of the receiver and retaining articles in the receiver as it swings from the loading to the unloading position.

2,782,943
MOBILE APPARATUS FOR HARVESTING CROPS
Von E. Jones and Paul C. Ludy, Arcanum, Ohio, assignors to The J. C. L. Manufacturing Corporation, a corporation of Ohio
Application May 3, 1954, Serial No. 427,128
9 Claims. (Cl. 214—83.1)



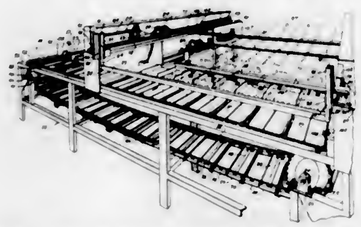
1. In a harvesting machine of the nature described; a mobile frame, at least one first boom extending laterally from said frame, a second boom extending rearwardly from said frame, said second boom commencing at a point below the inner end of said first boom, conveyor belts in said booms, means driving said conveyor belts so the upper reach of the conveyor belt in the lateral boom moves inwardly to convey articles to the inner end of the longitudinal boom while the upper reach of the conveyor belt in the longitudinal boom moves rearwardly to convey articles delivered thereto to the rear end thereof, means at the rear end of said longitudinal boom for receiving said articles, means for adjusting said lateral boom angularly and vertically in said frame, and means supporting said lateral boom in said frame for rotative movement thereof about a point adjacent its inner end and to the side of said longitudinal boom to dispose said lateral boom in a position substantially parallel with the longitudinal axis of said frame and beside said longitudinal boom thereby to permit movement of said device along roads and the like, said means comprising a plate rotatably supported in the frame above said point, guide means on the plate engaging the lateral boom to guide it for vertical movement beneath the plate, and support means on the plate connected with the boom to adjust it vertically thereon.

2,782,944
VEHICLE TOWING DEVICE
Seddie B. Macklin, Buffalo, Wyo.
Application May 13, 1954, Serial No. 429,476
5 Claims. (Cl. 214—86)



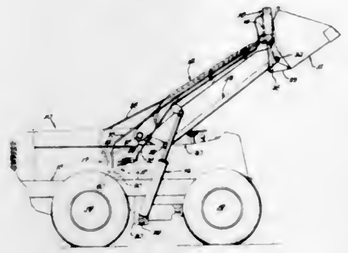
1. A tow bar device for a wrecking truck equipped with a hoist adapted to be connected to a towing chain attachable to an under part of a bumper equipped automobile to be towed, said device comprising a tow bar structure having a connector disposed near its forward end adapted to be attached to the wrecking truck, a chain engaging portion disposed near the rearward end of said tow bar structure adapted to receive and fulcrum said chain in its hoisted and towing position, and a bumper-engaging structure secured to the rearward portion of said tow bar structure and configured to fit said bumper, said tow bar structure including a plurality of elongated members connected to one another near their forward ends and diverging therefrom toward their rearward ends, one of said members also having a plurality of laterally-spaced chain guides on the under side thereof disposed near the rearward end of said tow bar structure.

2,782,945
FROZEN CONFECTION CONVEYING SYSTEM
Larry J. Nauroth, Dallas, Tex., assignor to Joe Lowe Corporation, New York, N. Y., a corporation of Delaware
Application July 17, 1953, Serial No. 368,801
14 Claims. (Cl. 214—89)



1. A conveyor system comprising a frame, relatively parallel upper and lower longitudinally reciprocable members on each side of said frame, an intermediate conveyor operating parallel with one end of said frame, means on the loading end of said intermediate conveyer for loading articles on the intermediate conveyer, an upper article pusher assembly connected to one end of each of the upper of said reciprocable members, means for advancing articles by said conveyer progressively into alignment with said upper pusher assembly, an article lowering assembly suspended from one end of each of said lower reciprocable members, said upper pusher assembly including a first pusher bar mounted for movement transversely over said conveyor to move said articles off said conveyer onto said lowering assembly, and a second pusher assembly including a second pusher bar extending from one to the other of said lower reciprocable members for movement thereby transversely over said lowering assembly to move said articles off said lowering assembly.

2,782,946
POWER LOADERS
Frank G. Hough, Highland Park, Ill., assignor to The Frank G. Hough Co., a corporation of Illinois
Application July 22, 1954, Serial No. 445,073
12 Claims. (Cl. 214—140)



12. In a power loader carrying a digging bucket which is pivotable to a dumping position, a carrying position, and a certain intermediate digging position, manually operable means for pivoting said bucket to index said bucket in said dumping position, said carrying position, and said certain intermediate digging position, said manually operable means comprising a hydraulic ram mounted between said power loader and said bucket for pivoting said bucket, said hydraulic ram comprising a longitudinal cylinder, a piston comprising a piston head and a piston rod slidably mounted within said cylinder, a first port formed through said cylinder substantially at the head end thereof, a second port formed through the cylinder substantially at the rod end thereof, and a third port formed through said cylinder intermediate the ends thereof in a position longitudinally of said cylinder so that when said piston head is positioned over said third port said bucket is pivoted to said certain intermediate digging position, and hydraulic means connected to said first, second and third ports and manually operable to three positions corresponding to said dumping, carrying and intermediate digging positions to operate said hydraulic ram to index said bucket in said dumping position, said carrying position and said certain intermediate digging position.

2,782,947
CART OR HAND TRUCK FOR MOVING FURNITURE
Herman O. Linsel, Los Angeles, Calif.
Application August 2, 1954, Serial No. 447,223
5 Claims. (Cl. 214—373)

1. In a cart for moving furniture and the like, the combination comprising a pair of spaced elongated side members, an upwardly extending projection at the forward end of each side member, a wheel mounted on each side member adjacent the lower end of each projection for rotation about a substantially horizontal axis, an upwardly opening U-shaped rocker arm attached intermediate its ends to the rear portion of each side member to pivot in a substantially vertical plane, and locking

means for releasably holding the rocker arm in a fixed position with respect to the side members.

2,782,948
MULTIPLE SUCTION COASTER FOR BEVERAGE GLASSES AND THE LIKE
Meyer Steinberg, Woodmere, N. Y.
Application December 15, 1954, Serial No. 475,367
1 Claim. (Cl. 215—100.5)

A coaster of the character described, comprising a disc-shaped bottom wall of substantially uniform thickness throughout, a plurality of radially extending ribs formed on the bottom of said bottom wall to space it from a supporting surface and thereby to prevent formation of suction between said bottom wall and said surface, an annular, outwardly biased side wall formed along the peripheral edge of said disc-shaped bottom wall, an inwardly extending annular lip formed along the upper peripheral edge of said side wall in parallel relation to said bottom wall, an outwardly biased, flexible annular flange formed on said bottom wall within said side wall and concentric therewith, and a second flexible, outwardly biased annular flange formed on said bottom wall within and concentric with said first mentioned biased, flexible annular flange, both said biased, flexible annular flanges, in combination with the bottom wall of said coaster, constituting suction cups which are engageable with a glass to attach the coaster thereto, said second annular flange being engageable with a relatively small glass and both annular flanges being engageable with a relatively large glass.

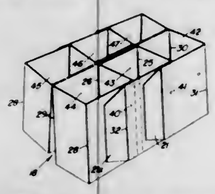
2,782,949
ADHESIVES AND METHOD OF APPLYING TO SILICONE-TREATED SURFACES
Lewis Marks, Jackson Heights, and Allison M. Stern, Mamaroneck, N. Y., assignors to Polymer Industries Inc., Astoria, N. Y., a corporation of Delaware
No Drawing. Application January 11, 1954, Serial No. 403,453
8 Claims. (Cl. 216—62)

1. The method of securing labels to silicone treated surfaces comprising the steps of mixing an acidic fluoride composition with an adhesive thickening agent compatible with said fluoride composition, applying said mixture to the back of said label, positioning said label upon the silicone treated surface, and thereafter allowing the mixture to react with the silicone during the drying of said mixture upon the surface.

2,782,950
COLLAPSIBLE BREAD BOX
Mark Stroud Corr, Selma, Ala.
Application April 12, 1954, Serial No. 422,560
2 Claims. (Cl. 217—15)

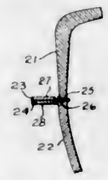
1. A collapsible breadbox comprising a substantially rectangular bottom having a fixed handle projecting outwardly from each end of the bottom and fixed thereto, said handle having a portion in a plane slightly above the upper surface of the bottom serving as a stop, a side wall pivotally mounted on each side edge of the bottom throughout a major portion of the length thereof for swinging movement from a vertical position relative to the bottom to a position substantially parallel with the bottom, a rectangular wire frame positioned on the top edges of the side walls and being of a size corresponding to the outline of the bottom, said rectangular frame having opposed side portions and opposed end portions, the upper edges of said side walls being pivotally connected to said side portions of the frame, the said wire frame having its end portions located in a plane above the plane of the side portions of said wire frame, a pair of opposed end walls, each end wall pivotally mounted by its upper edge to the corresponding end portion of said wire frame, said end walls being of a length to extend between the side walls and being of a height to be supportingly engaged with the bottom thereby providing a rigid open top breadbox in which the ends are of greater height than the sides for supporting a plurality of open boxes in stacked relation, said bottom having means to engage the inner surface of said end walls to prevent unintentional inward swinging of said end walls, said handles on the ends of said bottom providing for manipualtion of each breadbox or stack of boxes without reducing the stability thereof.

2,782,951
CELLULAR FILLER FOR CARTONS
William H. Inman, Newark, N. Y., assignor to Bloomer Bros. Company, Newark, N. Y., a corporation of New York
Application September 11, 1953, Serial No. 379,607
10 Claims. (Cl. 217—23)



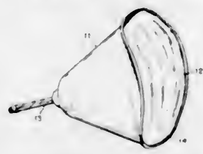
1. A cellular filler for cartons and the like comprising an elongated strip of sheet material folded to enclose a row of separate cells, said strip having a body section, an end section at one end of said body section folded to provide portions extending alternately in directions normal to and parallel with said body section and forming adjacent cells of said row, said end section having a terminal flap extending externally of and detachably glued to a wall of one of said cells, and another end section at the opposite end of said body section folded to enclose another of said cells and having a terminal flap extending externally of and detachably glued to a wall of an adjoining cell, the terminal flaps of said end sections having portions extending freely from said cell walls and adapted to be grasped and pulled to separate said sections and open said cells individually and successively for access to the contents thereof.

2,782,952
CATHODE-RAY TUBE ENVELOPE
Robert H. Dalton and Raymond O. Voss, Corning, N. Y., assignors to Corning Glass Works, Corning, N. Y., a corporation of New York
Application April 13, 1954, Serial No. 422,826
4 Claims. (Cl. 220—2.3)



1. An article of manufacture comprising two glass members having complementary endless planar sealing surfaces facing one another, two metal strips piled one upon the other and arranged in part between such surfaces and having planar sealing surfaces complementary to the sealing surfaces of said members, each strip having a seal portion sealed to the adjoining member sealing surface, said strips having portions that are thick relative to any of the portions thereof that are sealed to the glass members, said relatively thick portions projecting outwardly from the lateral border outlines of such seal portions in planes parallel thereto and being hermetically joined to one another in a plane intermediate to those occupied by the respective glass-metal seals.

2,782,953
RECTANGULAR METAL CATHODE RAY TUBE
Stanley J. Koch, Clifton, and Robert E. Rutherford, Nutley, N. J., assignors to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware
Application March 13, 1950, Serial No. 149,342
1 Claim. (Cl. 220—2.3)

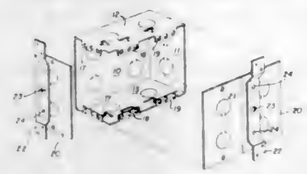


A television tube envelope comprising a one piece continuous sheet metal tapering body, the lower end of said body having a circular opening therein, the upper end of said body being open and the walls about said opening defining an opening substantially rectangular in outline, the free marginal edges of said walls defining said opening being formed into a seating ledge of substantially rectangular configuration, each of the four sides of the substantially rectangular seating ledge being upwardly curved longitudinally thereof and coacting with each other to form a convexly curved seat for receiving a longitudinally and transversely convexly curved substantially rectangular viewing screen.

2,782,954
COMBINATION SWITCH AND OUTLET BOX
James A. Antonucci, Youngstown, Ohio
Application December 27, 1954, Serial No. 477,718
4 Claims. (Cl. 220—3.92)

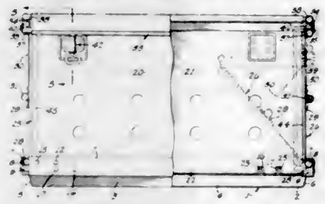
1. A combination switch and outlet box comprising a box having an integral back, top, bottom and one end,

with an open front and an open end, a cover for said box, means on said top and bottom portions adjacent said open front and end for removably attaching said cover, said cover being of a size registering with said open front



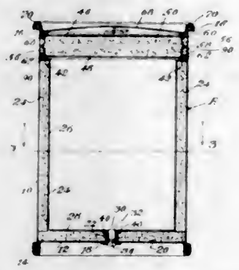
and having a centrally disposed frangible line by means of which half of said cover may be separated from the remainder and used to form a cover for said open end of said box.

2,782,955
COLLAPSIBLE LUG BOX
James M. Gordon, Los Angeles, Calif.
Application June 18, 1956, Serial No. 592,160
8 Claims. (Cl. 220—6)



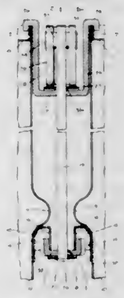
1. A lug box comprising a hollow bottom, a strengthening channel extending around the upper edges of said bottom, side and end panels hinged within said channel, auxiliary end panels hinged to said end panels, an upper reinforcing member carried by said auxiliary end panels having approximately the same external and internal dimensions as said channel, said reinforcing member having spaced channel members extending inwardly, channels carried by said side and end panels adapted to fit between and interlock with said spaced channel members.

2,782,956
INSULATED DRUM
Frederick H. Richman, Pensacola, Fla.
Application October 28, 1954, Serial No. 465,193
2 Claims. (Cl. 220—10)



1. A drum composed of an outside casing including a cylindrical side and a base, the bottom of said side being joined to the outer periphery of said base, a liner in said casing having a bottom portion, a disk of insulating material located between said bottom portion and base, said liner having a cylindrical side and insulating material between said cylindrical sides of said casing and liner, an inner cover having insulating material therein and an outer cover disposed over and in engaging relationship with said inner cover, said inner cover further including upper and lower disks and means connecting said disks with said insulating material between them, said last-named means comprising a cylindrical spacer member, said member having an annular rib projecting outwardly between said discs, said rib fitting against the inner surface of said casing in closed position.

2,782,957
CYLINDER CLAMPS
Jack G. Imparato, Brooklyn, N. Y., assignor of one-half to John J. Imparato, Brooklyn, N. Y.
Application March 22, 1954, Serial No. 417,744
9 Claims. (Cl. 220—23.4)



6. The herein described means for clamping a pair of cylinders together, the cylinders having recessed ends bordered by raised annular flanges, walls of the cylinders in spaced relationship to the flanged ends having outwardly extending annular beads, rings fixed to the exterior of the cylinders longitudinally inwardly of the beads with respect to one of said flanged ends, said rings having downwardly extending annular flanges spaced from the exterior of the cylinders, a clamp comprising a channelled plate having curved sides operatively engaging the flanges of said rings, a deep channelled clamp plate defined by curved side walls joined at the base of the channel in a crosshead, said curved side walls forming outwardly flared ends on said plate, upper ends of the side walls having outwardly and downwardly extending hook-shaped flanges adapted to operatively engage the flanged ends of the cylinders, each plate having apertures, said apertures being in alinement, an elongated bar mounted in the apertures of said plates, one end of the bar having a head, preventing displacement of the first named plate from said end of the bar, the other end of the bar having a pin projecting at side surfaces of the bar, a cam member pivotally mounted on the projecting ends of said pin, said cam member being yoke-shaped in form and defined by side plates joined by a crosshead, the side plates having cam surfaces eccentric to said pin and adapted to operatively engage the crosshead of said deep channelled plate in drawing both plates into clamping engagement with the cylinders, and means on the crosshead of said cam member facilitating operation of the cam member in movement of the clamp plates into operative and inoperative positions.

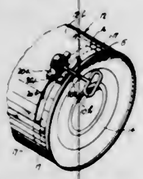
2,782,958
MECHANICALLY EXPANSIBLE CLOSURE PLUG
Charles Warren Hurley, Gaithersburg, Md., assignor to the United States of America as represented by the Secretary of the Army
Application November 16, 1954, Serial No. 469,326
5 Claims. (Cl. 220—24.5)

1. In an expansible closure, the combination with a container having an annular wall flange defining an open-

ing in a container wall, a closure cap having a top wall and depending annular cap flange telescopically engaging said wall flange, and interengaging means on said flanges for moving said cap into and out of a seated position on said wall flange; of an expansible closure plug, said plug normally having a free fit in said wall flange, means mounting said plug in said cap flange for movement relative thereto, stop means on said plug and engageable with said wall flange for limiting the entrance of said plug into said opening, said plug comprising a hollow cup-shaped member having a cylindrical side wall, said member having a floor

comprising a hollow upright cone having a tip normally projecting above said wall flange within said cap, said tip being engaged by said cap top wall and moved inwardly thereby as said cap is moved relative to said wall flange and plug to said seated position, said side wall having a lower edge normally disposed below said wall flange, said floor being relatively thicker than said side wall, and said floor having a toggle action as said cap is moved to said seated position so as to roll said lower edge of said side wall radially outwardly below said wall flange and in tight engagement therewith to form a seal.

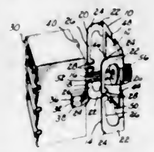
2,782,959
TEARING STRIP GUIDE
Edward E. Simon, Seattle, Wash.
Application July 2, 1954, Serial No. 441,035
4 Claims. (Cl. 220—52)



1. A tearing strip guide for use with a key in the removal of a tearing strip from the body wall of a can; said guide comprising a rigid, plate-like member adapted to be laid flatly against the can wall, to extend along the tearing strip; said plate-like member having a recess formed in its trailing end to receive the tearing strip tongue when turned outwardly from the can wall for application to a winding key laid transversely across the guide member, said recess having a base edge at a right angle to the direction of the strip and said guide member being adapted to be pulled along the strip by the drawing of the strip against said base edge of the recess as wound onto the key, and said plate-like member having a recess formed therein forwardly of and aligned with the trailing edge recess to receive the strip coil as formed in the key.

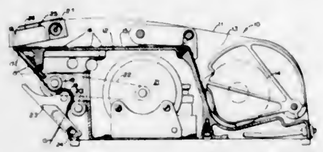
2,782,960
COVER PLATE ASSEMBLY
Raymond H. Boardman, Hartford, Conn., assignor to The Hart Manufacturing Company, Hartford, Conn., a corporation of Connecticut
Application January 15, 1954, Serial No. 404,208
4 Claims. (Cl. 220—60)

3. In combination, an open-ended box structure having laterally extending projections, each of said laterally extending projections having a forwardly and inwardly inclined cam surface and a rearwardly facing shoulder, and a cover plate of relatively thin sheet material including a generally rectangular panel provided with two pairs of flat resilient L-shaped arms integrally extending from said panel adjacent the corners thereof and bent at substantially right angles to the plane thereof, the arms of each pair having relatively short shank portions gen-



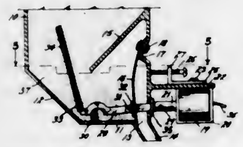
erally perpendicular to the side edges of said panel and oppositely extending relatively long portions generally parallel to the side edges of said panel and tapering toward their free ends, and fingers on the free ends of the tapered portions extending into engagement with the rearwardly facing shoulders of said projections.

2,782,961
LABEL DISPENSING DEVICE
James S. Gassaway, Los Angeles, Calif., assignor to Avery Adhesive Label Corp., Monrovia, Calif., a corporation of California
Application November 10, 1955, Serial No. 546,103
8 Claims. (Cl. 221—73)



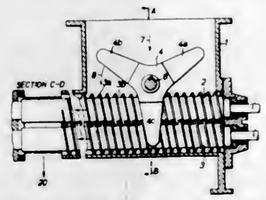
1. A control switch responsive to differences in elevation of areas on a traveling web, a surface underlying the web, a switch-holding housing pivotally mounted adjacent its rear edge above the web so that its forward edge rests on the web, a switch actuator mounted in said switch-holding housing for movement with respect thereto, the forward edge of said switch actuator resting on said web adjacent to but rearwardly of the forward edge of said housing, and a switch mounted in said housing and adapted to be actuated by said switch actuator whenever the forward edge of said switch actuator is at the same level with or above the forward edge of said housing.

2,782,962
SOLENOID OPERATED POWDERED MATERIAL DISPENSER
Glenn E. Mercer, Denver, Colo., assignor to Superior Manufacturing Co., Denver, Colo.
Application March 19, 1956, Serial No. 572,566
8 Claims. (Cl. 222—227)



1. A dispenser for powdered material comprising: a container; a front wall in said container; a bottom in said container, said bottom terminating in spaced relation to said front wall to form a bottom discharge port; a flexible gate plate secured to said front wall above said bottom and extending downwardly into engagement with the rear side of said port, said plate extending from side to side of said container so as to prevent powdered material therein from reaching said port when said plate is in engagement with said rear side; and means for flexing said gate plate forwardly so that its lower extremity will swing forwardly from said rear side to allow the powdered material to discharge from said port.

2,782,963
MEANS FOR FEEDING TO MACHINES STICKY OR CRUST-FORMING MATERIALS
Rudolf Erdmenger, Bergisch-Gladbach, Germany, assignor to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany
Application July 21, 1954, Serial No. 444,841
Claims priority, application Germany July 27, 1953
3 Claims. (Cl. 222—227)

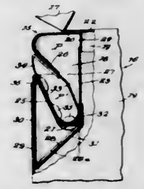


1. Feeding means adapted to convey sticky and crust-forming materials and arranged in charging hoppers of machines of all kinds comprising a charging hopper and at least one screw conveyor arranged at the lower part of said charging hopper, an agitator pivoted in said charging hopper so that the axis of said agitator is positioned transversely to the axis of said screw conveyors, drive means for rotating said screw conveyor, separate drive means for rotating said agitator independently of said screw conveyor said agitator having at least two blades rotating about said axis common to said blades, said blades being positioned symmetrically to each other substantially near the walls of said charging hopper, each of said blades having at least one upwardly bent arm with the inside surfaces of said arm of said blades positioned for touching and gliding over the lands of said conveyor screws thereby feeding the material to be conveyed into the threading of said conveyor screws.

2,782,964
DROPPER DEVICE FOR MEASURING AND DISPENSING LIQUIDS
Sidney William Wilding, London, England, assignor to The Amalgamated Dental Company Limited, London, England
Application July 29, 1955, Serial No. 525,339
2 Claims. (Cl. 222—422)

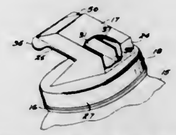
1. A dropper device for measuring and dispensing liquids comprising a pouring tube and a dropper member adjustably engaged therewith, the dropper member being in the form of a ball at the end of a short stem formed with a flat so as to close the tube when the stem is fully inserted therein but affording fluid access to the ball when the stem is only partly inserted.

2,782,965
BOX AND DISPENSER FOR GRANULAR MATERIALS
Vernon M. Campbell, Tipton, Ind.
Application February 2, 1956, Serial No. 563,002
4 Claims. (Cl. 222—455)



1. In a measuring and dispensing device for granular material, a box for the material, a vertically elongated casing secured in an upper corner of said box, said casing comprising parallel side walls, a top and a bottom secured to said side walls, an inner wall extending upwardly from said bottom and secured to said side walls, said inner wall terminating a short distance below said top, one outer wall section rising from said bottom and secured to said side walls, said one outer wall section terminating below said top, and a second outer wall section secured to said side walls and top and spaced above said one outer wall section, said second outer wall section declining toward said inner casing wall and terminating in spaced relation therewith; said top, said second outer wall section and portions of said side walls cooperating in forming an upper pocket to receive material from the aforesaid box when the latter is tilted; said bottom, said inner wall, said one outer wall section and portions of said side walls cooperating in forming a lower pocket to receive the material from said upper pocket when the box is righted, permitting discharge of this material when the box is again tilted, an edge wall, said box having an opening which exposes the space between said outer wall sections to permit discharge of the material.

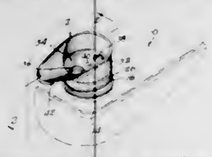
2,782,966
DISPENSERS
George W. Wiedenmeier, Fond du Lac, Wis.
Application July 14, 1954, Serial No. 443,333
11 Claims. (Cl. 222—455)



1. In a dispenser: a receptacle having an open end portion, a dispenser unit removably mounted upon said receptacle over the open end thereof, said dispenser unit having a measuring chamber located near what comprises the upper end of the dispenser unit when the same is in its static position, said measuring chamber having at least two openings therefrom, a first opening leading directly from the measuring chamber to the exterior of the dispenser through a wall portion thereof, a second opening from the measuring chamber through a wall portion thereof and forming a restricted opening and being so located with respect to the first opening as to be adjacent what is the top of the measuring chamber when the dispenser is in its dispensing position and the first opening being adjacent the bottom of the measuring chamber when so tilted to its dispensing position to permit complete emptying of the measuring chamber when being used by the operator, said second opening providing a direct opening with the storage portion of the receptacle and further being so located with respect

to the inside of the measuring chamber when the dispenser is in its dispensing position as to open into the receptacle at a point above the bottom of the measuring chamber and away from the said first opening to provide for a certain level of repose to be assumed by a granulated substance being dispensed such that the granulated substance being dispensed trapped in the measuring chamber after the dispenser has been first tilted to a substantially inverted position and then tilted back to a substantially horizontal position may be very nearly identical in each operation, a wall portion of said measuring chamber sloping in a direction from the said first opening downwardly toward the said second opening thereby providing for completely emptying the contents of the measuring chamber back into the receptacle should the dispenser after being inverted be returned to its static position without dispensing, closure means for said first opening forming a portion of the wall of the measuring chamber and adapted to be opened to permit dispensing directly from the measuring chamber, and means preventing continual flow of granulated substance from the receptacle into the measuring chamber while the dispenser is in its dispensing position thereby assuring that only the exact amount of substance contained in the measuring chamber is dispensed after first inverting the dispenser and then tilting the dispenser to its dispensing position.

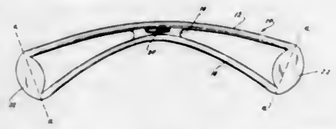
2,782,967
SCREW-ON POURING SPOUT
Roy Nelson Walker, Peoria, Ill.
Application March 18, 1955, Serial No. 495,137
2 Claims. (Cl. 222—485)



1. A replacement cap for a container having an upstanding threaded neck comprising a base of inverted cup shape, said base including a flat, circular top wall and a depending, threaded skirt adapted to engage the neck of the container, said base including an annular gasket of compressible, leak-preventive material confined by the skirt and adapted to engage between the neck of the container and the marginal portion of said top wall on threading of the skirt onto the container neck, the top wall of the base having diametrically opposed pouring and vent openings; a flat washer formed to a diameter approximating that of the top wall and having spaced openings registering with those of the top wall, said washer being fixedly secured to the top wall and being held under slight compression against the top wall so as to prevent leakage between the top wall and washer; and an upwardly opening cup member rotatably mounted upon the washer and base, said cup member including an outwardly projecting spout and having spaced openings registering in one position of the cup member with the openings of the washer and base to permit pouring of the container contents, said cup member bearing against the upper surface of the washer to hold the washer under slight compression, thus to prevent leakage between the washer and the cup member.

2,782,968
FITTED HANGER FOR GARMENTS
Amanda Lillian White, New York, N. Y.
Application December 2, 1954, Serial No. 472,748
5 Claims. (Cl. 223—92)

1. A garment hanger comprising a slotted, elongated body progressively widened in a direction from its mid-length point toward its respective ends, oblong-shaped shoulder support plates movably mounted on the body forming generally flat surfaces extending transversely of the body at its ends, and a suspension hook extending upwardly from the midlength point of the body, said shoulder support plates including trunnions on opposite ends thereof, said body including resilient back and front



members having inwardly facing openings receiving said trunnions, said members being tensioned to spring inwardly toward one another so as to releasably engage the trunnions, said trunnions being adapted to mount the shoulder support plates for tiltable adjustment about an axes extending transversely of the hanger at the ends thereof.

2,782,969
FOLDING GARMENT HANGER
Ralph P. Murray, Los Angeles, Calif.
Application April 25, 1955, Serial No. 503,555
7 Claims. (Cl. 223—94)

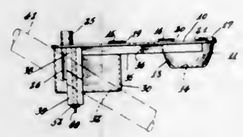
1. A wire garment hanger comprising a guide frame, a pair of oppositely extending arms pivotally connected to said frame, said arms being transversely offset from each other and having convexly curved portions in overlapping relation when the arms are in a folded position, a member guided in said frame and movable between the convexly curved portions of the arms to move and lock the latter in an unfolded position, and a hook to suspend the hanger and connected to the guided member.

2,782,970
CURTAIN THREADER
Lucille S. Young, Lincoln, Ill.
Application October 19, 1954, Serial No. 463,191
1 Claim. (Cl. 223—105)

A curtain threader for removable engagement in one end of a curtain rod for spreading the walls of a curtain hem in advance of the rod during extension of the rod through said hem, comprising an elongated length of wire material having the approximate shape of a U and including a pair of coplanar legs extendable into said end of the rod, and a head on one end of the legs adapted to project beyond said end of the rod for extension into the hem in advance of the rod, said head being approximately

C-shaped and including a curved bight and curved side portions, the side portions converging toward and merging at their convergent ends into the legs, the side portions at their divergent ends merging into the ends of the bight, the bight having for substantially its full length a surface bowed out of the common plane of the legs at one side of said plane for engaging one wall of the hem, the side portions having surfaces bowed out of said plane at the opposite side of the plane to engage the opposite wall of the hem, said surface of the bight being formed with a longitudinal series of low lugs rounded over their full areas, said lugs being substantially uniformly spaced apart along the length of the bight and merging smoothly at their bases into surrounding areas of the bight surface.

2,782,971
CADDY BAG CART KIT
Stephen Hershey, Bristol, Conn.
Application November 15, 1954, Serial No. 468,601
2 Claims. (Cl. 224—29)



1. In a kit for attachment to the normally inclined handle of a caddy bag cart, a generally rectangular flat member having a downwardly directed cup-shaped depression formed therein to removably support a golf ball, when said flat member is horizontally positioned, said depression having an opening in the bottom thereof of less diameter than said ball, and a pair of separable clamping blocks having complementary concave recesses to detachably embrace said handle, one of said blocks being secured to the underside of said flat member, the inclination of the curvature of said recesses being such as to maintain said first mentioned flat member substantially horizontal when clamped to said handle.

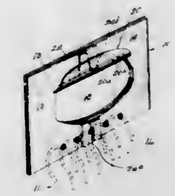
2,782,972
ARTICLE CARRIER ATTACHMENT
Kenneth W. Binding, Winchester, Mass., assignor to Market Forge Company, Everett, Mass., a corporation of Massachusetts
Application July 13, 1955, Serial No. 521,700
7 Claims. (Cl. 224—42.1)

1. An article carrier attachment for automobile tops of the type having longitudinally extending rain gutters, said attachment comprising a rigid cross bar of fixed length, each end of the cross bar bending downwardly and terminating in a claw, a plate disposed beneath each end of the cross bar for engagement with the automobile top, and means for clamping the plates to the rain gutters, each plate having a series of claw-anchoring elements spaced transversely of the automobile top, the claw being engageable with any one of said claw-anchoring elements depending on the width of the automobile top.

2,782,973
AUTOMOBILE TOP CARRIER FOR SKIS
Joseph B. Lang, East Grand Forks, Minn.
Application May 25, 1954, Serial No. 432,262
8 Claims. (Cl. 224—42.1)

1. An automobile top carrier comprising a pair of spaced racks to extend across the top, each of said racks comprising a bar to extend from side to side of the top and having ends, a strip overlying and extending along the bar, said strip having ends terminating in spaced relation to the ends of the bar, top engaging mounting brackets beneath the bar at the ends of the strip, said brackets having horizontal bight portions upon which said bars rest, inverted U-shaped clamps having bight portions overlying the ends of the strips and legs depending at opposite sides of the strip and of the bar, means securing said legs to the bight portions of the brackets, spaced pairs of spaced vertical arms rising from said strip between its ends.

2,782,974
HANDLE CONSTRUCTION
Robert R. Borgfeldt, Chicago, Ill.
Application March 5, 1956, Serial No. 569,385
2 Claims. (Cl. 224—45)

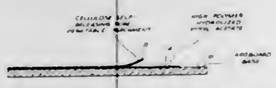


1. A handle for use in carrying an object depending therefrom, said handle comprising a blank of relatively thin, stiff sheet material, said blank including a first portion having a handhole formed therein and a plurality of relatively spaced object-accommodating apertures spaced to one side of said handhole a flap section foldably connected to said first portion on the opposite side of said handhole, and a second portion foldably connected to said first portion and provided with a handhole and a plurality of object-accommodating apertures which register with the corresponding handhole and apertures in said first portion, when said portions are in folded relation with respect to one another; the flap section in said first portion, when in folded relation with respect thereto, subsequent to folding of said first and second portions, having a portion thereof projecting through the handhole in said second portion to form an elongated, finger-contacting segment of a width substantially greater than the combined thicknesses of said first and second portions and having the surface of said segment adjacent said registered aperture contoured to comfortably accommodate fingers inserted through said registered handholes.

2,782,975
SPRAYABLE AMORPHOUS ANTIBIOTIC COMPOSITION, PRESSURIZED CONTAINER WITH SAME, AND METHOD OF PREPARING
John Cecil Bird, Pearl River, N. Y., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application April 20, 1955, Serial No. 502,739
11 Claims. (Cl. 141—392)

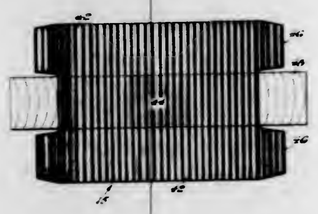
11. A composition of matter comprising finely divided particles having a diameter of less than about 15 microns of a substantially amorphous antibiotic of the group consisting of calcium chlortetracycline and calcium tetracycline suspended in a liquid haloalkane whose specific gravity is greater than 1.73 and whose vapor pressure at 25° C. is between 12 and 100 lbs./square inch.

2,782,976
LAMINATES AND LAMINATED PRODUCTS
Anthony J. Rinaldi, Demarest, and Francis A. Romano, Englewood, N. J.
Application December 29, 1952, Serial No. 328,334
3 Claims. (Cl. 229—3.5)



3. For use as a combined baking, shipping and merchandizing receptacle for goods, a container including at least a bottom wall fabricated of a laminate comprising a semi-rigid cellulosic base, a layer of moderately parchmentized grade of vegetable parchment containing a releasing agent having a stearyl group, and an adhesive of high-polymer, hydrolized vinyl acetate bonding said layer to said base.

2,782,977
BOX AND BOX BLANK
Paul Thompson, Wellesley Hills, Mass., assignor to Bestpak Inc., Boston, Mass., a corporation of Massachusetts
Application July 6, 1950, Serial No. 172,270
4 Claims. (Cl. 229—14)

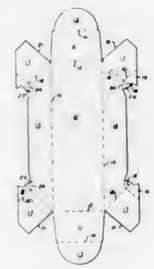


1. A folded paperboard box including body and end walls formed from a single piece of plied paperboard stock embodying a corrugated sheet adhesively attached to one face of a backing sheet with the corrugated and backing sheets disposed respectively at the inner and outer faces of the box, certain of said walls embodying overlapping flaps adhesively secured in face to face contact to form a wall portion of the box and including a plane outwardly facing backing sheet face engaged and covered by an inwardly facing and substantially flat face embodying said corrugated sheet flattened against the backing sheet and held in such flattened condition by adhesive contact with the backing sheet, thereby forming the exposed face of the corrugated sheet into a permanently flat plane surface, and means adhesively securing said surface to the cooperating backing sheet face in a continuous flat plane at the junction of said faces.

2,782,978
PROTECTOR FOR BOXED FOOTWEAR
Benn Karr, Los Angeles, Calif.
Application November 10, 1955, Serial No. 546,040
8 Claims. (Cl. 229—14)

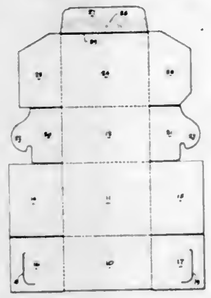
7. A shoe-protecting attachment for a shoe box having opposed side walls and a cover, comprising: a pair of transparent sheets overlying and connected to the respective side walls and formed with flaps projecting above the side walls, said flaps being foldable inwardly to cover a pair of shoes housed in the box; and means stiffening the flaps in a transverse direction to require inward folding of the flaps before application of the cover, the connection between each sheet and its associated side wall comprising a hook extending outwardly from the sheet and engageable over the side wall, said means extending the full width of the respective sheets, and being spaced apart longitudinally of the flaps and unstiffened, transparent portions of the sheets being overlapped in the space between said means to protectively overlie, and permit visual inspection of the contents of the box.

2,782,979
FOLDING PAPER TRAY
Walter J. Tyrseck, Montville, Conn., assignor to Robertson Paper Box Company, Incorporated, Montville, Conn., a corporation of Connecticut
Application September 13, 1955. Serial No. 534,061
6 Claims. (Cl. 229—32)



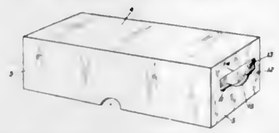
3. A blank for forming a folding paper tray for holding a can or similar object comprising a rectangular floor panel, side panels at each side thereof and joined thereto by fold lines, lateral end panels joined to the said side panels by diagonal fold lines at the ends thereof, further central end panels joined to the bottom panel by fold lines at its ends and substantially semi-circular terminal end flaps joined to the last said end panels by fold lines, the side wall panels and lateral end panels joined thereto having gusset structures forming continuations thereof and defined, in each case, by a continuation of the said diagonal fold line and by two further fold lines at an angle thereto, whereby the folding over of a said lateral end panel into perpendicularity with its side panel and the folding inward of the said gusset structure provides a substantially rigid corner structure, and the said substantially semi-circular end flaps being of a width so as to fit the said gusset structures for holding the same in position.

2,782,980
CARTON FOR ICE CREAM
Dean E. Rueckert, Mokena, Ill., assignor to Swift & Company, Chicago, Ill., a corporation of Illinois
Application August 13, 1952, Serial No. 304,169
2 Claims. (Cl. 229—51)



1. A carton blank comprising bottom, side wall, and cover portions, scored for folding, a tab connected to the cover portion and scored for folding, a strip of adhesive on the inner side of said tab for sealing the tab to a side wall when the blank is folded into a carton and a slit on the inner side of the cover portion parallel to and spaced from the score between said tab and said cover portion opposite the strip of adhesive and coextensive with said strip, said slit adapted to prevent peeling of the inner wall of the cover when the cover is released from the carton by pulling the tab.

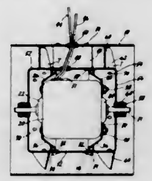
2,782,981
CARDBOARD BOX
Joseph Everett Mires, London, Ontario, Canada, assignor to Somerville Limited, London, Ontario, Canada
Application January 24, 1955, Serial No. 483,708
3 Claims. (Cl. 229—52)



1. A box comprising a lid portion formed of a top and four downwardly extending sides to encase a bottom portion having a bottom and three upwardly extending sides of substantially the same height and a fourth side of less height than the height of the other three sides, said fourth side having a handle swingably connected to and projecting upwardly from its top edge and arranged to enter an orifice in one of the downwardly extending sides of the lid portion, the upper edge of said orifice being formed with an inwardly and downwardly inclined handle deflecting tongue across the face of which the handle slides to enter the orifice upon the lid portion being moved downwardly to encase the bottom box portion.

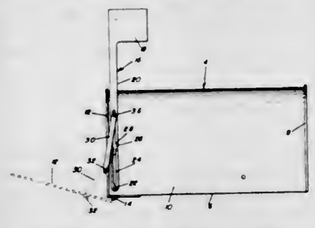
2,782,982
AIR IMPELLER AND MOTOR UNIT
Kenneth A. Merz, Cornwall, Conn., assignor to The Torrington Manufacturing Company, Torrington, Conn., a corporation of Connecticut
Application March 12, 1954, Serial No. 415,760
4 Claims. (Cl. 230—117)

1. In an air impeller and motor unit, the combination of an outer housing, a shell smaller than the housing and centrally located therein so that an annular air passageway is provided between the housing and the shell, circumaxially spaced members extending across the said passageway and rigidly connecting the shell with the housing, a motor centrally located within the shell and having a casing with a diameter smaller than that of the shell which motor has a drive shaft with a projecting portion, two similar oppositely positioned motor supporting discs having their inner portions rigidly connected with the motor at opposite ends thereof, the said discs engaging the shell so as to be centered with respect thereto



and further engaging the shell so as to prevent movement of the discs toward each other whereby the said discs serve to hold the motor in fixed relationship with the said shell, and a rotatable air impeller within the housing adjacent one end of the shell and connected with the projecting portion of the motor shaft which impeller has air engaging blades movable in a path adjacent the one end of the said annular passageway.

2,782,983
MAILBOX SIGNAL
James Howard Cyphers, Central Point, Oreg.
Application February 15, 1954, Serial No. 410,339
2 Claims. (Cl. 232—35)

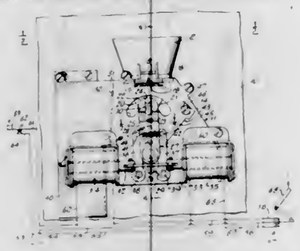


1. In combination, a rural mail box open at its mail accommodation end, an upwardly swingable closing door normally closing said end and hingedly connected to the bottom of said box, a signal flag having a linearly straight staff parallel to one vertical side wall of said box and having its lower end superimposed against and pivotally and frictionally connected to said one wall just above said bottom and adjacent to the door hinge connection, the intermediate portion of said staff having a lengthwise slot therein, one longitudinal edge of said slot having a notch therein defining and providing a shoulder, said flag being adapted, by way of said friction pivotal connection, to stay in a vertical "up" position when set by hand to occupy said position, and a linearly straight flag dropping link pivoted at one end on one marginal edge of said door, the other end of said link overlapping and having sliding contact with an adjacent outer surface of said staff and having a lateral pin, the latter operating slidingly in said slot and being releasably engageable with said shoulder.

2,782,984
COIN DIRECTOR
Fairfield W. Hoban, Babylon, N. Y.
Application April 3, 1953, Serial No. 346,635
2 Claims. (Cl. 232—57.5)

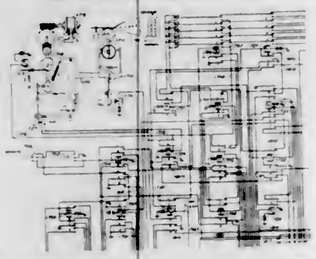
1. In a coin director, a coin control in the form of a substantially closed body movable in opposite directions and having a cylindrical coin-supporting surface and two

plane converging coin-directing outer surfaces, adjustable positioning means for the coin control, and actuating means for moving the coin control in opposite directions, and wherein said coin control body comprises, substantially, a sector of a cylinder having a pivotal suspension at the juncture of its coin-directing surfaces and an operating pin extending from the body, and wherein said actuating means comprise a double-armed lever having short and longer arms, the longer arm having a bifurcated end, a pivot for the lever located in the vertical center plane passing through said pivotal suspension for the sector, said bifurcated end of the lever operatively engaging the operating pin of the sector; said adjustable coin control positioning means comprising a pair of bars pivoted at one of their ends and movable at their free ends, the pivoting points of the bars being disposed symmetrically relative to the pivot of the double-armed lever, the free bar ends



engaging the side edges of the longer arm of said double-armed lever, spring means urging the bars toward one another and toward the edges of said longer arm; a cam structure for adjusting the position of the bars and thus of the double-armed lever and therethrough of the sector, said cam sturcture comprising an adjusting lever, pivoted coaxially with said double-armed lever, and a cam flange extending therefrom and adapted to engage the adjacent inner edges of the bars, and electromagnetic means operatively engaging the short arm of the double-armed lever and serving for imparting movement to that lever, and thus to the sector, said coin control positioning means serving for normally maintaining said double-armed lever in substantially a vertical position, and at which position of the lever the coin-directing surfaces of the coin control assume a position substantially symmetrical to the vertical center plane passing through said sector and its pivotal suspension.

2,782,985
TAPE CONTROL ARRANGEMENT FOR COMPUTER
Edward L. Vibbard, La Jolla, Calif., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Original application December 17, 1946, Serial No. 716,827, now Patent No. 2,671,611, dated March 9, 1954. Divided and this application June 12, 1952, Serial No. 293,103
13 Claims. (Cl. 235—61)



2. In a tape-controlled calculator, a master tape on which is recorded indicia for controlling the pattern of operation of said calculator, said master tape being in the form of an endless loop and having a start position indicator and a mid-point indicator thereon, said mid-point indicator being located on said tape one-half the circumferential length of said tape from said start position indicator, a tape driving means arranged to drive said tape forwardly or backwardly, recycle means for setting said calculator to zero in preparation for a new calculation, means controlled by said recycle means for controlling said tape driving means to drive said tape backwardly to said start position indicator and means controlled by said recycle means and responsive to said mid-point indicator for controlling said tape driving means to drive said tape forwardly to said start position indicator.

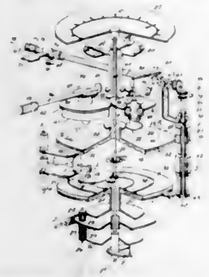
2,782,986
BALANCE COMPUTING DEVICE
Peter Davey, White Plains, N. Y.
Application September 9, 1953, Serial No. 379,111
3 Claims. (Cl. 235—61)

1. A balance weight computer, including, in combination, a support, a post supported rotatably by the support, an index arm extending from the post and attached thereto to rotate therewith and formed with an index, a face plate attached to the post to rotate therewith, a rod parallel to a radial line from the longitudinal center line of the post to the index on the index arm supported by the face plate, a pointer, a vertical shaft supporting the pointer, the vertical shaft supported by the rod and movable therealong in a line radial to the post and parallel to the rod, means for moving the vertical shaft and pointer along the rod, graduations on the face plate over which the pointer sweeps, an arm carried by the vertical shaft, the arm formed with a line of graduations thereon extending radially from the longitudinal center line of the vertical shaft, a member extending transversely of the face plate and formed with a line of graduations radially of the post beginning in the extended longitudinal center line of the post, a disc mounted on the post, means frictionally engaging said disc with the post so that the disc may rotate when the post is rotated and the disc may rotate independently of the post, the disc being graduated along its periphery and positioned to cooperate with the index, a second index in line with the line of graduations on the member, the second mentioned index positioned to cooperate with the graduations on the disc, a gear positioned on the post to rotate thereon, a manually operable holding arm attached to the gear for preventing rotation thereof, a second gear attached on the vertical shaft, means connecting the first and second gears whereby one drives the other, an indicating arm rotatably mounted on the post and extending along the holding arm to a position where it cooperates with the graduations on the disc, means detachably connecting the indicating arm to the holding arm.

2,782,987
APPARATUS FOR INDICATING THE MEAN SPEED OF A VEHICLE
Francesco Perrotti, Milan, and Mario Valdivieso, Rome, Italy
Application June 24, 1952, Serial No. 295,224
Claims priority, application Italy July 27, 1949
20 Claims. (Cl. 235—61)

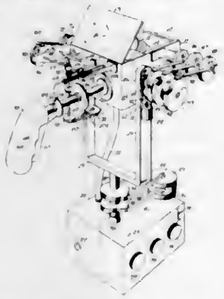
1. An apparatus for indicating the mean speed of a vehicle, comprising in combination: a rotatable shaft for

connection with an odometer, a first rotatable logarithmic cam means, a first coupling including frictionally engaged means arranged between said shaft and said first logarithmic cam means, a time-piece, a second rotatable logarithmic cam means, a second coupling including frictionally engaged means arranged between said time-piece and said second logarithmic cam means, a planetary gearing including a first and second rotatable sun gear operatively engaged with a planet gear mounted on a swingable carrier, said first sun gear being operatively connected with said first logarithmic cam means for actuation by the latter, said second sun gear being operatively connected with said second logarithmic cam means for actuation



by the latter, a pair of cooperating relatively movable indicating means, one of said indicating means being stationary the other one being operatively connected with said swingable carried for actuation by the latter so as to indicate a mean speed value in accordance with the algebraic difference between the logarithms of the distance and of the time, and manually operable zeroizing means operatively connected with said first and second logarithmic cam means for setting same into a starting position in accordance with the value zero, the frictionally engaged means of at least one of said couplings being permanently engaged with each other and being displaceable relative to each other under the action of said zeroizing means.

2,782,988
COMPUTING GUN SIGHT
Edward J. Mikol, Hollywood, Calif.
Application March 31, 1953, Serial No. 345,795
3 Claims. (Cl. 235—61.5)

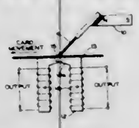


1. A gun aiming device wherein at least one gun, which is movably mounted on a movable carrier, is caused to be aimed along a line of fire deviated from a line of sight, at a movable target, whereby to effectively compensate for factors affecting the ultimate coincidence of a fired projectile and said target, comprising: a movable sighting member; a movable gun member; means responsive to several factors including the position and direction of movement of a carrier with respect to a target, considered as a still body, when said sighting member is aimed at said target, and responsive to the velocity of movement of said carrier, for producing corresponding electrical values related to said factors; means responsive to several additional factors including the direction of movement and the velocity of movement of a target with respect to the carrier, considered as a still body, for producing a second set of corresponding electrical values related to said additional factors; means responsive to the elevational position of a target with respect to the carrier, when said sighting means is aimed at said target, for producing a corresponding electrical value related thereto to provide compensation for the effect of gravity on a fired projectile; means for algebraically adding said electrical values which are proportionate to the required deviation components of the line of fire and the line of sight to produce other coordinate electrical values proportionate to the Cartesian coordinates of a total deviation electrical value; said movable sighting member including cathode ray tube means responsive to said coordinate electrical values for producing a visually observable aiming spot deflected from a norm position by the appropriate deviation whereby to produce a proper deviation of the line of sight and the line of fire; said means responsive to the position and direction of movement of the carrier with respect to a target, considered as a still body, comprising cam means having precalculated shapes corresponding to the requisite correction factors, cam follower means cooperably arranged with respect to the cam means, and variable electrical means operable in response to relative movement of the cam follower means to effectively produce corresponding electrical values related to said corrective factors, said cam means and said cam follower means being relatively movable in response to relative movement of the sighting member and the gun member with respect to a predetermined reference position; said means responsive to direction of movement of a target with respect to the carrier, considered as a still body, comprising a second set of cam means having precalculated shapes corresponding to the requisite correction factors, a second set of cam follower means cooperably arranged with respect to the second set of cam means, and second variable electrical means operable in response to relative movement of the second cam follower means to effectively produce corresponding electrical values related to said corrective factors, and manually positionally adjustable target simulating means capable of being adjusted to an attitude simulating that of a target, said cam means of said second set and said cam follower means of said second set being relatively movable in response to movement of said target simulating means with respect to a predetermined reference position; said means responsive to the elevational position of a target with respect to the carrier comprising third cam means having a precalculated shape corresponding to the requisite correction factor, third cam follower means cooperably arranged with respect to said third cam means, and a third variable electrical means operable in response to relative movement of the third cam follower means to effectively produce a corresponding electrical value related to said corrective factor, said third cam means and said third cam follower means being relatively movable in response to relative elevational movement of the sighting member and the gun member with respect to a predetermined reference position.

2,782,989
RECORD SENSING APPARATUS
Lewis A. Knox, Owego, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 30, 1953, Serial No. 401,301
7 Claims. (Cl. 235—61.11)

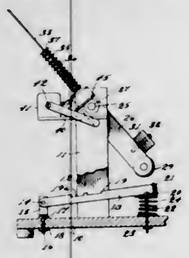
4. In an apparatus for sensing records having perforations therein, a sensing station including a core and

associated coil means, said core and associated coil means having magnetic lines of flux therein, said record being adapted to move relative to said sensing stations so that there are conditions of registration and non-registration of said perforations with said sensing station, and brush



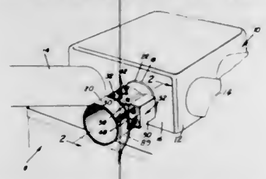
means of a magnetic material arranged to move into said perforations upon transition from a condition of non-registration to a condition of registration, said brush means varying the reluctance of the path of said lines of flux to provide an output signal from said coil means.

2,782,990
MOTOR VEHICLE COUNTERS
William S. Henkelman, Egg Harbor City, N. J.
Application June 15, 1955, Serial No. 515,634
7 Claims. (Cl. 235—99)



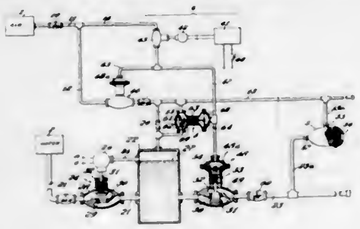
1. Motor vehicle counting apparatus comprising a base, a lever pivotally mounted on said base, said lever having an upwardly extending light and flexible rod portion for engagement by the vehicle to be counted and a latch portion, a latch lever carried by said base and having a portion for latching engagement by said first mentioned lever, means for normally urging said latch lever into engaging position, and count registering means actuated by said first mentioned lever.

2,782,991
THERMOSTATICALLY CONTROLLED BLOWER FAN FURNACE ATTACHMENT
Burris R. Allen, St. Louis Park, Minn.
Application January 12, 1954, Serial No. 403,613
4 Claims. (Cl. 236—10)



1. In combination, a gravity-type hot air furnace embodying a casing having a heated air accumulating plenum at its top and room ducts communicatively connected with said plenum, one vertical wall of said plenum having an extra opening therein in addition to the usual plenum openings with which the aforementioned room ducts are communicatively connected, and a basement heater attachment usable in conjunction with said plenum and room ducts comprising a relatively short pipe the passage of which is constantly open from its inner to its outer end, said pipe having its inner end communicatively secured by way of said extra opening to said vertical wall, said pipe projecting horizontally beyond the exterior surface of said vertical wall, an exhaust-type blower fan supported and suspended in the passage of said pipe between the inner and outer open ends of said passage, a motor also suspended in said passage, said motor having a shaft and said fan being mounted for operation on said shaft, a self-contained automatic control unit accessibly mounted on and disposed exteriorly of said pipe, said unit embodying a casing having a readily removable cover, a switch operatively mounted in said casing, current conducting wiring leading from and connecting the switch to said motor, a current supply cord operatively connected with said switch, a thermal element responsive to selected maximum and minimum plenum temperatures, a mechanical operating connection between said thermal element and switch which, when a predetermined temperature exists in said passage, automatically closes said switch and brings the fan into play, said thermal element extending into said passage in close proximity to the fan and motor, and manually regulable means in said control unit casing for setting the thermal element and thus selecting the temperature at which the fan comes on.

2,782,992
HUMIDIFIER SYSTEM
Carl O. Gustafson, Lunenburg, Mass., assignor to Grinnell Corporation, Providence, R. I., a corporation of Delaware
Application October 9, 1953, Serial No. 385,167
6 Claims. (Cl. 236—44)

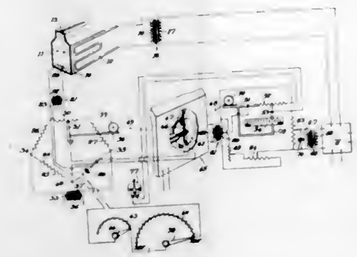


3. A humidifier system comprising an atomizer nozzle having air and water inlets, an air supply line to the air inlet, a valve controlling air pressure in the line to said inlet, a humidity responsive actuator for operating said valve, a confined reservoir of water, a water supply line from said reservoir to said water inlet, branch connecting means between said air line and said reservoir for applying pressure in said reservoir to force water through said water line, and a pressure controller including restriction means in said branch connecting means reducing pressure applied in said reservoir relative to pressure in said air line, and means by-passing said restriction means to relieve pressure in said reservoir out through said nozzle when pressure in said air line is reduced to an excessive amount so that air continues to be supplied to said nozzle as long as there is pressure in the reservoir.

2,782,993
AUTOMATIC CONTROL SYSTEM WITH REMOTE ADJUSTMENT
William H. Appleton and George M. Farly, Berkeley, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application December 13, 1945, Serial No. 634,865
2 Claims. (Cl. 236—51)

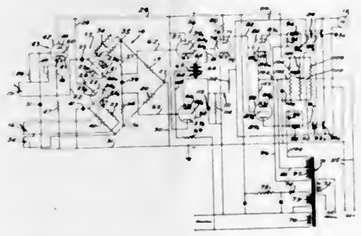
1. In a temperature control system, in combination, means comprising a bridge circuit arranged to be balanced and unbalanced in response to the temperature being

controlled, means comprising a potentiometer having a slide wire and a slider adjustable relative thereto, the potentiometer having a predetermined voltage drop thereacross and being automatically adjustable in response to balance and unbalance of the bridge circuit, means for controlling the system from a remote point comprising a device for unbalancing the bridge amounts equivalent



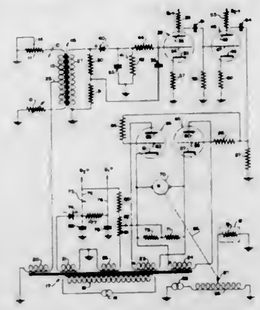
to predetermined temperature changes and means for indicating the relative positions of the slider and slide-wire comprising a voltmeter connected between the slider of the potentiometer and one end of the slide wire, the calibrations of the voltmeter being such as to indicate the amount that the actual temperature is away from the desired temperature.

2,782,994
ELECTRONIC TEMPERATURE REGULATOR WITH ANTICIPATOR
Donald A. Dotson, Los Angeles, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California
Application September 24, 1953, Serial No. 382,150
17 Claims. (Cl. 236—78)



2. Apparatus of the character described, comprising: a bridge network having a direct current input and an output, two arms of said network comprising electron emission devices, each having a control element; means for adjusting the control element of one of said devices to establish a reference balance voltage; means for varying the other of said devices in accordance with sensed changes from a predetermined norm of a medium characteristic; means coupled with said bridge output and selectively controlled in accordance with the direction and magnitude of bridge unbalance for restoring said medium characteristic to said norm; anticipator means including a vacuum tube having a control grid circuit and cathode; temperature sensing means in said grid circuit; and a cathode follower connection between said tube and the control element of one of said devices, including an R-C network for introducing a time constant with respect to the effect of said anticipator means on said bridge network.

2,782,995
ELECTRONIC TEMPERATURE CONTROL CIRCUIT
William H. McCormack, Torrance, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California
Application November 9, 1953, Serial No. 391,060
14 Claims. (Cl. 236—78)



10. An electronic temperature control system comprising four impedance elements connected to form a bridge network, manually operable means for adjusting the impedance of one of said elements, the impedance of another one of said elements being responsive to the temperature of a medium to be controlled, means for applying an alternating current between a first pair of opposed junction points of said elements, a bridge output circuit coupled across the other pair of opposed junction points of said elements, an amplifier having input and output electrodes, an alternating current connection between said bridge output circuit and said input electrodes for impressing an alternating current signal on said input electrodes representative of the unbalance of said bridge network, a direct current connection between said bridge output circuit and said input electrodes and including a rectifier for impressing a direct current bias voltage on said input electrodes, said bias voltage having such a magnitude in response to opening or short circuiting of one of the arms of said bridge network as to render said first amplifier inoperative, an electric motor, a first and a second electron tube, each having a cathode, a control grid and an anode, said motor being connected between said cathodes, means coupling said output electrodes to both of said control grids, a first and a second inductor, each having its terminals connected respectively to the anode of one said tubes and to the cathode of the other tube, means for impressing an alternating current on said inductors, means for applying alternating current and direct current bias voltages between the cathodes and control grids of said tubes, whereby said motor will rotate in a predetermined direction upon failure of said bridge network and whereby the phase of said signal with reference to that of the alternating current impressed on said anodes determines the direction of rotation of said motor, and means coupled to said motor for varying the temperature of said medium.

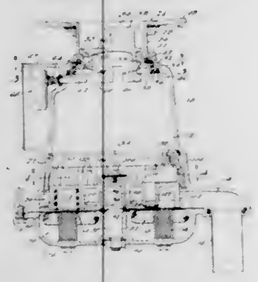
2,782,996
APPARATUS FOR ANTICIPATING THE EFFECT OF CHANGES IN SOLAR RADIATION
Hubert T. Sparrow, Edina, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application November 22, 1955, Serial No. 548,302
8 Claims. (Cl. 236—91)

1. In a temperature control apparatus, a furnace for supplying heat to a dwelling, control means for controlling the furnace, said control means comprising a network circuit having first temperature responsive means responsive

to the inside temperature of the dwelling, said responsive means being effective to energize the furnace to maintain the dwelling at a selected temperature, second temperature responsive means responsive to outdoor temperature, said second responsive means being effective to modify the effect of said first responsive means thereby increasing the dwelling temperature as the outdoor temperature decreases, reflector means associated with said outdoor temperature responsive means, said reflector means being

positioned to reflect the morning sun rays directly on said outdoor temperature responsive means increasing its temperature thereby the effect of the solar heat from the sun as it affects the dwelling heating load can be anticipated, said reflector means also acting as a shield to shade the outdoor responsive means from the afternoon sun rays whereby the loss of solar heat as the sun becomes less effective can be anticipated to prevent a droop in the dwelling temperature.

2,782,997
GARBAGE DISPOSAL APPARATUS
Ernst R. Wolff, Bloomington, Ill., assignor, by mesne assignments, to National Rubber Machinery Company, Akron, Ohio, a corporation of Ohio
Application March 18, 1953, Serial No. 343,044
1 Claim. (Cl. 241—46)

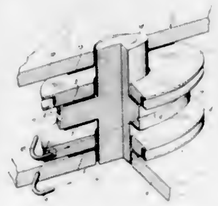


Garbage disposal apparatus comprising a casing defining a reducing chamber with a feed opening at the upper end thereof, a nonmagnetic diaphragm extending across and defining the bottom of said chamber, said chamber being provided with an outlet for reduced material at the bottom thereof, a shaft projecting upwardly from said diaphragm into said chamber, a circular disk journaled on said shaft for rotation in the bottom of said chamber immediately above said diaphragm and adapted to impel material to be reduced against the side wall of said chamber, a rotor of an electric motor housed within said disk and having one face disposed immediately above and exposed to said diaphragm, a stator of an electric motor disposed below and immediately adjacent said diaphragm and in operative relation with said rotor, said diaphragm separating said stator from said chamber, and cooperating elements on said disk and casing for reducing material in said chamber upon rotation of said disk, the periphery of said disk being arranged in closely spaced relation with the side wall of said chamber so as to define a narrow annular opening therebetween through which reduced material may pass downwardly for discharge through said outlet.

2,782,998
BARBECUE PEPPER MILL
Earle G. Hastings, Jr., Tulsa, Okla.
Application August 14, 1953, Serial No. 374,404
2 Claims. (Cl. 241—168)

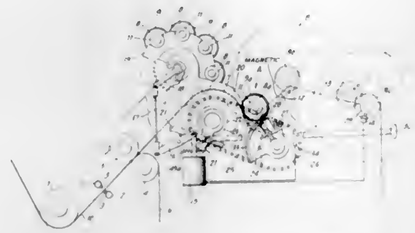
1. In a seasoning device, a barrel, a bore in the lower portion of said barrel, a grinding ring mounted in said bore, a grinding cone rotatably mounted within said grinding ring, a shaft fixed to said grinding cone and extending axially of the barrel, a retaining ring mounted on the upper portion of said barrel, a base plate threadably mounted on said retaining ring, a miter gear journalled in said base plate and splined on said shaft, a miter gear meshing with said first named miter gear, a cap mounted on said base plate and enclosing said gears, a tubular elongate member mounted on said cap and extending laterally for a substantial distance from said barrel, a shaft journalled in said tubular member and having one end connected to said second named miter gear, and operating means connected to the remote end of said second named shaft for rotating the same.

2,782,999
DEVICE FOR WINDING MAGNETIC SOUND RECORDING TAPE OR WIRE
Hermann Rohling, Oberdorf, near Immenstadt, Allgau, and Richard Siegemund, St. Georgen, Black Forest, Germany
Application January 14, 1954, Serial No. 404,032
Claims priority, application Germany January 16, 1953
5 Claims. (Cl. 242—54)



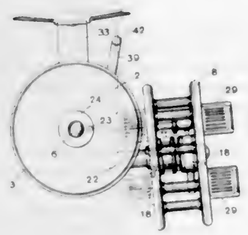
1. A reel assembly for a magnetic recording medium comprising a horizontally disposed housing having vertically spaced top and bottom walls, a shaft rotatably mounted in the housing between the top and bottom walls, a disc fixed to said shaft, friction elements secured to opposite horizontally disposed faces of said disc, and braking elements located vertically and axially spaced from said disc on opposite sides thereof, a pair of reels centrally mounted loosely on said shaft to be rotatable and slidable vertically relative thereto, said reels being mounted on said shaft on opposite sides of said disc between said disc and said braking material, so that when the housing is in one horizontal position, one of the reels will, by gravity, be in frictional engagement with one of said friction elements for rotation with the shaft and the other reel will be in engagement with one of said braking elements, while in the inverted horizontal position the one reel will engage one of the braking elements while the other reel will engage one of the friction elements.

2,783,000
MACHINE FOR REELING CONTINUOUS LENGTHS OF MATERIAL
Walter Huecking, Dusseldorf, and Josef Gredigk, Unna-Konigsborn, Westphalia, Germany, assignors to Walter Huecking, Dusseldorf, Germany
Application February 23, 1954, Serial No. 411,792
Claims priority, application Germany February 25, 1953
14 Claims. (Cl. 242—56)



1. In an automatic reeling mechanism wherein a continuous length of material is wound upon a winding mandrel: a segmental roller arranged to be rotated into contact with said winding mandrel, the direction of rotation of the roller being opposite to that of the mandrel, and an electrically heatable cutting member carried at the forward end of the segmental roller, said roller having a relatively soft surface adapted to press the length of material smoothly against the winding mandrel.

2,783,001
FISHING REEL
Joseph Brindley Gurney Grice, Christchurch, England
Application June 9, 1954, Serial No. 435,508
Claims priority, application Great Britain January 22, 1954
9 Claims. (Cl. 242—84.6)

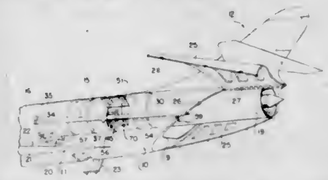


1. A fishing reel comprising an annular body of shallow dish-shape, a first spool-carrying spindle centrally and axially mounted in said annular body, a second spool-carrying spindle mounted on said body and arranged at right angles to said first spindle, said second spindle being of substantially equal diameter as said first spindle, a spool, a spool driving handle projecting from said spool, said spool having a central opening of somewhat larger diameter than said first and second spindle so as to fit snugly on either spindle, thereby permitting said spool to be mounted rotatively on said first spindle in the usual manner, or being alternatively mounted on said second spindle and secured against rotation in position in which the spool driving handle projects either forwardly or rearwardly, and means for locating said spool on either of said spindles.

2,783,002
AUTOMATIC BALLOON APPENDIX
Edward P. Ney, Minneapolis, and John R. Winckler, St. Paul, Minn., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application November 30, 1954, Serial No. 472,264
7 Claims. (Cl. 244—31)

1. The combination of a balloon having a spherical top portion, a tapering base portion, and peripheral load lines, and a confining slidable ring about the base portion and load lines, said ring and base portion having a mutual coefficient of sliding friction of from about 0.20 to about 0.50, the friction therebetween being sufficient to maintain the ring in raised position on the partially inflated balloon until the balloon is fully expanded, said load lines being tensioned through the ring by the balloon in flight, the position of the ring depending on the relative values of the weight of the ring and the tension in the load lines.

2,783,003
AIRCRAFT ENGINE INSTALLATION
William P. Ralston and Richard F. Boehme, Los Angeles, Calif., assignors to Lockheed Aircraft Corporation, Burbank, Calif.
Application October 16, 1951, Serial No. 251,492
4 Claims. (Cl. 244—54)

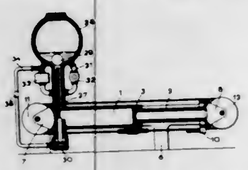


1. In combination with a turbo engine and an airplane fuselage for containing the engine; the combination of doors movably mounted on the fuselage to be movable between closed positions where they form a fairing at the aft end of the fuselage constituting a rearward extension of the fuselage and open positions where the aft end of the fuselage is open for the reception and withdrawal of the engine, tracks attached to the interior of the fuselage at the sides thereof and extending forwardly from the aft end of the fuselage, rollers mounted on the sides of the engine and engageable with the tracks to support the engine for movement into and out of the fuselage, and means in the fuselage for moving the engine along the tracks.

2,783,004
APPLIANCE FOR BRAKING OF AIRCRAFT ON LANDING OR FOR LAUNCHING OF SAME
Jean Fieux, Paris, France, assignor of one-half to Societe des Forges et Ateliers du Creusot, Paris, France
Application March 21, 1955, Serial No. 495,741
Claims priority, application France March 29, 1954
8 Claims. (Cl. 244—63)

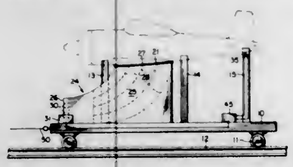
1. In apparatus for the braking of aircraft on landing or for the launching of aircraft of the type having a stretched cable engaging the aircraft, a reservoir containing a fluid under pressure, a cylinder communicating with

said reservoir, a piston in said cylinder, a primary tackle comprising a fixed block, a movable block carried by said piston and a cable rove on said blocks and having two free ends, two secondary tackles each including a fixed



block and a free block each of said free blocks being secured to one of said free ends of said cable, and a second cable having each end thereof rove off as one of said secondary tackles, the bight of said second cable constituting said stretched cable for engaging the aircraft.

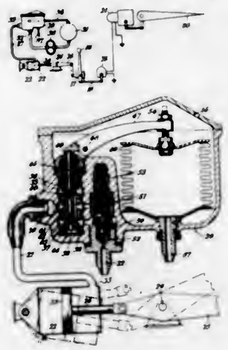
2,783,005
AIRCRAFT LAUNCHING AND LANDING DEVICE
Ernest M. Kane, Oxnard, Calif.
Application September 24, 1954, Serial No. 458,292
9 Claims. (Cl. 244—63)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An aircraft launching and landing apparatus which comprises rectilinearly mobile body means having cradle means thereon and movable therewith for supporting an aircraft, and air flow control means on said body means and movable therewith for directing air in an upward direction relative to said body means such that the air impinges on a portion of an aircraft adjacent to said apparatus, and means connected to said body means for moving said mobile body means and the components thereon in the direction of and at a speed substantially equal to that of an aircraft in landing or take off attitude.

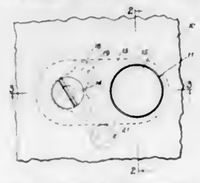
2,783,006
FEEL SIMULATOR FOR AIRCRAFT
Leonard Sidney Greenland, Wolverhampton, and Roy Westbury, Bridgnorth, England, and Charles Philip Smith, Ramsey, Isle of Man, assignors to H. M. Hobson Limited, London, England, a company of Great Britain
Application February 1, 1954, Serial No. 407,536
Claims priority, application Great Britain February 2, 1953
15 Claims. (Cl. 244—83)

1. In an aircraft, comprising a control surface, and a pilot's control member for actuating said control surface, a feel simulator comprising, in combination with said control member, a piston, a housing for said piston having an outlet, means connected to said control member and effective on movement thereof in either direction from a neutral position to cause relative movement of said piston and housing and thereby to expel liquid from said housing through said outlet, a piston-type control valve normally closing said outlet, pressure and exhaust ports controlled by said control valve for respectively supplying liquid to and exhausting it from said housing, said control valve moving from its normal position to connect said outlet to said pressure port and to said exhaust port in response respectively to movement of said control member towards and away from its neutral position, a conduit for subjecting one end of said control valve to the hydraulic pressure in said housing, a device responsive to changes in airspeed, and means actuated by said airspeed-responsive device for exerting on the other end of said control valve a force opposing said hydraulic pressure and increasing with increase in



airspeed over a predetermined range of airspeeds, said control valve being movable from its normal position, in response to increase and decrease in said force, to connect said outlet to said inlet port and to said exhaust port respectively.

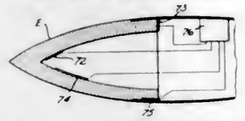
2,783,007
ACCESS DOOR
John M. Nociti, New York, and Joseph Perina, Hempstead, N. Y., assignors to Republic Aviation Corporation, Farmingdale, N. Y., a corporation of Delaware
Application July 15, 1953, Serial No. 368,161
2 Claims. (Cl. 244—129)



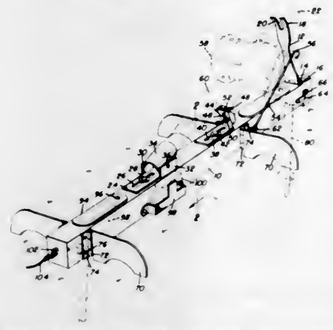
2. The combination with an aircraft component normally disposed in the airstream and having an access opening and a chamfered mounting and operating opening therein, of an oblong plate substantially greater in length than the distance between the most remote edges of the skin openings and substantially wider than either opening, a nut secured to the plate adjacent one end thereof, a countersunk screw having a head and a shank extending through said operating opening, said shank being threaded into the nut, said head being normally in engagement with said skin, a closure conforming in shape and area to the access opening and equal in thickness to the skin, secured to the plate and disposed in a path of rotation about the screw intersecting the access opening, and a fixed stop carried by and projecting from the inner surface of the skin to arrest movement of the plate as it swings with the rotation of the screw to align the closure with the access opening and continued rotation of the screw thereafter disposes said closure in the access opening with its outer surface in the plane of the outer surface of the skin.

2,783,008
ACOUSTICAL BOUNDARY LAYER CONTROL FOR AERODYNAMIC BODIES
Albert G. Bodine, Jr., Van Nuys, Calif.
Application July 28, 1951, Serial No. 239,168
4 Claims. (Cl. 244—130)

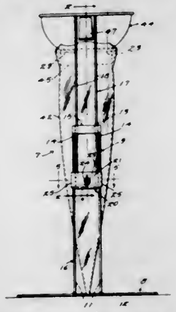
2. Means for controlling the shock front originating in a layer of air adjacent an external surface of an aerodynamic body operating under conditions wherein the relative velocity between said surface and the air outwardly of said layer is of sonic order and wherein said shock front includes acoustic components of frequencies determined by the aerodynamic characteristics of said



body, comprising: in combination with said aerodynamic body, sound wave attenuator means mounted in said aerodynamic body and having a portion thereof extending to the said outer surface and communicating with said layer of air in the region of the shock front formation for attenuating said frequencies at said region.

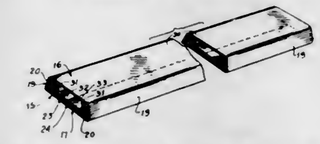
2,783,009
ROD HOLDER
Thomas M. Petterson, Rising Star, Tex.
Application May 12, 1954, Serial No. 429,171
3 Claims. (Cl. 248—44)

2. A holder for a fishing rod and reel comprising, in combination, a base embodying a linearly straight elongate body member rectangular in cross-section, an arm hingedly mounted at its lower end on the upper forward portion of said body member for swinging movement in a vertical plane, the upper end of said arm being free and bifurcated to permit the fishing rod to be seated between the furcations and said arm being foldable flat, when not in use, against said upper portion, a socket member adapted to telescopically receive an end portion of the handle of the stated fishing rod, said socket member embodying a bracket adjustably mounted on the intermediate top portion of said body member, a second bracket adjustably mounted on said body member in a position between said socket member and arm and provided with a vertically adjustable channel-shaped member providing a receiver for a stop element on the fishing rod, a first pair of hingedly mounted outstanding wings arranged in opposed relationship and hingedly attached to opposite vertical sides of said body member and located at the end of the body member opposite to that which carries the stated arm, the respective lower edge portions of the wings being coplanar with the bottom side of said body member, and a second pair of correspondingly constructed and hingedly mounted stabilizing wings attached to opposite vertical sides of the body member in a position adjacent to the channel-shaped stop receiver, said wings when in use being extended at right angles to said body member and collectively functioning to prevent said body member from rolling or turning in an axial direction once it is placed in position for use, and a pair of hingedly mounted stakes attached to the fore and aft ends of the bottom side of said body member and foldable against the bottom side when not in use and extended downwardly at right angles when in use.

2,783,010
BAG AND FUNNEL SUPPORT
Alton Ferguson, Lamont, Iowa
Application March 15, 1954, Serial No. 416,251
8 Claims. (Cl. 248—94)



1. A bag and funnel support of the character described comprising a base, a bag and funnel frame member, and a standard formed of slidably connected sections connected to the base and frame member and supporting said frame member substantially directly over said base and at different elevations relatively thereto, said frame member including complementary laterally spaced sides adapted to detachably receive and support a funnel, said sides including complementary parts defining a substantially flat bottom through which the funnel neck depends and upwardly extending arcuately bowed end portions between which the funnel bowl is disposed and supported, laterally spaced bag engaging hooks formed integral with and projecting from one end of said bottom, and a resilient bag engaging member located remote from said bag engaging hooks and connected to and supported by one of the end portions and depending from a top part thereof, said resilient bag engaging member having an outturned bag engaging lower end spring biased away from said bag engaging hooks and adapted to cooperate therewith for engaging transversely spaced portions of a bag near the open mouth of the bag for suspending the bag from said frame member and for supporting the open mouth of the bag around said substantially flat bottom through which the funnel neck depends.

2,783,011
DUPLEX SLEEVE PALLET
Charles W. Alexander, Long Beach, Calif.
Application November 23, 1954, Serial No. 470,593
2 Claims. (Cl. 248—120)



1. In a pallet structure of the kind described, an elongated basal unit of form retaining sheet material, said unit comprising an elongated, rectangular floor member with a flat bottom wall portion to overlie a horizontal supporting surface, and an upper wall portion resting flatwise upon said bottom wall portion and extending longitudinally therealong, each side of said bottom wall portion having a side edge portion which projects beyond

the adjacent side edge of said upper wall portion, said projecting edge portions of said bottom wall portion each being a sleeve triangular in cross section with an upper part of an inverted V-shape as viewed in cross section, thus producing a channel between said V-shapes; and an elongated hollow upper unit comprising a tube of form retaining sheet material contoured as an isosceles trapezoid as viewed in cross section, said upper unit being fitted snugly within said channel of said lower unit and occupying substantially the entire cross section of said channel, the apices of said inverted V-shapes of said basal unit being on substantially the same level as the upper surface of said upper unit, the surface portions of said units being secured to each other wherever they overlap.

2,783,012

WITHDRAWN

2,783,013

REINFORCED EASEL CONSTRUCTION FOR FOLDING BOXES AND DISPLAY PANELS

Marshall I. Williamson, New Haven, Conn.

Application January 7, 1955, Serial No. 480,481
7 Claims. (Cl. 248—196)

1. A collapsible display device comprising a wall and a reinforced easel for supporting the wall at a slant to a supporting surface, the wall including two substantially parallel slits therein, the easel comprising, a main panel, a stay panel articulated to the main panel along a knee line, one of said panels being attached to and foldable with regard to said wall along a fixed hinge line normal to said slits, the other panel having a guide flap articulated to it for sliding engagement with the slits in said wall, and a flange structure articulated to at least one lateral edge of said panels, said flange structure being traversed by fold lines to define at least three flange portions, namely, a stay flange articulated to, and folded over, the stay panel, a main flange articulated to, and extending at an angle with regard to said main panel considering the easel in set-up condition, and a gusset articulated to said stay flange and to said main flange, respectively, along fold lines aimed towards the intersection of the knee line with said lateral edge, the fold line between said stay flange and said gusset forming an angle with said knee line in the position in which the stay flange is folded flat over said stay panel.

2,783,014

DRAPERY FIXTURE

William C. Kenney, Cranston, R. I., assignor to Kenney Manufacturing Company, Cranston, R. I., a corporation of Rhode Island

Application March 23, 1953, Serial No. 344,009
1 Claim. (Cl. 248—263)

A base fixture for supporting decorative members having in combination, an arm including a pair of elongated flange sections at right angles to each other, the flange sections having screw holes therein, a vertical plate section secured to one of the flange sections of the said arm, said plate sections having elongated slots adapted to receive bolts for attaching a multiplicity of various types of drapery brackets, an inturned flange integral with said plate section, said inturned flange having slots therein

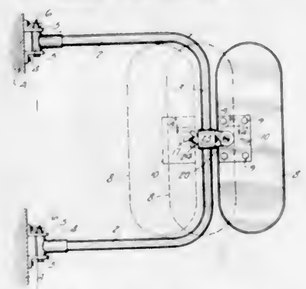
adapted to receive other fixtures and connecting elements for the outer margin of a curtain, and an additional flange extending along the inner end of said inturned flange providing a wide base for supporting said plate.

2,783,015

MOUNT FOR REARVIEW MIRRORS

George L. Kampa, Minneapolis, Minn., assignor to Pre-Vue Co., Inc., Minneapolis, Minn., a corporation of Minnesota

Application December 10, 1953, Serial No. 397,431
3 Claims. (Cl. 248—279)



1. In a mount for rear view mirrors, an elongated mounting rod, a mounting plate adapted to receive and support said mirror, a boss projecting laterally from said plate, said boss comprising a pair of axially spaced generally cylindrical inner and outer sections and an axial pintle element between said inner and outer sections, and a connection between said mounting rod and boss, said connection including a bolt having an eye at one end encompassing said pintle element, said bolt extending radially outwardly from said pintle element for circumferential movements with respect to said boss, a clamping head mounted on said rod for compound axial sliding and rotary movements, a shoe interposed between said boss and clamping head, said shoe having a flat surface engaging a cooperating flat surface portion of said clamping head and an arcuate surface concentric with said boss and slidably engaging cylindrical surface portions of both sections thereof, said bolt projecting through aligned openings in said shoe and clamping head at one side of said mounting rod and transversely thereof, said bolt connecting said shoe and clamping head for relative pivotal movements, and a clamping nut screw threaded on the outer end of said bolt and operatively engaging said head to frictionally lock said boss, shoe, clamping head and mounting rod against relative movement.

2,783,016

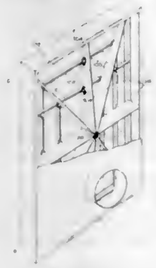
DEVICE FOR PHOTOGRAPHIC REPRODUCTION

Walter Limberger, Hamburg, Germany, assignor to Messrs. Dr. Böger K. G., Hamburg, Western Germany

Application August 1, 1951, Serial No. 239,701
Claims priority, application Germany August 12, 1950
2 Claims. (Cl. 248—363)

1. In a suction operated apparatus for projecting design and fabricating data from a drawing upon a piece

of work to be fabricated the provision of a device comprising a perforated supporting plate for the drawing which plate is capable of being flexed to required shapes, a casing frame covered on one side by said plate, means for producing a partial vacuum in said frame, a plurality of separate supporting elements engaging the plate on the side within the frame, a stiffening member within the frame and comprising rigid arms radiating from a



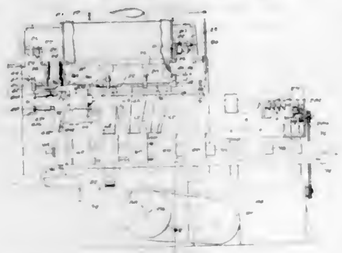
central point where they are connected together, and a plurality of independently adjustable devices carried by each arm and spaced along the arm between the arm and an adjacent supporting element and supporting the element; each of said adjustable devices including a part fixed to the plate, a part fixed to the arm and means for adjusting said parts separately in a direction normal to the plate for flexing the plate to required shape.

2,783,017

VOLUME LIMITING MECHANISM FOR A VOLUMETRIC FILLING MACHINE

Fred G. Haffner, Wollaston, Mass., assignor to Pneumatic Scale Corporation, Limited, Quincy, Mass., a corporation of Massachusetts

Application January 24, 1955, Serial No. 483,711
6 Claims. (Cl. 249—17)



1. A volumetric filling machine of the type described, having, in combination a plurality of measuring chambers, check weighing means associated with one of said chambers, means for adjusting the volume of said chambers in response to the operation of the check weighing means in the event of any deviation in the weight of the load beyond predetermined limits of a predetermined weight, limiting means responsive to the movement of the volume adjusting means for rendering the same inoperative when either a preselected maximum or minimum volumetric limit is reached, said adjusting means including an electrical circuit, a reversible motor in said circuit, said limiting means including a pair of spaced switches in said circuit connected to said reversible motor, switch operating means including a pair of engaging elements and a pair of reversely arranged bell cranks connected to form a parallel linkage operatively connected to and movable with said volume adjusting means, an arm of one bell crank cooperating with one of said engaging elements and an arm of the second bell crank cooperating with the other engaging element to actuate the respective switches, and means for adjusting said engaging elements relative to said bell crank arms to vary said preselected volumetric limits.

2,783,018

VALVE MEANS FOR SUCTION LIFTING DEVICES

George F. Lytle, Salem, Ill., assignor to Vac-U-Lift Company, Salem, Ill., a corporation of Illinois

Application February 11, 1955, Serial No. 487,503
1 Claim. (Cl. 251—25)

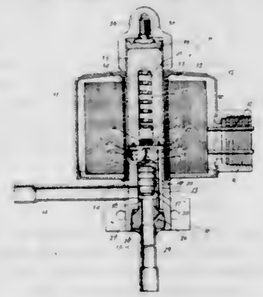
A valve device for the suction pad of a suction lifting device comprising a valve body having a chamber at the bottom and a valve seat above the chamber, a valve plunger normally resting on said seat when the valve is in its closed position, a valve stem connected to the plunger and projecting upwardly therefrom, a flexible diaphragm above the plunger, said stem being connected to the diaphragm for movement therewith, a member above said diaphragm having a space in communication with the top of said diaphragm, means for communicating a first external pipe with the interior of said space, means for communicating a second external pipe with the said chamber, said body having also a vent opening between the seat and the diaphragm, a manifold member having a pair of ports connected to said external pipes, respectively, and a second pair of ports for connection to a source of vacuum and to the atmosphere, respectively, and a movable spool member within said manifold, said spool member having separate recesses cooperating with said ports, said recesses being of such lengths that the spool member in one position inter-relates the ports so that the first external pipe is connected with the atmosphere while the second external pipe is connected to the source of vacuum and, in another position, to interrelate two of the ports so that the first external pipe will be intercommunicated with the source of vacuum and to block the other ports.

2,783,019

VALVE WITH NON-CHATTERING SOLENOID PILOT VALVE CONTROL

Lyle S. Houghton, Brentwood, Mo., assignor to Alco Valve Company, University City, Mo., a corporation of Missouri

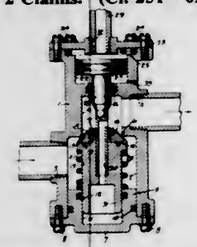
Application January 21, 1953, Serial No. 332,281
3 Claims. (Cl. 251—30)



1. A solenoid valve having an energizing coil and an armature capable of being energized, a valve seat con-

tacting element and a valve seat to control fluid flow therethrough, first and second stop means within said valve so as to limit the movement of said armature upon energization and deenergization of said coil, respectively, the first of said stop means being associated with said valve seat and offset therefrom, means within said armature to prevent transmission of chattering movement from said armature to said element as it is brought against said last named stop means and effect thereby a firm closing of said element against said valve seat, said means for preventing chattering of the valve including the valve seat contacting element supported by said armature and being adapted for relative movement therewith, said valve seat contacting element being limited by a third stop means within said armature to a distance from the end of the armature which is less than the offset distance between the first stop means and the valve seat, and means for continuously urging said element against said valve seat, independent of chattering of the armature against the first stop means.

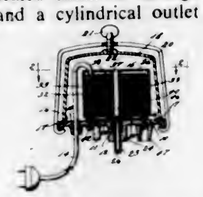
2,783,020
HIGH-PRESSURE, HIGH CAPACITY PNEUMATIC VALVE
Walter S. Kleczek, Schenectady, N. Y., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Army
Application October 14, 1953, Serial No. 386,142
2 Claims. (Cl. 251—62)



1. In a high-pressure, high-capacity valve, a valve body having a bore from one end only thereof and defining a first chamber, and a counterbore from said one end defining a second chamber, said bore and counterbore defining between them a shoulder forming a valve seat, a cap secured in gas-tight relation to said body over said counterbore and closing the same, said cap having a bored extension extending into said counterbore, a plunger slidably fitting the bore in said extension and having a face adapted to rest on said seat, a coil spring surrounding said plunger and acting between said extension and an abutment on said plunger to urge said face onto its seat, means fixed with the end of said body remote from said cap and defining a pressure control cylinder coaxial of said first chamber, a piston fitting said control cylinder, a rod connecting said piston and plunger, there being a bore in the end of said plunger facing said cap, there also being an equalizing passage in said rod and plunger connecting the bore therein with said first chamber, outlet and inlet pressure connections in said body with said first and second chambers respectively and a pressure control connection with said pressure control cylinder on the side of the piston therein remote from said plunger.

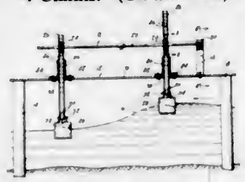
2,783,021
ELECTROMAGNETIC AIR PUFFER VALVE UNIT
Everett H. Bickley, Narberth, Pa.
Application December 11, 1952, Serial No. 325,487
3 Claims. (Cl. 251—140)

3. An air puffer unit to produce extremely rapid short puffs of air for association with color sorting mechanism, comprising the combination of a magnet coil, a core of magnetic material enclosing said coil and forming an axially disposed air passage and an annular magnetic gap encircling one end of said passage, a housing for said coil forming a sealed chamber having an inlet for air under pressure and a cylindrical outlet communicating



with said gap and axially alined with said passage, a tubular nozzle having a closed end terminating in said outlet and having a lateral port communicating with said outlet, an armature disc valve seating over said outlet having an aperture alined with said passage, said valve opening said outlet when said coil is energized, and means for restoring said valve to closed position when said coil is deenergized.

2,783,022
OCEAN WAVE POWER DEVICE
Alexander Salzer, New York, N. Y.
Application March 30, 1954, Serial No. 419,690
4 Claims. (Cl. 253—10)



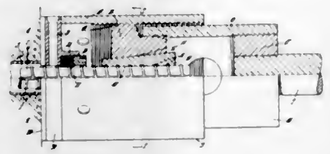
1. An ocean wave power device comprising a float seated in the water, a pair of vertical ears extending from said float, a deck, a rack housing open at both ends secured to said deck, a rack secured to said vertical ears and extending through said housing and a pinion engaging said rack and adapted to rotate upon motion of said float, said rack housing being tubular and including a base flange to be secured to the deck, said rack being channel shaped and freely slidable in said housing, and including pawl members pivotally mounted along the vertical length thereof, said pawl members each including a pin fixed between the side walls of the rack, and a plate-like member having a sleeve at one end loosely encircling the pin and having a reduced portion at its other end for engaging the pinion.

2,783,023
FLUID ROTOR HAVING DAMPING MEANS
Edward A. Stalker, Bay City, Mich., assignor to The Stalker Development Company, Bay City, Mich., a corporation of Michigan
Application April 5, 1950, Serial No. 154,132
9 Claims. (Cl. 253—77)

1. In combination in a rotor adapted for the interchange of energy with a fluid, a hub structure, a plurality

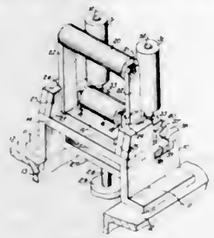
of hollow blades peripherally spaced about the perimeter of said structure, a damper stem, and means adjacent the root end of the blade for supporting said stem, said stem extending radially outward within said blade and having a flexible arm extending transversely therefrom with a part extending radially inwardly to contact a side wall of said blade with increased force under the action of centrifugal force.

2,783,024
BAR GRIPPING MEANS FOR USE IN THE PRODUCTION OF PRESTRESSED CONCRETE
Donovan Henry Lee, London, England
Application April 1, 1954, Serial No. 420,431
Claims priority, application Great Britain May 12, 1953
10 Claims. (Cl. 254—29)



1. A device for stressing reinforcing bars in concrete that comprises a collar member adapted to surround an end of a reinforcing bar, a tapered inner surface on said collar, tapered bar-encircling wedges adapted to fit between said collar and the reinforcing bar to grasp said bar, a threaded outer surface on said collar, an internally threaded tension-retaining sleeve received on the threaded portion of said collar and serving to retain the tension in said reinforcing bar after it is applied by the device, a second threaded surface on said collar of lesser diameter than the first, and a threaded tension member received upon said second threaded portion and serving to adjustably connect said collar to a tension-producing means.

2,783,025
CABLE GUIDING APPARATUS
Gerald A. Scheidt, Buffalo, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application November 8, 1954, Serial No. 467,374
4 Claims. (Cl. 254—190)

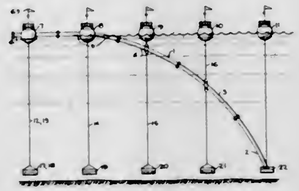


1. An apparatus for guiding cables comprising, a fixed position bottom roller mounted for rotation on a horizontal axis to support cables of various sizes singly and position their undersurfaces in a given plane, a top roller parallel with the bottom roller and supported for movement relative thereto, parallel side rollers supported for movement relative to each other and the bottom roller, and means operatively connecting the top and side rollers to cause movement thereof relative to each other and the bottom roller simultaneously to produce therebetween passageways of various sizes for firmly guiding the cables of different sizes singly.

2,783,026
METHOD FOR FRACTURING FORMATIONS
Carl E. Reistle, Jr., Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application May 7, 1954, Serial No. 428,275
1 Claim. (Cl. 255—1.8)

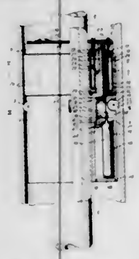
A method for drilling and treating a borehole employing a downwardly movable drill string comprising the steps of drilling through a first productive formation, ceasing said drilling, sealing off the annulus between the drill string and a part of said first formation to establish a first isolated zone, exerting sufficient fluid pressure in said first zone while maintaining said drill string therein to fracture said first formation, releasing fluid pressure from said first zone, unsealing said first zone, drilling through a second productive formation, ceasing said drilling, sealing off the annulus between the drill string and a part of said second formation to establish a second isolated zone, exerting sufficient fluid pressure in said second zone while maintaining said drill string therein to fracture said second formation, releasing fluid pressure from said second zone and unsealing said second zone.

2,783,027
METHOD AND APPARATUS FOR SUBMERGED WELL DRILLING
Walton E. Gilbert, New York, N. Y., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
Application April 20, 1954, Serial No. 424,342
Claims priority, application Netherlands April 24, 1953
10 Claims. (Cl. 255—2.5)



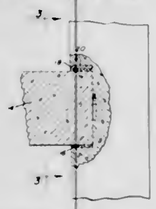
1. Apparatus for drilling offshore wells into earth formations covered by a large body of water, said apparatus comprising a drilling vessel, drilling equipment including a drill string positioned on said vessel, an elongated substantially rigid guide tube in communication between the vessel and the earth formation below the body of water for conducting the drill string and its bit from said vessel to and from said formation, said guide tube extending from said vessel in a substantially horizontal position and forming a substantially rigid support means continuously curved so as to contact the formation at an angle of no greater than 45 degrees to the vertical.

2,783,028
DRILL STEM SUPPORTER AND STABILIZER
Thomas E. Jamison, Jr., Coleman, Tex., assignor of three and one-half percent to William T. Jones, three and one-half percent to Roy L. Harding, seven percent to Thomas E. Jamison, Sr., seven percent to Mack Sampson, seven percent to Gene Love, and three percent to Charles F. Koehne, Jr.
Application May 10, 1955, Serial No. 507,426
12 Claims. (Cl. 255—28)



3. In a supporter and stabilizer device for a well pipe extending into a well, a housing having a central passage therethrough and arranged to be rotatably carried about a well pipe; bearing means mountable between the housing and the well pipe on which the well pipe may rotate relative to the housing; a plurality of shoes carried by said housing and arranged to move outwardly thereof; inflatable means carried by said housing behind each of said shoes and arranged to push the shoes outwardly into engagement with a surrounding surface when expanded; means carried within the housing to expand the inflatable means, said means including cylinders charged with fluid under pressure, the said cylinders being arranged about the central passage and being arranged to communicate with the inflatable means; and means carried by the housing to rupture the said cylinders to thereby release the fluid under pressure into the inflatable means to expand same.

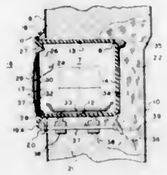
2,783,029
PRECAST PICKET FENCE
Milton W. Fisher and Edward G. Fisher, Miami, Fla., assignors to Modern Precasting Co., Hialeah, Fla., a corporation of Florida
Application October 26, 1953, Serial No. 388,174
1 Claim. (Cl. 256—19)



An expansion joint used in precast fence construction comprising a fence post having a recess therein, a fence rail having an end received in said recess, said end having a wrapping of pliant material thereabout, and grout positioned between said wrapping and portions of said fence post defining said recess.

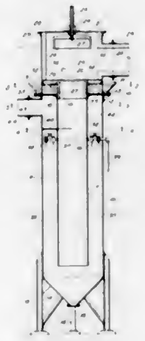
2,783,030
REFRIGERATOR CABINET
Douglas A. Solley, Jr., Erie, Pa., assignor to General Electric Company, a corporation of New York
Application December 11, 1953, Serial No. 397,687
4 Claims. (Cl. 257—9)

1. A refrigerator cabinet having spaced apart inner and outer panels with said inner panel defining a refrigerated compartment, an auxiliary chamber positioned between said panels and having an access opening to said compartment and a back wall spaced from said outer panel, a filler body including heat conducting material positioned between said back wall and said outer panel to afford a heat transfer path therebetween for maintaining said



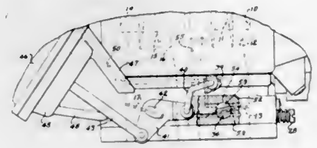
chamber at a higher temperature than said compartment, heat insulating material generally filling the remaining space between said panels, and manually operable means for displacing at least a portion of said body relative to the normal position thereof to provide a dead air space in said heat transfer path between said back wall and said outer panel.

2,783,031
GAS SCRUBBER
William A. Vogt, Concord, Calif., assignor to Henry J. Kaiser Company, Oakland, Calif., a corporation of Nevada
Application February 11, 1954, Serial No. 409,716
4 Claims. (Cl. 261—22)



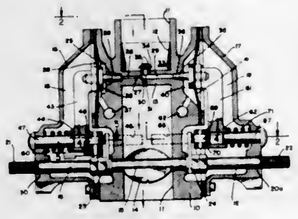
4. An apparatus for conditioning hot gases comprising a substantially closed zone including an outer shell member and a gas receiving means, a tubular member disposed within and extending throughout a major portion of the length of said shell member and providing an annular gas passage therebetween, said tubular member providing communication between said shell member and said gas receiving means, said shell member having a gas outlet located above the lower extremity of said tubular member, a segmented annular baffle disposed in the upper portion of said gas passage adjacent and below said outlet, said baffle completely spanning said gas passage throughout a substantial portion of the annular area thereof adjacent said outlet thereby forcing the gases to flow around the portion of said tubular member above the baffle and remote from said outlet, and liquid supply means disposed below the level of said baffle for introducing a cooling liquid into contact with the hot gases.

2,783,032
TWO STAGE CARBURETION SYSTEM
Harold A. Carlson, Brentwood, and James T. W. Moseley, Richmond Heights, Mo., assignors, by mesne assignments, to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey
Application May 17, 1954, Serial No. 430,078
4 Claims. (Cl. 261—23)



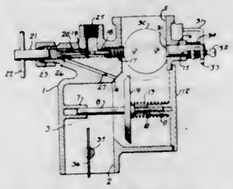
1. A two-stage carburetion system comprising primary and secondary induction conduits having primary and secondary throttle valves, respectively therein, manual means to operate said primary valve, a spring urging said secondary valve closed, a suction motor operatively connected to said secondary valve and having a pressure chamber, a suction connection between the pressure chamber of said motor and said primary induction conduit whereby said motor is actuated and said secondary valve opened against said spring upon increases of suction in said primary conduit, and means to modulate the effective suction applied to said motor comprising an air bleed passage communicating with the pressure chamber of said motor, and valve means actuable with said primary throttle valve and controlling both said suction connection and said bleed passage for progressively cutting off said bleed passage and opening said suction passage to said suction motor as said primary throttle valve is opened to initiate second stage operation of the system.

2,783,033
FLOATLESS CARBURETOR
Eugene E. Halik, Kew Gardens, N. Y.
Application March 8, 1954, Serial No. 414,537
10 Claims. (Cl. 261—36)



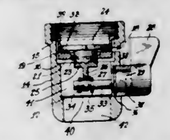
1. In a device of the character described comprising a floatless recirculating carburetor having a vaporizing chamber and throttle for controlling the flow of vaporized combustible mixture and means for feeding fuel to the carburetor, in combination, a fuel conduit, a nozzle for discharge of fuel from said conduit into an air stream flowing in said vaporizing chamber, an inlet valve adapted to control the flow of liquid fuel to the conduit, an outlet valve controlling the flow of excess fuel from the conduit, and means responsive to partial opening movement of the throttle to open the inlet valve while holding the outlet valve closed, and on further opening movement of the throttle to open both said valves, whereby the feed of fuel is positively provided by the pressure of the fuel supply at lesser degrees of throttle opening and by the relative pressures of the flowing liquid fuel and the vaporizing chamber at greater degrees of throttle opening.

2,783,034
CONTROL OF FUEL VALVE BY CARBURETOR THROTTLE
Maldwyn E. Jones, Ferguson, Mo., assignor, by mesne assignments, to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey
Application February 11, 1954, Serial No. 409,708
2 Claims. (Cl. 261—50)



2. In a carburetor, the combination of an air horn having an air inlet passage, a throttle body for said carburetor having a mixture conduit in offset parallel relation to said air horn passage, a short passage extending at an angle and connecting said air horn passage and said mixture conduit, thereby forming an abrupt turn in the airflow path, a fuel nozzle located in said mixture conduit in the zone of high velocity airflow effected by the abrupt turn in the airflow path, a source of fuel under substantially constant pressure connected to said fuel nozzle, a variable fuel metering restriction in said connection, and means responsive to airflow located adjacent said nozzle to confine the airflow path to the wall of said mixture conduit to produce a high velocity at the abrupt turn in the airflow path when open, and to shut off the flow of fuel from said nozzle when closed.

2,783,035
AERATION-VALVE ATTACHMENT FOR WATER FAUCET
Harold J. Rosenberg, Bronxville, N. Y.
Application October 12, 1954, Serial No. 461,814
2 Claims. (Cl. 261—71)

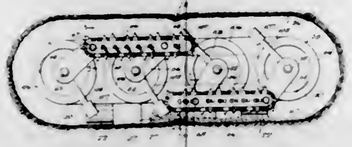


1. An aeration-valve attachment adapted to be connected to the common spout of a hot-and-cold water faucet, comprising a generally cylindrical open-ended casing, a cylindrical valve seat nested in said casing adjacent the inlet end thereof, said valve seat having a bottom wall with a central opening therein, the surface of said wall surrounding said opening being serrated to form a multiplicity of water paths, a screen disposed within said casing adjacent the outlet end thereof to define an air-mixing chamber in the space between said seat and said screen, said casing having an air opening therein communicating with said chamber and the atmosphere, a valve head disposed within said seat and adjustable means to raise and lower said head relative to said seat to control the flow of water into said chamber from a condition of no flow to one of maximum flow.

2,783,036
CUTTER HEAD FOR BORING TYPE CONTINUOUS MINER
Richard C. Lundquist, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application July 9, 1953, Serial No. 367,019
7 Claims. (Cl. 262—7)

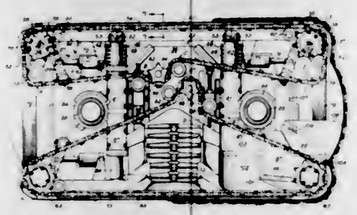
1. In a mining machine of the multi-boring type, a main frame having means therewith for propelling same

along a mine floor, a cutter head supported on said main frame and comprising a plurality of radially-extending arms, an adjacent pair of said arms being arranged to turn in one rotative direction, and the other adjacent pair of said arms being arranged to turn in an opposite rotative direction, a cutter bar connected to each adjacent pair of radial arms and driven thereby, said cutter bar having orbital movement as said radial arms rotate, a sprocket mounted fast to one each of said pairs of radially-extending arms, a cutter chain supported by said cutter



bar and trained around said socket, said cutter chain having orbital movement with respect to said cutter bar to cut against said seam and provide clearance for said cutter bar in its orbital movement, a plurality of cutter bits mounted on said cutter bar, said cutter bits being arranged to swivel with respect to said cutter bar so as to take positions which are tangential to the radius of orbital movement of said cutter bar, and a sweep turning with said radial arms for moving cuttings toward the center of the contiguous bores cut by said cutter bars and said cutter chains.

2,783,037
VARIABLE HEIGHT BORING TYPE CONTINUOUS MINING MACHINE
Frank Cartlidge, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application September 27, 1954, Serial No. 458,494
13 Claims. (Cl. 262—7)



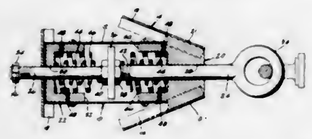
1. In a mining machine, a frame having a plurality of boring heads rotating in side-by-side relation to produce contiguous bores in advance of the machine, and horizontally disposed upper and lower cutter chain carrying cutter bars disposed rearwardly of said boring heads for extending the bore pattern formed by said boring heads, the opposite ends of the upper cutter bar extending laterally beyond the centers of rotation of said boring heads and having cutter chain guide means at opposite ends thereof, including corner guides for the cutter chain, and generally upright guide means disposed along opposite ends of the upper cutter bar, with their lower ends terminating substantially within the bore pattern of the adjacent boring heads, and spaced vertically from the lower cutter bar to guide side reach portions of said cutter chain along extended rectilinear upright paths for producing substantially rectangular corner patterns at opposite ends of said upper cutter bar merging into the circular pattern at opposite sides of the adjacent boring heads.

5. In a mining machine, a frame having a plurality of boring heads rotatable in side-by-side relation to produce bores in advance of the machine, horizontally disposed upper and lower cutter chain carrying cutter bars disposed rearwardly of said boring heads for extending the bore pattern formed by said boring heads, cutter chain guide means mounted on said frame, the upper cutter bar being vertically adjustable relative to the cutter chain guide means on the frame, and having depending direction changing elements at its opposite ends, a cutter chain guided along said upper cutter bar and about said direction changing elements, and with inner reach portions extending between said direction changing elements and the guide means on the frame in generally horizontal directions, and at least one of said inner reach portions being movable between positions above and below a horizontal plane including the lower extremity of its adjacent direction changing element when said upper cutter bar is adjusted vertically between its uppermost and lowermost positions.

2,783,038
OSCILLATING BURSTER CONE ASSEMBLY FOR BORING TYPE MINER HEAD
Benjamin F. Tracy, Point Pleasant, W. Va., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application September 29, 1954, Serial No. 459,126
4 Claims. (Cl. 262—7)

1. A boring head having a hub and cutter device thereon to cut an annular kerf in a mine face, a shaft projecting forwardly axially of said hub having a pilot cutter at its front end, and a burster member rotatably mounted on said shaft between said hub and said pilot cutter, the rotatable mounting of said burster member comprising a ball-like-bearing member at its front end and an eccentric bearing between the rear end of said burster member and said shaft, to permit oscillation of the rear end of said burster member as the shaft rotates.

2,783,039
TRAILER HITCH SHOCK ABSORBER
John O. Wilson, Huntington Park, Calif.
Application July 30, 1954, Serial No. 446,782
4 Claims. (Cl. 267—1)



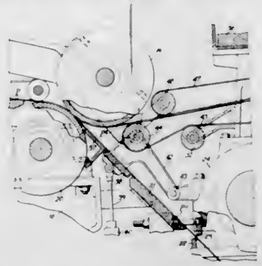
1. A shock-absorbing trailer-hitch comprising, a housing, a pair of U-shaped pieces fixed to the housing in opposed axially-spaced relationship, a shaft extending through the pieces, a member fixed on the shaft within the housing intermediate the pieces for limited axial movement between the opposed ends of the respective pieces, compression springs interposed between the bases of the respective pieces and the opposed faces of the member to dispose the member in resisted yieldable axial movement with respect to the opposed ends of the pieces, auxiliary compression springs of larger diameter and shorter length than the first-mentioned springs arranged on the pieces concentrically of the first-mentioned springs, and means for holding the auxiliary springs seated against the bases of the respective U-shaped pieces.

2,783,040
RAIN SHIELD WINDOW SASH
William Felker, Bradenton, Fla.
Application November 24, 1953, Serial No. 394,037
4 Claims. (Cl. 268—123)

1. In combination, a light-weight auxiliary rain shield window sash mounted for vertical movement in a standard window frame and slidably held in normal, elevated, inoperative position by a sash weight and pulley system in which the magnitude of the weight slightly overbalances the weight of the sash, a rain-water-receiving gutter disposed along the bottom edge of the sash which, when filled with a sufficient amount of water, will, due solely to the added weight of accumulated rain water in the gutter, overcome the weight in the sash weight and pulley system and thus cause the sash to move vertically and lower itself into closed position, and valves in the bottom of the gutter which are normally closed to retain the rain water in the gutter, said valves including valve operating means adapted to contact a window sill to gradually open the valves to release water from the gutter, said valves being closed and the sash remaining in lowered position so long as rain drives thereagainst at such a rate that a sufficient amount of water is retained in the gutter to provide weight for overbalancing the sash weight, but said sash being raised automatically when the rain ceases and the valve operating means contacts the window sill to release sufficient water through the valves to lighten the weight of the sash so that the sash weight is then effective to elevate the sash.

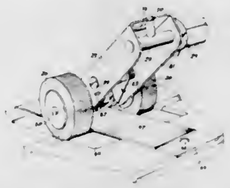
2,783,041
PAPER SHEET TRANSFER MECHANISM
Harry C. Merritt, St. Davids, and Theodore A. McArn, Downingtown, Pa., assignors to Downingtown Manufacturing Co., Downingtown, Pa., a corporation of Pennsylvania
Application May 20, 1952, Serial No. 288,916
1 Claim. (Cl. 271—2.1)

In paper handling machinery designed to feed slit strips from a common web together or separately to one or separate operating stations, the combination comprising a pair of draw rolls operable to feed the strips forwardly, guide means lying in the plane of the path of normal advance of said slit strips discharged from said draw rolls and having a gap extending transversely at the mid-portion thereof, an endless conveyor having a portion extending through the transverse gap in said guide means and positioned in the path of the normal advance of said slit strips from said draw rolls for deflecting said slit strips and feeding them as a group to a second pair of draw rolls by which they are fed to an operating station, a pivoted carriage mounting said deflecting portion of said endless conveyor and a paper board, and means for pivoting said carriage to move said deflecting portion of said endless conveyor to a non-deflecting position, said means operable to simultaneously move said paper board into a position extending across the gap in said guide



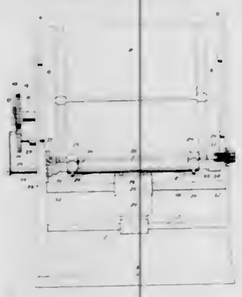
means in which it supports strips in their normal direction of travel from said first draw rolls, said deflecting portion of the endless conveyor operable in the non-deflecting position to engage said slit strips and after a group of slit strips has been deflected and drawn into said second draw rolls upon cutting of one or more of said strips to pass said cut strips undeflected to a second operating station, while the uncut strips continue to be fed in the deflected path by said second draw rolls to the first operating station.

2,783,042
SHEET FEEDING MECHANISMS
Henry John Picking, Chingford, England, assignor to Gestetner Limited, London, England, a British company
Application October 16, 1953, Serial No. 386,609
Claims priority, application Great Britain January 21, 1953
3 Claims. (Cl. 271—42)



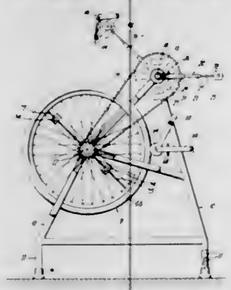
1. A sheet-feeding mechanism comprising a stack-supporting platform having a pair of parallel grooves in its upper surface extending in the direction in which the sheets are fed, a depending sheet-feeding arm pivotally supported above the platform for free downward movement, a sheet-feeding roller carried by said arm to enter each groove, a mechanism to reciprocate said arm so that the rollers travel lengthwise of the grooves and a one-way clutch which prevents rotation of the rollers when the arm is advanced in the direction in which the sheets are fed, the arm being inclined downwardly and forwardly in the direction of the sheet feed at such an angle that when the arm is advanced it is thrust downwardly whereby the stack, when reduced to a certain extent, is forced in said grooves by said rollers, whereby when the stack of paper has become reduced to a certain extent the frictional resistance between the stack and the platform is increased.

2,783,043
DUPLICATING MACHINES
Edward Albert Tomlin, Southgate, England, assignor to Gestetner Limited, London, England, a British company
Application October 8, 1953, Serial No. 384,981
Claims priority, application Great Britain August 4, 1953
2 Claims. (Cl. 271—63)



1. In a stencil duplicating machine comprising a pair of side frames, two vertically spaced-apart members extending across between the frames, a pair of rollers supported by, and extending between, the side frames, sheets of paper being fed in succession between the rollers for duplication of the copies, and a pair of blades to engage the side margins of the sheets and strip the copies from the stencil, the provision of a device comprising an upwardly inclined guide to engage beneath, and raise, the central region of the sheets relatively to the stripper blades as the sheets are stripped from the stencil, a hook below the guide for attaching the device to the upper of said vertically spaced-apart members and a spring catch below said hook to engage the lower of said vertically spaced-apart members said hook and catch securing said device to the machine in a readily removable manner, said vertically spaced-apart members being so disposed with respect to the said rollers and stripper blades that the said device bows the sheets in the direction of travel of the copies during delivery from the rollers.

2,783,044
ORTHOPEDIC EXERCISING MACHINES
Dominic Gregory Sbarra, Ossining, N. Y.
Application July 28, 1953, Serial No. 370,666
4 Claims. (Cl. 272—79)



1. An exercising machine comprising rotary driven means, a driving arm extending radially from said driven means, handle means rotatable relative to said arm for revolving said arm, and variable-resistance-imparting means secured to said handle means and including an eccentric member turnable with said handle and having a periphery eccentric to its axis of rotation, and a support fixed to said arm an element freely carried on said support for engagement with said periphery, said support carrying a spring urging said element against said periphery and arranged to have the tension thereof increased as the eccentric portion of the periphery pushes said element away from the axis of the eccentric member during the turning thereof, whereby the degree of rotation of the handle means determines the tension on said spring and the resistance exerted by said element.

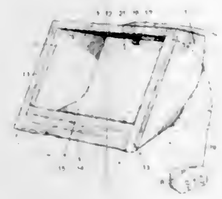
2,783,045
PUSH AND PULL EXERCISER
Lawrence R. Bosch, Devils Lake, N. Dak.
Application April 12, 1954, Serial No. 422,576
11 Claims. (Cl. 272—81)

2. A body conditioning device comprising a support adapted to be mounted substantially upright above a floor surface, an elongated track, means on said support for detachably mounting one end of said track above said floor surface at any one of a plurality of levels selectively, whereby said track may be inclined with respect to said surface, at least one elongated tensile element, means on said support for fixing a point near one end of said element selectively at any one of a plurality of levels above said surface, a carriage, and means for supporting said carriage for reciprocation along said track, whereby a force applied to said tensile element by a body on said carriage will tend to cause said carriage to move along said track against the force of gravity on said carriage, the direction of said force being variable in accordance with the location of the point at which said tensile element is fixed.

2,783,046
BALL
Howard C. Lien, Downey, Calif., assignor of ten percent to Duncan S. Duff, fifteen percent to Julia Duff, twenty-five percent to Jack M. Hart, Los Angeles, and fifty percent to John S. and Frances Marie Dekema, husband and wife, Arcadia, Calif., as joint tenants
Application February 14, 1955, Serial No. 487,754
1 Claim. (Cl. 273—58)

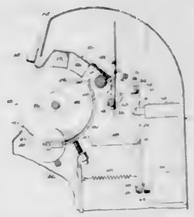
In a ball structure, the combination of three interlocking elements, the first of said elements having a cross-shaped central portion and four segments projecting outward radially and axially beyond said cross-shaped central portion and filling the interstices between the arms of said cross-shaped central portion forming four peripherial notches, the depth of each of said notches being approximately equal to the length of the corresponding arm of said cross-shaped central portion, the second of said elements having a rectangular central portion and two double segments joined to opposing long sides of and projecting outward radially and axially beyond said rectangular central portion, said second element having a centrally positioned rectangular opening therethrough, said rectangular central portion and opening lying in a plane and normal to one another, said first and second elements being compressible permitting two of said four segments to be passed through said rectangular opening to position two opposing arms of said cross-shaped central portion within said rectangular opening forming an engaged pair of elements, and the third of said elements comprising four additional segments joined at their outer corners forming a cross-shaped central opening therethrough, said third element being compressible permitting one of said double segments and two of said four segments of said engaged pair of elements to be passed through said cross-shaped opening to position said rectangular central portion and the other two opposing arms of said cross-shaped central portion within said cross-shaped opening, said rectangular and cross-shaped openings being completely filled by said cross-shaped and rectangular central portions, each of said elements being of substantial thickness with said segments being thicker than said central portions, each of said elements being formed of a resilient, temporarily compressible material.

2,783,047
TARGET HIT INDICATOR
Per Torsten Faxén, Jonkoping, Sweden, assignor to Svenska Aeroplan Aktiebolaget, Linkoping, Sweden, a corporation of Sweden
Application February 23, 1954, Serial No. 411,830
3 Claims. (Cl. 273—102.2)

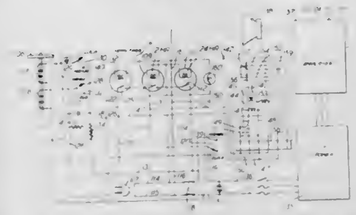


1. In target apparatus wherein the shock wave of a projectile traveling at supersonic velocity is utilized to register the accuracy of the firing, the combination of: wall means defining a front opening forming the target front area and extending rearwardly from said front opening so as to amplify shock wave pressure impulses of projectiles passing inside the target area by reflection from said wall means and to shield the zone within said wall means from the effect of shock wave pressure impulses produced by projectiles passing outside the target area; a shock wave sensitive device operable to generate a signal in response to shock wave pressure impulses manifested upon said device; means positioning said device in the zone bounded by said wall means so that said device will be responsive to shock wave impulses produced by projectiles entering the target area but not those produced by projectiles which pass outside the target area; and recording apparatus connected to said device and operable to record the signals emanating from said device.

2,783,048
MAGNETIC RECORDING SYSTEM
Bruce Roberts, Philadelphia, Pa., assignor to The International Electronics Company, Philadelphia, Pa., a corporation of Pennsylvania
Original application April 10, 1947, Serial No. 740,653, now Patent No. 2,653,819, dated September 29, 1953. Divided and this application January 23, 1952, Serial No. 271,124
3 Claims. (Cl. 274—4)



1. In a telegraphone, mechanism for scanning flexible, rectangular record sheets carrying dispersed magnetizable particles, comprising a support member, a scanning head supported thereon, a form, a record sheet wrapped thereon with one edge secured to the form and the opposite edge free, means for effecting motion, in the direction of wrapping, of said form relative to the support means and said head in a scanning path repeatedly crossing said opposite edge of the sheet, guide means supported by said member independently of said head, for maintaining the sheet adjacent the surface of the form throughout at least a portion of the circumference thereof, and resilient means for maintaining said guide means in intimate sliding contact with the sheet on the form.

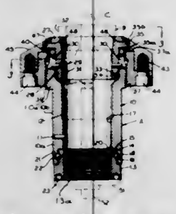
2,783,049
AUTOMATIC RECORD PLAYER
Jacob T. Kunz, North Hills, Pa., assignor to Schulmerich Electronics, Incorporated, Sellersville, Pa., a corporation of Pennsylvania
Application December 23, 1949, Serial No. 134,683
5 Claims. (Cl. 274—10)

1. In a program controlled record player system, the combination comprising record rotating means, a transducer engageable with said record, record changing means, change cycle operating mechanism connected with said transducer, and said record changing means, operable to disengage said transducer from a record, place a new record on said rotating means, and move said transducer to an initial position in readiness to play the next record, an electric circuit for said rotating means, a change cycle switch in said circuit operable by said change cycle operating mechanism into a change and run position, automatic starting means connectable to said change cycle switch when it is in the change position imparting starting energy to said player when desired, said starting means being connected to a source of energy, said switch being moved to a run position for supplying different level running energy to the rotating means after the player has started, said running energy being connected to a source of energy independent of the starting circuit, and means

connected with said change cycle mechanism moving said switch to the change position and cutting off the connection to the source of energy only when the player is in the change cycle thereby stopping operation thereof in the change cycle only unless energy is supplied to the change switch when in the change position.

2,783,050
LOCATING STUD
James O. Garrison and David D. Walker, Dayton, Ohio, assignors to Garrison Machine Works, Inc., Dayton, Ohio, a corporation of Ohio
Application March 2, 1953, Serial No. 339,844
9 Claims. (Cl. 279—1)

1. A locating stud for a gear chuck adapted to engage adjacent faces of contiguous gear teeth, including a conical head having a circumferential groove between its base and apex portions, a shank formed integrally with said head, said head being incompletely formed, and means made of a material different from the material of said head and shank completing the conical formation of said head and exposed to the surface of said head from said groove to and through the apex portion for contact with the faces of the gear teeth.

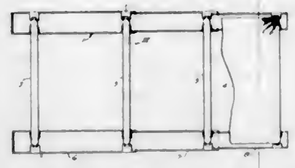
2,783,051
COLLET CHUCK
Nels O. Stromme, San Jose, Calif.
Application June 21, 1954, Serial No. 438,088
8 Claims. (Cl. 279—50)



1. A collet chuck comprising a tubular body, external threads on one end of said body, a collet compressing sleeve mounted for axial slidable movement in said body at the threaded end thereof, a conical cam face formed coaxially in the outer end of the sleeve, an annular flange extending radially from said sleeve, axial guide means mounted to retain the sleeve against rotation relative to the body, an internally threaded collet mounting ring journaled coaxially on the body, and an annular member threadedly mounted on the threaded body portion and having an annular groove therein within which the annular flange on the sleeve is mounted for relative rotative movement.

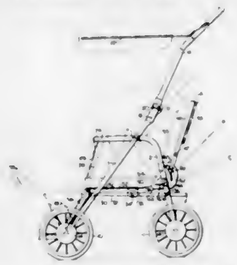
2,783,052
COLLAPSIBLE SKI SLED
Albert L. Wall, Pittsburgh, Pa.
Application June 2, 1954, Serial No. 433,996
4 Claims. (Cl. 280—20)

1. A collapsible ski sled comprising a pair of spaced parallel skis, each ski being separable transversely into a plurality of sections having their adjoining ends formed for interlocking engagement, a plurality of posts detachably connected to each ski at longitudinally spaced points, cross bars extending between the skis and having downwardly facing sockets in their ends receiving the upper ends of the posts to hold the skis in fixed relation to each other, each socket being provided in its outer wall



with an upwardly extending slot, a strip of flexible material extending across the tops of all of the cross bars to form the bed of the sled, and laterally projecting elements mounted in the posts and extending through said slots for anchoring the sides of the strip.

2,783,053
COLLAPSIBLE STROLLER
Henry W. Sheldrick and Philip T. Baumgartner, Gardner, Mass., assignors to Collier Keyworth Company, Gardner, Mass., a corporation of Massachusetts
Application February 15, 1956, Serial No. 565,728
8 Claims. (Cl. 280—41)

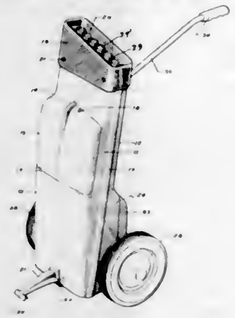


1. A collapsible stroller comprising a pair of front and rear legs pivotally interconnected adjacent to their upper ends, the lower ends of the legs carrying wheels, the upper ends of one pair of legs being connected with an inverted U-shaped handle, front and rear pivotally interconnected members pivoted to the front and rear legs between their pivotal connections and lower ends, a seat support slidable on the front member, a back rest pivotally connected to the rear end of said seat support, and means carried by said rear legs and back rest operative to slide said seat support forwardly and rearwardly when said back rest is swung toward and from horizontal position, thereby to maintain the stability of the stroller when the position of the occupant is shifted to and from reclining position.

2,783,054
FOLDABLE WHEELED GOLF CLUB CARRIER
Paul E. Stratton, Jr., St. Clair Shores, Mich., assignor to Carr Industries, Detroit, Mich., a corporation of Michigan
Application November 27, 1953, Serial No. 394,823
5 Claims. (Cl. 280—42)

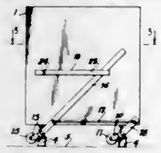
1. A golf club carrier comprising a rigid upright body open at its upper end, an axle transversely projected through and secured to the lower end of said body, wheels on the ends of said axle, an elongated formed partition secured within said body defining a plurality of elongated independent club receiving compartments, an elongated handle secured to one side of said body adjacent its upper end, said axle including an elongated open ended tube extending through and secured to said body, wheel mounting shafts supported at their free ends

within the opposite ends of said tubes and longitudinally slidable therein for inwardly contracting the wheels into contact with said body when not in use, a foot pivotally joined at one end to the lower end of said body on its other side, the other end of said foot cooperating with said wheels for maintaining the body in substantially upright position, a pair of spring clips secured to said body in spaced relation and engageable with said foot for



alternately retaining said foot in body supporting and in pivotally collapsed position upon the under-surface of said body, said partition consisting of a pair of interconnected opposed partition elements, each having a plurality of elongated outwardly directed hairpin formations in laterally spaced relation with their outer ends cooperable with the corresponding interior wall of said body defining compartments of substantially rectangular shape in cross-section.

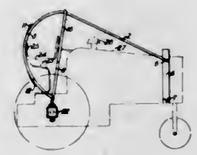
2,783,055
VERTICALLY ADJUSTABLE WHEELED SUPPORTING FRAME FOR CABINETS AND THE LIKE
Frank H. Michaud, Bridgeport, Conn.
Application March 8, 1954, Serial No. 414,604
3 Claims. (Cl. 280—44)



1. A supporting structure for cabinets comprising a plurality of separate supporting legs attached to the cabinet with the respective legs substantially at the corners thereof and by which the cabinet is normally rested on and elevated from a supporting surface, swinging axles at the underside of the cabinet, journaled in said legs below the cabinet, wheels eccentrically carried on said axles, levers fixed to the axles at one side of the cabinet for swinging the axles and resultantly raising or lowering the wheels to or from cabinet-supporting position, a link extending between and connecting the levers and transmitting the movement of one of the levers to the other lever, one of the levers being longer than the other lever and constituting a hand lever, and means for locking said hand lever against swinging movement when the wheels are in a lowered position.

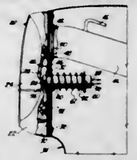
2,783,056
OPERATOR PROTECTING FRAME FOR TRACTORS
Kenneth A. Belk, Fort Madison, Iowa
Application December 2, 1953, Serial No. 395,718
8 Claims. (Cl. 280—150)

1. A protective frame for a tractor comprising a bracket adapted to be secured to the front portion of said tractor, a pair of frame members secured at their front ends to said bracket and extending upwardly and rearwardly from said bracket, said frame members intersecting at a point generally above the operator's position, said frame members extending rearwardly and arcuately downwardly from the intersection of said frame members, said arcuately extending portion protruding to the



extreme rear of said tractor, means for securing the rearward ends of said pair of frame members to the rear of said tractor and a U-shaped support member adapted to be secured at its ends to the rear portion of the tractor adjacent the rearward ends of said pair of frame members, the bight of said U-shaped support intersecting said pair of frame members at their intersection and rigidly secured thereto.

2,783,057
COMBINATION GASOLINE INLET COVER AND TAILLIGHT ASSEMBLY FOR AUTOMOBILES
Robert C. Buck, Independence, Mo.
Application March 4, 1954, Serial No. 414,080
2 Claims. (Cl. 280—152)

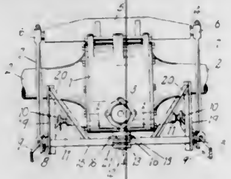


1. For an automobile having a gasoline tank and taillight structure including connecting wires, a combination gasoline inlet cover and taillight assembly comprising a first plate adapted for mounting on the automobile and having an opening and a perforation therethrough; a filling tube in communication with the opening of said plate and adapted for coupling with said tank; a second plate adapted to carry said taillight structure and having a perforation therethrough; a tubular element extending through said perforations of said plates and adapted to pass said wires; stop means on the element adjacent that extremity thereof remote from said first plate, said stop means being adapted to limit travel in one direction of the element relative to said second plate; means projecting from the element adjacent the opposite extremity thereof; and resilient means disposed between said first plate and said projecting means for yieldably biasing the element in the direction of said opposite extremity thereof to a normal position disposing said second plate in covering relationship with the opening of said first plate.

2,783,058
IMPLEMENT HITCH BRACE FOR TRACTORS
Harold A. Skibbe, Sodus, Mich.
Application September 24, 1954, Serial No. 458,144
4 Claims. (Cl. 280—474)

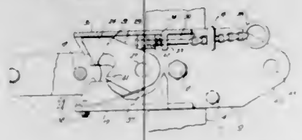
1. In combination with a tractor having laterally spaced rearwardly diverging and projecting pull bars pivoted to

the tractor and a draft clevis positioned rearwardly of the pivots of the bars, a pull bar brace comprising, a cross plate fitting snugly and removably in said clevis, the forward edge of the plate being shaped to abut the base of the clevis at transversely spaced points, said plate



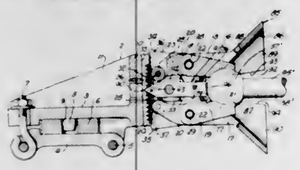
having a hole formed therein and receiving a draft pin passed through said clevis, upright guide plates secured to the ends of said cross plate with their outer faces converging forwardly in the neutral planes of said pull bars, and an auxiliary draft ear on the back of said cross plate.

2,783,059
SELF-COUPLING WAGON HITCH
John J. Hartl, Cedar Rapids, Iowa
Application March 5, 1954, Serial No. 414,431
1 Claim. (Cl. 280—509)



In a wagon hitch for engaging the hitch pin of a towed vehicle, a housing having a guide slot at the rear end thereof with V guideways leading thereinto, a hook-plate pivotally mounted in the housing with the pivot point longitudinally in line with the guideways and adapted to move transversely in the guide slot for engagement with the aforementioned hitch pin, a slidable rectangular blocking means for blocking the hook-plate to prevent disengagement from the hitch pin, means normally urging the blocking means into blocking position between the back side of the hook-plate and the adjacent wall of the housing, means for manually removing the blocking means from its blocking position and means normally urging the hook-plate out of engagement.

2,783,060
BALL AND SOCKET HITCH
Christopher H. Arend, Berwyn, Ill., assignor to International Harvester Company, a corporation of New Jersey
Application November 2, 1954, Serial No. 466,321
7 Claims. (Cl. 280—509)

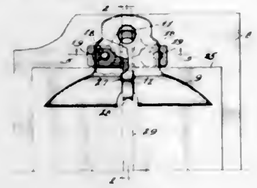


1. In a ball and socket hitch the combination of a draft member incorporating a ball at one end, a socket member having a body including means at one end for mounting thereof on an associated vehicle, a guide connected to the opposite end of said body and shaped in the form of a cone flaring outwardly from the body, said body having a vertical slot therethrough extending lengthwise of the body and open at one end to the vortex of said conical guide, a pair of top and bottom jaw members in said slot and each extending lengthwise of the slot and pivoted intermediate its ends to said body on a substantially horizontal axis, each jaw member having an outer end spherical jaw portion disposed in opposing relation to the jaw portion of the other jaw member and said jaw portions of said top and bottom members, described in the open position of the socket member, disposed at the top and bottom of said vortex of the guide and said jaw members having inner ends with bearing means thereon and in engagement with each other in the open position of said jaw members to limit opening movement of said jaws, an operating member disposed between said jaw members and slidably supported from said body for movement lengthwise of said slot, said operating member having an outer end extending in the open position of said socket into said vortex for engagement and inward movement of said operating member by said ball when the ball is being inserted into said guide for coupling with said socket member, said operating member having an inner end wedge portion provided with top and bottom wedge faces converging toward the inner end of said member and adapted to wedge between said inner ends of said jaw members in engagement with said bearing means thereon for rotating said jaw members to clamping position about said ball attendant to said ball moving said operating member inwardly of said body, a tension spring extending vertically and hooked at its upper end to the inner end of said top jaw member and at its lower end to said bottom jaw member for constantly drawing said inner ends of said jaw members toward each other, and a releasable lock for said operating member comprising a bolt slidably supported from said body for movement transversely of said operating member into a registering aperture therein, and spring means stressed between said bolt and said body for urging said bolt into locking engagement with said operating member.

2,783,061
DISPLAY BINDER
Leonard V. Owen, Chicago, Ill., assignor to International Harvester Company, a corporation of New Jersey
Application October 30, 1953, Serial No. 389,305
1 Claim. (Cl. 281—33)

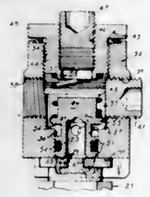
For an easel support comprising a first panel having a pocket on an outer face thereof, a second panel hingedly connected to said first panel, and flexible means connecting said panels whereby said panels may have end portions laterally spaced to support said easel support in an upright position; a display folder supported on said support, said folder having first and second covers, each cover normally having inner and outer sides and adjacent edges, a stiff flap substantially coextensive with the adjacent edges of said covers, means hingedly connecting said stiff flap to the adjacent edges of said covers whereby said covers may be hingedly moved relative to said flap, and a loose leaf retainer connected to the inner side of said first cover adjacent said hinged flap for normally supporting a plurality of sheets in hinged relation between said covers, said first cover being slidably and removably disposed within said pocket, said flap being hingedly movable at times in overlapping relation with respect to the outer side of said first cover into an open folder position whereby said second cover also overlaps said outer side of said first cover, the entire overlapping flap being disposed substantially below the upper edge of said first panel whereby said outer side of said second cover is in flat contiguous engagement with a substantial upper portion of the outer face of the first panel, whereby the inner side of said second cover provides means to support the plurality of hinged sheets in a display position.

2,783,062
CLIP BOARD
Vernon C. Helberg, Evergreen Park, Ill.
Application January 20, 1955, Serial No. 483,009
3 Claims. (Cl. 281—44)



1. A member adapted to from a yieldable connection between the base and the clip of a clip board, said member being of substantially U-shape with the legs thereof perforated for attachment to said base and clip, respectively, the curved connecting portion of said U-shaped member being provided with a slot and a spring pencil holding finger projecting outwardly from said slot and longitudinally of the clip board and in alignment with said slot to permit the insertion through said slot of said member and longitudinally of the clip board of a pencil or the like to be retained by said finger.

2,783,063
COUPLING
Bernard Last, Pittsburgh, Pa., and Charles C. Reiff, Bellefontaine, Ohio, assignors to Rockwell Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application September 3, 1953, Serial No. 378,382
2 Claims. (Cl. 284—17)



1. In a lubricant coupling: a housing containing an annular internal chamber, means for introducing lubricant under pressure into said chamber and a smooth bore constant diameter outlet between said chamber and the outside of said housing coaxial with and of smaller cross-section than said chamber; a rigid one piece valve element including a seating portion disposed in said chamber and a boss smaller than said seating portion with a plurality of integral spaced annular guide flanges axially slidable and guidingly disposed in said bore; a threaded opening in the wall of said housing opposite said bore, large enough for insertion and removal of said valve element; a removable closure plug mounted in said threaded opening; a continuous valve seat in said chamber surrounding the inner end of said bore; a continuous annular face on said valve element seating portion adapted to engage said seat to prevent escape of lubricant into said bore; spring means compressed within said chamber normally urging said valve element to closed position with said face tight against said seat; an annular groove in said boss between said guide means and said seating portion; a recess in the end of the valve element opposite said spring means; a port in the valve element interconnecting said recess and said annular groove; a ring seal between spaced ones of said guide flanges disposed below said annular groove to maintain a fluid tight relationship between the relatively slidable boss and bore below said annular groove; a transverse slide guide socket on said housing adjacent the outer end of the boss for the slidable coupling attachment to an interfitting lubricant fitting; the outer end of said valve element boss projecting a small distance into said socket when the valve is closed so as to be positioned to be engaged and inwardly displaced to separate said valve seat and said valve element face to permit outward flow of lubricant from said chamber to said bore and compress said spring means when said lubricant fitting is attached to said socket; and said spring means serving also to tightly maintain said housing and lubricant fitting in operative attached assembly.

2,783,064
QUICK DISCONNECT FLUID LINE COUPLING
John G. Johnson, Waterloo, and Edward H. Fletcher, Cedar Falls, Iowa, assignors to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application November 17, 1953, Serial No. 392,573
4 Claims. (Cl. 285—1)

1. A fluid line coupling, comprising: a support having a rear face, a forward wall and a fore-and-aft bore opening rearwardly and forwardly respectively at said face and wall; a front coupling part axially slidably carried in the bore and having a rear head forwardly engageable with said face and an axial stem projecting forwardly ahead of said wall; resilient means ahead of said wall and acting between said wall and stem to bias said front coupling part forwardly to abut said head against said rear face; said head having a peripherally disposed fore-and-aft notch and said rear face having a rearwardly projecting key received in said notch to prevent rotation of the front coupling part relative to the support; a rear coupling part having a hollow forward sleeve coaxially receiving the head, said sleeve and head having interengageable generally spiral ramp means operative upon forward and reverse rotation of said sleeve to cause said sleeve to move respectively forwardly onto and rearwardly off of said head for respectively coupling and uncoupling said parts; said sleeve having a front radial face interrupted by first and second angularly spaced apart forwardly opening pockets, said first pocket accommodating the aforesaid key and having sufficient arcuate extent relative to said key as to enable rotation and reverse rotation of the sleeve free of said key; and detent means including a rearwardly projecting pin axially slidably carried by the support and normally projecting from said rear face to be received in the second pocket when said sleeve is fully rotated onto the front coupling part head, said pin preventing reverse rotation of the sleeve and consequent uncoupling of said parts until rearward movement of both parts in unison against the bias of the resil-

2,783,065
SAFETY DEVICE FOR PRESSURE VESSELS
Ralph Lee Lyon, Jr., Tulsa, Okla., assignor to Cameron Iron Works, Inc., Houston, Tex., a corporation of Texas
Application December 31, 1953, Serial No. 401,553
4 Claims. (Cl. 285—2)

1. A safety device for pressure vessels comprising a body member having a bore therethrough, a valve seat in said bore, a valve member movable in said bore to and from said seat, a stem connected to said valve member and extending through said bore, a piston connected to said stem, a cylinder in which said piston is movable, a passage connecting said cylinder with said bore on the side of said valve seat opposite said valve member, a spring in said cylinder urging said piston in a direction to move said valve member away from said seat, a fusible plug in said body member, a passage connecting said cylinder with said fusible plug, and a passage connecting said fusible plug with said bore on the side of said valve seat opposite said valve member.

2,783,066
SAFETY VALVE
Ralph Lee Lyon, Jr., Tulsa, Okla., assignor to Cameron Iron Works, Inc., Houston, Tex., a corporation of Texas
Application December 31, 1953, Serial No. 401,554
4 Claims. (Cl. 285—2)

1. A safety valve comprising a body member having a bore therethrough, a valve seat in said bore, a valve member movable in said bore to and from said seat, a stem connected to said valve member and extending through said bore, a piston connected to said stem, a cylinder in which said piston is movable, a passage connecting said cylinder with said bore on the side of said valve seat opposite said valve member, a spring in said cylinder urging said piston in a direction to move said valve member away from said seat, a fusible plug in said body member, a passage connecting said cylinder with said fusible plug, and a passage connecting said fusible plug with said bore on the side of said valve seat opposite said valve member.

2,783,067
SAFETY VALVE
Ralph Lee Lyon, Jr., Tulsa, Okla., assignor to Cameron Iron Works, Inc., Houston, Tex., a corporation of Texas
Application December 31, 1953, Serial No. 401,555
4 Claims. (Cl. 285—2)

1. A safety valve comprising a body member having a bore therethrough, a valve seat in said bore, a valve member movable in said bore to and from said seat, a stem connected to said valve member and extending through said bore, a piston connected to said stem, a cylinder in which said piston is movable, a passage connecting said cylinder with said bore on the side of said valve seat opposite said valve member, a spring in said cylinder urging said piston in a direction to move said valve member away from said seat, a fusible plug in said body member, a passage connecting said cylinder with said fusible plug, and a passage connecting said fusible plug with said bore on the side of said valve seat opposite said valve member.

2,783,068
SAFETY VALVE
Ralph Lee Lyon, Jr., Tulsa, Okla., assignor to Cameron Iron Works, Inc., Houston, Tex., a corporation of Texas
Application December 31, 1953, Serial No. 401,556
4 Claims. (Cl. 285—2)

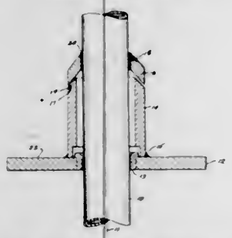
1. A safety valve comprising a body member having a bore therethrough, a valve seat in said bore, a valve member movable in said bore to and from said seat, a stem connected to said valve member and extending through said bore, a piston connected to said stem, a cylinder in which said piston is movable, a passage connecting said cylinder with said bore on the side of said valve seat opposite said valve member, a spring in said cylinder urging said piston in a direction to move said valve member away from said seat, a fusible plug in said body member, a passage connecting said cylinder with said fusible plug, and a passage connecting said fusible plug with said bore on the side of said valve seat opposite said valve member.

ient means causes said second pocket to axially clear the pin, whereupon reverse rotation of the sleeve to its uncoupled position incurs angular misalinement between said second pocket and said pin, and spring means biasing the pin rearwardly and enabling forward yielding of said pin upon contact thereof by the front radial face of the uncoupled sleeve so that said sleeve may be rotated onto the front coupling part head to aline said pin and second pocket without loading the aforesaid resilient means.

2,783,065
TUBE ENTRANCE SEAL IN REFRIGERATOR CABINET
Owen D. Martin, Farmington, Mich., assignor to American Motors Corporation, Detroit, Mich., a corporation of Maryland
Application June 30, 1954, Serial No. 440,402
1 Claim. (Cl. 285—129)

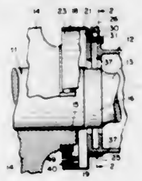
In refrigerating apparatus, a cabinet having an opening through a wall thereof for passage of a conduit into the interior of said cabinet and having an adjacent wall, a channel member having one leg thereof overlying and closing said opening and having the ends of both legs engaging said adjacent wall, means holding said channel member to said adjacent wall, recesses in the ends of said legs receiving the conduit, and a sealer filling said channel member sealing the notches around the conduit and the joints between said channel and adjacent walls of said cabinet.

2,783,066
ICE SHIELD
Everett J. Field, Jeannette, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa.
Application September 10, 1953, Serial No. 379,455
1 Claim. (Cl. 286—7)



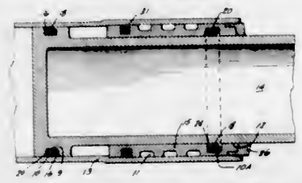
An ice shield for a vertically mounted rotatable operating shaft; a horizontal bearing guide plate positioned concentric to said operating shaft and extending perpendicular to the axis of said operating shaft; a hollow stationary member being rigidly secured at its lower end to the upper horizontal surface of said guide plate and mounted substantially concentric with respect to said shaft; said stationary member having an internal diameter larger than the external diameter of said shaft; said shaft being positioned within said stationary member and extending above the upper end of said stationary member and below the lower horizontal surface of said guide plate; said shaft being rotatably mounted with respect to said guide plate; a shield mounted on said operating shaft above the upper end of said stationary member and substantially concentric with said shaft; said shield having an inside diameter substantially equal to the outside diameter of said shaft; said shield having an outside diameter at least equal to the outside diameter of said stationary member; a portion of said shield overlapping a portion of said stationary member and being concentric therewith; said shield having an upper surface that is flared away from said shaft toward said guide plate to guide fluid to the upper horizontal surface of said guide plate when said shield is stationary to thereby prevent ice formation at areas adjacent to relatively movable parts: the lower edge of said shield and the upper end of said stationary member being at a height that exceeds any expected build-up of ice on said upper horizontal surface of said guide plate.

2,783,067
SEAL FOR JOURNAL BOX
Curtis D. Foss, Los Angeles, Calif.
Application October 12, 1953, Serial No. 385,414
5 Claims. (Cl. 286—11)



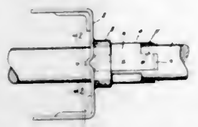
1. Means for effecting a seal between a journal box and an axle projecting from an end thereof and having a wheel thereon beyond the box in fluid-tight engagement with the axle, said wheel having a hub projecting toward said box, said means comprising an annular housing detachably mounted on the journal box and extending axially toward said wheel and surrounding a portion of the hub thereof, a ring of metal on the hub of the wheel having a peripheral groove providing a seal bearing surface, a seal ring resiliently engaging said surface, and flexible, impervious seal ring supporting means between said seal ring and said housing.

2,783,068
PACKING RING
John C. Bloom and Harry Ewing Cornish, Los Angeles, Calif., assignors to Douglas Aircraft Company, Inc., Santa Monica, Calif.
Application September 16, 1952, Serial No. 309,830
1 Claim. (Cl. 286—26)



In combination, first and second relatively movable generally cylindrical members, the first member having an annular groove therein opening toward the second member, the bottom surface of said groove being cylindrical: an annular sealing member having a substantially triangular cross section, said sealing member being composed of an elastomeric material capable of being easily deformed by the action of fluid pressure thereon, said sealing member having an arcuate apex on one periphery and a base portion constituting a cylindrical surface on the other periphery, the two sides of said sealing member being inclined and converging toward said arcuate apex, each of said two sides being joined to the cylindrical surface of said base portion by a rounded portion thereby defining a space between the bottom cylindrical surface of said groove and the base portion of said sealing member adjacent each side thereof; said sealing member being mounted in said groove with the cylindrical surface of said base portion lying against the bottom cylindrical surface of said groove; the axial width of said groove being somewhat greater than that of said sealing member; said sealing member being radially compressed between said first and second members to form a seal; the radial thickness of said sealing member measured from said arcuate apex to the cylindrical surface of said base portion being less than the maximum axial width of said base portion; the maximum axial width of said base portion exceeding the distance from said apex to the cylindrical surface of said base portion by an amount sufficient to overcome the tendency of the sealing member to spirally deform upon the application of fluid pressure to one side of the groove, each of said spaces formed between the two rounded portions of said sealing member and the bottom cylindrical surface of said groove at each side of said sealing member being adapted to trap pressure fluid whereby the sealing member tends to slide axially in the groove under the influence of fluid pressure.

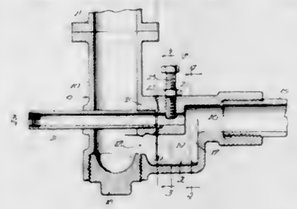
2,783,069
MEANS FOR HOLDING PARTS ON A SHAFT
Lawrence W. Wightman, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York
Application January 4, 1954, Serial No. 401,792
4 Claims. (Cl. 287—52)



1. In combination, a shaft, a part positioned over said shaft having a bore with a larger diameter than the outer diameter of said shaft, said part forming a first unit, and means securing said part to said shaft comprising a tubular bushing member positioned on said shaft, said bushing member having a plurality of fingers extending from an end thereof, said fingers being substantially spaced from each other in a circumferential sense and forming a second unit, at least one of said units being formed of thin sheet material, at least a portion of the outer surface of each said finger extending radially from said shaft a distance greater than half the difference between the diameter of said bore and the diameter of said shaft, said fingers extending into said bore a substantial axial distance relative to said shaft, one of said units having a predetermined unbiased configuration in cross section extending substantially over said axial distance, said one unit having a different configuration in cross section over said axial distance from its unbiased configuration when said shaft, said part and said bushing member are in their assembled relationship.

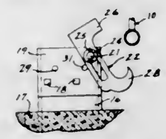
2,783,070
SAND TRAPS
Frank Saari, Oak Park, and Grant V. W. Roth, Evanston, Ill., assignors to Monarch Equipment Corporation, Chicago, Ill., a corporation of Illinois
Application January 8, 1954, Serial No. 403,012
4 Claims. (Cl. 291—11)

4. A trap for sanding rails, comprising: a casing including a vertically extending leg having its upper end connected to receive sand from a dome, a chamber at one side of and extending substantially perpendicular to and communicatively connected to the lower end of, the leg, a discharge conduit having its axis substantially parallel and vertically offset relatively to said chamber, and having its inner end communicatively connected to said chamber, and its outer end connected to deliver sand to the rails, means for supplying compressed air to the discharge conduit including a duct coaxial with



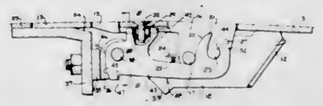
said discharge conduit for siphoning sand from the chamber into the discharge conduit, a port between the compressed air conduit and said chamber for directing compressed air to produce turbulence in said chamber, and a screw valve in the casing having its axis perpendicular to the axis of and movable across the straight portion of said duct.

2,783,071
GATE ARRESTOR
Herbert E. Williams, Birmingham, Ala.
Application July 13, 1955, Serial No. 521,658
13 Claims. (Cl. 292—109)



9. In an article of manufacture for use in arresting the closing movement of a horizontally swinging gate, a bracket adapted for stationary mounting, a pivot pin mounted on said bracket and projecting outwardly thereof, an elongated holding member mounted for pivotal movement on said pin, there being a longitudinally extending slot in said holding member receiving said pin with a sliding fit, an upstanding abutment at one end of said holding member, and an upstanding hook at the other end of said holding member.

2,783,072
DOME OR COWLING LATCH
Kenneth E. Sessler, Wichita, Kans., assignor to Boeing Airplane Company, Wichita, Kans., a corporation of Delaware
Application May 26, 1955, Serial No. 511,239
16 Claims. (Cl. 292—256)



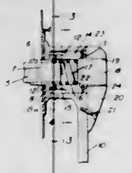
1. A latch for securing two parts together comprising: a one piece rigid member having an integral hook at one end; a transverse pin pivotally connecting the opposite end of said member to one part to be latched; a one piece rigid handle member; a transverse pin pivotally connecting the handle member at a point intermediate its ends to the other part to be latched; hook engaging means carried by the handle member at a point spaced from the handle pivot axis; spring means engaging and biasing the handle member to rotate in a direction to move the hook engag-

ing means toward that side of the handle pivot axis adjacent the hook; means limiting the rotational movement of the handle member in the said direction to thus normally position the hook engaging means in a hook engaging and disengaging position, said hook engaging means being adapted, when the handle member is rotated in the opposite direction to positively engage the hook and by its travel about the handle member pivot axis to force the hook member and the part to which it is pivotally connected toward the part to which the handle member is pivotally connected.

2,783,073
BRACKET FOR CASEMENT WINDOW
Francis Edward J. Wilde, Jr., Floral Park, N. Y.
Application February 21, 1955, Serial No. 489,721
4 Claims. (Cl. 292—288)

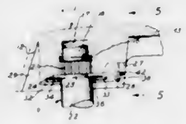
1. A bracket for a casement window comprising an elongated strip of material twisted at an intermediate portion thereof into outer and inner webs substantially perpendicular to each other, the outer end of the outer web being provided with an inwardly extending angular recess the walls of which are substantially perpendicular to each other and being further provided with a slot the walls of which are parallel to each other, said recess and slot being adapted to receive outer vertical edge portions of the casement window, the inner end of the inner web being provided with spaced lugs adapted to straddle a portion of the window frame.

2,783,074
AUTOMOBILE DOOR HANDLE
Bernard F. Miltner, Solon, Iowa
Application May 25, 1954, Serial No. 432,086
1 Claim. (Cl. 292—336.3)



An automobile door handle comprising in combination, a spindle for a door latch, a collar secured to the spindle for rotation therewith, said collar having an annular recess surrounding the spindle a handle having a hub portion rotatably mounted on the collar, said hub portion having an internal longitudinal groove and a circumferential groove, a plunger having a longitudinal external rib slidable in said longitudinal groove of the hub portion, clutch means on the opposing end portions of the collar and plunger, said plunger having a recess in its opposing end portion, a coil spring positioned between the collar and plunger one end of said spring being seated in the recess of the collar and the other end of said spring being seated in the recess of the plunger and moving the latter into declutching position, a snap ring in the circumferential groove of the hub portion limiting declutching movement of the plunger and retaining the plunger assembled in the hub portion, a push button extension on the plunger, and a cover plate secured to the outer end of the hub portion and having an opening in which the push button is exposed flush with the cover plate.

2,783,075
HANDLE ASSEMBLY
Guy G. Manuel, Detroit, and Alfred Piziali, Dearborn, Mich., assignors to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application November 30, 1953, Serial No. 395,122
2 Claims. (Cl. 292—353)



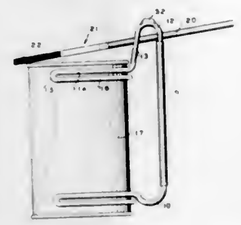
1. A handle assembly adapted to be mounted adjacent an inner body panel of a motor vehicle comprising a shaft projecting inwardly through said inner body panel, said shaft having an annular groove formed in the periphery of its inwardly projecting portion a predetermined distance from said body panel, said shaft also having a longitudinally serrated portion between said annular groove and the end of said shaft, a cast handle having a hub and an integral crank arm extending radially from said hub with said crank arm being spaced from the plane of the base of said hub to form a protective cover for one wall of said hub, said hub having a longitudinally serrated bore nonrotatably receiving the serrated portion of said shaft, said hub also being formed with a stepped counterbored portion concentric with the axis of said serrated bore and forming two adjacent shallow cylindrical cavities separated by an annular shoulder, the cylindrical cavity having the smallest diameter being in radial alignment with the annular groove in the periphery of said shaft when said shaft and handle are assembled and having a width equal to the width of said annular groove, a flat annular retainer positioned in the other of said cylindrical cavities and seated against said shoulder, means securing said flat retainer fixed in position against said shoulder, a pair of spaced open passageways in said hub extending parallel to each other and in a direction lengthwise of the crank arm of the handle assembly, said passageways each opening at its inner end into the counterbored portion of said hub and at its outer end into the above mentioned wall of said hub and leaving therebetween an integral retaining portion projecting in an axial direction from the body portion of said hub, said retaining portion being bisected by a plane through the axis of said shaft and containing the longitudinal center line of the crank arm of said handle assembly, said retaining portion being located entirely within said hub and having a pair of oppositely projecting ears each projecting into one of the passageways formed in said hub, and a hairpin shaped spring detent having a pair of generally parallel legs each extending through one of the passageways of said hub and into the cylindrical cavity of smaller diameter with intermediate portions of said legs being received within the annular groove formed in the periphery of said shaft and yieldably embracing said shaft, each of the legs of said spring detent also having inwardly bent retaining portions yieldably engaging the outwardly projecting ears of said retaining portion of said hub to yieldably retain the spring detent in interlocking relationship with said hub and shaft, the

base of said U-shaped spring detent abutting the side of said retaining portion of the hub and being accessible for removal through the openings formed in the said wall of the hub beneath the protective cover of the crank arm of the handle.

2,783,076
TUBE HOLDING CLAMP
Robert C. Shropshire, Vineland, N. J., assignor to Ace Glass Incorporated, Vineland, N. J., a corporation of New Jersey
Application November 1, 1955, Serial No. 544,102
10 Claims. (Cl. 294—19)

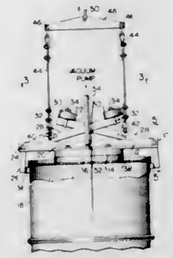
1. In an article handling device including a handle and a trough-shaped article supporting rack fixed transversely on one end of said handle and opening outwardly therefrom; a clamping element comprising a length of flexible material, means anchoring one end of said length to said handle, means on said handle for securing the free end of said length in overlying engagement with an article resting in said rack, in the region between the longitudinal extremities of the latter and resilient means operatively interposed between said anchoring means and a fixed point on said handle for maintaining a releasable longitudinal tension on the anchored end of said length.

2,783,077
HOLDING DEVICE FOR PAINT CANS AND THE LIKE
Charles W. Pierce, Marathon, Fla.
Application September 4, 1953, Serial No. 378,577
5 Claims. (Cl. 294—33)



1. A holding device for cylindrical containers comprising a handle portion formed of vertically disposed spaced reaches of wire, an upper clamping member integrally connecting said reaches, said upper clamping member comprising arcuate segments of said wire, a lower clamping member comprising like arcuate segments of said wire, said lower clamping member being aligned with but axially spaced from said upper clamping member and integrally connected with said reaches, said reaches and said clamping members being formed of a single length of wire material, and a vertically elongated sheet-like member having its edge portions wrapped about said vertical reaches to retain the same in predetermined relative relationship, the opposite ends of said length of wire lying along one of said vertical reaches whereby to be rigidly retained and concealed by a wrapped-around edge portion of said sheet-like member.

2,783,078
HANDLING APPARATUS
Karl P. Billner, Philadelphia, Pa., assignor to Vacuum Concrete, Inc., a corporation of Pennsylvania
Application March 7, 1952, Serial No. 275,384
14 Claims. (Cl. 294—65)



1. Handling apparatus comprising a frame, a hollow mat secured to and entirely supported by said frame defining a chamber having an open end extending below said frame, a compressible sealing gasket secured at said open end for engagement with a portion of a load, conduit means communicating with said chamber for exhausting fluid therefrom and compressing said gasket against said load, a plurality of levers each having a load engaging arm and a force applying arm carrying counterbalance means, and a pivot intermediate said arms connecting each of said levers with said frame, said force applying arms providing suspension attaching means intermediate said counterbalance means and pivot and said load engaging arms projecting beyond said gasket for engagement with said load when said gasket is compressed.

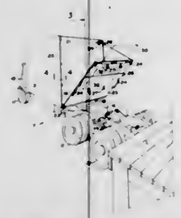
2,783,079
COLLAPSIBLE CAMPING TRAILER
Francis A. Kurka, Wauconda, Ill.
Application March 24, 1954, Serial No. 418,293
4 Claims. (Cl. 296—23)

1. In a portable enclosed sleeping room or the like, a box-like structure including a bottom having a generally rectangular opening adjacent one end thereof and an end wall section having one edge in the same vertical plane as one edge of said rectangular opening means for supporting said bottom in spaced relation to a support surface, a movable end wall section, and means hinging said movable end wall section for swinging movement between a vertical position in coplanar alignment with said fixed end wall section and a horizontal position below and in alignment with said rectangular opening.

2,783,080
TRUCK TAIL GATE ATTACHMENT
Joe W. Ringsby, Denver, Colo.
Application April 6, 1956, Serial No. 576,600
7 Claims. (Cl. 296—50)

1. In combination with a semi-trailer truck tractor having a dromedary freight box and a fifth wheel semi-trailer connector behind the freight box, a platform-gate at the rear of the dromedary box hingedly connected to the base

of the box and being adapted to be swung upwardly for closure of the box and to be swung downwardly and upon

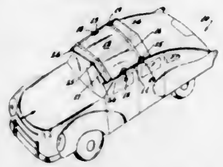


the fifth wheel to extend as a platform from the rear of the box and lie over and upon said fifth wheel.

2,783,081
COMBINED REVEAL MOLDING AND PERMANENT VISOR FOR VEHICLES
Carl W. Sundberg, Birmingham, and Raoul J. Pepin, Ferndale, Mich., assignors to Studebaker-Packard Corporation, a corporation of Michigan
Application December 2, 1953, Serial No. 395,733
19 Claims. (Cl. 296—84)

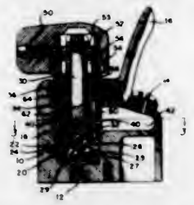
1. For use with a glass-covered windshield opening defined by a downwardly sloping roof panel and metal frame structure provided with a longitudinally recessed rubber reveal seal supported thereby along the four edges of the windshield opening, a combined reveal molding and permanent visor structure formed of pieces of bright sheet metal and comprising an arched member adapted to occupy a substantially horizontal plane adjacent the upper edge of the windshield opening and having depending legs bent at its opposite ends to conform to the downward direction of the sides of the window opening, said arched member being of a unitary hollow box-like cross section open at the lower rear corner, and having a plurality of portions including a substantially vertically disposed attaching flange portion forming the rear side of the box section and adapted to be secured to the roof panel, an overhanging visor portion diagonally related to the attaching flange portion and forming a blended substantially overhung continuation of the downwardly sloping roof panel beginning at the juncture between the just-named two box section portions, and a generally curvilinear-sectioned third portion bent to a partially trough-like shape and forming a substantially 90° junction with the visor portion at one side to form a terminal flange at the rear open corner of the box-like section and adapted to engage a longitudinal recess in the rubber reveal seal, said box-like section of the arched member being of a gradually decreasing cross section from a maximum at the central portion of the arch to a relative minimum at the aforesaid legs, and reveal molding side pieces of a substantially equivalent cross section with respect to the just-noted legs of the arched member, each side piece being disposed in end to end relationship with the leg at that side and adapted to have neither a substantial overhang nor consequent unoccupied hollow void therein.

2,783,082
DRIVE IN THEATER RAINSHIELD
Joseph V. Genua, Waterbury, Conn.
Application June 7, 1954, Serial No. 434,787
3 Claims. (Cl. 296—95)



1. In a rainshield for use upon an automobile at a drive-in theatre, a substantially rectangular sheet of flexible waterproof material having a width somewhat greater than the width of the top of the automobile, a pair of longitudinally extending outer rods one at each side of said sheet and embraced thereby, a rod secured to the center of said sheet and extending parallel to said outer rods, and hook members on each of said outer rods to connect said rods with the side gutters at the top of said automobile, said sheet having clip clearance slots adjacent said hooks to permit the insertion of said hooks between said rods and said sheet and to allow the side edges of said sheet to be rolled around said outer rods for adjusting said rainshield to the width of the top of said automobile, and a strip of transverse elastic webbing secured adjacent the rear of said rectangular sheet to hold it upon the top surface of the automobile and to hold said hooks in engagement with said side gutters and said outer rods.

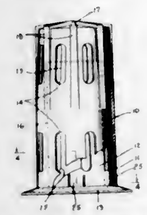
2,783,083
COMBINATION VALVE, WATER PRESSURE REGULATOR AND BUBBLER
James A. Canter, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 3, 1953, Serial No. 390,052
3 Claims. (Cl. 299—16)



1. A combination pressure regulator, valve and bubbler for drinking fountains comprising a one piece cast outer housing formed with a water receiving inlet; a circular chamber in said housing communicating with said water inlet; a pressure regulating assembly disposed within said chamber; said pressure regulating assembly comprising a circular insert having a water passage formed therein and a resilient pressure regulating means disposed adjacent said water passage and distortable in response to changes in incoming water pressure for regulating the flow of water through said water passage; and a valve assembly mounted within said circular chamber; said valve assembly including a valve stem and a resilient sealing element arranged to directly engage the upper surface of said pressure regulating assembly adjacent the outlet of said water passage so as to control the flow of water through said passage; said housing having a bubbler outlet for discharging a stream or jet of water from said body; said valve assembly including packing gland means for said valve stem threadably inserted within the upper end of said chamber for holding

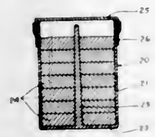
said valve assembly and said pressure regulating assembly in place relative to said housing; said packing gland means including a nut and a spacer element between said nut and said pressure regulating assembly.

2,783,084
VAPOR DIFFUSERS
Worthen Paxton, Port Chester, N. Y., assignor to Airkem, Inc., New York, N. Y., a corporation of New York
Application May 28, 1954, Serial No. 433,058
6 Claims. (Cl. 299—24)



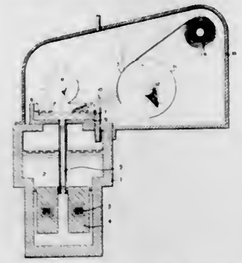
6. A vapor diffuser device comprising inner and outer telescopically arranged parts, each of said parts having similarly arranged apertures, and said parts being relatively rotatable to move said apertures from positions of complete alignment to positions of complete non-alignment, and resilient means on one of said parts engaging the other of said parts to prevent unintended longitudinal movement between the parts, said inner part including a laterally protruding circumferential flange forming a base thereon, an annular groove in said flange for receiving said outer part, and the resilient retaining means comprising outwardly flexed tongues on said inner part closely adjacent said annular groove providing a clamping engagement of said outer part within said annular groove.

2,783,085
VAPOR DIFFUSER DEVICES
Claude J. D'Angio, Forest Hills, N. Y., assignor to Airkem, Inc., New York, N. Y., a corporation of New York
Application July 8, 1954, Serial No. 442,123
10 Claims. (Cl. 299—24)



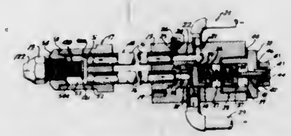
1. A vapor diffusing device comprising a container part having side and bottom walls and being open at the top thereof, a plurality of slabs of air treating gel in stacked arrangement within said container, said slabs being parallel to the bottom wall of the container and the peripheral edges of said slabs closely conforming to the side wall contour of the container, and said slabs being formed of air treating gel comprising an aqueous medium containing volatile air treating components and solidified by means of about 1 to 4% of an aqueous gelling agent, said air treating gel having the property of contracting and shrinking as volatile components evaporate therefrom, the contraction of each gel slab operating to progressively expose for evaporation fresh gel surfaces on the next lower slab until all slabs have receded from the side walls of the container, said device including at least one pin element extending through the gel slabs substantially perpendicularly to the base of said container, and said pin element providing means for supporting the contracting gel slabs against vertical displacement whereby evaporation of the gel results in a progressive separation of successive gel slabs one from the other exposing the intermediate surfaces for evaporation of air treating vapors.

2,783,086
APPARATUS FOR SPRAYING MOLTEN MATERIALS
Joseph B. Brennan, Cleveland, Ohio
Application August 4, 1953, Serial No. 372,266
10 Claims. (Cl. 299—28.6)



1. Spray apparatus for spraying normally solid molten material comprising an inductive heating and circulating system forming a molten metal pool having a constant head, spray means, said pool supplying said spray means from its surface at constant rate.

2,783,087
CIRCULATING TYPE OIL BURNER
Emanuel G. Rainson, Ferndale, and Samuel J. Rainson, Oak Park, Mich.
Application January 29, 1954, Serial No. 406,928
2 Claims. (Cl. 299—58)

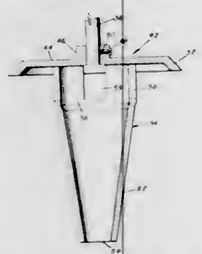


1. In an oil burner including a source of fuel oil, a nozzle holder and means for freely circulating fuel oil under pressure from said source through said nozzle holder in quantities greatly in excess of the amount to be burned, said nozzle holder comprising a housing having therein a substantial fuel supply and flushing chamber and fuel circulating inlet and outlet passages communicating between said fuel source and said chamber, a nozzle element extending from said housing having its nozzle aperture in communication with said flushing chamber opposite said oil inlet and outlet passages, and a strainer screen element between said nozzle aperture and said chamber disposed in the path of fuel oil circulating through said chamber, said nozzle holder and strainer screen being arranged to provide a relatively quiet pressurized pool of fuel oil between the strainer screen and the nozzle aperture, said strainer screen being freely accessible continually cleaned by said excess fuel oil passing through said nozzle holder, and valve means in the outlet passage disposed remotely from and independent of said fuel supply and flushing chamber establishing and maintaining the desired nozzle pressure.

2,783,088
MINNOW BOX AERATOR PUMP
Thomas P. Butler, Antlers, Okla.
Application November 9, 1953, Serial No. 390,845
2 Claims. (Cl. 299—63)

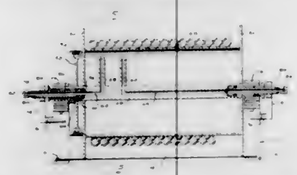
1. An aerator pump for minnow buckets comprising an open ended centrifugal pump barrel having a cylin-

drical upper end portion and a truncated conical lower portion tapering downwardly from said upper end portion, said barrel being open at the lower end whereby rotation thereof in liquid will centrifugally draw said liquid toward said upper end portion of the barrel, said upper end portion having a plurality of circumferentially spaced liquid outlet ports therein for ejecting liquid from



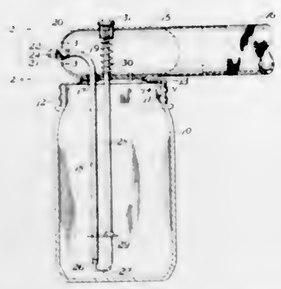
the barrel against a spray head which is attached to and overhangs said upper end portion, the upper end of said conical lower portion being of less diameter than said cylindrical upper end portion and being joined thereto by an outwardly diverging annular shoulder to propel the liquid traveling upward through the barrel suddenly outward through said outlet ports.

2,783,089
WINDING REEL FOR OXY-ACETYLENE TORCH HOSES
Lester B. Prout, Lenora, Kans.
Application April 10, 1953, Serial No. 347,948
1 Claim. (Cl. 299—78)



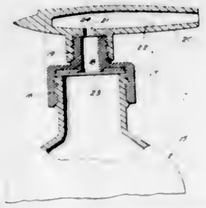
A hose reel comprising: a stationary frame; a drum including a shaft journalled upon the frame and having a longitudinal passage formed at one end with a counterbore opening upon the same end of the shaft and threaded for part of its length; means on the shaft at the other end of the passage for connecting in fluid communication with said other end of the passage a hose wound upon the drum; a tubular member extending into said counterbore and communicating with said passage, said member having an outer end projecting out of the counterbore for connection to a source of a fluid material to be directed through said tubular member and passage to the hose, the tubular member at its inner end being formed with a circumferential collar slidably engaged with the wall of the counterbore; a packing nut surrounding the tubular member and threaded into the counterbore; packing surrounding the tubular member within the counterbore and interposed between the packing nut and collar, said tubular member on loosening of the nut and packing being free to slide axially within the counterbore in a direction outwardly of the counterbore, said packing nut when threaded inwardly of the counterbore compressing the packing between the nut and collar and said packing and packing nut constituting the sole means holding the tubular member against movement in an axial direction outwardly of the counterbore; and means for holding the tubular member against rotation with said shaft, comprising a block connected fixedly to said tubular member and extending radially from said tubular member and laterally spaced pins rigid with the outer end of the block and extending parallel to the tubular member, said pins extending at opposite sides of a portion of said frame whereby to be engaged by said portion of the frame against movement through a circular path about the axis of the tubular member, thus to hold the tubular member against rotation with the shaft, said pin being freely slidable upon said portion of the frame, whereby said means will be free to move with the tubular member in an axial direction.

2,783,090
SPRAY DEVICE
Frederick K. Minerley, Lincolnwood, Ill., assignor to Air-Way Industries, Inc., a corporation of Delaware
Application December 11, 1953, Serial No. 397,559
6 Claims. (Cl. 299—86)



5. A spray unit comprising an air tube adapted to be connected with a source of air under pressure, said air tube having an outlet and with a relatively large outlet opening, a relatively small liquid tube with an outlet end arranged coaxially within the air tube and projecting centrally through said outlet opening the outlet end of said liquid tube terminating outwardly of the outlet end of said air tube, a spinner rotatably mounted on the outlet end of the liquid tube, said spinner being disposed within the end of said outlet opening and having oppositely inclined surfaces thereon for causing rotation thereof in response to pressure imposed thereon by the air stream issuing through said outlet opening, the outlet end of the liquid tube being so related to the nozzle that the air issuing through the outlet opening of the air tube and past the spinner creates a vortex at the outlet end of the liquid tube to create an aspirating effect thereon.

2,783,091
FOAM-DISPENSING PACKAGE
Burton F. Haldy, Cedar Rapids, Iowa, assignor to Strata-foam Corp., Cedar Rapids, Iowa, a corporation of Iowa
Application June 10, 1955, Serial No. 514,548
1 Claim. (Cl. 299—90)

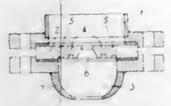


A foam-dispensing package comprising a flexible deformable container, a liquid solution in said container comprising a formulation of ingredients capable of producing foam upon slight agitation of the liquid solution, said liquid solution filling a portion only of said container thereby enabling the production of foam within the container, which foam fills the remaining space within the container, dispensing means mounted on said container for conducting foam out of said container after formation thereof when the container volume is reduced by deformation of the container, and filter means mounted in said dispensing means in the path of the dispensed foam for condensing and consolidating the foam, said filter means comprising a fabric having pores in the order of magnitude of substantially 100,000 pores per square inch, the pores having an average diameter in the range from two to five thousandths of an inch.

2,783,092
AIR GUN
Linus A. Gavin, Longmeadow, Mass., and Frederick H. Jackman, Waterbury, Conn.
Application May 17, 1956, Serial No. 585,466
3 Claims. (Cl. 299—116)

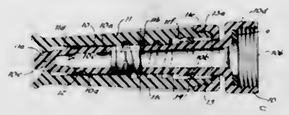
1. An air gun comprising in combination, a body having an air inlet and discharge jet means and a well provided with a valve seat, said body having air passageways from said inlet to said well above said seat and from said well below said seat to said jet means, a valve engageable with said seat in closed position thereof having a stem extending through said body, spring means urging said valve towards said seat, a trigger operable to act on and elevate said stem to move said valve from said seat, stop means adjustable in said well engageable by said valve in upper position thereof, and a stop member independently adjustable on said stem externally of the body and adapted to abut said body as said stem is elevated by said trigger.

2,783,093
APPARATUS FOR DISTRIBUTING AND SPRAYING LIQUIDS OVER CIRCULAR AREAS
Hans Hesky, Dortmund, Germany, assignor to Friedrich Uhde G. m. b. H., Dortmund, Germany, a corporation of Germany
Application November 29, 1954, Serial No. 471,871
Claims priority, application Austria December 5, 1953
6 Claims. (Cl. 299—120)



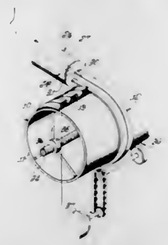
1. An apparatus for distributing liquids over circular areas, comprising a supply pipe, a liquid guiding device provided with a plurality of conduits in communication with said pipe and arranged in at least two concentric circles, the ratio between the diameters of said concentric circles ranging between about 0.5:1 and about 0.7:1, and an open mixture chamber operatively connected with said guiding device and in communication with said conduits remote from said pipe and said opening, wherein the ratio of the sine of the angle of inclination of the conduits in the guiding device in the inner circle to the sine of the angle of inclination of the conduits in the outer circle is about the same as the ratio of the diameter of the inner circle to the diameter of the outer circle.

2,783,094
PLASTIC HOSE NOZZLE
Lloyd F. Storie, Shaker Heights, Ohio, assignor to The Ulchek Tool Company, Cleveland, Ohio, a corporation of Ohio
Application November 4, 1953, Serial No. 390,106
3 Claims. (Cl. 299—136)



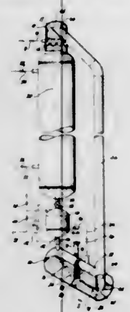
1. A liquid spray nozzle for attachment to a hose, comprising a spindle member with a liquid flow passageway therethrough having an inlet and outlet adjacent opposite ends thereof, an imperforate sleeve member surrounding said spindle member and capable of axial movement thereover with said sleeve member coacting with said outlet to control the spray by said relative axial movement, screw threads formed on said spindle and sleeve members for effecting spray controlling axial movement upon rotation of said members about a longitudinal axis, one of said members carrying a ring seal located between said outlet and thread and coacting with a cylindrical surface on the other of said members to prevent leakage into said thread, and a snap type split stop ring made of resilient material snapped into an annular groove in one of said members on the inlet side of said threads to block the axial movement of said sleeve member with said ring extending substantially throughout the length of said groove and pressing against a smooth surface on the other of said members to provide a close seal to prevent foreign particles from entering.

2,783,095
METHODS FOR FORMING ROTARY BRUSHES
Louis M. Ballard, Duarte, Calif., assignor to Wayne Manufacturing Company, Pomona, Calif., a corporation of California
Application December 22, 1952, Serial No. 327,395
9 Claims. (Cl. 300—21)



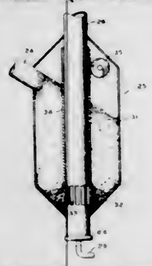
1. The method of forming a rotary broom that includes forming an elongated body of at least partially uncured rubber, winding said elongated body of rubber helically about a broom core member, said body being so shaped and wound as to form an outwardly facing bristle receiving groove extending helically about the core, helically wrapping a flexible retaining tape about the uncured rubber body after its application to the core to retain the rubber against the core, heating and thereby curing said rubber under pressure after winding it about the core by surrounding the core and rubber with steam under pressure, and then removing said tape from the rubber body.

2,783,096
SOLIDS LEVEL INDICATION AND CONTROL SYSTEM
Clyde H. O. Berg, Long Beach, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California
Application November 18, 1954, Serial No. 469,670
16 Claims. (Cl. 302—53)



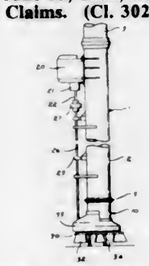
1. An improved method for the handling of granular solids beds moving in a direction inclined from the vertical and detecting the location of the upper surface of the solids bed which comprises maintaining the moving bed by supplying solids thereto from an elevated inlet point and removing solids therefrom at a laterally displaced low outlet point, detecting the position of the upper surface of the moving solids bed at a point between said inlet and outlet points, establishing a submerged solids flow zone within said solids bed communicating at its outlet opening with said low outlet point and at its inlet with a point below said point of solids surface detection, a flow of solids being maintained through said submerged solids flow zone by the removal of solids from said laterally displaced low outlet point.

2,783,097
PEBBLE HEAT EXCHANGER
Robert R. Goins, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application March 27, 1952, Serial No. 278,837
4 Claims. (Cl. 302—53)



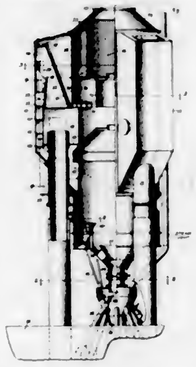
1. An improved pebble heat exchange system comprising in combination a first closed, upright, elongated pebble chamber having pebble inlet means and gaseous effluent means in its upper end portion and fluid inlet means in its lower end portion; a second closed, upright, elongated pebble chamber disposed below said first chamber and having gaseous effluent means in its upper end portion and fluid inlet means and pebble outlet means in its lower end; pebble conduit means connecting the lower end of said first chamber and the upper end of said second chamber; a gas-pebble separator chamber connected at its lower end portion to the upper end of said pebble inlet conduit to said first chamber; an upright gas lift conduit of fixed length encompassed at its upper end by said gas-pebble separator chamber; a pebble feeder chamber enclosing a lower portion of said gas lift conduit, said pebble feeder chamber being connected at its upper end portion to the lower end of said pebble outlet means; inlet means disposed around the periphery of said gas lift conduit within the lower end portion of said pebble feeder chamber; a sleeve surrounding said gas lift conduit and adapted to slide longitudinally thereon, the upper end of said sleeve being in all positions above the connection of said pebble feeder chamber to said pebble outlet means and the lower end of said sleeve being adjacent said inlet means; drive means operatively connected to said sleeve above the connection of said pebble feeder chamber to said pebble outlet means so as to move said sleeve and thus vary the area through said inlet means into the interior of said gas lift conduit; and lift gas inlet means connected to the lower end of said gas lift conduit.

2,783,098
SUCTION SPOUTS
Sidney C. Rooney and Lultzen Feenstra, Vancouver, British Columbia, Canada, assignors to Pneumatic Conveyors Ltd., Vancouver, British Columbia, Canada
Application June 13, 1955, Serial No. 515,156
2 Claims. (Cl. 302—58)



1. A suction spout comprising a pipe adapted for connection to a source of suction, said pipe having a nozzle at its lower end, an annular member rotatably mounted adjacent the lower end of said nozzle, said annular member having vanes on its underside, said vanes being directed relative to the annular member to draw material engaged by said vanes towards the centre of the nozzle, means carried by the pipe for rotating the annular member, and means carried by the nozzle and disposed within the vanes for supporting said vanes in slightly raised position.

2,783,099
GAS SOLID SEPARATION IN A PENUMACTIC LIFT
Eric V. Bergstrom, Short Hills, N. J., assignor to Socony Mobile Oil Company, Inc., a corporation of New York
Application December 19, 1955, Serial No. 554,002
3 Claims. (Cl. 302—59)

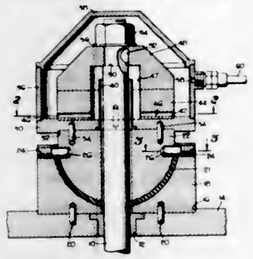


1. In a hydrocarbon conversion system in which a reactor is positioned above and in vertical alignment with a regenerator, and a catalyst surge bin is positioned above and in vertical alignment with the reactor, said surge bin reactor and regenerator being connected in series; improved apparatus for transferring in a continuous cyclic path catalyst from a location beneath the regenerator to a location above the surge bin which comprises; a plurality of lift pipes circumferentially positioned and adjacent to the regenerator and reactor, individual catalyst separators adjacent the exterior wall of the surge bin and positioned at the upper end of said lift pipes, deflector plates positioned within said separators to deflect catalyst emerging from the lift pipes outwardly away from the center of the surge bin and means to return the deflected catalyst from the individual separators to the centrally located surge bin.

2,783,100
SELF-ADJUSTING AUXILIARY BEARING
Robert Steeneck, New York, N. Y., assignor to The Western Union Telegraph Company, New York, N. Y., a corporation of New York
Application September 5, 1952, Serial No. 308,073
10 Claims. (Cl. 308—15)

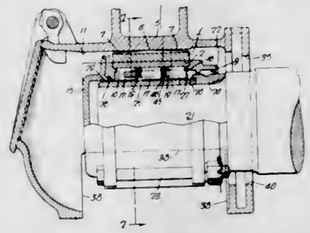
1. A self-centering rotary shaft bearing assembly comprising in combination an angularly self-aligning shaft bearing, a retainer therefor surrounding and supporting said shaft bearing and having parallel sides radially disposed, a mounting frame slidably engaged by said sides of said retainer to partial depth of a recess therein, the said recess wholly surrounding said bearing, and a viscous deformable plastic damping medium substantially filling said recess, characterized by a logarithmic absolute viscosity coefficient having values between the limits of approximately 4 and 7, said viscosity being measured in poises at the temperature of use and being adapted to provide a fluidity permitting relatively slow lateral adjusting motion of said bearing, together with viscosity inhibiting leakage of said medium and any rapid radial motion of said bearing, whereby rotationally induced lateral vibrations of the said bearing are amortized.

2,783,101
THRUST BEARING SUPPORT
Frank V. Walker, San Fernando, Calif.
Application July 20, 1953, Serial No. 369,117
4 Claims. (Cl. 308—160)



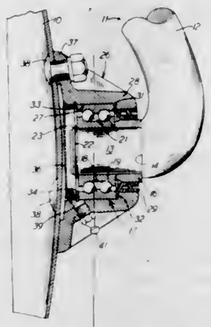
1. A support for a thrust bearing of the tvpe having a stationary bearing plate and a rotating bearing plate mounted upon a rotating shaft and separated by a film of suitable lubricant comprising: a lower bearing support member having a concave upper surface, an upper bearing support member forming a support for said stationary bearing plate and having a convex lower surface concentric to the concave surface of said lower bearing support member, and a layer of resilient electrically nonconductive material between said concave and convex surfaces permitting relative movement between said upper bearing support member and said lower bearing support member for adjusting misalignment and maintaining uniform alignment of the thrust load upon the lubricant film.

2,783,102
RAILROAD AXLE JOURNAL BEARING CONSTRUCTION
Per Gunnar Palmgren and Frederick S. Ball, Philadelphia, Pa., Carl Eric Gote Johansson, Rio de Janeiro, Brazil, and Basil L. Haley, Toronto, Ontario, Canada, assignors to SKF Industries, Inc., Philadelphia, Pa., a corporation of Delaware
Application April 2, 1951, Serial No. 218,714
4 Claims. (Cl. 308—180)



1. In a railroad axle journal, inner and outer radially spaced race rings, rollers confined between said rings, said inner race ring being secured to the said journal, a cover member secured against an end of the outer ring and having a cylindrical recess receiving the end of the axle journal and the proximate end of the inner ring, said journal and inner ring forming a piston movable axially in the cover recess as a cylinder, and means for retarding the movement of air to and from the cylinder.

2,783,103
AGRICULTURAL DISC MOUNTING
Matthew E. Hamilton, Stockton, Calif., assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Application May 3, 1954, Serial No. 427,017
3 Claims. (Cl. 308—181)



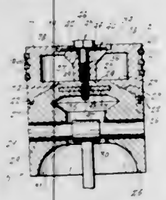
1. In a bearing assembly for a disc tillage implement, the combination of an axle, a cylindrical bearing portion on said axle providing an outwardly directed shoulder and a groove adjacent the end of said bearing portion distal from said shoulder, a sleeve on said bearing portion adjacent said shoulder, an anti-friction bearing on said portion between said sleeve and said groove, a snap ring in said groove and extending outwardly therefrom in position to prevent substantial axial shifting of said bearing relative to said axle in one direction, a hub dis-

posed about said anti-friction bearing and having a bore therethrough within which said bearing fits in hub supporting relation, said bore being radially spaced from said sleeve and providing a reentrant shoulder adjacent said sleeve and engaged with said bearing for preventing axial movement of said hub relative to said bearing in one direction and said bore providing a groove distal from said shoulder, a snap ring in said groove and extending into said bore in position to prevent axial movement of said hub relative to said bearing in the other direction, grease sealing means interposed in the radial space between said sleeve and said bore, with said means and said sleeve and said axle all closing one end of said bore, a grease receiving fitting on said hub communicating with said bore in the region of said snap rings, and a tillage disc anchored to and rotatable with said hub, and closing the other end of said bore.

2,783,104
BALL BEARING SEPARATOR AND METHOD OF MAKING THE SAME
Warren D. Anderson, Glenbrook, Conn., assignor to Norma-Hoffmann Bearings Corporation, Stamford, Conn., a corporation of New York
Application February 29, 1956, Serial No. 568,596
9 Claims. (Cl. 308—201)

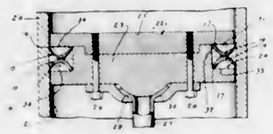
1. In a ball bearing having a grooved inner race, a grooved outer race, and a complement of balls located between said grooves, a ball separator consisting of two sheet metal rings located on opposite sides of the ball complement and formed to conform to the ball surfaces and to provide clamped abutment surfaces in the area between adjacent balls, with at least one of said formed rings having curved abutment surfaces.

2,783,105
QUICK RE-RING PISTON
Herman Kopp, Bronx, N. Y.
Application May 24, 1955, Serial No. 510,800
3 Claims. (Cl. 309—15)



3. A quick re-ring piston comprising a cylindrical head member having integral top wall and skirt portions and being circumferentially grooved for piston rings, a cylindrical base member for a wrist pin and a connecting rod, a fastening screw centrally disposed in and extending through the top wall portion of the cylindrical head member, and means in the base member removably to receive said screw for the screw removably to hold the two members together, said means being a plate secured to the base member with a threaded opening therein for one end of said screw, said plate being cast in the base member, said top wall portion of the cylindrical head member having a centrally disposed countersunk recess with a slot therein and extending at opposite sides of said recess and a lock plate removably seated in said slot to prevent said screw from unscrewing, said screw having a polygonal-shaped head and said lock plate having a plurality of short ends bendable against the sides of said head of the screw to prevent the screw from turning, said lock plate also having two legs adapted to fit into said slot.

2,783,106
SEALING RING
George E. Barnhart, Altadena, Calif.
Application June 27, 1955, Serial No. 518,281
9 Claims. (Cl. 309—33)



1. A sealing ring arrangement comprising: an annular ring having a semi-circular surface; at least one relatively thin outer annular portion lying at one end of said surface; and an inner concentric annular portion of greater thickness than said outer annular portion and lying at the other end of said surface, said portions being integral and directed in a common axial direction whereby, upon disposition in a piston groove, to permit deformation of said ring, when under pressure, in a direction extending from one of said portions to the other.

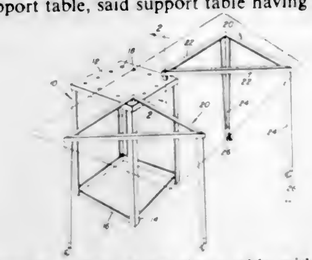
2,783,107
PLUG AND SOCKET MEANS FOR CONNECTING TABLE TOPS TOGETHER
Steven Gacht, Lincoln Park, Mich.
Application March 11, 1955, Serial No. 493,762
4 Claims. (Cl. 311—4)

1. A table comprising a rectangular top panel having V-shaped corner notches formed therein and bottom reinforcing box flanges extending along the sides thereof and having hollow ends spaced apart at said corners to form sockets at opposite sides of the notches beneath the same, and coupling plugs fitting in the notches flush with the top of said panel and also fitting in said sockets at selected corners to extend from the sides of the top and fit in similar notches and sockets in the sides of tops of other tables to connect said tables side by side.

2,783,108
AUXILIARY SUPPORT FOR SHEET METAL SHEAR TABLE
Marvin Walker, Macon, Ga.
Application November 2, 1955, Serial No. 544,449
4 Claims. (Cl. 311—17)

1. An auxiliary support for a sheet metal shear table of the type having a flat, unobstructed top together with supporting legs therefor, said auxiliary support including a supporting framework constituting a top and a pair of legs supported by casters and secured thereto, a pin having a

shank detachably seated in an opening in the shear table top adjacent and inwardly of a leg thereof, the top of said support table having a socket remote from the legs of the support table, said support table having its top dis-

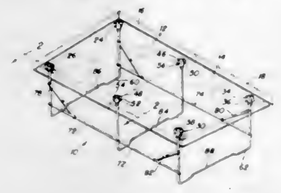


posed higher than that of the shear table with said pivot pin engaged in said socket whereby said support table may be swung horizontally about said pivot pin to dispose its top in positions overlying and to one side of the shear table top.

2,783,109
LAP TRAY WITH LEG-ENGAGING MEANS
Ephriam Frey, Flint, Mich.
Application January 3, 1955, Serial No. 479,304
3 Claims. (Cl. 311—25)

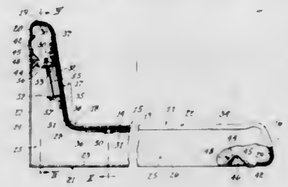
1. A lap tray that is supported in a level position by engagement of the legs of a user therewith, said tray comprising an elongated and substantially flat top plate having forward and rearward edge portions extending lengthwise thereof, a pair of end panels extending transversely of and depending at substantially right angles from the underside of said top plate adjacent its ends, said end panels being of greater length than their depths, so as to be positioned outwardly of the legs of a user, and narrow protruding ribs on the inner sides of said end panels and extending transversely of said top plate, so as to be engaged by the sides of the legs of a user for supporting the top plate substantially on a horizontal plane.

2,783,110
FOLDING KNOCKDOWN TABLE
Neil T. B. Helgeland, Richland, Wash.
Application October 8, 1954, Serial No. 461,207
1 Claim. (Cl. 311—79)



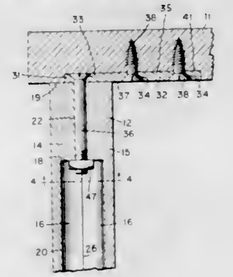
A portable knockdown table comprising a pair of table top sections arranged in abutting relationship, said sections each having a pair of spaced split studs depending therefrom with each split stud of one of said sections abutting a split stud of the other of said sections, and a U-shaped leg assembly, said leg assembly including terminal couplings receiving the abutting split studs therein for supporting and holding said sections together and detachable therefrom, said leg assembly having upper ends received in said couplings, each of said split studs being of semicylindrical shape, said couplings being tubular in construction.

2,783,111
METAL TRIM FOR COUNTERTOPS AND THE LIKE
Samuel Hammer, New York, N. Y., assignor to United Metal Cabinet Corporation, Brooklyn, N. Y., a corporation of New York
Application December 24, 1954, Serial No. 477,444
6 Claims. (Cl. 311—107)



1. Trim of the character described comprising a binder constituted as an elongated integral unit having longitudinally thereof straight, convex and concave portions in predetermined successive order, and a clamp located intermediate of the ends of said unit interconnecting two of said portions for pulling said binder longitudinally of all of said portions.

2,783,112
TABLE LEG ATTACHING DEVICE
Melvin G. Slater, Baltimore, Md.
Application November 14, 1955, Serial No. 546,416
2 Claims. (Cl. 311—110)

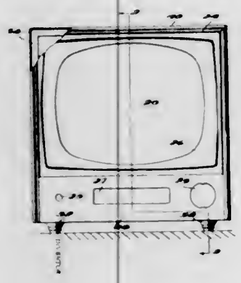


1. In a table construction, a top having recesses of angular shape formed in the underside thereof, each recess being located adjacent to a corner of the top, legs for the table, each leg being formed of a pair of elongated sections of corresponding construction, said leg sections being secured together in face to face relationship, a bore formed in each leg and extending lengthwise thereof, an angle plate mounted on the upper end of each leg, a bolt carried by the angle plate and extending downwardly through the bore in the leg for fixedly securing the angle plate to the leg, said angle plate being mounted in a recess of the table top so that the exposed surface of the angle plate is substantially flush with the surface of the underside of the table top, a plurality of screw holes formed in the angle plate, and screws extending through the angle plate holes and threadedly mounted in the table top for rigidly securing each leg thereto.

2,783,113
TELEVISION CABINET
George Trautvetter, Jenkintown, Pa., assignor to Heintz Manufacturing Company, Philadelphia, Pa., a corporation of Pennsylvania
Application June 7, 1954, Serial No. 434,755
2 Claims. (Cl. 312—7)

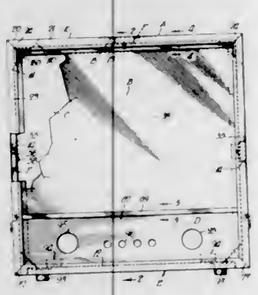
1. A television cabinet comprising, in combination, a pair of members, one of said members forming a top and

side walls, the other of said members comprising an integral control panel and tube mask, said one member having reversely bent and inturned flanges along the sidewalls and top adjacent the tube mask portion and reversely bent flanges along the sidewalls adjacent the control panel portion, said other member having flanged portions



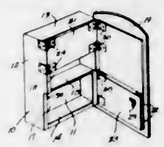
along the top and side edges of the tube mask and 90° flanges on the edges of the control panel, said flanges on said members engaging to form the cabinet, said other member having reversely bent flanges along the side edges of the control panel and flanged portions along the side and top edges of the tube mask for engagement with the flanges on said first-named member.

2,783,114
SHEET METAL INTEGRAL TELEVISION CABINET
Solomon B. Raduns, Brooklyn, N. Y., assignor to National Plainfield Corporation, Plainfield, Conn., a corporation of Connecticut
Application April 13, 1954, Serial No. 422,813
3 Claims. (Cl. 312—7)



1. A rectangular box-like integral sheet metal television cabinet having a window front and an open back and also having an integral front frame and integral side, bottom and top walls, the forward edges of said side, bottom and top walls having firstly inturned forward edges substantially perpendicular to said side, bottom and top walls, then rearwardly turned edges parallel to said side, bottom and top walls and then finally inturned edges perpendicular to said side, bottom and top walls, said rearwardly turned edges and said last mentioned inturned perpendicular edges forming a rectangular recess for reception of a front cover glass, and said last inturned perpendicular edge integral with said bottom wall extending upwardly to form a panel board with a plurality of laterally aligned openings to receive control knobs and its upper edge completing the lower edge of said recess for reception of said cover glass.

2,783,115
CABINET CONSTRUCTION
Jackson G. York, Arlington, Va., assignor, by direct and mesne assignments, to York Research and Development Corporation, Washington, D. C., a corporation of Delaware
Application July 12, 1955, Serial No. 521,508
8 Claims. (Cl. 312—325)



1. A device of the character described comprising, in combination with a cabinet having a pair of side elements, an upper panel hinged at one of its sides to the upper portion of one of said side elements, a lower panel hinged at one of its sides to the lower portion of the other of said side elements, and a door hinged to the free ends of each of said panels.

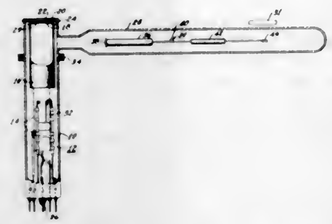
2,783,116
METHOD FOR VACUUM TUBE REJUVENATION
John J. Schaedler and Dwayn A. Shipps, Kansas City, Mo.
Application July 6, 1953, Serial No. 366,106
2 Claims. (Cl. 316—2)

1. A method for rejuvenating an old and defective vacuum tube of the kind provided with a number of elements including a grid, a cathode and a filament having a characteristic operating voltage, said method including the steps of applying across the filament of the tube an electrical potential equal to its characteristic operating voltage, whereby to heat the cathode of the tube to its normal operating temperature; and thereupon, applying an alternating current potential in excess of five hundred volts between the cathode of the tube and the grid of the tube for a period of less than one second with the cathode of the tube grounded, whereby to increase the electron emission capabilities of the cathode of the tube.

2,783,117
METHOD OF FORMING A PHOTOCONDUCTIVE TARGET ELECTRODE
Appleton D. Cope, Hightstown, and Robert R. Goodrich, Cranbury, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application May 14, 1952, Serial No. 287,666
7 Claims. (Cl. 316—8)

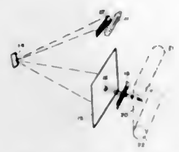
1. The method of forming a photoconductive film in an electron tube envelope comprising introducing a gas into said envelope to a pressure of one to five millimeters of mercury, introducing a quantity of antimony trisulfide into said envelope, evaporating said antimony trisulfide in the presence of said gas onto a predetermined area within said envelope as a porous layer, removing said gas from said envelope, baking said photoconductive layer for 15 to 30 minutes at a temperature in

the range of 100° C. to 150° C. to consolidate the particles of said layer and to achieve an optimum balance



between the sensitivity, resistivity and lag of said layer, and removing any remaining gas from said envelope.

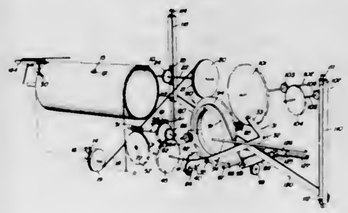
2,783,118
PHOTOGRAPHIC RECORDING OF TRANSIENT SIGNALS
Herbert E. Owen, Tulsa, Okla., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application August 20, 1953, Serial No. 375,323
3 Claims. (Cl. 346—109)



1. An apparatus for making a variable density photographic record of an electrical transient which comprises a reflecting mirror galvanometer whose mirror is rotationally responsive to the magnitude of said transient, a straight line filament lamp arranged to direct an incident beam of light toward said mirror, the filament in said lamp including a wedge-shaped portion diminishing in thickness along its length to emit a light beam having progressively increasing intensity along its width, the width measurement of said beam lying in a direction substantially normal to the axis of rotation of the mirror, a light barrier provided with a centrally disposed aperture, the barrier being positioned relative to the mirror such that the beam of light reflected by the mirror from the lamp impinges upon the barrier with a portion of the reflected beam passing through the aperture, rotational movements of the mirror causing different portions along the width of the reflected beam to pass through the aperture, a photosensitive medium adjacent said barrier and arranged such that light passing through the aperture from the mirror impinges upon the medium, and means for moving said medium relative to the aperture.

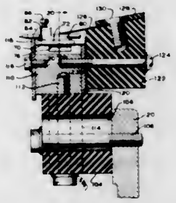
2,783,119
AUTOGRAPHIC RECORDING APPARATUS
Francis M. Correll, Milwaukee, Wis.
Application July 26, 1955, Serial No. 524,346
19 Claims. (Cl. 346—118)

1. An autographic recording apparatus for recording the performance of mechanisms and machines, comprising a recording drum, a scriber arm moved axially along said drum and driven at a constant speed, a timed control mechanism for moving said scriber arm, a recording chart wound around the recording drum removably attached at one end to the recording drum and at the other end to a chart pulling mechanism, pulling a predetermined length of the chart off the drum, thereby unwinding the chart and rotating the recording drum, alternatively used means moved by the mechanisms or machine the performance of which is recorded, the alternatively used means including a rotatable member common to all alternatively used means and driven by a plurality of further rotating means connected with said common rotatable member by speed change gears with different speed transmission ratios and further driven by a reciprocable member, combined with a ratchet mechanism, driving the said common rotatable member with a speed proportional to the frequency of the reciprocation of



said reciprocable member, means for connecting the chart pulling mechanism with the said common rotatable member, said last named means including a plurality of independent speed ratio changing mechanisms cooperating with each other to obtain a combined speed ratio change equal to the product of the speed ratio changes obtained by the aforesaid speed ratio change mechanisms, means for adjusting the speed ratio change of each speed ratio change mechanism, so as to drive said chart pulling mechanism unwinding the chart with a speed which adjusts the distance through which the chart is pulled within the time during which the scriber arm moves across the drum.

2,783,120
FACSIMILE RECORDER
Douglas M. Zabriskie, Northvale, N. J., assignor to The Western Union Telegraph Company, New York, N. Y., a corporation of New York
Application March 29, 1952, Serial No. 279,261
10 Claims. (Cl. 346—139)



1. Facsimile scanning mechanism comprising an endless belt supported for rotary movement, a plurality of stylus units rigidly mounted on said belt so that the stylus of each unit travels in a linear scanning path, a rigid guide member arranged in supporting engagement with the underside of the belt along one edge thereof, a second rigid guide member mounted along the other edge of the belt but out of contact with the belt, said second guide member having a straight edge arranged to engage said stylus units during their scanning travel, and stationary cantilever leaf spring means arranged to exert a constant sliding pressure on each stylus unit while scanning to hold the styluses in uniform pressure contact with the second guide member, whereby the successive styluses are constrained to travel the same scanning path.

CHEMICAL

2,783,121

OXIDATION DYEING WITH ANILINE-4-SULFAMIC ACID

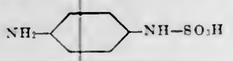
Robert Lazare Lantz and Pierre Marie Joseph Obellianne, Paris, France, assignors to Compagnie Française des Matieres Colorantes S. A. R. L., Paris, France

No Drawing. Application November 24, 1952, Serial No. 322,358

Claims priority, application France November 28, 1951

5 Claims. (Cl. 8—32)

1. Process for the preparation of colouring matters on fibres by the oxidation, with an oxidising agent, of a salt of a sulphamic acid of a benzene diamine of the following formula:



2,783,122

WELL DRILLING COMPOSITION AND METHOD OF MANUFACTURE THEREOF

Howard H. Hoekje, Corpus Christi, Tex., assignor to Columbia-Southern Chemical Corporation, Allegheny County, Pa., a corporation of Delaware

No Drawing. Application May 12, 1953, Serial No. 354,633

6 Claims. (Cl. 8—94.32)

1. A method which comprises extracting a naturally occurring material which contains at least 5 percent by weight of tannic acid with water whereby to produce an aqueous solution of tannic acid and an unextracted residue, removing the resulting tannic acid solution from the residue, digesting the residue with enough aqueous alkali metal hydroxide to solubilize the components thereof and to produce an alkaline product, and adding acid of the group consisting of tannic and humic acids to said product and thereby reducing the alkalinity thereof.

2,783,123

STERILIZATION OF COLLAGENOUS SUTURES WITH EPOXIDES

William L. George, Middlesex, N. J., and James J. Eberl, Moylan, Pa., assignors to Johnson & Johnson, a corporation of New Jersey

No Drawing. Application July 31, 1952, Serial No. 302,004

14 Claims. (Cl. 21—58)

1. In a method of sterilizing collagenous suture material by immersing it in a liquid comprising about 2.5 to 20% of water based on the weight of the liquid, a sterilizing epoxide of the group consisting of ethylene oxide and propylene oxide in an amount of the range of about 0.25 to 2.5%, for a time in the range of about 10 to 14 days and a temperature in the range of about 50 to 100° F., the improvement which comprises carrying out said method in the presence of an ammonium salt of a hydroxy carboxylic acid having not more than 8 carbon atoms in an amount to provide a pH in the range of about 5.0 up to about 7.0 in the case of ethylene oxide and up to about 8.5 in the case of propylene oxide, and a solvent for said salt water and epoxide which is non-deleterious to said collagenous material, whereby said collagenous suture material is sterilized without causing substantial deterioration thereof.

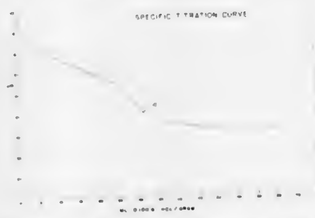
2,783,124

METHOD OF MAKING DIHYDROXY ALUMINUM CARBONATE COMPOUNDS

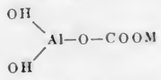
Irvine W. Grote, Chattanooga, Tenn., assignor to The Chattanooga Medicine Company, Chattanooga, Tenn., a corporation of Tennessee

Application October 21, 1955, Serial No. 542,023

11 Claims. (Cl. 23—14)



1. A method of preparing a compound having in its anhydrous form the formula



wherein M is an monovalent radical selected from the group consisting of alkali metal and ammonium radicals, which comprises bringing together in an aqueous medium a cationic aluminum compound selected from the group consisting of aluminum alcoholates in which the alkoxide group is a C_2 to C_4 group and aluminum hydroxide and at least an equimolar weight of a bicarbonate of the formula $MHCO_3$ to effect the precipitation of said compound having the foregoing formula, and recovering said compound.

2,783,125

TREATMENT OF MONAZITE

Charles de Rohden, Neuilly-sur-Seine, and Maurice Peltier, Beaumontel, France, assignors to Societe de Produits Chimiques des Terres Rares, Paris, France

Application July 18, 1950, Serial No. 174,544

Claims priority, application France July 21, 1949

10 Claims. (Cl. 23—14.5)

1. A method of treating monazite in order to recover valuable products therefrom which comprises finely grinding said monazite to pass through a 200 sieve, treating said finely comminuted monazite with a NaOH solution of 55 to 70 percent concentration at about the boiling point of the solution, retreating the NaOH digested monazite with water at a temperature above 55° C., separating the mixture of insoluble hydroxides containing the rare earth elements, thorium and uranium from the soluble sodium phosphate formed during the treatment with the NaOH and the water, washing the mixture of insoluble hydroxides with dilute NaOH until the phosphorus pentoxide content in relation to the weight of the hydroxides is less than 1 percent, and separating the rare earth compounds from the thorium compounds and uranium compounds.

2,783,126

METHOD OF RECOVERING ZIRCONIUM OXIDE

Hartmut W. Richter, Rahway, N. J., assignor to Metal & Thermit Corporation, New York, N. Y., a corporation of New Jersey

No Drawing. Application October 4, 1954, Serial No. 460,275

14 Claims. (Cl. 23—18)

1. The method of recovering zirconium oxide from a zirconium salt solution which consists in preparing a complex solution of an acidic zirconium salt by dissolving in an alkali metal carbonate solution a material selected from the class consisting of said acidic salt and solutions thereof, and heating the resulting solution to a temperature of at least 150° C. in a closed vessel.

2,783,127

ANTACID AND METHOD OF MAKING THE SAME

Irvine W. Grote, Chattanooga, Tenn., assignor to The Chattanooga Medicine Company, Chattanooga, Tenn., a corporation of Tennessee

No Drawing. Application December 28, 1953, Serial No. 400,822

4 Claims. (Cl. 23—61)

1. A method of preparing a gastric antacid compound selected from the class consisting of dihydroxy aluminum alkali metal carbonates and dihydroxy aluminum ammonium carbonate, which comprises bringing together, in the presence of water, a cationic aluminum compound of the class consisting of aluminum acylates and aluminum salts of inorganic acids and a quantity of $XHCO_3$, wherein X is a monovalent radical of the class consisting of alkali metal and ammonium radicals, equivalent to at least one mole of $XHCO_3$ for each mole of aluminum present plus a sufficient quantity of $XHCO_3$ to effect the neutralization of the anions associated with said aluminum present and the precipitation of the selected antacid compound and recovering the same.

2,783,128

PROCESS OF PRODUCING CRYOLITE FROM WASHING AND WASTE LIQUORS CONTAINING SODIUM FLUORIDE

Günther Wendt, Toging (Inn), Germany, assignor to Vereinigte Aluminium-Werke Aktiengesellschaft, Bonn (Rhine), Germany, a corporation of Germany

No Drawing. Application September 15, 1954, Serial No. 456,333

Claims priority, application Germany October 29, 1953

1 Claim. (Cl. 23—88)

In a process for the production of cryolite from sodium fluoride containing washing and waste lyes by means of an AlF_3 solution, the steps of adding to an aqueous suspension of alumina hydrate a concentrated HF solution of 80% strength to form a hot solution of aluminum fluoride, introducing said freshly prepared solution into a tank simultaneously with an amount of washing and waste liquor lye solution containing NaF and AlF_3 components so that there is present in the tank the stoichiometric proportion of NaF and AlF_3 which are necessary for the cryolite formation, thoroughly mixing the said components and thereafter separating the thus formed cryolite from the residual lye.

2,783,129

PROCESS FOR THE PRODUCTION OF CLEAR AQUEOUS SOLUTION OF ALKALI METAL SILICATE

Leon L. Baral, Baltimore, Md., assignor to W. R. Grace & Co., New York, N. Y., a corporation of Connecticut

Application March 18, 1954, Serial No. 417,140

3 Claims. (Cl. 23—110)

1. A method of continuously forming a clear aqueous solution of sodium silicate which comprises continuously introducing thin rigid fragments of warm sodium silicate into a slowly rotating elongated horizontal dissolving zone maintained at atmospheric pressure, continuously passing preheated water at a controlled rate into said zone in contact with said silicate whereby the combined heat from said silicate and water is sufficient to maintain the temperature of the resulting solution uniformly near but below its boiling point, and continuously withdrawing the solution from said zone.

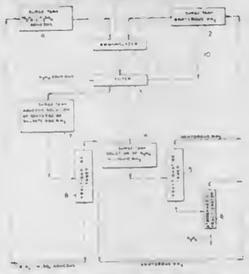
2,783,130

PROCESS FOR THE PRODUCTION OF HYDRAZINE

Bernard H. Nicolaisen, Kenmore, N. Y., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia

Application June 4, 1954, Serial No. 434,522

1 Claim. (Cl. 23—190)



In a process for the production of anhydrous hydrazine which comprises the ammonolysis of anhydrous dihydrazine sulfate to produce a suspension, the solid phase comprising ammonium sulfate and the liquid phase comprising a solution of hydrazine in ammonia, filtering the suspension to remove solid ammonium sulfate, distilling the filtrate to separate ammonia and anhydrous hydrazine, and recycling the ammonia to the ammonolysis operation, the improvement which comprises treating the solid ammonium sulfate with an aqueous solution of hydrazine for a time sufficient to dissolve the ammonium sulfate and produce an aqueous solution containing dihydrazine sulfate and ammonia, distilling the solution to recover ammonia and aqueous dihydrazine sulfate, recycling the recovered ammonia to the ammonolysis operation, dehydrating the dihydrazine sulfate by evaporation and employing the resultant anhydrous dihydrazine sulfate in the ammonolysis operation.

2,783,131

VAPOR PHASE PREPARATION OF CYANAMIDE FROM CYANIC ACID

Johnstone S. Mackay, Pittsburgh, Pa., and Leslie G. Boatright, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application September 18, 1953, Serial No. 381,133

3 Claims. (Cl. 23—190)

1. The method of preparing a cyanamide-containing mass which comprises: heating cyanic acid vapor, bring-

ing said heated cyanic acid vapor into reactive contact with a silica gel at a temperature of at least 450° C., whereby cyanamide is formed on the silica gel leaching the resultant mass with water and recovering cyanamide from resultant solution.

2,783,132

STABILIZATION OF HYDROGEN PEROXIDE

Frank W. Panepinto, Philadelphia, Pa., assignor to The Pennsylvania Salt Manufacturing Company, Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application August 12, 1953, Serial No. 373,905

11 Claims. (Cl. 23—207.5)

1. A stabilized hydrogen peroxide solution, having a pH of less than 4.5 stabilized with about 0.2 to 0.6 gram per liter of the reaction product resulting from heating a mixture of about 5 to 30 parts by weight of metallic tin and the equivalent of about 100 parts by weight of 85% by weight phosphoric acid at an elevated temperature for a period of time sufficient to effect a loss in weight of about 18%, calculated on the basis of 85%, and about 0.02 to 0.1 gram per liter of 8-hydroxyquinoline.

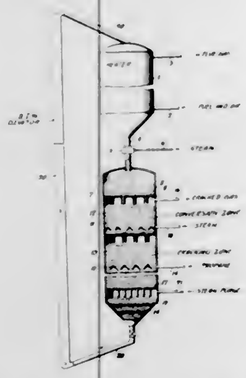
2,783,133

HYDROGEN PRODUCTION

Sylvander C. Eastwood, Woodbury, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

Application December 5, 1952, Serial No. 324,213

2 Claims. (Cl. 23—212)



1. The process which comprises: passing a hot granular solid downwardly in series through an upper reaction zone and a lower reaction zone; transferring said solid downwardly from said upper zone to said lower zone through at least one transfer zone of restricted cross-section; passing a normally gaseous hydrocarbon heavier than methane in direct contact with said solid in said lower zone at a temperature between about 1400° F. and about 1700° F. and for a contact time between about ten seconds and about five seconds, whereupon said hydrocarbon is cracked to methane, hydrogen and coke; passing steam and said cracked products in direct contact with said solid in said upper zone at a higher temperature between about 1700° F. and about 2000° F. and for a contact time between about one second to about five seconds, whereupon said methane is converted to additional hydrogen.

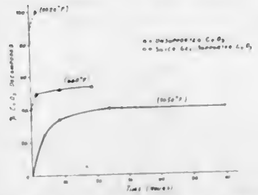
2,783,134

PROCESS FOR THE PRODUCTION OF OXYGEN

Everett C. Hughes, Shaker Heights, and Harold A. Strecker, Bedford, Ohio, assignors to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio

Application July 3, 1953, Serial No. 365,976

2 Claims. (Cl. 23—221)



1. A process for the production of oxygen which comprises heating to a temperature within the range from about 500 to about 800° F., in the substantial absence of oxygen, an oxygen carrier comprising a preformed silica gel impregnated with chromium trioxide, the amount of chromium trioxide not exceeding about 25% by weight of the oxygen carrier, thereby reducing the chromium trioxide to a lower oxide down to but not including chromic oxide and evolving oxygen therefrom; removing the oxygen gas thus evolved; and reoxidizing the reduced chromium oxide to chromium trioxide by heating in the presence of an oxygen-containing gas at a temperature of from about 600 to 800° F.

2,783,135

METHOD FOR DETERMINING AND CONTROLLING THE CHLORINE CONTENT IN A BLEACH BATH

Frithjof Löschbrandt, Oslo, Norway, assignor to Papirindustriens Forskningsinstitutt, Skoyen, Oslo, Norway

Application January 27, 1953, Serial No. 333,463

Claims priority, application Sweden January 30, 1952

1 Claim. (Cl. 23—230)

In a method for indicating, recording and controlling the chlorine content of a bleaching bath in the bleaching of chemical pulp, the steps comprising, mixing representative samples of the bath liquid in accurately defined proportion with a control solution of a red-ox system consisting of an aqueous solution of ferro-ferri ions in defined proportion and of suitable acidity, passing the resulting mixture through a measuring cell with an electrode in contact with said mixture and another electrode in contact with a ferro-ferri ion reference solution of predetermined potential applying the resulting potential difference between the mixture and the reference solution on an indicating and recording potentiometer and also applying said difference for controlling the supply of chlorine to said bath.

2,783,136

METHOD AND APPARATUS FOR TREATING ALKALI CELLULOSE PRIOR TO AGING

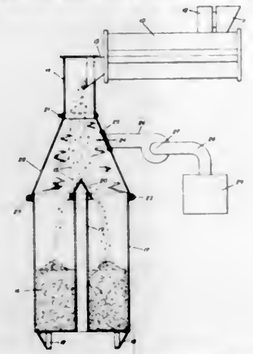
Marcus D. Rodgers, Berea, Ohio, assignor to Industrial Rayon Corporation, Cleveland, Ohio, a corporation of Delaware

Application March 24, 1953, Serial No. 344,443

3 Claims. (Cl. 23—260)

3. In combination with a shredder for alkali cellulose having a discharge outlet joining an aging chamber into

which shredded alkali cellulose crumbs fall, apparatus comprising, a flexible hood connecting said discharge outlet into said aging chamber, said hood forming an enclosed passageway and being adapted to exclude entrance



of atmospheric air to said passageway, and means supplying air substantially free of carbon dioxide attached to said hood to maintain an atmosphere in said hood substantially free of carbon dioxide.

2,783,137

GRINDING COMPOSITIONS AND MAKING OF SAME

Harold H. Roth, Bay City, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application June 8, 1951, Serial No. 230,693

10 Claims. (Cl. 51—302)

1. A composition, adapted for use in grinding and polishing operations, consisting essentially of a suspension of solid abrasive particles in a flowable medium consisting essentially of a liquid, of the group consisting of water, aliphatic polyhydric alcohols, and mixtures thereof, thickened with a small amount of an alkali salt of a sulphonated alkenyl aromatic resin.

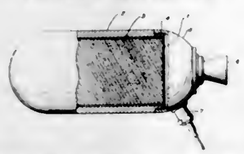
2,783,138

PROPELLANT COMPOSITIONS

John W. Parsons, Pasadena, Calif., assignor, by mesne assignments, to Aerojet-General Corporation, Cincinnati, Ohio, a corporation of Ohio

Application April 11, 1944, Serial No. 530,527

2 Claims. (Cl. 52—.5)



1. A propellant composition comprising about 50% ammonium perchlorate, incorporated with a thermoplastic mixture comprising about 50% trinitrotoluene, 25% S. A. E. No. 10 oil and 25% asphalt.

2,783,139

PROCESS OF PRODUCING AMMONIATED SUPERPHOSPHATES

Richard C. Datin, Petersburg, Va., assignor to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York

No Drawing. Application May 13, 1953, Serial No. 354,881

13 Claims. (Cl. 71—37)

1. The process of producing ammoniated superphosphate which comprises acidulating phosphate rock containing fluorine in the presence of added sodium ion and thereafter ammoniating the superphosphate produced by the acidulation employing at least 1.6 mols of ammonia per mol of P_2O_5 over and above the amount of ammonia required to neutralize that portion of the acid employed during the acidulation which is in excess over that required to solubilize the P_2O_5 in the phosphate rock.

2,783,140

PRODUCTION OF FERTILIZER FROM HIGH-ALUMINA PHOSPHATE ORES

Travis P. Hignett, Sheffield, and Milton R. Siegel, Robert S. Meline, and Thurman M. Kelso, Florence, Ala., assignors to Tennessee Valley Authority, a corporation of the United States

Application March 14, 1955, Serial No. 494,299

9 Claims. (Cl. 71—37)

(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A process for the production of fertilizer which comprises completely calcining a high-alumina phosphate ore at temperatures in the range from about 800° to 1200° C.; crushing the calcined ore at least fine enough to pass through a screen having ½-inch openings; extracting the crushed ore with an aqueous solution of a material selected from the group consisting of nitric acid, sulfuric acid, and mixtures thereof, in quantity sufficient to supply from 2.0 to 10.0 moles of acid per mole of P_2O_5 and sufficient to give 5 percent to 75 percent solid matter in the resulting slurry; maintaining the temperature of the slurry in the range from about 80° to 100° C. during extraction; reducing the temperature to about 50° to 70° C.; separating the liquid phase of said slurry from solid materials contained therein; ammoniating the separated liquid phase to a pH in the range from 3.0 to 9.0; granulating and drying the resulting material; and withdrawing a homogeneous, granular, noncaking fertilizer product having a high proportion of its phosphate content in citrate-soluble form.

2,783,141

METHOD OF TREATING COPPER ORE CONCENTRATES

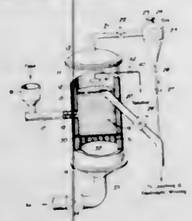
Rupert M. Foley, Westport, Conn., assignor to Dorr-Oliver Incorporated, a corporation of Delaware

Application June 10, 1953, Serial No. 360,637

2 Claims. (Cl. 75—26)

1. The continuous process for treating finely-divided copper bearing sulfide solids to yield a copper bearing calcine amenable to leaching for recovery of its copper content, comprising the steps of establishing an ever-changing single-bed single-stage solids treatment mass by supplying such solids to a treatment zone maintained at a temperature in the range from about 550° C. to about 750° C. while discharging from said zone a proportionate quantity of treated solids, maintaining said mass of solids as a turbulently mobilized homogeneous fluid-

ized bed by passing a stream of free-oxygen bearing gas upwardly therethrough at solids fluidizing velocities, simultaneously forming in such fluidized bed both water-soluble copper compounds and water-insoluble acid-soluble copper compounds by supplying such free-oxygen in an amount at least equal to the theoretical oxygen required to substantially oxidize said feed solids to convert



sulfur to sulfur dioxide and copper to copper oxide while converting other contained metals to metal oxides, and controlling the relative quantities of said copper compounds formed in said bed by varying the quantity of free-oxygen supplied thereto to lie in the range from at least equal to the above denned theoretical oxygen up to 400% in excess of such theoretical oxygen.

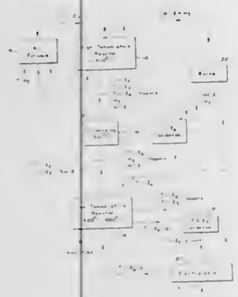
2,783,142

METHOD OF PRODUCING TITANIUM

Richard H. Singleton, Lexington, and Philip J. Clough, Reading, Mass., assignors to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts

Application August 14, 1952, Serial No. 304,390

6 Claims. (Cl. 75—84.5)



1. The process of manufacturing titanium trichloride which comprises forming a crude alloy of titanium and copper, heating said alloy in a reaction zone to a temperature above about 800° C., contacting said hot alloy with hydrogen chloride to convert said titanium to gaseous titanium trichloride, maintaining in the reaction zone at least one mole of hydrogen for each three moles of hydrogen chloride, and removing gaseous titanium trichloride from the reaction zone.

2. The process of manufacturing titanium which comprises forming a crude alloy of titanium and a second metal selected from the class consisting of copper and nickel, heating said alloy in a reaction zone to a temperature above about 1000° C., contacting said hot alloy with hydrogen chloride to convert said titanium to a gaseous lower chloride of titanium and to convert said hydrogen chloride to hydrogen, passing the gaseous products from the reaction zone, cooling the gaseous products leaving the said reaction zone to a temperature below about 500° C., heating the cooled products to a temperature of about 600° C. in the presence of titanium tetrachloride to sublime titanium trichloride, condensing said sublimed titanium trichloride, and converting said titanium trichloride to titanium metal.

2,783,143

AGE-HARDENABLE, COPPER-BASE ALLOY

Norman W. Johnson, Oscar E. Harder, and Charles S. Du Mont, Columbus, Ohio, assignors, by mesne assignments, to Wilbur B. Driver Company, Newark, N. J., a corporation of New Jersey

No Drawing. Application June 24, 1954, Serial No. 439,132

7 Claims. (Cl. 75—159)

1. An age-hardenable, copper-base alloy consisting of 1 to 10% titanium, .10 to 1.6% cobalt, .05 to .80% chromium, .04 to .62% nickel, .04 to .60% iron, .02 to .28% molybdenum, .005 to .08% manganese, and the balance essentially copper, and characterized by superior ductility in the hardened condition when compared to other age-hardenable, copper-base alloys.

2,783,144

HARD FACING ALLOY

Peter Payson, New York, N. Y., and Lloyd F. Bowne, Jr., Livingston, N. J., assignors to Crucible Steel Company of America, Pittsburgh, Pa., a corporation of New Jersey

No Drawing. Application December 15, 1954, Serial No. 475,565

12 Claims. (Cl. 75—171)

1. A hard facing composition consisting essentially of about: 1.5 to 3.5% carbon; 15 to 35% chromium; 0.5 to 3% vanadium; 1 to 7.5% of metal of the group consisting of tungsten and molybdenum; up to 15% iron; balance substantially nickel, characterized in having a weight loss when immersed in molten lead oxide at 1675° F. for one hour, of not to exceed 0.25 grams per square inch, and in having an impact hardness at 1600° F. of not under 230 Brinell.

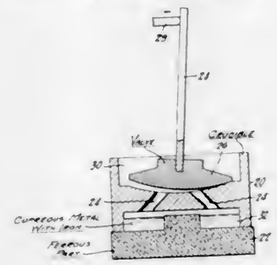
2,783,145

METHOD OF INFILTRATING POWDER METAL PARTS

Arnold L. Boyce, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application May 22, 1952, Serial No. 289,271

4 Claims. (Cl. 75—212)



1. In a method for infiltrating a porous ferrous part with cupreous metal wherein pitting and channeling is entirely eliminated, the steps comprising; providing a predetermined quantity of cupreous metal mixed with sufficient iron to completely satisfy the dissolving action of the copper for iron at the temperature of infiltration, superimposing the cupreous metal with the iron associated therewith in a separate zone immediately adjacent and above the porous ferrous part to be infiltrated, heating simultaneously the porous ferrous part and the cupreous metal with the iron associated therewith under the same environment and to a temperature above the melting point of the cupreous metal and below the melting point of the porous ferrous part, maintaining said conditions for a time sufficient to cause the cupreous metal to become molten and to dissolve sufficient of the iron associated therewith to completely satisfy the dissolving action of copper for iron at the environment temperature, and then flowing the molten cupreous metal with the iron dissolved therein into contact with the heated porous ferrous part to be impregnated whereupon the cupreous metal is drawn into the porous ferrous part by capillarity without pitting or channeling the ferrous part.

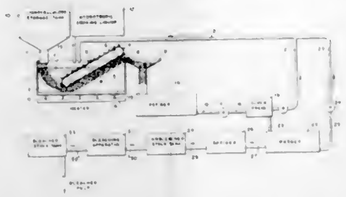
2,783,146

SEMI-HYDROTROPIC CHEMICAL LIGNOCELLULOSE PULPING PROCESS

Ralph H. McKee, New York, N. Y., assignor to McKee Development Corp., New York, N. Y., a corporation of New York

Application January 7, 1955, Serial No. 480,400

14 Claims. (Cl. 92—9)



1. The process for producing a lignocellulose pulp from pentosan containing lignocellulose material said pulp having substantially the lignin content of the lignocellulose material comprising cooking said starting material with a dilute 1 to 5 percent aqueous solution of a hydrotropic compound selected from the group consisting of benzoic acid, salicylic acid, xylenesulfonic acid, cymenesulfonic acid, phenolsulfonic acid, toluenesulfonic acid and their alkali metal salts until a substantial amount of the pentosans is removed.

2,783,147

PROCESS FOR BREWING A SPECIAL BEER

Ingolf Felix Friedrich Emil Pauls, Basel, Switzerland, and Richard Rudolf Alfons Quatz, Gottingen, Germany

No Drawing. Application February 10, 1953, Serial No. 336,192

Claims priority, application Switzerland February 13, 1952

3 Claims. (Cl. 99—38)

1. A process of brewing beer having a high percentage of alcohol and a small amount of extractive matter which is suitable for consumption by diabetics and persons tending to corpulence comprising applying the maltose producing temperature of 64° C. from the start of the mashing to the wort, maintaining said mashing temperature for at least one hour, clarifying the wort, thereafter cooking the same and simultaneously adding hop, cooling the wort and separating the draff, thereafter adding a first portion of diastase extract and of a well fermenting yeast prior to the start of the main fermentation, adding a second portion of diastase extract at the completion of the main fermentation whereby a fermentation rate of the beer is attained equal to 90 percent.

2,783,148

ALCOHOLIZED CHITIN, PROCESS OF PREPARATION AND FOOD PRODUCTS CONTAINING THE SAME

Paul György, Villanova, Pa., and Richard Kuhn and Friedrich Zilliken, Heidelberg, Germany, assignors, by mesne assignments, to American Home Products Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application May 27, 1952, Serial No. 290,325

12 Claims. (Cl. 99—54)

8. A composition comprising cow's milk solids and an alcoholized chitin prepared by reacting chitin with an anhydrous alcohol selected from the group which consists of anhydrous methanol, anhydrous ethanol and anhydrous isopropanol, said reaction being carried out at a temperature within the range 0° C. to room temperature in the presence of anhydrous hydrogen chloride gas.

2,783,149

METHOD OF PRODUCING A COFFEE EXTRACT

Albert A. Epstein, Carmel, N. Y., assignor to Violet de Beck Epstein, Carmel, N. Y.

Application August 10, 1953, Serial No. 373,185

5 Claims. (Cl. 99—71)

1. The process of producing a coffee extract which includes the step of subjecting ground coffee to the solvent action of cold water at a temperature range of between somewhat above the freezing point of water and no higher than approximately 18° C., said water containing CO_2 sufficiently in excess of saturation not only to substantially replace the air in the water but also substantially to replace the air occluded in the ground coffee and the atmosphere immediately above the mixture.

2,783,150

TREATMENT OF FLOUR WITH GLUCOSE OXIDASE

Herbert G. Luther, Baldwin, N. Y., assignor to Chas. Pfizer & Co., Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application September 25, 1952, Serial No. 311,527

3 Claims. (Cl. 99—93)

1. A process for the improvement of wheat flour which comprises mixing with the wheat flour at least one part by weight of a glucose oxidase enzyme preparation, having between about 25,000 and 50,000 *S. aureus* units per milligram activity, per 500,000 parts by weight of the wheat flour.

2,783,151

PROCESS FOR PREPARING HARD BUTTER

Walter M. Cochran, Highland Park, and Melvin L. Ott, Chicago, Ill., assignors to The Glidden Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application June 11, 1954, Serial No. 436,224

6 Claims. (Cl. 99—118)

1. The process of treating a mixture of triglyceride oils to prepare hard butter having an iodine value below about 20, and composed essentially of the following kinds, proportions and ratios of combined fatty acids:

C_6 acids	0–10%
C_8 acids	0–10%
C_{10} acids	0–10%
$C_6+C_8+C_{10}$ acids	0–15%
C_{20} and higher acids	0–8%
C_{12}–C_{18} acids, inc	Remainder
Ratio of C_{12} to C_{14} saturated acids corresponding to the C_{12} to C_{14} radicals in the mixture	Between 2:1 and 3.1:1
$C_{12}+C_{14}$ acids	37.5%–80% of said remainder
C_{16} acids	5%–28% of said remainder
C_{18} acids	15%–47.5% of said remainder

said process comprising the steps of (A) providing a mixture of triglyceride oils (1) having even numbers of carbon atoms in the combined fatty acids thereof (2) having an excess of at least one combined lower fatty acid of 6–10 carbons over at least the lower limit thereon as set forth above and (3) having at least one combined higher fatty acid of 12–18 carbons in an amount below the upper limit thereon as set forth above; (B) rearranging the mixture of oils then at hand while maintaining

it in homogeneous liquid phase at temperatures below about 250° F. in contact with a small effective amount less than about 1% of a low temperature rearrangement catalyst under rearrangement conditions favorable to said catalyst until the rearrangement reactions promoted by said catalyst have been substantially completed, and then inactivating said catalyst; (C) treating the mixture of oils then at hand under replacement conditions with higher fatty acid in amounts and kinds at least sufficient to bring the mixture within the limits set forth above, and continuing said replacement treatment with removal of replaced lower fatty acids until the combined fatty acid content of the mass of oil being so treated then falls within the limits set forth above and the mass of oil is substantially free of uncombined higher fatty acids; and (D) hydrogenating the resulting mass of oil, when necessary, to bring its iodine value below about 20 and to reduce any unsaturation in the lower combined fatty acids to below an iodine value of about 6; said steps B and C being taken in any order subsequent to step A and prior to step D.

2,783,152

COCONUT PRODUCT AND PROCESS THEREFOR

Charles B. de Maya, Allendale, and Adolph A. Winston, Hillside, N. J., assignors to General Foods Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application June 15, 1953, Serial No. 361,824

15 Claims. (Cl. 99—125)

1. In the manufacture of comminuted coconut products, a process for treating the coconut meat to inhibit subsequent discoloration thereof which comprises contacting the meat of the inner surface portion of the nut endosperm with an aqueous sulfur-dioxide-containing solution and then forming a comminuted mixture of the treated and untreated meat of the nut endosperm whereby yellowing of the nut meat during subsequent commercial storage and distribution of said mixture is substantially prevented.

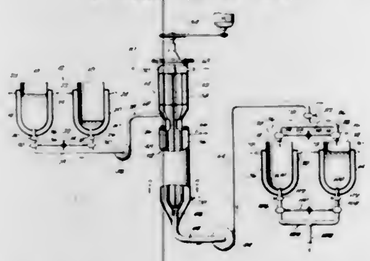
2,783,153

METHOD FOR PROCESSING FRUITS AND THE LIKE

Herman Lebeson, Winnetka, Ill.

Application May 26, 1953, Serial No. 357,482

8 Claims. (Cl. 99—129)



1. The continuous process for producing jellies which include, in the order stated, the steps of pre-cooking a mixture consisting of substantially 45% fruit juice and 55% sugar solids with pectin solution and a relatively small amount of sodium citrate at a temperature of 190° to 215° Fahrenheit, concentrating by evaporation under vacuum said pre-cooked mixture during uninterrupted flow thereof to a total solids of 65% to 68% and a temperature of 175° to 200° Fahrenheit, and the finishing of the concentrate by the adjustment of the acidity thereof to a pH of 3.0 to 3.4 through the addition of citric acid, said process characterized by the control of the jellying action so that the same takes place only after the concentrate has been packaged in suitable containers.

2,783,154

PROCESS FOR PREPARING FOOD PRODUCTS

Eugene Joel Rivoche, Washington, D. C.

Application January 6, 1953, Serial No. 329,796

5 Claims. (Cl. 99—131)

1. In a process for preparing cooked food products wherein food particles are homogeneously dispersed in a water-colloid solution, said water-colloid solution is subjected to the action of free alkaline earth metal ions to cause said solution to form a heat-irreversible advanced gel while said food particles are maintained in their homogeneously-dispersed condition, and said advanced gel is cooked in a bath of hot oil to provide a crispy product having a firm rigid structure and exhibiting substantially no gel characteristics, the improvement comprising: removing a substantial amount of moisture from said advanced gel prior to introducing said gel into said bath of hot oil so that the reduced porosity of the gel and the higher concentration of solid constituents limits the amount of oil absorbed from the hot oil bath during the cooking operation.

2,783,155

NOVELTIES

Charles F. Haug, Manhasset, N. Y., assignor to Mason, Au & Magenheimer Conf. Mfg. Co., Mineola, N. Y., a corporation of New York

Application October 15, 1953, Serial No. 386,341

1 Claim. (Cl. 99—180)

The combination of a bell-shaped candy unit having a circular protruding circular base portion and a diminishing upper end portion, with a stirrup composed of a flexible sheet material having a base conforming substantially in contour to the outer periphery of the protruding base portion of said candy unit, two pendants extending from opposite sides of said base, there being outwardly bulging one line arcuate incisions defining a part of the contour of the base and a part of the division between said pendants and said base, said incisions forming wide openings when said pendants are bent upwardly relative to said base to envelope a part of said candy unit and enable parts of the base portion of the candy to protrude between the pendants and the base of the stirrup, and means for connecting the free end portions of said pendants to one another face to face when so bent and to cooperate with the openings through which the base portion of said candy unit extends to anchor said candy unit in place in the stirrup.

2,783,156

RUST PREVENTIVE COMPOSITION

John D. Oathout, Cranford, and Robert W. Scott, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application August 7, 1953, Serial No. 373,034

4 Claims. (Cl. 106—14)

1. A rust inhibiting composition of the solvent and film-forming type which consists essentially of about 73–80 wt. percent of a volatile hydrocarbon solvent boiling within the range of about 250°–450° F., about 13–18 wt. percent of a non-volatile light hydrocarbon oil boiling within the range of about 500°–600° F., about 2–3 wt. percent of white crude scale wax melting within the range of about 121°–127° F., about 4–6 wt. percent of sorbitan mono-oleate and about 1–3 wt. percent of phenyl ethanol amine.

2,783,157

PROCESS OF MAKING CONCRETE

Wallace A. Grant, Burlingame, and Clarence J. Ainsworth, Millbrae, Calif.

Application June 1, 1953, Serial No. 358,728

1 Claim. (Cl. 106—92)

The method of preparing stabilized concrete which consists essentially of mixing with cement, a quantity of water exceeding the amount required to fully hydrate the cement and containing sufficient sugar to inhibit setting of the cement during the early phases of the hydration, and after hydration has advanced to an effective degree, introducing aggregate and a sufficient amount of calcium chloride to counteract the inhibiting effect of the sugar so that the cement will harden during final phases of the hydration, the ratio of sugar, calcium chloride and cement used being in the order of one part by weight of sugar, 6½ parts by weight of calcium chloride, and 400 parts by weight of cement.

2,783,158

PRODUCTION OF COLOURED FILAMENTS, FIBRES, THREADS, AND THE LIKE

Donald Entwistle and Stewart Robertson, Coventry, England, assignors to Courtaulds Limited, London, England, a British company

No Drawing. Application November 25, 1952, Serial No. 322,554

Claims priority, application Great Britain December 28, 1951

5 Claims. (Cl. 106—165)

1. A process for the production of colored viscose rayon threads comprising forming a viscose solution, forming a viscous aqueous solution ageing said viscose solution to render it suitable for spinning of sodium carboxy methyl cellulose, dispersing a water-insoluble coloring matter in said viscous solution, injecting said viscous solution containing the coloring matter into the aged viscose just prior to spinning and extruding the mixture of viscose and viscous solution into a coagulating bath.

2,783,159

STABILIZER FOR PAINTS AND STABILIZED PAINTS

Jolly J. Taylor, Los Angeles, Calif.

No Drawing. Application October 13, 1952, Serial No. 314,560

7 Claims. (Cl. 106—255)

1. In a coating composition, the combination with a film former taken from the group consisting of the drying oils, semi-drying oils, drying alkyds, and semi-drying alkyds, of a non-reactive pigment, and of a minor effective amount of dibasic lead phosphite and lead salicylate as a stabilizer therefor, said salicylate being present in amount of approximately from 100% to 300% by weight of said phosphite.

2,783,160

FILM FORMING OIL STABILIZED WITH DIBASIC LEAD PHOSPHITE

Jolly J. Taylor, Los Angeles, Calif.

No Drawing. Application March 30, 1953, Serial No. 345,737

8 Claims. (Cl. 106—256)

1. In a composition of matter, the combination with a film former taken from the group consisting of the drying oils, semi-drying oils, drying alkyds, and semi-drying alkyds, of a minor effective amount of dibasic lead phosphite as a stabilizer therefor.

2,783,161

WAX COMPOSITIONS

John W. Padgett, Montclair, N. J., assignor to Moore & Munger, New York, N. Y., a firm

No Drawing. Application February 1, 1952, Serial No. 269,585

12 Claims. (Cl. 106—270)

1. A wax composition consisting essentially of paper-coating petroleum wax containing a small amount but less than 1% of nonaethylene glycol distearate.

2,783,162

METHOD OF PRODUCING A COMPOSITE LIQUID BITUMINOUS BINDER

Gilman B. Mollring, Los Angeles, Calif.

No Drawing. Application April 23, 1954, Serial No. 425,309

3 Claims. (Cl. 106—278)

1. A method of producing a composite liquid bituminous binder suitable for shipping or storing prior to adding it to mineral aggregate to form paving material, which comprises blending a viscous non-volatile hydrocarbon flux oil with a volatile petroleum distillate to form a non-viscous flux oil cutback, and mixing therewith at atmospheric temperature, a powdered hard asphalt, discontinuing the mixing when the mixture starts to become viscous so as to produce a pumpable suspension of said powdered asphalt in said non-viscous flux oil cutback, the proportions of non-volatile flux oil, volatile petroleum distillate and powdered asphalt in the final composition being 10 to 50%, 20 to 60%, and 15 to 40%, respectively.

2,783,163

ROAD MAKING AND THE LIKE

Gilman B. Mollring, Los Angeles, Calif.

No Drawing. Application May 25, 1954, Serial No. 432,334

3 Claims. (Cl. 106—280)

1. A process for making material for roads wherein stone aggregate is coated with a composite liquid bituminous binder consisting essentially of a pumpable suspension of powdered hard asphalt in a non-viscous flux oil cutback, which comprises blending a substantially non-volatile highly aromatic, non-paraffinic flux oil with a volatile petroleum distillate to form said non-viscous flux oil cutback, mixing therewith at atmospheric temperature said powdered hard asphalt, discontinuing the mixing when the mixture starts to become viscous so as to produce said composite liquid bituminous binder, and mixing said composite liquid bituminous binder with said stone aggregate at atmospheric temperature; the proportions of the various materials being such that the powdered asphalt, flux oil, and petroleum distillate comprise 10 to 50%, 20 to 60%, and 10 to 50% by weight respectively, of the composite liquid bituminous binder, and the composite liquid bituminous binder comprises approximately 4 to 12% by weight of the aggregate composition.

2,783,164

METHOD OF PRODUCING A COMPOSITE LIQUID BITUMINOUS BINDER

Gilman B. Mollring, Los Angeles, Calif.

No Drawing. Application April 23, 1954, Serial No. 425,310

3 Claims. (Cl. 106—278)

1. A method of producing a composite liquid bituminous binder suitable for shipping or storing prior to adding it to mineral aggregate to form paving material, which comprises blending a viscous non-volatile hydrocarbon flux oil with a volatile petroleum distillate to form a non-viscous flux oil cutback, and mixing therewith at atmospheric temperature, a powdered hard asphalt, discontinuing the mixing when the mixture starts to become viscous so as to produce a pumpable suspension of said powdered asphalt in said non-viscous flux oil cutback, the proportions of non-volatile flux oil, volatile petroleum distillate and powdered asphalt in the final composition being 10 to 50%, 20 to 60%, and 15 to 40%, respectively.

2,783,165

ROAD MAKING AND THE LIKE

Gilman B. Mollring, Los Angeles, Calif.

No Drawing. Application May 25, 1954, Serial No. 432,335

3 Claims. (Cl. 106—280)

1. A process for making material for roads wherein stone aggregate is coated with a composite liquid bituminous binder consisting essentially of a pumpable suspension of powdered hard asphalt in a non-viscous flux oil cutback, which comprises blending a substantially non-volatile highly aromatic, non-paraffinic flux oil with a volatile petroleum distillate to form said non-viscous flux oil cutback, mixing therewith at atmospheric temperature said powdered hard asphalt, discontinuing the mixing when the mixture starts to become viscous so as to produce said composite liquid bituminous binder, and mixing said composite liquid bituminous binder with said stone aggregate at atmospheric temperature; the proportions of the various materials being such that the powdered asphalt, flux oil, and petroleum distillate comprise 10 to 50%, 20 to 60%, and 10 to 50% by weight respectively, of the composite liquid bituminous binder, and the composite liquid bituminous binder comprises approximately 4 to 12% by weight of the aggregate composition.

2,783,166

METHOD OF PRODUCING A COMPOSITE LIQUID BITUMINOUS BINDER

Gilman B. Mollring, Los Angeles, Calif.

No Drawing. Application April 23, 1954, Serial No. 425,311

3 Claims. (Cl. 106—278)

1. A method of producing a composite liquid bituminous binder suitable for shipping or storing prior to adding it to mineral aggregate to form paving material, which comprises blending a viscous non-volatile hydrocarbon flux oil with a volatile petroleum distillate to form a non-viscous flux oil cutback, and mixing therewith at atmospheric temperature, a powdered hard asphalt, discontinuing the mixing when the mixture starts to become viscous so as to produce a pumpable suspension of said powdered asphalt in said non-viscous flux oil cutback, the proportions of non-volatile flux oil, volatile petroleum distillate and powdered asphalt in the final composition being 10 to 50%, 20 to 60%, and 15 to 40%, respectively.

2,783,167

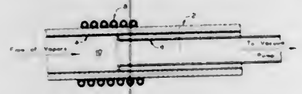
ROAD MAKING AND THE LIKE

Gilman B. Mollring, Los Angeles, Calif.

No Drawing. Application May 25, 1954, Serial No. 432,336

3 Claims. (Cl. 106—280)

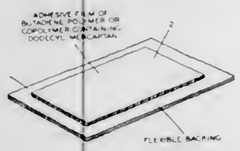
1. A process for making material for roads wherein stone aggregate is coated with a composite liquid bituminous binder consisting essentially of a pumpable suspension of powdered hard asphalt in a non-viscous flux oil cutback, which comprises blending a substantially non-volatile highly aromatic, non-paraffinic flux oil with a volatile petroleum distillate to form said non-viscous flux oil cutback, mixing therewith at atmospheric temperature said powdered hard asphalt, discontinuing the mixing when the mixture starts to become viscous so as to produce said composite liquid bituminous binder, and mixing said composite liquid bituminous binder with said stone aggregate at atmospheric temperature; the proportions of the various materials being such that the powdered asphalt, flux oil, and petroleum distillate comprise 10 to 50%, 20 to 60%, and 10 to 50% by weight respectively, of the composite liquid bituminous binder, and the composite liquid bituminous binder comprises approximately 4 to 12% by weight of the aggregate composition.

2,783,164
METHOD OF COATING A METAL SUBSTRATE WITH MOLYBDENUM
Morse Hill, Nahant, Mass., assignor to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts
Application September 17, 1953, Serial No. 380,846
6 Claims. (Cl. 117—71)

1. A method of producing an adherent molybdenum coating on a metal substrate capable of forming a diffusion bond with cobalt which comprises coating a thin layer of cobalt on the metal substrate and depositing on said cobalt layer a coating of molybdenum obtained by the hydrgen reduction of molybdenum chloride vapors.

2,783,165
METHOD FOR APPLYING A PROTECTIVE COATING TO ARTICLES
Michael J. Borushko, Detroit, Mich., assignor, by mesne assignments, to Harding Chemical Corporation, Grosse Pointe Park, Mich., a corporation of Michigan
No Drawing. Application August 31, 1953, Serial No. 377,679
4 Claims. (Cl. 117—113)

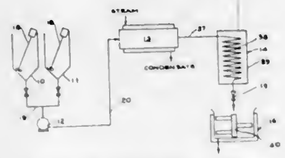
1. A method for coating an article comprising dipping the article into a heat stable coating composition consisting essentially of an organic film-forming binder containing approximately 2–15% by weight of lampblack in admixture with a halogenated aliphatic hydrocarbon solvent, said composition having a total solids content of 20–50% and being maintained at a temperature approaching the boiling point of said solvent, withdrawing the article from the bath, said article having a surface temperature approximately that of the boiling point of said solvent, and permitting the solvent freely to volatilize thus providing a smooth uniform film on the article.

2,783,166
PRESSURE-SENSITIVE ADHESIVE SHEET MATERIALS PREPARED FROM BUTADIENE POLYMER EMULSIONS
Rudolph D. Deanin, Florham Park, N. J., assignor to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York
Application December 16, 1953, Serial No. 398,628
4 Claims. (Cl. 117—122)



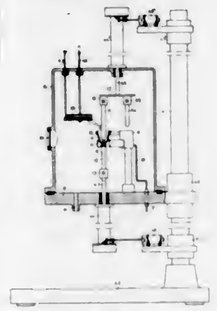
1. A pressure-sensitive adhesive sheet material having superior ageing characteristics comprising a flexible backing sheet having applied thereto a pressure-sticky layer of a low molecular weight polymer selected from the group consisting of emulsion polymerized butadiene polymer and copolymers thereof with at least one monomer selected from the group consisting of acrylonitrile, methacrylonitrile, styrene, alpha methyl styrene and methyl methacrylate, obtained by emulsion polymerization of the monomeric charge in contact with between about 2% and about 8% dodecyl mercaptan based on the weight of the monomer charge.

2,783,167
PROCESS FOR SIMULTANEOUSLY GELATINIZING AND CATALYTICALLY MODIFYING STARCH SUSPENSIONS
Dewey D. Lineberry, Louisville, Ky., and George W. Reigel, Clarksville, Ind., assignors to National Cylinder Gas Company, Chicago, Ill., a corporation of Delaware
Application August 10, 1953, Serial No. 373,344
8 Claims. (Cl. 127—33)



1. A process for simultaneously modifying and gelatinizing an aqueous suspension of starch which comprises effecting solution in said suspension of a soluble zinc salt in such amount as to produce a zinc concentration of at least about one quarter gram of zinc per gallon of aqueous medium, the zinc salt ionizing to produce positively charged zinc ions in solution, heating the suspension to a temperature between about 250° F. and about 310° F., holding the suspension above 250° F. for sufficient time to permit gelatinization of the starch granules and to allow the zinc ions to effect depolymerization of the starch molecules, and subjecting the suspension to superatmospheric pressure during the heating and holding times.

2,783,168
METHOD FOR PREPARING ROD-SHAPED, CRYSTALLINE SEMICONDUCTOR BODIES
Hans Schweickert, Pretzfeld, Germany, assignor to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt, Germany, a German corporation
Application February 18, 1955, Serial No. 489,178
Claims priority, application Germany March 2, 1954
9 Claims. (Cl. 148—1.5)

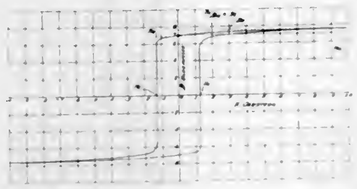


1. A method of preparing a rod-shaped, plural-zoned monocrystalline semiconductor body having at least one zone containing a substitutional impurity substance conferring a conductivity type characteristic different from an adjacent zone, the substitutional impurity substance of said one zone being selected from the group consisting of p and n conductivity type determining impurities, which comprises the steps of melting in a crucible an amount of material from which the crystal is to be pulled that represents not more than a fraction of the material making up the finished crystalline body and consists of a mixture of a semiconductor and an amount of said impurity substance causing one of said types of conductivity, pulling a zone of said crystalline body from the melt, removing remaining melt from the crucible excepting a residual drop in contact with said crystalline body, charging the crucible with a similarly limited amount of semiconductor material having a conductivity type characteristic differing from that of said pulled zone, heating said last-named mixture to form a melt, and pulling another zone of said crystalline body from the melt.

2,783,169
PROCESS OF PRODUCING NITROGEN RICH WROUGHT AUSTENITIC ALLOYS
Eric R. Morgan, Inkster, and Victor F. Zackay, Detroit, Mich., assignors to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
No Drawing. Application February 15, 1955, Serial No. 488,409
2 Claims. (Cl. 148—3)

1. The process of producing a sound, iron base, stably austenitic alloy containing as necessary elements from ten to thirty percent of chromium, five to twenty percent of manganese and from three tenths to one percent of nitrogen and in which the austenitizing elements and the ferrite forming elements are proportioned to permit a stably austenitic alloy at the desired nitrogen level comprising producing a melt of the desired composition, casting the melt into an ingot mold, permitting a solid skin to form on the ingot with the simultaneous ebullition of nitrogen, capping the ingot to entrap a substantial amount of nitrogen in the gaseous form as bubbles, permitting the ingot to completely solidify and subjecting the ingot to intensive hot working whereby the gaseous nitrogen contained in the ingot is redissolved and the sides of the nitrogen cavities welded shut to produce a sound and mechanically strong metal.

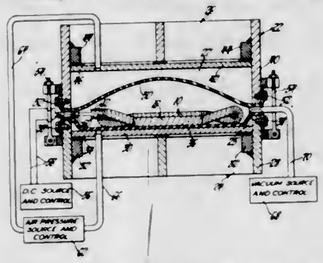
2,783,170
MAGNETIC MATERIAL AND PROCESS OF MAKING IT
Martin F. Littmann, Middletown, Ohio, assignor to Armco Steel Corporation, Middletown, Ohio, a corporation of Ohio
Application April 19, 1956, Serial No. 579,324
9 Claims. (Cl. 148—120)



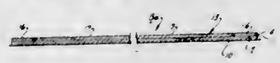
1. A process of producing exceedingly thin magnetic alloys having high permeability, low coercive force and rectangular hysteresis loop characteristics, which comprises reducing an alloy containing 80±2% nickel and 4.0±.3% molybdenum, balance substantially all iron, to a thickness less than 1 mil and subjecting the reduced material to an anneal in an atmosphere predominantly of hydrogen and having a dew point below —40° C. at a temperature of substantially 750° to 1050° C.

2,783,171
INSULATING METHOD AND APPARATUS
Elmer E. Thiessen, La Grange, Ill., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 12, 1955, Serial No. 539,986
6 Claims. (Cl. 154—2.26)

1. Apparatus for simultaneously heating and pressing an insulating jacket on an electrical coil said apparatus comprising a fixture defining a closed chamber, an elastic bladder adapted to enclose the insulated electrical coil and disposed within the chamber, electrical conductors extending from the exterior of the chamber to the interior of the bladder adapted to conduct current through the coil to provide electrical resistance heating thereof, a venting conduit extending from the interior of the bladder to the exterior of the chamber to permit escape of entrapped gases, and a conduit extending into the chamber for admission of fluid pressure to cause the bladder to conform to the configuration of the insulated coil.

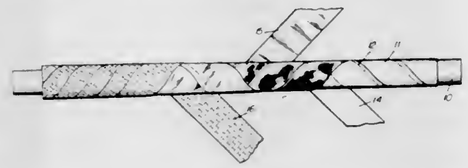


2,783,172
LAMINATED LABEL STRUCTURE
Ray Stanton Avery, Monrovia, Calif., assignor to Avery Adhesive Label Corp., Monrovia, Calif., a corporation of California
Application September 2, 1954, Serial No. 453,800
6 Claims. (Cl. 154—46.8)



1. A laminated label structure comprising a backing sheet, a transparent intermediate sheet having a pressure sensitive adhesive on its undersurface mounted on said backing sheet, an upper sheet having a pressure sensitive adhesive on its undersurface and an upper surface capable of receiving identifying indicia, said upper sheet being mounted on the upper surface of said transparent sheet, whereby said indicia may be imprinted on said upper sheet and said upper sheet peeled from said intermediate sheet and placed on the object to be labeled, and whereby said transparent intermediate sheet may subsequently be peeled from said backing sheet and placed over said upper sheet to protect the identifying indicia thereon.

2,783,173
METHOD OF MAKING LAMINATED TUBING
Benjamin M. Walker, Caldwell, and Alexander N. T. St. John, Glen Ridge, N. J., assignors to Resistoflex Corporation, Belleville, N. J., a corporation of New York
Application July 1, 1954, Serial No. 440,802
6 Claims. (Cl. 154—83)



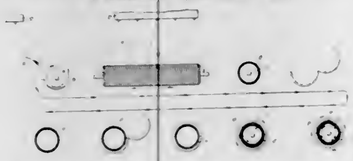
1. The method of making reinforced fluorocarbon resin pipe which comprises wrapping on a mandrel a plurality of layers of fabric impregnated with said resin, tightly wrapping thereon a layer of glass fabric tape, heating the thus formed assembly to sintering temperature to fuse the adjacent resin surfaces of said impregnated fabric together, cooling the assembly, removing said tape, and removing the pipe from the mandrel.

2,783,174

PROCESS FOR PRODUCING FIBROUS TUBES

Joseph F. Stephens, Kansas City, Mo., assignor to Minnesota Mining and Manufacturing Company, a corporation of Delaware

Application May 20, 1953, Serial No. 356,273
4 Claims. (Cl. 154—83)



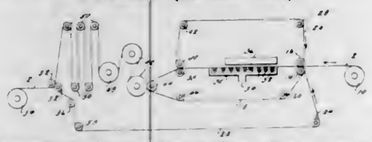
1. In the process of forming composite fibrous tubes wherein a binding agent is applied to a fibrous material and the fibrous material is wound tightly about a cylindrical mandrel in superimposed layers to form a tube in place on the mandrel, the improvement which comprises the steps of rotating the mandrel and tube about their common axis at a speed sufficient to cause the inner surface of the tube to separate by centrifugal action from the surface of the mandrel to produce an annular cavity between said surfaces, rotatably supporting at the same speed the exterior surface of the tube following separation of the inner surface of the tube from the surface of said mandrel to maintain the tube wall in substantially circular form but separated from said mandrel, and while maintaining said tube in separated relation with said mandrel curing the binding agent to set the tube in its final form.

2,783,175

METHOD FOR FORMING THREE DIMENSIONAL PATTERNS IN TEXTILE MATERIAL

Frank M. Smith and Leland H. Smith, Granville, N. Y., assignors to The Decora Corporation, Fort Edward, N. Y., a corporation of New York

Application November 7, 1952, Serial No. 319,332
2 Claims. (Cl. 154—106)



1. A method of providing a three-dimensional pattern in woven fabrics comprising: providing a length of textile web woven from threads formed from thermoplastic material; superimposing said textile upon a porous web formed in the desired three-dimensional pattern; superimposing upon said textile web and said patterned web a web of impervious flexible material said web having a softening temperature higher than the softening temperature of said porous web; subjecting said patterned web, textile web and impervious web to vacuum, from the side opposite said impervious web whereby to cause said impervious web to force said textile web into three-dimensional conformity with said patterned web; during said application of vacuum, heating said superimposed webs above the temperature of plasticity of the thermoplastic threads of said textile web, thereafter discontinuing both said heating and said application of vacuum while cooling the several webs below the temperature of plasticity of the threads of said textile web and thereafter separating the several webs.

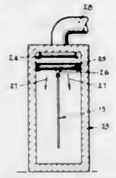
2,783,176

METHOD OF LAMINATING PLASTIC MATERIALS

James H. Boicey, Toledo, Ohio, assignor to Libbey-Owens-Ford Glass Company, Toledo, Ohio, a corporation of Ohio

Application August 24, 1954, Serial No. 451,877
9 Claims. (Cl. 154—139)

1. A method of laminating thermoplastic sheet material comprising forming a sandwich having two outer sheets of acrylic plastic and at least one sheet of polyvinyl butyral plastic, enclosing the sandwich in a plastic bag, evacuating the air from the bag, putting the evacuated bag and contents in a hot liquid bath to form a laminated unit, removing the laminated unit from the bag, and hanging the said laminated unit in an oven heated to an elevated temperature to remove wrinkles.



2,783,177

WARFARIN SODIUM RODENTICIDAL COMPOSITION

Karl Paul Link, Middleton, Wis., assignor to Wisconsin Alumni Research Foundation, Madison, Wis., a corporation of Wisconsin

No Drawing. Application March 17, 1952, Serial No. 277,080
3 Claims. (Cl. 167—46)

1. A rodenticide product for use in the preparation of water baits consisting of sand coated with sufficient 3-(α-acetonylbenzyl)-4-hydroxycoumarin sodium to provide the product with about 0.1–10% by weight of 3-(α-acetonylbenzyl)-4-hydroxycoumarin, said coating being formed by applying an aqueous solution of 3-(α-acetonylbenzyl)-4-hydroxycoumarin sodium free from free alkali to dry, clean, washed sand and drying the same thereon, said coating being characterized by being firmly bound to the sand when dry and being readily released in solution when contacted with water.

2,783,178

STABLE CONCENTRATED SULFAQUINOXALINE SOLUTIONS AND METHOD FOR PREPARING

Philip G. White, Madison, Wis., assignor to American Scientific Laboratories, Inc., Madison, Wis., a corporation of Wisconsin

No Drawing. Application June 22, 1954, Serial No. 438,630
6 Claims. (Cl. 167—53.1)

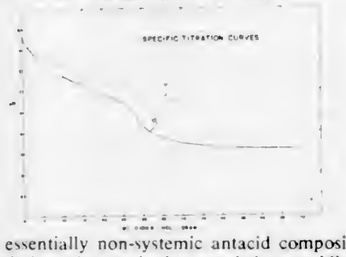
1. The process for making a stable sulfaquinoxaline concentrate which comprises, forming an aqueous solution of sodium hydroxide and potassium hydroxide, adding sulfaquinoxaline in the amount of 50% by weight of the total volume of concentrate to be made and thereafter adding water to make the desired 100% volume.

2,783,179

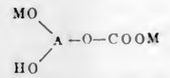
ISOMERIC ALUMINUM HYDROXY CARBONATES AS ANTACIDS

Irvine W. Grote, Chattanooga, Tenn., assignor to Chattanooga Medicine Company, Chattanooga, Tenn., a corporation of Tennessee

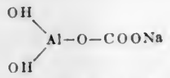
Application October 21, 1955, Serial No. 541,938
6 Claims. (Cl. 167—72)



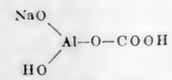
1. An essentially non-systemic antacid composition, in dosage unit form for combating gastric hyperacidity, comprising a compound having in its anhydrous state the generic formula



wherein either M is sodium and the other M is hydrogen, the compound of said generic formula that has the specific formula



having when possessing a 10 to 12% water content substantially the specific titration curve **10** illustrated in the drawing, and the other compound of said generic formula having specifically the formula

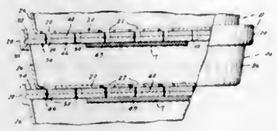


having when possessing a water content of about 18% substantially the specific titration curve **11** illustrated in the drawing; said compounds having said generic formula having a neutralizing capacity towards acid such that when 30 mg. of the compound are added to 20 ml. of 0.01 N-hydrochloric acid at 23° C. the pH value rises to a pH of at least 3 within 5 minutes and shortly thereafter reaches and stays at a pH of about 3.3 for the balance of a 30 minute test period, and said compound having a single aggregate index of refraction between 1.488 and 1.509.

2,783,180

TISSUE-HOLDER RECEPTACLES AND METHOD OF PREPARING TISSUE FOR MICROSCOPIC EXAMINATION

Edwin C. Whitehead, Crestwood, N. Y., assignor to Technicon International, Ltd., Bronx, N. Y., a corporation of New York

Application April 14, 1954, Serial No. 423,186
23 Claims. (Cl. 167—84.5)

13. The method of preparing tissue for microscopic examination according to which the tissue is immersed in a processing liquid, comprising mounting the tissue specimen in flat condition on a member having a porous fibrous surface to which the tissue adheres and immersing said mounted tissue specimen in the processing liquid.

2,783,181

STABILIZED ANTIPERSPIRANT COSMETIC CREAM

Hyman Henkin, New York, N. Y., and Ralph Paul Messina, Hackensack, N. J., assignors to Colgate-Palmolive Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application March 18, 1953, Serial No. 343,246
2 Claims. (Cl. 167—90)

1. An antiperspirant cosmetic cream comprising aluminum sulfamate, a sulfonated organic dispersing agent consisting of a sodium salt of a sulfated fatty acid monoglyceride, a wax consisting of an ester of a higher fatty acid and a higher fatty alcohol, a partial ester of a polyhydric alcohol and a higher fatty acid, and water in an emulsified form normally tending to separate on aging, and a polypropylene glycol having an average molecular weight of about 2025 in an amount effective to stabilize said emulsified cream against phase separation on aging.

2,783,182

NON-STAINING CHLOROPHYLL PREPARATIONS

Manno Fredrick Nelson, Jr., Madison, N. J., assignor to Colgate-Palmolive Company, a corporation of Delaware

No Drawing. Application February 24, 1953, Serial No. 338,607
3 Claims. (Cl. 167—93)

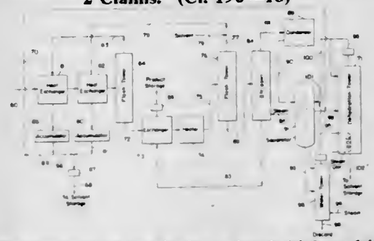
3. A dentifrice composition comprising at least about 20% by weight of polishing material, up to 5% by weight of an organic detergent, about .001 to 5% by weight of chlorophyllin normally tending to deposit a greenish stain on an absorbent surface, and up to 5% by weight of a water-soluble polyvinylpyrrolidone having an average molecular weight of 10,000 to 300,000, the ratio of said polyvinylpyrrolidone to said chlorophyllin being at least about 1:1 by weight and sufficient to inhibit the staining of the absorbent surface by the chlorophyllin.

2,783,183

PREPARATION OF WAXES

Seymour W. Ferris, Mount Holly, N. J., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application January 26, 1955, Serial No. 484,223
2 Claims. (Cl. 196—18)



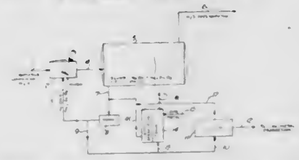
1. The method of producing a hard, high melting, hydrocarbon wax product and a plastic, high melting, paraffin wax product from a deasphaltized and selective solvent extracted paraffinic-naphthenic short residue crude wax which comprises dissolving the crude wax in a dewaxing solvent at an elevated temperature, cooling the solution and separating the resulting solid wax from the remaining solution at a temperature of about 40° to 60° F., thereby recovering a high melting, microcrystalline hydrocarbon wax, dissolving the microcrystalline wax in a dewaxing solvent at an elevated temperature, cooling the solution and separating the resulting solid wax from the remaining solution at a temperature at least as high as 100° F., thereby recovering a high melting, hard, hydrocarbon wax product and recovering the remaining wax components from the solvent of the separated solution, as a relatively high melting, plastic hydrocarbon wax.

2,783,184

REMOVAL OF ACIDIC SULFUR COMPOUNDS WITH CAUSTIC-ZINC SOLUTIONS

Ralph Miller, Pleasantville, N. Y., assignor to American Development Corporation, Elizabeth, N. J., a corporation of New Jersey

Application December 13, 1954, Serial No. 474,681
2 Claims. (Cl. 196—32)



1. The process of extracting acidic sulfur impurities from a hydrocarbon fluid containing hydrogen sulfide and mercaptan impurities, comprising intimately contacting

said fluid with an aqueous caustic alkali solution containing dissolved zinc, thereby forming solid zinc sulfide, an aqueous phase of relatively high zinc mercaptide content, and a hydrocarbon phase of reduced sulfur content, separating said aqueous phase from the hydrocarbon phase and the solid zinc sulfide, passing the separated aqueous phase through the anodic section of an electrolytic cell to form an insoluble disulfide layer and an aqueous phase of lower zinc mercaptide content, removing the disulfide layer and recycling the separated aqueous phase to the contacting step.

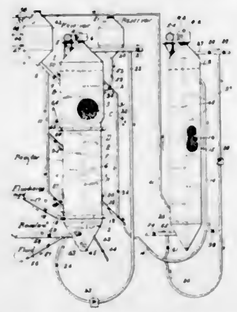
2,783,185
OXIDATIVE REFORMING OF NAPHTHA
Everett C. Hughes, Shaker Heights, Harold A. Strecker, Bedford, and Arthur Letcher Jones, Lyndhurst, Ohio, assignors to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application September 28, 1953, Serial No. 382,847
4 Claims. (Cl. 196—50)

1. A process for the oxidative reforming of naphtha, which comprises passing vaporized naphtha in the absence of an added oxygen-containing gas into contact with a reforming catalyst consisting of a compound selected from the group consisting of arsenic pentoxide and antimony pentoxide supported on a carrier material, at a temperature of from about 500 to 800° F., the amount of the naphtha being not in excess of about one mole of naphtha per gram atom of oxygen available upon reduction of the pentoxide to the trioxide, recovering naphtha having a higher Kattwinkel number, and regenerating the reforming catalyst by oxidation to convert the oxide to the pentoxide state.

2,783,186
METHOD AND APPARATUS FOR HYDROCARBON CONVERSION
Sylvander C. Eastwood, Woodbury, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York
Application July 7, 1951, Serial No. 235,607
3 Claims. (Cl. 196—52)

1. A method for the conversion of two separate fluid hydrocarbon reactants in the presence of a substantially compact moving column of particle form contact material, which comprises: maintaining the compact column of contact material within a confined, elongated conversion zone; maintaining at least two vertically extending regions within said column contiguous to and in open communication with each other along a substantially vertical surface extending the length of said regions; introducing at least one stream of contact material into the first of said regions at temperature controlled to maintain the contact material in said region at a temperature suitable to convert the first of said fluid reactants; introducing at least one stream of contact material into the second of said regions at a temperature controlled to maintain the temperature within said second region at a temperature suitable to convert the second of the fluid reactants; removing contact material from the lower end of said first region at a rate controlled to maintain the contact material flow rate within said region at a rate suitable to convert the first of said fluid reactants withdrawing contact material from said second region at a rate controlled to maintain the contact material flow rate at a rate suitable to convert the second of fluid reactants, which flow rate is different from the flow rate in said first region; passing said first reactant through said first region lengthwise to effect the conversion of said first reactant; passing said second reactant lengthwise through said second region to effect the conversion of said second reactant, the reactant flow condition in both of said regions being controlled to prevent excessive interflow of reactants between the two regions; removing the products of the two conversions from the conversion zone substantially separately of each other.

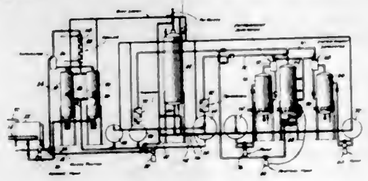
2,783,187
CONTACTING FLUIDS WITH SOLIDS
William W. Odell, Amherst, Va.
Application December 1, 1954, Serial No. 472,345
22 Claims. (Cl. 196—52)



8. The process of contacting small-size solids with a flowing fluid and causing chemical reaction to occur in said fluid while in contact with said solids, comprising, passing a fluid stream initially containing reactant material upwardly through and in contact with a mass of small-size contact solids while said mass is confined as a deep, upright, continuous bed in a reaction chamber, at such a velocity that the said contact solids are densely fluidized therein by said stream with a well defined top level in said chamber, meanwhile materially retarding top to bottom and bottom to top mixing of the latter solids and top to bottom mixing of reaction products in said bed by whirling (rotating) a plurality of separate disk-like elements of a non-propellant type in substantially horizontal planes in said bed which elements are spaced apart vertically in staggered arrangement on a vertical shaft in said bed, thereby promoting said reaction of said material in said stream by virtue of its contact with said contact solids as said stream passes up through said bed, and removing the stream, of altered composition, from above said bed.

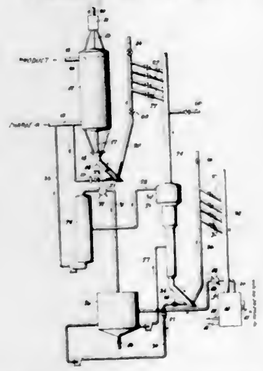
2,783,188
PROCESS OF FRACTIONATING ASPHALT AND SIMILAR BITUMINOUS MATERIALS
George A. Agoston, Oklahoma City, Okla., assignor to Kerr-McGee Oil Industries, Inc., a corporation of Delaware
Application March 30, 1951, Serial No. 218,480
7 Claims. (Cl. 196—147)

1. The process of fractionating asphalt and similar bituminous material containing resins, oils, and a fraction of higher average molecular weight and greater average molecular complexity than the corresponding averages of the resins, which comprises mixing such material with a solvent containing substantially hydrocarbons selected from the group consisting of n-pentane, isopentane and hexane, then separating the undissolved material from the resulting solution including the oils and resins, contacting said solution with an adsorbent material which



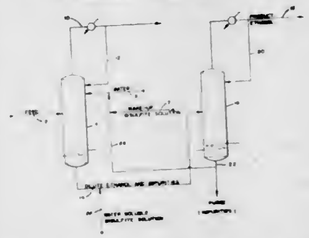
adsorbs the resins in preference to the oils to remove the resins from said solution, and thereafter recovering the oils and recovering the adsorbed material separately by contacting the adsorbent with an eluting agent comprising a mixture of acetone and pentane, and said adsorbent material being continuously subjected alternately to the process of adsorbtion thereon of resin from the resulting solution and then the removal of the resins therefrom by elution.

2,783,189
LIQUID-GRANULAR SOLIDS CONTACTING
Eric V. Bergstrom, Short Hills, and Howard W. Shea, West Deptford, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York
Application April 22, 1954, Serial No. 424,956
9 Claims. (Cl. 196—147)



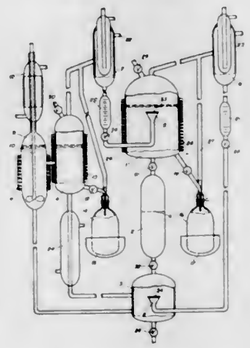
1. A method for controlled withdrawal of granular solids from a confined liquid-granular solids contacting zone, which comprises: passing granular solids downwardly from the contacting zone as a seal column with the granular solids particles in the continuous phase; suspending granular solids from the lower section of the seal column in liquid and passing the suspension upwardly through a confined transport passage, the lower end of which transport passage is in free and open communication with said seal column; discharging the suspension from the transport passage through one of a plurality of vertically spaced-apart discharge passages which connect into said transport passage at a plurality of levels, all lying below the liquid level in the contacting zone and which are of sufficient size so as not to impose a flow restriction on the flowing suspension; and controlling the rate of solids removal from the contacting zone, at least in part, by selectively withdrawing the suspension through the one of said discharge passages suitable to give the desired flow while permitting no withdrawal through the other discharge passages, an increase in flow being accomplished by using a lower discharge passage and thereby lowering the level of withdrawal from the transport passage, while a decrease is effected by using a higher discharge passage and thereby raising the level of withdrawal from the transport passage.

2,783,190
METHOD FOR PURIFICATION OF ALCOHOLS
Alfred Steitz, Jr., Tulsa, Okla., assignor to Stanolind Oil and Gas Company, Tulsa, Okla., a corporation of Delaware
Application September 17, 1951, Serial No. 247,015
15 Claims. (Cl. 202—39.5)



1. A method for the purification of an aldehyde-free alcohol negative to the fuchsin aldehyde test but which contains connate impurities oxidizable by permanganate compounds comprising mixing with the impure alcohol a sufficient quantity of an aqueous solution of a water soluble bisulfite compound having a pH of from about 6.0 to about 8.0, said solution consisting essentially of dissolved sulfite and bisulfite compounds, to produce in the resulting mixture a concentration of sulfite and bisulfite compounds corresponding to from about 0.01 to about 1.0 weight percent on a dry basis, whereby a substantially non-volatile stable complex is formed between said impurities and the bisulfite, and thereafter subjecting said mixture to distillation to recover an alcohol product distillate free of said oxidizable impurities.

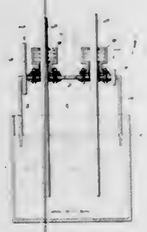
2,783,191
FRACTIONATING CONTINUOUS LIQUID-LIQUID EXTRACTOR
Louis de Vries, Los Angeles, Calif.
Application June 3, 1954, Serial No. 434,169
1 Claim. (Cl. 202—169)



The apparatus for separating two difficultly separable components of limited volatility from a mixture, in which said compounds are dissolved in a first solvent as two solutes therein, the three component solution is subjected to countercurrent solvent extraction in a

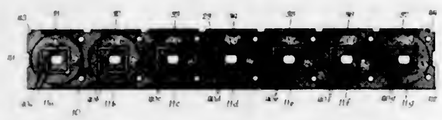
countercurrent column with a second solvent, differing in density from said first solvent, said solutes having different distribution ratios between said two solvents, heavy solvent is distilled continuously from heavy phase containing solutes, which is drawn from the bottom of said countercurrent column, said distilled heavy solvent is returned continuously to the top of said countercurrent column, and the remainder of said heavy phase, containing solutes is returned continuously after cooling, to the bottom of said countercurrent column, light solvent is distilled continuously from light phase containing solutes in the top of the column and said light solvent is returned to the bottom of said countercurrent column, separated solute is withdrawn from one of said distilling phases by evaporation of solvent and return of the solvent vapors to the system, which comprises a countercurrent solvent extraction column, means for distilling light solvent from light phase in the top of said column, means for condensing said distilled light solvent and means for returning said condensed light solvent to the bottom of said column, means for drawing light phase from the top of said column, means for evaporating light solvent and depositing solutes from said withdrawn light phase, means for condensing said evaporated light solvent and means for returning said condensed light solvent to the bottom of said column, means for withdrawing heavy phase containing solutes from the bottom of said column, means for partially distilling heavy solvent from said withdrawn heavy phase, means for returning residual heavy phase, containing solutes to the bottom of said column, means for cooling said returning heavy phase, means for condensing said distilled heavy solvent and means for returning said condensed heavy solvent to the top of said column, means for withdrawing heavy phase containing solutes from said means for distilling heavy phase, means for evaporating heavy solvent and depositing solutes from said withdrawn heavy phase, means for condensing said evaporated heavy solvent and means for returning said condensed heavy solvent to the top of said column.

2,783,192
PROCESS FOR PRODUCING TITANIUM
Reginald S. Dean, Hyattsville, Md., assignor to Chicago Development Corporation, Riverdale, Md.
Application September 22, 1954, Serial No. 457,796
3 Claims. (Cl. 204—10)



1. The process of producing titanium which includes the steps of slowly cooling a body of molten impure titanium containing a minor proportion of insoluble impurities and dissolved oxygen to segregate the insoluble impurities into the core of an ingot, making said ingot an anode in a fused electrolyte of at least one salt selected from the group consisting of alkali and alkaline earth chlorides and bromides, passing a direct current from the anode to an inert cathode to produce titanium metal admixed with the electrolyte and to segregate the oxygen dissolved in the titanium metal of the anode into the core of the anode, and interrupting the electrolysis before the core begins to disintegrate.

2,783,193
ELECTROPLATING METHOD
Temple Nieter, Evanston, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application September 17, 1952, Serial No. 309,967
3 Claims. (Cl. 204—15)

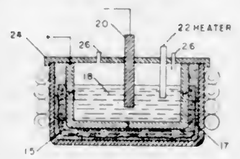


1. A method for forming a metallic coating on at least one surface of an insulating base which includes in sequence the steps of providing a flat strip member of an insulating material, punching at least one plug member at least partially out of said strip member and thereby forming a hole in said strip member, reinserting said plug member in the hole in said strip member with the surfaces of said plug member flush with the surfaces of said strip member, spraying a metallic compound solution and a reducing solution over at least one entire surface of the strip and of the supported plug member to form a continuous metallic coating over said strip member and said plug member, said plug member fitting tightly in the hole in said strip member so that the metallic coating does not cover the edges of said plug member or of the hole through said strip member, and subsequently removing said plug member from said strip member.

2,783,194
IODATE-CONTAINING PLATING BATHS
Fred I. Nobel, North Valley Stream, and Barnet D. Ostrow, North Bellmore, N. Y.
No Drawing. Application March 4, 1955, Serial No. 492,309
8 Claims. (Cl. 204—46)

1. An aqueous metal plating bath comprising an aqueous alkaline solution of a compound taken from the class consisting of copper cyanide and silver cyanide having incorporated therein an amount sufficient to oxidize sulfide sulfur in said bath of an alkali metal iodate.

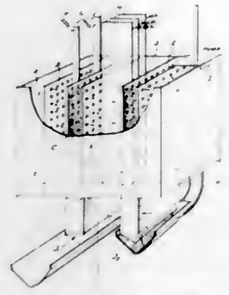
2,783,195
CONTROL OF CORROSION IN REACTION VESSELS
Bertram C. Raynes, Euclid, and Edward L. Thellmann, Parma, Ohio, assignors, by mesne assignments, to Horizons Titanium Corporation, Princeton, N. J., a corporation of New Jersey
Application April 29, 1955, Serial No. 504,952
5 Claims. (Cl. 204—64)



5. A method of electrolyzing a corrosive fused electrolytic salt bath which comprises: providing a porous inert electrically conductive container for the salt bath, establishing therein a fused salt bath of the corrosive electrolyte, maintaining the fused salt bath in fused condition by heating means positioned within the bath, disposing an outer support shell spaced from the inner container, introducing a comminuted thermally insulated material into the space between the outer shell and the container, immersing at least one electrode in the fused salt bath, impressing a potential through the salt bath by suitably connecting the immersed electrode and the container to a source of potential whereby the fused electrolyte is

electrolyzed and maintaining the temperature of the outer shell during the electrolysis of the fused salt electrolyte so as to establish three zones in the thermal insulation as follows: a first zone adjacent the inner conductive container in which the electrolyte is present in liquid form, a second zone adjacent the outer shell in which thermal insulation alone is present and an intermediate zone between the first zone and the second zone in which the electrolyte salts are present in solid form.

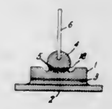
2,783,196
METHOD FOR PRODUCING TITANIUM AND ZIRCONIUM
Ben B. Raney, Linton, Ind., assignor to Chicago Development Corporation of Delaware, Riverdale, Md.
Application March 19, 1952, Serial No. 277,445
1 Claim. (Cl. 204—64)



Process of producing substantially pure titanium from crude titanium metal containing oxygen in solid solution, which comprises making the oxygen-containing titanium metal the anode in an electrolytic cell having communicating anode and cathode zones and means for preventing passage of particulate solids from one to the other of said zones, said cell being provided with a conducting cathode and with an electrolyte composed of at least one alkalinous metal chloride free from oxygen and with a protective inert atmosphere above said electrolyte, maintaining the cell contents at a temperature from 50 to 100° C. above the melting point of the alkalinous metal chloride, continuously moving electrolyte from the anode zone to the cathode zone and over said cathode, passing a unidirectional current between anode and cathode at a current density of at least 150 amperes per square inch of anode surface and at an impressed voltage of from 2 to 9 volts, whereby to form in the electrolyte, in said anode zone, a solution of titanium di-chloride and particulate titanium dioxide, adding chlorine adjacent the anode, separating solid residue comprising said particulate titanium dioxide from said solution, passing the solution into the cathode zone and over said cathode, the amount of chlorine added being such, and said solution being passed over said cathode at such a rate, as to provide that the electrolyte after passing over the cathode contains a significant content of titanium di-chloride, thereby depositing pure titanium metal on the cathode sufficiently adherent to the latter that the deposit may be removed with the cathode, and removing associated electrolyte from such deposit.

2,783,197
METHOD OF MAKING BROAD AREA SEMI-CONDUCTOR DEVICES
Robert J. Herbert, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application January 25, 1952, Serial No. 268,272
4 Claims. (Cl. 204—143)

1. The method of removing the rectification barrier short circuit from the P–N junction of an impurity diffused semi-conductor device including an impurity contact having a substantially smaller surface area than the remainder of said semi-conductor device which comprises immersing the device in a water solution of a hydroxide selected from the group consisting of sodium hydroxide and potassium hydroxide in spaced relation to an immersed electrode, applying a direct current voltage across

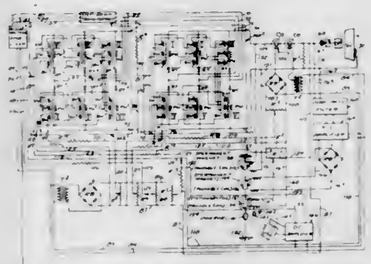


the impurity contact and the electrode with the impurity contact positive with respect to the electrode to pass an etching current through said device in the direction of low electrical resistance, the product of the etching current in amperes and etching time in seconds falling in the range of 50 to 150.

2,783,198
AMINO-ALKYL-SULFONIC ACID CHLORIDE-HYDROCHLORIDES
Hans Feichtinger, Duisburg-Beeck, Hans Tummes, Duisburg-Meiderich, and Siegfried Puschhof, Duisburg-Beeck, Germany, assignors to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany, a corporation of Germany
No Drawing. Application November 5, 1953, Serial No. 390,416
Claims priority, application Germany November 24, 1952
8 Claims. (Cl. 204—158)

1. Process for the production of hydrochlorides of amino-alkyl-sulfonic acid chlorides having 3 to 6 carbon atoms which comprises contacting a primary saturated aliphatic amine hydrochloride having 3 to 6 carbon atoms with a chlorine and sulfur dioxide-containing gas in the presence of a member selected from the group consisting of chloroform and carbon tetrachloride while irradiating with actinic light, washing the resulting sulfochlorination product obtained with chloroform, and recovering a hydrochloride of an amino-alkyl-sulfonic acid chloride.

2,783,199
ELECTROLYTIC GRINDING APPARATUS
George E. Comstock 3d, Holden, Mass., assignor to Norton Company, Worcester, Mass., a corporation of Massachusetts
Application April 13, 1953, Serial No. 348,285
15 Claims. (Cl. 204—218)



1. In electrolytic grinding apparatus, in combination a work-support and rotatable wheel means having a conductive part whereby a conductive work-piece and the face of the wheel conductive part are interrelated for relative movement therebetween, with means for supplying liquid electrolyte to the interface between the work-piece and said conductive part for electrolytic decomposition at the work-piece face, a saturable-core magnetic amplifier having power winding means energized by alternating current and having rectifier means in circuit there-

with to provide unidirectional current at its output terminals and having control winding means for affecting the core saturation thereof, a saturable-core control magnetic amplifier having power winding means energized by alternating current and having rectifier means in circuit therewith for energizing said control winding means of said first magnetic amplifier and having control winding means for affecting its own core saturation, means connecting the positive side of said output terminals to the work-piece and the negative side thereof to said wheel conductive part for effecting electrolytic decomposition at the work-piece face, means responsive to interface current, means responsive to the potential across said interface, means correlating said two last-mentioned means to convert their respective responses into a measure of interface resistance, means for energizing said second control winding means in accordance substantially with changes in said measure of interface resistance to effect responsive amplification by said control amplifier of the energy the latter supplies to said first control winding means and thereby to vary the current at said output terminals of said first amplifier substantially inversely to interface resistance changes, frequency-responsive means electro-responsively inter-related with said interface and responsive to electrical fluctuations at the interface of frequency values caused by incipience of arcing or sparking across the interface, and means controlled by said frequency responsive means for limiting current output at said terminals to a value just short of arc-over or sparking at said interface.

2,783,200

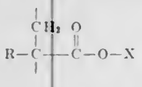
SLUDGE CONDITIONING AND DISPERSING AGENTS FOR BOILER WATER TREATMENT

Ferris B. Crum, Oak Park, and John F. Wilkes, La Grange, Ill., assignors to Dearborn Chemical Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application November 3, 1951, Serial No. 254,808

7 Claims. (Cl. 210—23)

1. An internal boiler water treatment process that comprises dispersing into the boiler water, in amounts sufficient to maintain 0.3 to 20 p. p. m. concentration, a water-soluble acrylic polymer whose polymer chain structure comprises units having the following formula:



wherein R is of the class consisting of H and CH_3 and X is of the class consisting of H, Na and K, a 5 weight percent aqueous solution of such polymer having an Ostwald pipette viscosity of 1 to 1000 centistokes, and boiling said water in the boiler.

2,783,201

PROCESS OF PREPARING A DRY COMPOSITION CONTAINING AN ALKALI METAL HYDROXIDE AND A TANNIN CONTAINING MATERIAL

Henry W. Rahn, Corpus Christi, Tex., assignor to Columbia-Southern Chemical Corporation, Allegheny County, Pa., a corporation of Delaware

No Drawing. Application July 27, 1953, Serial No. 370,607

6 Claims. (Cl. 252—8.5)

1. A method of preparing a composition which comprises heating a naturally occurring material which contains at least 10 percent by weight of an acid of the group consisting of tannic acid and humic acid until the water content is below about 8 percent by weight and mixing the dried product with sodium hydroxide which contains less than 20 percent by weight of water before the heated tannin-containing material can absorb substantial moisture, the proportion of sodium hydroxide to said dried material being substantially 0.1 to 3 parts of sodium hydroxide per part of said material.

2,783,202

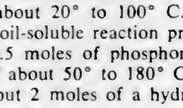
CORROSION PREVENTING AGENT

John P. McDermott, Springfield, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application May 20, 1955, Serial No. 510,019

8 Claims. (Cl. 252—46.6)

1. A petroleum hydrocarbon product containing dissolved therein a corrosion inhibiting amount of an oil soluble compound of the formula



where R is a sulfurized aliphatic hydrocarbon radical; and where one of the symbols R_1, R_2, R_3, and R_4 represents a member of the group consisting of hydrogen, aliphatic hydrocarbon radicals containing 1 to 4 carbon atoms, and phenyl radicals and the others of the symbols R_1, R_2, R_3 and R_4 represent hydrogen atoms.

2,783,203

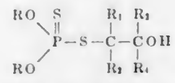
CORROSION PREVENTING AGENT

John P. McDermott, Springfield, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application May 18, 1955, Serial No. 509,409

9 Claims. (Cl. 252—46.6)

1. A petroleum hydrocarbon product containing dissolved therein a corrosion inhibiting amount of an oil-soluble compound of the formula—



where R is an organic radical selected from the group consisting of aliphatic, cycloaliphatic and aliphatic-aromatic organic radicals; and where one of the symbols R_1, R_2, R_3, and R_4 represents a phenyl radical and the others of the symbols R_1, R_2, R_3 and R_4 represent hydrogen atoms.

2,783,204

CORROSION PREVENTING AGENT

John P. McDermott, Springfield, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application July 1, 1955, Serial No. 519,683

11 Claims. (Cl. 252—46.6)

1. A petroleum hydrocarbon product containing dissolved therein a corrosion inhibiting amount of a condensation product obtained by condensing an alkylene oxide containing 2 to 6 carbon atoms per molecule at a temperature of about 20° to 100° C. for about 0.2 to 2 hours with an oil-soluble reaction product obtained by reacting about 0.5 moles of phosphorus pentasulfide at a temperature of about 50° to 180° C. for about 0.5 to 5 hours with about 2 moles of a hydroxy organic compound of the formula

ROH

where R is a hydrocarbon radical selected from the group consisting of aliphatic, cycloaliphatic, and aliphatic-aromatic hydrocarbon radicals.

2,783,205

SUPPRESSION OF ACIDIC GAS EVOLUTION

John W. Brooks, Wenonah, and Ferdinand P. Otto, Woodbury, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York

No Drawing. Continuation of application Serial No. 161,742, May 12, 1950. This application August 14, 1953, Serial No. 374,446

8 Claims. (Cl. 252—46.7)

1. An oil-soluble organic sulfur-containing reaction product which gradually evolves hydrogen sulfide, containing between about 0.5 percent and about 20 percent by weight of said reaction product, of a reaction product obtained by reacting an aldehyde, selected from the group consisting of aromatic aldehydes, heterocyclic aldehydes and formaldehyde, with ammonia, in a proportion of about 3 moles of aldehyde to 2 moles of ammonia, at a temperature of between about 20° C. and about 100° C.

2,783,206

MINERAL OIL LUBRICATING COMPOSITIONS

Nicholas V. Messina, Carteret, N. J., assignor to Tide Water Associated Oil Company, Bayonne, N. J., a corporation of Delaware

No Drawing. Application March 10, 1954, Serial No. 415,425

5 Claims. (Cl. 252—51.5)

1. A lubricating oil composition comprising a mineral oil of lubricating grade in major amount based on the weight of the composition, a small amount of an oil-soluble half amide-aliphatic hydrocarbon ester of an aliphatic hydrocarbon dicarboxylic acid, said half amide-ester being characterized in that its amide portion contains an aliphatic hydrocarbon group as a substituent for at least one of the hydrogen atoms linked to the amide nitrogen atom, and a small amount of an oil-soluble heterocyclic carbon compound in which nitrogen is the hetero-atom, said composition being characterized by containing from about 0.02 to about 1.0% as the combined weight of said half amide-ester and heterocyclic compound in a weight ratio of said half amide-ester to heterocyclic compound to impart to said composition rust-preventive characteristics in excess of the individual effectiveness of said half amide-ester and heterocyclic compound, said half-amide ester being a compound in which one carboxyl group of an aliphatic dicarboxylic acid from the group consisting of succinic, glutaric, adipic and suberic acids is esterified with an aliphatic radical containing about 4 to about 20 carbon atoms and in which the amide portion of the ester contains an alkyl group of about 4 to about 20 carbon atoms substituted for at least one of the nitrogen-linked hydrogen atoms, and said heterocyclic compound being selected from the group consisting of piperidene, pyrrolidine and 1-ethyl piperidine.

2,783,207

PREPARATION OF POWDERS SUITABLE FOR THE MANUFACTURE OF PERMANENT MAGNETS

Nigel Conrad Tombs, London, England, assignor to Société Anonyme dite: Societe d'Electro-Chimie, d'Electro Metallurgie et des Acieries Electriques d'Ugine, Paris, France, a corporation of France

No Drawing. Application May 15, 1953, Serial No. 355,400

Claims priority, application Great Britain May 22, 1952

9 Claims. (Cl. 252—62.5)

1. A method of manufacturing a magnetisable powder which consists mainly of metallic iron and which is composed of particles of mean ultimate crystal size such that the greatest dimension of each crystal is not greater than 5,000 A., which method comprises the steps of heating a mixture of an iron compound of the group consisting of iron oxides, hydrated iron oxides and iron hydroxide, with alkaline earth metal compound of the group consisting of the alkaline earth metal oxides, hydroxides and carbonates, and an alkali metal compound of the group consisting of the alkali metal oxides, hydroxides and carbonates, the proportion of said alkaline earth metal compound being such that the final product contains from 0.1% to 10% of alkaline earth metal by weight of the product, and the heating being carried out at a low temperature such that reaction takes place between said alkali metal compound and substantially all of said iron compound to form an alkali metal ferrite, and the alkaline earth metal compound is substantially uniformly distributed through the mixture, treating the product of said heating with water, whereby an aqueous solution is formed and an iron oxide containing solid residue is left, removing said aqueous solution and heating said solid residue at a temperature below 500° C. in a reducing atmosphere until the iron present in said residue is mainly reduced to the metallic state.

2,783,208

POWDERED IRON MAGNETIC CORE MATERIALS

George Katz, Philadelphia, Pa., assignor to Radio Corporation of America, a corporation of Delaware

Application January 4, 1954, Serial No. 401,767

7 Claims. (Cl. 252—62.5)

1. A method of making a compressed magnetic core body comprising the steps of wetting a mass of iron powder with a mixture comprising an aqueous solution of phosphoric acid and zinc phosphate and a substance selected from the group consisting of 2,7 iso-propyl naphthalene sodium sulfonate, the sodium salt of naphthalene 2,7 disulfonic acid, and 2-naphthalene sulfonic acid thereby, said substance being present in the proportions of about .01 to .08 gm. and said zinc phosphate being present in the proportion of about .06 to .60 gm. per 100 gms. of iron powder, to form an insulating coating upon the individual particles of said powder, drying said powder and molding said dried powder with a phenol formaldehyde resin binder to form a core body.

2,783,209

METHODS AND MEANS OF MARINE MARKING

Leopold Pessel, Wyndmoor, Pa., assignor to Radio Corporation of America, a corporation of Delaware

Application November 23, 1953, Serial No. 393,679

4 Claims. (Cl. 252—301.3)

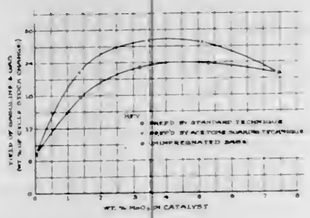
3. A marine marking composition consisting essentially of a mixture of about 50% by weight of a water-soluble material which reacts with water to form a finely-divided water insoluble substance, said water-soluble material being selected from the group consisting of solid, readily-hydrolyzable, water-soluble salts of bismuth, antimony, tin, titanium and zirconium; about 25% by weight of a water-soluble, anion-active dispersing agent; and

about 25% by weight of a solid material selected from the group consisting of polyalkylene glycols, methyl cellulose, polyvinyl alcohol and glue.

2,783,210
BIS-BIGUANIDES AS STABILIZING AGENTS
George W. Kennerly, Stamford, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application August 6, 1953, Serial No. 372,815
7 Claims. (Cl. 252—401)

1. As a new compound, a polymethylene bis-biguanide wherein the polymethylene radical contains up to four carbon atoms and each biguanide radical contains a hydrocarbon aryl radical.

2,783,211
METHOD OF PREPARING IMPREGNATED CATALYSTS
Joseph B. McKinley, Pittsburgh, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware
Application July 31, 1950, Serial No. 176,828
6 Claims. (Cl. 252—455)



1. The method of preparing a catalyst which comprises impregnating a porous catalyst carrier with a water solution of a compound of a catalyst metal, and treating the impregnated carrier with an at least 50 percent water soluble, organic liquid which is non-reactive with respect to said compound of a catalyst metal and which forms a mixture with the water of said solution in which said metal compound is at least partially insoluble whereby to exert an anti-solvent effect upon said metal compound to physically precipitate said compound on said carrier and drying and calcining the resultant mass.

2,783,212
CROSS-LINKED COPOLYMERS OF AN ACRYLIC ACID AS CATION EXCHANGING RESINS
Hermann Schnell, Leverkusen-Wiesdorf, Germany, assignor to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany
No Drawing. Application February 16, 1953, Serial No. 337,230
Claims priority, application Germany February 19, 1952
5 Claims. (Cl. 260—2.2)

1. A process for preparing a water-insoluble resin capable of exchanging cations in a liquid medium which comprises copolymerizing a mixture including (1) a polymerizable water-soluble organic acid selected from the group consisting of crylic acid and methacrylic acid and (2) about 1 to 10 percent by weight, as calculated on the polymerizable acid, of a polymerizable organic compound containing at least two polymerizable double bonds in the presence of a polymerization catalyst and condensing the resulting copolymerizate with (3) about 5–30 percent by weight, as calculated on the polymerizable acid, of a compound selected from the group consisting of polyhydric alcohols, polyamines, and aldehydes.

2,783,213
RUBBER RECLAIMS AND PROCESS FOR PRODUCING SAME
Rée Vilma le Beau, Clayton, Mo., assignor to Midwest Rubber Reclaiming Company, East St. Louis, Ill., a corporation of Delaware
Application August 18, 1952, Serial No. 305,077
9 Claims. (Cl. 260—2.3)

1. The process of producing reclaimed rubber in particulate form from previously vulcanized rubber scrap, comprising thoroughly interdispersing discrete particles of ground vulcanized rubber scrap with a reclaiming agent and a filler to obtain a mixture in the form of finely divided particles, said filler being substantially inert to reclaiming process conditions and having a particle size not substantially greater than about 250 microns, and thereafter heating the resulting dispersion of substantially dry finely divided particles without mastication until the scrap is softened and the resulting reclaim in finely divided particulate form is rendered sufficiently plastic without further milling and refining to be used for the production of new articles.

2,783,214
METHOD OF PRODUCING A SOLIDIFIED CURED RESIN
Edward C. M. Homan, Montclair, N. J., assignor to Cordo Chemical Corporation, Norwalk, Conn., a corporation of Connecticut
No Drawing. Application June 2, 1952, Serial No. 291,111
9 Claims. (Cl. 260—28)

1. A method of producing a solidified, cured resin, comprising mixing together, to establish a self-curing mass, a curable epichlorohydrin-bisphenol reaction product, a minor proportion of cure-promoting material selected from the class consisting of allyl glycidyl ether, phenol glycidyl ether and chloroethyl vinyl ether, and a minor proportion of curing agent material comprising 95% to 75% triethylene tetramine and 5% to 25% triethanolamine, for exothermic, spontaneous curing reaction of said reaction product.

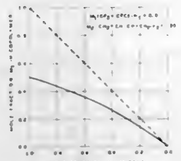
2,783,215
FLAME RETARDANT POLYESTER RESINOUS COMPOSITIONS CONTAINING HALOGEN
Paul Robitschek, Buffalo, and Claude Thomas Bean, Jr., Niagara Falls, N. Y., assignors to Hooker Electrochemical Company, Niagara Falls, N. Y., a corporation of New York
No Drawing. Application August 31, 1956, Serial No. 611,805
4 Claims. (Cl. 260—45.4)

1. A polymerizable mixture comprising (A) a polymerizable linear polyester of ingredients comprising a polycarboxylic acid and a polyhydric alcohol and (B) a copolymerizable compound containing aliphatic carbon to carbon unsaturation comprising an adduct of hexahalocyclopentadiene and a compound containing aliphatic carbon to carbon unsaturation, wherein the halogen is selected from the group consisting of chlorine, bromine, fluorine and mixtures thereof.

2,783,216
RESINOUS PRODUCTS FROM MANNICH BASES OF AROMATIC POLYKETONES WITH HYDROGEN SULFIDE AND/OR POLYTHIOLS
Robert W. Martin, Lafayette, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application June 30, 1954, Serial No. 440,543
13 Claims. (Cl. 260—63)

1. A process for the manufacture of a resinous product which comprises mixing and reacting a substance selected from the group consisting of hydrogen sulfide, polythiols, and mixtures thereof with an aminoketone having at least two acyl groups of a monocarboxylic acid of 2 to 10 carbon atoms linked directly by the carbonyl carbon atom to nuclear carbon atoms of an aromatic nucleus, and which acyl groups each contain an alpha carbon atom having a hydrogen atom and the methylene carbon atom of a tertiary aminomethylene group linked directly thereto.

2,783,217
COPOLYMERS OF A PERFLUOROCHLOROETHYLENE AND A HYDROCARBON DIENE AND METHOD FOR THEIR MANUFACTURE
Francis J. Honn, Bloomfield, and Willard M. Sims, Hackensack, N. J., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware
Application November 18, 1952, Serial No. 321,144
1 Claim. (Cl. 260—82.1)



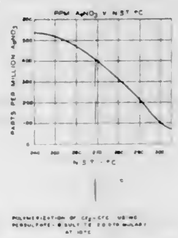
A method for preparing a homogeneous copolymer of a perfluorochloroethylene, selected from the group consisting of trifluorochloroethylene and dichlorodifluoroethylene, and a hydrocarbon diene, selected from the group consisting of butadiene and isoprene, which comprises: polymerizing such a reaction mixture containing between about 18 mole percent and about 40 mole percent of the perfluorochloroethylene, in accordance with the respective figure of Figures 1 through 4 of the drawing, at a temperature between about 25° C. and about 50° C. in the presence of a polymerization promoter in an aqueous system, wherein the initial molar level is maintained by introducing a comonomer charge into the reaction zone having a composition equal to the molar ratio of the desired homogeneous copolymer product, and at a rate equal to the rate of copolymer formation.

2,783,218
HYDROLYSIS OF POLYVINYL ESTERS
William L. Kuechler, Grand Island, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application August 26, 1953, Serial No. 376,761
4 Claims. (Cl. 260—91.3)

1. The process of converting preformed solid phase polyvinyl acetate directly into solid phase polyvinyl alcohol of substantially the preformed solid shape of the polyvinyl acetate comprising subjecting said polyvinyl acetate in a preponderantly aqueous medium to aqueous hydrolysis by hydrolysis catalyst in the presence of insolubilizing agent for said polyvinyl alcohol, said agent being selected from the group consisting of alkali metal carbonates, sulfates, phosphates, chlorides, calcium chloride and boric acid.

2,783,219
MANUFACTURE OF FLUORINE CONTAINING POLYMERS
Herbert J. Passino, Englewood, and Albert L. Dittman, North Bergen, N. J., and John M. Wrightson, Whittier, Calif., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware
Application June 11, 1953, Serial No. 360,891
2 Claims. (Cl. 260—92.1)

1. A process for the production of a thermoplastic polymer of trifluorochloroethylene which comprises polymerizing trifluorochloroethylene in a polymerization zone at a temperature above about 0° C. and below 20° C. in the presence of an aqueous suspension medium containing an alkali persulfate as a promoter and an alkali bi-



sulfite as an activator and a water-soluble silver salt as an accelerator, said water-soluble silver salt being present in an amount within a range between about 1 and about 500 p. p. m. calculated as silver.

2,783,220
STREPTOMYCIN SALTS
Milton Wolf, Syracuse, N. Y., assignor to Bristol Laboratories Inc., Syracuse, N. Y., a corporation of New York
No Drawing. Application November 24, 1953, Serial No. 394,209
9 Claims. (Cl. 260—101)

1. A salt of a member selected from the group consisting of streptomycin, hydroxystreptomycin and dihydrostreptomycin with a member selected from the group consisting of levo-pimaric-6,8a-cis-endosuccinic acid and levo-pimaric-6,8a-trans-endosuccinic acid.

2,783,221
WATER-SOLUBLE PROTEIN PREPARATIONS AND METHODS OF MAKING THEM
Paul Nitsche, Dresden, Germany
No Drawing. Application March 23, 1954, Serial No. 418,221
Claims priority, application Germany March 25, 1953
7 Claims. (Cl. 260—112)

1. A method of forming water-soluble compositions comprising water-insoluble proteins in the native state selected from the group consisting of fibrin, casein and gluten, which comprises dissolving not more than 1% by weight based on the weight of solvent of said water-insoluble protein in the native state, at a temperature of not in excess of 45° C., in an aqueous solution having a pH of about 8.0 and containing from 0.5% by weight to a saturated solution of at least one member of the group consisting of magnesium sulphate and calcium lactate.

2,783,222
WELL DRILLING COMPOSITION AND METHOD OF MANUFACTURE THEREOF
Henry W. Rahn, Corpus Christi, Tex., assignor to Columbia-Southern Chemical Corporation, Allegheny County, Pa., a corporation of Delaware
No Drawing. Application May 12, 1953, Serial No. 354,629
11 Claims. (Cl. 260—124)

1. A method which comprises digesting a naturally occurring material which contains water insoluble components and at least 10 percent by weight of a member of the group consisting of tannic acid and humic acid

with enough aqueous alkali metal hydroxide to increase the water dispersibility of the substance and to produce an alkaline product, and adding to such product an acidic material of the group consisting of tannic acid and humic acid, and thereby reducing the alkalinity thereof.

8. The reaction product of a member of the group consisting of tannic acid and humic acid with the heat digested reaction product of a naturally occurring substance which contains at least 10 percent by weight of a member of said group and water-insoluble components with enough alkali metal hydroxide to increase the water dispersibility of the substance and to produce an alkaline product.

2,783,223

TRISAZO DYESTUFFS OF THE STILBENE SERIES

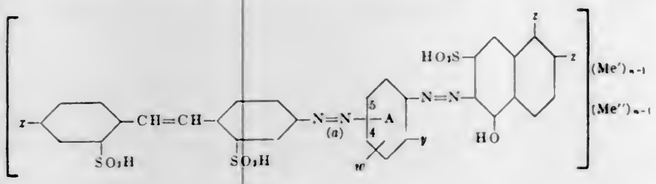
August Schweizer, Muttenz Basel-Land, near Basel, Switzerland, assignor, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company

No Drawing. Application August 23, 1954, Serial No. 451,685

Claims priority, application Switzerland August 27, 1953

6 Claims. (Cl. 260—145)

1. A trisazo dyestuff which corresponds to the formula



wherein x stands for a member selected from the group consisting of a nitro, carboxyacylamino and naphthylene triazole group, y stands for a member selected from the group consisting of a carboxyl, methoxy and ethoxy group, one z stands for hydroxy, and the other z stands for an —azo—R residue, R being a mono- to bi-nuclear carbocyclic aryl radical which contains in the ortho-position respective to —azo— a member selected from the group consisting of a hydroxy, carboxy, methoxy and ethoxy group, w stands for a member selected from the group consisting of hydrogen, lower alkyl, lower alkoxy and carboxyacylamino, each of Me′ and Me″ stands for a metal selected from the group consisting of copper and nickel, n stands for one of the numerals 1, 2 and 3, and wherein the —N=N— group indexed (a) is in one of the positions 4 and 5 of the nucleus A.

2,783,224

SALTS OF 2,6-DIAMINO-3-PHENYLAZO-PYRIDINE

Daniel M. Green, Bronxville, and Bernard F. Duesel, Yonkers, N. Y., assignors to Nepera Chemical Co., Inc., Yonkers, N. Y., a corporation of New York

No Drawing. Application August 18, 1955, Serial No. 529,344

8 Claims. (Cl. 260—156)

1. The 2,6-diamino-3-phenylazo-pyridine salt of a member of the group consisting of 2-sulfanilamido-5-methyl-1,3,4-thiadiazole, N′-acetyl-sulfanilamide and N′-(3,4-dimethyl-5-isoxazolyl)-sulfanilamide.

2,783,225

AZO-DYESTUFFS INSOLUBLE IN WATER

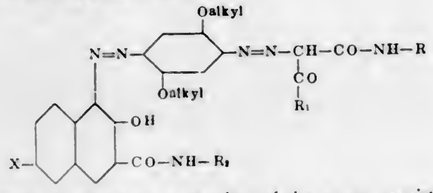
Gerhard Langbein, Hofheim, Taunus, Germany, assignor to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main, Germany, a company of Germany

No Drawing. Application October 27, 1953, Serial No. 388,683

Claims priority, application Germany November 3, 1952

7 Claims. (Cl. 260—176)

1. The water-insoluble azo-dyestuffs corresponding to the following general formula



wherein R represents a member of the group consisting of radicals of the benzene and naphthalene series, an anthraquinonyl, a cyclohexyl, benzyl, benzthiazole and carbazole radical, R_1 represents a member of the group consisting of methyl and phenyl, R_2 represents a member of the group consisting of radicals of the benzene and naphthalene series, and X stands for a member of the group consisting of hydrogen, methoxy and bromine.

2,783,226

ESTERS OF CORTICAL HORMONES

David H. Gould, Leonia, and Hershel L. Herzog, Mountain View, N. J., assignors to Schering Corporation, Bloomfield, N. J., a corporation of New Jersey

No Drawing. Application February 3, 1955, Serial No. 486,037

10 Claims. (Cl. 260—239.55)

1. 21-esters of Δ^1-cortical hormones of the group consisting of 1-dehydrocortisone and 1,4-pregnadiene-11β, 17α,21-triol-3,20-dione, with acids of the group consisting of phenyloxy-lower-alkanoic acids and furoic acid and the lower alkyl, lower alkoxy, chloro- and bromo-substitution products of said acids.

2,783,227

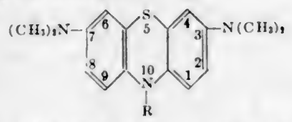
NAPHTHOYL LEUCO METHYLENE BLUE

Clyde S. Adams, Yellow Springs, Marjorie J. Cormack, Dayton, and Mary Lou Frazier, Springfield, Ohio, assignors to The National Cash Register Company, Dayton, Ohio, a corporation of Maryland

No Drawing. Application June 27, 1955, Serial No. 518,332

3 Claims. (Cl. 260—243)

1. 10 - naphthoyl - 3,7 - bis(dimethylamino)phenothiazine, having the structure



in which R is taken from the group consisting of 1-naphthoyl and 2-naphthoyl.

2,783,228

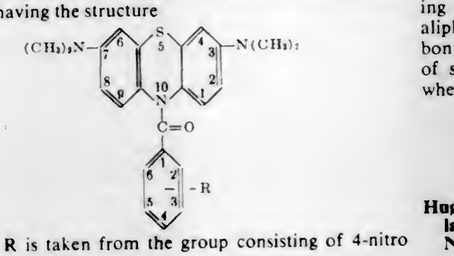
NITRO DERIVATIVES OF BENZOYL LEUCO METHYLENE BLUE

Clyde S. Adams, Yellow Springs, Marjorie J. Cormack, Dayton, and Mary Lou Frazier, Springfield, Ohio, assignors to The National Cash Register Company, Dayton, Ohio, a corporation of Maryland

No Drawing. Application June 27, 1955, Serial No. 518,333

3 Claims. (Cl. 260—243)

1. 10 - nitrobenzoyl - 3,7 - bis(dimethylamino)phenothiazine, having the structure



in which R is taken from the group consisting of 4-nitro and 3-nitro.

2,783,229

PRODUCTION OF 2-MERCAPTO-6-METHYL-PENTHIAZOLINE

Hans Tummes, Duisburg-Meiderich, Germany, assignor to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany, a corporation of Germany

No Drawing. Application March 1, 1954, Serial No. 413,458

Claims priority, application Germany March 3, 1953

3 Claims. (Cl. 260—243)

1. Process for the production of 2-mercapto-6-methyl-penthiazoline, which comprises reacting a mixed chlorination product obtained from the C-chlorination of n-butylamine with carbon disulfide and an alkali, and recovering the 2-mercapto-6-methyl-penthiazoline formed.

2,783,230

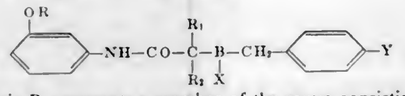
DERIVATIVES OF META HYDROXY ANILINE

Moses Wolf Goldberg, Upper Montclair, and Albert Israel Rachlin, Hackensack, N. J., assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application March 16, 1953, Serial No. 342,737

12 Claims. (Cl. 260—247.2)

1. A compound of the formula



wherein R represents a member of the group consisting of lower alkyl, lower alkenyl and benzyl radicals, R_1 and R_2 represent a member of the group consisting of hydrogen and lower alkyl radicals, B represents a member of the group consisting of di-lower alkyl-amino, 1-piperidino and 4-morpholino radicals, X represents an anion of a strong acid, and Y represents a member of the group consisting of hydrogen, halogen, nitro, methylsulfonyl and lower alkanoyl radicals.

2,783,231

SALTS OF NEW HARDENABLE, BASIC, TERNARY CONDENSATION PRODUCTS

Otto Albrecht, Neuewelt, near Basel, and Armin Hiestand, Basel, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application August 14, 1952, Serial No. 304,442

Claims priority, application Switzerland August 31, 1951

6 Claims. (Cl. 260—249.6)

6. A water-soluble salt of a hardenable basic ternary condensation product which has been obtained by heating together (a) a member selected from the group consisting of methylol compounds of aminotriazines, methylol compounds of urea, and ethers of the said methylol compounds with low-molecular aliphatic alcohols having at most 4 C-atoms, (b) an aliphatic compound which contains a carbon chain of at least 7 C-atoms selected from the group consisting of carboxylic acids, carboxylic acid-N-methylol-amides and N-methylol-urethanes, and (c) a member selected from the group consisting of water-soluble aliphatic low-molecular primary amines containing carbon chains of at most 4 C-atoms, water-soluble aliphatic low-molecular secondary amines containing carbon chains of at most 4 C-atoms and water-soluble salts of said amines with acids, and converting the product when obtained as base into the water-soluble salt.

2,783,232

PYRIDAZONE COMPOUNDS AND THEIR PREPARATION

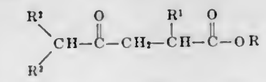
Hugo Gutmann, Birsfelden, and Otto Isler, Basel, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application March 25, 1955, Serial No. 496,923

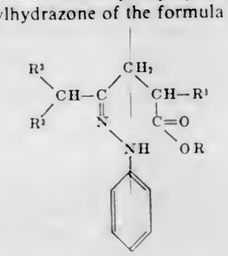
Claims priority, application Switzerland April 2, 1954

9 Claims. (Cl. 260—250)

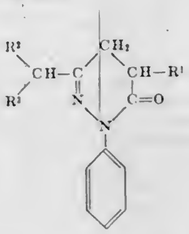
1. A process which comprises condensing a compound of the formula



wherein R represents a member selected from the group consisting of hydrogen and lower alkyl, R^1 represents lower alkyl, and R^2 and R^3 each represents a member selected from the group consisting of hydrogen and lower alkyl, the sum of the carbon atoms in $R^1+R^2+R^3$ being an integer from 2 to 3; with phenylhydrazine thereby producing a phenylhydrazone of the formula

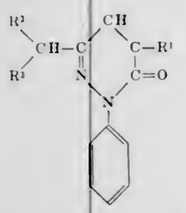


wherein R, R^1, R^2 and R^3 have the same meaning as above; cyclizing said phenylhydrazone, by heating it in weakly acidic medium, thereby producing a dihydropyridazone of the formula



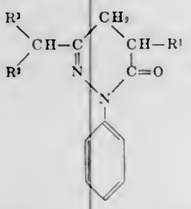
wherein R^1, R^2 and R^3 have the same meaning as above; and dehydrogenating the dihydropyridazone, by heating it with material selected from the group consisting of phosphorus oxychloride, phosphorus pentachloride and

mixtures thereof, thereby producing a compound of the formula



wherein R^1, R^2 and R^3 have the same meaning as above.

4. A compound of the formula



wherein R^1 represents lower alkyl, and R^2 and R^3 each represents a member selected from the group consisting of hydrogen and lower alkyl, the sum of the carbon atoms in $R^1+R^2+R^3$ being an integer from 2 to 3.

2,783,233

10-HYDROXYALKALOIDS AND METHOD OF MAKING

Henry Rapoport and Satoru Masamune, Berkeley, Calif., assignors to The Regents of the University of California, Berkeley, Calif.

No Drawing. Application January 13, 1956, Serial No. 558,831

9 Claims. (Cl. 260—285)

1. A 10-hydroxyalkaloid selected from the group consisting of 10-hydroxymorphine, O^3-allyl-10-hydroxymorphine and triacetyl-10-hydroxymorphine.

2,783,234

2[β-(3',4'-DIMETHOXYPHENYL)ETHYL]-4,6,7-TRIMETHOXYQUINOLINE

Kenneth N. Campbell, South Bend, Ind., assignor to Miles Laboratories, Inc., Elkhart, Ind., a corporation of Indiana

No Drawing. Application May 31, 1952, Serial No. 291,071

1 Claim. (Cl. 260—289)

2-(β-3'4'-dimethoxyphenyl)ethyl-4,6,7-trimethoxyquinoline.

2,783,235

PROCESS FOR TROPANE DERIVATIVES

Christoph J. Grundmann and Gerhard Ottmann, Columbus, Ohio, assignors to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application July 26, 1955, Serial No. 524,590

7 Claims. (Cl. 260—292)

1. The process of converting cycloheptatriene-carboxylic acid to a compound having the bicyclic tropane ring system characterized by the presence of one double bond and a carboxyl group which comprises reacting cycloheptatriene-carboxylic acid with a primary amine at a temperature of at least about 80° C.

2,783,236

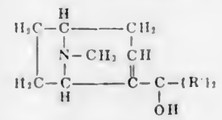
TROPENYL CARBINOLS

Christoph J. Grundmann and Gerhard Ottmann, Columbus, Ohio, assignors to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application July 26, 1955, Serial No. 524,589

3 Claims. (Cl. 260—292)

1. A tropenyl carbinol represented by the following formula:



where R' represents a member selected from the class consisting of lower alkyl and phenyl groups.

2,783,237

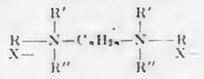
BIS-DIALKYLAMINOALKYLENE BIS-POLYCYCLIC AMMONIUM SALTS

Chester John Cavallito and Allan Poe Gray, Decatur, Ill., assignors to Irwin, Neisler and Company, Decatur, Ill., a corporation of Illinois

No Drawing. Application October 12, 1953, Serial No. 385,676

6 Claims. (Cl. 260—293)

1. A compound having the formula:



wherein R is selected from the group consisting of carbazylalkyl, fluorenyl and fluorenylalkyl, R' and R'' are selected from the group consisting of hydrogen and lower-alkyl containing up to six carbon atoms and wherein R' and R'' are joined together to form a piperidino ring *n* is an integer from three to twelve, inclusive, and X is an anion.

4. Hexamethylene bis-(9-fluorenylpiperidinium)dibromide.

2,783,238

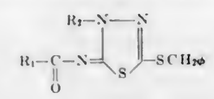
5-ACYLIMINO-4-MONONUCLEAR-ARYL-SUBSTITUTED-Δ^2-1,3,4 - THIADIAZOLINE-2-SULFIDES AND METHOD OF PREPARING THE SAME

Richard W. Young, Riverside, Kathryn H. Wood, Greenwich, and Melinda J. Muller, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application January 23, 1956, Serial No. 560,865

11 Claims. (Cl. 260—306.8)

1. 5 - acylimino - 4 - mononuclear-aryl-substituted-Δ^2-1,3,4-thiadiazoline-2-sulfides of the formula:



wherein R_1 is selected from the group consisting of a hydrogen atom, a lower alkyl radical and a phenyl-lower-alkyl, and R_2 is selected from the group consisting of phenyl, halo-substituted phenyl, lower alkyl-substituted phenyl, lower alkoxy-substituted phenyl, amido-substituted phenyl, and nitro-substituted phenyl radicals.

2,783,239

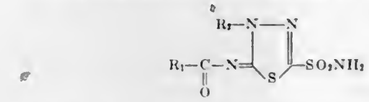
5-ACYLIMINO-4-MONONUCLEAR-ARYL-SUBSTITUTED-Δ^2-1,3,4-THIADIAZOLINE - 2 - SULFONAMIDES

Richard W. Young, Riverside, and Melinda J. Muller, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application January 23, 1956, Serial No. 560,866

10 Claims. (Cl. 260—306.8)

1. 5 - acylimino - 4 - mononuclear - aryl - substituted-Δ^2-1,3,4-thiadiazoline-2-sulfonamides of the formula:



wherein R_1 is selected from the group consisting of a hydrogen atom, a lower alkyl radical and a phenyl-lower-alkyl radical, and R_2 is selected from the group consisting of phenyl, halo-substituted phenyl, lower alkyl-substituted phenyl, lower alkoxy-substituted phenyl, amido-substituted phenyl, and nitro-substituted phenyl radicals.

2,783,240

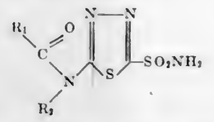
HETEROCYCLIC SULFONAMIDES

James Robert Vaughan, Jr., Darien, Kathryn Helen Wood, Old Greenwich, and Richard William Young, Riverside, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application March 4, 1955, Serial No. 492,296

8 Claims. (Cl. 260—306.8)

1. A compound selected from the group consisting of those having the general formula:



wherein R_1 and R_2 represent, interchangeably, a member selected from the group consisting of lower alkyl, monocyclic aralkyl and monocyclic aryl radicals.

2,783,241

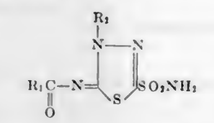
5-ACYLIMINO -4- SUBSTITUTED-Δ^2-1,3,4-THIADIAZOLINE-2-SULFONAMIDES AND METHODS FOR THEIR PREPARATION

Richard William Young, Riverside, Kathryn Helen Wood, Old Greenwich, and James Robert Vaughan, Jr., Darien, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application March 4, 1955, Serial No. 492,297

12 Claims. (Cl. 260—306.8)

1. A compound selected from the group consisting of those having the general formula:



wherein R_1 is a member selected from the group consisting of hydrogen atoms, lower alkyl and lower-alkyl and phenyl-lower-alkyl radicals and R_2 is a member selected from the group consisting of lower alkyl and phenyl-lower-alkyl radicals.

2,783,242

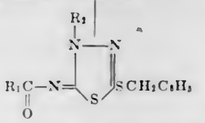
5-ACYLIMINO-4-SUBSTITUTED-2-BENZYL MERCAPTO-Δ^2-1,3,4-THIADIAZOLINES AND METHODS FOR THEIR PREPARATION

Richard William Young, Riverside, and Kathryn Helen Wood, Old Greenwich, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application March 4, 1955, Serial No. 492,298

15 Claims. (Cl. 260—306.8)

1. A compound selected from the group consisting of those having the general formula:



wherein R_1 is a member selected from the group consisting of hydrogen atoms, lower alkyl and phenyl-lower-alkyl radicals and R_2 is a member selected from the group consisting of lower alkyl and phenyl-lower-alkyl radicals.

2,783,243

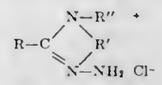
HETEROCYCLIC HYDRAZINIUM CHLORIDES

Bernard Rudner, Baltimore, Md., assignor to W. R. Grace & Co., New York, N. Y., a corporation of Connecticut

No Drawing. Application January 3, 1956, Serial No. 556,824

10 Claims. (Cl. 260—309.6)

1. New chemical compounds having the general formula:



wherein R is a member selected from the group consisting of higher alkyl and alkenyl radicals containing at least 9 and not more than 89 carbon atoms; R' is a hydrocarbon chain of not more than 5 carbon atoms containing 2 contiguous endocyclic carbon atoms; and R'' is a member selected from the group consisting of hydrogen, alkyl, hydroxyalkyl, β-aminoalkyl, and β-aminoalkylaminoalkyl substituents, wherein alkyl is a hydrocarbon chain of less than 5 carbon atoms.

2,783,244

PREPARATION OF N-ETHYLCARBAZOLE FROM ANTHRACENE PITCH

Saul R. Buc, Easton, Pa., David I. Randall, New Vernon, and Carl M. Smith, Westfield, N. J., and Robert D. Jackson, Binghamton, N. Y., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application February 9, 1956, Serial No. 564,362

2 Claims. (Cl. 260—318)

1. A process for the simultaneous purification of anthracene and carbazole comprising the steps in combination of solvent extracting a mixture of anthracene and carbazole from crude pitch, treating the extracted mixture of anthracene and carbazole with an aqueous ketone solution containing an alkali metal hydroxide and adding diethyl sulphate thereto, thereafter separating undissolved anthracene and precipitating N-ethylcarbazole by the addition of water to the filtrate.

2,783,245

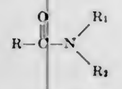
PROCESS OF PHTHALOYLATION AMINO ACIDS

Joseph Francis Weidenheimer, Pearl River, and Lawrence Ritter, Valley Cottage, N. Y., and Ferdinand Joseph Richter, Park Ridge, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application July 27, 1953, Serial No. 370,646

11 Claims. (Cl. 260—326)

1. A method of preparing alpha phthalimido acetic acids which comprises the step of heating together phthalic anhydride and an alpha amino acid in a solvent having the general formula:



in which R, R_1 and R_2 are radicals of the group consisting of hydrogen and lower alkyl radicals.

2,783,246

MANUFACTURE OF XANTHENE

John A. Crowder, Everett E. Gilbert, and Henry R. Nychka, Morristown, N. J., assignors to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York

Application May 2, 1955, Serial No. 505,442

9 Claims. (Cl. 260—335)

1. A process for the manufacture of xanthene which comprises heating a condensation product selected from the group consisting of a novolak which is a condensation product of phenol and formaldehyde, dihydroxydiphenyl methane and methylol phenol in the presence of free phenol and in the presence of a P_2O_5 catalyst selected from the group consisting of P_2O_5, hydrated P_2O_5 and reaction product of phenol with phosphorus pentoxide between a temperature above about 200° C. and below the decomposing temperature of xanthene for a sufficient length of time to convert said condensation product into xanthene.

2,783,247

INTERMEDIATES FOR THE PREPARATION OF 3,3-DIMETHYL-2,5 - DIOXO - PYRROLIDINE-4-PROPIONIC ACID COMPOUNDS AND PROCESS

Frederick A. Kuehl, Jr., Rumson, and Clifford H. Shunk, Scotch Plains, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application November 24, 1954, Serial No. 471,123

13 Claims. (Cl. 260—343.6)

1. The process which comprises reacting a lower alkyl isobutyrate in the form of its alkali metal enolate with a β-carboalkoxypropionyl halide in the presence of a strong enolizing agent to form the corresponding bis(lower alkyl) α,α-dimethyl-β-oxoadipate, reacting the latter compound with anhydrous hydrogen cyanide to form bis-(lower alkyl) 3-cyano-3-hydroxy-4-methylpentane-1,4-dicarboxylate, and reacting said bis(lower alkyl) 3-cyano-3-hydroxy-4-methylpentane-1,4-dicarboxylate with an acidic hydrolyzing agent, thereby forming 3-hydroxy-4-methylpentane-1,3,4-tricarboxylic acid lactone.

13. 3-hydroxy-4-methylpentane-1,3,4-tricarboxylic acid lactone.

2,783,248

PROCESS FOR PREPARING DINAPHTHO-[2,1,1',2']-FURAN-5,6-DIONE

Gosta Brunnstrom, Somerville, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 30, 1954, Serial No. 440,555

1 Claim. (Cl. 260—346.2)

The process of preparing dinaphtho-[2,1,1',2']-furan-5,6-dione which comprises heating beta-naphthol to between about 50° C. and 70° C. under substantially anhydrous conditions in the presence of between about one-half and three-fourths of the stoichiometric amount of a compound selected from the group consisting of alkali metal and alkaline earth metal hydroxides and in the presence of oxygen.

2,783,249

METHOD AND APPARATUS FOR OXIDIZING VOLATILIZABLE ORGANIC MATERIALS

Alphons O. Jaeger, Greenwich, and Stewart F. Williams, Wilton, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

Application April 16, 1953, Serial No. 349,294

1 Claim. (Cl. 260—346.4)

In a method of oxidizing vaporizable naphthalene hydrocarbons to phthalic anhydride which involves a highly exothermic reaction and which includes passing a stream containing naphthalene vapor and air in ratios of from 1 to 2 mol percent of naphthalene to air at an oxidizing temperature through a dense phase of a solid oxidation catalyst containing vanadium pentoxide maintained in a turbulent state of fluidization and then passing said stream through a dilute catalyst-disengaging phase, the improvement which comprises cooling the prior portion of said dense phase to a temperature of from about 320° C. to about 425° C. to control the oxidation of the naphthalene hydrocarbon to phthalic anhydride therein where adequate heat-exchange facilities for the exothermic reaction are present; and cooling the posterior portion of said dense phase to a temperature of from about 200° C. to about 300° C. to cool the stream passing therethrough to put an end to the oxidation reaction so that when said stream enters the dilute phase wherein adequate heat-exchange facilities for the exothermic reaction are not present it will be at a temperature lower than oxidation temperatures and insufficient to cause any uncontrollable reactions or any substantial decomposition of the phthalic anhydride.

2,783,250

UNSATURATED ESTERS OF EPOXY-SUBSTITUTED POLYCARBOXYLIC ACIDS AND POLYMERS

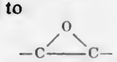
George B. Payne and Curtis W. Smith, Berkeley, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application June 28, 1954, Serial No. 439,907

11 Claims. (Cl. 260—348)

1. A neutral ester of (1) a diepoxy-substituted polycarboxylic acid which has not more than three carboxyl groups and is free from epoxy-blocking groups, consisting of a completely epoxidized diethylenic unsaturated unsubstituted polycarboxylic acid having 6 to 36 carbon atoms per molecule wherein the

groups are converted to



groups, and (2) an alcohol having an aliphatic carbon-to-carbon unsaturated linkage and containing 2 to 18 carbon atoms per molecule of the group consisting of the unsubstituted monohydric alcohols and their monochloro-substitution products.

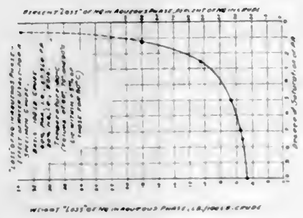
2,783,251

RECOVERY OF NAPHTHOQUINONE FROM CRUDE PRODUCT CONTAINING PHTHALIC ANHYDRIDE AND NAPHTHALENE

John Mayhew Sayward, Springdale, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

Application November 3, 1953, Serial No. 390,063

1 Claim. (Cl. 260—396)



A process for the recovery of naphthoquinone from a mixture of phthalic anhydride, naphthoquinone and naphthalene obtained by the controlled catalytic oxidation of naphthalene vapors with air and containing about 48–60% by weight of phthalic anhydride and about 20–29% of unchanged naphthalene, the balance being substantially all naphthoquinone, which comprises admixing sufficient water with said mixture at a temperature between about 80° C. and 90° C. to convert the phthalic anhydride to phthalic acid and to form an aqueous phthalic acid solution having a degree of saturation between about 75% and 100% and thereby forming a two-layer system consisting of an aqueous layer containing most of the phthalic acid and a non-aqueous naphthoquinone-naphthalene layer containing most of the naphthoquinone, and separating said layers and recovering the naphthaquinone from the non-aqueous layer.

2,783,252

MANUFACTURE OF 17-KETOSTEROIDS

Josef Schmidt-Thomé, Frankfurt am Main, Germany, assignor to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Application February 16, 1954, Serial No. 410,741

Claims priority, application Germany February 26, 1953

5 Claims. (Cl. 260—397.4)

1. The process for the preparation of a 17-ketosteroid selected from the group consisting of the androstane, etiocholane and etiocholene series by means of a Beckmann rearrangement which comprises subjecting a 17-hydroxy-20-ketosteroid oxime of a member selected from the group consisting of the allopregnane, pregnane and pregnene series to the action of a member selected from the group consisting of inorganic and organic acid chlorides and in the presence of a solvent.

2,783,253

CYCLOPENTANOPHENANTHRENE DERIVATIVES AND PROCESS FOR THE PRODUCTION THEREOF

Franz Sondheimer and George Rosenkranz, Mexico City, Mexico, assignors to Syntex S. A., Mexico City, Mexico, a corporation of Mexico

No Drawing. Application October 6, 1954, Serial No. 460,758

Claims priority, application Mexico October 7, 1953

3 Claims. (Cl. 260—397.4)

1. A process for the production of androstan-17β-ol-3,6-dione which comprises selectively forming the 3,6-diethyleneketal of androstan-3,6,17-trione, reducing the free 17-keto group of the diketal with a reducing agent to a 17β-hydroxy group to form the diethyleneketal of androstan-17β-ol-3,6-dione and subjecting this last mentioned compound to the action of a dilute acid to reconstitute the 3 and 6 keto groups.

2,783,254

PROCESS FOR THE MANUFACTURE OF 17α-HYDROXYCORTICOSTERONE AND INTERMEDIATES OBTAINED THEREBY

David H. Gould, Leonia, and Eugene P. Oliveto, Bloomfield, N. J., assignors to Schering Corporation, Bloomfield, N. J., a corporation of New Jersey

No Drawing. Application September 8, 1952, Serial No. 308,502

5 Claims. (Cl. 260—397.45)

2. A saturated allopregnan-11β,17α,21-triol-3,20-dione-21-ester of a lower alkanoic acid.

2,783,255

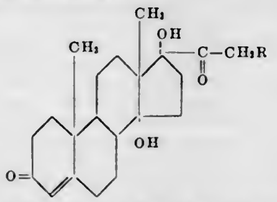
7,14α,17α,21-TETROXY PROGESTERONES

Gilbert M. Shull, Huntington Station, Donald A. Kita, Jackson Heights, and Jacob W. Davisson, Levittown, N. Y., assignors to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Application March 12, 1954, Serial No. 415,972

3 Claims. (Cl. 260—397.45)

1. A new steroid compound



having at the 7-position and at R substituents each of which is selected from the class consisting of —OH, —OOCH, —OOC—CH_3, —OOC—CH_2—CH_3, —OOC—C_6H_5, —OOC—CH_2—CH_2—COOH, —O—CH_3, —O—CH_2—CH_3, —O—C_6H_5 and —O—CH_2—O—CH_3.

2,783,256

TALLOW COLOR STABILIZATION

Rex J. Sims, La Grange, and De Witte Nelson, Elmhurst, Ill., assignors to Swift & Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application March 20, 1953, Serial No. 343,758

3 Claims. (Cl. 260—398.5)

1. In the treatment of tallow the method of inhibiting color reversion which comprises: decolorizing said tallow with propane and immediately thereafter adding to said tallow relatively small quantities of hexamethylenetetramine.

2,783,257

PREPARATION OF A HIGHER ALIPHATIC KETONE

Joseph Donald Surmatis, Pompton Plains, and Joseph Weber, Paterson, N. J., assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application March 3, 1954, Serial No. 413,962

6 Claims. (Cl. 260—410.9)

1. A process of making hexahydropseudoionone which comprises condensing 1-halo-3,7-dimethyl-2-octene with an acetoacetic ester, subjecting the condensation product to ketonic hydrolysis, and reducing the resulting ketone.

2,783,258
UNSATURATED ORGANIC COMPOUNDS AND THEIR PREPARATION

Walter D. Celmer, Glen Oaks, N. Y., assignor to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Application November 8, 1951, Serial No. 255,524
8 Claims. (Cl. 260—413)

1. A process which comprises condensing an acetylenic compound of the formula RC≡CM with a 2,3-unsaturated aliphatic aldehyde of the formula

$$R''CH{=}CR'{-}CHO$$

wherein R, R' and R'' are chosen from the group consisting of hydrogen and 1-to-10-carbon atom alkyl radicals, and M is a member of the class consisting of alkali metals and a Grignard group, contacting the resulting secondary alcohol with a halogenating reagent in the presence of an organic base, heating the so formed 1-halo-2-ene-4-yne compound with cuprous cyanide, hydrolyzing the nitrile thereby obtained, selectively hydrogenating the acetylenic bond of the resulting 3-ene,5-ynoic acid compound, and recovering the 3,5-dienic acid product.

2,783,259
METHOD OF EXTRACTING CARNAUBA-LIKE WAXES FROM CRUDE MONTAN WAXES

Willi Hessler, Wiesbaden, Germany

No Drawing. Application September 8, 1953, Serial No. 379,092
Claims priority, application Germany September 16, 1952
3 Claims. (Cl. 260—423)

1. A method of obtaining wax similar to carnauba wax from crude montan wax, which comprises treating a solution of the crude montain wax in an oxygenated solvent with an oxygen containing gas for several hours at a temperature between 70° and 100° C., separating the freed asphalt-like particles from the solution of wax and resin, cooling the solution to a low temperature to precipitate out a refined-wax, and separating the refined wax from the resin-containing mother liquor.

2,783,260
DEODORIZATION OF HYDROGENATED FATTY OILS

Dwight R. Merker, Chicago, Ill., assignor to Swift & Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application April 2, 1953, Serial No. 346,528
5 Claims. (Cl. 260—424)

1. The process of removing hydrogenation odors and flavors from fatty oils which comprises: adding concentrated phosphoric acid to a hydrogenated fatty oil in an amount greater than about 0.5 percent based on the weight of the oil; heating the mixture of acid and oil to a temperature of 60 to 95° C. for at least about one-half hour while subjecting said mixture to aeration and agitation; adding to the aerated mixture at said temperature an amount of bleaching earth; thereafter increasing the temperature of said mixture to about 130° C.–140° C. for at least about one-half hour while maintaining agitation, and then cooling and filtering the mixture to remove said bleaching earth and impurities absorbed therein.

2,783,261
POLYOXYGENATED CYCLIC COMPOUNDS

Lloyd H. Conover, Oakdale, Conn., assignor to Chas. Pfizer & Co., Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application March 4, 1953, Serial No. 340,411
12 Claims. (Cl. 260—438)

7. A 2-carboxyacylated tetralone, having at the 8 position a substituent selected from the class consisting of hydroxyl ester and ether groups.

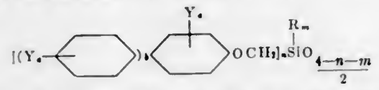
12. A polyvalent metallic complex of the product claimed in claim 7.

2,783,262
HALOPHENOXYSILOXANES

Robert L. Merker, Pittsburgh, Pa., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application November 22, 1954, Serial No. 470,532
5 Claims. (Cl. 260—448.2)

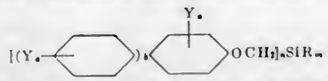
1. An organosilicon compound selected from the group consisting of (1) An organosiloxane having per molecule at least one siloxane unit of the formula



in which Y is selected from the group consisting of chlorine and bromine atoms, a has a value of from 1 to 5 inclusive, b has a value of from 0 to 1 inclusive, n has a value of from 1 to 2 inclusive, m has a value of from 0 to 3 inclusive, the sum of $a+b$ has a value of from 1 to 5 inclusive, the sum of $m+n$ has a value of from 1 to 3 inclusive, and R is selected from the group consisting of aryl, alkyl, aralkyl, cycloaliphatic, halogenated aryl, and alkenyl radicals, any remaining siloxane units in said organosiloxane being of the formula

$$R'_zSiO_{\frac{4-z}{2}}$$

in which R' is selected from the group consisting of alkyl, aryl, and alkenyl radicals, halogenated derivatives of such radicals, aralkyl and cycloaliphatic radicals, and hydrogen, and z is an integer of from 0 to 3 inclusive, and (2) an organosilane having the formula



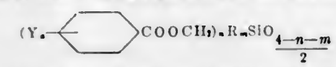
where R, Y, a, b, n, and m are as above-defined, the sum of $a+b$ having a value of from 1 to 5, inclusive, and the sum of $m+n$ having a value of 4

2,783,263
HALOCARBOXYSILANES

Robert L. Merker, Pittsburgh, Pa., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application November 22, 1954, Serial No. 470,531
8 Claims. (Cl. 260—448.2)

8. An organosilicon compound selected from the group consisting of (1) organosiloxane polymers having per molecule at least one siloxane unit of the formula

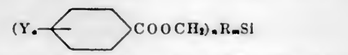


in which Y is selected from the group consisting of chlorine and bromine, a is an integer from 1 to 5, inclusive, n is an integer from 1 to 2, inclusive, m is an integer from 0 to 3, inclusive, $m+n$ has a value of from 1 to 3, inclusive, and R is selected from the group consisting of alkyl, aryl, aralkyl, cycloaliphatic, halogenated aryl and alkenyl radicals, any remaining siloxane units in said polymer being of the formula

$$R'_zSiO_{\frac{4-z}{2}}$$

in which R' is selected from the group consisting of alkyl, aryl and alkenyl radicals, halogenated derivatives of any

of such radicals, aralkyl and cycloaliphatic radicals and hydrogen atoms, and z is an integer of from 0 to 3, inclusive, and (2) organosilicon compounds having the formula



in which Y, a, n, and m are as above defined and $m+n$ has a value of 4.

2,783,264
PREPARATION OF NITRILES FROM AMIDES

William J. Klapproth, Jr., Cranford, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application March 21, 1955, Serial No. 495,757
4 Claims. (Cl. 260—465)

1. A method of producing nitriles from amides which comprises heating an amide selected from the group consisting of alkanoic, alkenoic and aromatic carboxylic acid amides with a compound selected from the group consisting of diammonium imidodisulfonate and triammonium nitrilotrisulfonate to above about 150° C. to form the corresponding nitrile, and recovering said nitrile.

2,783,265
PREPARATION OF PHENYLACETONITRILES

Marrine A. Terpstra, Kirkwood, Mo., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 20, 1954, Serial No. 476,560
8 Claims. (Cl. 260—465)

1. In the process for preparing a phenylacetonitrile by the reaction of a benzyl halide with an alkali metal cyanide, the steps comprising adding a solution of a benzyl halide dissolved in a water immiscible solvent to an aqueous solution containing alkali metal cyanide and a N,N-dialkyl cyclohexylamine heated to its reflux temperature and maintaining the resulting mixture at its reflux temperature.

2,783,266
PRODUCTION OF NITRILES

William G. Toland, Jr., San Rafael, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application May 19, 1953, Serial No. 356,097
6 Claims. (Cl. 260—465)

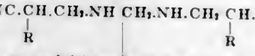
1. A process for producing nitriles which comprises heating a substantially anhydrous mixture of sulfur, ammonia and a lower alkyl benzene in a closed reaction zone to a temperature in the range from 400 to 700° F. until a superatmospheric hydrogen sulfide pressure is generated in the reaction zone, maintaining the reaction product mixture at approximately reaction temperature and withdrawing vapors from the reaction mixture until the effluent vapors are substantially free of hydrogen sulfide.

2,783,267
PROCESS OF MAKING METHYLENE-BIS-AMINO CARBOXYLIC-ACID NITRILES

Rudolf Lotz, Klingenberg (Main), Germany, assignor to Vereinigte Glanzstoff-Fabriken Aktiengesellschaft, Wuppertal-Elberfeld, Germany, a joint-stock company under German law

No Drawing. Application December 30, 1953, Serial No. 401,361
Claims priority, application Germany February 5, 1953
4 Claims. (Cl. 260—465.5)

1. The process of producing methylene-bis-aminocarboxylic acid nitriles



wherein R is a variable selected from the group consisting of H, CH_3, Cl, comprising reacting a compound selected from the group consisting of nitriles of acrylic acid and the α-substituted methyl and chloro derivatives thereof with formaldehyde and ammonia in the gas phase at a temperature, where the reactants exist in the gas phase.

2,783,268
PRODUCTION OF ADIPONITRILE

Harry B. Copelin and Frederick J. Feldhousen, Jr., Niagara Falls, N. Y., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 25, 1955, Serial No. 524,291
7 Claims. (Cl. 260—465.8)

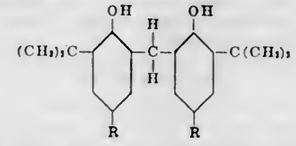
1. The method of producing adiponitrile which comprises reacting a dissolved alkali metal cyanide and 1,4-dichlorobutane at 95–120° C. and autogenous pressure in a reaction mixture comprising the cyanide, 1,4-dichlorobutane, preformed adiponitrile and about 45–65% by weight of water, permitting the spent reaction mixture to stand and divide into a lower brine and an upper organic layer, separating the layers by decantation and recovering product adiponitrile from the organic layer.

2,783,269
STABILIZATION OF ACRYLONITRILE

Maurice Peter Bellis, Stamford, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application March 30, 1955, Serial No. 498,101
8 Claims. (Cl. 260—465.9)

1. A method of inhibiting the polymerization of acrylonitrile without discoloration which comprises incorporating therein at least 0.5 part per million of at least one compound having the formula



in which R is selected from the group consisting of methyl and ethyl.

2,783,270
POLYHYDRIC ALCOHOL ESTERS OF ACIDS FORMED BY OXIDATION OF HYDROCARBONS

Orville L. Polly and Orin D. Cunningham, Long Beach, Calif., assignors to Union Oil Company of California, Los Angeles, Calif., a corporation of California

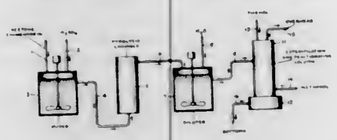
No Drawing. Application December 8, 1950, Serial No. 199,916
11 Claims. (Cl. 260—485)

1. A composition of matter suitable for use as a plasticizing agent for synthetic resins comprising a mixture of esters of a polyhydroxy alcohol having 2 to 6 hydroxyl groups and a water-insoluble fraction of oxidized paraffin wax having an acid number between about 130 and about 350 mg. KOH/g., said fraction being obtained from an oxidized paraffin wax obtained by oxidizing a refined paraffin wax having a melting point between about 43° C. and about 95° C. in the liquid phase with a gas containing free oxygen at a temperature between 100° C. and 140 C. until the acid number of the product is between about 200 and about 350 mg. KOH/g.

2,783,271
CONTINUOUS PRODUCTION OF METHACRYLIC ACID ESTERS

John C. Eck, Convent, and Steven J. Tunkel, Morristown, N. J., assignors to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York

Application June 29, 1954, Serial No. 440,054
7 Claims. (Cl. 260—486)



1. In the process for the production of a methacrylic acid ester by reacting acetone cyanohydrin with sulfuric acid, pyrolyzing the resulting reaction product and continuously subjecting the pyrolyzed material to reaction with an alcohol in an esterification and fractionating column to produce methacrylic acid ester-containing distillate and ammonium acid sulfate-containing bottoms with concomitant formation of semi-solid polymers, the improvement which comprises establishing excess esterifying alcohol over that theoretically required to esterify the pyrolyzed material, periodically cooling the upper portion of the esterification and fractionating the column sufficiently to establish substantial alcohol reflux, maintaining such cooled condition until reflux alcohol containing the semi-solid polymers flows into the bottoms for vaporization therein to leave the semi-solid polymers in the bottoms, and discharging the semi-solid polymers with the bottoms.

2,783,272
PRODUCTION OF FORMAMIDINE SULFINIC ACID

James H. Young, Niagara Falls, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 8, 1956, Serial No. 583,363
6 Claims. (Cl. 260—500)

1. In a method for producing formamidine sulfinic acid wherein hydrogen peroxide and thiourea are reacted in an aqueous slurry of formamidine sulfinic acid, the improvement comprising maintaining said slurry at a pH within the range 2 to 6 while adding the thiourea and hydrogen peroxide reactants separately to said slurry at such relative rates as will maintain in said slurry during substantially the entire reaction period an excess of thiourea not exceeding a concentration of 5% of unreacted thiourea in the liquid phase of said slurry.

2,783,273
SULFONATION OF PETROLEUM OILS

Guy M. Verley, Harvey, Ill., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine

No Drawing. Application July 1, 1952, Serial No. 296,709
2 Claims. (Cl. 260—504)

1. In the sulfonation of petroleum oils having a viscosity of about 100 to 300 SSU at 100° F., the method which comprises contacting the oil feed and a chlorinated hydrocarbon solvent containing not more than two carbon atoms with a sulfonating agent which consists essentially of sulfur trioxide at a temperature of about 30° to 90° F., removing the chlorinated solvent from the reaction mixture by distillation, separating oil-insoluble sludge and recovering the sulfonated oil.

2,783,274
METHOD OF MAKING SERINE

Halbert C. White and Don V. Wysong, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application November 9, 1953, Serial No. 391,146
5 Claims. (Cl. 260—534)

1. A method which comprises (1) reacting bromine with acrylamide to form alpha,beta-dibromo-propionamide, (2) reacting the alpha,beta-dibromo-propionamide with a metal alkoxide in the presence of more than the stoichiometric amount of the latter at temperatures which, toward the end of the reaction, are between 0° and 40° C. whereby an alpha-bromo-beta-alkoxy-propionamide is formed, (3) reacting the latter with ammonia to form an alpha-amino-beta-alkoxy-propionamide, and (4) hydrolyzing the alpha-amino-beta-alkoxy-propionamide by heating the same together with an aqueous solution of at least one acid selected from the class consisting of hydrochloric acid and hydrobromic acid.

2,783,275
PROCESS OF PREPARING VINYLSULFOFLUORIDE

Otto Scherer and Paul Fritz Schächer, Frankfurt am Main, Germany, assignors to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main, Germany, a German company

No Drawing. Application September 10, 1953, Serial No. 379,477
5 Claims. (Cl. 260—543)

1. In the process for preparing vinylsulfofluoride, the step which comprises causing anhydrous alkali fluoride to act upon a compound of the formula

$$ClCH_2—CH_2—SO_2X,$$

in which X stands for a substituent of the group consisting of chlorine and fluorine at a temperature between about 50° C. and about 150° C.

2,783,276
PREPARATION OF GUANIDINE SALTS AND SUBSTITUTED GUANIDINE SALTS

Leslie G. Boatright, Stamford, Conn., and Johnstone S. Mackay, Pittsburgh, Pa., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application November 22, 1955, Serial No. 548,526
12 Claims. (Cl. 260—564)

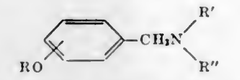
1. A method of preparing guanidine salts which comprises the steps of: forming a reactant mixture comprising an inert, inorganic, heat-stable porous adsorbent gel, a urea selected from the group consisting of urea, and the N-alkyl and N,N-dialkyl ureas wherein the alkyl radicals contain 1–6 carbon atoms a member of the group consisting of the nitrate, phosphate, chloride, citric, acetate and oxalate salts of ammonia, the ratio of the weight of absorbent gel to the total weight of the urea plus the ammonium salt ranging from about 1:10 to about 10:1, heating said reactant mixture at a temperature of from about 175°–300° C. for sufficient time to form a guanidine salt, and collecting so-formed guanidine salt.

2,783,277
TERTIARY N,N-DIALKYL BENZYL AMINES

Rudolf Hiltmann, Wuppertal-Elberfeld, Germany, assignor to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application February 17, 1954, Serial No. 411,000
Claims priority, application Germany February 18, 1953
6 Claims. (Cl. 260—570.9)

1. As a new chemical compound, a tertiary N,N-dialkylbenzylamine of the general formula



in which the RO group is in one of the 3 and 4 position, R is a member selected from the group consisting of lower alkyl radicals containing 3–5 carbon atoms and the benzyl radical, and R′ and R″ are lower alkyl radicals.

2,783,278
PURIFICATION OF O-NITRODIPHENYLAMINE

Jack Horstmann Thelin, Somerville, Herman Cherlow, North Plainfield, and Frederic Houghton Megson, Bound Brook, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application April 20, 1954, Serial No. 424,494
6 Claims. (Cl. 260—576)

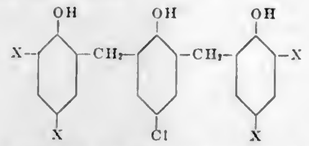
1. The method of purifying o-nitrodiphenylamine which comprises contacting, at a temperature not in excess of 80° C., a solid mixture comprising o-nitrodiphenylamine contaminated with phenazine with an aqueous solution of an acid selected from the group consisting of sulfuric, hydrochloric, phosphoric, hydrobromic, acetic, chloroacetic, trichloroacetic, formic, and propionic acids, the temperature and acid strength being such that a water-soluble salt of phenazine with said acid is formed, and that a water-soluble salt of o-nitrodiphenylamine is not formed, and separating the purified solid o-nitrodiphenylamine from the solution containing the salt of phenazine.

2,783,279
HALOGENATED TRIS PHENOL GERMICIDAL COMPOUNDS

Max E. Chiddix, Easton, Pa., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application November 29, 1955, Serial No. 549,888
7 Claims. (Cl. 260—619)

1. Compounds selected from the group consisting of those having the formula



wherein X is selected from the group consisting of chlorine and bromine, and the metal and amine salts thereof.

2,783,280
METHYL-(2-CHLOROETHYL)-PROPARGYL-CARBINOL

Otto Isler, Basel, and Paul Zeller, Neuallschwil, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application June 7, 1954, Serial No. 435,037
Claims priority, application Switzerland June 12, 1953
1 Claim. (Cl. 260—633)

Methyl-(2-chloroethyl)-propargyl-carbinol.

2,783,281
ETHYL-CHLOROMETHYL-PROPARGYL-CARBINOL

Otto Isler, Basel, and Paul Zeller, Neuallschwil, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application June 7, 1954, Serial No. 435,036
Claims priority, application Switzerland June 12, 1953
1 Claim. (Cl. 260—633)

Ethyl chloromethyl-propargyl-carbinol.

2,783,282
DI-CHLOROMETHYL-PROPARGYL-CARBINOL

Otto Isler, Basel, and Paul Zeller, Neuallschwil, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application June 7, 1954, Serial No. 435,034
Claims priority, application Switzerland June 12, 1953
1 Claim. (Cl. 260—633)

Di-chloromethyl-propargyl-carbinol.

2,783,283
HYDROGENOLYSIS OF DIALDEHYDE STARCH TO ERYTHRITOL AND ETHYLENE GLYCOL

John W. Sloan, Bernard T. Hofreiter, Charles L. Mehltretter, and Ivan A. Wolff, Peoria, Ill., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application November 25, 1955, Serial No. 549,206
12 Claims. (Cl. 260—635)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. The method of producing a mixture of erythritol and ethylene glycol which comprises subjecting to hydrogen under superatmospheric pressure an aqueous preparation of alkali dispersed dialdehyde starch, said preparation having a dialdehyde starch content of 10 to 50 percent yet being in a mobile, highly-fluid state, in the presence of a hydrogenation catalyst at a temperature within the range of 150 to 230° C., maintaining said condition of temperature and pressure for a period of 1 to 12 hours, and separating the reaction product comprising erythritol and ethylene glycol from said catalyst.

2,783,284
CHLORINATION OF BIS(CHLOROPHENYL) METHANE

W E Craig and Edward F. Riener, Philadelphia, Pa., and Harold F. Wilson, Moorestown, N. J., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application October 5, 1953, Serial No. 384,322
2 Claims. (Cl. 260—649)

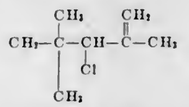
1. The process of preparing α-dichlorobis(p-chlorophenyl)methane which comprises reacting two moles of chlorine with a mole of bis(p-chlorophenyl)methane in an inert organic solvent between 0° and 75° C. under the influence of a free radical initiator.

2,783,285
PROCESS OF CHLORINATING DIISOBUTYLENE

Robert R. Chambers and Robert L. Foster, Park Forest, Ill., assignors to Sinclair Refining Company, New York, N. Y., a corporation of Maine

No Drawing. Application March 3, 1953, Serial No. 340,152
2 Claims. (Cl. 260—654)

1. A process of chlorinating 2,4,4-trimethylpentene-2 to yield

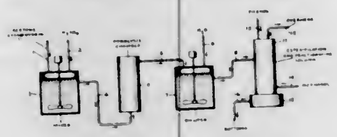


which comprises contacting liquid 2,4,4-trimethylpen-

2,783,271
CONTINUOUS PRODUCTION OF METHACRYLIC ACID ESTERS

John C. Eck, Convent, and Steven J. Tunkel, Morristown, N. J., assignors to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York

Application June 29, 1954, Serial No. 440,054
7 Claims. (Cl. 260—486)



1. In the process for the production of a methacrylic acid ester by reacting acetone cyanohydrin with sulfuric acid, pyrolyzing the resulting reaction product and continuously subjecting the pyrolyzed material to reaction with an alcohol in an esterification and fractionating column to produce methacrylic acid ester-containing distillate and ammonium acid sulfate-containing bottoms with concomitant formation of semi-solid polymers, the improvement which comprises establishing excess esterifying alcohol over that theoretically required to esterify the pyrolyzed material, periodically cooling the upper portion of the esterification and fractionating the column sufficiently to establish substantial alcohol reflux, maintaining such cooled condition until reflux alcohol containing the semi-solid polymers flows into the bottoms for vaporization therein to leave the semi-solid polymers in the bottoms, and discharging the semi-solid polymers with the bottoms.

2,783,272
PRODUCTION OF FORMAMIDINE SULFINIC ACID

James H. Young, Niagara Falls, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 8, 1956, Serial No. 583,363
6 Claims. (Cl. 260—500)

1. In a method for producing formamidine sulfinic acid wherein hydrogen peroxide and thiourea are reacted in an aqueous slurry of formamidine sulfinic acid, the improvement comprising maintaining said slurry at a pH within the range 2 to 6 while adding the thiourea and hydrogen peroxide reactants separately to said slurry at such relative rates as will maintain in said slurry during substantially the entire reaction period an excess of thiourea not exceeding a concentration of 5% of unreacted thiourea in the liquid phase of said slurry.

2,783,273
SULFONATION OF PETROLEUM OILS

Guy M. Verley, Harvey, Ill., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine

No Drawing. Application July 1, 1952, Serial No. 296,709
2 Claims. (Cl. 260—504)

1. In the sulfonation of petroleum oils having a viscosity of about 100 to 300 SSU at 100° F., the method which comprises contacting the oil feed and a chlorinated hydrocarbon solvent containing not more than two carbon atoms with a sulfonating agent which consists essentially of sulfur trioxide at a temperature of about 30° to 90° F., removing the chlorinated solvent from the reaction mixture by distillation, separating oil-insoluble sludge and recovering the sulfonated oil.

2,783,274
METHOD OF MAKING SERINE

Halbert C. White and Don V. Wysong, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application November 9, 1953, Serial No. 391,146
5 Claims. (Cl. 260—534)

1. A method which comprises (1) reacting bromine with acrylamide to form alpha,beta-dibromo-propionamide, (2) reacting the alpha,beta-dibromo-propionamide with a metal alkoxide in the presence of more than the stoichiometric amount of the latter at temperatures which, toward the end of the reaction, are between 0° and 40° C. whereby an alpha-bromo-beta-alkoxy-propionamide is formed, (3) reacting the latter with ammonia to form an alpha-amino-beta-alkoxy-propionamide, and (4) hydrolyzing the alpha-amino-beta-alkoxy-propionamide by heating the same together with an aqueous solution of at least one acid selected from the class consisting of hydrochloric acid and hydrobromic acid.

2,783,275
PROCESS OF PREPARING VINYLSULFOFLUORIDE

Otto Scherer and Paul Fritz Schächer, Frankfurt am Main, Germany, assignors to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main, Germany, a German company

No Drawing. Application September 10, 1953, Serial No. 379,477
5 Claims. (Cl. 260—543)

1. In the process for preparing vinylsulfofluoride, the step which comprises causing anhydrous alkali fluoride to act upon a compound of the formula

$$ClCH_2—CH_2—SO_2X,$$

in which X stands for a substituent of the group consisting of chlorine and fluorine at a temperature between about 50° C. and about 150° C.

2,783,276
PREPARATION OF GUANIDINE SALTS AND SUBSTITUTED GUANIDINE SALTS

Leslie G. Boatright, Stamford, Conn., and Johnstone S. Mackay, Pittsburgh, Pa., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application November 22, 1955, Serial No. 548,526
12 Claims. (Cl. 260—564)

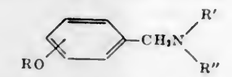
1. A method of preparing guanidine salts which comprises the steps of: forming a reactant mixture comprising an inert, inorganic, heat-stable porous adsorbent gel, a urea selected from the group consisting of urea, and the N-alkyl and N,N-dialkyl ureas wherein the alkyl radicals contain 1–6 carbon atoms a member of the group consisting of the nitrate, phosphate, chloride, citric, acetate and oxalate salts of ammonia, the ratio of the weight of absorbent gel to the total weight of the urea plus the ammonium salt ranging from about 1:10 to about 10:1, heating said reactant mixture at a temperature of from about 175°–300° C. for sufficient time to form a guanidine salt, and collecting so-formed guanidine salt.

2,783,277
TERTIARY N,N-DIALKYL BENZYL AMINES

Rudolf Hiltmann, Wuppertal-Elberfeld, Germany, assignor to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application February 17, 1954, Serial No. 411,000
Claims priority, application Germany February 18, 1953
6 Claims. (Cl. 260—570.9)

1. As a new chemical compound, a tertiary N.N-dialkylbenzylamine of the general formula



in which the RO group is in one of the 3 and 4 position, R is a member selected from the group consisting of lower alkyl radicals containing 3–5 carbon atoms and the benzyl radical, and R′ and R″ are lower alkyl radicals.

2,783,278
PURIFICATION OF O-NITRODIPHENYLAMINE

Jack Horstmann Thelin, Somerville, Herman Cherlow, North Plainfield, and Frederic Houghton Megson, Bound Brook, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application April 20, 1954, Serial No. 424,494
6 Claims. (Cl. 260—576)

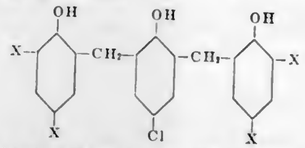
1. The method of purifying o-nitrodiphenylamine which comprises contacting, at a temperature not in excess of 80° C., a solid mixture comprising o-nitrodiphenylamine contaminated with phenazine with an aqueous solution of an acid selected from the group consisting of sulfuric, hydrochloric, phosphoric, hydrobromic, acetic, chloroacetic, trichloroacetic, formic, and propionic acids, the temperature and acid strength being such that a water-soluble salt of phenazine with said acid is formed, and that a water-soluble salt of o-nitrodiphenylamine is not formed, and separating the purified solid o-nitrodiphenylamine from the solution containing the salt of phenazine.

2,783,279
HALOGENATED TRIS PHENOL GERMICIDAL COMPOUNDS

Max E. Chiddix, Easton, Pa., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application November 29, 1955, Serial No. 549,888
7 Claims. (Cl. 260—619)

1. Compounds selected from the group consisting of those having the formula



wherein X is selected from the group consisting of chlorine and bromine, and the metal and amine salts thereof.

2,783,280
METHYL-(2-CHLOROETHYL)-PROPARGYL-CARBINOL

Otto Isler, Basel, and Paul Zeller, Neuallschwil, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application June 7, 1954, Serial No. 435,037
Claims priority, application Switzerland June 12, 1953
1 Claim. (Cl. 260—633)

Methyl-(2-chloroethyl)-propargyl-carbinol.

2,783,281
ETHYL-CHLOROMETHYL-PROPARGYL-CARBINOL

Otto Isler, Basel, and Paul Zeller, Neuallschwil, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application June 7, 1954, Serial No. 435,036
Claims priority, application Switzerland June 12, 1953
1 Claim. (Cl. 260—633)

Ethyl chloromethyl-propargyl-carbinol.

2,783,282
DI-CHLOROMETHYL-PROPARGYL-CARBINOL

Otto Isler, Basel, and Paul Zeller, Neuallschwil, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application June 7, 1954, Serial No. 435,034
Claims priority, application Switzerland June 12, 1953
1 Claim. (Cl. 260—633)

Di-chloromethyl-propargyl-carbinol.

2,783,283
HYDROGENOLYSIS OF DIALDEHYDE STARCH TO ERYTHRITOL AND ETHYLENE GLYCOL

John W. Sloan, Bernard T. Hofreiter, Charles L. Mehltretter, and Ivan A. Wolff, Peoria, Ill., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application November 25, 1955, Serial No. 549,206
12 Claims. (Cl. 260—635)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. The method of producing a mixture of erythritol and ethylene glycol which comprises subjecting to hydrogen under superatmospheric pressure an aqueous preparation of alkali dispersed dialdehyde starch, said preparation having a dialdehyde starch content of 10 to 50 percent yet being in a mobile, highly-fluid state, in the presence of a hydrogenation catalyst at a temperature within the range of 150 to 230° C., maintaining said condition of temperature and pressure for a period of 1 to 12 hours, and separating the reaction product comprising erythritol and ethylene glycol from said catalyst.

2,783,284
CHLORINATION OF BIS(CHLOROPHENYL) METHANE

W E Craig and Edward F. Riener, Philadelphia, Pa., and Harold F. Wilson, Moorestown, N. J., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application October 5, 1953, Serial No. 384,322
2 Claims. (Cl. 260—649)

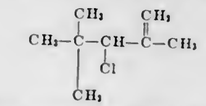
1. The process of preparing α-dichlorobis(p-chlorophenyl)methane which comprises reacting two moles of chlorine with a mole of bis(p-chlorophenyl)methane in an inert organic solvent between 0° and 75° C. under the influence of a free radical initiator.

2,783,285
PROCESS OF CHLORINATING DIISOBUTYLENE

Robert R. Chambers and Robert L. Foster, Park Forest, Ill., assignors to Sinclair Refining Company, New York, N. Y., a corporation of Maine

No Drawing. Application March 3, 1953, Serial No. 340,152
2 Claims. (Cl. 260—654)

1. A process of chlorinating 2,4,4-trimethylpentene-2 to yield

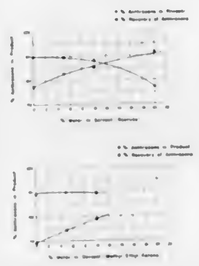


which comprises contacting liquid 2,4,4-trimethylpen-

tene-2 with chlorine while maintaining the temperature of the reacting mixture from about 90° C. to about 110° C., and removing from the reacting mixture substantially as it is formed the hydrogen chloride evolved during the reaction.

2,783,286
CATALYTIC PROCESS FOR THE CONVERSION OF HYDROGEN CHLORIDE TO CHLORINE
Malcolm Bryan Reynolds, Snyder, N. Y., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
No Drawing. Application July 22, 1952, Serial No. 300,351
8 Claims. (Cl. 260—659)

2. A process for the conversion of hydrogen chloride to chlorine and simultaneous production of chlorinated hydrocarbon products by chlorination of hydrocarbon gases which comprises contacting a hydrocarbon gas with hydrogen chloride and an oxygen-bearing gas in a reaction zone at elevated temperature in the presence of a copper silicate-siliceous base catalyst which consists essentially of about 2 to about 10 weight percent of copper silicate incorporated in a porous adsorptive siliceous base.

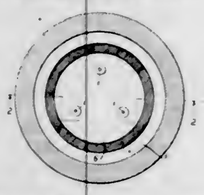


2,783,287
PURIFICATION OF CRUDE ANTHRACENE
Kenneth R. Nickolls, Monson, Mass., and Virgil C. Williams, Easton, Pa., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
Application September 29, 1952, Serial No. 311,978
6 Claims. (Cl. 260—675)

1. The process of purifying crude anthracene salts containing 24 to 45% anthracene which consists of extracting the impurities therefrom with a solvent selected from the group consisting of liquid alkanols, liquid ketones, and liquid glycols having 1 to 4, 3 to 7, and 2 to 6 carbon atoms, respectively, the said solvent containing from about 5 to about 10% water, at a temperature ranging from 20 to 35° C., filtering and drying the extracted crude, and then subjecting it to a fractional distillation in a multiplate column at a selected pressure of 100 to 600 mm. of mercury at a selected pot temperature of 265° to 360° C. and a selected head temperature of 250 to 330° C., which selected temperatures are above the boiling point of the anthracene at the selected pressure.

ELECTRICAL

2,783,288
ELECTRIC SLAG RESISTANCE FURNACE
Vincenzo Acquarone, Turin, Italy
Application December 9, 1953, Serial No. 397,156
Claims priority, application Italy December 13, 1952
7 Claims. (Cl. 13—23)

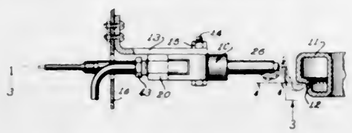


1. In an electric slag resistor furnace, having a receptacle for the slag bath and three electrodes extending into said slag bath, in combination, means at least partially immersed in the slag bath and encircling all of said electrodes.

2,783,289
IGNITION SYSTEM FOR COMBUSTION ENGINES
Wytze Beye Smits, Voorburg, Netherlands, assignor to Smitsvonk N. V., Rijswijk, Netherlands, a company
Application April 10, 1952, Serial No. 281,543
3 Claims. (Cl. 123—148)

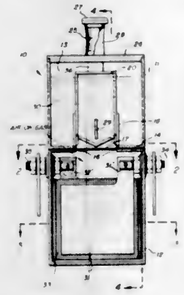
1. In an ignition system for low voltage surface discharge spark plugs which are adapted to be operated on condenser discharge, comprising a distributor cam driven directly by an engine shaft, a circuit interrupter operated by said cam, said circuit interrupter operable to charge an ignition condenser, a distributor, means for shifting the position of said distributor to vary the time of discharge of the condenser through the spark plugs, said last-named means operating independently of the timing of the distributor cam and circuit interrupter.

2,783,290
PILOT BURNER-THERMOELECTRIC GENERATOR ASSEMBLY
Stephen L. Kile, Whitefish Bay, Wis., assignor to Milwaukee Gas Specialty Company, Milwaukee, Wis., a corporation of Wisconsin
Application April 5, 1954, Serial No. 420,782
18 Claims. (Cl. 136—4)



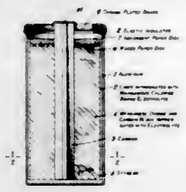
3. A pilot burner-thermoelectric generator assembly, comprising, a horizontally disposed thermoelectric generator having a side wall and having a hot junction at one end, a jacket on said generator forming therewith a fuel passage, means for causing fuel flow through said fuel passage, said jacket terminating short of said hot junction and having a bottom wall portion spaced below said generator side wall and an end wall adjacent said hot junction, said bottom wall portion being formed with an opening adjacent said end wall, and said end wall being cut away at said opening, said bottom opening having a width substantially greater than the spacing between said bottom wall portion and said generator side wall and providing with said generator side wall an elongated flame port having a length substantially coextensive with the length of said opening margin and a width substantially coextensive with the spacing between said bottom wall portion and said generator side wall at said opening margin, said flame port providing for emission of fuel therefrom along said generator side wall and inwardly from said opening margin, whereby ignition of fuel at said flame port produces a clean, stable, ball-shaped flame lying under and wiping the underside of said generator adjacent said hot junction.

2,783,291
LIQUID-FILLING DEVICE
Charles M. Gold, Rego Park, N. Y., assignor, by mesne assignments, to Yardney International Corp., New York, N. Y., a corporation of New York
Application October 18, 1952, Serial No. 315,508
15 Claims. (Cl. 136—90)



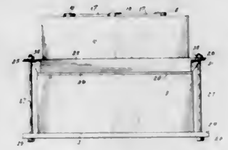
1. A device for admitting liquid from a first compartment into a second compartment originally separated from said first compartment, comprising partition means between said compartments including a frangible membrane, a perforating member displaceable toward said membrane and having at least one edge adapted to cut a flap-like portion from said membrane while leaving one side of said portion connected with the remainder of said membrane, pusher means on said member so positioned adjacent said edge as to deflect said portion with respect to said remainder, thereby forming a hole in said membrane for the passage of liquid from said first compartment into said second compartment, and operating means for displacing said perforating member.

2,783,292
PRIMARY CELL
Samuel Ruben, New Rochelle, N. Y.
Application December 24, 1952, Serial No. 327,823
6 Claims. (Cl. 136—100)



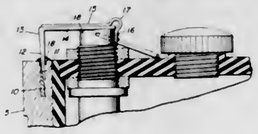
1. An electric current producing cell comprising an anode of aluminum, an electrolyte composed of an aqueous solution of a halogen salt of an element selected from the group consisting of manganese, nickel and cobalt plus a borate of an alkali metal, said electrolyte having a pH between 5 and 5.6, and a depolarizer.

2,783,293
STORAGE BATTERY MOUNTINGS
Erich Fritsch, Clinton, Mass., assignor to Van Brode Milling Co., Inc., Clinton, Mass., a corporation of Massachusetts
Application December 22, 1955, Serial No. 554,886
2 Claims. (Cl. 136—166)



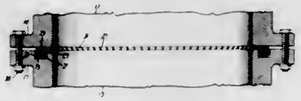
1. The combination with a storage battery casing made of one integral piece and including side walls and end walls, of a ledge formed a substantial distance from the top of said casing on the outer faces of said walls by reducing the thickness of the upper portions of said walls, a hold-down frame resting on said ledge and including a vertical flange fitting the outer faces of the reduced portions of said walls and a horizontal flange bearing against said ledge, and apertured lugs on said vertical flange for the reception of clamping bolts.

2,783,294
STORAGE BATTERY
John Anderson, Chicago, Ill., assignor to Charles A. Toce, Sunland, Calif.
Application August 30, 1955, Serial No. 531,402
4 Claims. (Cl. 136—166)



1. A storage battery comprising a case of insulation material, a plurality of cells removably placed in the case and each including a pair of posts, a conductor embedded in the upper portion of the case adjacent a pair of cells, a recess in the case at one side of the conductor, and a wedge shaped contactor connected to each cell post and extending downwardly into said recess in wedging contact with the conductor.

2,783,295
WAVEGUIDE SEAL
Lewis M. Ewing, Syracuse, N. Y., assignor to General Electric Company, a corporation of New York
Application January 18, 1952, Serial No. 267,088
6 Claims. (Cl. 174—35)



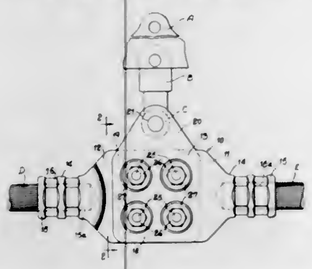
1. In combination, a pair of waveguides each having radially extending flanges adapted to be secured together, one said flange having an annular groove therein, a resilient member extending completely throughout said groove and having a normal diameter greater than the

depth of said groove, a deformable electrically conductive member conforming generally to said groove and having a first part adapted to be disposed within said groove intermediate said resilient member and a wall of said groove, and a second part slotted parallel to the axis of said groove and adapted for deformation in partly overlapping relation with said resilient member upon securing of said flanges together, and a means for securing said flanges together.

2,783,296
SERVICE-CABLE SUPPORT AND COMBINATION OF SAME WITH MID-SPAN CONDUCTOR SPACER
William L. Hendrix, Boston, Mass.
Application May 16, 1955, Serial No. 508,700
4 Claims. (Cl. 174—43)

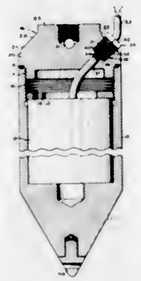
1. For supporting service cables, a mid-span spacer having conductor openings and spaced holes extending through the spacer in the direction of the openings, a pair of brackets of elongate stiff resilient material each having a central portion for connection to service cables and two arms extending from said portion transversely of each other, the free end of one arm of each bracket being bent crosswise of the bracket and the free end of the other arm having an eye whose axis is approximately perpendicular to the plane of the arms, the bent end of each bracket being bent to the same side of said plane, the bent end of one bracket being inserted through one of said holes from one side of the spacer with the bracket extending from one edge of the spacer and the bent end of the other bracket being inserted through the other hole from the same side of the spacer with the bracket extending from the other edge of the spacer, the eye of each bracket being engaged over the end of the other bracket which projects through the spacer.

2,783,297
CLEVIS-FORMING ELECTRICAL CONNECTOR
Carroll A. Badeau, Westfield, N. J., assignor to The Thomas & Betts Co., Elizabeth, N. J., a corporation of New Jersey
Application October 23, 1953, Serial No. 387,932
9 Claims. (Cl. 174—44)



1. A suspension fitting comprising two similar lugs of conductive material each formed of one piece including a plate-like body portion with a flat face on one side, an elongated extension integral with the body portion, projecting from one side edge thereof and each such extension adapted to be connected with a conductor and each lug provided with an apertured extension projecting integrally from another side edge thereof and spaced from the plane which contains the flat face, the flat faces of the body portions being in back-to-back mutual electric contact and the apertured extensions being transversely spaced apart with their apertures in alignment and coacting to form a clevis adapted to receive a clevis eye, and readily disconnectable fastening and squeeze pressure means passing through and connecting the abutting body portions to secure the lugs together under a squeeze pressure to form a single unit.

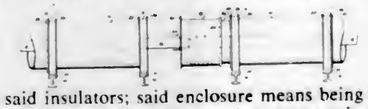
2,783,298
CABLE-ANCHORING AND SEALING DEVICE
Raymond R. Brown and Cecil L. Brownlow, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware
Application July 31, 1950, Serial No. 176,806
3 Claims. (Cl. 174—59)



1. In combination, a metal cover, an elongated housing threaded to said cover to define a pressure-tight vessel, said cover having a flat central portion generally perpendicular to the axis of said elongated housing, and a surface inclined to said axis connecting said central portion to the periphery of the cover, said inclined surface having a bore formed therein extending through said cover with its axis generally perpendicular to said inclined surface, said bore having a relatively small interior portion and a relatively large threaded outer portion, thereby to define an internal shoulder, a cable extending into said opening, said cable having an integral enlarged portion of resilient material positioned within the outer portion of said bore with one end of said enlarged portion engaging said shoulder, a washer encircling said cable and engaging the other end of said enlarged portion, an annular threaded nut encircling said cable and bearing against said washer, said nut fitting within the threaded outer portion of said passage, whereby tightening of said nut forces said resilient enlarged portion of the cable into sealing engagement with said shoulder, and connecting means on the flat central portion of said cover, said cable, by virtue of said inclined surface, being confined within an extension of the outer surface of said vessel, thereby to prevent damage to the cable as the vessel is raised and lowered in a bore hole.

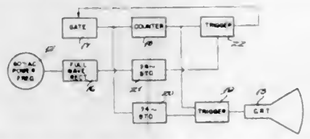
2,783,299
WEATHER- AND PRESSURE-TIGHT ENCLOSURE FOR ISOLATED PHASE BUS BAR
Walter H. Schymik, Oreland, Pa., assignor to I-T-E Circuit Breaker Company
Application January 12, 1953, Serial No. 330,875
5 Claims. (Cl. 174—99)

1. In a bus structure comprising conductors, insulators, insulator supports, housing sections and enclosure means: said insulator supports supporting said insulators, said conductors and said housing sections; one of said insulator supports being positioned adjacent each end of each of said housing sections and mounted concentrically on said housing sections; said insulator support at one end of said housing section being connected to a grounding bus, said housing section being a hollow cylindrical member and welded together to form a 360° tube; said conductors extending beyond the ends of said housing sections; said housing sections positioned in alignment with a space between adjacent ends thereof; said enclosure means enclosing said space between said housing sections with one end of said enclosure means positioned ad-



jacent said insulators; said enclosure means being removably secured to said housing sections to permit slidable movement with respect thereto; circular gaskets between said enclosure means and said housing sections to render the combination water and pressure-tight; said enclosure means comprising telescoping sections; said telescoping sections secured to said insulating supports; each of said telescoping sections being slidable with respect to the other to enable easy access to the interior of said bus structure and said insulators.

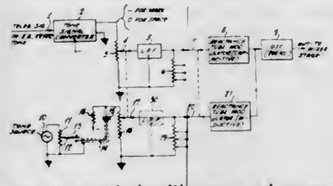
2,783,300
FILM RECORDING FROM TELEVISION RECEIVER CATHODE RAY TUBE
Paul Raibourn, Southport, Conn.
Application May 18, 1950, Serial No. 162,665
11 Claims. (Cl. 178—7.4)



5. Apparatus for recording a television image on a motion picture film operating at a predetermined frame frequency, comprising in combination a television receiver having a cathode ray tube, a gating circuit connected to said receiver for selecting a portion of the horizontal synchronizing pulses received thereby, a pulse counter circuit connected to said gating circuit for generating a single pulse after a plurality of pulses constituting a television picture frame, a second pulse producing circuit connected to and activated by the television synchronizing pulses passed by said gating circuit for producing pulses of a frequency equal to the frame frequency of said motion picture film, a trigger circuit connected to said tube and also connected to and controlled by said pulse counter circuit and said second pulse producing circuit and generating pulses for periodically blanking out the image of said cathode ray tube, a source of power for said receiver and for operation of said motion picture film, and a third pulse producing circuit connected to said power source to be triggered thereby and providing pulses at said predetermined frame rate, and a second trigger circuit connected to and activating said gating circuit at a frequency corresponding to the frame frequency of said motion picture film, said third pulse circuit being connected to control said second trigger circuit.

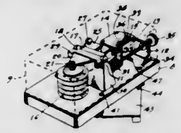
2,783,301
CALL SIGNING
Walter Lyons, Flushing, N. Y., assignor to Radio Corporation of America, a corporation of Delaware
Application May 4, 1954, Serial No. 427,519
13 Claims. (Cl. 178—66)

1. In a frequency shift telegraph transmitter, a source of radio frequency waves, a source of audio frequency signals, means for keying said last-named source on and off in accordance with intelligence to produce on-off keyed audio frequency signals, means for modulating the frequency of said waves with said keyed signals, a keying circuit for producing mark and space keying voltages in



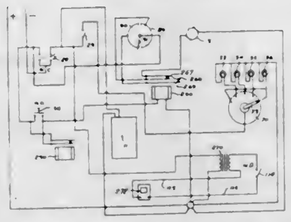
response to telegraphic intelligence, and means for causing the mean frequency of said frequency modulated waves to shift a predetermined amount on either side of said mean frequency in response to said mark and space voltages.

2,783,302
TEMPERATURE REPORTER ATTACHMENT FOR TELEPHONES
Joseph S. Kropp, Winnipeg, Manitoba, Canada
Application March 20, 1953, Serial No. 343,617
5 Claims. (Cl. 179—5)



1. A temperature change reporter for use with a telephone, comprising: a base removably securable to said telephone; a temperature expansible and retractable thermostat mounted on said base; a pivoted lever mounted on the base and operable by the thermostat; a manually adjustable spring operable to resiliently restrain the movement of said lever in one direction and to assist its movement in the opposite direction; and movable means, carried by the reporter, normally positioned to hold the telephone audibly disconnected from its associated exchange, when the reporter is secured thereto, and movable by the thermostat to release the telephone for audible connection thereof to said exchange.

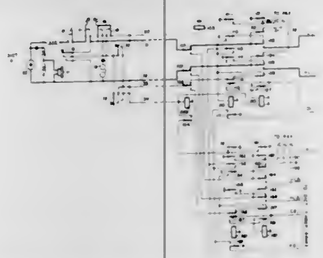
2,783,303
TELEPHONE ANSWERING AND RECORDING DEVICES
John Garfield Fontaine and Allan Davidson McLean, Vancouver, British Columbia, Canada, assignors to Automatic Phone Recorder Co. Ltd., Vancouver, British Columbia, Canada, a British company
Application September 25, 1951, Serial No. 248,164
4 Claims. (Cl. 179—6)



4. A telephone answering and recording device having a motor, a line current circuit therefor, an amplifier and a telephone bell sound relay adapted to be energized from the amplifier, a ratchet relay having a coil and contacts,

said contacts being included in the line circuit to the motor, a pair of slightly spaced arcuate contacts in said motor circuit, said circuit having alternate paths through said arcuate contacts, a rotating pointer alternately engaging the arcuate contacts and said pointer being connected to one side of the motor circuit, said ratchet relay contacts being adapted to be alternately closed and opened as the sound relay and the ratchet relay coil are energized, each of said ratchet relay contacts being connected with an arcuate contact in the motor circuit, and mechanical means driven by the motor for rotating the pointer to move it along one arcuate contact and onto the other and to open said motor circuit as said pointer passes from one arcuate contact to the other.

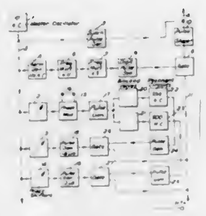
2,783,304
TELEPHONE DICTATING AND TRANSCRIBING SYSTEM
Leonard F. Crabtree, Downers Grove, Ill., assignor to Automatic Electric Laboratories, Inc., Chicago, Ill., a corporation of Delaware
Application September 15, 1955, Serial No. 534,514
30 Claims. (Cl. 179—6)



1. Equipment for use in a recording-transcribing system comprising a recorder, a plurality of remote dictating stations, a remote transcribing station, means controlled from any one of said dictating stations for connecting said station to said recorder, and for making said recorder inaccessible to the other dictating stations, means for making a recording over said connection, means controlled from said dictating station for releasing said connection, means operated responsive to said release for rewinding said recorder and connecting said recorder to said transcribing station, means for causing said recorder to repeat said recording over said last connection, means controlled from said transcribing station for releasing said last connection, and means operated responsive to said last release for again rewinding said recorder, and making said recorder again accessible to the other dictating stations.

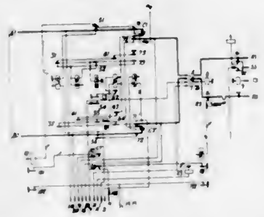
2,783,305
ELECTRIC CODE MODULATION SYSTEMS OF COMMUNICATION
Charles William Earp, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application December 5, 1951, Serial No. 260,074
Claims priority, application Great Britain December 20, 1950
8 Claims. (Cl. 179—15)

1. In an electric communication system, means for producing a series of pulses time modulated in accordance with a signal wave, means for producing from each of said time modulated pulses a plurality of wave trains having frequencies different from one another, means for selecting a pulse intermediate the ends of each of said trains to serve as an index pulse, means for producing a separate train of pulses, a gate, means for applying said pulses last mentioned and the selected pulses to said gate



to produce output pulses, and means for transmitting said output pulses.

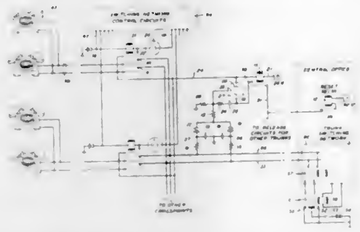
2,783,306
TELEPHONE CONNECTIONS FOR PARTY LINES
Henri Louis Lesigne, Vanves, France, assignor to Compagnie Industrielle des Telephones, Paris, France, a corporation of France
Continuation of application Serial No. 42,890, August 6, 1948. This application September 8, 1952, Serial No. 308,371
Claims priority, application France August 7, 1947
8 Claims. (Cl. 179—17)



1. In a telecommunication system: an automatic switching exchange containing a first rotary switch having two brushes capable of rotating while constantly having the same orientation; a switching center containing a second rotary switch having two brushes capable of rotating while constantly having the same orientation; a two-wire junction connecting said automatic switching exchange with said switching center; in said switching center a ground connected to one wire of said junction and means for connecting said two junction wires to said two brushes of said second rotary switch respectively; in said automatic switching exchange means for generating pulses of alternating positive and negative polarities over said junction wire, and means for causing each of said switches to proceed one step for every succession of two successive pulses of opposite polarities.

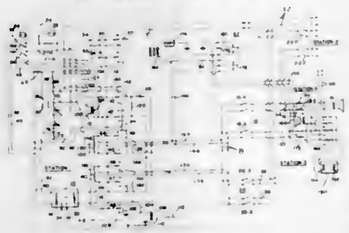
2,783,307
SUPERVISORY CIRCUIT
Sherman T. Brewer, Chatham Township, Morris County, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application May 6, 1954, Serial No. 428,031
11 Claims. (Cl. 179—18)

1. A release circuit for supervising a connection in a telephone system comprising crosspoint switch means, a trunk comprising a pair of conductors connected to said switch means, means to provide a conversation path by energizing the crosspoint switch means, means to place a negative potential on at least one conductor of said trunk when said crosspoint switch means is energized, a discharge device having a cathode, a main anode, and a starter anode, the main anode being connected to said crosspoint switch means, means controlled by the energization of said crosspoint switch means to apply a priming potential to said main cathode, filter means connected between said trunk and said space discharge device to apply a negative potential from said trunk to said starter anode to hold said space discharge device from operating



while the negative potential is on said trunk, and means responsive to the removal of the negative potential from said trunk to cause said space discharge device to conduct and open the crosspoint switch means thereby releasing the connection.

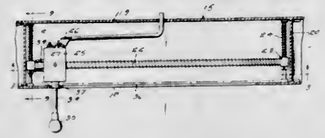
2,783,308
INTERCOMMUNICATION APPARATUS
Richard H. Campbell, Racine, Wis., assignor to Webster Electric Company, Racine, Wis., a corporation of Delaware
Application June 30, 1952, Serial No. 296,416
10 Claims. (Cl. 179—37)



1. A communication system including a plurality of stations, an amplifier at each station, a translating device at each station usable both as a receiver and a transmitter, means interconnecting said plurality of stations including an interstation incoming line for each station for reception, an outgoing interstation line from each station for transmission in a two-way interstation line for both reception and transmission, attenuating means at each station, and means including amplifier, device, line and attenuating means circuits and multiposition communication control switch means controlling said circuits at each station and operable in a first position to connect said device to the incoming line; in a second position to connect said incoming line to the amplifier input through said attenuating means, to connect the two-way line to the amplifier input, and to connect the amplifier output to said device; and in a third position to connect said device to said amplifier input and the amplifier output to said outgoing and two-way lines.

2,783,309
AUTOMATIC DIALER FOR TELEPHONES
Bruce Dolin, Brooklyn, N. Y.
Application May 10, 1954, Serial No. 428,590
4 Claims. (Cl. 179—90)

1. An automatic dialing attachment for interposing in an automatic telephone system comprising a housing, a pair of transversely disposed guide bars fixed in said housing adjacent each end thereof, a longitudinal guide bar in said housing formed with a slide block at each end each slidably engaging one of said pair of guide bars, springs about said pair of guide bars normally urging said longitudinal bar forwardly, a switch in said housing spring-pressed to a circuit breaking position, said switch slidably engaging said longitudinal bar, a spring about said

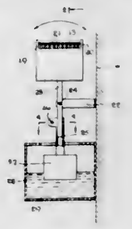


longitudinal bar constantly urging said switch toward one end of said housing, a manual operator fixed to said switch and projecting from said housing, and means carried by said housing engaging said switch to effect alternate operation of said switch to circuit closing and circuit breaking position upon movement of said switch in one direction.

2,783,310
TRAVELING BAG FOR SOUND RECORDING AND REPRODUCING MACHINES
Jacob M. Kuhlik, Sea Gate, N. Y., assignor to Hattie B. Kuhlik, Sea Gate, N. Y.
Application June 1, 1953, Serial No. 358,691
5 Claims. (Cl. 179—100.1)

1. A sound recording and reproducing machine outfit comprising a bag having front, rear, bottom and end walls and being open at the top, means for latching the opening at the top of the bag including a latching device on the front wall adjacent the top of the bag and having openings for receiving a cooperating latching member, a sound recording and reproducing machine supported on the bottom wall inside the bag, a microphone supported on the inner surface of the front wall behind the openings in said latching device, and means for operatively connecting said microphone to the machine.

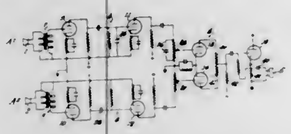
2,783,311
MAGNETIC RECORDING HEAD MOUNTING APPARATUS
Raymond Scott, Babylon, N. Y.
Application August 31, 1953, Serial No. 377,605
5 Claims. (Cl. 179—100.2)



4. For use in a magnetic tape recording apparatus, a recording-reproducing head having a planar top surface adapted to support magnetic tape travelling thereacross,

upstanding side walls on said head on both sides of said planar top surface and between which the tape is supported, and supporting means for said head, said supporting means comprising a downwardly depending shaft one end of which is connected to said head, a pivot medially disposed on said shaft so that said shaft may be swingably connected to a support, and a counterweight connected to the other end of said shaft.

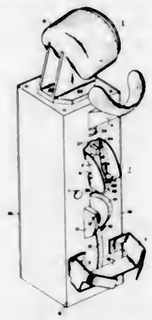
2,783,312
BINAURAL HEARING APPARATUS AND METHOD
James C. Mouzon, Chevy Chase, Md.
Application August 6, 1952, Serial No. 303,016
5 Claims. (Cl. 179—107)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A binaural hearing aid comprising in combination a pair of physically spaced microphones, a pair of plural stage amplifiers, each including a plurality of plural electrode electron discharge devices, each of said devices having a grid-controlled input, a cathode and an anode respectively, a source of direct-current potential connected at one side to each anode, a transformer coupling each of said microphones to the grid-input of a first discharge device in a different amplifier respectively, means including a high-pass resistance-capacitance coupling between the anode of the first discharge device in one amplifier and the grid input of a second discharge device in said amplifier, other means including a low-pass resistance-capacity coupling between the anode of the first discharge device of the other amplifier and the grid-input of a second discharge device in said amplifier, circuit return means connecting the cathodes of each of said devices to the other side of said source of potential, an electronic mixing circuit including another pair of electron discharge devices each having a cathode, an anode, and a grid-controlled input, means connecting said cathodes to said other side of said source of potential, a resistance-capacitance coupling between the respective anodes of the second discharge device of each amplifier and a different one of the grid-controlled inputs of said other pair of discharge devices, means connecting the anodes of said other pair of discharge devices together through a common resistance to said one side of said source of potential, an output circuit including an electron discharge device having a grid-controlled input with a resistance-capacitance coupling to said common anode resistance, said output discharge device having a cathode-follower output, an earphone, and means coupling said earphone to said cathode-follower output.

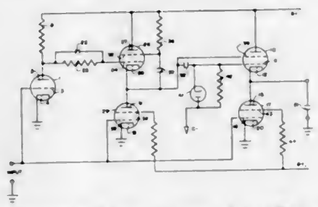
2,783,313
MOUNTING FOR TELEPHONE HANDSETS
Robert L. Sargisson, Berwyn, and Fredric E. Wood, McHenry, Ill., assignors to Automatic Electric Laboratories, Inc., Chicago, Ill., a corporation of Delaware
Application April 8, 1955, Serial No. 500,063
8 Claims. (Cl. 179—146)

1. In a telephone substation, a handset having receiver and transmitter elements mounted thereon, a pair of receptacles on said substation each for receiving one of said elements, a rotatable cam having a bowed spring mounted thereon, a locking means, means for engaging one of said elements with one of said receptacles and said bowed spring, said cam rotated in response to engagement of said bowed spring with said element for



causing automatic operation of said locking means to lock said one element into said one receptacle.

2,783,314
SQUARE-WAVE AMPLIFIER CIRCUITS
John H. Reaves, Washington, D. C., assignor to the United States of America as represented by the Secretary of Commerce
Application May 29, 1952, Serial No. 290,840
5 Claims. (Cl. 179—171)
(Granted under Title 35, U. S. Code (1952), sec. 266)

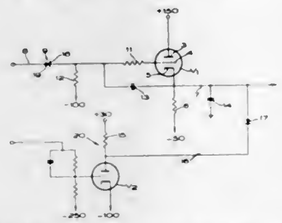


1. An electron tube circuit comprising first and second grid-controlled electron tubes connected in series with a source of direct-current voltage, said first tube having its plate directly connected to the positive side of the direct-current source, a third grid-controlled electron tube, means connected in the cathode circuit of said third tube for varying the impedance of said cathode circuit in response to a change in an applied signal voltage, the grid of said first tube being connected to the junction of the cathode of said third tube and said means, a common source of input signals, signal coupling means connecting said source to said second tube and to said means respectively, and means separate from said impedance varying means for applying said input signals reversed in phase to said third tube.

2,783,315
MAGNETIC AMPLIFIER CONTROL CIRCUIT
Robert A. Ramey, Jr., Washington, D. C.
Application July 20, 1951, Serial No. 237,813
10 Claims. (Cl. 179—171)
(Granted under Title 35, U. S. Code (1952), sec. 266)

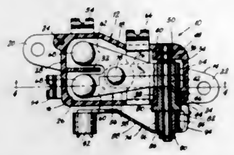
1. In a magnetic amplifier, a high remanence saturable magnetic core, a control circuit coupled to said core, an alternating supply voltage having first and second half cycles in said control circuit operative to drive said core toward saturation during a first half cycle, a demagnetizing control circuit coupled to said core and an alternating voltage of the same phase and frequency as said supply voltage operative to reduce the magnetization level of the core during second half cycles of said supply voltage, control means in said demagnetizing circuit to vary the degree of demagnetization of the core during the second half cycles of the supply voltage.

2,783,316
CATHODE FOLLOWER TYPE PULSE AMPLIFIER
Genung L. Clapper, Vestal, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application February 4, 1953, Serial No. 335,042
3 Claims. (Cl. 179—171)



1. A cathode follower type pulse amplifier for driving a capacitive load connected between said amplifier and a point of reference potential comprising a vacuum tube having a grid and a cathode, an input terminal for receiving positive going pulses to be amplified, conductive means providing a direct current conductive path between said terminal and said grid including a rectifier polarized to pass positive going pulses from said input terminal to said grid, an output circuit connected to said cathode for connection to said capacitive load, a cathode resistor connected between said point of reference potential and said cathode, and a condenser coupled between said cathode and a point on said conductive means intermediate said rectifier and said grid, the magnitude of said condenser being so selected with relation to the capacity of the load that by virtue of the isolating effect of said rectifier the regenerative feedback to said grid through said condenser in response to a change in conduction through said vacuum tube is of sufficient amplitude to raise said grid to a potential level above the potential level of the input pulse, thereby providing a cathode follower having an amplification factor greater than unity.

2,783,317
STARTING SWITCH FOR ELECTRIC MOTORS
Howard W. Eckles, Webster Groves, Mo., assignor to The Emerson Electric Manufacturing Company, St. Louis, Mo., a corporation of Missouri
Application June 14, 1954, Serial No. 436,337
12 Claims. (Cl. 200—6)

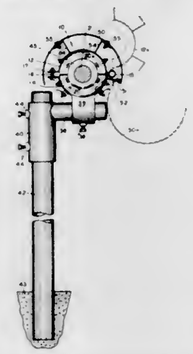


1. A starting switch for electric motors comprising a box-like enclosure of dielectric material, a plurality of stationary electric contacts disposed within said enclosure, individual terminal means secured to each of said stationary contacts and extending from the exterior of said enclosure to the exterior thereof, an elongated leaf element disposed within said enclosure, said leaf element being of electrical conducting material and having a movable end and a fixed end, said movable end being provided with at least one movable electric contact and said fixed end being provided with terminal means extending to the exterior of the enclosure, said leaf member being under resilient flexing strain so as to bias the movable contact mounted thereon in a predetermined direction relative to a stationary contact mounted within the enclosure, and actuating means for further flexing the leaf member so as to move said movable contact in a direction counter to that in which it is biased.

2,783,318
LAMP SUPPORTING AND OPERATING STRUCTURE
William E. Brown, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 20, 1955, Serial No. 541,595
8 Claims. (Cl. 200—51.13)

1. In a device of the character described having; a molded tubular member of insulating material open at both ends and having an enlarged diameter portion on one end arranged to provide a socket for a bayonet type bulb and a restricted opening arranged to provide a shoulder on the other end, a plunger extending through said opening having an enlargement on one end movable within said tubular member and abutable with said shoulder, a spring carried within said tubular member formed to provide two coils of different diameters on opposite ends thereof, said spring being carried in said tubular member with the larger diameter coil resting on the plunger enlargement for urging said enlargement against said shoulder and the smaller coil urged by the larger coil to be in contact with a terminal of said bulb, and a means for retaining said spring in said tubular member when said bulb is removed from said socket, said means comprising a pair of lugs integrally formed on said tubular member and arranged to engage said spring where the diameter thereof is reduced to form said smaller coil.

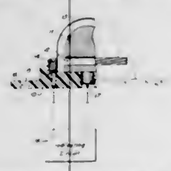
2,783,319
SAFETY DEVICES FOR DEEP WELL PUMP DRIVE SHAFTS
William D. Killingsworth, Casa Grande, Ariz.
Application May 17, 1955, Serial No. 508,934
3 Claims. (Cl. 200—52)



1. An emergency drive shaft bearing and engine cut off switch, for supporting a free running horizontal drive

shaft operating between an engine and a pump head in case of breakage, consisting of a cylindrical bearing body having an arcuate lower part and an arcuate upper part hinged together along one side, and removably attached on the opposite side, axially spaced rings of insulating material having circular inner faces of a larger diameter than said drive shaft, each composed of semi-circular portions fitted into the upper and lower parts, respectively, of said bearing body, arcuate conductors attached to the inner faces of the lower portions of said semi-circular insulating portions, adapted to be connected to the grounding connectors of said engine ignition system and to make ground contact on said shaft in case of breakage, and supporting means for said bearing body including vertically and horizontally adjustable elements, said bearing rings being normally out of contact with said drive shaft and adapted to act as a temporary bearing for said shaft in case of breakage thereof.

2,783,320
PRESSURE SWITCH
Armand F. Fink, Albuquerque, N. Mex., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
Application September 19, 1956, Serial No. 610,873
4 Claims. (Cl. 200—61.08)

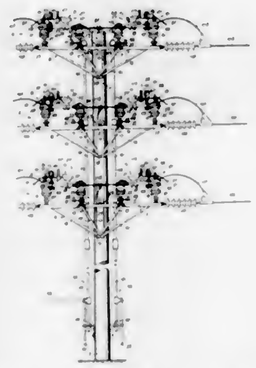


1. A pressure switch comprising a non-deformable conducting inner dome, a deformable conducting outer dome spaced concentrically from said inner dome, and means for attaching electrical connectors to said domes to facilitate determination of electrical contact between said domes due to deformation of said outer dome.

2,783,321
ELECTRIC SWITCHES OF THE SHOCK OPERATED TYPE
Roland A. Richardson, Rochester, Pa.
Application November 2, 1955, Serial No. 544,466
1 Claim. (Cl. 200—61.45)

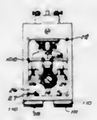
Safety switch apparatus for use on motor vehicles, comprising a pendulum having a stem, means pivotally supporting the stem for swinging movement in a direction transverse to the path of travel, a second means pivotally supporting the stem and located a farther distance from the pendulum weight than the first-named means, on an axis disposed parallel to said path of travel, means yieldably resisting swinging of the stem on its pivots, and a signal device actuated through swinging movements of said stem in opposition to the said yieldable means.

2,783,322
QUICK-BREAK SWITCH
Don W. Samuel, St. Louis, Robert F. Jehle, Brentwood, and Robert J. Burch, St. Louis, Mo., assignors to A. B. Chance Company, Centralia, Mo., a corporation of Missouri
Application September 30, 1953, Serial No. 383,181
4 Claims. (Cl. 200—62)



1. In a switch comprising a pivoted switch blade, a fixed contact positioned for engagement by the free end of the blade when the blade is swung to closed position, an arcing horn comprising an inherently resilient electrically conductive whip arm mounted at one of its ends on the blade and extending on one side of the plane of swinging movement of the blade toward the free end of the blade, an arcing horn comprising an electrically conductive detent extending from the fixed contact on said side of the plane of swinging movement of the blade across the path of movement of the whip arm as it moves with the blade, the free end portion of the whip arm extending behind the detent when the blade is in closed position and being thereby restrained from movement as the blade is swung open until the blade is swung far enough for disengagement of the end of the whip arm from behind the detent, whereupon the arm snaps away from the detent toward the blade, and the detent having a camming portion for engagement by the arm as the blade is swung to closed position and on which the arm rides to be lifted over the outer end of the detent to return behind the detent, the provision of a catch on the blade toward its free end having a notch for trapping the arm as it snaps away from the detent to prevent the arm from oscillating back in the direction toward the detent, the arm being disengageable from the notch as it rides on the camming portion of the detent when the blade is swung to closed position, the notch opening in the direction away from the plane of snap movement of the arm and being located outward of said plane, and the catch having a ramp on which the arm rides as it snaps away from the detent, the ramp directing the arm into the notch.

2,783,323
QUICK ACTING SWITCH
Max L. Jeffrey, Chagrin Falls, Ohio
Application March 21, 1955, Serial No. 495,602
15 Claims. (Cl. 200—70)



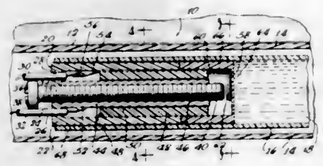
1. A quick action switch mechanism including a movable contact carrying member having a stem and a head

extending from opposite sides thereof, an operating member for said contact carrying member comprising a central bearing portion and a pair of extensions from each side thereof, said operating member being formed with an opening bisecting said bearing portion, said stem on the contact carrying member extending into said opening and being movable relative to the operating member, the contact carrying member and the operating member both being mounted on a common rockable axis, and resilient means connected between said head on the contact carrying member and said extensions on the operating member.

2,783,324
FLUID PRESSURE SWITCH
William E. Brown and Harold V. Elliott, Anderson, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 3, 1954, Serial No. 447,507
5 Claims. (Cl. 200—83)

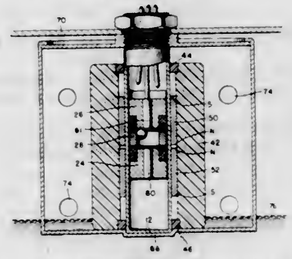
1. In a fluid pressure switch, the combination comprising a flexible diaphragm dividing a switch housing into two chambers wherein one of said chambers is sealingly connectable to a source of variable fluid pressure and the other chamber is adapted to communicate with a source of lower fluid pressure through an opening in said housing, a valve means resiliently mounted in said other chamber having a cylindrical portion within said opening constructed and arranged to normally maintain said opening partly closed for calibrating fluid flow through said opening and a tapered portion adjacent said cylindrical portion arranged to sealingly close said opening upon rupture of said diaphragm for preventing fluid flow from said source to the exterior of said housing.

2,783,325
EXTENDED LENGTH HYDRAULIC SWITCH
John A. Luckey, Chicago, Ill.
Application January 17, 1955, Serial No. 482,115
2 Claims. (Cl. 200—83)



1. A hydraulically operated electrical switch comprising in combination; an elongated plastic tube closed at one end and filled with a hydraulic fluid, a hollow non-conductor tube fitted into the end of said plastic tube, said hollow tube open at the inner end and closed by a closure wall at the outer end, another hollow non-conductor tube fitted into said first-mentioned hollow tube with the end of said second-mentioned tube protruding inwardly beyond the end of said first-mentioned hollow tube, a strip of conducting material positioned between the walls of said hollow non-conductor tubes with the ends thereof protruding beyond each end of said second-mentioned tube, the inner end portion of said strip bent at right angles with said bent end spaced from the end of said second-mentioned tube, a contact point positioned on the bent end of said strip, an internally threaded hollow conductor tube fitted through said second-mentioned non-conductor tube, a pair of electrical leads positioned through said closure wall and connected one to the end of said strip and the other to said conductor tube, a headed bolt threaded through said conductor tube with the headed end protruding out of said end closure and the opposite end positioned in close proximity to said contact point, and a diaphragm fitted over the inner end of said second-mentioned non-conductor tube.

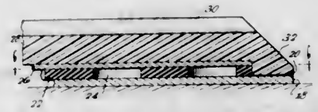
2,783,326
ELECTRIC SWITCHING MEANS
Louis P. Hanson and Howard H. Suskin, Seattle, Wash.
Application August 23, 1955, Serial No. 530,004
7 Claims. (Cl. 200—84)



6. Electric switching means, comprising: a hollow sealed tube and an actuator supported for at least limited movement longitudinally of said tube for activating the switch when moved responsive to externally applied force, said actuator member including a first and a second permanent magnet with opposed poles, first and second magnetically susceptible pole members in said body in insulated spaced apart relationship; an intermediate magnetically susceptible member in said body between and spaced and insulated from said first and second pole members; and a shifter magnetically susceptible member movable in said body between a first position bridging said first pole member and said intermediate member and a second position bridging said second pole member and said intermediate member, said magnets being of such strength as to move said shifter member between said first and second positions responsive to the movement of said actuator between a first position in which only said first magnet laps said first pole and intermediate members and a second position in which only said second magnet laps said second pole and intermediate members, the permanent magnets not in lapping position on each occasion exercising a repulsing force on the shifter member, and electrical leads to said first and second pole and intermediate members.

7. The subject matter of claim 6 in which said actuator includes a float encircling said tube and said permanent magnets are tubular in shape and encircle said tube.

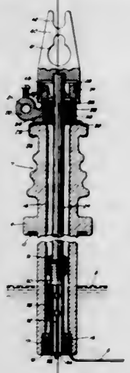
2,783,327
MOLDED METAL-BACKED ELECTRICAL MAT SWITCH AND METHOD OF MAKING THE SAME
John A. Luckey, Chicago, Ill.
Application January 17, 1955, Serial No. 482,116
3 Claims. (Cl. 200—86)



1. A unitary molded electrical mat switch comprising a flat sheet of metal having the border edges of the upper

surface thereof coated with a primer material, a perforated sheet of sponge rubber positioned on said sheet within the area defined by said primer coated border edges, a flexible metal sheet positioned on said sheet of sponge rubber, a layer of plastic molded over said flexible metal sheet with the marginal edges of said layer molded to the primer coated border edge of said metal sheet, one end of said layer of plastic extending beyond the adjacent edge of said metal plate with a laterally extending groove formed in the lower surface thereof, a mid-portion of said extended plastic layer formed with a longitudinally extending groove connecting said lateral groove with said metal sheets, a pair of electrical leads positioned in said grooves with the inner ends thereof electrically joined one to each of said metal sheets.

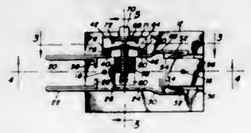
2,783,328
PROTECTIVE BUSHING FOR ELECTRICAL APPARATUS
George R. McCloud, Cudahy, Wis., assignor to McGraw Electric Company, Milwaukee, Wis., a corporation of Delaware
Application October 12, 1954, Serial No. 461,780
8 Claims. (Cl. 200—114)



1. A circuit maker and breaker for an electrical apparatus comprising a tubular insulating bushing having a load terminal at one end and a line terminal at the other end, a circuit closer insertable in said bushing, said circuit closer including an elongated conductive member electrically connecting said load terminal and said line terminal, a locking pin projecting radially from said conductive member within said line terminal, said line terminal including a cylindrical portion having a plurality of circumferentially spaced substantially right triangular locking segments disposed about its interior with an acute angle of each segment adjacent the opening of said cylindrical portion, said acute angle being formed between an axial edge and an inclined edge of each segment, whereupon said locking pin may be freely placed on said inclined edges and spirally advanced therealong to a position axially adjacent said segments, resilient means longitudinally adjacent said segments, whereby said conductive member may be held in electrical engagement with said segments through the medium of said resilient means.

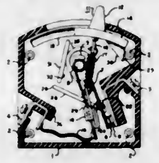
2,783,329
THERMO SWITCH
Glen Jackson, Indianapolis, Ind.
Application September 7, 1955, Serial No. 532,831
3 Claims. (Cl. 200—115.5)

1. A thermo sensitive switch adapted to be inserted in a receptacle and adapted to accommodate an electrical cord plug, said switch comprising a body having a first body section and a second body section, means extending through said sections fastening said sections together, a conductive strip carried by said body and embedded therein, said conductive strip having a prong at one end thereof which protrudes from the end of said body, said body having a recess therein, the opposite end of said strip having an angulated portion disposed in said recess, said body having a slot in communication with said recess at the opposite end of said body and adapted to accept one prong of an electrical plug, an interrupted strip carried by said body, said interrupted strip including a prong protruding from the same end of said body as the previously mentioned prong, a strip portion having an angulated end, said body having a slot in alignment with the



recess wherein the last mentioned angulated portion is disposed, said last mentioned slot adapted to accept a prong of a plug and coacting with the previously mentioned slot to accommodate an electrical equipment plug, the last mentioned prong portion and strip portion having inner ends spaced from each other, a cavity in said body accommodating said inner ends, a bimetallic snap spring having contacts at the ends thereof normally touching said inner ends, means supporting said bimetallic snap spring in said cavity and including a partition which extends across said cavity, a screw adjustably carried by said partition, said snap spring being disposed on said screw, and manually operable reset means for returning said bimetallic snap spring when it is distorted due to a thermo overload condition.

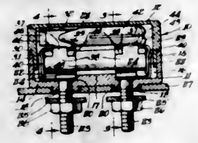
2,783,330
AUTOMATIC CIRCUIT BREAKER
Robert T. Casey, Southington, Conn., assignor to General Electric Company, a corporation of New York
Application January 31, 1955, Serial No. 484,926
11 Claims. (Cl. 200—116)



1. A circuit breaker comprising a generally U-shaped bimetallic strip, a releasable trip member carried by one leg of said bimetallic strip and biased for movement relative to said leg to cause automatic opening of said circuit breaker, a latch projection carried by the other leg of said bimetallic strip and normally restraining said releasable trip member from said movement, said bimetallic strip being arranged so that its legs deflect outwardly upon heating so as to cause release of said releasable trip member from said latch projection.

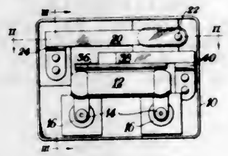
2,783,331
INDICATING FUSE HOLDER
Edward V. Sundt, Wilmette, Ill., assignor to Sundt Engineering Company, Des Plaines, Ill., a corporation of Illinois
Application December 23, 1953, Serial No. 399,977
15 Claims. (Cl. 200—121)

1. In an indicating fuse holder for a cartridge fuse, an electrical insulating base having an elongated cavity therein, a substantially U-shaped and outwardly facing spring clip member carried by the base in the cavity adjacent each end thereof, means for electrically connecting the spring clip members into an electric circuit, an electrical insulating and light transmitting cover for the base and having an elongated cavity therein, telescoping means on the base and cover for guiding the cover on the base and for enclosing the elongated cavities, an indicating lamp carried lengthwise in the elongated cavity of the cover, a substantially U-shaped outwardly facing fuse receiving



spring clip carried by the cover in the cavity adjacent each end thereof for receiving the ends of a cartridge fuse to releasably mount the cartridge fuse lengthwise of said cover parallel to the lamp, means for electrically connecting the lamp across the fuse receiving spring clips, said fuse receiving spring clips being received in the spring clip members of the base when the cover is applied to the base for fusing the electric circuit and for releasably securing the cover to the base, and said lamp being illuminated for transmitting light through the cover when the cartridge fuse is blown.

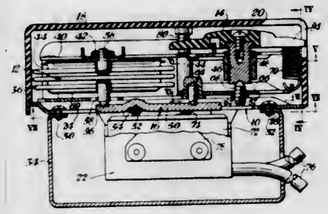
2,783,332
THERMAL TIMING APPARATUS
William S. Kunzler, Greensburg, Pa., assignor to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware
Application May 19, 1955, Serial No. 509,651
12 Claims. (Cl. 200—122)



2. In a thermostatic control device, the combination comprising switch means movable between controlling positions for controlling the flow of electric energy, an element to be heated by the flow of electric energy, said switch means including a member responsive to the heating of said element for moving said switch means from one position to another, and a second member responsive to variations in the temperature of said element for movement into and out of shielding relation therewith for substantially eliminating the effect of said temperature variations on said first named means.

2,783,333
CONTROL DEVICE
Jack Witherspoon, Jr., Knoxville, Tenn., assignor to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware
Application March 3, 1954, Serial No. 413,934
12 Claims. (Cl. 200—140)

4. A control device adapted to be mounted on a junction box having a pair of mounting screws, comprising a base plate having a pair of apertures for respectively receiving the pair of mounting screws, temperature responsive means supported by said plate, a rotatable dial supported by said plate, said dial overlying one of said apertures and having a third aperture formed therein, said third aperture being adapted for substantial alignment with said one aperture in a selected position of said dial, a lever device interposed between said dial and said temperature responsive means for adjusting said temper-

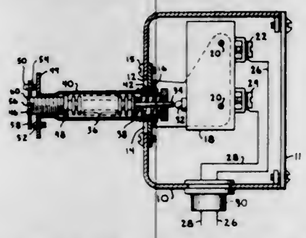


ature responsive means upon rotation of said dial, said lever device including a lever overlying said one aperture and having a fourth aperture formed therein in substantial alignment with said one aperture.

2,783,334
THERMOSTAT CASING STRUCTURE
Russell F. Garner, Youngwood, Pa., assignor to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware
Application December 27, 1954, Serial No. 477,901
9 Claims. (Cl. 200—140)

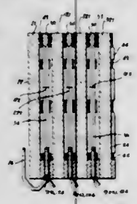
3. In a casing structure for a thermostat having thermally responsive means, a switch arm engageable with the thermally responsive means and conducting elements engageable by the switch arm, the combination comprising a main supporting structure of generally rectangular configuration for supporting the thermally responsive means and having an open end and side, a second supporting structure of generally rectangular configuration for supporting the switch arm, means for detachably connecting said second structure to said main supporting structure to close said open side of said main supporting structure, means supported by said second structure for biasing the switch arm into engagement with the thermally responsive means when said second supporting structure is detachably connected to said main supporting structure, means within said second supporting structure for limiting movement of said switch arm by said biasing means when said second supporting structure is detached from said main supporting structure, a third supporting structure of generally rectangular configuration for supporting the conducting elements, means for detachably connecting said second structure to said main supporting structure to establish a closure for said open end of said main supporting structure, and to position the conducting elements in an operative position with respect to the switch arm, and means for holding said second and third supporting structures in an active position with respect to said main supporting structure wherein the switch arm is biased into engagement with thermally responsive means for movement therewith in response to temperature variations and the conducting elements are in a position to be engaged by the switch arm.

2,783,335
ADJUSTMENT FOR POULTRY HOUSE THERMOSTATS AND THE LIKE
Fred S. Bailey, Rock Island, Ill., assignor to American Machine and Metals, Inc., New York, N. Y., a corporation of Delaware
Application October 16, 1953, Serial No. 386,427
3 Claims. (Cl. 200—140)



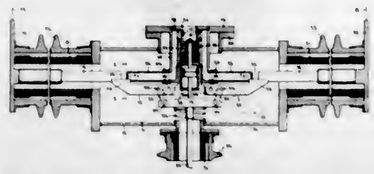
1. In a poultry house thermostat, or the like, in combination, a tubular housing, a push-button switch rigidly mounted in fixed relation to one end of said housing, an axially moveable temperature-responsive bellows within said housing for operating said switch, an indicia-bearing disk fixed to said housing at the other end thereof, a first stop member secured to said disk, an adjustment screw extending through said disk into and through the other end of said housing in axial alignment with and terminating at one end of said bellows, a switch-operating plunger in axial alignment with said bellows contacting the other end of said bellows and terminating adjacent the push-button of said switch, an indicator disk attached to said adjustment screw cooperable with said indicia on said disk for indicating the temperature setting and a second stop member secured to said adjustment screw and cooperable with said first stop for restricting the movement of said screw beyond desired limits for the thermostat settings.

2,783,336
ARC EXTINGUISHING CHAMBER
André Latour, Grenoble, France, assignor to Etablissements Merlin & Gerin, Grenoble, France
Application June 7, 1954, Serial No. 434,801
Claims priority, application France June 17, 1953
7 Claims. (Cl. 200—147)



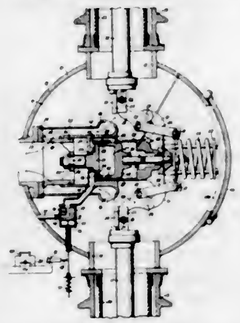
1. An arc extinguishing chamber of the type which comprises a set of at least two plates of refractory material partitioning the chamber into divisional chambers, arc subdividing conductive elements being provided at said chambers, each one of said elements shaped with a pair of legs of a length short relatively to the height of the chambers, said legs diverging in V-form relatively to each other and straddling the lower edges of said partitioning plates, the legs of opposite elements in each divisional chamber being disposed so as to diverge likewise in V-form relatively to each other; said chambers being provided with peripheral border members of a contour generally corresponding to the contour of said partitioning plates; said border members being shaped each with an entrance opening for extending said legs therethrough and into said divisional chambers; said border members being further formed with gas permeable and arc attenuating, restricted passages out of said divisional chambers, said passages being distributed around the perimeter of said divisional chambers; said border members being otherwise shaped so as to close said divisional chambers around said perimeter.

2,783,337
FLUID BLAST CIRCUIT INTERRUPTER
John W. Beatty, Lansdowne, and Reed M. Anderson, Glenolden, Pa., assignors to General Electric Company, a corporation of New York
Application December 10, 1953, Serial No. 397,324
20 Claims. (Cl. 200—148)



1. A fluid-blast circuit interrupter comprising separable contacts, a blast valve movable to control the flow of fluid adjacent said contacts, an actuating member movable to separate said contacts, fluid coupling cylinder structure, a follower piston movable in said cylinder structure and coupled to said blast valve, and means comprising a driving piston disposed in said cylinder structure and movable with said actuating member to establish on opposite faces of said follower piston a pressure differential acting in a direction to move said follower piston in coupled follow-up relationship to said driving piston.

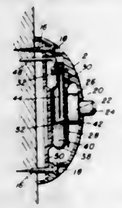
2,783,338
OPERATING MECHANISM FOR A FLUID-BLAST CIRCUIT BREAKER
John W. Beatty, Lansdowne, Pa., assignor to General Electric Company, a corporation of New York
Application September 21, 1955, Serial No. 535,619
16 Claims. (Cl. 200—148)



1. In a fluid-blast type of circuit breaker having separable contacts, a normally-closed valve member movable to an open position to produce an arc-extinguishing blast adjacent said contacts, an operating cylinder, a first piston movably mounted in said cylinder and coupled to said valve member, a second piston movably mounted in said cylinder and coupled to one of said contacts, means biasing said one contact into closed position and said second piston toward engagement with said first piston, means for admitting pressurized fluid into one end of said cylinder for driving said first piston in a direction to open said valve member and in a direction to produce contact-opening movement of said second piston, a normally-closed passageway adapted when open

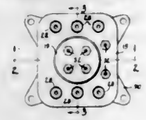
to supply pressurized fluid to a space between said pistons whereby to urge said second piston in a contact-opening direction and said first piston in a valve-closing direction, and means responsive to a predetermined valve-opening movement of said first piston for opening said passageway and admitting fluid to said inter-piston space whereby then to close said valve member and to hold said one contact in open position, said second piston acting from the instant that said passageway is first opened to seal said inter-piston space against leakage therefrom during a contact-opening operation.

2,783,339
MERCURY SWITCH
James W. Carden, Munday, Tex.
Application March 13, 1956, Serial No. 571,326
2 Claims. (Cl. 200—152)



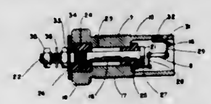
1. A switch comprising an outer housing having an aperture therethrough, an actuator positioned at least partially within said housing and having an engaging portion thereof extending outwardly of said housing through said aperture, a flexible receptacle having a quantity of mercury therein, means securing said receptacle to said housing in alignment with said actuator, a resilient plate disposed between said actuator and said receptacle normally urging said engaging portion of said actuator outwardly of said housing, a pair of contacts in said receptacle, the level of said quantity of mercury being normally below said contacts, said housing having a back plate, said receptacle being disposed between said back plate and said resilient plate, said back plate having an offset portion extending towards said actuator in alignment with said resilient plate and said actuator, said actuator when operated urging said resilient plate into engagement with said receptacle to compress said receptacle between said resilient plate and said offset portion thereby raising the level of said quantity of mercury to immerse said contacts in said quantity of mercury.

2,783,340
HERMETICALLY SEALED ELECTRO-MAGNETIC CONTACTORS AND THE LIKE
James E. Davies, Milwaukee, Wis., and Charles W. Otto, De Kalb, Ill., assignors to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware
Original application January 11, 1954, Serial No. 403,124. Divided and this application April 1, 1955, Serial No. 498,527
4 Claims. (Cl. 200—166)



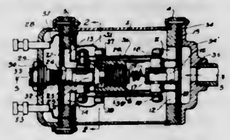
1. In combination, a terminal stud having a threaded portion formed adjacent one end thereof with a longitudinal keyway, and a stationary contact assembly mounted on said stud comprising a member having a flat web portion and relatively short perpendicular flanges merging with said web portions on opposite sides of the latter, a contact tip secured to said web portion adjacent one end of the latter, said web portion having an opening formed therein adjacent its other end through which said stud extends and having a lug projecting into said key-way, said flanges having V-shaped notches in their opposed surfaces with their apexes along a line passing through the center of the opening in said web portion, a polygonal nut on said stud with the flanges of said member overlapping its sides, said nut being so sized with respect to the spacing between said flanges and the apexes of said notches that said nut is locked against rotation on said stud whether opposite sides thereof are parallel with said flanges or opposite corners engage with said flanges in said notches, and a second nut on said stud holding said member in place against the first mentioned nut.

2,783,341
PROBE FOR LIQUID LEVEL INDICATOR
Franklin O. Wisman, South Bend, Ind., assignor to Bendix Aviation Corporation, Baltimore, Md., a corporation of Delaware
Continuation of abandoned application Serial No. 215,261, March 13, 1951. This application August 18, 1954, Serial No. 450,578
2 Claims. (Cl. 201—48)



1. A probe particularly adapted for installation in a container having therein a fluid medium and a gaseous medium possessing different heat transfer properties, comprising a thin elongated combined ceramic and metal oxide resistor having a high negative temperature coefficient of resistance, a hollow metallic cartridge having an opening in the wall thereof for supporting said resistor in the container in contact with the fluid medium, an elongated member of conducting material projecting into said cartridge, an insulator surrounding and rigidly connected to the outer extremity of said member, said insulator being securely fixed in the outer extremity of said cartridge and supporting said member axially of said cartridge and in spaced relation to the surrounding walls of the latter, said resistor having its end portions provided with a coating of conductive material, a grounding element in the form of a filament of conducting material connecting one end of the resistor to the adjacent wall of the cartridge and another filament of conducting material connecting the opposite end of said resistor to the adjacent inner end of said member, said resistor being supported by said filaments in a plane substantially parallel to the axis of said cartridge beyond the inner end of said member.

2,783,342
ELECTRIC TRANSDUCER
Louis D. Statham, Beverly Hills, Calif., assignor to Statham Laboratories, Inc., Los Angeles, Calif., a corporation of California
Application May 11, 1953, Serial No. 354,295
15 Claims. (Cl. 201—63)



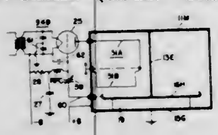
1. A transducer comprising a frame, a diaphragm mounted on said frame, a wire mounting connected to

said diaphragm, an electrical resistance strain wire connected to said wire mounting, a resilient connection between said wire and said frame, a spring mounted in said frame, said spring being connected to said diaphragm, and means for adjusting said spring.

2,783,343
DISCONTINUOUS WIRE-WOUND RESISTANCE AND METHOD OF MAKING
George J. Mucher, Rochester, N. Y., assignor to Clarostat Mfg. Co., Inc., Dover, N. H., a corporation of New York
Application September 16, 1954, Serial No. 456,490
7 Claims. (Cl. 201—63)

4. A discontinuous resistance card including a section of constant resistance and a section of variable resistance comprising a resistance card of a length to accommodate such sections, a resistance wire wound over the entire length occupied by both said resistance sections, an electrical bond connecting adjacent turns of the constant resistance section over the portion extending from the first turn of said section to a point at least one turn short of its junction with the variable resistance section, and a vernier electrical bond connecting adjacent turns of wire at the junction of said sections, said vernier bond connecting a plurality of turns of the constant resistance section and at least the first turn of the variable resistance section to extend the bonded section of wire slightly in excess of the constant resistance section.

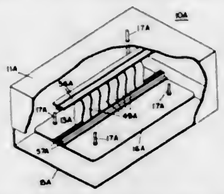
2,783,344
DIELECTRIC HEATING SYSTEMS AND APPLICATORS
Henry R. Warren, Columbus, Ind., assignor to National Cylinder Gas Company, Chicago, Ill., a corporation of Delaware
Application March 26, 1954, Serial No. 419,633
44 Claims. (Cl. 219—10.55)



16. A dielectric heating applicator comprising a metallic reentrant cavity, a heating electrode within said cavity in spaced relation to all walls thereof, and fin structure fixedly attached at its opposite ends to said heating electrode and a wall of said cavity, said fin structure including an extensible section for substantial variation of the spacing between said heating electrode and an opposite wall of the cavity, said metallic cavity, said electrode and said fin structure forming a reentrant cavity resonator.

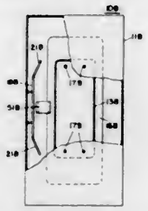
2,783,345
HIGH-FREQUENCY HEATING APPLICATORS
Henry R. Warren, Columbus, Ind., assignor to National Cylinder Gas Company, Chicago, Ill., a corporation of Delaware
Application March 26, 1954, Serial No. 419,073
18 Claims. (Cl. 219—10.55)

12. A high-frequency heating system comprising an applicator having a conductive shielding enclosure and having electrodes variably spaced therein to receive dielectric material to be heated, and conductive structure within said enclosure and cooperating with wall structure thereof electrically to interconnect said electrodes, a power-transfer circuit including a loop disposed in the space between said conductive structure and the wall structure of said enclosure for traverse by the high-frequency field about said conductive structure, mechanism operable to vary the spacing between said electrodes, and structure oper-



able concurrently with change of said spacing between said electrodes to vary the ratio between the effective area enclosed by said loop and traversed by said field and the area of said space subtended by said loop between said conductive structure and said wall structure of said enclosure.

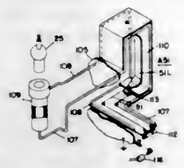
2,783,346
HIGH-FREQUENCY HEATING APPLICATORS
Henry R. Warren, Columbus, Ind., assignor to National Cylinder Gas Company, Chicago, Ill., a corporation of Delaware
Application March 26, 1954, Serial No. 419,072
16 Claims. (Cl. 219—10.55)



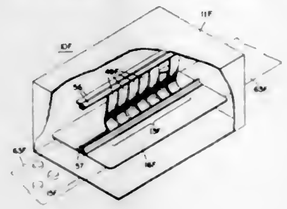
2. A resonant high-frequency heating device comprising conductive walls defining a reentrant resonator, metallic fin structure extending from a first of said walls and spaced from the other walls to provide the inductance of the resonator, an electrode disposed at and electrically connected to the free end of said fin structure in spaced relation to the tunnel wall opposite said first wall to provide the capacitance of said resonator, a stationary coupling loop disposed in the resonator space which encircles said fin structure, and means for modifying the mutual inductance of said loop and the resonator, said means comprising conductive plate structure disposed in said space adjacent said coupling loop and consisting in part of stationary plate structure substantially parallel to the fin structure to serve as a flux guide and in part consisting of structure movable to serve as a flux gate.

2,783,347
HIGH-FREQUENCY HEATING SYSTEMS AND APPLICATORS
Henry R. Warren, Columbus, Ind., assignor to National Cylinder Gas Company, Chicago, Ill., a corporation of Delaware
Application March 26, 1954, Serial No. 419,074
18 Claims. (Cl. 219—10.55)

11. A high-frequency heating system comprising a high-power oscillator tube for supplying high-frequency power to work between spaced heating electrodes, said tube requiring anode cooling liquid, a coupling loop in the anode circuit of said tube comprising a fixed section of strap conductor and piping for said cooling liquid attached to said strap conductor, and a resonant applicator comprising spaced electrodes and conductive structure electrically interconnecting said electrodes, said loop being disposed in position to be traversed by the high-frequency magnetic field encircling said structure and having a movable part devoid of piping for cooling liquid, which movable part is adjustable to vary the area of the loop so to control the high-frequency potential-difference of said heating electrodes.

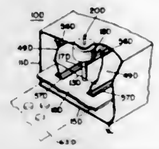


2,783,348
HIGH-FREQUENCY HEATING APPLICATORS
Henry R. Warren, Columbus, Ind., assignor to National Cylinder Gas Company, Chicago, Ill., a corporation of Delaware
Application March 26, 1954, Serial No. 419,071
27 Claims. (Cl. 219—10.55)



15. A high-frequency heating applicator comprising a pair of elongated electrodes, supported in spaced relation one from the other, conductive structure electrically connected at one end to one of said electrodes and extending away from said one electrode, said structure being elongated in a direction parallel to a face of said electrode to control the voltage gradient along said electrode in said direction, a housing enclosing said structure and the space between said electrodes, and means including wall structure of said housing electrically interconnecting the other end of said structure with the other of said electrodes.

2,783,349
HIGH-FREQUENCY HEATING APPLICATORS
Henry R. Warren, Columbus, Ind., assignor to National Cylinder Gas Company, Chicago, Ill., a corporation of Delaware
Application March 26, 1954, Serial No. 419,070
21 Claims. (Cl. 219—10.55)

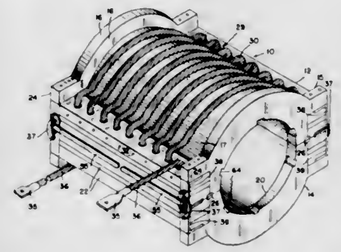


16. A resonant applicator comprising a pair of electrodes having substantial breadth and greater length and which are supported in spaced relation one from the other, elongated conductive members spaced from each other in the direction of the width of one of said electrodes and extending in the direction of elongation thereof, each of said members being electrically connected at one elongated end to said one of said electrodes, a conductive-walled housing enclosing said members and the space between said electrodes, and means including wall structure of said housing electrically connecting the other elongated ends of said conductive members to the other electrode and forming a confined path for the high-frequency magnetic field about said members.

2,783,350
CONTINUOUS THERMATRONIC PROCESSING CELL
Ladislav J. Pircon, Berwyn, Ill., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Army
Application September 14, 1954, Serial No. 455,907
10 Claims. (Cl. 219—10.69)

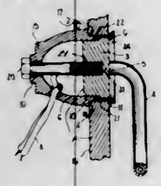
1. A cell for the continuous thermatronic processing of comminuted meat, comprising, a tubular processing chamber including electrically conductive electrode defining structure, a pair of screw conveyor sections mounted concentrically within said tubular chamber, an electrically conductive coupling means coaxially joining adjacent ends of said conveyor sections and defining with said tubular chamber a generally annular passageway for meat, and means for causing a flow of electrical energy between said coupling and said electrode defining structure to uniformly process meat being conveyed along said passageway by said conveyor sections.

2,783,351
SPLIT INDUCTION HEATING COIL
Roy F. Conkling, Port Huron, and William H. Myers, Algonac, Mich.
Application April 12, 1954, Serial No. 422,392
18 Claims. (Cl. 219—10.79)



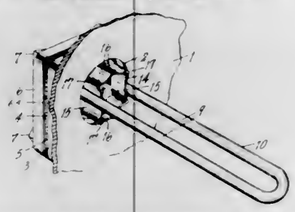
1. Apparatus for preheating and stress relieving metallic joints before and after welding, comprising an annular heat insulating frame adapted to be positioned around the joint, said frame comprising arcuate sections of heat insulating material and means for releasably securing said sections together to complete the annular frame, and an induction heating coil extending spirally about said frame, said coil comprising a plurality of circumferentially extending electrical conductors carried by each frame section, each conductor having electrical contacts at its opposite ends fixedly secured to the associated frame section whereby said conductors form a structural unit with said frame sections, and the contacts of the conductors of one section being arranged and constructed to engage the respeceive contacts of the conductors of the other section when said sections are secured together to complete the induction heating coil.

2,783,352
IMMERSION HEATER
David D. McKay, St. James, Manitoba, Canada, assignor to James B. Carter, Limited, Winnipeg, Manitoba, Canada
Application October 27, 1955, Serial No. 543,190
4 Claims. (Cl. 219—38)



1. A coolant heater adapted to be inserted into a circular aperture in a supporting surface, comprising in combination a cylindrical body portion, an immersion element carried by said body portion and extending upon one side thereof, said body portion adapted to pass through said aperture, a cover portion detachably secured to the other side of said body portion, means cooperating between said cover portion and said body portion adapted to clamp said body portion sealably into said aperture, and a resilient O ring also surrounding said body portion adapted to be clamped between said cover portion and said body portion.

2,783,353
CORROSION PREVENTING MOUNT FOR ELECTRIC WATER HEATERS
John J. Finn, Allegan, Mich., assignor to Heatube Corporation, Allegan, Mich.
Application June 17, 1955, Serial No. 516,120
12 Claims. (Cl. 219—38)



4. An electric water heater comprising a tank having a metallic surface on the inside thereof and a port formed in the wall thereof with a gasket seat surrounding the outside of the port, a U-shaped sheath of metal tubing projecting through said port with its ends located exteriorly of the tank, a plate of corrosion resistant metal having holes therein passing the ends of said sheath with the surface of the plate sealed around the surfaces of the sheath, said plate being sealed to said seat and electrically insulated from the tank, an electric heating element in said sheath having its ends exposed on the outer side of said tank, and an electrical discharge localizing clip of metal mounted between the branches of said sheath and within said port, said clip being a multi-sided loop with concave sides yieldably engaging said sheath and having a plurality of externally convex corners between said sides projecting into closely spaced relation with the inner surface of said port.

2,783,354
COMBINATION STEAM-ELECTRIC OIL HEATER
Fred A. Loebel and Reid Ewing, Milwaukee, Wis., assignors to Cleaver-Brooks Company, a corporation of Wisconsin
Application September 17, 1954, Serial No. 456,734
3 Claims. (Cl. 219—39)

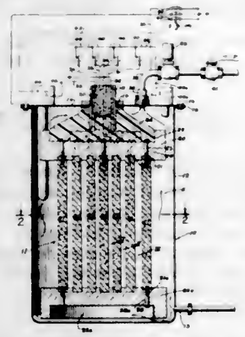
1. An oil preheater for use in a steam generating unit comprising, a cylindrical shell having a flanged end plate secured to each end, an oil inlet positioned adjacent one end of said shell and an oil outlet positioned adjacent the opposite end of said shell, a plurality of flat baffles in the form of substantially circular discs having a segment cut away to provide a passage for the flow of oil between said baffle and said shell, said baffles being fixedly positioned in parallel spaced relation in said shell and transverse to the general longitudinal flow of oil therethrough, said oil passages being alternately positioned at opposite sides of said shell so as to provide a long tortuous path for the flow of oil from said oil inlet to said oil outlet, a first tube sheet secured to one of said flanged end plates and having secured therein a plurality of steam tubes extending substantially parallel to each other into said shell and through said plurality of baffles, said steam tubes being closed at their inner ends, a lower casting having a mating flanged plate secured to said first tube sheet, a plurality of re-entrant tubes extending concentrically upwardly within said steam tubes and substantially to the closed end of said steam tubes, a second tube sheet positioned in said lower casting below said first tube sheet, said re-entrant tubes

being secured in said second tube sheet so as to conduct steam into the upper end of the steam tubes, said lower casting having a drain outlet positioned between said tube sheets to drain off the steam condensate formed between the walls of said concentric steam and re-entrant tubes, a plurality of elongated electrical heating elements extending through said other flanged end plate into said shell and through said baffles, said elements being substantially parallel to each other and to said steam tubes, an electrical thermostat for energizing said heating elements, and a bulb and capillary tube control means set at a temperature above the setting of said electrical thermostat and operable to control admission of steam into said re-entrant tubes, both of said thermostats being positioned near said oil outlet, the staggered positioning of said oil passages insuring multiple passes of oil around said steam tubes and electrical heating elements as it flows through said shell, said electrical heating elements adapted to initially heat the oil passing through said shell but adapted to be de-energized after the steam in said tubes has reached a temperature sufficient to heat the oil to the desired temperature, above the setting of said electrical thermostat.

2,783,355
FIXED ELECTRODE WATER HEATER
Vladimir M. Vassiliev, Little Neck, N. Y., assignor, by mesne assignments, to Carbon Heater Corporation, New York, N. Y., a corporation of New York
Application November 10, 1955, Serial No. 546,162
7 Claims. (Cl. 219—40)

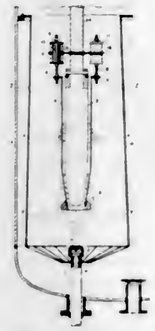
2. An electric water heater comprising a heating element including parallelly disposed plate-like electrodes of

differing areas and varying spacing between adjacent pairs of the electrodes, insulative end members disposed at opposite ends of the electrodes, means for securing the end



members to the electrodes, and separate electrical connectors to the respective electrodes extending from one of the end members.

2,783,356
GRID SHIELDED ELECTRODE FOR ELECTRIC BOILERS
Milton Eaton, Shawinigan Falls, Quebec, Canada, assignor to The Shawinigan Water and Power Company, Montreal, Quebec, Canada, a corporation of Quebec
Application February 16, 1956, Serial No. 566,009
10 Claims. (Cl. 219—40)



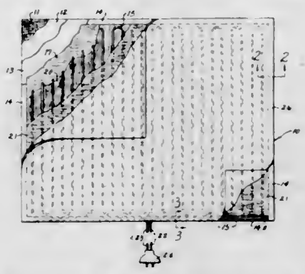
1. In an electric steam generator of the type having at least one electrode normally partially submerged in the boiler water, the improvement which comprises a separate metal grid surrounding each electrode and spaced apart therefrom, each metal grid forming an annular space around its associated electrode and extending at least as low as the bottom of the electrode, and insulated means, located above the highest operating water level on the electrodes, to support each grid so that there is no metallic connection between the grids and any other parts of the steam generator.

2,783,357
CONTAINERS THAT KEEP MATERIALS WARM
William B. Readey, Brentwood, Mo.
Application March 31, 1952, Serial No. 279,594
6 Claims. (Cl. 219—43)

1. The combination of a table, a plurality of electrical conductors on said table and a container for food that has been cooked and that is to be kept warm for eating purposes, said table having a top that is substantially plane, said conductors being a part of the top of the table and having the upper surfaces exposed at substantially the level of said plane, said conductors being spaced apart, said container having a food confining surface and an electrically resistive path that generates heat whenever current passes through it, and terminals, said path being spaced from but being in heat-transferring relation with said food confining surface, said terminals being spaced apart and being electrically connected to said path,

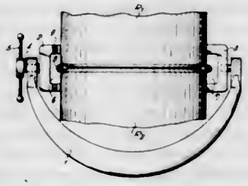
said terminals being exposed at the lower surface of the container and spaced to engage said conductors solely by face to face gravity induced contact, the conductors comprising flat surfaces and the relative areas of the conductors and terminals being substantially different whereby the container may be slidably moved relative to the surface of the table in a plane substantially parallel to said surface.

2,783,358
ELECTRICALLY HEATED PAD
Herman B. Wolf, Charlotte, N. C.
Application December 14, 1953, Serial No. 397,906
9 Claims. (Cl. 219—46)



1. A heat radiating pad comprising a pair of opposing covers, a coiled heating element having spaced coils arranged between said opposing covers, a fibrous metal pad construction disposed between said opposing covers and in which said coils of the heating element are embedded, and a foil sheet on the exterior surface of one of said opposing covers.

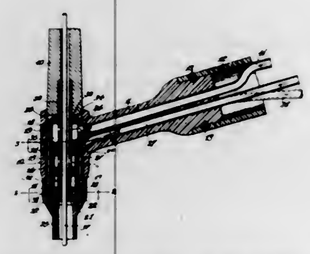
2,783,359
PROCESS FOR ARC WELDING OF CIRCULAR SEAMS ON PIPES IN SUBSTANTIALLY HORIZONTAL POSITION
Hans Günther, Mosbach (Baden), Germany, assignor to Kraftanlagen A. G., Heidelberg, Germany
Application March 9, 1954, Serial No. 415,117
Claims priority, application Germany March 10, 1953
5 Claims. (Cl. 219—61)



1. In the process of joining two stationary circular pipe sections by arc welding their rims, the rims being posi-

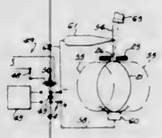
tioned to form a substantially annular gap extending in a vertical plane, the steps of deforming elastically and temporarily the rims to form a gap which is wider at the sides than at top and bottom, and causing the welding arc to progress along the unequal-width gap while the pipe sections remain stationary.

2,783,360
WELDING TORCH
Max R. Osborn, New York, N. Y.
Application June 28, 1954, Serial No. 439,649
8 Claims. (Cl. 219—75)



1. In a welding torch, a body of dielectric and heat resistant material, an electrode holder extending into said body, said holder including a tubular electrical conducting member having internal screw threads; a tubular sleeve member fitting in said body and surrounding said conducting member and having its opposite ends respectively in contact with said conducting member, said conducting member and sleeve member forming a jacket within said body through which a cooling medium may flow; conduit means extending through said body and sleeve member for circulating the cooling medium through said jacket; a collet in said conducting member, for engaging the electrode; and means engaging said collet and screw threads, for actuating the collet to clamp or release the electrode.

2,783,361
WELDING PROCESS AND APPARATUS
Robert E. Semple, Temple City, Calif., assignor to Beckman Instruments, Inc., Fullerton, Calif., a corporation of California
Original application July 31, 1952, Serial No. 302,023, now Patent No. 2,710,328, dated June 7, 1955. Divided and this application April 7, 1955, Serial No. 499,789
6 Claims. (Cl. 219—107)

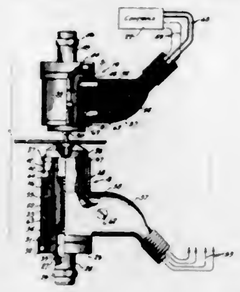


1. A method of welding together two small metal filaments in or near the range of sizes in which the aid of optical magnification is desirable for quantity production, which method includes the steps of: moving one filament forwardly toward the other until they are in physical contact; then separating said filaments a slight distance sufficient only to form a minute gap between the previously-engaged zones of the filaments; and then discharging through said gap a capacitor charged at a potential greater than the breakdown potential of said gap to establish a spark in said gap of sufficient intensity to weld the filaments together.

2,783,362
MULTIPLE ELECTRODE ARC WELDING ASSEMBLY
John Hassler, Cleveland, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 1, 1954, Serial No. 472,495
5 Claims. (Cl. 219—146)

1. A dual welding electrode assembly comprising a pair of separate, distinct welding electrodes each having a separate insulating flux coating over a central core with one end of each electrode having the coating skinned from the core thereof, and electrode spreading means at the skinned ends of said electrodes holding the electrodes at a slight angle to each other with the electrodes converging and held in tension against each other and their insulating coatings touching and in line contact relation over a major portion of their length.

2,783,363
DIMPLE DIE HEATER
Joseph R. Gunther, Inglewood, and Arthur Marcoux, Hermosa Beach, Calif., assignors to Douglas Aircraft Company, Inc., Santa Monica, Calif.
Application December 10, 1954, Serial No. 474,539
7 Claims. (Cl. 219—149)

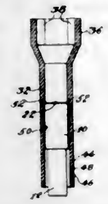


1. A dimpling machine comprising: a punch; a die cooperating with said punch for forming a dimple shaped depression in sheet-like material; means supporting the punch and die in the machine; means for heating the punch and die and including a spool-like member interposed between each of said punch and die and its respective supporting means, the spool-like member having an annular concavity closed by an encircling sheath, said concavity having therein a resistance type heater embedded in a mass of heat conductive material; means for relatively moving the punch and die toward each other in two phases, the first of said phases effecting the heat transfer contact of the punch and die with a piece of sheet-like material therebetween and the second of said phases effecting the formation of a depression in the piece of sheet-like material.

2,783,364
ILLUMINATED LUG WRENCH ATTACHMENT
Elwood S. Wood, Jr., Norfolk, Va.
Application May 26, 1955, Serial No. 511,144
2 Claims. (Cl. 240—6.46)

1. A combination illuminated lug wrench attachment comprising a casing having a head member, said head member being provided with an interior surface adapted to engage a lug, said attachment having a multi-sided end portion at the side opposite of said head member whereby said end portion may be engaged by a tool,

said attachment having an intermediate portion, a longitudinal channel in said intermediate portion having a circular shoulder, a self-contained flashlight adapted to be slidably fitted within said channel and adapted to engage said shoulder, said flashlight comprising a pair



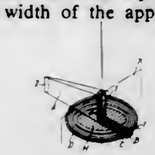
of sleeves threadedly engaging each other, a battery in one of said sleeves, a bulb at one end of the other of said sleeves, switch means, said switch means being operable by relative rotative movement of said sleeves to connect said battery to said bulb.

2,783,365
INTERIOR LIGHTING SYSTEM FOR MOTOR VEHICLES
Karl Wilfert, Stuttgart-Degerloch, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany
Application March 24, 1954, Serial No. 418,327
Claims priority, application Germany March 26, 1953
3 Claims. (Cl. 240—7.1)

1. The combination of an interior boarding light for motor vehicles, comprising means for energizing and de-energizing said light in response to opening and closing of the vehicle door with means for rendering said automatic means ineffective, the last-named means including control means for continuously energizing or de-energizing said light, said light including a pivotal cover connected with and adapted to actuate said control means and adjustable into three positions, in one position of which a relatively large light beam is emitted by said light while said light is continuously energized, in a second position of which a relatively small light beam is emitted by said light while said light is under the control of said automatic means, and in the third position of which said light beam is completely cut off while said light is permanently de-energized.

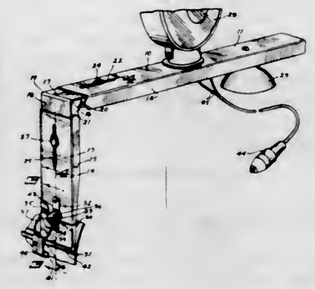
2,783,366
METHOD AND APPARATUS FOR PRODUCING ESTHETIC LIGHTING EFFECTS
Charles Jellinek, Sevran, France; Yvonne Bruyneel, Paris, and Marianne Velt, Sevran, France, the sole heirs of Charles Jellinek, deceased, assignors of one-half to Robert E. Burns, New York, N. Y.
Application January 6, 1951, Serial No. 204,804
Claims priority, application France January 13, 1950
20 Claims. (Cl. 240—10.1)

1. A method of indirect lighting which comprises projecting from a source of light a thin flat beam of substantially parallel rays on a reflective means having a substantially cylindrical curved reflective surface, and projecting upwardly from a flat surface, said beam being inclined downwardly toward said flat surface and the plane of said beam being substantially parallel to the longitudinal axis of said cylindrical surface, said beam being of a thickness at least equal to and not much greater than the width of the apparent outline of said



reflective means as seen from said source of light, said parallel rays being reflected from said reflective means, and recovering said reflected rays on said flat surface, thereby obtaining on said surface a geometric pattern consisting of homothetic rings, halos and conical curves extending all around the geometric axis of said reflective means, except for a portion of said surface where the cast shadow of said reflective means extends.

2,783,367
LAMP MOUNT FOR AUTOMOTIVE VEHICLES
Donald C. Locke, Fulda, Minn.
Application September 20, 1955, Serial No. 535,383
3 Claims. (Cl. 240—52.1)

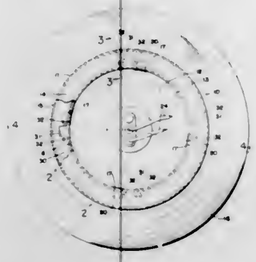


1. A lamp mount for automotive vehicles comprising an elongated frame to extend transversely of an automotive vehicle above the top thereof, a lamp upon said elongated frame, upright elements disposed outwardly of and rigidly connected to opposite ends, respectively, of said elongated frame, each of said upright elements including a lower surface to be supported upon an upwardly facing surface of a trough of said automotive vehicle at the corresponding side thereof, a manually manipulatable lever disposed outwardly of and in adjacent relation to each of said upright elements, means pivotally supporting an inner end portion of each of said levers upon the corresponding upright element for swinging movement in a vertical plane between a lower position and an upper dead center position, a longitudinally resilient member pivotally supported upon an outer end portion of each of said levers and extending downwardly therefrom, and a clamp element pivotally supported upon a lower portion of each of said resilient members and including a hook portion having an upwardly facing surface to be pressingly engaged up against a lower surface of the trough of the automotive vehicle at the corresponding side thereof, thus to cause the lower surface of the corresponding upright element to be pressingly engaged down against the corresponding trough, in response to upward swinging movement of the corresponding lever to dead center position.

2,783,368
LIGHTING FIXTURE

Joseph L. Jaffe, Shaker Heights, Ohio, assignor to The Perfeclite Company, Cleveland, Ohio, a corporation of Ohio

Application April 22, 1954, Serial No. 424,834
1 Claim. (Cl. 240—128)

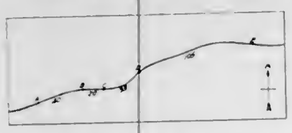


A pendant type lighting fixture comprising a base member adapted to be secured to a ceiling, said base member having a lowered circular portion centrally thereof and an annular portion outwardly thereof, said annular portion having a flange at the outer surface thereof, said circular portion having a plurality of bayonet lugs projecting outwardly of this portion of the fixture, a globe, a metal band secured to said globe, said metal band having a protector ring annular in shape integral therewith inwardly of the globe and of a diameter just larger than the lowered circular portion, said protector ring having a plurality of openings from the inner edge of the protector ring adapted to mate with bayonet lugs on the lowered central portion, said protector ring further having downward indentures adjacent said opening to prevent accidental movement of the globe, ring, and band relative to the base member.

2,783,369
RADIO TRANSMITTING AND RECEIVING SIGNAL SYSTEM

Edmund H. Weber, International Falls, Minn., assignor of one-half to Berthel K. Olsson, Fort Francis, Ontario, Canada

Application November 23, 1951, Serial No. 257,794
14 Claims. (Cl. 246—30)

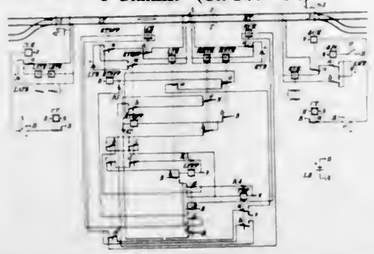


1. In a railway signal system for controlling the scheduling of a multiplicity of trains and locomotives operating on tracks within a given area of ground and for reducing hazards from collision therein, the novel combination comprising a radio transmitter associated with each locomotive having as three of the component parts thereof a signal generator for producing radio carrier waves of preselected fixed frequency, a generator for producing modulating signals of controlled frequency and a variable control unit for varying the said frequency of the modulating signals with movement of said variable control, driving linkage having a high ratio of reduction physically responsive to travel of said locomotive over said tracks, and a connection through said driving linkage with said variable control unit whereby movement of a locomotive with respect to said tracks will be linearly translated to a change in frequency of said modulating signals.

2,783,370
CODED TRACK CIRCUIT APPARATUS WITH INSULATION BREAKDOWN PROTECTION

Crawford E. Staples, Homewood, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania

Application November 10, 1953, Serial No. 391,187
5 Claims. (Cl. 246—34)



1. In combination, a first and a second adjacent section of railway track, means at the remote end of each of said sections for at times supplying steady energy to the rails of said section, for at other times supplying coded energy to the rails of said section, and for at still other times connecting track relay means across the rails of said section at the remote end thereof, and repeating means at the adjacent ends of said first and said second sections for retransmitting energy supplied to one of said sections at the remote end thereof to the remote end of the adjacent section, said repeating means comprising a first and a second track relay associated with said first and said second sections respectively, said track relays having front and back contacts which are closed according as energy is or is not supplied to a winding of the track relay from the associated track section, a first and a second front contact repeater relay associated with said first and said second track relays respectively, a control circuit for each of said front contact repeater relays including a front contact of the associated track relay, a back contact repeater relay, a control circuit for said back contact repeater relay including back contacts of said first and said second track relays and front contacts of said first and said second front contact repeater relays, a first and a second transmitting relay associated with each of said sections and effective when energized to supply energy to said first and said second sections respectively, a first control circuit for said first transmitting relay including a front contact of said second front contact repeater relay and a back contact of said back contact repeater relay, a second control circuit for said first transmitting relay including a front contact of said second front contact repeater relay, a front contact of said back contact repeater relay, and a back contact of said second track relay, a first control circuit for said second transmitting relay including a front contact of said first front contact repeater relay and a back contact of said back contact repeater relay, a second control circuit for said second transmitting relay including a front contact of said first front contact repeater relay, a front contact of said back contact repeater relay, and a back contact of said first track relay, a snubbing circuit for said first front contact repeater relay including a back contact of said second front contact repeater relay, and a snubbing circuit for said second front contact repeater relay including a back contact of said first front contact repeater relay.

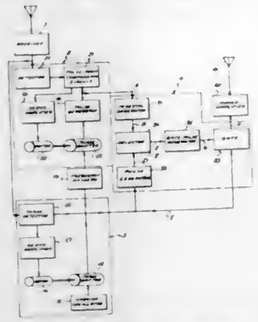
2,783,371
PULSED RADIO FREQUENCY SYNCHRONIZING SYSTEM

Robert L. Frank, New York, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware

Application November 13, 1950, Serial No. 195,239
17 Claims. (Cl. 250—15)

2. Means for combining low frequency pulse signals

and high frequency sine wave signals in a definite phase relation comprising means to generate a square wave in synchronism with said pulses, means to generate trigger voltages in synchronism with said sine waves, means to select one of said trigger voltages with said square wave,

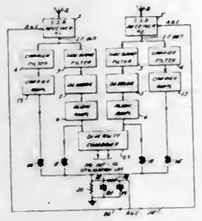


means to trigger a gate pulse generator with said selected trigger and means to gate the sine waves with said gate pulse to thereby create a pulsed radio frequency signal having the pulse leading edge in synchronism with a selected radio frequency cycle.

2,783,372
AUTOMATIC GAIN CONTROL SYSTEM

Harold O. Peterson and Robert E. Schock, Riverhead, N. Y., assignors to Radio Corporation of America, a corporation of Delaware

Application August 1, 1955, Serial No. 525,755
6 Claims. (Cl. 250—20)

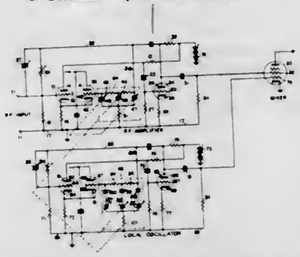


1. In a diversity system having first and second receivers each receptive of a composite wave containing both a sideband signal and a carrier signal, means in said first receiver for separating the sideband and carrier signals in such receiver from each other, means in said first receiver for rectifying the separated sideband signal in such receiver to produce a voltage proportional to the average level of the modulation frequency energy in said sideband signal, means in said first receiver for rectifying the separated carrier signal in such receiver to produce a voltage proportional to the average energy level of said carrier signal, means in said second receiver for separating the sideband and carrier signals in such receiver from each other, means in said second receiver for rectifying the separated sideband signal in such receiver to produce a voltage proportional to the average level of the modulation frequency energy in said sideband signal, means in said second receiver for rectifying the separated carrier signal in such receiver to produce a voltage proportional to the average energy level of said carrier signal, means for combining all of said voltages produced by rectification to produce a resultant voltage, and means for utilizing said resultant voltage as an automatic gain control voltage for both said first and said second receivers.

2,783,373
SUPERHETERODYNE RECEIVER USING RESISTANCE-CAPACITANCE TUNING IN LOCAL OSCILLATOR AND RADIO FREQUENCY STAGE

Conrad J. Fowler, Wyndmoor, Pa., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application October 5, 1953, Serial No. 384,361
8 Claims. (Cl. 250—20)

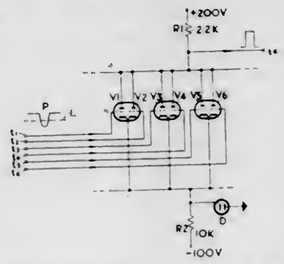


6. In a superheterodyne radio receiver, a radio frequency amplifier circuit and an oscillator circuit, each circuit including a positive feedback path having a tunable frequency-determining network consisting only of resistance means and variable capacitance means, said networks being substantially identical and differing only in that the variable capacitance means in one of said circuits includes an additional fixed capacitance component for determining and maintaining the frequency difference between said circuits when they are tuned in assembly, and means for simultaneously tuning said circuits.

2,783,374
ELECTRICAL GATE CIRCUITS

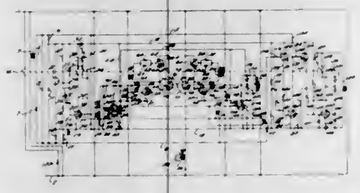
Edward Arthur Newman, Teddington, England, assignor to National Research Development Corporation, London, England, a British corporation

Application March 9, 1954, Serial No. 415,109
Claims priority, application Great Britain March 14, 1953
2 Claims. (Cl. 250—27)



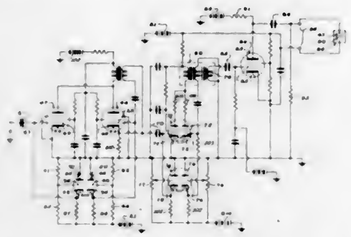
1. An electrical gate circuit comprising a plurality of thermionic valves each having a cathode, an anode and at least one intermediate grid, and being arranged in parallel with their anodes connected to a common anode resistor and their cathodes connected to a common cathode resistor, the ends of the anode and cathode resistors remote from the valves being adapted to be connected to the positive and negative outputs respectively of a high tension voltage supply, a plurality of signal input connections which supply to a grid of each valve binary digit signals which are either of a first kind which cut off the valve current or of a second kind which permits the valve current to flow, a source of an intermediate potential substantially equal to that of the valve cathodes when any of the valves are conducting, a connection from the valve cathodes to said source through a unilateral conducting device which conducts when the cathode potential moves negative with respect to the intermediate potential with the result that the common cathode potential

is maintained at a substantially constant potential level, and a signal output connection connected to the common valve anode circuit and on which an output voltage pulse signal substantially at the positive high tension voltage appears only when a digit signal of the first kind is present on all the signal input connections.

2,783,375
ELECTRIC CONTROL CIRCUIT
Robert C. Mierendorf and Clarence W. Porter, Milwaukee, Wis., assignors to Square D Company, Detroit, Mich., a corporation of Michigan
Application September 12, 1952, Serial No. 309,284
6 Claims. (Cl. 250—27)

1. In a control circuit, a source of alternating voltage, a load, means for controlling the passage of current through said load, controlling means for initiating current flow through said last mentioned means comprising a first electronic tube having an anode and a cathode and a controlling electrode, conduction of said first tube effecting conduction of said last mentioned means, means for applying a potential to said controlling electrode of a nature to permit conduction of current by said first electronic tube, said applying means including a second electronic tube having a pair of principal electrodes and a control electrode and means energized thereby for maintaining said controlling electrode potential for a substantial portion of a half cycle of said alternating voltage, a third electronic tube, a resistor in series with said third electronic tube, means for initiating the conduction of said third electronic tube at the beginning of a half cycle of said alternating voltage whereby a voltage drop appears across said resistor, connections between said resistor and said second electronic tube whereby the voltage drop across said resistor is impressed across said principal electrodes of said second electronic tube, means for applying a firing voltage to said control electrode of said second electronic tube at a predetermined instant after the voltage drop appears across said principal electrodes so that said second electronic tube starts to conduct at a predetermined instant relative to said alternating voltage wave, connections between said means energized by said second electronic tube and said controlling electrode of said first electronic tube, whereby said controlling electrode of said first electronic tube is supplied with said potential at a synchronized instant and retains said potential thereafter for a substantial portion of a half cycle so that said first electronic tube will conduct to initiate current flow through said last mentioned means.

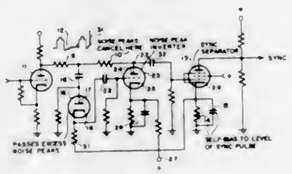
2,783,376
HIGH SPEED POSITIVE PULSE GENERATOR
Wilbur A. Hane, Seattle, Wash., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application October 3, 1950, Serial No. 188,234
2 Claims. (Cl. 250—27)

1. A bias control network for utilization with a grid controlled thermionic tube, having a capacitor connecting its control grid to a source of positive input pulses; comprising a bias control tube having at least a cathode, a control grid and an anode, means electrically connecting with substantially zero resistance the anode of the bias control tube to the cathode of the thermionic tube; a resistance, and a source of bias potential, said resistance being connected serially between the cathode of the bias control tube and the negative pole of the said source of bias potential, means electrically connecting the positive pole of said source of bias potential to the anode of said bias control tube, a resistance voltage divider having an



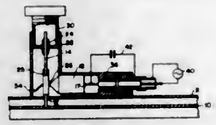
adjustable tap connected across said source of bias potential, means electrically connecting said tap to the grid of said bias control tube, and means electrically connecting the cathode of the bias control tube directly to the junction of the grid of the thermionic tube and said capacitor, the magnitude of the output from said pulse source being sufficiently large to drive said bias control tube to cut-off.

2,783,377
SIGNAL BIASED NOISE INVERTER FOR SYNCH SEPARATOR WHICH CANCELS NOISE ABOVE SYNCH PULSE LEVEL
George D. Wofford, Baltimore, Md., assignor to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware
Application November 8, 1951, Serial No. 255,360
6 Claims. (Cl. 250—27)



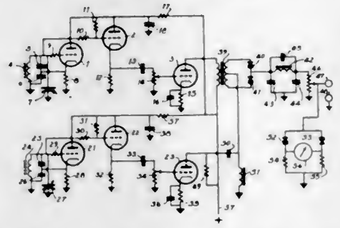
3. A noise inverter for a sync signal separating system subject to noise impulses of excessive amplitude superimposed on the desired input signal, comprising: a signal translating circuit; a sync separator; means including an impedance element coupling the output of said signal translating circuit to the input of said sync separator; impedance means coupled to said sync separator and responsive to the flow of space current therethrough to generate a voltage the magnitude of which is a function of the average peak magnitude of said input signal, an amplifier circuit having means to restrict the response thereof to signals having the polarity of the incoming sync signal; means coupling the output of said translating circuit to the input of said amplifier circuit; means coupling the output of said amplifier circuit to the said impedance element in a manner such that the signals developed thereacross by the output of said amplifier circuit bear an inverse polarity relationship to the signals applied thereto by said translating circuit; and means coupling said voltage to said input of said amplifier circuit to control the threshold level of the response of said amplifier circuit, whereby said amplifier circuit amplifies portions of said noise impulses having amplitudes that exceed the average peak signal level; thereby reducing the amplitude of the said noise impulses in the signal coupled to said input of said sync separator.

2,783,378
MODULATION IN A RIDGED WAVE GUIDE
Clyde E. Vogeley, Jr., Pittsburgh, Pa., and William L. Stahl, Chicago, Ill., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application July 30, 1949, Serial No. 107,758
6 Claims. (Cl. 250—31)



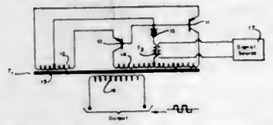
1. In combination, a ridged wave guide, a probe fastened to one side of said ridged wave guide and extending through the opposite side thereof, a germanium crystal external to said ridged wave guide, a capacitive coupling between said probe and said crystal, connections for impressing an alternating potential across said crystal, connections between one end of said crystal and said ridged wave guide.

2,783,379
BEAT FREQUENCY OSCILLATOR
Lawrence Fleming, Falls Church, Va.
Application January 24, 1955, Serial No. 483,599
4 Claims. (Cl. 250—36)



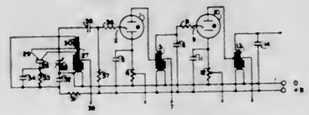
1. A beat-frequency oscillator comprising a fixed carrier frequency oscillator, a variable carrier frequency oscillator, a phase detector containing only passive circuit elements, signal paths from each of said oscillators to said phase detector, and a direct-current and alternating-current signal path containing a low-pass filter from said phase detector to a pair of output terminals, whereby a variable-frequency beat-frequency signal is obtained at said output terminals which has substantially no limitation on the lowest beat frequency available but which contains substantially no direct-current component.

2,783,380
FREQUENCY CONTROLLED TRANSISTOR OSCILLATOR
Theodore H. Bonn, Philadelphia, Pa., assignor to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware
Application October 3, 1955, Serial No. 538,185
17 Claims. (Cl. 250—36)



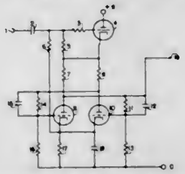
1. In an oscillator, a transformer having a first winding, an output winding and a feedback winding thereon, a pair of transistors coupled to opposing ends of said first winding, means coupling said feedback winding to said pair of transistors, a variable potential source coupled between each of said pair of transistors and a center-tap on said first winding, and signal means for changing the magnitude of said variable potential source.

2,783,381
FREQUENCY DIVIDER CIRCUIT FOR MUSICAL INSTRUMENTS
Harald Bode, Brattleboro, Vt., assignor, by mesne assignments, to Estey Organ Corporation (Del.), New York, N. Y., a corporation of Delaware
Application July 6, 1954, Serial No. 441,252
18 Claims. (Cl. 250—36)



1. In an electronic musical instrument, a frequency divider to generate subharmonics of signals representing musical tones, said frequency divider comprising a relaxation oscillator adapted to oscillate at a predetermined subharmonic of said musical tones, said oscillator employing a glow discharge device having an anode circuit and a control circuit whereon said tone signals are impressed; and a parallel resonant circuit coupled to the anode circuit of said glow discharge device and adapted to provide subharmonic tone signals of relatively low harmonic content.

2,783,382
FREQUENCY DIVIDER CIRCUIT FOR MUSICAL INSTRUMENTS
Harald Bode, Brattleboro, Vt., assignor, by mesne assignments, to Estey Organ Corporation (Del.), New York, N. Y., a corporation of Delaware
Application July 6, 1954, Serial No. 441,253
13 Claims. (Cl. 250—36)

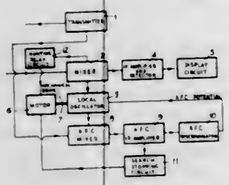


1. In an electronic musical instrument, a manually variable frequency oscillator to provide master signals representing fundamental musical tones; at least one Eccles-Jordan type frequency divider to provide subharmonic signals to complement the master signals and thereby enhance the quality of the tones; and coupling means to impress on said frequency divider for synchronizing same the master signals from said oscillator; said coupling means including a cathode follower having an input circuit coupled to said oscillator and an output circuit coupled to the anode circuits of said frequency divider to decrease periodically the amount of current in the conductive one of said anode circuits and thereby repetitively trigger said frequency divider.

2,783,383
ELECTRIC OSCILLATION GENERATOR SYSTEMS
Wilfred Percy Robins, Greenford, England, assignor to The General Electric Company Limited, London, England
Application May 18, 1954, Serial No. 430,646
Claims priority, application Great Britain May 21, 1953
2 Claims. (Cl. 250—36)

2. An electric oscillation generator comprising an electronic oscillator having both a mechanical and an elec-

trical frequency control and an automatic frequency control system for maintaining the frequency of the oscillator as nearly as possible at a required constant difference to one side of the frequency of an input oscillation, the automatic frequency control system comprising a motor to tune the oscillator across the band of frequencies in which it is required to operate by driving the mechanical frequency control, an electronic automatic frequency control circuit which is fed with an output from the oscillator and part at least of the input oscillations and which comprises a mixer circuit for deriving an oscillation having a frequency equal to the difference of the frequencies of the two oscillations applied to it and a feedback loop responsive to the frequency of the output from the mixer circuit for varying the electrical frequency control of the oscillator to bring the frequency



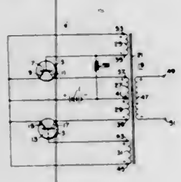
of the output from the mixer circuit to the required constant frequency difference, and a search stopping circuit for stopping the motor when the frequency of the output from the mixer circuit is close to the required constant frequency difference, the search stopping circuit comprising a relay operable to stop the motor, a frequency-sensitive signal translating circuit which is tuned to the required constant frequency difference and to which is supplied a portion of the output from the mixer, and means for operating the relay to stop the motor when the output from the frequency-sensitive signal translating circuit exceeds a predetermined level, this level being such that the means is not operated to stop the motor when the frequency of the oscillator is controlled by the electronic automatic frequency control circuit to the hold-out frequency.

2,783,384

ELECTRICAL INVERTER CIRCUITS

Richard L. Bright, Adamsburg, and George H. Royer, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application April 6, 1954, Serial No. 421,350
19 Claims. (Cl. 250—36)



1. In an electrical system, unidirectional voltage producing means, a first semi-conductor device of the P–N–P type, a second semi-conductor device of the N–P–N type, each of said first and second devices including a base electrode, an emitter electrode and a collector electrode, translating means including first and second input terminals, and control means for producing biasing potentials of periodically reversible polarity for biasing said first and second devices, said control means having first and second output terminals, being connected to one pair of corresponding electrodes of the emitter and collector electrodes of said first and second devices, said second output terminal being connected to the base electrode of each of said first and second devices, said first input terminal being connected to said one pair of corresponding electrodes of said first and second devices, a separate portion of the unidirectional voltage producing means being connected between said second input terminal and each electrode of the remaining pair of corresponding electrodes of the emitter and collector electrodes of said first and second devices, each of said devices having a cutoff current conducting condition between the emitter and collector electrodes for one polarity of biasing potential and a saturated current conducting condition between the emitter and collector electrodes for the opposite polarity of biasing potential.

2,783,385

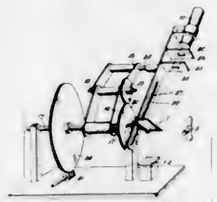
X-RAY FLUORESCENT SPECTROMETRY

Sjoerd Wytzes, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee

Application October 30, 1953, Serial No. 389,448

Claims priority, application Netherlands November 8, 1952

6 Claims. (Cl. 250—53)



1. An X-ray fluorescent analysis apparatus comprising a thin curved crystal for deflecting and converging to a point a mono-chromatic beam of X-radiation, said curved crystal having a given radius of curvature and defining a circle of diameter equal to said given radius, detecting means responsive to X-radiation located at said focal point of said X-ray beam to receive said X-radiation, first means for rotating said crystal about an axis extending therethrough at a given angular speed, and second means coupled to said first means for rotating said detecting means about an axis parallel to said crystal and passing through a point substantially at the center of said circle at twice the angular speed of rotation of said crystal.

2,783,386

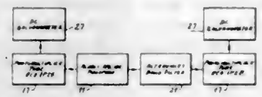
DEVICE FOR DETERMINING THE INTENSITY OF NUCLEAR RADIATION

Charles E. Mandeville, Houston, Tex., and Herbert O. Albrecht, Springfield, Pa., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application March 29, 1954, Serial No. 419,637

1 Claim. (Cl. 250—71)

For indicating exposure to a brust of nuclear radiation, in combination with an alkali halide phosphor, an ultraviolet band filter located adjacent to the alkali halide phosphor for exposure to emissions therefrom in a position on one side of the material, a photomultiplier tube located adjacent to the ultraviolet band filter in position of exposure to emissions from the alkali halide phosphor through the filter, an electrical measuring device con-



nected with the photomultiplier tube, and a second electrical measuring device measuring emissions from the alkali phosphor directly and located for exposure to the emissions in a position on a different and opposite side of the material.

2,783,387

RAY DETECTING SYSTEM AND METHOD OF STABILIZING SAME

John F. Howell, Milwaukee, Wis., assignor to General Electric Company, a corporation of New York

Application February 2, 1953, Serial No. 334,664
18 Claims. (Cl. 250—83.3)

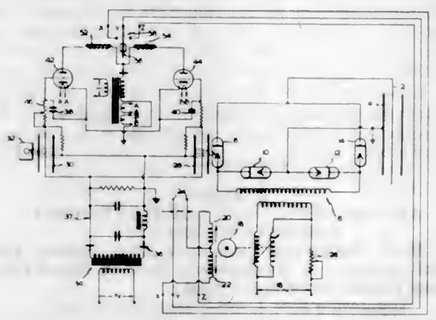
5. Penetrating ray detection apparatus comprising a ray source, an operable load device, a ray sensitive scanning detector disposed in position to receive a ray beam from said source, a translation system embodying an electron flow signal relay device controllingly associated with said scanning detector and operable to transmit a signal corresponding with the impingement intensity of said ray beam on the scanning detector, for the operation of said load device, and a monitoring detector responsive to the intensity of rays emitted by said source and operatively associated with said signal relay device to modulate the operation thereof in accordance with ray source intensity fluctuations.

2,783,388

ELECTRICAL PRECIPITATOR VOLTAGE CONTROL

Harry A. Wintermute, Plainfield, N. J., assignor to Research Corporation, New York, N. Y., a corporation of New York

Application August 24, 1954, Serial No. 451,770
5 Claims. (Cl. 250—83.6)



4. In an electrical precipitator, precipitator electrodes, a step-up transformer, a rectifier system comprising at least two oppositely connected kenotron type thermionic rectifiers for supplying rectified high potential from said transformer to said precipitator electrodes, adjustable regulator means for controlling the output of said transformer, a Geiger counter located adjacent at least one of said kenotron type thermionic rectifiers, and servo means controlled by the output of said Geiger counter for adjusting said adjustable regulator means in accordance with said output.

2,783,389

MARKING INSPECTION DEVICE

Donald G. Cummings, Kalamazoo Township, Kalamazoo County, Oliver R. Woods, Scotts, and Bert Van Weelden, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

Application May 31, 1950, Serial No. 165,294
52 Claims. (Cl. 250—214)

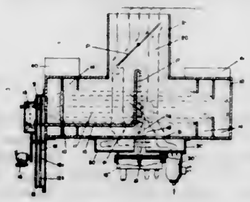
2. In a process for identifying a predetermined shape characteristic on an illuminated article and for performing an operation as a result of such identifying, the steps: directing a beam of illumination reflected from said shape characteristic onto a light responsive device; repeatedly, rapidly and regularly moving a facsimile of said shape characteristic into and out of said beam of illumination, the intensity and rate of change of intensity of said beam falling upon said light responsive device being substantially altered when an intercepting facsimile registers with said shape characteristic in said beam; converting said illumination into a pulsating electrical current corresponding to said illumination and utilizing the differences in rate of change of intensity for selecting those pulsations arising from said registry; utilizing said pulsations to effect a performance of said operation.

2,783,390

SMOKE DETECTING DEVICE

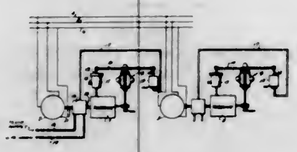
Alfred L. Mendenhall, Jr., Dayton, Ohio

Application April 19, 1951, Serial No. 221,831
8 Claims. (Cl. 250—218)



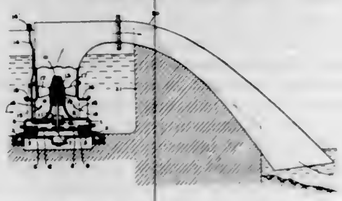
1. In a device of the class described, the combination of a photocell responding to one light wave frequency for monitoring purposes and another light wave frequency for alarming purposes, a light source, means for casting light waves of differing frequency from said source, one upon said cell and another in by-passing accessible relation to said cell, and means for passing an air sample through the latter said light wave, relatively solid particles in said sample reflecting light from the said latter wave upon said cell.

2,783,391
LOAD DIVISION CONTROL FOR PRIME MOVERS
Frederick Emanuel Crever, Scotia, N. Y., assignor to General Electric Company, a corporation of New York
Application May 3, 1955, Serial No. 505,631
3 Claims. (Cl. 290—4)



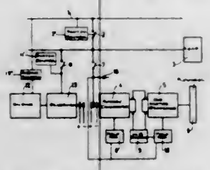
1. Load division control means for a plurality of independently driven alternators comprising means for sensing a speed proportional to the speed of each alternator separately, means for sensing a torque proportional to the torque delivered to each alternator separately, and means responsive to said speed and torque sensing means to control the speed of each alternator so as to maintain a predetermined inverse relationship between its speed and the torque delivered to it.

2,783,392
HYDRO-ELECTRIC TURBO-GENERATOR
Robert Louis Corbiere, Toulouse, France, assignor to Societe des Forges et Ateliers du Creusot, Paris, France
Application September 7, 1955, Serial No. 532,943
Claims priority, application France September 14, 1954
3 Claims. (Cl. 290—52)



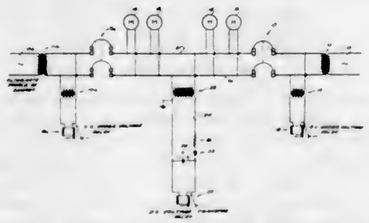
1. A hydro-electric turbo-generator having a vertical axis, constituted by a mono-block assembly comprising a casing enclosing the generator, on top of which the vertical axis turbine is mounted, the lower portion of the casing having the form of a base designed to rest on the bottom beneath the surface of the water, and the upper portion of the casing having a profile suitable for guiding the water upwardly towards the vanes of the turbine.

2,783,393
APPARATUS FOR EMERGENCY POWER TRANSFER
Per-Erik Lindahl, Stockholm, Gunnar Elfving, Solna, and Karl-Henry Mattsson, Spanga, Sweden, assignors to Aktiebolaget Hagglund & Soner, Orsskoldsvik, Sweden
Application November 29, 1954, Serial No. 471,847
Claims priority, application Sweden November 30, 1953
17 Claims. (Cl. 307—64)



1. Apparatus for sustaining operation of a consumer's load during periods of transition of supply from a distributing alternating current network to an auxiliary power plant on a failure of said network, said apparatus comprising a flywheel and means powered from said alternating current network for rotating said flywheel and for converting the kinetic energy in said flywheel into alternating current power upon failure of the network, said means including a converter connected to the network and a direct current machine connected between the converter and the flywheel, the direct current machine being adapted to normally operate as a motor supplied from the converter for driving the flywheel and upon network failure to operate as a generator driven by said flywheel for supplying direct current to said converter, the converter in turn supplying alternating current to the consumer's load.

2,783,394
NON-FREQUENCY RESPONSIVE A.-C. VOLTAGE RELAY FOR DISTRIBUTION SYSTEMS
John R. Struthers, Havertown, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania
Application April 16, 1954, Serial No. 423,619
6 Claims. (Cl. 307—64)

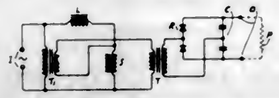


6. In an electrical system for selectively connecting a first or second alternating current energy to a load comprising a circuit protective device, a transformer, and a D.-C. transfer relay; said circuit protective device having an engaged and disengaged position and being operatively connected in a circuit between a first source of energy and a load; said circuit protective device having an undervoltage means operatively connected to effect disengagement of said circuit protective device when the first source of alternating current energy has an output voltage below a predetermined value; said D.-C. transfer relay operative to effect electrical connection of the second source of energy to a load when said circuit protective device is in said disengaged position; said D.-C. transfer relay electrically coupled to the circuit between the first source of energy and the load by means of said transformer; rectifier means connected in the circuit between said transformer and said D.-C. transfer relay to render said transfer relay non-responsive to frequency variations in the feed back voltage from said load when said circuit protective device is disengaged to thereby prevent out-of-phase switching to said load from the first source of energy to the second source of energy.

2,783,395
ALTERNATING VOLTAGE WAVE-FORM DISTORTING CIRCUITS
Alec H. B. Walker and Kenneth G. King, London, England, assignors to Westinghouse Brake & Signal Company Limited, London, England
Application June 4, 1954, Serial No. 434,625
Claims priority, application Great Britain June 23, 1953
1 Claim. (Cl. 307—106)

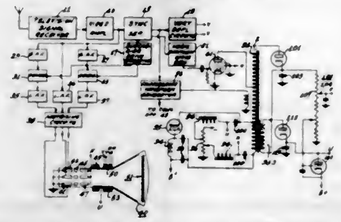
An alternating voltage wave form distorting circuit. comprising, in combination, a reactor having a linear characteristic, a saturable reactor connected in series therewith across an alternating current source, a main transformer having a primary and a secondary winding,

an auxiliary transformer having a primary winding connected across an alternating current source the voltage of which is in phase with that of said first mentioned



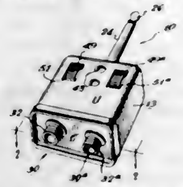
alternating current source and a secondary winding connected in series with said saturable reactor across said primary winding of said main transformer.

2,783,396
HIGH VOLTAGE SUPPLIES
Morris D. Nelson, New York, N. Y., assignor to Radio Corporation of America, a corporation of Delaware
Application September 24, 1954, Serial No. 458,184
9 Claims. (Cl. 307—150)



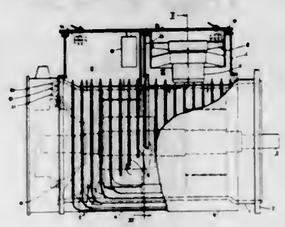
4. In a color television receiver including a color kinescope requiring an ultor voltage of a first order, and a focus voltage of a second order, said receiver including a deflection wave output transformer, flyback pulses being periodically developed in said transformer, a high voltage supply comprising in combination means for deriving flyback pulses of a first peak potential from said transformer, a first rectifier having an input circuit and an output circuit, means for applying said flyback pulses of said first peak potential to the input circuit of said first rectifier, means for deriving a voltage of said second order from the output circuit of said first rectifier, a second rectifier having an input circuit and an output circuit, means for deriving flyback pulses of a peak potential higher than said first peak potential from said transformer, means for applying said flyback pulses of said higher peak potential to the input circuit of said second rectifier, means including said latter flyback pulse deriving means for coupling the output circuit of said first rectifier to the input circuit of said second rectifier, and means for deriving a voltage of said first order from the output circuit of said second rectifier.

2,783,397
MIXER UNIT FOR A PLURALITY OF INCOMING SIGNALS
Wilfred L. Larson, Chicago, Ill., assignor to Switchcraft, Inc., Chicago, Ill., a corporation of Illinois
Application July 27, 1953, Serial No. 370,398
4 Claims. (Cl. 307—156)



1. In apparatus of the class described for controlling the attenuation of a plurality of signals connected to a common output, a housing having a pair of spaced end walls, circuit completing means for an output signal, said circuit completing means being supported by one of said end walls, at least a pair of circuit completing means supported on the other of said end walls, each of said last named circuit completing means being for an input signal, means supported within and by said housing for supporting a pair of variable resistance elements being in alignment with one of the last named circuit completing means on said other end wall, an aperture in said housing at each of said variable resistance elements and a rotating operator for each of said variable resistance elements, part of the elements only of said rotating operators extending through said apertures whereby said operators may be manipulated by the fingers of one hand only if desired, each of said operators being related in position to a corresponding one of said last named circuit completing means whereby operation of each is related to the attenuation of the signal at the first named circuit completing means.

2,783,398
ELECTRIC DRIVE FOR SHIP WINCHES
Karl Haas, Siegfried Voll, and Friedrich Zehdnicker, Nurnberg, Germany, assignors to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt, Germany, a corporation of Germany
Application September 24, 1954, Serial No. 458,135
Claims priority, application Germany September 25, 1953
10 Claims. (Cl. 310—57)

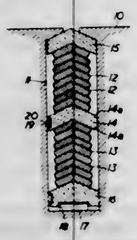


1. A marine-machinery drive, comprising an enclosed squirrel-cage motor having a housing substantially of cylindrical shape, said housing having exterior cooling ribs; a plurality of said ribs being spacially curved and having each a first portion extending peripherally around one side and toward the opposite side of said housing, two second portions merging with the respective ends of said first portion and extending near said opposite side in substantially parallel relation to the axial direction of said housing, and a third portion merging with said second portions and extending therefrom peripherally back and around said one side of said housing, whereby said plurality of ribs form channels from one location of said one housing side to said opposite side and thence back to another location of said one side; a shell enclosing said housing and having openings near said one periphery side of said housing; and air impeller means joined with said shell near one of said two locations for circulating cooling air through said channels.

2,783,399
WINDINGS FOR MAGNETIC STRUCTURES
Alan Stephen Fenemore, Stafford, England, assignor to The English Electric Company Limited, London, England, a British company
Application March 15, 1954, Serial No. 416,308
Claims priority, application Great Britain March 20, 1953
10 Claims. (Cl. 310—64)

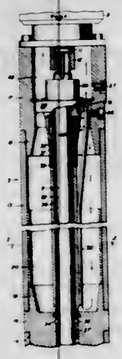
1. A winding for a magnetic structure of the kind in which the conductors of the winding are arranged to extend lengthwise through the slots in the magnetic structure, the relative width of the conductors and the slots

being such that a substantial clearance exists between the sides of the conductors and the slot walls, wherein the conductors are uninsulated where they pass through the slots, and including spacers formed from a refractory insulating material arranged to space the conductors



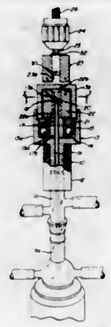
from the top and bottom of the slots, the conductors and the spacers being of such a cross-section that when in position in the slots they interlock with each other to prevent sideways movement of the conductors in the slots.

2,783,400
PROTECTING UNIT FOR OIL-FILLED SUBMERGIBLE ELECTRIC MOTORS
Armais Arutunoff, Bartlesville, Okla., assignor to Reda Pump Company, Bartlesville, Okla., a corporation of Delaware
Application August 5, 1955, Serial No. 526,615
5 Claims. (Cl. 310—87)



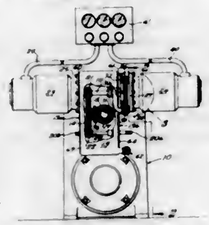
1. A protecting unit for oil-filled submergible, electric motors, comprising a cylindrical casing adapted to be interposed between a vertical electric motor and a superimposed, coaxial pump, a motor shaft extension projecting coaxially through said casing for connecting the motor shaft to the pump shaft, vertically separated upper and lower, annular fluid receiving reservoirs in said casing, closed at their longitudinal extremities, said reservoirs being peripherally bounded by said casing and inwardly bounded by respective, longitudinally extending, concentric sleeve members, said sleeve members surrounding said shaft extension in radially spaced relation, to form upper and lower, annular fluid passageways, respectively separated from each other and the surrounding reservoirs, the lower end of the lower passageway communicating with the interior of said motor and its upper end with the top of said lower reservoir, an unobstructed tube communicating with the lower end of said upper passageway, depending in said lower reservoir and connecting said upper passageway with the latter, the upper end of said upper passageway communicating with the upper end of said upper reservoir, and an unobstructed vertical tube in said upper reservoir placing the lower end of the latter in communication with the exterior of said casing at a point above said unit but below the intake of said pump, whereby the path of fluid traveling along said shaft extension in either direction, upon expansion or contraction of the fluid in said motor, is multiplied a plurality of times the length of each reservoir.

2,783,401
SEAL AND MAGNETIC DRIVE
Norman G. Foster, Fayetteville, Ark., and Louis E. Green, Jr., Tulsa, Okla., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application September 11, 1952, Serial No. 309,034
5 Claims. (Cl. 310—104)



1. A magnetic power takeoff unit comprising a housing, said housing comprising a pair of opposed cylindrical chambers adapted to be joined in axial threaded engagement, a vertical shaft extending into said housing, a drive pin within said housing fixed to said shaft, a bearing assembly within said housing fixed to a lower portion of said pin, an annular spacer disc above said roller bearing assembly and within said housing, a cylindrical magnet fixed to said drive pin, said disc serving the function of retaining the roller bearing assembly and drive pin within the lower part of said housing and preventing axial travel of the pin and magnet within said housing, and a stop means between said drive pin and said vertical shaft, said stop means serving the additional function of preventing rotation of said cylindrical magnet relative to said vertical shaft and of preventing axial travel along said pin.

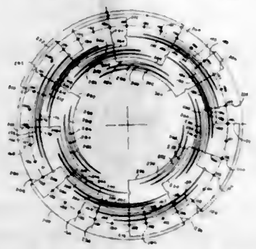
2,783,402
FEEDBACK TEST STAND
Frederick O. Luenberger, Los Angeles, Calif., assignor to U. S. Electrical Motors, Inc., Los Angeles, Calif., a corporation of California
Application September 28, 1953, Serial No. 382,733
2 Claims. (Cl. 310—112)



1. In a test stand: a pair of alternating current dynamoelectric machines having axially aligned rotors, and having wound stators; a common shaft detachably joining the rotors; a transmission mechanism providing a power supply to the shaft; said mechanism including a casing interposed between the machines and extending about the shaft; one of the stators being affixed exteriorly to a wall

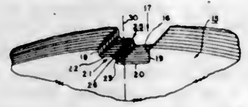
of the casing; and means for mounting the other stator exteriorly of a wall of the casing, for angular adjustment about the axis of the rotors.

2,783,403
DYNAMO ELECTRIC MACHINES
Irwin J. Schumaier, Webster Groves, Mo., assignor to Century Electric Company, St. Louis, Mo., a corporation of Missouri
Application December 14, 1955, Serial No. 552,995
17 Claims. (Cl. 310—202)



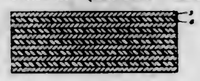
1. A polyphase dynamoelectric machine that has a slotted core and that has a winding for each phase, each of said windings having a plurality of sections, the total number of sections of any one of said windings being an even integer, each of said windings having the sections thereof distributed uniformly around the periphery of said core, each of said windings having some of the turns thereof disposed in the bottoms of coil slots in said core and having the rest of the turns thereof disposed in the tops of coil slots in said core, substantially all of the turns in any one section of any one winding being dominantly disposed at the same radial distance from the geometric center of said core, the total number of turns of any one winding in the tops of coil slots being substantially equal to the total number of turns of each other winding in the tops of coil slots, the total number of turns of any winding in the bottoms of coil slots being substantially equal to the total number of turns of each other winding in the bottoms of coil slots, whereby said windings are mechanically and electrically symmetrical, each of said sections of said windings having leads that project from said coil slots and that can be interconnected to fix the voltage to which said dynamoelectric machine can respond.

2,783,404
STATOR LAMINATION WELDED ASSEMBLY
Robert C. Appenzeller, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 2, 1954, Serial No. 413,532
1 Claim. (Cl. 310—217)



A dynamo-electric machine core assembly composed of a plurality of sheet laminations each having a central opening from which winding slots radiate, a plurality of radially disposed legs formed with said core assembly separating the winding slots from each other and extending therebetween to provide equal radial depth for each of the winding slots about the inner periphery of said core assembly, a triangular protrusion formed with said core assembly radially aligned with one of said legs, said protrusion being formed as a raised step completely to one side of the radial centerline of a groove formed in the outer periphery of the assembly, the step joining a bottom and a side wall of the groove forming thereby a single angle corner within the confines of the groove raised above the level of the bottom of the groove and spaced from the side wall extending from the bottom wall of the groove, and a weld line formed along said corner bonding the laminations together properly aligned relatively to each other by stacking thereof to form the groove with the distortion-free step while said one leg radially aligned with said protrusion functions like a heat radiating fan tending to lower the temperature rise of the mass of the assembly from said weld line.

2,783,405
DYNAMO-ELECTRIC MACHINE BRUSH
Bernard Roy Atkins, Peter Stuart Maer, and Michael James Lanham, Portslade, Sussex, England
Application February 24, 1953, Serial No. 338,582
3 Claims. (Cl. 310—228)



1. An electrical contact element, comprising a body of electrically conductive material having incorporated therein bodies of polytetrafluoroethylene and being coated with a film essentially consisting of at least one organo-silicon oxide polymer.

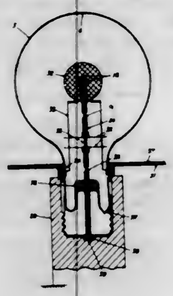
2,783,406
STEREOSCOPIC TELEVISION MEANS
John J. Vanderhooft, Jamaica, N. Y.
Application February 9, 1954, Serial No. 409,037
4 Claims. (Cl. 313—70)

1. Stereoscopic television receiving means comprising a cathode ray tube having two electron guns, said cathode ray tube having a viewing screen, a mask having alternate bars and slots placed between said viewing screen and said electron guns thereby providing on the screen a pictorial representation of interlaced signals from the left and right guns respectively and a lenticulated lens placed in front of said viewing screen whereby said interlaced left and right representations are separately transmitted to the left and right eyes of the viewer, to provide a stereoscopic representation.

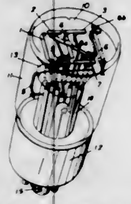
2,783,407
SOURCE OF LIGHT
Paul Vierkötter, Genoa-Nervi, Italy
Application June 25, 1953, Serial No. 364,072
Claims priority, application Switzerland June 28, 1952
5 Claims. (Cl. 313—109)

1. In a source of light having at least one primary energy source capable of emitting a first type of radiation having wavelengths in the visible light spectrum and a second type of radiation having wavelengths outside

of the visible light spectrum, and a light-enhancing medium positioned adjacent said energy source and in the path of both said types of radiation when the same are emitted by said energy source; said light-enchancing medium comprising a mass of a carrier substance capable of transmitting said first type of radiation substantially without losses due to absorption, and a plurality of particles of luminescent material embedded in and dispersed throughout said carrier substance, said luminescent particles absorbing only said second type of radiation so as to become raised thereby to an excited state and so as to emit, upon return to a non-excited state, additional visible light joining said first type of radiation, said luminescent particles further having an index of refraction for said additional visible light approximately equal to the index of refraction of said carrier substance for said additional visible light.



2,783,408
ELECTRIC DISCHARGE TUBES
David John Williams, Nottingham, Raymond Clifford Bacon, Wollaton, Nottingham, and John Reginald Acton, Bunny, England, assignors to Ericsson Telephones Limited
Application April 1, 1953, Serial No. 346,078
3 Claims. (Cl. 313—109.5)

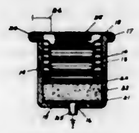


1. A gaseous electric glow discharge device comprising a tubular envelope having a light transmitting wall at one end and a pinch at its opposite end, an insulating mounting plate formed with electrode supporting apertures and disposed within the envelope substantially normal to the longitudinal axis thereof in the neighbourhood of its light transmitting end wall and shaped to conform to and substantially fill the internal cross-section of the envelope, a plurality of electrodes each with its ends bent over and positioned in appropriate apertures in said mounting plate, said electrodes having glow-producing portions all lying in a common plane adjacent to that face of the mounting plate which is towards said light transmiting end wall and having their ends clenched against the opposite face of the mounting plate, the glow-producing portions of said electrodes being shaped and disposed to adapt them by selective energisation to display alternatively a plurality of different illuminated symbols, and individual connections extending from ends of said electrodes directly away from the face of the supporting plate and through said pinch to the exterior of the envelope and serving to position the mounting plate in relating to such pinch.

2,783,409
SPARK PLUG ELECTRODE AND PROCESS FOR MAKING SAME
Taine G. McDougal, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 31, 1952, Serial No. 279,611
6 Claims. (Cl. 313—141)

1. A composite spark plug electrode comprising a tubular sheath of a material consisting of from 78 to 100% nickel, from 0 to 20% chromium, and from 0 to 2% manganese, said sheath having an inwardly extending annular flange at one end thereof, a platinum firing tip having a head portion within said sheath and abutting said flange and a shank portion extending to the exterior of said sheath, and a copper core packed into said sheath and contacting said firing tip, said copper core and said sheath being diffusion alloyed substantially throughout the interface therebetween.

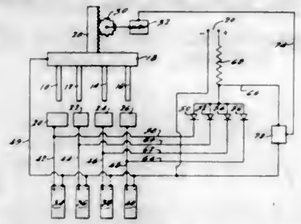
2,783,410
LIGHTNING ARRESTERS
George H. Manke, South Milwaukee, Wis., assignor to McGraw Electric Company, Milwaukee, Wis., a corporation of Delaware
Application September 8, 1952, Serial No. 308,474
4 Claims. (Cl. 313—246)



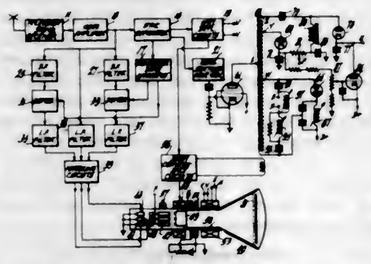
1. A lightning arrester including a housing and closure means at both ends of the housing, a spark gap within said housing and comprising a plurality of alternately stacked discs, said stacked discs each having a depressed central portion and a radially disposed flange in contact relation to the flange of an adjacent alternate disc, substantially flat discs having a silicone varnish coating interposed between and in contact relation to said depressed portions, and a spring interposed between said closure means and said discs biasing said discs toward each other.

2,783,411
SERVO FEED FOR MULTIPLE ELECTRODES
Victor E. Matulaitis, Franklin, Mich., assignor to Elox Corporation of Michigan, Clawson, Mich.
Application December 9, 1955, Serial No. 552,215
14 Claims. (Cl. 314—69)

1. In an arc-machining apparatus, a plurality of electrodes, a power source for each electrode, power feed electrodes, a control means for said power feed means having an electrical circuit through the arc-gaps, and means operably associated with said control means for causing said power feed means to respond to the momentary average potential difference across a selected one of said gaps.



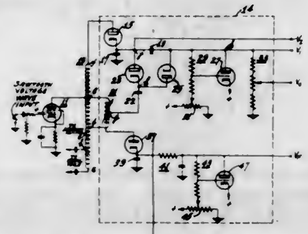
2,783,412
HIGH VOLTAGE SUPPLY
Bernard V. Vonderschmitt, Merchantville, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application March 15, 1954, Serial No. 416,186
10 Claims. (Cl. 315—15)



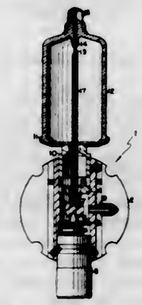
1. In a cathode ray tube system, a high voltage power supply comprising in combination a periodically pulsed transformer, a first rectifying means having an input terminal and an output terminal, said first rectifying means input terminal being coupled to an intermediate point on said transformer, a second rectifying means having an input terminal and an output terminal, a capacitor, said capacitor coupling said second rectifying means input terminal to a point on said transformer of higher pulse potential than said intermediate point, and an inductive choke coupled between said first rectifying means output terminal and second rectifying means input terminal, a first output circuit coupled to said first rectifying means output terminal, and a second output circuit coupled to said second rectifying means output terminal, each of said first and second output circuits providing a respectively different cathode ray tube electrode operating potential.

2,783,413
HIGH VOLTAGE SUPPLIES
John P. Smith, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application March 23, 1954, Serial No. 418,114
8 Claims. (Cl. 315—16)

5. In a color television receiver including a color kinescope comprising a focus electrode, a convergence electrode, and a plurality of target electrodes, a high voltage supply for developing target voltages for respectively different ones of said target electrodes, comprising in combination a transformer, means for deriving a first unidirectional potential from said transformer, means for deriving a second unidirectional potential proportional to the sum of said first unidirectional potential and another adjustably derived potential, voltage regulating means shunting the output of said second unidirectional potential deriving means, said regulating means maintaining said sum essentially constant, and means for deriving a respectively different one of said target voltages from the output of each of said pair of unidirectional potertial deriving means.



2,783,414
ELECTRODE STRUCTURE FOR TRANSMIT-RECEIVE SWITCHING DEVICES
Henry J. McCarthy, Danvers, Mass., assignor to Bomac Laboratories Inc., Beverly, Mass., a corporation of Massachusetts
Application June 1, 1954, Serial No. 433,477
2 Claims. (Cl. 315—41)

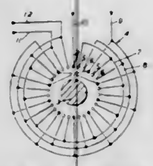


1. In a transmit-receive gaseous discharge switching device having a resonant cavity and plural spaced conical electrodes axially disposed therein defining a discharge gap, an ignitor electrode extending axially into one of said discharge gap electrodes comprising a core of a conductive metal, a sheath of an insulating material covering a major portion of the lateral surfaces of said core and exposing only the tip area, a substantially spherical layer of a non-emissive high resistance material surrounding the exposed tip area, said spherical layer being composed of oxides of said conductive core and insulating sheath without any additives.

2,783,415
MULTI-ELECTRODE GASEOUS-DISCHARGE TUBE CIRCUITS
David Gurney Arnold Thomas, Deerhurst-Walton, Gloucestershire, and Edmund Harry Cooke-Yarborough, Faringdon, Berkshire, England, assignors to National Research Development Corporation, London, England
Application February 21, 1952, Serial No. 272,851
3 Claims. (Cl. 315—84.6)

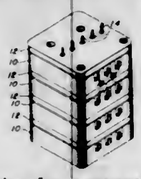
1. A computing machine comprising at least two multi cathode gaseous discharge tubes constituting a multi digit sending store, at least two further multi cathode gaseous discharge tubes constituting a multi digit receiving store, a transfer circuit connected between each pair of tubes of equal significance in the sending and receiving stores, a pulse generator for supplying trains of pulses to said sending store and to said receiving store under the con-

trol of said transfer circuit, and a carry circuit between tubes in the receiving store, said carry circuit comprising



a gate circuit operated by an output condition in a tube of the receiving store to pass a carry pulse from said generator to another tube in said receiving store.

2,783,416
CIRCUIT HOUSING
Joseph E. Butler, Bethesda, Md.
Application June 26, 1953, Serial No. 364,436
12 Claims. (Cl. 317—101)

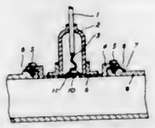


1. A circuit housing for a magnetic core memory circuit having two cores, each core having an advancing winding, a data input winding and a read-out winding thereon and with two rectifier elements in the read-out circuit of each core; a first housing part comprising a base having therein a chamber defining wells for receiving the cores substantially at two corners thereof, a channel at the opposite edge of the base for receiving the rectifier elements in combination with three terminal tabs and two compression springs and two electrodes, the electrodes being positioned at opposite ends of the channel, the terminal tabs being connected with terminal ends positioned exteriorly of the base, a plurality of connector sockets opening outwardly of the bottom of the base, the sockets extending interiorly of the base in a row positioned between the cores and the rectifier channel, a cover for overlying the base, at least four connector pins extending exteriorly of the cover when same is assembled on the base, the pins being aligned with the sockets, the arrangement being such that a number of units comprising bases and covers as described may be stacked by insertion of the pins of one unit into the sockets of another, the electrical circuit connections being characterized by interconnection of corresponding socket-pin pairs through the advancing windings of the respective cores so that when units are stacked a first advancing pulse applied to one of the socket-pin pairs will energize the advance windings of correspondingly positioned cores throughout the stack, and a second advancing pulse applied to the other of the socket-pin pairs will energize the advancing windings of the other correspondingly positioned cores throughout the stack, the electrical connections being further characterized by the read-out circuit of one core of a given housing being connected to a given pin positioned to engage a socket of a further housing stacked thereon, so as to apply the read-out of said given core of one unit to the input winding of the other core of the next housing, the arrangement being such that in a stack of said circuit housings the data applied to the input of the circuit of the first housing of the stack will be transferred to the other core of the first housing, and will then be transferred forward and laterally to the first core of the second housing, then to the second core of the second housing, and so forth.

2,783,417
PLUG IN RECTIFIER ASSEMBLY
George Eannarino, Bloomington, Ind., assignor to Sarkes Tarzian, Inc., Bloomington, Ind., a corporation of Indiana
Application March 23, 1954, Serial No. 418,134
18 Claims. (Cl. 317—234)

1. A plug in rectifier assembly, comprising a rectifier of the dry surface contact type provided with a plurality of plates held in stacked relationship and having at least a pair of terminal members electrically connected to certain ones of said plates, said terminal members having end portions consisting of flat contact prongs positioned in mutually perpendicular planes, a base member, a first contact receptacle of insulating material positioned on said base member and having a top opening elongated slot therein, means defining an elongated slot in said base member, a second receptacle of insulating material positioned in said elongated slot in said base member, said second receptacle having a top opening elongated slot therein extending perpendicularly to said elongated slot in said first receptacle, and electrical contact members in said first and second receptacles accessible through said slots and adapted to engage said contact prongs and establish electrical contact therewith, said second receptacle being slidable within said elongated slot in said base member whereby substantial variations in the spacing of said contact prongs may be accommodated by adjusting the position of said second receptacle within said elongated slot in said base member.

2,783,418
METAL RECTIFIERS
Leslie Hurst Peter, Arthur Langridge, and Brian James Gumm, King's Cross, London, England, assignors to Westinghouse Brake & Signal Company Limited, London, England
Application June 9, 1955, Serial No. 514,174
Claims priority, application Great Britain June 22, 1954
2 Claims. (Cl. 317—234)

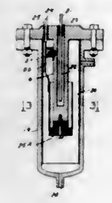


1. An alternating current rectifier comprising a body of semi-conductive material, a cooling plate affixed to said body, a tube for conveying coolant and having an aperture in its wall, said aperture being closed by said cooling plate, and means for securing said cooling plate to said tube, said means permitting said cooling plate to be detached from said tube.

2,783,419
RECTIFIER
Stanley S. Fry, North Chicago, Ill., assignor to Fansteel Metallurgical Corporation, a corporation of New York
No Drawing. Application December 8, 1952, Serial No. 324,848
6 Claims. (Cl. 317—241)

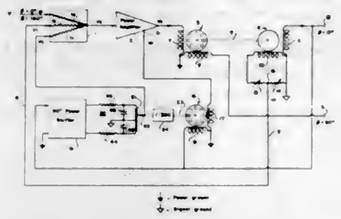
1. A selenium rectifier comprising a carrier electrode and a counterelectrode on opposite sides of a selenium layer and a blocking layer comprising a thin film of hydroxyethyl cellulose between the selenium layer and the counterelectrode.

2,783,420
DIELECTRIC SENSITIVE APPARATUS
Lee E. Thompson and Lawrence W. Stinson, Tulsa, Okla., assignors to Sinclair Research Laboratories, Inc., Harvey, Ill., a corporation of Delaware
Application August 9, 1952, Serial No. 303,558
4 Claims. (Cl. 317—246)



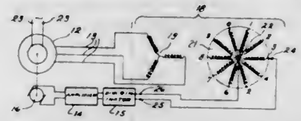
1. A composite dielectric sensitive capacitance type cell for detecting a change in composition of a flowing hydrocarbon stream by a change in its dielectric properties which comprises a reference cell situated within a sensing cell, said two cells having a common electrode therebetween and each of said cells having a second electrode insulated from said common electrode, means for introducing a reference hydrocarbon to the reference cell, means for introducing a hydrocarbon stream into and withdrawing it from the sensing cell providing a flow around the reference cell, and pressure equalizing means responsive to the pressure in one cell to maintain the pressure in the other cell equally interposed between the cells.

2,783,421
COMPENSATED VELOCITY SERVO-LOOP SYSTEM
Karl W. Hering, Ridgefield, Conn., assignor to The Perkin-Elmer Corporation, Norwalk, Conn., a corporation of New York
Application December 31, 1953, Serial No. 401,552
12 Claims. (Cl. 318—19)



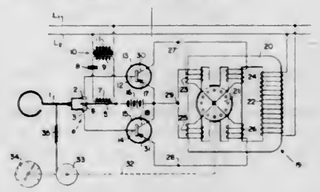
2. In a velocity servo-loop system, an alternating-current power source for energizing said system, a tachometer generator of the alternating-current induction type, a servo-motor for driving the generator, said servo-motor being responsive only to that component of its input having a particular phase relative to the phase of said source, means for feeding back the output of said generator to said servo-motor through an amplifier, and means to compensate for changes in the amplitude of the effective component of said feed-back signal due to frequency deviation of said source, said means including a resistance-reactance network connected to said source, the resistance and reactance values of the components of said network being such that frequency deviation of said source produces a signal varying in phase substantially as said feedback voltage, means for tapping a portion of said network signal as a function of the quadrature component of said feedback signal, and means for impressing said tapped network signal upon said servo-motor whereby the speed of said servo-motor is unaffected by frequency-deviation of said source.

2,783,422
PRESET SERVO SYSTEM
Marcel Fouassin, Liege, Belgium
Application May 1, 1953, Serial No. 352,472
30 Claims. (Cl. 318—30)



1. A remote positioning system comprising in combination transformer means having polyphase windings in inductive relationship to multiphase windings and stationary relative thereto, a synchrorepeater unit comprising a stator and a rotor, one of which carries polyphase windings and the other of which carries a single phase winding adapted to be connected to a source of alternating current, electrical connections between the polyphase windings of the synchrorepeater and the polyphase windings of the transformer means, connections to the multiphase transformer windings including selectively adjustable means for selecting one of a plurality of different space phase relationships between the selected connection on the multiphase winding and the polyphase winding of the transformer means, and means operatively connecting the multiphase transformer connections with the rotor of the synchrorepeater unit.

2,783,423
SHADED POLE MOTOR CONTROL APPARATUS
Jack W. Streater, Levittown, and William J. Popowsky, Philadelphia, Pa., assignors to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application July 23, 1954, Serial No. 445,328
6 Claims. (Cl. 318—32)

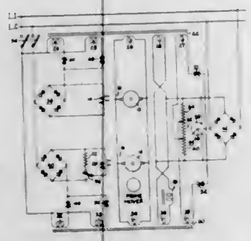


1. In combination, a shaded pole motor having a main motor winding and two pairs of interconnected shading coils with two end terminals and a common terminal, said interconnected shading coils being so connected that when said main motor winding is connected to a source of alternating current, voltages, which are 180° out of phase with each other, are produced in said two pairs of interconnected shading coils, a pair of transistors, each of said transistors being connected in a grounded emitter configuration to said interconnected shading coils; and a common biasing means for both of said transistors, said common biasing means including a synchronous vibrating switch adapted to alternately bias said transistors so as to be conductive.

2,783,424
SATURABLE REACTOR WARD LEONARD CONTROL SYSTEM
Douglas W. Fath, Brookfield, and Fred S. Horner, Jr., Waukesha, Wis., assignors to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware
Application June 11, 1954, Serial No. 436,107
11 Claims. (Cl. 318—145)

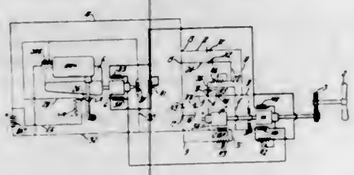
1. In an electrical controller, in combination, a pair of magnetic amplifiers each having an electrical output

winding and a control winding, a Wheatstone bridge circuit having input terminals for connection to an electrical power source and having output terminals connected to the control windings of said magnetic amplifiers, means



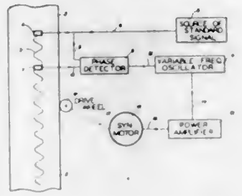
to unbalance said bridge and thus to apply control voltages of differing magnitude and opposite polarity to each of said control windings, and a pair of electro-responsive load elements each connected to the output winding of a respectively associated one of said magnetic amplifiers.

2,783,425
WARD LEONARD SPEED CONTROL SYSTEM
Lauren L. Johnson, Westchester, Ill., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 22, 1953, Serial No. 399,651
4 Claims. (Cl. 318—146)



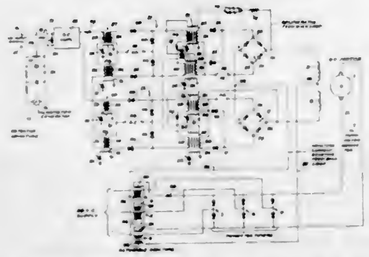
4. A power transmitting system including a main generator having driving means therefor, excitation means for said generator, an electrical motor connected in electrical circuit with the armature of said generator and rotatable by the output of said generator, excitation means for said motor including a shunt field and a separately excited field, said motor having an armature operatively connected to means subject to variable loadings which cause changes in the speed of rotation of said motor and changes in the current of said motor and generator armature, generator control means responsive to changes in the speed of said generator tending to maintain the power output of said generator substantially constant by varying the voltage thereof, and motor control means responsive to any change from a predetermined speed of rotation of said motor to increase the separate excitation of said motor so as to compensate for changes in motor shunt excitation caused by varying the voltage of said generator comprising a control generator operatively coupled to said motor for rotation thereby, a fixed voltage reference in electrical circuit with said separately excited field, said control generator being connected in electrical circuit with said fixed voltage reference and said separately excited field so that its voltage output opposes the voltage output of said fixed voltage reference and is equal to said fixed voltage reference when said motor is turning at said predetermined speed, and current rectifying means in circuit with said reference and control generator and separately excited field operable to apply a differential voltage of constant polarity to said separately excited field obtained when the speed of said motor differs from said predetermined speed.

2,783,426
PRECISION MOTOR DRIVE DEVICE
Robert R. Pittman, Houston, Tex., assignor, by mesne assignments, to Southwestern Industrial Electronics Company, Houston, Tex., a corporation of Delaware
Application December 20, 1954, Serial o. 476,375
4 Claims. (Cl. 318—171)



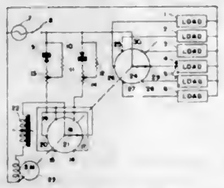
1. In combination, a driven member adapted to be driven at some predetermined speed; a record on said driven member; a recording head positioned adjacent said record and adapted to record thereon; a pickup head positioned adjacent said record a predetermined distance along the record path from said recording head and adapted to pickup the signal recorded by said recording head; a tuning fork oscillator connected to supply a precisely uniform frequency signal to said recording head; a phase detector connected to receive said uniform frequency signal and the signal picked up by said pickup head and adapted to put out an error signal indicative of the difference in phase of said two signals; a variable frequency oscillator connected to receive said error signal and adapted to have its output frequency controlled by said error signal; an amplifier adapted to amplify the power of the output of said variable frequency oscillator; a synchronous motor powered by the output of said amplifier and adapted to drive said driven member.

2,783,427
MOTOR CONTROL SYSTEMS
Michael Bracutt, East Orange, N. J., assignor to The W. L. Maxson Corporation, New York, N. Y., a corporation of New York
Application July 10, 1953, Serial No. 367,266
20 Claims. (Cl. 318—338)



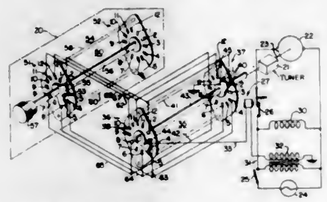
7. A control system for a direct current motor having an armature and two field windings, excitation of one field winding causing rotation of said armature in one direction and excitation of the other field winding causing rotation of said armature in the opposite direction, said control system comprising: saturable reactor means having inherent constant current characteristics adapted for connection to a source of alternating current, said reactor means including control winding means for varying the reactance thereof; rectifier means connected to said reactor and adapted to supply generally constant current to said armature; a pair of polarity sensing amplifying means each connected for individual response to a common input signal of a different polarity and each connected to supply field current to one of said two field windings, the magnitude of said field current being in accordance with the magnitude of said input signal; and a common circuit connection carrying unidirectional current from both of said amplifiers to both of said field windings, said common connection including said control winding means of said saturable reactor means for increasing said armature current in accordance with the amount of field current supplied to either of said field windings.

2,783,428
MAGNETIC TIMING DEVICE FOR PERIODIC STEPPING OF MOTOR
Harold J. Downes, Downey, Calif., assignor to North American Aviation, Inc.
Application August 17, 1953, Serial No. 374,795
3 Claims. (Cl. 318—443)



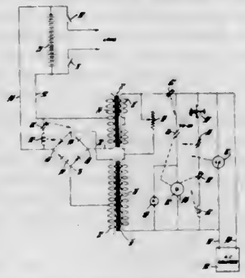
1. Time delay means for causing a predetermined time delay between the closing of a switch and the application of a predetermined electrical current to a load comprising an alternating current source, a load impedance connected by one terminal to one terminal of said source, a saturable core reactor connected in series with said impedance, means connected to be actuated by said load impedance for reversing the direction of saturation of said saturable reactor core, a first resistor, a rectifier and a switch connected in series between the other terminal of said source and the other terminal of said saturable reactor, and a second resistor connected in parallel with said rectifier and said first resistor whereby current is applied to said load impedance a predetermined time after said switch is closed.

2,783,429
REMOTE POSITION CONTROL SYSTEM
Robert W. Tauber, Los Angeles, Calif.
Application November 30, 1954, Serial No. 472,064
11 Claims. (Cl. 318—467)



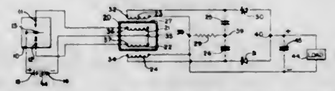
1. A control system for positioning a remote device in accordance with the position of a control device, said system comprising an electric motor coupled to said remote device for rotating it to a desired position, a source of electric energy for said motor, first switch means directly connected to said control device and having a predetermined number of contacts equal to the number of positions of said control device, second switch means coupled to said remote device and to said motor and adapted to be rotated by said motor, said second switch means having a number of contacts equal to that of said first switch means, conductors connecting corresponding alternate contacts on said first and second switch means, said first and second switch means having each at least one contact arm rotatable with respect to their associated contacts, each being arranged to make electrical contact with at least two adjacent ones of their associated contacts, and circuit means interconnecting said source of energy with said motor and the contact arm on said second switch means in such a manner as to energize said motor to rotate said remote device in response to rotation of said first switch means until both of said switch means are returned to like positions.

2,783,430
AUTOMATIC TIMED BATTERY CHARGER
Kendall O. Bower, Western Springs, Ill., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 30, 1955, Serial No. 550,036
2 Claims. (Cl. 320—31)



1. In a battery charging apparatus including charging circuit means connected between an electrical supply source and said battery supplying a charging current thereto, a first timed control means periodically testing the condition of said battery including a first definite time operated relay energized from said source and having a pair of normally-closed contacts adapted to be opened for a definite short period of time each cycle of operation of said relay and a voltage sensitive relay connected to said battery through said contacts of said time-operated relay and having a pair of contacts connected in circuit controlling relation in said charging circuit means, and a second timed control means including a set of contacts overriding the control function of said first timed control means and connecting said battery to said charging circuit means for a definite prolonged period of time.

2,783,431
DECOUPLED CONVERTER SYSTEM
Harold J. Brown, Indianapolis, Ind.
Application January 29, 1953, Serial No. 333,912
8 Claims. (Cl. 321—2)



1. A converter circuit energized from a direct current source and disposed between interrupter means and output rectifying means, said interrupter means having first and second opposed contacts and a vibrating contact disposed therebetween connected to one side of the direct current source and said rectifying means having first and second input terminals and output terminal means, said converter circuit comprising a transformer having primary winding means including first and second primary windings, secondary winding means including first and second secondary windings, said primary winding means having first and second primary end terminals and an intermediate primary terminal therebetween, with said first primary winding disposed between said first primary end terminal and said intermediate primary terminal and

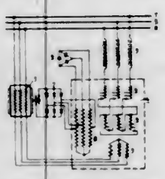
with said second primary winding disposed between said second primary end terminal and said intermediate primary terminal, said secondary winding means having first and second secondary end terminals and an intermediate secondary terminal therebetween, with said first secondary winding disposed between said first secondary end terminal and said intermediate secondary terminal and with said second secondary winding disposed between said second secondary end terminal and said intermediate secondary terminal, a magnetic core having first and second core portions for said transformer, said first primary winding and said first secondary winding being mounted on said first core portion and said second primary winding and said second secondary winding being mounted on said second core portion, first connection means for connecting said intermediate primary terminal to the other side of the direct current source, second connection means for connecting the first primary end terminal to the first contact of the interrupter means, third connection means for connecting the second primary terminal to the second contact of the interrupter means, fourth connection means for connecting the first secondary terminal to the first input terminal of the rectifying means, fifth connection means for connecting the second secondary end terminal to the second input terminal of the rectifying means, capacitor means connected across the first and second secondary terminal means, said capacitor means comprising two capacitors connected in series and having an intermediate capacitor terminal, resistor means including a separate resistance unit connected between the said intermediate capacitor terminal and said intermediate secondary terminal, and a load circuit connected between the intermediate secondary terminal and the output terminal means of the rectifying means.

2,783,432

APPARATUS FOR EXCITING SYNCHRONOUS MACHINES THROUGH RECTIFIERS

Hermann Harz, Berlin-Siemensstadt, Germany, assignor to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt and Erlangen, Germany, a German corporation

Application October 22, 1954, Serial No. 464,140
Claims priority, application Germany October 30, 1953
15 Claims. (Cl. 322—25)



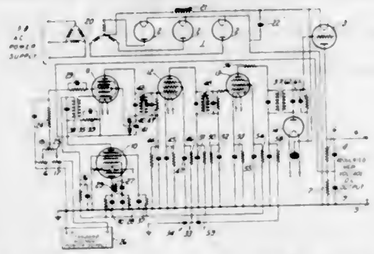
1. With a synchronous multiphase machine having a multiphase terminal-voltage line and having direct-current field means, the combination of a voltage regulating system comprising a rectifier, transformer means having a secondary winding connected through said rectifier with said field means to supply excitation thereto, said transformer means having two multiphase groups of primary windings for energizing said transfer by superimposed respective currents dependent upon the load current and the terminal voltage respectively of the machine, one of said groups being series connected with the machine to provide load-dependent energization, the other group having a reactive impedance circuit connected across said line to provide voltage-dependent energization, and one of said groups having a multiphase interconnection of its windings different from the multiphase interconnection in the other group, whereby the resultant energization of said transformer means has a phase angle different from 90 electrical degrees relative to the terminal voltage, for maintaining constant terminal voltage at different power factors of the machine.

2,783,433

REGULATED POWER SUPPLY

William R. Baker, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application July 5, 1945, Serial No. 603,398
12 Claims. (Cl. 323—22)



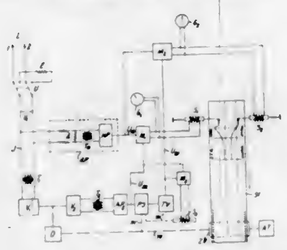
1. A voltage regulated power supply comprising a source of D. C. voltage, a pair of output terminals, a variable resistor being connected between said source of voltage and one of said output terminals, a voltage dividing network including resistors connected in series between said output terminals, and compensating capacitors connected in parallel with said resistors, a portion of said voltage dividing network having substantially the same time constant as the remainder of said voltage dividing network, and means for controlling the resistance of said variable resistor in response to the voltage across said portion of said voltage dividing network.

2,783,434

APPARATUS FOR DETERMINING THE LOCATION OF A FAULT ON ELECTRIC LINES

Justus Bäbler, Baden, Switzerland, assignor to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland, a joint-stock company

Application August 21, 1953, Serial No. 375,716
Claims priority, application Switzerland August 28, 1952
12 Claims. (Cl. 324—52)



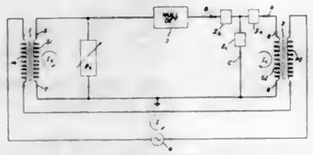
3. Apparatus for determining the location of a fault on a transmission line; said apparatus comprising a tunable oscillator and drive means for progressively varying the frequency thereof, an amplifier of high internal impedance working out of said oscillator, means for connecting the output of said oscillator to the transmission line, a pair of frequency-sensitive modulators each having a pair of alternating current input circuits and a direct current output circuit, circuit means for impressing the line voltage upon an input circuit of each modulator, circuit elements working out of said oscillator for impressing auxiliary voltages of the instantaneous test frequency upon the second input circuit of the respective modulators, said circuit elements having transmission characteristics maintaining the auxiliary voltage on one modulator in phase with the test current established in said transmission line and the auxiliary voltage on the other modulator continuously displaced by 90° from the test current established in the transmission line, whereby the direct current output of said one modulator is a measure of the impedance of the transmission line and the direct current output of said other modulator is a measure of the phase relation of the test voltage to the said test current, a record strip, means for displacing said record strip in synchronism with the variation in oscillator frequency, and means for recording the direct current output of each modulator on said record strip.

2,783,435

IMPEDANCE MEASURING MEANS

Henry T. Wilhelm, Summit, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application May 10, 1955, Serial No. 507,415
10 Claims. (Cl. 324—57)



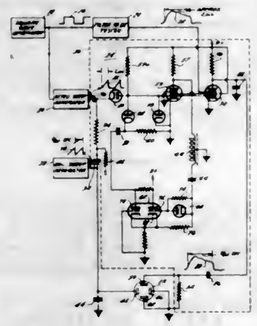
1. Means for measuring the impedance of one leg of a Y-connected network comprising two transformers, a secondary winding on each transformer, means joining said windings in series relation, a standard impedance connected between the junction of the two windings and the free terminal of one of them, three test terminals for connecting to said network, one test terminal connected to said junction, a second test terminal connected to the free terminal of the other winding, a null detector connected between said first-mentioned free terminal and the third test terminal, a primary winding on each transformer closely coupled to its secondary, and means for connecting said primary windings in series and to a source of alternating current.

2,783,436

APPARATUS FOR DISPLAYING HIGH FREQUENCY WAVEFORMS

George W. Gray, Lambertville, and Ray D. Kell, Princeton, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application August 31, 1953, Serial No. 377,504
7 Claims. (Cl. 324—77)



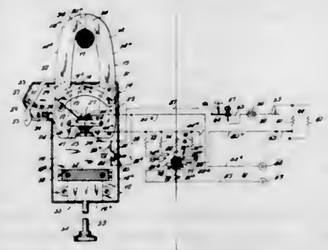
5. Apparatus for displaying recurrent waves comprising, in combination, a sampling circuit having first, second and third input means and a pair of output means, means to apply said recurrent waves to said first input means of said sampling circuit, a monostable sweep generator having an input connected to said recurrent waves applying means and adapted to be triggered on by each of said recurrent waves, said monostable sweep generator having an output connected to said second input means of said sampling circuit to apply a first series of periodic waves thereto, a sawtooth generator having an output connected to said third input means of said sampling circuit and adapted to apply a second series of sawtooth waves thereto, means connected between said second and third input means in said sampling circuit to combine said first and second series of waves into a third series of waves, said sampling circuit comprising sample pulse producing means having an input connected to said second input means of said sampling circuit to produce sample pulses in response to a particular portion of each wave in said third series of waves, means connecting said first input means to said sample pulse producing means to modulate said sample pulses by said recurrent waves, means connected between the output of said sample pulse producing means and said pair of output means of said sampling circuit to detect said modulated sample pulses, an oscilloscope having two pairs of deflection controls, means connecting said sawtooth generator to one pair of deflection controls, and means connecting said pair of output means of said sampling circuit to said other pair of deflection controls.

2,783,437

MULTIPLE-PURPOSE ELECTRICAL MEASURING INSTRUMENT

William H. Yenni, Neillsville, Wis., and Robert D. Hickok, Jr., Shaker Heights, Ohio, assignors of one-half to Auto-Test, Incorporated, Chicago, Ill., a corporation of Illinois, and one-half to Cleveland Patents, Incorporated, Cleveland, Ohio, a corporation of Ohio

Application February 19, 1952, Serial No. 272,296
9 Claims. (Cl. 324—129)



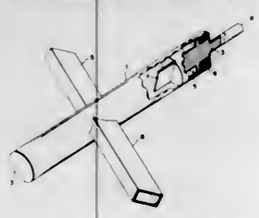
1. In a multiple-purpose electrical measuring instrument, a frame structure having a pair of spaced pole portions and a yoke portion and defining a path for magnetic flux, indicating means including a movable indicating member, a coil movable in the space between said pole portions and connected with said movable indicating member to actuate the same, a battery, circuit leads connected with said battery and coil for use in supplying energizing current to the latter, said yoke portion comprising a yoke member which is movable to open and closed positions corresponding with open and closed conditions of the yoke portion of the magnetic flux path, a permanent magnet of a high permanence characteristic movable to a position adjacent said frame structure such that flux emanating from said permanent magnet traverses said pole portions when said movable yoke member is in its open position, said yoke portion being movable to a position in embracing relation to a current carrying conductor for causing the flux field of the latter to traverse said pole portions and said permanent magnet being movable away from said frame structure so as to have sub-

stantially no effect on the latter when said yoke portion is in said embracing relation, and a normally open push-button switch controlling the coil energizing circuit.

2,783,438
ARTIFICIAL TRANSMISSION LINE
George D. Perkins, Salem, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application February 14, 1946, Serial No. 647,590
6 Claims. (Cl. 333—20)

3. A delay line circuit in which successive reflections of like polarity have unequal amplitudes comprising, a first delay line having first and second ends, said first delay line being adapted to receive input pulses at said first end, the input terminating impedance at said first end in the interval between pulses being substantially an open circuit, a second delay line having first and second ends, said second delay line being coupled at its first end to said second end of said first delay line as a terminating impedance of said first delay line, said second delay line having a characteristic impedance different from that of said first delay line, said second delay line being terminated at its second end in a short circuit.

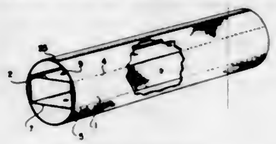
2,783,439
CONTINUOUSLY ROTATABLE MICROWAVE PHASE SHIFTER
Richard M. Whitehorn, Baltimore, Md., assignor to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware
Application January 3, 1952, Serial No. 264,709
5 Claims. (Cl. 333—31)



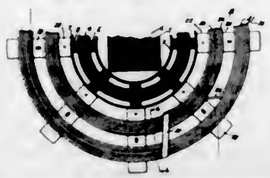
1. A continuously rotatable microwave phase shifter comprising a circular wave guide, a rotatable short circuiting plunger in said waveguide, said plunger being journalled in one end thereof, a quarter-wave plate mounted on the face of said plunger in symmetry with respect thereto and for rotation therewith, said plate having its axis of differential phase shift parallel to the axis of said plunger, wave guide means coupling a plane polarized wave to said circular wave guide in a manner to excite therein a circularly polarized wave travelling towards said plunger and wave guide means coupled to said circular wave guide in a manner to have excited therein a plane polarized wave by the incidence therein of the wave reflected from said plunger.

2,783,440
LIGHT WEIGHT WAVE GUIDE CONSTRUCTION
Edward Lovick, Jr., Van Nuys, Calif., assignor to Lockheed Aircraft Corporation, Burbank, Calif., a corporation of California
Application January 26, 1955, Serial No. 484,115
6 Claims. (Cl. 333—95)

1. An internal pressure resisting, light-weight waveguide comprising, a flexible fluid-tight outer tubular member, a flexible tubular inner member concentrically arranged within said fluid-tight outer tubular member, said inner member connecting with said outer member at four spaced seams whereby said inner member provides a cavity generally rectangular in cross section when said outer member is generally circular in cross section, said inner member having a plurality of perforations formed therein whereby a substantially uniform pressure exists inside the waveguide at all times, and a metal coating secured to the inner walls of the inner tubular member for propagating electrical energy therethrough.



2,783,441
TRANSFORMER
Guglielmo Camilli and George H. Halsey, Pittsfield, Mass., assignors to General Electric Company, a corporation of New York
Application July 25, 1952, Serial No. 300,944
1 Claim. (Cl. 336—180)

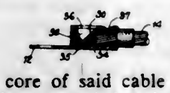


In a transformer, a cylindrical mounting member, a plurality of disc-shaped annular coils coaxially arranged on said mounting member, axially extending spacers between said mounting member and said coils to provide a first annular ventilating duct, radially extending spacers between said coils to provide ventilating ducts between said coils, each of said coils being comprised of an inner close spirally wound section of a plurality of turns and an outer close spirally wound section of a plurality of turns, and spacing means between each of said inner and outer sections to provide a second annular ventilating duct, the inner sections of substantially one-half of adjacent said coils being serially connected, the outer sections of said one-half of said coils being serially connected, the inner sections of the other half of adjacent said coils being serially connected, the outer sections of said other half of said coils being serially connected, said serially connected inner sections of said one-half of said coils being connected in series with said serially connected outer coils of said other half, said serially connected inner sections of said other half being connected in series with said serially connected outer coils of said one-half, said serially connected inner and outer sections being parallel connected.

2,783,442
METHOD OF AND APPARATUS FOR FORMING ELECTRIC TERMINALS
George J. Burnosky, Colonia, N. J., assignor to The Thomas & Betts Co., Elizabeth, N. J., a corporation of New Jersey
Application August 3, 1953, Serial No. 371,910
1 Claim. (Cl. 339—96)

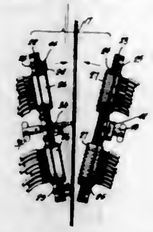
An electric connection formed of a plurality of preformed parts, one of said parts comprising a sheet metal terminal connector having a flat, apertured tongue portion and a wire barrel portion coextensive therewith, said

other part comprising an insulated cable having a core of conductor strands compacted in a jacket of insulating material, said wire barrel having a portion thereof struck out of its annular wall to provide a V-shape prong integrally connected mechanically and electrically to said wire barrel, said prong being bent inwardly through said insulating jacket and extending therebeyond into said core of conductor strands to form an electric current



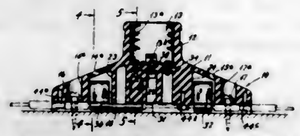
path between the core of said cable and said terminal connector, said wire barrel being further provided adjacent the base of said prong with a conical indent forming a button-like depression extending inwardly into and below the periphery of said insulating jacket to provide an interlock between said wire barrel and insulating jacket supplementing the interlock between said wire barrel and said insulated cable formed by said prong.

2,783,443
CONNECTOR PLUG ASSEMBLY
Harold S. Jencks, Alhambra, Calif., assignor to Douglas Aircraft Company, Inc., Santa Monica, Calif.
Application September 29, 1954, Serial No. 459,008
12 Claims. (Cl. 339—126)



3. A construction of the type described comprising: a partition forming a support and having a plurality of apertures therein; first and second panel type connector members each having a plurality of mutually engaging contact parts, said connector members being adapted to be supported on opposite sides of said partition with the contacts extending through the apertures in the partition into mutual engagement; a unitary coupling securing means for maintaining the connectors in coupled relation; means on each of the connector members for releasing the securing means; and quick detachable fastener means for independently supporting each of the connector members on the partition.

2,783,444
LAMPHOLDER WITH INTEGRAL DUPLEX RECEPTACLE
Elbert De F. Tidd, Clinton, N. J., assignor to John B. Pierce Foundation, New Haven, Conn., a corporation of New York
Application September 21, 1955, Serial No. 535,712
1 Claim. (Cl. 339—159)



In an electrical fixture adapted to be attached to a strip conduit comprising spaced parallel electrical conductors, an electrically insulating housing, means defining a longitudinal channel in the base of the housing to receive a strip conduit, a lamp bulb socket assembly mounted in the housing above the channel including a pair of terminals for engaging the base of an electric lamp bulb, a pair of contact blades connected respectively to the terminals of the socket assembly disposed opposite the channel and spaced therefrom, wall means defining a pair of recesses in the housing placing opposite sides of the channel in communication with the blades, said blades and corresponding recesses being offset laterally and longitudinally of the housing, first and second cord cap plug receptacles in the housing disposed on opposite sides of the socket assembly, each comprising a pair of complementary prong-receiving openings opposite said channel and spaced therefrom, wall means defining a second and third pair of recesses corresponding respectively to the prong-receiving openings and placing the opposite sides of the channel in communication with the openings, and a first pair of identical metallic clip members each including an elongated bight portion to envelop a conductor of the conduit between the cord cap receptacle and the socket and two pairs of complementary divergent arms extending outwardly from the bight to enter respectively a recess corresponding to the receptacle to define a prong-receiving channel and a recess corresponding to a contact blade to connect the conductor to the socket assembly, said pair of clip members being arranged in opposite ends and opposite sides of the housing to engage the respective conductors of the conduit to complete a circuit to the lamp socket assembly and to define respectively one prong-receiving channel of each receptacle, whereby said cord cap receptacles include, respectively, one of the clip members which is common with the lamp socket assembly, and whereby the laterally and longitudinally offset blades of the socket assembly are spaced substantially diametrically with respect to the lamp bulb socket of said assembly, a second pair of metallic clip members received in the recesses corresponding to the second prong-receiving openings of the receptacles, and a detachable cover portion over the base of the housing to cover said channel and to back up the bight portions of all of said clip members.

2,783,445
TEST CLIP
Herbert Cahn, Asbury Park, N. J.
Application September 25, 1953, Serial No. 382,487
1 Claim. (Cl. 339—262)
(Granted under Title 35, U. S. Code (1952), sec. 266)

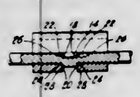
An electrical connecting device consisting of an electrical insulating sleeve enclosing an assembly of a pair of electrically conductive spring strip members centrally fastened in parallel juxtaposition having their respectively juxtaposed ends free to be sprung into divergence, the first pair of said ends being shaped to form a bore with an indentation in the wall of said bore to receive and hold fast to cooperating electrical probing devices having a pin shaped probing tip with a peripheral groove and a tapered point, said groove being so located as to receive to mate with said indentation in said bore, the remaining pair of said ends flaring outward and free to be sprung into divergence, their inner mating surfaces serrated to grip various physical forms of conductive parts in electric circuits, said first ends having sufficiently greater holding force upon cooperating probing devices when mated thereto than said remaining ends have of gripping force

upon various physical forms of parts in electric circuits, said device effecting the conversion of probing types of test prod terminations into gripping jaw types.

2,783,446
CONDUCTIVE LOCKING ELEMENT
Henry P. Dupre, Wilton, and Peter Greco, Norwalk, Conn., assignors to Burndy Corporation, a corporation of New York
Application August 11, 1954, Serial No. 449,047
2 Claims. (Cl. 339—276)

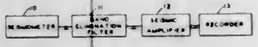
1. In combination for use with an electrical conductor, a C-shaped connector made of soft malleable metal and a locking device for securing the conductor to the connector, said locking device made of hard metal having a conductor biting surface whereby the locking device may be made secure to the conductor, means on said locking device projecting into the conductor body for securing the same to said C-shaped connector, said C-shaped connector being deformable to encircle the conductor with the locking device therein.

2,783,447
ELECTRICAL CONNECTOR
William S. Watts, Harrisburg, Pa., assignor to Aircraft-Marine Products, Inc., Harrisburg, Pa.
Continuation of abandoned application Serial No. 215,454, March 14, 1951. This application March 15, 1956, Serial No. 571,797
21 Claims. (Cl. 339—276)



1. A terminal of the type adapted for pressure application on a wire to form an electrical connection therewith, comprising a cylindriform ferrule-forming portion with a slot therein and a mating block thereon spaced from said slot but with edges thereof adjoining the same transverse planes as edges of said slot but respectively on opposite sides of said planes, said block being effective upon crimping said ferrule portion to force and shear partially the wire against the edges of said slot.

2,783,448
FILTER FOR SEISMIC AMPLIFIER
Raymond G. Piety, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application September 29, 1950, Serial No. 187,635
2 Claims. (Cl. 340—15)

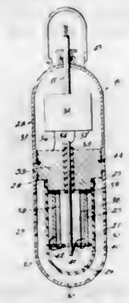


1. A seismic prospecting system comprising, in combination, a seismometer, a band elimination filter fed by said seismometer including an iron core, a mutual inductance wound on said core, said inductance including two windings, a lead interconnecting one terminal of each winding, a circuit including one winding, said lead, and a first condenser, a second circuit including said second winding, said condenser, and a second condenser, means for feeding the output of said seismometer to one of said circuits, the components of the circuit conforming to the equation

$$f=\frac{1}{2\sqrt{MC}}$$

where f is a frequency within the range of 5 to 15 cycles per second where ground roll signals to be attenuated have their dominant frequency, M is the ratio of the self inductance of said windings, and C is the capacitance of said first condenser, and a seismic amplifier connected to the other of said circuits, said amplifier being constructed and arranged to pass all frequencies between 30 and 70 cycles per second while signals of higher or lower frequencies are attenuated, said amplifier having a cut-off characteristic sufficiently broad that distortion of the desired signals is avoided and considerable energy of frequencies lower than 30 cycles per second can pass through the amplifier.

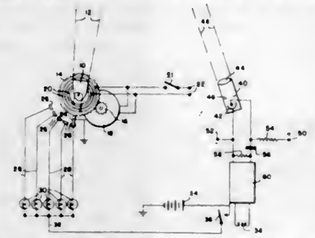
2,783,449
SEISMIC VELOCITY MEASUREMENT
Robert J. Loofbourrow, Bellaire, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware
Application August 28, 1953, Serial No. 377,064
3 Claims. (Cl. 340—17)



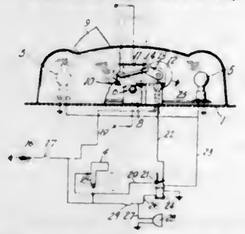
1. An apparatus for use in the velocity measurement of seismic waves propagated through earth strata while immersed in fluid in a borehole located therein, comprising a geophone having a housing with a perforated portion at one end and a hermetically sealed portion at the other end thereof and including a pressure-sensitive transducer element and a hermetically sealed envelope, said envelope being filled with substantially non-compressible, low specific gravity, di-electric liquid and enclosing said transducer element totally immersed therein, said perforated portion of said housing surrounding said envelope in spaced relationship therewith so that perforations therein permit entry of fluid in which said geophone may be immersed within a borehole whereby changes in hydrostatic pressure of the borehole fluid may be exerted on said envelope and thereby through said liquid in said envelope against said element for operation thereof as an electro-mechanical transducer, said hermetically sealed portion at the other end of said housing containing means for altering electrical signals received from said transducer element, circuit means connecting said element to the first mentioned means, said transducer element being of tubular shape and resiliently supported at opposite ends thereof, and means for transmitting the altered signals to a utilization device.

2,783,450
CLEARANCE INDICATING APPARATUS
William K. Jackson, Levittown, Pa., assignor of one-half to Frederick Spritz, Philadelphia, Pa.
Application May 13, 1954, Serial No. 429,462
2 Claims. (Cl. 340—61)

1. Apparatus for indicating clearance between relatively movable bodies, one of which carries said apparatus, said apparatus comprising means providing a light beam, means mounting a photocell having a restricted field of view, means moving one of said two means and providing periodic intersection of said light beam and said field of view, and signalling means responsive to the output of said photocell and indicating intersection of said light beam and said field of view at a surface of the other of said bodies, said signalling means including a plurality of lamps and commutating means actuated by said moving means for selecting successive lamps for connection to said photocell providing for illumination of the one of said lamps connected to the output of said photocell upon intersection of said light beam and said field of view at said surface, the lamp illuminated indicating the angle of convergence of the light beam and said field of view at the time of said intersection.



2,783,451
FOR HIRE SIGNAL FOR TAXI CABS
James M. Stout, Kalamazoo, Mich., assignor to Checker Cab Manufacturing Corporation, Kalamazoo, Mich.
Application January 30, 1956, Serial No. 562,100
3 Claims. (Cl. 340—68)

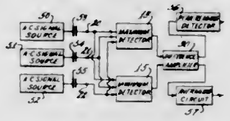


1. In combination with a taxi cab having road lights and a meter with an on-off lever and a light enclosed in a translucent dome on top of the cab, a device for indicating the empty and for hire condition of the taxi comprising a shaft extending through the back wall of said dome and having a signal arm on its outer end, a motor within said dome connected to oscillate said shaft and arm, a main power circuit having in series a manual switch and a switch closed by said lever in the for hire position of the lever and a solenoid operated switch, branch power circuits connectable in series with said lever switch to be energized alternatively from said solenoid switch and connected separately to said light and said motor, a road light circuit including a control switch for energizing the road lights of the taxi, and a solenoid coil positioned to actuate said solenoid switch and electrically connected to said road light circuit to be energized with the road lights.

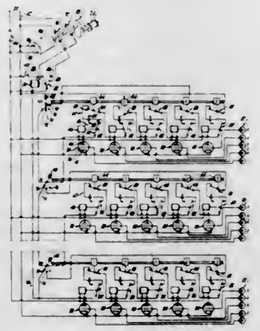
2,783,452
COMBINATION DIRECTION SIGNAL LAMP
Robert N. Falge and Howard C. Mead, Anderson, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 29, 1953, Serial No. 364,608
8 Claims. (Cl. 340—73)

1. In a combination signal lamp a housing having a generally arrow-shaped compartment comprising a head portion and an elongated shaft portion and an upper and lower compartment separated by the shaft portion of said first mentioned compartment, and a parabolic reflector surface formed in the rear wall of each compartment, the focal point of the reflector surface in said first mentioned compartment being located adjacent the plane of junction of the head and shaft portions of said compartment.

2,783,453
ELECTRONIC CIRCUIT
Harry E. Rose, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application January 31, 1956, Serial No. 562,432
7 Claims. (Cl. 340—149)



1. An equality detection circuit comprising a plurality of at least three first means for individually and simultaneously receiving a plurality of at least three input signals, second means connected to all of said first means for producing at a first terminal a signal proportional to the maximum one of said simultaneously received input signals, third means connected to all of said first means for producing at a second terminal a signal proportional to the minimum one of said simultaneously received input signals, and fourth means connected to said first and second terminals of said second and third means for comparing said maximum and minimum proportional signals and for producing a signal to indicate equality of said maximum and minimum proportional signals.

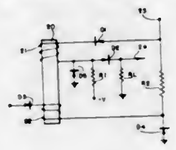
2,783,454
DATA ASSEMBLY APPARATUS
Donald O. North, Menlo Park, Calif.
Application January 12, 1955, Serial No. 481,466
3 Claims. (Cl. 340—149)

1. In a device for the selective identification of recorded information, said recordings each being provided with means forming a code arrangement classifying the information and adapted when exposed to a beam of light to produce an identifying arrangement of light signals: the selectively responsive light controlled circuit-

arrangement including a plurality of bank circuit-arrangements, each bank circuit arrangement comprising a plurality of photoelectric cells arranged to be exposed to a corresponding bank of light signals of the identifying arrangement of light signals, a separate photoelectric cell being provided corresponding to each signal station of the total arrangement of light signals which may be employed in relation to each bank for the identification of recorded information, a separate relay controlled by each of the said photo-electric cells, and a separate manually controlled switch associated with each of said relays; the circuit-arrangements of each of the switch-relay arrangements being in series in the circuit of said bank circuit-arrangement, and so arranged that when the switch is selectively operated, the circuit of the bank circuit-arrangement will be opened, and whereupon exposure of the respective photo-electric cell will cause the relay to close the circuit of the bank circuit-arrangement, through a circuit of the circuit-arrangement of the said switch-relay arrangement, the circuit-arrangement of each relay-switch arrangement being such that the circuit of the bank circuit-arrangement is normally closed through a circuit of the relay-switch circuit arrangement when the respective switch has not been selectively operated, and is opened by the relay of the said relay-switch arrangement when the respective photo-electric cell is exposed to a light signal, and manually operated switch means adapted with respect to the circuits of each of the respective bank circuit-arrangements to selectively include the circuit of a bank circuit-arrangement in series in the circuit of the said selective responsive light controlled circuit-arrangement or to bypass the circuit of such bank circuit-arrangement therefrom.

2,783,455
SELF SYNCHRONOUS DELAY LINE
Lawrence D. Hindall, deceased, late of Montecito, Calif., by Paul Grimm, administrator, Santa Barbara, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application July 5, 1955, Serial No. 519,946
7 Claims. (Cl. 340—173)

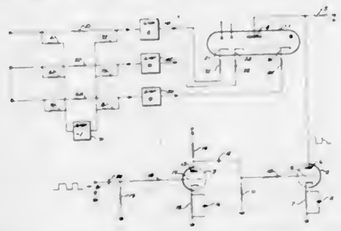
1. A self synchronous delay line memory, comprising: an ultrasonic delay line, a reference pulse source having a fixed generating output period less than the delay time of said delay line, an electronic gate connecting the output of said reference pulse source to said delay line input, means connecting said delay line output to a control element of said gate for control of gating therethrough of said reference source output to said delay line input according to the appearance of code pulses at said electronic gate control element, thereby circulating renewed code pulses at each passage through said delay line, synchronizing pulse generating means for providing a distinguishable synchronizing pulse output only when triggered by an input pulse, manual means for initially triggering said synchronizing pulse generating means, the output of said synchronizing pulse generating means connected to said delay line input, discriminating means connected between said delay line output and a trigger input of said synchronizing pulse generating means to apply an input pulse to said generating means only in response to a previous distinguishable synchronizing pulse at said delay line output, said synchronizing pulse generating means output also connected to the input of said reference source to trigger said reference source on for said fixed generating output period, thereby providing a renewed circulating synchronizing pulse followed by accurate renewed code pulses into said delay line input at each passage through said delay line, read-out means connected to said delay line output and read-in means connected to said electronic gate control element, said read-out and read-in means adapted to be connected to an associated computer.

2,783,456
PHASE RESPONSIVE BISTABLE DEVICES
William F. Steagall, Merchantville, N. J., assignor, by mesne assignments, to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware
Application October 1, 1954, Serial No. 459,630
14 Claims. (Cl. 340—174)

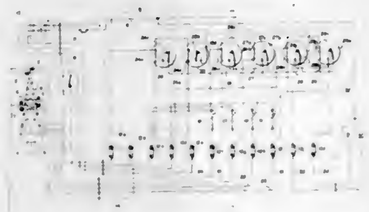


1. A phase responsive bistable device comprising a magnetic amplifier having an input and an output, feedback means coupling the output of said amplifier to the input thereof, said feedback means including delay means, a source of regularly occurring power pulses coupled to said amplifier, said amplifier being responsive to pulses occurring during first predetermined input times with respect to a preselected datum for producing at said output a first train of pulses periodically occurring during first predetermined output times with respect to said datum, said amplifier being further responsive to pulses occurring during second predetermined input times with respect to said datum for producing at said output a second train of pulses periodically occurring during second predetermined output times with respect to said datum.

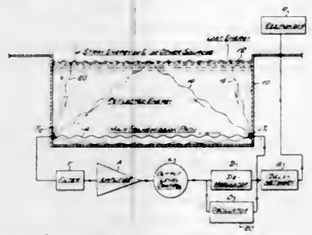
2,783,457
VOLTAGE SELECTION AND INDICATION
James L. Flanagan, Cambridge, Mass., assignor to the United States of America as represented by the Secretary of the Air Force
Application December 6, 1955, Serial No. 551,477
10 Claims. (Cl. 340—248)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A multi-channel maximum voltage amplitude selector comprising a plurality of parallel circuits each adapted to receive one of a series of variable input voltages, means for normalizing and amplifying each of said input voltages prior to delivery to said parallel circuits, an electronic discharge indicator device having a plurality of cathodes distributed among said parallel circuits, means for delivering to the said device the output voltages from each of said parallel circuits, and means including a single energy supply element for producing luminous electron emission from one of said cathodes whenever its associated one of said parallel circuits is operating at a voltage gradient greater than that of any other of said parallel circuits.

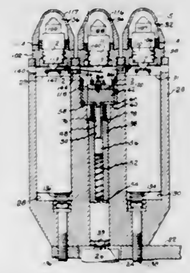
2,783,458
FAULTY CIRCUIT ALARM
Sigwald M. Hammer, Independence, Kans., assignor to Sinclair Research Laboratories, Inc., Harvey, Ill., a corporation of Delaware
Application March 18, 1954, Serial No. 417,172
4 Claims. (Cl. 340—251)

1. In a radio tower having a beacon lamp, a powering circuit, and a photo-electric actuating device and a flashing unit connected in series with said beacon lamp in said powering circuit, the improvement which comprises a normally open thermally operated delayed action circuit controlling device, means energizing said normally open device in response to closure of said photo-electric device to close said normally open device, a normally closed thermally operated delayed action circuit controlling device having a delay period of shorter duration than said first delayed action device, means located apart from said lamp energizing said normally closed device in response to the flow of current in said powering circuit to open said normally closed device, and an alarm circuit including an alarming device connected in series with said delayed action circuit controlling devices.

2,783,459
ALARM SYSTEM FOR SWIMMING POOLS
Carl C. Lienau, East Orange, N. J., and Joseph C. Patterson, Jr., Falls Church, Va.
Application September 21, 1953, Serial No. 381,324
5 Claims. (Cl. 340—258)



1. A system for detecting the presence of a body in a pool and giving an alarm which comprises, means for transmitting energy through water in a pool at a predetermined distance above the bottom of the pool, means for receiving energy transmitted to said means through water in said pool, alarm means, and means for actuating said alarm means when transmission of energy from said transmitting means to said receiving means is diminished more than a predetermined minimum amount for more than a predetermined minimum of time including, a source of energy, means for measuring the intensity of the energy, and means for measuring the time interval during which the energy intensity of the transmitted signal is diminished.

2,783,460
GAGES
Lambert R. Pistoles, Wilmington, Del.
Application February 9, 1954, Serial No. 409,121
9 Claims. (Cl. 340—265)



1. An electrical gage indicator comprising a housing having a bore therein adapted to be mounted in alignment with a gaging pin, a master pin slidable in the lower portion of said bore and adapted to engage a gaging pin, a contact pin supporting block in said bore having a plurality of yieldingly mounted contact pins adapted to be sequentially engaged by said master pin, said housing having elongated cylindrical cavities for receiving electric cells in opposite sides of said bore, said cavities extending substantially parallel with said bore and lying in a common plane with said bore, said enlarged bore and said cavities being open-ended along the top surface of said housing, and a series of three electrical indicator lamps mounted in the ends of said cavities and bore.

2,783,461
COUNTER UNITS AND SYSTEM FOR MACHINE CONTROL
Joseph H. Paulick, Jr., Birmingham, Mich.
Application January 3, 1955, Serial No. 479,281
16 Claims. (Cl. 340—267)

1. Apparatus for systematizing tool changes for a machine tool of the type having a tool adapted to perform certain work on a workpiece a pre-estimated number of times and including a machine part operable in synchronized relation to the number of times the tool does certain work on a workpiece including a counter unit comprising a solenoid motor, a spur wheel driven by said motor, a gear train driven by said wheel, a warning light switch cam driven by said gear train, a stop light switch cam driven by said gear train, a relay switch cam driven by said gear train, an indicator driven by said gear train, a dial disposed relative to said indicator, and switches operated by said cams.

2,783,462
ELECTRICAL PROTECTIVE BURGLAR ALARM SYSTEM

Leland H. Chase and Le Roy C. Spenard, Port Washington, N. Y., assignors to Holmes Electric Protective Company, New York, N. Y., a corporation of New York

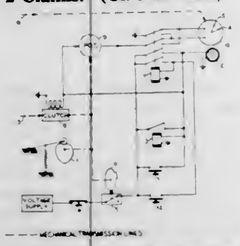
Application January 27, 1954, Serial No. 406,541
5 Claims. (Cl. 340—276)

1. A burglar alarm system comprising a local protection circuit including a local protection circuit switch and a plurality of protection elements located at sensitive areas in the enclosure to be protected which protection elements are closed when the enclosure is locked up, a source of energy, a circuit connected with a central office and having a switch, means for closing said local protection circuit switch and central office circuit switch when the system is to be energized, a normally closed switch connected in the circuit to the central office and shunting said central office circuit switch, means for opening said normally closed switch for opening the circuit to the central office when said central office switch is open, code wheel means actuatable for opening and closing said circuit to the central office, a motor for driving said code wheel means, means for testing whether the local protection circuit is completed and for actuating said motor so as to drive said code wheel means through a first preselected angle of rotation to send in a signal to the central office, means responsive to opening of a protection element for actuating said motor to drive the code wheel means through a second predetermined angle of rotation, means responsive to closing of said protection element for operating said motor to drive said code wheel means through a third preselected angle of rotation to send in another signal to the central office to indicate the system is set up to detect the unauthorized opening of any of said protection elements, a local alarm device, means energizing said local alarm device subsequently to the actuation of said motor to drive said code wheel means to send in an alarm to the central office.

2,783,463
AUTOMOBILE PARKING AID SYSTEM

Max Fogiel, New York, N. Y.

Application July 5, 1955, Serial No. 519,764
2 Claims. (Cl. 340—282)

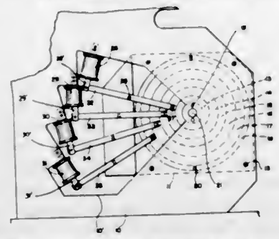


1. An automobile parking aid system comprising in combination a potentiometer to provide a voltage output proportional to the correct handwheel position, a voltage measuring device to indicate the voltage output of said potentiometer, a first relay, an electrical path connecting the output of said potentiometer to the input of said voltage measuring device through a first armature and contact of said first relay, said first relay adapted to switch said potentiometer output from a first input terminal to a second input terminal of said voltage measuring device depending upon whether said automobile is to be parked at a right or left curb, a pointer mechanically coupled to the automobile handwheel adapted to indicate the angular position of said handwheel, said pointer being rotated about the center of the pointer of said voltage measuring device, a second relay adapted to be operated by a pulse and remain in its operated position through an armature holding circuit of said second relay for the duration of the parking process, a first pushbutton to provide said pulse to said second relay, said first pushbutton adapted to be operated whenever said parking aid system is to be employed for parking at the right curb, a second pushbutton adapted to provide a pulse for operating said first relay whenever said parking aid system is to be employed for parking at the left curb, said first relay adapted to remain in its operated position through an armature holding circuit of said first relay after receipt of a pulse from said second pushbutton, an electrical path from a second armature and contact of said first relay to the coil of said second relay to operate said second relay whenever said first relay is operated, an illuminating lamp to provide visibility of the moving pointer of said voltage measuring device, an electrical path from said illuminating lamp to the armature of said second relay, an electromagnetic clutch to mechanically couple the car wheels to the input shaft of said potentiometer whenever said parking aid system is to be employed, an electrical path from the coil of said electromagnetic clutch to the armature of said second relay for operating said clutch whenever said second relay is operated, a first cam and spring follower combination to retain the potentiometer shaft at its starting position whenever said electromagnetic clutch is disengaged, said first cam being mechanically coupled to the input shaft of said potentiometer, a voltage supply to provide operating voltage for said first and second relays, illuminating lamp, electromagnetic clutch, and potentiometer, a switch operated by a second cam to interrupt said voltage supply to the coils of said first and second relays and release said relays whenever said shaft of said potentiometer is located at its end position indicating said parking process has been completed, said second cam being mechanically coupled and rotated by the shaft of said potentiometer, and a third pushbutton connected in series with said switch to interrupt the electrical path from said voltage supply to said switch upon depression of said third pushbutton.

2,783,464
DECODING APPARATUS

Michele Canepa, South Norwalk, Conn., assignor to Olivetti Corporation of America, New York, N. Y., a corporation of Massachusetts

Application May 4, 1955, Serial No. 505,977
11 Claims. (Cl. 340—347)

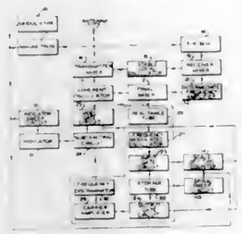


1. Decoding apparatus comprising a plurality of concentric members, each of said members having angularly spaced coincidence regions, means for displacing said concentric members individually between first and second angular positions in accordance with applied information whereby the angular positions of individual regions on the several members are caused to coincide, and means rotatable with respect to said concentric members for detecting the angular coincidence of the individual regions.

2,783,465
ELECTRICAL SIGNAL STORAGE SYSTEM

Edward F. MacNichol, Jr., Hamilton, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application April 18, 1946, Serial No. 662,987
10 Claims. (Cl. 343—7.7)



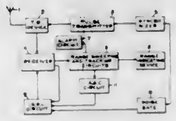
1. A radio pulse echo moving target indicator system comprising, a transmitter of pulses of radio frequency energy, a reference oscillator having a fixed phased relation to the phase of said transmitted pulses, receiver means mixing target echo pulses and said reference oscillations to produce video pulses having substantially constant amplitude and moving targets are evidenced by video pulses which vary in amplitude from one pulse interval to the next, a storage device including at least one electron gun and a storage surface, a sweep circuit to cause the electron beam of said storage device to scan over said storage surface, a frequency modulated oscillator the frequency thereof being modulated in accordance with the video pulse pattern from said radar system, means coupling said frequency modulated oscillator to said electron gun so as to modulate the intensity of said electron beam at the frequency of the output of said frequency modulated oscillator, said storage surface being adapted to record said variation in intensity of said electron beam, means to obtain an output from said storage device, a frequency discriminator to detect said video pulse pattern in the output of said storage device, and a subtracting circuit to obtain the difference between the video pulse patterns for two successive pulse intervals, said difference representing only moving targets.

2,783,466
RADAR RECEIVER AUTOMATIC NOISE LEVELING CIRCUITS

Jenus L. Dunn, Hutchinson, Kans., assignor to General Electric Company, a corporation of New York

Application September 15, 1949, Serial No. 115,889
7 Claims. (Cl. 343—17.1)

2. An automatic gain control circuit for a receiver of recurrent pulse signals the interval between recurrent signals including a period of pulse reception and a period of non-pulse reception and having an output waveform including corresponding recurrent pulse signals superimposed on continuous noise signals comprising a peak detector, connected to said receiver for deriving a first unidirectional control potential in response to applied signals, means for disabling said detector during a portion of said period of pulse reception including substantially all of said



signal pulses, means for controlling the gain of said receiver over a given range in accordance with said control potential, a second peak detector, connected to said receiver for deriving a second, unidirectional control potential in response to applied signals, means for disabling said second detector during said period of non-pulse reception, and means for controlling the gain of said receiver in accordance with said second control potential over a substantially larger range.

2,783,467
ULTRA-SHORT WAVE AERIALS

Henri Gutton and Antoine Jean Ortusi, Paris, France, assignors to Compagnie Generale de Telegraphie Sans Fil, a corporation of France

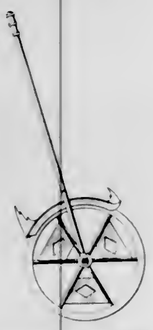
Application June 25, 1952, Serial No. 295,384
Claims priority, application France July 3, 1951
3 Claims. (Cl. 343—783)

1. An ultra-short wave antenna comprising an elongated tubular wave guide having a substantially uniform rectangular cross section along its axis; a flat metal plate extending from one wall of said wave guide in direction of the axis of said wave guide and having a width substantially larger than the thickness thereof; a substantially uniform layer of dielectric material covering said flat metal plate and penetrating into a portion of said wave guide in which its thickness diminishes progressively, the width of said layer being substantially larger than the thickness thereof.

DESIGNS

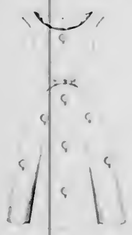
FEBRUARY 26, 1957

179,751
WHEEL TOY
Max R. Ahlstrom, Orange City, Iowa
Application May 1, 1956, Serial No. 41,285
Term of patent 14 years
(Cl. D34—15)

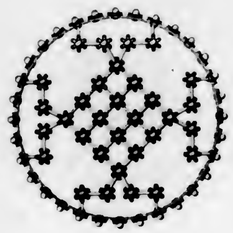


179,752
SPOON OR SIMILAR ARTICLE OF FLATWARE
Samuel Ayres, Jr., Marblehead, Mass., assignor to The International Silver Company, Meriden, Conn., a corporation of Connecticut
Application February 21, 1956, Serial No. 40,246
Term of patent 14 years
(Cl. D54—12)

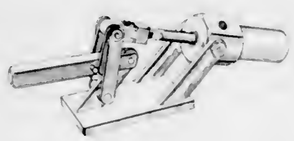
179,753
DRESS
Florence Barrack, New York, N. Y.
Application September 20, 1956, Serial No. 43,011
Term of patent 3½ years
(Cl. D3—26)



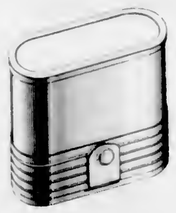
179,754
LADY'S HAIR ORNAMENT
Siegfried Behr, Flushing, N. Y.
Application August 22, 1956, Serial No. 42,696
Term of patent 3½ years
(Cl. D86—10)



179,755
AIR OR OIL OPERATED CYLINDER CLAMP
Leland F. Blatt, Grosse Pointe Woods, and Arthur Sherman, Detroit, Mich.
Application January 26, 1955, Serial No. 34,230
Term of patent 14 years
(Cl. D55—1)



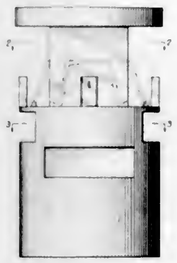
179,756
CONTAINER FOR ELECTRIC SHAVER KITS AND THE LIKE
Beverly B. Bond, South Norwalk, Conn., assignor to Ronson Corporation, Newark, N. J., a corporation of New Jersey
Application October 10, 1955, Serial No. 38,301
Term of patent 14 years
(Cl. D86—10)



179,757
KEY HOLDER
George W. Bosch, Alameda, Calif.
Application January 16, 1956, Serial No. 39,777
Term of patent 14 years
(Cl. D17—14)

179,758
SPOON OR SIMILAR ARTICLE
Nord Bowlen, Greenfield, Mass., assignor to Rogers, Lunt & Bowlen Company, Greenfield, Mass., a corporation of Massachusetts
Application March 29, 1956, Serial No. 40,833
Term of patent 14 years
(Cl. D54—12)

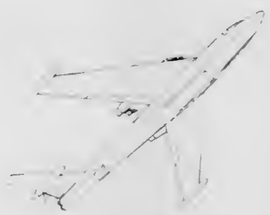
179,759
NEWSPAPER STAND OR THE LIKE
Elmer H. Carson, Pacoima, Calif.
Application September 12, 1955, Serial No. 37,878
Term of patent 14 years
(Cl. D80—9)



179,760
PNEUMATIC TIRE
Charles M. Chupa, Dearborn Township, Wayne County, and Arthur E. Benson, Grosse Pointe Farms, Mich., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application May 7, 1956, Serial No. 41,368
Term of patent 14 years
(Cl. D90—20)

179,761
ELECTRIC TABLE LAMP
Charles W. Clemens, Nashville, Tenn., assignor to Aladdin Industries, Incorporated, Nashville, Tenn., a corporation of Illinois
Application August 18, 1955, Serial No. 37,550
Term of patent 3½ years
(Cl. D48—19)

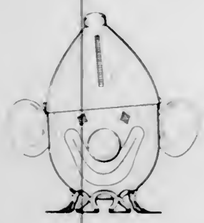
179,762
AIRPLANE
Robert L. Cox, Jr., Baltimore, Robert L. Hart, Towson, Charles J. Koch, Baltimore, and John D. Pierson, Glenarm, Md., assignors to The Glenn L. Martin Company, Middle River, Md., a corporation of Maryland
Application September 14, 1955, Serial No. 37,928
Term of patent 14 years
(Cl. D71—1)



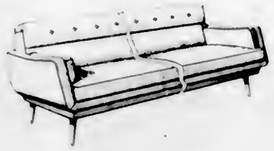
179,763
SPOON OR SIMILAR ARTICLE OF FLATWARE
Robert L. Doerfler, Meriden, Conn., assignor to The International Silver Company, Meriden, Conn., a corporation of Connecticut
Application March 6, 1956, Serial No. 40,492
Term of patent 14 years
(Cl. D54—12)

179,764
SPOON OR SIMILAR ARTICLE OF FLATWARE
Robert L. Doerfler, Meriden, Conn., assignor to The International Silver Company, Meriden, Conn., a corporation of Connecticut
Application May 15, 1956, Serial No. 41,494
Term of patent 14 years
(Cl. D54—12)

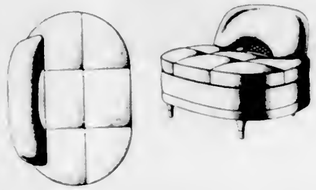
179,765
CLOWN BANK OR SIMILAR ARTICLE
Warren O. Dontigney, Meriden, Conn., assignor to The Napier Company, Meriden, Conn., a corporation of Connecticut
Application September 10, 1956, Serial No. 42,880
Term of patent 14 years
(Cl. D34—11)



179,766
SETTEE OR SIMILAR ARTICLE
Morris Futorian, Glencoe, Ill.
Application August 31, 1955, Serial No. 37,727
Term of patent 7 years
(Cl. D15—11)



179,767
ARMLESS CHAIR
Robert A. Gera, Elmhurst, Ill., assignor to International Furniture, Division of Schnadig Corp., Chicago, Ill., a corporation of Delaware
Application May 14, 1956, Serial No. 41,487
Term of patent 3½ years
(Cl. D15—1)



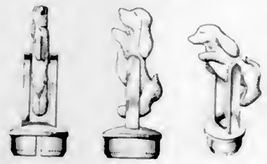
179,768
ADJUSTABLE COUPLING
Benjamin Franklin Giles, Middletown, Ky.
Application March 2, 1955, Serial No. 34,839
Term of patent 14 years
(Cl. D91—3)

179,769
WHEEL COVER
Edward E. Glowacke, Birmingham, and Robert J. Scheelk, Oak Park, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 18, 1956, Serial No. 39,829
Term of patent 7 years
(Cl. D14—30)

179,770
CHAIR
Alfred C. Hoven, William S. Lindberg, and Walter E. Nordmark, Grand Rapids, Mich., assignors to American Seating Company, Grand Rapids, Mich., a corporation of New Jersey
Application February 23, 1956, Serial No. 40,285
Term of patent 14 years
(Cl. D15—1)

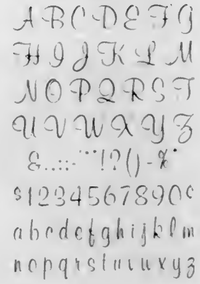
179,771
CHAIR
Raymond W. Johnson, Denver, Colo.
Application May 16, 1956, Serial No. 41,519
Term of patent 14 years
(Cl. D15—1)

179,772
BOTTLE STOPPER OR SIMILAR ARTICLE
Lester R. Kahn, Jersey City, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application June 15, 1955, Serial No. 36,519
Term of patent 7 years
(Cl. D58—10)

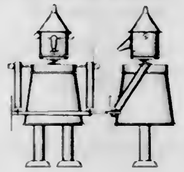


179,773
RING BOX
Erwin Kalla, Pittsburgh, Pa., assignor to Barnett Davis, Inc., Pittsburgh, Pa., a corporation of Pennsylvania
Application August 7, 1956, Serial No. 42,533
Term of patent 14 years
(Cl. D86—9)

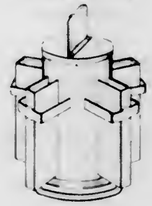
179,774
TYPE FONT
Emil J. Klumpp, Valley Stream, N. Y., assignor to American Type Founders Co., Inc., Elizabeth, N. J., a corporation of New Jersey
Application April 27, 1956, Serial No. 41,231
Term of patent 14 years
(Cl. D64—12)



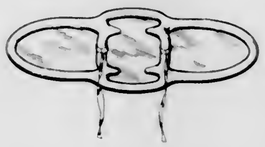
179,775
TOY ROBOT FIGURE
Nicholas V. Lackovic, Pittsburgh, Pa., assignor to Wolverine Supply and Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application December 19, 1955, Serial No. 39,380
Term of patent 14 years
(Cl. D34—15)



179,776
DISPLAY DEVICE
Harry L. Morrill, Jr., Marietta, Ga., assignor to Scripto, Inc., a corporation of Georgia
Application March 21, 1956, Serial No. 40,711
Term of patent 14 years
(Cl. D80—9)

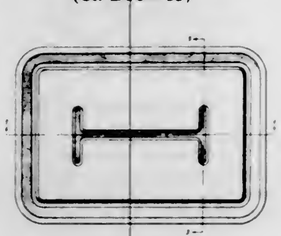


179,777
INFLATABLE SUN HATS
Emil Platzke, Minneapolis, Minn.
Application May 14, 1956, Serial No. 41,469
Term of patent 14 years
(Cl. D3—13)

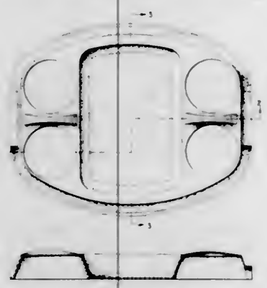


179,778
COMBINED TELEPHONE DESK STAND AND HANDSET
Wilhelm Pruss and Herbert Oestreich, Munich, Germany, assignors to Siemens & Halske Aktiengesellschaft, Berlin and Munich, Germany, a corporation of Germany
Application August 29, 1955, Serial No. 37,694
Claims priority, application Germany March 8, 1955
Term of patent 14 years
(Cl. D26—14)

179,779
TRAY
Walter H. Randall, Waterville, Maine, assignor to Keyes Fibre Company, Portland, Maine, a corporation of Maine
Application November 4, 1955, Serial No. 38,756
Term of patent 14 years
(Cl. D58—13)

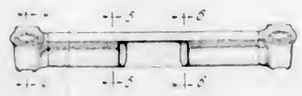


179,780
CARRY OUT TRAY
Walter H. Randall, Waterville, Maine, assignor to Keyes Fibre Company, Portland, Maine, a corporation of Maine
Application February 24, 1956, Serial No. 40,314
Term of patent 14 years
(Cl. D44—10)

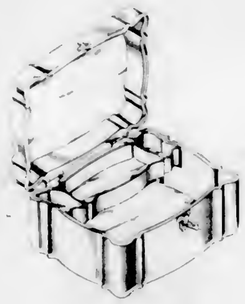


179,781
APPLIQUE OR SIMILAR ARTICLE
Salvador J. Reynoso, Chicago, Ill.
Application April 15, 1955, Serial No. 35,539
Term of patent 7 years
(Cl. D3—9)

179,782
BUMPER
Robert J. Scheelk, Oak Park, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 22, 1955, Serial No. 39,435
Term of patent 7 years
(Cl. D14—6)



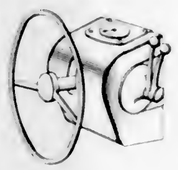
179,783
VANITY CASE
John Schwarz, Glendale, Calif.
Application July 2, 1956, Serial No. 42,118
Term of patent 14 years
(Cl. D86—10)



179,784
PRINTED TEXTILE FABRIC OR SIMILAR ARTICLE
Betty Seidel, Cherryville, Pa., assignor to John D. Brumbach, Oscar A. Funke, and Richard Funke, Reading, Pa., copartners doing business as Antietam Quilting Mills, and as Fleetwood Infant Products
Application February 10, 1956, Serial No. 40,113
Term of patent 7 years
(Cl. D92—1)

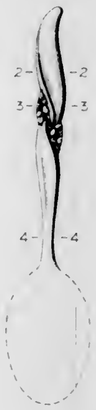
179,785
LIPSTICK CONTAINER
Thomas F. Slater, Waterbury, Conn.
Application October 2, 1956, Serial No. 43,202
Term of patent 14 years
(Cl. D86—10)

179,786
CONTROL UNIT FOR MOTOR BOATS
John D. Smith, Selkirk, N. Y., assignor to Anti-Corrosive Metal Products Co. Inc., Schodack, N. Y., a corporation of New York
Application May 31, 1956, Serial No. 41,715
Term of patent 14 years
(Cl. D71—1)



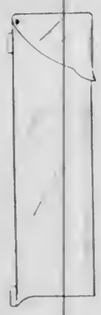
179,787
SPECTACLE TEMPLE
Raymond F. E. Stegeman, Greece, N. Y., assignor to Bausch & Lomb Optical Company, Rochester, N. Y., a corporation of New York
Application May 18, 1956, Serial No. 41,539
Term of patent 7 years
(Cl. D57—1)

179,788
SPOON OR SIMILAR ARTICLE OF FLATWARE
Siro R. Toffolon, Meriden, Conn., assignor to The International Silver Company, Meriden, Conn., a corporation of Connecticut
Application April 20, 1956, Serial No. 41,140
Term of patent 14 years
(Cl. D54—12)

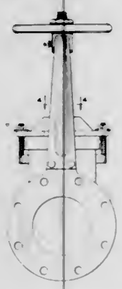


179,789
AUTOMOBILE
Frederick Wagner, Romeo, Mich., assignor to Studebaker-Packard Corporation, Detroit, Mich., a corporation of Michigan
Application April 21, 1955, Serial No. 35,613
Term of patent 3½ years
(Cl. D14—6)

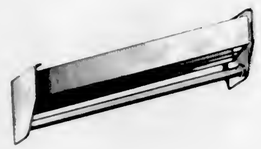
179,790
NEWSPAPER RECEPTACLE OR THE LIKE
Ralph Wells, Dayton, Ohio
Application December 14, 1955, Serial No. 39,332
Term of patent 14 years
(Cl. D74—9)



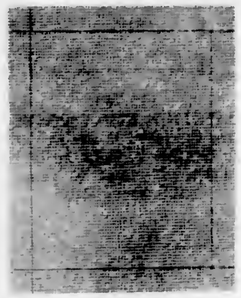
179,791
GATE VALVE
John L. Williams, Portland, Oreg.
Application December 8, 1955, Serial No. 39,240
Term of patent 14 years
(Cl. D78—1)



179,792
COMBINED LIGHTING FIXTURE AND CLOTHES RAIL
Eben B. Woolley, Milford, Conn., assignor of one-half to Frederic O. Hindle, New Haven, Conn.
Application April 9, 1956, Serial No. 40,972
Term of patent 14 years
(Cl. D33—8)



179,793
PLASTIC SHEET MATERIAL
Russell Wright, New York, N. Y.
Application March 13, 1956, Serial No. 40,596
Term of patent 14 years
(Cl. D87—3)



LIST OF REISSUE PATENTEES

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PATENTS WERE ISSUED ON THE 26TH DAY OF FEBRUARY, 1957

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Bair, Harry P., 50% to R. I. Bair. Combined stepladder. Re. 24,282, 2–26–57, Cl. 228—29.
Bair, Roger I.: *See*—
Bair, Harry P. Re. 24,282.
Detroit Wabeek Bank and Trust Co.: *See*—
Watson, Glenn W. Re. 24,283.
Jones, Harry H., and R. C. White, to R. C. White, d. b. a. Manufacturers Process Co. Degreasing apparatus. Re. 24,281, 2–26–57, Cl. 134—65.
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Watson, Glenn W., to Detroit Wabeek Bank and Trust Co. Method of balancing current volume and steam generation by use of current conducting films. Re. 24,283, 2–26–57, Cl. 219—40.
White, Robert C.: *See*—
Jones, Harry H., and White. Re. 24,281.

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Boerner, Eugene S., to Jackson & Perkins Co. Rose plant. 1,570, 2–26–57, Cl. 47—61.
Boerner, Eugene S., to Jackson & Perkins Co. Chrysanthemum plant. 1,571, 2–26–57, Cl. 47—60.
Booy, Peter J., Rose Nursery: *See*—
Silva, William E. 1,574.
Conard-Pyle Co., The: *See*—
Mallerin, Charles. 1,572.
Mallerin, Charles. 1,573.
Jackson & Perkins Co.: *See*—
Boerner, Eugene S. 1,570.
Boerner, Eugene S. 1,571.
Lafky, Mark G. Iris plant. 1,569, 2–26–57, Cl. 47—60.
Mallerin, Charles, to The Conard-Pyle Co. Rose plant. 1,572, 2–26–57, Cl. 47—61.
Mallerin, Charles, to The Conard-Pyle Co. Rose plant. 1,573, 2–26–57, Cl. 47—61.
Silva, William E., to Peter J. Booy Rose Nursery. Rose plant. 1,574, 2–26–57, Cl. 47—61.

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Ahlstrom, Max R. Wheel toy. 179,751, 2–26–57, Cl. D34—15.
Aladdin Industries, Inc.: *See*—
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American Seating Co.: *See*—
Hoven, Alfred C., Lindberg, and Nordmark. 179,770.
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Klumpp, Emil J. 179,774.
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Smith, John D. 179,786.
Antietam Quilting Mills: *See*—
Seidel, Betty. 179,784.
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Barrack, Florence. Dress. 179,753, 2–26–57, Cl. D3—26.
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Stegemann, Raymond F. E. 179,787.
Behr, Siegfried. Lady's hair ornament. 179,754, 2–26–57, Cl. D86—10.
Benson, Arthur E.: *See*—
Chupa, Charles M., and Benson. 179,760.
Blatt, Leland F., and A. Sherman. Air or oil operated cylinder clamp. 179,755, 2–26–57, Cl. D55—1.
Bond, Beverly B., to Ronson Corp. Container for electric shaver kits and the like. 179,756, 2–26–57, Cl. D86—10.
Bosch, George W. Key holder. 179,757, 2–26–57, Cl. D17—14.
Bowlen, Nord, to Rogers, Lunt & Bowlen Co. Spoon or similar article. 179,758, 2–26–57, Cl. D54—12.
Brumbach, John D.: *See*—
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Chupa, Charles M., and A. E. Benson, to United States Rubber Co. Pneumatic tire. 179,760, 2–26–57, Cl. D90—20.
Clemens, Charles W., to Aladdin Industries, Inc. Electric table lamp. 179,761, 2–26–57, Cl. D48—19.
Cox, Robert L., Jr., R. L. Hart, C. J. Koch, and J. D. Pierson, to The Glenn L. Martin Co. Airplane. 179,762, 2–26–57, Cl. D71—1.
Davis, Barnett, Inc.: *See*—
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Doerfler, Robert L., to The International Silver Co. Spoon or similar article of flatware. 179,764, 2–26–57, Cl. D54—12.
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Seidel, Betty. 179,784.
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Gera, Robert A., to International Furniture, Division of Schnadig Corp. Armless chair. 179,767, 2–26–57, Cl. D15—1.
Giles, Benjamin F. Adjustable coupling. 179,768, 2–26–57, Cl. D91—3.
Glowacke, Edward E., and R. J. Scheelk, to General Motors Corp. Wheel cover. 179,769, 2–26–57, Cl. 14—30.
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Doerfler, Robert L. 179,763.
Doerfler, Robert L. 179,764.
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Kahn, Lester R., to E. I. du Pont de Nemours and Co. Bottle stopper or similar article. 179,772, 2–26–57, Cl. D58—10.
Kalla, Erwin, to Barnett Davis, Inc. Ring box. 179,773, 2–26–57, Cl. D86—9.
Keyes Fibre Co.: *See*—
Randall, Walter H. 179,779.
Randall, Walter H. 179,780.
Klumpp, Emil J., to American Type Founders Co., Inc. Type font. 179,774, 2–26–57, Cl. D64—12.
Koch, Charles J.: *See*—
Cox, Robert L., Jr., Hart, Koch, and Pierson. 179,762.
Lackovic, Nicholas V., to Wolverine Supply and Mfg. Co. Toy robot figure. 179,775, 2–26–57, Cl. D34—15.
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Cox, Robert L., Jr., Hart, Koch, and Pierson. 179,762.
Platzke, Emil. Inflatable sun hats. 179,777, 2–26–57, Cl. D3—13.
Pruss, Wilhelm, and H. Oestreich, to Siemens & Halske Aktiengesellschaft. Combined telephone desk stand and handset. 179,778, 2–26–57, Cl. D26—14.
Randall, Walter H., to Keyes Fibre Co. Tray. 179,779, 2–26–57, Cl. D58—13.
Randall, Walter H., to Keyes Fibre Co. Carry out tray. 179,780, 2–26–57, Cl. D44—10.

Reynoso, Salvador J. Applique or similar article. 179,781, 2–26–57, Cl. D3—9.
Rogers, Lunt & Bowlen Co.: *See* Bowlen, Nord. 179,758.
Ronson Corp.: *See* Bond, Beverly B. 179,756.
Scheelk, Robert J.: *See*— Glowacke, Edward E., and Scheelk. 179,769.
Scheelk, Robert J., to General Motors Corp. Bumper. 179,782, 2–26–57, Cl. D14—6.
Schwarz, John. Vanity case. 179,783, 2–26–57, Cl. D86—10.
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Seidel, Betty, to J. D. Brumbach, and O. A. and R. Funke, copartners d. b. a. Antietam Quilting Mills and as Fleetwood Infant Products. Printed textile fabric or similar article. 179,784, 2–26–57, Cl. D92—1.
Sherman, Arthur: *See*— Blatt, Leland F., and Sherman. 179,755.
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Slater, Thomas. Lipstick container. 179,785, 2–26–57, Cl. D86—10.
Smith, John D., to Anti-Corrosive Metal Products Co., Inc. Control unit for motor boats. 179,786, 2–26–57, Cl. D71—1.
Stegeman, Raymond F. E., to Bausch & Lomb Optical Co. Spectacle temple. 179,787, 2–26–57, Cl. D57—1.
Studebaker-Packard Corp.: *See*— Wagner, Frederick. 179,789.
Toffolon, Siro R., to The International Silver Co. Spoon or similar article of flatware. 179,788, 2–26–57, Cl. D54—12.
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Wells, Ralph. Newspaper receptacle or the like. 179,790, 2–26–57, Cl. D74—9.
Williams, John L. Gate valve. 179,791, 2–26–57, Cl. D78—1.
Wolverine Supply and Mfg. Co.: *See*— Lackovic, Nicholas V. 179,775.
Woolley, Eben B., ½ to F. O. Hindle. Combined lighting fixture and clothes rail. 179,792, 2–26–57, Cl. D33—8.
Wright, Russell. Plastic sheet material. 179,793, 2–26–57, Cl. 87—3.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 26TH DAY OF FEBRUARY, 1957

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

ACF Industries, Inc.: *See*— Carlson, Harold A., and Moseley. 2,783,032. Jones, Maldwyn E. 2,783,034.
Ad. Schulthess & Co. A. G.: *See*— Leunenberger, Gottfried. 2,782,621.
Ace Glass Inc.: *See*— Shropshire, Robert C. 2,783,076.
Acquarone, Vincenzo. Electric slag resistance furnace. 2,783,288, 2–26–57, Cl. 13—23.
Acton, John R.: *See*— Williams, David J., Bacon, and Acton. 2,783,408.
Adams, Clyde S., M. J. Cormack, and M. L. Frazier, to The National Cash Register Co. Naphthoyl leuco methylene blue. 2,783,227, 2–26–57, Cl. 260—243.
Adams, Clyde S., M. J. Cormack, and M. L. Frazier, to The National Cash Register Co. Nitro derivatives of benzoyl leuco methylene blue. 2,783,228, 2–26–57, Cl. 260—243.
Adams, David, and H. Moss. Live bait pail. 2,782,552, 2–26–57, Cl. 43—57.
Adams, Harold K. Needle carrying adapter arm for map-making engraving instruments. 2,782,501, 2–26–57, Cl. 30—164.9.
Addie, Albert N., to General Motors Corp. Refrigerating apparatus having a free piston compressor. 2,782,613, 2–26–57, Cl. 62—136.
Aerojet-General Corp.: *See*— Parsons, John W. 2,783,138.
Agoston, George A., to Kerr-McGee Oil Industries, Inc. Process of fractionating asphalt and similar bituminous materials. 2,783,188, 2–26–57, Cl. 196—147.
Agriculture, United States of America as represented by the Secretary of: *See*— Sloan, John W., Hofreiter, Mehltretter, and Wolff. 2,783,283.
Ainsworth, Clarence J.: *See*— Grant, Wallace A., and Ainsworth. 2,783,157.
Air Baby, Inc.: *See*— Winson, Jonathan. 2,782,421.
Aircraft-Marine Products, Inc.: *See*— Watts, William S. 2,783,447.
Air Force, United States of America as represented by the Secretary of the: *See*— Flanagan, James L. 2,783,457.
Airkem, Inc.: *See*— D'Angio, Claude J. 2,783,085. Paxton, Worthen. 2,783,084.
Air-Way Industries, Inc.: *See*— Minerley, Frederick K. 2,783,090.
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Aktiebolaget Hagglund & Soner: *See*— Lindahl Per-Erik, Elfving and Mattsson. 2,783,393.
Aktiebolaget Westin & Backlund: *See*— Mathisen, Ivar M. 2,782,471. Westin, Karl G. 2,782,472.
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Albrecht, Herbert O.: *See*— Mandeville, Charles E., and Albrecht. 2,783,386.
Albrecht Otto, and A. Hiestand, to Ciba Ltd. Salts of new hardenable, basic, ternary condensation products. 2,783,231, 2–26–57, Cl. 260—249.6.
Alco Valve Co.: *See*— Houghton, Lyle S. 2,783,019.
Alderfer, Donovan C. Alarm for air conditioning system. 2,782,747, 2–26–57, Cl. 116—112.
Aleweld, Heinz: *See*— Halfmann, Christoph, and Aleweld. 2,782,842.
Alexander, Bernice: *See*— Ianuzzi Anthony P. 2,782,700.
Alexander, Charles W. Duplex sleeve pallet. 2,783,011, 2–26–57, Cl. 248—120.
Alexander, Stewart F.: *See*— Ianuzzi, Anthony P. 2,782,700.
Alfons Quatz, Richard R.: *See*— Emil Pauls, Ingolf F. F., and Quatz. 2,783,147.
Allen, Arthur C., to Stewart-Warner Corp. Balancing apparatus. 2,782,641, 2–26–57, Cl. 73—457.
Allen, Burris R. Thermostatically controlled blower fan furnace attachment. 2,782,991, 2–26–57, Cl. 236—10.
Allied Chemical & Dye Corp.: *See*— Christoffel, Ivan. 2,782,918. Crowder, John A., Gilbert and Nychka. 2,783,246. Datin, Richard C. 2,783,139. Deanin Rudolph D. 2,783,166. Eck, John C., and Tunkel. 2,783,271.
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American Scientific Laboratories, Inc.: *See*— White, Philip G. 2,783,178.
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Anderson, John W., to Productive Inventions, Inc. Windshield wiper. 2,782,447, 2–26–57, Cl. 15—245.
Anderson, John W., to Productive Inventions, Inc. Windshield wiper blade assemblies. 2,782,448, 2–26–57, Cl. 15—245.
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Anderson, Ralph F. Ice cream tart nozzle. 2,782,735, 2–26–57, Cl. 107—14.
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Appleton, William H., and G. M. Farly, to the United States of America as represented by the United States Atomic Energy Commission. Automatic control system with remote adjustment. 2,782,993, 2–26–57, Cl. 236—51.
Areand, Anna. Colostomy washing device. 2,782,785, 2–26–57, Cl. 128—283.
Arend, Christopher H., to International Harvester Co. Ball and socket hitch. 2,783,060, 2–26–57, Cl. 280—509.
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Atkins, Bernard R., P. S. Marg and M. J. Lanham. Dynamoelectric machine brush. 2,783,405, 2–26–57, Cl. 310—228.

Atlas Powder Co.: *See*—
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Automatic Electric Laboratories, Inc.: *See*—
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Auto-Test, Inc.: *See*—
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Zoller, Ronald E. 2,782,788.

Bäbler, Justus, to Aktiengesellschaft Brown, Boveri & Cie. Apparatus for determining the location of a fault on electric lines. 2,783,434, 2–26–57, Cl. 324—52.

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Bailey, Fred S., to American Machine and Metals, Inc. Adjustment for poultry house thermostats, and the like. 2,783,335, 2–26–57, Cl. 200—140.

Baker, Giles A., to Pyro Plastics Corp. Rotatable calendar stand. 2,782,539, 2–26–57, Cl. 40—111.

Baker, William R., to the United States of America as represented by the United States Atomic Energy Commission. Regulated power supply. 2,783,433, 2–26–57, Cl. 323—22.

Baldwin-Lima-Hamilton Corp.: *See*—
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Ball, Frederick S.: *See*—
Palmgren, Per G., Ball, Johansson, and Haley. 2,783,102.

Ballard, Hyde W.: *See*—
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Ballard, Louis M., to Wayne Mfg. Co. Rotary brushes. 2,782,439, 2–26–57, Cl. 15—182.

Ballard, Louis M., to Wayne Mfg. Co. Methods for forming rotary brushes. 2,783,095, 2–26–57, Cl. 300—21.

Balsiger, Harold E.: *See*—
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Balsiger, Harold E., to Landis Tool Co. Work feeding device. 2,782,573, 2–26–57, Cl. 51—215.

Balsiger, Harold E., to Landis Tool Co. Auto radial profile dresser. 2,782,778, 2–26–57, Cl. 125—11.

Baltrukonis, John H., W. G. Messenger, and B. A. Wheeler, to Hughes Aircraft Co. Center of weight distribution locator. 2,782,631, 2–26–57, Cl. 73—65.

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Barager, Ethel D. Disposable bib. 2,782,420, 2–26–57, Cl. 2—49.

Baral, Leon L., to W. R. Grace & Co. Process for the production of clear aqueous solution of alkali metal silicate. 2,783,129, 2–26–57, Cl. 23—110.

Baril, Samuel L., and F. G. Stein, to Hobar, Inc. Hanging clip. 2,782,482, 2–26–57, Cl. 24—252.

Barnhart, George E. Sealing ring. 2,783,106, 2–26–57, Cl. 309—33.

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Beach, Lennox F., to Sperry Rand Corp. Evacuated gyroscopic assembly. 2,782,642, 2–26–57, Cl. 74—5.

Beall, William R., ½ to R. Bannister. Apparatus for handling articles. 2,782,577, 2–26–57, Cl. 53—59.

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Bean, Morris M., and McPhaden. 2,782,477.

Bean, Morris M., and B. McPhaden, to Morris Bean and Co. Precision casting mold and method of making. 2,782,477, 2–26–57, Cl. 22—131.

Beatty, John W., and R. M. Anderson, to General Electric Co. Fluid blast circuit interrupter. 2,783,337, 2–26–57, Cl. 200—148.

Beatty, John W., to General Electric Co. Operating mechanism for a fluid-blast circuit breaker. 2,783,338, 2–26–57, Cl. 200—148.

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Beckett, John S., and W. J. Marenus, to Aseptic Thermo Indicator Co. Deterioration telltale. 2,782,749, 2–26–57, Cl. 116—114.

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Belk, Kenneth A. Operator protecting frame for tractors. 2,783,056, 2–26–57, Cl. 280—150.

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Heizer, Raymond, Jr., Gay, and Bell. 2,782,711.

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Bellis, Maurice P., to American Cyanamid Co. Stabilization of acrylonitrile. 2,783,269, 2–26–57, Cl. 260—465.9.

Benedetto, Michael. Golf training glove. 2,782,422. 2–26–57, Cl. 2—161.

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Berg, Clyde H. O., to Union Oil Co. of California. Solids level indication and control system. 2,783,096, 2–26–57, Cl. 302—53.

Bergstrom, Eric V., to Socony Mobil Oil Co., Inc. Gas solid separation in a pneumatic lift. 2,783,099, 2–26–57, Cl. 302—59.

Bergstrom, Eric V., and H. W. Shea, to Socony Mobil Oil Co., Inc. Liquid-granular solids contacting. 2,783,189, 2–26–57, Cl. 196—147.

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Bertinot, Francis. Sizing apparatus. 2,782,922, 2–26–57, Cl. 209—102.

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Bishop, Homer L., 65.4% to said H. L. Bishop and E. E. Stansell, jointly; 32.6% to C. Patton, and 2% to R. H. Daugherty. Apparatus for casting electrotypes. 2,782,474, 2–26–57, Cl. 22—58.

Black, Robert H. Thread gauge. 2,782,522, 2–26–57, Cl. 33—199.

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Bode, Harald, to Estey Organ Corp. (Del.). Frequency divider circuit for musical instruments. 2,783,382, 2–26–57, Cl. 250—36.

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Bodine, Albert G., Jr. Acoustical boundary layer control for aerodynamic bodies. 2,783,008, 2–26–57, Cl. 244—130.

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Bonn, Theodore H., to Sperry Rand Corp. Frequency controlled transistor oscillator. 2,783,380, 2–26–57, Cl. 250—36.

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Borushko, Michael J., to Harding Chemical Corp. Method for applying a protective coating to articles. 2,783,165, 2–26–57, Cl. 117—113.

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Brown, William E., and H. V. Elliott, to General Motors Corp. Fluid pressure switch. 2,783,324, 2–26–57, Cl. 200—83.

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Comstock, George E., 3d, to Norton Co. Electrolytic grinding apparatus. 2,783,199, 2–26–57, Cl. 204—218.

Comtois, Ernest R., and A. F. Prentice, to Morgan Construction Co. Handling of annular articles. 2,782,901, 2–26–57, Cl. 198—177.

Condra, Elmo L. Pipe reamer and mill. 2,782,850, 2–26–57, Cl. 164—0.8.

Conkling, Roy F., and W. H. Myers. Split induction heating coil. 2,783,351, 2–26–57, Cl. 219—10.79.

Conover, Lloyd H., to Chas. Pfizer & Co., Inc. Polyoxygenated cyclic compounds. 2,783,261, 2–26–57, Cl. 260—438.

Conrad, Ernest L.: *See*—
Crown, Orman E., and Conrad. 2,782,600.

Continental Can Co. Inc.: *See*—
Richens, Arthur W. 2,782,694.

Continental Gummi-Werke Aktiengesellschaft: *See*—
Krug, Hans D. 2,782,462.

Continental Motors Corp.: *See*—
Wiseman William A. 2,782,644.

Continental Transport Appliances, Ltd.: *See*—
Dorey George B. 2,782,879.

Conveyor Co., Inc., The: *See*—
Sacco, Walter E. 2,782,926.

Cook, Charles C., Jr., and J. E. Lawver, to International Minerals & Chemical Corp. Method and apparatus for beneficiating ore. 2,782,923, 2–26–57, Cl. 209—127.

Cooke-Yarborough, Edmund H.: *See*—
Thomas, David G. A., and Cooke-Yarborough. 2,783,415.

Cope, Appleton D., and R. R. Goodrich, to Radio Corp. of America. Method of forming a photoconductive target electrode. 2,783,117, 2–26–57, Cl. 316—8.

Copeland, Jacob C. Magnifying reflection viewer for stereoscopic pictures. 2,782,681, 2–26–57, Cl. 88—29.

Copelin, Harry B., and F. J. Feldhousen, Jr., to E. I. du Pont de Nemours & Co. Production of adiponitrile. 2,783,268, 2–26–57, Cl. 260—465.8.

Copold, Milburn C., to General Dynamics Corp. Work holder. 2,782,574, 2–26–57, Cl. 51—235.

Corbiere, Robert L., to Societe des Forges et Ateliers du Creusot. Hydro-electric turbo-generator. 2,783,392, 2–26–57, Cl. 290—52.

Cordis, Nat: *See*—
Martin, Maynar S. and M. L. 2,782,761.

Cordo Chemical Corp.: *See*—
Homan, Edward C. M. 2,783,214.

Cormack, Marjorie J.: *See*—
Adams, Clyde S., Cormack, and Frazier. 2,783,227.
Adams, Clyde S., Cormack, and Frazier. 2,783,228.

Corning Glass Works: *See*—
Dalton, Robert H., and Voss. 2,782,952.

Cornish, Harry E.: *See*—
Bloom John C., and Cornish. 2,783,068.

Corr, Mark S. Collapsible bread box. 2,782,950, 2–26–57, Cl. 217—15.

Correll Francis M. Autographic recording apparatus. 2,783,119, 2–26–57, Cl. 346—118.

Cota, Joe C. Rotary photographic film driers. 2,782,526, 2–26–57, Cl. 34—82.

Courtaulds Ltd.: *See*—
Entwistle, Donald, and Robertson. 2,783,158.

Crabtree, George W. Piston valve for hydraulic dampers. 2,782,876, 2–26–57, Cl. 188—88.

Crabtree, George W., Spring controlling unit. 2,782,877, 2–26–57, Cl. 188—88.

Crabtree, Leonard F., to Automatic Electric Laboratories, Inc. Telephone dictating and transcribing system. 2,783,304, 2–26–57, Cl. 179—6.

Craig, W. E. E. F. Riener, and H. F. Wilson, to Rohm & Haas Co. Chlorination of bis(chlorophenyl) methane. 2,783,284, 2–26–57, Cl. 260—649.

Crawford, Kenneth Z.: *See*—
Frazier, Garland D., and Crawford. 2,782,531.

Crawford Mfg. Co., Inc.: *See*—
Armbrecht, Howard R. 2,782,840.

Crever, Frederick E., to General Electric Co. Load division control for prime movers. 2,783,391, 2–26–57, Cl. 290—4.

Croft, Richard D., and F. Veatch, to The Standard Oil Co. Floating matter thickness measuring apparatus. 2,782,640, 2–26–57, Cl. 73—425.4.

Croll, George M. Tire chain and applicator. 2,782,828, 2–26–57, Cl. 152—214.

Crowder, John A., E. E. Gilbert, and H. R. Nychka, to Allied Chemical & Dye Corp. Manufacture of xanthene. 2,783,246, 2–26–57, Cl. 260—335.

Crown, Orman E., and E. L. Conrad. Hydraulic brake safety device. 2,782,600, 2–26–57, Cl. 60—54.5.

Crucible Steel Co. of America: *See*—
Payson, Peter, and Bowne. 2,783,144.

Crum, Ferris B., and J. F. Wilkes, to Dearborn Chemical Co. Sludge conditioning and dispersing agents for boiler water treatment. 2,783,200, 2–26–57, Cl. 210—23.

Cummings, Donald G., O. R. Woods, and B. Van Weelden, to The Upjohn Co. Marking inspection device. 2,783,389, 2–26–57, Cl. 250—214.

Cunningham, Orin D.: *See*—
Polly, Orville L., and Cunningham. 2,783,270.

Currie, William F. Drinking attachment for cans. 2,782,614, 2–26–57, Cl. 65—13.

Cusick, Charles S., and R. V. Lange, to Pittsburgh Plate Glass Co. Apparatus for dispensing plaster. 2,782,576, 2–26–57, Cl. 51—277.

Cutler-Hammer, Inc.: *See*—
Davies, James E., and Otto. 2,783,340.
Fath, Douglas W., and Horner. 2,783,424.

Cutter Laboratories, Inc.: *See*—
Ritter, Robert P. 2,782,784.

Cyphers, James H. Mailbox signal. 2,782,983, 2–26–57, Cl. 232—35.

Dahlberg, Ernst E.: *See*—
Bergvall, Knut L., and Dahlberg. 2,782,463.

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Roessler, Heinrich G. F. 2,782,884.
Roller, Albert E. 2,782,881.
Wilfert, Karl. 2,783,365.

Dalton, Robert H., and R. O. Voss, to Corning Glass Works. Cathode-ray tube envelope. 2,782,952, 2–26–57, Cl. 220—2.3.

D'Angio, Claude J., to Airkem, Inc. Vapor diffuser devices. 2,783,085, 2–26–57, Cl. 299—24.

Daniel, Arthur W. Micrometer depth gage. 2,782,517, 2–26–57, Cl. 33—170.

Darnell, Rex C., to Michigan Wire Cloth Co. Automatic dump for backwashing fuel filter. 2,782,932, 2–26–57, Cl. 210—167.

Dassler, Guido: *See*—
Winter, Otto, and Dassler. 2,782,895.

Datin, Richard C., to Allied Chemical & Dye Corp. Process of producing ammoniated superphosphates. 2,783,139, 2–26–57, Cl. 71—37.

Daugherty, Ralph H.: *See*—
Bishop, Homer L. 2,782,474.

Davey, Peter. Balance computing device. 2,782,986, 2–26–57, Cl. 235—61.

Davidson, John T., to The Standard Register Co. Tympan roll adjusting means for rotary printing mechanism. 2,782,713, 2–26–57, Cl. 101—247.

Davidson, John T., to The Standard Register Co. Printing means in autographic registers. 2,782,714, 2–26–57, Cl. 101—274.

Davies, James E., and C. W. Otto, to Cutler-Hammer, Inc. Hermetically sealed electro-magnetic contacts and the like. 2,783,340, 2–26–57, Cl. 200—166.

Davis Aircraft Products Inc.: *See*—
Davis Frank L. 2,782,672.

Davis, Frank L., to Davis Aircraft Products Inc. Lock pin having eccentrically actuated plunger and cooperating locking slide means. 2,782,672, 2–26–57, Cl. 85—5.

Davis, Frederick L. Variable speed transmissions. 2,782,660, 2–26–57, Cl. 74—752.

Davisson, Jacob W.: *See*—
Shull, Gilbert M., Kita, and Davisson. 2,783,255.

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Rothermel, Edward M., and Waddell. 2,782,803.

Dean, Reginald S., to Chicago Development Corp. Process for producing titanium. 2,783,192, 2–26–57, Cl. 204—10.

Deanin, Rudolph D., to Allied Chemical & Dye Corp. Pressure-sensitive adhesive sheet materials prepared from butadiene polymer emulsions. 2,783,166, 2–26–57, Cl. 117—122.

Dearborn Chemical Co.: *See*—
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De Canio, Dominick M., to Universal Form Clamp Co. Liner clamp for panel forms. 2,782,483, 2–26–57, Cl. 25—131.

De Canio, Dominick M., to Universal Form Clamp Co. Liner clamp for panel forms. 2,782,484, 2–26–57, Cl. 25—131.

Decora Corp., The: *See*—
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Deere Mfg. Co.: *See*—
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Johnson, John G., and Fletcher. 2,783,064.

Dekema, Francis M.: *See*—
Llen, Howard C. 2,783,046.

Dekema, John S.: *See*—
Llen, Howard C. 2,783 046.

Delamater, Roland E., to The Foote-Burt Co. Locating pin. 2,782,480, 2–26–57, Cl. 29—1.

Del Pesco, Andrew. Foot measuring device. 2,782,504, 2–26–57, Cl. 33—3.

De Maya, Charles B., and A. A. Winston, to General Foods Corp. Coconut product and process therefor. 2,783,152, 2–26–57, Cl. 99—125.

De Rohden, Charles, and M. Peltier, to Societe de Produits Chimiques des Terres Rares. Treatment of monazite. 2,783,125, 2–26–57, Cl. 23—14.5.

Derrick, Herbert W., Jr. Vibrating screen. 2,782,927, 2–26–57, Cl. 209—250.

Devick, Seymour. Paint products and containers for the same. 2,782,913, 2–26–57, Cl. 206—47.

De Vries, Louis. Fractionating continuous liquid-liquid extractor. 2,783,191, 2–26–57, Cl. 202—169.

Dietrichson, William F.: *See*—
Kump, Henry, and Dietrichson. 2,782,880.

Dimmick, Glenn L., and M. E. Widdop, to Radio Corp. of America. Optical device providing a light defining aperture. 2,782,685, 2–26–57, Cl. 88—61.

Dinsmore, Albert P.: *See*—
Christy, Paul J., and Dinsmore. 2,782,863.

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Doble, Warren, and A. E. Doerr, to Jabsco Pump Co. Shaft seal for pumps. 2,782,723, 2–26–57, Cl. 103—117.

Dochterman, Richard W., to General Electric Co. Submersible pump-motor. 2,782,720, 2–26–57, Cl. 103—87.

Doerr, Albert E.: *See*—
Doble, Warren, and Doerr. 2,782,723.

Dolin, Bruce. Automatic dialer for telephones. 2,783,309, 2–26–57, Cl. 179—90.

Dominion Engineering Works Ltd.: *See*—
Williams Stanley C. 2,782,693.

Dooley, William P.: *See*—
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Dorey, George B., to Continental Transport Appliances, Ltd. Operating mechanism for automatic slack adjuster. 2,782,879, 2–26–57, Cl. 188—196.

Dorn, Maxwell, and W. Rosenbaum, to Bendix Aviation Corp. Illumination of indicating apparatus. 2,782,752, 2–26–57, Cl. 116—129.

Dorr-Oliver Inc.: *See*—
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Dotson, Donald A., to The Garrett Corp. Electronic temperature regulator with anticipator. 2,782,994, 2–26–57, Cl. 236—78.

Douglas Aircraft Co., Inc.: *See*—
Bloom, John C., and Cornish. 2,783,068.
Gunther, Joseph R., and Marcoux. 2,783,363.
Jencks, Harold S. 2,783 443.
Klein, Arthur L., and Grimm. 2,782,632.
Marcoux, Arthur. 2,782,855.

Dow Chemical Co., The: *See*—
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White, Halbert C., and Wysong. 2,783,274.

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Draper Corp.: *See*—
Flamand, Maurice R. 2,782,807.
Laferte, Albert A. 2,782,808.

Dreier Brothers, Inc.: *See*—
Dreier, Raymond C. 2,782,820.

Dreier, Raymond C., to Dreier Brothers, Inc. Hand-saw. 2,782,820, 2–26–57, Cl. 145—32.

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Johnson, Norman W., Harder, and Du Mont. 2,783,143.

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Tausch, Gilbert H., and Dublin. 2,782,860.

Dudek, Edmund C., to Portable Electric Tools, Inc. Power driven hand manipulated portable saws. 2,782,813, 2–26–57, Cl. 143—43.

Duesel, Bernard F.: *See*—
Green, Daniel M., and Duesel. 2,783,224.

Duff, Duncan S.: *See*—
Llen, Howard C. 2,783,046.

Duff, Julia: *See*—
Llen, Howard C. 2,783,046.

Du Mont, Allen B., Laboratories, Inc.: *See*—
Koch, Stanley J., and Rutherford. 2,782,953.

Du Mont, Charles S.: *See*—
Johnson, Norman W., Harder, and Du Mont. 2,783,143.

Dunlop, Wirt Y.: *See*—
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Dunn, Jenus L., to General Electric Co. Radar receiver automatic noise leveling circuits. 2,783,466, 2–26–57, Cl. 343—17.1.

Dupli-Color Products Co., Inc.: *See*—
Wittnebert, Frederick R., Dunlop, and Neely. 2,782,438.

Du Pont, E. I., de Nemours and Co.: *See*—
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Young, James H. 2,783,272.

Dupre, Henry P., and P. Greco, to Burndy Corp. Conductive locking element. 2,783,446, 2–26–57, Cl. 339—276.

Eagle Lock Co., The: *See*—
Williams, Merton S. 2,782,625.

Eannarino, George, to Sarkes Tarzian, Inc. Plug in rectifier assembly. 2,783,417, 2–26–57, Cl. 317—234.

Earp, Charles W., to International Standard Electric Corp. Electric code modulation systems of communication. 2,783,305, 2–26–57, Cl. 179—15.

Eastwood, Sylvander C., to Socony Mobil Oil Co., Inc. Hydrogen production. 2,783,133, 2–26–57, Cl. 23—212.

Eastwood, Sylvander C., to Socony Mobil Oil Co., Inc. Method and apparatus for hydrocarbon conversion. 2,783,186, 2–26–57, Cl. 196—52.

Eaton, Milton, to The Shawinigan Water and Power Co. Grid shielded electrode for electric boilers. 2,783,356, 2–26–57, Cl. 219—40.

Eber, Jack. Lightweight luggage. 2,782,889, 2–26–57, Cl. 190—28.

Eck, John C., and S. J. Tunkel, to Allied Chemical & Dye Corp. Continuous production of methacrylic acid esters. 2,783,271, 2–26–57, Cl. 260—486.

Eckles, Howard W., to The Emerson Electric Mfg. Co. Starting switch for electric motors. 2,783,317, 2–26–57, Cl. 200—6.

Eckweiler, Howard J., to Kollsman Instrument Corp. Artificial horizon. 2,782,675, 2–26–57, Cl. 88—1.

Edworthy, Frederick J. Landing net. 2,782,546, 2–26–57, Cl. 43—11.

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Emerson Electric Mfg. Co., The: *See*—
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Emery, Geraldine H. Drop front panel girdle. 2,782,415, 2–26–57, Cl. 2—38.

Emil Pauls, Ingolf F. F., and R. R. A. Quatz. Process for brewing a special beer. 2,783,147, 2–26–57, Cl. 99—38.

Emmert, Dale C., and K. E. Vail. Method and apparatus for producing flat fiberglass reinforced plastic panels. 2,782,458, 2–26–57, Cl. 18—1.

Empire Steel Products Corp.: *See*—
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English Electric Co. Ltd., The: *See*—
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Entwistle, Donald, and S. Robertson, to Courtaulds Ltd. Production of coloured filaments, fibers, threads, and the like. 2,783,158, 2–26–57, Cl. 106—165.

Epstein, Albert A., to V. de B. Epstein. Method of producing a coffee extract. 2,783,149, 2–26–57, Cl. 99—71.

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Epstein, Albert A. 2,783,149.

Erdmenger, Rudolf, to Farbenfabriken Bayer Aktiengesellschaft. Means for feeding to machines sticky or crust-forming materials. 2,782,963, 2–26–57, Cl. 222—227.

Ericson, Albert A., to The Farmingdale Corp. Hydraulic drives for machine tools. 2,782,798, 2–26–57, Cl. 137—505.22.

Ericson, George R., deceased; M. A. Ericson, executrix. Convalescent's pillow. 2,782,427, 2–26–57, Cl. 5—338.

Ericson, Mary A.: *See*—
Ericson, George R. 2,782,427.

Eriesson Telephones Ltd.: *See*—
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Eron, Theodore. Paper cup and holder. 2,782,616, 2–26–57, Cl. 65—61.

Eslinger, Margaret. Manually-actuated snow plow. 2,782,533, 2–26–57, Cl. 37—53.

Esslinger, Robert A., to United States Rubber Co. Method and apparatus for molding conveyor belts. 2,782,461, 2–26–57, Cl. 18—6.

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Etherington, Lewis D., Burnside, and Brown. 2,782,866.
Kolfenbach, John J., Wasserbach, and Walker. 2,782,592.
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Bode, Harald. 2,783,382.

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Eulank, Chester M. Earth moving machine level indicator. 2,782,525, 2–26–57, Cl. 33—215.

Everbrite Electric Signs, Inc.: *See*—
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Ewing, Joseph. Railroad car for transporting road vehicles. 2,782,733, 2–26–57, Cl. 105—368.

Ewing, Lewis M., to General Electric Co. Waveguide seal. 2,783,295, 2–26–57, Cl. 174—35.

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Loebel, Fred A., and Ewing. 2,783,354.

Fahringer, Jerry. Liquid-container pack. 2,782,915, 2–26–57, Cl. 206—65.

Fairchild Camera and Instrument Corp.: *See*—
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Faige, Robert N., and H. C. Mead, to General Motors Corp. Combination direction signal lamp. 2,783,452, 2–26–57, Cl. 340—73.

Fallon, Chester J., and H. W. Taggart. Telescopic gun sight mounting. 2,782,507, 2–26–57, Cl. 33—50.

Fansteel Metallurgical Corp.: *See*—
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Langbein, Gerhard. 2,783,225.
Scherer, Otto, and Schächer. 2,783,275.
Schmidt-Thome, Josef. 2,783,552.

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Fath, Douglas W., and F. S. Horner, Jr., to Cutler-Hammer, Inc. Saturable reactor Ward Leonard control system. 2,783,424, 2–26–57, Cl. 318—145.

Faxen, Per T., to Svenska Aeroplan Aktiebolaget. Target hit indicator. 2,783,047, 2–26–57, Cl. 273—102.2.

Feagans, Perry L., to The Garrett Corp. Machine for making impellers. 2,782,691, 2–26–57, Cl. 90—13.

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Feichtinger, Hans, H. Tummes, and S. Puschhof, to Ruhrchemie Aktiengesellschaft. Amino-alkyl-sulfonic acid chloride-hydrochlorides. 2,783,198, 2–26–57, Cl. 204—158.

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Copelin, Harry B., and Feldhousen. 2,783,268.

Felker, William. Rain shield window sash. 2,783,040, 2–26–57, Cl. 268—123.

Fenemore, Alan S., to The English Electric Co. Ltd. Windings for magnetic structures. 2,783,399, 2–26–57, Cl. 310—64.

Fenwal Inc.: *See*—
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Ferguson, Rector C., to Allis-Chalmers Mfg. Co. Chain tightener. 2,782,650, 2–26–57, Cl. 74—242.14.

Ferguson, Alton. Bag and funnel support. 2,783,010, 2–26–57, Cl. 248—94.

Ferris, Robert G., to Starline, Inc. Conveyor flight for continuous chain type barn gutter cleaners. 2,782,900, 2–26–57, Cl. 198—176.

Ferris, Seymour W., to Sun Oil Co. Preparation of waxes. 2,783,183, 2–26–57, Cl. 196—18.

Fessia, Antonio, to Fiat Societa per Azioni. Propelling unit for motor vehicles with independent suspension driving wheels. 2,782,864, 2–26–57, Cl. 180—55.

Fiat Societa per Azioni: *See*—
Fessia, Antonio. 2,782,864.

Fidelity Union Trust Co.: *See*—
Schweizer, August. 2,783,223.

Field, Everett J., to I-T-E Circuit Breaker Co. Ice shield. 2,783,066, 2–26–57, Cl. 280—7.

Fieux, Jean, ½ to Societe des Forges et Ateliers du Creusot. Appliance for braking of aircraft on landing or for launching of same. 2,783,004, 2–26–57, Cl. 244—63.

Filander, Arthur H., to Franklin Balmar Corp. Jar-capping apparatus. 2,782,897, 2–26–57, Cl. 198—22.

Fink, Armand F., to the United States of America as represented by the United States Atomic Energy Commission. Pressure switch. 2,783,320, 2–26–57, Cl. 200—61.08.

Finn, John J., to Heatube Corp. Corrosion preventing mount for electric water heaters. 2,783,353, 2–26–57, Cl. 219—38.

Firma Continental Gummi-Werke A. G.: *See*—
Krug, Hans-Dietrich, and Bauermeister. 2,782,460.

Fishburne, Francis B. Portable press. 2,782,710, 2–26–57, Cl. 100—100.

Fisher, Edward G.: *See*—
Fisher, Milton W. and E. G. 2,783,029.

Fisher, Herman W. Stem for tobacco pipes and the like. 2,782,789, 2–26–57, Cl. 131—210.

Fisher, Hugh K., to James R. Kearney Corp. Packages. 2,782,911, 2–26–57, Cl. 206—47.

Fisher, Milton W. and E. G., to Modern Precasting Co. Precast picket fence. 2,783,029, 2–26–57, Cl. 256—19.

Flamand, Maurice R., to Draper Corp. Stop motion for looms. 2,782,807, 2–26–57, Cl. 139—228.

Flanagan, James L., to the United States of America as represented by the Secretary of the Air Force. Voltage selection and indication. 2,783,457, 2–26–57, Cl. 340—248.

Fleming, Lawrence. Beat frequency oscillator. 2,783,379, 2–26–57, Cl. 250—36.

Fletcher, Edward H.: *See*—
Johnson, John G., and Fletcher. 2,783,064.

Fletcher, Edward H., to Deere Mfg. Co. Valve structure for steering mechanism. 2,782,652, 2–26–57, Cl. 74—388.

Flexibox Ltd.: *See*—
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Fogiel, Max. Automobile parking aid system. 2,783,463, 2–26–57, Cl. 340—282.

Foley, Rupert M., to Dorr-Oliver Inc. Method of treating copper ore concentrates. 2,783,141, 2–26–57, Cl. 75—26.

Fontaine, John G., and A. D. McLean, to Automatic Phone Recorder Co. Ltd. Telephone answering and recording devices. 2,783,303, 2–26–57, Cl. 179—6.

Foote-Burt Co., The: *See*—
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Ford Motor Co.: *See*—
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Manuel, Guy G., and Pizlali. 2,783,075.
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Forkel, Curt E.: *See*—
Hall, Dick S., and Forkel. 2,782,924.

Forster, John O., and A. H. Mussgnug, to Heli-Coil Corp. Coil spring thread having shear-preventing and locking means. 2,782,674, 2–26–57, Cl. 85—46.

Forster Mfg. Co., Inc.: *See*—
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Foss, Curtis D. Seal for journal box. 2,783,067, 2–26–57, Cl. 286—11.

Foster, James R.: *See*—
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Foster, Norman G., and L. E. Green, Jr., to Standard Oil Co. Seal and magnetic drive. 2,783,401, 2–26–57, Cl. 310—104.

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Fouassin, Marcel. Preset servo system. 2,783,422, 2–26–57, Cl. 318—30.

Fowler, Conrad J., to the United States of America as represented by the Secretary of the Navy. Superheterodyne receiver using resistance-capacitance tuning in local oscillator and radio frequency stage. 2,783,373, 2–26–57, Cl. 250—20.

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Francis, Sidney J., and H. J. Carter, to New Era Engineers (Proprietary) Ltd. Manufacture of metal grating. 2,782,696, 2–26–57, Cl. 94—30.

Frank, Lester W. Toy railroad train and track. 2,782,730, 2–26–57, Cl. 105—29.

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Adams, Clyde S., Cormack, and Frazier. 2,783,228.

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French, Arthur A., and A. N. McGregor. Ice making apparatus. 2,782,608, 2–26–57, Cl. 62—106.

French, Ralph W., to Ludlow Mfg. & Sales Co. Bundle tie. 2,782,479, 2–26–57, Cl. 24—18.

French, Ralph W., R. Shields, and K. H. Pond, to Ludlow Mfg. & Sales Co. Bundle tying apparatus. 2,782,709, 2–26–57, Cl. 100—27.

Frey, Ephriam. Lap tray with leg engaging means. 2,783,109, 2–26–57, Cl. 311—25.

Fritsch, Erich, to Van Brode Milling Co., Inc. Storage battery mountings. 2,783,293, 2–26–57, Cl. 136—166.

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Frost, Gustave, to Andrew Geller, Inc. Pre-breasted heel. 2,782,433, 2–26–57, Cl. 12—142.

Fry, Stanley S., to Fansteel Metallurgical Corp. Rectifier. 2,783,419, 2–26–57, Cl. 317—241.

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G-M Laboratories, Inc.: *See*—
Kitto, William H., and Burian. 2,782,452.

Gacht, Steven. Plug and socket means for connecting table tops together. 2,783,107, 2–26–57, Cl. 311—4.

Galin, Robert, to General Motors Corp. Ice block making apparatus. 2,782,609, 2–26–57, Cl. 62—106.

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Garst, Arthur W., to Stanolind Oil and Gas Co. Increasing the permeability of earthy formations. 2,782,859, 2–26–57, Cl. 166—42.

Gassaway, James S., to Avery Adhesive Label Corp. Label dispensing device. 2,782,961, 2–26–57, Cl. 221—73.

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Heizer, Raymond, Jr., Gay, and Bell. 2,782,711.

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Giles, Jeremiah D. Heat insulation structure. 2,782,914, 2–26–57, Cl. 206—59.

Gill, James J. Centering tool. 2,782,519, 2–26–57, Cl. 33—185.

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Goldberg, Moses W., and A. I. Rachlin, to Hoffmann-La Roche Inc. Derivatives of meta hydroxy aniline. 2,783,230, 2–26–57, Cl. 260—247.2.

Goldstein, Arthur, to Tru Balance Corsets, Inc. Cinching girdle. 2,782,414, 2–26–57, Cl. 2—28.

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Gordon, James M. Collapsible lug box. 2,782,955, 2–26–57, Cl. 220—6.

Gould, David H., and H. L. Herzog, to Schering Corp. Esters of cortical hormones. 2,783,226, 2–26–57, Cl. 260—239.55.

Gould, David H., and E. P. Oliveto, to Schering Corp. Process for the manufacture of 17α-hydroxy-corticosterone and intermediates obtained thereby. 2,783,254, 2–26–57, Cl. 260—397.45.

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Gray, Earl H., to Phillips Petroleum Co. Preparation of silica gels. 2,782,869, 2–26–57, Cl. 183—114.2.

Gray, George W., and R. D. Kell, to Radio Corp. of America. Apparatus for displaying high frequency wave-forms. 2,783,436, 2–26–57, Cl. 324—57.

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Grey, Harlow. Device for cutting hair. 2,782,499, 2–26–57, Cl. 30—31.

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Grote, Irvine W., to Chattanooga Medicine Co. Antacid and method of making the same. 2,783,127, 2–26–57, Cl. 23—61.

Grote, Irvine W., to Chattanooga Medicine Co. Isomeric aluminum hydroxy carbonates as antacids. 2,783,179, 2–26–57, Cl. 167—72.

Gruber, Eli H. Beach chairs. 2,782,838, 2–26–57, Cl. 155—153.

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Grundmann, Christoph J., and G. Ottmann, to Olin Mathieson Chemical Corp. Tropenyl carbinols. 2,783,236, 2–26–57, Cl. 260—292.

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Guida, Gene F. and A. Watch regulating device. 2,782,591, 2–26–57, Cl. 58—111.

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Gunnerson, Arthur R. Hacksaw frame with angularly adjustable handle. 2,782,821, 2–26–57, Cl. 145—34.

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Gustafson, Carl O., to Grinnell Corp. Humidifier system. 2,782,992, 2–26–57, Cl. 236—44

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Gutton, Henri, and A. J. Ortusi, to Compagnie Generale de Telegraphie Sans Fil. Ultra-short wave aerials. 2,783,467, 2–26–57, Cl. 343—783.

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Haas, Karl, S. Voll, and F. Zehdnicker, to Siemens-Schuckertwerke Aktiengesellschaft. Electric drive for ship winches. 2,783,398, 2–26–57, Cl. 310—57.

Haffner, Fred G., to Pneumatic Scale Corp., Ltd. Volume limiting mechanism for a volumetric filling machine. 2,783,017, 2–26–57, Cl. 249—17.

Haldy, Burton F., to Stratafoam Corp. Foam-dispensing package. 2,783,091, 2–26–57, Cl. 299—90.

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Hall, Dick S., and C. E. Forkel, to Phillips Petroleum Co. Pebble heating apparatus and method of removing fines from pebble feed. 2,782,924, 2–26–57, Cl. 209—138.

Hall, Herbert J., to Research Corp. Pulser circuit. 2,782,867, 2–26–57, Cl. 183—7.

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Hamilton, Robert C., to General Motors Corp. Electromechanical synchronizing apparatus. 2,782,602, 2–26–57, Cl. 60—97.

Hammer, Samuel, to United Metal Cabinet Corp. Metal trim for countertops and the like. 2,783,111, 2–26–57, Cl. 311—107.

Hammer, Sigwald M., to Sinclair Research Laboratories, Inc. Faulty circuit alarm. 2,783,458, 2–26–57, Cl. 340—251.

Hancock, William. Speed responsive hydraulic brake. 2,782,878, 2–26–57, Cl. 188—183.

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Hannon, Gilbert H. Transmission mechanism employing a positive clutch engaging element. 2,782,892, 2–26–57, Cl. 192—30.

Hanson, Louis P., and H. H. Suskin. Electric switching means. 2,783,326, 2–26–57, Cl. 200—84.

Hanson, Oswin P., to Flexibox Ltd. Lapping machines. 2,782,571, 2–26–57, Cl. 51—131.

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Harley, Max. Call device. 2,782,558, 2–26–57, Cl. 46—180.

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Hartl, John J. Self-coupling wagon hitch. 2,783,059, 2–26–57, Cl. 280—509.

Harz, Hermann, to Siemens-Schuckertwerke Aktiengesellschaft. Apparatus for exciting synchronous machines through rectifiers. 2,783,432, 2–26–57, Cl. 322—25.

Hassler, John, to General Motors Corp. Multiple electrode arc welding assembly. 2,783,362, 2–26–57, Cl. 219—146.

Hastings, Earle G., Jr. Barbecue pepper mill. 2,782,998, 2–26–57, Cl. 241—168.

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Heckmann, Wolfgang G. J., to Klockner-Humboldt-Deutz A. G. Centrifugal extractor with oscillating means therefor. 2,782,930, 2–26–57, Cl. 210—72.

Heffelfinger, Robert D., to American Viscose Corp. Precision fiber cutter. 2,782,853, 2–26–57, Cl. 164—68.

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Heizer, Raymond, Jr., J. D. Gay, Jr., and H. G. Bell, to Gay-Bell Corp. Dolly support for hogshead loader and compactor. 2,782,711, 2–26–57, Cl. 100—229.

Helber, Carl A., to Goodyear Aircraft Corp. Photographic film transport mechanism. 2,782,701, 2–26–57, Cl. 95—31.

Helberg, Vernon C. Clip board. 2,783,062, 2–26–57, Cl. 281—44.

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Hendrix, William L. Service-cable support and combination of same with mid-span conductor spacer. 2,783,296, 2–26–57, Cl. 174—43.

Henkelman, William S. Motor vehicle counters. 2,782,990, 2–26–57, Cl. 235—99.

Henkin, Hyman, and R. P. Messina, to Colgate-Palmolive Co. Stabilized antiperspirant cosmetic cream. 2,783,181, 2–26–57, Cl. 167—90.

Hennebutte, Georges B. L. Life-saving apparatus. 2,782,429, 2–26–57, Cl. 9—19.

Herbert, Robert J., to General Electric Co. Method of making broad area semi-conductor devices. 2,783,197, 2–26–57, Cl. 204—143.

Heredia, Francisco M. F., to Patents Taigo, S. A. Articulated railway trains. 2,782,729, 2–26–57, Cl. 105—4.

Hering, Karl W., to The Perkin-Elmer Corp. Compensated velocity servo-loop system. 2,783,421, 2–26–57, Cl. 318—19.

Herlach, Heinrich, to Machine Tool Works Oerlikon, Administration Co. Gun carriage with pedal-controlled training. 2,782,687, 2–26–57, Cl. 89—41.

Herschel, Carl E., and C. D. Vandenburgh, to American Viscose Corp. Article transfer system. 2,782,579, 2–26–57, Cl. 53—197.

Hersh, Herman L., and F. P. Bessing; said Bessing assor. to said Hersh. Hair treating composition and methods for use of same. 2,782,790, 2–26–57, Cl. 132—7.

Hershey, Stephen. Caddy bag cart kit. 2,782,971, 2–26–57, Cl. 224—29.

Hervey, Paul R. Tractor mounted rotary disc type mowing assembly. 2,782,585, 2–26–57, Cl. 56—25.4.

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Hess, Otto. Sewing machine. 2,782,742, 2–26–57, Cl. 112—209.

Hessler, Willi. Method of extracting carnauba-like waxes from crude montan waxes. 2,783,259, 2–26–57, Cl. 260—423.

Hetzel, Max, to Bulova Watch Co., Inc., New York, Bienne Branch. Device for measuring the amplitude of the vibrations of a watch escapement. 2,782,627, 2–26–57, Cl. 73—6.

Hickok, Robert D., Jr.: *See*—
Yenni, William H., and Hickok. 2,783,437.

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Hignett, Travis P., M. R. Siegel, R. S. Meline, and T. M. Kelso, to Tennessee Valley Authority. Production of fertilizer from high-alumina phosphate ores. 2,783,140, 2–26–57, Cl. 71—37.

Hill, Morse, to National Research Corp. Method of coating a metal substrate with molybdenum. 2,783,164, 2–26–57, Cl. 117—71.

Hill, Wilbur G., to General Aniline & Film Corp. Electromagnetically operated photographic shutter with flashlamp synchronizer. 2,782,698, 2–26–57, Cl. 95—11.5.

Hillebrand, Albert F. Valve. 2,782,800, 2–26–57, Cl. 137—625.38.

Hiltmann, Rudolf, to Schenley Industries, Inc. Tertiary N,N-dialkyl benzyl amines. 2,783,277, 2–26–57, Cl. 260—570.9.

Hindall, Lawrence D., deceased; P. Grimm, administrator, to Northrop Aircraft, Inc. Self synchronous delay line. 2,783,455, 2–26–57, Cl. 340—173.

Hintermayr, Fritz. Floats for the carburettors of internal combustion engines. 2,782,797, 2–26–57, Cl. 137—409.

Hoban, Fairfield W. Coin director. 2,782,984, 2–26–57, Cl. 232—57.5.

Hohar, Inc.: *See*—
Barll, Samuel J., and Stein. 2,782,482.

Hobson, H. M., Ltd.: *See*—
Greenland, Leonard S., Westbury, and Smith. 2,783,006.

Hockje, Howard H., to Columbia-Southern Chemical Corp. Well drilling composition and method of manufacture thereof. 2,783,122 2–26–57, Cl. 8—94.32.

Hoffmann-La Roche Inc.: *See*—
Goldberg, Moses W., and Rachlin. 2,783,230.
Gutmann, Hugo, and Isler. 2,783,232.
Isler, Otto, and Zeller. 2,783,280.
Isler, Otto, and Zeller. 2,783,281.
Isler, Otto, and Zeller. 2,783,282.
Surmatis, Joseph D., and Weber. 2,783,257.

Hofreiter, Bernard T.: *See*—
Sloan, John W., Hofreiter, Mehltretter, and Wolff.

Höjberg, Laurencio B. Rotary pump. 2,782,725, 2–26–57, Cl. 103—137.

Holmes Electric Protective Co.: *See*—
Chase, Leland H., and Spenard. 2,783,462.

Homan, Edward C. M., to Cordo Chemical Corp. Method of producing a solidified cured resin. 2,783,214, 2–26–57, Cl. 260—28.

Honn, Francis J., and W. M. Sims, to The M. W. Kellogg Co. Copolymers of a perfluorochloroethylene and a hydrocarbon diene and method for their manufacture. 2,783,217, 2–26–57, Cl. 260—82.1.

Hooker Electrochemical Co.: *See*—
Robitschek, Paul, and Bean. 2,783,215.

Hopkins, Harold H., to W. Watson & Sons Ltd. Variable magnification optical systems. 2,782,684, 2–26–57, Cl. 88—57.

Hopkins, Royce. Filter. 2,782,868, 2–26–57, Cl. 183—61.

Horizons Titanium Corp.: *See*—
Raynes, Bertram C., and Theilmann. 2,783,195.

Horner, Fred S., Jr.: *See*—
Fath, Douglas W., and Horner. 2,783,424.

Hough, Frank G., to The Frank G. Hough Co. Power loaders. 2,782,946, 2–26–57, Cl. 214—140.

Hough, Frank G., Co., The: *See*—
Hough, Frank G. 2,782,946.

Hough Mfg. Corp.: *See*—
Johnson, Werner E. 2,782,845.

Houghton, Lyle S., to Alco Valve Co. Valve with non-chattering solenoid pilot valve control. 2,783,019, 2–26–57, Cl. 251—30.

Housdorfer, Carl R. Buffing stick feeder. 2,782,575, 2–26–57, Cl. 51—263.

Howard, George C.: *See*
Clark, Roscoe C., Jr., and Howard. 2,782,857.

Howell, George B., to Empire Steel Products Corp. Projection reader. 2,782,680, 2–26–57, Cl. 88—24.

Howell, John F., to General Electric Co. Ray detecting system and method of stabilizing same. 2,783,387, 2–26–57, Cl. 250—83.3.

Huecking, Walter, and J. Gredigk, to W. Huecking. Machine for reeling continuous lengths of material. 2,783,000, 2–26–57, Cl. 242—56.

Hughes Aircraft Co.: *See*
Baltrukonis, John H., Messenger, and Wheeler. 2,782,631.

Hughes, Everett C., and H. A. Strecker, to The Standard Oil Co. Process for the production of oxygen. 2,783,134, 2–26–57, Cl. 23—221.

Hughes, Everett C., H. A. Strecker, and A. L. Jones, to The Standard Oil Co. Oxidative reforming of naphtha. 2,783,185, 2–26–57, Cl. 196—50.

Humphrey, James G. Cleaning unit package. 2,782,912, 2–26–57, Cl. 206—47.

Humphreys, Marion W. Vane-type rotary pumps and motors. 2,782,724, 2–26–57, Cl. 103—120.

Hundhausen, Robert J., ½ to D. W. Buttner. Method of defining excavation limits. 2,782,750, 2–26–57, Cl. 116—114.

Hunt, William G. Machine for applying spots of glue to sheets of paper. 2,782,756, 2–26–57, Cl. 118—211.

Hurley, Charles W., to the United States of America as represented by the Secretary of the Army. Mechanically expansible closure plug. 2,782,958, 2–26–57, Cl. 220—24.5.

I-T-E Circuit Breaker Co.: *See*—
Field, Everett J. 2,783,066.
Schymik, Walter H. 2,783,299.
Struthers, John R. 2,783,394.

Ianuzzi, Anthony P., 73⅓% to M. Myerberg, 20% to A. Gray, Jr., 2% to L. C. Blendermann, 2% to Monide, Inc., and 1⅓% to S. F. and 1⅓% to B. Alexander. Camera mounts. 2,782,700, 2–26–57, Cl. 95—18.

Imparato, Jack G., ½ to J. J. Imparato. Cylinder clamps. 2,782,957, 2–26–57, Cl. 220—23.4.

Imparato, John J.: *See*—
Imparato, Jack G. 2,782,957.

Industrial Rayon Corp.: *See*—
Rodgers, Marcus D. 2,783,136.

Industrial Wire Cloth Products Corp.: *See*—
Maysilles, Lynn A. 2,782,934.

Ingram, Dixon, to Sunny Young, Inc. Rotary device for rapid grading of patterns. 2,782,506, 2–26–57, Cl. 33—42.

Inman, William H., to Bloomer Bros. Co. Cellular filler for cartons. 2,782,951, 2–26–57, Cl. 217—23.

Insley Mfg. Corp.: *See*—
Gerber, Robert E. 2,782,875.

International Basic Economy Corp.: *See*—
Anderson, Raymond T. 2,782,928.

International Business Machines Corp.: *See*—
Clapper, Genung L. 2,783,316.
Knox, Lewis A. 2,782,989.

International Electronics Co., The: *See*—
Roberts, Bruce. 2,783,048.

International Geophysics, Inc.: *See*—
Jakosky, John J. 2,782,865.

International Harvester Co.: *See*—
Arend, Christopher H. 2,783,060.
Georgen, Wendell L., Bilter, and Yrigoyen. 2,782,470.
Owen, Leonard V. 2,783,061.
Tieman, Rahe J. 2,782,518.

International Minerals & Chemical Corp.: *See*—
Cook, Charles C., Jr., and Lawver. 2,782,923.

International Standard Electric Corp.: *See*—
Earp, Charles W. 2,783,305.

Intrusion-Prepakt, Inc.: *See*—
Wertz, Louis S., and Turzillo. 2,782,605.

Irvin Auger Bit Co., The: *See*—
Robinson, Clarence J. 2,782,824.

Irwin, Neisler and Co.: *See*—
Cavallito, Chester J., and Gray. 2,783,237.

Ische, George H. Grinding guide and carrier. 2,782,570, 2–26–57, Cl. 51—122.

Ish, Louise V. Stocking top. 2,782,618, 2–26–57, Cl. 66—172.

Isler, Otto: *See*—
Gutmann, Hugo, and Isler. 2,783,232.

Isler, Otto, and P. Zeller, to Hoffmann-La Roche Inc. Methyl-(2-chloroethyl)-propargyl-carbinol. 2,783,280, 2–26–57, Cl. 260—633.

Isler, Otto, and P. Zeller, to Hoffmann-La Roche Inc. Ethyl-chloromethyl-propargyl-carbinol. 2,783,281, 2–26–57, Cl. 260—633.

Isler, Otto, and P. Zeller, to Hoffmann-La Roche Inc. Dichloromethyl-propargyl-carbinol. 2,783,282, 2–26–57, Cl. 260—633.

Iverson, Arden L., to Para-Lux Products Co. Device for applying garment hanger covers. 2,782,580, 2–26–57, Cl. 53—219.

Ivy, Jessie T. Detachable side mount. 2,782,508, 2–26–57, Cl. 33—50.

Ivy, Jesse T. Telescope mountings. 2,782,509, 2–26–57, Cl. 33—50.

Ivy, Jesse T. Detachable telescope mount. 2,782,511, 2–26–57, Cl. 33—50.

J. C. L. Mfg. Corp., The: *See*—
Jones, Von E., and Ludy.

Jabsco Pump Co.: *See*—
Doble, Warren, and Doerr.

Jackman, Frederick H.: *See*—
Gavin, Linus A., and Jackman.

Jackson, Glen. Thermo switch. 2,783,329, 2–26–57, Cl. 200—115.5.

Jackson, Robert D.: *See*—
Buc, Saul R., Randall, Smith, and Jackson.

Jackson, Truman A. Implement attaching means for tractors. 2,782,704, 2–26–57, Cl. 97—47.14.

Jackson, William K., ½ to F. Spritz. Clearance indicating apparatus. 2,783,450, 2–26–57, Cl. 340—61.

Jacobs, Gilbert C., to Everbrite Electric Signs, Inc. Illuminated display sign for windows. 2,782,540, 2–26–57, Cl. 40—132.

Jacobs, Nina M. Garment storage compartment for refrigerators. 2,782,607, 2–26–57, Cl. 62—102.

Jacobs, Robert B., and C. E. Williams, to Standard Oil Co. Continuous volatility determination. 2,782,628, 2–26–57, Cl. 73—53.

Jacomini, Gabriel J.: *See*—
Magalik, Alexander E., and Jacomini.

Jaeger, Alphons O., and S. F. Williams, to American Cyanamid Co. Method and apparatus for oxidizing volatilizable organic materials. 2,783,249, 2–26–57, Cl. 260—346.4.

Jaffe, Joseph L., to The Perfectite Co. Lighting fixture. 2,783,368, 2–26–57, Cl. 240—128.

Jakosky, John J., 40% to International Geophysics, Inc. and 60% to Signal Oil and Gas Co. Method of geophysical exploration. 2,782,865, 2–26–57, Cl. 181—.5.

Jamison, Thomas E., Jr., 3½% to W. T. Jones, 3½% to R. L. Harding, 7% to T. E. Jamison, Sr., 7% to M. Sampson, 7% to G. Love, and 3% to C. F. Koehne, Jr. Drill stem supporter and stabilizer. 2,783,028, 2–26–57, Cl. 255—28.

Jamison, Thomas E., Sr.: *See*—
Jamison, Thomas E., Jr. 2,783,028.

Jasper, Elmer P. Versatile internal combustion engines. 2,782,774, 2–26–57, Cl. 123—41.65.

Jasper, Elmer P. Internal combustion engines. 2,782,777, 2–26–57, Cl. 123—73.

Jeffrey, Max L. Quick acting switch. 2,783,323, 2–26–57, Cl. 200—70.

Jehle, Robert F.: *See*—
Samuel, Don W., Jehle, and Burch. 2,783,322.

Jellinek, Charles, deceased: Y. Bruyneel and M. Veit, sole heirs, ½ to R. E. Burns. Method and apparatus for producing esthetic lighting effects. 2,783,366, 2–26–57, Cl. 240—10.1.

Jencks, Harold S., to Douglas Aircraft Co., Inc. Connector plug assembly. 2,783,443, 2–26–57, Cl. 339—126.

Jochum, William T., E. B. Romberg, and R. H. Ostergren, to North American Aviation, Inc. Angle measuring and correcting means. 2,782,626, 2–26–57, Cl. 73—1.

Johansson, Carl E. G.: *See*—
Palmgren, Per G., Ball, Johansson, and Haley. 2,783,102.

Johnson, Elmer L. Dust-pan. 2,782,615, 2–26–57, Cl. 65—20.

Johnson, John G., and E. H. Fletcher, to Deere Mfg. Co. Quick disconnect fluid line coupling. 2,783,064, 2–26–57, Cl. 285—1.

Johnson, Lauren L., to General Motors Corp. Ward Leonard speed control system. 2,783,425, 2–26–57, Cl. 318—146.

Johnson, Norman W., O. E. Harder, and C. S. Du Mont, to Wilbur B. Driver Co. Age-hardenable, copper-base alloy. 2,783,143, 2–26–57, Cl. 75—159.

Johnson, Oscar A. Swiveling blade-guide attachment for contour sawing machines. 2,782,811, 2–26–57, Cl. 143—17.

Johnson, Walter H. Fire alarm actuator. 2,782,746, 2–26–57, Cl. 116—101.

Johnson, Werner E., to Hough Mfg. Corp. Accordion doors. 2,782,845, 2–26–57, Cl. 160—84.

Johnson, William. Machine for forming feed pellets. 2,782,736, 2–26–57, Cl. 107—14.

Johnston, Stephen E., to North American Aviation, Inc. Destructible cover for fragile dome. 2,782,716, 2–26–57, Cl. 102—56.

Jones, Alvin J., and H. E. Balsiger, to Landis Tool Co. Valve grinder. 2,782,565, 2–26–57, Cl. 51—37.

Jones, Arthur L.: *See*—
Hughes, Everett C., Streeker, and Jones. 2,783,185.

Jones, Maldwyn E., to ACF Industries, Inc. Control of fuel valve by carburetor throttle. 2,783,034, 2–26–57, Cl. 261—50.

Jones, Rufus V., to Phillips Petroleum Co. Well cementing materials and their application. 2,782,858, 2–26–57, Cl. 166—31.

Jones, Von E., and P. C. Ludy, to The J. C. L. Mfg. Corp. Mobile apparatus for harvesting crops. 2,782,943, 2–26–57, Cl. 214—83.1.

Jones, William T.: *See*—
Jamison, Thomas E., Jr. 2,783,028.

Joppich, Robert H. Ventilating vent for wall of building. 2,782,464, 2–26–57, Cl. 20—4.

Jordan, Walter. Fish lure. 2,782,549, 2–26–57, Cl. 43—42.51.

Kaiser Aluminum & Chemical Corp.: *See*—
Russell, James B. 2,782,493.

Kaiser, Henry J., Co.: *See*—
Vogt, William A. 2,783,031.

Kampa, George L., to Pre-Vue Co., Inc. Mount for rearview mirrors. 2,783,015, 2–26–57, Cl. 248—279.

Kane, Ernest M. Aircraft launching and landing device. 2,783,005, 2–26–57, Cl. 244—63.

Karr, Benn. Protector for boxed footwear. 2,782,978, 2–26–57, Cl. 229—14.

Katz, George, to Radio Corp. of America. Powdered iron magnetic core materials. 2,783,208, 2–26–57, Cl. 252—62.5.

Kay Mfg. Corp.: *See*—
Krukauer, Edwin G. 2,782,836.

Kearney, James R., Corp.: *See*—
Fisher, Hugh K. 2,782,911.

Kell, Ray D.: *See*—
Gray, George W., and Kell. 2,783,436.

Kelley, Elmer G. Ratchet pipe cutter. 2,782,500, 2–26–57, Cl. 30—99.

Kelley, Oliver K.: *See*—
Schaefer, Robert M., and Kelley. 2,782,658.

Kelley, Oliver K., to General Motors Corp. Hydrokinetic torque converter and gearing. 2,782,659, 2–26–57, Cl. 74—677.

Kellogg, M. W., Co., The: *See*—
Houn, Francis J., and Sims. 2,783,217.
Passino, Herbert J., Dittman, and Wrightson. 2,783,219.

Kelso, Thurman M.: *See*—
Hignett, Travis P., Siegel, Meline, and Kelso. 2,783,140.

Kendall, Myron A., and A. D. Sinden, to Stephens-Adamson Mfg. Co. Safety landing for moving sidewalk. 2,782,896, 2–26–57, Cl. 198—16.

Kennedy, Frank J., to National Electric Products Corp. Continuous tube mill with tension compensator. 2,782,743, 2–26–57, Cl. 113—33.

Kennedy, Samuel F. Grain auger. 2,782,903, 2–26–57, Cl. 198—213.

Kennerly, George W., to American Cyanamid Co. Bis-biguanides as stabilizing agents. 2,783,210, 2–26–57, Cl. 252—401.

Kenney Mfg. Co.: *See*—
Kenney, William C. 2,783,014.

Kenney, William C., to Kenney Mfg. Co. Drapery fixture. 2,783,014, 2–26–57, Cl. 248—263.

Kenyon, Bertrand F., to Mechano Gear Shift Co. Heavy duty window balance. 2,782,456, 2–26–57, Cl. 16—198.

Kerr-McGee Oil Industries, Inc.: *See*—
Agoston, George A. 2,783,188.

Kidde Mfg. Co., Inc.: *See*—
Noe, Harold C. 2,782,617.

Kile, Stephen L., to Milwaukee Gas Specialty Co. Pilot burner-thermoelectric generator assembly. 2,783,290, 2–26–57, Cl. 136—4.

Killingsworth, William D. Safety devices for deep well pump drive shafts. 2,783,319, 2–26–57, Cl. 200—52.

King, Donald M. Conveyor systems. 2,782,727, 2–26–57, Cl. 104—172.

King, Kenneth G.: *See*—
Walker, Alec H. B., and King. 2,783,395.

Kita, Donald A.: *See*—
Shull, Gilbert M., Kita, and Davisson. 2,783,255.

Kitson, Gerald L.: *See*—
Martin, Maynar S. and M. L. 2,782,761.

Kitto, William H., and K. Burlan, to G-M Laboratories, Inc. Floor polishing and scrubbing machine. 2,782,452, 2–26–57, Cl. 15—385.

Klapproth, William J., Jr., to American Cyanamid Co. Preparation of nitriles from amides. 2,783,264, 2–26–57, Cl. 260—465.

Kleczek, Walter S., to the United States of America as represented by the Secretary of the Army. High-pressure, high capacity pneumatic valve. 2,783,020, 2–26–57, Cl. 251—62.

Klein, Arthur L., and G. G. Grimm, to Douglas Aircraft Co., Inc. Method and apparatus inspecting honeycomb panels. 2,782,632 2–26–57, Cl. 73—67.2.

Klockner-Humboldt-Deutz A. G.: *See*—
Heckmann, Wolfgang G. J. 2,782,930.

Knight, Frank J., to Lockheed Aircraft Corp. Pull testing tools. 2,782,635, 2–26–57, Cl. 73—95.

Knox, Lewis A., to International Business Machines Corp. Record sensing apparatus. 2,782,989, 2–26–57, Cl. 235—61.11.

Koch, Leonard J.: *See*—
Lichtenberger, Harold V., and Koch. 2,782,941.

Koch, Stanley J., and R. E. Rutherford, to Allen B. Du Mont Laboratories, Inc. Rectangular metal cathode ray tube. 2,782,953 2–26–57, Cl. 220—2.3.

Koehne, Charles F., Jr.: *See*—
Jamison, Thomas E., Jr. 2,783,028.

Kolfenbach, John J., T. B. Wasserbach, and R. W. Walker, to Esso Research and Engineering Co. Elimination of carbon in jet combustors. 2,782,592, 2–26–57, Cl. 60—35.4.

Kollsman Instrument Corp.: *See*—
Eckweiler, Howard J. 2,782,675.

Kopp, Herman. Quick re-ring piston. 2,783,105, 2–26–57, Cl. 309—15.

Kraftanlagen A. G.: *See*—
Gunther, Hans. 2,783,359.

Krakauer, Edwin G., to Kay Mfg. Corp. Reclining chair. 2,782,836, 2–26–57, Cl. 155—105.

Kramm, Edward F. Scope sight lens protectors. 2,782,510, 2–26–57, Cl. 33—50.

Krasno, Louis R. Electrocardiograph electrode with absorbent contact surface. 2,782,786, 2–26–57, Cl. 128—417.

Kremser, Johann. Scavenging air housing for internal combustion engines. 2,782,776, 2–26–57, Cl. 123—55.

Kroener, James F., and O. J. Gensley, to American Safety Table Co., Inc. Conveyor pressing and ironing apparatus. 2,782,536, 2–26–57, Cl. 38—11.

Krohm, Fred A., to Productive Inventions, Inc. Windshield wiper blade assembly and method of assembling the components thereof. 2,782,442, 2–26–57, Cl. 15—245.

Krohm, Fred A., to Productive Inventions, Inc. Windshield wiper assembly. 2,782,443, 2–26–57, Cl. 15—245.

Krohm, Fred A., to Productive Inventions, Inc. Windshield wiper blade. 2,782,444, 2–26–57, Cl. 15—245.

Krohm, Fred A., to Productive Inventions, Inc. Windshield wiper blade assembly and pressure device therefor. 2,782,445, 2–26–57, Cl. 15—245.

Krohm, Fred A., to Productive Inventions, Inc. Windshield wiper blade unit and pressure unit therefor. 2,782,446, 2–26–57, Cl. 15—245.

Kromschroder, G., Aktiengesellschaft: *See*—
Vobbe, Wilhelm. 2,782,799.

Kropp, Joseph S. Temperature reporter attachment for telephones. 2,783,302, 2–26–57, Cl. 179—5.

Kruft, Heinrich. Needle dispensing box. 2,782,917, 2–26–57, Cl. 206—66.

Krug, Hans-Dietrich, and H. Bauermeister, to Firma Continental Gummi-Werke A. G. Arrangement for dielectric heating. 2,782,460, 2–26–57, Cl. 18—6.

Krug, Hans D., to Continental Gummi-Werke Aktiengesellschaft. Method of preheating of vulcanizing articles of rubber or rubberlike material. 2,782,462, 2–26–57, Cl. 18—53.

Krupa, Victor, to Peerless Film Processing Corp. Film processing. 2,782,697, 2–26–57, Cl. 95—1.

Kuechler, William L., to E. I. du Pont de Nemours and Co. Hydrolysis of polyvinyl esters. 2,783,218, 2–26–57, Cl. 260—91.3.

Kuehl, Frederick A., Jr., and C. H. Shunk, to Merck & Co., Inc. Intermediates for the preparation of 3,3-dimethyl-2,5-dioxo-pyrrolidine-4-propionic acid compounds and process. 2,783,247, 2–26–57, Cl. 260—343.6.

Kuhlik, Hattie B.: *See*—
Kuhlik, Jacob M. 2,783,310.

Kuhlik, Jacob M., to H. B. Kuhlik. Traveling bag for sound recording and reproducing machines. 2,783,310, 2–26–57, Cl. 179—100.1.

Kuhn, Richard: *See*—
Gyorgy, Paul, Kuhn, and Zilliken. 2,783,148.

Kulik, Alphonse C., to United Shoe Machinery Corp. Rough rounding machines. 2,782,432, 2–26–57, Cl. 12—85.

Kump, Henry, and W. F. Dietrichson, to American Car and Foundry Co. Automatic slack adjuster for railway brake rigging. 2,782,880, 2–26–57, Cl. 188—200.

Kunz, Jacob T., to Schulmerich Electronics, Inc. Automatic record player. 2,783,049, 2–26–57, Cl. 274—10.

Kunzler, William S., to Robertshaw-Fulton Controls Co. Thermal timing apparatus. 2,783,332, 2–26–57, Cl. 200—122.

Kurka, Francis A. Collapsible camping trailer. 2,783,079, 2–26–57, Cl. 296—23.

Laferte, Albert A., to Draper Corp. Filling feeler for looms. 2,782,808, 2–26–57, Cl. 139—270.

Lair, James O.: *See*—
Fuller, Revilo, and Lair. 2,782,535.

Landis Tool Co.: *See*—
Balsiger, Harold E. 2,782,573.
Balsiger, Harold E. 2,782,778.
Jones, Alvin J., and Balsiger. 2,782,565.

Lang, Joseph B. Automobile top carrier for skis. 2,782,973, 2–26–57, Cl. 224—42.1.

Langbein, Gerhard, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. Azo-dyestuffs insoluble in water. 2,783,225, 2–26–57, Cl. 260—176.

Lange, Robert V.: *See*—
Cusick, Charles S., and Lange. 2,782,576.

Langridge, Arthur: *See*—
Peter, Leslie H., Langridge, and Gumm. 2,783,418.

Lanham, Michael J.: *See*—
Atkins, Bernard R., Maer, and Lanham. 2,783,405.

Lantz, Robert L., and P. M. J. Obelianne, to Compagnie Francaise des Matieres Colorantes S. A. R. L. Oxidation dyeing with anilino-4-sulfamic acid. 2,783,121, 2–26–57, Cl. 8—32.

Larroca, Ramon G. Crossword puzzle structure. 2,782,530, 2–26–57, Cl. 35—71.

Larson, Wilfred L., to Switchcraft, Inc. Mixer unit for a plurality of incoming signals. 2,783,397, 2–26–57, Cl. 307—156.

Last, Bernard, and C. C. Reiff, to Rockwell Mfg. Co. Coupling. 2,783,063, 2–26–57, Cl. 284—17.

Latour, André, to Etablissements Merlin & Gerin. Arc extinguishing chamber. 2,783,336, 2–26–57, Cl. 200—147.

Lawver, James E.: *See*—
Cook, Charles C., Jr., and Lawver. 2,782,923.

Leach, Clayton B., to General Motors Corp. Engine interior ventilation system. 2,782,775, 2–26–57, Cl. 123—41.86.

Leadbetter, Gilbert E. Conduit and method of making same. 2,782,805, 2–26–57, Cl. 138—74.

LeBeau, Reé V., to Midwest Rubber Reclaiming Co. Rubber reclaims and process for producing same. 2,783,213, 2–26–57, Cl. 260—2.3.

Lebeson, Herman. Method for processing fruits and the like. 2,783,153, 2–26–57, Cl. 99—129.

Lee, Donovan H. Bar gripping means for use in the production of prestressed concrete. 2,783,024, 2–26–57, Cl. 254—29.

Lee, John G., and R. C. Muiready, to United Aircraft Corp. Multi-unit ramjet. 2,782,593, 2–26–57, Cl. 60—35.6.

Leek, Wayne E., C. H. Morse, and C. C. Webb, to Remington Arms Co., Inc. Machine gun. 2,782,688, 2–26–57, Cl. 89—199.

Lees, James, and Sons Co.: *See*—
Smith, John E. 2,782,741.
Smith, John E. 2,782,905.

Lehman, Charles F., Jr., ½ to A. Bronston. Writing instrument. 2,782,764, 2–26–57, Cl. 120—102.

Leibow, Saul. Combination cigarette dispenser, support and lighter. 2,782,910, 2–26–57, Cl. 206—41.4.

Lent, Constantin P. Helicopter blades and thrust augmentors therefor. 2,782,861, 2–26–57, Cl. 170—135.4.

Lentz, Irvin R., and D. B. Van Dolah, to Swift & Co. Poultry picking method. 2,782,457, 2–26–57, Cl. 17—45.

Leonardson, Carl S., J. G. Gates, and C. Reckers, to Georgia-Pacific Plywood Co. Grooved plywood panel. 2,782,468, 2–26–57, Cl. 20—89.

Lesigne, Henri L., to Compagnie Industrielle des Telephones. Telephone connections for party lines. 2,783,306, 2–26–57, Cl. 179—17.

Leuenberger, Gottfried, to Ad. Schulthess & Co. A. G. Zurich. Device for the automatic dispensation of detergents, particularly for use with fully automatic washing machines. 2,782,621, 2–26–57, Cl. 68—17.

Levy, Abram, Jr. Work clamping device. 2,782,819, 2–26–57, Cl. 144—290.

Lewis, Richard O. Floating work table. 2,782,661, 2–26–57, Cl. 77—63.

Libbey-Owens-Ford Glass Co.: *See*—
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Lichtenberger, Harold C., and L. J. Koch, to the United States of America as represented by the United States Atomic Energy Commission. Follow-up mechanism. 2,782,941, 2–26–57, Cl. 214—1.

Lidderdale, Aubrey D., to Telegraph Construction & Maintenance Co. Ltd. Cable laying apparatus. 2,782,906, 2–26–57, Cl. 203—340.

Liebich, John C., to Gendron Wheel Co. Invalid wheel chair having reversible drive and caster wheels. 2,782,835, 2–26–57, Cl. 155—30.

Liebman, Arno J., to Centribiast Corp. Centrifugal abrading machine. 2,782,564, 2–26–57, Cl. 51—9.

Lien, Howard C., 10% to D. S. Duff, 15% to J. Duff, 25% to J. M. Hart, 50% to J. S. and F. M. Dekema, husband and wife. Ball. 2,783,046, 2–26–57, Cl. 273—58.

Lienau, Carl C., and J. C. Patterson, Jr. Alarm system for swimming pools. 2,783,459, 2–26–57, Cl. 340—258.

Limberger, Walter, to Messrs. Dr. Böger K. G. Device for photographic reproduction. 2,783,016, 2–26–57, Cl. 248—363.

Lindahl, Per-Erik, G. Elfving, and K.-H. Mattson, to Aktiebolaget Hagglund & Soner. Apparatus for emergency power transfer. 2,783,393, 2–26–57, Cl. 307—64.

Lindhagen, Teodor I., and H. R. Nilsson, to Svenska Rotor Maskiner Aktiebolag. Elastic fluid actuated power systems. 2,782,596, 2–26–57, Cl. 60—39.61.

Lineberry, Dewey D., and G. W. Reigel, to National Cylinder Gas Co. Process for simultaneously gelatinizing and catalytically modifying starch suspensions. 2,783,167, 2–26–57, Cl. 127—33.

Link, Karl P., to Wisconsin Alumni Research Foundation. Warfarin sodium rodenticidal composition. 2,783,177, 2–26–57, Cl. 167—46.

Linsel, Herman O. Cart or hand truck for moving furniture. 2,782,947, 2–26–57, Cl. 214—373.

Linton, Earl M. Fishhook. 2,782,548, 2–26–57, Cl. 43—37.

Lipski, Richard A. Training attachments for stringed instruments. 2,782,670, 2–26–57, Cl. 84—283.

Lipton, Saul S. Reversible mop head and frame therefor. 2,782,441, 2–26–57, Cl. 15—229.

Lisherness, Hillman A., to Forster Mfg. Co., Inc. Slotting apparatus for clothespin machines. 2,782,816, 2–26–57, Cl. 144—9.

Little, Robert K. Device for cleaning a coffee maker. 2,782,440, 2–26–57, Cl. 15—213.

Littmann, Martin F., to Armco Steel Corp. Magnetic material and process of making it. 2,783,170, 2–26–57, Cl. 148—120.

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Locke, Donald C. Lamp mount for automotive vehicles. 2,783,367, 2–26–57, Cl. 240—52.1.

Lockheed Aircraft Corp.: *See*—
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Lovick, Edward, Jr. 2,783,440.
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Simon, Eli, Thomas, and Wiegand. 2,782,423.

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Browning, Iben, and Lockingen. 2,782,682.

Lockport Mills, Inc.: *See*—
Cole, Thomas D. 2,782,839.

Lockwood, Warren H. Tierable nesting receptacle. 2,782,936, 2–26–57, Cl. 211—126.

Loebel, Fred A., and R. Ewing, to Cleaver-Brooks Co. Combination steam-electric oil heater. 2,783,354, 2–26–57, Cl. 219—39.

Loewy Engineering Co. Ltd., The: *See*—
Norman, Eric. 2,782,919.
Norman, Eric. 2,782,920.
Norman, Eric. 2,782,921.

Lokey, Robert L. Disc type lawn edger. 2,782,584, 2–26–57, Cl. 56—25.4.

Loofbourrow, Robert J., to The Texas Co. Seismic velocity measurement. 2,783,449, 2–26–57, Cl. 340—17.

Löschbrandt, Frithjof, to Papirindustriens Forskningsinstitutt. Method for determining and controlling the chlorine content in a bleach bath. 2,783,135, 2–26–57, Cl. 23—230.

Lotz, Rudolf, to Vereinigte Glanzstoff-Fabriken Aktiengesellschaft. Process of making methylene-bis-aminocarboxylic-acid nitriles. 2,783,267, 2–26–57, Cl. 260—465.5.

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Lowe, William B., to American Viscose Corp. Yarn twisting method and apparatus. 2,782,590, 2–26–57, Cl. 57—58.52.

Lucia, Carroll J., to Studebaker-Packard Corp. Pressure regulating system for motor vehicle transmission controls. 2,782,657, 2–26–57, Cl. 74—645.

Luckey, John A. Extended length hydraulic switch. 2,783,325, 2–26–57, Cl. 200—83.

Luckey, John A. Molded metal-backed electrical mat switch and method of making the same. 2,783,327, 2–26–57, Cl. 200—86.

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French, Ralph W. 2,782,479.
French, Ralph W., Shields, and Pond. 2,782,709.

Ludwig, Walter D. Sliding valve spool seal. 2,782,801, 2–26–57, Cl. 137—625.48.

Ludy, Paul C.: *See*—
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Luenberger, Frederick O., to U. S. Electrical Motors, Inc. Feedback test stand. 2,783,402, 2–26–57, Cl. 310—112.

Lundquist, Richard C., to Goodman Mfg. Co. Cutter head for boring type continuous miner. 2,783,036, 2–26–57, Cl. 262—7.

Luther, Herbert G., to Chas. Pfizer & Co., Inc. Treatment of flour with glucose oxidase. 2,783,150, 2–26–57, Cl. 99—93.

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Mackay, Johnstone S., and L. G. Boatright, to American Cyanamid Co. Vapor phase preparation of cyanamide from cyanic acid. 2,783,131, 2–26–57, Cl. 23—190.

Macklin, Seddie B. Vehicle towing device. 2,782,944, 2–26–57, Cl. 214—86.

MacNichol, Edward F., Jr., to United States of America as represented by the Secretary of the Navy. Electrical signal storage system. 2,783,465, 2–26–57, Cl. 343—7.7.

Madden, Homer W. Stacking apparatus. 2,782,578, 2–26–57, Cl. 53—61.

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Magidson, Herbert. Reinforcing means for brassieres. 2,782,417, 2–26–57, Cl. 2—42.

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Malone, Laura: *See*—
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Mandeville, Charles E., and H. O. Albrecht, to the United States of America as represented by the Secretary of the Navy. Device for determining the intensity of nuclear radiation. 2,783,386, 2–26–57, Cl. 250—71.

Manke, George H., to McGraw Electric Co. Lightning arresters. 2,783,410, 2–26–57, Cl. 313—246.

Mannel, Guy G., and A. Pizialli, to Ford Motor Co. Handle assembly. 2,783,075, 2–26–57, Cl. 292—353.

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Binding, Kenneth W. 2,782,972.

Marks, Lewis, and A. M. Stern, to Polymer Industries Inc. Adhesives and method of applying to silicone-treated surfaces. 2,782,949, 2–26–57, Cl. 216—62.

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Martin, Maynard S. and M. L., to G. L. Kitson, and N. Cordis. Automatic poultry feeder. 2,782,761, 2–26–57, Cl. 119—52

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Martin, Maynar S. and M. L. 2,782,761.

Martin, Owen D., to American Motors Corp. Tube entrance seal in refrigerator cabinet. 2,783,065, 2–26–57, Cl. 285—129.

Martin, Robert W., to Shell Development Co. Resinous products from mannich bases of aromatic polyketones with hydrogen sulfide and/or polythiols. 2,783,216, 2–26–57, Cl. 260—63.

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McClellan, Herbert J. Rack and pinion gearing. 2,782,648, 2–26–57, Cl. 74—90.

McCloud, George R., to McGraw Electric Co. Protective bushing for electrical apparatus. 2,783,328, 2–26–57, Cl. 200—114.

McCormack, William H., to The Garrett Corp. Electronic temperature control circuit. 2,782,995, 2–26–57, Cl. 236—78

McDermott, John P., to Esso Research and Engineering Co. Corrosion preventing agent. 2,783,202, 2–26–57, Cl. 252—46.6

McDermott, John P., to Esso Research and Engineering Co. Corrosion preventing agent. 2,783,203, 2–26–57, Cl. 252—46.6.

McDermott, John P., to Esso Research and Engineering Co. Corrosion preventing agent. 2,783,204, 2–26–57, Cl. 252—46.6.

McDougal, Taine G., to General Motors Corp. Spark plug electrode and process for making same. 2,783,409, 2–26–57, Cl. 313—141.

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McKee, Ralph H., to McKee Development Corp. Semi-hydrotropic chemical lignocellulose pulping process. 2,783,146, 2–26–57, Cl. 92—9.

McKinley, Joseph B., to Gulf Research & Development Co. Method of preparing impregnated catalysts. 2,783,211, 2–26–57, Cl. 252—455

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Merker, Robert L., to Dow Corning Corp. Halocarboxysilanes. 2,783,263, 2–26–57, Cl. 260—448.2.

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Railbourn, Paul. Film recording from television receiver cathode ray tube. 2,783,300. 2–26–57. Cl. 178—7.4.
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Richens, Arthur W., to Continental Can Co., Inc. Intermittently operating apparatus for making bags. 2,782,694. 2–26–57, Cl. 93—22.
Richet, Bernard E. Profiling attachment and/or system for a machine tool. 2,782,668. 2–26–57, Cl. 82—14.
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Rooney, Sidney C., and L. Feenstra, to Pneumatic Conveyors Ltd. Suction spouts. 2,783,098, 2–26–57, Cl. 302—58.

Rosan, Joseph. Snap ring connection between threaded fastener and locking collar. 2,782,827, 2–26–57, Cl. 151—41.73.

Rosan, Joseph. Replaceable insert. 2,782,883, 2–26–57, Cl. 189—34.

Rose, Harry E., to Radio Corp. of America. Electronic circuit. 2,783,453, 2–26–57, Cl. 340—149.

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Roth, Walter J., and J. R. Foster, to Gamble-Skogmo, Inc. Water level control for automatic washing machines. 2,782,620, 2–26–57, Cl. 68—12.

Rothermel, Edward M., and R. B. Waddell, Jr., to The Dayton Rubber Co. Reinforced flexible conduit. 2,782,803, 2–26–57, Cl. 138—56.

Rothgart, Albert, and H. I. Sobel. Automobile rearview mirror. 2,782,686, 2–26–57, Cl. 88—86.

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Rueckert, Dean E., to Swift & Co. Carton for ice cream. 2,782,980, 2–26–57, Cl. 229—51.

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Rueger, Herman, to Radio Corp. of America. Getter assemblies and method of making the same. 2,782,907, 2–26–57, Cl. 206—0.4.

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Russell, James B., to Kaiser Aluminum & Chemical Corp. Aluminum coated ferrous article. 2,782,493, 2–26–57, Cl. 29—196.2.

Russell, Robert G., to Owens-Corning Fiberglas Corp. Method and means for producing metal-coated glass fibers. 2,782,563, 2–26–57, Cl. 49—17.

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Sangster, Arlon G., to Arter Grinding Machine Co. Automatic reciprocating feed device. 2,782,904, 2–26–57, Cl. 198—221.

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Sassen, Bernard, to The Monarch Machine Tool Co. Hydraulic control system. 2,782,802, 2–26–57, Cl. 137—624.

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Scheidt, Gerald A., to Western Electric Co., Inc. Cable guilding apparatus. 2,783,025, 2–26–57, Cl. 254—190.

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Schjolin, Hans O., to General Motors Corp. Wheel structure with non-rotating hub cap. 2,782,871, 2–26–57, Cl. 188—18.

Schlage, Ernest, to Schlage Lock Co. Door closer linkage. 2,782,453, 2–26–57, Cl. 16—49.

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Schmidt-Thome, Josef, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. Manufacture of 17-ketosteroids. 2,783,252, 2–26–57, Cl. 260—397.4.

Schnell, Hermann, to Farbenfabrik n Bayer Aktiengesellschaft. Cross-linked copolymers of an acrylic acid as cation exchanging resins. 2,783,212, 2–26–57, Cl. 260—2.2.

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Schweitzer, Pierre, and G. Rapp, to Ultimo Mfg. Corp. Hair drying device. 2,782,527, 2–26–57, Cl. 34—99.

Schweizer, August, to Saul & Co., as nominee of Fidelity Union Trust Co. Trisazo dyestuffs of the stilbene series. 2,783,223, 2–26–57, Cl. 260—145.

Schwerzler, Charles F. Method of machine-making lace having variegated color pattern. 2,782,485, 2–26–57, Cl. 28—76.

Schymik, Walter H., to I-T-E Circuit Breaker Co. Weather and pressure-tight enclosure for isolated phase bus bar. 2,783,299, 2–26–57, Cl. 174—99.

Scott, Clarence R., and M. McClean. Hollow oil dip stick. 2,782,514, 2–26–57, Cl. 33—126.4.

Scott, Delmer D., to Nethercutt Laboratories. Stacking machine. 2,782,942, 2–26–57, Cl. 214—6.

Scott, Raymond. Magnetic recording head mounting apparatus. 2,783,311, 2–26–57, Cl. 179—100.2.

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Shull, Gilbert M., D. A. Kita, and J. W. Davisson, to Chas. Pfizer & Co., Inc. 7,14α,17α,21-tetroxy progesterones. 2,783,255, 2–26–57, Cl. 260—397.45.

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Simon, Edward E. Tearing strip guide. 2,782,959, 2–26–57, Cl. 220—52.

Simon, Eli, F. W. Thomas, and P. J. Wiegand, to Lockheed Aircraft Corp. Noise attenuating ear protectors. 2,782,423, 2–26–57, Cl. 2—209.

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Skibbe, Harold A. Implement hitch brace for tractors. 2,783,058, 2–26–57, Cl. 280—4.74.

Slater, Melvin G. Table leg attaching device. 2,783,112, 2–26–57, Cl. 311—110.

Sloan, John W., B. T. Hofreiter, C. L. Mehltretter, and I. A. Wolff, to the United States of America as represented by the Secretary of Agriculture. Hydrogenolysis of dialdehyde starch to erythritol and ethylene glycol. 2,783,283, 2–26–57, Cl. 260—635.

Sloane, William W., to Goodman Mfg. Co. Protective devices for belt conveyors. 2,782,902, 2–26–57, Cl. 198—203.

Small, Samuel N. Beach and garden umbrella and mechanism for opening and closing same. 2,782,795, 2–26–57, Cl. 135—20.

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Smith, Curtis W.: *See*—
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Smith, Frank M. and L. H., to The Decora Corp. Method for forming three dimensional patterns in textile material. 2,783,175, 2–26–57, Cl. 154—106.

Smith, John E., to James Lees and Sons Co. Individual pile yarn control apparatus for pile fabrics. 2,782,741, 2–26–57, Cl. 112—79.

Smith, John E., to James Lees and Sons Co. Pattern tufting device for pile fabrics. 2,782,905, 2–26–57, Cl. 203—200.

Smith, John P., to Radio Corp. of America. High voltage supplies. 2,783,413, 2–26–57, Cl. 315—16.

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Smith, Frank M. and L. H. 2,783,175.

Smith, Robert A. Tree surrounding ring. 2,782,561, 2–26–57, Cl. 47—25.

Smith, Sverre, to Aktiebolaget Eksjoverkan. Device in electrical rail brakes. 2,782,873, 2–26–57, Cl. 188—41.

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Societe des Forges et Ateliers du Creusot: *See*—
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Bergstrom, Eric V., and Shea. 2,783,189.
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Soto, Ricardo H. Finger printing apparatus. 2,782,543, 2–26–57, Cl. 41—4.

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Specht, Merle E. Auxiliary cutter attachment for lawn mowers. 2,782,586, 2–26–57, Cl. 56—238.

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Spertus, Maurice. Wooden picture frame with metal trim and method of making the same. 2,782,541, 2–26–57, Cl. 40—152.

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Sta-Firm Chair Corp., The: *See*—
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Standard Oil Co. (Ohio), The: *See*—
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Standard Register Co., The: *See*—
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Davidson, John T. 2,782,714.
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Statham, Louis D., to Statham Laboratories, Inc. Electric transducer. 2,783,342, 2–26–57, Cl. 201—63.

Stauss, Henry E., F. E. Martin, and D. S. Billington. Apparatus for determining elastic constants. 2,782,633, 2–26–57, Cl. 73—67.2.

Steagall, William F., to Sperry Rand Corp. Phase responsive bistable devices. 2,783,456, 2–26–57, Cl. 340—174.

Steeneck, Robert, to The Western Union Telegraph Co. Self-adjusting auxiliary bearing. 2,783,100, 2–26–57, Cl. 308—15.

Stelgman, Israel N. Synchronizing attachment for picture projectors and sound recorders. 2,782,677, 2–26–57, Cl. 88—16.2.

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Steinberg, Meyer. Multiple suction coaster for beverage glasses and the like. 2,782,948, 2–26–57, Cl. 215—100.5.

Steiner, Rudolf, to Mawera Maschinen-Werkzeuge-Apparate-G. m. b. H. Edge trimming attachment and fence adjusting means for planar tables. 2,782,817, 2–26–57, Cl. 144—117.

Steitz, Alfred, Jr., to Stanolind Oil and Gas Co. Method for purification of alcohols. 2,783,190, 2–26–57, Cl. 202—39.5.

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Stephens, Joseph F., to Minnesota Mining and Mfg. Co. Process for producing fibrous tubes. 2,783,174, 2–26–57, Cl. 154—83.

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Stone, Aldan M., to General Electric Co. Protective means for high speed rotating system. 2,782,655, 2–26–57, Cl. 74—573.

Stone, Donald D., to Bank of America National Trust and Savings Association, as agent. Pressurizing and ventilating system and apparatus for internal-combustion engines and transmission mechanisms. 2,782,773, 2–26–57, Cl. 123—1.

Stone, Rosella M. Debris collecting apparatus. 2,782,435, 2–26–57, Cl. 15—83.

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Stratton, Paul E., Jr., to Carr Industries. Foldable wheeled golf club carrier. 2,783,054, 2–26–57, Cl. 280—42.

Strauss, Walter L. Multiple vehicle toy. 2,782,559, 2–26–57, Cl. 46—206.

Streater, Jack W., and W. J. Popowsky, to Minneapolis-Honeywell Regulator Co. Shaded pole motor control apparatus. 2,783,423, 2–26–57, Cl. 318—32.

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Ferris, Seymour W. 2,783,183.
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Sundberg, Carl W., and R. J. Pepin, to Studebaker-Packard Corp. Combined reveal molding and permanent visor for vehicles. 2,783,081, 2–26–57, Cl. 296—84.

Sundt, Edward V., to Sundt Engineering Co. Indicating fuse holder. 2,783,331, 2–26–57, Cl. 200—121.

Sundt Engineering Co.: *See*—
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Sunny Young, Inc.: *See*—
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Superior Mfg. Co.: *See*—
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Surmatis, Joseph D., and J. Weber, to Hoffmann-La Roche Inc. Preparation of a higher aliphatic ketone. 2,783,257, 2–26–57, Cl. 260—410.9.

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Svenska Rotor Maskiner Aktiebolag: *See*—
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Swanson, Bror W., to The Whitney Chain Co. Internal thread comparator. 2,782,523, 2–26–57, Cl. 33—199.

Swartz, Sophia. Scarf square and triangle. 2,782,419, 2–26–57, Cl. 2—48.

Swift & Co.: *See*—
Lentz, Irvin R., and Van Dolan. 2,782,457.
Merker, Dwight R. 2,783,260.
Rueckert, Dean E. 2,782,980.
Sims, Rex J., and Nelson. 2,783,256.
Stahl, Raymond T. 2,782,502.

Switchcraft, Inc.: *See*—
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Symington-Gould Corp., The: *See*—
Blattner, Emil H. 2,782,731.

Syntex S. A.: *See*—
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Fallon, Chester J., and Taggart. 2,782,507.

Tapreh Loomis, Inc.: *See*—
Blevens, Gilbert A. 2,782,542.

Tauber, Robert W. Remote position control system. 2,783,429, 2–26–57, Cl. 318—467.

Tausch, Gilbert H., and J. R. Dublin, III, to Esso Research and Engineering Co. Apparatus for well workover operations. 2,782,860, 2–26–57, Cl. 166—218.

Taylor, Alfred R. Heat regulated cooking vessel. 2,782,782, 2–26–57, Cl. 126—374.

Taylor, Jay C.: *See*—
McClearen, Gilbert A. 2,782,582.

Taylor, John O., to American Type Founders, Inc. Copying camera. 2,782,678, 2–26–57, Cl. 88—24.

Taylor, Jolly J. Stabilizer for paints and stabilized paints. 2,783,109, 2–26–57, Cl. 106—25.5.

Taylor, Jody J. Film forming oil stabilized with dibasic lead phosphite. 2,783,160, 2–26–57, Cl. 106—256.

Taylor Machine Works: *See*—
Wood, Charles K. 2,782,740.

Technicon International, Ltd.: *See*—
Whitehead, Edwin C. 2,783,180.

Telegraph Construction & Maintenance Co. Ltd.: *See*—
Lidderdale, Aubrey D. 2,782,906.

Temco, Inc.: *See*—
Bourner, Howard L. 2,782,780.

Tennessee Valley Authority: *See*—
Hignett, Travis P., Siegel, Meline, and Kelso. 2,783,140.

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Terpstra, Marrine A., to Monsanto Chemical Co. Preparation of phenylacetonitriles. 2,783,265, 2–26–57, Cl. 260—465.

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Texas Pipe Line Co., The: *See*—
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Thelin, Jack H., H. Cherlow, and F. H. Megson, to American Cyanamid Co. Purification of O-nitrodiphenylamine. 2,783,278, 2–26–57, Cl. 260—576.

Thellmann, Edward L.: *See*—
Raynes, Bertram C., and Thellmann. 2,783,195.

Thlessen, Elmer E., to General Motors Corp. Insulating method and apparatus. 2,783,171, 2–26–57, Cl. 154—2.26.

Thomas & Betts Co., The: *See*—
Badeau, Carroll A. 2,783,297.
Burnosky, George J. 2,783,442.

Thomas, David G. A., and E. H. Cooke-Yarborough, to National Research Development Corp. Multi-electrode gaseous-discharge tube circuits. 2,783,415, 2–26–57, Cl. 315—84.6.

Thomas, Frank W.: *See*—
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Thompson, Lee E., and L. W. Stinson, to Sinclair Research Laboratories, Inc. Apparatus. 2,783,420, 2–26–57, Cl. 317—246.

Thompson, Lyman F. Interproximal stops for preventing filling overhang into the interproximal space between teeth. 2,782,503, 2–26–57, Cl. 32—63.

Thomrson, Paul, to Bestpak Inc. Box and box blank. 2,782,977, 2–26–57, Cl. 229—14.

Thomson, Byron C. Foliage stripping finger for cane harvesters. 2,782,581, 2–26–57, Cl. 56—17.

Tidd, Elbert D., to John B. Pierce Foundation. Lamp-holder with integral duplex receptacle. 2,783,444, 2–26–57, Cl. 339—159.

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Toland, William G., Jr., to California Research Corp. Production of nitriles. 2,783,266, 2–26–57, Cl. 260—465.

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Tombs, Nigel C., to Société Anonyme dite: Societe d'Electro-Chimie, d'Electro Metallurgie et des Acieries Electriques d'Ugine. Preparation of powders suitable for the manufacture of permanent magnets. 2,783,207, 2–26–57, Cl. 252—62.5.

Tomer, John S. Pipe cleaner with tandem scraping heads. 2,782,436, 2–26–57, Cl. 15—104.04.

Tomlin, Edward A., to Gestetner Ltd. Duplicating machines. 2,783,043, 2–26–57, Cl. 271—63.

Torrington Mfg. Co., The: *See*—
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Townsend, Loren R. Table having reversible tray mounted therein and means for washing the same. 2,782,426, 2–26–57, Cl. 4—187.

Tracy, Benjamin F., to Goodman Mfg. Co. Oscillating burster cone assembly for boring type miner head. 2,783,038, 2–26–57, Cl. 262—7.

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Trautvetter, George, to Heintz Mfg. Co. Television cabinet. 2,783,113, 2–26–57, Cl. 312—7.

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Wertz, Louis S., and Turzillo. 2,782,605.

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Tyrseck, Walter J., to Robertson Paper Box Co. Inc. Folding paper tray. 2,782,979, 2–26–57, Cl. 229—32.

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Best, Stanley G. 2,782,769.
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United Shoe Machinery Corp.: *See*—
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Mierh, Maeser, and Brophy. 2,782,431.
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United States Atomic Energy Commission, United States of America as represented by the: *See*—
Appleton, William H., and Farly. 2,782,993.
Baker, William R. 2,783,433.
Flink, Armand F. 2,783,320.
Hane, Wilbur A. 2,783,376.
Lichtenberger, Harold V., and Koch. 2,782,941.
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U. S. Electrical Motors, Inc.: *See*—
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United States Rubber Co.: *See*—
Esslinger, Robert A. 2,782,461.
Peterson, Lester C., and Batts. 2,782,829.
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United States Steel Corp.: *See*—
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Van Brode Milling Co., Inc.: *See*—
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Herschel, Carl E., and Vandenburgh. 2,782,579.

Vanderhooft, John J. Scanning camera. 2,782,699, 2–26–57, Cl. 95—16.

Vanderhooft, John J. Stereoscopic television means. 2,783,406, 2–26–57, Cl. 313—70.

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Vaughan, James R., Jr.: *See*—
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Vaughan, James R., Jr., K. H. Wood, and R. W. Young, to American Cyanamid Co. Heterocyclic sulfonamides. 2,783,240, 2–26–57, Cl. 260—306.8.

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Viale S., Jorge. Instruments for measuring angles. 2,782,512, 2–26–57, Cl. 33—72.

Vibbard, Edward L., to Bell Telephone Laboratories, Inc. Tape control arrangement for computer. 2,782,985, 2–26–57, Cl. 235—61.

Vickers Inc.: *See*—
Gatwood, Edward H. 2,782,598.
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Vobbe, Wilhelm, to G. Kromschroder Aktiengesellschaft. Pipe joints for pipe systems and like fluid handling arrangements. 2,782,709, 2–26–57, Cl. 137—608.

Vogeley, Clyde E., Jr., and W. L. Stahl, to the United States of America as represented by the Secretary of the Navy. Modulation in a ridged wave guide. 2,783,378, 2–26–57, Cl. 250—31.

Vogt, Theodore B. H. Magnetized spot levels. 2,782,524, 2–26–57, Cl. 33—212.

Vogt, William A., to Henry J. Kaiser Co. Gas scrubber. 2,782,031, 2–26–57, Cl. 261—22.

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Von Arx, William S., to the United States of America as represented by the Secretary of the Navy. Tidal current meter. 2,782,638, 2–26–57, Cl. 73—187.

Vonderschmitt, Bernard V., to Radio Corp. of America. High voltage supply. 2,783,412, 2–26–57, Cl. 315—15.

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Walker, Alec H. B., and K. G. King, to Westinghouse Brake & Signal Co. Ltd. Alternating voltage wave-form distorting circuits. 2,783,395, 2–26–57, Cl. 307—106.

Walker, Benjamin M., and A. N. T. St. John, to Resistoflex Corp. Method of making laminated tubing. 2,783,173, 2–26–57, Cl. 154—83.

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Walker, Joseph B. Selective electrical lens adjusting mechanisms for variable magnification systems. 2,782,683, 2–26–57, Cl. 88—57.

Walker, Marvin. Auxiliary support for sheet metal shear table. 2,783,108, 2–26–57, Cl. 311—17.

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Walker, Roy N. Screw-on pouring spout. 2,782,967, 2–26–57, Cl. 222—485.

Wall, Albert L. Collapsible ski sled. 2,783,052, 2–26–57, Cl. 280—20.

Wall, Cleo. Earth digging machine. 2,782,534, 2–26–57, Cl. 37—85.

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Warren, Henry R., to National Cylinder Gas Co. High-frequency heating applicators. 2,783,345, 2–26–57, Cl. 219—10.55.

Warren, Henry R., to National Cylinder Gas Co. High-frequency heating applicators. 2,783,346, 2–26–57, Cl. 219—10.55.

Warren, Henry R., to National Cylinder Gas Co. High-frequency heating systems and applicators. 2,783,347, 2–26–57, Cl. 219—10.55.

Warren, Henry R., to National Cylinder Gas Co. High-frequency heating applicators. 2,783,348, 2–26–57, Cl. 219—10.55.

Warren, Henry R., to National Cylinder Gas Co. High-frequency heating applicators. 2,783,349, 2–26–57, Cl. 219—10.55.

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Watkins, John. Flower box. 2,782,562, 2–26–57, Cl. 47—38.

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Weber, Edmund H., ½ to B. K. Olsson. Radio transmitting and receiving signal system. 2,783,369, 2–26–57, Cl. 246—30.

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Weidenheimer, Joseph F., L. Ritter, and F. J. Richter, to American Cyanamid Co. Process of phthaloylation amino acids. 2,783,245, 2–26–57, Cl. 260—326.

Weisselberg, Arnold. Stage evaporator apparatus. 2,782,844, 2–26–57, Cl. 159—18.

Wendt, Günther, to Vereinigte Aluminiumwerke Aktiengesellschaft. Process of producing cryolite from washing and waste liquors containing sodium fluoride. 2,783,128, 2–26–57, Cl. 23—88.

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Western Union Telegraph Co., The: *See*—
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Westin, Karl G., to Aktiebolaget Westin & Backlund. Molding machines and a method of manufacturing casting molds. 2,782,472, 2–26–57, Cl. 22—92.

Westinghouse Air Brake Co.: *See*—
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Westinghouse Brake & Signal Co. Ltd.: *See*—
Peter, Leslie H., Langridge, and Gumm. 2,783,418.
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White, Halbert C., and D. V. Wysong, to The Dow Chemical Co. Method of making serine. 2,783,274, 2–26–57, Cl. 260—534.

White, Howard T. Motor driven pumps. 2,782,721, 2–26–57, Cl. 103—87.

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White, Philip G., to American Scientific Laboratories, Inc. Stable concentrated sulfaquinoxaline solutions and method for preparing. 2,783,178, 2–26–57, Cl. 167—53.1.

Whitehead, Edwin C., to Technicon International, Ltd. Tissue-holder receptacles and method of preparing tissue for microscopic examination. 2,783,180, 2–26–57, Cl. 167—84.5.

Whitehorn, Richard M., to Bendix Aviation Corp. Continuously rotatable microwave phase shifter. 2,783,439, 2–26–57, Cl. 333—31.

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Wightman, Lawrance W., to General Electric Co. Means for holding parts on a shaft. 2,783,069, 2–26–57, Cl. 287—52.

Wilde, Francis E. J., Jr. Bracket for casement window. 2,783,073, 2–26–57, Cl. 292—288.

Wildhaber, Ernest, to The Gleason Works. Mechanical movement for converting rotary motion into reciprocating motion having an adjustable non-harmonic stroke and a quick return stroke. 2,782,647, 2–26–57, Cl. 74—69.

Wildhaber, Ernest, and N. W. Fowler, to The Gleason Works. Machine for cutting clutch teeth and the like. 2,782,690, 2–26–57, Cl. 90—9.4.

Wilding, Sidney W., to The Amalgamated Dental Co. Ltd. Dropper device for measuring and dispensing. 2,782,964, 2–26–57, Cl. 222—422.

Wilfert, Karl, to Daimler-Benz Aktiengesellschaft. Interior lighting system for motor vehicles. 2,783,365, 2–26–57, Cl. 240—7.1.

Wilhelm, Harley A., and C. E. Gray, to the United States of America as represented by the United States Atomic Energy Commission. Apparatus for vacuum casting of uranium. 2,782,475, 2–26–57, Cl. 22—73.

Wilhelm, Henry T., to Bell Telephone Laboratories, Inc. Impedance measuring means. 2,783,435, 2–26–57, Cl. 324—57.

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Williams, David J., R. C. Bacon, and J. R. Acton, to Ericsson Telephones Ltd. Electric discharge tubes. 2,783,408, 2–26–57, Cl. 313—109.5.

Williams, De Alt E., Jr., to The Apex Machine and Tool Co. Magnetic screw driver. 2,782,823, 2–26–57, Cl. 145—51.

Williams, Herbert E. Gate arrestor. 2,783,071, 2–26–57, Cl. 292—109.

Williams, Merton S., to The Eagle Lock Co. Cover for cylinder locks. 2,782,625, 2–26–57, Cl. 70—455.

Williams, Stanley C., to Dominion Engineering Works Ltd. Press roll assembly for paper machines. 2,782,693, 2–26–57, Cl. 92—49.

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Winter, Otto, and G. Dassler, to Olympia Werke Aktiengesellschaft. Detachable cover hood for a typewriting machine. 2,782,895, 2–26–57, Cl. 197—186.

Wintermute, Harry A., to Research Corp. Electrical precipitator voltage control. 2,783,388, 2–26–57, Cl. 250—83.6.

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Wiseman, William A., to Continental Motors Corp. Engine starters. 2,782,644, 2–26–57, Cl. 74—7.

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ISSUED FEBRUARY 26, 1957

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Classification of Designs

D 3— 9: Des. 179,781
13: Des. 179,777
26: Des. 179,753
D14— 6: Des. 179,782
Des. 179,789
30: Des. 179,769
D15— 1: Des. 179,767
Des. 179,770
D15— 1: Des. 179,771
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D17—14: Des. 179,757
D26—14: Des. 179,778
D33— 8: Des. 179,792
D34—11: Des. 179,765
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D34—15: Des. 179,775
D44—10: Des. 179,780
D48—19: Des. 179,761
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D54—12: Des. 179,788
D55— 1: Des. 179,755
D57— 1: Des. 179,787
D58—10: Des. 179,772
13: Des. 179,779
D64—12: Des. 179,774
D71— 1: Des. 179,762
D71— 1: Des. 179,786
D74— 9: Des. 179,790
D78— 1: Des. 179,791
D80— 9: Des. 179,759
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D86— 9: Des. 179,773
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D86—10: Des. 179,756
Des. 179,783
Des. 179,785
D87— 3: Des. 179,793
D90—20: Des. 179,760
D91— 3: Des. 179,768
D92— 1: Des. 179,784

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
February 26, 1957 Volume 715 Number 4

TRADEMARKS

NOTICES

Service by Publication

A petition to cancel each of the registrations identified below having been filed, and the notice of such proceedings sent by registered mail to each registrant at the last known address having been returned by the post office as undeliverable, notice is hereby given that unless the registrants listed herein, their assigns or legal representatives, shall enter an appearance within thirty days from the date of this publication, the cancellation will be proceeded with as in the case of default.

Richard L. Greene, Minneapolis, Minn. Reg. No. 380,416, Canc. No. 6818.

Aurelio Pateras Pescara, New York, N. Y. Reg. No. 379,919, Canc. No. 6836.

Technical Service Company, Tulsa, Okla., Reg. No. 443,803, Canc. No. 6849.

Blanche F. Hall, Kansas City, Mo., Reg. No. 263,157, Canc. No. 6851.

DAPHNE LEEDS,
Assistant Commissioner of Patents.

Trademark Suits

Notices under 15 U. S. C. 1116: Trademark Act of July 5, 1946

TM 154,846. (See TM 155,910.)

TM 155,909. (See TM 155,910.)

TM 155,910 (STANDARD), **TM 155,909** (STANDARD OIL COMPANY (NEW JERSEY)), Esso Standard Oil Co., Paving asphalts, mixing asphalts, asphalt binders, asphalt road oils, etc.; **TM 154,846**, same, Harness oil, harness-blacking oil, harness-polishing oil, etc.; **TM 155,911**, same, Furniture polish, automobile body polish, floor oil, etc.; **TM 156,551**, **TM 160,349**, same, Axle greases, black greases, black oils, brick mold oils, burning oils, etc.; **TM 156,552** (STANDARD), same, Sewing-machine oils, transformer oils, etc.; **TM 160,350**, same, Floor dressing, floor oil, etc.; **TM 211,361** (STANDARD AND DESIGN), **TM 338,622** (STANDARD OIL COMPANY OF NEW JERSEY), same, Refined, semirefined, and unrefined oils made from petroleum and other named substances, and lubricating greases; **TM 226,540** (STANDARD), Stanco Inc., Fly and germ killer and insecticide for use upon cattle, livestock, and poultry, etc.; **TM 224,804** (STANDARD BARS AND CIRCLE), Standard Oil Co. of N. J., Refined, semirefined, and unrefined oils made from petroleum and other named substances, and lubricating greases; **TM 336,988** (STANDARD OIL COMPANY OF NEW JERSEY), same, Floor oil and hydrocarbons, solvents for paints and lacquers; **TM 337,835**, same, Petrolatums, petrolatum oils, petrolatum hoof oils, etc.; **TM 338,114**, same, Harness oil, harness-blacking oil, harness-polishing oil, etc.; **TM 338,892**, same, Paving asphalts, mixing asphalts, asphalt binders, asphalt road oils, etc., **filed** Sept. 17, 1956, D. C., S. D. N. Y., Doc. 113/79, *Esso Standard Oil Co. v. Supreme Burner Supplies Inc. et al.* Consent judgment; defendants enjoined Jan. 9, 1957.

TM 155,911. (See TM 155,910.)

TM 156,551. (See TM 155,910.)

TM 156,552. (See TM 155,910.)

TM 160,349. (See TM 155,910.)

TM 160,350. (See TM 155,910.)

TM 211,361. (See TM 155,910.)

TM 224,804. (See TM 155,910.)

TM 226,540. (See TM 155,910.)

TM 286,555 (FLEXWOOD AND DESIGN), The Flexwood Co., Fabric-backed wood veneer, **filed** —, D. C., W. D. Ky.

CONDITION OF TRADEMARK APPLICATIONS AS OF DECEMBER 31, 1956

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]	7,036
Date of oldest new application	June 25, 1956
Date of oldest amended application	Aug. 2, 1956

MERCHANT, JOHN, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application: New	Oldest Application: Amended
I. STERBA, J. R., Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 44 and Certification Marks (Goods) Class A	7-10-56	8-2-56
II. SHRYOCK, R. F., Classes 6, 18, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200; and Certification Marks (Services) Class B	6-25-56	8-10-56
III. WENDT, C. M., Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 36, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 50, 52	8-1-56	8-23-56
Renewals (All Classes)	11-30-56	11-30-56
Sec. 12 (c) Publications (All Classes)	11-30-56	11-30-56

Applications Filed During the Month of December 1956—1,734

Registrations Issued ..... 247—No. 641,915 to No. 642,161
Renewals Issued 40

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

(Louisville), Doc. 3249, *United States Plywood Corp.* v. *Laminating Services, Inc. et al.* Stipulation and judgment for plaintiff; defendants restrained and enjoined from using the names "Flexible Wood," "Flex," "Flexible" or "Flexwood" and from using the crest which is a part of plaintiff's trademark Jan. 8, 1957.

TM 308,768 (A'LURE), The Warner Brothers Co., Brassieres, **filed** July 13, 1955, D. C., S. D. N. Y., Doc. 102/79, *The Warner Brothers Co.* v. *Jantzen, Inc.* Judgment dismissing complaint; counterclaim dismissed Jan. 9, 1957.

TM 336,966. (See TM 155,910.)

TM 337,335. (See TM 155,910.)

TM 338,114. (See TM 155,910.)

TM 338,693. (See TM 155,910.)

TM 338,892. (See TM 155,910.)

TM 554,410 (BABY SITTER), Ferrar Radio & Television Corp., Electronic voice transmitter for use in conjunction with a radio receiver whereby the voice transmitted is reproduced by the receiver without the aid of interconnecting wired circuits, **filed** July 11, 1956, D. C., S. D. N. Y., Doc. 111/129, *Semco Electronics Corp.* v. *Sylvania Electric Products Inc.* Consent order of dismissal Jan. 8, 1957.

TM 566,190 (BUFFERIN), Bristol-Myers Co., Antacid aspirin, **filed** Jan. 10, 1957, D. C., S. D. N. Y., Doc. 116/191, *Bristol-Myers Co.* v. *R. H. Macy & Co., Inc.*

TM 582,599 (DONEGAL), M. & D. Simon Co., Inc., Sportswear—namely, men's and boys' dress shirts, sport shirts, and neckties, **filed** Jan. 7, 1957, D. C., S. D. N. Y., Doc. 116/146, *M. & D. Simon Co., Inc.* v. *R. H. Macy & Co., Inc. et al.* Notice of dismissal Jan. 16, 1957.

TM 623,601 (FIOCCO), Bart Schwartz International Textiles Ltd., Textile fabrics in the piece of cotton, rayon, synthetic fibers, and mixtures thereof, **filed** Jan. 4, 1957, D. C., S. D. N. Y., Doc. 116/133, *Bart Schwartz International Textiles, Ltd.* v. *S. M. Axelrod & Son et al.*

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.
As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

SN 681,782. Nupak of New Orleans, Inc., Kenner, La. Filed Feb. 16, 1955.

SWEL-PAK

For Soil Pipe Caulking Material.
First use Feb. 11, 1955.

SN 5,258. Wacker-Chemie G. m. b. H., Munich, Germany. Filed Mar. 26, 1956.

FILWA

Priority claimed under Sec. 44(d) on German application filed Oct. 6, 1955; Reg. No. 687,681, dated Feb. 20, 1956.
For Raw Fibers and Raw Fibrous Textile Materials, and Artificial Filaments.

SN 5,714. The Connecticut Hard Rubber Company, New Haven, Conn. Filed Apr. 3, 1956.

COHRLASTIC

For Natural, Silicone, and Other Synthetic Rubber Expanded and Solid.
First use July 31, 1949.

SN 6,900. Central States Paper & Bag Co., St. Louis, Mo. Filed Apr. 23, 1956.

POLY SHIELD

For Sheeting Made of Synthetic Plastic Material Such as Polyethylene and the Like.
First use Mar. 15, 1956.

SN 10,971. Atlantic Shell Sales Company, Jacksonville, Fla. Filed June 25, 1956.

PEARLY WHITE

For Crushed Oyster Shell.
First use on or about July 1, 1927.

SN 11,341. Climax Molybdenum Company, New York, N. Y. Filed July 2, 1956.

CLIMAX MOLYBDENUM

Applicant disclaims the term "Molybdenum" apart from the mark as shown.
For Molybdenum Containing Minerals—Namely, Molybdenite Concentrates and Molybdenum Sulfide.
First use Jan. 23, 1956.

SN 11,775. The Kendall Company, Boston, Mass. Filed July 9, 1956.

POLYKEN

Owner of Reg. No. 435,666.
For Plastic Film in Sheets for Further Industrial Development.
First use Aug. 9, 1949.

SN 13,236. Northrup, King & Co., Minneapolis, Minn. Filed Aug. 1, 1956.

MEDALIST

For Grass Seeds.
First use July 15, 1956.

SN 13,436. John Flynn & Sons, Inc., Salem, Mass. Filed Aug. 6, 1956.

Kitten's Ear

For Tanned Leather.
First use Apr. 3, 1956.

SN 13,455. L. O. F. Glass Fibers Company, Toledo, Ohio. Filed Aug. 6, 1956.

MICRO-QUARTZ

For Glass Fibers in Bulk or Felted Form for Insulation or Filter Applications.
First use July 9, 1956.

SN 13,527. Eastmor Leather Trading Corp., Gloversville, N. Y. Filed Aug. 7, 1956.

Crest-Cab.

For Hides, Skins, and Suedes.
First use June 19, 1956.

SN 14,165. Penn-Rillton Company, New York, N. Y. Filed Aug. 17, 1956.

CELLUFACE

For Cellulosic Flour-Like Material Containing Hydrocarbons for Use as a Sand Additive in the Metal Casting Industries.
First use on or about Feb. 3, 1956.

CLASS 2

RECEPTACLES

SN 5,788. Printon Corporation, New York, N. Y. Filed Apr. 4, 1956.

SARAN-O-LAM

The word "Saran" is disclaimed apart from the mark as shown.
For Bags, Pouches, Envelopes, and Food Casings, Made of Laminated Films and Sheet Materials, Including Saran Film as at Least One of the Laminations Thereof.
First use Feb. 21, 1956.

SN 9,605. Sunoco Corporation, Glen Riddle, Pa. Filed June

SN 9,605. Sunroc Corporation, Glen Riddle, Pa. Filed June 4, 1956.

CREEMEZE

For Cream Dispenser Made of Metal and Plastic.
First use about January 1951.

SN 11,390. National Can Corporation, Chicago, Ill. Filed July 2, 1956.

The term "Can" and the outline representation of the map of the United States are disclaimed apart from the mark as shown.
For Metal Cans.
First use Oct. 23, 1953.

SN 14,282. Julian B. Slevin Co., East Lansdowne, Pa. Filed Aug. 20, 1956.

STAK-SURE

For Cartons.
First use July 17, 1956.

SN 14,705. Sutherland Paper Company, Kalamazoo, Mich. Filed Aug. 27, 1956.

PIE-TAINERS

For Aluminum Foil Plates.
First use Oct. 17, 1955.

SN 15,056. Ronald R. Perkins, Dallas, Tex. Filed Sept. 4, 1956.

GEOVISION

For Plastic Bags for Preserving Well Drilling Specimens.
First use July 28, 1956.

CLASS 3

BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

SN 8,077. Horn Luggage Company, Inc., St. Louis, Mo. Filed May 10, 1956.

For Luggage.
First use on or about Mar. 15, 1948.

SN 15,618. Nash Inc., Jersey City, N. J. Filed Sept. 13, 1956.

ITALIAN CABRETTA

No claim is made to the word "Italian" apart from the mark as shown. Owner of Reg. No. 402,981.
For Billfolds, Wallets, Purses, and Key Cases.
First use Jan. 3, 1956.

CLASS 4

ABRASIVES AND POLISHING MATERIALS

SN 7,141. Wyandotte Chemicals Corporation, Wyandotte, Mich. Filed Apr. 25, 1956.

BURNEK

For Burnishing Compound.
First use Aug. 11, 1950.

SN 8,497. Merit Manufacturing, Inc., Akron, Ohio. Filed May 17, 1956.

Lix-Rust

Owner of Reg. No. 413,690.
For Polish, Rust Remover, and Preserver for Metals, Glass, Plastic Materials, Enamel Surfaces, Such as Bathroom Fixtures, Tiling, Stoves, Automobile Chrome Parts, Golf Clubs, Tools, Metal Store Fronts, Soda Fountain Fixtures, and Hard Metal Surfaces.
First use on or about Apr. 10, 1940.

SN 14,149. S. C. Johnson & Son, Inc., Racine, Wis. Filed Aug. 17, 1956.

WAXTRA

For Liquid Polish for Finishing and Coating Floors and Other Surfaces of Wood, Linoleum, Rubber, Cork, Tile, Asphalt, Concrete, Cement, Composition, Mastic, Magnesite, Terrazzo, Marble, Travertine, Stone, Slate, and Metal.
First use June 18, 1956.

SN 14,262. Stephen L. Mudd, d. b. a. Ezy Products, Taylor Center, Mich. Filed Aug. 20, 1956.

For Wax for Automobiles and Furniture, and a Liquid for Cleaning, Polishing, and Preserving Enamel, Lacquer, and Automotive Finishes.
First use Jan. 2, 1955.

SN 14,881. J. I. Holcomb Manufacturing Company, Inc., Indianapolis, Ind. Filed Aug. 30, 1956.

SAFE-T-SHEEN

For Floor Polish.
First use July 11, 1956.

SN 14,984. Revere, Inc., Los Angeles, Calif. Filed Aug. 31, 1956.

For Shoe Polish.
First use Dec. 16, 1955.

CLASS 5

ADHESIVES

SN 2,563. The Presstite Engineering Company, St. Louis, Mo., to American-Marietta Company, Chicago, Ill. Filed Feb. 13, 1956.

PRESSTITE

Owner of Reg. Nos. 213,153 and 512,363.
For Rubber, Asphaltic, Resin, and Plastic Adhesives, Adhesive Felt Tape and Adhesive Insulation in Strip Form.
First use May 20, 1925.

SN 17,232. Pinnacle Products Corporation, White Plains, N. Y. Filed Oct. 10, 1956.

For Adhesive Tapes (Textile) for Use in Laundries for Attachment to Articles for Identification Purposes.
First use May 11, 1956.

SN 17,245. Western Auto Supply Company, Kansas City, Mo. Filed Oct. 10, 1956.

WIZARD

For Pressure Sensitive Tape.
First use Oct. 1, 1948.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

SN 671,500. The R. T. French Company, Rochester, N. Y., to Reckitt & Colman Limited, Hull, England. Filed Aug. 11, 1954. Sec. 2(f).

Reckitt's

Owner of Reg. Nos. 34,235, 319,716, and others.
For Laundry Blue.
First use Mar. 1, 1946.

SN 695,865. Wilcris Chemical Corp., New York, N. Y. Filed Oct. 4, 1955.

For Anti-Microbial Chemicals—Namely, Bacteriacidal, Bacteriastatic, Fungicidal, and Fungistatic Compositions Comprising Organic and/or Metallo-Organic Compounds for Application to and in Various Materials, e. g. to Textiles, Paper, Leather, Plastics, Etc.; and in Detergents, Shampoos, Soaps, Etc.; and Not for Medicinal Use.
First use Feb. 25, 1955.

SN 696,848. Andrew Szegvari, d. b. a. Union Process Company, Akron, Ohio. Filed Oct. 20, 1955.

POLYSOL

For Dispersing Agent Which Is an Aqueous Solution of Lignin Sulphonic Derivatives and Its Analogs.
First use in or about October 1944.

SN 698,096. Walters Industries, Inc., New York, N. Y. Filed Nov. 10, 1955.

SCULPT-O-GLAS

For Granules of Plastic Resin To Be Applied to Surfaces of All Kinds, Both for Industrial Purposes, Such as Forming a Non-Slip Coating Thereupon, and Also for Decorative Effects; as Well as for Liquids Comprising a Solution of a Plastic Resin in a Suitable Solvent, Both With and Without the Presence Therein of One or More Catalytic Polymerization Agents.
First use on or about Oct. 1, 1955.

SN 698,161. Gulf Salt Company, Fort Bend County, Tex., to United Salt Corporation, Houston, Tex. Filed Nov. 14, 1955.

RODEO

For Rock Salt for Use Principally as a Chemical.
First use Nov. 30, 1951.

SN 698,894. Minnesota Mining and Manufacturing Company, St. Paul, Minn. Filed Nov. 25, 1955.

KYLO

For Specially Compounded Mixture of Polymers, Supplied in the Form of Granules, Designed for Combating Loss of Circulation Fluids From Oil and Gas Wells, Said Granules Being Adapted To Plug Crevices, Etc., in the Oil or Gas Well Bore.
First use at least as early as Mar. 1, 1955.

SN 2,529. Hercules Glue Company, Ltd., d. b. a. Colloidal Products Corporation, San Francisco, Calif. Filed Feb. 1[illegible], 1956.

X-77

For Sticker-Spreader for Use in Agricultural Chemicals.
First use Aug. 30, 1954.

SN 4,973. Marathon Corporation, Menasha, Wis. Filed Mar. 21, 1956.

MARACON

For Lignon Sulfonate Compounds as Dispersant, Particularly for Cement.
First use Mar. 2, 1956.

SN 5,380. American Zinc Sales Company, St. Louis, Mo. Filed Mar. 29, 1956.

AZODOX

Owner of Reg. No. 332,693.
For Zinc Oxide Having General Use in the Industrial Arts.
First use Feb. 14, 1956.

SN 5,800. Self-Ease Units, Inc., New York, N. Y. Filed Apr. 4, 1956.

fire-
no-more

For Fire Extinguishers of the Aerosol Type.
First use June 22, 1955.

SN 6,094. The Carac Corporation, Freeport, N. Y. Filed Apr. 10, 1956.

carac

For Insecticides, Fungicides, Weed Killers, and Animal Repellents.
First use July 1953.

SN 6,793. Columbian Carbon Company, New York, N. Y. Filed Apr. 20, 1956.

LM
1849

Owner of Reg. No. 219,839.
For Lampblacks Having a General Utility in the Industrial Arts.
First use Apr. 6, 1956.

SN 8,803. Riverdale Color Co., Inc., Newark, N. J. Filed May 22, 1956.

COLORTRUL
RIVERDALE

For Coloring Preparations, in Both Dried-Pigment State and Liquid Forms; Also for Pearl Essences in Liquid Form.
First use on or about Sept. 1, 1955.

SN 8,923. W. H. & L. D. Betz, Philadelphia, Pa. Filed May 24, 1956.

KLEEN-ION

For Industrial Water Conditioning Product for the Removal of Organic Growths and Iron Deposits From Cation Exchanger Beds.
First use Feb. 15, 1956.

SN 10,103. Prairie States Oil & Grease Company, Danville, Ill. Filed June 12, 1956.

BONAFIDE

For Hydraulic Brake Fluid.
First use May 29, 1956.

SN 10,698. National Distillers Products Corporation, New York, N. Y. Filed June 21, 1956.

ISOSEBACIC

Owner of Reg. No. 630,242.
For Aliphatic Dicarboxylic Acids and Their Derivatives—Namely, Salts and Esters.
First use Feb. 14, 1955.

SN 10,830. American Chemical Paint Company, Ambler, Pa. Filed June 25, 1956.

WEEDONE BRUSH KILLER L-329

Applicant disclaims the words "Brush Killer" apart from the trademark as shown. Owner of Reg. No. 568,375.
For Chemical Preparations Useful in Killing Weeds.
First use Apr. 8, 1955.

SN 10,913. Walter Ratner, d. b. a. The Grant Company, Chicago, Ill. Filed June 25, 1956.

VAYPITE

For Insecticide.
First use June 16, 1956.

SN 11,068. Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed June 27, 1956.

ERADEX

Owner of German Reg. No. 601,473, dated Oct. 3, 1950.
For Chemical Agents for Destroying Animals and Plants.

SN 11,069. Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed June 27, 1956.

MORESTAN

Owner of German Reg. No. 502,896, dated June 9, 1938.
For Chemical Agents for Destroying Animals and Plants.

SN 11,070. Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed June 27, 1956.

MUSCARON

Owner of German Reg. No. 659,958, dated July 12, 1954.
For Agents for Controlling Flies, Gnats, Moths, Cockroaches, Bugs.

SN 11,903. Basic, Incorporated, Cleveland, Ohio. Filed July 11, 1956.

MAGOX

For Magnesium Oxide and Calcined Magnesite.
First use May 16, 1956.

SN 12,040. Michael N. Marosi, d. b. a. Republic Chemical Company, North Hollywood, Los Angeles, Calif. Filed July 12, 1956.

RECOBRIGHT

For Metal-Treating Materials for Providing the Surfaces of Metals With an Anti-Corrosive Coating.
First use May 15, 1955.

SN 12,125. West Virginia Pulp and Paper Company, New York, N. Y. Filed July 13, 1956.

STEROFAT

For Lanolin-Like Product Derived From Tallöil Pitch, Consisting Primarily of a Fatty Acid Ester of Sterols and Higher Molecular Alcohols.
First use Nov. 14, 1955.

SN 12,247. American Chemical Paint Company, Ambler, Pa. Filed July 17, 1956.

BENZAC

For Polychlorobenzoic Acids.
First use June 15, 1956.

SN 13,930. Re-Nu Manufacturing Company, Columbia, S. C. Filed Aug. 14, 1956.

"RE-NU"

For Compound for Finishing and Sizing Fabrics for Home and Industrial Use, and Rendering Such Fabrics Stain and Water-Repellent.
First use June 1, 1956.

CLASS 7

CORDAGE

SN 15,311. John F. Regan, d. b. a. The John F. Regan Co., New York, N. Y. Filed Sept. 7, 1956. Sec. 2(f).

REGAN-LINE

For Clothesline.
First use in February 1941.

CLASS 9

EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES

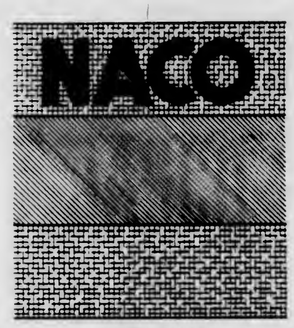
SN 3,523. William J. H. Engelke, d. b. a. Pan American Fireworks Company, Fort Worth, Tex., to Irvin Parker, Oklahoma City, Okla. Filed Feb. 28, 1956.

For Fireworks Piece Comprising a Tubular Structure Charged With an Explosive Capable of Connection Into the Ignition Circuit of an Automobile, and Adapted To Produce a Volume of Smoke When Said Ignition Circuit Is Energized.
First use Aug. 1, 1946.

CLASS 10

FERTILIZERS

SN 4,193. W. R. Grace & Co., New York, N. Y. Filed Mar. 9, 1956.



The drawing is lined for yellow and green. Owner of Reg. Nos. 127,199, 367,130, and others.
For Fertilizers and Fertilizer Materials.
First use 1950.

CLASS 12

CONSTRUCTION MATERIALS

SN 2,149. Manhattan Terrazzo Brass Strip Co., Inc., Norwalk, Conn. Filed Feb. 6, 1956.

RIJLINE

Owner of Reg. No. 608,559.
For Base Bead.
First use Nov. 2, 1955.

SN 2,666. Storm Shield of New England, Inc., Everett, Mass. Filed Feb. 14, 1956.

STORM SHIELD

For Aluminum Windows and Doors.
First use Aug. 1, 1955.

SN 2,738. American Fabricators, a division of Bellingham Shipyards Co., Bellingham, Wash. Filed Feb. 16, 1956.

AMDECK

For Tongue-and-Groove Wooden Planks Used for Roofing and Decking Purposes.
First use in May 1954.
Subj. to Intf. with SN 2,942.

SN 2,859. Copco Steel & Engineering Company, Detroit, Mich. Filed Feb. 17, 1956.

LEVERLITE

For Steel and Aluminum Windows.
First use Dec. 30, 1947.

SN 2,942. American-Marietta Company, Chicago, Ill. Filed Feb. 20, 1956.

AMDEK

For Prestressed Concrete Slabs Used as Decking or Flooring in the Construction of Bridges.
First use on or about Aug. 17, 1954.
Subj. to Intf. with SN 2,738.

SN 5,512. The Eckel Corporation, Cambridge, Mass. Filed Mar. 30, 1956.

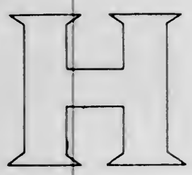
AN-ECK-ÓIC

For Acoustic Wedge Members Formed With Glass Wool or Other Material Between Enclosure Sheets, for the Absorption and Reduction of Sound, Used To Form Walls, Ceilings, and the Like in Parts Thereof.
First use on or about Jan. 30, 1956.

SN 6,998. Harbor Plywood Corporation, Aberdeen, Wash. Filed Apr. 24, 1956.

For Plywood.
First use Mar. 14, 1956.

SN 6,999. Harbor Plywood Corporation, Aberdeen, Wash. Filed Apr. 24, 1956.



For Plywood.
First use Mar. 14, 1956.

SN 10,503. Willamette Fibre & Chip Board, Inc., Portland, Oreg. Filed June 18, 1956.

WESTWOOD

For Resin-Bonded Particle Hardboard.
First use May 1, 1956.

SN 15,421. Widin Metal Goods Company, Garwood, N. J. Filed Sept. 10, 1956.

DURA-GUARD

For Metal Edgings, Metal Trim, Metal Corner-Beads, and Protectora.
First use Mar. 12, 1956.

SN 16,307. The Tri-Lok Company, Pittsburgh, Pa. Filed Sept. 24, 1956.

TRI-LOK

For Gratings and Stair Treads.
First use May 1, 1926.

CLASS 15

OILS AND GREASES

SN 5,460. Socony Mobil Oil Company, Inc., New York, N. Y. Filed Mar. 29, 1956.

MOBILJET

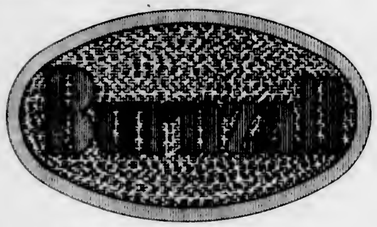
Owner of Reg. Nos. 129,237, 601,132, and others.
For Aviation Fuel.
First use Jan. 18, 1956.

SN 5,462. Socony Mobil Oil Company, Inc., New York, N. Y. Filed Mar. 29, 1956.

SOLREX

Owner of Reg. Nos. 123,106, 124,799, and others.
For Petroleum Impregnants and Saturants.
First use Dec. 28, 1955.

SN 14,245. Edgar W. Holyoke, d. b. a. Burnzall Company, El Monte, Calif. Filed Aug. 20, 1956.



The drawing is lined for yellow and red.
For Drums of Fuel Oil Additive.
First use Apr. 21, 1955.

SN 15,184. Gold Seal Petr-O-Leum Corporation, New York, N. Y. Filed Sept. 6, 1956.

Gold Seal

For Motor Oil.
First use in January 1946.

SN 15,319. Shell Oil Company, New York, N. Y. Filed Sept. 7, 1956.

ROTELLA

For Lubricating Oil.
First use July 1, 1947.

SN 15,320. Shell Oil Company, New York, N. Y. Filed Sept. 7, 1956.

PEBLUM

For Lubricating Oil.
First use Mar. 20, 1948.

SN 15,321. Shell Oil Company, New York, N. Y. Filed Sept. 7, 1956.

RISELLA

For Lubricating Oil.
First use June 10, 1948.

SN 15,322. Shell Oil Company, New York, N. Y. Filed Sept. 7, 1956.

RIMULA

For Lubricating Oil.
First use Oct. 15, 1948.

SN 15,323. Shell Oil Company, New York, N. Y. Filed Sept. 7, 1956.

STROMBUS

For Lubricating Oil.
First use Sept. 15, 1949.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

SN 650,635. Dennis Mitchell Industries, Philadelphia, Pa. Filed July 22, 1953.

"CHROMAD"

For Electroplate Finish Used on Shopping Carts, Baby Carriages, and Laundry Carts.
First use Aug. 15, 1951.

SN 679,296. Krylon, Inc., Philadelphia, Pa. Filed Jan. 3, 1955.

IF YOU PRIZE IT, "KRYLON-IZE" IT!

Owner of Reg. No. 523,078.
For Spray Coating for Preservation and Protection of Metal, Wood, Paper, and Leathers.
First use 1951.

SN 685,474. Cargill, Incorporated, Minneapolis, Minn. Filed Apr. 14, 1955.

EVT-50

For Vehicle for Paints.
First use Jan. 27, 1955.

SN 697,303. Linmar, Inc., Cambridge, Mass. Filed Oct. 28, 1955.

LIQ-R-PRUF

For Liquid Wood Finish.
First use Oct. 19, 1955.

SN 1,537. National Chemical & Manufacturing Company, Chicago, Ill. Filed Jan. 26, 1956.

ACRYPOLYRENE

For Ingredient for Use in Protective and Decorative Coatings.
First use Dec. 28, 1955.

SN 2,564. The Presstite Engineering Company, St. Louis, Mo., to American-Marietta Company, Chicago, Ill. Filed Feb. 13, 1956.

PRESSTITE

Owner of Reg. Nos. 213,153 and 512,363.
For Asphaltic Coatings, Primers, Paints, Protective Coatings, Roof Coatings, and Concrete Form Coatings.
First use May 20, 1925.

SN 3,571. Bradley & Vrooman Company, Chicago, Ill. Filed Feb. 29, 1956.

STERILKOTE

For Paints, Lacquers, and Vinyl Resin Dispersions Known as Plastisols or Organosols.
First use on or about Jan. 18, 1934, on paints and lacquers.

SN 4,291. Jay S. Conley, d. b. a. Jay S. Conley & Company, Mountain View, Calif. Filed Mar. 12, 1956.

JASCO

For Oil Base Protective and Decorative Coating Sold in Liquid Form for Exterior Wood Surfaces, Paint Thinner, Materials for Conditioning Metal, Concrete, Brick, and Painted Surfaces To Receive Paint Cover, Stain Reducer, Plastic Resin Finish for Floors and Exterior Surfaces Sold in Liquid Form, Wood Stain, and Furniture Polish.
First use July 15, 1947.

SN 5,397. Champion Bronze Powder and Paint Company, Inc., Chicago, Ill. Filed Mar. 29, 1956.

CHAMPION SPRAYON

For Metallic Paints, Lacquers, Clear Plastic Coating, and Enamels.
First use October 1949; July 1948 as to "Champion."

SN 5,921. The Gilbert Spruance Company, Philadelphia, Pa. Filed Apr. 6, 1956.

GILCO

Owner of Reg. No. 271,364.
For Polish for Lacquer Finishes, Aluminum Pigment Paint, White and Colored Pigment Paints and Enamels, and Penetrating Wood Floor Sealer.
First use in or about 1929.

SN 6,055. Sillers Paint & Varnish Co., Los Angeles, Calif. Filed Apr. 9, 1956.

CAL-TONE

For Ready Mixed Paints for Interior and Exterior Use.
First use Dec. 26, 1950.

CLASS 17

TOBACCO PRODUCTS

SN 15,592. David Forry Tobacco Company, York, Pa. Filed Sept. 13, 1956.

HIGH TONE

For Chewing Tobacco.
First use May 1940.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

SN 700,572. Cetylite Industries, Inc., Long Island City, N. Y. Filed Dec. 27, 1955.

CETACAINE

Owner of Reg. Nos. 554,256 and 567,691.
For Topical Anesthetic.
First use Dec. 6, 1955.

SN 9,712. Farbwerke Hoechst Aktiengesellschaft, vormals Meister Lucius und Brüning, Frankfurt am Main Hochst, Germany. Filed June 6, 1956.

INVENOL

Owner of German Reg. No. 457,278, dated June 13, 1933.
For Pharmaceuticals—Namely, Substances Lowering the Blood Sugar Level, i. e., Antibiotics.

SN 9,961. Dome Chemicals, Inc., New York, N. Y. Filed June 11, 1956.

ORALETS

For Medicinal Pills, Lozenges, and Capsules for Vitamin Deficiency and Acne.
First use May 31, 1956.

SN 11,520. American Scientific Laboratories, Inc., Madison, Wis. Filed July 5, 1956.

4 IN 1

For Infusion Ointment for Treatment of Mastitis for Animal Use.
First use Dec. 22, 1952.

SN 15,772. Charles F. Cosman, d. b. a. Surgical Balm Co., Seattle, Wash. Filed Sept. 17, 1956.

WOUNDEX

For Ointment Used for Medicinal Purposes.
First use 1930.

SN 15,822. Premo Pharmaceutical Laboratories, Inc., South Hackensack, N. J. Filed Sept. 17, 1956.

THERAPLEX

For Vitamins.
First use in 1945.

SN 16,090. Benson-Nuen Laboratories, Inc., New York, N. Y. Filed Sept. 21, 1956.

NEBU-CILLIN

For Medicated Inhalant.
First use Aug. 2, 1956.

SN 16,092. Benson-Nuen Laboratories, Inc., New York, N. Y. Filed Sept. 21, 1956.

NEBU-MYCIN

For Medicated Inhalant.
First use Aug. 2, 1956.

SN 16,095. Benson-Nuen Laboratories, Inc., New York, N. Y. Filed Sept. 21, 1956.

NEBU-EPHRIN

For Medicated Inhalant.
First use Aug. 2, 1956.

SN 16,096. Benson-Nuen Laboratories, Inc., New York, N. Y. Filed Sept. 21, 1956.

NEBU-PREL

For Medicated Inhalant.
First use Aug. 2, 1956.

CLASS 19

VEHICLES

SN 11,676. Gyrodyne Company of America, Inc., St. James, N. Y. Filed July 6, 1956.

GYROCYCLE

Owner of Reg. Nos. 521,315 and 575,405.
For Rotary Wing Aircraft.
First use May 1, 1956.

SN 15,577. Winston G. Baird, d. b. a. Western Rubber Products Co., South Gate, Calif. Filed Sept. 13, 1956.

WESTERNER

For Fiberglass Boats.
First use Apr. 29, 1953.

SN 16,700. Keith L. Johnston, d. b. a. Globe Master Trailer Co., Goshen, Ind. Filed Oct. 1, 1956.

GLOBEMASTER

For Mobile Homes.
First use Nov. 10, 1952.

SN 16,740. Rockford Engineered Products Co., Rockford, Ill. Filed Oct. 1, 1956.

REPCO

For Combination Map Holder and Sun Visor.
First use Dec. 1, 1954.

SN 16,834. Robbins Floor Products, Inc., Tuscumbia, Ala. Filed Oct. 2, 1956.

DECOWALL

For Trim Rings for Tires—Namely, for Colored or White Sidewall Rings or Inserts for Installation on Black Sidewall Tires.
First use Oct. 10, 1955.

SN 17,220. L-Cart, Inc., Elkhart, Ind. Filed Oct. 10, 1956.

L-Cart

For Mobile Homes.
First use Apr. 5, 1956.

SN 17,272. General Motors Corporation, Detroit, Mich. Filed Oct. 11, 1956.

FRIGIFRATER

For Railroad Cars.
First use Nov. 21, 1954.

SN 17,495. Alton N. Parker, Jacksonville, Fla. Filed Oct. 15, 1956.

SKIPPER

The drawing is lined for red.
For Boat Trailers.
First use on or about and not later than July 25, 1956.

CLASS 20

LINOLEUM AND OILED CLOTH

SN 15,091. Armstrong Cork Company, Lancaster, Pa. Filed Sept. 5, 1956.

CUSHION-EZE

For Backing for Resilient Hard Surface Type Covering for Floors, Walls, and Other Surfaces.
First use May 24, 1956.

SN 15,092. Armstrong Cork Company, Lancaster, Pa. Filed Sept. 5, 1956.

HYDROCORD

For Backing for Resilient Hard Surface Type Covering for Floors, Walls, and Other Surfaces.
First use May 24, 1956.

SN 15,093 Armstrong Cork Company, Lancaster, Pa. Filed Sept. 5, 1956.

IMPERIAL

For Resilient Hard Surface Type Covering for Floors, Walls, and Other Surfaces.
First use May 29, 1956.

SN 15,339. Armstrong Cork Company, Lancaster, Pa. Filed Sept. 10, 1956.

ESTATE

For Resilient Hard Surface Type Covering for Floors, Walls, and Other Surfaces.
First use May 24, 1956.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

SN 681,647. Sportex GMBH, Ulm/Donau, Germany. Filed Feb. 14, 1955.

SPORTEX Turbo

Owner of U. S. Reg. No. 627,299.
For Sporting Goods—Namely, Tennis Balls, Golf Balls, Base Balls, Play and Beach Balls, Shuttles Made of Genuine or Artificial Feathers for Badminton, Fishing Implements—Namely, Fishing Rods, Fishing Lines, Fishing Hooks, Artificial Fishing Lures.
First use Sept. 15, 1954; in commerce Sept. 15, 1954.

SN 695,253. Tyee Camp Equipment, Everett, Wash. Filed Sept. 23, 1955.

TYEE

Owner of Reg. No. 588,346.
For Tents and Packs Used Generally by Scouts, Campers, and the Like.
First use Apr. 22, 1949, on tents.

SN 11,829. Jay V. Zimmerman Company, St. Louis, Mo. Filed July 9, 1956.

Z-MAN

For Toy Wheeled Car.
First use June 30, 1956.

SN 14,133. J. de Beer & Son, Albany, N. Y. Filed Aug. 17, 1956.

VIGORIZED

For Baseballs.
First use July 5, 1956.

SN 14,401. Mason Tackle, Otisville, Mich. Filed Aug. 22, 1956.

ESQUIRE

For Fishing Lines and Fishing Leaders.
First use in June 1956.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

SN 691,282. Ekco Products Company, Chicago, Ill. Filed July 14, 1955. Sec. 2(f).

FLINTWOOD

Owner of Reg. Nos. 411,860 and 411,861.
For Resin Impregnated Wood Composition Handles for Kitchen Cutlery.
First use on or about Oct. 1, 1948.

SN 3,468. Dorothy Schneider, d. b. a. Continental Sales & Sewing Machine Co., Brooklyn, N. Y. Filed Feb. 27, 1956.

Visetti

For Sewing Machines.
First use Dec. 20, 1955.

SN 9,482. C. A. Norgren Co., Englewood, Colo. Filed June 1, 1956.

MICRO-FOG

For Pneumatic Lubrication Units and Parts Therefor.
First use on or about Oct. 20, 1952.

SN 11,421. Societe Anonyme Conté, Paris, France. Filed July 2, 1956.

CONTEGRAPH

Priority under Sec. 44(d) on French Reg. No. 457,783, dated May 11, 1956 (Paris); Natl. Inst. No. 73,855.
For Typewriters.

CLASS 24

LAUNDRY APPLIANCES AND MACHINES

SN 685,964. Davis Specialties, Inc., Evanston, Ill., to Bishop David Freeman Co. Filed Apr. 21, 1955.

FREEMAN

For Press Plates.
First use on or about June 25, 1954.

SN 689,522. Sears, Roebuck and Co., Chicago, Ill. Filed June 14, 1955.

tip-toe matic

For Clothes Ironers.
First use on or about July 1, 1954.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

SN 687,894. Rudolf Rodenstock, Munich, Germany. Filed May 19, 1955. Sec. 2(f).

Rodenstock

For Field Glasses, Photographic Lenses, Eye Refractometer, Vertex Refractometer, Adjustable Chair and Tray Combination Used for Optical Examinations, Test Lens Set, Devices for Testing Eyes With Built-In Test Figures, Ophthalmic Frames, Ophthalmic Lenses.
First use 1898 on ophthalmic lenses and field glasses; in commerce 1898.

SN 700,511. Justrite Manufacturing Company, Chicago, Ill. Filed Dec. 23, 1955.

PENDRAGON

For Leak Detectors for Detecting Leaks in Gas Lines.
First use Nov. 15, 1955.

SN 4,446. Hageman and Son, Inc., Dumont, N. J. Filed Mar. 13, 1956.

HAGEMAN
Speed-A-Liner

For Hand Tool for Aligning, Spacing, and Applying Shingles.
First use Feb. 2, 1956.

SN 7,976. The Frederick Post Co., Chicago, Ill. Filed May 9, 1956.

CALCULINE

For Mathematical Charts Useful in Performing Various Mathematical Calculations.
First use Mar. 12, 1956.

SN 8,300. West Instrument Corporation, Chicago, Ill. Filed May 14, 1956.

VERI-TELL

For Electrical Pyrometers, Parts, and Supplies Therefor.
First use May 2, 1947.

SN 14,040. Airborne Instruments Laboratory, Inc., Mineola, N. Y. Filed Aug. 16, 1956.

MICROTROL

For Electrical Gaging and Control Apparatus for Machine Tools.
First use in October 1955.

CLASS 27

HOROLOGICAL INSTRUMENTS

SN 8,439. Raymond Richards Company, Chicago, Ill. Filed May 16, 1956.

HOLIDAY

For Watches.
First use Apr. 10, 1954.

SN 15,291. Mastercrafters Clock and Radio Company, Chicago, Ill. Filed Sept. 6, 1956.

STARLIGHT

For Electric Clocks.
First use June 1, 1956.

SN 15,531. Croton Watch Co., Inc., New York, N. Y. Filed Sept. 12, 1956.

ANTARCTIC

For Watches.
First use on or about Aug. 8, 1956.

SN 16,515. Benrus Watch Company, Inc., New York, N. Y. Filed Sept. 27, 1956.

ARGONAUT

For Watches.
First use January 1956.

CLASS 28

JEWELRY AND PRECIOUS-METAL WARE

SN 6,660. I. B. West & Co., New York, N. Y. Filed Apr. 18, 1956.

ROCK-N-ROLL

For Jewelry—Namely, Rings, Bracelets, and Pins.
First use Mar. 26, 1956.

SN 15,413. Towle Manufacturing Company, Newburyport, Mass. Filed Sept. 10, 1956.

FONTANA

For Sterling Silver Flatware.
First use Aug. 29, 1956.

SN 15,760. Briggs, Bates & Bacon Company, Attleboro, Mass. Filed Sept. 17, 1956.

CARMEN

For Bracelets.
First use on or about Dec. 15, 1900.

SN 16,161. R. Wallace & Sons Manufacturing Company, Wallingford, Conn. Filed Sept. 21, 1956.

MIDDLESEX

For Silver Plated and Sterling Silver Flatware and Hollow Ware.
First use Jan. 28, 1947.

SN 16,283. Abraham Tiktin, Mexico City, Mexico. Filed Sept. 24, 1956.

FASTRAP

For Watch Straps.
First use December 1955; in commerce December 1955.

SN 16,694. HMH Publishing Co., Inc., Chicago, Ill. Filed Oct. 1, 1956.

PLAYBOY

Owner of Reg. No. 600,018.
For Cuff Links.
First use Oct. 5, 1955.

SN 17,106. Jewel-Smiths, Inc., Boston, Mass. Filed Oct. 8, 1956.

Pearl Empire

For Pearl Jewelry for Personal Wear—Namely, Necklaces, Ear Rings, Rings, Brooches, and Bracelets.
First use Mar. 22, 1956.

SN 17,246. F. Whitaker Company, Providence, R. I. Filed Oct. 10, 1956.

FIDELIS

For Religious Jewelry for Personal Wear.
First use July 8, 1948.

SN 17,947. K. Mikimoto & Co., Ltd., New York, N. Y. Filed Oct. 22, 1956. Sec. 2(f).

MIKIMOTO

For Cultured Pearls.
First use September 1908.

SN 18,357. Frank Smith Silver Company, Gardner, Mass. Filed Oct. 29, 1956.

EDWARD VII

For Sterling Silver Flatware and Hollow Ware.
First use 1889.

SN 18,955. The International Silver Company, Meriden, Conn. Filed Nov. 8, 1956.

SOUTHERN MANOR

For Silverplated Flatware—Knives, Forks, and Spoons.
First use Oct. 5, 1956.

SN 19,042. Oneida Ltd., Oneida, N. Y. Filed Nov. 9, 1956.

AFFECTION

For Silverplated Hollowware and Flat Tableware.
First use Sept. 7, 1956.

SN 19,043. Oneida Ltd., Oneida, N. Y. Filed Nov. 9, 1956.

FIESTA

For Silverplated Hollowware.
First use Feb. 1, 1946.

SN 19,044. Oneida Ltd., Oneida, N. Y. Filed Nov. 9, 1956.

WOODCLIFF

For Silverplated Hollowware.
First use Aug. 6, 1949.

SN 19,045. Oneida Ltd., Oneida, N. Y. Filed Nov. 9, 1956.

CAROL

For Silverplated Hollowware.
First use Feb. 7, 1953.

SN 19,046. Oneida Ltd., Oneida, N. Y. Filed Nov. 9, 1956.

BELFORD

For Silverplated Hollowware and Flat Tableware.
First use Feb. 7, 1953.

SN 19,047. Oneida Ltd., Oneida, N. Y. Filed Nov. 9, 1956.

FLOWER LANE

For Sterling Silver Hollowware and Flat Tableware.
First use Sept. 7, 1956.

SN 19,048. Oneida Ltd., Oneida, N. Y. Filed Nov. 9, 1956.

VALLEY ROSE

No registration rights are claimed to the use of a valley rose in the pattern of the goods. The word "Rose" is disclaimed apart from the mark.
For Silverplated Hollowware and Flat Tableware.
First use Sept. 7, 1956.

SN 19,049. Oneida Ltd., Oneida, N. Y. Filed Nov. 9, 1956.

BERWICK

For Silverplated Hollowware.
First use Feb. 9, 1946.

SN 19,050. Oneida Ltd., Oneida, N. Y. Filed Nov. 9, 1956.

BROOKLINE

For Silverplated Hollowware.
First use Dec. 25, 1948.

SN 19,052. Oneida Ltd., Oneida, N. Y. Filed Nov. 9, 1956.

MAYBROOK

For Silverplated Hollowware.
First use Aug. 20, 1949.

SN 19,053. Oneida Ltd., Oneida, N. Y. Filed Nov. 9, 1956.

CROYDON

For Silverplated Hollowware.
First use Aug. 7, 1954.

SN 19,928. Wallace Silversmiths, Inc., Wallingford, Conn. Filed Nov. 26, 1956.

GRAND MANNER

For Sterling Silver Flatware, i. e., Knives, Forks, and Spoons.
First use Sept. 20, 1956.

CLASS 29

BROOMS, BRUSHES, AND DUSTERS

SN 726. American Sponge and Chamois Company, Inc., New York, N. Y. Filed Jan. 16, 1956.

a

For Cellulose Sponge Cloth, and Chamois Skins for Cleaning and Polishing Purposes.
First use Sept. 10, 1954.

SN 5,816. Sebastiano Bandiera, d. b. a. Nino Bandiera, Turin, Italy. Filed Apr. 5, 1956.

PHON-SPAZZ

For Hair-Brushes With Molded Plastic Bristles.
First use Jan. 26, 1953; in commerce Nov. 7, 1955.

SN 15,783. The Fuller Brush Company, Hartford, Conn. Filed Sept. 17, 1956. Sec. 2(f).

KRIMPT

For Bristles for Toothbrushes.
First use on or about June 1, 1948.

SN 15,833. Claude F. Smith, Jr., d. b. a. Marston Broom-Mop Factory, Marston, N. C. Filed Sept. 17, 1956.

RAPID-SWEEP

For Brooms.
First use Aug. 1, 1952.

SN 16,192. Easy Day Manufacturing Company, Brookline, Mass. Filed Sept. 24, 1956.

SHAK-O-MATIC

For Dry Mops.
First use Sept. 11, 1956.

CLASS 31

FILTERS AND REFRIGERATORS

SN 4,394. Swimquip, Inc., El Monte, Calif. Filed Mar. 12, 1956.

SWIMQUIP

For Swimming Pool Filters.
First use Nov. 6, 1952.

CLASS 32

FURNITURE AND UPHOLSTERY

SN 688,606. The Waterbury Mattress Company, Waterbury, Conn. Filed May 31, 1955.

CORRECT SLEEP

For Mattresses and Upholstered Box Springs.
First use January 1948.

SN 2,675. The Spring-Air Company, Chicago, Ill. Filed Mar. 12, 1956.

Spring Air

Owner of Reg. Nos. 609,589 and 634,019.
For Sleep Products—Namely, Davenport-Beds.
First use May 19, 1926.

SN 17,111. Morley Furniture Corporation, Chicago, Ill. Filed Oct. 8, 1956.

m/f/c

For Chairs and Sofas.
First use Apr. 18, 1956.

SN 18,098. Posturflex, Inc., Brooklyn, N. Y. Filed Oct. 24, 1956.

NATURALIZER

For Mattresses and Box Springs.
First use Aug. 14, 1956.

SN 18,099. Posturflex, Inc., Brooklyn, N. Y. Filed Oct. 24, 1956.

POSTURFLEX

For Mattresses and Box Springs.
First use Aug. 14, 1956.

CLASS 35

BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

SN 640,418. T. B. Wood's Sons Company, Chambersburg, Pa. Filed Jan. 6, 1953. Sec. 2(f). CONCURRENT USE with Reg. No. 524,920. Restricted to the area of the continental limits of the United States.

SURE GRIP

For Power Transmission Belts.
First use November 1939.

SN 2,129. Greer Industries, Inc., Jamaica, N. Y. Filed Feb. 6, 1956.

disogrin

For Bladders for Pressure Accumulators, Sealing Rings, Piston Rings and Seals of Synthetic Elastic Material.
First use Nov. 11, 1955.

SN 4,366. J. E. Rhoads & Sons, Wilmington, Del. Filed Mar. 12, 1956. Sec. 2(f).

RHOADS

Owner of Reg. Nos. 145,187, 510,597, and others.
For Leather Belting and Other Types of Belting—Namely, Flat Leather Belting, Rounded Belting, V Shaped Belting, Square Leather Belting, Rubber Belting, and Combination Leather and Plastic Belting, Along With Hydraulic and Pneumatic Packings.
First use 1890.

SN 5,239. Quaker Pacific Rubber Company, San Francisco, Calif. Filed Mar. 26, 1956.

PINK LADY

For Garden Hose.
First use Feb. 15, 1956.

SN 17,305. Reynolds Manufacturing Co., Springfield, Mo. Filed Oct. 11, 1956.

REYCOLASTIC

For Rubber Bushinga.
First use Sept. 12, 1956.

SN 17,397. Patch Rubber Company, Akron, Ohio. Filed Oct. 12, 1956.

CHEM RUBBER-FIX

For Plastic Material or Self-Vulcanizing Character Adapted for Use in Repairing Rubber Tires, Belts, Fuel Cells, Gaskets, and the Like.
First use Sept. 27, 1956.

SN 17,438. The Dayton Rubber Company, Dayton, Ohio. Filed Oct. 15, 1956.

THORO-FLEX

For Flat Belting.
First use Sept. 25, 1956.

CLASS 36

MUSICAL INSTRUMENTS AND SUPPLIES

SN 4,728. Mateos Record Corp., New York, N. Y. Filed Mar. 16, 1956.

Kubaney

For Mechanically Grooved Phonograph Records.
First use Jan. 27, 1956.

SN 6,047. Wesley B. Reed, North Woodstock, Conn. Filed Apr. 9, 1956.

DULCY HARP

The word "Harp" is disclaimed apart from the mark as shown.
For Harps.
First use Feb. 20, 1956.

SN 20,875. Harry Gennett, Jr., Richmond, Ind. Filed Dec. 6, 1956. Sec. 2(f).

Gennett

For Mechanically Grooved Records for Phonographs.
First use January 1917.

CLASS 37

PAPER AND STATIONERY

SN 5,933. Library Efficiency Corp., Newark, N. J. Filed Apr. 6, 1956.

LIFETIME

For Protective Covers for Paper Book Jackets.
First use July 1, 1955.

SN 9,062. Strathmore Paper Company, West Springfield, Mass. Filed May 25, 1956.

TROUBADOR

For Writing, Printing, and Specialty Paper.
First use Apr. 16, 1956.

SN 9,619. Willis Sales Company, d. b. a. Willis Sales Company, Inc., Billings, Mont. Filed June 4, 1956.

TIMESAV REDIKARB

For Printed Sales Slips and the Like Produced in Manifold Form.
First use September 1954.

SN 9,864. International Paper Company, New York, N. Y. Filed June 8, 1956.

PURECELL

For Bleached Kraft Food Board.
First use May 28, 1956.

CLASS 38

PRINTS AND PUBLICATIONS

SN 6,213. Beacon Press, Inc., Boston, Mass. Filed Apr. 12, 1956.

BEACON

For Books.
First use 1902.

SN 11,455. American Humane Association, Denver, Colo. Filed July 3, 1956.

For Periodicals, Pamphlets, and Other Publications Issued From Time to Time.
First use June 28, 1955.

SN 14,576. Philipp Sales, Inc., Port Washington, Wis. Filed Aug. 24, 1956.

WEATHER-TEX

For Lithographed Mounted Outdoor Display Cards.
First use Aug. 20, 1956.

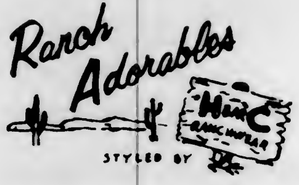
SN 15,500. Universum-Film Akt.-Ges., Berlin-Tempelhof, Germany. Filed Sept. 11, 1956.

Owner of German Reg. No. 322,767, dated Oct. 20, 1924.
For Exposed and Developed Films and Plates, and Cinematographical Scene-Pictures and Prints Thereof.

CLASS 39

CLOTHING

SN 685,495. Halpern & Christenfeld, Inc., New York, N. Y. Filed Apr. 14, 1955.



"Ranchwear" and "Styled by" are disclaimed apart from the mark as shown. Owner of Reg. No. 521,935.
For Ladies' Ranch Apparel—Namely, Trousers, Jackets, Vests, Skirts, Suits, Riding Jodhpurs, Riding Breeches, Riding Coats, Pedal Pushers, and Outer Shorts.
First use Oct. 15, 1954; Mar. 12, 1941, as to "H Bar C."

SN 696,348. Casual Corner, Inc., Washington, D. C. Filed Oct. 13, 1955.

Casual Corner

For Women's Apparel—Namely, Dresses, Shorts, Slacks, Sport Jackets, Coats, Suits, Sweaters, Blouses, Skirts, Bathing Suits, Bathing Caps, Bathing Shoes, Shirts, Beach Robes, Beach Jackets, and Beach Bags.
First use Dec. 14, 1945.

SN 700,931. Armand Schwab & Co. Inc., New York, N. Y. Filed Dec. 21, 1955.

Musketeer

For Hats, Hat Bodies, and/or Hat Hoods.
First use Mar. 26, 1954.

SN 4,147. Onyx Blouse Co. Inc., New York, N. Y. Filed Mar. 8, 1956.

Dearborn

For Boys', Girls', and Ladies' Shirts and Blouses.
First use in 1931.

SN 6,744. Miller and Co., Denver, Colo. Filed Apr. 19, 1956.

For Boys' Outer Clothing—Namely, Sport Shirts, Pants, and Outerwear Jackets.
First use Mar. 5, 1956.

SN 8,175. Tellshire, Inc., New York, N. Y. Filed May 11, 1956.

HIGH AND DRY

For Waterproof, Processed, Rubberized and Showerproof Raincoats for Men, Women, and Children, and Sport Coats for Men, Women, and Children, Also Sailing Suits, Fishing Shirts, and Golf Jackets.
First use Nov. 1, 1935.

SN 8,176. Tellshire, Inc., New York, N. Y. Filed May 11, 1956.

TELLSHIRE

For Waterproof, Processed, Rubberized and Showerproof Raincoats for Men, Women, and Children, and Sport Coats for Men, Women, and Children, Also Sailing Suits, Fishing Shirts, and Golf Jackets.
First use in January 1937.

SN 9,088. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed May 28, 1956. Sec. 2(f).

HITT

Owner of Reg. No. 362,100.
For Men's Outer and Under Shirts.
First use November 1927.

SN 9,952. David Crystal, Inc., New York, N. Y. Filed June 11, 1956.

CRYSTAL

Owner of Reg. No. 535,038.
For Men's Wear—Namely, Men's Shirts, Shorts, Bathing Suits, Slacks, Jackets.
First use May 11, 1956, on men's shirts.

SN 9,983. Huntington Mfg. Co., Inc., Chicago, Ill. Filed June 11, 1956.

Hampton Hall

Owner of Reg. No. 340,942.
For Women's, Misses', and Girls' Dresses.
First use May 15, 1932.

SN 10,961. Victor J. Bergeron, San Francisco, Calif. Filed June 22, 1956.

THE TRADERS

For Hats, Sport and Beach Wear—Namely, Hats, Shirts, Shorts, Swim Suits, Swim Trunks, Ladies' Dresses, Bankers' Coats, and Kimonos.
First use Mar. 15, 1956.

SN 11,221. Bernard I. Budow, d. b. a. Budow Manufacturing Company, Dallas, Tex. Filed June 29, 1956.

JACQUE OF DALLAS

The term "Of Dallas" is disclaimed apart from the mark as shown.
For Ladies' Dresses, Skirts, Blouses, Two Piece Skirt and Blouse Coordinate Sets, Pedal-Pushers, Shorts and Halters.
First use Jan. 15, 1953.

SN 11,384. Max Mayer & Co., Inc., New York, N. Y. Filed July 2, 1956.

StorMitt

The word "Mitt" is disclaimed apart from the mark as shown.
For Ladies', Misses', and Children's Plastic Mittens With Fleece Linings.
First use June 15, 1956.

SN 11,574. Herbert Gussow, New York, N. Y. Filed July 5, 1956.

The word "Knitwear" is disclaimed apart from the mark as shown.
For Children's and Infants' Shirts, Polo Shirts, T Shirts, Cardigans, Creepers, Suits, and Pajamas.
First use Feb. 15, 1950.

SN 11,687. Knitown Togs Corp., New York, N. Y. Filed July 6, 1956.

DEB-U-KNIT

For Knitted Sweaters and Blouses for Women and Girls.
First use June 1, 1956.

SN 12,677. Superba Cravats, Inc., Rochester, N. Y. Filed July 23, 1956.

TWILIGHT TONES

For Necktles.
First use June 6, 1956.

SN 12,792. Jos. H. Cohen & Sons, Inc., New York, N. Y. Filed July 25, 1956.

OASIS

For Men's and Boys' Suits, Slacks, Sport Coats, Top Coats, and Overcoats.
First use July 5, 1955.

SN 12,935. City Stores Company, Philadelphia, Pa. Filed July 27, 1956.

WOLNICAR

For Women's Shoes.
First use Feb. 28, 1954.

SN 13,762. The Hagerstown Shoe Company, Hagerstown, Md. Filed Aug. 10, 1956.

Child-Flex

For Shoes for Children; Both Boys and Girls.
First use on about Nov. 3, 1954.

SN 14,579. Prima Theatrical Footwear, Inc., Columbus, Ohio. Filed Aug. 24, 1956.

ELASTI-FLEX

For Women's and Misses' Shoes.
First use Nov. 10, 1955.

SN 14,603. Virginia Maid Hosiery Mills, Inc., Pulaski, Va. Filed Aug. 24, 1956.

Majorette

Owner of Reg. No. 381,950.
For Women's Hosiery.
First use in August 1939.

SN 14,753. Michaels, Stern & Company, Incorporated, Rochester, N. Y. Filed Aug. 28, 1956.

For Men's and Boys' Suits.
First use Mar. 15, 1934.

SN 14,767. J. Schoeneman, Incorporated, Baltimore, Md. Filed Aug. 28, 1956. Sec. 2(f).

CALCUTTA

Owner of Reg. No. 338,406.
For Suits, Coats, Vests, and Trousers for Men, Youths, and Boys.
First use in September 1934.

SN 14,834. M. Rubin & Sons, Inc., New York, N. Y. Filed Aug. 29, 1956.

ANTLER

For Men's and Boys' Outerwear—Namely, Jackets, Parkas, and Raincoats.
First use Aug. 14, 1950.

SN 14,910. Manuel Segal, New York, N. Y. Filed Aug. 30, 1956.

"University Oxford"

For Gentlemen's Shirts of All Types and Descriptions and Styles Manufactured of Cotton, Wool, Silk Broadcloth, and Synthetic Fibres, Etc.
First use on or about Jan. 2, 1933.

SN 14,967. The Kaynee Company, Cleveland, Ohio. Filed Aug. 31, 1956.

SKI-TOW

For Boys' Sweaters.
First use on or about Aug. 1, 1956.

SN 14,968. The Kaynee Company, Cleveland, Ohio. Filed Aug. 31, 1956.

SLEEP KIT

For Boys' Pajamas.
First use on or about Aug. 1, 1956.

SN 14,969. S. H. Kress and Company, New York, N. Y. Filed Aug. 31, 1956.

Cavalier

Owner of Reg. Nos. 139,265, 623,546, and others.
For Men's Union Suits, Undershirts and Drawers, and Suspenders.
First use June 1915.

SN 15,134. The May Department Stores Company, d. b. a. The May Co., New York, N. Y. Filed Sept. 5, 1956. Sec. 2(f).

TARLETON

Owner of Reg. No. 543,112.
For Men's and Boys' Knitted and Woven Underwear, Knitted and Woven Outer Shirts, Pajamas, Sweaters, Hosiery, Outer Suits, and Overcoats.
First use in April 1928 on men's outer suits and overcoats.

SN 15,340. Bali Brassiere Co., Inc., New York, N. Y. Filed Sept. 10, 1956.

COT-NYL

For Brassieres.
First use Aug. 13, 1956.

SN 15,693. Glen-Joan Fashions, Inc., New York, N. Y. Filed Sept. 14, 1956.

GLEN-JOAN

For Misses' and Women's Dresses.
First use Feb. 2, 1948.

SN 16,129. Laros, Inc., New York, N. Y. Filed Sept. 21, 1956.

COMPLI-FIT

For Ladies' and Misses' Slips and Juniors' Slips.
First use Sept. 5, 1956.

SN 16,273. Smart Novelty Blouse Co., Inc., New York, N. Y. Filed Sept. 24, 1956.

CLUB-MATE

For Ladies' and Misses' Outer Shirts and Blouses.
First use Aug. 1, 1956.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

SN 700,652. Pyramid Manufacturing Co. Inc., New York, N. Y. Filed Dec. 27, 1955.

RIBBONKNIT

Owner of Reg. No. 617,910.
For Ribbed and Jersey Knitted Fabric With or Without Elastic Threads and Not Made or Knitted of Ribbon, Sold as Piece Goods and by the Running Yard Which May Be Cut or Separated and Used for Waistbands, Inserts, and the Like.
First use Jan. 26, 1953.

SN 4,208. Mohawk Carpet Mills Inc., Amsterdam, N. Y., to Mohasco Industries, Inc., Amsterdam, N. Y. Filed Mar. 9, 1956.

Mohawk

TARLETON

Assignee owner of Reg. Nos. 370,899 and 621,831.
For Textile, Woven, Woolen Rugs and Carpets.
First use Oct. 28, 1955.

SN 4,209. Mohawk Carpet Mills, Inc., Amsterdam, N. Y., to Mohasco Industries, Inc., Amsterdam, N. Y. Filed Mar. 9, 1956.

Mohawk

MAIDEN LANE

Assignee owner of Reg. Nos. 370,899 and 621,831.
For Textile, Woven, Woolen Rugs and Carpets.
First use Oct. 28, 1955.

SN 7,280. David Rothschild Company, Columbus, Ga. Filed Apr. 27, 1956.

TRUFLEX

For Furniture Upholstery Fabrics in the Piece, Made Wholly or Partly of Natural, Synthetic, and Metallic Fibres, and Combinations of the Same.
First use Apr. 4, 1956.

SN 8,975. National Industries for the Blind, New York, N. Y. Filed May 24, 1956.

Skilcraft
A PRODUCT OF BLIND CRAFTSMEN

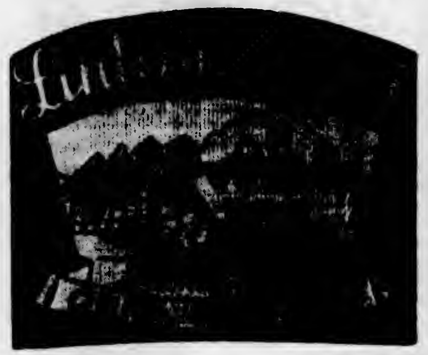
Applicant disclaims the wording "A Product of Blind Craftsmen" apart from the mark shown, reserving any common law rights therein. Owner of Reg. No. 530,773.
For Finger Tip Towels, Dish Towels, Wash Cloths, Dish Cloths, Pot Holders, Table Cloths, Napkins, Rugs, Blankets, Handkerchiefs.
First use in April 1954 on dish towels.

SN 11,845. Fieldcrest Mills, Inc., Spray, N. C. Filed July 10, 1956.

Arreau

For Textile Rugs and Carpeting.
First use June 25, 1956.

SN 12,736. Linton Tweeds Limited, Carlisle, Cumberland, England. Filed July 24, 1956. Sec. 2(f) as to "Linton."



Applicant disclaims the word "Tweed" except as shown. The English equivalent of "Orna Verum" is "Adorn the Truth."
For Woolen Piece Goods.
First use 1919; in commerce 1919.

SN 15,155. Daniel A. Wechsler, d. b. a. Wechsler Fabrics Company, New York, N. Y. Filed Sept. 5, 1956.

"SILK CLOUD"

For Textile Fabrics Consisting of a Mixture of Silk and Acetate.
First use Mar. 16, 1956.

CLASS 43

THREAD AND YARN

SN 15,639. Standard-Coosa-Thatcher Company, Chattanooga, Tenn. Filed Sept. 13, 1956.

LOOM LUSTRE

No claim is made to the word "Lustre" apart from the mark as shown.
For Yarn.
First use Aug. 23, 1956.

SN 17,869. Caron Spinning Company, Rochelle, Ill. Filed Oct. 22, 1956.

Caraloom

For Yarn.
First use Sept. 23, 1954.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

SN 673,201. Harold J. Searer, d. b. a. Searer Rubber Company, Akron, Ohio. Filed Sept. 14, 1954.

STEADIFEED
PLASTIC
"BOUNCER"

Without waiving any of its common law rights in same, applicant disclaims the exclusive right to the use of the term "Steadifeed," and to the showing of a nursing bottle per se.
Owner of Reg. Nos. 504,875 and 605,859.
For Nursing Bottles.
First use on or about July 26, 1954.

SN 700,468. Mahdah Love, d. b. a. The Love Foundation, St. Petersburg, Fla. Filed Dec. 22, 1955.

Buo Hy Personic

For Electrical Apparatus for Treating the Human Body.
First use Sept. 1, 1955.

CLASS 45

SOFT DRINKS AND CARBONATED WATERS

SN 698,464. Sweetie Beverages, Inc., Philadelphia, Pa. Filed Nov. 17, 1955.

DELAWARE VALLEY

For Soft Drinks and Carbonated Waters.
First use Oct. 31, 1955.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

SN 643,093. Gerber Products Company, Fremont, Mich. Filed Mar. 4, 1953. Sec. 2(f).

Gerber's

Owner of Reg. Nos. 369,865, 555,558, and others.
For Baby Teething Biscuits.
First use July 28, 1952; Oct. 12, 1928, on other baby food products.

SN 689,620. General Grocer Company, St. Louis, Mo. Filed June 16, 1955.

TOPMOST

Owner of Reg. Nos. 137,068 and 519,405.
For Canned, Bottled, and Jarred Foods—Namely, Chicken; Fish; Fruits; Fruit, Vegetable, and Fish Appetizer Juices; Pigs Feet; Jellied Ox Tongue; Deviled Ham; Vienna Sausage; Beef Stew; Chili Con Carne; Spaghetti With Meat Sauce; Tamales; Corned Beef Hash; Luncheon Meat; Potted Meat; Potato Salad; Macaroni Salad; Mixed Vegetables With Tomato Salad; Vegetables; and Brown Bread; Catsup; Cereal Breakfast Foods; Chop Suey; Condiments—Namely, Pepper, Salt, Mustard, and Horseradish; Cornstarch; Dietetic Foods—Namely, Fruits and Vegetables; Edible Oils of Vegetable Origin for Cooking Purposes; Food Colors; Food Flavors; Dried Fruits; Frozen Fruit Juice Concentrates; Gelatin Desserts; Jellies; Macaroni; Margarine; Mayonnaise; Evaporated Milk; Mince Meat; Mix for Hot Chocolate; Prepared Mixes Adapted Upon the Addition of Water or Milk To Form Pie Crust, Pancake Mix, Meringue, and Pie Filling; Mushrooms; Noodles; Olives; Pickles; Fruit Preserves; Pretzels; Puddings in Powder Form; Pickle Relishes; Salad Dressings; Sauces—Namely, Chili Sauce, Mushroom Steak Sauce, Spaghetti Sauce Flavored With Meat, and Cocktail Sauce; Vegetable Shortening; Soups; Spices; Tea; Fruit and Syrup Toppings; and Vinegar.
First use Apr. 10, 1920, on canned fruits, vegetables, and fish.

SN 693,675. Hall, Haas & Vessey, Ltd., d. b. a. MacDonald Farms, Los Angeles, Calif. Filed Aug. 25, 1955.

OLD MAC DONALD

For Fresh Vegetables, Fresh Deciduous Fruits, and Grapes.
First use July 25, 1955, on fresh tomatoes.

SN 694,694. Central Soya Company, Inc., Fort Wayne, Ind. Filed Sept. 15, 1955.

CALF MIXER

For Calf Feed in the Form of Concentrate Pellets.
First use Sept. 15, 1955.

SN 695,779. August Storck G. m. b. H., Halle/Westfalen, Germany. Filed Oct. 3, 1955.

Owner of German Reg. No. 654,072, dated Feb. 26, 1954.
For Hard Candy, Eating, Baking, and Cooking Chocolate.

SN 696,784. The Ray Ewing Company, Pasadena, Calif. Filed Oct. 20, 1955.

Ray Ewing
ANTIOX

Owner of Reg. No. 424,836.
For Butylated Hydroxy Toluene (BHT) Preservative for Poultry and Animal Feeds.
First use Sept. 23, 1955.

SN 697,965. Comstock, Ferre & Company, Wethersfield, Conn. Filed Nov. 9, 1955.

COM-PAC

For Bird Food.
First use Oct. 25, 1955.

SN 1,320. Donald L. Bellamy, d. b. a. D. L. Bellamy, Miami, Fla. Filed Jan. 24, 1956.

VOTKA

For Canned Citrus Juices.
First use Nov. 18, 1955.

SN 5,196. General Foods Corporation, White Plains, N. Y. Filed Mar. 26, 1956.

MAPLE-DEL

Owner of Reg. No. 523,785.
For Mix for Making Table Syrup.
First use at least as early as Aug. 28, 1953.

SN 5,524. Wm. A. Higgins & Co., Inc., New York, N. Y. Filed Mar. 30, 1956.

HOLLY

For Unshelled Brazil Nuts.
First use in June 1925.

SN 8,456. Woodard Foods, Inc., St. Louis Park, Minn. Filed May 16, 1956.

Woodard's CRESTLINE

For Horse Meat for Pets, Dog Food, and Cat Food.
First use Jan. 15, 1956.

SN 11,794. Roundy's, Inc., Wauwatosa, Wis. Filed July 9, 1956. Sec. 2(f).

ROUNDY'S

Owner of Reg. No. 539,804.
For Bead Molasses, Canned Apple Sauce, Canned Chicken, Canned Chicken Broth, Canned Onions, Canned Potato Salad, Canned Pie Fillings and Mixes, Canned Potatoes Including Yams, Sweet Potatoes, Canned Red Cabbage, Canned Sauerkraut, Canned Shoestring Potatoes, Canned Spaghetti, Canned Spanish Rice Dinner, Canned Spiced Fruits, Canned Stewed Prunes, Canned Stewed Tomatoes, Canned Succotash, Chop Suey Sauce, Coconut, Crabmeat, Frozen Concentrated Fruit Juices, Fruit Nectar and Fruit Bases, Instant Coffee, Peanuts, and Popcorn.
First use Aug. 13, 1937, on canned sauerkraut.

SN 12,743. Philadelphia Chewing Gum Corporation, Havertown, Pa. Filed July 24, 1956.

NIKE

For Chewing Gum.
First use June 22, 1956.

SN 12,745. Philadelphia Chewing Gum Corporation, Havertown, Pa. Filed July 24, 1956.

GUIDED MISSILES

For Chewing Gum.
First use June 22, 1956.

SN 13,563. American Potato Company, Idaho Falls, Idaho. Filed Aug. 8, 1956.

WHIPP

For Potato Product—Namely, Dehydrated or Instant Mashed Potatoes.
First use Aug. 4, 1955.

SN 13,805. Anderson, Clayton & Co., Dallas, Tex. Filed Aug. 13, 1956.

GOLDEN SPARKLE

For Salad Oil and Oleomargarine.
First use July 20, 1956.

SN 13,918. P. L. Jakovich, d. b. a. P. L. Jakovich & Son, Delano, Calif. Filed Aug. 14, 1956.

RIVER BEND

For Fresh Grapes.
First use 1935.

SN 13,942. Wallerstein Company, Inc., New York, N. Y. Filed Aug. 14, 1956.

ISONA

For Antioxidant Compositions for Use in Foods and Beverages.
First use July 11, 1956.

SN 14,333. Foremost Dairies, Inc., Jacksonville, Fla. Filed Aug. 21, 1956.

DIXIE DOODLE

Owner of Reg. No. 302,599.
For Ice Milk Bar.
First use on or about Apr. 15, 1956.

CLASS 47

WINES

SN 13,789. United Vintners, Inc., San Francisco, Calif. Filed Aug. 10, 1956. Sec. 2(f).

Petri
Party Wine

No claim is made to the word "Wine" apart from the mark as shown. Owner of Reg. Nos. 548,033 and 542,120.
For Wines.
First use in September 1947.

CLASS 48

MALT BEVERAGES AND LIQUORS

SN 14,849. Bavaria St. Pauli Brauerei, Hamburg, Germany. Filed Aug. 30, 1956.

For Beer.
First use Apr. 27, 1956.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

SN 3,771. Replicap Corporation, Dayton, Ohio. Filed Mar. 2, 1956.

REPLICAP

For Closure Caps for Various Containers.
First use in February 1955.

SN 5,038. Grace Sign & Mfg. Co., St. Louis, Mo. Filed Mar. 22, 1956. Sec. 2(f).

EZ-ON

Owner of Reg. No. 560,030.
For Sign Facings for Traffic Markers.
First use Mar. 9, 1951.

SN 7,150. Asten-Hill Mfg. Co., Philadelphia, Pa. Filed Apr. 26, 1956.

CALCOT

For Dryer Felts in the Piece.
First use in 1933.

SN 8,381. Louis E. Bacon, Alliance, Ohio. Filed May 16, 1956.

PUDDY

For Decorating Kits Comprising Jugs or the Like, Plastic Material and Trinkets and Shells.
First use Dec. 15, 1955.

SN 9,766. Victor J. Bergeron, San Francisco, Calif. Filed June 7, 1956.

THE TRADERS

For Wood Carvings and Bowls.
First use Mar. 15, 1956.

SN 12,702. Asten-Hill Mfg. Co., Philadelphia, Pa. Filed July 24, 1956.

SYNCOT

For Dryer Felts in the Piece.
First use July 17, 1956.

SN 13,462. Marlenn Products Company, Inc., Pikesville, Md. Filed Aug. 6, 1956.

LUCKY ROSE

For Novelty Holders in the Shape of a Rose and Horse Shoe for Air Deodorant.
First use Aug. 2, 1956.

SN 14,666. Louis Higginbotham, d. b. a. Custom Casting Co., Torrance, Calif. Filed Aug. 27, 1956.

VISABAR

For Reflectorized Concrete Traffic Bars and Lane Dividers.
First use Jan. 23, 1956.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

SN 691,308. Lentheric, Inc., New York, N. Y. Filed July 14, 1955.

MUSKETEER TOILETRIES

The word "Toiletries" is disclaimed apart from the mark as shown.
For After Shave Lotion, Body Rub Cologne, and Deodorant Cologne.
First use May 27, 1955.

SN 699,716. Janet Frone, d. b. a. Netrone Products Co., Chicago, Ill. Filed Dec. 9, 1955.

NETRONE

For Hair and Scalp Conditioning Cream.
First use Oct. 15, 1955.

SN 700,122. Rayette, Inc., St. Paul, Minn. Filed Dec. 16, 1955.

RAYETTE ROSE WAVE

Owner of Reg. Nos. 403,074 and 535,629.
For Reducing and Neutralizing Lotions for Permanent Hair Waving.
First use Dec. 6, 1955.

SN 482. Chesebrough-Pond's Inc., New York, N. Y. Filed Jan. 11, 1956.

ANGEL SOFT

Owner of Reg. Nos. 309,287, 598,595, and others.
For Cosmetic Facial and Body Creams, Cosmetic Facial and Body Lotions, Lipsticks, Rouge, Facial and Body Powders, Facial Lotions and Liquids Used as a Foundation Base and Also as a Powder Substitute, Hair Conditioning Creams and Lotions, Hair Tonic, Hair Dressing Creams and Lotions.
First use Nov. 9, 1955.

SN 483. Chesebrough-Pond's Inc., New York, N. Y. Filed Jan. 11, 1956.

ANGEL LIQUID

Owner of Reg. Nos. 309 287, 598,595, and others.
For Cosmetic Facial and Body Creams, Cosmetic Facial and Body Lotions, Lipsticks, Rouge, Facial and Body Powders, Facial Lotions and Liquids Used as a Foundation Base and Also as a Powder Substitute, Hair Conditioning Creams and Lotions, Hair Tonic, Hair Dressing Creams and Lotions.
First use Nov. 9, 1955.

SN 484. Chesebrough-Pond's Inc., New York, N. Y. Filed Jan. 11, 1956.

ANGEL MAGIC

Owner of Reg. Nos. 309,287, 598,595, and others.
For Cosmetic Facial and Body Creams, Cosmetic Facial and Body Lotions, Lipsticks, Rouge, Facial and Body Powders, Facial Lotions and Liquids Used as a Foundation Base and Also as a Powder Substitute, Hair Conditioning Creams and Lotions, Hair Tonic, Hair Dressing Creams and Lotions.
First use Nov. 9, 1955.

SN 485. Chesebrough-Pond's Inc., New York, N. Y. Filed Jan. 11, 1956.

ANGEL SMOOTH

Owner of Reg. Nos. 309.287, 598,595, and others.
For Cosmetic Facial and Body Creams, Cosmetic Facial and Body Lotions, Lipsticks, Rouge, Facial and Body Powders, Facial Lotions and Liquids Used as a Foundation Base and Also as a Powder Substitute, Hair Conditioning Creams and Lotions, Hair Tonic, Hair Dressing Creams and Lotions.
First use Nov. 9, 1955.

SN 1,210. Chesebrough-Pond's Inc., New York, N. Y. Filed Jan. 23, 1956.

ANGEL TOUCH

Owner of Reg. Nos. 309 287, 598,595, and others.
For Cosmetic Facial and Body Creams, Cosmetic Facial and Body Lotions, Lipsticks, Rouge, Facial and Body Powders, Facial Lotions and Liquids Used as a Foundation Base and Also as a Powder Substitute, Hair Conditioning Creams and Lotions, Hair Tonic, Hair Dressing Creams and Lotions.
First use Nov. 9, 1955.

SN 5,501. Chesebrough-Pond's Inc., New York, N. Y. Filed Mar. 30, 1956.

ANGEL CARE

Owner of Reg. Nos. 309,287, 598,595, and others.
For Cosmetic Facial and Body Creams, Cosmetic Facial and Body Lotions, Lipsticks, Rouge, Facial and Body Powders, Facial Lotions and Liquids Used as a Foundation Base and Also as a Powder Substitute, Hair Conditioning Creams and Lotions, Hair Tonic, Hair Dressing Creams and Lotions and Colognes.
First use Mar. 5, 1956.

SN 5,502. Chesebrough-Pond's Inc., New York, N. Y. Filed Mar. 30, 1956.

ANGEL CLEAN

Owner of Reg. Nos. 309 287, 598,595, and others.
For Cologne, Cosmetic Facial and Body Creams, Cosmetic Facial and Body Lotions, Lipsticks, Rouge, Facial and Body Powders, Facial Lotions and Liquids Used as a Foundation Base and Also as a Powder Substitute, Hair Conditioning Creams and Lotions, Hair Tonic, Hair Dressing Creams and Lotions.
First use Feb. 23, 1956.

SN 5,503. Chesebrough-Pond's Inc., New York, N. Y. Filed Mar. 30, 1956.

ANGEL PROMISE

Owner of Reg. Nos. 309.287, 598,595, and others.
For Cosmetic Facial and Body Creams, Cosmetic Facial and Body Lotions, Lipsticks, Rouge, Facial and Body Powders, Facial Lotions and Liquids Used as a Foundation Base and Also as a Powder Substitute, Hair Conditioning Creams and Lotions, Hair Tonic, Hair Dressing Creams and Lotions and Colognes.
First use Feb. 23, 1956.

SN 7,435. Goubaud of Paris, Inc., New York, N. Y. Filed May 1, 1956.

CHA-CHA

For Perfume and Toilet Water.
First use Dec. 16, 1955.

SN 12,578. Bes-Bet Company, Clare, Mich. Filed July 23, 1956.

BES-BET

For Compound for Removal of Dandruff and Relief for Dry Scalp.
First use July 9, 1956.

SN 12,877. The Dow Chemical Company, Midland, Mich. Filed July 26, 1956.

ROGEPEL

For Aromatic Chemical Useful as a Perfume Base.
First use July 20, 1955.

SN 12,880. The Dow Chemical Company, Midland, Mich. Filed July 26, 1956.

DORISYL

For Aromatic Chemical Useful as a Perfume Base.
First use July 13, 1955.

SN 13,854. Lever Brothers Company, New York, N. Y. Filed Aug. 13, 1956.

STRIPE

Owner of Reg. No. 631,919.
For Dentifrice.
First use Apr. 23, 1956.

SN 14,150. The Gillette Company, d. b. a. The Toni Company, Boston, Mass. Filed Aug. 17, 1956.

ADORN

Owner of Reg. No. 619,611.
For Hair Spray.
First use June 11, 1956.

SN 14,281. Lee H. Scott, d. b. a. Scott Laboratories, Corpus Christi, Tex. Filed Aug. 20, 1956.

SCOTT'S BOUQUET OF ROSES

For Brilliantine and Hairdressing.
First use Feb. 5, 1956.

SN 14,354. The Nestle-Le Mur Company, d. b. a. Vivaudou, New York, N. Y. Filed Aug. 21, 1956.

MAVIS

For Talcum Powder.
First use in August 1915.

SN 14,675. Lever Brothers Company, New York, N. Y. Filed Aug. 27, 1956.

SHIELD

Owner of Reg. No. 594,628.
For Dentifrice and Spray Deodorant for Human Use.
First use Oct. 6, 1953, on dentifrice.
Subj. to Intf. with SN 7,968.

CLASS 52

DETERGENTS AND SOAPS

SN 700,425. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

BID

For Soap.
First use Nov. 4, 1955.

SN 700,426. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

BOLD

For Soap.
First use Nov. 4, 1955.

SN 700,427. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

DARE

For Soap.
First use Nov. 4, 1955.

SN 700,428. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

DUET

For Soap.
First use Nov. 4, 1955.

SN 700,429. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

FLAIR

For Soap.
First use Nov. 4, 1955.

SN 700,430. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

FLING

For Soap.
First use Nov. 4, 1955.

SN 700,431. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GLEE

For Soap.
First use Nov. 4, 1955.

SN 700,432. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GLOW

For Soap.
First use Nov. 4, 1955.

SN 700,433. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRACE

For Soap.
First use Nov. 4, 1955.

SN 700,434. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND

For Soap.
First use Nov. 4, 1955.

SN 700,435. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND PRIX

For Soap.
First use Nov. 4, 1955.

SN 700,436. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND SLAM

For Soap.
First use Nov. 4, 1955.

SN 700,437. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND TOUR

For Soap.
First use Nov. 4, 1955.

SN 700,438. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND TRIO

For Soap.
First use Nov. 4, 1955.

SN 700,439. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND TRIUMPH

For Soap.
First use Nov. 4, 1955.

SN 700,440. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND VICTORY

For Soap.
First use Nov. 4, 1955.

SN 700,441. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND VOYAGE

For Soap.
First use Nov. 4, 1955.

SN 700,442. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND WALTZ

For Soap.
First use Nov. 4, 1955.

SN 700,443. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND WINNER

For Soap.
First use Nov. 4, 1955.

SN 700,444. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND WORLD

For Soap.
First use Nov. 4, 1955.

SN 700,445. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND YACHT

For Soap.
First use Nov. 4, 1955.

SN 700,446. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND YEAR

For Soap.
First use Nov. 4, 1955.

SN 700,447. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND YOUTH

For Soap.
First use Nov. 4, 1955.

SN 700,448. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZEST

For Soap.
First use Nov. 4, 1955.

SN 700,449. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZONE

For Soap.
First use Nov. 4, 1955.

SN 700,450. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZOOM

For Soap.
First use Nov. 4, 1955.

SN 700,451. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZOOT

For Soap.
First use Nov. 4, 1955.

SN 700,452. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZULU

For Soap.
First use Nov. 4, 1955.

SN 700,453. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOL

For Soap.
First use Nov. 4, 1955.

SN 700,454. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC

For Soap.
First use Nov. 4, 1955.

SN 700,455. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS

For Soap.
First use Nov. 4, 1955.

SN 700,456. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP

For Soap.
First use Nov. 4, 1955.

SN 700,457. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES

For Soap.
First use Nov. 4, 1955.

SN 700,458. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR

For Soap.
First use Nov. 4, 1955.

SN 700,459. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL

For Soap.
First use Nov. 4, 1955.

SN 700,460. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES

For Soap.
First use Nov. 4, 1955.

SN 700,461. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN

For Soap.
First use Nov. 4, 1955.

SN 700,462. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE

For Soap.
First use Nov. 4, 1955.

SN 700,463. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME

For Soap.
First use Nov. 4, 1955.

SN 700,464. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND

For Soap.
First use Nov. 4, 1955.

SN 700,465. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY

For Soap.
First use Nov. 4, 1955.

SN 700,466. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO

For Soap.
First use Nov. 4, 1955.

SN 700,467. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO!

For Soap.
First use Nov. 4, 1955.

SN 700,468. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS

For Soap.
First use Nov. 4, 1955.

SN 700,469. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP

For Soap.
First use Nov. 4, 1955.

SN 700,470. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES

For Soap.
First use Nov. 4, 1955.

SN 700,471. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR

For Soap.
First use Nov. 4, 1955.

SN 700,472. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL

For Soap.
First use Nov. 4, 1955.

SN 700,473. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES

For Soap.
First use Nov. 4, 1955.

SN 700,474. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN

For Soap.
First use Nov. 4, 1955.

SN 700,475. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE

For Soap.
First use Nov. 4, 1955.

SN 700,476. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE HOME

For Soap.
First use Nov. 4, 1955.

SN 700,477. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND

For Soap.
First use Nov. 4, 1955.

SN 700,478. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY

For Soap.
First use Nov. 4, 1955.

SN 700,479. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO

For Soap.
First use Nov. 4, 1955.

SN 700,480. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO!

For Soap.
First use Nov. 4, 1955.

SN 700,481. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS

For Soap.
First use Nov. 4, 1955.

SN 700,482. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP

For Soap.
First use Nov. 4, 1955.

SN 700,483. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES

For Soap.
First use Nov. 4, 1955.

SN 700,484. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR

For Soap.
First use Nov. 4, 1955.

SN 700,485. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL

For Soap.
First use Nov. 4, 1955.

SN 700,486. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES

For Soap.
First use Nov. 4, 1955.

SN 700,487. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN

For Soap.
First use Nov. 4, 1955.

SN 700,488. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE

For Soap.
First use Nov. 4, 1955.

SN 700,489. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE HOME

For Soap.
First use Nov. 4, 1955.

SN 700,490. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND

For Soap.
First use Nov. 4, 1955.

SN 700,491. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY

For Soap.
First use Nov. 4, 1955.

SN 700,492. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO

For Soap.
First use Nov. 4, 1955.

SN 700,493. Armour and Company, Chicago, Ill. Filed Dec. 22, 1955.

GRAND ZYMOLIC SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO! SUDS SOAP FLAKES FOR ALL USES IN THE HOME AND LAUNDRY TOO!

For Soap.
First use Nov. 4, 1955.

SN 6,100. Clerfast Corporation, Providence, R. I. Filed Apr. 10, 1956.

The individual letters are of the distinctive color gold and the background is solid black.
For Skin Soap.
First use Dec. 6, 1954.

SN 9,399. Brelsford Houston Robertson, d. b. a. B. H. Robertson Chemical Company, Cleveland, Tenn. Filed May 31, 1956.

DOB-WHITE

For Acid Fixer Stain Remover.
First use Mar. 19, 1956.

SN 9,800. Lanvin-Parfums, Inc., New York, N. Y. Filed June 7, 1956.

ARPEGE

The French term "Arpege" denotes the musical term "arpeggio." Owner of Reg. No. 282,358.
For Toilet Soap.
First use Mar. 7, 1956.

SN 10,379. American Chemical Paint Company, Ambler, Pa. Filed June 18, 1956.

DEOXIDINE

Owner of Reg. No. 104,434.
For Liquid Chemical Solution for Removing Rust and Grease From Metal Surfaces and for Prevention of Further Rusting Preparatory to Application of Paint.
First use Sept. 1, 1914.

SERVICE MARKS

CLASS 102

INSURANCE AND FINANCIAL

SN 757. Czechoslovak Society of America, Cicero, Ill. Filed Jan. 16, 1956.

For Underwriting and Sale of Life Insurance, Health, Hospitalization, and Disability Insurance, Endowment, Retirement, and Income Insurance, and Mortgage Redemption Insurance.
First use Dec. 22, 1932.

CLASS 105

TRANSPORTATION AND STORAGE

SN 11,199. Sita World Travel, Inc., New York, N. Y. Filed June 28, 1956.

ADVENTURE TRAILS

For Arranging for Escorted Travel Tours.
First use Feb. 13, 1947.

CLASS 106

MATERIAL TREATMENT

SN 695,801. Champion Textile Finishing Co., Chicago, Ill. Filed Oct. 4, 1955.

WEATHER MASTER

For Treatment of Heavy Canvas for Others To Render Same Waterproof and Mildew-Proof Comprising the Application of Heavy Coatings of Waxes, Pigments, and Fillers.
First use Feb. 6, 1947.

CLASS 107

EDUCATION AND ENTERTAINMENT

SN 3,478. F. Burr Tillstrom, d. b. a. Burr Tillstrom Productions, Chicago, Ill. Filed Feb. 27, 1956.

For Title for Television Programs, Specifically Puppet Shows.
First use on Jan. 9, 1956.

SN 3,480. F. Burr Tillstrom, d. b. a. Burr Tillstrom Productions, Chicago, Ill. Filed Feb. 27, 1956.

For Title for Television Programs, Specifically Puppet Shows.
First use Jan. 17, 1956.

SN 3,482. F. Burr Tillstrom, d. b. a. Burr Tillstrom Productions, Chicago, Ill. Filed Feb. 27, 1956.

For Title for Television Programs, Specifically Puppet Shows.
First use Jan. 23, 1956.

SN 13,536. James Hayden Huddleston, d. b. a. Hayden Huddleston Advertising Agency, Roanoke, Va. Filed Aug. 7, 1956.

KLUB KWIZ

For Title of a Quiz-Type Television Program.
First use Aug. 19, 1954.

COLLECTIVE MEMBERSHIP MARKS

CLASS 200

SN 14,205. The American Automobile Association (Incorporated), Washington, D. C. Filed Aug. 20, 1956.

Owner of Reg. No. 303,862.
For Indicating Membership in Applicant's Organization.
First use in 1902.

TRADEMARK REGISTRATIONS ISSUED
PRINCIPAL REGISTER

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

641,915. UNIVERSAL PULVERIZING UPCO ETC. AND DESIGN. Thiem Products, Inc. SN 689,771. Pub. 12–11–56. Filed 6–17–53.

641,916. "NEET-HEET." The Diamond Match Company. SN 1,151. Pub. 12–11–56. Filed 1–20–56.

641,917. DISOFLEX. Greer Industries, Inc. SN 2,130. Pub. 12–11–56. Filed 2–6–56.

641,918. KLEEN-O. Foams, Inc. SN 4,190. Pub. 12–11–56. Filed 3–9–56.

641,919. GOLD COAST BUCK. Feuer Hide & Skin Corp. SN 6,327. Pub. 12–11–56. Filed 4–13–56.

641,920. FOUR SEASON. Garfield Williamson, Inc., d. b. a. Plant Food Products Co. SN 6,661. Pub. 12–11–56. Filed 4–18–56.

641,921. OPNA. Oregon Purebred Nutria Associates. SN 7,527. Pub. 12–11–56. Filed 5–2–56.

CLASS 2

RECEPTACLES

641,922. "BLUE BONNET." Kilby Steel Company. SN 641,619. Pub. 6–16–53. Filed 2–2–53.

641,923. FUL-SEAL. The Fuller Label & Box Company. SN 4,534. Pub. 12–11–56. Filed 3–14–56.

641,924. TABLEMATES AND DESIGN. Enco Inc. SN 9,128. Pub. 12–11–56. Filed 5–28–56.

641,925. POLY-CONS. Richard Manufacturing Co. SN 9,175. Pub. 12–11–56. Filed 5–28–56.

CLASS 3

BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

641,926. TAG-MASTER. Jack R. Shevin, d. b. a. Dard Products. SN 13,935. Pub. 12–11–56. Filed 8–14–56.

641,927. U-R-VALET. E. Roy Dallas. SN 14,439. Pub. 12–11–56. Filed 8–23–56.

CLASS 4

ABRASIVES AND POLISHING MATERIALS

641,928. DUET. Simoniz Company. SN 8,991. Pub. 12–11–56. Filed 5–24–56.

CLASS 5

ADHESIVES

641,929. BONDCOTE. The Flintkote Company. SN 4,016. Pub. 12–11–56. Filed 3–7–56.

641,930. GLASITE. Stocker Manufacturing Company. SN 8,889. Pub. 12–11–56. Filed 5–23–56.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

641,931. PINE KING. Connecticut Chemical Research Corporation. SN 676,477. Pub. 12–11–56. Filed 11–12–54.

641,932. MOTH CHEK. Chek Chemical Products Company, Inc. SN 695,279. Pub. 12–11–56. Filed 9–26–55.

641,933. CZ AND DESIGN. Crown Zellerbach Corporation. SN 696,508. Pub. 12–11–56. Filed 10–17–55.

641,934. PARADIZE. Paradize Chemical Company, Inc. SN 697,013. Pub. 12–11–56. Filed 10–24–55.

641,935. POLYCRETE. L & M Tile Products, Ltd. SN 697,800. Pub. 12–11–56. Filed 11–7–55.

641,936. LUBROL. Imperial Chemical Industries Limited. SN 700,792. Pub. 12–11–56. Filed 12–29–55.

641,937. ALOTEC. C. H. Boehringer Sohn. SN 561. Pub. 12–11–56. Filed 1–12–56.

641,938. REN AND DESIGN. Ren Plastics, Inc. SN 1,728. Pub. 12–11–56. Filed 1–30–56.

641,939. SUPRAMICA. Mycalex Corporation of America. SN 2,800. Pub. 12–11–56. Filed 2–16–56.

641,940. D-SOLV. Alexander Chemical Corp. SN 4,689. Pub. 12–11–56. Filed 3–16–56.

641,941. FRANPIC. La France Manufacturing Co. SN 5,853. Pub. 12–11–56. Filed 4–5–56.

641,942. COLUMBIA CARBON COMPANY AND DESIGN. Columbian Carbon Company. SN 7,908. Pub. 12–11–56. Filed 5–8–56.

641,943. BARAFOS. National Lead Company. SN 8,144. Pub. 12–11–56. Filed 5–11–56.

641,944. OLD COLONY PURITAN FIGURE. Old Colony Paint & Chemical Co. SN 8,258. Pub. 12–11–56. Filed 5–14–56.

641,945. LECTON. E. I. du Pont de Nemours and Company. SN 8,392. Pub. 12–11–56. Filed 5–16–56.

641,946. PRE-MED. Hyland Laboratories. SN 8,556. Pub. 12–11–56. Filed 5–18–56.

641,947. CERIOCA. The Hubinger Company. SN 8,850. Pub. 12–11–56. Filed 5–23–56.

641,948. CERAVA. The Hubinger Company. SN 8,851. Pub. 12–11–56. Filed 5–23–56.

641,949. SYNTEX. Devoe & Raynolds Company, Inc. SN 9,028. Pub. 12–11–56. Filed 5–25–56.

641,950. EPI-TEX. Devoe & Raynolds Company, Inc. SN 9,029. Pub. 12–11–56. Filed 5–25–56.

641,951. EPI-REZ. Devoe & Raynolds Company, Inc. SN 9,030. Pub. 12–11–56. Filed 5–25–56.

641,952. STYRETEX. Devoe & Raynolds Company, Inc. SN 9,031. Pub. 12–11–56. Filed 5–25–56.

641,953. TRIMULSO. National Lead Company. SN 9,164. Pub. 12–11–56. Filed 5–28–56.

641,954 PERMACHROM. The Sherwin-Williams Company. SN 9,184. Pub. 12–11–56. Filed 5–28–56.

641,955. PERMA-PLUG. Bradford Chemical Company, Inc. SN 10,076. Pub. 12–11–56. Filed 6–12–56.

641,956. SPONTO. Retzloff Chemical Company. SN 10,344. Pub. 12–11–56. Filed 6–15–56.

641,957. LUGATOL. Badische Anilin- & Soda-Fabrik Aktiengesellschaft. SN 10,391. Pub. 12–11–56. Filed 6–18–56.

641,958. SCAV-OX. Olin Mathieson Chemical Corporation. SN 10,443. Pub. 12–11–56. Filed 6–18–56.

641,959. HYAGEN. The Miami Products & Chemical Co. SN 10,450. Pub. 12–11–56. Filed 6–18–56.

641,960. FIREBRAKE. Pacific Coast Borax Company. SN 10,466. Pub. 12–11–56. Filed 6–18–56.

CLASS 9

EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES

641,961. BFD AND DESIGN. The Diamond Match Company. SN 12,261. Pub. 12–11–56. Filed 7–17–56.

641,962. SIE AND DESIGN. Southwestern Industrial Electronics Company. SN 12,908. Pub. 12–11–56. Filed 7–26–56.

CLASS 10

FERTILIZERS

641,963. NACONITE. W. R. Grace & Co. SN 12,619. Pub. 12–11–56. Filed 7–23–56.

641,964. NITRA-MIX. Plantation Fertilizers Corp. SN 13,065. Pub. 12–11–56. Filed 7–30–56.

CLASS 11

INKS AND INKING MATERIALS

641,965. ORCHID. Rochester Ribbon & Carbon Co., Inc. SN 12,297. Pub. 12–11–56. Filed 7–17–56.

CLASS 12

CONSTRUCTION MATERIALS

641,966. MASTERKRAFT. Brixite Manufacturing Company, Inc. SN 698,953. Pub. 12–11–56. Filed 11–28–55.

641,967. D-P AND DESIGN. The Dicks-Pontius Company. SN 700,717. Pub. 12–11–56. Filed 12–28–55.

641,968. ECKOUSTIC. The Eckel Corporation. SN 2,515. Pub. 12–11–56. Filed 2–13–56.

641,969. PRO-TECT-U. Pro-Tect-U Awning-Shutter Corporation. SN 3,224. Pub. 12–11–56. Filed 2–23–56.

641,970. PIVOT-MASTER. Air Master Corporation. SN 3,507. Pub. 12–11–56. Filed 2–28–56.

641,971. BETHLEHEM SLAB FORM. Bethlehem Steel Company. SN 5,158. Pub. 12–11–56. Filed 3–26–56.

641,972. FLOATAWAY. Steel Door Corporation. SN 5,248. Pub. 12–11–56. Filed 3–26–56.

641,973. REDI-TRIM. Midwest Jobbers, Inc. SN 5,315. Pub. 12–11–56. Filed 3–27–56.

641,974. CHROMA-TONE. National Gypsum Company. SN 5,445. Pub. 12–11–56. Filed 3–29–56.

641,975. ARB. ARB Window Sales Company. SN 5,810. Pub. 12–11–56. Filed 4–5–56.

641,976. H-W KALA. Harbison-Walker Refractories Company. SN 5,837. Pub. 12–11–56. Filed 4–5–56.

641,977. K AND DESIGN. Kessler Products Co., Inc. SN 6,258. Pub. 12–11–56. Filed 4–12–56.

641,978. CEDARCRAFT. Neall Pressed Products Company. SN 8,256. Pub. 12–11–56. Filed 5–14–56.

641,979. GRIPAC. Donald R. Munro, Jr., d. b. a. D. R. Munro & Son Company. SN 8,569. Pub. 12–11–56. Filed 5–18–56.

CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

641,980. ACME STEEL UL AND DESIGN. Acme Steel Company. SN 11,214. Pub. 12–11–56. Filed 6–29–56.

641,981. ACME STEEL ULX AND DESIGN. Acme Steel Company. SN 11,321. Pub. 12–11–56. Filed 7–2–56.

641,982. STOCKHAM. Stockham Valves & Fittings, Inc. SN 11,428. Pub. 12–11–56. Filed 7–2–56.

641,983. TRI-LOC. Elkhart Brass Manufacturing Company, Inc. SN 11,561. Pub. 12–11–56. Filed 7–5–56.

641,984. UNI-MIX. Speakman Company. SN 11,627. Pub. 12–11–56. Filed 7–5–56.

641,985. FASTITE. Precision Machine Products. SN 11,792. Pub. 12–11–56. Filed 7–9–56.

641,986. STRATOGRIP. Stratoflex, Inc. SN 11,881. Pub. 12–11–56. Filed 7–10–56.

641,987. SPIKE-AID. Robert R. McKenzie, d. b. a. R. R. McKenzie Company. SN 12,041. Pub. 12–11–56. Filed 7–12–56.

641,988. REMINGTON. Remington Arms Company, Inc. SN 12,219. Pub. 12–11–56. Filed 7–16–56.

CLASS 14

METALS AND METAL CASTINGS AND FORGINGS

641,989. AJAX AND DESIGN. H. Kramer and Company. SN 9,322. Pub. 12–11–56. Filed 5–9–56.

641,990. AJAX. H. Kramer and Company. SN 14,609. Pub. 12–11–56. Filed 5–9–56.

CLASS 15

OILS AND GREASES

641,991. AMBER AND DESIGN. Amber Lubricants Co. SN 698,568. Pub. 12–11–56. Filed 11–21–55.

641,992. TENAC. E. F. Houghton & Co. SN 10,433. Pub. 10–30–56. Filed 6–18–56.

641,993. LIKUT. Sinclair Refining Company. SN 15,149. Pub. 12–11–56. Filed 9–5–56.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

641,994. DESIGN OF CHEVRON AND SOLDIER. General Paint Corporation. SN 698,859. Pub. 12–11–56. Filed 11–25–55.

641,995. TRIKO PRODUCTS AND DESIGN. The Proko Company. SN 5,669. Pub. 12–11–56. Filed 4–2–56.

641,996. DURETHANE. Pittsburgh Plate Glass Company. SN 7,693. Pub. 12–11–56. Filed 5–4–56.

641,997. PERMATRED. Willen Chemical Co. SN 9,066. Pub. 12–11–56. Filed 5–25–56.

641,998. WHIZ. R. M. Hollingshead Corporation. SN 10,061. Pub. 12–11–56. Filed 5–15–56.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

641,999. QUAFF-AID AND DESIGN. Amber Laboratories, Inc. SN 682,697. Pub. 12–11–56. Filed 3–3–55.

642,000. DESIGN OF GREEK LETTER PHI. Charles E. Frosst & Co. SN 693,246. Pub. 12–11–56. Filed 8–17–55.

642,001. MASSE. Ortho Pharmaceutical Corporation. SN 693,482. Pub. 12–11–56. Filed 8–22–55.

642,002. W & S. Ward & Stalnaker. SN 7,403. Pub. 12–11–56. Filed 4–30–56.

642,003. W & S PROTEIN 90 AND DESIGN. Ward & Stalnaker. SN 7,404. Pub. 12–11–56. Filed 4–30–56.

642,004. V-CILLIN-SULFA. Eli Lilly and Company. SN 7,517. Pub. 12–11–56. Filed 5–2–56.

642,005. CHAMO. Dome Chemicals, Inc. SN 8,751. Pub. 12–11–56. Filed 5–22–56.

642,006. DOMICONE. Dome Chemicals, Inc. SN 8,755. Pub. 12–11–56. Filed 5–22–56.

642,007. INDILONE. The Upjohn Company. SN 8,999. Pub. 12–11–56. Filed 5–24–56.

642,008. ALBIOTIC. The Upjohn Company. SN 9,000. Pub. 12–11–56. Filed 5–24–56.

642,009. ALBADROPS. The Upjohn Company. SN 9,003. Pub. 12–11–56. Filed 5–24–56.

642,010. ALBAGUENT. The Upjohn Company. SN 9,004 Pub. 12–11–56. Filed 5–24–56.

642,011. BIFRAN. Wallace & Tiernan Incorporated. SN 9,311. Pub. 12–11–56. Filed 5–29–56.

642,012. MALCODEX. Wallace & Tiernan Incorporated. SN 9,312. Pub. 12–11–56. Filed 5–29–56.

642,013. CODALONE. Burroughs Wellcome & Co. (U. S. A.) Inc. SN 9,336. Pub. 12–11–56. Filed 5–31–56.

642,014. URONAMIDE. Flint, Eaton and Company. SN 9,353. Pub. 12–11–56. Filed 5–31–56.

642,015. BONOMYCIN. Chas. Pfizer & Co., Inc. SN 9,386. Pub. 12–11–56. Filed 5–31–56.

642,016. COMBIOSYN. Chas. Pfizer & Co., Inc. SN 9,387. Pub. 12–11–56. Filed 5–31–56.

642,017. HETEROMYCIN. Chas. Pfizer & Co., Inc. SN 9,388. Pub. 12–11–56. Filed 5–31–56.

642,018. SIGNAMYCIN. Chas. Pfizer & Co., Inc. SN 9,389. Pub. 12–11–56. Filed 5–31–56.

642,019. PIPERAZATE. Thos. Leeming & Co., Inc. SN 9,556. Pub. 12–11–56. Filed 6–4–56.

642,020. AZODETTES. The Paul Plessner Company. SN 9,584. Pub. 12–11–56. Filed 6–4–56.

642,021. GONADOPLEX. Lovens Kemiske Fabrik ved A. Kongsted. SN 9,652. Pub. 12–11–56. Filed 6–5–56.

642,022. INJECTO-BIOTIC. Interstate Chemical Co. SN 9,725. Pub. 12–11–56. Filed 6–6–56.

642,023. TAMINALS. Pariam Corporation. SN 10,253. Pub. 12–11–56. Filed 6–14–56.

642,024. SPONTIN. Abbott Laboratories. SN 10,377. Pub. 12–11–56. Filed 6–18–56.

CLASS 19

VEHICLES

642,025. MINUTE-BOY TOW-PILOT AND DESIGN. Cletus A. Klein, d. b. a. Caro Manufacturing Co. SN 648,763. Pub. 12–11–56. Filed 6–15–53.

642,026. BOATMOBILE. Neptuna Corporation. SN 700,640. Pub. 12–11–56. Filed 12–27–55.

642,027. COPCO. Copco Trailer Division, a division of Copco Steel and Engineering Company. SN 7,770. Pub. 12–11–56. Filed 5–7–56.

642,028. "MIXER-MASTER." Crane Carrier Corporation. SN 10,302. Pub. 12–11–56. Filed 6–15–56.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

642,029. OPHIL AND DESIGN. O. Philipp & Company, Inc. SN 660,222. Pub. 12–11–56. Filed 1–27–54.

642,030. PERMA-FUL. States Batteries, Inc., to Atlas Supply Company. SN 668,476. Pub. 12–11–56. Filed 6–18–54.

642,031. MULTI-PULSE. Julian A. McDermott Corp. SN 689,503. Pub. 12–11–56. Filed 6–14–55.

642,032. HYDROTOR AND DESIGN. William E. Harrison. SN 332. Pub. 12–11–56. Filed 1–9–56.

642,033. EMPIRE. Trade Distributors, Inc. SN 2,321. Pub. 12–11–56. Filed 2–8–56.

642,034. EXTRUDO-LITE. Magni-Flood, Inc. SN 2,999. Pub. 12–11–56. Filed 2–20–56.

642,035. SILIMAT. Transitron Electronic Corporation. SN 7,956. Pub. 12–11–56. Filed 5–8–56.

642,036. UNGAR. Ungar Electric Tools, Inc. SN 8,729. Pub. 12–11–56. Filed 5–21–56.

642,037. COAXAGUIDE. Airtron, Inc. SN 9,421. Pub. 12–11–56. Filed 6–1–56.

642,038. BIG PETE. Peterson Manufacturing Company, Inc., to Ratliff Construction Co. SN 10,471. Pub. 12–11–56. Filed 6–18–56.

642,039. PLYMOUTH. Piggly Wiggly Corporation. SN 10,798. Pub. 12–11–56. Filed 6–22–56.

642,040. THRU-CON. General Electric Company. SN 10,873. Pub. 12–11–56. Filed 6–25–56.

642,041. SOLIDION. P. R. Mallory & Co., Inc. SN 11,271. Pub. 12–11–56. Filed 6–29–56.

642,042. MEMOTRON. Hughes Aircraft Company. SN 11,372. Pub. 12–11–56. Filed 7–2–56.

642,043. GILBERT. The A. C. Gilbert Company. SN 11,569. Pub. 12–11–56. Filed 7–5–56.

642,044. PEGI. Adalet Manufacturing Company. SN 11,730. Pub. 12–11–56. Filed 7–9–56.

642,045. SKY-TIE. Adalet Manufacturing Company. SN 11,731. Pub. 12–11–56. Filed 7–9–56.

642,046. SALI. Adalet Manufacturing Company. SN 11,732. Pub. 12–11–56. Filed 7–9–56.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

642,047. JOHNSON'S SILVER MINNOW. Louis Johnson Company. SN 693,716. Pub. 12–11–56. Filed 8–24–55.

642,048. CHEE-KI. Norbert Aubin, d. b. a. Aubin Enterprises. SN 10,071. Pub. 12–11–56. Filed 6–12–56.

642,049. HOT SHOT. Eddie Pope, d. b. a. Eddie Pope & Co. SN 10,908. Pub. 12–11–56. Filed 6–25–56.

642,050. HERCULES. The Seamless Rubber Company. SN 11,039. Pub. 12–11–56. Filed 6–26–56.

642,051. AMBASSADEUR. Aktiebolaget Urfabriken. SN 11,323. Pub. 12–11–56. Filed 7–2–56.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

642,052. FORMIT. West End Iron Works. SN 690,354. Pub. 12–11–56. Filed 6–27–55.

642,053. CALLVEYOR. Rinn Conveyors, Inc. SN 1,281. Pub. 12–11–56. Filed 1–23–56.

642,054. THE RINGMASTER AND DESIGN. Earl C. Hawkins. SN 3,185. Pub. 12–11–56. Filed 2–23–56.

642,055. BB. Tech-Art Plastics Company. SN 6,767. Pub. 12–11–56. Filed 4–19–56.

642,056. SCREEN MASTER. National Engineering Company. SN 7,451. Pub. 12–11–56. Filed 5–1–56.

642,057. MOLDER'S HELPER. National Engineering Company. SN 7,452. Pub. 12–11–56. Filed 5–1–56.

642,058. BAIL-A-MATIC. Scott-Atwater Manufacturing Company. SN 9,746. Pub. 12–11–56. Filed 6–6–56.

642,059. TRANS-O-MATIC. Globe Hoist Company. SN 9,858. Pub. 12–11–56. Filed 6–8–56.

642,060. M-D ETC. AND DESIGN. Macklanburg-Duncan Company. SN 9,878. Pub. 12–11–56. Filed 6–8–56.

642,061. RIBCO-TYPER. Ribbon Copies Sales Corp. of America. SN 9,894. Pub. 12–11–56. Filed 6–8–56.

642,062. FLEET. National Automotive Parts Association. SN 10,007. COLLECTIVE MARK. Pub. 12–11–56. Filed 6–11–56.

642,063. NIF-T-VEN. Allen A. Burleson. SN 10,079. Pub. 12–11–56. Filed 6–12–56.

642,064. LITTLE SUCKER. Peters & Russell, Inc. SN 10,101. Pub. 12–11–56. Filed 6–12–56.

642,065. MAINLINE. W. F. Meyers Company, Inc. SN 10,449. Pub. 12–11–56. Filed 6–18–56.

642,066. EXTRACTA. Red Jacket Manufacturing Co. SN 10,553. Pub. 12–11–56. Filed 6–19–56.

642,067. RIBMASTER. Knit-King Corporation. SN 10,605. Pub. 12–11–56. Filed 6–20–56.

642,068. AUSCO. Auto Specialties Manufacturing Co. SN 11,528. Pub. 12–11–56. Filed 7–5–56.

642,069. PULVI-MIXER. Seaman-Andwall Corporation. SN 11,623. Pub. 12–11–56. Filed 7–5–56.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

642,070. LIQUA-MATIC. Marshfield Manufacturing Corporation. SN 691,489. Pub. 12–11–56. Filed 7–18–55.

642,071. ADJUSTA-TROL. Sullivan Valve and Engineering Company. SN 693,949. Pub. 12–11–56. Filed 8–30–55.

642,072. SENS-A-GRAM. B-I-F Industries, Inc. SN 2,073. Pub. 12–11–56. Filed 2–6–56.

642,073. MILEMASTER. Barbour-Stockwell Company. SN 7,415. Pub. 12–11–56. Filed 5–1–56.

642,074. DISTRIBUTRON. Allen Electric and Equipment Company. SN 7,467. Pub. 12–11–56. Filed 5–2–56.

642,075. SAFTI-SEAL. Allen Electric and Equipment Company. SN 7,468. Pub. 12–11–56. Filed 5–2–56.

CLASS 32

FURNITURE AND UPHOLSTERY

642,076. TOT BOX. Eriksen & Hutchins. SN 13,656. Pub. 12–11–56. Filed 8–9–56.

642,077. STRATOSLEEPER. Futorian Manufacturing Co., d. b. a. Stratosleeper. SN 13,753. Pub. 12–11–56. Filed 8–10–56.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

642,078. STRA MAX AND DESIGN. Dr. Bruno Gueggi, d. b. a. Etablissement Alustra. SN 685,373. Pub. 12–11–56. Filed 4–12–55.

642,079. ALACOIL. Steels Engineering Installations Limited. SN 698,657. Pub. 12–11–56. Filed 11–21–55.

642,080. RECO. Richmond Engineering Co., Inc. SN 6,557. Pub. 12–11–56. Filed 4–17–56.

642,081. DESIGN OF HEART. Holyoke Heater Corp. of Conn., Inc. SN 11,681. Pub. 12–11–56. Filed 7–6–56.

CLASS 35

BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

642,082. FERAMIC. The S. K. Wellman Co. SN 9,757. Pub. 12–11–56. Filed 6–6–56.

642,083. U. S. ROYAL MASTER. United States Rubber Company. SN 10,566. Pub. 12–11–56. Filed 6–19–56.

642,084. MONOCORD. Dunlop Tire and Rubber Corporation. SN 10,763. Pub. 12–11–56. Filed 6–22–56.

642,085. MONOCABLE. Dunlop Tire and Rubber Corporation. SN 10,764. Pub. 12–11–56. Filed 6–22–56.

CLASS 36

MUSICAL INSTRUMENTS AND SUPPLIES

642,086. TELLENO. Henry Teller & Son. SN 7,645. Pub. 12–11–56. Filed 5–3–56.

CLASS 37

PAPER AND STATIONERY

642,087. AZON. Azon Corporation. SN 697,138. Pub. 12–11–56. Filed 10–26–55.

642,088. WONHAN. George D. Gorman. SN 698,160. Pub. 12–11–56. Filed 11–14–55.

642,089. KKK. Orientex, Ltd. SN 5,663. Pub. 12–11–56. Filed 4–2–56.

642,090. HANDIBOY. A. C. Hummel Company. SN 9,982. Pub. 12–11–56. Filed 6–11–56.

642,091. RECORD. The Wrenn Paper Company, to The Sorg Paper Company. SN 10,054. Pub. 12–11–56. Filed 6–11–56.

642,092. ROYAL COLORS. The Wrenn Paper Company, to The Sorg Paper Company. SN 10,055. Pub. 12–11–56. Filed 6–11–56.

642,093. PROFESSIONAL. L. & C. Hardtmuth, Inc. SN 13,035. Pub. 10–30–56. Filed 7–30–56.

CLASS 38

PRINTS AND PUBLICATIONS

642,094. DIAL-A-DIET AND DESIGN. Creative Specialties, Inc. SN 700,372. Pub. 12–11–56. Filed 12–21–55.

642,095. THE SUNDAY STAR, TELEVUE AND DESIGN. The Evening Star Newspaper Company of Washington. SN 6,510. Pub. 12–11–56. Filed 4–17–56.

CLASS 39

CLOTHING

642,096. G J AND DESIGN. Georg Jensen Inc. SN 504,365. Pub. 9–11–51. Filed, act of 1905, 6–21–46; am., act of 1946, Principal Register, 12–24–47.

642,097. GEORG JENSEN INC. AND DESIGN. Georg Jensen Inc. SN 504,563. Pub. 3-28-50. Filed, act of 1905, 6-25-46; am., act of 1946, Principal Register, 1-7-48.

642,098. GEORG JENSEN INC. AND DESIGN. Georg Jensen Inc. SN 504,847. Pub. 3-28-50. Filed, act of 1905, 6-29-46; am., act of 1946, Principal Register, 1-13-48.

642,099. TOE-RITE AND DESIGN. The Associated Merchandising Corporation. SN 10,573. Pub. 12-11-56. Filed 6-20-56.

642,100. KNITMAKERS. Knitmakers. SN 11,778. Pub. 12-11-56. Filed 7-9-56.

642,101. TERACINO. Smart Novelty Blouse Co., Inc. SN 11,879. Pub. 12-11-56. Filed 7-10-56.

642,102. YANKEE DOODLE AND DESIGN. Mailing Brothers, Inc. SN 13,767. Pub. 12-11-56. Filed 8-10-56.

CLASS 41

CANES, PARASOLS, AND UMBRELLAS

642,103. DESIGN OF DIAMOND. Sumitomo Shoji Kabushiki Kaisha. SN 10,037. Pub. 12-11-56. Filed 6-11-56.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

642,104. LUXEL. Chicopee Mills, Inc. SN 753. Pub. 12-11-56. Filed 1-16-56.

642,105. DYNADYE. The Apponaug Company. SN 4,601. Pub. 10-30-56. Filed 3-15-56.

642,106. CHALILAN. California Hand Prints, Inc. SN 9,081. Pub. 12-11-56. Filed 5-28-56.

CLASS 43

THREAD AND YARN

642,107. TRAVERSE BAY. Luther D. Sanders, d. b. a. Traverse Bay Woolen Company. SN 14,009. Pub. 12-11-56. Filed 8-15-56.

642,108. GODFREYARN. Howard G. Godfrey & Co., Inc. SN 14,446. Pub. 12-11-56. Filed 8-23-56.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

642,109. AURASEAL. The Malco Company, Incorporated. SN 8,967. Pub. 12-11-56. Filed 5-24-56.

642,110. ORAL TONE AND DESIGN. Rothstein Dental Laboratories, Inc. SN 9,054. Pub. 12-11-56. Filed 5-25-56.

CLASS 45

SOFT DRINKS AND CARBONATED WATERS

642,111. R AND DESIGN. Dr. Pepper Bottling Company of Northeast Carolina, Inc. SN 690,243. Pub. 3-6-56. Filed 6-27-55.

642,112. ROBERSON'S BIG BEVERAGES AND DESIGN. Dr. Pepper Bottling Company of Northeast Carolina, Inc. SN 690,244. Pub. 11-27-56. Filed 6-27-55.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

642,113. NU-LAK. Lavern Pratt, d. b. a. OFC Laboratories. SN 911. Pub. 12-11-56. Filed 1-17-56.

642,114. KING COTTON. Spotlite, Inc. SN 2,658. Pub. 10-9-56. Filed 2-14-56.

642,115. ICE CREAMWICH. Abbotts Dairies Incorporated. SN 6,677. Pub. 12-11-56. Filed 4-19-56.

642,116. KUREX. The Aula Company, Inc. SN 7,733. Pub. 12-11-56. Filed 5-7-56.

642,117. BUTTERFIELD FARMS. P. F. Petersen Baking Company. SN 9,385. Pub. 12-11-56. Filed 5-31-56.

642,118. SHAMROCK DESIGN. California Walnut Growers Association, now by change of name to Diamond Walnut Growers, Inc. SN 9,437. Pub. 12-11-56. Filed 6-1-56.

642,119. LADY BETTY. United Baking Co., Inc. SN 9,611. Pub. 12-11-56. Filed 6-4-56.

642,120. CIN-O-CURLS. Shull's Bakery, Inc. SN 9,677. Pub. 12-11-56. Filed 6-5-56.

642,121. BLUE DELL. Northwest Packing Company. SN 10,011. Pub. 12-11-56. Filed 6-11-56.

642,122. HAWAIIAN BOUQUET. Hans H. Schumacher, d. b. a. The John Schumacher Company. SN 10,027. Pub. 12-11-56. Filed 6-11-56.

642,123. HAWAIIAN BEAUTY. Hans H. Schumacher, d. b. a. The John Schumacher Company. SN 10,028. Pub. 12-11-56. Filed 6-11-56.

642,124. HAWAIIAN BELLE. Hans H. Schumacher, d. b. a. The John Schumacher Company. SN 10,029. Pub. 12-11-56. Filed 6-11-56.

642,125. SILVER SPRING. Silver Spring Gardens, Inc. SN 10,109. Pub. 12-11-56. Filed 6-12-56.

642,126. A VARIETY BREAD AND DESIGN. Interstate Bakeries Corporation. SN 10,236. Pub. 12-11-56. Filed 6-14-56.

642,127. SWISS COLONY. The Swiss Colony, Inc., d. b. a. The Swiss Colony. SN 10,264. Pub. 12-11-56. Filed 6-14-56.

CLASS 47

WINES

642,128. HERSH'S. Hungarian Grape Products Inc. SN 14,882. Pub. 12-11-56. Filed 8-30-56.

642,129. COTILLION. California Champagne Company, d. b. a. Schramsberg Vineyard Co. SN 15,766. Pub. 12-11-56. Filed 9-17-56.

CLASS 48

MALT BEVERAGES AND LIQUORS

642,130. THERE'S MORE LIFE TO RAINIER AND DESIGN. Sicks' Seattle Brewing & Malting Co. SN 689,880. Pub. 12-11-56. Filed 6-20-55.

642,131. R. Sicks' Seattle Brewing & Malting Co. SN 689,881. Pub. 2-28-56. Filed 6-20-55.

642,132. EASTSIDE OLD TAP LAGER ETC. AND DESIGN. Pabst Brewing Company. SN 6,546. Pub. 10-30-56. Filed 4-17-56.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

642,133. APPENZELL BEVERAGE BITTERS AND DESIGN. Emil Ebneter & Co. A. G. SN 877. Pub. 12-11-56. Filed 1-17-56.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

642,134. EVERLAST. Donald F. Weekes. SN 683,567. Pub. 12-11-56. Filed 3-15-55.

642,135. HANKINS. The Hankins Container Company. SN 696,033. Pub. 12-11-56. Filed 10-7-55.

642,136. CON-TACT. United Merchants and Manufacturers, Inc. SN 13,886. Pub. 12-11-56. Filed 8-13-56.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

642,137. GODEFROY'S. Godefroy Manufacturing Company. SN 672,414. Pub. 12-11-56. Filed 8-30-54.

642,138. APPEAU. Mareva Company, d. b. a. Mareva. SN 682,651. Pub. 12-11-56. Filed 3-2-55.

642,139. SPORTS. The Erno Laszlo Institute Inc. SN 693,061. Pub. 12-11-56. Filed 8-15-55.

642,140. PRETTY PLEASE. Elmo, Inc. SN 696,520. Pub. 12-11-56. Filed 10-17-55.

642,141. TRESPORT. Maison Tschanz Comptoir de la Parfumerie S. A. SN 504. Pub. 12-11-56. Filed 1-11-56.

Service Marks

CLASS 100

MISCELLANEOUS

642,142. "IT PAYS TO LOOK CLEAN" AND DESIGN. The Standard Overall Dry Cleaning Company, Inc. SN 678,680. Pub. 12-11-56. Filed 12-20-54.

642,143. THE WAITING ROOM PULPIT AND DESIGN. Gustave Edwin Anderson. SN 688,006. Pub. 12-11-56. Filed 5-23-55.

CLASS 101

ADVERTISING AND BUSINESS

642,144. TOOFURS. Olean Wholesale Grocery Coop., Inc. SN 6,822. Pub. 12-11-56. Filed 4-20-56.

CLASS 102

INSURANCE AND FINANCIAL

642,145. LIBERTY MUTUAL. Liberty Mutual Insurance Company. SN 692,336. Pub. 12-11-56. Filed 8-2-55.

CLASS 107

EDUCATION AND ENTERTAINMENT

642,146. STORY-TOONS. Eberhard S. Hawerlander and Louise W. Hawerlander. SN 690,817. Pub. 12-11-56. Filed 7-6-55.

Collective Membership Marks

CLASS 200

642,147. DESIGN OF GREEK LETTERS AND PIN. The Pi Kappa Alpha Fraternity. SN 696,905. Pub. 12-11-56. Filed 10-21-55.

642,148. DESIGN OF COAT OF ARMS. Delta Upsilon Fraternity. SN 9,347. Pub. 12-11-56. Filed 5-31-56.

Certification Marks

CLASS A

GOODS

642,149. RLM. RLM Standards Institute. SN 2,190. Pub. 12-11-56. Filed 7-26-56.

642,150. RLM ETC. AND DESIGN. RLM Standards Institute. SN 2,191. Pub. 12-11-56. Filed 7-26-56.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

642,151. William Mihelich, d. b. a. Mihelich Nurseries, East Detroit, Mich. SN 693,557. Filed P. R. 8-23-55. Am. S. R. 11-26-56.

CLOVER KILL

For Herbicide.
First use Apr. 1, 1955.

642,152. Malmstrom Chemical Corp., Newark, N. J. SN 3,107. Filed P. R. 2-21-56. Am. S. R. 11-21-56.

For Lanolin Oils and Waxes.
First use Aug. 1, 1955.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

642,153. Burshere Sales Corp., New York, N. Y. SN 696,942. Filed P. R. 10–24–55. Am. S. R. 12–13–56.

FERGUSON'S FORMULA 71

For Chewing Gum Containing Medicinals for Curbing the Appetite.
First use Aug. 15, 1955.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

642,154. Frank Jahn, d. b. a. Jahn's, Richmond Hill, N. Y. SN 665,601. Filed P. R. 5–3–54. Am. S. R. 3–30–55.

JAHN'S
Since 1897

For Ice Cream, Ice Cream Cakes, and Ice Cream Sandwiches.
First use 1897.

642,155. Anthony Ianno, d. b. a. Ianno Produce Co., Syracuse, N. Y. SN 686,747. Filed P. R. 5–3–55. Am. S. R. 10–26–56.

Best of The Orchard

For Apples in Their Natural State.
First use January 1949.

642,156. Nixon & Company (Nebraska), Omaha, Nebr. SN 689,645. Filed P. R. 6–16–55. Am. S. R. 10–22–56.

GAIN TRIPLE VALUE FINISH-I Linseed PROFIT

The drawing is lined for the colors red and blue.
For Feed for Livestock.
First use on or about Apr. 1, 1955.

642,157. American Beauty Macaroni Co., Kansas City, Mo. SN 2,848. Filed 2–17–56.

QUICK - FIX

For Packaged Spaghetti Dinner, Comprising Bite Size Spaghetti, Salt, Wheat Flour, Sugar, Garlic Powder, Spices, Herbs, and Soda.
First use Aug. 15, 1953.

642,158. Spice Islands Company, South San Francisco, Calif. SN 5,064. Filed P. R. 3–22–56. Am. S. R. 10–22–56.

BOUQUET OF MINT

For Tea.
First use Sept. 8, 1952.

642,159. Spice Islands Company, South San Francisco, Calif. SN 5,065. Filed P. R. 3–22–56. Am. S. R. 10–22–56.

BOUQUET OF SPICE

For Tea.
First use Sept. 8, 1952.

642,160. Clark Brothers Chewing Gum Co., Pittsburgh, Pa. SN 5,505. Filed P. R. 3–30–56. Am. S. R. 11–14–56.

Clark's
Clark's
SPEARMINT GUM
Clark's
Clark's
SPEARMINT GUM

The drawing is lined for red.
For Chewing Gum.
First use May 20, 1955.

642,161. Beaver Brand Frozen Foods, Inc., New York, N. Y. SN 13,136. Filed 7–31–56.

MORGAN'S

For Frozen Clam Chowder and Frozen Fish Chowder.
First use February 1954.

TRADEMARK REGISTRATIONS RENEWED

109,244. WILLYS. Cl. 19. 3–28–16.
110,808. DESIGN OF WOMAN WITHIN CIRCLES. Cl. 46. 6–13–16.
114,378. PIONEER AND DESIGN. Cl. 12. 12–12–16.
114,474. FASFOTO. Cl. 38. 12–19–16.
114,848. KEDS. Cl. 39. 1–2–17.
115,184. V T F. Cl. 33. 1–30–17.
115,418. SYMBOL. Cl. 44. 2–6–17.
115,642. MELLOTONE. Cl. 16. 2–27–17.
115,759. X.BAZIN. Cl. 51. 3–6–17.
116,008. COVER THE EARTH AND DESIGN. Cl. 18. 3–27–17.

116,184. SILVER THREAD. Cl. 46. 4–10–17.
116,369. KIROPEDIC. Cl. 44. 4–24–17.
116,815. BOOTT. Cl. 42. 5–29–17.
116,891. HUCK FINN. Cl. 39. 6–5–17.
116,902. KIDDIES. Cl. 39. 6–5–17.
116,938. BERG AND DESIGN. Cl. 39. 6–5–17.
334,914. SOUTHERN HOST. Cl. 49. 5–19–36.
338,723. EA AND DESIGN. Cl. 2. 9–15–36.
338,782. BEAUTY-LOOM. Cl. 39. 9–15–36.
339,246. NO. 1 DISTILLER. Cl. 49. 9–29–36.
341,702. AUDICLE. Cl. 44. 12–22–36.
341,718. ECSTASY XTC. Cl. 46. 12–22–36.
342,017. NEDICK'S AND DESIGN OF ORANGE AND GLASS. Cl. 45. 12–29–36.
342,018. NEDICK'S AND DESIGN OF ORANGE. Cl. 45. 12–29–36.
342,111. VIKING. Cl. 23. 1–5–37.
342,150. AERODYNE. Cl. 34. 1–5–37.
342,330. MOBILANE. Cl. 6. 1–12–37.
342,711. SMOOTH SAILING. Cl. 42. 1–26–37.
342,876. DUTCH MILL. Cl. 46. 2–2–37.
343,268. DRACO. Cl. 13. 2–16–37.
343,343. F & F AND DESIGN. Cl. 49. 2–16–37.
343,999. F & F AND DESIGN. Cl. 45. 3–9–37.
344,000. F & F AND DESIGN. Cl. 17. 3–9–37.
344,572. F & F AND DESIGN. Cl. 47. 3–30–37.
344,788. SOUTH-WING. Cl. 19. 4–6–37.
345,205. RIPPLE. Cl. 4. 4–20–37.
345,475. PRESTOLE. Cl. 13. 4–27–37.
345,680. BETAXIN. Cl. 18. 5–4–37.
346,008. BEACH RIVER. Cl. 46. 5–11–37.
346,093. COLLINA. Cl. 46. 5–18–37.

TRADEMARK REGISTRATIONS CANCELED

Section 8

79,314. CORONATION. Cl. 37. 8–23–10.
79,694. PLIO. Cl. 42. 9–27–10.
261,524. JAMES RIVER BRAND. Cl. 46. 9–17–29.
263,804. HENRI. Cl. 46. 11–12–29.
269,237. KIRSHMOOR. Cl. 39. 4–1–30.
370,269. ECONOMY BRAND. Cl. 12. 8–22–39.
371,953. SHIRTS OF THE STARS. Cl. 39. 10–17–39.
371,972. ESSLEY HOLDER. Cl. 39. 10–17–39.
371,973. ESSLEY STRANG. Cl. 39. 10–17–39.
375,249. SPORTSWEAR OF THE STARS. Cl. 39. 2–13–40.
382,388. SIGNAL. Cl. 48. 10–29–40.
428,203. TRUVAL AND DESIGN—SMARTEST BUY IN SHIRTS. Cl. 39. 3–11–47.
428,204. TRUVAL AND DESIGN—SMARTEST BUY IN SPORTSWEAR. Cl. 39. 3–11–47.
428,205. TRUVAL AND DESIGN—SMARTEST BUY IN PAJAMAS. Cl. 39. 3–11–47.
435,269. ATLANTIC. Cl. 48. 12–16–47.

The following registrations issued Jan. 9, 1951

535,906. WARNER ICB UNIT. Cl. 21.
535,907. ARGIROPOLIS. Cl. 23.
535,916. IDAHO PALS AND DESIGN. Cl. 46.
535,918. ATLAS. Cl. 23.
535,919. PEET PERFECTION PRODUCT AND DESIGN. Cl. 46.
535,922. TEMPERIM. Cl. 23.
535,926. MILLER. Cl. 34.
535,930. HI-TEX. Cl. 46.
535,934. CANAL. Cl. 46.
535,935. VANDORN. Cl. 23.
535,937. SKY QUEEN. Cl. 46.
535,939. "HALMORIZED." Cl. 42.
535,941. CAROL NASH. Cl. 39.
535,942. CORONEWS. Cl. 38.
535,945. CANAL. Cl. 46.
535,948. T. M. DESIGN. Cl. 23.
535,953. REALART AND DESIGN. Cl. 26.
535,955. REGAL. Cl. 46.
535,957. NAVIKIT. Cl. 26.
535,966. RISI-PLAST. Cl. 23.
535,967. EXSILVO. Cl. 7.
535,972. FANNY PATCH. Cl. 39.
535,973. PERMARIZED. Cl. 39.
535,974. CANE MASTER. Cl. 36.
535,980. SIMPLICITY. Cl. 34.
535,981. TROPHY AND DESIGN. Cl. 46.
535,986. PARAGON. Cl. 42.
535,987. AUDISCOPE. Cl. 36.
535,988. PERFECAST. Cl. 14.
535,992. COUNTRY LADY. Cl. 39.
535,998. ACESPUN PRINTS. Cl. 42.
536,003. BABS. Cl. 40.
536,005. LUDLUM LINO-TREADS. Cl. 20.
536,006. CRAIGMULLEN. Cl. 42.
536,014. HITS THE SPOT 12 O'CLOCK RUB. Cl. 18.
536,016. TELE-RAMA. Cl. 26.
536,019. CASE BY KOMOLD. Cl. 36.

536,020. DRESODOR. Cl. 6.
536,025. PENNSYLVANIA: DUTCHIES BY IWANTA. Cl. 39.
536,026. JAY PARK EMBROIDERIES RIBBONS LACES AND DESIGN. Cl. 40.
536,027. KANDY SET. Cl. 39.
536,033. ROBERT J. Cl. 39.
536,036. TRY THESE TUF BIRDS FOR WEAR KORFF AND BIRD DESIGN. Cl. 39.
536,039. PLAN O STATS. Cl. 38.
536,046. BRENKONA. Cl. 43.
536,048. FLORAPLASTIC. Cl. 40.
536,056. G-MAX. Cl. 26.
536,060. ARIZONA DAWN. Cl. 46.
536,066. P. G. P. WITHIN CIRCLE DESIGN. Cl. 18.
536,067. RHYMIN' TIME. Cl. 38.
536,070. KAUFMANN'S. Cl. 20.
536,075. DINGBAT AND DESIGN. Cl. 26.
536,083. STOREMASTER. Cl. 34.
536,091. NORVIS. Cl. 43.
536,096. CIMLAC. Cl. 18.
536,097. ADD-A-STRIP. Cl. 40.
536,098. LUCKYUCCA. Cl. 40.
536,102. GROUND HOG. Cl. 23.
536,107. FELDPARK AND DESIGN. Cl. 39.
536,115. TOPPERS BY RATH AND DESIGN. Cl. 3.
536,119. ROSE-VEL. Cl. 6.
536,121. THE HOUSE OF YEARS. Cl. 38.
536,126. CLAIR DE LUNE. Cl. 43.
536,130. CHEVY CHASE. Cl. 46.
536,131. HORNET AND DESIGN. Cl. 27.
536,132. DI ROMA. Cl. 28.
536,134. POLOMAC. Cl. 39.
536,138. AMBU-LIFT. Cl. 44.
536,148. PASSAP. Cl. 43.
536,154. NATURAMA AND DESIGN. Cl. 38.
536,159. PRONTO. Cl. 39.
536,163. "VID-E-EYE." Cl. 51.
536,165. SIGNACHIEF. Cl. 40.
536,166. VAPEX-VOLATOL. Cl. 18.
536,168. CERTIFOAM. Cl. 40.
536,175. DAPPER. Cl. 40.
536,176. DEALER MINDED NEWS. Cl. 38.
536,177. NOW I LAY ME DOWN TO SLEEP. Cl. 22.
536,185. VERI-VISIBLE. Cl. 32.
536,191. DATE BOX. Cl. 3.
536,199. MILE-END. Cl. 43.
536,201. LUV-IT AND DESIGN. Cl. 46.
536,203. PROFILE INITIAL. Cl. 23.
536,205. NATIONAL CLUB AND DESIGN. Cl. 39.
536,206. HIGHLAND. Cl. 46.
536,207. EVERYBODY'S DIGEST. Cl. 38.
536,209. NIFTY GIFTIES. Cl. 38.
536,210. SWEETHEARTS. Cl. 38.
536,211. ADORABLES. Cl. 38.
536,212. ADORABLE ONES. Cl. 38.
536,220. CHEF- (REPRESENTATION OF A LADY CHEF) ESS. Cl. 23.
536,221. CUMMINS DEPENDABLE DIESEL AND DESIGN. Cl. 38.

536,224. BUFFALO. Cl. 26.
536,230. GOLDEN-FOLD. Cl. 3.
536,232. SIGOTRON. Cl. 18.
536,233. THOR. Cl. 13.
536,234. CURLY SKEWERS. Cl. 13.
536,235. ROLL TROL. Cl. 21.
536,246. BROADMOOR. Cl. 21.
536,247. ROLLR IN DIAMOND DESIGN. Cl. 21.
536,251. ACCOMPADISC. Cl. 36.
536,252. MAGNISORB. Cl. 21.
536,265. THREDBED. Cl. 40.
536,273. DONBROS. Cl. 43.
536,276. MATCHMASTER. Cl. 26.
536,278. BAL-EN. Cl. 40.
536,282. TULLERA. Cl. 42.
536,283. ORGANITTA. Cl. 42.
536,284. RIP VAN WINKLE. Cl. 23.
536,287. FERNANDA. Cl. 42.
536,290. SARELLA. Cl. 42.
536,291. BREEZLINE SUITING. Cl. 42.
536,296. LIVING LITERATURE. Cl. 104.
536,297. WEDGE-LOCK. Cl. 3.
536,298. NU-WAY. Cl. 44.
536,299. STAMP-INX. Cl. 11.
536,300. SERVICE. Cl. 42.
536,304. JACKTRACTOR. Cl. 23.
536,306. PLA-STICK. Cl. 23.
536,307. ESTERWAX. Cl. 6.
536,311. ROYAL COPLEY. Cl. 50.
536,313. FERRO-YEAST. Cl. 18.
536,315. HOLDAPRES. Cl. 50.
536,321. JUSTIS EXTINGUISHER AND INFLATOR AND DESIGN. Cl. 23.
536,322. BEAUTY MILK. Cl. 52.
536,324. GARDEN HOUSE. Cl. 12.
536,328. TRAY KLEEN WITHIN CIRCLE. Cl. 52.
536,332. SUPERFIRM. Cl. 42.
536,335. "SPEEDI-FORM." Cl. 50.

Vacation of Order of Cancellation

The order of cancellation dated January 25, 1957, cancelling Registration 532,686, was inadvertently entered and has been vacated.

TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

343,349. PARTNER'S CHOICE. Cl. 49. 2–16–37. Bellows & Company, Inc. Geo. G. Sandeman Sons & Co. Limited. London, England. Corrected: In line 6, after "Sandeman" *Sons* should be inserted.

344,498. MOR-TIN. Cl. 14. 3–23–37. Federated Metals Corporation, New York, N. Y. Corrected: In line 4 of the certificate and in lines 2–3 of the statement, "New Jersey" should be *Delaware*

407,660. MILDARA. Cl. 49. 6–20–44. Mildura Winery Proprietary Limited, now by change of name Mildura Winery Limited, Merbein, Victoria, Australia. Amended: In the certificate, lines 2 and 16; in the heading and signature to the statement; and in line 1 of the statement, after "Limited," *now by change of name Mildura Winery Limited*, is inserted.

443,567. MILDARA ETC. AND DESIGN. Cl. 49. 11–22–49. Mildura Winery Proprietary Limited, now by change of name Mildura Winery Limited, Merbein, Victoria, Australia. Amended: In the certificate, lines 3 and 15; in the heading and signature to the statement; and in line 1 of the statement, after "Limited," *now by change of name Mildura Winery Limited*, is inserted.

511,496. GLASSINE AND DESIGN. Cl. 37. 6–21–49. The Glassine & Greaseproof Manufacturers Association, New York, N. Y. Amended to appear:

512,638. GREASEPROOF AND DESIGN. Cl. 37. 7–19–49. The Glassine & Greaseproof Manufacturers Association, New York, N. Y. Amended to appear:

524,060. KING KORN. Cl. 46. 4–18–50. Big Stone Canning Co., Ortonville, Minn. Corrected: In lines 2–3 of the statement, "Minnesota" (the state of incorporation) should be *Delaware*.

558,009. YOGI BLEND. Cl. 46. 2–22–52. John Calvin Core, Jr., Huntington, W. Va. Amended: In the statement, line 6, after "for" *a health food, namely*, is inserted.

592,554. RED, WHITE AND BLUE LABEL. Cl. 15. 7–13–54. Esso Standard Oil Company, New York, N. Y. Corrected: In column 2, lines 2 and 3, "1950" should be *1946*.

621,595. RANCH ROOF. Cl. 12. 2–21–56. Bird & Son, Inc., East Walpole, Mass. Amended to appear:

RANCH ROOF

623,712. SUPER BLEND. Cl. 15. 3–20–56. Quaker State Oil Refining Corporation, Oil City, Pa. Corrected: In line 3 of the certificate and in line 1 of the printed copy of the registration, "Pennsylvania" should be *Delaware*.

626,082. QUAKER STATE ETC. AND DESIGN. Cl. 15. 5–1–56. Quaker State Oil Refining Corporation, Oil City, Pa. Corrected: In line 4 of the certificate and in line 1 of the printed copy of the registration, "Pennsylvania" should be *Delaware*.

627,236. Q. Cl. 15. 5–22–56. Quaker State Oil Refining Corporation, Oil City, Pa. Corrected: In line 4 of the certificate and in line 1 of the printed copy of the registration, "Pennsylvania" should be *Delaware*.

638,529. MARSHBURN FARMS AND DESIGN. Cl. 46. 12–11–56. Marshburn, Inc., doing business as Marshburn Farms, Norwalk, Calif. Corrected: In line 4, "Conn." should be *California*.

TRADEMARK REGISTRATIONS—NEW CERTIFICATES

New Certificates issued under sections 7(c), 7(f), 7(g) of the Trademark Act of 1946 for the unexpired term of the original registrations.

602,940. WIGRAINE. Cl. 18. John Mark Research Incorporated. 3–8–55. New Cert. Sec. 7(c), to Organon Inc., Orange, N. J., 2–26–57.

631,784. THERMO VECTOR. Cl. 34. C. A. Dunham Company. 7–31–56. New Cert. Sec. 7(c), to Dunham-Bush, Inc., West Hartford, Conn., 2–26–57.

632,967. GITS WARE. Cl. 2 and 23. Gits Molding Corporation. 8–21–56. New Cert. Sec. 7(c), to Gitsware Corporation, Chicago, Ill., 2–26–57.

REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

376,773. Apr. 9, 1940. Claire Manufacturing Co., Chicago, Ill. Pub. by registrant.

Fly Jinx

For Fly Spray.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

345,130. Apr. 13, 1937. Nuodex Products Co., Inc., Elizabeth, N. J. Pub. by Heyden Chemical Corporation, New York, N. Y.

NUODEX

For Paint Driers, Varnish Driers, Enamel Driers, and Lacquer Driers.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

348,841. Aug. 10, 1937. Western Laboratories, Seattle, Wash. Pub. by Stansbury Chemical Co., Seattle, Wash.

HALOMIST

For Asthma and Hay Fever Medicine.

CLASS 37

PAPER AND STATIONERY

342,573. Jan. 19, 1937. General Pencil Company, Jersey City, N. J. Pub. by registrant.

Carbo-Weld

For Wood Cased Pencils.

CLASS 39

CLOTHING

107,571. Dec. 14, 1915. Hamilton Carhartt Manufacturer, Detroit, Mich. Pub. by Hamilton-Carhartt Overall Company, Detroit, Mich.

For Overalls and Outer Garments.

344,885. Apr. 6, 1937. Morris Sobelman, d. b. a. Perfect Garment Company, Baltimore, Md. Pub. by registrant.

Sumalin

For Children's, Misses', and Women's Outer Garments—Namely, Dresses, Coats, and Suits.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

342,072. Jan. 5, 1937. Albany Packing Co., Inc., Albany, N. Y. Pub. by Tobin Packing Co., Inc., Rochester and Albany, N. Y.

For Fresh, Cured, Smoked, and Cooked Pork; Sausage Products Including Fresh, Smoked, Cooked, and Dry Sausage; Cured, Smoked, and Dried Beef; Cheese and Lard.

444,466. Apr. 10, 1951. Commanditaire Vennootschap onder de Firma C. J. Van Houten & Zoon, d. b. a. C. J. Van Houten & Zoon, Weesp, Netherlands. Pub. by C. J. Van Houten & Zoon N. V., Weesp, Netherlands.

For Cocoabeans, Cocoa, Cocoabutter, Chocolate; Pudding Powder, Candies, Biscuits, Cake, Crackers, Toast, Gingerbread, Plain Flour Wafers, Wafer Sandwiches, Syrup Waffles—Namely, Two Waffles Held Together by Syrup, and Confectionery Articles Covered With Chocolate—Namely, Cake, Crackers, Toast, Gingerbread, Plain Flour Wafers, and Wafer Sandwiches.

CLASS 52

DETERGENTS AND SOAPS

389,491. Aug. 5, 1941. Claire Manufacturing Company, d. b. a. Claire Mfg. Co., Chicago, Ill. Pub. by Claire Manufacturing Co., Chicago, Ill.

Pineheart

For Soap.

LIST OF REGISTRANTS OF TRADEMARKS

REGISTERED FEBRUARY 26, 1957

ARB Window Sales Co., Detroit, Mich. 641,975, pub. 12–11–56. Cl. 12.
Abbott Laboratories, North Chicago, Ill. 642,024, pub. 12–11–56. Cl. 18.
Abbotts Dairies Inc., Philadelphia, Pa. 642,115, pub. 12–11–56. Cl. 46.
Acme-Evans Co., Inc.: *See* Blish Milling Co.
Acme Steel Co., Chicago, Ill. 641,980–1, pub. 12–11–56. Cl. 13.
Acme Visible Records, Inc., Chicago, Ill. 536,185, canc. Cl. 32.
Adalet Mfg. Co., Cleveland, Ohio. 642,044–6, pub. 12–11–56. Cl. 21.
Aeronca Aircraft Corp., Middletown, Ohio. 536,138, canc. Cl. 44.
Air Master Corp., Philadelphia, Pa. 641,970, pub. 12–11–56. Cl. 12.
Airtron, Inc., Linden, N. J. 642,037, pub. 12–11–56. Cl. 21.
Ajax Corp. of America, Chicago, Ill. 536,083, canc. Cl. 34.
Aktiebolaget Pump-Separator, Stockholm, Sweden. 342,111, ren. 1–5–57. Cl. 23.
Aktiebolaget Urfabriken, Svangsta, Sweden. 642,051, pub. 12–11–56. Cl. 22.
Alabama Implement Works, Inc., Birmingham, Ala. 536,102, canc. Cl. 23.
Albany Packing Co., Inc., Albany, by Tobin Packing Co., Inc., Rochester and Albany, N. Y. 342,072, 12(c) pub. 2–26–57. Cl. 46.
Alexander Chemical Corp., Chicago, Ill. 641,940, pub. 12–11–56. Cl. 6.
Allen Electric and Equipment Co., Kalamazoo, Mich. 642,074–5, pub. 12–11–56. Cl. 26.
Amber Laboratories, Inc., Milwaukee, Wis. 641,999, pub. 12–11–56. Cl. 18.
Amber Lubricants Co., Long Beach, Calif. 641,991, pub. 12–11–56. Cl. 15.
Ameprex Electronic Corp., Brooklyn, N. Y. 536,252, canc. Cl. 21.
American Beauty Macaroni Co., Kansas City, Mo. 642,157. Cl. 46.
Anderson, Gustave E., La Crosse Wis. 642,143, pub. 12–11–56. Cl. 100.
Animation, Inc., Los Angeles, Calif. 536,016, canc. Cl. 26.
Apponaug Co., The, Apponaug, R. I. 642,105, pub. 10–30–56. Cl. 42.
Arden, Elizabeth, Sales Corp., New York, N. Y. 536,191, canc. Cl. 3.
Arizona Dawn Gardens, Phoenix, Ariz. 536,060, canc. Cl. 46.
Associated Merchandising Corp., The, New York, N. Y. 642,099, pub. 12–11–56. Cl. 39.
Atlantic Co., Atlanta, Ga. 382,388, canc. Cl. 48.
Atlantic Co., Atlanta, Ga. 435,269, canc. Cl. 48.
Atlas Supply Co.: *See* States Batteries, Inc.
Aubin Enterprises: *See* Aubin, Norbert.
Aubin, Norbert, d. b. a. Aubin Enterprises, Inglewood, Calif. 642,048, pub. 12–11–56. Cl. 22.
Audiscope Corp.: *See* Educational Methods, Inc.
Aula Co., Inc., The, New York, N. Y. 642,116, pub. 12–11–56. Cl. 46.
Auto Specialties Mfg. Co., St. Joseph, Mich. 642,068, pub. 12–11–56. Cl. 23.
Azon Corp., Binghamton, N. Y. 642,087, pub. 12–11–56. Cl. 37.
B-I-F Industries, Inc., Providence, R. I. 642,072, pub. 12–11–56. Cl. 26.
Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen on Rhine, Germany. 641,957, pub. 12–11–56. Cl. 6.
Baker Castor Oil Co., The, Bayonne, N. J., and elsewhere. 536,307, canc. Cl. 6.
Bank of America National Trust and Savings Association: *See* Willys Overland Co., The.
Barbour-Stockwell Co., Cambridge, Mass. 642,073, pub. 12–11–56. Cl. 26.
Barret Bob Pin Co., Ltd., Toronto, Ontario, Canada. 536,003, canc. Cl. 40.
Batt, P. G., Produce Co., Inc., Wilder, Idaho. 535,916, canc. Cl. 46.
Beaver Brand Frozen Foods, Inc., New York, N. Y. 642,161. Cl. 46.
Bellows & Co., Inc., Geo. G. Sandeman Sons & Co. Ltd., London, England. 343,349, cor. Cl. 49.
Berg, F., & Co., Orange, N. J., to Hat Corp. of America, Norwalk, Conn. 116,938, ren. 6–5–57. Cl. 39.
Bethlehem Steel Co., Bethlehem, Pa. 641,971, pub. 12–11–56. Cl. 12.
Big Stone Canning Co., Ortonville, Minn. 524,060, cor. Cl. 46.
Bird & Son, Inc., East Walpole, Mass. 621,595. Am. 7(d). Cl. 12.
Black & Decker Mfg. Co., The, Towson, Md. 535,935, canc. Cl. 23.
Blish Milling Co., Seymour, to Acme-Evans Co., Inc., Indianapolis, Ind. 535,955, canc. Cl. 46.
Bliss, Albert, Providence, R. I. 536,175, canc. Cl. 40.
Boehringer, C. H., Sohn, Ingelheim am Rhine, Germany. 641,937, pub. 12–11–56. Cl. 6.
Boott Mills, Lowell, Mass. 116,815, ren. 5–29–57. Cl. 42.
Bradford Chemical Co., Inc., Bradford, Pa. 641,955, pub. 12–11–56. Cl. 6.
Brighton Copper Works, Inc., The, Cincinnati, Ohio. 535,980, canc. Cl. 34.
British Enka Ltd., London, England. 536,046, canc. Cl. 43.
Brixite Mfg. Co., Inc., South Kearny, N. J. 641,966, pub. 12–11–56. Cl. 12.
Buffalo Scale Co., Inc., Buffalo, N. Y. 536,224, canc. Cl. 26.
Burleson, Allen A., Dallas, Tex. 642,063, pub. 12–11–56. Cl. 22.
Burroughs Wellcome & Co. (U. S. A.) Inc., Tuckahoe, N. Y. 642,013, pub. 12–11–56. Cl. 18.
Burshere Sales Corp., New York, N. Y. 642,153. Cl. 18.
Burt & Walker, White Plains, N. Y. 535,974, canc. Cl. 36.
California Champagne Co., d. b. a. Schraunsberg Vineyard Co., Calistoga, Calif. 642,129, pub. 12–11–56. Cl. 47.
California Hand Prints, Inc., Hermosa Beach, Calif. 642,106, pub. 12–11–56. Cl. 42.
California Walnut Growers Association, Los Angeles, now by change of name to Diamond Walnut Growers, Inc., San Joaquin County, Calif. 642,118, pub. 12–11–56. Cl. 46.
Calmic Ltd., Crewe, England. 536,096, canc. Cl. 18.
Carhartt, Hamilton, Manufacturer, by Hamilton-Carhartt Overall Co., Detroit, Mich. 107,571, 12(c) pub. 2–26–57. Cl. 39.
Caro Mfg. Co.: *See*— Klein, Cletus A.
Certified Shoulder Pad Co., Inc., New York, N. Y. 536,168, canc. Cl. 40.
Chain Belt Co., Milwaukee, Wis. 535,922, canc. Cl. 23.
Chek Chemical Products Co., Inc., Newark, N. J. 641,932, pub. 12–11–56. Cl. 6.
Chevy Chase Co., San Jose, Calif. 536,130, canc. Cl. 46.
Chicago Tribune-New York News Syndicate, Inc., New York, N. Y. 536,067, canc. Cl. 38.
Chicopee Mills, Inc., New York, N. Y. 642,104, pub. 12–11–56. Cl. 42.
Chief Micco Groves, Micco, Fla. 110,808, ren. 6–13–56. Cl. 46.
Chuck, T. H., & Bemporad Co., New York, N. Y. 536,097, canc. Cl. 40.
Claire Mfg. Co., Chicago, Ill. 376,773, 12(c) pub. 2–26–57. Cl. 6.
Claire Mfg. Co., d. b. a. Claire Mfg. Co., by Claire Mfg. Co., Chicago, Ill. 389,491, 12(c) pub. 2–26–57. Cl. 52.
Clark Brothers Chewing Gum Co., Pittsburgh, Pa. 642,160. Cl. 46.
Clark Thread Co., The, now by change of name The Clark Thread Co., Inc., Wilmington, Del., and Clarkdale, Ga. 536,199, canc. Cl. 43.
Clark Thread Co., Inc., The: *See* Clark Thread Co., The.
Clarke, H., & Sons, Inc., Baltimore, Md. 536,119, canc. Cl. 6.
Color Engineering Co., New York and Bayside, N. Y. 536,276, canc. Cl. 26.
Columbian Carbon Co., New York, N. Y. 641,942, pub. 12–11–56. Cl. 6.
Commanditaire Vennootschap onder de firma C. J. van Houten & Zoon, d. b. a. C. J. van Houten & Zoon, by C. J. van Houten & Zoon N. V., Weesp, Holland. 444,466, 12(c) pub. 2–26–57. Cl. 46.
Connecticut Chemical Research Corp., Bridgeport, Conn. 641,931, pub. 12–11–56. Cl. 6.
Copco Steel and Engineering Co.: *See*— Copco Trailer Division.
Copco Trailer Division, a division of Copco Steel and Engineering Co., Centerline, Mich. 642,027, pub. 12–11–56. Cl. 19.
Core, John C. Jr., Huntington, W. Va. 558,009. Am. 7(d). Cl. 46.
Cotton, Joseph, & Co.: *See*— Cottone, Joseph.
Cottone, Joseph, d. b. a. Joseph Cotton & Co., Hartford, Conn. 536,014, canc. Cl. 18.
Crane Carrier Corp., Tulsa, Okla. 642,028, pub. 12–11–56. Cl. 19.
Creative Specialties, Inc., New York, N. Y. 642,094, pub. 12–11–56. Cl. 38.
Crown Zellerbach Corp., San Francisco, Calif. 641,933, pub. 12–11–56. Cl. 6.
Cummins Engine Co., Inc., Columbus, Ind. 536,221, canc. Cl. 38.
Dallas, Roy E., Detroit, Mich. 641,927, pub. 12–11–56. Cl. 3.
Daniels, Rexford, d. b. a. Henderson & Daniels, Cambridge, Mass. 536,234, canc. Cl. 13.
Dard Products: *See*— Shevin, Jack R.
Day-Brite Lighting, Inc., St. Louis, Mo. 536,246, canc. Cl. 21.
Dearborn Motors Corp., Highland Park and Detroit, Mich. 536,176, canc. Cl. 38.
Decatur Dental Co.: *See*— Winter, Walter W.

Delta Upsilon Fraternity, New York, N. Y. 642,148, pub. 12–11–56. Cl. 200.
Devoe & Raynolds Co., Inc., Louisville, Ky. 641,949–52, pub. 12–11–56. Cl. 6.
Diamond Match Co., The, New York, N. Y. 641,916, pub. 12–11–56. Cl. 1.
Diamond Match Co., The, New York, N. Y. 641,961, pub. 12–11–56. Cl. 9.
Diamond Walnut Growers, Inc.: *See*— California Walnut Growers Association.
Dicks-Pontius Co., The, Dayton, Ohio. 641,967 pub. 12–11–56. Cl. 12.
Dr. Pepper Bottling Co. of Northeast Carolina, Inc., Charlotte, N. C. 642,111, pub. 3–6–56. Cl. 45.
Dr. Pepper Bottling Co. of Northeast Carolina, Inc., Washington, N. C. 642,112, pub. 11–27–56. Cl. 45.
Dome Chemicals, Inc., New York, N. Y. 642,005–6, pub. 12–11–56. Cl. 18.
Donaldson Brothers (Alloa 1937) Ltd., Alloa, Scotland. 536,273, canc. Cl. 43.
Drapery Hardware Co., Ltd., Los Angeles, Calif. 343,268, ren. 2–16–57. Cl. 13.
Dunham-Bush, Inc.: *See*— Dunham Co.
Dunham Co., C. A., to Dunham-Bush, Inc., West Hartford, Conn. 631,784, new cert. Cl. 34.
Dunlop Tire and Rubber Corp., Buffalo, N. Y. 642,084–5, pub. 12–11–56. Cl. 35.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 641,945 pub. 12–11–56. Cl. 6.
Dutch Mill Candy Co.: *See*— Stein, Barnet L.
Earl Korff Glove Mfg. Co.: *See*— Korff, Earl.
Eastern Fruit Juice Co., Philadelphia, Pa. 536,201, canc. Cl. 46.
Ebneter, Emil, & Co., A. G., Appenzell, Switzerland. 642,133, pub. 12–11–56. Cl. 49.
Ebosa S. A., Granges, Switzerland. 536,131, canc. Cl. 27.
Eckel Corp., The, Cambridge, Mass. 641,968, pub. 12–11–56. Cl. 12.
Edelstein, Samuel, & Sons: *See*— Edelstein, Samuel, and Sons.
Edelstein, Samuel, and Sons, also known as Samuel Edelstein & Sons, Philadelphia, Pa. 536,159, canc. Cl. 39.
Educational Methods, Inc., now by change of name Audiscope Corp., Wilmington, Del. 535,987, canc. Cl. 36.
Elder Mfg. Co., St. Louis, Mo. 116,891, ren. 6–5–57. Cl. 39.
Elgin American Co., The: *See*— Elgin American Mfg. Co.
Elgin American, Inc.: *See*— Elgin American Mfg. Co.
Elgin American Mfg. Co., now by change of name to The Elgin American Co., to Elgin American, Inc., Elgin, Ill. 338,723, ren. 9–15–56. Cl. 2.
Elkhart Brass Mfg. Co., Incl, Elkhart, Ind. 641,983, pub. 12–11–56. Cl. 13.
Elmo, Inc., Philadelphia, Pa. 642,140, pub. 12–11–56. Cl. 51.
Emery Food Co.: *See*— Wilson & Rogers, Inc.
Enco Inc., New York, N. Y. 641,924, pub. 12–11–56. Cl. 2
Eriksen & Hutchins, Wilmington, Del. 642,076, pub. 12–11–56. Cl. 32.
Erno Laszlo Institute Inc., The, New York, N. Y. 642,139, pub. 12–11–56. Cl. 51.
Esquire, Inc., Chicago, Ill. 535,942, canc. Cl. 38.
Essley Shirt Co., Inc., New York, N. Y. 371,953, canc. Cl. 39.
Essley Shirt Co., Inc., New York, N. Y. 371,972–3, canc. Cl. 39.
Essley Shirt Co., Inc., New York, N. Y. 375,249, canc. Cl. 39
Esso Standard Oil Co., New York, N. Y. 592,554, cor. Cl. 15
Etablissement Alustra: *See*— Gueggi, Bruno, Dr.
Evening Star Newspaper Co. of Washington, The, Washington, D. C. 642,095, pub. 12–11–56. Cl. 38.
F. L. & J. C. Codman Co., Rockland, Mass. 345,205, ren. 4–20–57. Cl. 4.
Fas Foto, Inc., Cincinnati, Ohio. 114,474, ren. 12–19–56. Cl. 38.
Feldstein, Max, & Sons, Inc., Baltimore, Md. 536,107, canc. Cl. 39.
Federated Metals Corp., New York, N. Y. 344,498, cor. Cl. 14.
Feuer Hide & Skin Corp., New York, N. Y. 641,919, pub. 12–11–56. Cl. 1.
Fewel Bros. Packing Co., Fresno, Calif. 535,937, canc. Cl. 46.
Fingles, W. A., Inc., also d. b. a. Majestic Flashing Co., Baltimore, Md. 370,269, canc. Cl. 12.
Flight Research Engineering Corp., Richmond and Sandston, Va. 536,056, canc. Cl. 26.
Flinkote Co., The: *See*— Pioneer Paper Co.
Flinkote Co., The, New York, N. Y. 641,929, pub. 12–11–56. Cl. 5.
Flint, Eaton and Co., Decatur, Ill. 642,014, pub. 12–11–56. Cl. 18.
Floraplastic Corp., Los Angeles, Calif. 536,048, canc. Cl. 49.
Flying Safety Enterprises, Los Angeles, Calif. 535,957, canc. Cl. 26.
Foams, Inc., Port Washington, Wis. 641,918, pub. 12–11–56. Cl. 1.
Forstmann Woolen Co., Passaic, N. J. 536,287, canc. Cl. 42.
Four Penny Products Co., Inc., Chicago, Ill. 536,322, canc. Cl. 52.
Frame Rite Picture Framing Service: *See* Stollenwerk, Paul P.
Freydberg Bros.-Strauss, Inc., New York, N. Y. 535,967, canc. Cl. 7.
Freydberg Bros.-Strauss, Inc., New York, N. Y. 536,126, canc. Cl. 43.
Fries & Fries, Inc., Cincinnati, Ohio. 343,343, ren. 2–16–57. Cl. 49.
Fries & Fries, Inc., Cincinnati, Ohio. 343,999, ren. 3–9–57. Cl. 45.
Fries & Fries, Inc., Cincinnati, Ohio. 344,000, ren. 3–9–57. Cl. 17.
Fries & Fries, Inc., Cincinnati, Ohio., 344,572, ren. 3–30–57. Cl. 47.
Frosst, Charles E., & Co., Montreal, Quebec, Canada. 642,000, pub. 12–11–56. Cl. 18.
Fuller Label & Box Co., The, Pittsburgh, Pa. 641,923, pub. 12–11–56. Cl. 2.
Futorian Mfg. Co., d. b. a. Stratosleeper, Chicago, Ill. 642,077, pub. 12–11–56. Cl. 32.
Gallagher, Thos. J., Co., Inc., New York, N. Y. 536,332, canc. Cl. 42.
Galland Art Products: *See*— Galland, Frank C.
Galland, Frank C., d. b. a. Galland Art Products, Redlands, Calif. 536,098, canc. Cl. 40.
General Electric Co., Auburn, N. Y. 642,040, pub. 12–11–56. Cl. 21.
General Paint Corp., San Francisco, Calif. 641,994, pub. 12–11–56. Cl. 16.
General Pencil Co., Jersey City, N. J. 342,573, 12(c) pub. 2–26–57. Cl. 37.
Gilbert, A. C., Co., The, New Haven, Conn. 642,043, pub. 12–11–56. Cl. 21.
Gits Molding Corp., to Gitsware Corp., Chicago, Ill. 632,967, new cert. Cl. 2 and 23.
Gitsware Corp.: *See*— Gits Molding Corp.
Glassine & Greaseproof Manufacturers Association, The, New York, N. Y. 511,406, Am. 7(d). Cl. 37.
Glassine & Greaseproof Manufacturers Association, The, New York, N. Y. 512,638, Am. 7(d). Cl. 37.
Glendale Fabrics, Inc., New York, N. Y., to Susquehanna Waist Co., Delaware County, Pa. 342,711, ren. 1–26–57. Cl. 42.
Globe Hoist Co., Des Moines, Iowa. 642,059, pub. 12–11–56. Cl. 23.
Gluck, Joseph, Fabrics, Inc., New York, N. Y. 535,998, canc. Cl. 42.
Godefroy Mfg. Co., St. Louis, Mo. 642,137, pub. 12–11–56. Cl. 51.
Godfrey, Howard G., & Co., Inc., New York, N. Y. 642,108, pub. 12–11–56. Cl. 43.
Goldberg, Carl, Inc., New York, N. Y. 536,033, canc. Cl. 39.
Gorman, George D., St. Peter, Minn. 642,088, pub. 12–11–56. Cl. 37.
Grace, W. R., & Co., New York, N. Y. 641,963, pub. 12–11–56. Cl. 10.
Grandpa Brands Co.: *See*— Hall & Ruckel.
Green, Morris B., New York, N. Y. 536,066, canc. Cl. 18.
Greer Industries, Inc., Jamaica, N. Y. 641,917, pub. 12–11–56. Cl. 1.
Gueggi, Bruno, Dr., d. b. a. Etablissement Alustra, Vaduz, Liechtenstein. 642,078, pub. 12–11–56. Cl. 34.
Hall & Ruckel, New York, N. Y., to Grandpa Brands Co., Cincinnati, Ohio. 115,759, ren. 3–6–57. Cl. 51.
Halmor Knitting Mills, Inc., Glen Cove, N. Y. 535,939, canc. Cl. 42
Hamilton-Carhartt Overall Co.: *See*— Carhartt, Hamilton, Manufacturer.
Hammel, Riglander & Co., New York, N. Y., to Societe Anonyme Verreries de Trois-Fontaines, Trois-Fontaines (Moselle), France. 115,184, ren. 1–30–57. Cl. 33.
Hankins Container Co., The, Cleveland, Ohio. 642,135, pub. 12–11–56. Cl. 50.
Hardie Brothers Co., Pittsburgh, Pa. 536,206, canc. Cl. 46.
Hardtmuth, L. & C., Inc., Bloomsbury, N. J. 642,093, pub. 10–30–56. Cl. 37.
Harlow, Hal B., d. b. a. Rialto Heights Orange Growers, to Rialto Heights Orange Growers, Rialto, Calif. 535,945, canc. Cl. 46
Harrison-Walker Refractories Co., Pittsburgh, Pa. 641,976, pub. 12–11–56. Cl. 12.
Harrison, William E., New York, N. Y. 642,032, pub. 12–11–56. Cl. 21.
Hat Corp. of America: *See*— Berg, F., & Co.
Hawerlander, Eberhard S., and Louise W. Hawerlander, Phoenix, Ariz. 642,146, pub. 12–11–56. Cl. 107.
Hawerlander, Louise W.: *See*— Hawerlander, Eberhard S., and Louise W. Hawerlander.
Hawkins, Earl C., Buffalo, N. Y. 642,054, pub. 12–11–56. Cl. 23.
Henderson & Daniels: *See* Daniels, Rexford.
Hermanos, Argiro, Buenos Aires, Argentina. 535,907, canc. Cl. 23.
Hickok Mfg. Co. Inc., Rochester, N. Y. 536,203, canc. Cl. 23.
Hinrichs Distilled Products, to Mid-Continental Liquor Distributors, Inc., St. Louis, to Zalle Levin and Alex E. Hockman, Clayton, Mo. 334,914, ren. 5–19–56. Cl. 49.
Hockman, Alex E.: *See*— Hinrichs Distilled Products.
Hollingshead, R. M., Corp., Camden, N. J. 641,998, pub. 12–11–56. Cl. 16.
Holyoke Heater Corp. of Conn., Inc., Hartford, Conn. 642,081, pub. 12–11–56. Cl. 34.
Honeck, Bertha E., Milwaukee, Wis. 536,177, canc. Cl. 22.
Houghton, E. F., & Co., Philadelphia, Pa. 641,992, pub. 10–30–56. Cl. 15.

Hubinger Co., The, Keokuk, Iowa. 641,947–8, pub. 12–11–56. Cl. 6.
Hughes Aircraft Co., Culver City, Calif. 642,042, pub. 12–11–56. Cl. 21.
Hummel, A. C., Co., Cincinnati, Ohio. 642,090, pub. 12–11–56. Cl. 37.
Hungarian Grape Products Inc., New York, N. Y. 642,128, pub. 12–11–56. Cl. 47.
Hyland Laboratories, Los Angeles, Calif. 641,946, pub. 12–11–56. Cl. 6.
Ianno, Anthony, d. b. a. Ianno Produce Co., Syracuse, N. Y. 642,155. Cl. 46.
Ianno Produce Co.: *See*— Ianno, Anthony.
Imperial Chemical Industries Ltd., London, England. 641,936, pub. 12–11–56. Cl. 6.
Interstate Bakeries Corp., Kansas City, Mo. 642,126, pub. 12–11–56. Cl. 46.
Interstate Chemical Co., West Trenton, N. J. 642,022, pub. 12–11–56. Cl. 18.
Jahn, Frank, d. b. a. Jahn's, Richmond Hill, N. Y. 642,154. Cl. 46.
Jahn's: *See*— Jahn, Frank.
Jay-Park Embroideries, Inc., New York, N. Y. 536,026, canc. Cl. 40.
Jeffrey Mfg. Co., The, to The Jeffrey Mfg. Co., (1946) Columbus, Ohio. 342,150, ren. 1–5–57. Cl. 34.
Jeffrey Mfg. Co., The (1946): *See*— Jeffrey Mfg. Co., The.
Jensen, Georg, Inc., New York, N. Y. 642,096–8, pub. 9–11–51. Cl. 39.
Johnson, Louis, Co., Highland Park, Ill. 642,047, pub. 12–11–56. Cl. 22.
Johnston Carbide Tool Co.: *See*— Rothe, William H.
Justis Co., The: *See*— Justis, David W.
Justis, David W., d. b. a. The Justis Co., Charlotte, N. C. 536,321, canc. Cl. 23.
Kahn, Lawrence M., New York, N. Y. 536,335, canc. Cl. 50.
Karpeles, Maurice J., Inc., Providence, R. I. 536,132, canc. Cl. 28.
Kaufmann Department Stores: *See*— May Department Stores Co., The.
Kelly, Percy A., Toppenish, Wash. 535,981, canc. Cl. 46.
Kerfoot, Thomas, & Co., Ltd., Bardsley, Lancashire, England. 536,166, canc. Cl. 18.
Kessler Products Co., Inc., Youngstown, Ohio. 641,977, pub. 12–11–56. Cl. 12.
Kilby Steel Co., Anniston, Ala. 641,922, pub. 6–16–53. Cl. 2.
Kirshbaum, B., & Co., Chicago, Ill. 269,237, canc. Cl. 39.
Kisskerchief, Inc., New York, N. Y. 536,165, canc. Cl. 40.
Klein, Cletus A., d. b. a. Caro Mfg. Co., Caro, Mich. 642,025, pub. 12–11–56. Cl. 19.
Knit-King Corp., New York, N. Y. 642,067, pub. 12–11–56. Cl. 23.
Knitmakers, New York, N. Y. 642,100, pub. 12–11–56. Cl. 39.
Kohn, Lewis, d. b. a. Komold Case Co., Elkins Park, Pa. 536,019, canc. Cl. 36.
Komold Case Co.: *See*— Kohn, Lewis.
Korff, Earl, d. b. a. Earl Korff Glove Mfg. Co., Philadelphia, Pa. 536,036, canc. Cl. 39.
Kramer, H., and Co., Chicago, Ill. 641,989–90, pub. 12–11–56. Cl. 14.
Kress, S. H., and Co., New York, N. Y. 116,902, reh. 6–5–57. Cl. 39.
L & M Tile Products, Ltd., Dallas, Tex. 641,935, pub. 12–11–56. Cl. 6.
La France Mfg. Co., St. Louis, Mo. 641,941, pub. 12–11–56. Cl. 6.
Lamb, Thomas, New York, N. Y. 536,297, canc. Cl. 3.
Larsan Mfg. Co., Columbus, Ohio. 536,220, canc. Cl. 23.
Leeming, Thos., & Co., Inc., New York, N. Y. 642,019, pub. 12–11–56. Cl. 18.
Leonard, Mayo E., Toledo, Ohio. 536,315, canc. Cl. 50.
Levin, Zalle: *See*— Hinrichs Distilled Products.
Lewis-Shepard Products, Inc., Watertown, Mass. 536,304, canc. Cl. 23.
Liberty Mutual Insurance Co., Boston, Mass. 642,145, pub. 12–11–56. Cl. 102.
Lilly, Eli, and Co., Indianapolis, Ind. 642,004, pub. 12–11–56. Cl. 18.
Lovens Kemiske Fabrik ved A. Kongsted, Copenhagen, Denmark. 642,021, pub. 12–11–56. Cl. 18.
Lowe Brothers Co., The, Dayton, Ohio. 115,642, ren. 2–27–57. Cl. 16.
Luchsinger's Handelsgesellschaft Amsterdam Filiale Zuerich, Zurich, Switzerland. 536,148, canc. Cl. 43.
Ludlum Mfg. Co., Inc., Morristown, N. J. 536,005, canc. Cl. 20.
Macklanburg-Duncan Co., Oklahoma City, Okla. 642,060, pub. 12–11–56. Cl. 23.
Magni-Flood, Inc., Mount Vernon, N. Y. 642,034, pub. 12–11–56. Cl. 21.
Malco Co., Inc., The, Minneapolis, Minn. 642,109, pub. 12–11–56. Cl. 44.
Malson Tscheaz Comtoir de La Parfumerie S. A., Geneva, Switzerland. 642,141, pub. 12–11–56. Cl. 51.
Majestic Flashing Co.: *See*— Fingles, W. A., Inc.
Maling Brothers, Inc., Chicago, Ill. 642,102, pub. 12–11–56. Cl. 39.
Mallory, P. R., & Co., Inc., Indianapolis, Ind. 642,041, pub. 12–11–56. Cl. 21.
Malmstrom Chemical Corp., Newark, N. J. 642,152. Cl. 6.
Manteca Canning Co., Manteca, Calif. 346,093, ren. 5–18–57. Cl. 46.
Mareva: *See*— Mareva Co.
Mareva Co., d. b. a. Mareva, New York, N. Y. 642,138, pub. 12–11–56. Cl. 51.
Mark, John, Research Inc., to Organon Inc., Orange, N. J. 602,940, new cert. Cl. 18.
Marshburn Farms: *See*— Marshburn, Inc.
Marshburn, Inc., d. b. a. Marshburn Farms, Norwalk, Calif. 638,529, cor. Cl. 46.
Marsafield Mfg. Corp., Long Island City, N. Y. 642,070, pub. 12–11–56. Cl. 26.
May Department Stores Co., The, d. b. a. Kaufmann Department Stores, St. Louis, Mo., and Pittsburgh, Pa. 536,070, canc. Cl. 20.
Mayer, Walter H., & Co., Chicago, Ill. 536,300, canc. Cl. 42.
McCampbell & Co., New York, N. Y. 536,291, canc. Cl. 42.
McDermott, Julian A., Corp., Corona, N. Y. 642,031, pub. 12–11–56. Cl. 21.
McKenzie Co., R. R.: *See*— McKenzie, Robert R.
McKenzie, Robert R., d. b. a. R. R. McKenzie Co., Sun Valley, Calif. 641,987, pub. 12–11–56. Cl. 13.
Mesenter, Chas., D., Inc., New York and Long Island City, N. Y. 263,804, canc. Cl. 46.
Meyers, W. F., Co., Inc., Bedford, Ind. 642,065, pub. 12–11–56. Cl. 23.
Miami Products & Chemical Co., The, Dayton, Ohio. 641,959, pub. 12–11–56. Cl. 6.
Mid-Continental Liquor Distributors, Inc.: *See*— Hinrichs Distilled Products.
Midwest Jobbers, Inc., Chicago, Ill. 641,973, pub. 12–11–56. Cl. 12.
Mihelich Nurseries: *See*— Mihelich, William.
Mihelich, William, d. b. a. Mihelich Nurseries, East Detroit, Mich. 642,151. Cl. 6.
Mildura Winery Ltd.: *See*— Mildura Winery Proprietary Ltd.
Mildura Winery Proprietary Ltd., now by change of name Mildura Winery Ltd., Merbein, Victoria, Australia. 407,660. Am. 7(d). Cl. 49.
Mildura Winery Proprietary Ltd., now by change of name Mildura Winery Ltd., Merbein, Victoria, Australia. 443,067. Am. 7(d). Cl. 49.
Miller Co., The, Meriden, Conn. 535,926, canc. Cl. 34.
Monticello Bobbin Co., Monticello, Ga. 536,306, canc. Cl. 23.
Munro, Donald R., Jr., d. b. a. D. R. Munro & Son & Co., Portland, Oreg. 641,979, pub. 12–11–56. Cl. 12.
Munro & Son & Co.: *See*— Munro, Donald R., Jr.
Mycalex Corp. of America, Clifton, N. J. 641,939, pub. 12–11–56. Cl. 6.
National Automotive Parts Association, Detroit, Mich. 642,062, pub. 12–11–56. Cl. 23.
National Bronze and Aluminum Foundry Co., The, Cleveland, Ohio. 535,988, canc. Cl. 14.
National Engineering Co., Chicago, Ill. 642,056–7, pub. 12–11–56. Cl. 23.
National Gypsum Co., Buffalo, N. Y. 641,974, pub. 12–11–56. Cl. 12.
National Lead Co., New York, N. Y. 641,943, pub. 12–11–56. Cl. 6.
National Lead Co., New York, N. Y. 641,953, pub. 12–11–56. Cl. 6.
National Shirt Shops of Delaware, Inc., New York, N. Y. 536,205, canc. Cl. 39.
National Stationers, Philadelphia, Pa. 536,299, canc. Cl. 11.
Neall Pressed Products Co., San Leandro, Calif. 641,978, pub. 12–11–56. Cl. 12.
Nedick's Stores, Inc., to Nedick's Stores, Inc., New York, N. Y. 342,017–18, ren. 12–29–56. Cl. 45.
Neely, Harwell & Co., from Neely, Harwell & Co., Nashville, Tenn. 535,941, canc. Cl. 39.
Neptuna Corp., Los Angeles, Calif. 642,026, pub. 12–11–56. Cl. 19.
Neumann, Henry, Catskill, N. Y. 536,284, canc. Cl. 23.
New Northern Spinning & Weaving Co. Ltd., The, Belfast, Northern Ireland. 536,066, canc. Cl. 42.
Neyden Chemical Corp.: *See*— Nuodex Products Co., Inc.
Nixon & Co. (Nebraska), Omaha, Nebr. 642,156. Cl. 46.
Northwest Packing Co., Portland, Oreg. 642,121, pub. 12–11–56. Cl. 46.
Norwich Knitting Co., Norwich, N. Y. 536,091, canc. Cl. 43.
Nuodex Products Co., Inc., Elizabeth, N. J., by Heyden Chemical Corp., New York, N. Y. 345,130, 12(c) pub. 2–26–57. Cl. 16.
Nu-Way Baby Products Co.: *See*— Rosenberg, Solomon.
O F C Laboratories: *See*— Pratt, Lavern.
Oceana Imports Inc., New York, N. Y. 536,134, canc. Cl. 39.
Old Colony Paint & Chemical Co., Los Angeles, Calif. 641,944, pub. 12–11–56. Cl. 6.
Olean Wholesale Grocery Coop., Inc., Olean, N. Y. 642,144, pub. 12–11–56. Cl. 101.
Olin Mathieson Chemical Corp., New York, N. Y. 641,958, pub. 12–11–56. Cl. 6.
Oregon Purebred Nutria Associates, Portland, Oreg. 641,921, pub. 12–11–56. Cl. 1.
Organon Inc.: *See*— Mark, John, Research Inc.
Orientex, Ltd., New York, N. Y. 642,089, pub. 12–11–56. Cl. 37.

Ortho Pharmaceutical Corp., Raritan, N. J. 642,001, pub. 12–11–56. Cl. 18.
Pabst Brewing Co., Chicago, Ill. 642,132, pub. 10–30–56. Cl. 48.
Pacific Coast Borax Co., Los Angeles, Calif. 641,960, pub. 12–11–56. Cl. 6.
Paradise Chemical Co., Inc., New York, N. Y. 641,934, pub. 12–11–56. Cl. 6.
Parlam Corp., New York, N. Y. 642,023, pub. 12–11–56. Cl. 18.
Parrott & Co., San Francisco, Calif. 535,934, canc. Cl. 46.
Peet, E. M., Mfg. Co., Council Bluffs, Iowa, Indianapolis, Ind., and Oakland, Calif. 535,919, canc. Cl. 46.
Perfect Garment Co.: *See*—
Sobelman, Morris.
Peters & Russell, Inc., Springfield, Ohio. 642,064, pub. 12–11–56. Cl. 23.
Petersen, P. F., Baking Co., Omaha, Nebr. 642,117, pub. 12–11–56. Cl. 46.
Peterson Mfg. Co., Inc., Kansas City, Mo., to Ratliff Construction Co. 642,038, pub. 12–11–56. Cl. 21.
Pfizer, Chas., & Co., Inc., Brooklyn, N. Y. 642,015–18, pub. 12–11–56. Cl. 18.
Philipp, O., & Co., Inc., New York, N. Y. 642,029, pub. 12–11–56. Cl. 21.
Pi Kappa Alpha Fraternity, The, Memphis, Tenn. 642,147, pub. 12–11–56. Cl. 200.
Piggly Wiggly Corp., Jacksonville, Fla. 642,039, pub. 12–11–56. Cl. 21.
Pioneer Paper Co., Los Angeles, Calif., to The Flinkote Co., New York, N. Y. 114,378, ren. 12–12–56. Cl. 12.
Pittsburgh Plate Glass Co., Pittsburgh, Pa. 641,996, pub. 12–11–56. Cl. 16.
Plant Food Products Co.: *See*—
Williamson, Garfield, Inc.
Plantation Fertilizers Corp., Houma, La. 641,964, pub. 12–11–56. Cl. 10.
Plastic Corp. of Chicago, Cicero, Ill. 535,966, canc. Cl. 23.
Plessner, Paul, Co., The, Detroit, Mich. 642,020, pub. 12–11–56. Cl. 18.
Pope, Eddie, d. b. a. Eddie Pope & Co., Altadena, Calif. 642,049, pub. 12–11–56. Cl. 22.
Pope, Eddie, & Co.: *See*—
Pope, Eddie.
Pratt, Lavern, d. b. a. O F C Laboratories, Williamston, Mich. 642,113, pub. 12–11–56. Cl. 46.
Precision Machine Products, Alameda, Calif. 641,985, pub. 12–11–56. Cl. 13.
Prestole Corp.: *See*—
Prestole Devices, Inc.
Prestole Devices, Inc., Detroit, Mich., to Prestole Corp., Toledo, Ohio. 345,475, ren. 4–27–57. Cl. 13.
Printz Biederman Co., The, Cleveland, Ohio. 79,694, canc. Cl. 42.
Proko Co., The, Dallas, Tex. 641,995, pub. 12–11–56. Cl. 16.
Pro-Tect-U Awning-Shutter Corp., Miami, Fla. 641,969, pub. 12–11–56. Cl. 12.
Quaker State Oil Refining Corp., Oil City, Pa. 623,712, cor. Cl. 15.
Quaker State Oil Refining Corp., Oil City, Pa. 626,082, cor. Cl. 15.
Quaker State Oil Refining Corp., Oil City, Pa. 627,236, cor. Cl. 15.
RLM Standards Institute, Cleveland, Ohio. 642,149–50, pub. 12–11–56. Cl. A.
R. & R. Products Co.: *See*—
Ramirez, Manuel L.
Rains, S. E., Co., Inc., New York, N. Y. 535,973, canc. Cl. 39.
Ramirez, Manuel L., d. b. a. R. & R. Products Co., Corpus Christi, Tex. 535,930, canc. Cl. 46.
Rath, William C., & Sons, Inc., New York, N. Y. 536,115, canc. Cl. 3.
Ratliff Construction Co.: *See*—
Peterson Mfg. Co., Inc.
Realart Pictures, Inc., New York, N. Y. 535,953, canc. Cl. 26.
Red Jacket Mfg. Co., Davenport, Iowa. 642,066, pub. 12–11–56. Cl. 23.
Regent Co., Inc., Manheim, Pa. 536,025, canc. Cl. 39.
Registered Brands, Inc., to Schenley Distillers, Inc., New York, N. Y. 339,246, ren. 9–29–56. Cl. 49.
Remington Arms Co., Inc., Bridgeport, Conn. 641,988, pub. 12–11–56. Cl. 13.
Ren Plastics, Inc., Lansing, Mich. 641,938, pub. 12–11–56. Cl. 6.
Retzloff Chemical Co., Almeda, Tex. 641,956, pub. 12–11–56. Cl. 6.
Rexall Drug Co.: *See*—
United Drug Co.
Rialto Heights Orange Growers: *See*—
Harlow, Hal B.
Ribbon Copies Sales Corp. of America, Cleveland, Ohio. 642,061, pub. 12–11–56. Cl. 23.
Richard Mfg. Co., Van Nuys, Calif. 641,925, pub. 12–11–56. Cl. 2.
Richmond Engineering Co., Inc., Richmond, Va. 642,080, pub. 12–11–56. Cl. 34.
Rinn Conveyors, Inc., Lapeer, Mich. 642,053, pub. 12–11–56. Cl. 23.
Rochester Ribbon & Carbon Co., Inc., Rochester, N. Y. 641,965, pub. 12–11–56. Cl. 11.
Roller Electric & Mfg. Co., Inc., Bridgewater, Mass. 536,247, canc. Cl. 21.
Rondo Records, Inc., Chicago, Ill. 536,251, canc. Cl. 36.
Rosenberg, Solomon, d. b. a. Nu-Way Baby Products Co., Los Angeles, Calif. 536,298, canc. Cl. 44.
Rothe, William H., d. b. a. Johnston Carbide Tool Co., Kearny, N. J. 536,278, canc. Cl. 40.
Rothstein Dental Laboratories, Inc., Washington, D. C. 642,110, pub. 12–11–56. Cl. 44.
S K F Industries, Inc., Philadelphia, Pa. 535,918, canc. Cl. 23.
Sable Brothers, Inc., New York, N. Y. 536,027, canc. Cl. 39.
Sandeman, Geo. G., Sons & Co. Ltd.: *See*—
Bellows & Co., Inc.
Sanders, Luther D., d. b. a. Traverse Bay Woolen Co., Traverse City, Mich. 642,107, pub. 12–11–56. Cl. 43.
Schenley Distillers, Inc.: *See*—
Registered Brands, Inc.
Schnelerson, L., & Sons, Inc., New York, N. Y. 338,782, ren. 9–15–56. Cl. 39.
Scholl Mfg. Co., Inc., The, Chicago, Ill. 116,369, ren. 4–24–57. Cl. 44.
Schramsberg Vineyard Co.: *See*—
California Champagne Co.
Schumacher, Hans H., d. b. a. The John Schumacher Co., Alhambra, Calif. 642,122–4, pub. 12–11–56. Cl. 46.
Scott-Atwater Mfg. Co., Minneapolis, Minn. 642,058, pub. 12–11–56. Cl. 23.
Seamless Rubber Co., The, New Haven, Conn. 642,050, pub. 12–11–56. Cl. 22.
Sharp & Dohme, Inc., Philadelphia, Pa. 536,020, canc. Cl. 6.
Sherwin-Williams Co., The, Cleveland, Ohio. 116,008, ren. 3–27–57. Cl. 18.
Sherwin-Williams Co., The, Cleveland, Ohio. 641,954, pub. 12–11–56. Cl. 6.
Shevin, Jack R., d. b. a. Dard Products, Chicago, Ill. 641,926, pub. 12–11–56. Cl. 2.
Shirley Fabrics Corp., New York, N. Y. 536,290, canc. Cl. 42.
Shoe Corp. of America, Columbus, Ohio. 535,992, canc. Cl. 39.
Shull's Bakery, Inc., Marysville, Pa. 642,120, pub. 12–11–56. Cl. 46.
Sicks' Seattle Brewing & Malting Co., Seattle, Wash. 642,130, pub. 12–11–56. Cl. 48.
Silver Spring Gardens, Inc., Eau Claire, Wis. 642,125, pub. 12–11–56. Cl. 46.
Simoniz Co., Chicago, Ill. 641,928, pub. 12–11–56. Cl. 4.
Sinclair Refining Co., Chicago, Ill. 641,993, pub. 12–11–56. Cl. 15.
Skinner, F. L., Dunedin, Fla. 346,008, ren. 5–11–57, Cl. 46.
Sloane, W. & J., New York, N. Y. 536,121, canc. Cl. 38.
Smallman, I., & Sons, Paterson, N. J., and New York, N. Y. 536,230, canc. Cl. 3.
Smart Novelty Blouse Co., Inc., New York, N. Y. 642,101, pub. 12–11–56. Cl. 39.
Smith, Kline & French Laboratories, Philadelphia, Pa. 536,232, canc. Cl. 18.
Smith, W. J., Publishing Corp., New York, N. Y. 536,207, canc. Cl. 38.
Smithfield Co., Inc., The, Smithfield, Va. 261,524, canc. Cl. 46.
Snuggle Products, Inc., Goshen, Ind. 535,972, canc. Cl. 39.
Sobelman, Morris, d. b. a. Perfect Garment Co., Baltimore, Md. 344 885, 12(c) pub. 2–26–57. Cl. 39.
Societe Anonyme Verreries de Trois-Fontaines: *See*—
Hammel, Riglander & Co.
Socony Mobil Oil Co., Inc.: *See*—
Socony-Vacuum Oil Co., Inc.
Socony-Vacuum Oil Co., Inc., to Socony Mobil Oil Co., Inc., New York, N. Y. 342,330, ren. 1–12–57. Cl. 6.
Sonotone Corp., New York, N. Y. 341,702, ren. 12–22–56. Cl. 44.
Sorg Paper Co., The: *See*—
Wrenn Paper Co., The.
Southwestern Industrial Electronics Co., Houston, Tex. 641,962, pub. 12–11–56. Cl. 9.
Spaulding China Co., Inc., New York, N. Y. 536,311, canc. Cl. 50.
Speakman Co., Wilmington, Del. 641,984, pub. 12–11–56. Cl. 13.
Spice Islands Co., South San Francisco, Calif. 642,158–9. Cl. 46.
Spotlit, Inc., Memphis, Tenn. 642,114, pub. 10–9–56. Cl. 46.
Standard Greetings, Inc., Holyoke, Mass. 536,209–12, canc. Cl. 38.
Standard Overall Dry Cleaning Co., Inc., The, Manchester, N. H. 642,142, pub. 12–11–56. Cl. 100.
Stansbury Chemical Co.: *See*—
Western Laboratories.
States Batteries, Inc., Los Angeles, Calif., to Atlas Supply Co., Newark, N. J. 642 030, pub. 12–11–56. Cl. 21.
Steel Door Corp., Birmingham, Mich. 641,972, pub. 12–11–56. Cl. 12.
Steels Engineering Installations Ltd., Sunderland, England. 642,079, pub. 12–11–56. Cl. 34.
Stein, Barnet L., to Dutch Mill Candy Co., Chicago, Ill. 342,876, ren. 2–2–57. Cl. 46.
Sterling Drug Inc.: *See*—
Winthrop Chemical Co., Inc.
Stevens Equipment Co., Salem, Oreg. 536,324, canc. Cl. 12.
Stewart-Warner Corp., Chicago, Ill. 344,788, ren. 4–6–57. Cl. 19.
Stocker Mfg. Co., Netcong, N. J. 641,930, pub. 12–11–56. Cl. 5.
Stockham Valves & Fittings, Inc., Birmingham, Ala. 641,982, pub. 12–11–56. Cl. 13.
Stoddard, G. S., & Co., Inc., New York, N. Y. 536,313, canc. Cl. 18.
Stollenwerk, Paul P., d. b. a. Frame-Rite Picture Framing Service, La Crosse, Wis. 536,154, canc. Cl. 38.
Stratoflex, Inc., Forth Worth, Tex. 641,986, pub. 12–11–56. Cl. 13.
Stratosleeper: *See*—
Futorian Mfg. Co.
Stroock, S., & Co., Inc., New York, N. Y. 535,986, canc. Cl. 42.

Sullivan Valve and Engineering Co., Butte, Mont. 642,071, pub. 12–11–56. Cl. 26.
Sumitomo Shoji Kabushiki Kaisha, Higashi-Ku, Osaka, Japan. 642 103, pub. 12–11–56. Cl. 41.
Susquehanna Waist Co.: *See*—
Glendale Fabrics, Inc.
Swift, John S., Co., Inc., St. Louis, Mo. 536,039, canc. Cl. 38.
Swiss Colony, The: *See*—
Swiss Colony, Inc., The.
Swiss Colony, Inc., The, d. b. a. The Swiss Colony, Monroe, Wis. 642,127, pub. 12–11–56. Cl. 46.
Tech-Art Plastics Co., Morristown, N. J. 642,055, pub. 12–11–56. Cl. 23.
Teller, Henry, & Son, Chicago, Ill. 642,086, pub. 12–11–56. Cl. 36.
Terrytoons, Inc., New Rochelle, N. Y. 536,075, canc. Cl. 26.
Thiem Products, Inc., West Allis, Wis. 641,915, pub. 12–11–56. Cl. 1.
Thor Corp., Chicago, Ill. 536,233, canc. Cl. 13.
Thred-Bed Co., New York, N. Y. 536,265, canc. Cl. 40.
Tobin Packing Co., Inc.: *See*—
Albany Packing Co., Inc.
Trade Distributors, Inc., New York, N. Y. 642,033, pub. 12–11–56. Cl. 21.
Transitron Electronic Corp., Melrose, Mass. 642,035, pub. 12–11–56. Cl. 21.
Traverse Bay Woolen Co.: *See*—
Sanders, Luther D.
Truval Manufacturers, Inc., New York, N. Y. 428,203–5, canc. Cl. 39.
Tuller Fabrics Corp., New York, N. Y. 536,282–3, canc. Cl. 42.
Ungar Electric Tools, Inc., Los Angeles, Calif. 642,036, pub. 12–11–56. Cl. 21.
United Baking Co., Inc., Schenectady, N. Y. 642,119, pub. 12–11–56. Cl. 46.
United Drug Co., Boston, Mass., to Rexall Drug Co., Los Angeles Calif. 115 418, ren. 2–6–57. Cl. 44.
United Merchants and Manufacturers, Inc., New York, N. Y. 642 136 pub 12–11–56. Cl. 50.
United States Rubber Co. New York, N. Y., and Passaic, N. J. 114,848 ren. 1–2–57. Cl. 39.
United States Rubber Co., New York, N. Y. 642,083, pub. 12–11–56. Cl. 35.
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Commanditaire Vennootschap onder de firma C. J. van Houten & Zoon.
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Weekes, Donald F., Westwood, N. J. 642,134, pub. 12–11–56. Cl. 50.
Weller J., Co., The, Oak Harbor, Ohio. 116,184, ren. 4–10–57. Cl. 46.
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Wico Electric Co., West Springfield, Mass. 536,235, canc. Cl. 21.
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Wilson & Rogers, Inc., to Emery Food Co., Chicago, Ill. 341 718 ren. 12–22–56. Cl. 46.
Winter, Walter W., d. b. a. Decatur Dental Co., Decatur, Ill. 536 328 canc. Cl. 52.
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U. S. GOVERNMENT PRINTING OFFICE: 0—1957

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VOL. 714 & 715

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